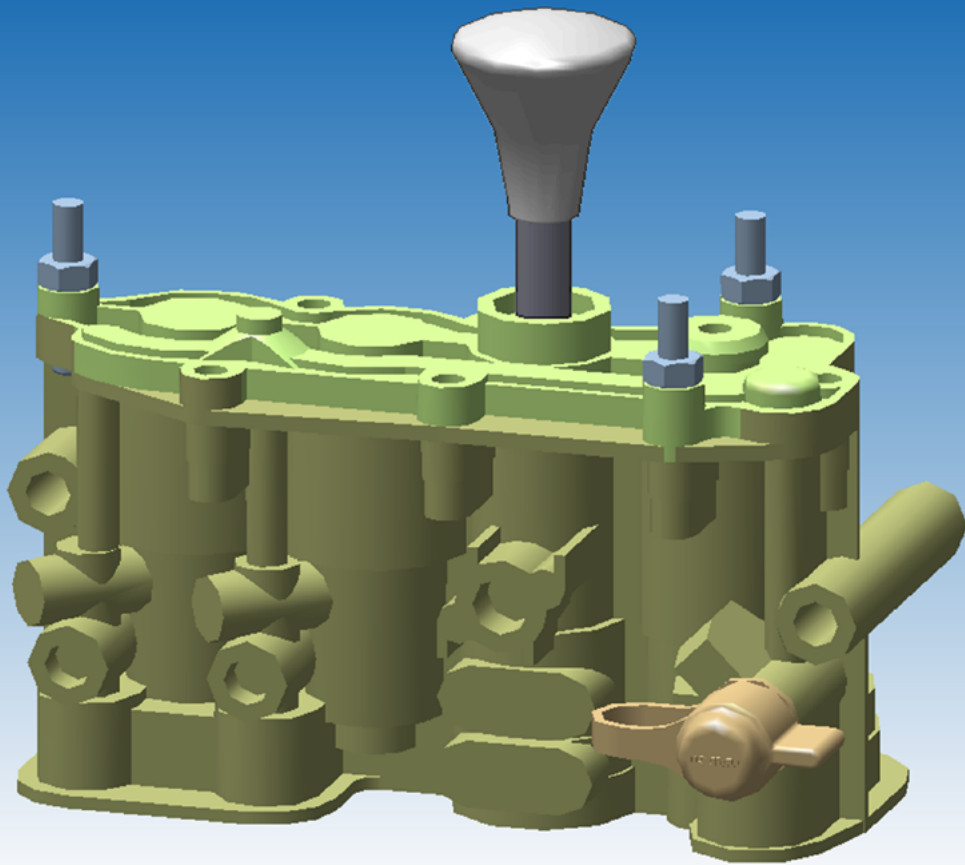


LIFT AXLE CONTROL VALVE

463 084 000 0

TESTING AND ADJUSTMENT INSTRUCTION



LIFT AXLE CONTROL VALVE

463 084 000 0

TESTING AND SETTING INSTRUCTION

Edition 1

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1 Disclaimer

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2 Symbols used

 WARNING	<p>Specifies a possible hazardous situation Not observing the safety instruction can result in series injuries or be lethal.</p> <ul style="list-style-type: none"> – <i>Follow the instructions in this warning to avoid any injuries.</i>
 CAUTION	<p>Specifies a possible hazardous situation Not observing the safety instruction can result in slight to medium-serious injuries.</p> <ul style="list-style-type: none"> – <i>Follow the instructions in this warning to avoid any injuries.</i>
CAUTION	<p>Specifies possible material damage Not observing the safety instruction can lead to material damage.</p> <ul style="list-style-type: none"> – <i>Follow the instructions in this warning to avoid any material damage.</i>

 Important instructions, information, or tips that you should always observe.



Reference to information on the Internet

- Action step
 - ⇒ Consequence of an action
- List

3 Safety instructions

Observe all required provisions and instructions:

- It is essential that you read this testing and adjustment instruction carefully before carrying out the test and do observe their content in order to avoid personal injury and/or material loss.
- Keep the testing and adjustment instruction for future use.
- WABCO will only guarantee the security, reliability and performance of their products and systems if all information in this publication is adhered to.
- Always follow the specifications and instructions of the vehicle manufacturer.
- Observe all accident regulations of the respective company as well as regional and national regulations.
- Only specially trained staff in first-rate workshops are to undertake testing and adjusting.
- Heed the additionally required documents, see chapter “4 General hints for testing” on page 9.

Note the following instructions for safe test implementation:

- Only start testing after you have read and understood all information required for testing.
- Do keep to the content of this testing and adjustment instruction during the actual test.
- Wear protective gear (protective goggles, protective footwear, etc.).
- Test sample on calibrated test bench only.
- In cases of uncertainty, only use test values stipulated by the vehicle manufacturer.
- If the test values cannot be attained, then re-set the test specimen.
- Undo the locking screws, hoses and components of the test specimen only when the respective lines have been vented.
- Before starting each test, make sure that the switch cocks are in their correct normal position (see mobile test bench operating instructions).
- Do not install a repaired device in the vehicle unless it has passed the following tests.

4 General hints for testing

This is a testing and adjustment instruction for the lift axle control valve 463 084 000 0.



Fig. 1 Lift axle control valve 463 084 000 0

This instruction specifies those requisite tests and adjustments which need to be undertaken after a device is repaired.

Additional documents required

PUBLICATION TITLE	PUBLICATION NUMBER
Mobile Test Bench - Operating Instruction	815 980 215 3
General Repair and Test Hints	815 xx0 109 3

*Language code xx: 01 = English, 02 = German, 03 = French, 04 = Spanish, 05 = Italian, 06 = Dutch, 07 = Swedish, 08 = Russian, 09 = Polish, 10 = Croatian, 11 = Romanian, 12 = Hungarian, 13 = Portuguese (Portugal), 14 = Turkish, 15 = Czech, 16 = Chinese, 17 = Korean, 18 = Japanese, 19 = Hebrew, 20 = Greek, 21 = Arabic, 24 = Danish, 25 = Lithuanian, 26 = Norwegian, 27 = Slovenian, 28 = Finnish, 29 = Estonian, 30 = Latvian, 31 = Bulgarian, 32 = Slovakian, 34 = Portuguese (Brazil), 98 = multilingual, 99 = non-verbal



The additionally required documents are here:

- Open the WABCO website:
<http://www.wabco-auto.com>
- Click the link *Product Catalogue INFORM*.
- Enter the publication number into the *Product Number* field.
- Click the *Start* button.
- Click the *Publications* radio button.

Please note that the publications are not always available in all language versions.

Equipment and tools required

- Mobile test bench 453 197 003 0
- 6 adapters
- 1 T-piece
- 3 additional hoses
- Workholding fixture for clamping the test specimen in a vice
- Allen key, size 3 mm
- Suitable leak detector

5 Test

WARNING

Danger of accidents

A faulty test specimen can adversely affect the vehicle's function.

- *Do not install a repaired device in the vehicle unless it has passed the following tests.*


5.1 External evaluation

- Examine the test specimen for signs of any visible damage.
- Visually check all connections of the test specimen as to being unimpeded.

5.2 Preparations

Test bench

- Place the mobile test bench onto a workbench so that the case cover faces upwards.

 The calibration of the installed pressure gauges is only valid for a horizontal setup of the mobile test bench.

- Make sure that all switch cocks are in their normal position (closed).
- Limit the supply pressure to 8 bar.

CAUTION

Risk of injury

Non-fixed test specimens could fall from the workbench and lead to injuries in the process.

- *Secure the test specimen to prevent it from falling.*

CAUTION


Test specimen damage

Any direct clamping in a vice could damage the test specimen and this, in turn, would impair its function.

- *Never directly clamp the test specimen in the vice. Firstly secure it to a suitable workholding fixture.*

- Fix the test specimen in the workholding fixture.
- Clamp the test specimen into the vice with the aid of the workholding fixture.

5.3 Test specimen connection

 CAUTION	<p>Risk of injury Injuries may arise from loose plug connections during the compressed air test.</p> <ul style="list-style-type: none"> – Ensure that the plug connections at the test bench and test specimen are securely inserted.
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- Connect the test specimen to the test bench connecting points of the mobile test bench. In so doing, heed the connection diagram.

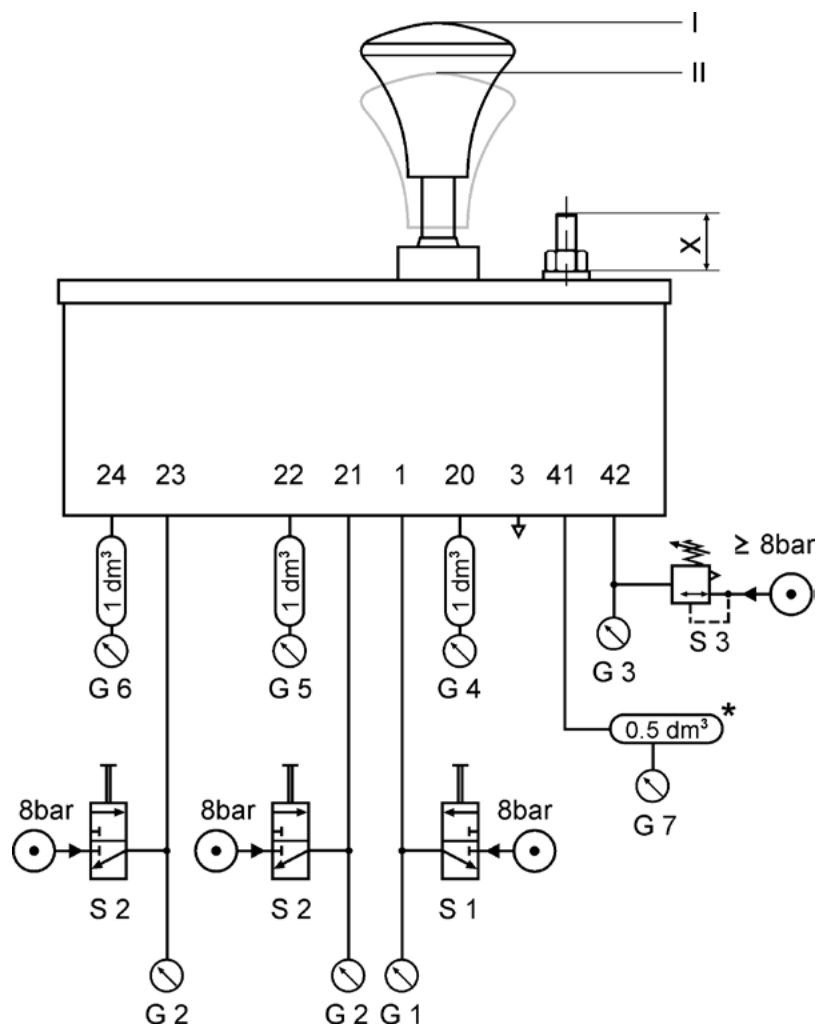


Fig. 2 Connection diagram for the lift axle control valve

KEY	
G	Pressure gauge
S	Switch cock

5.4 Carrying out the test

– Perform the following test sequence in the specified order.

Supply pressure is 8 bar max. / 7.0 bar min.

V stands for precision control valve.

POS.	TEST STEP	G7	G3	G4	G1	G2	G5	G6	COMMENT
1	Button: Position II $x \leq 4.5$ mm.	0	0	0	0	0	0	0	Test connection 42 actuated.
1.1	Open S1.	0	0	8	8	0	0	0	
1.2	Open S2.	8	0	8	8	8	0	0	Pressure rise at G7 to 5 bar in 10 ± 4 sec.
2	Open S3. At V3 set a 4 bar pressure.	8	4	8	8	8	0	0	
3	Slowly use the screw to adjust until the test specimen switches (test specimen vented; button switches to Position I).	8	4	0	8	8	8	8	The pressure rapidly drops at G4 and rises at G5 and G6.
4	Close S3. Set unloader valve V3 to 0 bar.	8	0	0	8	8	8	8	
5	Press button (Position II)	8	0	8	8	8	0	0	The pressure rapidly rises at G4 and falls at G5 and G6. Test specimen vented.
6	Open S3. Have the pressure slowly rise at V3 until the test specimen switches.	8	4 ± 0.1	0	8	8	8	8	Correct adjustment if the test value at G3 is not right and repeat Pos. 2.5 to 2.7 until the test value is reached at G3.
6.1	Check venting (Connection 3) as to tightness.	8	4 ± 0.1	0	8	8	8	8	<p>⚠ CAUTION Danger of accidents A leaky test specimen can adversely affect the vehicle's function.</p> <ul style="list-style-type: none"> – Check the test specimen with a suitable leak detector. – Only install seal-tight devices into the vehicle.
7	Secure the adjustment screw with sealing wax and fit the cap on.	8	4 ± 0.1	0	8	8	8	8	
8	Open S3. At V3 set a 8 bar pressure.	8	8	0	8	8	8	8	

POS.	TEST STEP	G7	G3	G4	G1	G2	G5	G6	COMMENT
9	Check test specimen for tightness.	8	8	0	8	8	8	8	<p>⚠ CAUTION Danger of accidents A leaky test specimen can adversely affect the vehicle's function.</p> <ul style="list-style-type: none"> – Check the test specimen with a suitable leak detector. – Only install seal-tight devices into the vehicle.
10	Close S3. Set unloader valve V3 to 0 bar.	8	0	0	8	8	8	8	
11	Press button (Position II)	8	0	8	8	8	0	0	
12	Open S3. At V3 set a 1 bar pressure.	8	1	8	8	8	0	0	
12	Check test specimen for tightness.	8	1	8	8	8	0	0	<p>⚠ CAUTION Danger of accidents A leaky test specimen can adversely affect the vehicle's function.</p> <ul style="list-style-type: none"> – Check the test specimen with a suitable leak detector. – Only install seal-tight devices into the vehicle.
13.1	Close S2. Press button (Position I). Close S3. Undo screw fitting at Connection 42.	0	0	0	8	0	0	8	Test connection 42 not actuated.
13.2	Open S2.	8	0	0	8	8	8	8	
13.3	Check Connection 42 as to tightness.	8	0	0	8	8	8	8	<p>⚠ CAUTION Danger of accidents A leaky test specimen can adversely affect the vehicle's function.</p> <ul style="list-style-type: none"> – Check the test specimen with a suitable leak detector. – Only install seal-tight devices into the vehicle.
13.4	Close S2.	0	0	0	8	0	0	0	The pressure rapidly drops at G7 (pressure drop at G5 to 3 bar in ≤ 0.5 sec.): a) to 3 bar in ≤ 1 sec. b) after 5 sec. to ≥ 0.1 bar

POS.	TEST STEP	G7	G3	G4	G1	G2	G5	G6	COMMENT
14	Close S1 and S2.	0	0	0	0	0	0	0	<p>Before disconnecting the hose connection, vent the device to 0 bar.</p> <p>⚠ CAUTION Risk of injury Possible injury from pressurised hoses.</p> <ul style="list-style-type: none"> – Undo the locking screws, hoses and components of the test specimen only when the respective test bench lines have been vented.
15	Remove test specimen from the test facility.	0	0	0	0	0	0	0	

<p>⚠ WARNING</p>	<p>Danger of accidents A faulty test specimen can adversely affect the vehicle's function.</p> <ul style="list-style-type: none"> – Check complete system for its proper function after any replacement or any repair. – Test-drive vehicle after any equipment installation into it.
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- Document test, e.g. in a test log.



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