



## Hydraulic Oil Recommendations

All internal cylinder parts are lubricated by hydraulic oil in the circuit. Particular attention must be paid to the condition and level of the oil in the circuit. Dirty oil is one of the main causes of hydraulic component failure resulting in expensive downtime. Dirty oil is detectable, a sample on a dipstick will show its condition. Take the sample and put a drop on a blotter cloth or paper, any revealed residue means dirty oil. To replace the oil supply, drain and flush the entire system and clean or replace any filter screens. Fill the system with new oil suitable and recommended for use in circuits involving Custom Hoists, Inc. cylinders with the following specifications.

These suggestions are intended as a guide only. When purchasing hydraulic oil, show these specifications to your oil supplier for final oil recommendations.

### **General Recommendations:**

Oil should be checked daily, added to if needed and changed on a regular schedule along with filters and filter screens in accordance with the manufacturer's recommendations.

Hydraulic system should be flushed periodically.

Oil poured into the reservoir should pass through a 10 micron element. Pour only clean oil from clean containers into the reservoir.

Reservoir capacity should equal, in gallons, the pump output in G.P.M. or the total G.P.M. of all pumps where there is more than one in the system.

Oil operating temperature should not exceed 200°F (93°C) with a maximum of 180°F (82°C) usually recommended. 120°F (50°C) to 140°F (60°C) is usually considered optimum. High temperatures result in rapid oil deterioration and may indicate the system requires an oil cooler or larger reservoir. The closer to the optimum temperature, the longer the service life of the oil and the hydraulic components.

Don't pollute. Conserve resources and return used oil to a collection center.

### **Viscosity Recommendations:**

Approximately 100 SSU is considered optimum operating viscosity.

50 SSU Minimum @ Operating Temperature

7500 SSU Maximum @ Starting Temperature

150 to 225 SSU @ 100°F (37.8°C) (Generally)  
44 to 48 SSU @ 210°F (98.9°C) (Generally)  
• Approximate SSU at...

Oil Grade	100° F (37.8° C)	210° F (98.9° C)
SAE 10	150	43
SAE 20	330	51

**Normal Temperature:**

0°F (-18°C) to 100°F (37.8°C) Ambient  
100°F (37.8°C) to 180°F (82.2°C) System

Note: Where sustained temperatures exceed the above, use an oil suitable to the ambient temperature of your region. For a suitable replacement, consult your oil supplier.

**Other Desirable Properties and Characteristics:**

Viscosity Index - 90 minimum.  
Aniline Point - 175 minimum.  
Stability of physical and chemical characteristics.  
High demulsibility (low emulsibility) for separation of water, contaminants and air.  
Resistant to the formation of gums, sludges, acids, tars and varnishes.  
High lubricity and film strength.

**Notice**

Never use a detergent oil, crank case drainings, kerosene, fuel oil, or any non-lubricating fluid (such as water) in the hydraulic system.

**Custom Hoists, Inc.**

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