

Specifications R60CR-9A

ENGINE

MODEL		YANMAR 4TNV98C	
Type		Water cooled, 4 cycle Diesel, 4-Cylinders in line, direct injection and low emission	
Rated flywheel horse power	SAE	J1995 (gross)	64.7 HP (48.3 kW) at 2,200 rpm
		J1349 (net)	63 HP (47.0 kW) at 2,200 rpm
	DIN	6271/1 (gross)	65.6 PS (48.3 kW) at 2,200 rpm
		6271/1 (net)	63.9 PS (47.0 kW) at 2,200 rpm
Max. torque		24 kgf.m (174 lbf.ft) at 1,560 rpm	
Bore x stroke		98 mm (3.86") x 110 mm (4.33")	
Piston displacement		3,319 cc (203 cu in)	
Batteries		1 x 12 V x 100 Ah	
Starting motor		12 V - 3.0 kW	
Alternator		12 V - 60 A	

HYDRAULIC SYSTEM

MAIN PUMP	
Type	Two variable displacement axial piston pumps
Max. flow	2 x 55 ℓ/min (14.5 US gpm / 12.5 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	220 kgf/cm ² (3,130 psi)
Travel	220 kgf/cm ² (3,130 psi)
Swing circuit	220 kgf/cm ² (3,130 psi)
Pilot circuit	30 kgf/cm ² (430 psi)
Service valve	Installed

HYDRAULIC CYLINDERS

No. of cylinder-bore x stroke	Boom: 1-110 x 715 mm (4.3" x 28.1")
	Arm: 1-85 x 840 mm (3.3" x 33.1")
	Bucket: 1-80 x 660 mm (3.1" x 26.0")
	Boom swing: 1-95 x 519 mm (3.7" x 20.4")
	Dozer blade: 1-110 x 224 mm (4.3" x 8.8")

OPERATOR'S CAB

Noise Levels (dynamic value)	
Outside cabin - LwA	97 dB
Inside cabin - LpA	76 dB

DRIVES & BRAKES

Drive method	Fully hydrostatic type
Drive motor	Axial piston motor, in-shoe design
Reduction system	Planetary reduction gear
Max. drawbar pull	5,300 kgf (11,700 lbf)
Max. travel speed (high) / (low)	4.0 km/hr (2.5 mph) / 2.2 km/hr (1.4 mph)
Gradeability	35° (70 %)
Parking brake	Multi wet disc

CONTROL

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

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

SWING SYSTEM

Swing motor	Fixed displacement axial pistons motor
Swing reduction	Planetary gear reduction
Swing bearing lubrication	Grease-bathed
Swing brake	Multi wet disc
Swing speed	8.8 rpm

COOLANT & LUBRICANT CAPACITY

Refilling	liter	US gal	UK gal
Fuel tank	82.0	21.7	27.5
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 system	110.0	29.1	24.2
Hydraulic tank	60.0	15.9	13.2

UNDERCARRIAGE

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

Center frame	X - leg type
Track frame	Pentagonal box type
No. of shoes on each side	40
No. of upper roller on each side	1
No. of lower roller on each side	5

OPERATING WEIGHT (APPROXIMATE)

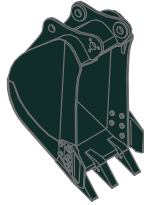
Operating weight, including 2,900 mm (9' 6") boom, 1,480 mm (4' 10") arm, SAE heaped 0.18 m³ (0.24 yd³) bucket, lubricant, coolant, full fuel tank, full hydraulic tank and all standard equipments.

MAJOR COMPONENT WEIGHT	
Upperstructure	2,900 kg (6,390 lb)
Mono boom (with arm cylinder)	310 kg (680 lb)

OPERATING WEIGHT		
Operating weight	Steel track (380 mm)	5,900 kg (13,010 lb)
	Rubber track	5,800 kg (12,790 lb)
	Steel track (450 mm)	5,960 kg (13,140 lb)
Ground pressure	Steel track (380 mm)	0.36 kgf / cm ² (5.12 psi)
	Rubber track	0.34 kgf / cm ² (4.83 psi)
	Steel track (450 mm)	0.31 kgf / cm ² (4.41 psi)

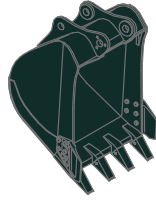
BUCKETS R60CR-9A

Capacity m ³ (yd ³)		Width mm (in)		Weight kg (lb)
SAE heaped	CECE heaped	Without side cutters	With side cutters	
0.07 (0.09)	0.06 (0.08)	315 (12.4")	360 (14.2")	115 (255)
0.18 (0.24)	0.15 (0.20)	670 (26.4")	740 (29.1")	170 (375)



SAE heaped

0.07 m³ (0.09 yd³)



0.15 m³ (0.24 yd³)

DIGGING FORCE R60CR-9A

Arm	1.48 m	1.9 m
Bucket digging force	4,170 kgf	4,170 kgf
	40.9 kN	40.9 kN
	9,190 lbf	9,190 lbf
Arm crowd force	2,700 kgf	2,280 kgf
	26.5 kN	22.4 kN
	5,950 lbf	5,030 lbf

Lifting Capacities

R60CR-9A

Rating over-front Rating over-side or 360 degrees

Boom : 2.9 m (9' 6") / Arm : 1.48 m (4' 10") / Bucket : 0.18 m³ (0.24 yd³) SAE heaped / Dozer blade down

Load point height m (ft)	Load radius								At max. reach			
	2.0 m (7 ft)		3.0 m (10 ft)		4.0 m (13 ft)		5.0 m (16 ft)		Capacity		Reach m (ft)	
4.0 m (13 ft)	kg				*1120	*1120			*1050	790	4.99	
	lb				*2470	*2470			*2310	1740	(16.4)	
3.0 m (10 ft)	kg				*1180	1130			*1080	640	5.56	
	lb				*2600	2490			*2380	1410	(18.2)	
2.0 m (7 ft)	kg		*1890	1710	*1430	1080	*1250	740	*1120	580	5.82	
	lb		*4170	3770	*3150	2380	*2760	1630	*2470	1280	(19.1)	
1.0 m (3 ft)	kg		*2670	1580	*1740	1020	*1360	720	*1160	560	5.84	
	lb		*5890	3480	*3840	2250	*3000	1590	*2560	1230	(19.2)	
Ground Line	kg	*1980	*1980	*3000	1520	*1930	980	*1430	700	*1190	590	5.61
	lb	*4370	*4370	*6610	3350	*4250	2160	*3150	1540	*2620	1300	(18.4)
-1.0 m (-3 ft)	kg	*3230	3030	*2890	1500	*1910	970		*1210	690	5.09	
	lb	*7120	6680	*6370	3310	*4210	2140		*2670	1520	(16.7)	
-2.0 m (-7 ft)	kg	*3960	3080	*2370	1530				*1110	990	4.12	
	lb	*8730	6790	*5220	3370				*2450	2180	(13.5)	

- 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 Capacities

R60CR-9A

Rating over-front Rating over-side or 360 degrees

Boom : 2.9 m (9' 6") / Arm : 1.48 m (4' 10") / Bucket : 0.18 m³ (0.24 yd³) SAE heaped / Dozer blade up

Load point height m (ft)		Load radius								At max. reach		
		2.0 m (7 ft)		3.0 m (10 ft)		4.0 m (13 ft)		5.0 m (16 ft)		Capacity		Reach m (ft)
4.0 m (13 ft)	kg					*1120	1070			1040	740	4.99
	lb					*2470	2360			2290	1630	(16.4)
3.0 m (10 ft)	kg					*1180	1060			860	600	5.56
	lb					*2600	2340			1900	1320	(18.2)
2.0 m (7 ft)	kg			*1890	1600	1430	1010	990	690	780	540	5.82
	lb			*4170	3530	3150	2230	2180	1520	1720	1190	(19.1)
1.0 m (3 ft)	kg			2150	1470	1370	960	970	670	770	520	5.84
	lb			4740	3240	3020	2120	2140	1480	1700	1150	(19.2)
Ground Line	kg	*1980	*1980	2080	1410	1330	920	950	650	810	550	5.61
	lb	*4370	*4370	4590	3110	2930	2030	2090	1430	1790	1210	(18.4)
-1.0 m (-3 ft)	kg	*3230	2770	2070	1400	1320	900			940	650	5.09
	lb	*7120	6110	4560	3090	2910	1980			2070	1430	(16.7)
-2.0 m (-7 ft)	kg	*3960	2820	2090	1420					*1110	920	4.12
	lb	*8730	6220	4610	3130					*2450	2030	(13.5)

Boom : 2.9 m (9' 6") / Arm : 1.48 m (4' 10") / Bucket : 0.18 m³ (0.24 yd³) SAE heaped / Dozer blade down

Load point height m (ft)		Load radius								At max. reach		
		2.0 m (7 ft)		3.0 m (10 ft)		4.0 m (13 ft)		5.0 m (16 ft)		Capacity		Reach m (ft)
4.0 m (13 ft)	kg									*900	670	5.45
	lb									*1980	1480	(17.9)
3.0 m (10 ft)	kg					*950	*950	*950	750	*940	550	5.96
	lb					*2090	*2090	*2090	1650	*2070	1210	(19.6)
2.0 m (7 ft)	kg			*1470	*1470	*1220	1070	*1100	730	*980	500	6.19
	lb			*3240	*3240	*2690	2360	*2430	1610	*2160	1100	(20.3)
1.0 m (3 ft)	kg			*2330	1580	*1560	1010	*1250	700	*1020	490	6.21
	lb			*5140	3480	*3440	2230	*2760	1540	*2250	1080	(20.4)
Ground Line	kg	*2000	*2000	*2850	1480	*1820	950	*1360	670	*1070	510	6.00
	lb	*4410	*4410	*6280	3260	*4010	2090	*3000	1480	*2360	1120	(19.7)
-1.0 m (-3 ft)	kg	*2840	*2840	*2920	1450	*1900	930	*1360	660	*1110	580	5.54
	lb	*6260	*6260	*6440	3200	*4190	2050	*3000	1460	*2450	1280	(18.2)
-2.0 m (-7 ft)	kg	*3980	2950	*2590	1460	*1690	930			*1100	760	4.70
	lb	*8770	6500	*5710	3220	*3730	2050			*2430	1680	(15.4)

Boom : 2.9 m (9' 6") / Arm : 1.48 m (4' 10") / Bucket : 0.18 m³ (0.24 yd³) SAE heaped / Dozer blade up

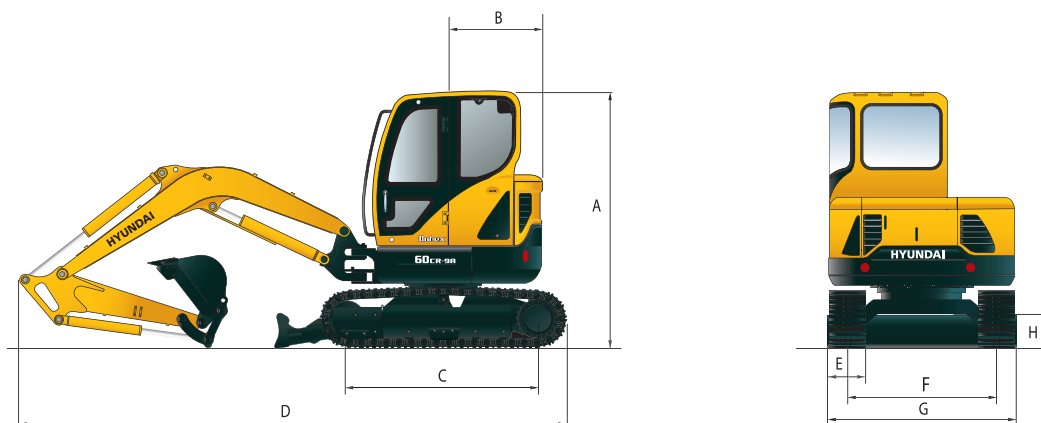
Load point height m (ft)		Load radius								At max. reach		
		2.0 m (7 ft)		3.0 m (10 ft)		4.0 m (13 ft)		5.0 m (16 ft)		Capacity		Reach m (ft)
4.0 m (13 ft)	kg									890	620	5.45
	lb									1960	1370	(17.9)
3.0 m (10 ft)	kg					*950	*950	*950	700	750	510	5.96
	lb					*2090	*2090	*2090	1540	1650	1120	(19.6)
2.0 m (7 ft)	kg			*1470	*1470	*1220	1000	980	680	690	460	6.19
	lb			*3240	*3240	*2690	2200	2160	1500	1520	1010	(20.3)
1.0 m (3 ft)	kg			2150	1470	1360	940	950	650	670	450	6.21
	lb			4740	3240	3000	2070	2090	1430	1480	990	(20.4)
Ground Line	kg	*2000	*2000	2040	1370	1300	880	920	620	700	470	6.00
	lb	*4410	*4410	4500	3020	2870	1940	2030	1370	1540	1040	(19.7)
-1.0 m (-3 ft)	kg	*2840	2660	2010	1340	1270	860	910	610	790	530	5.54
	lb	*6260	5860	4430	2950	2800	1900	2010	1340	1740	1170	(18.2)
-2.0 m (-7 ft)	kg	*3980	2700	2020	1350	1280	860			1040	710	4.70
	lb	*8770	5950	4450	2980	2820	1900			2290	1570	(15.4)

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Dimensions & Working Ranges

DIMENSIONS R60CR-9A

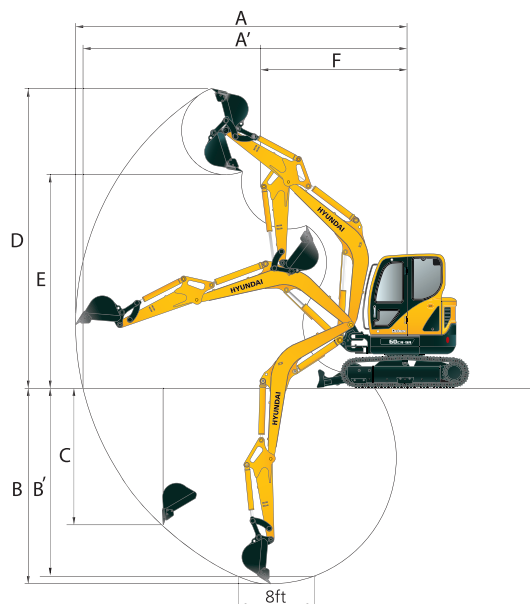
mm (ft · in)



mm (ft · in)

A Overall height of cab	2,550 (8' 4")	E Track shoe width	Steel track	380 (1' 3")
B Tail swing radius	1,080 (3' 7")		Rubber track	400 (1' 4")
C Tumbler distance	1,990 (6' 6")	F Track gauge		1,600 (5' 3")
D Overall length	5,600 (18' 4")	G Overall width		2,000 (6' 7")
		H Ground clearance		380 (1' 3")

WORKING RANGE R60CR-9A



mm (ft · in)

Boom length	2,900 (9' 6")	
Arm length	1,480 (4' 10")	1,900 (6' 3")
A Max. digging reach	6,150 (20' 2")	6,480 (21' 3")
A' Max. digging reach on ground	6,010 (19' 9")	6,350 (20' 10")
B Max. digging depth	3,570 (11' 9")	3,990 (13' 1")
B' Max. digging depth (8' level)	3,160 (10' 5")	3,620 (11' 11")
C Max. vertical wall digging depth	3,040 (9' 12")	3,360 (11' 0")
D Max. digging height	5,680 (18' 8")	5,850 (19' 2")
E Max. dumping height	3,930 (12' 11")	4,100 (13' 5")
F Min. front swing radius	2,420 (7' 11")	2,510 (8' 3")

STANDARD EQUIPMENT R60CR-9A

ISO standard cabin

Cabin	ROPS (ISO 3471)
	FOPS (ISO 3449)
	FOG (ISO 10262 Level I)
	TOPS (ISO 12117)

All-weather steel cab with all-around visibility

Safety glass windows

Rise-up type windshield wiper

Sliding fold-in front window

Sliding side window

Lockable door

Storage compartment & Ashtray

Centralized monitoring

Engine speed

Gauges

- Fuel level gauge

- Engine coolant temperature gauge

Warning lamps

- Fuel level

- Engine oil pressure

- Engine coolant temperature

- Hyd. oil temperature

- Low battery

- Air cleaner clogging

Fuel pre-filter

Air conditioner & heater

Door and locks, one key fits all

Radio / USB Player with remote control

Outside rearview mirrors

Fully adjustable suspension seat with seat belt

Console box tilting system (LH.)

Two front working lights

Electric horn

Battery (1 x 12 V x 100 Ah)

Battery master switch

12 volt power supply

Automatic swing brake

Removable reservoir tank

Water separator, fuel line

Mono boom (2.9 m; 9'6")

Arm (1.48 m; 4'10")

Track rail guard

Starting Aid (air grid heater) for cold weather

Dozer blade

Road liner

Safety lock valve for boom cylinder with overload warning device

Safety lock valve for arm cylinder

Double acting piping (clamshell, etc)

Rubber track (400 mm; 1'4")

OPTIONAL EQUIPMENT R60CR-9A

Fuel filler pump (35ℓ/min, 9.2 US gpm)

Beacon lamp

Single acting piping (Breaker, etc)

Accumulator, work equipment lowering

Electric transducer

Travel alarm

Long arm (1.9 m; 6'3")

Tool kit

Cabin rear work lamp

Lever pattern change valve

Additional counterweight (200 kg; 440 lb)

Steel track with rubber pads (380 mm)

Quick coupler piping

- * Standard and optional equipment may vary. Contact your Hyundai dealer for more information. The machine may vary according to international standards.
- * The photos may include attachments and optional equipment that are not available in your area.
- * Materials and specifications are subject to change without advance notice.
- * All imperial measurements rounded off to the nearest pound or inch.

PLEASE CONTACT

