

Your HecoGear Inc. Model 16 planetary speed reducer may be lubricated using one of two methods.

Self contained lubrication

If you are using self contained lubrication you need to install the proper amount of lubrication fluid into the speed reducer. The amount of fluid depends on the mounting orientation of the speed reducer. **Shaft horizontal** – it is recommended that the speed reducer be filled to ½ of it's capacity (oz.) with the proper fluid (SAE 90W meeting API GL-5 specification) **Vertical shaft down** – with the shaft facing down fill the speed reducer with the proper fluid (SAE 90W meeting API GL-5 specification) to the level of the center line of the upper gear set prior to installing the motor. **Vertical shaft up** – the speed reducer must be completely filled with the proper fluid (SAE 90W meeting API GL-5 specification) and provision for maintaining a fluid level at or above the top shaft bearing is required. This can be done using a “stand pipe” or small reservoir.

“Flow through” Lubrication

In this method of lubrication, fluid from the hydraulic system is used to lubricate the speed reducer. This is most commonly done using a “bearingless” hydraulic motor which has no shaft seal and the internal leakage of the motor flows into and lubricates the speed reducer. A petroleum based hydraulic fluid with EP1 additives and a minimum of .125% zinc anti-wear additives should be used to ensure good speed reducer life at rated torques and speeds. Bio-degradable fluids and water glycol fluids can be used below the maximum ratings of the speed reducer. (contact HecoGear for your specific application)

The speed reducer should be completely filled with hydraulic fluid before the hydraulic motor is installed. **Case drains** – No case drain is required with self contained lubrication. On units with flow through lubrication you do not need to case drain the unit unless the return line pressure from the hydraulic motor exceeds 50 PSI; as it does if the motor is in series or you are using a “meter out” flow control. If a case drain is required for your application care must be taken to ensure that the drain is taken from the proper location so that all internal components are thoroughly lubricated.

(use existing 2,000 - 4,000 text)

The case drain should be taken from the high point of the motor/reducer.

Maximum Oil Temperature

160 Continuous

180 Intermittent

Consult HecoGear, Inc. for higher temperatures

Periodic maintenance

Reducers using self contained lubrication should have the fluid drained after the first 50 hours of operation and the reducer should be flushed with a flushing oil, drained and then replaced with the proper fluid. This should also be done every 1,000 hours thereafter. Reducers using flow through lubrication require no periodic maintenance.