



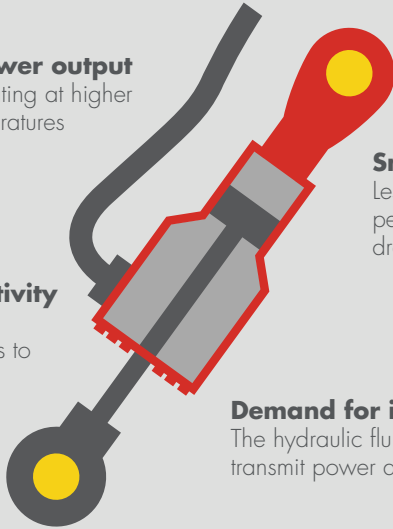
IMPROVING RELIABILITY AND PRODUCTIVITY OF HYDRAULIC SYSTEMS¹ TO HELP CUT TOTAL COST OF OWNERSHIP WITH SHELL TELLUS HYDRAULIC OILS

CHANGES TO EQUIPMENT TECHNOLOGY AND OPERATION PLACE INCREASING DEMANDS ON HYDRAULIC OILS

KEY CAUSES OF OPERATING DIFFICULTIES IN INDUSTRIAL HYDRAULIC SYSTEMS²

Increased power output
Equipment operating at higher loads and temperatures

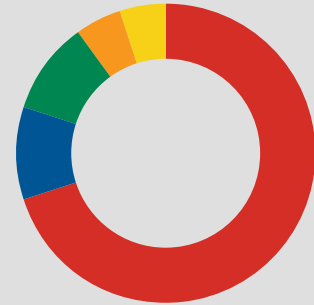
Push for productivity
Customers want to minimise interruptions to equipment operation



Smaller sump sizes
Less lubricant to deliver performance throughout the drain interval

Demand for improved efficiency
The hydraulic fluid needs to help transmit power as effectively as possible

Hydraulic oils have to perform in more demanding conditions



- Improper hydraulic fluid condition
- Improper diagnosis of a problem, or lack of knowledge in making repairs
- Mechanical failures (bearing failures due to misalignment, seal failures due to dirt, etc.)
- Operating units beyond recommended limits of speed, pressure, or volume
- Miscellaneous causes

THE CRITICAL ROLE OF HYDRAULIC OIL

WEAR PROTECTION

Helps limit wear and corrosion, to guard against breakdown

LONGER EQUIPMENT LIFE

Greater resistance to oxidation helps equipment operate under higher stresses for longer

SYSTEM EFFICIENCY

Efficiently transmits power through the system

SHELL TELLUS S2 MX AND VX HYDRAULIC OILS CAN HELP DELIVER COST SAVINGS¹

INCREASED WEAR PROTECTION¹

- Helps reduce wear rate even in harsh conditions³
- Helps protect against copper corrosion⁴, rust⁵ and scuffing⁶
- Shell Tellus S2 MX is among the first to meet new Bosch Rexroth standard for wear protection in extreme conditions³



This can help:

- Reduce frequency of breakdown
- Improve reliability of operations
- Lower maintenance costs

LONGER OIL LIFE¹

- Over 5000 hours TOST life: 3x industry and OEM limits⁷
- Double the oil life of Shell Tellus S2 M and V⁷
- 400 mins in Rotary Pressure Vessel Oxidation Test⁸



This can help:

- Extend maintenance cycles
- Lower maintenance costs
- Reduce downtime
- Improve operational efficiency

MORE EFFICIENT SYSTEM OPERATION¹

Thanks to:

- Excellent friction control⁹
- Excellent filterability¹⁰
- Consistent water separation¹¹
- Improved air release¹²
- Excellent stick-slip control⁹



This can help:

- Ensure equipment meets or exceeds its design capabilities
- Enhance productivity by extending maintenance cycles

ALL HELPING IMPROVE RELIABILITY AND PRODUCTIVITY OF HYDRAULIC SYSTEMS, CONTRIBUTING TO REDUCED TOTAL COST OF OWNERSHIP

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SHELL LUBRICANTS
TOGETHER ANYTHING IS POSSIBLE

¹Compared to Shell Tellus S2 M and S2 V ²Source: multiple surveys by industry bodies including additive companies, filter manufacturers, hydraulic equipment manufacturers ³Shell Tellus S2 MX is one of the first hydraulic fluids to appear on Bosch Rexroth Fluid Rating List RDE 90245 New Bosch Rexroth test increases stress factor by 13 times compared with Eaton 35VG25 pump test ⁴Compared with ASTM D130- mix of 3h and 168-hour test limit, and rated at 1α ⁵Compared with ASTM D665B test limit ⁶FZG performance, up to FLS 12 ⁷TOST (Turbine Oil Stability Test) life of over 5000 hours. ASTM D 943 test, twice the life of Tellus S2 M and S2 V, and three times that of typical industry and OEM limits ⁸ASTM D2272 RPVOT test ⁹ASTM D1894 stick slip test compared with Shell Tellus S2 M and S2 V ¹⁰Compared to ISO 13357-1 filterability test limit ¹¹Compared to water separation ASTM D1401 limit ¹²Compared with IP 313 air release limit