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Model: Vespa GTS ABS

Subject: improvement of the brake system bleeding procedure

Reference Technical Bulletins:

- 1) 001-2015 of 09/01/2015 (Brake system bleeding)

Dear Dealer / Service Centre,

We hereby inform you that a new specific procedure has been developed that improves the bleeding effectiveness on the Vespa GTS ABS.

This new procedure replaces the procedure referred to in the reference. The manuals are being updated.

The operation requires a total of 75 minutes

Materials required: 2 screws with bleeder + O-Ring + 4 washers (KIT code: 1R000467)

Signalling mode: warranty entry on specific operation code IA0991

Refund: with warranty entry of KIT code (material) and operation code (labor).

To guarantee the maximum effectiveness of the procedure it is fundamental to apply it in a precise and strict manner.

The new procedure is as follows:



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Procedure for bleeding Front brake circuit

Remove the rear view mirrors and any accessories fitted to permit removal of the handlebar covers complete with headlamp. Cover the bodywork of the vehicle adequately to protect against damage and spilt fluid. Turn the handlebar fully to the right to allow unimpeded access for working on the front brake system.



Dry the area in the vicinity of the master cylinder with absorbent paper and remove the connector with the relative copper washers.



Fit the bleeding kit fitting with bleed nipple, P/N **AP8133945** with new copper washers, P/N **AP8113004**, and loosen the bleed nipple nut to open. (Note: These items are found in kit 1R000467)





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Check the brake fluid level in the reservoir.

Top up if necessary.

N.B: use DOT 4 brake fluid



Connect one end of a transparent tube to the bleed nipple, placing the other end of the tube into a suitable container.

The tube must be kept curved, forming a bend above the level of the nipple so that the column of fluid draining from the nipple always drains upwards and never downwards.



Operate the front brake lever and bleed the master cylinder via the bleed nipple, **turning the handlebar fully to the right.**

Observe the fluid bled from the nipple to see if it contains air bubbles. Close the bleed nipple. Operate the master cylinder again, loosen the bleed nipple and check if the fluid contains air bubbles.

Repeat the procedure until only brake fluid containing no air bubbles is bled from the nipple for three consecutive check cycles.



IMPORTANT:

Check the level in the brake master cylinder reservoir frequently during this procedure.



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Lower the container and the tube and disconnect the drain tube to prevent loss of brake fluid.



Open the lid of the master cylinder reservoir, top up with fluid to the correct level and close the lid of the master cylinder.



Support the vehicle adequately.
Remove the front wheel, removing the fastener screws and the relative washers.





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Remove the front wheel.



Loosen the bleed nipple on the brake calliper in preparation for the next step in the procedure.



Turn the handlebar slightly to the right to facilitate the bleeding process.
Fit the bleed tube, curving it to form a bend above the level of the bleed nipple.





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Operate the brake master cylinder, loosen the bleed nipple on the brake calliper and check if the fluid bled contains air bubbles.

Repeat the procedure until only brake fluid containing no air bubbles is bled from the nipple for three consecutive check cycles.

IMPORTANT:

Check the level in the reservoir continuously and top up if necessary.



Remove the bleed tube.



Remove the front brake calliper and the mount, undoing the fastener screws.





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Operate the front brake lever very slowly to bring the front brake pads into contact with each other.



Keeping the handlebar turned to the left, separate the brake pads in a single rapid movement to transfer the brake fluid into the brake master cylinder reservoir.

This step is necessary to bleed the line.

Repeat the previous procedure, bringing the brake pads into contact with each other.

Pressurise the circuit for a few seconds and then release the brake master cylinder lever rapidly.



Refit the calliper on the brake disc and fit and tighten the fastener screws, with the relative washers, to the specified torque.

Tightening torque

Brake calliper - Calliper mount

24 to 27 Nm





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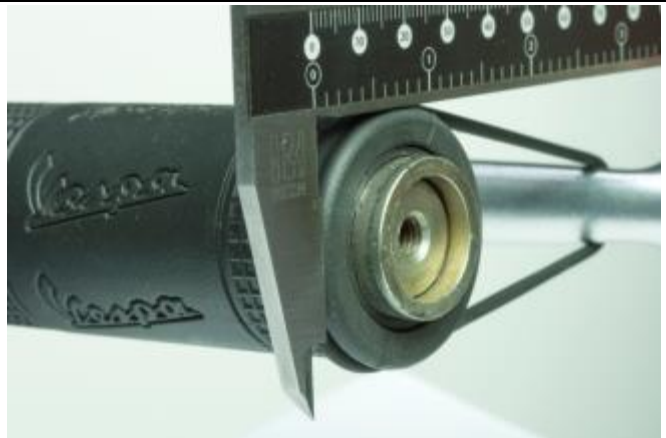
Fit the O-ring P/N **006731**, as shown in the figure. (Note: Found in kit 1R000467)



Place one end of the calliper gauge on the end of the hand grip as shown in the photo.

N.B.:

It is not necessary to remove the bar end weight, which has been removed in the photo solely to illustrate the procedure more clearly.



Place the other end of the calliper gauge on the brake lever as shown in the photo.

Measure the distance between the brake lever and the end of the hand grip. **The distance must be at least 103 mm.**



IMPORTANT: If the distance measured is not correct, repeat the entire bleeding procedure from the start.



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Procedure for bleeding REAR brake circuit

Dry the area in the vicinity of the master cylinder with absorbent paper and remove the connector with the relative copper washers.



Fit the bleeding kit fitting with bleed nipple, P/N **AP8133945** with new copper washers, P/N **AP8113004**, and loosen the bleed nipple nut to open. (Found in Kit 1R000467)



Check the brake fluid level in the reservoir.
Top up if necessary.

N.B: use DOT 4 brake fluid





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Connect one end of a transparent tube to the bleed nipple, placing the other end of the tube into a suitable container.

The tube must be kept curved, forming a bend above the level of the nipple so that the column of fluid draining from the nipple always drains upwards and never downwards.



Operate the rear brake lever and bleed the master cylinder via the bleed nipple, **turning the handlebar fully to the left.**

Observe the fluid bled from the nipple to see if it contains air bubbles. Close the bleed nipple. Operate the master cylinder again, loosen the bleed nipple and check if the fluid contains air bubbles.

Repeat the procedure until only brake fluid containing no air bubbles is bled from the nipple for three consecutive check cycles.



IMPORTANT:

Check the level in the brake master cylinder reservoir frequently during this procedure.

Lower the container and the tube and disconnect the drain tube to prevent loss of brake fluid.





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Open the lid of the master cylinder reservoir, top up with fluid to the correct level and close the lid of the master cylinder.



Connect one end of a transparent tube to the bleed nipple, placing the other end of the tube into a suitable container.

The tube must be kept curved, forming a bend above the level of the nipple so that the column of fluid draining from the nipple always drains upwards and never downwards.



Operate the brake master cylinder, loosen the bleed nipple on the brake calliper and check if the fluid bled contains air bubbles.

Repeat the procedure until only brake fluid containing no air bubbles is bled from the nipple for **three consecutive check cycles**.



IMPORTANT:

Check the level in the reservoir continuously and top up if necessary.



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Fit the O-ring P/N **006731**, as shown in the figure. (Note: Found in Kit 1R000467)



Place the other end of the calliper gauge on the brake lever as shown in the photo.



Place one end of the calliper gauge on the end of the hand grip as shown in the photo. Measure the distance between the brake lever and the end of the hand grip. **The distance must be at least 103 mm.**



N.B.:

It is not necessary to remove the end of the handlebar, which has been removed in the photo solely to illustrate the procedure more clearly.

IMPORTANT: If the distance measured is not correct, repeat the entire bleeding procedure from the start.



Refit the rubber caps on all the bleed nipples.



Please accept our
Best regards,

Piaggio & C. SpA
Business Unit Aftersales
Operations & Technical Service