

Volvo Construction Equipment



A45GFS

Volvo Articulated Haulers 41 t 476 hp



Bigger, stronger, faster

Get ready to work with the Volvo A45G Full Suspension articulated hauler. Designed for heavy-hauling in severe off-road operations, the machine offers continuous productivity, proven Volvo technology and impressive comfort, contributing to sustainable operations. Hauling is easier and more efficient.

Comfort at speed

The built-in system monitors the hauler's wheel movements and stabilizes the machine based on ground conditions, delivering superior operator comfort.



Build the best fleet

With shorter cycle times and non-stop production, you can reduce your fleet size while maintaining the same productivity levels as other haulers.



Know no limits

The Full Suspension system provides ultimate operator comfort, which maximizes drivability in severe terrain and also reduces the

Maximize your investment

Optimize load cycles with the On-Board Weighing on the A45GFS. The award-winning system – standard on FS models – ensures





The future of technology

Built on the proven G-Series platform, the updated A45GFS features all the unique pioneering Volvo technology you'd expect from a Full Suspension hauler, plus a host of upgrades. Take your productivity to the next level thanks to technological advancements, including improved hydraulic cylinders, enhanced machine control software and upgrades throughout.

Unique suspension

The front suspension provides superior operator comfort meanwhile, the rear suspension delivers greater comfort, for a smooth and productive ride.



Comfortable front suspension

The unique front suspension is equipped with a set of accumulators and adapts to both payload and ground conditions, delivering unbeatable operator comfort.



Active leveling sensors

Six level sensors actively monitor the frame movement in relation to the axles and signal the hydraulic system to adjust the suspension,

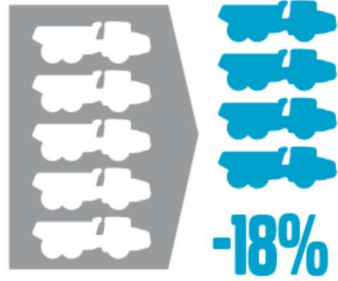
Robust accumulators and intuitive cross flow

The A45GFS haulers rear suspension is equipped with two high pressure accumulators for loaded operations and two low pressure accumulators for unloaded operations. The cross flow between the hydraulic cylinders stabilize both trailer and tractor, this allows for

Move more for less

The Volvo A45GFS is purpose-built to deliver reliability and performance that is second to none. When working in tough terrain, the A45GFS delivers superior productivity, travel speed and cycle times when compared to other haulers for an improved Total Cost of Ownership (TCO).





Total fleet size

By using Full Suspension haulers, you are able to reduce fleet size to move the same amount of material.

PUT TO THE TEST



Volvo A45GFs 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).

T4f/Stage IV after treatment system features passive DPF regeneration with an AHI (After treatment Hydro carbon Injection) device as back up.

Engine model	Volvo	D16J
Max power - SAE J1995 Gross	kW	350
	hp	476
at engine speed	r/min	1 800
Flywheel power - ISO 9249, SAE J1349 Net	kW	347
	hp	472
at engine speed	r/min	1 800
Max torque - SAE J1995 Gross	Nm	2 525
Max torque - ISO 9249, SAE J1349 Net	Nm	2 500
at engine speed	r/min	1 050
Displacement	l	16.1

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	3,396/120
Starter motor	kW	9

Drivetrain

Torque converter with built-in lock-up function.
Transmission: Fully automatic Volvo PowerTronic planetary transmission with nine forward gears and three reverse gears. The transmission has the ability to skip gears for fast and accurate gear selection.
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		2,1:1
Transmission	Volvo	PT 2519
Dropbox	Volvo	IL2 ATC
Axles	Volvo	ARB H40

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 acting on the trailer unit propeller shaft. When the parking brake is applied, the longitudinal differential locked.

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. Optional 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) - LpA	dB(A)	72
External sound level (ISO 6395) - LwA	dB(A)	112
Internal sound level with sound kit: 70 dB(A)		
External sound level with sound kit: 110 dB(A)		

Hydraulic system

Pumps: Four variable displacement piston pumps driven by the flywheel PTO.
Two load-sensing used for steering and tipping and two electrical controlled used for fan, brake cooling and brake power supply.
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	26
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Dumping System

Patented Load and Dump Brake. Dumping Cylinders: two single stage double acting cylinders.		
Tipping angle	°	70
Tipping time with load	s	12
Lowering time	s	10

Body

Plate thickness		
Front	mm	8
Sides	mm	11
Bottom	mm	14
Chute	mm	16
Material HB450 steel		
Yield strength	N/mm ²	1 150
Tensile strength	N/mm ²	1 350

Load Capacity

Standard Body		
Load capacity	kg	41 000
Body, struck	m ³	19.7
Body, heaped 2:1	m ³	25.1
With overhung tailgate		
Body, struck	m ³	20.2
Body, heaped 2:1	m ³	26.2

Specifications

REFILL CAPACITIES

Crankcase	l	55
Fuel tank	l	480
Cooling system	l	49
Brake cooling system	l	188
Transmission	l	43
Dropbox	l	9
Axles, front/bogie	l	26/52
Hydraulic tank	l	210
AdBlue®	l	39

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OPERATING WEIGHT UNLOADED

Tires		29.5R25*
Front	kg	16 500
Rear	kg	14 000
Total	kg	30 500
Payload	kg	41 000

Operating weight includes all fluids and operator

*) A45GFS with tires 875/65R29, add 300 kg/axle

TOTAL WEIGHT

Tires		29.5R25*
Front	kg	20 750
Rear	kg	50 750
Total	kg	71 500

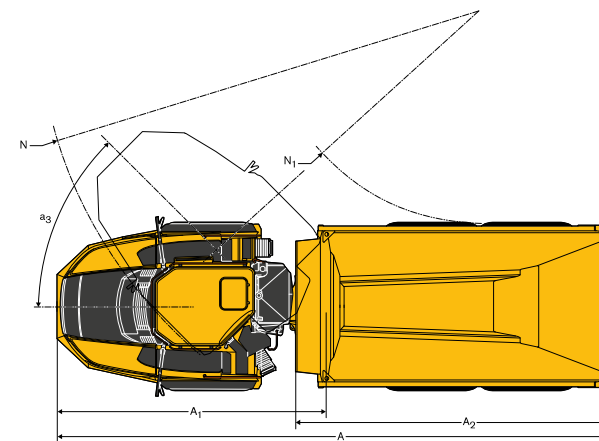
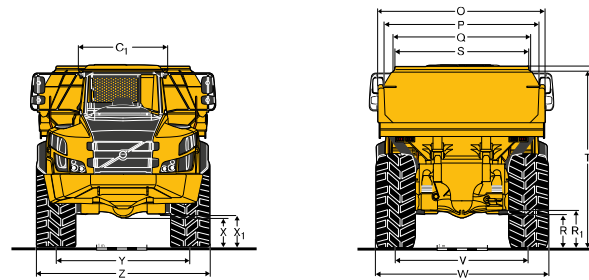
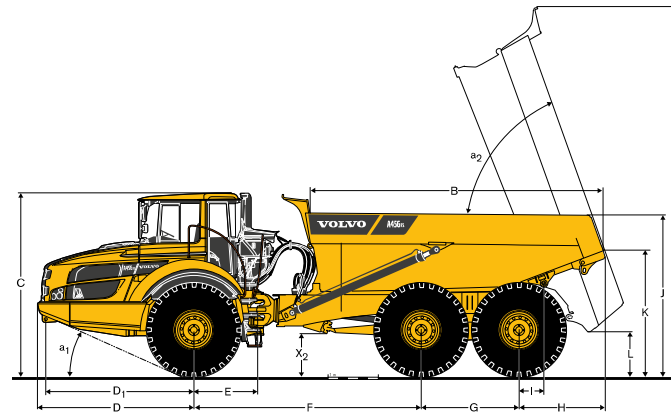
*) A45GFS with tires 875/65R29, add 300 kg /axle

GROUND PRESSURE

Tires		29.5R25	875/65R29
Unloaded			
Front	kPa	114	100
Rear	kPa	48	43
Loaded			
Front	kPa	143	125
Rear	kPa	174	152

SPEED

Forward		
1	km/h	5.8
2	km/h	8.5
3	km/h	10.4
4	km/h	15
5	km/h	21.6
6	km/h	27.3
7	km/h	36.1
8	km/h	47.8
9	km/h	57
Reverse		
1	km/h	6.5
2	km/h	9.4
3	km/h	18



DIMENSIONS

Pos	Unit	A45G
A	mm	11 263
A ₁	mm	5 476
A ₂	mm	6 404

DIMENSIONS

Pos	Unit	A45G
R	mm	613
R ₁	mm	640
S	mm	2 651

Equipment

STANDARD EQUIPMENT

Engine

Direct injected, electronically controlled, turbocharged, intercooled

Grouped oil filters, for ease of change

Preheater for easier cold starts

VEB (exhaust retarder EPG + compression brake)

Tires

29.5R25

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

Drivetrain

6x4 and 6x6 automatically engaged drive modes

Dog clutch type 100% diff-locks in all axles

Full automatic transmission

Dropbox with longitudinal diff-lock

Torque converter with automatic lock-up

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

Safety

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 protected Care Cab

Secondary steering

Operator information interface

STANDARD EQUIPMENT

Comfort

Full hydraulic suspension

ACC control panel

Ashtray

Cab heater with filtered fresh air and defroster

Can holder /storage tray

Cigarette lighter

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

Machine Tracking Information System MATRIS

Service platform integrated in the front grill

Tool box

OPTIONAL EQUIPMENT

Engine

Air filter, heavy duty, EON

Engine heater, 120 V, USA

Engine heater, 240 V

Engine heater, diesel (Eberspächer)

OPTIONAL EQUIPMENT

Electrical system**Headlights, LED**

Warning beacon, LED

Working lights, halogen

Working lights, LED

Entrance light

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 240 V

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

Low profile cab

OPTIONAL EQUIPMENT

Body**Body exhaust heating**

Front spillguard, extra

Side extension, 200 mm

Side extension, light material

Tailgate, overhung, linkage-operated

Tailgate, overhung, wire-operated

Tailgate, underhung

Wear plates, 450 HB

Underground body**Safety****Fire suppression system**

Warning triangle

First aid kit and fire extinguisher

Fire extinguisher

Wheel chocks**Service and maintenance****Lube system, standard machine**

Lube system, tailgate

Lubrication hose, ground level greasing**Tool kit****Other****Siberian kit -40°C**

On board weighing (OBW)

Arctic oil kit

CareTrack

Fast fuelling system

Jump start connector, NATO -type

Frame extension

SELECTION OF VOLVO OPTIONAL EQUIPMENT

Fire suppression system**Entrance light****LED work lights**

