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Stanley Hydraulic Tools
Division of The Stanley Works
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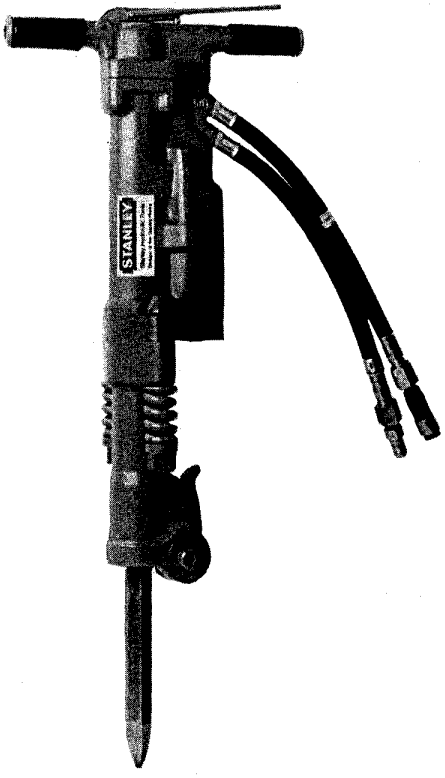
PARTS LIST



BR85

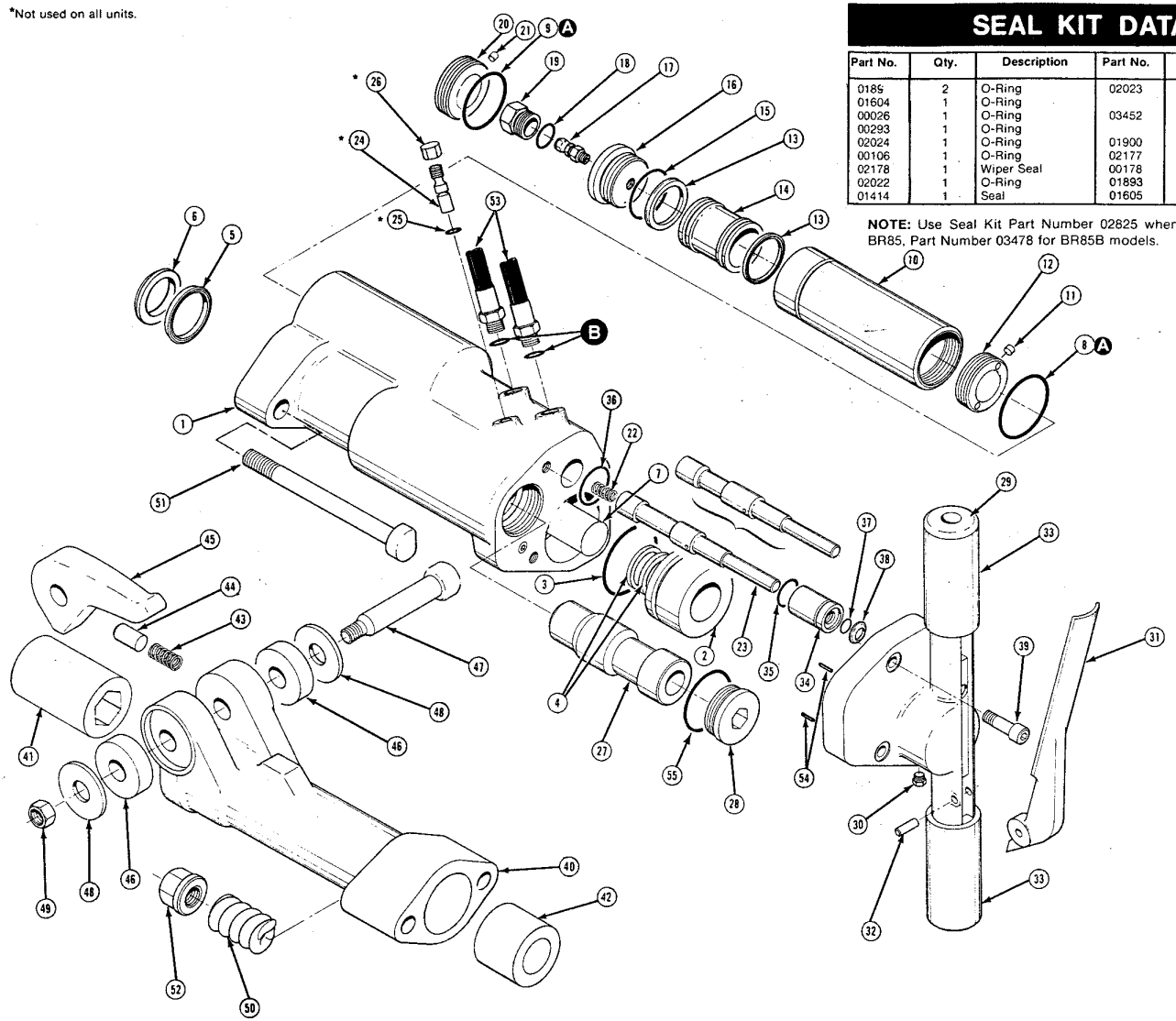
SPECIFICATIONS

Weight	85 lbs/38 kg
Pressure Range	1500-2000 psi/105-140 bar
Flow Range	7-9 gpm/26-34 lpm
Optimum Flow	8 gpm/30 lpm
Porting	1/2" male pipe hose end
Overall Length	27 in/68 cm
Width	16 in/40 cm
System Type	o.c. or c.c.

MODEL BR85

HYDRAULIC BREAKER

*Not used on all units.



SEAL KIT DATA

Part No.	Qty.	Description	Part No.	Qty.	Description
0189	2	O-Ring	02023	1	Cup Seal for Kit 02825
01604	1	O-Ring			
00026	1	O-Ring	03452	1	Cup Seal for Kit 03478
00293	1	O-Ring			
02024	1	O-Ring	01900	1	Wiper Seal
00106	1	O-Ring	02177	1	O-Ring
02178	1	Wiper Seal	00178	1	O-Ring
02022	1	O-Ring	01893	2	Piston Seal
01414	1	Seal	01605	2	O-Ring

NOTE: Use Seal Kit Part Number 02825 when ordering for BR85, Part Number 03478 for BR85B models.

Illus. Index No.	Part No.	Qty. Per Unit	PART NAME
1	03454	1	Breaker Body Assembly
2	01902	1	Piston Sleeve
3	02022	1	O-Ring, 2-1/4 x 2-1/2 x 1/8
4	01414	1	Seal w/Back-Up Ring
5	03452	1	Cup Seal
6	01900	1	Wiper Seal
7	01898	1	Breaker Piston
8	02177	1	O-Ring, 2-1/16 x 2-1/4 x 3/32 (90 Duro)
9	00178	1	O-Ring, 2-1/8 x 2-1/4 x 1/16
	01889	1	**Accumulator Assembly — Consists of Items 10 thru 19**
10	01890	1	Accumulator Sleeve
11	00721	1	Nylock Insert
12	01891	1	Nut — Piston Keeper
13	01893	2	Piston Seal — Polypak 12501500
14	01892	1	Accumulator Piston
15	01894	1	O-Ring, .118 x 1.720 ID
16	01895	1	Accumulator End Cap
17	01650	1	Accumulator Charge Valve
18	01604	1	O-Ring, .097 x .755 ID
19	02016	1	Accumulator Valve Cap
20	01897	1	Accumulator Retaining Nut
21	00721	1	Nylock Insert
22	01905	1	Spring
23	02163	1	On-Off Valve Spool — o.c. Models
	02164	1	On-Off Valve Spool — c.c. Models
24	02017	1	Pressure Control Valve
25	00026	1	O-Ring, 3/16 x 5/16 x 1/16
26	02025	1	High Crown Nut
27	01903	1	Reversing Spool
28	02171	1	Spool Bore Plug (Incl. item 55)
29	02591	1	Handle — Includes Items 33, 54 and Part No. 01817
30	02026	1	Vent
31	01844	1	Trigger
32	00844	1	Roll Pin, 1/4 x 1-1/2
33	02494	2	Handle Grip
34	02014	1	Valve Push Rod Sleeve
35	00293	1	O-Ring, 11/16 x 7/8 x 3/32 (90 Duro)
36	02024	1	O-Ring, 1-5/16 x 1-1/2 x 3/32 (90 Duro)
37	00106	1	O-Ring, 3/8 x 1/2 x 1/16
38	02178	1	Wiper Seal
39	01913	4	Capscrew, 1/2 NC x 1-1/2 HSH
	02708	1	**Breaker Foot Assembly, 1-1/8 inch (Consists of Items 40 thru 49)**
	01843	1	**Breaker Foot Assembly, 1-1/4 inch (Consists of Items 40 thru 49)**
40	01840	1	Foot Body
41	01914	1	Hex Bushing (1-1/4 inch foot assembly only)
	02707	1	Hex Bushing (1-1/8 inch foot assembly only)
42	01915	1	Impact Ring
43	01744	1	Spring
44	01745	1	Detent
45	01837	1	Latch
46	01917	2	Latch Impact Bushing
47	02181	1	Shoulder Bolt, 3/4 x 3-1/2 Soc. Hd.
48	01918	2	Latch Washer
49	02179	1	Nut, Elastic Stop Jam, 5/8 x 11
50	02180	2	Spring
51	02172	2	Foot Bolt
52	02027	2	Nut, 3/4 Buttress Thd.
53	01652	2	Hose Assembly
54	00289	2	Dowel Pin, 3/16 x 3/4 Lg.
55	03382	1	O-Ring, 1.475 x 1.701 x .118 90D

NOTE: Breaker Foot Assembly Part Number 02078 or 01843 may be used on either open center or closed center models.

NOTE: Use Part Number and Part Name When Ordering.

(A) Supplied with Item 20

(B) Supplied with Item 53

ACCUMULATOR CHARGING INSTRUCTIONS

To check or charge your accumulator you need:

1. A charging assembly with pressure gauge and accumulator valve adapter. The Stanley #02835 accumulator tester was developed for use with the BR85 breaker and is the best unit available.

2. A hose with fittings for tank and charging assembly.

3. A NITROGEN charged filler tank — 800 psi minimum.

TO CHECK ACCUMULATOR PRESSURE:

1. Holding the chuck end, turn the gauge counter clockwise until reaching the stop, to ensure the valve is completely retracted.

2. Remove protective cap on Tester charging valve and thread entire unit on to charging valve of accumulator. (Do not advance gauge end into chuck end, turn as a unit.)

3. Seat the chuck to the charging valve of the accumulator (hand tighten only).

4. Advance the valve by turning the gauge end clockwise until a pressure is read on the gauge.

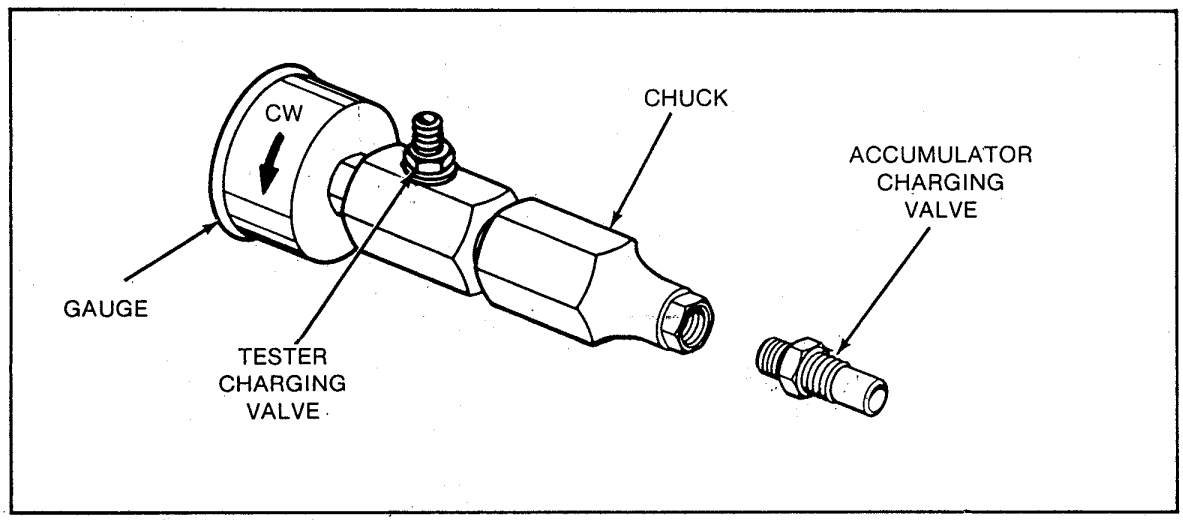
5. Reverse above procedure.

TO CHARGE ACCUMULATOR:

1. Follow above procedure through item 3. (Item 4 optional.)

2. Attach chuck from Nitrogen supply to accumulator tester charge valve and charge accumulator to 600 psi. (NOTE: It may be required to adjust regulator to 650-700 psi to overcome pressure drop thru charging valve.)

3. Reverse above procedure.



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SERVICE INSTRUCTIONS
BR85B BREAKER

PRIOR TO DISASSEMBLY.

- Clean exterior of tool.
- Obtain seal kit part no. 03478 so you can replace all seals exposed during disassembly.
- Note orientation of seals before removing them. Install new seals in same way.

BREAKER DISASSEMBLY.

1. Place breaker horizontally in appropriate fixture or vise.
2. Remove four 1/2-13 x 1-1/2 inch capscrews and remove handle from breaker body.
3. Remove the two nuts and springs, then remove foot assembly and foot bolts.
4. Push piston and piston sleeve out through handle end of body and remove piston sleeve from piston.
5. Carefully remove piston seals being careful **not** to damage the seal grooves. Note the orientation of seal lips.
6. Remove on-off valve and spring from breaker body.
7. Remove spool bore plug and withdraw the reversing spool.
8. Drive spirol pin out of handle with 1/4-inch punch to remove trigger.
9. Push the valve push rod sleeve out of handle from trigger side.

TO SERVICE FOOT ASSEMBLY.

1. The latch, detent, spring and impact bushings are accessable when the shoulder bolt is removed.
2. To remove hex bushings, a 1-3/8 inch diameter steel rod 10 inches long is required. Remove latch. Push hex bushing with rod from flange end of foot toward latch end. A 50 ton press is required.
3. To install hex bushing, push hex bushing from latch end toward flange end of foot. One end of hex bushing is tapered to aid assembly.

   Note: Align hex as shown for proper gad alignment.

ACCUMULATOR REMOVAL AND DISASSEMBLY.

1. **Discharge accumulator** by depressing the valve stem of charging valve.
2. Remove retaining nut with wrench (part no. 02367).
3. Thread two 1/4-20 x 2 inch screws through cross bar (part no. 03114) into holes provided in accumulator, then pull accumulator out.
4. **After discharging accumulator,** clamp in appropriate fixture (DO NOT distort cylinder) and remove the charging valve end cap.
5. Push accumulator out of sleeve using a soft instrument (brass, aluminum, wood, etc.).
6. Remove seals using brass or plastic o-ring tools making sure not to damage grooves.

PRIOR TO ASSEMBLY.

- Clean all parts with a degreasing solvent.
- Ensure that all seals that were exposed have been replaced with new parts.
- Apply clean grease or o-ring lubricant to all parts during reassembly.

ACCUMULATOR ASSEMBLY AND INSTALLATION.

1. Replace polypac piston seals with lips facing corresponding end of piston.

   Caution: Do not damage seal grooves.

2. Insert piston into accumulator sleeve and push piston gently, large counterbore first, into accumulator sleeve until it bottoms on piston keeper nut (which was not removed).

3. Place one drop of Loctite #242 on middle of accumulator end cap and thread into accumulator sleeve.

4. Place assembly in appropriate fixture (do not distort cylinder) and tighten end cap to 150 ft.-lb./200 Newton-m.

5. Replace 2-1/8 O.D. x 1/16 inch o-ring around accumulator sleeve and install 2-1/16 O.D. x 3/32 inch o-ring in bottom of accumulator chamber of breaker body.

6. Push accumulator cartridge into housing, with charging valve facing outward, until it bottoms.

7. Thread in retaining nut and tighten to 150 ft.-lb./200 Newton-m.

8. Charge accumulator to 500-600 psi (nitrogen only).

9. Replace accumulator valve cap.

TO COMPLETE ASSEMBLY.

1. Install lower piston seal, with lips facing handle end of breaker body, using installation tool part no. 03590.

2. Snap wiper seal in place, lip facing foot end of breaker body.

3. Install upper piston seal in piston sleeve with lips facing chamfered end of bore. Install back-up ring on side opposite lips.

4. Slide piston sleeve over small end of breaker piston, chamfered side first.

5. Install breaker piston through handle end of breaker body.

6. Install on-off valve spring and valve.

7. Install reversing spool, small diameter first, and replace spool bore plug. Tighten to 75 ft.-lb./100 Newton-m.

8. Install valve push rod sleeve in handle, wiper seal end first.

9. Place handle on breaker body locating on two dowel pins and secure with four 1/2-13 x 1-1/2 inch capscrews. Use Locktite #242 on clean, dry threads and tighten in even increments in a cross pattern to 100 ft.-lb./135 Newton-m.

10. Assemble breaker foot, foot bolts, springs and nuts to breaker body and tighten nut to compress spring .250 in./6 mm from free length.

TROUBLESHOOTING
BR85B BREAKER

PROBLEM	CAUSE	SOLUTION
Accumulator looses charge after short period of use.	Bad charge valve.	Replace.
	Accumulator piston seals damaged or worn.	Inspect and replace seals using proper installation techniques.
Breaker doesn't run.	Power unit not functioning.	Check power unit for proper flow and pressure (7-9 gpm @ 1500-2000 psi).
	Couplers or hoses blocked.	Remove restriction.
	Pressure and return line hoses reversed at ports.	Be sure hoses are to connected to their proper ports.
	Mechanical failure of piston or reversing spool.	Disassemble breaker and inspect for damaged parts.
Breaker doesn't hit effectively.	Power unit not functioning.	Check power unit for proper flow and pressure (7-9 gpm @ 1500-2000 psi).
	Couplers or hoses blocked.	Remove restriction.
	Accumulator charge (pressure hose will pulse more than normal).	Discharge to remove any accumulated oil and recharge accumulator. If charge loss continues, replace accumulator seals using proper installation techniques.
	Oil too hot (above 150°F).	Provide cooler to maintain proper oil temperature (100-130°F).
Breaker operates slow.	Low gpm supply from power unit.	Check power unit for proper flow (7-9 gpm).
	High backpressure.	Check hydraulic system for excessive backpressure (over 250 psi).
	Couplers or hoses blocked.	Remove restriction.
	Oil too hot (above 150°F) or too cold (below 60°F).	Check power unit for proper oil temperature. Bypass cooler to warm oil up, provide cooler to maintain proper temperature.
Breaker gets hot.	Hot oil going though tool.	Check power unit. Be sure flow rate is not too high causing part of the oil to go through the relief valve. Provide cooler to maintain proper oil temperature (100-130°F).
		Eliminate flow control devices.
Oil leakage on gad.	Lower piston seal failure.	Replace seal.
Oil leakage through vent or between handle and breaker body.	Upper piston seal failure.	Replace seals.
	On-off valve, seals failed, piston sleeve, o-ring failure.	Replace seals.