



GENUINE BRUNSWICK PARTS

HARDWORKING PRODUCTS SINCE 1890

Brunswick 

TABLE OF CONTENTS

SECTION 1 - GS PINSETTER PARTS

GS FEATURED PRODUCTS	4
ELEVATOR	6
TRANSPORT BAND ASSEMBLY	8
SETTING TABLE	10
BALL CUSHION & PIT CURTAIN	14
SWEEP WAGON	16
DRIVE FRAME ASSEMBLY	18
DISTRIBUTOR	20
BALL ACCELERATOR	26
ELECTRICAL BOX	28
TOOLS & MAINTENANCE	30

SECTION 2 - A•2 PINSETTER PARTS

A•2 FEATURED PRODUCTS	34
MECHANIC DESIGNED PRODUCTS	36
GEAR BOX ASSEMBLY	38
DETECTOR ASSEMBLY	48
ELECTRONIC FIVE PIN INDEXING	50
TURRET ASSEMBLY	52
DECK ASSEMBLY	60
PIT CUSHION ASSEMBLY	66
PIT CONVEYOR ASSEMBLY	68
RAKE ASSEMBLY	72
ELEVATOR ASSEMBLY	76
CROSS CONVEYOR ASSEMBLY	86
BALL RETURN ASSEMBLY	88
ELECTRICAL COMPONENTS	90
BELT ASSEMBLY	94
TOOLS & MAINTENANCE	96

SECTION 3 - OTHER PARTS

BALL LIFT ASSEMBLY	102
BALL RETURN & RACK	106
FURNITURE	108
ELECTRICAL & SCORING COMPONENTS	110
TOOLS & SUPPORT MATERIALS	112

SECTION 4 - HARDWARE

HEX HEAD CAP SCREWS	116
SOCKET HEAD CAP SCREWS	121
FLAT HEAD SOCKET CAP SCREWS	122
BUTTON HEAD SOCKET CAP SCREWS	123
LOCKWASHERS	124
HEX NUTS	125
FLAT WASHERS	127
RETAINING RINGS	130
ROLL PINS	131
SPIROL PINS	132
MACHINE KEYS	133
X-WASHER PINS	134
X-WASHERS & PINS	135
SLEEVE OILITE BEARINGS	136
FLANGED OILITE BEARINGS	138
BALL BEARINGS	140
COMPRESSION SPRINGS	146
TENSION SPRINGS	148

INDEX	150
--------------------	-----

SAFETY PROCEDURES	168
--------------------------------	-----

BRUNSWICK ELECTRONIC REPAIR	169
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NOBODY KNOWS PINSETTERS LIKE BRUNSWICK KNOWS PINSETTERS

Brunswick introduced its first automatic pinsetter in 1956 and has been on the leading edge of pinsetter innovation ever since. Nobody knows pinsetters like Brunswick knows pinsetters. So when it comes to OEM parts to support the maintenance and repair of your pinsetters, Genuine Brunswick Parts are the obvious choice.

Brunswick engineers and mechanics work with suppliers to ensure the parts to support both the A•2 and GS® series of pinsetters are exactly what is required in form, fit and function. Brunswick designed the pinsetters, so who better to provide the parts needed to ensure the pinsetters meet your expectations.

For some of the most critical parts necessary to achieve great pinsetter performance, Brunswick has stepped it up a notch with Advanced Performance Genuine Brunswick parts. Advanced Performance Genuine Brunswick parts are the cream of the crop and are all backed by at least a 1-year warranty. Like all Genuine Brunswick parts, they are the originals – precision engineered for your equipment, refined with knowledge that can only be drawn from over 50 years of experience in the parts business.

To further enhance our knowledge of pinsetter operations we make a point of listening to and working with the mechanics who spend their working days with the machines. Over the years they have taught us a lot about the practical aspects of pinsetter operations. And in many instances mechanics have given Brunswick ideas for new or improved products that we have adopted. As you look through this catalog you will see many parts that were the brainchild of mechanics.

Buy Genuine Brunswick Parts and rest assured you are getting the highest-quality parts, designed to keep your center running smoothly.



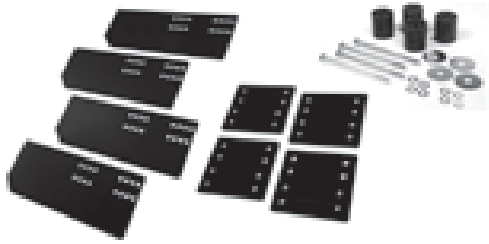
GS

PINSETTER PARTS



GS > PINSETTER PARTS

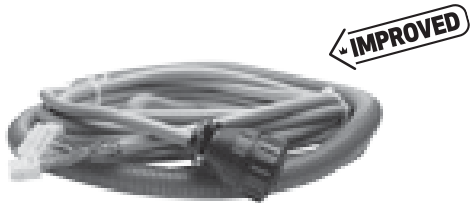
GS > FEATURED PRODUCTS



PIN FEED EXTENDER KIT

See page 6 for additional information.

47-862507-000



IMPROVED

SETTING TABLE CABLE ASSEMBLY (NEX GEN)

See page 10 for additional information.

47-245420-004

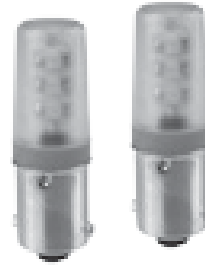


IMPROVED

GUTTER ADAPTER

See page 16 for additional information.

47-041721-002



Advanced
Performance



ADVANCED PERFORMANCE STATUS LIGHT BULBS

See page 6 for additional information.

47-861047-000

24 volt LED bulbs only (2 pack)

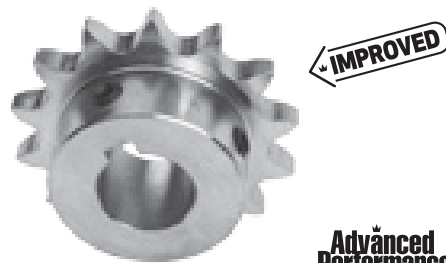


IMPROVED

GSX SWITCH FINGER

See page 12 for additional information.

47-054982-002



IMPROVED

Advanced
Performance

ADVANCED PERFORMANCE CHAIN GEAR

See page 18 for additional information.

47-075474-009



Advanced Performance

**ADVANCED PERFORMANCE
NEX GEN REAR DISPLAY PACKAGE**

See pages 6 & 28 for additional information.

47-861048-402



Advanced Performance

**ADVANCED PERFORMANCE
OEM TRANSPORT BAND**

See page 8 for additional information.

11-635201-000 – Short Pit

11-053581-000 – Long Pit



NEW

NEX GEN FIRMWARE (4.95.26)

See pages 6 & 28 for additional information.

47-862877-402



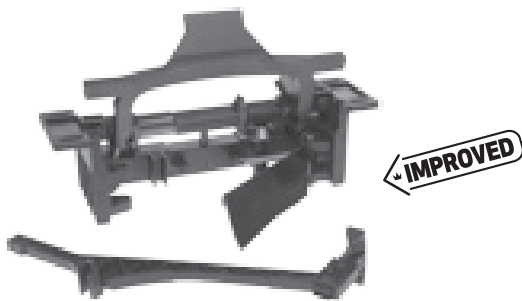
Advanced Performance

NEW

**ADVANCED PERFORMANCE
IMPACT STRIP (PAIR)**

See page 14 for additional information.

47-026102-009



IMPROVED

UNIVERSAL PIN STATION

See page 20 for additional information.

47-094792-009 – 2, 3, 4, 8, 9 pin location (shown large)

47-094793-009 – 1, 5, 6 pin location (not shown)

47-094794-009 – 7, 10 pin location (not shown)



IMPROVED

TWO PIECE SPUR GEAR

See page 20 for additional information.

47-274669-004

GS > ELEVATOR



STATUS LIGHT BULBS

Extend the life of a trouble light - up to 50,000 hours (24 volt assemblies only).

47-013817-004 - 12 volt assy series 42 and below

47-014687-004 - 12 volt assy series 43-465

47-015646-004 - 24 volt assy series 466 and above

47-223170-000 - 12 volt LED bulb only (2 pack)

47-861047-000 - ADVANCED PERFORMANCE
24 volt LED bulb only (2 pack)



**Advanced
Performance**

ADVANCED PERFORMANCE NEX GEN REAR DISPLAY PACKAGE

Reduce down time and improve safety with GS Rear Displays.

- View errors or error codes from the back of the machine
- Nex Gen package includes updated firmware

47-861048-402 - Nex Gen

47-861046-000 - Consolidated
(See page 28 for additional information)



**Advanced
Performance**

PIN FEED EXTENDER KIT

Improves elevator pin loading efficiency which decreases pin distributor time outs by up to 90%.

- Kits are packaged for lane pairs
- Comes with instructions
- Requires purchase of one drill fixture per center (47-862508-000). Sold separately and includes instructions



47-862507-000



NEX GEN FIRMWARE UPGRADE (4.95.26)

Easy to replace firmware provides new features and options:

- Fine tune table position after a non-strike first ball to improve pin collection and loading efficiency, while noticeably reducing pinsetter noise in the center
- Choose to drop the rake when the lane is turned off, reducing ball jams and protecting staff working in the pit area
- The ball accelerator can immediately shut down upon detection of an associated error, providing additional protection for motors and equipment
- A new timing option will return a ball even after the lane has been turned off

47-862877-402

47-862509-402 - PKG - Nex Gen Firmware with two 24 volt LED bulbs



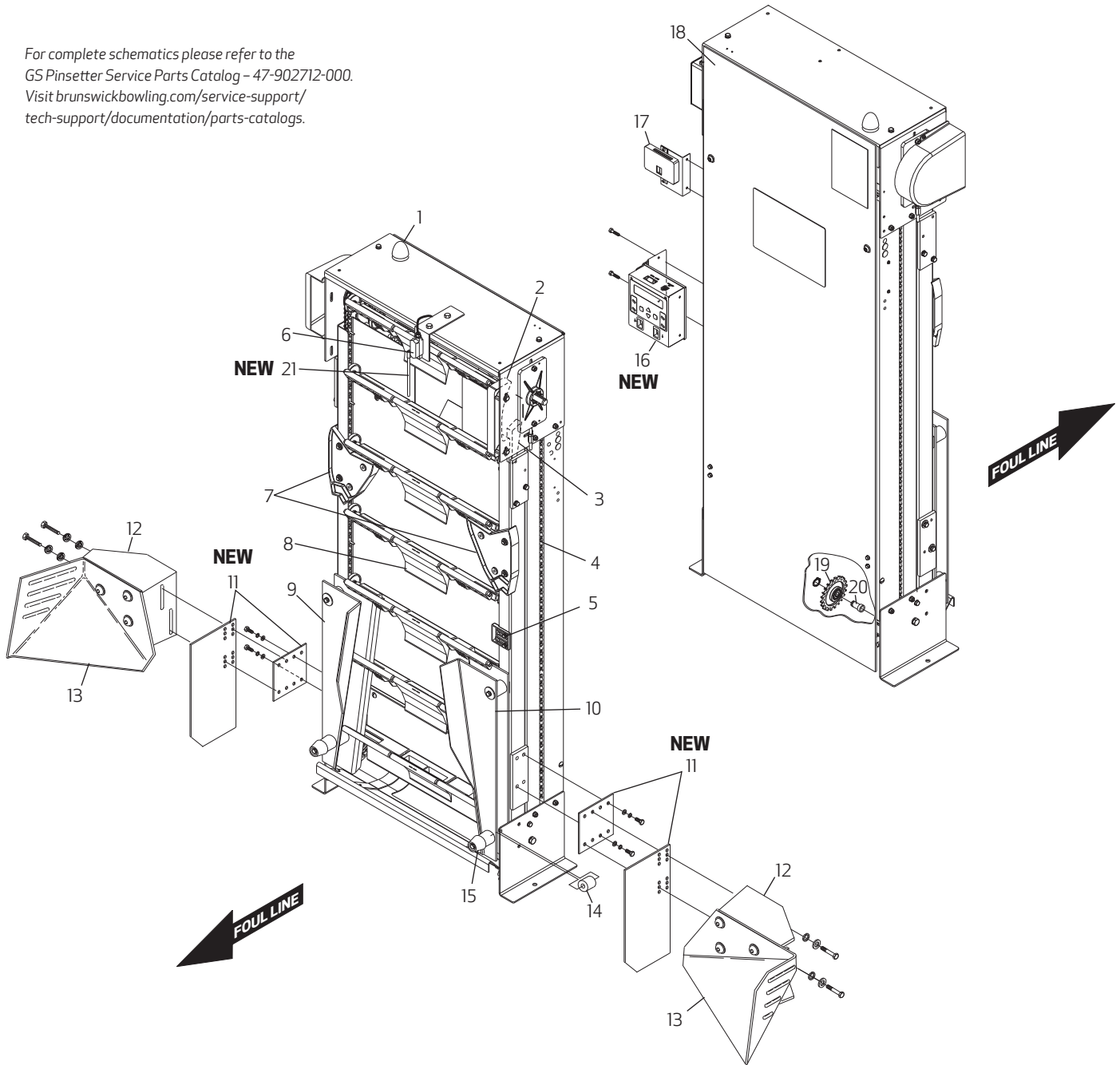
NO STEP DECAL

"No Step" label for Pin Deflector Support Bracket.

11-682569-000



For complete schematics please refer to the GS Pinsetter Service Parts Catalog - 47-902712-000. Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	47-015646-004	24 Volt Trouble Light Assembly - Nex Gen	6	47-014917-009	Pin Count Switch - GS96 and prior	13	47-023986-001	RHPin Deflector
1	47-014687-004	12 Volt Trouble Light Assembly - Consolidated	7	47-014918-003	GS98/GSX	13	47-023987-001	LHPin Deflector
1	47-861047-000	AP - 24 Volt LED Bulb (Pkg of 2)	7	47-014761-003	Centering Guides	14	47-014009-004	Spacer
1	47-223170-000	12 Volt Bulb	8	47-013532-009	Pin Shovel Assembly	15	47-023660-004	Cushion Cap
2	47-014017-003	Shovel Guide	8	47-011049-001	Pin Shovel Only	16	47-861048-402	AP - Nex Gen Rear Display Pkg
3	47-013951-003	Wedge Guide	9	47-013992-001	LH Front Pin Deflector	17	47-861046-000	AP - Consolidated Rear Display Pkg
4	47-014008-003	5/8" Chain w/ Shovel Pins	10	47-013991-001	RH Front Pin Deflector	18	47-013990-002	Elevator Guard
5	47-014060-003	Ejector	11	47-862507-000	Pin Feed Extender Kit	19	47-011053-004	Deflection Chain Gear
			11	47-862508-000	Drill Fixture, Pin Feed Extender	20	47-011130-004	Bearing Bolt
			12	47-024036-002	Pin Deflector Support Bracket	21	47-860016-000	Pkg-Arm, Pin Count Switch(6)

GS > TRANSPORT BAND ASSEMBLY



ADVANCED PERFORMANCE OEM TRANSPORT BAND

Brunswick's best transport band! Improve performance with this "top of the line" transport band. Made to stringent specifications to assure it will run straight and will not stretch, assuring long life.

**Advanced
Performance**

- Consider adding Pin Feed Extender Kit (pg. 6) to minimize time outs

11-635201-000 – Short Pit (1440 mm x 2020 mm)

11-053581-000 – Long Pit (1440 mm x 2450 mm)

CERTIFIED TRANSPORT BAND

Utilize this lower cost belt that still maintains the performance of GS® pinsetters.

- Double-finger splice construction with wider joint provides more surface contact, relieving impact stress more effectively
- Thicker material gives the belt higher ultimate tensile strength and higher bearing load
- Consider adding Pin Feed Extender Kit (pg. 6) to minimize time outs

11-635201-100 – Short Pit (1440 mm x 2020 mm)

V-BELT PULLEY

OEM V belt pulley, for transport band drive.

47-024004-003



THREADED ROD

OEM threaded rod for transport band bearing housing.

47-024093-004



SIDE FRAME REPAIR KIT

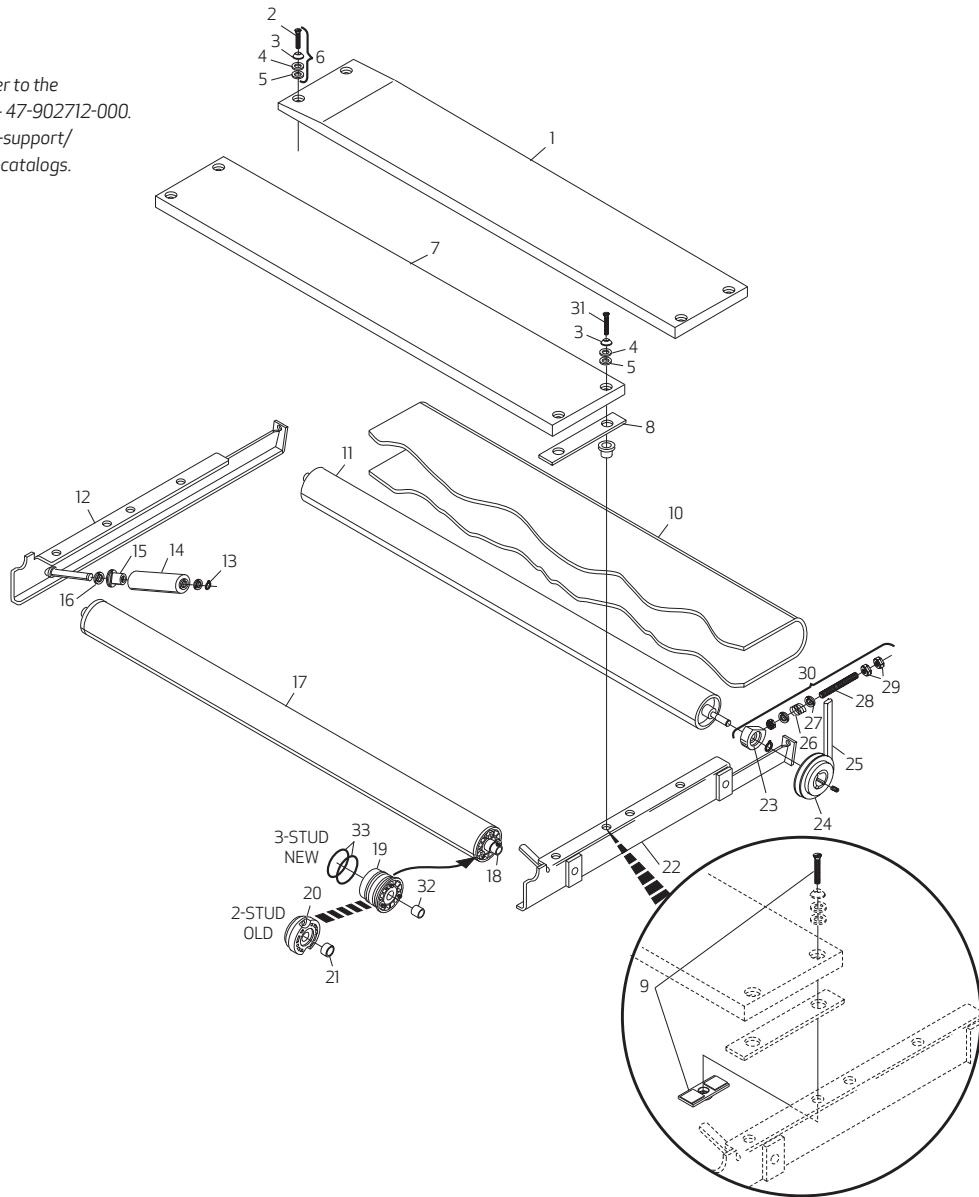
This kit repairs stripped or missing insert nuts on the transport band side frames.

- Nut plate has peel and stick tape for easy installation
- Kit comes with one plate and one M10 x 60mm socket flat head screw



47-276153-009

For complete schematics please refer to the GS Pinsetter Service Parts Catalog - 47-902712-000. Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	47-025175-003	LH Rear Board Assy, odd lane	9	47-276153-009	Side Frame Repair Kit	23	11-430055-000	Deep Groove Ball Bearing
1	47-025176-003	RH Rear Board Assy, even lane	10	11-635201-000	AP - OEM Transport Band Belt	23	11-051902-001	Retaining Ring 52mm
2	11-052401-001	Slt'd. Pan Hd. Screw 8mm x 50mm (GS-92)	10	11-635201-100	Certified Transport Band Belt	24	47-024330-004	V-Belt Pulley 100mm
2	11-052929-000	Slt'd. Pan Hd. Screw 10mm x 50mm (GS-96 & above)	11	47-025051-001	RH Short Roller Assy (Rear) Even Lane	25	11-053909-000	V-Belt (use 100mm Pulley)
3	11-052150-001	Finishing Washer 8mm (GS-92)	11	47-024905-001	LH Short Roller Assy (Rear) Odd Lane	25	11-053910-000	V-Belt (use 125mm Pulley)
3	47-024740-004	Finishing Washer 5.3mm x 28mm x 10.2mm (GS-96 & above)	11	47-023669-002	Rear Roller Assy (Long Pit)	25	47-025049-004	V-Belt Pulley 125mm
4	47-023663-004	Rubber Washer (GS-92)	12	47-024736-009	LH Transport Band Side Frame	26	47-024309-004	Spring
4	47-861042-001	Rubber Washer (GS-96 & above)	13	11-051858-001	Retaining Ring 15mm	27	11-052050-001	Flat Washer 10.5mm
5	11-052019-001	Flat Washer (GS-92)	14	47-020942-003	Roller	28	47-024093-004	Threaded Rod 10mm x 140mm
5	47-024741-004	Flat Washer (GS-96 & above)	15	47-020943-004	Roller Bushing	29	11-051703-001	Hex Nut 10mm
6	47-024744-009	Board Screw Kit 10mm	16	47-861011-001	Flat Washer 17mm (Pkg of 10)	30	47-274332-002	Bearing Block Repair Kit
7	47-023959-003	Front Board Assembly	17	47-023981-002	Roller Assy, 3-stud (Front)	31	47-861018-001	Slt'd. Pan Hd. Screw 8mm x 60mm (GS-92)
8	47-023915-004	Rubber Spacer	18	47-023933-004	Shaft - Front	31	11-052930-000	Hx Hd. Cap Screw 10mm x 60mm (GS-96 & above)
9	11-135400-000	Rubber Well Nut, Series 43-76	19	47-025178-003	Bearing (3-Stud) with bushing	32	47-026370-009	Spacer Bushing - 21mm (Pkg of 2)
			20	47-020908-003	End Cap w/Bearing (2-Stud)	33	47-860013-000	O-Ring (4/pkg)
			21	47-026371-009	Spacer Bushing - 13.5mm (Pkg of 2)			
			22	47-024735-009	RH Transport Band Side Frame			
			23	47-024094-003	Housing			

GS > SETTING TABLE

SETTING TABLE REPAIR KIT GS SERIES 13 THROUGH 574

Used to prevent the back portion of the GS-Series pinsetters setting table from bending upward due to pin impact. If excessive, this bending can obstruct movement and improper operation of the spotting tong.

- Uses 7 existing holes and 2 new holes drilled through the table frame. The repair plate attaches to the bottom of the setting table across the entire width of the frame (from 7 pin to 10 pin) using 9 - hex socket, flathead screws

47-275850-009

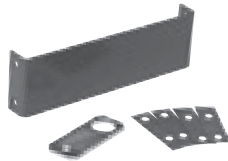


SETTING TABLE REPAIR KIT GSX/CPO SERIES 424 AND ABOVE

Used between the rear swing shaft mounting support brackets for extra support.

- Bent or broken supports will not allow the swing shafts of the table to operate correctly during pinsetter operation, leading to wobbling pins when a new rack is set
- Hardware included

47-275620-009



LINK ASSEMBLY

Keep one of these links in your GSX spare parts inventory at all times.

- Allows for stable connection from one swing shaft to the other
- Provides adjustment to pin spotting from front to back on the pin deck when new pins are spotted on the pin deck

47-055002-002



TABLE LATCH

Does your table try and set pins on the first ball cycle? If so your table latch may be broken. From mechanics requests we have increased the radius on this part to make it stronger and less prone to breakage.

47-051674-004



SETTING TABLE CABLE ASSEMBLY (NEX GEN)

Based on field feedback, this assembly has been improved to provide added flexibility and protection. Additionally, to reduce movement and wear, the cable attachment has been modified for an optimized fit.

- Standard on production pinsetters series 686 and above

47-245420-004



SETTING TABLE LEVER

Improved design with extra material and radius to the tab area of this part.

- Secures pin holders in the horizontal position during pinsetter operation
- Tab connects to the setting table latch assembly

47-054989-001



ADVANCED PERFORMANCE GS OVERSIZE SPOTTING TONG DAMPER

Extends life and eliminates pinsetter downtime with these oversize tongs.

- Used on all series GS machines, including GSX
- Ships in packages of ten

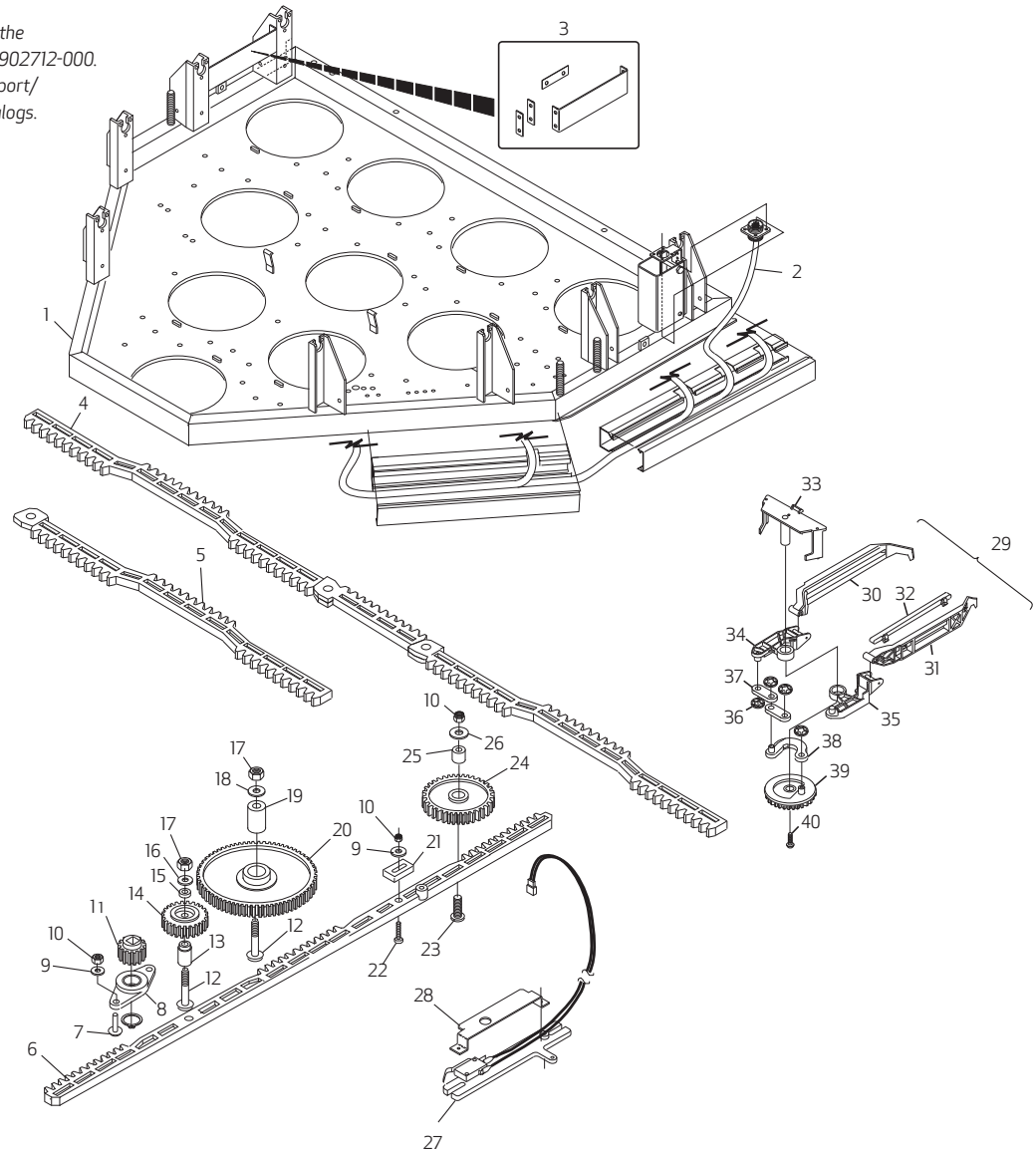
47-051758-500 - Vinyl Black

47-051758-600 - Urethane Clear



**Advanced
Performance**

For complete schematics please refer to the GS Pinsetter Service Parts Catalog - 47-902712-000. Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	47-055177-001	Setting Table Assembly	17	11-051744-001	Locknut 8mm	32	47-051758-003	Damper
1	47-055166-009	Setting Table Complete	18	11-052019-001	Flat Washer 8.4mm	32	47-051758-600	AP- Oversized Urethane Damper
2	47-245164-001	Setting Table Harness	19	47-051617-004	Spacer Bushing	32	47-051758-500	AP- Oversized PVC Damper
3	47-275620-009	Setting Table Repair Kit	20	47-051616-004	Gear	33	47-054902-002	Deck Plate
4	47-053513-009	Toothed Rack (center)	21	47-051682-004	Stop	34	47-054897-003	L.H. Spotting Tong Pivot
5	47-051565-002	Toothed Rack (front)	22	11-051877-001	Truss Hd. Screw 6mm x 25mm	35	47-054898-003	R.H. Spotting Tong Pivot
6	47-051635-001	Geared Rack	23	11-051877-001	Truss Hd. Screw 6mm x 25mm	36	47-861050-000	Speed Nut 8mm (10/pkg)
7	47-861008-001	Truss Hd. Screw 6mm x 16mm	24	47-051632-004	Gear	37	47-051762-004	Connecting Link
8	47-051625-004	Shaft Support	25	47-051633-004	Spacer Bushing	38	47-054900-003	LH Lever (1, 4, 5, 6)
10	11-051743-001	Locknut 6mm	26	11-052037-001	Flat Washer 6.4mm	38	47-054901-003	RH Lever (2, 3, 7, 8, 9, 10)
11	47-071615-004	Square Shaft Gear	27	47-243027-004	Switch - Complete	39	47-054899-003	Gear
12	11-051878-001	Truss Hd. Screw 8mm x 45mm	28	47-053812-004	Switch Protector	40	11-054459-000	Self Tapping, Torx Screw K60 x 16mm
13	47-052021-004	Spacer Bushing	29	47-055117-009	Spotting Tong (1, 4, 5, 6)			
14	47-052020-004	Gear	29	47-055118-009	Spotting Tong (2, 3, 7, 8, 9, 10)			
15	47-052022-004	Spacer Ring	30	47-054896-002	R.H. Tong			
16	11-052017-001	Flat Washer 8.4mm	31	47-055148-002	L.H. Tong			

GS > SETTING TABLE

MICRO SWITCH

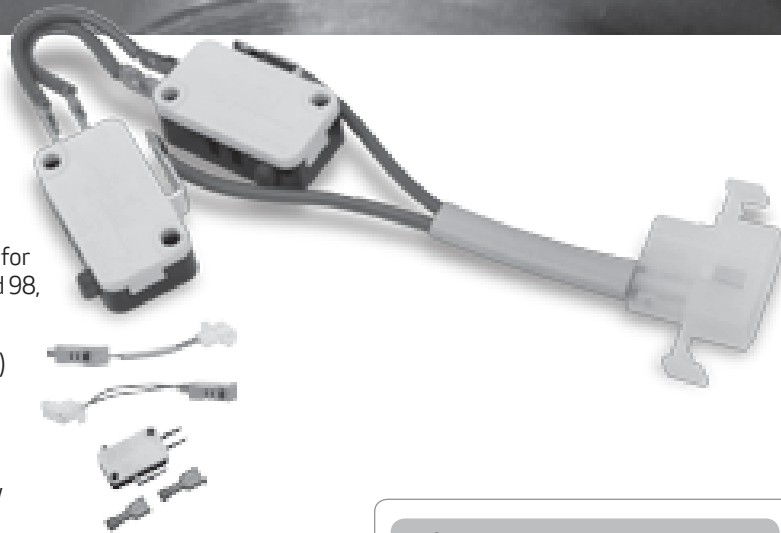
OEM pin holder micro switches. Single, for GS 92 and earlier, Double for GS 96 and 98, and GSX for all GSX machines.

47-054700-004 – Double (Shown large)

47-053635-004 – Single, cherry

47-055323-004 – GSX

47-860015-000 – Series 478 and below



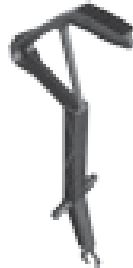
GSX SWITCH FINGER



Prevent broken or worn switch finger leading to pin loading errors with this improved design.

- Allows for extended wear
- Check pinholders for worn components regularly for ultimate performance

47-054982-002



GSX TABLE SAFETY SUPPORT

This support prevents the setting table from falling while the pinsetter is in the home position for maintenance needs. It improves maintenance safety, and prevents pinsetter damage.

- Easily installs on pinsetter
- Only for use with the GSX Tower-down Pinsetters
- Includes installation instructions

47-860011-000



TUBE GUIDE

Provides long-lasting consistent support for table setting and resetting of pins.

47-085349-003



SWITCH ACTUATOR

Improved pin holder switch actuation reliability. Flatter contact surface of the switch actuator reduces double loading of the setting table pinholders.

47-054985-001



TECH TIP

If you receive a "Multiple Spotting Tong Switch Error" Code /76, you may want to add a garden hose washer to the top of the large gear at the left side of the setting table. By adding the garden hose washer under the nut and washer, you will prevent the gear rack from bouncing off the stop blocks – acting like a second clutch for the gear racks.

PINHOLDER SOLENOID

Prevent setting table jams with these solenoids.

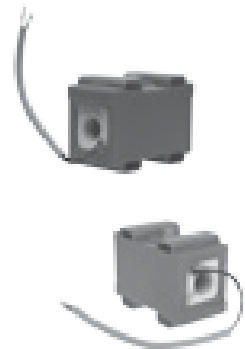
- Solenoid comes with the plunger
- Powerful solenoid made from high grade iron
- Designed to activate pin holder pin grippers properly long term

99-060242-004

For tables with round swing shafts

99-060351-004

For tables with square swing shafts



PINHOLDER ASSEMBLY COMPLETE

47-053850-009 - GS-10 and GS-92
(universal electrical system)

47-054699-009 - GS-96 - GS-98

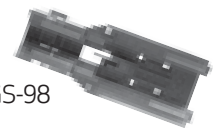
47-055314-009 - GS-X/CPO



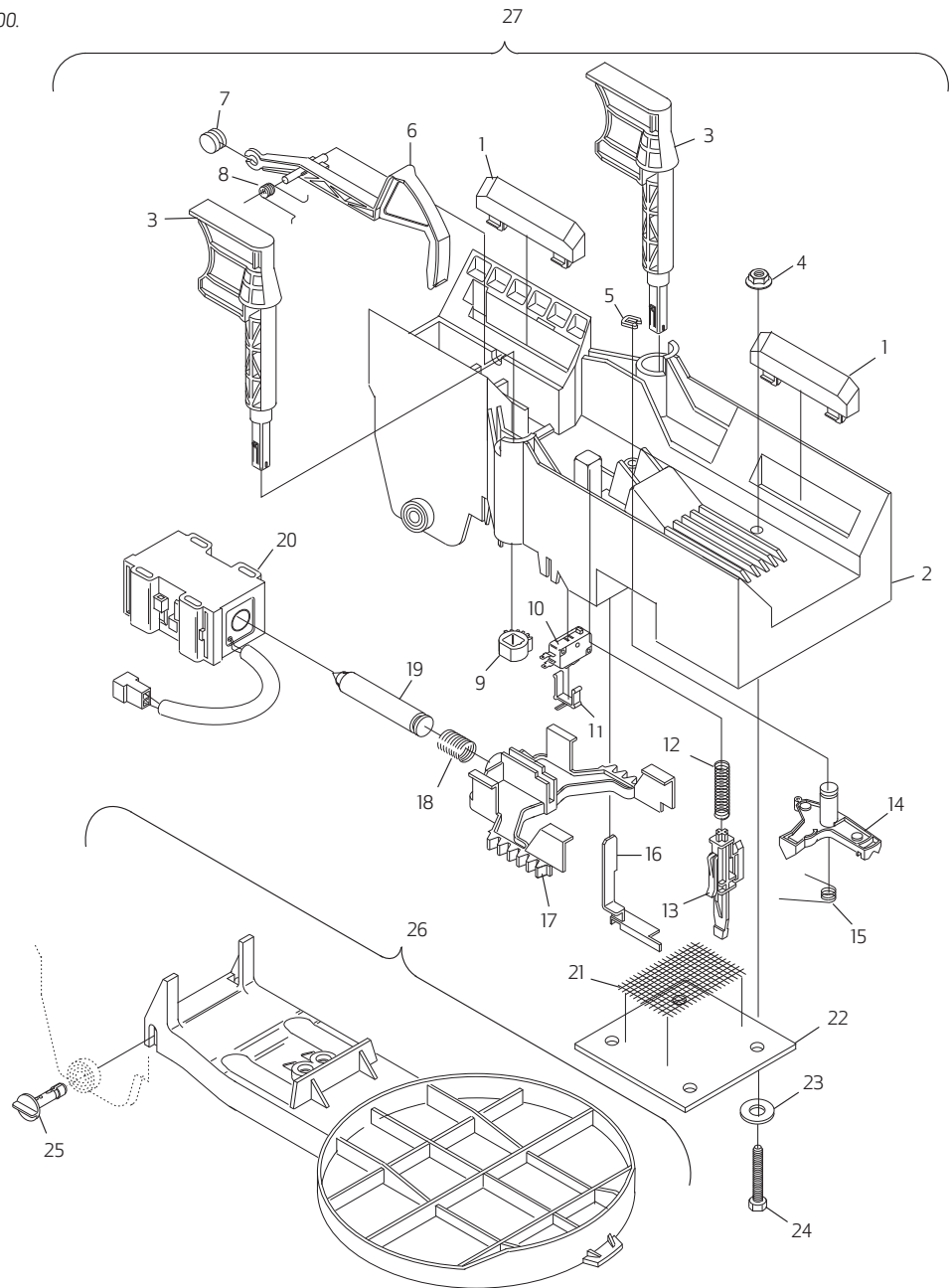
PIN HOLDER WITH DAMPERS

47-054689-009 - GS-10, GS-92, GS-96 - GS-98

47-054980-201 - GS-X/CPO



For complete schematics please refer to the GS Pinsetter Service Parts Catalog - 47-902712-000. Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

- | | | | | | | | | |
|----|---------------|--------------------------|----|---------------|---------------------|----|---------------|-------------------------------|
| 1 | 47-050308-004 | Damper | 11 | 47-055001-004 | Clip (Micro Switch) | 20 | 99-060351-004 | Solenoid - Only |
| 2 | 47-054980-201 | Pin Holder w/Damper GS-X | 12 | 47-055008-004 | Tension Spring | 21 | 47-055785-004 | Mount Plate - Steel |
| 3 | 47-054981-002 | Pin Gripper | 13 | 47-054988-003 | Switch Button | 22 | 47-055003-004 | Mount Plate |
| 4 | 11-055500-001 | Hex Nut 6mm | 14 | 47-054985-001 | Switch Actuator | 23 | 47-861040-001 | Washer 6.1mm (Pkg of 10) |
| 5 | 47-054986-004 | Grip Ring | 15 | 47-055006-004 | Torsion Spring | 24 | 11-051014-001 | Hx Hd. Cap Screw 6mm x 45mm |
| 6 | 47-054982-002 | Switch Finger | 16 | 47-055328-003 | Connector Clip | 25 | 47-860005-000 | Pivot Pin (Pkg of 10) |
| 7 | 47-052124-004 | Counter Weight | 17 | 47-054983-002 | Drive | 26 | 47-054298-001 | Pin Detector Plate w/Pin |
| 8 | 47-055005-004 | Tension Spring | 18 | 47-054987-004 | Solenoid Spring | 27 | 47-055314-009 | Pinholder Assembly - GS-X/CPO |
| 9 | 47-054984-004 | Gear | 19 | 47-055004-004 | Solenoid Plunger | | | |
| 10 | 47-055323-004 | Micro Switch | 19 | 99-090349-004 | O-Ring for Plunger | | | |

GS > BALL CUSHION & PIT CURTAIN

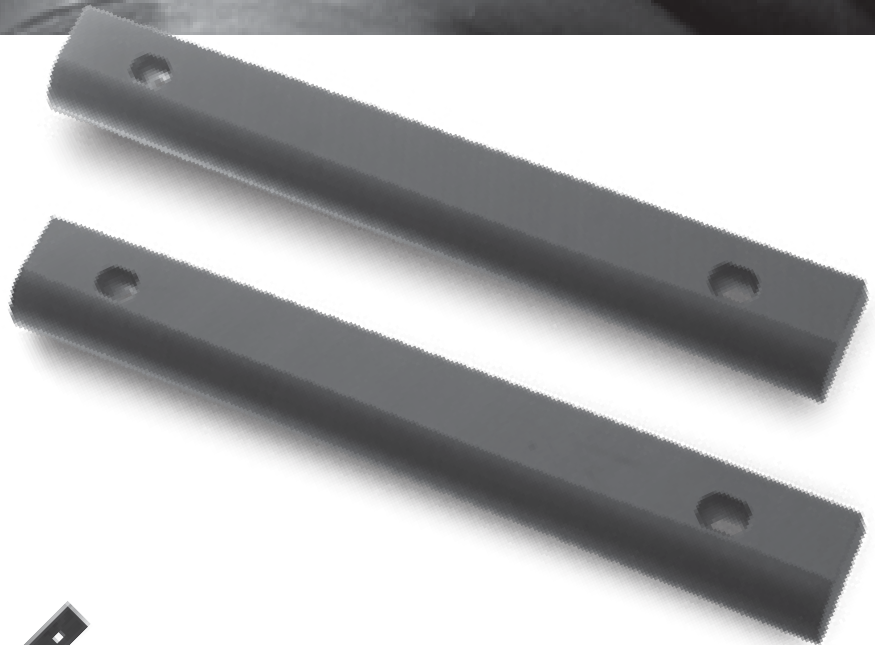
**Advanced
Performance**



ADVANCED PERFORMANCE IMPACT STRIP (2/PKG)

- Lasts 3-5 times longer than the original impact strips
- Made from ultra-high molecular weight polyethylene
- Save time checking and replacing worn parts
- Avoid costly damage from broken strips

47-026102-009



IMPACT STRIP

Inspect and replace damaged impact strips at all times as part of normal maintenance to the ball cushion assembly.

- Damaged impact strips can lead to possible ball and pin damage
- Made to withstand repeated ball impacts to the pit cushion

47-021010-003



CUSHION ADJUSTMENT HARDWARE KIT

Reduce wear on the Cushion Rubber Bumper – 11-053578-000. Worn cushion bumpers can create ball return issues.

47-862108-000



BALL CUSHION HYDRAULIC SHOCK ASSEMBLY-COMplete

Preserve pit cushions with properly maintained shocks. For all GS pinsetter models.

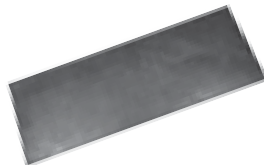
47-861049-009 – Replacement O-Ring (5/pkg)
99-026121-000



PIT CURTAIN

Smooth surface is easy to clean, non-marking, and oil resistant.

47-021084-004



BALL CUSHION BOARD WITH FACING

Minimize ball energy with this special cushion facing.

- Cushion molded to board to prevent delaminating
- Includes 47-274888-009 ball door flap kit

47-025044-009 – LH

47-025045-009 – RH



ADVANCED PERFORMANCE BALL CUSHION FRAME

Eliminate risk of failed Ball Cushion Frame with a design that conforms to stringent specifications.

- This frame has increased material thickness where necessary
- Made from high grade steel
- Improved welding and shock mounting system

47-025639-009

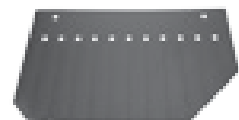


**Advanced
Performance**

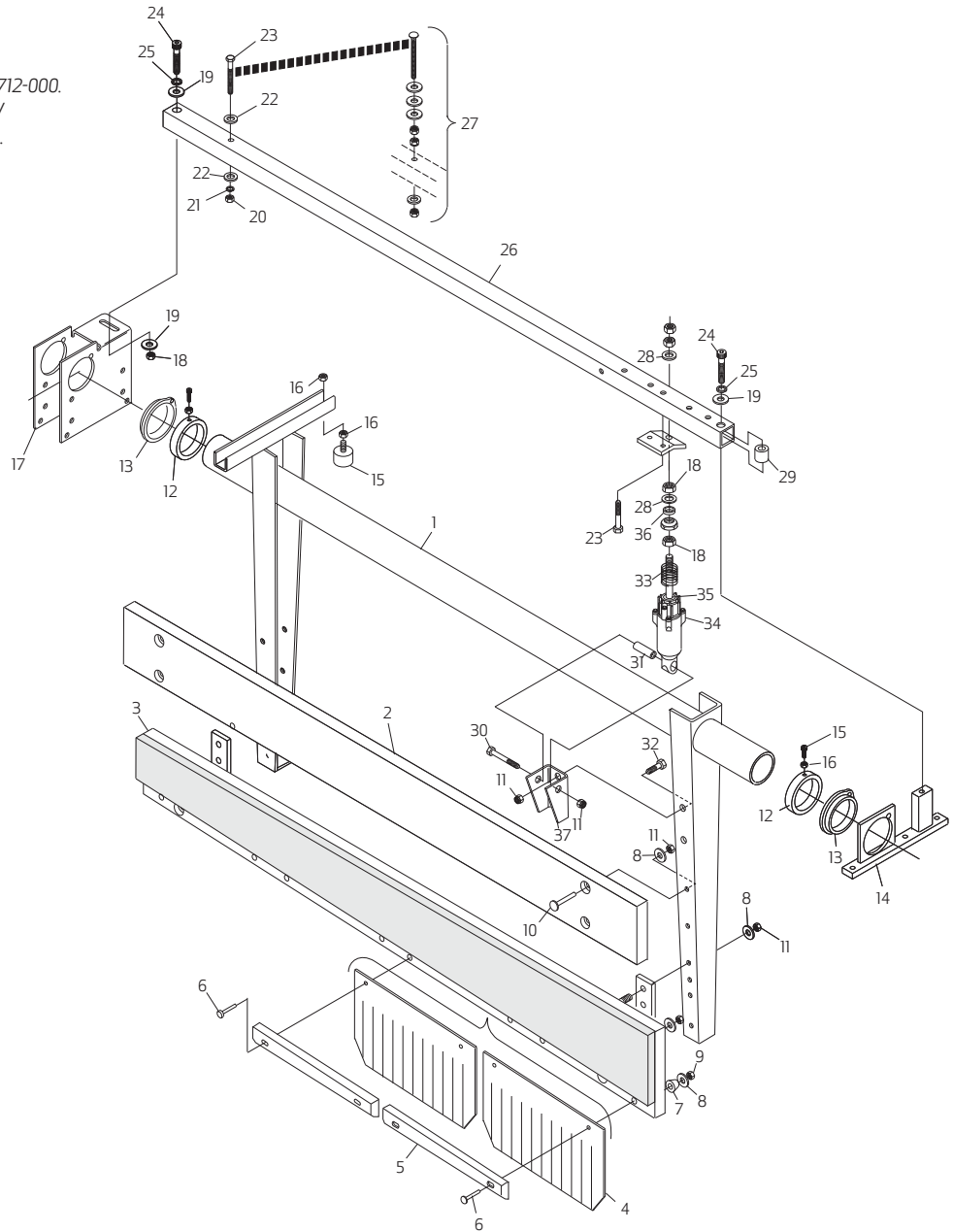
BALL DOOR FLAP KIT

Minimize “pins in the ball door.”

47-274888-009



For complete schematics please refer to the GS Pinsetter Service Parts Catalog - 47-902712-000. Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



GS > BALL CUSHION & PIT CURTAIN

PART INDEX

1	47-025639-009	AP-Ball Cushion Frame/Bracket	11	11-051745-001	Locknut 10mm	25	11-051772-001	Lockwasher 12mm
2	47-021872-003	Top Ball Cushion Board	12	47-020953-004	Stop Collar	26	47-020948-003	Transverse Bar
3	47-025045-009	RH Ball Cushion Board with Facing, even lane	13	99-010108-004	Bearing	26	47-024077-003	Transverse Bar, Short Pit
3	47-025044-009	LH Ball Cushion Board with Facing, odd lane	14	47-020947-003	Bearing Block	27	47-862108-000	Cushion Adjustment Hardware Kit
4	47-274888-009	Ball Door Flap Kit	15	11-053578-000	Rubber Bumper	28	11-052015-001	Flat Washer 13mm
5	47-026102-009	AP Impact Strips (2/pkg)	16	11-051704-001	Hex Nut 8mm	29	47-021110-004	Spacer
5	47-021010-003	Impact Strip (Black) 1 ea	17	47-021466-001	Bearing Block	30	11-051071-001	Hex Hd. Cap Screw M10x60mm
6	11-051055-001	HxHd. Cap Screw 8mmx60mm	18	11-051706-001	Hex Nut 12mm	31	47-025638-004	Spacer
7	47-023660-004	Cap	19	47-861010-001	Flat Washer 13mm (Pkg of 20)	32	11-051058-001	Hex Hd. Cap Screw 10mmx55mm
8	11-052018-001	Flat Washer 10.5mm	20	11-051703-001	Hex Nut 10mm	33	47-071602-004	Compression Spring
9	11-051744-001	Locknut 8mm	21	11-051771-001	Lockwasher 10mm	34	99-026121-000	Ball Cushion Hydraulic Assy
10	11-052618-001	Carriage Bolt 10mmx50mm	22	11-052050-001	Flat Washer 10.5mm	35	11-055351-000	Sealing Ring, all GS Shocks
			23	11-051012-001	HxHd. Cap Screw 10mmx70mm	36	47-021108-004	Spacer
			24	11-051564-009	ScktHd. Cap Screw 12mmx60mm	37	47-025637-003	Bracket

GS > SWEEP WAGON



← IMPROVED

GUTTER ADAPTER

OEM gutter adapter for sweep board. Now made of stronger material to last even longer.

47-041721-002

TECH TIP

Occasionally the sweep on the GS pinsetter will stay down at the end of a cycle causing the pin light to stay on and the pinsetter not to generate an error code on the pinsetter electronics. The problem can be solved by reducing the excessive swing of the sweep release assembly, adjusting the sweep release tipper position in relationship to the tipper roller, and adjusting the forward position of the sweep.

RETAINING CLIP (15MM)

A must have for the spare parts inventory, keeps the linkage in place for smooth sweep operation.



11-051869-000

SWEEP WAGON FRAME

Built to provide years of service and smooth operation of the sweep assembly. Broken or bent frames may cause excess wear to the plastic rollers or put stress on the sweep drive motor to operate effectively.



47-045010-002

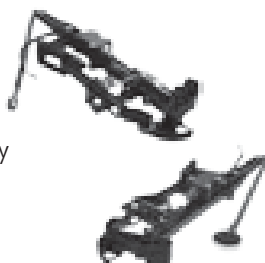
SWEEP RELEASE ASSEMBLY

Complete assembly, including all linkages and solenoid.

- Easy to change and repair if necessary

47-041794-009 – Tower Up

47-045566-009 – Tower Down



SWEEP SHOCK ABSORBER

Strong plunger shaft manufactured from high grade steel.

- Keeps GS sweep performing at maximum performance level



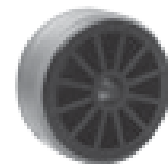
47-861049-009

Replacement O-Ring (5/pkg)

99-046122-000

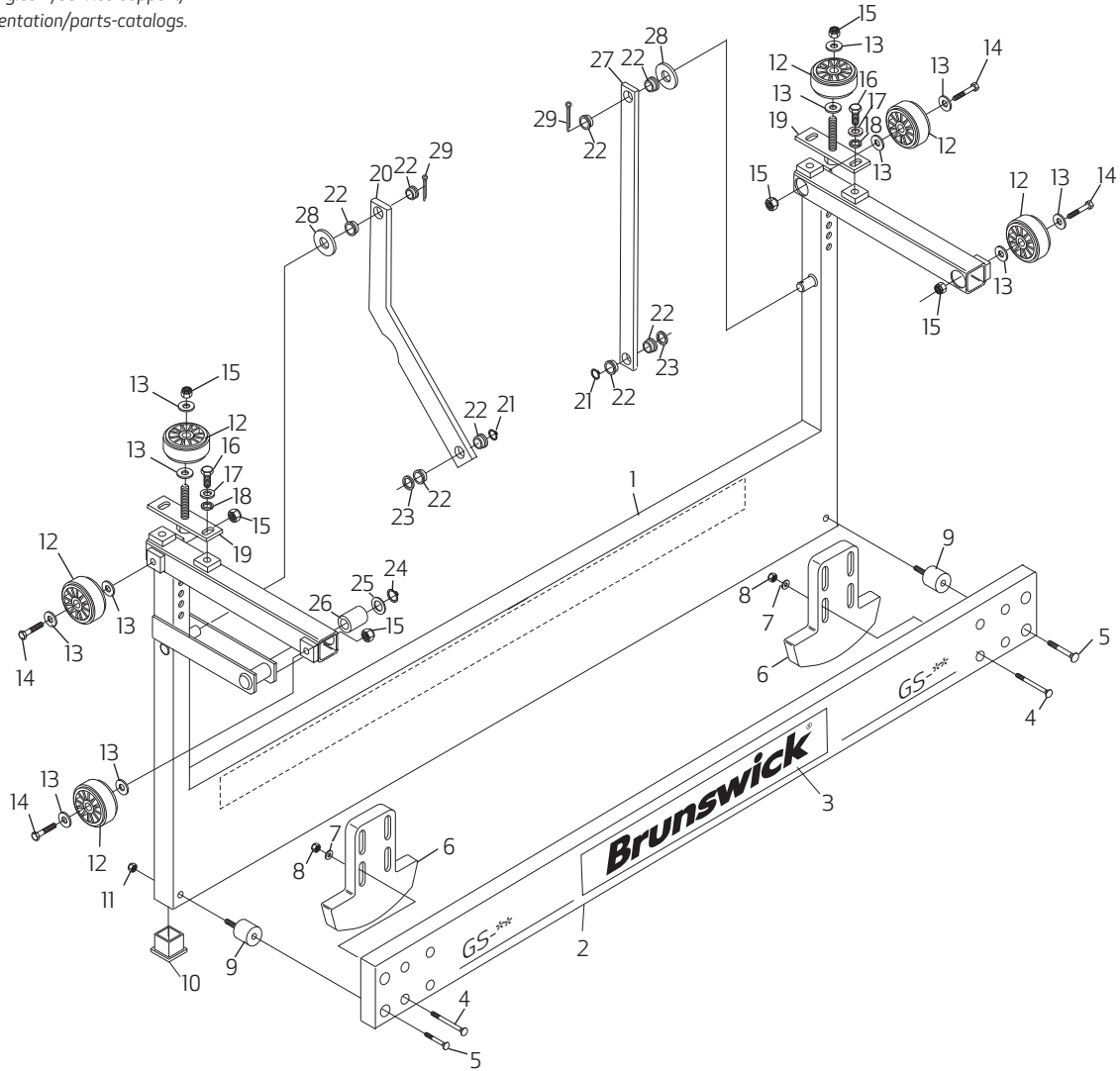
SWEEP ROLLER

Keeps the sweep wagon operating smoothly.



99-040249-004

For complete schematics please refer to the
GS Pinsetter Service Parts Catalog - 47-902712-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	47-045010-002	Sweep Wagon (Frame only)	9	47-044979-004	Rubber Bumper	20	47-042056-003	L.H. Pusher Rod
2	47-044927-003	Sweep Board Only (Grey) for GS-98, GS-X	10	47-044978-004	Foot Cap	21	11-051869-000	Retaining Ring 15mm
2	47-044802-009	Sweep Board w/Felt (Brown)	11	11-051744-001	Locknut 8mm	22	99-010103-004	Plastic Bearing
3	47-045082-004	Sweep Board Decal (GS-98)	12	99-040249-004	Plastic Roller Assembly	23	47-861029-001	Flat Washer 16mm (Pkg of 10)
3	47-045373-004	Sweep Board Decal (GS-X)	13	47-861010-001	Flat Washer 13mm (Pkg of 20)	24	11-051852-001	Retaining Ring 17mm
4	11-052623-001	Carriage Bolt 10mm x 40mm	14	11-051070-001	Hx Hd. Cap Screw 12mm x 60mm	25	47-861011-001	Flat Washer 17mm (Pkg of 10)
5	11-052601-001	Carriage Bolt 8mm x 30mm	15	11-051747-001	Locknut 12mm	26	46-040170-004	Roller
6	47-041721-002	Gutter Adapter	16	11-051010-001	Hx Hd. Cap Screw 8mm x 20mm	27	47-041526-004	R.H. Pusher Rod
7	11-052035-001	Flat Washer 10mm	17	11-052019-001	Flat Washer 8.4mm	28	11-052034-001	Flat Washer
8	11-051745-001	Locknut 10mm	18	11-051770-001	Lockwasher 8mm	29	11-051786-001	Cotter Pin
			19	47-041774-004	Bracket			

GS > DRIVE FRAME ASSEMBLY

V-BELTS

Provide the important power necessary to run the GS machines. Offers increased flexibility and reduces heat build-up that extends the life of the belt.

- 11-053901-000** – 10mmx6mmx875mm Distributor Sweep/Motor Drive
- 11-053902-000** – 10mmx6mmx1160mm Setting Table Drive
- 11-053903-000** – 13mmx8mmx1375mm Distributor Shaft Drive
- 11-053904-000** – 10mmx6mmx950mm Ball Accelerator – 50 Cycle
- 11-053905-000** – 10mmx6mmx1900mm Elevator Drive
- 11-053907-000** – 10mmx6mmx925mm Ball Accelerator – 60 Cycle
- 11-053909-000** – 10mmx6mmx2560mm Transport Band Drive (110mm Pulley)
- 11-053910-000** – 10mmx6mmx2650mm Transport Band Drive (125mm Pulley)



PINION SHAFT

Used in the pulley drive assembly to allow for correct operation of the up and down movement of the setting table and correct lifting of the sweep assembly at the end of the pinsetter cycle.

47-071705-004



GEAR ASSEMBLY WITH HUB

Used in conjunction with the pinion shaft – 47-071705-004 in the pulley drive assembly to allow for correct operation of the setting table and sweep.

- Supplied with hub for ease of replacement

47-071702-003



STROKE LIMITER SHOCK ABSORBER

Stroke limiter shock will ensure the setting table functions correctly all the time.

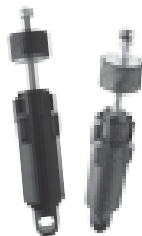
- Designed with no reservoir
- Strong plunger shaft manufactured from high grade steel

47-861049-009

– Replacement O-Ring (5/pkg)

99-076123-000 – For series 442 and below

99-076120-000 – For series 443 and above

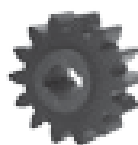


ADVANCED PERFORMANCE GS METAL PINION GEAR

Used on all Tower Up pinsetters.

- Heavy-duty Setting Table pinion gear replaces the OEM plastic gear for extended life and better performance

47-071449-609



Advanced Performance

GS MOTOR STRAIN RELIEF

Used on both ABT and Siemens Motors and on all GS Series pinsetters.

11-055080-000



ADVANCED PERFORMANCE CHAIN GEAR



Based on field feedback, this newly re-designed assembly includes two set screws to reduce stress on the gear, key, and shaft.

- Compatible with all GS-Series Tower Down Pinsetter models
- Now standard on production pinsetters series 687 and above
- Metric Key – 11-053503-000 for gear



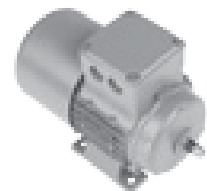
Advanced Performance

47-075474-009

DRIVE MOTORS

Designed and tested to meet the most rigorous requirements.

- Available in two different voltages to meet multiple needs
- Setting table and sweep motors include heavy duty brake for improved reliability and durability
- OEM design



Sweep Motor

99-076366-000 – 1/4 H.P. 208 VAC

99-076367-000 – 1/4 H.P. 230/380 VAC (Shown)

Distributor Motor

99-076362-000 – 1/2 H.P. 208 VAC

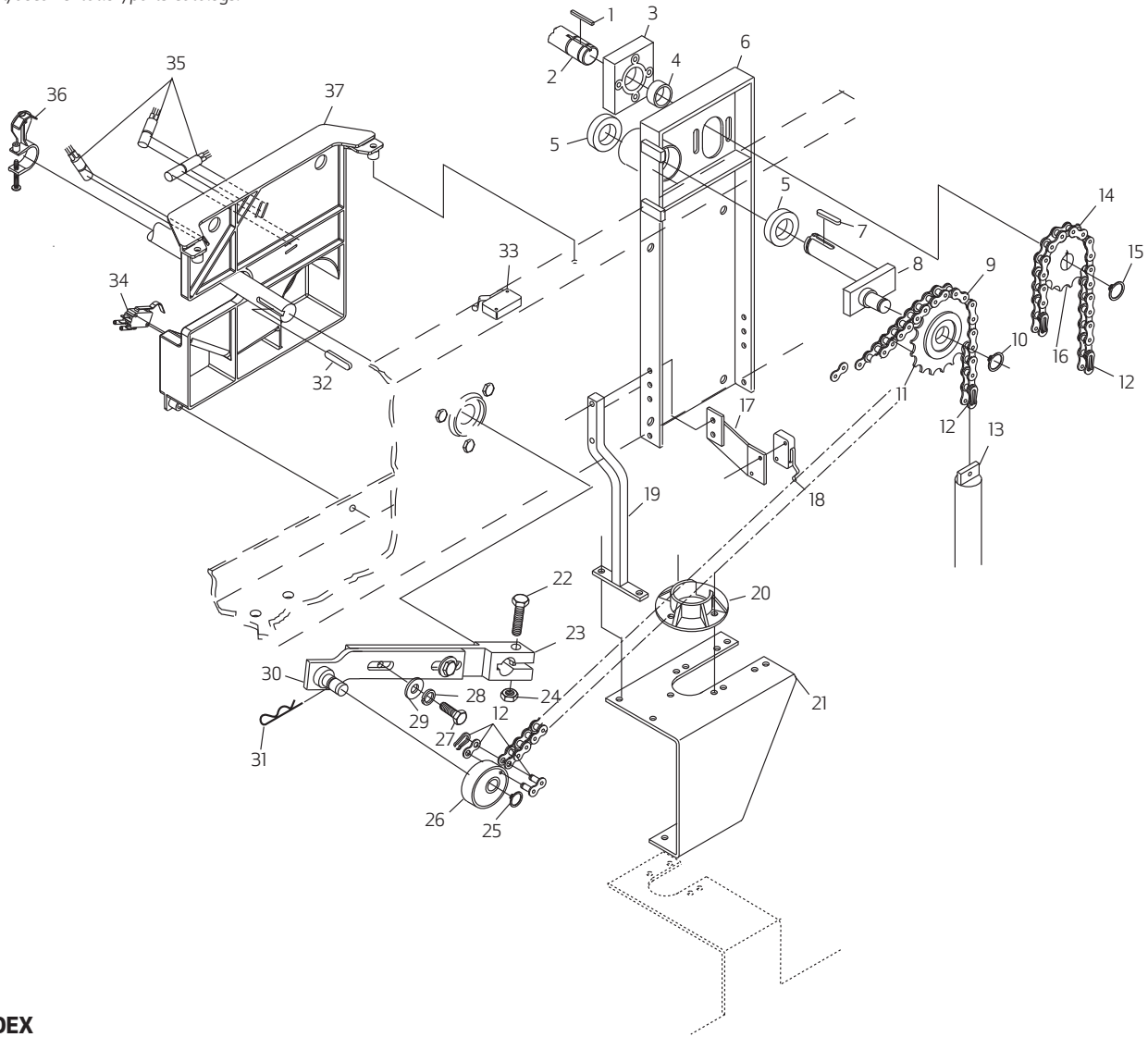
99-076363-000 – 1/2 H.P. 230/380 VAC (Shown)

Table Motor

99-076364-000 – 1/2 H.P. 208 VAC (Shown)

99-076365-000 – 1/2 H.P. 230/380 VAC

For complete schematics please refer to the
GS Pinsetter Service Parts Catalog - 47-902712-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	11-053507-000	Key 8mm x 7mm x 30mm	16	47-075474-009	AP-Chain Gear (with set screws)	30	47-075357-003	Crank Arm
2	47-075476-004	Shaft	17	47-075473-003	Switch Support	31	11-054300-001	Cotter Pin 2mm
3	47-085348-003	Bearing Housing	18	47-243028-004	OOR Switch Tower Down	32	11-053493-000	Key 8mm x 7mm x 45mm
4	11-430051-000	Bearing	19	47-085449-003	Support Rod	33	47-243028-004	TS-2 Switch
5	11-430052-000	Bearing	20	47-085349-003	Tube Guide	34	47-243028-004	Cherry Switch (Silver, Consolidated, Nex Gen)
6	47-075482-002	Guide Beam	21	47-085436-003	R.H. Guide Support Bracket	34	47-073534-004	"A" Switch (Red Box)
7	11-053507-000	Key 8mm x 7mm x 30mm	21	47-085430-003	L.H. Guide Support Bracket	35	47-243029-004	Magnetic "B", "C", "D" Switch (Silver, Consolidated, Nex Gen)
8	47-071591-004	Sprocket Shaft	22	11-051070-001	Hx Hd Cap Screw 12mm x 60mm	35	47-072307-004	Reed Switch (Red Box)
9	47-075488-004	5/8" Chain	23	47-075356-003	Crank	36	47-071879-003	Cam
10	11-051852-001	Retaining Ring 17mm	24	11-051747-001	Locknut 12mm	37	47-075188-001	Frame (Fixed B-Switch)
11	47-011053-004	Sprocket	25	47-861031-001	Flat Washer 18mm (Pkg of 10)	37	47-071876-001	Frame (Adjustable B-Switch)
12	11-600500-000	Master Link (3-Piece)	26	47-075352-004	Pivot Bearing			
13	47-070386-004	Counter Weight	27	11-051062-001	Hx Hd Cap Screw 12mm x 25mm			
14	47-075486-004	Chain	28	11-051772-001	Lockwasher 12mm			
15	11-051856-001	Retaining Ring 25mm	29	47-861010-001	Flat Washer 13mm (Pkg of 20)			

GS > DISTRIBUTOR

UNIVERSAL PIN STATION



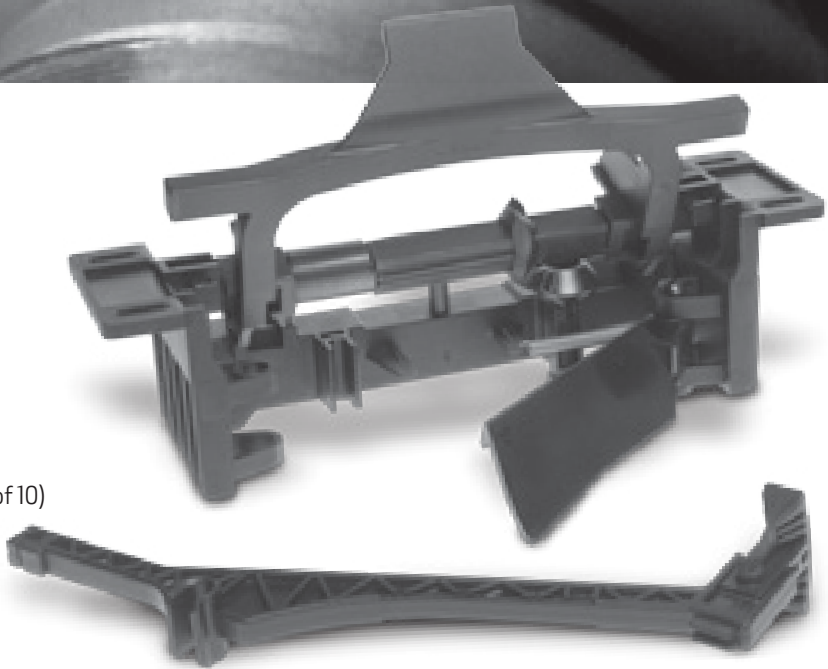
Redesigned with an improved steel pin release lever attachment pivot.

- Universal Housing Only – 47-094778-001
- Steel Shaft – 47-861045-000 (Pkg of 10)
- Returning Pins – 47-094789-003 (Improved longer area for pin engagement)
- Retaining Ring – 47-861044-000 (Pkg of 20)
- Plastic Retaining Bow Bushing – 47-861043-000 (Pkg of 10)

47-094792-009 – 2, 3, 4, 8, 9 pin location (shown large)

47-094793-009 – 1, 5, 6 pin location (not shown)

47-094794-009 – 7, 10 pin location (not shown)



REAR DISTRIBUTOR DRIVE PULLEY

OEM pulley 162 mm for 15 mm polycord belt.

47-024839-002



UNIVERSAL RELEASE LEVER

Wider button improves performance by minimizing release levers slipping off pin grippers. Used on all universal pin stations.

47-095154-009 – Complete

47-094782-003 – Button only



SQUARE SPINDLE

Prevent pin station housing and retaining pin wear with this square spindle complete with a bushing on each end.

47-094790-009



RETAINING BOW EXTENDER SLEEVE

Minimizes pin station jams.

- No more diving pins in the 4, 7, 10 positions
- Packaged 6 per pack

47-862931-000



SLIDER ASSEMBLY

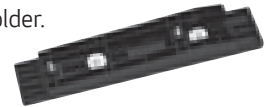
Long design improves reliability by centering pin movement to the pin holder.

- Minimizes distributor jams and table switch problems
- Manufactured from impact resistant polyethylene
- Easy to install

47-091284-002 – Complete

47-091277-002 – Mount only

47-095609-002 – Slider only



TWO-PIECE SPUR GEARS AND PULLEY

Prevent pinsetter down situations by keeping a couple of easy to install two-piece gears and pulley on hand.

These are great temporary replacements that do not require removal of the front or rear distributor shaft for installation. Hardware included.

47-275746-009 – Front Distributor Shaft Gear

47-274669-004 – Rear Distributor Shaft Gear

47-275748-009 – Distributor two-piece Pulley Repair Kit



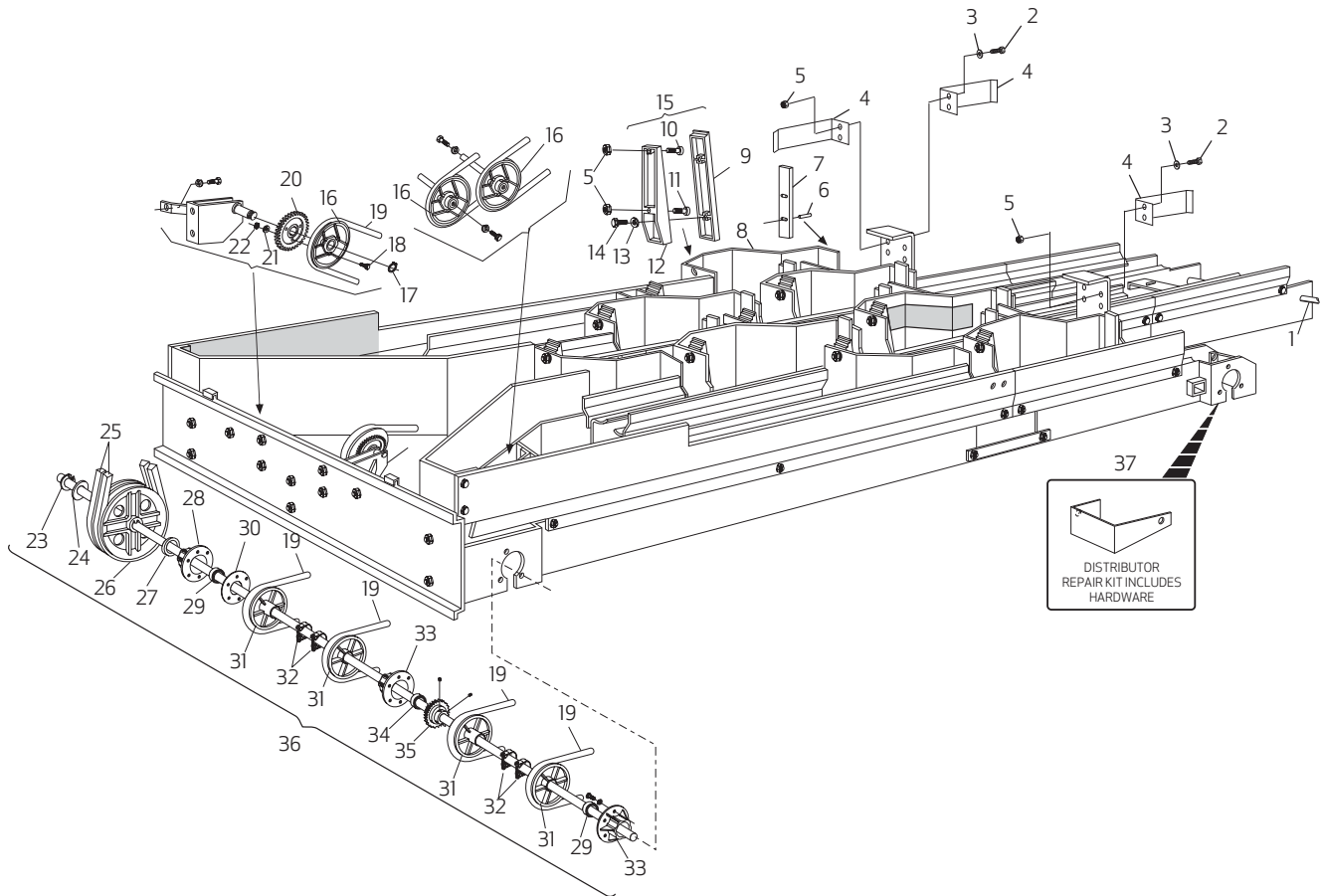
To order permanent one-piece replacement gear:

47-090547-004 – Front Distributor Gear

47-093900-003 – Rear Distributor Gear

47-093863-003 – Round Belt Pulley

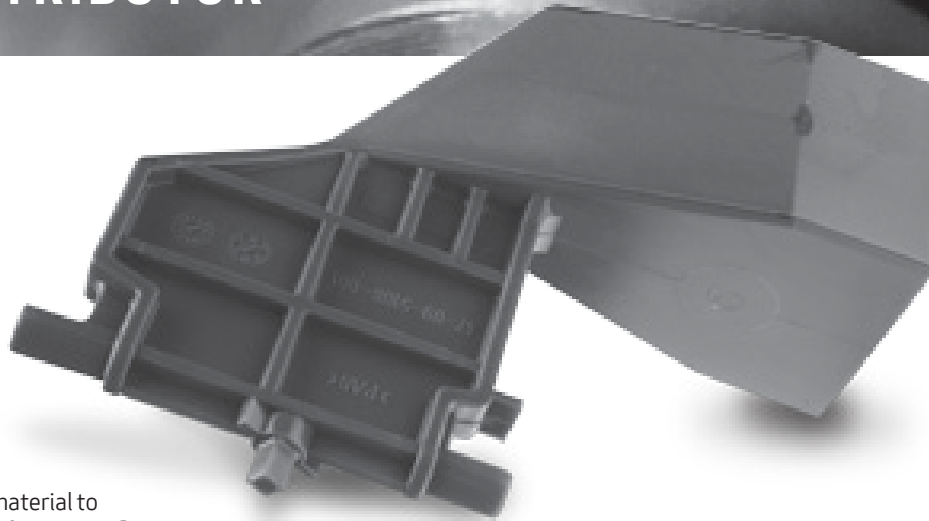
For complete schematics please refer to the
GS Pinsetter Service Parts Catalog – 47-902712-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	47-092206-004	Shaft	13	11-052019-001	Flat Washer 8.4mm	26	47-090989-002	Double Pulley
2	11-051018-001	Hex Head Screw 6mm x 20mm	14	11-054449-000	Hx Hd. Self-Tapping Screw K70 x 18mm	27	47-094353-004	PVC Spacer
3	11-052037-001	Flat Washer 6.4mm	15	47-091284-002	Slider Assembly Complete	28	47-094346-003	Bearing Shell w/ Shoulder
4	47-094712-003	Bracket	16	47-092415-003	Pulley with Bearing	29	11-430013-000	Bearing
5	11-051743-001	Locknut 6mm	17	11-051852-001	Retaining Ring 17mm	30	47-094351-003	Washer
6	47-093587-004	Dowel Pin 3mm x 15mm	18	11-051546-001	Hex Head Screw 5mm x 40mm	31	47-093863-003	Round Belt Pulley
7	47-090969-003	Pin Stop	19	47-092300-004	Polycord 12mm x 44 meters Lg	31	47-275748-009	2-Piece Pulley Repair Kit
8	47-093760-002	Pin Shield (7)	19	47-092300-005	Polycord 13mm x 20 meters Lg	32	47-093874-004	Clamp
8	47-091890-002	Pin Shield (2, 3, 8, 9, 10)	20	47-093547-004	Gear	33	47-094347-003	Bearing Shell
8	47-092211-002	Pin Shield (1, 6)	21	11-052039-001	Flat Washer 5.3mm	34	47-095050-003	Plastic Bearing
9	47-095609-002	Slider Only	22	11-051742-001	Locknut 5mm	35	47-090547-004	Spur Gear w/ 25mm Collar
10	11-051515-001	Socket Head Screw 6mm x 18mm	23	11-051856-001	Retaining Ring 25mm	35	47-275746-009	Two Piece Gear Kit
11	11-051520-001	Socket Head Screw 6mm x 20mm	24	47-861028-001	Shim Washer 25mm x 36mm x 1mm	36	47-094349-001	Front Shaft Assembly
12	47-091277-002	Slider Mount	25	11-053903-000	V-Belt 13mm x 8mm x 1375mm	37	47-275730-009	Distributor Repair Kit

GS > DISTRIBUTOR



GSX SHARK FIN

Machined with strong material to improve the durability of the shark fin.

47-095106-001

ROUND BELT GEARED PULLEY

GSX original equipment shark switch rear geared pulley assembly.

47-095744-004



RUBBER MOUNT

Absorbs vibration between the elevator and shark assembly while helping to prevent wear of the assemblies.

11-053579-000

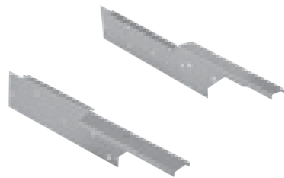


SMART SHARK GUIDES

Complete with a radius at the bed to prevent cracking.

47-095103-001 - LH

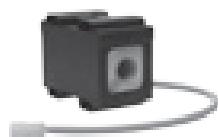
47-095104-001 - RH



SOLENOID

GSX original equipment shark switch solenoid.

99-060387-004



POLYCORD 12MM

Use the original distributor belt.

- Minimal stretching for increased life and performance
- See page 30 for belt trim tool

47-275804-009 - 20 meter length

47-092300-004 - 44 meter length

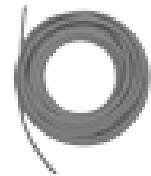


POLYCORD 13MM

Improve distributor performance with a larger diameter polycord.

- Improve pin transfer throughout the recommended distributor
- See page 30 for belt trim tool

47-092300-005 - 20 meter length



POLYCORD 15MM

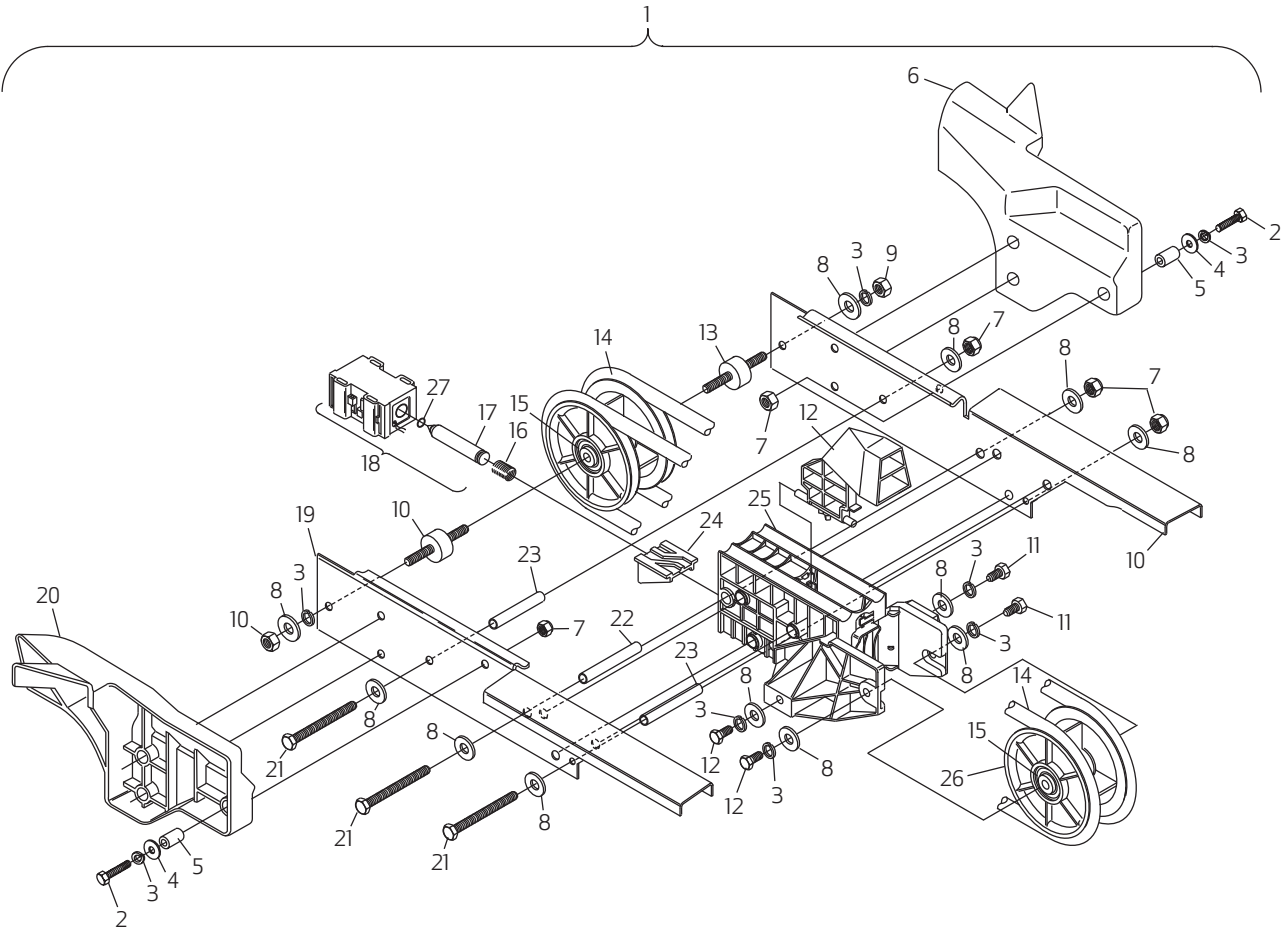
Minimize pins in ball door with more power and speed.

- Made from non-stretch high grade polyurethane
- See page 30 for belt trim tool

47-024838-005 - 7 meter length

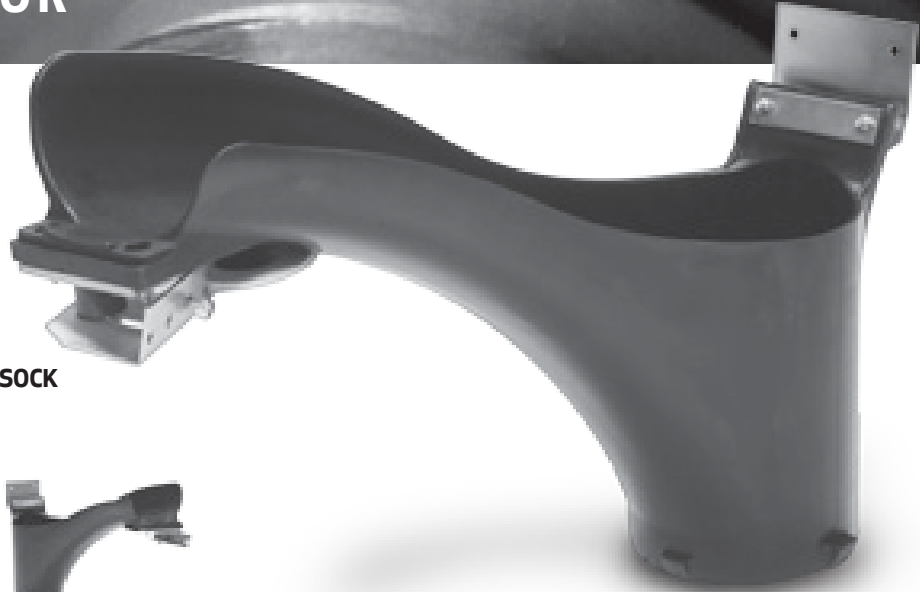


For complete schematics please refer to the
GS Pinsetter Service Parts Catalog - 47-902712-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	47-095108-001	Shark Switch Assembly	10	47-095104-001	R.H.Guide	19	47-095103-001	L.H.Guide
2	11-051026-001	Hex Head. Screw 8mm x 40mm	11	11-051010-001	Hex Hd. Cap Screw 8mm x 20mm	20	47-093929-001	L.H. Pin Guide Wedge
3	11-051770-001	Lock Washer 8mm	12	47-095106-001	Fin Switch	21	11-051081-001	Hex Head. Screw 8mm x 100mm
4	11-052019-001	Flat Washer 8.4mm	13	11-053579-000	Rubber Mount	22	47-095112-004	Spacer - short
5	47-093925-004	Spacer	14	47-092300-004	Polycord 12mm x 44 Meters Lg	23	47-095109-004	Spacer - long
6	47-093906-001	R.H. Pin Guide Wedge	15	11-430007-000	Bearing	24	47-095105-003	Slide
7	11-051744-001	Lock Nut 8mm	16	99-090348-004	Spring	25	47-095107-003	Housing
8	11-052006-001	Washer 8.4mm	17	47-095111-004	Solenoid Plunger	26	47-095744-004	Round Belt Geared Pulley
9	11-051704-001	Hex Nut 8mm	18	99-060387-004	Solenoid Consolidated/Nex Gen	27	99-090349-004	O-Ring



OVERFLOW CHUTE ASSEMBLY WITHOUT SOCK

Prevent disruption in distributor overflow.

- Polyethylene design eliminates noise
- Shock mounted for durability

47-095739-009 – LH

47-095740-009 – RH



ADVANCED PERFORMANCE OVERFLOW CHUTE UPGRADE KIT

Reduces stress by using cushioned mounts to secure the front and rear of the overflow chutes to the mounting locations of the pinsetter. Must be used with: L.H. Overflow Chute – 47-095738-001 and R.H. Overflow Chutes 47-095737-001. Includes all mounting hardware and instructions to upgrade older style chutes.

NOTE: Overflow Chutes 47-095739-009 and 47-095740-009 must be replaced with the overflow chute numbers above when using this upgrade kit.

47-275731-009



Advanced Performance

ADVANCED PERFORMANCE OVERFLOW SOCK PIN CLEANER KIT

Improve pin appearance with this easy to install and maintain pin cleaner.

- Mounting plates eliminate need for Velcro®
- Pockets on both sides of mounting plates allowing cover to be flipped when one side is dirty

47-275812-009



Advanced Performance

GSX PIN CLEANER KIT MOP COVERS

Improve pin appearance while removing dirt from your system.

- Contains two mop covers and instructions
- Replacement mop covers for Overflow Sock Pin Cleaner Kit - 47-275812-009

47-860012-000 – Pkg of 2

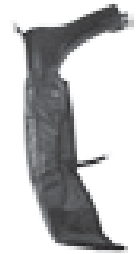


OEM OVERFLOW SOCK

Improved OEM sock has a locking strap to keep socks from swinging excessively as pins exit.

- Help prevent pin and transport band wear
- Offers a reinforced bottom, slowing pin entrance onto the transport band

47-022531-000



OVERFLOW CHUTE PIN WIPE FOR METAL CHUTE

Improve pin performance by keeping them clean with this easy to install, long lasting, and washable Pin Wipe.

- Cloth fits the metal overflow chute used on GSX pinsetters
- Packaged one per bag

47-092527-000



ADVANCED PERFORMANCE OVERFLOW CHUTE PIN WIPE FOR PLASTIC CHUTE

Improve cleanliness and performance of pins with this easy to install, long lasting and washable advanced pin wipe.

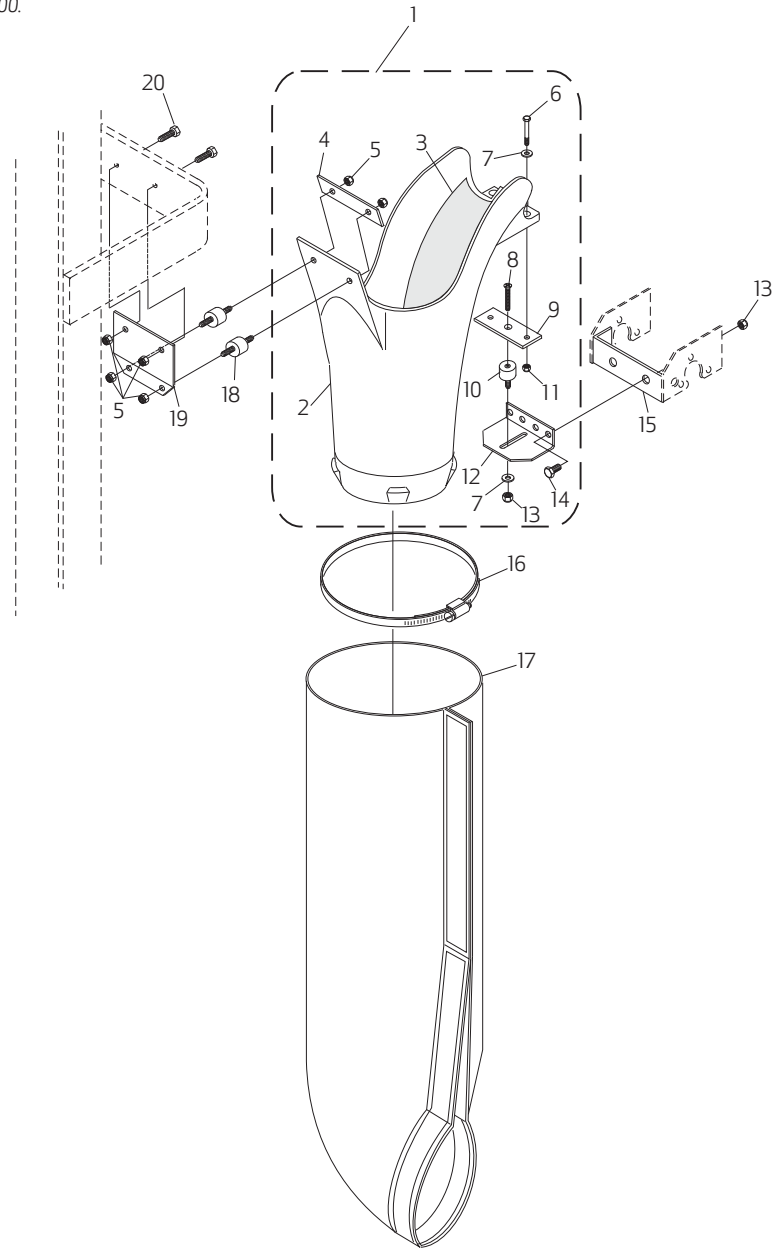
- Used on GS machines, series 406 and above, including GSX
- Cloth fits the plastic overflow chute used on GSX pinsetters
- Packaged 2 cloths per bag

47-860003-000



Advanced Performance

For complete schematics please refer to the
GS Pinsetter Service Parts Catalog - 47-902712-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	47-095740-009	R.H.Chute Assembly w/out Sock	7	11-052039-001	Flat Washer 5.3mm	15	47-093749-004	Bracket
1	47-095739-009	L.H.Chute Assembly w/out Sock	8	11-052938-001	Flat Hd. Screw 8mm x 12mm	16	11-603301-000	Overflow Chute Clamp
2	47-095738-001	L.H. Plastic Chute - Only	9	47-095726-004	Mounting Plate	17	47-022531-000	Sock (Black)
2	47-095737-001	R.H. Plastic Chute - Only	10	11-053588-000	Rubber Bumper 30mm x 20mm	17	47-092529-600	Sock - Heavy Duty (White)
3	47-860003-000	AP - Pin Wipe	11	11-051742-001	Locknut 5mm	18	11-053587-000	Rubber Bumper 25mm x 15mm
4	47-095727-004	Pressure Plate	12	47-095728-004	Angle Bracket	19	47-095729-004	Mounting Bracket
5	11-051743-001	Locknut 6mm	13	11-051744-001	Locknut 8mm	20	11-051035-001	Hex Hd. Cap Screw 6mm x 16mm
6	47-861001-001	R.O. Hex Hd. Cap Screw 5mm x 25mm (Pkg of 10)	14	11-051038-001	Hex Hd. Cap Screw 8mm x 16mm			

GS > BALL ACCELERATOR



ACCELERATOR MOTOR-208/230/380

GSX original equipment accelerator motor.

- Rigorously tested to assure long life
- For series 420 and below, order motor 99-040295-004

99-030363-004

EJOT-PLASTIC NUTS 3.5

Keep your ball door protector plate tight with these nut plates.

- Replace loose, stripped or broken nut plates with new nuts to keep your Ball Door Protect Plate from failing prematurely

11-055800-000



MOUNT BUSHING FOR ACCELERATOR MOTOR

Accelerator Motor Mount Bushing for GS series 419 and below

- Keep your accelerator belt adjusted properly and motor moving freely by replacing these bushings

99-010123-004



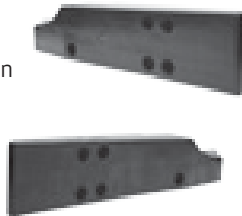
PROTECTOR WEDGE

Upper Ball Door Protector Wedges.

- Missing or broken protector wedges can cause ball, pin and ball door assembly damage
- Check and replace when worn

47-021620-002 – 7 pin side (L.H.)

47-021619-002 – 10 pin side (R.H.)



PROTECTIVE COVER

Used to protect the ball rods of the accelerator.

- Defective or broken protective covers can lead to scratching bowling balls
- Allows for smooth transition from the ball accelerator to the return track
- Pack of 4

47-862787-000



PROTECTOR PLATES

Protects the ball doors from direct impact from pins and bowling balls.

47-035240-001 – L.H. 10 Pin Side (Shown)

47-035241-001 – R.H. 7 Pin Side



TENSION SPRING (BALL DOOR)

Stretched or weak tension springs can cause ball calls at the ball door. Replace this spring with new for optimal operation.

47-034767-004



ACCELERATOR NON-SLIP PLATE

Provides a secure surface for walking and climbing on top of accelerator. Can be installed on any GS pinsetter.

47-862932-000



ACCELERATOR FLAT BELT

Minimizes stretching to ensure long life.

10-635127-000

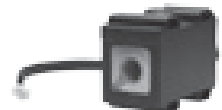


BALL DOOR SOLENOID

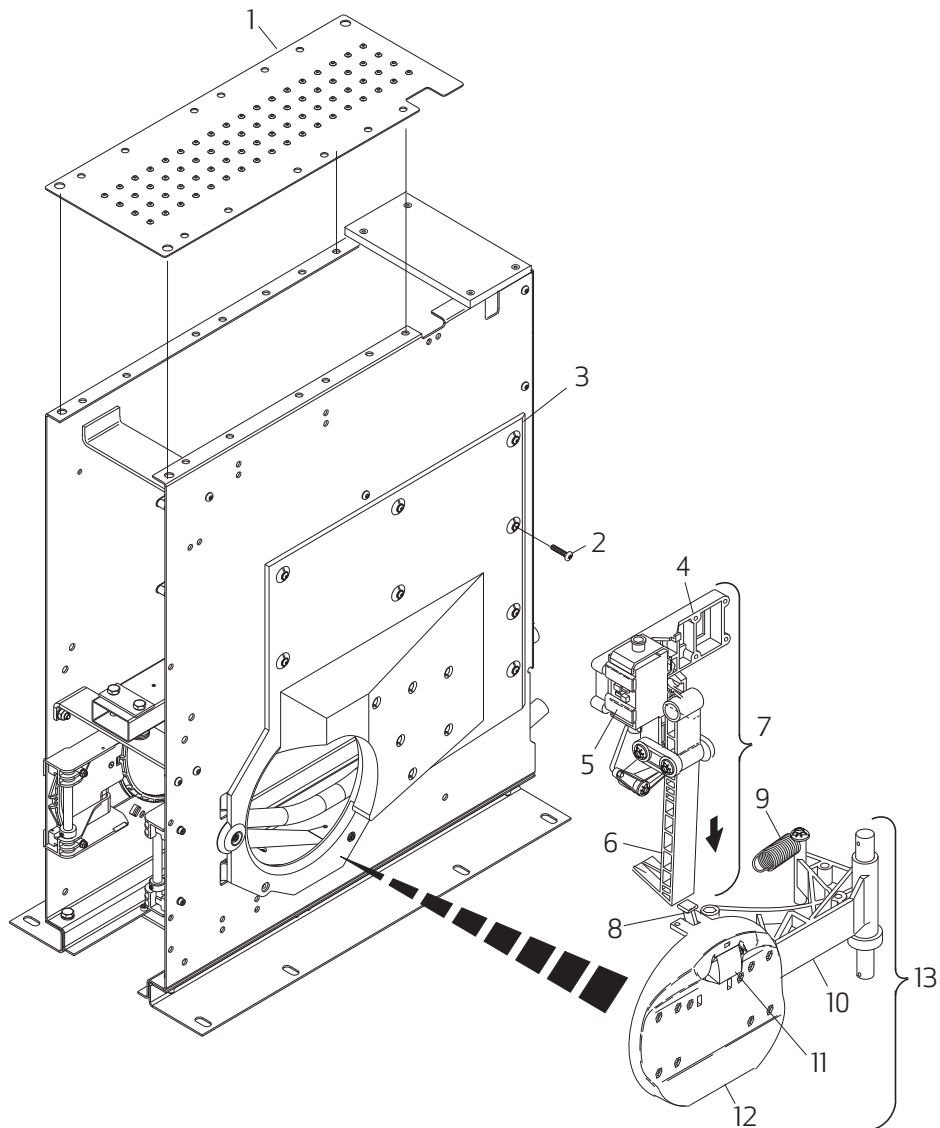
Original equipment Ball Door Solenoid.

- Powerful solenoid made from high grade iron
- Designed to activate ball door mechanism under the highest load
- Designed housing minimizes malfunction due to dirty/oily environmental conditions
- Also used in GS Drive Frame Assembly and Sweep Release Assembly

99-070356-004



For complete schematics please refer to the
GS Pinsetter Service Parts Catalog - 47-902712-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

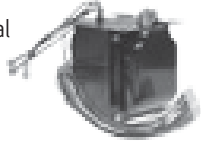
1	47-862932-000	Accelerator Non-Slip Plate	6	47-031797-002	Locking Bolt	11	47-031056-003	LH Ball Door Key
2	11-054466-000	Plastic Fastener Screw	7	47-033558-009	RH Locking Mechanism Complete	11	47-031055-003	RH Ball Door Key
3	47-035240-001	Protector Plate, 10 pin side	7	47-033557-009	LH Locking Mechanism Complete	12	47-031054-002	Ball Door (use for RH and LH)
3	47-035241-001	Protector Plate, 7 pin side	8	47-031822-004	Lever	13	47-033556-009	RH Ball Door with Arm
4	47-031796-002	Holder	9	47-030276-004	Ball Door Arm Tension Spring	13	47-033555-009	LH Ball Door with Arm
5	99-060219-004	Solenoid Assembly	10	47-031058-001	Arm (use for RH and LH)			

GS > ELECTRICAL BOX

TRANSFORMER ASSEMBLY - SINGLE

Insure you have the correct power for critical electronic functions of the GSX pinsetter.

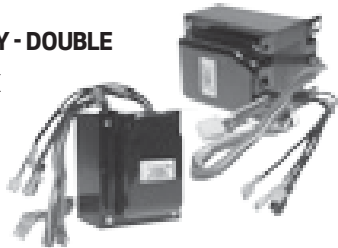
- Direct replacement for GSX Nex Gen Boxes equipped with a single transformer



47-142659-000

TRANSFORMER ASSEMBLY - DOUBLE

Direct replacement for GSX Nex Gen boxes equipped with two transformers.



47-142692-000

GSX FUSES

Make sure you have the correct amp fuses at all times. This is a must have for your spare parts inventory.

- Using the incorrect fuse may lead to CPU or High voltage PCB failures
- All fuses come 5 per package

3.15 AMP FUSE - 47-862854-000

Used to protect the output functions of the CPU PCB.

8 AMP - CERAMIC FUSE - 47-862855-000

Used on the High Voltage PCB, these fuses protect the clockwise and counter clockwise directional phases of the table motor for a pair of pinsetters.

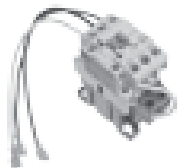
.5 AMP - SLOW BLOW FUSE - 47-862856-000

Used on the High Voltage PCB to protect the pin light circuitry.



EMERGENCY STOP CONTACTOR

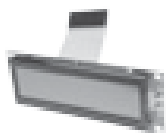
Used in conjunction with the emergency stop switches on the pinsetter, this will kill power to both pinsetters. This is a must have for your spare parts inventory for the GSX pinsetter.



47-142712-000

LCD NEX GEN PACKAGE

Direct replacement for the LCD display of the Nex Gen box. Includes wiring harness.



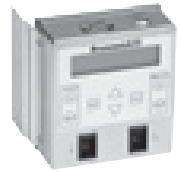
47-862100-000

TECH TIP

If you are unable to scroll through the different modes on the keypad of the Nex Gen box, check the reset button on the Framework ball rack. The reset button may be stuck in the "pushed in" position and needs to reset to the normal position.

ADVANCED PERFORMANCE NEX GEN REAR DISPLAY PACKAGE

Very useful upgrade for customers to allow all functions of the Nex Gen box to be performed from the rear of the pinsetter. Mounts to the elevator of the pinsetter, mounting hardware included. Perfect for centers where the soffit wall interferes with direct access to the Nex Gen Box mounted at the front of the pinsetter.

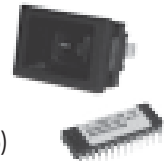


Advanced Performance

47-861048-402

11-616034-000 - Replacement Toggle Switch

47-862877-402 - Nex Gen Firmware (4.95.26)



ADVANCED PERFORMANCE REAR DISPLAY PACKAGE FOR GS CONSOLIDATED ELECTRONICS PINSETTERS

This was designed to allow the functions of the consolidated box to be located at the rear of the pinsetter. Comes complete with all mounting hardware and rear display for easy mounting to the elevator.



Advanced Performance

47-861046-000

EMERGENCY STOP UPGRADE KIT

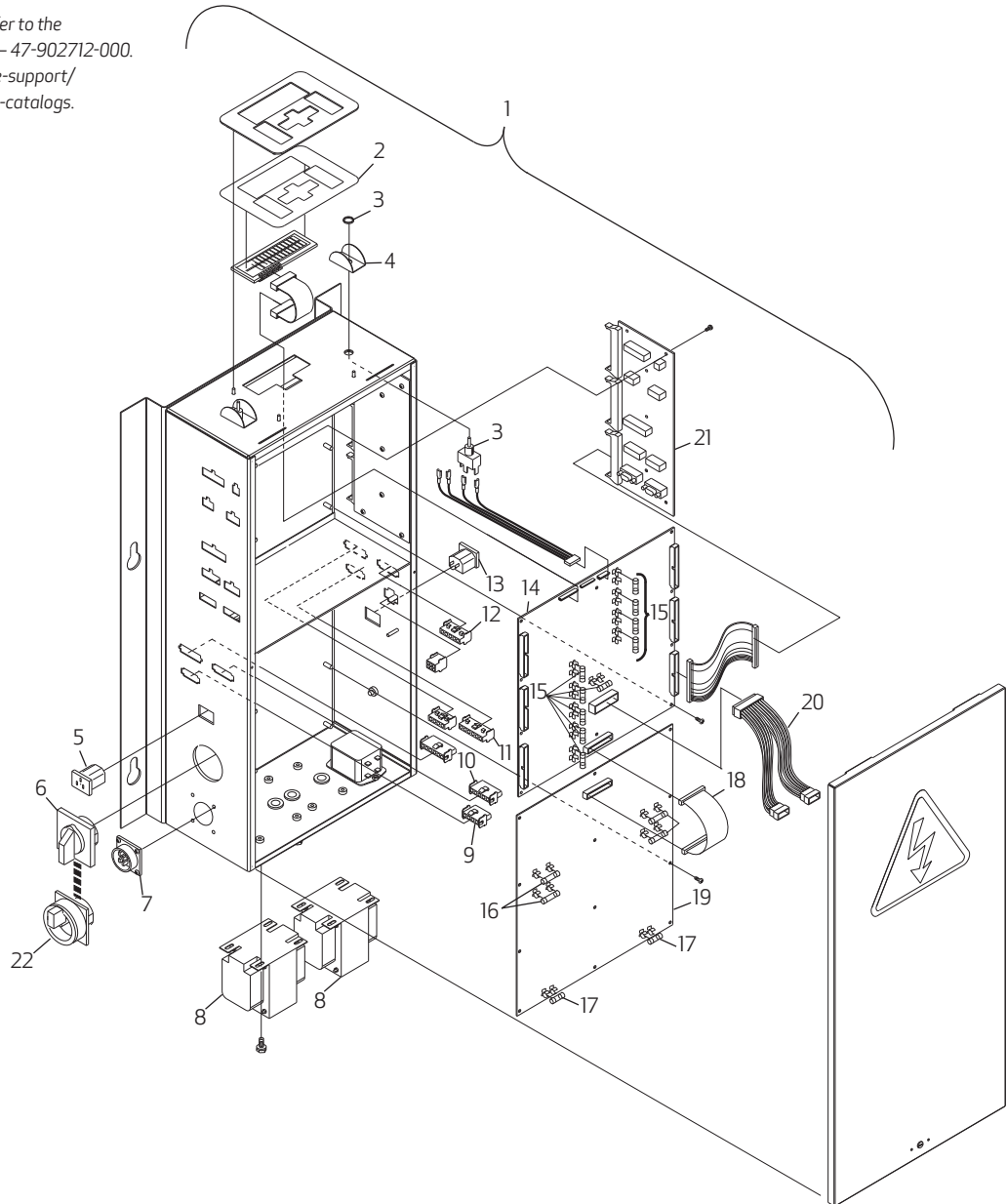
Safety is the number one priority while working on or around pinsetters. This kit will add emergency stop switches and motor contactor functions to older GSX pinsetters.



- Includes complete instructions and all parts needed to upgrade one pair of pinsetters

47-862867-000

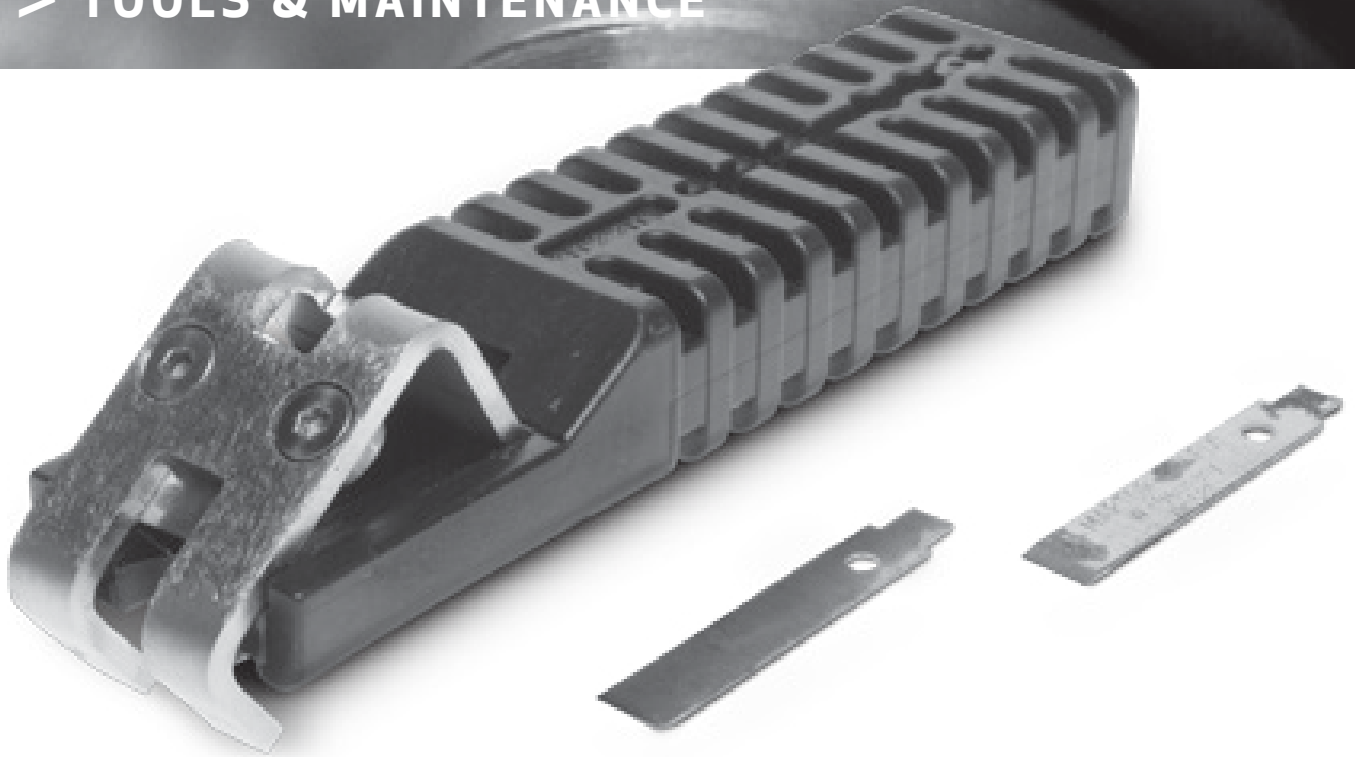
For complete schematics please refer to the GS Pinsetter Service Parts Catalog - 47-902712-000. Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	47-862866-403	Nex Gen Controller Assembly	9	47-142657-000	LH Harness Deck Power Motor Assmby	16	47-862855-000	Fuse 8A 250V, Fast Blow (Pkg of 5)
2	47-862857-000	Keyboard Membrane	10	47-142661-000	LH Harness Sweep Motor Power Assembly	17	47-862856-000	Fuse .5A, 250V, Slow Blow (Pkg of 5)
3	11-615511-000	ON/OFF Toggle Switch w/Nut	11	47-142657-010	RH Harness Deck Power Motor Assmby	18	47-142700-000	CPU to High Voltage Logic Cable Assembly 14"
4	47-142594-000	Switch Guard	12	47-142661-010	RH Harness Sweep Motor Power Assembly	19	47-862859-000	High Voltage PCB Nex Gen Controller
5	47-142664-000	LH Pin Light Power Cable	13	47-142664-010	RH Pin Light Power Cable	20	47-142693-000	Transformer to CPU Cable
6	47-142660-000	Black Power Switch/Cable (single transformer Nex Gen)	14	47-142736-403	CPU PCB Nex Gen Controller	21	47-862863-000	I/O PCB Assembly
7	47-142663-000	AC Power In Cable Assembly	15	47-862854-000	Fuse 3.15A, 250V (Pkg of 5)	22	11-615048-000	Lockout Power Switch - Red
8	47-142659-000	Harness Transformer Assembly						
8	47-142692-000	Transformer/Harness - Double (Dual Transformer Nex Gen)						

GS > TOOLS & MAINTENANCE



POLYCORD ROUND BELT TRIM TOOL

Makes the trimming process painless. Simply wrap the tool around the weld bead, rotate the tool and cut the old bead away.

47-860009-000

47-860009-001 – Replacement Blades – Pkg of 2

METRIC TOOL KIT

All the metric tools needed to maintain the GS pinsetter.

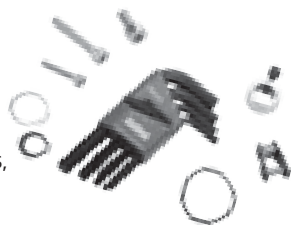
47-273865-009



METRIC HARDWARE KIT

Includes everything needed to service a GS pinsetter. Includes 1,316 pieces of 126 commonly used hardware items: Chain Links, Hex Head Cap Screws, Cotter Pins, Socket Head Cap Screws, Hex Nuts, Self Locking Nuts, Lock Washers, Internal and External Retaining Rings, Roll Pins, Speed Nuts, Flat Washers, Keys, and Allen Wrench set.

47-860002-000



GAUGE BLOCK

Perform GS adjustments with this easy to use all-in-one tool. Use for pin detector, setting table lowest position, setting table highest position, transport band tension spring, pin count switch, shovel guide, distributor guide wedge to elevator adjustments and more.

47-900012-000



SPUD WRENCH

This tool combines 13mm and 17mm twelve point sockets in one tool. Use one tool for GS pinsetter maintenance.

47-900011-000



ELEVATOR CHAIN REPAIR KIT

Repairs stretched chains which cause elevator jams. Kit contains tool and master link with pin.

- 47-013871-004 Master link with pin only
- 47-013872-004 Elevator chain break tool only

47-013873-004



GS PINSETTER TOUCH-UP PAINT

Lacquer based paint which comes with a "fan" type nozzle for better coverage.

47-860021-000 – 12 oz (Grey)



BELT WELD KITS

This kit contains all the items needed to repair a poly cord. Kit contains belt welding iron, belt welding clamp, and belt cutter. Also available separately:

- 47-094208-004 Belt Welding Iron Only 220v
- 47-094211-004 Iron Only 110v
- 47-093876-004 Belt Cutter
- 47-862770-000 Belt Welding Clamp

47-096295-004 – OEM Replacement Tip for 110 and 220 volt Teflon® Coated

47-093877-004 – 220 volt kit

47-094206-004 – 110 volt kit (Shown)



GS ELECTRICAL TOOL KIT

This kit contains all the special tools required to remove and replace all the cable terminals associated with the GSX-X pinsetter. Includes: Molex® extractor, Molex Crimper, Miller Cutter/Stripper, Round Extractor, Digital Multi-meter, Molex Terminals, Femail Mini Fit Terminals, Pin Terminals, and other extraction tools.

47-862804-000



CABLE TERMINAL TOOLS

Required tools for repairing GS pinsetter cable connectors.

57-900102-000 – Molex round extractor

57-900103-000 – Molex Crimper

57-900108-000 – Miller Cutter/Stripper



BALLAST

For 230 volt Pinlight.

47-226294-004 – OEM Replacement



TERMINAL-37 PIN ON SETTING TABLE

11-615101-000 – Male



BELT WELDING INSTALLATION TOOL

Makes it easy to properly tension belts while in place on the pinsetter. Instructions included.

47-860001-000



GS PREVENTATIVE MAINTENANCE WALL CHART

Reusable 24" x 36" chart shows Brunswick's recommended preventative maintenance schedule for daily, weekly, monthly, quarterly, bi-yearly, and yearly items.

- Allows for recording of progress using water-soluble markers.
- Marks wipe off easily using a damp cloth.

47-902401-000



NYOGEL 788 LUBRICANT

Prevent damage to plastic parts by using the correct type of lubricants.

- Used to lubricate pin station pivot points in the distributor area or anywhere plastic part pivot points need lubrication
- Also used in old style pin ball wizard motors with plastic internal gearing

11-676308-000



NON-LITHIUM GREASE - 14.5 OZ.

Recommended grease for GS pinsetters.

- Lubricate parts appropriately
- For use on non-metal parts

11-676361-000



CHAIN LUBE

Keep chains lubricated and rust free

G34-205116-000





A·2

PINSETTER PARTS

A.2 > PINSETTER PARTS



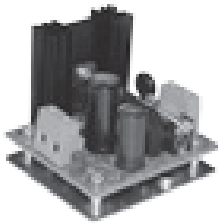
A•2 > FEATURED PRODUCTS



OEM PLUS™ DECK CHUTES

See page 64 for complete line.

12-200900-500 (shown)



**Advanced
Performance**



ADVANCED PERFORMANCE MAGNETIC CLUTCH VOLTAGE REGULATOR

See page 90 for additional information.
Replacement Fuses (2/pkg) - 12-862124-000

12-862030-000



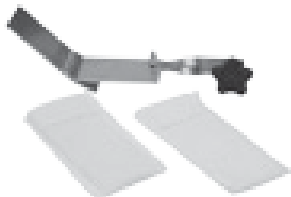
**Advanced
Performance**



ADVANCED PERFORMANCE ADJUSTABLE "Y" SWITCH

See page 88 for additional information.

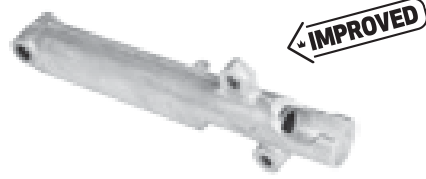
12-862033-000



BALL WHEEL WIPER KIT WITH CLOTHS

See page 78 for additional information.
Cloths only (2/pkg) - 12-862054-000.

12-862055-000



IMPROVED

TRIP CYLINDER WITH BEARINGS INSTALLED

See page 75 for additional information.

12-252335-091



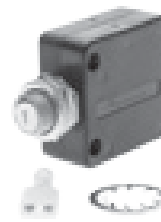
**Advanced
Performance**



ADVANCED PERFORMANCE SMOOTH DROP RAKE SHOCK

See page 72 for additional information.

12-252343-000

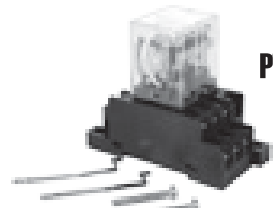


**Advanced
Performance**

ADVANCED PERFORMANCE 1A RESETTABLE CIRCUIT BREAKER

See page 90 for additional information.

12-862947-000



**Advanced
Performance**



ADVANCED PERFORMANCE PLUG-IN MOTOR START RELAY

See page 92 for additional information.

12-862203-000 - Complete



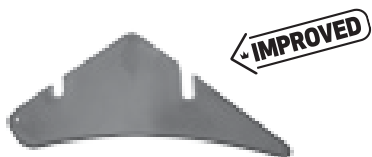
Advanced Performance



**ADVANCED PERFORMANCE
ADJUSTABLE INTERLOCK LINK**

See page 52 for additional information.

12-862034-000



IMPROVED

UNIVERSAL BALL WHEEL GUARD

See page 78 for additional information.

90-400840-600

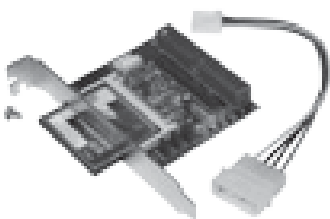


Advanced Performance

**ADVANCED PERFORMANCE
3A RESETTABLE CIRCUIT BREAKER**

See page 90 for additional information.

12-862022-000



FRAMEWORX CONSOLE FLASH DRIVE KIT

See page 110 for additional information.

57-863397-400



BALL DETECT ASSEMBLY - SINGLE

See page 110 for additional information.

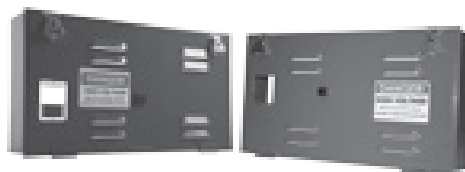
57-863670-000



**CORK/RUBBER BALL WHEEL
TRACTION MATERIAL**

See page 80 for additional information.

12-860336-000



ELECTRICAL BOX COVERS

See page 90 for additional information.

12-862263-000 – Factory A/A•2-U.S.

12-862948-000 – A•2 Japanese



**RESET SWITCH & BRACKET ASSEMBLY
FOR FRAMWORX BALL RACK**

See page 106 for additional information.

53-861127-000 – Dark Gray

53-861127-100 – Silver

A·2 > MECHANIC DESIGNED PRODUCTS

Recent Parts Designed by Mechanics for Mechanics

Through the years many Brunswick parts have been designed or influenced by mechanics. The influences of mechanics can still be found in many of our parts today. The following is just a sampling of some recent parts designed by mechanics.



NEW

BRUCE MCMARTIN DESIGN

ELECTRONIC FIVE PIN INDEXING KIT

See page 50 for additional information.

12-862028-000



NEW

BRUCE MCMARTIN DESIGN

ADJUSTABLE INTERLOCK LINK

See page 52 for additional information.

12-862034-000



Advanced Performance

BRUCE MCMARTIN DESIGN

ADVANCED PERFORMANCE TURRET FRAME REINFORCEMENT

See page 56 for additional information.

12-862009-000



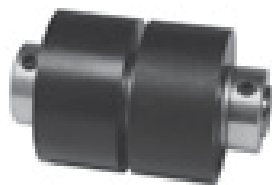
Advanced Performance

BRUCE MCMARTIN DESIGN

ADVANCED PERFORMANCE ANTI-INVERSION BLOCK

See page 72 for additional information.

12-862012-000



Advanced Performance

KEVIN HIZAR DESIGN

ADVANCED PERFORMANCE SPINNING BALL ELIMINATOR II (SBE II)

See page 78 for additional information.

12-862250-000 – Roller Assembly Only



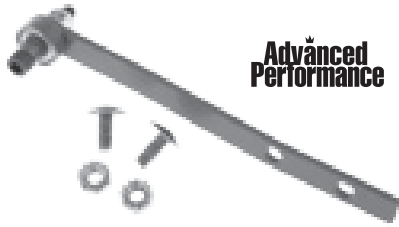
Advanced Performance

KEVIN HIZAR DESIGN

ADVANCED PERFORMANCE SBE II WITH ARM

See page 78 for additional information.

12-862262-000 – SBE II with Arm



Advanced Performance

BRUCE MCMARTIN DESIGN

ADVANCED PERFORMANCE CLUTCH LEVER REINFORCEMENT SUPPORT

See page 38 for additional information.

12-862008-000



Advanced Performance

BRUCE MCMARTIN DESIGN

ADVANCED PERFORMANCE CAM FOLLOWER LIVE ROLLER

See page 58 for additional information.

12-862252-000



Advanced Performance

BRUCE MCMARTIN DESIGN

ADVANCED PERFORMANCE MOVING DECK CAM FOLLOWER SUPPORT

See page 58 for additional information.

12-862010-000



NEW

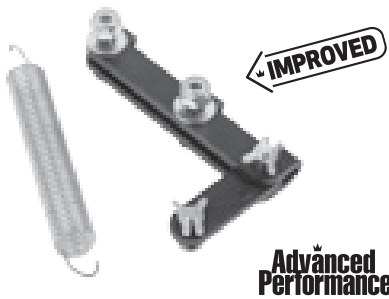
Advanced Performance

JOHN COLE DESIGN

ADVANCED PERFORMANCE PIT CUSHION LINKAGE & ALIGNMENT KIT

See page 66 for additional information.

12-862026-000



IMPROVED

Advanced Performance

KEVIN HIZAR DESIGN

ADVANCED PERFORMANCE HIZAR GATE

See page 86 for additional information.

12-862251-000



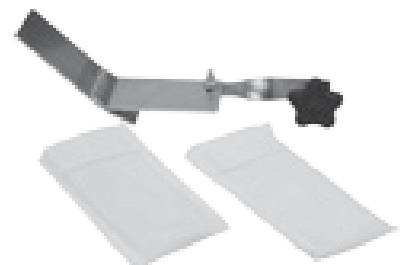
NEW

KENNEY ADAMS DESIGN

CABLE SHAFT BEARING REMOVAL TOOL

See page 98 for additional information.

12-700135-000



BRUCE MCMARTIN DESIGN

BALL WHEEL WIPER KIT WITH CLOTHS

See page 78 for additional information.

12-862055-000

A·2 > GEAR BOX ASSEMBLY



CLUTCH YOKE AND BEARING ASSEMBLY

Ensure positive 360° cycling. Comes complete with oilite bushings and special grooved steel pins that will not come out and destroy clutch shoes.

12-100370-000

GEAR BOX OIL PAN

3" wider and 4" longer than the original.

- Includes removable collection jar
- Helps keep oil streaks off of the pit curtain

12-100316-000



CLUTCH LEVER ASSEMBLY

Avoid unnecessary recycles caused by assemblies with oilite bearings.

- Precision machined lever provides the press fit necessary to prevent shaft movement
- To order individual parts:
Bearing - 11-435501-000
Pin - 12-100487-000
Lock Nut - 11-170004-001

12-100486-000



ADVANCED PERFORMANCE CLUTCH LEVER SUPPORT KIT

Do away with unnecessary recycles caused by a clutch that does not disengage properly.

- Eliminates excessive clutch face wear and vibration that causes wear on other parts
- Drastically reduces clutch adjustments and extends the life of clutch shoes
- Eliminates the need for oversized clutch shoes

12-862138-000



Advanced Performance

ADVANCED PERFORMANCE CLUTCH LEVER REINFORCEMENT SUPPORT

Prevent or repair clutch lever failure with this easy-to-install support kit.

- Includes heavy duty bearing with a full 1/4-20 hex socket head cap screw for maximum durability
- Installs on Clutch Lever Assembly 12-100486-000
- Designed by Mechanic Bruce McMartin

12-862008-000



Advanced Performance

CLUTCH SHOE

Extend the working life of worn clutch drive discs with correctly sized shoes.

- Be sure to replace in pairs
- Fine grain steel precisely ground to exact dimensions

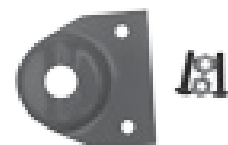
12-100146-000



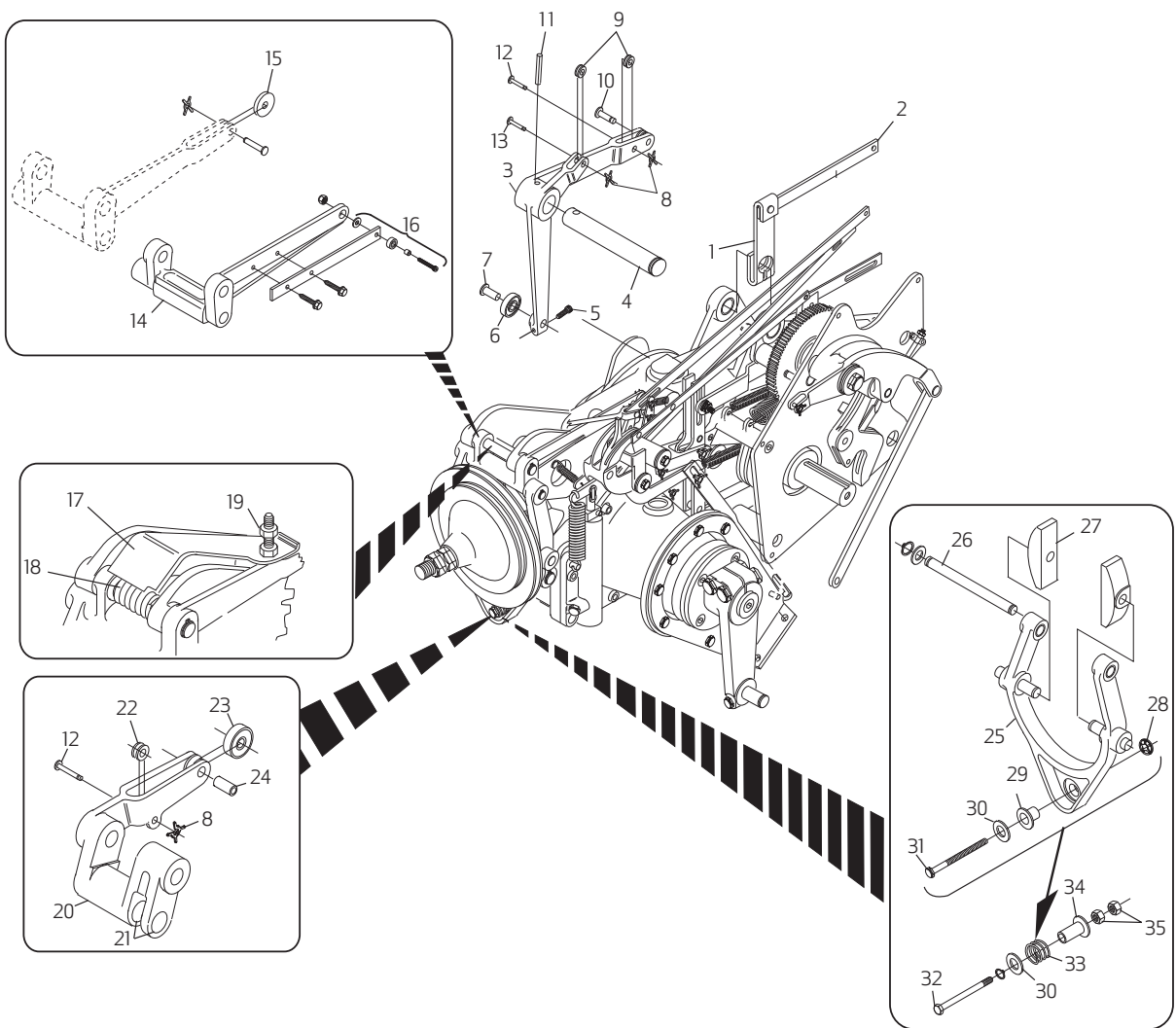
YOKE REPAIR KIT

Restore clutch adjustability and extend yoke life with this money-saving repair kit. Kit comes complete with fasteners and is quick and easy to install.

12-860672-000



For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	12-100392-000	Lever	13	12-100166-024	X-Washer Pin	26	12-100168-003	Pin
2	12-100064-000	Bar	14	12-100486-000	Clutch Lever Assembly	27	12-100146-000	Clutch Shoe
3	12-100242-000	Deck Hook Cam Lever Assembly	15	11-433000-000	Ball Bearing	28	11-532022-000	Grip Ring
3	12-100178-000	Deck Hook Cam Lever	16	12-862008-000	AP - Clutch Lever Support	29	12-102179-000	Bushing
4	12-100072-000	Shaft	17	12-862138-000	AP - Clutch Lever Support Kit	30	12-100170-012	Washer 1"
5	11-005092-001	Hx Hd Sckt Cap Screw 10-24x3/4"	18	12-102178-000	Spring	30	11-190018-001	Flat Washer 1/2"
6	11-435001-000	Ball Bearing	19	11-010139-001	Hx Hd Slotted Screw 1/4-20x1-1/4"	31	12-102180-000	Special Hx Hd Sckt Cap Screw 1/4-28x3"
7	12-100069-000	Stud	20	12-100250-000	Clutch Cam Lever Assembly	31	12-100257-000	Hx Hd Sckt Cap Screw 2-1/2"
8	11-230000-001	X-Washer 3/32	21	11-420019-000	Sleeve Oilite Bearing	33	12-100091-000	Compression Spring
9	10-376010-000	Spring Roller	22	10-376010-000	Spring Roller	34	12-100092-000	Spring Guide
10	12-100166-027	Pin .2495x.820	23	11-435001-000	Ball Bearing	35	11-125201-001	Hex Jam Nut 1/4-28
11	11-360568-000	Spirol Pin 1/4x1-1/2"	24	12-100074-000	Bearing Shaft			
12	12-100166-022	X-Washer Pin	25	12-100370-000	Yoke & Bearing Assembly			

A•2 > GEAR BOX ASSEMBLY

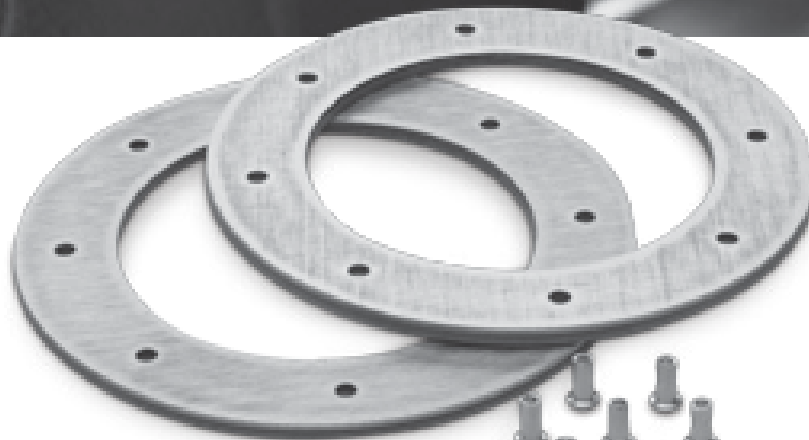
ADVANCED PERFORMANCE HEAVY DUTY CLUTCH FACING

Offering 3 to 5 times the life of conventional facings, this 3-layer facing increases the life of Gear Box clutch parts.

- Highly durable Kevlar® top layer
- Under layers are designed to indicate if replacement is needed before an expensive clutch drive disk is ruined

12-862864-603 – Full circle (Shown large)

12-862864-605 – Semi-circle



Advanced Performance

CLUTCH FACING REPLACEMENT KITS

Brunswick's specially designed clutch facings are custom formulated.

- Highest grade, non-asbestos friction material designed to resist wear and provide the longest life in the industry
- 11-301001-001: Rivet, 3/16" - 3/8", for series number 7,598 and below
- 11-301002-001: Rivet, 3/16" - 1/2", for series number 7,599 and up
- Use the exclusive clutch facing rivet set tool (12-700111-000) for convenience and perfect installation every time (pg. 99)

12-862864-004 – Series 7,598 and below

12-862864-005 – Series 7,599 and up

12-862864-003 – Series 24,001 and up



CLUTCH DRIVE DISC ASSEMBLY

Eliminate vibration and extend worm shaft spline life with this precision balanced clutch drive disc.

- Universal spline fits Model A, A•2, and Japanese pinsetters
- Maximum thickness at friction surfaces for long life

12-860613-000



WORM SHAFT OIL LEAK REPAIR KIT

Solve oil-leaks with replacement seals and gaskets to fit every machine.

Includes worm shaft assembly 12-860172-000 and complete instructions.

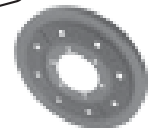
12-860603-000



CLUTCH PULLEY ASSEMBLY

12-860630-000

IMPROVED



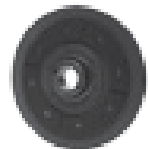
COMPLETE CLUTCH PULLEY AND BEARING ASSEMBLY

Interchangeable with the original equipment clutch pulley.

Bearing bushing design ensures a minimum 1,000 lbs. of axial pulling force eliminating slippage

12-860717-000

IMPROVED



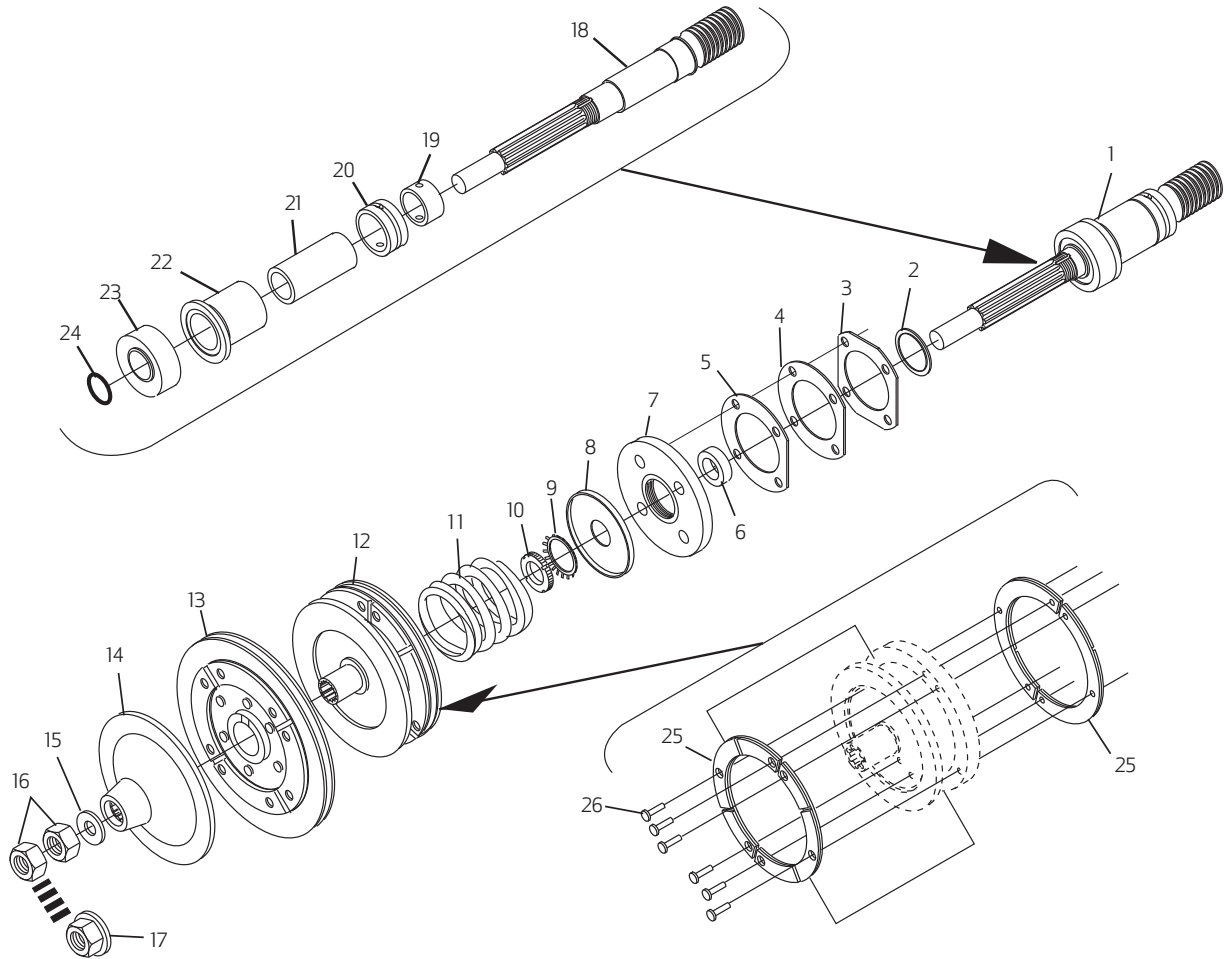
CLUTCH PULLEY BEARING ASSEMBLY

Complete assembly fits Brunswick's Clutch Pulleys (12-860630-000 and 12-860717-000).

12-860716-000



For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	12-860172-000	60:1 Worm Shaft Assembly	11	12-100090-000	Compression Spring	20	11-450100-000	Ball Ring & Roller Bearing
1	12-860722-000	27:1 Worm Shaft (1Pkg)	12	12-860613-000	Clutch Drive Disc Assembly	21	12-100185-002	Spacer
2	11-625501-000	O-Ring	13	12-860717-000	Clutch Pulley Assembly	22	12-100066-000	Spacer
3	12-100391-000	Gear Box Housing Gasket	13	12-860716-000	Clutch Bearing Assembly	23	11-432002-000	Ball Bearing
4	12-100381-002	Shim .005"	13	12-860630-000	Clutch Pulley Assembly	24	11-625501-000	O-Ring
5	12-100381-003	Shim .010"	14	12-860626-000	Clutch Drive Disc	25	12-862864-605	AP - Clutch Face Disc
6	12-100185-003	Spacer	14	11-350456-001	Drive Pin 1/4 x 7/8"	25	12-862864-005	Clutch Face Kit
7	12-100477-000	Bearing Retainer	15	10-191562-000	Washer 25/32	25	12-862864-004	Clutch Face Kit
7	11-625000-000	Oil Seal	16	11-125115-001	Hex Nut 3/4-16	26	11-301002-001	Rivet 3/16-1/2"
8	12-100058-000	Spring Disc	17	11-131516-000	Flange Nut 3/4-16	26	11-301001-001	Rivet 3/16-3/8"
9	11-231005-001	AFBMA Standard Lockwasher	18	12-860171-000	60:1 Worm Shaft			
10	11-160005-001	AFBMA Standard Locknut	19	11-450200-000	Ball Bearing			

A•2 > GEAR BOX ASSEMBLY

PIN ASSEMBLY

Keep your moving deck cam follower in top shape with this OEM cam follower pin. Includes push in ball to allow for proper lubrication to the moving deck cam follower bearing.

12-100306-000



WORM WHEEL 60:1

Designed for maximum output torque.

- Constructed of tough chill-casted Bronze alloy for exceptional durability and high-tensile strength
- Worm wheel teeth, keyway and shaft are precision machined to extremely close tolerances and checked for perfect fit
- For machines equipped with the 27:1 Worm Gears, order 12-100902-002

12-100174-002



60:1 WORM SHAFT ASSEMBLY

Contains all parts required for a full worm shaft replacement job including the oil seal kit 12-860603-000, for all serial number machines series 62,100 and up. Factory-assembled unit saves installation time.

12-860172-000



27:1 WORM SHAFT ASSEMBLY

Factory assembled

12-860722-000

RAKE CRANK HOUSING KIT

Eliminates oil leaks and improper rake action caused by a faulty rake crank housing.

- Precision high-strength die cast aluminum
- Kit reduces oil requirements from 1-1/5 quarts in the original-style sandcast housings to just 24 ounces
- Includes support plate, bearing, retainers, spacers and shimming gaskets to properly align the housing with the worm gear
- Pin for Rake Crank Housing Kit 12-100169-008

12-860633-000

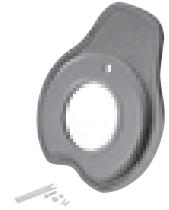


RAKE LIFT CAM CONVERSION KIT

Eliminate 90° over-travel on the Model A pinsetter. Upgrade to the A•2 style rake lift cam and improve automatic scoring while speeding up bowling.

- Cam surfaces are precision machined to ensure proper lifting of the rake
- Surfaces are hardened to ensure compatibility with cam follower and long part life
- To order separate parts:
Link only – 12-102033-000
Pin only – 12-100166-005

12-860578-000



RAKE CRANK HOUSING ASSEMBLY

Fully assembled unit installs quickly to minimize downtime. Includes deck cable, tube assembly, support plate, crank shaft, worm wheel and spur gear.

12-862863-003



CABLE AND TUBE ASSEMBLY

Don't endanger your pinsetter because of a worn-out control cable and tube assembly.

12-100281-000



1:1 REBUILD KIT

Eliminates oil leaks and worn bearings in a 1:1 that can lead to erratic deck and rake movement.

- Includes all hardware for rebuilding, repairing and installing the 1:1 assembly on any model A or A•2 pinsetter

12-862859-000



1:1 GEAR BOX COVER ASSEMBLY

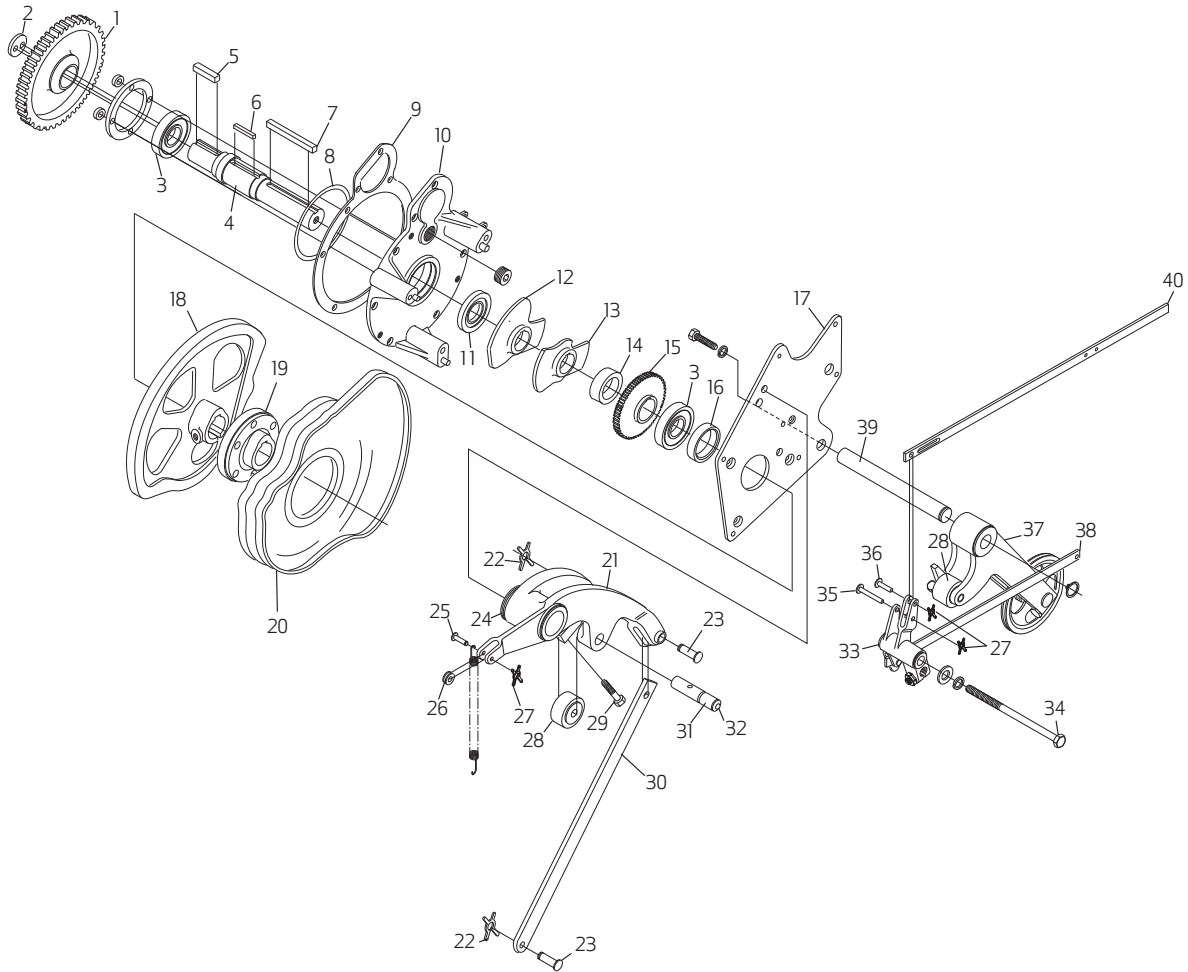
Protect your gear box and detector with this industry standard cover assembly.

- Includes 1:1 cover, 1:1 gear, 1:1 shaft, detector mounting plate, moving deck and scissor cam, extended cycle cams, detector drive gear and a complete set of hardware

12-860065-000



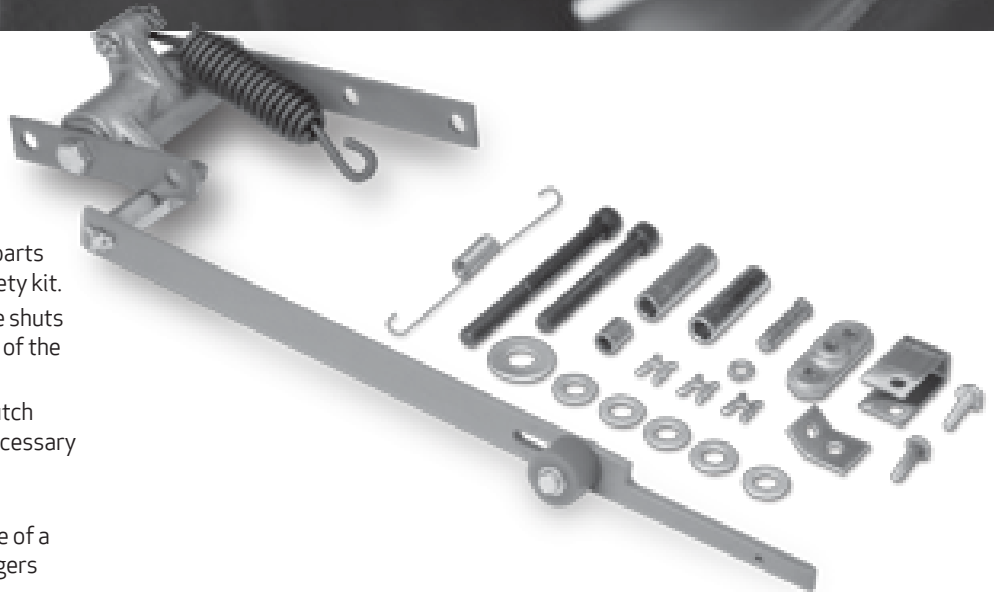
For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	12-100140-000	Spur Gear	18	12-102794-000	Scissor/Moving Deck Cam (equip. with Scotch Yoke)	31	12-100305-000	Pin Assembly
2	12-100223-000	Washer	18	12-100828-002	Scissor/Moving Deck Cam (equip. with Lowering Link)	32	11-280002-000	Grease Fitting Drive
3	11-430011-000	Ball Bearing	19	12-100045-000	Rake Cam Hub	33	12-100236-000	Starter Bellcrank Assembly
4	12-100130-000	Shaft	20	12-860578-000	Rake Cam Conversion Kit	33	12-102236-000	Starter Bellcrank Assembly
5	12-100187-007	Square Key	21	12-100365-000	Scissor	33	11-421011-000	Bearing .502 ID x .627 OD
6	12-100164-000	Rectangular Key	21	11-420038-000	Bearing .3135 ID x .4395 OD	33	11-421092-000	Flanged Bronze Bearing
7	12-100187-008	Square Key	22	11-230002-001	"X" Washer 5/32	34	12-100441-000	Special Hex Head Bolt
8	11-625530-000	O-Ring	23	12-100166-021	X-Washer Pin	35	12-100166-019	X-Washer Pin
9	12-100339-000	L.H. Gear Box Cover Gasket	24	11-421109-000	Flanged Oilite Bearing	35	12-150158-012	X-Washer Pin
10	12-860628-002	Gear Box Cover Assembly	25	12-100166-006	X-Washer Pin 7/8 x .187	36	12-100166-005	X-Washer Pin
11	12-100088-000	Oil Seal	26	10-376010-000	Spring Roller	37	12-100313-000	Moving Deck Cam Lever
12	12-100122-000	Extended Cycle Cam	27	11-230000-001	X-Washer 3/32	37	11-421109-000	Flanged Oilite Bearing
13	12-100123-000	Cam	28	11-450301-000	Ball Bearing	37	12-100363-000	Link
14	12-102123-000	Spacer	29	11-001068-001	Hx Hd Cap Screw 10-24 x 1-1/2	38	12-102363-000	Link
15	12-100068-000	Drive Gear	30	12-100219-000	Cam Lever Link	39	12-100104-000	Shaft
16	12-100185-004	Spacer				40	12-100040-004	Link
17	12-100207-000	Mounting Plate						

A•2 > GEAR BOX ASSEMBLY



TURRET AND DECK JAM KIT

Avoid breaking expensive pinsetter parts by installing this machine-saving safety kit.

- When a deck jam occurs, the machine shuts off instantaneously with no coasting of the gear box
- Immediate disengagement of the clutch prevents pressure build-up and unnecessary wear
- Reduces expensive downtime and maintenance by eliminating breakage of a 1:1 cover plate, shaft and spotting fingers

12-862122-000

LINK

Replace worn cycle solenoid links for better triggering. Package of 5.



12-102363-000 – for Model A•2 pinsetter

12-100363-000 – for Model A pinsetter

STARTER BELLCRANK ASSEMBLY

Replace worn starter bellcranks with OEM cast part to eliminate triggering problems.



12-102236-000 – for Model A•2 pinsetter

12-100236-000 – for Model A pinsetter

ADVANCED PERFORMANCE CLUTCH RESET LEVER ASSEMBLY MODEL A

Prevent unnecessary pinsetter recycling with this high strength assembly.

- Designed for Model A pinsetters
- To order individual parts:
Stud Bearing – 11-436001-000
Stud Bearing Radial – 11-437000-000
Washer – 12-100170-019
Lockwasher – 11-195010-001
Hex Nut – 11-125005-001
Spacer – 12-100170-021
Spring Pin – 12-100115-003
X - Washer Pin – 12-100166-019
X - Washer – 11-230000-001
Roller – 12-100030-002



Advanced Performance

12-100176-002

LEVER ASSEMBLY

Having cycling problems? Check for loose rivets or wear and replace today.



12-100465-000

OUT-OF-RANGE STOP LINK

Prevent a bent link from interfering with proper out-of-range detection.

- Link is flat and straight to prevent binding and interference with nearby parts
- Spring hook is securely riveted to prevent it from coming off



12-100337-000

ADVANCED PERFORMANCE CLUTCH RESET LEVER ASSEMBLY MODEL A•2

Avoid pinsetter recycling without full yoke design.

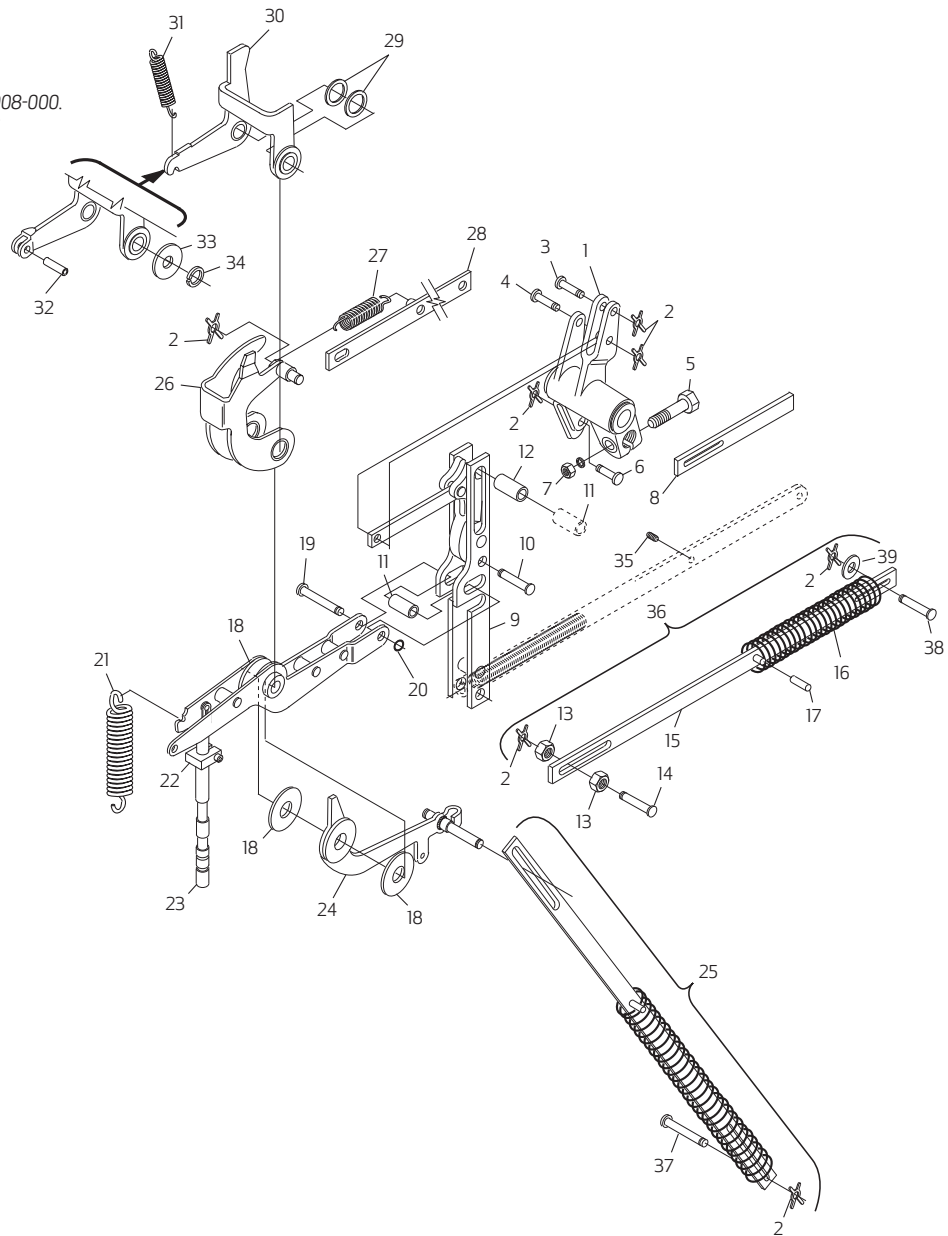
- High-strength assembly will not twist which can cause improper clutch actuation
- Designed for Model A•2 pinsetters
- To order individual parts:
Bearing – 11-434000-000
Stud – 12-102443-000
Washer – 11-191532-000
Pin – 12-100166-019
X - Washer – 11-230000-001
Roller – 12-100030-002
Keps Nut – 11-176000-001
Rivet Pin – 12-100493-002



Advanced Performance

12-102176-000

For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	12-100236-000	Starter Bellcrank Assembly, A	13	11-125200-001	Hex Jam Nut 1/4-20	26	11-420059-000	Bearing .5025 ID x .629 OD
1	12-102236-000	Starter Bellcrank Assembly, A·2	14	12-100166-025	X-Washer Pin	27	12-100105-000	Tension Spring (Pkg. Of 2)
2	11-230000-001	X-Washer 3/32	15	12-100903-000	Pin Detector Link	28	12-100337-000	Out-of-Range Link Assembly
3	11-345312-000	Roll Pin 3/16 x 1"	16	11-345310-001	Roll Pin 3/16 x 7/8"	29	12-100338-002	Spacer
3	12-100166-005	X-Washer Pin	17	12-100905-000	Spring	29	12-100338-003	Spacer
4	12-150158-012	X-Washer Pin	18	12-100298-000	Spacer	30	12-100495-000	Clutch Actuator Lever
4	12-100166-019	X-Washer Pin	19	10-229453-000	O-Ring Pin	31	12-100296-000	Tension Spring
5	11-001265-001	Hx Hd Cap Screw 5/16-18 x 1-1/8"	20	11-625538-000	O-Ring	32	11-345302-001	Roll Pin 3/16 x 3/8"
6	12-100166-004	X-Washer Pin	21	12-100043-000	Tension Spring	33	12-100170-012	Washer
7	11-125009-001	Hex Nut 5/16-18	21	12-102043-000	Spring	34	11-195014-001	Lockwasher 1/4
8	12-100363-000	Link - Model A pinsetter	22	12-100050-000	Stop Collar	35	11-345304-000	Roll Pin 3/16 x 1/2"
8	12-102363-000	Link - Model A·2 pinsetter	23	12-100093-000	Plunger	36	12-862867-000	Pin Detector Link Assy.
9	12-100025-000	Clutch Actuator Link	24	12-100708-000	Clutch Release Lever Assembly	37	12-100166-007	Pin
10	12-100166-013	Pin	24	11-421011-000	Bearing .502 ID x .627 OD	38	12-100166-008	Pin
11	12-100030-002	Roller	25	12-862867-000	Clutch Release Lever Link Assy.	39	11-190006-001	Plain Washer
12	12-100030-005	Roller	26	12-100437-000	Out-of-Range Lever Assembly			

A•2 > GEAR BOX ASSEMBLY



GASKET

When removing any gear assemblies be sure to install new bolt gaskets on your mounting hardware to eliminate leaks.

12-100344-002

SCOTCH YOKE PLATE

Accurately machined to ensure smooth harmonic movement with the T-track (12-102815-000).

- High-strength steel plate won't break or bend, guaranteeing sure and steady deck lifting and lowering
- Upgrade kit for Scotch Yoke Bearing Stud 12-862073-000 includes one each of:
Spacer – 12-102753-000
Bearing Stud – 12-102754-000
Hex Head Bolt – 11-001384-001
Flathead Hex Soc. Screw – 11-007384-001
Lockwasher – 11-195016-001
Bearing-Cam Follower – 11-450101-000
Countersunk Washer – 10-193013-000
Spacer – 10-385529-000



12-102816-000

DECK LIFT HOOK

The deck lift hook controls the lowering and raising of your deck assembly.

- A worn deck lift hook can cause expensive damage to pinsetters if the hook slips off the lift pin, allowing the deck to come crashing down
- Make sure you replace worn hooks before this happens
- Order 11-360619-000 Spiral Pin when ordering your Deck Lift Hook



12-100832-000

R.H. GEAR BOX COVER GASKET

When rebuilding a 2:1 do not forget to install a new cover gasket to eliminate leaks.

12-100340-000



OIL SEAL

2:1 Clutch cam seal.

- When replacing a 2:1 assembly, always replace this seal for the clutch cam spacer
- Check clutch cam spacer part 12-100185-007 for groove worn in it by old seal. Replace if worn



11-625005-000

OIL SEAL - IMPROVED 1/2" WIDTH

2:1 Cover seal.

- Replace this seal when rebuilding your 2:1 assembly
- Reseal the 2:1 assembly and use these for complete sealing:
Oil Seal – 11-625005-000
R.H. Gear Box Cover Gasket – 12-100340-000
Copper Gasket – 12-100344-002



11-625003-000

DECK LOWERING LINK ASSEMBLY

Replaces old-style, forged deck lowering link.

- Used with Crank Pin – 12-100220-000
- Available replacement parts:
Bearing – 11-481030-000
U-Bolt – 12-100506-000
Ring – 12-100504-000



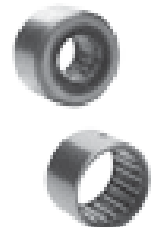
12-100503-000

ROLLER BEARING

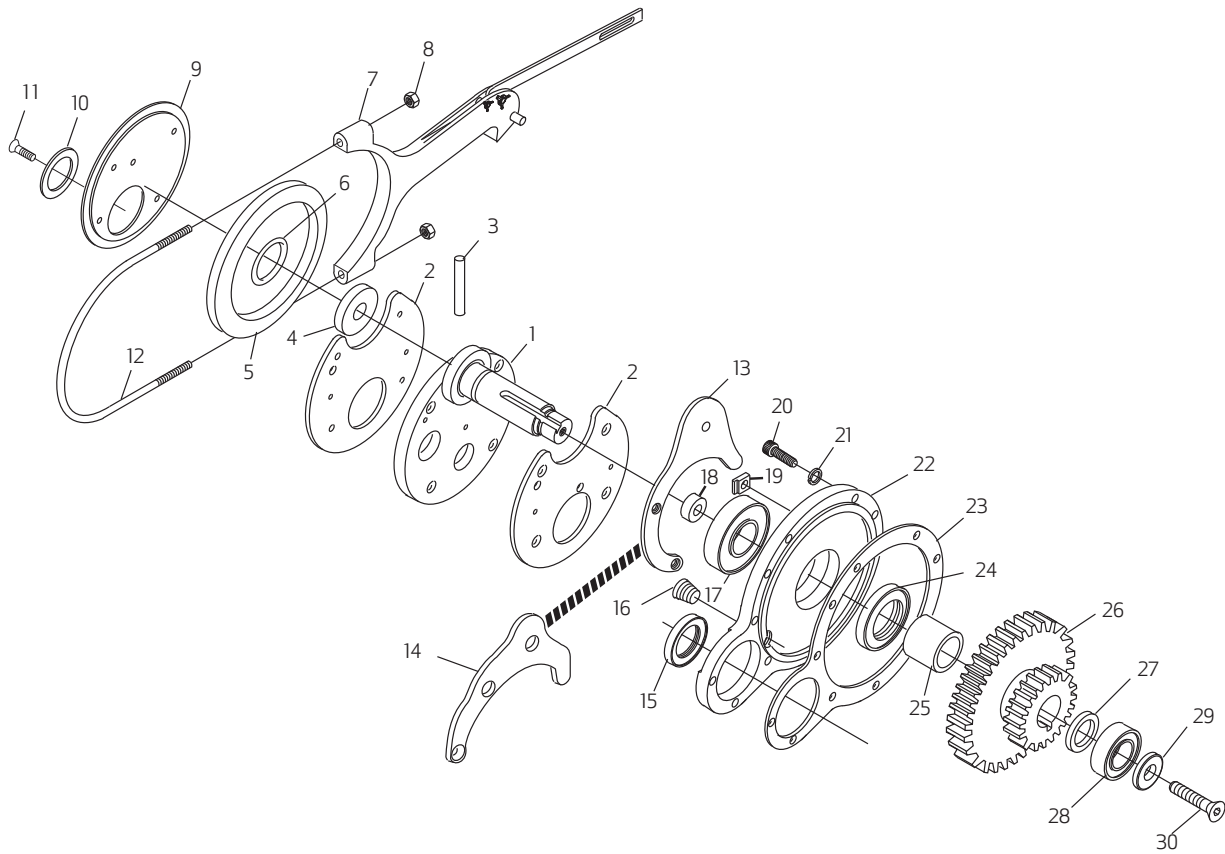
Don't let a bearing freeze up and scar a bearing stud. Keep properly maintained bearings on your pinsetter.

11-450101-000 – Scotch Yoke Bearing

11-481030-000 – Lowering Link Bearing



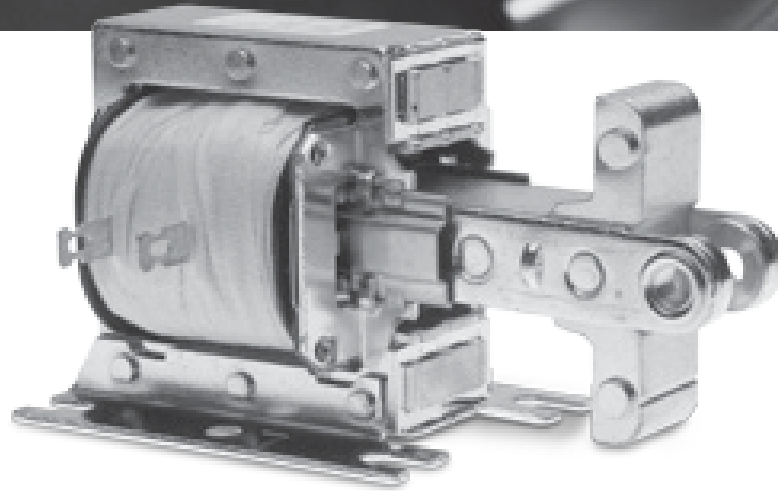
For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	12-862185-000	Deck Lift Crank	12	12-100282-000	Deck Hook U-Bolt	20	11-005263-001	HxHd Sckt Cap Screw 5/16-18x7/8"
2	12-100898-000	Cover	13	12-100387-000	Deck Lift Hook Cam (machines <90,000)	21	12-100344-002	Gasket
3	12-100457-000	Felt Wick	14	12-100831-000	Deck Lift Hook Cam (machines >90,000)	22	12-100177-000	Gear Box Cover
4	12-100458-000	Felt Pad	15	11-625001-000	Oil Seal	23	12-100340-000	R.H. Gear Box Cover Gasket
5	12-100283-000	Eccentric	16	11-625005-000	Oil Seal	24	11-625003-000	Oil Seal
6	12-100290-000	O-Ring	16	11-030004-001	Pipe Plug 1/2-14x.582max	25	12-100185-006	Spacer
7	12-100832-000	Deck Lift Hook	17	11-430017-000	Ball Bearing	26	12-100150-000	Gear
8	11-125203-001	Hex Jam Nut 5/16-24"	18	12-100896-000	Spacer	27	12-100185-005	Spacer
9	12-100830-000	Clamp Ring	19	12-100431-000	Retaining Bearing	28	11-430003-000	Ball Bearing
10	12-100185-009	Spacer				29	12-100065-002	Washer
11	11-007182-001	FIHd Sckt Cap Screw 1/4-20x3/4"				30	11-007344-001	FIHd Sckt Cap Screw 3/8-16x1"

A·2 > DETECTOR ASSEMBLY



SOLENOID

Keep your Model A pinsetters cycling properly. Weak or defective solenoids can lead to improper pinsetter triggering.

12-100291-000

ADVANCED PERFORMANCE SAND CAST DECK HOOK ASSEMBLY

This re-introduced, heavy-duty, and long lasting deck hook weighs more than twice as much as the standard OEM die cast.

- Hook only - 12-350803-600
- Hub only - 12-350804-600
- Bearing Assembly - 11-421107-000

12-350802-600



**Advanced
Performance**

DECK HOOK ASSEMBLY

Prevents the deck from dropping on the standing pins. Includes:

- AP - Hook - 12-350803-000
- Deck Hook Hub with bearings - 12-350804-000
- Hex Head Bolt - 11-001344-001
- Washer - 11-190014-001
- Nut - 11-170110-001

12-350802-000



MOUNTING PLATE

Precision flatness is critical to optimum performance of this part.

- This is the original Brunswick 1:1 mounting plate
- This piece is machined by toolmakers to exact dimensions for perfect mating with the 1:1 cover and detector assembly shafts

12-100207-000



HOOK SELECTOR

Heavy-duty hook selector.

- Easy-to-replace linkage pins
- Durable, long-lasting cam follower bearing
- Includes replaceable Bearing 11-436000-000

12-100410-000



DETECTOR ROD ASSEMBLY

Eliminate problems detecting strikes, standing pins, or out-of-range pins with a new Complete Detector Rod Assembly. A defective rod can cause binding and throw the rod out of time.

- To order components separately:
 - Replacement Rod - 12-100017-000
 - Spiral Pin - 11-360257-000 (Pkg of 20)
 - Stop Bracket Pins - 11-360258-001 (Pkg of 20)
 - Spring - 12-100167-000

TIP: Remember to check for worn deck pads before starting to adjust the detector.

12-100261-000



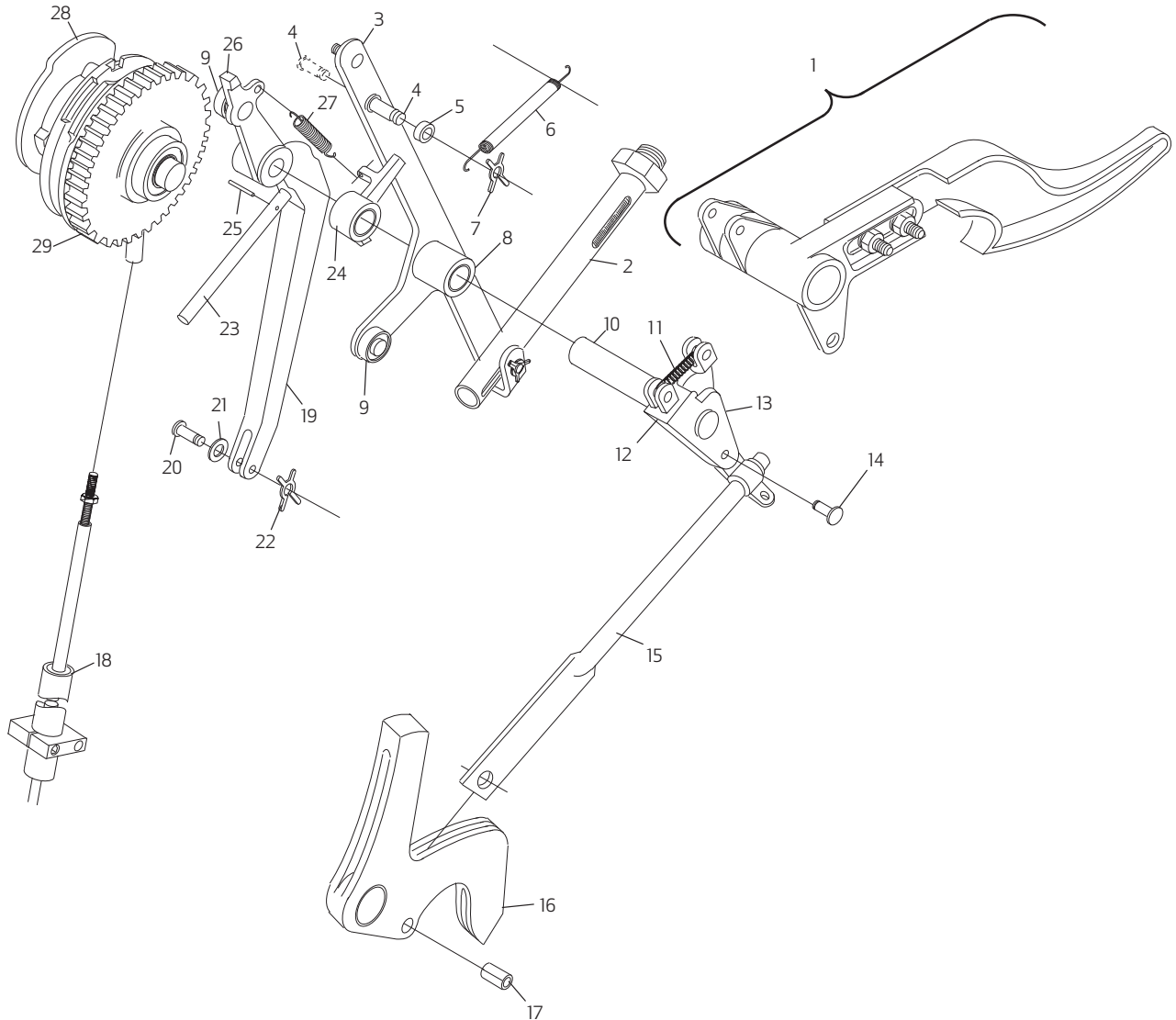
OUT-OF-RANGE RESET LINK

Keep the detector in time with the rake and other matching parts during an out-of-range. Ensures precision machine timing for smooth pinsetter operation and reduced part wear.

12-100040-004



For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	12-350802-600	AP Deck Hook Assembly	10	12-100188-000	Shaft	21	11-190006-001	Flat Washer - SAE (#10)
1	12-350802-000	Deck Hook Assembly	11	12-100086-000	Tension Spring	22	11-230000-001	X-Washer 3/32
2	12-100057-000	Deck Hook Link	12	12-100097-000	Deck & Scissor Latch	23	12-100077-000	Spring Guide
3	12-100410-000	Hook Selector	13	12-100175-000	Latch	24	11-420041-000	Bearing .504 ID x .628 OD
4	12-100166-004	X-Washer Pin	14	12-100166-011	X-Washer Pin	24	12-100183-000	Deck Hook Latch Assembly
4	12-100166-013	Pin	15	12-100353-000	Link	25	11-360364-000	Spiral Pin 1/8 x 1"
5	12-100185-019	Spacer	16	12-100238-051	Latch & Bearing Assembly	26	12-100189-000	"D" Shaft Assembly
6	12-100156-000	Tension Spring	17	11-345404-000	Roll Pin 1/4 x 1/2"	27	12-100083-000	Tension Spring
7	11-230001-001	X-Washer 1/8	18	12-100261-000	Detector Rod Assembly	28	12-100037-000	Cam
8	11-420065-000	Bearing .5025 ID x .753 OD	19	12-100129-000	Scissor Cam Lever	29	12-100198-000	Detector Gear
9	11-436000-000	Ball Bearing	20	12-100166-006	X-Washer Pin 7/8 x .187			
9	12-100170-018	Washer	20	12-100166-008	X-Washer Pin			

A•2 > ELECTRONIC FIVE PIN INDEXING



A large number of pinsetter stops are turret and turret clutch related. Eliminate a lot of the variables for failure by updating your pinsetter with this revolutionary kit. The Electronic Five Pin Indexing Kit eliminates nine of the turret clutch high maintenance components. Maintenance of this kit simply consists of an annual inspection and applying oil to linkage and pins.



HARDWARE NOT PICTURED

ELECTRONIC FIVE PIN INDEXING KIT

- Reduce down time and annual maintenance costs
- No more rebuilding clutch assembly or replacing facings
- Less tension on belts which promotes longer belt life
- Complete with all necessary hardware and installation instructions
- For use on cast aluminum turret frames
- Not for use on steel turret frames
- Designed by Mechanic Bruce McMartin

12-862028-000

KIT ELIMINATES THE FOLLOWING PARTS:

- Turret Delay Gear & Cam - 12-150138-000
- Torsion Latch Assembly - 12-150011-000
- Friction Disc Assembly - 12-860804-000
- Post - 12-150253-000
- Spring Guide - 12-150004-000
- Compression Spring - 12-150222-000
- Trip Lever - 12-150079-000
- Torsion Spring - 12-150012-000
- Stud - 12-150254-000



A•2 > TURRET ASSEMBLY



TURRET RING BALL BEARINGS

Replace worn bearings to prevent excessive and costly turret ring damage.

- Carbonized steel bearings are precisely dimensioned and file hard to resist wear
- Package includes 10 bearings (149 are needed for a complete turret)

11-575093-000



ADVANCED PERFORMANCE ADJUSTABLE INTERLOCK LINK

Makes relationship between the pin release lever and interlock probe fully adjustable.

- Great when working on older A/A•2 with worn or bent release lever.

12-862034-000



INTERLOCK PROBE BRACKET REPAIR KIT

Eliminate rewelding broken interlock probe brackets with this quick and easy repair kit.

- Simply remove the broken bracket(s), install replacement bracket on probe, then connect to the seam of center chute
- Can be used in an emergency until proper repairs are made. Make sure interlock probe moves freely after installation

NOTE: Face the 5 pin chute to the machine front for easiest installation

12-860119-000



TURRET RING AND BEARING JIG

Assists in the disassembly and reassembly of the turret ring and bearing assemblies by collecting the bearings and properly positioning the rings.

- Rugged aluminum casting won't deform

12-150326-000



INTERLOCK PROBE ASSEMBLY

Prevent deck jams and 180° stops with this high quality interlock probe.

- Bearings are press-fit and sized so the pivot shaft moves without binding
- Top Bearing (2 required) - 11-421026-000
Lower Bearing - 11-420046-000

12-150086-000



CENTER CHUTE ASSEMBLY

Designed for durability and long-life, Center Chute Assembly is constructed of high-strength carbon steel with a continuous weld.

- Surface is free of imperfections that could damage or wear bowling pins
- Contoured so pins slide without resistance
- Thickest mounting plate on the market is continuously welded to eliminate breakage

12-150108-000



TURRET RING

Eliminate jerky turret indexing caused by wear from improper lubrication.

- High-strength turned steel for durability
- Ball bearing contact surface is machined to tight tolerances for a precision fit
- Case hardened surface for wear resistance
- Holes positioned and drilled to ensure precise alignment with the turret basket
- Inside surface buffed to prevent wear on pins.
- Concentric surfaces provide smooth turret indexing.

12-150040-000



TURRET RING AND BEARING ASSEMBLY

Fixes turret ring problems efficiently and economically.

- All parts are precision machined for perfect mating and smooth turret indexing
- Factory assembled and lubricated

NOTE: The newer Turret Rings have a larger 1/4-20 threaded hole for the 5 pin chute. The older rings had a 10-24 thread

12-862874-000



CENTER CHUTE REPAIR PLATE

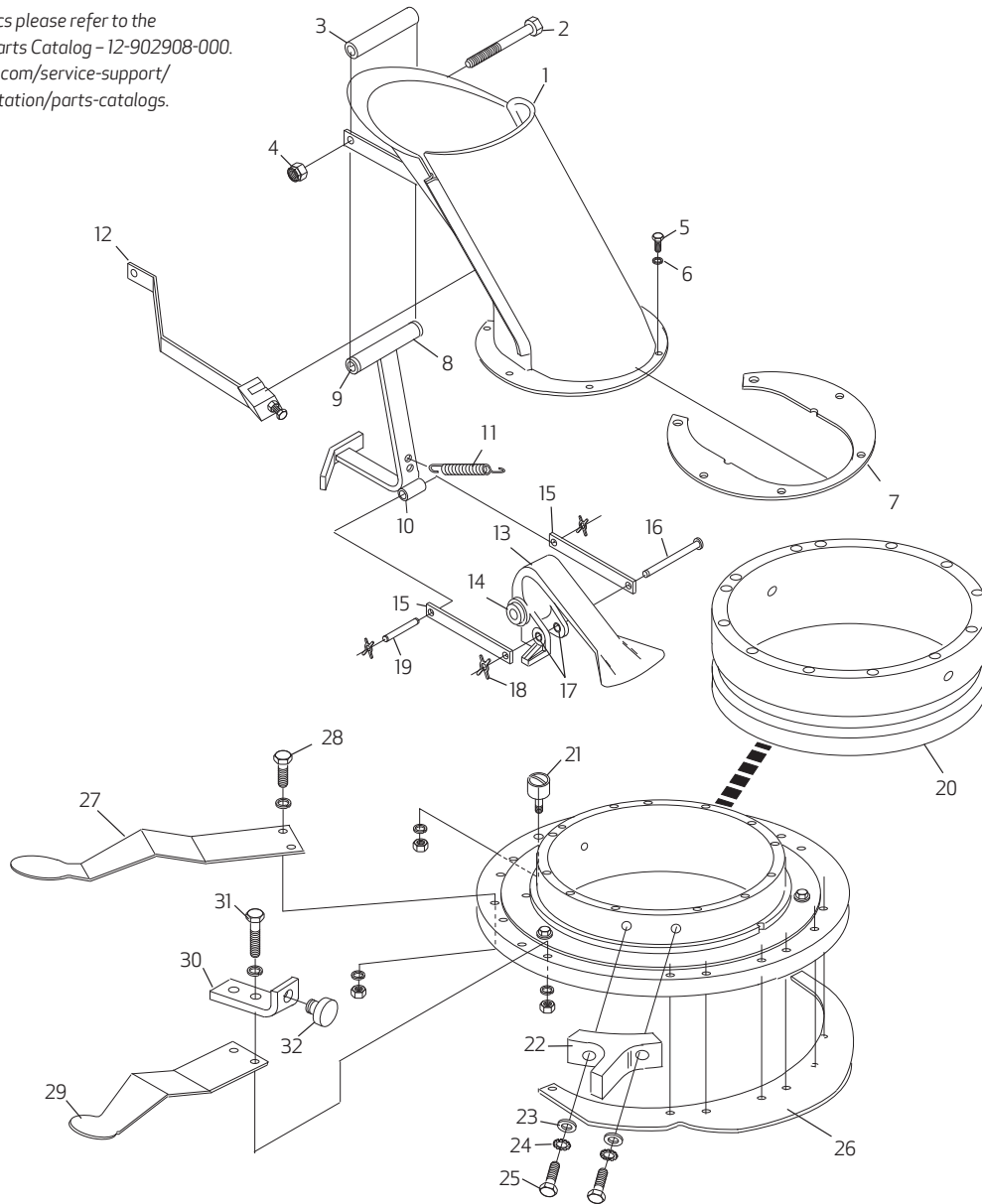
Eliminate 180° stops from broken or loose mounting plates with this 11-gauge, high-strength steel repair plate.

- Used for complete replacement or tacked onto the broken plate for reinforcement

12-150109-000



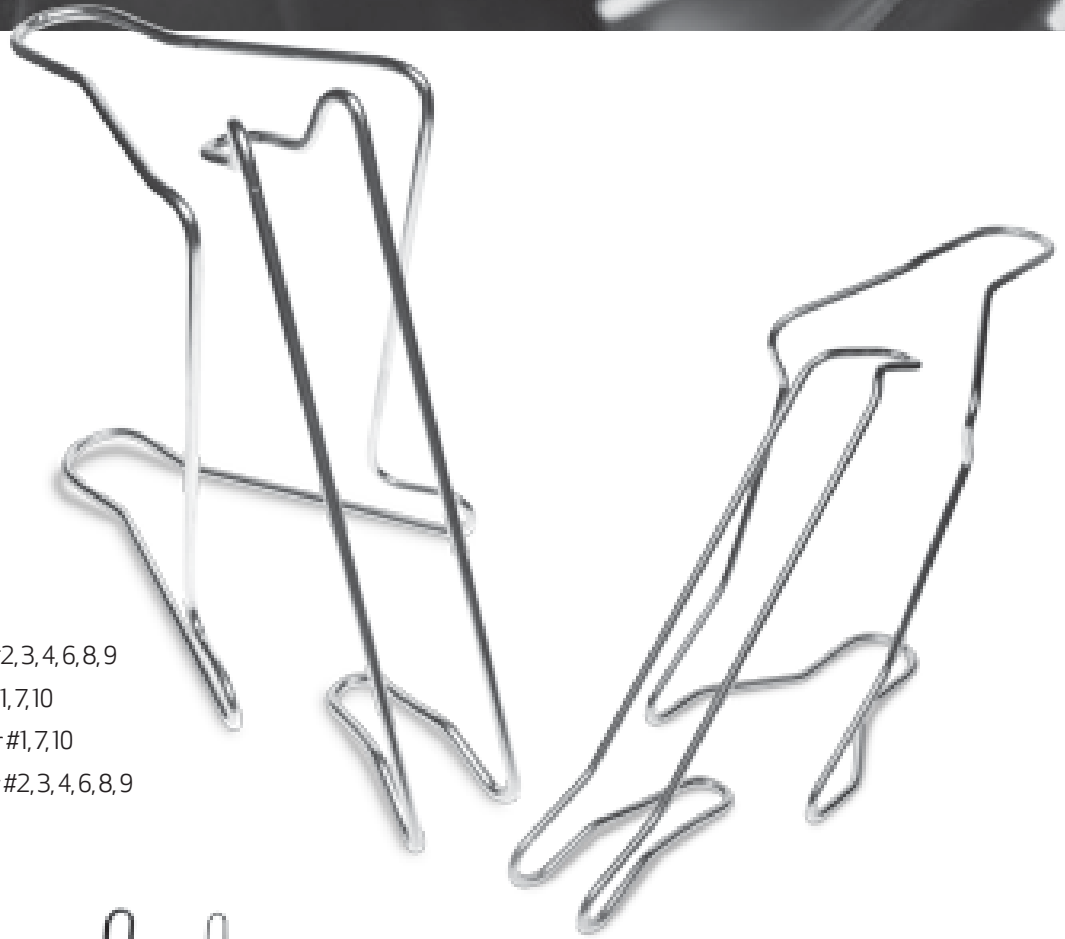
For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	12-150108-000	Center Chute Assembly	12	12-860118-000	R.H. Bracket	23	11-190014-001	Flat Washer 3/8"
2	12-150268-000	HxHd Cap Screw 5/16x4-3/4	13	12-860119-000	Interlock Probe Bracket Repair Kit	24	11-198007-001	Ext. Tooth Lockwasher 3/8"
3	12-150267-000	Spacer	14	12-150049-000	Pin Release Lever Assy	25	11-001343-001	Cap Screw Hex Head
4	11-170006-001	Locknut 10-32	15	11-421004-000	Flanged Oilite Bearing	26	12-150066-000	Release Cam
5	12-150304-003	HexHd Cap Screw	16	12-150237-000	Interlock Link	27	12-150283-000	Long Turret Spoon
6	11-195010-001	Lockwasher (#10)	17	12-150158-015	X-Washer Pin	28	11-002004-001	HxHd Cap Screw 1/4-20x1
7	12-150109-000	Center Chute Repair Plate	18	11-421045-000	Flanged Oilite Bearing	29	12-150284-000	Short Turret Spoon
8	12-150086-000	Interlock Probe Assembly	19	11-230001-001	X Washer 1/8"	30	12-150266-000	Bracket
9	11-421026-000	Flanged Oilite Bearing	20	12-150023-008	X Washer Pin	31	12-150304-002	Special H Hd Cap Screw
10	11-420046-000	Sleeve Oilite Bearing	21	12-150040-000	Turret Ring	32	12-150265-000	Turret Stop Bumper 15/16"
11	12-150096-000	Tension Spring	22	11-480001-000	Cam Follow Needle Bearing Stop		12-150325-000	Turret Stop Bumper 3/4"
12	12-860117-000	L.H. Bracket						

A•2 > TURRET ASSEMBLY



PIN GUIDE WIRES

Improves pin transfer into the buckets and protects bowling pins from weak, imperfect guide wires.

12-150294-000 – Inside wires for #2, 3, 4, 6, 8, 9

12-150295-000 – Inside wires for #1, 7, 10

12-150296-000 – Outside wires for #1, 7, 10

12-150297-000 – Outside wires for #2, 3, 4, 6, 8, 9

PIN GUIDE WIRES

High-strength spring steel wire with a phosphate-and-oil finish for protection and long life. Strong, repairable inner guide wires.

12-862116-000 – For #2, 3, 4, 6, 8, 9

12-862113-000 – For #1, 7, 10



PIN GUIDE WIRE PAD AND CUSHION

Prevent scuffed and cut pin heads from turret wires, avoiding pin damage.

- Provides a cushion for pin heads to hit and rest against
- Compatible with all turret wire positions

90-150182-000



PIN GUIDE WIRE CUSHION

Original factory cushion only.

12-150182-000



INSIDE WIRE ASSEMBLY REPAIR RODS

Economical fix for a broken inside pin guide wire.

12-150324-000 – For #2, 3, 4, 6, 8, 9

12-150309-000 – For #1, 7, 10



TURRET CLAMP PLATES

Eliminates the need to hold the bottom nut with a tool when changing turret wires with the Turret Clamp Plates.

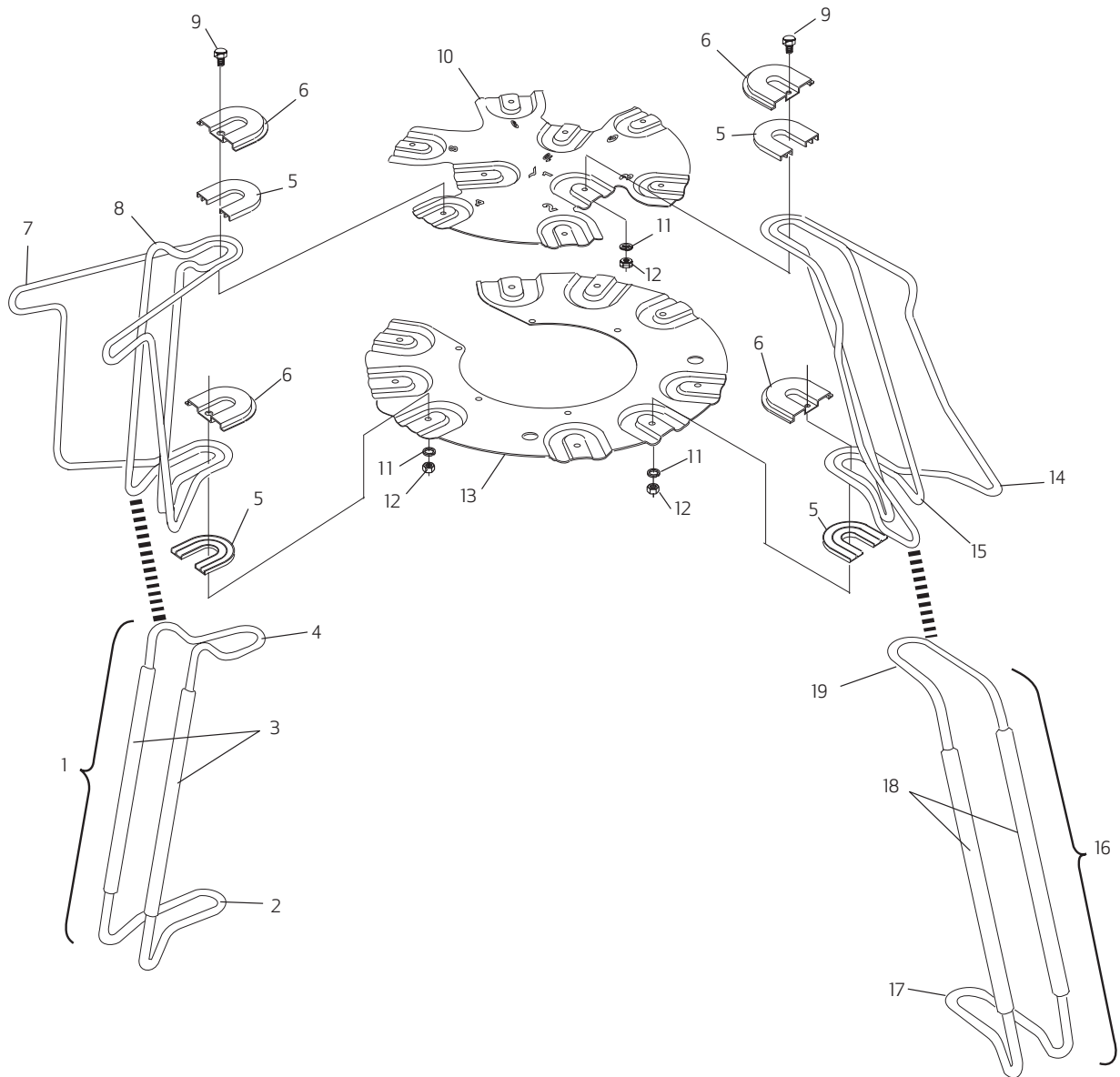
- Instead of a through hole, the plates include a stationary cinch nut so the bottom nut is not necessary

12-150106-000 – Lower

12-150107-000 – Upper



For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	12-862116-000	Pin Guides (2, 3, 4, 6, 8, 9)	7	12-150297-000	Outside Guide Wire (2, 3, 4, 6, 8, 9)	15	12-150295-000	Inside Guide Wire (1, 7, 10)
2	12-150314-000	Bottom Wire Form	8	12-150294-000	Inside Guide Wire (2, 3, 4, 6, 8, 9)	16	12-862113-000	Pin Guides (1, 7, 10)
3	12-150324-000	Inside Wire Assy Repair Rod (2, 3, 4, 6, 8, 9)	9	11-001182-001	HxHd Cap Screw 1/4-20 x 3/4"	17	12-150311-000	Bottom Wire Form
4	12-150313-000	Wire Form	10	12-150107-000	Upper Clamp Plate	18	12-150309-000	Inside Wire Assy Repair Rod (1, 7, 10)
5	12-150182-000	Guide Wire Cushion	11	11-195014-001	Lockwasher 1/4"	19	12-150310-000	Top Wire Form
5	90-150182-000	Guide Wire Pad and Cushion	12	11-125100-001	Hex Nut 1/4-20			
6	12-150181-000	Pin Guide Clamp	13	12-150106-000	Lower Clamp Plate			
			14	12-150296-000	Outside Guide Wire (1, 7, 10)			

A·2 > TURRET ASSEMBLY



LATCH ASSEMBLY

Ensure pins drop smoothly when the deck is empty and up with this precisely dimensioned assembly.

- Oilite bearings are sized to properly fit on mounting shaft, providing the latch with full up and down motion
- Rubber bumper absorbs shock effectively as latch pivots - oil resistant for long life
- Right-hand latch includes an assembled spring wheel - 12-150130-006 and a rubber bumper - 12-150142-002

12-150200-000 - RH

12-150176-000 - LH



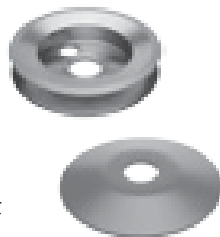
TURRET CLUTCH DRIVE PULLEYS

Pulley model 12-150306-000 is a split pulley. Order two 12-150306-000 and spacer (12-150307-000).

TIP: When installing solid offset model, place the offset in the down position so the belt is raised and level with the turret indexing cam and it will drive properly.

12-150219-000 - Pulley
Offset style for cast turret indexing cam

12-150306-000 - Disk
Split style for stamped turret indexing cam



BLOCKING FINGER TENSION SPRING

Make sure your pins drop smoothly and avoid deck jams.

12-150213-000



TECH TIP

To extend the life of your belts and improve operation, make sure your lower turret belt clutch pulley and short turret belt are matched to the proper indexing cam. The split pulley - 12-150306-000 (2 qty) works with the stamped turret cam and requires a special flat washer - 12-150307-000. The offset pulley - 12-150219-000 is used with the belt UP for cast turret cam. Always verify that the short belt is not rubbing on the frame or the short indexing linkage.

FRICTION DISK ASSEMBLY

Helps eliminate multiple indexing and failure to index problems.

- Premium, high-density polyethylene clutch facings are specially formulated to maximize drive and minimize wear
- For individual parts:
Turret Clutch Facing Kit - 12-860805-000 (includes three facings and six rivets),
Rivets - 11-301001-001 (Pkg of 10)

12-860804-000

TURRET CLUTCH ASSEMBLY

A good replacement part to keep as a spare.

- Assembled and ready to install
- Use on serial number 12,644 and below

12-150198-000



ADVANCED PERFORMANCE TURRET FRAME REINFORCEMENT

Eliminate costly down time from cracking and breaking Turret frames.

- Installs in 30 minutes and reduces further wear
- Recommend replacing Moving Deck Cam Follower Live Roller - 12-862252-000
- Designed by Mechanic Bruce McMartin

12-862009-000



Advanced Performance

STOP ROLLER AND BUSHING ASSEMBLY

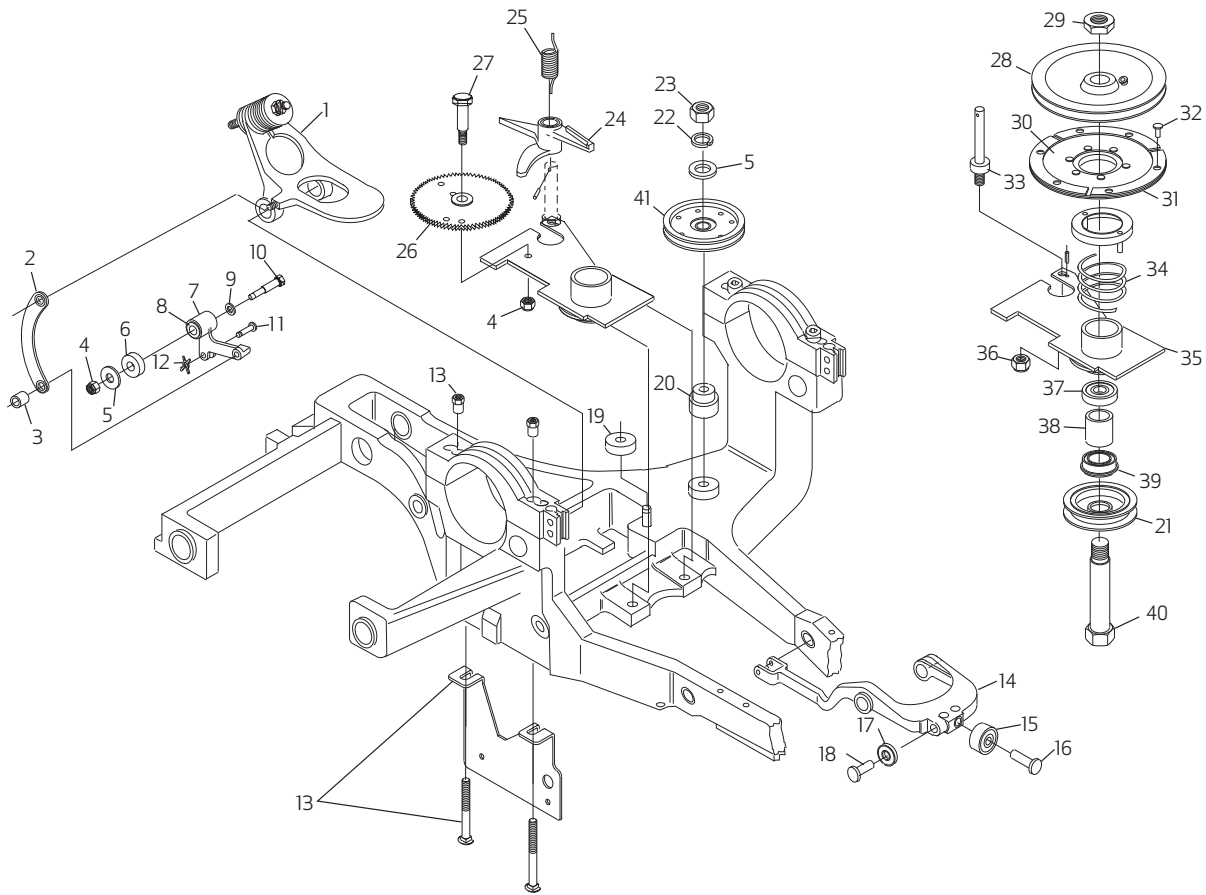
Tests have proven that this Delrin® roller will last longer than nylon or plastic rollers.

- Durable, Teflon®-impregnated roller smoothly follows the contours of the turret index cam without wearing cam surface
- One-piece design rolls freely

90-150303-000



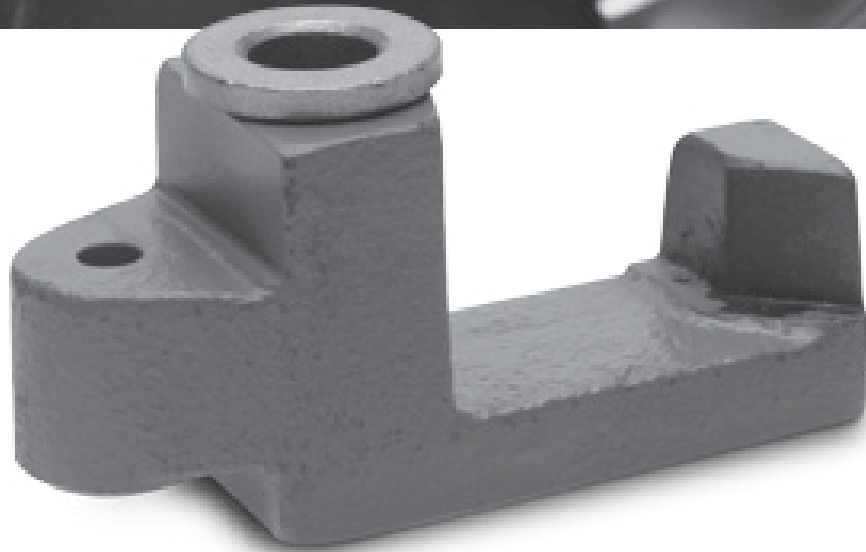
For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	12-150064-000	Trip Lever Assembly	16	12-150056-002	Roller Stud	27	12-150254-000	Stud
2	12-150065-000	Link	17	11-500001-000	Ball Bearing	28	12-150220-000	Turret Clutch Drive Pulley
3	12-150190-000	Sleeve Oilite Bearing	18	12-150056-003	Roller Stud	29	11-125265-001	Hex Jam Nut 3/4-16 LH
4	11-170010-001	Locknut 5/16-24 Nyl Insr	19	12-150246-000	Bumper 11/16"	30	12-860804-000	Friction Disc Assembly
5	11-190012-001	Flat Washer 5/16"	19	12-150246-002	Bumper 1-1/4"	31	12-860805-000	Turret Clutch Facing Kit
6	12-150245-000	Spacer	20	12-150186-000	Spacer	32	11-300001-001	Tubular Flat Head Rivet
7	12-150051-000	Bell Crank Assembly	21	12-150306-000	Two-piece Disc Pulley	33	12-150253-000	Post
8	11-421048-000	Flanged Oilite Bearing	21	12-150219-000	Pulley	34	12-150222-000	Spring
9	11-190014-001	Flat Washer 3/8"	22	11-195014-001	Lockwasher 1/4"	35	12-150258-000	Sleeve & Plate Assembly
10	12-150252-000	Shoulder Screw	23	11-125100-001	Hex Nut 1/4-20	36	11-170109-001	Hex Nut Flexloc 5/16-24
11	12-150158-013	X-Washer Pin	24	12-150011-000	Torsion Latch Assembly	37	11-431006-000	Ball Bearing
12	11-230000-001	X Washer 3/32"	24	11-421065-000	Flanged Oilite Bearing	38	12-150217-000	Spacer
13	12-862009-000	AP- Turret Frame Reinforcement	25	12-150012-000	Torsion Spring	39	11-431010-000	Ball Bearing
14	12-150231-000	Turret Stop Lever	26	12-150138-000	Turret Delay Gear & Cam	40	12-150216-000	Turret Drive Clutch Shaft
15	90-150303-000	Stop Roller and Bushing Assembly	26	11-421035-000	Flanged Oilite Bearing	41	12-400219-000	Idler Pulley Assembly

A•2 > TURRET ASSEMBLY



TURRET INDEX LATCH ASSEMBLY

Stop multiple indexing caused by worn indexing faces on the latch.

- Latch is contoured to match the 11-500001-000 bearing surface for a smooth index
- High-strength ductile iron casting for wear resistance
- Fully-assembled bearing is fit and sized so the latch will pivot freely

12-150235-000

ADVANCED PERFORMANCE CAM FOLLOWER LIVE ROLLER

Prevent lever wear which can cause pin loading issues from the turret to deck, bent interlock shafts, and potentially crack turret frames.

- Provides rolling surface for lever to virtually eliminate wear
- Includes a new lever 12-150144-000
- Designed by Mechanic Bruce McMartin

12-862252-000



Advanced Performance

SHORT TURRET LINK

Eliminate turret alignment errors with this properly fitted short link.

- Ends are coined to guarantee proper alignment and assembly
- For optimum performance use X-washers and X-washer pins for stable connection

12-150289-000



ADVANCED PERFORMANCE MOVING DECK CAM FOLLOWER SUPPORT

This kit provides a permanent fix to mounting bolt failure that can lead to costly damage to your 1:1 assembly.

- Collar replaces mounting bolt, eliminating original weak point
- Heavy-duty bracket provides support to the shaft on the opposite side
- Does not require new shafts to work properly
- Designed by Mechanic Bruce McMartin

12-862010-000



Advanced Performance

INTERLOCK LINK ASSEMBLY

Makes sure that the clutch properly engages at 180°.

- Oil-resistant rubber bumper will not deteriorate
- Factory-assembled with bearings in place
- To order replacement parts:
Bearing - 11-421061-000
Bumper - 12-150142-003

12-150234-000



TRIP LEVER SHAFT

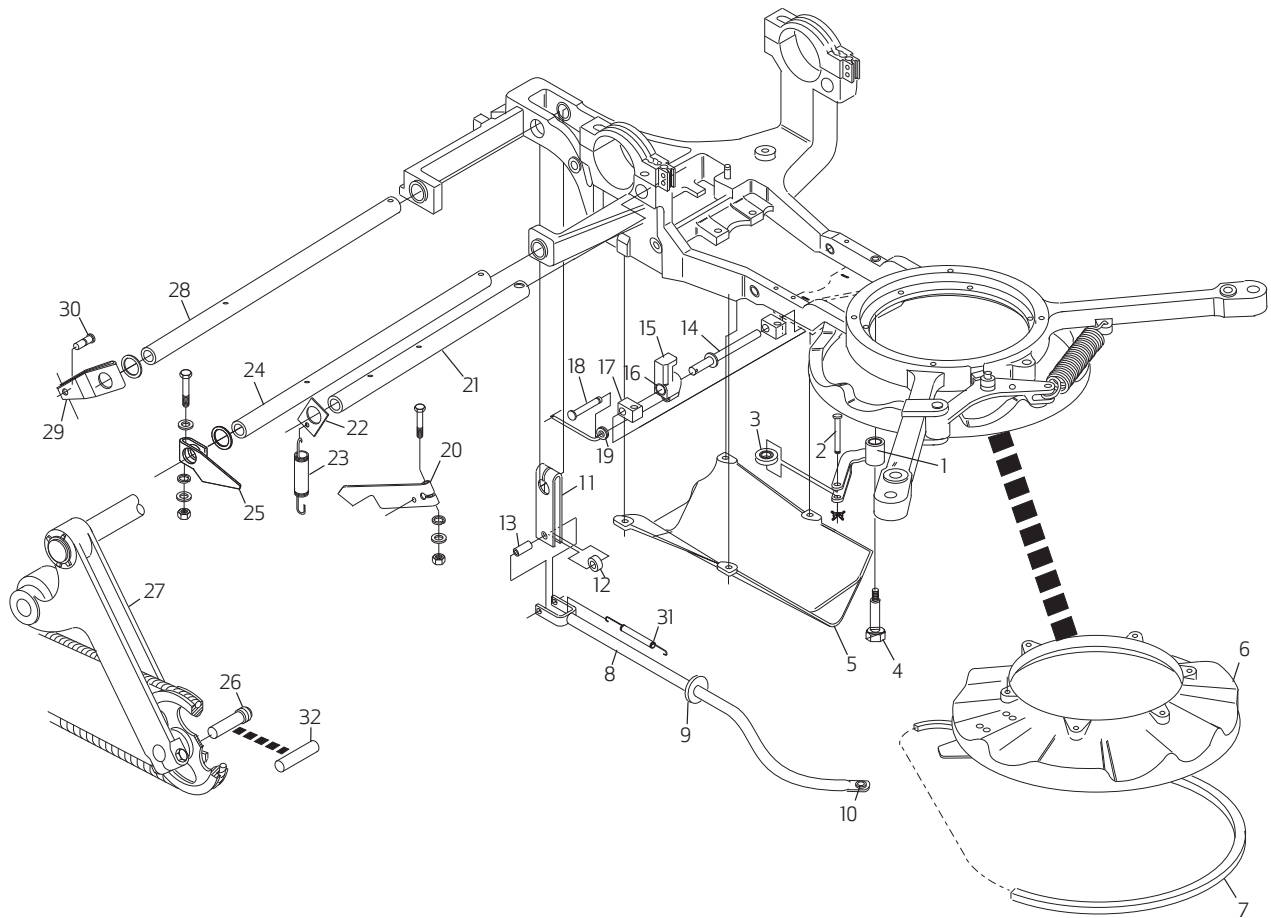
Helps eliminate "failure to index" problems caused by sloppy trip levers.

- Extend the life of a worn turret frame
- Longer shaft extends into unworn area of turret frame casting

12-150069-000



For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

- | | | | | | | | | |
|-----------|---------------|--------------------------------|-----------|---------------|-----------------------------|-----------|---------------|--|
| 1 | 12-150279-000 | Lever Assembly | 11 | 12-150147-000 | Lever Assembly | 23 | 12-150090-000 | Tension Spring |
| 1 | 11-420043-000 | Sleeve Oilite Bearing | 12 | 12-150125-000 | Roller | 24 | 12-150143-003 | Interlock Shaft |
| 2 | 12-150158-006 | X-Washer Pin | 13 | 11-420000-000 | Sleeve Oilite Bearing | 25 | 12-150144-000 | Lever |
| 3 | 12-150226-000 | Roller & Bearing Assembly | 14 | 12-150259-000 | Shaft | 26 | 12-862252-000 | AP-Moving Deck Cam
Follower Live Roller |
| 4 | 12-150247-000 | Stud | 15 | 12-150235-000 | Turret Index Latch Assembly | 27 | 12-100313-000 | Moving Deck Cam Lever |
| 5 | 12-150187-000 | Bottom Protector | 16 | 12-150256-000 | Bronze Bearing | 28 | 12-150143-002 | Shaft |
| 6 | 12-150290-000 | Turret Index Pulley Assy | 17 | 12-150293-000 | Shaft Clamp | 29 | 12-150145-000 | Lever |
| 7 | 12-150113-000 | Short Turret Drive Belt, Short | 18 | 12-150158-007 | X-Washer Pin 1-3/32 x .186 | 30 | 12-150071-000 | Pin |
| 7 | 12-150113-600 | Short Turret Drive Belt, Long | 19 | 12-150289-000 | Short Turret Link | 31 | 12-150132-000 | Tension Spring |
| 8 | 12-150234-000 | Interlock Link Assembly | 20 | 12-150111-000 | Latch | 32 | 12-100226-000 | Original Pin |
| 9 | 12-150142-003 | Bumper | 21 | 12-150069-000 | Trip Lever Shaft | | | |
| 10 | 11-421061-000 | Flanged Oilite Bearing | 22 | 12-150144-000 | Lever | | | |

A-2 > DECK ASSEMBLY

CABLE GUIDE ASSEMBLY

Ensures that your deck cables stay inline with the lower deck pulleys

- Broken or damaged cable guides can cause deck binding or shifting problems
- Allows proper mounting position for the keeper spring 12-200125-000 to keep cables in constant contact with the pulleys

12-200097-000



ADVANCED PERFORMANCE TOP-NOTCH DECK BUMPER

Minimize deck jams with this great alternative to deck rollers.

- No moving parts to wear out or cause performance issues
- Durable urethane material
- "Notch" ensures that the scissors and other moving parts do not interfere with performance or action

90-200114-600



Advanced Performance

DECK SHIELD

Time to replace a missing or damaged deck shield? Use this improved Brunswick replacement.

12-862037-002 – Gray w/o Decal

12-862037-010 – Brown w/Decal



SCISSOR GRIPPER PAD

Ensure respotting in the exact position. Oil-resistant neoprene rubber pad slips onto scissor arm and stays securely in place.

12-200120-004



SCISSOR ARMS

Brunswick continues to offer many alternatives.

- Stainless steel arms have controlled flatness to prevent dragging or binding when operating
- Factory-assembled unit includes long and short arms, pads, and all hardware. These parts are assembled to controlled tolerances for accurate respotting of pins.

TIP: Don't forget to use an External Tooth Lockwasher 1/4 - 11-198005-001 when reassembling the scissor assembly. It keeps your hardware from becoming loose.

12-200018-000 – Short with Gripper pad

12-200016-000 – Long with Gripper pad

12-200019-092 – Short w/o Gripper pad

12-200017-092 – Long w/o Gripper pad

12-200016-091 – Complete Assembly with Gripper pads

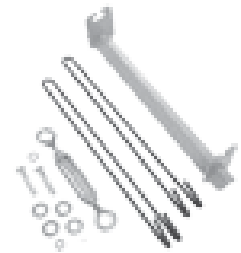


ADVANCED PERFORMANCE DECK RIGHT KIT

Corrects sticking or sluggish shifting caused by a warped moving deck.

- Straightens out deck for a smooth operation
- Turnbuckle style tensioner straightens deck for a smooth operation

12-862858-000



Advanced Performance

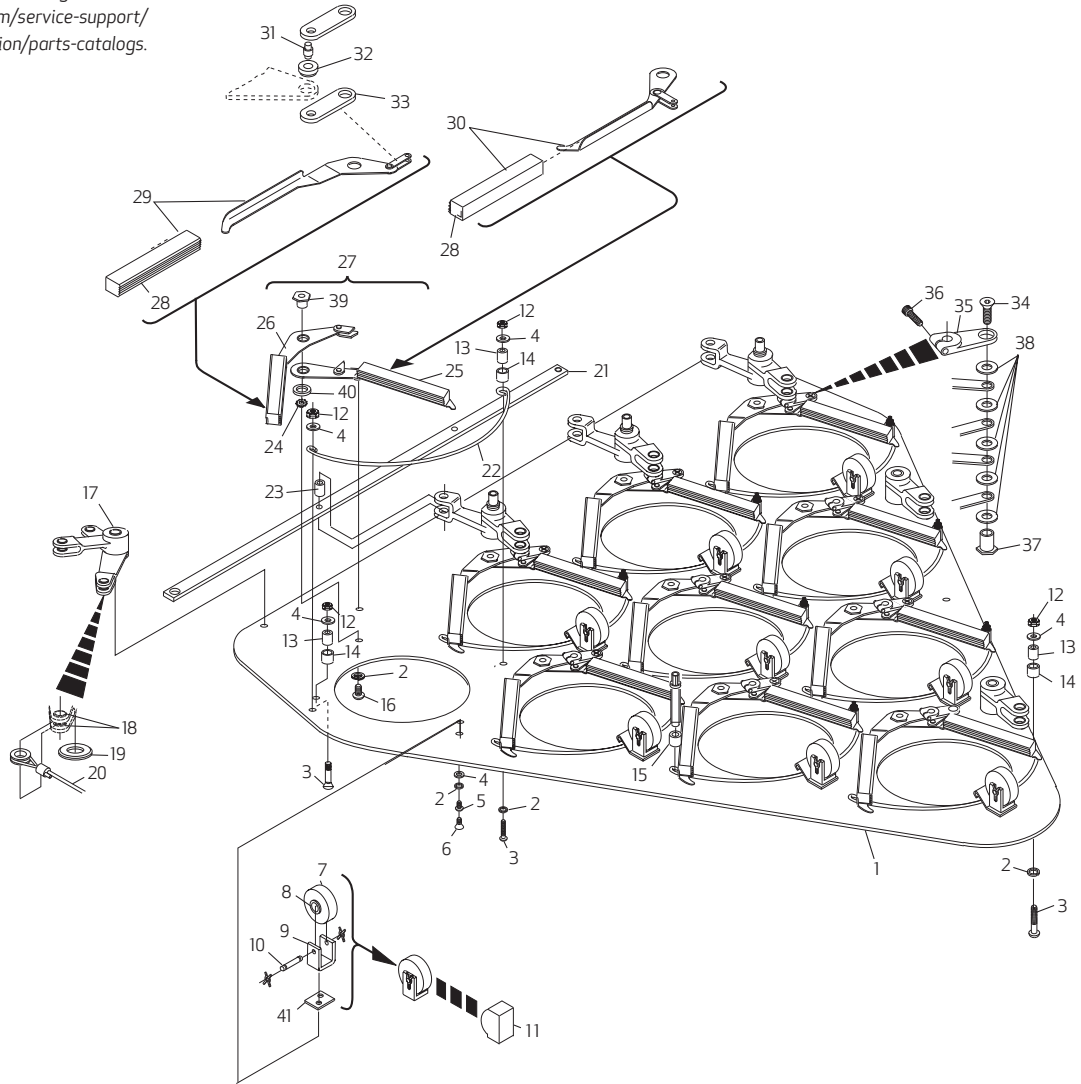
CROSS BIASED GRIPPER PAD

For those who prefer a urethane construction. Slotted to slide on the scissor arm assembly for a secure fit. No adhesive needed.

90-200120-000



For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	12-200003-000	Scissor Deck	14	12-200032-000	Neoprene Stop	29	12-200017-092	Scissor Arm Assembly
2	11-199005-001	Int. Tooth Lockwasher 1/4	15	12-200103-000	Bearing	30	12-200019-092	Scissor Arm Assembly
3	11-007186-001	Flat Sckt Cap Screw 1/4-20x1-1/4	16	11-006180-001	Button Hd Sckt Cap 1/4-20x5/8	31	12-200027-000	Shoulder Pin
3	11-007188-001	Flat Sckt Cap Screw 1/4-20x1-1/2	16	11-007180-001	Fl Hd Sckt Cap 1/4-20x5/8	32	12-200105-000	Flanged Oilite Bearing
4	11-190010-001	Flat Washer 1/4	17	12-200023-000	Toggle Lever Assembly	33	12-200026-000	Link (Scissor Arm)
5	11-006218-000	Button Sckt Cap Screw 1/4-28x1/2	18	11-420070-000	Oilite Bearing	34	11-007182-001	Fl Hd Socket Cap Screw
6	11-007216-001	Flat Sckt Cap Screw 1/4-28x3/8	19	11-422002-000	Bearing .510 ID x 1.000 OD	35	12-200039-000	Drag Link
7	12-200114-000	Rubber Deck Roller Assembly	20	12-200067-000	Scissor Cable Assembly	36	11-005182-001	Hx Hd Socket Cap Screw
7	12-200115-000	Rubber Deck Roller Only	21	12-200139-000	Connecting Rod Assembly	37	12-200028-000	Shoulder Pin
7	90-200114-000	AP - Urethane Deck Roller	22	12-200094-000	Wire	38	12-200031-003	Nylon Washer
8	11-423000-000	Sleeve Oilite Bearing	23	12-200140-002	Spacer	38	12-200031-004	Nylon Washer
9	12-200038-000	Roller Bracket	24	11-198005-001	External Tooth Lockwasher 1/4	39	12-200029-000	Stud
10	12-100166-031	Pin	25	12-200018-000	Scissor Arm Assembly	40	12-200059-002	Washer
11	90-200114-600	AP - Top-Notch Deck Bumper	26	12-200016-000	Scissor Arm Assembly	41	12-200865-000	Plate (use with steel deck)
12	11-125100-001	Hex Nut 1/4-20	27	12-200016-091	Scissor Arm Assembly			
13	12-200041-000	Spacer	28	12-200120-004	Scissor Gripper Pad			

A•2 > DECK ASSEMBLY



NYLON SPOTTING FINGERS

Spots pins accurately every time.

- Molded hex socket head holds the screw in place
- Easy-to-install
- Includes both right-hand and left-hand fingers and the proper hex head hardware:
Hex Head Bolt – 11-001186-001 (2 qty)
Hex Head Cap Screw – 11-001198-001 (2 qty)

90-200892-000 – RH

90-200893-000 – LH

12-860771-000 – Kit

ALUMINUM SPOTTING FINGERS

These tried-and-true aluminum spotting fingers are anodized to provide the best in strength and durability.

12-200892-000 – RH

12-200893-000 – LH



CABLE ASSEMBLIES

This 7x19 (133-strand) aircraft cable is more flexible than the 49-strand cable to prevent kinking and fraying as the cable moves around pulleys.

- Factory-assembled end fittings are designed to withstand 2,000 pounds of force

12-200067-000 – Lower scissor cable 31"

12-200066-004 – Lower deck cable 36-1/8"

12-200066-003 – Upper deck cable 45-11/16"

12-200066-002 – Upper scissor cable 43-11/16"



DECK LIFT SHAFT ASSEMBLY

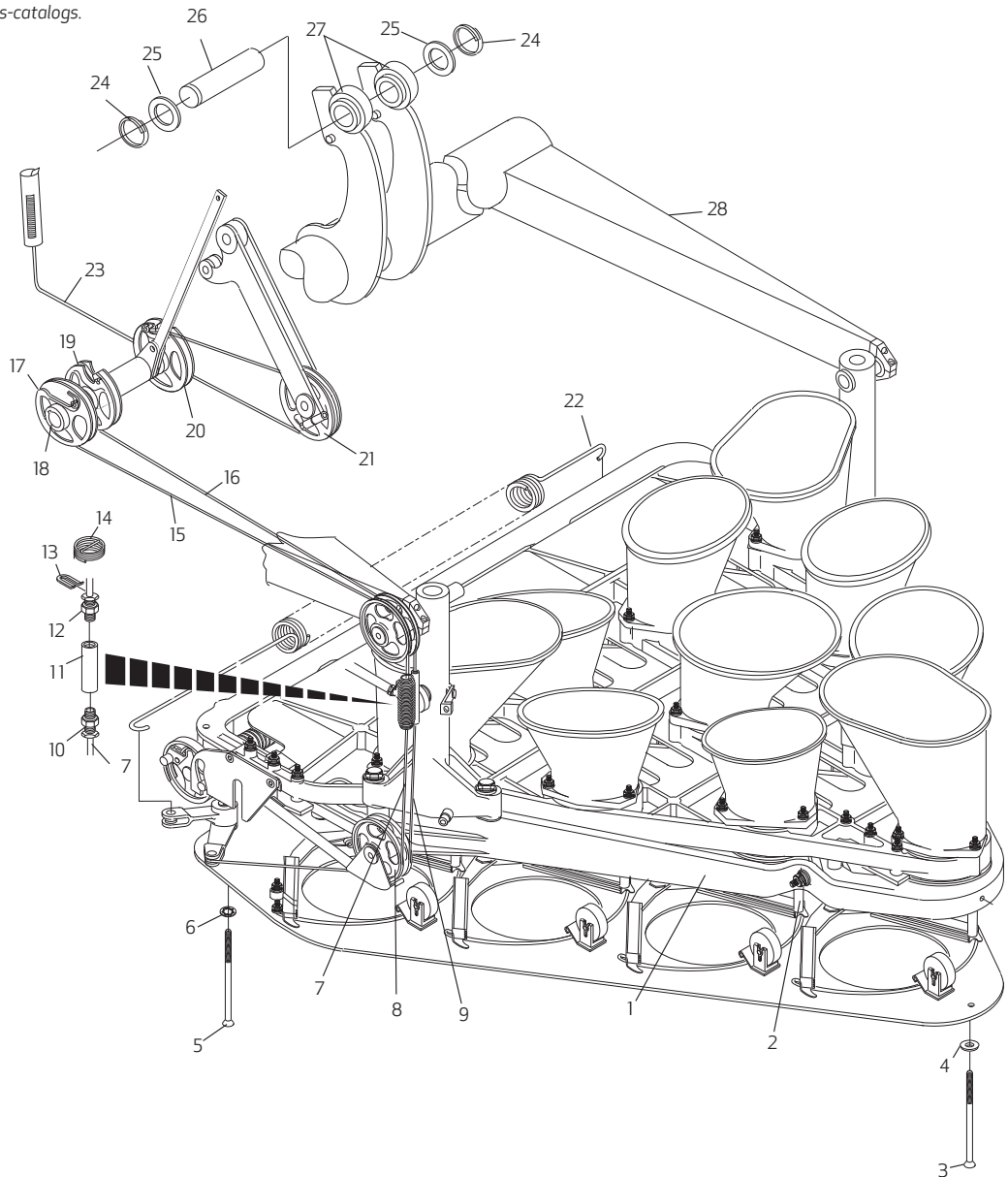
Manufactured on a controlled and exact welding fixture to ensure precision positioning of all components.

- Fully-assembled shaft guarantees proper positioning to all mating parts
- Easy to install
- Comes complete with the following:
Retaining Ring – 11-533512-000
Washer – 12-100170-017
Shaft for serial #71489 and up – 12-350166-000
- To order individual parts:
Main Pivot Bearing – 11-490001-000
Needle Roller Bearing – 11-461000-000



12-862581-000

For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	12-862117-000	Moving Deck Assembly	12	11-125209-001	Hex Jam Nut 1/2-20	23	12-100280-000	Moving Deck Cable Assembly
2	12-200110-000	Stud	13	12-200099-000	Spring Retainer	24	11-533512-000	Ext. Spirol Retaining Ring
3	11-007200-001	Fl Hd Sckt Cap Screw 1/4-20 x 4"	14	12-200125-000	Keeper Spring	25	12-100170-017	Washer
4	12-200896-000	Finishing Washer	15	12-200066-003	Upper Deck Cable 45-11/16"	26	12-350166-000	Shaft 4-13/16" (machines 71,489 & up)
5	11-007198-001	Fl Hd Sckt Cap Screw 1/4-20 x 3-1/2"	16	12-200066-002	Upper Scissor Cable 43-11/16"	27	12-350035-000	Shaft 4-9/16" (machines prior to 71,489)
6	11-199005-001	Int. Tooth Lock Washer 1/4	17	12-350029-000	Moving Deck Pulley	27	11-461000-000	Needle Roller Bearing
7	12-200066-004	Lower Deck Cable 36-1/8"	18	12-350032-000	Pulley Shaft	28	12-862581-000	Deck Lift Shaft Assembly
8	12-200055-000	Pulley Assembly	19	12-350033-000	Scissor Pulley Assy (N.A.)			
9	12-200067-000	Lower Scissor Cable 31"	20	12-350030-000	Moving Deck Pulley			
10	11-125259-001	Hex Jam Nut 1/2-20	21	12-100081-000	Pulley Assembly			
11	12-200069-000	Barrel	22	12-200022-000	Scissor Spring			

A·2 > DECK ASSEMBLY



OEM PLUS™ DECK CHUTE

Arguably the most functional urethane deck chute in today's marketplace. Developed through a focused effort by Brunswick engineers, material scientists and bowling center mechanics. Designed to provide perfect balance between durability, slipperiness, and functionality.

- Injection molded using premium Bayer® urethane. Resulting in no cracks even after years of use
- A very low coefficient of friction allows the pins to easily pass through the chute with no pin jams.
- Backed by a 2-year warranty

12-200808-502 - #1

12-200837-500 - #5

12-200808-503 - #7, #10

12-200900-500 - Multi

RUBBER DECK CHUTES

These anti-stick rubber deck chutes offer the best balance of performance and value available today.

- Top-grade formula ensures a better coefficient of friction for stick-free sliding
- Proprietary manufacturing process lowers the coefficient of friction to provide minimum pin resistance and virtually eliminate deck jams

12-200808-002 - #1

12-200837-000 - #5

12-200808-003 - #7, #10

12-200900-000 - Multi



ADVANCED PERFORMANCE URETHANE DECK CHUTES

Wear testing has shown that this deck chute has 50% less wear than other manufacturer's chutes which means it'll outlast all the rest.

- Injection molded urethane chute ensures less porosity - the most common cause of cracking in other manufacturer, poured urethane chutes
- This chute also exhibits the lowest coefficient of friction of any chute on the market
- Backed by a 2-year warranty

12-200808-602 - #1

12-200837-600 - #5

12-200808-603 - #7, #10

12-200900-600 - Multi



Advanced Performance

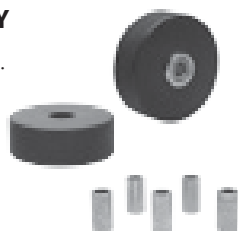
TECH TIP

Pins sticking in the deck chute? Consider these possible causes: improper pin maintenance, bad deck rollers, deck pad interference as well as dirty or damaged chutes. We do not recommend trimming the skirt of the deck chute. Trimming jeopardizes the strength and support of the chute. It puts more stress on the mounting flange leading to cracks and tears in the flange. Trimmed chutes can also cause damage to the base rings of pins by exposing them to the metal edge of the moving deck.

RUBBER DECK ROLLER ASSEMBLY

You asked for it...the original is here.
12-200115-000 – Roller Only
11-423000-000 – Oilite Bearing

12-200114-000



ADVANCED PERFORMANCE DECK ROLLER AND BEARING ASSEMBLY

Are split rollers setting wobbly pins or causing deck jams? Buy this top-of-the-line deck roller. Durable urethane roller exhibits excellent rebound characteristics, so pins don't bounce off and cause deck or turret jams.

90-200114-000



POLYPROPYLENE DECK CHUTES

The best value in deck chutes, these economical deck chutes were designed for tight budgets.

- Strong, durable and impact resistant polypropylene provides the best low-cost alternative to other chutes
- Features a good coefficient of friction without requiring the use of lubricants

12-200864-002 – #1

12-200895-000 – #5

12-200864-003 – #7,#10

12-200894-000 – Multi



ADVANCED PERFORMANCE URETHANE DECK PADS

Cushion pins with this soft, open-cell foam urethane pad. Replace all 10 pads at the same time to ensure proper strike/standing pin detection.

12-860571-000 – Bolt-on

12-860570-000 – Glue-on



DRILLING TEMPLATE

Allows for accurate drilling when installing bolt-on deck pads.

12-200178-000



ADVANCED PERFORMANCE DECK LIFT STABILIZER ASSEMBLY

Improved design offers unsurpassed strength and deck control.

- Controlled-position bearings provide maximum stability by eliminating the potential for deck swaying which could happen with the original self-aligning bearings
- The replacement parts for the original style stabilizers are also available:
Deck Stabilizer Rod – 12-350122-002
L.H. Thread – 12-350122-004
R.H. Thread – 12-350122-003
63/64 x 31/64 Bearing – 10-427001-000

12-350217-000



Advanced Performance

A•2 > PIT CUSHION ASSEMBLY

ADVANCED PERFORMANCE TRIANGULAR PLATE

Keep your linkage in top working order for years with this seven gauge solid steel link plate

- Worn Link Plates can lead to improper triggering of the rake to the guard position upon ball impact
- Replace your Link Plates with new hardware, bushings and spacers:
Hex HD Cap Screw 3/8-16 x 2-1/2" - 11-001354-001
Hex Nut Nyloc 3/8-16 - 11-170011-001
Sleeve Oilite Bearing - 12-250248-000
Spacer - 12-250011-003
Fiber Washer - 12-250076-002

12-252359-000



Advanced Performance

ADVANCED PERFORMANCE FOLLOWER LINK

Critically-dimensioned link assures proper pinsetter cycling.

- Special die casting method and tough, lightweight alloy create a smooth surface so all parts pivot easily

12-252346-000 - Cast

12-252345-000 - Brass



Advanced Performance

ADVANCED PERFORMANCE CUSHION ARM REBUILD KIT

Kit includes parts necessary to rebuild one pit cushion arm.

12-862580-000

Advanced Performance



PIT CUSHION

Heavy, durable cushion is engineered to handle bowling balls and pin impacts.

- Includes a premium urethane cushion facing to protect the rubber from damage
- A•2 and Jetback models

12-862578-000



ADVANCED PERFORMANCE PIT CUSHION LINKAGE & ALIGNMENT KIT

Aligns and levels pit cushion linkage which improves pinsetter triggering.

- Greatly improves pit cushion sensitivity which is great for lighter balls
- Extends the life of follower links or similar add-on kits
- Designed by Mechanic John Cole

12-862026-000



Advanced Performance



PIT CUSHION COVERS

A lower cost option made from PVC and Polyester materials. Quick installation with cable ties (included).

12-862970-000 - A•2 and Jetback

12-860971-000 - Model A



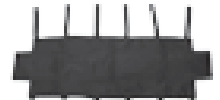
STRAP-ON PIT CUSHION FACINGS

Help protect pit cushion, pins, and bowling balls.

- Includes foam pad to absorb bowling ball shock

12-252310-000 - A•2 and Jetback

12-250286-000 - Model A



RUBBER PIT CURTAIN

- Smooth on back side for easy cleaning
- Textured front for consistent scoring

12-862167-000

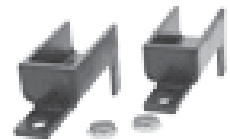


ADVANCED PERFORMANCE PIT CURTAIN BRACKET KIT

Easy to install, will not come loose or put unnecessary stress on pit cushion assembly.

- Mounts to cushion support arm, not the pit cushion
- Replacement nut - 11-170115-001

12-860227-600



Advanced Performance

URETHANE PIT CUSHION FACING

Easy-to-install, pre-formed urethane facing leaves none of the cushion rubber exposed and guards it from impact damage.

- Non-marking to pins and bowling balls
- Tie-wraps secure facing in place to prevent rotation during ball impact (not included)
- A•2 and Jetback models only

12-252308-000 - Black

12-252308-600 - Clear

11-603114-000 - Cable ties (pkg of 12)



ROD END CONVERSION KIT

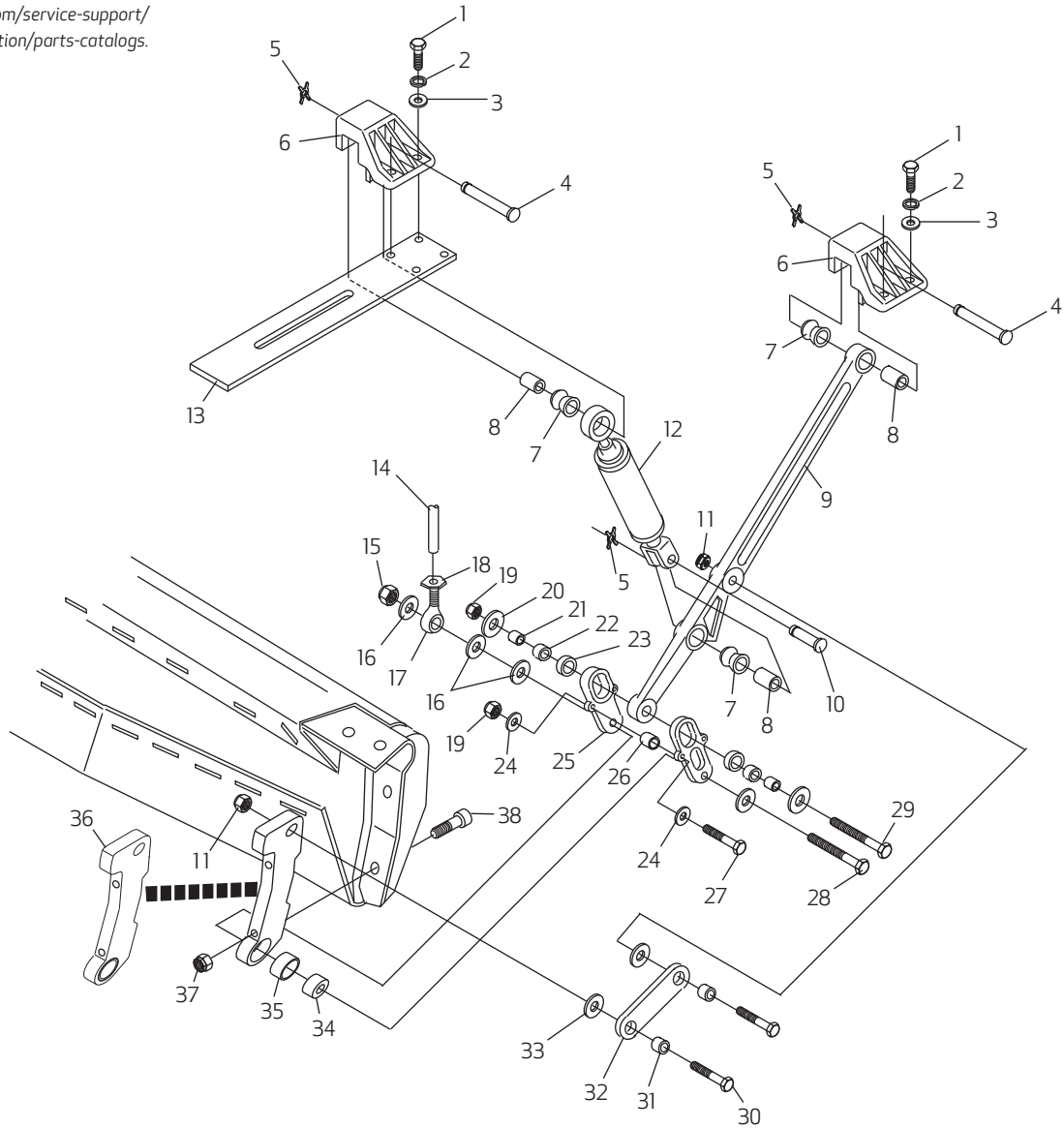
Eliminates binding that causes recycling problems.

- Convert old "fixed-position" rod ends to "uniball" rod ends using this kit
- Uniball rod ends are self-aligning to increase flexibility and reduce the chance of recycling and cushion binding

12-862015-000



For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	11-001344-001	HxHd Screw 3/8-16 x 1"	14	12-252364-002	Tube	28	10-002006-000	HxHd Screw 1/2-20 x 3-1/2"
2	11-195016-001	Lockwasher 3/8	15	11-121523-000	Hex Nut w. Nylon Cap	29	10-002001-000	HxHd Screw 3/8-24 x 2-3/4"
3	11-190014-001	Flat Washer 3/8	16	11-190520-001	Plain Washer	30	12-252352-000	Cushion Arm Bolt
4	10-229602-000	X-Washer Pin	17	12-252060-000	Uniball Rod End	31	12-252350-000	Bushing
5	11-230005-001	"X" Washer 1/4	18	11-125259-001	Hex Jam Nut 1/2-20	32	12-252069-000	Link
6	12-252344-000	Cushion Bracket	19	11-170012-001	Hex Nut Nylock 3/8-24	33	12-252360-000	D-Washer
7	12-250189-000	Rubber Bushing	20	11-190512-001	Flat Washer	34	12-100185-036	Spacer
8	12-250011-002	Spacer	21	12-252349-000	Follower Spacer	35	10-424001-000	Sleeve Oilite Bearing
9	12-252073-000	Support Arm	22	11-420094-000	Sleeve Oilite Bearing	36	12-862839-000	Cushion Mount & Bearing
10	10-229601-000	X-Washer Pin	23	12-252351-000	Roller	37	11-170012-001	Hex Nut Nylock 3/8-24
11	11-170016-001	Hex Nut Nylock 1/2-20	24	11-190511-001	Flat Washer	38	10-009001-001	Hx Sckt Hd Screw 3/8-24 x 2-1/16"
12	12-252173-000	"A·2" Shock Absorber	25	12-252346-000	Follower Link			
12a	12-250173-000	"A" Shock Absorber	26	10-386092-000	Spacer			
13	12-252348-000	Elevator Plate	27	11-001394-001	HxHd Screw 3/8-24 x 2-1/2"			

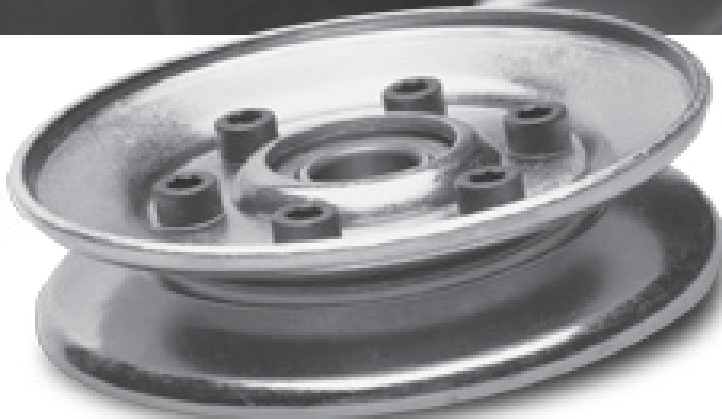
A·2 > PIT CONVEYOR ASSEMBLY

IDLER PULLEY ASSEMBLY

Split, steel pulley with bolt-together design for easy bearing replacement.

- Comes fully assembled with hardware
- Replaceable steel bearing – 11-434001-000 allows for replacement of the high-wear part
- For screw only – 11-005088-001

12-300075-000

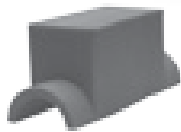


PIT BOARD BUMPER

Prevent the pit conveyor board from knocking against the pit frame

- Sturdy urethane mold
- Hose clamps available for mounting part number 11-603201-000 (2 required)

12-302212-000



NATURAL RUBBER PIT MOUNT

Keeps pins and balls moving correctly through the pit conveyor.

- Natural rubber compound offers better dampening capabilities compared to neoprene
- Our grade 5 metals and strict rubber curing process ensure durability and performance
- Broken mounts can lead to ball calls and poor pin transfer to the elevator

TIP: Using locknuts to secure the mounts can be difficult to install and can damage the pit mount. For proper installation and replacement of the mounts use Keys Nut – 11-176001-001.

90-675000-000



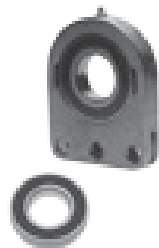
VIBRATOR SHAFT BEARINGS

Original equipment bearing and housing assembly. Keeps the vibrator shaft in place and quiet.

12-300160-000

– Complete Bearing and Housing Assembly

12-300160-003 – Bearing only



QUICK RELEASE PIT CONVEYOR CONVERSION KIT

Quick release design requires no tools to release the pit board. Positive spring loading holds board in place better than old style.

12-860624-000

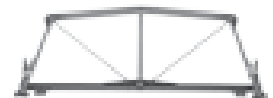


PIT FRAME ASSEMBLY

Quick-release design allows for secure board positioning and easy pit board removal.

- L.H. Lever and Bracket – 12-300193-000
- L.H. Clamp and Pin Assembly – 12-300169-000
- R.H. Lever and Bracket – 12-300192-000
- R.H. Clamp and Pin Assembly – 12-300168-000

12-860659-000



ADVANCED PERFORMANCE VIBRATOR SHAFT BEARING SHIMS

Bottom pit conveyor frames vary in thickness over the years.

- Use these shims when assembling the vibrator shaft bearing assembly to the frame to help fill in the gap
- Package contains 4 shims

12-862027-000



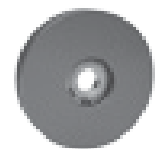
Advanced Performance

V-BELT IDLER PULLEY

Solid steel, precision machined pulley with replaceable bearing.

- Replaceable steel bearing only – 11-434001-000

12-400819-000



DRIVE PULLEYS

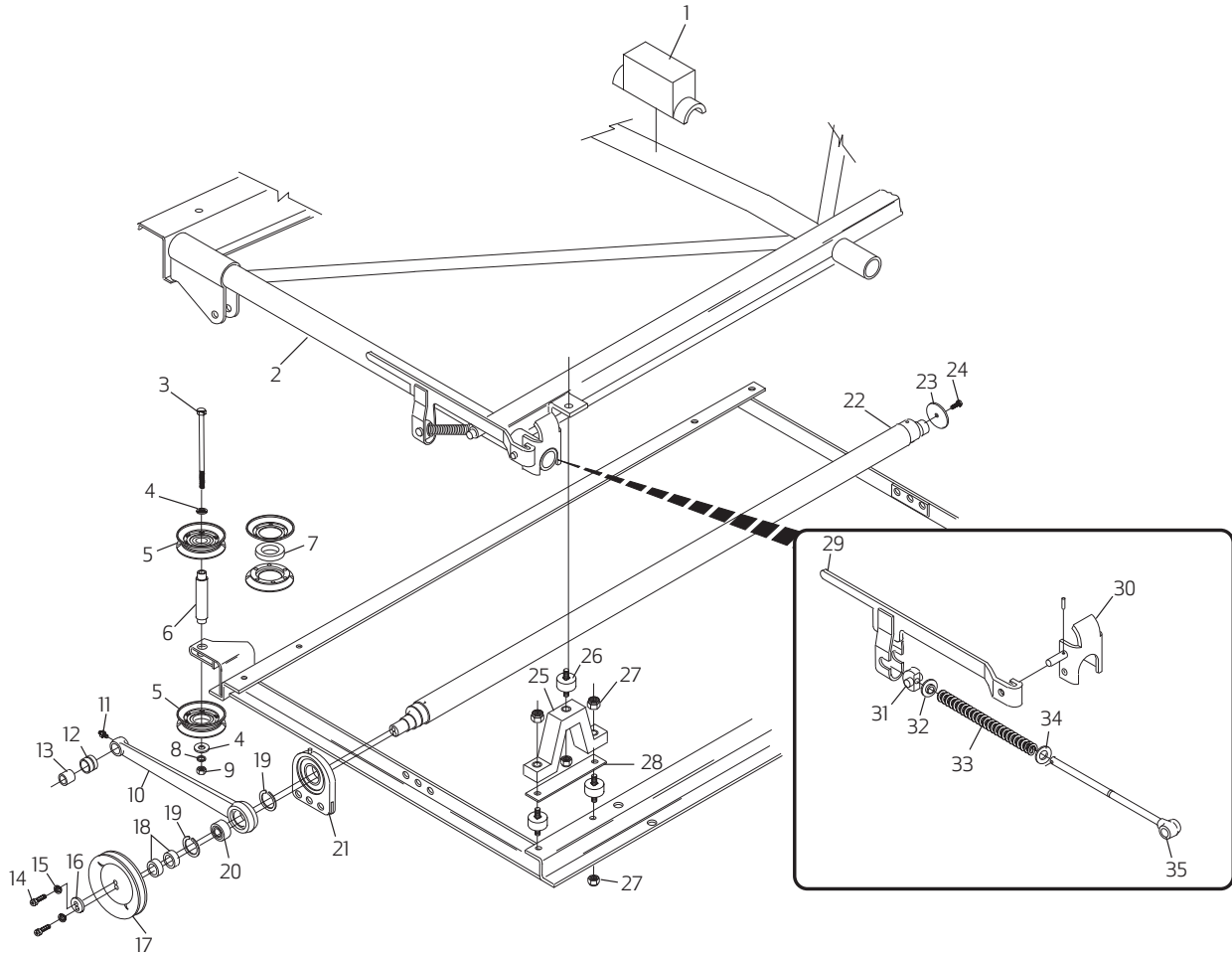
One-piece steel pulleys are welded and riveted for strength and durability. Pulley groove angle is controlled for optimum belt drive.

12-300071-000 – Front

12-300073-000 – Rear



For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	12-302212-000	Pit Board Bumper	15	11-196012-001	High Collar Lockwasher 1/4"	26	90-675000-000	Black Rubber Pit Mount
2	12-860659-000	Pit Frame Assembly	16	12-300016-002	Washer	27	11-176001-001	Keps Nut 5/16-18
3	11-001286-001	Hx Hd Cap Screw 5/16-18x5-1/2"	17	12-300088-000	Pulley Assembly	28	12-300024-003	Front Tie Plate
4	11-190012-001	Flat Washer - SAE 5/16	18	12-300013-002	Spacer	28	12-300024-002	Rear Tie Plate
5	12-300075-000	Idler Pulley Assembly	19	11-536026-000	Spiral Retaining Ring	29	12-300192-000	R.H. Lever & Bracket
6	12-300109-000	Shaft	20	11-491000-000	Ball Bearing	29	12-300193-000	L.H. Lever & Bracket
7	11-434001-000	Bearing .500 ID x 1.125 OD	21	12-300160-000	Bearing & Housing Assembly	30	12-300168-000	R.H. Clamp & Pin Assembly
8	11-195015-001	Lockwasher 5/16	22	12-300141-000	Vibrator Shaft	30	12-300169-000	L.H. Clamp & Pin Assembly
9	11-125102-001	Hex Nut 5/16-18	22	12-300126-000	Vibrator Shaft - Oscillating	31	12-300178-000	Pivot
10	12-300163-000	AP - Jogger Link	23	12-300081-004	Flat Washer	32	12-300189-000	Step Washer
10	12-300194-000	Jogger Link Assembly	24	11-110130-001	Hx Hd Cap Screw 1/4-20x3/4"	33	12-300172-000	Compression Spring
11	11-280001-000	Grease Fitting 11/32	25	90-300076-000	Front Pit Mount - Urethane	34	11-190016-001	Flat Washer 7/16
12	11-450001-000	Bearing	25	90-300077-000	Rear Pit Mount - Urethane	35	12-300170-000	Spring Guide
13	11-450201-000	Inner Ring	25	12-300076-000	Steel Front Pier			
14	11-005184-011	Hx Sckt Hd Cap Screw	25	12-300077-000	Steel Rear Pier			

A•2 > PIT CONVEYOR ASSEMBLY

PIT BOARD RUBBER BLOCK REPLACEMENT PARTS

Eliminates pit board from bouncing on metal frame and making noise.

- Secures pit board from floating side to side
- Replacement Parts:
Screws - 11-014090-009 (2)
Nut - 11-170005-001 (2)
Rubber Strip 48" - 12-300146-002
Rubber Strip 17" - 12-300146-004
Rubber Strip 6" - 12-300180-000
Rubber Block - 12-300212-000

12-862833-000

ADVANCED PERFORMANCE FIBERGLASS PIT BOARD ASSEMBLY

Ready-to-install board comes fully assembled with carpet, rubber blocks and strips.

- High-tech process ensures consistently strong parts without the material variations and weak spots inherent in wood grain
- Increased density in high-impact areas boosts the life of the board
- 5-year warranty
- Fiberglass Pit Board Only - 12-860620-002

12-860620-003

PIT CARPET COVER

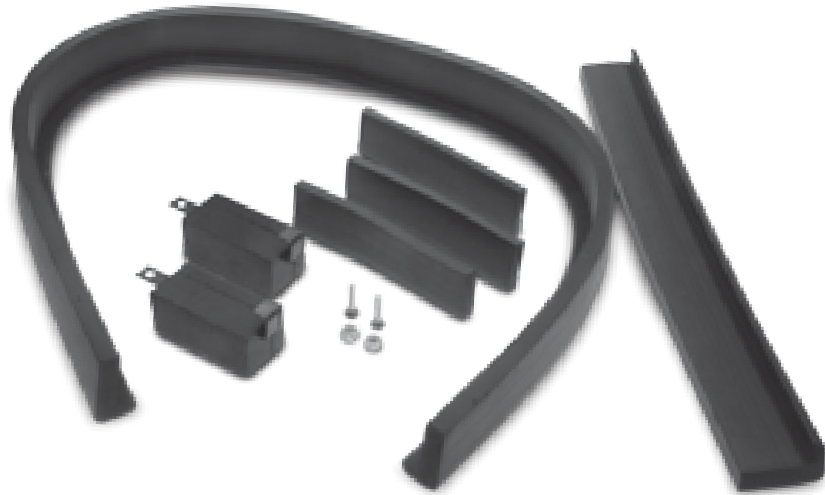
Cover removes dirt and oil from balls and pins.

12-860725-000

HEAVY DUTY PIT CARPET COVER

Reinforced stitching prevents unraveling. Heavy-duty material lasts longer and cleans pins better.

12-862919-000



**Advanced
Performance**



PIT RUG

Tightly woven, continuous loop pile resists wear from bowling pins and balls.

- Industrial-grade carpet made from three-ply 100% virgin nylon
- Fits all models of A, A•2, and Jetback pinsetters
- Suitable for wood or fiberglass boards

12-300103-000

WOOD PIT BOARD ASSEMBLY

Ready-to-install pit board comes with deflectors, pit carpet, rubber blocks and strips.

- Wood pit board only - 12-860620-005

12-860620-004

CONTACT ADHESIVE

Adhesive for pit carpets, pit boards, pit cushions, power lift parts and numerous other applications. Fast-drying and strong.

11-676047-000 - (Gallon)

VIBRATOR SHAFT

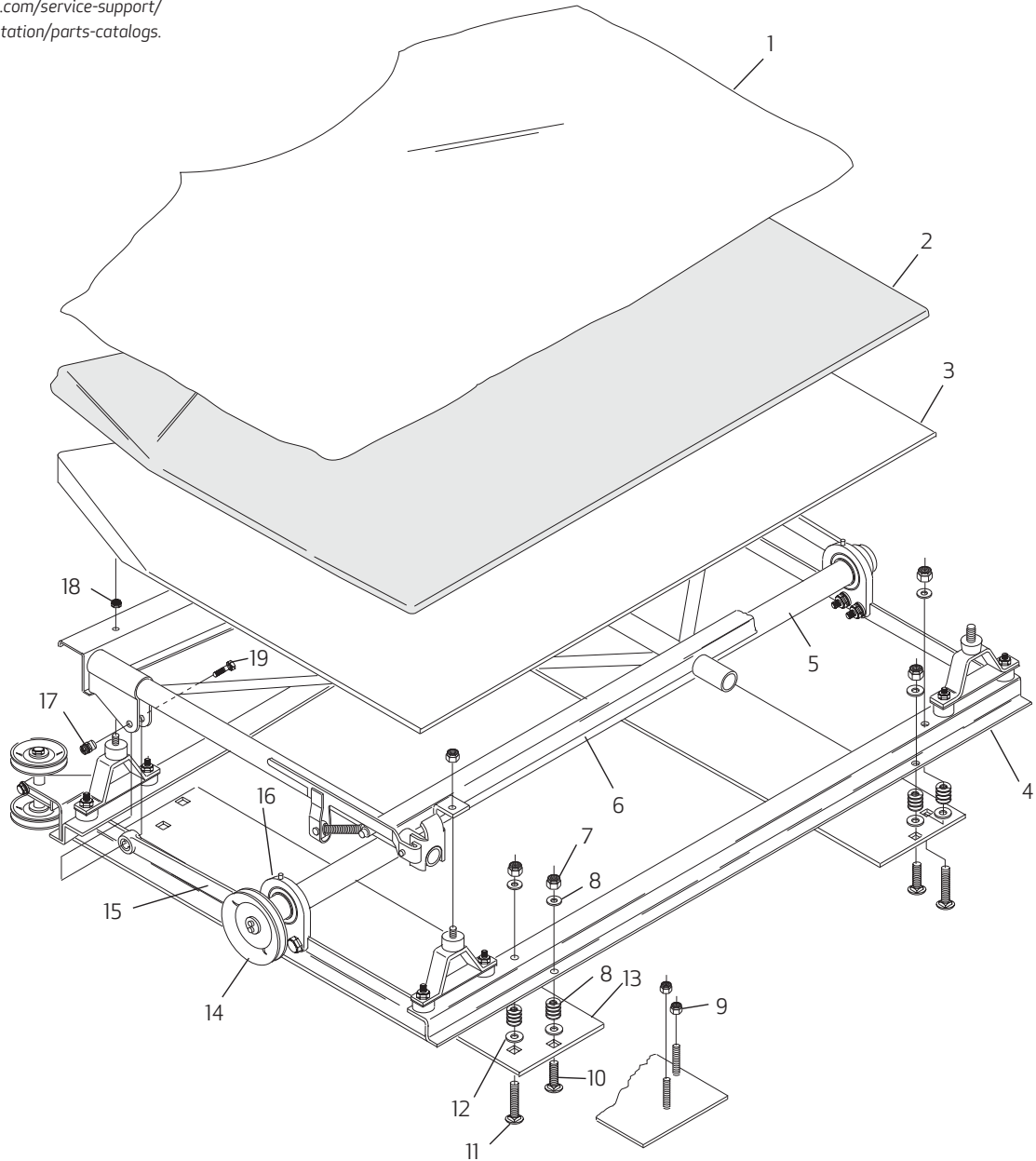
Strong, hard steel shaft prevents wear at bearing journals.

- Solid, one-piece design
- Bearing journals and shaft ends are machined for a tight fit, extending the life of shaft and mating parts

12-300141-000



For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	12-860725-000	Pit Carpet Cover (1Ea.)	8	11-191018-001	Flat Washer 1/2	15	12-300194-000	Jogger Link Assembly
2	12-300103-000	Pit Rug	9	11-170013-001	Self-Locking Nut 7/16-14	16	12-300160-000	Bearing & House Assembly
3	12-860620-002	AP - Fiberglass Pit Board Only	10	12-300107-002	Carriage Bolt (machines prior 3,850)	16	12-300160-003	Bearing
3	12-860620-003	AP - Fiberglass Pit Board Assy.	11	12-300107-003	Bolt (machines for 3,850 and up)	17	11-155401-002	Spline Nut 3/8-24
4	12-300131-000	Frame Assembly	12	11-191024-001	Flat Washer 3/4	18	11-176001-001	Keps Nut 5/16-18"
5	12-300141-000	Vibrator Shaft	13	12-300110-000	Pit Sub Mounting Plate	19	11-001390-001	Hx Hd Cap Screw 3/8-24x1-3/4
6	12-860659-000	Pit Frame Assembly	14	12-300088-000	Pulley Assembly			
7	11-170016-001	Hex Nut Nylock 1/2-20						

A·2 > RAKE ASSEMBLY



RAKE SHOCK KIT

Everything needed to ensure that the rake shock absorber is in top operating condition. Packaged in a kit for convenience.

12-252382-000



ADVANCED PERFORMANCE SMOOTH DROP RAKE SHOCK

Exclusive design, available only from Brunswick. QUIETER – eliminates initial noise during start-ups

- Prevents automatic scoring errors caused by rake interference from a slow shock
- Fully assembled with rubber bushings in mounting holes, nylon spacer, and adjusting hardware. Easy-to-install
- Rubber bushings installed in the mounting ends extend the connecting pin's life
- Rubber Bushing – 12-250189-000
- Polyurethane Spacer – 12-252342-000

12-252343-000

RAKE SHOCK ASSEMBLY

- Prevents automatic scoring errors caused by rake interference from a slow shock
- Fully assembled with rubber bushings in mounting holes, nylon spacer, and adjusting hardware. Easy-to-install
- Rubber bushings installed in the mounting ends extend the connecting pin's life
- Rubber Bushing – 12-250189-000
- Polyurethane Spacer – 12-252342-000

12-252338-000



Advanced Performance



RAKE SHAFT REPAIR KITS

Tube is precision machined for easy installation yet provides snug fit for long life.

- Steel tube is easy to drill
- Comes complete with sleeve, all engineering approved hardware, and easy-to-use instructions

TIP: Use the rake shaft repair driver (12-700115-003) to prevent flaring damage to the repair shaft.

12-860607-000 – US Machines

12-860665-000 – Japanese Machines



ADVANCED PERFORMANCE ANTI-INVERSION KIT

Stop trip rod lever and pivot link inversions. Installs quickly.

- Designed by Mechanic Bruce McMartin

12-862012-000



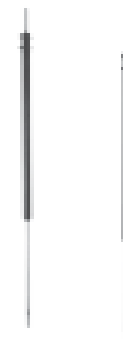
SPRING LOADED RAKE CRANK ROD

Eliminate bending rake crank rods from catching on the tail plank.

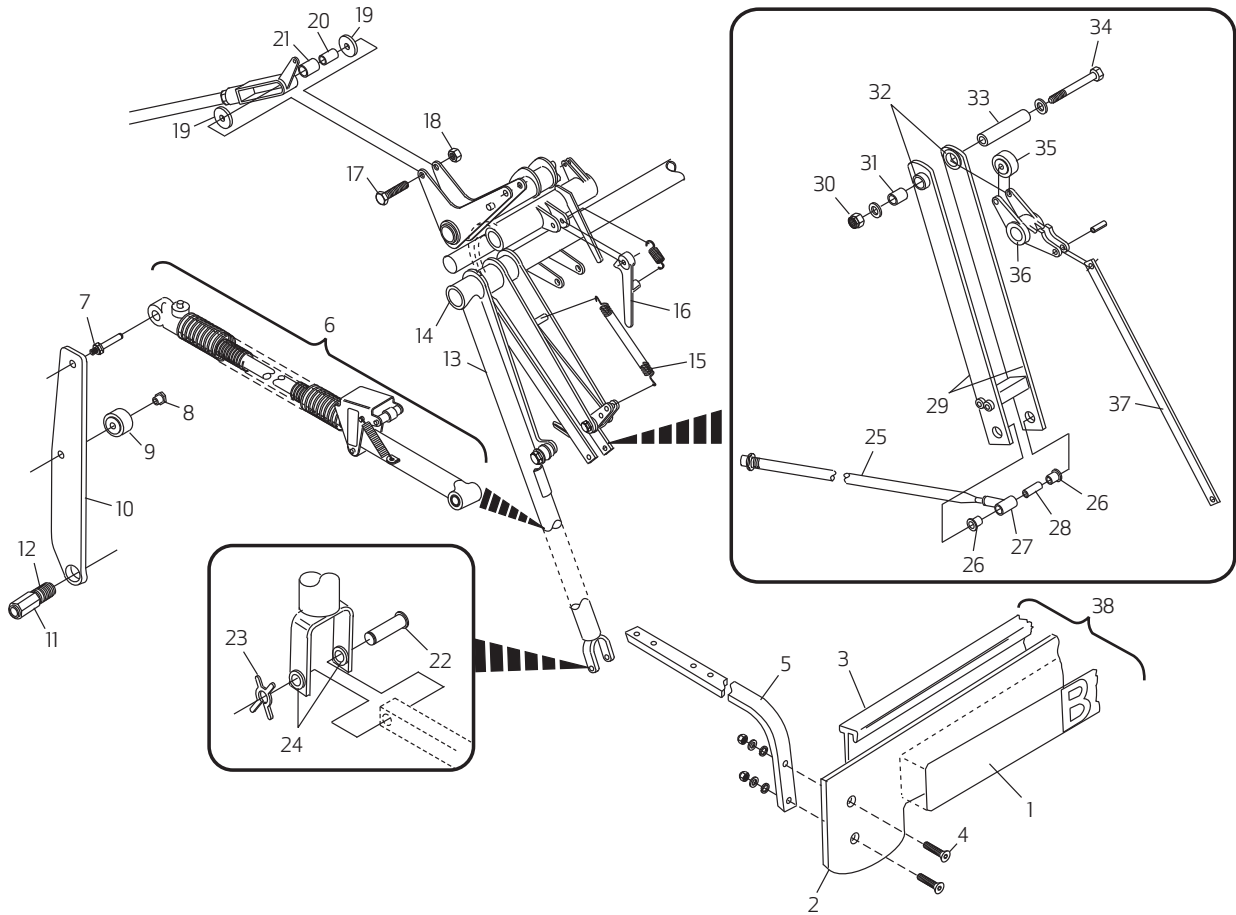
- Spring-loaded, steel rod compresses and returns if rake board jams behind the tail plank during machine operation
- Absorbs shock of accidental bowling ball impact on the rake board

12-252309-000 – Straight ends

12-250289-000 – Tapered ends



For complete schematics please refer to the
A•2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	12-252290-000	Brunswick Astrogray Decal	14	11-421030-000	Flanged Oilite Bearing	27	12-250014-000	Pivot Assembly
1	12-252290-010	Brunswick Brown Decal	15	12-250050-000	Spring	27	12-250273-000	Pivot Assembly
2	12-252373-000	Gray Rake Board W/O Decal	16	12-250044-000	Latch	28	12-250011-014	Spacer
2	12-252373-010	Brown Rake Board W/O Decal	17	11-002008-001	Hx Hd Sckt Cap Screw 1/4-20x2"	29	12-250225-000	Link & Bearing Assembly
3	12-252372-000	Gray Rake Board Cushion	18	11-170007-001	Hex Nut Nylock 1/4-20	30	11-170009-001	Hex Nut Nylock 5/16-18
3	12-252372-010	Brown Rake Board Cushion	19	12-250076-003	Washer	31	12-250011-012	Spacer
4	11-007386-001	Fl Hd Sckt Cap Screw 3/8-24x1-1/4"	20	12-250091-000	Sleeve Oilite Bearing	32	11-421017-000	Flanged Oilite Bearing
5	90-252037-000	AP - Molded Sweep Arm Assembly	21	12-252090-000	Bumper	33	12-250011-011	Spacer
6	12-252301-000	Rake Latch Assembly (pg. 75)	22	12-250010-007	X-Washer Pin	33	12-250053-004	Washer
7	12-250229-000	Pivot Stud	23	11-230005-001	"X" Washer 1/4	34	11-002072-001	Hx Hd Sckt Cap Screw 5/16-18x3"
8	12-250244-000	Bearing Stud	24	11-420063-000	Sleeve Oilite Bearing	35	11-450302-000	Ball Bearing
9	11-460000-000	Needle Roller Bearing	24	11-421147-000	Bearing, 5145 ID x .6905 OD	36	12-250029-000	Bell Crank
10	12-252234-000	Cam Follower Arm, Model A•2	25	12-250022-002	Rod, Rake Crank, Tapered	37	12-250040-000	Link
11	11-421019-000	Flanged Oilite Bearing	25	12-250278-002	Rod, Rake Crank, Straight	38	12-252374-010	Brown Rake Board w/Decal & Cushion
12	12-250230-000	Hub & Bearing Assembly	25	12-252309-000	Collapsible Rake Crank Rod, Straight	38	12-252374-000	Astrogray Rake Brdw/Decal & Cushion
13	12-862186-000	Rake Shaft Assembly	26	11-421027-000	Flanged Oilite Bearing			

A•2 > RAKE ASSEMBLY



TRIP ARM ASSEMBLY

Die cast trip arm. Oilite bearings – 11-421103-000 are factory installed.

12-252354-002

ADVANCED PERFORMANCE RAKE LIFT ARM REPAIR KITS

Avoid costly repairs later from worn or slotted “rabbit ears”

- Damaged V levers or C levers can cause trigger failure, improper rake dropping, and automatic scoring errors
- Cover elongated holes with new steel reinforcement plates. Precisely positioned mounting holes match original mounting hole pattern
- For use on all pinsetter models
- Instructions and hardware included

12-862582-000 – V Lever

12-862377-000 – C Lever



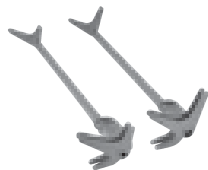
**Advanced
Performance**

RAKE LIFT ARM ASSEMBLY

Get the best lift for the dollar.

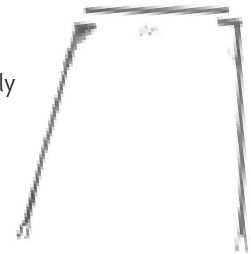
- All-steel rake lift arm is produced on a precision welding fixture to ensure exact positioning of V and C levers
- Lever positioning is critical for smooth rake dropping without binding
- Continuous welds around pipe for strong, durable joints
- Rake Lift Arm Repair Kit – 12-862582-000

12-252048-000 – A•2 and Jetback
New and Converted



RAKE SHAFT ASSEMBLY

- Three-piece shaft cuts down on shipping, stores easier, and virtually eliminates repairs
- Arms can be quickly and easily replaced in the event of damage
- Eliminates the need for welding or rake shaft repair kits
- Components of 12-862186-000:
Hex Hd. Cap Screw, 1/2-13 x 3" – 11-002252-011
Lockwasher (1/2") – 11-195018-001
Key – 12-252670-000
Center Shaft Weldment – 12-252668-000
Rake Arm - L.H. – 12-252671-000
Rake Arm - R.H. – 12-252672-000
Bronze Flanged Bearing – 11-421147-000



12-862186-000

ROD END KIT

- Replacement rod end kit for A•2 turnbuckle assembly.
- Replace worn rod ends for optimal triggering
- Instructions included



12-860576-000 – RH

12-860577-000 – LH

RAKE LIFT ARM BUMPER AND BEARING ASSEMBLY

One package now works on Model A and A•2. Install oilite bearings – 12-250091-000 to eliminate vibration and ensure smooth lifting and dropping of rake.



12-252092-000

PIVOT LINK

Fully assembled with flanged oilite bearings - 11-421104-000.

12-252355-091



TRIP ROD LEVER

Avoid excessive use of the reset button because the rake won't trigger.

- Trip end is hardened to minimize wear and extend life
- Two replacement oilite bearings required - 11-421102-000

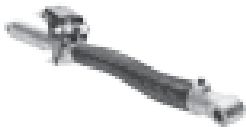


12-252356-000

RAKE LATCH ASSEMBLY

Always keep a couple of "shotguns" in stock to avoid pinsetter recycling problems, which can be an extremely awkward mechanic repair.

- Ready-to-install unit saves time by avoiding unnecessary downtime



12-252301-000

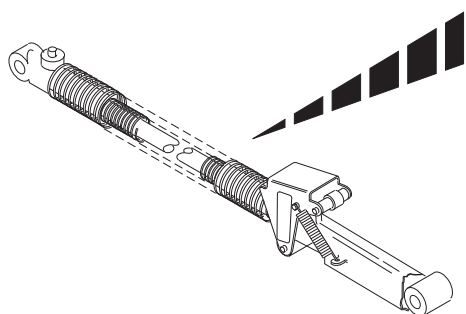
TRIP CYLINDER COMPLETE WITH ALL BEARINGS



Why continue to press in difficult bearings when you can purchase the trip cylinder with the bearings already installed. Saves time and makes rebuilding faster and easier.



12-252335-091



ADVANCED PERFORMANCE SWEEP ARM

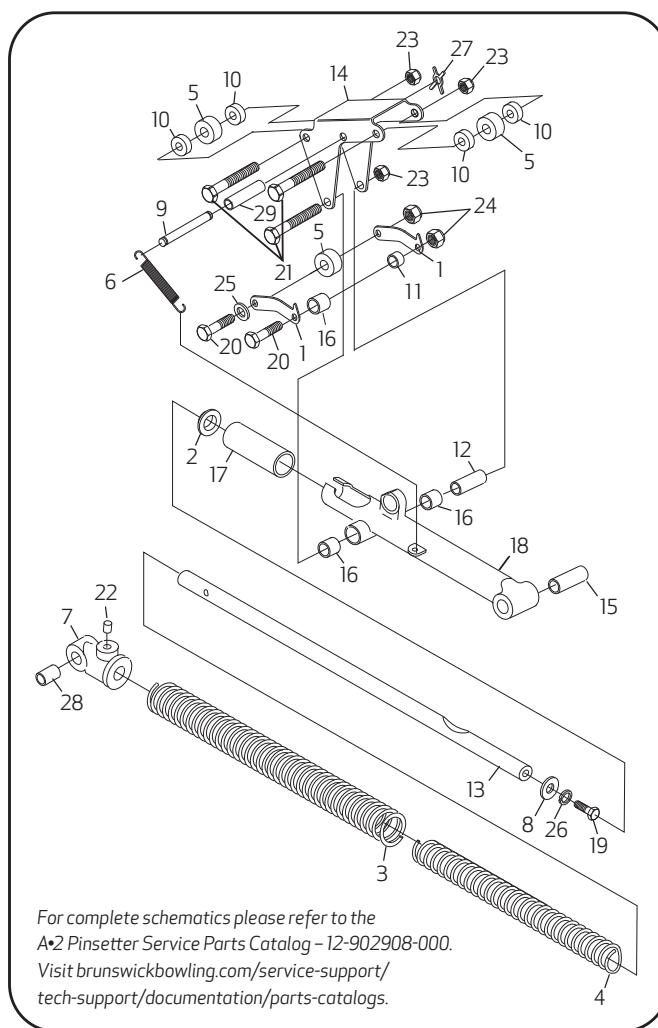
The strongest, most economical sweep arm on the market.

TIP: Make sure to use two sweep arms on each pinsetter.

90-252037-000



Advanced Performance



For complete schematics please refer to the A•2 Pinsetter Service Parts Catalog - 12-902908-000. Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.

PART INDEX

1	12-252326-000	Roller Bracket (2)	11	12-100185-021	Spacer	21	11-001193-001	Hex Head Cap Screw (3)
2	12-252327-000	Spring Seat	12	12-100185-022	Spacer	22	11-101208-001	Hex Socket Set Screw
3	12-252328-000	Compression Spring - R.H.	13	12-252333-000	Trip Bracket	23	11-170007-001	Hex Nut Nylock 1/4-20 (3)
4	12-252329-000	Compression Spring - L.H.	14	12-252334-000	Trip Bracket	24	11-170106-001	Flexloc Hex Nut (2)
5	11-450303-000	Roller Spring (3)	15	11-420096-000	Sleeve Oilite Bearing	25	11-190509-001	Flat Washer - Non-Standard
6	12-252330-000	Tension Spring	16	11-420097-000	Sleeve Oilite Bearing (3)	26	11-195014-001	Lock Washer 1/4
7	12-252331-000	Shaft End	17	11-420098-000	Sleeve Oilite Bearing	27	11-230001-001	X-Washer 1/8
8	11-190508-001	Plain Washer	18	12-252335-000	Trip Cylinder w/o Bearings	28	11-420035-000	Bearing
9	12-252332-000	X-Washer Pin	19	11-001178-001	Hex Head Cap Screw	29	10-386062-000	Spacer
10	12-100185-020	Spacer (4)	20	11-001185-001	Hex Head Cap Screw (2)			

A•2 > ELEVATOR ASSEMBLY

LIFT ROD CAP KITS

Extra durable urethane lift rod caps.

- Comes complete with tie wrap and hose clamps
- To order individual parts:
Bottom Front – 12-402432-000
Top Rear – 12-402043-000
Top Front – 12-402042-000
Clamp – 11-603201-000

NOTE: Individual caps are for the A•2, not the A

12-860614-000 – Model A

12-862860-000 – Model A•2



BALL LIFT ARM REBUILD KIT

Kit includes oversized ball lift arms, oversized bore on spacers, ball bearing, ball lift pin, and cotter pin for cast clapper box.

- All parts are made from high-strength steel and cast iron
- Slide-on sleeve provides a long-lasting surface for ball lift arms to pivot on
- No welding required

12-862866-000



18-INCH BALL ROD COVER

Allows for a quick fix, easy to install (tie wraps not included).

- Made from heavy-duty, long-lasting urethane
- Cut out 18 inches of the damaged rod cover

90-400048-005



PURE GUM RUBBER LIFT ROD COVERS

The cover's ability to grip balls and its fabric-like texture are controlled to ensure optimum ball lift and return.

- Cut the length you need for the spinning ball eliminator, ball lift rods, and ball lift guide rods

12-400048-091 – 50' roll

12-400048-005 – 90" cover



HEAVY-DUTY ROD COVER (RED)

Resists twisting on rods for more effective ball lift and return. Wear resistant red gum rubber material.

90-400048-000 – 50' roll



BALL JAM ELIMINATOR

An innovative product that mounts to the front ball lift rod eliminating ball jams between the pit cushion and the ball lift rods.

- Kit is easy to install, includes all hardware and instructions

12-860548-000



ADVANCED PERFORMANCE BALL LIFT ROD COVER

Extremely durable! Specially formulated urethane foam material wears 60% less than any other rod cover on the market.

- Incredibly flexible and comes in 3 pieces

90-400048-600



Advanced Performance

BALL LIFT ROD ASSEMBLY

Put an end to ball lift return problems. Install a new ball lift rod assembly.

- The Model A and Model A•2 versions both have the original cast clapper box. Durable weld on box will not crack
- Fully assembled with non-marking, pure gum rubber rod covers and bottom urethane lift rod cap for greater protection
- Also includes lift pin, adjusting screw, mounting hardware, and top urethane rod caps (unassembled)

12-860579-000 – For Model A

12-862579-000 – For Model A•2/Jetback



ANTI YO-YO KIT

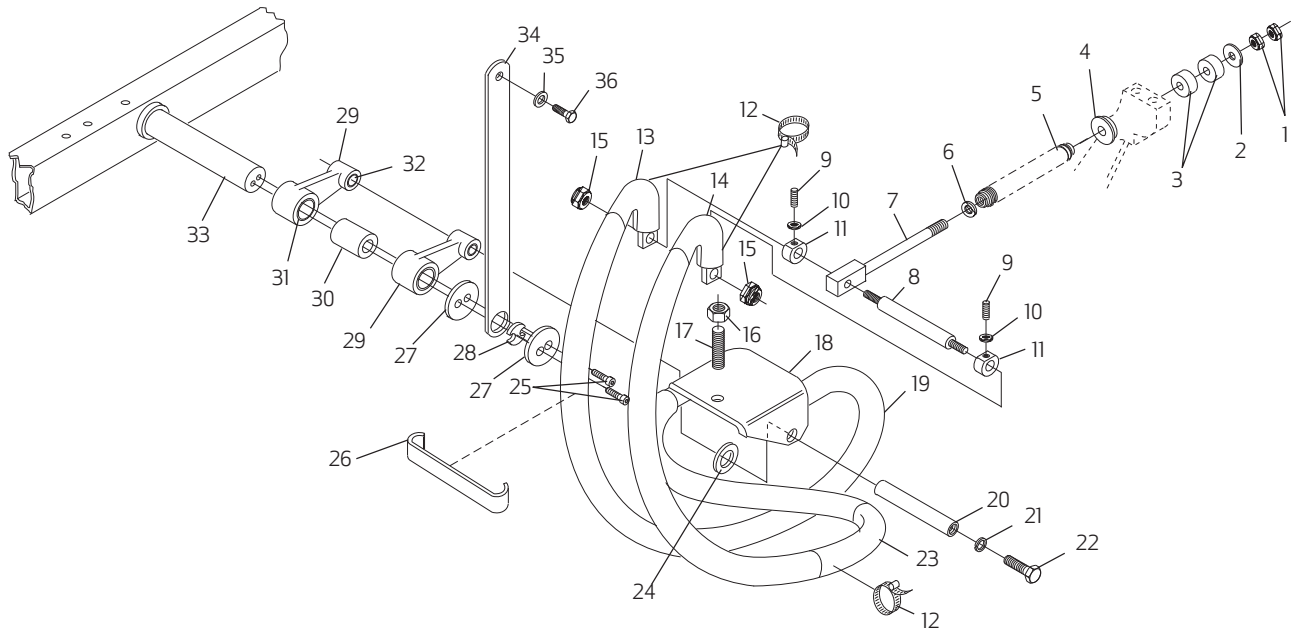
Helps to eliminate yo-yo problems.

- Kit revives lift rod assembly by centering ball lift rods with ball wheel

12-862014-000



For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	11-125208-001	Hex Jam Nut 1/2-13	13	12-402043-000	Top Rear Rod Cover	24	11-191024-001	Flat Washer 3/4"
2	12-400139-004	Washer	14	12-402042-000	Top Front Rod Cover	25	11-005183-001	Cap Screw 1/4 x 20 x 7/8"
3	12-400123-000	Rubber Bumper	15	11-170014-001	Hex Nut Nylock 7/16-20	26	12-402096-000	Clamp A·2
3	90-400123-000	Spring Rod Bushing	16	11-125204-001	Hex Jam Nut 3/8-16	26	12-400096-000	Clamp A
4	12-400803-000	Spring Rod Bushing	17	11-102262-001	Set Screw 3/8-16 x 2-3/4"	27	12-402053-000	Retaining Washer
4	90-400803-000	AP - Delrin Spring Bushing	18	12-862579-000	"A·2" Ball Lift Rod Assembly	28	12-402054-000	Spacer
5	12-402121-000	Compression Spring	18	12-860579-000	B/L Rod Assembly, Model A	29	12-400288-000	Ball Lift Arm Assembly
6	11-190018-001	Flat Washer 1/2	19	90-400048-000	Heavy-Duty B/L Rod Cover	30	12-400289-000	Spacer
7	12-400193-000	AP - Spring Rod	19	12-400048-091	Gum Rubber Ball Rod Cover	31	12-400199-000	Flanged Oilite Bearing
8	12-400051-000	Ball Lift Stud, Model A	19	90-400048-600	AP - Ball Lift Rod Cover	32	11-421041-000	Flanged Oilite Bearing
8	12-402051-000	Ball Lift Stud, Model A·2	20	12-400848-000	Shaft, For Steel Clapper Box	33	12-400149-000	Shaft
9	11-105208-001	Set Screw	20	12-400053-000	Ball Lift Pin, For Cast Steel	34	12-402425-000	Support Brace
10	11-170108-001	Flexlock Hex Nut 5/16-18	21	11-195016-001	Lockwasher 3/8	35	11-195015-001	Lockwasher 5/16"
11	12-400300-000	Collar	22	11-002124-001	Hex Head Cap Screw	36	11-001263-001	HxHd Cap Screw 5/16x18x7/8"
12	11-603201-000	Hose Clamp	23	12-402432-000	Bottom Front Rod Cover			

A•2 > ELEVATOR ASSEMBLY

ADVANCED PERFORMANCE SPINNING BALL ELIMINATOR II (SBE II)

Prevents pins from jamming under the SBE shaft and eliminates foam and rubber covers.

- Rollers guide light weight balls in for faster return
- Installs easily
- Designed by Mechanic Kevin Hizar

12-862250-000 – Roller Assembly Only

12-862262-000 – SBE II with Arm

12-862253-000 – Japanese Roller Only

ADVANCED PERFORMANCE SBE AND BALL JAM ELIMINATOR KIT

Includes: 12-860583-000 and 12-860548-000

12-860229-600

SPINNING BALL ELIMINATOR (SBE)

Ensure balls get back to bowlers without assistance.

- Eliminates ball calls caused by spinning balls
- Requires no driving mechanism
- Now comes with Urethane Foam Rod Cover

12-860583-000

ADVANCED PERFORMANCE BALL LIFT ROD (TRACK) SUPPORT

One piece design eliminates the problems found with the original design.

- Fits all A•2 and converted models
- Includes instructions and mounting hardware

12-862180-000

REPLACEMENT BALL WHEEL

Manufactured to original OEM specifications which allow proper transition of ball through lift rods.

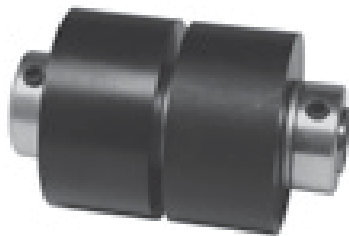
12-860662-000

BALL STOP ASSEMBLY

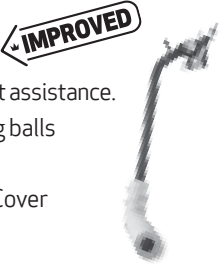
This urethane assembly prevents expensive ball damage by keeping balls out of the pin wheel.

- Prevents balls from driving under the lift rods, reducing ball damage
- Includes mounting hardware

12-862011-000



Advanced Performance



Advanced Performance



ADVANCED PERFORMANCE UNIVERSAL BALL WHEEL GUARD

- Improved inserts made with Toughened Nylon 6/6 to resist breakage
- Prevents expensive damage to balls and pins that could be damaged by elevator wheels
- Non-marking to ball and pins
- Universal design fits both right hand and left hand side of elevator
- Slotted mounting holes for easy installation
- Replacement Hardware: Button Head Socket Cap Screw - 11-006506-001 or Carriage Bolt - 11-071085-001



90-400840-600

Advanced Performance

BALL WHEEL WIPER KIT WITH CLOTHS

The ball wheel wiper continually removes dirt and oil from the ball wheel. This means less dirt and oil in the ball return system all the way back to the bowler. Pads are washable and additional replacement pads can also be purchased in a two-pack.



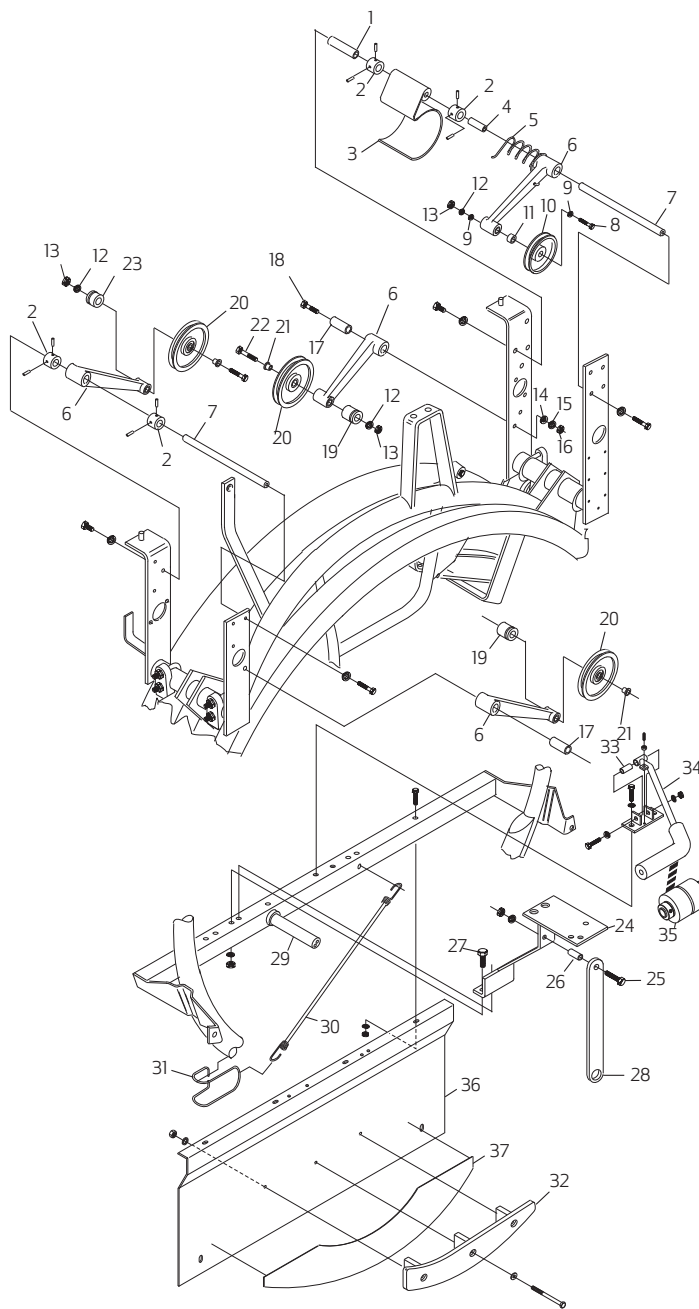
12-862055-000

12-862054-000 – Replacement Cloths (2/pkg)

For complete schematics please refer to the A·2 Pinsetter Service Parts Catalog - 12-902908-000. Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.

TECH TIP

Failing jack shafts and bearings? Failing jack shafts and bearings can be the result of the bearing being press fit onto the shaft. The bearing should be locked against the shoulder of the shaft by the clamping action of a bolt, lock washer, heavy duty pulley, and a spacer. When assembled, the end of the jack shaft should be slightly recessed inside the hub of the pulley allowing for the clamping action of the bolt to lock the inner race of the bearing against the shoulder of the shaft. If you don't have a recessed condition, it is usually because the spacers have worn down and need to be replaced.



PART INDEX

1	12-400018-016	Spacer
2	12-400281-000	Collar
2	11-105200-001	Set Screw 5/16-18x1/4"
3	12-402422-000	Pin Wheel Brake
4	12-400018-017	Spacer
5	12-400252-000	Torsion Spring
6	12-400254-000	Arm & Bearing Assembly
7	12-400027-000	Idler Arm Stud
8	11-001354-001	Hx Hd Cap Screw 3/8-16x2-1/2"
9	11-190014-001	Flat Washer 3/8"
10	12-400209-000	Idler Pulley
10	12-400221-000	Idler Pulley
11	12-400036-000	Bushing
12	11-195016-001	Lockwasher 3/8

13	11-125102-001	Hex Nut 5/16-18
13	11-125104-001	Hex Nut 3/8-16
14	11-190016-001	Flat Washer 7/16
15	11-195017-001	Lockwasher 7/16
16	11-125106-001	Hex Nut 7/16-14
17	12-400018-023	Spacer
18	11-001359-001	Hx Hd Cap Screw 3/8-16x3-3/4"
19	12-400031-003	Spring Post
20	12-400297-000	Idler Pulley Assembly - Flat Belt
21	12-400030-000	Bearing Bushing
22	11-001357-001	Hx Hd Cap Screw 3/8-16x3-1/4"
23	12-400031-002	Spring Post
24	12-862180-000	AP - Support Arm Assembly
25	11-001272-001	Hx Hd Cap Screw 5/16-18x2"

26	11-387264-002	Rolled Spacer 5/16x1"
27	11-001275-001	Hx Hd Cap Screw 5/16-18x2-3/4"
28	12-402425-000	Support Brace
29	12-400149-000	Shaft
30	11-606200-000	Pin Deflector Cord
31	12-402429-000	Hook
32	12-862011-000	Urethane Ball Stop Assembly
33	12-860583-002	Pivot Spacer
34	12-860583-000	Spinning Ball Eliminator
35	12-862250-000	AP - SBE II
35	12-862262-000	AP - SBE II with Arm
36	12-400237-000	Rear Plate
37	12-400807-000	Rear Plate Pad

A·2 > ELEVATOR ASSEMBLY

ADVANCED PERFORMANCE URETHANE BALL WHEEL GUIDE ROLLERS

Keeps ball wheel rotating smoothly and quietly. Factory assembled with bearings, retaining rings, and hardware.

(A) - 12-400240-000 - Lower LH ball wheel guide roller
Repl. Bearing - 11-430013-000

(B) - 12-400268-000 - Lower RH ball wheel guide roller
Repl. Bearing - 11-430013-000

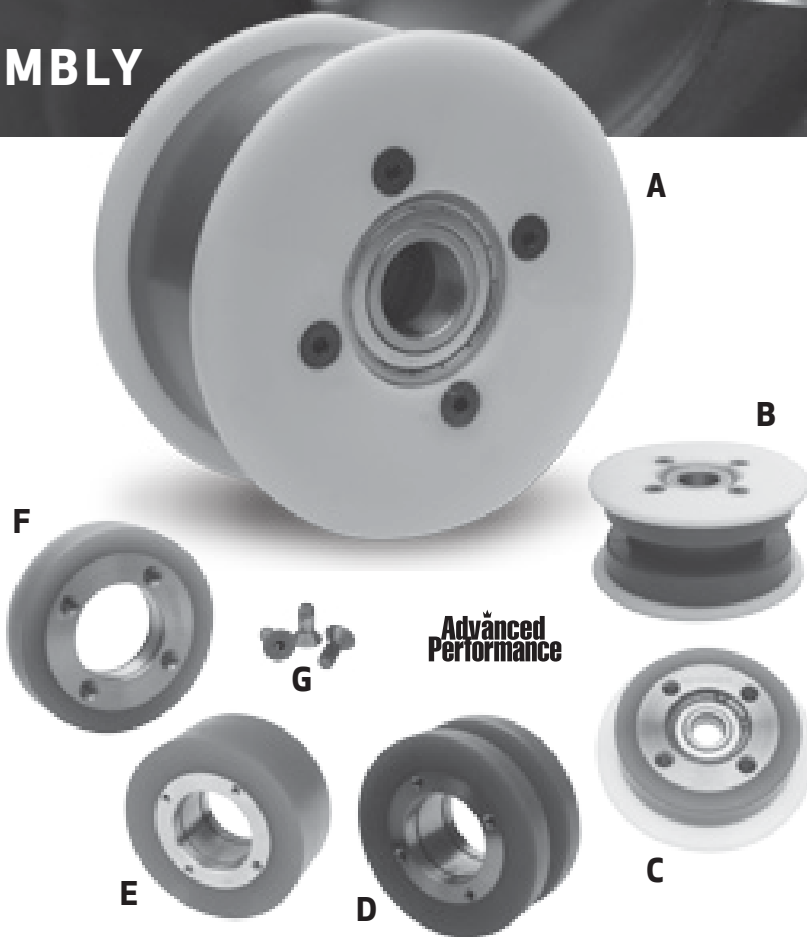
(C) - 12-400272-000 - Upper ball wheel guide roller
Repl. Bearing - 11-430004-000

(D) - 90-400260-000 - Lower RH ball wheel - roller only

(E) - 90-400258-000 - Lower LH ball wheel - roller only

(F) - 12-400271-000 - Upper ball wheel - roller only

(G) - 11-008301-001 - OEM Screws with Nylon Patch
TIP: Tighten to 5-6 Ft. Lbs.



ADVANCED PERFORMANCE HEAVY-DUTY UPPER LEFT HAND BALL WHEEL GUIDE ROLLER ASSEMBLY

Heavy-duty roller replaces two standard ball wheel guide rollers on the upper left-hand (lift rod) side.

- Roller - 90-402108-000
 - Flange - 12-402107-000
 - Bearing - 11-430007-000. May also replace with Bearing - 11-430028-000
- Hardware sold separately:
- Order Screw - 11-022385-001 and Washer - 11-190010-001 separately

12-862823-000



Advanced Performance



CORK/RUBBER BALL WHEEL TRACTION MATERIAL

A special blend of cork and rubber for increased durability improving ball wheel traction and reducing ball calls.

- Premium 3M adhesive backing. No waiting. No more messy contact cement, tape, or cutting down sheets of adhesive material
- Packaged in 23.5' rolls (1.5" wide x .062" thick). Instructions included

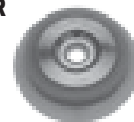
12-860336-000



ONE-PIECE UPPER BALL WHEEL GUIDE ROLLER

One-piece roller is injection molded from an abrasion-resistant urethane. Fully assembled with a replaceable bearing - 11-430004-000.

90-400272-000



BALL WHEEL GUIDE ROLLER FLANGES

These improved flanges will not break or deform.

12-400257-000 - For lower ball wheel guides

12-400269-000 - For upper ball wheel guide

12-402107-000 - For heavy-duty ball wheel guide

11-008301-001 - OEM Screws with Nylon Patch
TIP: Tighten to 5-6 Ft. Lbs.



BALL WHEEL TRACTION MATERIAL

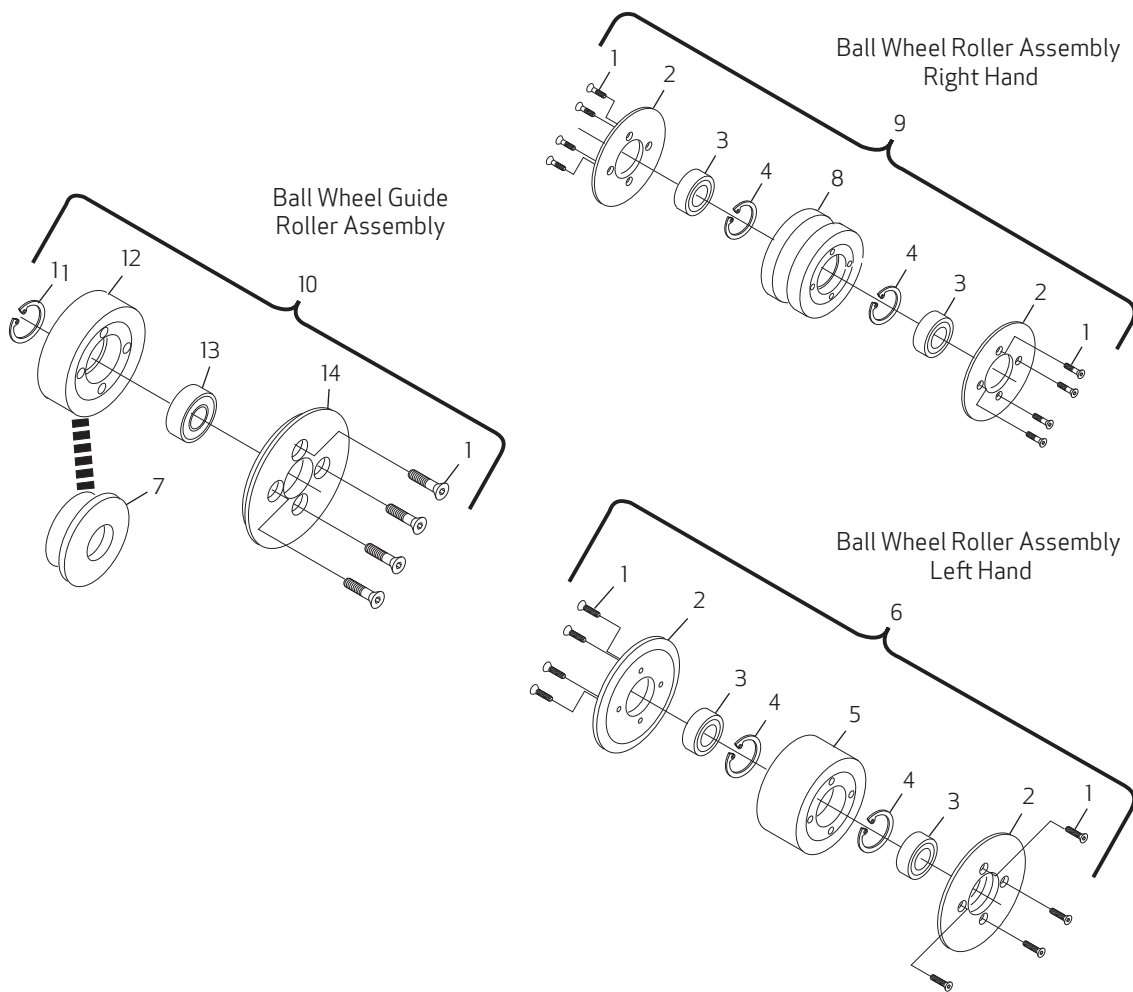
Give oily balls the extra traction they need to get up the ball wheel.

- Made from tough synthetic thermoplastic to withstand oil and dirt
- Self-adhesive back provides quick and easy installation without contact cement
- Packaged in 10' rolls

12-860330-000



For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	11-008301-001	Screw C'sunk Hex Socw/Nylon Patch	6	12-400240-000	L.H. Ball Wheel Roller Assy.	11	11-530522-000	Internal Retaining Ring
2	12-400257-000	Flange	7	90-400272-000	Ball Wheel Guide Roller-One Piece	12	12-400271-000	Upper Ball Wheel Guide Roller
3	11-430013-000	Ball Bearing	8	90-400260-000	R.H. Ball Wheel Roller	13	11-430004-000	Ball Bearing
4	11-531020-000	Inverted Internal Retaining Ring	9	12-400268-000	Ball Wheel Roller Assembly	14	12-400269-000	Flange
5	90-400258-000	L.H. Ball Wheel Roller	10	12-400272-000	Ball Wheel Guide Roller Assembly			

A•2 > ELEVATOR ASSEMBLY

ADVANCED PERFORMANCE URETHANE PIN WHEEL GUIDE ROLLERS

Keeps your pin wheel rotating smoothly and quietly.

- Tough, wear-resistant Dyalon® "B" urethane tire is securely bonded to a steel hub specifically designed for this application
- Nylon flanges have been improved to eliminate fracturing and deforming problems
- Factory assembled with bearings, retaining rings, and hardware

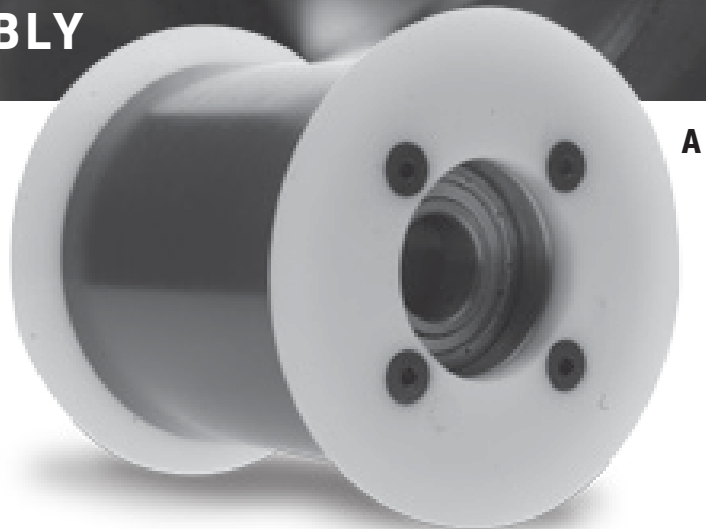
(A) - 12-400263-000 - Lower pin wheel guide roller
Repl. Bearing - 11-430013-000

(B) - 12-400266-000 - Upper pin wheel guide roller
Repl. Bearing - 11-432000-000

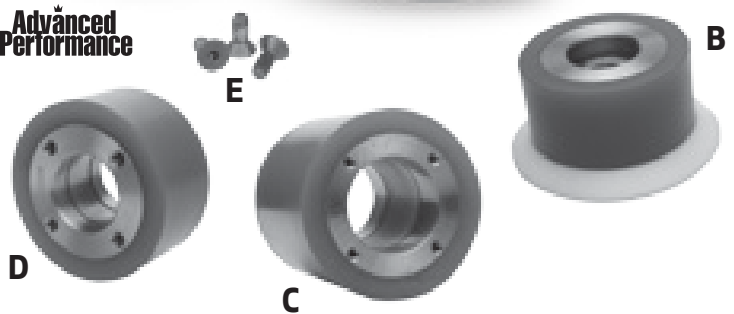
(C) - 90-400261-000 - Lower pin wheel - roller only

(D) - 90-400264-000 - Upper pin wheel - roller only

(E) - 11-008301-001 - OEM Screws with Nylon Patch
TIP: Tighten to 5-6 Ft. Lbs.



Advanced Performance



ADVANCED PERFORMANCE MODULAR PIN WHEEL

Quiet. Lightweight. Impact resistant. Low cost. The best-selling pin wheel in the industry.

- Polymer pin wheel won't rust, or be noisy like steel wheels
- Patented design with individual pin pockets
- Seven identical pockets create one wheel with unbeatable strength and durability
- For individual segment hardware order:
Spacer - 12-400335-000
Hex Head Cap Screw - 11-001267-001
Lock Nut - 11-170009-001
Washer - 11-190012-001
Modular Pin Wheel Hardware Package - 12-860035-000

NOTE: If installing on a Japanese Pinsetter, you must order Belt - 12-400034-005

12-860071-000 - Assembly

12-400104-000 - Single pocket

PIN WHEEL GUIDE ROLLER KIT

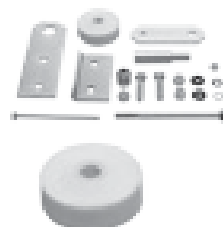
Reduce pin wheel vibration with this handy kit.

12-860807-000 - Kit

12-400674-000 - Roller only



Advanced Performance



PIN WHEEL GUIDE ROLLER FLANGES

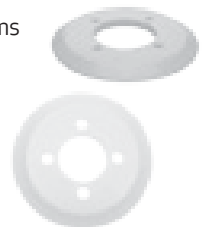
New and improved flanges eliminate problems of hardware coming loose.

- Will not break or deform
- Nylon flanges made from a special blend of DuPont Zytel®

12-400262-000 - For lower pin wheel guide

12-400265-000 - For upper pin wheel guide

11-008301-001 - OEM Screws w/ Nylon Patch
TIP: Tighten to 5-6 Ft. Lbs.



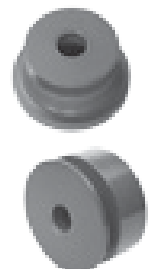
PIN WHEEL DRIVE PULLEY ASSEMBLIES

To run a pin wheel faster, use the large pulley - 12-402126-000, to run it slower, use the small pulley - 12-400126-000.

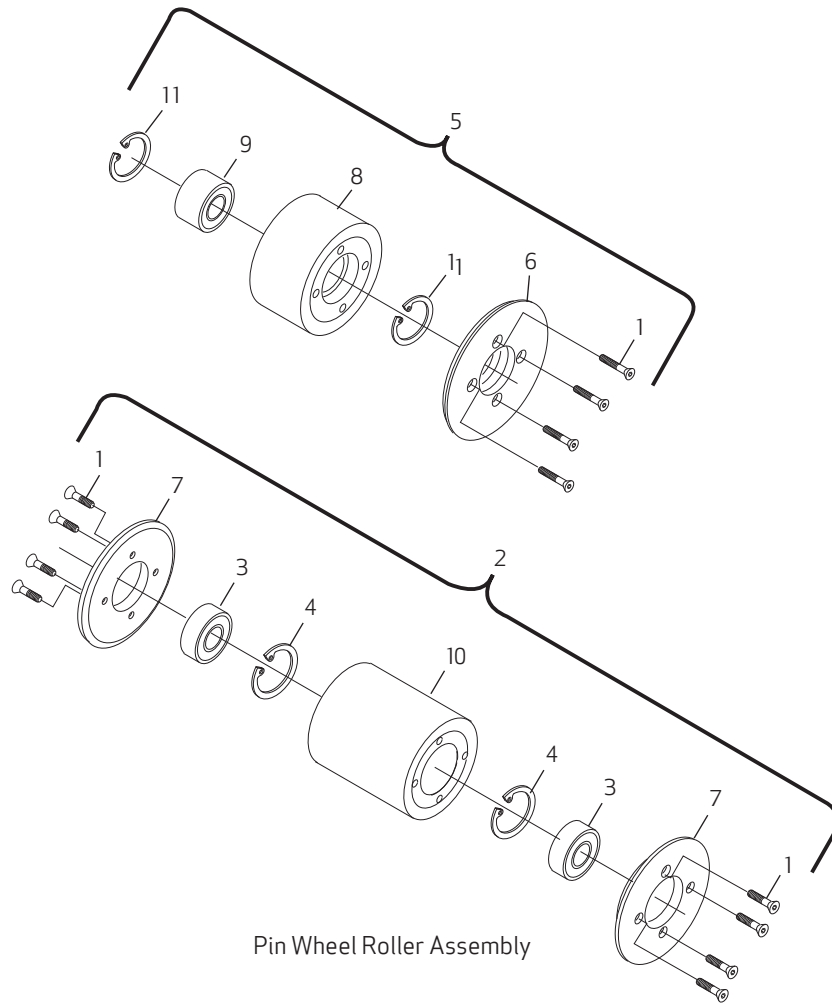
- Solid, one-piece pulleys are machined from steel bar stock
- Bearing - 11-420045-000 is installed and sized for proper press fit onto shaft

12-400126-000 - Small, Model A

12-402126-000 - Large, Model A•2 and converted



For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



Pin Wheel Roller Assembly

PART INDEX

1	11-008301-001	Hex Socket w/Nylon Patch Screw	5	12-400266-000	Guide Roller Assy-(Upper Pinwheel)	9	11-432000-000	Ball Bearing
2	12-400263-000	Pin Wheel Roller Assembly	6	12-400265-000	Flange	10	90-400261-000	Hub & Tire - Lower Pin Wheel
3	11-430013-000	Ball Bearing	7	12-400262-000	Flange	11	11-530522-000	Internal Retaining Ring
4	11-531020-000	Inverted Internal Retaining Ring	8	90-400264-000	Pin Wheel Guide Roller			

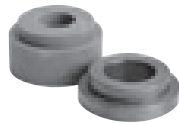
A·2 > ELEVATOR ASSEMBLY

ADVANCED PERFORMANCE SPRING ROD BUSHING

Help the ball get back to the bowler every time.

- Delrin® material is precisely formed through injection molding process that keeps the spring rod from binding
- Delrin bushing is twice as thick as steel, creating more pressure on lift rods for better ball return
- Teflon®-impregnated Delrin bushing allows the ball lift spring to slide through smoothly without abrasion

90-400803-000 – Premium Delrin bushing



**Advanced
Performance**

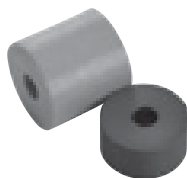
SPRING ROD BUMPER

Know that lift rods will pick up the ball. Keep these bumpers in good shape so the spring stays in adjustment.

- Tough, abrasion-resistant urethane bumper is twice as thick as the original rubber bumper. One urethane bumper does the job of two rubber bumpers
- Brunswick continues to offer oil-proof rubber bumpers for those mechanics who prefer them
- Two required

90-400123-000 – Urethane

12-400123-000 – Rubber



ADVANCED PERFORMANCE SPRING ROD

Look no further, it's the strongest spring rod on the market.

12-400193-000



**Advanced
Performance**

PIN RETAINER ASSEMBLY

The pin retainer assembly helps the pins stay in the pin wheel as they transition onto the turn pan. Complete with instructions.

12-860066-000 – Pin Retainer Assembly

12-400055-000 – Wiper & Spring Assembly

Keep your pin guides in good working order to eliminate jams at your turn pan with these replacement parts.

- Avoid turn pan jams, turret jams and 180° stops.
- An improperly tensioned or positioned pin wiper assembly can create nuisance problems.

12-400055-003 – Flat Spring

12-400071-000 – Leaf Spring

12-402064-000 – Retainer Spring

12-400225-000 – Pin Wiper Shim



MAGNETIC CLUTCH ASSEMBLY

Stops and starts pin wheel to eliminate turn pan, cross conveyor, and turret jams.

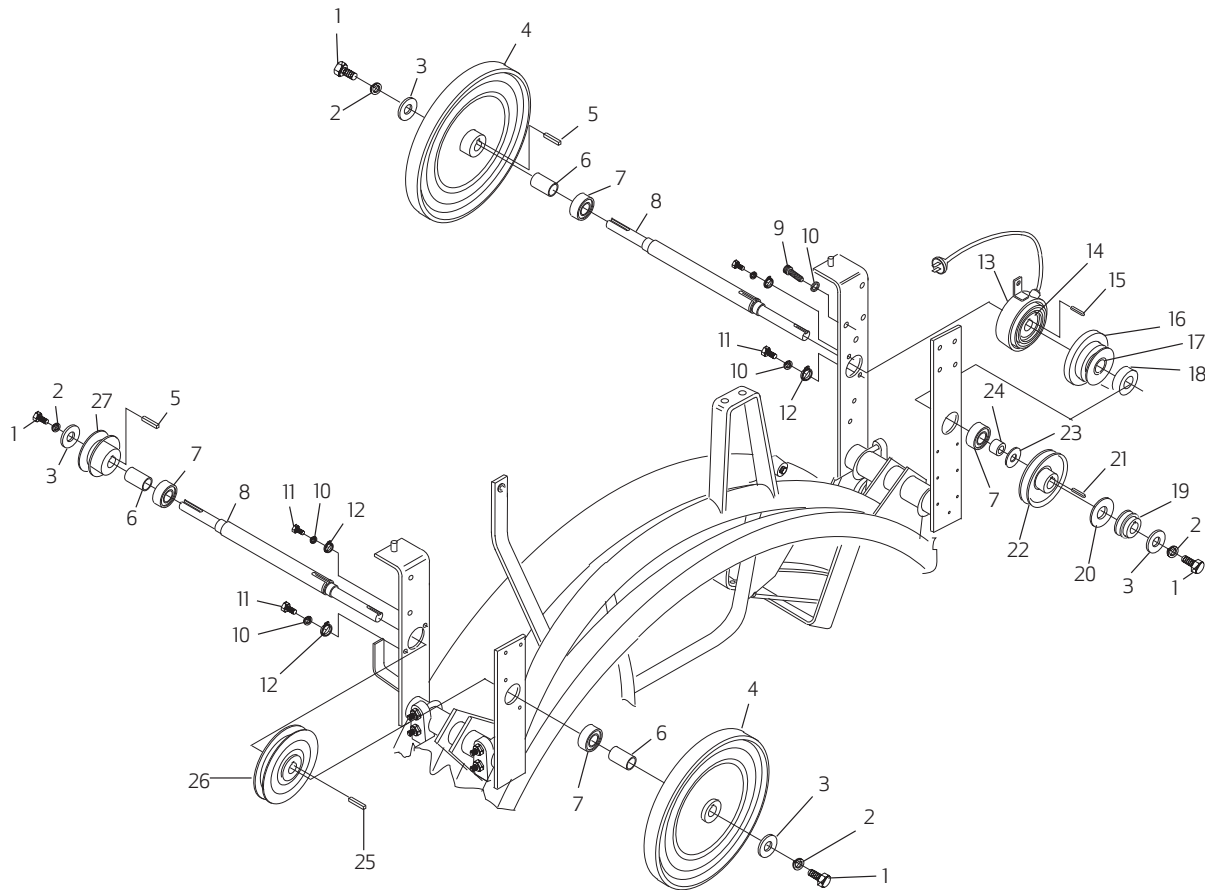
- 100 inch-pound torque requirement ensures that the pin wheel will start without slipping
- Special non-asbestos clutch facing is tightly bonded and provides long, quiet operation
- Comes with replaceable bearing – 11-430045-000, heavy-duty cord and restraint, and twist-lock plug that ensures proper mating with the wire channel

TIP: Suggest replacing Selenium Rectifier and Capacitor with Magnetic Clutch Voltage Regulator - 12-862030-000 (see pg. 90)

12-862163-000



For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	11-001342-001	HxHd Cap Screw 3/8-16 x 3/4"	10	11-195014-001	Lockwasher 1/4	19	12-400035-009	Sheave
2	11-195016-001	Lockwasher 3/8	11	11-002004-001	HxHd Cap Screw 1/4-20 x 1"	20	11-190024-000	Plain Washer 7/8
3	12-400139-003	Washer	12	12-400033-000	Bearing Retainer	21	12-400138-004	Key
4	12-400035-004	Sheave	13	12-862163-000	Magnetic Clutch Assembly	22	12-400035-008	Sheave
5	12-400138-002	Square Key	14	11-430045-000	Ball Bearing	23	12-400139-005	Special Washer
6	12-400018-002	Spacer	15	12-400138-006	Key	24	12-400018-007	Spacer
7	10-430001-000	Ball Bearing, w/ Snap Ring	16	12-402126-000	Pin Wheel Drive Pulley	25	12-400138-003	Key
7	11-430015-000	Ball Bearing	16	12-400126-000	Pinwheel Drive Wheel Assembly	26	12-400035-003	Sheave
8	12-400810-000	Drive Shaft	17	11-420045-000	Sleeve Oilite Bearing	26	12-400035-005	Sheave
9	11-005183-001	HxHd Sckt Cap Screw 1/4-20 x 7/8"	18	12-400804-000	Collar	27	12-400035-006	Sheave

A•2 > CROSS CONVEYOR ASSEMBLY

ADVANCED PERFORMANCE HIZAR GATE



Replaces the high wear pin gate strap and roll pin which improves cross conveyor performance by making it easier to push down.

- Comes with hardened steel link and hardware
 - Link only 12-862021-000 (Pkg of 2)
 - Replacement Hardware 12-860008-000
 - Designed by Mechanic Kevin Hizar
- TIP:** Lubricate pins during normal maintenance.

12-862251-000

ADVANCED PERFORMANCE DELUXE PIN GATE STRAP

Our best Pin Gate Strap. Long lasting and durable.

- Keep pins locked at the Pin Gate with this HD pin gate strap
- Hardware Replacement package 12-252016-000

12-860808-000

STANDARD PIN GATE STRAP

The original and still the mechanics choice. Inspect your Pin Gate straps once a year for wear.

12-150057-003

ADVANCED PERFORMANCE CROSS CONVEYOR PIN WIPER CLOTH

Improves pin transfer in cross conveyor.

- Reduces frequency of pin cleaning. Cloths are machine washable
- For refill pin wiper cloth, order 12-860803-000 (Pkg of 6)

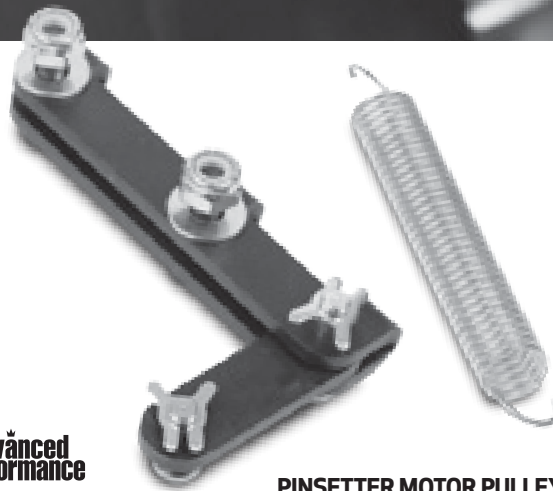
12-862941-000

SNUBBER ASSEMBLY

Precision contour to guide pins smoothly into the turret without excessive pin bouncing.

- Protective finish ensures that pins will slide into turret without being marked
- Pin guide is fillet welded and stress relieved to prevent breakage

12-450075-000



Advanced Performance



Advanced Performance



Advanced Performance



PINSETTER MOTOR PULLEYS

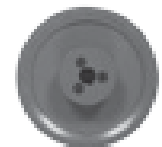
Models supply the optimum elevator speed. Eliminates need for a special Jetback pulley to slow the elevator.

- Speed of gear box is controlled by diameter of pulley. Slow speed pulley has a 5-1/4" O.D., moderate speed pulley has a 6-1/4" O.D., and the fast pulley has a 7-3/4" O.D.
- Any pulley can be used on any style machine

12-400081-000 – Slow, Model A

12-502410-000 – Medium, Jetback

12-402081-000 – Fast, Model A•2

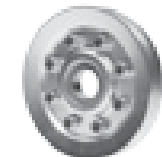


ADVANCED PERFORMANCE CROSS CONVEYOR IDLER PULLEY

Split, steel pulley with bolt-together design for easy bearing replacement.

- Pulley groove angle is controlled for correct belt fit
- Comes fully assembled with hardware
- Replaceable steel bearing – 11-434003-000 allows replacing of only the high wear part

12-450090-000



Advanced Performance

UNIVERSAL PINSETTER MOTOR

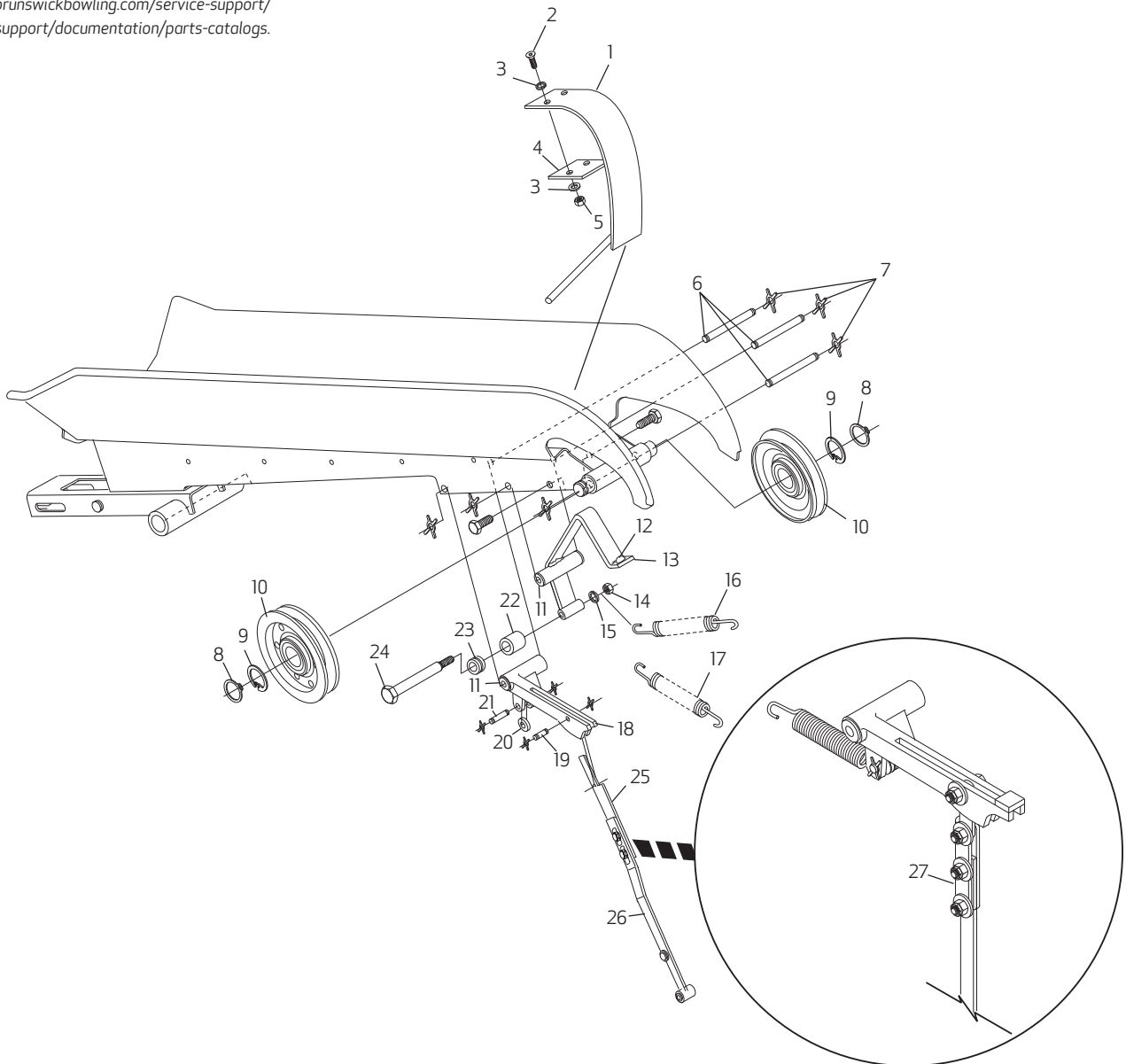
Energy-efficient design provides enough torque to operate gear box and elevator.

- Universal voltage and cycle – 115/208/230 volts, 50/60 cycle
- Universal motor will drive any Brunswick pinsetter, domestic or export
- One-horsepower motor
- 1725/1450 rpm
- Thermal overload protection, manual reset

12-752056-000



For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1	12-450075-000	Snubber Assembly	12	11-650001-000	Bumper	21	12-450006-003	X-Washer Pin
2	11-006184-001	Button Hd Sckt Cap Screw 1/4-20x1"	13	12-450017-000	Pin Gate Assembly	22	12-450064-000	Roller
3	11-190010-001	Flat Washer 1/4	14	11-125006-001	Hex Nut 12-24	23	12-450045-003	Spring Wheel
4	12-450080-000	Rubber Spacer	15	11-195012-001	Lockwasher #12	24	12-450063-000	Shoulder Bolt
5	11-170007-001	Locknut 1/4-20	16	12-450061-000	Tension Spring	25	12-150057-003	Strap
6	12-450006-002	X-Washer Pin	17	12-450051-000	Tension Spring	25	12-860808-000	AP - Deluxe Pin Gate Strap
7	11-230002-001	"X" Washer 5/32	17	12-450079-000	Tension Spring	26	12-150227-000	Linkage Assembly
8	11-530025-001	External Retaining Ring	18	12-450032-000	Latch Assembly	26	11-420048-000	Bearing .1885 ID x .3145 OD
9	11-531512-000	Beveled Retaining Ring 1.761 OD	19	11-345306-000	Roll Pin 3/16 x 5/8"	27	12-862251-000	AP - Hizar Gate
10	12-450034-000	Cross Conveyor Pulley	19	12-252016-000	Pin Gate Latch Bolt Assembly			
11	11-421053-000	Oilite Bearing (Pkg of 5)	20	12-450045-002	Spring Roll			

A·2 > BALL RETURN ASSEMBLY



ADVANCED PERFORMANCE ADJUSTABLE "Y" SWITCH

- Reduce ball jams going into the down sweep
- Easy to adjust from back of pinsetter
- Complete with hardware and instructions

12-862033-000



**Advanced
Performance**

SWITCH TRACK ASSEMBLY WITH BEARINGS



- Reinforced heavy duty construction
- Includes bearings
- Pre-drilled to accept AP Adjustable Y-Switch 12-862033-000

12-502100-091



BALL ACCELERATOR PAN

Pan provides a solution to the stray pin by including a "trap door" to drop the pin before the subway ball return. Simple in design, saves time and minimizes hassles.

12-502320-600



BALL ACCELERATOR WIPER

Cleans the ball as it goes into the accelerator.

- Outer sleeve made from special filter cloth that absorbs oil from balls and resists wear
- Pre-shrunk sleeve is machine washable and dryer safe

12-252377-000



DROP SWEEP BALL WIPER

Cleans the ball as it goes down the drop sweep.

- Velcro® on both sides to get longer use before washing
- Easy to change

61-860246-000



ADVANCED PERFORMANCE CONTROL BOX

Replacement control box for accelerators or boosters. Now equipped with solderless relays.

- Control Box Connectors Male/Female – 12-862032-000
- 24 Volt Relay – 11-697103-000

12-502335-000



**Advanced
Performance**

BALL BOOSTER KIT

Speeds up the ball on original Model A machines.

- Limits wear on ball lift components better than accelerators do
- Comes equipped with motor, pulleys, ball booster wheel, and hardware for Jetback machine

TIP: Try the urethane ball wheel – 90-520060-000 in this application.

12-862602-008



BALL ACCELERATOR/BOOSTER MOTOR

Reduce wear and tear on ball lift components by slowing the accelerator.

- This 1/4-horsepower motor increases the life of ball lift components, and reduces energy costs
- Universal voltage and cycle 115/208/230 volts, 50/60 cycle
- 1725/1425 rpm
- Heavy-duty 1/2" shaft

12-802059-003



HEAVY-DUTY BALL ACCELERATOR MOTOR

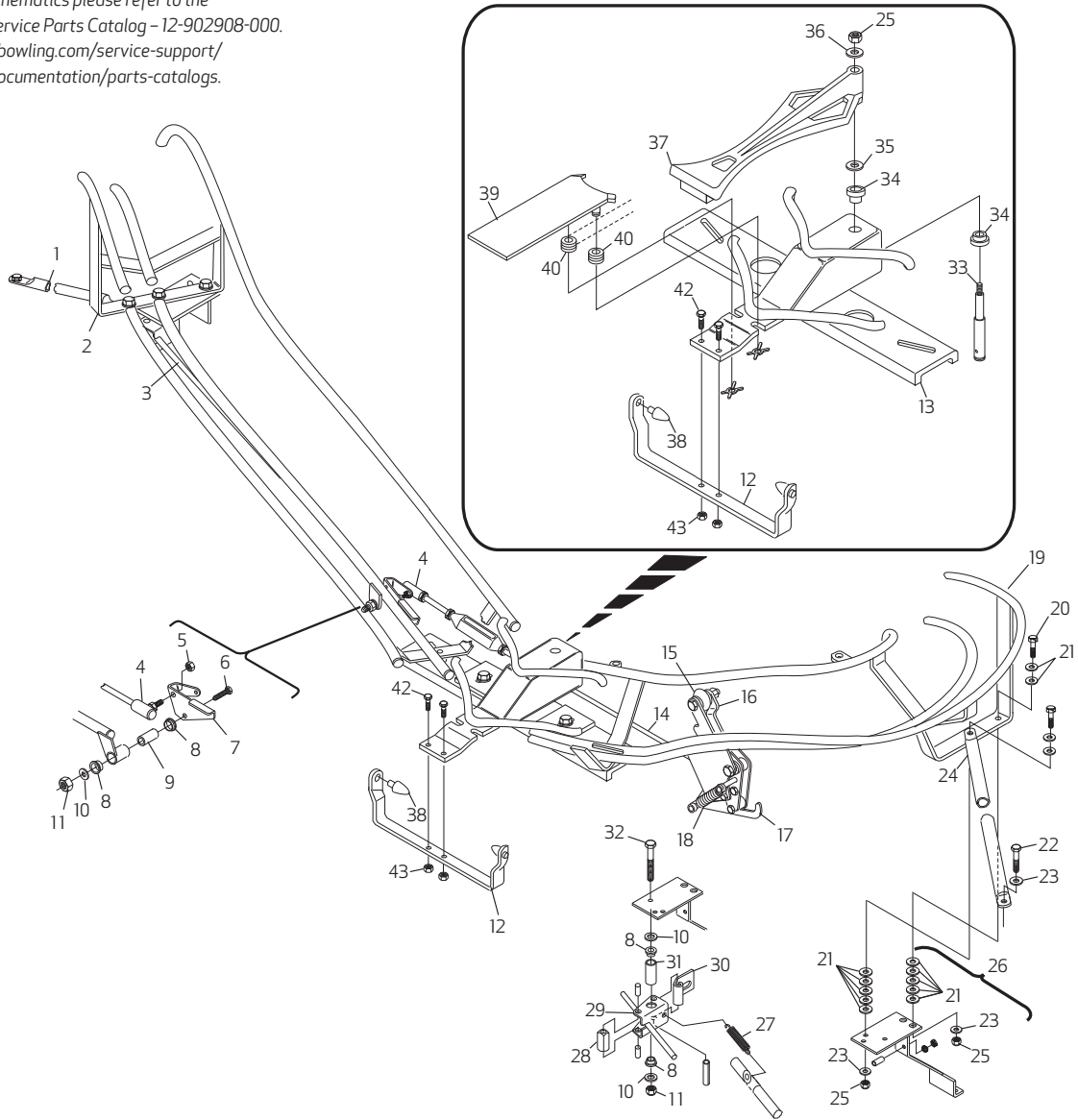
For accelerators with more power, choose this heavy-duty motor.

- 1/2-horsepower motor
- Universal voltage and cycle 115/208/230 volts, 50/60 cycle
- 3450/2850 rpm
- Heavy-duty 5/8" shaft

12-802059-004



For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

- 1** 12-502139-000 L.H. Track Brace
- 2** 12-502115-000 Ball Track Assembly
- 3** 12-502142-000 Trip Rod
- 4** 10-690001-000 Ball Joint Assembly
- 5** 11-170010-001 Hex Nut Nylock 5/16-24
- 6** 11-001272-001 HxHd Cap Screw 5/16-18x2"
- 7** 12-502133-000 Ball Trip
- 8** 11-421110-000 Flanged Oilite Bearing
- 8** 11-421111-000 Flanged Oilite Bearing
- 9** 10-386077-000 Spacer 5/16x1-9/32
- 10** 11-190012-001 Flat Washer - SAE 5/16
- 11** 11-170009-001 Hex Nut Nylock 5/16-18
- 12** 12-502131-000 AP-Y Switch Stop Bar
- 13** 12-502100-091 Switch Track Assyw/Bearings
- 14** 12-502132-000 Rod

- 15** 34-082132-000 Rubber Roller Assembly
- 16** 12-502138-000 Ball Stop Bracket
- 17** 12-502136-000 Hook
- 18** 12-502167-000 Tension Spring
- 19** 12-502105-000 Ball Track Assembly (Curved)
- 20** 11-001355-001 Hex Head Cap Screw
- 21** 11-190522-001 Plain Washer
- 22** 11-001342-001 HxHd Cap Screw 3/8-16x3/4"
- 23** 11-191014-001 Flat Washer 3/8
- 24** 12-502140-000 R.H. Track Brace
- 25** 11-170011-001 3/8-16 Locknut
- 26** 12-862180-000 AP-Support Arm Assembly
- 27** 12-502114-000 Tension Spring
- 28** 12-502151-000 Block
- 29** 12-502150-000 Pivot Bracket

- 30** 12-502152-000 Bracket
- 31** 10-386091-000 Spacer
- 32** 11-001276-001 HxHd Cap Screw 5/16-18x3"
- 33** 12-502134-000 Y-Switch Shaft
- 34** 10-421901-000 Flanged Oilite Bearing
- 35** 11-190018-001 Flat Washer 1/2
- 36** 11-190014-001 Flat Washer 3/8
- 37** 90-502153-000 Nylon Y-Switch
- 38** 12-502154-000 Y-Switch Bumper pull through
- 39** 12-502328-000 Y-Switch Plate
- 40** 12-502155-000 Spacers
- 41** 11-170011-001 3/8" Locknut
- 42** 11-001264-000 Hex Head Screw
- 43** 11-170009-000 Lock Nut

A•2 > ELECTRICAL COMPONENTS



ELECTRICAL BOX COVER - U.S.

New electrical cover ensures pinsetters are safe, and includes an easy access panel to get inside the box. Offers punch outs for breakers and motor overload relays to fit any Model A and A•2 electrical box except for Japanese.

- Helps improve pinsetter electrical box safety
- Cover opens quickly with quick release latches
- Cover doubles as a tool tray when open
- Complete with hardware, "DANGER HIGH VOLTAGE" decal and instructions

12-862263-000 – Factory A/A•2-U.S.

ADVANCED PERFORMANCE 3A RESETTABLE CIRCUIT BREAKER

Stop replacing fuses. Resettable circuit breaker, replaces the A/A•2 3.2 A fuse and fuse holder. Fuse installed on mounting plate for easy installation into original 3.2 A position. No soldering required for installation. For US manufactured electrical boxes only.

12-862022-000



Advanced Performance

ADVANCED PERFORMANCE 1A RESETTABLE CIRCUIT BREAKER

Resettable fuse replaces the Model A and A•2 1 amp fuse holder.

- Easy to install, requires no soldering
- Fits into existing fuse holder opening
- For US manufactured electrical boxes only

12-862947-000



Advanced Performance



ELECTRICAL BOX COVER - JAPANESE

- Fits original Japanese electrical box configuration
- Includes reset button for original motor thermal overload
- Helps improve pinsetter electrical box safety
- Cover opens quickly with quick release latches
- Cover doubles as a tool tray when open
- Complete with hardware, "DANGER HIGH VOLTAGE" decal and instructions

12-862948-000 – A•2 Japanese

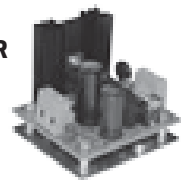


ADVANCED PERFORMANCE MAGNETIC CLUTCH VOLTAGE REGULATOR

- Regulates and supplies 90 Vdc to the Magnetic Clutch
- Provides over voltage and over current protection which increases the lifetime of the Magnetic Clutch
- This is the replacement for the Selenium Rectifier and the Capacitor on A•2 pinsetter
- Comes with instructions
- Easy installation, no drilling

12-862030-000

12-862124-000 – Replacement Fuses (2/pkg)



Advanced Performance

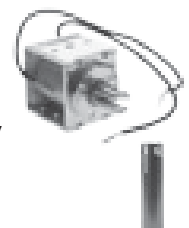
HEAVY DUTY CYCLE SOLENOID

Over 10% stronger than the OEM solenoid to help minimize failure to trigger.

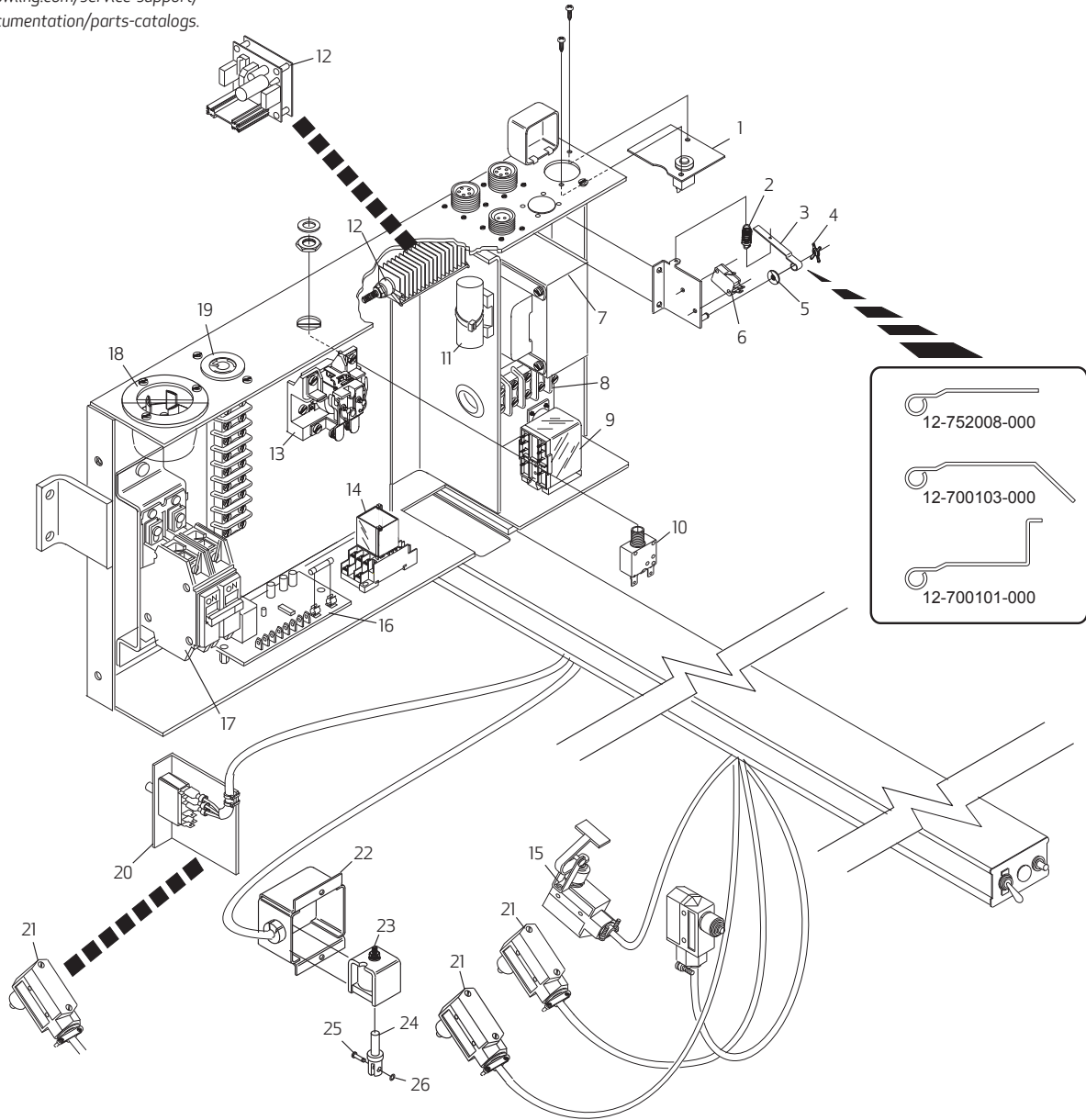
- Intermittent duty solenoid helps save energy

10-688006-000 – 208/230V

10-688006-003 – Plunger only



For complete schematics please refer to the
A·2 Pinsetter Service Parts Catalog - 12-902908-000.
Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.



PART INDEX

1 12-862022-000 AP-3A Resettable Circuit Breaker	10 12-862947-000 AP-1A Resettable Circuit Breaker	20 11-674995-000 Push Button Switch
2 12-752005-000 Spring	11 11-696107-000 Capacitor (.50 UF)	21 12-860563-000 Turret/Deck Jam Micro Switch Assy
3 12-752008-000 Lever	12 12-862030-000 Magnetic Clutch Voltage Regulator	21 11-615052-000 Micro Switch
3 12-700103-000 Lever	12 12-750079-000 Selenium Rectifier	22 12-102020-000 Solenoid Cover
3 12-700101-000 Lever	13 12-862111-000 Motor Contactor	23 10-688003-000 Solenoid, 208-230V, 60HZ
4 11-230001-001 X-Washer 1/8	14 12-862203-000 AP-Plug-In Motor Start Relay Pkg	23 10-688009-000 Solenoid, 115V
5 11-190010-001 Flat Washer 1/4	15 11-615053-000 Micro Switch	24 10-688003-003 Plugger Only
6 11-616013-000 Switch (#V3-101-D8)	16 12-862890-000 Time Delay Module, Solid State	25 10-229451-000 O-Ring Pin
7 12-862164-000 Transformer	17 12-860627-000 Circuit Breaker	26 11-625538-000 O-Ring
8 10-700202-000 Terminal Strip	18 11-679306-000 Plug Twist Receptacle	27 12-860205-000 Cross Conveyor Switch Assy
9 11-672518-000 Relay	19 11-679303-000 Plug Twist Receptacle	

A•2 > ELECTRICAL COMPONENTS



ADVANCED PERFORMANCE PLUG-IN MOTOR START RELAY

Offers better durability and performance. The solderless design is easily installed in Model A and A•2 machines.

**Advanced
Performance**

- For easy change out of bad relays
- Relay only – 12-862025-000

12-862203-000 – Complete

UNIVERSAL PINSETTER MOTOR

Energy-efficient design provides enough torque to operate gear box and elevator.



- Universal voltage and cycle – 115/208/230 volts, 50/60 cycle
- Universal motor will drive any Brunswick pinsetter, domestic or export
- One-horsepower motor
- 1725/1450 rpm
- Thermal overload protection, manual reset

12-752056-000

SOLENOID KITS

Upgrade a Model A solenoid to a Model A•2 and get more reliable triggering and longer lasting links, or use when converting a machine from 115V to 230 volts.



- Comes with:
115V solenoid – 10-688009-000, or
230V solenoid – 10-688003-000,
plunger, bellcrank assembly, and spacers

12-862905-115 – 115V

12-862905-230 – 208/230V

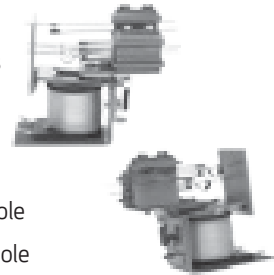
MOTOR START RELAYS

Powers the contactor and provides safety shut off.

- Single throw
- Continuous duty

12-862827-000 – Model A, Three pole

12-862829-000 – Model A•2, Two pole



RECYCLE RELAY

Ensure that the Model A pinsetter gearbox recycles.

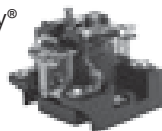
- Pinsetter vibration will not cause contacts to close
- Single pole relay used on Model A machines
- Single throw
- Continuous duty

12-862828-000



MOTOR CONTACTOR

Deltrol contactor replaces old Allen Bradley® and Federal Pacific® contactors.



- Motors with built-in overload protection only need Contactor – 12-862111-000
- Motors without built-in overload protection also require Motor Overload Relay – 12-860334-000
- Relays require a heater to operate, see below
- For the motor overload relay and contactor order 12-860335-000

NOTE: Motor Overload Relays require heater to operate. Heater must be selected based on Motor Overload Relay and motor output in Amps. Motor output is stamped on the motor I.D. plate. The two Motor Overload Relay options are shown.

12-862111-000

Heaters for Motor Overload Relay

NOTE: 10-679151-000 replaced by 12-860334-000

10-679125-001	Heater 4.3-4.7 Amps
10-679125-002	Heater 4.7-5.1 Amps
10-679125-003	Heater 5.1-5.6 Amps
10-679125-004	Heater 5.7-6.2 Amps
10-679125-005	Heater 6.3-6.8 Amps
10-679125-006	Heater 6.9-7.5 Amps
10-679125-007	Heater 7.6-8.2 Amps
10-679125-008	Heater 8.2-9.0 Amps
10-679125-009	Heater 9.1-9.9 Amps
10-679125-010	Heater 10-10.8 Amps
10-679125-011	Heater 10.9-11.9 Amps
10-679125-012	Heater 12-13.1 Amps
10-679125-013	Heater 13.2-14.3 Amps
10-679125-014	Heater 14.4-15.7 Amps
10-679157-000	Heater 4.65 Amps
10-679159-000	Heater 5.69 Amps
10-679160-000	Heater 6.32 Amps
10-679161-000	Heater 6.99 Amps
10-679163-000	Heater 8.37 Amps
10-679164-000	Heater 9.13 Amps
10-679165-000	Heater 9.96 Amps
10-679166-000	Heater 10.8 Amps
10-679167-000	Heater 11.7 Amps
10-679168-000	Heater 12.9 Amps
10-679169-000	Heater 14.7 Amps
10-679170-000	Heater 15.4 Amps
10-679171-000	Heater 16.9 Amps

ELECTRONIC TRIGGERING CONTROL SYSTEM

Microprocessor-based system matches USBC®-approved specifications, for maximum pin fall at ball speeds.



- Full-time safety shut-off system
- Will not interfere with rake or bumper bowling
- No manual time-delay adjustments
- Eliminates “banana stops” by ignoring the reset button if it is pressed while the pinsetter is cycling
- Sold in lane pairs. System includes: Universal Trigger System, Large Dual Reflector Assembly, Dual Output Ball Detector, Time Delay Control Board only, and 1 amp fuse Control Board Fuse
- Kit includes:
 - (1) Universal Trigger System – 12-862917-400
 - (1) Reflector Assembly – 57-860507-000
 - (1) Dual Output Ball Detector – 57-861237-000

12-862584-400

TIP: How to order Brunswick’s Electronic Control System

Pinsetter Type	Order 1 each per lane pair
Model A*2: with time delay module and quick-drop rake	12-862584-400 – Universal Electronic Trigger
Model A: no time module or quick-drop rake	12-862584-400 – Universal Electronic Trigger 12-860811-000 – Model A Supplement Package
Cable-triggered Jetback: with quick-drop rake, no time delay module	12-862584-400 – Universal Electronic Trigger 12-862898-000 – Jetback Supplement Package 12-862918-400 – Spare Board Only

A•2 > BELT ASSEMBLY

TECH TIP #1

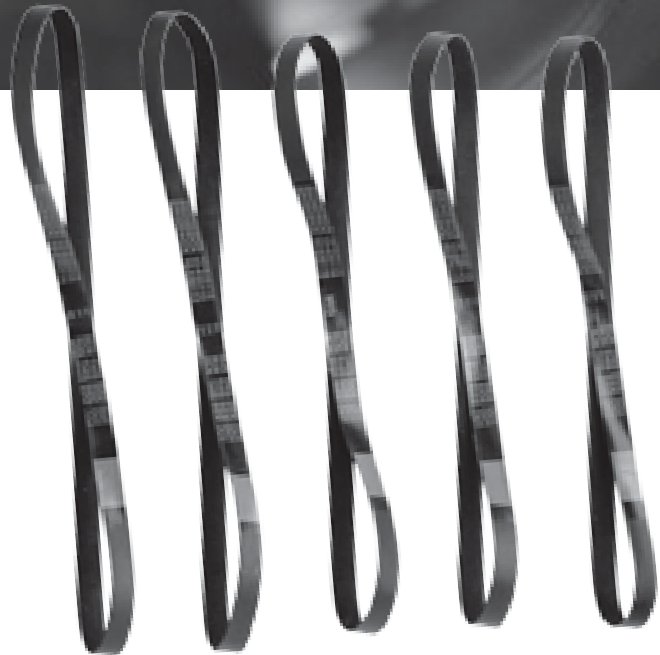
Choosing the Proper Belt Tension is Critical for Smooth Operation of the Pinsetter

If too little tension is applied, the belts may slip.

- Too much tension can reduce belt and bearing life
- The correct tension is the lowest tension at which belts will not slip when the drive is under full load

TECH TIP #2

Do not use automotive belts for turrets or in other areas. Some belts are required to slip.



BALL ACCELERATOR FLAT BELTS

Flat, concentric belts with straight, smooth splice move freely around pulleys and will not jump off the pulley edge.

- Smaller pulley size slows accelerator speed, reducing wear and tear on the accelerator as well as the retarder and power lift
- Reference the chart in the right hand column for pulley, bore, and belt combinations

10-635124-000 – For 1-1/2" pulley

10-635113-000 – For 1-11/16" pulley

10-635118-000 – For 2-1/32" pulley

10-635112-000 – For 2-23/32" pulley

10-635114-000 – For 3-17/64" pulley

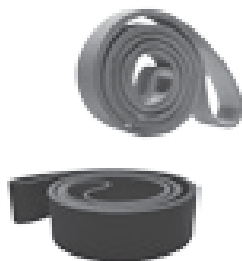
LONG ACCELERATOR BELTS

Dark-colored fabric-based belts have a slippery surface ideal for reactive-resin balls.

- Light colored belt leaves no marks on balls and provides excellent acceleration for oily balls
- Both types of belt will track straight and true when used in conjunction with the high crown pulley – 12-502349-600

10-635126-600 – Dark colored

10-635126-000 – Light colored



Pulley Diameter	Accelerator Speed	Pulley Part # 1/2" Bore	Pulley Part # 5/8" Bore	Flat Belt Part #
1-1/2"	Slowest	12-502474-000	12-502554-000	10-635124-000
1-11/16"	Slow	12-502351-000	12-502553-000	10-635113-000
2-1/32"	Medium	12-502355-000	12-502551-000	10-635118-000
2-23/32"	Fast	12-502332-000	12-502550-000	10-635112-000
3-17/64"	Fastest			10-635114-000

SEAL FOR IDLER PULLEYS

Repack your idler pulley bearings for longer life and a smoother, quieter running machine. Works on Idler Pulleys – 12-400209-000 and 12-400221-000.

12-400301-000

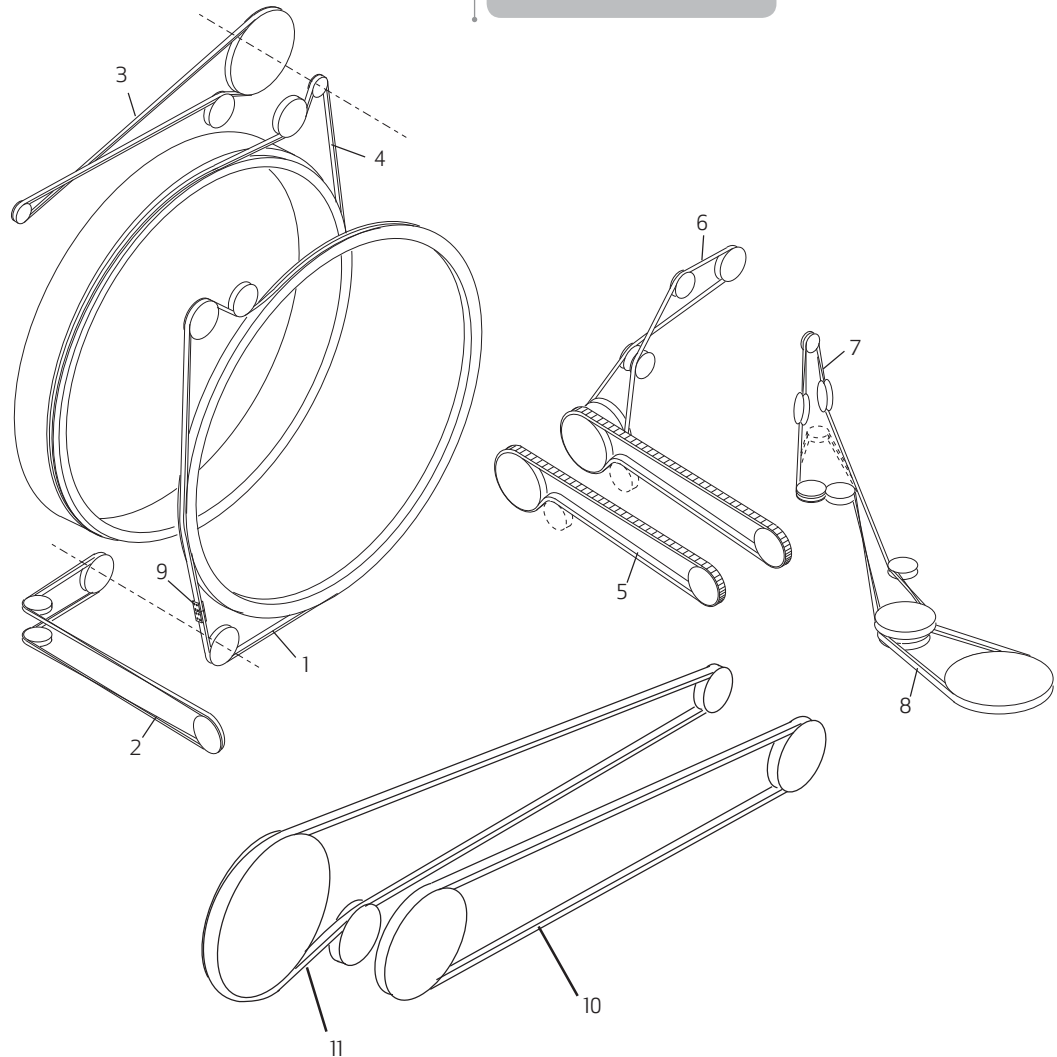
HOW TO CHOOSE A MOTOR PULLEY

One of the most important considerations to make is determining the optimum speed for the gear box.

- The motor pulley determines how fast the gear box cycles. The bigger the diameter of the pulley, the higher the gear box speed
- If the pinsetter cycles faster than the ball gets back to the bowler, the pinsetter is being pushed harder than necessary
- Top mechanics are choosing the Jetback pulley – 12-502410-000 to provide ideal performance
- The Jetback pulley provides a faster cycle time than a Model A – 12-502410-000, improving league start and finish time and increasing open bowling time
- The Jetback pulley also slows the cycle time compared to the Model A•2 pulley – 12-502410-000, reducing wear and tear on the pinsetter
- All three elevator pulleys have a standard diameter to provide the optimum elevator speed

For complete schematics please refer to the A•2 Pinsetter Service Parts Catalog - 12-902908-000. Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.

TIP: Short Turret Belt 12-150113-00 is used on pinsetters with cast off-set pulley.



PART INDEX

1	12-400227-000	Ball Wheel Belt - Endless	8	12-150113-000	Short Turret Drive Belt, Short	10	10-635320-000	27:1 Gear Box, A•2 60"
1	12-400279-000	Ball Wheel Belt - Spliced	8	12-150113-600	Short Turret Drive Belt, Long	11	10-635321-000	27:1, A and Jetback 75"
2	12-300082-003	Pit Conveyor Drive Belt	9	12-400279-003	Double V-Belt Fastener	11	10-635328-000	A and Jetback, 1.5" longer 108.6"
3	12-400034-004	Jack Shaft Belt - Cross Drive	10	10-635309-000	Jetback, 2.5" longer 81.5"	11	12-400034-003	Standard for A and Jetback 107.1"
4	12-400034-005	Pin Wheel Belt	10	12-400329-000	Standard for Jetback 79"	11	10-635327-000	A and Jetback, 1.5" shorter 105.6"
5	12-450037-000	Cross Conveyor Belt	10	10-635323-000	A and Jetback 77.5"	11	10-635315-000	A•2 with 12-862162-000 kit 98"
6	10-635309-000	Cross Conveyor Drive Belt "V"	10	12-400034-002	Standard for Model A 77.1"	11	10-635330-000	A•2, 1.5" longer 93.8"
6	12-400034-007	Cross Conveyor Drive Round Belt	10	10-635326-000	A•2, 2.5" longer 69.5"	11	10-635306-000	A•2, 50 cycle 93.3"
7	12-400223-000	Long Turret Belt, Non-Bevel Gear	10	10-635304-000	Standard for A•2 67"	11	10-635303-000	Standard for A•2 92.3"
7	12-400314-000	Long Turret Belt, Bevel Gear	10	10-635325-000	A•2, 1.5" shorter 65.5"	11	10-635329-000	A•2, 1.5" shorter 90.8"

A•2 > TOOLS & MAINTENANCE

3 OZ. GREASE GUN KIT

Compact grease gun allows lubrication of areas where a big gun will not fit. Kit includes: grease gun, standard grease fitting coupler, and a lithium grease cartridge.

- Avoids the mess of bulk filling by using a 3 oz. lithium grease cartridge. Cartridge – 12-700129-000 is available in handy two packs (two 3 oz. cartridges)
- Following convenient adapters make repacking bearings simple:
Needle Adapter – 12-700121-000
5.5" Grease Pipe – 12-700130-000
12 Grease Needles – 12-700126-000 for repacking bearings
- Brunswick sells convenient 14.5 oz. grease cartridges:
Lithium grease – 11-676305-000 for use on metal parts
Non-Lithium grease – 11-676361-000 for use on non-metal parts

12-700120-000

A•2 PINSETTER GEAR BOX OIL

Scheduled oiling is imperative for trouble-free pinsetter operation.

- High-grade oil comes in a one-gallon, easy-to-pour plastic container
- Use Brunswick Stop Leak oil – 32 oz. 12-700127-000 (90/140 weight) if needed
- Gear box oil pan – 12-100316-000 (pg. 38)

NOTE: If you have a Model A pinsetter with a dashpot, use a high-quality, name brand 10W30 oil.

TIP: Gear box oil leaks. By adding one ounce of a transmission sealer to the gear box, oil leaks through gaskets or seals of gear box components can be minimized. This of course is only a temporary fix until the gasket or seals can be replaced.

12-752024-000



PISTOL OILER

Decrease malfunction rate, prevent major breakdowns, and extend the life of a pinsetter.

- Hand-held oiler features a 6 oz. capacity body with a 6" flexible spout
- Wide base allows oiler to stand upright
- Flow is controlled by pressure applied to trigger

12-700105-000



DECK CHUTE CONDITIONER

Improve durability and performance of deck chutes; minimize deck jams allowing pins to slide easily through chutes.

TIP: Some mechanics use this conditioner to lengthen the life of deck pads.

62-860029-000



TURRET RING AND BEARING JIG

Assists in the disassembly and reassembly of the turret ring and bearing assemblies by collecting the bearings and properly positioning the rings.

- Rugged aluminum casting won't deform

12-150326-000



BELT FASTENER TOOLS

Quickly repair spliced ball wheel belts using these tools.

- Holders clamp belts firmly so fasteners can be easily and securely attached
- Metal fasteners temporarily splice broken belts until a replacement is obtained
- Rocker pin tool ensures that belt is held together securely by locking the rocker pin in place

12-800502-000 – Double V-Belt Holder

12-400279-003 – Double V-Belt Fasteners (box of 10)

12-400180-000 – Single V-Belt Fasteners (box of 10)

12-800503-000 – Rocker Pin Tool



INSTALLATION AIR FITTING

Used to "blow on" ball lift rod covers when attached to air compressor.

- Decreases installation time
- Standard compressor fitting

12-700268-000



PIN GATE ROLL PIN INSTALLATION TOOL

Removes worn pin and installs new one in a single operation.

- Easy screw operation eliminates need for hammer and pin punch
- Use this tool without removing pin gate latch from pinsetter

12-900181-000



AUTOMATIC PINSETTER CLEANER

Strong, solvent-based cleaner cuts through tough pinsetter grease and grime.

TIP: Do not use on non-metal parts.

62-860083-005



AUTOMATIC PINSETTER GREY PAINT

Fix nicks, scratches, and scrapes quick and easily.

- This is the original grey paint used on the automatic pinsetter. **It is guaranteed to match**
- Lacquer spray paint dries quickly to a durable finish
- 12 oz. can

62-860062-000



WORM THREAD CHASER

Use this specialty tool to clean and repair threads on the spot. Do not force the locknut on, because cross-threading jeopardizes this critical seal point.

12-860660-000



X-WASHER PLIERS

Special grooved jaws that hold an X-washer and prevent it from slipping out.

- Ability to install and remove X-washers with one hand using the pliers
- Jaws tips are designed to eliminate interference with X-washer pin, allowing for closure of an X-washer completely
- Simple procedure reduces maintenance time substantially

12-800517-001 – 1/16" slot

12-800517-002 – 3/32" slot



A•2 > TOOLS & MAINTENANCE



PINSETTER TOOL KIT

Save time and prevent damaging parts by using these tools.

- Each tool was specifically designed to work with pinsetter needs
- Kit includes the following tools, which can also be ordered individually:
 - (1) Deck Cable Spring Tube Fixture – 12-700110-000
 - (1) Clutch Face Rivet Set – 12-700111-000
 - (1) Triangular Plate Bushing Puller – 12-700112-000
 - (1) Worm Nut Alignment Socket – 12-700113-000
 - (1) Worm Shaft Holding Wrench – 12-700114-000
 - (1) Worm Shaft Bearing Driver – 12-700115-001
 - (1) Shaker Shaft Bearing Driver – 12-700115-002
 - (1) Rake Shaft Repair Driver – 12-700115-003
 - (1) Long Jogger Link Bearing Driver – 12-700115-004
 - (1) Small Jogger Link Bearing Driver – 12-700115-005
 - (1) Guide Roller Bearing Driver – 12-700115-006
 - (1) Elevator Drive Shaft Adapter Plate – 12-700116-001
 - (1) Clutch Bearing Sleeve Adapter Plate – 12-700116-002
 - (1) Magnetic Clutch Adapter Plate – 12-700116-003
 - (1) 2:1 & 1:1 Adapter Plate – 12-700116-004
 - (1) 4:1 & Worm Adapter Plate – 12-700116-005
 - (1) Trunnion Roller Bearings Adapter Plate – 12-700116-006

12-860670-000

SCISSOR SPRING INSTALLER

This tool takes the work out of removing and installing the scissor spring – 12-200022-000.

- Easy and safe to use
- A must have tool in every center

12-700271-000



JACK SHAFT INSTALLATION TOOL

Installs the jack shaft and bearings easily. Extends life of bearings.

12-700270-000



CABLE SHAFT BEARING REMOVAL TOOL

Remove and install the cable shaft bearings easily with this kit.

- Requires only two 9/16" wrenches
- Kit includes all inserts and instructions
- Designed by Mechanic Kenney Adams

12-700135-000



A•2 PREVENTATIVE MAINTENANCE WALL CHART

Reusable wall chart, 24" x 36", shows Brunswick's recommended preventative maintenance schedule for daily, weekly, monthly, quarterly, bi-yearly, and yearly items.

- Allows recording of most up-to-date maintenance using water-soluble markers that wipe off easy with a damp cloth

12-700108-000



SPECIAL BEARING WRENCH

Use this tool to remove deck lift shaft bearing.

- Ultra-thin wrench is proper thickness to deck lift shaft bearing
- 1-3/4" head is case-hardened for added strength
- Handle is 12" long for increased leverage

12-800506-000



DECK JAM CABLE SPRING TUBE SERVICING FIXTURE

Replace a deck jam cable quick and safe with this specialty tool.

- Easy to use by mounting on a table or in a vise
- Reversible head allows easy servicing of both Model A and A•2 tube types
- Safety mechanisms within the ram head secure the pressurized springs in the fixture

12-700110-000



TRI-PLATE BUSHING PULLER

Eliminates stress cracks in bracket and bushing distortion commonly caused by the hammer driving method. Remove and install the tri-plate bushing easily in one simple step.

12-700112-000



DECK JAM SWITCH CHECKER

Ensure proper deck jam switch operation.

- Eliminates expensive repairs
- Guarantees safe running condition of deck jam switch

12-700207-000



DECK PIN GAUGE

Use this tool to check pin spotting before a tournament or when making deck adjustments, such as changing a moving deck cable or stabilizer arm.

- Base is cut away to easily see pin spot
- USBC/WIBC use this to check pin spotting during inspections

12-700003-000



CLUTCH FACING RIVET SET



Use this tool to replace clutch facings without causing damage.

- Additional reinforced construction
- Press action of the tough steel screw allows for control of rivet pressure, preventing damage to facing material
- Precision end flare properly sets rivets against facing material
- Use on all pinsetter facings, including clutch drive, hub drive pulley, and turret clutch

TIP: Use with Brunswick's Gear Box Clutch Repair Kit DVD – 61-860200-100.

12-700111-000



WORM NUT ALIGNMENT SOCKET

Ensures proper removal and installation of the worm nut.

- Self-centering on worm shaft for accurate alignment and starting of the worm nut
- Standard 1-1/8" hex head to tighten worm nut

12-700113-000



WORM SHAFT HOLDING WRENCH

Prevent damage to the worm shaft spline during a repair job.

- Use with the worm nut alignment socket to tighten the worm nut properly
- Eliminates the use of improper holding devices, such as pliers, which tend to damage splines and result in gear box clutch malfunctions

12-700114-000



SCISSOR CABLE REMOVAL TOOL

This tool will help you safely remove both the scissor cable and moving deck cable. Solid handles on each end gives you a firm grip. A must for your center.

- Remove and install scissor and moving deck cables easily and safely
- Saves time by not having to loosen cables
- Designed by Mechanic Bruce McMartin

12-860673-000





OTHER PARTS

OTHER PARTS



OTHER > BALL LIFT ASSEMBLY

URETHANE FOAM BALL LIFT TIRE

Durability! After more than 1.5 million ball impacts, there is virtually no wear. This tire is made of a specially formulated foam material manufactured to the proper density to optimize ball lift performance.

- Tire is now designed with a smaller diameter for better performance
- Made with same technology used to manufacture Reactive resin bowling balls

TIP: For the best lifting results with highly reactive balls, install a urethane lift wheel in the bottom position and a rubber hub and tire ball lift wheel – 53-520060-000 in the top position.

90-520060-600 – Tire only



TECH TIP

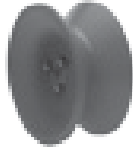
Power lift tires and tracks should be inspected yearly for worn/flat spots on the lower C tracks, swelling from oil soaking of the C tracks, and cracking of the hub and tire assembly. This is a good time to also verify the alignment of the drive belt and remove, clean, inspect, and lubricate the lift motor.

URETHANE BALL LIFT V-TIRE

Prevent balls from getting stuck in the lift, by keeping urethane ball lift wheels in top condition.

- Red/orange V-shaped urethane wheels are a continuous one piece urethane part, eliminating separation problems
- Long lasting
- For Frameworkx metric ball lifts, also order 8mm x 30mm Hex Head Bolt – 11-051044-001

90-520060-000



POLY V-BELT

Poly V-belts offer increased flexibility and reduced heat build up, extending belt life.

- They are ideal for operating at higher speeds on small pulleys
- They provide enough drive power to lift two or three balls at a time
- Recommended to use with Power Ball Lifts
- To convert from a flat belt or V-belt to a Poly V-Belt, order Brunswick's handy conversion kit – 53-860431-000

53-520235-000



ADVANCED PERFORMANCE HIGH FRICTION POLY V-POWER LIFT BELT

This power lift belt provides more power transmission to lift all types of bowling balls

- The high friction "backside" works efficiently with idler pulleys to provide consistent and reliable performance

53-520235-600



Advanced Performance

BALL LIFT WHEEL ASSEMBLY

Original power lift wheel can be counted on for years of positive ball lifting.

- For Frameworkx metric ball lifts, order hardware – 11-051038-001 (Pkg of 10)
- Hex Head Cap Screw – 11-001258-001 (Pkg of 25)

53-520060-000

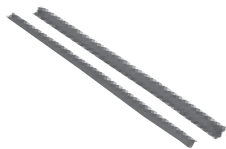


ADVANCED PERFORMANCE URETHANE FOAM BALL LIFT TRACK

Urethane grommets strengthen the mounting holes to prevent tearing.

- Outlasts the standard OEM rubber and leather lift tracks
- Will not absorb lane oils and swell like conventional lift tracks
- Package of 2 each (For B2000)

90-520171-600



Advanced Performance

SANTOPRENE BALL LIFT TRACK

One-piece santoprene track is injection molded to ensure proper fit with the steel track.

- Red/orange material will not mark balls
- Resists oil and wear. (For B2000)

TIP: Extend life of a santoprene track by bolting a leather track (53-520172-000) on top of it. Short of replacement, it is possible to swap the right and left santoprene lift tracks to move the worn area from the critical transition spot to the less critical top exit area.

90-520171-000

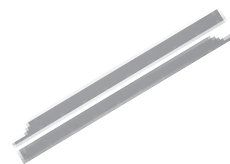


ADVANCED PERFORMANCE FRAMEWORX BALL LIFT TRACK

Used on Frameworx Ball Lifts, this one piece, urethane ball lift track provides durability, ball protection, and maximum oil resistance.

- Independent lab tests show little wear after one million balls
- Sold in pairs (1 Right Hand and 1 Left Hand)

90-520172-600



Advanced Performance

RUBBER AND LEATHER POWER LIFT TRACK

Flexible rubber lift track fits the steel contours better than some molded urethane tracks do, providing excellent ball lift.

- High-grade, bolt-on leather strips protect rubber without tearing or marking balls
- Make these tracks last a lifetime by periodically replacing the leather and retouching the glue that adheres the rubber to the steel

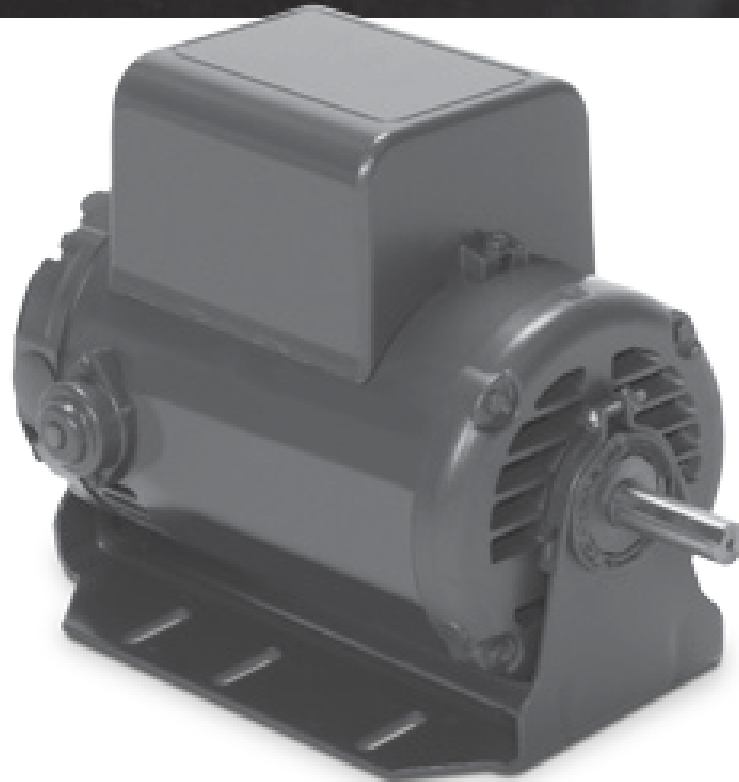
53-520171-000 – Rubber for B2000

53-520172-000 – Leather for B2000 or FX

53-520686-000 – Rubber for FX



OTHER > BALL LIFT ASSEMBLY



1/3 HP, 1150/950 RPM POWER LIFT MOTOR

For higher voltage centers, this universal voltage motor will hold strong.

- For B-2000 and before
- 1150/950 RPM
- 110/220/115/230 Volt – 60/50 cycles
- 1/3 horsepower
- 5/8" shaft
- Continuous Duty
- Push button thermal overload reset
- Made for 56YZ frame

53-529999-000

B/L MOTOR-1/4HP-1150/960RPM-5/8 SHFT

Choose a motor that has enough power to lift balls up the track and uses less energy.

- For B2000 ball lifts only
- 1150/960 RPM
- 110/220/115/230 – 60/50 cycles
- 1/4 horsepower
- 5/8" shaft
- Made for 56 frame
- Usable at 208
- Push button thermal overload reset

53-860322-010



POWER LIFT DRIVE SHAFT

Prevent worn shafts that cause ball to stick in the power lift.

- Made from a solid piece of stress-proof steel

53-520066-000



POWER LIFT CLUTCH

Fully assembled with a special, heat-treated hex head cap screw that will not shear under repeated ball impact.

- Extend the life of the power lift wheels by keeping this clutch in shape
- Based on a replaceable, high-performance Torrington clutch-bearing assembly – 11-500552-000

53-860555-000



BALL TRANSITION ASSEMBLY

Transitions ball from power lift to ball rack smoothly.

- Worn transition tracks can cause balls to hang up in the exit of the power lift and cause rough transitions to the ball rack
- Made for Power Lift

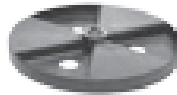
53-520073-000



LOWER PULLEY ASSEMBLY

When replacing a power lift clutch, also replace the race assembly for longer service.

53-520663-001

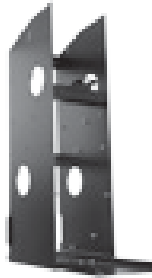


BALL LIFT WELDMENT ASSEMBLY (METRIC)

Replacement frame for Frameworx ball lift. Includes metric hardware.

- Having a spare on hand helps avoid unnecessary down time

53-520696-001



POWER LIFT IDLER PULLEY ASSEMBLY

Eliminate belt tensioning problems by replacing worn and broken pulleys.

- Solid steel pulleys come fully assembled with a replaceable bearing – 11-430028-000 and a retaining ring

53-520244-000 – For poly V-belt

53-520026-000 – For V-belt



ADVANCED PERFORMANCE URETHANE TRANSITION TRACKS

Prevent bowling balls from failing to roll out of ball lift onto rack by replacing rubber transition tracks.

- Designed to be wear resistant to today's abrasive balls and will last 2 to 1 over OEM rubber track

90-520075-600



Advanced Performance

OTHER > BALL RETURN & RACK

FRAMEWORX BALL HOOD THROAT

Complete with hardware

53-861126-000 – Dark gray

53-861126-003 – Graphite

53-861126-205 – Black



FRAMEWORX BALL RETURN STORAGE RACK

Rack is made from rugged, all steel construction that will not damage balls.

- Racks are available in 6-ball or 8-ball additions
- This product is perfectly integrated to the best-selling Frameworkx® ball return, and other Frameworkx ball rack look-alikes
- Easy to install and available in Frameworkx dark gray and silver
- Includes hardware and instructions

53-861147-606 – 6 ball, dark gray

53-861147-608 – 8 ball, dark gray

53-861133-606 – 6 ball, silver

53-861133-608 – 8 ball, silver

11-651103-000 – Rubber replacement for ball rack tips (Pkg of 4)



BALL RAIL EXTRUSIONS

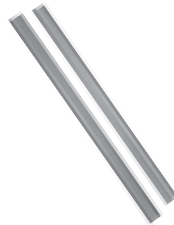
Includes two Ball Rail Extrusions and screws.

53-861026-227 – Black

53-861026-229 – Graphite

53-861026-XXX*

(* = See color chart in right hand column)



BALL RETURN COLOR KITS

Includes:

- (1) package - Ball Rail Extrusion Package – 53-861026-XXX*
- (1) - Vent Decal – 53-400043-XXX*
- (2) - Wear Strip – 53-400057-XXX*
- (1) - Throat insert – 53-400009-XXX*

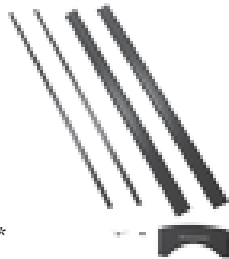
53-861122-002** – Graphite/Silver

53-861122-205** – Black

53-861090-XXX* – Package w/ Hood Logos

* = See color chart in right hand column

** = Does not include hood logo



FRAMEWORX BALL RACK SAFETY SWITCH



Turns off ball lift when lever is pushed.

- Help prevent injuries to anyone who may put their hands in the lift
- For Frameworkx and B2000 lifts.

MUST USE in the upper wheel position
Ball Lift Wheel – 53-520060-000 or Urethane Foam Tire – 90-520060-600
Not compatible with V-style wheel or U-style wheel in upper position

53-861149-000 – Complete Assembly



53-860458-000 – Replacement Switch



RESET SWITCH & BRACKET ASSEMBLY FOR FRAMEWORX BALL RACK

- Replacement for damaged or worn out switches
- Includes switch and bracket

53-861127-000 – Dark Gray

53-861127-100 – Silver



RESET BUTTON

Gold Crown & AstroLine Ball Rack Reset Button.

11-615014-000



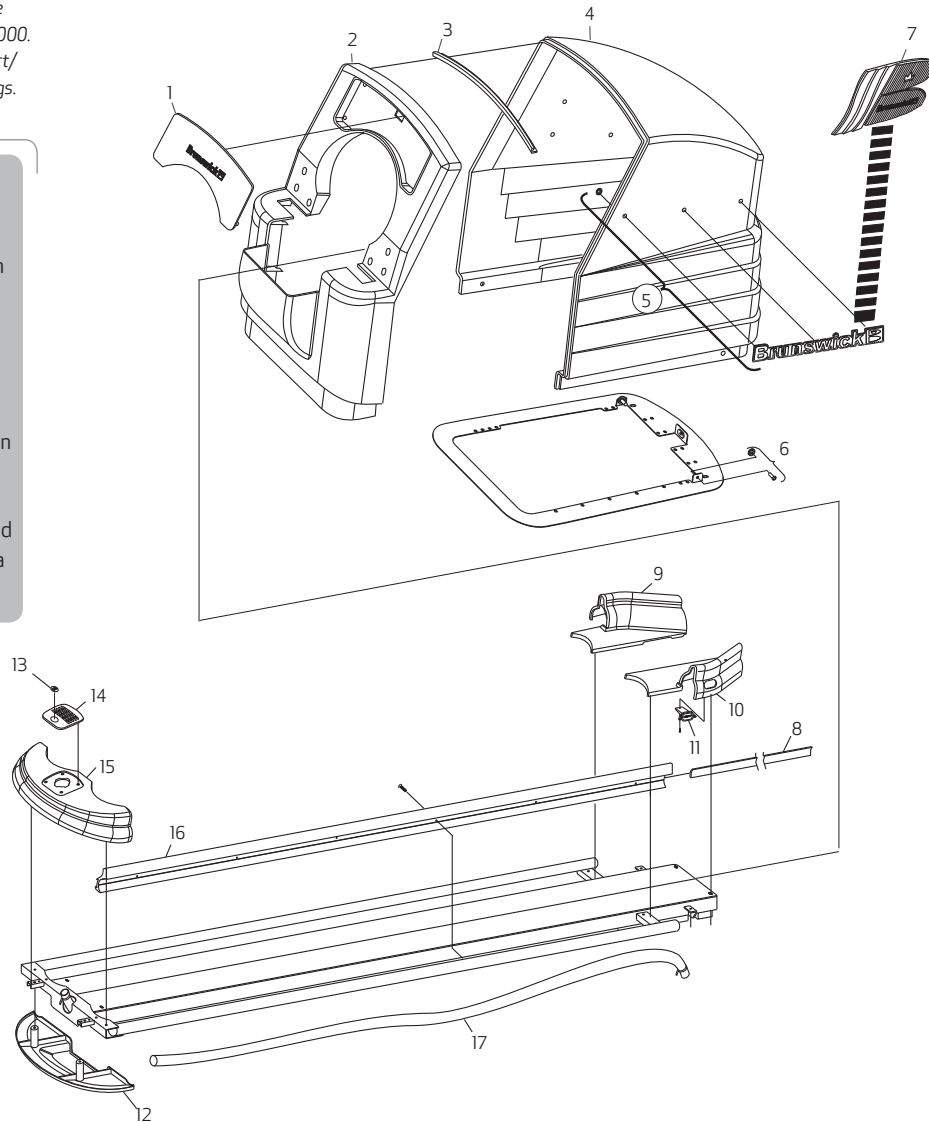
* Color Kit Chart

Part No. Suffix	Primary Color	Secondary Color
-220	Blueberry	Banana Accent
-221	Kiwi	Blueberry Accent
-222	Cranberry	Banana Accent
-223	Grape	Kiwi Accent
-224	Banana	Grape Accent
-225	Strawberry	Banana Accent
-227	Black	
-229	Graphite	
-260	Violet	
-261	Daffodil	
-262	Blaze Orange	
-263	Malachite	
-265	Jade	
-266	Navy	
-267	Eggplant	
-268	Silver	

For complete schematics please refer to the Bowling Service Parts Catalog - 28-201739-000. Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.

TECH TIP

Blow off your customers and save money at the same time! Every six months vacuum the intake guard on the hand dryer motor. Over time, the guard will collect dust, hair, and dirt. This collection causes a decrease in airflow which reduces the effectiveness of the blower for the customer. The accumulation can also cause premature failure of the motor or the motor bearings. It is a good idea to completely remove and disassemble the blower yearly for a thorough cleaning and lubrication.



PART INDEX

1	53-400009-227	Throat Decorative Insert (Dark Gray w/Silver Logo)	4	53-861034-205	Ball Return Hood Assembly (w/Nos. 3, 5 & adhesive)-Black	12	53-400271-003	End Cap - Lower (Graphite)
1	53-400009-228	Throat Decorative Insert (Black w/Silver Logo)	5	53-860648-000	Pkg-Brunswick Side Plate Logo	12	53-400271-205	End Cap - Lower (Black)
1	53-400009-229	Throat Decorative Insert (Graphite w/Silver Logo)	6	53-520723-000	Ball Lift Hood Retainer Clips	13	53-400043-XXX*	Decal Vent
1	53-400027-002	Throat Decorative Insert (Black w/Black Logo)	7	53-400048-XXX*	Side Logo Assembly	14	53-400278-000	Vent - Ball Rack (Dark Gray)
2	53-861126-000	Pkg. Throat (Dark Gray)	7	53-400048-229	Logo Assy - Graphite - Non Glow	14	53-400278-003	Vent - Ball Rack (Graphite)
2	53-861126-003	Pkg. Throat (Graphite)	8	53-400057-XXX*	Wear Strip	14	53-400278-205	Vent - Ball Rack (Black)
2	53-861126-205	Pkg. Throat (Black)	9	53-400097-000	L.H. Exit Track Only (Light Gray)	15	53-400270-000	Ball Return End Cap - Top (Light Grey)
3	53-400044-000	Hood Lip Trim	9	53-400097-003	L.H. Exit Track Only (Graphite)	15	53-400270-003	Ball Return End Cap - Top (Graphite)
4	53-860937-000	Ball Return Hood Assembly (w/No.3) - Light Gray	9	53-400097-205	L.H. Exit Track Only (Black)	15	53-400270-205	Ball Return End Cap - Top (Black)
4	53-861034-002	Ball Return Hood Assembly (w/Nos. 3, 5 & adhesive) - Silver	10	53-400099-000	R.H. Exit Track Only (Light Gray)	16	53-861026-XXX*	Ball Rail Extrusion
			10	53-400099-003	R.H. Exit Track Only (Graphite)	17	53-400041-000	Hand Dryer Hose - Framework
			10	53-400099-205	R.H. Exit Track Only (Black)	17	53-100415-010	Hand Dryer Hose - 2000 Twin Line
			11	53-861127-000	Reset Switch (Dark Gray)			
			11	53-861127-100	Reset Switch (Silver)			
			12	53-400271-000	End Cap - Lower (Light Gray)			

*See Bowling Service Parts Catalog (P/N 28-201739-000) for color options.

OTHER > FURNITURE

STRIKING LINE WOOD SEAT BOTTOMS

Refreshes Striking Line seating to look like new.

- Easily installs with existing chair hardware

Style "A"

Florence, Contessa, Catalina, Voltair

54-860511-001 – Dark Cherry (Pkg of 4)

54-860511-002 – Natural (Pkg of 4)

Style "B"

Easton, Montgomery, Brodrick, Alden

54-860512-001 – Dark Cherry (Pkg of 2)

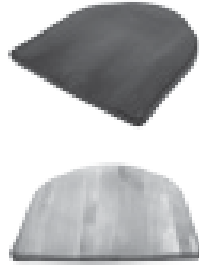
54-860512-002 – Natural (Pkg of 2)

Style "C"

Wayland

54-860513-001 – Dark Cherry (Pkg of 2)

54-860513-002 – Natural (Pkg of 2)



STRIKING LINE CHAIR GLIDES

For Striking Line wood stools.

54-861080-000 – (Pkg of 4)

FRAMEWORX TOUCH-UP PAINT

Keep furniture weldments looking new. Dark grey paint.

53-861005-101



DRINK HOLDERS

54-100260-000

ACCENT DECALS - OVERHEADS

57-860935-227 – Black/Silver

Also Frameworx colors while available: (-220 through -225)

FRAMEWORX SEATS

Give your Frameworx seating new molded seats or new color kits. New Graphite color kits now available.

- Light Gray Seat Only – 53-860959-000
- Graphite Seat Only – 53-860959-004

53-860960-XXX* – Seat color kit only (*= See color chart below)

53-860395-000 – 45° Swivel



FRAMEWORX PANEL FASTENERS

NOTE: Plastic fastener for inserts is no longer available in Blueberry (color -220), order Light Gray (color -232) as a replacement option. The Light Gray (color -232) will also be the replacement color for other fasteners as inventory is depleted.

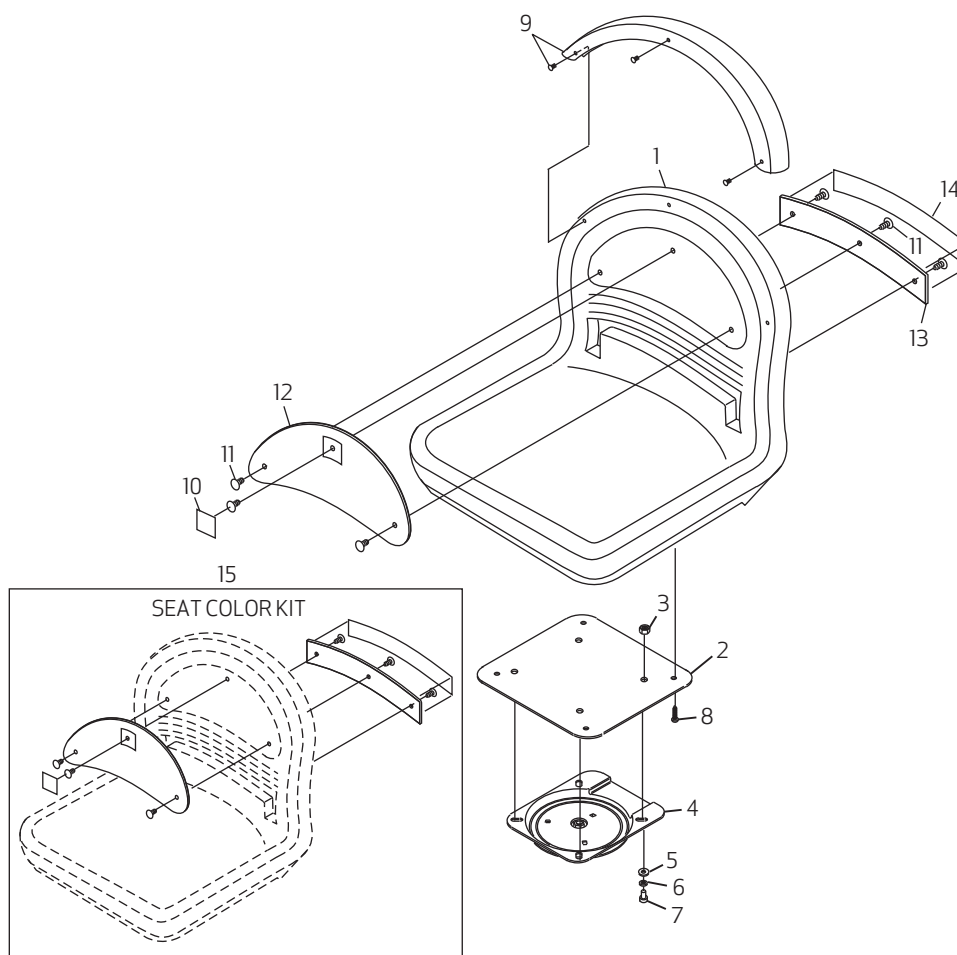
53-861010-XXX* (Pkg of 10)

(*= See color chart below)

* Frameworx Color Kit Chart

Part No. Suffix	Primary Color	Secondary Color
-003	Graphite	
-205	Black	
-220	Blueberry	Banana Accent
-221	Kiwi	Blueberry Accent
-222	Cranberry	Banana Accent
-223	Grape	Kiwi Accent
-224	Banana	Grape Accent
-225	Strawberry	Banana Accent
-232	Light Grey	
-260	Violet	
-261	Daffodil	
-262	Blaze Orange	
-263	Malachite	
-265	Jade	
-266	Navy	
-267	Eggplant	
-268	Silver	

For complete schematics please refer to the Bowling Service Parts Catalog - 28-201739-000. Visit brunswickbowling.com/service-support/tech-support/documentation/parts-catalogs.

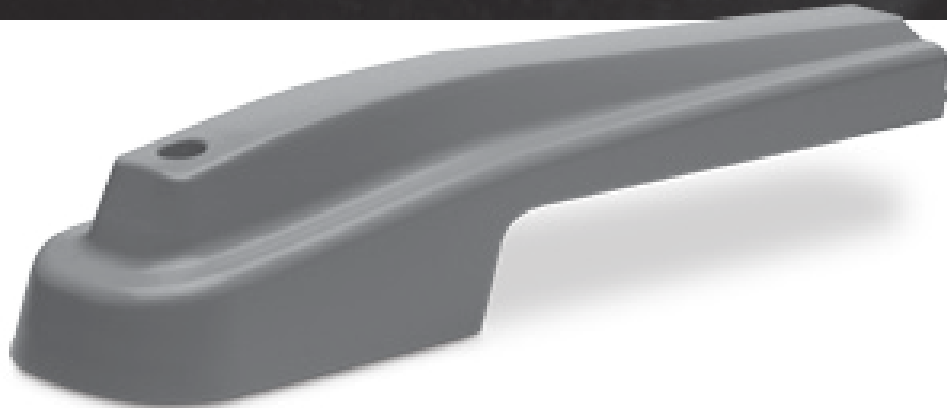


PART INDEX

1	53-860959-000	Contour Seat Pkg. (Light Gray)	6	11-051769-001	Lockwasher	13	USE INDEX NO. 15	Rear Insert - Not sold separately
1	53-860959-004	Contour Seat Pkg. (Graphite)	7	11-054803-001	Socket Hd. Cap Screw	14	53-400111-XXX*	Rear Decal
2	53-400165-000	Adapter Plate (Dark Gray)	8	11-082862-001	Self Tapping Screw (#14-10x1")	15	53-860960-XXX*	Color Seat Kit
2	53-400165-100	Adapter Plate (Silver)	9	53-861066-000	Seat Back Cap (Dark Gray)			(This package contains one each of item numbers: 10, 12, 13 and 14 and six each of item 11)
3	11-051702-001	Hex Nut (6mm)	10	53-400103-XXX*	Front Decal			
4	53-860395-000	45° Seat Swivel	11	53-861010-XXX*	Plastic Fastener (Pkg. of 10)			
5	11-052037-001	Flat Washer	12	USE INDEX NO. 15	Front Insert - Not sold separately			

*See Bowling Service Parts Catalog (P/N 28-201739-000) for color options.

OTHER > ELECTRICAL & SCORING COMPONENTS



TEL-E-FOUL COVERS

Tel-E-Foul lenses are secured to cover with hardware. Eliminates lenses popping out and getting damaged from lane machines and bowlers. Lens set - 84-860770-000 includes a template to fasten lens to older style Frameworkx Tel-E-Foul Covers.

84-860602-000 - Division Cover

84-860769-000 - Return Cover with lenses

84-860770-000 - Lens Set RH and LH



TEL-E-FOUL SYSTEM

Infrared technology.

- Operates on 110/220 VAC at 50/60 Hz
- Requires additional transformer for installation:
115 volt - 53-860628-115
230 volt - 53-860629-230
- Self diagnostics for easy adjustment and no interruptions in league play
- All modular design makes it easy to troubleshoot and change parts
- Board is spring mounted to limit vibration which can damage electronics
- Compatible with all scoring systems
- Tel-E-Foul PCB - 53-600181-005

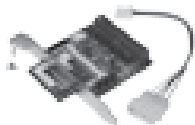
53-861076-000

FRAMEWORX CONSOLE FLASH DRIVE KIT

Replace your Frameworkx hard drives with this solid state replacement kit.

- No moving parts
- Eliminates hard drive down time
- Pre-programmed with Frameworkx software 6.3
- Comes with cable, mounting hardware, and complete instructions

57-863397-400



SENSOR ASSEMBLY

Sensor for infrared Tel-E-Foul.

53-600181-003



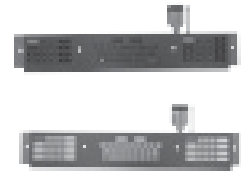
TACTILE SWITCH KEYBOARDS

Replacement for automatic scorer membrane keyboards.

- Provides a click-free contact when touched
- Easier activation and increased durability means longer product life

57-860607-002 - Black Keys

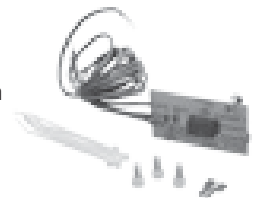
57-860608-002 - White Keys



RESET BUTTON KIT

Locks out reset button when machine starts to cycle until zero degree switch is made and will score immediately if the reset button (up front, after a ball detect) is pushed.

57-860109-000



BALL DETECT - SINGLE

Package is complete with sensor, nuts, bezel, screwdriver and instructions.

57-863670-000



DUAL OUTPUT BALL DETECTOR/ REFLECTOR

Dual output used for scoring and electronic triggering. Larger reflector gives more surface area for infrared beam than the older small ones.

- Reflector with bracket - 57-860507-000
- Reflector only - 53-600176-000

57-861237-000 - Detector



Light Bulbs

	GOLD CROWN	ASTROLINE	ASTRO II	SYSTEM 2000	FRAMEWORX
MASKING UNIT					
Starlights	N/A	11-675513-002 #90	11-675517-002 #94	N/A	N/A
Strikelight	11-675501-000 28V #308	11-675517-002 #94 Clear	11-675513-002 #90 Clear	11-675521-002 #1692	N/A
				11-675523-000 (AMF) #68	N/A
1st & 2nd Ball Light	11-675501-000 28V #308	11-675521-002 #1692	11-675521-002 #1692	11-675582-000 #624	11-675582-000 #624
				11-675523-000 (AMF) #68	11-675523-000 (AMF) #68
TELESCORE					
Projection	17-213927-000 - 150 Watt	17-213927-000 - 150 WATT	17-213927-000 - 150 WATT	17-213927-000 - 150 WATT	N/A
Table Light	11-675579-000 - 25T8	11-675579-000 - 25T8	11-675579-000 - 25T8	11-675579-000 - 25T8	N/A
TELEFOUL					
Foul Indicator	N/A	11-675513-002 #90 Clear	11-675513-002 #90 Clear	11-675513-002 #90 Clear	11-675513-002 #90 Clear
Light Source	15-609567-000 - 6 Volt	11-675514-002 #1876	11-675514-002 #1876	11-675514-002 #1876	11-675514-002 #1876
PINFINDER					
Display	11-675503-000 #1252	N/A	N/A	N/A	N/A
AUTOMATIC SCORER					
Service Light	N/A	N/A	N/A	11-675503-000 - #1252	N/A
Scanner	N/A	N/A	57-860258-000 - Model 86'	57-860258-000 - Model 86'	N/A
Ball Detector	11-675514-002 #1876	11-675514-002 #1876	N/A	N/A	N/A

DUAL PIN LAMP

Black light fixture features two bulbs that go from normal lighting to black light conditions with the flick of a switch.

- Illusion of floating pins has been made possible and practical with Brunswick's Pin Lamps and Glow-In-The-Dark Pins
- Toggle Switch - 11-615519-000
- Ballast Only:
A•2 - 12-860109-000 (115 Volt)
GS - 47-226294-004 (230 Volt)

12-862920-000 - Model A/A•2



PIN LIGHT FIXTURE - STANDARD

Light Fixture without bulb (GS 230/380V)

47-225723-004

DUAL PIN LIGHT FIXTURE

Light Fixture without bulb (GS 208V)

47-225722-004



PIN LAMP HOLDER

This kit offers easy installation in the existing opening on both U.S. and Japanese pinsetter versions.

12-860770-000

"DO NOT CROSS FOUL LINE" SAFETY DECAL

Designed with large text and red background to catch bowlers' attention.

- Installs on return Tel-E-Foul unit for easy visibility
- Self adhesive, water resistant material
- Package of five

84-860902-000



FOUL LINE DECAL (PKG OF 6)

This USBC approved decal is easy and quick to install. Made with Guardian, the decal provides great glow under black lights.

84-860266-000 - English

84-860269-000 - Spanish



OTHER > TOOLS & SUPPORT MATERIALS



MULTIMETER

This multimeter measures voltage, current and resistance.

- Tests diodes and continuity
- Rotary switch ensures that only one test is run at a time
- Meter automatically sets ranges for the most accurate reading
- Shows readings on a digital display and an analog bar graph
- Comes complete with a holster that attaches to a belt or converts into a table top stand
- Backed up with a three-year manufacturer's warranty

57-860295-000

RETAINING RING PLIER SET

Set comes complete with one pair of internal pliers, one pair of external pliers, and an assortment of tips.

- 6-3/8" long pliers with vinyl covered handles for comfortable grip
- Tips come in various sizes and angles for a majority of the pinsetter retaining ring applications



12-900172-000



12-900172-002 – Replacement Tips

HARDWARE KIT

440 hardware items in one location.

- Easy to use, with all part numbers labeled
- For hardware box only, order: 12-860331-001



12-860331-000

URETHANE (NO-BOUNCE) Mallet

No-bounce urethane head drastically reduces rebound that can damage parts or cause personal injury. Contoured handle provides a firm, nonslip grip.



90-750069-000

HEX BIT SOCKET SET

Set of seven sockets includes the following sizes: 1/8", 5/32", 3/16", 7/32", 1/4", 5/16", 3/8".

- Sockets fit 3/8" square drives
- Chrome-plated sockets resist corrosion



12-900180-000

Support Materials (Manuals, Catalogs, DVDs)

PART NUMBER	DESCRIPTION	AVAILABLE ONLINE
A AND A•2 PINSETTERS		
12-900900-000	A Pinsetter Service Manual	X
12-752828-000	A•2 Automatic Pinsetter Service Manual	X
12-902920-000	A•2 Pinsetter Service Manual (Spanish)	
12-902908-000	A & A•2 Pinsetter Service Parts Catalog	X
12-900250-000	Hardware Catalog for A and A•2 Pinsetters	
12-900259-000	Service Parts Inventory Control Record for A & A•2 Pinsetters	
12-900260-000	Brunswick Preventative Maintenance Manual	
12-902262-000	Electronic Pinsetter trigger/Control System Installation & Operations Manual	
12-902921-000	Motor Repair Manual	
12-900907-000	Detector Manual	
12-900903-000	Gear Box Disassembly Manual	
61-860200-100	Gear Box Clutch Repair and Maintenance DVD	
61-860201-100	Electrical System Overview DVD	
61-860202-100	Motor Contact replacement DVD	
61-860227-100	Basic Pinsetter Operation DVD	
GS SERIES PINSETTERS		
47-902712-000	GS Series Pinsetter Service Parts Catalog	X
47-902727-000	GS Series Pinsetter Service Parts Inventory	
47-902741-000	Hardware catalog for GS-92 Pinsetters	
47-902735-000	GS Series Pinsetter Operations & Service Training Program	
BOWLING EQUIPMENT		
28-201739-000	Bowling Service Parts Catalog	X
61-900015-000	Lane Duster Operation and Service Manual	
61-900020-000	Computer Lane Monitor Operator's Manual for Windows	
AUTOMATIC SCORERS		
57-900300-000	Scoring System Service Manual	
57-900306-000	Automatic Scorer Service Parts Catalog	X
57-900360-000	Frameworkx Scorer Service Parts Catalog	X
57-900384-000	Frameworkx Scoring Solutions 3, 4, & 5 User's Guide	
57-900620-000	Vector Scorer Service Parts Catalog	X
57-900608-000	Classic Service Parts Catalog	



HARDWARE

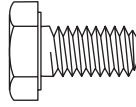
HARDWARE



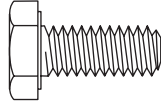
HARDWARE > HEX HEAD CAP SCREWS

1/4-20 GRADE 2

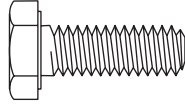
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1/4-20 x 1/2
Pkg. Qty. 25



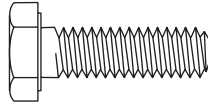
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1/4-20 x 5/8
Pkg. Qty. 25



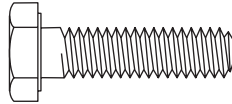
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1/4-20 x 3/4
Pkg. Qty. 25



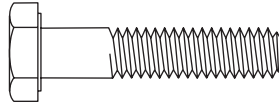
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1/4-20 x 7/8
Pkg. Qty. 25



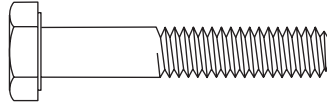
11-001184-001
1/4-20 x 1
Pkg. Qty. 25



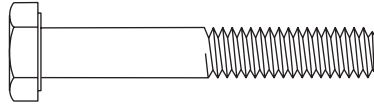
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1/4-20 x 1-1/4
Pkg. Qty. 25



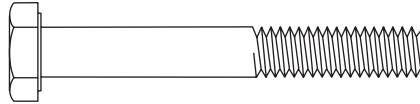
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1/4-20 x 1-1/2
Pkg. Qty. 25



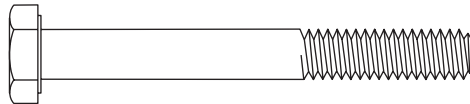
11-001190-001
1/4-20 x 1-3/4
Pkg. Qty. 25



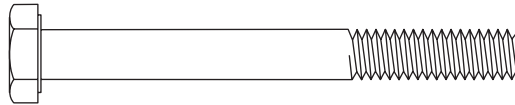
11-001192-001
1/4-20 x 2
Pkg. Qty. 25



11-001193-001
1/4-20 x 2-1/4
Pkg. Qty. 15



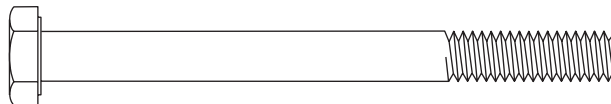
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Pkg. Qty. 25



11-001195-001
1/4-20 x 2-3/4
Pkg. Qty. 10

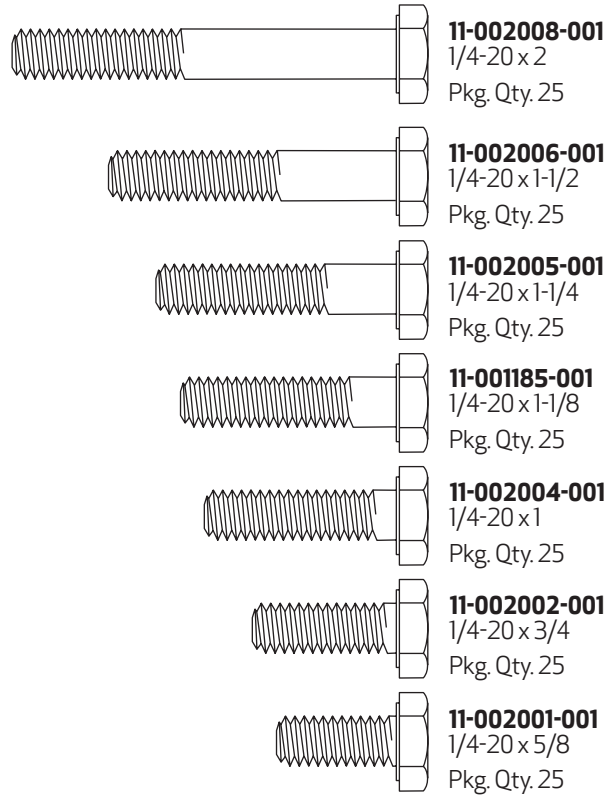


11-001196-001
1/4-20 x 3
Pkg. Qty. 25

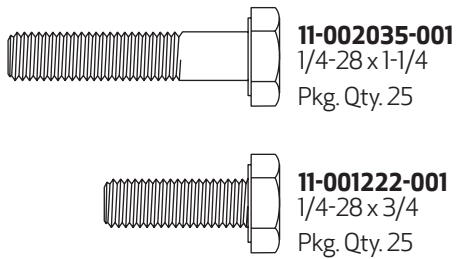


Hardware illustrations are actual size.

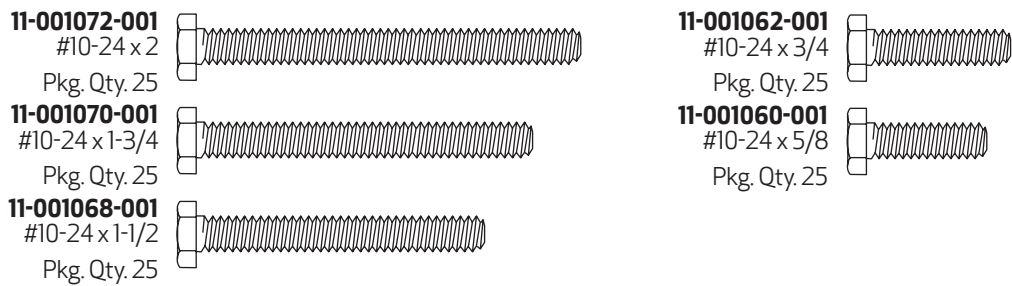
1/4-20 GRADE 5



1/4-28 GRADE 5

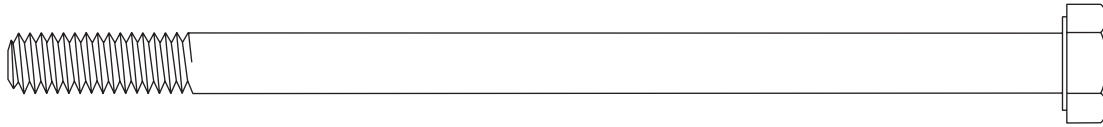


MACHINE SCREWS

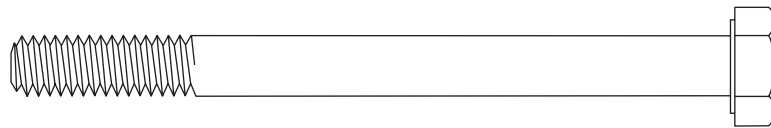


HARDWARE > HEX HEAD CAP SCREWS

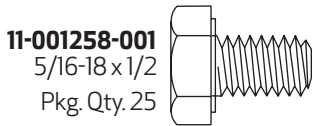
5/16-18 GRADE 2



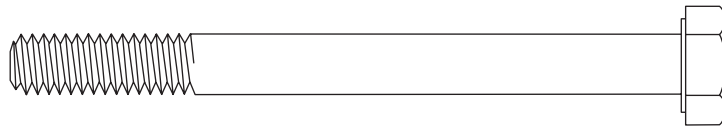
11-001286-001
5/16-18 x 5-1/2
Pkg. Qty. 25



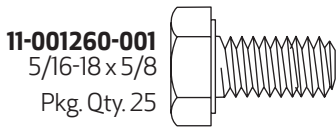
11-002075-001
5/16-18 x 3-3/4
Pkg. Qty. 25



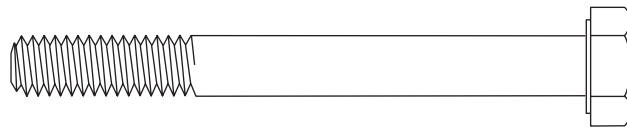
11-001258-001
5/16-18 x 1/2
Pkg. Qty. 25



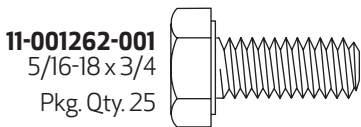
11-001278-001
5/16-18 x 3-1/2
Pkg. Qty. 25



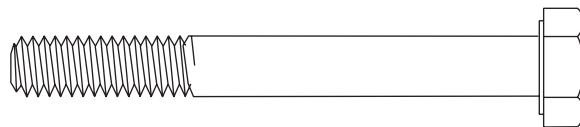
11-001260-001
5/16-18 x 5/8
Pkg. Qty. 25



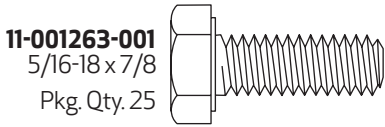
11-001276-001
5/16-18 x 3
Pkg. Qty. 25



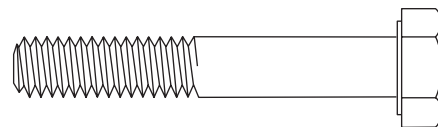
11-001262-001
5/16-18 x 3/4
Pkg. Qty. 25



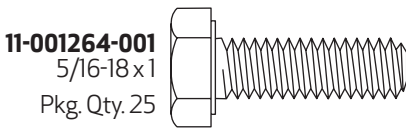
11-001275-001
5/16-18 x 2-3/4
Pkg. Qty. 25



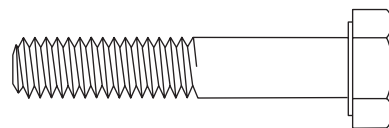
11-001263-001
5/16-18 x 7/8
Pkg. Qty. 25



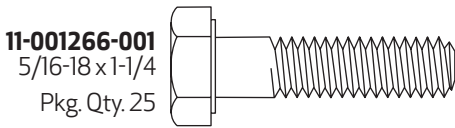
11-001272-001
5/16-18 x 2
Pkg. Qty. 25



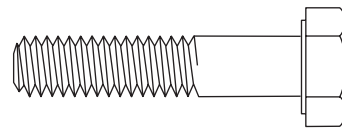
11-001264-001
5/16-18 x 1
Pkg. Qty. 25



11-001270-001
5/16-18 x 1-3/4
Pkg. Qty. 25



11-001266-001
5/16-18 x 1-1/4
Pkg. Qty. 25

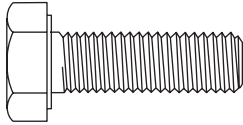


11-001268-001
5/16-18 x 1-1/2
Pkg. Qty. 25

Hardware illustrations are actual size.

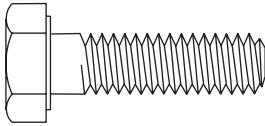
5/16-24 GRADE 2

11-001304-001
5/16-24 x 1
Pkg. Qty. 25



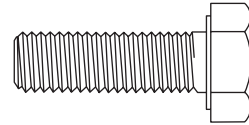
5/16-18 GRADE 5

11-001265-001
5/16-18 x 1-1/8
Pkg. Qty. 25

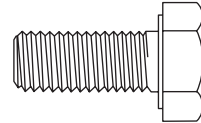


5/16-24 GRADE 5

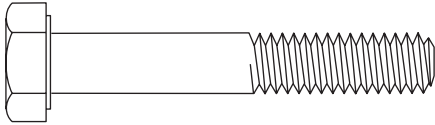
11-002094-001
5/16-24 x 1
Pkg. Qty. 25



11-002092-001
5/16-24 x 3/4
Pkg. Qty. 25

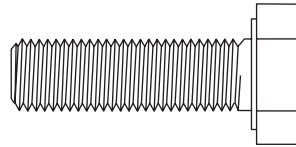


11-002068-001
5/16-18 x 2
Pkg. Qty. 25

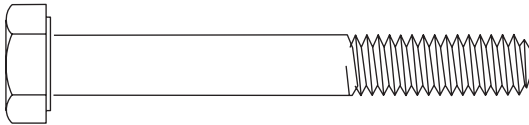


3/8-24 GRADE 5

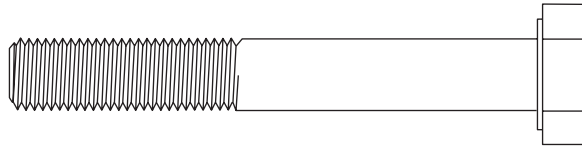
11-002155-000
3/8-24 x 1-1/4
Pkg. Qty. 10



11-002070-001
5/16-18 x 2-1/2
Pkg. Qty. 25

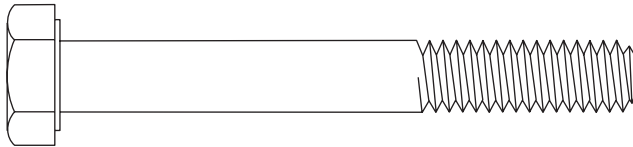


10-002001-000
3/8-24 x 2-3/4
Pkg. Qty. 10



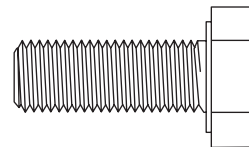
3/8-16 GRADE 5

11-002132-001
3/8-16 x 3
Pkg. Qty. 10

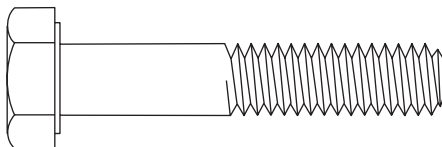


3/8-24 GRADE 2

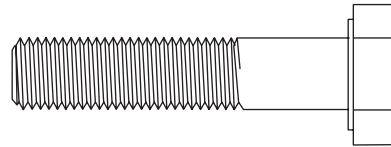
11-001384-001
3/8-24 x 1
Pkg. Qty. 10



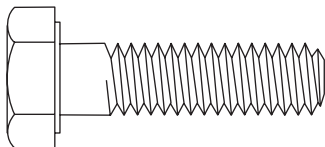
11-002128-001
3/8-16 x 2
Pkg. Qty. 10



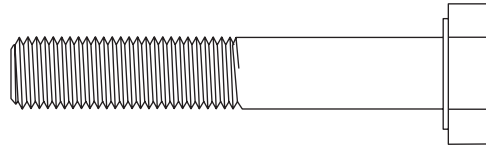
11-001390-001
3/8-24 x 1-3/4
Pkg. Qty. 10



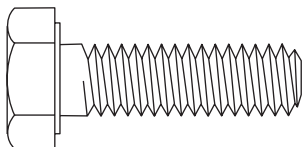
11-001347-001
3/8-16 x 1-3/8
Pkg. Qty. 10



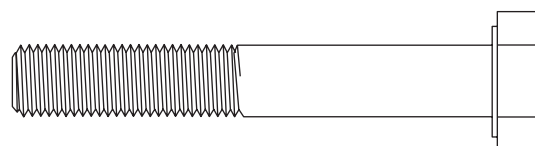
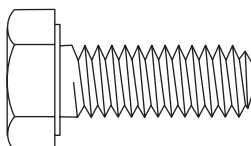
11-001393-001
3/8-24 x 2-1/4
Pkg. Qty. 10



11-002125-001
3/8-16 x 1-1/4
Pkg. Qty. 10

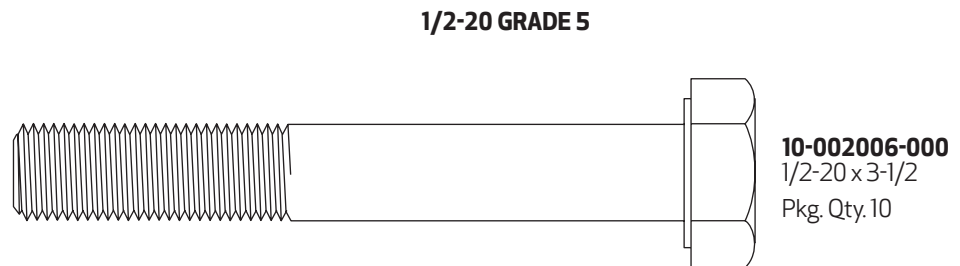
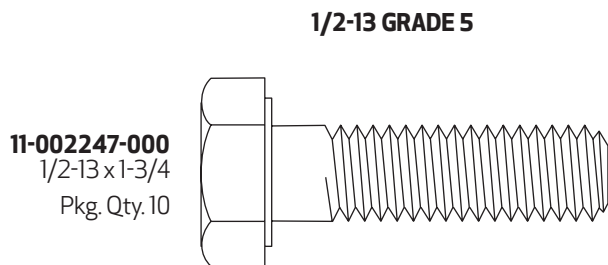
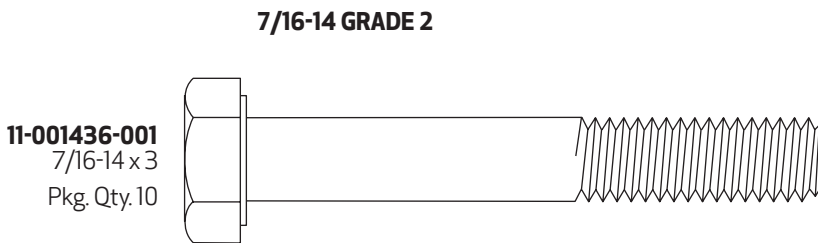
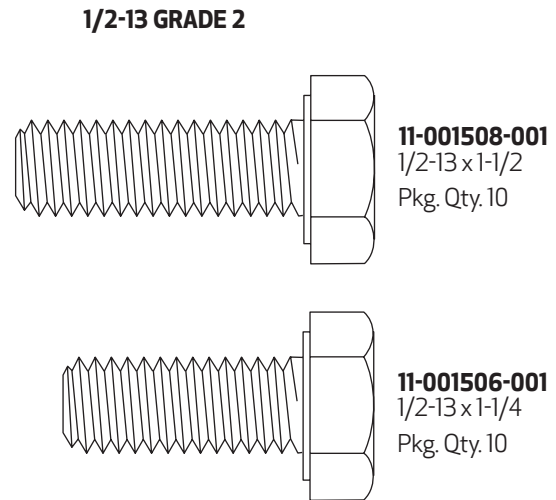
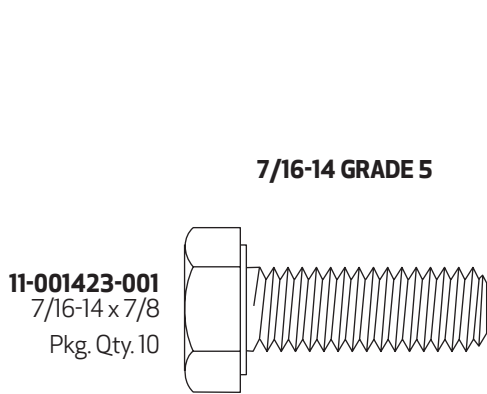


11-002124-001
3/8-16 x 1
Pkg. Qty. 10



11-001394-001
3/8-24 x 2-1/2
Pkg. Qty. 10

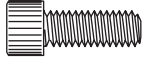
HARDWARE > HEX HEAD CAP SCREWS



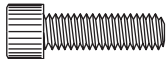
Hardware illustrations are actual size.

#10-32

11-005118-001
#10-32 x 1/2
Pkg. Qty. 10

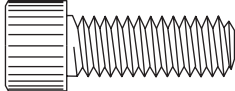


11-005120-001
#10-32 x 5/8
Pkg. Qty. 10

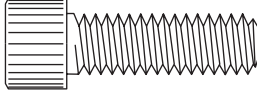


5/16-18

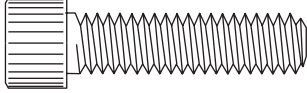
11-005263-001
5/16-18 x 7/8
Pkg. Qty. 10



11-005264-001
5/16-18 x 1
Pkg. Qty. 10

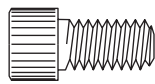


11-005266-001
5/16-18 x 1-1/4
Pkg. Qty. 10

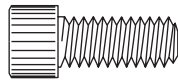


1/4-20

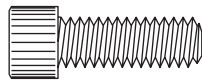
11-005178-001
1/4-20 x 1/2
Pkg. Qty. 10



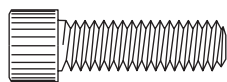
11-005180-001
1/4-20 x 5/8
Pkg. Qty. 10



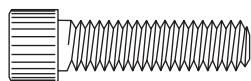
11-005182-001
1/4-20 x 3/4
Pkg. Qty. 10



11-005183-001
1/4-20 x 7/8
Pkg. Qty. 10



11-005184-001
1/4-20 x 1
Pkg. Qty. 10

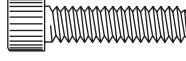


11-005194-001
1/4-20 x 2-1/2
Pkg. Qty. 10

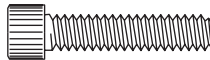


#10-24

11-005092-001
#10-24 x 3/4
Pkg. Qty. 10

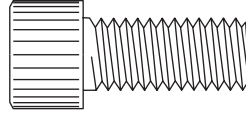


11-005093-001
#10-24 x 7/8
Pkg. Qty. 10

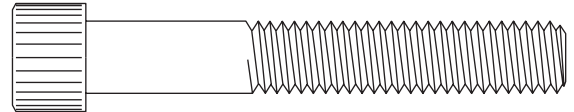


3/8-16

11-005343-001
3/8-16 x 7/8
Pkg. Qty. 10

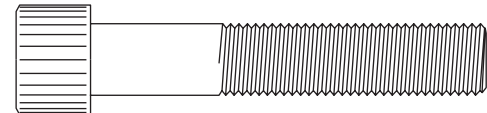


11-005354-001
3/8-16 x 2-1/2
Pkg. Qty. 10



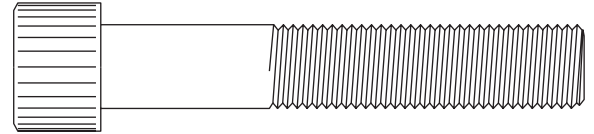
3/8-24

10-009001-001
3/8-24 x 2-1/6
Pkg. Qty. 10



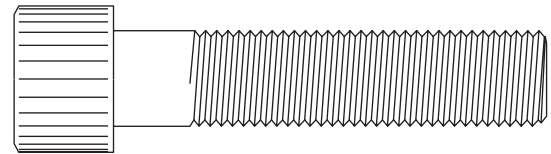
7/16-20

11-005474-001
7/16-20 x 2-1/2
Pkg. Qty. 10

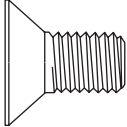
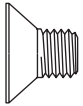
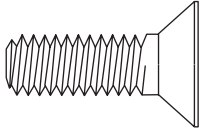
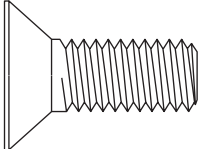
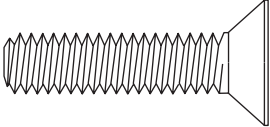
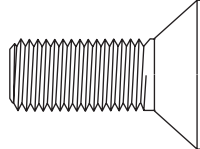
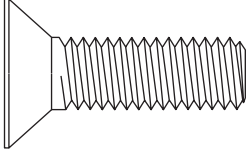
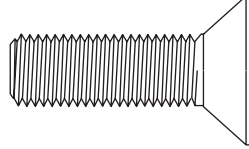
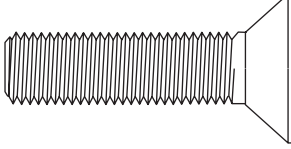
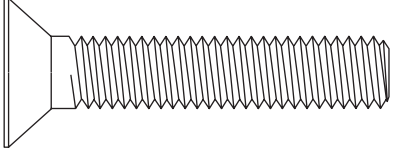
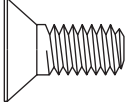

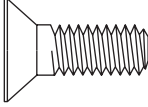
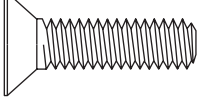

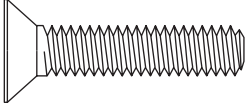
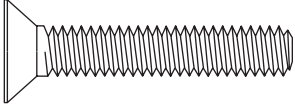
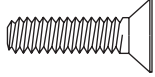
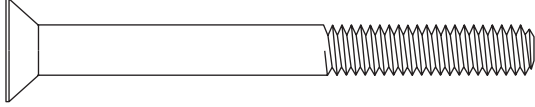
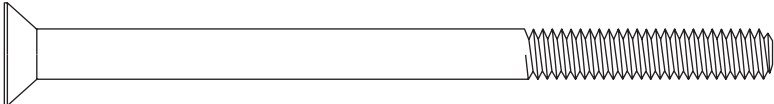


1/2-20

11-005553-001
1/2-20 x 2-1/4
Pkg. Qty. 10



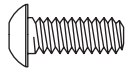
HARDWARE > FLAT HEAD SOCKET CAP SCREWS

<p>11-007300-001 5/16-24 x 5/8 Pkg. Qty. 10</p> 	<p>11-007216-001 1/4-28 x 3/8 Pkg. Qty. 10</p> 	<p>11-007264-001 5/16-18 x 1 Pkg. Qty. 10</p> 
<p>11-007344-001 3/8-16 x 1 Pkg. Qty. 10</p> 	<p>11-007267-001 5/16-18 x 1-3/8 Pkg. Qty. 10</p> 	<p>11-007384-001 3/8-24 x 1 Pkg. Qty. 10</p> 
<p>11-007346-001 3/8-16 x 1-1/4 Pkg. Qty. 10</p> 	<p>11-007386-001 3/8-24 x 1-1/4 Pkg. Qty. 10</p> 	<p>11-007388-001 3/8-24 x 1-1/2 Pkg. Qty. 10</p> 
<p>11-007352-001 3/8-16 x 2 Pkg. Qty. 10</p> 	<p>11-007180-001 1/4-20 x 5/8 Pkg. Qty. 10</p> 	<p>11-007086-001 #10-24 x 3/8 Pkg. Qty. 10</p> 
<p>11-007182-001 1/4-20 x 3/4 Pkg. Qty. 10</p> 	<p>11-007184-001 1/4-20 x 1 Pkg. Qty. 10</p> 	<p>11-007090-001 #10-24 x 5/8 Pkg. Qty. 10</p> 
<p>11-007186-001 1/4-20 x 1-1/4 Pkg. Qty. 10</p> 	<p>11-007188-001 1/4-20 x 1-1/2 Pkg. Qty. 10</p> 	<p>11-007092-001 #10-24 x 3/4 Pkg. Qty. 10</p> 
<p>11-007195-001 1/4-20 x 2-3/4 Pkg. Qty. 10</p> 	<p>11-007200-001 1/4-20 x 4 Pkg. Qty. 10</p> 	

Hardware illustrations are actual size.

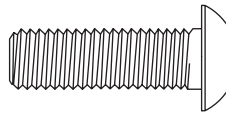
#10-24

11-006088-001
#10-24 x 1/2
Pkg. Qty. 10



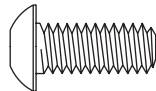
5/16-24

11-006304-001
5/16-24 x 1
Pkg. Qty. 10



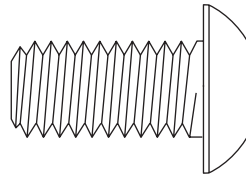
1/4-20

11-006180-001
1/4-20 x 5/8
Pkg. Qty. 10

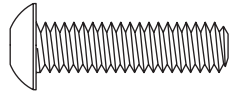


1/2-13

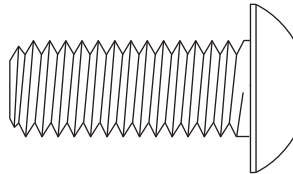
11-006504-001
1/2-13 x 1
Pkg. Qty. 10













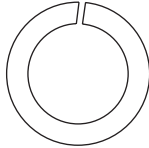
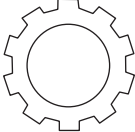

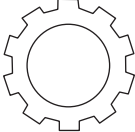
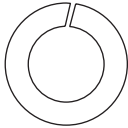
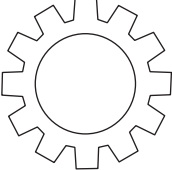
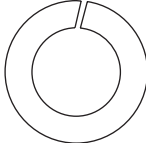
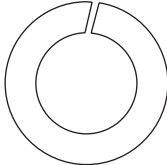
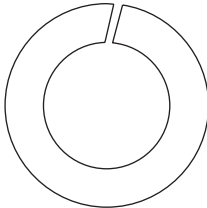
11-006184-001
1/4-20 x 1
Pkg. Qty. 10



11-006506-001
1/2-13 x 1-1/4
Pkg. Qty. 1



HARDWARE > LOCKWASHERS

	SPLIT	HI-COLLAR SPLIT	EXTERNAL TOOTH		
11-195006-001 #6 Pkg. Qty. 1		11-196006-001 #8 Pkg. Qty. 1			11-198002-001 #8 Pkg. Qty. 1
11-195008-001 #8 Pkg. Qty. 1		11-196008-001 #10 Pkg. Qty. 25			11-198003-001 #10 Pkg. Qty. 1
11-195010-001 #10 Pkg. Qty. 1		11-196012-001 1/4 Pkg. Qty. 25			11-198005-001 1/4 Pkg. Qty. 1
11-195014-001 1/4 Pkg. Qty. 1		11-196020-001 1/2 Pkg. Qty. 10			11-198007-001 3/8 Pkg. Qty. 25
11-195015-001 5/16 Pkg. Qty. 1					11-198009-001 1/2 Pkg. Qty. 25
11-195016-001 3/8 Pkg. Qty. 25					
11-195017-001 7/16 Pkg. Qty. 25					
11-195018-001 1/2 Pkg. Qty. 25					
11-195020-001 5/8 Pkg. Qty. 25					

Hardware illustrations are actual size.

FLEXLOC NUTS

COARSE		FINE	COARSE	FINE
11-170104-001 #10-24 Pkg. Qty. 10				11-170109-001 5/16-24 Pkg. Qty. 10
11-170106-001 1/4-20 Pkg. Qty. 10				
11-170108-001 5/16-18 Pkg. Qty. 10			11-170110-001 3/8-16 Pkg. Qty. 10	

MACHINE SCREW NUTS

STANDARD HEX NUTS

COARSE	FINE	COARSE	FINE
	11-125000-001 #4-40 Pkg. Qty. 25	11-125100-001 1/4-20 Pkg. Qty. 25	11-125101-001 1/4-28 Pkg. Qty. 25
	11-125001-001 #6-32 Pkg. Qty. 25	11-125102-001 5/16-18 Pkg. Qty. 25	11-125103-001 5/16-24 Pkg. Qty. 25
	11-125003-001 #8-32 Pkg. Qty. 25	11-125104-001 3/8-16 Pkg. Qty. 25	
11-125004-001 #10-24 Pkg. Qty. 25	11-125005-001 #10-32 Pkg. Qty. 25	11-125106-001 7/16-14 Pkg. Qty. 25	11-125107-001 7/16-20 Pkg. Qty. 25
11-125006-001 #12-24 Pkg. Qty. 25		11-125108-001 1/2-13 Pkg. Qty. 25	11-125109-001 1/2-20 Pkg. Qty. 25
11-125007-001 1/4-20 Pkg. Qty. 25			11-125115-001 3/4-16 Pkg. Qty. 25
11-125009-001 5/16-18 Pkg. Qty. 25			
11-125011-001 3/8-16 Pkg. Qty. 25			

Hardware illustrations are actual size.

HARDWARE > HEX NUTS

NYLOCK NUTS

COARSE



11-170002-001
#6-32
Pkg. Qty. 25



11-170004-001
#8-32
Pkg. Qty. 25

11-170005-001
#10-24
Pkg. Qty. 25



11-170006-001
#10-32
Pkg. Qty. 25

11-170007-001
1/4-20
Pkg. Qty. 25



11-170008-001
1/4-28
Pkg. Qty. 25

11-170009-001
5/16-18
Pkg. Qty. 1



11-170010-001
5/16-24
Pkg. Qty. 25

11-170011-001
3/8-16
Pkg. Qty. 25

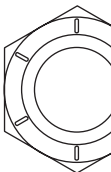


11-170012-001
3/8-24
Pkg. Qty. 25



11-170014-001
7/16-20
Pkg. Qty. 25

11-170015-001
1/2-13
Pkg. Qty. 25



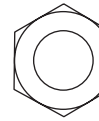
11-170016-001
1/2-20
Pkg. Qty. 25

JAM NUTS

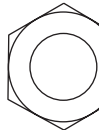
COARSE



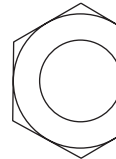
11-125200-001
1/4-20 R.H.
Pkg. Qty. 25



11-125202-001
5/16-18 R.H.
Pkg. Qty. 20



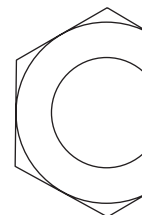
11-125204-001
3/8-16 R.H.
Pkg. Qty. 25



11-125206-001
7/16-14 R.H.
Pkg. Qty. 25



11-125208-001
1/2-13 R.H.
Pkg. Qty. 25



FINE



11-125201-001
1/4-28 R.H.
Pkg. Qty. 25



11-125207-001
7/16-20 R.H.
Pkg. Qty. 25



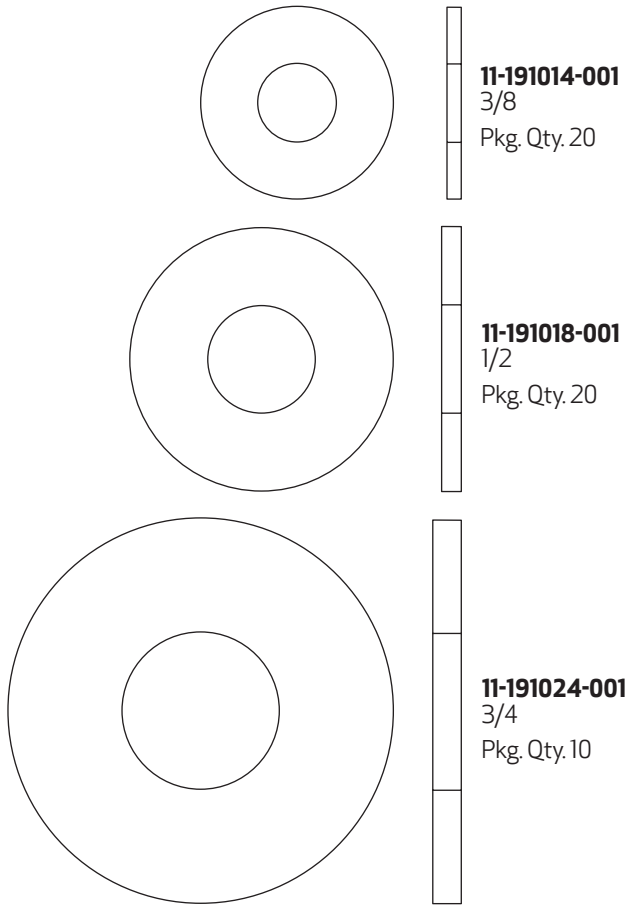
11-125209-001
1/2-20 R.H.
Pkg. Qty. 25



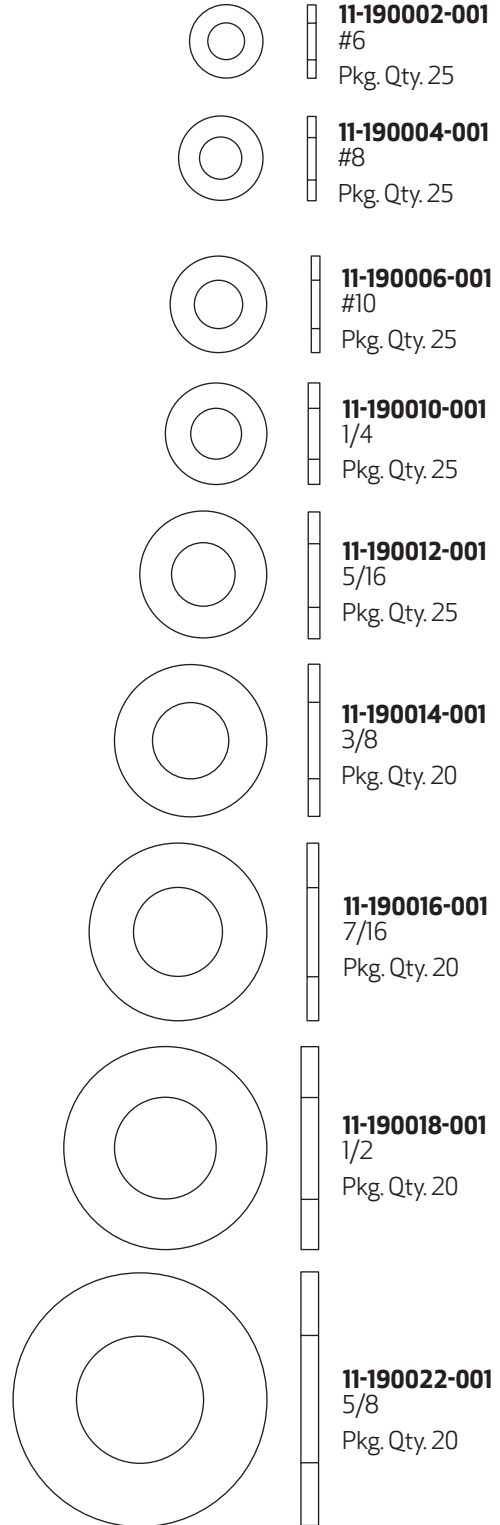
11-125213-001
5/8-18 R.H.
Pkg. Qty. 25

Hardware illustrations are actual size.

USS

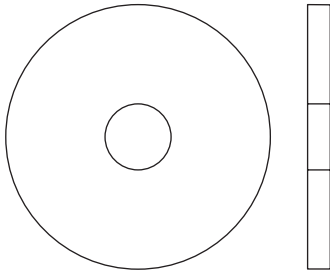


SAE

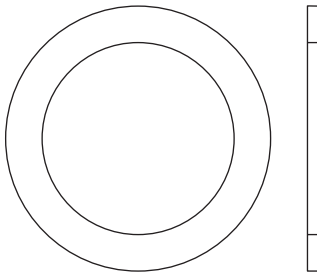


HARDWARE > FLAT WASHERS

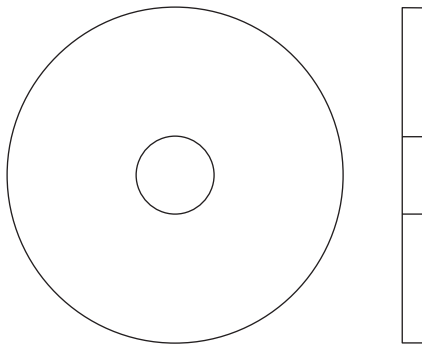
NON-STANDARD



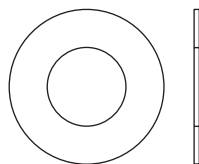
10-191554-000
Pkg. Qty. 25



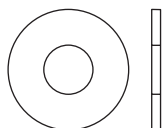
10-191557-000
Pkg. Qty. 25



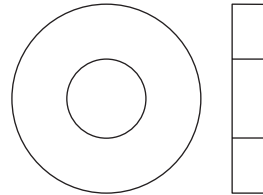
11-190512-001
Pkg. Qty. 5



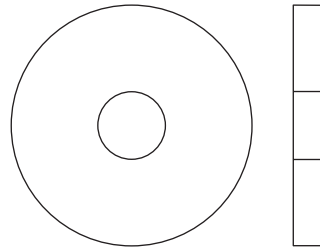
11-190511-001
Pkg. Qty. 10



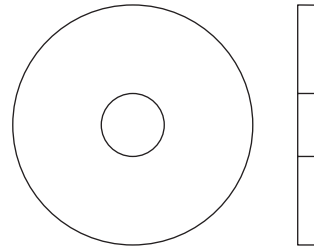
11-190509-001
Pkg. Qty. 20



11-190514-001
Pkg. Qty. 5

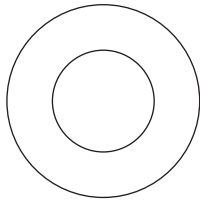


11-190515-001
Pkg. Qty. 1

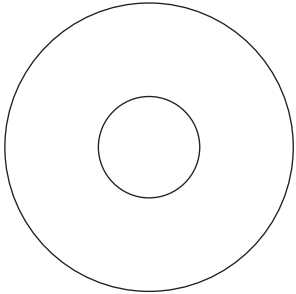


11-190519-001
Pkg. Qty. 25

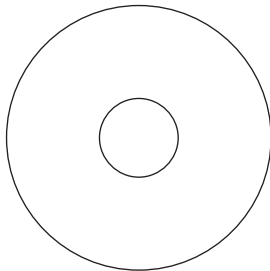
NON-STANDARD



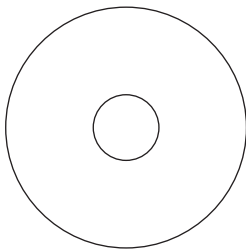
11-190520-001
Pkg. Qty. 20



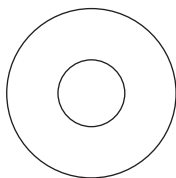
11-190521-001
Pkg. Qty. 25



11-190522-001
Pkg. Qty. 10

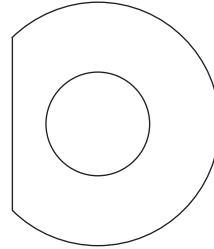


11-190527-001
Pkg. Qty. 10

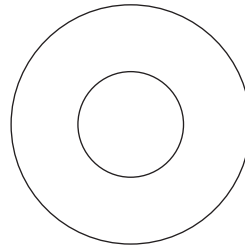


11-190529-001
Pkg. Qty. 5

SPECIAL



12-252360-000
D-Washer
Pkg. Qty. 5



12-250076-002
Fiber Washer
Pkg. Qty. 10

HARDWARE > RETAINING RINGS

EXTERNAL



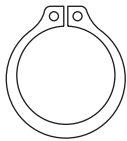
11-530012-001
Pkg. Qty. 20



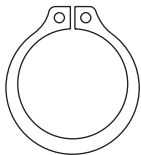
11-530015-000
Pkg. Qty. 20



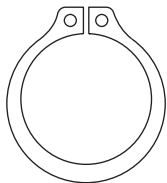
11-530017-001
Pkg. Qty. 20



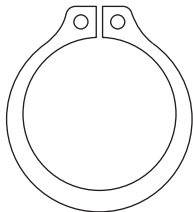
11-530019-000
Pkg. Qty. 20



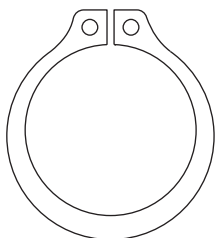
11-530021-001
Pkg. Qty. 20



11-530025-001
Pkg. Qty. 20

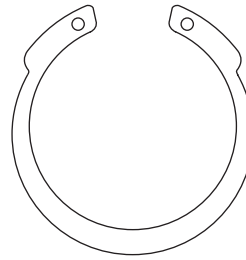


11-530028-000
Pkg. Qty. 20

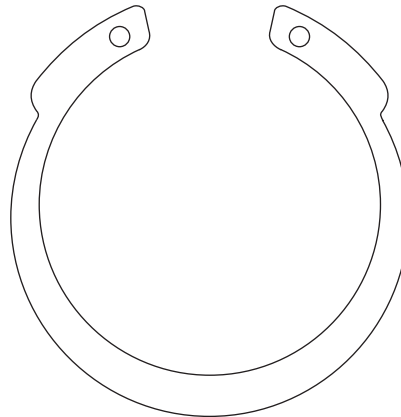


11-530030-001
Pkg. Qty. 20

INVERTED INTERNAL

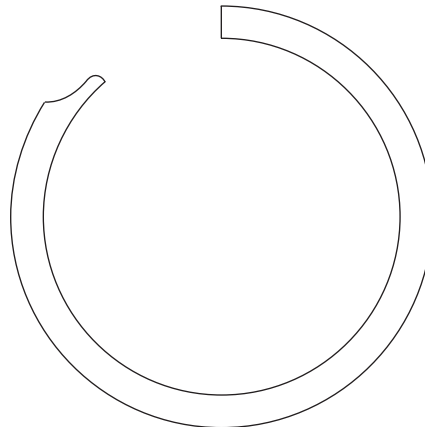


11-531008-000
Pkg. Qty. 20



11-531020-000
Pkg. Qty. 20

INTERNAL SPIROL




11-536026-000
Pkg. Qty. 20


Hardware illustrations are actual size.


11-345154-000
1/8 x 1/2 © 
Pkg. Qty. 25


11-345160-001
1/8 x 7/8 © 
Pkg. Qty. 25

11-345161-000
1/8 x 15/16 © 
Pkg. Qty. 25

11-345258-001
5/32 x 3/4 © 
Pkg. Qty. 20


11-345264-000
5/32 x 1-1/4 © 
Pkg. Qty. 10


11-345302-001
3/16 x 3/8 © 
Pkg. Qty. 25


11-345304-000
3/16 x 1/2 © 
Pkg. Qty. 25

11-345306-000
3/16 x 5/8 © 
Pkg. Qty. 25

11-345310-001
3/16 x 3/4 © 
Pkg. Qty. 20

11-345312-000
3/16 x 1 © 
Pkg. Qty. 25

11-345316-000
3/16 x 1-1/2 © 
Pkg. Qty. 25


11-345318-000
3/16 x 1-3/4 © 
Pkg. Qty. 25


11-345404-000
1/4 x 1/2 © 
Pkg. Qty. 1


11-345406-000
1/4 x 5/8 © 
Pkg. Qty. 25


11-345408-001
1/4 x 3/4 © 
Pkg. Qty. 10


11-345412-000
1/4 x 1 © 
Pkg. Qty. 25


11-345414-000
1/4 x 1-1/4 © 
Pkg. Qty. 25

11-345418-001
1/4 x 1-3/4 © 
Pkg. Qty. 25

























11-345420-001
1/4 x 2 © 
Pkg. Qty. 25

11-345516-000
3/8 x 1-1/2 © 
Pkg. Qty. 20

11-345520-001
3/8 x 2 © 
Pkg. Qty. 20

11-345573-000
1/2 x 2-3/4 © 
Pkg. Qty. 10

HARDWARE > SPIROL PINS

11-360258-001 3/32 x 5/8 Pkg. Qty. 20		
11-360260-000 3/32 x 3/4 Pkg. Qty. 20		
11-360264-000 3/32 x 1 Pkg. Qty. 20		
11-360364-000 1/8 x 1 Pkg. Qty. 20		
11-360365-001 1/8 x 1-1/8 Pkg. Qty. 20		
11-360415-001 5/32 x 1-1/8 Pkg. Qty. 20		
11-360460-000 3/16 x 3/4 Pkg. Qty. 20		
11-360465-000 3/16 x 1-1/8 Pkg. Qty. 20		
11-360466-000 3/16 x 1-1/4 Pkg. Qty. 20		
11-361315-000 3/16 x 1-3/8 Pkg. Qty. 20		
11-360568-000 1/4 x 1-1/2 Pkg. Qty. 10		
11-360619-000 5/16 x 1-5/8 Pkg. Qty. 25		

Hardware illustrations are actual size.

SQUARE KEYS

- 12-100187-009**
Pkg. Qty. 5

Moving deck-scissor control cable pulley/shaft assembly, Jetback ball booster shaft
- 12-400138-007**
Pkg. Qty. 5

Pin wheel jack shaft - single small sheave, Turret drive bevel gear shaft/belt sheave
- 12-400138-002**
Pkg. Qty. 5

Elevator jack shafts - 12" sheaves
- 12-400138-006**
Pkg. Qty. 5

Pin wheel jack shaft - magnetic clutch keyway
- 12-400138-004**
Pkg. Qty. 5

Elevator jack shafts - small sheaves
- 12-100187-011**
Pkg. Qty. 5

Detector main shaft. Pinsetter motor shaft (shorten as required)
- 12-400138-003**
Pkg. Qty. 5

Ball wheel jack shaft - ball wheel pulley keyway
- 12-100187-007**
Pkg. Qty. 5

1 to 1 shaft - spur gear
- 12-100187-008**
Pkg. Qty. 5

1 to 1 shaft - moving deck, scissor and rake cams
- 12-100187-002**
Pkg. Qty. 5

4 to 1 shaft - bronze gear

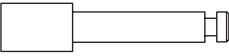
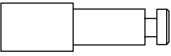
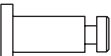

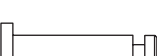






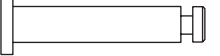
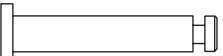



RECTANGULAR KEYS



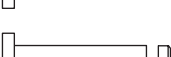

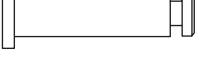


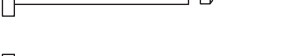





- 12-100164-000**
Pkg. Qty. 5

1 to 1 shaft - extended cycle cams
- 12-400138-008**
Pkg. Qty. 5

Pin wheel jack shaft - nylon bevel gear drive

HARDWARE > X-WASHER PINS

- 12-100318-002**
Pkg. Qty. 5 
- 12-100318-003**
Pkg. Qty. 1 
- 12-100166-002**
Pkg. Qty. 5 
- 12-100166-004**
Pkg. Qty. 5 
- 12-100166-005**
Pkg. Qty. 5 
- 12-150158-013**
Pkg. Qty. 5 
- 12-100166-006**
Pkg. Qty. 5 
- 12-100166-024**
Pkg. Qty. 5 
- 12-100166-022**
Pkg. Qty. 5 
- 12-100166-008**
Pkg. Qty. 5 
- 12-100166-026**
Pkg. Qty. 5 
- 12-100166-025**
Pkg. Qty. 5 
- 12-150158-007**
Pkg. Qty. 5 
- 12-150158-006**
Pkg. Qty. 5 
- 12-150158-012**
Pkg. Qty. 5 
- 12-100166-019**
Pkg. Qty. 5 

- 12-100166-009**
Pkg. Qty. 5 
- 12-100166-011**
Pkg. Qty. 5 
- 12-250010-011**
Pkg. Qty. 5 
- 12-100166-027**
Pkg. Qty. 5 
- 12-100166-007**
Pkg. Qty. 5 
- 12-100166-013**
Pkg. Qty. 5 
- 12-100166-014**
Pkg. Qty. 5 
- 12-100166-015**
Pkg. Qty. 5 
- 12-150158-015**
Pkg. Qty. 5 
- 12-100166-016**
Pkg. Qty. 5 
- 12-100166-017**
Pkg. Qty. 5 
- 12-100166-032**
Pkg. Qty. 5 
- 12-150158-017**
Pkg. Qty. 5 

Hardware illustrations are actual size.

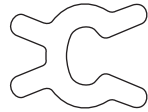
11-230000-001
Pkg. Qty. 25



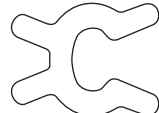
11-230001-001
Pkg. Qty. 25



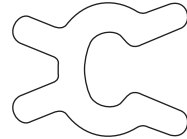
11-230002-001
Pkg. Qty. 25



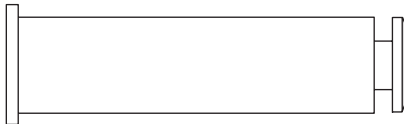
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Pkg. Qty. 25



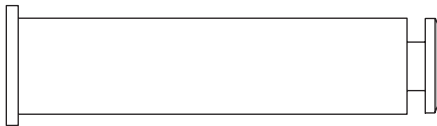
11-230005-001
Pkg. Qty. 25



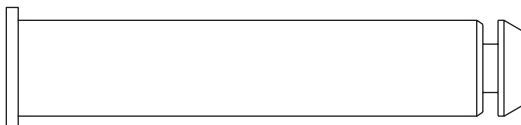
10-229601-000
Pkg. Qty. 1



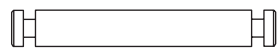
12-250010-007
Pkg. Qty. 2



10-229602-000
Pkg. Qty. 1



12-150023-007
Pkg. Qty. 2



12-150023-008
Pkg. Qty. 2



12-450006-002
Pkg. Qty. 1



12-150023-002
Pkg. Qty. 2



12-100166-021
Pkg. Qty. 2



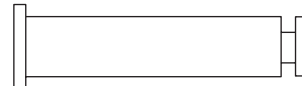
12-200081-002
Pkg. Qty. 2



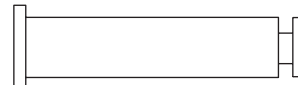
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Pkg. Qty. 2



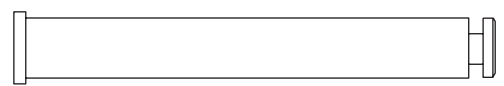
12-100166-031
Pkg. Qty. 2



12-150158-009
Pkg. Qty. 2



12-150158-004
Pkg. Qty. 2



12-150158-014
Pkg. Qty. 2



12-150158-016
Pkg. Qty. 2



12-350023-002
Pkg. Qty. 2

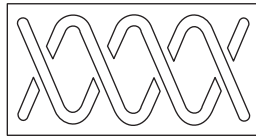
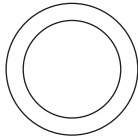


HARDWARE > SLEEVE OILITE BEARINGS

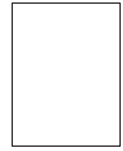
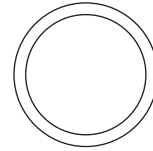
<p>11-420000-000 Pkg. Qty. 5 Rear Long Link</p>			<p>11-420009-000 Pkg. Qty. 5 Spring Guide Tube</p>		
<p>12-150190-000 Pkg. Qty. 5 "C" Link to Indexing Bell Crank</p>			<p>11-420066-000 Pkg. Qty. 1 Rake Sweep Shaft Left Hand</p>		
<p>11-420046-000 Pkg. Qty. 1 Interlock Probe</p>			<p>11-420015-000 Pkg. Qty. 1 Gear Box Clutch Support "A" Triggering Kit</p>		
<p>11-420043-000 Pkg. Qty. 1 Long Link Bell Crank</p>			<p>11-420011-000 Pkg. Qty. 5 Gear Box Clutch Lever Support</p>		
<p>11-423000-000 Pkg. Qty. 5 OOR Controller - Bottom</p>			<p>11-420095-000 Pkg. Qty. 5 Rake Support Arm</p>		
<p>11-420070-000 Pkg. Qty. 1 Scissors Distribution Rod Lever</p>			<p>12-250075-000 Pkg. Qty. 2 Rake Lift Shaft / Shock Mount / Pit Cushion Arm "A" Style</p>		
<p>11-420097-000 Pkg. Qty. 10 Scissors Connecting Rod Ends</p>			<p>12-250075-100 Pkg. Qty. 2 Rake Lift Shaft / Shock Mount / Pit Cushion Arm "A" Style</p>		
<p>12-250091-000 Pkg. Qty. 5 Standing Pins Selector Pivot</p>			<p>11-420096-000 Pkg. Qty. 1 Rake Trip Shaft Shotgun</p>		
<p>11-420008-000 Pkg. Qty. 5 Pit Cushion Lift Rod & Ball Stop Hook</p>			<p>11-420035-000 Pkg. Qty. 1 Rake Trip Shaft Shotgun Rake Crank Rod</p>		

Hardware illustrations are actual size.

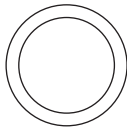
12-250248-000
Pkg. Qty. 2
Pit Cushion
Lift Rod Ends



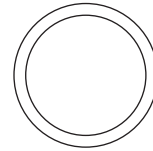
11-420094-000
Pkg. Qty. 1
Pit Cushion



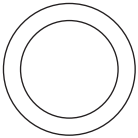
11-420102-000
Pkg. Qty. 1
Rake Lift Rod



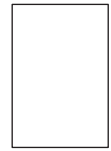
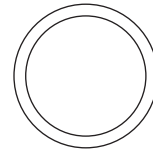
11-420019-000
Pkg. Qty. 5
Clutch Cam Follower
Spring Guide Tube



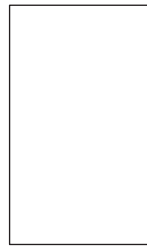
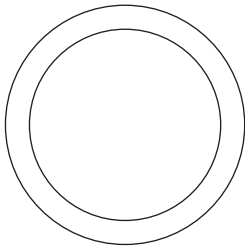
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Pkg. Qty. 5
Rake Lift Rod



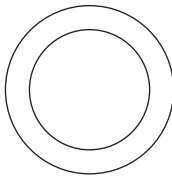
11-420018-000
Pkg. Qty. 5
Moving Deck
Scissors Latch
"Flag"



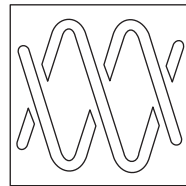
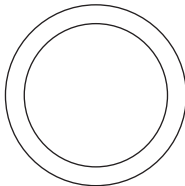
11-420045-000
Pkg. Qty. 5
Elevator
Jack Shaft



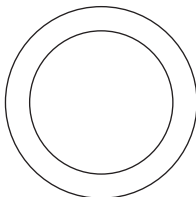
11-420054-000
Pkg. Qty. 1
Pit Conveyor
Pulley Arm



10-424001-000
Pkg. Qty. 1
Ball Cushion
Mount



11-420098-000
Pkg. Qty. 1
Rake Trip Shaft
Shotgun

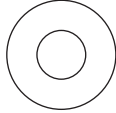


HARDWARE > FLANGED OILITE BEARINGS

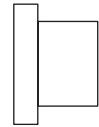
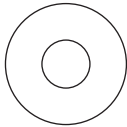
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Pkg. Qty. 5
Long Link



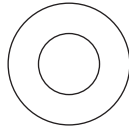
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Pkg. Qty. 10
Pin Release
Lever



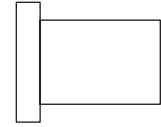
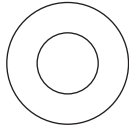
11-421102-000
Pkg. Qty. 5
Rake Trip Arm



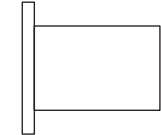
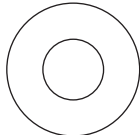
12-200105-000
Pkg. Qty. 5
Scissors



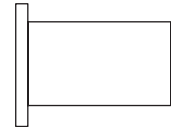
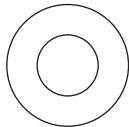
11-421004-000
Pkg. Qty. 5
Pin Release
Lever



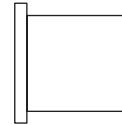
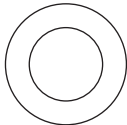
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Pkg. Qty. 5
Cross Conveyor
Pin Gate



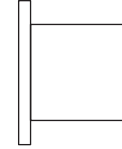
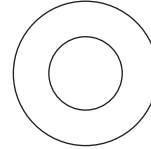
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Pkg. Qty. 5
Turret Interlock
Probe



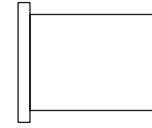
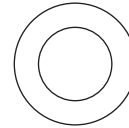
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Pkg. Qty. 5
Rake Lift Shaft



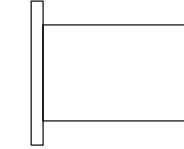
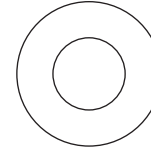
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Pkg. Qty. 1
Indexing Bell
Crank Lever



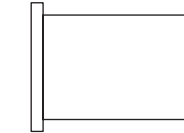
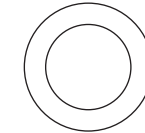
11-421008-000
Pkg. Qty. 1
Spider Release
Lever



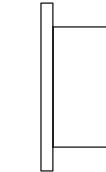
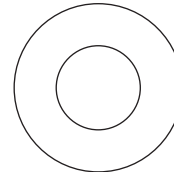
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Pkg. Qty. 5
Turret Frame



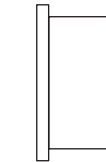
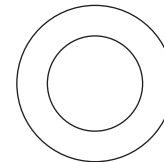
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Pkg. Qty. 5
Torsion Latch



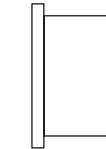
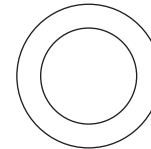
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Pkg. Qty. 5
Time Delay Gear



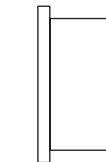
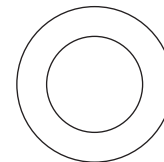
11-421015-000
Pkg. Qty. 5
Detector, Detector
Mounting Plate,
Gear Box



11-421110-000
Pkg. Qty. 5
Motor-Elevator
Belt Tensioner
all Preference System

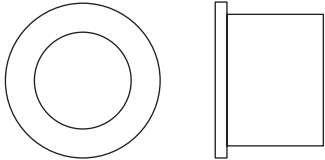


11-421017-000
Pkg. Qty. 5
Rake Sweep Shaft

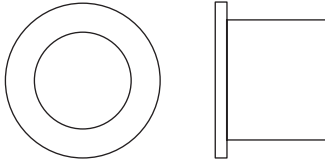


Hardware illustrations are actual size.

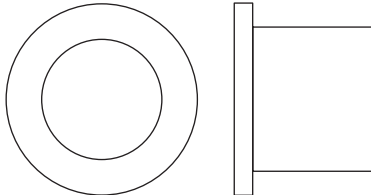
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Pkg. Qty. 1
Rake Crank Rod



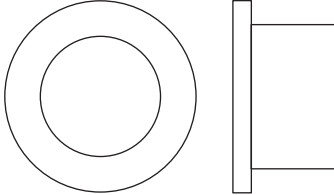
11-421093-000
Pkg. Qty. 5
2 Piece Clutch
Reset Lever



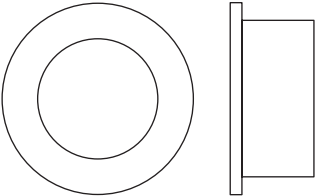
11-421019-000
Pkg. Qty. 1
Deck Jam Kit,
Rake Lift
Cam Follower,
Elevator Idler Arm



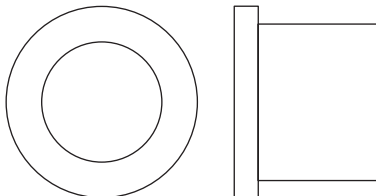
11-421103-000
Pkg. Qty. 5
Rake Lift Shaft



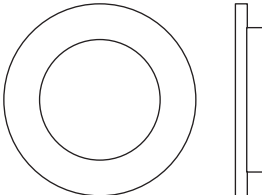
11-421111-000
Pkg. Qty. 5
Ball Stop



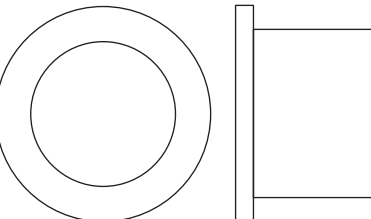
11-421058-000
Pkg. Qty. 5
Pit Conveyor
Pulley Arm



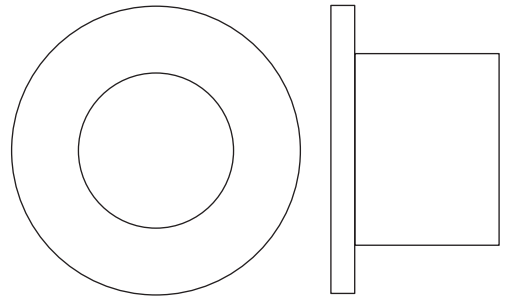
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Pkg. Qty. 5
Scissor Arm



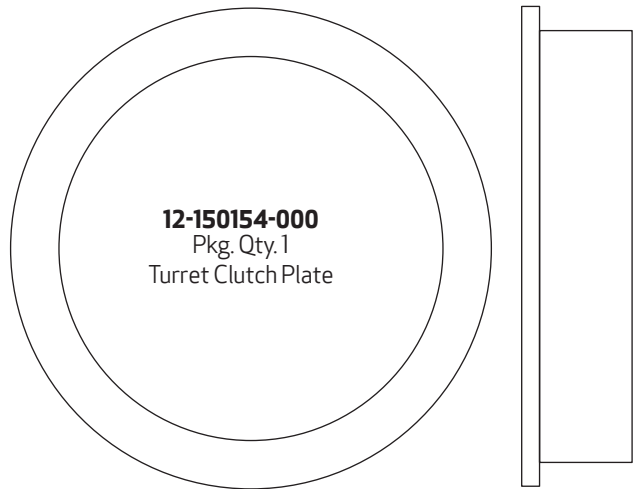
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Pkg. Qty. 2
"Y" Switch



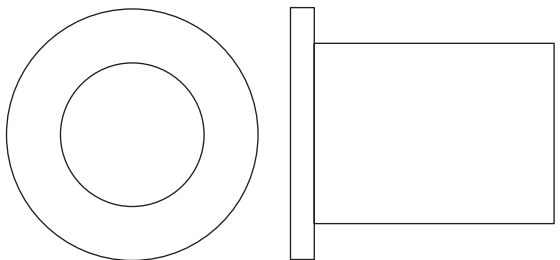
11-421109-000
Pkg. Qty. 2
Moving Deck
Cam Follower
Scissors Cam
Follower



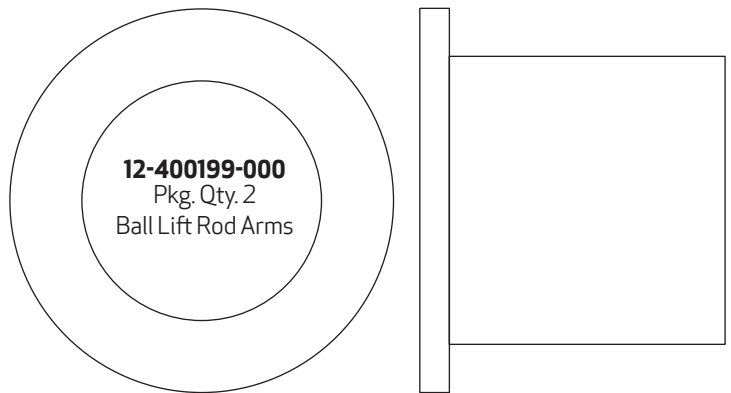
12-150154-000
Pkg. Qty. 1
Turret Clutch Plate



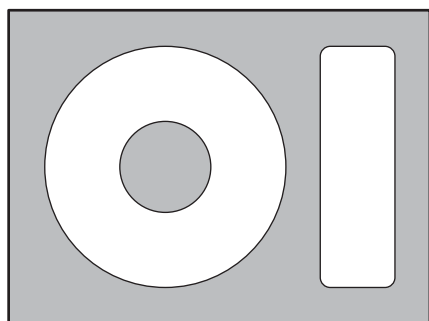
11-421041-000
Pkg. Qty. 2
Ball Lift
Rod Arms



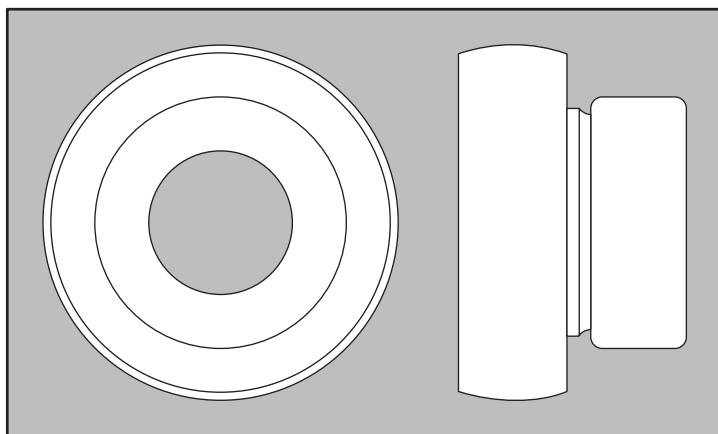
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Pkg. Qty. 2
Ball Lift Rod Arms



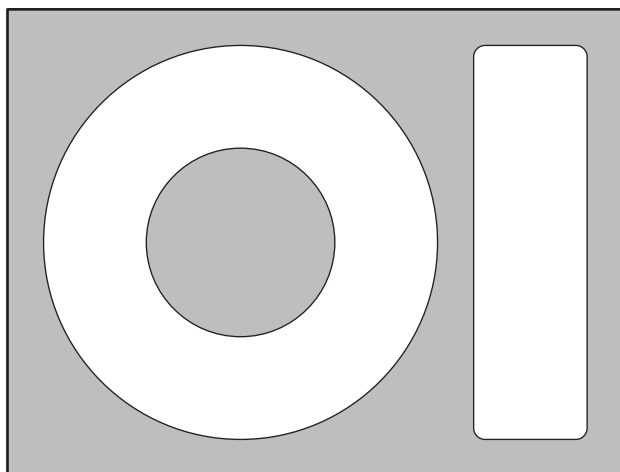
HARDWARE > BALL BEARINGS



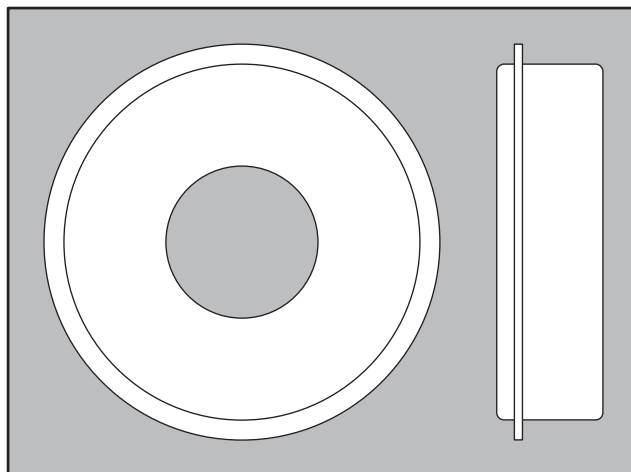
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Ball Wheel Guide Roller



11-413001-000
Ball Booster Shaft

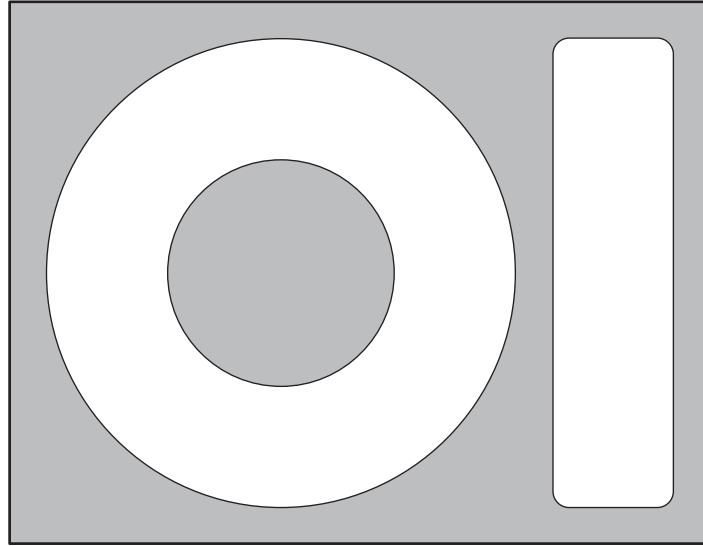


11-430008-000
Deck Lowering Link Connector
Pin Wheel Guide Roller



10-430001-000
Pin Wheel Jack Shaft

Hardware illustrations are actual size.

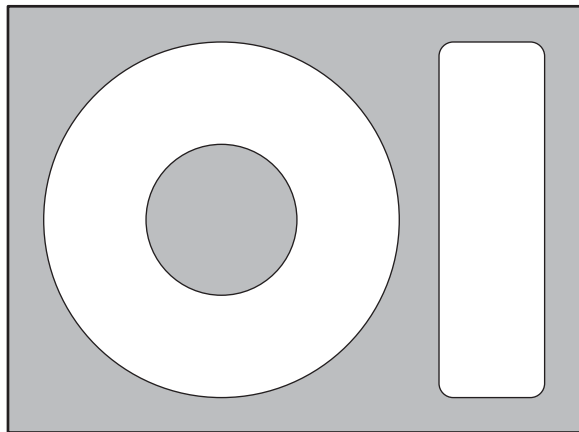


11-430003-000
2:1 Shaft



11-430002-000
4:1 Shaft

HARDWARE > BALL BEARINGS



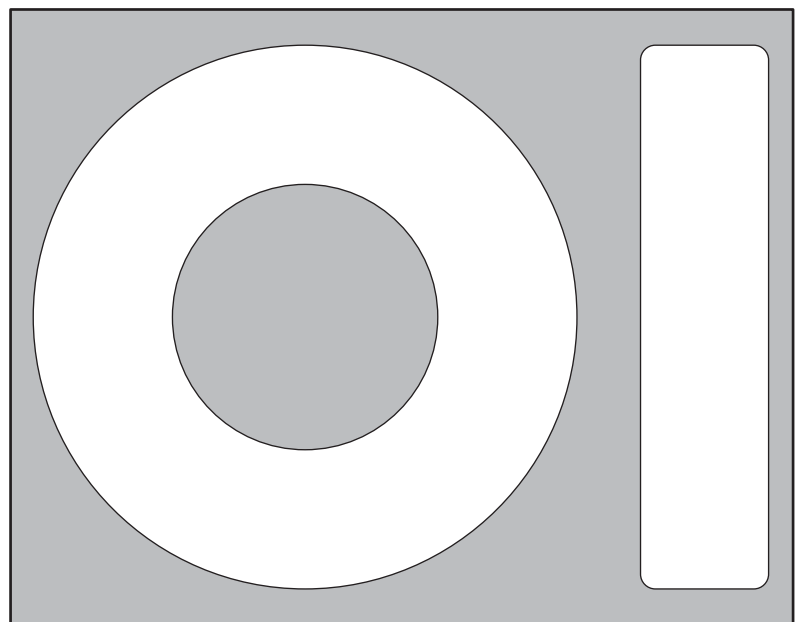
11-430015-000
Pinsetter Motor - Front



11-430013-000
Ball Wheel Roller
Pin Wheel Roller
Ball Accelerator Pulleys

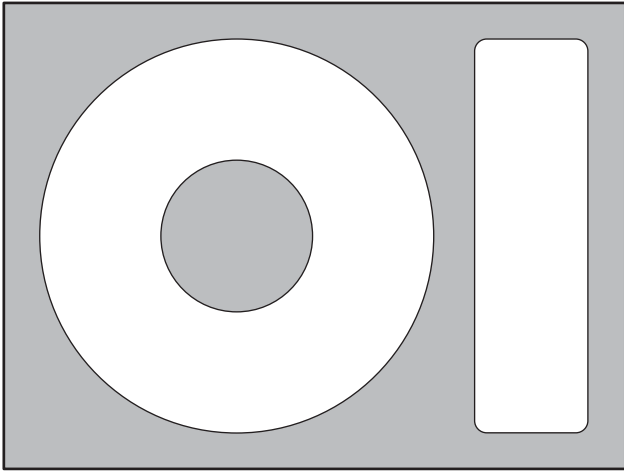


11-430028-000
Elevator Drive Belt Tensioner

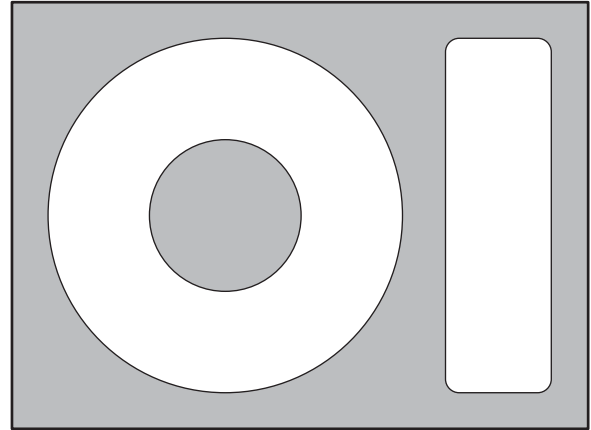


11-430011-000
1:1 Shaft

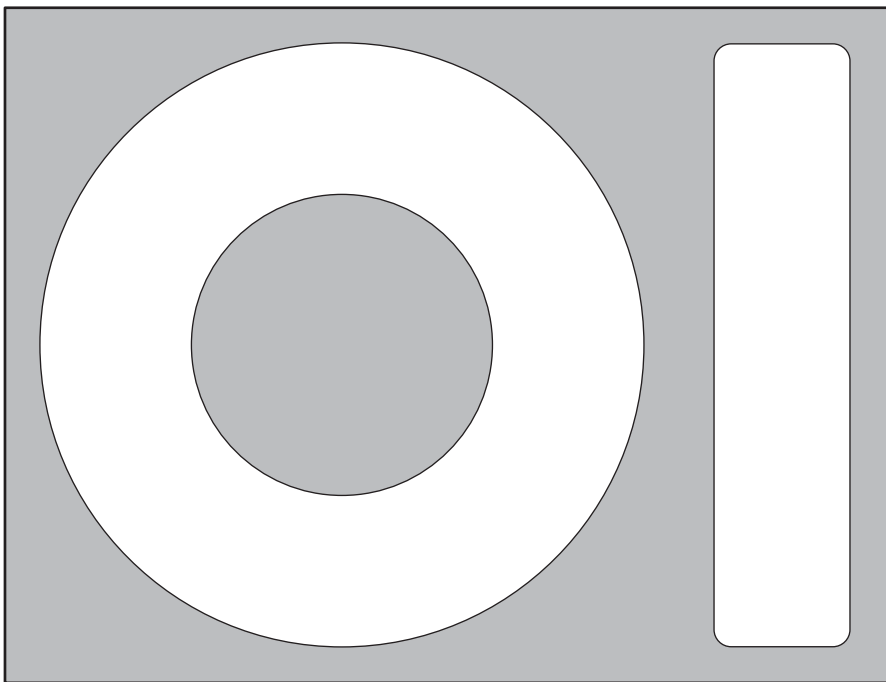
Hardware illustrations are actual size.



11-430016-000
Jogger Arm

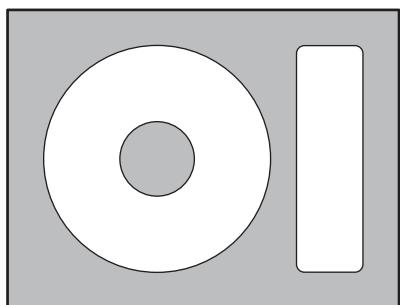


11-430018-000
Cross Conveyor Drive Shaft

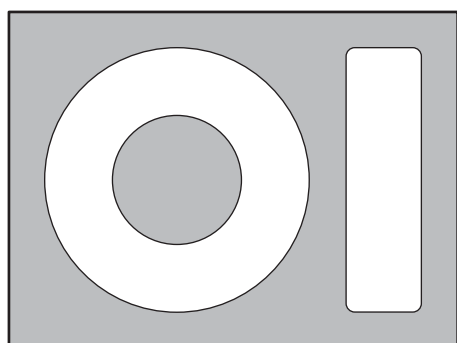


11-430017-000
2:1 Shaft

HARDWARE > BALL BEARINGS



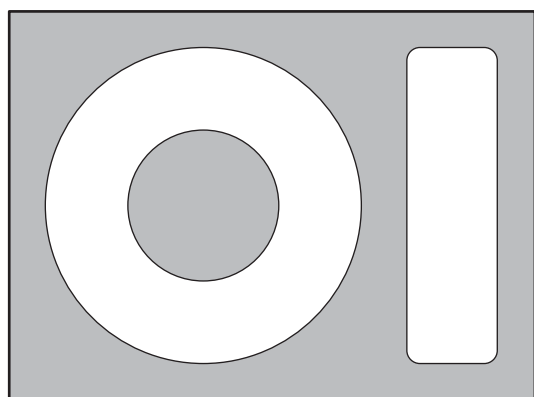
11-430037-000
Ball Stop Hook



11-431002-000
Detector 1:1 Shaft



11-431000-000
Deck Support Arm
Deck Lift Shaft

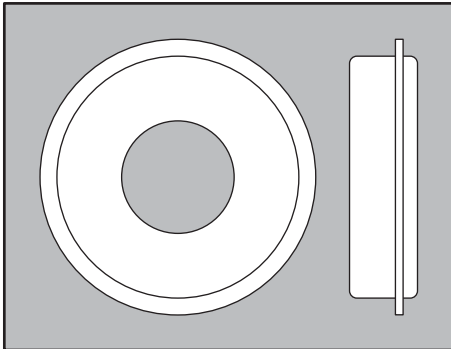


11-431006-000
Turret Clutch

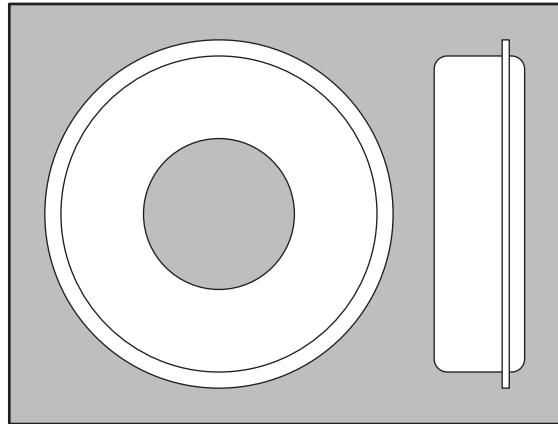


11-430045-000
Magnetic Clutch
4:1 Shaft

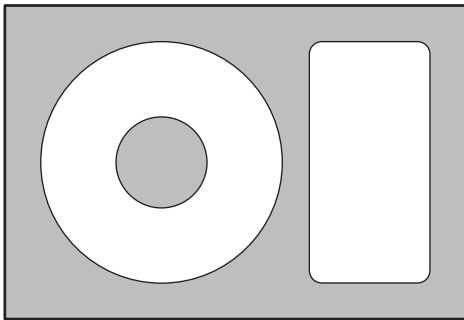
Hardware illustrations are actual size.



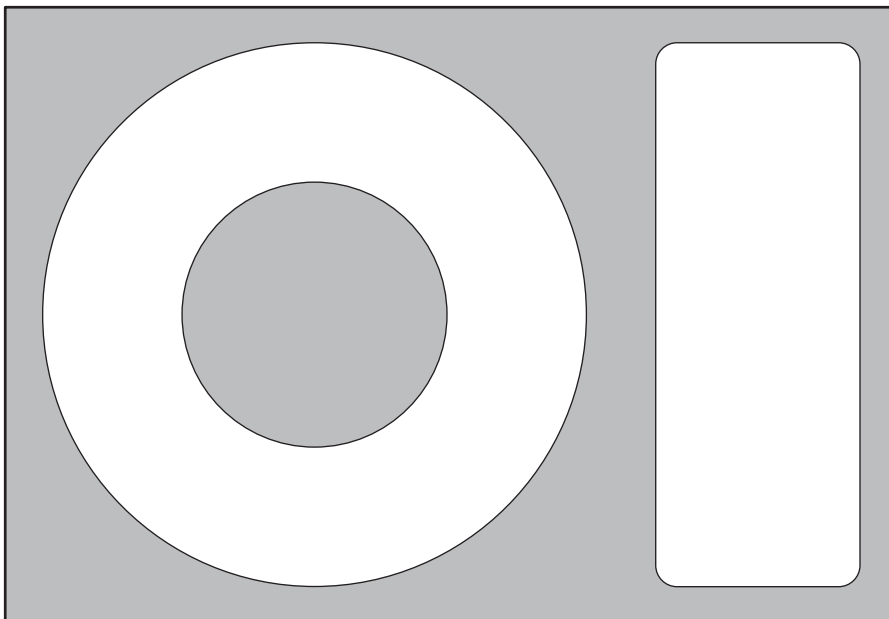
11-431003-000
Detector 1:1 Shaft



11-431010-000
Turret Clutch

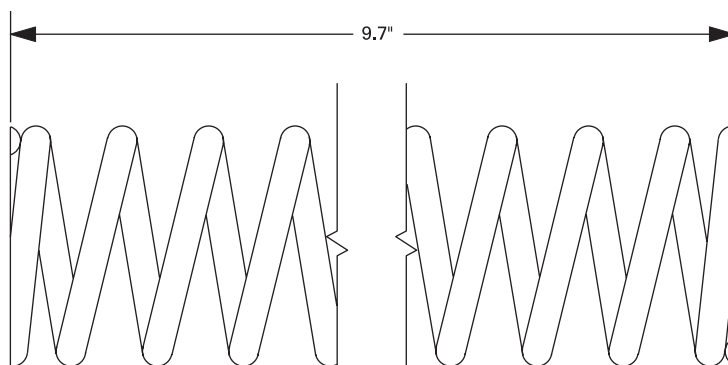


11-432000-000
Pin Wheel Guide Roller

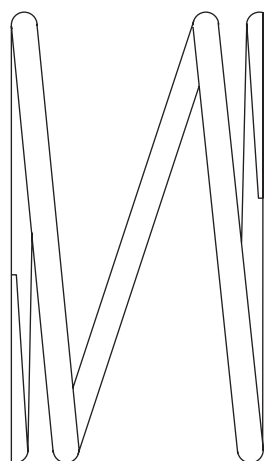


11-432001-000
4:1 Shaft

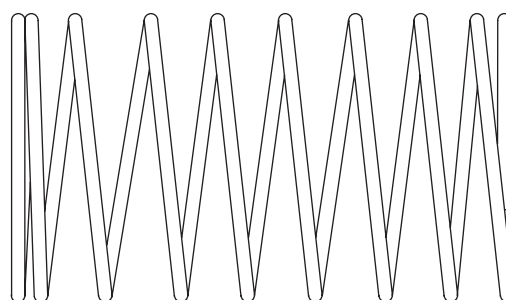
HARDWARE > COMPRESSION SPRINGS



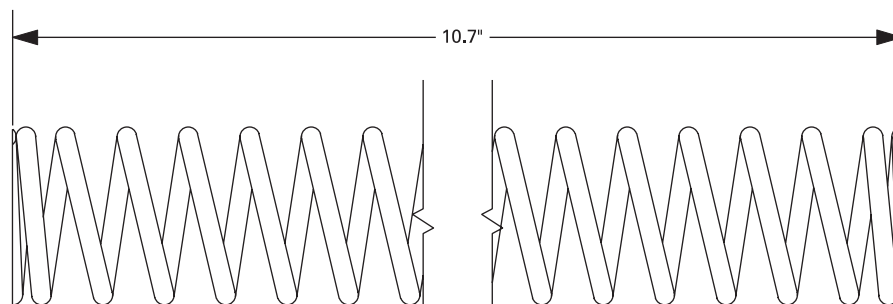
12-100482-000
Cable and Tube Assembly



12-150222-000
Clutch and Pulley Assembly

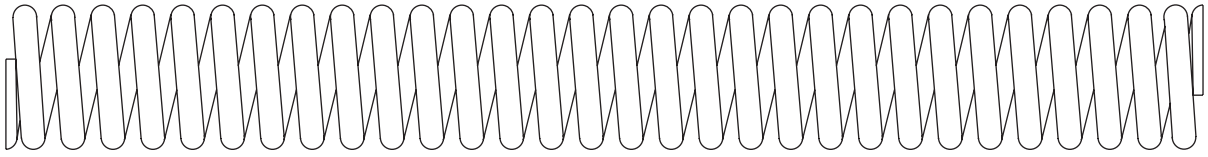


12-150087-000
Trip Lever and Spring Assembly

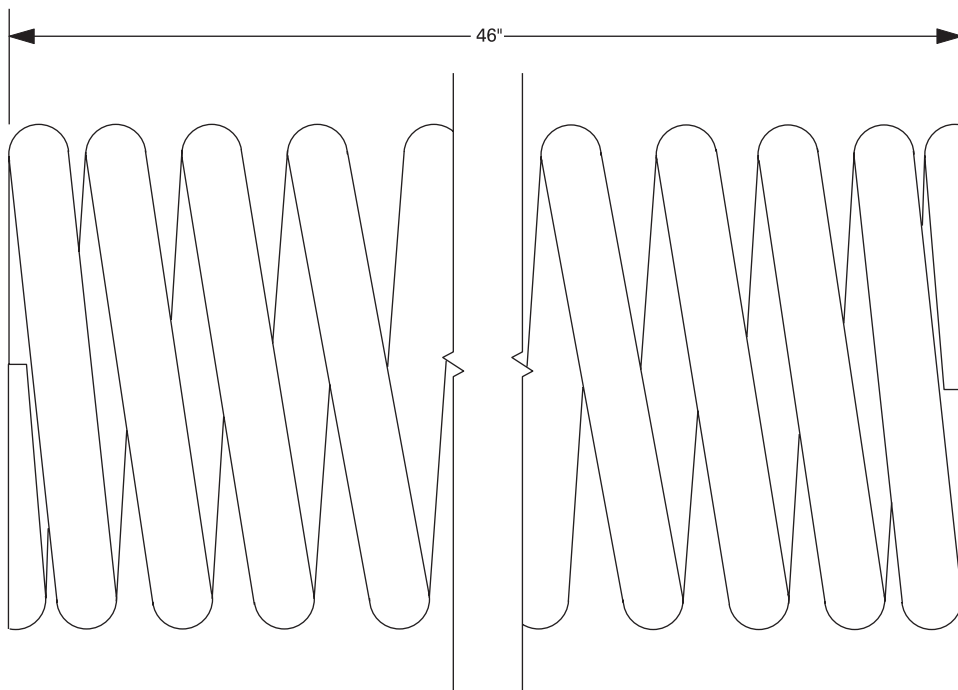


12-100481-000
Cable and Tube Assembly

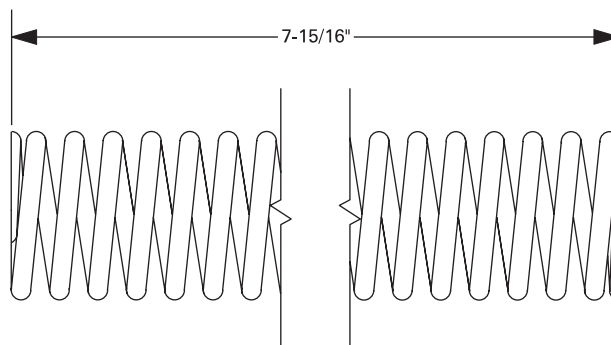
Hardware illustrations are actual size.



12-300172-000
Pit Conveyor Assembly

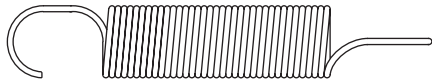


12-350126-000
Frame Assembly

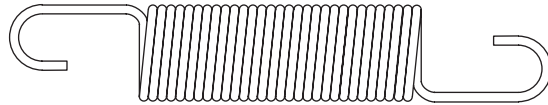


12-400122-000
Ball Lift Rod Assembly

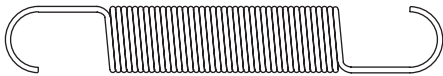
HARDWARE > TENSION SPRINGS



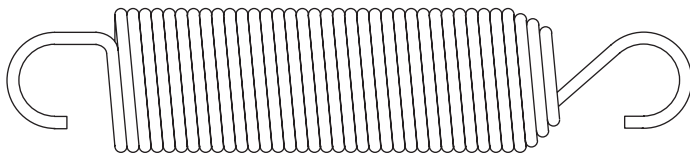
12-100296-000
Gear Box Assembly



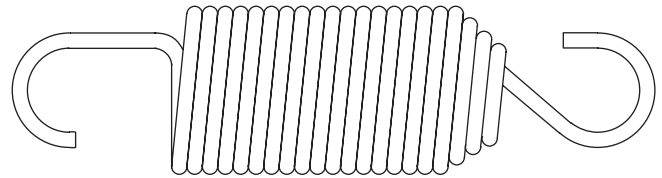
12-100105-000
Gear Box Assembly



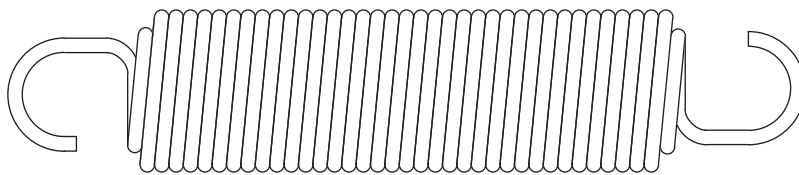
12-102105-000
Gear Box Assembly
Complete Triggering Kit



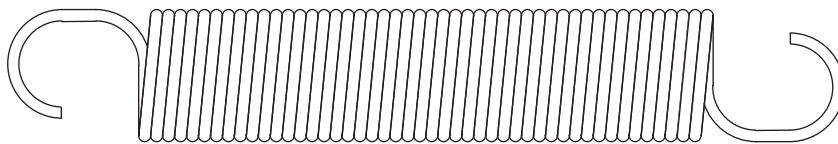
12-102043-000
Gear Box Assembly



12-100158-000
Gear Box Assembly

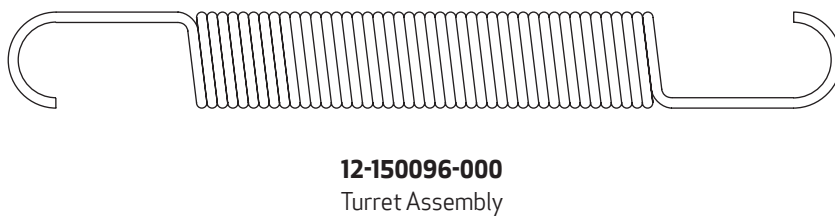
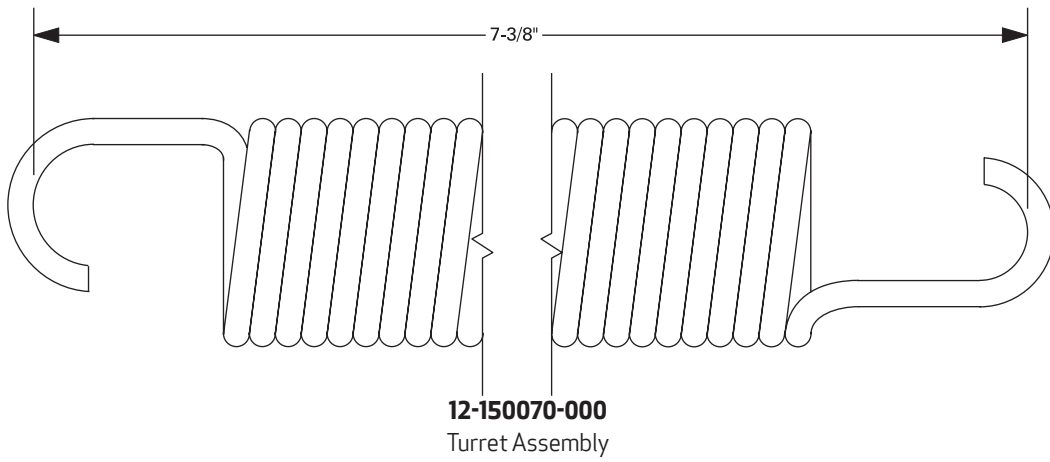


12-502114-000
Model A•2 Pinsetter Center Ball Return System



12-502167-000
Model A•2 Pinsetter Center Ball Return System

Hardware illustrations are actual size.



PART #	DESCRIPTION	PAGE
10-002001-000	HEX HEAD CAP SCREW 3/8-24 X 2-3/4"	67, 119
10-002006-000	HEX HEAD CAP SCREW 1/2-20 X 3-1/2"	67, 120
10-009001-001	HEX SOCKET HEAD SCREW 3/8-24 X 2-1/16"	67, 121
10-191554-000	FLAT WASHER - NON-STANDARD	128
10-191557-000	FLAT WASHER - NON-STANDARD	128
10-191562-000	WASHER 25/32	41
10-193013-000	COUNTERSUNK WASHER	46
10-229451-000	O-RING PIN	91
10-229453-000	O-RING PIN	45
10-229601-000	X-WASHER PIN	67, 135
10-229602-000	X-WASHER PIN	67, 135
10-376010-000	SPRING ROLLER	39, 43
10-385529-000	SPACER	46
10-386062-000	SPACER	75
10-386077-000	SPACER 5/16 X 1-9/32	89
10-386091-000	SPACER	89
10-386092-000	SPACER	67
10-421901-000	FLANGED OILITE BEARING	89, 139
10-424001-000	SLEEVE OILITE BEARING	67, 137
10-427001-000	63/64 X 31/64 BEARING	65
10-430001-000	BALL BEARING, W/ SNAP RING	85, 140
10-635112-000	BALL ACCELERATOR FLAT BELT	94
10-635113-000	BALL ACCELERATOR FLAT BELT	94
10-635114-000	BALL ACCELERATOR FLAT BELT	94
10-635118-000	BALL ACCELERATOR FLAT BELT	94
10-635124-000	BALL ACCELERATOR FLAT BELT	94
10-635126-000	LONG ACCELERATOR BELT	94
10-635126-600	LONG ACCELERATOR BELT	94
10-635127-000	ACCELERATOR FLAT BELT	26
10-635303-000	STANDARD FOR A•2 92.3"	95
10-635304-000	STANDARD FOR A•2 67"	95
10-635306-000	A•2, 50 CYCLE 93.3"	95
10-635309-000	CROSS CONVEYOR DRIVE BELT "V"	95
10-635315-000	A•2 WITH 12-862162-000 KIT 98"	95
10-635320-000	27:1 GEAR BOX, A•2 60"	95
10-635321-000	27:1, A AND JETBACK 75"	95
10-635323-000	A AND JETBACK 77.5"	95
10-635325-000	A•2, 1.5" SHORTER 65.5"	95
10-635326-000	A•2, 2.5" LONGER 69.5"	95
10-635327-000	A AND JETBACK, 1.5" SHORTER 105.6"	95
10-635328-000	A AND JETBACK, 1.5" LONGER 108.6"	95
10-635329-000	A•2, 1.5" SHORTER 90.8"	95
10-635330-000	A•2, 1.5" LONGER 93.8"	95
10-679151-000	MOTOR OVERLOAD RELAY	93
10-688003-000	230V SOLENOID	91, 92
10-688003-003	PLUGER ONLY	91
10-688006-000	HEAVY DUTY CYCLE SOLENOID	90
10-688006-003	HEAVY DUTY CYCLE SOLENOID PLUNGER ONLY	90
10-688009-000	115V SOLENOID	91, 92
10-690001-000	BALL JOINT ASSEMBLY	89
10-700202-000	TERMINAL STRIP	91
11-001060-001	HEX HEAD CAP SCREW	117
11-001062-001	HEX HEAD CAP SCREW	117
11-001068-001	HEX HEAD CAP SCREW	43, 117
11-001070-001	HEX HEAD CAP SCREW	117

PART #	DESCRIPTION	PAGE
11-001072-001	HEX HEAD CAP SCREW	117
11-001178-001	HEX HEAD CAP SCREW	75, 116
11-001180-001	HEX HEAD CAP SCREW	116
11-001182-001	HEX HEAD CAP SCREW	55, 116
11-001183-001	HEX HEAD CAP SCREW	116
11-001184-001	HEX HEAD CAP SCREW	116
11-001185-001	HEX HEAD CAP SCREW	75, 117
11-001186-001	HEX HEAD CAP SCREW	62, 116
11-001188-001	HEX HEAD CAP SCREW	116
11-001190-001	HEX HEAD CAP SCREW	116
11-001192-001	HEX HEAD CAP SCREW	116
11-001193-001	HEX HEAD CAP SCREW	75, 116
11-001194-001	HEX HEAD CAP SCREW	116
11-001195-001	HEX HEAD CAP SCREW	116
11-001196-001	HEX HEAD CAP SCREW	116
11-001198-001	HEX HEAD CAP SCREW	62
11-001222-001	HEX HEAD CAP SCREW	117
11-001258-001	HEX HEAD CAP SCREW	102, 118
11-001260-001	HEX HEAD CAP SCREW	118
11-001262-001	HEX HEAD CAP SCREW	118
11-001263-001	HEX HEAD CAP SCREW	77, 118
11-001264-000	HEX HEAD SCREW	89
11-001264-001	HEX HEAD CAP SCREW	118
11-001265-001	HEX HEAD CAP SCREW	45, 119
11-001266-001	HEX HEAD CAP SCREW	118
11-001267-001	HEX HEAD CAP SCREW	82
11-001268-001	HEX HEAD CAP SCREW	118
11-001270-001	HEX HEAD CAP SCREW	118
11-001272-001	HEX HEAD CAP SCREW	79, 89, 118
11-001275-001	HEX HEAD CAP SCREW	79, 118
11-001276-001	HEX HEAD CAP SCREW	89, 118
11-001278-001	HEX HEAD CAP SCREW	118
11-001286-001	HEX HEAD CAP SCREW	69, 118
11-001304-001	HEX HEAD CAP SCREW	119
11-001342-001	HEX HEAD CAP SCREW	85, 89
11-001343-001	HEX HEAD CAP SCREW	53
11-001344-001	HEX HEAD CAP SCREW	67
11-001347-001	HEX HEAD CAP SCREW	119
11-001354-001	HEX HEAD CAP SCREW	66, 79
11-001355-001	HEX HEAD CAP SCREW	89
11-001357-001	HEX HEAD CAP SCREW	79
11-001359-001	HEX HEAD CAP SCREW	79
11-001384-001	HEX HEAD CAP SCREW	46, 119
11-001390-001	HEX HEAD CAP SCREW	71, 119
11-001393-001	HEX HEAD CAP SCREW	119
11-001394-001	HEX HEAD CAP SCREW	67, 119
11-001423-001	HEX HEAD CAP SCREW	120
11-001436-001	HEX HEAD CAP SCREW	120
11-001506-001	HEX HEAD CAP SCREW	120
11-001508-001	HEX HEAD CAP SCREW	120
11-002001-001	HEX HEAD CAP SCREW	117
11-002002-001	HEX HEAD CAP SCREW	117
11-002004-001	HEX HEAD CAP SCREW	53, 85, 117
11-002005-001	HEX HEAD CAP SCREW	117
11-002006-001	HEX HEAD CAP SCREW	117

PART #	DESCRIPTION	PAGE	PART #	DESCRIPTION	PAGE
11-002008-001	HEX HEAD CAP SCREW	73, 117	11-007300-001	FLAT HEAD SOCKET CAP SCREW	122
11-002035-001	HEX HEAD CAP SCREW	117	11-007344-001	FLAT HEAD SOCKET CAP SCREW	47, 122
11-002068-001	HEX HEAD CAP SCREW	119	11-007346-001	FLAT HEAD SOCKET CAP SCREW	122
11-002070-001	HEX HEAD CAP SCREW	119	11-007352-001	FLAT HEAD SOCKET CAP SCREW	122
11-002072-001	HEX HEAD CAP SCREW	73	11-007384-001	FLAT HEAD SOCKET CAP SCREW	46, 122
11-002075-001	HEX HEAD CAP SCREW	118	11-007386-001	FLAT HEAD SOCKET CAP SCREW	73, 122
11-002092-001	HEX HEAD CAP SCREW	119	11-007388-001	FLAT HEAD SOCKET CAP SCREW	122
11-002094-001	HEX HEAD CAP SCREW	119	11-008301-001	OEM SCREW WITH NYLON PATCH	80, 81, 82, 83
11-002124-001	HEX HEAD CAP SCREW	77, 119	11-010139-001	HEX HEAD SLOTTED SCREW	39
11-002125-001	HEX HEAD CAP SCREW	119	11-014090-009	SCREW	70
11-002128-001	HEX HEAD CAP SCREW	119	11-022385-001	SCREW	80
11-002132-001	HEX HEAD CAP SCREW	119	11-030004-001	PIPE PLUG 1/2-14 X .582" MAX	47
11-002155-000	HEX HEAD CAP SCREW	119	11-051010-001	HEX HEAD CAP SCREW 8MM X 20MM	17, 23
11-002247-000	HEX HEAD CAP SCREW	120	11-051012-001	HEX HEAD CAP SCREW 10MM X 70MM	15
11-002252-011	HEX HEAD CAP SCREW	74	11-051014-001	HEX HEAD CAP SCREW 6MM X 45MM	13
11-005088-001	SCREW	68	11-051018-001	HEX HEAD CAP SCREW 6MM X 20MM	21
11-005092-001	HEX HEAD CAP SCREW	39, 121	11-051026-001	HEX HEAD CAP SCREW 8MM X 40MM	23
11-005093-001	SOCKET HEAD CAP SCREW	121	11-051035-001	HEX HEAD CAP SCREW 6MM X 16MM	25
11-005118-001	SOCKET HEAD CAP SCREW	121	11-051038-001	HEX HEAD CAP SCREW 8MM X 16MM	25, 102
11-005120-001	SOCKET HEAD CAP SCREW	121	11-051044-001	HEX HEAD BOLT	102
11-005178-001	SOCKET HEAD CAP SCREW	121	11-051055-001	HEX HEAD CAP SCREW 8MM X 60MM	15
11-005180-001	SOCKET HEAD CAP SCREW	121	11-051058-001	HEX HEAD CAP SCREW 10MM X 55MM	15
11-005182-001	HEX HEAD SOCKET CAP SCREW	61, 121	11-051062-001	HEX HEAD CAP SCREW 12MM X 25MM	19
11-005183-001	HEX HEAD SOCKET CAP SCREW	77, 85, 121	11-051070-001	HEX HEAD CAP SCREW 12MM X 60MM	17, 19
11-005184-001	SOCKET HEAD CAP SCREW	121	11-051071-001	HEX HEAD CAP SCREW M10 X 60MM	15
11-005184-011	HEX HEAD SOCKET CAP SCREW	69	11-051081-001	HEX HEAD CAP SCREW 8MM X 100MM	23
11-005194-001	SOCKET HEAD CAP SCREW	121	11-051515-001	SOCKET HEAD SCREW 6MM X 18MM	21
11-005263-001	HEX HEAD CAP SCREW	47, 121	11-051520-001	SOCKET HEAD SCREW 6MM X 20MM	21
11-005264-001	SOCKET HEAD CAP SCREW	121	11-051546-001	HEX HEAD CAP SCREW 5MM X 40MM	21
11-005266-001	SOCKET HEAD CAP SCREW	121	11-051564-009	SOCKET HEAD SCREW 12MM X 60MM	15
11-005343-001	SOCKET HEAD CAP SCREW	121	11-051702-001	HEX NUT (6 MM)	109
11-005354-001	SOCKET HEAD CAP SCREW	121	11-051703-001	HEX NUT 10MM	9, 15
11-005474-001	SOCKET HEAD CAP SCREW	121	11-051704-001	HEX NUT 8MM	15, 23
11-005553-001	SOCKET HEAD CAP SCREW	121	11-051706-001	HEX NUT 12MM	15
11-006088-001	BUTTON HEAD SOCKET CAP SCREW	123	11-051742-001	LOCKNUT 5MM	21, 25
11-006180-001	BUTTON HEAD SOCKET CAP SCREW	61, 123	11-051743-001	LOCKNUT 6MM	11, 21, 25
11-006184-001	BUTTON HEAD SOCKET CAP SCREW	87, 123	11-051744-001	LOCKNUT 8MM	11, 15, 17, 23, 25
11-006218-000	BUTTON HEAD SOCKET CAP SCREW	61	11-051745-001	LOCKNUT 10MM	15, 17
11-006304-001	BUTTON HEAD SOCKET CAP SCREW	123	11-051747-001	LOCKNUT 12MM	17, 19
11-006504-001	BUTTON HEAD SOCKET CAP SCREW	123	11-051769-001	LOCK WASHER	109
11-006506-001	BUTTON HEAD SOCKET CAP SCREW	78, 123	11-051770-001	LOCKWASHER 8MM	17, 23
11-007086-001	FLAT HEAD SOCKET CAP SCREW	122	11-051771-001	LOCKWASHER 10MM	15
11-007090-001	FLAT HEAD SOCKET CAP SCREW	122	11-051772-001	LOCKWASHER 12MM	15, 19
11-007092-001	FLAT HEAD SOCKET CAP SCREW	122	11-051786-001	COTTER PIN	17
11-007180-001	FLAT HEAD SOCKET CAP SCREW	61, 122	11-051852-001	RETAINING RING 17MM	17, 19, 21
11-007182-001	FLAT HEAD SOCKET CAP SCREW	47, 61, 122	11-051856-001	RETAINING RING 25MM	19, 21
11-007184-001	FLAT HEAD SOCKET CAP SCREW	122	11-051858-001	RETAINING RING 15MM	9
11-007186-001	FLAT HEAD SOCKET CAP SCREW	61, 122	11-051869-000	RETAINING RING 15MM	16, 17
11-007188-001	FLAT HEAD SOCKET CAP SCREW	61, 122	11-051877-001	TRUSS HD. SCREW 6MM X 25MM	11
11-007195-001	FLAT HEAD SOCKET CAP SCREW	122	11-051878-001	TRUSS HEAD SCREW 8MM X 45MM	11
11-007198-001	FLAT HEAD SOCKET CAP SCREW	63	11-051902-001	RETAINING RING 52MM	9
11-007200-001	FLAT HEAD SOCKET CAP SCREW	63, 122	11-052006-001	WASHER 8.4MM	23
11-007216-001	FLAT HEAD SOCKET CAP SCREW	61, 122	11-052015-001	FLAT WASHER 13MM	15
11-007264-001	FLAT HEAD SOCKET CAP SCREW	122	11-052017-001	FLAT WASHER 8.4MM	11
11-007267-001	FLAT HEAD SOCKET CAP SCREW	122	11-052018-001	FLAT WASHER 10.5MM	15

PART #	DESCRIPTION	PAGE
11-052019-001	FLAT WASHER 8.4MM	9, 11, 17, 21, 23
11-052034-001	FLAT WASHER	17
11-052035-001	FLAT WASHER 10MM	17
11-052037-001	FLAT WASHER 6.4MM	11, 21, 109
11-052039-001	FLAT WASHER 5.3MM	21, 25
11-052050-001	FLAT WASHER 10.5MM	9, 15
11-052150-001	FINISHING WASHER 8MM (GS-92)	9
11-052401-001	SLOTED PAN HEAD SCREW 8MM X 50MM (GS-92)	9
11-052601-001	CARRIAGE BOLT 8MM X 30MM	17
11-052618-001	CARRIAGE BOLT 10MM X 50MM	15
11-052623-001	CARRIAGE BOLT 10 MM X 40 MM	17
11-052929-000	SLOTED PAN HEAD SCREW 10MM X 50MM	9
11-052930-000	HEX HEAD CAP SCREW 10MM X 60MM	9
11-052938-001	FLAT HEAD SCREW 8MM X 12MM	25
11-053493-000	KEY 8MM X 7MM X 45MM	19
11-053503-000	METRIC KEY	18
11-053507-000	KEY 8MM X 7MM X 30MM	19
11-053578-000	CUSHION RUBBER BUMPER	14, 15
11-053579-000	RUBBER MOUNT	22, 23
11-053581-000	OEM TRANSPORT BAND - LONG PIT	5, 8
11-053587-000	RUBBER BUMPER 25MM X 15MM	25
11-053588-000	RUBBER BUMPER 30MM X 20MM	25
11-053901-000	V-BELT	18
11-053902-000	V-BELT	18
11-053903-000	V-BELT	18, 21
11-053904-000	V-BELT	18
11-053905-000	V-BELT	18
11-053907-000	V-BELT	18
11-053909-000	V-BELT	9, 18
11-053910-000	V-BELT	9, 18
11-054300-001	COTTER PIN 2MM	19
11-054449-000	HEX HEAD SELF-TAPPING SCREW K70 X 18MM	21
11-054459-000	SELF TAPPING, TORX SCREW K60 X 16MM	11
11-054466-000	PLASTIC FASTENER SCREW	27
11-054803-001	SOCKET HD. CAP SCREW	109
11-055351-000	SEALING RING, ALL GS SHOCKS	15
11-055500-001	HEX NUT 6MM	13
11-055800-000	EJOT-PLASTIC NUTS 3.5	26
11-071085-001	CARRIAGE BOLT	78
11-082862-001	SELF TAPPING SCREW (#14-10 X 1")	109
11-101208-001	HEX SOCKET SET SCREW	75
11-102262-001	SET SCREW 3/8-16 X 2-3/4"	77
11-105200-001	SET SCREW 5/16-18 X 1/4"	79
11-105208-001	SET SCREW	77
11-110130-001	HEX HEAD CAP SCREW 1/4-20 X 3/4"	69
11-121523-000	HEX NUT WITH NYLON CAP	67
11-125000-001	MACHINE SCREW HEX NUT	125
11-125001-001	MACHINE SCREW HEX NUT	125
11-125003-001	MACHINE SCREW HEX NUT	125
11-125004-001	MACHINE SCREW HEX NUT	125
11-125005-001	MACHINE SCREW HEX NUT	44, 125
11-125006-001	HEX NUT 12-24	87, 125
11-125007-001	MACHINE SCREW HEX NUT	125
11-125009-001	HEX NUT 5/16-18	45, 125
11-125011-001	MACHINE SCREW HEX NUT	125

PART #	DESCRIPTION	PAGE
11-125100-001	HEX HUT 1/4-20	55, 57, 61, 125
11-125101-001	STANDARD HEX NUT	125
11-125102-001	HEX NUT 5/16-18	69, 79, 125
11-125103-001	STANDARD HEX NUT	125
11-125104-001	HEX NUT 3/8-16	79, 125
11-125106-001	HEX NUT 7/16-14	79, 125
11-125107-001	STANDARD HEX NUT	125
11-125108-001	STANDARD HEX NUT	125
11-125109-001	STANDARD HEX NUT	125
11-125115-001	HEX NUT 3/4-16	41, 125
11-125200-001	HEX JAM NUT 1/4-20	45, 126
11-125201-001	HEX JAM NUT 1/4-28	39, 126
11-125202-001	JAM HEX NUT	126
11-125203-001	HEX JAM NUT 5/16-24	47
11-125204-001	HEX JAM NUT 3/8-16	77, 126
11-125206-001	JAM HEX NUT	126
11-125207-001	JAM HEX NUT	126
11-125208-001	HEX JAM NUT 1/2-13	77, 126
11-125209-001	HEX JAM NUT 1/2-20	63, 126
11-125213-001	JAM HEX NUT	126
11-125259-001	HEX JAM NUT 1/2-20	63, 67
11-125265-001	HEX JAM NUT 3/4-16 LH	57
11-131516-000	FLANGE NUT 3/4-16	41
11-135400-000	RUBBER WELL NUT, SERIES 43-76	9
11-155401-002	SPLINE NUT 3/8-24	71
11-160005-001	AFBMA STANDARD LOCKNUT	41
11-170002-001	NYLOCK HEX NUT	126
11-170004-001	CLUTCH LEVER LOCK NUT	38, 126
11-170005-001	NYLOCK HEX NUT	70, 126
11-170006-001	LOCKNUT 10-32	53, 126
11-170007-001	HEX NUT NYLOCK 1/4-20	73, 75, 87, 126
11-170008-001	NYLOCK HEX NUT	126
11-170009-000	LOCK NUT	89
11-170009-001	HEX NUT NYLOCK 5/16-18	73, 82, 89, 126
11-170010-001	HEX NUT NYLOCK 5/16-24	57, 89, 126
11-170011-001	HEX NUT NYLOC 3/8-16	66, 89, 126
11-170012-001	HEX NUT NYLOCK 3/8-24	67, 126
11-170013-001	SELF-LOCKING NUT 7/16-14	71
11-170014-001	HEX NUT NYLOCK 7/16-20	77, 126
11-170015-001	NYLOCK HEX NUT	126
11-170016-001	HEX NUT NYLOCK 1/2-20	67, 71, 126
11-170104-001	FLEXLOC HEX NUT	125
11-170106-001	FLEXLOC HEX NUT	75, 125
11-170108-001	FLEXLOCK HEX NUT 5/16-18	77, 125
11-170109-001	HEX NUT FLEXLOC 5/16-24	57, 125
11-170110-001	FLEXLOC HEX NUT	48, 125
11-170115-001	REPLACEMENT NUT	66
11-176000-001	KEPS NUT	44
11-176001-001	KEPS NUT 5/16-18	68, 69, 71
11-190002-001	FLAT WASHER - SAE	127
11-190004-001	FLAT WASHER - SAE	127
11-190006-001	FLAT WASHER - SAE #10	45, 49, 127
11-190010-001	FLAT WASHER 1/4	61, 80, 87, 91, 127
11-190012-001	FLAT WASHER 5/16	57, 69, 82, 89, 127
11-190014-001	FLAT WASHER 3/8	48, 53, 57, 67, 79, 89, 127

PART #	DESCRIPTION	PAGE	PART #	DESCRIPTION	PAGE
11-190016-001	FLAT WASHER 7/16	69, 79, 127	11-345264-000	ROLL PIN	131
11-190018-001	FLAT WASHER 1/2	39, 77, 89, 127	11-345302-001	ROLL PIN 3/16X3/8"	45, 131
11-190022-001	FLAT WASHER - SAE	127	11-345304-000	ROLL PIN 3/16X1/2"	45, 131
11-190024-000	PLAIN WASHER 7/8	85	11-345306-000	ROLL PIN 3/16X5/8"	87, 131
11-190508-001	PLAIN WASHER	75	11-345310-001	ROLL PIN 3/16X7/8"	45, 131
11-190509-001	FLAT WASHER - NON-STANDARD	75, 128	11-345312-000	ROLL PIN 3/16X1"	45, 131
11-190511-001	FLAT WASHER - NON-STANDARD	67, 128	11-345316-000	ROLL PIN	131
11-190512-001	FLAT WASHER - NON-STANDARD	67, 128	11-345318-000	ROLL PIN	131
11-190514-001	FLAT WASHER - NON-STANDARD	128	11-345404-000	ROLL PIN 1/4X1/2"	49, 131
11-190515-001	FLAT WASHER - NON-STANDARD	128	11-345406-000	ROLL PIN	131
11-190519-001	FLAT WASHER - NON-STANDARD	128	11-345408-001	ROLL PIN	131
11-190520-001	FLAT WASHER - NON-STANDARD	67, 129	11-345412-000	ROLL PIN	131
11-190521-001	FLAT WASHER - NON-STANDARD	129	11-345414-000	ROLL PIN	131
11-190522-001	FLAT WASHER - NON-STANDARD	89, 129	11-345418-001	ROLL PIN	131
11-190527-001	FLAT WASHER - NON-STANDARD	129	11-345420-001	ROLL PIN	131
11-190529-001	FLAT WASHER - NON-STANDARD	129	11-345516-000	ROLL PIN	131
11-191014-001	FLAT WASHER 3/8	89, 127	11-345520-001	ROLL PIN	131
11-191018-001	FLAT WASHER 1/2	71, 127	11-345573-000	ROLL PIN	131
11-191024-001	FLAT WASHER 3/4	71, 77, 127	11-350456-001	DRIVE PIN 1/4X7/8"	41
11-191532-000	WASHER	44	11-360257-000	SPIROL PIN	48
11-195006-001	SPLIT LOCKWASHER	124	11-360258-001	SPIROL PIN	48, 132
11-195008-001	SPLIT LOCKWASHER	124	11-360260-000	SPIROL PIN	132
11-195010-001	LOCKWASHER #10	44, 53, 124	11-360264-000	SPIROL PIN	132
11-195012-001	LOCKWASHER #12	87	11-360364-000	SPIROL PIN	49, 132
11-195014-001	LOCKWASHER 1/4"	45, 55, 57, 75, 85, 124	11-360365-001	SPIROL PIN	132
11-195015-001	LOCKWASHER 5/16	69, 77, 124	11-360415-001	SPIROL PIN	132
11-195016-001	LOCKWASHER 3/8	46, 67, 77, 79, 85, 124	11-360460-000	SPIROL PIN	132
11-195017-001	LOCKWASHER 7/16	79, 124	11-360465-000	SPIROL PIN	132
11-195018-001	LOCKWASHER	74, 124	11-360466-000	SPIROL PIN	132
11-195020-001	SPLIT LOCKWASHER	124	11-360568-000	SPIROL PIN	39, 132
11-196006-001	HI-COLLAR SPLIT LOCKWASHER	124	11-360619-000	SPIROL PIN	46, 132
11-196008-001	HI-COLLAR SPLIT LOCKWASHER	124	11-361315-000	SPIROL PIN	132
11-196012-001	HI-COLLAR LOCKWASHER 1/4	69, 124	11-387264-002	ROLLED SPACER 5/16X1"	79
11-196020-001	HI-COLLAR SPLIT LOCKWASHER	124	11-413001-000	BALL BEARING	140
11-198002-001	EXTERNAL TOOTH LOCKWASHER	124	11-420000-000	SLEEVE OILITE BEARING	59, 136
11-198003-001	EXTERNAL TOOTH LOCKWASHER	124	11-420008-000	SLEEVE OILITE BEARING	136
11-198005-001	EXTERNAL TOOTH LOCKWASHER	61, 124	11-420009-000	SLEEVE OILITE BEARING	136
11-198007-001	EXTERNAL TOOTH LOCKWASHER	53, 124	11-420011-000	SLEEVE OILITE BEARING	136
11-198009-001	EXTERNAL TOOTH LOCKWASHER	124	11-420015-000	SLEEVE OILITE BEARING	136
11-199005-001	INTERNAL TOOTH LOCKWASHER	61, 63	11-420018-000	SLEEVE OILITE BEARING	137
11-230000-001	X-WASHER 3/32	39, 43, 44, 45, 49, 57, 135	11-420019-000	SLEEVE OILITE BEARING	39, 137
11-230001-001	X-WASHER 1/8	49, 53, 75, 91, 135	11-420035-000	SLEEVE OILITE BEARING	75, 136
11-230002-001	X-WASHER 5/32	43, 87, 135	11-420038-000	BEARING .3135 ID X .4395 OD	43
11-230003-001	X-WASHER	135	11-420041-000	BEARING .504 ID X .628 OD	49
11-230005-001	X-WASHER 1/4	67, 73, 135	11-420043-000	SLEEVE OILITE BEARING	59, 136
11-231005-001	AFBMA STANDARD LOCKWASHER	41	11-420045-000	SLEEVE OILITE BEARING	82, 85, 137
11-280001-000	GREASE FITTING 11/32	69	11-420046-000	SLEEVE OILITE BEARING	52, 53, 136
11-280002-000	GREASE FITTING DRIVE	43	11-420048-000	BEARING .1885 ID X .3145 OD	87
11-300001-001	TUBULAR FLAT HEAD RIVET	57	11-420054-000	SLEEVE OILITE BEARING	137
11-301001-001	RIVET 3/16-3/8"	40, 41, 56	11-420059-000	BEARING .5025 ID X .629 OD	45
11-301002-001	RIVET 3/16-1/2"	40, 41	11-420063-000	SLEEVE OILITE BEARING	73, 137
11-345154-000	ROLL PIN	131	11-420065-000	BEARING .5025 ID X .753 OD	49
11-345160-001	ROLL PIN	131	11-420066-000	SLEEVE OILITE BEARING	136
11-345161-000	ROLL PIN	131	11-420070-000	SLEEVE OILITE BEARING	61, 136
11-345258-001	ROLL PIN	131	11-420094-000	SLEEVE OILITE BEARING	67, 137

PART #	DESCRIPTION	PAGE
11-420095-000	SLEEVE OILITE BEARING	136
11-420096-000	SLEEVE OILITE BEARING	75, 136
11-420097-000	SLEEVE OILITE BEARING	75, 136
11-420098-000	SLEEVE OILITE BEARING	75, 137
11-420102-000	SLEEVE OILITE BEARING	137
11-421004-000	FLANGED OILITE BEARING	53, 138
11-421008-000	FLANGED OILITE BEARING	138
11-421011-000	BEARING .502 ID X .627 OD	43, 45
11-421015-000	FLANGED OILITE BEARING	138
11-421017-000	FLANGED OILITE BEARING	73, 138
11-421019-000	FLANGED OILITE BEARING	73, 139
11-421026-000	FLANGED OILITE BEARING	52, 53, 138
11-421027-000	FLANGED OILITE BEARING	73, 139
11-421030-000	BRONZE FLANGED BEARING	73
11-421035-000	FLANGED OILITE BEARING	57, 138
11-421041-000	FLANGED OILITE BEARING	77, 139
11-421045-000	FLANGED OILITE BEARING	53, 138
11-421048-000	FLANGED OILITE BEARING	57, 138
11-421053-000	FLANGED OILITE BEARING	87, 138
11-421058-000	FLANGED OILITE BEARING	139
11-421061-000	FLANGED OILITE BEARING	58, 59, 138
11-421065-000	FLANGED OILITE BEARING	57, 138
11-421092-000	FLANGED BRONZE BEARING	43
11-421093-000	FLANGED OILITE BEARING	139
11-421102-000	FLANGED OILITE BEARING	75, 138
11-421103-000	FLANGED OILITE BEARING	74, 139
11-421104-000	FLANGED OILITE BEARING	75, 138
11-421107-000	BEARING ASSEMBLY	48
11-421109-000	FLANGED OILITE BEARING	43, 139
11-421110-000	FLANGED OILITE BEARING	89, 138
11-421111-000	FLANGED OILITE BEARING	89, 139
11-421147-000	BEARING .5145 ID X .6905 OD	73, 74
11-422002-000	BEARING .510 ID X 1.000 OD	61
11-423000-000	SLEEVE OILITE BEARING	61, 65, 136
11-430002-000	BALL BEARING	141
11-430003-000	BALL BEARING	47, 141
11-430004-000	BALL BEARING	80, 81, 140
11-430007-000	BALL BEARING	23, 80
11-430008-000	BALL BEARING	140
11-430011-000	BALL BEARING	43, 142
11-430013-000	BALL BEARING	21, 80, 81, 82, 83, 142
11-430015-000	BALL BEARING	85, 142
11-430016-000	BALL BEARING	143
11-430017-000	BALL BEARING	47, 143
11-430018-000	BALL BEARING	143
11-430028-000	BALL BEARING	80, 105, 142
11-430037-000	BALL BEARING	144
11-430045-000	BALL BEARING	84, 85, 144
11-430051-000	BALL BEARING	19
11-430052-000	BALL BEARING	19
11-430055-000	DEEP GROOVE BALL BEARING	9
11-431000-000	BALL BEARING	144
11-431002-000	BALL BEARING	144
11-431003-000	BALL BEARING	145
11-431006-000	BALL BEARING	57, 144

PART #	DESCRIPTION	PAGE
11-431010-000	BALL BEARING	57, 145
11-432000-000	BALL BEARING	82, 83, 145
11-432001-000	BALL BEARING	145
11-432002-000	BALL BEARING	41
11-433000-000	BALL BEARING	39
11-434000-000	BALL BEARING	44
11-434001-000	BEARING .500 ID X 1.1250 OD	68, 69
11-434003-000	REPLACEABLE STEEL BEARING	86
11-435001-000	BALL BEARING	39
11-435501-000	CLUTCH LEVER BEARING	38
11-436000-000	BALL BEARING	48, 49
11-436001-000	STUD BEARING	44
11-437000-000	STUD BEARING RADIAL	44
11-450001-000	BALL BEARING	69
11-450100-000	BALL RING & ROLLER BEARING	41
11-450101-000	BEARING-CAM FOLLOWER	46
11-450200-000	BALL BEARING	41
11-450201-000	INNER RING	69
11-450301-000	BALL BEARING	43
11-450302-000	BALL BEARING	73
11-450303-000	ROLLER SPRING	75
11-460000-000	NEEDLE ROLLER BEARING	73
11-461000-000	NEEDLE ROLLER BEARING	62, 63
11-480001-000	CAM FOLLOW NEEDLE BEARING	53
11-481030-000	LOWERING LINK BEARING	46
11-490001-000	MAIN PIVOT BEARING	62
11-491000-000	BALL BEARING	69
11-500001-000	BALL BEARING	57, 58
11-500552-000	TORRINGTON CLUTCH AND BEARING ASSEMBLY	104
11-530012-001	RETAINING RING - EXTERNAL	130
11-530015-000	RETAINING RING - EXTERNAL	130
11-530017-001	RETAINING RING - EXTERNAL	130
11-530019-000	RETAINING RING - EXTERNAL	130
11-530021-001	RETAINING RING - EXTERNAL	130
11-530025-001	RETAINING RING - EXTERNAL	87, 130
11-530028-000	RETAINING RING - EXTERNAL	130
11-530030-001	RETAINING RING - EXTERNAL	130
11-530522-000	INTERNAL RETAINING RING	81, 83
11-531008-000	RETAINING RING - INVERTED INTERNAL	130
11-531020-000	RETAINING RING - INVERTED INTERNAL	81, 83, 130
11-531512-000	BEVELED RETAINING RING 1.761 OD	87
11-532022-000	GRIP RING	39
11-533512-000	RETAINING RING	62, 63
11-536026-000	SPIROL RETAINING RING	69, 130
11-575093-000	TURRET RING BALL BEARINGS	52
11-600500-000	MASTER LINK (3-PIECE)	19
11-603114-000	CABLE TIES (PKG OF 12)	66
11-603201-000	HOSE CLAMP	68, 76, 77
11-603301-000	OVERFLOW CHUTE CLAMP	25
11-606200-000	PIN DEFLECTOR CORD	79
11-615014-000	RESET BUTTON	106
11-615048-000	LOCKOUT POWER SWITCH - RED	29
11-615052-000	MICRO SWITCH	91
11-615053-000	MICRO SWITCH	91
11-615101-000	TERMINAL-37 PIN ON SETTING TABLE	31

PART #	DESCRIPTION	PAGE	PART #	DESCRIPTION	PAGE
11-615511-000	ON/OFF TOGGLE SWITCH W/NUT	29	12-100083-000	TENSION SPRING	49
11-615519-000	TOGGLE SWITCH	111	12-100086-000	TENSION SPRING	49
11-616013-000	SWITCH (#V3-101-D8)	91	12-100088-000	OIL SEAL	43
11-616034-000	REPLACEMENT TOGGLE SWITCH	28	12-100090-000	COMPRESSION SPRING	41
11-625000-000	OIL SEAL	41	12-100091-000	COMPRESSION SPRING	39
11-625001-000	OIL SEAL	47	12-100092-000	SPRING GUIDE	39
11-625003-000	OIL SEAL	46, 47	12-100093-000	PLUNGER	45
11-625005-000	OIL SEAL	46, 47	12-100097-000	DECK & SCISSOR LATCH	49
11-625501-000	O-RING	41	12-100104-000	SHAFT	43
11-625530-000	O-RING	43	12-100105-000	TENSION SPRING	45, 148
11-625538-000	O-RING	45, 91	12-100115-003	SPRING PIN	44
11-635201-000	AP - OEM TRANSPORT BAND BELT	5, 8, 9	12-100122-000	EXTENDED CYCLE CAM	43
11-635201-100	CERTIFIED TRANSPORT BAND BELT	8, 9	12-100123-000	CAM	43
11-650001-000	BUMPER	87	12-100129-000	SCISSOR CAM LEVER	49
11-651103-000	RUBBER REPLACEMENT FOR BALL RACK TIPS	106	12-100130-000	SHAFT	43
11-672518-000	RELAY	91	12-100140-000	SPUR GEAR	43
11-674995-000	PUSH BUTTON SWITCH	91	12-100146-000	CLUTCH SHOE	38, 39
11-675501-000	LIGHT BULB	111	12-100150-000	GEAR	47
11-675503-000	LIGHT BULB	111	12-100156-000	TENSION SPRING	49
11-675513-002	LIGHT BULB	111	12-100158-000	TENSION SPRING	148
11-675514-002	LIGHT BULB	111	12-100164-000	MACHINE KEY - RECTANGULAR	43, 133
11-675517-002	LIGHT BULB	111	12-100166-002	X-WASHER PIN	134
11-675521-002	LIGHT BULB	111	12-100166-004	X-WASHER PIN	45, 49, 134
11-675523-000	LIGHT BULB	111	12-100166-005	X-WASHER PIN	42, 43, 45, 134
11-675579-000	LIGHT BULB	111	12-100166-006	X-WASHER PIN	43, 49, 134
11-675582-000	LIGHT BULB	111	12-100166-007	X-WASHER PIN	45, 134
11-676047-000	CONTACT ADHESIVE	70	12-100166-008	X-WASHER PIN	45, 49, 134
11-676305-000	14.5 OZ. LITHIUM GREASE CARTRIDGE	96	12-100166-009	X-WASHER PIN	134
11-676308-000	NYOGEL 788 LUBRICANT	31	12-100166-011	X-WASHER PIN	49, 134
11-676361-000	NON-LITHIUM GREASE - 14.5 OZ.	31, 96	12-100166-013	X-WASHER PIN	45, 49, 134
11-679303-000	PLUG TWIST RECEPTACLE	91	12-100166-014	X-WASHER PIN	134
11-679306-000	PLUG TWIST RECEPTACLE	91	12-100166-015	X-WASHER PIN	134
11-682569-000	NO STEP DECAL	6	12-100166-016	X-WASHER PIN	134
11-696107-000	CAPACITOR (.50 UF)	91	12-100166-017	X-WASHER PIN	134
11-697103-000	24 VOLT RELAY	88	12-100166-019	X-WASHER PIN	43, 44, 45, 134
12-100017-000	REPLACEMENT ROD	48	12-100166-021	X-WASHER PIN	43, 135
12-100025-000	CLUTCH ACTUATOR LINK	45	12-100166-022	X-WASHER PIN	39, 134
12-100030-002	ROLLER	44, 45	12-100166-024	X-WASHER PIN	39, 134
12-100030-005	ROLLER	45	12-100166-025	X-WASHER PIN	45, 134
12-100037-000	CAM	49	12-100166-026	X-WASHER PIN	134
12-100040-004	OUT-OF-RANGE RESET LINK	43, 48	12-100166-027	X-WASHER PIN	39, 134
12-100043-000	TENSION SPRING	45	12-100166-029	X-WASHER PIN	135
12-100045-000	RAKE CAM HUB	43	12-100166-031	X-WASHER PIN	61, 135
12-100050-000	STOP COLLAR	45	12-100166-032	X-WASHER PIN	134
12-100057-000	DECK HOOK LINK	49	12-100167-000	SPRING	48
12-100058-000	SPRING DISC	41	12-100168-003	PIN	39
12-100064-000	BAR	39	12-100169-008	PIN FOR RAKE CRANK HOUSING KIT	42
12-100065-002	WASHER	47	12-100170-012	WASHER	39, 45
12-100066-000	SPACER	41	12-100170-017	WASHER	62, 63
12-100068-000	DRIVE GEAR	43	12-100170-018	WASHER	49
12-100069-000	STUD	39	12-100170-019	WASHER	44
12-100072-000	SHAFT	39	12-100170-021	SPACER	44
12-100074-000	BEARING SHAFT	39	12-100174-002	WORM WHEEL 60:1	42
12-100077-000	SPRING GUIDE	49	12-100175-000	LATCH	49
12-100081-000	PULLEY ASSEMBLY	63	12-100176-002	CLUTCH RESET LEVER ASSEMBLY - MODEL A	44

PART #	DESCRIPTION	PAGE	PART #	DESCRIPTION	PAGE
12-100177-000	GEAR BOX COVER	47	12-100353-000	LINK	49
12-100178-000	DECK HOOK CAM LEVER	39	12-100363-000	LINK	43, 44, 45
12-100183-000	DECK HOOK LATCH ASSEMBLY	49	12-100365-000	SCISSOR	43
12-100185-002	SPACER	41	12-100370-000	CLUTCH YOKE AND BEARING ASSEMBLY	38, 39
12-100185-003	SPACER	41	12-100381-002	SHIM .005"	41
12-100185-004	SPACER	43	12-100381-003	SHIM 0.010"	41
12-100185-005	SPACER	47	12-100387-000	DECK LIFT HOOK CAM (MACHINES < 90,000)	47
12-100185-006	SPACER	47	12-100391-000	GEAR BOX HOUSING GASKET	41
12-100185-007	CLUTCH CAM SPACER	46	12-100392-000	LEVER	39
12-100185-009	SPACER	47	12-100410-000	HOOK SELECTOR	48, 49
12-100185-019	SPACER	49	12-100431-000	RETAINING BEARING	47
12-100185-020	SPACER	75	12-100437-000	OUT-OF-RANGE LEVER ASSEMBLY	45
12-100185-021	SPACER	75	12-100441-000	SPECIAL HEX HEAD BOLT	43
12-100185-022	SPACER	75	12-100457-000	FELT WICK	47
12-100185-036	SPACER	67	12-100458-000	FELT PAD	47
12-100187-002	MACHINE KEY - SQUARE	133	12-100465-000	LEVER ASSEMBLY	44
12-100187-007	MACHINE KEY - SQUARE	43, 133	12-100477-000	BEARING RETAINER	41
12-100187-008	MACHINE KEY - SQUARE	43, 133	12-100481-000	COMPRESSION SPRING	146
12-100187-009	MACHINE KEY - SQUARE	133	12-100482-000	COMPRESSION SPRING	146
12-100187-011	MACHINE KEY - SQUARE	133	12-100486-000	CLUTCH LEVER ASSEMBLY	38, 39
12-100188-000	SHAFT	49	12-100487-000	CLUTCH LEVER PIN	38
12-100189-000	"D" SHAFT ASSEMBLY	49	12-100493-002	RIVET PIN	44
12-100198-000	DETECTOR GEAR	49	12-100495-000	CLUTCH ACTUATOR LEVER	45
12-100207-000	MOUNTING PLATE	43, 48	12-100503-000	DECK LOWERING LINK ASSEMBLY	46
12-100219-000	CAM LEVER LINK	43	12-100504-000	RING	46
12-100220-000	CRANK PIN	46	12-100506-000	U-BOLT	46
12-100223-000	WASHER	43	12-100708-000	CLUTCH RELEASE LEVER ASSEMBLY	45
12-100226-000	ORIGINAL PIN	59	12-100828-002	SCISSOR/MOVING DECK CAM	43
12-100236-000	STARTER BELL CRANK ASSEMBLY	43, 44, 45	12-100830-000	CLAMP RING	47
12-100238-051	LATCH & BEARING ASSEMBLY	49	12-100831-000	DECK LIFT HOOK CAM (MACHINES > 90,000)	47
12-100242-000	DECK HOOK CAM LEVER ASSEMBLY	39	12-100832-000	DECK LIFT HOOK	46, 47
12-100250-000	CLUTCH CAM LEVER ASSEMBLY	39	12-100896-000	SPACER	47
12-100257-000	HX HD SCKT CAP SCREW 2-1/2"	39	12-100898-000	COVER	47
12-100261-000	DETECTOR ROD ASSEMBLY	48, 49	12-100902-002	WORM WHEEL 60:1	42
12-100280-000	MOVING DECK CABLE ASSEMBLY	63	12-100903-000	PIN DETECTOR LINK	45
12-100281-000	CABLE AND TUBE ASSEMBLY	42	12-100905-000	SPRING	45
12-100282-000	DECK HOOK U-BOLT	47	12-102020-000	SOLENOID COVER	91
12-100283-000	ECCENTRIC	47	12-102033-000	RAKE LIFT CAM LINK	42
12-100290-000	O-RING	47	12-102043-000	TENSION SPRING	45, 148
12-100291-000	SOLENOID	48	12-102105-000	TENSION SPRING	148
12-100296-000	TENSION SPRING	45, 148	12-102123-000	SPACER	43
12-100298-000	SPACER	45	12-102176-000	CLUTCH RESET LEVER ASSEMBLY - MODEL A•2	44
12-100305-000	PIN ASSEMBLY	43	12-102178-000	SPRING	39
12-100306-000	PIN ASSEMBLY	42	12-102179-000	BUSHING	39
12-100313-000	MOVING DECK CAM LEVER	43, 59	12-102180-000	SPECIAL HX HD SCKT CAP SCREW 1/4-28 X 3"	39
12-100316-000	GEAR BOX OIL PAN	38, 96	12-102236-000	STARTER BELL CRANK ASSEMBLY	43, 44, 45
12-100318-002	X-WASHER PIN	134	12-102363-000	LINK	43, 44, 45
12-100318-003	X-WASHER PIN	134	12-102443-000	STUD	44
12-100334-000	SLEEVE OILITE BEARING	136	12-102753-000	SPACER	46
12-100337-000	OUT-OF-RANGE LINK ASSEMBLY	44, 45	12-102754-000	BEARING STUD	46
12-100338-002	SPACER	45	12-102794-000	SCISSOR/MOVING DECK CAM	43
12-100338-003	SPACER	45	12-102815-000	T-TRACK	46
12-100339-000	L.H. GEAR BOX COVER GASKET	43	12-102816-000	SCOTCH YOKE PLATE	46
12-100340-000	R.H. GEAR BOX COVER GASKET	46, 47	12-150004-000	SPRING GUIDE	51
12-100344-002	COPPER GASKET	46, 47	12-150011-000	TORSION LATCH ASSEMBLY	51, 57

PART #	DESCRIPTION	PAGE	PART #	DESCRIPTION	PAGE
12-150012-000	TORSION SPRING	51, 57	12-150190-000	SLEEVE OILITE BEARING	57, 136
12-150023-002	X-WASHER PIN	135	12-150198-000	TURRET CLUTCH ASSEMBLY	56
12-150023-007	X-WASHER PIN	135	12-150200-000	LATCH ASSEMBLY - RH	56
12-150023-008	X-WASHER PIN	53, 135	12-150213-000	BLOCKING FINGER TENSION SPRING	56
12-150040-000	TURRET RING	52, 53	12-150216-000	TURRET DRIVE CLUTCH SHAFT	57
12-150049-000	PIN RELEASE LEVER ASSY	53	12-150217-000	SPACER	57
12-150051-000	BELL CRANK ASSEMBLY	57	12-150219-000	TURRET CLUTCH DRIVE PULLEY	56, 57
12-150056-002	ROLLER STUD	57	12-150220-000	TURRET CLUTCH DRIVE PULLEY	57
12-150056-003	ROLLER STUD	57	12-150222-000	COMPRESSION SPRING	51, 57, 146
12-150057-003	STANDARD PIN GATE STRAP	86, 87	12-150226-000	ROLLER & BEARING ASSEMBLY	59
12-150064-000	TRIP LEVER ASSEMBLY	57	12-150227-000	LINKAGE ASSEMBLY	87
12-150065-000	LINK	57	12-150231-000	TURRET STOP LEVER	57
12-150066-000	RELEASE CAM	53	12-150234-000	INTERLOCK LINK ASSEMBLY	58, 59
12-150069-000	TRIP LEVER SHAFT	58, 59	12-150235-000	TURRET INDEX LATCH ASSEMBLY	58, 59
12-150070-000	TENSION SPRING	149	12-150237-000	INTERLOCK LINK	53
12-150071-000	PIN	59	12-150245-000	SPACER	57
12-150079-000	TRIP LEVER	51	12-150246-000	BUMPER 11/16"	57
12-150086-000	INTERLOCK PROBE ASSEMBLY	52, 53	12-150246-002	BUMPER 1-1/4"	57
12-150087-000	COMPRESSION SPRING	146	12-150247-000	STUD	59
12-150090-000	TENSION SPRING	59	12-150252-000	SHOULDER SCREW	57
12-150096-000	TENSION SPRING	53, 149	12-150253-000	POST	51, 57
12-150106-000	TURRET CLAMP PLATE - LOWER	54, 55	12-150254-000	STUD	51, 57
12-150107-000	TURRET CLAMP PLATE - UPPER	54, 55	12-150255-000	FLANGED OILITE BEARING	138
12-150108-000	CENTER CHUTE ASSEMBLY	52, 53	12-150256-000	BRONZE BEARING	59
12-150109-000	CENTER CHUTE REPAIR PLATE	52, 53	12-150258-000	SLEEVE & PLATE ASSEMBLY	57
12-150111-000	LATCH	59	12-150259-000	SHAFT	59
12-150113-000	SHORT TURRET DRIVE BELT, SHORT	59, 95	12-150264-000	STOP	53
12-150113-600	SHORT TURRET DRIVE BELT, LONG	59, 95	12-150265-000	TURRET STOP BUMPER 15/16"	53
12-150125-000	ROLLER	59	12-150266-000	BRACKET	53
12-150130-006	ASSEMBLED SPRING WHEEL	56	12-150267-000	SPACER	53
12-150132-000	TENSION SPRING	59	12-150268-000	HEX HEAD CAP SCREW 5/16X4-3/4	53
12-150138-000	TURRET DELAY GEAR & CAM	51, 57	12-150279-000	LEVER ASSEMBLY	59
12-150142-002	RUBBER BUMPER	56	12-150283-000	LONG TURRET SPOON	53
12-150142-003	BUMPER	58, 59	12-150284-000	SHORT TURRET SPOON	53
12-150143-002	SHAFT	59	12-150289-000	SHORT TURRET LINK	58, 59
12-150143-003	INTERLOCK SHAFT	59	12-150290-000	TURRET INDEX PULLEY ASSY	59
12-150144-000	LEVER	58, 59	12-150293-000	SHAFT CLAMP	59
12-150145-000	LEVER	59	12-150294-000	INSIDE GUIDE WIRE (2, 3, 4, 6, 8, 9)	54, 55
12-150147-000	LEVER ASSEMBLY	59	12-150295-000	INSIDE GUIDE WIRE (1, 7, 10)	54, 55
12-150154-000	FLANGED OILITE BEARING	139	12-150296-000	OUTSIDE GUIDE WIRE (1, 7, 10)	54, 55
12-150158-004	X-WASHER PIN	135	12-150297-000	OUTSIDE GUIDE WIRE (2, 3, 4, 6, 8, 9)	54, 55
12-150158-006	X-WASHER PIN	59, 134	12-150304-002	SPECIAL HEX HEAD CAP SCREW	53
12-150158-007	X-WASHER PIN	59, 134	12-150304-003	HEX HEAD CAP SCREW	53
12-150158-009	X-WASHER PIN	135	12-150306-000	TWO-PIECE DISC PULLEY	56, 57
12-150158-012	X-WASHER PIN	43, 45, 134	12-150307-000	SPACER	56
12-150158-013	X-WASHER PIN	57, 134	12-150309-000	INSIDE WIRE ASSY REPAIR ROD (1, 7, 10)	54, 55
12-150158-014	X-WASHER PIN	135	12-150310-000	TOP WIRE FORM	55
12-150158-015	X-WASHER PIN	53, 134	12-150311-000	BOTTOM WIRE FORM	55
12-150158-016	X-WASHER PIN	135	12-150313-000	WIRE FORM	55
12-150158-017	X-WASHER PIN	134	12-150314-000	BOTTOM WIRE FORM	55
12-150176-000	LATCH ASSEMBLY - LH	56	12-150324-000	INSIDE WIRE ASSY REPAIR ROD (2, 3, 4, 6, 8, 9)	54, 55
12-150181-000	PIN GUIDE CLAMP	55	12-150325-000	TURRET STOP BUMPER 3/4"	53
12-150182-000	PIN GUIDE WIRE CUSHION	54, 55	12-150326-000	TURRET RING AND BEARING JIG	52, 97
12-150186-000	SPACER	57	12-200003-000	SCISSOR DECK	61
12-150187-000	BOTTOM PROTECTOR	59	12-200016-000	SCISSOR ARM ASSEMBLY	60, 61

PART #	DESCRIPTION	PAGE	PART #	DESCRIPTION	PAGE
12-200016-091	SCISSOR ARM ASSEMBLY	60, 61	12-200900-000	RUBBER DECK CHUTE MULTI	64
12-200017-092	SCISSOR ARM ASSEMBLY	60, 61	12-200900-500	OEM PLUS™ DECK CHUTE - MULTI	34, 64
12-200018-000	SCISSOR ARM ASSEMBLY	60, 61	12-200900-600	URETHANE DECK CHUTE	64
12-200019-092	SCISSOR ARM ASSEMBLY	60, 61	12-250010-007	X-WASHER PIN	73, 135
12-200022-000	SCISSOR SPRING	63, 98	12-250010-011	X-WASHER PIN	134
12-200023-000	TOGGLE LEVER ASSEMBLY	61	12-250011-002	SPACER	67
12-200026-000	LINK (SCISSOR ARM)	61	12-250011-003	SPACER	66
12-200027-000	SHOULDER PIN	61	12-250011-011	SPACER	73
12-200028-000	SHOULDER PIN	61	12-250011-012	SPACER	73
12-200029-000	STUD	61	12-250011-014	SPACER	73
12-200031-003	NYLON WASHER	61	12-250014-000	PIVOT ASSEMBLY	73
12-200031-004	NYLON WASHER	61	12-250022-002	ROD, RAKE CRANK, TAPERED	73
12-200032-000	NEOPRENE STOP	61	12-250029-000	BELL CRANK	73
12-200038-000	ROLLER BRACKET	61	12-250040-000	LINK	73
12-200039-000	DRAG LINK	61	12-250044-000	LATCH	73
12-200041-000	SPACER	61	12-250050-000	SPRING	73
12-200055-000	PULLEY ASSEMBLY	63	12-250053-004	WASHER	73
12-200059-002	WASHER	61	12-250075-000	SLEEVE OILITE BEARING	136
12-200066-002	UPPER SCISSOR CABLE 43-11/16"	62, 63	12-250076-002	FLAT WASHER - NON-STANDARD	66, 129
12-200066-003	UPPER DECK CABLE 45-11/16"	62, 63	12-250076-003	WASHER	73
12-200066-004	LOWER DECK CABLE 36-1/8"	62, 63	12-250091-000	SLEEVE OILITE BEARING	73, 74, 136
12-200067-000	LOWER SCISSOR CABLE 31"	61, 62, 63	12-250173-000	"A" SHOCK ABSORBER	67
12-200069-000	BARREL	63	12-250189-000	RUBBER BUSHING	67, 72
12-200081-002	X-WASHER PIN	135	12-250225-000	LINK & BEARING ASSEMBLY	73
12-200094-000	WIRE	61	12-250229-000	PIVOT STUD	73
12-200097-000	CABLE GUIDE ASSEMBLY	60	12-250230-000	HUB & BEARING ASSEMBLY	73
12-200099-000	SPRING RETAINER	63	12-250244-000	BEARING STUD	73
12-200103-000	BEARING	61	12-250248-000	SLEEVE OILITE BEARING	66, 137
12-200104-000	FLANGED OILITE BEARING	139	12-250273-000	PIVOT ASSEMBLY	73
12-200105-000	FLANGED OILITE BEARING	61, 138	12-250278-002	ROD, RAKE CRANK, STRAIGHT	73
12-200110-000	STUD	63	12-250286-000	STRAP-ON PIT CUSHION FACING	66
12-200114-000	RUBBER DECK ROLLER ASSEMBLY	61, 65	12-250289-000	SPRING LOADED RAKE CRANK ROD - TAPERED ENDS	72
12-200115-000	RUBBER DECK ROLLER	61, 65	12-252016-000	PIN GATE LATCH BOLT ASSEMBLY	86, 87
12-200120-004	SCISSOR GRIPPER PAD	60, 61	12-252048-000	RAKE LIFT ARM ASSEMBLY	74
12-200125-000	KEEPER SPRING	60, 63	12-252060-000	UNIBALL ROD END	67
12-200139-000	CONNECTING ROD ASSEMBLY	61	12-252069-000	LINK	67
12-200140-002	SPACER	61	12-252073-000	SUPPORT ARM	67
12-200178-000	DRILLING TEMPLATE	65	12-252090-000	BUMPER	73
12-200808-002	RUBBER DECK CHUTE #1	64	12-252092-000	RAKE LIFT ARM BUMPER AND BEARING ASSEMBLY	74
12-200808-003	RUBBER DECK CHUTE #7, 10	64	12-252173-000	A•2 SHOCK ABSORBER	67
12-200808-502	OEM PLUS™ DECK CHUTE - #1	64	12-252234-000	CAM FOLLOWER ARM, MODEL A•2	73
12-200808-503	OEM PLUS™ DECK CHUTE - #7, #10	64	12-252290-000	BRUNSWICK ASTROGRAY DECAL	73
12-200808-602	URETHANE DECK CHUTE #1	64	12-252290-010	BRUNSWICK BROWN DECAL	73
12-200808-603	URETHANE DECK CHUTE #7, 10	64	12-252301-000	RAKE LATCH ASSEMBLY	73, 75
12-200837-000	RUBBER DECK CHUTE #5	64	12-252308-000	URETHANE PIT CUSHION FACING - BLACK	66
12-200837-500	OEM PLUS™ DECK CHUTE - #5	64	12-252308-600	URETHANE PIT CUSHION FACING - CLEAR	66
12-200837-600	URETHANE DECK CHUTE #5	64	12-252309-000	SPRING LOADED RAKE CRANK ROD	72, 73
12-200864-002	POLYPROPYLENE DECK CHUTE #1	65	12-252310-000	STRAP-ON PIT CUSHION FACING	66
12-200864-003	POLYPROPYLENE DECK CHUTE #7, 10	65	12-252326-000	ROLLER BRACKET	75
12-200865-000	PLATE (USE WITH STEEL DECK)	61	12-252327-000	SPRING SEAT	75
12-200892-000	ALUMINUM SPOTTING FINGER - RH	62	12-252328-000	COMPRESSION SPRING - R.H.	75
12-200893-000	ALUMINUM SPOTTING FINGER - LH	62	12-252329-000	COMPRESSION SPRING - L.H.	75
12-200894-000	POLYPROPYLENE DECK CHUTE MULTI	65	12-252330-000	TENSION SPRING	75
12-200895-000	POLYPROPYLENE DECK CHUTE #5	65	12-252331-000	SHAFT END	75
12-200896-000	FINISHING WASHER	63	12-252332-000	X-WASHER PIN	75

PART #	DESCRIPTION	PAGE	PART #	DESCRIPTION	PAGE
12-252333-000	SHAFT	75	12-300160-000	VIBRATOR SHAFT BEARING - COMPLETE	68, 69, 71
12-252334-000	TRIP BRACKET	75	12-300160-003	VIBRATOR SHAFT BEARING ONLY	68, 71
12-252335-000	TRIP CYLINDER W/O BEARINGS	75	12-300163-000	AP - JOGGER LINK	69
12-252335-091	TRIP CYLINDER COMPLETE WITH ALL BEARINGS	75	12-300168-000	R.H. CLAMP AND PIN ASSEMBLY	68, 69
12-252338-000	RAKE SHOCK ASSEMBLY	72	12-300169-000	L.H. CLAMP AND PIN ASSEMBLY	68, 69
12-252342-000	POLYURETHANE SPACER	72	12-300170-000	SPRING GUIDE	69
12-252343-000	SMOOTH DROP RAKE SHOCK	34, 72	12-300172-000	COMPRESSION SPRING	69, 147
12-252344-000	CUSHION BRACKET	67	12-300178-000	PIVOT	69
12-252345-000	FOLLOWER LINK	66	12-300180-000	RUBBER STRIP - 6"	70
12-252346-000	FOLLOWER LINK	66, 67	12-300189-000	STEP WASHER	69
12-252348-000	ELEVATOR PLATE	67	12-300192-000	R.H. LEVER AND BRACKET	68, 69
12-252349-000	FOLLOWER SPACER	67	12-300193-000	L.H. LEVER AND BRACKET	68, 69
12-252350-000	BUSHING	67	12-300194-000	JOGGER LINK ASSEMBLY	69, 71
12-252351-000	ROLLER	67	12-300212-000	RUBBER BLOCK	70
12-252352-000	CUSHION ARM BOLT	67	12-302212-000	PIT BOARD BUMPER	68, 69
12-252354-002	TRIP ARM ASSEMBLY	74	12-350023-002	X-WASHER PIN	135
12-252355-091	PIVOT LINK	75	12-350029-000	MOVING DECK PULLEY	63
12-252356-000	TRIP ROD LEVER	75	12-350030-000	MOVING DECK PULLEY	63
12-252359-000	TRIANGULAR PLATE	66	12-350032-000	PULLEY SHAFT	63
12-252360-000	FLAT WASHER - NON-STANDARD	67, 129	12-350033-000	SCISSOR PULLEY ASSY (N.A.)	63
12-252364-002	TUBE	67	12-350035-000	SHAFT 4-9/16" (MACHINES PRIOR TO 71,489)	63
12-252372-000	GRAY RAKE BOARD CUSHION	73	12-350122-002	DECK STABILIZER ROD/ROD ENDS JAM AND NUT	65
12-252372-010	BROWN RAKE BOARD CUSHION	73	12-350122-003	DECK STABILIZER ROD/ROD ENDS - RH THREAD	65
12-252373-000	GRAY RAKE BOARD W/O DECAL	73	12-350122-004	DECK STABILIZER ROD/ROD ENDS - LH THREAD	65
12-252373-010	BROWN RAKE BOARD W/O DECAL	73	12-350126-000	COMPRESSION SPRING	147
12-252374-000	ASTROGRAY RAKE BRD W/DECAL & CUSION	73	12-350166-000	SHAFT 4-13/16" (MACHINES 71,489 & UP)	62, 63
12-252374-010	BROWN RAKE BOARD W/DECAL & CUSION	73	12-350217-000	DECK LIFT STABILIZER ASSEMBLY	65
12-252377-000	BALL ACCELERATOR WIPER	88	12-350802-000	DECK HOOK ASSEMBLY	48, 49
12-252382-000	RAKE SHOCK KIT	72	12-350802-600	SAND CAST DECK HOOK ASSEMBLY	48, 49
12-252668-000	CENTER SHAFT WELDMENT	74	12-350803-000	AP - DECK HOOK	48
12-252670-000	KEY	74	12-350803-600	HOOK	48
12-252671-000	RAKE ARM - L.H.	74	12-350804-000	DECK HOOK HUB WITH BEARINGS	48
12-252672-000	RAKE ARM - R.H.	74	12-350804-600	HUB	48
12-300013-002	SPACER	69	12-400018-002	SPACER	85
12-300016-002	WASHER	69	12-400018-007	SPACER	85
12-300024-002	REAR TIE PLATE	69	12-400018-016	SPACER	79
12-300024-003	FRONT TIE PLATE	69	12-400018-017	SPACER	79
12-300071-000	DRIVE PULLEY - FRONT	68	12-400018-023	SPACER	79
12-300073-000	DRIVE PULLEY - REAR	68	12-400027-000	IDLER ARM STUD	79
12-300075-000	IDLER PULLEY ASSEMBLY	68, 69	12-400030-000	BEARING BUSHING	79
12-300076-000	STEEL FRONT PIER	69	12-400031-002	SPRING POST	79
12-300077-000	STEEL REAR PIER	69	12-400031-003	SPRING POST	79
12-300081-004	FLAT WASHER	69	12-400033-000	BEARING RETAINER	85
12-300082-003	PIT CONVEYOR DRIVE BELT	95	12-400034-002	STANDARD FOR MODEL A 771"	95
12-300088-000	PULLEY ASSEMBLY	69, 71	12-400034-003	STANDARD FOR MODEL A AND JETBACK 1071"	95
12-300103-000	PIT RUG	70, 71	12-400034-004	JACK SHAFT BELT - CROSS DRIVE	95
12-300107-002	CARRIAGE BOLT (MACHINES PRIOR 3,850)	71	12-400034-005	PIN WHEEL BELT	82, 95
12-300107-003	BOLT (MACHINES FOR 3,850 AND UP)	71	12-400034-007	CROSS CONVEYOR DRIVE ROUND BELT	95
12-300109-000	SHAFT	69	12-400035-003	SHEAVE	85
12-300110-000	PIT SUB MOUNTING PLATE	71	12-400035-004	SHEAVE	85
12-300126-000	VIBRATOR SHAFT - OSCILLATING	69	12-400035-005	SHEAVE	85
12-300131-000	FRAME ASSEMBLY	71	12-400035-006	SHEAVE	85
12-300141-000	VIBRATOR SHAFT	69, 70, 71	12-400035-008	SHEAVE	85
12-300146-002	RUBBER STRIP - 48"	70	12-400035-009	SHEAVE	85
12-300146-004	RUBBER STRIP - 17"	70	12-400036-000	BUSHING	79

PART #	DESCRIPTION	PAGE	PART #	DESCRIPTION	PAGE
12-400048-005	PURE GUM RUBBER LIFT ROD COVER	76	12-400674-000	PIN WHEEL GUIDE ROLLER	82
12-400048-091	GUM RUBBER BALL ROD COVER	76, 77	12-400803-000	SPRING ROD BUSHING	77
12-400051-000	BALL LIFT STUD, MODEL A	77	12-400804-000	COLLAR	85
12-400053-000	BALL LIFT PIN, FOR CAST STEEL	77	12-400807-000	REAR PLATE PAD	79
12-400055-000	PIN WIPER & SPRING ASSEMBLY	84	12-400810-000	DRIVE SHAFT	85
12-400055-003	PIN WIPER FLAT SPRING	84	12-400819-000	V-BELT IDLER PULLEY	68
12-400071-000	PIN WIPER LEAF SPRING	84	12-400848-000	SHAFT, FOR STEAL CLAPPER BOX	77
12-400081-000	PINSETTER MOTOR PULLEY	86	12-402042-000	LIFT ROD CAP TOP FRONT	76, 77
12-400096-000	CLAMP A	77	12-402043-000	LIFT ROD CAP TOP REAR	76, 77
12-400104-000	MODULAR PIN WHEEL SINGLE POCKET	82	12-402051-000	BALL LIFT STUD, MODEL A•2	77
12-400122-000	COMPRESSION SPRING	147	12-402053-000	RETAINING WASHER	77
12-400123-000	SPRING ROD BUMPER - RUBBER	77, 84	12-402054-000	SPACER	77
12-400126-000	PIN WHEEL DRIVE PULLEY ASSEMBLY	82, 85	12-402064-000	PIN WIPER RETAINER SPRING	84
12-400138-002	MACHINE KEY - SQUARE	85, 133	12-402081-000	PINSETTER MOTOR PULLEY	86
12-400138-003	MACHINE KEY - SQUARE	85, 133	12-402096-000	CLAMP A•2	77
12-400138-004	MACHINE KEY - SQUARE	85, 133	12-402107-000	BALL WHEEL GUIDE ROLLER FLANGE	80
12-400138-006	MACHINE KEY - SQUARE	85, 133	12-402121-000	COMPRESSION SPRING	77
12-400138-007	MACHINE KEY - SQUARE	133	12-402126-000	PIN WHEEL DRIVE PULLEY ASSEMBLY	82, 85
12-400138-008	MACHINE KEY - RECTANGULAR	133	12-402422-000	PIN WHEEL BRAKE	79
12-400139-003	WASHER	85	12-402425-000	SUPPORT BRACE	77, 79
12-400139-004	WASHER	77	12-402429-000	HOOK	79
12-400139-005	SPECIAL WASHER	85	12-402432-000	LIFT ROD CAP BOTTOM FRONT	76, 77
12-400149-000	SHAFT	77, 79	12-450006-002	X-WASHER PIN	87, 135
12-400180-000	SINGLE V-BELT FASTENER	97	12-450006-003	X-WASHER PIN	87
12-400193-000	AP - SPRING ROD	77, 84	12-450017-000	PIN GATE ASSEMBLY	87
12-400199-000	FLANGED OILITE BEARING	77, 139	12-450032-000	LATCH ASSEMBLY	87
12-400209-000	IDLER PULLEY	79, 94	12-450034-000	CROSS CONVEYOR PULLEY	87
12-400219-000	IDLER PULLEY ASSEMBLY	57	12-450037-000	CROSS CONVEYOR BELT	95
12-400221-000	IDLER PULLEY	79, 94	12-450045-002	SPRING ROLL	87
12-400223-000	LONG TURRET BELT, NON-BEVEL GEAR	95	12-450045-003	SPRING WHEEL	87
12-400225-000	PIN WIPER SHIM	84	12-450051-000	TENSION SPRING	87
12-400227-000	BALL WHEEL BELT - ENDLESS	95	12-450061-000	TENSION SPRING	87
12-400237-000	REAR PLATE	79	12-450063-000	SHOULDER BOLT	87
12-400240-000	BALL WHEEL GUIDE ROLLER	80, 81	12-450064-000	ROLLER	87
12-400252-000	TORSION SPRING	79	12-450075-000	SNUBBER ASSEMBLY	86, 87
12-400254-000	ARM & BEARING ASSEMBLY	79	12-450079-000	TENSION SPRING	87
12-400257-000	BALL WHEEL GUIDE ROLLER FLANGE	80, 81	12-450080-000	RUBBER SPACER	87
12-400262-000	PIN WHEEL GUIDE ROLLER FLANGE	82, 83	12-450090-000	CROSS CONVEYOR IDLER PULLEY	86
12-400263-000	PIN WHEEL ROLLER ASSEMBLY	82, 83	12-502100-091	SWITCH TRACK ASSEMBLY WITH BEARINGS	88, 89
12-400265-000	PIN WHEEL GUIDE ROLLER FLANGE	82, 83	12-502105-000	BALL TRACK ASSEMBLY (CURVED)	89
12-400266-000	PIN WHEEL GUIDE ROLLER	82, 83	12-502114-000	TENSION SPRING	89, 148
12-400268-000	BALL WHEEL ROLLER ASSEMBLY	80, 81	12-502115-000	BALL TRACK ASSEMBLY	89
12-400269-000	BALL WHEEL GUIDE ROLLER FLANGE	80, 81	12-502131-000	AP - Y SWITCH STOP BAR	89
12-400271-000	BALL WHEEL GUIDE ROLLER	80, 81	12-502132-000	ROD	89
12-400272-000	BALL WHEEL GUIDE ROLLER ASSEMBLY	80, 81	12-502133-000	BALL TRIP	89
12-400279-000	BALL WHEEL BELT - SPLICED	95	12-502134-000	Y-SWITCH SHAFT	89
12-400279-003	DOUBLE V-BELT FASTENER	95, 97	12-502136-000	HOOK	89
12-400281-000	COLLAR	79	12-502138-000	BALL STOP BRACKET	89
12-400288-000	BALL LIFT ARM ASSEMBLY	77	12-502139-000	L.H. TRACK BRACE	89
12-400289-000	SPACER	77	12-502140-000	R.H. TRACK BRACE	89
12-400297-000	IDLER PULLEY ASSEMBLY - FLAT BELT	79	12-502142-000	TRIP ROD	89
12-400300-000	COLLAR	77	12-502150-000	PIVOT BRACKET	89
12-400314-000	LONG TURRET BELT, BEVEL GEAR	95	12-502151-000	BLOCK	89
12-400329-000	STANDARD FOR JETBACK 79"	95	12-502152-000	BRACKET	89
12-400335-000	SPACER	82	12-502154-000	Y-SWITCH BUMPER PULL THROUGH	89

PART #	DESCRIPTION	PAGE	PART #	DESCRIPTION	PAGE
12-502155-000	SPACERS	89	12-800503-000	ROCKER PIN TOOL	97
12-502167-000	TENSION SPRING	89, 148	12-800506-000	SPECIAL BEARING WRENCH	99
12-502320-600	BALL ACCELERATOR PAN	88	12-800517-001	X-WASHER PLIERS	97
12-502328-000	Y-SWITCH PLATE	89	12-800517-002	X-WASHER PLIERS	97
12-502332-000	PULLEY - 1/2" BORE	94	12-802059-003	BALL ACCELERATOR/BOOSTER MOTOR	88
12-502335-000	CONTROL BOX	88	12-802059-004	HEAVY-DUTY BALL ACCELERATOR MOTOR	88
12-502349-600	HIGH CROWN ACCELERATOR PULLEY	94	12-860035-000	MODULAR PIN WHEEL HARDWARE PACKAGE	82
12-502351-000	PULLEY - 1/2" BORE	94	12-860065-000	1:1 GEAR BOX COVER ASSEMBLY	42
12-502355-000	PULLEY - 1/2" BORE	94	12-860066-000	PIN RETAINER ASSEMBLY	84
12-502410-000	PINSETTER MOTOR PULLEY	86, 94	12-860071-000	MODULAR PIN WHEEL ASSEMBLY	82
12-502474-000	PULLEY - 1/2" BORE	94	12-860109-000	BALLAST A*2 (115 VOLT)	111
12-502550-000	PULLEY - 5/8" BORE	94	12-860117-000	L.H. BRACKET	53
12-502551-000	PULLEY - 5/8" BORE	94	12-860118-000	R.H. BRACKET	53
12-502553-000	PULLEY - 5/8" BORE	94	12-860119-000	INTERLOCK PROBE BRACKET REPAIR KIT	52, 53
12-502554-000	PULLEY - 5/8" BORE	94	12-860171-000	60:1 WORM SHAFT	41
12-700003-000	DECK PIN GAUGE	99	12-860172-000	60:1 WORM SHAFT ASSEMBLY	40, 41, 42
12-700101-000	LEVER	91	12-860205-000	CROSS CONVEYOR SWITCH ASSY	91
12-700103-000	LEVER	91	12-860227-600	PIT CURTAIN BRACKET KIT	66
12-700105-000	PISTOL OILER	96	12-860229-600	AP SBE AND BALL JAMELIMINATOR KIT	78
12-700108-000	A*2 PREVENTATIVE MAINTENANCE WALL CHART	98	12-860330-000	BALL WHEEL TRACTION MATERIAL	80
12-700110-000	DECK CABLE SPRING TUBE FIXTURE	98, 99	12-860331-000	HARDWARE KIT	112
12-700111-000	CLUTCH FACING RIVET SET	40, 98, 99	12-860331-001	HARDWARE BOX	112
12-700112-000	TRIANGULAR PLATE BUSHING PULLER	98, 99	12-860334-000	MOTOR OVERLOAD RELAY	93
12-700113-000	WORM NUT ALIGNMENT SOCKET	98, 99	12-860335-000	MOTOR OVERLOAD RELAY AND CONTACTOR	93
12-700114-000	WORM SHAFT HOLDING WRENCH	98, 99	12-860336-000	CORK/RUBBER BALL WHEEL TRACTION MATERIAL	35, 80
12-700115-001	WORM SHAFT BEARING DRIVER	98	12-860548-000	BALL JAMELIMINATOR	76
12-700115-002	SHAKER SHAFT BEARING DRIVER	98	12-860563-000	TURRET/DECK JAM MICRO SWITCH ASSY	91
12-700115-003	RAKE SHAFT REPAIR DRIVER	72, 98	12-860570-000	URETHANE DECK PAD - GLUE-ON	65
12-700115-004	LONG JOGGER LINK BEARING DRIVER	98	12-860571-000	URETHANE DECK PAD - BOLT-ON	65
12-700115-005	SMALL JOGGER LINK BEARING DRIVER	98	12-860576-000	ROD END KIT - RH	74
12-700115-006	GUIDE ROLLER BEARING DRIVER	98	12-860577-000	ROD END KIT - LH	74
12-700116-001	ELEVATOR DRIVE SHAFT ADAPTER PLATE	98	12-860578-000	RAKE LIFT CAM CONVERSION KIT	42, 43
12-700116-002	CLUTCH BEARING SLEEVE ADAPTER PLATE	98	12-860579-000	BALL LIFT ROD ASSEMBLY	76, 77
12-700116-003	MAGNETIC CLUTCH ADAPTER PLATE	98	12-860583-000	SPINNING BALL ELIMINATOR	78, 79
12-700116-004	2:1 & 1:1 ADAPTER PLATE	98	12-860583-002	PIVOT SPACER	79
12-700116-005	4:1 & WORM ADAPTER PLATE	98	12-860603-000	WORM SHAFT OIL LEAK REPAIR KIT	40, 42
12-700116-006	TRUNNION ROLLER BEARINGS ADAPTER PLATE	98	12-860607-000	RAKE SHAFT REPAIR KIT	72
12-700120-000	3 OZ. GREASE GUN KIT	96	12-860613-000	CLUTCH DRIVE DISC ASSEMBLY	40, 41
12-700121-000	NEEDLE ADAPTER	96	12-860614-000	LIFT ROD CAP KIT	76
12-700126-000	GREASE NEEDLES	96	12-860620-002	AP - FIBERGLASS PIT BOARD ONLY	70, 71
12-700127-000	BRUNSWICK STOP LEAK OIL - 32 OZ.	96	12-860620-003	AP - FIBERGLASS PIT BOARD ASSEMBLY	70, 71
12-700129-000	3-1/2 OZ. LITHIUM GREASE CARTRIDGE	96	12-860620-004	WOOD PIT BOARD ASSEMBLY	70
12-700130-000	5.5" GREASE PIPE	96	12-860620-005	WOOD PIT BOARD ONLY	70
12-700135-000	CABLE SHAFT BEARING REMOVAL TOOL	37, 98	12-860624-000	QUICK RELEASE PIT CONVEYOR CONVERSION KIT	68
12-700207-000	DECK JAM SWITCH CHECKER	99	12-860626-000	CLUTCH DRIVE DISC	41
12-700268-000	INSTALLATION AIR FITTING	97	12-860627-000	CIRCUIT BREAKER	91
12-700270-000	JACK SHAFT INSTALLATION TOOL	98	12-860628-002	GEAR BOX COVER ASSEMBLY	43
12-700271-000	SCISSOR SPRING INSTALLER	98	12-860630-000	CLUTCH PULLEY ASSEMBLY	40, 41
12-750079-000	SELENIUM RECTIFIER	91	12-860633-000	RAKE CRANK HOUSING KIT	42
12-752005-000	SPRING	91	12-860659-000	PIT FRAME ASSEMBLY	68, 69, 71
12-752008-000	LEVER	91	12-860660-000	WORM THREAD CHASER	97
12-752024-000	A*2 PINSETTER GEAR BOX OIL	96	12-860662-000	REPLACEMENT BALL WHEEL	78
12-752056-000	UNIVERSAL PINSETTER MOTOR	86, 92	12-860665-000	RAKE SHAFT REPAIR KIT	72
12-752828-000	A*2 AUTOMATIC PINSETTER SERVICE MANUAL	113	12-860670-000	PINSETTER TOOL KIT	98
12-800502-000	DOUBLE V-BELT HOLDER	97	12-860672-000	YOKE REPAIR KIT	38

PART #	DESCRIPTION	PAGE	PART #	DESCRIPTION	PAGE
12-860673-000	SCISSOR CABLE REMOVAL TOOL	99	12-862263-000	ELECTRICAL BOX COVER - FACTORY A/A•2 U.S.	35, 90
12-860716-000	CLUTCH PULLEY BEARING ASSEMBLY	40, 41	12-862377-000	AP - RAKE LIFT ARM REPAIR KIT - C LEVER	74
12-860717-000	CLUTCH PULLEY ASSEMBLY	40, 41	12-862578-000	PIT CUSHION	66
12-860722-000	27:1 WORM SHAFT ASSEMBLY	41, 42	12-862579-000	BALL LIFT ROD ASSEMBLY	76, 77
12-860725-000	PIT CARPET COVER	70, 71	12-862580-000	CUSHION ARM REBUILD KIT	66
12-860770-000	PIN LAMP HOLDER	111	12-862581-000	DECK LIFT SHAFT ASSEMBLY	62, 63
12-860771-000	NYLON SPOTTING FINGER KIT	62	12-862582-000	AP - RAKE LIFT ARM REPAIR KIT	74
12-860803-000	REFILL PIN WIPER CLOTH	86	12-862584-400	ELECTRONIC TRIGGERING CONTROL SYSTEM	93
12-860804-000	FRICTION DISC ASSEMBLY	51, 56, 57	12-862602-008	BALL BOOSTER KIT	88
12-860805-000	TURRET CLUTCH FACING KIT	56, 57	12-862823-000	AP BALL GUIDE ROLLER ASSY	80
12-860807-000	PIN WHEEL GUIDE ROLLER KIT	82	12-862827-000	MOTOR START RELAY MODEL A	92
12-860808-000	AP - DELUXE PIN GATE STRAP	86, 87	12-862828-000	RECYCLE RELAY	92
12-860811-000	MODEL A SUPPLEMENT PACKAGE	93	12-862829-000	MOTOR START RELAY MODEL A•2	92
12-860971-000	PIT CUSHION COVER - MODEL A	66	12-862833-000	PIT BOARD RUBBER BLOCK REPLACEMENT PARTS	70
12-862008-000	AP - CLUTCH LEVER REINFORCEMENT SUPPORT	37, 38, 39	12-862839-000	CUSHION MOUNT & BEARING	67
12-862009-000	AP - TURRET FRAME REINFORCEMENT	36, 56, 57	12-862858-000	AP - DECK RIGHT KIT	60
12-862010-000	AP - MOVING DECK CAM FOLLOWER SUPPORT	37, 58	12-862859-000	1:1 REBUILD KIT	42
12-862011-000	URETHANE BALL STOP ASSEMBLY	78, 79	12-862860-000	LIFT ROD CAP KIT	76
12-862012-000	AP - ANTI-INVERSION KIT	36, 72	12-862863-003	RAKE CRANK HOUSING ASSEMBLY	42
12-862014-000	ANTI YO-YO KIT	76	12-862864-003	CLUTCH FACING REPLACEMENT KIT	40
12-862015-000	ROD END CONVERSION KIT	66	12-862864-004	CLUTCH FACING REPLACEMENT KIT	40, 41
12-862021-000	HIZAR GATE LINK ONLY	86	12-862864-005	CLUTCH FACING REPLACEMENT KIT	40, 41
12-862022-000	AP - 3A RESETTABLE CIRCUIT BREAKER	35, 90, 91	12-862864-603	AP - HEAVY DUTY CLUTCH FACING - FULL CIRCLE	40
12-862025-000	PLUG-IN MOTOR START RELAY ONLY	92	12-862864-605	AP - HEAVY DUTY CLUTCH FACING - SEMI-CIRCLE	40, 41
12-862026-000	AP - PIT CUSHION LINKAGE AND ALIGNMENT KIT	37, 66	12-862866-000	BALL LIFT ARM REBUILDING KIT	76
12-862027-000	AP - VIBRATOR SHAFT BEARING SHIMS	68	12-862867-000	CLUTCH RELEASE LEVER LINK ASSEMBLY	45
12-862028-000	ELECTRONIC FIVE PIN INDEXING KIT	36, 51	12-862868-000	PIN DETECTOR LINK ASSEMBLY	45
12-862030-000	AP - MAGNETIC CLUTCH VOLTAGE REGULATOR	34, 90	12-862874-000	TURRET RING AND BEARING ASSEMBLY	52
12-862032-000	CONTROL BOX CONNECTORS MALE/FEMALE	88	12-862890-000	TIME DELAY MODULE, SOLID STATE	91
12-862033-000	AP - ADJUSTABLE "Y" SWITCH	34, 88	12-862898-000	JETBACK SUPPLEMENT PACKAGE	93
12-862034-000	ADJUSTABLE INTERLOCK LINK	36, 52	12-862905-115	SOLENOID KIT - 115V	92
12-862037-002	DECK SHIELD - GRAY W/O DECAL	60	12-862905-230	SOLENOID KIT - 208/230V	92
12-862037-010	DECK SHIELD - BROWN W/DECAL	60	12-862917-400	UNIVERSAL TRIGGER SYSTEM	93
12-862054-000	BALL WHEEL WIPER CLOTHS (2/PKG)	34, 78	12-862918-400	SPARE BOARD ONLY	93
12-862055-000	BALL WHEEL WIPER KIT WITH CLOTHS	34, 37	12-862919-000	HEAVY DUTY PIT CARPET COVER	70
12-862073-000	SCOTCH YOKE BEARING STUD	46	12-862920-000	DUAL PIN LAMP	111
12-862111-000	MOTOR CONTACTOR	91, 93	12-862941-000	AP - CROSS CONVEYOR PIN WIPER CLOTH	86
12-862113-000	PIN GUIDES (1, 7, 10)	54, 55	12-862947-000	AP - 1A RESETTABLE CIRCUIT BREAKER	34, 90, 91
12-862116-000	PIN GUIDES (2, 3, 4, 6, 8, 9)	54, 55	12-862948-000	ELECTRICAL BOX COVER - A•2 JAPANESE	35, 90
12-862117-000	MOVING DECK ASSEMBLY	63	12-862970-000	PIT CUSHION COVER - A•2 AND JETBACK	66
12-862122-000	TURRET AND DECK JAM KIT	44	12-900172-000	RETAINING RING PLIER SET	112
12-862124-000	REPLACEMENT FUSES	34, 90	12-900172-002	RETAINING RING PLIER REPLACEMENT TIPS	112
12-862138-000	AP - CLUTCH LEVER SUPPORT KIT	38, 39	12-900180-000	HEX BIT SOCKET SET	112
12-862163-000	MAGNETIC CLUTCH ASSEMBLY	84, 85	12-900181-000	PIN GATE ROLL PIN INSTALLATION TOOL	97
12-862164-000	TRANSFORMER	91	12-900250-000	HARDWARE CATALOG FOR A AND A•2 PINSETTERS	113
12-862167-000	RUBBER PIT CURTAIN	66	12-900259-000	SERVICE PARTS INVENTORY CONTROL RECORD	113
12-862180-000	AP - BALL LIFT ROD (TRACK) SUPPORT	78, 79, 89	12-900260-000	BRUNSPARTS PREVENTATIVE MAINTENANCE MANUAL	113
12-862185-000	DECK LIFT CRANK	47	12-900900-000	MODEL A PINSETTER SERVICE MANUAL	113
12-862186-000	RAKE SHAFT ASSEMBLY	73, 74	12-900903-000	GEAR BOX DISASSEMBLY MANUAL	113
12-862203-000	AP - PLUG-IN MOTOR START RELAY	34, 91, 92	12-900907-000	DETECTOR MANUAL	113
12-862250-000	AP - SBE II	36, 78, 79	12-902262-000	TRIGGER/CONTROL SYSTEM MANUAL	113
12-862251-000	AP - HIZAR GATE	37, 86, 87	12-902908-000	A & A•2 PINSETTER SERVICE PARTS CATALOG	113
12-862252-000	AP - CAM FOLLOWER LIVE ROLLER	37, 56, 58, 59	12-902920-000	A•2 PINSETTER SERVICE MANUAL (SPANISH)	113
12-862253-000	AP - SBE II - JAPANESE ROLLER ONLY	78	12-902921-000	MOTOR REPAIR MANUAL	113
12-862262-000	AP - SPINNING BALL ELIMINATOR II	36, 78, 79	15-609567-000	LIGHT BULB	111

PART #	DESCRIPTION	PAGE	PART #	DESCRIPTION	PAGE
17-213927-000	LIGHT BULB	111	47-024330-004	V-BELT PULLEY 100MM	9
28-201739-000	BOWLING SERVICE PARTS CATALOG	107, 109, 113	47-024735-009	RH TRANSPORT BAND SIDE FRAME	9
34-082132-000	RUBBER ROLLER ASSEMBLY	89	47-024736-009	LH TRANSPORT BAND SIDE FRAME	9
46-040170-004	ROLLER	17	47-024740-004	FINISHING WASHER 5.3MM X 28MM X 10.2MM	9
47-011049-001	PIN SHOVEL ONLY	7	47-024741-004	FLAT WASHER (GS-96 & ABOVE)	9
47-011053-004	DEFLECTION CHAIN GEAR	7, 19	47-024744-009	BOARD SCREW KIT 10MM	9
47-011130-004	BEARING BOLT	7	47-024838-005	POLYCORD 15MM	22
47-013532-009	PIN SHOVEL ASSEMBLY	7	47-024839-002	REAR DISTRIBUTOR DRIVE PULLEY	20
47-013817-004	STATUS LIGHT BULB	6	47-024905-001	LH SHORT ROLLER ASSY (REAR) ODD LANE	9
47-013871-004	MASTER LINK WITH PIN	30	47-025044-009	BALL CUSHION BOARD WITH FACING - LH	14, 15
47-013872-004	ELEVATOR CHAIN BREAK TOOL	30	47-025045-009	BALL CUSHION BOARD WITH FACING - RH	14, 15
47-013873-004	ELEVATOR CHAIN REPAIR KIT	30	47-025049-004	V-BELT PULLEY 125MM	9
47-013951-003	WEDGE GUIDE	7	47-025051-001	RH SHORT ROLLER ASSY (REAR) EVEN LANE	9
47-013990-002	ELEVATOR GUARD	7	47-025175-003	LH REAR BOARD ASSY, ODD LANE	9
47-013991-001	RH FRONT PIN DEFLECTOR	7	47-025176-003	RH REAR BOARD ASSY, EVEN LANE	9
47-013992-001	LH FRONT PIN DEFLECTOR	7	47-025178-003	BEARING (3-STUD) W/ BUSHING	9
47-014008-003	5/8" CHAIN W/ SHOVEL PINS	7	47-025638-004	SPACER	15
47-014009-004	SPACER	7	47-025639-009	AP - BALL CUSHION FRAME WITH BRACKET	14, 15
47-014017-003	SHOVEL GUIDE	7	47-026102-009	AP IMPACT STRIPS (2/PKG)	5, 14, 15
47-014060-003	EJECTOR	7	47-026370-009	SPACER BUSHING - 21MM (PKG OF 2)	9
47-014687-004	TROUBLE LIGHT ASSEMBLY - CONSOLIDATED	6, 7	47-026371-009	SPACER BUSHING - 13.5MM (PKG OF 2)	9
47-014761-003	CENTERING GUIDES	7	47-030276-004	BALL DOOR ARM TENSION SPRING	27
47-014917-009	PIN COUNT SWITCH - GS 96 AND PRIOR	7	47-031054-002	BALL DOOR (USE FOR RH AND LH)	27
47-014918-003	GS 98/GSX	7	47-031055-003	RH BALL DOOR KEY	27
47-015646-004	TROUBLE LIGHT ASSEMBLY - NEX GEN	6, 7	47-031056-003	LH BALL DOOR KEY	27
47-020908-003	END CAP W/ BEARING (2-STUD)	9	47-031058-001	ARM (USE FOR RH AND LH)	27
47-020942-003	ROLLER	9	47-031796-002	HOLDER	27
47-020943-004	ROLLER BUSHING	9	47-031797-002	LOCKING BOLT	27
47-020947-003	BEARING BLOCK	15	47-031822-004	LEVER	27
47-020948-003	TRANSVERSE BAR	15	47-033555-009	LH BALL DOOR WITH ARM	27
47-020953-004	STOP COLLAR	15	47-033556-009	RH BALL DOOR WITH ARM	27
47-021010-003	IMPACT STRIP	14, 15	47-033557-009	LH LOCKING MECHANISM COMPLETE	27
47-021084-004	PIT CURTAIN	14	47-033558-009	RH LOCKING MECHANISM COMPLETE	27
47-021108-004	SPACER	15	47-034767-004	TENSION SPRING (BALL DOOR)	26
47-021110-004	SPACER	15	47-035240-001	PROTECTOR PLATE, 10 PIN SIDE	26, 27
47-021466-001	BEARING BLOCK	15	47-035241-001	PROTECTOR PLATE, 7 PIN SIDE	26, 27
47-021619-002	PROTECTOR WEDGE - 10 PIN SIDE (R.H.)	26	47-041526-004	R.H. PUSHER ROD	17
47-021620-002	PROTECTOR WEDGE - 7 PIN SIDE (L.H.)	26	47-041721-002	GUTTER ADAPTER	4, 16, 17
47-021872-003	TOP BALL CUSHION BOARD	15	47-041774-004	BRACKET	17
47-022531-000	OEM OVERFLOW SOCK	24, 25	47-041794-009	SWEEP RELEASE ASSEMBLY - TOWER UP	16
47-023660-004	CUSHION CAP	7, 15	47-042056-003	L.H. PUSHER ROD	17
47-023663-004	RUBBER WASHER (GS-92)	9	47-044802-009	SWEEP BOARD W/ FELT (BROWN)	17
47-023669-002	REAR ROLLER ASSY (LONG PIT)	9	47-044927-003	SWEEP BOARD ONLY (GREY) FOR GS-98, GS-X	17
47-023915-004	RUBBER SPACER	9	47-044978-004	FOOT CAP	17
47-023933-004	SHAFT - FRONT	9	47-044979-004	RUBBER BUMPER	17
47-023959-003	FRONT BOARD ASSEMBLY	9	47-045010-002	SWEEP WAGON FRAME	16, 17
47-023981-002	ROLLER ASSY, 3-STUD (FRONT)	9	47-045082-004	SWEEP BOARD DECAL (GS-98)	17
47-023986-001	RH PIN DEFLECTOR	7	47-045373-004	SWEEP BOARD DECAL (GS-X)	17
47-023987-001	LH PIN DEFLECTOR	7	47-045566-009	SWEEP RELEASE ASSEMBLY - TOWER DOWN	16
47-024004-003	V-BELT PULLEY	8	47-050308-004	DAMPER	13
47-024036-002	PIN DEFLECTOR SUPPORT BRACKET	7	47-051565-002	TOOTHED RACK (FRONT)	11
47-024077-003	TRANSVERSE BAR, SHORT PIT	15	47-051616-004	GEAR	11
47-024093-004	THREADED ROD 10MM X 140MM	8, 9	47-051617-004	SPACER BUSHING	11
47-024094-003	HOUSING	9	47-051625-004	SHAFT SUPPORT	11
47-024309-004	SPRING	9	47-051632-004	GEAR	11

PART #	DESCRIPTION	PAGE	PART #	DESCRIPTION	PAGE
47-051633-004	SPACER BUSHING	11	47-071591-004	SPROCKET SHAFT	19
47-051635-001	GEARED RACK	11	47-071602-004	COMPRESSION SPRING	15
47-051674-004	TABLE LATCH	10	47-071615-004	SQUARE SHAFT GEAR	11
47-051682-004	STOP	11	47-071702-003	GEAR ASSEMBLY WITH HUB	18
47-051758-003	DAMPER	11	47-071705-004	PINION SHAFT	18
47-051758-500	AP - GS OVERSIZE SPOTTING TONG DAMPER	10, 11	47-071876-001	FRAME (ADJUSTABLE B-SWITCH)	19
47-051758-600	AP - GS OVERSIZE SPOTTING TONG DAMPER	10, 11	47-071879-003	CAM	19
47-051762-004	CONNECTING LINK	11	47-072307-004	REED SWITCH (RED BOX)	19
47-052020-004	GEAR	11	47-073534-004	"A" SWITCH (RED BOX)	19
47-052021-004	SPACER BUSHING	11	47-075188-001	FRAME (FIXED B-SWITCH)	19
47-052022-004	SPACER RING	11	47-075352-004	PIVOT BEARING	19
47-052124-004	COUNTER WEIGHT	13	47-075356-003	CRANK	19
47-053513-009	TOOTHED RACK (CENTER)	11	47-075357-003	CRANK ARM	19
47-053635-004	MICRO SWITCH - SINGLE, CHERRY	12	47-075473-003	SWITCH SUPPORT	19
47-053812-004	SWITCH PROTECTOR	11	47-075474-009	AP - CHAIN GEAR	4, 18, 19
47-053850-009	PIN HOLDER ASSEMBLY - GS-10 AND GS-92	12	47-075476-004	SHAFT	19
47-054298-001	PIN DETECTOR PLATE W/PIN	13	47-075482-002	GUIDE BEAM	19
47-054689-009	PIN HOLDER W/DAMPERS - GS-10, GS-92, GS-96 - GS-98	12	47-075486-004	CHAIN	19
47-054699-009	PIN HOLDER ASSEMBLY - GS-96 - GS-98	12	47-075488-004	5/8" CHAIN	19
47-054700-004	MICRO SWITCH - DOUBLE	12	47-085348-003	BEARING HOUSING	19
47-054896-002	R.H.TONG	11	47-085349-003	TUBE GUIDE	12, 19
47-054897-003	L.H. SPOTTING TONG PIVOT	11	47-085430-003	L.H. GUIDE SUPPORT BRACKET	19
47-054898-003	R.H. SPOTTING TONG PIVOT	11	47-085436-003	R.H. GUIDE SUPPORT BRACKET	19
47-054899-003	GEAR	11	47-085449-003	SUPPORT ROD	19
47-054900-003	LH LEVER (1, 4, 5, 6)	11	47-090547-004	SPUR GEAR WITH 25MM COLLAR	20, 21
47-054901-003	RH LEVER (2, 3, 7, 8, 9, 10)	11	47-090969-003	PIN STOP	21
47-054902-002	DECK PLATE	11	47-090989-002	DOUBLE PULLEY	21
47-054980-201	PIN HOLDER W/DAMPERS - GS-X/CPO	12, 13	47-091277-002	SLIDER ASSEMBLY - MOUNT ONLY	20, 21
47-054981-002	PIN GRIPPER	13	47-091284-002	SLIDER ASSEMBLY - COMPLETE	20, 21
47-054982-002	GSX SWITCH FINGER	4, 12, 13	47-091890-002	PIN SHIELD (2, 3, 8, 9, 10)	21
47-054983-002	DRIVE	13	47-092206-004	SHAFT	21
47-054984-004	GEAR	13	47-092211-002	PIN SHIELD (1, 6)	21
47-054985-001	SWITCH ACTUATOR	12, 13	47-092300-004	POLYCORD 12MM	21, 22, 23
47-054986-004	GRIP RING	13	47-092300-005	POLYCORD 13MM	21, 22
47-054987-004	SOLENOID SPRING	13	47-092415-003	PULLEY WITH BEARING	21
47-054988-003	SWITCH BUTTON	13	47-092527-000	OVERFLOW CHUTE PIN WIPE FOR METAL CHUTE	24
47-054989-001	SETTING TABLE LEVER	10	47-092529-600	SOCK - HEAVY DUTY (WHITE)	25
47-055001-004	CLIP (MICRO SWITCH)	13	47-093547-004	GEAR	21
47-055002-002	LINK ASSEMBLY	10	47-093587-004	DOWEL PIN 3MM X 15MM	21
47-055003-004	MOUNT PLATE	13	47-093749-004	BRACKET	25
47-055004-004	SOLENOID PLUNGER	13	47-093760-002	PIN SHIELD (7)	21
47-055005-004	TENSION SPRING	13	47-093863-003	ROUND BELT PULLEY	20, 21
47-055006-004	TORSION SPRING	13	47-093874-004	CLAMP	21
47-055008-004	TENSION SPRING	13	47-093876-004	BELT CUTTER	31
47-055117-009	SPOTTING TONG (1, 4, 5, 6)	11	47-093877-004	BELT WELD KIT - 220 VOLT	31
47-055118-009	SPOTTING TONG (2, 3, 7, 8, 9, 10)	11	47-093900-003	REAR DISTRIBUTOR GEAR	20
47-055148-002	L.H. TONG	11	47-093906-001	R.H. PIN GUIDE WEDGE	23
47-055166-009	SETTING TABLE COMPLETE, GS-10/GS-98	11	47-093925-004	SPACER	23
47-055177-001	SETTING TABLE ASSEMBLY, GSX	11	47-093929-001	L.H. PIN GUIDE WEDGE	23
47-055314-009	PIN HOLDER ASSEMBLY - GS-X/CPO	12, 13	47-094206-004	BELT WELD KIT - 110 VOLT	31
47-055323-004	MICRO SWITCH - GSX	12, 13	47-094208-004	BELT WELDING IRON ONLY - 220 VOLT	31
47-055328-003	CONNECTOR CLIP	13	47-094211-004	IRON ONLY 110 VOLT	31
47-055785-004	MOUNT PLATE - STEEL	13	47-094346-003	BEARING SHELL WITH SHOULDER	21
47-070386-004	COUNTER WEIGHT	19	47-094347-003	BEARING SHELL	21
47-071449-609	GS METAL PINION GEAR	18	47-094349-001	FRONT SHAFT ASSEMBLY	21

PART #	DESCRIPTION	PAGE	PART #	DESCRIPTION	PAGE
47-094351-003	WASHER	21	47-245420-004	SETTING TABLE CABLE ASSEMBLY (NEX GEN)	4, 10
47-094353-004	PVC SPACER	21	47-273865-009	METRIC TOOL KIT	30
47-094712-003	BRACKET	21	47-274332-002	BEARING BLOCK REPAIR KIT	9
47-094778-001	UNIVERSAL HOUSING	20	47-274669-004	TWO-PIECE SPUR GEAR - REAR	20
47-094782-003	UNIVERSAL RELEASE LEVER - BUTTON ONLY	20	47-274888-009	BALL DOOR FLAP KIT	14, 15
47-094789-003	RETURNING PINS	20	47-275620-009	SETTING TABLE REPAIR KIT	10, 11
47-094790-009	SQUARE SPINDLE	20	47-275730-009	DISTRIBUTOR REPAIR KIT	21
47-094792-009	UNIVERSAL PIN STATION	5, 20	47-275731-009	AP - OVERFLOW CHUTE UPGRADE KIT	24
47-094793-009	UNIVERSAL PIN STATION	5, 20	47-275746-009	TWO PIECE SPUR GEAR - FRONT	20, 21
47-094794-009	UNIVERSAL PIN STATION	5, 20	47-275748-009	2-PIECE PULLEY REPAIR KIT	20, 21
47-095050-003	PLASTIC BEARING	21	47-275804-009	POLYCORD I2MM	22
47-095103-001	SMART SHARK GUIDE - LH	22, 23	47-275812-009	AP - OVERFLOW SOCK PIN CLEANER KIT	24
47-095104-001	SMART SHARK GUIDE - RH	22, 23	47-275850-009	SETTING TABLE REPAIR KIT	10
47-095105-003	SLIDE	23	47-276153-009	SIDE FRAME REPAIR KIT	8, 9
47-095106-001	GSX SHARK FIN	22, 23	47-860001-000	BELT WELDING INSTALLATION TOOL	31
47-095107-003	HOUSING	23	47-860002-000	METRIC HARDWARE KIT	30
47-095108-001	SHARK SWITCH ASSEMBLY	23	47-860003-000	AP - PIN WIPE	24, 25
47-095109-004	SPACER - LONG	23	47-860005-000	PIVOT PIN - PKG OF 10	13
47-095111-004	SOLENOID PLUNGER	23	47-860009-000	POLYCORD ROUND BELT TRIM TOOL	30
47-095112-004	SPACER - SHORT	23	47-860009-001	REPLACEMENT BLADES - PKG OF 2	30
47-095154-009	UNIVERSAL RELEASE LEVER - COMPLETE	20	47-860011-000	GSX TABLE SAFETY SUPPORT	12
47-095609-002	SLIDER ASSEMBLY - SLIDER ONLY	20, 21	47-860012-000	GSX PIN CLEANER KIT MOP COVERS	5, 24
47-095726-004	MOUNTING PLATE	25	47-860013-000	O-RING - PKG OF 4	9
47-095727-004	PRESSURE PLATE	25	47-860015-000	MICRO SWITCH - SERIES 478 AND BELOW	12
47-095728-004	ANGLE BRACKET	25	47-860016-000	PKG-ARM, PIN COUNT SWITCH (6)	7
47-095729-004	MOUNTING BRACKET	25	47-860021-000	GS PINSETTER TOUCH-UP PAINT	30
47-095737-001	R.H. OVERFLOW CHUTES	24, 25	47-861001-001	R.O. HEX HEAD CAP SCREW 5MM X 25MM	25
47-095738-001	L.H. OVERFLOW CHUTE	24, 25	47-861008-001	TRUSS HEAD SCREW 6MM X 16MM	11
47-095739-009	OVERFLOW CHUTE ASSEMBLY WITHOUT SOCK - LH	24, 25	47-861010-001	FLAT WASHER 13MM - PKG OF 20	15, 17, 19
47-095740-009	OVERFLOW CHUTE ASSEMBLY WITHOUT SOCK - RH	24, 25	47-861011-001	FLAT WASHER 17MM - PKG OF 10	9, 17
47-095744-004	ROUND BELT GEARED PULLEY	22, 23	47-861018-001	SLOTTED PAN HEAD SCREW 8MM X 60MM	9
47-096295-004	OEM REPLACEMENT TIP FOR 110 AND 220 VOLT	31	47-861028-001	SHIM WASHER 25MM X 36MM X 1MM	21
47-142594-000	SWITCH GUARD	29	47-861029-001	FLAT WASHER 16MM - PKG OF 10	17
47-142657-000	LH HARNESS DECK POWER MOTOR ASSMBLY	29	47-861031-001	FLAT WASHER 18MM - PKG OF 10	19
47-142657-010	RH HARNESS DECK POWER MOTOR ASSMBLY	29	47-861040-001	WASHER 6.1MM - PKG OF 10	13
47-142659-000	HARNESS TRANSFORMER ASSEMBLY	28, 29	47-861042-001	RUBBER WASHER (GS-96 & ABOVE) 10/PKG	9
47-142660-000	BLACK POWER SWITCH/CABLE	29	47-861043-000	PLASTIC RETAINING BOW BUSHING	20
47-142661-000	LH HARNESS SWEEP MOTOR POWER ASSEMBLY	29	47-861044-000	RETAINING RING	20
47-142661-010	RH HARNESS SWEEP MOTOR POWER ASSEMBLY	29	47-861045-000	STEEL SHAFT	20
47-142663-000	AC POWER IN CABLE ASSEMBLY	29	47-861046-000	AP - CONSOLIDATED REAR DISPLAY PACKAGE	6, 7, 28
47-142664-000	LH PIN LIGHT POWER CABLE	29	47-861047-000	AP - STATUS LIGHT BULB - 24 VOLT LED	4, 7
47-142664-010	RH PIN LIGHT POWER CABLE	29	47-861048-401	AP - NEX GEN REAR DISPLAY PACKAGE	5, 6, 28
47-142692-000	TRANSFORMER/HARNESS - DOUBLE	28, 29	47-861048-402	AP - NEX GEN REAR DISPLAY PKG	7
47-142693-000	TRANSFORMER TO CPU CABLE	29	47-861049-009	O-RING - PKG OF 5	14, 16, 18
47-142700-000	CPU TO HIGH VOLTAGE LOGIC CABLE ASSEMBLY 14"	29	47-861050-000	SPEED NUT 8MM (10/PKG)	11
47-142712-000	EMERGENCY STOP CONTACTOR	28	47-862100-000	LCD NEX GEN PACKAGE	28
47-142736-403	CPU PCB NEX GEN CONTROLLER	29	47-862108-000	CUSHION ADJUSTMENT HARDWARE KIT	14, 15
47-223170-000	12 VOLT BULB	6, 7	47-862507-000	PIN FEED EXTENDER KIT	4, 6, 7
47-225722-004	DUAL PIN LIGHT FIXTURE	111	47-862508-000	DRILL FIXTURE	6, 7
47-225723-004	PIN LIGHT FIXTURE - STANDARD	111	47-862770-000	BELT WELDING CLAMP	31
47-226294-004	BALLAST FOR 230 VOLT PINLIGHT	31, 111	47-862787-000	PROTECTIVE COVER	26
47-243027-004	SWITCH - COMPLETE	11	47-862804-000	GS ELECTRICAL TOOL KIT	31
47-243028-004	OOR SWITCH TOWER DOWN	19	47-862854-000	3.15 AMP FUSE	29
47-243029-004	MAGNETIC "B", "C", "D" SWITCH	19	47-862855-000	8 AMP - CERAMIC FUSE	29
47-245164-001	SETTING TABLE HARNESS	11	47-862856-000	.5 AMP - SLOW BLOW FUSE	29

PART #	DESCRIPTION	PAGE	PART #	DESCRIPTION	PAGE
47-862857-000	KEYBOARD MEMBRANE	29	53-520663-001	LOWER PULLEY ASSEMBLY	105
47-862859-000	HIGH VOLTAGE PCB NEX GEN CONTROLLER	29	53-520686-000	RUBBER POWER LIFT TRACK	103
47-862863-000	I/O PCB ASSEMBLY	29	53-520696-001	BALL LIFT WELDMENT ASSEMBLY (METRIC)	105
47-862866-403	NEX GEN CONTROLLER ASSEMBLY	29	53-520723-000	BALL LIFT HOOD RETAINER CLIPS (2/PKG)	107
47-862867-000	EMERGENCY STOP UPGRADE KIT	28	53-529999-000	1/3 HP, 1150/950 RPM POWER LIFT MOTOR	104
47-862877-402	NEX GEN FIRMWARE (4.95.26)	5, 6, 28	53-600176-000	REFLECTOR ONLY	110
47-862931-000	RETAINING BOW EXTENDER SLEEVE	20	53-600181-003	SENSOR ASSEMBLY	110
47-862932-000	ACCELERATOR NON-SLIP PLATE	26, 27	53-600181-005	TEL-E-FOUL PCB	110
47-900011-000	SPUD WRENCH	30	53-860322-010	B/L MOTOR	104
47-900012-000	GAUGE BLOCK	30	53-860395-000	FRAMEWORX SEAT 45° SWIVEL	108, 109
47-902401-000	GS PREVENTATIVE MAINTENANCE WALL CHART	31	53-860431-000	BRUNSWICK'S HANDY CONVERSION KIT	102
47-902712-000	GS SERIES PINSETTER SERVICE PARTS CATALOG	113	53-860458-000	FX BALL RACK SAFETY REPLACEMENT SWITCH	106
47-902727-000	GS SERIES PINSETTER SERVICE PARTS INVENTORY	113	53-860555-000	POWER LIFT CLUTCH	104
47-902735-000	GS SERIES PINSETTER TRAINING PROGRAM	113	53-860628-115	TRANSFORMER - 115 VOLT	110
47-902741-000	HARDWARE CATALOG FOR GS-92 PINSETTERS	113	53-860629-230	TRANSFORMER - 230 VOLT	110
53-100415-010	HAND DRYER HOSE - 2000 TWIN LINE	107	53-860648-000	BRUNSWICK SIDE PLATE LOGO PACKAGE	107
53-400009-227	THROAT INSERT-DARK GRAY W/SILVER LOGO	107	53-860937-000	BALL RETURN HOOD ASSEMBLY - LIGHT GRAY	107
53-400009-228	THROAT INSERT-BLACK W/SILVER LOGO	107	53-860959-000	FX CONTOUR SEAT PKG. (LIGHT GRAY)	108, 109
53-400009-229	THROAT INSERT-GRAPHITE W/SILVER LOGO	107	53-860959-004	FX CONTOUR SEAT PKG. (GRAPHITE)	108, 109
53-400009-XXX	THROAT INSERT	106	53-860960-XXX	COLOR SEAT KIT	109
53-400027-002	THROAT INSERT-BLACK W/BLACK LOGO	107	53-860960-XXX	FRAMEWORX SEAT	108
53-400041-000	HAND DRYER HOSE - FRAMEWORX	107	53-861005-101	FRAMEWORX TOUCH-UP PAINT	108
53-400043-XXX	VENT DECAL	106, 107	53-861010-XXX	PLASTIC FASTENER (PKG. OF 10)	109
53-400044-000	HOOD LIP TRIM	107	53-861026-227	BALL RAIL EXTRUSION - BLACK	106
53-400048-229	SIDE LOGO ASSY - GRAPHITE - NON GLOW	107	53-861026-229	BALL RAIL EXTRUSION - GRAPHITE	106
53-400048-XXX	HOOD LOGO ASSEMBLY	107	53-861026-XXX	BALL RAIL EXTRUSION PACKAGE	106, 107
53-400057-XXX	WEAR STRIP	106, 107	53-861026-XXX	BALL RAIL EXTRUSION	106
53-400097-000	L.H. EXIT TRACK ONLY (LIGHT GRAY)	107	53-861034-002	BALL RETURN HOOD ASSEMBLY - SILVER	107
53-400097-003	L.H. EXIT TRACK ONLY (GRAPHITE)	107	53-861034-205	BALL RETURN HOOD ASSEMBLY - BLACK	107
53-400097-205	L.H. EXIT TRACK ONLY (BLACK)	107	53-861066-000	SEAT BACK CAP (DARK GRAY)	109
53-400099-000	R.H. EXIT TRACK ONLY (LIGHT GRAY)	107	53-861076-000	TEL-E-FOUL SYSTEM	110
53-400099-003	R.H. EXIT TRACK ONLY (GRAPHITE)	107	53-861090-XXX	BALL RETURN COLOR KIT	106
53-400099-205	R.H. EXIT TRACK ONLY (BLACK)	107	53-861122-002	BALL RETURN COLOR KIT - GRAPHITE	106
53-400103-XXX	FRONT DECAL	109	53-861122-205	BALL RETURN COLOR KIT - BLACK	106
53-400111-XXX	REAR DECAL	109	53-861126-000	FX BALL HOOD THROAT PACKAGE - DARK GRAY	106, 107
53-400165-000	ADAPTER PLATE (DARK GRAY)	109	53-861126-003	FX BALL HOOD THROAT PACKAGE - GRAPHITE	106, 107
53-400165-100	ADAPTER PLATE (SILVER)	109	53-861126-205	FX BALL HOOD THROAT PACKAGE - BLACK	106, 107
53-400270-000	BALL RETURN END CAP - TOP (LIGHT GREY)	107	53-861127-000	FX BALL RACK RESET SWITCH - DARK GRAY	35, 106, 107
53-400270-003	BALL RETURN END CAP - TOP (GRAPHITE)	107	53-861127-100	FX BALL RACK RESET SWITCH - SILVER	35, 106, 107
53-400270-205	BALL RETURN END CAP - TOP (BLACK)	107	53-861133-606	FX BALL RETURN STORAGE RACK	106
53-400271-000	END CAP - LOWER (LIGHT GRAY)	107	53-861133-608	FX BALL RETURN STORAGE RACK	106
53-400271-003	END CAP - LOWER (GRAPHITE)	107	53-861147-606	FX BALL RETURN STORAGE RACK	106
53-400271-205	END CAP - LOWER (BLACK)	107	53-861147-608	FX BALL RETURN STORAGE RACK	106
53-400278-000	VENT - BALL RACK (DARK GRAY)	107	53-861149-000	FX BALL RACK SAFETY SWITCH - COMPLETE	106
53-400278-003	VENT - BALL RACK (GRAPHITE)	107	54-100260-000	DRINK HOLDERS	108
53-400278-205	VENT - BALL RACK (BLACK)	107	54-860511-001	STRIKING LINE WOOD SEAT - DARK CHERRY - STYLE A	108
53-520026-000	POWER LIFT IDLER PULLEY ASSEMBLY	105	54-860511-002	STRIKING LINE WOOD SEAT - NATURAL - STYLE A	108
53-520060-000	BALL LIFT WHEEL ASSEMBLY	102, 106	54-860512-001	STRIKING LINE WOOD SEAT - DARK CHERRY - STYLE B	108
53-520066-000	POWER LIFT DRIVE SHAFT	104	54-860512-002	STRIKING LINE WOOD SEAT - NATURAL - STYLE B	108
53-520073-000	BALL TRANSITION ASSEMBLY	105	54-860513-001	STRIKING LINE WOOD SEAT - DARK CHERRY - STYLE C	108
53-520171-000	RUBBER POWER LIFT TRACK	103	54-860513-002	STRIKING LINE WOOD SEAT - NATURAL - STYLE C	108
53-520172-000	LEATHER POWER LIFT TRACK	103	54-861080-000	STRIKING LINE CHAIR GLIDES	108
53-520235-000	POLY V-BELT	102	57-860109-000	RESET BUTTON KIT	110
53-520235-600	AP - HIGH FRICTION POLY V-POWER LIFT BELT	102	57-860258-000	LIGHT BULB	111
53-520244-000	POWER LIFT IDLER PULLEY ASSEMBLY	105	57-860295-000	MULTIMETER	112

PART #	DESCRIPTION	PAGE	PART #	DESCRIPTION	PAGE
57-860507-000	REFLECTOR ASSEMBLY	93, 110	90-520075-600	AP - URETHANE TRANSITION TRACKS	105
57-860607-002	TACTILE SWITCH KEYBOARD - BLACK KEYS	110	90-520171-000	SANTOPRENE BALL LIFT TRACK	103
57-860608-002	TACTILE SWITCH KEYBOARD - WHITE KEYS	110	90-520171-600	AP - URETHANE FOAM BALL LIFT TRACK	103
57-860935-227	ACCENT DECALS - OVERHEADS	108	90-520172-600	AP - FRAMEWORX BALL LIFT TRACK	103
57-861237-000	DUAL OUTPUT BALL DETECTOR	93, 110	90-675000-000	BLACK RUBBER PIT MOUNT	68, 69
57-863397-400	FRAMEWORX CONSOLE FLASH DRIVE KIT	35, 110	90-750069-000	URETHANE (NO-BOUNCE) MALLETT	112
57-863670-000	BALL DETECT - SINGLE	110	99-010103-004	PLASTIC BEARING	17
57-900102-000	MOLEX ROUND EXTRACTOR	31	99-010108-004	BEARING	15
57-900103-000	MOLEX CRIMPER	31	99-010123-004	ACCELERATOR MOTOR MOUNT BUSHING	26
57-900108-000	MILLER CUTTER/STRIPPER	31	99-026121-000	BALL CUSHION HYDRAULIC SHOCK ASSEMBLY	14, 15
57-900300-000	SCORING SYSTEM SERVICE MANUAL	113	99-030363-004	ACCELERATOR MOTOR-208/230/380	26
57-900306-000	AUTOMATIC SCORER SERVICE PARTS CATALOG	113	99-040249-004	SWEEP ROLLER ASSEMBLY	16, 17
57-900360-000	FRAMEWORX SCORER SERVICE PARTS CATALOG	113	99-040295-004	ACCELERATOR MOTOR	26
57-900384-000	FRAMEWORX SCORING GUIDE	113	99-046122-000	SWEEP SHOCK ABSORBER	16
57-900608-000	CLASSIC SERVICE PARTS CATALOG	113	99-060219-004	SOLENOID ASSEMBLY	27
57-900620-000	VECTOR SCORER SERVICE PARTS CATALOG	113	99-060242-004	PINHOLDER SOLENOID	12
61-860200-100	GEAR BOX CLUTCH REPAIR KIT DVD	99, 113	99-060351-004	PINHOLDER SOLENOID	12, 13
61-860201-100	ELECTRICAL SYSTEM OVERVIEW DVD	113	99-060387-004	SOLENOID CONSOLIDATED/NEX GEN	22, 23
61-860202-100	MOTOR CONTACT REPLACEMENT DVD	113	99-070356-004	BALL DOOR SOLENOID	26
61-860227-100	BASIC PINSETTER OPERATION DVD	113	99-076120-000	STROKE LIMITER SHOCK ABSORBER	18
61-860246-000	DROP SWEEP BALL WIPER	88	99-076123-000	STROKE LIMITER SHOCK ABSORBER	18
61-900015-000	LANE DUSTER OPERATION AND SERVICE MANUAL	113	99-076362-000	1/2 H.P. 208 VAC	18
61-900020-000	COMPUTER LANE MONITOR MANUAL	113	99-076363-000	DISTRIBUTOR MOTOR	18
62-860029-000	DECK CHUTE CONDITIONER	96	99-076364-000	TABLE MOTOR	18
62-860062-000	AUTOMATIC PINSETTER GREY PAINT	97	99-076365-000	TABLE MOTOR	18
62-860083-005	AUTOMATIC PINSETTER CLEANER	97	99-076366-000	SWEEP MOTOR	18
84-860602-000	TEL-E-FOUL DIVISION COVER	110	99-076367-000	SWEEP MOTOR	18
84-860769-000	TEL-E-FOUL RETURN COVER WITH LENSES	110	99-090348-004	SPRING	23
84-860770-000	TEL-E-FOUL LENS SET RH AND LH	110	99-090349-004	O-RING FOR PLUNGER	13, 23
84-860902-000	"DO NOT CROSS FOUL LINE" SAFETY DECAL	111	G34-205116-000	CHAIN LUBE	31
90-150182-000	PIN GUIDE WIRE PAD AND CUSHION	54, 55			
90-150303-000	STOP ROLLER AND BUSHING ASSEMBLY	56, 57			
90-200114-000	AP - DECK ROLLER AND BEARING ASSEMBLY	61, 65			
90-200114-600	AP - TOP-NOTCH DECK BUMPER	60, 61			
90-200120-000	CROSS BIASED GRIPPER PAD	60			
90-200892-000	NYLON SPOTTING FINGER - RH	62			
90-200893-000	NYLON SPOTTING FINGER - LH	62			
90-252037-000	AP - MOLDED SWEEP ARM ASSEMBLY	73, 75			
90-300076-000	FRONT PIT MOUNT - URETHANE	69			
90-300077-000	REAR PIT MOUNT - URETHANE	69			
90-400048-000	HEAVY-DUTY ROD COVER (RED)	76, 77			
90-400048-005	18" BALL ROD COVER	76			
90-400048-600	AP - BALL LIFT ROD COVER	76, 77			
90-400123-000	SPRING ROD BUMPER - URETHANE	77, 84			
90-400258-000	BALL WHEEL GUIDE ROLLER	80, 81			
90-400260-000	BALL WHEEL GUIDE ROLLER	80, 81			
90-400261-000	PIN WHEEL GUIDE ROLLER	82, 83			
90-400264-000	PIN WHEEL GUIDE ROLLER	82, 83			
90-400272-000	ONE-PIECE UPPER BALL WHEEL GUIDE ROLLER	80, 81			
90-400803-000	AP - DELRIN SPRING BUSHING	77, 84			
90-400840-600	UNIVERSAL BALL WHEEL GUARD	35, 78			
90-402108-000	WHEEL GUIDE ROLLER	80			
90-502153-000	NYLON Y-SWITCH	89			
90-520060-000	URETHANE BALL LIFT V-TIRE	88, 102			
90-520060-600	URETHANE FOAM BALL LIFT TIRE	102, 106			

SAFETY PROCEDURES

Safety Tips & General Safety Regulations

Following basic safety procedures can help avoid injury. As with all machinery, there is an element of risk working on the pinsetter if the rules of safety are disregarded. Common sense, a knowledge of pinsetters and a knowledge of basic safety procedures will prevent injury to personnel working on the machines.



Wear the proper clothing when working on the pinsetter. Don't wear neckties or loose clothing that may get caught in the machine. Wear pants without cuffs to prevent tripping. Wear shoes with safety, non-slip soles.



Use the right tool for each job to prevent injury to yourself and to the machine. Remove all tools from the pinsetter before turning it on.



Avoid the use of cleaners that are toxic.



To prevent slipping, immediately wipe up any oil or liquids that have spilled.



Store oily rags and any other combustibles in a fireproof container.

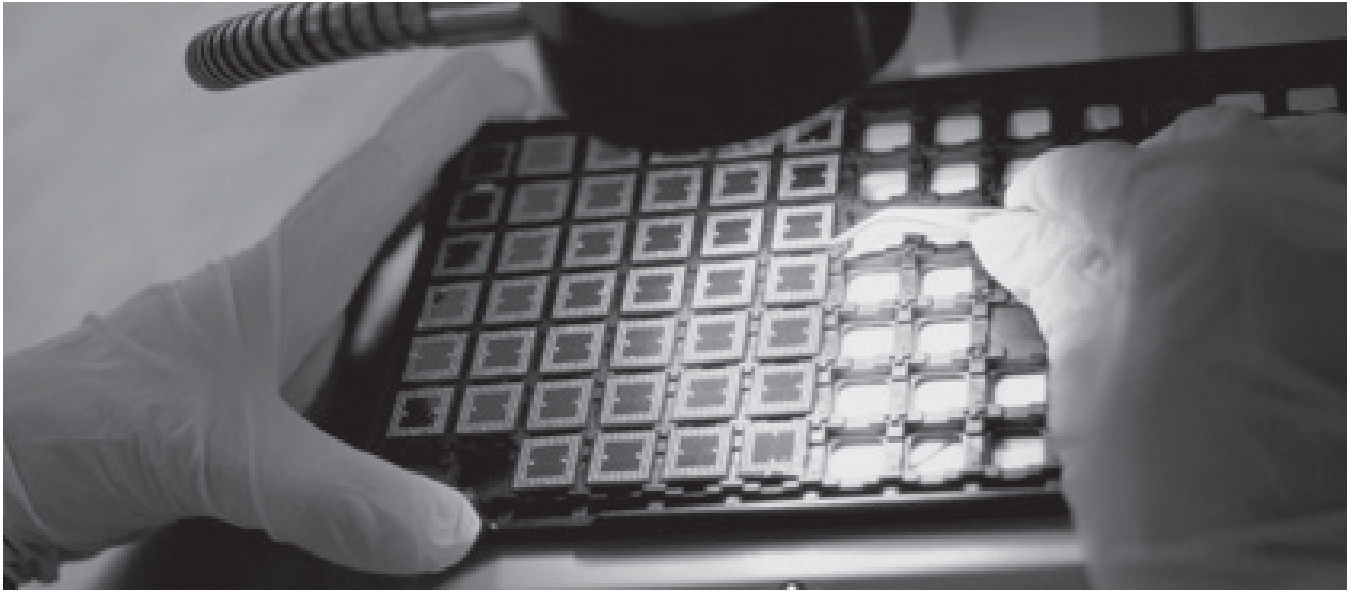


When the safety guards are removed from the pinsetter, be extra cautious while the pinsetter is turned on. Replace the guards immediately when the work is complete.

Pinsetter Safety Regulations

- The head mechanic must teach all personnel who will work on the pinsetter enough about the machine to prevent accidents through ignorance.
- Always open the pinsetter circuit breaker or disconnect the pinsetter power plug from the electrical box before working on the machine.
- When the pinsetter shuts itself off electrically, be sure to open the circuit breaker and disconnect the pinsetter power plug from the electrical box before looking for, and clearing, the cause of the jam.
- Always reach over or around the machine assemblies, never through or between the shafts, arms and levers.
- Use the appropriate rods to securely lock the rake compression spring guide tube before maintaining the rake or deck.
- The desk person must never turn on a machine from the manager's control desk without first making sure that no one is working on the machine.
- Position the rake in its down position when working on the front of the machine to prevent being hit by a bowling ball.
- When more than one person is working on the machines, never turn on a machine without checking to see if everyone is clear of the machine.
- Under no circumstances allow an unqualified person to work on the pinsetter.

Partial schematics are listed in each section. For full pinsetter and bowling schematics, visit our website at www.brunswickbowling.com/service-support/tech-support



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