



# X240 CASACOVER INFORMATION & FITTING INSTRUCTIONS

## WHAT IS A CASACOVER?

The CasaCover engine sidecasing is a ground-breaking aftermarket engine sidecasing kit giving several major advantages over original OEM type sidecasings. The CasaCover is a plug n' play replacement part, that is totally unlike anything ever seen before for the Lambretta scooter.

#### WHAT ARE THE ADVANTAGES OF THE CASACOVER?

#### 1. Unbelievable light clutch operation, even when used with monster clutches

**2**. Can be used on any normal / standard type Italian, Spanish or Indian engine casing and the new generation engine casings such as CasaCases, Misano casings and Gran Turismo casings

**3**. All exhaust mounting points are the same height / position as original sidecasings

**4**. Easily removable inspection panel gives unprecedented access to the chain guide for adjustment and the front sprocket assembly, without the need to remove the actual sidecasing from the engine

**5**. The inspection panel allows the crankshaft to be removed from the engine, without removing the sidecasing from the engine

**6**. Can be used with any Lambretta clutch whether it be standard, uprated, race or the Casa PowerMaster with integral cushdrive

- 7. Uses normal Lambretta oil drain and breather plugs (not supplied)
- 8. Race proven to the extreme
- 9. Completely Italian made to the highest standards
- 10. The result of nearly 18 months designing and testing
- 11. The only product of its kind in the world
- **12**. On most clutches the clutch cable trunnion can be removed from the operating arm by hand

**13**. The clutch operating arm has 20mm width flat sides to assist removal of the clutch trunnion with monster clutches

#### WHAT COLOUR OPTIONS ARE THERE FOR THE CACACOVER?

- X240 Complete CasaCover with blue anodised parts
- X240n Complete CasaCover with black anodised parts
- X240s Complete CasaCover with silver anodised parts

## WHAT PARTS ARE SUPPLIED IN THE KIT?

- 1 x bare CasaCase sidecase
- 1 x extended forged kickstart shaft (based on Innocenti designs)

- 1 x extended piston for kickstart shaft (based on Innocenti designs) + locating pin
- 1 x large outer 1mm shim for kickstart shaft
- 1 x toothed circlip for kickstart shaft
- 1 x Viton oilseal for kickstart shaft
- 2 x bronze bushes for the kickstart shaft (supplied ready-fitted to the CasaCover)
- 1 x CNC inspection panel (choice of colours)
- 1 x set of 5mm Allen screws for CNC inspection panel
- 2 x O rings for sealing inspection panel
- 1 x CNC clutch operating arm (choice of colours) + screw
- 1 x CNC control cable adjuster block (choice of colours)
- 3 x extended neck control cable adjusters
- 1 x clutch operating shaft
- 2 x needle bearings for clutch operating shaft (supplied ready-fitted to the CasaCover)
- 3 x circlips for clutch operating shaft
- 1 x special washer for clutch operating shaft
- 2 x toothed pressure rod gears for clutch operating shaft\*
- 1 x clutch thimble for the pressure shaft gear type 'A'
- 2 x ball bearings for the pressure shaft gear 'A'
- 1 x oil level screw + washer

#### WHAT PARTS DO YOU RE-USE FROM YOUR OLD ENGINE SIDECASING?

- 1 x ramp guide for kickstart shaft + 6mm bolts / washers
- 1 x spring / disc / circlip for retaining extended piston into the actual kickstart shaft
- 1 x kickstart lever rebound rubber buffer
- 1 x large Allen screw for kickstart lever dead-stop + 10mm washer
- 1 x gasket for control cable adjuster block
- 1 x kickstart spring

<sup>\*</sup>To explain the two different toothed pressure rod gears and these are the **three** possible scenarios that they cover :

- 1. Lambretta GP / DL type clutch WITHOUT nipple on the top clutch pressure plate = 'A'
- 2. Lambretta LI / SX / TV type clutch WITH nipple on the top clutch pressure plate = '**B**'
- 3. Casa Performance PowerMaster clutch with cushdrive = 'B'

#### IS THE CASACOVER PLUG'N' PLAY?

Yes, as long as you have a normal S3 or Casa Performance X159 type gearbox endplate WITHOUT a ramp for the kickstart plunger piston. If you have a GP / DL type WITH the incorporated return ramp, the ramp part will need to be cut off / removed, or the endplate swopped for the S3 / Casa Performance type. Gran Turismo (GT) casings have unique measurements regarding the sidecasing gasket-face depth. If you have a 'GT' engine casing, combined with a BGM clutch, there can be issues with the pushrod not being able to fully decompress the clutch. For this reason, we have modified the plunger option '**A**', which now includes 2 small ball bearings. This modification now allows the plunger to work with all Lambretta casings, Gran Turismo included.

As can be seen in the pics, one of the small ball bearings must be placed onto the recessed end of plunger 'A' (see pic). Please note that there are two ball bearings of different sizes. First try the smaller ball bearing and once you have placed the sidecasing onto your engine, check that there is a little movement of the clutch operating arm on top of the CasaCover sidecasing by moving it forwards and backwards. If there is too much, try the larger ball bearing.

# **CASACOVER ASSEMBLY & FITTING INSTRUCTIONS**

## **General Preparation**

Remove your exhaust, drain your engine oil, disconnect the clutch cable and then remove the old engine sidecasing. If you have removed the sidecasing gasket, thoroughly clean the gasket face of the engine.
Disconnect the gear control cables and remove the old control cable adjuster block. Remove the old oval shaped gasket underneath, if still fitted.

3. Fit the new control cable adjuster block, with the supplied gasket on the underside.

4. Reattach the gear control cables.

# Assembly of the CasaCover

The CasaCase is supplied with the bronze bushes for the kickstart shaft and the needle roller bearings for the clutch operating arm already fitted (see Pics.1 - 2 - 3)

1. Ensure the CasaCover is clean and degreased

2. Fit the oilseal with the spring facing in towards the inside of the engine (see Pic.4)

3. Lightly grease inside where the kickstart shaft passes through (see Pic.5)

4. Fit the inner circlip to the kickstart shaft (see Pic.6). Do <u>NOT</u> fit any other parts into the kickstart shaft at this point

5. Lightly grease the kickstart shaft (see Pic.7)

6. Lightly grease the shoulder where the kickstart spring will sit up against, inside the CasaCover (see Pic.8)

7. Fit the kickstart spring into the CasaCover with the 'kinked' end facing up towards you (see Pic.9)

8. Slide the kickstart shaft into the CasaCover ensuring the kinked end of the spring slides into its hole in the shaft (see Pic.10)

9. Carefully turn the CasaCover over and then fit the large washer spacer and toothed circlip (see Pic.11). Now check the shaft rotates freely within the CasaCover

10. Turn the CasaCover over once more and place the exposed toothed part of the kickstart shaft in a vice USING SOFT VICE JAWS (made of aluminium or similar) and then gently tighten (see Pic.12)

11. Rotate the CasaCover around clockwise until the kickstart shaft is in the desired position and then fit the kickstart shaft return ramp with its 6mm bolts and washers (see Pic.13). This can only be done if the CasaCover is held in place to stop it rotating so assistance may be needed at this point

12. Drop the round disc into the hole of the kickstart shaft ensuring it sits flush against the circlip installed previously (see Pic.14)

13. Grease the spring and slide into the special kickstart shaft plunger piston (see Pic.15). Place into the kickstart shaft. The grease will hold the spring in place as you drop this down inside the kickstart shaft

14. Use a small dab of Loctite thread-lock on the locating pin for the kickstart plunger piston (see Pic.16)

15.Press down the plunger piston slightly and then fit the screw into the plunger piston (see Pic.17). If the thread is not visible, the plunger piston can be rotated until the thread is exposed. <u>IMPORTANT : the screw can only be inserted with the kickstart shaft in ONE position within the</u> <u>CasaCover and that is as seen in Pic.18</u>

16. Now allow the kickstart shaft to drop back against the ramp, by slowly releasing it (see Pic.19). Ensure the ramp does not touch the side of the kickstart shaft. If it does, gently tap it outwards with a small hammer until there is visibly a small gap between the two (see Pic.20). At this point, fit the kickstart lever pedal to the CasaCover. With the pedal sat in its fully-retuned position i.e. so that the lug of the pedal is sat up against the rubber rebound buffer, ensure that the screw of the kickstart shaft piston does NOT arrive fully home and there is a 1-2mm gap between the screw and the end of the recess in the return ramp (see Pic.21)

17. Fit the top circlip and spacer washer to the clutch control shaft. Lightly grease the clutch control shaft and then slide it down into the CasaCover, taking care not to damage the small oilseal inside the upper needle roller bearing (see Pic.22)

19. Fit the small circlip to the bottom of the clutch control shaft (see Pic.23)

20. Grease the lower toothed section of the clutch control shaft (see Pic.24). Then fit the chosen matching toothed pressure rod gear for your clutch type<sup>\*</sup> (see Pic.25). Spin the clutch operating shaft back and forth a few times to ensure that the grease is evenly smeared across all toothed surfaces

21. With the toothed pressure rod gear firmly seated back inside the CasaCover, fit the anodised clutch cable arm to the top of the clutch operating shaft approximately in the position shown (see Pic.26). Then fit circlip and the small 4mm clamping screw

22. Fit oil drain plug. Unlike conventional Lambretta sidecasings, the CasaCover uses a small 5mm screw with copper washer as an oil level plug (see Pic.27) but do NOT fit this yet

23. Fit the rubber kickstart lever buffer into the sidecasing (see Pic.28)

24. Apply a thin smear of good quality sealant (such as ThreeBond) to the two large 'O' rings and then place them into their recesses (see Pic.29). Then fit the anodised inspection panel with the 5mm Allen screws (see Pic.31). Tighten them evenly in a zig-zag manner

25. Fit the large kickstart dead-stop 12mm Allen screw & washer inside the CasaCover (see Pic.30)

25. Fit (a new gasket if needed and then) the completed CasaCover to your scooter, followed by the exhaust, rear footboard and bridge-piece, if initially removed

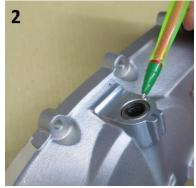
26. Fill engine with gearbox oil until it drips from the level plug hole. Once oil starts dripping, fit the level plug along with its copper washer, followed by the oil filler plug

27. Attach the clutch cable and adjust as necessary. If the feel at the handlebar clutch lever does not immediately become a lot lighter than previously experienced, replace the clutch cable inner with a new one, appropriately lubricated (lightly oiled for traditional type outer cables or with silicon spray for teflon-lined modern outer cables)

28. Once the scooter has been run for a few miles check that all fasteners are tight

29. Enjoy!

















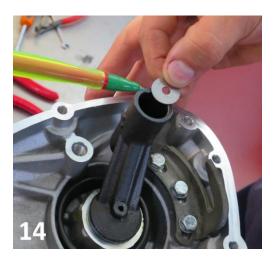












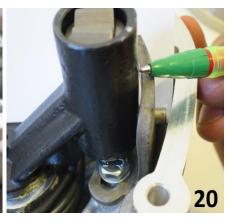


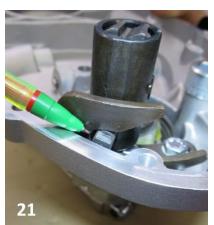






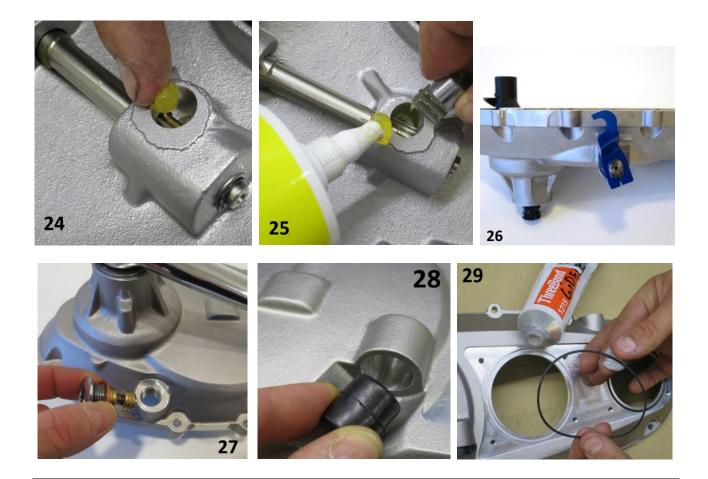












# November 2018; UPDATED PLUNGER WITH BALL BEARING!



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