R60cr-9A SPECIFICATIONS

HD HYUNDAI CONSTRUCTION EQUIPMENT

| _ | | _ | | |
|---|---|---|----|----|
| F | N | G | I١ | JF |
| | | | | |

| MODEL | | | YANMAR 4TNV98C | |
|------------------------|-------------|---------------|--|--|
| Туре | | | Water-cooled, 4-cycle diesel 4 cylinders in line, direct injection, low emission | |
| Rated | | J1995 (gross) | 64.7 HP (48.3 kW) at 2,200 rpm | |
| flywheel horsepower | SAE | J1349 (net) | 63 HP (47.0 kW) at 2,200 rpm | |
| Max. torque | 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 | | nt | 3,319 cc (203 in ³) | |
| Battery | | | 1 x 12 V x 100 Ah | |
| Starting motor | | | 12 V - 3.0 kW | |
| Alternator | | | 12 V - 80 Amp | |

HYDRAULIC SYSTEM

| MAIN PUMP | | |
|--|--|--|
| Туре | Variable displacement piston pumps + gear pump | |
| Max. flow | 2 x 55 l/min (14.5 gpm) + 36.6 l/min (9.6 gpm) at 2,000 rpm | |
| Sub-pump for pilot circuit (Gear pump) | 6.9 ℓ/min (2.4 gpm) | |

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 | 240 kgf/cm² (3,410 psi) |
|--------------------|-------------------------------------|
| Travel circuit | 220 kgf/cm² (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 cylinders | Boom: 1-110 x 715 mm (4.3" x 28.1") | |
|------------------|-------------------------------------|---|
| | No of cylinders | Arm: 1-85 x 840 mm (3.3" x 33.1") |
| | • | 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") |

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 |

Pilot-pressure-operated joysticks and pedals with detachable **CONTROLS** 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 | 8.8 rpm |

COOLANT AND LUBRICANT CAPACITY

| (Refilling) | liter | gal |
|--------------------|-------|------|
| Fuel tank | 82.0 | 21.7 |
| Engine coolant | 11.0 | 2.9 |
| Engine oil | 11.6 | 3.1 |
| Final drive (each) | 1.2 | 0.3 |
| Hydraulic tank | 60.0 | 15.9 |
| Hydraulic system | 110.0 | 29.1 |

WEIGHT (APPROXIMATE)

Operating weight 6,100 kg (13,450 lb), including 2,900 mm (9 $^{\circ}$ 6") boom, 1,480 mm (4 $^{\circ}$ 10") arm, SAE heaped 0.18 m³ (0.24 yd³) excavator bucket, 400 mm (15.8") rubber track, lubricant, coolant, full fuel tank, hydraulic tank, 670 kg (1,480 lb) counterweight and the standard equipment.

| Operating weight (cab) | 6,100 kg (13,450 lb) |
|------------------------|------------------------------------|
| Ground pressure (cab) | 0.35 kg/cm ² (4.98 psi) |

UNDERCARRIAGE

X-leg type center frame is integrally welded with reinforced box-section track frames. The undercarriage includes lubricated 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 shoes on each side | 40 |
| No. of upper rollers on each side | 1 |
| No. of lower rollers on each side | 5 |

R60CR-9A Lifting Capacity ISO Condition 2

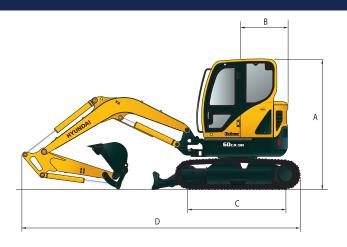


 $Boom: 2.9\,m\,(9'\,6'')\,/\,Arm: 1.48\,m\,(4'\,10'')\,/\,Bucket: 0.18\,m^3\,(0.24\,yd^3)\,SAE\,heaped\,/\,Dozer\,down\,/\,Counterweight\,670\,kg\,(1,480\,lb)\,Response (1.90\,kg)\,Response ($

| lift maint | Lift-point radius | | | | | | | | | At max. reach | | | | | | | |
|------------------|-------------------|----------|---------|----------|---------|----------|--------|-----------|--------|---------------|---------|----------|--------|-----------|--------|-------|--------|
| Lift-point | 2.0 m (| (6.6 ft) | 2.5 m (| (8.2 ft) | 3.0 m (| (9.8 ft) | | (11.5 ft) | 4.0 m | (13.1 ft) | 4.5 m (| 14.8 ft) | | (16.4 ft) | Capa | city | Reach |
| height m (ft) | | | | | | | | | | | | | | | | | m(ft) |
| 4.0 m kg | | | | | | | *1,300 | *1,300 | *1,370 | 1,060 | | | | | *1,200 | 990 | 4.15 |
| 13.1 ft lb | | | | | | | *2,870 | *2,870 | *3,020 | 2,340 | | | | | *2,650 | 2,190 | (13.6) |
| 3.0 m kg | | | | | | | *1,440 | 1,300 | *1,400 | 1,050 | *1,380 | 870 | | | *1,110 | 770 | 4.81 |
| 9.8 ft lb | | | | | | | *3,180 | 2,870 | *3,090 | 2,320 | *3,050 | 1,910 | | | *2,450 | 1,700 | (15.8) |
| 2.0 m kg | | | | | *2,240 | 1,560 | *1,860 | 1,240 | *1,650 | 1,010 | *1,510 | 840 | *1,430 | 710 | *1,120 | 680 | 5.13 |
| 6.6 ft lb | | | | | *4,930 | 3,450 | *4,110 | 2,720 | *3,630 | 2,220 | *3,340 | 1,860 | *3,160 | 1,570 | *2,470 | 1,500 | (16.8) |
| 1.0 m kg | | | | | *2,950 | 1,450 | *2,310 | 1,160 | *1,930 | 960 | *1,690 | 810 | *1,520 | 690 | *1,200 | 650 | 5.20 |
| 3.3 ft lb | | | | | *6,510 | 3,190 | *5,090 | 2,560 | *4,250 | 2,120 | *3,720 | 1,780 | *3,350 | 1,530 | *2,640 | 1,440 | (17.1) |
| 0.0 m kg | | | *2,150 | 1,860 | *3,150 | 1,400 | *2,510 | 1,120 | *2,080 | 930 | *1,780 | 790 | *1,540 | 680 | *1,380 | 670 | 5.03 |
| 0.0 ft lb | | | *4,750 | 4,100 | *6,940 | 3,090 | *5,530 | 2,470 | *4,580 | 2,050 | *3,920 | 1,730 | *3,380 | 1,500 | *3,050 | 1,480 | (16.5) |
| -1.0 m kg | *2,870 | 2,800 | *3,690 | 1,870 | *2,930 | 1,400 | *2,390 | 1,110 | *1,990 | 920 | *1,640 | 780 | | | *1,570 | 760 | 4.59 |
| -3.3 ft lb | *6,330 | 6,160 | *8,140 | 4,120 | *6,470 | 3,080 | *5,270 | 2,450 | *4,380 | 2,030 | *3,610 | 1,730 | | | *3,460 | 1,680 | (15.1) |
| -2.0 m kg | *3,590 | 2,850 | *2,810 | 1,910 | *2,270 | 1,430 | *1,820 | 1,140 | | | | | | | *1,570 | 1,040 | 3.75 |
| -6.6 ft lb | *7,920 | 6,290 | *6,200 | 4,210 | *5,010 | 3,150 | *4,000 | 2,510 | | | | | | | *3,460 | 2,280 | (12.3) |

- Lifting capacities are based on ISO 10567.
 Lifting capacities of the 9A Series do not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity
- 3. The lift-point is a hook (standard equipment) located on the back of the bucket.
- 4. (*) indicates load limited by hydraulic capacity.

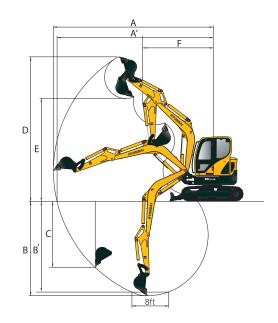
DIMENSIONS & WORKING RANGE R60cr-9A DIMENSIONS



5,600 (18' 4")



mm (ft·in)



| KOUCK-9A DIMENSIONS | | | | | | | |
|---------------------|-----------------------|---------------|--|--|--|--|--|
| Α | Overall height of cab | 2,550 (8' 4") | | | | | |
| В | Tail swing radius | 1,080 (3' 7") | | | | | |
| С | Tumbler distance | 1,990 (6' 6") | | | | | |

DEACH OF DIMENSIONS

Steel 380 (1'3") E Track shoe width Rubber 400 (1' 4") F Track gauge 1,600 (5' 3") G Overall width 2,000 (6' 7") H Ground clearance 380 (1'3")

BUCKETS

D Overall length

| Capa | acity | Wid | Mainht | |
|---|--|----------------------|-------------------|-----------------|
| SAE heaped | CECE heaped | Without side cutters | With side cutters | Weight |
| 0.07 m ³ (0.09 yd ³) | $0.06 \mathrm{m}^3 (0.08 \mathrm{yd}^3)$ | 315 mm (12.4") | 360 mm (14.2") | 115 kg (255 lb) |
| $0.18 \mathrm{m}^3 (0.24 \mathrm{yd}^3)$ | $0.15 \mathrm{m}^3 (0.20 \mathrm{yd}^3)$ | 670 mm (26.4") | 740 mm (29.1") | 170 kg (375 lb) |

| <u>R6</u> | OCR-9A WORKING RANGE | mm (ft·in) | | | | |
|----------------|----------------------------------|-----------------|-----------------|--|--|--|
| | Boom length | 2,900 (9' 6") | | | | |
| | Arm length | 1,480 (4' 10") | 1,900 (6' 3") | | | |
| Α | Max. digging reach | 6,150 (20' 2") | 6,480 (21' 3") | | | |
| A ¹ | Max. digging reach on ground | 6,010 (19' 9") | 6,350 (20'10") | | | |
| В | Max. digging depth | 3,570 (11' 9") | 3,990 (13'1") | | | |
| B ¹ | Max. digging depth (8 ft) | 3,160 (10' 5") | 3,620 (11' 11") | | | |
| С | 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") | | | |
| Е | Max. dumping height | 3,930 (12' 11") | 4,100 (13' 5") | | | |
| F | Min. swing radius | 2,420 (7' 11") | 2,510 (8' 3") | | | |

STANDARD EQUIPMENT

ISO standard cabin

Cabin TOPS ISO 12117 (ROPS ISO 12117-2) FOG ISO 10262 Level I

(FOPS ISO 3449 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

Lockable door

Accessory box and ashtray

Air-conditioner and heater

Travel alarm

Quick coupler with piping

Centralized monitoring

Engine speed

Gauges

Fuel-level gauge

Engine coolant temperature gauge

Warning Indicators

Fuel level

Engine oil pressure

Engine coolant temperature

Hydraulic oil temperature

Low battery

Air cleaner clogging

Fuel prefilter

Rubber track shoes (400 mm / 1' 4")

Pattern-change lever

Additional counterweight (200 kg / 440 lb)

Door and cab locks, one key

Radio / USB player with remote control

Outside rearview mirror

Single-acting piping kit (breaker, etc)

Double-acting piping kit (clamshell, etc.)

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) cold weather

Hyundai bucket (0.18 m³ / 0.24 yd³)

OPTIONAL EQUIPMENT

Beacon lamp Accumulator Long arm (1.9 m / 6'3")

Tool kit

Cabin rear work lamp

Safety lock v/v for boom cylinder with overload warning

Safety lock v/v for arm cylinder Steel track shoes (380 mm / 14")

Rearview camera

Specifications and features are subject to change without notice. Pictures may show options other than standard equipment.





