

# ATLAS

SINCE 1919

## Wheel Loader L310




POWERFUL. OPTIMISED. COMFORTABLE.  
**L310**



### Features

- ▶ Excellent all-round visibility
- ▶ Steel cab with perfectly designed operator's stand
- ▶ Easy service accessibility for minimized downtime
- ▶ Ergonomically designed controls for fatigue-free operation
- ▶ Self-locking differentials provide optimum traction
- ▶ Loader frame with TSP kinematics
- ▶ Fuel efficient Cummins turbocharged diesel engine
- ▶ Fully automatic VarioPower transmission for smooth acceleration up to 40 kph



-  **17,6 t**
-  **149 kW (203 HP)**
-  **3,0 - 6,5 m<sup>3</sup>**

## ENGINE

Manufacturer, model	Cummins, QSB 6.7
Type	6-cylinder turbocharged diesel engine, COM III/EPA III
Combustion	4-stroke cycle, Common Rail injection
Displacement	6700 cm <sup>3</sup>
Net power rating at 2200 rpm (ISO 9249)	149 kW (203 hp)
Cooling system	Water

## ELECTRICAL SYSTEM

Nominal voltage	24 V
Lighting system in compliance with German and European standards	

## POWER TRANSMISSION

Hydrostatic drive, closed circuit, independent from loader hydraulics. Driving automatics, that is, automatic optimization and adjustment of drawbar pull and speed. The travel drive in closed circuit additionally acts as non-wearing service brake. Hydraulic motor power shift providing two speed ranges. Infinitely variable speed control forward and reverse. 4-wheel drive from reduction gear on rear axle via cardan shaft to front axle. One inch-brake-drive pedal for sensitive driving and stopping at high engine speed.

2 gears:	
„Low“	0-6 km/h
„High“	0-40 km/h

## AXLES

Front: Planetary drive axle, rigidly mounted. Limited slip-type differential 45%.  
Rear: Oscillating (with cushioning) planetary final drive axle, with integrated reduction gear. Limited slip-type differential 45%.  
Angle of oscillation ±12°

## TIRES

Standard	23.5 R25 VJT Bridgestone
----------	--------------------------

## BRAKES

Service brake:	Hydraulically actuated two-circuit power brake system. Oil-immersed multi-disc brakes in both axles, acting on all 4 wheels via 4-wheel drive.
Auxiliary brake:	Hydrostatic drive provides dynamic braking
Parking brake:	Spring-loaded brake acting on the discs of the rear axle

## STEERING

Fully hydraulic, proportionally acting articulated steering. 2 steering cylinders with final positioning damping on both sides provide for powerful steering. The steering oil supply follows the load-sensing-system; this ensures that the working hydraulics oil volume is available to the steering system as needed, so that fast steering movements are possible even at low engine speeds.

Total steering angle	80°
----------------------	-----

## LOADER FRAME

Loader frame with TSP-linkage, attachments directly mounted.	
General-purpose bucket (ISO 7546)	3,10 m <sup>3</sup>
Operating load in general-purpose bucket 3.0 m <sup>3</sup> , quick-attach system	5400 kg
Operating load in general-purpose bucket 3.1 m <sup>3</sup> , direct mounting	5580 kg
Lift capacity at ground level (ISO 14397-2)	232.000 N
Breakout force at bucket edge (ISO 14397-2), quick-attach system	128.900 N
Breakout force at bucket edge (ISO 14397-2), direct mounting	153.600 N

## FLUID CAPACITIES

Fuel tank	240 l
Hydraulic system (incl. tank)	135 l



## HYDRAULIC SYSTEM

Pump capacity	220 l/min
Working pressure	350 bar

Control unit: Three-circuit control block with load-sensing flow distribution (LUDV). Simultaneous, independent control of all movements. Sensitive maneuvers irrespective of loads. Control circuits "Lift / Lower", "Dump / Tilt-back" pilot-operated. Additional control circuit electrically operated with preselection of flow rate and impulse/continuous operation. Ease of operation thanks to single, four-way control lever (joystick) with integrated direction-of-travel switch and switch for additional control circuit.

## FORK LIFT ATTACHMENT

Operating load over the total lift and steering range	9000 kg
Width of fork carrier	1900 mm
Length pallet forks (150x70 mm)	1200 mm
Stability factor	1,25
Operating load determined on level ground = 80 % of tipping load, articulated	

## CAB

Removable roll-over secure driver's cab, ROPS tested according to ISO 3471, FOPS tested according to ISO 3449, only with skylight guard. Panoramic, tinted safety glass, with skylight window. 2 doors, 180° aperture angle, foldable rear mirrors. 2 front and 2 rear working floodlights. Sliding window in left door standard. Electrical windshield intermittent wipers with front and rear washing system. Cab heating through coolant heat exchanger with 3-speed heater fan, windshield defroster front and rear, 2 adjustable outlet nozzles for front window, foot space and rear windows. Heating blower convertible from circulating to fresh air mode. Fresh air filter with a dust filtration unit of 2.8 µm.

Ergonomically designed driver station with functional design, very good circumferential visibility and optimally designed control elements. All operating functions are ergonomically arranged. Driver's seat with hydraulic cushioning, progressively adjustable to operator's weight, lap belt, longitudinal and height adjustment, in compliance with ISO 7096 and ISO 6683. Level and elastically mounted driver cab floor makes entry and exit as well as cab cleaning easier.

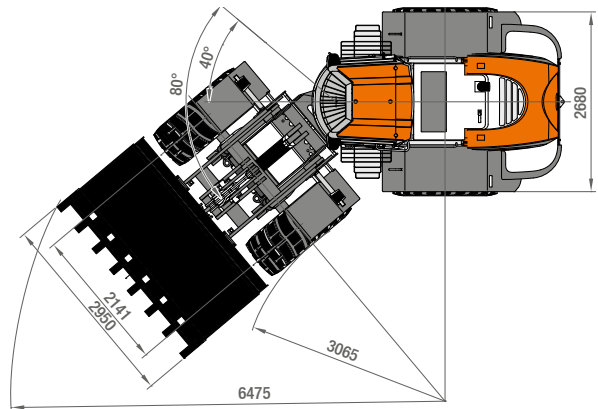
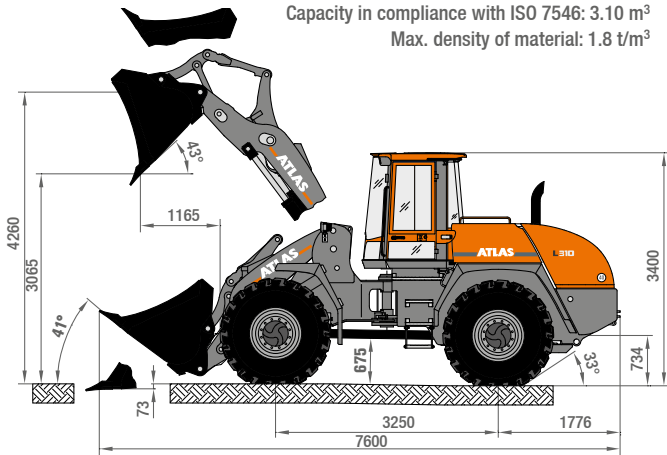
Air conditioning as standard. Radio pre-installation.
Height and tilt-adjustable steering wheel.
Holders and deposit for on-board tools, first-aid kit and operating manuals.
Sound level values in compliance with EC-directives.

## OPERATING DATA, STANDARD EQUIPMENT

Operating weight (ISO 6016)	17600 kg
Unladen weight	17300 kg
Tipping load, straight at full reach (ISO 14397-1), direct mounting / QAS	13200 / 12700 kg
Tipping load, articulated at full reach (ISO 14397-1), direct mounting / QAS	11500 / 11000 kg
Total length, bucket on ground	7600 mm
Total width	2680 mm
Turning radius at outside bucket edge	6475 mm
Turning radius at outside edge of tires	5900 mm
Turning radius at inside edge of tires	3065 mm
Wheelbase	3250 mm
Total height (top of cab)	3400 mm

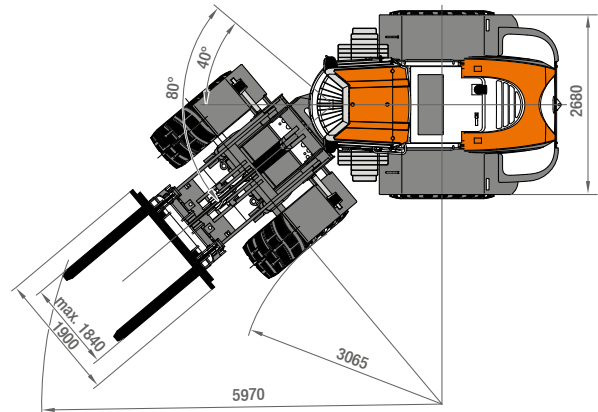
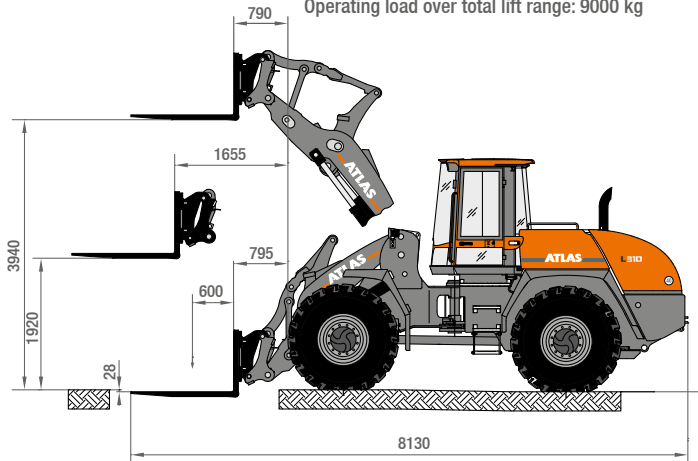
## PURPOSE BUCKET

Capacity in compliance with ISO 7546: 3.10 m<sup>3</sup>  
Max. density of material: 1.8 t/m<sup>3</sup>



## FORK LIFT ATTACHMENT

Operating load over total lift range: 9000 kg



## BUCKET TYPE

BUCKET TYPE	Capacity	Density	Width	Dump height
General-purpose bucket, quick-attach system (QAS), teeth	3.00 m <sup>3</sup>	1.8 t/m <sup>3</sup>	2950 mm	3065 mm
General-purpose bucket, QAS, bolt-on cutting edge	3.00 m <sup>3</sup>	1.8 t/m <sup>3</sup>	2950 mm	3065 mm
General-purpose bucket, directly mounted, teeth	3.10 m <sup>3</sup>	1.8 t/m <sup>3</sup>	2950 mm	approx. 3135 mm
General-purpose bucket, directly mounted, bolt-on cutting edge	3.10 m <sup>3</sup>	1.8 t/m <sup>3</sup>	2950 mm	approx. 3135 mm
Earth bucket, QAS, teeth	3.30 m <sup>3</sup>	1.6 t/m <sup>3</sup>	2950 mm	approx. 3025 mm
Earth bucket, QAS, bolt-on cutting edge	3.30 m <sup>3</sup>	1.6 t/m <sup>3</sup>	2950 mm	approx. 3025 mm
Earth bucket, directly mounted, teeth	3.20 m <sup>3</sup>	1.6 t/m <sup>3</sup>	2950 mm	approx. 3095 mm
Earth bucket, directly mounted, bolt-on cutting edge	3.20 m <sup>3</sup>	1.6 t/m <sup>3</sup>	2950 mm	approx. 3095 mm
Light-material bucket, QAS, bolt-on cutting edge	3.80 m <sup>3</sup>	1.2 t/m <sup>3</sup>	2950 mm	approx. 2885 mm
Light-material bucket, directly mounted, bolt-on cutting edge	4.00 m <sup>3</sup>	1.2 t/m <sup>3</sup>	2950 mm	approx. 2675 mm
Light-material bucket, QAS, bolt-on cutting edge	4.80 m <sup>3</sup>	0.8 t/m <sup>3</sup>	2950 mm	approx. 2675 mm
Light-material bucket, directly mounted, bolt-on cutting edge	5.00 m <sup>3</sup>	0.8 t/m <sup>3</sup>	2950 mm	NA
Light-material bucket, QAS, bolt-on cutting edge	6.30 m <sup>3</sup>	0.6 t/m <sup>3</sup>	2950 mm	NA
Light-material bucket, directly mounted, bolt-on cutting edge	6.50 m <sup>3</sup>	0.6 t/m <sup>3</sup>	2950 mm	NA
High-tip bucket, QAS, bolt-on cutting edge	4.30 m <sup>3</sup>	0.8 t/m <sup>3</sup>	2950 mm	NA
High-tip bucket, QAS, bolt-on cutting edge	4.50 m <sup>3</sup>	0.8 t/m <sup>3</sup>	2950 mm	NA
High-tip bucket, QAS, bolt-on cutting edge	5.80 m <sup>3</sup>	0.6 t/m <sup>3</sup>	2950 mm	NA
High-tip bucket, QAS, bolt-on cutting edge	6.00 m <sup>3</sup>	0.6 t/m <sup>3</sup>	2950 mm	NA

## EXAMPLES OF MATERIAL DENSITIES

Granite, basalt, sand (damp), gravel (damp), slate:	1,8 - 2,2 t/m <sup>3</sup>	Topsoil, clay, mineral coal:	1,1 - 1,6 t/m <sup>3</sup>
Sandstone, gypsum, limestone, soil (damp), sand (dry), gravel (dry):	1,5 - 1,8 t/m <sup>3</sup>	Wood chips (dry), compost, coke:	0,2 - 1,0 t/m <sup>3</sup>

## OPTIONAL EQUIPMENT

### TIRES

23.5-25 EM 60 Mitas	650/65 R 25 GP-3D Goodyear
23.5 R 25 VSDT L5 Bridgestone	650/65 R 25 XLD Michelin
23.5 R 25 XHA2 L3 Michelin	750/65 R 25 VTS Bridgestone
23.5 R 25 XLDD 2A L5 Michelin	750/65 R 25 TL-3A+ Goodyear
23.5 R 25 XMINE D2 L5 Michelin	620/75 R 26 DT824 Goodyear
23.5 R 25 TL-3A+ Goodyear	Non-standard tires available on request
23.5 R 25 RT-3B Goodyear	

### FRONT ATTACHMENTS

HD bucket	3,00 m <sup>3</sup>	Light-material bucket*	5,00 m <sup>3</sup>
General-purpose bucket*	3,10 m <sup>3</sup>	Light-material bucket*	6,50 m <sup>3</sup>
Earth bucket*	3,30 m <sup>3</sup>	High-tip bucket*	4,50 m <sup>3</sup>
Light-material bucket*	4,00 m <sup>3</sup>	High-tip bucket*	6,50 m <sup>3</sup>

Fork carrier, 1900 mm wide, ISO 2328, class 3, form B

Forks, 1500 mm long, cross section 150x70 mm

Load hook, attachable on fork arms

Load hook integrated in quick-attach system

\*optionally with bolt-on cutting edge

### ENGINE

Diesel particle filter	Catalyst
Preheater for cooling water, 230 V	Cyclone prefilter

### OTHER OPTIONAL EQUIPMENT

"TÜV"-approval (Germany only)

Electrical tank refilling pump

Pilot-controlled hose-rupture valves for lift and tilt cylinders

Back-up alarm for reverse travel

Central lubrication system

Versa-Steer steering system

Automatic bucket return positioner

Automatic bucket return positioner incl. lift height limitation

Extended loader frame (+650 mm/+1250 mm)

Further optional equipment available on request

### DRIVER'S STAND

Operator's seat MSG85 (comfort version), hydraulic damping, extra-high backrest, weight-adjustable, lap belt

Air-cushioned operator's seat MSG 95 (premium version) with orthopedic lumbar support, extra-high backrest, adjustable armrests, headrest, seat and backrest heating

### HYDRAULIC SYSTEM

Open return 4th control circuit, electrical "on-or-off"

Filling with biodegradable hydraulic oil, ester-based, BIO-E-HYD-HEES 4th control circuit, proportional

### CAB

Right-hand door with sliding window Dust protection system

Working floodlights system Xenon Independent diesel heating with timer

Yellow beacon Anti-theft device (immobilizer)

Pressurized cab system Preparation for close range illumination

2 Zusatzscheinwerfer für Nahfeldbeleuchtung vorne 4 Zusatzscheinwerfer für Nahfeldbeleuchtung vorne und maschinenmittig

Registration package - Germany only - consisting of: safety labeling, adjustable bucket safety bar (teeth protector) with lighting and warning plates, license plate holder with illumination, yellow rotating beacon; in addition "TÜV" approval

Dynamic scales, with printer

Ride control system

Battery disconnecter

Protection for cardan shaft

Guard for front window

Guard for front lights

Guard for rear lights

[www.atlasgmbh.com](http://www.atlasgmbh.com)

**ATLAS GmbH**

Atlasstrasse 6, 27777 Ganderkesee, Germany

T: +49 (0) 4222 954 0, F: +49 (0) 4222 954 343

info@atlasgmbh.com

L310-EN (1) Effective from: August 2013. Product description and product prices may be changed at any time without prior notice. The photographs and/or drawings in this document are for illustrative purposes only. Refer to the appropriate Operator's Manual for instructions on the proper use of this equipment. Failure to follow the appropriate Operator's Manual when using our equipment or otherwise act irresponsibly may result in serious injury or death. The only warranty applicable to this product is the standard written warranty. Atlas makes no other warranty, expressed or implied, going beyond this guarantee. Products and services listed may be trademarks, service marks or trade-names of Atlas GmbH and/or its subsidiaries. All rights reserved. "ATLAS" is a registered trademark of Atlas GmbH. Copyright © 2013 Atlas GmbH.