

Fluids and lubricants

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Unit	Fluid/lubricant	Specification	Season/tempera- ture	Capacities ¹
Diesel engine	Engine oil ²	SAE 10W-40	-15 °C (-5 °F) +45 °C (+104 °F)	About 3.4 I (0.9 gal)
Hydraulic oil reservoir	Hydraulic oil	Eurolub HVLP 46 ³		20 1:4
	Biodegradable oil ⁵	Panolin HLP Synth 46	Year-round ⁴	30 liters (7.9 gal)
		BP BIOHYD SE-S 46		
Grease	Roller and friction bear- ings		Year-round	As required
	Open transmissions live ring: ball bearing	KPF 2 K-20 ⁶ ISO-L-X-BCEB 2 ⁷		
	Live ring gears			
	Grease zerks	7		
Battery terminals	Acid-proof grease ⁸	FINA Marson L2	Year-round	As required
Fuel ⁹	Diesel fuel ¹⁰	ASTM D975-94: 1D, 2D (USA)	Summer or winter	36 liters (9.5 gal)
		EN 590 (EU)		
		ISO 8217 DMX (Interna-		
		tional)		
		BS 2869-A1, A2 (GB)	diesel depending on outside tem-	
		JIS K2204 (Japan)	peratures	
		KSM-2610 (Korea)		
		GB252 (China)		
	Biodiesel	EN 14214		
		ASTM D-6751		
Engine cooling system	Coolant	Distilled water and anti- freeze SF D12 Plus/ ASTM D4985 (reddish) ¹¹	Year-round	4.5 liters (1.2 gal)
		Distilled water and anti- freeze D40 Super/ASTM 6210 (violet) ¹²	i eai-iourid	
Control lever base	Adhesive fluid grease	Förch S401	Year-round	As required
Washer system	Cleaning agent	Glass cleaner and anti- freeze	Year-round	1.2 l (0.3 gal)

The capacities indicated are approximate values; the oil level check alone is relevant for the correct oil level. Capacities indicated are no system fills

According to DIN 51511 (API CF, CF-4, CI-4; ACEA E3, E4, E5; JASO DH-1)

According to DIN 51524 section 3, ISO-VG 46.

KPF 2 K-20 according to DIN 51502 lithium-saponified grease.
 ISO-L-X-BCEB 2 according to DIN ISO 6743-9, lithium-saponified grease.
 Standard acid-proof grease NGLI category 2.

7-9 BA EZ28 en* 1.3 * ez28w700.fm

Depending on local conditions – see "Oil types for the diesel engine (temperature-dependent)" on page 7-10.

Biodegradable hydraulic oil based on saturated synthetic esters with an iodine value of < 10, according to DIN 51524, section 3, HVLP, HEES.

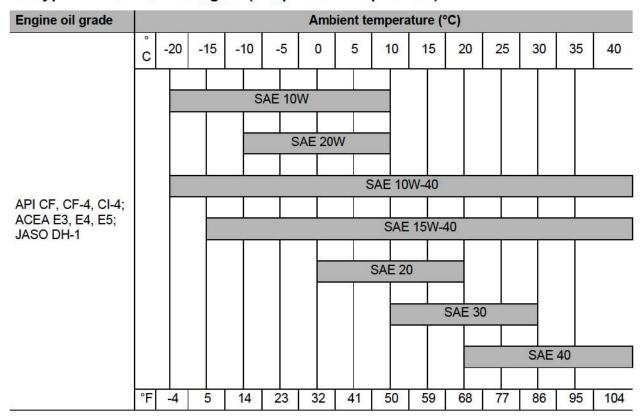
Suffur content below 0.05 %, cetane number over 45
 In countries where level IIIA (or higher) or Tier IV (or higher) exhaust emission regulations apply provisionally, use diesel fuels with a maximum sulfur content of 0.0015 %

Up to serial number WNCE1002LPAL00499
 From serial no. WNCE1002JPAL00500





Oil types for the diesel engine (temperature-dependent)



Additional oil change and filter replacement (hydraulic system)

Notice

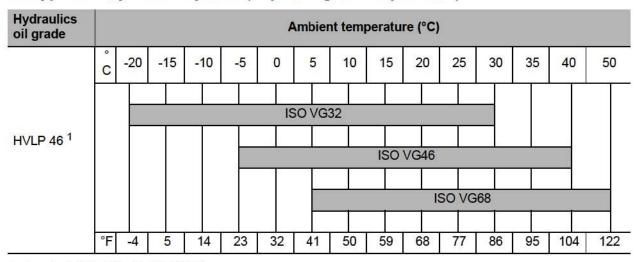
An additional oil change and filter replacement can be required depending on how the machine is used. Failure to observe these replacement intervals can cause damage to hydraulic components.

▶ Observe the following intervals.

Application Normal work		Hydraulic oil	Hydraulic oil filter insert	
		Every 1000 o/h	Replace the first time after 50 o/h, then every 500 o/h	
Percentage of hammer work	20%	Every 800 o/h	300 o/h	
	40%	Every 400 o/h		
	60%	Every 300 o/h	100 o/h	
	Over 80 %	Every 200 o/h	100 0/11	

7-10 BA EZ28 en* 1.3 * ez28w700.fm

Oil types for hydraulic system (depending on temperature)



^{1.} According to DIN 51524 section 3, ISO-VG 46.

BA EZ28 en* 1.3 * ez28w700.fm 7-11



Important information regarding operation with biodegradable hydraulic oil

- Use only the biodegradable oils that have been tested and released by Wacker Neuson.
- Add only biodegradable oil of the same type. In order to avoid misunderstandings, attach a clear label to the hydraulic oil filler neck providing clear information regarding the type of oil currently used. The joint use of two different biodegradable oils can affect the quality of one of the oil types. Therefore ensure that the remaining amount of biodegradable oil complies with the national and regional regulations as you replace it. Observe the manufacturer's indications.
- Do not add mineral oil the content of mineral oil should not exceed 2 % of the system fill in order to avoid foaming problems and to ensure biological degradability.
- When running the machine with biodegradable oil, the same oil and filter replacement intervals are valid as for mineral oil.
- Always have the condensation water in the hydraulic oil reservoir drained by a Wacker Neuson service center before the cold season. The water content may not exceed 0.1 % by weight.
- The instructions in this Operator's Manual concerning environmental protection are also valid for the use of biodegradable oil.
- Subsequent change from mineral oil to biodegradable oil may only be performed by a Wacker Neuson service center.

7-12 BA EZ28 en* 1.3 * ez28w700.fm