

### ABSTRACT

HOMA provides a bronze volute wear ring and integral cast iron impeller wear ring as standard construction. This document will provide the procedure for replacing a wear ring in an A-series pump. The impeller wear surface is over sized and can be machined true and renewed with a new wear ring heat shrink fitted over the newly machined surface; this will require removal of the impeller. Refer to HOMA document “A Series Impeller Change: 88FN2020” on homapump.com for instructions on impeller removal. Removal of optional stainless steel wear rings will require removal of the impeller from the shaft. Wear rings should be ordered and replaced in sets.

### PROCEDURE

#### Removing Volute Wear-Ring

- To remove the wear ring from the volute use a pry bar or crow foot and evenly pull the wear-ring up at opposing sides.
- If a pry bar will not fit between the casting and the ring, or the wear ring will not come out, the best option is to remove the volute, set it suction-side down, and drill two holes through the wear ring on opposite points (Figure 1). Then use a sturdy chisel and break the wear ring at these two points so it will easily come out (Figure 2).



Figure 1



Figure 2

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### **Removing Impeller Wear-Ring**

- If the pump is installed with a pair of stainless steel wear rings, then it is necessary to remove the wear ring from the nose of the impeller. If the integral impeller wear surface will continue to be used, skip to the “Installing Wear Ring” step
- Remove the impeller according to HOMA document “A Series Impeller Change: 88FN2020” (available on homapump.com).
- Using a torch, heat the wear ring evenly and pry the ring off using a pry bar

### **Installing Wear-Ring**

- Place a new wear ring into the bottom of the volute over the suction inlet.
- HOMA recommends the use of a press and appropriate tools when installing bronze wear rings. As an alternative, drive the wear ring with a brass drift pin gently and evenly at opposing sides until fully seated. Take care not to distort the wear ring as binding with the impeller will occur.
- If you are installing an impeller wear ring, heat shrink fit the wear ring over the nose of the impeller
- Install the impeller to the motor if it was removed.
- Install the motor with impeller into the volute squarely.
- Do not use bolts to draw the motor to the volute. Damage to the wear rings, shaft and impeller will occur.
- Once the volute is fully seated the bolts can be put into place making sure that the volute is in proper location as marked during disassembly. HOMA recommends the use of blue # 242 locking compound on the bolts before installing.
- Routinely rotate the impeller as the bolts are being tightened to check for binding of the impeller and wear rings.
- Torque all bolts as specified. Check by hand that the impeller spins freely without rubbing or binding.

Bolt torques: 16MM: 108 ft-lb, 12MM: 45 ft-lb, 10MM: 26 ft-lb