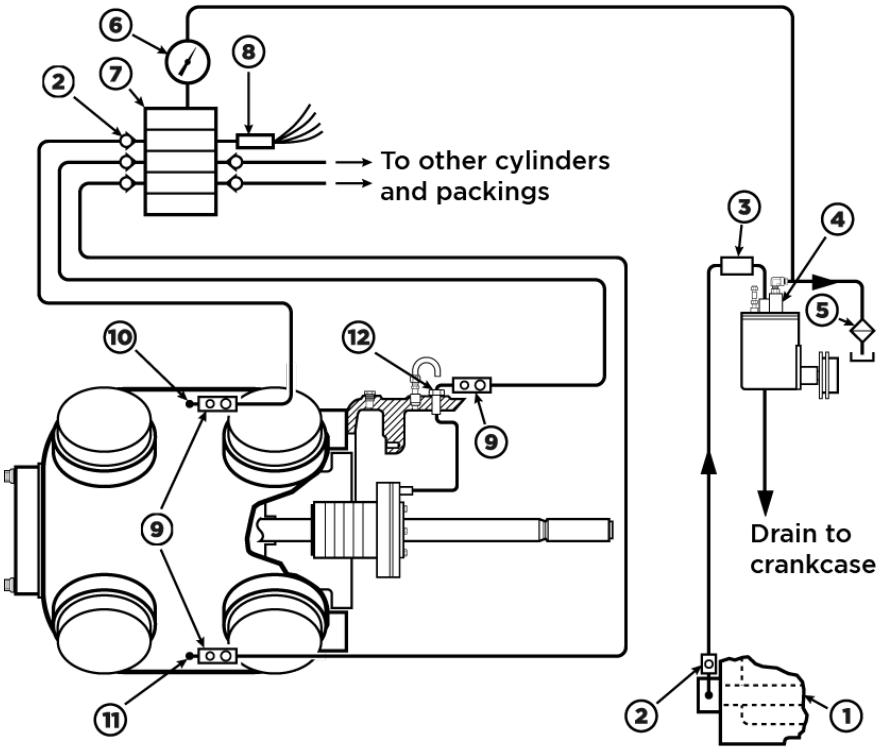
Cylinder Lube Oil Supply

Cylinder and packing lube oil is normally supplied from the frame lubrication system at the main oil gallery directly to the suction side of the cylinder force feed lubricator pump. The oil is then pumped through a distribution block system to individual supply points; cylinder lube injection, packing lube, intermediate packing lube, and cylinder flushing points. A lubricator no-flow switch is installed at each primary divider block to ensure appropriate and monitored oil flow.

Figure: Force Feed Lubrication System Common Oil Supply



1 Frame Oil Gallery
2 Single Ball Check Valve
3 Sintered Bronze Filter (if applicable)
4 Force Feed Lubricator Pump
5 ARV or Rupture Disk
6 Pressure Gauge
7 Divider Valves/ Distribution Block
8 Fluid Flow Monitor No-Flow Timer Shutdown Switch
9 Double Ball Check Valve
10 Top Cylinder Injection Point
11 Bottom Cylinder Injection Point
12 Packing Injection Point

The cylinder and packing lube can be supplied from a separate system. Generally, separate lube oil for the cylinders and packings is required for applications where the required cylinder and packing lubricant is not compatible with the frame lubricant. These applications include high discharge pressure applications , or when the process gas conditions require an oil heavier than 40 weight, or a synthetic lubricant, such as when heavy hydrocarbons, wet gas or CO_2 are present in the gas stream and would dilute a conventional lubricant.

For applications requiring separate frame and cylinder/packing lubricant, the packager is required to provide a separate day tank for the cylinder and packing lubricant. A line filter is recommended between the day tank and the pump inlet. This day tank will need to be elevated to provide the cylinder lube pump oil at a slight positive pressure. Oil filter and piping pressure drop as well as the increased oil viscosity at cold temperatures should be considered when sizing the piping between the day tank and the compressor.

An electric motor driven cylinder force feed lubricator is available upon request. Please refer to the Auxiliary End Pump Removal topic for further information.

See section 6 of the Packager Standards for information on cylinder and packing lubricants and rates.