

# AR 520

OPERATING WEIGHT  
6,450 - 7,050 kg

ENGINE OUTPUT  
80 kW (107 HP)

SHOVEL CAPACITY  
1.2 - 2.0 m<sup>3</sup>



 **Weycor**  
BY ATLAS WEYHAUSEN



## FIRST IMPRESSIONS COUNT!

weycor 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 generation of wheel loaders has been developed.

**6,450\*** KG OPERATING WEIGHT

**80** KW (107 HP) ENGINE OUTPUT

**1.2** M<sup>3</sup> SHOVEL CAPACITY

### Operating data

Shovel capacity	<b>1.2 m<sup>3</sup></b>
Track width	<b>1,640 mm</b>
Turning radius (outer shovel edge)	<b>4,700 mm</b>
Tear out force	<b>6,800 daN</b>
Torque	<b>5,290 daN</b>
Tipping load, straight	<b>5,170 kg</b>
Tipping load, articulated	<b>4,565 kg</b>
Lifting capacity at ground level	<b>6,035 daN</b>
Operating weight	<b>6,450 kg</b>

### Specifications

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

Static tipping load, straight and articulated	<b>3,625 kg</b>
Lifting capacity	<b>4,810 daN</b>
Payload 80% even surface**	<b>2,900 kg</b>
Payload 60% uneven surface***	<b>2,175 kg</b>

#### Sound level

Average sound power level L <sub>WA</sub> <sup>(1)</sup>	<b>100.0 dB(A)</b>
Guaranteed sound power level L <sub>WA</sub> <sup>(2)</sup>	<b>101.0 dB(A)</b>
Sound pressure level L <sub>pA</sub> <sup>(3)</sup>	<b>75.0 dB(A)</b>
Vibration values hand/arm/whole body vibration <sup>(4)</sup>	<b>&lt; 2.5/0.5 m/s<sup>2</sup></b>

\*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.

### Important Information on Shovel Size / Shovel Contents:

The details contained in this brochure relate solely to the weycor shovels referred to in the respective data sheet, with the associated technical parameters and configurations on which the respective CE approval for the device is based. The volume of the specific usable shovel depends on the material-specific bulk weights (t/m<sup>3</sup>) of the shovel contents, which you can take as approximations from the data sheet's TABLE OF SPECIFIC WEIGHTS IN t/m<sup>3</sup>. Regardless of this, neither the wheel loader's permissible working weight nor its permissible tipping loads may be exceeded. If the wheel loader is equipped with shovels that are not manufactured and licenced by Atlas Weyhausen GmbH, the buyer and / or the operator is solely responsible for compliance with the relevant statutory regulations and licensing requirements – particularly those relating to road-traffic and road-traffic-licensing law.

\*The operating weight may vary with different equipment. All technical information refers exclusively to the standard device.

# DETAILS THAT MAKE AN IMPRESSION

It is demanding to meet the new legal requirements for exhaust emissions. The challenge is to create also tangible benefits for our customers. We are proud to have achieved both in the development of the current wheel loader generation: more power - less consumption, plus a number of others innovations that really make a difference on tough construction sites.

## State of the art kinematics

weycor Z-kinematics is characterised by high frictional forces and excellent lifting heights. The very good parallel guide provides the optimal prerequisites for using pallet forks. When the hoist is lowered with the shovel, the shovel returns automatically to the digging position. The boom that is tapered towards the top provides the best possible view of the attachment and working area at all times, even under difficult operating conditions.

## 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.

## Articulated-pendulum joint

In weycor wheel loaders, we use robust, low-maintenance articulated-swivel joints almost exclusively in conjunction with rigid axes. With an oscillation of  $\pm 12^\circ$  in the rear carriage and an articulation angle of  $40^\circ$ , these provide outstanding cross-country mobility, protect the ground and offer extreme manoeuvrability. With their low centre of gravity, weycor wheel loaders have a high tilt stability even under extreme conditions.

## 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

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.

## Inching Pedal

As the only manufacturer, our wheel loaders have a separate inching pedal as standard. This prevents the possibility of moving against the operating brake, in contrast to the combination of a brake/inch pedal. A generously proportioned inching range facilitates precise distribution of shearing and lifting forces. The result: less wear and lower fuel consumption.

## Spring-loaded brake

The spring-loaded or negative brake in weycor wheel loaders is a closed brake system (oil bath multiple-disc brake) which holds the wheel loader securely in position on a slope when the brake or inch function is activated and automatically locks all four wheels when the engine is at a standstill. The multiple-disc brake runs in the oil bath and is particularly low-maintenance and low-wearing as a result.



# INNOVATIVE ENGINE TECHNOLOGY

## TCD 3.6 L4 – intelligent efficient:

We have been convinced of the quality of Deutz engines for over 40 years. Our cooperation with Deutz also offers numerous benefits for the AR 520: such as the electronic engine control with intelligent connection to the drive management. This ensures the best engine performance with low fuel consumption.



## Deutz engine technology: TCD 3.6 L4

Water-cooled 4-cylinder inline engine with cooled, external exhaust gas recirculation with turbocharging and with charge air cooling. The powerful Common Rail injection system and the electronic engine control (EMR) with intelligent link to the drive management ensure optimum engine performance at low fuel consumption. Through the use of the diesel particulate filter, the engines comply with the EU Stage V emissions standard 2019.

## Mighty performance

80 kW at a maximum of 2,200 rpm

## Compliance with emission standards

Standard: DOC + SCR / Option: DOC / DPF + SCR / current EU Stage IV



# TECHNICAL DATA

Engine	
Model	TCD 3.6 L4
Design	water-cooled
Output	80 kW (107 HP) at 2,200 rpm
Max. torque	430 Nm at 1,300 rpm
Cubic capacity	3,621 cm <sup>3</sup>
Number of cylinders	4 in line

Electrical system	
Operating voltage	12 V
Battery	12 V / 100 Ah
Generator	14 V / 95 A
Starter	12 V / 3,2 kW

Drive
Output-regulated hydrostatic drive with pressure cut off and closed circuit acting on all 4 wheels. Speed with standard tires: <b>Operating speed range</b> 0–6.5 km/h <b>Road speed range</b> 0–20 km/h <b>Optional high speed</b> 0–40 km/h 1st and 2nd hydraulic gear can be engaged under load, forward/backward travel also. Forward/backward travel, speed ranges and off-position operational via weycor joystick. Drive operated by accelerator and separate inching pedal for best distribution of the hydraulic power for thrust and lifting forces.

Brakes
<b>Standard brake:</b> 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. <b>Parking brake:</b> Parking brake as springloaded brake acting on all 4 wheels. In case of standstill of engine the spring-loaded brake is automatically reactivated.

Axles
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 <small>(Special tires upon request)</small>
<b>Standard:</b> 405/70 R20 EM – Construction machine tires for clay, sand, gravel, asphalt, roads, gardening and landscaping <b>Special tires:</b> 400/70 R20 XMCL – Construction machine tires for clay, sand, gravel, fields and greenland, fortified roads

Hydraulic system
Gear pump for loading and steering hydraulics Priority valve favoring steering hydraulics 3rd hydraulic section serial Loading hydraulic hydraulically pre-activated by weycor joystick, including float position Operating pressure 280 bar, Delivery of pump 72 l/min

Fuel/oil capacities	
Diesel	130 Liter
Hydraulic oil	86 Liter
Engine oil	9.5 Liter
Front axle	4.5 Liter
Rear axle	4.2 Liter
Gear oil	2.5 Liter
Cooling liquid	17 Liter
AdBlue	10 Liter

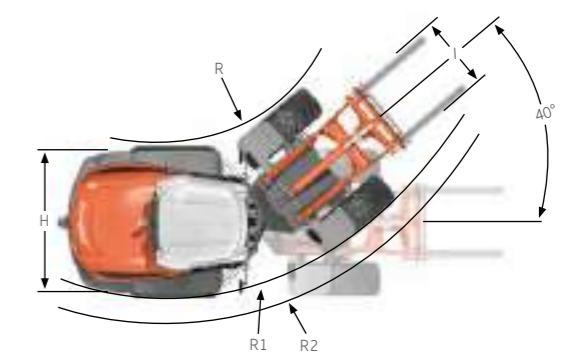
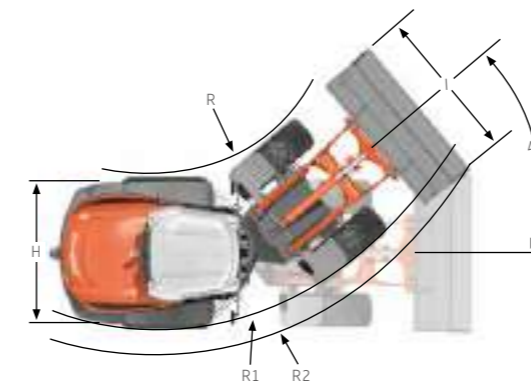
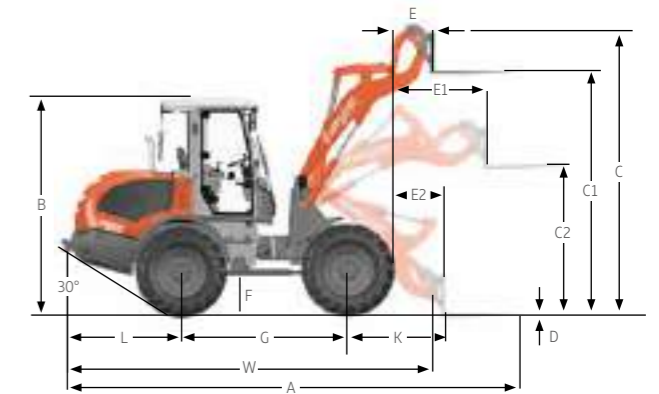
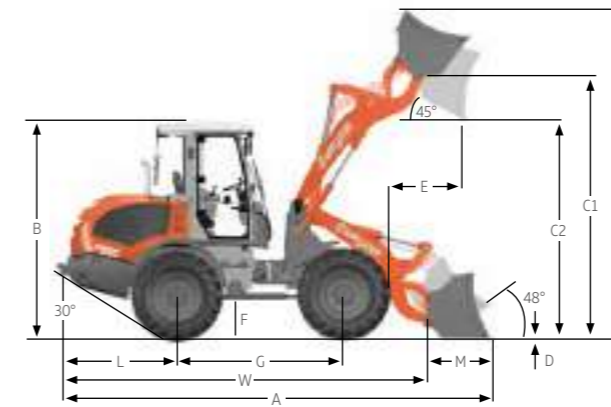
Loading equipment	
Powerful and solid Z-kinematics with high tear out force Hydraulic quick change device Activation of all functions by weycor joystick Parallel movement while using pallet forks Automatic shovel return to excavation position Locking device acc. to German StVZO for road travel	
<b>Lifting</b>	<b>5.0 s</b>
<b>Lowering</b>	<b>3.2 s</b>
<b>Tipping</b>	<b>1.2 s</b>

Equipment – Series
Rear driving mirrors, foldable Heatable rear screen Comfortable access to cab from both sides Activation of all functions by weycor 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 Water heating with heat exchange and 3-stage fan Front windscreen ventilation, variable output Sound absorbing ROPS cab Windscreen wipe and wash unit in front and rear Sun visor, coat hook, ceiling lamp, stow facility Adjustable steering column Heat protection glazing with largetinted 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 Joystick with integrated proportional steering for 3rd section weycor diagnostic system (ADS) for monitoring engine parameters with integrated electronic anti-theft device weycor joystick with knurled wheel and slide switch

Equipment – Option
4th hydraulic section front or rear Stability damping system Slow drive inching pedal High speed version 40 km/h Extended lifting frame Preparation for Hydraulic hammer, Hand throttle device Load check valve for lifting and working cylinders Trailer coupling Main battery switch Corrosion prevention against salt Special paintings and oils Anti-theft-device with code stick Heatable and air cushioned seats Radio Doors with sliding windows, left and right side Electrically adjustable and heated exterior rearview mirrors Telescopic steering column Air conditioning FOPS-II-roof LED work light DPF Reverse gear alarm 12 V socket 2-pin 12 V socket 13-pin Bucket level indicator

# TECHNICAL DATA

	AR 520 with standard shovel	AR 520 with pallet forks
A	5,655 mm	6,008 mm
B	2,820 mm	2,820 mm
C	4,285 mm	3,954 mm
C1	3,445 mm	3,275 mm
C2	2,681 mm	1,520 mm
D	12 mm	8 mm
E	776 mm	549 mm
E1	-	1,329 mm
E2	-	778 mm
F	530 mm	530 mm
G	2,199 mm	2,199 mm
H	2,079 mm	2,079 mm
I	2,150 mm	1,080 mm
K	-	1,344 mm
L	1,480 mm	1,480 mm
M	855 mm	-
R	2,050 mm	2,050 mm
R1	4,060 mm	4,060 mm
R2	4,700 mm	4,700 mm
W	4,800 mm	4,800 mm



With standard shovel

With pallet forks

## Specific gravity for material handling weight (t/m<sup>3</sup>)

Construction		Industry		Landscaping, Agriculture			
Concrete	1.9	Sand (watery)	2.1	Ember	0.7	Agricultural crop	0.7
Soil (dry)	1.5	Sandstone	2.4	Brown coal briquette	0.8	Grain	0.6
Soil (watery)	2.0	Shale	2.2	Ferrous product	7.8	Hay	0.3
Rock (fill)	2.4	Sediment	2.1	Iron ore	2.3	Potash	1.1
Granite	1.8	Crushed stone	1.5	Cullet	1.9	Compost	1.0
Limestone	1.6	De-icing salt	1.3	Gas coke	0.4	Flour	0.5
Gravel (dry)	1.9	Clay	1.6	Timber	0.8	Clay (watery)	2.3
Gravel (watery)	2.1	Cement	1.7	Mineral coal	1.2	Phosphate fertiliser	2.2
Loam	1.7	Clinker (stacked)	1.8	Paper	0.9	Turf (watery)	1.1
Plaster	2.2			Slag	1.0	Turf (dry)	0.4
Sand (dry)	1.9			Slag concrete	2.7	Mineral fertiliser	1.0



You can find our current product range and more exciting details at: [www.products.weycor.de](http://www.products.weycor.de) or [www.weycor.de](http://www.weycor.de)

weycor is a brand of ATLAS WEYHAUSEN GMBH.

ATLAS WEYHAUSEN GMBH · D - 27793 Wildeshausen  
Phone +49 (0) 44 31 - 98 10 · [info@weycor.de](mailto:info@weycor.de) · [www.weycor.de](http://www.weycor.de)



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