

**V O L V O**



Volvo Articulated Haulers Imperial: 60.6 ton(us) / 121,254 lb / 630 HP  
Metric: 55 t / 55,000 kg / 470 kW

# **A60H**

Volvo Construction Equipment

# A60H



# Simply the best and the biggest



## Service and maintenance

- 250-hour greasing interval
- Half the fluid volume compared to the competition
- 1,000hr engine service intervals
- Service reminders and fluid level monitoring
- Industry-leading service access and ground-accessible service points



## Haul Assist

- On-Board Weighing: real-time payload monitoring
- Tire Pressure Monitoring System
- Map: real-time positioning of on-site traffic
- Productivity Reports, including the geo-tracking of moved material
- Over-the-air updates, easy upgrades, remote support



## Only from Volvo

- Proven Volvo engine and matched driveline: high performance, high fuel efficiency
- Automatic drive combinations including 100% differential locks, all-terrain bogie and hydromechanical steering
- Active hydraulic front suspension for high hauling speeds in tough conditions
- The largest articulated hauler on the market, delivering 40% more productivity



## The operator's choice

- Ease of operation: ergonomic and easy-to-understand controls
- Centrally positioned operator for best-in-class visibility
- Hill assist, dump support system, load and dump brake
- Built-in brake test: schedule and perform a stationary brake test, guided by the machine display



## Solutions for you

- Easy machine monitoring: CareTrack, ActiveCare Direct
- Lifetime Frame and Structure Warranty
- 24hr parts delivery guarantee
- Genuine Volvo Parts
- Volvo Site Simulation: get recommendations on the best fleet configuration and site set-up
- Operator Training Program: unlock the full potential of your machine
- Uptime Services: control your maintenance costs

# Volvo A60H in detail

## Engine

V-ACT, 16 liter, 6-cylinder straight VGT (Variable Geometry Turbocharged) diesel engine with 4 valves per cylinder, overhead camshaft and electronically controlled unit injectors. It has wet replaceable cylinder liners and replaceable valve guides and valve seats.

The engine has cooled EGR (Exhaust Gas Recirculation) and exhaust after treatment with EAT-Muffler (Exhaust After treatment) including DOC (Diesel Oxidation Catalyst), DPF (Diesel Particulate Filter) and SCR (Selective Catalytic Reduction) with an electronically controlled UDS (Urea Dosing System).

After treatment system features passive DPF regeneration with an AHl (After treatment Hydro carbon Injection) device as back up.

|  |                      |               |
|--|----------------------|---------------|
| Engine model                             | Volvo                | D16J          |
| Max power - SAE J1995 Gross              | kW (hp)              | 470 (630)     |
| at engine speed                          | r/min (r/s)          | 1,800 (30)    |
| Flywheel power - ISO 9249, SAE J1349 Net | kW (hp)              | 467 (626)     |
| at engine speed                          | r/min (r/s)          | 1,800 (30)    |
| Max torque - SAE J1995 Gross             | Nm (ft lbf)          | 2,960 (2,183) |
| Max torque - ISO 9249, SAE J1349 Net     | Nm (ft lbf)          | 2,942 (2,170) |
| at engine speed                          | r/min (r/s)          | 1,050 (17.5)  |
| Displacement                             | l (in <sup>3</sup> ) | 16.1 (982)    |

## Electrical System

All cables, sockets and pins are identified. Cables are enclosed in plastic conduits and secured to main frame. Halogen lights. Prewired for options. Connectors meet IP67 standard for water-proofing as necessary.

|                  |      |          |
|------------------|------|----------|
| Voltage          | V    | 24       |
| Battery          | V    | 2x12     |
| Battery capacity | Ah   | 2x225    |
| Alternator       | kW/A | 2.264/80 |
| Starter motor    | kW   | 9        |

## Drivetrain

Torque converter with built-in lock-up function.

**Transmission:** Fully automatic Allison planetary transmission with 6 forward gears and 2 reverse gears. Internal torsional damper in the torque converter.

**Dropbox:** Volvo-developed, in-line design with high ground clearance and 100% longitudinal „dog clutch“ type differential lock.

**Axles:** Heavy duty, purpose built Volvo design with fully floating axle shafts, planetary type hub reductions and 100% dog clutch type diff-lock. Automatic traction control system (ATC).

|                  |       |          |
|------------------|-------|----------|
| Torque converter |       | 1.85:1   |
| Transmission     | Volvo | 6630 ORS |
| Dropbox          | Volvo | IL3 ATC  |
| Axles            | Volvo | AHW80    |

## Brake system

Fully hydraulic, wet multiple disc brakes with enclosed, forced oil-cooled multiple discs on all wheels. Two circuit brake system. Complies with ISO 3450 at total machine weight.

**Circuit division:** One circuit for front axle and one for bogie axles.

**Parking brake:** Spring-applied disc brake on the propeller shaft, designed to hold a loaded machine on a grade of up to 18%. When the parking brake is applied, the longitudinal differential is locked.

**Retarder:** Service brake retarder function and Volvo Engine Brake (VEB).

## Steering System

Hydro-mechanical articulated steering, self compensating design. Two double-acting steering cylinders.

**Steering angle:** 3,4 steering wheel turns lock-to-lock, ±45°.

Steering system, including secondary steering fulfills ISO 5010.

## Chassis

**Frames:** box type, heavy duty. High strength steel, robot welded.

**Rotating hitch:** 100% maintenance free, fully sealed, with permanently greased tapered roller bearings.

## Cab

Mounted on rubber pads. Ergonomically designed. Easy entry and exit.

Wide angle forward view.

Operator centrally positioned above the front axle. Adjustable operators seat with retractable seat belt.

Tilt/telescopic steering wheel. Ergonomically positioned controls. Filtered air. Climate control system.

**Operator communication system:** Contronics.

Large color display, user-friendly and easy-to-understand information, all vital machine functions are constantly monitored.

Instructor seat with seat belt.

**Safety:** ROPS/FOPS standards approved according to ISO3471, SAE J1040 / ISO3449, SAE J231.

Sound level in cab (ISO 6396) - L<sub>PA</sub> dB 72

External sound level (ISO 6395) - L<sub>WA</sub> dB 113

Internal sound level with sound kit: 70 dB(A)

External sound level with sound kit: 111 dB(A).



### Hydraulic system

**Pumps:** Five variable displacement piston pumps driven by the flywheel PTO.  
One ground-dependent piston pump for secondary steering mounted on the dropbox.  
Two return oil filters with magnetic cores provide effective oil filtration.

|                             |           |            |
|-----------------------------|-----------|------------|
| System max working pressure | MPa (psi) | 28 (4,061) |
|-----------------------------|-----------|------------|

### Dumping System

Patented Load and Dump Brake.

**Dumping Cylinders:** two single stage double acting cylinders.

|                        |   |    |
|------------------------|---|----|
| Tipping angle          | ° | 70 |
| Tipping time with load | s | 13 |
| Lowering time          | s | 10 |

### Body

#### Plate thickness

|        |         |           |
|--------|---------|-----------|
| Front  | mm (in) | 8 (0.31)  |
| Sides  | mm (in) | 14 (0.55) |
| Bottom | mm (in) | 16 (0.63) |
| Chute  | mm (in) | 16 (0.63) |

#### Material

|                  |                         |                 |
|------------------|-------------------------|-----------------|
| Yield strength   | N/mm <sup>2</sup> (psi) | 1,000 (145,038) |
| Tensile strength | N/mm <sup>2</sup> (psi) | 1,250 (181,297) |

### Load Capacity

#### Standard Body

|                        |                                   |               |
|------------------------|-----------------------------------|---------------|
| Load capacity          | kg (sh tn)                        | 55,000 (60.6) |
| Body, struck           | m <sup>3</sup> (yd <sup>3</sup> ) | 25.8 (33.7)   |
| Body, heaped 2:1       | m <sup>3</sup> (yd <sup>3</sup> ) | 33.6 (43.9)   |
| With overhung tailgate |                                   |               |
| Body, struck           | m <sup>3</sup> (yd <sup>3</sup> ) | 26.5 (34.7)   |
| Body, heaped 2:1       | m <sup>3</sup> (yd <sup>3</sup> ) | 35.1 (45.9)   |

#### Suspension

**Front suspension:** Unique, full hydraulic, with automatic leveling and stabilizer.

**Rear suspension:** 100% maintenance free. Straddle mounted bogie beam. Independent wheel movement via a 3-point mounting system.

|  |     |
|--|-----|
| Hydraulic cylinders (struts), front/rear         | 2/0 |
| Accumulators, oil-nitrogen, high pressure, front | 2   |
| Levelling sensors                                | 2   |



# Specifications

## REFILL CAPACITIES

|                      |   |     |        |           |
|----------------------|---|-----|--------|-----------|
| Crankcase            | l | gal | 55     | 14.5      |
| Fuel tank            | l | gal | 750    | 198.1     |
| Cooling system       | l | gal | 75     | 19.8      |
| Brake cooling system | l | gal | 131    | 34.6      |
| Transmission         | l | gal | 58     | 15.3      |
| Dropbox              | l | gal | 12     | 3.2       |
| Axles, front/bogie   | l | gal | 74/147 | 19.5/38.8 |
| Hydraulic tank       | l | gal | 198    | 52.3      |
| DEF                  | l | gal | 60     | 15.9      |

## SPEED

| Forward |      |     |    |    |
|---------|------|-----|----|----|
| 1       | km/h | mph | 7  | 4  |
| 2       | km/h | mph | 10 | 6  |
| 3       | km/h | mph | 13 | 8  |
| 4       | km/h | mph | 19 | 12 |
| 5       | km/h | mph | 26 | 16 |
| 6       | km/h | mph | 55 | 34 |
| Reverse |      |     |    |    |
| 1       | km/h | mph | 5  | 3  |
| 2       | km/h | mph | 8  | 5  |

## OPERATING WEIGHT UNLOADED

| Tires   |    |    |        |         | 33.25R29 |  |
|---------|----|----|--------|---------|----------|--|
| Front   | kg | lb | 22,750 | 50,155  |          |  |
| Rear    | kg | lb | 21,000 | 46,297  |          |  |
| Total   | kg | lb | 43,750 | 96,452  |          |  |
| Payload | kg | lb | 55,000 | 121,254 |          |  |

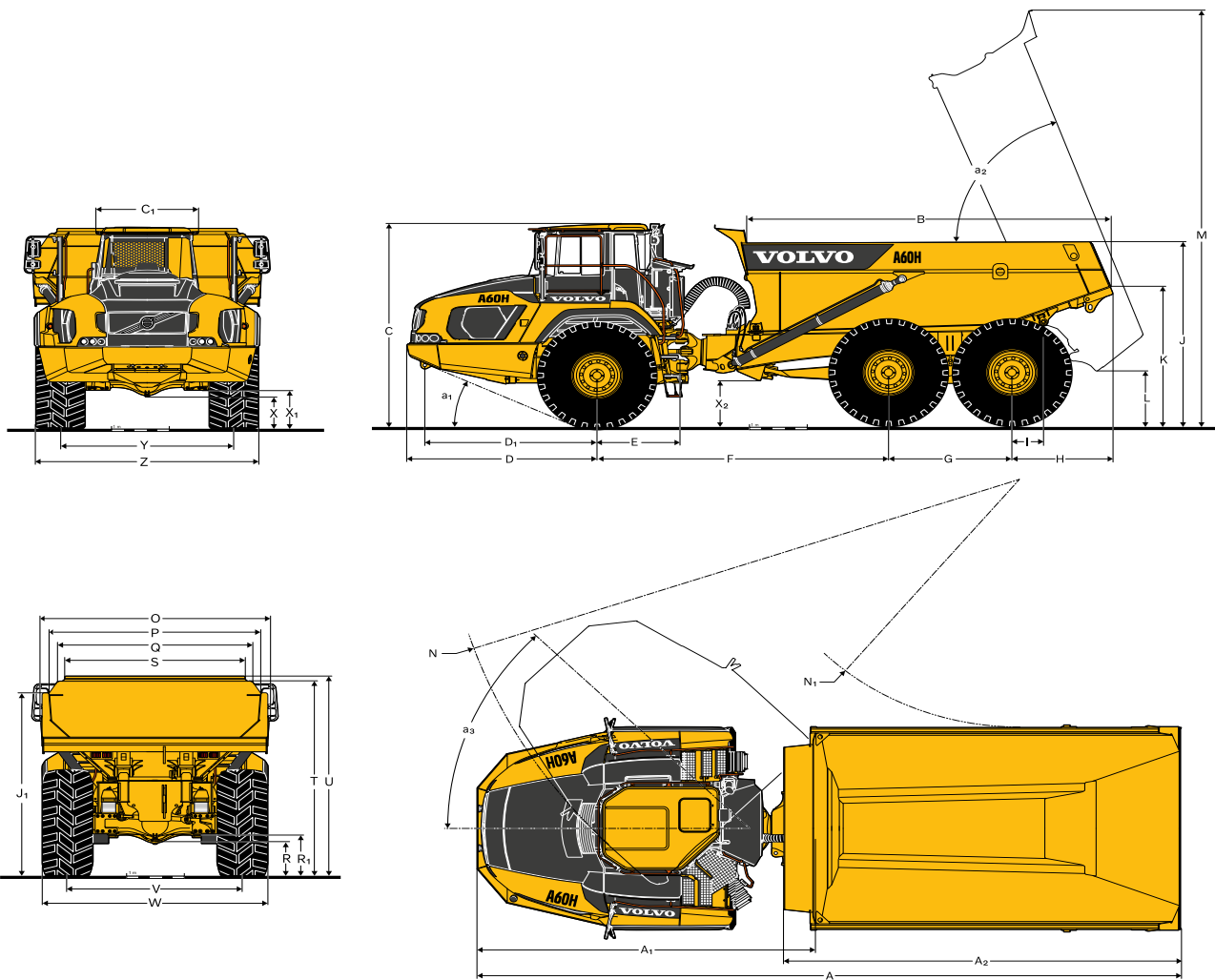
Operating weight includes all fluids and operator

## TOTAL WEIGHT

| Tires |    |    |        |         | 33.25R29 |  |
|-------|----|----|--------|---------|----------|--|
| Front | kg | lb | 28,900 | 63,714  |          |  |
| Rear  | kg | lb | 69,850 | 153,993 |          |  |
| Total | kg | lb | 98,750 | 217,706 |          |  |

## GROUND PRESSURE

| Tires    |     |     |     |  | 33.25R29 |      |
|----------|-----|-----|-----|--|----------|------|
| Unloaded |     |     |     |  |          |      |
| Front    | kPa | psi | 125 |  |          | 18.1 |
| Rear     | kPa | psi | 58  |  |          | 8.4  |
| Loaded   |     |     |     |  |          |      |
| Front    | kPa | psi | 159 |  |          | 23.1 |
| Rear     | kPa | psi | 193 |  |          | 28   |



**DIMENSIONS**

| Pos            | Unit     | A60H   |        |
|----------------|----------|--------|--------|
| A              | mm ft in | 12,225 | 40'1"  |
| A <sub>1</sub> | mm ft in | 5,872  | 19'3"  |
| A <sub>2</sub> | mm ft in | 6,900  | 22'8"  |
| B              | mm ft in | 6,310  | 20'8"  |
| C              | mm ft in | 3,852  | 12'8"  |
| C <sub>1</sub> | mm ft in | 1,772  | 5'10"  |
| D              | mm ft in | 3,293  | 10'10" |
| D <sub>1</sub> | mm ft in | 2,986  | 9'10"  |
| E              | mm ft in | 1,440  | 4'9"   |
| F              | mm ft in | 5,050  | 16'7"  |
| G              | mm ft in | 2,140  | 7'0"   |
| H              | mm ft in | 1,743  | 5'9"   |
| I              | mm ft in | 541    | 1'9"   |
| J              | mm ft in | 3,510  | 11'6"  |
| K              | mm ft in | 2,658  | 8'9"   |
| L              | mm ft in | 1,030  | 3'5"   |
| M              | mm ft in | 7,960  | 26'1"  |
| N              | mm ft in | 10,014 | 32'10" |
| N <sub>1</sub> | mm ft in | 4,761  | 15'7"  |
| O              | mm ft in | 3,989  | 13'1"  |

**DIMENSIONS**

| Pos            | Unit     | A60H  |       |
|----------------|----------|-------|-------|
| P              | mm ft in | 3,673 | 12'1" |
| Q              | mm ft in | 3,370 | 11'1" |
| R              | mm ft in | 677   | 2'3"  |
| R <sub>1</sub> | mm ft in | 778   | 2'7"  |
| S              | mm ft in | 3,126 | 10'3" |
| T              | mm ft in | 3,734 | 12'3" |
| U              | mm ft in | 3,833 | 12'7" |
| V              | mm ft in | 3,010 | 9'11" |
| W              | mm ft in | 3,884 | 12'9" |
| X              | mm ft in | 601   | 1'12" |
| X <sub>1</sub> | mm ft in | 727   | 2'5"  |
| X <sub>2</sub> | mm ft in | 845   | 2'9"  |
| Y              | mm ft in | 3,010 | 9'11" |
| Z              | mm ft in | 3,884 | 12'9" |
| a <sub>1</sub> | °        |       | 24.9  |
| a <sub>2</sub> | °        |       | 70    |
| a <sub>3</sub> | °        |       | 45    |

A60H: Unloaded machine with 33.25R29 tires.

# Equipment

## STANDARD EQUIPMENT

### Engine

Direct injected, electronically controlled, turbocharged, intercooled

Grouped oil filters

Preheater for easier cold starts

VEB (exhaust retarder EPG + compression brake)

### Wheels and tires

33.25R29

800/80R29

### Drivetrain

6x4 and 6x6 automatically engaged drive modes

Dog clutch type 100% diff-locks in all axles

Full automatic transmission

Two-stage dropbox with longitudinal diff-lock

Torque converter with automatic lock-up

### Electrical System

80 A alternator

Battery disconnect switch

Extra 24 V socket for lunch cooler

Lights:

Back-up light

Brake lights

Cab lighting

Direction indicators

Headlights

Instrument lighting

Parking lights

Rear lights

### Brake system

Hill assist

Load & Dump Brake

Retarder pedal

Parking brake on propeller shaft

Two circuit, fully hydraulic, wet discs on all axles

### Body

Body prepared for exhaust heating and optional equipment

On board weighing (OBW)

### Safety and security

Anti-slip steps and platforms

Dump body lock

Handrails on steps and platforms

Hazard lights

Horn

Protective grill for cab rear window

Rear-view mirrors

Retractable 3-inch safety belt

ROPS/ FOPS - certified cab

Secondary steering

Steering joint lock

Windshield washers

Windshield wipers with interval function

Dump support system

## STANDARD EQUIPMENT

### Comfort

ACC control panel

Ashtray

Cab heater with filtered fresh air and defroster

Can holder /storage tray

Instructor seat with seat belt

Overhead console for radio

Sliding window

Space for lunch cooler

Storage box

Sun visor

Tilt/telescopic steering wheel

Tinted glass

### Operator information interface

Gauges:

Brake pressure

Fuel

Speedometer

Tachometer

Wet disc brakes cooling oil temperature

### Warning lights grouped and easy to read

Central warning (3 levels) for all vital functions

### Central positioned information display

Automatic pre-start checks

Clock

Hour meter

Operational information, easy-to-navigate menu

Troubleshooting diagnostics

### Exterior

Front mudguard wideners and rear mudflaps

### Service and maintenance

Electrical engine hood and belly plate

Drainage hose

Machine Tracking Information System MATRIS

Service platform integrated in the front grill

Tool box



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**OPTIONAL EQUIPMENT**

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**Engine**

Air filter, heavy duty, EON  
Engine heater, 240 V  
Engine heater, diesel (Eberspächer)  
Engine auto shutdown  
Engine shutdown timer  
External emergency engine stop  
High engine idle speed

**Electrical System**

Headlights, LED  
Warning beacon, LED  
Working lights, LED  
Entrance light  
Seat belt indicator, external  
Anti-theft system (pin code)  
Rear view camera  
Reverse alarm  
CAN-BUS interface, extra

**Cab**

Noise reduction kit (fulfils 2000/14/EC)  
Anchorage, operator's manual  
Cab heating/ventilation timer  
Cable kit, for cab heater  
HEPA cab air filter  
Bluetooth radio kit  
Rear view mirrors, adjustable, el.heated  
Seat belt XXL, non-retractable  
Sun blinds, side windows  
Universal key  
Air suspended, heated, fully adjustable seat  
Armrest for operator seat  
Headrest for operator seat  
Air blow gun

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**OPTIONAL EQUIPMENT**

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**Body**

Body exhaust heating  
Front spillguard, extra  
Side extension, light material  
Tailgate, overhung, wire-operated  
Wear plates

**Safety and security**

Fire suppression system  
Warning triangle  
First aid kit and fire extinguisher  
Fire extinguisher  
Wheel chocks

**Service and maintenance**

Lube system, standard machine  
Tool kit

**Other**

Arctic oil kit  
CareTrack  
Fast fuelling system  
Jump start connector, NATO -type  
Haul Assist - Tire Pressure Monitoring System  
Hauler chassi (without body)





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