

# 4T-4 STROKE ENGINE OIL

## DESCRIPTION

4T-4 STROKE ENGINE OIL is multi-grade (20W/50) superior lubricating oil developed specifically for large motorcycle four-stroke gasoline engines working under severe duty conditions.

## APPLICATIONS

4T-4 STROKE ENGINE OIL is highly recommended for 4 Stroke motor engines such as Honda, Suzuki, Kawasaki, Yamaha and other motor cycles.

## BENEFITS

- Having stable viscosity both at low and high temperatures.
- Prevent wet clutch slippage
- Excellent oxidations stability under exposure to high operating temperature
- Keeping engine clean and providing excellent protection against piston deposit formation
- Providing optimum protection against rust and keeping engine parts from wear.
- Keeping motor engine operate much better so that transmission friction is made as minimum as possible.
- Protect vital gear & clutch component to extend its service life.

## PERFORMANCE LEVEL

API.....SL/CF  
 ACEA.....A3/B3/04  
 MB.....229.1  
 VW.....505 00  
 JASO.....MA

## PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE	TEST METHOD
Grade		-	20W/50	-
Specific Gravity	@ 15°C	-	0.8950	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	150.5	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	17.75	ASTM D-445
Viscosity Index		-	130	ASTM D-2270
Flash Point	COC	°C	240	ASTM D-92
Pour Point		°C	-27	ASTM D-97
Base Number		mg KOH/g	8	ASTM D-2896
Color		-	L3.5	ASTM D-1500
CCS Vis	@-15°C	cP	8500	ASTM D-5293

# ATF DEXRON III

## DESCRIPTION

ATF DEXRON III is a high performance, multifunctional power transmission fluid satisfying both General Motors GM Dexron III, Ford revised friction modified Mercon and Allison C-4 specifications.

## APPLICATIONS

ATF DEXRON III is recommended for passenger car and commercial vehicle with automatic transmission, hydraulic systems of mobile and off-high way equipment and industries equipment applications.

## BENEFITS

- Friction modifier provides smooth shifting & trouble free operations.
- Excellent oxidation resistance resulting in cleaner transmissions.
- Compatible with all types of rubbers, elastomers and metals and provides protection against wear and leakage.
- Excellent low-temperature fluidity.
- Better shear stability.
- Better component compatibility.

## PERFORMANCE LEVEL

Approved GM.....Dexron III H  
 Revised Ford Mercon  
 Allison.....C4  
 Allison.....TES-389

## PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE	TEST METHOD
Grade		-	ATF D III-H	-
Specific Gravity	@ 15°C	-	0.8540	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	34.30	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	7.300	ASTM D-445
Viscosity Index		-	185	ASTM D-2270
Flash Point	COC	°C	185.0	ASTM D-92
Pour Point		°C	-42	ASTM D-97
Color		-	Red	VISUAL

# AUTOMATIC TRANSMISSION FLUID DII

## DESCRIPTION

AUTOMATIC TRANSMISSION FLUID DII is formulated from special high quality solvent refined mineral base oil combined with special additives. It serves as a power transmission fluid in the torque converter, hydraulic fluid in the control and servo systems, as a lubricant for bearing and gears and as a friction-controlling medium for bands and clutches.

## APPLICATIONS

AUTOMATIC TRANSMISSION FLUID DII is formulated to meet the requirements of passenger car and light truck automatic transmissions, power steering and other hydraulic systems.

## BENEFITS

- Effective frictional characteristics for smooth shifting.
- Excellent fluidity at low temperature application.
- Good protection against wear.
- Reduced foaming and fluid loss under severe service conditions.
- Protection against high-temperature deposits in heavy duty service.

## PERFORMANCE LEVEL

Dexron II, Dexron.  
Type A suffix A.  
Allison C4.

## PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE	TEST METHOD
Grade		-	ATF D-II	-
Specific Gravity	@ 15°C	-	0.8525	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	33.70	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	7.300	ASTM D-445
Viscosity Index		-	190	ASTM D-2270
Flash Point	COC	°C	170	ASTM D-92
Pour Point		°C	-48	ASTM D-97
Color		-	Red	VISUAL

# GEAR OIL GP

## 90, 85W/90, 85W/140, 140

### DESCRIPTION

GEAR OIL GP is a high quality gear lubricant blended from solvent-refined mineral base oils and selected sulphur and phosphorous chemical additives. Due to its high shear stability they provide excellent protection for gears and can be used over a wide range of temperature.

### APPLICATIONS

GEAR OIL GP is recommended for the type of service characteristics of gears, particularly hypoid, in passenger cars and other automotive type equipment, operated under high speed, low torque and low-speed/high torque conditions.

### BENEFITS

- Formulated for automotive high speed gears.
- Excellent lubrication without channeling at low-temperatures.
- Superior protection against rusting, pitting and corrosion.
- Suitable for heavy duty service in truck and bus gears operating at high temperatures.
- Provides good protection against wear.

### PERFORMANCE LEVEL

API.....GL-4

### PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE				TEST METHOD
Grade		-	90	85W/90	85W/140	140	-
Specific Gravity	@ 15°C	-	0.9010	0.9005	0.9070	0.9070	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	200.0	200.0	460.0	460.0	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	17.50	17.50	30.50	30.50	ASTM D-445
Viscosity Index		-	96	96	96	96	ASTM D-2270
Flash Point	COC	°C	220	220	220	220	ASTM D-92
Pour Point		°C	-9	-15	-12	-9	ASTM D-97
Color		-	3.0	3.0	3.5	3.5	ASTM D-1500
Color		-	3 Dil				ASTM D-1500

# GEAR OIL GX

## 90, 85W/90, 80W/90, 85W/140, 140

### DESCRIPTION

GEAR OIL GX series is an extreme-pressure automotive gear lubricant formulated from solvent refined mineral base oils and contains special sulphur phosphorus additives to produce a superior gear lubricant with extreme pressure characteristics and thermal stability for automotive applications over a wide range of temperatures and heavy duty conditions.

### APPLICATIONS

GEAR OIL GX is recommended for the type of service characteristics of gears, particularly hypoid, in passenger cars and other automotive equipments operated under high-speed/shock load, high-speed/low torque and low-speed/high-torque conditions.

### BENEFITS

- Excellent protection against wearing and scoring produced by high speed and heavy loads.
- Suitable for a wide variety of applications and service conditions.
- Superior protection against rusting, pitting and corrosion.
- Excellent load carrying capacity and good antifoam properties.
- Compatible with seals and gaskets.

### PERFORMANCE LEVEL

API.....GL-5

**NOTE:**

ADNOC Distribution GEAR OIL GX LS 90 (GL-5) is a limited slip gear oil available on request.

### PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE					TEST METHOD
Grade		-	90	85W/90	80W/90	85W/140	140	-
Specific Gravity	@ 15°C	-	0.9030	0.9030	0.8965	0.9085	0.9060	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	200.0	200.0	140.0	405.0	405.0	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	17.50	17.50	14.00	28.25	28.25	ASTM D-445
Viscosity Index		-	96	96	96	96	96	ASTM D-2270
Flash Point	COC	°C	220	220	210	220	220	ASTM D-92
Pour Point		°C	-9	-12	-30	-12	-9	ASTM D-97
Color		-	2.5	2.5	2.5	3.5	3.5	ASTM D-1500
Color		-	3 Dil					ASTM D-1500

# GEAR OIL GX LS 90

## LIMITED SLIP DIFFERENTIAL GEAR OIL

### DESCRIPTION

ADNOC GEAR OIL GX LS 90 is an extreme pressure, API GL-5 automotive gear oil specially designed to meet the requirements of many limited-slip differentials of self-locking axles fitted in passenger car, utility vehicles, earth moving and agricultural equipments. It is friction-modified to help eliminate the stick-slip chatter associated with low-speed, high-torque operation of limited-slip differentials.

### BENEFITS

- Good anti-rust & anti-corrosion properties
- Extreme pressure characteristics
- Eliminates vibration and chatter in stressed self-locking axles.
- Stable at high temperatures.
- Controlled and continuous frictional properties
- Provides excellent protection against worm or stripped gear teeth under all operating conditions.
- Compatible with all conventional seal material used by axle manufacturers.

### PERFORMANCE LEVEL

It meets or exceeds

- ZF against ZF TE-ML 05C, 12C
- STEYR & FORD M2C 104A

### TYPICAL INSPECTIONS

*The values shown here are representative of current production and may vary within modest range.*

TYPICAL INSPECTION		ADNOC GEAR OIL GX LS 90
Specific Gravity	@ 15°C	0.899
Kin. Viscosity	@ 40°C, cSt	166
Kin. Viscosity	@ 100°C, cSt	17
Viscosity Index		109
Flash Point	COC °C	212
Pour Point	°C	-33

# OUT BOARD ENGINE OIL

## DESCRIPTION

OUTBOARD ENGINE OIL is an ashless lubricating oil formulated to meet the critical requirements of high performance, water or air cooled two-stroke gasoline engines.

## APPLICATIONS

OUTBOARD ENGINE OIL is recommended for high output two-stroke water or air cooled gasoline engines. It should be added with the fuel in the ratio as recommended by the equipment manufacturer.

## BENEFITS

- Controls combustion chamber and spark plug deposits build-up.
- Excellent miscibility with gasoline.
- Keeps pistons, rings, plugs and exhaust ports clean.
- Resistance to low temperature gel formation.
- Protects against rust by fresh or salt water.

## PERFORMANCE LEVEL

NMMA ..... TC-W3 R

## PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE	TEST METHOD
Grade		-	-	-
Specific Gravity	@ 15°C	-	0.8785	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	Report	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	7.30	ASTM D-445
Flash Point	PMCC	°C	72	ASTM D-93
Pour Point		°C	-30	ASTM D-97
Color		-	Green	VISUAL

# SUPREME 2T ENGINE OIL

## DESCRIPTION

SUPREME 2T ENGINE OIL is a semi-synthetic two-cycle oil formulated from a special blend of mineral and synthetic oil and low-ash additive package to release maximum power with minimum drag.

## APPLICATIONS

SUPREME 2T ENGINE OIL is recommended for high performance, motorcycles, especially for road use. It is also recommended for smaller engine fitted in scooters, lawn mowers and other small equipment. It should be added with gasoline in the ratio recommended by the equipment manufacturer.

## BENEFITS

- Superior combustion characteristics of the special blend of Semi-Synthetic and highly refined mineral oils and additives, significantly reduces visible smoke in exhaust emission.
- Controls combustion chamber and spark plug deposit build-up.
- Excellent miscibility with gasoline.
- Keeps pistons, rings, plugs and exhaust ports clean.

## PERFORMANCE LEVEL

JASO.....FD  
 API.....TC  
 ISO.....L-EGD

## PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE	TEST METHOD
Grade		-	-	-
Specific Gravity	@ 15°C	-	0.8720	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	-	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	9.0	ASTM D-445
Viscosity Index		-	-	ASTM D-2270
Flash Point	PMCC	°C	70	ASTM D-93
Pour Point		°C	-30	ASTM D-97
Color		-	2.0	ASTM D-1500



# SUPREME PLUS 2T ENGINE OIL

## DESCRIPTION

SUPREME PLUS 2T ENGINE OIL is an advanced technology top graded 2-stroke motor oil formulated with fully synthetic base oil and low-ash additive package to release maximum power with minimum drag.

## APPLICATIONS

SUPREME PLUS 2T ENGINE OIL is recommended for high performance motorcycles, especially for road use. It is also recommended for smaller engines fitted in scooters, lawnmowers and other small equipment. It should be added with gasoline in the ratio recommended by the equipment manufacturer.

## BENEFITS

- The superior combustion characteristics of the special blend of unique fully synthetic oil and additives significantly reduce visible smoke in exhaust emission
- Controls combustion chamber and spark-plug deposit build-up.
- Excellent miscibility with gasoline.
- Keeps pistons, rings, plugs and exhaust ports clean.

## PERFORMANCE LEVEL

JASO.....FD  
 API.....TC  
 ISO.....L-EGD

## PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE	TEST METHOD
Grade		-	-	-
Specific Gravity	@ 15°C	-	0.8720	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	-	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	9.00	ASTM D-445
Viscosity Index		-	-	ASTM D-2270
Flash Point	PMCC	°C	70	ASTM D-93
Pour Point		°C	-30	ASTM D-97
Color		-	2.0	ASTM D-1500

# TRANSMISSION OIL

## T4 50

### DESCRIPTION

TRANSMISSION OIL T4 is specially developed to meet the new stringent specifications of both Caterpillar TO-4 and Allison C-4 transmission requirement. It is formulated from high quality, solvent refined base oils and balanced additive system providing excellent characteristics.

### APPLICATIONS

TRANSMISSION OIL T4 is recommended specifically for Caterpillar power shift transmissions, drive trains, wet brakes and final drives requiring the TO-4 specification. It is recommended for on-highway and off-highway automatic transmissions using the Allison C-4 specification. It can also be used where former TO-2 and C3 specifications are applicable.

### BENEFITS

- Excellent protection against wearing and scoring produced by high speed and heavy loads.
- Provides smoother operation and extends clutch disc life.
- Higher anti-wear protection.
- Longer drain intervals.
- Effective rust and corrosion protection.
- Excellent multifunctional characteristics make it also suitable for some hydraulic and light-duty gear applications.

### PERFORMANCE LEVEL

CAT TO-4.  
Allison C4.

### PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES	UNITS	VALUE	TEST METHOD	
Grade	-	T4- 50	-	
Specific Gravity	@ 15°C	-	0.9080	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	203.0	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	17.75	ASTM D-445
Viscosity Index	-	-	95	ASTM D-2270
Flash Point	COC	°C	250	ASTM D-92
Pour Point	-	°C	-9	ASTM D-97
Color	-	-	3.5	ASTM D-1500
Base Number	-	mg KOH/gm	11.6	ASTM D-2896

# VOYAGER BRONZE

## 20W/50

### DESCRIPTION

VOYAGER BRONZE is blended with the most advanced additive package, which enables it to give exceptional performance under the most severe operating conditions. It provides effective protection against oxidation, wear and corrosion under high temperature operations and remains a stable multi-grade product. VOYAGER BRONZE provides high resistance to sludge, low volatility characteristics and low oil consumption.

### APPLICATIONS

VOYAGER BRONZE is recommended for gasoline and diesel engine passenger cars, vans, light trucks of every make and type, turbo charged or naturally aspirated. VOYAGER BRONZE is suitable and exceeds the performance requirements of most European, Japanese and American car manufacturers.

### BENEFITS

- Excellent engine protection.
- Eliminates seasonal oil changes.
- Maintains a high order of engine cleanliness.
- Excellent control of deposit formation.
- Excellent oxidation stability at high temperature.
- Excellent shear stability, maintains viscosity grade.
- Protects against rust, wear and sludge formation.
- Less oil top-up.

### PERFORMANCE LEVEL

API .....SL/CF  
 ACEA .....A3/B3/04  
 MB .....229.1  
 VW .....505 00

Meets the quality requirements of major gasoline engine manufacturers in the USA, Europe and Japan.

### PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE	TEST METHOD
Grade		-	20W/50	-
Specific Gravity	@ 15°C	-	0.8926	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	151.10	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	17.75	ASTM D-445
Viscosity Index		-	130	ASTM D-2270
Flash Point	COC	°C	240	ASTM D-92
Pour Point		°C	-27	ASTM D-97
Base Number		mg KOH/g	8	ASTM D-2896
Color		-	Green	VISUAL
CCS Vis.	@ -15°C	cP	8500	ASTM D-5293

# VOYAGER GOLD

## 5W/30, 5W/40

### DESCRIPTION

VOYAGER GOLD is a top-tier, environment friendly, synthetic engine oil designed to provide maximum engine protection for all passenger cars, racing cars, vans, light trucks and 4WD recreational vehicles with exhaust treatment. VOYAGER GOLD is suitable for high performance engines, especially those fitted with turbo chargers and superchargers, operating under the most severe conditions. VOYAGER GOLD is formulated with fully synthetic high quality base oil in combination with innovative additive technology to provide outstanding characteristics and properties.

### APPLICATIONS

VOYAGER GOLD is a top-tier motor oil designed to lubricate both gasoline and diesel fueled passenger cars, racing cars, vans, light trucks and 4WD recreational vehicles with exhaust treatment.

### BENEFITS

Longer oil life and lower oil consumption with outstanding protection against wear, rust, corrosion, soot handling and exceptional engine cleanliness.

- Exceptional thermal stability and oxidation resistance.
- Outstanding low temperature fluidity, excellent shear stability and stable viscosity during operation.
- Strong oil film stops metal to metal contact.
- Superior protection of exhaust emission control system.
- Multi-viscosity characteristic ensure rapid oil circulation on start-up the engine.

### PERFORMANCE LEVEL

API ..... SN/CF  
 ACEA .....A5/B5/04,C3/08  
 MB.....229.51  
 VW ..... 502 00, 505 00 ,505 01  
 BMW..... LL 04  
 PORSCHE ..... A 40

Meets quality requirements of most gasoline engine manufacturers in the USA, Europe, Japan and Korea.

### PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE		TEST METHOD
Grade		-	5W/30	5W/40	-
Specific Gravity	@ 15°C	-	0.8554	0.8560	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	61.00	81.00	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	11.00	13.75	ASTM D-445
Viscosity Index		-	175	175	ASTM D-2270
Flash Point	COC	°C	230	230	ASTM D-92
Pour Point		°C	-39	-39	ASTM D-97
Base Number		mg KOH/g	8.5	8.5	ASTM D-2896
Color		-	3	3	ASTM D-1500
CCS Vis	@ -30°C	cP	6000	6000	ASTM D-5293

# VOYAGER HD

## 15W/40, 10W, 20W/20, 30, 40, 50

### DESCRIPTION

VOYAGER HD is a heavy duty diesel engine oil. It is developed primarily for high output naturally aspirated or supercharged diesel engines, operating under severe conditions. VOYAGER HD is formulated from high quality base oils and chemical additives. It can be used in diesel-powered equipment both off-highway and on-highway types.

### APPLICATIONS

VOYAGER HD is recommended for use in high-output diesel engines fitted in automotive, agricultural and construction equipments, operating in fleet and construction business where relatively high sulphur fuel is used and other severe service factors are considered.

### BENEFITS

- Excellent protection against the effects of high sulphur fuels.
- Good control on high temperature deposits.
- Improved resistance to ring sticking, ring and cylinder wear, valve and combustion deposits.

### PERFORMANCE LEVEL

API ..... CF for all grades  
 API ..... CF-4 (for 15W/40)  
 Allison.....C3

### PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE						TEST METHOD
Grade		-	15W/40	10W	20W/20	30	40	50	-
Specific Gravity	@ 15°C	-	0.8820	0.8855	0.8870	0.8960	0.9010	0.9040	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	99.00	46.50	72.50	93.5	134.3	197.2	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	13.75	6.75	9.0	10.75	13.75	17.75	ASTM D-445
Viscosity Index		-	140	98	97	98	98	97	ASTM D-2270
Flash Point	COC	°C	230	225	230	230	250	260	ASTM D-92
Pour Point		°C	-27	-33	-27	-18	-15	-9	ASTM D-97
Base Number		mg KOH/g	10	10	10	10	10	10	ASTM D-2896
Color		-	2.5	L2.5	L2.5	L2.5	L3.0	3.0	ASTM D-1500
CCS Vis	°C	cP	6500	6500	6000	-	-	-	ASTM D-5293
		°C	@-20	@-25	@-15				

# VOYAGER HPSD

## 15W/40, 20W/50, 10W, 30, 40, 50

### DESCRIPTION

VOYAGER HPSD is a premium quality, heavy duty diesel engine oil designed for the high performance requirement of modern, highly rated turbocharged diesel engines in road transport and off-highway operations.

### APPLICATIONS

VOYAGER HPSD is suitable for use in a variety of highly rated turbocharged and naturally aspirated high speed diesel engines. It can also be used for some types of gasoline engines, making it ideal for mixed fleet operations. It can be used as C4 transmission fluid in Allison transmissions and in Caterpillar transmissions.

### BENEFITS

- Extended oil drain period.
- Large reduction in bore polishing.
- Maintains excellent engine cleanliness.
- Increases engine protection and hence longer engine life.
- Maximum control of piston deposits and ring sticking.
- Excellent shear stability.

### PERFORMANCE LEVEL

API ..... CH-4/SJ  
 ACEA .....A2/B3/E2/04  
 MB .....228.3  
 MAN .....271  
 VOLVO.....VDS  
 MACK.....EO-L Plus  
 MTU.....TYPE 1  
 VW.....50100 505 00

**NOTE:**

Due to some licensing and approval rules and regulations set by API & OEM's above performance levels may not apply to All SAE viscosity grades although they have the same additive treat rates. For more details please contact ADNOC Distribution Technical Services.

### PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE						TEST METHOD
Grade		-	15W/40	20W/50	10W	30	40	50	-
Specific Gravity	@ 15°C	-	0.8810	0.8925	0.8795	0.8800	0.8850	0.8995	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	99.10	150.5	49.00	98.00	134.4	196.5	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	13.75	17.75	7.00	11.00	13.75	17.75	ASTM D-445
Viscosity Index		-	140	130	98	98	98	98	ASTM D-2270
Flash Point	COC	°C	230	240	225	235	250	260	ASTM D-92
Pour Point		°C	-27	-27	-33	-18	-15	-9	ASTM D-97
Base Number		mg KOH/g	10	10	10	10	10	10	ASTM D-2896
Color		-	3.0	3.0	3.0	3.0	3.0	L3.5	ASTM D-1500
CCS Vis		cP	6500	8500	6500	-	-	-	ASTM D-5293
		°C	@-20	@-15	@-25	-	-	-	

# VOYAGER PLUS

## 15W/40, 20W/50, 40, 50

### DESCRIPTION

VOYAGER PLUS is a premium high quality engine oil. It is an ideal mixed fleet engine oil. It is also suitable for many brands of diesel engines, either made in America, Europe, Japan or other Asian countries because it has global performance level DH D-1. The additive used in blending VOYAGER PLUS has proven its high performance in the field.

### APPLICATIONS

VOYAGER PLUS is designed for use in the most severe diesel engines. It is used in high speed, high load conditions, off highway and on-highway vehicles. It is recommended for most types of diesel engines, whether naturally aspirated super charged or turbo-charged.

VOYAGER PLUS is a universal engine oil that can be used in mixed fleet applications since it meets the high performance specification for gasoline engines and also for light duty diesel cars, vans and buses.

### BENEFITS

- Very good oxidation stability and soot handling capability so it has longer drain interval.
- Very good capability in preventing wear at valve train, piston ring and liner caused by high soot content and corrosion.
- Very good detergency and dispersancy ability to prevent the formation for deposit and sludge in the engine.
- Optimal viscosity either at high or low oil operation temperatures.
- Mixed fleet engine oil for American, European and Japanese vehicles.
- Universal engine oil for both old and new diesel engine.
- Excellent shear stability.

### PERFORMANCE LEVEL

API .....CI4/SL  
 GLOBAL.....DHD-1  
 ACEA .....E7/A3/B4/04  
 MB .....228.3  
 MAN .....3275  
 VOLVO.....VDS3  
 MACK.....EO-M Plus  
 MTU.....TYPE 2  
 CUMMINS.....20072/1/6/7/8  
 RVI.....RLD/RLD2  
 CAT.....ECF 1

**NOTE:**

Due to some licensing and approval rules and regulations set by API & OEM's above performance levels may not apply to all SAE viscosity grades although they have the same additive treat rates. For more details please contact ADNOC Distribution Technical Services.

### PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE				TEST METHOD
Grade		-	15W/40	20W/50	40	50	-
Specific Gravity	@ 15°C	-	0.8800	0.8890	0.8850	0.9010	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	99.00	150.5	134.5	198.0	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	13.75	17.75	13.75	17.75	ASTM D-445
Viscosity Index		-	140	130	98	98	ASTM D-2270
Flash Point	COC	°C	230	240	250	260	ASTM D-92
Pour Point		°C	-27	-27	-15	-9	ASTM D-97
Base Number		mg KOH/g	10	10	10	10	ASTM D-2896
Color		-	3.0	3.0	3.0	3.5	ASTM D-1500
CCS Vis		cP	6500	8500	-	-	ASTM D-5293
		°C	@ -20	@ -15	-	-	

# VOYAGER RR SUPER-P

## DESCRIPTION

VOYAGER RR SUPER-P is designed to meet the demands of severe service imposed by the newer engines particularly when operating on high sulphur fuels. It is formulated from high-quality base stocks together with zinc free additives to give superior engine protection. It provides superior thermal stability, oxidation resistance, high alkalinity, high detergent and dispersant properties.

## APPLICATIONS

VOYAGER RR SUPER-P is designed to lubricate the two-stroke General Motors-Electro Motive Division (EMD) engines used in railway, marine, offshore and power generation service.

## BENEFITS

- Excellent oxidation stability.
- Good alkalinity retention.
- Excellent protection of silver-coated and turbocharger bearings of EMD engines.
- Suitable for railroad and marine engines which require zinc-free oils.

## PERFORMANCE LEVEL

API .....CF  
LMOA.....Generation V

## PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE	TEST METHOD
Grade		-	-	-
Specific Gravity	@ 15°C	-	0.8800	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	134.3	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	13.75	ASTM D-445
Viscosity Index		-	98	ASTM D-2270
Flash Point	COC	°C	250	ASTM D-92
Pour Point		°C	-15	ASTM D-97
Base Number		mg KOH/g	17	ASTM D-2896
Color		-	3 Dil	ASTM D-1500



# VOYAGER SILVER

## 10W/40

### DESCRIPTION

VOYAGER SILVER is a high quality Semi-Synthetic multi-grade and multipurpose gasoline engine oil. Voyager Silver is blended from high quality Semi-Synthetic base oil with the most advanced additive package which enables it to give exceptional performance under the most severe operating conditions. VOYAGER SILVER is developed for gasoline and diesel car engines while meeting and complying with the requirements of the latest direct injection engines and conventional engines as well.

### APPLICATIONS

VOYAGER SILVER is recommended for gasoline and diesel engine passenger cars, vans, light trucks, turbo charged or naturally aspirated. VOYAGER SILVER is suitable and exceeds the performance requirements of most European, Japanese and American car manufacturers.

### BENEFITS

- High and constant quality by excellent detergent properties giving greater engine cleanliness for enhanced performance.
- High Viscosity Index and excellent shear stability results in stable viscosity during operation.
- Less oil top-up.
- Superior anti-wear properties protect the engine's most sensitive parts.
- Easy cold start and ideal lubrication at elevated temperatures ensures low oil consumption and cold start protection against wear.

### PERFORMANCE LEVEL

API ..... SL/CF  
 ACEA ..... A3/B4/08  
 MB..... 229.1  
 VW ..... 501. 01, 505 00

Meets quality requirements of most gasoline and diesel passenger car manufacturers in the USA, Europe, Japan and Korea.

### PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE	TEST METHOD
Grade		-	10W/40	-
Specific Gravity	@ 15°C	-	0.8685	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	93.30	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	13.80	ASTM D-445
Viscosity Index		-	150	ASTM D-2270
Flash Point	COC	°C	230	ASTM D-92
Pour Point		°C	-30	ASTM D-97
Base Number		mg KOH/g	8.0	ASTM D-2896
Color		-	L3.5	ASTM D-1500
CCS Vis	@ -25°C	cP	6500	ASTM D-5293

# VOYAGER SJ

## 20W/50, 40

### DESCRIPTION

VOYAGER SJ is a high quality gasoline engine oil for use in passenger cars and light trucks. It is formulated from selected base oils and special chemical additives which provide oxidation stability and high detergent & dispersant characteristics.

### APPLICATIONS

VOYAGER SJ is recommended for supercharged or naturally aspirated gasoline engines, in passenger cars and light trucks requiring the manufacturer's recommended API service category SJ. It can also be used where lower API level oils are recommended.

### BENEFITS

- High oxidation stability.
- Protects against wear, rust, corrosion and sludge formation.
- Minimize deposit formation at high temperatures.

### PERFORMANCE LEVEL

API .....SJ/CF

### PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE		TEST METHOD
Grade		-	20W/50	40	-
Specific Gravity	@ 15°C	-	0.8900	0.8850	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	162.3	135.0	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	17.75	13.75	ASTM D-445
Viscosity Index		-	120	97	ASTM D-2270
Flash Point	COC	°C	240	250	ASTM D-92
Pour Point		°C	-27	-15	ASTM D-97
Base Number		mg KOH/g	6	6	ASTM D-2896
Color		-	Red	L3.0	VISUAL/ASTM D-1500
CCS Vis	@ -15°C	cP	8500	-	ASTM D-5293

# VOYAGER STUO

## 15W/40

### DESCRIPTION

VOYAGER STUO is designed to serve nearly the entire farm lubricating oil needs all year round in all types of tractor engines, transmissions, final drives, hydraulic system and brakes.

### APPLICATIONS

VOYAGER STUO is recommended for use in gasoline engines and other utility vehicles around the farm. It can be used as transmission oil, hydraulic oil, wet-brakes and power take-off clutches.

### BENEFITS

- Multi application additive package enables use in engines, transmission, final drives and hydraulic system.
- Protection against acid, varnish, carbon deposits, formation of gums, and reduces oil thickening.
- Multi-viscosity characteristics ensure rapid oil circulation on start-up, preventing wear.
- Special friction modifier component that allows smooth action of the wet brakes and power take-off clutches.

### PERFORMANCE LEVEL

API .....CE/SF  
 CCMC.....D3/G3  
 MIL.....L-2104D  
 MB .....227.1  
 API .....GL-4  
 CAT.....TO-2  
 Allison.....C4  
 John Deere.....J-20A  
 Ford.....M2C 159B  
 Massey Ferguson.....M 1139  
 ZF TE-ML....06 page 3 & 4 Part B & 07  
 Mack.....EOK-2

### PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE	TEST METHOD
Grade		-	15W/40	-
Specific Gravity	@ 15°C	-	0.8760	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	113.0	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	13.75	ASTM D-445
Viscosity Index		-	120	ASTM D-2270
Flash Point	COC	°C	230	ASTM D-92
Pour Point		°C	-27	ASTM D-97
Base Number		mg KOH/g	11	ASTM D-2896
Color		-	L3.0	ASTM D-1500
CCS Vis	@ -20°C	cP	6500	ASTM D-5293

# VOYAGER ULTRA

## 15W/40

### DESCRIPTION

VOYAGER ULTRA is an ultra high performance diesel engine oil designed to meet the most severe performance requirements of the latest high output. Low emission lubricants are required for Environment Protection Agency (EPA) regulation compliant diesel engine equipped with aftertreatment devices such as diesel oxidation catalysts and particulate filters.

### APPLICATIONS

VOYAGE ULTRA exceeds all the performance criteria for the new CJ4 service category for heavy duty diesel engine oil recommended for.

- Naturally aspirated and turbocharged high speed, four stroke diesel engine.
- Stop and go vehicles in high soot loading services.
- New diesel engines with exhaust emission control systems.
- Older on-highway diesel engines requiring improved protection.
- Ideal for mixed fleet including gasoline applications.
- Off or on-highway vehicles.

### BENEFITS

- Exceptional oxidation stability at high temperature and soot control minimizes degradation sludge formation and oil thickening consequently resulting in longer drain intervals.
- Multipurpose oil for both old and new engines including engines equipped with aftertreatment devices such as diesel oxidation catalysts and particulate filters.
- Shear-stable Viscosity Index Improver prevents oil flow through the piston rings by maintaining oil viscosity in the high temperature ring belt area, while special low volatility reduces oil evaporation.
- Good dispersion to avoid oil thickening and abrasive polishing wear.

### PERFORMANCE LEVEL

API ..... CJ-4/CI-4 PLUS/CI-4/SM  
 ACEA .....E9/08  
 MB .....228.31  
 MAN .....3275  
 VOLVO.....VDS4  
 MACK..... EO-O Premium Plus  
 MTU..... TYPE 2  
 CUMMINS..... 20081  
 CAT..... ECF-1-a  
 Detroit Diesel..... DDC 93K218

### PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE	TEST METHOD
Grade		-	5W/30	-
Specific Gravity	@ 15°C	-	0.8554	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	61.00	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	11.00	ASTM D-445
Viscosity Index		-	175	ASTM D-2270
Flash Point	COC	°C	230	ASTM D-92
Pour Point		°C	-39	ASTM D-97
Base Number		mg KOH/g	8.5	ASTM D-2896
Color		-	3	ASTM D-1500
CCS Vis	@ -20°C	cP	6000	ASTM D-5293

# VOYAGER UNIVERSAL S3 415

## DESCRIPTION

VOYAGER UNIVERSAL S3 415 is 15 TBN oil. It is a high performance diesel engine oil of CF quality for use in engines operating on relatively high sulphur fuels. It is formulated from high quality base oils and additives. It is high alkaline-reserve oil suitable for medium and high-speed diesel engines using high sulphur distillate fuels.

## APPLICATIONS

VOYAGER UNIVERSAL S3 415 is recommended for use in high-output diesel engines where service factors require this quality of oil. It is suitable for Caterpillar pre-combustion type engines and other diesel engines using high sulphur fuel.

## BENEFITS

- Excellent protection against corrosive wear in severe diesel service.
- Minimize rust and corrosion.
- Good detergent and dispersant properties.
- Contain high alkalinity reserve.

## PERFORMANCE LEVEL

API .....CF

## PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE	TEST METHOD
Grade		-	S3 415	-
Specific Gravity	@ 15°C	-	0.8986	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	135.0	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	13.75	ASTM D-445
Viscosity Index		-	97	ASTM D-2270
Flash Point	COC	°C	250	ASTM D-92
Pour Point		°C	-15	ASTM D-97
Base Number		mg KOH/g	15.5	ASTM D-2896
Color		-	3.0	ASTM D-1500

# VOYAGER UNIVERSAL S3 420, 520

## DESCRIPTION

VOYAGER UNIVERSAL S3 420, 520 are 20 TBN oils. They are high performance diesel engine oils of CF quality for use in engines operating on relatively high sulphur fuels. They are formulated from high quality base oils and additives. They are high alkaline-reserve oils suitable for medium and high-speed diesel engines using high sulphur distillate fuels.

## APPLICATIONS

VOYAGER UNIVERSAL S3 420, 520 are recommended for use in high-output diesel engines where service factors require this quality of oil. They are suitable for Caterpillar pre-combustion type engines and other diesel engines using high sulphur fuel.

## BENEFITS

- Excellent protection against corrosive wear in severe diesel service.
- Minimize rust and corrosion.
- Good detergent and dispersant properties.
- Contain high alkalinity reserve.

## PERFORMANCE LEVEL

API .....CF

## PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE		TEST METHOD
Grade		-	S3 420	S3 520	-
Specific Gravity	@ 15°C	-	0.9000	0.9030	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	134.5	198.0	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	13.75	17.75	ASTM D-445
Viscosity Index		-	98	97	ASTM D-2270
Flash Point	COC	°C	250	260	ASTM D-92
Pour Point		°C	-15	-9	ASTM D-97
Base Number		mg KOH/g	20.5	20.5	ASTM D-2896
Color		-	3.0	3.5	ASTM D-1500

# VOYAGER UNIVERSAL S3+ 10W, 30, 40, 50

## DESCRIPTION

VOYAGER UNIVERSAL S3+ is premium quality engine oil suitable for wide variety of engines including super charged diesel engines. It is also suitable for Detroit two-stroke GM engines with an ash content less than 1%wt. VOYAGER UNIVERSAL is formulated from high quality base stocks and specially selected additive package.

## APPLICATIONS

VOYAGER UNIVERSAL S3+ is recommended for a wide variety of diesel engines including super charged, Detroit two-stroke GM, heavy duty machineries, stationary engines, transport and agriculture equipment.

## BENEFITS

- Reduces bore polishing.
- Excellent protection against wear.
- Improved resistance to ring sticking, ring and cylinder wear.
- Liner wear, valve and combustion deposits.

## PERFORMANCE LEVEL

API .....CF/CF-2

## PRODUCT TYPICAL CHARACTERISTICS

PROPERTIES		UNITS	VALUE				TEST METHOD
Grade		-	S3+10W	30	40	50	-
Specific Gravity	@ 15°C	-	0.8839	0.8957	0.8990	0.9020	ASTM D-1298
Viscosity	@ 40°C	mm <sup>2</sup> /s	46.50	97.00	134.2	198.0	ASTM D-445
	@ 100°C	mm <sup>2</sup> /s	6.75	11.00	13.75	17.75	ASTM D-445
Viscosity Index		-	98	98	98	97	ASTM D-2270
Flash Point	COC	°C	225	235	250	260	ASTM D-92
Pour Point		°C	-33	-18	-15	-9	ASTM D-97
Base Number		mg KOH/g	8	8	8	8	ASTM D-2896
Color		-	2.0	2.5	L3.0	3.0	ASTM D-1500
CCS Vis	@ -25°C	cP	6500	-	-	-	ASTM D-5293
		°C	@-20	@-15	@-25	-	