

**COMPONENT REMOVAL AND REPLACEMENT** - The following steps are required in the removal and replacement of major components, assemblies, sub-assemblies or piece parts necessary to accomplish suitable corrective action.



#### **DRIVE MOTOR REMOVAL -**

- After turning the circuit breaker off, remove cover on drive motor junction box and disconnect motor leads.
- Remove conduit from motor junction box.
- The drive motor (1) can be removed from the head assembly by removing four screws (3 & 4).

#### **SPEED REDUCER REMOVAL -**

- Remove bolt (6 & 7) and four machine screws (8, 9, and 10).
- Loosen four set screws in collar of reducer (5) to free it from the screw shaft (19).
- Access to the bottom two set screws can be gained by turning the reducer until the set screws line up with the openings in the side of the reducer. The reducer can now be lifted off the screw shaft.

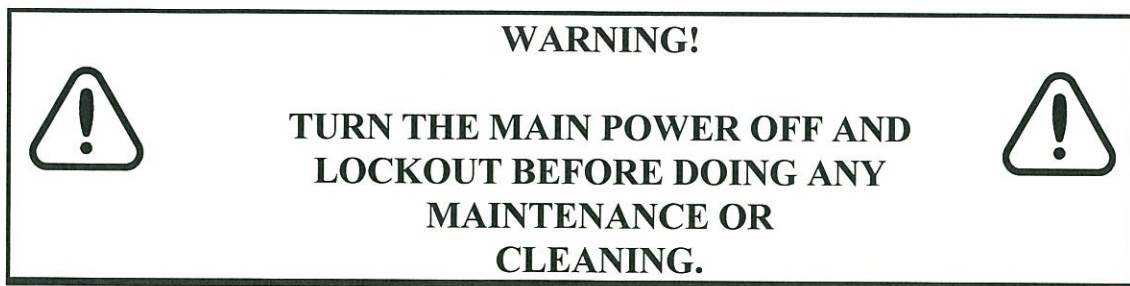
#### **SCREEN AND SCREW REMOVAL -**

- After removing four machine screws (12, 13, & 14), from head assembly (11) lift head with screen (15) and screw assembly (19) attached, from the Hydra-Extractor<sup>®</sup> shell (27).
- By removing a machine screw (23, 24, 25), the plug cutter (22) can be removed from the screw assembly.
- Remove the screw assembly from the screen assembly by pulling the screw assembly through the bottom opening of the screen, while turning bottom of screw counter-clockwise with a pipe wrench.
- After removing the screw assembly, remove two button head machine screws (16, 17, 18), from the screen and slip the screen from the head assembly.

#### **BOTTOM PIN REMOVAL -**

- Remove six machine screws (44, 45, and 46).
- The bottom pin plate (41) with bottom pin (39) attached can now be removed.
- Remove screw (42 & 43). The bottom pin can now be separated from the bottom pin plate.

As of 12-1-07 all close-coupled or SPC-75S and SPC-75UDT machines will be using an MP pump instead of the KW pump. The MP pump promotes more efficient pumping while reducing energy draw. Below are procedures for removing the suction head if renewal to the impeller or the mechanical seal is necessary.



**MP PUMP  
REMOVAL AND INSTALLATION OF MECHANICAL SEAL or MOTOR**

**MECHANICAL SEAL:**

1. Turn off power and lock out machine
2. Remove (4) 5/16-18 hex nuts from Impeller housing
3. Remove housing from pump-pak assembly
4. The impeller will now be visible, take care to **NOT** place anything in impeller vanes. This will cause damage to the vane and will not be covered under warranty.
5. Loosen 2 bolts holding drive sleeve to motor shaft.
6. Remove impeller with drive sleeve as an assembly, mechanical seal should come off with drive sleeve.
7. Replace mechanical seal. Install with raised carbon face towards motor. Take care to install straight onto sleeve. Install ceramic disc into adapter seat bore with polished side up. Take extreme caution to not damage polished side as this will cause immediate leaks. Ensure seal is seated to bottom of adapter seat bore. If needed use a wooden dowel and gently tap into place to ensure tight seat into bore.
8. Replace impeller assembly back onto motor shaft. Use a light coating of anti-seize on motor shaft to ensure smooth seating.
9. Push down onto impeller head using a gloved hand to reach a gap of .030 between the bottom of impeller to top of adapter.
10. Tighten sleeve clamp while maintaining .030 clearance
11. Check rotation of impeller to ensure proper seating and gap clearance
12. If rotation and clearance are ok, then replace housing to adapter
13. Install (4) 5/16-18 nuts and lock-washers onto studs and tighten to 15-ft.lbs.
14. Verify that impeller does **NOT** hit or scrape housing.

**MOTOR REPLACEMENT:**

1. Turn off power and lock out machine.
2. Remove (4) 5-16-18 hex head nuts from impeller housing