

## Hydraulic Pump TROUBLESHOOTING GUIDE

| Condition   | Likely Cause   | Correction  |
|---|--|---|
| No oil flow from pump.  | No oil in reservoir.   | Fill reservoir with approved fluid.   |
|   | Closed shut-off valve.   | Open valve.   |
|   | Air lock in pump inlet hose.   | Use compressed air to pressurize reservoi<br>while running pump or fill inlet hose with<br>oil from the pump end.   |
|   | Pump is wrong rotation for application.  | Replace or re-configure pump to correct rotation.   |
|   | Hoses are reversed.  | Change inlet and pressure hose locations.   |
|   | PTO not engaged.   | See "PTO Troubleshooting"   |
|   | Pump worn or damaged.  | Repair or replace pump.   |
| Pump will not build/hold pressure.                              | Relief valve improperly set.   | Adjust relief valve to manufacturers specification.   |
|   | Relief valve stuck open.   | Remove, clean, and re-set to specification  |
|   | Pump worn or damaged.  | Repair or replace pump.   |
| Pump is noisy.  | Aeration (air in system).  | See "Oil foaming".  |
|   | Cavitation (Cavitation is caused by excessive vacuum at the pump inlet. Test with a vacuum gauge at the inlet port. Gauge should register under 5 Hg/in. at normal operating speed and temperature.) | Increase inlet hose size.  Re-route inlet hose.  Check for kinked or collapsed inlet hose. Check for clogged reservoir breather or strainer.  Inlet hose should be S.A.E. type 100R4 hose only. |
| PUMP LEAKS:<br>At shaft seal.                                   | Dirt under seal.   | Replace seal. Examine pump shaft for scoring.   |
|   | Damaged seal or pump body.   | Replace seal or body section.   |
|   | Improperly fitted seal.  | Replace seal.   |
| At body section.  | Damaged o'ring or body.  | Replace o'ring or body section.   |
|   | Improper torquing of bolts.  | Torque to specification.  |
| At pump port. (DO NOT use Teflon tape on pipe thread fittings!) | Loose fitting.   | Tighten fitting.  |
|   | Damaged fitting.   | Replace fitting.  |
|   | Damaged pump body.   | Replace body section.   |
| Pump is hot. (Oil temperature should not exceed 140° F {60° C}) | Low oil level.   | Fill reservoir.   |
|   | Reservoir too small.   | Increase reservoir size.  |
|   | Dirty oil.   | Replace oil and filter.   |
|   | Relief valve stuck open.   | Remove, clean, and re-set.  |



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| Condition               | Likely Cause                    | Correction   |
|-------------------------|---------------------------------|--|
| Pump is hot (continued) | Relief valve improperly set.    | Adjust relief valve to manufacturer's specification. |
|                         | Pump too large for application. | Review application.<br>Replace with correct model.   |
|                         | Undersized system component.    | Review application.<br>Replace with correct model.   |
|                         | Improper weight oil.            | Replace with correct oil.                            |
|                         | Low oil level.                  | Fill reservoir.                                      |
| Oil foaming             | Loose inlet fitting.            | Tighten fitting.                                     |
|                         | Damaged shaft seal.             | Replace seal.  |
|                         | Leak in inlet hose.             | Replace hose.  |
|                         | lmproper tank baffle.           | Install baffle or diffuser.                          |