

# AR 380 - AR 660

AGRAR AGRAR

OPERATING WEIGHT  
3,500 - 15,000 kg

ENGINE OUTPUT  
37 kW - 160 kW

SHOVEL CAPACITY  
0.5 - 4.0 m<sup>3</sup>



 **Weycor**  
BY ATLAS WEYHAUSEN

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# WHEEL LOADER FOR AGRICULTURE FROM ATLAS WEYHAUSEN.

Atlas Weyhausen looks back on more than 50 years of tradition in wheel loader production in Wildeshausen. weycor wheel loaders work in the main construction trade and are used in gardening and landscaping and material handling or in recycling.

The familiar type designations have been given the addition AGRAR and can now be equipped with additional options for agriculture in addition to the familiar technical and proven weycor highlights. These include, for example, an extended linkage, a 40 km/h or 50 km/h high-speed option, a Euro pick-up for the AR 400 - AR 530 models, a 4th hydraulic circuit at the rear or front, as well as equipment with an air conditioning system and wide agricultural tires. From the AR 550 model, the fan reversal function is also offered.









### Operating data

Shovel capacity	<b>0.5 m<sup>3</sup></b>
Track width	<b>1,010 mm</b>
Turning radius (outer bucket edge)	<b>3,490 mm</b>
Tear out force	<b>3,850 daN</b>
Torque (20 km/h version)	<b>2,650 daN</b>
Tipping load, straight	<b>2,575 kg</b>
Tipping load, articulated	<b>2,252 kg</b>
Lifting capacity at ground level	<b>2,470 daN</b>
Operating weight	<b>3,500 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>1,712 kg</b>
Lifting capacity	<b>1,369 daN</b>
Payload 80% even surface <sup>(4)</sup>	<b>1,370 kg</b>
Payload 60% uneven surface <sup>(4)</sup>	<b>1,027 kg</b>

#### Sound level

Averaged sound power level L <sub>WA</sub> <sup>(5)</sup>	<b>98.2 dB(A)</b>
Guaranteed sound power level L <sub>WA</sub> <sup>(5)</sup>	<b>99.0 dB(A)</b>
Sound pressure level L <sub>pA</sub> <sup>(6)</sup>	<b>82.0 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 floor position. (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.



## THE AGILE LITTLE ONE FOR THE YARD.

weycor wheel loaders are more than the sum of their parts. They are a living passion. For the fascination of technology. For quality „Made in Germany“. The innovative spirit of the employees, the love of precision and the joy of powerful engine technology have now resulted in the new „AGRAR“ wheel loader generation - specially developed to meet the requirements of agriculture.

**3,500<sup>(1)</sup> KG**  
OPERATING WEIGHT

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**37<sup>(2)</sup> KW (49,6 HP)**  
ENGINE OUTPUT

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

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### 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.

# FEATURES AND BENEFITS



## Powerful drive

The weycor AR 380 wheel loader can be moved in two ways: in working gear from 0 to 6.5 km/h or in road gear with up to 20 km/h. Thereby 1st and 2nd hydraulic gear as well as forward / reverse travel under load are switchable. Shifting between forward / reverse and driving gears is done via the weycor joystick. The travel drive is controlled via the travel pedal and the separate inching pedal for optimally distribute the hydraulic power to the pushing and lifting forces.



## Articulated pendulum joint

In weycor wheel loaders, we almost exclusively use robust, low-maintenance articulated swing joints in conjunction with rigid axles. With a rear swing of  $\pm 12^\circ$  and an articulation angle of  $40^\circ$  on both sides, these ensure excellent off-road mobility, driving that is gentle on the ground, and extreme maneuverability. Due to the low center of gravity, weycor wheel loaders have high tipping stability even under extreme conditions.



## Hoist

Proven weycor kinematics with high breakout forces and excellent lifting heights. Upwardly tapered loader beam for best visibility of the attachment. An extended linkage is optionally available.



## Low center of gravity

Due to the low center of gravity, weycor wheel loaders have high tipping stability even under extreme conditions.





### Hydraulic quick change device

The hydraulic quick-change system turns the wheel loader into an all-rounder and allows attachments to be changed in seconds. The tried-and-tested weycor kinematics ensure high breakout forces and excellent lifting heights. The upwardly tapered loader arm provides the best possible view of the attachment tool. Tools with Euro adapters can be accommodated by means of adapters.



### Separate inch pedal

We are the only manufacturer to offer our weycor wheel loaders with a separate inching pedal. Unlike the combined brake/inching pedal, the risk of driving against the service brake is eliminated here. A generously dimensioned inching range enables sensitive distribution of the pushing and lifting forces. The result: less wear and fuel consumption.



### Attachment tools

Suitable attachments for different applications turn a wheel loader into an efficient working tool.



### Agricultural tires

Atlas Weyhausen offers the right tires for every surface. In agriculture, a wide studded tire is often used.

# INNOVATIVE ENGINE TECHNOLOGY

## **Kubota D1803 CR-T - reliable and durable**

The diesel engines offer long durability due to an efficient engine cooling, reduced vibrations and Use of optimized components with fine tolerances.

## **Powerful performance**

37 kW at maximum 2,700 rpm

## **Exhaust emission standards met**

EU Stage V, EPA Tier 4



## **Clean and quiet performance**

The common rail system has optimized combustion and created a longer-lasting, quieter engine with greater fuel efficiency. Through careful selection and control of exhaust aftertreatment components, we are able to offer a clean and powerful engine. Kubota O3 Series engines have been developed step by step to meet the requirements of each EPA stage. As a result, we are able to offer our customers worldwide engines that are certified for the relevant emission regulations.

The D1803-CR-T-E5 engines have been designed to meet the stringent regulations: EPA/CARB Tier4 + EU Stage V.



# TECHNICAL DATA

## Motor

Model	Kubota D1803 CR-T
Design	water-cooled
Output	37 kW <sup>(1)</sup> (49.6 HP) at 2,700 min <sup>-1</sup>
Max. torque	150 Nm bei 1,600 min <sup>-1</sup>
Cubic capacity	1,826 cm <sup>3</sup>
Number of cylinders	3 in line

## Electrical system

Operating voltage	12 V
Battery	12 V / 72 Ah
Generator	14 V / 70 A
Starter	12 V / 2,0 kW

## Drive

Output-regulated hydrostatic drive with pressure cut off and closed circuit acting on all 4 wheels.

Speed with standard tires:

**Operating speed range** 0–6.5 km/h

**Road speed range** 0–20 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

**Standard brake:** Drum brake on front axle via cardan acting on all 4 wheels. Supplementary brake functions via inching pedal and hydrostatic drive acting on all 4 wheels.

**Parking brake:** Drum brake via funicular link acting on all 4 wheels with engine switch off.

## Axles

Rigid axles with planetary reduction gears in wheel hubs. 45%-differential lock in front 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 230 bar

Emergency steering function

## Tires (Special tires upon request)

**Standard:** 15.0/55-17 – Multi-purpose tires for earth moving machines, particularly surface friendly, gardening and landscaping

**Special tires:** 11.5/80-15.3 MPT – Multi-purpose tires for sand and gravel surface, woodland, roads and paths

## Hydraulic system

Gear pump for loading and steering hydraulics

Priority valve favoring steering hydraulics

3rd steering section for loading hydraulics mechanically controlled by weycor joystick, including float position

Loading hydraulics mechanically pilot-controlled, operated via weycor joystick, incl. engageable float position

Operating pressure 280 bar, Delivery of pump 43.2 l/min

## Fuel/oil capacities

Diesel	70 Litre
Hydraulic oil	43 Litre
Engine oil	7 Litre
Front axle	4 Litre
Rear axle	3.5 Litre
Gear oil	0.65 Litre
Cooling liquid	8 Litre

## 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 mid position of joystick

Locking device acc. to German StVZO for road travel

**Lifting** **4.0 s**

**Lowering** **3.0 s**

**Tipping** **1.0 s**

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

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**Equipment – Series**

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weycor canopy cabin with roll-bar protection

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

Control lights for engine oil pressure, overheating, hydraulic oil temperature, battery power, parking brake, air filter

Central dashboard with indicators for preheating, fuel, working hour meter

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**Equipment – Option**

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4th section front or rear

Main battery switch

Special paintings and oils

Cyclone dust separator

Trailer coupling

Left hinged adjustable window, right window to open can be fastened

Hot water heating with heat exchange and 3-stage-fan

Front windscreen ventilation, variable output

Laterally tiltable soundproof ROPS cabin

Front windscreen ventilation, variable output

Rear driving mirrors, foldable

Sun visor, ceiling lamp, stow facility

Heat protection glazing with largetinted screens

Opening window left, right window lockable

Water heating with heat exchanger and 3-speed fan

Front and rear working lights

Radio

Additional counterweight

Extended hoist

Euro adapter

Agricultural tyres

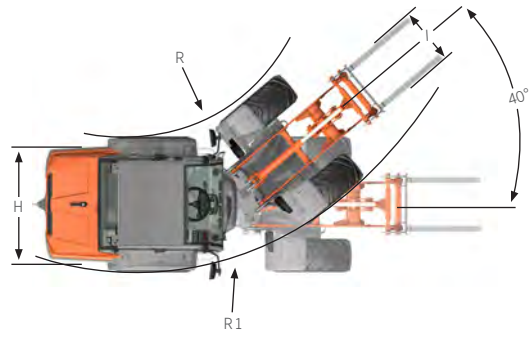
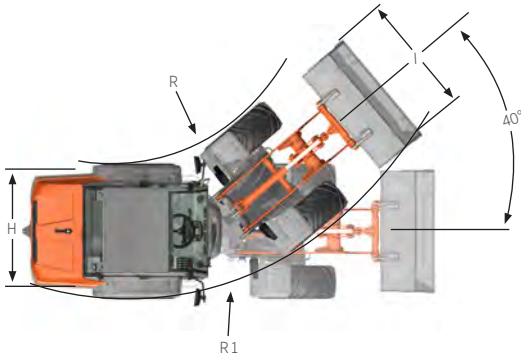
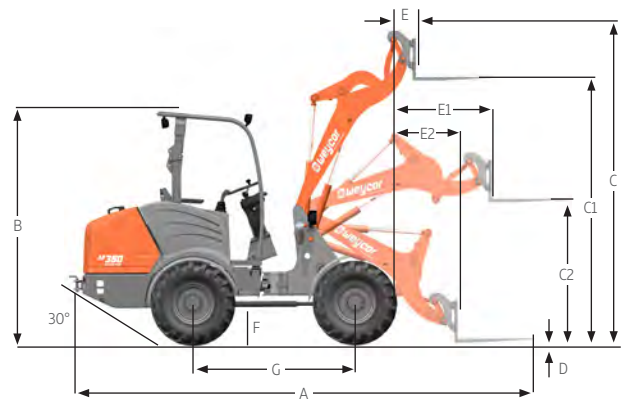
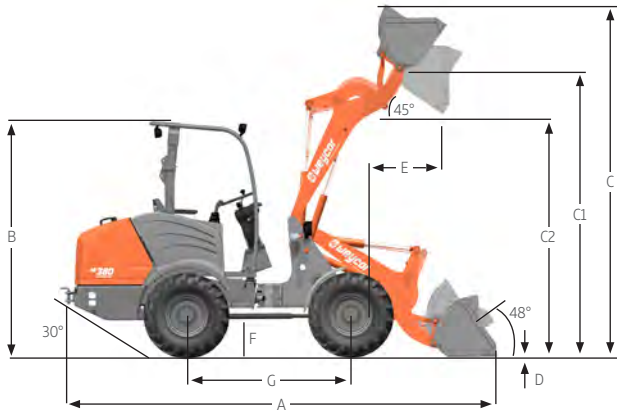
Trailer coupling with TÜV approval

# TECHNICAL DATA

	AR 380 with standard shovel	AR 380 with pallet forks
A	4,581 mm	5,073 mm
B	2,456 mm	2,447 mm
B2	2,320 mm*	2,320 mm*
C	3,624 mm	3,323 mm
C1	2,927 mm	2,716 mm
C2	2,363 mm	1,170 mm
D	33 mm	118 mm
E	589 mm	279 mm
E1	-	1,048 mm
E2	-	681 mm
F	391 mm	391 mm
G	1,710 mm	1,710 mm
H	1,500 mm	1,500 mm
I	1,550 mm	1,030 mm
R	1,641 mm	1,641 mm
R1	3,085 mm	3,085 mm

\*Cab Version

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



With standard shovel

With pallet forks









## Operating data

Shovel capacity	<b>1,1 m<sup>3</sup></b>
Track width	<b>1.640 mm</b>
Turning radius (outer shovel edge)	<b>4.478 mm</b>
Tear out force	<b>6.210 daN</b>
Torque	<b>5.360 daN</b>
Tipping load, straight	<b>4.419 kg / 4.790 kg<sup>(3)</sup></b>
Tipping load, articulated	<b>3.902 kg / 4.230 kg<sup>(3)</sup></b>
Lifting capacity at ground level	<b>5.510 daN</b>
Operating weight	<b>5.760 kg / 6.280 kg<sup>(3)</sup></b>

## Specifications

### Differing data for use of pallet forks<sup>(4)</sup> (500 mm distance to center of gravity)

Static tipping load, straight and articulated	<b>3,220 kg / 3,481 kg<sup>(3)</sup></b>
Lifting capacity	<b>4,392 daN</b>
Payload 80% even surface <sup>(5)</sup>	<b>2,576 kg / 2,785 kg<sup>(3)</sup></b>
Payload 60% uneven surface <sup>(5)</sup>	<b>1,932 kg / 2,089 kg<sup>(3)</sup></b>

### Sound level

Average sound power level $L_{WA}^{(6)}$	<b>100.0 dB(A)</b>
Guaranteed sound power level $L_{WA}^{(6)}$	<b>101.0 dB(A)</b>
Sound pressure level $L_p^{(7)}$	<b>78.0 dB(A)</b>
Vibration values hand/arm/whole body vibration <sup>(8)</sup>	<b>&lt; 2.5/0.5 m/s<sup>2</sup></b>

(3) AR 480 loaded. (4) Loads are always moved in the ground position. (5) According to ISO 8313 and EN 474-3.

(6) According to 2000/14/EC and Annexes. (7) According to ISO 6396. (8) According to ISO 8041.



# FOR DEMANDING TASKS IN AGRICULTURE.

weycor wheel loaders are more than the sum of their parts. They are a living passion. For the fascination of technology. For quality „Made in Germany“. The innovative spirit of the employees, the love of precision and the joy of powerful engine technology have now resulted in the new „AGRAR“ wheel loader generation - specially developed to meet the requirements of agriculture.

**5,760<sup>(1)</sup> KG** OPERATING WEIGHT

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**55.4<sup>(2)</sup> KW (74,3 HP)** ENGINE OUTPUT

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

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## 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.

# FEATURES AND BENEFITS



## Powerful drive

A weycor wheel loader can be moved in three ways: in working gear from 0 to 6.5 km/h, in road gear at up to 20 km/h or also in fast gear at up to 40 km/h. Here, 1st and 2nd hydraulic gears as well as forward / reverse travel under load can be shifted. Shifting between forward/reverse and driving gears is done via the weycor joystick. The travel drive is controlled via the travel pedal and the separate inching pedal for optimum distribution of the hydraulic power to pushing and lifting forces.



## Hoist

Proven weycor kinematics with high breakout forces and excellent lifting heights. Tapered loader arm for the best view of the attachment tool. An extended lifting mechanism is available as an option.



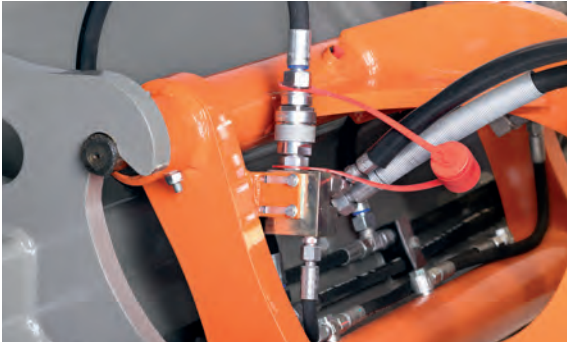
## Fast runner

With the AR 480, the standard speed of the wheel loader is 20 km/h. A 40 km/h version is optionally available.



## Articulated pendulum joint

In weycor wheel loaders, we almost exclusively use robust, low-maintenance articulated swing joints in conjunction with rigid axles. With a rear swing of  $\pm 12^\circ$  and an articulation angle of  $40^\circ$  on both sides, these ensure excellent off-road mobility, driving that is gentle on the ground and extreme manoeuvrability. Due to the low centre of gravity, weycor wheel loaders have high tipping stability even under extreme conditions.



### Hydraulic quick-change system

The hydraulic quick-change system turns the wheel loader into an all-rounder and allows attachments to be changed in seconds. The proven weycor kinematics provide high breakout forces and excellent lifting heights. The upwardly tapered loader arm offers the best view of the attachment. Optionally, the wheel loader can be equipped with a Euro attachment or a market-compatible attachment.



### Separate inch pedal

We are the only manufacturer to offer our weycor wheel loaders with a separate inching pedal. Unlike the combined brake/ inching pedal, the danger of driving against the service brake is eliminated here. A generously dimensioned inching range enables sensitive distribution of the pushing and lifting forces. The result: less wear and fuel consumption.



### Negative brake

The spring-loaded or negative brake on weycor wheel loaders is a closed brake system (oil bath multi-disc brake) and holds the wheel loader securely in position on slopes when the brake or inching function is activated and automatically locks all four wheels when the engine stops. The multi-disc brake runs in an oil bath and is therefore particularly low-maintenance and low-wear.



### Agricultural tyres

Atlas Weyhausen offers the right tyres for every surface. In agriculture, wide studded tyres are often used.

# FEATURES AND BENEFITS



## **Air conditioning and heating, Condenser at the rear of the roof**

A ventilation and air-conditioning system for producing and maintaining a pleasant or required indoor air quality, i.e. temperature and humidity independent of weather, waste heat and human and technical emissions.



## **4th hydraulic circuit**

With a 4th control circuit, it is possible to use special attachments or attachment combinations on the weycor wheel loader. For example, with this option you can use a swing cylinder, as well as a bucket with hydraulic hold-down together. You can choose to install to the front or to the rear.



## **Trailer coupling incl. socket and TÜV approval**

A trailer coupling or hitch is a device used to connect a vehicle to a trailer. Depending on the type of towing vehicle and trailer, different types of construction can be found: the pin coupling, common in agriculture and forestry, or the jaw coupling for trucks and tractors.



# INNOVATIVE ENGINE TECHNOLOGY

## **TD 2.9 L4 - intelligently efficient**

We have been convinced of Deutz engines for over 40 years. This cooperation also has many good reasons for the AR 480: for example, the electronic engine control with intelligent connection to the drive management. This ensures the best engine performance with low fuel consumption.

## **Powerful output**

55.4 kW at maximum 2,200 rpm

## **Fulfilled emission standards**

EU Stage 5 - DOC + DPF from 2019



## **Deutz engine technology: TD 2.9 L4**

Water-cooled 4-cylinder in-line engine with cooled external exhaust gas recirculation, with turbocharging and charge air cooling. The powerful common rail injection system and highly efficient combustion with cooled external exhaust gas recirculation ensure best engine performance with lowest fuel and emission values.

With the use of a diesel particulate filter, the engines comply with the EU Stage V emissions standard, which will come into force in 2019. To simplify installation in the unit, all engine connections and all important installation interfaces remain unchanged for Stage V.





# TECHNICAL DATA

## Engine

Model	TD 2.9 L4
Design	water-/intercooled
Output	55,4 kW <sup>(1)</sup> (74.3 HP) at 2,200 rpm
Max. torque	260 Nm at 1,600 rpm
Cubic capacity	2,924 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 / 2,6 kW

## Drive

Output-regulated hydrostatic drive with pressure cut off and closed circuit acting on all 4 wheels.

Speed with standard tires:

**Operating speed range** 0–6.5 km/h

**Road speed range** 0–20 km/h

**Optional high speed** 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

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

**Parking brake:** Parking brake as 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 in the wheel hubs, electrically switchable 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 (Special tires upon request)

**Standard:** 405/70 R20 EM – Construction machine tires for clay, sand, gravel, asphalt, roads, gardening and landscaping

**Special tires:** 400/70 R20 XMCL – Construction machine tires for clay, sand, gravel, fields and greenland, fortified roads

## Hydraulic system

Gear pump for loading and steering hydraulics

Priority valve favoring steering hydraulics

Lowering brake dependent of load

3rd hydraulic section serial

Loading hydraulic hydraulically pre-activated by weycor joystick, including float position

Operating pressure 265 bar, Delivery of pump 62 l/min

Option: Loading hydraulics electrically pre-activated

## Fuel/oil capacities

Diesel	100 Litre
Hydraulic oil	84 Litre
Engine oil	8 Litre
Front axle	5,4 Litre
Rear axle	5,1 Litre
Gear oil	2,5 Litre
Cooling liquid	13 Litre

## Loading equipment

Powerful and solid Z-kinematics with high tear out force

Hydraulic quick change device

Activation of all functions by weycor joystick

Parallel movement while using pallet forks

Automatic shovel return to excavation position

Locking device acc. to German StVZO for road travel

**Lifting** **6.0 s**

**Lowering** **3.8 s**

**Tipping** **1.2 s**

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

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**Equipment – Series**

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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 heating with heat exchange and 4-stage fan
Front windscreen ventilation, variable output
Sound absorbing ROPS cab
Windscreen wipe and wash unit in front and rear
Sun visor, coat hook, ceiling lamp, stow facility
Adjustable steering column
Heat protection glazing with targetinted screens
Control lights for engine oil pressure, overheating, hydraulic oil temperature, battery power, parking brake and air filter
Central dashboard with indicators for preheating, engine temperature, fuel, working hour meter
weycor joystick with knurled wheel and slide switch
High flow hydraulics 100l/min

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**Equipment – Option**

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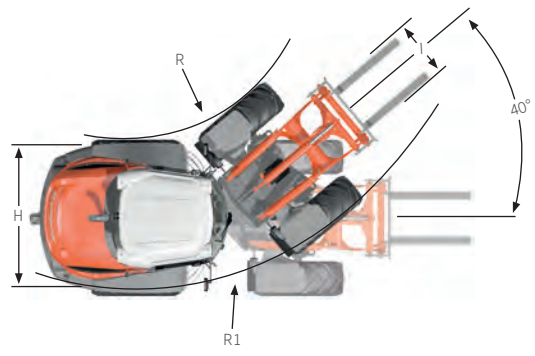
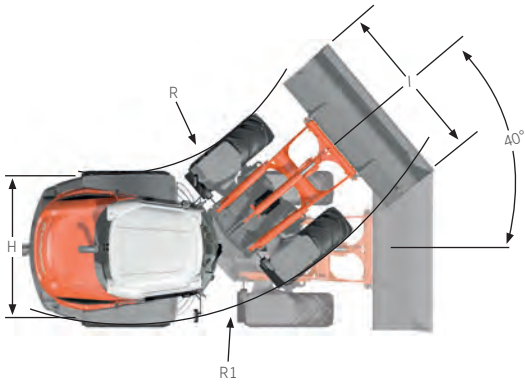
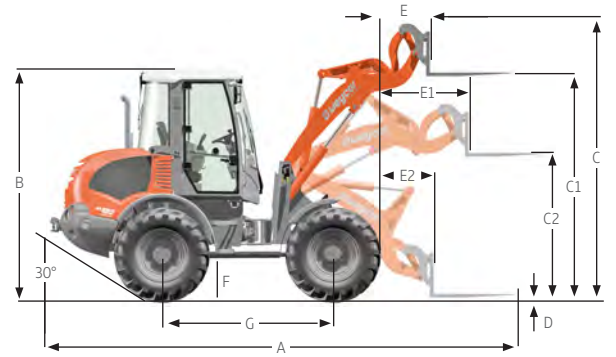
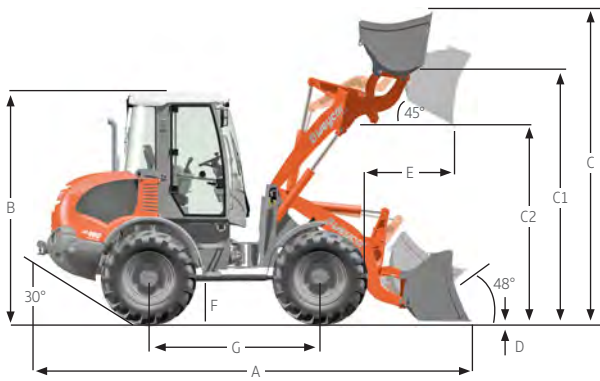
4th hydraulic section front or rear
Stability damping system
Load check valve for lifting and working cylinders
Trailer coupling with TÜV approval
High speed version 40 km/h
Main battery switch
Special paintings and oils
Corrosion prevention against salt
weycor diagnostic system (ADS) for monitoring engine parameters with integrated electronic anti-theft device
Warning beacon
Anti-theft-device with code stick
Heatable and air cushioned seats
Air conditioning, auxiliary heating
Radio
Doors with sliding windows, left and right side
Heavier counterweight & additional axle weights (approx. 440 kg)
Extended lifting gear
Euro intake
Adapter
Agricultural tyres

# TECHNICAL DATA

	AR 480 with standard shovel	AR 480 with pallet forks
A	5,580 mm	5,930 mm
B	2,730 mm	2,730 mm
C	4,220 mm	3,710 mm
C1	3,380 mm	3,190 mm
C2	2,605 mm	1,440 mm
D	65 mm	65 mm
E	740 mm	515 mm
E1	-	1,310 mm
E2	-	800 mm
F	470 mm	470 mm
G	2,200 mm	2,200 mm
H	2,050 mm	2,050 mm
I	2,150 mm	1,030 mm
R	1,898 mm	1,898 mm
R1	4,046 mm	4,046 mm

## 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



**With standard shovel**

**With pallet forks**







## 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 $L_{WA}^{(3)}$	<b>100.0 dB(A)</b>
Guaranteed sound power level $L_{WA}^{(3)}$	<b>101.0 dB(A)</b>
Sound pressure level $L_p^{(4)}$	<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.





# THE ROYAL CLASS FOR AGRICULTURAL CHALLENGES.

weycor wheel loaders are more than the sum of their parts. They are a living passion. For the fascination of technology. For quality „Made in Germany“. The innovative spirit of the employees, the love of precision and the joy of powerful engine technology have now resulted in the new „AGRAR“ wheel loader generation - specially developed to meet the requirements of agriculture.

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

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

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

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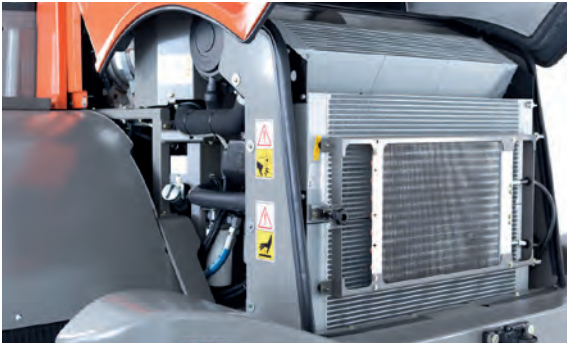
## Important Information on Shovel Size / Shovel Contents:

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.

# FEATURES AND BENEFITS



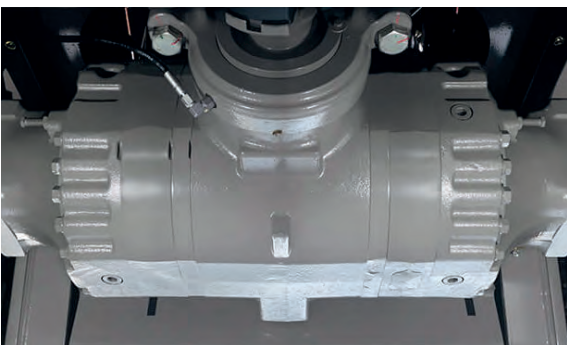
## Powerful drive

A weycor wheel loader in the XXL performance class can be moved in two ways: in working gear from 0 to 14 km/h or in fast gear at up to 40 km/h. The 1st and 2nd hydraulic gears and forward/reverse travel under load can be selected. The weycor joystick is used to switch between forwards/reverse travel and the travel speeds. The travel drive is controlled via the accelerator pedal and the separate inching pedal for optimum distribution of the hydraulic power to the pushing and lifting forces. Optimum traction thanks to 100% engageable differential lock on the front and rear axles.



## Fast runner

The standard speed of the AR 660 wheel loader is 40 km/h. A 50 km/h version is available as an option.



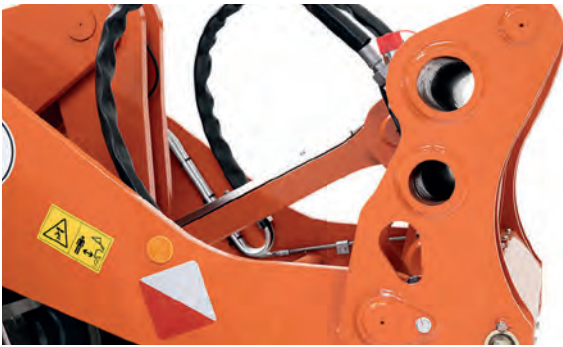
## Wear-free negative brake

Holds the wheel loader securely in position on slopes when the brake or inching function is activated. All four wheels are automatically locked even when the engine is at a standstill. The multi-disc brake runs in an oil bath and is therefore particularly low-maintenance and low-wear.



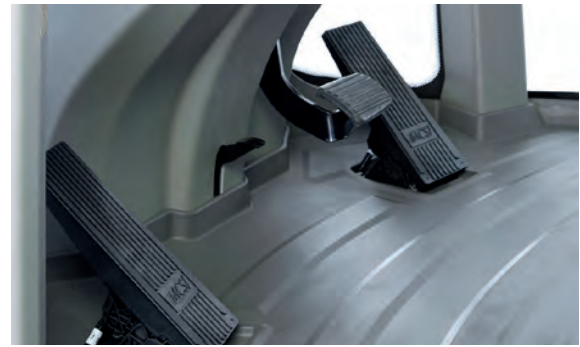
## Articulated joint and swing axle Rear

For outstanding off-road mobility and manoeuvrability. Unique stability even off-road thanks to the low centre of gravity.



### **Optional hydraulic quick-change device in accordance with ISO 23727**

Allows the attachment tool to be changed in seconds and makes the wheel loader an all-rounder.



### **Only manufacturer with separate inching pedal & accelerator pedal function**

Sensitive distribution of thrust and lifting forces, less wear and fuel consumption. This is because, unlike the combined brake/inching pedal, the risk of driving against the service brake is eliminated. The use of the accelerator pedal as an accelerator pedal is also very practical. When using the hand throttle, the diesel speed is kept constant, but the angle in the drive pump is variable. Here, too, the thrust is regulated sensitively.



### **Agricultural tyres**

Atlas Weyhausen offers the right tyres for every surface. Wide lug tyres are often used in agriculture.



### **Simple service**

Quick, easy maintenance and servicing thanks to centralised, easily accessible service points.

# FEATURES AND BENEFITS



## Comfort cabin

Safe, fatigue-free working thanks to excellent all-round visibility, clearly arranged controls and ergonomic design.



## Hoist

Proven weycor kinematics with high breakout forces and excellent lifting heights. Upwardly tapered loading arm for optimum visibility of the attachment. An extended linkage is available as an option.



## Unique gearbox suspension

Independent suspension of the gearbox decoupled from the axle to prevent vibrations and noise emissions.



## Trailer coupling incl. socket and TÜV approval

A trailer coupling or towbar is a device used to connect a vehicle to a trailer. Depending on the type of towing vehicle and trailer, there are different types: the pin coupling, commonly used in agriculture and forestry, or the jaw coupling for lorries and tractors.



#### **4th hydraulic circuit**

With a 4th control circuit, it is possible to use special attachments or combinations of attachments on the weycor wheel loader. For example, you can use a swivelling cylinder and a bucket with hydraulic hold-down device together with this option. You can opt for installation at the front or rear.

# INNOVATIVE ENGINE TECHNOLOGY

## **TCD 6.1 L6 – intelligent and efficient**

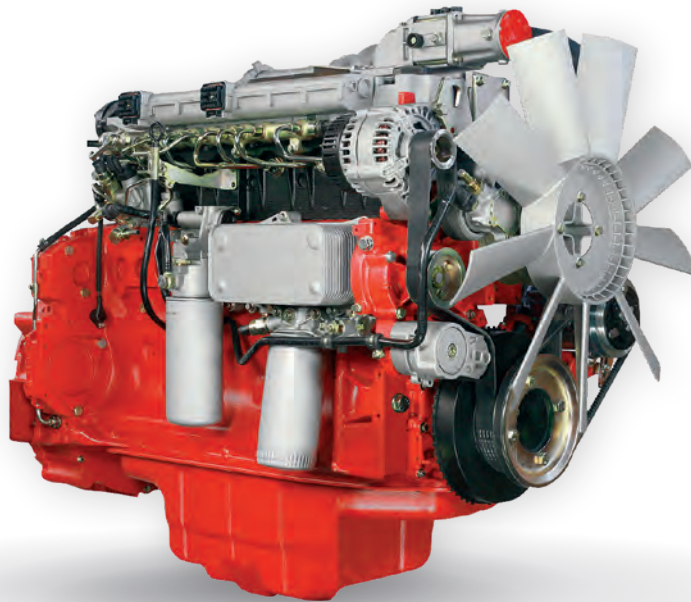
We have been convinced of the quality of Deutz engines for over 40 years. Our cooperation with Deutz also offers numerous benefits for the AR 660: such as the electronic engine control with intelligent connection to the drive management. This ensures the best engine performance with low fuel consumption. 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.

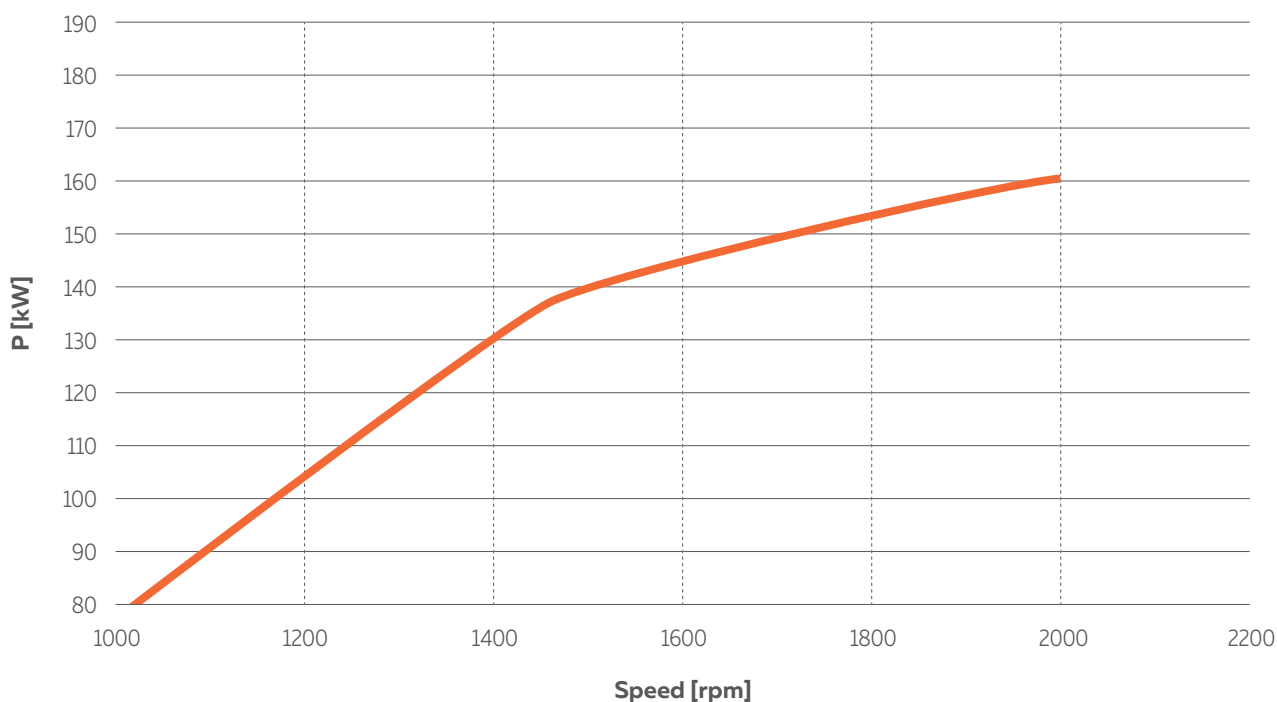


## **Deutz engine technology: TCD 6.1 L6**

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>
Zylinderzahl	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:

**Operation** 0-14 km/h

**Fast speed** 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

**Operating brake:** 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.

**Parking brake:** 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  $\pm 12^\circ$  at rear of vehicle

## Tyres

**Standard:** 20.5 R 25 - Construction machinery tire 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 Litre
Hydraulic oil	202 Litre
Engine oil	16 Litre
Front axle	19.2 Litre
Rear axle	19.2 Litre
Gearbox	3.5 Litre
Coolant	10.2 Litre
AdBlue / DEF	20 Litre

## 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)

**Lifting** **5.9 s**

**Lowering** **4.4 s**

**Tipping** **1.8 s**

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



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**Equipment – Series**

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 windshield 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
Sliding window right

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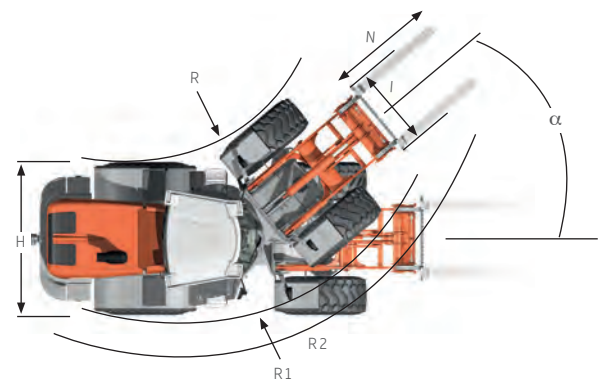
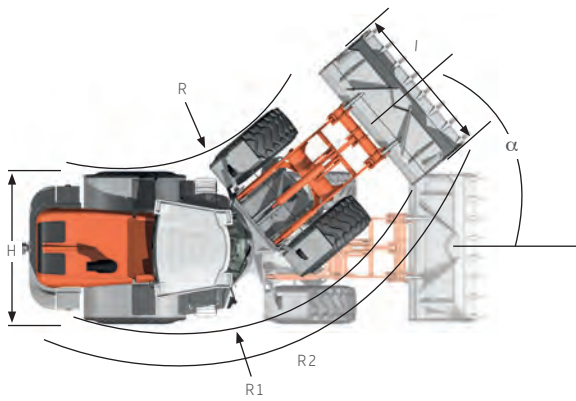
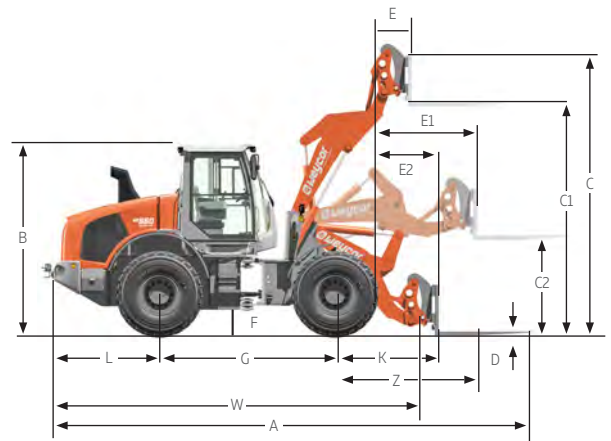
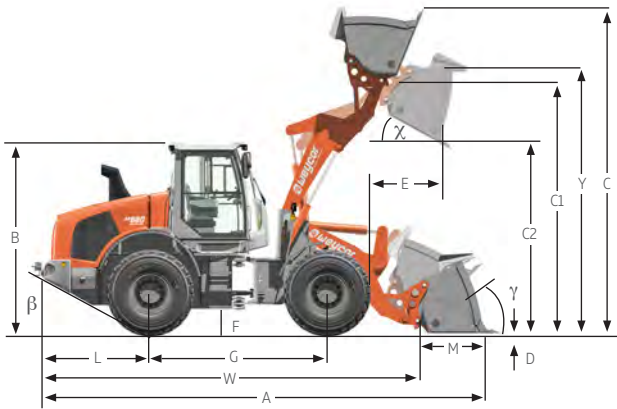
**Equipment – Option**

Heated driver's seat
Automatic climate control
Radio
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
Main battery switch
Lifting arm damping
20 km/h limit
Trailer coupling with TÜV approval
Special finishes
All-round light
Extended hoist
Agricultural tyres
4th hydraulic circuit
High speed 50 km/h

# 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

<b>Model standard features</b>	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

<b>Model standard equipment + additional weight</b>	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

<b>Model with pallet fork 7 t</b>	Tipping load	Load capacity 60 %	Load capacity 80 %
Standard configuration	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>**

<b>Construction industry</b>		<b>Industry</b>		<b>Landscaping, agriculture</b>			
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









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.

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