



**PREMIUM  
LUBRICANTS**

# INDUSTRIAL HYDRAULIC OILS

Co-op offers a complete selection of premium-quality hydraulic oils that use proprietary formulations and unique additive packages to prevent sludge, varnish and corrosion within the hydraulic system.

## TECHNICAL DATA SHEETS

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# INDUSTRIAL HYDRAULIC OIL

ISO 22, 32, 46, 68, 100, 150

## PRODUCT DESCRIPTION

INDUSTRIAL HYDRAULIC OIL is a family of premium-quality, zinc-based, anti-wear (AW) hydraulic fluids. They are typically recommended for heavy-duty hydraulic systems found within commercial settings and outdoors in mobile equipment. Our premium additive package reduces downtime by preventing sludge, varnish and corrosion from occurring within the system.

## PERFORMANCE FEATURES

- Anti-wear additives prevent premature wear of the hydraulic pump and circulating system
- Oxidation inhibitors protect the hydraulic systems from oil thickening and varnish buildup
- Rust inhibitors protect against corrosion during high-moisture operating conditions
- Inhibited against foaming to maintain lubrication and ensure a positive response in hydraulic systems
- All grades maintain excellent thermal stability

## APPLICATIONS

INDUSTRIAL HYDRAULIC OILS are recommended for use in a wide variety of hydraulic systems.

## TECHNICAL PROPERTIES

The values listed below are typical of current production. As variations may occur, these numbers do not constitute a specification.

PROPERTIES	ISO VISCOSITY GRADE					
	22	32	46	68	100	150
Kinematic Viscosity cSt @ 40°C	20.0	33.0	44.8	68.0	99.0	144.0
Kinematic Viscosity cSt @ 100°C	4.1	5.6	7.0	8.9	11.3	14.1
Viscosity Index	104	117	114	105	101	96
Pour Point, °C	-50°	-45°	-45°	-30°	-28°	-22°
Oxidation Stability	4000+	4000+	4000+	4000+	4000+	4000+

# INDUSTRIAL HYDRAULIC OIL

ISO 22, 32, 46, 68, 100, 150

## PERFORMANCE SPECIFICATIONS

INDUSTRIAL HYDRAULIC OIL is approved and/or recommended for use in the following:

INDUSTRY/OEM	SPECIFICATIONS
B.F. GOODRICH	0152
EATON VICKERS	Industrial applications (I-286-S)/ Mobile applications (M-2950-S)/ 35VQ25
FIVES CINCINNATI	P 68 (light hydraulic oil)/ P 69 (heavy-medium hydraulic oil)/ P 70 (medium hydraulic oil)
FORD	M-6032
GM	LH-04-1 (anti-wear hydraulic oil – 46 centistoke)/ LH-06-1 (anti-wear hydraulic oil – 46 centistoke)/ LH-15-1 (anti-wear hydraulic oil – 150 centistoke)
JEFFREY	NO.87
LEE-NORSE	100-1
PARKER DENISON	HF-0/HF-1/HF-2
U.S. STEEL	126

## SAFETY DATA SHEETS

Product-specific safety data sheets (SDS) can be obtained by contacting your local retail Co-op or Federated Co-operatives Limited (see contact information below) or by going online at [www.fuel.crs](http://www.fuel.crs).

## PRODUCT SELECTION

Product availability can vary by location. Please contact your local retail Co-op for further details.

PRODUCT SIZES	ISO VISCOSITY GRADE					
	22	32	46	68	100	150
1 L Bottle						
5 L Bottle	✓	✓	✓		✓	
10 L Bottle						
20 L Pail	✓	✓	✓	✓	✓	✓
110 L Drum						
205 L Drum	✓	✓	✓	✓	✓	✓
1000 L Tote	✓	✓	✓	✓	✓	✓
Bulk	✓	✓				

## RECYCLING OF USED LUBRICANTS AND CONTAINERS

Please protect the environment when disposing of petroleum products. All products should be taken to an authorized collection facility or picked up by a qualified organization. This ensures the products will be disposed of in an environmentally sensitive manner. For additional information on used-oil recycling programs, please see the following:

- Saskatchewan – [www.usedoilrecyclingsk.com](http://www.usedoilrecyclingsk.com)
- Alberta – [www.usedoilrecyclingab.com](http://www.usedoilrecyclingab.com)
- British Columbia – [www.bcusedoil.com](http://www.bcusedoil.com)
- Manitoba – [www.usedoilrecycling.com/en/mb](http://www.usedoilrecycling.com/en/mb)

## CONTACT INFO

For more information on this or any other CO-OP<sup>®</sup> lubricant product, please contact your local retail co-operative or Federated Co-operatives Limited.  
petroadmin@fcl.crs • [www.fuel.crs](http://www.fuel.crs) • [www.agro.crs](http://www.agro.crs)

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# INDUSTRIAL HYDRAULIC OIL SL

ISO 32

## PRODUCT DESCRIPTION

INDUSTRIAL HYDRAULIC OIL SL is a premium-quality, all-weather, zinc-based, anti-wear hydraulic fluid. The proprietary synthetic-blend formulation significantly advances its natural cold-weather abilities. This allows for increased productivity and hydraulic system protection in all weather conditions.

## APPLICATIONS

INDUSTRIAL HYDRAULIC OIL SL is recommended for use in a wide variety of mobile and stationary hydraulic systems.

## PERFORMANCE FEATURES

INDUSTRIAL HYDRAULIC OIL SL provides superior performance in these areas:

- Minimizing operating costs – All-season formulation reduces the need for seasonal changes allowing for inventory consolidation and increased service time
- All-Season Performance – Synthetic blend formulation increases cold-weather fluidity, amplifies system response times upon cold start and generates greater equipment protection in sub-zero conditions
- Anti-wear properties – prevent premature wear of hydraulic system components
- Oxidation stability – increases overall life of the lubricant and decreases sludge and varnish buildup that can significantly affect equipment reliability and operation

## TECHNICAL PROPERTIES

The values listed below are typical of current production. As variations may occur, these numbers do not constitute a specification.

PROPERTIES	ISO VISCOSITY GRADE
	32
Kinematic Viscosity cSt @ 40°C	32.0
Kinematic Viscosity cSt @ 100°C	7.0
Viscosity Index	200
Pour Point, °C	-55°
Oxidation Stability	4000+

# INDUSTRIAL HYDRAULIC OIL SL

ISO 32

## PERFORMANCE SPECIFICATIONS

INDUSTRIAL HYDRAULIC OIL SL is approved and/or recommended for use in the following:

INDUSTRY/OEM	SPECIFICATIONS
EATON VICKERS	Industrial applications (I-286-S)/ Mobile applications (M-2950-S)/ 35VQ25
FIVES CINCINNATI	P 68 (light hydraulic oil)/ P 69 (heavy-medium hydraulic oil)/ P 70 (medium hydraulic oil)
PARKER DENISON	HF-0/HF-1/HF-2

## SAFETY DATA SHEETS

Product-specific safety data sheets (SDS) can be obtained by contacting your local retail Co-op or Federated Co-operatives Limited (see contact information below) or by going online at [www.fuel.crs](http://www.fuel.crs).

## PRODUCT SELECTION

Product availability can vary by location. Please contact your local retail Co-op for further details.

PRODUCT SIZES	ISO VISCOSITY GRADE
	32
1 L Bottle	
5 L Bottle	
10 L Bottle	
20 L Pail	✓
110 L Drum	
205 L Drum	✓
1000 L Tote	✓

## RECYCLING OF USED LUBRICANTS AND CONTAINERS

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- Manitoba – [www.usedoilrecycling.com/en/mb](http://www.usedoilrecycling.com/en/mb)

## CONTACT INFO

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# INDUSTRIAL HYDRAULIC MV/HVI

MULTI-VISCOSITY 22, HIGH-VISCOSITY INDEX 36

## PRODUCT DESCRIPTION

INDUSTRIAL HYDRAULIC MV & HVI are zinc based, anti-wear, premium hydraulic oils that maximize pump efficiency to reduce fuel/power consumption. It is blended with an excellent additive package that protects by preventing sludge, varnish and corrosion from occurring within a hydraulic system.

## APPLICATIONS

INDUSTRIAL HYDRAULIC MV & HVI are typically recommended for heavy-duty hydraulic pump systems, specifically mobile equipment operating within a wide range of seasonal conditions. Lower pour points allow these hydraulic oils to perform in extreme winter conditions.

## PERFORMANCE FEATURES

- INDUSTRIAL HYDRAULIC MV & HVI
- Zinc-based, anti-wear additive package
  - All-season performance
  - Reduced fluid friction at low temperatures
  - Multi-viscosity/high-viscosity index formulation
  - Protection against premature wear of hydraulic pumps and circulating systems
  - Oxidative stability protects hydraulic systems from oil thickening and varnish buildup
  - Rust and corrosion protection

## TECHNICAL PROPERTIES

The values listed below are typical of current production. As variations may occur, these numbers do not constitute a specification.

PROPERTIES	ISO VISCOSITY GRADE	
	MV22	HVI 36
Kinematic Viscosity cSt @ 40°C	23.0	34.0
Kinematic Viscosity cSt @ 100°C	4.7	6.9
Viscosity Index	136	168
Pour Point, °C	-57°	-60°
Oxidation Stability	4,000 + hrs	4,000 + hrs
Viscosity Classification	Multi-Viscosity	High-Viscosity Index

# INDUSTRIAL HYDRAULIC MV/HVI

MULTI-VISCOSITY 22, HIGH-VISCOSITY INDEX 36

## PERFORMANCE SPECIFICATIONS

INDUSTRIAL HYDRAULIC MV/HVI is approved and/or recommended for use in the following:

INDUSTRY/OEM	SPECIFICATIONS
B. F. GOODRICH	0152
EATON VICKERS	Industrial applications (I-286-S)/ Mobile applications (M-2950-S)/ 35VQ25
FIVES CINCINNATI	P68 (light hydraulic oil)/ P69 (heavy-medium hydraulic oil)/ P70 (medium-hydraulic oil)
FORD	M-6032
JEFFREY	No. 87
LEE-NORSE	100-1
PARKER DENISON	HF-0/HF-1/HF-2
U.S. STEEL	126

## SAFETY DATA SHEETS

Product-specific safety data sheets (SDS) can be obtained by contacting your local retail Co-op or Federated Co-operatives Limited (see contact information below) or by going online at [www.fuel.crs](http://www.fuel.crs).

## PRODUCT SELECTION

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PRODUCT SIZES	ISO VISCOSITY GRADE	
	MV 22	HVI 36
1 L Bottle		
5 L Bottle		
10 L Bottle		
20 L Pail	✓	✓
110 L Drum		
205 L Drum	✓	✓
1000 L Tote	✓	✓

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# INDUSTRIAL HYDRAULIC ZF

ZINC FREE 46

## PRODUCT DESCRIPTION

INDUSTRIAL HYDRAULIC ZF is a zinc-free, anti-wear, multi-grade hydraulic oil. It is blended with a high-quality base oil and a sulphur-phosphorous anti-wear additive package, producing a hydraulic oil that is free of zinc and other heavy metals.

## APPLICATIONS

INDUSTRIAL HYDRAULIC ZF is designed to be used in heavy-duty mobile hydraulic systems that contain soft or yellow metals, including silver-coated components.

\*Note: This product should not be mixed with conventional zinc-based hydraulic oils. A complete system drain and flush is required upon change out.

## PERFORMANCE FEATURES

INDUSTRIAL HYDRAULIC ZF

- Zinc-free, ashless, anti-wear additive package
- Inherently biodegradable for environmentally sensitive working conditions
- All-season performance protecting hydraulic equipment with superior cold start-up and high-temperature performance
- Exceptional vane and piston performance
- Oxidation and thermal stability with 8,000+ hrs, increasing the overall life of the oil and filter

## TECHNICAL PROPERTIES

The values listed below are typical of current production. As variations may occur, these numbers do not constitute a specification.

PROPERTIES	ISO VISCOSITY GRADE
	46
Kinematic Viscosity cSt @ 40°C	46.05
Kinematic Viscosity cSt @ 100°C	7.13
Viscosity Index	113
Pour Point, °C	-37°
Zinc (PPM)	<1
Flash Point, °C	230°



# INDUSTRIAL HYDRAULIC ZF

## ZINC FREE 46

### PERFORMANCE SPECIFICATIONS

INDUSTRIAL HYDRAULIC ZF is approved and/or recommended for use in the following:

INDUSTRY/OEM	SPECIFICATIONS
AFNOR	NF E46-603 (HM, HV)
CINCINNATI MACHINE	P-68, P-69, P-70
DIN	51524 HVLP PART 2/3
ISO	6743/4 (HM, HV)
	11158 (HM, HV)
PARKER DENISON	HF-0 /HF-1 / HF-2
SEB	181 222
SS	155434
US STEEL	126, 127 and 136

### SAFETY DATA SHEETS

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### PRODUCT SELECTION

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PRODUCT SIZES	ISO VISCOSITY GRADE
	46
1 L Bottle	
5 L Bottle	
10 L Bottle	
20 L Pail	✓
110 L Drum	
205 L Drum	
1000 L Tote	✓

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