ATLAS SINCE 1919

ROBUST.
PRECISE.
EFFICIENT.

- 16.6 - 17.5 t
- 80kW (109 HP)
- 8.4 m

MATERIAL HANDLING MACHINE 160MH

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TECHNICAL SPECIFICATION 160MH

Technical specifications

ENGINE

Power rating acc. to ISO 9249.....80kW (109 HP)	Number of cylinders.....4	Generator..... 24 V / 100 A
RPM 1800/min	Bore / cylinder stroke.....101 / 126	Starter..... 24 V / 4 kW
Make / model .....Deutz TCD 4.1 (Tier 4F)	Cooling system.....Water-cooled	
Design.....Turbocharger	Air filter.....Dry air filter	
Displacement.....4038 cm^3	Battery..... 2 x 12 V / 100 Ah	

HYDRAULIC SYSTEM

• AWE 5 system (Load sensing)	• Suction valves for all work functions	• 2 additional circuits for additional consumer loads possible
• Load limit controlled high-performance pump	• Load-retaining and fine lowering valves in lifting circuit	• Max. oil flow.....188 l/min
• Fuel-efficient flow-on-demand control	• Pipe break protection valves for lifting and articulated cylinders	• Max. operating pressure .....360 bar
• Sensitive, proportional, independent control	• Grab / grab-rotating function equipped as standard	• Operating modes: 3 pre-programmed modes (Fine, Eco, Power)
• Primary and secondary protection against overload		

SWING ASSEMBLY

A hydrostatic drive with a 2-tier planetary gear and an axial piston motor acts like a wear-resistant service brake. Additional spring-mechanism multi-disc brake as a parking brake.	Axial piston motor with priority valve	• Max. swing speed ..... 9 rpm
	Planetary transmission	• Swing torque ..... 34.7 kNm
	Automatically controlled multi-disc brake	

TRACTION DRIVE AND BRAKES

• Variable displacement motor	• Automotive traveling and cruise control	• Tractive force.....83.0 kN
• Power-shift transmission	• Max. speed..... 20 km/h	• Max. gradeability.....65 %
• Double-acting brake valve	• Off-road speed..... 5 km/h	• Dual-circuit brake system.....Multi-disc
• Travel direction pre-selection via switch in joystick	• Crawling speed.....1 km/h	• Parking brake.....Multi-disc

UNDERCARRIAGE

• 28 tons special excavator axles	• 8 tires (twins) ..... 10.00 - 20	• 4 tires (optional) ..... 600 - 22.5
• Steering axle with automatic oscillating axle locking		

FILL CAPACITIES

• Fuel tank .....240 litres	• Engine oil.....10 litres	• Hydraulic system.....38 litres
• Cooling system.....38 litres	• Hydraulic tank .....157 litres	• AdBlue® tank .....20 litres

DRIVER´S CAB

• Meets latest safety standards	**CONTROL:**	**CLIMATE CONTROL:**
• Extra large entry zone	• Ergonomic joysticks with proportional slide control	• Air conditioning with Climatronic
• Spacious leg room	• Slim steering column, height and tilt adjustable	• Excellent air distribution through optimally arranged nozzles
• Excellent circumferential visibility*	• Indicators, controls and operating switches are clearly arranged	
• Preparation for radio installation with mute function		**SOUND LEVELS:**
	MONITORING:	• ISO 6396 (L_pA) in driver's cab ..... 72 dB(A)
DRIVER'S SEAT:	• Operating data display screen	• 2000/14 EG (L_wA) ambience level.... 97 dB(A)
• Air-cushioned comfort seat (seat heating optional)	• Automatic system for monitoring, warning and storage of data	
• Arm rests and lumbar support		
• Seat adjustable separately from console		* Lift cab 2 m elevation

Working equipment

OPERATING WEIGHTS

	MONOBLOCK BOOM 4.80 m (C3.4MGG)		ADJUSTABLE BOOM Base arm 1.95 m (C3.41) Boom 3.47 m (C346.1)	
	Stick 2.50 m (D33)	Stick 3.00 m (D331)	Stick 2.50 m (D33)	Stick 3.00 m (D331)
Support and dozer blade	14 t			
SDB / outriggers	15 t			
4 outriggers	15,2 t			

Operating weight incl. driver, fuel, lubricants and coolant plus 1 t for attachments

EQUIPMENT

BASIC UNIT ATLAS 160MH

- Material handling machine 160MH with support and dozer blade on steering axle, 2x outrigger support on rigid axle and 2 lifting cylinders (A4.35)

BOOMS:

- Monoblock boom with stick cylinder 4.22 m (C3.4M)
- Adjustable boom consisting of base arm 1.95 m (C3.41) with adjusting cylinder plus boom 3.47 m (C346.1) with stick cylinder

STICKS:

- Stick 2.50 m (D33)
- Stick 3.00 m (D331)

BUCKET TIPPING CYLINDER:

- Bucket tipping cylinder with bucket linkage (F31)

STANDARD EQUIPMENT:

Engine:

- Automatic idling system
- Cold start assistance
- Diesel pre-filter
- Engine monitoring

Hydraulic system:

- Proportional grab/grab rotating function
- Pipe break protection valves for lifting and articulated cylinders
- Max. load-limit control
- Cylinder end position damping

UNDERCARRIAGE:

- Power-shift transmission
- Wet disc brakes
- Toolbox in undercarriage
- ZF axles

Cab:

- Air conditioning with Climatronic
- Radio preparation with mute function
- Slim steering column, height and tilt adjustable
- Ready for electric cooling box
- Different options for storage, compartment for documents
- Seat adjustable separately from console
- Rear view security camera
- Heat-absorbing glass, tinted windows
- Automotive drive and cruise control
- Operating data display screen

ADDITIONAL EQUIPMENT

Engine:

- Refueling pump
- Engine speed adjustment via potentiometer
- Auxiliary heating

Hydraulic system:

- Hydraulic kit, to operate front and rear supports separately
- Hydraulic kit, to operate supports per axle separately
- Biodegradable oil
- 270° camera system

Working equipment:

- Automatically controlled and monitored electric central lubrication system for uppercarriage and arm equipment

Cab:

- Cab protection guard
- Beacon light
- Heated driver's seat
- GPS/GSM telemetric system for monitoring of operating data, consumption, position
- Radio, USB
- Electric cooling box
- LED working lights
- Proportional control of supports by slide in joystick
- Alarm-signal while driving
- Joystick steering
- Head rest

Undercarriage:

- Wide axles (overall width 2.7 m)
- Wide dozer blade (2.7 m)
- High-speed execution 35 km/h
- Gear protection
- Wheel cover

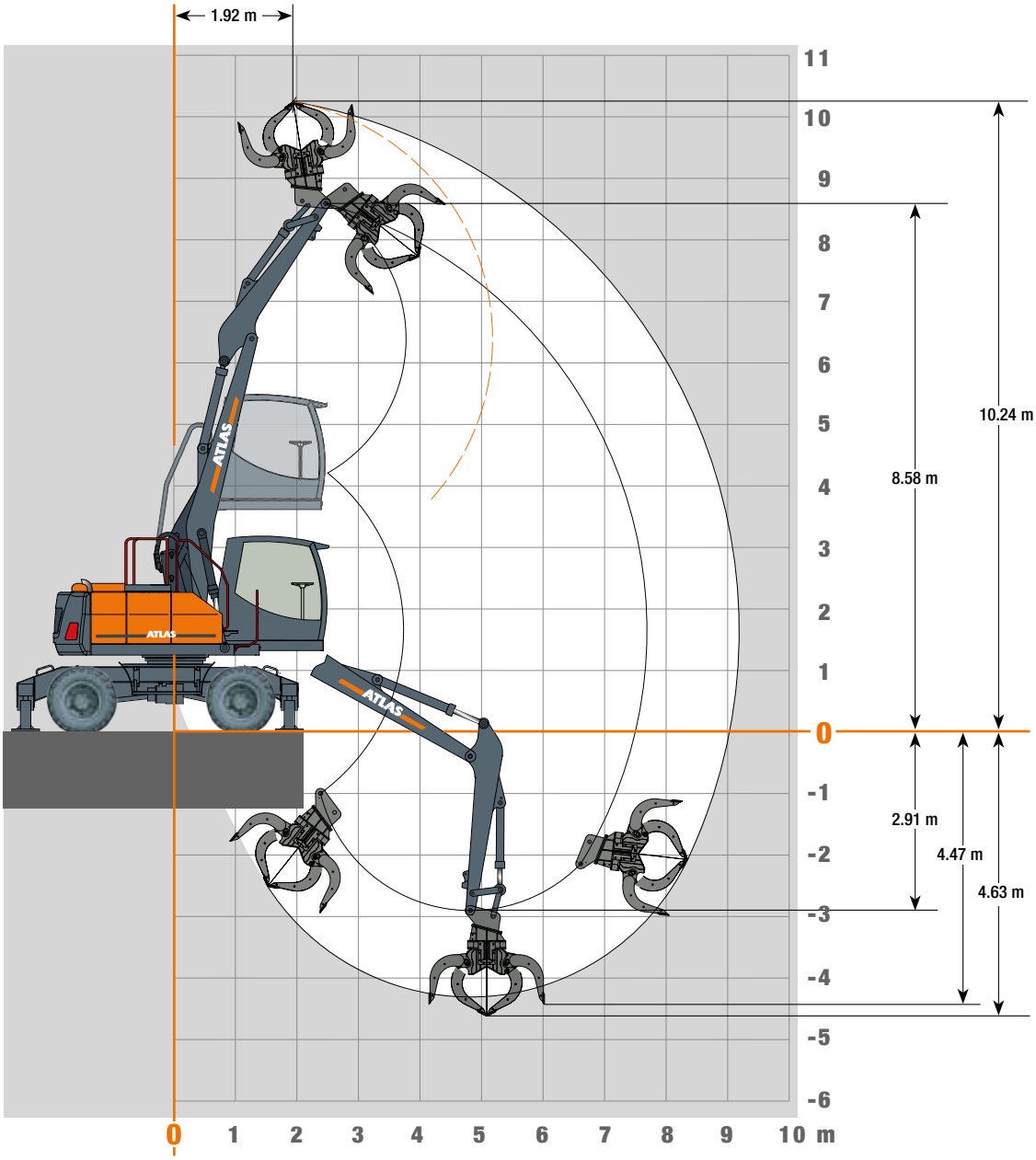
Further special equipment: See price list

ATTACHMENTS (SELECTION)

- Orange peel grab
- Sorting grapple
- Clamshell grab
- Log grab
- Load hook

WORKING RANGES 160MH

Working ranges Monoblock boom 4.80 m (C3.4MGG) and stick 2.5 m (D33)



Lifting capacities Monoblock boom 4.80 m (C3.4MGG) and stick 2.5 m (D33)

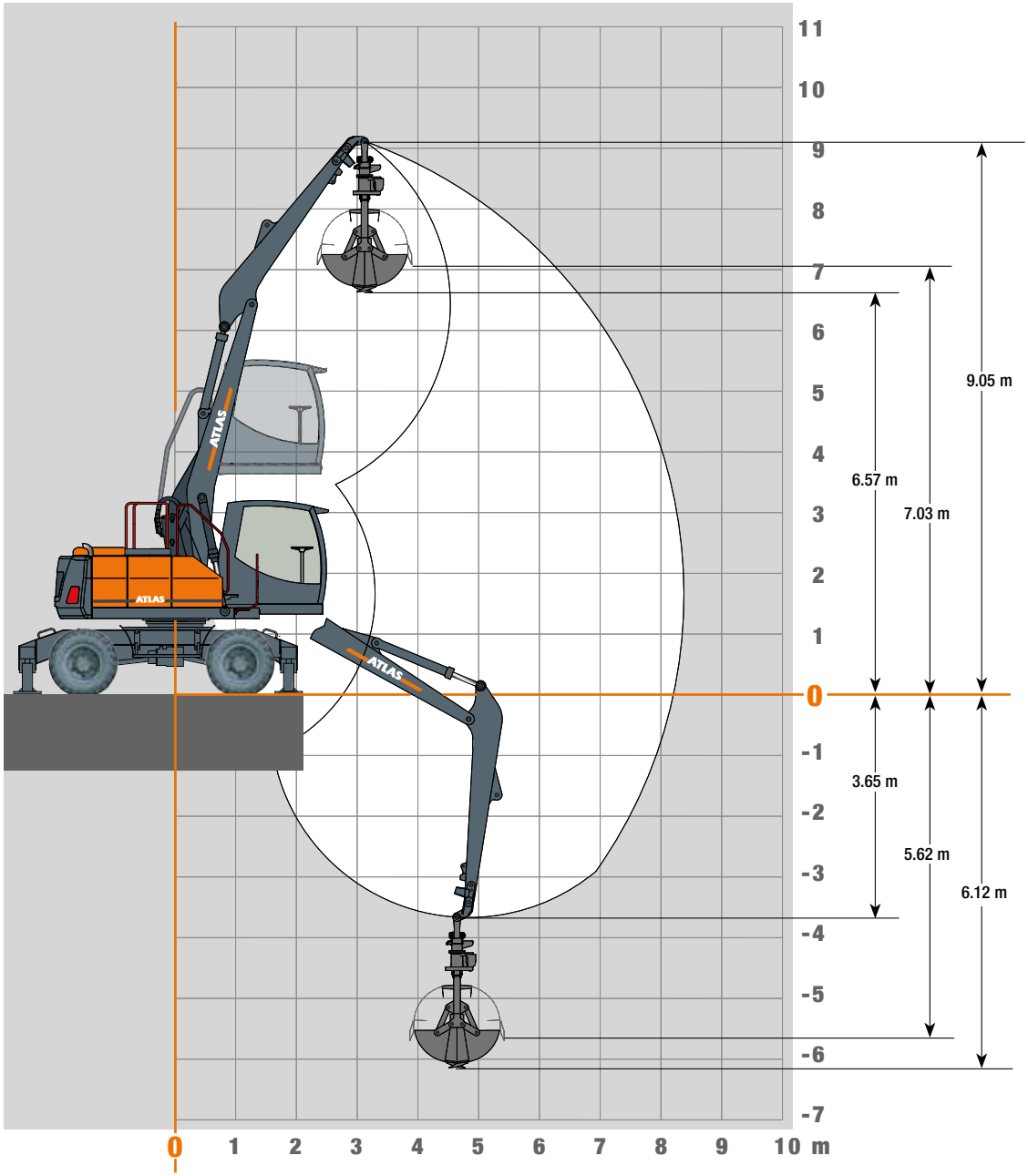
Lifting capacities Monoblock boom 4.80 m (C3.4MGG) and stick 2.5 m (D33)

		3.0 m		3.5 m		4.0 m		4.5 m		5.0 m		5.5 m		6.0 m		6.5 m		7.0 m		7.5 m	
HEIGHT		FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL
8.0 m	outriggers down			4118	4118																
	outriggers up			4118	4118																
7.0 m	outriggers down					3899	3899	3805	3805	3399	3399										
	outriggers up					3899	3899	3805	3805	3399	3397*										
6.0 m	outriggers down					3576	3576	3701	3701	3500	3500	3312	3312	3030	3030						
	outriggers up					3576	3576	3701	3701	3500	3438*	3312	2979*	3030	2601*						
5.0 m	outriggers down			3291	3291	3531	3531	3716	3716	3554	3554	3325	3325	3128	3128	2951	2951				
	outriggers up			3291	3291	3531	3531	3716	3716	3554	3409*	3325	2966*	3128	2610*	2951	2312*				
4.0 m	outriggers down			4106	4106	4240	4240	4048	4048	3702	3702	3417	3417	3175	3175	2961	2961	2758	2758		
	outriggers up			4106	4106	4240	4240	4048	3878*	3702	3338*	3417	2916*	3175	2577*	2961	2297*	2758	2059*		
3.0 m	outriggers down					4881	4881	4315	4315	3879	3879	3530	3530	3239	3239	2986	2986	2751	2751	2310	2310
	outriggers up					4881	4407*	4315	3745*	3879	3241*	3530	2845*	3239	2526*	2986	2262*	2751	2039*	2310	1847*
2.0 m	outriggers down							4496	4496	3997	3997	3597	3597	3266	3266	2978	2978	2713	2713	2427	2427
	outriggers up							4496	3606*	3997	3139*	3597	2769*	3266	2469*	2978	2220*	2713	2012*	2427	1835*
1.0 m	outriggers down					5083	5083	4466	4466	3966	3966	3554	3554	3205	3205	2895	2895	2600	2600	2262	2262
	outriggers up					5083	4083*	4466	3501*	3966	3057*	3554	2706*	3205	2421*	2895	2186*	2600	1989*	2262	1823*
0 m	outriggers down					4678	4678	4178	4178	3737	3737	3350	3350	3006	3006	2684	2684	2354	2354	1871	1871
	outriggers up					4678	4028*	4178	3449*	3737	3012*	3350	2669*	3006	2393*	2684	2166*	2354	1977*	1871	1824*

The specified max. loading capacities in kilogrammes (kg) include a stability of 25% or are calculated at 87% of the hydraulic lifting power, as per ISO10567. These values are applicable at the tip of the arm with optimum positioning of the corresponding arm system. Weights of attached load carrying accessories (grab, magnet, load hook, etc.) are not included with the load carrying values.
*Value limited due to excavator stability.

WORKING RANGES 160MH

Working ranges Monoblock boom 4.80 m (C3.4MGG) and stick 3.0 m (D331)



Lifting capacities Monoblock boom 4.80 m (C3.4MGG) and stick 3.0m (D331)

Lifting capacities Monoblock boom 4.80 m (C3.4MGG) and stick 3.0 m (D331)

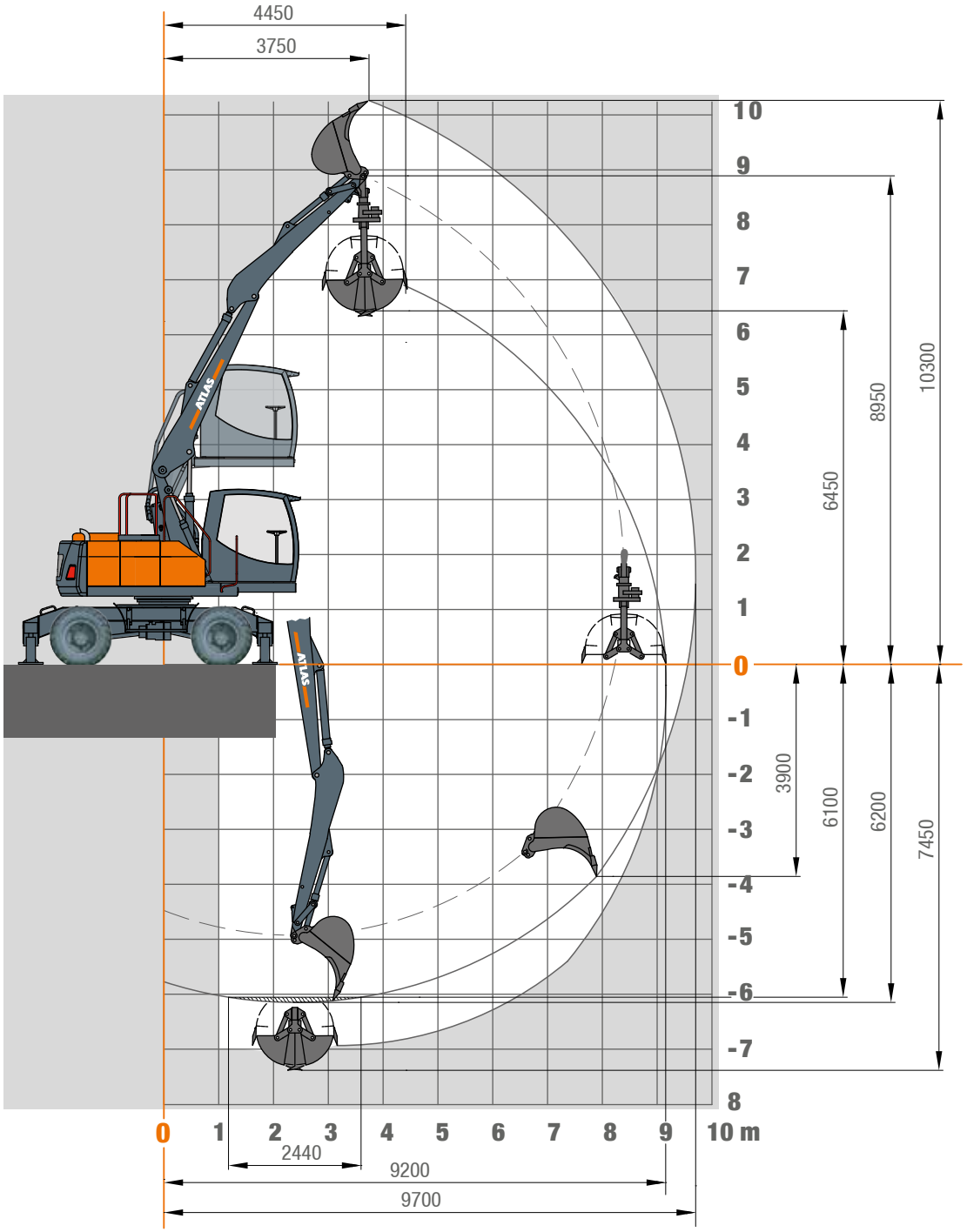
		3.0 m		3.5 m		4.0 m		4.5 m		5.0 m		5.5 m		6.0 m		6.5 m		7.0 m		7.5 m		8.0 m	
HEIGHT		FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL
8.0 m	outriggers down					3362	3362	2961	2961														
	outriggers up					3362	3362	2961	2961														
7.0 m	outriggers down							3125	3125	3081	3081	2846	2846	1761	1761								
	outriggers up							3125	3125	3081	3081	2846	2846	1761	1761								
6.0 m	outriggers down							2914	2914	3006	3006	3033	3033	2937	2937	2523	2523						
	outriggers up							2914	2914	3006	3006	3033	3020*	2937	2644*	2523	2328*						
5.0 m	outriggers down					2686	2686	2867	2867	3008	3008	3097	3097	2972	2972	2817	2817	2617	2617				
	outriggers up					2686	2686	2867	2867	3008	3008	3097	2997*	2972	2634*	2817	2334*	2617	2080*				
4.0 m	outriggers down			2787	2787	3021	3021	3196	3196	3315	3315	3257	3257	3042	3042	2853	2853	2679	2679	2494	2494		
	outriggers up			2787	2787	3021	3021	3196	3196	3315	3315	3257	2940*	3042	2593*	2853	2307*	2679	2067*	2494	1860*		
3.0 m	outriggers down					4612	4612	4109	4109	3717	3717	3399	3399	3134	3134	2905	2905	2699	2699	2501	2501	1734	1734
	outriggers up					4612	4475*	4109	3787*	3717	3267*	3399	2860*	3134	2532*	2905	2263*	2699	2036*	2501	1843*	1734	1674*
2.0 m	outriggers down					4981	4981	4364	4364	3890	3890	3513	3513	3202	3202	2935	2935	2697	2697	2471	2471	2214	2214
	outriggers up					4981	4257*	4364	3629*	3890	3150*	3513	2771*	3202	2465*	2935	2212*	2697	1999*	2471	1818*	2214	1663*
1.0 m	outriggers down					5085	5085	4444	4444	3940	3940	3533	3533	3194	3194	2903	2903	2639	2639	2382	2382	2074	2074
	outriggers up					5085	4081*	4444	3495*	3940	3046*	3533	2691*	3194	2402*	2903	2165*	2639	1965*	2382	1796*	2074	1651*
0 m	outriggers down					4855	4855	4284	4284	3810	3810	3413	3413	3071	3071	2767	2767	2481	2481	2183	2183	1575	1575
	outriggers up					4855	3987*	4284	3414*	3810	2979*	3413	2637*	3071	2361*	2767	2133*	2481	1943*	2183	1782*	1575	1575

The specified max. loading capacities in kilogrammes (kg) include a stability of 25% or are calculated at 87% of the hydraulic lifting power, as per ISO10567. These values are applicable at the tip of the arm with optimum positioning of the corresponding arm system. Weights of attached load carrying accessories (grab, magnet, load hook, etc.) are not included with the load carrying values. *Value limited due to excavator stability.

WORKING RANGES 160MH

Working ranges

Adjustable boom: Base arm 1.95 m (C3.41) and boom 3.47 m (C346.1) and stick 3.0 m (D331)



Lifting capacities Adjustable boom: Base arm 1.95 m (C3.41) and boom 3.47 m (C346.1) and stick 3.0 m (D331)

Lifting capacites Adjustable boom: Base arm 1.95 m (C3.41) and boom 3.47 m (C346.1) with stick 3.0 m (D331). Max reach 9.70 m

		2.5 m		3.0 m		3.5 m		4.0 m		4.5 m		5.0 m		5.5 m		6.0 m		6.5 m		7.0 m		7.5 m		8.0 m	
HEIGHT		FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL	FRONT	LATERAL
5.0 m	outriggers down									3155	3155	2986	2986	2842	2842	2720	2720	2616	2616	2529	2529	245S	2459		
	outriggers up									3155	3155	2986	2986	2842	2842	2720	2635*	2616	2353*	2529	2095*	2459	1836*		
4.0 m	outriggers down					4236	4236	3814	3814	3490	3490	3233	3233	3025	3025	2852	2852	2707	2707	2583	2583	2476	2476	2301	2301
	outriggers up					4236	4236	3814	3814	3490	3490	3233	3233	3025	2924*	2852	2598*	2707	2329*	2583	2105*	2476	1851*	2301	1630*
3.0 m	outriggers down			5282	5282	5082	5082	4401	4401	3912	3912	3543	3543	3254	3254	3021	3021	2829	2829	2667	2667	2526	2526	2399	2399
	outriggers up			5282	5282	5082	5082	4401	4373*	3912	3735*	3543	3250	3254	2868*	3021	2558*	2829	2305*	2667	2096*	2526	1846*	2399	1629*
2.0 m	outriggers down	6066	6066	6022	6022	5656	5656	4946	4946	4311	4311	3839	3839	3476	3476	3186	3186	2949	2949	2750	2750	2576	2576	2418	2418
	outriggers up	6066	6066	6022	6022	5656	5090*	4946	4263*	4311	3654*	3839	3191*	3476	2824*	3186	2530*	2949	2290*	2750	2071*	2576	1821*	2418	1610*
1.0 m	outriggers down	6881	6881	6561	6561	6037	6037	5251	5251	4564	4564	4041	4041	3631	3631	3302	3302	3031	3031	2801	2801	2598	2598	2425	2425
	outriggers up	6881	6881	6561	6233*	6037	5027*	5251	4208*	4564	3608*	4041	3159*	3631	2804*	3302	2522*	3031	2304*	2801	2021*	2598	1781*	2425	1580*
0 m	outriggers down	7839	7839	7099	7099	6187	6187	5289	5289	4617	4617	4094	4094	3676	3676	3333	3333	3047	3047	2808	2808	2619	2619	2396	2396
	outriggers up	7839	7839	7099	6254*	6187	5034*	5289	4207*	4617	3611*	4094	3165*	3676	2820*	3333	2530*	3047	2233*	2808	1958*	2619	1733*	2396	1547*
-1.0 m	outriggers down	8955	8955	7532	7532	6245	6245	5328	5328	4645	4645	4116	4116	3695	3695	3355	3355	3078	3078	2867	2867	2582	2582	2123	2123
	outriggers up	8955	8359*	7532	6340*	6245	5099*	5328	4244*	4645	3623*	4116	3148*	3695	2772*	3355	2453*	3078	2145*	2867	1892*	2582	1688*	2123	1522*
-2.0 m	outriggers down	9630	9630	7664	7664	6353	6353	5420	5420	4726	4726	4193	4193	3780	3780	3470	3470	3122	3122	2705	2705	2132	2132		
	outriggers up	9630	8283*	7664	6229*	6353	4984*	5420	4146*	4726	3540*	4193	3082*	3780	2691*	3470	2346*	3122	2068*	2705	1844*	2132	1661*		
-3.0 m	outriggers down	9913	9913	7905	7905	6573	6573	5642	5642	4947	4947	4325	4325	3761	3761	3204	3204	2590	2590						
	outriggers up	9913	8257*	7905	6193*	6573	4948*	5642	4114*	4947	3498*	4325	2982*	3761	2590*	3204	2279*	2590	2029*						

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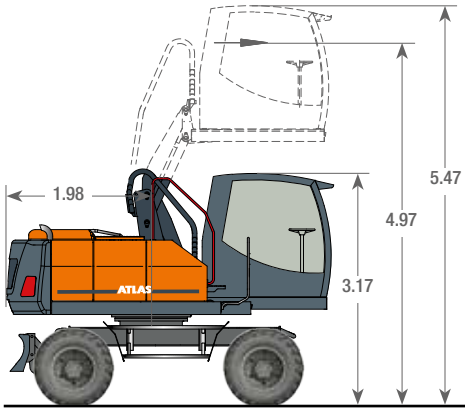
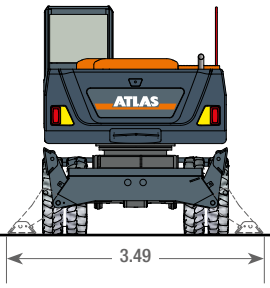
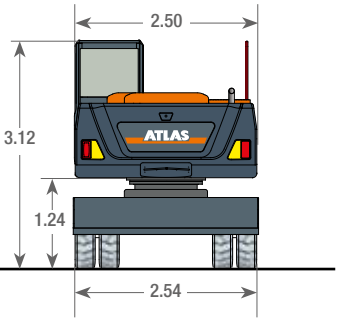
*Value limited due to excavator stability.

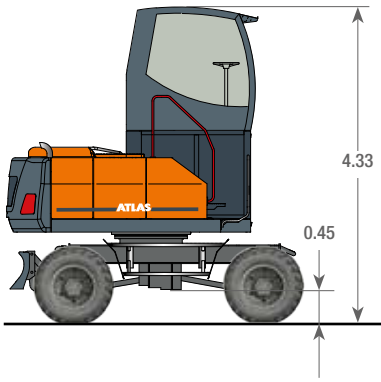
DIMENSIONS 160MH

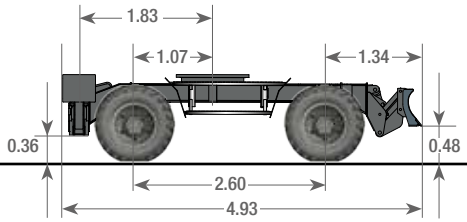
Dimensions



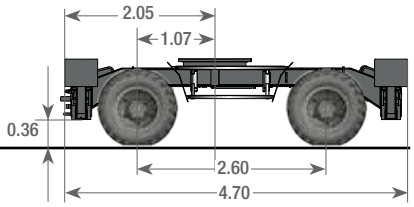






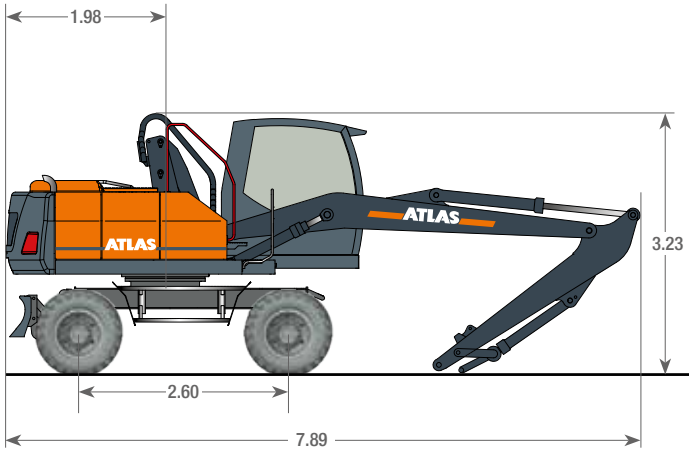


Undercarriage with combination support
(support dozer blade and two outriggers)

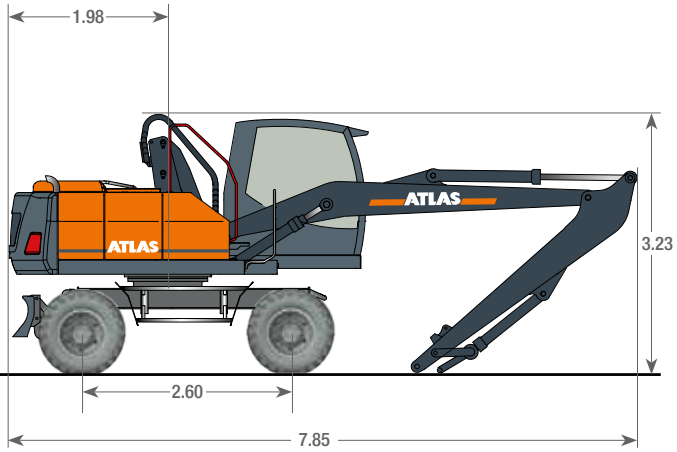


Undercarriage with 4 outriggers

A4.2, C3.4MGG, D33, F31



A4.2, C3.4MGG, D331, F31



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Material Handling Machine 160MH

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