



# DESCRIPTION

FARMA UTTO is a low viscosity universal tractor transmission fluid intended for use in power-shift transmissions and where oil immersed clutches/brakes and fluid couplings are incorporated in the drive-line. FARMA UTTO can be used all year around in agricultural machinery and many off-road applications. It has been carefully formulated with high quality base oils and special additives to meet critical industry performance standards for transmissions, wet brakes, axles and hydraulic pumps. It meets the specifications of the largest internationally farming machinery houses.

# **APPLICATIONS**

FARMA UTTO is suitable for mechanical transmissions, power steering systems, PTOs, hydraulic systems, wet brakes or/and immersed brake clutches of agricultural equipment (all tractor types, combine harvesters, sprayers), construction, forestry and handler equipment. FARMA UTTO can be used in applications requiring API GL-4 or SAE 80W (or SAE 10W-30) grade lubricant in all gear applications, except hypoid gear designs.

# **CHARACTERISTICS-BENEFITS**

CHARACTERISTICS	BENEFITS
Viscosity retention under high shear stresses due to hydraulic systems operation.	Excellent hydraulic performance.
Special friction modifiers are incorporated to impart the necessary anti–squawk and anti-chatter properties.	Optimized clutch, PTO and wet brakes performance.
Compatible with latest clutch materials and elastomers.	Longer clutch life and reduced leakage.
Extreme pressure additives incorporated.	Excellent wear protection under high loads; faultless transmission operation.
Multipurpose applications.	Enabled rationalization; reduced risk of incorrect application.

# **PHYSICAL-CHEMICAL CHARACTERISTICS**

FARMA UTTO	METHOD	SAE 10W-30/80W
Density at 15°C, g/cm <sup>3</sup>	ASTM D1298	0.8640
Viscosity, Kinematic (cSt) 100°C	ASTM D445	10.2
Viscosity, Kinematic (cSt) 40°C	ASTM D445	63.8
TBN, mgKOH/g	ASTM D2896	8.55
Viscosity index	ASTM D2270	147
Flash point, COC, °C	ASTM D92	210
Brookfield Viscosity, cP (@-18°C)	ASTM D2983	21,700
Pour point, °C	ASTM D97	-39

The abovementioned characteristics represent mean values.

## SPECIFICATIONS

API GL-4; Case IH MS-1204, MS-1206, MS-1207, MS-1209, MS-1210, MS-1216, MS-1230 (Poclain), MS-1317, MS-143, MS-144, MS-145 (TCH Fluid), MS-185 (TFD Fluid); Case New Holland MAT 3525, MAT 3526, MAT 3505, MAT 3510, MAT 3540; Ford New Holland FNHA-2-C-200.00, FNHA-2-C-201.00, M4864A, M4864B; Ford M2CA-C, ESN M2C-41, ESN M2C-41A, ESN M2C-41B, ESN M2C-43, ESN M2C-48B, ESN M2C-48C, ESN M2C-53A, ESN M2C-53B, ESN M2C-77A, ESN M2C-78A, ESN M2C-79A, ESN M2C-86A, ESN M2C-86B, WSS M2C-86C, ESN M2C-92A, ESN M2C-134D, ESN M2C-142A, ESN M2C-143, ESN M2C-159A, ESN M2C-159C; New Holland NH 410B; John Deere J20D, J20C, J20B, J20A, J14C, J14A, J21A; Massey Ferguson M-1145 (M-1135, M-1141, M-1143), M-1138, M-1129, M-1127A, M-1127A, M-1127B, M-1110, M-1103A, M-1103B; Volvo WB101/97303 (STD 1273,03); ZF TE-ML 03E, TE-ML 05F; JCMAS HK P041, HK P042; Caterpillar TO-2; Allison C-4, C-3, C-2; Kubota UDT, Super UDT, Super UDT2; Komatsu KES 07.866, KES 07.868.1; DIN 51524 Part 2 HLP; Denison (Parker) HF-0, HF-2, HF-1; AFNOR NF E48-603 HM; Vickers M-2950-S, I-286-S; Eaton 35VQ25

Recommended (check manual): Komatsu AXO80; Case IH Hy-Tran B-6; Case-O-Matic Type A; Sauer Sunstrand/Danfoss (HydroStatic Trans Fluid); AGCO Permatran 821XL; Powerfluid 821XL; FIAT Hesston AF-87; Deutz Allis Power Fluid 821XL, 25741, 25743, 246634, 272843; Landini; Dresser; IMT

## **APPROVALS**

Volvo WB101/97303 (STD 1273,03)