Specifications R60CR-9A



ENGINE

| MODEL | | | YANMAR 4TNV98C | | |
|-------------------|------|----------------|--|--|--|
| Туре | | | Water cooled, 4 cycle Diesel, 4-Cylinders in line, direct injection and low emission | | |
| | SAE | J1995 (gross) | 64.7 HP (48.3 kW) at 2,200 rpm | | |
| Rated flywheel | SAE | J1349 (net) | 63 HP (47.0 kW) at 2,200 rpm | | |
| horse power | DIN | 6271/1 (gross) | 65.6 PS (48.3 kW) at 2,200 rpm | | |
| noise power | DIN | 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 displacer | nent | | 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 | | | | | |
|-----------------------------------|--|--|--|--|--|
| Туре | 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 pu | mp system | | | | |
| HYDRAULIC MOTORS | | | | | |
| Travel | Two speed axial piston motor with counter | | | | |
| Iravei | balance valve and parking brake | | | | |
| Swing | Axial piston motor with automatic brake | | | | |
| RELIEF VALVE SETTING | | | | | |
| Implement circuits | 220 kgf/cm² (3,130 psi) | | | | |
| Travel | 220 kgf/cm ² (3,130 psi) | | | | |
| Swing circuit | 220 kgf/cm² (3,130 psi) | | | | |
| Pilot circuit | 30 kgf/cm² (430 psi) | | | | |
| Service valve | Installed | | | | |
| HYDRAULIC CYLINDERS | | | | | |
| | Boom: 1-110 x 715 mm (4.3" x 28.1") | | | | |
| N. C. P. I. | Arm: 1-85 x 840 mm (3.3" x 33.1") | | | | |
| No. of cylinder- bore x stroke | Bucket: 1-80 x 660 mm (3.1" x 26.0") | | | | |
| DOIE Y STIONE | 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.

| | 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 | | | | | | | |
| | Steel track (380 mm) | 5,900 kg (13,010 lb) | | | | | |
| Operating weight | Rubber track | 5,800 kg (12,790 lb) | | | | | |
| | Steel track (450 mm) | 5,960 kg (13,140 lb) | | | | | |
| | Steel track (380 mm) | 0.36 kgf / cm ² (5.12 psi) | | | | | |
| Ground pressure | 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 | r m³ (yd³) | Width r | Weight kg (lb) | |
|------------------------|-------------------------|----------------------|-------------------|----------------|
| SAE heaped CECE heaped | | Without side cutters | With side cutters | weight kg (ib) |
| 0.07 (0.09) | 0.07 (0.09) 0.06 (0.08) | | 360 (14.2") | 115 (255) |
| 0.18 (0.24) | 0.18 (0.24) 0.15 (0.20) | | 740 (29.1") | 170 (375) |





SAE heaped

0.07 m³ (0.09 yd³)

0.18 m³ (0.24 yd³)

DIGGING FORCE R60CR-9A

| Arm | 1.48 m | 1.9 m | | |
|----------------------|-----------|-----------|--|--|
| | 4,170 kgf | 4,170 kgf | | |
| Bucket digging force | 40.9 kN | 40.9 kN | | |
| | 9,190 lbf | 9,190 lbf | | |
| | 2,700 kgf | 2,280 kgf | | |
| Arm crowd force | 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

| 00111.2.91 | 11 (3 0) / | AIII. 1.40 III (4 | ′10″) / Bucket : (| 0.10111 (0.24 yu | <u> </u> | | 70011 | | | | | |
|--------------------------------|-------------|-------------------------|--------------------|------------------|----------|---------------|-------|---------------|------|---------------|------|--------|
| Load point height m (ft) | | Load radius 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 | 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) |

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.

Lifting Capacities



R60CR-9A

Rating over-front Rating over-side or 360 degrees

| Boom: 2.9 r | n (9′6″) / | ' Arm : 1.48 m (4 | 10") / Bucket : | 0.18 m³ (0.24 yd | 3) SAE heaped / | Dozer blade up |) | | | | | |
|------------------|------------|-------------------|-----------------|------------------|-----------------|----------------|------|---------------|------|----------|------|---------|
| | | | | At max. reach | | | | | | | | |
| Load po heigh | | 2.0 m (7 ft) | | 3.0 m (10 ft) | | 4.0 m (13 ft) | | 5.0 m (16 ft) | | Capacity | | Reach |
| m (ft | | | | | | | | | | | | 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) |

| Boom : 2.9 r | m (9′ 6″) / | Arm : 1.48 m (4 | ′10″) / Bucket : | 0.18 m³ (0.24 yd | 3) SAE heaped / | Dozer blade do | wn | | | | | |
|----------------------|-------------|-----------------|------------------|------------------|-----------------|----------------|-------|---------------|------|----------|------|---------------|
| Load point height | | | | 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 | | | | | | | | | | | | 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 <u>.</u> 70 |
| (-7 ft) | lb | *8770 | 6500 | *5710 | 3220 | *3730 | 2050 | | | *2430 | 1680 | (15.4) |

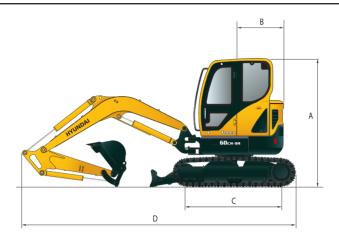
| Load point height m (ft) | | | | At max. reach | | | | | | | | |
|--------------------------------|----|--------------|-------|---------------|-------|---------------|-------|---------------|------|----------|------|---------|
| | | 2.0 m (7 ft) | | 3.0 m (10 ft) | | 4.0 m (13 ft) | | 5.0 m (16 ft) | | Capacity | | Reach |
| | | | | | | l l | | | | | | 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) |

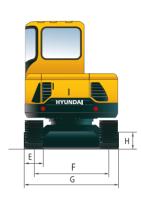
- 1. Lifting capacity is based on SAE J1097, ISO 10567.
- Lifting capacity is based of SAE 31097, 150 10307.
 Lifting capacity of the Robes Series does not exceed 75% of the tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
- 3. The load point is a hook located on the back of the bucket.
- 4. (*) indicates the load limited by hydraulic capacity.





DIMENSIONS R60CR-9A mm (ft · in)



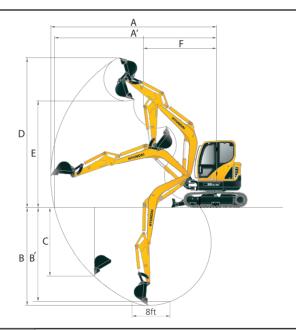


 $mm\,(ft\cdot in)$

| A Overall height of cab | 2,550 (8'4") |
|----------------------------|---------------|
| B Tail swing radius | 1,080 (3'7") |
| C Tumbler distance | 1,990 (6'6") |
| D Overall length | 5,600 (18'4") |

| E | Track shoe width | Steel track | 380 (1′3″) |
|---|------------------|--------------|------------|
| | rrack snoe width | Rubber track | 400 (1'4") |
| F | Track gauge | 1,600 (5′3″) | |
| G | Overall width | 2,000 (6′7″) | |
| Н | 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

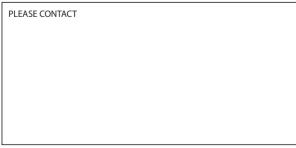
Lever pattern change valve

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.





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Hyundai Heavy Industries Europe N.V.
VOSSENDAAL 11, 2440 GEEL, BELGIUM TEL: (32) 14-56-2200 FAX: (32) 14-59-3405