

Installation manual

**REAR DISC BRAKES
STF316 FOR LAMBRETTA**

Dear customer,

thank you for choosing the rear hydraulic disc brake **STF316** for **Lambretta**.

The rear disc brake STF316 has been designed to meet sporty and exciting demands providing **modularity**, high **performance** and **safe braking** compared to the traditional drum system.

Main features of **STF316** brake are:

- it is not necessary to remove the drum brake system;
- easy assembly;
- no modification/welding of your Lambretta is needed

PRE-ASSEMBLY ADVICE

The **STF316** system is designed to be installed on models with:

- Engine mounted to the frame using oversized silent-blocks and corresponding engine bolt
- Rear wheel drum from third series models

Make sure your Lambretta is configured with these components before purchasing and installing the brake.

ASSEMBLY INSTRUCTIONS

For proper installation of the **STF316** braking system, please read these instructions carefully and follow the steps outlined.

Scooterthefero disclaims any responsibility if the assembly is not carried out according to the instructions provided in this manual or for improper use of the product.

WARNING

Due to the complexity of the system, test the product's operation over a short distance and verify the correct tightening/functionality of all components (system fully bled, 100% active braking).

The **STF316** braking system is **an item for exclusive sports use, to be used on tracks or within private properties.**

CAUTION

Some photos in the manual show details of previous versions of the **STF316** rear brake. The assembly remains unchanged. The details in *(fig.1)* represent the current components of the brake.



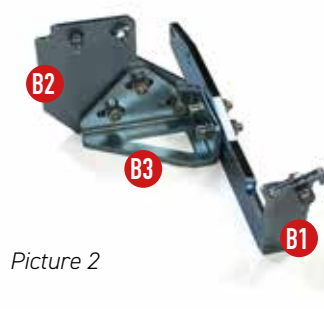
Picture 1

KIT CONTENT:

- A. brass bushing for brake pedal
- B. pump support to brake pedal*.

- E. calibrated arm for pump pedal
- F. high capacity pump with tank
- G. pump tank support*
- H. disc SS316 CNC support from solid*
- I. stainless steel disc
- L. bracket support to the silentblock of the bracket
- M. bracket support caliper with high-speed bearing at the rear; supplied assembled.

- N. Brembo 2-piston high-performance brake caliper with dual jack
- O. high-flow aviation hose with tight weave and polished SS316 fittings.



Picture 2

- C. pump spacer
(only for Lambretta Serie 3 LI, SX / TV / GP / DL / Serveta)*
- D. specific spring for brake pedal



Picture 3

* Pre-assembled screw kit; tight everything accurately when the installation is finished. Where needed use strong thread locker.

ASSEMBLY INSTRUCTIONS

Rear this instructions carefully for the correct installation of **STF316** brake system: Scooterthefero disclaims any liability in the event that the installation is not done according to the instructions given in this manual or misuse of product.

STEP 1 PUMP TO BRAKE PEDAL

- 01** Remove the original brake pedal
- 02** Replace the original bushing with the coppery one (pic.1-A).
- 03** Remove the pedal spring and disconnect the rear bracke cable from the pedal.
- 04** Enlarge the cable hole to \varnothing di 6mm.



- 05** Place the pump supporting bracket (pic.2 - B1) on the brake support and tight with the dedicated screw.



- 06** The pump supporting bracket to touch the brake pedal support and to be parallel to the Lambretta frame.



- 07 Temporary tighten** the brake pump to the supporting braket* and check there is no interference of the pump with the frame.

*Use the spacer (pic.1-C) only for Lambretta Serie 3 LI, SX / TV / GP / DL / Serveta.

- 08** Tight the pump supporting bracket (pic.2 - B2) to the left arm by using the frame holes.



09 Use the screws of the support to fix the pump supporting bracket (*pic.2 - B3*) and **tight**.



10 Check the entire pump support (*pic. 2 - B1 B2 B3*) is well tightened and the pump does not interfere with the frame.

11 Drill the brake pedal support by $\varnothing 4,5$ mm and **definitively fix** the pump supporting bracket (*pic.1-B*) Tight together by Allen wrench and nut from the kit. **Remove the pump** (*temporary fixed*).



12 Remove the pump (temporarily fixed).

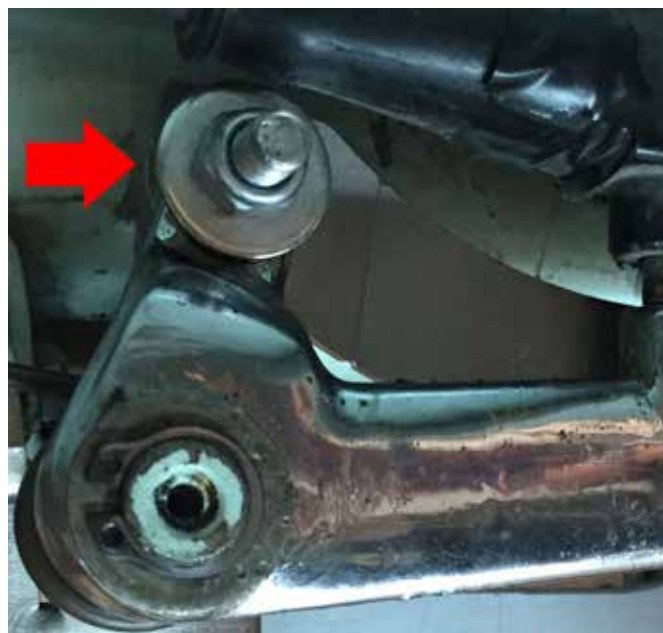
13 Place the brake pedal spring (*pic.1-D*) from the kit.

14 Place the calibrated arm and washer (*pic.1-E*) inside the brake pedal hole (*grease the pin for a proper function*).



15 Fit the brake pedal and insert the retainer seeger (*grease the pin for a proper function*).

16 Tight by washer and self-blocking nut and keep a little gap to allow rotation.



17 Tight the pump to the calibrated arm (*pic.1-E*) so that the holes match the pump support* when the brake pedal is relaxed.

*Use the spacer (*pic. 1-C*) only for Lambretta Serie 3 LI, SX / TV / GP / DL / Serveta.



18 Tight definitively the pump/support asseby (*so that the pump is not pre-tensioned during non-braking*).



19 Check the alignement between pump and arm and tight by nut and locknut.



20 Fix the support to the pump trunk under the front fender by the fender screws.



STEP 2: INSTALLATION OF SUPPORTING BRACKET FOR DRUM CLAMP

01 Remove the locknut and the rear hub nut.
02 Screw the disk support (*pic. 1- H*) and tighten. Align the support holes to the three holes on the drum used for the locknut.

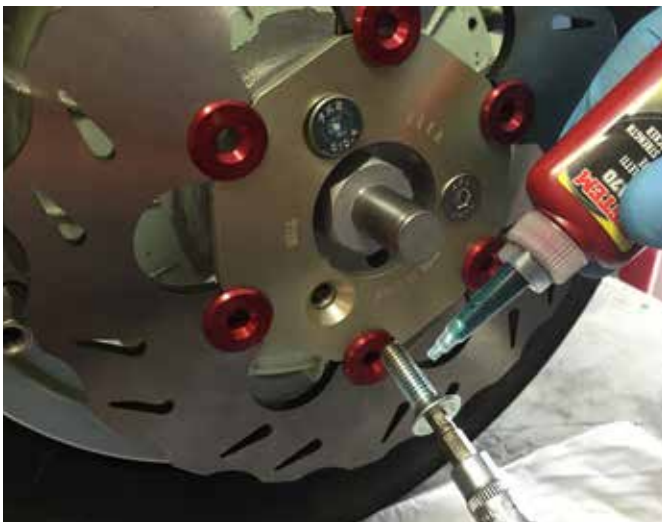


03 Fix the disk support by 3x M7 Allen screws and washers

04 M6 drill and filet the drum in correspondence to the $\varnothing 6$ hole of the disk support. Screw and tighten the hexagonal bolt and bend the safety locknut.



05 Fix the disk (pic. 1- I) to the support by screws and strong thread locker.



STEP 3: BRAKE CLAMP BRACKET INSTALLATION (PIC. 1 - M)

01 Remove nut and washer from the left side engine pin (flywheel side).

02 Secure the bracket (fig.1-L) and install the caliper bracket into the front seat; and into the rear seat (insert the swivel bearing onto the disc support pin).





03 Put retainer seeger on disk support pin.

04 Screw and secure the bearing assembly.



05 Temporary fit the clamp (*pic. 1 - N*).



STEP 4: AERONAUTICAL PIPE INSTALLATION* (PIC. 1 - 0)

***WITH LOOSE CONNECTORS**
(TO BE TIGHTENED AT THE END)

01 Fit 45° connector to the pump and firmly tight.



02 Run the pipe to the frame.



03 To avoid any problems during purging:

- put the air pistol in the threaded hole of the clamp connector
- insert a 5 mm spacer between the pads of the clamp

- remove both clamp pistons by compressed air and place them in contact with the previous spacer
- check both pistons have moved
- fill the clamp by brake fluid carefully.

04 Fix the connector in a 45° position to the clamp and firmly tight.



05 Bleed the air inside the circuit by fitting the pump trunk with brake fluid and start pumping using the brake pedal.

06 Syringe effect: replace pistons (*phase 3*) and fill the circuit by oil from the pump clamp.

07 Test performance.

08 Key point: keep the pipes fully inclined (*lift the clamp over the Lambretta*) in order to avoid air bubbles inside the pipe.

09 Spurge the circuit to get full braking efficiency.

WHAT TO DO FOR TIRE REPLACEMENT

01 Remove the clamp.



02 Remove the rear bearing fixing seiger.



03 Unscrew and remove the clamp bracket front fixation.

04 Remove the clamp support bracket.

05 When the rear braking system is removed, the wheel rim can be moved.

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