Dimensions & Working Range

R16-9 DIMENSIONS

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Unit: mm(ft.in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall length</td>
<td>3,840 (12’7&quot;)</td>
</tr>
<tr>
<td>Overall height</td>
<td>2,300 (7’7&quot;)</td>
</tr>
<tr>
<td>Overall width</td>
<td>980~1,250 (3’3”~4’1”)</td>
</tr>
<tr>
<td>Tail swing radius</td>
<td>1,065 (3’6&quot;)</td>
</tr>
<tr>
<td>Tumber distance</td>
<td>1,230 (4’0”)</td>
</tr>
<tr>
<td>Track gauge</td>
<td>750~1,020 (2’6”~3’4”)</td>
</tr>
<tr>
<td>Track shoe width</td>
<td>230 (7’9&quot;)</td>
</tr>
<tr>
<td>Ground clearance</td>
<td>150 (0’6”)</td>
</tr>
</tbody>
</table>

R16-9 WORKING RANGE

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Unit: mm(ft.in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boom length</td>
<td>1,800 (5’11&quot;)</td>
</tr>
<tr>
<td>Arm length</td>
<td>960 (3’2&quot;)</td>
</tr>
<tr>
<td>Max. digging reach</td>
<td>3,970 (13’0&quot;)</td>
</tr>
<tr>
<td>Max. digging reach at ground</td>
<td>3,880 (12’9&quot;)</td>
</tr>
<tr>
<td>Max. digging depth</td>
<td>2,250 (7’5&quot;)</td>
</tr>
<tr>
<td>Max. vertical wall digging depth</td>
<td>1,785 (5’10&quot;)</td>
</tr>
<tr>
<td>Max. digging height</td>
<td>3,670 (12’9&quot;)</td>
</tr>
<tr>
<td>Max. dumping height</td>
<td>2,350 (8’4”)</td>
</tr>
<tr>
<td>Min. swing radius</td>
<td>1,615 (5’4&quot;)</td>
</tr>
</tbody>
</table>

* 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.

* Photo may include optional equipment.
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!

The upper frame is designed with an optimum structure to absorb high stress from outside. Reinforced box section center frame and track frame provide exceptional strength and longer service life to withstand the tough working conditions.

Control devices are all conveniently located for improved operator comfort and productivity. A safety lever on the left-side console is designed to prevent exiting the cab while hydraulic controls are live.

The R16-9 is powered by a proven and reliable, Tier 4 certified Mitsubishi L3E Engine. This engine provides efficient fuel combustion and reduced noise.

The R16-9 hydraulic system is precision designed for fast operation with fine control capabilities.

Cab frames meet international standards TOPS, ROPS, FOPS ensuring operator’s safety.

An adjustable suspension seat, wrist rests, ergonomically designed joysticks and plenty of leg room help to reduce operator fatigue. A array of indicators and gauges are displayed on the monitor which keep the operator aware of machine performance at all times. The monitoring system includes seven warning indicators, water temperature gauge, fuel gauge and hour meter.

R16-9 is equipped with wide opening covers and hoods for easy access and maintenance. Additional benefits include an easily serviceable air cleaner and centralized grease fittings.

The R16-9 reduces operating costs over time with long life hydraulic oil, shims and bushings.

*Photo may include optional equipment.
Preference

The R16-9 offers an operator an optimal work environment with a cab designed for comfort and sophistication.

Operating R16-9 is unique to every operator. Operators can fully customize their work environment and operating preferences to fit their individual needs.

1. All pedals are foldable for additional floor space. Foot rest, attachment pedal, left and right travel pedals and boom swing pedal are arranged for convenient access.
2. Two cup holders are integrated into the right console for large and small drink storage.
3. Adjustable wrist rests provide additional comfort.
4. Layout of control devices is ergonomically located for higher production efficiency.

The monitoring system of the R16-9 provides the operator with machine status information, including: engine oil pressure, battery charge, engine coolant temperature and a fuel gauge.

Concentrated Controller Position

The left and right control levers are ergonomically located for convenient access. Pilot operated hand levers are easily accessible for controlling the dozer blade and track extension. Easy-to-access control switches on the left side console improve operating comfort and productivity.

A tiltable left-side console allows the operator easier access to the cab. A safety lock system is designed to prevent exiting the cab while hydraulic controls are live. When the safety lever and left side console are positioned upright, hydraulic functions are disengaged.

Operator Comfort

An operator’s work environment should be stress free. Hyundai R16-9’s adjustable suspension seat, wrist rests, ergonomically designed joysticks and plenty of space help to reduce stress on the operator.

In a 9 series cab with canopy you can easily adjust the seat and wrist rests settings to best suit your preferred operating condition.

Monitor

The monitoring system of the R16-9 provides the operator with machine status information, including: engine oil pressure, battery charge, engine coolant temperature and a fuel gauge.

*Photo may include optional equipment.*
New technologies designed to improve performance and precision, make the R16-9 smooth, fast and easy to control.

*Photo may include optional equipment.

**Precision & Performance**

**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 R16-9 is equipped with an integrated boom holding system.

**Boom Swing**
The R16-9'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.

**Structure Strength**
The R16-9 canopy 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.

**Variable Undercarriage**
R16-9's track width adjusts to between 980mm~1,250mm (3’3”~4’1”). The operator can easily adjust the blade size by removing the pin. Specially designed rubber-padded track shoes protect the road surface.

**Mitsubishi L3E**
Tier 4 certified, Mitsubishi L3E engine provides maximum power, reliability, optimum fuel economy, and reduced emissions.
Profitability

R16-9 is designed to maximize profitability through improved efficiencies, enhanced service features and longer life components.

Easy Access
The R16-9 was built with accessibility in mind. All covers and hoods were built for complete open access. Regular service and maintenance is easy and convenient with the R16-9.

Extended the Life of Components
Reliability is improved and maintenance costs are reduced due to long life hydraulic oil (5,000 hrs). The addition of lubricated bushings and resin shims has extended lube intervals throughout the attachment to 250 hours.

Easy Change Air Cleaner
The R16-9 is equipped with a durable plastic air cleaner designed for easy maintenance.

Centralized Grease Fittings
Centralized lubrication bank for faster, easier service and maintenance.

Cylinder Covers
Standard boom cylinder cover and dozer cylinder cover provide added protection.

*Photo may include optional equipment.
### Specifications

#### ENGINE
- **Model**: Mitsubishi L3E
- **Type**: 4 cycle, in line, water cooled, diesel, Tier 4 certified
- **Rated flywheel horse power**:
  - **SAE**: 16.8hp (12.5kw) / 2,300rpm
  - **DIN**: 16.2hp (12.1kw) / 2,300rpm
- **Rated torque**: 76mm(2.99")x70mm(2.76")
- **Piston displacement**: 952cc (58.1in³)
- **Battery**: 12V, 80AH
- **Starting motor**: 12V, 1.7kW
- **Alternator**: 12V, 40A

#### CONTROLS LEVERS
- **Type**: Two joysticks with one safety lever
  - **LH**: Swing and arm, Boom and bucket with horn (ISO)
  - **RH**: Boom and bucket with horn (ISO)
- **Engine throttle**: Mechanical, cable type

#### SWING SYSTEM
- **Swing motor**: Axial piston motor
- **Swing reduction**: Planetary gear reduction
- **Swing circuit lubrication**: Lubricated with drain oil
- **Swing speed**: 9.3 rpm

#### DRIVES & BRAKES
- **Max. travel speed (high/low) (loe)**: 4.0 km / 2.2 km (8.3mph / 1.4mph)
- **Maximum traction force**: 1.5ton
- **Maximum gradeability**: 30°
- **Parking brake**: Multi wet disc

#### DIGGING FORCE (ISO)
- **Boom**: 1.80m (5' 11") / Arm: 0.96 m (3' 2") / Bucket: 0.04m³ (0.05yd³)
- **SAE heaped**: 15.1 kN
- **Dozer blade up, track extended, 230mm (9") rubber track**: 11.0 kN

#### HYDRAULIC CYLINDER
- **No. of cylinder - bore x stroke**:
  - **Boom**: 60 x 465mm (2.4" x 18.3")
  - **Arm**: 60 x 400mm (2.4" x 15.7")
  - **Bucket**: 55 x 355mm (2.2" x 14.0")
- **Double acting piping** (Clamshell, etc)
- **Center frame**: Integrally welded with reinforced box-section track frames. The undercarriage includes lubricated rollers, track adjusters with shock absorbing springs and sprockets, and rubber shoes.

#### NOISE LEVEL
- **Noise Levels (dynamic value)**:
  - **Low**: 93dB
  - **Medium**: 82dB

#### COOLANT & LUBRICANT CAPACITY
- **Engine coolant temperature**: (LH): Swing and arm, (RH): Boom and bucket with horn (ISO)
- **Engine oil pressure**: (LH): Swing and arm, (RH): Boom and bucket with horn (ISO)
- **Oil temperature**: (LH): Swing and arm, (RH): Boom and bucket with horn (ISO)

#### CONTROL LEVERS
- **Hydraulic motors**:
  - **Travel**: Two speed axial piston motor with counter balance valve
  - **Swing**: Axial piston motor
  - **Relief valve setting**: Implegament circuit 210 kgf/cm² (2,990 psi)
  - **Travel circuit**: 210 kgf/cm² (2,990 psi)
  - **Swing circuit**: 170 kgf/cm² (2,200 psi)
  - **Pilot circuit**: 30 kgf/cm² (430 psi)
  - **Service valve**: Installed

#### UNDERCARRIAGE
- **Track frame**: Variable undercarriage
- **No. of track roller on each side**: 3EA

#### TRAVEL LEVERS
- **Traveling and steering**: Two levers with pedals.
- **Traveling**: Two levers with pedal
- **Steering**: Two levers with pedal

#### LIFTING CAPACITIES R16-9

<table>
<thead>
<tr>
<th>Load point height</th>
<th>Load capacity</th>
<th>Boom</th>
<th>Arm</th>
<th>Bucket</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0m (8 ft)</td>
<td>3.6 m (12 ft)</td>
<td>3.6 m (12 ft)</td>
<td>3.6 m (12 ft)</td>
<td></td>
</tr>
<tr>
<td>2.5m (8 ft)</td>
<td>3.9 m (13 ft)</td>
<td>3.9 m (13 ft)</td>
<td>3.9 m (13 ft)</td>
<td></td>
</tr>
<tr>
<td>3.0m (10 ft)</td>
<td>4.2 m (14 ft)</td>
<td>4.2 m (14 ft)</td>
<td>4.2 m (14 ft)</td>
<td></td>
</tr>
</tbody>
</table>

1. Lifting capacity is based on SAE 2008/ISO 10657.
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.