### **STANDARD EQUIPMENT**

ISO standard cabin ·Cabin ROPS(ISO 12117-2) FOPS(ISO 3449)

FOG(ISO 10262 Level I) ·All-weather steel cab with all-around visibility

·Safety glass windows ·Rise-up type windshield wiper

·Sliding fold-in front window ·Sliding side window

·Accessory box & Ash-tray Centralized monitoring

·Engine speed ·Gauges

·Lockable door

Fuel level gauge

Engine coolant temperature gauge

·Warning Fuel level

Engine oil pressure

Engine coolant temperature Hyd. oil temperature

Low battery Air cleaner clogging ·Fuel prefilter

Air-conditioner & heater Single acting piping kit (breaker, etc)

Rubber crawler (450mm, 1' 6")

Track shoes (600mm, 1' 12")

Long arm (2.2m, 7' 3")

Door and cab locks, one key Radio / USB player with remote control

Outside rear view mirror

Quick coupler

Fully adjustable suspension seat with seat belt

Console box tilting system(LH.) Three 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 (3.4 m, 11' 2") Arm (1.67 m, 5' 6")

Track shoes (450 mm, 1' 6") Track rail guard

Starting aid (air grid heater) cold weather

# **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

Tool kit Travel alarm Operator suit Mechanical suspension seat with heater

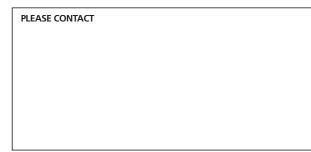
Cabin rear work lamp Lever pattern change valve Track shoes (600mm, 1' 12") Additional CWT (400kg, 880lb)

\* 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.



HYUNDAI **HEAVY INDUSTRIES CO.,LTD. CONSTRUCTION EQUIPMENT** 

1000 BANGEOJINSUNHWAN-DORO, DONG-GU, ULSAN, 682-792, KOREA TEL:(82)52-202-7722, 9807 FAX:(82)52-202-7720







# **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!





# HYUNDAI HYUN 80cr-9

#### **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.

### **Engine Technology**

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 R80CR-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**

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

A powerful air conditioning system and Radio & USB player contribute to a productive work

#### **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.





# 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.

# Operator Comfort

The R80CR-9 operator's cab is designed for a comfortable operating experience. 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.

- 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 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.



Radio & USB player with Hands-free cell phone

# **Enhanced Cabin**

Hyundai's R80CR-9 is equipped for convenience and productivity.

- 1. Adjustable position window prevents window movement while operating.
- 2. A sliding fold-in front window is easily opened and safely stored in an open position to improve ventilation and visibility.
- 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.





# **Operator - Friendly Cluster**

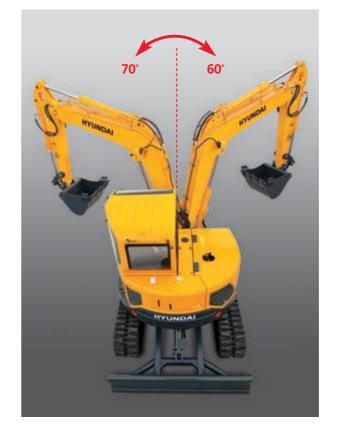
The advanced new LED cluster allows the operator to select his personal machine preferences. The monitor displays engine rpm, engine oil temperature, water temperature and information for all electronic devices.

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 R80CR-9 excavator fast, smooth and easy to control. Also R80CR-9 is designed for maximum performance to keep the operator working productively.





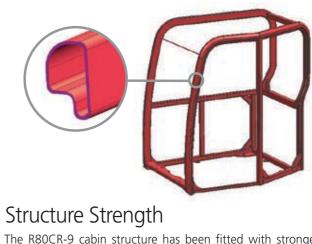
# **Boom Swing**

The R80CR-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 R80CR-9 is equipped with an integrated boom holding system.



The R80CR-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**

R80CR-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 24.5 kgf.m (177 lbf.ft) of maximum torque with 60 HP at 2,100rpm of rated power. This means the R80CR-9 runs with the most power in its class, giving you more power to get the job done.

# **Profitability**

\*Photo may include optional equipment.

R80CR-9 is designed to maximize profitability through improved efficiencies, enhanced service features and longer life components.





# Easy Change Air Cleaner

The R80CR-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 R80CR-9.



# Improved Durability

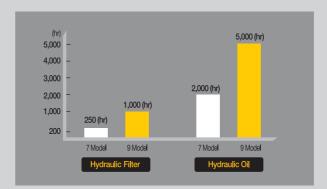
The R80CR-9's reinforced arm lug & dozer cylinder cover provide better reliability on the tough working condition.



# Centralized Grease Fittings

A centralized lubrication bank is available for faster, easier service and 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.

R80CR-9's tiltable cabin provides the

operator with convenient maintenance.

# **Specifications**

# **ENGINE**

MODEL			YANMAR 4TNV98	
Туре			Water cooled, 4 cycle diesel 4 cylinders in line, direct injection, low emission	
Rated	SAE	J1995 (gross)	59.6 HP (44.4 kW) at 2,100 rpm	
	JAL	J1349 (net)	58.2 HP (43.4 kW) at 2,100 rpm	
flywheel	DIN	6271/1 (gross)	60.4 PS (44.4 kW) at 2,100 rpm	
horsepower	DIN	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

Туре	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 pu	ump system		
HYDRAULIC MOTORS			
Travel	Two speed axial piston motor with counter		
iiavei	balance valve and parking brake		
Swing	Axial piston motor with automatic brake		
RELIEF VALVE SETTING			
	P1 / P2 : 280 kgf/cm² (3,980 psi)		
Implement circuits	P3 : 230 kgf/cm <sup>2</sup> (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			
	Boom: 1-115 x 850 mm (4.5" x 33.5")		
No. of a diameter	Arm: 1-100 x 870 mm (3.9" x 34.3")		
No. of cylinder	Bucket: 1-85 x 685 mm (3.3" x 27.0")		
bore X stroke	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 COMPO	NENT WEIGHT		
Upperstructure		4,090 kg (9,020 lb)	
Mono boom(with arm cylinder)		550 kg (1,210 lb)	
OPERATING WE	IGHT		
OI EIVAIII WE	Steel (450)	8,350 kg (18,410 lb)	
Operating weight	Steel (600)	8,510 kg (18,760 lb)	
	Rubber (450)	8,250 kg (18,190 lb)	
		·Mono boom with blade	
	Steel (450)	0.39 kgf.m / cm <sup>2</sup> (5.55 psi)	
Ground Pressure	Steel (1,600)	0.30 kgf.m / cm <sup>2</sup> (4.27 psi)	
	Rubber (450)	0.38 kgf.m / cm <sup>2</sup> (5.40 psi)	

# **BUCKETS**

Capacity		Width		10/-: -l-+
SAE heaped	CECE heaped	Without side cutters	With side cutters	· Weight
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)





0.28 m<sup>3</sup> (0.37 yd<sup>3</sup>)

SAE heaped 0.14 m³ (0.18 yd³)

# DIGGING FORCE (ISO)

Diddired Totale (150)		
	1.67m Arm	2.2m Arm
	5,700 kgf	5,700 kgf
Bucket	55.9 kN	55.9 kN
	12,570 lbf	12,570 lbf
	4,300 kgf	3,540 kgf
Arm	42.2 kN	34.7 kN
	9,480 lbf	7,800 lbf

# **Lifting Capacity**

# R80CR-9

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

				Load i	radius				At max. reach	
Load p		1.5 n	n (5 ft)	3.0 m	(10 ft)	4.5 m	(15 ft)	Capa	city	Reach
heigl m (fl										m (ft )
4.5 m	kg					*1550	1480	*1470	1040	5.74
(15 ft)	lb					*3420	3260	*3240	2290	(17.9)
3.0 m	kg					*1740	1430	*1530	780	6.23
(10 ft)	lb					*3840	3150	*3370	1720	(20.4)
1.5 m	kg			*4050	2510	*2260	1320	*1620	700	6.45
(5 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 ft)	lb	*10430	*10430	*9720	5110	*5620	2670	*3880	2070	(17.7)
-3.0 m	kg			*2810	2430					
(-10 ft)	lb			*6190	5360					

- 1. Lifting capacity is based on SAE J1097, ISO 10567.
- Lifting capacity is above 81.8 in 81.85 (858).
   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.

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# **Lifting Capacity**

# R80CR-9

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

Boom : 3.4	m (12′ 2	") / Arm : 1.67 m	(5' 6") / Bucket : 0.	28m³ (0.37yd³) SA	AE heaped / Dozer	blade up				
Landa	-14			Load ı	radius				At max. reach	
Load po		1.5 n	n (5 ft)	3.0 m	(10 ft)	4.5 m	(15 ft)	Capa	city	Reach
heigh m (ft										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					

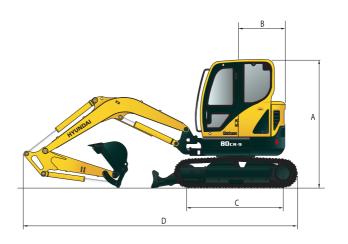
Boom: 3.4	m (12′ 2	") / Arm : 2.20	m (7′ 3″) / Buc	ket : 0.28m³ (0	.37yd³) SAE he	aped / Dozer b	olade					
Landa	-!4				Load	radius					At max. reach	
Load p		1.5 m	(5 ft)	3.0 m	(10 ft)	4.5 m	(15 ft)	6.0 m	(20 ft)	Capa	acity	Reach
heigl m (fi										-		m (ft)
4.5 m	kg					*1180	*1180			*1280	810	6.17
(15 ft)	lb					*2600	*2600			*2820	1790	(20.2)
3.0 m	kg					*1410	*1410	*1400	820	*1320	630	6.84
(10 ft)	lb					*3110	*3110	*3090	1810	*2910	1390	(22.4)
1.5 m	kg			*3280	2580	*1970	1310	*1570	780	*1390	570	7.03
(5 ft)	lb			*7230	5690	*4340	2890	*3460	1720	*3060	1260	(23.1)
Ground	kg	*1900	*1900	*4600	2270	*2470	1190	*1730	730	*1460	590	6.80
Line	lb	*4190	*4190	*10140	5000	*5450	2620	*3810	1610	*3220	1300	(22.3)
-1.5 m	kg	*3590	*3590	*4590	2220	*2580	1140			*1500	720	6.09
(-5 ft)	lb	*7910	*7910	*10120	4890	*5690	2510			*3310	1590	(20.0)
-3.0 m	kg	*5800	*5800	*3530	2290	*1890	1190			*1360	1220	4.58
(-10 ft)	lb	*12790	*12790	*7780	5050	*4170	2620			*3000	2690	(15.0)

Boom : 3.4	m (12′ 2	.") / Arm : 2.20	m (7′ 3″) / Buc	ket : 0.28m³ (0	.37yd³) SAE he	aped / Dozer b	olade up						
Landa	-!4	Load radius									At max. reach		
Load p		1.5 m	(5 ft)	3.0 m	(10 ft)	4.5 m	(15 ft)	6.0 m	(20 ft)	Capa	acity	Reach	
heigl m (fi										0		m (ft)	
4.5 m	kg					*1180	*1180			870	750	6.17	
(15 ft)	lb					*2600	*2600			1920	1650	(20.2)	
3.0 m	kg					*1410	1350	880	760	680	580	6.84	
(10 ft)	lb					*3110	2980	1940	1680	1500	1280	(22.4)	
1.5 m	kg			2850	2390	1420	1220	840	720	610	520	7.03	
(5 ft)	lb			6280	5270	3130	2690	1850	1590	1340	1150	(23.1)	
Ground	kg	*1900	*1900	2520	2090	1290	1100	790	670	640	540	6.80	
Line	lb	*4190	*4190	5560	4610	2840	2430	1740	1480	1410	1190	(22.3)	
-1.5 m	kg	*3590	*3590	2460	2040	1240	1050			780	660	6.09	
(-5 ft)	lb	*7910	*7910	5420	4500	2730	2310			1720	1460	(20.0)	
-3.0 m	kg	*5800	*5800	2540	2110	1290	1100			1320	1130	4.58	
(-10 ft)	lb	*12790	*12790	5600	4650	2840	2430			2910	2490	(15.0)	

- 1. 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.
- 4. (\*) indicates the load limited by hydraulic capacity.

# **Dimensions & Working Range**

**R80CR-9 DIMENSIONS** 



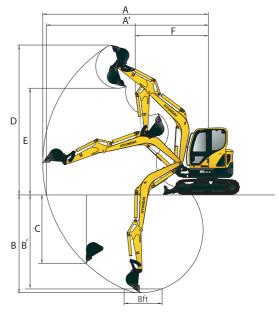


mm	(ft
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Α	Overall height of cab	2,640 (8' 8")
В	Tail swing radius	1,280 (4' 2")
C	Tumbler distance	2,200 (7' 3")
D	Overall length	6,170 (20' 3")

E	Track shoe width	Steel	450 (1' 6")
-	Hack shoe width	Rubber	450 (1' 6")
F	Track gauge		1,850 (6' 1")
G	Overall width		2,300 (7' 7")
Н	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")			

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