SPEC OIL STEAM CYLINDER OIL 150, 220, 460 & 680

DESCRIPTION
These oils are quality refined high viscosity mineral oils with a small percentage of fatty oils. They are used primarily, for the lubrication of steam cylinders working under high temperature, high pressure conditions where low carbon formation and ‘steam washing’ are important considerations. They atomise more easily and with steam of moderate superheat, produce more tenacious lubricating films than ‘straight’ grades of the same viscosity.

APPLICATION
- Steam cylinder lubrication
- Low speed enclosed gears
- Certain worm gears

PERFORMANCE FEATURES
- Good thermal resistance and oxidation stability
- Tenacious lubrication and corrosion protection even when subjected to heavy steam washing conditions.
- Good load carrying capabilities.
- Reduce wear under boundary conditions.

STEAM CYLINDER LUBRICATION
The function of a steam-cylinder lubricant is to form an oil film that will adequately lubricate the rubbing surfaces at high operating temperatures and also prevent leakage past valves, pistons and glands. Efficient atomisation, easy spreading over the working surfaces and the ability to resist scouring action of the steam (the washing effect of water) are other important properties.

Steam-cylinder oils are classified according to steam temperature and engine power. The higher the steam temperature and the more powerful the engine, the greater will be the required heat stability which is generally related to viscosity.

LOW SPEED ENCLOSED GEARS
These oils may be used to advantage in worm gears prone to suffer extensive wear and to reduce the bulk oil temperature. Typical stop-start conditions.
## SPEC OIL

### KEY PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Grade 150</th>
<th>Grade 220</th>
<th>Grade 460</th>
<th>Grade 680</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity @ 40 °C</td>
<td>150</td>
<td>220</td>
<td>460</td>
<td>680</td>
</tr>
<tr>
<td>Viscosity @ 100 °C</td>
<td>15</td>
<td>19</td>
<td>31.5</td>
<td>35.3</td>
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<tr>
<td>Viscosity Index</td>
<td>95</td>
<td>90</td>
<td>99</td>
<td>83</td>
</tr>
<tr>
<td>Density @ 15 °C</td>
<td>0.889</td>
<td>0.9</td>
<td>0.903</td>
<td>0.929</td>
</tr>
<tr>
<td>Flash Point °C (Min)</td>
<td>227</td>
<td>210</td>
<td>270</td>
<td>332</td>
</tr>
<tr>
<td>Pour Point °C (Max)</td>
<td>-16</td>
<td>-12</td>
<td>-6</td>
<td>-6</td>
</tr>
</tbody>
</table>