

AR 105^E

Operation weight:

9450 kg

Power:

105 kW (143 HP)

Shovel capacity:

1,6 - 1,8 m³



ATLAS
Weycor

AR 105^E





Small e. Big effect.



ATLAS Weyhausen wheel loaders are more than the sum of their parts. They reflect true passion, a fascination with technology and ‘made in Germany’ quality.

It's thanks to the innovative spirit of our people, their dedication to detail and their passion for powerful engine technology that this new **e-generation of wheel loaders** has been developed.

The small “e” stands for

- emission reduction: even lower emissions than statutory requirements*
- efficient: higher power, lower consumption
- evolutionary: advanced designs that are optimised down to the smallest detail

ATLAS WEYCOR: POWERFUL.



Deutz engine technology

TCD 4.1 L4

Water-cooled 4-cylinder inline engine with turbocharging, charge air cooling and cooled external exhaust gas recirculation.

Engine and exhaust aftertreatment (EAT) are adapted to an optimum efficiency of the total system and therefore ensure minimum fuel and total running costs.

The engines have a modular exhaust aftertreatment system (EAT). The powerful DEUTZ Common Rail (DCR®) injection system and the electronic engine control (EMR 4) with intelligent link to the drive management ensure optimum engine performance at low fuel consumption.

Best cold starting performance even under extreme conditions. Long oil change intervals and easy changing of the engine fluids reduce the running costs and increase the availability of the machinery. The engines meet the requirements of the EU Stage IIIB and US EPA Tier 4 interim with DVERT® particulate filter (DPF).

The regeneration of the particulate filter by heat-mode during operation has no affect to the engine performance.

A necessary active non-operating regeneration can only be initiated by the driver.



Hydraulic quick-change attachment

By allowing you to change the wheel loader's attachments in a few seconds, it turns the vehicle into an all-rounder.



Latest kinematics technology

The proven and tested ATLAS kinematics with its exceptional tear-out force and excellent lifting heights.



Articulated pendulum joint

Provides for excellent maneuverability and cross-country mobility. Even on challenging terrain, the low center of gravity ensures exceptional stability.

PRECISE. RELIABLE.



Easy maintenance

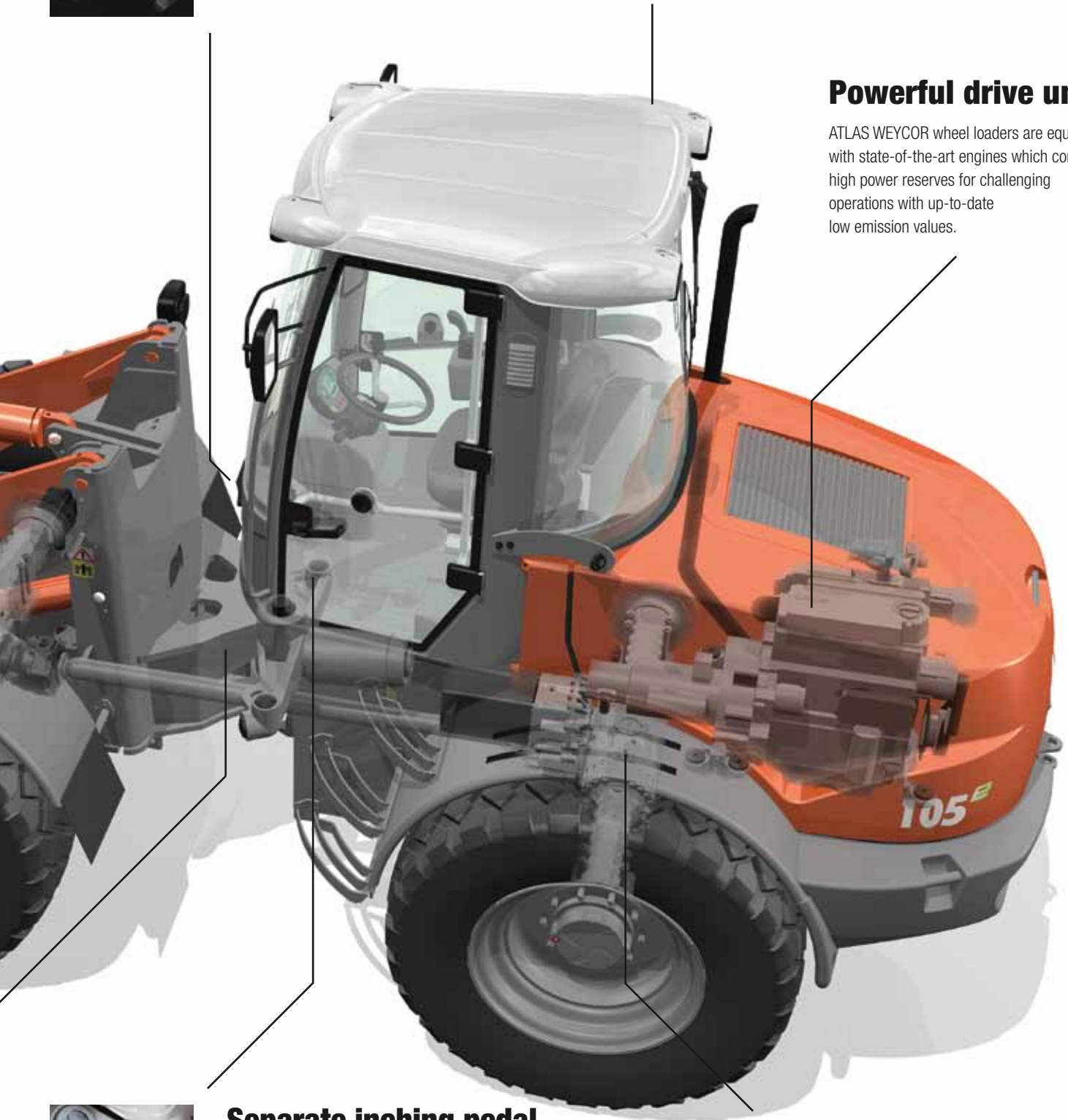
Low-maintenance and quick, easy servicing is achieved by central, consolidated, easy-to-reach service points.

Comfortable cabin

In addition to the excellent circumferential visibility in the wheel loader, its clearly arranged controls and its ergonomic design.

Powerful drive unit

ATLAS WEYCOR wheel loaders are equipped with state-of-the-art engines which combine high power reserves for challenging operations with up-to-date low emission values.



Separate inching pedal.

Less wear & tear and fuel consumption: In contrast to the conventional combined brake/inching pedal, with the separate inching pedal, the risk of inadvertently activating the main brake while you drive is eliminated.



Negative brake

Serves to maintain a stable position while the wheel loader is driven on slopes with the brake or inching function activated. All four wheels are automatically blocked as soon as the engine is stopped.

TECHNICAL DATA

Engine

Make:	Deutz Diesel engine
	TCD 4.1 L4
Type:	water cooled
Power***:	set to 105 kW (143 HP)
	at 2200 min ⁻¹
Max. torque:	550 Nm at 1600 min ⁻¹
Stroke:	4040 cm ³
Cylinders:	4 in line

Electrical System

Operating voltage	12 V
Battery	12 V/100 Ah
Alternator	14 V/95 A
Starter	12 V/4 kW

Drive

- Output-regulated hydrostatic drive with pressure cut off and closed circuit acting on all 4 wheels
- Speed with standard tires:
 - Operating speed range 0–6 km/h
 - Road speed range 0–20 km/h
 - Optional high speed 40 km/h (upon request)
- 1st and 2nd hydraulic gear can be engaged under load, forward/backward travel also
- Forward/backward travel, speed ranges and off-position operational via ATLAS joystick
- Drive operated by accelerator and separate inching pedal for best distribution of the hydraulic power for thrust and lifting forces

Brakes

Standard brake: Multi-disc brake in oil bath acting on all 4 wheels. Supplementary brake functions via inching pedal and hydrostatic drive acting on all 4 wheels.

Parking brake: Parking brake as spring-loaded brake acting on all 4 wheels. In case of standstill of engine the spring-loaded brake is automatically re-activated.

Axes

Rigid axles with planetary reduction gears in wheel hubs, connecting electrically 100%- differential lock in front and rear axle.

Steering

- Fully hydraulic center pivot steering
- Front and rear wheels follow the same track
- Steering angle of 40° to each side, ±12° angular movement at rear of vehicle
- Operating pressure of steering hydraulics 175 bar
- Emergency steering function

Tires

Standard: 17.5-25 EM – Construction machine tires for relatively soft surface with high traction and good self-cleaning

Special tires: upon request

Hydraulic system

- Variable pump for loading and steering hydraulics
- Priority valve favoring steering hydraulics
- 3rd hydraulic section serial
- Loading hydraulic hydraulically pre-activated by ATLAS joystick, including float position
- Operating pressure 250 bar, Delivery of pump 138,6 l/min

Loading equipment

- Powerful and solid Z- kinematics with high tear out force
- Hydraulic quick change device
- Activation of all functions by ATLAS joystick
- Parallel movement while using pallet forks
- Automatic shovel return to excavation position
- Automatic center position
- Locking device acc. to German StVZO for road travel

Lifting 5,9 s

Lowering 4,0 s

Tipping 1,6 s

Fuel/oil capacities

Diesel: 120 l

Hydraulic oil: 106 l

Front axle: 7,2 l

Gear oil: 1,8 l

Engine oil: 16 l

Rear axle: 7,2 l

Cooling liquid: 23 l

Specific gravity for material handling weight (t/m³)

CONSTRUCTION

concrete	1,9
soil (dry)	1,5
soil (watery)	2,0
rock (fill)	2,4
granite	1,8
limestone	1,6
gravel (dry)	1,9
gravel (watery)	2,1
loam	1,7
plaster	2,2
sand (dry)	1,9
sand (watery)	2,1

sandstone	2,4
shale	2,2
sediment	2,1
crushed stone	1,5
de-icing salt	1,3
clay	1,6
cement	1,7
clinker (stacked)	1,8

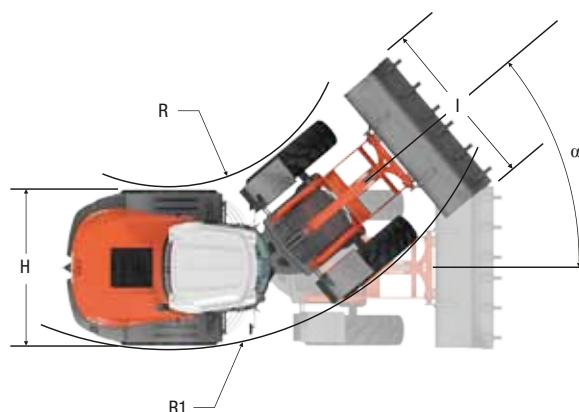
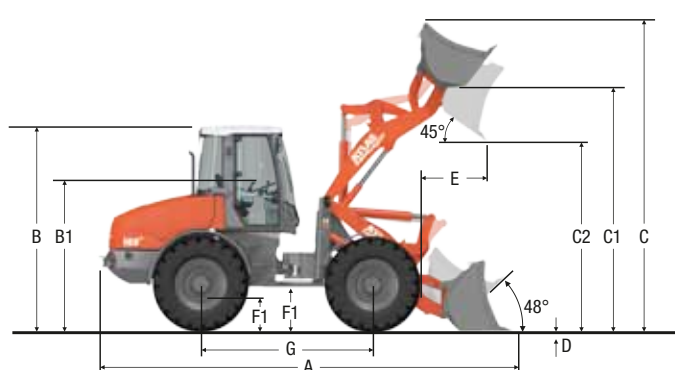
INDUSTRY

ember	0,7
brown coal briquette	0,8
ferrous product	7,8
iron ore	2,3
cullet	1,9
gas coke	0,4
timber	0,8
mineral coal	1,2
paper	0,9
slag	1,0
slag concrete	2,7

LANDSCAPING, AGRICULTURE

agricultural crop	0,7
grain	0,6
hay	0,3
potash	1,1
compost	1,0
flour	0,5
clay (watery)	2,3
phosphate fertilizer	2,2
turf (watery)	1,1
turf (dry)	0,4
mineral fertiliser	1,0

Technical data AR 105 e with standard shovel



A	6405 mm
B	2990 mm
B1	2205 mm
C	4880 mm
C1	3810 mm
C2	2930 mm
D	65 mm
E	940 mm
F	570 mm
F1	410 mm
G	2650 mm
H	2225 mm
I	2300 mm
R	2540 mm
R1	4850 mm
α	40°

STANDARD EQUIPMENT

Inclusive

- ATLAS diagnostic system (ADS) for monitoring engine parameters with integrated electronic anti-theft device
- Rear driving mirrors, foldable
- Heatable rear screen
- Comfortable access to cab from both side
- Activation of all functions by ATLAS joystick
- Control lights for speed range, forward/backward travel
- Lights acc. to German StVZO for road travel
- Individually adjustable driver's seat with adjustable right arm rest
- Engine water heating with heat exchange and 4-stage fan
- Front windscreen ventilation, variable output
- Sound absorbing ROPS cab
- Working lights front and rear
- Windscreen wipe and wash unit in front and rear
- Sun visor, coat hook, ceiling lamp, stow facility
- Adjustable steering column
- Heat protection glazing with targetinted screens
- Control lights for engine oil pressure, overheating, hydraulic oil temperature, battery power, parking brake and air filter
- Central dashboard with indicators for preheating, engine temperature, fuel, working hour meter

OPTIONS

Technical options

- Stability damping system
- High speed version
- Trailer coupling
- Main battery switch
- Corrosion prevention against salt
- Special paintings and oils
- Joystick with integrated proportional steering for 3rd section
- Warning beacon
- Anti-theft-device with code stick
- Heatable and air cushioned seats
- Air conditioning, auxiliary heating
- Radio
- Doors with sliding windows, left and right side

More options upon request

OPERATING DATA

Shovel capacity acc. to SAE: _____ 1,6-1,8 m³
 Track width: _____ 1780 mm
 Turning radius
 (outer shovel edge): _____ 5250 mm
 Tear out force: _____ 7000 daN
 Torque: _____ 7400 daN
 Tipping load, straight: _____ 7330 kg
 Tipping load, articulated: _____ 6490 kg
 Lifting capacity at ground level: _____ 8200 daN
 Service weight: _____ 9450 kg
 (with 1,6 m³ Shovel)

Differing data for use of pallet forks
 (500 mm distance to center of gravity)*

Static tipping load, straight
 and articulated: _____ 5260 kg
 Lifting capacity: _____ 6800 daN
 Payload 80% even surface**: _____ 4208 kg
 Payload 60% uneven surface**: _____ 3156 kg

Sound level

Average acoustic
 power-level L_{WA}⁽¹⁾: _____ 102,0 dB(A)

Guaranteed acoustic
 power-level L_{WA}⁽²⁾: _____ 103,0 dB(A)

Sound pressure level L_{pA}⁽³⁾: _____ 79,0 dB(A)

Specific vibration-data

Hand- / arm- / body

-vibration⁽⁴⁾: _____ < 2,5 / 0,5 m/s²

* Travel with load only permitted close to the ground.

** According to ISO 8313 and EN 474-3.

*** According to ISO 14396, EU RL97/68/EC.

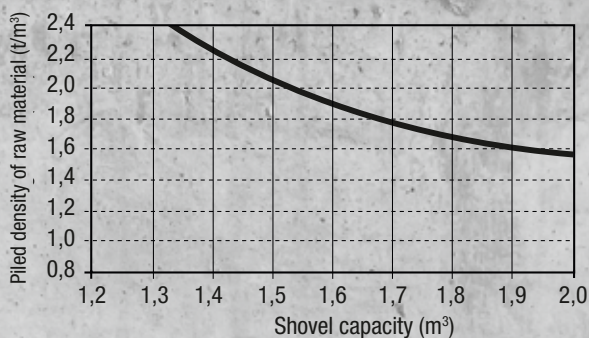
(1) According to 2000/14/EG & appendixes.

(2) According to 2000/14/EG & appendixes.

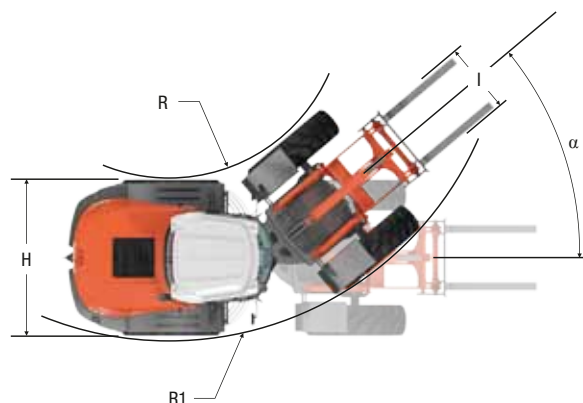
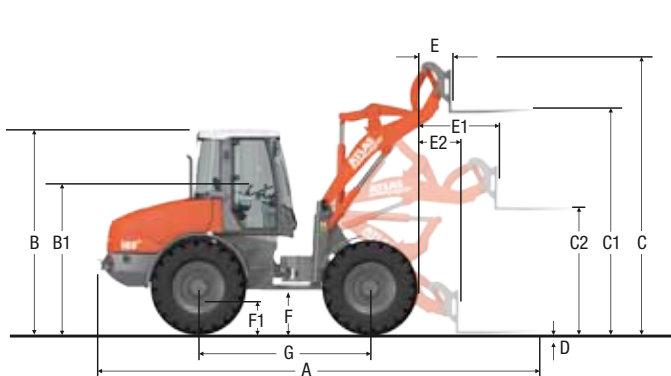
(3) According to ISO 6396.

(4) According to ISO 8041.

Diagram for shovel selection



Technical data AR 105 e with pallet forks



A	6780 mm
B	2990 mm
B1	2205 mm
C	4200 mm
C1	3600 mm
C2	1700 mm
D	50 mm
E	490 mm
E1	1320 mm
E2	660 mm
F	570 mm
F1	410 mm
G	2650 mm
H	2225 mm
I	1400 mm
R	2540 mm
R1	4850 mm
α	40°

Product range



AR 30

Operation weight 2150 kg
Power 24,6 kW/33,5 HP
Shovel capacity 0,32 m³



AR 35 / AR 35 Super

Operation weight 2500 kg/2875 kg
Power 24,6 kW/33,5 HP
 29,4 kW/40 HP
Shovel capacity 0,34 m³/0,40 m³



AR 40

Operation weight 3300 kg
Power 29,4 kW/40 HP
Shovel capacity 0,50 m³



AR 60

Operation weight 4300 kg/4650 kg
Power 36,5 kW/49,7 HP
Shovel capacity 0,80 m³



AR 65 e

Operation weight 5000 kg
Power 55,4 kW/75,4 HP
Shovel capacity 0,8 - 1,00 m³



AR 75 e

Operation weight 5760 kg
Power 55,4 kW/75,4 HP
Shovel capacity 1,00 m³



AR 75 e S

Operation weight 6280 kg
Power 55,4 kW/75,4 HP
Shovel capacity 0,80 m³



AR 75 e T

Operation weight 6000 kg
Power 55,4 kW/75,4 HP
Shovel capacity 1,00 m³



AR 80 e

Operation weight 6220 kg
Power 70 kW/95 HP
Shovel capacity 1,00 - 1,20 m³



AR 85 e

Operation weight 7000 kg
Power 80 kW/109 HP
Shovel capacity 1,30 - 1,40 m³



AR 95 e / AR 95 e Super

Operation weight 7900 kg/8200 kg
Power 85 kW/115,5 HP
 95 kW/129 HP
Shovel capacity 1,40 m³/1,60 m³



AR 105 e

Operation weight 9450 kg
Power 105 kW/143 HP
Shovel capacity 1,60 - 1,80 m³

Compliance with the new statutory limits for exhaust emissions is one thing. Deriving tangible benefits for our customers is another. We are proud to have incorporated both in the development of the new generation of wheel loaders.

Higher power - lower consumption plus a series of other innovative features that make a genuinely positive difference in a construction site environment. All the features inside are now represented on the outside by a small "e" and the new product name "ATLAS weycor".

*ATLAS WEYCOR is an ATLAS WEYHAUSEN GMBH brand

ATLAS

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