

# AR 580

OPERATING WEIGHT  
9,600 - 9,700 kg

ENGINE OUTPUT  
100 kW (134 HP)

SHOVEL CAPACITY  
1.8 - 2.6 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.

**9,700<sup>(1)</sup> KG** OPERATING WEIGHT

**100<sup>(2)</sup> KW (134 HP)** ENGINE OUTPUT

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

### Operating data

Shovel capacity	<b>1.8 m<sup>3</sup></b>
Track width	<b>1,780 mm</b>
Turning radius (outer shovel edge)	<b>5,250 mm</b>
Tear out force	<b>7,000 daN</b>
Torque	<b>6,190 daN</b>
Tipping load, straight	<b>7,573 kg</b>
Tipping load, articulated	<b>6,706 kg</b>
Lifting capacity at ground level	<b>8,200 daN</b>
Operating weight	<b>9,700 kg</b>

### Specifications

#### Differing data for use of pallet forks<sup>(3)</sup> (500 mm distance to center of gravity)

Static tipping load, straight and articulated	<b>5,727 kg</b>
Lifting capacity	<b>6,800 daN</b>
Payload 80% even surface <sup>(4)</sup>	<b>4,582 kg</b>
Payload 60% uneven surface <sup>(4)</sup>	<b>3,436 kg</b>

#### Sound level

Average sound power level L <sub>WA</sub> <sup>(5)</sup>	<b>100.0 dB(A)</b>
Guaranteed sound power level L <sub>WA</sub> <sup>(5)</sup>	<b>101.0 dB(A)</b>
Sound pressure level L <sub>PA</sub> <sup>(6)</sup>	<b>79.0 dB(A)</b>
Vibration values hand/arm/whole body vibration <sup>(7)</sup>	<b>&lt; 2.5/0.5 m/s<sup>2</sup></b>

(3) Loads must always be moved to the ground. (4) According to ISO 8313 and EN 474-3. (5) According to 2000/14/EC and Annexes. (6) According to ISO 6396. (7) 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.

(1) Service weight may vary with different equipment.

(2) Power output ISO 14396, exhaust gas aftertreatment according to EU 2016/1628. All technical data refer exclusively to the standard unit.

# 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

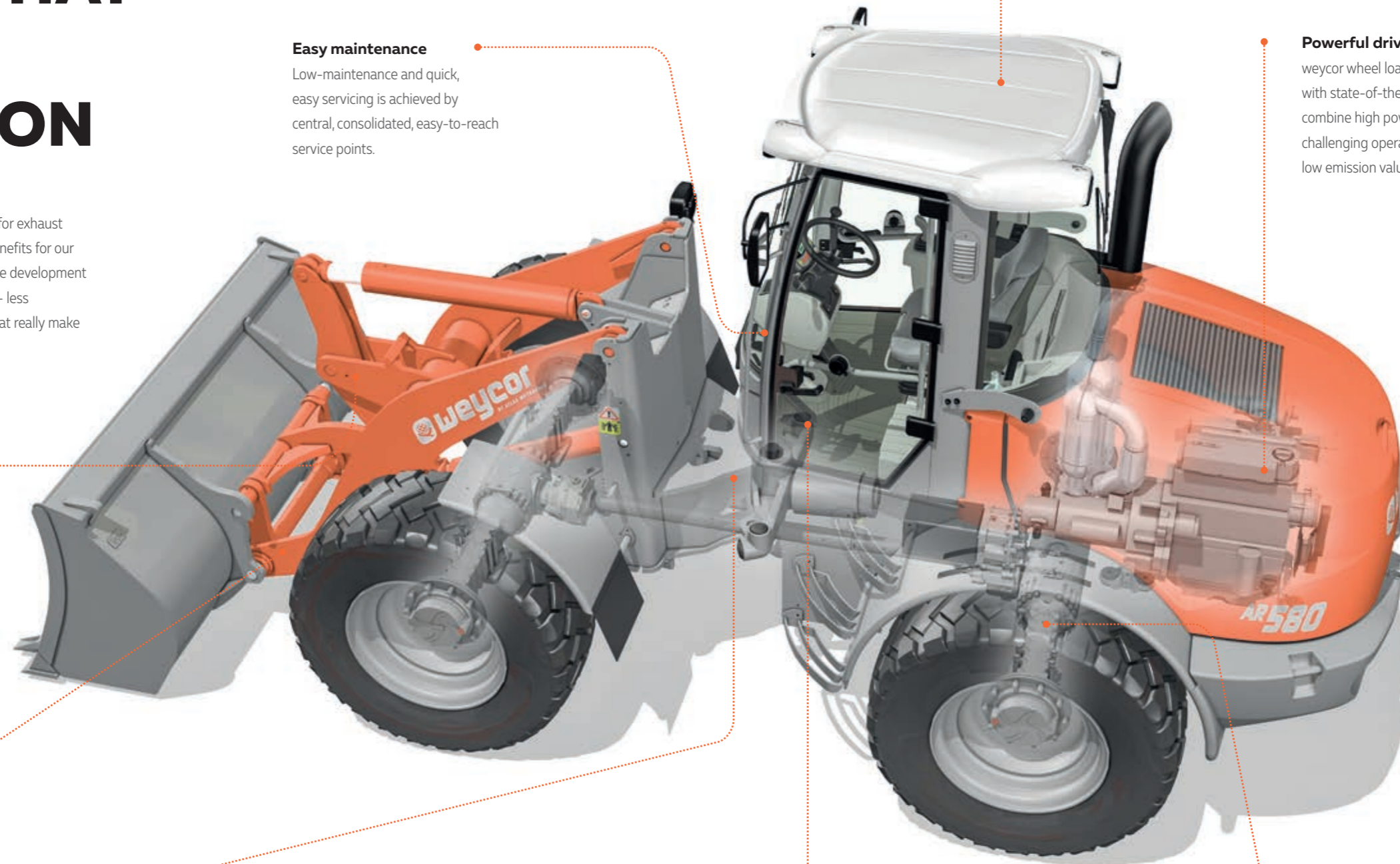
weycor wheel loaders are equipped with state-of-the-art engines which combine high power reserves for challenging operations with up-to-date low emission values.

## 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

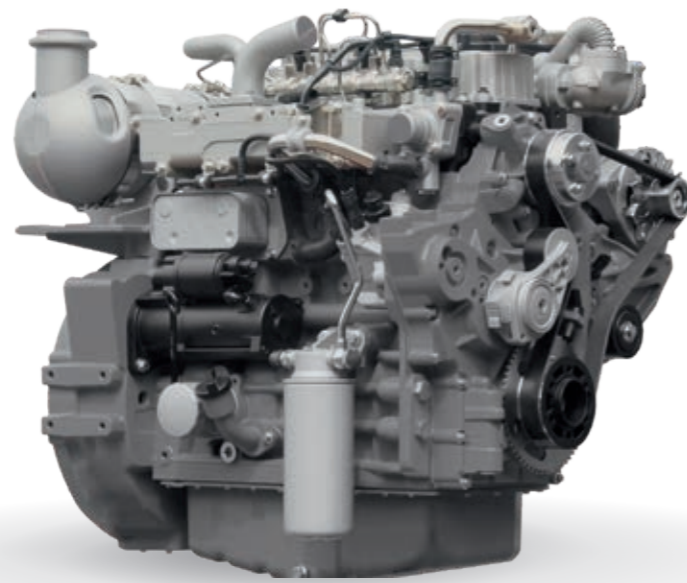
The spring-loaded or negative brake in weycor wheel loaders is a closed brake system (oil bath multiple-disc brake) which holds the wheel loader securely in position on a slope when the brake or inch function is activated and automatically locks all four wheels when the engine is at a standstill. The 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 580: 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

100 kW at a maximum of 2,200 rpm

## Compliance with emission standards

EU Stage 5 - DOC + DPF + SCR from 2019



# TECHNICAL DATA

Engine	
Model	TCD 3.6 L4
Design	water-cooled
Output	100 kW (134 HP) at 2,200 rpm
Max. torque	500 Nm at 1,600 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 / 4 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> 17.5-25 EM – Construction machine tires for relatively soft surface with high traction and good self-cleaning	
<b>Special tires:</b> 460/70 R24 XMCL – Construction machine tires for clay, sand, gravel, fields and greenland, fortified roads	
455/70 R24 SPT 9 – Construction machine tires for clay, sand, gravel, fortified roads, gardening and landscaping	

Hydraulic system	
Variable 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 250 bar, Delivery of pump 138.6 l/min	

Fuel/oil capacities	
Diesel	120 Liter
Hydraulic oil	106 Liter
Engine oil	8 Liter
Front axle	7.2 Liter
Rear axle	7.2 Liter
Gear oil	1.8 Liter
Cooling liquid	23 Liter
AdBlue	10 Liter

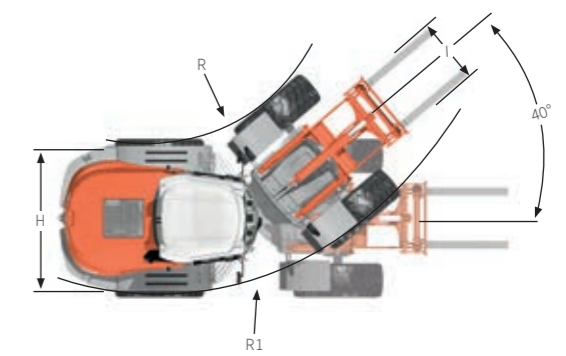
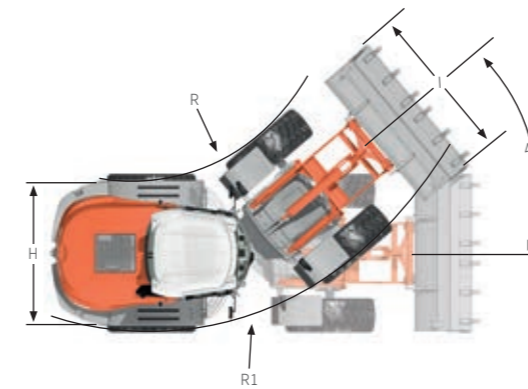
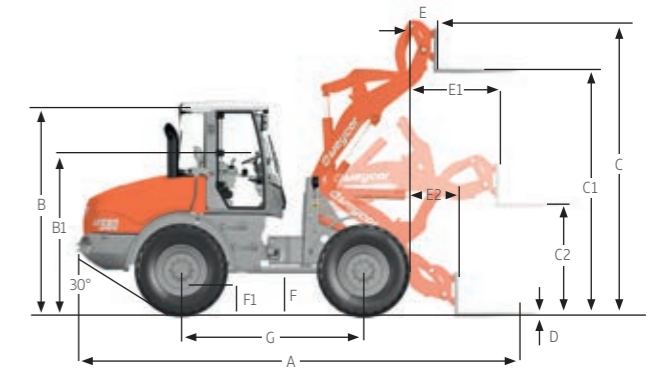
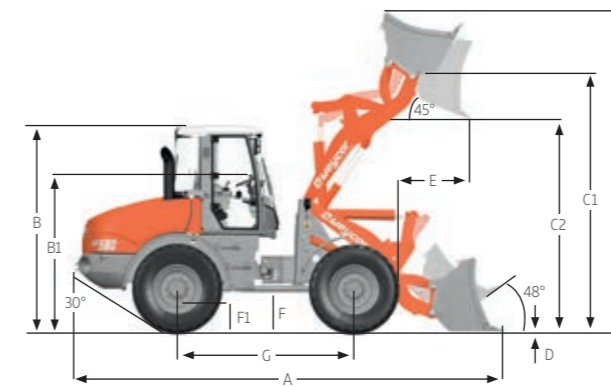
Loading equipment	
Powerful and solid Z-kinematics with high tear out force	
Hydraulic quick change device	
Activation of all functions by weycor joystick	
Parallel movement while using pallet forks	
Automatic shovel return to excavation position	
Automatic center position	
Locking device acc. to German StVZO for road travel	
<b>Lifting</b>	<b>5.9 s</b>
<b>Lowering</b>	<b>4.0 s</b>
<b>Tipping</b>	<b>1.6 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	
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 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	
weycor diagnostic system (ADS) for monitoring engine parameters with integrated electronic anti-theft device	
weycor joystick with knurled wheel and slide switch	

Equipment – Option	
Stability damping system	
Trailer coupling	
High speed version 40 km/h	
Main battery switch	
Corrosion prevention against salt	
Special paintings and oils	
Warning beacon	
Anti-theft-device with code stick	
Heatable and air cushioned seats	
Air conditioning	
Radio	
Doors with sliding windows, left and right side	
LED work light	
DPF	
Reverse gear alarm	
12 V socket 2-pin	
12 V socket 13-pin	
Bucket level indicator	

# TECHNICAL DATA

	AR 580 with standard shovel	AR 580 with pallet forks
A	6,405 mm	6,780 mm
B	2,990 mm	2,990 mm
B1	2,205 mm	2,205 mm
C	4,880 mm	4,200 mm
C1	3,810 mm	3,600 mm
C2	2,930 mm	1,700 mm
D	65 mm	50 mm
E	940 mm	490 mm
E1	-	1,320 mm
E2	-	660 mm
F	570 mm	570 mm
F1	410 mm	410 mm
G	2,650 mm	2,650 mm
H	2,225 mm	2,225 mm
I	2,300 mm	1,400 mm
R	2,540 mm	2,540 mm
R1	4,850 mm	4,850 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.weycor.de](http://www.weycor.de)

Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice, errors expected. The technical data refer only to the standard version, illustrations do not necessarily show the standard version of the machine. Not all products are available in all markets.

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)



# AR620

OPERATING WEIGHT  
12,750 - 15,000 kg

ENGINE OUTPUT  
115 kW (154 HP)

SHOVEL CAPACITY  
2.2 - 3.5 m<sup>3</sup>



 **weycor**  
BY ATLAS WEYHAUSEN



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**WE'VE TAKEN IT TO  
THE LIMIT AND WE'VE  
THOUGHT OUTSIDE THE  
USUAL BOUNDARIES –  
AND DONE BUSINESS  
BEYOND THEM.**

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Artur Gabriel, Head of Design & Development  
on the AR 620



# 07

## TYPICAL WEYCOR!

The flexibility of a medium-sized enterprise and an outstanding team spirit combine to produce stellar results.

# 09

## THE FIRST IMPRESSION

The AR 620 in impressive figures.

# 12

## XXL EQUIPMENT

Six arguments that make our new wheel loaders unique.

# 14

## LIMITLESS

The AR 620 feels at home everywhere, in earthworks and civil engineering, materials handling or extraction.

# 18

## GREAT VIEW

360° all-round view and modern ergonomics to ensure comfort and precision while on the job.



# 22

## BETTER EQUIPPED

The highlights of the AR 620 are impressive!



# 24

## INNOVATIVE!

Powerful hydraulics and the latest control technology for work efficiency.

# 26

## MORE FROM LESS

Best engine performance with low fuel consumption.

# 28

## NUMBERS AND FIGURES

All technical specifications and important data at a glance.





# QUALITY AND RELIABILITY. EVEN IN THE XXL SERIES.

The exceptional flexibility of a medium-sized company and the outstanding team spirit which binds our employees as well as our dealers guarantee a high performance potential for our products. "Short and sweet", just how we like it in northern Germany: our organisation is clearly structured, our dealers are involved in our ideas, and decisions get made very quickly.

What's more, the opinions of our customers were also very important to us during the development process and had a positive influence on our decisions. The results are impressive: an XXL construction machine that meets the highest requirements in various application areas. The AR 620 – the new power class from Atlas Weyhausen.

## 1971

### Launch of wheel loader production in Wildeshausen

AR 70 is the very first wheel loader to be produced in Wildeshausen in 1971. The identifier "AR" stands for "ATLAS Radlader (wheel loaders)" and has been used by customers and dealers as part of the naming process ever since.

## 1975

### First wheel loader with hydrostatic drive

Hydrostat – the new drive concept – replaces the manual gearbox. A hydrostat is often the optimal type of drive when the continuous adjustment of wheel loader speed is required.

## 1998

### New wheel loader concept

Rethinking wheel loaders: with a new design characterised by rounded shapes and a newly developed workplace, the best all-round vision and ergonomic aspects, we are ready for the future.

## 2005

### Compaction equipment from Wildeshausen

Compaction technology is in world-wide demand. In order to reach new markets, we are introducing single drum rollers and tandem rollers into our range. The construction and production take place in Wildeshausen.

## 2013

### Wheel loaders of the e-generation

The new wheel loader generation with the suffix "e" fulfils all the requirements of the stricter emission guidelines – and even surpasses them! In addition, all e-models enjoy a significant increase in performance.

## 2016

### weycor by Atlas Weyhausen // New XXL wheel loaders

From the ATLAS brand comes weycor. The products from Wildeshausen now have a new brand name. Nothing else has changed!

Atlas Weyhausen revealed the AR 660 for the first time at the bauma 2016. The series was launched in April 2017.



## FIRST IMPRESSIONS COUNT!

We think the weycor XXL wheel loader is great. But the AR 620 is on a whole other level! With the AR 620, you get a power class that offers plenty for every application worldwide. It is tailor-made in every detail for your driver's comfort and work. On top of all this, the engine is extremely strong, leading-edge, environmentally friendly and impressively economical in its consumption.

**12,750<sup>(1)</sup> KG** OPERATING WEIGHT

**115<sup>(2)</sup> KW (154 HP)** ENGINE OUTPUT

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

### 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.

(1) Service weight may vary with different equipment.

(2) Power output ISO 14396, exhaust gas aftertreatment according to EU 2016/1628. All technical data refer exclusively to the standard unit.

### Dimensions

Operating weight	<b>12,750 kg</b>
Engine output <sup>(2)</sup>	<b>115.0 kW</b>
Model	<b>Deutz diesel engine</b>
Design	<b>water-cooled</b>
Max. torque	<b>609 Nm</b>
Cubic capacity	<b>4,038 cm<sup>3</sup></b>
Number of cylinders	<b>4 in line</b>
Operating voltage	<b>24 V</b>
Fuel capacity	<b>250 litres</b>

### Specifications

Turning radius around shovel edge	<b>5,497 mm</b>
Breakout force	<b>8,000 daN</b>
Thrust	<b>10,868 daN</b>
Tipping load extended	<b>8,762 kg</b>
Tipping load bent	<b>7,657 kg</b>
Average sound power level L <sub>WA</sub> <sup>(3)</sup>	<b>100.0 dB(A)</b>
Guaranteed sound power level L <sub>WA</sub> <sup>(3)</sup>	<b>101.0 dB(A)</b>
Sound pressure level L <sub>PA</sub> <sup>(4)</sup>	<b>69.0 dB(A)</b>
Vibration values hand/arm/whole body vibration <sup>(5)</sup>	<b>&lt; 2.5/0.5 m/s<sup>2</sup></b>

(3) According to 2000/14/EC and Annexes. (4) According to ISO 6396. (5) According to ISO 8041.



# AN XXL SIZE WITH XXL EQUIPMENT



1

## 100 % electrically-operated differential lock in front and rear axles

Powerful propulsion and high traction when needed. Wear on tyres is reduced.



2

## Work cabin – with maximum all-round visibility

The curved front windscreen, the uninterrupted side window to the right with flush sliding window and the recessed rear windscreen provide an extraordinary all-round view.

The modern ergonomics of the driver's seat and the optimal accessibility of both the display controller and joystick eliminate work fatigue.



3

## Most powerful engine and best power to weight ratio in its class

Sensitively tuned 2-stage drive and unique balance between thrust and lifting power. 115 kW (154 HP) offer significant power reserves.



4

## Adjustable pulling force limit with 100 % kick-down function – for more power

Adjust the traction force to any substrate via the weycor controller – and go full power at any time using the weycor joystick by pressing the button for maximum push/pull.



5

## Separate inch pedal and the drive pedal function – for greater sensitivity

Typical for weycor wheel loaders is the separate inch pedal for the sensitive distribution of thrust and lifting forces. The use of the accelerator as the drive pedal is just as practical. When using the hand throttle, the engine speed is kept constant, however the angle in the drive pump is variable, so the thrust can be finely regulated.



6

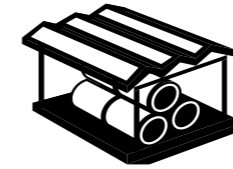
## Extremely compact dimensions and low profile – for excellent visibility

The total height of an AR 620 with the standard tyre is 3.25 m. The compact design is a continuation of the style from the compact wheel loader series with excellent visibility.



# APPLICATION WITHOUT LIMITS

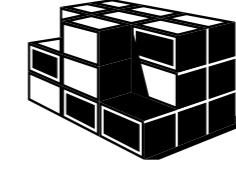
The AR 620 – the “Swiss army knife” of wheel loaders. There are no limits to our new workhorse, from the sandpits to industrial or agricultural use. A mighty engine provides a powerful drive with optimum traction, while the proven and robust weycor kinematics ensure high breakout forces and excellent lifting heights. With the appropriate accessory tool, the AR 620 is at home anywhere.



## CIVIL ENGINEERING AND EARTHWORK

### Loading shovel

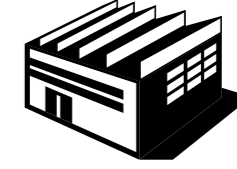
For earthmoving work and transporting all kinds of bulk materials.



## MATERIALS HANDLING

### Light cargo shovel

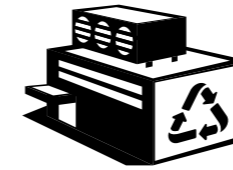
Large volume shovel with or without teeth – depending on the density of the material.



## EXTRACTION

### Heavy duty shovel

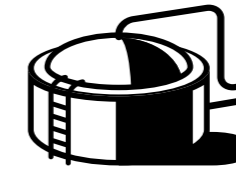
Suitable for heavy cargo and earthwork, generally in a reinforced construction and with wear-resistant shovel blade.



## RECYCLING

### Shovel with hold-down device

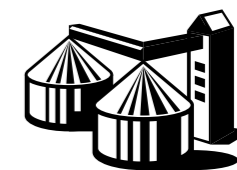
A hydraulic hold-down device is used to secure loose or bulky material in the shovel.



## AGRICULTURE AND BIOGAS

### Agricultural attachments

Whether you need a bulk material shovel, high-tipping shovel, green forage fork or silo removal technology – versatility is a must in agriculture.



## FORESTRY

### Logging fork

Suitable for loading logs and timber, generally in a fork or hook design.





# GREAT VIEWS FROM THE CABIN

The cabin in the AR 620 is a completely new experience. We ensure a low sound level and a high level of safety as standard.

We also place great importance in optimal 360-degree all-round visibility, so the driver of the AR 620 can always keep their eyes firmly on their work environment.

The display and control elements also provide a good overview: Following an extensive visual field analysis, we ensured the optimal placement of all switches in the cabin, while keeping the display tidy and reduced to the essentials.

The cabin interior is rounded off with a well thought-out ventilation system and ergonomic design. The perfect atmosphere for work!



## All-round visibility

The curved front windshield, the uninterrupted side window to the right with flush sliding window and the recessed rear windscreen provide an extraordinary all-round view – for precise work.



## Narrow steering column

The steering column occupies only a third of the entire front and ensures seamless control of the shovel movements.



## High safety

In addition to the specifications for ROPS, all FOPS Level 2 safety precautions were also included in the construction of the cabin – for maximum safety.



## Low sound level

Thanks to good insulation, we have managed to achieve one of the lowest sound levels on the market. All equipment and elements that produce noise and heat are outside the cabin.



## Seat comfort to reduce fatigue

The modern ergonomics of the driver's seat and the optimal accessibility of both the display controller and joystick eliminate work fatigue.



## Carefully considered ventilation

The air filter placement at the highest, dust-free point of the machine guarantees fresh air in the interior. Additionally, an overpressure in the cabin prevents the entrance of pollutants.

UNIQUE FIELD OF VISION



Front:  
**Unobstructed view at floor level without steering column blockage**



Side and rear:  
**Perfect all-round vision without the need for a rear-view camera**

CAREFULLY CONSIDERED DISPLAY



Display:  
**Simplified and clear display for ease of operation**



Controller:  
**Variable key fields for driving and working**

ADJUSTABLE STEERING WHEEL



Steering wheel:  
**Individually adjustable in height and angle – the display swivels with**

INTUITIVE OPERATION



Control & operating elements:  
**Reduced elements for intuitive operation, joystick moves ergonomically with the seat and fits any hand size**

GENEROUS STORAGE SPACE



Storage options:  
**Fixed place for Euro boxes – for documents and the driver's private things, ideal for multi-shift operation**

# MORE FROM LESS

4 cylinder, 154 HP: The AR 620 moves forward with power. Here, too, we've considered far ahead. The goal was to reduce fuel consumption by sustainably increasing the overall efficiency of the engine, for example by reducing the diesel engine speed and including generously designed hydraulic components. Due to the electronically controllable individual components, the components in the AR 620 are capable of communicating.

The diesel engine thus delivers only as much power as is actually required. This reduces consumption, emissions and noise.

## The latest kinematics

Tried and tested weycor kinematics with high breakout forces and an excellent lifting height.

## Optional hydraulic quick-change mechanism according to ISO 23727

Makes it possible to change the attachment in seconds and turns the wheel loader into a real all-rounder.

## Easy servicing

Fast, easy maintenance and upkeep as a result of centrally arranged, easily-accessible service points.

## Articulated joint & floating axle

For outstanding off-road capability and manoeuvrability. Unique stability because of the low centre of gravity, even off-road.

## Comfortable cabin

Safe, fatigue-free working with excellent all-round visibility, clearly arranged instruments and ergonomic design. Readied additional mounting points for optional accessories.

## Powerful drive

Optional traction via 100 % electrically-operated differential lock in front and rear axles.

## Unique engine mount

Independent suspension of the engine decoupled from the axle to avoid vibration and noise emission.

## Only manufacturer with a separate inching pedal & the drive pedal function

Precise distribution of shearing and lifting forces, along with reduced wear and fuel consumption. Unlike a combined braking / inching pedal, the separate inching pedal eliminates the risk of inadvertently activating the main brake. The use of the accelerator as the drive pedal is just as practical. When using the hand throttle, the engine speed is kept constant, however the angle in the drive pump is variable. Here, again, the thrust force is finely regulated.

## Wear-free negative brake

Holds the wheel loader securely in position on a slope when the brake or inching function is activated. All four wheels are automatically locked, even when the engine is stopped. The multiple-disc brake runs in an oil bath and is particularly low-maintenance and low-wearing as a result.



# INNOVATIVE HYDRAULICS CONCEPT

## Power to perform

The hydraulics concept was developed and carefully coordinated with Bosch Rexroth. Powerful hydraulics and extreme user-friendliness position the new weycor large wheel loader as a front-runner amongst high-performance loaders of this size.

## Flexible working hydraulics

Designed for fast movement at low speeds – the latest control valve technology and high forces ensure efficient work.

## Fan drive

On-demand fan drive allows reduced emissions and fuel savings, even at outdoor temperatures of up to 50 °C.

## Individual settings

The weycor display control system and quick-access buttons offer the driver a wide range of possible setting options, including diesel engine speed, flow rate and continuous operation.

## Drive

Powerful hydrostatic drive with fine dosing allows working in confined space without using the brake. The drive is optimally tuned to the diesel engine and runs steplessly up to 40 km/h with two drive engines. Both engines are operated up to 14 km/h. After that, the engine with the larger volume is swivelled into the zero position and the complete oil flow is made available only to the second engine with the smaller volume. Thermal problems are thus avoided. In addition, different driving modes (optional) can be set.

## Charge mode

Maximum performance at up to 2000 rpm, high speed of work functions and dynamic acceleration and deceleration enable high handling performance.

## Pallet mode

Thanks to the high engine speed in this driving mode, the machine is also able to accelerate and decelerate smoothly when the driver needs to drive delicately. This mode can also be used for shovel operation.

## Powerful

The engine reaches its maximum torque at 1600 rpm.

## Pulling force limit

Reduction of the pulling force to adapt to different substrates and to minimise tyre wear. Via the kick-down button on the joystick, the limit can be overridden at any time with 100 % power for a short period.

## Speed limit

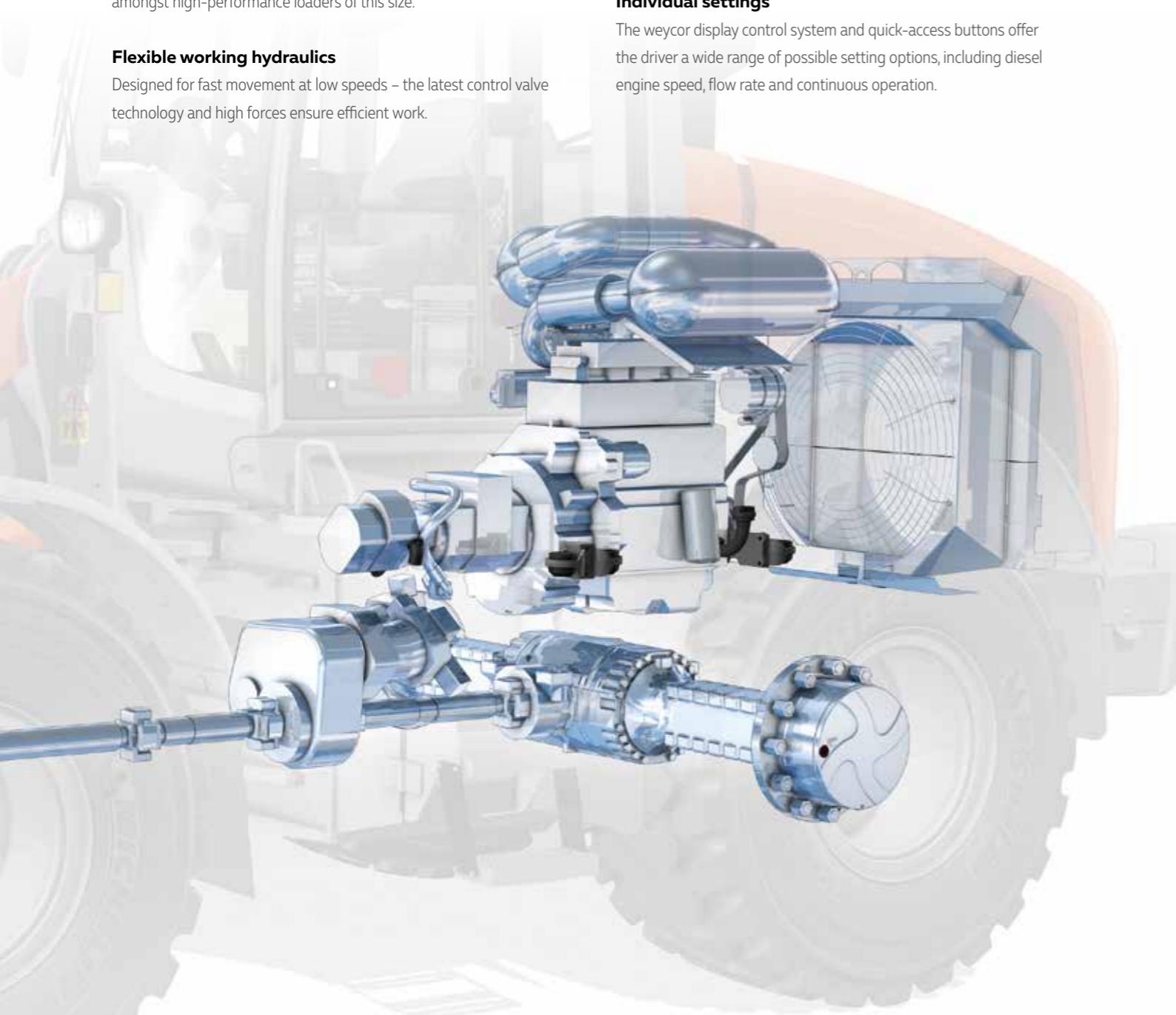
Limit the maximum speed for certain applications – regardless of the driving mode.

## Hand throttle

Pre-selectable engine speed for applications such as snow ploughing, etc. The accelerator pedal serves as the drive pedal in this case and determines the speed of the machine.

## Cruise control

Relieve the driver during longer journeys at a constant speed.



# INNOVATIVE ENGINE TECHNOLOGY

## TCD 4.1 L4 – intelligent and efficient

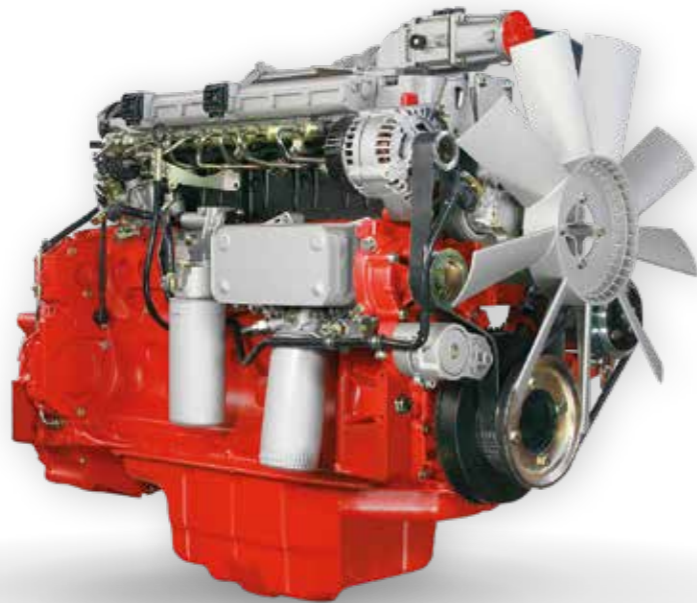
We have been convinced of the quality of Deutz engines for over 40 years. Our cooperation with Deutz also offers numerous benefits for the AR 620: such as the electronic engine control with intelligent connection to the drive management. This ensures the best engine performance with low fuel consumption. The water-cooled TCD 4.1 L4 diesel engine is at the heart of our new power class.

## Mighty performance

115 kW at a maximum of 2000 rpm

## Compliance with emission standards

Thanks to the exhaust system used, the engine complies with DOC/DPF/SCR TIER IV final and EU Stage 5.

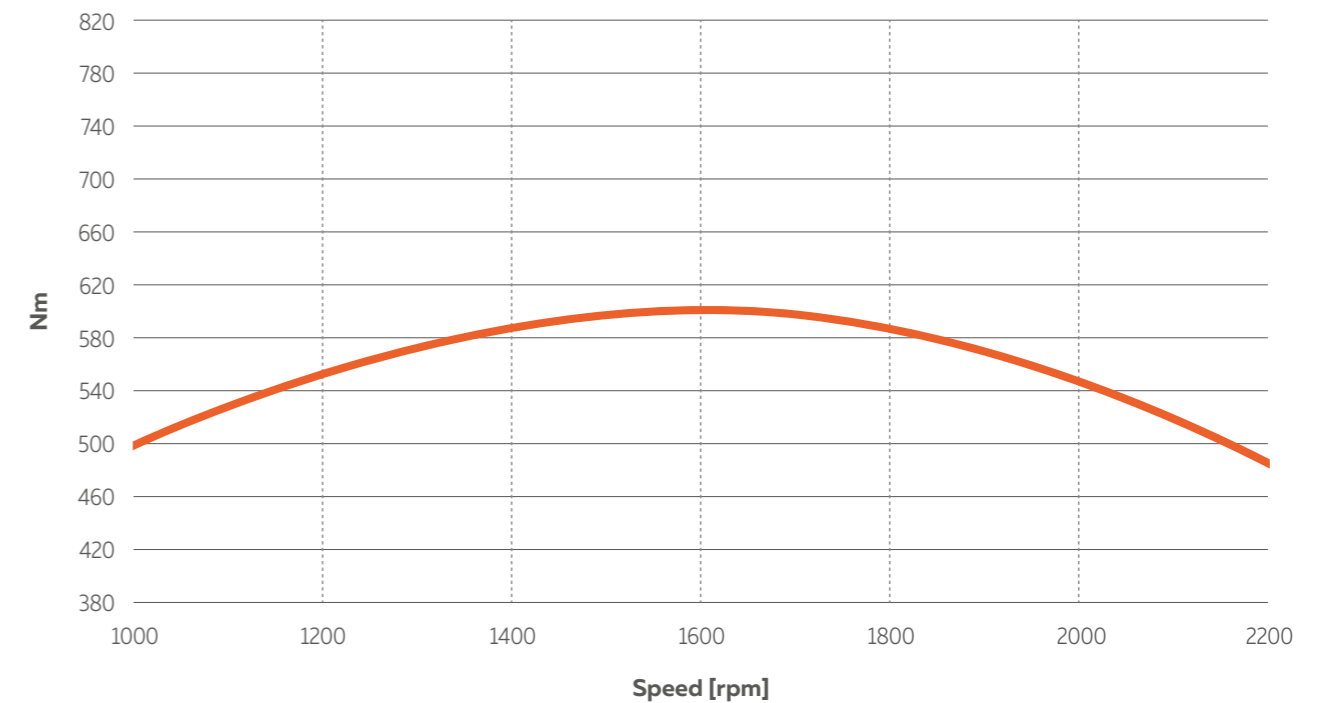


## Deutz engine technology: TCD 4.1 L4

Water-cooled 4-cylinder inline engine with cooled, external exhaust gas recirculation with turbocharging and with charge air cooling. Engine and exhaust aftertreatment (EAT) are optimised for highest total system efficiency and thus ensure lowest consumption and total operating cost. Consistent installation and connection dimensions of the engine facilitate the changeover of existing installations to the next stage of the emission laws. The size and design of the engines will remain identical in the change to Stage V due to a protected technology. No changes to the customer's device. A variant without EAT is available as an option for less regulated markets. The powerful DEUTZ Common Rail (DCR®) injection system and the electronic engine control (EMR) with intelligent link to the drive management ensure optimum engine performance at low fuel consumption. The engines meet the requirements of the EU Stage IV and US EPA Tier 4 with DVERT® selective catalytic reduction (SCR) and particulate filter (DPF). Through the use of the DPF they already comply with the EU Stage V emissions standard valid from 2019.

# HIGH ENGINE POWER – AT LOW ENGINE SPEED

## Torque characteristic



## Powerful

The engine reaches its maximum torque at 1600 rpm.

## Powerful fan drive with optional fan reversal for quick cleaning

Fan drive with electronic control and optimum efficiency in every speed range thanks to a generously sized variable displacement pump.

# TECHNICAL DATA

Engine	
Model	Deutz TCD 4.1 L4 diesel engine
Design	water-cooled
Output	115 kW <sup>(1)</sup> (154 HP) at 2,000 rpm
Max. torque	609 Nm at 1,600 rpm
Cubic capacity	4,038 cm <sup>3</sup>
Number of cylinders	4 in line

Electrical system	
Operating voltage	24 V
Battery	24 V / 100 Ah
Generator	24 V / 100 A
Starter	24 V / 4 kW

Drive	
Maximum load-regulated, hydrostatic drive with pressure cut-off and closed circuit, acting on all 4 wheels. Speed ranges apply to standard tyres:	
<b>Operation</b>	0-14 km/h
<b>Fast speed</b>	40 km/h
Shifting between 1st and 2nd hydraulic gear and between forward and reverse movement possible while under load. Control of forward/reverse movement and drive levels using weycor joystick. Control of the drive system using the drive pedal and a separate inching pedal for optimal distribution of the hydraulic power to thrust and lifting forces.	

Braking	
<b>Operating brake:</b> Oil bath multi-disc brake, acting on all 4 wheels. Supplementary brake function via the inching pedal and hydrostatic drive, acting on all 4 wheels.	
<b>Parking brake:</b> Negative brake in spring-loaded design, acting on all 4 wheels. When the engine is stopped, the spring-loaded brake is activated.	

Steering	
Fully hydraulic central articulated steering and rear floating axle	
Front and rear wheels run on one track	
40° articulation angle both sides	
Articulation angle ±12° at rear of vehicle	

Tyres	
<b>Standard:</b> Mitas 17.5-25 EM-60 – construction machine tyres for use on relatively soft ground with high traction and good self-cleaning	

Hydraulics	
Variable displacement pump for loading and steering hydraulics	
Priority valve prioritises steering	
The 1st and 2nd control circuit are standard	
Loading hydraulics hydraulically operated, controlled by weycor joystick, including lockable float position	
Operating pressure 280 bar, flow rate 170 l/min	

Capacities	
Fuel (diesel)	250 litres
Hydraulic oil	192 litres
Engine oil	12 litre
Front axle	19.2 litres
Rear axle	19.2 litres
Gearbox	3.5 litres
Coolant	10.2 litres
AdBlue / DEF	20 litres

Loading equipment	
Powerful and solid Z-kinematics with high breakout force	
Operation of all functions via weycor joystick	
Parallel guide for pallet fork operation via optional electrical control	
Automatic shovel return to digging position	
Locking for road travel in accordance with StVZO (German Highway Code)	
<b>Lifting</b>	<b>5.9 s</b>
<b>Lowering</b>	<b>4.4 s</b>
<b>Tipping</b>	<b>1.8 s</b>

Equipment	series	option
weycor diagnostic system (ADS) for monitoring the machine parameters	•	
Foldable exterior rear-view mirror	•	
Heated rear windshield	•	
Single lever operation via weycor joystick	•	
Driving range display, forward/reverse travel	•	
Vehicle lighting acc. to StVZO (German Highway Code)	•	
Individually adjustable driver's seat with adjustable right armrest	•	
Water heating with heat exchanger and 3-speed fan	•	
Air conditioning	•	
Adjustable front windscreen ventilation	•	
Soundproofed ROPS cabin	•	
Front and rear working headlights	•	
Windshield wiper and washer system front and rear	•	
Sun visor, coat hook, interior light, storage space	•	
Steplessly adjustable and telescopic steering column	•	
Heat-proofed panoramic glass panes	•	
Warning lights for engine oil pressure, engine overheat, hydraulic oil temperature, battery charging, parking brake, air filter monitoring	•	
Central dashboard with indicators for pre-warming, engine temperature, fuel supply, operating hours counter	•	
Main battery switch		•
Lifting arm damping		•
20 km/h limitation		•
Trailer coupling		•
Special coatings		•
All-round lighting		•

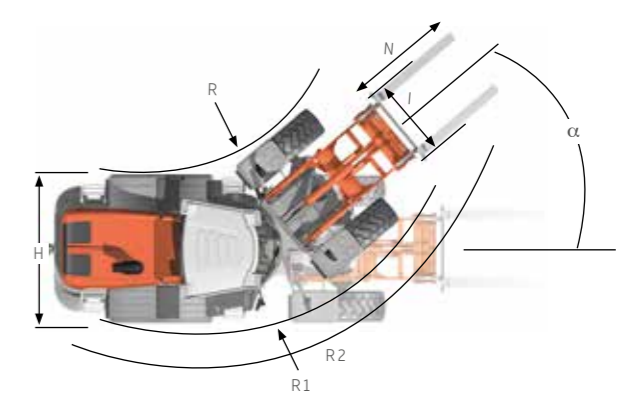
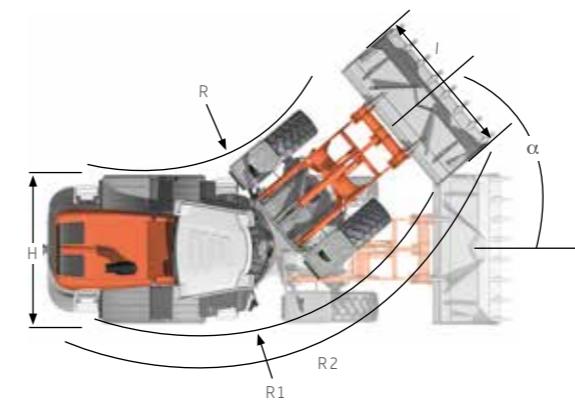
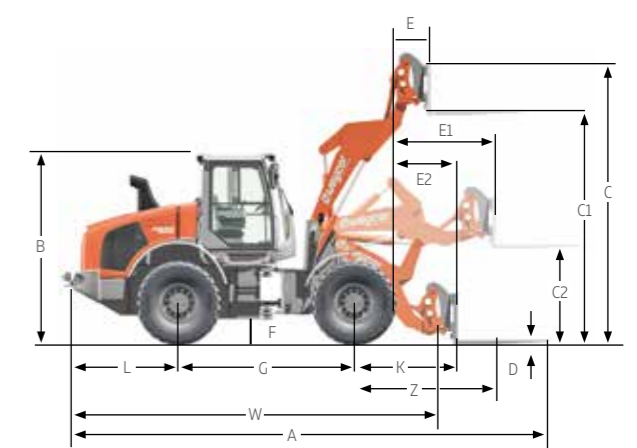
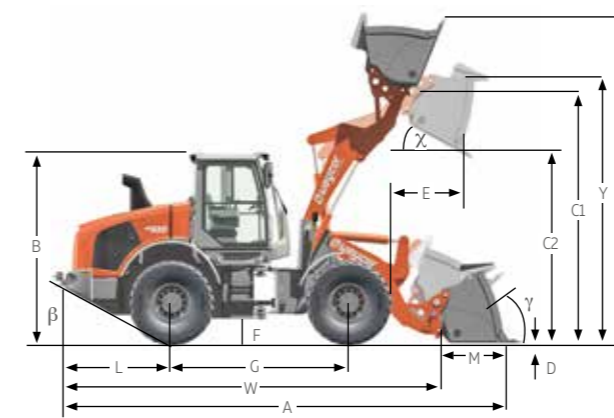
Equipment	series	option
Heated driver's seat		•
Automatic climate control		•
Radio		•
Right sliding window	•	
Left sliding window		•
3rd and 4th section, max. 170 l/min		•
Quick-change device that meets ISO 23727		•
Return-to-dig		•
Engine pre-warming		•
Protection grille fans		•
Steel mud guard		•
Additional counterweight +250 kg		•

(1) Power output ISO 14396, exhaust aftertreatment according to EU 2016/1628.

# TECHNICAL DATA

	Without quick-change device and with standard shovel	With quick-change device and standard shovel	With quick-change device and pallet fork
Tyres (D=1486)	20.5 - 25	20.5 - 25	20.5 - 25
A	7,474 mm	7,732 mm	8,090 mm
B*	3,260 mm	3,260 mm	3,260 mm
C	5,340 mm	5,510 mm	4,649 mm
C1	3,936 mm	3,936 mm	3,940 mm
C2 (45°)	2,888 mm	2,704 mm	1,831 mm
D	100 mm	100 mm	0 mm
E (45°)	1,006 mm	1,167 mm	809 mm
E1	-	-	1,683 mm
E2	-	-	1,013 mm
F	401 mm	401 mm	401 mm
G	3,000 mm	3,000 mm	3,000 mm
H	2,490 mm	2,490 mm	2,490 mm
I	2,530 mm	2,530 mm	2,060 mm
K	-	-	1,756 mm
L	1,924 mm	1,924 mm	1,924 mm
M	1,216 mm	1,456 mm	-
N	-	-	1,400 mm (fork length)
R	3,100 mm	3,100 mm	3,100 mm
R1	5,857 mm	5,857 mm	5,857 mm
R2	6,100 mm	6,100 mm	6,100 mm
W	6,258 mm	6,258 mm	6,258 mm
Y	3,670 mm	3,652 mm	-
Z	-	-	2,356 mm
$\alpha$	40°	40°	-
$\beta$	30°	30°	-
$\gamma$	43°	43°	-
$\chi$	46°	46°	-
Tipping angle	46.3°	46°	-
Tipping angle below	44.8°	45.3°	31°
Tipping angle transport	47.1°	46.9°	35°
Tipping angle above	49.3°	49.6°	38°

\* For 750 / 65 R26 and 23.5 R25 tyres, height B changes to 3,310 mm.



With quick-change device and standard shovel

With quick-change device and pallet fork 1,400 mm

# TECHNICAL DATA

Model standard features	Tipping load bent	Tipping load extended	Operating weight
With quick-change device and standard shovel	7,066 kg	8,085 kg	12,850 kg
Without quick-change device and with standard shovel	7,657 kg	8,762 kg	12,750 kg

Model standard equipment + additional weight	Tipping load bent	Tipping load extended	Operating weight
With quick-change device and standard shovel	7,396 kg	8,462 kg	13,100 kg
Without quick-change device and with standard shovel	7,893 kg	9,031 kg	13,000 kg

Model with pallet fork 7 t	Tipping load	Load capacity 60 %	Load capacity 80 %
Model standard features	5,733 kg	3,440 kg	4,586 kg <sup>(1)</sup>

(1) When using the default pallet fork.

The tipping loads refer to the respective service weights. The service weight can vary, depending on the individual configuration.

**Without a hydraulic quick coupler (HQC) and without an additional counterweight, the service weight is 12,750 kg.**

Service weight with a hydraulic quick coupler	<b>12,850 kg</b>
Service weight with an additional counterweight	<b>13,000 kg</b>
Service weight with an additional counterweight and with a hydraulic quick coupler	<b>13,100 kg</b>

**Table of specific weights in t/m<sup>3</sup>**

Construction industry		Industry		Landscaping, agriculture			
Concrete	1.9	Sand (wet)	2.1	Ash	0.7	Crop (corn, beet)	0.7
Earth (dry)	1.5	Sandstone	2.4	Lignite briquette	0.8	Grain	0.6
Earth (wet)	2.0	Slate	2.2	Iron	7.8	Hay	0.3
Rock (broken)	2.4	Sludge	2.1	Iron ore	2.3	Potash	1.1
Granite	1.8	Rubble	1.5	Broken glass	1.9	Compost	1.0
Limestone	1.6	Road salt	1.3	Gas coke	0.4	Flour	0.5
Gravel (dry)	1.9	Clay	1.6	Wood	0.8	Marl (wet)	2.3
Gravel (wet)	2.1	Cement	1.7	Coal	1.2	Thomas slag	2.2
Loam	1.7	Brick (stacked)	1.8	Paper	0.9	Peat (wet)	1.1
Mortar	2.2			Slag (sand)	1.0	Peat (dry)	0.4
Sand (dry)	1.9			Slag (solid)	2.7	Complete fertiliser	1.0

Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice, errors expected. The technical data refer only to the standard version, illustrations do not necessarily show the standard version of the machine.







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

Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice, errors expected. The technical data refer only to the standard version, illustrations do not necessarily show the standard version of the machine. Not all products are available in all markets.

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)



# AR 640

OPERATING WEIGHT  
13,500 - 14,200 kg

ENGINE OUTPUT  
129 kW (173 HP)

SHOVEL CAPACITY  
2.5 - 3.0 m<sup>3</sup>



 **Weycor**  
BY ATLAS WEYHAUSEN

“

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**WE'VE TAKEN IT TO  
THE LIMIT AND WE'VE  
THOUGHT OUTSIDE THE  
USUAL BOUNDARIES –  
AND DONE BUSINESS  
BEYOND THEM.**

---

Artur Gabriel, Head of Design & Development  
on the AR 640



# 07

## TYPICAL WEYCOR!

The flexibility of a medium-sized enterprise and an outstanding team spirit combine to produce stellar results.

# 09

## THE FIRST IMPRESSION

The AR 640 in impressive figures.

# 12

## XXL EQUIPMENT

Six arguments that make our new wheel loaders unique.

# 14

## LIMITLESS

The AR 640 feels at home everywhere, in earthworks and civil engineering, materials handling or extraction.

# 18

## GREAT VIEW

360° all-round view and modern ergonomics to ensure comfort and precision while on the job.



# 22

## BETTER EQUIPPED

The highlights of the AR 640 are impressive!



# 24

## INNOVATIVE!

Powerful hydraulics and the latest control technology for work efficiency.

# 26

## MORE FROM LESS

Best engine performance with low fuel consumption.

# 28

## NUMBERS AND FIGURES

All technical specifications and important data at a glance.





# QUALITY AND RELIABILITY. EVEN IN THE XXL SERIES.

The exceptional flexibility of a medium-sized company and the outstanding team spirit which binds our employees as well as our dealers guarantee a high performance potential for our products. "Short and sweet", just how we like it in northern Germany: our organisation is clearly structured, our dealers are involved in our ideas, and decisions get made very quickly.

What's more, the opinions of our customers were also very important to us during the development process and had a positive influence on our decisions. The results are impressive: an XXL construction machine that meets the highest requirements in various application areas. The AR 640 – the new power class from Atlas Weyhausen.

## 1971

### Launch of wheel loader production in Wildeshausen

AR 70 is the very first wheel loader to be produced in Wildeshausen in 1971. The identifier "AR" stands for "ATLAS Radlader (wheel loaders)" and has been used by customers and dealers as part of the naming process ever since.

## 1975

### First wheel loader with hydrostatic drive

Hydrostatic – the new drive concept – replaces the manual gearbox. Atlas Weyhausen hydrostatic technology becomes, in compact models, the optimal type of drive when the continuous adjustment of wheel loader speed is required.

## 1998

### New wheel loader concept

Rethinking wheel loaders: with a new design characterised by rounded shapes, the best all-round vision and ergonomic aspects. Atlas Weyhausen was already getting ready for the future!

## 2005

### Compaction equipment from Wildeshausen

Compaction equipment demand grows all around the world. Therefore, Atlas Weyhausen introduces a new range of soil and asphalt rollers in Europe. Equipments are robust and powerful; designed for low service.

## 2013

### Wheel loaders of the e-generation

The new wheel loader generation with the suffix "e" fulfils all the requirements of the stricter emission guidelines – and even surpasses them! In addition, all e-models enjoy a significant increase in performance.

## 2016

### weycor by Atlas Weyhausen // New XXL wheel loaders

From the ATLAS brand comes weycor. The products from Wildeshausen now have a new brand name. Nothing else has changed!

Atlas Weyhausen revealed the AR 660 for the first time at the bauma 2016. The series was launched in April 2017.



## FIRST IMPRESSIONS COUNT!

We think the weycor XXL wheel loader is great. But the AR 640 is on a whole other level! With the AR 640, you get a power class that offers plenty for every application worldwide. It is tailor-made in every detail for your driver's comfort and work. On top of all this, the engine is extremely strong, leading-edge, environmentally friendly and impressively economical in its consumption.

**13,500<sup>(1)</sup> KG** OPERATING WEIGHT

**129<sup>(2)</sup> KW (173 HP)** ENGINE OUTPUT

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

### Dimensions

Operating weight	<b>13,500 kg</b>
Engine output <sup>(2)</sup>	<b>129.0 kW</b>
Model	<b>Deutz diesel engine</b>
Design	<b>water-cooled</b>
Max. torque	<b>750 Nm</b>
Cubic capacity	<b>6,057 cm<sup>3</sup></b>
Number of cylinders	<b>6 in line</b>
Operating voltage	<b>24 V</b>
Fuel capacity	<b>250 litres</b>

### Specifications

Turning radius around shovel edge	<b>5,497 mm</b>
Breakout force	<b>8,000 daN</b>
Thrust	<b>9,900 daN</b>
Tipping load extended	<b>9,117 kg</b>
Tipping load bent	<b>7,968 kg</b>
Average sound power level L <sub>WA</sub> <sup>(3)</sup>	<b>100.0 dB(A)</b>
Guaranteed sound power level L <sub>WA</sub> <sup>(3)</sup>	<b>101.0 dB(A)</b>
Sound pressure level L <sub>PA</sub> <sup>(4)</sup>	<b>69.0 dB(A)</b>
Vibration values hand/arm/whole body vibration <sup>(5)</sup>	<b>&lt; 2.5/0.5 m/s<sup>2</sup></b>

(3) According to 2000/14/EC and Annexes. (4) According to ISO 6396. (5) 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.

(1) Service weight may vary with different equipment.

(2) Power output ISO 14396, exhaust gas aftertreatment according to EU 2016/1628. All technical data refer exclusively to the standard unit.





# AN XXL SIZE WITH XXL EQUIPMENT



1

## 100 % electrically-operated differential lock in front and rear axles

Powerful propulsion and high traction when needed. Wear on tyres is reduced.



2

## Work cabin – with maximum all-round visibility

The curved front windscreen, the uninterrupted side window to the right with flush sliding window and the recessed rear windscreen provide an extraordinary all-round view.

The modern ergonomics of the driver's seat and the optimal accessibility of both the display controller and joystick eliminate work fatigue.



3

## Most powerful engine and best power to weight ratio in its class

Sensitively tuned 2-stage drive and unique balance between thrust and lifting power. 129 kW (175 HP) offer significant power reserves.



4

## Adjustable pulling force limit with 100 % kick-down function – for more power

Adjust the traction force to any substrate via the weycor controller – and go full power at any time using the weycor joystick by pressing the button for maximum push/pull.



5

## Separate inch pedal and the drive pedal function – for greater sensitivity

Typical for weycor wheel loaders is the separate inch pedal for the sensitive distribution of thrust and lifting forces. The use of the accelerator as the drive pedal is just as practical. When using the hand throttle, the engine speed is kept constant, however the angle in the drive pump is variable, so the thrust can be finely regulated.



6

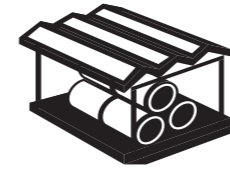
## Extremely compact dimensions and low profile – for excellent visibility

The total height of an AR 640 with the standard tyre is 3.25 m. The compact design is a continuation of the style from the compact wheel loader series with excellent visibility.



# APPLICATION WITHOUT LIMITS

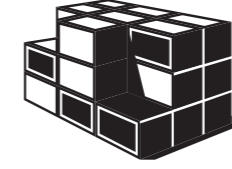
The AR 640 – the “Swiss army knife” of wheel loaders. There are no limits to our new workhorse, from the sandpits to industrial or agricultural use. A mighty engine provides a powerful drive with optimum traction, while the proven and robust weycor kinematics ensure high breakout forces and excellent lifting heights. With the appropriate accessory tool, the AR 640 is at home anywhere.



## CIVIL ENGINEERING AND EARTHWORK

### Loading shovel

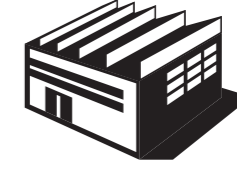
For earthmoving work and transporting all kinds of bulk materials.



## MATERIALS HANDLING

### Light cargo shovel

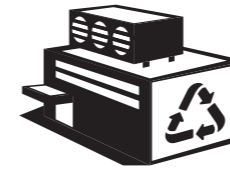
Large volume shovel with or without teeth – depending on the density of the material.



## EXTRACTION

### Heavy duty shovel

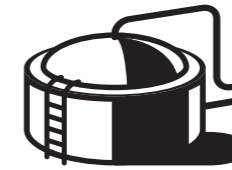
Suitable for heavy cargo and earthwork, generally in a reinforced construction and with wear-resistant shovel blade.



## RECYCLING

### Shovel with hold-down device

A hydraulic hold-down device is used to secure loose or bulky material in the shovel.



## AGRICULTURE AND BIOGAS

### Agricultural attachments

Whether you need a bulk material shovel, high-tipping shovel, green forage fork or silo removal technology – versatility is a must in agriculture.



## FORESTRY

### Logging fork

Suitable for loading logs and timber, generally in a fork or hook design.



# GREAT VIEWS FROM THE CABIN

The cabin in the AR 640 is a completely new experience. We ensure a low sound level and a high level of safety as standard.

We also place great importance in optimal 360-degree all-round visibility, so the driver of the AR 640 can always keep their eyes firmly on their work environment.

The display and control elements also provide a good overview: Following an extensive visual field analysis, we ensured the optimal placement of all switches in the cabin, while keeping the display tidy and reduced to the essentials.

The cabin interior is rounded off with a well thought-out ventilation system and ergonomic design. The perfect atmosphere for work!



## All-round visibility

The curved front windshield, the uninterrupted side window to the right with flush sliding window and the recessed rear windscreen provide an extraordinary all-round view – for precise work.



## Narrow steering column

The steering column occupies only a third of the entire front and ensures seamless control of the shovel movements.



## High safety

In addition to the specifications for ROPS, all FOPS Level 2 safety precautions were also included in the construction of the cabin – for maximum safety.



## Low sound level

Thanks to good insulation, we have managed to achieve one of the lowest sound levels on the market. All equipment and elements that produce noise and heat are outside the cabin.



## Seat comfort to reduce fatigue

The modern ergonomics of the driver's seat and the optimal accessibility of both the display controller and joystick eliminate work fatigue.



## Carefully considered ventilation

The air filter placement at the highest, dust-free point of the machine guarantees fresh air in the interior. Additionally, an overpressure in the cabin prevents the entrance of pollutants.

UNIQUE FIELD OF VISION



Front:  
**Unobstructed view at floor level without steering column blockage**



Side and rear:  
**Perfect all-round vision without the need for a rear-view camera**

CAREFULLY CONSIDERED DISPLAY



Display:  
**Simplified and clear display for easier operation**



Controller:  
**Variable key fields for driving and working modes**

ADJUSTABLE STEERING WHEEL



Steering wheel:  
**Individually adjustable in height and angle – the dash board swivels with the steering wheel column**

INTUITIVE OPERATION



Control & operating elements:  
**Reduced elements for intuitive operation, joystick moves ergonomically with the seat and fits any hand size**

GENEROUS STORAGE SPACE



Storage options:  
**Fixed place for Euro boxes – for documents and the driver's private things, ideal for multi-shift operation**

# MORE FROM LESS

6 cylinder, 173 HP: The AR 640 moves forward with power. Here, too, we've considered far ahead. The goal was to reduce fuel consumption by sustainably increasing the overall efficiency of the engine, for example by reducing the diesel engine speed and including generously designed hydraulic components. Due to the electronically controllable individual components, different systems are able to access and exchange useful data for better machine and maintenance performances.

The diesel engine thus delivers only as much power as is actually required. This reduces consumption, emissions and noise.

## The latest kinematics

Tried and tested weycor kinematics with high breakout forces and an excellent lifting height.

## Optional hydraulic quick-change mechanism according to ISO 23727

Makes it possible to change the attachment in seconds and turns the wheel loader into a real all-rounder.

## Easy servicing

Fast, easy maintenance and upkeep as a result of centrally arranged, easily-accessible service points.

## Articulated joint & floating axle

For outstanding off-road capability and manoeuvrability. Unique stability because of the low centre of gravity, even off-road.

## Comfortable cabin

Safe, fatigue-free working with excellent all-round visibility, clearly arranged instruments and ergonomic design. Readied additional mounting points for optional accessories.

## Powerful drive

Optional traction via 100 % electrically-operated differential lock in front and rear axles.

## Unique engine mount

Independent suspension of the engine decoupled from the axle to avoid vibration and noise emission.

## Only manufacturer with a separate inching pedal & the drive pedal function

Precise distribution of shearing and lifting forces, along with reduced wear and fuel consumption. Unlike a combined braking /inching pedal, the separate inching pedal eliminates the risk of inadvertently activating the main brake. The use of the accelerator as the drive pedal is just as practical. When using the hand throttle, the engine speed is kept constant, however the angle in the drive pump is variable. Here, again, the thrust force is finely regulated.

## Wear-free negative brake

Holds the wheel loader securely in position on a slope when the brake or inching function is activated. All four wheels are automatically locked, even when the engine is stopped. The multiple-disc brake runs in an oil bath and is particularly low-maintenance and low-wearing as a result.



# INNOVATIVE HYDRAULICS CONCEPT

## Power to perform

The hydraulics concept was developed and carefully coordinated with Bosch Rexroth. Powerful hydraulics and extreme user-friendliness position the new weycor large wheel loader as a front-runner amongst high-performance loaders of this size.

## Flexible working hydraulics

Designed for fast movement at low speeds – the latest control valve technology and high forces ensure efficient work.

## Fan drive

On-demand fan drive allows reduced emissions and fuel savings, even at outdoor temperatures of up to 50 °C.

## Individual settings

The weycor display control system and quick-access buttons offer the driver a wide range of possible setting options, including diesel engine speed, flow rate and continuous operation.

## Drive

Powerful hydrostatic drive with fine dosing allows working in confined space without using the brake. The drive is optimally tuned to the diesel engine and runs steplessly up to 40 km/h with two drive engines. Both engines are operated up to 14 km/h. After that, the engine with the larger volume is swivelled into the zero position and the complete oil flow is made available only to the second engine with the smaller volume. Thermal problems are thus avoided. In addition, different driving modes (optional) can be set.

## Charge mode

Maximum performance at up to 2000 rpm, high speed of work functions and dynamic acceleration and deceleration enable high handling performance.

## Pallet mode

Thanks to the high engine speed in this driving mode, the machine is also able to accelerate and decelerate smoothly when the driver needs to drive delicately. This mode can also be used for shovel operation.

## Powerful

The engine reaches its maximum torque at 1600 rpm.

## Pulling force limit

Reduction of the pulling force to adapt to different substrates and to minimise tyre wear. Via the kick-down button on the joystick, the limit can be overridden at any time with 100 % power for a short period.

## Speed limit

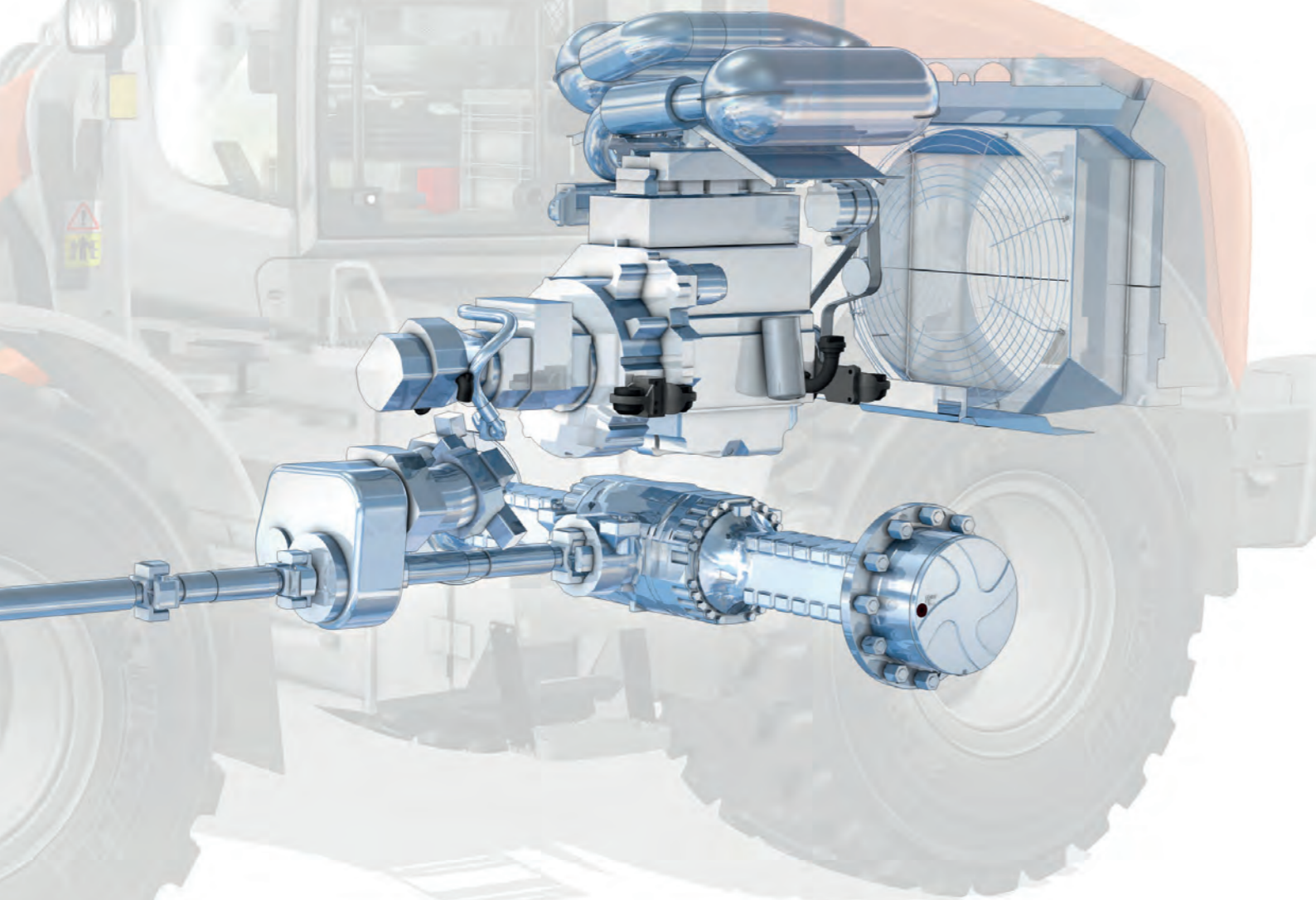
Limit the maximum speed for certain applications – regardless of the driving mode.

## Hand throttle

Pre-selectable engine speed for applications such as snow ploughing, etc. The accelerator pedal serves as the drive pedal in this case and determines the speed of the machine.

## Cruise control

Relieve the driver during longer journeys at a constant speed.



# INNOVATIVE ENGINE TECHNOLOGY

## TCD 6.1 L6 – intelligent and efficient:

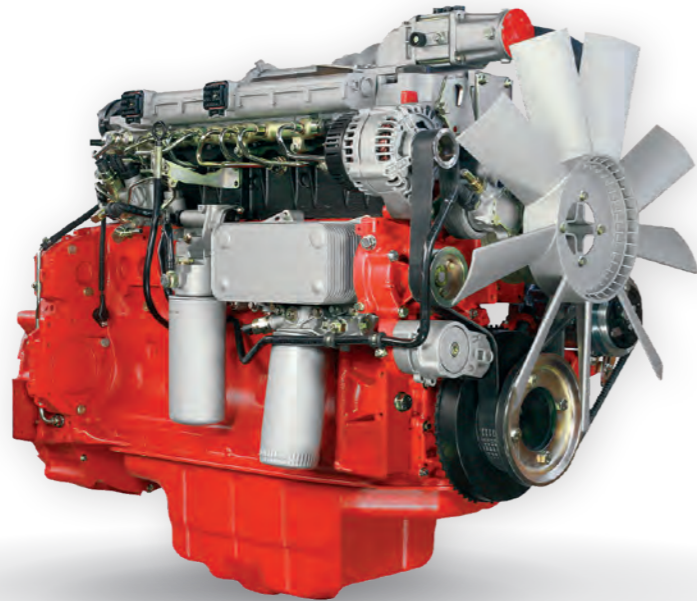
We have been convinced of the quality of Deutz engines for over 40 years. Our cooperation with Deutz also offers numerous benefits for the AR 640: such as the electronic engine control with intelligent connection to the drive management. This ensures the best engine performance with low fuel consumption. The water-cooled TCD 6.1 L6 diesel engine is at the heart of our new power class.

## Mighty performance

129 kW at a maximum of 2000 rpm

## Compliance with emission standards

Thanks to the exhaust system used, the engine complies with DOC/DPF/SCR TIER IV final and EU Stage 5.

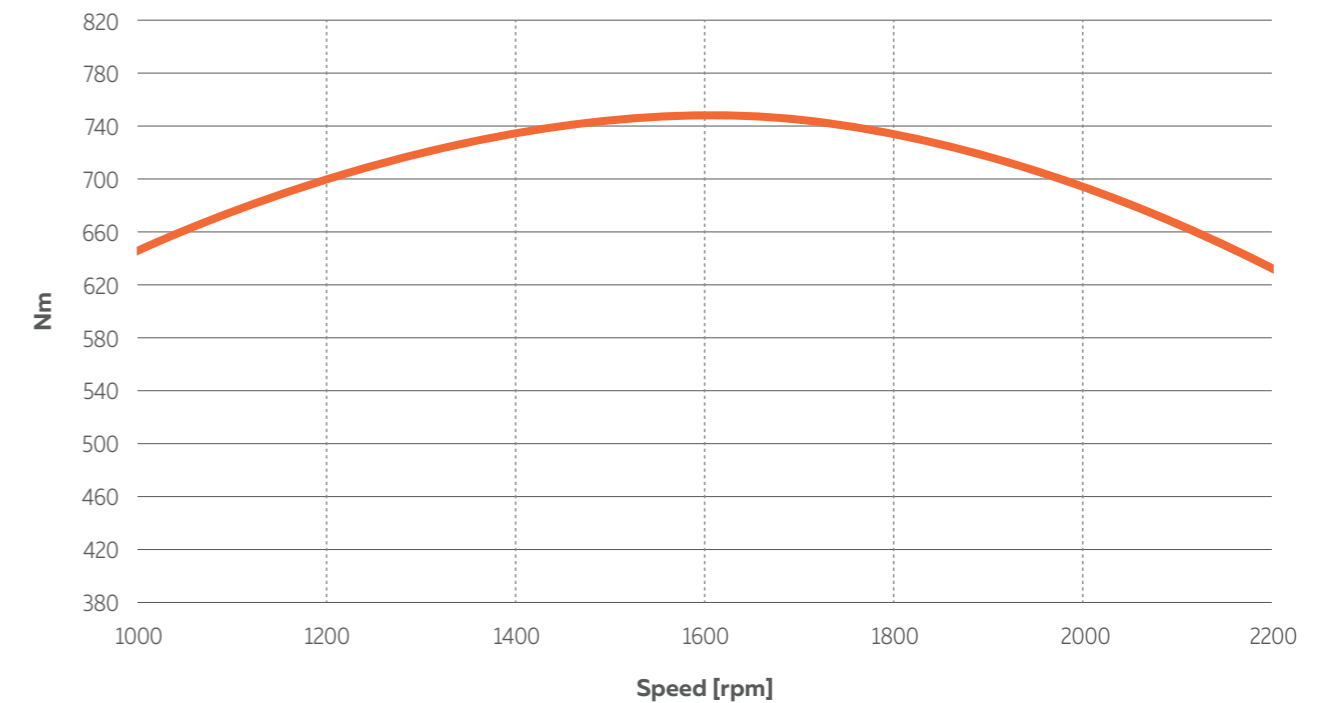


## Deutz engine technology: TCD 6.1 L6

Water-cooled 6 cylinder in-line engine with turbocharging, intercooling and cooled external exhaust gas recirculation. The powerful Deutz Common Rail (DCR®) injection system and the electronic motor control (EMR 4) with intelligent connection to the drive management ensure the best engine performance with low fuel consumption. The engines meet the requirements of the EU Stage IV and US EPA Tier 4 standards with DVERT® selective catalytic reduction (SCR) and particle filter (DPF). With the use of the DPF, they compliant with the EU Stage V emission standard.

# HIGH ENGINE POWER – AT LOW ENGINE SPEED

## Torque characteristic



## Powerful

The engine reaches its maximum torque at 1600 rpm.

## Powerful fan drive with optional fan reversal for quick cleaning

Fan drive with electronic control and optimum efficiency in every speed range thanks to a generously sized variable displacement pump.



# TECHNICAL DATA

Engine	
Model	Deutz TCD 6.1 L6 diesel engine
Design	water-cooled
Output	175 HP (129 kW <sup>(1)</sup> ) at 2,000 rpm
Max. torque	750 Nm at 1,600 rpm
Cubic capacity	6,057 cm <sup>3</sup>
Number of cylinders	6 in line

Electrical system	
Operating voltage	24 V
Battery	24 V / 100 Ah
Generator	24 V / 100 A
Starter	24 V / 4 kW

Drive	
Maximum load-regulated, hydrostatic drive with pressure cut-off and closed circuit, acting on all 4 wheels. Speed ranges apply to standard tyres:	
<b>Operation</b>	0-14 km/h
<b>Fast speed</b>	40 km/h
Shifting between 1st and 2nd hydraulic gear and between forward and reverse movement possible while under load. Control of forward/reverse movement and drive levels using weycor joystick. Control of the drive system using the drive pedal and a separate inching pedal for optimal distribution of the hydraulic power to thrust and lifting forces.	

Braking	
<b>Operating brake:</b> Oil bath multi-disc brake, acting on all 4 wheels. Supplementary brake function via the inching pedal and hydrostatic drive, acting on all 4 wheels.	
<b>Parking brake:</b> Negative brake in spring-loaded design, acting on all 4 wheels. When the engine is stopped, the spring-loaded brake is activated.	

Steering	
Fully hydraulic central articulated steering and rear floating axle	
Front and rear wheels run on one track	
40° articulation angle both sides	
Articulation angle ±12° at rear of vehicle	

Tyres	
<b>Standard:</b> 20.5 R 25 – construction machine tyres for use on relatively soft ground with high traction and good self-cleaning	

Hydraulics	
Variable displacement pump for loading and steering hydraulics	
Priority valve prioritises steering	
The 1st and 2nd control circuit are standard	
Loading hydraulics hydraulically operated, controlled by weycor joystick, including lockable float position	
Operating pressure 280 bar, flow rate 170 l/min	

Capacities	
Fuel (diesel)	250 litres
Hydraulic oil	192 litres
Engine oil	16 litres
Front axle	19.2 litres
Rear axle	19.2 litres
Gearbox	3.5 litres
Coolant	10.2 litres
AdBlue / DEF	20 litres

Loading equipment	
Powerful and solid Z-kinematics with high breakout force	
Operation of all functions via weycor joystick	
Parallel guide for pallet fork operation via optional electrical control	
Automatic shovel return to digging position	
Locking for road travel in accordance with StVZO (German Highway Code)	
<b>Lifting</b>	<b>5.9 s</b>
<b>Lowering</b>	<b>4.4 s</b>
<b>Tipping</b>	<b>1.8 s</b>

Equipment	series	option
weycor diagnostic system (ADS) for monitoring the machine parameters	•	
Foldable exterior rear-view mirror	•	
Heated rear windshield	•	
Single lever operation via weycor joystick	•	
Driving range display, forward/reverse travel	•	
Vehicle lighting acc. to StVZO (German Highway Code)	•	
Individually adjustable driver's seat with adjustable right armrest	•	
Water heating with heat exchanger and 3-speed fan	•	
Air conditioning	•	
Adjustable front windscreen ventilation	•	
Soundproofed ROPS cabin	•	
Front and rear working headlights	•	
Windshield wiper and washer system front and rear	•	
Sun visor, coat hook, interior light, storage space	•	
Steplessly adjustable and telescopic steering column	•	
Heat-proofed panoramic glass panes	•	
Warning lights for engine oil pressure, engine overheat, hydraulic oil temperature, battery charging, parking brake, air filter monitoring	•	
Central dashboard with indicators for pre-warming, engine temperature, fuel supply, operating hours counter	•	
Main battery switch		•
Lifting arm damping		•
20 km/h limitation		•
Trailer coupling		•
Special coatings		•
All-round lighting		•

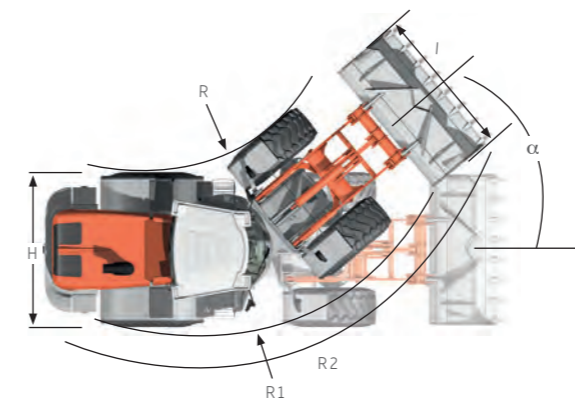
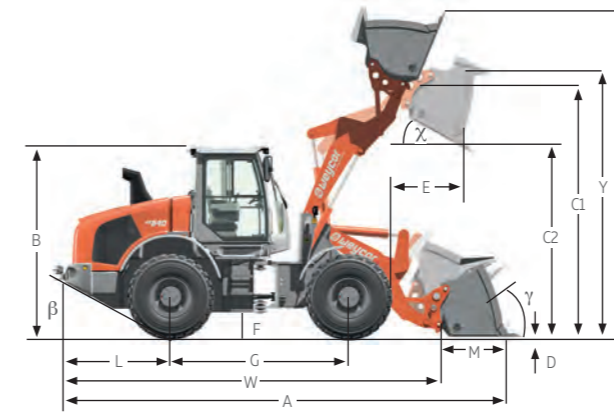
Equipment	series	option
Heated driver's seat		•
Automatic climate control		•
Radio		•
Right sliding window	•	
Left sliding window		•
3rd and 4th section, max. 170 l/min		•
Quick-change device that meets ISO 23727		•
Return-to-dig		•
Engine pre-warming		•
Protection grille fans		•
Steel mud guard		•
Additional counterweight +250 kg		•

(1) Power output ISO 14396, exhaust aftertreatment according to EU 2016/1628.

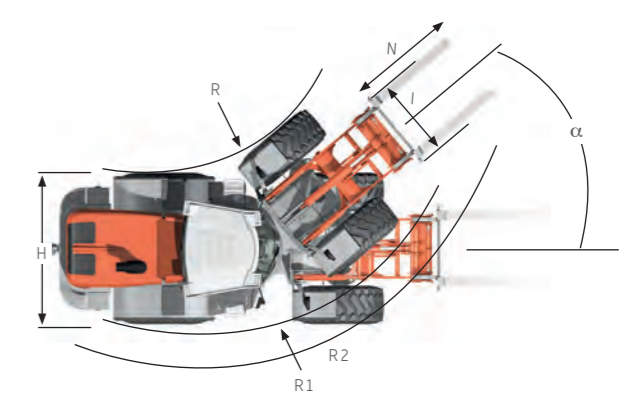
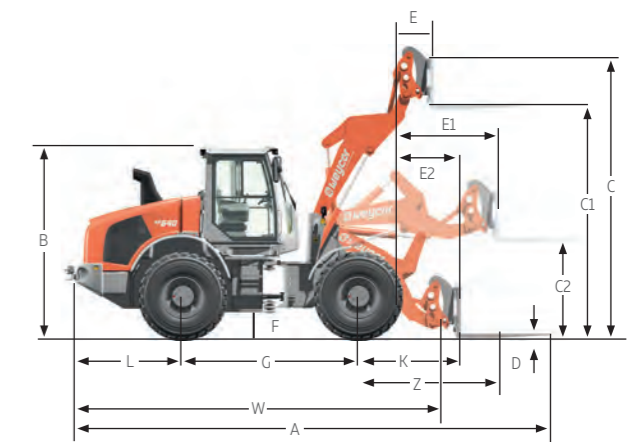
# TECHNICAL DATA

	Without quick-change device and with standard shovel	With quick-change device and standard shovel	With quick-change device and pallet fork
Tyres (D=1486)	20.5 - 25	20.5 - 25	20.5 - 25
A	7,474 mm	7,732 mm	8,090 mm
B*	3,260 mm	3,260 mm	3,260 mm
C	5,340 mm	5,510 mm	4,649 mm
C1	3,936 mm	3,936 mm	3,940 mm
C2 (45°)	2,888 mm	2,704 mm	1,831 mm
D	100 mm	100 mm	0 mm
E (45°)	1,006 mm	1,167 mm	809 mm
E1	-	-	1,683 mm
E2	-	-	1,013 mm
F	401 mm	401 mm	401 mm
G	3,000 mm	3,000 mm	3,000 mm
H	2,490 mm	2,490 mm	2,490 mm
I	2,530 mm	2,530 mm	2,060 mm
K	-	-	1,756 mm
L	1,924 mm	1,924 mm	1,924 mm
M	1,216 mm	1,456 mm	-
N	-	-	1,400 mm (fork length)
R	3,100 mm	3,100 mm	3,100 mm
R1	5,857 mm	5,857 mm	5,857 mm
R2	6,100 mm	6,100 mm	6,100 mm
W	6,258 mm	6,258 mm	6,258 mm
Y	3,670 mm	3,652 mm	-
Z	-	-	2,356 mm
$\alpha$	40°	40°	-
$\beta$	30°	30°	-
$\gamma$	43°	43°	-
$\chi$	46°	46°	-
Tipping angle	46.3°	46°	-
Tipping angle below	44.8°	45.3°	31°
Tipping angle transport	47.1°	46.9°	35°
Tipping angle above	49.3°	49.6°	38°

\* For 750 / 65 R26 and 23.5 R25 tyres, height B changes to 3,310 mm.



With quick-change device and standard shovel



With quick-change device and pallet fork 1,400 mm

# TECHNICAL DATA

Model standard features	Tipping load bent	Tipping load extended	Operating weight
With quick-change device and standard shovel	7,411 kg	8,480 kg	13,600 kg
Without quick-change device and with standard shovel	7,968 kg	9,117 kg	13,500 kg

Model standard equipment + additional weight	Tipping load bent	Tipping load extended	Operating weight
With quick-change device and standard shovel	7,738 kg	8,855 kg	13,850 kg
Without quick-change device and with standard shovel	8,315 kg	9,914 kg	13,750 kg

Model with pallet fork 7 t	Tipping load	Load capacity 60 %	Load capacity 80 %
Model standard features	5,919 kg	3,551 kg	4,735 kg <sup>(1)</sup>

(1) When using the default pallet fork.

The tipping loads refer to the respective service weights. The service weight can vary, depending on the individual configuration.

**Without a hydraulic quick coupler (HQC) and without an additional counterweight, the service weight is 13,500 kg.**

Service weight with a hydraulic quick coupler	<b>13,600 kg</b>
Service weight with an additional counterweight	<b>13,750 kg</b>
Service weight with an additional counterweight and with a hydraulic quick coupler	<b>13,850 kg</b>

**Table of specific weights in t/m<sup>3</sup>**

Construction industry		Industry		Landscaping, agriculture			
Concrete	1.9	Sand (wet)	2.1	Ash	0.7	Crop (corn, beet)	0.7
Earth (dry)	1.5	Sandstone	2.4	Lignite briquette	0.8	Grain	0.6
Earth (wet)	2.0	Slate	2.2	Iron	7.8	Hay	0.3
Rock (broken)	2.4	Sludge	2.1	Iron ore	2.3	Potash	1.1
Granite	1.8	Rubble	1.5	Broken glass	1.9	Compost	1.0
Limestone	1.6	Road salt	1.3	Gas coke	0.4	Flour	0.5
Gravel (dry)	1.9	Clay	1.6	Wood	0.8	Marl (wet)	2.3
Gravel (wet)	2.1	Cement	1.7	Coal	1.2	Thomas slag	2.2
Loam	1.7	Brick (stacked)	1.8	Paper	0.9	Peat (wet)	1.1
Mortar	2.2			Slag (sand)	1.0	Peat (dry)	0.4
Sand (dry)	1.9			Slag (solid)	2.7	Complete fertiliser	1.0

Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice, errors expected. The technical data refer only to the standard version, illustrations do not necessarily show the standard version of the machine.





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

Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice, errors expected. The technical data refer only to the standard version, illustrations do not necessarily show the standard version of the machine. Not all products are available in all markets.

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)



# AR 660

OPERATING WEIGHT  
13,995 - 15,000 kg

ENGINE OUTPUT  
160 kW (215 HP)

SHOVEL CAPACITY  
2.7 - 4.5 m<sup>3</sup>



 **Weycor**  
BY ATLAS WEYHAUSEN

“

---

**WE'VE TAKEN IT TO  
THE LIMIT AND WE'VE  
THOUGHT OUTSIDE THE  
USUAL BOUNDARIES –  
AND DONE BUSINESS  
BEYOND THEM.**

---

Artur Gabriel, Head of Design & Development  
on the AR 660



# 07

## TYPICAL WEYCOR!

The flexibility of a medium-sized enterprise and an outstanding team spirit combine to produce stellar results.

# 09

## THE FIRST IMPRESSION

The AR 660 in impressive figures.

# 12

## XXL EQUIPMENT

Six arguments that make our new wheel loaders unique.

# 14

## LIMITLESS

The AR 660 feels at home everywhere, in earthworks and civil engineering, materials handling or extraction.

# 18

## GREAT VIEW

360° all-round view and modern ergonomics to ensure comfort and precision while on the job.



# 24

## INNOVATIVE!

Powerful hydraulics and the latest control technology for work efficiency.

# 28

## NUMBERS AND FIGURES

All technical specifications and important data at a glance.

# 22

## BETTER EQUIPPED

The highlights of the AR 660 are impressive!

# 26

## MORE FROM LESS

Best engine performance with low fuel consumption.







# QUALITY AND RELIABILITY. EVEN IN THE XXL SERIES.

The exceptional flexibility of a medium-sized company and the outstanding team spirit which binds our employees as well as our dealers guarantee a high performance potential for our products. "Short and sweet", just how we like it in northern Germany: our organisation is clearly structured, our dealers are involved in our ideas, and decisions get made very quickly.

What's more, the opinions of our customers were also very important to us during the development process and had a positive influence on our decisions. The results are impressive: an XXL construction machine that meets the highest requirements in various application areas. The AR 660 – the new power class from Atlas Weyhausen.

## 1971

### Launch of wheel loader production in Wildeshausen

AR 70 is the very first wheel loader to be produced in Wildeshausen in 1971. The identifier "AR" stands for "ATLAS Radlader (wheel loaders)" and has been used by customers and dealers as part of the naming process ever since.

## 1975

### First wheel loader with hydrostatic drive

Hydrostat – the new drive concept – replaces the manual gearbox. A hydrostat is often the optimal type of drive when the continuous adjustment of wheel loader speed is required.

## 1998

### New wheel loader concept

Rethinking wheel loaders: with a new design characterised by rounded shapes and a newly developed workplace, the best all-round vision and ergonomic aspects, we are ready for the future.

## 2005

### Compaction equipment from Wildeshausen

Compaction technology is in world-wide demand. In order to reach new markets, we are introducing single drum rollers and tandem rollers into our range. The construction and production take place in Wildeshausen.

## 2013

### Wheel loaders of the e-generation

The new wheel loader generation with the suffix "e" fulfils all the requirements of the stricter emission guidelines – and even surpasses them! In addition, all e-models enjoy a significant increase in performance.

## 2016

### weycor by Atlas Weyhausen // New XXL wheel loaders

From the ATLAS brand comes weycor. The products from Wildeshausen now have a new brand name. Nothing else has changed!

Atlas Weyhausen revealed the AR 660 for the first time at the bauma 2016. The series was launched in April 2017.



## FIRST IMPRESSIONS COUNT!

We think the weycor XXL wheel loader is great. But the AR 660 is on a whole other level! With the AR 660, you get a power class that offers plenty for every application worldwide. It is tailor-made in every detail for your driver's comfort and work. On top of all this, the engine is extremely strong, leading-edge, environmentally friendly and impressively economical in its consumption.

**13,995<sup>(1)</sup> KG** OPERATING WEIGHT

**160<sup>(2)</sup> KW (215 HP)** ENGINE OUTPUT

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

### Dimensions

Operating weight	<b>13,995 kg</b>
Engine output <sup>(2)</sup>	<b>160.0 kW</b>
Model	<b>Deutz diesel engine</b>
Design	<b>water-cooled</b>
Max. torque	<b>900 Nm</b>
Cubic capacity	<b>6,057 cm<sup>3</sup></b>
Number of cylinders	<b>6 in line</b>
Operating voltage	<b>24 V</b>
Fuel capacity	<b>250 litres</b>

### Specifications

Turning radius around shovel edge	<b>5,497 mm</b>
Breakout force	<b>11,900 daN</b>
Thrust	<b>11,600 daN</b>
Tipping load extended	<b>10,070 kg</b>
Tipping load bent	<b>8,800 kg</b>
Average sound power level L <sub>WA</sub> <sup>(3)</sup>	<b>100.0 dB(A)</b>
Guaranteed sound power level L <sub>WA</sub> <sup>(3)</sup>	<b>101.0 dB(A)</b>
Sound pressure level L <sub>PA</sub> <sup>(4)</sup>	<b>69.0 dB(A)</b>
Vibration values hand/arm/whole body vibration <sup>(5)</sup>	<b>&lt; 2.5/0.5 m/s<sup>2</sup></b>

(3) According to 2000/14/EC and Annexes. (4) According to ISO 6396. (5) 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.

(1) Service weight may vary with different equipment.

(2) Power output ISO 14396, exhaust gas aftertreatment according to EU 2016/1628. All technical data refer exclusively to the standard unit.



# AN XXL SIZE WITH XXL EQUIPMENT



1

**100 % electrically-operated differential lock in front and rear axles**

Powerful propulsion and high traction when needed. Wear on tyres is reduced.



2

**Work cabin – with maximum all-round visibility**

The curved front windscreen, the uninterrupted side window to the right with flush sliding window and the recessed rear windscreen provide an extraordinary all-round view.

The modern ergonomics of the driver's seat and the optimal accessibility of both the display controller and joystick eliminate work fatigue.



3

**Most powerful engine and best power to weight ratio in its class**

Sensitively tuned 2-stage drive and unique balance between thrust and lifting power. 160 kW (215 HP) offer significant power reserves.



4

**Adjustable pulling force limit with 100 % kick-down function – for more power**

Adjust the traction force to any substrate via the weycor controller – and go full power at any time using the weycor joystick by pressing the button for maximum push/pull.



5

**Separate inch pedal and the drive pedal function – for greater sensitivity**

Typical for weycor wheel loaders is the separate inch pedal for the sensitive distribution of thrust and lifting forces. The use of the accelerator as the drive pedal is just as practical. When using the hand throttle, the engine speed is kept constant, however the angle in the drive pump is variable, so the thrust can be finely regulated.



6

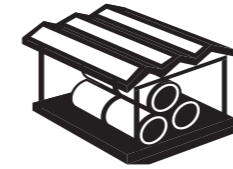
**Extremely compact dimensions and low profile – for excellent visibility**

The total height of an AR 660 with the standard tyre is 3.25 m. The compact design is a continuation of the style from the compact wheel loader series with excellent visibility.



# APPLICATION WITHOUT LIMITS

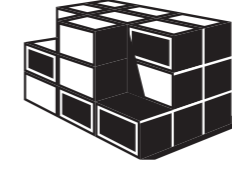
The AR 660 – the “Swiss army knife” of wheel loaders. There are no limits to our new workhorse, from the sandpits to industrial or agricultural use. A mighty engine provides a powerful drive with optimum traction, while the proven and robust weycor kinematics ensure high breakout forces and excellent lifting heights. With the appropriate accessory tool, the AR 660 is at home anywhere.



## CIVIL ENGINEERING AND EARTHWORK

### Loading shovel

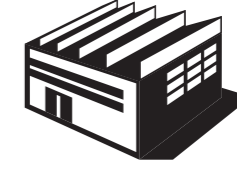
For earthmoving work and transporting all kinds of bulk materials.



## MATERIALS HANDLING

### Light cargo shovel

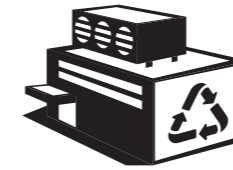
Large volume shovel with or without teeth – depending on the density of the material.



## EXTRACTION

### Heavy duty shovel

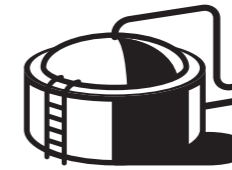
Suitable for heavy cargo and earthwork, generally in a reinforced construction and with wear-resistant shovel blade.



## RECYCLING

### Shovel with hold-down device

A hydraulic hold-down device is used to secure loose or bulky material in the shovel.



## AGRICULTURE AND BIOGAS

### Agricultural attachments

Whether you need a bulk material shovel, high-tipping shovel, green forage fork or silo removal technology – versatility is a must in agriculture.



## FORESTRY

### Logging fork

Suitable for loading logs and timber, generally in a fork or hook design.



# GREAT VIEWS FROM THE CABIN

The cabin in the AR 660 is a completely new experience. We ensure a low sound level and a high level of safety as standard.

We also place great importance in optimal 360-degree all-round visibility, so the driver of the AR 660 can always keep their eyes firmly on their work environment.

The display and control elements also provide a good overview: Following an extensive visual field analysis, we ensured the optimal placement of all switches in the cabin, while keeping the display tidy and reduced to the essentials.

The cabin interior is rounded off with a well thought-out ventilation system and ergonomic design. The perfect atmosphere for work!



## All-round visibility

The curved front windshield, the uninterrupted side window to the right with flush sliding window and the recessed rear windscreen provide an extraordinary all-round view – for precise work.



## Narrow steering column

The steering column occupies only a third of the entire front and ensures seamless control of the shovel movements.



## High safety

In addition to the specifications for ROPS, all FOPS Level 2 safety precautions were also included in the construction of the cabin – for maximum safety.



## Low sound level

Thanks to good insulation, we have managed to achieve one of the lowest sound levels on the market. All equipment and elements that produce noise and heat are outside the cabin.



## Seat comfort to reduce fatigue

The modern ergonomics of the driver's seat and the optimal accessibility of both the display controller and joystick eliminate work fatigue.



## Carefully considered ventilation

The air filter placement at the highest, dust-free point of the machine guarantees fresh air in the interior. Additionally, an overpressure in the cabin prevents the entrance of pollutants.

UNIQUE FIELD OF VISION



Front:  
**Unobstructed view at floor level without steering column blockage**



Side and rear:  
**Perfect all-round vision without the need for a rear-view camera**

CAREFULLY CONSIDERED DISPLAY



Display:  
**Simplified and clear display for ease of operation**



Controller:  
**Variable key fields for driving and working**

ADJUSTABLE STEERING WHEEL



Steering wheel:  
**Individually adjustable in height and angle – the display swivels with**

INTUITIVE OPERATION



Control & operating elements:  
**Reduced elements for intuitive operation, joystick moves ergonomically with the seat and fits any hand size**

GENEROUS STORAGE SPACE



Storage options:  
**Fixed place for Euro boxes – for documents and the driver's private things, ideal for multi-shift operation**



# MORE FROM LESS

6 cylinder, 215 HP: The AR 660 moves forward with power. Here, too, we've considered far ahead. The goal was to reduce fuel consumption by sustainably increasing the overall efficiency of the engine, for example by reducing the diesel engine speed and including generously designed hydraulic components. Due to the electronically controllable individual components, the components in the AR 660 are capable of communicating.

The diesel engine thus delivers only as much power as is actually required. This reduces consumption, emissions and noise.

## The latest kinematics

Tried and tested weycor kinematics with high breakout forces and an excellent lifting height.

## Optional hydraulic quick-change mechanism according to ISO 23727

Makes it possible to change the attachment in seconds and turns the wheel loader into a real all-rounder.

## Easy servicing

Fast, easy maintenance and upkeep as a result of centrally arranged, easily-accessible service points.

## Articulated joint & floating axle

For outstanding off-road capability and manoeuvrability. Unique stability because of the low centre of gravity, even off-road.

## Comfortable cabin

Safe, fatigue-free working with excellent all-round visibility, clearly arranged instruments and ergonomic design. Readied additional mounting points for optional accessories.

## Powerful drive

Optional traction via 100 % electrically-operated differential lock in front and rear axles.

## Unique engine mount

Independent suspension of the engine decoupled from the axle to avoid vibration and noise emission.

## Only manufacturer with a separate inching pedal & the drive pedal function

Precise distribution of shearing and lifting forces, along with reduced wear and fuel consumption. Unlike a combined braking / inching pedal, the separate inching pedal eliminates the risk of inadvertently activating the main brake. The use of the accelerator as the drive pedal is just as practical. When using the hand throttle, the engine speed is kept constant, however the angle in the drive pump is variable. Here, again, the thrust force is finely regulated.

## Wear-free negative brake

Holds the wheel loader securely in position on a slope when the brake or inching function is activated. All four wheels are automatically locked, even when the engine is stopped. The multiple-disc brake runs in an oil bath and is particularly low-maintenance and low-wearing as a result.



# INNOVATIVE HYDRAULICS CONCEPT

## Power to perform

The hydraulics concept was developed and carefully coordinated with Bosch Rexroth. Powerful hydraulics and extreme user-friendliness position the new weycor large wheel loader as a front-runner amongst high-performance loaders of this size.

## Flexible working hydraulics

Designed for fast movement at low speeds – the latest control valve technology and high forces ensure efficient work.

## Fan drive

On-demand fan drive allows reduced emissions and fuel savings, even at outdoor temperatures of up to 50 °C.

## Individual settings

The weycor display control system and quick-access buttons offer the driver a wide range of possible setting options, including diesel engine speed, flow rate and continuous operation.

## Drive

Powerful hydrostatic drive with fine dosing allows working in confined space without using the brake. The drive is optimally tuned to the diesel engine and runs steplessly up to 40 km/h with two drive engines. Both engines are operated up to 14 km/h. After that, the engine with the larger volume is swivelled into the zero position and the complete oil flow is made available only to the second engine with the smaller volume. Thermal problems are thus avoided. In addition, different driving modes (optional) can be set.

## Charge mode

Maximum performance at up to 2000 rpm, high speed of work functions and dynamic acceleration and deceleration enable high handling performance.

## Pallet mode

Thanks to the high engine speed in this driving mode, the machine is also able to accelerate and decelerate smoothly when the driver needs to drive delicately. This mode can also be used for shovel operation.

## ECO mode

The engine speed is limited to 1650 rpm, but almost all the power (145 kW / 195 HP) is available. Fuel-efficient working and road travel at full speed are possible.

## Pulling force limit

Reduction of the pulling force to adapt to different substrates and to minimise tyre wear. Via the kick-down button on the joystick, the limit can be overridden at any time with 100 % power for a short period.

## Speed limit

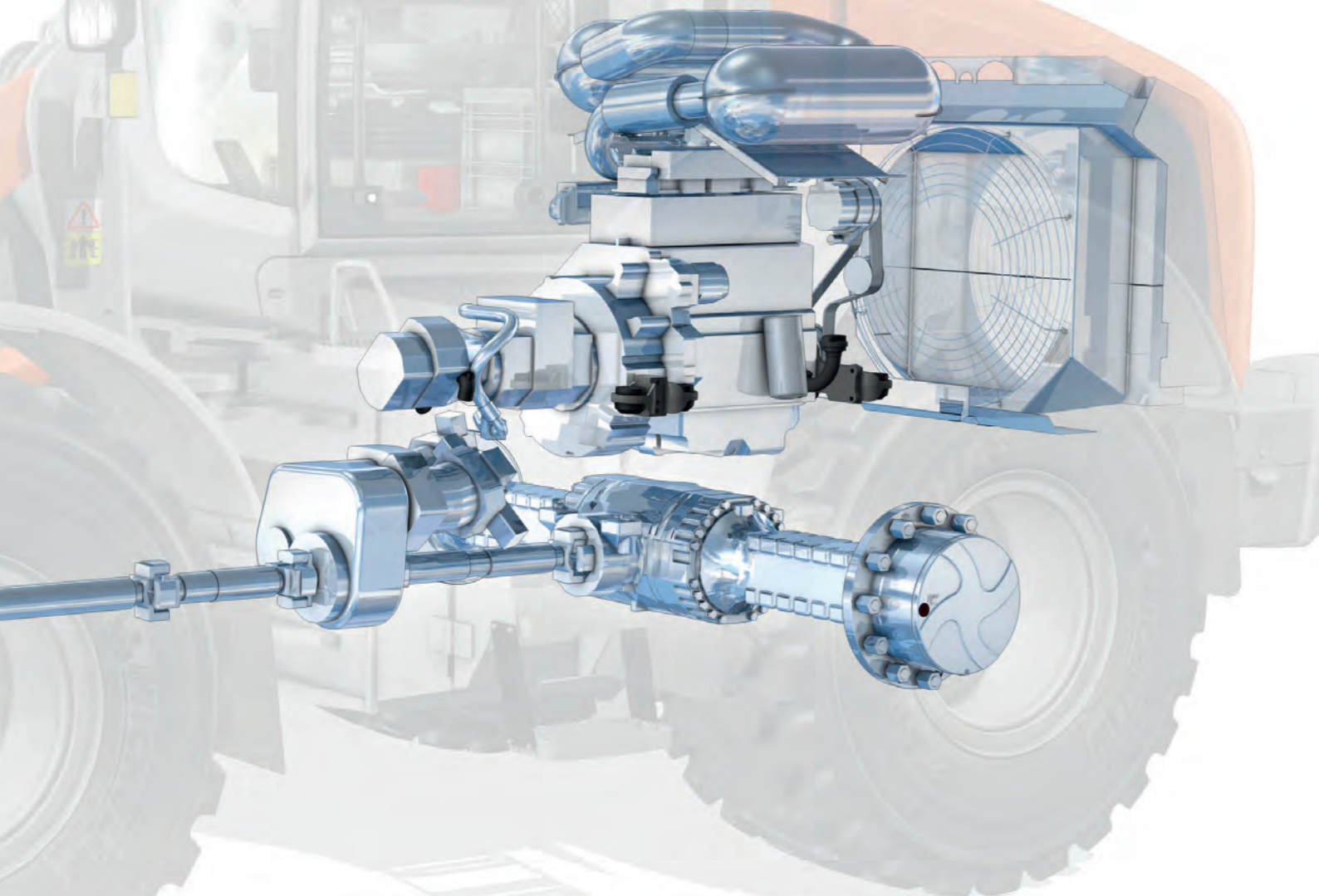
Limit the maximum speed for certain applications – regardless of the driving mode.

## Hand throttle

Pre-selectable engine speed for applications such as snow ploughing, etc. The accelerator pedal serves as the drive pedal in this case and determines the speed of the machine.

## Cruise control

Relieve the driver during longer journeys at a constant speed.



# INNOVATIVE ENGINE TECHNOLOGY

## TCD 6.1 L6 – intelligent and efficient

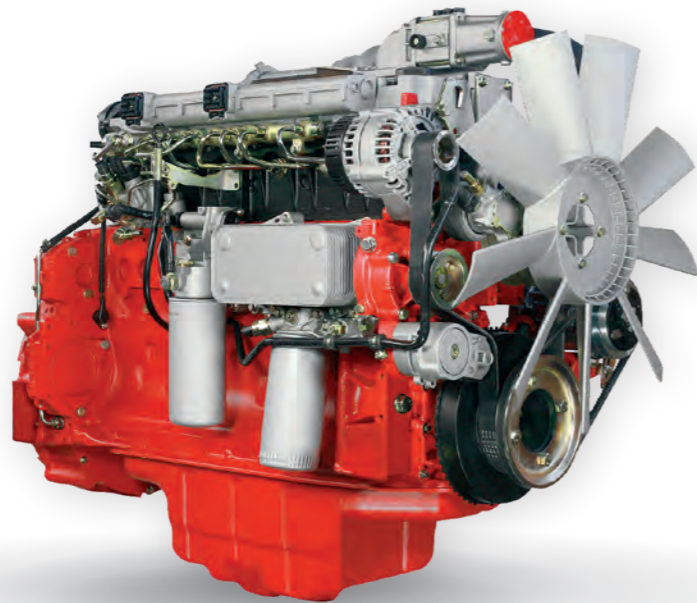
We have been convinced of the quality of Deutz engines for over 40 years. Our cooperation with Deutz also offers numerous benefits for the AR 660: such as the electronic engine control with intelligent connection to the drive management. This ensures the best engine performance with low fuel consumption. The water-cooled TCD 6.1 L6 diesel engine is at the heart of our new power class.

## Mighty performance

160 kW at a maximum of 2000 rpm

## Compliance with emission standards

Thanks to the exhaust system used, the engine complies with DOC/DPF/SCR TIER IV final and EU Stage 5.

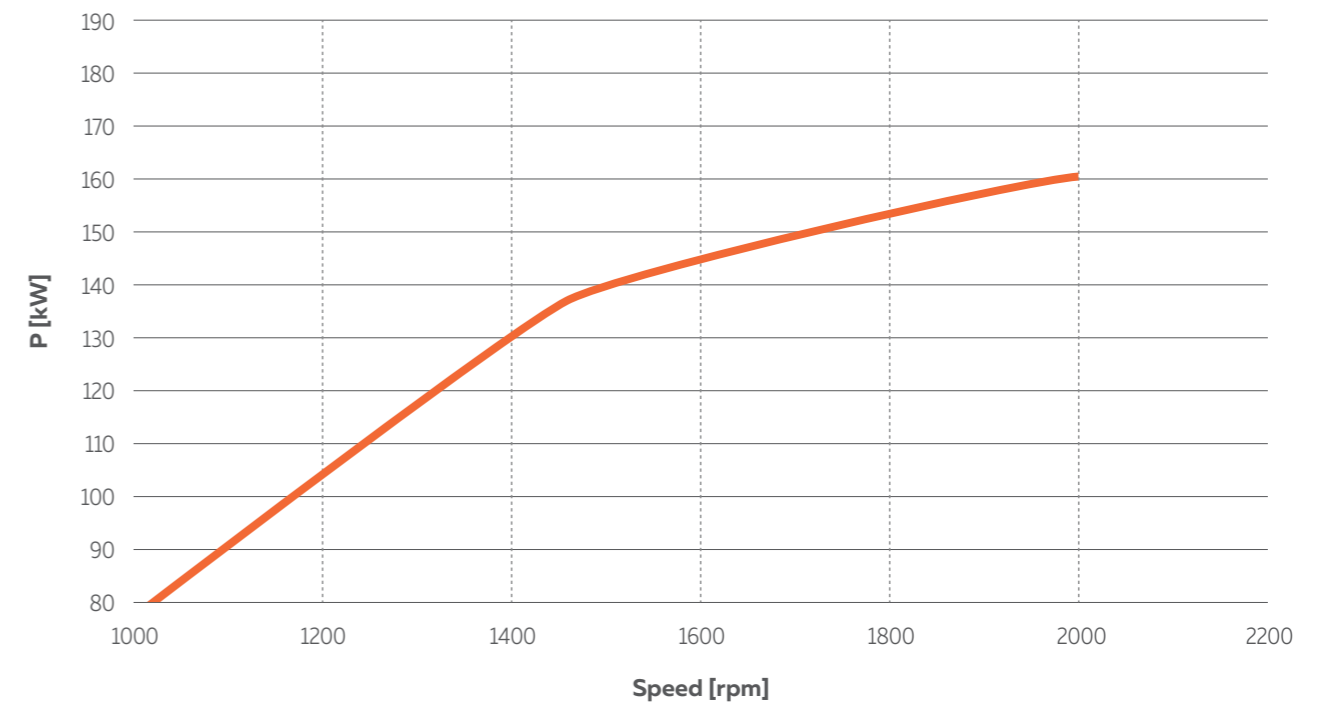


## Deutz engine technology: TCD 6.1 L6

Water-cooled 6 cylinder in-line engine with turbocharging, intercooling and cooled external exhaust gas recirculation. The powerful Deutz Common Rail (DCR®) injection system and the electronic motor control (EMR 4) with intelligent connection to the drive management ensure the best engine performance with low fuel consumption. The engines meet the requirements of the EU Stage IV and US EPA Tier 4 standards with DVERT® selective catalytic reduction (SCR) and particle filter (DPF). With the use of the DPF, they are already compliant with the EU Stage V emission standard expected from 2019.

# HIGH ENGINE POWER – AT LOW ENGINE SPEED

## Engine power curve



## ECO mode

For light work and road travel, 40 km/h is reached at 1650 rpm. Maximum of 145 kW available.

## Powerful fan drive with optional fan reversal for quick cleaning

Fan drive with electronic control and optimum efficiency in every speed range thanks to a generously sized variable displacement pump. Full fan performance is also available in Eco mode.

# TECHNICAL DATA

Engine	
Model	Deutz TCD 6.1 L6 diesel engine
Design	water-cooled
Output	160 kW <sup>(1)</sup> (215 HP) at 2,000 rpm
Max. torque	900 Nm at 1,450 rpm
Cubic capacity	6,057 cm <sup>3</sup>
Number of cylinders	6 in line

Electrical system	
Operating voltage	24 V
Battery	24 V / 100 Ah
Generator	24 V / 100 A
Starter	24 V / 4 kW

Drive	
Maximum load-regulated, hydrostatic drive with pressure cut-off and closed circuit, acting on all 4 wheels. Speed ranges apply to standard tyres:	
<b>Operation</b>	0-14 km/h
<b>Fast speed</b>	40 km/h
Shifting between 1st and 2nd hydraulic gear and between forward and reverse movement possible while under load. Control of forward/reverse movement and drive levels using weycor joystick. Control of the drive system using the drive pedal and a separate inching pedal for optimal distribution of the hydraulic power to thrust and lifting forces.	

Braking	
<b>Operating brake:</b> Oil bath multi-disc brake, acting on all 4 wheels. Supplementary brake function via the inching pedal and hydrostatic drive, acting on all 4 wheels.	
<b>Parking brake:</b> Negative brake in spring-loaded design, acting on all 4 wheels. When the engine is stopped, the spring-loaded brake is activated.	

Steering	
Fully hydraulic central articulated steering and rear floating axle	
Front and rear wheels run on one track	
40° articulation angle both sides	
Articulation angle ±12° at rear of vehicle	

Tyres	
<b>Standard:</b> 20.5 R 25 – construction machine tyres for use on relatively soft ground with high traction and good self-cleaning	

Hydraulics	
Variable displacement pump for loading and steering hydraulics	
Priority valve prioritises steering	
The 1st and 2nd control circuit are standard	
Loading hydraulics hydraulically operated, controlled by weycor joystick, including lockable float position	
Operating pressure 280 bar, flow rate 190 l/min	

Capacities	
Fuel (diesel)	250 litres
Hydraulic oil	202 litres
Engine oil	16 litres
Front axle	19.2 litres
Rear axle	19.2 litres
Gearbox	3.5 litres
Coolant	10.2 litres
AdBlue / DEF	20 litres

Loading equipment	
Powerful and solid Z-kinematics with high breakout force	
Operation of all functions via weycor joystick	
Parallel guide for pallet fork operation via optional electrical control	
Automatic shovel return to digging position	
Locking for road travel in accordance with StVZO (German Highway Code)	
<b>Lifting</b>	<b>5.9 s</b>
<b>Lowering</b>	<b>4.4 s</b>
<b>Tipping</b>	<b>1.8 s</b>

Equipment	series	option
weycor diagnostic system (ADS) for monitoring the machine parameters	•	
Foldable exterior rear-view mirror	•	
Heated rear windshield	•	
Single lever operation via weycor joystick	•	
Driving range display, forward/reverse travel	•	
Vehicle lighting acc. to StVZO (German Highway Code)	•	
Individually adjustable driver's seat with adjustable right armrest	•	
Water heating with heat exchanger and 3-speed fan	•	
Air conditioning	•	
Adjustable front windscreen ventilation	•	
Soundproofed ROPS cabin	•	
Front and rear working headlights	•	
Windshield wiper and washer system front and rear	•	
Sun visor, coat hook, interior light, storage space	•	
Steplessly adjustable and telescopic steering column	•	
Heat-proofed panoramic glass panes	•	
Warning lights for engine oil pressure, engine overheat, hydraulic oil temperature, battery charging, parking brake, air filter monitoring	•	
Central dashboard with indicators for pre-warming, engine temperature, fuel supply, operating hours counter	•	
Main battery switch		•
Lifting arm damping		•
20 km/h limitation		•
Trailer coupling		•
Special coatings		•
All-round lighting		•

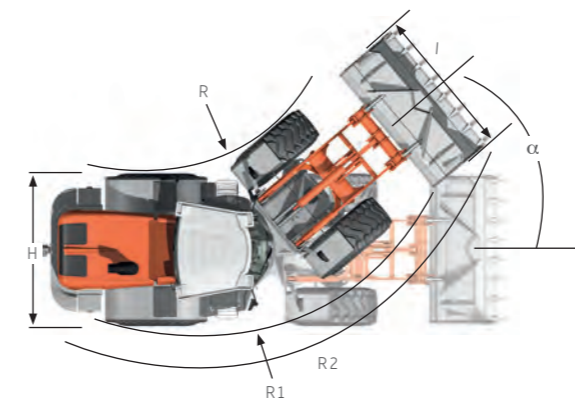
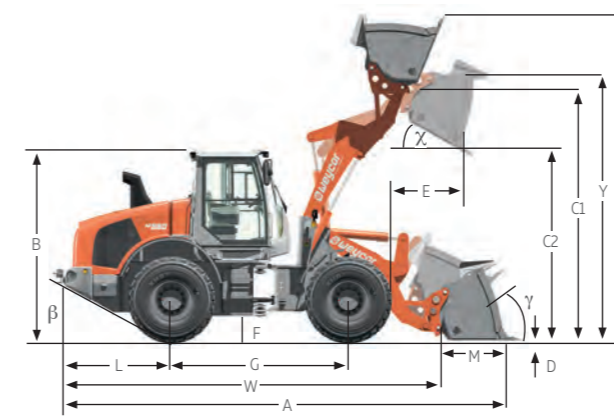
Equipment	series	option
Heated driver's seat		•
Automatic climate control		•
Radio		•
Right sliding window	•	
Left sliding window		•
3rd and 4th section, max. 170 l/min		•
Quick-change device that meets ISO 23727		•
Return-to-dig		•
Engine pre-warming		•
Protection grille fans		•
Steel mud guard		•
Additional counterweight +250 kg		•

(1) Power output ISO 14396, exhaust aftertreatment according to EU 2016/1628.

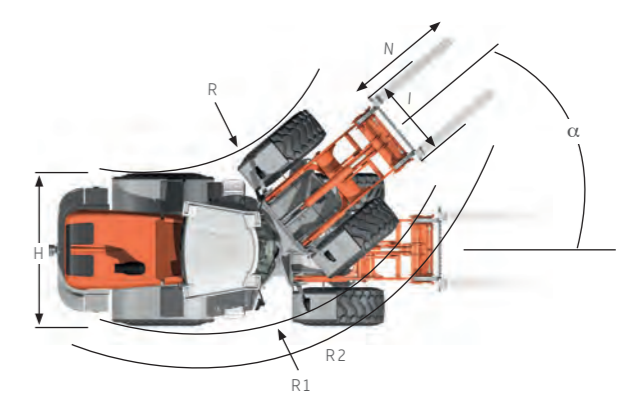
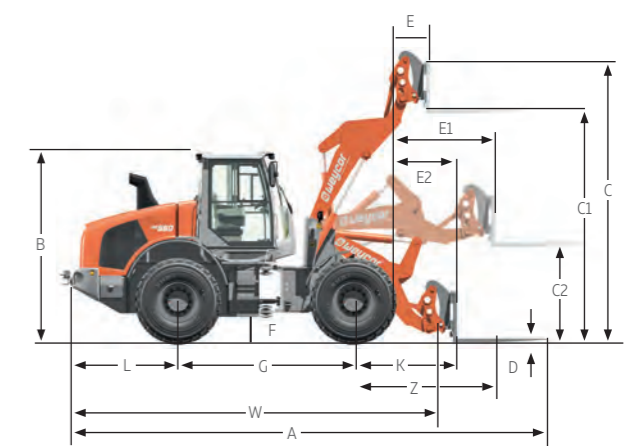
# TECHNICAL DATA

	Without quick-change device and with standard shovel	With quick-change device and standard shovel	With quick-change device and pallet fork
Tyres (D=1486)	20.5 - 25	20.5 - 25	20.5 - 25
A	7,474 mm	7,732 mm	8,090 mm
B*	3,260 mm	3,260 mm	3,260 mm
C	5,340 mm	5,510 mm	4,649 mm
C1	3,936 mm	3,936 mm	3,940 mm
C2 (45°)	2,888 mm	2,704 mm	1,831 mm
D	100 mm	100 mm	0 mm
E (45°)	1,006 mm	1,167 mm	809 mm
E1	-	-	1,683 mm
E2	-	-	1,013 mm
F	401 mm	401 mm	401 mm
G	3,000 mm	3,000 mm	3,000 mm
H	2,490 mm	2,490 mm	2,490 mm
I	2,530 mm	2,530 mm	2,060 mm
K	-	-	1,756 mm
L	1,924 mm	1,924 mm	1,924 mm
M	1,216 mm	1,456 mm	-
N	-	-	1,400 mm (fork length)
R	3,100 mm	3,100 mm	3,100 mm
R1	5,857 mm	5,857 mm	5,857 mm
R2	6,100 mm	6,100 mm	6,100 mm
W	6,258 mm	6,258 mm	6,258 mm
Y	3,670 mm	3,652 mm	-
Z	-	-	2,356 mm
$\alpha$	40°	40°	-
$\beta$	30°	30°	-
$\gamma$	43°	43°	-
$\chi$	46°	46°	-
Tipping angle	46.3°	46°	-
Tipping angle below	44.8°	45.3°	31°
Tipping angle transport	47.1°	46.9°	35°
Tipping angle above	49.3°	49.6°	38°

\* For 750 / 65 R26 and 23.5 R25 tyres, height B changes to 3,310 mm.



With quick-change device and standard shovel



With quick-change device and pallet fork 1,400 mm

# TECHNICAL DATA

Model standard features	Tipping load bent	Tipping load extended	Operating weight
With quick-change device and standard shovel	8,127 kg	9,301 kg	14,125 kg
Without quick-change device and with standard shovel	8,800 kg	10,070 kg	13,995 kg

Model standard equipment + additional weight	Tipping load bent	Tipping load extended	Operating weight
With quick-change device and standard shovel	8,460 kg	9,683 kg	14,380 kg
Without quick-change device and with standard shovel	9,156 kg	10,480 kg	14,245 kg

Model with pallet fork 7 t	Tipping load	Load capacity 60 %	Load capacity 80 %
Model standard features	6,454 kg	3,872 kg	5,163 kg <sup>(1)</sup>

(1) When using the default pallet fork.

The tipping loads refer to the respective service weights. The service weight can vary, depending on the individual configuration.

**Without a hydraulic quick coupler (HQC) and without an additional counterweight, the service weight is 13,995 kg.**

Service weight with a hydraulic quick coupler	<b>14,125 kg</b>
Service weight with an additional counterweight	<b>14,245 kg</b>
Service weight with an additional counterweight and with a hydraulic quick coupler	<b>14,380 kg</b>

**Table of specific weights in t/m<sup>3</sup>**

Construction industry		Industry		Landscaping, agriculture			
Concrete	1.9	Sand (wet)	2.1	Ash	0.7	Crop (corn, beet)	0.7
Earth (dry)	1.5	Sandstone	2.4	Lignite briquette	0.8	Grain	0.6
Earth (wet)	2.0	Slate	2.2	Iron	7.8	Hay	0.3
Rock (broken)	2.4	Sludge	2.1	Iron ore	2.3	Potash	1.1
Granite	1.8	Rubble	1.5	Broken glass	1.9	Compost	1.0
Limestone	1.6	Road salt	1.3	Gas coke	0.4	Flour	0.5
Gravel (dry)	1.9	Clay	1.6	Wood	0.8	Marl (wet)	2.3
Gravel (wet)	2.1	Cement	1.7	Coal	1.2	Thomas slag	2.2
Loam	1.7	Brick (stacked)	1.8	Paper	0.9	Peat (wet)	1.1
Mortar	2.2			Slag (sand)	1.0	Peat (dry)	0.4
Sand (dry)	1.9			Slag (solid)	2.7	Complete fertiliser	1.0

Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice, errors expected. The technical data refer only to the standard version, illustrations do not necessarily show the standard version of the machine.





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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)

