

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	Hyundai genuine long life hydraulic oil (ISO VG 46, VG 68 only) Coventional hydraulic oil (ISO VG 32)
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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ISO : International Organization for Standardization

NLGI : National Lubricating Grease Institute

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	33.5 (8.8)				SAE 30					
			SAE 10W								
			SAE 10W-30								
						SAE 15W-40					
Swing drive	Gear oil	8.0 (2.1)				SAE 85W-140					
Final drive		5.5×2 (1.5×2)									
Hydraulic tank	Hydraulic oil	Tank: 210 (55.5) System: 380 (100)	ISO VG 32								
						ISO VG 46					
						ISO VG 68					
Fuel tank	Diesel fuel	550 (145)	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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