

Adjusting the wheel brakes of your **COBRA** – trailer

Important: If the grease cap is marked 'AAA', it is a self-adjusting brake (new since 2015). Check only the brake shoe pads.

Please adjust the wheel brakes of your trailer if:

- the trailer runs hard against the car while decelerating or braking.
- and / or the brake does not work.
- and / or the angle of the activated hand brake lever goes up to more than 90° relative to the tongue when you push back the trailer by hand

Attention: When the trailer runs up hard nearly **never** the overrunning damper is out of function! Mostly the only reason are the wheel brakes.

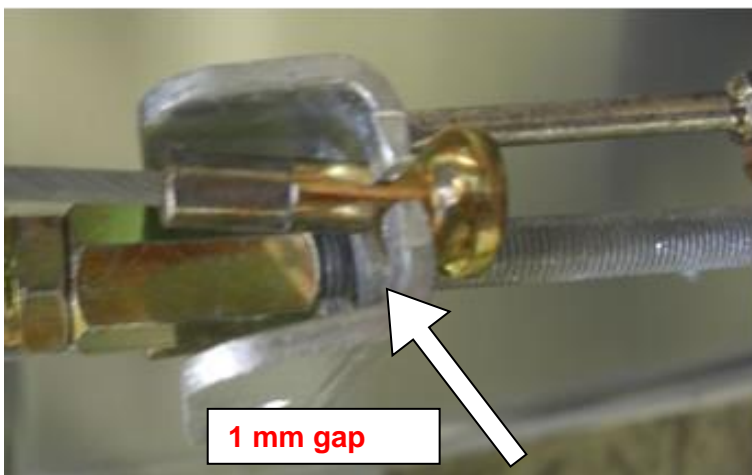
The sign of a bad overrunning damper is oil (not grease!) on the underside of its housing or on the ground!

After adjusting the wheel brake, the overrunning system will work properly again!



Test: Activate the hand brake and push the trailer back by hand.

If the hand brake lever – as seen on the picture – moves back **more than 90°** it is time to adjust the wheel brakes. Lift the trailer and **secure with stands!** Release the hand brake lever to the front/down (brake open).



Important: Make sure the brake rod is properly adjusted! The gap (arrow) between the long nut and the U-shaped equalizing lever has to be **1mm** with released hand brake! Make sure, that the brake rod is not bent! Straighten if needed!



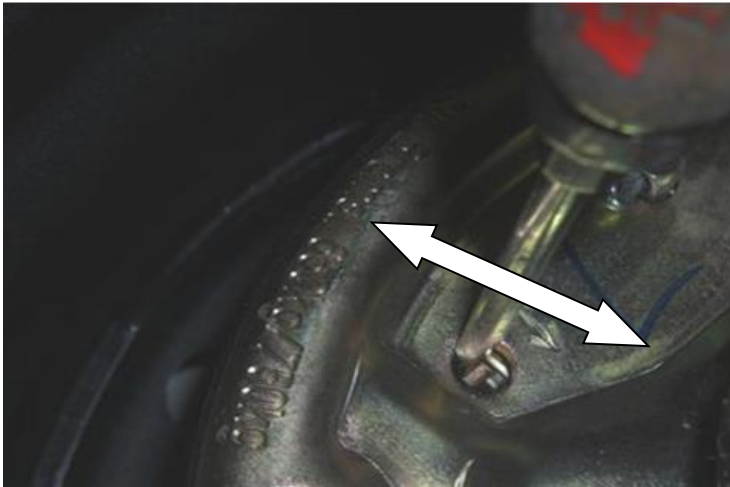
Open both the green plugs on the brake plate with a small screwdriver (rear of the brake drum).
On this picture, you see the left side brake.



Through the outside hole you can inspect the condition of the brake lining. If the lining is worn to the end of the chamfer, it has to be changed because it is **not possible any more** to adjust the brakes. In case you order brake parts from us, please give us the impressed numbers from the brake plate, the number of the axle's data plate and the quantity of the wheel bolts in the brake drum (4 or 5 bolts).



Through the second, inner hole you can see the star wheel for adjusting the brakes. The impressed arrow on the side of the hole shows the direction for adjusting.



See on this picture how to move the star wheel arrow wise with a screwdriver. While adjusting, turn the wheel slowly in driving direction. Continue until the wheel blocks. Then move the star wheel back against the arrow (still turning the wheel in driving direction) until you can hear and feel that the brake lining is very, very smoothly touching the brake drum. If the lining is worn unequal, you may have to do this again several times.

Attention: The arrow shows a different direction on the left and right side! Take care for the right direction!

On very old, worn out or overheated linings a proper adjustment may not be possible any more. If the wheel bearings have play it is also not possible to adjust the brakes properly.



After the trailer is on its wheels again, please check the correct adjustment. Activate the hand brake and push the trailer back by hand. During you are pushing the lever has to move back from itself until it is **90°** to the tongue (**not more than 90°!**).

Attention! Danger!

A wrong adjusted brake can cause overheating, failure of the wheel bearings, melting of the axle stump and the loss of wheels! Danger of serious accidents with injured or killed people! Never work on brakes when you are not trained and when never done before! Adjusting the brakes needs only a couple of minutes in a car shop and you are sure that it is done properly. You will find a list of ALKO contractors of Europe in the Internet!

Please check also the smooth-running of the bowden cables and the free moving of the brake rod. Check if the wheel bearings have too much play or if they make noise. And check the age and the condition of your tires. Do not forget to serve the greasers on the overrunning mechanism, at least once a year!

Summing up:

If the trailer runs up hard, it is very, very seldom a matter of the overrunning damper! In most cases the brake will work smoothly after adjusting the wheel brakes!
You cannot adjust brakes by altering the brake rod! Altered, wrong adjusted brake rods lead to malfunction of the overrunning brake, the automatic back retrieve and the hand brake!
Most likely, an altered and wrong adjusted or blocked brake rod is the matter of every malfunction on brakes!
Danger of serious accidents!

Please check from time to time by pushing back the trailer with activated handbrake if brake adjustment is needed. With new trailers or new lined brakes, it might be necessary already after approx. 1000 km since in the beginning they are quickly grinding in.

Please check before each departure, also after fuel or food stops if the handbrake is released. Driving with activated handbrake quickly causes overheating.
After the grease of the bearings is evaporated and your wheels are smoking, it is too late to be sorry.

A word to the automatic reverse

On snow, ice, sand or wet grass the necessary friction for the automatic reverse may not be reached. Then the wheel may block and slide, sometimes jerkily, over the surface.
This happens because the system always works in the easiest way. If there is friction between the wheel and the surface the overrunning mechanism will be engaged when the wheel turns backwards, if there is not enough friction it is easier for the system not to activate.
The handbrake overruns the automatic reverse. So, the handbrake works by backing up, too. A gas spring in the handbrake lever takes care for that.

Safety warning!

A wrong adjustment of the brakes or the brake rod will cause malfunction. This can lead to the loss of wheels, to serious accidents, a damaged trailer and car, to serious injuries and death!

For your safety:

If you are not sure that you can do this adjustment properly, please let a mechanic do this work!
Do not hesitate to contact **COBRA** for further questions!

Locating failures

If it is not possible to adjust the brakes properly (hand brake lever shoes more than 90° at final test):

Is the length of the brake rod correctly adjusted?

The length of the brake rod is adjusted for life time from the factory. But sometimes people mess around with it while trying to adjust the brakes via the rod. This always causes malfunction. If this has happened you need to adjust it to the original position. See picture no 2: The gap (arrow) between the long nut and the U – shaped equalizing lever has to be 1mm with released hand brake!

Are your brake pads worn down?

Replace them (see above).

Are your brake pads worn differently?

This happens while driving with unadjusted brakes. Replace them.

Your bearings have too much play?

At trailers older than ca 1990 get the bearing adjusted in a shop or replaced. At newer trailers with compact bearings this is not possible. Change the brake drums complete with bearing.

Are the brake drums worn down?

Replace them.

Too much friction at the bowden cables?

The bowden cables can get removed without opening the brakes. Screw off the connection at the equalizing lever, at newer trailers just unhinge. Screw then off the other end at the axle: Loose the triangle socket by removing ring of the wrap. Unhinge now inside.

Check for bends, damage and easygoing. Moving must be possible easily with 2 fingers. Replace if necessary.

Of course, there are more possibilities for a malfunction of the brakes. Don't hesitate to visit an authorized service center in case of problems.

Always remember: the brakes are a vital important part of your trailer!