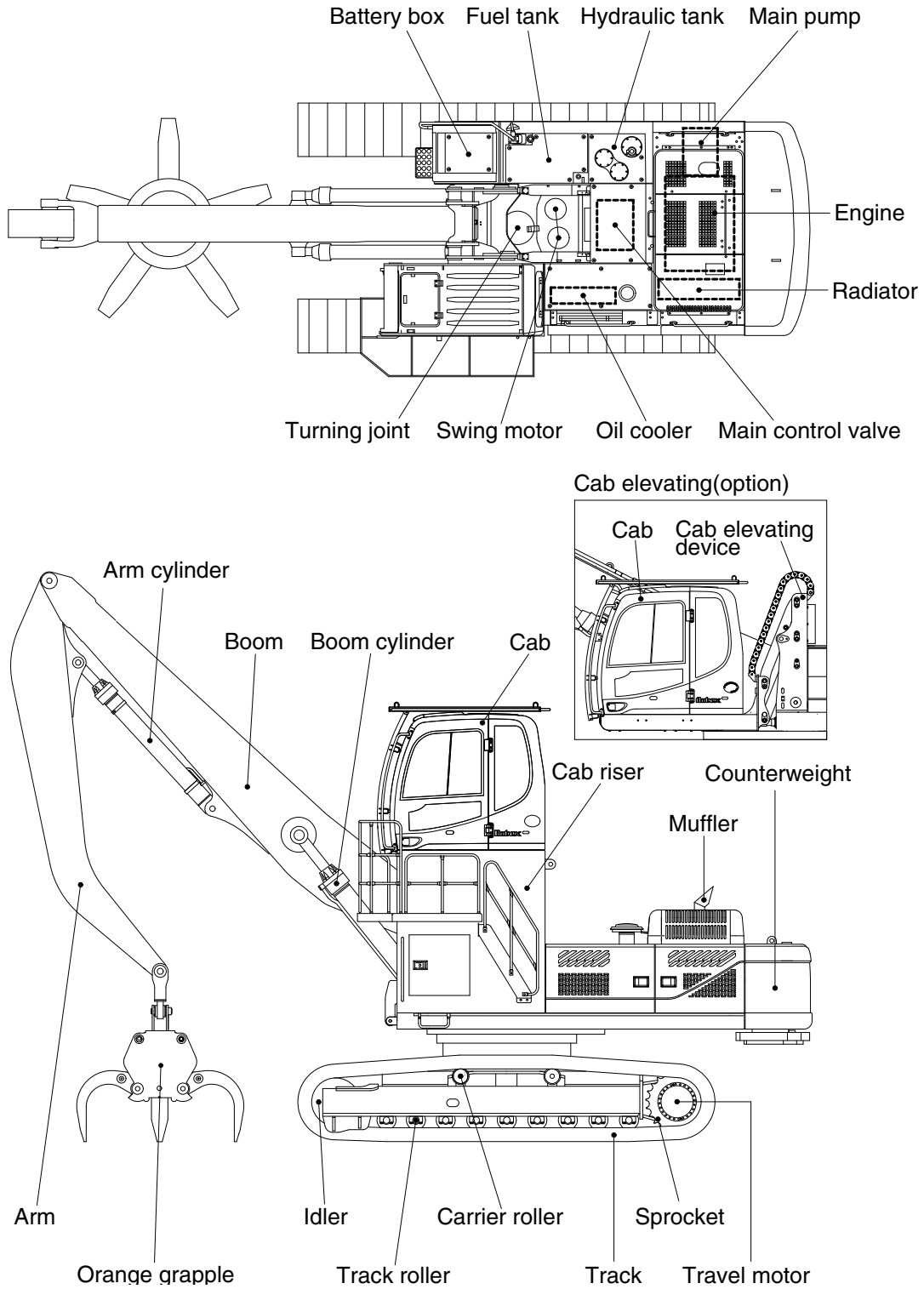


GROUP 2 SPECIFICATIONS

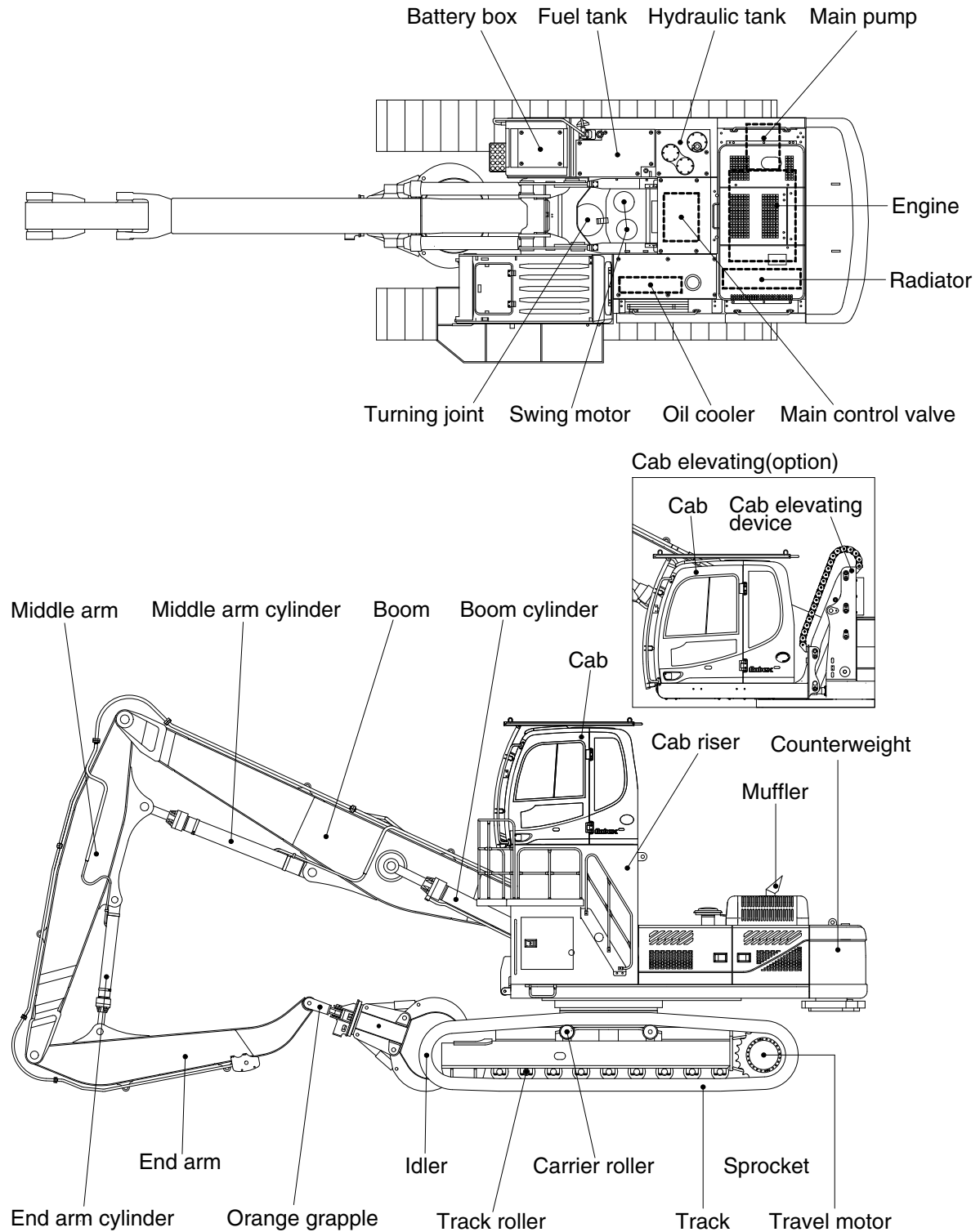
1. MAJOR COMPONENT

- 10.0 m (32' 10") BOOM, 7.10 m (23' 4") ARM and 2.0 m (6' 7") TILT CAB



4809MH2SP01

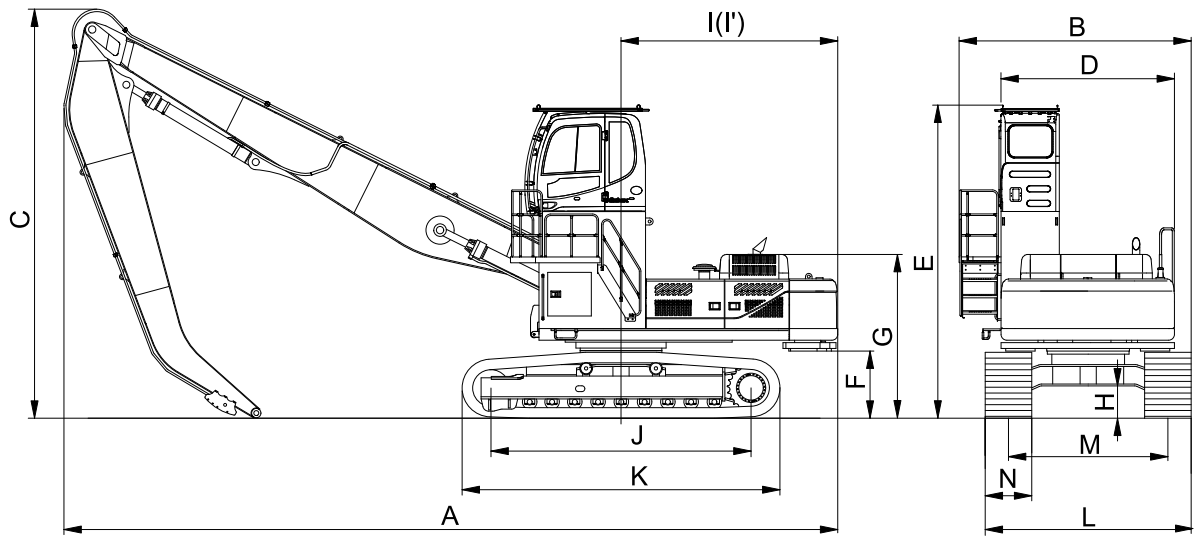
- 7.50 m (24' 7") BOOM, 5.00 m (16' 5") MIDDLE ARM, 4.00 m (13' 1") END ARM and 2.0 m (6' 7") TILT CAB



4809MH2SP04

2. SPECIFICATIONS

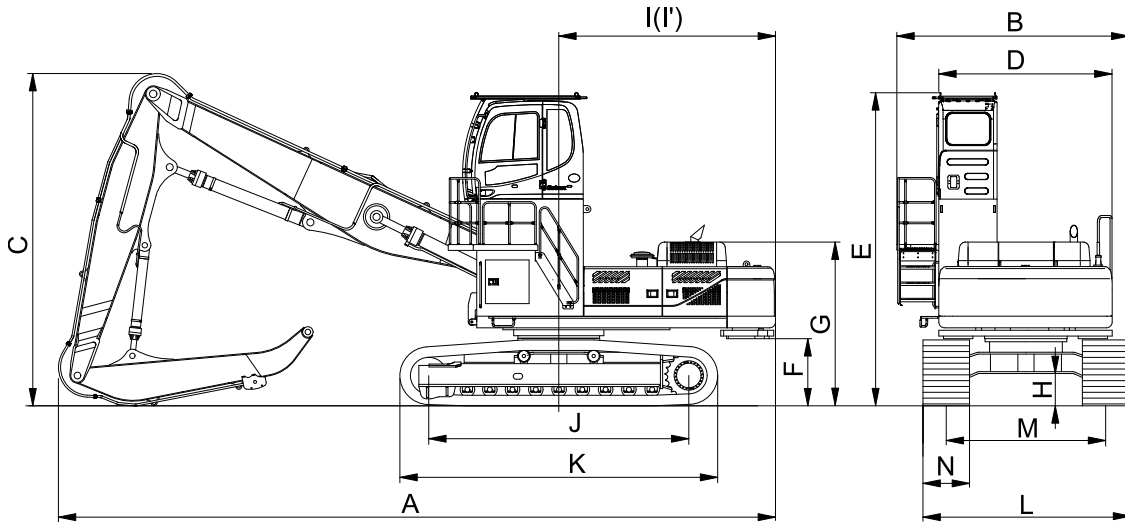
- 10.0 m (32' 10") BOOM AND 7.10 m (23' 4") ARM



4809MH2SP02

Description		Unit	Specification
Operating weight		kg (lb)	55210 (121720)
Grapple capacity, standard		m ³ (yd ³)	1.40 (1.83)
Overall length	A	mm (ft-in)	13300 (43' 8")
Overall width, with 800 mm shoe	B		3989 (13' 1")
Overall height	C		7030 (23' 1")
Superstructure width	D		2980 (9' 9")
Overall height of cab	E		5381 (17' 8")
Ground clearance of counterweight	F		1154 (3' 9")
Engine cover height	G		2770 (9' 1")
Minimum ground clearance	H		555 (1' 10")
Rear-end distance	I		3725 (12' 3")
Rear-end swing radius	I'		3750 (12' 4")
Distance between tumblers	J		4470 (14' 8")
Undercarriage length	K		5405 (17' 7")
Undercarriage width	L		3680 (12' 1")
Track gauge	M		2880 (9' 5")
Track shoe width, standard	N		800 (32")
Travel speed (low/high)			km/hr (mph)
Swing speed		rpm	9.0
Gradeability		Degree (%)	35 (70)
Ground pressure (800 mm shoe)		kgf/cm ² (psi)	0.72 (10.24)
Max traction force		kg (lb)	38500 (84800)

• 7.50 m (24' 7") BOOM, 5.00 m (16' 5") MIDDLE ARM AND 4.00 m (13' 1") END ARM

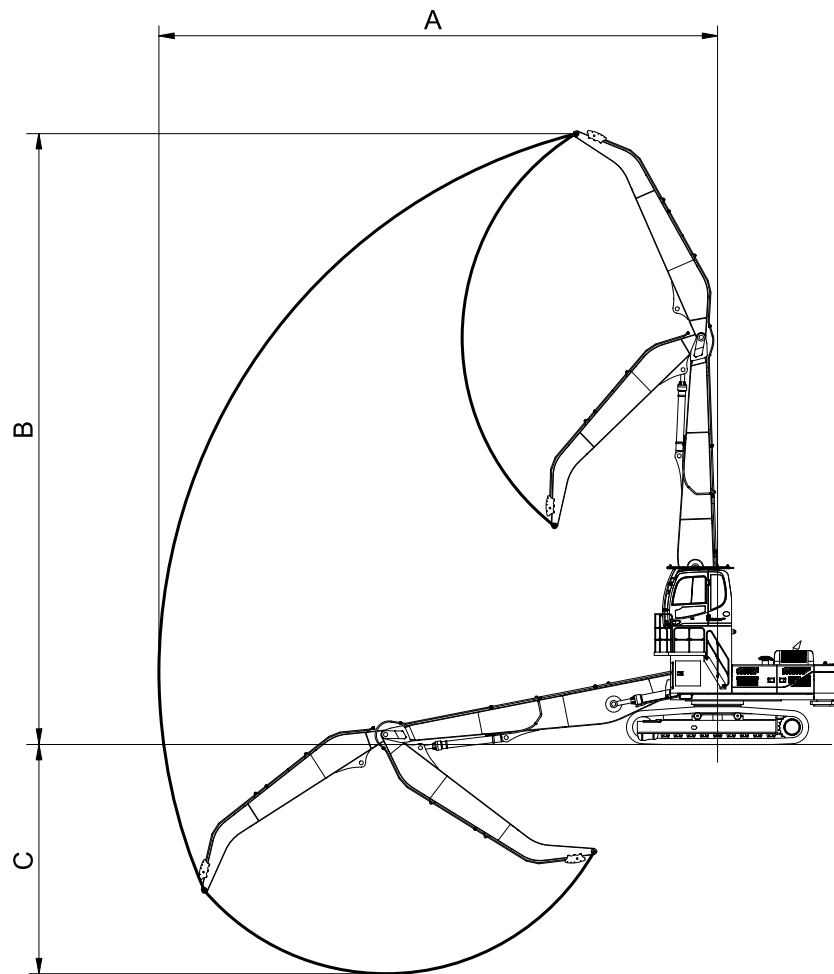


4809MH2SP03

Description		Unit	Specification
Operating weight		kg (lb)	55080 (121430)
Grapple capacity, standard		m ³ (yd ³)	1.40 (1.83)
Overall length	A	mm (ft-in)	12325 (40' 5")
Overall width, with 800 mm shoe	B		3990 (13' 1")
Overall height	C		5704 (18' 9")
Superstructure width	D		2980 (9' 9")
Overall height of cab	E		5110 (16' 9")
Ground clearance of counterweight	F		1154 (3' 9")
Engine cover height	G		2770 (9' 1")
Minimum ground clearance	H		555 (1' 10")
Rear-end distance	I		3725 (12' 3")
Rear-end swing radius	I'		3750 (12' 4")
Distance between tumbler	J		4470 (14' 8")
Undercarriage length	K		5405 (17' 9")
Undercarriage width	L		3680 (12' 1")
Track gauge	M		2880 (9' 5")
Track shoe width, standard	N		800 (32")
Travel speed (low/high)			km/hr (mph)
Swing speed		rpm	9.0
Gradeability		Degree (%)	35 (70)
Ground pressure (800 mm shoe)		kgf/cm ² (psi)	0.72 (10.24)
Max traction force		kg (lb)	38500 (84800)

3. WORKING RANGE

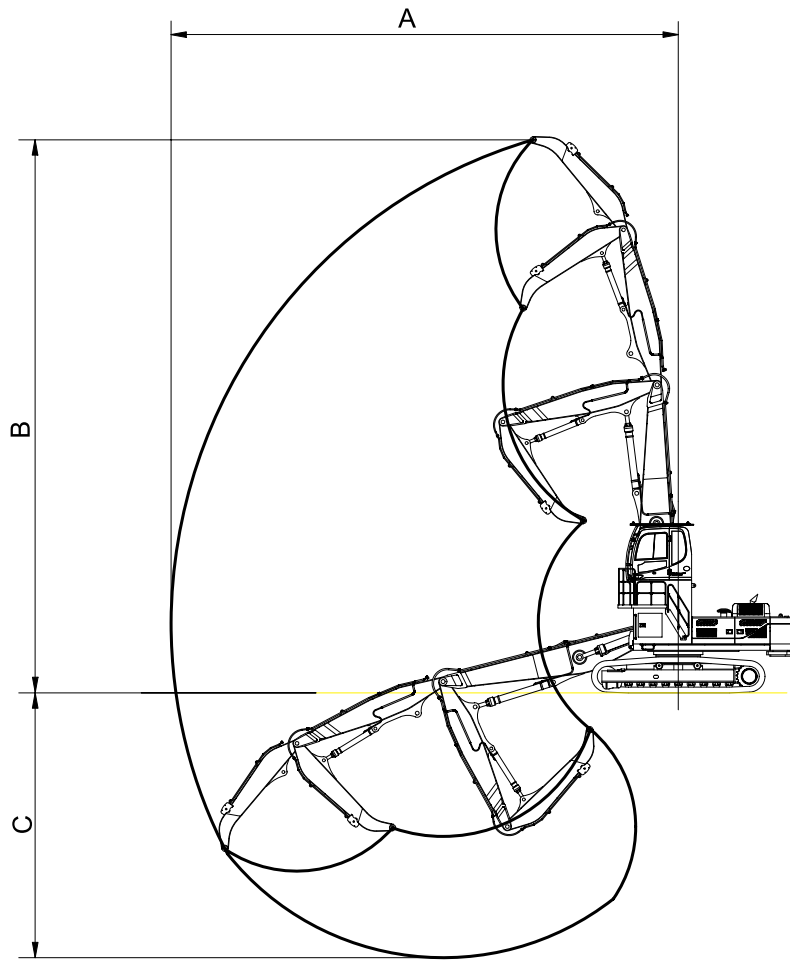
· 10.0 m (32' 10") BOOM



4809MH2SP05

Description		7.10 m (23' 4") Arm
Max working reach	A	16755 mm (55' 0")
Max working height	B	18320 mm (60' 1")
Max working depth	C	6875 mm (22' 7")

· 7.50 m (24' 7") boom



4809MH2SP06

Description		5.00 m (16' 5") Middle arm, 4.00 m (13' 1") End arm
Max working reach	A	15970 mm (52' 5")
Max working height	B	17410 mm (57' 1")
Max working depth	C	8340 mm (27' 4")

















4. WEIGHT

Item	R480LC-9MH	
	kg	lb
Upperstructure assembly	24800	54670
Main frame weld assembly	4510	9940
Engine assembly	940	2070
Main pump assembly	190	420
Main control valve assembly	420	930
Swing motor assembly	230	510
Hydraulic oil tank assembly	450	990
Fuel tank assembly	270	600
Counterweight	10200	22490
Additional counterweight	2500	5510
Cab and fog guard assembly	550	1210
Lower chassis assembly	20000	44090
Track frame weld assembly	7060	15570
Swing bearing	720	1590
Travel motor assembly	440	970
Turning joint	50	110
Track recoil spring	310	680
Idler	250	550
Carrier roller	40	90
Track roller	80	180
Track-chain assembly (800 mm standard triple grouser shoe)	3230	7120
Front attachment assembly (10.0 m boom, 7.10 m arm, 1.40 m ³ grapple)	10410	22950
10.0 m boom assembly	4060	8950
7.10 m arm assembly	1840	4060
1.40 m ³ grapple	2040	4500
Boom cylinder assembly	760	1680
Arm cylinder assembly (standard, middle)	460	1010
Front attachment assembly (7.50 m boom, 5.00 m middle arm, 4.00 m end arm, 1.40 m ³ grapple)	10280	22660
7.50 m boom assembly	3160	6970
5.00 m middle arm assembly	1650	3640
4.00 m end arm assembly	1000	2210
End arm cylinder assembly	300	660

5. LIFTING CAPACITIES

1) 10.0 m (32' 10") boom, 7.10 m (23' 4") arm and 800 mm (32") triple grouser shoe.

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

Load point height	Load radius														At max. reach				
	3.0 m (9.8 ft)		5.0 m (16.4 ft)		7.0 m (23.0 ft)		9.0 m (29.5 ft)		11.0 m (36.1 ft)		13.0 m (42.7 ft)		15.0 m (49.2 ft)		Capacity	Reach			
																	m (ft)		
15.0 m (49.2 ft)	kg							*10185	*10185								*9324	8505	10.37
	lb							*22454	*22454								*20556	18750	(34)
13.5 m (44.3 ft)	kg							*9909	*9909	*8714	7907						*8219	6781	12.01
	lb							*21846	*21846	*19211	17432						*18120	14950	(39.4)
12.0 m (39.4 ft)	kg							*9817	*9817	*8603	7978	*7629	5993				*7502	5764	13.27
	lb							*21643	*21643	*18966	17588	*16819	13212				*16539	12707	(43.5)
10.5 m (34.4 ft)	kg							*9880	*9880	*8604	7951	*7583	6028				*6979	5095	14.27
	lb							*21782	*21782	*18969	17529	*16718	13289				*15386	11233	(46.8)
9.0 m (29.5 ft)	kg					*11593	*11593	*10080	*10080	*8689	7846	*7591	5987	*6589	4659		*6562	4630	15.05
	lb					*25558	*25558	*22223	*22223	*19156	17297	*16735	13199	*14526	10271		*14467	10207	(49.4)
6.0 m (19.7 ft)	kg			*9159	*9159	*13405	*13405	*10776	10057	*9004	7458	*7677	5770	*6544	4580		*5887	4065	16.08
	lb			*20192	*20192	*29553	*29553	*23757	22172	*19850	16442	*16925	12721	*14427	10097		*12979	8962	(52.8)
3.0 m (9.8 ft)	kg	*5372	*5372			*14856	12907	*11414	9171	*9232	6944	*7657	5466	*6343	4415		*5267	3807	16.51
	lb	*11843	*11843			*32752	28455	*25164	20219	*20353	15309	*16381	12050	*13984	9733		*11612	8393	(54.2)
Ground Line	kg			*2121	*2121	*13925	11623	*11185	8423	*8917	6489	*7233	5190	*5745	4263		*4564	3780	16.38
	lb			*4676	*4676	*30699	25624	*24659	18570	*19659	14306	*15924	11442	*12666	9598		*10062	8333	(53.7)
-3.0 m (-9.8 ft)	kg			*4754	*4754	*11675	11159	*9525	8054	*7629	6237	*6009	5040	*4346	4207		*3613	*3613	15.68
	lb			*10481	*10481	*25739	24601	*20999	17756	*16819	13750	*13248	11111	*9581	9275		*7965	*7965	(51.4)
-4.5 m (-14.8 ft)	kg			*6440	*6440	*9757	*9757	*8104	8013	*6509	6205	*4967	*4967	*3086	*3086		*2968	*2968	15.09
	lb			*14198	*14198	*21511	21511	*17866	17666	*14350	13680	*10950	*10950	*6803	*6803		*6543	*6543	(49.5)

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 the end pin point of front attachment.

4. *indicates load limited by hydraulic capacity.

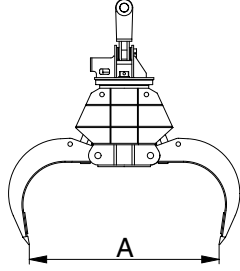
▲ Failure to comply to the rated load can cause possible personal injury or property damage. Make adjustments to the rated load as necessary for non-standard configurations.

2) 7.50 m (24' 7") boom, 5.00 m (16' 5") middle arm, 4.00 m (13' 1") end arm and 800 mm (32") triple grouser shoe.

Load point height	Load radius								At max. reach			
	3.0m (9.8ft)		4.5m (14.7ft)		6.0m (19.6ft)		7.5m (24.5ft)		Capacity		Reach	
											m (ft)	
12.0m (39.2ft)	kg									*5218	5216	12.78
	lb									*11503	11499	(41.7)
10.5m (34.3ft)	kg									*5122	4665	13.82
	lb									*11292	10286	(45.2)
9.0m (29.4ft)	kg									5089	4279	14.54
	lb									*11219	9433	(47.8)
7.5m (24.5ft)	kg									4970	4004	15.26
	lb									10957	8828	(49.9)
6.0m (19.6ft)	kg									4754	3807	15.72
	lb									10461	8394	(51.3)
4.5m (14.7ft)	kg							*8987	8519	4608	3673	16.02
	lb							*19814	18780	10159	8098	(52.3)
3.0m (9.8ft)	kg			14676	12808	*10901	10063	*8935	8142	4523	3594	16.17
	lb			32356	28237	*24033	22186	*19699	17949	9971	7923	(52.8)
1.5m (4.9ft)	kg			14072	12157	11320	9601	*8961	7824	4492	3563	16.18
	lb			31024	26801	24956	21167	*19755	17248	9904	7856	(52.9)
Ground Line	kg			13830	11896	11057	9322	9154	7599	4515	3580	16.05
	lb			30490	26225	24377	20551	20181	16753	9954	7893	(52.4)
-1.5m (-4.9ft)	kg	*16846	16136	13757	11817	10944	9202	9041	7480	4595	3647	15.78
	lb	*37139	35575	30329	26052	24128	20286	19931	16490	10130	8041	(51.6)
-3.0m (-9.8ft)	kg	*15457	*15457	13742	11800	10936	9193	9018	7456	4741	3773	15.35
	lb	*34076	*34076	30295	26015	24109	20267	19882	16438	10451	8319	(50.1)
-4.5m (-14.7ft)	kg	*14631	*14631	13780	11841	10980	9240	9071	7512	4965	3969	14.76
	lb	*32256	*32256	30379	26106	24208	20371	19998	16561	10945	8751	(48.2)
-6.0m (-19.6ft)	kg	*13455	*13455	*11560	*11560	*9823	9332	*8287	7604	5292	4258	13.98
	lb	*29664	*29664	*25485	*25485	*21656	20575	*18270	16764	11668	9388	(45.7)
-7.5m (-24.5ft)	kg	*13598	*13598	*11520	*11520	*9135	*9135	*7646	*7646	*5128	4687	12.97
	lb	*29978	*29978	*25398	*25398	*20140	*20140	*16857	*16857	*11305	10334	(42.4)
-9.0m (-29.4ft)	kg	*14389	*14389	*11358	*11358	*8983	*8983	*7505	*7505	*4965	*4965	12.33
	lb	*31723	*31723	*25040	*25040	*19804	*19804	*16546	*16546	*10947	*10947	(40.3)

Load point height	Load radius										At max. reach			
	9.0m (29.4ft)		10.5m (34.3ft)		12.0m (39.2ft)		13.5m (44.1ft)		15.0m (50ft)		Capacity		Reach	
													m (ft)	
12.0m (39.2ft)	kg					*5566	*5566					*5218	5216	12.78
	lb					*12271	*12271					*11503	11499	(41.7)
10.5m (34.3ft)	kg			*6422	*6422	*5820	5679	*5551	4843			*5122	4665	13.82
	lb			*14158	*14158	*12832	12520	*12239	10677			*11292	10286	(45.2)
9.0m (29.4ft)	kg	*7381	*7381	*6504	6503	*5854	5577	*5648	4807			5089	4279	14.54
	lb	*16273	*16273	*14340	14337	*12906	12294	*12452	10599			*11219	9433	(47.8)
7.5m (24.5ft)	kg	*7518	7463	*6583	6278	*5888	5434	5777	4726	5089	4111	4970	4004	15.26
	lb	*16574	16453	*14513	13841	*12981	11980	12736	10419	11219	9064	10957	8828	(49.9)
6.0m (19.6ft)	kg	*7603	7246	*6633	6032	*5930	5271	*5551	4843	5039	4061	4754	3807	15.72
	lb	*16762	15975	*14624	13299	*13073	11621	12515	10190	11110	8952	10461	8394	(51.3)
4.5m (14.7ft)	kg	*7625	6994	*6637	5858	*6233	5108	5571	4513	4976	3995	4608	3673	16.02
	lb	*16811	15420	*14631	12915	*13740	11262	12283	9950	10970	8808	10159	8098	(52.3)
3.0m (9.8ft)	kg	*7581	6742	*6723	5689	6120	4966	5473	4412	4913	3931	4523	3594	16.17
	lb	*16712	14353	*14822	12542	13492	10948	12066	9727	10832	8666	9971	7923	(52.8)
1.5m (4.9ft)	kg	*7700	6521	6807	5539	6013	4856	5394	4330	4861	3877	4492	3563	16.18
	lb	*16976	14377	15006	12212	13257	10705	11891	9546	10717	8548	9904	7856	(52.9)
Ground Line	kg	7758	6357	6702	5431	5945	4785	5339	4274	4827	3842	4515	3580	16.05
	lb	17103	14014	14776	11972	13106	10549	11770	9422	10641	8469	9954	7893	(52.4)
-1.5m (-4.9ft)	kg	7671	6265	6654	5380	5914	4752	5313	4247	4815	3830	4741	3647	15.78
	lb	16911	13813	14669	11861	13037	10477	11713	9362	10615	8443	10451	8041	(51.6)
-3.0m (-9.8ft)	kg	7658	6253	6671	5398	5918	4757	5318	4252	4835	3850	4741	3773	15.35
	lb	16884	13785	14705	11900	13047	10487	11723	9373	10658	8487	10451	8319	(50.1)
-4.5m (-14.7ft)	kg	7715	6311	6717	5446	5955	4795	5356	4291			4965	3969	14.76
	lb	17008	13914	14809	12007	13128	10572	11808	9450			10945	8751	(48.2)
-6.0m (-19.6ft)	kg	*7767	6397	6790	5522	6023	4866	5436	4373			5292	4258	13.98
	lb	*17124	14104	14969	12173	13278	10727	11984	9642			11668	9388	(45.7)
-7.5m (-24.5ft)	kg	*7023	6517	*6435	5634	*5737	4985					*5128	4687	12.97
	lb	*15484	14367	*14185	12422	*12648	10990					*11305	10334	(42.4)
-9.0m (-29.4ft)	kg	*6467	*6467	*5674	*5674							*4965	*4965	12.33
	lb	*14257	*14257	*12509	*12509							*10947	*10947	(40.3)

6. BUCKET SELECTION GUIDE

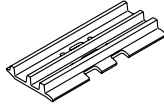
Capacity	Max opening width (A)	Weight	
1.40 m ³ (1.83 yd ³)	2400 mm (7' 10")	2040 kg (4500 lb)	

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	
				
R480LC-9MH	Shoe width	mm (in)	800 (32)	900 (36)
	Operating weight	kg (lb)	55210 (121720)	55750 (122910)
	Ground pressure	kgf/cm ² (psi)	0.72 (10.24)	0.64 (9.10)
	Overall width	mm (ft-in)	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	53 EA

8. SPECIFICATIONS FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	Cummins QSM 11
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	125 × 147.1 mm (4.92" × 5.79")
Piston displacement	10800 cc (659 cu in)
Compression ratio	16.3 : 1
Rated gross horse power (SAE J1995)	362 ps at 1900 rpm (357 Hp / 266 kW at 1900 rpm)
Maximum torque	170.8 kgf · m (1235 lbf · ft) at 1400 rpm
Engine oil quantity	37.85 l (10 U.S. gal)
Dry weight	942 kg (2077 lb)
Low idling speed	1900 ± 50 rpm
High idling speed	950 + 50 rpm
Rated fuel consumption	161.8 g/Hp · hr at 1900 rpm
Starting motor	Delco Remy 42MT (24V-7.2 kW)
Alternator	Delco Remy 24V-90A
Battery	2 × 12V × 200Ah

2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 200 cc/rev
Maximum pressure	330 kgf/cm ² (4690 psi) [360 kgf/cm ² (5120 psi)]
Rated oil flow	2 × 370 l /min (97.7 U.S. gpm / 81.4 U.K. gpm)
Rated speed	1800 rpm

[]: Power boost

3) GEAR PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	15 cc/rev
Maximum pressure	40 kgf/cm ² (570 psi)
Rated oil flow	27 l /min (7.1 U.S. gpm/5.9 U.K. gpm)

4) MAIN CONTROL VALVE

Item	Specification
Type	9 spools
Operating method	Hydraulic pilot system
Main relief valve pressure	330 kgf/cm ² (4690 psi) [360 kgf/cm ² (5120 psi)]
Port relief valve pressure	380 kgf/cm ² (5400 psi)

[]: Power boost

5) SWING MOTOR

Item	Specification
Type	Fixed displacement axial piston motor
Capacity	151 cc/rev
Relief pressure	285 kgf/cm ² (4050 psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	59 kgf · m (427 lbf · ft)
Brake release pressure	33~50 kgf/cm ² (470~711 psi)
Reduction gear type	2 - stage planetary

6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Relief pressure	300 kgf/cm ² (4690 psi)
Capacity (max / min)	160/100 cc/rev
Reduction gear type	3-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	17~50 kgf/cm ² (242~711 psi)
Braking torque	103 kgf · m (745 lbf · ft)

7) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	∅ 170 × ∅ 115 × 1570 mm
	Cushion	Extend only
Arm cylinder (2 pcs attach)	Bore dia × Rod dia × Stroke	∅ 190 × ∅ 130 × 1820 mm
Middle arm cylinder (3 pcs attach)	Cushion	Extend and retract
End arm cylinder	Bore dia × Rod dia × Stroke	∅ 150 × ∅ 105 × 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
R480LC-9MH	Standard	800 mm (32")	0.72 kgf/cm ² (10.24 psi)	53	3540 mm (11' 7")
	Option	900 mm (36")	0.64 kgf/cm ² (9.10 psi)	53	3640 mm (11' 11")

9) GRAPPLE

Item	Capacity	Width	
		Max opening width	Overall length
R480LC-9MH	1.40 m ³ (1.83 yd ³)	2400 mm (7' 10")	3010 mm (9' 11")

9. RECOMMENDED OILS

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

Please use HYUNDAI genuine oil and grease.

Service point	Kind of fluid	Capacity ℓ (U.S. gal)	Ambient temperature °C (°F)						
			-50 (-58)	-30 (-22)	-20 (-4)	-10 (14)	0 (32)	10 (50)	20 (68)
Engine oil pan	Engine oil	38 (10.0)	★SAE 5W-40						
			SAE 30						
			SAE 10W						
			SAE 10W-30						
			SAE 15W-40						
Swing drive	Gear oil	5.0×2 (1.3×2)	★SAE 75W-90						
Final drive		5.0×2 (1.3×2)	SAE 80W-90						
Hydraulic tank	Hydraulic oil	Tank: 262 (69.2) System: 380 (100)	★ISO VG 15						
			ISO VG 32						
			ISO VG 46						
			ISO VG 68						
Fuel tank	Diesel fuel	621 (164)	★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	50 (13.2)	Ethylene glycol base permanent type (50 : 50)						
			★Ethylene glycol base permanent type (60 : 40)						

SAE : Society of Automotive Engineers

API : American Petroleum Institute

ISO : International Organization for Standardization

NLGI : National Lubricating Grease Institute

ASTM : American Society of Testing and Material

★ : Cold region

Russia, CIS, Mongolia

★1 : Soft water

City water or distilled water