

**COMPANY:** Automotive-component

manufacturer

**COUNTRY:** Thailand

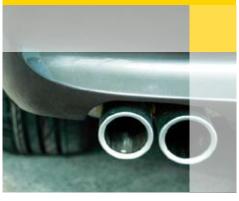
**APPLICATION:** Hydraulic systems

**SAVING:** US\$71,300 total reported

annual customer saving

**KEY EDGE:** Shell Tellus S2 M.

Shell LubeAnalyst



JCA0075

An automotive-component manufacturer in Thailand is proud of its high-quality products and excellent delivery record. Its plant produces about 500 exhaust pipe sets for trucks every day. Throughout its existence, the company has invested in first-class machinery. However, after only a year of operation, a critical pipe-bending machine was out of action for about a month for repair, set-up and testing. The machine had a worn hydraulic piston liner and damaged seals and gaskets, damage the company suspected was related to the hydraulic oil being used.

The company wanted to prevent further downtime, lost production and unplanned maintenance costs, and so it switched to Shell Tellus S2 M high-performance hydraulic oil. The company also opted for the Shell LubeAnalyst service, a state-of-the-art health check for oils and equipment. This service helps to give the company peace of mind by providing oil-condition monitoring, which shows that the oil and equipment are operating within acceptable limits.

Since the company changed to Shell Tellus S2 M oil, the pipe-bending machine has not required any unplanned maintenance. The company reports that it is saving over US\$71,300 a year by avoiding lost production and unplanned maintenance costs.

# CHALLENGE

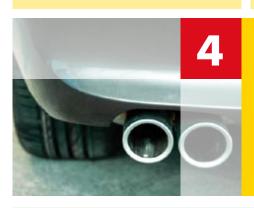
An auto-component manufacturer's pipebending machine was damaged and out of action for about a month for repair, setup and testing. The company suspected that the hydraulic oil was responsible for the wear to the piston liner and the damage to the seals and gaskets. The downtime resulted in lost production and unplanned maintenance costs.

## 2 SOLUTION

Following technical advice, the company now uses Shell Tellus S2 M highperformance hydraulic oil and the Shell LubeAnalyst condition monitoring service.

## 3 оитсоме

Since using Shell Tellus S2 M hydraulic oil, the company's pipebending machine has not required any unscheduled maintenance. The company also has the peace of mind that the Shell LubeAnalyst oil condition monitoring service provides.



## **VALUE**

The auto-component manufacturer reports that with Shell Tellus S2 M hydraulic oil it is avoiding lost production and reducing its maintenance costs, which has saved it over US\$71,300 a year.\*

\*The savings indicated are specific to the calculation date and mentioned site. These calculations may vary from site to site and from time to time, depending on, for example, the application, the operating conditions, the current products being used, the condition of the equipment and the maintenance practices.

## SHELL TELLUS S2 M

INDUSTRIAL HYDRAULIC FLUID

Shell Tellus S2 M fluids are high-performance hydraulic fluids that use Shell's unique patented technology to provide outstanding protection and performance in most manufacturing and many mobile equipment operations. They resist breakdown under heat or mechanical stress, and help to prevent the damaging deposit formation that can decrease the efficiency of hydraulic power systems.



### **Applications**

- Industrial hydraulic systems. With an extensive range of equipment maker approvals and recommendations, Shell Tellus S2 M fluids are suitable for a wide range of the hydraulic power applications found in manufacturing and industrial environments.
- Mobile hydraulic-fluid power-transmission systems. Shell Tellus S2 M fluids can be used effectively in mobile hydraulic-power applications such as excavators and cranes, except where significant ambient temperature variations are encountered. For these applications, Shell recommends the Shell Tellus V series.
- Marine hydraulic systems. Shell Tellus S2 M is suitable for marine applications where ISO HM category hydraulic fluids are recommended.

### Performance features and benefits

■ Long fluid life — maintenance saving. Shell Tellus S2 M fluids help to extend equipment fluid-drain intervals by resisting thermal and chemical breakdown. This minimises sludge formation and provides excellent performance under the industry-standard ASTM Turbine Oil Stability Test to offer good reliability and system cleanliness. Shell Tellus S2 M fluids also have good stability in the presence of water, which ensures long fluid life and reduces the risk of corrosion and rusting, particularly in moist or humid environments.

- Outstanding wear protection. Proven zinc-based anti-wear additives are incorporated to enable Shell Tellus S2 M to be effective throughout the range of operating conditions, including low-load and severe-duty high-load conditions. Outstanding performance in a range of piston and vane pump tests, including Denison T6C (dry and wet versions) and Vickers 35VQ25, demonstrates how Shell Tellus S2 M fluids can help system components to last longer.
- Maintains system efficiency. Shell Tellus S2 M's superior cleanliness, excellent filterability and high-performance water separation, air release and anti-foam characteristics all contribute to maintaining or enhancing the efficiency of hydraulic systems. The unique additive system in Shell Tellus S2 M, in combination with its superior cleanliness properties (meets the requirements of ISO 4406 21/19/16 class ex-Shell plant filling lines), helps to reduce the impact of contaminants on filter blocking, which extends filter life and enables the use of finer filters for extra equipment protection. Shell Tellus S2 M fluids are formulated for fast air release without excessive foaming to help efficient hydraulic power transfer and minimise the cavitation-induced oxidation that can shorten fluid life.

## **Specifications and approvals**

Shell Tellus S2 M is approved by Denison Hydraulics HF-0, HF-1 and HF-2; Cincinnati Machine P-68 (ISO 32), P-70 (ISO 46) and P-69 (ISO 68); and Eaton Vickers M-2950 S and I-286 S. It is listed by Bosch Rexroth Ref 17421-001 and RD 220-1/04.03. It meets the requirements of ISO 11158 (HM fluids); AFNOR NF-E 48-603; ASTM 6158-05 (HM fluids); DIN: 51524 Part 2 HLP type; and Swedish Standard SS 15 54 34 AM.