

# BOMAG

## Operating instructions Maintenance instructions

*This manual is  
in accordance with  
product liability laws  
and safety regulations*

---

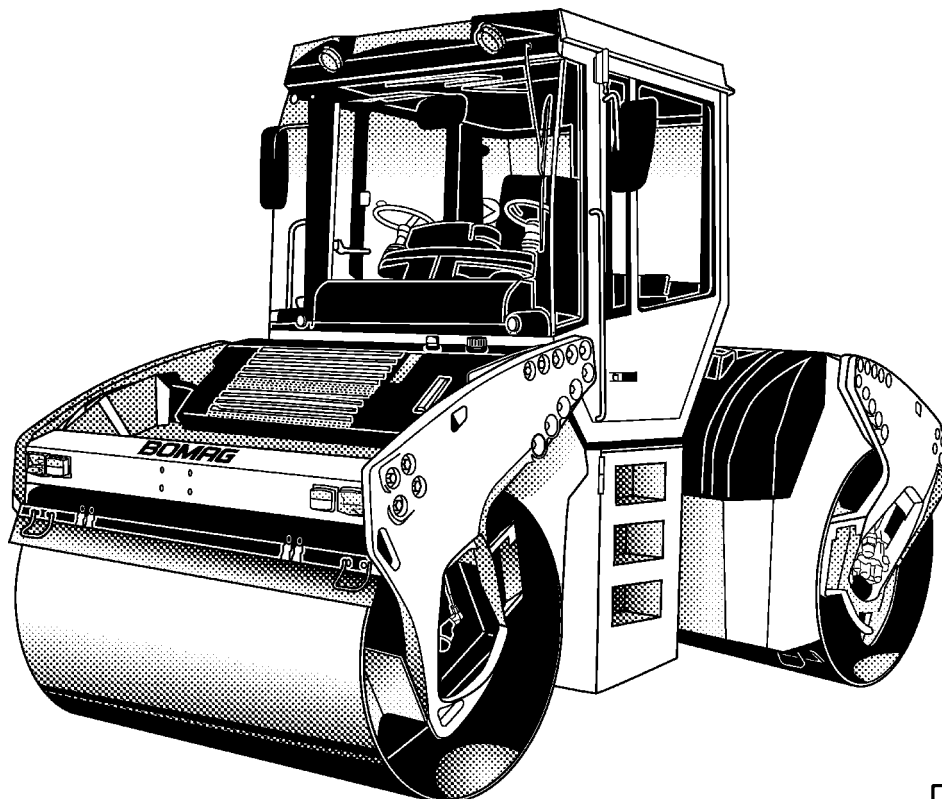
**BW 141 AD-4 / BW 151 AD-4**

---

**BW 151 AC-4 / BW 161 ADCV**

---

S/N 101 920 00 ....> S/N 101 920 01 ....>  
S/N 101 920 10 ....>



---

**Tandem Vibratory Roller**

---

If the machine is equipped with a battery :

**CALIFORNIA**

**Proposition 65 Warning**

Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**Wash hands after handling.**

If the machine is equipped with a diesel engine :

**CALIFORNIA**

**Proposition 65 Warning**

The engine exhaust and some of its constituents are known to the state of California to cause cancer, birth defects, and other reproductive harm.

**BOMAG machines are products from the wide range of BOMAG compaction equipment.**

**BOMAG's vast experience in connection with state-of-the-art production and testing methods, such as lifetime tests of all important components and highest quality demands guarantee maximum reliability of your machine.**

This manual comprises:

- Safety regulations
- Operating instructions
- Maintenance instructions
- Trouble shooting

Using these instructions will

- help you to become familiar with the machine.
- avoid malfunctions caused by unprofessional operation.

Compliance with the maintenance instructions will

- enhance the reliability of the machine on construction sites,
- prolong the lifetime of the machine,
- reduce repair costs and downtimes.

BOMAG will not assume liability for the function of the machine

- if it is handled in a way not complying with the usual modes of use,
- if it is used for purposes other than those mentioned in these instructions.

No warranty claims can be lodged in case of damage resulting from

- operating errors,
- insufficient maintenance and
- wrong fuels and lubricants.

**Please note!**

This manual was written for operators and maintenance personnel on construction sites.

Always keep this manual close at hand, e.g. in the tool compartment of the machine or in a specially provided container. These operating and maintenance instructions are part of the machine.

You should only operate the machine after you have been instructed and in compliance with these instructions.

Strictly observe the safety regulations.

Please observe also the guidelines of the Civil Engineering Liability Association "Safety Rules for the Operation of Road Rollers and Soil Compactors" and all relevant accident prevention regulations.

**For your own personal safety you should only use original spare parts from BOMAG.**

**In the course of technical development we reserve the right for technical modifications without prior notification.**

These operating and maintenance instructions are also available in other languages.

Apart from that, the spare parts catalogue is available from your BOMAG dealer against the serial number of your machine.

Your BOMAG dealer will also supply you with information about the correct use of our machines in soil and asphalt construction.

The above notes do not constitute an extension of the warranty and liability conditions specified in the general terms of business of BOMAG.

We wish you successful work with your BOMAG machine.

BOMAG GmbH

Printed in Germany

Copyright by BOMAG

## Foreword

### Please fill in

.....

Machine type (Fig. 1)

.....

Serial-number (Fig. 1 and 2)

.....

Engine type (Fig. 3)

.....

Engine number (Fig. 3)

### **i** Note

*Supplement the above data together with the commissioning protocol.*

*During commissioning our organisation will instruct you in the operation and maintenance of the machine.*

*Please observe strictly the safety regulations and all notes on risks and dangers!*

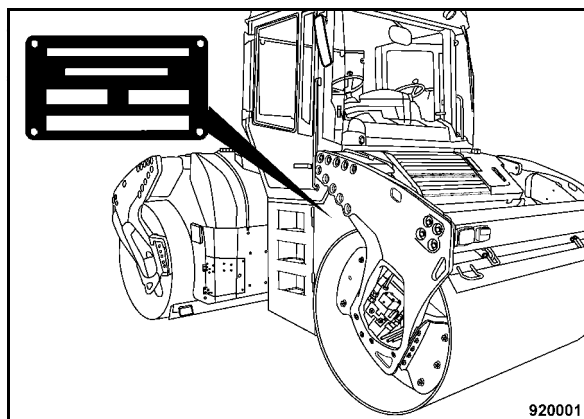


Fig. 1

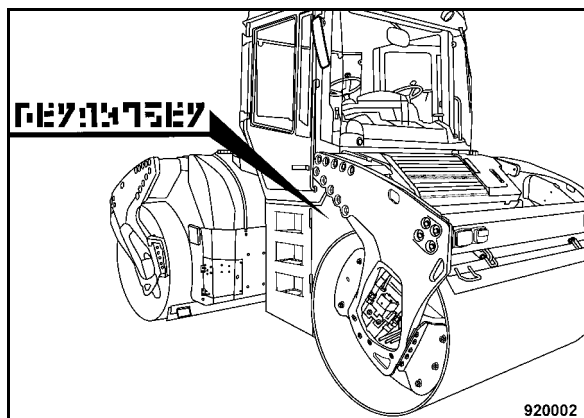


Fig. 2

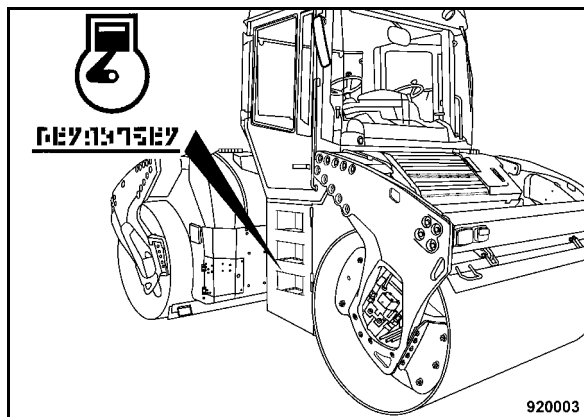


Fig. 3

<b>Technical Data</b>	<b>7</b>
<b>Safety regulations</b>	<b>13</b>
<b>Indicators and Controls</b>	<b>21</b>
3.1 General notes	24
3.2 Description of indicators and control elements	24
<b>Operation</b>	<b>39</b>
4.1 General notes	40
4.2 Tests before taking into operation	40
4.3 Starting the engine	41
4.4 Starting with jump wires	44
4.5 Driving the machine	45
4.6 Stopping the machine, operating the parking brake	47
4.7 Shutting the engine down	47
4.8 Switching the vibration on and off	48
4.9 Operating the crabwalk	51
4.10 Switching the pressure sprinkling system on and off	52
4.11 Sprinkling of edge cutter	53
4.12 Actuating the emergency stop switch	53
4.13 Adjusting the rotation stop for travel lever movement	54
4.14 Adjusting the driver's seat	54
4.15 Opening or closing the cabin window	55
4.16 Towing	55
4.17 Transport	57
<b>Maintenance</b>	<b>59</b>
5.1 General notes on maintenance	60
5.2 Fuels and lubricants	61
5.3 Fuels, lubricants and filling capacities	63
5.4 Running-in instructions	64
5.5 Maintenance chart	65
5.6 Check the engine oil level	68
5.7 Check, clean the water separator	68
5.8 Check the fuel level	69
5.9 Check the hydraulic oil level	70
5.10 Check the water level	70
5.11 Checking the emulsion level (AC-machine)	71
5.12 Check condition of engine oil and hydraulic oil cooler, clean	72
5.13 Change the engine oil	73
5.14 Change the engine oil filter cartridge	74
5.15 Servicing the air conditioning (summer operation)	74
5.16 Service the battery	77
5.17 Change the fuel filter cartridge	79

## Table of Contents

5.18	Change the fuel pre-filter cartridge	79
5.19	Change the oil in the drum drive gear	80
5.20	Checking, tensioning, lubricating the steering chain	81
5.21	Check the engine mounts	82
5.22	Check, tension, replace the V-belt	83
5.23	Checking, tensioning, replacing the refrigerant compressor V-belt	85
5.24	Changing the oil in the vibrator shaft tube	86
5.25	Check, adjust the valve clearance	87
5.26	Changing hydraulic oil and breather filter	89
5.27	Changing the hydraulic oil filter	90
5.28	Grease the articulated joint	91
5.29	Replace the injection valve	92
5.30	Check, clean, change the combustion air filter	94
5.31	Clean the water tank	96
5.32	Clean the water filter	97
5.33	Water sprinkler system, maintenance in the event of frost	98
5.34	Cleaning the emulsion filter (AC-machine)	99
5.35	Fill the provision tank for the windscreen washer system	100
5.36	Adjusting the scrapers	101
5.37	Checking the tire pressure	101
5.38	Tightening torques	102
5.39	Engine conservation	102
	<b>Trouble shooting</b>	<b>103</b>
6.1	General notes	104
6.2	Engine	105

## 1 Technical Data

## Technical Data

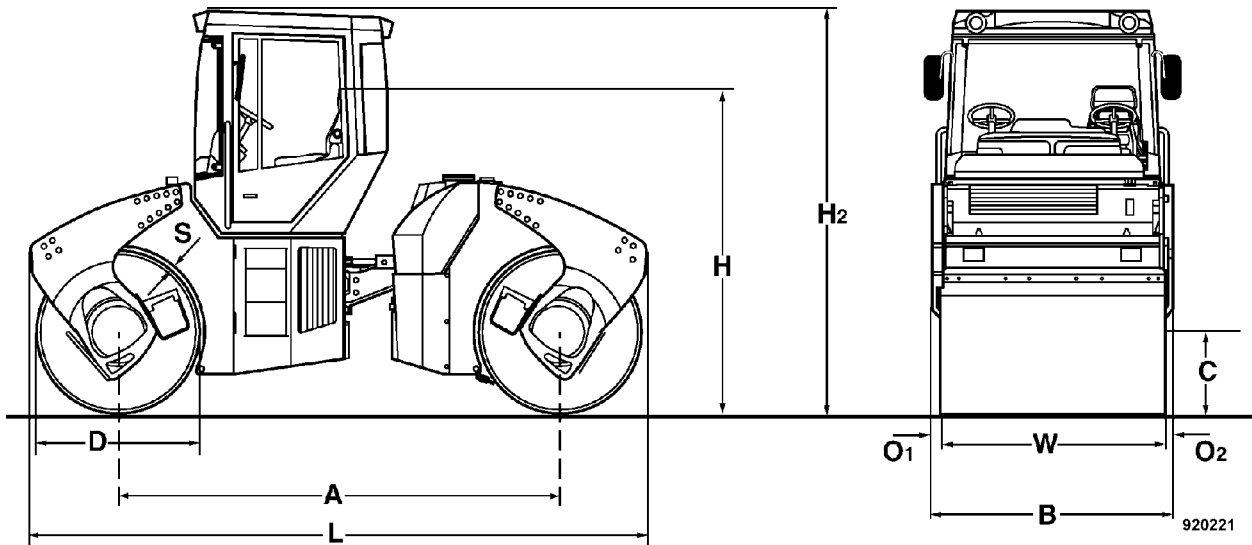


Fig. 4

Dimensions in mm	A	B	C	D	H	H2	K	L	O	W
<b>BW 141 AD-4</b>	3300	1660	710	1220	2320	3000	400	4520	80	1500
<b>BW 151 AD-4</b>	3300	1660	715	1220	2320	3000	400	4520	80	1680

\*

**BW 141 AD-4**      **BW 151 AD-4**

### Weights

Operating weight (CECE)	kg	7500	7900
Operating weight (CECE) with ROPS-cabin	kg	8000	8300
Front axle load (CECE)	kg	3700	3900
Rear axle load (CECE)	kg	3800	4000
Static linear load front (CECE)	kg/cm	24,7	23
Static linear load rear (CECE)	kg/cm	25,3	24

### Dimensions

Oscillation angle	+/-°	6	6
Inner track radius	mm	4490	4400

### Travel characteristics

Travel speed (1)	km/h	0-10,5	0-10,5
Max. gradability without/with vibration (soil dependent)	%	40/35	40/35



*		<b>BW 141 AD-4</b>	<b>BW 151 AD-4</b>
<b>Drive</b>			
Engine manufacturer		Deutz	Deutz
Type		BF4M 2011	BF4M 2011
Cooling		Oil	Oil
Number of cylinders		4	4
Rated power ISO 9249	kW (PS)	60	60
Rated speed	rpm	2500	2500
Electrical equipment	V	12	12
Battery	V/AH	12/100	12/100
Drive system		hydrost.	hydrost.
Driven drum		front + rear	front + rear
<b>Brakes</b>			
Service brake		hydrost.	hydrost.
Parking brake		mechanical	mechanical
<b>Steering</b>			
Type of steering		Oscill.-articul.	Oscill.-articul.
Steering operation		hydrost.	hydrost.
Steering angle	+/- degree	30	30
Crabwalk, lateral offsetting of drum (right/left)	mm	170	170
<b>Vibration system</b>			
Drive system		hydrost.	hydrost.
Frequency 1/2	Hz	40/60	40/60
Amplitude 1/2	mm	0,64/0,28	0,64/0,28
Vibrating drum		front + rear	front + rear
<b>Water sprinkler system</b>			
Type		Pressure	Pressure
Interval control		(+)	(+)
<b>Filling capacities</b>			
Fuel (diesel)	l	160	160
Water	l	800	800
Hydraulic oil	l	60	60
Engine oil	l	approx. 10	approx. 10

\* The right for technical modifications remains reserved

## Technical Data

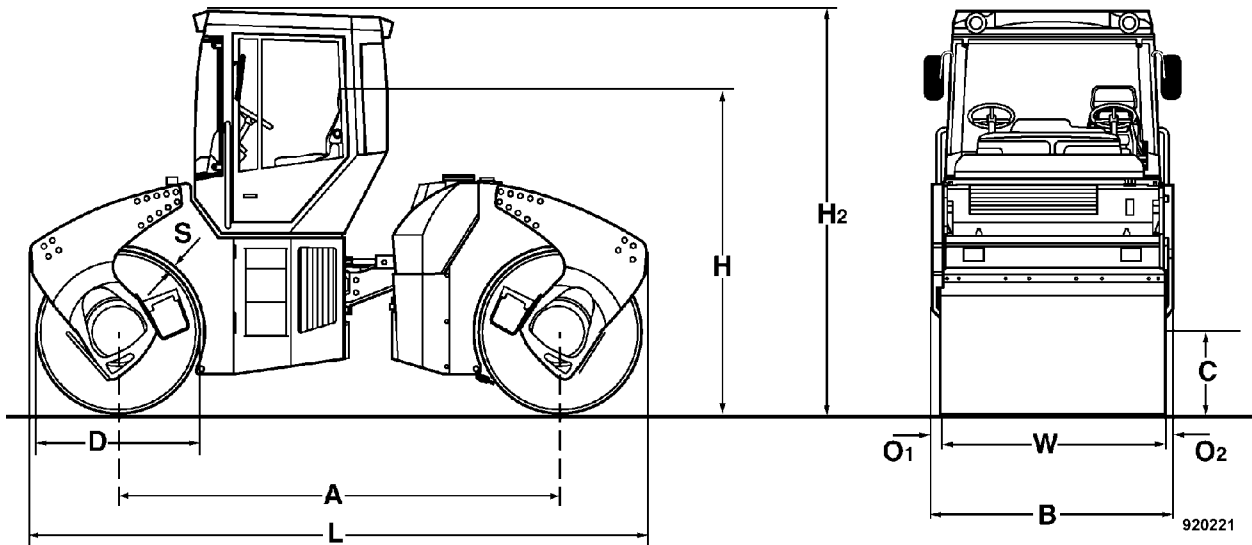


Fig. 5

Dimensions in mm	A	B	C	D	H	H2	K	L	O	W
<b>BW 151 AC-4</b>	3300	1660	715	1220	2320	3000	400	4520	80	1680
<b>BW 161 ADCV</b>	3300	1660	715	1220	2320	3000	400	4520	80	1680

\*

### BW 151 AC-4    BW 161 ADCV

#### Weights

Operating weight (CECE)	kg	8300	7900
Operating weight (CECE) with ROPS-cabin	kg	8750	8300
Front axle load (CECE), drum	kg	4150	3900
Rear axle load, (CECE) wheels	kg	4600	4000
Static linear load front (CECE)	kg/cm	27,7	23
Static linear load rear (CECE)			24

#### Dimensions

Oscillation angle	+/-°	6	6
Inner track radius	mm	4400	4400

#### Travel characteristics

Travel speed (1)	km/h	0-10,5	0-10,5
Max. gradability without/with vibration (soil dependent)	%	40/35	40/35

*		<b>BW 151 AC-4</b>	<b>BW 161 ADCV</b>
<b>Drive</b>			
Engine manufacturer		Deutz	Deutz
Type		BF4M 2011	BF4M 2011
Cooling		Oil	Oil
Number of cylinders		4	4
Rated power ISO 9249	kW (PS)	60	60
Rated speed	rpm	2500	2500
Electrical equipment	V	12	12
Battery	V/AH	12/100	12/100
Drive system		hydrost.	hydrost.
Driven drum		front + rear	front + rear
<b>Drums and tires</b>			
Drum width	mm	1680	
Number of tires		4	
Tire size		11,00-20 16 PR	
<b>Brakes</b>			
Service brake		hydrost.	hydrost.
Parking brake		mechanical	mechanical
<b>Steering</b>			
Type of steering		Oscill.-articul.	Oscill.-articul.
Steering operation		hydrost.	hydrost.
Steering angle	+/- degree	30	30
Crabwalk, lateral offsetting of drum (right/left)	mm	170	170
<b>Vibration system</b>			
Drive system		hydrost.	hydrost.
Frequency 1/2	Hz	40/60	40/60
Amplitude 1/2	mm	0,60/0,31	0,64/0,28
Vibrating drum		front	front + rear
<b>Water sprinkler system</b>			
Type		Pressure	Pressure
Interval control		(+)	(+)
<b>Filling capacities</b>			
Fuel (diesel)	l	160	160
Water	l	800	800
Hydraulic oil	l	60	60
Engine oil	l	approx. 10	approx. 10

\* The right for technical modifications remains reserved

## Technical Data

The following noise and vibration data acc. to

- EC Machine Regulation edition 98/37/EC and
- the noise regulation 2000/14/EG, noise protection guideline 2003/10/EC
- Vibration Protection Regulation 2002/44/EC

were determined during conditions typical for this type of equipment and by application of harmonized standards.

During operation these values may vary because of the existing operating conditions.

### Noise value

**sound pressure level on the operator's stand:**

BW 141 AD-4  $L_{pA} = 80.0$  dB(A) BW 161 AD-4, determined acc. to ISO 11204 and EN 500

BW 151 AD-4  $L_{pA} = 79,7$  dB(A) BW 161 AD-4, determined acc. to ISO 11204 and EN 500

BW 151 AC-4  $L_{pA} = 87.0$  dB(A) determined acc. to ISO 11204 and EN 500

BW 161 ADCV  $L_{pA} = 79.7$  dB(A) determined acc. to ISO 11204 and EN 500

**Guaranteed sound capacity level:**

BW 141 AD-4  $L_{WA} = 106$  dB(A) determined acc. to ISO 3744 and EN 500

BW 151 AD-4  $L_{WA} = 106$  dB(A) determined acc. to ISO 3744 and EN 500

BW 151 AC-4  $L_{WA} = 106$  dB(A) determined acc. to ISO 3744 and EN 500

BW 161 ADCV  $L_{WA} = 105$  dB(A) determined acc. to ISO 3744 and EN 500

### Danger

Wear your personal noise protection means (ear defenders) before starting operation.

### Vibration value

**Vibration of the entire body (driver's seat)**

The weighted effective acceleration value determined according to ISO 7096 is  $\leq 0.5$  m/sec<sup>2</sup>.

**Hand-arm vibration values**

The weighted effective acceleration value determined according to EN 500/ISO 5349 is 2,5 m/sec<sup>2</sup>.

## **2 Safety regulations**

**Buy Now**



Our support email:

[ebooklibonline@outlook.com](mailto:ebooklibonline@outlook.com)