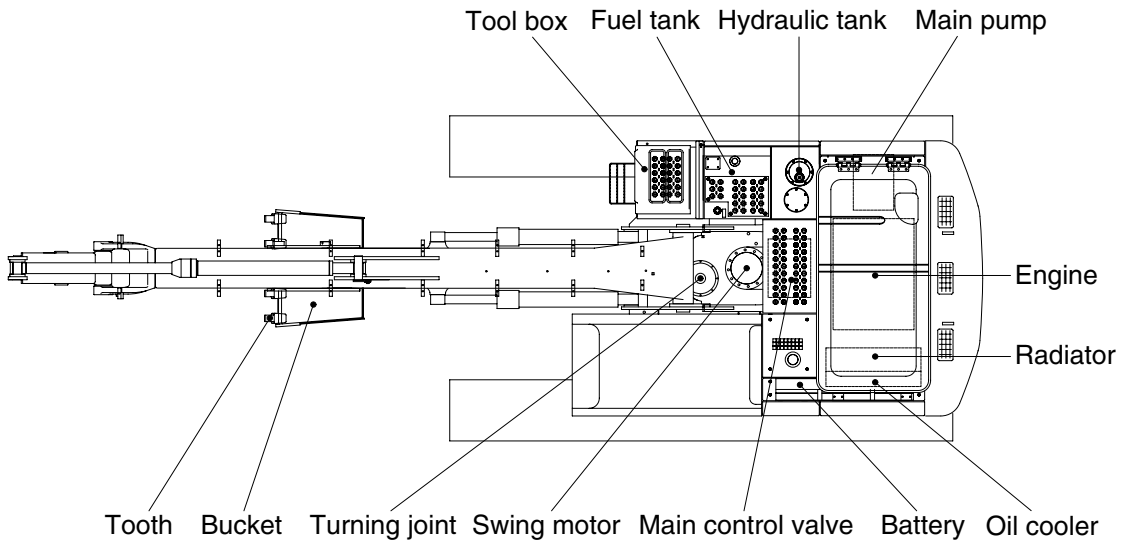
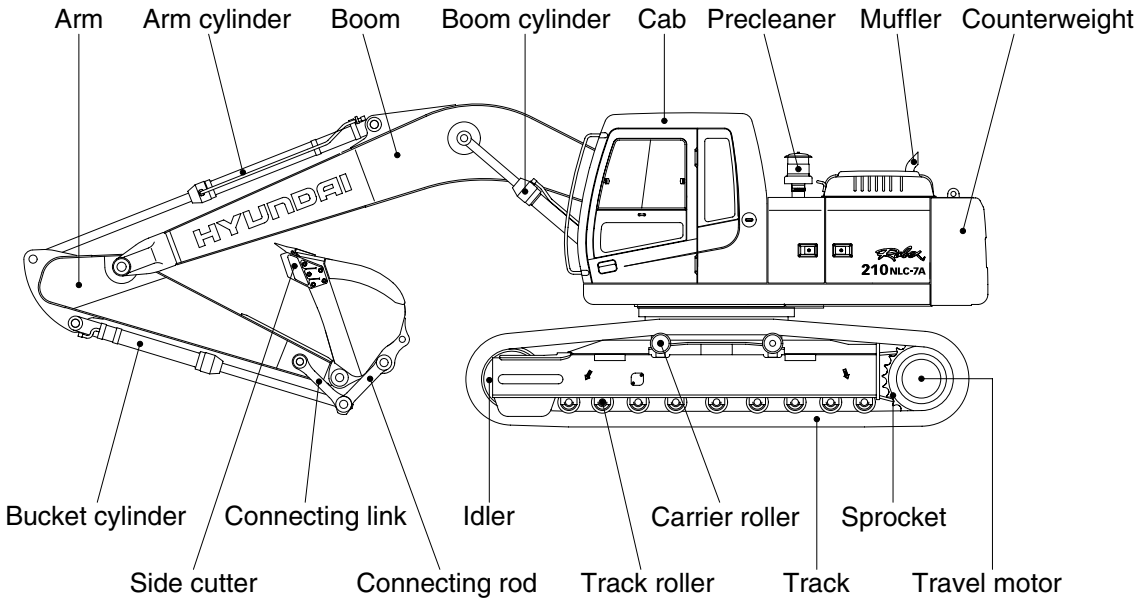
GROUP 2 SPECIFICATIONS

1. MAJOR COMPONENT

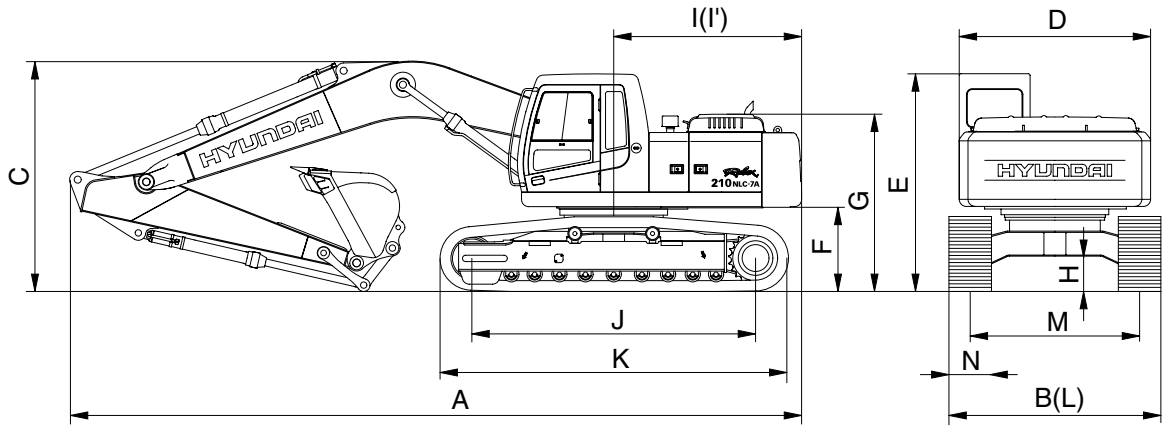




210N7A2SP01

2. SPECIFICATIONS

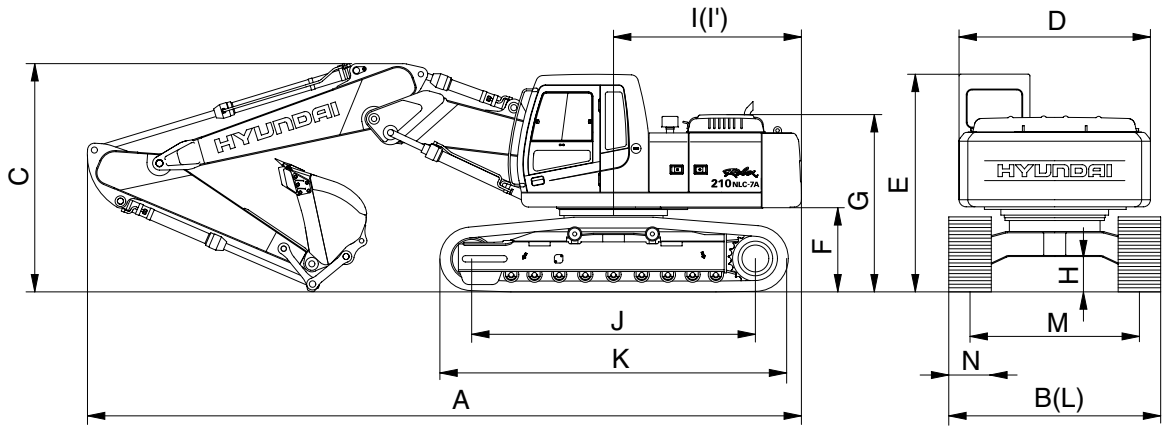
1) 5.65m (18' 6") MONO BOOM



210N7A2SP02A

Description		Unit	Specification
Operating weight		kg(lb)	22000(48500)
Bucket capacity (SAE heaped), standard		$m^3(yd^3)$	0.87(1.14)
Overall length	A	mm(ft-in)	9540(31' 4")
Overall width, with 500mm shoe	B		2500(8' 2")
Overall height	C		3070(10' 1")
Superstructure width	D		2530(8' 4")
Overall height of cab	E		2920(9' 7")
Ground clearance of counterweight	F		1060(3' 6")
Engine cover height	G		2320(7' 7")
Minimum ground clearance	H		480(1' 7")
Rear-end distance	I		2770(9' 1")
Rear-end swing radius	I'		2800(9' 2")
Distance between tumblers	J		3650(12' 0")
Undercarriage length	K		4440(14' 7")
Undercarriage width	L		2500(8' 2")
Track gauge	M		2000(6' 7")
Track shoe width, standard	N		500(20")
Travel speed (Low/high)		km/hr(mph)	3.4/5.3(2.1/3.3)
Swing speed		rpm	12.0
Gradeability		Degree(%)	35(70)
Ground pressure (500mm shoe)		$kgf/cm^2(psi)$	0.56(7.96)

2) 5.56m (18' 3") HYDRAULIC ADJUSTABLE BOOM, 2.4m (7' 10") ARM

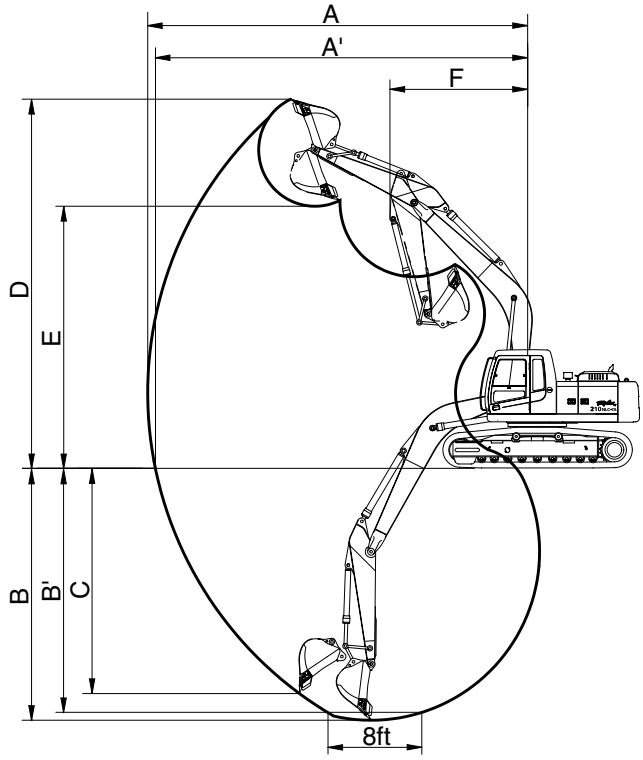


210N7A2SP03

Description		Unit	Specification
Operating weight		kg(lb)	21150(46630)
Bucket capacity (SAE heaped), standard		$m^3(yd^3)$	0.87(1.14)
Overall length	A	mm(ft-in)	9450(31' 0")
Overall width, with 500mm shoe	B		2500(8' 2")
Overall height	C		3070(10' 1")
Superstructure width	D		2530(8' 4")
Overall height of cab	E		2920(9' 7")
Ground clearance of counterweight	F		1060(3' 6")
Engine cover height	G		2320(7' 7")
Minimum ground clearance	H		480(1' 7")
Rear-end distance	I		2770(9' 1")
Rear-end swing radius	I'		2800(9' 2")
Distance between tumblers	J		3650(12' 0")
Undercarriage length	K		4440(14' 7")
Undercarriage width	L		2500(8' 2")
Track gauge	M		2000(6' 7")
Track shoe width, standard	N		500(20")
Travel speed (Low/high)		km/hr(mph)	3.4/5.3(2.1/3.3)
Swing speed		rpm	12.0
Gradeability		Degree(%)	35(70)
Ground pressure (500mm shoe)		$kgf/cm^2(psi)$	0.56(7.96)

3. WORKING RANGE

1) 5.65m (18' 6") MONO BOOM

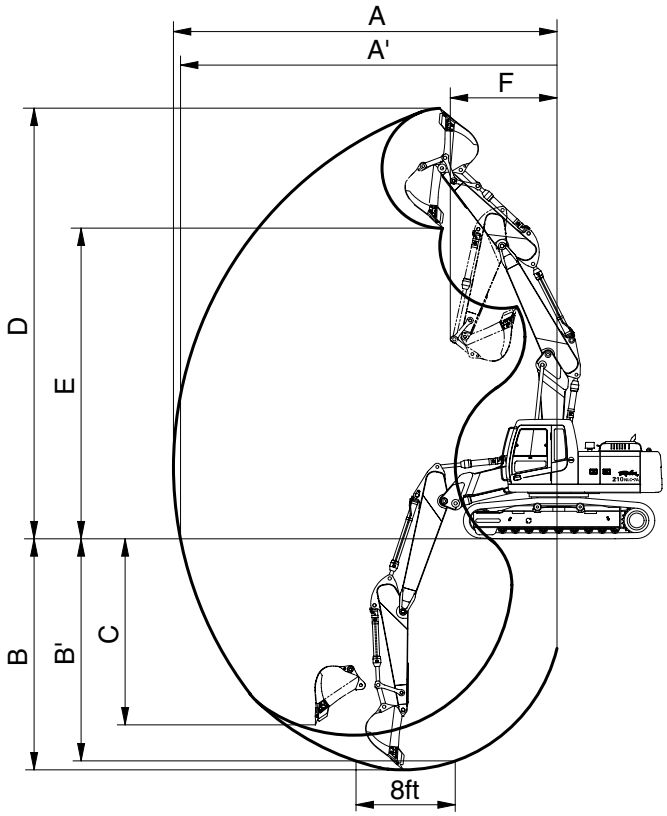


210N7A2SP04

Description		2.0m (6' 7") Arm	2.40m (7' 10") Arm	*2.90m (9' 6") Arm
Max digging reach	A	9140mm (30' 0")	9510mm (31' 2")	9960mm (32' 8")
Max digging reach on ground	A'	8960mm (29' 5")	9340mm (30' 8")	9790mm (32' 1")
Max digging depth	B	5750mm (18'10")	6150mm (20' 2")	6670mm (22'11")
Max digging depth (8ft level)	B'	5520mm (18' 1")	5950mm (19' 6")	6490mm (21' 4")
Max vertical wall digging depth	C	5320mm (17' 5")	5780mm (19' 0")	6180mm (20' 3")
Max digging height	D	9270mm (30' 5")	9500mm (31' 2")	9660mm (31' 8")
Max dumping height	E	6450mm (21' 2")	6660mm (21'10")	6840mm (22' 5")
Min swing radius	F	3710mm (12' 2")	3630mm (11'11")	3550mm (11' 8")
Bucket digging force	SAE	133 [146] kN	133 [146] kN	133 [146] kN
		13600 [14840] kgf	13600 [14840] kgf	13600 [14840] kgf
		29980 [32710] lbf	29980 [32710] lbf	29980 [32710] lbf
	ISO	152 [166] kN	152 [166] kN	152 [166] kN
		15500 [16910] kgf	15500 [16910] kgf	15500 [16910] kgf
		34170 [37280] lbf	34170 [37280] lbf	34170 [37280] lbf
Arm digging force	SAE	135 [148] kN	113 [123] kN	97 [106] kN
		13800 [15050] kgf	11500 [12550] kgf	9900 [10800] kgf
		30420 [33190] lbf	25350 [27650] lbf	21830 [23810] lbf
	ISO	142 [155] kN	118 [128] kN	101 [110] kN
		14500 [15820] kgf	12000 [13090] kgf	10300 [11240] kgf
		31970 [34880] lbf	26460 [28870] lbf	22710 [24770] lbf

* : Standard [ ] : Power boost

2) 5.56m (18' 3") HYDRAULIC ADJUSTABLE BOOM



210N7A2SP05

Description		2.0m (6' 7") Arm	*2.40m (7' 10") Arm
Max digging reach	A	9130(29' 11")	9500(31' 2")
Max digging reach on ground	A'	8950(29' 4")	9330(30' 7")
Max digging depth	B	5330(17' 6")	5720(18' 9")
Max digging depth (8ft level)	B'	5140(16' 10")	5530(18' 2")
Max vertical wall digging depth	C	4410(14' 6")	4830(15' 10")
Max digging height	D	10150(33' 4")	10450(34' 3")
Max dumping height	E	7240(23' 9")	7530(24' 8")
Min swing radius	F	2900(9' 6")	2640(8' 8")
Bucket digging force	SAE	133 [146] kN	133 [146] kN
		13600 [14840] kgf	13600 [14840] kgf
		29980 [32710] lbf	29980 [32710] lbf
	ISO	152 [166] kN	152 [166] kN
		15500 [16910] kgf	15500 [16910] kgf
		34170 [37280] lbf	34170 [37280] lbf
Arm crowd force	SAE	135 [148] kN	113 [123] kN
		13800 [15050] kgf	11500 [12550] kgf
		30420 [33190] lbf	25350 [27650] lbf
	ISO	142 [155] kN	118 [128] kN
		14500 [15820] kgf	12000 [13090] kgf
		31970 [34880] lbf	26460 [28870] lbf

* : Standard [ ] : Power boost

4. WEIGHT

1) MONO BOOM

Item	R210NLC-7A	
	kg	lb
Upperstructure assembly	8950	19730
Main frame weld assembly	2600	5730
Engine assembly	560	1240
Main pump assembly	170	370
Main control valve assembly	200	440
Swing motor assembly	190	420
Hydraulic oil tank assembly	240	530
Fuel tank assembly	195	430
Counterweight	4700	10360
Cab assembly	310	680
Lower chassis assembly	8400	18520
Track frame weld assembly	2525	5570
Swing bearing	260	570
Travel motor assembly	305	670
Turning joint	55	120
Track recoil spring and idler	270	600
Idler	170	370
Carrier roller	20	45
Track roller	40	90
Track-chain assembly (500㎜ standard triple grouser shoe)	1200	2650
Front attachment assembly (5.65m boom, 2.90m arm, 0.87m^3 SAE heaped bucket)	4050	8930
5.65m boom assembly	1600	3530
2.90m arm assembly	870	1920
0.87m^3 SAE heaped bucket	740	1630
Boom cylinder assembly	180	400
Arm cylinder assembly	290	640
Bucket cylinder assembly	175	390
Bucket control link assembly	170	370

2) HYDRAULIC ADJUSTABLE BOOM

Item	R210NLC-7A	
	kg	lb
Upperstructure assembly	8950	19730
Main frame weld assembly	2600	5730
Engine assembly	560	1240
Main pump assembly	170	370
Main control valve assembly	200	440
Swing motor assembly	190	420
Hydraulic oil tank assembly	240	530
Fuel tank assembly	195	430
Counterweight	4700	10360
Cab assembly	310	680
Lower chassis assembly	8400	18520
Track frame weld assembly	2525	5570
Swing bearing	260	570
Travel motor assembly	305	670
Turning joint	55	120
Track recoil spring and idler	270	600
Idler	170	370
Carrier roller	20	45
Track roller	40	90
Track-chain assembly (500㎜ standard triple grouser shoe)	1200	2650
Front attachment assembly (5.56m boom, 2.4m arm, 0.87m^3 SAE heaped bucket)	3185	7020
5.56m boom assembly	1810	3990
2.4m arm assembly	665	1470
0.87m^3 SAE heaped bucket	740	1630
Boom cylinder assembly	185	410
Arm cylinder assembly	290	640
Bucket cylinder assembly	175	390
Adjust cylinder assembly	200	440
Bucket control rod assembly	170	370

5. LIFTING CAPACITIES

1) MONO BOOM

(1) 5.65m (18' 6") boom, 2.00m (6' 7") arm equipped with 0.87m³ (SAE heaped) bucket, 500mm (20") triple grouser shoe and 4700kg (10360lb) counterweight.

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

Load point height		Load radius								At max. reach		
		3.0m (10ft)		4.5m (15ft)		6.0m (20ft)		7.5m (25ft)		Capacity		Reach
												m (ft)
7.5m (25ft)	kg									*3740	3590	6.65
	lb									*8250	7910	(21.8)
6.0m (20ft)	kg					*4130	*4130			*3800	2640	7.78
	lb					*9110	*9110			*8380	5820	(25.5)
4.5m (15ft)	kg			*5340	*5340	*4530	4010			*3910	2200	8.44
	lb			*11770	*11770	*9990	8840			*8620	4850	(27.7)
3.0m (10ft)	kg			*6950	5820	*5230	3770	*4500	2590	*4060	1990	8.74
	lb			*15320	12830	*11530	8310	*9920	5710	*8950	4390	(28.7)
1.5m (5ft)	kg			*8390	5330	*5960	3530	*4830	2480	4130	1950	8.74
	lb			*18500	11750	*13140	7780	*10650	5470	9110	4300	(28.7)
Ground Line	kg			*9050	5120	*6450	3370	*5060	2410	4350	2050	8.43
	lb			*19950	11290	*14220	7430	*11160	5310	9590	4520	(27.7)
-1.5m (-5ft)	kg	*13120	9870	*9010	5090	*6540	3320			*4580	2360	7.76
	lb	*28920	21760	*19860	11220	*14420	7320			*10100	5200	(25.5)
-3.0m (-10ft)	kg	*11750	10070	*8270	5200	*5960	3410			*4550	3140	6.62
	lb	*25900	22200	*18230	11460	*13140	7520			*10030	6920	(21.7)

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.

(2) 5.65m (18' 6") boom, 2.40m (7' 10") arm equipped with 0.87m³ (SAE heaped) bucket, 500mm (20") triple grouser shoe and 4700kg (10360lb) counterweight.

Load point height		Load radius										At max. reach		
		1.5m (5ft)		3.0m (10ft)		4.5m (15ft)		6.0m (20ft)		7.5m (25ft)		Capacity		Reach
														m (ft)
7.5m (25ft)	kg											*3450	3160	7.16
	lb											*7610	6970	(23.5)
6.0m (20ft)	kg							*3730	*3730			*3520	2390	8.21
	lb							*8220	*8220			*7760	5270	(26.9)
4.5m (15ft)	kg					*4800	*4800	*4170	4060	*3930	2700	*3640	2010	8.83
	lb					*10580	*10580	*9190	8950	*8660	5950	*8020	4430	(29.0)
3.0m (10ft)	kg					*6410	5910	*4910	3790	*4240	2590	*3780	1830	9.12
	lb					*14130	13030	*10820	8360	*9350	5710	*8330	4030	(29.9)
1.5m (5ft)	kg					*7960	5370	*5690	3520	*4630	2470	3830	1780	9.11
	lb					*17550	11840	*12540	7760	*10210	5450	8440	3920	(29.9)
Ground Line	kg			*8350	*8350	*8840	5080	*6280	3340	*4930	2370	4010	1860	8.82
	lb			*18410	*18410	*19490	11200	*13850	7360	*10870	5220	8840	4100	(28.9)
-1.5m (-5ft)	kg	*9270	*9270	*12800	9660	*9010	5010	*6490	3260			*4320	2120	8.19
	lb	*20440	*20440	*28220	21300	*19860	11050	*14310	7190			*9520	4670	(26.9)
-3.0m (-10ft)	kg	*13370	*13370	*12400	9850	*8500	5080	*6160	3300			*4390	2730	7.13
	lb	*29480	*29480	*27340	21720	*18740	11200	*13580	7280			*9680	6020	(23.4)
-4.5m (-15ft)	kg			*9980	*9980	*6940	5320							
	lb			*22000	*22000	*15300	11730							

(3) 5.65m (18' 6") boom, 2.90m (9' 6") arm equipped with 0.87m³ (SAE heaped) bucket, 500mm (20") triple grouser shoe and 4700kg (10360lb) counterweight.

Load point height		Load radius										At max. reach		
		1.5m (5ft)		3.0m (10ft)		4.5m (15ft)		6.0m (20ft)		7.5m (25ft)		Capacity		Reach
														m (ft)
7.5m (25ft)	kg											*3130	2790	7.75
	lb											*6900	6150	(25.4)
6.0m (20ft)	kg									*2000	*2000	*3220	2170	8.71
	lb									*4410	*4410	*7100	4780	(28.6)
4.5m (15ft)	kg							*3750	*3750	*3580	2770	*3350	1840	9.29
	lb							*8270	*8270	*7890	6110	*7390	4060	(30.5)
3.0m (10ft)	kg			*9130	*9130	*5750	*5750	*4520	3870	*3950	2640	*3500	1680	9.56
	lb			*20130	*20130	*12680	*12680	*9960	8530	*8710	5820	*7720	3700	(31.4)
1.5m (5ft)	kg			*8720	*8720	*7430	5500	*5380	3580	*4400	2490	3550	1630	9.56
	lb			*19220	*19220	*16380	12130	*11860	7890	*9700	5490	7830	3590	(31.4)
Ground Line	kg			*9350	*9350	*8570	5130	*6070	3360	*4790	2370	3690	1690	9.28
	lb			*20610	*20610	*18890	11310	*13380	7410	*10560	5220	8140	3730	(30.4)
-1.5m (-5ft)	kg	*8590	*8590	*12200	9550	*8990	4990	*6430	3240	*4970	2310	*4080	1890	8.69
	lb	*18940	*18940	*26900	21050	*19820	11000	*14180	7140	*10960	5090	*8990	4170	(28.5)
-3.0m (-10ft)	kg	*11720	*11720	*13130	9690	*8740	5000	*6320	3240			*4250	2350	7.72
	lb	*25840	*25840	*28950	21360	*1927	11020	*13930	7140			*9370	5180	(25.3)
-4.5m (-15ft)	kg			*11170	10000	*7640	5170					*4170	3550	6.12
	lb			*24630	22050	*16840	11400					*9190	7830	(20.1)

2) HYDRAULIC ADJUSTABLE BOOM

(1) 5.56m (18' 3") boom, 2.0m (6' 7") arm equipped with 0.87m³ (SAE heaped) bucket, 500mm (20") triple grouser shoe and 4700kg (10360lb) counterweight.

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

Load point height		Load radius								At max. reach		
		3.0m (10.0ft)		4.5m (15.0ft)		6.0m (20.0ft)		7.5m (25.0ft)		Capacity		Reach
												m (ft)
10.5m (35.0ft)	kg lb									*5510 *12150	*5510 *12150	4.92 (16.1)
9.0m (30.0ft)	kg lb									*6360 *14020	*6360 *14020	4.30 (14.1)
7.5m (25.0ft)	kg lb			*6390 *14090	*6390 *14090					*5090 *11220	4010 8840	6.48 (21.3)
6.0m (20.0ft)	kg lb			*6490 *14310	*6490 *14310	*5590 *12320	4430 9770			*4700 *10360	2920 6440	7.64 (25.1)
4.5m (15.0ft)	kg lb	*10550 *23260	*10550 *23260	*7310 *16120	6830 15060	*5840 *12870	4280 9440			*4500 *9920	2430 5360	8.31 (27.3)
3.0m (10.0ft)	kg lb			*8440 *18610	6230 13730	*6270 *13820	4030 8880	*5080 *11200	2780 6130	*4360 *9610	2210 4870	8.62 (28.3)
1.5m (5.0ft)	kg lb			*9140 *20150	5730 12630	*6580 14510	3790 8360	*5100 *11240	2680 5910	*4200 *9260	2160 4760	8.62 (28.3)
Ground Line	kg lb			*8910 *19460	5500 12130	*6510 *14350	3630 8000			*3950 *8710	2280 5030	8.30 (27.2)
-1.5m (-5.0ft)	kg lb	*9780 *21560	*9780 *21560	*7860 *17330	5470 12060	*5820 *12830	3590 7910			*3430 *7560	2630 5800	7.62 (25.0)
-3.0m (-10.0ft)	kg lb			*5860 *12920	5590 12320							

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.

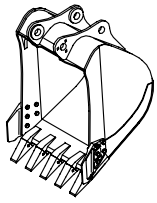
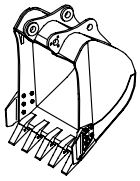
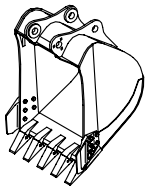
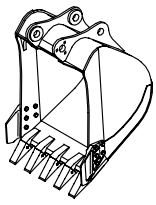
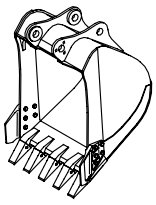
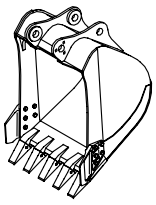
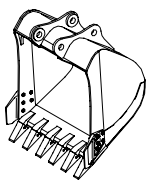
4. *indicates load limited by hydraulic capacity.

(2) 5.56m (18' 3") boom, 2.40m (7' 10") arm equipped with 0.87m³ (SAE heaped) bucket, 500mm (20") triple grouser shoe and 4700kg (10360lb) counterweight.

Load point height		Load radius								At max. reach		
		3.0m (10.0ft)		4.5m (15.0ft)		6.0m (20.0ft)		7.5m (25.0ft)		Capacity		Reach
												m (ft)
9.0m (30.0ft)	kg									*5490	*5490	5.13
	lb									*12100	*12100	(16.8)
7.5m (25.0ft)	kg			*5270	*5270					*4670	3520	7.00
	lb			*11620	*11620					*10300	7760	(23.0)
6.0m (20.0ft)	kg			*6040	*6040	*5220	4500			*4360	2650	8.07
	lb			*13320	*13320	*11510	9920			*9610	5840	(26.5)
4.5m (15.0ft)	kg	*9540	*9540	*6870	*6870	*5560	4330	*3280	2890	*4200	2230	8.70
	lb	*21030	*21030	*15150	*15150	*12260	9550	*7230	6370	*9260	4920	(28.5)
3.0m (10.0ft)	kg	*13100	11610	*8050	6330	*6050	4060	*4940	2790	*4080	2030	9.00
	lb	*28880	25600	*17750	13960	*13340	8950	*10890	6150	*8990	4480	(29.5)
1.5m (5.0ft)	kg			*8940	5770	*6450	3790	*5040	2660	*3960	1980	8.99
	lb			*19710	12720	*14220	8360	*11110	5860	*8730	4370	(29.5)
Ground Line	kg	*9240	*9240	*8990	5460	*6510	3600	*4920	2560	*3760	2070	8.69
	lb	*20370	*20370	*19820	12040	*14350	7940	*10850	5640	*8290	4560	(28.5)
-1.5m (-5.0ft)	kg	*10990	10330	*8190	5380	*6020	3520			*3330	2370	8.05
	lb	*24230	22770	*18060	11860	*13270	7760			*7430	5220	(26.4)
-3.0m (-10.0ft)	kg	*8250	*8250	*6480	5470	*4670	3580					
	lb	*18190	*18190	*14290	12060	*10300	7890					

6. BUCKET SELECTION GUIDE

1) GENERAL BUCKET

						
0.51m³ SAE heaped bucket	0.80m³ SAE heaped bucket	※0.87m³ SAE heaped bucket	0.92m³ SAE heaped bucket	1.10m³ SAE heaped bucket	1.20m³ SAE heaped bucket	1.34m³ SAE heaped bucket

Capacity		Width		Weight	Recommendation				
					5.65m (18' 6") boom			5.56m (18' 3") Adjustable boom	
SAE heaped	CECE heaped	Without side cutter	With side cutter		2.0m arm (6' 7")	2.4m arm (7' 10")	2.90m arm (9' 6")	2.0m arm (6' 7")	2.4m arm (7' 10")
0.51m³ (0.67yd³)	0.45m³ (0.59yd³)	700mm (27.6")	820mm (32.3")	570kg (1260lb)					
0.80m³ (1.05yd³)	0.70m³ (0.92yd³)	1000mm (39.4")	1120mm (44.1")	700kg (1540lb)					
※0.87m³ (1.14yd³)	0.75m³ (0.98yd³)	1090mm (42.9")	1210mm (47.6")	740kg (1630lb)					
0.92m³ (1.20yd³)	0.80m³ (1.05yd³)	1150mm (45.3")	1270mm (50.0")	770kg (1700lb)					
1.10m³ (1.44yd³)	0.96m³ (1.26yd³)	1320mm (52.0")	1440mm (56.7")	830kg (1830lb)					
1.20m³ (1.57yd³)	1.00m³ (1.31yd³)	1400mm (55.1")	1520mm (59.8")	850kg (1870lb)					
1.34m³ (1.75yd³)	1.15m³ (1.50yd³)	1550mm (61.0")	1670mm (65.7")	920kg (2030lb)					

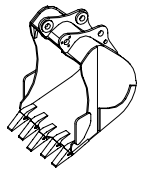
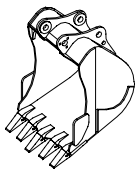
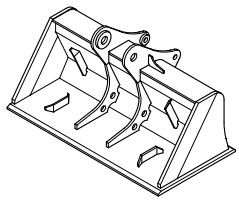
※ : Standard bucket

Applicable for materials with density of 2000kg/m³ (3370lb/yd³) or less

Applicable for materials with density of 1600kg/m³ (2700lb/yd³) or less

Applicable for materials with density of 1100kg/m³ (1850lb/yd³) or less

2) HEAVY DUTY, ROCK AND SLOPE FINISHING BUCKET

		
◈0.74, 0.90, 1.05m³ SAE heaped bucket	⊙0.87m³ SAE heaped bucket	▣0.75m³ SAE heaped bucket

Capacity		Width		Weight	Recommendation				
					5.65m (18' 6") boom			5.56m (18' 3") Adjustable boom	
SAE heaped	CECE heaped	Without side cutter	With side cutter		2.0m arm (6' 7")	2.4m arm (7' 10")	2.90m arm (9' 6")	2.0m arm (6' 7")	2.4m arm (7' 10")
◈0.74m³ (0.97yd³)	0.65m³ (0.85yd³)	985mm (38.8")	-	770kg (1700lb)					
◈0.90m³ (1.18yd³)	0.80m³ (1.05yd³)	1070mm (42.1")	-	810kg (1790lb)					
◈1.05m³ (1.37yd³)	0.92m³ (1.20yd³)	1290mm (50.8")	-	890kg (1960lb)					
⊙0.87m³ (1.14yd³)	0.75m³ (0.98yd³)	1140mm (44.9")	-	900kg (1980lb)					
▣0.75m³ (0.98yd³)	0.65m³ (0.85yd³)	1790mm (70.5")	-	880kg (1940lb)					

◈ : Heavy duty bucket ⊙ : Rock bucket ▣ : Slope finishing bucket

Applicable for materials with density of 2000kgf/m³ (3370lbf/yd³) or less

Applicable for materials with density of 1600kgf/m³ (2700lbf/yd³) or less

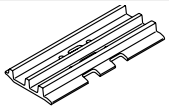
Applicable for materials with density of 1100kgf/m³ (1850lbf/yd³) or less

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

Model	Shapes		Triple grouser		
					
MONO BOOM	Shoe width	mm(in)	500(20)	600(24)	700(28)
	Operating weight	kg(lb)	22000(48500)	22300(49200)	22600(49820)
	Ground pressure	kgf/cm^2(psi)	0.56(7.96)	0.47(6.68)	0.41(5.83)
	Overall width	mm(ft-in)	2500(8' 2")	2600(8' 6")	2700(8'10")
2 PIECE BOOM	Shoe width	mm(in)	500(20)	600(24)	-
	Operating weight	kg(lb)	21150(46630)	21450(47290)	-
	Ground pressure	kgf/cm^2(psi)	0.56(7.96)	0.47(6.68)	-
	Overall width	mm(ft-in)	2500(8' 2")	2600(8' 6")	-

3) NUMBER OF ROLLERS AND SHOES ON EACH SIDE

Item	Quantity
Carrier rollers	2EA
Track rollers	9EA
Track shoes	49EA

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
500mm triple grouser	Standard	A
600mm triple grouser	Option	B
700mm triple grouser	Option	C

※ **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
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 gound (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	Cummins QSB 6.7
Type	4-cycle, turbocharged, charge air cooled, diesel engine, low emission
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	107 × 124mm (4.21" × 4.88")
Piston displacement	6700cc (408cu in)
Compression ratio	17.2 : 1
Rated gross horse power (SAE J1995)	151Hp at 1900rpm (113kW at 1900rpm)
Maximum torque at 1500rpm	63.0kgf · m (456lbf · ft)
Engine oil quantity	24 ℓ (6.3U.S. gal)
Dry weight	556kg (1226lb)
High idling speed	1950+ 50rpm
Low idling speed	850± 100rpm
Rated fuel consumption	167.8g/Hp · hr at 1900rpm
Starting motor	Nippon denso (24V-4.5kW)
Alternator	Delco Remy (24V-50A)
Battery	2 × 12V × 100Ah

2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 117cc/rev
Maximum pressure	330kgf/cm^2 (4694psi) [360kgf/cm^2 (5120psi)]
Rated oil flow	2 × 222 ℓ /min (58.6U.S. gpm/ 48.8U.K. gpm)
Rated speed	1900rpm

[ ] : Power boost

3) GEAR PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	15cc/rev
Maximum pressure	35kgf/cm^2 (500psi)
Rated oil flow	28.5 ℓ /min (7.5U.S. gpm/6.3U.K. gpm)

4) MAIN CONTROL VALVE

Item	Specification
Type	9 spools twin-block
Operating method	Hydraulic pilot system
Main relief valve pressure	330kgf/cm^2 (4695psi) [360kgf/cm^2 (5120psi)]
Overload relief valve pressure	390kgf/cm^2 (5550psi)

[ ]: Pooer boost

5) SWING MOTOR

Item	Specification
Type	Fixed displacement axial piston motor
Capacity	151cc/rev
Relief pressure	240kgf/cm^2 (3414psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	59kgf · m (427lbf · ft)
Brake release pressure	33~50kgf/cm^2 (470~711psi)
Reduction gear type	2 - stage planetary

6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Relief pressure	330kgf/cm^2 (4695psi)
Reduction gear type	3-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	11kgf/cm^2 (156psi)
Braking torque	49.3kgf · m (357lbf · ft)

7) REMOTE CONTROL VALVE

Item		Specification
Type		Pressure reducing type
Operating pressure	Minimum	6.5kgf/cm² (92psi)
	Maximum	25kgf/cm² (360psi)
Single operation stroke	Lever	61mm (2.4in)
	Pedal	123mm (4.84in)

8) CYLINDER

Item			Specification
Boom cylinder		Bore dia × Rod dia × Stroke	ø 120 × ø 85 × 1290mm
		Cushion	Extend only
Arm cylinder		Bore dia × Rod dia × Stroke	ø 140 × ø 100 × 1510mm
		Cushion	Extend and retract
Bucket cylinder		Bore dia × Rod dia × Stroke	ø 125 × ø 85 × 1055mm
		Cushion	Extend only
Adjust boom cylinder	1st	Bore dia × Rod dia × Stroke	ø 120 × ø 85 × 1290mm
		Cushion	Extend only
	2nd	Bore dia × Rod dia × Stroke	ø 160 × ø 100 × 1040mm
		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
MONO BOOM	Standard	500mm (20")	0.56kgf/cm² (7.96psi)	49	2500mm (8' 2")
	Option	600mm (24")	0.47kgf/cm² (6.68psi)	49	2600mm (8' 6")
		700mm (28")	0.41kgf/cm² (5.83psi)	49	2700mm (8' 10")
ADJUST BOOM	Standard	500mm (20")	0.56kgf/cm² (7.96psi)	49	2500mm (8' 2")
	Option	600mm (24")	0.48kgf/cm² (6.83psi)	49	2600mm (8' 6")

10) BUCKET

Item	Capacity		Tooth quantity	Width	
	SAE heaped	CECE heaped		Without side cutter	With side cutter
Standard	0.87m³ (1.14yd³)	0.75m³ (0.98yd³)	5	1090mm (42.9")	1210mm (47.6")
Option	0.51m³ (0.67yd³)	0.45m³ (0.59yd³)	3	700mm (27.6")	820mm (32.3")
	0.80m³ (1.05yd³)	0.70m³ (0.92yd³)	5	1000mm (39.4")	1120mm (44.1")
	0.92m³ (1.20yd³)	0.80m³ (1.05yd³)	5	1150mm (45.3")	1270mm (50.0")
	1.10m³ (1.44yd³)	0.96m³ (1.26yd³)	5	1320mm (52.0")	1440mm (56.7")
	1.20m³ (1.57yd³)	1.00m³ (1.31yd³)	5	1400mm (55.1")	1520mm (59.8")
	1.34m³ (1.75yd³)	1.15m³ (1.50yd³)	6	1550mm (61.1")	1670mm (65.7")
	◈0.74m³ (0.97yd³)	0.65m³ (0.85yd³)	5	985mm (38.8")	-
	◈0.90m³ (1.18yd³)	0.80m³ (1.05yd³)	5	1070mm (42.1")	-
	◈1.05m³ (1.37yd³)	0.92m³ (1.20yd³)	5	1290mm (50.8")	-
	⊙0.87m³ (1.14yd³)	0.75m³ (0.98yd³)	5	1140mm (44.9")	-
	▣0.75m³ (0.98yd³)	0.65m³ (0.85yd³)	-	1790mm (70.5")	-

◈ : Heavy duty bucket
⊙ : Rock bucket
▣ : Slope finishing bucket

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 ℃ (°F)
			-20 (-4) / -10 (14) / 0 (32) / 10 (50) / 20 (68) / 30 (86) / 40 (104)
Engine oil pan	Engine oil	24.0 (6.3)	SAE 30 SAE 10W SAE 10W-30 SAE 15W-40
Swing drive	Gear oil	5.0 (1.3)	SAE 85W-140
Final drive		5.8×2 (1.5×2)	
Hydraulic tank	Hydraulic oil	Tank; 180 (48) System; 290 (77)	ISO VG 32 ISO VG 46 ISO VG 68
Fuel tank	Diesel fuel	310 (82)	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	35 (9.2)	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