



STARFIRE AW HYDRAULIC OILS

STARFIRE AW HYDRAULIC OILS are high performance hydraulic fluids formulated from select base stocks and advanced additive technology to deliver ultimate equipment protection and extended operating life. STARFIRE AW Hydraulic Oils contain active anti-wear agents, anti-oxidation, anti-corrosion, anti-rust and anti-foam additive components.

APPLICATIONS

Recommended for hydraulic pumps and hydraulic and high-pressure circulating systems requiring:

- Parker Hannifin (Denison) HF-O, HF-1, HF-2, & T6H2OC
- Eaton Vickers 35VQ25A Pump, M-2950-S, & I-286-S
- Cincinnati Milacron P-68, P-69, & P-70 or DIN 51524-2

BENEFITS

- Formulated with premium base stocks for added resistance to thermal breakdown
- Outstanding wear protection
- Excellent resistance to system rust and oil oxidation
- Maintains excellent water-separating properties
- Excellent foam control and air release deliver consistent system operation



STARFIRE TRACTOR FLUIDS



STARFIRE PREMIUM TRACTOR HYDRAULIC FLUID is formulated with highly refined Group II base stocks for added resistance to thermal breakdown & utilizes the combination of special friction modifiers and shear-stable viscosity modifiers to offer optimum performance levels. STARFIRE Premium Tractor Hydraulic Fluid is recommended for use in all major OEM equipment. It provides the unique combination of ultimate equipment protection and the convenience of using one fluid in place of two or more fluids while maintaining optimum component performance and durability.

BENEFITS

- Formulated with highly refined Group II base stocks for added resistance to thermal breakdown
- Superior wear protection to protect critical components
- Excellent frictional properties for smooth shifting & good seal compatibility
- Excellent anti-shudder performance & protection against varnish and sludge formation
- Superior thermal stability and oxidation resistance



STARFIRE UNIVERSAL TRACTOR HYDRAULIC & TRANSMISSION FLUID is an economical multi-purpose lubricant designed for use in a variety of farm equipment, off-highway machinery, industrial, construction and logging equipment. It offers the convenience of using one fluid in place of 2 or more fluids, also providing anti-wear protection for final drives, power take-off units, wet brakes, power steering units and hydraulic systems.



STARFIRE AW HYDRAULIC OILS

ISO GRADE	32	46	68
Viscosity: cSt @ 40°C	32.74	44.28	66.2
cSt @ 100°C	6.03	7.83	11.13
Viscosity Index	132	148	162
Pour Point, °C (°F)	-37 (-34)	-35 (-31)	-36 (-33)
Flash Point, °C (°F)	200 (392)	200 (392)	210 (410)
Gravity, API	35.1	35.1	35.0
Oxidation Hrs, ASTM D943	>3000	>3000	>3000
Lbs./Gallon	7.08	7.08	7.09



STARFIRE TRACTOR FLUIDS

APPLICATIONS

For PREMIUM TRACTOR FLUID:

- Allison: C-4
- John Deere: Quatrol, J20C, J20A, J21A, Hy-Gard J14B/C
- International Harvester: Hy-Tran, B-6
- AGCO (Massey Ferguson): M-1145, M-1143, M-1110, M-1127B, M-1129A, M-1135 Permatran III, M-1138, M-1141, White Q-1826, & Allis Chalmers Power Fluid 821 XL, Duetz-Allis Hyd Trans Fluid, 25743, 272843, & AGCO-Allis
- J.I. Case: TFD (JIC-143/146), Hi-Vis (JIC-185), JIC-144/145, MS-1204, MS1205/1206/1207, MS-1210 (TCH) & B-6
- Case New Holland: MAT 3505, MAT 3525, MAT 3526, ESN M2C86-A/B/C, M2C134-A/B/C/D, M2C41-B, M2C43, M2C53-A/B, M2C92-A
- Vickers: I-2986-S, 104C, & M2950S, Denison UTTO, HF-0, HF-01, HF-02
- Kubota Universal Transdraulic Fluid: UTD & Super UTD
- Sundstrand Hydrostatic Transmissions: JDQ-84
- Volvo: BM, VCE 1273.03 & WB-101 (wet brake)
- Caterpillar: TO-2 & MTO (Multi-AppTractor Oil) for older backhoe loader rear axles & Challenger tractors

APPLICATIONS

For UNIVERSAL TRACTOR FLUID:

- Equipment that requires frequent fluid replacement
- Multi-purpose lubricant applications
- Older, aging equipment
- Not recommended for equipment manufactured after 1989

TYPICAL PROPERTIES	PREMIUM	UNIVERSAL
Performance Level	J20C	J20A
Viscosity: cSt @ 40°C	53.06	45.69
cSt @ 100°C	9.07	7.75
Viscosity Index	152	139
Pour Point, °C (°F)	-44 (-47)	
Flash Point, °C (°F)	218 (424)	
API Gravity @ 60°F	33.7	33.6
Lbs./Gallon	7.14	7.15

ORDERING INFORMATION

FLUID TYPE	PACKAGE	PART #	FLUID TYPE	PACKAGE	PART #
STARFIRE AW 32 HYDRAULIC FLUID	- PAIL -	#01206007000032081	STARFIRE PREMIUM TRACTOR HYDRAULIC & TRANSMISSION FLUID	- PAIL -	#010103077TRAC079
STARFIRE AW 46 HYDRAULIC FLUID	- PAIL -	#01206007000046081	STARFIRE UNIVERSAL MP TRACTOR HYDRAULIC & TRANSMISSION FLUID	- PAIL -	#011103037TRAC077
STARFIRE AW 68 HYDRAULIC FLUID	- PAIL -	#01206007000068081			