## 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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API : American Petroleum Institute

ISO : International Organization for Standardization

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## 2) RECOMMENDED OILS

Use only oils listed below or equivalent.

Do not mix different brand oil.

Service point Kind of fl		Capacity (U.S. gal)	Ambient temperature °C (°F)								
	Kind of fluid		-20		-10	0	10	20	30	40	
			(-4	.)	(14)	(32)	(50)	(68)	(86)	(104)	
Engine oil pan	Engine oil	43.5(11.5)						045.00			
								SAE 30			
					SAE	10W					
						045	10)4/ 00				
			SAE 10W-30								
				SAE 15W-40							
Swing drive		6.0×2(1.6×2)									
	- Gear oil	25×2 (6.6×2)		SAE 85W-140							
Final drive											
		(6.6.1.2)									
Hydraulic tank Hydraulic		Tank; 450(119) System; 800(211)	ISO VG 32								
						100	100.40				
	Hydraulic oil					ISO	VG 46				
				ISO VG 68							
Fuel tank Diesel fuel		940(248)									
			ASTN	/I D97	5 NO.	1					
	Diesel fuel						ASTM D	975 NO	2		
							AOTIVID	373110.			
Fitting (Grease nipple) Grease											
			N	LGI N	0.1						
	Grease	As required					NII CI	NO.2			
							NLGI	NO.2			
Radiator antifreeze	Mixture of	56(15)									
	antifreeze and water			Ethylene glycol base permanent type							
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