



CHEVRON RANDO[®] HD

ISO 10, 22, 32, 46, 68, 100, 150, 220, 320

CUSTOMER BENEFITS

Chevron Rando HD oils deliver value through:

- **Longer equipment life** — Special antiwear additive package reduces wear by protecting surfaces when load causes breakdown of the lubricant film.
- **Reduced downtime** — Effective rust and oxidation inhibitor system prevents the production of abrasive particles from rust formation, and deposits, varnishes and sludges from oil breakdown, which can damage equipment surfaces and seals, and block filters prematurely.
- **Trouble-free operation** — Good hydrolytic stability and water separation characteristics provide excellent filterability in the presence of water contamination. Good anti-foam and air release properties ensure smooth operation and system efficiency.
- **Extended oil service life** — High oxidation stability resists oil thickening and deposit formation in service, eliminating the need for unscheduled change of hydraulic fluid.

FEATURES

Chevron Rando HD **ISO 32, 46, and 68** are designed to give maximum hydraulic pump protection in mobile and stationary systems. They are formulated with ISO SYN[®] base stocks.

Chevron Rando HD **ISO 100, 150, and 200** are designed for all types of lubricant applications where a premium antiwear lubricant in their ISO viscosity grade is required, such as an AGMA Gear Lubricant or general machinery lubrication.

Chevron Rando HD oils provide excellent:

- antiwear protection
- oxidation and corrosion inhibition
- foam and aeration suppression

Under moderate loads and temperatures, the high viscosity index of Chevron Rando HD oils assures good film strength between metal surfaces and is further enhanced by antiwear additive protection.

APPLICATIONS

Chevron Rando HD **ISO 10 and 22** can be used as spindle lubricants or as telemotor oils aboard ships.



Chevron Rando HD **ISO 32, 46, or 68** are recommended for:

- vane-, piston-, or gear-type pumps, especially where pressures exceed 1000 psi
- lightly loaded reciprocating compressors
- motors and bearings

Chevron Rando HD **ISO 100, 150, or 220** are recommended for:

- hydraulic equipment reduction gears
- reciprocating air compressors
- plain and antifriction bearings
- circulating oil systems

Chevron Rando HD oils are approved for:

- **Eaton-Vickers** 35VQ25A pump, M-2950-S (Mobile) and I-286-S (Stationary) (ISO 32, 46, 68)
- **Denison** HF-0/T6C, HF-2 (ISO 32, 46, 68)
- **Bosch Rexroth** (ISO 32, 46, 68)

Chevron Rando HD oils meet the requirements of:

- **MAG Cincinnati, Cincinnati Machine** P-68 (ISO 32), P-70 (ISO 46), P-69 (ISO-68)
- **General Motors** LS2 Specification, LH for anti-wear hydraulic fluids (ISO 32, 46, 68)
- **ANSI/AGMA** 9005-D94, *Industrial Gear Lubrication*, for gear lubrication as rust and oxidation inhibited gear oils (ISO 46, 68, 100, 150, 220)
- **DIN** 51524-2

Chevron Rando HD **ISO 32, 46, 68, 100, 150, 220, and 320** are certified by **NSF** and are acceptable as lubricants where there is no possibility of food contact (H2) in and around food processing areas. The NSF Nonfood Compounds Registration Program is a continuation of the USDA product approval and listing program, which is based on meeting regulatory requirements of appropriate use, ingredient review and labeling verification.

Do not use in high pressure systems in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

TYPICAL TEST DATA

	10	22	32	46	68	100	150	220	320
Product Number	273252	273276	273277	273278	273279	273228	273280	273281	277316
MSDS Number	23706	23548	23556	23556	23556	23550	23550	23550	23550
AGMA Grade	—	—	—	1	2	3	4	5	6
API Gravity	27.7	33.7	32.6	31.8	31.6	30.1	29.7	28.5	27.4
Viscosity, Kinematic cSt at 40°C	10.3	23.1	30.4	43.7	64.6	95.0	143	209	304
cSt at 100°C	2.5	4.4	5.2	6.5	8.4	11.0	14.2	18.2	23.4
Viscosity, Saybolt SUS at 100°F	63	120	157	225	334	495	751	1105	1617
SUS at 210°F	35	41	44	48	54	64	76	93	117
Viscosity Index	48	98	99	97	98	100	97	96	96
Flash Point, °C(°F)	154(309)	177(351)	220(428)	226(439)	235(455)	250(482)	260(500)	271(520)	277(531)
Pour Point, °C(°F)	-39(-38)	-36(-33)	-33(-27)	-30(-22)	-30(-22)	-15(+5)	-12(+10)	-12(+10)	-12(+10)
Oxidation Stability Hours to 2.0 mg KOH/g acid number, ASTM D 943	—	—	>5000	>5000	>5000	>2000	>1500	>1000	>1000

Typical test data are average values only. Minor variations which do not affect product performance are to be expected in normal manufacturing.