

ATLAS

SINCE 1919

**ROBUST.
PRECISE.
EFFICIENT.**

-  16.6 - 17.5 t
-  90 kW (121 HP)
-  8.4 m



MATERIAL HANDLING MACHINE 160MH

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TECHNICAL SPECIFICATION 160MH

Technical specifications

ENGINE

Power rating acc. to ISO 9249... 90 kW (121 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

<ul style="list-style-type: none"> • AWE 5 system (Load sensing) • Load limit controlled high-performance pump • Fuel-efficient flow-on-demand control • Sensitive, proportional, independent control • Primary and secondary protection against overload 	<ul style="list-style-type: none"> • Suction valves for all work functions • Load-retaining and fine lowering valves in lifting circuit • Pipe break protection valves for lifting and articulated cylinders • Grab / grab-rotating function equipped as standard 	<ul style="list-style-type: none"> • 2 additional circuits for additional consumer loads possible • Max. oil flow 188 l/min • Max. operating pressure 360 bar • Operating modes: 3 pre-programmed modes (Fine, Eco, Power)
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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.	<ul style="list-style-type: none"> • Axial piston motor with priority valve • Planetary transmission • Automatically controlled multi-disc brake 	<ul style="list-style-type: none"> • Max. swing speed 9 rpm • Swing torque 34.7 kNm
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TRACTION DRIVE AND BRAKES

<ul style="list-style-type: none"> • Variable displacement motor • Power-shift transmission • Double-acting brake valve • Travel direction pre-selection via switch in joystick 	<ul style="list-style-type: none"> • Automotive traveling and cruise control • Max. speed 20 km/h • Off-road speed 5 km/h • Crawling speed 1 km/h 	<ul style="list-style-type: none"> • Tractive force 76.0 kN • Max. gradeability 60 % • Dual-circuit brake system Multi-disc • Parking brake Multi-disc
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UNDERCARRIAGE

<ul style="list-style-type: none"> • 28 tons special excavator axles • Steering axle with automatic oscillating axle locking 	<ul style="list-style-type: none"> • 8 tires (twins) 10.00 - 20 	<ul style="list-style-type: none"> • 4 tires (optional) 600 - 22.5
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FILL CAPACITIES

<ul style="list-style-type: none"> • Fuel tank 240 litres • Cooling system 38 litres 	<ul style="list-style-type: none"> • Engine oil 10 litres • Hydraulic tank 157 litres 	<ul style="list-style-type: none"> • Hydraulic system 38 litres • AdBlue® tank 20 litres
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DRIVER'S CAB

<ul style="list-style-type: none"> • Meets latest safety standards • Extra large entry zone • Spacious leg room • Excellent circumferential visibility* • Preparation for radio installation with mute function 	<p>CONTROL:</p> <ul style="list-style-type: none"> • Ergonomic joysticks with proportional slide control • Slim steering column, height and tilt adjustable • Indicators, controls and operating switches are clearly arranged 	<p>CLIMATE CONTROL:</p> <ul style="list-style-type: none"> • Air conditioning with Climatronic • Excellent air distribution through optimally arranged nozzles
<p>DRIVER'S SEAT:</p> <ul style="list-style-type: none"> • Air-cushioned comfort seat (seat heating optional) • Arm rests and lumbar support • Seat adjustable separately from console 	<p>MONITORING:</p> <ul style="list-style-type: none"> • Operating data display screen • Automatic system for monitoring, warning and storage of data 	<p>SOUND LEVELS:</p> <ul style="list-style-type: none"> • ISO 6396 (L_{pA}) in driver's cab 72 dB(A) • 2000/14 EG (L_{wA}) ambience level 97 dB(A)
* Lift cab 2 m elevation		

WORKING EQUIPMENT 160MH

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	STANDARD EQUIPMENT:	
<ul style="list-style-type: none"> Material handling machine 160MH with support and dozer blade on steering axle, 2x outrigger support on rigid axle and 2 lifting cylinders (A4.35) 	Engine: <ul style="list-style-type: none"> Automatic idling system Cold start assistance 	Cab: <ul style="list-style-type: none"> Air conditioning with Climatronic
BOOMS: <ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Diesel pre-filter Engine monitoring 	<ul style="list-style-type: none"> Radio preparation with mute function Slim steering column, height and tilt adjustable
STICKS: <ul style="list-style-type: none"> Stick 2.50 m (D33) Stick 3.00 m (D331) 	Hydraulic system: <ul style="list-style-type: none"> Proportional grab/grab rotating function Pipe break protection valves for lifting and articulated cylinders Max. load-limit control Cylinder end position damping 	<ul style="list-style-type: none"> 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
BUCKET TIPPING CYLINDER: <ul style="list-style-type: none"> Bucket tipping cylinder with bucket linkage (F31) 	UNDERCARRIAGE: <ul style="list-style-type: none"> Power-shift transmission Wet disc brakes Toolbox in undercarriage ZF axles 	

ADDITIONAL EQUIPMENT

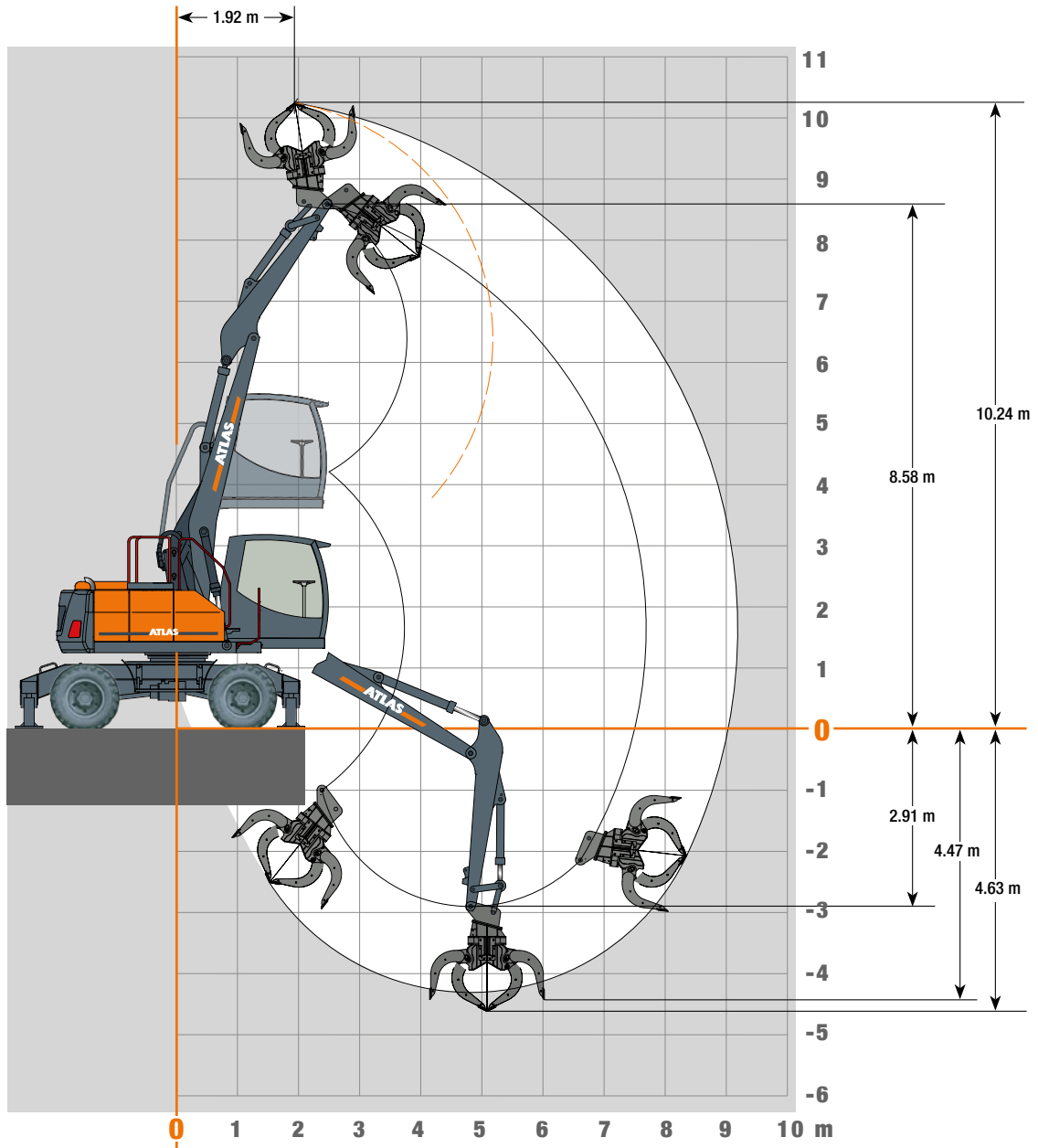
Engine: <ul style="list-style-type: none"> Refueling pump Engine speed adjustment via potentiometer Auxiliary heating 	Working equipment: <ul style="list-style-type: none"> Automatically controlled and monitored electric central lubrication system for uppercarriage and arm equipment 	<ul style="list-style-type: none"> Proportional control of supports by slide in joystick Alarm-signal while driving Joystick steering Head rest
Hydraulic system: <ul style="list-style-type: none"> Hydraulic kit, to operate front and rear supports separately Hydraulic kit, to operate supports per axle separately Biodegradable oil 270° camera system 	Cab: <ul style="list-style-type: none"> 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 	Undercarriage: <ul style="list-style-type: none"> 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 160MH

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

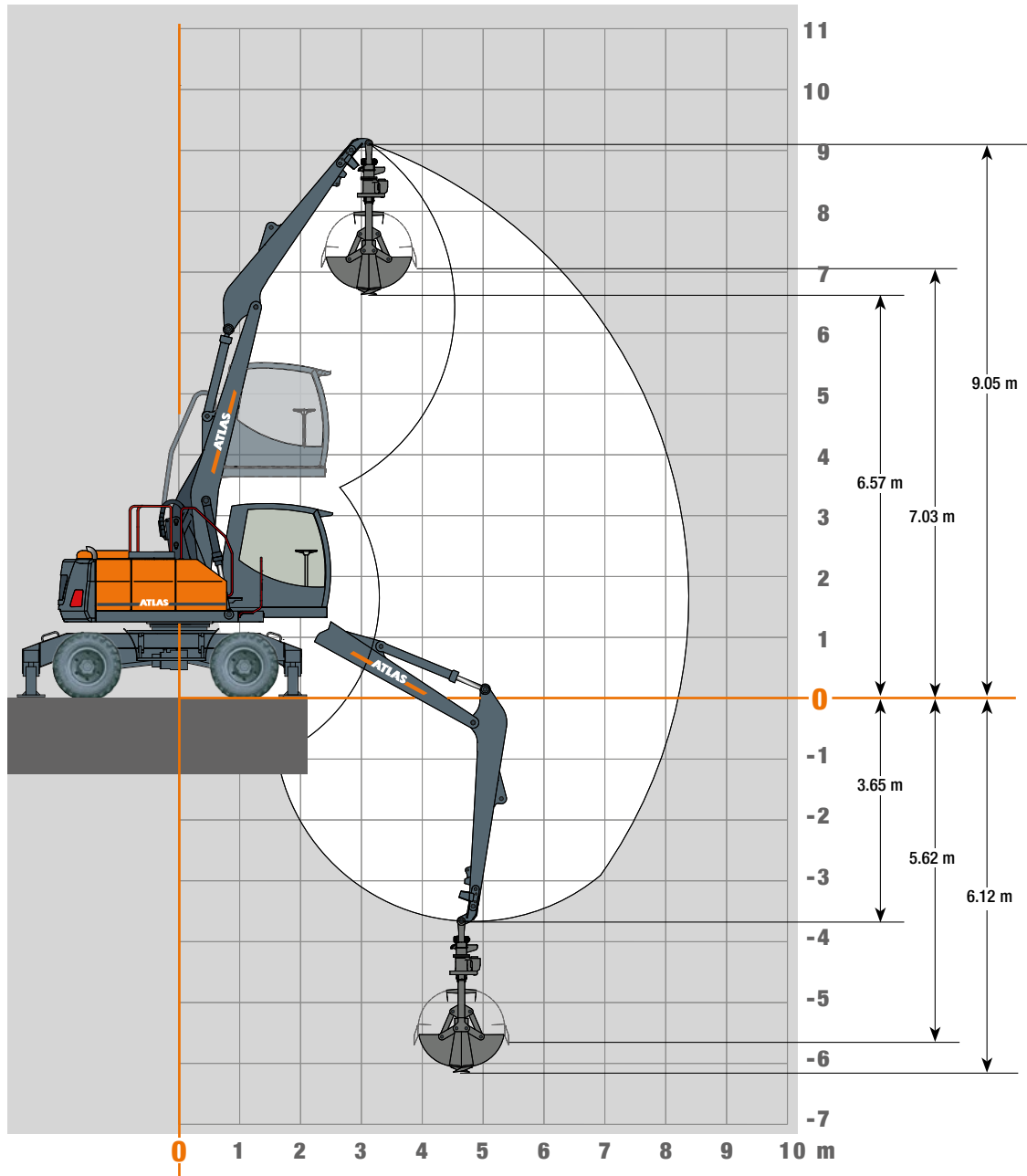
Lifting capacities Monoblock boom 4.80 m (C3.4MGG) and stick 2.5 m (D33)													
HEIGHT	Undercarriage position		2.5 m	3.0 m	3.5 m	4.0 m	4.5 m	5.0 m	5.5 m	6.0 m	6.5 m	7.0 m	7.5 m
+ 8.0 m	FRONT	 outriggers down			4898								
		 outriggers up			4898								
	LATERAL	 outriggers down			4898								
		 outriggers up			4898								
+ 7.0 m	FRONT	 outriggers down				4479	4213	4016					
		 outriggers up				4479	4213	4016					
	LATERAL	 outriggers down				4479	4213	4016					
		 outriggers up				4479	3972*	3371*					
+ 6.0 m	FRONT	 outriggers down				4257	4122	3881	3679	3513			
		 outriggers up				4257	4122	3881	3679	3513			
	LATERAL	 outriggers down				4257	4122	3881	3679	3513			
		 outriggers up				4257	3994*	3412*	2955*	2579*			
+ 5.0 m	FRONT	 outriggers down			3920	4202	4237	3943	3695	3480	3289		
		 outriggers up			3920	4202	4237	3943	3695	3480	3289		
	LATERAL	 outriggers down			3920	4202	4237	3943	3695	3480	3289		
		 outriggers up			3920	4202	3947*	3383*	2943*	2588*	2291*		
+ 4.0 m	FRONT	 outriggers down		4628	4875	4968	4492	4112	3800	3535	3301	3079	
		 outriggers up		4628	4875	4968	4492	4112	3800	3535	3301	3079	
	LATERAL	 outriggers down		4628	4875	4968	4492	4112	3800	3535	3301	3079	
		 outriggers up		4628	4875	4561*	3848*	3311*	2892*	2555*	2276*	2039*	
+ 3.0 m	FRONT	 outriggers down			6278	5423	4797	4316	3931	3610	3332	3074	2769
		 outriggers up			6278	5423	4797	4316	3931	3610	3332	3074	2769
	LATERAL	 outriggers down			6278	5423	4797	4316	3931	3610	3332	3074	2769
		 outriggers up			5274*	4370*	3713*	3213*	2820*	2502*	2240*	2019*	1828*
+2.0 m	FRONT	 outriggers down				5731	5010	4455	4013	3646	3328	3036	2720
		 outriggers up				5731	5010	4455	4013	3646	3328	3036	2720
	LATERAL	 outriggers down				5731	5010	4455	4013	3646	3328	3036	2720
		 outriggers up				4175*	3572*	3109*	2742*	2444*	2198*	1991*	1816*
+1.0 m	FRONT	 outriggers down				5676	4987	4430	3972	3584	3241	2914	2540
		 outriggers up				5676	4987	4430	3972	3584	3241	2914	2540
	LATERAL	 outriggers down				5676	4987	4430	3972	3584	3241	2914	2540
		 outriggers up				4041*	3465*	3026*	2678*	2397*	2164*	1969*	1804*
0.0 m	FRONT	 outriggers down				5112	5237	4677	4183	3752	3369	3011	2645
		 outriggers up				5112	5237	4677	4183	3752	3369	3011	2645
	LATERAL	 outriggers down				5112	5237	4677	4183	3752	3369	3011	2645
		 outriggers up				4787*	3986*	3413*	2980*	2641*	2368*	2143*	1957*
-1.5 m	FRONT	 outriggers down		4410	4284	4007	3675	3329	2981	2624	2220		
		 outriggers up		4410	4284	4007	3675	3329	2981	2624	2220		
	LATERAL	 outriggers down		4410	4284	4007	3675	3329	2981	2624	2220		
		 outriggers up		4410	4284	3993*	3408*	2972*	2635*	2366*	2150*		

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 160MH

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

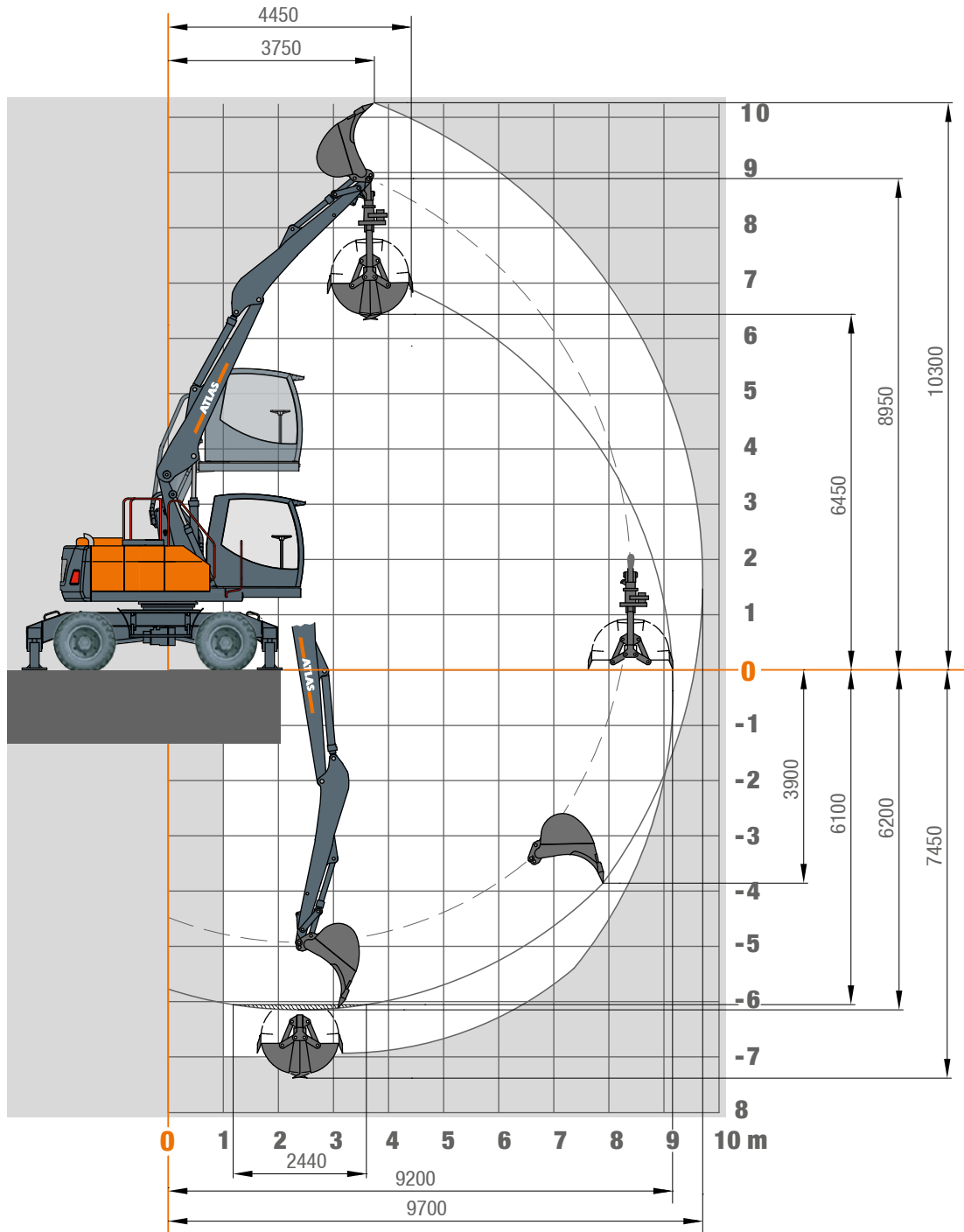
Lifting capacities Monoblock boom 4.80 m (C3.4MGG) and stick 3.0 m (D331)													
HEIGHT	Undercarriage position		3.0 m	3.5 m	4.0 m	4.5 m	5.0 m	5.5 m	6.0 m	6.5 m	7.0 m	7.5 m	8.0 m
+ 8.0 m	FRONT	 outriggers down			4017	3545							
		 outriggers up			4017	3545							
	LATERAL	 outriggers down			4017	3545							
		 outriggers up			4017	3545							
+ 7.0 m	FRONT	 outriggers down				3736	3685	3408					
		 outriggers up				3736	3685	3408					
	LATERAL	 outriggers down				3736	3685	3408					
		 outriggers up				3736	3446*	2969*					
+ 6.0 m	FRONT	 outriggers down				3487	3595	3449	3297	3029			
		 outriggers up				3487	3595	3449	3297	3029			
	LATERAL	 outriggers down				3487	3595	3449	3297	3029			
		 outriggers up				3487	3462*	2998*	2623*	2308*			
+ 5.0 m	FRONT	 outriggers down			3218	3431	3596	3494	3308	3140	2985		
		 outriggers up			3218	3431	3596	3494	3308	3140	2985		
	LATERAL	 outriggers down			3218	3431	3596	3494	3308	3140	2985		
		 outriggers up			3218	3431	3425*	2974*	2612*	2314*	2061*		
+ 4.0 m	FRONT	 outriggers down		3333	3610	3815	3897	3624	3389	3183	2994	2806	
		 outriggers up		3333	3610	3815	3897	3624	3389	3183	2994	2806	
	LATERAL	 outriggers down		3333	3610	3815	3897	3624	3389	3183	2994	2806	
		 outriggers up		3333	3610	3815	3347*	2916*	2571*	2287*	2048*	1842*	
+ 3.0 m	FRONT	 outriggers down		5866	5123	4569	4137	3788	3496	3245	3019	2801	2100
		 outriggers up		5866	5123	4569	4137	3788	3496	3245	3019	2801	2100
	LATERAL	 outriggers down		5866	5123	4569	4137	3788	3496	3245	3019	2801	2100
		 outriggers up		5388*	4440*	3756*	3239*	2835*	2509*	2242*	2017*	1824*	1656*
+2.0 m	FRONT	 outriggers down			5549	4863	4339	3922	3577	3283	3020	2771	2488
		 outriggers up			5549	4863	4339	3922	3577	3283	3020	2771	2488
	LATERAL	 outriggers down			5549	4863	4339	3922	3577	3283	3020	2771	2488
		 outriggers up			4219*	3596*	3121*	2745*	2441*	2190*	1978*	1799*	1645*
+1.0 m	FRONT	 outriggers down			5679	4964	4404	3952	3575	3252	2960	2675	2336
		 outriggers up			5679	4964	4404	3952	3575	3252	2960	2675	2336
	LATERAL	 outriggers down			5679	4964	4404	3952	3575	3252	2960	2675	2336
		 outriggers up			4040*	3460*	3016*	2664*	2378*	2142*	1945*	1777*	1634*
0.0 m	FRONT	 outriggers down		5698	5436	4797	4269	3825	3445	3106	2789	2459	
		 outriggers up		5698	5436	4797	4269	3825	3445	3106	2789	2459	
	LATERAL	 outriggers down		5698	5436	4797	4269	3825	3445	3106	2789	2459	
		 outriggers up		4732*	3945*	3378*	2948*	2610*	2336*	2111*	1922*	1763*	
-1.5 m	FRONT	 outriggers down	5338	4905	4449	4014	3611	3239	2889	2543	2164		
		 outriggers up	5338	4905	4449	4014	3611	3239	2889	2543	2164		
	LATERAL	 outriggers down	5338	4905	4449	4014	3611	3239	2889	2543	2164		
		 outriggers up	5338	4719*	3916*	3344*	2915*	2582*	2315*	2098*	1920*		

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 160MH

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

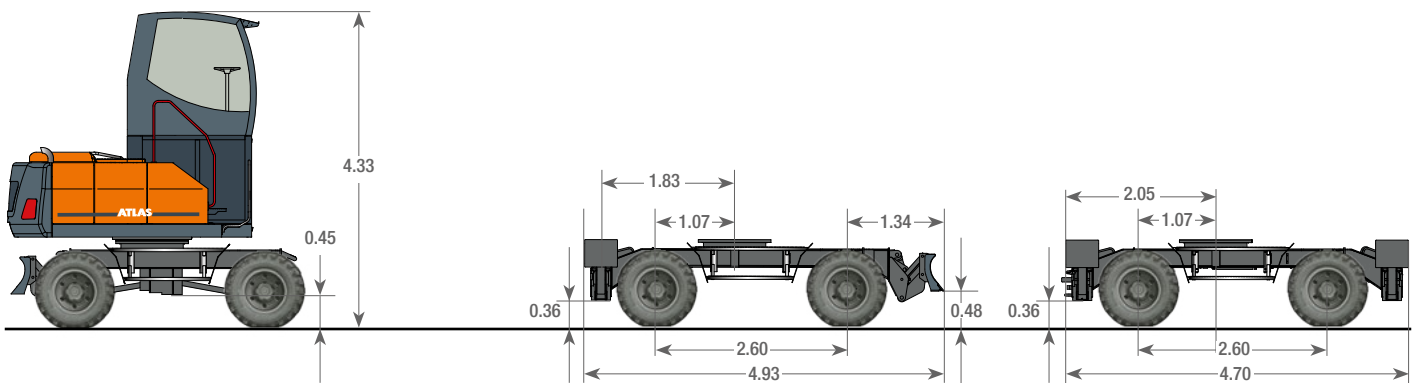
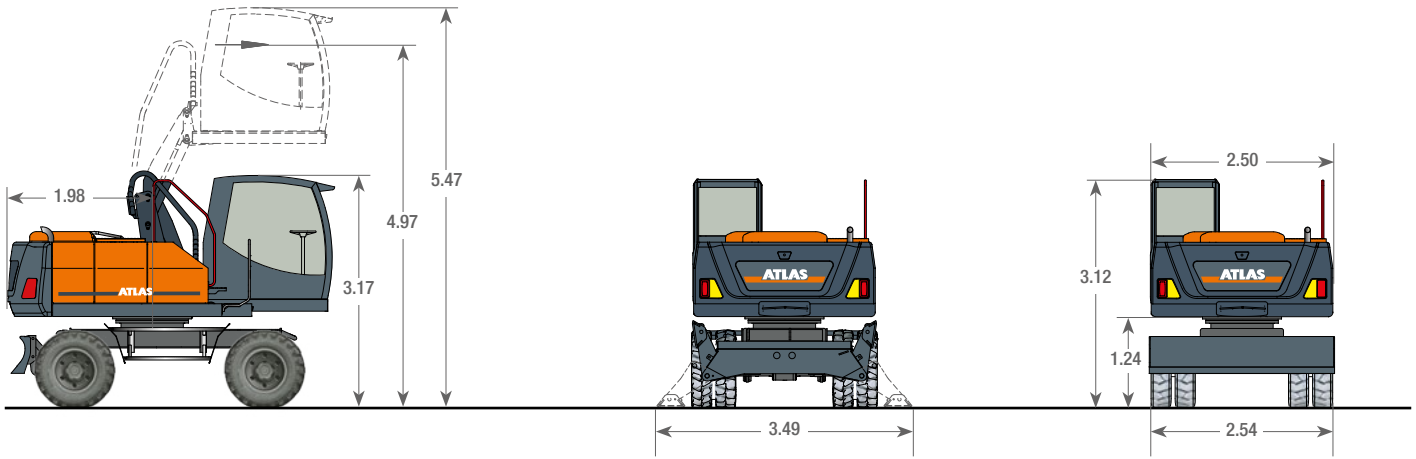
Lifting capacities Adjustable boom: Base arm 1.95 m (C3.41) and boom 3.47 m (C346.1) with stick 3.0 m (D331). Max reach 9.70 m														
HEIGHT	Undercarriage position		2.5 m	3.0 m	3.5 m	4.0 m	4.5 m	5.0 m	5.5 m	6.0 m	6.5 m	7.0 m	7.5 m	8.0 m
+ 5.0 m	FRONT 	outriggers down					3155	2986	2842	2720	2616	2529	2459	
		outriggers up					3155	2986	2842	2720	2616	2529	2459	
	LATERAL 	outriggers down					3155	2986	2842	2720	2616	2529	2459	
		outriggers up					3155	2986	2842	2635*	2353*	2095*	1836*	
+ 4.0 m	FRONT 	outriggers down			4236	3814	3490	3233	3025	2852	2707	2583	2476	2301
		outriggers up			4236	3814	3490	3233	3025	2852	2707	2583	2476	2301
	LATERAL 	outriggers down			4236	3814	3490	3233	3025	2852	2707	2583	2476	2301
		outriggers up			4236	3814	3490	3233	2924*	2598*	2329*	2105*	1851*	1630*
+ 3.0 m	FRONT 	outriggers down		5282	5082	4401	3912	3543	3254	3021	2829	2667	2526	2399
		outriggers up		5282	5082	4401	3912	3543	3254	3021	2829	2667	2526	2399
	LATERAL 	outriggers down		5282	5082	4401	3912	3543	3254	3021	2829	2667	2526	2399
		outriggers up		5282	5082	4373*	3735*	3250	2868*	2558*	2305*	2096*	1846*	1629*
+2.0 m	FRONT 	outriggers down	6066	6022	5656	4946	4311	3839	3476	3186	2949	2750	2576	2418
		outriggers up	6066	6022	5656	4946	4311	3839	3476	3186	2949	2750	2576	2418
	LATERAL 	outriggers down	6066	6022	5656	4946	4311	3839	3476	3186	2949	2750	2576	2418
		outriggers up	6066	6022	5090*	4263*	3654*	3191*	2824*	2530*	2290*	2071*	1821*	1610*
+1.0 m	FRONT 	outriggers down	6881	6561	6037	5251	4564	4041	3631	3302	3031	2801	2598	2425
		outriggers up	6881	6561	6037	5251	4564	4041	3631	3302	3031	2801	2598	2425
	LATERAL 	outriggers down	6881	6561	6037	5251	4564	4041	3631	3302	3031	2801	2598	2425
		outriggers up	6881	6233*	5027*	4208*	3608*	3159*	2804*	2522*	2304*	2021*	1781*	1580*
0.0 m	FRONT 	outriggers down	7839	7099	6187	5289	4617	4094	3676	3333	3047	2808	2619	2396
		outriggers up	7839	7099	6187	5289	4617	4094	3676	3333	3047	2808	2619	2396
	LATERAL 	outriggers down	7839	7099	6187	5289	4617	4094	3676	3333	3047	2808	2619	2396
		outriggers up	7839	6254*	5034*	4207*	3611*	3165*	2820*	2530*	2233*	1958*	1733*	1547*
-1.0 m	FRONT 	outriggers down	8955	7532	6245	5328	4645	4116	3695	3355	3078	2867	2582	2123
		outriggers up	8955	7532	6245	5328	4645	4116	3695	3355	3078	2867	2582	2123
	LATERAL 	outriggers down	8955	7532	6245	5328	4645	4116	3695	3355	3078	2867	2582	2123
		outriggers up	8359*	6340*	5099*	4244*	3623*	3148*	2772*	2453*	2145*	1892*	1688*	1522*
-2.0 m	FRONT 	outriggers down	9630	7664	6353	5420	4726	4193	3780	3470	3122	2705	2132	
		outriggers up	9630	7664	6353	5420	4726	4193	3780	3470	3122	2705	2132	
	LATERAL 	outriggers down	9630	7664	6353	5420	4726	4193	3780	3470	3122	2705	2132	
		outriggers up	8283*	6229*	4984*	4146*	3540*	3082*	2691*	2346*	2068*	1844*	1661*	
-3.0 m	FRONT 	outriggers down	9913	7905	6573	5642	4947	4325	3761	3204	2590			
		outriggers up	9913	7905	6573	5642	4947	4325	3761	3204	2590			
	LATERAL 	outriggers down	9913	7905	6573	5642	4947	4325	3761	3204	2590			
		outriggers up	8257*	6193*	4948*	4114*	3498*	2982*	2590*	2279*	2029*			

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.

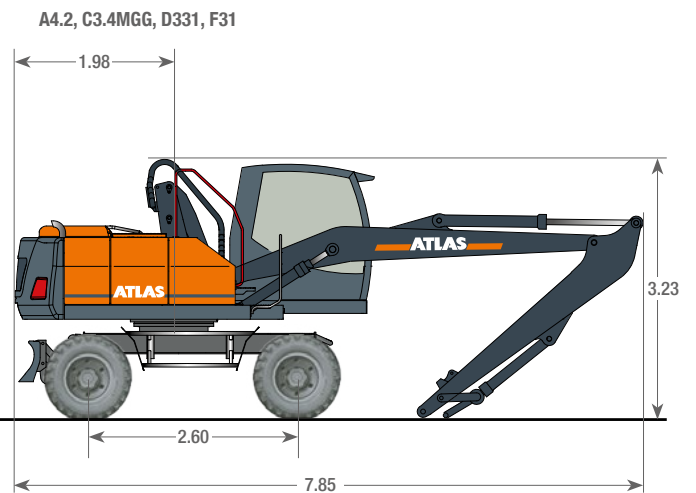
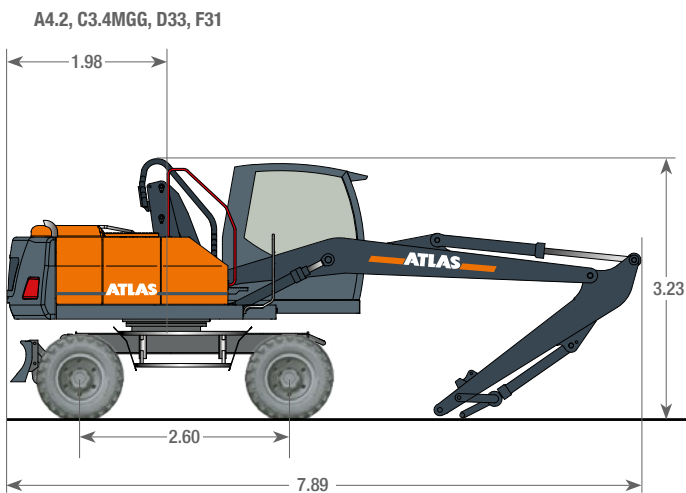
DIMENSIONS 160MH

Dimensions



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

Undercarriage with 4 outriggers



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