



SELF PRIMING SERIES

Seal Repair for Encyclon Pump RP20-1BASHW



CleanMarinaPressureWash.com

MECHANICAL SEAL

The most important factor in a mechanical seal, other than the sealing qualities, is the fact that once it has been properly installed there is little or no maintenance required.

Some of the most common reasons for seal failure are:

1. Improper installation

2. Shaft misalignment and shaft whip

3. Wrong selection for liquid pumped

4. Wrong selection for pressure and temperature

5. Dirt or grit between faces

6. Seal gland (#9) tightened unevenly so stationary seat is not perpendicular to shaft

REPAIR

Refer to cross section and parts list on pages 12, 14, and 17.

Shut off main power switch and disconnect motor wiring. Close suction and discharge valves and drain impeller housing (11). Disconnect suction and discharge pipe. Unbolt pump from base (33) and remove, take pump to maintenance department for repairs. In many cases it is advisable to have a spare pump to install at once to keep down time to a minimum.

Remove screws (38) securing stem plate (14) to impeller housing (11). Pull rotating assembly back to remove. Remove impeller retaining screw (16) impeller lock washer (17) and impeller retaining washer (18). Pull impeller (12) off the pump shaft (1) using care not to discard key (19). Remove screws securing stem plate (14) to stem (7) slide stem plate (14) off pump shaft (1). Generally the shaft sleeve (20) will slide off shaft (1) with stem plate (14). Remove gland screws and remove gland (9) from stem plate (14). If shaft sleeve (20) did not slide off shaft (1) when

removing stem plate remove it from shaft and inspect for wear, replace if badly worn.

On pumps with packed stuffing box, remove old packing, clean stuffing box, and repack when reassembling pump by following instructions on pages 7 and 8.

On pumps with mechanical seals remove spring from seal cavity after sliding impeller (12) off of shaft (1). Slide shaft sleeve (20) off shaft and remove seal head, inspect sleeve for wear and replace if necessary. Seal seat is located in seal gland (9) if cracked, damaged or worn out, replace. To remove seat from gland insert a screw driver from flanged end of gland as shown in Fig. 9 and tap seal seat out. Clean stuffing box and seal gland (9) thoroughly before re-assembly. To install new seat, oil rubber cup with clean oil and push seat into gland by hand being sure seat is pressed all the way down against the shoulder in the gland. If seat is not square against the gland shoulder the seal will leak and there will be uneven wear on the faces. Install new seal gland gasket (29) and carefully slide seal gland (9) over shaft (1) so as not to hit seat on shaft. Mount stem plate (14) on stem (7) and securely tighten holding screws. Slide seal gland (9) into stem plate (14) and draw screws down tight. (Do not slide packing gland into stem plate (14) on packed pumps.)

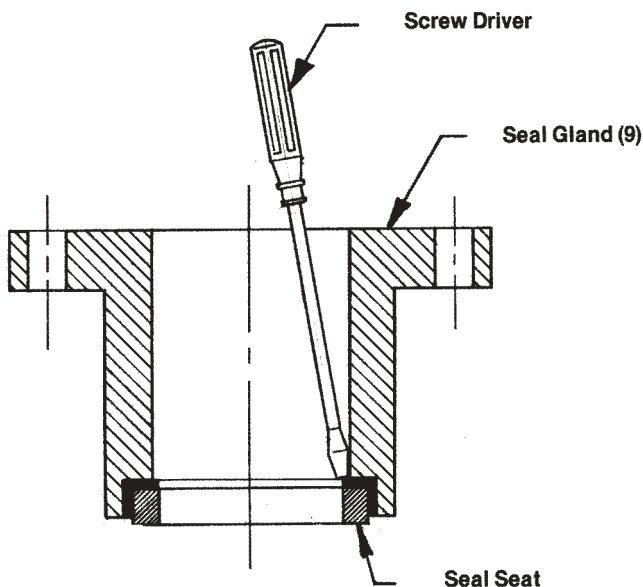
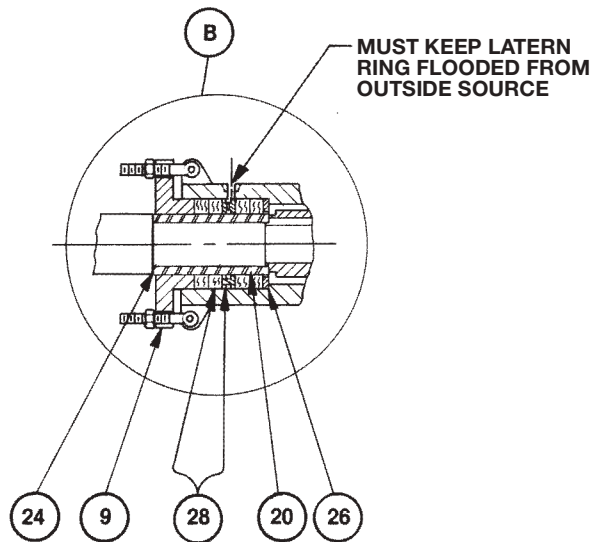
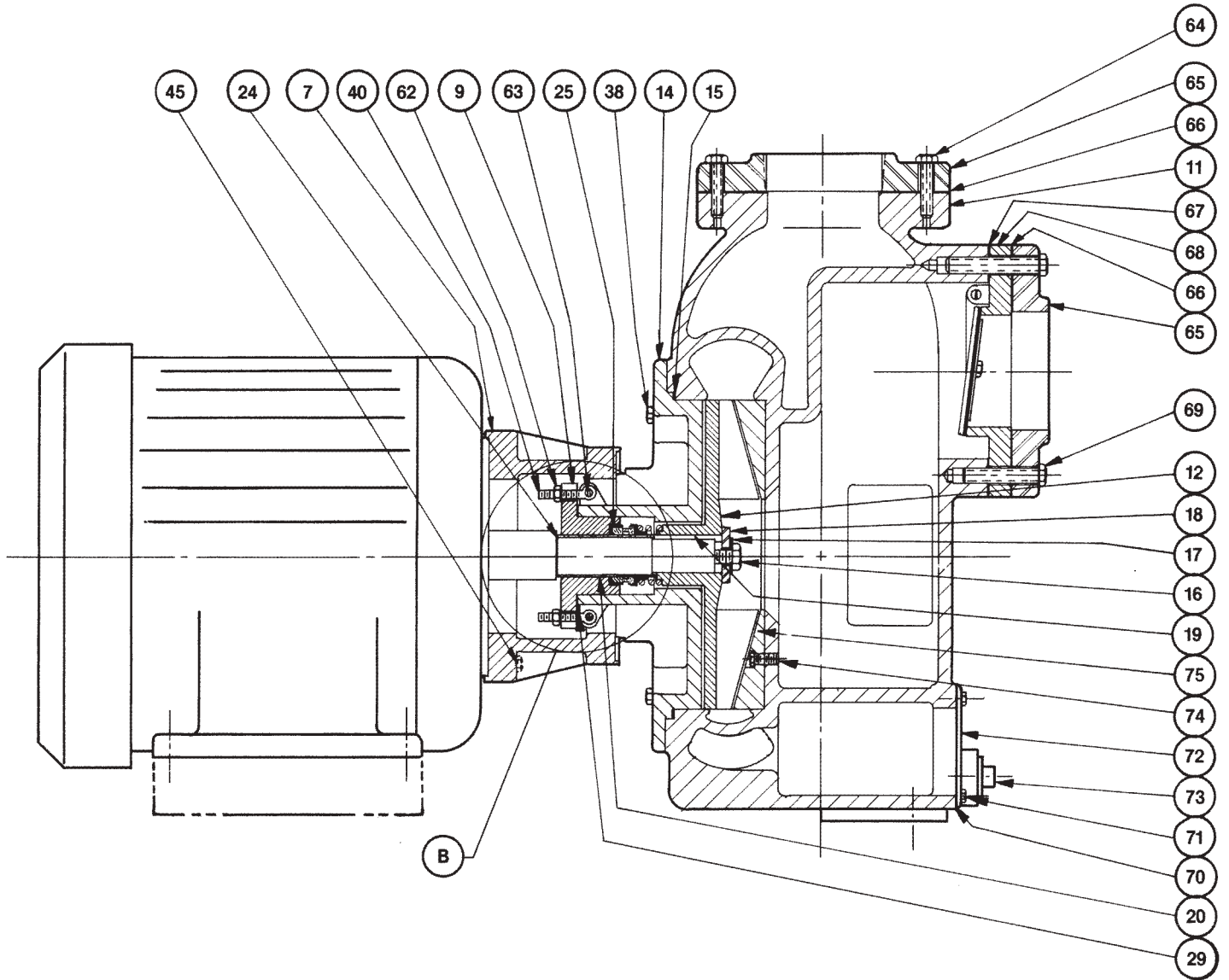


Fig. 9

Clean shaft sleeve (20) and oil thoroughly, slide seal head (rotating member) onto shaft sleeve by hand, starting at end without slot. Slide seal head onto shaft sleeve until it is flush with end of shaft sleeve. Install new shaft sleeve gasket (24). Slide shaft sleeve (20) onto shaft (1) gently allowing seal head to make contact with seal seat in seal capacity and then sliding sleeve to shaft shoulder, install seal spring. Slide impeller (12) onto shaft (1) and lock in place using retaining washer (18). Lock washer (17) and retaining screw (16). Install new impeller housing gasket (15) and then install rotating assembly. Draw bolts tight and check impeller clearance (.010-.020 normal), if clearance exceeds .020 remove a gasket, if clearance is less than .010 or if pump is locked-up add gaskets until proper clearance is achieved.

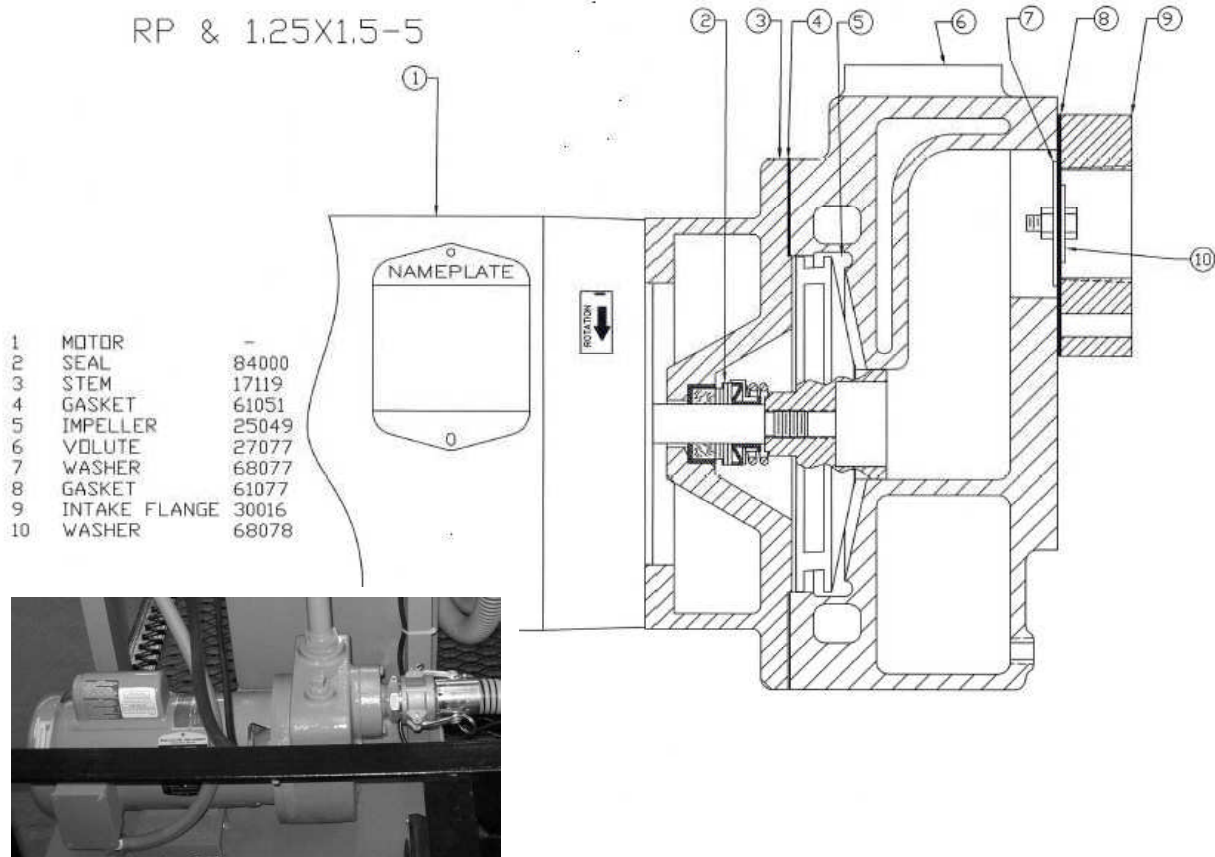
GENERIC REFERENCE DRAWING OF CLOSE COUPLED STYLE 'CC'





Encyclon Parts

Marina Pressure Wash System Pump



Part #RP20-1BASHW - Complete Gusher self prime RP&1.25x1.5 pump with 2 HP, 115 volt, 1 ph, 60HZ electric motor. - **\$ 1,796.00 each**

Common Repair Parts:

#2 - **Part #RH30425** – Heavy duty 5/8” pump seal with Silicon Carbide/Silicon carbide and Viton (replaces standard #84000 seal) - **\$166.25 each**

#4 - **Part #61051** - Impeller Housing Gasket - **\$8.08 each**

#8 - **Part #61077**- Flapper Valve Flange Gasket - **\$20.40 each**

Prices effective 9/28/11 are subject to change.

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