

TABLE OF EQUIVALENTS

MAIN		AVIN	CASTROL	CHEVRON	CYCLON	ELIN	ENOC	EXXONMOBIL	
CYLINDER OIL	BN 25	NEPTUNE 25 SAE 50	N/A	TARO SPECIAL HT LF	NAUTILUS VLS 25	ELIN CDO 25 (VLS)	ENOC STRATA CYL 525	MOBILGARD 525	
	BN 40	NEPTUNE 40 SAE 50	CYLTECH-40SX	TARO ULTRA 40	NAUTILUS LS 50	ELIN CDO 40 (VLS)	ENOC STRATA CYL 540	MOBILGARD 540	
	BN 70	NEPTUNE 70 SAE 50	CYLTECH 70	TARO SPECIAL HT 70	NAUTILUS HEAVY SAE 50	ELIN CDO 70	ENOC STRATA N570	MOBILGARD 570	
SYSTEM OIL		PANOIL M 530	CDX-30	VERITAS 800 MARINE 30	ARMOR MEDIUM SAE 30	ELIN CDS 30	ENOC STRATA SMO 30	MOBILGARD 300 (C)	
DIESEL GENERATOR OIL (TRUNK PISTONS ENGINE OIL)	SAE 30	BN 12/15	ARGO 12 SAE 30	MHP 153	DELO 1000 MARINE 30	POSEIDON DT SAE 30 (BN 12)	ELIN TPD 312	ENOC STRATA LSF 312/315	MOBILGARD 312
		BN 20	ARGO 21 SAE 30	TLX PLUS 203	TARO 20 DP 30 (x)	-	N/A	ENOC STRATA MSDO 320	MOBILGARD (M) 320
		BN 30	ARGO 32 SAE 30	TLX PLUS 303	TARO 30 DP 30 (x)	POSEIDON TT 30	ELIN TPD 330	ENOC STRATA MSDO 330	MOBILGARD (M) 330
		BN 40	ARGO 42 SAE 30	TLX PLUS 403	N/A	-	ELIN TPD 340	ENOC STRATA MSDO 340	MOBILGARD (M) 340
	SAE 40	BN 12/15	ARGO 12 SAE 40	MHP 154	DELO 1000 MARINE 40	POSEIDON TN SAE 40	N/A	ENOC STRATA LSF 412/415	MOBILGARD 412
		BN 20	ARGO 21 SAE 40	TLX PLUS 204	TARO 20 DP 40 (x)	POSEIDON TT SAE 40	N/A	ENOC STRATA MSDO 420	MOBILGARD (M) 420
		BN 30	ARGO 32 SAE 40	TLX PLUS 304	TARO 30 DP 40 (x)	POSEIDON TT SAE 40	ELIN TPD 430	ENOC STRATA MSDO 430	MOBILGARD (M) 430
		BN 40	ARGO 42 SAE 40	TLX PLUS 404	TARO 40 XL 40 (x)	POSEIDON FT SAE 40	ELIN TPD 440	ENOC STRATA MSDO 440	MOBILGARD (M) 440

MAIN		GULF	LUKOIL	PETROGULF	SHELL	SINOPEC	TOTAL	
CYLINDER OIL	BN 25	CYLCARE ECA 50	NAVIGO MCL ULTRA	PETROGULF MARINE CYLINDER OIL 5025	ALEXIA 25	SINOPEC 5025	N/A	
	BN 40	CYLCARE DCA 5040H	NAVIGO MCL Extra	PETROGULF MARINE CULINDER OIL 5040	ALEXIA 40	SINOPEC 5040	TALUSIA LS 40	
	BN 70	CYLCARE DCA 5070H	NAVIGO 70 MCL AW	PETROGULF MARINE CYLINDER OIL 5070	ALEXIA 70	SINOPEC 5070s	TALUSIA HR 70	
SYSTEM OIL		SUPERBEAR 3006	NAVIGO 6 SO	PETROGULF MARINE SYSTEM OIL 3006	MELINA S 30	SINOPEC 3005	ATLANTA MARINE D 3005	
DIESEL GENERATOR OIL (TRUNK PISTONS ENGINE OIL)	SAE 30	BN 12/15	POWER MDO 3015	NAVIGO TPEO 15/30	PETROGULF MARINE TPEO MDO 3012	GADINIA 30 (BN 12)	SINOPEC 3012	DISOLA M 3015
		BN 20	POWER MDO 3020	NAVIGO TPEO 20/30	PETROGULF MARINE TPEO MDO 3020	ARGINA S2 30	-	AURELIA TI 3020
		BN 30	POWER 3030	NAVIGO TPEO 30/30	PETROGULF MARINE TPEO 3030	ARGINA S3 30	SINOPEC 3030	AURELIA TI 3030
		BN 40	POWER 4030	N/A	PETROGULF MARINE TPEO 3040	-	-	AURELIA TI 3040
	SAE 40	BN 12/15	POWER MDO 4015	NAVIGO TPEO 15/40	PETROGULF MARINE TPEO MDO 4012	GADINIA 40 (BN 12)	SINOPEC 4012	DISOLA M 4015
		BN 20	POWER MDO 4020	NAVIGO TPEO 20/40	PETROGULF MARINE TPEO MDO 4020	ARGINA S2 40	SINOPEC 4020	AURELIA TI 4020
		BN 30	POWER 4030	NAVIGO TPEO 30/40	PETROGULF MARINE TPEO 4030	ARGINA S3 40	SINOPEC 4030	AURELIA TI 4030
		BN 40	POWER 4040	NAVIGO TPEO 40/40	PETROGULF MARINE TPEO 4040	ARGINA S4 40	SINOPEC 4040	AURELIA TI 4040

SECONDARY GRADES		AVIN	CASTROL	CHEVRON	CYCLON	ELIN	ENOC	EXXONMOBIL	
HYDRAULIC OILS	ISO 15	N/A	HYSPIN AWH - M15	RANDO HDZ 15	HYDR. SPECIAL ISO 15N/A	N/A	HYDRAULIC HVI 15	MOBIL DTE 10 EXCEL 15	
	ISO 22	HYDROL SPECIAL ISO 22	HYSPIN AWH - M22	RANDO HDZ 22	HYDR. SPECIAL ISO 32	HHV 22	HYDRAULIC HVI 22	MOBIL DTE 10 EXCEL 22	
	ISO 32	HYDROL SPECIAL ISO 32	HYSPIN AWH - M32	RANDO HDZ 32	HYDR. SPECIAL ISO 46	HHV 32	HYDRAULIC HVI 32	MOBIL DTE 10 EXCEL 32	
	ISO 46	HYDROL SPECIAL ISO 46	HYSPIN AWH - M46	RANDO HDZ 46	HYDR. SPECIAL ISO 68	HHV 46	HYDRAULIC HVI 46	MOBIL DTE 10 EXCEL 46	
	ISO 68	HYDROL SPECIAL ISO 68	HYSPIN AWH - M68	RANDO HDZ 68	HYDR. SPECIAL ISO 100	HHV 68	HYDRAULIC HVI 68	MOBIL DTE 10 EXCEL 68	
	ISO 100	HYDROL SPECIAL ISO 100	HYSPIN AWH - M100	RANDO HDZ 100	-	HHV 100	HYDRAULIC HVI 100	MOBIL DTE 10 EXCEL 100	
AIR COMPRESSOR OILS	MINERALS	ISO 32	AEOLUS ISO 32	N/A	-	HERCULES ISO 32	N/A	SPIRO H 32	RARUS 424
		ISO 46	AEOLUS ISO 46	AIRCOL PD 46	-	HERCULES ISO 46	COMPRESSOR VDL 46	SPIRO H 46	RARUS 425
		ISO 68	AEOLUS ISO 68	AIRCOL PD 68	-	HERCULES ISO 68	COMPRESSOR VDL 100	SPIRO H 68	RARUS 426
		ISO 100	AEOLUS ISO 100	AIRCOL PD 100	-	HERCULES ISO 100	COMPRESSOR VDL 68	SPIRO H 100	RARUS 427
	SYNTHETICS	ISO 32	N/A	AIRCOL SR 32	-	N/A	N/A	SPIRO PA 32	RARUS 824
		ISO 46	AEOLUS AS 46	AIRCOL SR 46	CETUS PAO 46	HERCULES SYNPAO 46	HEACYTEC COMP SYNT 46	SPIRO SE 46 / PA 46	RARUS SHC 1025
		ISO 68	AEOLUS AP 68 / AS 68	AIRCOL SR 68 / SN 68	CETUS PAO 68	HERCULES SYNPAO 68	HEAVYTEC COMP SYNT 68	SPIRO SE 68 / PA 68	RARUS SHC 1026
		ISO 100	AEOLUS AP 100	AIRCOL SN 100	CETUS DE 100	HERCULES SYNPOE 100	HEALYTEC COMP SDE 100	SPIRO SE 100 / PA 100	RARUS 827

SECONDARY GRADES		GULF	LUKOIL	PETROGULF	SHELL	SINOPEC	TOTAL	
HYDRAULIC OILS	ISO 15	HYDRAULIC OIL HVI PLUS 15	RENOLIN B 15 HVI	HYDRAULIC OIL HV 15	TELLUS S2 VX 15	SINOPEC L-HV 15	EQUIMIS ZS 15	
	ISO 22	HYDRAULIC OIL HVI PLUS 22	RENOLIN B 22 HVI	HYDRAULIC OIL HVI 22	TELLUS S2 VX 22	SINOPEC L-HV 22	EQUIMIS ZS 22	
	ISO 32	HYDRAULIC OIL HVI PLUS 32	RENOLIN B 32 HVI	HYDRAULIC OIL HVI 32	TELLUS S2 VX 32	SINOPEC L-HV 32	EQUIMIS ZS 32	
	ISO 46	HYDRAULIC OIL HVI PLUS 46	RENOLIN B 46 HVI	HYDRAULIC OIL HV 46	TELLUS S2 VX 46	SINOPEC L-HV 46	EQUIMIS ZS 46	
	ISO 68	HYDRAULIC OIL HVI PLUS 68	RENOLIN B 68 HVI	HYDRAULIC OIL HVI 68	TELLUS S2 VX 68	SINOPEC L-HV 68	EQUIMIS ZS 68	
	ISO 100	HYDRAULIC OIL HVI PLUS 100	RENOLIN B 100 HVI	HYDRAULIC OIL HVI 100	TELLUS S2 VX 100	SINOPEC L-HV 100	EQUIMIS ZS 100	
AIR COMPRESSOR OILS	MINERALS	ISO 32	N/A	N/A	N/A	N/A	N/A	DACNIS VS 32
		ISO 46	N/A	N/A	N/A	N/A	N/A	DACNIS VS 46
		ISO 68	N/A	RENOLIN 503 VDL 68	MARINE COMPRESSOR OIL 68	CORENA S2 P 68	SINOPEC DAB 68	DACNIS 68
		ISO 100	COMPRESSOR OIL 100	RENOLIN 504 VDL 100	MARINE COMPRESSOR OIL 100	CORENA S2 P 100	SINOPEC DAB 100 (L-DAB)	DACNIS 100
	SYNTHETICS	ISO 32	N/A	RENOLIN UNISYN OL 32	N/A	CORENA S4 R 32	N/A	DACNIS SH 32
		ISO 46	SYNTHETIC COMPRESSOR OIL 46	RENOLIN UNISYN OL 46	MARINE SYNTHETIC COMPRESSOR OIL 46	CORENA S4 R 46	SINOPEC 4502 46	DACNIS SH 46
		ISO 68	SYNTHETIC COMPRESSOR OIL 68	RENOLIN UNISYN OL 68	MARINE SYNTHETIC COMPRESSOR OIL 68	CORENA S4 R 68	SINOPEC 4502 68	DACNIS SH 68
		ISO 100	DE COMPRESSOR OIL 100	NAVISYN DE 100	MARINE SYNTHETIC COMPRESSOR OIL 100	CORENA S4 P 100	SINOPEC 4502 100	DANCIS SE 100

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MARINE RESIDUAL FUELS ISO 8217 2017 ISO 8217 2017 Fuel Standard FUEL STANDARD

Limit	Parameter	RMA	RMB	RMD	RME	RMG				RMK		
		10	30	80	180	180	380	500	700	380	500	700
Max.	Viscosity at 50°C (mm ² /s)	10.00		80.00	180.0	180.0	380.0	500.0	700.0	380.0	500.0	700.0
Max.	Density at 15°C (kg/m ³)	920.0	960.0	975.0	991.0	991.0				1010.0		
Max.	Micro Carbon Residue (% m/m)	2.50	10.00	14.00	15.00	18.00				20.00		
Max.	Aluminium + Sibcon (mg/kg)	25	40		50	60						
Max.	Sodium (mg/kg)	50	100		50	100						
Max.	Ash (% m/m)	0.040	0.070			0.100				0.150		
Max.	Vanadium (mg/kg)	50	150			350				450		
Max.	CCAI	850	860			870						
Max.	Water (% V/V)	0.30	0.50									
Max.	Pour point (upper) in Summer (°C)	6			30							
Max.	Pour point (upper) in Winter (°C)	0			30							
Min.	Flash point (°C)	60.0										
Max.	Sulphur (% m/m)	To comply with statutory requirements as defined by purchaser										
Max.	Total Sediment aged (% m/m)	0.10										
Max.	Acid Number (mgKOH/g)	2.5										
	Used lubricating oils (ULO): Calcium and Zinc: or Calcium and Phosphorus (mg/kg)	The fuel shall be free from ULO. and shag be considered to contain ULO when either one of the following conditions is met: Calcium > 30 and zinc > 50: or Calcium > 30 and phosphorus > 15.										
Max.	Hydrogen sulphide (mg/kg)	2.00										

MARINE DISTILLATE FUELS ISO 8217 2017 ISO 8217 2017 Fuel Standard FUEL STANDARD

Limit	Parameter	DMX	DMA	DFA	DMZ	DFZ	DMB	DFB	
Max.	Viscosity at 40°C (mm ² /s)	5.500	6.000		6.000			11.00	
Min.	Viscosity at 40°C (mm ² /s)	1.400	2.000		2.000			2.000	
Max.	Micro Carbon Residue AT 10% Residue (% m/m)	0.30	0.30		0.30			-	
Max.	Density at 15°C (kg/m ³)	-	890.0		890.0			900.0	
Max.	Micro Carbon Residue (% m/m)	-	-		-			0.30	
Max.	Sulphur (% m/m)	1.00	1.00		1.00			1.50	
Max.	Water (%V/V)	-	-		-			0.30	
Max.	Total sediment by hot filtration (% m/m)	-	-		-			0.10	
Max.	Ash (% m/m)	0.010	0.010		0.010			0.010	
Min.	Flash point (°C)	43.0	60.0		60.0			60.0	
Max.	Pour point in Winter (°C)	-	-6		-6			0	
Max.	Pour point in Summer (°C)	-	0		0			6	
Max.	Cloud point in Winter (°C)	-16	Report		Report			-	
Max.	Cloud point in Summer (°C)	-16	-		-			-	
Max.	Cold filter plugging point in Winter (°C)	-	Report		Report			-	
Max.	Cold filter plugging point in Summer (°C)	-	-		-			-	
Min.	Calculated Cetane Index	45	40		40			35	
Max.	Acid Number (mgKOH/g)	0.5	0.5		0.5			0.5	
Max.	Oxidation stability (g/m ³)	25	25		25			25	
Max.	Fatty acid methyl ester (FAME)	-	-	7.0	-	7.0	-	7.0	
Max.	Lutxicity, corrected wear scar diameter (wsd 1.4 at 60°C (um)	520	520		520			520	
Max.	Hydrogen sulphide (mg/kg)	2.00	2.00		2.00			2.00	
	Appearance	Clear & Bright							-

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