



## Hydraulic Submersible Pumps Do's and Don'ts

### Pump Series: HPU, HST

#### DO:

---

1. Consult the engine & pump manufacturer's instructions before starting the unit
2. Follow all safety, health & environmental rules and procedures.
3. Make sure all guards and shields are in place and secured before starting engine.
4. Ensure that the pump is level, stable and secure before starting.
5. Inspect & clean all hydraulic hose connectors before connecting them.
6. Connect & tighten all hydraulic fittings, including and 3<sup>rd</sup> line & case drains, before starting unit. Tighten with hammer or wrench to indicator line or last thread.
7. Consult the factory before using more than 100' of hydraulic line.
8. Lay out hoses in the most direct possible path; avoid excessive loops, kinks, & points of possible chaffing.
9. Use a floatation device or restraining cable to prevent the submersible pump from digging into the mud.
10. Check fuel supply – verify adequate fuel level & check for contamination.
11. Check hydraulic fluid level & condition.
12. Make sure the suction ball valve located under the hydraulic reservoir on the power unit is open before starting the unit.
13. Check that the needle valve on the power unit is fully open prior to starting or stopping the engine.
14. Allow the power unit hydraulic oil to warm up before engaging hydraulics and pressurizing the system.
15. Report any unusual noises that may occur in the hydraulic system.
16. Follow EPA or other government regulations regarding environmental hazards.
17. When operating in temperatures below 40°F., ensure that you are using the proper grade hydraulic oil, engine oil, & other fluids rated for cold temperature.
18. Flush pump head after use to remove sand settlement or previously suspended media /slurry.
19. When storing the hydraulic system, disconnect all hoses from both the power unit and submersible head to avoid temperature related pressure spikes & possible damages.
20. Follow the maintenance schedule as specified in the manual.

#### DON'T:

---

1. Allow inexperienced personnel to operate equipment unless they are supervised.
2. Forget safety, health & environmental precautions.
3. Start up or shut down unit with needle valve engaged.
4. Use needle valve to regulate flow or pressure.
5. Disconnect any hydraulic connections while pressurized or during operation.
6. Operate unit if a hydraulic leak is present.
7. Mix petroleum-based oil with biodegradable fluids.
8. Start or run the unit with loose or uncoupled hydraulic connections.
9. Adjust pressure relief valve or factory preset hydraulic oil operating pressure