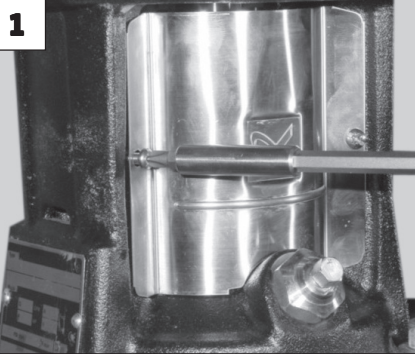


CR Series

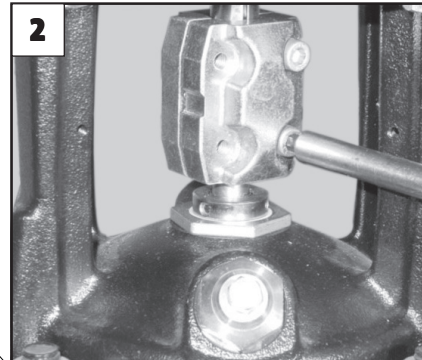
Impeller Stack Kit Dismantling and Reassembly CR(I/N) 1S•1•3•5

Dismantling Procedures CR(I/N) 1S/1/3/5

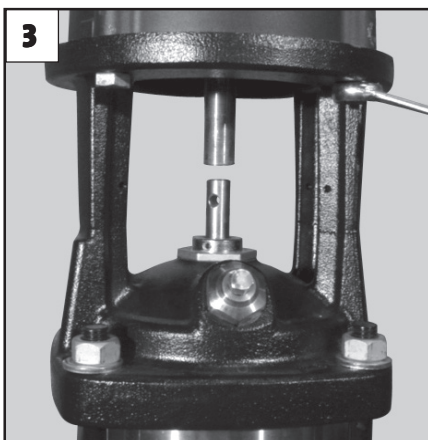
These instructions cover the replacement of stack after the pump has been isolated from the system. Before removing the pump from the system, make sure all valves are closed. Relieve any built up pressure by opening the vent plug screw. The power source should be turned off and locked out before starting any work. Removal of field wiring to the motor wires may be required. Color coding or numbering the wires will aid in reinstallation.



1 Using a screwdriver, remove Coupling Guard Screws (Pos. 7a). Then, remove the Coupling Guards (Pos. 7).



2 Remove the Hex Head Coupling Bolts (Pos. 9) from the Coupling Halves (Pos. 10a). Now remove Coupling Halves and the Shaft Pin (Pos. 10).

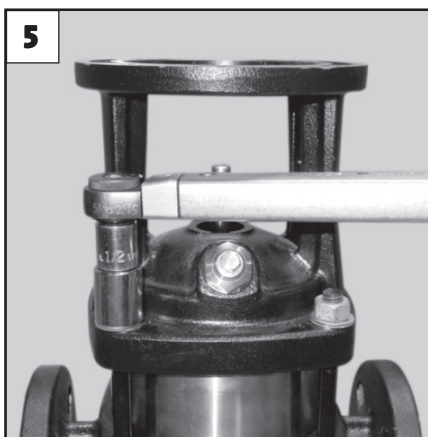


3 Remove the Motor Bolts (Pos. 28) and lift the motor off the Motor Stool (Pos. 2).

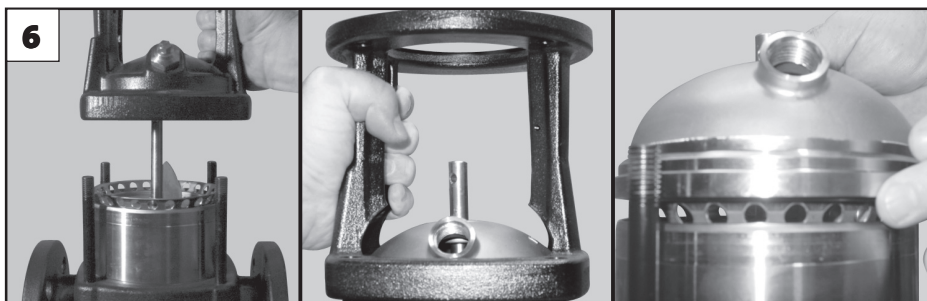


4 Remove the cartridge Shaft Seal (Pos. 105) by:

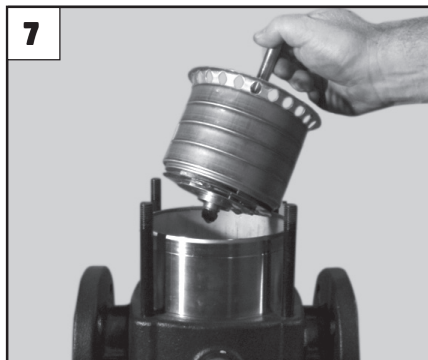
- Loosening the three 2.5 mm Shaft Seal Securing Allen Screws (Pos. 113). Do **not** fully remove screws as this may cause the seal assembly to come apart in component form.
- Using 00SV2007 or a 36 mm deep socket, fully unscrew the Shaft Seal from the Motor Stool (Pos. 2) or Pump Head (Pos. 77) on I and N models.
- Slide the Shaft Seal up and off the Shaft (Pos. 51).



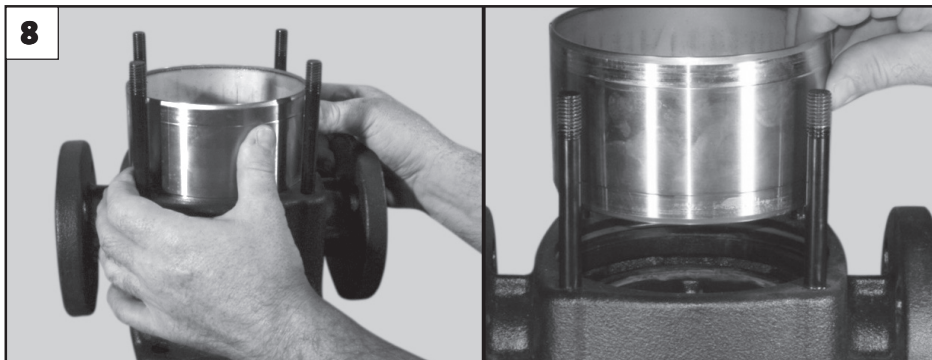
5 Remove the four 19 mm Staybolt Nuts (Pos. 36) and Washers (Pos. 66a).



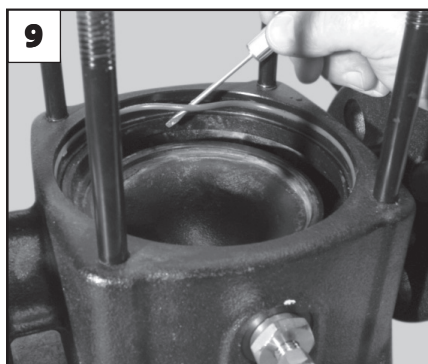
6 Remove the Motor Stool (Pos. 2) and Pump Head (Pos. 77) on I and N models. (Light upward blows with a rubber mallet may be required.)



Lift out the Stack.



If the unit had leaked around the Sleeve (Pos. 55), removal of the Sleeve may be required. Grip Staybolts (Pos. 26) diagonally. Then, using your thumbs, press against the Sleeve to release it from the Pump Housing (Pos. 6). Lift off sleeve. (Light upward blows with a rubber mallet may be required.)

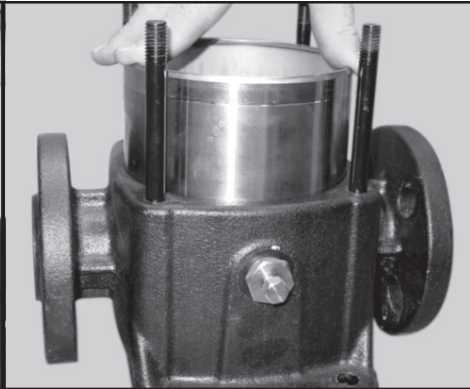
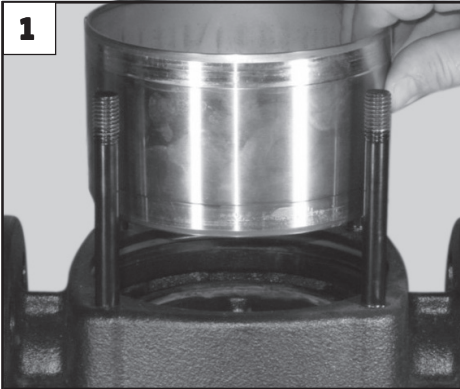


Remove, check, and replace damaged Sleeve O-rings (Pos. 37) in the Motor Stool (Pos. 2) or Pump Head (Pos. 77) and the Pump Housing (Pos. 6).

**THE PUMP
IS NOW
COMPLETELY
DISASSEMBLED.**

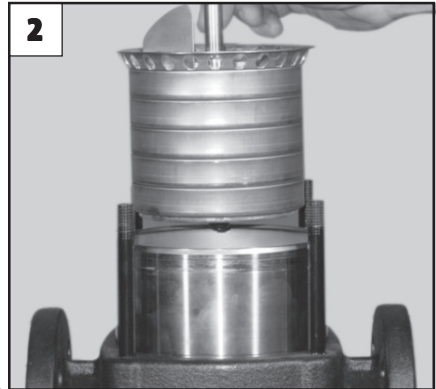
Reassembly Procedures CR(I/N) 1S/1/3/5

1



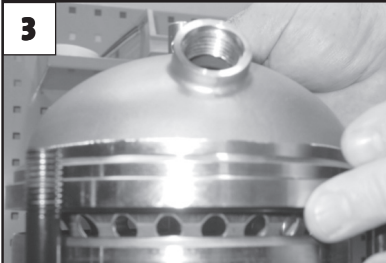
Spray soapy water on the Sleeve O-rings (Pos. 37). Then lower and press Sleeve (Pos. 55) firmly into place.

2



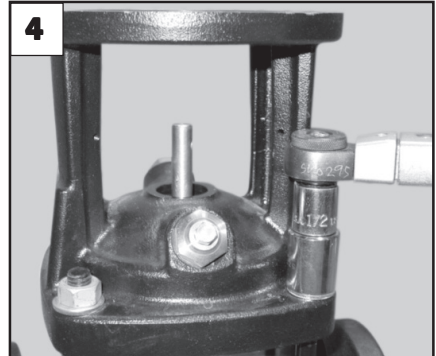
Lower new Stack Kit into the Pump Housing. Make sure it seats fully into the machined recess.

3



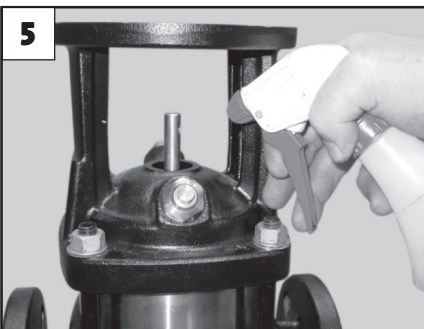
Spray soapy water on the Sleeve O-rings (Pos. 37) in the Motor Stool or CR(I/N) Pump Head. Then lower and fully press in place. For I/N models, place the Motor Stool Bracket (Pos. 2) over the Pump Head and press against this to seat the Pump Head.

4



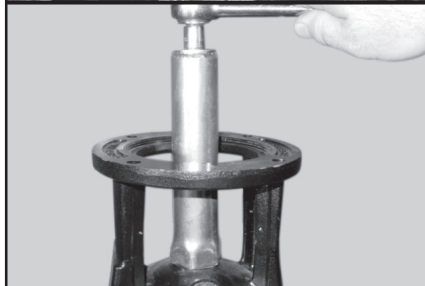
Place the Washers (Pos. 66a) over the Staybolts (Pos. 26). Then, lubricate with a light oil. Place the 19 mm Staybolt Nuts (Pos. 36) onto Staybolts and tighten diagonally to CR/CRI: 29.5 ft.-lbs. or 40 Nm
CRN: 37 ft.-lbs. or 50.2 Nm

5



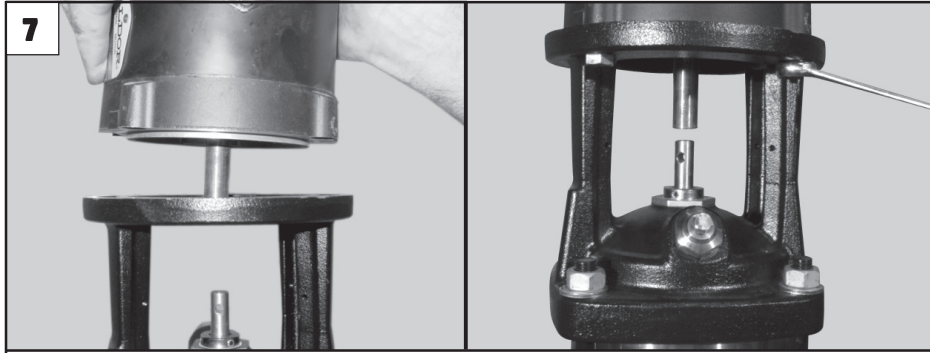
Spray soapy water onto the Seal O-ring Seating Surface of the Pump Head and the Shaft (Pos. 51).

6



Lower the new Shaft Seal (Pos. 105) over the Shaft, then tighten to 26 ft.-lbs. or 35 Nm. Do not tighten the three 2.5 mm Shaft Seal Securing Allen Screws (Pos. 113) at this time; this will be done after step 12.

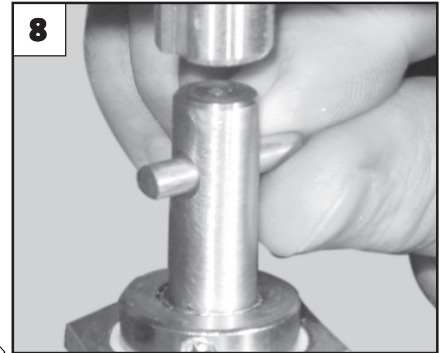
Reassembly Procedures CR(I/N) 1S/1/3/5



7

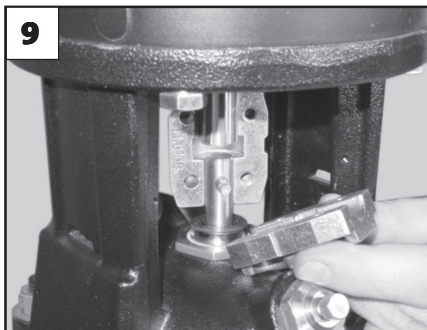
Lower motor onto Motor Stool, then install and tighten Motor Bolts (Pos. 28) diagonally to the proper torque.

10 ft.-lbs. or 13.55 Nm for UNC 3/8" bolts, and
23 ft.-lbs. or 31 Nm for UNC 1/2" bolts



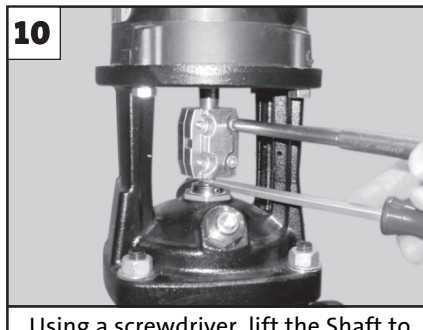
8

Place the Shaft Pin (Pos.10) into the Shaft (Pos. 51).



9

Install Coupling Halves (Pos. 10a). Spray a light machinery oil onto the Coupling Bolts (Pos. 9). Install loosely into the Couplings.

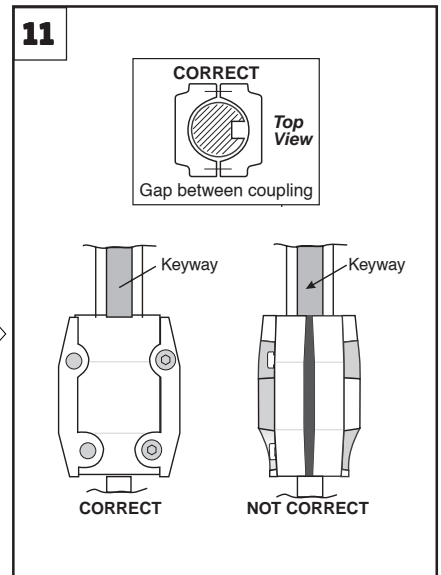


10

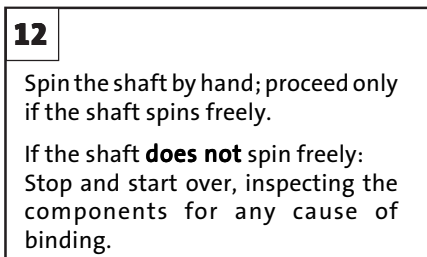
Using a screwdriver, lift the Shaft to its full travel upward, then lower half the distance and tighten and torque the Coupling Bolts.

M6 to 10 ft.-lbs. or 13 Nm
M8 to 23 ft.-lbs. or 31 Nm
M10 to 46 ft.-lbs. or 62 Nm

Ensure the gap between the two Coupling Halves are even. See Installation Operation Manual.



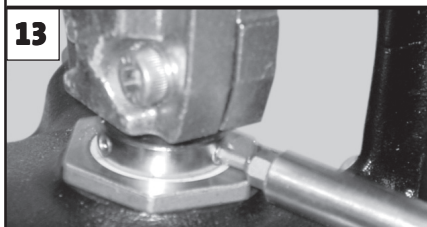
11



12

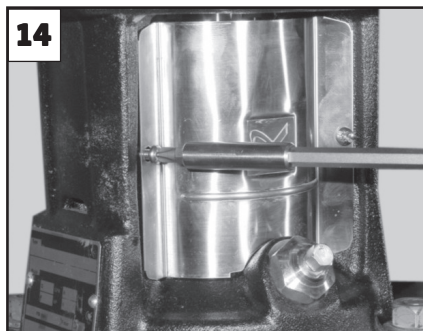
Spin the shaft by hand; proceed only if the shaft spins freely.

If the shaft **does not** spin freely:
Stop and start over, inspecting the components for any cause of binding.



13

Tighten the three Shaft Seal Securing screws (Pos. 113) to the Shaft. Finish torque of 2 ft.-lbs. or 2.5 Nm.



14

Install the Coupling Guards (Pos. 7) and the Screws (Pos. 7a). Torque to 2 ft.-lbs. or 2.5 Nm.

**THE PUMP
IS NOW
COMPLETELY
ASSEMBLED.**

Open the isolation valves in the system to fully vent and fill the pump.
Restore power supply.