Shell Madrela Oil T

Synthetic lubricant for gas compressors

Shell Madrela Oil T has been specially developed for compressors handling hydrocarbon and other gases. It is based on polyalkylene glycol base fluids and is fully approved by leading gas compressor manufacturers.

Applications

- ***Reciprocating gas compressors***
  Sump and lubrication systems of enclosed pattern compressors handling hydrocarbon and other gases where the crankcase and bearings operate in a gas atmosphere.

Shell Madrela T is suitable for compressors handling the following gases:

Methane	Butylene
Ethane	Butadiene
Ethylene	Vinyl chloride monomer (VCM)
Propane	Propylene
Ammonia	Inert gases (dry)
Butane	

Special changeover procedures are required when moving from mineral oil-based products to Madrela T and vice versa.

Advice on applications not covered in this leaflet may be obtained from your Shell representative.

Performance Features and Advantages

- ***Reduced hydrocarbon gas solubility***
  Developed specifically to provide reduced gas solubility. This results in reduced viscosity loss in comparison with mineral oil-based products, improving piston ring and packing lubrication. Service intervals can be extended, reducing maintenance and downtime costs.
- ***Reduced feed rate***
  The improved lubrication allows a reduction in cylinder feed rates, reducing lubricant consumption and costs.
- ***Lubricant film retention***
  The reduced viscosity loss also results in retention of a stronger lubricant film on the cylinder wall, piston rings and packing components. Corrosion protection is increased and wear rates further reduced.
- ***Approved by key OEMs for multiple gas transportation***
  When used in marine cargo compressors, there is no need to change lubricant with a change in gas being transported.

Specification and Approvals

Madrela T is approved by the following manufacturers of gas cargo and general service compressors:

Sulzer Burckhardt A.G.
Approved for use in their K-type gas compressors for general LPG/LNG service and for ammonia, vinyl chloride monomer and butadiene.

Linde A.G.
Aprroved for general service gas compression including ammonia, vinyl chloride monomer and butadiene.

Seal compatibility

Madrela T may be used with most common seal and packing materials, including butyl, nitrile, neoprene and Viton seal materials.

Care should be taken if the system is being converted from mineral oil to Madrela T. Seals normally used in conjunction with mineral oils swell slightly in operation, whereas the same material tends to either remain unchanged or shrink slightly when using Madrela T. Leakage could result from worn or damaged seals. Fitment of new seals is recommended on change-over

Health and Safety

Guidance on Health and Safety are available on the appropriate Material Safety Data Sheet, which can be obtained from your Shell representative.

Protect the environment
Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

Typical Physical Characteristics

Madrela T			
Kinematic Viscosity		ISO 3104	
at 40°C	mm^2/s		190
at 100°C	mm^2/s		36
Viscosity Index		ISO 2909	200
Flash Point COC	°C	ISO 2592	262
Pour Point	°C	ISO 3016	-30
Density at 15°C	kg/m^3	ISO 12185	1056

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.