

MULLEN CIRCLE BRAND

HYDRAULIC OIL *AntiWear*

**Mullen
Circle Brand
Blended Products:**

*Cutting Oils
Circle Cut #729
Soluble Oils
Synthetic Coolants*

*Semi-Synthetic Coolants
Rust Preventives
Cleaners
Grease*

*Hydraulic Oil
Compressor Oil
Gear Oil
Way Oil*

*Spindle Oil
Machine Oil
Synthetic Oil*

Made In U.S.A.



Mullen Circle Brand, Inc.
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Premium Antiwear Lubricants For Modern Hydraulics

Antiwear Hydraulic Oils are premium grade lubricants designed to meet the needs of modern hydraulic equipment. **Antiwear Hydraulic Oils** are blended from virgin base oils and premium additive technology. These products exhibit exceptional resistance to thermal degradation, excellent demulsibility and are inert to copper alloys.

Antiwear Hydraulic Oils meet or exceed the following:

Denison HF-0	DIN 51524-2 (HM)	JCMAS P041 HK
Denison HF-1	DIN 51524-3 (HV)	ANSI/AGMA 9005-E02-RO
Denison HF-2	ISO 11158 (HM, HV)	GM LS-2
Eaton M-2950-S	ASTM D2168 (HM, HV)	AIST 126, 127
Eaton I-286-S3	SAE MS 1004 (HM, HV)	SEB 181222
MAG P68, P69, P70	Bosch Rexroth RE 90220	

More ==>

...Providing Solutions To Industry Since 1912...



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ANTIWEAR HYDRAULIC OILS

	#22	#32	#46	#68	#100	#150	#220	#320	#460
ISO Grade	22	32	46	68	100	150	220	320	460
SAE Grade	5	10	20	20	30	40	50	—	—
Viscosity, SUS @ 100 F	110	160	240	353	520	750	1150	1673	2404
Flash Point, F	400	400	400	400	400	400	400	400	400
Pounds/Gallon	7.1	7.1	7.29	7.43	7.56	7.65	7.67	7.68	7.69

Oxidation Stability, ASTM D-943

Hours To 2.0 Tan

4000 Hours

Thermal Stability

Viscosity Change, %

1.8

Steel Rod Visual

1

Deposit, mg

0.0

Copper Rod Visual

3.8

Deposit, mg

0.1

Demulsibility, ASTM D-1401

Oil/Water/Emulsion (Minutes)

40/40/0 (10)

Steel Corrosion Test, ASTM D-665

Distilled Water

No Rust

Synthetic Seawater

No Rust

Foam Tests, ASTM D-982, Seq I, II, III

Foam, ml, 10 Minutes

None

Copper Corrosion, ASTM D-130

1a

Wear Test, Four Ball

40 kg, 1800 rpm, 1 Hour, 130 F

.58 mm

***** Cross Reference *****

ISO 32 Hydraulic Oil = Mobil DTE 24

ISO 46 Hydraulic Oil = Mobil DTE 25

ISO 68 Hydraulic Oil = Mobil DTE 26

...Providing Solutions To Industry Since 1912...

Cutting Fluids * Industrial Lubricants * Greases * Cleaners

The Information Given Herein Is Believed To Be Reliable, But No Guarantee Is Made Nor Liability Assumed.