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ExxonMobil Aviation Lubricants Introduces HyJet V Hydraulic Fluid

Airlines Can Now Choose Type V Phosphate Ester Aviation Hydraulic Fluid with Highest-Grade Approvals from Airbus and Boeing

FAIRFAX, Va.--(BUSINESS WIRE)--

ExxonMobil Aviation Lubricants today introduced HyJet V, a fire-resistant aviation hydraulic fluid with higher stability and longer service life than Type IV fluids. HyJet V is the only Type V phosphate ester aviation hydraulic fluid with highest-grade approvals from Airbus and Boeing.

"HyJet V is our response to those in the airline industry requiring an aviation hydraulic fluid that offers mixed fleets the highest level of performance," says Mike Hawkins, global marketing manager, ExxonMobil Aviation Lubricants. "It provides the advantages you would expect from a global supplier with a long-standing reputation for leadership in aviation lubricant technology."

HyJet V is approved against Airbus NSA 307110M, Type V, and is the first Type V fluid authorized for use in the Airbus A380's 5000-psi hydraulic system. It is approved against Boeing BMS 3-11N Type V, Grade A, Boeing-Long Beach DMS 2014H, Type 5, and Bombardier Canadair BAMS 654-003NC, Type V. HyJet V meets SAE AS1241 Type IV and Type V requirements. It is qualified for use in ATR turboprop aircraft and compatible in any ratio with all commercial Type IV and Type V fluids.

In laboratory testing conducted by ExxonMobil and others, results confirm that HyJet V offers:

- better stability and longer service life than Type IV hydraulic fluids,
- stronger corrosion control than competitive Type IV and Type V hydraulic fluids, and
- better wear protection than competitive Type IV and Type V hydraulic fluids.

Flash Point: With a flash point of 345 degrees F, HyJet V is the first commercial Type V hydraulic fluid to meet and exceed the Airbus and Boeing Type V, Grade A flash point specification of 320 degrees F.

Fluid Life: Phosphate ester hydraulic fluids can degrade rapidly when contaminated with water, especially at high temperatures. The Airbus NSA 307110 Ampoule Test measures a fluid's resistance to reaction with water (hydrolytic stability) and molecular breakdown at high

temperatures (thermal stability). Fluid is tested at regular intervals to determine when it exceeds a 1.5 acid number, signifying the end of fluid life. Side-by-side testing confirmed that HyJet V offers better stability and longer service life than Type IV fluids.

Corrosion Control: Superior rust protection provides a measure of security against potentially damaging high-level water contamination. The ASTM D 665A test identifies rust on polished steel rods exposed to 10 percent water in fluid for 24 hours at 60 degrees C. Test results show that HyJet V combats corrosion better than competitive Type IV and Type V hydraulic fluids.

Wear Protection: The Four Ball Wear Test (ASTM D 4172) determines the lubricity and wear protection properties of a lubricant. The test is used in Airbus and Boeing Phosphate Ester Aircraft Hydraulic Fluid Specifications. Three steel bearing balls are clamped together and covered with the test fluid, while a rotating fourth ball is pressed against them in sliding contact at various force levels. This contact produces a wear scar, which is measured and recorded. The test produced generally smaller scars for HyJet V than for samples of other Type IV and Type V commercial products.*

*Results are averages from testing samples from multiple batches of HyJet V and other commercial products.

The difference in wear protection performance between HyJet V and the competitive Type V product was especially pronounced. Better performance in this test can mean better wear protection for a fleet's hydraulic system components.

To learn more about HyJet V, customers can contact their local ExxonMobil Aviation Lubricants representative or visit www.exxonmobil.com/lubes/aviation.

ExxonMobil Aviation Lubricants is a leading supplier of jet oils, hydraulic oil, piston oils, greases and specialty fluids. Its products are delivering results "on orbit" in the International Space Station, and on earth in the aircraft of many airlines and private pilots. The global organization provides technical expertise and service for customers worldwide.

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Hydraulic Fluid Life Type IV vs. Type V Chart

Ampoule Test @ 0.5% Water, 125 degrees C

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Specimen Photos

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Four Ball Wear Test Chart

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Source: Exxon Mobil Corporation