

### 3. FUEL, COOLANT AND LUBRICANTS

#### 1) NEW MACHINE

New machine used and filled with following lubricants.

Description	Specification
Engine oil	SAE 15W-40(API CF-4)
Hydraulic oil	ISO VG 46(SAE 10W/20)
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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## 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	19(5.0)				SAE 30					
			SAE 10W								
			SAE 10W-30								
			SAE 15W-40								
Swing drive	Gear oil	11(2.9)	SAE 85W-140								
Final drive		9.5×2 (2.5×2)									
Hydraulic tank	Hydraulic oil	Tank; 190(50.2)	ISO VG 32								
		System; 320(84.5)	ISO VG 46								
			ISO VG 68								
Fuel tank	Diesel fuel	480(126.8)	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)	Ethylene glycol base permanent type								

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