



COMPLETE FITTING INSTRUCTIONS FOR THE CASA PERFORMANCE SINGLE DISC HYDRAULIC BRAKE KITS



Congratulations! You are now the owner of the most powerful, modular hydraulic disc brake kit ever produced for the Lambretta scooter.

This is a step by step guide for you to fit the kit. A complete kit consists of:

- 1 x disc hub unit (supplied complete & assembled)
- 1 x hydraulic hose
- 1 x handlebar master cylinder unit (single disc version)
- 1 x handlebar switch housing (available in 5 different versions for: Lambretta Series 1 / 2 LI models, Series 1 & 2 TV models, Series 3 LI models, Series 3 SX / TV / GT / GP / DL / Serveta models, Lambretta GP DL Indian SIL models.

Optional extras are:

X142 (+ colour variants) Casa Double Disc hydraulic disc brake + unique tubeless wheel rim. **X144** front brake light switch.

X140 Lambretta-type handlebar lever **X138** race (softer) brake pads

Consumable spare parts are: **X139** brake disc (rotor)

X137 brake pads X141 Oilseal set

However, ALL components are available singularly to purchase from your Casa Performance dealer upon request.



1. The *CasaDisc* is designed to be used with an anti-dive unit, supplied as standard*. Use only 125 – 150cc model DRUM HUB TYPE fork links. The internal locating pin needs to be removed from the inside of the kickstart side link (see Pic.1). Do <u>NOT</u> use disc brake type links as the 3rd fixing lug will foul the speedo drive lug under heavy braking, resulting in breakage of the *CasaDisc* unit.

This lug can be removed with the links still mounted in the fork if so desired. However, we strongly recommend that that you take the opportunity to overhaul your forks with new springs (standard fork springs type X47 are fine and we DO NOT recommend uprated springs) and new rubber buffers T45k and link bushes T48. The standard Casa Lambretta parts are perfect for this job and complete kits are available for overhauling your forks: T260x or T263x.



The first part to fit to the scooter is the clamp-on section of the anti-dive set-up. Remove this from the hub unit by unscrewing the two M6 Allen screws (see Pic.2).



The reason for mounting this to the fork before anything else is that two of the 5mm Allen screws are mounted from the inside i.e. towards the wheel (see Pic.3). They will become inaccessible once the wheel & hub have been fitted into the forks.





Please note that there are some really poor quality pattern forks on the market that have slightly thinner fork leg tubes. If, after tightening up the clamp, it is loose on the fork leg, disassemble the clamp and very lightly linish/file the inside face(s) of the clamp (see Pic.4 & Pic.4a), and then refit to the scooters fork leg. This must be repeated until the clamp no longer moves once tightened.



Next, fit the disc unit into your front wheel and (lightly) tighten the fixing nuts (see Pic. 5).



The hub comes supplied with cable ties on the main axle – remove these. Then fit the whole assembly into the fork, making sure to not mark or damage the speedo drive lug when doing so (see Pic.5a).

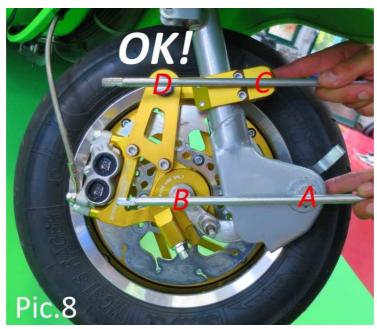


Once mounted, tighten the 2 x main axle nuts (early versions) or single nut (later versions with special hub axle) See Pic.6. Check that the wheel sits centrally between the fork legs. If it sit's to one side, use normal Lambretta axle washers (thick $\underline{\textbf{B118}}$ or thin type $\underline{\textbf{B119}}$), as necessary) by adding them to the axle before fitting the whole unit into the forks (so the washers sit between the hub and inside of the fork links) to achieve the desired alignment.



Then re-fit the two 6mm Allen screws of the anti-dive set-up that you had previously removed (see Pic.7), thus connecting the anti-dive fork clamp back to the actual disc hub. Be sure to always use a drop of Loctite threadlock on all screws of the *CasaDisc*.

How to correctly set up the anti-dive linkage



The clamp-on mounting of the anti-dive unit must remain in the position as seen in Pic. 8. The way to check that the position is correct is as follows; hold a straight rod across the centre line of the main fork link pivot bolt (point 'A' in Pic. 8) across to the main axle nut (point 'B' in Pic. 8). Now hold a second rod across the centre line of the anti-dive linkage pivot points (points 'C and 'D' in Pic. 8). The distance between the two rods should be parallel or slightly 'closed' towards the front of the scooter. This is correct. **Adjustment:** the anti-dive effect will be softer the more 'closed' the rods are towards the front. A thumb rule is to always fit the fork leg clamp as low as possible towards the welded on fork 'boot'.



If the fork leg clamp has been placed too high and the distance between the two rods is more OPEN towards the front of the scooter (see Pic. 9) then the anti-dive effect will be harsh and suspension action will be limited under braking. If this is the case, simply lower the clamp on fork leg bracket until the distance between the two rods is parallel (or closed towards the front of the scooter). Once you have aligned the linkage bar in the desired position, tighten the 5mm Allen screw bolts of the clamp. When viewed from the front, the bar should be parallel with the inside of the clamp and not touching either the clamp itself or the tyre.



The *CasaDisc* anti dive set-up is designed to work with standard/original type welded-on upper fork link mounts and the clamp on bracket is designed to not foul against standard <u>T237x</u>, <u>BGM</u> or Mupo type front shock absorbers <u>X87</u> (see Pic.10).



Now you need to fit the hydraulic hose to the scooter. First, open the headset, disconnect the horn/light switch wiring and then remove the original switch housing/front brake lever support. Pass the hydraulic tube down through the headset bottom (see Pic.11).



We suggest adding a slotted hole to pass the hydraulic tube into the headset bottom (see Pic.12) but alternatively some people prefer to file a recess into the headset TOP for the hose to pass through. If using this method, extra attention must be given to ensuring that the top does NOT clamp or compress down onto the hose once tightened down. This method can also produce problems if the routing of the hose leaves it higher than the actual master cylinder, as air will remain in the highest point and this will render the bleeding process more difficult. If that is the case, momentarily remove the master cylinder from the switch housing and then carry out the bleeding process with the master cylinder in an elevated position, thus allowing air to escape.



The handlebars should always be turned towards the left (flywheel) side leaving the master cylinder in the highest possible point (see Pic.13).



The hose then needs to passed down alongside the steering column, taking care that it cannot become jammed or trapped in any way during movement of the forks. On Series 3 models, be careful that the lower steering bearing dust-shield disc cannot rub (and possibly cut through) the hydraulic hose (see Pic.14).



There are two rubber bungs fitted as standard to the actual hose (the round one is for where the hose passes into the handlebar bottom if you choose to drill a round hole, otherwise it will need to be removed) and the lower cylindrical one is for use when using a cable tie to clamp the hose to the scooter's frame (see Pic. 15).





We normally feed the hose in from the rear of the wheel i.e. the opposite route to a conventional front brake cable routing (see previous Pic.8). Connect the tube banjo to the brake calliper on the hub (see Pic.17) making sure you fit the bolt and small oilseals as per Pic 16.



The ideal position for the banjo is angled slightly away from the wheel (see Pic. 18).



Fit the new *CasaDisc* switch housing and light switch to the handlebars. Attach the hydraulic hose to the master cylinder, making sure you fit the bolt and small oilseals as per Pic 19.



Now attach the master cylinder below the switch housing (see Pic.20).



Adjust the whole unit to the desired angle and clamp it in place using the two 6mm Allen screws supplied with the kit (see Pic.21). One is shorter than the other and that fits towards the front of the scooter.



Set the lever to the desired distance using the small thumb-screw attached to the inside of the lever (see Pic.22).



Now you need to bleed the system by using the air bleed screw, which is hidden away behind the calliper. Therefore you need to remove the calliper from the hub by unscrewing the two 6mm Allen screws (see Pic.23).



The calliper will still NOT be free to be pulled away as the wheel is still in the way. Loosen all the nuts that hold the wheel rim to the hub but only fully remove TWO (next to each other) of the four (see Pic. 24).



Move the wheel slightly over to one side (away from the calliper) thus enabling you to remove the calliper completely (see Pic. 25).



Now turn and place the calliper so the air bleed screw (see Pic.26) is facing directly <u>UPWARDS</u>.



Partially unscrew the bleed screw (see Pic.27) to help oil to initially oil to enter the tube. This MUST be done or air will remain locked inside the calliper / system, as the screw for bleeding is not the highest point of the calliper, which it needs to be for air to be released. Rotating the calliper so that this screw is at the top / the highest point will enable the air to be released. If you don't do this, you will not be able to bleed the system. Then re-tighten the bleed screw.



Remove the top cover and internal membrane of the master cylinder and fill with new DOT4 brake fluid from a sealed container (see Pic. 28). The master cylinder and calliper of the *CasaDisc* are of such extreme high quality that they permit the use of racing type hydraulic oils such as 'Motul RBF660' (Race brake fluid) that normally cannot be used with lower quality braking systems. RLC advises the use of these better oils.



Before you start to bleed the system, insert a large spanner into the gap between the brake pads i.e. into the gap where the actual disc would normally sit (see Pic.29).



Start pumping slowly with several short pumps of the lever followed by a long pump. Holding in the lever to the handlebars, slowly unscrew the air bleed screw (this is easiest done by two people) allowing it to release air from the system - and then quickly re-tighten up the bleed screw (with the handlebar lever still in the compressed/pulled back position) as per Pic. 30.



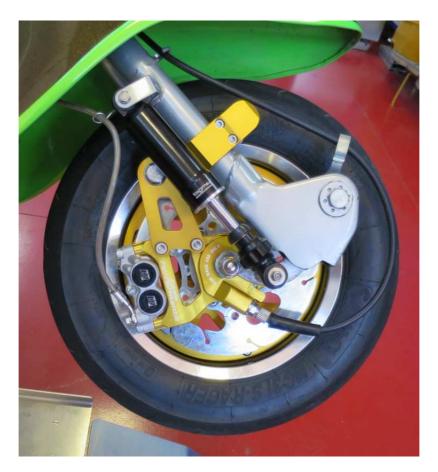
Use a rag or paper to absorb any initial hydraulic fluid that is emitted from the bleed valve (see Pic. 31).

Be careful to ensure this fluid does not come into contact with your skin, your eyes or the actual disc of the brake. Note that hydraulic fluid can damage paintwork so quickly wash off any that you spill with neat water. Repeat the operation until the lever action becomes hard and only brake fluid liquid comes out (without any air bubbles) when the bleed screw is loosened. Note: when doing this, keep an eye on the level of the hydraulic fluid in the master cylinder. As the level drops, replenish as necessary. At this point the brake has been bled of air and is ready to use.

Refit the calliper to the hub unit. Re-fit and tighten all the wheel rim nuts that you had removed or loosened off previously during disassembly. Now check that all bolts and fasteners have been tightened.



Check the hydraulic fluid in the master cylinder is at the indicated level and then refit the inner membrane and then the top cover (see Pic. 32). Attach your speedo cable, clean any residue fluid off with water and then you're ready to enjoy your *CasaDisc*.



*Whilst the CasaDisc is designed to be used with the anti-dive set-up, it can also be used without. If you wish to utilise the CasaDisc without the anti-dive, do NOT remove the internal locating lug from the inside of the kickstart-side fork link. The CasaDisc has a recess for this lug just above the speedo drive lug on the hub. When fitting the wheel & hub into the fork links, insert the locating lug of the link into this recess (as per standard Lambretta procedure).

DISCLAIMER

This *CasaDisc* brake unit is intended for <u>race use only</u> and may be illegal for road use in some countries. Use on public roads is entirely at the owner's risk. By fitting and using the *CasaDisc*, you fully accept that Rimini Lambretta Centre, Casa Lambretta and Casa Performance cannot be held responsible for any issue or situation which may arise from the fitment or use of the brake unit. However this does not affect your rights with regards to workmanship. If you encounter any problems with your Casadisc please get in touch with your Casa Performance dealer and we will make every effort to resolve any issues that arise.

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