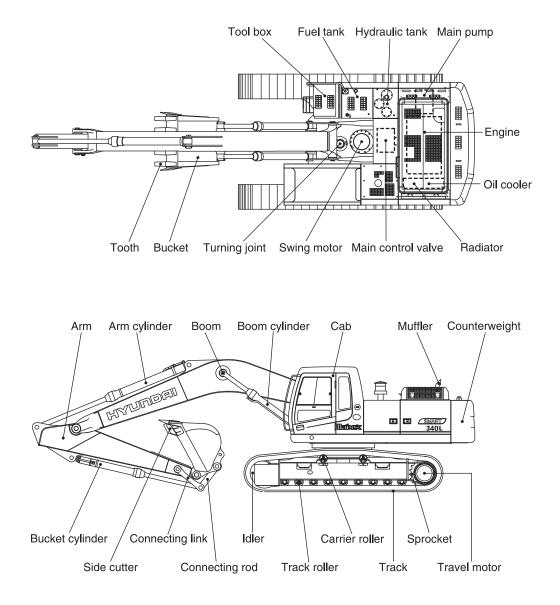
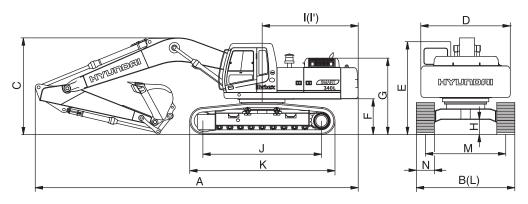
# **1. MAJOR COMPONENT**



34072SP01

# 2. SPECIFICATIONS

### • 6.45m(21' 2") BOOM, 2.2m(7' 3") ARM

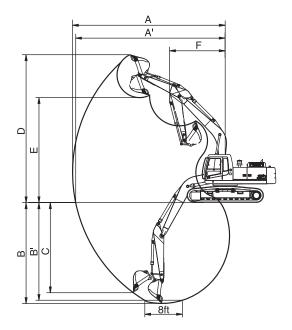


34072SP02

Description		Unit	Specification
Operating weight		kg(lb)	33800(74520)
Bucket capacity(SAE heaped)		m³(yd³)	2.10(2.75)
Overall length	Α		11430(37' 6")
Overall width, with 600mm shoe	В		3280(10' 9")
Overall height	С		3630(11' 11")
Superstructure width	D		2980( 9' 9")
Overall height of cab	E		3090(10' 2")
Ground clearance of counterweight	F		1200( 3' 11")
Engine cover height	G	mm(ft-in)	2600( 8' 6")
Minimum ground clearance	Н	initiation of the second se	500( 1' 8")
Rear-end distance	I		3400(11' 2")
Rear-end swing radius	ľ		3460(11' 4")
Distance between tumblers	J		4030(13' 3")
Undercarriage length	К		4940(16' 2")
Undercarriage width	L		3280(10' 9")
Track gauge	М		2680( 8' 10")
Track shoe width, standard	N		600(24")
Travel speed(Low/high)	·	km/hr(mph)	3.3/5.5(2.1/3.4)
Swing speed		rpm	9.5
Gradeability		Degree(%)	35(70)
Ground pressure(600mm shoe)		kgf/cm²(psi)	0.65(9.24)

# 3. WORKING RANGE

# 6.45m(21' 2") BOOM



34072SP03

			6.45m(21' 2") Boom	
Description		2.2m(7' 3")Arm	2.65m(8' 8")Arm	3.2m(10' 6") Arm
Max digging reach	A	10230mm (33' 7")	10730mm (35' 2")	11140mm (36' 7")
Max digging reach on ground	A'	10010mm (32'10")	10520mm (34' 6")	10940mm (35'11")
Max digging depth	В	6310mm (20' 8")	6830mm (22' 5")	7370mm (24' 2")
Max digging depth (8ft level)	B'	6110mm (20' 1")	6660mm (21' 10")	7210mm (23' 8")
Max vertical wall digging depth	С	4320mm (14' 2")	5050mm (16' 7")	6360mm (20' 10")
Max digging height	D	9830mm (32' 3")	10120mm (33' 2")	10310mm (33' 10")
Max dumping height	E	6890mm (22' 7")	7040mm (23' 1")	7240mm (23' 9")
Min swing radius	F	4840mm (15'11")	4740mm (15' 7")	4470mm (14' 8")
		199.1[217.2] kN	←	←
	SAE	20300[22150] kgf	←	←
Ducket director force		44750[48820] lbf	←	←
Bucket digging force		225.6[246.1] kN	←	←
	ISO	23000[25050] kgf	←	←
		50710[55320] lbf	←	←
		204.0[222.5] kN	156.9[171.2] kN	132.4[144.4] kN
	SAE	20800[22660] kgf	16000[17480] kgf	13500[14730] kgf
Arm crowd force		45860[50030] lbf	35270[38480] lbf kN	29760[32470] lbf
Ann crowd iorce		211.8[231.1] kN	162.8[177.6] kgf	136.3[148.7] kN
	ISO	21600[23530] kgf	16600[18080] lbf	13900[15160] kgf
		47620[51950] lbf	36600[39930] kN	30640[33430] lbf

[]: Power boost

# 4. WEIGHT

ltore	R34	10L
Item	kg	lb
Upperstructure assembly	15300	33730
Main frame weld assembly	2680	5900
Engine assembly	920	2030
Main pump assembly	250	550
Main control valve assembly	200	440
Swing motor assembly	310	680
Hydraulic oil tank assembly	230	510
Fuel tank assembly	230	510
Counterweight	6600	14550
Cab assembly	310	680
Radiator total assy	280	620
Lower chassis assembly	11950	26350
Track frame weld assembly	3970	8750
Swing bearing	435	960
Travel motor assembly	360	790
Turning joint	50	110
Tension cylinder	205	450
ldler	250	550
Sprocket	83	180
Carrier roller	35	80
Track roller	56	120
Track-chain assembly(600mm standard triple grouser shoe)	1880	4150
Front attachment assembly(6.45m boom, 3.2m arm, 2.1m <sup>3</sup> SAE heaped bucket)	6550	14440
6.45m boom assembly	2710	5970
3.2m arm assembly	1320	2910
1.44m <sup>3</sup> SAE heaped bucket	1450	3196
Boom cylinder assembly	280	620
Arm cylinder assembly	380	840
Bucket cylinder assembly	270	570
Bucket control linkage assembly	370	820

# 5. LIFTING CAPACITIES

1) 6.45m(21' 2") boom, 2.2m(7' 3") arm equipped with 2.10m<sup>3</sup>(SAE heaped) bucket and 600mm (24") triple grouser shoe.

	•	🖣 : Ra	ting over	-front		•	; Ratir	ng over-si	ide or 36	0 degree			
					Load	radius				At max. reach			
Load po		3.0m(10ft)		4.5m	(15ft)	6.0m(20ft)		7.5m(25ft)		Сара	acity	Reach	
heigh	t	ł		ŀ	<b>-</b>	ľ	<b>.</b>	ľ	۲.	ŀ	<b>بة</b>	m(ft)	
7.5m (25ft)	kg Ib									*6140 *13540	4950 10910	7.99 (26.2)	
6.0m (20ft)	kg Ib					*7290 *16070	*7290 *16070	*6760 *14900	5430 11970	*6200 *13670	3890 8580	8.87 (29.1)	
4.5m (15ft)	kg Ib			*11110 *24490	*11110 *24490	*8480 *18700	7790 17170	*7260 *16010	5230 11530	5520 12170	3340 7360	9.39 (30.8)	
3.0m (10ft)	kg Ib					*9930 *21890	7200 15870	*7980 *17590	4960 10930	5180 11420	3080 6790	9.61 (31.5)	
1.5m (5ft)	kg Ib					*11150 *24580	6730 14840	7770 17130	4700 10360	5140 11330	3040 6700	9.56 (31.4)	
Ground Line	kg Ib			*16550 *36490	10200 22490	10940 24120	6460 14240	7590 16730	4530 9990	5420 11950	3210 7080	9.23 (30.3)	
-1.5m (-5ft)	kg Ib			*16000 *35270	10250 22600	10870 23960	6400 14110	7540 16620	4490 9900	6150 13560	3680 8110	8.59 (28.2)	
-3.0m (-10ft)	kg Ib	*19750 *43540	*19750 *43540	*14600 *32190	10480 23100	*10920 *24070	6510 14350			*7140 *15740	4750 10470	7.54 (24.7)	
-4.5m (-15ft)	kg b	*15770 *34770	*15770 *34770	*11820 *26060	10940 24120								

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.

\*indicates load limited by hydraulic capacity.

2) 6.45m(21' 2") boom, 2.65m(8' 8") arm equipped with 2.10m3(SAE heaped) bucket and 600mm (24") triple grouser shoe.

۰	Ů	:	Rating over-front	
---	---	---	-------------------	--

• Esting over-side or 360 degree

						Load ra	adius					At	max. re	ach
Load po		3.0m(	10.0ft)	4.5m(*	15.0ft)	6.0m(	20.0ft)	7.5m(2	25.0ft)	9.0m(3	30.0ft)	Capa	acity	Reach
heigh	t	Þ		ľ	<b>(</b>	ŀ		ľ		ŀ		ŀ	<b></b> )	m(ft)
7.5m (25.0ft)	kg Ib											*5660 *12480	4350 9590	8.53 (28.0)
6.0m (20.0ft)	kg Ib							*6280 *13850	5490 12100			5690 12540	3480 7670	9.35 (30.7)
4.5m (15.0ft)	kg Ib			*10130 *22330	*10130 *22330	*7920 *17460	7860 17330	*6830 *15060	5250 11570			5050 11130	3010 6640	9.84 (32.3)
3.0m (10.0ft)	kg Ib			*13280 *29280	11390 25110	*9400 *20720	7230 15940	*7600 *16760	4950 10910	5800 12790	2480 7670	4740 10450	2780 6130	10.05 (33.0)
1.5m (5.0ft)	kg Ib			*15570 *34330	10410 22950	*10730 *23660	6700 14770	7730 17040	4660 10270	5650 12460	3340 7360	4700 10360	2730 6020	10.01 (32.8)
Ground Line	kg Ib			*16360 *36070	10050 22160	10850 23920	6370 14040	7510 16560	4450 9810			4930 10870	2870 6330	9.70 (31.8)
-1.5m (-5.0ft)	kg Ib	*15210 *33530	*15210 *33530	*16110 *35520	10030 22110	10720 23630	6260 13800	7420 16360	4370 9630			5520 12170	3250 7170	9.10 (29.9)
-3.0m (-10.0ft)	kg Ib	*21030 *46360	*21030 *46360	*14990 *33050	10210 22510	10810 23830	6330 13960	7510 16560	4460 9830			*6780 *14950	4080 8990	8.12 (26.6)
-4.5m (-15.0ft)	kg Ib	*17350 *38250	*17350 *38250	*12640 *27870	10620 23410	*9240 *20370	6630 14620					*6280 *13850	6120 13490	6.58 (21.6)

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.

\*indicates load limited by hydraulic capacity.

# LIFTING CAPACITY

Ů	Rating over-front
も	Rating over-side or 360 degree

						Load	l radius							At n	nax. re	ach
	oad point 1.		(5.0ft)	3.0m(	15.0ft)	4.5m(	15.0ft)	5.0ft) 6.0m(2		7.5m(	25.0ft)	9.0m(	30.0ft)	Сара	acity	Reach
(m/ft)		Ů	見	Ů	■⊅	Ů	₽₽	Ů	も	ų	も	ĥ	も	Ů	<b>Þ</b>	m (ft)
7.5 m	kg									*4880	*4880			*5500	1360	9.06
25.0 ft	lb									*10760				*12130	9610	(29.7)
6.0 m	kg									*6000	*6110			5730	3630	9.84
20.0 ft	lb							*7490	*7490	*13230 *6640	*13470 5860	*5070	4150	12630 5180	8000 3220	(32.3) 10.31
4.5 m 15.0 ft	kg Ib							*16510	*/490 *16510	*14640		*11180	4150 9140	5180 11410	3220 7100	(33.8)
3.0 m	kg					*12430	12610	*9090	7980	*7490	5540	6350	4000	4910	3010	10.52
3.0 m 10.0 ft	ib					*27400	27800	*20040	17600	*16510		14000	8810	10820	6630	(34.5)
1.5 m	kg					*15210	11540	*10610	7440	8360	5230	6180	3840	4860	2960	10.48
5.0 ft	lb					*33530	25440	23390	16400	18440	11530	13620	8470	10710	6520	(34.4)
Ground	kg			*9720	*9720	*16620	11010	11630	7070	8100	5010	6050	3710	5030	3060	10.19
Line	lb			*21430	*21430	*36640	24270	25630	15590	17860	11040	13340	8170	11080	6740	(33.4)
-1.5 m	kg	*10800	*10800	*13710	*13710	*16830	10870	11430	6890	7970	4880			5500	3380	9.63
-5.0 ft	lb	*23810	*23810	*30230	*30230	*37100	23970	25190	15190	17570	10760			12120	7450	(31.6)
-3.0 m	kg	*14530	*14530	*18410	*18410	*16100	10940	11420	6890	7970	4890			6480	4040	8.74
-10.0 ft	lb	*32030	*32030	*40590	*40590	*35490	24120	25170	15190	17570	10780			14290	8910	(28.7)
-4.5 m	kg			*20220	*20220	*14270	11220	10560	7070					*6880	5490	7.37
-15.0 ft	lb			*44580	*44580	*31460	24730	23280	15590					*15170	12100	(24.2)
-6.0 m	kg					*10450	10450									6.58
-20.0 ft	lb					*23040	23040									(21.6)
NOTES	NOTES:       1. Lifting Capacity of the Robex Series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of ful hydraulic capacity.       3. The load point is a hook (standard equipment) located on the back of the bucket.         4. (*) Indicates load limited by hydraulic capacity.       State of the hydraulic capacity.         9UN9-80120*															

9UN9-80120 LIFTING CHART 2.1

Arm	3.2	5m (21'2 m (10'8	3"ĺ			I	Robex	340L /	LH		Rat	ing over-fi	ront			
Bucket Shoe 600				ith 6.6 to	n CWT						🕽 Rat	ing over-s	ide or 36	) degree		
			Load radius											At n	nax. re	ach
Load po heigh		1.5m	(5.0ft)	3.0m(	15.0ft)	4.5m(	15.0ft)	6.0m(	20.0ft)	7.5m(	25.0ft)	9.0m(	30.0ft)	Cap	acity	Reach
(m/ft)		U	电	Ů	も	Ů	<b>ب</b>	Ů	<b>₽</b>	Ů	も	Ů	чÐ	Ů	も	m (ft)
7.5 m	kg									*4880	*4880			*5500	1360	9.06
25.0 ft 6.0 m	lb kg									*10760	*10760 *6110			*12130 5730	9610 3630	(29.7) 9.84
20.0 ft	lb									*13230				12630	8000	(32.3)
4.5 m	kg							*7490	*7490	*6640	5860	*5070	4150	5180	3220	10.31
15.0 ft	lb							*16510	*16510	*14640	12920	*11180	9140	11410	7100	(33.8)
3.0 m	kg					*12430	12610	*9090	7980	*7490	5540	6350	4000	4910	3010	10.52
10.0 ft	lb					*27400	27800	*20040	17600	*16510	12210	14000	8810	10820	6630	(34.5)
1.5 m	kg					*15210	11540	*10610	7440	8360	5230	6180	3840	4860	2960	10.48
5.0 ft	lb				*****	*33530	25440	23390	16400	18440	11530	13620	8470	10710	6520	(34.4)
Ground Line	kg			*9720 *21430	*9720 *21430	*16620 *36640	11010	11630	7070	8100	5010	6050 13340	3710	5030 11080	3060 6740	10.19 (33.4)
-1.5 m	lb ka	*10800	*10800	*13710	*13710	*16830	24270 10870	25630 11430	15590 6890	17860 7970	11040 4880	13340	8170	5500	3380	9.63
-5.0 ft	lb	*23810	*23810	*30230	*30230	*37100	23970	25190	15190	17570	10760			12120	7450	(31.6)
-3.0 m	ka	*14530		*18410	*18410	*16100	10940	11420	6890	7970	4890			6480	4040	8.74
-10.0 ft	lb	*32030	*32030		*40590	*35490	24120	25170	15190	17570	10780			14290	8910	(28.7)
-4.5 m	kg			*20220	*20220	*14270	11220	10560	7070					*6880	5490	7.37
-15.0 ft	lb			*44580	*44580	*31460	24730	23280	15590					*15170	12100	(24.2)
-6.0 m	kg					*10450	10450									6.58
-20.0 ft	lb					*23040	23040									(21.6)

NOTES :

Lifting Capacity are based on SAE J1097, 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 ful hydraulic capacity.
 The bad point is a hook (standard equipment) located on the back of the bucket.
 (\*) Indicates load limited by hydraulic capacity.



9UN9-80110

9UN9-80110 LIFTING CHART 1.44

# 6. BUCKET SELECTION GUIDE

### 6. BUCKET SELECTION GUIDE

### 1) GENERAL BUCKET

General bucket	Rock-heavy duty bucket
2.10m <sup>3</sup> SAE heaped bucket	Ľ 1.44m <sup>3</sup> SAE Ľ 1.62m <sup>3</sup> SAE heaped bucket

Сара	Capacity Width		idth		6.45m (21' 2") boom					
SAE heaped	CECE heaped	Without side cutter	With side cutter	Weight	2.2m (7' 3") arm	2.65m (8' 8") arm	3.2m(10' 6") arm			
2.10m <sup>3</sup> (2.75yd <sup>3</sup> )	1.90m³ (2.49yd³)	1710mm (67.3")	1830mm (72.0")	1505kg (3320lb)						
Ľ 1.44m <sup>3</sup> (1.88yd <sup>3</sup> )	1.25m³ (1.64yd³)	1290mm (50.8")	-	1510kg (3330lb)						
Ľ 1.62m <sup>3</sup> (2.12yd <sup>3</sup> )	1.43m³ (1.87yd³)	1590mm (62.6")	-	1540kg (3400lb)						

L' : Rock - Heavy duty bucket

Applicable for materials with density of 2000kgf/m<sup>3</sup> (3370lbf/yd<sup>3</sup>) or less

Applicable for materials with density of 1600kgf/m<sup>3</sup> (2700lbf/yd<sup>3</sup>) or less

Applicable for materials with density of 1100kgf/m³ (1850lbf/yd³) 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

			Triple grouser					
Model	Shap	es						
	Shoe width	mm(in)	600(24)	600 HD				
R340L	Operating weight	kg(lb)	33800(74520)	34200(75400)				
	Ground pressure	kgf/cm (psi)	0.65(9.24)	0.66(9.39)				
	Overall width	mm(ft-in)	3280(10' 9")	3280(10' 9")				

### 3) NUMBER OF ROLLERS AND SHOES ON EACH SIDE

Item	Quantity	
Carrier rollers	2EA	
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
600mm triple grouser	Standard	A
600mm HD triple grouser	Option	В

#### \* Table 2

Category	Applications	Precautions
A	Rocky ground, river beds, normal soil	Travel at low speed on rough ground with large obstacles such as boulders or fallen trees
В	Normal soil, soft ground	<ul> <li>These shoes cannot be used on rough ground with large obstacles such as boulders or fallen trees</li> <li>Travel at high speed only on flat ground</li> <li>Travel slowly at low speed if it is impossible to avoid going over obstacles</li> </ul>

# 8. SPECIFICATIONS FOR MAJOR COMPONENTS

### 1) ENGINE

ltem	Specification
Model	HYUNDAI D6AC-C
Туре	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 $\times$ stroke	130×140mm(5.12"×5.51")
Piston displacement	11149cc(680cu in)
Compression ratio	17 : 1
Rated gross horse power(SAE J1995)	276Hp at 1900rpm(206kW at 1900rpm)
Maximum torque	120kgf · m(868lbf · ft) at 1400rpm
Engine oil quantity	27.3 / (7.2U.S. gal)
Dry weight	920kg(2030lb)
Low idling speed	$800\pm50$ pm
High idling speed	2050+50rpm
Rated fuel consumption	152.9g/Hp · hr at 1900rpm
Starting motor	24V-5.5kW
Alternator	24V-70A
Battery	$2 \times 12V \times 160Ah$

### 2) MAIN PUMP

Item	Specification	
Туре	Variable displacement tandem axis piston pumps	
Capacity	2 × 149.5cc/rev	
Maximum pressure	330kgf/cm² (4690psi)[360kgf/cm² (5120psi)]	
Rated oil flow	2 × 254.2 / /min (67.2U.S. gpm/ 55.9U.K. gpm)	
Rated speed	1700rpm	

[]: Power boost

## 3) GEAR PUMP

Item	Specification	
Туре	Fixed displacement gear pump single stage	
Capacity	15cc/rev	
Maximum pressure	35kgf/cm²(500psi)	
Rated oil flow	25.5 / /min(6.7U.S. gpm/5.6U.K. gpm)	

### 4) MAIN CONTROL VALVE

Item	Specification	
Туре	9 spools	
Operating method	Hydraulic pilot system	
Main relief valve pressure	330kgf/cm <sup>2</sup> (4690psi)[360kgf/cm <sup>2</sup> (5120psi)]	
Overload relief valve pressure	390kgf/cm²(5550psi)	

[ ]: Power boost

# 5) SWING MOTOR

ltem	Specification	
Туре	Axial piston motor	
Capacity	169.4cc/rev	
Relief pressure	290kgf/cm²(4120psi)	
Braking system	Automatic, spring applied hydraulic released	
Braking torque	70kgf · m(505lbf · ft)	
Brake release pressure	30~50kgf/cm²(430~710psi)	
Reduction gear type	2 - stage planetary	
Swing speed	9.5rpm	

### 6) TRAVEL MOTOR

Item		Specification	
Туре		Variable displacement axial piston motor	
Relief pressure		330kgf/cm²(4700psi)	
Capacity(max / min)	Gear ratio	154.8/88.5cc/rev 72.978	
Reduction gear type		3-stage planetary	
Braking system		Automatic, spring applied hydraulic released	
Brake release pressure		9kgf/cm²(128psi)	
Braking torque		40kgf · m(290lbf · ft)	

### 7) REMOTE CONTROL VALVE

Item		Specification	
Туре		Pressure reducing type	
Operating pressure	Minimum	6.5kgf/cm²(92psi)	
	Maximum	26kgf/cm²(370psi)	
Cingle encyption stypics	Lever	61mm(2.4in)	
Single operation stroke	Pedal	123mm(4.84in)	

## 8) CYLINDER

Item		Specification	
Bore dia × Rod dia × Stroke		ø 150 $\times$ ø 105 $\times$ 1480mm	
Boom cylinder	Cushion	Extend only	
Arm cylinder	Bore dia $\times$ Rod dia $\times$ Stroke	ø 160× ø 110× 1685mm	
Ann cylinder	Cushion	Extend and retract	
Bucket cylinder	Bore dia $\times$ Rod dia $\times$ Stroke	ø 140 $\times$ ø 100 $\times$ 1285mm	
Bucket cylli luel	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

Iten	n	Width	Ground pressure	Link quantity	Overall width
	Standard	600mm(24")	0.65kgf/cm <sup>2</sup> (9.24psi)	48	3280mm(10' 9")
D240		700mm(28")	0.57kgf/cm <sup>2</sup> (8.11psi)	48	3380mm(11' 1")
R340L	Option	800mm(32")	0.50kgf/cm <sup>2</sup> (7.11psi)	48	3480mm(11' 5")
		900mm(36")	0.45kgf/cm <sup>2</sup> (6.40psi)	48	3580mm(11' 9")

#### 10) BUCKET

Item		Cap	acity	Tooth	Width			
		SAE heaped	CECE heaped	quantity	Without side cutter	With side cutter		
R340L	Standard	2.10m <sup>3</sup> (2.75yd <sup>3</sup> )	1.90m <sup>3</sup> (2.49yd <sup>3</sup> )	5	1710mm(67.3")	1830mm(72.0")		
	Option	⊙1.44m³(1.88yd³)	1.25m <sup>3</sup> (1.63yd <sup>3</sup> )	5	1290mm(50.8")	-		
		⊙1.62m³(2.12yd³)	1.43m³(1.87yd³)	5	1590mm(62.6")	-		

⊙ : Rock - Heavy duty bucket

# 9. RECOMMENDED OILS

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

		Capacity ℓ (U.S. gal)	Ambient temperature °C (°F)							
Service point	Kind of fluid		-20		10	0	10			
			(-4)	(*	4)	(32)	(50)	) (68)	) (86)	(104)
Engine oil pan	Engine oil	27.3(7.2)						SAE	30	
									30	
				SAE	10W	/				
			SAE 10W-30							
part										
					1	5	SAE 15	W-40		
Swing drive		11(2.9)								
	Gear oil	5.5×2 (1.5×2)	1		1	S	AE 85\	N-140		
Final drive										
	Hydraulic oil	Tank; 210(55.5) System; 320(84.5)							,	
Hydraulic tank					ISO V	VG 32	- T			
			ISO VG 46							
							IS	O VG 68	3	
	Diesel fuel	600(158)								
			ASTM	D975	NO.1	1				
Fuel tank										
l							ASTM	D975 N	10.2	
Fitting (Grease nipple)	Grease	As required	NLGI NO.1							
							NL	.GI NO.2	2	
	Mixture of antifreeze and water 50 : 50	45(12)								
Radiator				6	thylo			o norma	nent type	
(Reservoir tank)										-

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