



ATLAS

Wheel Excavator 160Wsr



-  15.0 - 16.5 tons
-  95 kW (130 hp)
-  0.67 - 1.12 m³



STABLE. STRONG. STEADY.
160WSR

Technical data

ENGINE

| | | |
|--|--|------------------------------|
| Power rating acc. to ISO 9249... 95kW (130 HP) | Number of cylinders 4 | Generator 24 V / 55 Ah |
| RPM 1800/min | Bore / cylinder stroke 101 / 126 | Starter 24 V / 4 kW |
| Make / model Deutz TCD 4.1 (Stage 3B) | Cooling system Water-cooled | |
| Design Turbocharger | Air filter Dry air filter | |
| Displacement 4,040 cm ³ | Battery 2 x 12 V / 100 Ah | |

HYDRAULIC SYSTEM

| | | |
|--|--|--|
| • AWE 4 System | • Suction valves for all work functions | • Hydraulic system 1 x Axial piston pump |
| • Load limit controlled high-performance pump | • Load-retaining and fine lowering valves in lifting circuit | • Main pump HPR 105 |
| • Fuel-efficient flow-on-demand control | • Restrictors in the lift and articulating circuits | • Max. oil flow 220 l/min |
| • Sensitive, proportional, independent control | • Primary and secondary overload protection | • Max. operating pressure 340 bar |

SWING ASSEMBLY

| | | |
|----------------|---|--------------------------------|
| • Swing motor: | Axial piston motor with priority valve | • Max. swing speed 9/min |
| • Swing gear: | Planetary transmission | • Swing torque 37.5 kNm |
| • Swing brake: | Automatically controlled multi-disc brake | |

* working on a slope the superstructure can easily be swung upwards, with lockable foot pedal, when exceeding the hydraulic pressure of 120 bar

TRACTION DRIVE AND BRAKES

| | | |
|--|---|--|
| • Variable displacement motor | • Travel controls via foot pedal valve: | • All-wheel drive |
| • Planetary drives in all four wheel hubs | • Max. speed 20 km/h | • Dual-circuit brake system Multi-disc |
| • Double-acting brake valve | • Off-road speed 5 km/h | • Parking brake Spring-loaded brake |
| • Travel direction pre-selection via steering column mounted lever | • Crawling speed 3 km/h | |

UNDERCARRIAGE

| | | |
|---|--|------------------------------|
| • Steering axle with automatic oscillating axle locking | • 8 tires (twins) 10.00 - 20 | • Turning radius 7.5 m |
| | • 4 tires (optional) 600 / 40-22.5 | |

FILL CAPACITIES

| | | |
|------------------------------|------------------------------|-----------------------------------|
| • Fuel tank 190 litres | • Engine oil 13 litres | • Hydraulic tank 200 litres |
|------------------------------|------------------------------|-----------------------------------|

DRIVER'S CAB

| | | |
|--|--|---|
| • Elastically mounted | DRIVER'S SEAT: | • Type Atlas Comfort Cab 935 |
| • Panorama glazing with heat-absorbing glass | • Air-cushioned comfort seat (optional seat heating) | • Overall length 1,760 mm |
| • The interior is glare-free | • Arm rests and lumbar support | • Width 935 mm |
| • Front window slidable under cab roof | • Seat adjustable separately from console | |
| | CONTROL: | SOUND LEVELS: |
| | • Ergonomic joysticks | • ISO 6396 (L _{pA}) in driver's cab 75 dB(A) |
| | • Slim steering column, height and tilt adjustable | • 2000/14 EG (L _{wA}) ambience level 98 dB(A) |

Working equipment

EQUIPMENT

BASIC UNIT ATLAS 160Wsr (can be combined)

- Wheel Excavator 160Wsr with support/dozer blade, tailswing 1,575 mm

STANDARD EQUIPMENT:

- Traveling per foot pedal

Hydraulic system:

- Comfort seat with arm rests and orthopedic lumbar support

BOOMS:

- Base boom with two lifting cylinders (C53.0)

- Grab / grab rotating function

EQUIPMENT:

- Standard main boom with stick cylinder, 2x adjustable, working length 2,930 mm (C53.3)

- Accumulator for emergency lowering of boom system

- Sealed pivot points in the case section of the boom

- Base arm with 2 lifting cylinders and center-mounted articulating cylinder (C53.41)

- Pipe-break protection valves for articulated and lifting cylinders

- Grab storage during road travel

- Intermediate boom with stick cylinder, for base arm C51.41, working length 3,095 mm (C53.46)

Cab:

- Air-conditioning

- Central lubrication

- Preparation for radio installation

STICKS:

- Stick, working length 2,150 mm (D53.2)

- Slim steering column, height and tilt adjustable

UNDERCARRIAGE:

- Stick, working length 2,650 mm (D53.3)

- Fuel gauge

- Wheels with intermediate rings

- Battery main switch in negative lead

- Infinitely adjustable support/dozer blade, with parallel guidance

- Windshield washer system

- Toolbox in undercarriage

BUCKET TIPPING CYLINDER:

- Bucket tipping cylinder with bucket linkage (F53.1)

- Sliding window in cab door

- Storage box

SPECIAL EQUIPMENT

Booms:

- Additional hydraulic unit for variable boom cylinder (B41.39)

Superstructure:

- Heavy counterweight, tailswing 1,700 mm (B41.20)

Cab:

- Beacon light
- Heated driver's seat
- Radio CD/MP3, front AUX in, USB
- LED working lights

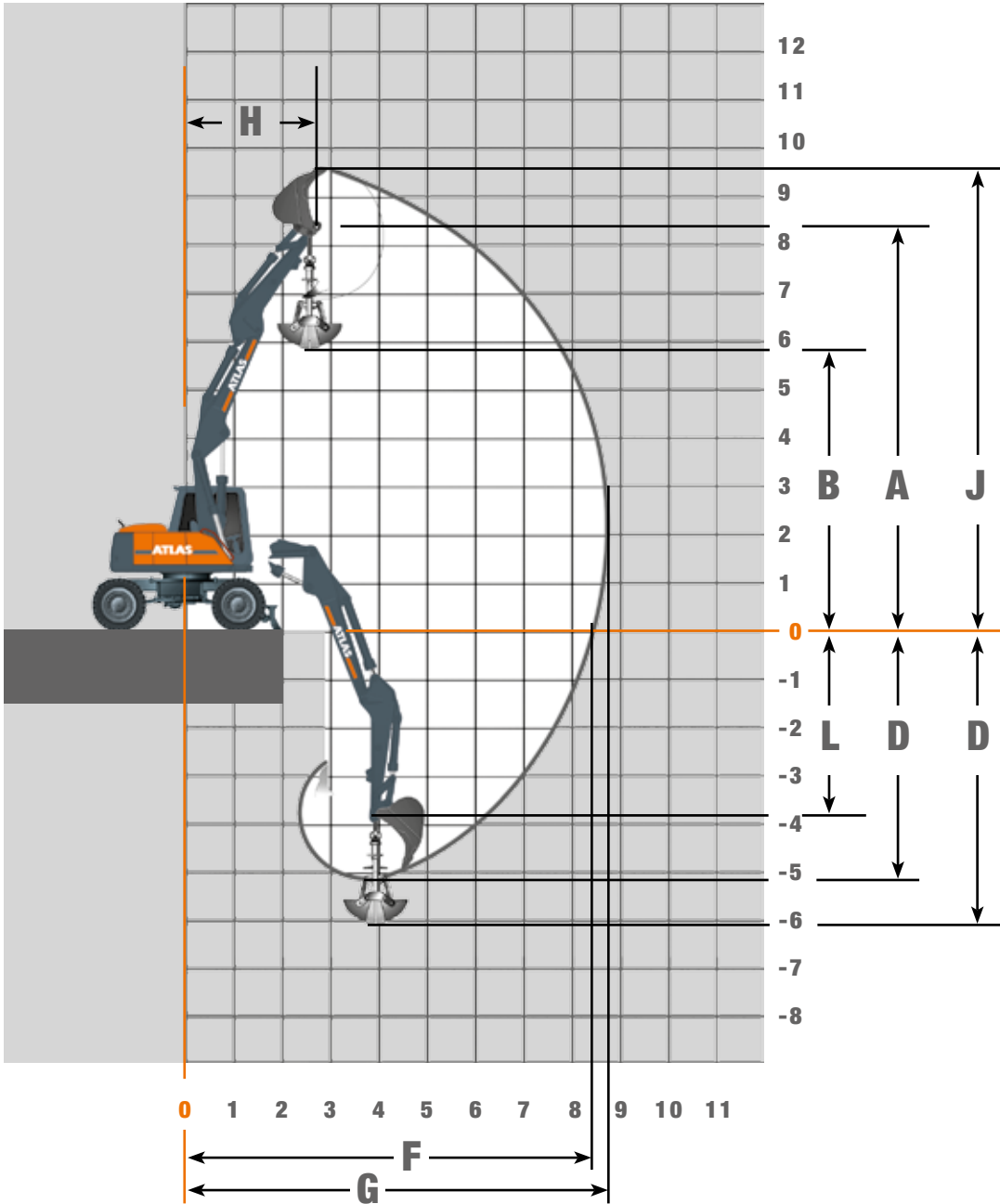
Undercarriage:

- Wide axles (overall width 2750 mm)
- Wide dozer blade (overall width 2750 mm)

ATTACHMENTS (SELECTION)

| | Bucket F415 | Bucket F416 | Bucket F417 | Bucket F648 |
|--------------------------------|---------------------|---------------------|---------------------|---------------------|
| Capacity SAE | 0,67 m ³ | 0,82 m ³ | 0,92 m ³ | 1,12 m ³ |
| Cutting width | 850 mm | 1000 mm | 1100 mm | 1300 mm |
| Max. reach support/dozer blade | 6.0 m | 6,5 m | 7,0 m | 5 m |

Working ranges Adjustable boom (C53.41)



| | STICK LENGTHS | | 2,15 m (D53.2) | | 2,65 m (D53.3) | |
|---|---------------------------|--------|----------------|---------|----------------|--------|
| | Bucket | Grabs | Bucket | Grabs | Bucket | Grabs |
| A | Bucket pivot point | 8.30 m | 8.30 m | 8.70 m | 8.70 m | 8.70 m |
| B | Max. dumping height | - | 5.85 m | - | 6.20 m | 6.20 m |
| D | Max. digging depth | 5.10 m | 6.15 m | 5.60 m | 6.70 m | 6.70 m |
| F | Max. reach | 7.45 m | 7.45 m | 7.90 m | 7.90 m | 7.90 m |
| G | Max. digging reach | 8.85 m | 8.20 m | 9.30 m | 8.70 m | 8.70 m |
| H | Max. arm position | 2.65 m | 2.65 m | 2.65 m | 2.65 m | 2.65 m |
| J | Max. reach height | 9.70 m | - | 10.10 m | - | - |
| L | Lowest bucket pivot point | 3.70 m | 3.70 m | 4.20 m | 4.20 m | 4.20 m |
| | Max. bucket digging force | 130 kN | - | 130 kN | - | - |
| | Max. stick digging force | 82 kN | - | 72 kN | - | - |
| | Grab clamping force | - | 73 kN | - | 73 kN | - |
| | Operating Weight | 15.3 t | 15.5 t | 15.4 t | 15.6 t | 15.6 t |

Lifting capacities Adjustable boom (C53.41)

Lifting capacities Adjustable boom (C53.41) with stick 2.15 m (D53.2). Tailswing 1,575 mm

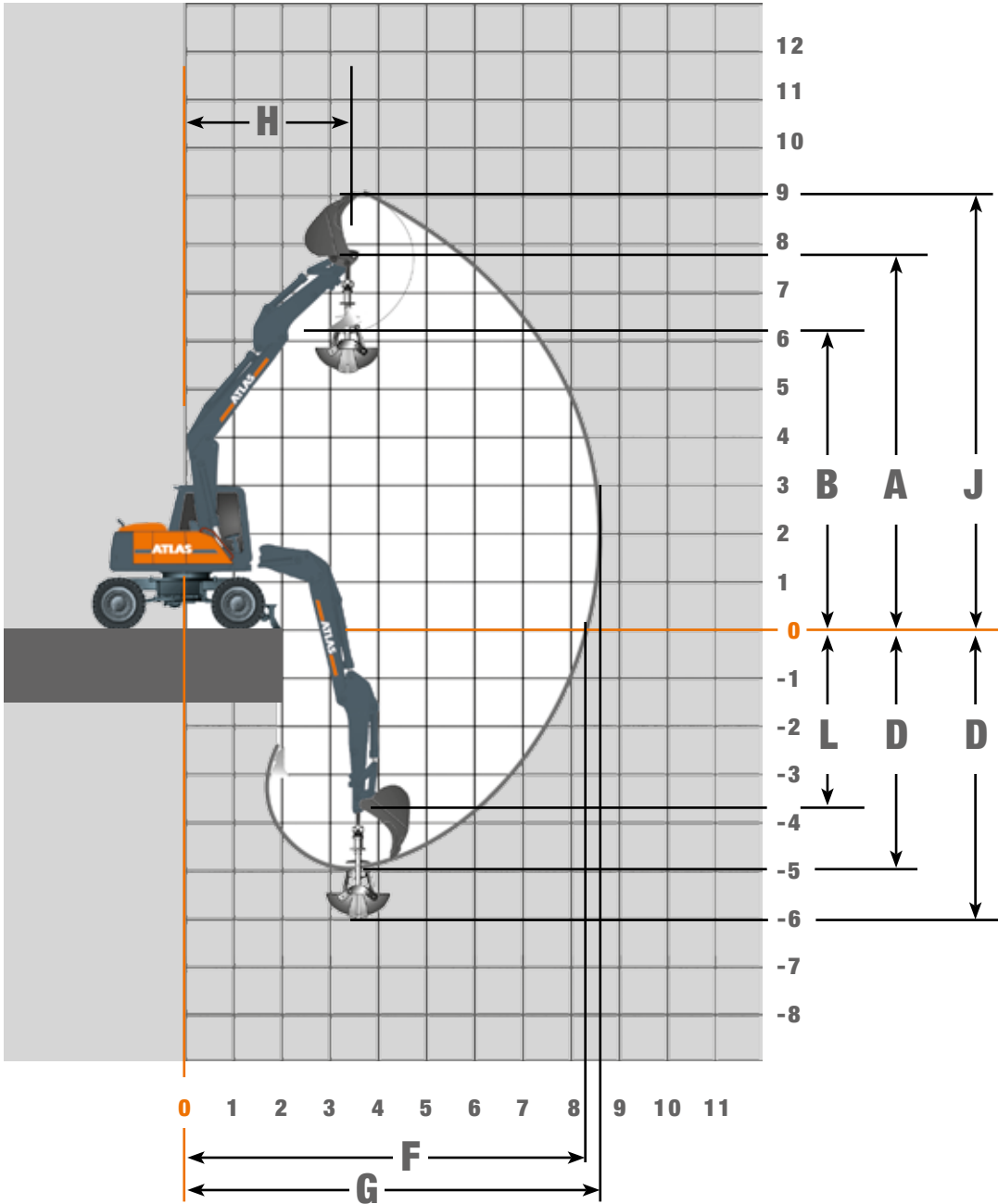
| Height | | 3,0 m | | 4,0 m | | 4,5 m | | 5,0 m | | 6,0 m | | 6,5 m | | 7,0 m | |
|--------|--------------------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|
| | | FRONT | LATERAL | FRONT | LATERAL | FRONT | LATERAL | FRONT | LATERAL | FRONT | LATERAL | FRONT | LATERAL | FRONT | LATERAL |
| +6,0 m | Supported by blade | | | 4,7 | 4,5 | 4,4 | 3,8 | 4,2 | 3,2 | | | | | | |
| | Traveling | | | 4,7 | 3,9 | 4,4 | 3,3 | 4,2 | 2,8 | | | | | | |
| +4,5 m | Supported by blade | 6,4 | 6,4 | 5,3 | 4,4 | 4,8 | 3,7 | 4,5 | 3,2 | 3,4 | 2,4 | 3,7 | 2,0 | | |
| | Traveling | 6,4 | 5,8 | 5,3 | 3,8 | 4,8 | 3,2 | 4,5 | 2,8 | 3,7 | 2,0 | 3,3 | 1,7 | | |
| +3,0 m | Supported by blade | 6,9 | 6,4 | 6,3 | 4,3 | 5,5 | 3,6 | 5,0 | 3,1 | 4,2 | 2,4 | 3,9 | 2,0 | 3,5 | 1,7 |
| | Traveling | 6,9 | 5,4 | 6,3 | 3,6 | 5,5 | 3,1 | 4,7 | 2,7 | 3,7 | 2,0 | 3,3 | 1,7 | 2,8 | 1,5 |
| +1,5 m | Supported by blade | 8,4 | 6,3 | 7,0 | 4,2 | 6,0 | 3,6 | 5,3 | 3,1 | 4,3 | 2,3 | 3,9 | 2,0 | 3,5 | 1,7 |
| | Traveling | 8,4 | 5,3 | 6,5 | 3,6 | 5,4 | 3,1 | 4,7 | 2,6 | 2,7 | 1,9 | 3,2 | 1,6 | 2,8 | 1,4 |
| +0 m | Supported by blade | 9,9 | 6,0 | 7,0 | 4,0 | 6,1 | 3,4 | 5,4 | 2,9 | 4,3 | 2,1 | 3,8 | 1,9 | 3,4 | 1,6 |
| | Traveling | 9,9 | 4,9 | 6,5 | 3,3 | 5,5 | 2,8 | 4,7 | 2,4 | 3,5 | 1,8 | 3,1 | 1,5 | 2,7 | 1,4 |
| -1,5 m | Supported by blade | 10,3 | 5,8 | 7,2 | 3,8 | 6,2 | 3,2 | 5,6 | 2,7 | 4,2 | 2,0 | 3,3 | 1,8 | | |
| | Traveling | 10,3 | 4,7 | 6,6 | 3,1 | 5,5 | 2,7 | 4,6 | 2,3 | 3,4 | 1,7 | 3,0 | 1,5 | | |
| -3,0 m | Supported by blade | 10,0 | 5,8 | 6,5 | 3,7 | 5,2 | 3,1 | 3,9 | 2,6 | | | | | | |
| | Traveling | 10,0 | 4,7 | 6,5 | 3,0 | 5,2 | 2,5 | 3,9 | 2,2 | | | | | | |

Lifting capacities Adjustable boom (C53.41) with stick 2.65 m (D53.2). Tailswing 1,575 mm

| Height | | 3,0 m | | 4,0 m | | 4,5 m | | 5,0 m | | 6,0 m | | 6,5 m | | 7,0 m | |
|--------|--------------------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|
| | | FRONT | LATERAL | FRONT | LATERAL | FRONT | LATERAL | FRONT | LATERAL | FRONT | LATERAL | FRONT | LATERAL | FRONT | LATERAL |
| +6,0 m | Supported by blade | | | | | 4,0 | 3,9 | 3,9 | 3,3 | 3,6 | 2,4 | | | | |
| | Traveling | | | | | 4,0 | 3,3 | 3,9 | 2,8 | 3,6 | 2,0 | | | | |
| +4,5 m | Supported by blade | | | 4,8 | 4,5 | 4,4 | 3,8 | 4,2 | 3,2 | 3,7 | 2,5 | 3,4 | 1,8 | | |
| | Traveling | | | 4,8 | 3,8 | 4,4 | 3,2 | 4,2 | 2,8 | 3,7 | 2,1 | 2,9 | 1,5 | | |
| +3,0 m | Supported by blade | 6,8 | 6,5 | 5,9 | 4,3 | 5,2 | 3,6 | 4,7 | 3,1 | 4,0 | 2,5 | 3,5 | 1,8 | 3,2 | 1,6 |
| | Traveling | 6,8 | 5,5 | 5,9 | 3,6 | 5,2 | 3,1 | 4,7 | 2,7 | 3,7 | 2,1 | 2,9 | 1,5 | 2,6 | 1,3 |
| +1,5 m | Supported by blade | 8,3 | 6,2 | 6,8 | 4,1 | 5,9 | 3,5 | 5,2 | 3,1 | 4,3 | 2,4 | 3,5 | 1,8 | 3,1 | 1,5 |
| | Traveling | 8,3 | 5,3 | 6,4 | 4,5 | 5,4 | 3,0 | 4,6 | 2,6 | 3,6 | 2,0 | 2,9 | 1,5 | 2,5 | 1,3 |
| +0 m | Supported by blade | 9,5 | 5,1 | 6,9 | 4,0 | 6,0 | 3,4 | 5,3 | 2,9 | 4,2 | 2,2 | 3,4 | 1,7 | 3,0 | 1,5 |
| | Traveling | 9,5 | 5,0 | 6,4 | 3,3 | 5,4 | 2,8 | 4,6 | 2,5 | 3,6 | 1,9 | 2,7 | 1,4 | 2,4 | 1,2 |
| -1,5 m | Supported by blade | 10,1 | 5,7 | 7,0 | 3,8 | 6,1 | 3,2 | 5,4 | 2,8 | 4,3 | 2,0 | 3,1 | 1,6 | | |
| | Traveling | 10,1 | 4,6 | 6,6 | 3,1 | 5,5 | 2,7 | 4,7 | 2,3 | 3,4 | 1,7 | 2,7 | 1,3 | | |
| -3,0 m | Supported by blade | 10,4 | 5,7 | 7,2 | 3,7 | 6,0 | 3,1 | 5,0 | 2,6 | | | | | | |
| | Traveling | 10,4 | 4,6 | 6,5 | 3,0 | 5,3 | 2,5 | 4,5 | 2,2 | | | | | | |

All values in kilogrammes (kg) were determined acc. to ISO 10567 and include a stability factor of 1.33 or 87% of the hydraulic lifting capacity. These values are applicable at the top of the arm with optimum positioning of the corresponding boom.

Working ranges Adjustable boom, mechanical (C53.0)



| | STICK LENGTHS | | 2,15 m (D53.2) | | 2,65 m (D53.3) | |
|-----------------------------|---------------|--------|----------------|--------|----------------|-------|
| | Bucket | Grabs | Bucket | Grabs | Bucket | Grabs |
| A Bucket pivot point | 7.80 m | 7.80 m | 8.10 m | 8.10 m | - | - |
| B Max. dumping height | - | 5.30 m | - | 5.65 m | - | - |
| D Max digging depth | 4.90 m | 4.90 m | 5.45 m | 6.50 m | - | - |
| F Max. reach | 7.20 m | 7.20 m | 7.70 m | 7.70 m | - | - |
| G Max. digging reach | 8.60 m | 8.10 m | 9.05 m | 8.45 m | - | - |
| H Max. arm position | 3.30 m | 3.30 m | 3.70 m | 3.70 m | - | - |
| J Max. reach height | 9.15 m | - | 9.50 m | - | - | - |
| L Lowest bucket pivot point | 3.55 m | 3.55 m | 4.05 m | 4.05 m | - | - |
| Max. bucket digging force | 130 kN | - | 130 kN | - | - | - |
| Max. stick digging force | 82 kN | - | 72 kN | - | - | - |
| Grab clamping force | - | 73 kN | - | 73 kN | - | - |
| Operating Weight | 14.8 t | 15.0 t | 14.9 t | 15.1 t | - | - |

Lifting capacities Adjustable boom, mechanical (C53.3)

Lifting capacities Adjustable boom, mechanical (C53.3) with stick 2.15 m (D53.2). Tailswing 1575 mm

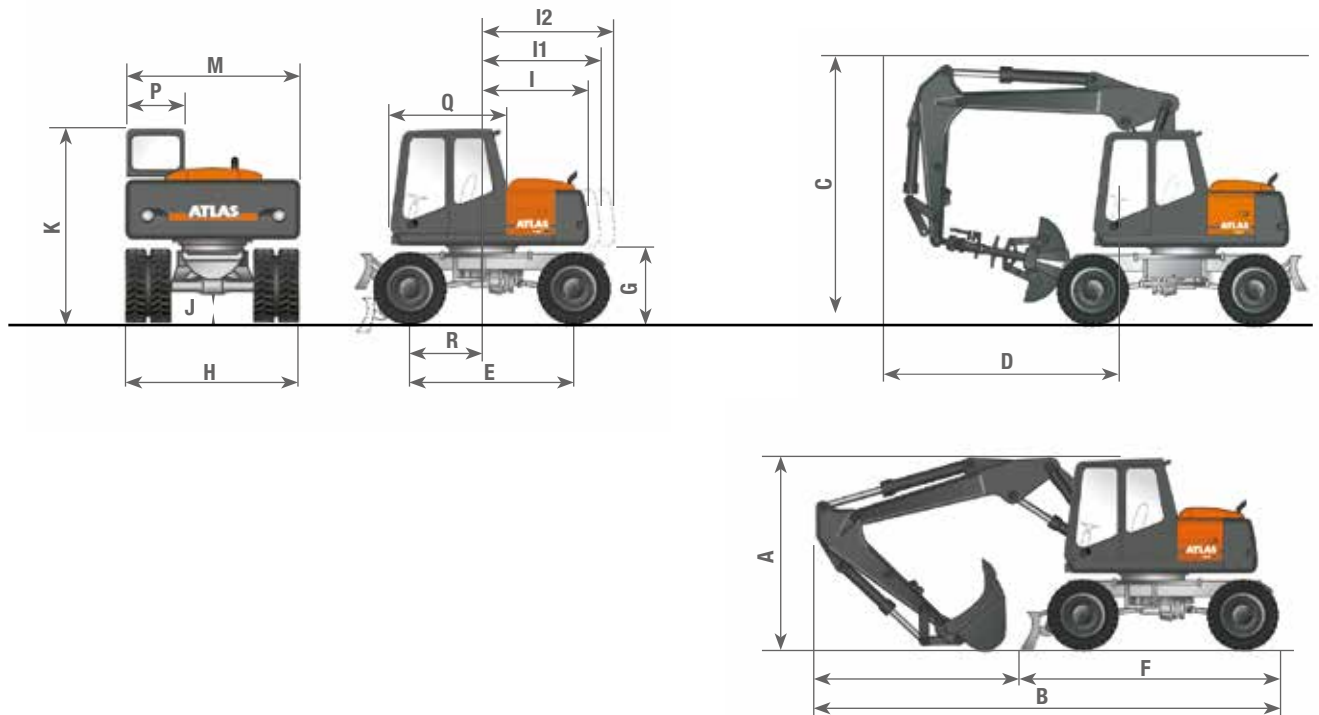
| Height | | 3,0 m | | 4,0 m | | 4,5 m | | 5,0 m | | 6,0 m | | 6,5 m | | 7,0 m | |
|--------|--------------------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|
| | | FRONT | LATERAL | FRONT | LATERAL | FRONT | LATERAL | FRONT | LATERAL | FRONT | LATERAL | FRONT | LATERAL | FRONT | LATERAL |
| +6,0 m | Supported by blade | | | | | 4,8 | 3,8 | 4,2 | 3,2 | | | | | | |
| | Traveling | | | | | 4,8 | 3,2 | 4,2 | 2,7 | | | | | | |
| +4,5 m | Supported by blade | | | 5,3 | 4,5 | 4,9 | 3,7 | 4,7 | 3,2 | 4,0 | 2,4 | 3,6 | 2,0 | | |
| | Traveling | | | 5,3 | 3,8 | 4,9 | 3,2 | 4,7 | 2,7 | 3,7 | 2,0 | 3,2 | 1,7 | | |
| +3,0 m | Supported by blade | 8,6 | 6,5 | 6,3 | 4,3 | 5,6 | 3,6 | 5,1 | 3,1 | 4,4 | 2,3 | 3,9 | 2,0 | 3,5 | 1,8 |
| | Traveling | 8,6 | 5,3 | 6,3 | 3,6 | 5,6 | 3,1 | 4,9 | 2,6 | 3,7 | 2,0 | 3,2 | 1,7 | 2,6 | 1,5 |
| +1,5 m | Supported by blade | 9,8 | 5,9 | 7,2 | 3,9 | 6,3 | 3,3 | 5,6 | 2,9 | 4,4 | 2,2 | 3,9 | 1,9 | 3,4 | 1,7 |
| | Traveling | 9,8 | 4,8 | 6,8 | 3,3 | 5,6 | 2,8 | 4,7 | 2,4 | 3,6 | 1,9 | 3,6 | 1,6 | 2,6 | 1,4 |
| +0 m | Supported by blade | 10,4 | 5,6 | 7,3 | 3,7 | 6,4 | 3,1 | 5,6 | 2,7 | 4,3 | 2,1 | 3,8 | 1,9 | | |
| | Traveling | 10,4 | 4,5 | 6,5 | 3,1 | 5,4 | 2,8 | 4,6 | 2,3 | 3,5 | 1,8 | 3,1 | 1,6 | | |
| -1,5 m | Supported by blade | 9,2 | 5,6 | 6,8 | 3,6 | 6,0 | 3,1 | 5,3 | 2,7 | 3,7 | 2,0 | | | | |
| | Traveling | 9,2 | 4,5 | 6,4 | 3,0 | 5,3 | 2,6 | 4,5 | 2,3 | 3,4 | 1,7 | | | | |
| -3,0 m | Supported by blade | 6,9 | 5,8 | 5,2 | 3,7 | 4,4 | 3,1 | 2,9 | 2,7 | | | | | | |
| | Traveling | 6,9 | 4,7 | 5,2 | 3,0 | 4,4 | 2,6 | 2,9 | 2,2 | | | | | | |

Lifting capacities Adjustable boom, mechanical (C53.3) with stick 2.65 m (D53.3). Tailswing 1575 mm

| Height | | 3,0 m | | 4,0 m | | 4,5 m | | 5,0 m | | 6,0 m | | 6,5 m | | 7,0 m | |
|--------|--------------------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|
| | | FRONT | LATERAL | FRONT | LATERAL | FRONT | LATERAL | FRONT | LATERAL | FRONT | LATERAL | FRONT | LATERAL | FRONT | LATERAL |
| +6,0 m | Supported by blade | | | | | | | 4,0 | 3,2 | 3,3 | 2,4 | | | | |
| | Traveling | | | | | | | 4,0 | 2,8 | 3,3 | 2,0 | | | | |
| +4,5 m | Supported by blade | | | | | 4,5 | 3,8 | 4,3 | 3,2 | 4,0 | 2,4 | 2,7 | 1,8 | | |
| | Traveling | | | | | 4,5 | 3,2 | 4,3 | 2,7 | 3,8 | 2,1 | 2,7 | 1,5 | | |
| +3,0 m | Supported by blade | 7,6 | 6,7 | 5,8 | 4,3 | 5,2 | 3,7 | 4,8 | 3,1 | 4,2 | 2,4 | 3,5 | 1,8 | 2,5 | 1,6 |
| | Traveling | 7,6 | 5,5 | 5,8 | 3,6 | 5,2 | 3,1 | 4,8 | 2,7 | 3,7 | 2,0 | 2,8 | 1,5 | 2,5 | 1,3 |
| +1,5 m | Supported by blade | 10,0 | 6,1 | 6,9 | 4,0 | 6,0 | 3,4 | 5,4 | 2,9 | 4,4 | 2,2 | 3,5 | 1,7 | 3,1 | 1,5 |
| | Traveling | 10,0 | 5,0 | 6,7 | 3,4 | 5,6 | 2,9 | 4,8 | 2,5 | 3,6 | 1,9 | 2,8 | 1,5 | 2,5 | 1,3 |
| +0 m | Supported by blade | 10,3 | 5,6 | 7,2 | 3,7 | 6,3 | 3,1 | 5,5 | 2,7 | 4,3 | 2,1 | 3,4 | 1,6 | | |
| | Traveling | 10,3 | 4,5 | 6,5 | 3,1 | 5,4 | 2,6 | 4,6 | 2,3 | 3,5 | 1,8 | 2,7 | 1,4 | | |
| -1,5 m | Supported by blade | 9,7 | 5,5 | 7,0 | 3,6 | 6,1 | 3,1 | 5,4 | 2,7 | 4,2 | 2,1 | | | | |
| | Traveling | 9,7 | 4,4 | 6,4 | 2,9 | 5,3 | 2,5 | 4,5 | 2,2 | 3,4 | 1,7 | | | | |
| -3,0 m | Supported by blade | 7,9 | 5,6 | 5,9 | 3,7 | 5,1 | 3,1 | 4,4 | 2,7 | | | | | | |
| | Traveling | 7,9 | 4,5 | 5,9 | 3,0 | 5,1 | 2,6 | 4,4 | 2,2 | | | | | | |

All values in kilogrammes (kg) were determined acc. to ISO 10567 and include a stability factor of 1.33 or 87% of the hydraulic lifting capacity. These values are applicable at the top of the arm with optimum positioning of the corresponding boom.

Dimensions



| | | | |
|----------|---|-----------|--|
| A | TRANSPORT HEIGHT (with bucket) | G | CLEARANCE UNDER COUNTERWEIGHT1.22 m |
| | Adjustable boom with stick 2.15 m.....3.00 m | H | DOZER BLADE WIDTH2.50 m |
| B | TRANSPORT LENGTH | I | TAILSWING RADIUS1.57 m |
| | Adjustable boom with stick 2.15 m.....7.70 m | I1 | TAILSWING RADIUS1.75 m |
| C | TRAVEL SETUP | I2 | TAILSWING RADIUS2.00 m |
| | Adjustable boom with grab in grab storage4.00 m | J | GROUND CLEARANCE0.45 m |
| D | DISTANCE STEERING WHEEL - BOOM3.50 m | K | OVERALL HEIGHT OF CAB3.00 m |
| E | WHEEL BASE2.50 m | M | OVERALL WIDTH OF SUPERSTRUCTURE2.49 m |
| F | UNDERCARRIAGE LENGTH3.95 m | P | CAB WIDTH0.94 m |
| | | Q | CAB LENGTH1.76 m |
| | | R | DISTANCE RING GEAR - FRONT AXLE0.97 m |

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