

Ergonomic 891 E

Congratulations on your new exercise device.

Designed by MONARK EXERCISE AB, Sweden.

Monark has been the world's leading manufacturer of high ergometers and exercise cycles for more than 40 years.

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GENERAL

It is important that you keep your exercise device clean and properly lubricated. Most important is to protect the chromed and zined parts, but also painted parts benefit from the same protection. When cleaning and lubricating, be sure to check that all screws and nuts are properly tightened. Be sure that all moving parts as crank and flywheel is working normal and that no unnormal play or sound exists. I.e. play in bearings causes fast wearing and with that follows a highly reduced lifetime.

PLEASE NOTE: The production number of your exercise device is placed according to fig 3, page 4.

WARRENTY

As on any quality product there may be an exceptional fault due to material or manufacture. If such a fault should arise on your exercise cycle, please return to the place of purchase for necessary repair. Monark products and parts are guaranteed against defects in materials and workmanship for a period of one year from the initial date of purchase of the unit.

Parts found to need replacement due to normal wear and tear, such as brake belts, are not covered. This guarantee covers parts only, not labor costs associated with the repair.

This guarantee does not apply to cases of abuse or vandalism, nor does it extend to any injury or loss to person or property caused directly or indirectly by any Monark products.

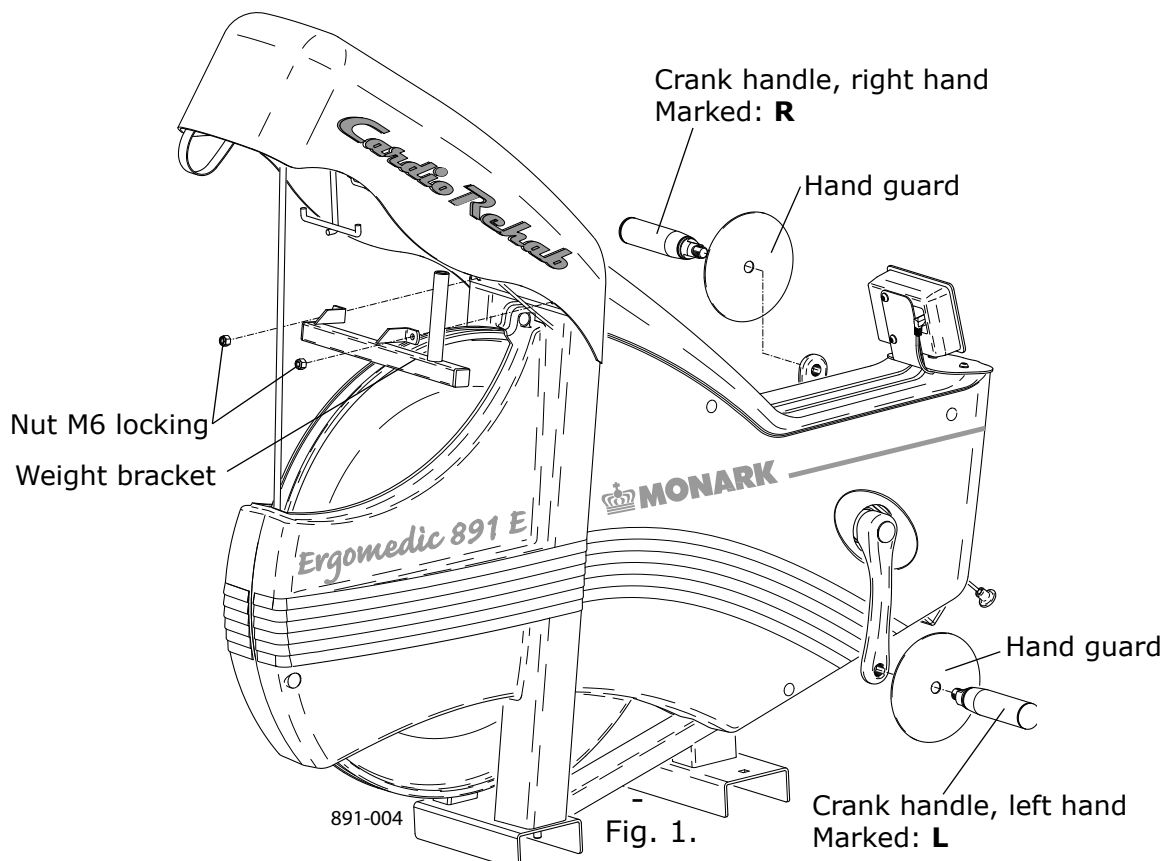
In the event of a defect in material or workmanship during the warranty period, Monark Exercise will repair or replace (at its option) the product. Monark Exercise will do so at its expense for the cost of materials but not for labour or shipping

PARTS BELOW ARE NOT ASSEMBLED

Assemble crank handle marked R (Right) on to the right hand side. The crank handle axle has a right hand thread and must be threaded onto the crank clockwise.

Assemble crank handle marked L (Left) on to the left hand side. The crank handle axle has a left hand thread and must be threaded onto the crank counter clockwise.

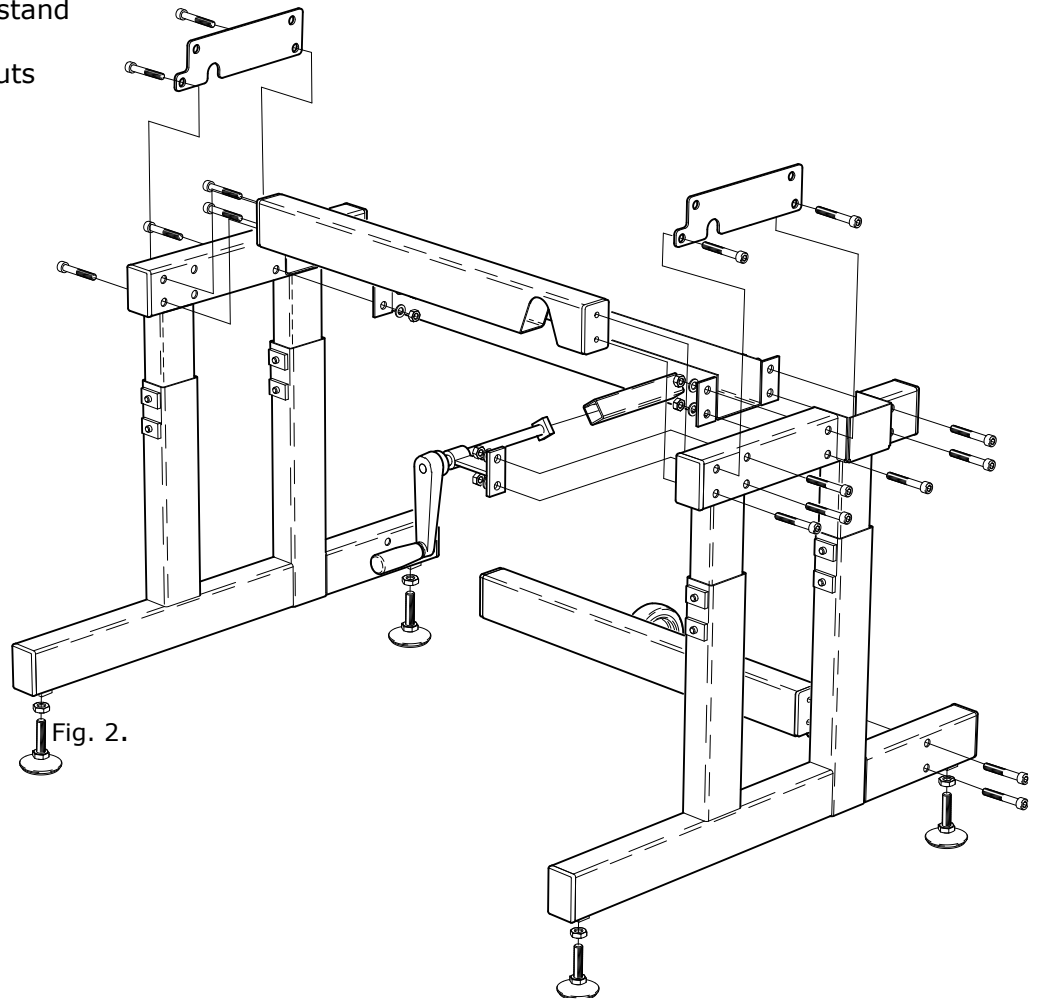
Untighten the two nuts on the frame for equipment. mount the weight holder and remount the nuts tightly.



ASSEMBLY

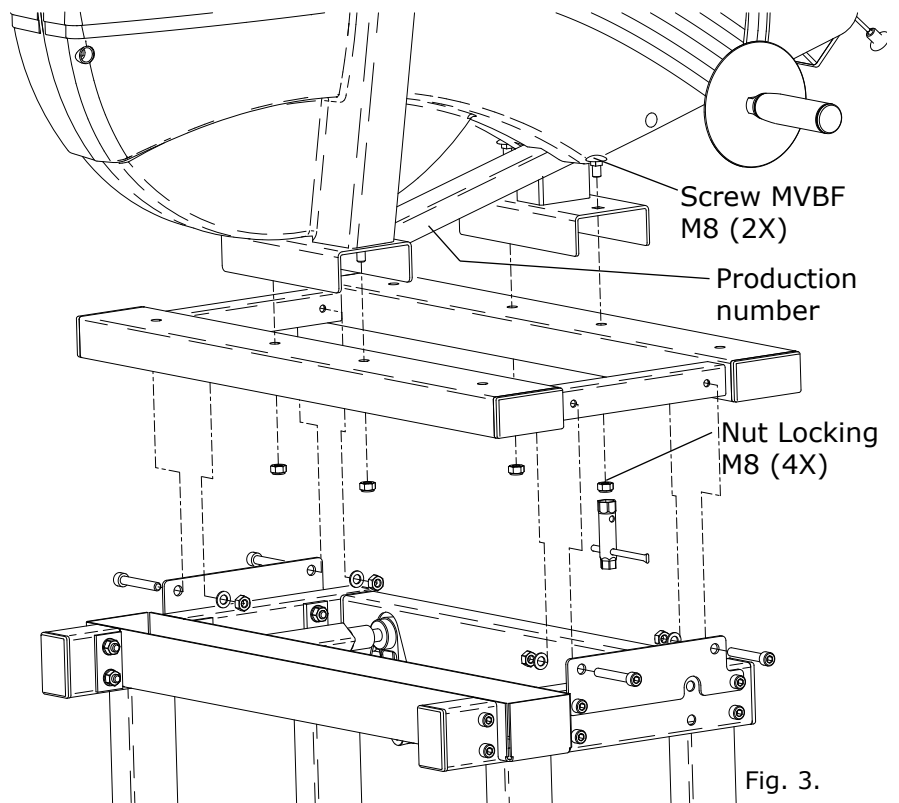
Assemble the stand

Assemble first the support stand as shown to the right. Mount all the screws and nuts before you tightend them.



Mount the device on the stand

Assemble first the device to the help frame with four locking nuts and two screws (MVBF M8) as shown to the right. Mount the help frame to the support stand with four screws, washer and nuts.



OPERATING INSTRUCTIONS

NOTE!

When using the Cardio Rehab 891E severe physical tension can occur. Therefore is it recomendable that persons, who are not used to fitness training or don't feel well, contacts a doctor/physician for consultations.

Monark Exercise Ergometer device Model 891E is a test device, applied with a braking system, where the brake force can be adjusted with weights on a weight carrier.

Weights are available ni 0,1 kg, 0,5 kg and 1,0 kg.

Note: 0,1 kg is the minimum weight, which is the weight of the weight carrier. The weight carrier can also be placed in an upper level and then will no braking force be applied. Disengage by pushing the knob. See fig below.

When pedaling the subject stores energy in the flywheel. This is braked by means of a brake belt wich runs around the bigger part of the brake of the flywheel. The workload is changed either by using other pedaling speed or increasing or decreasing the tension of the brake belt against the flywheel by means of the workload tension device.

NOTE!

At transport the tension device should be somwhat tightened to prevent the brake belt from falling off the flywheel.

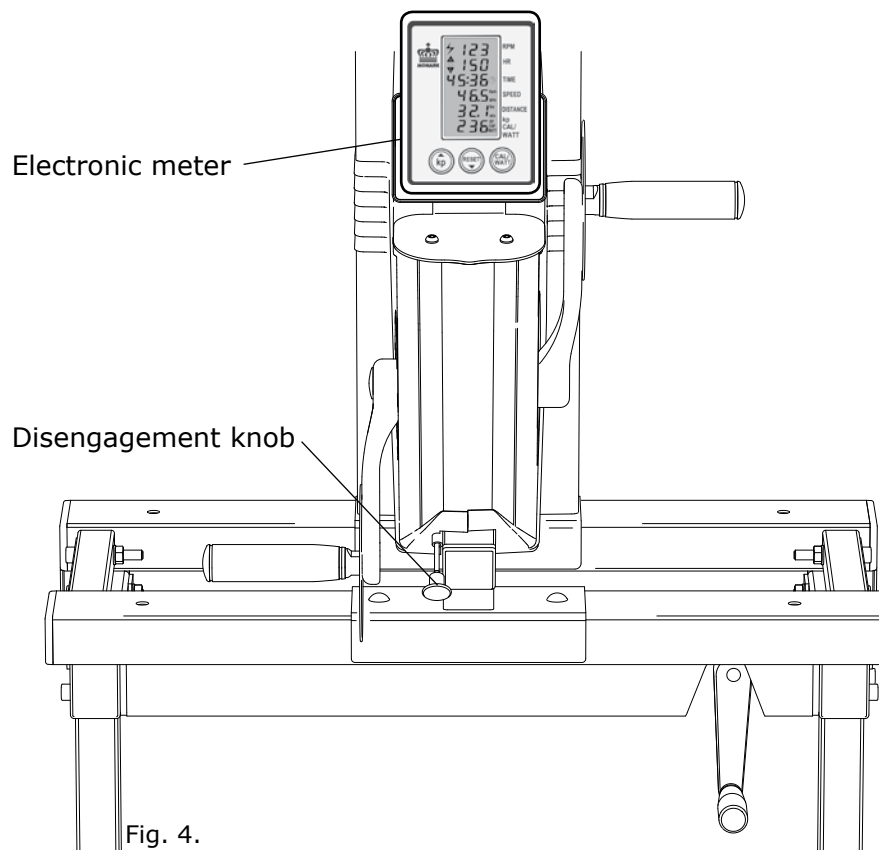


Fig. 4.

OPERATING INSTRUCTIONS

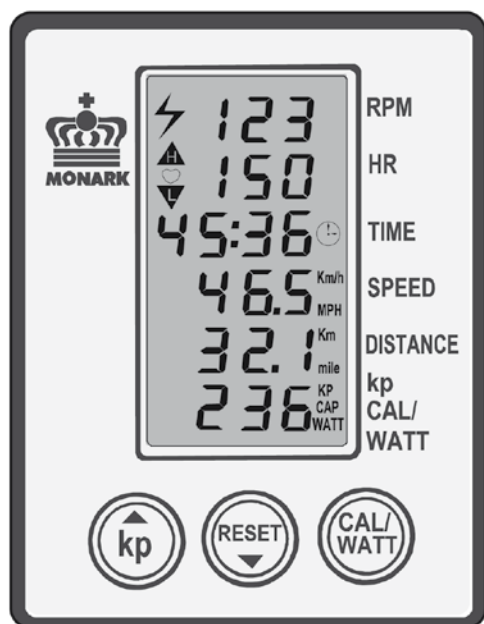


Fig. 8

ELECTRONIC METER

SPECIFICATIONS:

RPM:	0 - 199	pedalrev./min
HR:	50 - 240	bpm
TIME:	0:00 - 99.59	min:sek
SPEED:	0 - 99	km/h or mph
DISTANCE:	0.0 - 99.9	km or mile
FORCE	0.0 - 7.0	kp
CALORIES	0 - 999	kcal
WATT	0 - 7 x rpm	watt

Batteries:	1.5 V x 2	AA(R6)
Storing temp.:	-10°C - +60°C	
Operating temp.:	0°C - 50°C	

Setting KM or MILE

Km and km/h is the default setting from the factory.

If you want to make a setting in mile take the meter out of the panel.

Turn off the meter by taking out one battery.

On the back side is a switch with two settings - 1 and ON. See fig. 9.

1 is equal to km and km/h and is the default setting.

ON is equal to mile and mph. Choose position and install the battery again.

Put the meter back again into the panel.

FUNCTION

Press any button or move the pedal to turn on the meter.

At the display for heart rate (HR) a ♥ is lit which means that the meter is trying to find a pulse signal from an external source (chestbelt with electrodes, our part.no 9339-91).

If the meter can not find such a signal this HR function is automatically turned of after 30 seconds. When the function is turned off the ♥ symbol is not lit any more.

The heart rate function can be turned on again by pressing a button.

Timer starts automatically when pedals are moved. Meter values for Time, Distance and Calories can be set to zero by pressing the RESET button for more than 2 seconds.

To get correct readings for calories and watts the kp value on the electronic meter has to be set to the same value as the workload that is the weight of the basket including the weights in it.

Example: The workload is 3 kg (weight basket 1 kg + 2 x 1kg weight). Press the kp button to the left on the meter. The lower display window is now flashing and showing figures in kp. Increase or decrease in steps of 0.1 kp by pressing the kp button(▲) or the RESET button(▼) until the reading is corresponding with the actual or desired kp values (workload) from the weight basket. After that press the CAL/WATT button to either show the CAL or WATT figures.

The watt reading in the display is depending on the pedalling speed. The watts can accordingly be adjusted by increasing or decreasing the pedalling speed.

Calories are calculated all the time.

Do not expose the fitness computer to direct sunlight or extremely high temperature. Do not use any dissolvents when cleaning. Use only dry cloth.

OPERATING INSTRUCTIONS

Replacement of batteries

Pull the connector out of the housing and take the lid panel off.

The batteries, 2 x 1,5 V, size AA (R6), which are placed in a holder on the backside of the panel, can easily be changed.

Replacement of brake belt/cord

Remove the front cover over the weight carrier by loosening the screws on each side of the cover.

Take the return strap, see fig. 8, 9, and lift up the weight basket until it locks in its upper position.

Loosen the cord/belt bracket, see fig. 9, and take away the brake from the tension hub.

Loosen or cut away the knot or tie up the knot at the other end of the belt. After that take the belt from the device.

When assembling a new brake cord/belt, first enter one end into the hole in the tension hub, see fig. 7, and tie a knot and let the knot fall into the bigger part of the hole.

Then assemble the new belt exactly as the old one.

NOTE: When replacing the brake cord/belt it is recommended to clean the brake surface. See BRAKE SURFACE - BRAKE BELT.

Adjusting the brake cord/belt tension

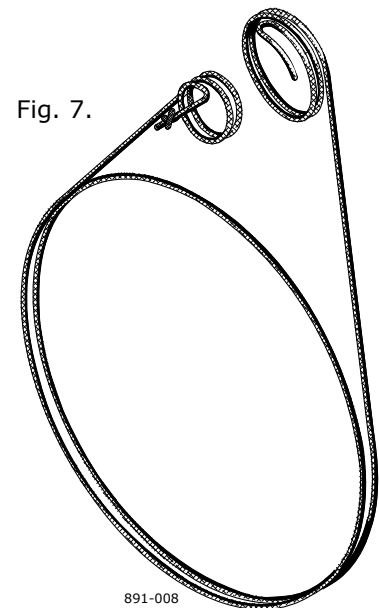
At first check that the brake belt is lying correct on the flywheel surface.

Put 1 kg in the weight basket. Rotate the flywheel by hand. The basket shall now lift up so the distance to the flywheel is at least 40 mm, and maximum 80 mm. If this is the case, the brake belt has to be loosened or tightened a little at the tension center hub. If the basket is too low shorten the belt somewhat and if the basket is too high lengthen the cord somewhat.

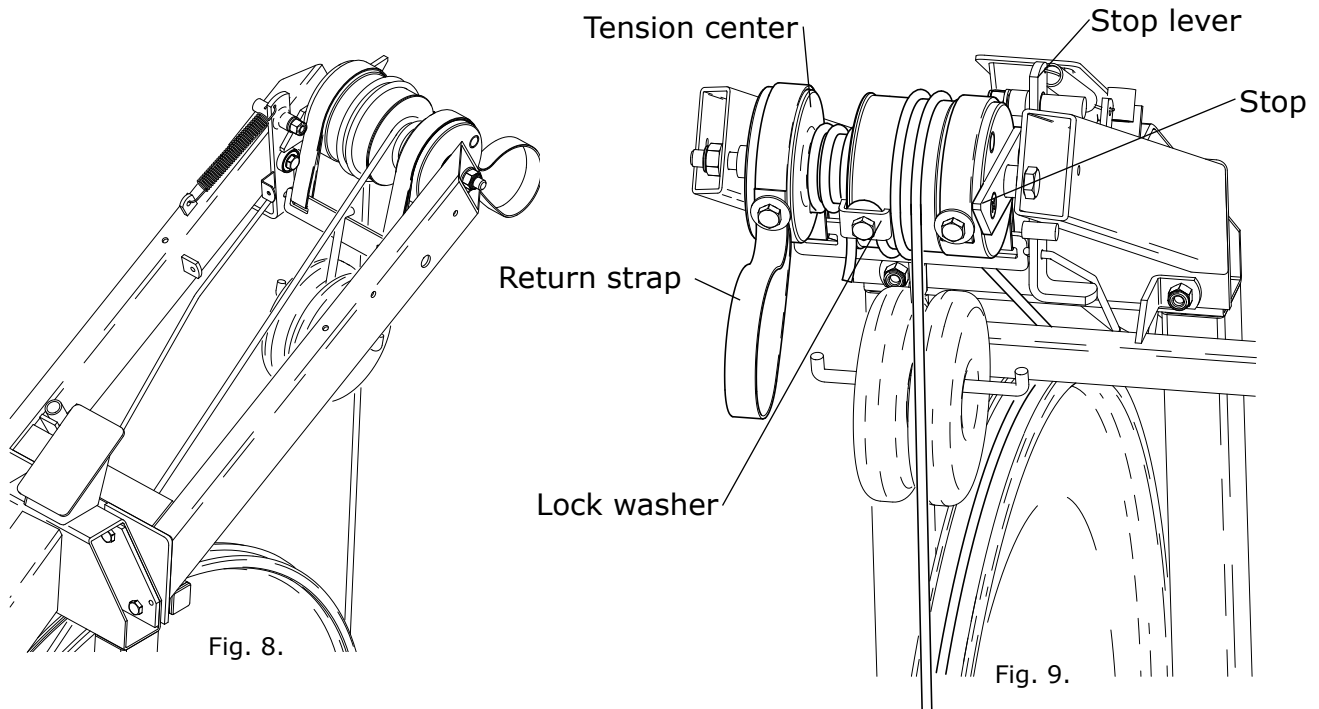
Lock the weight basket in its upper position and after that loosen the cord bracket somewhat so that the cord length can be adjusted. Tighten the bracket again, release and check if the measurement above is OK when the flywheel is rotated by hand.

Repeat the above if necessary.

NOTE: The basket will always give the correct workload wherever it hangs between the upper stop position and the lower stop just above the flywheel. The measurements above just give a good margin - in each direction



Brake belt contact surface - brake belt



BRAKEBELT CONTACT SURFACE

The brake belt should be checked now and then to ensure that it has not suffered excessive wear.

If it looks worn it should be replaced.

Deposits of dirt on the brake belt and on the contact surface may cause the unit to operate unevenly and will also wear out the brake belt. The brake belt contact of the flywheel surface should then be ground of with a fine sandpaper and any dust removed with a clean dry cloth.

Dismantle cover, see "Replacement brake belt".

Set the weight basket in its upper position.

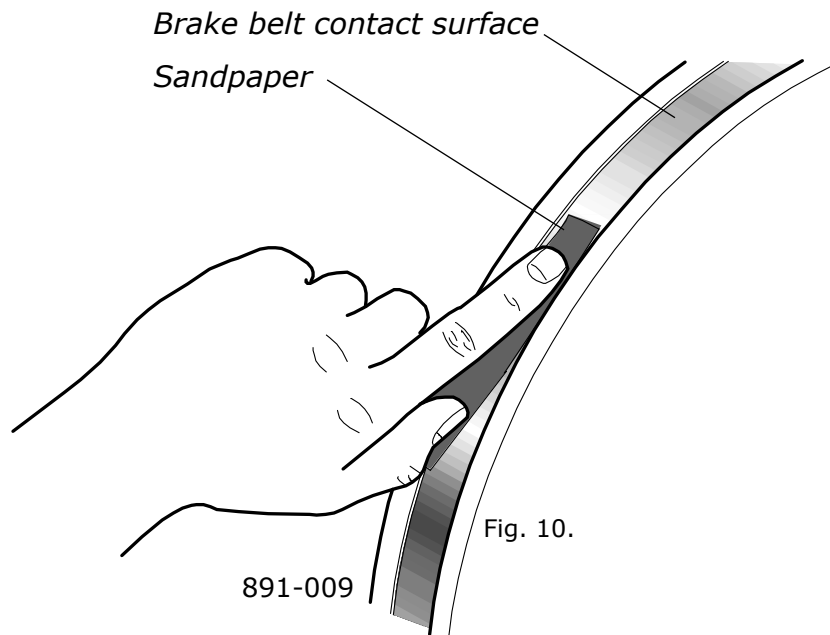
Take off the brake belt to the side.

Grind with a fine sandpaper. see fig. 10.

Grinding is easier to preformif a second individual cautiously and carefull pedals the device.

Irregulaties on the brake belt contact surface are removed by means of a fine sandpaper or an abrasive cloth. Otherwise unnecessary wear on the brake occur and the unit can become noisy.

Always keep the brake belt contact surface clean and dry. No lubricant is allowed to be used.



Chain 1/2" x 1/8"

It is strongly recommended that a chain solvent be used to keep the chain clean. Excess dirt built up on the chain will cause excess wear. A chain lubricant and solvent for normal road bikes may be used.

Check the lubrication and tension of the chain at regular intervals. In the middle of its free length the chain should have a minimum play of 5 mm. See fig 11. When the play in the chain is about 20 mm (<1 inch) the chain must be tightened otherwise it will cause unnormal wear of the chin and chainwheels. Because of this it is always recommende to keep the chain play as little as possible. When the chain has become so long that it can no longer be tightened with the chain adjusters it is worn out and shall be replaced with a new one.

ADJUSTING CHAIN

Remove left and right frame cover.

To adjust the chain the hub nuts should be loosened. Loosening or tightening the nuts on the chain adjusters will then move the hub and axle forward or backward. Adjust according to above recommendation. Then tighten the nuts on the hub axle again. See fig 13.

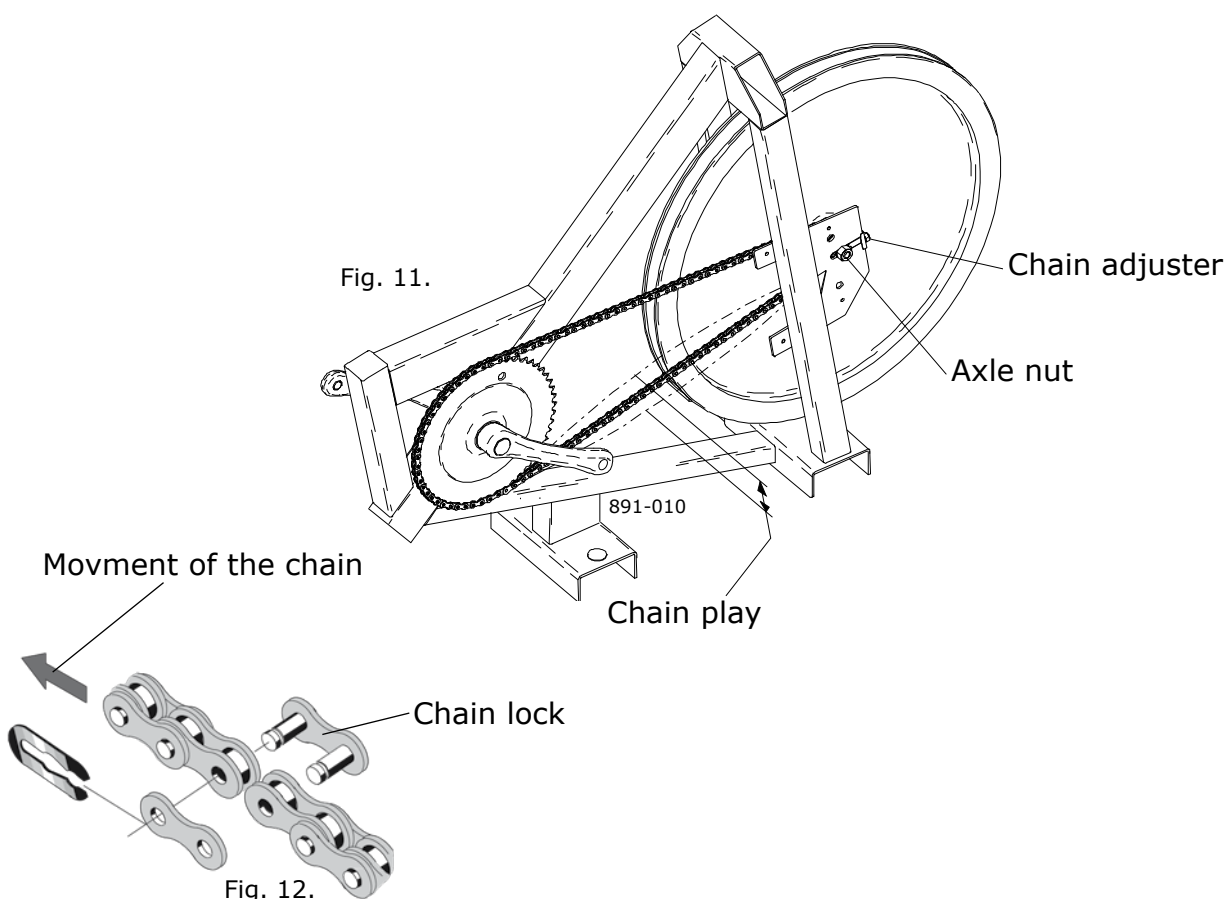
CHAIN REPLACEMENT

Loosen the chain adjusteras much as possible. Dismantle the cahinlock and remove the chain. Put on a new chain and assemble the chain lock. The spring of the chain lock should be assembled with the closed end in the movement direction of the chain. Use a pair of tongs for dismantling and assembling the spring. See fig 12.

Adjust chain adjusters to chainplay according to above. Tighten axle nuts firmly.

Put on frame covers again.

**NOTE: At assembly the flywheel has to be parallell with the center line of the frame
Otherwise the chain and chainwheels makes a lot of noise and wears out
very rapidly.**



Service and maintenance

REPLACEMENT OF THE FREEWHEELING SPROCKET

Remove left and right frame cover. See "REPLACEMENT OF BRAKE BELT".

Dismantle the chain as described on page 9.

Loosen the axle nuts and lift off the flywheel. Remove the axle nut, washer, chain adjuster and spacer on the freewheel side. Place the special remover (part No. 9100-14) in the adapter and place the spacer and axle nut outside. See fig 14.

NOTE: Do not tighten the axle nut completely. It must be possible to loosen the adapter-sprocket half a turn.

Replace sprocket-adapter and assemble the new parts in reverse order according to the above.

LUBRICATION SPROCKET

The sprocket should be lubricated with a few drops of oil once a year. Incline the cycle somewhat to make it easier for the oil to reach the bearing. See fig 15.

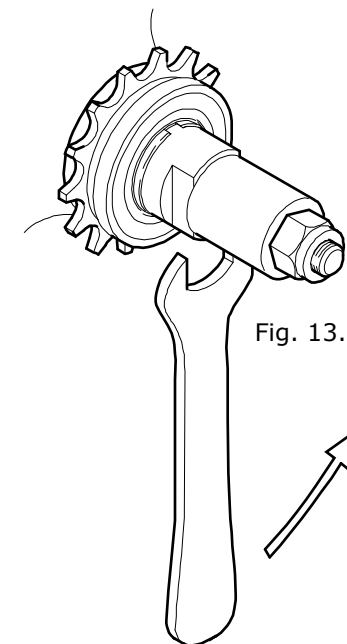


Fig. 13.

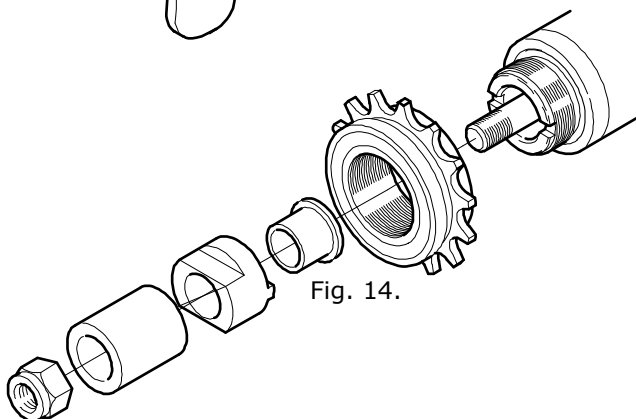


Fig. 14.



Fig. 15.