WP-05

Balancer

Printed Matter No. 9836 9796 01

Valid from Serial No. A3650001
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Product Instructions

WP 05-1	8202077800
WP 05-3	8202077801
WP 05-4	8202077802
WP 05-5	8202077803
WP 05-6	8202077804

⚠ WARNING

Read all safety warnings and instructions
Failure to follow the safety warnings and instructions may result in electric shock, fire and/or serious injury.
Save all warnings and instructions for future reference

Atlas Copco

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Product information

General information

⚠ WARNING Risk of Injury

Failure to follow all the instructions may result in electric shock, fire and/or serious personal injury.

Ensure that you read and understand all instructions:

- Safety Information delivered together with the different parts of the system.
- Product Instructions for installation, operation and maintenance of the different parts of the system.
- All locally legislated safety regulations with regard to the system and parts thereof.

Save all safety information and instructions for future reference.

Safety signal words

The safety signal words Danger, Warning, Caution, and Notice have the following meanings:

DANGER	DANGER indicates a hazardous situation which, if not avoided, **will** result in death or serious injury.
WARNING	WARNING indicates a hazardous situation which, if not avoided, **could** result in death or serious injury.
CAUTION	CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE	NOTICE is used to address practices not related to personal injury.

Warranty

Contact the Atlas Copco sales representative within your area to claim a product. Warranty will only be approved if the product has been installed, operated and overhauled according to the Operating Instructions.

Please also see the delivery conditions applied by the local Atlas Copco company.

ServAid

ServAid is a portal that contains the most up-to-date product information such as:

- Safety Information

- Installation, Operation and Service Instructions

- Exploded views

It is also possible to order spare parts, service tools and accessories for the product of your choice directly from ServAid. It is continuously updated with information about new and redesigned products.

If translations exist, you can view content in the language of your choice. ServAid offers advanced search functionality of our entire product range and can also be used to display information about obsolete products.

ServAid is available on DVD and on the website:
https://servaid.atlascopco.com

For further information contact your Atlas Copco sales representative or e-mail us at:
servaid.support@se.atlascopco.com

Safety Data Sheets MSDS/SDS

The safety data sheets describes chemical products sold by Atlas Copco.

For more information, consult the website:
www.atlascopco.com
Choose **Products - Safety Data Sheets**, and follow the instructions on the page.

Country of origin

Please refer to the information on the product label.

Dimensional drawings

For information about the dimensions of a product, see the Dimensional drawings archive:

http://webbox.atlascopco.com/webbox/dimdrw

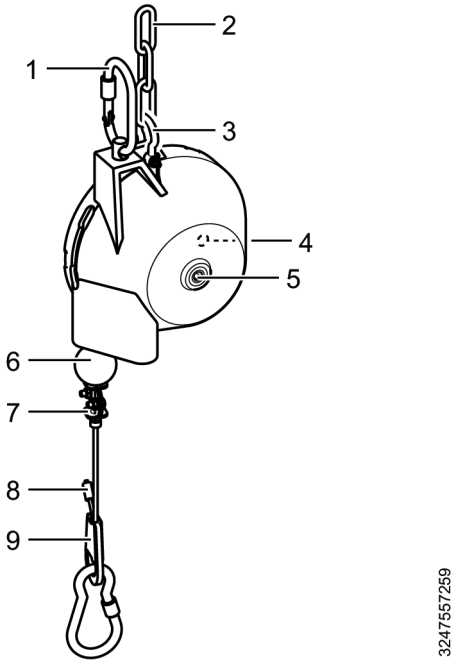
Overview

Application

The balancer is used for relieving the weight of hand-held tools and makes the use of the hand-held tools much easier.

The retraction forces remains nearly constant over the whole wire extension length. The load range differs depending on model.

Main components



1. Suspension hook
2. Auxiliary chain
3. Auxiliary chain attachment
4. Drum lock
5. Endless screw
6. Wire stop buffer
7. Wire clamp
8. Ferrule
9. Wire wedge

Technical data

Static test coefficient = 1.5

Product no.	Lifting capacity kg	Cable/hose travel m	Weight kg
8202077800	0.4-1.2	1.6	1.3
8202077801	1.2-2.6	1.6	1.4
8202077802	2.6-3.8	1.6	1.5
8202077803	3.8-5.2	1.6	1.5
8202077804	5.2-6.5	1.6	1.5

Installation

Installation instructions

Installing the balancer

Before installation make sure that the balancer suspension attachment and the auxiliary chain fixture is safe and stable.

1. Install the balancer so it can easily be aligned and moved in any direction.
2. Install the supplied auxiliary chain.

   ⓘ The permitted maximum falling distance is 100 mm.
3. Make sure that the auxiliary chain is not too long or too short to interfere with the balancer across its entire working area.
4. Attach the workload to the snap hook at the cable end.
5. Adjust the workload, see “Adjusting the workload”.

Adjusting the workload

The balancer is factory set to carry a maximum workload.

To adjust the balancer to carry different workloads, turn the endless screw on the balancer in minus (-) or plus (+) direction.

- (-) for lighter workload
- (+) for heavier workload

NOTICE Risk of Endless Screw Damage
The endless screw can be damaged if it is loosened or tightened past the end positions.

► Stop turning the endless screw at the end positions.

Adjusting the workload

1. Attach the workload on the snap hook.
2. Turn the endless screw in minus (-) or plus (+) direction to adjust the counterbalance weight.

   ⓘ To turn the endless screw use:
   - a hexagon key for WP05; press and turn
   - a socket wrench for WP10, WP20, WP30 and WP40

Setting the initial tension of the balancer

The initial tension of the balancer need to be set if the spring has been released during service.

To get the maximum initial tension of the balancer, turn the endless screw in the plus (+) direction x number of times, refer to the table below.

8202 0778 00	x = approx. 11
8202 0778 01	x = approx. 5
8202 0778 02	x = approx. 6
8202 0778 03	x = approx. 5
8202 0778 04	x = approx. 4

Adjusting the wire length

The balancer is delivered with a long wire so that the wire length can be adjusted to the on-site circumstances.

ⓘ The minimum distance between the wire clamp and the wire wedge is 100 mm.

1. Remove the clamp from the wire wedge.
2. Adjust the wire length.
3. Make sure that the distance between the wire clamp and the wire wedge is no shorter than 100 mm.
4. Put the clamp back on the wire wedge.
5. Tighten the wire end with the supplied ferrule or a clamp in accordance with DIN 3093 Pts. 1 to 3.
6. Cut the remaining wire end straight off.

Adjusting the wire extension length

1. Loosen the wire clamp.
2. Move the wire clamp and wire stop buffer to the wanted position.
3. Tighten the wire clamp.

⚠ WARNING Risk of Wire Damage

Risk of wire damage if the wire extension length is extended too far.

- ► Do not pull on the wire when the end stop is reached.

Locking the wire drum

The drum lock blocks the wire drum. When the wire drum is locked it is possible to replace the wire without decreasing the spring tension.

⚠ WARNING Risk of Injury

A change of the workload weight can cause unexpected movements and injury.

- ► Do not change the workload weight when replacing the wire.

1. Fully retract the wire.
2. Lock the drum by pushing a 5 mm pin or similar into the drum cover hole.
3. Make sure that the drum is locked correctly.

   ⓘ Before unlocking the drum, make sure that the workload is attached and the balancer adjusted to prevent unexpected movements.
4. Unlock the drum by pulling the pin out from the hole in the drum cover.

Service

Maintenance instructions

Servicing and inspection

ⓘ Servicing and inspections must be done by an authorized workshop or a qualified service technician.

Replace the balancer if the following parts are damaged or significantly worn:

- Wire
- Suspension
- Safety chain
- Snap hook

Signs of damage on the wire can be:

- Broken stands
- Cage type bulging
- Flattened places or abrasion

Interval	Action
Daily	Visually inspect: • suspension • safety chain • snap hook • wire
Monthly	Visually inspect the equipment for damage and wear. Lubricate with non-corrosive grease: • external moving parts • friction points on suspension • snap hook
Yearly	Visually inspect the equipment for damage and wear.

Replacement kits

The following information refer to our replacement kits.

NOTICE Risk of Injury and Damage

Damaged or worn parts may cause injury or damage.

► Replace worn or damaged parts. Only use original parts from approved distributors or service centres.

ⓘ Always follow the product instructions when replacing parts!

Replacing the wire

It is possible to replace the wire without releasing the spring and without dismantling the balancer.

1. Fully retract the wire and make sure that the wire end is visible in the balancer housing slot.

2. Lock the wire drum.

   NOTICE Risk of Snap Back
   An accidental release of the wire drum can cause a snap back of the wire and cause damage and serious injury.

   ► Make sure that the wire drum is correctly locked.
3. Remove the workload.
4. Pull out the wire end through the balancer housing slot by pushing the opposite wire end.
5. Remove the locking bush.
6. Pull out the wire through the balancer housing opening.
7. Push the replacement cable through the balancer housing opening and further out through the balancer housing slot.
8. Attach the locking bush.
9. Push the wire back into the housing.
10. Attach the workload.

    ⚠ **WARNING Risk of Injury**

    A change of the workload weight can cause unexpected movements and injury.

    ► Do not change the workload weight when replacing the wire.
11. Unlock the wire drum.

Replacing the spring

Disassembly

1. Retract the wire.
2. Disconnect the workload.
3. Disconnect the balancer from the suspension attachment.
4. Turn the endless screw on the drum in the minus (-) direction to fully decrease the spring tension.

   ⓘ The spring fracture safety device is now locking the wire drum.
5. Remove the housing cover.
6. Remove the wire drum cover.
7. If necessary adjust the spring tension for full relief.
8. Push the spring fracture safety device pin fully outwards and lock it with the supplied strip.

   ⓘ WP05-1 and WP05-3 do not have a spring fracture safety device.
9. Remove the spring.
10. If a different spring with another tension is used, replace the nameplate that specifies the type details and the load range.

Assembly

1. Put the replacement spring in position.
2. Make sure that the outer and inner hooks of the spring fits into the slots in the wire drum.
3. Release the spring fracture safety device.

4. Put the wire drum cover back in position and fasten it.

   ⓘ Use new washers for the drum cover and apply a small amount of threadlocker to the screws.

5. Put the housing cover back in position and fasten it.

   ⓘ Use new washers for the housing cover and apply a small amount of threadlocker to the screws.

6. Adjust the spring tension, see “Adjusting the load”.

Replacing the balancer housing

Dismantling

1. Retract the wire.
2. Disconnect the workload.
3. Disconnect the balancer from the suspension attachment.
4. Turn the endless screw in the minus (-) direction to fully decrease the spring tension.
5. Remove the balancer cover.
6. Remove the wire drum cover.
7. If necessary, adjust the spring tension for full relief.
8. Push the spring fracture safety device pin fully outwards and lock it with the supplied strip.

   ⓘ WP05-1 and WP05-3 do not have a spring fracture safety device.

9. Remove the spring.
10. Remove the circlip on the shaft using a pair of circlip pliers.
11. Remove the wire drum.
12. Unwind and remove the wire.
13. Remove the suspension.
14. Replace the balancer housing.

Assembling

1. Attach the suspension on the balancer housing.
2. Push in the wire through the balancer housing opening and further out through the balancer slot.
3. Attach the locking bush.
4. Put the wire drum back in position.
5. Install the circlip on the shaft using a pair of circlip pliers.
6. Wind up the wire by turning the wire drum.
7. Install the spring.
8. Make sure that the outer and inner hooks of the spring are fitted correctly into the slots in the wire drum.
9. Release the spring fracture safety device.
10. Attach the wire drum cover.
11. Attach the balancer cover.
12. Set the initial spring tension by turning the endless screw in the plus (+) direction.

Replacing the wire drum

Dismantling

1. Retract the wire.
2. Disconnect the workload.
3. Disconnect the balancer from the suspension attachment.
4. Turn the endless screw in the minus (-) direction to fully decrease the spring tension.
5. Remove the balancer cover.
6. Remove the wire drum cover.
7. If necessary, adjust the spring tension for full relief.
8. Push the spring fracture safety device pin fully outwards and lock it with the supplied strip.

   ⓘ WP05-1 and WP05-3 do not have a spring fracture safety device.
9. Remove the spring.
10. Remove the circlip on the shaft using a circlip pliers.
11. Remove the wire drum.
12. Unwind and remove the wire.
13. Replace the wire drum.

Assembling

1. Push in the wire through the balancer housing opening and further out through the balancer slot.
2. Attach the locking bush.
3. Put the wire drum back in position.
4. Install the circlip on the shaft using a circlip pliers.
5. Wind up the wire by turning the wire drum.
6. Install the spring.
7. Make sure that the outer and inner hook of the spring are fitted correctly into the slots in the wire drum.
8. Release the spring fracture safety device.
9. Attach the wire drum cover.
10. Attach the balancer cover.
11. Set the initial spring tension by turning the endless screw in the plus (+) direction.

Original instructions

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