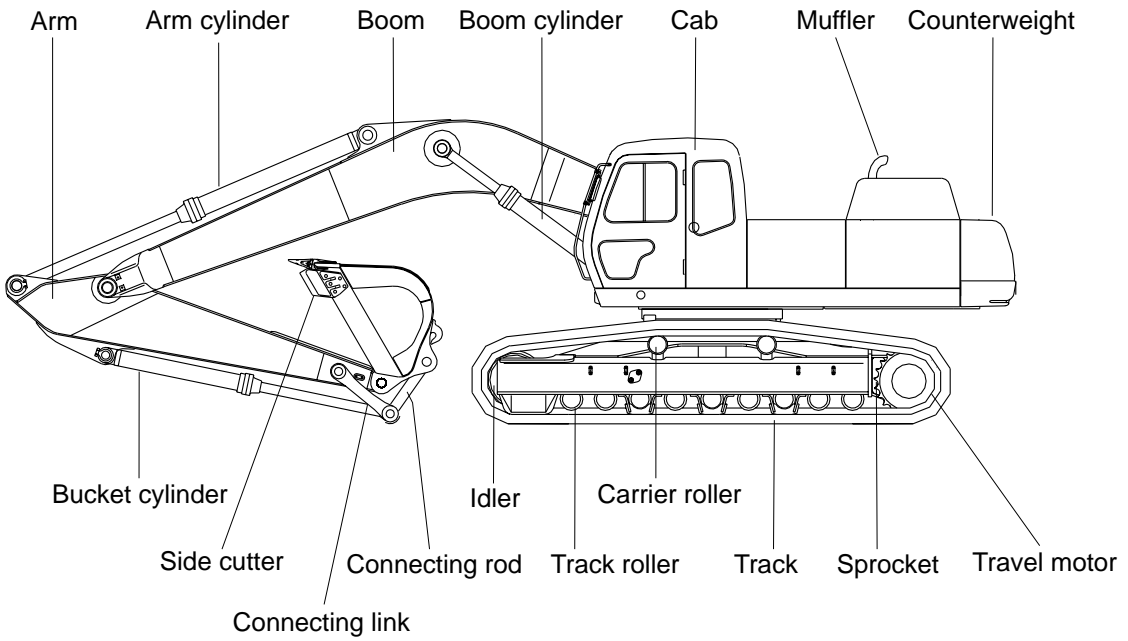
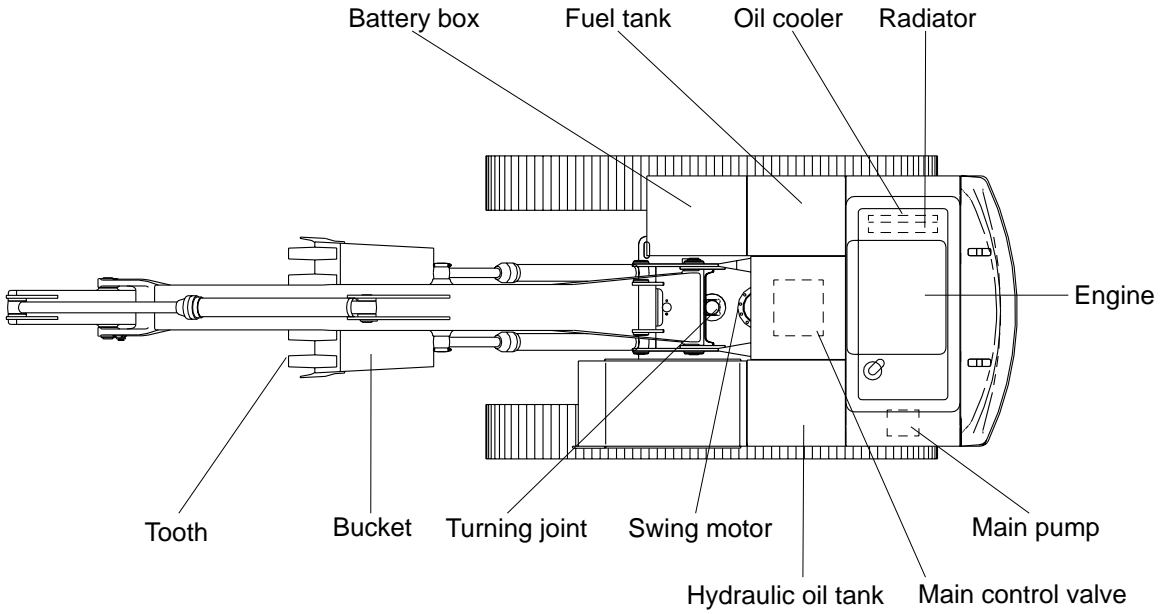
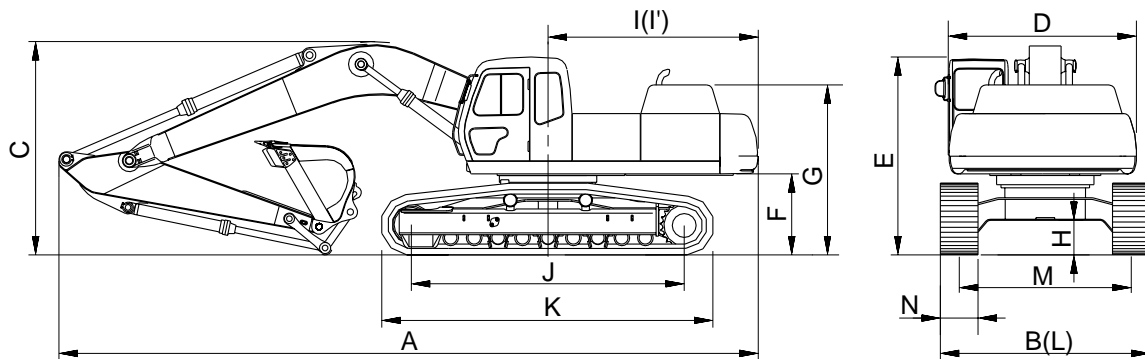


GROUP 2 SPECIFICATIONS

1. MAJOR COMPONENT

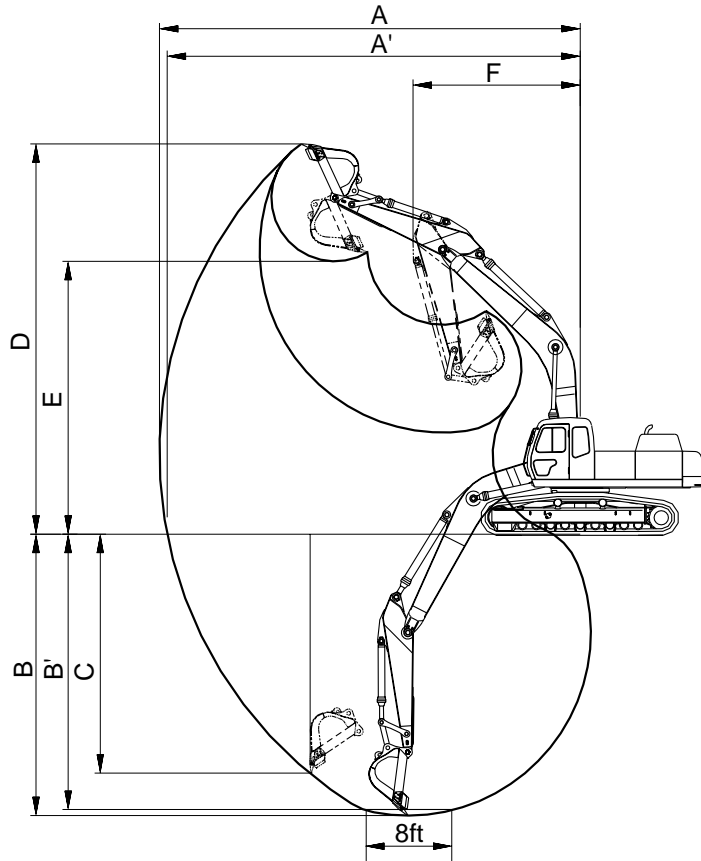


2. SPECIFICATIONS



Description		Unit	Specification
Operating weight		kg (lb)	36000 (79400)
Bucket capacity(CECE heaped) ,standard		m ³ (yd ³)	1.4 (1.83)
Overall length	A	mm(ft-in)	11130 (36' 6")
Overall width, with 600mm shoe	B		3340 (10' 11")
Overall height	C		3390 (11' 1")
Superstructure width	D		2980 (9' 9")
Cab height	E		3150 (10' 4")
Ground clearance of counterweight	F		1290 (4' 3")
Engine cover height	G		2730 (9' 0")
Minimum ground clearance	H		550 (1' 10")
Rear-end distance	I		3350 (11' 1")
Rear-end swing radius	I'		3350 (11' 1")
Distance between tumblers	J		4340 (14' 3")
Undercarriage length	K		5280 (17' 4")
Undercarriage width	L		3340 (11' 0")
Track gauge	M		2740 (9' 0")
Track shoe width, standard	N	600 (2' 0")	
Travel speed (low/high)		km/hr(mph)	3.0/4.3 (1.9/2.7)
Swing speed		rpm	8.6
Gradeability		degree (%)	35 (70)
Ground pressure(600mm shoe)		kg/cm ² (psi)	0.64 (9.1)

3. WORKING RANGE



Description		2.5m(8' 2")Arm	3.2m(10' 6")Arm	4.3m(14' 1")Arm
Max. digging reach	A	10720mm (35' 2")	11280mm (37' 0")	12365mm (40' 7")
Max. digging reach on ground	A'	10500mm (34' 5")	11060mm (36' 3")	12180mm (40' 0")
Max. digging depth	B	6830mm (22' 5")	7600mm (24' 11")	8630mm (28' 4")
Max. digging depth (8ft level)	B'	6650mm (21' 10")	7380mm (24' 3")	8510mm (27' 11")
Max. vertical wall digging depth	C	6090mm (20' 0")	6400mm (21' 0")	7845mm (25' 9")
Max. digging height	D	10420mm (34' 2")	10500mm (34' 5")	11180mm (36' 8")
Max. dumping height	E	7240mm (23' 9")	7340mm (24' 1")	7960mm (26' 1")
Max. swing radius	F	4600mm (15' 1")	4475mm (14' 8")	4470mm (14' 8")
Bucket digging force		196 KN	196 KN	196 KN
		20000 kgf	20000 kgf	20000 kgf
		44100 lbf	44100 lbf	44100 lbf
Arm digging force		178 KN	147KN	125 KN
		18200 kgf	15000 kgf	12700 kgf
		40100 lbf	33100 lbf	28000 lbf













4. WEIGHT

Item	kg	lb
Upperstructure assembly	14060	31000
Main frame weld assembly	7560	16670
Engine assembly	950	2090
Main pump assembly	190	420
Main control valve assembly	230	510
Swing motor assembly	360	790
Hydraulic oil tank assembly	280	620
Fuel tank assembly	160	350
Counterweight	6500	14330
Cab assembly	300	660
Undercarriage assembly	2915	6430
Track frame weld assembly	14885	32820
Swing bearing	555	1220
Travel motor assembly	410	900
Turning joint	75	170
Track recoil spring and idler	450	990
Idler	180	400
Carrier roller	37	82
Track roller	80	180
Track-chain assembly (standard triple grouser shoe)	2390	5270
Front attachment assembly (6.5 m boom, 3.2 m arm, 1.4 m ³ (CECE heaped) bucket)	7110	15670
6.5 m boom assembly	2530	5580
3.2 m arm assembly	1160	2560
1.4 m ³ (CECE heaped) bucket	1250	2760
Boom cylinder assembly	325	720
Arm cylinder assembly	485	1070
Bucket cylinder assembly	295	650
Bucket control rod assembly	140	310

5. LIFTING CAPACITIES

1) 6.5m(21' 4") boom, 2.5m(8' 2") arm equipped with 1.4m³(CECE heaped) bucket and 600mm(24") triple grouser shoe.

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

Load point height		Load radius										At max. reach			
		3.0m(10' 0")		4.5m(15' 0")		6.0m(20' 0")		7.5m(25' 0")		9.0m(30' 0")		Capacity		Reach	
														kg	lb
7.5m (25' 0")	kg lb												*6560 *14460	5110 11270	8.85 (29.0)
6.0m (20' 0")	kg lb							*7440 *16400	6670 14700				*6690 *14750	4240 9350	9.64 (31.6)
4.5m (15' 0")	kg lb			*12070 *26610	*12070 *26610	*9350 *20610	9350 20610	*8090 *17840	6430 14180				6640 14640	3780 8330	10.11 (33.2)
3.0m (10' 0")	kg lb			*15770 *34770	13470 29700	*11070 *24410	8720 19220	*8970 *19780	6120 13490	*6950 *15320	4460 9830		6340 13980	3560 7850	10.29 (33.8)
1.5m (5' 0")	kg lb			*18200 *40120	12610 27800	*12560 *27690	8210 18100	*9820 *21650	5840 12870	7710 17000	4330 9550		6350 14000	3540 7800	10.22 (33.5)
Ground Line	kg lb			*18880 *41620	12350 27230	*13430 *29610	7920 17460	10160 22400	5650 12460				6670 14700	3730 8220	9.89 (32.4)
-1.5m (-5' 0")	kg lb	*15850 *34940	*15850 *34940	*18500 *40790	12370 27270	*13580 *29940	7830 17260	10090 22240	5590 12320				7450 16420	4200 9260	9.25 (30.3)
-3.0m (-10' 0")	kg lb	*23870 *52620	*23870 *52620	*17210 *37940	12570 27710	*12870 *28370	7920 17460						*7800 *17200	5180 11420	8.24 (27.0)
-4.5m (-15' 0")	kg lb	*19780 *43610	*19780 *43610	*14520 *32010	13000 28660	*10610 *23390	8260 18210								

- Note
1. Lifting capacity are based on SAE J1097
 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.

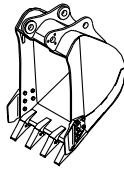
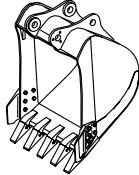
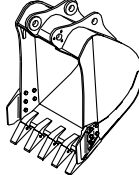
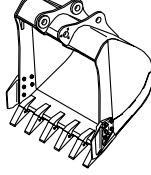
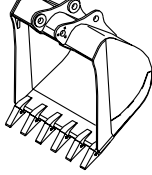
(2) 6.5m(21' 4") boom, 3.2m(10' 6") arm equipped with 1.4m³(CECE heaped) bucket and 600mm(24") triple grouser shoe.

Load point height		Load radius												At max. reach			
		1.5m(5' 0")		3.0m(10' 0")		4.5m(15' 0")		6.0m(20' 0")		7.5m(25' 0")		9.0m(30' 0")		Capacity		Reach	
																	m(ft)
9.0m (30' 0")	kg lb														*5700 *12570	*5700 *12570	8.38 (27.5)
7.5m (25' 0")	kg lb									*5360 *11820	*5360 *11820			*5820 *12830	4540 10010	9.51 (31.2)	
6.0m (20' 0")	kg lb									*6510 *14350	*6510 *14350			*5990 *13210	3830 8440	10.24 (33.6)	
4.5m (15' 0")	kg lb							*8200 *18080	*8200 *18080	*7260 *16010	6560 14460	*5580 *12300	4680 10320	6080 13400	3420 7540	10.67 (35.0)	
3.0m (10' 0")	kg lb					*13800 *30420	*13800 *30420	*10020 *22090	8940 19710	*8250 *18190	6210 13690	*7300 *16090	4510 9940	5810 12810	3220 7100	10.84 (35.6)	
1.5m (5' 0")	kg lb					*16900 *37260	12930 28510	*11750 *25900	8340 18390	*9240 *20370	5880 12960	7720 17020	4330 9550	5790 12760	3190 7030	10.78 (35.4)	
Ground Line	kg lb			*11000 *24250	*11000 *24250	*18460 *40700	12390 27320	*12960 *28570	7940 17500	*10020 *22090	5630 12410	7570 16690	4200 9260	6030 13290	3320 7320	10.46 (34.3)	
-1.5m (-5' 0")	kg lb	*12350 *27230	*12350 *27230	*15510 *34190	*15510 *34190	*18750 *41340	12240 26980	*13490 *29740	7750 17090	10000 22050	5500 12130			6620 14590	3670 8090	9.87 (32.4)	
-3.0m (-10' 0")	kg lb	*16490 *36350	*16490 *36350	*20770 *45790	*20770 *45790	*18030 *39750	12320 27160	*13250 *29210	7750 17090	10000 22050	5500 12130			*7590 *16730	4400 9700	8.94 (29.3)	
-4.5m (-15' 0")	kg lb			*22990 *50680	*22990 *50680	*16130 *35560	12620 27820	*11940 *26320	7940 17500					*7550 *16640	6020 13270	7.52 (24.7)	
-6.0m (-20' 0")	kg lb					*12090 *26650	*12090 *26650										

(3) 6.5m(21' 4") boom, 4.3m(14' 1") arm equipped with 1.40m³(CECE heaped) bucket and 600mm (24") triple grouser shoe.

Load point height		Load radius												At max. reach			
		3.0m(10' 0")		4.5m(15' 0")		6.0m(20' 0")		7.5m(25' 0")		9.0m(30' 0")		10.5m(35' 0")		Capacity		Reach	
																	m(ft)
9.0m (30' 0")	kg lb														*4780 *10540	4350 9590	9.81 (32.2)
7.5m (25' 0")	kg lb									*3880 *8550	*3880 *8550			*4900 *10800	3520 7760	10.76 (35.3)	
6.0m (20' 0")	kg lb									*5020 *11070	4940 10890			*5060 *11160	3020 6660	11.40 (37.4)	
4.5m (15' 0")	kg lb							*5870 *12940	*5870 *12940	*5640 *12430	4770 10520	*3200 *7050	*3200 *7050	5040 11110	2730 6020	11.78 (38.6)	
3.0m (10' 0")	kg lb					*8200 *18080	*8200 *18080	*6970 *15370	6340 13980	*6280 *13850	4540 10010	*4200 *9260	3310 7300	4830 10650	2570 5670	11.94 (39.2)	
1.5m (5' 0")	kg lb			*14370 *31680	13500 29760	*10200 *22490	8550 18850	*8140 *17950	5930 13070	*6980 *15390	4310 9500	*4690 *10340	3190 7030	4810 10600	2540 5600	11.88 (39.0)	
Ground Line	kg lb	*11030 *24320	*11030 *24320	*16980 *37430	12540 27650	*11840 *26100	7980 17590	*9170 *20220	5590 12320	7490 16510	4100 9040	*4400 *9700	3080 6790	4960 10930	2620 5780	11.60 (38.1)	
-1.5m (-5' 0")	kg lb	*13520 *29810	*13520 *29810	*18250 *40230	12080 26630	*12880 *28400	7640 16840	9870 21760	5360 11820	7340 16180	3960 8730			5340 11770	2850 6280	11.08 (36.4)	
-3.0m (-10' 0")	kg lb	*17160 *37830	*17160 *37830	*18410 *40590	11960 26370	*13240 *29190	7500 16530	9760 21520	5260 11600	7290 16070	3920 8640			6080 13400	3300 7280	10.28 (33.7)	
-4.5m (-15' 0")	kg lb	*22130 *48790	*22130 *48790	*17520 *38620	12090 26650	*12780 *28180	7540 16620	*9740 *21470	5300 11680					*6730 *14840	4170 9190	9.11 (29.9)	
-6.0m (-20' 0")	kg lb	*22250 *49050	*22250 *49050	*15220 *33550	12460 27470	*11080 *24430	7800 17200							*6570 *14480	6190 13650	7.35 (24.1)	

6. BUCKET SELECTION GUIDE

				
1.0 m ³ CECE heaped bucket	1.40 m ³ CECE heaped bucket	1.60 m ³ CECE heaped bucket	1.80 m ³ CECE heaped bucket	2.0 m ³ CECE heaped bucket

Capacity CECE heaped	Width		Weight	Recommendation		
	Without side cutter	With side cutter		2.5 m Arm (8' 2")	3.2 m Arm (10' 6")	4.3 m Arm (14' 1")
1.0 m ³ (1.31 yd ³)	1100 mm (43")	1230 mm (48")	1048 kg (2310 lb)			
1.40 m ³ (1.83 yd ³)	1450 mm (57")	1580 mm (62")	1245 kg (2740 lb)			
1.60 m ³ (2.10 yd ³)	1640 mm (65")	1770 mm (70")	1305 kg (2880 lb)			
1.80 m ³ (2.36 yd ³)	1820 mm (72")	1950 mm (77")	1375 kg (3030 lb)			
2.0 m ³ (2.62 yd ³)	2000 mm (79")	—	1435 kg (3160 lb)			

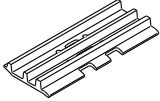
- Applicable for materials with density of 2000 kg/m³ (3370 lb/yd³) or less
- Applicable for materials with density of 1600 kg/m³ (2700 lb/yd³) or less
- Applicable for materials with density of 1100 kg/m³ (1850 lb/yd³) or less

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

Shapes		Triple grouser		
				
Shoe width	mm (in)	600 (24)	700 (28)	800 (32)
Operating weight	kg (lb)	36000 (79400)	36500 (80500)	37100 (81800)
Ground pressure	kg/cm ² (psi)	0.64 (9.1)	0.56 (8.0)	0.50 (7.1)
Overall width	mm (ft-in)	3340 (11' 1")	3440 (11' 3")	3540 (11' 7")

3) NUMBER OF ROLLERS AND SHOES ON EACH SIDE

Item	Quantity
Carrier rollers	2 EA
Track rollers	9 EA
Track shoes	51 EA

8. SPECIFICATIONS FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	CUMMINS LTA10-C
Type	4-cycle turbocharged, after 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	125 × 136 mm (4.92" × 5.35")
Piston displacement	10010 cc (611 cu in)
Compression ratio	16.0 : 1
Rated gross horse power	261 Ps at 2000 rpm
Maximum torque at 1400rpm	109 kgf · m (788 lb · ft)
Engine oil quantity	34 l (9 U.S. gal)
Dry weight	897 kg (1975 lb)
High idling speed	2150 + 50 rpm
Low idling speed	800 ± 100 rpm
Rated fuel consumption	149.9 g/Hp · hr
Starting motor	DELCO REMY 42MT(24V)
Alternator	DAC HC60(24V-60AMP)
Battery	2 × 12V × 160 Ah

2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axial piston pump
Capacity	2 × 145 cc/rev
Maximum pressure	320 kg/cm ² (4550 psi) / 350 kg/cm ² (4980 psi)
Rated oil flow	2 × 290 l /min (76.6 U.S. gpm/63.8 U.K. gpm)

3) PILOT PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	15 cc/rev
Maximum pressure	40 kg/cm ² (570 psi)
Rated oil flow	30 l /min (7.9 U.S. gpm/6.6 U.K. gpm)

4) MAIN CONTROL VALVE

Item	Specification
Type	7 spools mono-block
Operating method	Hydraulic pilot assist
Main relief valve pressure	320 kg/cm ² (4550 psi) / 350 kg/cm ² (4980 psi)
Overload relief valve pressure	380 kg/cm ² (5405 psi)

5) SWING MOTOR

Item	Specification
Type	Two fixed displacement axial piston motors
Capacity	250 cc/rev
Relief pressure	260 kg/cm ² (3700 psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	107 kgf · m (773 lb · ft)
Brake release pressure	30 kg/cm ² (427 psi)
Reduction gear type	2 - stage planetary
Swing speed	8.6 rpm

6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Operating pressure	320 kg/cm ² (4550 psi)
Reduction gear type	3 - stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	9 kg/cm ² (128 psi)

7) REMOTE CONTROL VALVE

Item		Specification
Type		Pressure reducing type
Operating pressure	minimum	5 kg/cm ² (71 psi)
	maximum	20 kg/cm ² (284 psi)
Single operation stroke	lever	61 mm (2.4 in)
	pedal	123 mm (4.8 in)

8) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	∅ 160 × ∅ 105 × 1500 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	∅ 170 × ∅ 120 × 1750 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	∅ 150 × ∅ 105 × 1295 mm
	Cushion	Extend only

9) SHOE

Item	Width	Ground pressure	Link quantity	Overall width
Standard	600 mm (24")	0.64 kg/cm ² (9.1 psi)	51	3340 mm (11' 1")
Option	700 mm (28")	0.56 kg/cm ² (8.0 psi)	51	3440 mm (11' 3")
	800 mm (32")	0.50 kg/cm ² (7.1 psi)	51	3540 mm (11' 7")

10) BUCKET

Item	Capacity		Tooth quantity	Width	
	PCSA heaped	CECE heaped		Without side cutter	With side cutter
Standard	1.62 m ³ (2.12 yd ³)	1.4 m ³ (1.83 yd ³)	5	1450 mm (57")	1580 mm (62")
Option	1.15 m ³ (1.51 yd ³)	1.0 m ³ (1.30 yd ³)	4	1100 mm (43")	1230 mm (48")
	1.86 m ³ (2.44 yd ³)	1.6 m ³ (2.09 yd ³)	5	1640 mm (65")	1770 mm (70")
	2.10 m ³ (2.75 yd ³)	1.8 m ³ (2.35 yd ³)	6	1820 mm (72")	1950 mm (77")
	2.32 m ³ (3.04 yd ³)	2.0 m ³ (2.62 yd ³)	6	2000 mm (79")	—

9. 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	34 (9.0)	SAE 30						
			SAE 10W						
			SAE 10W-30						
			SAE 15W-40						
Swing drive	Gear oil	6.2 (1.6)	SAE 85W-140						
Final drive		7 × 2 (1.8 × 2)							
Hydraulic tank	Hydraulic oil	Tank; 350 (92.5)	ISO VG 32						
		System; 480 (126.8)	ISO VG 46						
			ISO VG 68						
Fuel tank	Diesel fuel	520 (137.4)	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	45 (11.9)	Ethylene glycol base permanent type						

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.