TEREX ATLAS

Rail and Road Excavator **1404 ZW**

ENGINE

Power output (acc. to ISO 1585) ..... 73 kW (99 HP
Net brake power ..... 69 kW (94 HP)
Manufacturer ..... Deutz
Type BF4M 2012
Piston displacement ..... 3192 cm^3
Max. rpm ..... 2100 min^{-1}
Charging ..... Turbocharger

HYDRAULIC SYSTEM

Computer controlled AWE4 system with one load limit controlled high performance piston pump and fuel saving oil supply on demand in order to ensure sensitive, proportional and load independent control of all movements. • primary and secondary safeguarding of the hydraulic system against overload • anti cavitation valves for all working functions throttle control in the lifting and folding circuit • Load – holding valves and subtile acting lowering valves in the lifting circuit

Hydraulic system ..... 1x axial piston pump
Main pump ..... HPR 105
Max. gear pump output ..... 220 l/min
Max. operating pressure ..... 340 bar

NOISE LEVEL

Noise level* well below EU limits
Outside cab (LwA) ..... 101 dB (A)
Inside cab (LpA) ..... 75 dB (A)
*dynamic noise measurements acc. 2000 / 14 EU regulations

ELECTRICAL SYSTEM

Operating voltage ..... 24 Volt
Cold-start high performance batteries ..... 2 x 100 Ah
Complete electrical system acc. StVZO

BRAKES

Operating brake ..... pneumatic-hydraulically actuated drum brake
Parking brake ..... spring-loaded compressed-air brake
Emergency brake system during rail operation
Max. trailer pulling force (without brakes) ..... 40 to
Max. trailer pulling force
(with special waggon brake system) ..... 120 to

TANK VOLUMES

Fuel tank ..... 190 l
Hydraulic tank ..... 200 l
Engine oil tank ..... 10 l

DOUBLE-CABIN

Shock absorbing resilient mountings • heat insulated panoramic windows for best all around visibility • no glare interior • skylight with window • ergonomic control levers • adjustable steering column • forward and reverse seat adjustment, independent of the control panel • up and over windscreen lockable under roof panel • air condition • second seat for a railway official

Model ..... ATLAS comfort double-cab model 935
Total length ..... 2130 mm
Width ..... 935 mm

SLEWING MECHANISM

Slew motor ..... Axial piston with priority valve
Slew gear box ..... planetary gearing
Slew brake* ..... lockable multi disc
Drive internally toothed
Slewing speed ..... 8,5 min^{-1}
Slewing torque ..... 37,5 kNm
*straight forward slewing operations whilst on gradients due to foot locking pedal brake, if slew pressure exceeds 120 bar.

DRIVE

40 to special excavator axles with planetary gears in all four wheel hubs • all wheel drive • variable speed motor • double acting travel brake valve • directional control lever (forw./rev.) on the steering column or via the push button on the joy-stick • steering axle with automatic blocking of the pendulum axle • accelerator pedal control

TRAVELLING SPEED

Road and Rail operation
Inching ..... max. 1.0 km/h
Off-road (infinitely) ..... max. 5.0 km/h
On-road (infinitely) ..... max. 20 km/h

Rail guide system: track gauge 1435mm, other gauges on request

TYRES

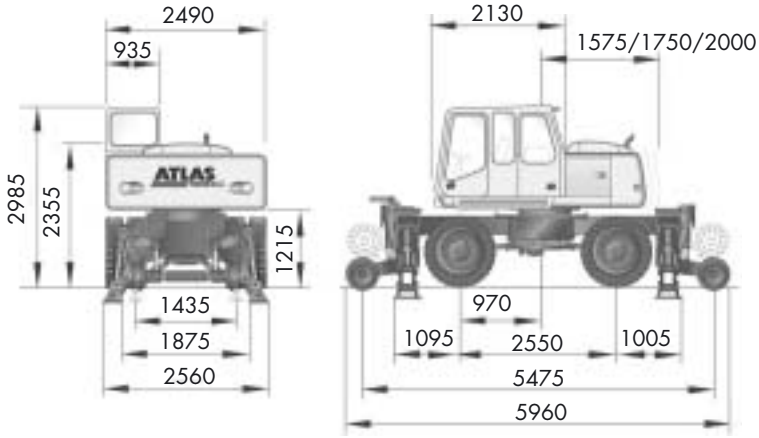
8-fold 10.00 - 20
(inner tyres with road profile and outer tyres with all terrain profile)

OPERATION WEIGHT

Operation weight 16.0 - 21.0 to

PRINCIPAL DIMENSIONS

Equipment A 41.5
with four-fold stabilizers



TRAVELLING POSITION WITH GRAB

Equipment A 41.4
without stabilizers

BOOMSYSTEMS

Base boom C 53.41 P
with jib C 53.46

Jib D 41.22

EQUIPMENT

Base unit		Weight/kg
A 41.4	ATLAS fully hydraulic rail-road excavator 1404 ZW without stabilizers slewing radius 1575 mm	13100
A 41.5	ATLAS fully hydraulic rail-road excavator with four-fold stabilizers slewing radius 1575 mm	15500

Additional equipment		
B 41.20	Heavy counterweight, slewing radius 1750 mm	400
B 41.20	Heavy counterweight, slewing radius 2000 mm	1000
B 41.39	Hydraulic mounting set for boom positioning ram	20
B 41.41	Isolating stop valve and overload warning device for lifting ram	10
B 41.23	Two-seated double cabin	300

Base and secondary booms		
C 53.41P	Base boom with two lift rams and one center working ram	1090
C 53.46	Secondary boom with one jib ram only for base boom C 53.41P	930

Jib		
D 41.22	Special jib for rail-road excavators, effective length 2200 mm	490

Bucket ram		
F 53.1	Crowd ram with linkage	165

Standard equipment:

- maintenance board for the filter system
- Hydraulic mounting set for grab operation and grab rotation
- fuel tank indicator
- battery main switch in the negative wire
- travelling with foot pedals
- emergency boom lowering accumulator
- sliding window in the cabin door
- windscreen washer
- central lubrication point
- infinitely adjustable steering column (height and tilt)
- cab prepared for radio installation
- storage area in cabin
- comfort seat with arm rests and lumbar support
- tool-box in the undercarriage
- sealed base boom pivot pins
- extended lubrication intervals (50 hours) for secondary boom and jib due to sealed pivot pins
- bracket to deposit the grab while travelling
- air condition cab
- air dryer for the compressor-system

Rail guide

Track gauge 1435mm, other gauges on request

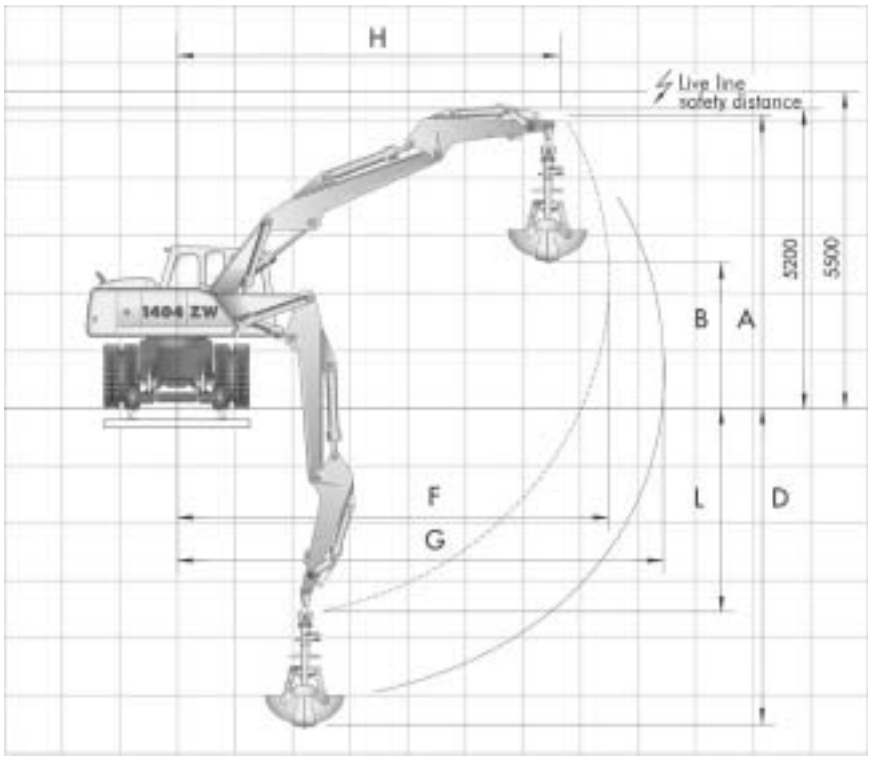
ATLAS CARSY (Computer Aided Rail Pressure System).
Automatic system which regulates and monitores the contact pressure of the rail guide wheels. During rail operation the wheels are automatically adjusted to the required pressures and corrected if necessary. Depending on the preselected operating mode and the position of the boom / jib, the individual guide wheel rams are pressurized or shut-off or hydraulically adjusted according to a predefined modus.

The front and rear rail wheels can be operated independently in order to ensure easy railing of the machine and to ensure permanent rail contact when passing the rail control boxes which survey the rail traffic.

Automatic self-diagnosis of the electronical system.
In case of emergency, failure of functions or total breakdown of the machine the excavator can still be de-railed.

DIGGING DIAGRAMM

ATLAS 1404 ZW

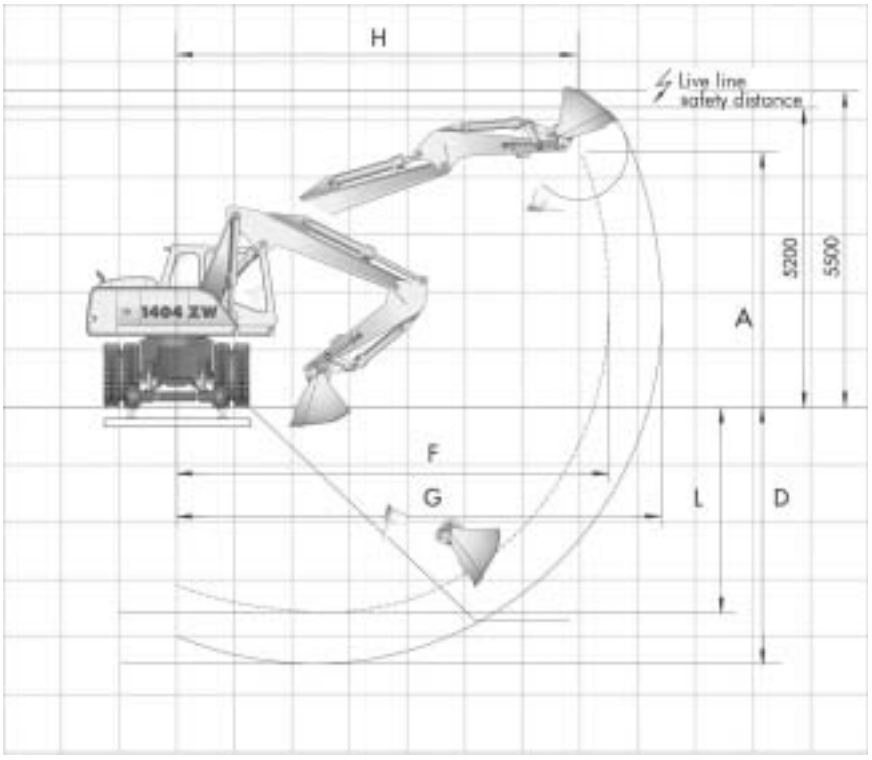


Jib D 41.22 - Effective length 2200 mm

Equipment: A 41.5, C 53.41 P, C 53.46, D 41.22, F 31, E 332, E 344

			Grab
A	Jib height	mm	4980
B	Dumping height	mm	3020
D	Max. digging depth	mm	5170
F	Max. outreach	mm	7400
G	Max. length of jib	mm	8250
H	Max. Armstellung	mm	6605
J	Max. outreach height	mm	–
L	Bucket pivot	mm	3205
	Grab	l	350
	Grab closing force	kN	73,0
	Operating weight	t	19,3

ATLAS 1404 ZW



Jib D 41.22 - Effective length 2200 mm

Equipment: A 41.5, C 53.41 P, C 53.46, D 41.22, F 53.1, G 649

			Bucket
A	Jib height	mm	4465
B	Dumping height	mm	–
D	Max. digging depth	mm	4300
F	Max. length of jib	mm	7400
G	Max. outreach	mm	8495
H	Max. outreach length	mm	6850
J	Max. outreach height	mm	5200
L	Bucket pivot	mm	3205
	Bucket	l	700
	Tear out force	kN	82
	Break out force	kN	130
	Operation weight	t	19,0

Slewing radius 1750 mm
four-fold stabilizers

Hook height m		3.0 m		4.0 m		5.0 m		6.0 m		7.0 m	
		l	q	l	q	l	q	l	q	l	q
5	a	–	–	5.3	5.3	5.4	4.6	4.9	3.4	–	–
	b	–	–	5.3	4.0	5.4	2.9	4.9	2.2	–	–
4	a	–	–	6.6	6.3	5.6	4.6	4.9	3.5	3.8	2.6
	b	–	–	6.6	3.9	5.6	2.9	4.9	2.2	3.8	1.6
3	a	–	–	7.5	6.1	6.0	4.5	5.1	3.5	4.6	2.6
	b	–	–	7.5	3.8	6.0	2.8	5.1	2.2	4.6	1.6
1	a	10.5	8.6	8.5	6.1	6.6	4.4	5.4	3.3	4.6	2.6
	b	10.5	4.9	8.5	3.7	6.6	2.8	5.4	2.1	4.6	1.5
0	a	11.6	8.4	8.5	5.9	6.6	4.3	5.4	3.2	4.2	2.5
	b	11.6	4.6	8.5	3.6	6.6	2.8	5.4	2.0	4.2	1.5
-1	a	12.1	8.2	8.6	5.8	6.7	4.2	5.4	3.2	–	–
	b	12.1	4.5	8.6	3.4	6.7	2.6	5.4	1.9	–	–
-2	a	12.4	8.1	8.9	5.7	6.6	4.1	–	–	–	–
	b	12.4	4.4	8.9	3.4	6.6	2.4	–	–	–	–

Slewing radius 2000 mm
four-fold stabilizers

Hook height m		3.0 m		4.0 m		5.0 m		6.0 m		7.0 m	
		l	q	l	q	l	q	l	q	l	q
5	a	–	–	5.3	5.3	5.4	5.0	4.9	3.8	–	–
	b	–	–	5.3	4.4	5.4	3.2	4.9	2.4	–	–
4	a	–	–	6.6	6.6	5.6	4.9	4.9	3.8	3.8	2.9
	b	–	–	6.6	4.3	5.6	3.2	4.9	2.5	3.8	1.8
3	a	–	–	7.5	6.6	6.0	4.9	5.1	3.8	4.6	2.9
	b	–	–	7.5	4.2	6.0	3.2	5.1	2.4	4.6	1.8
1	a	10.5	9.9	8.5	6.5	6.6	4.8	5.4	3.7	4.6	2.8
	b	10.5	6.0	8.5	4.1	6.6	3.1	5.4	2.3	4.6	1.8
0	a	11.6	9.9	8.5	6.5	6.6	4.7	5.4	3.6	4.2	2.8
	b	11.6	5.8	8.5	4.0	6.6	3.0	5.4	2.2	4.2	1.7
-1	a	12.1	9.7	8.6	6.3	6.7	4.6	5.4	3.5	–	–
	b	12.1	5.6	8.6	3.9	6.7	2.9	5.4	2.2	–	–
-2	a	12.4	9.7	8.9	6.3	6.6	4.5	–	–	–	–
	b	12.4	5.6	8.9	3.8	6.6	2.8	–	–	–	–

The stated maximum payload valume in metric tons (t) include a stability margion of 33 % or are calculated at 87 % of the hydraulic lifting force in accordance with ISO 10567 standard. These vardes apply at the jib end when the boom-jib system is in the optimal position.

Operation weight, slewing radius

Type	Base unit	Operation weight with adjustable equipment	Slewing radius mm
1404 K ZW	A 41.40	16,6 t	1575
1404 K ZW	A 41.40	17,0 t	1750
1404 K ZW	A 41.40	17,6 t	2000
1404 K ZW 4 stabilizers	A 41.50	19,0 t	1575
1404 K ZW 4 stabilizers	A 41.50	19,4 t	1750
1404 K ZW 4 stabilizers	A 41.50	20,0 t	2000

Approvals

Those positions marked * are obligatory for works on the rails of the German Railway (Deutsche Bahn).
Safety of the machine will be tested by the German Health & Safety Organization and compliance with the applicable instructions is approved by Deutsche Bahn AG and the German TÜV.

Slewing radius 1750 mm
four-fold stabilizers

Hook height m		3.0 m		4.0 m		5.0 m		6.0 m		7.0 m	
		l	q	l	q	l	q	l	q	l	q
5	a	–	–	5.3	4.7	5.4	3.4	4.2	2.5	–	–
	b	–	–	5.3	3.6	5.4	2.6	4.9	1.9	–	–
4	a	–	–	6.6	4.6	5.6	3.4	4.3	2.6	3.2	1.9
	b	–	–	6.6	3.5	5.6	2.6	4.9	1.9	3.8	1.4
3	a	–	–	7.5	4.5	5.5	3.3	4.3	2.5	3.2	1.9
	b	–	–	7.5	3.4	6.0	2.5	5.1	1.9	4.6	1.4
1	a	10.5	6.7	7.6	4.4	5.5	3.3	4.1	2.4	3.1	1.8
	b	10.5	4.8	8.5	3.3	6.6	2.4	5.4	1.8	4.6	1.3
0	a	11.6	6.4	7.7	4.3	5.4	3.1	4.0	2.3	3.1	1.8
	b	11.6	4.6	8.5	3.1	6.6	2.3	5.4	1.7	4.2	1.3
-1	a	12.1	6.2	7.7	4.1	5.3	3.0	3.9	2.3	–	–
	b	12.1	4.4	8.6	3.0	6.7	2.2	5.4	1.6	–	–
-2	a	12.4	6.1	7.6	4.1	5.2	2.9	–	–	–	–
	b	12.4	4.3	8.9	3.0	6.6	2.1	–	–	–	–

Slewing radius 2000 mm
four-fold stabilizers

Hook height m		3.0 m		4.0 m		5.0 m		6.0 m		7.0 m	
		l	q	l	q	l	q	l	q	l	q
5	a	–	–	5.3	5.2	5.4	3.8	4.6	2.8	–	–
	b	–	–	5.3	4.0	5.4	2.9	4.9	2.2	–	–
4	a	–	–	6.6	5.1	5.6	3.7	4.6	2.9	3.5	2.1
	b	–	–	6.6	3.9	5.6	2.9	4.9	2.2	3.8	1.6
3	a	–	–	7.5	5.0	5.9	3.7	4.6	2.8	3.5	2.1
	b	–	–	7.5	3.8	6.0	2.8	5.1	2.2	4.6	1.6
1	a	10.5	7.4	8.2	4.9	5.9	3.6	4.5	2.7	3.5	2.1
	b	10.5	5.4	8.5	3.7	6.6	2.8	5.4	2.1	4.6	1.5
0	a	11.6	7.1	8.2	4.8	6.0	3.5	4.4	2.6	3.4	2.0
	b	11.6	5.2	8.5	3.6	6.6	2.7	5.4	2.0	4.2	1.5
-1	a	12.1	6.9	8.3	4.6	5.9	3.4	4.3	2.0	–	–
	b	12.1	5.0	8.6	3.4	6.7	2.6	5.4	1.9	–	–
-2	a	12.4	6.9	8.3	4.6	5.7	3.3	–	–	–	–
	b	12.4	5.0	8.9	3.4	6.6	2.5	–	–	–	–

a = dozer lowered, b = in travel position, q = laterally, l = longitudinally

Additional and special equipment:

- Short deck machine (slewing radius 1575, 1750 or 2000 mm)*
- Double cabin*
- Night heater
- Narrow axles to enable the machine to fit into underground profiles
- Combined filters for easy maintenance
- Isolating stop valve and overload warning device for the lifting ram*
- Trailer coupling on the undercarriage*
- Manually operated emergency hand pump*
- Tow-bar*
- Special German Railway light system*
- Lift-limitation system, adjustable from the cabin*
- Slew-limitation system, adjustable from the cabin*
- Waggon brake system with special brake-valves, permissible trailer load is 120 to
- German Railway approval, incl. certificate and all necessary items such as Fire-distinguisher, first-aid-kit, grounding cable, red and white signal flag, Pocket lamp with red blind, macrophon, digital speedometer, oil collecting awning and oil binding agent*
- Beacon
- Working lights
- Radio
- Fuel pump
- Track guiding systems for track width up to 1700mm
- German TÜV approval

Those items marked * are mandatory to achieve the German Railway approval.

TEREX ATLAS

ATLAS-TEREX GmbH
Stedinger Straße 324 · D-27751 Delmenhorst
Tel. ++49 (0)42 21 / 49 10 · Fax ++49 (0)42 21 / 49 12 13
www.atlas-terex.de · E-Mail: Info@atlas-terex.de

Dealer:

Fink-Druck - 6043568 - 04/2003