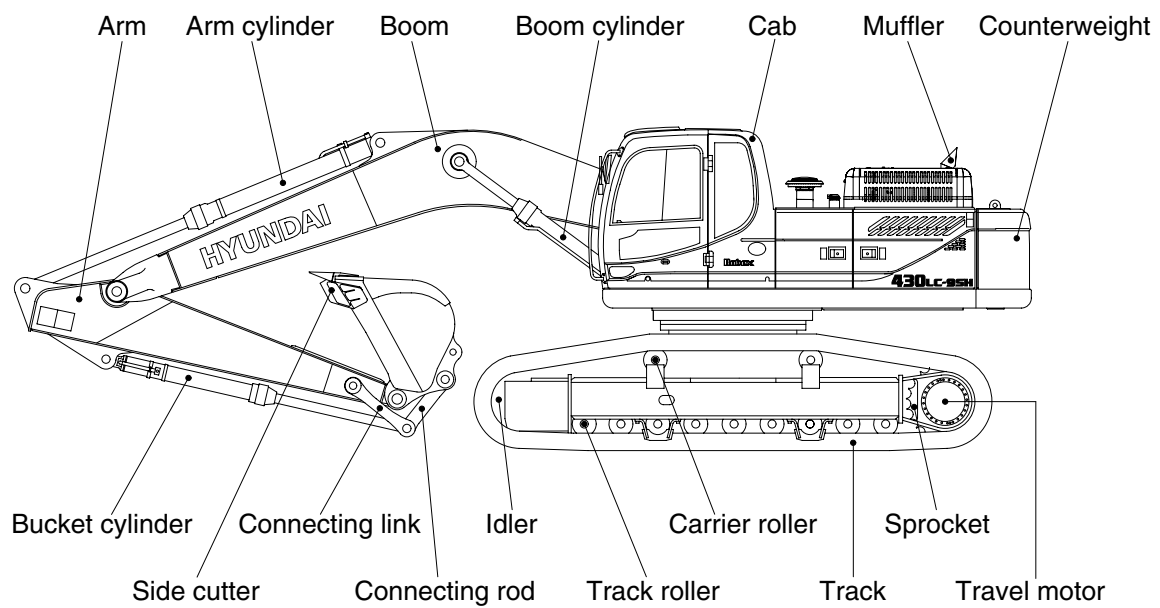
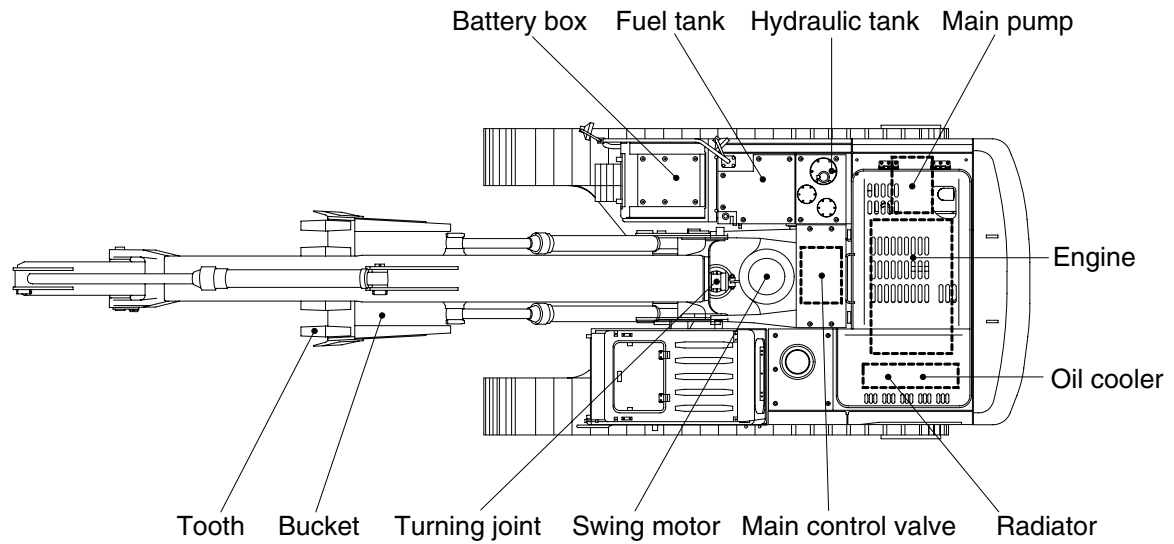


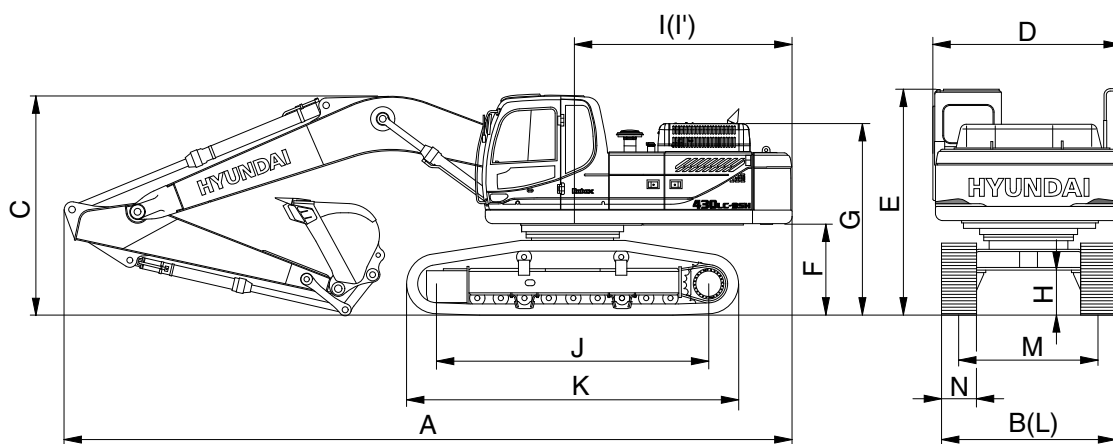
SPECIFICATIONS

1. MAJOR COMPONENT



4309SH2SP01

2. SPECIFICATIONS

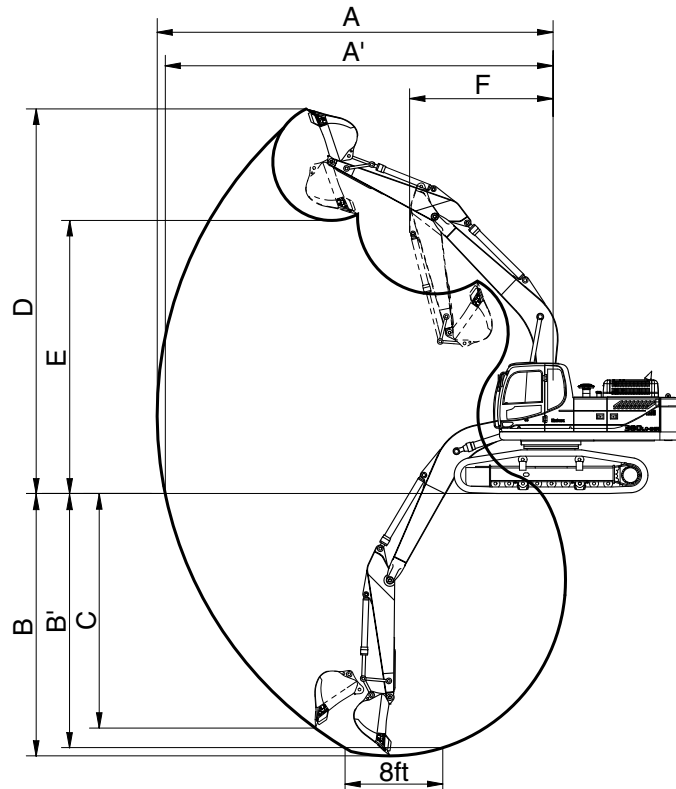


4309SH2SP02

Description		Unit	Specification
Operating weight		kg (lb)	42600 (93920)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	1.90 (2.49)
Overall length	A	mm (ft-in)	11270 (36' 12")
Overall width, with 600 mm shoe	B		3340 (10' 11")
Overall height	C		3500 (11' 6")
Superstructure width	D		2980 (9' 9")
Overall height of cab	E		3190 (10' 6")
Ground clearance of counterweight	F		1295 (4' 3")
Engine cover height	G		2790 (9' 2")
Minimum ground clearance	H		555 (1' 10")
Rear-end distance	I		3350 (11' 1")
Rear-end swing radius	I'		3415 (11' 2")
Distance between tumblers	J		4470 (14' 8")
Undercarriage length	K		5462 (17' 11")
Undercarriage width	L		3340 (11' 0")
Track gauge	M		2740 (9' 0")
Track shoe width, standard	N		600 (24")
Travel speed (low/high)		km/hr (mph)	3.3/5.1 (2.0/3.5)
Swing speed		rpm	9.6
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm ² (psi)	0.74 (10.52)
Max traction force		kg (lb)	34000 (74960)

3. WORKING RANGE

· 6.5 m (21' 4") BOOM



4309SH2SP03

Description		2.6 m (8' 6") Arm	3.2 m (10' 6") Arm
Max digging reach	A	10810 mm (35' 6")	11250 mm (36' 11")
Max digging reach on ground	A'	10580 mm (34' 9")	11030 mm (36' 2")
Max digging depth	B	6865 mm (22' 6")	7470 mm (24' 6")
Max digging depth (8ft level)	B'	6690 mm (21' 11")	7310 mm (23' 12")
Max vertical wall digging depth	C	6000 mm (19' 8")	6290 mm (20' 8")
Max digging height	D	10710 mm (35' 2")	10630 mm (34' 11")
Max dumping height	E	7480 mm (24' 6")	7470 mm (24' 6")
Min swing radius	F	4530 mm (14' 10")	4450 mm (14' 7")
Bucket digging force	SAE	201.0 [219.3] kN	201.0 [219.3] kN
		20500 [22360] kgf	20400 [22260] kgf
		45190 [49300] lbf	44970 [49060] lbf
	ISO	228.5 [249.3] kN	228.5 [249.3] kN
		23300 [25420] kgf	23310 [25430] kgf
		51370 [56040] lbf	51390 [56060] lbf
Arm crowd force	SAE	184.4 [201.1] kN	152.0 [165.8] kN
		18800 [20510] kgf	15520 [16940] kgf
		41450 [45220] lbf	34220 [37330] lbf
	ISO	192.2 [209.7] kN	156.9 [171.2] kN
		19600 [21380] kgf	16060 [17520] kgf
		43210 [47140] lbf	35410 [38630] lbf

[] : Power boost

4. WEIGHT

Item	R430LC-9SH	
	kg	lb
Upperstructure assembly	15540	34260
Main frame weld assembly	3090	6810
Engine assembly	920	2030
Main pump assembly	190	420
Main control valve assembly	340	750
Swing motor assembly	440	970
Hydraulic oil tank assembly	340	750
Fuel tank assembly	230	510
Counterweight	7000	15430
Cab assembly	490	1080
Lower chassis assembly	19200	42330
Track frame weld assembly	7060	15560
Swing bearing	590	1300
Travel motor assembly	620	1370
Turning joint	65	140
Track recoil spring	310	680
Idler	250	550
Carrier roller	40	90
Track roller	80	180
Track-chain assembly (600 mm standard triple grouser shoe)	2700	5950
Front attachment assembly (6.5 m boom, 3.2 m arm, 1.90 m³ SAE heaped bucket)	7860	17330
6.5 m boom assembly	3050	6720
3.2 m arm assembly	1410	3110
1.90 m³ SAE heaped bucket	1675	3690
Boom cylinder assembly	370	820
Arm cylinder assembly	490	1080
Bucket cylinder assembly	320	710
Bucket control linkage assembly	370	820

5. LIFTING CAPACITIES

1) 6.5 m (21' 4") boom, 3.2 m (10' 6") arm equipped with 1.90 m³ (SAE heaped) bucket and 600 mm (24") triple grouser shoe.

-  : Rating over-front
-  : Rating over-side or 360 degree

Load point height		Load radius												At max. reach		
		1.5 m (5.0 ft)		3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)		9.0 m (30.0 ft)		Capacity		Reach
																m (ft)
9.0 m (30 ft)	kg lb													*5530 *12190	*5530 *12190	7.74 (25.4)
7.5 m (25.0 ft)	kg lb									*4110 *9060	*4110 *9060			*5580 *12300	5460 12040	8.91 (29.2)
6.0 m (20.0 ft)	kg lb									*6120 *13490	*6120 *13490			*5720 *12610	4510 9940	9.68 (31.8)
4.5 m (15.0 ft)	kg lb							*7780 *17150	*7780 *17150	*6820 *15040	*6820 *15040	*4030 *8880	*4030 *8880	*5900 *13010	3970 8750	10.14 (33.3)
3.0 m (10.0 ft)	kg lb					*13020 *28700	*13020 *28700	*9470 *20880	*9470 *20880	*7740 *17060	6900 15210	*5960 *13140	4930 10870	*6150 *13560	3700 8160	10.34 (33.9)
1.5 m (5.0 ft)	kg lb					*15860 *34970	14740 32500	*11060 *24380	9390 20700	*8660 *19090	6530 14400	*7130 *15720	4740 10450	*6430 *14180	3630 8000	10.29 (33.8)
Ground Line	kg lb			*13570 *29920	*13570 *29920	*17330 *38210	14080 31040	*12180 *26850	8930 19690	*9380 *20680	6250 13780	*6710 *14790	4590 10120	*6730 *14840	3780 8330	10.01 (32.8)
-1.5 m (-5.0 ft)	kg lb	*14160 *31220	*14160 *31220	*18010 *39710	*18010 *39710	*17610 *38820	13870 30580	*12650 *27890	8710 19200	*9700 *21380	6100 13450			*7050 *15540	4190 9240	9.44 (31.0)
-3.0 m (-10.0 ft)	kg lb	*18350 *40450	*18350 *40450	*23300 *51370	*23300 *51370	*16900 *37260	13950 30750	*12370 *27270	8700 19180	*9400 *20720	6110 13470			*7320 *16140	5050 11130	8.55 (28.1)
-4.5 m (-15.0 ft)	kg lb	*23090 *50900	*23090 *50900	*21340 *47050	*21340 *47050	*15010 *33090	14280 31480	*11010 *24270	8910 19640					*7330 *16160	6990 15410	7.18 (23.6)
-6.0 m (-20.0 ft)	kg lb					*10930 *24100	*10930 *24100									

- Note
- Lifting capacity are based on SAE J1097 and ISO 10567.
 - Lifting capacity of the ROBEX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
 - The load point is a hook located on the back of the bucket.
 - * indicates load limited by hydraulic capacity.

(2) 6.5 m (21' 4") boom, 2.6 m (8' 6") arm equipped with 2.10 m³ (SAE heaped) bucket and 600 mm (24") triple grouser shoe.

Load point height		Load radius												At max. reach		
		1.5 m (5.0 ft)		3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)		9.0 m (30.0 ft)		Capacity		Reach
																m (ft)
9.0 m (30 ft)	kg lb													*6230 *13730	*6230 *13730	7.12 (23.4)
7.5 m (25.0 ft)	kg lb													*6160 *13580	5920 13050	8.39 (27.5)
6.0 m (20.0 ft)	kg lb							*7250 *15980	*7250 *15980	*6760 *14900	*6760 *14900			*6240 *13760	4800 10580	9.20 (30.2)
4.5 m (15.0 ft)	kg lb					*11050 *24360	*11050 *24360	*8580 *18920	*8580 *18920	*7380 *16270	7050 15540			*6390 *14090	4200 9260	9.69 (31.8)
3.0 m (10.0 ft)	kg lb					*14380 *31700	*14380 *31700	*10180 *22440	9760 21520	*8210 *18100	6710 14790	*5630 *12410	4770 10520	*6590 *14530	3910 8620	9.90 (32.5)
1.5 m (5.0 ft)	kg lb					*16740 *36910	14320 31570	*11590 *25550	9170 20220	*9020 *19890	6390 14090	*6530 *14400	4630 10210	*6820 *15040	3870 8530	9.85 (32.3)
Ground Line	kg lb					*17580 *38760	13910 30670	*12450 *27450	8810 19420	*9570 *21100	6170 13600			*7070 *15590	4060 8950	9.55 (31.3)
-1.5 m (-5.0 ft)	kg lb			*18020 *39730	*18020 *39730	*17350 *38250	13870 30580	*12630 *27840	8680 19140	*9660 *21300	6080 13400			*7280 *16050	4580 10100	8.95 (29.4)
-3.0 m (-10.0 ft)	kg lb	*20380 *44930	*20380 *44930	*22670 *49980	*22670 *49980	*16170 *35650	14070 31020	*11960 *26370	8760 19310					*7330 *16160	5700 12570	8.00 (26.2)
-4.5 m (-15.0 ft)	kg lb			*18770 *41380	*18770 *41380	*13630 *30050	*13630 *30050	*9820 *21650	9120 20110					*6780 *14950	*6780 *14950	6.49 (21.3)

6. BUCKET SELECTION GUIDE



General bucket



Heavy duty
(with side cutter)



Rock heavy duty

Type	Capacity		Width	Weight	Tooth	MONO	
						Recommendation	mm (ft-in)
	SAE Heaped	CECE heaped				6.15 m (20' 2") Boom	6.50 m (21' 4") Boom
	m³ (yd³)	m³ (yd³)			mm (in)	kg (lb)	EA
Rock heavy duty	1.90 (2.49)	1.65 (2.16)	1600 (63.0")	1900 (4390)	5		
	2.10 (2.75)	1.84 (2.41)	1735 (68.3")	2090 (4610)	5		
General bucket	1.90 (2.49)	1.65 (2.16)	1600 (63.0")	1610 (3550)	5		
	2.10 (2.75)	1.84 (2.41)	1735 (68.3")	1690 (3730)	5		
	2.32 (3.03)	2.02 (2.64)	1885 (74.2")	1800 (3970)	6		
Heavy duty	1.90 (2.49)	1.65 (2.16)	1600 (63.0")	1790 (3950)	5		
	2.10 (2.75)	1.84 (2.41)	1735 (68.3")	1880 (4140)	5		

●	Applicable for materials with density of 2100 kg/m ³ (3500 lb/yd ³) or less
◐	Applicable for materials with density of 1800 kg/m ³ (3000 lb/yd ³) or less
■	Applicable for materials with density of 1500 kg/m ³ (2500 lb/yd ³) or less
▲	Applicable for materials with density of 1200 kg/m ³ (2000 lb/yd ³) or less
X	Not recommended

※ These recommendations are for general conditions and average use.

Work tools and ground conditions have effects on machine performance.

Select an optimum combination according to the working conditions and the type of work that is being done.

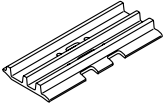
Consult with your local HD Hyundai Construction Equipment dealer for information on selecting the correct boom—arm—bucket combination.

7. UNDERCARRIAGE

1) TRACKS

X-leg type center frame is integrally welded with reinforced box-section track frames. The design includes dry tracks, lubricated rollers, idlers, sprockets, hydraulic track adjusters with shock absorbing springs and assembled track-type tractor shoes with triple grousers.

2) TYPES OF SHOES

Model	Shapes		Triple grouser				
							
R430LC-9SH	Shoe width	mm (in)	600 (24)	700 (28)	750 (30)	800 (32)	900 (36)
	Operating weight	kg (lb)	42600 (93920)	43140 (95110)	43410 (95700)	43680 (96300)	44220 (97490)
	Ground pressure	kgf/cm ² (psi)	0.74 (10.52)	0.64 (9.10)	0.60 (8.53)	0.57 (8.11)	0.51 (7.25)
	Overall width	mm (ft-in)	3340 (10' 11")	3440 (11' 3")	3490 (11' 5")	3540 (11' 7")	3640 (11' 11")

3) NUMBER OF ROLLERS AND SHOES ON EACH SIDE

Item	Quantity
Carrier rollers	2 EA
Track rollers	9 EA
Track shoes	53 EA

4) SELECTION OF TRACK SHOE

Suitable track shoes should be selected according to operating conditions.

Method of selecting shoes

Confirm the category from the list of applications in **table 2**, then use **table 1** to select the shoe. Wide shoes (categories B and C) have limitations on applications. Before using wide shoes, check the precautions, then investigate and study the operating conditions to confirm if these shoes are suitable.

Select the narrowest shoe possible to meet the required flotation and ground pressure. Application of wider shoes than recommendations will cause unexpected problem such as bending of shoes, crack of link, breakage of pin, loosening of shoe bolts and the other various problems.

※ **Table 1**

Track shoe	Specification	Category
600 mm triple grouser	Standard	A
700 mm triple grouser	Option	B
750 mm triple grouser	Option	B
800 mm triple grouser	Option	C
900 mm triple grouser	Option	C

※ **Table 2**

Category	Applications	Applications
A	Rocky ground, river beds, normal soil	• Travel at low speed on rough ground with large obstacles such as boulders or fallen trees
B	Normal soil, soft ground	• These shoes cannot be used on rough ground with large obstacles such as boulders or fallen trees • Travel at high speed only on flat ground • Travel slowly at low speed if it is impossible to avoid going over obstacles
C	Extremely soft ground (swampy ground)	• Use the shoes only in the conditions that the machine sinks and it is impossible to use the shoes of category A or B • These shoes cannot be used on rough ground with large obstacles such as boulders or fallen trees • Travel at high speed only on flat ground • Travel slowly at low speed if it is impossible to avoid going over obstacles

8. SPECIFICATIONS FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	HMC D6AC-C
Type	4-cycle turbocharged charger air cooled diesel engine
Cooling method	Water cooling
Number of cylinders and arrangement	6 cylinders, in-line
Firing order	1-5-3-6-2-4
Combustion chamber type	Direct injection type
Cylinder bore × stroke	130 × 140 mm (5.12" × 5.51")
Piston displacement	11,149 cc (680 cu in)
Compression ratio	17 : 1
Rated gross horse power (SAE J1995)	276 Hp at 1900 rpm (206 kW at 1900 rpm)
Maximum torque	120.0 kgf · m (868 lbf · ft) at 1400 rpm
Engine oil quantity	27.3 l (7.2 U.S. gal)
Dry weight	920 kg (2028 lb)
Low idling speed	800 ± 100 rpm
High idling speed	2050 + 50 rpm
Rated fuel consumption	157.1 g/Hp · hr at 1900 rpm
Starting motor	24V-5.5 kW
Alternator	24V-70A
Battery	2 × 12V × 160Ah, *2 × 12V × 200Ah

*: Artic machinery

2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 185 cc/rev
Maximum pressure	330 kgf/cm ² (4690 psi) [360 kgf/cm ² (5120 psi)]
Rated oil flow	2 × 333 l /min (88 U.S. gpm/73.2 U.K. gpm)

[] : Power boost

3) GEAR PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	15cc/rev
Maximum pressure	40 kgf/cm ² (570 psi)
Rated oil flow	25.5 l /min (6.7 U.S. gpm/5.6 U.K. gpm)

4) MAIN CONTROL VALVE

Item	Specification
Type	9 spools
Operating method	Hydraulic pilot system
Main relief valve pressure	330 kgf/cm ² (4690 psi) [360 kgf/cm ² (5120 psi)]
Overload relief valve pressure	380 kgf/cm ² (5400 psi)

[]: Power boost

5) SWING MOTOR

Item	Specification
Type	Axial piston motor
Capacity	250 cc/rev
Relief pressure	290 kgf/cm ² (4120 psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	107 kgf · m (773 lbf · ft)
Brake release pressure	30~50 kgf/cm ² (427~711 psi)
Reduction gear type	2 - stage planetary

6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Relief pressure	360 kgf/cm ² (5120 psi)
Capacity (max / min)	282.6/160.8 cc/rev
Reduction gear type	3-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	15.3 kgf/cm ² (218 psi)
Braking torque	143 kgf · m (1034 lbf · ft)

7) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Stroke	Ø 160 × 1500 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Stroke	Ø 170 × 1760 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Stroke	Ø 150 × 1295 mm
	Cushion	Extend only

※ Discoloration of cylinder rod can occur when the friction reduction additive of lubrication oil spreads on the rod surface.

※ Discoloration does not cause any harmful effect on the cylinder performance.

9. RECOMMENDED OILS

Use only oils listed below. Do not mix different brand oil.

Please use HYUNDAI genuine oil and grease.

Service point	Kind of fluid	Capacity <i>l</i> (U.S. gal)	Ambient temperature °C (°F)							
			-50 (-58)	-30 (-22)	-20 (-4)	-10 (14)	0 (32)	10 (50)	20 (68)	30 (86)
Engine oil pan	Engine oil	27.3 (7.2)	★SAE 5W-40							
			SAE 30							
			SAE 10W							
			SAE 10W-30							
			SAE 15W-40							
Swing drive	Gear oil	8.0 (2.1)	★SAE 75W-90							
Final drive		12×2 (3.2×2)	SAE 80W-90							
Hydraulic tank	Hydraulic oil	Tank; 210 (55.5)	★ISO VG 15							
			ISO VG 32							
		System; 410 (108.3)	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 soft water★ ¹	45 (13.7)	Ethylene glycol base permanent type (50 : 50)							
			★Ethylene glycol base permanent type(60 : 40)							

SAE : Society of Automotive Engineers

API : American Petroleum Institute

ISO : International Organization for Standardization

NLGI : National Lubricating Grease Institute

ASTM : American Society of Testing and Material

★ : Arctic machine

★¹ : Soft water

City water or distilled water