

# FEEL THE POWER!

**AR 200<sup>e</sup> / AR 250<sup>e</sup>**

**THE NEW POWER CATEGORY MOVES AHEAD.**



 **Weycor**  
BY ATLAS WEYHAUSEN



**POWER THAT  
MOVES.**

## **AR 200<sup>e</sup> / AR 250<sup>e</sup> THE NEW POWER CATEGORY.**

**More wheel loader. More strong  
points. More intelligent solutions.**

A weycor wheel loader in XXL is a big thing for us. And more than that, our AR 250<sup>e</sup> is even great! In the past three years, we have been thinking bigger and above all, we have been thinking ahead. All levels of management and all departments – financial controlling, the distribution team, industrial designers, mechanical engineers, quality control, and our assembly workers – contributed to the development by sharing their experience and know-how. Our customers' wishes were also taken into account. They were implemented on the basis of the expertise gathered from more than 40 years of manufacturing compact wheel loaders, thereby applying our high standards with regard to service life, power and performance.

And now, our AR 250<sup>e</sup> is finally ready to spring into action: With this machine, you enjoy all the benefits of a power category that is up to any task, anywhere. In every detail, it is tailored to the drivers' needs for comfort & efficiency. In addition, its engine is extremely powerful as well as sustainable and economical.

Care to sit in it to see how it feels? Let us inspire you to share our enthusiasm and passion!

# THINK BIG – RIGHT DOWN TO THE SLIGHTEST DETAIL.



## 1,500 TRIED AND TESTED PROMISES THAT SPELL QUALITY.

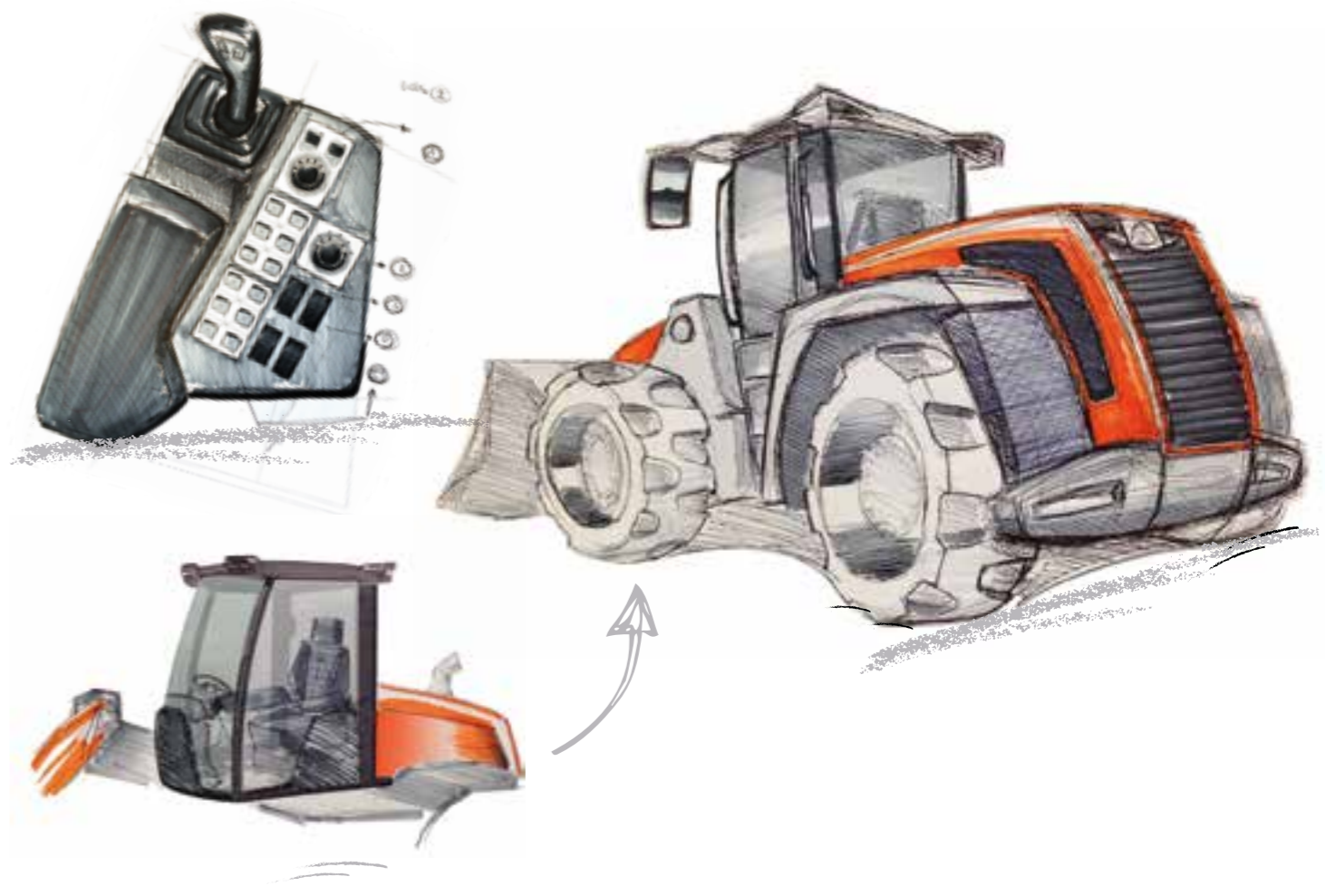
What does the driver need? What features will the customers expect? The three-year development phase for our new AR 250e was marked by an intensive exchange of ideas and close cooperation – both among our staff here at Atlas Weyhausen and with all our partners and suppliers. 1,500 common decisions were necessary to settle on all the details from the initial phases to the completion of the wheel loader.

We put the AR 250e together piece by piece, part by part. This approach required a fair amount of discipline on the part of all those involved in adding this new power category to our range of weycor wheel loaders. Both the main components of the machine (such as axles, the engine, and the hydraulic system) and the smaller parts were repeatedly subjected to rigorous testing. As a result, the machine is ready for operation, waiting to satisfy your demands, wherever you want to put it to the test, worldwide.



### ”FACE-TO-FACE WITH THE R&D DEPARTMENT“ Lutz Meyer, industrial designer

“As an industrial designer, right from the start of the project, I literally worked face-to-face with the engineers and technicians of the R&D department. We defined the key points for the initial drafts together. Implementing the highest standards and my visions with regard to the design while at the same time, keeping efficiency and feasibility in mind turned out to be a real balancing act. After all, the machine is still primarily a working tool. Using the well-established stylistic features commonly associated with weycor as the basis for developing new ones, in order to create a distinctive brand identity, was one of my main challenges: Take the engine hood and the counterweight, for example – they contribute to the truly unique look of the machine. For the cab design, ergonomic aspects played the key role. We aimed at providing the driver with a clear overview and wanted the design to reflect the cutting-edge features and details, thereby focusing on the essential elements. The result: A workplace that is excellently equipped in terms of its technology and its comfort factor!”





# TEAMWORK IS THE MAGIC WORD.

Interview with Artur Gabriel.

“ The best technology is the one that sells best. ”

**This is the mission statement that Artur Gabriel, head of the R&D department at Atlas Weyhausen, has always kept in mind since the start of his education. Right before the first public presentation of the machine, he tells us what sparked his enthusiasm and commitment to the AR 250e.**

**When did Atlas Weyhausen start toying with the idea of offering a wheel loader in this category?**

Frankly speaking, since our customers started asking for it. I basically started to think about it as early as 2006. From then on, I could not get the idea out of my head. And when the budget for the project was finally approved, we jumped at the opportunity. For a medium-sized company like ours, this process was a massive effort. I have to say that in the last few years, in our industrial sector, we sometimes felt we were kept busy by the constraints we were under, because of the fact that we had to keep adapting our technology to the latest EU emission standards, which were changing much more rapidly than in the automobile industry. Those changes are absolutely right and necessary, in view of environmental protection, of course, but they made great demands on our time and resources, which, in a way, reduced the leeway for innovations. Against this background, what we have accomplished here at Atlas Weyhausen is an extraordinary achievement.

**Why is the lion a suitable symbol for the AR250e?**

The lion was our first choice when it came to a marketing concept for the AR 250e. As a predator, the lion pushes its limits and focuses all its attention and power on one single goal. That's the perfect way to do it. Likewise, we, too, pushed our limits, thinking out of the box and overcoming all obstacles. This resulted in a wheel loader which represents everything we stand for, and we are proud of it.

**How did you feel about the development process?**

I experienced something truly remarkable: A team spirit which permeated the entire company. Among our staff, there were many who sacrificed their free time to enable us to stay on schedule.

“ We pushed our limits, thinking out of the box and overcoming all obstacles. ”

And that's the only way to succeed in a medium-sized business – you can only manage a complex project like that with a team that is extraordinarily motivated and effective. That's certainly something I am very proud of as well!

**So what does this new wheel loader category mean to Atlas Weyhausen?**

The AR 250e addresses a new market and satisfies the customers who kept asking for an XXL-dimensioned machine. Beyond this new AR platform, all technical innovations will also be incorporated in our product range of compact weycor wheel loaders. Thus, for all our customers and the company as a whole, this is a huge leap forward.

**And what does this large-scale project mean to you personally?**

Of course, being in charge of developing an entire machine completely from scratch is every engineer's dream. Aside from this, I personally feel it's our obligation to advance technology to reduce emissions. Our AR 250e is special as a wheel loader, particularly in terms of its energy efficiency. Maximum performance at the lowest possible fuel consumption – that remains one of our central goals as design-engineers. And I can assure you that in this respect, you can expect further advancements and innovations from Atlas Weyhausen in the future!

# AR 200<sup>e</sup>

Operation weight  
**12,400 kg**

Power  
**115.0 kW (154.0 HP)**

Shovel capacity  
**2.10 - 2.50 m<sup>3</sup>**



# AR 250<sup>e</sup>

Operation weight  
**13,800 kg**

Power  
**160.0 kW (215.0 HP)**

Shovel capacity  
**2.40 - 3.00 m<sup>3</sup>**

This platform sets the standard for our XXL wheel loaders in terms of quality and performance. Expect more!



**IT'S BETTER  
TO BE WELL  
EQUIPPED.**



# DETAILS THAT SPEAK FOR THEMSELVES.



Jens Diephaus, mechanical engineer, group leader cab development

## “VISIBILITY IS THE BIG ISSUE”

“When it comes to cab design, visibility is the big issue. The one-piece windows and the slim steering column contribute to an exceptional all-around visibility so that basically, there is no need for a rear view camera. In addition to this, to us, the essential question regarding visibility is: What does the driver really have to keep an eye on? That’s why we carried out an analysis of the visibility field and used the results to optimize the layout of the control elements, limiting the number of displays to the most relevant information. Eight LED headlights serve to ensure excellent visibility, even outside the cab. Making the driver feel comfortable in the cab mattered a lot to us. So we developed a sophisticated ventilation system and an ergonomic seat with a new joystick, which is adjustable in all directions in order to meet the individual requirements of all drivers.”

### LOW NOISE LEVEL

Good insulation serves to substantially reduce the noise level in the cab. Most of the devices and components that generate heat are installed outside the cab.

### A COMFORTABLE SEAT THAT KEEPS YOU WIDE AWAKE

The modern, ergonomic design of the driver’s seat and the excellent accessibility of the display controller and the joystick ensure a trouble-free working day without fatigue.

### SLIM STEERING COLUMN

The steering column takes up only a third of the entire front so you are in control of the bucket motions at all times.

### SAFETY FIRST

In addition to the requirements for ROPS, the cab design meets all safety standards for FOPS Level 2 – thus, maximum safety is guaranteed.

### SOPHISTICATED VENTILATION SYSTEM

The installation of the air filter at the highest, dust-free location in the machine ensures fresh air in the interior of the cab, and overpressure in the cab prevents pollutants from entering.

### ALL-AROUND VISIBILITY

The curved front windshield, the one-piece lateral glass pane on the right (with a sliding window that is flush with the adjacent areas) and a deep-drawn rear windshield result in exceptional all-around visibility for precise work motions.

**TAKE A SEAT!**





### UNRIVALED: THE VISIBILITY FIELD



Front: Unimpeded view from the top to the floor, unobstructed by the steering column.



Sides & rear: All-around visibility and a rear view camera.

### ELABORATE: DISPLAY & CONTROL



Display: Reduced displays for easy handling.



Controller: Variable key panels for functions related to working and driving.

### HIGHLY ADJUSTABLE: THE STEERING WHEEL



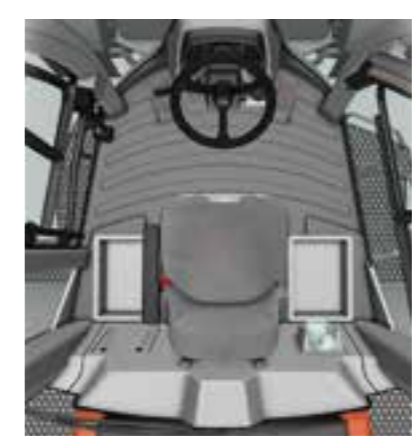
The height and the angle of the steering wheel can be set to your individual needs – the display pivots accordingly.

### SIMPLE AND CUSTOMIZED: CONTROL ELEMENTS



- > Reduced elements for intuitive handling
- > Elaborate display control
- > Special weycor joystick
- > Ergonomic movement with the seat
- > Perfect for all hand sizes

### COMES IN HANDY: STORAGE COMPARTMENT



Designated space for euro boxes so the driver can keep documents or private items in the vehicle – ideal for multi-shift operation.

#### STANDARD EQUIPMENT:

- > Engine water heating with heat exchange and 4-stage fan
- > Heatable rear screen
- > Rear view mirrors, foldable
- > Individually adjustable driver's seat with adjustable right arm rest
- > Front and rear windshield washer system
- > Central dashboard with indicators for preheating, engine temperature, fuel, operating hour meter
- > and much more

#### EQUIPMENT OPTIONS:

- > Heatable and air cushioned seats, A/C unit
- > Radio
- > Special paintwork and oils
- > Trailer coupling
- > Ride control
- > Joystick with integrated proportional steering for 3rd section
- > Corrosion prevention against salt
- > Max. speed 20 km/h
- > and much more

**A POWERFUL  
PERFOR-  
MANCE.**



**A MACHINE  
DEMONSTRATES  
ITS GREATNESS.**



Sascha Barthel, mechanical engineer, project leader  
(development of the entire machine)

## “A HIGH-END ENGINE FOR A TOP-OF-THE- LINE PRODUCT”

“Traditionally, Atlas Weyhausen products have been associated with dynamics and safety, thanks to their high performance and the hydrostatic drive. Of course, we wanted to adhere to these principles when developing the AR 250<sup>e</sup>. We also pursued the traditional path when choosing Deutz as our engine manufacturer. More than 40 years of successful cooperation mark the relationship between Atlas Weyhausen and Deutz.

For us, meeting the latest – and future - emission standards goes without saying. Thus, our AR 250<sup>e</sup> is Tier V ready. The engine and its power output, in conjunction with a perfectly adapted traction drive, serve to ensure that driving pleasure is not confined to certain car brands any more, as all our test drivers have confirmed! I consider our new wheel loader one of the top-of-the-line models in the 2.5 m<sup>3</sup> category, for many reasons.”



# MORE FROM LESS.

**6 cylinders, 218 PS (215 Hp):** The AR 250<sup>e</sup> moves forward very powerfully – which inspired us to think ahead as well: It was our expressed goal to lower its fuel consumption while at the same time, enhancing the efficiency of the entire machine: for instance, by reducing the rotational speed of the diesel engine and by means of a generous concept for the hydraulic components. As a result of the fact that the separate components in the AR 250<sup>e</sup> wheel loader are controlled electronically, they can communicate with each other. Hence, the diesel engine emits just the amount of power that is really required at a given time. This leads to a decrease in fuel consumption, emissions and noise levels.

## OPTIONAL HYDRAULIC QUICK COUPLER

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

## LATEST KINEMATICS

Tried and tested, robust weycor kinematics with high tear-out forces and an excellent lifting height.

## EASY MAINTENANCE

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

## COMFORTABLE CAB

Excellent all-around visibility, clearly arranged controls, and ergonomic design.

## POWERFUL TRACTION DRIVE

Outstanding traction, thanks to a 100% shiftable differential lock in the front and the rear axles.

## UNIQUE GEARBOX MOUNTING

Autonomous gear box mounting, which is decoupled from the axle to prevent vibration and noise emission.



## ARTICULATED JOINT & OSCILLATING AXLE

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

## THE ONLY MANUFACTURER THAT OFFERS A SEPARATE INCHING PEDAL

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

## WEAR-FREE NEGATIVE BRAKE

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

## OPERATING DATA

Shovel capacity acc. to SAE	2.4 m <sup>3</sup>
Turning radius (outer shovel edge)	5,497 mm
Tear out force	11,900 daN
Torque	11,600 daN
Tipping load, straight	9,960 kg
Tipping load, articulated	8,800 kg
Service weight	13,800 kg

### Noise level

Average sound power-level L <sub>WA</sub> <sup>(1)</sup>	104.0 dB(A)
Guaranteed sound power-level L <sub>WA</sub> <sup>(2)</sup>	105.0 dB(A)
Sound pressure level L <sub>pA</sub> <sup>(3)</sup>	69.0 dB(A)

### Specific vibration-data

Hand-arm / Whole-body vibration level<sup>(4)</sup> < 2.5/0.5 m/s<sup>2</sup>

(1) According to 2000/14/EG & annexes.  
 (2) According to 2000/14/EG & annexes. (3) According to ISO 6396.  
 (4) According to ISO 8041.

## AN INNOVATIVE CONCEPT FOR THE HYDRAULIC SYSTEM.

### Power at your disposal

The concept for the hydraulic system was developed in cooperation with Bosch Rexroth and was carefully fine-tuned. With its powerful work hydraulics and its exceptional user-friendliness, our new big weycor wheel loader is in the upper league of construction machines in this category.

### Flexible work hydraulics

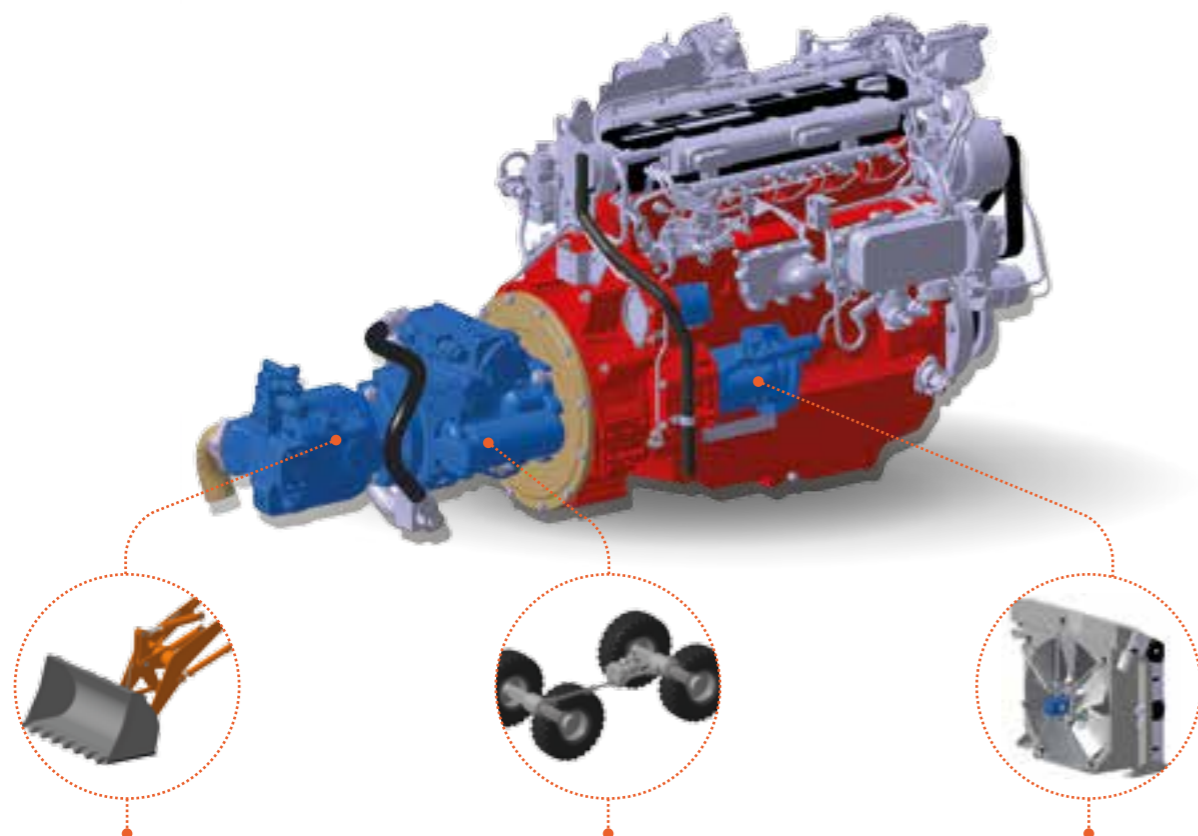
Designed for quick motions at low rotational speeds – the latest control valve technology and high forces ensure efficient work.

### Fan drive

The demand controlled fan drive enables you to reduce emissions and to save fuel, even at exterior temperatures of 50°C (122 °F).

### Individual settings

The weycor display control system, in combination with the quick access buttons, enables the driver to choose from a wide range of optional settings like rotational speed, flow rate, and continuous operation.



Primary function:  
**LOADER**

Secondary function:  
**STEERING SYSTEM**

Primary function:  
**TRACTION DRIVE**

Secondary function:  
**CONTROL CIRCUIT SUPPLY**

**FAN DRIVE**

## INNOVATIVE ENGINE TECHNOLOGY.

### TCD 6.1 L6 – intelligent efficiency:

We have been counting on Deutz engines for over 40 years. This cooperation offers a lot of benefits for our AR 250E: Take the electronic engine control with its intelligent link to the drive management, for instance: It ensures the best engine performance while keeping the fuel consumption low. The water-cooled TCD 6.1 L6 diesel engine constitutes the core of our new power category.

### Powerful performance

160 kW at a maximum of 2,000 rpm

### Meeting emission standards

Thanks to its exhaust system (DOC/DPF/SCR), the engine meets emission standard TIER IV final and is TIER V ready.



### DEUTZ ENGINE TECHNOLOGY

#### TCD 6.1 L6

Water-cooled 6-cylinder inline engine with turbocharging, charge air cooling and cooled external exhaust gas recirculation. Engine and exhaust aftertreatment (EAT) are adapted to an optimum efficiency of the total system and therefore ensure minimum fuel and total running costs. The powerful DEUTZ Common Rail (DCR<sup>®</sup>) injection system and the electronic engine control (EMR 4) 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<sup>®</sup> selective catalytic reduction (SCR) and particulate filter (DPF). Through use of the DPF they already comply with EU Stage V emission standards, scheduled for 2019.

# VERY INTEAMATE WORK.



**HOLGER HUNTEMANN**, distribution department, Atlas Weyhausen

“Some people think in terms of evolution, but we wanted a revolution! We got it by building the AR 250e, and that’s an important step to strengthen our position in the international market. One of the initial stages of the development consisted of the distribution department identifying the “selling points”. In addition, there was a very dedicated group of dealers, and we worked in close cooperation with the R&D department. Our goal was to make the machine as versatile as possible, even for special fields of application in any country. We know what our customers want and we intentionally went the extra mile. My impression is that the new machine sets itself apart from the others. The feedback we got from drivers was enthusiastic, and its cost-effective maintenance accommodates all users who are concerned with efficiency. It is well-known that Atlas Weyhausen machines are powerful and durable. And all their benefits are now available in XXL!”

**KLAUS BAUER**, branch manager Atlas München, project team “wheel loader”

“That was a great story, and I was already proud when they asked me to be part of the team, as this goes to show that Atlas Weyhausen really values and trusts my opinion. The first meeting served to introduce the project team “wheel loader” to the general concept. Then we were asked to think of ways to ensure that the machine would succeed in the market – what price range, what quality, what features and what kind of innovations would be required. I was able to contribute my experience with regard to customer service and selling big construction machines. Our suggestions were always embraced with considerable interest – particularly ideas referring to the layout of the control elements in the cab. It is nice to see all that implemented in a machine. The engineers did an excellent job in designing an excellent product. And I know that this is exactly what customers want.”



**BERND STOLLE**, supervisor of the prototype department, Atlas Weyhausen

“Nothing but positive expectations here, when it comes to the AR 250e. We pulled together as a team to make it work. Of course, the prototype department is just a small team, but it works because here at Atlas Weyhausen, the members of the R&D department have direct access to all the machines and can confer with the assembly workers at any time. That’s what I call efficient teamwork. The time schedule was very tight. We assembled six prototypes for a single machine type for the first time. In addition to this, we were responsible for coordinating the measuring procedures and long-term tests. And we will be in charge of the AR 250e until the zero-series rolls off the assembly line. In my opinion, we definitely broke new ground by introducing this new, bigger wheel loader category. But we certainly have the know-how required for doing so, as the technical features demonstrate quite well, particularly the weycor inching pedal. It enables the driver to maneuver this big machine easily, even in small work zones.”



**UWE RIETZ**, quality control manager, Atlas Weyhausen

“The development of the AR 250e was an XXL project for our company. All departments got involved in it at an early stage, and it incorporates many innovative technical solutions. Here in the quality control department, among other things, we were in charge of thoroughly checking and testing all parts and parameters, particularly for the first prototype. We worked in close collaboration with our external suppliers, to ensure that all previously defined specifications were met for all components. The question is: What requirements does a single component have to fulfill so that the performance of the entire machine will meet the expectations and deliver the best performance? That’s a real challenge when as much new technology is involved, as in this case. What is relevant to us, in terms of quality control, is to keep the subsequent series production in mind, right from the start. This means that we aim at optimizing the manufacturing process. But we are also very satisfied with the result in this respect.”

**ULF HÄHNLEIN**, CEO Atlas Rostock, project team “wheel loader”

“It was the first time for me as a construction machinery dealer that I was asked to get involved in the development of a new machine. That was an exceptional experience! The AR 250e was developed as a tailor-made product, customized to meet the demands of the market, as its development was based on the experience from the market. The result: a previously unheard-of new league of wheel loaders! Throughout the company, the project was met with a lot of enthusiasm. Our project team was not a show event. We, as dealers, were faced with the question what was relevant and desirable, from the customer’s point of view.

Although not all of our suggestions were deemed to be feasible, all ideas were taken into consideration. I would say that about 60 percent of our proposals were implemented in the end. Its power-output relation and the all-around visibility in the cab alone are enough to convince me that the AR 250e will succeed in the market.”



**BERND VIENENKÖTTER**, distribution department, Atlas Weyhausen

“If you ask me, it was a logical step for us to build a machine of this size. This will help us enter new markets. To me, the AR 250e is a kind of “Swiss pocket knife”: Ranging from industrial work zones to sandpits and agriculture, its scope of applications is huge! Everybody knows that we here at Atlas Weyhausen know how to build wheel loaders. And this time, as always, our team has worked flawlessly. Our R&D department managed to implement the concept for the traction drive perfectly. I really appreciated the opportunity to be part of a project like this, and it felt very special to me to get a group of our authorized dealers involved in it as well. We are fortunate to work with first-rate dealers that know how to handle a machine like this. They had great confidence in us right from the start and never doubted that we would be able to meet such a huge challenge.”





[www.ar250.de](http://www.ar250.de)

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