Contents

Bomen **HM Hydraulic Oil**

Bomen HM Hydraulic Oil is a high quality hydraulic oil specially developed for use in many hydraulic systems and equipment. The oil is formulated from selected paraffinic base stock treated with anti-rust, antioxidant and anti-wear additives. The oil is available in a wide range of viscosities to suit all practical requirements.

Performance Standards

Bomen HM Hydraulic Oil meets the following performance requirements:

- Cincinnati Milacron P-68, P-69 & P-70
- DENISON HF-2, HF-0
- DIN 51524 Part 2
- JCMAS P041 (HK)
- US Steel 126, 127
- Vickers M-2950-S (Mobile Equipment)
- Vickers I-286-S3 (Industrial Equipment)

Benefits

Bomen HM Hydraulic Oil provides the following benefits:

- Minimizes sludge and deposit formation.
- Performs excellent wear protection.
- Passes wet and dry Denison T6C pump test.
- Provides excellent filterability and tolerance to contamination.
- Maintains working components in clean operational condition.
- Exhibits robust oxidation, rust and corrosion protection.
- Good anti-foam to prevent airlock and system failure.
- Prolongs useful service life of the oil and reduces maintenance cost.

Applications

Bomen HM Hydraulic Oil is recommended for use in most hydrodynamic power transmission systems, hydraulic controls and hydrostatic systems. It is also suitable for use as heavy-duty lubricant for bearings, reduction units etc, where operating conditions require special anti-wear properties. It is also suitable for use as circulating oil in general bearing lubrication.

Typical Characteristics

Bomen **HM Hydraulic Oil**

ISO VG	**32**	**46**	**68**	**100**	**150**
Kinematic Viscosity					
40°C, mm^2/s	32.8	47.6	69.6	100.0	148.1
100°C, mm^2/s	5.6	7.1	8.9	11.4	14.5
Viscosity Index	106	105	103	100	96
Specific Density,15°C,g/cm^3	0.870	0.876	0.883	0.887	0.893
Flash Point, COC,°C	215	220	225	230	240
Pour Point,°C	-24	-24	-21	-12	-12

Bomen **HV Hydraulic Oil**

Bomen HV Hydraulic Oil is a high quality anti-wear hydraulic fluid specially formulated with shear stable viscosity index improver to impart superior viscosity-temp characteristics. Developed for use in most types of hydraulic equipment operating in wide temperature conditions. The oil is available in a wide range of viscosities to suit most practical requirements.

Performance Standards

Bomen HV Hydraulic Oil meets the following performance requirements:

- Cincinnati Milacron P-68, P-69 & P-70
- DENISON HF-2, HF-0
- DIN 51524 Part 3
- JCMAS P041 (HK)
- US Steel 126, 127
- Vickers M-2950-S (Mobile Equipment)
- Vickers I-286-S3 (Industrial Equipment)

Benefits

Bomen HV Hydraulic Oil provides the following benefits:

- Maintains good lubricity over a wide temperature operating range by maintaining fluid viscosity even under severe conditions.
- Provides good anti-wear properties.
- Minimizes sludge and deposit formation.
- Prevents rust and corrosion in hydraulic system.
- Provides good anti-foam features to prevent airlock and operation irregularities of system.
- Prolongs useful service life of the oil and reduces maintenance cost.

Applications

Bomen HV Hydraulic Oil is recommended for use in hydraulic systems operating under wide climatic temperature variation. It is especially suitable for marine hydraulic power-pack systems.

Typical Characteristics

Bomen **HV Hydraulic Oil**

ISO VG	**15**	**32**	**46**	**68**	**100**
Kinematic Viscosity					
40°C, mm^2/s	16	31.9	47.7	68.7	97.1
100°C, mm^2/s	4.0	6.5	8.3	11.5	14.3
Viscosity Index	156	162	150	165	152
Specific Gravity, 15°C,g/cm^3	0.838	0.854	0.864	0.878	0.876
Flash Point, COC,°C	150	210	220	225	230
Pour Point,°C	-39	-39	-36	-36	-31

Bomen **Hydraulic Transmission Fluid**

Bomen Hydraulic Transmission Fluid is a transmission and drivetrain oil formulated to meet Caterpillar TO-4 requirements.

Performance Standards

Bomen Hydraulic Transmission Fluid meets the following performance requirements:

- API CF, CF-2
- Allison C-4
- Caterpillar TO-4
- Eaton Fuller
- Komatsu KES 07.868.1
- ZF TE-ML 03C, 07F

Benefits

Bomen Hydraulic Transmission Fluid provides the following benefits:

- Provides excellent friction control.
- Exhibits less brake noise.
- Reduces gear wear.
- Exhibits good elastomer compatibility.
- Provides excellent oxidation stability.
- Prolongs the life of brakes and transmissions.

Applications

- Bomen Hydraulic Transmission Fluid is recommended for hydraulic transmission of heavy trucks, buses, and earth moving vehicles.
- Bomen Hydraulic Transmission Fluid may also be used in transmissions where fluid meeting the performance level of ZF or Eaton Fuller is required.

Typical Characteristics

Bomen **Hydraulic Transmission Fluid**

Grade, SAE	**10W**	**30**	**50**	**60**
Kinematic Viscosity				
40°C, mm^2/s	41.2	85.0	195.6	294.3
100°C, mm^2/s	6.7	10.7	17.9	23.22
Viscosity Index	118	102	100	98
Specific Gravity, 15°C,g/cm^3	0.871	0.887	0.899	0.903
Flash Point,°C	210	230	235	240
Pour Point,°C	-30	-18	-15	-12

Bomen **CKD Industrial Gear Oil**

Bomen CKD Industrial Gear Oil is a mild extreme pressure gear lubricant formulated from high quality base oils and sulphur-phosphorous extreme pressure additives.

Performance Standards

Bomen CKD Industrial Gear Oil meets the following performance requirements:

- US Steel 224
- David Brown S1.53.101(E)
- AGMA 9005-E02
- DIN 51517 Part 3

Benefits

Bomen CKD Industrial Gear Oil provides the following benefits:

- Exhibits very good anti-wear and EP properties.
- Passes FZG stage 12.
- Gives good thermal and oxidation stability.
- Exhibits non corrosive to steel, cast iron, copper and bronze.
- Provides superior antirust properties.
- Maintains excellent demulsibility.

Applications

Bomen CKD Industrial Gear Oil is recommended for splash or pressure circulation lubrication of most types of enclosed gears, especially where operating conditions involve heavy loads, high speeds and high relative sliding velocities at elevated ambient and operating temperatures. It is also suitable for lubrication of other heavily loaded parts and components such as transmission couplings and plain bearings.

Typical Characteristics

Bomen **CKD Industrial Gear Oil**

ISO VG	**68**	**100**	**150**	**220**	**320**	**460**	**680**
Kinematic Viscosity							
40°C, mm^2/s	69.4	99.2	150.0	228.3	314.6	450.7	674.9
100°C, mm^2/s	9.0	11.3	14.8	19.1	23.9	30.4	39.9
Viscosity Index	103	98	98	95	96	97	98
Specific Gravity, 15°C ,g/cm^3	0.884	0.890	0.893	0.897	0.898	0.901	0.901
Flash Point, COC,°C	220	225	230	230	235	240	240
Pour Point,°C	-12	-12	-12	-12	-9	-9	-6

Bomen **KG/S Fully Synthetic Industrial Gear Oil**

Bomen KG/S Fully Synthetic Industrial Gear Oil is an excellent quality extreme pressure gear lubricant manufactured from the polyalphaolefine family. It is specially designed for use under severe conditions such as extremely high or low temperatures. It has excellent antiwear properties, which is exemplified by the stage 12 FZG results. The most advanced additive system is selected to provide superior oxidative and thermal stability.

Performance Standards

Bomen KG/S Fully Synthetic Industrial Gear Oil meets the following performance requirements:

- US Steel 224
- AGMA 9005-E02
- David Brown S1.53.101
- DIN 51517 Part 3

Benefits

Bomen KG/S Fully Synthetic Industrial Gear Oil provides the following benefits:

- Excellent antiwear and EP properties to protect gears against scuffing and wear.
- Exceptional load-carrying capability.
- Superior thermal and oxidation stability.
- Superior rust and corrosion inhibition.
- Impressive water-separating characteristics.

Applications

Bomen KG/S Fully Synthetic Industrial Gear Oil is recommended for all types of enclosed gearboxs, especially those operating at extreme temperatures, or under severe service conditions, such as heavily loaded plain or rolling element bearings.

Typical Characteristics

Bomen **KG/S Fully Synthetic Industrial Gear Oil**

ISO VG	**68**	**100**	**150**	**220**	**320**	**460**	**680**
Viscosity, Kinematic							
at 40°C, cSt	69.9	99.5	147.9	222.3	320.5	453.9	681
at 100°C, cSt	11.6	15.5	20.6	28.1	37.3	47.8	62.1
Viscosity Index	161	166	163	164	165	164	158
Flash Point, COC,°C	222	226	240	255	254	255	258
Pour Point,°C	-45	-45	-45	-42	-42	-39	-33
Specific Gravity, g/cm^3 (15°C)	0.850	0.852	0.855	0.861	0.860	0.872	0.871

Bomen **Universal Compressor Oil**

Bomen Universal Compressor Oil is a premium quality air compressor oil formulated from high quality base oils, high temperature antioxidant, anti-rust, anti-wear and anti-foam additives.

Performance Standards

Bomen Universal Compressor Oil meets the following performance requirements:
DIN 51506 Class VDL

Benefits

Bomen Universal Compressor Oil provides the following benefits:

- Resists carbon formation on delivery valves and piston rings.
- Protects against rust.
- Provides good anti-wear property.
- Provides good oxidation stability.
- Resists the formation of sludge.

Applications

Bomen Universal Compressor Oil is recommended for lubrication of reciprocating, rotary screw slide vane air compressors where the air delivery temperatures are high (200°C or more).

Typical Characteristics

Bomen **Universal Compressor Oil**

ISO VG	**32**	**46**	**68**	**100**	**150**
Kinematic Viscosity					
40°C, mm^2/s	32.6	45.9	66.8	101.4	149.8
100°C, mm^2/s	5.7	7.3	8.7	11.3	14.6
Viscosity Index	114	104	104	98	96
Specific Gravity, 15°C,g/cm^3	0.858	0.866	0.871	0.880	0.886
Flash Point, COC,°C	205	228	220	228	235
Pour Point,°C	-15	-18	-21	-21	-15

Bomen **TSA Turbine Oil**

Bomen TSA Turbine Oil is a premium industrial turbine oil formulated from highly refined base stock with highly effective rust, oxidation, zinc-less ashless anti-wear / extreme pressure agent and foam inhibitors.

Performance Standards

Bomen TSA Turbine Oil meets the following performance requirements:

- DIN 51515 Part 1
- DIN 51524 Part 1
- U.S. Military MIL-H-17672D
- Cincinnati Milacron P-38, P-54, P-55, P-57
- Denison HF-1
- GE GEK-32568
- Solar Turbines ES9-224

Benefits

Bomen TSA Turbine Oil provides the following benefits:

- Resists oil oxidation and formation of sludge and deposits.
- Provides effective rust and corrosion protection.
- Exhibits very good anti-foam and air release properties that prevent erratic system operations.
- Maintains good demulsibility properties that separate entrained water quickly and prevent formation of emulsions.
- Reduces sludge formation.

Bomen TSA Turbine Oil is recommended for lubrication of steam, water, gas turbines that demand for excellent rust, oxidation control and filterability. These features contribute to longer fluid life and reduced system maintenance.
It is also recommended for general bearing lubrication for industrial machineries such as turbo-blowers and air compressors etc.

Typical Characteristics

Bomen **TSA Turbine Oil**

ISO VG	**32**	**46**	**68**	**100**
Kinematic Viscosity				
40°C, mm^2/s	32.6	47.1	67.7	100.1
100°C, mm^2/s	5.7	7.0	8.8	11.6
Viscosity Index	110	108	103	104
Specific Gravity, 15°C,g/cm^3	0.857	0.864	0.872	0.878
Flash Point, COC,°C	220	224	222	224
Pour Point,°C	-33	-15	-18	-15

Bomen **QC 320 Heat Transfer Oil**

Bomen QC 320 Heat Transfer Oil is formulated from selected paraffinic base stocks used for heat transfer systems. It has excellent oxidation and thermal stability and is able to withstand decomposition.

Performance Standards

Bomen QC 320 Heat Transfer Oil provides the following benefits:

- Resists to high-temperature degradation.
- Prevents deposit and sludge formation.
- Prevents deposit and sludge formation during operation starts.
- Maintains good demulsibility and air-separation performance.
- Prevents the formation of steam and air bubbles at the hottest points.
- Exhibits good oxidation resistance and high temperature stability.

Applications

Bomen QC 320 Heat Transfer Oil is recommended for all 'open' or 'closed' system with:

- Maximum operating temperature for open systems is 200°C.
- Maximum operating temperature for closed systems (sealed with cold oil or inert gas) is 320°C.

Caution

When starting-up a new unit or restarting an existing unit after maintenance, and also in the case of irregular operation at normal temperature caused by residual moisture in the oil, the temperature of the unit should be reduced to around 100°C and all the steam blown off before returning to the normal working temperature.

Typical Characteristics

Bomen **QC 320 Heat Transfer Oil**

Kinematic Viscosity	
40°C, mm^2/s	43.9
100°C, mm^2/s	6.8
Viscosity index	98
Specific Gravity, 15°C,g/cm^3	0.850
Flash Point, COC,°C	225
Pour Point,°C	-9

Bomen **DRE 68W Refrigerator Oil**

Bomen DRE 68W Refrigerator Oil is a premium grade refrigeration compressor oil made from specially selected naphthenic wax-free base oils.

Benefits

Bomen DRE 68W Refrigerator Oil has the following performance characteristics and benefits:

- Very low pour and flow points with good high temperature performance.
- Compatible with most commonly used refrigerants.
- Low carbon residue.
- Good chemical and thermal stability.
- Low moisture content and high dielectric strength.
- Resist foaming.
- Compatible with seal materials.

Applications

Bomen DRE 68W Refrigerator Oil is recommended for use in refrigeration and air-conditioning compressors of both reciprocating and rotary types. It is suitable for use with R12 and R22 refrigerant.

Typical Characteristics

Bomen **DRE 68W Refrigerator Oil**

ISO VG	**68**
Kinematic Viscosity	
40°C, mm^2/s	62.5
100°C, mm^2/s	7.0
Viscosity Index	53
Flash Point, COC,°C	173
Pour Point,°C	-30
Specific Gravity, 15°C,g/cm^3	0.905

Bomen **L-DRA Refrigerator Oil**

High temperature hydro-treated naphthenic base oils of lower pour point intended for use in compression refrigeration systems containing non-hydroflurocarbon refrigerants such as R12, R22, R502 and ammonia.

Benefits

Bomen L-DRA Refrigerator Oil has the following performance characteristics and benefits:

- Excellent thermal and chemical stability for long service life to reduce oil thickening and deposit formation.
- Low waxing tendency for good low temperature performance.
- Excellent lubricity against wear of compressor parts.
- Low moisture content as received.

Applications

- Reciprocating and rotary refrigeration compressor systems.
- Ammonia refrigeration compressors where operating conditions are moderate and economical oils are desired.

Typical Characteristics

Bomen **L-DRA Refrigerator Oil**

ISO VG	**32**	**46**	**68**	**100**
Kinematic Viscosity, cSt @ 40°C	32	46	68	100
Flash Point,COC,°C	170	185	195	205
Pour Point,°C	-33	-30	-27	-21
Copper Corrosion ,100°C x 3h	1a	1a	1a	1a
Neutralisation Number, mg/KOH g	<0.04	<0.04	<0.04	<0.04