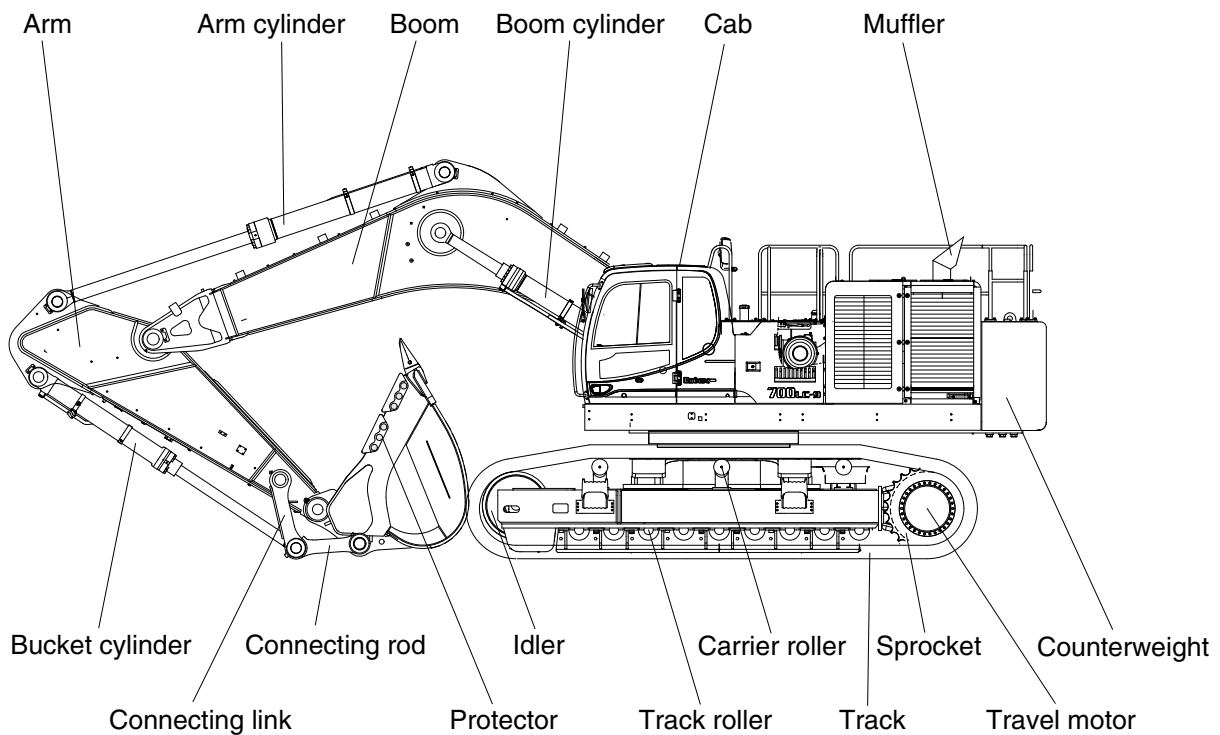
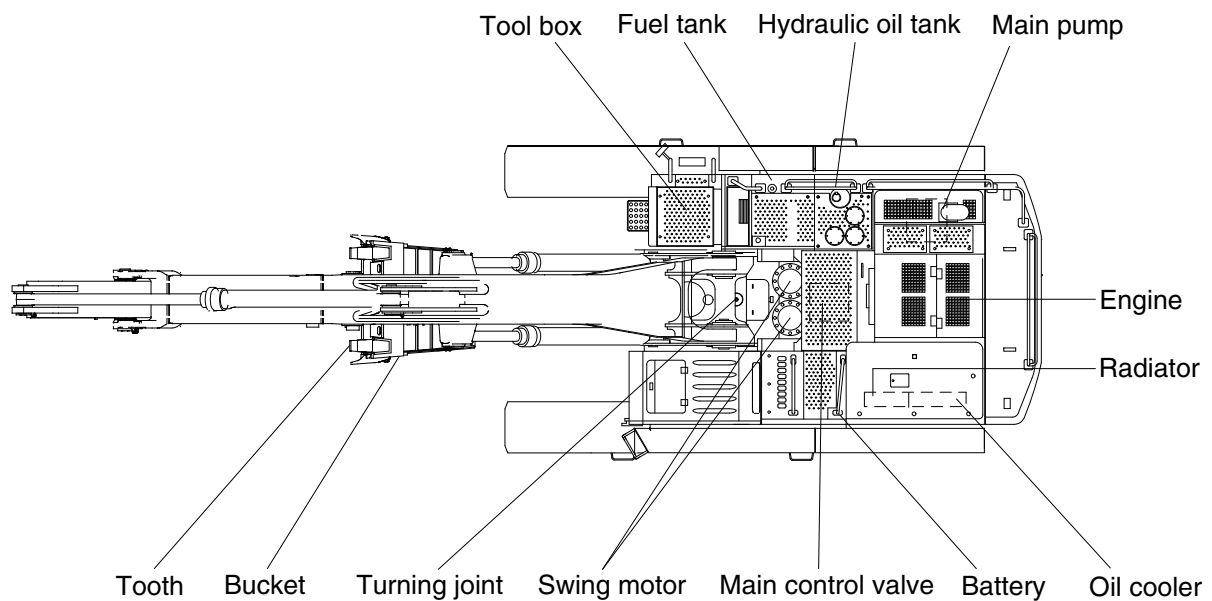


SPECIFICATIONS

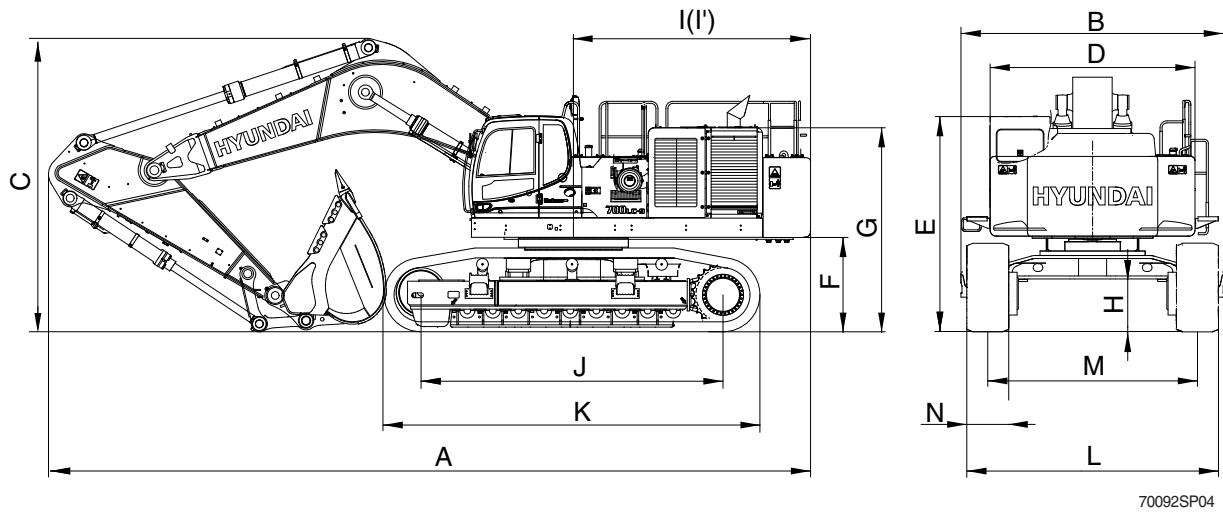
1. MAJOR COMPONENTS



70092SP03

2. SPECIFICATIONS

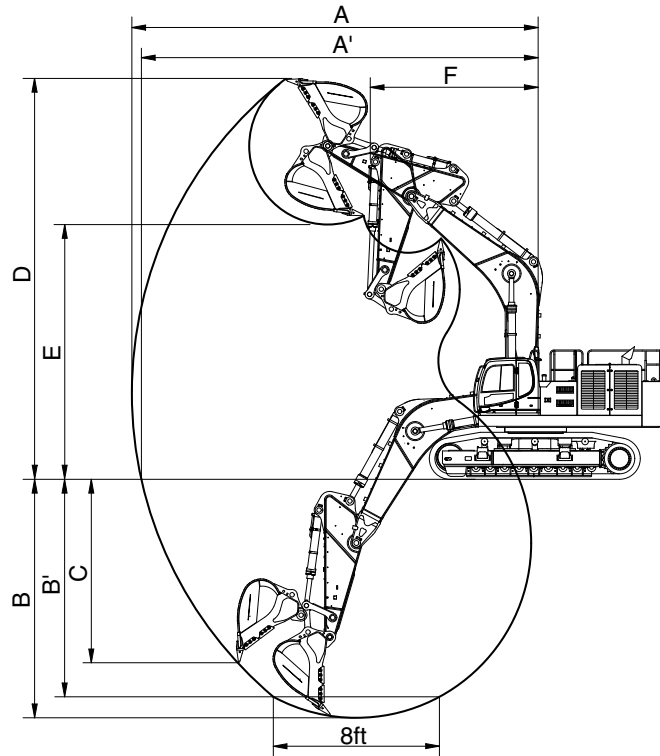
- 6.8 m (22' 4") BOOM, 2.9 m (9' 6") ARM



Description		Unit	Specification
Operating weight		kg (lb)	72400 (156610)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	4.0 (5.23)
Overall length	A	mm (ft-in)	12490 (41' 0")
Overall width, with 650 mm shoe (Transport position/Working position)	B		3745/4345 (12' 3"/14' 3")
Overall height	C		4890 (16' 1")
Superstructure width	D		3420 (11' 3")
Overall height of cab	E		3560 (11' 7")
Ground clearance of counterweight	F		1550 (5' 1")
Engine cover height	G		3375 (11' 1")
Minimum ground clearance	H		896 (2' 11")
Rear-end distance	I		3975 (13' 0")
Rear-end swing radius	I'		4090 (13' 5")
Distance between tumblers	J		4750 (15' 7")
Undercarriage length	K		5886 (19' 4")
Undercarriage width (Transport position/Working position)	L		3400/4000 (11' 2"/13' 1")
Track gauge (Transport position/Working position)	M		2750/3350 (9' 0"/11' 0")
Track shoe width, standard	N		650 (26")
Travel speed (Low/high)		km/hr (mph)	2.9/4.1 (1.8/2.5)
Swing speed		rpm	6.0
Gradeability		Degree (%)	35 (70)
Ground pressure (650 mm shoe)		kgf/cm ² (psi)	1.08 (15.36)
Max traction force		kg (lb)	50810 (112020)

3. WORKING RANGE

- 6.8 m (22' 4") BOOM



70092SP03A

Description		2.9 m (9' 6") Arm
Max digging reach	A	11780 mm (38' 8")
Max digging reach on ground	A'	11490 mm (37' 8")
Max digging depth	B	7120 mm (23' 4")
Max digging depth (8ft level)	B'	6970 mm (22' 1")
Max vertical wall digging depth	C	5310 mm (17' 5")
Max digging height	D	11080 mm (36' 4")
Max dumping height	E	7130 mm (23' 5")
Min swing radius	F	5280 mm (17' 4")
Bucket digging force	SAE	322.6 [352.0] kN
		32900 [35890] kgf
		72530 [79120] lbf
	ISO	369.7 [403.3] kN
		37700 [41130] kgf
		83110 [90670] lbf
Arm crowd force	SAE	297.1 [324.2] kN
		30300 [33050] kgf
		66800 [72870] lbf
	ISO	309.9 [338.1] kN
		31600 [34470] kgf
		69670 [76000] lbf

[] : Power boost

4. WEIGHT

Item	R700LC-9	
	kg	lb
Upperstructure assembly	35700	78700
Main frame weld assembly	6660	14680
Engine assembly	1340	2950
Main pump assembly	300	660
Main control valve assembly	420	930
Swing motor assembly	410	900
Hydraulic oil tank assembly	1860	4100
Fuel tank assembly	1825	4020
Counterweight	11000	24250
Cab assembly	490	1080
Lower chassis assembly	21420	47220
Lower track frame assy	10700	23590
Swing bearing	1300	2870
Travel motor assembly	800	1760
Turning joint	75	165
Track recoil spring and tension body	740	1630
Idler	540	1190
Sprocket	210	460
Carrier roller	75	165
Track roller	150	330
Track-chain assembly (650 mm double grouser shoe)	4270	9410
Front attachment assembly (6.8 m boom, 2.9 m arm, 4.0 m³ SAE heaped bucket)	15280	33690
6.8 m boom assembly	5300	11680
2.9 m arm assembly	2440	5380
4.0 m³ SAE heaped bucket	3900	8600
Boom cylinder assembly	590	1300
Arm cylinder assembly	870	1920
Bucket cylinder assembly	570	1260
Bucket control rod assembly	390	860

5. LIFTING CAPACITIES

1) 6.8 m (22' 4") boom, 2.9 m (9' 6") arm equipped with 4.0 m³ (SAE heaped) bucket, 650 mm (26") double grouser shoe.

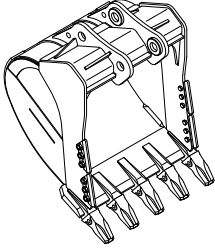
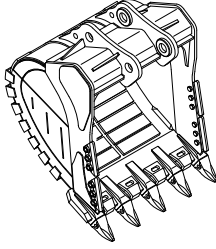
-  : Rating over-front
-  : Rating over-side or 360 degree

Load point height		Load radius										At max. reach		
		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)
9.0m (30.0ft)	kg lb											*11400 *25130	*11400 *25130	8.25 (27.1)
7.5m (25.0ft)	kg lb											*10890 *24010	10110 22290	9.30 (30.5)
6.0m (20.0ft)	kg lb							*13030 *28730	*13030 *28730	*9910 *21850	*9910 *21850	*10680 *23550	8460 18650	9.98 (32.7)
4.5m (15.0ft)	kg lb			*23740 *52340	*23740 *52340	*17560 *38710	*17560 *38710	*14250 *31420	*14250 *31420	*12220 *26940	10660 23500	*10620 *23410	7540 16620	10.37 (34.0)
3.0m (10.0ft)	kg lb					*20000 *44090	*20000 *44090	*15560 *34300	14370 31680	*12860 *28350	10230 22550	*10630 *23440	7110 15670	10.51 (34.5)
1.5m (5.0ft)	kg lb					*21750 *47950	19730 43500	*16580 *36550	13600 29980	*13340 *29410	9820 21650	*10640 *23460	7090 15630	10.41 (34.2)
Ground Lind	kg lb			*31030 *68410	30850 68010	*22340 *49250	18900 41670	*16990 *37460	13060 28790	*13370 *29480	9510 20970	*10560 *23280	7500 16530	10.06 (33.0)
-1.5m (-5.0ft)	kg lb	*32620 *71910	*32620 *71910	*29160 *64290	*29160 *64290	*21620 *47660	18560 40920	*16470 *36310	12800 28220	*12500 *27560	9400 20720	*10240 *22580	8510 18760	9.43 (30.9)
-3.0m (-10.0ft)	kg lb	*33800 *74520	*33800 *74520	*25620 *56480	*25620 *56480	*19410 *42790	18660 41140	*14570 *32120	12860 28350			*9290 *20480	*9290 *20480	8.45 (27.7)
-4.5m (-15.0ft)	kg lb	*25010 *55140	*25010 *55140	*19770 *43590	*19770 *43590	*14920 *32890	*14920 *32890							

- Note
1. Lifting capacity are based on SAE J1097 and ISO 10567.
 2. 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.
 3. The load point is a hook located on the back of the bucket.
 4. *indicates load limited by hydraulic capacity.

6. BUCKET SELECTION GUIDE

1) BUCKET

	
◆ 3.3 m ³ , 3.7 m ³ , 4.0 m ³ , 4.3 m ³ , 4.6 m ³ SAE heaped bucket	◆ 3.3 m ³ , 3.7 m ³ , 4.0 m ³ SAE heaped bucket

Capacity		Width	Weight	Recommendation
				6.8 m (22' 4") boom
SAE heaped	CECE heaped			2.9 m (9' 6") arm
◆3.3 m³ (4.32 yd³) A TYPE	2.90 m³ (3.79 yd³)	1885 mm (74.2")	3590 kg (7910 lb)	○
◆3.7 m³ (4.84 yd³) B TYPE	3.25 m³ (4.25 yd³)	2045 mm (80.5")	3760 kg (8290 lb)	○
◆4.0 m³ (5.23 yd³)	3.50 m³ (4.58 yd³)	2165 mm (85.2")	3900 kg (8600 lb)	⊙
◆4.3 m³ (5.62 yd³)	3.86 m³ (5.05 yd³)	2285 mm (90.0")	4040 kg (8910 lb)	⊙
◆4.6 m³ (6.02 yd³)	4.10 m³ (5.36 yd³)	2165 mm (85.2")	3880 kg (8550 lb)	●
◆3.3 m³ (4.32 yd³)	2.90 m³ (3.79 yd³)	1885 mm (74.2")	4030 kg (8880 lb)	○
◆3.7 m³ (4.84 yd³)	3.25 m³ (4.25 yd³)	2045 mm (80.5")	4240 kg (9350 lb)	⊙
◆4.0 m³ (5.23 yd³)	3.50 m³ (4.58 yd³)	2165 mm (85.2")	4380 kg (9660 lb)	⊙

◆ : Heavy duty bucket

◆ : Rock bucket

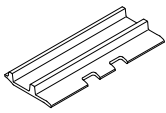
○	Applicable for materials with density of 2000 kg/m ³ (3370 lb/yd ³) or less
⊙	Applicable for materials with density of 1600 kg/m ³ (2700 lb/yd ³) or less
●	Applicable for materials with density of 1100 kg/m ³ (1850 lb/yd ³) or less

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		Double grouser			
						
R700LC-9	Shoe width	mm (in)	650 (26)	700 (28)	800 (32)	900 (36)
	Operating weight	kg (lb)	72400 (159610)	72755 (160400)	73455 (161940)	74155 (163480)
	Ground pressure	kgf/cm ² (psi)	1.08 (15.36)	1.01 (14.36)	0.89 (12.66)	0.80 (11.36)
	Overall width	mm (ft-in)	4000 (13' 1")	4050 (13' 3")	4150 (13' 6")	4250 (13' 9")
R700LC-9 Heavy duty	Shoe width	mm (in)	650 (26)	700 (28)	800 (32)	900 (36)
	Operating weight	kg (lb)	72790 (160470)	73160 (161290)	73920 (162960)	74680 (164640)
	Ground pressure	kgf/cm ² (psi)	1.09 (15.50)	1.02 (14.50)	0.90 (12.80)	0.81 (11.52)
	Overall width	mm (ft-in)	4000 (13' 1")	4050 (13' 3")	4150 (13' 6")	4250 (13' 9")

3) NUMBER OF ROLLERS AND SHOES ON EACH SIDE

Item	Quantity
Carrier rollers	3EA
Track rollers	9EA
Track shoes	48EA

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
650 mm double grouser	Standard	A
700 mm double grouser	Option	A
800 mm double grouser	Option	B
900 mm double 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	Scania DC16 074A
Type	4-cycle turbocharged charge air cooled diesel engine
Cooling method	Water cooling
Number of cylinders and arrangement	8 cylinders, 90 degree, V type
Firing order	1-5-4-2-6-3-7-8
Combustion chamber type	Direct injection type
Cylinder bore × stroke	130 × 154 mm (5.12" × 6.06")
Piston displacement	16400 cc (1000 cu in)
Compression ratio	16.7 : 1
Rated gross horse power(SAE J1995)	550 hp at 1850 rpm (405 kW at 1850 rpm)
Maximum torque	294 kgf · m (2126 lbf · ft) at 1300 rpm
Engine oil quantity	38 ℓ (10 U.S. gal)
Dry weight	1340 kg (2954 lb)
High idling speed	1750 ± 50 rpm
Low idling speed	1000 ± 50 rpm
Rated fuel consumption	155.5 g/Hp · hr at 1850 rpm
Starting motor	Prestolite MS7 (24V-7.0kW)
Alternator	24V-100A
Battery	4 × 12V × 160Ah

2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 242 cc/rev
Maximum pressure	330 kgf/cm ² (4690 psi) [360 kgf/cm ² (5120 psi)]
Rated oil flow	2 × 435.6 ℓ /min (115.1 U.S. gpm/95.8 U.K. gpm)
Rated speed	1800 rpm

[] : Power boost

3) GEAR PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	15 cc/rev
Maximum pressure	40 kgf/cm ² (569 psi)
Rated oil flow	27 ℓ /min (7.1 U.S. gpm/5.9 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	Fixed displacement axial piston motor
Capacity	250 cc/rev
Relief pressure	260 kgf/cm ² (3700 psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	119 kgf · m (863 lbf · ft)
Brake release pressure	33~50 kgf/cm ² (469~711 psi)
Reduction gear type	2 - stage planetary

6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Relief pressure	350 kgf/cm ² (4980psi)
Capacity (max / min)	337.2/228.6 cc/rev
Reduction gear type	3-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	18 kgf/cm ² (256 psi)
Braking torque	114 kgf · m (825 lbf · ft)

7) REMOTE CONTROL VALVE

Item		Specification
Type		Pressure reducing type
Operating pressure	Minimum	6.5 kgf/cm ² (92 psi)
	Maximum	25 kgf/cm ² (360 psi)
Single operation stroke	Lever	61 mm (2.4 in)
	Pedal	123 mm (4.84 in)

8) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	ø 190 × ø 130 × 1790 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	ø 215 × ø 150 × 1965 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	ø 200 × ø 130 × 1465 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) SHOE

Item		Width	Ground pressure	Link quantity	Overall width
R700LC-9	Standard	650 mm (26")	1.08 kgf/cm ² (15.36 psi)	48	4000 mm (13' 1")
	Option	700 mm (28")	1.01 kgf/cm ² (14.36 psi)	48	4050 mm (13' 3")
		800 mm (32")	0.89 kgf/cm ² (12.66 psi)	48	4150 mm (13' 6")
		900 mm (36")	0.80 kgf/cm ² (11.36 psi)	48	4250 mm (13' 9")
	Option (Heavy duty)	650 mm (26")	1.09 kgf/cm ² (15.50 psi)	48	4000 mm (13' 1")
		700 mm (28")	1.02 kgf/cm ² (14.50 psi)	48	4050 mm (13' 3")
		800 mm (32")	0.90 kgf/cm ² (12.80 psi)	48	4150 mm (13' 6")
		900 mm (36")	0.81 kgf/cm ² (11.52 psi)	48	4250 mm (13' 9")

10) BUCKET

Item		Capacity		Tooth quantity	Width
		SAE heaped	CECE heaped		
R700LC-9	Standard	◆ 4.0 m ³ (5.23 yd ³)	3.5 m ³ (4.58 yd ³)	5	2165 mm (85.2")
	Option	◆ 3.3 m ³ (4.32 yd ³)	2.9 m ³ (3.79 yd ³)	5	1885 mm (74.2")
		◆ 3.7 m ³ (4.84 yd ³)	3.25 m ³ (4.25 yd ³)	5	2045 mm (80.5")
		◆ 4.3 m ³ (5.62 yd ³)	3.86 m ³ (5.05 yd ³)	5	2285 mm (90.0")
		◆ 4.6 m ³ (6.02 yd ³)	4.1 m ³ (5.26 yd ³)	5	2165 mm (85.2")
		◆ 3.3 m ³ (4.32 yd ³)	2.9 m ³ (3.79 yd ³)	5	1885 mm (74.2")
		◆ 3.7 m ³ (4.84 yd ³)	3.25 m ³ (4.25 yd ³)	5	2045 mm (80.5")
		◆ 4.0 m ³ (5.23 yd ³)	3.5 m ³ (4.58 yd ³)	5	2165 mm (85.2")

◆ : Heavy duty bucket

◆ : Rock bucket

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 ℓ (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	38 (10)	★SAE 5W-30							
			SAE 30							
			SAE 10W-30							
			SAE 15W-40							
Swing drive	Gear oil	7.4×2 (1.95×2)	★SAE 75W-90							
Final drive		17×2 (4.5×2)	SAE 80W-90							
Hydraulic tank	Hydraulic oil	Tank : 450 (119)	★ISO VG 15							
		System : 800 (210)	ISO VG 46							
			ISO VG 68							
Fuel tank	Diesel fuel	870 (230)	★ASTM D975 NO.1				ASTM D975 NO.2			
Lower roller	Gear oil	1.56 (0.4)	★SAE 75W-90							
Upper roller		0.6 (0.15)	SAE 85W-140							
Idler		1.1 (0.3)								
Fitting (grease nipple)	Grease	As required	★NLGI NO.1							
			NLGI NO.2							
Radiator (reservoir tank)	Mixture of antifreeze and soft water★ ¹	65 (17)	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

★ : Cold region

Russia, CIS, Mongolia

★¹ : Soft water

City water or distilled water