

Specifications

ENGINE

MODEL			YANMAR 4TNV98
Type			Water cooled, 4 cycle diesel 4 cylinders in line, direct injection, low emission
Rated flywheel horsepower	SAE	J1995 (gross)	59.6 HP (44.4 kW) at 2,100 rpm
		J1349 (net)	58.2 HP (43.4 kW) at 2,100 rpm
	DIN	6271/1 (gross)	60.4 PS (44.4 kW) at 2,100 rpm
		6271/1 (net)	59.0 PS (43.4 kW) at 2,100 rpm
Max. torque			24.5 kgf·m (177 lbf·ft) at 1,350 rpm
Bore X stroke			98 mm (3.86") x 110 mm (4.33")
Piston displacement			3,319 cc (202 cu in)
Batteries			2 x 12 V x 100 AH
Starting motor			12V-3.0 kW
Alternator			12V-80 Amp

HYDRAULIC SYSTEM

MAIN PUMP	
Type	Two variable displacement piston pumps
Max. flow	2 X 72 ℓ/min(19 US gpm / 15.8 UK gpm)pumps
Sub-pump for pilot circuit	Gear pump

Cross-sensing and fuel saving pump system

HYDRAULIC MOTORS	
Travel	Two speed axial piston motor with counter balance valve and parking brake
Swing	Axial piston motor with automatic brake

RELIEF VALVE SETTING	
Implement circuits	P1 / P2 : 280 kgf/cm² (3,980 psi) P3 : 230 kgf/cm² (3,270 psi)
Travel circuit	280 kgf/cm² (3,980 psi)
Swing circuit	230 kgf/cm² (3,270 psi)
Pilot circuit	35 kgf/cm² (500 psi)
Service valve	Installed

HYDRAULIC CYLINDERS	
No. of cylinder bore X stroke	Boom: 1-115 x 850 mm (4.5" x 33.5")
	Arm: 1-100 x 873 mm (3.9" x 34.4")
	Bucket: 1-85 x 685 mm (3.3" x 27.0")
	Boom swing: 1-110 x 744 mm (4.3" x 29.3")
Dozer blade: 1-130 x 152 mm (5.1" x 6.0")	

NOISE LEVEL (CAB)

Nosie levels (dynamic valve)	
LwA	98 dB
LpA	78 dB

TRAVEL SYSTEM

Drive method	Full hydrostatic type
Drive motor	Axial piston motor, in-shoe design
Reduction system	Planetary reduction gear
Max. drawbar pull	7,400 kgf (16,310 lbf)
Max. travel speed(high) / (low)	4.3 km/hr (2.7 mph) / 2.8 km/hr (1.7 mph)
Gradeability	35° (70%)
Parking brake	Multi-wet disc

CONTROLS

Pilot pressure operated joysticks and pedals with detachable lever provide almost effortless and fatigueless operation.

Pilot control	Two joysticks with one safety lever (LH): Arm swing, Boom swing (RH): Boom and bucket (ISO)
Traveling and steering	Two levers with pedals
Engine throttle	Electric, Dial type

SWING SYSTEM

Swing motor	Axial piston motor
Swing reduction	Planetary gear reduction
Swing bearing lubrication	Grease-bathed
Swing brake	Multi wet disc
Swing speed	9.6 rpm

COOLANT & LUBRICANT CAPACITY

(Refilling)	liter	US gal	UK gal
Fuel tank	120.0	31.7	26.4
Engine coolant	11.0	2.9	2.4
Engine oil	11.6	3.1	2.6
Final drive(each)	1.2	0.3	0.3
Hydraulic tank	71.0	18.8	15.6
Hydraulic system	120.0	31.7	26.4

UNDERCARRIAGE

X-leg type center frame is integrally welded with reinforced box-section track frames. The undercarriage includes lubricate rollers, track adjusters with shock absorbing springs and sprockets, and track chain with triple grouser shoes.

Center frame	X - leg type
Track frame	Pentagonal box type
No. of track shoe on each side	39
No. of upper roller on each side	1
No. of lower roller on each side	5

OPERATING WEIGHT (APPROXIMATE)

Operating weight, including 3,400 mm (12' 2") boom, 1,670 mm (5' 6") arm, SAE heaped 0.28 m³ (0.37 yd³) digging bucket, lubricant, coolant, full fuel tank, hydraulic tank and the standard equipment.

MAJOR COMPONENT WEIGHT	
Upperstructure	4,090 kg (9,020 lb)
Counterweight	930 kg (2,050 lb)
Mono boom(with arm cylinder)	550 kg (1,210 lb)

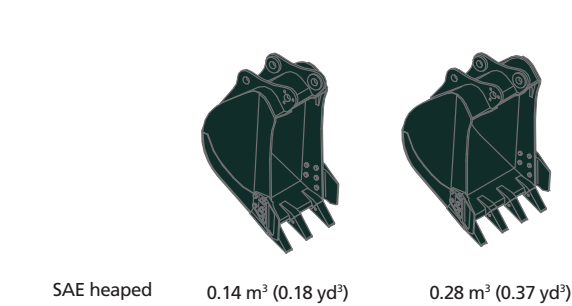
OPERATING WEIGHT		
Operating weight	Steel (450)	8,350 kg (18,410 lb)
	Rubber (450)	8,250 kg (18,190 lb)

·Mono boom with blade

Ground Pressure	Steel (450)	0.39 kgf·m / cm² (5.55 psi)
	Rubber (450)	0.38 kgf·m / cm² (5.40 psi)

BUCKETS

Capacity		Width		Weight
SAE heaped	CECE heaped	Without side cutters	With side cutters	
0.14 m³ (0.18 yd³)	0.13 m³ (0.17 yd³)	390 mm (15.4")	470 mm (18.5")	185 kg (410 lb)
0.28 m³ (0.37 yd³)	0.25 m³ (0.33 yd³)	730 mm (28.7")	810 mm (31.9")	230 kg (510 lb)



DIGGING FORCE (ISO)

Bucket	5,700 kgf
	55.9 kN
	12,570 lbf
Arm	4,300 kgf
	42.2 kN
	9,480 lbf

Lifting Capacity

R80CR-9

Rating over-front Rating over-side or 360 degree

Boom : 3.4m (12' 2") / Arm : 1.67 m (5' 6") / Bucket : 0.28m³ (0.37yd³) SAE heaped / Dozer blade down with 930kg (2,050 lb) counterweight.

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

- Lifting capacity is based on SAE J1097, ISO 10567.
- Lifting capacity of the Robex Series does not exceed 75% of the tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
- The load point is a hook located on the back of the bucket.
- (*) indicates the load limited by hydraulic capacity.

Lifting Capacity

R80CR-9  Rating over-front  Rating over-side or 360 degree

Boom : 3.4m (12' 2") / Arm : 1.67 m (5' 6") / Bucket : 0.28m³ (0.37yd³) SAE heaped / Dozer blade up with 930kg (2,050 lb) counterweight.										
Load point height m (ft)		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	5.74
(15 ft)	lb					*3420	3040	2450	2140	(17.9)
3.0 m	kg					1540	1340	840	730	6.23
(10 ft)	lb					3400	2950	1850	1610	(20.4)
1.5 m	kg			2770	2320	1430	1230	760	650	6.45
(5 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)
-1.5 m	kg	*4730	*4730	2570	2140	1310	1120	1010	870	5.38
(-5 ft)	lb	*10430	*10430	5670	4720	2890	2470	2230	1920	(17.7)
-3.0 m	kg			2690	2250					
(-10 ft)	lb			5930	4960					

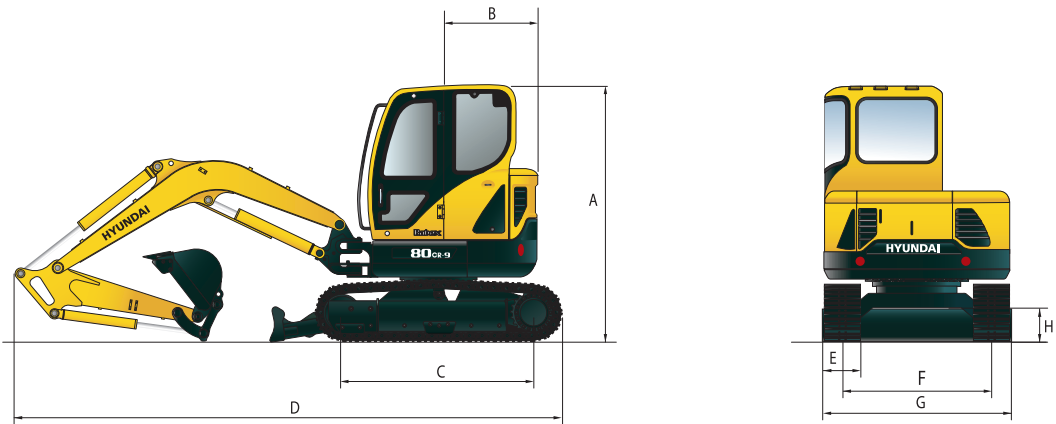
Boom : 3.4m (12' 2") / Arm : 2.20 m (7' 3") / Bucket : 0.28m³ (0.37yd³) SAE heaped / Dozer blade down with 930kg (2,050 lb) counterweight.										
Load point height m (ft)		Load radius						At max. reach		
		1.5 m (5 ft)		3.0 m (10 ft)		4.5 m (15 ft)		6.0 m (20 ft)		Reach
										m (ft)
4.5 m	kg					*1180	*1180			6.17
(15 ft)	lb					*2600	*2600			(20.2)
3.0 m	kg					*1410	*1410	*1400	820	6.84
(10 ft)	lb					*3110	*3110	*3090	1810	(22.4)
1.5 m	kg			*3280	2580	*1970	1310	*1570	780	7.03
(5 ft)	lb			*7230	5690	*4340	2890	*3460	1720	(23.1)
Ground	kg	*1900	*1900	*4600	2270	*2470	1190	*1730	730	6.80
Line	lb	*4190	*4190	*10140	5000	*5450	2620	*3810	1610	(22.3)
-1.5 m	kg	*3590	*3590	*4590	2220	*2580	1140			6.09
(-5 ft)	lb	*7910	*7910	*10120	4890	*5690	2510			(20.0)
-3.0 m	kg	*5800	*5800	*3530	2290	*1890	1190			4.58
(-10 ft)	lb	*12790	*12790	*7780	5050	*4170	2620			(15.0)

Boom : 3.4m (12' 2") / Arm : 2.20 m (7' 3") / Bucket : 0.28m³ (0.37yd³) SAE heaped / Dozer blade up with 930kg (2,050 lb) counterweight.										
Load point height m (ft)		Load radius						At max. reach		
		1.5 m (5 ft)		3.0 m (10 ft)		4.5 m (15 ft)		6.0 m (20 ft)		Reach
										m (ft)
4.5 m	kg					*1180	*1180			6.17
(15 ft)	lb					*2600	*2600			(20.2)
3.0 m	kg					*1410	1350	880	760	6.84
(10 ft)	lb					*3110	2980	1940	1680	(22.4)
1.5 m	kg			2850	2390	1420	1220	840	720	7.03
(5 ft)	lb			6280	5270	3130	2690	1850	1590	(23.1)
Ground	kg	*1900	*1900	2520	2090	1290	1100	790	670	6.80
Line	lb	*4190	*4190	5560	4610	2840	2430	1740	1480	(22.3)
-1.5 m	kg	*3590	*3590	2460	2040	1240	1050			6.09
(-5 ft)	lb	*7910	*7910	5420	4500	2730	2310			(20.0)
-3.0 m	kg	*5800	*5800	2540	2110	1290	1100			4.58
(-10 ft)	lb	*12790	*12790	5600	4650	2840	2430			(15.0)

1. Lifting capacity is based on SAE J1097, ISO 10567.
2. Lifting capacity of the Robex Series does not exceed 75% of the 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 the load limited by hydraulic capacity.

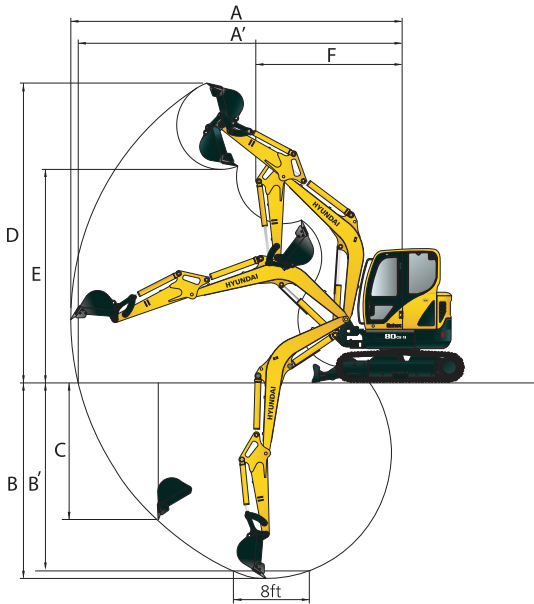
Dimensions & Working Range

R80CR-9 DIMENSIONS unit: mm(ft · in)



			mm (ft-in)			
A	Overall height of cab	2,640 (8' 8")	E	Track shoe width	Steel	450 (1' 6")
B	Tail swing radius	1,280 (4' 2")			Rubber	450 (1' 6")
C	Tumbler distance	2,200 (7' 3")	F	Track gauge		1,850 (6' 1")
D	Overall length	6,170 (20' 3")	G	Overall width		2,300 (7' 7")
			H	Ground clearance		360 (1' 2")

R80CR-9 WORKING RANGE



unit: mm(ft · in)		
Boom length	3,400 (11' 2")	
Arm length	1,670 (5' 6")	2,200 (7' 3")
A Max. digging reach	6,960 (22' 10")	7,390 (24' 3")
A' Max. digging reach on ground	6,820 (22' 5")	7,250 (23' 9")
B Max. digging depth	4,150 (13' 7")	4,620 (15' 2")
B' Max. digging depth (8 ft)	3,780 (12' 5")	4,330 (14' 2")
C Max. vertical wall digging depth	3,570 (11' 9")	4,040 (13' 3")
D Max. digging height	6,740 (22' 1")	7,040 (23' 1")
E Max. dumping height	4,730 (15' 6")	5,050 (16' 7")
F Min. swing radius	2,500 (8' 2")	2,610 (8' 7")