



Bremen Lubricants Industry LLC

# CATALOGUE FOR 2018



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# COMPANY INTRODUCTION



#### **BRAND "BREMEN"**

It is not merely a name, driven from the technical formulation of Germen experts Bremen Lubricants is the top notch name in lubricant products.

Bremen conceptualized by German lubricating technology and brought to life by an international network of lubricant specialists, is a versatile brand that symbolize energy, efficiency, excellence and evolution.

Bremen has a comprehensive range of premium lubricating oils, greases and related products, positioned at the global lubricants market. We are constantly rationalizing our line to ensure that the products remain relevant to the market requirements.

Bremen Lubricants Industry LLC is located in heart of the center of now; United Arab Emirates. Our state of the art lubricant producing unit is well equipped with technical tools & human resources that can muster automotive industrial, marine and specialty lubricating products of highest possible qualities.

In BREMEN we care each drop of lubricant we produce become energy of our clients. We care all technical and commercial requirements of our valued clients so that they can be care free while reselling or using the products we produce with deep care. :



#### BREMEN LUBRICANTS INDUSTRY LLC AJMAN UAE

BREMEN LUBRICANTS INDUSTRY LLC, is the manufacturer of BREMEN branded premium lubricating oils, greases and related products for the automotive, industrial and marine sectors. Other than this we do third party labeling for our prestigious set of clients across the world. The headquarters is strategically located in Ajman United Arab Emirates.

Our company is well recognized as a reliable, ethical company with immense focus on quality and customer care. BREMEN's strength lies in our technical ability to research and understand customer needs and formulating quality products by selecting among the newest available technology with an open approach to newest raw materials to meet or exceed the diverse requirements and specifications set by the industry. Our production, based in United Arab Emirates use modern blending technology.



The BREMEN management team members come with over 25 years of international lubricants experience, gained at major oil companies and specialize in product development and formulations, marketing, in-field lubricant technical support, stock planning and logistics.

BREMEN footprint through its network of distributors extends to many countries in Asia, Africa, CIS and The Middle East and is expanding into new regions.



#### **BREMEN ADAPTATION & SUPPORT**

BREMEN adaptation strategy which offers customization of our products to the various market needs and requirements is proving to be our competitive advantage. The global lubricants market is continuously changing and we are mindful that our customers require flexibility to remain competitive. We also support our network with various sales tools to keep them abreast of product developments and product information.

BREMEN's strategy is based on the fast adaptation of lubricants formulation to lubrication technology developments and customer needs.

Our support extends to lubrication recommendations, oil test analysis and condition monitoring.





#### **OUR MISSION**

Further strengthen our reputation of being a lubricants supplier that provides quality products, competitive pricing with short lead times and offer marketing and technical support.

Positively contribute to the development and growth of our distributors by methodically transferring specialized skills and know how to them thereby enhancing their competitive advantage and market penetration potential.



#### **OUR VISION**

To continue growing as a major player in the global lubricants industry and penetrating new markets through qualified distributors and sub-license agreements.

#### **OUR MOTO**

BREMEN - I AM ENERGY

#### **PRODUCTION & SUPPLY**

BREMEN's range of lubricants, once formulated is planned and produced at blending facility in United Arab Emirates. The Plant has state of the art facilities with professional personnel who follow strict guidelines in the production and quality processes. BREMEN follows SAE, API & ISO standards while products to her valued clients. The convenient location of the plant allows for a reliable supply of products to our customers in all parts of the world, with future plans to expand our production into South Asia.



#### **PRODUCT RANGE**

The Bremen lubricants product range is designed to meet requirements of various markets and applications, ranging from Automotive Industrial, Mining, Construction, Marine and Specialty Lubricants.

We offer a dynamic range of engine oils, gear oils, brake fluids, coolants and greases for motorbikes, cars, trucks and other heavy duty vehicles. The product mix is constantly reviewed to ensure that the specifications are of the latest standards.



#### **BREMEN AUTOMOTIVE**

BREMEN lubricants covers wide range of automotive lubricants that are of top quality. Being a quality product of carefully selected base oils from South Korea, Europe & Middle East and additives it simply make engines of modern time working more efficiently.

BREMEN Lubricants in automotive range carries Gasoline Engine Oil, Diesel Engine Oil, LPG Engine Oil, CNG Engine Oil, Gear Oil, ATF, CVT-Oil and Automotive Greases. The product range covers all kinds of lubricants for passenger cars, motor cycles, commercial vehicles, transmission & specialties.

The lubricant products in BREMEN are made up of Group II & III with synthetic and semi-synthetic classifications. The automotive lubricants are available in single & multi-grade with highest API standards classification.

Other than the quality of BREMEN Lubricants are packed in state of the art packaging. The quality of bottles, cartons, buckets and drums follows height quality standards so that product can be superbly safe and presentable.



#### **BREMEN INDUSTRIAL**

BREMEN covers wide range of industrial lubricants that are of top quality. The products are heavily focused to be of highest standard courtesy to quality high specs base oil and branded additives.

In industrial range BREMEN carries Turbine Oil, Compressor Oil, Gear Oil, Machine Oil, Circulating System Oil, Spindle Oil, Machine Tool Slideway Oil, Pneumatic Percussion Tool Oil, Process Oil, Transformer Oil, Heat Transfer Fluid, Industrial Greases and General Purpose Lubrication Oil.



#### **BREMEN GREASES**

BREMEN provides high quality greases for industrial and automotive applications. The grease is available in variety of packing from small bucket to drums.

In Greases BREMEN carries Multipurpose Grease, Heavy Load Grease, High Temperature Grease, Centralize Lubrication System Grease, Rock Breaker Grease, General Purpose Automotive & Industrial Grease.



#### **BREMEN INDUSTRIAL**

BREMEN covers wide range of industrial lubricants that are of top quality. The products are heavily focused to be of highest standard courtesy to quality high specs base oil and branded additives.

In industrial range BREMEN carries Turbine Oil, Compressor Oil, Gear Oil, Machine Oil, Circulating System Oil, Spindle Oil, Machine Tool Slideway Oil, Pneumatic Percussion Tool Oil, Process Oil, Transformer Oil, Heat Transfer Fluid, Industrial Greases and General Purpose Lubrication Oil.



#### **BREMEN'S MOST SELLING PRODUCTS**



- BREMEN Engine Oil API SM/CF ACEA C3, 5W30
- BREMEN Engine Oil API SN/GF -5/RC/CF 5W30, 5W40, 5W50, 10W30, 10W40, 20W50
- BREMEN Diesel Engine Oil API CI4 ACEA A3 10W30, 15W40
- BREMEN Diesel Engine Oil API CH4/SJ ACEA A7 10W30, 10W40, 15W40, 20W50
- BREMEN Hydraulic Oil 32, 46, 68, 100
- BREMEN Gear Oil EP 220
- BREMEN Lithium Greases EP2, EP3
- BREMEN Calcium Greases MP2, MP3
- BREMEN Rock Breaker Grease NLGI 2
- BREMEN Cutting Oil







## BREMEN FULLY SYNTHETIC MOTOR OIL THE ULTIMATE ALL ROUND PERFORMER SAE 5W/30

#### **PERFORMANCE PROFILE:**

The most advanced lubricant in the market, designed with patented Hydrocrack Synthetic technology.Exceeds the stringent requirements of:

API SM/CI-4------ VW 502.00 / 505.00
ACEA E7/A3/B4------ BMW LONGLIFE OIL

....

MB 229.3----- Porsche 'GL'

#### **APPLICATION:**

Particularly suited for the lubrication of most modern,high output, supercharged or turbocharged gasoline and diesel engines operating under even the harshest of driving conditions. Essentially recommended for high speed driving and stop & go service.

#### **SUMMARY OF BENEFITS:**

Perfect lubrication powers in all seasons.

Reduced maintenance costs through extended engine life.

Reduced running costs through improved oil and fuel efficiency.

Superior antifriction and engine cleaning properties.

Extended oil drain intervals.

#### **STORAGE & HANDLING:**

- \* Maximum temperature for long-term storage (minimum 5 years) -- 45 oC
- \* Recommended to store under shade.
- \* Drums should be laid on their sides with the bungs approximately

Horizontal so that breathing of water or moisture is greatly reduced.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAL VALUE				
	5W/30	5W/40	10W/40	15W/50	
Sp. Gravity @ 15° C	0.854	0.859	0.867	0.874	
Viscosity @ 40 °C, cSt	58.00	88	91	141	
Viscosity @ 100° C, cSt	10.00	14.1	14	18.50	
Viscosity Index	160	165	158	146	
Flash Point, COC,° C	224	226	224	226	
Pour Point, °C	-45	-42	-36	-33	
TBN, mgm KOH / gm	8.3	8.3	8.3	8.3	



# BREMEN SEMI SYNTHETIC MOTOR OIL ULTIMATE PERFORMANCE OIL SAE 10W/40, 15W/40, 20W/50

#### **PERFORMANCE PROFILE:**

A superior quality multigrade oil with new conception, formulated with semi synthetic base stocks and state of art additive technology. Exceeds the latest performance requirements of:

#### API SL/CJ-4/CG-4/CF-4/CF

VW 500.00 / 501.00 / 505.00--- Caterpillar ECF-3, ECF-2

Cummins CES 20081----- Mack EO-O Premium Plus

Volvo VDS-4----- Detroit Diesel Power Guard 93K218

ACEA E7/A3/B4----- BMW Special Oil

MB 229.1, 228.1----- Porsche

#### **APPLICATION:**

Recommended for the lubrication of most modern, high powered, supercharged or turbocharged gasoline and diesel engines operating under the most severe driving conditions. Specially suitable for repeated short trips, low speed driving for a long distance and high speed driving.

#### **SUMMARY OF BENEFITS:**

Lengthens oil changes period.

Perfect lubrication powers in all seasons.

Reduced maintenance costs through extended engine life.

Reduced running costs through improved oil and fuel efficiency.

Superior antifriction and engine cleaning properties.

CHARACTERISTICS	TYPICAL VALUE				
	10W/40	15W/40	20W/50		
Sp. Gravity @ 15 °C	0.867	0.886	0.893		
Viscosity @ 40 °C, cSt	107	110	170		
Viscosity @ 100 °C, cSt	14.5		9		
Viscosity Index	139	140	120		
Flash Point, COC, °C	220	228	230		
Pour Point, C	-30	-30	-27		
TBN, mgm KOH / gm	8.3	8.3	8.3		





# BREMEN TURBO PERFORMANCE MOTOR OIL SAE 15W/40, 15W/50, 20W/50

#### **PERFORMANCE PROFILE:**

An excellent quality multigrade oil formulated with highly refined base stocks and an advanced additive package. Surpassing the requirements of:

API SL/CJ-4/CG-4/CF-4/CF

API CF----- VW 502.00 / 505.00

ACEA A3-98, B3-98, B4-98------ BMW Longlifel Oil

Porsche GL----- MB 229.1

#### **APPLICATION:**

Recommended for supercharged, turborcharged or atmospheric gasoline and diesel engines operating under arduous duty conditions. Also used for high speed and stop & go driving.

#### **SUMMARY OF BENEFITS:**

Super lubrication powers in all seasons.

Reinforced thermal stability.

Excellent antifriction and engine cleaning properties.

Efficient resistance to oxidation, foaming, low temperature sludge and high temperature deposits.

Highly effective control over wear, rust and corrosion.

Exceptional control of oil consumption.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAL VALUE				
	40	15W/40	50		
Sp. Gravity @ 15 °C	0.889	0.886	0.901		
Viscosity @ 40 °C, cSt	160	110	220		
Viscosity @ 100 °C, cSt	15.5	14.5			
Viscosity Index	98	135	97		
Flash Point, COC, °C	254	210	268		
Pour Point, C	-12	-30	-12		
TBN, mgm KOH / gm	6.8	6.8	6.8		



#### BREMEN HIGH PERFORMANCE MOTOR OIL SAE 10W, 30, 40 , 50, 20W/40, 20W/50

#### **PERFORMANCE PROFILE:**

A premium quality oil formulated with highly refined base stocks and well balanced additive package. Exceeds the requirements of :

API SF/CC----- CCMC G2/D1

Mil-L-46152C----- MB 226.1

Russian Oil Specifications----- M-5z/12G1 & M-6z/14G1

#### APPLICATION:

Expressly recommended for the lubrication of heavy-duty, supercharged, turborcharged or atmospheric gasoline and diesel engines used in passenger cars and some trucks, operating under severe-service.

#### SUMMARY OF BENEFITS:

Better fuel economy

Reinforced thermal behavior.

Super fluidity at low temperature ensures good starting.

Excellent resistance to oxidation, foaming, low temperature sludge and high temperature deposits.

Efficient control over wear, rust and corrosion.

Excellent detergent and dispersant qualities.

CHARACTERISTICS	TYPICAL VALUE					
	10W	30	40	50	20W/40	20W/50
Sp. Gravity @ 15 OC	0.876	0.882	0.889	0.901	0.884	0.893
Viscosity @ 40 OC, cSt	38	103	160	220	140	170
Viscosity @ 100 OC, cSt	6	11.50	15.50	19	15.5	19
Viscosity Index	101	98	98	97	114	121
Flash Point, COC, OC	205	236	254	68	242	248
Pour Point,OC	-27	-12	-12	-9	-21	-27
TBN, mgm KOH / gm	4.9	4.9	4.9	4.9	4.9	4.9





# BREMEN HEAVY DUTY MOTOR OIL SAE 10W, 30, 40, 50, 20W/40, 20W/50

#### **PERFORMANCE PROFILE:**

A high quality oil formulated with highly refined base stocks and a balance additive package. Exceeds the requirements of:

API SC/CC

Mil-L- 2104B

#### **APPLICATION:**

Recommended for the lubrication of gasoline and diesel engines used in passenger cars and some trucks, operating under moderate to severe service.

#### **SUMMARY OF BENEFITS:**

High thermal stability.

- Good resistance to oxidation, foaming and low temperature sludge and high temperature deposits.
- Effective control over wear, rust and corrosion.
- Good detergent and dispersant qualities.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAL VALUE					
	10W	30	40	50	20W/40	20W/50
Sp. Gravity @ 15 OC	0.876	0.882	0.889	0.901	0.884	0.893
Viscosity @ 40 OC, cSt	38	103	160	220	140	170
Viscosity @ 100 OC, cSt	6	11.50	15.50		15.5	19
Viscosity Index	101	98	98	97	114	121
Flash Point, COC, OC	205	236	254	268	242	248
Pour Point,OC	-27	-12	-12		-21	-27
TBN, mgm KOH / gm	3.4	3.4	3.4	3.4	3.4	3.4



#### BREMEN SUPER HIGH PERFORMANCE DUTY DIESEL OIL

#### PERFORMANCE PROFILE:

A super heavy duty quality long drain multigrade oil, designed with highly refined base stocks and specially selected complete additive system. Surpassing the latest performance requirements of :

API CI-4//SL------ VW 500.01 / 505.00 ACEA E7/A3/B4----- Volvo VDS-3 MAN M 3275----- Allison C-4

MB 28.3----- CAT TO-2

SCANIA LDF running--- MACK EOM PLUS CUMMINS 20072, 20076,20077

#### **APPLICATION:**

Specially suited for most modern, high speed, severe duty, turbocharged diesel and gasoline engines used in passenger cars, long haul trucks, off highway equipments, handling machineries and generating sets, operating under critical conditions, using fuel with less than 0.5% weight sulfur. Also used in transmissions where Allison C-4 and CAT TO-2 fluids are recommended and in hydraulic systems, gear boxes and compressors where engine oil is recommended.

#### **SUMMARY OF BENEFITS:**

Perfect lubrication powers in all seasons.

Reduced maintenance costs through extended engine life.

Reduced running costs through improved oil and fuel efficiency.

Exceptional protection against oxidation, foaming, high temperature deposits and bore polishing.

Extremely high control over soot, wear, rust and corrosion to reduce the need for engine servicing.

Right level of detergency and dispersancy to keep the engine clean.

Excellent choice for mixed fleet services.

CHARACTERISTICS	TYPICAL VALUE				
	15W/40	15W/50	20W/50		
Sp. Gravity @ 15 °C	0.886	0.889	0.893		
Viscosity @ 40 °C, cSt	110	145	170		
Viscosity @ 100 °C, cSt	14.5	19	19		
Viscosity Index	135	145	120		
Flash Point, COC, °C	210	230	230		
Pour Point, C	-30	-30	-27		
TBN, mgm KOH / gm	10.70	10.7	10.7		





# BREMEN HIGH PERFORMANCE DUTY DIESEL OIL SAE 15W/40, 15W/50, 20W/50

#### **PERFORMANCE PROFILE:**

A premium quality long drain multigrade oil, designed with highly refined base stocks and specially selected complete additive system. Surpassing the latest performance requirements of:

API CH-4/SJ------ VW 500.01 / 505.00 ACEA E5/E7, B3-98, A3-98----- Volvo VDS-2 MAN 3275------ Allison C-4

MB 228.3----- CAT TO-2

MACK EOM PLUS----- RV1 RLD 99 CUMMINS 20072, 20076, 20077

#### **APPLICATION:**

Specially suited for most modern, high speed, severe duty, turbocharged diesel and gasoline engines used inpassenger cars, long haul trucks, off highway equipments, handling machineries and generating sets, operating under critical conditions, using fuel with less than 0.5% weight sulfur. Also used in transmissions where Allison C-4 and CAT TO-2 fluids are recommended and in hydraulic systems, gear boxes and compressors where engine oil is recommended.

#### **SUMMARY OF BENEFITS:**

- Reduced running costs through improved oil and fuel efficiency.
- Exceptional protection against oxidation, foaming, high temperature deposits and bore polishing.
- Extremely high control over soot, wear, rust and corrosion to reduce the need for engine servicing.
- Right level of detergency and dispersancy to keep the engine clean.
- Excellent choice for mixed fleet services.
- Perfect lubrication powers in all seasons.
- Reduced maintenance costs through extended engine life.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAL VALUE				
	15W/40	15W/50	20W/50		
Sp. Gravity @ 15 °C	0.886	0.889	0.893		
Viscosity @ 40 °C, cSt	110	145	170		
Viscosity @ 100 °C, cSt	14.5				
Viscosity Index	135	145	120		
Flash Point, COC, °C	210	230	230		
Pour Point, C	-30	-30	-27		
TBN, mgm KOH / gm	9.5	9.5	9.5		



#### BREMEN SEVERE DUTY DIESEL OIL SAE 15W/40, 20W/50

#### PERFORMANCE PROFILE:

An excellent quality oil formulated with highly refined base stocks and advanced additive package. Exceeds the requirements of :

API CG-4/SJ------- VW 505.00

ACEA E2/A3/B4------ Volvo VDS

MAN M3275, 270/1----- Mack EO-L

MB 228.2/3------ CUMMINS NTC 400

#### **APPLICATION:**

Recommended for high speed, turbocharged diesel and gasoline engines used in passenger cars, long haul trucks, off highway equipments, handling machineries and generating sets, operating under moderate to severe service. Also used in transmissions where Allison C-4 and CAT TO-2 fluids are recommended and in hydraulic systems, gear boxes and compressors where engine oil is recommended.

#### **SUMMARY OF BENEFITS:**

- Perfect lubrication powers in all seasons.
- Reduced maintenance costs through extended engine life.
- Reduced running costs through improved oil and fuel efficiency.
- Exceptional protection against oxidation, foaming, high temperature deposits & bore polishing.
- Effective control over soot, wear, rust and corrosion to reduce the need for engine servicing.
- Right level of detergency and dispersancy to keep the engine clean.
- Excellent choice for mixed fleet services.

CHARACTERISTICS	TYPICAL VALUE				
	15W/40	15W/50	20W/50		
Sp. Gravity @ 15 °C	0.886	0.889	0.893		
Viscosity @ 40 °C, cSt	110	145	170		
Viscosity @ 100 °C, cSt	14.5	19	19		
Viscosity Index	135	145	120		
Flash Point, COC, °C	210	230	230		
Pour Point, C	-30	-30	-27		
TBN, mgm KOH / gm					





# BREMEN HPD DIESEL OIL SUPER PERFORMANCE DUTY OIL SAE 15W/40, 20W/50

#### **PERFORMANCE PROFILE:**

An excellent quality oil formulated with highly refined base stocks and advanced additive package. Exceeds the requirements of:

API CF-4/SG------ VW 501.00/505.00
ACEA E2/A3/B4------ Volvo VDS
MB 228.0/1------ CCMC D4 /PD2/G4
Mack EO-K/2----- MAN 270/1

#### **APPLICATION:**

Recommended for high speed, turbocharged diesel and gasoline engines used in passenger cars, long haul trucks,off highway equipments, handling machineries and generating sets, operating under moderate to severe service. Also used in transmissions where Allison C-4 and CAT TO-2 fluids are recommended and in hydraulic systems, gear boxes and compressors where engine oil is recommended.

#### **SUMMARY OF BENEFITS:**

- Super protection against oxidation, foaming, high temperature deposits and bore polishing.
- Highly effective control over soot, wear, rust and corrosion.
- High level of detergency and dispersancy ensures a clean engine.
- Good control of oil consumption.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAL VALUE				
	15W/40	15W/50	20W/50		
Sp. Gravity @ 15 °C	0.886	0.889	0.893		
Viscosity @ 40 °C, cSt	110	145	170		
Viscosity @ 100 °C, cSt	14.5		19		
Viscosity Index	135	145	120		
Flash Point, COC, °C	210	230	230		
Pour Point, C	-30	-30	-27		
TBN, mgm KOH / gm	7				



#### **BREMEN SUPER DUTY DIESEL OIL SAE 40/50**

#### **PERFORMANCE PROFILE:**

An excellent quality oil formulated with highly refined base stocks and advanced additive package. Exceeds the requirements of :

#### **APPLICATION:**

Recommended for high speed, turbocharged diesel and gasoline engines used in passenger cars, long haul trucks, off highway equipments, handling machineries and generating sets, operating under moderate to severe service. Also used in transmissions where Allison C-3 and CAT TO-2 fluids are recommended and in hydraulic systems, gear boxes and compressors where engine oil is recommended.

#### **SUMMARY OF BENEFITS:**

- Excellent thermal stability at high temperature.
- Super protection against oxidation, foaming, high temperature deposits and bore polishing.
- Highly effective control over soot, wear, rust and corrosion.
- High level of detergency and dispersancy ensures a clean engine.
   Good control of oil consumption.

CHARACTERISTICS	TYPICAL VALUE
	40/50
Sp. Gravity @ 15 oC	0.901
Viscosity @ 40 oC, cSt	220
Viscosity @ 100 oC, cSt	19
Viscosity Index	97
Flash Point, COC, OC	240
Pour Point, OC	-9





# BREMEN HEAVY DUTY DIESEL OIL SAE 10W, 30, 40, 50, 20W/40, 15W/40

#### **PERFORMANCE PROFILE:**

A premium quality robust performance oil, designed with highly refined base stocks and state of art additive technology. Exceeds the stringent requirements of :

API CD/SF----- CAT TO-2

Mil-L-2104C

#### **APPLICATION:**

Expressly recommended for turbocharged or atmospheric diesel and gasoline engines used in passenger cars, vans, trucks, off highway equipments, handling machineries and generating sets, burning fuels with a wide quality range (including high-sulfur fuels) and operating under severe conditions. Also used in transmissions where Allison C-3 and CAT TO 2 fluids are recommended and in hydraulic systems, gear boxes and compressors where engine oil is recommended.

#### **SUMMARY OF BENEFITS:**

Longer maintenance intervals.

Excellent choice for mixed fleet services.

Better fuel economy.

Exceptional protection against oxidation, foaming, high temperature deposits and bore polishing.

Highly effective control over soot, wear, rust and corrosion to ensure long life of moving parts.

Outstanding thermal behavior at high temperature.

Properly balanced detergency and dispersancy ensures a clean engine.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAL VALUE					
Sp. Gravity @ 15 °C	<b>10W</b>	<b>30</b>	<b>40</b>	<b>50</b>	<b>20W/40</b>	<b>15W/40</b>
	0.876	0.882	0.889	0.901	0.884	0.886
Viscosity @ 40 °C, cSt	38	103	160	220	140	105.25
Viscosity @ 100 °C, cSt	6	11.50	15.50	19	15.5	14.5
Viscosity Index	102	99	98	97	114	142
Flash Point. COC. °C	205	236	245	245	230	210
Pour Point, C	-27	-15 5.4	-12	-9	-21 5.4	-30
TBN, mgm KOH / gm	5.4	5.4	5.4	5.4	5.4	5.4



#### BREMEN HIGH DUTY DIESEL OIL SAE 10W, 30, 40, 50, 20W/40, 15W/40

#### **PERFORMANCE PROFILE:**

A good quality oil formulated with highly refined base stocks and balance additive package. Exceeds the requirements of :

API CC/SC

MiL-L-2104B

#### **APPLICATION:**

Suitable for the lubrication of four stroke diesel and gasoline engines used in passenger cars and some trucks, operating under moderate to severe duty service.

#### **SUMMARY OF BENEFITS:**

High thermal behavior.

Good resistance to oxidation, foaming and high temperature deposits.

Good control over wear, rust and corrosion.

Good detergent and dispersant qualities

CHARACTERISTICS	TYPICAL VALUE					
	10W	30	40	50	20W/40	15W/40
Sp. Gravity @ 15 °C	0.876	0.882	0.889	0.901	0.884	0.886
Viscosity @ 40 °C, cSt	38	103	160	220	140	105.25
Viscosity @ 100 °C, cSt	6	11.50	15.50	19	15.5	14.5
Viscosity Index	102	99	98	97	114	142
Flash Point, COC, °C	205	236	254	258	230	210
Pour Point, C	-27		-12	-9	-21	-30
TBN, mgm KOH / gm	3.8	3.8	3.8	3.8	3.8	3.8







# 2 STROKE AND 4 STROKE OIL



#### **BREMEN SUPER 2T ADVANCED PERFORMANCE MOTOR OIL SAE 30**

#### **PERFORMANCE PROFILE:**

A supreme quality low smoke performance motor oil based on revolutionary concepts, designed with highly refined base stocks and well balanced low ash additive system. Surpassing the latest performance requirements of:

API TC----- JASO FC, ISO EGC

CECTSC-3----- TISI

#### **APPLICATION:**

Expressly recommended for most modern, high powered, air cooled two stroke cycle gasoline engines used in motorcycles,scooters, generators, chainsaws pumps, power mowers and other two stroke engines, equipped with or without oil injection system, using a petrol oil mixture of 25 to 1 or less or as recommended by the engin manufacturer. Also used when the mixture is made with unleaded gasoline

#### **SUMMARY OF BENEFITS:**

Long term protection against oil oxidation to keep the engine free from piston skirt and spark plug deposits Outstanding thermal stability at extremely high temperature. Exceptionally high resistance to heat generation and frictional power losses. Perfect lubrication of engine components at all speeds. Highly effective control over wear rust, corrosion and ring sticking to ensure long life of moving parts. Trouble free ignition. Extremely high detergency ensures a clean engine and exhaust system. Exceptional self mixing capability ensures the rapid formation of a uniform oil gasoline mixture.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAL VALUE
	30
Sp. Gravity @ 15 °C	0.882
Viscosity @ 40 °C, cSt	86.20
Viscosity @ 100 °C, cSt	10.80
Viscosity Index	109
Flash Point, COC, °C	110
Pour Point, ° C	-21
TBN, mgm KOH / gm	2.0



#### **BREMEN SUPER DUTY 2T OIL SAE 40**

#### PERFORMANCE PROFILE:

An excellent quality oil formulated with highly refined base stocks and advanced additive package. Exceeds the requirements of :

API----- CF-2/CD II/SF---- Mil-l-L-2104E

#### **APPLICATION:**

Expressly recommended for turbocharged or atmospheric two stroke DETROIT DIESEL engines series 53, 71, 92 et 149 used in heavy and medium duty trucks, off highway equipments, handling machineries and generating sets operating under severe-conditions.

#### **SUMMARY OF BENEFITS:**

- Monograde.
- No VI improver added which results in no loss of viscosity and excellent control of wear.
- Low sulfated ash content.
- Exceptional protection against oxidation, high temperature deposits and bore polishing.
- lacksquare Highly effective control over soot, wear, rust and corrosion to ensure
- long life of moving parts.
- Properly balanced detergency and dispersancy ensures a clean engine.

  High stability in operation.

CHARACTERISTICS	TYPICAL VALUE
	40
Sp. Gravity @ 15 °C	0.889
Viscosity @ 40 °C, cSt	151.00
Viscosity @ 100°C, cSt	15.10
Viscosity Index	99
Flash Point, COC, °C	248
Pour Point, °C	-9
TBN, mgm KOH / gm	7.74
Sulfated Ash, wt%	0.835
Foam seq. I/II/III, ml	0/0/0





#### **BREMEN ULTRA POWER MOTOR CYCLE OIL**

#### PERFORMANCE PROFILE:

It is a specialized lubricant designed for multifaceted engine protection. It provide long lasting performance for smooth drive. The product is designed to provide superb resistance to oxidation with very high level of detergency. The lubricant's antiwear, anticorrosion, antirust and antifoaming properties are well above standards and tested.

API TC----- JASO FC, ISO EGC

CECTSC-3----- TISI

#### **APPLICATION:**

All Types of Four Strokes Motor Cycles with manual gear operations. Compatible with lead free fuels. Compatible with catalytic converters.

#### **SUMMARY OF BENEFITS:**

Active prevention of frictio Superior Gear Protection.

Fliminates Aeration

High Temperature and High Shear Viscosity.

#### **TECHNICAL DATA:**

#### 4T SL

SL/JASO MA/MA2		
Particulars	20W40	20W50
Density, kg/L @ 15 C	0.873	0.875
Kinemetic Viscosity, mmsq@40 C	129.2	167.5
Kinemetic Viscosity, mmsq@100 C	15.24	18.99
Viscosity Index	122	129
Pour Point C	-17	-15
Flash Point C	235	235

#### 4T SJ

SJ/JASO MA	
Particulars	20W50
Density, kg/L @ 15 C	0.874
Kinemetic Viscosity, mmsq@40 C	180.5
Kinemetic Viscosity, mmsq@100 C	19.25
Viscosity Index	121
Pour Point C	-16
Flash Point C	230







# SPECIALTY OIL



#### **BREMEN POWER TRANSMISSION FLUID SAE 50**

#### **PERFORMANCE PROFILE:**

A superior quality oil designed with highly refined base stocks and most advanced additive package. Exceeds the requirements of :

API CF----- Allison C-4

Caterpillar TO-4----- Komatsu Micro Clutch

ZF TE-ML 01, 03----- EATON FULLER

API MT-1 (Mack Transmission & CRC L-60-1 tests)

#### **APPLICATION:**

Recommended successfully in several types of transmissions such as those requiring above level of performances. Because this oil also qualifies API CF performance, this oil protects against misuse in diesel engines provided that drain interval is shortened. The Caterpillar IM-PO test results also meets APICF-2 limits.

#### **SUMMARY OF BENEFITS:**

- Excellent frictioncotrol
- Superior less brake noise.
- Reduced gear wear.
- Good elastomer compatibility.
- Super oxidation stability for powershift transmissions, final drive and hydraulic systems.
- Combination of outstanding performance prolongs the life of brakes & transmissions.
- High level of detergency and dispersancy ensures the system clean.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAL VALUE
	50
Sp. Gravity @ 15 °C	0.901
Viscosity @ 40 °C, cSt	220
Viscosity @ 100°C, cSt	19
Viscosity Index	97
Flash Point, COC, °C	258
Pour Point, °C	-9
TBN, mgm KOH / gm	11.4
Sulfated Ash, wt%	1.564
Foam seq. I/II/III, ml	0/0/0



#### BREMEN UNIVERSAL OIL ALL ROUND PERFORMANCE OIL

#### **PERFORMANCE PROFILE:**

A top quality multipurpose oil with innovative conception, designed with highly refined base stocks and specially selected complete additive package. Surpassing the requirements of :

API CD/SE----- Ford M2C-159B

CCMC D2/G1----- Massey Ferguson M-1139

Mil-L-2105C----- Denison HF-2

#### **APPLICATION:**

Satisfy the lubrication requirements of all types of engines, as well as wet brakes, hydraulic systems, automatic and manual transmissions used in farm and industrial tractors and self propelled farm equipments. Not recommended when manufacturers specify an EP oil of API GL-5 level.

#### **SUMMARY OF BENEFITS:**

Very high viscosity index.

Outstanding lubrication power in all working conditions.

Excellent fluidity at low temperature.

Exceptional thermal and oxidation stability at high temperature.

Improved retention of frictional properties to resist chatter and

squawk in clutch and brake systems.

Outstanding protection against rust, corrosion and foaming.

Effective antiwear and extreme-pressure properties to protect the gear

teeth and bearings.Improved seals compatibility.

Excellent filterability and stability in the presence of water.

Right level of detergency to ensure a clean system.

Excellent choice to reduce the possibility of wrong applications.

CHARACTERISTICS	TYPICAL VALUE
	10W/30
Sp. gravity @ 15 OC	0.881
Viscosity @ 40 OC, cSt	55
Viscosity @ 100 OC, cSt	9.4
Viscosity Index	154
Flash Point, COC, OC	205
Pour Point, OC	-33
TBN, mgm KOH / gm	9.8





#### **BREMEN ZINC FREE RAILROAD DIESEL ENGINE OIL SAE 40**

#### **PERFORMANCE PROFILE:**

A high quality, robust performance, Zinc free oil, designed with highly refined base stocks and balance additive package. Exceeds the requirements of:

API CD

GENERAL MOTOR-ELECTRO-MOTIVE DIVISION (GM/EMD) / GENERATION 5
GENERAL MOTOR / GENERATION 4 LL (Long life)

**DALIAN Locomotive** 

#### **APPLICATION:**

Recommended for the recent generation of GM/EMD and General Electric Diesel engines equipped with Silver Bearings fitted on railroad locomotives and on Industrial applications (Power generation, offshore well drilling rigs, marine propulsion).

#### **SUMMARY OF BENEFITS:**

- Very high thermal behavior and excellent oxidation stability.
- Effective protection against oxidation, foaming, high temperature deposits and bore polishing.
- Exceptional protection against wear, ring sticking, rust and corrosion to ensure long life of moving partsand reduce the need for engine servicing.
- Excellent detergent and dispersant qualities to keep the engine clean.
- Highly effective TBN retention.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAL VALUE
	SAE 40 GRADE
Sp. Gravity @ 15 OC	0.889
Viscosity @ 40 OC, cSt	155
Viscosity @ 100 OC, cSt	15.5
Viscosity Index	98
Flash Point, COC, OC	234
Pour Point, OC	- 12
TBN, mgm KOH / gm	20
Sulfated Ash, % wt	2.39
Zinc, mg/kg	< 10



# BREMEN SUPER LSEP LIMITED SLIP PERFORMANCE GEAR OIL SAE 80W/90, 85W/140

#### PERFORMANCE PROFILE:

A superb quality friction performance oil, designed with highly refined base stocks and additive package based on Sulfur Phosphorus gear chemistry and friction modifier system. Exceeds the requirements of :

API GL-5----- DB 235.5, 235.6

U.S. Mil-L-2105D------ ZF TE-ML 01, 02, 05, 07, 08

MAN 341 & 342------ Volvo 1273.14

#### **APPLICATION:**

Specially intended for the lubrication of limited slip differentials, used in heavy duty automotive vehicles and off the road equipments, using spiral bevel and hypoid gears, operating under severe service conditions.

#### **SUMMARY OF BENEFITS:**

- Low pour point ensures good fluidity in cold climates.
- Outstanding demulsibility power, thermal and oxidation stability.
- Exceptional protection against wear, foaming, rust and corrosion.
- Excellent compatibility with all seals to control the leakage.
- Improved frictional characteristics ensures proper torque biasing and anti stick-slip performance.
- Outstanding protection against high speed, shock load, low speed, high torque and high speed, low torque conditions.
- Non-corrosive to Steel, Copper or other metals and alloys and keep the
- parts in first-class condition.
- Chatter free operation.

CHARACTERISTICS	TYPICAL VALUE		
	80W/90	85W/140	
Sp. Gravity @ 150C	0.889	0.910	
Viscosity @ 40 OC, cSt	158	360	
Viscosity @ 1000C, cSt	15.5	26	
Viscosity Index	99	96	
Flash Point, COC, OC	170	210	
Pour Point, OC	-27	-12	





# BREMEN SUPER EP SUPER DUTY GEAR OIL SAE 90,140, 80W/90, 85W/140

#### **PERFORMANCE PROFILE:**

A supreme quality oil with high degree of extreme pressure protection, designed with highly refined base stocks and additive package based on Sulfur Phosphorus gear chemistry. Exceeds the requirements of:

API GL-5----- DB 235

U.S. Mil-L-2105D

#### **APPLICATION:**

Expressly recommended for drive axles, steering boxes, overdrives, final drives, conventional differentials and manual transmissions used in heavy duty automotive vehicles and off the road equipments, using spiral bevel and hypoid gears, operating under critical conditions of high unit pressure and high relative sliding velocities at elevated temperatures.

#### **SUMMARY OF BENEFITS:**

- Perfect load carrying ability in all operating conditions.
- Low pour point ensures good fluidity in cold climates.
- Outstanding demulsibility power, thermal and oxidation stability.
- Exceptional protection against foaming, rust and corrosion.
- Excellent compatibility with all seals to control the leakage
- Carefully tailored frictional characteristics to promote smooth synchronization and good shift quality.
- Outstanding resistance to gear distress under high speed, shock-load, high speed, low torque and low speed, high torque conditions.
- Non corrosive to Steel, Copper or other metals and alloys and keep the parts in first-class condition.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAL VALUE				
	80W/90	85W/140	90	140	
Sp. Gravity @ 15 OC	0.889	0.910	0.901	0.913	
Viscosity @ 40 OC, cSt	158	360	220	460	
Viscosity @ 1000C, cSt	15.5	26	19		
Viscosity Index	99	95	97	95	
Flash Point, COC, OC	180	210	220	240	
Pour Point, OC	-27	-12	-12	-6	



# BREMEN SUPER MP HEAVY DUTY GEAR OIL SAE 90,140, 80W/90, 85W/140

#### PERFORMANCE PROFILE:

A premium quality oil with medium level of extreme pressure protection, formulated with highly refined base stocks and additive package based on Sulfur-Phosphorus gear chemistry. Exceeds the requirements of:

API----- GL-4

U.S.---- Mil-L-2105A

#### PERFORMANCE PROFILE:

Recommended for mechanical transmissions, conventional differentials, final drives, steering boxes and transaxles used in heavy duty automotive vehicles and off the road equipments, using spur, bevel, helical or hypoid gears, operating under moderate service conditions, subject to heavy loads and high relative sliding velocities at high temperature.

#### **SUMMARY OF BENEFITS:**

- Excellent demulsibility power, thermal and oxidation stability.
- Highly effective protection against foaming, rust and corrosion.
- Excellent compatibility with all seals to control the leakage.
- Non corrosive to Steel, Copper or other metals and alloys and keep the parts in first class condition.
- Carefully tailored frictional characteristics to promote smooth synchronization and good shift quality.
- Excellent scoring resistance of gear teeth under low speed, high torque and high speed, low torque conditions.
- Outstanding load-carrying capacity with quite operation.

CHARACTERISTICS	TYPICAL VALUE				
	80W/90	85W/140	90	140	
Sp. Gravity @ 15 OC	0.889	0.910	0.901	0.913	
Viscosity @ 40 OC, cSt	158	360	220	460	
Viscosity @ 1000C, cSt	15.5	26	19	31	
Viscosity Index	99	95	97	95	
Flash Point, COC, OC	210	230	235	255	
Pour Point, OC	-27	-12	-12	-6	





#### **BREMEN SUPER-GL MODERATE DUTY GEAR OIL SAE 90, 140**

#### **PERFORMANCE PROFILE:**

A good quality oil formulated with highly refined base stocks and antifoam additive package. Exceeds the requirements of  $\,:\,$ 

#### API GL-1

#### **APPLICATION:**

Suitable for manual transmissions, spiral bevel and worm axles and all gearing systems used in automotive vehicles and off the road equipments, operating under mild service conditions of low unit pressure and sliding velocities.

#### **SUMMARY OF BENEFITS:**

- Natural thermal and oxidation stability.
- Good protection against wear, foaming, rust and corrosion.
- Harmless to all metals and gaskets.
- Good demulsibility power.
- Good protection of bearing and gear teeth.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAL VALUE
	20 440
	90 140
Sp. Gravity @ 150C	0.901 0.913
Viscosity @ 40 OC, cSt	220 460
Viscosity @ 1000C, cSt	19 31
Viscosity Index	97 95
Flash Point, COC, OC	268 292
Pour Point, OC	-12 -6



#### **BREMEN SUPER ATF III THE ALL ROUND PERFORMER**

#### PERFORMANCE PROFILE:

A top quality multipurpose fluid with new concepts of friction modification, designed with highly refined base stocks and specially selected complete additive system. Surpassing the stringent requirements of :

<b>General Motors</b>	DEXRON III	ZF TE-ML 09/11/14

Ford Mercon----- Caterpillar TO-2

Allison C-4----- Mercedes Benz Sheet 236.1

#### **APPLICATION:**

Expressly recommended for automatic and semi automatic transmissions used in passenger cars and commercial vehicles, operating under severe, most varied service conditions. Others uses include:

- Power Shift transmission in off-highway construction, agriculture and mining equipments.
- Automotive, industrial, mobile and marine hydraulic systems.

#### **SUMMARY OF BENEFITS:**

- Excellent cold weather performance.
- Low viscosity ensures outstanding power transfer and heat transfer efficiency in torque converter system.
- Exceptional resistance to foaming, rust and corrosion.
- Excellent high temperature cleanliness and stability.
- Improved oxidation stability.
- Highly effective control over wear to protect the gear teeth and bearing.
- Absolute neutrality in respect of elastomers and non ferrous metals.
- Improved retention of frictional properties to perform smooth and trouble free clutch and brake operations.

CHARACTERISTICS	TYPICAL VALUE
Color	Red
Sp. Gravity @ 15 OC	0.869
Viscosity @ 40 OC, cSt	33.40
Viscosity @ 1000C, cSt	6.70
Viscosity Index	163
Flash Point, COC, OC	180
Pour Point, OC	- 42
Brookfield viscosity (cp) @ -400 C	Max. 20000
Foam seq.I/II/III, ml	0/0/0
Clutch Friction Test	Pass
Cycling Test	Pass





#### BREMEN ATF DEXRON II-D THE ALL ROUND PERFORMER

#### **PERFORMANCE PROFILE:**

A top quality multipurpose fluid with new concepts of friction modification, designed with highly refined base stocks and specially selected complete additive system. Surpassing the stringent requirements of :

General Motors DEXRON II-D----- ZF TE-ML 09/11/14

Ford ESP-M2C 138 CJ/166H----- Caterpillar TO-2

Allison C-4----- Mercedes Benz Sheet 236.6

Ford Mercon

#### **APPLICATION:**

Expressly recommended for automatic and semi automatic transmissions used in passenger cars and commercial vehicles, operating under severe, most varied-service conditions. Others uses include:

- Power Shift transmission in off highway construction, agriculture and mining equipments.
- Automotive, industrial, mobile and marine hydraulic systems.

#### **SUMMARY OF BENEFITS:**

- Excellent cold weather performance.
- Low viscosity ensures outstanding power transfer and heat transfer efficiency in torque converter system.
- Exceptional resistance to foaming, rust and corrosion.
- Excellent high temperature cleanliness and stability.
- Improved oxidation stability.
- Highly effective control over wear to protect the gear teeth and bearing.
- Absolute neutrality in respect of elastomers and non ferrous metals.
- improved retention of frictional properties to perform smooth and trouble free clutch and brake operations.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAL VALUE
Color	Red
Sp. Gravity @ 15 OC	0.869
Viscosity @ 40 OC, cSt	33.40
Viscosity @ 1000C, cSt	6.70
Viscosity Index	163
Flash Point, COC, OC	168
Pour Point, OC	-42
Brookfield viscosity (cp) @ -400 C	48000
Foam seq. I/II/III, ml	0/0/0
Clutch Friction Test	Pass
Cycling Test	Pass



#### BREMEN SUPER ATF HIGH PERFORMANCE OIL

#### **PERFORMANCE PROFILE:**

A good quality fluid formulated with highly refined base stocks and balance additive package. Exceeds the requirements of :

General Motors Type A

#### **APPLICATION:**

Suitable for automatic transmissions used in passenger cars and commercial vehicles, where equipment manufacturer recommends Type A fluid.

#### **SUMMARY OF BENEFITS:**

- Good thermal stability and oxidation stability.
- Effective protection against rust, corrosion and foaming.
- High control over wear.
- Low viscosity to ensure power transfer and heat transfer efficiency in torque converter system.
- Good fluidity at low temperature.
- Compatibility with elastomers and non ferrous metals.
- Good retention of frictional properties under the normal operating conditions.

CHARACTERISTICS	TYPICAL VALUE
Color	Red
Sp. Gravity @ 15 OC	0.869
Viscosity @ 40 OC, cSt	26.8
Viscosity @ 1000C, cSt	5.9
Viscosity Index	174
Flash Point, COC, OC	172
Pour Point, OC	- 42
Brookfield viscosity (cp) @ -400 C	Max. 16000
Foam seq. I/II/III, ml	0/0/0





# BREMEN SPIRAL R&O ULTIMATE PERFORMANCE TURBINE OIL ISO 32, 46, 68, 100, 150

#### **PERFORMANCE PROFILE:**

A BREMEN quality Zinc free oil with high degree of rust & oxidation protection, designed with highly refined base stocks and properly balanced additive system. Exceeds the requirements of :

German standard DIN 51515----- British standard BS 489:1983

U.S. Military Mil-L-17672D----- Denison HF-1

Brown Boveri HT GD 90 117E----- Alsthom Atlantique NBA P50001

General Electric GEK-46506 B----- General Electric GEK-28143 A

General Electric GEK-141003 H------ U.S. Steel 120 & 125

#### **APPLICATION:**

Recommended for the lubrication of all parts of heavy duty, high speed steam, water and gas turbines used in electric power generation, pipeline transmission, power take off and marine propulsion, using non ferrous alloys, operating under severe service conditions. Otheruses are:

- Light duty or non antiwear hydraulic system
- Non EP gear system.
- Compressor and pump where recommended

#### **SUMMARY OF BENEFITS:**

- Longer oil life with smooth operations.
- Outstanding thermal stability at very high temperature.
- Strong demulsibility power, air release capability and filterability.
- Enhanced resistance to foaming and oxidation.
- Long term corrosion, wear and rust protection.
- Improved seals compatibility.
- Low sludging tendency and outstanding load carrying ability.

#### **TECHNICAL DATA:**

CHARACTERISTICS		TYPICAL VALUE			
	32	46	68	100	150
Sp. Gravity @ 15 OC	0.874	0.877	0.879	0.882	0.889
Viscosity @ 40 OC, cSt	33		67.5	99.5	144
Viscosity @ 1000C, cSt	5.5.5	6.70	8.7	11.3	14.5
Viscosity Index	102	101	100	99	98
Flash Point, COC, OC	210	218	232	236	248
Pour Point, OC	-30	-27	-27	-21	
TAN, mgm KOH / gm	0.15	0.15	0.15	0.15	0.15
Demulsibility	40-40-0	40-40-0	40-40-0	40-40-0	40-40-0
Rust Test (Method B)Oxidation	No rust	No rust	No rust	No rust	No rust
(TOST) Hours to T.A.N. 2	Pass	Pass	Pass	Pass	Pass



#### BREMEN TURBO PERFORMANCE COMPRESSOR OIL ISO 32, 46, 68, 100, 150

#### PERFORMANCE PROFILE:

A premium quality oil with new concepts of rust & oxidation protection, formulated with highly refined base stocks and well balanced additive package. Exceeds the requirements of:

British standard BS 489:1983----- Hagglunds Denison HF-1

U.S. Military Mil-L-17672D----- AFNOR NF E 48-603

Cincinnati Milacron P-38, P-54, P-55 and P-57----- AGMA 250.04 (R&O)

German standard DIN 51506 VDL, DIN 51524 Part 1, DIN 51517 Part I & II

#### **APPLICATION:**

Recommended for high speed, single or multistage centrifugal, rotary, screw, vane and reciprocating compressors used in construction projects, mining, stationary, industrial and outdoor applications, operating under arduous duty conditions and upto high air delivery temperature of 220 oc. Other uses are:

- Light duty or non-antiwear hydraulic system.
- Non-EP gear system and Pump where recommended.

#### **SUMMARY OF BENEFITS:**

- Extremely high resistance to foaming and oxidation.
- Improved seals compatibility.
- Exceptional thermal stability at high service temperature.
- Strong demulsibility power , air release capability and filterability.
- Low sludging tendency and outstanding load carrying ability.
- Long term corrosion, wear and rust protection.
- Outstanding low volatility and minimum carbon deposit formation tendency to avoid the risk of fires and explosion.

CHARACTERISTICS	TYPICAL VALUE					
	32	46	68	100	150	
Sp. Gravity @ 15 oC	0.874	0.877	0.879	0.882	0.889	
Viscosity @ 40 oC, cSt	33	45	67.5	99.5	144	
Viscosity @ 1000C, cSt	5.5	6.70	8.7	1.3	14.5	
Viscosity Index	102	101	100	99	98	
Flash Point, COC, OC	210	218	232	236	248	
Pour Point,OC	-30	-27	-27	-21	-18	
TAN, mgm KOH / gm	0.19	0.19	0.19	0.19	0.19	
Demulsibility	40-40-0	40-40-0	40-40-0	40-40-0	40-40-0	
Rust Test	Pass	Pass	Pass	Pass	Pass	
CRC after oxidation	Pass	Pass	Pass	Pass	Pass	





# BREMEN SUPER VT-REFRIGERATION ROBUST PERFORMANCE COMPRESSOR OIL ISO 22, 32, 46, 68

#### **PERFORMANCE PROFILE:**

A superb quality oil with zero congealing tendency and high degree of oxidation protection, designed with highly refined napthenic base stocks and well balanced additive package. Exceeds the requirements of:

DIN 51503 KC------ MM-O-2008 Type II (NATO O-283)
DIN 51303 KA----- MM-O-2008 Type III (NATO O-290)
SABROE (0170-104-EN-M group)

#### **APPLICATION:**

Recommended for high speed, single or multistage rotary and reciprocating refrigeration compressors and other refrigeration systems used in domestic, automotives, hermetically sealed units and industries, using all types of refrigerants except Sulfur Dioxide, operating under severe-duty conditions and below OoC.

#### **SUMMARY OF BENEFITS:**

- Long term protection to resist formation of deposits in crankcases, open to the atmosphere and deteriorating influence of high temperatures at the compressor discharge.
- Low pour point to prevent the oil from congealing on evaporator surfaces thus resulting in efficient heat transfer.
- Extended oil life
- Low floc point to prevent separation of waxlike materials in evaporator, expansion valve and capillaries.
- High dielectric strength and ability to prevent reaction with windings of electric motors at elevated temperatures.
- Outstanding load carrying ability.
- Exceptional corrosion and wear protection.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAL VALUE				
	1		1		
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	22	32	46	68	
Sp. Gravity @ 15 oC	0.886	0.889	0.895	0.898	
Viscosity @ 40 oC, cSt	21.6	29.1	42.4	61.3	
Viscosity @ 100oC,cSt	3.7	4.4	5.4	6.8	
Viscosity Index	16	18	39	43	
Flash Point, COC, oC	174	180	192	202	
Pour Point, oC	-42	-42	-42	-39	
Floc Point, C	-60	-56	-56		



#### **BREMEN SUPER HD-4 HEAVY DUTY BRAKE FLUID**

#### **PERFORMANCE PROFILE:**

An excellent quality, long-life performance synthetic fluid with excellent viscosity temperature properties, designed with water soluble Polyglycol. Surpassing the stringent requirements of :

FMVSS NO. 116 DOT 3------- SAE J 1703
ISO 4925----- NATO Symbol H-542
Ford Motor Company ESEA-M6C-1001- A----- GM 4653 M Type 550
APPLICATION:

Exclusively recommended for use in automotive hydraulic disc & drum brakes and servo controlled clutch systems, operating under severe service conditions

#### **SUMMARY OF BENEFITS:**

- Exceptional lubrication power to eliminate friction and wear between the pistons and cylinders in the brake system.
- $\,\blacksquare\,$  High boiling point to resist vapor lock even at high operating temperature.
- Outstanding water versatility ensures a long term brake system safety.
- Perfectly compatible with elastomers to prevent trouble with gaskets and seals.
- Long-term rust & corrosion protection.
- Excellent fluidity ensures efficient functioning at extremely low temperature.
- Adequate viscosity at normal and high temperature.
- Enhanced oxidation and thermal stability.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAL VALUE
Sp. Gravity @ 15 OC, kg/l	1.067
Viscosity @ - 40 OC, cSt	1500
Viscosity @ 100 OC, cSt	1.8
Equilibrium reflex boiling point, OC	230
Wet boiling point, OC	155
pH value	9

#### **IMPORTANT TO NOTE:**

Keep brake fluids as clean and free of moisture as possible. Always use fluid for filling from properly sealed cans and should never be reused. Keep proper level in Master cylinder reservoir to minimize the amount of breathing





#### **BREMEN SUPER HD-3 HEAVY DUTY BRAKE FLUID**

#### **PERFORMANCE PROFILE:**

A BREMEN quality, long life performance synthetic fluid with excellent viscosity temperature properties, designed with water soluble Polyglycol. Surpassing the stringent requirements of:

FMVSS NO. 116 DOT 3----- SAE J 1703

ISO 4925----- NATO Symbol H-542

Ford Motor Company ESEA-M6C-1001- A----- GM 4653 M Type 550

#### **APPLICATION:**

Exclusively recommended for use in automotive hydraulic disc & drum brakes and servo controlled clutch systems, operating under severe service conditions

#### **SUMMARY OF BENEFITS:**

- Excellent fluidity ensures efficient functioning at extremely low temperature.
- Adequate viscosity at normal and high temperature.
- Enhanced oxidation and thermal stability.
- Exceptional lubrication power to eliminate friction and wear between the pistons and cylinders in the brake system.
- Outstanding water versatility ensures a long term brake system safety.
- Perfectly compatible with elastomers to prevent trouble with gaskets and seals.
- Long-term rust & corrosion protection.
- High boiling point to resist vapor lock even at high operating temperature.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAL VALUE
Sp.Gravity @ 15 OC, kg/l Viscosity @ - 40 OC, cSt Viscosity @ 100 OC, cSt Equilibrium reflex boiling point, OC Wet boiling point, OC	<b>1.04</b> 1150 1.8 240 145
pH value	9

#### **IMPORTANT TO NOTE:**

Keep brake fluids as clean and free of moisture as possible. Always use fluid for filling from properly sealed cans and should never be reused. Keep proper level in Master cylinder reservoir to minimize the amount of breathing.



#### **BREMEN CVT FLUID**

#### **OVERVIEW**

Continuous Variable Transmission require a unique transmission fluid with specialized frictional characteristics designed to ensure the belt be remain in contact with pulleys without slipping.

Bremen CVT Fluid is state of the art product designed to accomplish all the objective of CVT.

#### FEATURES

- Outstanding wear protection
- Great Frictional Properties
- Resistance to Heat
- Greater Wet Clutch Performance
- Proven in Field

#### APPLICATION

Bremen CVT Fluid is recommended to use in belt and chain type continuous variable transmission of Nissan, Toyota, Ford, Hyundai, Lexus, Infinity and all major brands of modern cars that uses CVT.

Particulars	TEST	Value
Kinematic Viscosity @ 100 C, cst	ASTM D 445	7.1
Kinematic Viscosity @ 40 C, cst	ASTM D 445	32.8
Viscosity Index	ASTM D 2270	187
Flash Point C	ASTM D 92	212
Fire Point C	ASTM D 92	224
Pour Point C	ASTM D 97	-45
Brookfield Viscosity @ -40C, cp	ASTM D 2983	8779
Foam Tendency	ASTM D 892 Sq I II III	0/0 10/0 0/0





#### BREMEN 85W90 GL5 High Performance Gear Oil

#### **OVERVIEW**

Bremen High Performance 80W90 GL5 is high performance lubricant formulated with quality base oil and specially designed additive system for limited slip-differentials. The product is best suited for heavy duty limited slip differentials, axles and final drive where extreme pressure and shock loading is expected. It meets the requirements of API GL 5 performance.

#### **FEATURES**

- Great Thermal Stability.
- Resistance to High Temperature Oxidation.
- Protection from rust, corrosion and staining.
- Great resistance from foaming.
- Effective limited slip performance.
- Reduce Wear and Ease of Start Up.
- Extended Gear & Bearing life.
- Minimum Leakage & reduce contamination.
- Enhance load carrying capacity and effective cost of operation

#### **APPLICATION:**

- Passenger cars, light & heavy duty trucks, buses and vans.
- Off Highway Industries including construction.
- Other gears operating under scenarios where high speed /shock load, high speed/low torque, and/or low speed/high torque conditions prevail.

Particulars SAE 85W90	TEST	Value
Kinematic Viscosity @ 100 C, cst	ASTM D 445	14.8
Kinematic Viscosity @ 40 C, cst	ASTM D 445	141
Viscosity Index	ASTM D 2270	105
Flash Point C	ASTM D 92	230
Pour Point C	ASTM D 97	-32
Desnisty 15C kg/l	ASTM D 4052	0.9







HYDRAULIC **OIL** 



#### BREMEN SUPER AW SUPER PERFORMANCEHYDRAULIC OIL ISO 32, 46, 68, 100, 150

#### **PERFORMANCE PROFILE:**

A top quality oil with high degree of wear protection, designed with highly refined base stocks and well balanced additive package. Exceeds the requirements of :

Denison HF-O including dry & wet T6C-020------ U.S. Steel 126 / 127
Vickers M-2950-S (Mobile equipment)------ DIN 51524 Part II
Vickers 1-286-S3 (Industrial equipmen----- AFNOR NF E 48-603 (HM)
Cincinnati Milacron P-68, P-69 & P-70--- ASLE 64-1 to 64-4, 70-1 to 70-3

#### **APPLICATION:**

Recommended for high pressure hydraulic systems used in all mobile and stationary equipments, operating under severe working conditions. Also used for circulation system, compressor, pump, bearing and gear lubrication where recommended.

#### **SUMMARY OF BENEFITS:**

- Extended oil life.
- Outstanding thermal and hydrolytic stability.
- Excellent demulsibility power and air release capability.
- Outstanding filterability and good shear stability.
- Exceptional resistance to oxidation and foaming
- Highly effective control over wear, corrosion and rust.
- Low pour point ensures good fluidity in cold climates.
- Improved compatibility with seals and soft metals.
- Improved friction characteristics resulting in lower running temperatures.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAL VALUE					
	20	40		100	450	
Sp. Gravity @ 15 °C	<b>32</b> 0.874	<b>46</b> 0.877	<b>68</b> 0.879	<b>100</b> 0.882	<b>150</b> 0.889	
Viscosity @ 40 °C, cSt	33	45	67.5	99.5	144	
Viscosity @ 100°C, cSt	5.50	6.70	8.7	11.3	14.5	
Viscosity Index	102	101	100	99	98	
Flash Point, COC, °C	210	218	232	236	248	
Pour Point, °C	-24	-18				
Pump Tests	Pass	Pass	Pass	Pass	Pass	
4-Ball Wear Test (15 kg/ 80°C/ 600 rpm/2 hrs)	Pass	Pass	Pass	Pass	Pass	



#### BREMEN SUPER HVI AW SUPER PERFORMANCE HIGH VI HYDRAULIC OIL ISO 32, 46, 68, 100, 150

#### **PERFORMANCE PROFILE:**

A top quality oil with high degree of wear protection, designed with highly refined base stocks and well balanced additive package. Exceeds the requirements of :

Denison HF-O including dry & wet T6C-020------ U.S. Steel 126 / 127

Vickers M-2950-S (Mobile equipment)------ DIN 51524 Part II

Vickers 1-286-S3 (Industrial equipment)----- AFNOR NF E 48-603 (HM)

Cincinnati Milacron P-68. P-69 & P-70--- ASLE 64-1 to 64-4, 70-1 to 70-3

#### **APPLICATION:**

Recommended for high pressure hydraulic systems used in all mobile and stationary equipments, operating underwide temperature range. Also used for circulation system, compressor, pump, bearing and gear lubrication where recommended.

#### **SUMMARY OF BENEFITS:**

- Extended oil life.
- Outstanding thermal and hydrolytic stability.
- Excellent demulsibility power and air release capability.
- Outstanding filterability and good shear stability.
- Exceptional resistance to oxidation and foaming.
- Highly effective control over wear, corrosion and rust.
- lacksquare Low pour point ensures good fluidity in cold climates.
- Improved compatibility with seals and soft metals.
- improved friction characteristics resulting in lower running temperatures

CHARACTERISTICS	TYPICA	L VALUE		/ / /	
	32	46	68	100	150
Sp. Gravity @ 15 oC	0.874	0.877	0.879	0.882	0.889
Viscosity @ 40 oC, cSt	32.15	47.37	67.5	99.5	146
Viscosity @ 100 oC, cSt	6.37	8.37	10.627	15.84	9.35
Viscosity Index	154	153	152	150	151
Flash Point, COC, oC	210	218	232	236	248
Pour Point, oC	-24	-18			
Pump Tests	Pass	Pass	Pass	Pass	Pass
4-Ball Wear Test (15 kg/ 80oC/ 600 rpm/2 hrs)	Pass	Pass	Pass	Pass	Pass







# INDUSTRIAL OIL & GREASES



# BREMEN SUPER IEP HEAVY DUTY INDUSTRIAL GEAR OIL ISO 68, 100, 150, 220, 320, 460

#### **PERFORMANCE PROFILE:**

A supreme quality oil with high degree of extreme pressure protection, designed with highly refined base stocks and additive package based on Sulfur Phosphorus gear chemistry. Exceeds the requirements of:

U.S. Steel 220 & 224----- DIN 51517 Part 3

AGMA 250.04 & 9005-D94------ David Brown S1.53.101

Cincinnati P-35, P-59, P-63, P-74, P-76, P-77 & P-78

#### **APPLICATION:**

Recommended for efficient lubrication of all types of enclosed industrial gear systems, operating under severe service conditions, subject to heavy load, high speed and high relative sliding velocities at elevated temperatures. Also used for enclosed sprocket, flexible coupling, chain bar, rock drill, guides and low speed plain bearings.

#### **SUMMARY OF BENEFITS:**

- Perfect lubrication powers in all operating conditions.
- Low temperature fluidity ensures efficient functioning in cold climates.
- Strong demulsibility power and air release capability.
- Reinforced thermal and oxidation stability
- Enhanced antiwear and extreme pressure properties to protect the gear teeth.
- Outstanding resistance to foaming, rust and corrosion.
- Excellent compatibility with all seals to control the leakage.
- Outstanding load carrying ability.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICA	TYPICAL VALUE					
	68	100	150	220	320	460	
Sp. Gravity @ 15 °C	0.879	0.882	0.889	0.901	0. 907	0.913	
Viscosity @ 40 °C, cSt	67.5	99.5	144	220	314	460	
Viscosity @ 100°C, cSt	8.7	11.3	14.5		24	31	
Viscosity Index	100	99	98	97	95	95	
Flash Point, COC, °C	232	236	248	268	280	292	
Pour Point, °C	-27	-21	-18		-12	-12	
Timken OK Load, lb	60	65	70	70	70	70	
FZG, Pass Load Stage	12	12	12	12	12	12	



# BREMEN SUPER GP MULTI FUNCTIONAL OIL ISO 32, 68, 100, 150, 220, 320, 460

#### **PERFORMANCE PROFILE:**

A good quality general purpose oil, formulated with highly refined base stocks and anti foam additive package. Suitable for the lubrication of hydraulic systems, pumps, enclosed industrial gears and bearings, operating under mild conditions, and where control of oxidation and wear is not of prime significance. Also used for industrial applications where oil losses are high and heavy contaminants require frequent oil change. Also recommended for effective flushing of engines or any lube circuits.

#### **SUMMARY OF BENEFITS:**

Natural viscosity index.

Good thermal stability.

Fair resistance to rust and corrosion.

Good demulsibility power.

Excellent protection against foaming.

Economical product.

CHARACTERISTIC	TYPIC	TYPICAL VALUE					
	32	68	100	150	220	320	460
Sp. Gravity @ 15 oC	0.874	0.879	0.882	0.889	0.901	0. 907	0.913
Viscosity @ 40 oC, cSt	33	67.5	99.5	144	220	314	460
Viscosity @ 100oC, cSt	5.5	8.7	11.3	14.5	19	24	31
Viscosity Index	102	100	99	98	97	95	95
Flash Point, COC, oC	210	232	236	248	268	280	292
Pour Point, oC	-18	-12	-9	-9	-6	-6	-6





#### BREMEN SUPER EP SEVERE DUTY GREASE NLGI # 0, 1, 2, 3, 4

#### **PERFORMANCE PROFILE:**

A top quality, smooth textured, Lithium base grease with high degree of extreme pressure protection, designed with highly refined base stocks, Lithium complex thickener and well balanced additive package. Surpassing the requirements of:

DIN 51502 KP1K, KP2K, KP3K, KP4K

DIN 51825 KP1K, KP2K, KP3K, KP4K

ISO L-XBCEB1, L-XBCEB2, L-XBCEB3, L-XBCEB4

#### **APPLICATION:**

Recommended for the lubrication of plain and rolling element bearings, joints couplings, linkages, pivots, open gears and all other moving or vibrating machine parts used in automotive, industries, mining, marine and other services, subject to severe slidings and shock loads at high service temperature. Perfectly suitable for centralized lubrication systems and frequent stop & go service.

#### **SUMMARY OF BENEFITS:**

- Provide long lubrication intervals.
- Outstanding structural stability to provide lubrication without softening or hardening.
- Highly effective control over rust, corrosion and oxidation.
- Good ability to resist water washout.
- Non corrosive to all metals.
- Enhanced antiwear and extreme pressure qualities to resist wiping action.
- Controlled oil bleeding to supply small amount of oil needed to form EHL film.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAL	TYPICAL VALUE				
NLGI consistency	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	
Range of use, OC	-20to130	-20 to130	-20 to130	-20 to130	-20 to130	
Dropping point , OC	175	185	185	185	190	
Timken OK Load, lbs	40	40	40	40	40	
Worked penetration @ 25 OC, dmm	370	325	280	235	190	



#### BREMEN SUPER MP HEAVY DUTY GREASE NLGI # 0, 1, 2, 3, 4

#### PERFORMANCE PROFILE:

A high quality, smooth textured, Lithium base multipurpose grease, designed with highly refined base stocks, Lithium complex thickener and balance additive package. Exceeds the requirements of:

DIN 51502 KL1K, KL2K, KL3K, and KL4K

DIN 51825 KL1K, KL2K, KL3K, and KL4K

ISO L-XBCDA1, L-XBCDA2, L-XBCDA3, L-BCDA4

#### APPLICATION:

Recommended for the efficient lubrication of plain and rolling element bearings, joints, couplings, linkages, pivots and all other mechanical parts used in automotive, industries, mining, marine and other services, subject to intense mechanical loads and thermal stresses. Also suitable for centralized lubrication systems.

#### **SUMMARY OF BENEFITS:**

- Outstanding protection against wear, rust and corrosion.
- Excellent structural stability to resist excessive softening or hardening as a result of shearing.
- Controlled oil bleeding to supply small amount of oil needed to form EHL film.
- Non corrosive to all metals.
- Reinforced ability to resist water washout.
- Effective resistance to centrifuging and oxidation at high service temperature.
- Excellent choice to simplify stock control.

CHARACTERISTICS	TYPICAL VALUE				
NLGI consistency Range of use, °C Dropping point , °C	<b>0</b> -20to130 175	<b>1</b> -20 to130 185	<b>2</b> -20 to130 190	<b>3</b> -20 to130 190	<b>4</b> -20 to130 195
Worked penetration @ 25 °C, dmm	370	325	280	235	190





#### BREMEN SUPER GP GENERAL PURPOSE GREASE NLGI # 0, 1, 2, 3, 4

#### **PERFORMANCE PROFILE:**

A good quality, smooth textured, Calcium base general purpose grease, formulated with highly refined base stocks Calcium soap thickener and balance additive package. Exceeds the requirements of:

DIN 51502 K1C, K2C, K3C, K4C

DIN 51825 K1B, K2B, K3B, K4B

ISO L-XBADA1, L-XBADA2, L-XBADA3, L-XBADA4

#### **APPLICATION:**

Suitable for the lubrication of vehicle chassis, water pump, farm, workshop and construction site machineries and other services, when water resistant is an important consideration.

#### **SUMMARY OF BENEFITS:**

- Fair structural stability.
- Better protection against rust, corrosion and wear.
- Good resistance to oxidation.
- Non corrosive to all metals.
- Outstanding ability to resist water washout.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAI	L VALUE			
NLGI consistency	0	1	2	3	4
Range of use, OC	-20 to52				
Dropping point , oC	80	90	90	90	95
Worked penetration @ 25 OC, dmm	370	325	280	235	190



# BREMEN SUPER HT HI-TEMP PERFORMANCE HEAT TRANSFER OIL ISO 32, 46, 68, 100

#### **PERFORMANCE PROFILE:**

A top quality versatile oil designed with highly refined base stocks and specially selected additive system. Recommended for heat transfer used in all closed circuit heat exchangers and other circulation equipments, operating upto 288 OC.Can also be used in hot or cold quenching system.

#### **SUMMARY OF BENEFITS:**

- Extended oil life.
- Excellent fluidity at low temperature ensures easy circulation.
- Outstanding thermal and oxidation stability at high temperature.
- Long term rust and corrosion protection.
- Excellent resistance to sludging and fouling of heat transfer zones.
- High specific heat and thermal conductivity for effective heat transfer.
- Strong demulsibility power and air release capability.

#### **TECHNICAL DATA:**

				<u> </u>		
CHARACTERISTICS	TYPICAL VALUE					
	32	46	68	100		
Sp. Gravity @ 15 oC	0.874	0.877	0.879	0.882		
Viscosity @ 40 OC, cSt	33	45	67.5	99.5		
Viscosity @ 100oC, cSt	5.5	6.70	8.7	11.3		
Viscosity Index	102	101	100	99		
Flash Point, COC, OC	205	218	232	240		
Pour Point, oC	-30	-27	-27	-21		

#### **IMPORTANT TO NOTE:**

Before starting new unit or restarting after maintenance or in the presence of residual moisture in the oil at normal operating temperature, the temperature of the unit should be reduced to around 100oC to blow off all the steam before returning to the normal operating temperature.





# BREMEN PNEUMATIC ARDUOUS DUTY PNEUMATIC OIL ISO 32, 46, 68, 100, 150

#### **PERFORMANCE PROFILE:**

A superb quality robust performance oil with high degree of extreme pressure protection, designed with highly refined base stocks and additive package based on Sulfur Phosphorus chemistry. Exceeds the requirements of:

#### GARDNER DENVER----- INGERSOLL RAND

#### **APPLICATION:**

Specifically recommended for the lubrication of heavy duty pneumatic tools and rock drills, used in mining construction and other services, subject to heavy, sustained and shock loads at high temperatures.

#### **SUMMARY OF BENEFITS:**

- Perfect lubrication powers in all operating conditions.
- Outstanding emulsifying power to lubricate the working surfaces effectively.
- Exceptional oxidation and thermal stability.
- Excellent resistance to foaming.
- Long term rust and corrosion protection.
- Excellent oiliness property to maintain a strong lubricant film.
- Improved extreme pressure properties to control excessive wear and prevent severe surface damage.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICA	TYPICAL VALUE				
	32	46	68	100	150	
Sp. Gravity @ 15 OC	0.874	0.877	0.879	0.882	0.889	
Viscosity @ 40 OC, cSt	33		67.5	99.5	144	
Viscosity @ 1000C, cSt	5.5	6.70	8.7	11.3	14.5	
Viscosity Index	102	101	100	99	98	
Flash Point, COC, OC	205	224	232	236	248	
Pour Point, OC	-12	-12			-9	
4-Ball EP, Weld Load (kg)	Pass	Pass	Pass	Pass	Pass	



### BREMEN SUPER COOLCUT SUPER PERFORMANCE SOLUBLE CUTTING OIL

#### **APPLICATION:**

A BREMEN quality versatile water soluble oil with innovative conception, designed with highly refined base stocks and well balanced additive package. Expressly recommended for use in all high speed, heavy duty metal cutting operations on ferrous and non ferrous metals, such as turning, milling, drilling, tapping, threading and cold sawing. Depending on the particular application, the rate of use is 3 to 10% of oil.

#### **SUMMARY OF BENEFITS:**

- Forms homogenous and extremely stable milky emulsion in both hard and soft water.
- Outstanding lubricating and cooling power necessary to ensure good work piece finish and extended tool life.
- Contains biocides and fungicides to give a long service life and to prevent emulsion breakdown and spoilage.
- Long term control over wear, rust and corrosion.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAL VALUE
Sp. Gravity @ 15 OC	0.933
Viscosity @ 40 OC, cSt	55
Viscosity @ 100 OC, cSt	7.8
Flash Point, COC, OC	130
Pour Point, OC	-9
Emulsion Test (3% emulsion)	Stable milky
Corrosion Test (3% emulsion)	Pass

#### IMPORTANT TO NOTE:

Store the product in closed premises to prevent deterioration of the product due to marked temperature variations.





# BREMEN SUPER SLIDEWAY STICK-SLIP PERFORMANCE MACHINE TOOL OIL ISO 32, 68, 220

#### **PERFORMANCE PROFILE:**

A premium quality, friction performance, multipurpose workshop oil, formulated with highly refined base stocks and friction modifier system based on inactive Sulfur chemistry. Exceeds the requirements of :

Cincinnati Milacron P-47, P-50, P-53----- DIN 51524 Part 2

Staticinemeter----- AGMA 250.04 (EP)

Schmidt (SKC) Inclined Tribotester----- Darmstadt Friction Rig

#### **APPLICATION:**

Recommended for the lubrication of all machine tool slideways and guides. Others uses are :

- As a hydraulic fluid in machines such as grinder.
- As a industrial gear oil.

#### **SUMMARY OF BENEFITS:**

- Strong film strength to maintain the required boundary film under heavy loads.
- Excellent antiwear capability to control wear under boundary condition.
- Improved proper frictional characteristics to prevent stick slip and chatter thus ensuring smooth machining and dimensional precision.
- Adequate adhesiveness to maintain film even at vertical surfaces.
- Long-term rust and corrosion protection.
- Outstanding separation capability for aqueous based cutting fluids.
- Minimize rejection rates and extended cutting tool life.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAL VALUE			
	32	68	220	
Sp. Gravity @ 15 OC	0.874	0879	0.901	
Viscosity @ 40 OC, cSt	33	67.5	220	
Viscosity @ 1000C, cSt	5.5	8.7	19	
Viscosity Index	102	100	97	
Flash Point, COC, OC	205	220	254	
Pour Point, OC	-12		-6	
CM Stick Slip Ratio (0.8 max)	0.76	0.76	0.73	



# BREMEN SUPER SPIN HIGH-SPEED PERFORMANCE SPINDLE OIL ISO 3, 10, 15, 22

#### **PERFORMANCE PROFILE:**

An excellent quality dispersant type oil designed with highly refined base stocks and specially selected additive system. Exceeds the requirements of :

Cincinnati Milacron P.62(10)----- NF E 60-200

DIN 51517 Part 2 CL 10, CL 22----- British Standard 6413 /2

#### APPLICATION:

Expressly recommended for the lubrication of high speed spindles used in hoseiry, textile and knitwear machineries.

#### **SUMMARY OF BENEFITS:**

- Strong film strength to maintain the required boundary film at very high speed
- Outstanding demulsibility power.
- Improved antiwear capability to provide smooth machine needles operations.
- Exceptional resistance to foaming and oxidation.
- Long term rust and corrosion protection.

CHARACTERISTICS	ТҮРІС	AL VALU	E		
	3	10	15	22	
Sp. Gravity @ 15 OC	0.835	0.853	0859	0.867	
Viscosity @ 40 OC, cSt	3.5	9.8		21.3	
Viscosity @ 1000C, cSt	-	2.5	3.4	4.2	
Viscosity Index	90	95	98	98	
Flash Point, COC, OC	110	160	180	190	
Pour Point, OC	-30	-12	-12	-9	





#### **BREMEN SUPER ENGINE OIL VT-SHPD SAE 15W/40**

#### **PERFORMANCE PROFILE:**

A superior quality multigrade oil with new conception, formulated with semi synthetic base stocks and state of artadditive technology. Exceeds the latest performance requirements of:

#### API CI-4

VW 500.00 / 501.00 / 505.00 Caterpillar ECF-3, ECF-2
Cummins CES 20081 Mack EO-O Premium Plus
Volvo VDS-4 Detroit Diesel Power Guard 93K218
ACEA E7/A3/B4 BMW Special Oil
MB 229.1, 228.1 Porsche

#### **APPLICATION:**

Recommended for the lubrication of most modern, high powered, supercharged or turbocharged gasoline and diesel engines operating under the most severe driving conditions. Specially suitable for repeated short trips, low speed driving for a long distance and high speed driving.

#### **SUMMARY OF BENEFITS:**

Lengthens oil changes period.

Perfect lubrication powers in all seasons.

Reduced maintenance costs through extended engine life.

Reduced running costs through improved oil and fuel efficiency.

Superior antifriction and engine cleaning properties.

#### **TECHNICAL DATA:**

CHARACTERISTICS	TYPICAL VALUE				
	15W/40				
Sp. Gravity @ 15 °C	0.886				
Viscosity @ 40 °C, cSt	110				
Viscosity @ 100 °C, cSt	15				
Viscosity Index	140				
Flash Point, COC, °C	220				
Pour Point, C	-27				
TBN, mgm KOH / gm	11				



#### **BREMEN DIESEL OIL SAE 40**

#### **PERFORMANCE PROFILE:**

An excellent quality oil formulated with highly refined base stocks and advanced additive package. Exceeds the requirements of :

#### **APPLICATION:**

Expressly recommended for turbocharged or atmospheric two stroke DETROIT DIESEL engines series 53, 71, 92 et 149 used in heavy and medium duty trucks, off highway equipments, handling machineries and generating sets, operating under severe conditions.

#### **SUMMARY OF BENEFITS:**

- Monograde.
- No VI improver added which results in no loss of viscosity and excellent control of wear.
- Low sulfated ash content.
- Exceptional protection against oxidation, high temperature deposits and bore polishing.
- Highly effective control over soot, wear, rust and corrosion to ensure long life of moving parts.
- Properly balanced detergency and dispersancy ensures a clean engine.
- High stability in operation.

CHARACTERISTICS	TYPICAL VALUE				
	40				
Sp. Gravity @ 15 °C	0.889				
Viscosity @ 40 °C, cSt	151.00				
Viscosity @ 100°C, cSt	15.10				
Viscosity Index	99				
Flash Point, COC, °C	240				
Pour Point, °C	-6				





#### **BREMEN HEAVY DUTY DIESEL OIL SAE 50**

#### **PERFORMANCE PROFILE:**

A premium quality robust performance oil, designed with highly refined base stocks and state of art additive technology. Exceeds the stringent requirements of :

API CD/SF----- CAT TO-2

Mil-L-2104C

#### APPLICATION:

Expressly recommended for turbocharged or atmospheric diesel and gasoline engines used in passenger cars, vans,trucks, off highway equipments, handling machineries and generating sets, burning fuels with a wide quality range (including high sulfur fuels) and operating under severe conditions. Also used in transmissions where Allison C-3 and CAT TO 2 fluids are recommended and in hydraulic systems, gear boxes and compressors where engine oil is

#### **SUMMARY OF BENEFITS:**

Longer maintenance intervals.

Excellent choice for mixed fleet services.

Better fuel economy.

Exceptional protection against oxidation, foaming, high temperature deposits and bore polishing.

Highly effective control over soot, wear, rust and corrosion to ensure long life of moving parts.  $\,$ 

Outstanding thermal behavior at high temperature.

Properly balanced detergency and dispersancy ensures a clean engine.

CHARACTERISTICS	TYPICAL VALUE				
	50				
Sp. Gravity @ 15 oC	0.901				
Viscosity @ 40 oC, cSt	220				
Viscosity @ 100oC, cSt	19				
Viscosity Index	97				
Flash Point, COC, oC	240				
Pour Point, oC	-9				
TBN, mgm KOH / gm	8				









#### **BREMEN MARINE TRUNK PISTON ENGINE OIL**

#### **PERFORMANCE PROFILE:**

Marine Trunk Piston Engine Oil specially designed for modern Medium Speed 4-stroke Marine Diesel Engines running on Intermediate Fuel Oil (IFO) or Heavy Fuel Oil (HFO)

#### **PRODUCT DESCRIPTION:**

It is a trunk piston engine oil designed for use in medium speed diesel engines operating on residual fuels in marine, power generation and industrial applications. The superior additive technology used in this oil provides excellent engine cleanliness & wear protection under different operating conditions. This oil is available in SAE 30 & 40 viscosity grades with a BN (Base Number) ranging from 30 to 55. These oils exhibit a high degree of water tolerance and have better water separation and base retention properties. These oils meet the performance requirements of API CF.

#### **USER BENEFITS:**

- Excellent detergency and dispersancy reduces build-up of soot & black sludge and keeps the engine cleaner.
- Acidic by products are effectively neutralized and the engine is protected from corrosive wear. Better demulsibility characteristics ensure water separation leading to trouble free operation.
- Robust anti-wear technology provides protection against piston & linear wear and good gear performance leading to reduction in maintenance costs.
- Improved thermo oxidative stability retards oil degradation facilitating extended oil life.

#### APPLICATION:

Recommended for medium speed diesel engines in marine, power generation and industrial applications operating on residual fuels.

The 3055 & 4055 with a BN of 55 are specifically formulated for engines operating on high sulphur residual fuels.

These oils are also specially recommended for those engines where the frequency of topping-up /replenishment is less frequent.

The 3040 & 4040 with a BN of 40 are suitable for engines operating on residual fuels having sulphur content in excess of 3.5%

The 3030 & 4030 with a BN of 30 are suitable for engines operating on residual fuels having sulphur content in excess of 2.5% and up to 3.5 %

Also recommended for general lubrication of shipboard equipment where specialized lubricants are not required or use of API CF quality oils are adequate



#### **TECHNICAL SHEET:**

SAE Grade	ASTM Test	30	40	30	40	30	40
BN	Method	30	30	40	40	55	55
Viscosity @ 100 C, cST	D445	11.1	14.5	11.1	14.5	11.1	14.5
Viscosity @ 40 C, cST	D445	92.2	139.3	89.8	135.9	86.4	130.8
Viscosity Index	D2270	97	95	97	95	97	95
Flash Point C	D92	220	220	220	220	220	220
Pour Point C	D97	-18	-18	-18	-18	-18	-18
BN, mg KOH/g	D2896	30	30	40	40	55	55
Density @ 15 C, kg/l	D1298	0.909	0.908	0.915	0.912	0.926	0.92



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