



BR89

HYDRAULIC BREAKER



SAFETY, OPERATION AND MAINTENANCE USER MANUAL



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IMPORTANT

To fill out a Product Warranty Recording form, and for information on your warranty, visit Stanleyhydraulic.com and select the Warranty tab.
(NOTE: The warranty recording form must be submitted to validate the warranty).

SERVICING THE STANLEY HYDRAULIC BREAKER. This manual contains safety, operation, and routine maintenance instructions. Stanley Hydraulic Tools recommends that servicing of hydraulic tools, other than routine maintenance, must be performed by an authorized and certified dealer. Please read the following warning.

⚠ WARNING

SERIOUS INJURY OR DEATH COULD RESULT FROM THE IMPROPER REPAIR OR SERVICE OF THIS TOOL.

REPAIRS AND / OR SERVICE TO THIS TOOL MUST ONLY BE DONE BY AN AUTHORIZED AND CERTIFIED DEALER.

For the nearest authorized and certified dealer, call Stanley Hydraulic Tools at the number listed on the back of this manual and ask for a Customer Service Representative.

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 general 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 in this manual.

The BR89 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 hoses before operation. Failure to do so could result in personal injury or equipment damage.



- Operator must start in a work area without bystanders. The operator must be familiar with all prohibited work areas such as excessive slopes and dangerous terrain conditions.
- Establish a training program for all operators to ensure safe operation.
- Do not operate the tool unless thoroughly trained or under the supervision of an instructor.
- Always wear safety equipment such as goggles, gloves, ear, head, and breathing protection, and safety shoes at all times when operating the tool.
- Do not inspect, carry or clean the tool while the hydraulic power source is connected. Accidental engagement of the tool can cause serious injury.
- Supply hoses must have a minimum working pressure rating of 2500 psi/175 bar.
- Be sure all hose connections are tight.
- The hydraulic circuit control valve must be in the **OFF** position when coupling or uncoupling the tool. Wipe all couplers clean before connecting. Use only lint-free cloths. Failure to do so may result in damage to the quick couplers and cause overheating of the hydraulic system.
- Do not operate the tool at oil temperatures above 140 °F/60 °C. Operation at higher oil temperatures can cause operator discomfort and may damage the tool. Never come in contact with the tool bit, the bit can get hot.
- Do not operate a damaged, improperly adjusted, or incompletely assembled tool.
- Do not weld, cut with an acetylene torch, or hard-face the tool bit.
- To avoid personal injury or equipment damage, all tool repair, maintenance and service must only be performed by authorized and properly trained personnel.
- Do not exceed the rated limits of the tool or use the tool for applications beyond its design capacity.
- Always keep critical tool markings, such as labels and warning stickers legible.
- Always replace parts with replacement parts recommended by Stanley Hydraulic Tools.
- Check fastener tightness often and before each use daily.
- Never operate the tool if you cannot be sure that underground utilities are not present.
- Do not wear loose fitting clothing when operating the tool.

SAFETY PRECAUTIONS

- Warning: Hydraulic fluid under pressure could cause skin injection injury. If you are injured by hydraulic fluid, get medical attention immediately.
- Keep all body parts away from the working tool.
- When handling material or the tool bit, wear your (PPE) Personal Protection Equipment.
- Be observant of the hydraulic hoses lying about the work area, they can be a tripping hazard.
- Always de-energize the hydraulic system when changing a tool bit.
- Take caution when changing a tool bit, tool bits can get very hot.
- Never use the tool in an explosive atmosphere, sparks from the breaking process could ignite explosive gas.
- Use proper lifting techniques when handling the tool, get help from a co-worker and do not over-reach.
- Use proper protection from falling or flying debris, keep bystanders at a safe distance.
- Do not exceed the rated flow and pressure. See Specifications in this manual for correct flow rate and pressure rating. Rapid failure of the internal seals may result.

⚠ WARNING

Exposure to crystalline Silica (sometimes called “silica dust”) as a result of breaking, drilling, or hammering of rock, concrete, asphalt or other materials may cause Silicosis (a serious lung disease), silicosis-related illnesses, cancer, or death.

Respiratory protection is highly recommended when working with materials containing Silica Dust.

Always wear a respirator approved for protection against crystalline silica.



TOOL STICKERS & TAGS



13842
BR89 Name Decal



10180
Caution Decal

NOTE:
THE INFORMATION LISTED ON THE STICKERS SHOWN, MUST BE LEGIBLE AT ALL TIMES.
REPLACE DECALS IF THEY BECOME WORN OR DAMAGED. REPLACEMENTS ARE AVAILABLE FROM YOUR LOCAL STANLEY DISTRIBUTOR.

The safety tag (P/N 15875) at right is attached to the tool 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 tool when not in use.

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

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 PRESSURING SYSTEM. SYSTEM PRESSURE HOSE MUST ALWAYS BE CONNECTED TO TOOL "IN" 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 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

SAFETY TAG P/N 15875 (Shown smaller than actual size)

HOSE TYPES

The rated working pressure of the hydraulic hose must be equal to or higher than the relief valve setting on the hydraulic system. There are three types of hydraulic hose that meet this requirement and are authorized for use with Stanley Hydraulic Tools. They are:

Certified non-conductive — constructed of thermoplastic or synthetic rubber inner tube, synthetic fiber braid reinforcement, and weather resistant thermoplastic or synthetic rubber cover. *Hose labeled **certified non-conductive** is the only hose authorized for use near electrical conductors.*

Wire-braided (conductive) — constructed of synthetic rubber inner tube, single or double wire braid reinforcement, and weather resistant synthetic rubber cover. *This hose is **conductive** and must never be used near electrical conductors.*

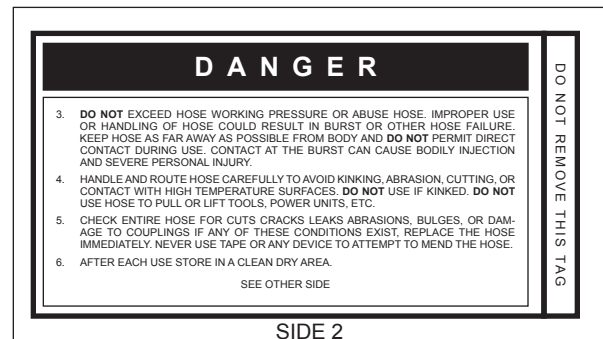
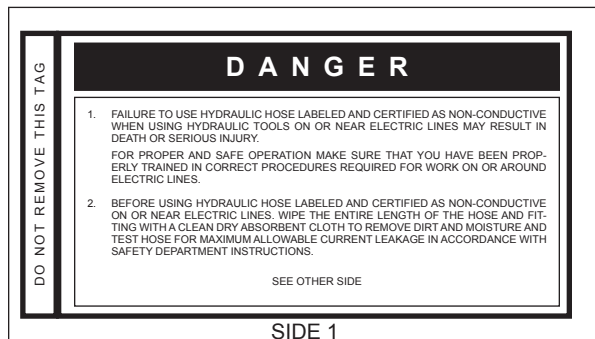
Fabric-braided (not certified or labeled non-conductive) — constructed of thermoplastic or synthetic rubber inner tube, synthetic fiber braid reinforcement, and weather resistant thermoplastic or synthetic rubber cover. *This hose is **not certified non-conductive** and must never be used near electrical conductors.*

HOSE SAFETY TAGS

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

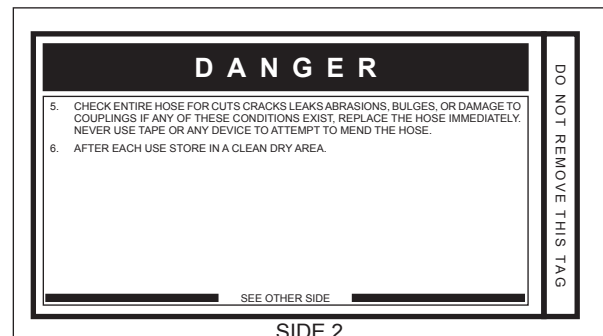
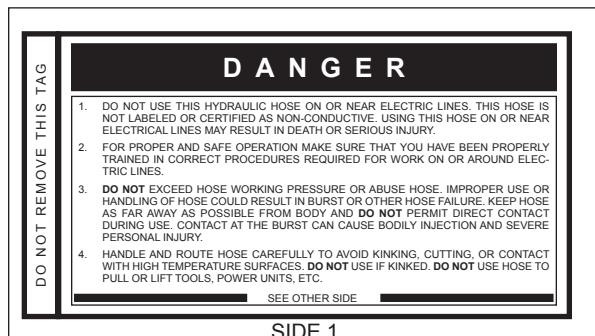
If the information on a tag is illegible because of wear or damage, replace the tag immediately. A new tag may be obtained from your Stanley Distributor.

THE TAG SHOWN BELOW IS ATTACHED TO “CERTIFIED NON-CONDUCTIVE” HOSE



(Shown smaller than actual size)

THE TAG SHOWN BELOW IS ATTACHED TO “CONDUCTIVE” HOSE.



(Shown smaller than actual size)

Tool to Hydraulic Circuit Hose Recommendations

The chart to the right shows recommended minimum hose diameters for various hose lengths based on gallons per minute (gpm)/liters per minute (lpm). These recommendations are intended to keep return line pressure (back pressure) to a minimum acceptable level to ensure maximum tool performance.

This chart is intended to be used for hydraulic tool applications only based on Stanley Hydraulic Tools tool operating requirements and should not be used for any other applications.

All hydraulic hose must have at least a rated minimum working pressure equal to the maximum hydraulic system relief valve setting.

All hydraulic hose must meet or exceed specifications as set forth by SAE J517.

Oil Flow		Hose Lengths		Inside Diameter		USE (Press/Return)	Min. Working Pressure	
GPM	LPM	FEET	METERS	INCH	MM		PSI	BAR
Certified Non-Conductive Hose - Fiber Braid - for Utility Bucket Trucks								
4-9	15-34	up to 10	up to 3	3/8	10	Both	2250	155
Conductive Hose - Wire Braid or Fiber Braid -DO NOT USE NEAR ELECTRICAL CONDUCTORS								
4-6	15-23	up to 25	up to 7.5	3/8	10	Both	2500	175
4-6	15-23	26-100	7.5-30	1/2	13	Both	2500	175
5-10.5	19-40	up to 50	up to 15	1/2	13	Both	2500	175
5-10.5	19-40	51-100	15-30	5/8	16	Both	2500	175
5-10.5	19-40	100-300	30-90	5/8	16	Pressure	2500	175
10-13	38-49	up to 50	up to 15	3/4	19	Return	2500	175
10-13	38-49	up to 50	up to 15	5/8	16	Both	2500	175
10-13	38-49	51-100	15-30	5/8	16	Pressure	2500	175
10-13	38-49	100-200	30-60	3/4	19	Return	2500	175
13-16	49-60	up to 25	up to 8	1	25.4	Pressure	2500	175
13-16	49-60	26-100	8-30	3/4	19	Return	2500	175
13-16	49-60	26-100	8-30	3/4	19	Pressure	2500	175
13-16	49-60	26-100	8-30	1	25.4	Return	2500	175

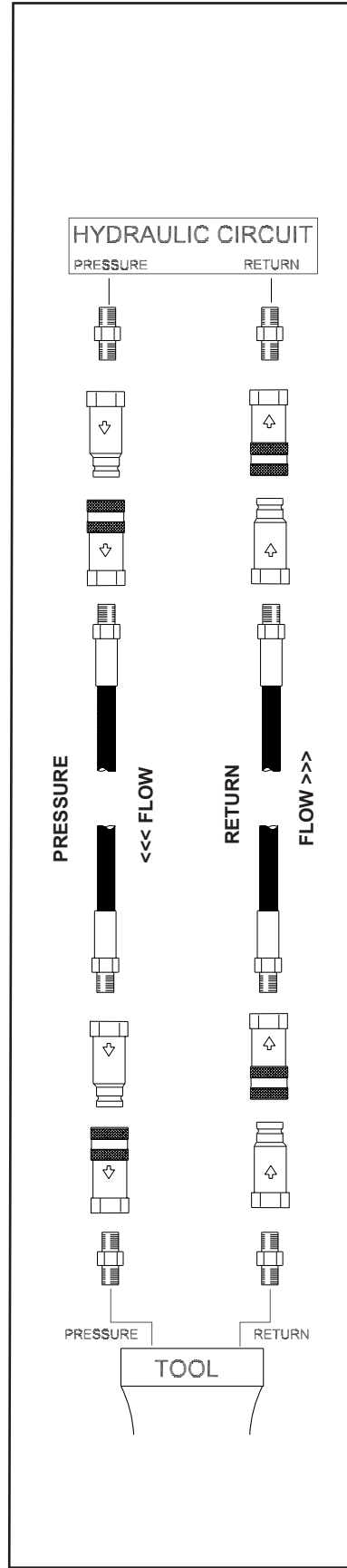


Figure 1. Typical Hose Connections

HTMA REQUIREMENTS

TOOL CATEGORY



HYDRAULIC SYSTEM REQUIREMENTS

	TYPE I	TYPE II	TYPE III	TYPE RR
FLOW RATE	4–6 gpm (15–23 lpm)	7–9 gpm (26–34 lpm)	11–13 gpm (42–49 lpm)	9–10.5 gpm (34–40 lpm)
TOOL OPERATING PRESSURE (At the power supply outlet)	2000 psi (145–155 bar)	2000 psi (138 bar)	2000 psi (138 bar)	2000 psi (138 bar)
SYSTEM RELIEF VALVE SETTING (At the power supply outlet)	2100–2250 psi (145–155 bar)	2100–2250 psi (145–155 bar)	2100–2250 psi (145–155 bar)	2200–2300 psi (145–155 bar)
MAXIMUM BACK PRESSURE (At tool end of the return hose)	250 psi (17 bar)	250 psi (17 bar)	250 psi (17 bar)	250 psi (17 bar)
Measured at a max. fluid viscosity of: (At min. operating temperature)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)
TEMPERATURE	140 °F (60 °C)	140 °F (60 °C)	140 °F (60 °C)	140 °F (60 °C)
Sufficient heat rejection capacity to limit max. fluid temperature to: (At max. expected ambient temperature)				
Min. cooling capacity at a temperature difference of between ambient and fluid temps	3 hp (2.24 kW) 40 °F (22 °C)	5 hp (3.73 kW) 40 °F (22 °C)	7 hp (4.47 kW) 40 °F (22 °C)	6 hp (5.22 kW) 40 °F (22 °C)
NOTE: Do not operate the tool at oil temperatures above 140 °F (60 °C). Operation at higher temperatures can cause operator discomfort at the tool.				
FILTER				
Min. full-flow filtration	25 microns	25 microns	25 microns	25 microns
Sized for flow of at least: (For cold temp. start-up and max. dirt-holding capacity)	30 gpm (114 lpm)	30 gpm (114 lpm)	30 gpm (114 lpm)	30 gpm (114 lpm)
HYDRAULIC FLUID	100–400 ssu*	100–400 ssu*	100–400 ssu*	100–400 ssu*
Petroleum based (Premium grade, anti-wear, non-conductive)		(20–82 centistokes)		
VISCOSITY (At min. and max. operating temps)				
NOTE: When choosing hydraulic fluid, the expected oil temperature extremes that will be experienced in service determine the most suitable temperature viscosity characteristics. Hydraulic fluids with a viscosity index over 140 will meet the requirements over a wide range of operating temperatures.				

*SSU = Saybolt Seconds Universal

The recommended hose size is .500 inch/12 mm ID up to 50 ft/15 m long and .625 inch/16 mm ID minimum up to 100 ft/30 m.

PRE-OPERATION 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 maximum.

INSTALL TOOL BIT

1. Rotate the latch on the breaker foot downward (pointing away from the tool).
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. Observe flow indicators stamped on hose couplers to ensure that fluid flow is in the proper direction. The female coupler on the tool hose is the inlet 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 within the hoses may make them difficult to connect. When possible, connect the free ends of the hoses together.

OPERATION PROCEDURES

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. Slow-speed operation permits easier starting of the tool bit into the work surface.

5. To start, break an opening (hole) in the center of the surface. After making a hole, break portions of the material into the original opening. For best productivity, the breaking should be done around the original hole.

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

Harder material or more reinforcing wire or rebar will require taking smaller bites. To determine the most effective bite, start with 2 in./50 mm or smaller bites.

Bites 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 hammers into the material without the material fracturing. This causes the tool bit to become trapped in the surrounding material.

COLD WEATHER OPERATION

If the breaker is to be used during cold weather, preheat the hydraulic fluid at low engine speed. When using the normally recommended fluid, fluid 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 fluid that is too viscous or thick.

TOOL PROTECTION & CARE

NOTICE

In addition to the Safety Precautions found in this manual, observe the following for equipment protection and care.

- Make sure all couplers are wiped clean before connection.
- 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 couples and cause overheating of the hydraulic system.
- Always store the tool in a clean dry space, safe from damage or pilferage.
- Make sure the circuit **PRESSURE** hose (with male quick disconnect) is connected to the **IN** port. The circuit **RETURN** hose (with female quick disconnect) is connected to the opposite port. Do not reverse circuit flow. This can cause damage to internal seals.
- 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/172 bar.
- Do not exceed the rated flow and pressure. See Specifications in this manual for correct flow rate and pressure rating. Rapid failure of the internal seals may result.
- Always keep critical tool markings, such as warning stickers and tags legible.
- 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.
- Tool repair should be performed by experienced personnel only.
- Make certain that the recommended relief valves are installed in the pressure side of the system.
- Do not use the tool for applications for which it was not intended.

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Tool 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.
Tool 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 (130 °F/55 °C).
	The collar support is not sliding freely in the foot bore.	Remove, clean and replace as required. Make sure hex bushing is in the proper location.
Tool operates slow.	Low gpm supply from power unit.	Check power unit for proper flow (7–9 gpm/26–34 lpm).
	High back pressure.	Check hydraulic system for excessive back pressure (over 250 psi/17 bar).
	Couplers or hoses blocked.	Remove restriction.
	Orifice plug blocked.	Remove restriction.
	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 the fluid or provide cooler to maintain proper temperature.
	The collar support is not sliding freely in the foot bore.	Remove, clean and replace as required. Make sure hex bushing is in the proper location.
	Relief valve set too low.	Adjust relief valve to 2100–2250 psi/145–155 bar.
Tool 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 °C max). Check the relief valve setting. Eliminate flow control devices.
Fluid leakage on tool bit.	Lower piston seal failure.	Replace seal.
Fluid leakage through charge valve cap.	Upper piston seal failure or accumulator O-ring failure or accumulator charge loss or failure.	Replace seals, recharge or replace accumulator diaphragm.
Fluid leakage around trigger.	Valve spool seal failure.	Replace seals.

CHARGING THE ACCUMULATOR

ACCUMULATOR TESTING PROCEDURE

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

- 31254 Charge Kit: which includes the following.
 - Accumulator Tester (Part Number 02835).
 - Charging Assembly (P/N 15304— includes a liquid filled gauge with snub valve, hose and fittings.)
- NITROGEN bottle with an 1000 psi/70 bar minimum charge. (Not included in 31254 Charge Kit.)

CAUTION

This breaker contains nitrogen under pressure.

1. Remove the valve cap assembly from the breaker.
2. Remove the protective cap and loosen the 5/8-inch hex locking nut on the tool charging valve 1-1/2 turns.
3. Holding the chuck end of Accumulator Tester (P/N 02835) turn the gauge fully counterclockwise to ensure that the stem inside the chuck is completely retracted.
4. Thread the tester onto the accumulator charging valve. 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.
5. Advance the valve stem of the tester by turning the gauge-end clockwise until a pressure is read on the gauge (charge pressure should be 700–900 psi/48–62 bar).
6. If pressure is OK unscrew the gauge-end from the chuck to retract the stem, then unscrew the entire tester assembly from the accumulator charging valve. If pressure is low, charge the accumulator as described in the following procedure.
7. Tighten the 5/8-inch hex locking nut on the tool charging valve. Be careful not to overtighten. Install the protective cap and valve cap assembly.

ACCUMULATOR CHARGING

1. Perform Steps 1 through 4 of the Accumulator Testing procedure above.
2. Connect the chuck of the charging assembly to the charging valve on the accumulator tester or, if preferred, remove the tester from the charging valve

and connect the charging assembly chuck directly to the charging valve.

3. Adjust the regulator to the charging pressure of 800 psi/55 bar.

NOTE:

It may be necessary to set the gauge at 850–900 psi/59–62 bar to overcome any pressure drop through the charging system.

4. Open the valve on the charging assembly hose.
5. 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.
6. 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.
7. Tighten the 5/8-inch hex locking nut on the tool charging valve and replace the protective cap.
8. Replace the valve cap assembly.

GENERAL SERVICE NOTES

1. If the breaker is repainted after servicing, be sure to mask off the vent in the valve cap assembly. 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 the old grips and clean the handle.
 - b. Wash the new grips and the handle clean and dry, simply push or drive the grips on. **DO NOT** lubricate the parts. The grips will not be secure on the handle if any grease or oil is used.

UNDERWATER MODEL PREVENTATIVE 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 drive hex 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. Cycle the tool hydraulically several times before storing away.

CHARGING THE ACCUMULATOR

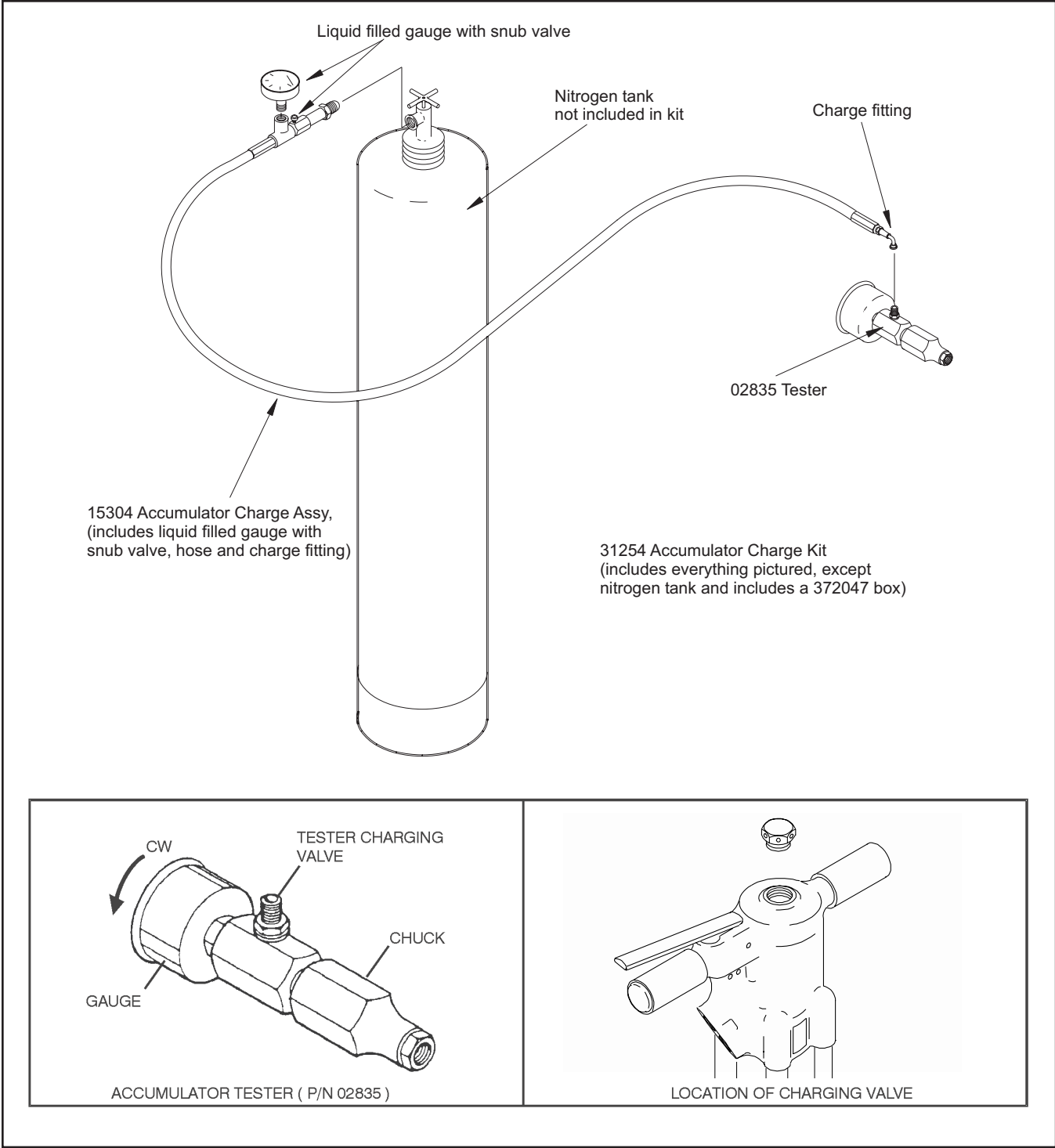


Figure 2. Charging the Accumulator

SPECIFICATIONS

Pressure Range.....	1500–2000 psi/105–140 bar
Flow Range	7–9 gpm/26–34 lpm
Optimum Flow	8 gpm/30 lpm
Maximum Back Pressure.....	250 psi/17 bar
Connect Size & Type.....	3/8 in. Male Pipe Hose Ends
Weight	80 lbs/36 kg
Length.....	29 in./73.5 cm
Width	16 in./40 cm
System Type.....	Open or Closed Center HTMA Type II
Port Size.....	SAE 8 O-ring

ACCESSORIES

1-1/8 IN. HEX × 6 IN. SHANK

Moil Point, 14 in. Long UC.....	02333
Chisel Point, 14 in. Long UC	03990
3-inch Chisel, 14 in. Long UC.....	02334
Clay Spade, 5-1/2 in. Blade.....	02331
Asphalt Cutter, 5 in. Blade, 11 in. Long	02332
Asphalt Wedge	08106
Ground Rod Driver, 1-in. Rod	04176

1-1/4 IN. HEX × 6 IN. SHANK

Asphalt Cutter, 5 in. Blade, 11 in. Long UC	02335
Moil Point, 14 in. Long UC.....	02336
3-inch Chisel, 14 in. Long UC.....	02337
1- inch Chisel, Heavy Duty, 14 in. Long UC	02338
Ground Rod Driver, 1 in. Rod	04367
Moil Point, Heavy Duty, 18 in. Long UC	04404
Clay Spade, 8 in./20 cm Blade	04405
Asphalt Wedge	08119

TEST EQUIPMENT

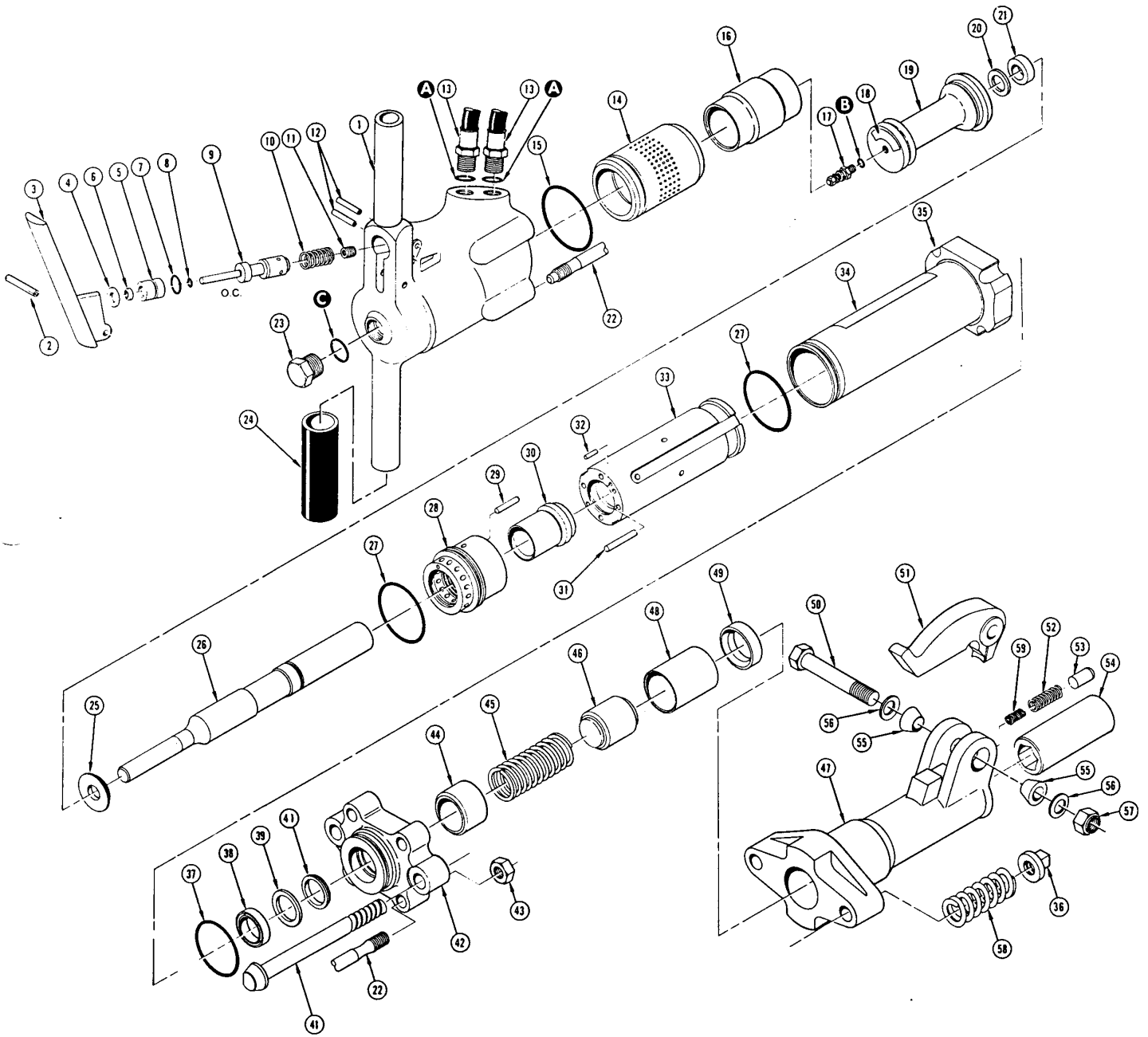
Accumulator Tester.....	02835
Flow and Pressure Tester.....	04182
Accumulator Charge Kit (Includes 02835 Tester, 15304 Accumulator Charge Assy and 372047 Box).....	31254
Accumulator Charge Assy (Includes liquid filled gauge with valve, hose and Charge Fitting)	15304

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

SERVICE TOOLS

O-ring Tool Kit.....	04337
Seal Kit	14830
Accumulator Disassembly Tool.....	05508
Accumulator Cylinder Puller	05640
Split Rings	04908
Flow Sleeve Installation Spacer	04909
Flow Sleeve Removal Tube.....	04910

BR89 PARTS ILLUSTRATION



BR89 PARTS LIST

ITEM	PART NO.	QTY	DESCRIPTION
	07973	1	BREAKER HANDLE ASSY (INCL ITEMS 1–12)
1	04049	1	BREAKER HANDLE
2	00844	1	ROLL PIN
3	04053	1	TRIGGER
4	04055	1	WASHER
5	04057	1	BUSHING
6	04056	1	ROD WIPER
7	00293	1	O-RING
8	01362	1	O-RING
9	04077	1	VALVE SPOOL, OC
10	04058	1	SPRING
11	05465	1	ORIFICE PLUG
12	22891	2	ROLL PIN
13	09546	2	PIGTAIL HOSE ASSY 18"
	06889	1	ACCUMULATOR ASSY (INCL ITEMS 14–21)
14	04060	1	ACCUMULATOR CYLINDER
15	04054	1	O-RING
16	04059	1	ACCUMULATOR DIAPHRAGM
17	04051	1	CHARGING VALVE
18	10180	1	STICKER, CAUTION
19	05309	1	ACCUMULATOR CHAMBER
20	05301	1	BACK-UP WASHER
21	05307	1	CUP SEAL
22	13823	4	SIDE ROD
23	04050	1	VALVE CAP ASSY
24	02494	2	HANDLE GRIP
25	04064	1	WASHER
26	22164	1	PISTON
27	24115	2	O-RING
28	04066	1	AUTOMATIC VALVE BODY
29	04571	2	PUSH PIN
30	04065	1	AUTOMATIC VALVE
31	04067	4	PUSH PIN
32	07890	1	ROLL PIN
33	22165	1	FLOW SLEEVE
34	13842	1	NAME TAG BR89
35	13824	1	FLOW TUBE ASSY
36	02027	2	HEX NUT
37	13854	1	O-RING
38	34127	1	CUP SEAL
39	13837	1	WASHER
40	04074	1	ROD WIPER

ITEM	PART NO.	QTY	DESCRIPTION
41	13819	2	FOOT BOLT
42	13831	1	ADAPTER BLOCK
43	04374	4	LOCK NUT
44	12143	1	UPPER ANVIL STOP
45	13816	1	COMPRESSION COIL SPRING
46	12141	1	ANVIL
	13836	1	BREAKER FOOT ASSY (BR89120) (INCL ITEMS 47–57 & 59)
	14837	1	BREAKER FOOT ASSY (BR89130) (INCL ITEMS 47–57 & 59)
47	13835	1	BREAKER FOOT
48	13821	1	SLEEVE
49	13820	1	IMPACT RING
51	01837	1	LATCH
52	01744	1	SPRING
53	08411	1	DETENT
54	13825	1	HEX BUSHING, 1-1/8 × 4 (BR89120)
	14836	1	HEX BUSHING, 1-1/4 × 4 (BR89130)
55	01269	2	RUBBER SLEEVE
56	04985	2	SPRING WASHER
57	04984	1	STOP NUT
58	13817	2	COMPRESSION COIL SPRING
59	18903	1	COMPRESSION COIL SPRING
	03972	1	COUPLER, FEMALE
	03973	1	COUPLER, MALE
	03971	1	COUPLER SET
	14830	1	SEAL KIT



Stanley Hydraulic Tools
3810 SE Naef Road
Milwaukie, Oregon
503-659-5660 / Fax 503-652-1780
www.stanleyhydraulic.com

IMPORTANT

To fill out a Product Warranty Recording form, and for information on your warranty, visit Stanleyhydraulic.com and select the Warranty tab.
(NOTE: The warranty recording form must be submitted to validate the warranty).