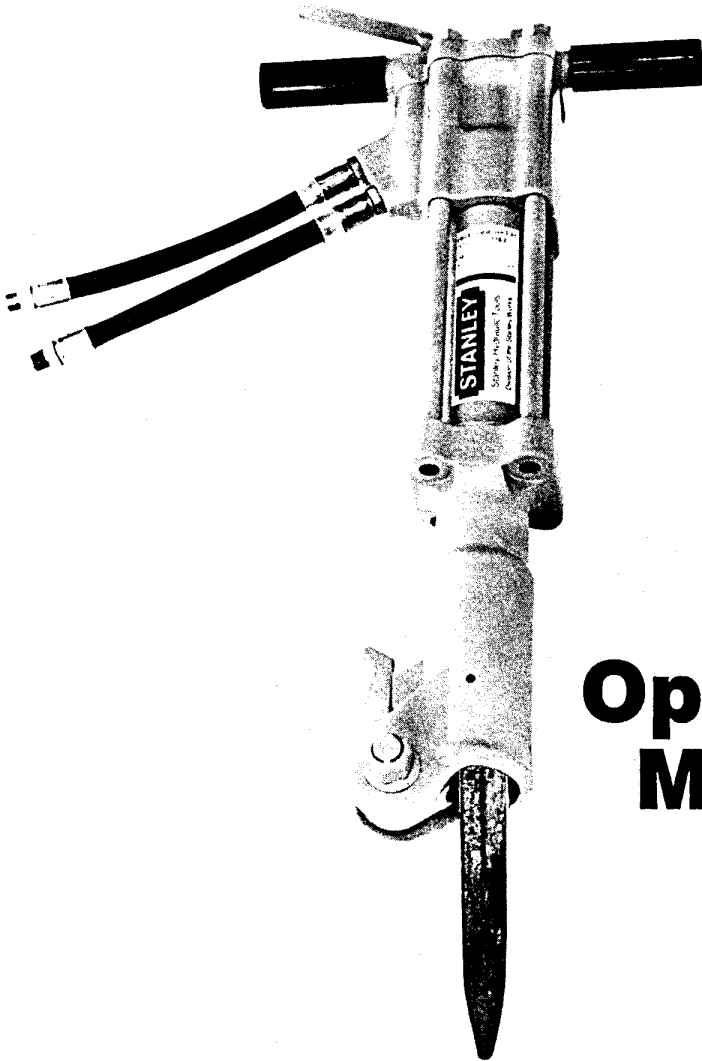


BR45 HYDRAULIC BREAKER



Safety, Operation and Maintenance Manual

Focused on performance™

STANLEY®

helps you do things right

SAFETY PRECAUTIONS

Tool operators and maintenance personnel must always comply with the safety precautions given in this manual and on the stickers and tags attached to the tool and hose.

These safety precautions are given for your safety. Review them carefully before operating the tool and before performing maintenance or repairs.

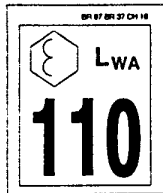
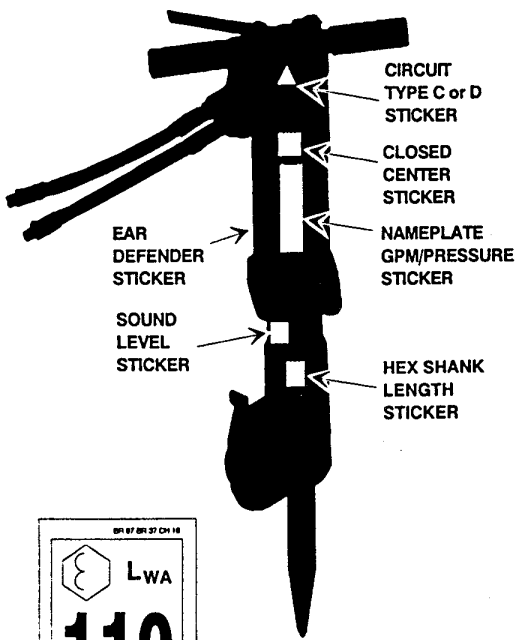
Supervising personnel should develop additional precautions relating to the specific work area and local safety regulations. If so, place the added precautions in the space provided on page 3.

GENERAL SAFETY PRECAUTIONS

The BR45S Hydraulic Breaker will provide safe and dependable service if operated in accordance with the instructions given in this manual. Read and understand this manual and any stickers and tags attached to the tool and hose before operation. Failure to do so can result in personal injury or equipment damage.

- Operators must start in a work area without bystanders. Flying debris can cause serious injury.
- Establish a training program for all operators to ensure safe operation.
- The operator must be familiar with all prohibited work areas such as excessive slopes and dangerous terrain conditions.
- Do not operate the tool unless thoroughly trained or under the supervision of an instructor.
- Always wear safety equipment such as goggles, ear and head protection, and safety shoes at all times when operating the breaker.
- Never use tools near energized transmission lines. Know the location of buried or covered services before starting your work.
- Never wear loose clothing that can get entangled in the working parts of the tool.
- Do not overreach. Maintain proper footing and balance at all times.
- Do not inspect or clean the tool while the hydraulic power source is connected. Accidental engagement of the tool can cause serious injury.
- Always connect hoses to the tool hose couplers before energizing the hydraulic power source. Be sure all hose connections are tight.
- Do not operate the tool at fluid temperatures above 140°F/60°C. Operation at higher temperatures can cause higher than normal temperatures at the tool which can result in operator discomfort.
- Do not weld, cut with an acetylene torch, or hardface the breaker tool.
- To avoid personal injury or equipment damage, all tool repair, maintenance and service must only be performed by authorized and properly trained personnel.

TOOL STICKERS AND TAGS



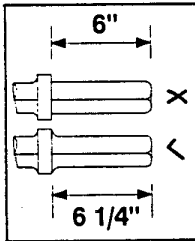
SOUND POWER LEVEL STICKER



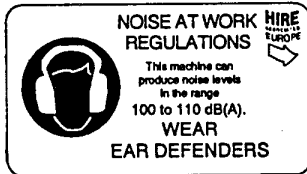
CIRCUIT TYPE D STICKER



CIRCUIT TYPE C STICKER



HEX SHANK LENGTH STICKER



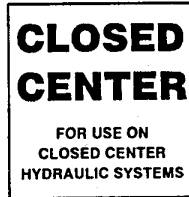
EAR DEFENDER STICKER

The safety tag at right is attached to the breaker when shipped from the factory. Read and understand the safety instructions listed on this tag before removal. We suggest you retain this tag and attach it to the breaker when not in use.



The nameplate attached to the breaker in the location shown. The pressure and flow rates specified must never be exceeded.

A breaker configured for use on a closed center hydraulic system will have an additional sticker attached to the breaker at the location shown. Never use a closed center breaker on an open center circuit and vice versa.



CLOSED CENTER STICKER

The information listed on this nameplate must be legible at all times. Replace the nameplate if it becomes worn or damaged. It is available from your local Stanley distributor.

DANGER

1. FAILURE TO USE HYDRAULIC HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE WHEN USING HYDRAULIC TOOLS ON OR NEAR ELECTRICAL LINES MAY RESULT IN DEATH OR SERIOUS INJURY.
BEFORE USING HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE ON OR NEAR ELECTRICAL LINES BE SURE THE HOSE IS MAINTAINED AS NON-CONDUCTIVE. THE HOSE SHOULD BE REGULARLY TESTED FOR ELECTRIC CURRENT LEAKAGE IN ACCORDANCE WITH YOUR SAFETY DEPARTMENT INSTRUCTIONS.
2. A HYDRAULIC LEAK OR BURST MAY CAUSE OIL INJECTION INTO THE BODY OR CAUSE OTHER SEVERE PERSONAL INJURY.
 - A. DO NOT EXCEED SPECIFIED FLOW AND PRESSURE FOR THIS TOOL. EXCESS FLOW OR PRESSURE MAY CAUSE A LEAK OR BURST.
 - B. DO NOT EXCEED RATED WORKING PRESSURE OF HYDRAULIC HOSE USED WITH THIS TOOL. EXCESS PRESSURE MAY CAUSE A LEAK OR BURST.
 - C. CHECK TOOL HOSE COUPLERS AND CONNECTORS DAILY FOR LEAKS. DO NOT FEEL FOR LEAKS WITH YOUR HANDS. CONTACT WITH A LEAK MAY RESULT IN SEVERE PERSONAL INJURY.

IMPORTANT

READ OPERATION MANUAL AND SAFETY INSTRUCTIONS FOR THIS TOOL BEFORE USING IT.

USE ONLY PARTS AND REPAIR PROCEDURES APPROVED BY STANLEY AND DESCRIBED IN THE OPERATION MANUAL.

TAG TO BE REMOVED ONLY BY TOOL OPERATOR.

SEE OTHER SIDE 15875

DANGER

- D. DO NOT LIFT OR CARRY TOOL BY THE HOSES. DO NOT ABUSE HOSE. DO NOT USE KINKED, TORN OR DAMAGED HOSE.
3. MAKE SURE HYDRAULIC HOSES ARE PROPERLY CONNECTED TO THE TOOL BEFORE PRESSURIZING SYSTEM. SYSTEM PRESSURE HOSE MUST ALWAYS BE CONNECTED TO TOOL. "W" PORT SYSTEM RETURN HOSE MUST ALWAYS BE CONNECTED TO TOOL. "OUT" PORT REVERSING CONNECTIONS MAY CAUSE REVERSE TOOL OPERATION WHICH CAN RESULT IN SEVERE PERSONAL INJURY.
4. DO NOT CONNECT CLOSED-CENTER TOOLS TO OPEN-CENTER HYDRAULIC SYSTEMS. THIS MAY CAUSE EXTREME SYSTEM HEAT AND/OR SEVERE PERSONAL INJURY.
DO NOT CONNECT OPEN-CENTER TOOLS TO CLOSED-CENTER HYDRAULIC SYSTEMS. THIS MAY RESULT IN LOSS OF OTHER HYDRAULIC FUNCTIONS POWERED BY THE SAME SYSTEM AND/OR SEVERE PERSONAL INJURY.
5. BYSTANDERS MAY BE INJURED IN YOUR WORK AREA. KEEP BYSTANDERS CLEAR OF YOUR WORK AREA.
6. WEAR HEARING, EYE, FOOT, HAND AND HEAD PROTECTION.
7. TO AVOID PERSONAL INJURY OR EQUIPMENT DAMAGE, ALL TOOL REPAIR, MAINTENANCE AND SERVICE MUST ONLY BE PERFORMED BY AUTHORIZED AND PROPERLY TRAINED PERSONNEL.

IMPORTANT

READ OPERATION MANUAL AND SAFETY INSTRUCTIONS FOR THIS TOOL BEFORE USING IT.

USE ONLY PARTS AND REPAIR PROCEDURES APPROVED BY STANLEY AND DESCRIBED IN THE OPERATION MANUAL.

TAG TO BE REMOVED ONLY BY TOOL OPERATOR.

SEE OTHER SIDE 15875

SAFETY SYMBOLS

Safety symbols are used to emphasize all operator, maintenance and repair actions which, if not strictly followed, could result in a life-threatening situation, bodily injury or damage to equipment.

DANGER

This safety symbol may appear on the tool. It is used to alert the operator of an action that could place him/her or others in a life threatening situation.

⚠ WARNING

This safety symbol appears in these instructions to identify an action that could cause bodily injury to the operator or other personnel.

IMPORTANT

This safety symbol appears in these instructions to identify an action or condition that could result in damage to the tool or other equipment.

Always observe safety symbols. They are included for your safety and for the protection of the tool.

LOCAL SAFETY REGULATIONS

Enter any local safety regulations here. Keep these instructions in an area accessible to the operator and maintenance personnel.

HYDRAULIC HOSE REQUIREMENTS

HOSE TYPES

Hydraulic hose types authorized for use with Stanley Hydraulic Tools are as follows:

- 1 Labeled and certified non-conductive
- 2 Wire braided (conductive)
- 3 Fabric braided (not certified or labeled non-conductive)

Hose 1 listed above is the only hose authorized for use near electrical conductors.

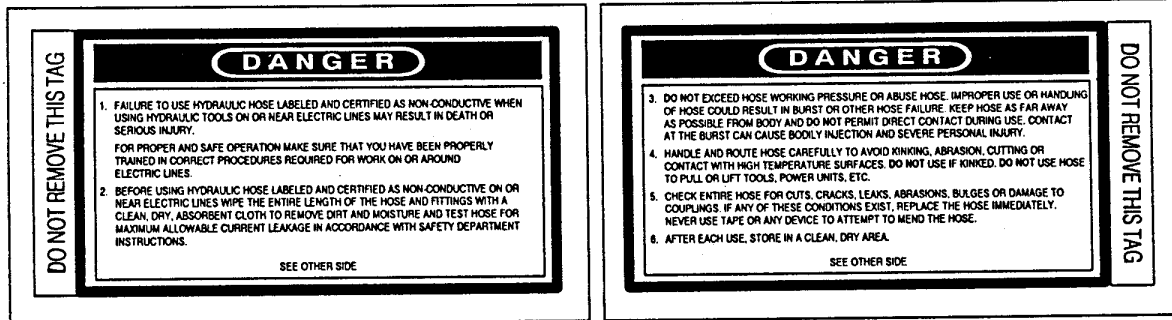
Hoses 2 and 3 listed above are conductive and must never be used near electrical conductors.

To help ensure your safety, the following DANGER tags are attached to all hoses purchased from Stanley Hydraulic Tools. DO NOT REMOVE THESE TAGS.

If the information on a tag is illegible because of wear or damage, replace the tag immediately. A new tag can be obtained at no charge from your Stanley distributor.

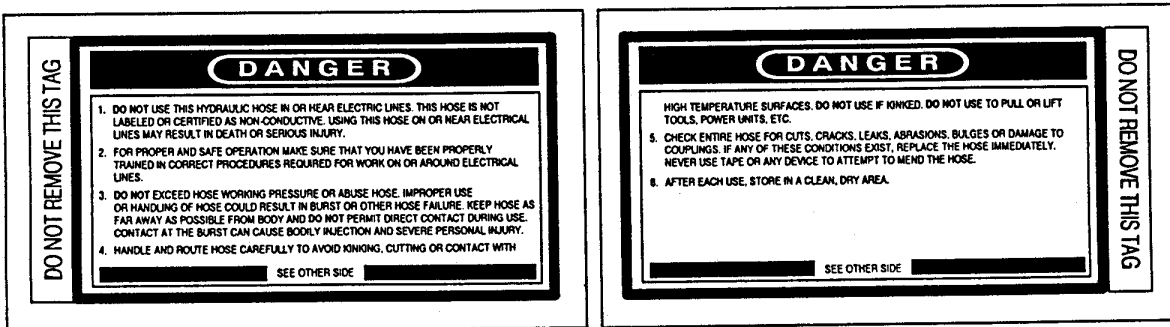
1 CERTIFIED NON-CONDUCTIVE HOSE

This tag is attached to all certified non-conductive hose.



2 AND 3 WIRE- AND FABRIC-BRAIDED (NOT CERTIFIED OR LABELED NON-CONDUCTIVE)

This tag is attached to all conductive hose.



HOSE PRESSURE RATING

The rated working pressure of the hydraulic hose must be equal to or higher than the relief valve setting of the hydraulic system used to power the breaker.

OPERATION

IMPORTANT

In addition to the Safety Precautions on pages 1 thru 4 of this manual, observe the following for equipment protection and care.

- Always store an idle breaker in a clean, dry space, safe from damage or pilferage.
- Do not force a small breaker to do the job of a large breaker.
- Keep tool bit sharp for maximum breaker performance. Make sure that tool bits are not chipped or rounded on the striking end.
- Never operate a breaker without a tool bit or without holding it against the work surface. This puts excessive strain on the breaker foot.
- Always keep critical tool markings, such as labels and warning stickers legible.
- Always replace hoses, couplings and other parts with replacement parts recommended by Stanley Hydraulic Tools. Supply hoses must have a minimum working pressure rating of 2500 psi/175 bar. All hoses must have an oil resistant inner surface and an abrasive resistant outer surface.
- Tool repair should be performed by experienced personnel only.
- Make sure all couplers are wiped clean before connection.
- Make certain that the recommended relief valves are installed in the pressure side of the system.
- The hydraulic circuit control valve must be in the "OFF" position when coupling or uncoupling hydraulic tools. Failure to do so may result in damage to the quick couplers and cause over-heating of the hydraulic system.

HYDRAULIC SYSTEM REQUIREMENTS

- The hydraulic system should provide a flow of 7-9 gpm/26-34 lpm at an operating pressure of 1500-2000 psi/105-140 bar. Recommended relief valve settings are 2100-2250 psi/145-155 bar.

- The system should have no more than 250 psi/17 bar backpressure measured at the tool end of the operating hoses. The system conditions for measurement are at maximum fluid viscosity of 400 ssu/82 centistokes (minimum operating temperatures).
- The hydraulic system should have sufficient heat rejection capacity to limit the maximum oil temperature to 140°F/60°C at the maximum expected ambient temperature. The recommended minimum cooling capacity is 5 hp/3.73 kW at a 40° F/22° C difference between ambient temperature and oil temperature.
- The hydraulic system should have a minimum of 25 micron filtration. It is recommended that filter elements be sized for a flow of at least 30 gpm/114 lpm for cold temperature startup and maximum dirt holding capacity.
- The hydraulic fluid used should have a viscosity between 100 and 400 ssu/20 and 82 centistokes at the maximum and minimum expected temperatures. Petroleum base hydraulic fluids with antiwear properties and a viscosity index over 140 will meet the recommended requirements over a wide range of operating temperatures.
- The recommended hose size is .500 inch/12 mm I.D. up to 50 ft/15 m long and .625 inch/16 mm I.D. minimum up to 100 ft/30 m.

PREOPERATION PROCEDURES

CHECK POWER SOURCE

1. Using a calibrated flowmeter and pressure gauge, check that the hydraulic power source develops a flow of 7-9 gpm/26-34 lpm at 1500-2000 psi/105-140 bar.
2. Make certain the hydraulic power source is equipped with a relief valve set to open at 2100-2250 psi/145-155 bar.

INSTALL TOOL BIT

1. Rotate the latch on the breaker foot downward (pointing away from the foot).
2. Insert the tool bit into the foot and pull the latch up to lock the tool bit in place.

CONNECT HOSES

1. Wipe all hose couplers with a clean, lint-free cloth before making connections.
2. Connect the hoses from the hydraulic power source to the tool fittings or quick disconnects. It is a good practice to connect return hoses first and disconnect them last to minimize or avoid trapped pressure within the tool.
3. If hose couplers are used, observe the arrow on the coupler to ensure that the flow is in the proper direction. The female coupler on the tool hose is the inlet (pressure) coupler.
4. Move the hydraulic circuit control valve to the "ON" position to operate the tool.

Note: If uncoupled hoses are left in the sun, pressure increase inside the hoses may make them difficult to connect. When possible, connect the free ends of operating hoses together.

TOOL OPERATION

1. Observe all safety precautions.
2. Install the appropriate tool bit for the job.
3. Place the bit firmly on the surface to be broken.
4. Squeeze the trigger to start the breaker. Adequate down pressure is very important. When the tool bit breaks through the obstruction or becomes bound, release the trigger and reposition the tool bit.

Note: Partially depressing the trigger allows the tool to run at slow speed, making it easier to start the tool bit into the work surface.

5. To start, break an opening (hole) in the center of the surface. Once this hole is started, crack portions of the material into the original opening. For best productivity, the breaking should be done in a spiral pattern around the original hole.

The bite or width of the broken material will vary with the strength and thickness of the base material and the amount of any reinforcement wire or rebar present.

Harder material or more reinforcing wire or rebar will require taking smaller bites. To determine the most effective bite, start with 2 inches/50 mm or smaller bites. The bite can then be gradually increased until the broken piece becomes too large, requiring increased time to break off the piece.

Sticking of the tool bit occurs when too large a bite is being taken and the tool bit drills into the material without the material fracturing. This causes the tool bit to become trapped in the surrounding material.

UNDERWATER OPERATION

The breaker requires preventative maintenance after each day's use underwater and prior to being placed in storage. See the General Service Notes section of this manual for this maintenance procedure.

IMPORTANT

If the breaker is to be operated at depths greater than 300 ft/91 m, increase the accumulator charge 40 psi/3 bar for each 100 ft/30 m of depth to offset depth pressure (800 psi/55 bar maximum)

COLD WEATHER OPERATION

If the breaker is to be used during cold weather, preheat the hydraulic oil at low engine speed. When using the normally recommended oils, oil temperature should be at or above 50° F/10° C (400 ssu/82 centistokes) before use.

Damage to the hydraulic system or breaker can result from use with oil that is too viscous or thick.

SERVICE INSTRUCTIONS

PRIOR TO DISASSEMBLY

- Clean exterior of tool.
- Obtain seal kit (Part Number 04595) so you can replace all seals exposed during disassembly. Note orientation of seals before removing them. Install new seals in the same way.

BREAKER DISASSEMBLY

1. Secure the breaker in a bench vise with the "in" and "out" ports up, clamping on the flow sleeve tube between the side rods. Soft vise jaws are recommended.
 2. Remove the pigtail hose assemblies.
- Note:** The breaker is full of oil and will drip from the Ports when the hoses are removed.
3. Remove the plug from the top of handle.

IMPORTANT

Discharge the accumulator.

4. Remove four side rods. Remove the handle/pivot block assembly to expose the on-off valve spool and accumulator diaphragm. Remove the foot assembly by tapping on top of the foot flange with a plastic or rubber hammer.
5. To service foot assembly, proceed as follows:

A. The latch, detent, spring and cone washers are accessible when the latch bolt is removed (15/16-inch hex).

Note: Before removing the hex bushing, note the alignment of hex flats with latch bolt center-line (see figure 1) so that the new hex bushing is installed with the same alignment.

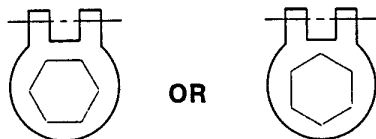


Figure 1. Hex Alignment with Latch Bolt

B. To service the Hex bushing on units with Easi-Ride™ foot, use a 1-3/8-inch/35 mm diameter steel rod 10 inches/25 cm long. Remove the latch and use the rod to push the hex bushing from flange end of foot toward latch end. A 25 ton press is required.

To service the Hex bushing on units with non Easi-Ride™ foot, use a 1-1/8-inch/28 mm diameter steel rod 7 inches/18 cm long. Remove the latch and use the rod to push the hex bushing from flange end of foot toward latch end. A 25 ton press is required.

Note: On Easi-Ride™ models the collar support must be removed to service the hex bushing. Press down on the collar support from the latch end to retract it from the retaining ring (a long bolt with large washers may be placed through the foot assembly to hold the collar support in the retracted position). Push a 3/16-inch/5 mm punch through the side hole in the foot to dislodge the round wire retaining ring, allowing it to be removed with a hooked tool. Once the retaining ring has been removed, the retaining bolt can be loosened, or pressure removed, to remove the collar support and spring.

WARNING

The collar support is spring-loaded. Take precaution to relax spring tension before removal.

Place the new hex bushing, O.D. tapered end first into the foot bore and press in place.

C. The cup seal and rod wiper should be removed with proper o-ring tools to avoid damage to seal surfaces.

6. Remove the accumulator diaphragm and on-off valve from the accumulator valve block, taking care not to damage the valve stem. The valve, bushing and associated seals will come out as an assembly.
7. Remove the accumulator valve block from the flow sleeve tube by tapping on the underside of the valve block with a plastic or rubber hammer. Tap on alternate sides to ensure the valve block comes out straight without binding. Turn the valve block upside down to remove the valve spring.
8. Remove the piston from the flow sleeve assembly.
9. Clamp the accumulator valve block in a bench vise with "in" and "out" ports up.

IMPORTANT

Do not over-tighten the vise and distort the block.

10. Remove the porting block from the accumulator valve block with 3/8-16 thread slide hammer or (Part Number 01120 Tamper Sleeve Tool).

11. To disassemble the flow sleeve assembly, proceed as follows:

A. Remove the piston if not previously removed.

B. Place the flow sleeve assembly, automatic valve body down, on the flow sleeve removal tool (Part Number 04919) which in turn is placed on the flow sleeve removal tube (Part Number 04910).

C. Using an arbor press, and an aluminum disc to protect the flow sleeve, push on the flow sleeve to remove the automatic valve body from the flow sleeve tube.

IMPORTANT

Use a rag in the bottom of the removal tube to protect the automatic valve body when it drops out.

D. The automatic valve, four 1/4 x 1-1/2 inch/6.4 mm x 38 mm push pins (from the flow sleeve) and two 3/16 x 1-1/4 inch/5 mm x 32 mm push pins from the automatic valve body will come out.

E. To remove the flow sleeve from the flow sleeve tube, remove the automatic valve body and associated parts from within the flow sleeve removal tube, and continue pushing on the flow sleeve until it drops out.

IMPORTANT

Use a rag in the bottom of the removal tube to protect the automatic valve body when it drops out.

PRIOR TO ASSEMBLY

- Clean all parts with a degreasing solvent.
- Obtain seal kit (Part Number 04595) so all seals exposed during disassembly can be replaced during assembly.

- Ensure that all seals that were exposed have been replaced with new ones.

- Apply clean grease or o-ring lubricant to all parts during reassembly.

Note: For orientation of parts identified in the following procedures, see the parts list exploded view illustration at the back of this manual.

1. Check all parts for evidence of excessive wear, scoring, or obvious damage. Pay particular attention to seal and other running surfaces, looking for scratches or other signs of fluid contamination caused defects. Dirty or water contaminated fluid can cause scratches on running component surfaces.

2. Examine all exposed seals and o-rings for worn spots or damage caused by overheating or ingestion of contaminants. Although all exposed o-rings and seals must be replaced during assembly of the unit, this inspection should be performed to help identify related faulty components and the cause of an experienced or potential malfunction.

3. All components exhibiting excessive wear or deep scratches can usually be touched up using an emery cloth. Thoroughly clean all parts before assembly.

4. Apply clean grease or o-ring lubricant to all close fitting parts and seals during assembly.

BREAKER ASSEMBLY

1. Using an arbor press and an aluminum disc or accumulator cylinder puller (Part Number 05640) to protect the flow sleeve, push the flow sleeve (with seven holes on its end facing up) into the flow sleeve tube (o-ring groove up) until it is flush with the tube. Be sure to lubricate the entire bore of the flow sleeve tube prior to assembly.

2. Install four 1/4 x 1-1/2 inch/6.4 mm x 38 mm push pins, with ground face end up, in the flow sleeve.

3. Install two 3/16 x 1-1/4 inch/5 mm x 32 mm push pins, with ground face end up, in the automatic valve body. Install the automatic valve, small diameter first, into automatic valve body.

The push pins must be installed such that the flat ground faces bear on the flange of the automatic valve.

IMPORTANT
 The push pins must be installed such that the flat ground faces bear on the flange of the automatic valve

4. Place the automatic valve body, with proper roll pin alignment and with the side holes up, on top of the flow sleeve. Allow the automatic valve to drop and pilot into the bore of the flow sleeve.

5. Use an aluminum disc or accumulator cylinder puller (Part Number 05640) to protect parts and push the automatic valve body into the flow sleeve tube until the valve body shoulder stops on top of the flow sleeve tube.

6. Install the piston, small end first, into the flow sleeve assembly from the automatic valve body end.

7. Install the porting block into the flow sleeve assembly with proper roll pin alignment.

8. Place the accumulator valve block in a bench vise being careful not to over-tighten and distort the block.

9. Push the flow sleeve assembly into the accumulator valve block. It may be necessary to tap on the end of the flow sleeve tube with a rubber or plastic hammer. Be sure to tap on opposite sides to make sure that the assembly seats properly.

10. Remove the assembly from the vise and clamp on the flow sleeve tube with "in" "out" ports facing up.

11. Slide the foot assembly over the piston and drive the foot into the flow sleeve tube by tapping the end of the foot with a plastic or rubber hammer. Align the foot latch with the "in" and "out" ports stamped on the handle.

12. Replace (in this order) the spring, valve spool and bushing (with wiper ring facing out of the accumulator valve block) in the valve spool bore. The bushing should project from the accumulator valve block approximately 0.200 inch/ 5 mm.

13. Apply a light coating of WD40 lubricant to the accumulator diaphragm and install in the accumulator bore.

14. Install the handle assembly and the side rods.

15. Tighten alternate side rods in 15 ft. lb/20 Nm increments to 60 ft. lb/80 Nm.

CHARGING THE ACCUMULATOR

ACCUMULATOR TESTING PROCEDURE (See Figure 2)

To check or charge the accumulator the following equipment is required:

- Accumulator tester (Part Number 02835).
- Charging assembly (Part Number 06545) (includes a regulator, hose and fittings).
- NITROGEN bottle with an 800 psi/56 bar minimum charge.

A. Remove the charging valve cap (or plug) from the breaker.

B. Holding the chuck end of Stanley tester (Part Number 02835), turn the gauge fully counterclockwise to ensure that the stem inside the chuck is completely retracted.

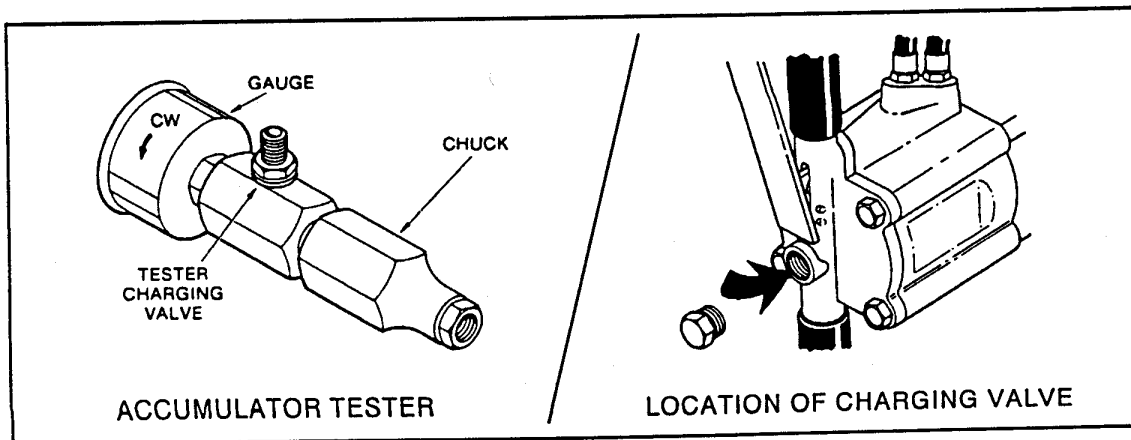


Figure 2.

C. Thread the tester onto the charging valve of the tool accumulator (do not advance the gauge-end into the chuck end. Turn as a unit). Seat the chuck on the accumulator charging valve and hand tighten only.

D. Advance the valve stem by turning the gauge-end clockwise until a pressure is read on the gauge (charge pressure should be 500-700 psi/34-48 bar).

E. If pressure is OK unscrew the gauge-end from the chuck to retract the stem, then unscrew the entire tester assembly from the tool accumulator charging valve. If pressure is low, charge the accumulator as described in the following section.

F. Install the charging valve cap (or plug).

ACCUMULATOR CHARGING PROCEDURE

A. Perform steps A through D of the accumulator testing procedure above.

B. Connect the chuck of the charging assembly to the charging valve on the accumulator tester or, if preferred, remove the tester from the tool charging valve and connect the charging assembly chuck directly to the tool charging valve.

C. Adjust the regulator to a charging pressure of 600 psi/42 bar.

Note: It may be necessary to set the regulator at 650 to 700 psi/45-48 bar to overcome any pressure drop through the charging system.

IMPORTANT

If the breaker is to be used at depths greater than 300 ft/91 m, increase the accumulator charge 40 psi/3 bar for each 100 ft/30 m depth to offset water pressure. 800 psi/55 bar maximum.

D. Open the valve on the charging assembly hose.

E. When the accumulator is fully charged close the valve on the charging assembly hose and remove the charging assembly chuck from the accumulator tester or tool charging valve.

F. If the accumulator tester has been used, be sure to turn the gauge-end fully counterclockwise before removing the tester from the charging valve of the tool.

G. Replace the valve cap (or plug).

GENERAL SERVICE NOTES

1. If the breaker is repainted after servicing, do not allow paint to enter the "in" and "out" ports or the bore of the foot assembly.

2. If the handle grips need to be replaced:

A. Remove old grips and clean the handle.

B. Wash the new grips with solvent and follow with soap and water.

C. With the grips and the handle clean and dry, simply push on the grips. DO NOT lubricate the parts. The grips will not be secure on the handle if any grease or oil is used.

UNDERWATER MODEL PRE-VENTATIVE MAINTENANCE

After each use, the movable portions of the tool that were exposed to water should be flushed with a water displacing oil such as WD40. Remove any remaining water and debris as follows:

1. Turn the tool upside down (without the tool bit) and spray oil through the hex bushing and side holes in the breaker foot assembly to displace any remaining water in the lower piston cavity.

2. Spray oil into the on-off valve/trigger slot area.

3. Dip or spray the entire tool.

4. Before placing the breaker in storage, connect it to a power source and press the trigger to activate (reciprocate) the piston.

TROUBLESHOOTING

If symptoms of poor performance develop, the following chart can be used as a guide to correct the problem.

When diagnosing faults in operation of the breaker,

always check that the hydraulic power source is supplying the correct hydraulic flow and pressure to the breaker as listed in the table. Use a flow meter known to be accurate. Check the flow with the hydraulic fluid temperature at least 80°F/27°C.

PROBLEM	CAUSE	REMEDY
Breaker does not run.	Power unit not functioning.	Check power unit for proper flow and pressure (7-9 gpm/26-34 lpm, 1500-2000 psi/105-140 bar).
	Couplers or hoses blocked.	Remove restriction.
	Pressure and return line hoses reversed at ports.	Be sure hoses are connected to their proper ports.
	Mechanical failure of piston or automatic valve.	Disassemble breaker and inspect for damaged parts.
Breaker does not hit effectively.	Power unit not functioning.	Check power unit for proper flow and pressure (7-9 gpm/26-34 lpm, 1500-2000 psi/105-140 bar).
	Couplers or hoses blocked.	Remove restriction.
	Low accumulator charge (pressure hose will pulse more than normal).	Recharge accumulator. Replace diaphragm if charge loss continues.
	Fluid too hot (above 140°F/60°C).	Provide cooler to maintain proper fluid temperature (140°F/60°C maximum).
	The collar support is not sliding properly in the foot bore.	Remove, clean and replace collar support as required. Make sure hex bushing is in the proper location.
Breaker operates slow.	Low gpm supply from power unit.	Check power unit for proper flow (7-9 gpm/26-34 lpm).
	High backpressure.	Check hydraulic system for excessive backpressure (over 250 psi/17 bar).
	Couplers or hoses blocked.	Remove restriction.
	Orifice plug blocked.	Remove restriction.

PROBLEM	CAUSE	REMEDY
Breaker operates slow. (Cont.)	Fluid too hot (above 140°F/60°C) or too cold (below 60°F/16°C).	Check power unit for proper fluid temperature. Bypass cooler to warm fluid up or provide cooler to maintain proper temperature.
	Relief valve set too low.	Ajust relief valve to 2100-2250 psi/145-155 bar.
	The collar support is not sliding freely in the foot bore.	Remove, clean, and replace collar support as required. Make sure hex bushing is in the proper location.
Breaker gets hot.	Hot fluid going through tool.	Check power unit. Be sure flow rate is not too high causing part of the fluid to go through the relief valve. Provide cooler to maintain proper fluid temperature (140°F/60° max).
		Check relief valve setting.
		Eliminate flow control devices.
Fluid leakage on tool bit.	Lower piston seal failure.	Replace seal.
Fluid leakage around trigger.	Valve spool seal failure.	Replace seals.

SPECIFICATIONS

Weight	48 lb/21 Kg EASI-RIDE™ 48 lb/21 Kg
Pressure Range	1500-200 psi/105-140 bar
Flow Range	*3-6 gpm/15-23 lpm or 7-9 gpm/26-34 lpm
Optimum Flow	*5 gpm/20 lpm or 8 gpm/30 lpm
Connect Size	3/8 Male Pipe Hose End
Length	STD. 22.8 in./58 cm EASI-RIDE™ 25.5 in./65 cm
Width	14 in./35 cm
System Type	o.c. or c.c. EHTMA TYPE C/D HTMA TYPE 1/2
Port Size	SAE 8 O-ring
Hose Whips	Yes

* Low-flow models only.

NOTE

Weights, dimensions and operating specifications listed are subject to change without notice. Where specifications are critical to your application, please consult the factory.

ACCESSORIES

PART NUMBER	DESCRIPTION
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TOOLS

1 inch Hex x 4-1/4 inch Shank

07702	Moil point — 14 inches long UC
07703	Narrow Chisel point — 14 inches long UC
07704	3 inch Chisel — 14 inches long UC
07705	Clay Spade, 5-1/2 inch Blade
07706	Asphalt Wedge, 3 inch Wide
07707	Ground Rod Driver, 1 inch Rod
14123	Sign Post Driver
14931	Digger Chisel
14932	Asphalt Cutter

1-1/8 inch Hex x 6 inch Shank

02331	Clay Spade, 5-1/2 inch Blade
02332	Asphalt Cutter, 5 inch Blade — 11 inches long UC
02333	Moil point — 14 inches long UC
02334	3 inch Chisel — 14 inches long UC
03990	Chisel point — 14 inches long UC
04176	Ground Rod driver, 1 inch Rod
08106	Asphalt Wedge — 14 inches long UC
08107	Keen Kut
14121	Sign Post Driver

UC = Denotes dimension measured from bottom tip of tool to bottom surface of collar.

ACCESSORIES (CONT.)

1-1/4 inch Hex x 6 inch Shank

02335	Asphalt Cutter, 5 inch Blade — 11 inches long UC
02336	Moil Point — 14 inches long UC
02337	3 inch Chisel — 14 inches long UC
02338	1 inch Chisel, Heavy Duty — 14 inches long UC
04367	Ground Rod Driver, 1 inch Rod
04404	Moil Point, Heavy Duty — 18 inches long UC
04405	Clay Spade, 8 inch Blade
08118	Brick Wedge
08119	Asphalt Wedge
09262	Clay Spade, 5-1/2 inch Blade
15059	Sign Post Driver
17782	Detachable Shank
17783	Tamping Pad 6 inch Square

TEST EQUIPMENT

02835	Accumulator Tester
03189	20 gpm/75 lpm Flow Meter
04182	Flow and Pressure Tester
06545	Accumulator Charge Kit

SERVICE TOOLS

PART NO.	DESCRIPTION
01120	Tamper Sleeve Tool
04337	O-Ring Tool Kit
04910	Flow Sleeve Removal Tube
04919	Flow Sleeve Removal Tool
05640	Accumulator Cylinder Puller

WARRANTY

Hand held tools and their parts are warranted against defects in materials and workmanship for a period of 12 months from the date of purchase. Exceptions are cutting parts, steels, and other parts not manufactured by Stanley (such as impact mechanisms, alternators, regulators, and hoses), and parts subject to normal wear and tear (such as o-rings, saw blades, and other parts that become worn through normal use of the tool).

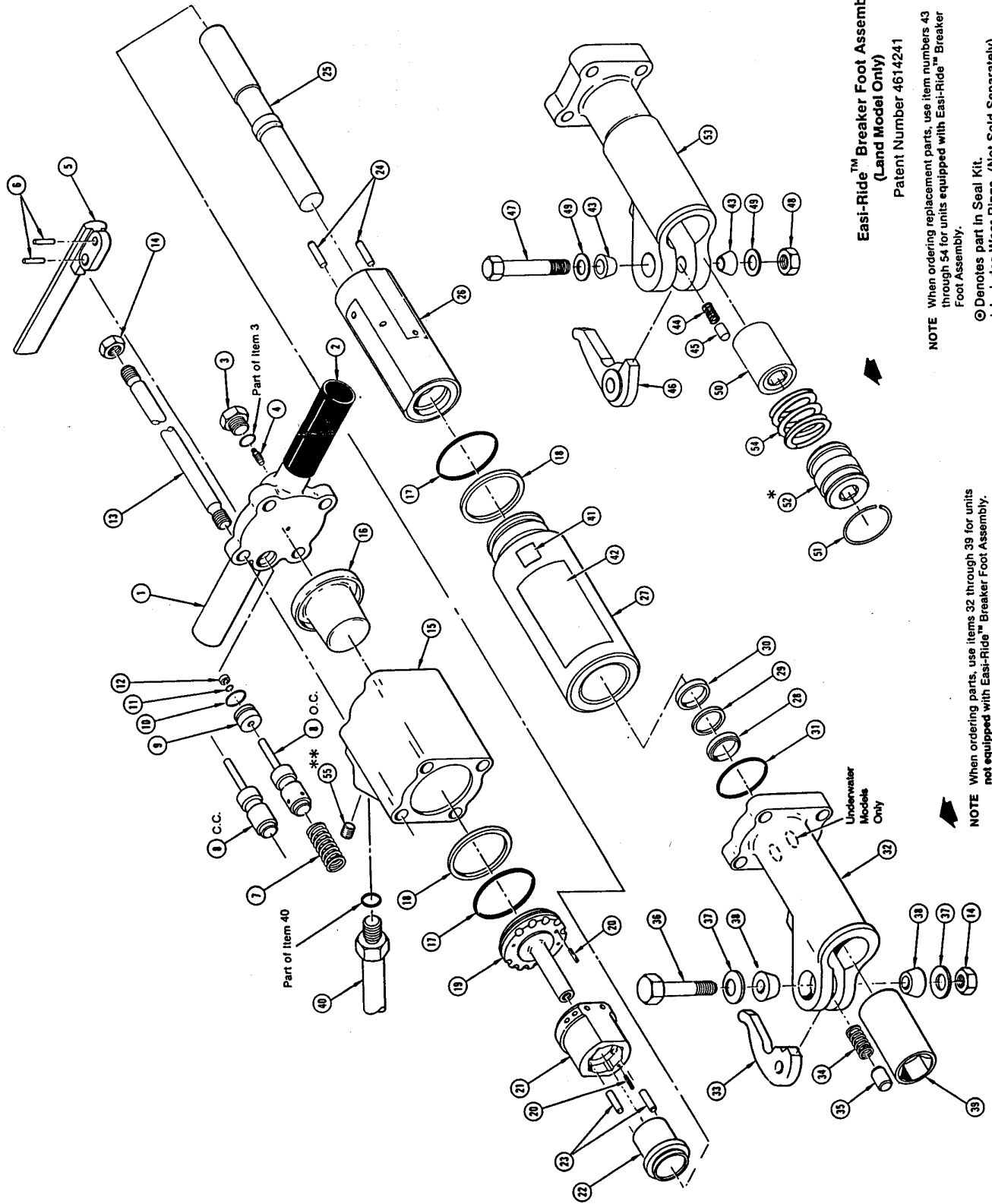
The Warranty Registration Card packed with the tool must be filled out and returned to Stanley upon receipt of the tool.

Stanley reserves the right to replace or repair only those parts which under our examination prove to have been defective at the time of purchase.

Shipping charges are prepaid by the customer unless otherwise authorized by Stanley.

The warranty is void if maximum flow and pressure ratings are exceeded.

There is no other warranty expressed or implied.



Easi-Ride™ Breaker Foot Assembly
 (Land Model Only)
 Patent Number 4614241

NOTE When ordering replacement parts, use item numbers 43 through 54 for units equipped with Easi-Ride™ Breaker Foot Assembly.

- ⊙ Denotes part in Seal Kit.
- * Includes Wear Rings. (Not Sold Separately)
- ** Used on low - flow models only.

NOTE When ordering parts, use items 32 through 39 for units not equipped with Easi-Ride™ Breaker Foot Assembly.

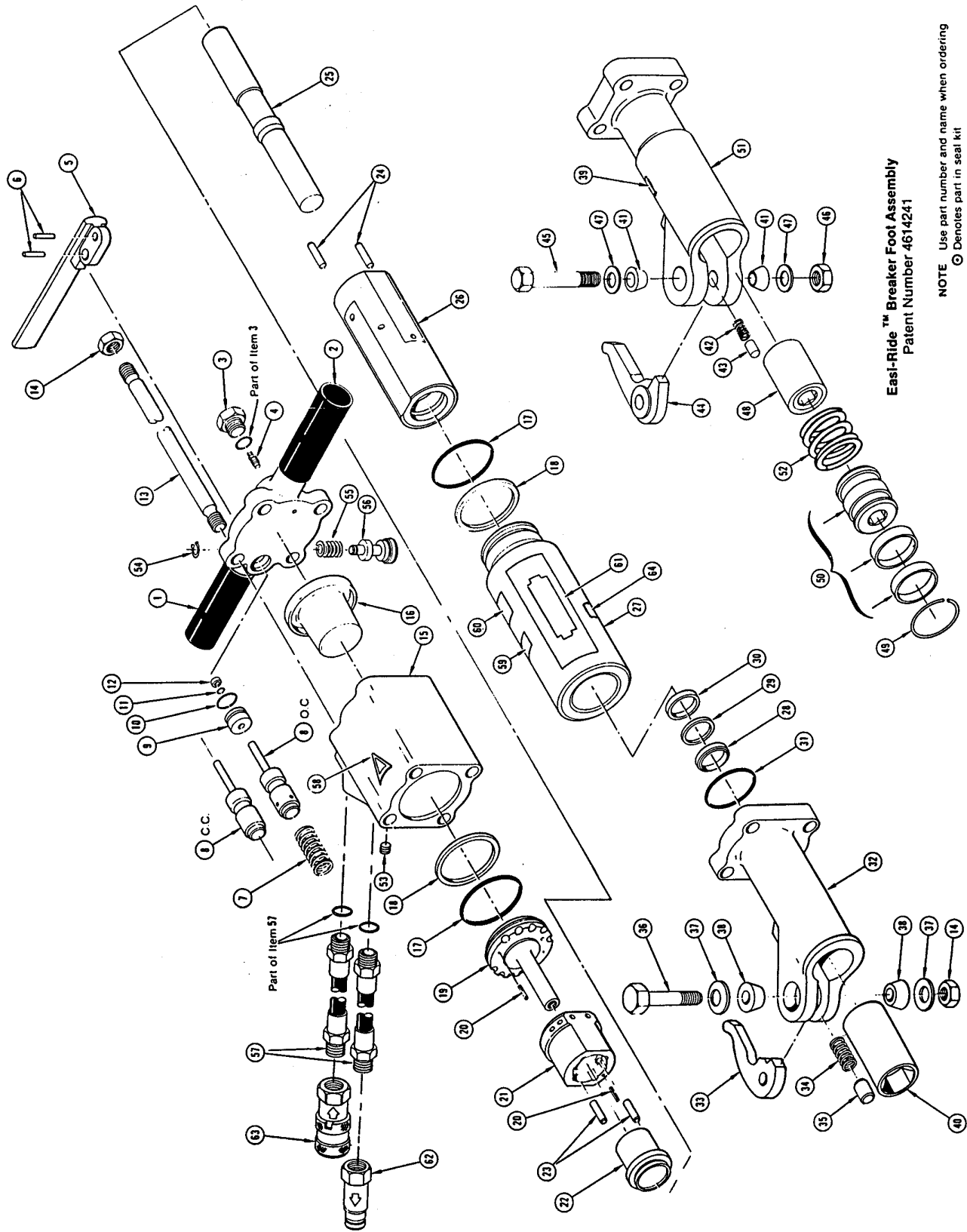
Underwater Models Only

SEAL KIT DATA

Part No.	Qty.	Description
Seal Kit Part No. 04595		
00293	1	O-Ring
01362	1	O-Ring
01604	1	O-Ring (For Item 3)
01605	2	O-Ring (For Item 40)
02022	1	O-Ring
04056	1	Rod Wiper
04379	2	O-Ring
04381	2	Back-Up Ring
04386	1	Cup Seal
04387	1	Rod Wiper

PARTS LIST

Item No.	Part No.	Qty.	Description
1	07483	1	Handle
2	02494	2	Handle Grip
3	07493	1	Cap Plug w/o O-Ring
4	01650	1	Charging Valve
5	04371	1	Trigger
6	07492	2	Spirol Pin 1/4 x 1-1/4
7	04058	1	Spring
8	04077	1	Valve Spool - Open Center
	04593	1	Valve Spool - Closed Center
	07699	1	Bushing Assy (Incl. Items 9 thru 12)
9	04057	1	Bushing
10	00293	1	O-Ring 11/16 x 7/8 x 3/32 ☉
11	01362	1	O-Ring 5/16 x 7/16 x 1/16 ☉
12	04056	1	Rod Wiper ☉
13	04373	4	Side Rod
14	04374	5	Lock Nut 5/8-18
15	07484	1	Accumulator Valve Block
16	07479	1	Accumulator Diaphragm
17	04379	2	O-Ring 2-9/16 x 2-3/4 x 3/32 ☉
18	04381	2	Back-Up Ring ☉
19	04378	1	Porting Block
20	02900	2	Roll Pin 1/8 x 1/2
21	07480	1	Automatic Valve Body
22	04382	1	Automatic Valve
23	04571	2	Push Pin
24	04605	4	Push Pin
25	07481	1	Piston
26	07485	1	Flow Sleeve
27	07478	1	Flow Sleeve Tube
	04383	1	Flow Sleeve Tube Easi-Ride Models
28	04387	1	Rod Wiper ☉
29	04780	1	Washer
30	04386	1	Cup Seal ☉
31	02022	1	O-Ring 2-1/4 x 2-1/2 x 1/8 ☉
	07489	1	Breaker Foot Assy 1-in. Hex (Incl. Item 32 thru 39 and 1 Item 14)
	07899	1	Breaker Foot Assy 7/8-in. Hex (Incl. Item 32 thru 39 and 1 Item 14)
	07510	1	Breaker Foot Assy 1in. Hex Flat Parallel to Latch Bolt (Incl. Item 32 thru 39 and 1 Item 14)
	07694	1	Breaker Foot Assy 7/8-in. Hex Flat Parallel to Latch Bolt (Incl. Item 32 thru 39 and 1 Item 14)
	08856	1	Breaker Foot Assy Underwater Model Only (Incl. Item 32 thru 39 and 1 Item 14)
32	07445	1	Breaker Foot
	08857	1	Breaker Foot (Underwater Model Only)
	07695	1	Breaker Foot
33	04394	1	Latch
34	04392	1	Spring
35	04393	1	Detent
36	04717	1	Latch Bolt
37	04716	2	Spring Washer
38	04715	2	Rubber Cone Washer
39	07477	1	Hex Bushing - 1-inch
	01742	1	Hex Bushing - 7/8-inch
40	01652	2	Pigtail Hose Assembly
41	03693	1	Closed Center Sticker (CC Model)
42	07487	1	Nameplate Sticker
	08154	1	Breaker Foot Assy - 1-1/8 Hex Easi-Ride™ (Incl. Item 43 thru 54)
	08081	1	Breaker Foot Assy - 1-1/4 Hex Easi-Ride™ (Incl. Item 43 thru 54)
43	01269	2	Rubber Sleeve
44	01744	1	Spring
45	08411	1	Detent
46	01837	1	Latch
47	04983	1	Latch Bolt
48	04984	1	Stop Nut
49	04985	2	Spring Washer
50	07517	1	Hex Bushing - 1-1/8
	07518	1	Hex Bushing - 1-1/4
51	07522	1	Retaining Ring
52	08115	1	Collar Support Assy - 1-1/8
	08116	1	Collar Support Assy - 1-1/4
53	12298	1	Breaker Foot / Insert Assy
54	08158	1	Spring
55	11587	1	Orifice Plug **
	15875	1	Tool Operator's Warning Tag (Not Illustrated)



Easi-Ride™ Breaker Foot Assembly
 Patent Number 4614241

NOTE Use part number and name when ordering
 Ⓞ Denotes part in seal kit

SEAL KIT DATA

UK MODELS

Part No.	Qty.	Description
Seal Kit Part No. 04595		
00293	1	O-Ring
01362	1	O-Ring
04056	1	Rod Wiper
04379	2	O-Ring
04381	2	Back-Up Ring
04387	1	Rod Wiper
04386	1	Cup Seal
02022	1	O-Ring
01605	2	O-Ring (for Item 41)
01604	1	O-Ring (For Item 3)

PARTS LIST

Item No.	Part No.	Qty.	Description
1	07975	1	Handle Assembly
2	02494	2	Handle Grip
3	07493	1	O-Ring Plug
4	01650	1	Charging Valve
5	04371	1	Trigger
6	07492	2	Spirol Pin 1/4 x 1-1/4
7	40458	1	Spring
8	04077	1	Valve Spool - Open Center
9	04057	1	Bushing
10	00293	1	O-Ring 11/16 x 7/8 x 3/32 ☉
11	01362	1	O-Ring 5/16 x 7/16 x 1/16 ☉
12	04056	1	Rod Wiper ☉
13	04373	4	Side Rod
14	04374	5	Lock Nut 5/8-11
15	07484	1	Accumulator Valve Block 30 lpm
	11588		Accumulator Valve Block 20 lpm
16	07479	1	Accumulator Diaphragm
17	04379	2	O-Ring 2-9/16 x 2-3/4 x 3/32 ☉
18	04381	2	Back-Up Ring ☉
19	04378	1	Porting Block
20	02900	2	Roll Pin 1/8 x 1/2
21	07480	1	Automatic Valve Body
22	04382	1	Automatic Valve
23	04571	2	Push Pin
24	04605	4	Push Pin
25	07481	1	Piston
26	07485	1	Flow Sleeve
27	07478	1	Flow Sleeve Tube
	04383	1	Flow Sleeve Tube Easi-Ride™ Models
28	04387	1	Rod Wiper ☉
29	04780	1	Washer
30	04386	1	Cup Seal ☉
31	02022	1	O-Ring 2-1/4 x 2-1/2 x 1/8 ☉
	07489	1	Breaker Foot Assy (incl. Item 32 thru 40)
	07510	1	Breaker Foot Assy Hex Flat Parallel to Latch Bolt (incl. Item 32 thru 40)
32	07445	1	Breaker Foot
33	04394	1	Latch
34	04392	1	Spring
35	04393	1	Detent
36	04717	1	Latch Bolt
37	04716	2	Spring Washer
38	04715	2	Rubber Cone Washer
39	11211	1	Sound Level Sticker
40	07477	1	Hex Bushing
	11637	1	Foot Assy - 1-1/4 x 6-1/4 Hex Easi-Ride™ Items 42-53
41	01269	2	Rubber Sleeve
42	01744	1	Spring
43	08411	1	Detent
44	01837	1	Latch
45	04983	1	Latch Bolt
46	04984	1	Stop Nut
47	04985	2	Spring Washer
48	07517	1	Hex Bushing - 1-1/4 x 6-1/4
49	07522	1	Retaining Ring
50	08115	1	Collar Support Assy - 1-1/4 x 6-1/4
51	08157	1	Breaker Foot
52	08158	1	Spring
53	11587	1	Orifice Plug (20 lpm only)
54	00224	1	Retaining Ring
55	07593	1	Spring
56	07594	1	Trigger Lock
57	01652	2	Pigtail Hose Assembly
58	11207	1	Sticker Circuit Type D
	11206		Sticker Circuit Type C (20 lpm)
59	03783	1	Sticker, Flow 3-9
	03781		Sticker, Flow (20 lpm) 3-5 gpm
60	11209	1	Sticker, Sound Power Level
61	07487	1	Name Tag
62	03973	1	Coupler Body, Male
63	03972	1	Coupler Body, Female
64	21913	1	Ear Defender Sticker



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