



## Specifications for Hydraulic Fluid

Summary: Tommy/A.V.W. is standardizing a single viscosity grade for use in all equipment: ISO/AW 100 hydraulic fluid. If this is not available, SAE30 motor oil may be substituted. Parker recommends use of 46 weight "AW46" Hydraulic fluid, or 10W40 oil for conveyors and hydraulic power units. ISO/AW 100 is within the viscosity range of SAE 30. SAE 30 was AVW's/Tommy's "house" grade, used for years when filling customer systems. While resolving technical issues, we have realized that there is a wide range of hydraulic fluid viscosity recommended and used in different Tommy equipment.

There is some indication that the lower viscosity grades we have been using may not be suited to the clearances and operating conditions in the hydraulic pumps and motors, a potential cause of some site-specific performance issues that have been reported. Across the group, we then recommended ISO/AW 32, 46, and 68 hydraulic fluid, SAE30 motor oil, and other grades as well depending on the component. This approach resulted in confusion. ISO (International standard) and AW (American standard) numbers refer to the center point of the actual viscosity range of the oil in centistokes at 40°C. The SAE "weight" numbers also correlate to the viscosity of the oil, but that explanation is too complex for this message.

A multi-weight oil like SAE 10W-30 has polymer additives that cause the oil to behave like SAE 10 oil at cold temperatures ("W"inter temperatures, the source of the W) and like SAE 30 oil at high operating temperatures. See the attached chart that shows the relative viscosity ranges of the oils pertinent to this discussion as reported in manufacturer documents. To unify our approach, after many discussions with our primary hydraulics supplier, Tommy/A.V.W. is standardizing a single viscosity grade for use in all equipment: ISO/AW 100 hydraulic fluid. If this is not available, SAE30 motor oil may be substituted. There should be no need for multi-grade motor oil; if the wash is getting cold enough to require one, close the

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doors and turn on the heat – the water is going to freeze! This does not mean that fluid has to be replaced now, but in future recommendations, fluid change-outs, and start-ups, please adhere to the current standard. A conveyor power unit uses 27 gallons when filled to the float. A 5 port hydraulic power unit uses 47 gallons when filled to the float. 3/8" hydraulic line holds a little more than a half-gallon per 100 feet of hose. Support Knowledgebase Updated August 2019