

3. FUEL, COOLANT AND LUBRICANTS

1) NEW MACHINE

New machine used and filled with following lubricants.

Description	Specification
Engine oil	SAE 15W-40(API CH-4)
Hydraulic oil	ISO VG 46(SAE 10W)
Swing and travel reduction gear	SAE 85W-140(API GL-5)
Grease	Lithium base grease NLGI No. 2
Fuel	ASTM D975-No. 2
Coolant	Mixture of 50% ethylene glycol base antifreeze and 50% water.

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ASTM : American Society of Testing and Material

2) RECOMMENDED OILS

Use only oils listed below or equivalent.

Do not mix different brand oil.

Service point	Kind of fluid	Capacity l (U.S. gal)	Ambient temperature °C (°F)						
			-20 (-4)	-10 (14)	0 (32)	10 (50)	20 (68)	30 (86)	40 (104)
Engine oil pan	Engine oil	45.4(12) 43.5(11.5) (Low noise)				SAE 30			
			SAE 10W						
			SAE 10W-30						
				SAE 15W-40					
Swing drive	Gear oil	6.0×2(1.6×2)							
Final drive		25×2 (6.6×2)							
Hydraulic tank	Hydraulic oil	Tank; 450(119) System; 800(211)	ISO VG 32						
				ISO VG 46					
					ISO VG 68				
Fuel tank	Diesel fuel	940(248)	ASTM D975 NO.1						
					ASTM D975 NO.2				
Fitting (Grease nipple)	Grease	As required	NLGI NO.1						
					NLGI NO.2				
Radiator (Reservoir tank)	Mixture of antifreeze and water 50 : 50	50(13.2) 56(15) (Low noise)			Ethylene glycol base permanent type				

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