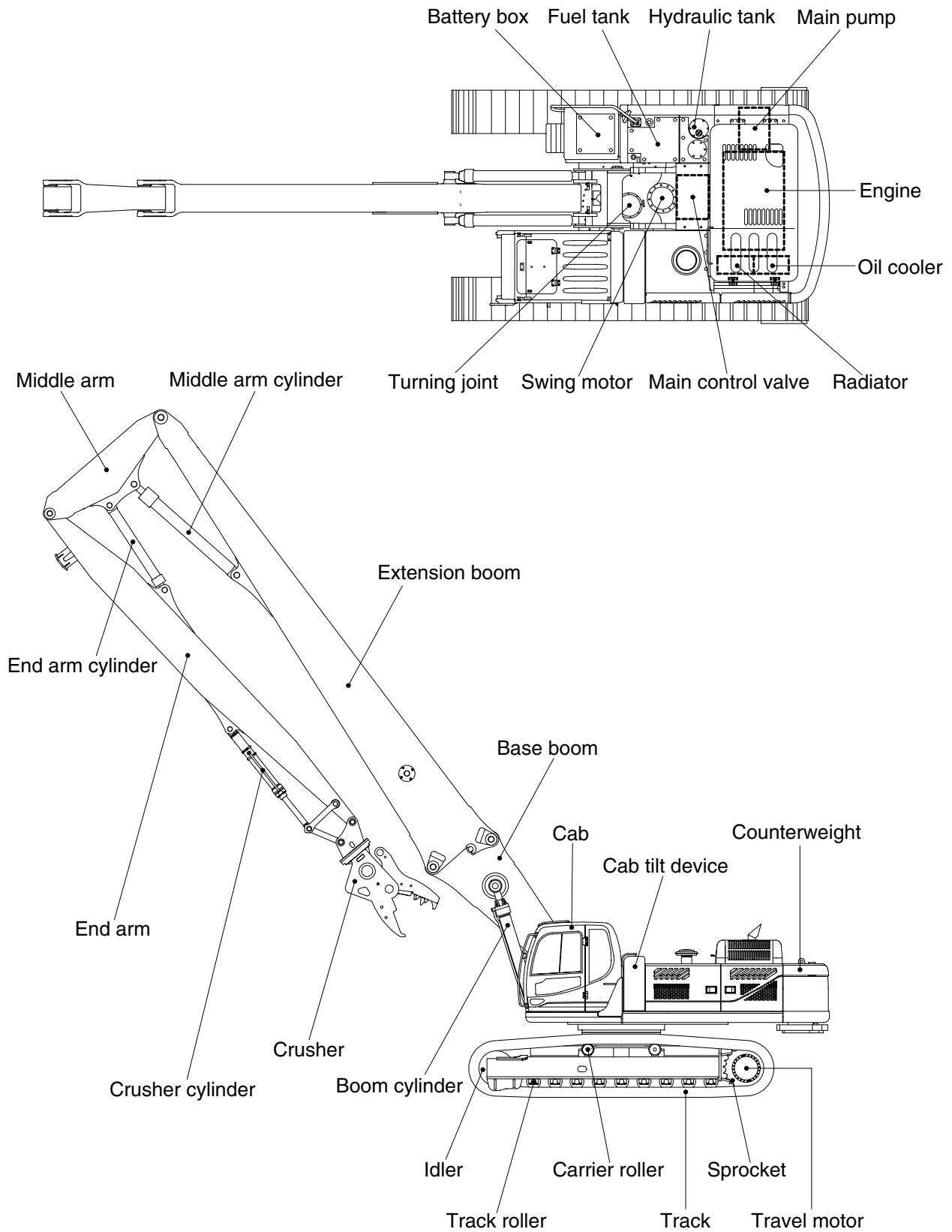


SPECIFICATIONS

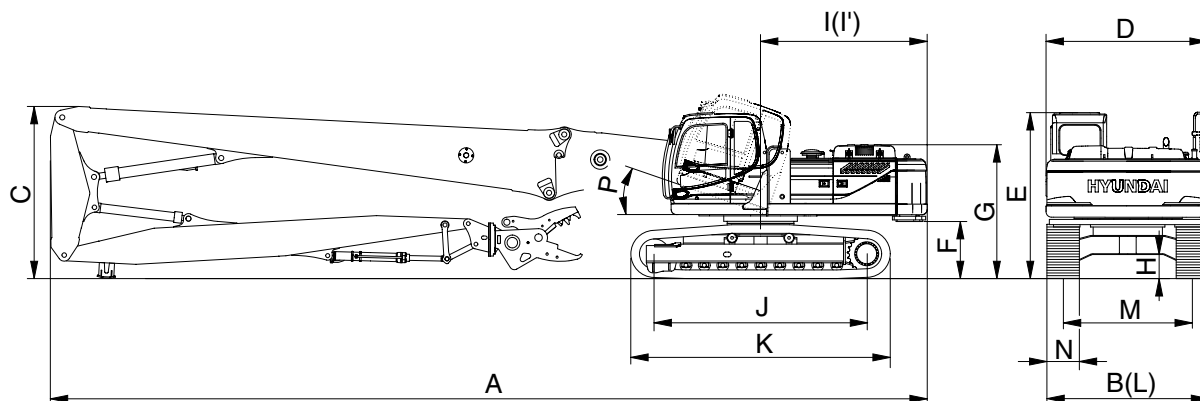
1. MAJOR COMPONENT



3809DM2SP01

2. SPECIFICATIONS

- 3.65 m (12' 0") BASE BOOM, 7.25 m (23' 9") EXTENSION BOOM, 2.6 m (8' 6") MIDDLE ARM AND 6.6 m (21' 8") END ARM

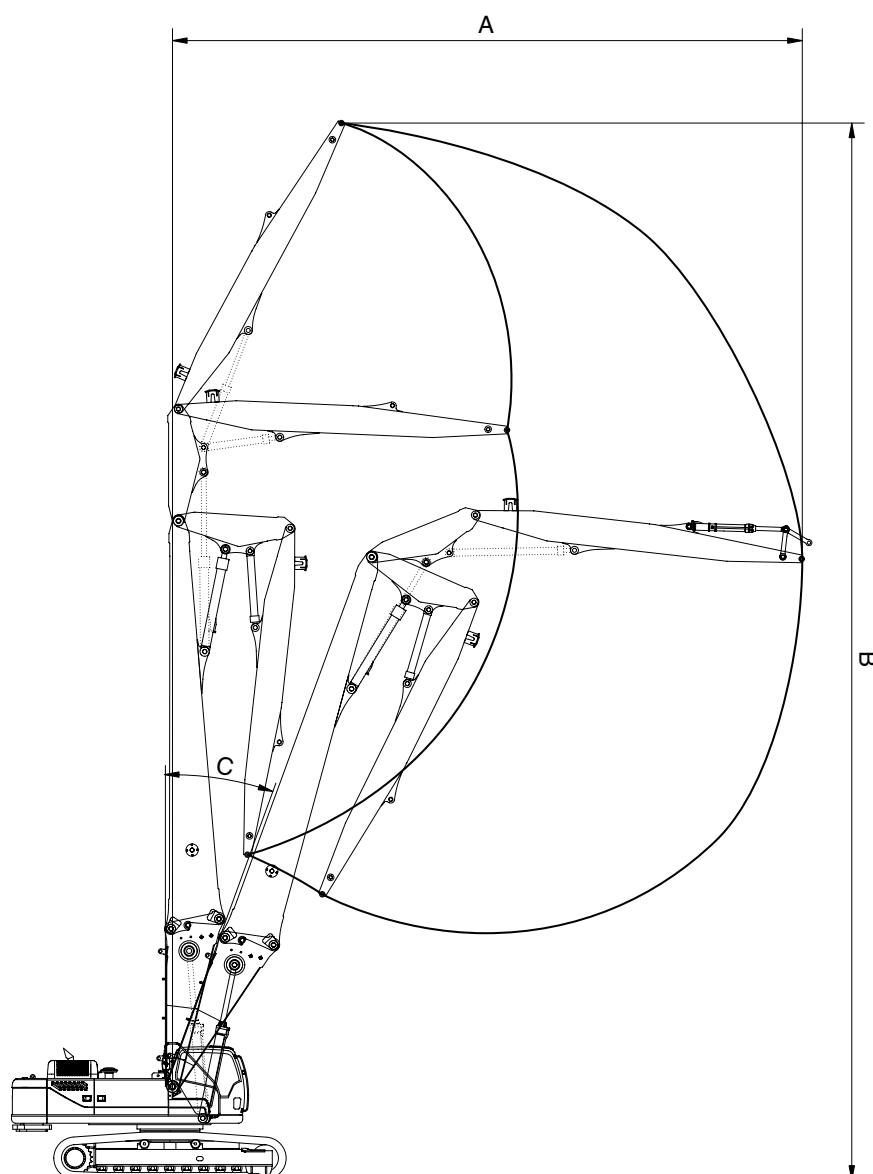


3809DM2SP02

Description		Unit	Specification
Operating weight		kg (lb)	45420 (100130)
Overall length	A	mm (ft-in)	14570 (47' 10")
Overall width, with 600 mm shoe	B		3340 (10' 11")
Boom height	C		3510 (11' 6")
Superstructure width	D		2980 (9' 9")
Overall height of cab	E		3175 (10' 5")
Ground clearance of counterweight	F		1300 (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 tumbler	J		4340 (14' 3")
Undercarriage length	K		5280 (17' 4")
Undercarriage width	L		3340 (10' 11")
Track gauge	M		2740 (9' 0")
Track shoe width, standard	N		600 (24")
Cab tilting angle	P	Degree (°)	30
Travel speed (low/high)		km/hr (mph)	3.0/4.8 (1.9/3.0)
Swing speed		rpm	9.3
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm ² (psi)	0.58 (8.25)
Max traction force		kg (lb)	32000 (70550)

3. WORKING RANGE

- 3.65 m (12' 0") BASE BOOM AND 7.25 m (23' 9") EXTENSION BOOM



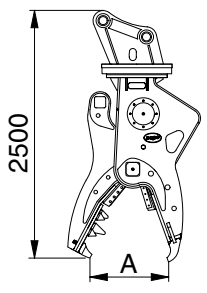
3809DM2SP03

Description		2.6 m (8' 6") middle arm and 6.6 m (21' 8") end arm
Max working reach	A	13020 mm (42' 9")
Max working height	B	21200 mm (69' 7")
Max allowable angle from vertical	C	20°

4. WEIGHT

Item	R380LC-9DM	
	kg	lb
Upperstructure assembly	21380	47130
Main frame weld assembly	1200	2650
Engine assembly	740	1630
Main pump assembly	190	420
Main control valve assembly	440	970
Swing motor assembly	360	790
Hydraulic oil tank assembly	340	750
Fuel tank assembly	230	510
Counterweight	8100	17860
Additional counterweight	2220	4890
Cab and fog guard assembly	550	1210
Tilting cab device assembly	530	1170
Tilting cab cylinder assembly	40	90
Lower chassis assembly	14710	32430
Track frame weld assembly	5415	11940
Swing bearing	590	1300
Travel motor assembly	400	880
Turning joint	65	140
Track recoil spring and idler	270	600
Idler	230	510
Carrier roller	40	90
Track roller	80	180
Track-chain assembly (600 mm standard triple grouser shoe)	2420	5340
Front attachment assembly (3.65 m base boom, 7.25 m extension boom, 2.6 m middle arm, 6.6 m end arm, crusher)	9330	20570
3.65 m base boom assembly	2300	5070
7.25 m extension boom assembly	3500	7720
2.6 m middle arm assembly	1050	2315
6.6 m ³ end arm assembly	1500	3310
Crusher assembly	1850	4080
Boom cylinder assembly	370	820
Middle arm cylinder assembly	510	1120
End arm cylinder assembly	235	520
Crusher cylinder assembly	230	510

5. CRUSHER

Weight	Crushing force (middle)	Cutting force (cutter middle)	Max opening width (A)	
1850 kg (4080 lb)	115 ton	200 ton	780 mm (31")	

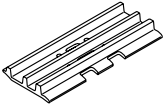
3809DM2SP10

6. 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				
							
R380LC-9DM	Shoe width	mm (in)	600 (24)	700 (28)	750 (30)	800 (32)	900 (36)
	Operating weight	kg (lb)	45420 (100130)	45870 (101120)	46090 (101610)	46320 (102110)	46770 (103100)
	Ground pressure	kgf/cm ² (psi)	0.81 (11.52)	0.70 (9.95)	0.66 (3.39)	0.62 (8.82)	0.56 (7.96)
	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

7. SPECIFICATIONS FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	Cummins QSL / HYUNDAI HE 8.9
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	114 × 145 mm (4.49" × 5.70")
Piston displacement	8900 cc (540 cu in)
Compression ratio	17.8 : 1
Rated gross horse power (SAE J1995)	296 Hp at 1850 rpm (221 kW at 1850 rpm)
Maximum torque	148 kgf · m (1070 lbf · ft) at 1400 rpm
Engine oil quantity	30 l (7.9 U.S. gal)
Dry weight	740 kg (1630 lb)
Low idling speed	800 ± 100 rpm
High idling speed	1700 + 50 rpm
Rated fuel consumption	164.8 g/Hp · hr at 1850 rpm
Starting motor	Denso (24V-7.5 kW)
Alternator	Delco Remy 24V-50A
Battery	2 × 12V × 160Ah

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 × 306 l /min (80.8 U.S. gpm / 67.3 U.K. gpm)
Rated speed	1750 rpm

[]: 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	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)]
Overload relief valve pressure	390 kgf/cm ² (5550 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	370 kgf/cm ² (5260 psi), ★360 kgf/cm ² (5120 psi)
Capacity (max / min)	185/114 cc/rev
Reduction gear type	3-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	10.6 kgf/cm ² (151 psi), ★8.9 kgf/cm ² (127 psi)
Braking torque	57.1 kgf · m (413 lbf · ft), ★49.0 kgf · m (354 lbf · ft)

★: TRAVEL MOTOR (TYPE 2)

7) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Stroke	ø 160 × 1500 mm
	Cushion	Extend only
Middle arm cylinder	Bore dia × Stroke	ø 170 × 1760 mm
	Cushion	Extend and retract
End arm cylinder	Bore dia × Stroke	ø 135 × 1185 mm
	Cushion	Extend only
Crusher cylinder	Bore dia × Stroke	ø 120 × ø 1055 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
R380LC-9DM	Standard	600 mm (24")	0.81 kgf/cm ² (11.52 psi)	51	45420 mm (100130)
	Option	700 mm (28")	0.70 kgf/cm ² (9.95 psi)	51	45870 mm (101120)
	Option	750 mm (30")	0.66 kgf/cm ² (3.39 psi)	51	46090 mm (101610)
	Option	800 mm (32")	0.62 kgf/cm ² (8.82 psi)	51	46320 mm (102110)
	Option	900 mm (36")	0.56 kgf/cm ² (7.96 psi)	51	46770 mm (103100)

9) CRUSHER

Item	Crushing force (middle)	Width	
		Max opening width	Overall length
R380LC-9DM	1150 kg (2540 lb)	780 mm (31")	2500 mm (8' 2")

8. 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)	30 (86)
Engine oil pan	Engine oil	30 (7.9)	★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		7.0×2 (1.8×2)	SAE 80W-90							
Hydraulic tank	Hydraulic oil	Tank: 210 (55.5) System: 415 (110)	★ISO VG 15							
			ISO VG 32							
			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	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