



INSTALLATION MANUAL

« SD » RANGE

HEADSAIL FURLING SYSTEMS

The FACNOR model SD is the easiest Reefing System in the world to install. You will see, it is designed for a quick and simple installation.

It can be fitted without precise measurement of the forestay, AND WITHOUT CUTTING ANY SECTIONS, because of the unique and patented, telescopic lower section. This provides all the length adjustment necessary.

The FACNOR system slides over the forestay and turnbuckle. In this way, the integrity of the rig is maintained and allows full adjustment of the forestay. The halyard swivel ensures an efficient sail shape for ideal furling. The swivel and the drum assembly, both utilize stainless steel ball bearings and races designed for low friction and trouble-free use.

The FACNOR reefing system requires no special maintenance. All you need to do is clean it with fresh water to remove salt or dirt from the components.

Please read this manual carefully to familiarize yourself with the components, installation and the operation of your system.

Tools required:

To simplify the fitting, we have designed this reefing system for a easy installation and the minimum number of tools. You will need a:

- soft head hammer
- screwdriver
- drill (drills are included in the kit)
- rivet gun

Allen keys needed are included in the kit.

CAUTIONARY NOTES:

Electrical hazards and unstable weather conditions:

The reefing system is manufactured from aluminium extrusions which are highly conductive.

Do not bring the furling system close to or in contact with electrical cables or high tension lines. Serious injury or death could result from shocks induced from contact with power lines.

Do not assemble and install in unstable weather conditions where lightning is present or imminent. Lightning striking a sailboat mast is likely to travel down the furling system. Contact with the furling system could be fatal.

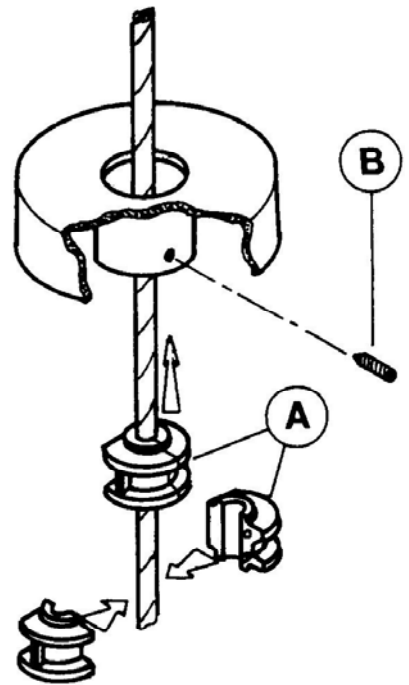
A- PRELIMINARY ASSEMBLY:

- ⇒ Slacken the backstay to loosen head stay.
- ⇒ Use a genoa and/or spinnaker halyard as a temporary head stay to support your mast during the installation. (Make sure it is not attached to your stem head fitting where it will interfere with the drum assembly).
- ⇒ Tighten the halyard used to support the mast.

WARNING: MAKE SURE THAT THE MAST IS SECURE BEFORE YOU REMOVE STEM HEAD PIN.

B- FITTING OF THE HALYARD DEFLECTOR WHEEL:

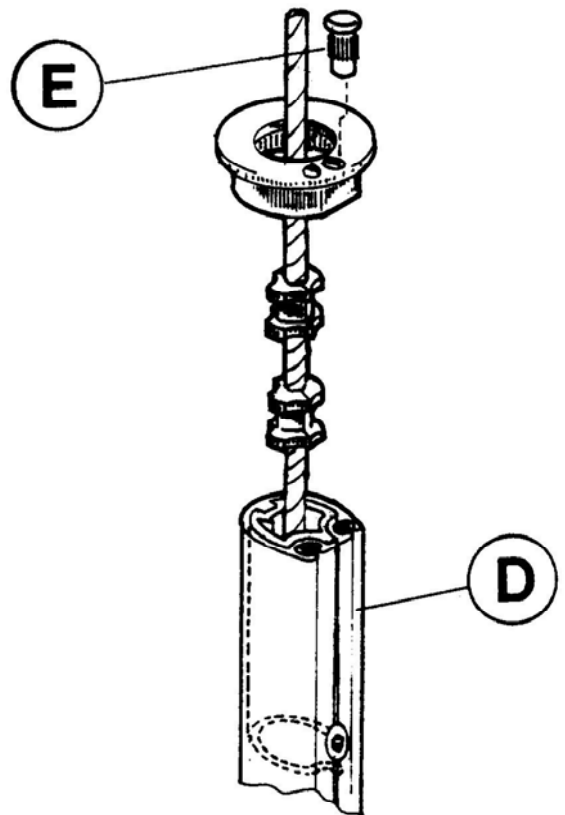
- ⇒ Slide the halyard deflector onto the forestay.
- ⇒ Fit the two red bearings* (**dwg. A**) onto the wire with their flat side opposite the screw (**dwg. B**) as shown on the drawing. Then, insert the two red bearings fully into the halyard deflector.
(* bearings are split to allow them to be placed around the head stay below terminal end fitting).
- ⇒ Secure with screw (**dwg. B**).



C- FITTING OF THE TOP CAP:

- ⇒ Slide the top cap onto the forestay.
- ⇒ Place two bearings onto forestay and slide on top section. (Note that this section has a stop (**dwg. D**) inside for the two bearings.)
- ⇒ To fix the cap to the top section, tap with a soft head hammer the pin (**dwg. E**).

Note : the cap and the single pin are in the carton.



D- FITTING OF THE SECTIONS:

1/ Preparing the sections

⇒ Fix the connectors to the top of each section except the top section (section with the cap).

When you fix the connectors, please fix it at the head of the section. (Please note, that the distance between last hole and end of the tube is shorter. / **dwg. C**).

⇒ Do not lock the screws.

2/ Assembling the sections

⇒ Put the wire into the top section.

⇒ Place a black bearing (**dwg. B**) around the wire.

⇒ Insert the bearing into the top part of the connector as it has to be between two threaded holes.

⇒ Now fasten with two screws and gradually tighten all 4 screws (**dwg. A**).

⇒ Continue the operation for the next section, not forgetting to insert a black bearing inside each connector. On the last section, insert a bearing inside the telescopic section.

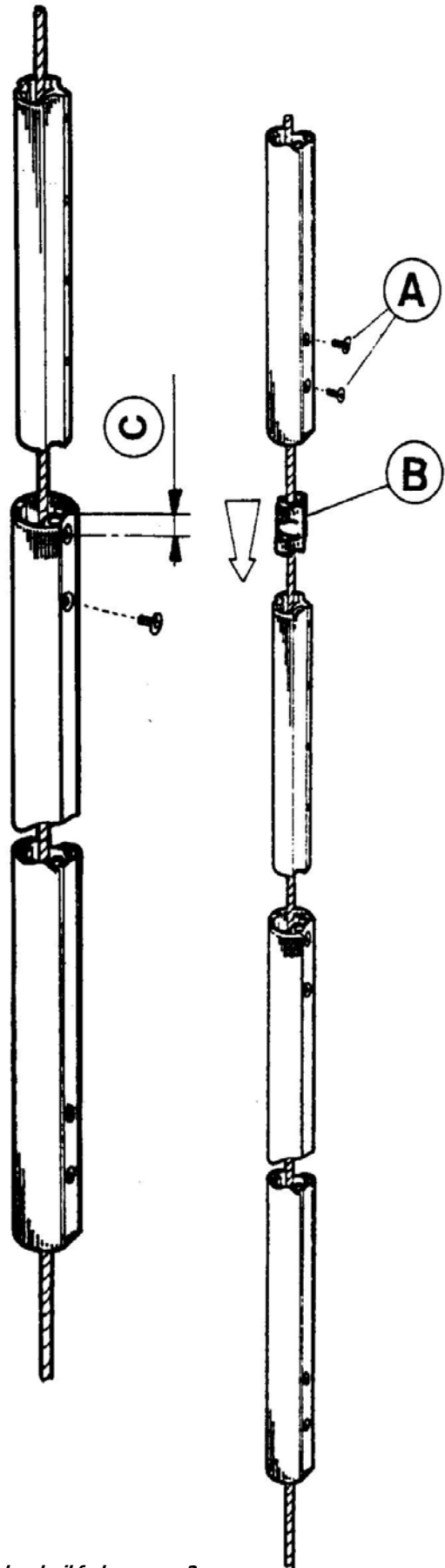
⇒ Do not fix anything on the last section.

WARNING:

If your forestay length requires the short 1 M section. This must be fitted above the last 2 M section.

Slide the halyard swivel on the sections and use a halyard attached to the swivel to hoist the sections. Please take care to put the halyard swivel on the correct way up.

We advice you to attach a haul rope on the halyard swivel to help you to get it down after the installation.



E- FITTING THE TELESCOPIC SECTION:

- ⇒ Slide on halyard swivel in position if you have not already done so.
- ⇒ Use a halyard attached to the swivel to hoist the system as far up the forestay as possible.
- ⇒ Slide the telescopic section (**dwg. H**) into the bottom section and insert a bearing into the top of the telescopic section. Slide on the black sail feeder (**dwg. E**).
- ⇒ Slide the drum onto the forestay terminal.

F- FITTING OF THE DRUM UNIT:

1/ In case of a forestay-to-eye terminal+link plates: (drawing 1)

- ⇒ Insert the two link plates into the lower part of the drum.
- ⇒ Fasten the set (eye terminal + link plates) with the pin (**dwg. D**) and both nylon bushings.

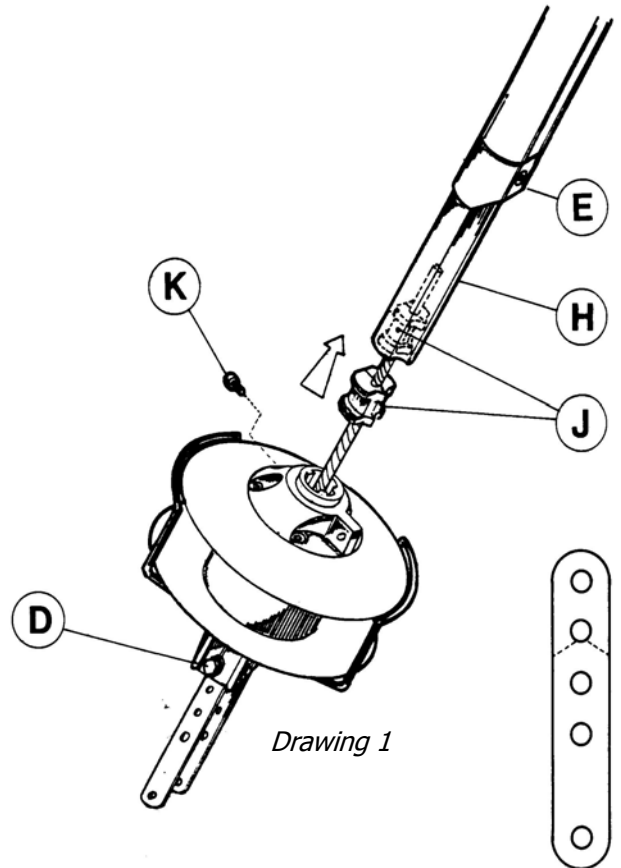
Note: If the link plates are too big or too long, please cut it in accordance with the drawing.

2/ In case of turnbuckle terminal /swage stud: (drawing 2 & 3)

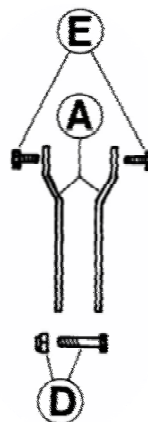
- ⇒ Assemble the link plates (**dwg. A**) of the «FACNOR turnbuckle kit » to the bottom of the drum (see appendix).
- ⇒ Fix the link plates to the drum with the two screws provided (**dwg. E**).
- ⇒ Fix the link plates to the turnbuckle with the pin provided (**dwg. D**).

3/ In both cases:

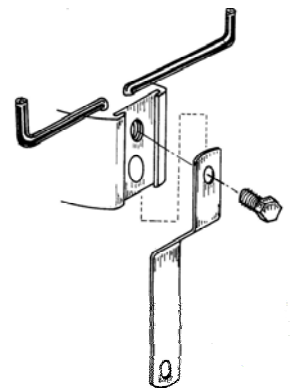
- ⇒ Place two bearings (**dwg. J**) around forestay and push them up into the lower part of the telescopic section.
- ⇒ Insert bottom of telescopic section (**dwg. H**) into top of drum, holding firmly together.
- ⇒ Tighten allen screw (**dwg. K**) with allen key provided.



Drawing 1



Drawing 2



Drawing 3

G- FINAL ADJUSTMENT OF THE SECTIONS:

- ⇒ Tension backstay slightly.
- ⇒ Allow the sail feeder (**dwg. E**) to sit on the drum.
- ⇒ **Ensure foil assembly (dwg. B) is hoisted fully using the halyard swivel. The halyard deflector needs to touch the top terminal (dwg. C).**
- ⇒ Lower the foil section assembly by about **50 mm**. Drill two Ø 5 mm holes (**dwg. L**) through pre-drilled guide holes into the telescopic section.

CAUTION: DO NOT DRILL THE FORESTAY WIRE.

- ⇒ Fit and pull two (5x10 mm) rivets into these holes using a rivet gun.
- ⇒ Slide sail feeder up to the bottom of the foil (**dwg. E**).

Drill a Ø 3 mm hole into the front of the sail feeder and secure using the 3x6 mm rivets.

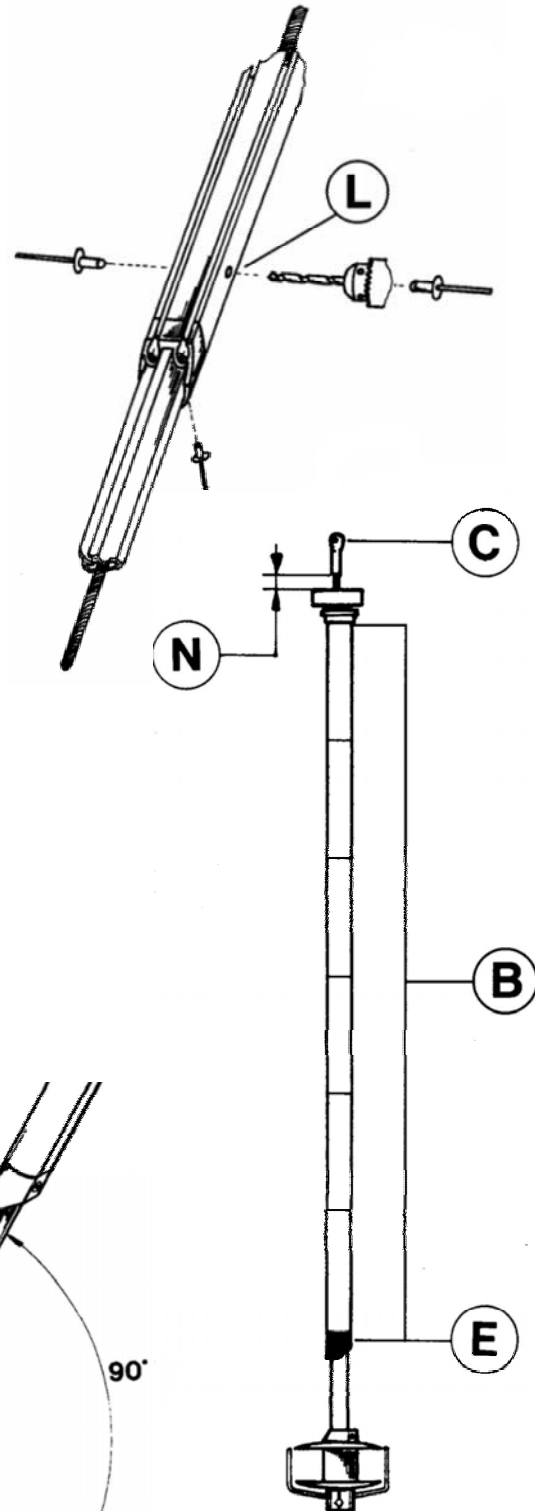
Caution: do not drill the forestay wire.

- ⇒ **Important:** You must have a minimum of 30 mm and a maximum of 100 mm (**dwg. N**) between the top of the halyard deflector and the top terminal.

- ⇒ Now backstay may be fully tensioned. (gently slacken off any supporting halyards).

H- FITTING OF THE FURLING LINE:

- ⇒ Fit the furling line onto the drum so that it passes through the stainless guide.
- ⇒ The first deck block should be positioned as far as possible from the drum. The furling line should be at 90° to the forestay to avoid bunching at the top or bottom of drum.
- ⇒ Furl few turns around the drum.



I- RAISING SAIL AND FURLING:

The hoisting of the sail does not present any difficulties, however you should remember that it will require slightly more effort than with jib hanks on sail. This is due to the extra friction in the groove on luff.

- ⇒ Shackle the tack of genoa to drum using shackle provided.
- ⇒ Attach the head of sail to halyard swivel using shackle provided.
- ⇒ Attach the halyard to the top of the halyard swivel.
- ⇒ Feed sail through feeder and into groove of bottom section.
- ⇒ Hoist sail **slowly**. (Sail with luff tape have more friction than those with jib hanks).
- ⇒ It is not necessary to have as much halyard tension as with a normal forestay.
- ⇒ Check that the halyard swivel doesn't touch the top cap when the sail is fully hoisted.

FURL THE SAIL FOR THE FIRST TIME:

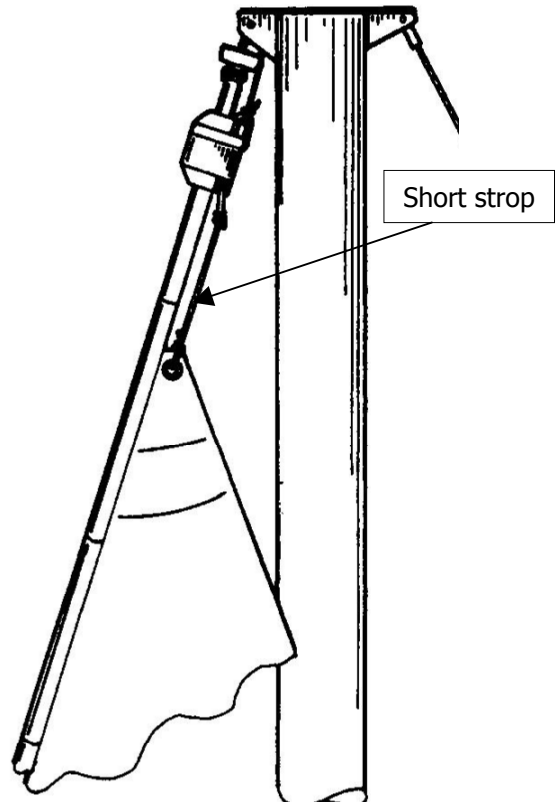
Once the sail is hoisted, it can be furled by hand around the forestay.

In most cases, the line must be wrapped on the drum so that it rotates in a clockwise direction when sail is being furled. This will ensure that your sail's ultraviolet protective is wrapped outside of your sail.

Fit few lead blocks to guide your furling line aft to the cockpit.

FURLING - REEFING TIPS:

- This halyard deflector virtually eliminates halyard wrap; however, when using a shorter sail, rig a short strop to the head of your sail to allow the swivel to rise to the top of the system. (see figure against).



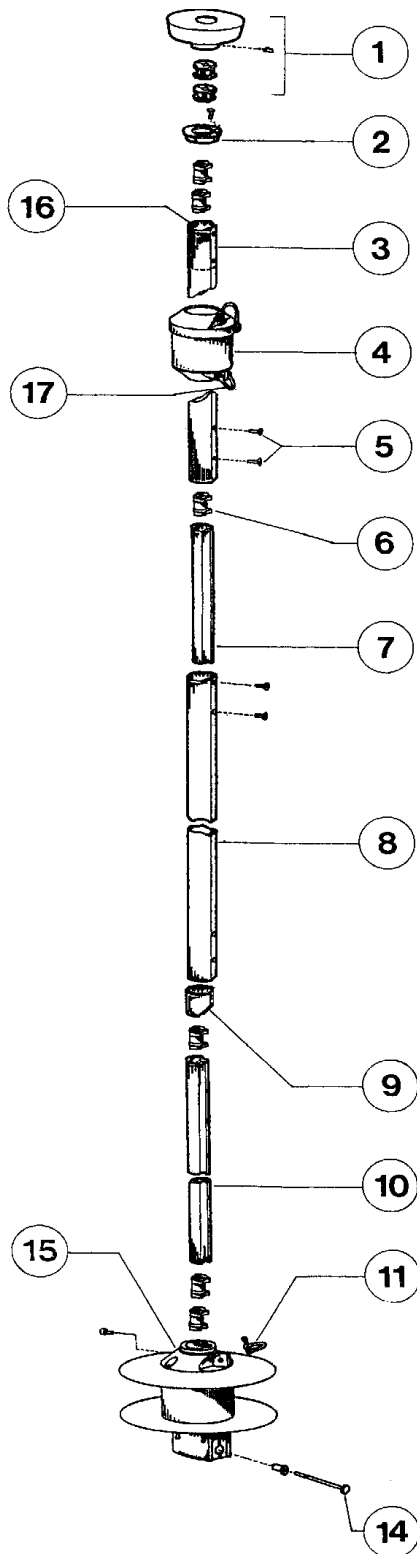
FURLING - REEFING TIPS (next):

- When unfurling, restrain the reefing line so that it doesn't jerk out of hand. Keep line under control as you furl and mind that it does not overlap.
- When you reef, do not forget to move your genoa car to insure the right tension on the genoa leach and foot and that the genoa sheet lead is correct.
- Check that the forestay is tight and clear of other halyards.
- Never slacken the genoa halyard when furling. Cleat the furling line and secure jib sheets when you reach the desired reef.
- Do not force the reefing system if the reefing lines get blocked.
- It is recommended that you have a spare headsail on board. You can use an old genoa with a luff tape to fit the FACNOR luff groove.
- When your sail is fully hoisted, the halyard swivel should be as close as possible to the top cap.
- Your FACNOR has been designed to work maintenance free for many years. However, we recommend that you clean the furling system with fresh water once or twice a year.

Please do not hesitate to contact us if you have any queries.

FACNOR SAS
Parc d'Activités
BP 222
F-50550 SAINT-VAAST-LA HOUGUE
Tél.(33) 02.33.88.50.22
Fax (33) 02.33.23.14.27
E-mail : info@facnor.com
Web : www.facnor.com

DESCRIPTION OF "SD« FURLER PARTS



1. Halyard swivel
2. Section cap
3. Top section
4. Halyard swivel
5. Section fixing screw
6. Bearing
7. Connector
8. Standard section
9. Sail feeder
10. Telescopic section
11. Drum shackle
14. Pin and bushings
16. Bearing stop
17. Halyard swivel shackle

APPENDIX

INSTALLATION OF AN « SD » DRUM ON A FORESTAY FITTED WITH TURNBUCKLE RIGGING SCREW

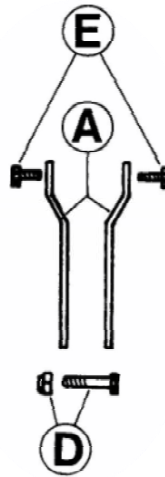
Facnor provides a « turnbuckle kit » designed for the installation of « SD » drums on forestay that is fitted with turnbuckle rigging screw at the bottom.

For your information, « turnbuckle kits » are available in various lengths according to the desired height of the drum above the deck.



LIST OF « TURNBUCKLE KIT » COMPONENTS : (drawing 1)

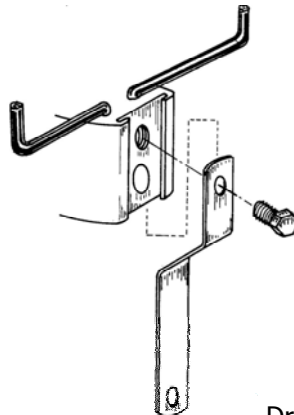
- 2 stainless link plates (dwg. A)
- 1 pin (dwg. D)
- 2 short screws (dwg. E)



Drawing1

INSTALLATION INSTRUCTIONS: (drawing 2)

- Slide the link plates into the notches situated on each side of the drum bottom.
- The top of the link plates are fixed with the 2 short screws supplied through the threaded holes.



Drawing 2