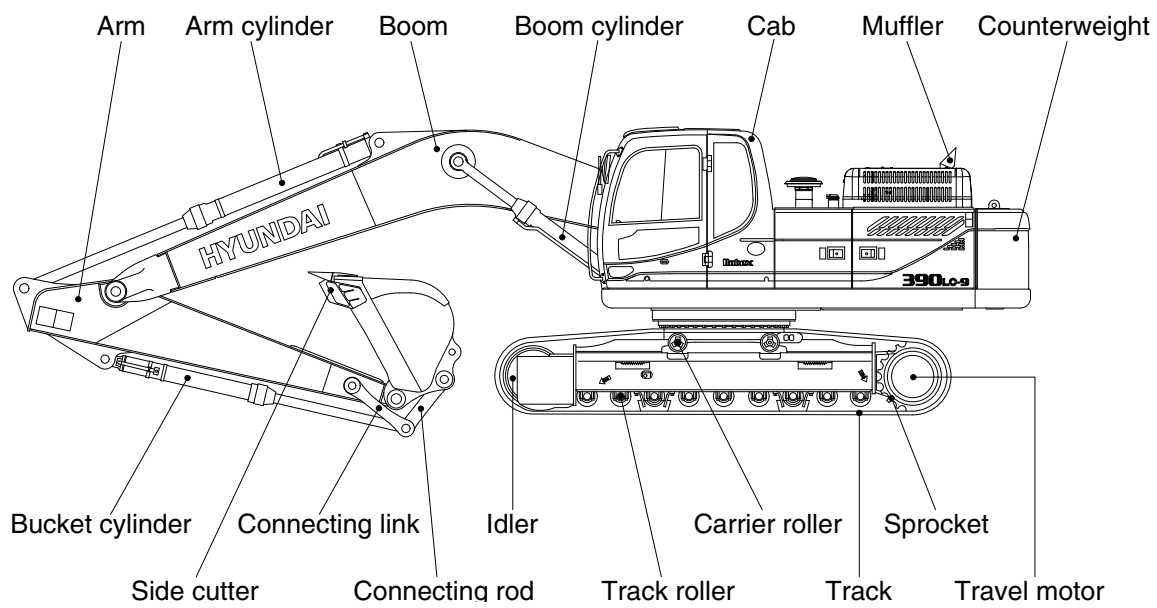
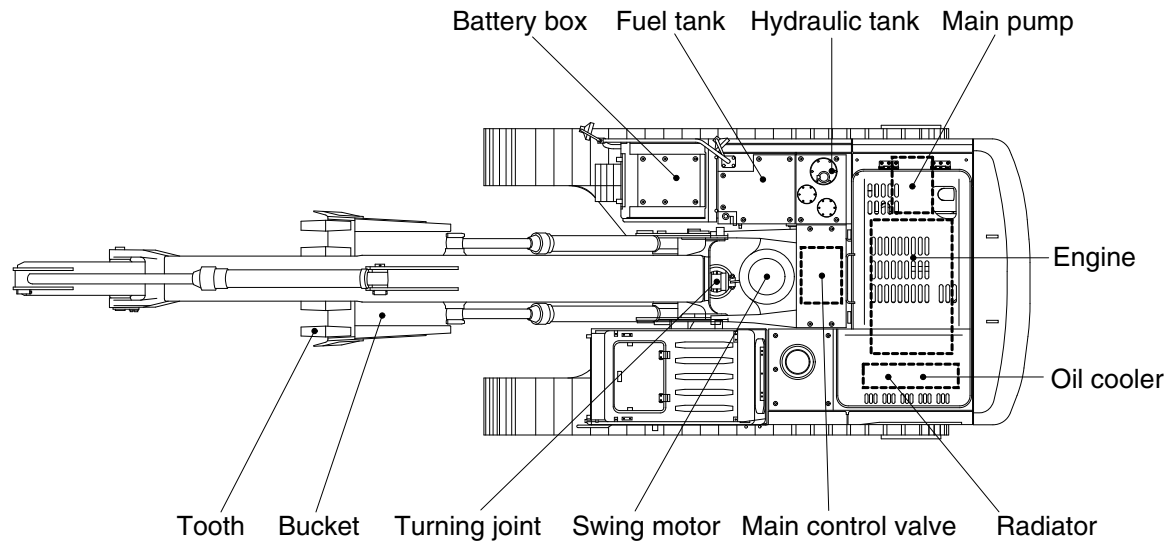


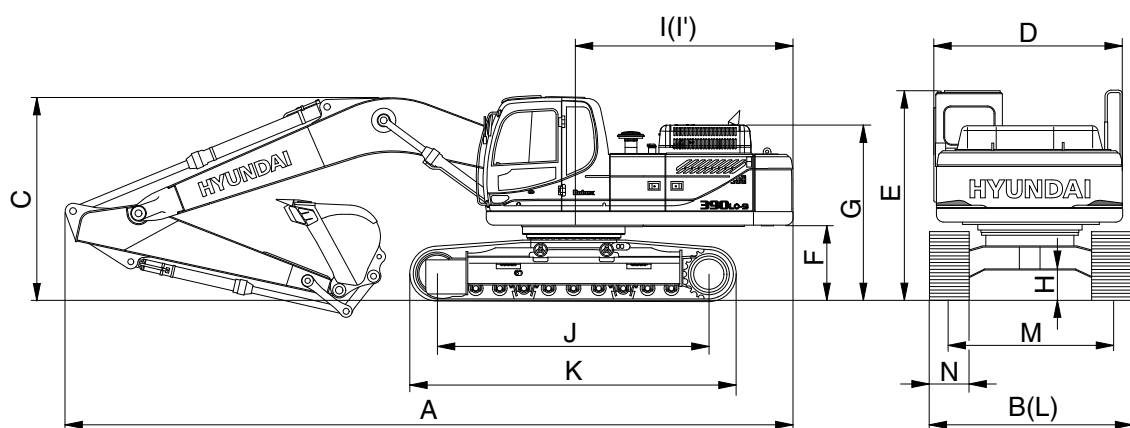
SPECIFICATIONS

1. MAJOR COMPONENT



39092SP01

2. SPECIFICATIONS

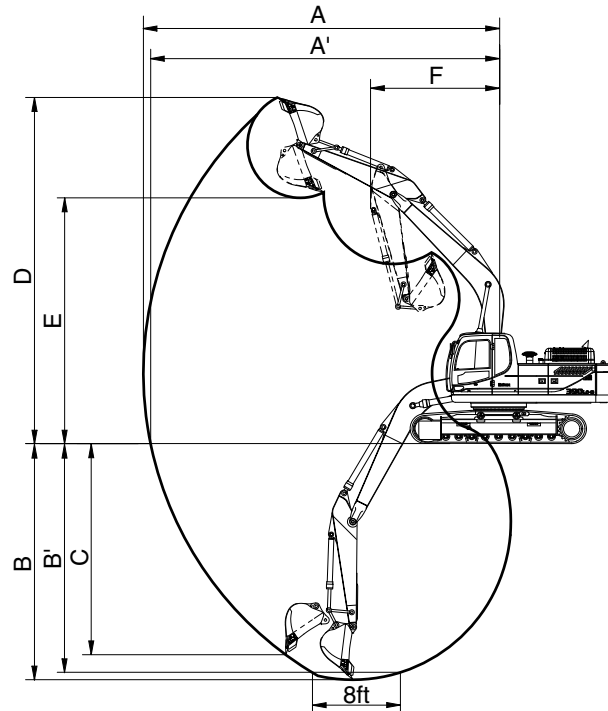


39092SP02

Description		Unit	Specification
Operating weight		kg (lb)	38400 (84660)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	1.62 (2.12)
Overall length	A	mm (ft-in)	11120 (36' 6")
Overall width, with 600 mm shoe	B		3340 (10'11")
Overall height	C		3450 (11' 4")
Superstructure width	D		2980 (9' 9")
Overall height of cab	E		3175 (10' 5")
Ground clearance of counterweight	F		1290 (4' 3")
Engine cover height	G		2790 (9' 2")
Minimum ground clearance	H		550 (1' 10")
Rear-end distance	I		3350 (11' 1")
Rear-end swing radius	I'		3415 (11' 2")
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 (24")
Travel speed (low/high)		km/hr (mph)	3.1/5.0 (1.9/3.1)
Swing speed		rpm	9.7
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm ² (psi)	0.69 (9.81)
Max traction force		kg (lb)	32000 (70550)

3. WORKING RANGE

· 6.5 m (21' 4") BOOM



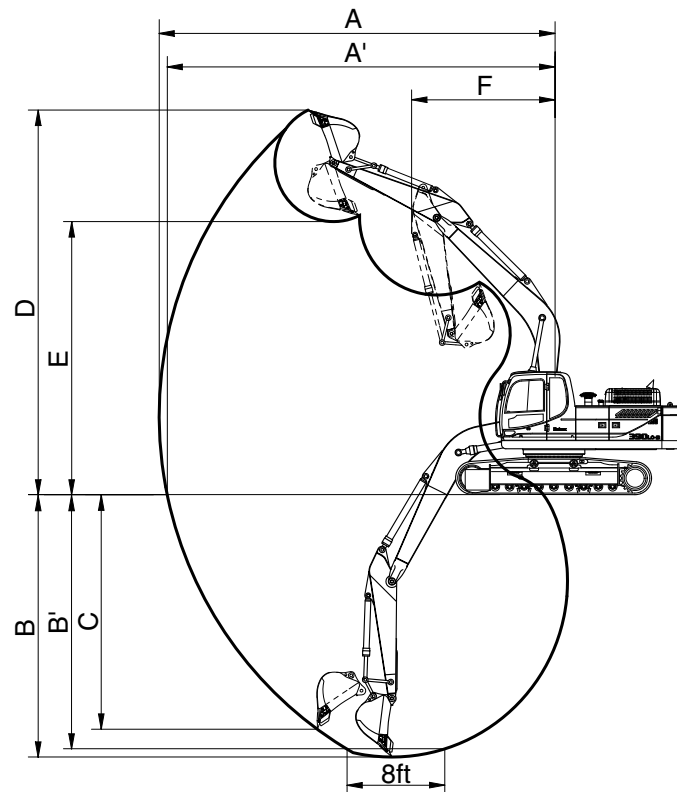
39092SP03

Description		2.5 m (8' 2") Arm	*3.2 m (10' 6") Arm	3.9 m (12' 10") Arm	4.3 m (14' 1") Arm
Max digging reach	A	10720 mm (35' 2")	11250 mm (36' 11")	11870 mm (38' 11")	12380 mm (40' 7")
Max digging reach on ground	A'	10490 mm (34' 5")	11040 mm (36' 3")	11670 mm (38' 3")	12180 mm (40' 0")
Max digging depth	B	6820 mm (22' 5")	7520 mm (24' 8")	8220 mm (27' 0")	8620 mm (28' 3")
Max digging depth (8ft level)	B'	6640 mm (21' 9")	7360 mm (24' 2")	8080 mm (26' 6")	8490 mm (27' 10")
Max vertical wall digging depth	C	5930 mm (19' 5")	6330 mm (20' 9")	7040 mm (23' 1")	7540 mm (24' 9")
Max digging height	D	10590 mm (34' 9")	10570 mm (34' 8")	10800 mm (35' 5")	11360 mm (37' 3")
Max dumping height	E	7370 mm (24' 2")	7410 mm (24' 4")	7640 mm (25' 1")	8160 mm (26' 9")
Min swing radius	F	4530 mm (14' 10")	4450 mm (14' 7")	4440 mm (14' 7")	4460 mm (14' 8")
Bucket digging force	SAE	201.0 [219.3] kN	201.0 [219.3] kN	201.0 [219.3] kN	201.0 [219.3] kN
		20500 [22360] kgf	20500 [22360] kgf	20500 [22360] kgf	20500 [22360] kgf
		45190 [49300] lbf	45190 [49300] lbf	45190 [49300] lbf	45190 [49300] lbf
	ISO	228.5 [249.3] kN	228.5 [249.3] kN	228.5 [249.3] kN	228.5 [249.3] kN
		23300 [25420] kgf	23300 [25420] kgf	23300 [25420] kgf	23300 [25420] kgf
		51370 [56040] lbf	51370 [56040] lbf	51370 [56040] lbf	51370 [56040] lbf
Arm crowd force	SAE	184.4 [201.1] kN	152.0 [165.8] kN	135.3 [147.6] kN	124.5 [135.9] kN
		18800 [20510] kgf	15500 [16910] kgf	13800 [15050] kgf	12700 [13850] kgf
		41450 [45220] lbf	34170 [37280] lbf	30420 [33190] lbf	28000 [30550] lbf
	ISO	192.2 [209.7] kN	156.9 [171.2] kN	139.3 [151.9] kN	128.5 [140.1] kN
		19600 [21380] kgf	16000 [17450] kgf	14200 [15490] kgf	13100 [14290] kgf
		43210 [47140] lbf	35270 [38480] lbf	31310 [34160] lbf	28880 [31510] lbf

[] : Power boost

* : STD

· 6.15 m (20' 2") BOOM

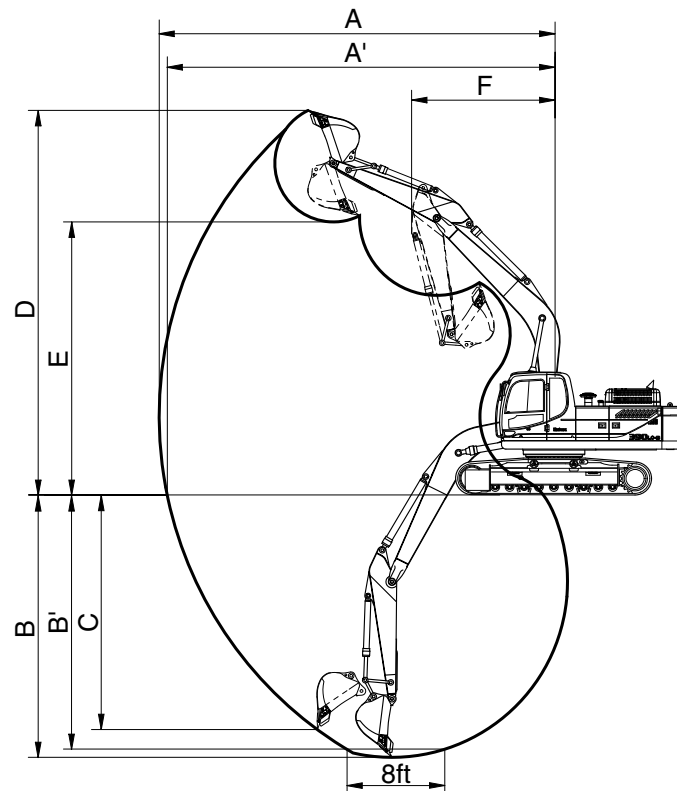


39092SP03

Description		2.5 m (8' 2") Arm
Max digging reach	A	10330 mm (33'11")
Max digging reach on ground	A'	10100 mm (33' 2")
Max digging depth	B	6450 mm (21' 2")
Max digging depth (8ft level)	B'	6270 mm (20' 7")
Max vertical wall digging depth	C	5490 mm (18' 0")
Max digging height	D	10320 mm (33'10")
Max dumping height	E	7120 mm (23' 4")
Min swing radius	F	4220 mm (13'10")
Bucket digging force	SAE	201.0 [219.3] kN
		20500 [22360] kgf
		45190 [49300] lbf
	ISO	228.5 [249.3] kN
		23300 [25420] kgf
		51370 [56040] lbf
Arm crowd force	SAE	184.4 [201.1] kN
		18800 [20510] kgf
		41450 [45220] lbf
	ISO	192.2 [209.7] kN
		19600 [21380] kgf
		43210 [47140] lbf

[] : Power boost

· 8.6 m (28' 3") BOOM



39092SP03

Description		5.1 m (16' 9") Arm
Max digging reach	A	15280 mm (50' 2")
Max digging reach on ground	A'	15120 mm (49' 7")
Max digging depth	B	11230 mm (36' 10")
Max digging depth (8ft level)	B'	11120 mm (36' 6")
Max vertical wall digging depth	C	10060 mm (33' 0")
Max digging height	D	13350 mm (43' 10")
Max dumping height	E	10150 mm (33' 4")
Min swing radius	F	5900 mm (19' 4")
Bucket digging force	SAE	201.0 [220.4] kN
		20500 [22360] kgf
		45190 [49550] lbf
	ISO	228.5 [250.3] kN
		23300 [25420] kgf
		51370 [56280] lbf
Arm crowd force	SAE	109.8 [119.8] kN
		11200 [12220] kgf
		24690 [26930] lbf
	ISO	112.8 [123.0] kN
		11500 [12550] kgf
		25350 [27650] lbf

[] : Power boost

4. WEIGHT

Item		R380LC-9SH	
		kg	lb
Upperstructure assembly		15040	33160
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	6.5, 6.15 m boom	6500	14330
	8.6 m boom	8100	17860
Cab assembly		490	1080
Lower chassis assembly		14310	31550
Track frame weld assembly		5415	11940
Swing bearing		560	1240
Travel motor assembly		380	840
Turning joint		65	140
Track recoil spring		210	460
Idler		260	570
Carrier roller		41	90
Track roller		80	180
Track-chain assembly (600 mm standard triple grouser shoe)		2380	5250
Front attachment assembly (6.5 m boom, 3.2 m arm, 1.62 m³ SAE heaped bucket)		7720	17020
6.5 m boom assembly		2930	6460
3.2 m arm assembly		1340	2950
1.62 m³ SAE heaped bucket		1330	2930
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 1.62 m³ (SAE heaped) bucket and 600 mm (24") triple grouser shoe and 6500 kg (14330 lb counterweight).

-  : 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													*5950	*5950	7.97
	lb													*13120	*13120	(26.1)
7.5 m (25.0 ft)	kg									*4560	*4560			*6020	4890	9.12
	lb									*10050	*10050			*13270	10780	(29.9)
6.0 m (20.0 ft)	kg									*6620	*6620			*6110	4070	9.87
	lb									*14590	*14590			*13470	8970	(32.4)
4.5 m (15.0 ft)	kg							*8260	*8260	*7320	6610	*4450	*4450	*6190	3600	10.32
	lb							*18210	*18210	*16140	14570	*9810	*9810	*13650	7940	(33.9)
3.0 m (10.0 ft)	kg					*13520	*13520	*9960	9020	*8240	6240	*6360	4490	6010	3360	10.50
	lb					*29810	*29810	*21960	19890	*18170	13760	*14020	9900	13250	7410	(34.4)
1.5 m (5.0 ft)	kg					*16390	13030	*11570	8370	*9170	5880	*7510	4300	5960	3310	10.45
	lb					*36130	28730	*25510	18450	*20220	12960	*16560	9480	13140	7300	(34.3)
Ground Line	kg			*13090	*13090	*17880	12390	*12690	7930	*9880	5600	*7070	4150	6200	3430	10.14
	lb			*28860	*28860	*39420	27320	*27980	17480	*21780	12350	*15590	9150	13670	7560	(33.3)
-1.5 m (-5.0 ft)	kg	*13720	*13720	*17520	*17520	*18150	12180	*13170	7710	9860	5450			6810	3800	9.57
	lb	*30250	*30250	*38620	*38620	*40010	26850	*29030	17000	21740	12020			15010	8380	(31.4)
-3.0 m (-10.0 ft)	kg	*17880	*17880	*22800	*22800	*17430	12250	*12880	7690	9860	5450			*7730	4560	8.65
	lb	*39420	*39420	*50270	*50270	*38430	27010	*28400	16950	21740	12020			*17040	10050	(28.4)
-4.5 m (-15.0 ft)	kg	*22600	*22600	*21880	*21880	*15520	12550	*11510	7890					*7690	6290	7.25
	lb	*49820	*49820	*48240	*48240	*34220	27670	*25380	17390					*16950	13870	(23.8)
-6.0 m (-20.0 ft)	kg					*11410	*11410									
	lb					*25150	*25150									

- 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) 6.15 m (20' 2") boom, 2.5 m (8' 2") arm equipped with 1.62 m³ (SAE heaped) bucket and 600 mm (24") triple grouser shoe and 6500 kg (14330 lb) counterweight.

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)		Capacity		Reach
												m (ft)
9.0 m (30.0 ft)	kg lb									*7580 *16710	*7580 *16710	6.65 (21.8)
7.5 m (25.0 ft)	kg lb									*7420 *16360	6270 13820	8.02 (26.3)
6.0 m (20.0 ft)	kg lb					*8590 *18940	*8590 *18940	*6510 *14350	*6510 *14350	*7460 *16450	5050 11130	8.88 (29.1)
4.5 m (15.0 ft)	kg lb	*18270 *40280	*18270 *40280	*12170 *26830	*12170 *26830	*9790 *21580	*9790 *21580	*8620 *19000	6640 14640	7560 16670	4410 9720	9.38 (30.8)
3.0 m (10.0 ft)	kg lb			*15380 *33910	14360 31660	*11300 *24910	9140 20150	*9350 *20610	6330 13960	7130 15720	4100 9040	9.58 (31.4)
1.5 m (5.0 ft)	kg lb			*17740 *39110	13240 29190	*12640 *27870	9140 20150	*10060 *22180	6020 13270	7090 15630	4040 8910	9.52 (31.2)
Ground Line	kg lb	*13400 *29540	*13400 *29540	*18580 *40960	12720 28040	*13410 *29560	8160 17990	10230 22550	5790 12760	7450 16420	4230 9330	9.19 (30.2)
-1.5 m (-5.0 ft)	kg lb	*21020 *46340	*21020 *46340	*18170 *40060	12580 27730	*13400 *29540	7990 17610	10120 22310	5690 12540	*8340 *18390	4780 10540	8.53 (28.0)
-3.0 m (-10 ft)	kg lb	*22960 *50620	*22960 *50620	*16580 *36550	12700 28000	*12330 *27180	8040 17730			*8180 *18030	6030 13290	7.47 (24.5)
-1.5 m (-10 ft)	kg lb	*17870 *39400	*17870 *39400	*13110 *28900	*13110 *28900							

(3) 6.5 m (21' 4") boom, 2.5 m (8' 2") arm equipped with 1.62 m³ (SAE heaped) bucket and 600 mm (24") triple grouser shoe and 6500 kg (14330 lb) counterweight.

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)		Capacity		Reach
												m (ft)
9.0 m (30.0 ft)	kg lb									*6820 *15040	*6820 *15040	7.22 (23.7)
7.5 m (25.0 ft)	kg lb									*6770 *14930	5460 12040	8.49 (27.9)
6.0 m (20.0 ft)	kg lb					*7970 *17570	*7970 *17570	*7480 *16490	6680 14730	*6850 *15100	4460 9830	9.29 (30.5)
4.5 m (15.0 ft)	kg lb			*11870 *26170	*11870 *26170	*9290 *20480	*9290 *20480	*8060 *17770	6420 14150	6880 15170	3930 8660	9.77 (32.1)
3.0 m (10.0 ft)	kg lb			*15200 *33510	13580 29940	*10870 *23960	8740 19270	*8870 *19550	6090 13430	6520 14370	3670 8090	9.97 (32.7)
1.5 m (5.0 ft)	kg lb			*17480 *38540	12590 27760	*12250 *27010	8170 18010	*9650 *21270	5780 12740	6500 14330	3630 8000	9.91 (32.5)
Ground Line	kg lb			*18200 *40120	12240 26980	*13060 *28790	7830 17260	9980 22000	5560 12260	6820 15040	3810 8400	9.59 (31.5)
-1.5 m (-5.0 ft)	kg lb	*17830 *39310	*17830 *39310	*17860 *39370	12220 26940	*13180 *29060	7720 17020	9900 21830	5490 12100	7630 16820	4300 9480	8.97 (29.4)
-3.0 m (-10 ft)	kg lb	*22850 *50380	*22850 *50380	*16580 *36550	12420 27380	*12430 *27400	7810 17220			*7850 *17310	5340 11770	7.97 (26.1)
-1.5 m (-10 ft)	kg lb	*18790 *41420	*18790 *41420	*13880 *30600	12880 28400					*7110 *15670	*7110 *15670	6.39 (21.0)

(4) 6.5 m (21' 4") boom, 3.9 m (12' 10") arm equipped with 1.62 m³ (SAE heaped) bucket and 600 mm (24") triple grouser shoe and 6500 kg (14330 lb) counterweight.

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													*5220	*5220	8.81
	lb													*11510	*11510	(28.9)
7.5 m (25.0 ft)	kg													*5320	4220	9.85
	lb													*11730	9300	(32.3)
6.0 m (20.0 ft)	kg									*5820	*5820	*3620	*3620	*5490	3550	10.54
	lb									*12830	*12830	*7980	*7980	*12100	7830	(34.6)
4.5 m (15.0 ft)	kg									*6570	*6570	*5410	4680	*5660	3160	10.95
	lb									*14480	*14480	*11930	10320	*12480	6970	(35.9)
3.0 m (10.0 ft)	kg			*19700	*19700	*11910	*11910	*9000	*9000	*7540	6240	*6730	4460	5390	2950	11.13
	lb			*43430	*43430	*26260	*26260	*19840	*19840	*16620	13760	*14840	9830	11880	6500	(36.5)
1.5 m (5.0 ft)	kg			*12690	*12690	*15110	13210	*10740	8390	*8560	5830	*7320	4230	5330	2890	11.07
	lb			*27980	*27980	*33310	29120	*23680	18500	*18870	12850	*16140	9330	11750	6370	(36.3)
Ground Line	kg			*13710	*13710	*17120	12340	*12090	7860	*9410	5500	*7350	4040	5510	2970	10.79
	lb			*30230	*30230	*37740	27210	*26650	17330	*20750	12130	16200	8910	12150	6550	(35.4)
-1.5 m (-5.0 ft)	kg	*12630	*12630	*16860	*16860	*17890	11970	*12830	7550	9710	5300	7220	3930	5970	3240	10.26
	lb	*27840	*27840	*37170	*37170	*39440	26390	*28290	16640	21410	11680	15920	8660	13160	7140	(33.7)
-3.0 m (-10.0 ft)	kg	*16240	*16240	*21070	*21070	*17610	11920	*12860	7450	9630	5230			6900	3810	9.42
	lb	*35800	*35800	*46450	*46450	*38820	26280	*28350	16420	21230	11530			15210	8400	(30.9)
-4.5 m (-15.0 ft)	kg	*20300	*20300	*23540	*23540	*16240	12130	*11980	7560	*8980	5360			*7360	4970	8.17
	lb	*44750	*44750	*51900	*51900	*35800	26740	*26410	16670	*19800	11820			*16230	10960	(26.8)
-6.0 m (-20.0 ft)	kg			*18730	*18730	*13200	12640									
	lb			*41290	*41290	*29100	27870									

(5) 6.5 m (21' 4") boom, 4.3 m (14' 1") arm equipped with 1.62 m³ (SAE heaped) bucket and 600 mm (24") triple grouser shoe and 6500 kg (14330 lb) counterweight.

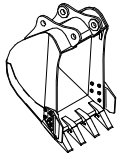
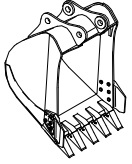
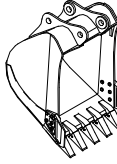
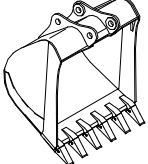
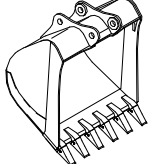
Load point height		Load radius														At max. reach			
		1.5 m (5.0 ft)		3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)		9.0 m (30.0 ft)		10.5 m (35.0 ft)		Capacity		Reach	
																		m (ft)	
9.0 m (30 ft)	kg																*4970	4590	9.45
	lb																*10960	10250	(31.0)
7.5 m (25.0 ft)	kg											*2710	*2710				*4770	3710	10.42
	lb											*5970	*5970				*10520	8180	(34.2)
6.0 m (20.0 ft)	kg											*4420	*4420				*4670	3150	11.07
	lb											*9740	*9740				*10300	6940	(36.3)
4.5 m (15.0 ft)	kg									*6030	*6030	*5580	4730				*4690	2820	11.46
	lb									*13290	*13290	*12300	10430				*10340	6220	(37.6)
3.0 m (10.0 ft)	kg			*16870	*16870	*10740	*10740	*8310	*8310	*7050	6310	*6340	4490	*2620	*2620		*4830	2640	11.63
	lb			*37190	*37190	*23680	*23680	*18320	*18320	*15540	13910	*13980	9900	*5780	*5780		*10650	5820	(38.2)
1.5 m (5.0 ft)	kg			*13700	*13700	*14150	13480	*10140	8500	*8130	5870	*6980	4230	*2950	*2950		4880	2580	11.58
	lb			*30200	*30200	*31200	29720	*22350	18740	*17920	12940	*15390	9330	*6500	*6500		10760	5690	(38.0)
Ground Line	kg			*13070	*13070	*16510	12440	*11640	7900	*9070	5510	7330	4010				5030	2660	11.31
	lb			*28810	*28810	*36400	27430	*25660	17420	*20000	12150	16160	8840				11090	5860	(37.1)
-1.5 m (-5.0 ft)	kg	*11110	*11110	*15450	*15450	*17630	11930	*12570	7520	9670	5260	7170	3860				5420	2890	10.81
	lb	*24490	*24490	*34060	*34060	*38870	26300	*27710	16580	21320	11600	15810	8510				11950	6370	(35.5)
-3.0 m (-10.0 ft)	kg	*14410	*14410	*19090	*19090	*17690	11790	*12820	7360	9550	5150	*6600	3830				6180	3350	10.02
	lb	*31770	*31770	*42090	*42090	*39000	25990	*28260	16230	21050	11350	*14550	8440				13620	7390	(32.9)
-4.5 m (-15.0 ft)	kg	*18210	*18210	*24070	*24070	*16690	11930	*12250	7420	*9310	5120						*6710	4250	8.87
	lb	*40150	*40150	*53070	*53070	*36800	26300	*27010	16360	*20530	11490						*14790	9370	(29.1)
-6.0 m (-20.0 ft)	kg	*22860	*22860	*20530	*20530	*14250	12340	*10350	7720								*6520	6360	7.15
	lb	*50400	*50400	*45260	*45260	*31420	27210	*22820	17020								*14370	14020	(23.5)

(6) 8.6 m (28' 3") boom, 5.1 m (16' 9") arm equipped with 1.46 m³ (SAE heaped) bucket and 600 mm (24") triple grouser shoe and 8100 kg (17860 lb) counterweight.

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)		10.5 m (35.0 ft)		12.0 m (40.0 ft)		13.5 m (45.0 ft)		Capacity		Reach		
																							m (ft)
9.0 m (30 ft)	kg													*3010	*3010						*3030	2560	12.91
	lb													*6640	*6640						*6680	5640	(42.4)
7.5 m (25.0 ft)	kg													*3110	*3110	*2630	*2630				*3100	2140	13.61
	lb													*6860	*6860	*5800	*5800				*6830	4720	(44.7)
6.0 m (20.0 ft)	kg													*3360	*3360	*3300	2870				*3180	1860	14.10
	lb													*7410	*7410	*7280	6330				*7010	4100	(46.3)
4.5 m (15.0 ft)	kg										*4100	*4100	*3730	3730	*3520	2730				*3290	1680	14.40	
	lb										*9040	*9040	*8220	8220	*7760	6020				*7250	3700	(47.2)	
3.0 m (10.0 ft)	kg					*10920	*10920	*7400	*7400	*5710	*5710	*4750	4690	*4160	3460	*3790	2560	*1720	*1720		3360	1560	14.53
	lb					*24070	*24070	*16310	*16310	*12590	*12590	*10470	10340	*9170	7630	*8360	5640	*3790	*3790		7410	3440	(47.7)
1.5 m (5.0 ft)	kg					*10890	*10890	*8990	8230	*6710	5840	*5420	4300	*4610	3210	*4090	2400	*1900	1770		3310	1520	14.49
	lb					*24010	*24010	*19820	18140	*14790	12870	*11950	9480	*10160	7080	*9020	5290	*4190	3900		7300	3350	(47.5)
Ground Line	kg					*10400	*10400	*10190	7550	*7560	5370	*6010	3970	*5030	2990	*4370	2260				3370	1540	14.28
	lb					*22930	*22930	*22470	16640	*16670	11840	*13250	8750	*11090	6590	*9630	4980				7430	3400	(46.9)
-1.5 m (-5.0 ft)	kg			*7990	*7990	*11720	11360	*10930	7170	*8180	5050	*6480	3730	*5370	2820	4450	2150				3520	1630	13.90
	lb			*17610	*17610	*25840	25040	*24100	15810	*18030	11130	*14290	8220	*11840	6220	9810	4740				7760	3590	(45.6)
-3.0 m (-10.0 ft)	kg	*8910	*8910	*10270	*10270	*13880	11320	*11250	7010	*8540	4880	*6780	3600	5490	2730	4410	2110				3820	1810	13.31
	lb	*19640	*19640	*22640	*22640	*30600	24960	*24800	15450	*18830	10760	*14950	7940	12100	6020	9720	4650				8420	3990	(43.7)
-4.5 m (-15.0 ft)	kg	*11090	*11090	*12810	*12810	*15320	11460	*11200	7020	*8610	4840	*6850	3560	5480	2710						*4230	2130	12.50
	lb	*24450	*24450	*28240	*28240	*33770	25260	*24690	15480	*18980	10670	*15100	7850	12080	5970						*9330	4700	(41.0)
-6.0 m (-20.0 ft)	kg	*13540	*13540	*15800	*15800	*14460	11750	*10750	7160	*8340	4930	*6630	3630	*5260	2820						*4390	2660	11.41
	lb	*29850	*29850	*34830	*34830	*31880	25900	*23700	15790	*18390	10870	*14620	8000	*11600	6220						*9680	5860	(37.4)
-7.5 m (-25.0 ft)	kg	*16440	*16440	*18490	*18490	*12970	12210	*9770	7460	*7580	5160	*5850	3860								*4450	3630	9.94
	lb	*36240	*36240	*40760	*40760	*28590	26920	*21540	16450	*16710	11380	*12900	8510								*9810	8000	(32.6)
-9.0 m (-30.0 ft)	kg					*14620	*14620	*10500	*10500	*7900	*7900	*5800	5630										
	lb					*32230	*32230	*23150	*23150	*17420	*17420	*12790	12410										

6. BUCKET SELECTION GUIDE

1) GENERAL BUCKET

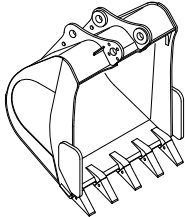
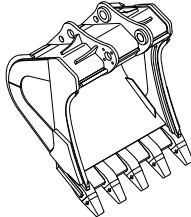
				
1.46 m³ SAE heaped bucket	※ 1.62 m³ SAE heaped bucket	1.86 m³ SAE heaped bucket	2.10 m³ SAE heaped bucket	2.32 m³ SAE heaped bucket

Capacity		Width		Weight	Recommendation					
					6.5 m (21' 4") boom				6.15 m (20' 2") boom	8.6 m (28' 3") boom
SAE heaped	CECE heaped	Without side cutter	With side cutter		2.5 m arm (8' 2")	3.2 m arm (10' 6")	3.9 m arm (12' 10")	4.3 m arm (14' 1")	2.5 m arm (8' 2")	5.1 m arm (16' 9")
1.46 m³ (1.91 yd³)	1.27 m³ (1.66 yd³)	1380 mm (54.3")	1510 mm (59.4")	1170 kg (2580 lb)						
※ 1.62 m³ (2.12 yd³)	1.40 m³ (1.83 yd³)	1440 mm (56.7")	1570 mm (61.8")	1280 kg (2820 lb)						
1.86 m³ (2.43 yd³)	1.60 m³ (2.1 yd³)	1620 mm (63.8")	1750 mm (68.9")	1390 kg (3060 lb)						
2.10 m³ (2.75 yd³)	1.80 m³ (2.4 yd³)	1810 mm (71.3")	1940 mm (76.4")	1520 kg (3350 lb)						
2.32 m³ (3.03 yd³)	2.00 m³ (2.62 yd³)	1990 mm (78.3")	2120 mm (83.5")	1760 kg (3880 lb)						

※ : Standard bucket

-  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

2) HEAVY DUTY AND ROCK-HEAVY DUTY BUCKET

	
◆ 1.62 m³ SAE heaped bucket	⊙ 1.44 m³, 1.62 m³, 1.86 m³ SAE heaped bucket

Capacity		Width		Weight	Recommendation				
					6.5 m (21' 4") boom				6.15 m (20' 2") boom
SAE heaped	CECE heaped	Without side cutter	With side cutter		2.5 m arm (8' 2")	3.2 m arm (10' 6")	3.9 m arm (12' 10")	4.3 m arm (14' 1")	2.5 m arm (8' 2")
◆ 1.62 m³ (2.12 yd³)	1.40 m³ (1.83 yd³)	1540 mm (60.6")	-	1570 kg (3460 lb)					
⊙ 1.44 m³ (1.88 yd³)	1.27 m³ (1.66 yd³)	1280 mm (50.4")	-	1565 kg (3450 lb)					
⊙ 1.62 m³ (2.12 yd³)	1.40 m³ (1.83 yd³)	1545 mm (60.8")	-	1610 kg (3550 lb)					
⊙ 1.86 m³ (2.43 yd³)	1.60 m³ (2.1 yd³)	1725 mm (67.9")	-	1710 kg (3770 lb)					

◆ : Heavy duty bucket

⊙ : Rock-heavy duty bucket

 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

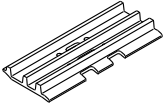
 Applicable for materials with density of 1100 kg/m³ (1850 lb/yd³) or less

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

Model	Shapes		Triple grouser				
							
R390LC-9	Shoe width	mm (in)	600 (24)	700 (28)	750 (30)	800 (32)	900 (36)
	Operating weight	kg (lb)	38400 (84660)	38850 (85650)	39075 (86140)	39300 (86640)	39750 (87630)
	Ground pressure	kgf/cm ² (psi)	0.69 (9.81)	0.60 (8.53)	0.56 (7.96)	0.53 (7.54)	0.47 (6.68)
	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	51 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 × 175 cc/rev
Maximum pressure	330 kgf/cm ² (4690 psi) [360 kgf/cm ² (5120 psi)]
Rated oil flow	2 × 280 l /min (74.0 U.S. gpm/61.6 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	24 l /min (6.34 U.S. gpm/5.28 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	233 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)	185.2/114.2 cc/rev
Reduction gear type	3-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	8.5 kgf/cm ² (121 psi)
Braking torque	44.4 kgf · m (321 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.

8) SHOE

Item		Width	Ground pressure	Link quantity	Overall width
R390LC-9	Standard	600 mm (24")	0.69 kgf/cm ² (9.81 psi)	51	3340 mm (10' 11")
	Option	700 mm (28")	0.60 kgf/cm ² (8.53 psi)	51	3440 mm (11' 3")
		750 mm (30")	0.56 kgf/cm ² (7.96 psi)	51	3490 mm (11' 5")
		800 mm (32")	0.53 kgf/cm ² (7.54 psi)	51	3540 mm (11' 7")
		900 mm (36")	0.47 kgf/cm ² (6.68 psi)	51	3640 mm (11' 11")

9) BUCKET

Item		Capacity		Tooth quantity	Width	
		SAE heaped	CECE heaped		Without side cutter	With side cutter
R390LC-9	Standard	1.62 m ³ (2.12 yd ³)	1.40 m ³ (1.8 yd ³)	5	1440 mm (56.7")	1570 mm (61.8")
	Option	1.46 m ³ (1.91 yd ³)	1.27 m ³ (1.66 yd ³)	4	1380 mm (54.3")	1510 mm (59.4")
		◆ 1.62 m ³ (2.12 yd ³)	1.40 m ³ (1.83 yd ³)	5	1540 mm (60.6")	-
		◎ 1.44 m ³ (1.88 yd ³)	1.27 m ³ (1.66 yd ³)	5	1280 mm (50.4")	-
		◎ 1.62 m ³ (2.12 yd ³)	1.40 m ³ (1.83 yd ³)	5	1545 mm (60.8")	-
		◎ 1.86 m ³ (2.43 yd ³)	1.60 m ³ (2.1 yd ³)	5	1725 mm (67.9")	-
		1.86 m ³ (2.43 yd ³)	1.60 m ³ (2.1 yd ³)	5	1620 mm (63.8")	1750 mm (68.9")
		2.10 m ³ (2.75 yd ³)	1.80 m ³ (2.4 yd ³)	6	1810 mm (71.3")	1940 mm (76.4")
		2.32 m ³ (3.03 yd ³)	2.00 m ³ (2.62 yd ³)	6	1990 mm (78.3")	2120 mm (83.5")

◆ : Heavy duty bucket

◎ : Rock bucket (esco type)

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)							
			-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		4.3×2 (1.1×2)	SAE 85W-140							
Hydraulic tank	Hydraulic oil	Tank; 210 (55.5)	★ISO VG 15							
			ISO VG 32							
		System; 415 (110)	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 (12.0)	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