

# INDUSTRY STANDARD, ORIGINAL EQUIPMENT MANUFACTURER (OEM) AND PROPRIETARY COMPONENT MANUFACTURER SPECIFICATIONS FOR THE AGRICULTURAL INDUSTRY



Details correct: December 2018

|  | 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   |
| <b>ENGINE OILS</b>                                   |                    |   |  |                                    |           |                       |                                       |   |                                 |       |   |  |       |   |
| 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-4; 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-4; 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-4     | 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 Retarder B  |  |       |   |
| DELO 400 LE SYNTHETIC SAE 5W-40                      | E7; E9             | CJ-4; CI-4 plus; CI-4; CH-4; SN; SM; SL           |  | ECF-3; ECF-2                       |           | M3575*                | MB-Approval 228.31                    | RLD-3*  | VDS-4*                          |       | Cummins CES 20081* Detroit Diesel 93K215* Mack EO-0 Premium Plus* MTU Oil Category 2.1*   |  |       |   |
| DELO GOLD ULTRA E SAE 15W-40                         | E7; A3/B4          | CI-4; CH-4; CG-4; CF-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 C4*; TES 439*  |  |       |   |
| DELO 400 RDE SAE 10W-30                              | E6; E9; E7         | CI-4; CH-4; CG-4; CF-4; CF-4                      | 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-4                      | 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-4                      | 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 Retarder A  |  |       |   |
| DELO GOLD ULTRA E SAE 10W-40                         | E7; A3/B4          | CI-4; CH-4; CG-4; CF-4; CF-4                      | 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 C4*  |  |       |   |
| <b>UNIVERSAL TRACTOR OILS</b>                        |                    |   |  |                                    |           |                       |                                       |   |                                 |       |   |  |       |   |
| 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* |  |       |   |
| SUPER UNIVERSAL TRACTOR OIL EXTRA SAE 10W-30, 10W-40 |                    | CE*; SF*; GL-4*                                   | US Military MIL-L-2104D*; MIL-L-46152B*  |                                    |           |                       |                                       |   |                                 |       | C-4*  | TE-ML 03E; TE-ML 05F; TE-ML 17E; TE-ML 21F |       | Renk Doromat 874A*; 874B*   |
| <b>HYDRAULIC FLUIDS</b>                              |                    |   |  |                                    |           |                       |                                       |   |                                 |       |   |  |       |   |
| CLARITY SYNTHETIC HYDRAULIC OIL AW 32, 46, 68        |                    |   | ASTM D6158; HV* DIN 51524/3; HVLP* 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 HEES 46  |                    |   | DIN ISO 15 380 HEES* Ecotabel (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* |                                    |           |                       |                                       |   |                                 |       |   |  |       |   |
| CLARITY HYDRAULIC OIL AW 32, 46, 68                  |                    |   | ASTM D6158; HM* ISO 11158 HM*  |                                    |           |                       |                                       |   |                                 |       |   |  |       | Eaton-Vickers for use in M-2950-S (mobile) and I-286-S (stationary) hydraulic systems; Passes Eaton-Vickers 35VQ25 pump test* 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             |       |   |  |       | Cincinnati Machine P-68*; P-69*; P-70* Denison HF-1*; HF-2*; HF-0* Bosch Rexroth RE 90220* Vickers I-286-S*; M-2950-S*  |
| RANDO ASHLESS 8401                                   |                    |   | DIN 51524/3* Swedish Army Standard FSD 8401*   |                                    |           |                       |                                       |   | Hydraulic Oil 98607*            |       |   |  |       |   |
| RANDO HDZ 15, 22, 32, 46, 68                         |                    |   | DIN 51524-3 HVLP* ISO 11158 Knacc HV* [15, 32, 46, 68] ASTM D6158; HV* [32, 46, 68]  |                                    |           |                       |                                       |   |                                 |       |   |  |       | Arburg [46] Cincinnati Machine P-68* [32]; P-70* [46]; P-69* [68] Eaton Vickers M-2950-S (Mobile applications) [32, 46, 68]; I-286-S (Industrial applications)* [32, 46, 68] Bosch Rexroth RE 90220* US Steel 127; 136*   |

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.

\* Performance - product is either (i) not currently formally approved or certified by the OEM or Industry Standard Organisation; (ii) self-certified; or (iii) was formally approved against an OEM specification which is now obsolete. However, in Chevron's opinion the product is recommended and suitable for use in applications where a product of this specification is required.

# INDUSTRY STANDARD, ORIGINAL EQUIPMENT MANUFACTURER (OEM) AND PROPRIETARY COMPONENT MANUFACTURER SPECIFICATIONS FOR THE AGRICULTURAL INDUSTRY

|  | 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   |
| <b>HYDRAULIC FLUIDS</b> <i>Continued</i>                                 |                    |                  |   |               |           |   |                                 |                |   |  |  |   |       |   |
| RANDO HD 32, 46, 68  |                    |                  | ANSI/AGMA 9005-E02, Industrial Gear Lubrication, for gear lubrication as rust and oxidation inhibited gear oils* [46, 68]<br>DIN 51 524-2: HLP* ISO 11158: Knacc HM*<br>SAE M51004 HM* SEB 181222*  |               |           |   |                                 |                |   | General Motors LS2 specification; LH for anti-wear hydraulic fluids*   |  |   |       | Cincinnati Machine P68 [32]; P70 [46]; P69 [68]<br>Eaton-Vickers M-2950-S (Mobile applications); I-286-S (Industrial application) Denison HF-0; HF-1; HF-2; T6H20 Joy H0-S* [68] US Steel 127; 136*                           |
| HYDRAULIC OIL HDZ 32, 46, 68   |                    |                  | DIN 51524-3* ISO 11158 L-HV*<br>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)*<br>Bosch Rexroth* US Steel 127; 136* |
| HYDRA 32, 46   |                    |                  | DIN ISO 15 380 HEES*<br>Swedish-Standard-15 54 34<br>(www.sp.se/km/hydraul); SS 15 54 34*<br>VDMA 24568; HEES*  |               |           |   |                                 |                |   |  |  |   |       |   |
| <b>GEAR OILS</b>   |                    |                  |   |               |           |   |                                 |                |   |  |  |   |       |   |
| DELO GEAR TDL SAE 80W-90, 80W-140  |                    | GL-4; GL-5; MT-1 | SAE J2360 [80W-90*, 80W-140*]   |               |           | 341 Type Z2 [80W-90];<br>342 Type M2 [80W-90];<br>3343 Type M [80W-90*];<br>341 Type E2 [80W-90*] | MB 235.0 [80W-90*]              |                | Transmission Oil 97321  | DAF Gearbox oil for ZF gearboxes [80W-90]; Gearbox oil for Eaton gearboxes [80W-90*]; Rear axle with hub reduction [80W-90*]; Rear axle without hub reduction [80W-90*, 80W-140*]; Driven front axle [80W-140*]; Front axle hubs [80W-140*]<br>Scania STO 1:0  | TE-ML 02B [80W-90]; TE-ML 05A [80W-90, 80W-140*];<br>TE-ML 07A*; TE-ML 12E [80W-90*]; TE-ML 12L [80W-90];<br>TE-ML 12M [80W-90]; TE-ML 16B [80W-90]; TE-ML 16D [80W-140*]; TE-ML 17B [80W-90]; TE-ML 17H [80W-90];<br>TE-ML 19B [80W-90]; TE-ML 21A [80W-90, 80W-140*] |   |       | Bosch TE-ML 08*   |
| DELO SYN-TDL SAE 75W-90  |                    | GL-4; GL-5; MT-1 | SAE J2360<br>NATO 0-226*  |               |           | 341 Type E3*;<br>341 Type Z2;<br>342 Type S1;<br>3343 Type S^                                     | MB-Approval 235.8               |                | Transmission Oil 97312  | DAF Gearbox oil for ZF gearboxes; Gearbox oil for Eaton gearboxes*; Rear axle without hub reduction*; Rear axle with hub reduction* Detroit Diesel DFS 93K219.1<br>Scania STO 1:0  | TE-ML 02B; TE-ML 05A; TE-ML 05B*; TE-ML 07A*;<br>TE-ML 12B; TE-ML 12L; TE-ML 12N; TE-ML 16F;<br>TE-ML 17B; TE-ML 19C; TE-ML 21A; TE-ML 21B*  |   |       | Bosch TE-ML 08*   |
| GEARTEX LS SAE 85W-90  |                    | GL-5             |   |               |           |   |                                 |                |   |  |  | ZF TE-ML 05C; TE-ML 12C; TE-ML 16E; TE-ML 21C |       |   |
| <b>GREASES</b>   |                    |                  |   |               |           |   |                                 |                |   |  |  |   |       |   |
| DELO STARPLEX EP 2   |                    |                  | DIN 51 502: KP 2 N-30*<br>ISO 6743-09: ISO-L-XCDHB 2*<br>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*<br>ISO 12924: ISO-L-XC(F)CIB2*   |               |           | 283 Li-P  | MB 267.0                        |                | Lubricating Grease 97718  | Mack GC-G*   |  |   |       |   |
| TEXCLAD 2  |                    |                  | DIN 51 502: MPF 2C-10*; KPF 2C-10*<br>ISO 6743-09: ISO-L-XAAB 2*  |               |           |   |                                 |                |   |  |  |   |       |   |
| TEXCLAD AL EP 00/000, EP 0, EP 1, EP 2, HV 0                             |                    |                  | DIN 51 502: OGP 05-20* [EP 0, HV 0];<br>OGPF 00/000S-30* [EP 00/000];<br>KP1P-20 [EP 1]; KP2P-20* [EP 2];<br>ISO 6743-09: ISO-L-XBGHB 0*<br>[EP 0, HV 0]; ISO-L-XBGHB 00/000*<br>[EP 00/000]; ISO-L-XBDHB 1* [EP 1];<br>ISO-L-XBDHB 2* [EP 2] |               |           |   |                                 |                |   |  |  |   |       |   |
| MOLYTEX EP 2   |                    |                  | DIN 51 502: KPF 2 K-30*<br>ISO 6743-09: ISO-L-XCCEB2*<br>Association of American Railroads<br>Specification M-929-75  |               |           |   |                                 |                | Lubricating Grease 97765  |  |  |   |       |   |
| MARFAK 00, 1   |                    |                  | DIN 51 502: G 00 H-20* [00];<br>K 1 H-20* [1]<br>ISO 6743-09: ISO-L-XBBAA 00* [00];<br>ISO-L-XBBAA 1* [1]   |               |           |   |                                 |                |   |  |  |   |       |   |
| CLARITY SYNTHETIC EA GREASE  |                    |                  | DIN 51 502: KPE2G-40*<br>ISO 12924: L-XD(F)BIB2*<br>SS 155470-listing, [Eco-label]<br>VGP 2013 compliance*  |               |           |   |                                 |                |   |  |  |   |       |   |
| <b>ANTIFREEZE/COOLANTS</b>   |                    |                  |   |               |           |   |                                 |                |   |  |  |   |       |   |
| 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<br>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^<br>Hino Truck Diesel Engines^ Isuzu Truck Diesel Engines^ Kobelco Construction Equipment Diesel Engines^<br>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* Wärtsilä Stationary Diesel Engines^<br>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*<br>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](http://cglapps.chevron.com/msdspds/HomePage.aspx)

^ Chevron Recommended – in Chevron’s opinion the product is suitable for use in applications where a product of this specification is required. ~ Obsolete specification.

\* Performance – product is either (i) not currently formally approved or certified by the OEM or Industry Standard Organisation; (ii) self-certified; or (iii) was formally approved against an OEM specification which is now obsolete. However, in Chevron’s opinion the product is recommended and suitable for use in applications where a product of this specification is required.