TraxMaxx Gas/ Petrol Rail Drill

910195

Operating and Maintenance Manual



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Record of Changes

Rev No.	Date	Description of Changes
Rev 1	1.2019	Initial Release
Rev 1.1	5.2022	Add Rail Shoe Installation and Rail Shoe and Cutter Parts List
Rev 1.2	7.2022	Update Arbor Spindle Assembly and Parts List (pg. 19)
Rev 2	10.2022	Added Service Parts List
Rev 2.1	1.2023	Update Format and Layout
Rev 2.2	3.2023	Update Footer and Contact Information Update Parts and Service page with contact information
Rev 2.3	10.2023	Update Technical Support & Service information
Rev 2.4	12.2023	Update Service Parts List
Rev 2.5	2.2025	Update Service Parts List
Rev 2.6	11.2026	Add Converting the Drill Arbor Non-Locking Cutters section

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Section 1: Overview and Safety

TraxMaxx Gas/ Petrol Rail Drill Overview

RRP designs and manufactures equipment primarily for the repair and new construction of rail and railroad tie track maintenance.

The RRP TraxMaxx Gas/ Petrol Rail Drill is a quality product with unique features that make this the perfect solution for your entire rail drilling requirements.

- Easy to use and rugged design makes Rail Drill a cost-effective solution to drilling clean, accurately positioned holes in rail sections for bonds, and fishplates.
- Available in 1” to 1-1/2” diameters (in 16th inch intervals).

Do not use this machine for other than its intended purpose.

Please read these instructions when using this tool, which can only be used for the specified purpose. Failure to do so could result in personal injury or equipment damage. This instruction manual should be kept throughout the life of the tool.

Note: Information in this document is subject to change without notice.

The operator of this tool should:

- Have access to this operation instruction.
- Read and understand this operation instruction.

Environmental Protection



Comply with relevant national waste disposal laws and regulations. Waste electronic devices cannot be treated as household waste.

Equipment, accessories, and packaging shall be recyclable.



Do not throw the discarded equipment in trash cans.

Safety Information

For safe installation and operation of this equipment, carefully read and understand the contents of this manual. Improper operation, handling, or maintenance can result in equipment damage and personal injury.

Only trained and authorized personnel should be allowed to operate this machine. In addition, all personnel at the worksite should be aware of the safety concerns and their individual responsibilities prior to working with this machine.

Please read and comply with all the safety precautions in this manual ***before*** operating this machine. Your safety is at risk.

Safety Terms

⚠ DANGER **DANGER indicates a hazardous operating procedure, practice, or condition. If the hazardous situation is not avoided death or serious injury will occur.**

⚠ WARNING **WARNING indicates a hazardous operating procedure, practice, or condition. If the hazardous situation is not avoided death or serious injury could occur.**

⚠ CAUTION **CAUTION indicates a potentially hazardous operating procedure, practice, or condition. If the hazardous situation is not moderate or minor injury could occur.**

Machine Use and Safety Precautions

⚠ WARNING **Failure to follow safety precautions when operating this equipment can result in serious injury or death to the operator or other persons in the area.**

Observe the following precautions whenever you are operating, working on or near this equipment.

Do not make any modifications without authorization or written approval from Racine Railroad Products. Replace all Racine Railroad Products and OEM parts with genuine Racine Railroad Products and OEM parts. Using non-OEM parts may compromise the safety of the machine.

Do not wear loose clothing, jewelry, radio belts, etc., when operating, working on or near this equipment. They can be caught in moving parts and may result in severe injury.

Always wear appropriate personal protective clothing when operating this equipment: e.g., Orange safety vest, hard hat, safety glasses with side shields, hearing protection, steel-toed safety boots, leather gloves, dust respirator, etc.

Always lift heavy objects with the knees and legs, not the arms and back.

Always keep hands, arms, feet, head, clothing, etc., out of the operating area and away from all rotating or moving components when operating, working on or near this machine.

Always make sure that all guards, covers, belts, hoses, and operating components are in good working order and that all controls are in the appropriate position before starting the engine.

Always make sure that all safety equipment installed properly and are in good working order. Do not operate the machine until unsafe conditions have been corrected.

Always operate in a well-ventilated area and make sure that the air filters, air filter covers, and muffler are in good condition.

Always keep the machine clean and free of debris. Operate the machine in a safe and responsible manner. Exercise caution when fueling, working on or near rotating or moving components, hot components, and fuel systems. Be aware of potential fire hazards and prevent sparks, exhaust, etc., from starting fires on the machine and/or work area.

Always comply with all instructions provided on any decals or placards installed on the machine and with any relevant amplifying information provided in this manual or other general operating procedures.

Always disconnect the power source and make sure that all controls are in a safe position and install all appropriate locking and safety devices before doing any of the following:

- Lubricating
- Adjusting
- Installing Tooling
- Making Repairs
- Performing Service

Section 2: Specifications and Installation

Specifications

Net weight ..... 46.30 lbs [21 kg]

Oil type ..... SAE 10W-30

Spark plug type ..... NGK C5HSB / Gap: .024” - .028” [0.6 - 0.7]

Maximum hole cutting capacity ..... 1/4" [6 mm] diameter

Arbor bore ..... 3/4" [19.05 mm] diameter

Valve clearance ..... Inlet 0.06 - 0.1 mm / Exhaust 0.09 - 0.31 mm

Engine ..... Honda GXV57 / 57.3 cm³ displacement
On load torque 3.2 Nm @ 4000 rpm Fuel tank capacity .3 quarts [0.3 liters]

Engine Speed

- No load (engine) ..... 4800 rpm
- No load (arbor/spindle) ..... 320 rpm
- Normal full load (arbor/spindle) ..... 300 rpm
- Idle speed ..... 2500 - 2700 rpm

Compression Ratio 15:1

Overall dimensions over clamp

- Length ..... 25.24 in. [540 mm]
- Width ..... 16.5 in. [420 mm]
- Height ..... 16.5 in. [420 mm]

Maximum hand/arm vibration magnitude (measured at handle during operation in accordance with ISO5349).	3.8 m/s²
Estimate of daily vibration exposure. Operation on 2 rails (24 holes @ 1 minute/hole).	0.85 m/s² A (8)
Average noise level during cutting at operator’s ear position.	81 dB (A)

Included Parts

- 3/16 Long Hex key
- 4 mm T-handle hex key
- 8 mm Hex key
- Coolant Feed Dispenser

Installation Instructions

Unpacking Instructions

Upon receiving your TraxMaxx Rail Drill promptly remove it from the shipping container. Always keep the top side of container up. Inspect unit for damage which may have incurred during shipping and report it to carrier for claim.

Tool Preparations

The TraxMaxx Rail Drill is ready for use after unpacking and no special preparation is required.

WARNING **Never stick foreign objects, fingers, or other extremities into the moving mechanism. Failure to follow these instructions may lead to severe personal injury or tool damage.**

Section 3: Tool Operation

Personal Protective Equipment



Before operating this machine, make sure that all general safety precautions are observed, and that proper personal protective clothing is worn as described below.

At a minimum, operators should wear the following Personal Protective Equipment:

1. Safety Glasses
2. Hearing Protection
3. Hard Hat
4. High Visibility Safety Vest
5. Leather Work Gloves
6. Steel Toed Safety Shoes

Pre-Operation

⚠CAUTION **Do not use a live conductor rail.**

Eye and ear protection must be worn within 3 feet [1 meter] when the motor is running.

- Make sure the motor is switched OFF when changing cutters, working on the machine, or removing swarf. Failure to do so may result in personal injury.
- Always ensure the cutter is securely fastened.
- Should the cutter become stuck in the work piece, switch OFF the motor immediately to prevent personal injury. Do not attempt to free the cutter by starting and stopping the motor. Failure to do so may result in personal injury.
- If the machine is dropped, always thoroughly examine the machine for signs of damage and check that it functions correctly before trying to cut a hole.
- Regularly inspect the machine and check that nuts and screws are tight.
- Never leave the machine lying on its side. The motor sump oil may be lost at an inclination greater than 20˚ from the vertical. If this may have happened, check the sump oil level before starting the engine.
- On completion of the cut, a slug will be ejected. DO NOT operate the machine if the ejected slug is not visible. Injury may occur.
- Remove adjusting keys and wrenches. Form the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.
- Secure the work where possible with clamps or vices to hold the work.

Coolant

Coolant is injected into the system through a pressurized coolant bottle.

1. Connect the coolant bottle to the machine through the connector.
2. Pressurize the bottle by pumping the coolant bottle's pump several times.
3. Regulate the flow. Turning the stop tap a quarter turn is usually sufficient.

Fueling

WARNING **Fuel is an extremely flammable fuel. Use extreme caution when handling fuel mix. Do not smoke or bring any fire or flame near the fuel. Ensure the fuel mix does not spill on to hot engine.**

- Fuel your machine in an outdoor, well ventilated area.
- Avoid direct contact with the skin and avoid inhaling fuel vapor
- Always shut off the engine and allow it to cool before refueling.
- Before fueling, clean the filler cap and the area around it to make sure that dirt does not fall into the tank.
- Vapor pressure may build up inside the fuel tank. To reduce the risk of burns or other personal injury from escaping fuel vapor and fumes, remove the fuel cap carefully to allow any pressure to build up in the tank to release slowly. Never remove the fuel filler cap while the engine is running.

Fuel

- Use unleaded fuel with a minimum octane number of 90 ROZ (USA) / Canada: pump octane min. 87.
- Inferior quality fuel may damage the engine, sealing rings, fuel lines or fuel tank.

Starting the Motor

1. Check that the sump oil level is the correct level.
2. Check that the machine is clamped firmly in position on the rail.
3. Make sure the ON/OFF switch is set to OFF.



4. Loosen the feul tank vent screw.

- If the motor is cold, position cold start indicator to 1-o-1.

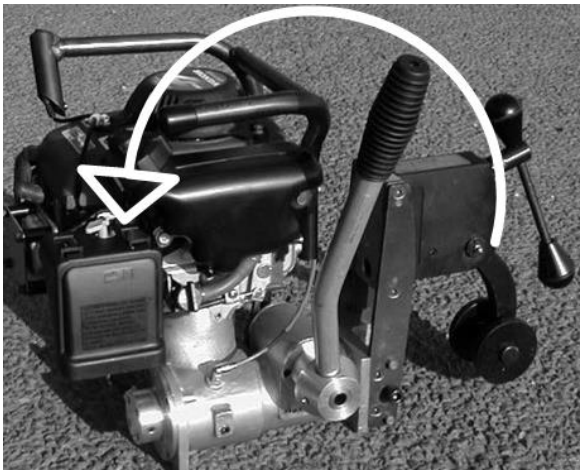




5. Rotate the fuel cut off valve to the horizontal position.



6. Position the cutter feed handle to the forward position.
7. Repeatedly pull the engine start cord with a quick, progressive movement until the engine starts, then release the cord handle.
    - When the engine has reached its operating temperature, the cold start lever can be moved from the cold start position.
    - Moving the cutter feed handle counter-clockwise will increase the engine speed and feed the cutter into the rail.



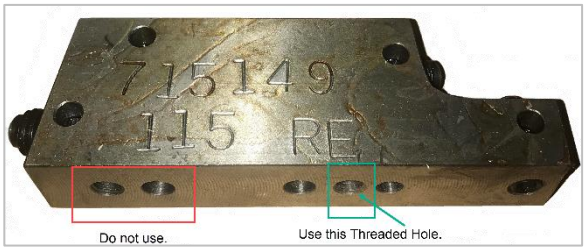
Drill Operation

1. Select the appropriate cutter.
   - Insert the cutter's shank into the appropriate pilot.
   - Place the assembly, correctly aligning the drive flats, into the arbor bore.
   - Securely fasten the socket screws with the hexagon key.
2. Keep the inside of the cutter clear of swarf. It restricts the operating depth of the cutter.
3. Pressurize the coolant dispenser. Pump the handle until the relief valve extends and pump the handle 5 to 10 more times.
   - When the pressurized cutting fluid dispenser is connected to the coolant feed tube, the coolant is metered out by the pilot and is applied directly to the cutting edge.
   - To make sure the cutting fluid is correctly metered, press the pilot by slowly moving the cutter to touch the rail. Regulate the flow by adjusting the needle valve.
4. As the cutter approaches the rail, the automatic throttle will increase the engine speed to make sure maximum speed before cutting the hole.
5. When starting to cut a hole, apply light pressure until the cutter is introduced into the work surface.
6. Slightly increase the pressure while cutting the hole.
   - Excessive pressure is undesirable. It does not necessarily increase the speed of penetration and it may damage the cutter, reducing the machine life.
   - Cutter breakage is usually caused by insecure clamping.
7. Once drilling is complete, immediately fully retract the cutter, this will return the machine to idle speed.
   - ***Do not allow the drill to run at full speed when not drilling***.

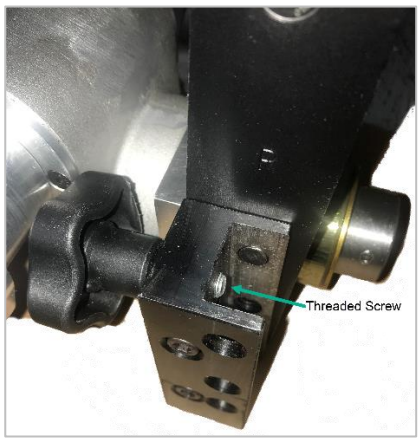
Rail Shoe Installation

Rail Shoe Mounting

1. Use the indicated threaded hole.
2. Position the rail shoe so the threaded hole is facing into the rail drill (see below).
3. Use the threaded screw to secure the rail shoe to the drill.



Rail Shoe



Rail Drill Rail Shoe Location



Properly Installed Rail Shoe

Rail Shoe Parts List

PART #	RAIL SHOES (QTY 2 PER DRILL)
465756	Shoe, Rail: 60 ASCE
714210	Shoe, Rail: 60 Kg UIC
465075	Shoe, Rail: 70 ASCE
714006	Shoe, Rail: 74 C
464770	Shoe, Rail: 75 ASCE
714055	Shoe, Rail: 75 BSR
714054	Shoe, Rail: 75 BSS
713969	Shoe, Rail: 78 NH
464771	Shoe, Rail: 80 ASCE
464983	Shoe, Rail: 85 ASCE
465076	Shoe, Rail: 85 PRR
465077	Shoe, Rail: 85 PS
464914	Shoe, Rail: 8520
713975	Shoe, Rail: 90 ARA-A
713974	Shoe, Rail: 90 ARA-B
714005	Shoe, Rail: 90 ASCE
464915	Shoe, Rail: 90 GN
465056	Shoe, Rail: 100 ARA-A
465083	Shoe, Rail: 100 ARA-B
465080	Shoe, Rail: 100 ASCE
714095	Shoe, Rail: 100 OH
465081	Shoe, Rail: 100 PS
465056	Shoe, Rail: 100 RA
714010	Shoe, Rail: 100 RE (AREA)
714100	Shoe, Rail: 100 RE (AREA) Head Free

PART #	RAIL SHOES (QTY 2 PER DRILL)
464946	Shoe, Rail: 105 Dudley
714103	Shoe, Rail: 105 OH
714085	Shoe, Rail: 107 NH
714009	Shoe, Rail: 110 RE (AREA)
714082	Shoe, Rail: 110 RE (AREA)
465057	Shoe, Rail: 112 RE (AREA)
714064*	Shoe, Rail: 115 RE (AREA) - *2-5/8" Hole Height
715149**	Shoe, Rail: 115 RE (AREA)- **2-7/8" Hole Height
714246	Shoe, Rail: 115 RE (AREA) For Guard Rail
715149	Shoe, Rail: 119 RE (AREA)
465348	Shoe, Rail: 122 CB
465082	Shoe, Rail: 127 Dudley
714248	Shoe, Rail: 130 HF
714249	Shoe, Rail: 130 RE (AREA)
464917	Shoe, Rail: 130 PS
714250	Shoe, Rail: 131 RE (AREA)
720265	Shoe, Rail: 132 RE (AREA)
714187	Shoe, Rail: 133 RE (AREA)
720265	Shoe, Rail: 136 RE (AREA)
720265	Shoe, Rail: 141 RE (AREA)
714287	Shoe, Rail: 140 RE (AREA)

Cutter Parts List

PART #	CUTTER BITS DIAMETER X DEPTH INCHES
464920	7/8" X 1"
473508	1" X 1"
473905	1-1/16" X 1"
472716	1-1/8" X 1"
473906	1-3/16" X 1"
473239	1-1/4" X 1"
473490	1-5/16" X 1"
473209	1-3/8" X 1"
473907	1-7/16" X 1"
473836	1-1/2" X 1"
475789	1-3/16" X 2"
313920	1" PILOT PIN
464754	2" PILOT PIN

Section 4: Maintenance

It is highly recommended to practice regular check-ups and maintenance in accordance with the usage frequency to keep your tool in better condition and reduces total running costs.

WARNING **Do not perform maintenance on the tool while the engine is running.**

Engine Maintenance

Maintain the engine in accordance with the engine operator's manual.

Cleaning and Maintenance Recommendations

- Wipe all external surfaces after each use with a clean, lint free cloth to remove surface contaminants from the tool.
- Store all tools in an enclosed area to prevent the weather from contaminating their systems.

Storage Preparation

- Store in the upright position. Secure tool to prevent it from being knocked over.
- Store the machine on a smooth level surface.
- The tool should be stored in a cool, dry environment which is not subjected to rapid temperature changes.

Daily

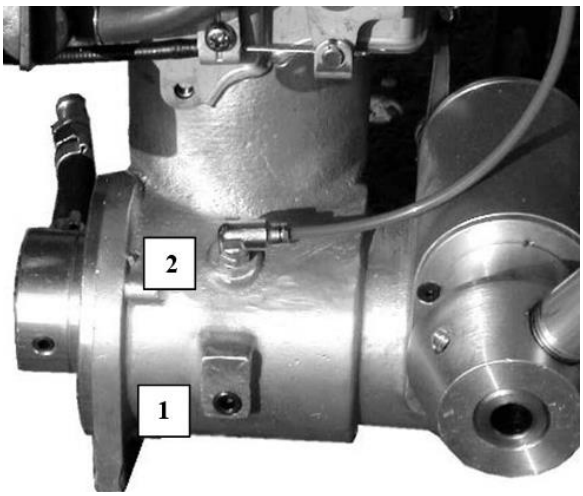
- Wipe all tool surfaces, fittings, and couplings free of grease, dirt, and foreign materials.
- Inspect the tool, hoses, and fittings for signs of leaks, cracks, wear, and/or damage. Replace if necessary.
- Inspect machine for damage and wear, replace as required.

Weekly

Check the gearbox oil level.

1. Remove the oil level plug (1).
2. Check that the oil level is up to the level of the bottom of the threaded hole.

   If not, remove the vent pipe plug (2) and fill with the recommended oil.
3. The open end of the vent pipe is located within the lifting handle and should always be replaced in this position after filling.
4. Replace both plugs before use.



Throttle Adjustment

The machine is set at the factory to provide optimum/cutter speed but may require adjustment after prolonged use.

The throttle is connected by a wire cable to a dedicated cam and lever arrangement and activated by the feed handle.

The screw adjuster on the throttle cable should be set with the cutter feed handle fully forward (cutter fully back) to give maximum engine revolutions without engaging the clutch and rotating the spindle. This will ensure maximum revolutions for hole cutting.

Maintenance Checklist

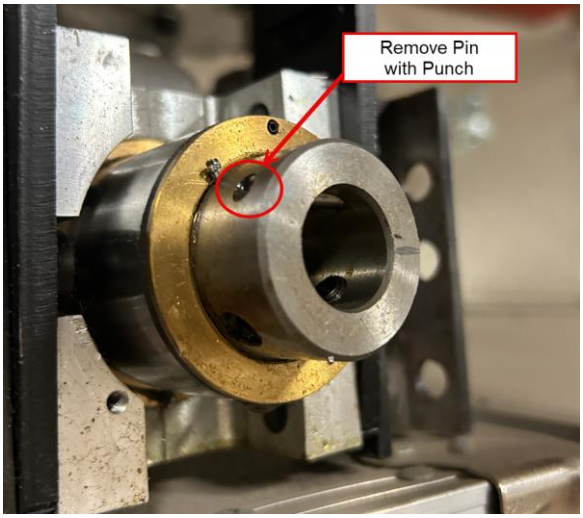
Perform at indicated month or hour interval, whichever comes first.

		Before starting work	First month or 10 hours	Every 3 months or 25 hours	Every 6 months or 50 hours	Every 100 hours	Every 2 years or 300 hours
Engine Oil	Check	X		X			
	Change		X		X		
Air cleaner	Check	X					
	Clean						
Spark plug	Clean/Adjust			X		X	
	Replace						X
Fuel tank filter	Clean					X	
Idle speed	Check/Adjust					X	
Valve clearance	Check/Adjust						X
Combustion chamber	Clean						X
Fuel tubes	Check						X

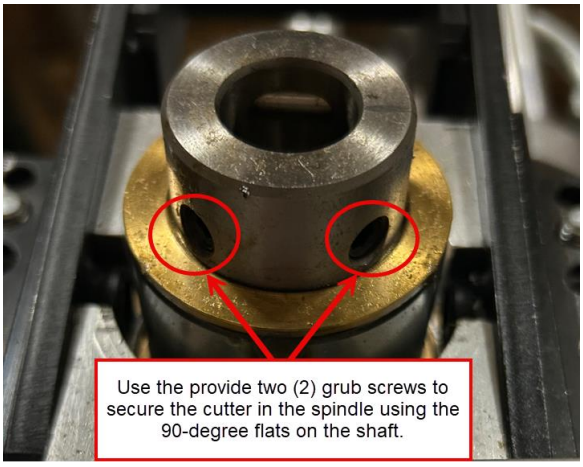
Converting the Drill Arbor Non-Locking Cutters

Tools Needed: Punch, Hammer

1. Using a punch. remove the pin that goes through the spindle (see photo →).



2. Using the 90-degree flats on the cutter shaft, use the two grub screws to hold the cutter (see photo →).



Note:-This conversion allows use of either cutter design.

To convert back to the locking cutter design, reapply the pin using Loctite® Blue to retain the pin.

Section 5: Parts and Service Support

Technical Support & Service

Telephone and web-based technical support is available for current production models through our Customer Service Department. Service Manuals and limited technical support may be available for models that are no longer in production.

Telephone and E-mail Technical Support

Telephone and e-mail technical support is available on normal U.S. business days from 8:00 AM to 5:00 PM U.S. Central Time Zone (GMT +6 (+5 Daylight Savings Time)).

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Non-Warranty Technical Support

Depending upon the circumstances and availability of technical service personnel, we may provide technical assistance and/or field service support, *at the customer's expense*, to assist in the correction of non-warranty related problems. Contact our Customer Service Department to coordinate Non-Warranty Technical or Field Service Support.

Warranty Support Technical Support

Depending upon the circumstances and availability of technical service personnel, we may provide technical assistance and/or field service support, *at no charge to the customer*, to assist in the correction of warranty related problems. Contact our Customer Service Department to coordinate Warranty Technical or Field Service Support.

Warranty Parts Claims

Material claimed to be defective must be returned to our factory for evaluation. Defective materials will be replaced, or your account will be credited if replacement materials have already been purchased. Please contact our Customer Service Department at the address provided below if you have any questions or problems.

Warranty Service Support

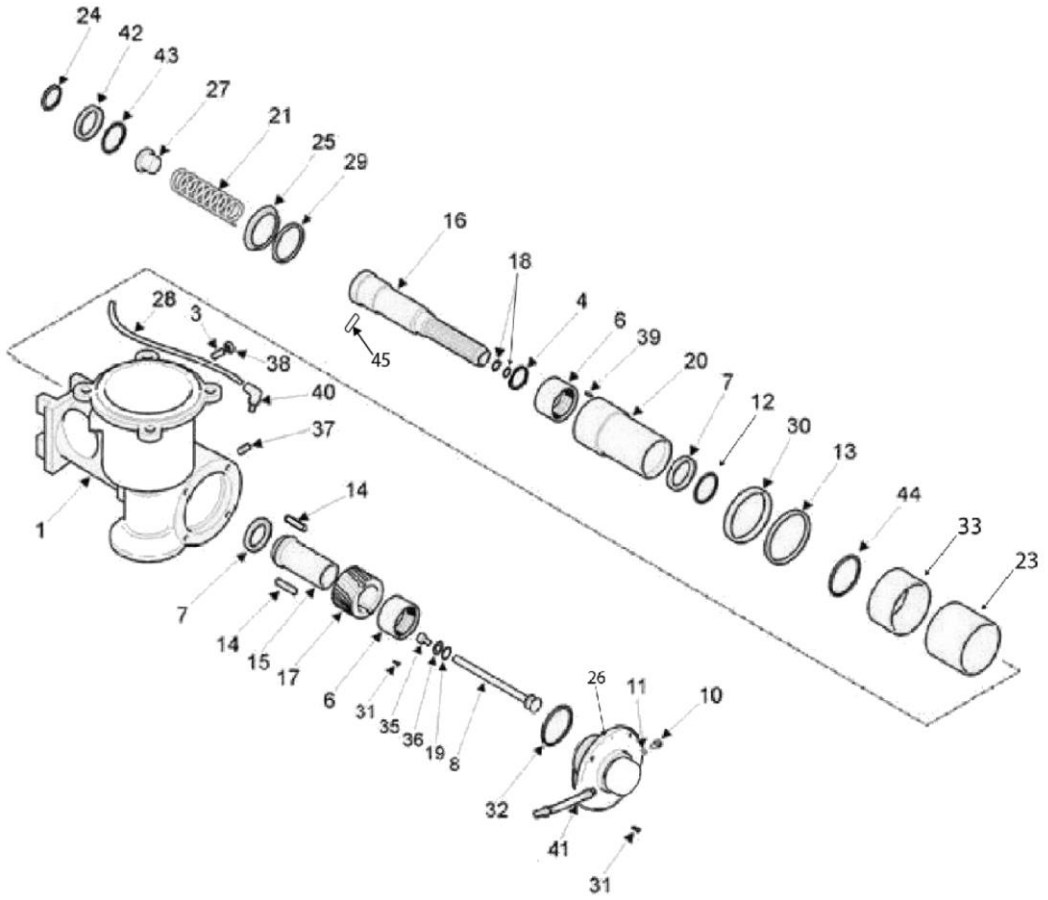
Depending upon the circumstances and availability of technical service personnel, we may provide technical assistance and/or field service support, at no charge to the customer, to assist in the correction of warranty related problems. Contact our Customer Service Department at the address provided above to coordinate Warranty Service Support.

Service Parts List

FOR SERVICE ONLY

NO.	QTY	DESCRIPTION	PART NO.
1	REF	1/8 BSPP X 1/4 IN FEMALE HOSE FIXED	474551
2	REF	1/8 BSPT X 1/4 MALE HOSE TAIL	474550
3	REF	4 STROKE HOUSING MACHINED BUSHES	474523
4	REF	ARBOR/SPINDLE P/E DRILL **RACINE**	474525
5	REF	ARM, CLAMP	477170
6	REF	BASE PLATE ASSY **RACINE**	474522
7	REF	BEARING	477166
8	REF	BEARING 61805 2RS LSP6700020Y	474536
9	REF	CAPSTAN	478596
10	REF	CARRYING HANDLE ASSEMBLY	474528
11	REF	COLLAR	476811
12	REF	COMBINED NEEDLE THRUST NX30Z LSP6770013Y	474535
13	REF	COOLANT FEED TUBE	474533
14	REF	COOLANT PUMP SEAL FOR RY2307	474560
15	REF	COUPLING, 1/8IN BSP9 FEMALE	474520
16	REF	COVER, AIR CLEANER	477169
17	REF	DOUBLE LIPPED OIL SEAL	474538
18	REF	DOUBLE LIPPED OIL SEAL (SPRINGLESS)	474540
19	REF	END CAP CD25	474549
20	REF	ENGINE, HONDA GXV57UT	475104
21	REF	FEED GEAR P/E DRILL	474526
22	REF	FEED TUBE FOR P/E DRILL **RACINE**	474524
23	REF	FEED TUBE WEAR CAP	474530
24	REF	FINAL DRIVE SPINDLE	474527
25	REF	FLANGED OILITE BUSH AL141616	474546
26	REF	FLEXIBLE HOSE ASSY	474559
27	REF	GEAR SET 15:1 RATIO	474555
28	REF	HOSE TAIL 1/8-6MM RBS009 5.28X1.78X8.7OD	474542
29	REF	HOUSING, AIR CLEANER	477168
30	REF	MINI BALL VALVE 1/8 BSP F/F	474534
31	REF	O CLIP 8-11 BOCLIP8/11	474543
32	REF	O CLIP 9/16 13-16	474552
33	REF	O'RING 01-04-TA037 DIA37 X 2.5	474554
34	REF	O'RING 01-06-TA003 RRM003116	474537
35	REF	O'RING 01-06-TA138 38X2.5	474548
36	REF	O'RING 01-06-TA170 70MM DIA X 2.5	474553
37	REF	O'RING 2-018 18.8 X 1.8	474547
38	REF	O'RING 5.28 X 1.78 IMPERIAL	474541
39	REF	O'RING FOR GEARBOX SEAL	474545
40	REF	O'RING SP/QUAD-9X2	474539
41	REF	OIL SEAL PROTECTION RING	474531
42	REF	PIN	476810
43	REF	PIN, ARBOR	477023
44	REF	PLUG, 1/8IN BSP MALE	474521
45	REF	PRESSURE BOTTLE FOR RHINO	474558
46	REF	RAIL DRILL CLAMP ASSEMBLY	474557
47	REF	RD4779 CENTRIFUGAL CLUTCH FOR RD074	474556
48	REF	RUBBER SEAL FOR ARBOR INTERNAL	474544
49	REF	SAFETY VALVE COOLANT PUMP	474561
50	REF	SEAL, ARBOR OIL	476127
51	REF	SHCS, M6	477837
52	REF	SOLID ENDCAP AND COOLANT COMBINED HOUSING	474529
53	REF	THROTTLE CABLE RD074	474532
54	REF	WASHER, M6	477838

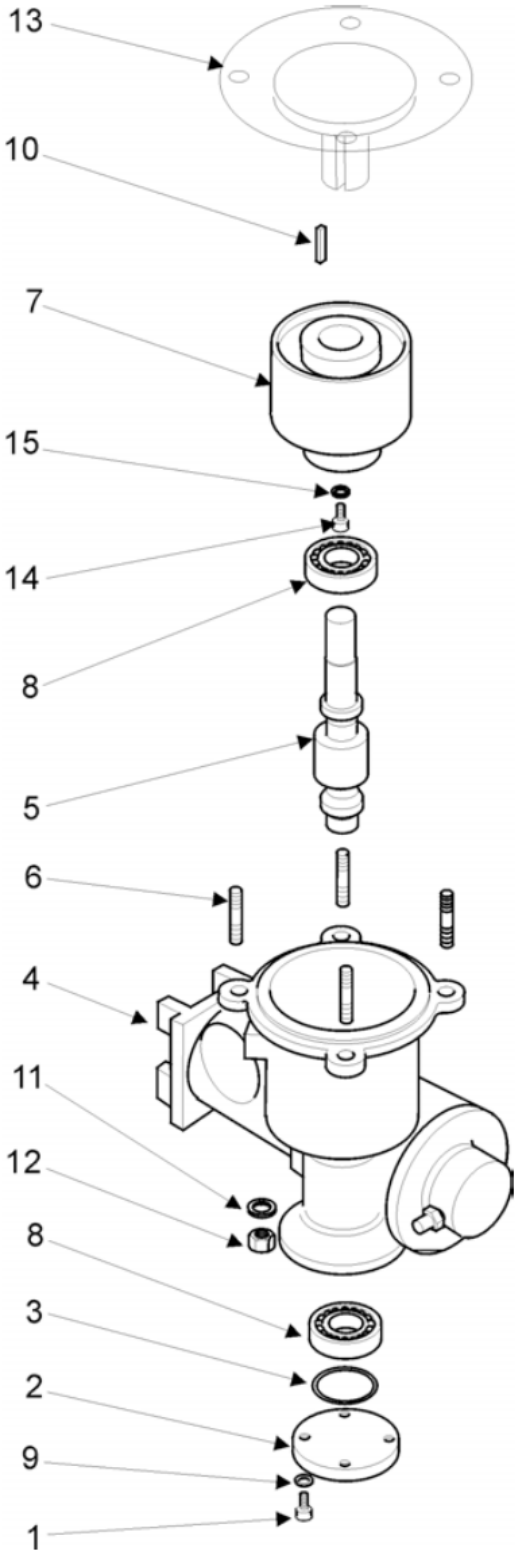
Arbor Spindle Assembly and Parts List



Item	Description	Quantity
1*	MAIN HOUSING	1
2	M4 SHAKEPROOF WASHER	4
3	M8 DOGPOINT SOCKET SCREW	1
4	CIRCLIP	1
6	COMBINED NEEDLE THRUST RACE	2
7	BEARING	2
8	COOLANT FEED TUBE	1
10	COOLANT TUBE CLAMP SCREW	1
11	O RING	1
12	CIRCLIP	1
13	OIL SEAL	1
14	FINAL DRIVE KEY	2
15	FINAL DRIVE SPINDLE	1
16	ARBOR SPINDLE	1
17	WORM AND GEAR	1
18	O RING	2
19	O RING	1
20	FEED RACK	1
21	SPRING	1
23*	BRONZE REAR BUSH	1
24	CIRCLIP	1

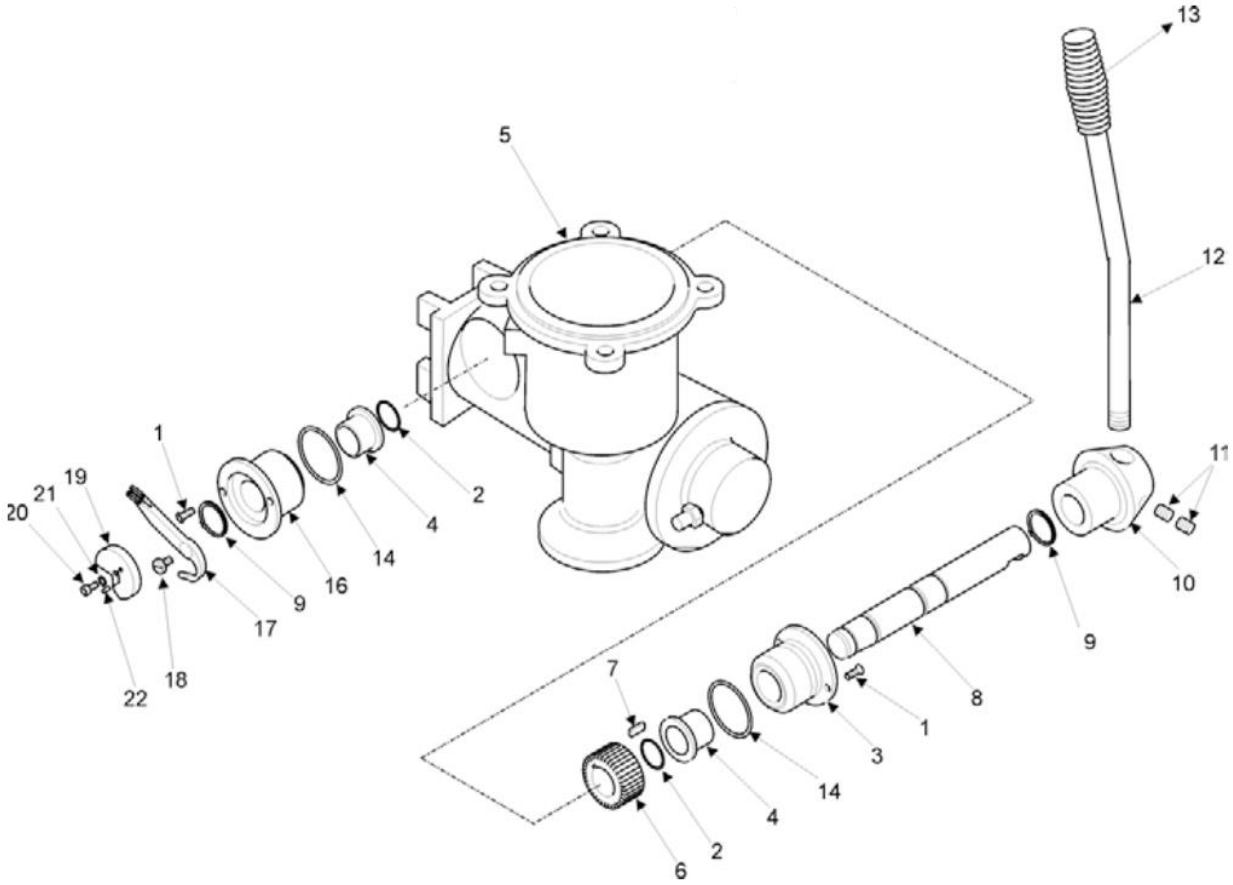
Item	Description	Quantity
25	FEED RACK WEAR CAP	1
26	COOLANT HOUSING END CAP	1
27	BUTTON	1
28	VENT PIPE	1
29	OIL SEAL	1
30*	OIL SEAL PROTECTION RING	1
31	M4 x12 STAINLESSS CAP SCREW	4
32	O RING	1
33*	BRONZE FRONT BUSH	1
35	M8 X 15 CAP SCREW	1
36	M8 WASHER	1
37	1/8" BSPT PLUG	1
38	M8 HEX NUT	1
39	ROLL PIN	1
40	1/8" BSP ELBOW	1
41	COOLANT HOSE ASSEMBLY	1
42	SEAL	1
43	WASHER	1
44	O RING	1
45	ARBOR PIN	1

Arbor / Spindle Drive Assembly and Parts List



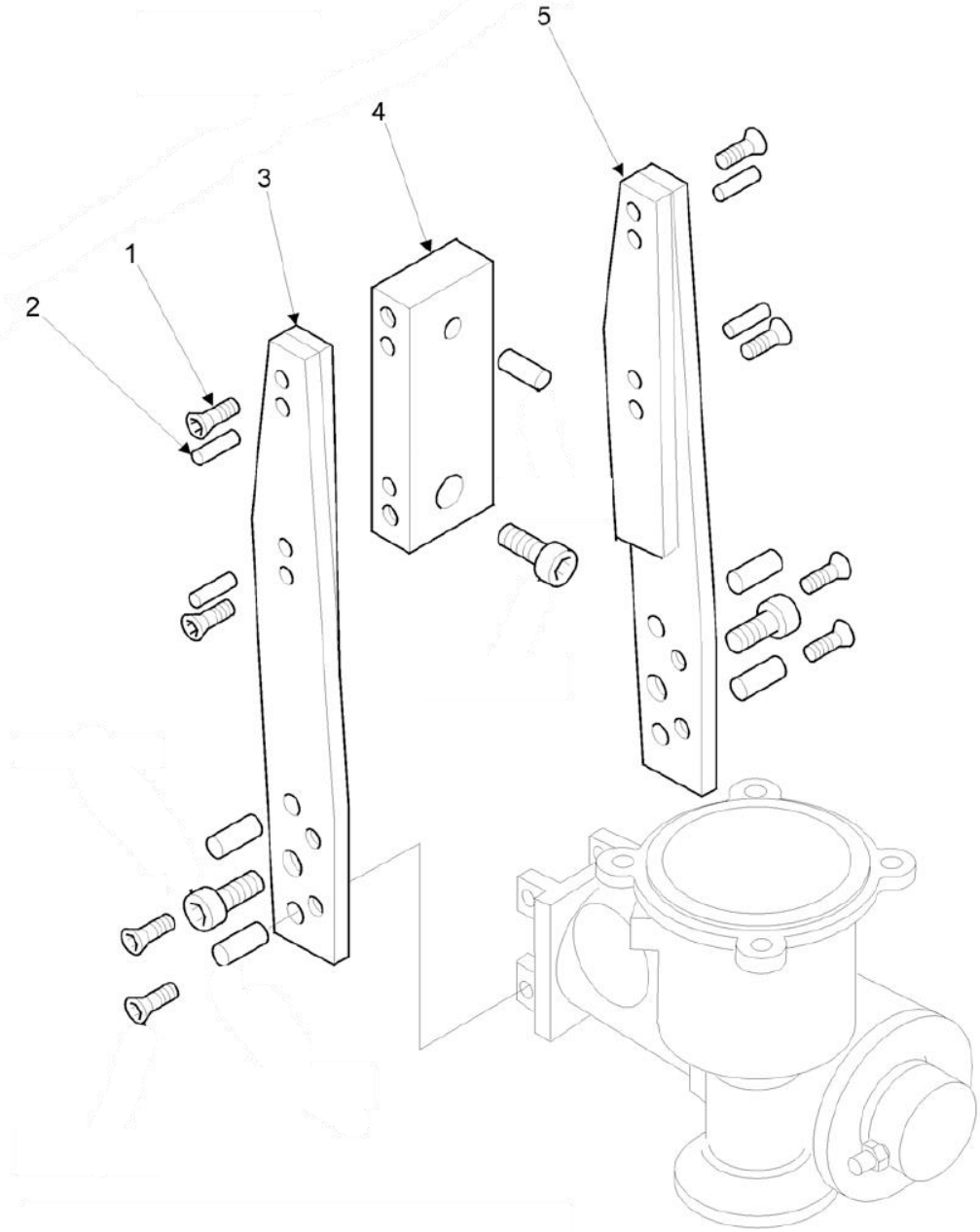
Item	Description	Quantity
1	M4 SHCS	4
2	SHAFT COVER	1
3	O'RING	1
4	MAIN HOUSING	1
5	GEAR SET	1
6	M6 STUD	4
7	CLUTCH ASSEMBLY	1
8	BEARING	2
9	M4 SHAKEPROOF WASHER	4
10	KEY	1
11	M6 WASHER	4
12	M6 NYLOC NUT	4
13	HONDA PETROL MOTOR	1
14	M6 SHCS	1
15	M6 WASHER	1

Arbor Spindle Feed Assembly and Parts List



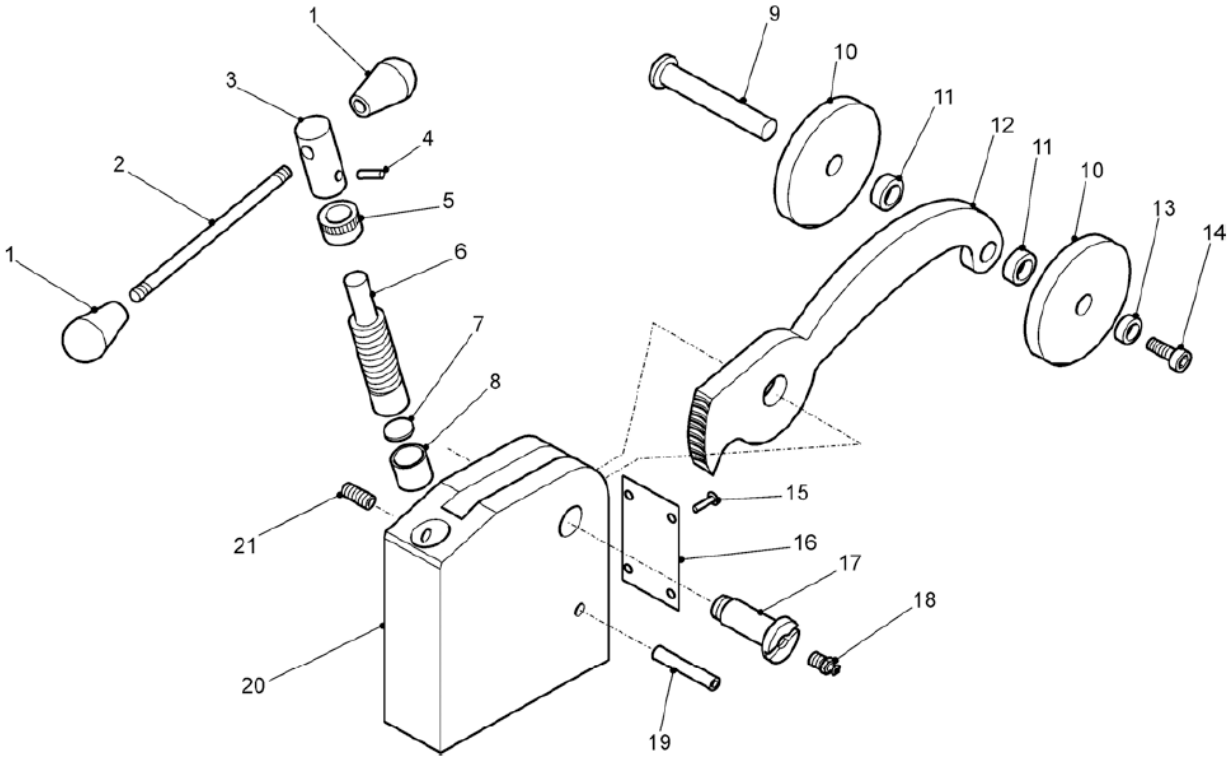
Item	Description	Quantity
1	M4 CSINK SET SCREW	3
2	O' RING	2
3	CAPSTAN SPINDLE HOUSING	1
4	FLANGED OILITE BUSH	2
5	MAIN HOUSING	1
6	FEED GEAR	1
7	FEED GEAR KEY	1
8	CAPSTAN SPINDLE	1
9	CIRCLIP	2
10	CAPSTAN HUB	1
11	M8 SOCKET SCREW	2
12	CAPSTAN ARM	1
13	HAND GRIP	1
14	O' RING	2
16	CAPSTAN SPINDLE HOUSING	1
17	THROTTLE LINK	1
18	THROTTLE LINK PIVOT	1
19	THROTTLE CAM	1
21	SHCS M5	1
22	3 DIA ROLL PIN	1

Base Plate Assembly and Parts List



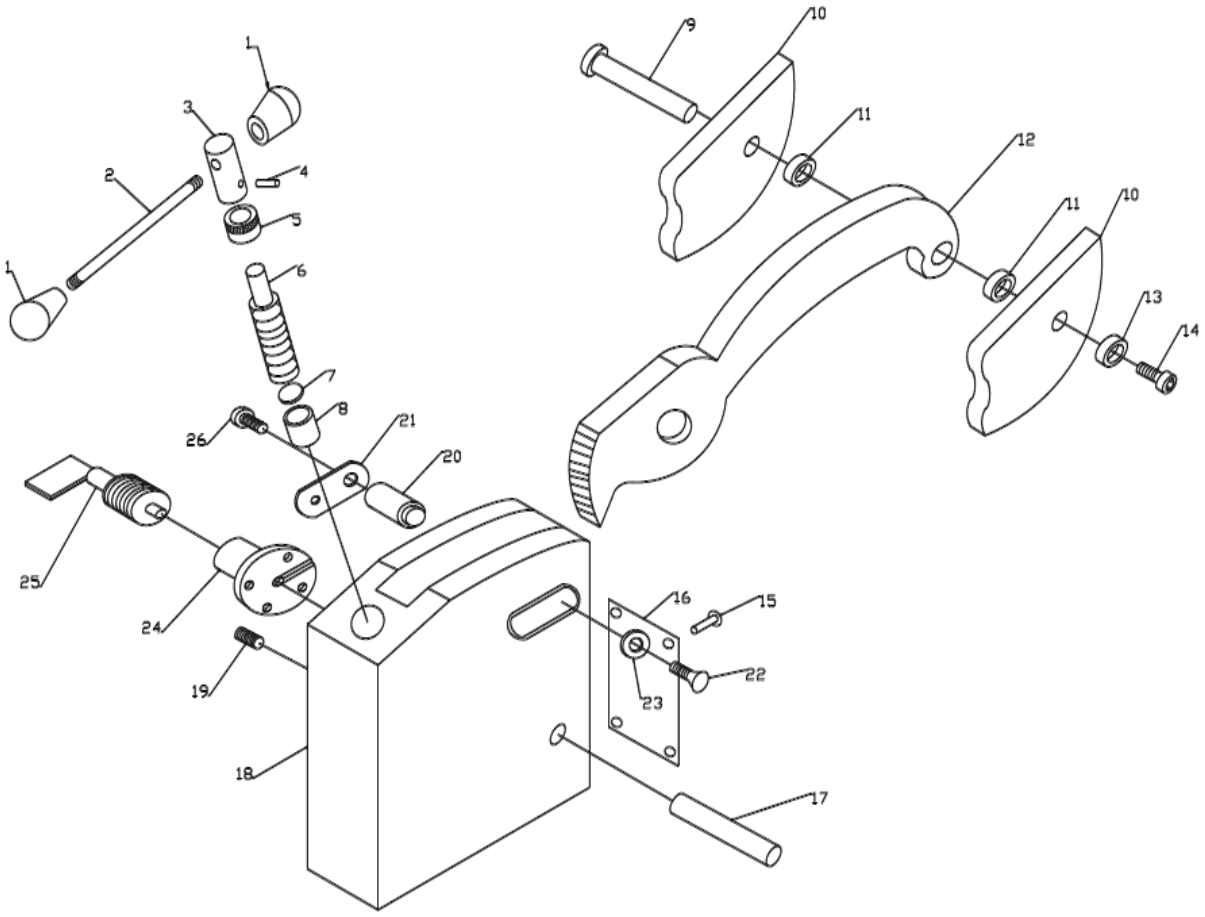
Item	Description	Quantity
1	M6 C/SNK SET SCREW	4
2	6MM DOWEL	4
3	SIDE PLATE (LH)	1
4	CLAMP BLOCK	1
5	SIDE PLATE (RH)	1

Rail Clamp Assembly and Parts List



Item No	Description	Quantity
1	CAPSTAN KNOB	2
2	CAPSTAN SPINDLE	1
3	CAPSTAN	1
4	PIN	1
5	COLLAR	1
6	WORM	1
7	THRUST WASHER	1
8	BEARING BUSH	1
9	ROLLER PIN	1
10	ROLLER	2
11	DISTANCE PIECE	2
12	CLAMP ARM	1
13	COLLAR	1
14	SCREW	1
15	RIVET	4
16	GUARD PLATE	1
17	PIVOT PIN	1
18	LUBRICATION NIPPLE	1
19	ROLL PIN	1
20	CLAMP BODY	1
21	LOCK SCREW	1

Quick Release Rail Clamp Assembly and Parts List



Item No	Description	Quantity
1	CAPSTAN KNOB	2
2	CAPSTAN SPINDLE	1
3	CAPSTAN	1
4	PIN	1
5	COLLAR	1
6	WORM	1
7	THRUST WASHER	1
8	BEARING BUSH	1
9	ROLLER PIN	1
10	ROLLER	2
11	DISTANCE PIECE	2
12	CLAMP ARM	1
13	COLLAR	1
14	SCREW	1

Item No	Description	Quantity
15	RIVET	4
16	GUARD PLATE	1
17	ROLL PIN	1
18	CLAMP BODY	1
19	LOCK SCREW	1
20	CONNECTING ROD	1
21	SLIDE BAR	1
22	COUNTERSUNK M5	1
23	WASHER	1
24	CLAMP CONNECTOR	1
25	BALL PLUNGER	1
26	M5 X 16 SOCKETHEAD	1

Section 6: Warranty Terms and Conditions

Warranty Period

Each new machine and new parts of our manufacture are warranted against defects in material and workmanship for one year from the date of shipment from our factory.

When contacting customer service for factory parts, service or warranty support please provide the:

- Racine Railroad Products Model
- Serial Number
- Any locally assigned identification

Vendor Parts Warranty Period

Other equipment and parts used, but not manufactured by Racine Railroad Products, Inc., are covered directly by the manufacturer's warranty for their products.

Warranty Parts and Service

We will repair or replace, without charge, F.O.B. factory, Racine, Wisconsin, USA, any part Racine Railroad Products manufactures which is proven to be defective during the warranty period.

Material claimed defective must be returned, if requested, to the factory within 30 days from the date of the claim for replacement. Ordinary wear and tear, abuse, misuse, and neglect are not covered by this warranty. Depending upon the circumstances, we may provide technical assistance and/or technical service support, without charge, to assist in the correction of warranty related problems.

Non-Warranty Parts and Service

Material damaged through normal wear and tear, abuse, misuse and/or neglect are not covered by our warranty and should be ordered directly from Customer Service.

Note: Parts for models that are no longer in production may not be available.

Non-Warranty Parts Orders

When placing a parts order please provide the following information:

- Company Name and Billing Address
- Purchase Order Number and Issuing Authority
- Shipping Address
- Special Handling Instructions
- Contact Phone Number
- Machine Model and Serial Number
- Part Numbers and Quantities Being Ordered

Note: *Please use Racine Railroad Products part numbers when ordering parts.* Racine Railroad Products part numbers are shown in the parts lists and drawings of this manual and have only six (6) numbers.

Any part number with other than six numbers (e.g., contains alpha-numeric characters) is a Vendor Part Number and ***not*** a Racine Railroad Products part number