



MORBARK INC., WINN, MICHIGAN, U.S.A.

Hydraulic Fluid Choice Provides OEM and Its Customers With a Competitive Edge

"Petro-Canada was the first to come up with a product that could really handle the extremes that we were seeing in the field. We made them run tests for us, practical tests with some of our equipment, to make sure it would do what they said. Nobody met the specifications that Petro-Canada met. For instance, the viscosity index for HYDREX™ XV was higher than anything else we saw or have seen since." – Craig Price, Vice President, Operations Morbark Inc.



Morbark Inc.

Extreme temperature fluctuations. Harsh environments. Remote locations. Continuous operation. Demanding deadlines. Welcome to the life of debris-clearing grinders, shredders and chippers found on construction sites, in natural disaster areas and on most land-clearing projects. Essential to ensuring this equipment can work in these demanding environments is the hydraulic fluid. Failure caused by fluid breakdown can be expensive to fix and even costlier in terms of project delays.

Just ask Morbark, Inc., one of the world's leading manufacturers of recycling, forestry and sawmill equipment. Located in Winn, Michigan, Morbark employs 600 people and is easily recognizable on land-clearing projects by its bright orange grinders, chippers and shredders. The company's products range in size from hand-fed brush chippers to horizontal Wood Hogs that weigh up to 103,000 pounds (46 720 kg) and hold 350 gallons (1 325 litres) of hydraulic fluid.

"This equipment can be run all day long with reservoir temperatures reaching 150°F (66°C) to 160°F (71°C)," explains Craig Price, Vice President, Operations, Morbark, who has been with the company for over 15 years. "It is shipped and operated all over the world in all types of conditions. Therefore, we need a fluid that allows fast start-ups in -30°F (-34°C) weather but is still viscous enough to protect the pumps and valves when ambient temperatures reach 95°F (35°C) or higher."

In 1998, Morbark's jobber, Coyne Oil, undertook a hydraulic fluid review. They identified Petro-Canada's HYDREX XV all season hydraulic fluid as delivering the highest performance in the market and recommended it to Morbark for both factory fill and its own plant equipment requirements.

HYDREX XV all season hydraulic fluid is a premium performance, long life, anti-wear hydraulic fluid designed for year-round use in heavy duty hydraulic systems exposed to wide extremes of temperature. It allows hydraulic systems to start at ambient temperatures ranging from -40°F (-40°C) to as high as 167°F (75°C).

"Coyne brought Petro-Canada to the table for us," explains Price. "Petro-Canada was the first to come up with a product that could really handle the extremes that we were seeing in the field. We made them run tests for us, practical tests with some of our equipment, to make sure it would do what they said. Nobody met the specifications that Petro-Canada met. For instance, the viscosity index for HYDREX XV was higher than anything else we saw or have seen since."

Petro-Canada's HYDREX XV is formulated using the HT purity process to produce 99.9% pure, crystal-clear base oil. By removing the impurities that can hinder the performance of conventional oils, HYDREX XV retains its fresh oil properties longer. Then Petro-Canada blends specially selected next-generation additives to produce the final finished product.

One of the key benefits in switching to the new hydraulic fluid was a longer drain interval.

"We were getting double the reservoir life with this product," says Price. "So our change out recommendations actually doubled. And we're still below what Petro-Canada was telling us we could achieve."

The longer drain interval helped Morbark address contamination concerns. The less a reservoir is opened, the lower the chances of contamination entering the system. Reducing the number of change outs immediately reduces the number of times a reservoir is opened.

"Reducing the need for top ups also helps protect against contamination," says Price. "We've had problems in the past where the hydraulic fluid couldn't take the heat. This would cause a machine's seals to heat up and result in leaks. Operators would add to the reservoir but contamination would occur. Pretty soon, they've got failure. With HYDREX XV, we've seen a lot of contamination issues go away."

Petro-Canada's HYDREX XV outperformed the leading global competitor in the critical ASTM D943 standard test for oxidation stability. The test shows that HYDREX XV lasts three times longer than the leading global competitor, which can translate into fewer change-outs and lower maintenance costs.

"HYDREX XV not only allows a wide temperature range for start-ups, but it continually provides solid wear protection for our pumps and valves at higher operating temperatures," says Price. "With its high oxidation resistance, it provides this protection longer, meaning less downtime for our customers."

In their own plant, changing to HYDREX XV also allowed Morbark to reap several benefits. One of the most significant was that it allowed the company to consolidate its hydraulic fluid purchasing.

"I had to deal with the hydraulic fluid a lot," says Price. "For example, we would put lighter weight fluid in a machine if we anticipated that it was going to be operated in both cold and hot temperatures. But if things changed and we had to ship to a location where temperatures were always hot, we had to drain the fluid and replace it with thicker fluid. It was a lot of management. I always wanted to get to one product, which I was able to achieve with HYDREX XV."

Morbark was also able to increase drain intervals and reduce maintenance requirements while pushing its own equipment harder than before.

"When our sumps are running at 150°F (66°C) and can reach up to almost 170°F (77°C) at times, it's handy to have a product that will handle that kind of heat so that we don't have to change it out every three months," says Price. "Our maintenance time was cut in half, and we could even push it further if we wanted."

In today's competitive environment, even the smallest details can provide a company with a competitive edge. By choosing Petro-Canada's HYDREX XV all season hydraulic fluid, Morbark not only improved its own operations but improved those of its customers as well.

"We're very satisfied," says Price. "Petro-Canada came to the table with a product that could meet our needs and no one else could."

To learn more about how Petro-Canada Lubricants can help your business visit:
lubricants.petro-canada.com
or contact us at lubecsr@petrocanadalsp.com

LUB1638E (2013.09)

™ Owned or used under license.



Beyond today's standards.™