

HA45 SPECIFICATIONS

Powered By Tier 4 Final Scania Engine

Net Weight

66,359 lbs (30,100 kg)

Max Power

500 hp (368 kW)

Body Volume

26 yd³ (24.4m³)

Max Payload

41 metric ton /
45 short ton



ENGINE

Maker / Model	Scania DC 13
Type	Water-cooled, diesel engine with turbo charger and air-to-air intercooler
Emissions certification	Tier 4 Final
Aftertreatment System	EGR / SCR (No DPF)
Power Rating ISO 3046	500 hp (368 kW) at 2100 rpm
No. of Cylinders	6 (in line)
Torque Gross	2373 Nm at 1,300 rpm
Displacement	3.35 gal (12.7 ℓ)
Bore Diameter X Stroke	130 × 160 mm
Air Filter	2-stage (main + safety), dry type

ELECTRICAL SYSTEM

Voltage	24 V
Battery	2 × 12 V
Battery Capacity	2 × 140 Ah
Starter Motor	8 hp (6 kW)
Alternator	28 V, 100 A

DRIVETRAIN

Torque Converter	Lock up function in all gears
Transmission	Electronically controlled automatic transmission with retarder. Full time 6×6 drive with two transverse differentials and one longitudinal inter-axle longitudinal. Torque-proportioning differential, integrated into the ZF transmission
Front Axle Transverse Differential	Limited-slip diff lock with 45 to 40% locking ratio mounted directly at transmission
Rear Axle Transverse Differential	Limited-slip diff lock with 45 to 40% locking ratio
Torque Distribution (100% Lockable)	1/3 to the front axle, 2/3 to the rear axle

STEERING SYSTEM

Cylinder	Two double-acting
Standard	The steering is approved according to ISO 5010
Max. Steering Angle	15°
Emergency Steering	Ground-driven emergency steering pump

TRANSMISSION

Maker / Model	ZF 8EP-420
1st	4 (6)
2nd	6 (9)
3rd	7 (12)
Travel Speed—Forward	mph (km/h)
4th	11 (17)
5th	15 (24)
6th	21 (34)
7th	30 (48)
8th	34 (55)
Travel Speed—Reverse	mph (km/h)
1st	4 (6)
2nd	6 (9)
3rd	7 (12)
4th	11 (17)
Front Hubs	Kessler
Rear Axle + Hubs	Kessler
Rear Tandem	Hyundai (in house)

BRAKES

Service Brakes	Dual circuit braking system acting on all six wheels, all hydraulic-operated brakes with enclosed oil-cooled wet multiple discs on four hubs (braking force distributed to two hubs by tandem gear wheels)
Parking Brake	Spring actuated mounted on driveline shaft
Max. Gradient, Parking Brake	15°
Retarder	Automatic transmission retarder standard
Brake System	Complies with ISO3450

CABIN

ROPS / FOBS cabin meet ISO 3471 and ISO 3449
Hand and arm vibrations are less than 2.5 ms² (ISO 5349-2)
Whole body vibration is less than 0.5 ms² (ISO 2631-1)

AIR CONDITIONING SYSTEM

The air condition system contains fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1,430). The system contains 2.0 kg of refrigerant representing a CO2 equivalent of 2.86 metric tonnes.

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HYDRAULIC SYSTEM

Type	Variable displacement piston pump for steering, tipping, cooling fan brakes and auxiliaries
Maximum Pump Output	77.6 gpm (293.75 ℓ/min) @ 2,100 rpm
Filtration	Return flow filter
Main Safety Valve Pressure Tipping	4,061 psi (28 kPa)
Main Safety Valve Pressure Steering Circuit	3,045 psi (21 kPa)
Tilt Cylinders	Single stage, double-acting
Tipping Time Raise	10 secs
Tipping Time Lower	10 secs

BODY

Body Volume (Without Tailgate)	26 yd ³ (24.4 m ³)
Material	Hardened abrasion-resistant steel plates (400 HB)
Body Tipping Angle	70°
Level Capacity (with / without tailgate)	22.3 yd ³ (20.4 m ³) / 14.9 yd ³ (21.4 m ³)
Heaped Capacity (with / without tailgate)	28.4 yd ³ (26.0 m ³) / 26.7 yd ³ (24.4 m ³)

TIRES

Standard	29.5 R25*
Optional	875/65 R29

WEIGHTS

Empty Front Axle	31,305 (14,200)						
Empty Rear Axle	35,053 (15,900)						
Net Weight	66,359 (30,100)						
Max. Admissible Load	<table border="1"> <tr> <td>Front Axle</td> <td>49,604 (22,500)</td> </tr> <tr> <td>Rear Axle</td> <td>121,254 (55,000)</td> </tr> <tr> <td>Total Weight</td> <td>156,748 (71,100)</td> </tr> </table>	Front Axle	49,604 (22,500)	Rear Axle	121,254 (55,000)	Total Weight	156,748 (71,100)
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Rear Axle	121,254 (55,000)						
Total Weight	156,748 (71,100)						
Payload	41 metric ton / 45 short ton						

POWER TO WEIGHT RATIO

Empty	15.1 hp/ton
Loaded	6.3 hp/ton

SERVICE REFILL CAPACITIES

Engine Oil	11.9 (45)
Fuel Tank	129.4 (490)
DEF Tank	18.5 (70)
Transmission	17.9 (68)
Hub Front (2x)	gal (ℓ) 2.5 (9.6)
Tandem Housing, Rear Differential and Hubs	63.4 (240)
Hydraulic System	26.4 (100)
Engine Cooling	13.2 (50)

GROUND PRESSURE

Tires	Standard tires with 15% sinkage
Unloaded Front Axle	13.63 (94)
Unloaded Rear Axle	psi (kPa) 7.54 (52)
Loaded Front Axle	20.16 (139)
Loaded Rear Axle	23.35 (161)

ARTICULATION HINGE AND CHASSIS

Articulation hinge	Articulation hinge with forward-mounted large dimensioned turning ring
Chassis	Heavy duty design, box type welded frames; 7° sloping rear frame design

SUSPENSION

Front	Semi-independent, self-levelling hydro-gas suspension
Rear	Free-swinging tandem housing

NOISE

Guaranteed noise level presented below can be differed depending on a range of factors, such as operating condition, speed of a cooling fan, types of engine and so forth. Hearing protection shall be necessary if an operator is working in the improperly maintained cabin or exposed to a noisy environment by leaving doors and/or windows open.

With a cooling fan at maximum value:

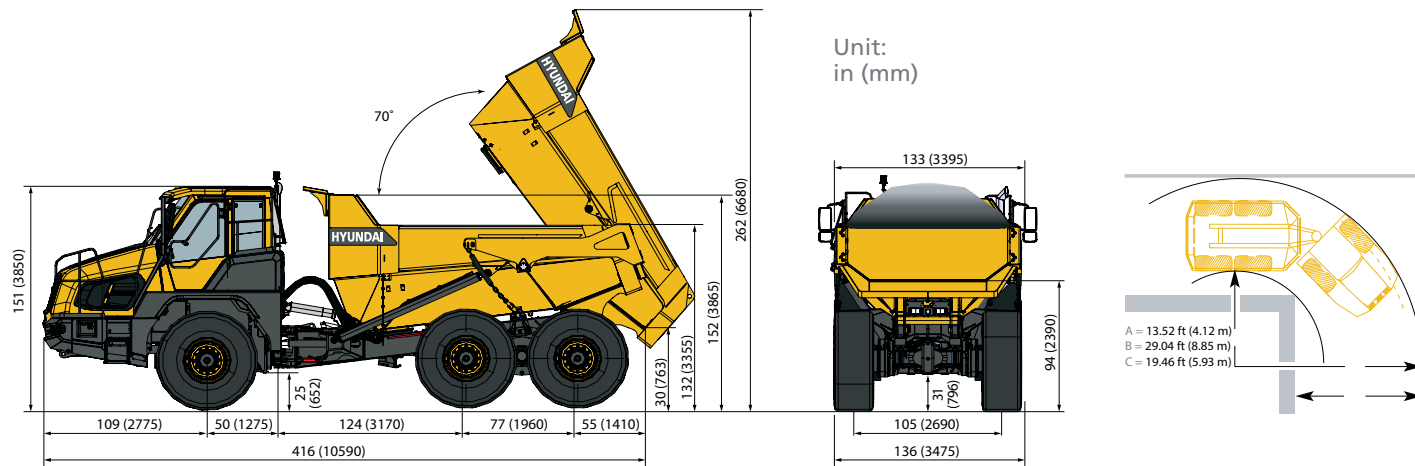
Operator Sound Pressure Level (ISO 6396:2008)	72 dB(A)
Exterior Sound Power Level (ISO 6395:2008)	107 dB(A)

*Distance of 49.2 ft (15 m), moving forward in second gear ratio



HA45 DIMENSIONS

HA45



HA45 width with
875/65 R29 tyres:
3630mm

Turning radius according to ISO 7457:
27.62 ft (8.42 m)

DIMENSIONS	Unit: in (mm)
Transport position / cab height	152 (3,850)
Rotating beacon	159 (4,050)
Overall w/o tailgate	417 (10,590)
Overall with tailgate	420 (10,673)
Overall body tipped	449 (11,405)
Overloading height	172 (4,360)
Over outside front tire 23.5 R25	137 (3,475)
Over outside front tire 750/65 R25	143 (3,630)
Over mudguard	134 (3,400)
Over mirror operating position	157 (3,990)
Over outside rear tires 23.5 R25	137 (3,475)
Over outside rear tires 750/65 R25	143 (3,630)
Between inner tires	75 (1,900)
Over body	134 (3,395)
Ground clearance art. hinge	25 (643)
Ground clearance front axle	24 (606)
Ground clearance rear axle	27 (691)
Ground clearance body fully tipped	30 (763)
Overloading	132 (3,355)
Body w/o rock guard	152 (3,865)
Body with rock guard	158 (4,001)
Body fully tipped w/o rock guard	263 (6,680)
Body fully tipped with rock guard	282 (7,170)
Body tip	94 (2,390)
Front axle center to machine front	109 (2,775)
Front axle center to art. hinge	50 (1,275)
Art. hinge to rear axle center	163 (4,150)
Rear axle center to body tip	75 (2,390)
Front axle center to rear axle center	214 (5,425)
Wheelbase rear axle	77 (1,960)

DIMENSIONS	Unit: in (mm)
Approach angle front	26.5°
Max. body tip angle	70°
Max. steering angle	45°
Front tie down height	42 (1,063)
Rear tie down height	51 (1,300)
Load height (SAE 2:1)	161 (4,100)
Inner turning radius	162 (4,215)
Outer turning radius	331 (8,420)
Outer wheel turning radius	350 (8,880)
Corridor width	216 (5,940)



HA45 STANDARD & OPTIONAL EQUIPMENT

●: Standard / ○: Optional

ENGINE

Electronically controlled, direct injected, water-cooled, turbocharger, air-to-air intercooler	●
Preheater for easier cold starts	●

HYDRAULIC SYSTEM

Variable displacement piston pump for steering and tipping	●
One return flow filter	●

BOD

Tailgate	●
Body lining (400 HB)	○
Side extension 8" (200 mm)/10" (250 mm)	○
Body heating kit	○

TIRES OPTIONS

Quarry	○
Earthmoving	○
Flotation tires	○

CAB & INTERIOR

Armrest at operator seat	●
Headrest at operator seat	●
Safety belt at operator and instructor seat	●
Adjustable steering column	●
All instrumentation in LCD display	●
Cigarette lighter	●
12 V and USB charging point	●
Retractable roller sunblind	●
Tinted safety glass	●
Sliding window (left & right side)	●
Windshield wiper and washer	●
Electrical adjustable heated mirror	●
Protection for rear window	●
Emergency steering, ground-driven	●
Radio/MP3 and Bluetooth	●
CB radio	○
Cab tilting system	●
Emergency shutdown switch	●
Anti-slip steps & platform	●
Cool box compartment	●
Storage room	●
Electronic climate control	●
High-comfort seat (vertical and longitudinal suspension)	●
Heated operator seat with 3" 2p belt	●
Heated operator seat with 2" 2p belt	○

SAFETY

Gradient meter with anti-flip-over protection system	●
Payload meter and cycle counter	●
Wet disc brake	●
Wheel block	○
LED main lights	○
Rear-view camera	●
Blue or orange flashing reverse light	○
HEPA filter package	○
Hammer for emergency escape	●
Seat belt green warning light	○
White noise alarm	○
Air inlet pre-cleaner	○
Protection for rear lights	○
Hand rails on the fenders	●

OTHER

Transmission retarder brake	●
Mud flaps	●
Towing hook, front and rear	●
Hi MATE telematic system	●
Work light kit (rear and front)	●
Load weighing system	●
Overload protection system	●
Auto grease system (20 l, Beka)	●
Auto grease system (6 l, Beka)	○
Webasto heating system (heat up the cooling system)	○
Fire extinguisher	●
First aid kit	●
Fixed Beacon Light	●
Foldable Beacon Light	○
Light bar LED	○
Speed limitation	○
Work light kit (rear and front) LED	○
Tool kit	○
Warning triangle	○
Fast fill	○
Tire pressure monitoring system (may not be available with all tires)	○
Electrical diesel refueling pump	○
Electrical engine heater (230 V)	○
First maintenance kit	○
Artic oil	○
Sign light	○
Construction road sign	○

