

Fits Bell & Gossett\* And Armstrong\* Pumps \*Both not affiliated with Taco, Inc.

## BEARING CARTRIDGE ASSEMBLY REPLACEMENT INSTRUCTION SHEET

SUPERSEDES: September 1, 2004 Plant ID: 001-3804

EFFECTIVE: January 19, 2016



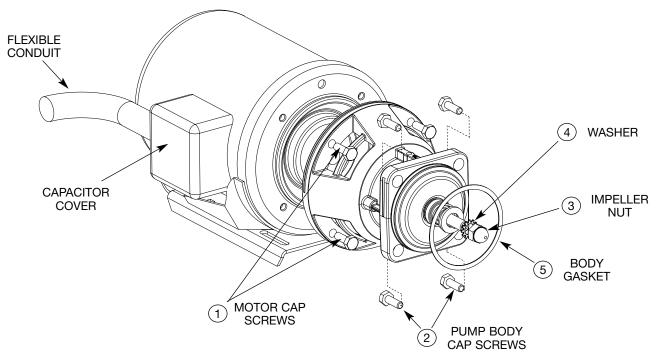
**WARNING:** Before proceeding with any of these instructions, make certain that power is disconnected and locked out. Electrical power to the boiler and any related accessory must also be disconnected and locked out. Failure to follow these instructions could result in injury or death.



**CAUTION:** Check surfaces for high temperatures. Allow the pump/piping temperature to reach approximately 100°F before proceeding. Failure to follow these instructions could result in severe personal injury and/or property damage.



**CAUTION:** Close the valves on the suction and discharge sides of the pump before proceeding. If no valves have been installed, it will be necessary to drain the system. If it becomes necessary to drain the system, close the city water supply or shutoff valve to the pressure reducing valve. Allow the system to cool to approximately 100°F. Open the drain valve (take precautions against water damage) and leave the drain valve open until servicing is completed. Failure to follow these instructions could result in severe personal injury and/or property damage.



- Close all service shut-off valves on suction & discharge side of pump. If service valves are not available, close the water supply, disconnect power if applicable and drain system. Be sure to follow safety caution instructions above.
- 2. Disconnect all power to pump and related equipment. Remove capacitor cover and disconnect wire nuts. Remove flexible conduit from capacitor box.
- **3.** Using an Allen wrench, loosen the coupler set screw on the pump shaft end until the coupler moves freely. Do not loosen set screw on motor shaft.
- **4.** Remove the four motor cap screws (item #1) with a box wrench and separate motor from bearing assembly.

- **5.** Loosen the four pump body cap screws (item #2). Shift the bearing assembly slightly to allow any pressurized water to drain. Remove the four pump body cap screws.
- 6. Remove bearing assembly from pump body.
- 7. Remove impeller nut and washer (items #3 and #4).
- 8. Remove and clean old impeller.
- 9. Remove and discard old seal parts.
- **10.** Remove four (4) screws from the coupler end of the bearing cartridge assembly.

- **11.** Remove the old shaft and bearing cartridge assembly by lightly tapping end of shaft with a rubber hammer.
- **12.** Clean the interior of the bearing frame thoroughly.
- 13. Remove old shaft oil seal.
- **14.** Clean insert recess for seal retainer cup and ceramic thoroughly.
- 15. Install new shaft oil seal and secure in place.
- 16. Install new bearing cartridge assembly with the white felt key wick and felt O-ring groove lined up with the oil hole groove in frame. Notches in bearing cartridge mounting plates must line up with arrow marking on the frame.
- **17.** Fasten bearing cartridge to frame with four (4) screws provided. Tighten firmly.
- 18. Install new cup and ceramic insert. (Do not drop or chip ceramic.) Lube O.D. of rubber cup with soapy water or light oil. DO NOT USE GREASE.
- 19. Moisten inner diameter of seal and insert remaining seal parts over shaft. Carbon seal MUST be tight against ceramic.
- **20.** Replace impeller, washer and nut. Line up the keyways on impeller and shaft carefully. Tighten nut securely.
- **21.** Remove old body gasket, clean all surfaces thoroughly and install new gasket provided.
- 22. Install complete bearing assembly to pump body. Tighten four (4) pump body cap screws evenly. DO NOT OVERTIGHTEN. The air gap between the body and bearing bracket is designed to allow for early seal leak detection.

- 23. Install motor on bearing bracket. Reconnect coupler to pump shaft, align set screw with dimple on shaft and tighten screw. For couplers with two (2) set screws, tighten one in the dimpled shaft and the other snug to shaft.
- **24.** Lubricate new bearing assembly following instructions on oil tube provided.



**CAUTION:** Do not operate pump without lubrication or early failure may result.

**25.** Close system drain valve. Open service shut-off valves on pump suction and discharge. Vent air from system at a high point in the system piping.



**CAUTION:** Pressurize the pump body slowly. Be aware that hot water leaks may occur. Check for leaks at all gasketed joints. Failure to follow these instructions could result in severe personal injury and/or property damage.

- **26.** Reconnect electrical power to the boiler, pump and related equipment. Return system to normal operating conditions. Check the pump and the surrounding piping for evidence of leaking and correct as required.
- **27.** Operate the system for a short period of time. Purge any additional air at vent located at a high point in the system.

**PERIODIC INSPECTION:** Pro-Fit<sup>™</sup> replacement parts from Taco are designed to provide years of trouble free service. It is recommended that periodic inspections are made to check for potential problems. If any leakage or evidence of leakage is present, repair or replace unit.

## LIMITED WARRANTY STATEMENT

Taco, Inc. will repair or replace without charge (at the company's option) any product or part which is proven defective under normal use within one (1) year from the date of start-up or one (1) year and six (6) months from date of shipment (whichever occurs first).

In order to obtain service under this warranty, it is the responsibility of the purchaser to promptly notify the local Taco stocking distributor or Taco in writing and promptly deliver the subject product or part, delivery prepaid, to the stocking distributor. For assistance on warranty returns, the purchaser may either contact the local Taco stocking distributor or Taco. If the subject product or part contains no defect as covered in this warranty, the purchaser will be billed for parts and labor charges in effect at time of factory examination and repair.

Any Taco product or part not installed or operated in conformity with Taco instructions or which

has been subject to misuse, misapplication, the addition of petroleum-based fluids or certain chemical additives to the systems, or other abuse, will not be covered by this warranty.

If in doubt as to whether a particular substance is suitable for use with a Taco product or part, or for any application restrictions, consult the applicable Taco instruction sheets or contact Taco at [401-942-8000].

Taco reserves the right to provide replacement products and parts which are substantially similar in design and functionally equivalent to the defective product or part. Taco reserves the right to make changes in details of design, construction, or arrangement of materials of its products without notification.

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