

## Product Information

# SOVEREIGN 150, 460, 680 AND 1000 STRAIGHT STEAM CYLINDER OILS

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## Description

Sovereign Straight Steam Cylinder Oils are refined to give film strength at very high temperatures, providing excellent lubrication where needed to protect bores and valves. These grades are non-compounded, have superior resistance to oxidation and have low deposit forming characteristics under extreme conditions of temperature and pressure. They also possess strong demulsification characteristics and therefore separate quickly and cleanly from water.

Sovereign Straight Steam Cylinder Oils are non-staining and safe with paintwork and brass.

## Applications

Sovereign 460 has exceptional demulsification properties and this grade is recommended in lightly loaded engines when steam condensation needs to be recovered.

In engines where high temperature superheated steam over 550°F (288°C) is used, the more viscous Sovereign 1000 oil is recommended. Please refer to the selection chart for other applications.

Sovereign 150 meets the requirements for Sentinel steam locomotives with vertical engines i.e. 100 HP and 200 HP, both centered and balanced configurations where a lower viscosity crankcase fluid is specified.

**Important Note:** The Sovereign Range must be used for all steam engines using wet or dry steam, in preference over compounded product if the steam is being recovered, and used as a boiler or process feed.

Sovereign Straight Steam Cylinder Oils meet the requirements of British Rail, for locomotive running on their lines, schedule number MT276

## Physical Characteristics

GRADE	150	460	680	1000
Kinematic Viscosity at 100 °C (cSt)	14.1	30.0	37.5	43.0
Kinematic Viscosity at 40 °C (cSt)	151.2	470	475	930
Flash Point, PMCC (°C)	235	210	220	240

(TDS – Sovereign Steam Cylinder Oils 190312 Issue 2)



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Morris Lubricants, Castle Foregate,  
Shrewsbury, Shropshire, SY1 2EL  
Telephone (01743) 232200  
Fax (01743) 353584