

INDUSTRY STANDARD, ORIGINAL EQUIPMENT MANUFACTURER (OEM) AND PROPRIETARY COMPONENT MANUFACTURER SPECIFICATIONS FOR THE MINING, QUARRYING AND CONSTRUCTION INDUSTRIES



Details correct: January 2019

	INDUSTRY STANDARDS			OEM STANDARDS							PROPRIETARY COMPONENT MANUFACTURER STANDARDS			
	ACEA*	API*	OTHER	CATERPILLAR*	GM DEXRON	MAN	MERCEDES-BENZ	RENAULT TRUCKS	VOLVO	OTHER	ALLISON	ZF	VOITH	OTHER
ENGINE OILS														
DELO 400 XSP-FA SAE 5W-30		FA-4; SN					MB 228.61 (approval pending)				Cummins CES 20087 (approval pending) Detroit Diesel 93K223 (approval pending) Ford WSS-M2C214-B1*			
DELO 400 XLE SAE 10W-30	E6; E9	CK-4; CJ-4; CI-4; CH-4; CG-4 [^] ; CF-4 [^] ; CF [^] ; SN	JASO DH-2*	ECF-3		M3575*	MB-Approval 228.51/228.31	RLD-4; RLD-3 [^] ; RLD-2 [^] ; RXD [^] ; RLD [^] ; RD-2 [^] ; RD [^]	VDS-4.5; VDS-4 [^] ; VDS-3 [^] ; VDS-2 [^]		Cummins CES 20086 Detroit Diesel DFS 93K222 DAF Extended Drain (Euro VI engines) [^] Deutz DQC III-10 LA Mack EOS-4.5 MTU Oil Category 2.1*			
DELO 400 MGX SAE 15W-40	E9; E7	CJ-4; CI-4 Plus; CI-4; CH-4; CG-4 [^] ; CF-4 [^] ; CF [^] ; SM	JASO DH-2*	ECF-2; ECF-3; 3600 series engines [^]		M3575	MB-Approval 228.31	RLD-3; RLD-2 [^] ; RLD [^] ; RD-2 [^] ; RD [^]	VDS-4; VDS-3 [^] ; VDS-2 [^]		Cummins CES 20071 [^] ; CES 20072 [^] ; CES 20077 [^] ; CES 20081 DAF Standard Drain (Euro 0 up to Euro VI engines) [^] Detroit Diesel DDC93K218 Deutz DQC III-10 LA Ford WSS-M2C171-E [^] Mack EO-0 Premium Plus; EO-N [^] MTU Oil Category 2.1			
DELO 400 XLE HD SAE 10W-40	E4; E6; E7; E9	CJ-4; CI-4 Plus; CI-4; CH-4; CG-4 [^] ; CF-4 [^] ; CF [^]	JASO DH-2*	ECF-3		M3477; M3575; M3271-1	MB-Approval 228.51/228.31	RLD-3; RLD-2 [^] ; RGD [^] ; RXD [^] ; RLD [^] ; RD-2 [^] ; RD [^]	VDS-4; VDS-3 [^] ; VDS-2 [^]		Cummins CES 20081 DAF Extended Drain (Euro III, IV, V and VI engines) [^] Detroit Diesel 93K218 [^] Deutz DQC-IV-10 LA Iveco Euro V and VI [^] MTU Oil Category 3.1; Oil Category 2.1* Mack EO-0 Premium Plus Scania Low Ash			
DELO GOLD ULTRA E SAE 15W-40	E7; A3/B4	CI-4; CH-4; CG-4 [^] ; CF-4 [^] ; CE [^] ; CD [^]	JASO DH-1* Global DHD-1*	ECF-2		M3275-1	MB-Approval 228.3; MB-Approval 229.1 [~]	RLD-2; RLD [^] ; RD-2 [^] ; RD [^]	VDS-3; VDS-2 [^]		Cummins CES 20076 [^] ; CES 20077 [^] ; CES 20078; CES 20071 [^] ; CES 20072 [^] DAF (Euro II and III engines) [^] Detroit Diesel DDC93K215 Deutz DQC III-10 Iveco Euro IV and V engines [^] Mack EO-N MTU Oil Category 2			
DELO 400 RDE SAE 10W-30	E6; E9; E7	CI-4; CH-4; CG-4 [^] ; CF-4 [^] ; CF [^]	JASO DH-2*			M3477; M3271-1	MB-Approval 228.51	RLD-2; RXD [^] ; RGD [^] ; RD [^] ; RD-2 [^] ; RLD [^]	VDS-3; VDS-2 [^]		Cummins CES 20076; CES 20077 [^] DAF Extended Drain (Euro III, IV, V and VI engines) [^] Deutz DQC-IV-10 LA Mack EO-N MTU Oil Category 3.1			
DELO 400 RDS SAE 10W-40	E6; E7; E9	CI-4; CH-4; CG-4 [^] ; CF-4 [^] ; CF [^]	JASO DH-2*			M3477; M3271-1	MB-Approval 228.51	RLD-2; RXD [^] ; RGD [^] ; RLD [^] ; RD-2 [^] ; RD [^]	VDS-3; VDS-2 [^]		Cummins CES 20076; CES 20077 [^] DAF Extended Drain (Euro III, IV, V and VI engines) [^] Deutz DQC-IV-10 LA Mack EO-N MTU Oil Category 3.1			
DELO GOLD ULTRA T SAE 10W-40	E4; E7	CI-4; CH-4; CG-4 [^] ; CF-4 [^] ; CF [^]	Global DHD-1 [^]			M3277	MB-Approval 228.5; MB 235.27 [^]	RLD-2; RLD [^] ; RD-2 [^] ; RD [^]	VDS-3; VDS-2 [^]		Cummins CES 20071 [^] ; CES 20072 [^] ; CES 20077 [^] ; CES 20078 DAF Extended Drain (Euro III and IV engines) [^] Detroit Diesel 93K215 [^] Deutz DQC III-10 Mack EO-M Plus [^] ; EO-N MTU Oil Category 3 Scania LDF-2			
DELO GOLD ULTRA E SAE 10W-40	E7; A3/B4	CI-4; CH-4; CG-4 [^] ; CF-4 [^] ; CF [^]	JASO DH-1* Global DHD-1*			M3275-1*	MB-Approval 228.3; MB-Approval 229.1 [~]	RLD-2; RD [^] ; RD-2 [^] ; RLD [^]	VDS-3; VDS-2 [^]		Cummins CES 20071 [^] ; CES 20072 [^] ; CES 20076 [^] ; CES 20077 [^] ; CES 20078 DAF (Euro II and III engines) [^] Detroit Diesel DDC 93K215 Deutz DQC III-10 Mack EO-N MTU Oil Category 2			
DELO GOLD ULTRA SAE 10W-30		CH-4; CG-4 [^] ; CF-4 [^] ; CF [^]	JASO DH-1*					RLD-2	VDS-3		Cummins CES 20078; Mack EO-N			
HYDRAULIC FLUIDS														
CLARITY SYNTHETIC HYDRAULIC OIL AW 32, 46, 68			ASTM D6158; HV* DIN 51 524/3; HVL P* ISO 11158 L-HV*								Arburg plastic extruders [^] Eaton-Vickers 35VQ25A [^] ; M-2950-S [^] ; I-286-S [^] Frank Mohn, Framo hydraulic cargo pumping [^] Hitachi/John Deere Construction JCMAS HK [^] Krauss-Maffei Kunststofftechnik [^] MAG Cincinnati Cincinnati Machine P-68 [32]; Cincinnati Machine P-70 [46]; Cincinnati Machine P-69 [68]			
RANDO HD LVZ 32, 46, 68			DIN 51 524/3* ISO 11158 HV* AFNOR E48-603 HV*						Hydraulic Oil 98620		Ford M-6C32* GM/Opel/Vauxhall LH-04-01*; LH06-1*; LH-15-1*			
CLARITY HYDRAULIC OIL AW 32, 46, 68			ASTM D6158; HM* ISO 11158 HM*								Denison HF-0; HF-2 testing requirements of T5D*			
RANDO ASHLESS 8401			DIN 51524/3* Swedish Army Standard FSD 8401*						Hydraulic Oil 98607*					
RANDO HDZ 15, 22, 32, 46, 68			DIN 51524-3 HVL P* ISO 11158 Class HV* [15, 32, 46, 68] ASTM D6158; HV* [32, 46, 68]											
RANDO HD 32, 46, 68			ANSI/AGMA 9005-E02, Industrial Gear Lubrication, for gear lubrication as rust and oxidation inhibited gear oils* [46, 68] DIN 51 524-2; HLP* ISO 11158: Class HM* SAE M51004 HM* SEB 181222*								General Motors LS2 specification; LH for anti-wear hydraulic fluids*			
RANDO HEES 46			DIN ISO 15 380 HEES* Ecolabel (registration-no: DE/027/087); Positive Oil List for MIA-Vamil-regulations Swedish-Standard-15 54 34 Environmentally acceptable [www.sp.se/km/hydraul] SS 155434 AAV 46 Environmentally acceptable* VDMA 24568; HEES*											
HYDRAULIC OIL HDZ 32, 46, 68			DIN 51524-3* ISO 11158 L-HV* ASTM D6158; HV*								MAG Cincinnati Cincinnati Machine P-68 [32]; Cincinnati Machine P-70 [46]; Cincinnati Machine P-69* [68] Eaton-Vickers M-2950-S (Mobile applications); I-286-S (Industrial application)* Bosch Rexroth* US Steel 127; 136*			
HYDRA 32, 46			DIN ISO 15 380 HEES* Swedish-Standard-15 54 34 [www.sp.se/km/hydraul]; SS 15 54 34* VDMA 24568; HEES*											

Continued overleaf

[^] Chevron Recommended - in Chevron's opinion the product is suitable for use in applications where a product of this specification is required. [~] Obsolete specification.

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	INDUSTRY STANDARDS			OEM STANDARDS							PROPRIETARY COMPONENT MANUFACTURER STANDARDS				
	ACEA*	API*	OTHER	CATERPILLAR*	GM DEXRON	MAN	MERCEDES-BENZ	RENAULT TRUCKS	VOLVO	OTHER	ALLISON	ZF	VOITH	OTHER	
GEAR OILS AND TRANSMISSION FLUIDS															
TEXACO 1000 THF		GL-4^		TO-2^					Transmission Oil 97303; WB 101	AGCO Improved power fluid 821XL^ Case Corporation JIC-143^; JIC-145^; MS 1206^; MS 1207^; MS 1209^; MS1210 (TCH) Case New Holland CNH MAT 3505^; CNH MAT 3525^ Ford New Holland ESN-M2C134-D^; FNHA-2-C-201.00^ International Harvester B6^ John Deere JDM J20C^ Kubota UDT^ Massey Ferguson CMS M1135^; CMS M1141^; CMS M1143^; CMS M1145^ Minneapolis-Moline Q-1722^; Q-1766^; Q-1766B^ Oliver Q-1705^ White Farm Equipment Q-1826^		TE-ML 03E; TE-ML 05F; TE-ML 17E; TE-ML 21F			Renk Doromat 874A^; 874B^
ATF HD 389				TO-2^		IIIH^	MB 236.5^			Ford M2C138-CJ^; M2C166-H^ Mercon^ Toyota Type T^	C-4^; TES-389	TE-ML 04D^		Bosch TE-ML 09^	
DELO TORQFORCE SAE 10W, 30, 50				TO-4					Transmission Oil 97305-90 [50]		C-4^ [10W, 30]	TE-ML 03C [10W, 30]; TE-ML 07F [30]		Dana Powershift^ [10W] Eaton Fuller Roadranger Manual transmissions^ [50] Komatsu KES 07.868.1^ Komatsu Dresser^ Meritor (Rockwell) Manual transmissions^ [50] Tremec/TTC^ [10W] Vickers 35VQ25^ [10W]	
DELO TORQFORCE FD SAE 60				FD-1											
DELO SYN ATF XV			JASO M315 Type 1-A^						Transmission Oil 97342; AT 102	Honda ATF-Z1^ Hyundai/Kia/Mitsubishi Diamond SP-III^ Mazda ATF M5^ Nissan MATIC-J^ Subaru ATF-HP^ Toyota Type T-IV^; W5^	TES-389*		H55.6335.xx^	Aisin Warner JWS 3309^; JWS 3324^ Bosch TE-ML 09	
DELO SYN-THF XC		GL-4^							Transmission Oil 97304; WB 102						
DELO GEAR TDL SAE 80W-90		GL-4; GL-5; MT-1	SAE J2360*			341 Type Z2; 342 Type M2; 3343 Type M^; 341 Type E2^	MB 235.0^		Transmission Oil 97321	DAF Gearbox oil for ZF gearboxes; Gearbox oil for Eaton gearboxes^; Rear axle with hub reduction^; Rear axle without hub reduction^; Driven front axle; Front axle hubs Scania ST0 1:0		TE-ML 02B; TE-ML 05A; TE-ML 07A^; TE-ML 12E^; TE-ML 12L; TE-ML 12M; TE-ML 16B; TE-ML 16D; TE-ML 17B; TE-ML 17H; TE-ML 19B; TE-ML 21A		Bosch TE-ML 08*	
GEARTEX LS SAE 85W-90		GL-5										ZF TE-ML 05C; TE-ML 12C; TE-ML 16E; TE-ML 21C			
GREASES															
DELO STARPLEX EP 2			DIN 51 502: KP 2 N-30* ISO 6743-09: ISO-L-XCDHB 2* NLGI Service Category GC-LB*				MB 265.1*		Lubricating Grease 97720*	Mack GC-G*					
DELO GREASE MM EP 2			ASTM D 4950 LB (Chassis Lubrication)* DIN 51 502: KP2K-30* ISO 12924: ISO-L-XC(F)CIB2*			283 Li-P	MB 267.0		Lubricating Grease 97718	Mack GC-G*					
HYTEX EP 2 LF			DIN 51 502: KP 2 P-20* ISO 6743-09: ISO-L-XBDEB2*			284: high temperature grease Li-H2	MB-Approval 265.1		Lubricating Grease 97718; 97720					SKF	
TEXCLAD 2			DIN 51 502: MPF 2C-10^; KPF 2C-10* ISO 6743-09: ISO-L-XAAIB 2*												
TEXCLAD AL EP 00/000, EP 0, EP 1, EP 2, HV 0			DIN 51 502: OGPF 0S-20* [EP 0, HV 0]; OGPF 00/000S-30* [EP 00/000]; KP1P-20 [EP 1]; KP2P-20* [EP 2] ISO 6743-09: ISO-L-XBGHB 0* [EP 0, HV 0]; ISO-L-XBGHB 00/000* [EP 00/000]; ISO-L-XBDHB 1* [EP 1]; ISO-L-XBDHB 2* [EP 2]												
BLACK PEARL GREASE EP 2			DIN 51 502: KP 2 P-20* ISO 6743-09: ISO-L-XBEHB 2* NLGI Certification mark GC-LB for use as automotive chassis and wheel bearing grease according to ASTM D4950; Registered by NSF as H2												
MOLYTEX EP 2			DIN 51 502: KPF 2 K-30* ISO 6743-09: ISO-L-XCEB2* Association of American Railroads Specification M-929-75						Lubricating Grease 97765						
ULTI-PLEX SYNTHETIC GREASE EP			DIN 51 502: KPCH 2N-30* ISO 6743-09: ISO-L-XCDEB 2* NLGI Service Category LB*												
COUPLING GREASE			DIN 51 502: KP 0/1 K-30* ISO 6743-09: ISO-L-XCCIB 0/1*											AGMA CG-1 Type*; CG-2 Type*; CG-3 Type*; Browning Esco Transmissions Falk Eugen Schmidt und Co Getriebe und Antriebsselemente GMBH Koppers Esco Aandrijvingen BV Jaure Wartsila Fast Renk	
ANTIFREEZE/COOLANTS															
DELO XLC ANTIFREEZE/COOLANT CONCENTRATE, PREMIXED 50/50 & PREMIXED 40/60			ASTM D6210*			324 Type SNF*	MB-Approval 325.3 [Concentrate]		Volvo Construction Equipment (VCE) Diesel Engines^; Volvo Truck Diesel Engines^	Chrysler Vehicles post 2001^ Cummins CES 14439 DAF 74002 Detroit Diesel DFS 93K217 Deutz DQC CB-14; Stationary Diesel Engines^ Ford Vehicles post 2003^; WSS-M97B44-D* GE Jenbacher Stationary Natural Gas Engines^ GM/Opel/Vauxhall Vehicles post 1995^ Hino Truck Diesel Engines^ Isuzu Truck Diesel Engines^ Kobelco Construction Equipment Diesel Engines^ Komatsu Construction Equipment Diesel Engines^ Mack Truck Diesel Engines^ MTU 2000 and 4000-02/4000-03 series^; MTL 5048 MWM TR-2091 GR.2 Navistar^ MAXXFORCE Engines^ Scania Truck Diesel Engines^ TMC RP 364 Type 1* Wartsila Stationary Diesel Engines^ European HD OEMs that require both phosphate-free and nitrite-free formulations^ Japanese HD OEMs that require silicate-free formulations^					
DELO XLI CORROSION INHIBITOR CONCENTRATE						D36 5600^; 248*				MWM TR0199-99-2091/12				MTU MTL 5049^ MaK^	

For the latest information on our products, please refer to the Product Data Sheet (PDS) which can be found at cglapps.chevron.com/msdspds/HomePage.aspx

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