STANDARD EQUIPMENT

ISO standard cabin ·Cabin ROPS(ISO 12117-2) 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 ·Accessory box & Ash-tray Centralized monitoring ·Engine speed Gauges Fuel level gauge

OPTIONAL EQUIPMENT

Fuel filler pump (35l/min, 9.2 US gpm) Beacon lamp Double acting piping kit (clamshell, etc) Accumulator, work equipment lowering Electric transducer

Travel alarm Quick coupler Rubber crawler (400mm, 1' 4") Narrow bucket (0.07m³, 0.09yd³) Long arm (1.9m, 6'3")

Engine coolant temperature gauge

·Warning

Fuel level

Low battery

·Fuel prefilter

Engine oil pressure

Hyd. oil temperature

Air cleaner clogging

Door and cab locks, one key

Outside rear view mirror

Air-conditioner & heater

Engine coolant temperature

Single acting piping kit (breaker, etc)

AM/FM radio and USB player with remote control

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 Counterweight Mono boom (2.9 m, 9' 6") Arm (1.48 m, 4' 10") Track shoes (380 mm, 1' 3") Track rail guard Starting aid (air grid heater) cold weather

> Tool kit **Operator suit** Mechanical suspension seat with heater Cabin rear work lamp Lever pattern change valve

We build a better future

Robex **DUCR-9**



* 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



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2011.05 Rev. 0



Pride at Work

Hyundai Heavy Industries strives to build state-of-the art earthmoving equipment to give every operator maximum performance, more precision, versatile machine preferences, and proven quality. Take pride in your work with Hyundai!



Engine Technology

grease chamber.

The cabin is roomy and ergonomically designed, for reduced noise and good visibility. The cabin frame meets international standard TOPS, ROPS, FOPS ensuring operator safety.

Operator Convenience

Convenient operator features include a suspension seat, excellent visibility, and variable storage space for advanced operator comfort. The newly designed LED cluster provides current information, including engine RPM, engine coolant, fuel level, and electric components. A hydraulic function safety lock and auto diagnostic features are also available. lock and failure diagnosis functions are also intergrated. A powerful air conditioning system and Radio & USB player contribute to a productive work environment.

Easy and Simple Maintenance

Wide open access of doors, covers, hoods is designed for easier maintenance. The air cleaner and centralized grease fittings are also integrated for easy service.

Extended Life of Components

Long life components and wear parts, including hydraulic filters, oil, shims, and bushings, help to reduce operating costs.

Machine Walk-Around

Rugged Upper and Lower Frame

The upper frame is designed with optimum structural integrity to absorb impact and operational stress. The x-style center frame and reinforced box section track frame provide exceptional strength and longer service life to withstand tough working conditions.

The fuel efficient, Tier 4 interim certified Yanmar 4TNV98 engine provides proven, reliable power. This engine is electronically controlled for optimum fuel to air ratio and clean, efficient combustion and provides low noise, anti-restart features.

Efficient Control System

All control devices are arranged for higher productivity and improved operator comfort. Efficient and ergonomic controls allow an operator to control the machine in any working environment. A safety lever on the left-side console is provided to prevent exiting the cabin while hydraulic controls

Advanced Hydraulic System

The R60CR-9's advanced hydraulic system includes an arm flow summation system, boom holding system and a swing parking brake for smooth and fine control. Other valuable features include a hydraulic damper in the travel pedal, and a hydraulically lubricated swing reducer with a leak-free

Comfortable and Durable Cabin





Wide Cabin with Excellent Visibility

The newly designed cabin was conceived for more space, a wider field of view and operator comfort. Special attention was given to a clear, open and convenient interior with plenty of visibility on the machine surroundings and the job at hand. This well balanced combination of precision aspects put the operator in the perfect position to work safely and securely.

The R60CR-9 operator's cab is designed for a comfortable operating experience. Operator Comfort An ergonomically designed suspension seat, adjustable arm rests and a spacious environment helps to minimize operator fatigue. Control levers are easily accessible and a instrument display is provided to keep the operator informed of pertinent machine information.

- listening to music favorites.
- 3. A hands-free cell phone function is available for safe and convenient phone use. 4. Ergonomically designed joysticks reduce operator fatigue during the work day.
- 5. Accel dial with LED lamp is easy to control and recognizable in darkness. 6. Multiple storage compartments are available for additional convenience.



remote contro

Enhanced Cabin

Hyundai's R60CR-9 is equipped for convenience and productivity.

- 1. Adjustable position window prevents window movement while operating. 3. A tilt-up left side control console provides easier entrance and exit from the cab.
- 4. A full auto air-conditioning system provides the operator with optimum air temperature.





1. A large upper roof glass provides additional visibility and a a roller shade is provided to reduce glare and sunlight. 2. An advanced audio system with AM/FM stereo with USB player input, plus remotely located control is perfect for

2. A sliding fold-in front window is easily opened and safely stored in an open position to improve ventilation and visibility.

Operator - Friendly Cluster

The advanced new LED cluster allows the operator to select his personal machine preferences. The monitor displays engine rpm, engine oil temperature, water temperature and information for all electronic devices.

Button selections are provided for auto idle mode, max power mode, and travel speed. A security feature is also provided to prevent the machine from starting without a proper password.

Precision & Performance

Innovative hydraulic system technologies make the R60CR-9 excavator fast, smooth and easy to control. Also R60CR-9 is designed for maximum performance to keep the operator working productively.





Boom Swing

The R60CR-9's boom swing function is designed for efficient work in congested residential and urban areas. The boom can be offset left or right within an operating range. Plus, increased swing torque provides enhanced operating capability on the slope.



Improved Hydraulic System

Optimized matching between the joystick and main control valve improves fine control and smoothness of operation. An arm flow summation system provides energy savings, reduced cavitation and increased speed. To improve safety and avoid boom drift the R60CR-9 is equipped with an integrated boom holding system.





Structure Strength

The R60CR-9 cabin structure has been fitted with stronger but slimmer tubing for added safety and improved visibility. Low-stress, high strength steel is integrally welded to form a stronger, more durable upper and lower frame. Structural integrity was tested by way of FEM (Finite Elements Method) analysis and long-term durability tests.



Short Tail Swing

R60CR-9's short tail swing radius allows the operator work in confined areas like close to buildings on roadways, and in urban areas. This compact radius design provides easy and efficient operation in any limited space work environment.

Yanmar 4TNV98

The Highest Engine Power in its Class

Yanmar 4TNV98 engine provides 20.5 kgf.m (148 lbf.ft) of maximum torque with 57 HP at 2,400rpm of rated power. This means the R60CR-9 runs with the most power in its class, giving you more power to get the job done.

Profitability

R60CR-9 is designed to maximize profitability through improved efficiencies, enhanced service features and longer life components.





Easy Change Air Cleaner The R60CR-9 is equipped with a durable plastic air cleaner designed for easy maintenance.



Wide Open Engine hood

A newly designed full-open type engine hood makes service more convenient on the R60CR-9.







Improved Durability

The R60CR-9's boom cylinder & dozer cylinder cover provide added protection on the tough working condition.



A centralized lubrication bank is available for faster, easier

service and maintenance.



Tilting Cabin

R60CR-9's tiltable cabin provides the operator with convenient maintenance.



Extended Life Components

9 series excavators were designed with bushings designed for extended lube intervals (250 hrs) & polymer shims (wear resistant, noise reducing), extended-life hydraulic filters (1,000hrs), long-life hydraulic oil (5,000hrs), more efficient cooling systems and integrated preheating systems which extend service intervals, minimize operating costs and reduce machine down time.

Specifications

ENGINE

MODEL			YANMAR 4TNV98			
Туре			Water cooled, 4 cycle diesel 4 cylinders in line, direct injection, low emission			
Rated	SAE	J1995 (gross)	57 HP (42.5 kW) at 2,400 rpm			
	SAE	J1349 (net)	55.2 HP (41.2 kW) at 2,400 rpm			
flywheel		6271/1 (gross)	57.8 PS (42.5 kW) at 2,400 rpm			
horsepower	DIN	6271/1 (net)	56 PS (41.2 kW) at 2,400 rpm			
Max. torque			20.5 kgf·m (148 lbf·ft) at 1,550 rpm			
Bore X stroke			98 mm (3.86") x 110 mm (4.33")			
Piston displace	ement		3,319 cc (203 cu in)			
Batteries			1 x 12 V x 100 AH			
Starting motor			12V-3.0 kW			
Alternator			12V-80 Amp			

HYDRAULIC SYSTEM

MAIN PUMP				
Туре	Two variable displacement piston pumps			
Max. flow	2 X 57.8 l/min(15.3 US gpm/12.7 UK gpm)pumps			
Sub-pump for pilot circuit	Gear pump			
Cross-sensing and fuel saving pu	Imp system			
HYDRAULIC MOTORS				
Travel	Two speed axial piston motor with counter			
liaver	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 circuit	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				
	Boom: 1-110 x 715 mm (4.3" x 28.1")			
No. of addaday	Arm: 1-85 x 840 mm (3.3" x 33.1")			
No. of cylinder	Bucket: 1-80 x 660 mm (3.1" x 26.0")			
bore X stroke	Boom swing: 1-95 x 519 mm (3.7" x 20.4")			
	Dozer blade: 1-110 x 224 mm (4.3" x 8.8")			

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	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

CONTROLS

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

	Two joysticks with one safety lever
Pilot control	(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	9.3 rpm

COOLANT & LUBRICANT CAPACITY

(Refilling)	liter	US gal	UK gal	
Fuel tank	125.0	33.0	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 tank	70.0	18.5	15.4	
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	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) digging bucket, lubricant, coolant, full fuel tank, hydraulic tank and the standard equipment.

MAJOR COMPONENT WEIGHT Upperstructure 2,900 kg (6,390 lb) Counterweight 470 kg (1,030 lb) Mono boom(with arm cylinder) 310 kg (680 lb) OPERATING WEIGHT 5,900 kg (13,010 lb) Steel Operating weight 5,800 kg (12,790 lb) Rubber ·Mono boom with blade Steel 0.36 kgf·m / cm² (5.12 psi) Ground Pressure Rubber 0.34 kgf·m / cm² (4.83 psi)

BUCKETS

Сар	acity	Wi	Weight	
SAE heaped	SAE heaped CECE heaped			
0.07 m ³ (0.09 yd ³)	0.06 m ³ (0.08 yd ³)	315 mm (12.4")	360 mm (14.2")	115 kg (255 lb)
0.18 m ³ (0.24 yd ³)	0.15 m ³ (0.20 yd ³)	670 mm (26.4")	740 mm (29.1")	170 kg (375 lb)



SAE heaped 0.07 m³ (0.09 yd³)

0.18 m³ (0.24 yd³)

Lifting Capacity

R60CR-9

300m : 2.9	m (9' 6")) / Arm : 1.48 n	n (4' 10") / Buc	ket : 0.18m ³ (0		•	lade down wit	th 470kg (1,03	0 lb) counterw	3		
Load p	oint	Load radius								At max. reach		
Load point		2.0 m (7 ft)		3.0 m (10 ft)		4.0 m (13 ft)		5.0 m (16 ft)		Capacity		Reach
heigh m (ft							œ ب و	÷	œ ₽			m (ft)
4.0 m	kg					*1120	*1120			*1050	790	4.99
(13 ft)	lb					*2470	*2470			*2310	1740	(16.4)
3.0 m	kg					*1180	1130			*1080	640	5.56
(10 ft)	lb					*2600	2490			*2380	1410	(18.2)
2.0 m	kg			*1890	1710	*1430	1080	*1250	740	*1120	580	5.82
(7 ft)	lb			*4170	3770	*3150	2380	*2760	1630	*2470	1280	(19.1)
1.0 m	kg			*2670	1580	*1740	1020	*1360	720	*1160	560	5.84
(3 ft)	lb			*5890	3480	*3840	2250	*3000	1590	*2560	1230	(19.2)
Ground	kg	*1980	*1980	*3000	1520	*1930	980	*1430	700	*1190	590	5.61
Line	lb	*4370	*4370	*6610	3350	*4250	2160	*3150	1540	*2620	1300	(18.4)
-1.0 m	kg	*3230	3030	*2890	1500	*1910	970			*1210	690	5.09
(-3 ft)	lb	*7120	6680	*6370	3310	*4210	2140			*2670	1520	(16.7)
-2.0 m	kg	*3960	3080	*2370	1530					*1110	990	4.12
(-7 ft)	lb	*8730	6790	*5220	3370					*2450	2180	(13.5)

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.

DIGGING FORCE (ISO)

	4,170 kgf
Bucket	40.9 kN
	9,190 lbf
	2,700 kgf
Arm	26.5 kN
	5,950 lbf

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

Lifting Capacity

R60CR-9

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

Dimensions & Working Range

R60CR-9 DIMENSIONS



Α	Overall height of cab	2,550 (8' 4")	-	Track shoe width	Steel	380 (1' 3")
В	Tail swing radius	1,080 (3' 7")	E	mack shoe width	Rubber	400 (1' 4")
С	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")	
			н	Ground clearance		380 (1' 3")

R60CR-9 WORKING RANGE



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 ft)	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. swing radius	2,420 (7' 11")	2,510 (8' 3")	

Boom : 2.9m (9' 6") / Arm : 1.48 m (4' 10") / Bucket : 0.18m ³ (0.24yd ³) SAE heaped / Dozer blade up with 470kg (1,030 lb) counterweic	ght.
	Load radius	A+

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

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

300m : 2.9	Í	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	. (o o), o deite	At max. reach								
Load point		2.0 m (7 ft)		3.0 m (10 ft)		4.0 m (13 ft)		5.0 m (16 ft)		Capacity		Reach
heigh m (ft		ŀ		ŀ		ŀ						m (ft)
4.0 m	kg									890	620	5.45
(13 ft)	lb									1960	1370	(17.9)
3.0 m	kg					*950	*950	*950	700	750	510	5.96
(10 ft)	lb					*2090	*2090	*2090	1540	1650	1120	(19.6)
2.0 m	kg			*1470	*1470	*1220	1000	980	680	690	460	6.19
(7 ft)	lb			*3240	*3240	*2690	2200	2160	1500	1520	1010	(20.3)
1.0 m	kg			2150	1470	1360	940	950	650	670	450	6.21
(3 ft)	lb			4740	3240	3000	2070	2090	1430	1480	990	(20.4)
Ground	kg	*2000	*2000	2040	1370	1300	880	920	620	700	470	6.00
Line	lb	*4410	*4410	4500	3020	2870	1940	2030	1370	1540	1040	(19.7)
-1.0 m	kg	*2840	2660	2010	1340	1270	860	910	610	790	530	5.54
(-3 ft)	lb	*6260	5860	4430	2950	2800	1900	2010	1340	1740	1170	(18.2)
-2.0 m	kg	*3980	2700	2020	1350	1280	860			1040	710	4.70
(-7 ft)	lb	*8770	5950	4450	2980	2820	1900			2290	1570	(15.4)

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.

3. The load point is a hook located on the back of the bucket.

4. (*) indicates the load limited by hydraulic capacity.

mm	(ft·in)

unit: mm(ft · in)