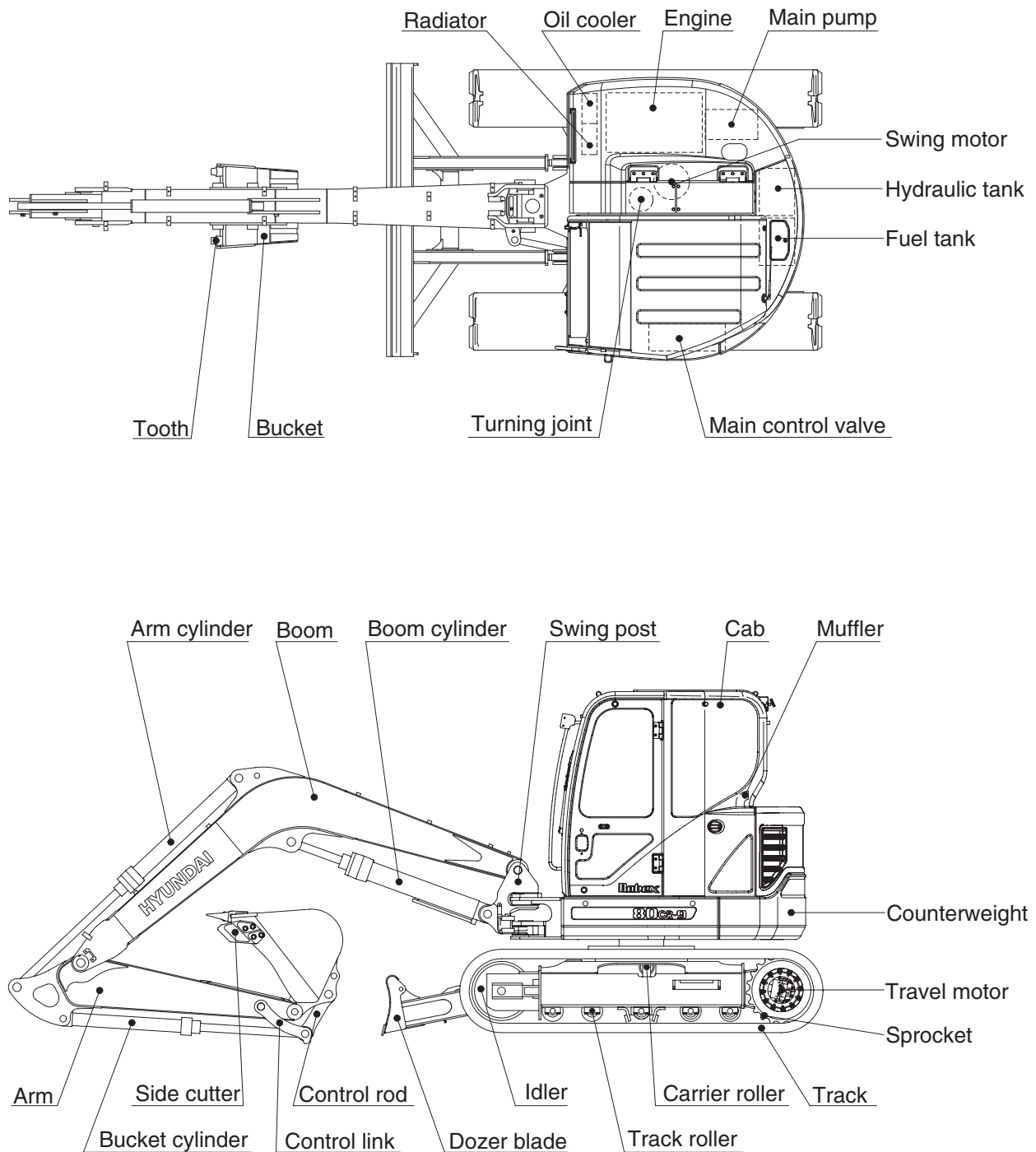


SPECIFICATIONS

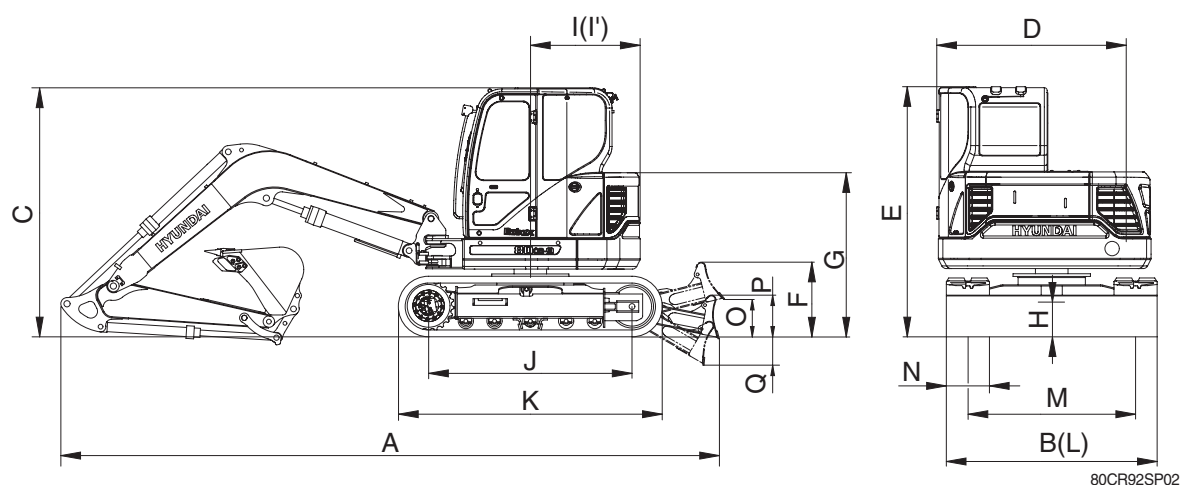
1. MAJOR COMPONENT



80CR92SP01

2. SPECIFICATIONS

1) 3.4 m (11' 2") MONO BOOM, 1.67 m (5' 6") ARM WITH BOOM SWING SYSTEM

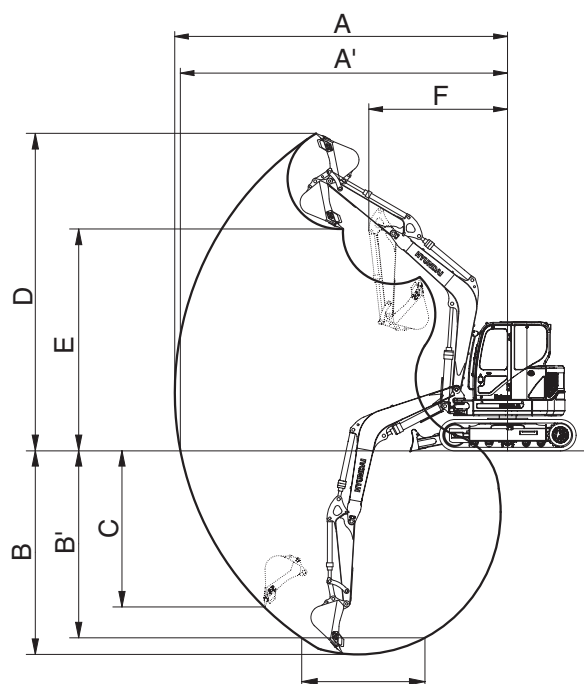


80CR92SP02

Description		Unit	Specification
Operating weight		kg (lb)	8200 (18080)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	0.28 (0.37)
Overall length	A	mm (ft-in)	6170 (20' 3")
Overall width, with 450 mm shoe	B		2300 (7' 7")
Overall height	C		2640 (8' 8")
Superstructure width	D		2220 (7' 3")
Overall height of cab	E		2640 (8' 8")
Ground clearance of counterweight	F		740 (2' 5")
Engine cover height	G		1750 (5' 9")
Minimum ground clearance	H		360 (1' 2")
Rear-end distance	I		1280 (4' 2")
Rear-end swing radius	I'		1280 (4' 2")
Distance between tumblers	J		2200 (7' 3")
Undercarriage length	K		2790 (9' 2")
Undercarriage width	L		2300 (7' 7")
Track gauge	M		1850 (6' 1")
Track shoe width, standard	N		450 (1' 6")
Height of blade	O		460 (1' 6")
Ground clearance of blade up	P		400 (1' 4")
Depth of blade down	Q		280 (0' 11")
Travel speed (Low/high)		km/hr (mph)	2.8/4.3 (1.7/2.7)
Swing speed		rpm	9.6
Gradeability		Degree (%)	30 (58)
Ground pressure (450 mm shoe)		kgf/cm ² (psi)	0.39 (5.55)
Max traction force		kg (lb)	7400 (16310)

3. WORKING RANGE

1) 3.4 m (11' 2") MONO BOOM



80CR92SP03

Description		1.67 m (5' 6") Arm
Max digging reach	A	6960 mm (22' 10")
Max digging reach on ground	A'	6820 mm (22' 5")
Max digging depth	B	4140 mm (13' 7")
Max digging depth (8ft level)	B'	3780 mm (12' 5")
Max vertical wall digging depth	C	3570 mm (11' 9")
Max digging height	D	6740 mm (22' 1")
Max dumping height	E	4730 mm (15' 6")
Min swing radius	F	2500 mm (8' 2")
Boom swing radius (left/right)		70°/60°
Bucket digging force	SAE	48.4 kN
		4940 kgf
		10890 lbf
	ISO	55.9 kN
		5700 kgf
		12570 lbf
Arm crowd force	SAE	40.3 kN
		4110 kgf
		9060 lbf
	ISO	42.2 kN
		4300 kgf
		9480 lbf

4. WEIGHT

Item	kg	lb
Upperstructure assembly	4090	9020
Main frame weld assembly	720	1590
Engine assembly	270	600
Main pump assembly	60	130
Main control valve assembly	40	90
Swing motor assembly	80	170
Hydraulic oil tank assembly	75	165
Fuel tank assembly	70	155
Boom swing post	260	570
Counterweight	930	2050
Cab assembly	330	730
Lower chassis assembly	2940	6480
Track frame weld assembly	990	2180
Swing bearing	140	310
Travel motor assembly	85	190
Turning joint	30	60
Track recoil spring	110	240
Idler	130	290
Carrier roller	20	40
Track roller	160	360
Track-chain assembly (450 mm standard triple grouser shoe)	830	1830
Dozer blade assembly	320	700
Front attachment assembly (3.4 m boom, 1.67 m arm, 0.28 m ³ SAE heaped bucket)	1170	2580
3.4 m boom assembly	420	930
1.67 m arm assembly	180	400
0.28 m ³ SAE heaped bucket	230	510
Boom cylinder assembly	110	240
Arm cylinder assembly	90	200
Bucket cylinder assembly	60	130
Dozer cylinder assembly	80	180
Bucket control link assembly	80	180
Boom swing cylinder assembly	70	150

5. LIFTING CAPACITIES

1) 3.4 m (11' 2") boom, 1.67m (5' 6") arm equipped with 0.28 m³ (SAE heaped) bucket and 450 mm (18") triple grouser shoe and dozer blade up with 930 kg (2050 lb) counterweight.

Load point height		Load radius						At max. reach		
		1.5 m (5 ft)		3.0 m (10 ft)		4.5 m (15 ft)		Capacity		Reach
										m (ft)
4.5 m	kg					*1550	1480	*1470	1040	5.47
(15.0 ft)	lb					*3420	3260	*3240	2290	(17.9)
3.0 m	kg					*1740	1430	*1530	780	6.23
(10.0 ft)	lb					*3840	3150	*3370	1720	(20.4)
1.5 m	kg			*4050	2510	*2260	1320	*1620	700	6.45
(5.0 ft)	lb			*8930	5530	*4980	2910	*3570	1540	(21.2)
Ground	kg			*4830	2320	*2650	1230	*1710	740	6.20
Line	lb			*10650	5110	*5840	2710	*3770	1630	(20.3)
-1.5 m	kg	*4730	*4730	*4410	2320	*2550	1210	*1760	940	5.38
(-5.0 ft)	lb	*10430	*10430	*9720	5110	*5620	2670	*3880	2070	(17.7)
-3.0 m	kg			*2810	2430					
(-10.0 ft)	lb			*6190	5360					

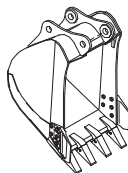
2) 3.4 m (11' 2") boom, 1.67 m (5' 6") arm equipped with 0.28 m³ (SAE heaped) bucket and 450 mm (18") triple grouser shoe and dozer blade down with 930 kg (2050 lb) counterweight.

Load point height		Load radius						At max. reach		
		1.5 m (5 ft)		3.0 m (10 ft)		4.5 m (15 ft)		Capacity		Reach
										m (ft)
4.5 m	kg					*1550	1380	1110	970	5.47
(15.0 ft)	lb					*3420	3040	2450	2140	(17.9)
3.0 m	kg					1540	1340	840	730	6.23
(10.0 ft)	lb					3400	2950	1850	1610	(20.4)
1.5 m	kg			2770	2320	1430	1230	760	650	6.45
(5.0 ft)	lb			6110	5110	3150	2710	1680	1430	(21.2)
Ground	kg			2570	2140	1330	1140	790	680	6.20
Line	lb			5670	4720	2930	2510	1740	1500	(20.3)
-1.5m	kg	*4730	*4730	2670	2140	1310	1120	1010	870	5.38
(-5.0 ft)	lb	*10430	*10430	5670	4720	2890	2470	2230	1920	(17.7)
-3.0 m	kg			2690	2250					
(-10.0 ft)	lb			5930	4960					

- 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.

6. BUCKET SELECTION GUIDE

1) GENERAL BUCKET



0.28 m³ SAE heaped bucket

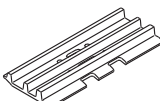
Capacity		Width		Weight	Recommendation
					3.4 m (11' 2") Mono boom
SAE heaped	CECE heaped	Without side cutter	With side cutter		1.67 m arm (5' 6")
0.28 m³ (0.37 yd³)	0.25 m³ (0.33 yd³)	730 mm (28.7")	810 mm (31.9")	230 kg (510 lb)	Applicable for materials with density of 1600 kg/m³ (2700 lb/yd³) or 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	
				
R80CR-9	Shoe width	mm (in)	450 (18)	600 (24)
	Operating weight	kg (lb)	8200 (18080)	8360 (18430)
	Ground pressure	kgf/cm ² (psi)	0.39 (5.55)	0.30 (4.27)
	Overall width	mm (ft-in)	2300 (7' 7")	2390 (7' 10")

3) NUMBER OF ROLLERS AND SHOES ON EACH SIDE

Item	Quantity
Carrier rollers	1 EA
Track rollers	5 EA
Track shoes	39 EA

4) SELECTION OF TRACK SHOE

Suitable track shoes should be selected according to operating conditions.

※ Table 1

Track shoe	Specification	Category
450 mm triple grouser	Standard	A
600 mm triple grouser	Option	A

※ 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

8. SPECIFICATIONS FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	Yanmar 4TNV98-ZVHYB
Type	4-cycle diesel engine, low emission
Cooling method	Water cooling
Number of cylinders and arrangement	4 cylinders, in-line
Firing order	1-3-4-2
Combustion chamber type	Direct injection type
Cylinder bore × stroke	98 × 110 mm (3.86" × 4.33")
Piston displacement	3319 cc (203 cu in)
Compression ratio	18.5:1
Rated gross horse power (SAE J1995)	60.4 Hp at 2100 rpm (45.0 kW at 2100 rpm)
Maximum torque at 1350 rpm	24.5 kgf · m (177 lbf · ft)
Engine oil quantity	11.6 ℓ (3.1 U.S. gal)
Dry weight	270 kg (595 lb)
High idling speed	2250 ± 50 rpm
Low idling speed	1050 ± 50 rpm
Rated fuel consumption	174.4 g/Hp · hr at 2100 rpm
Starting motor	12 V-3 kW
Alternator	12 V-80 A
Battery	1 × 12 V × 100 Ah

2) MAIN PUMP (P1, P2)

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 36 cc/rev
Maximum pressure	280 kgf/cm ² (3980 psi)
Rated oil flow	2 × 72 ℓ /min (2 × 19 U.S.gpm)
Rated speed	2000 rpm

3) PISTON PUMP (P3)

Item	Specification
Type	Fixed displacement axis piston pump
Capacity	28 cc/rev
Maximum pressure	230 kgf/cm ² (3270 psi)
Rated oil flow	56 ℓ /min (14.8 U.S.gpm)

4) GEAR PUMP (P4)

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	8.9 cc/rev
Maximum pressure	35 kgf/cm ² (500 psi)
Rated oil flow	17.8 ℓ /min (4.7 U.S.gpm/3.9 U.K.gpm)

5) MAIN CONTROL VALVE

Item	Specification
Type	12 spools sectional inline
Operating method	Hydraulic pilot system
Main relief valve pressure	280 kgf/cm ² (3980psi)
Overload relief valve pressure	310 kgf/cm ² (4410psi)

6) SWING MOTOR (machine serial No.: -#1002)

Item	Specification
Type	Axial piston motor
Capacity	39 cc/rev
Relief pressure	230 kgf/cm ² (3270 psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	14 kgf · m (101 lbf · ft)
Brake release pressure	20~40 kgf/cm ² (280~570 psi)
Reduction gear type	2 - stage planetary

SWING MOTOR (machine serial No.: #1003-)

Item	Specification
Type	Axial piston motor
Capacity	43.4 cc/rev
Relief pressure	230 kgf/cm ² (3270 psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	17 kgf · m (123 lbf · ft)
Brake release pressure	25~50 kgf/cm ² (356~711 psi)
Reduction gear type	2 - stage planetary

7) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Relief pressure	280 kgf/cm ² (3980 psi)
Reduction gear type	2 stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	Less than 9 kgf/cm ² (128 psi)
Braking torque	8.4 kgf · m (61 lbf · ft)

8) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	ø 115 × ø 70 × 850 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	ø 100 × ø 65 × 873 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	ø 85 × ø 55 × 685 mm
	Cushion	Extend only
Dozer cylinder	Bore dia × Rod dia × Stroke	ø 130 × ø 70 × 152 mm
	Cushion	-
Boom swing cylinder	Bore dia × Rod dia × Stroke	ø 110 × ø 60 × 744 mm
	Cushion	-

※ 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
R80CR-9	Standard	450 mm (18")	0.35 kgf/cm ² (4.98 psi)	38	2300 mm (7' 7")
	Option	600 mm (24")	0.27 kgf/cm ² (3.84 psi)	38	2390 mm (7' 10")

10) BUCKET

Item		Capacity		Tooth quantity	Width	
		SAE heaped	CECE heaped		Without side cutter	With side cutter
R80CR-9	STD	0.28 m ³ (0.37yd ³)	0.25 m ³ (0.33yd ³)	4	730 mm (28.7")	810 mm (31.9")

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)						
			-20 (-4)	-10 (14)	0 (32)	10 (50)	20 (68)	30 (86)	40 (104)
Engine oil pan	Engine oil	11.6 (3.1)					SAE 30		
				SAE 10W					
					SAE 10W-30				
					SAE 15W-40				
Swing drive (-#1002)	Gear oil	1.5 (0.4)							
Final drive		1.2 × 2 (0.32 × 2)			SAE 80W-90				
Swing drive (-#1002)	Grease	3.3 (0.87)		NLGI NO.1					
					NLGI NO.2				
Hydraulic tank	Hydraulic oil	Tank : 71 (18.8) System : 120 (31.7)			ISO VG 32				
					ISO VG 46				
					ISO VG 68				
Fuel tank	Diesel fuel	120 (31.7)		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	11 (2.9)				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