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Cannondale Motorsports Parts Bulletin

BULLETIN : PB02-005

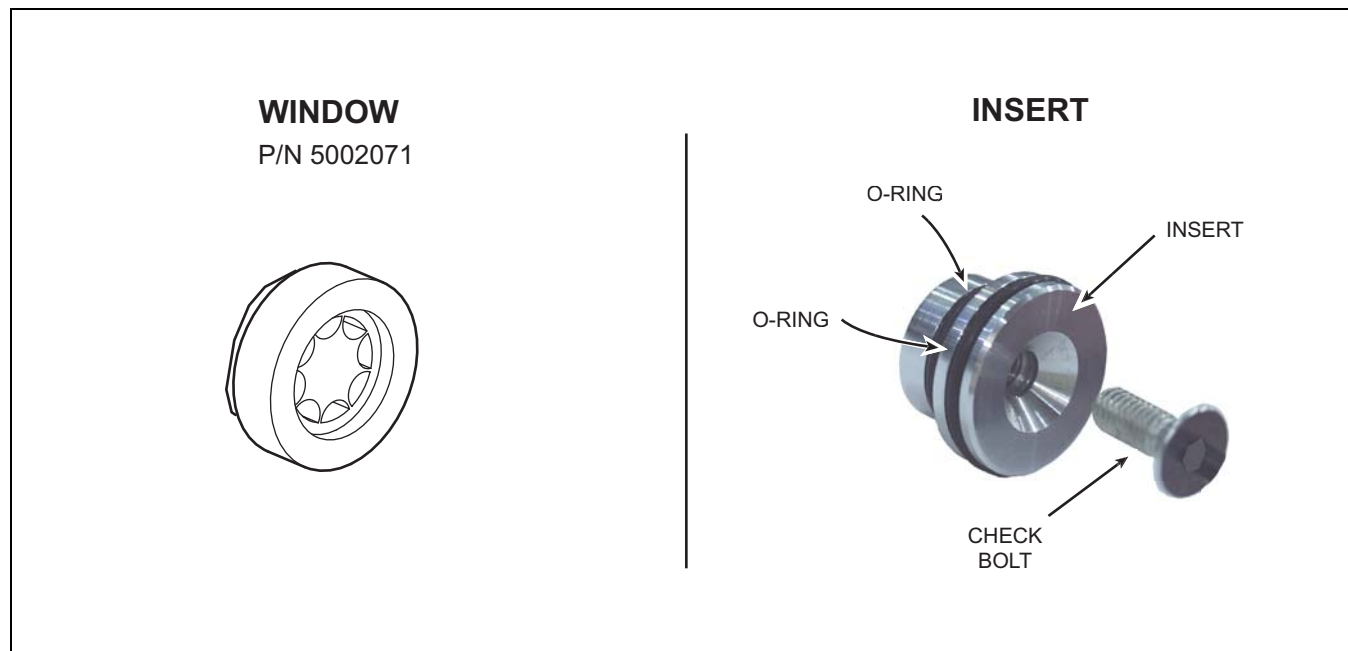
MODELS : All 2002 ATVs and Motorcycles

ISSUED : 5/22/02

SUBJECT : Oil level inspection windows

Due to a temporary shortage of oil inspection windows, a small number of 2002 Motorcycles and ATVs were fitted with an engine oil (motorcycle only) and transmission oil inspection insert. See "Oil inspection inserts" on page 2. The installed inserts were designed to perform for the service life of the vehicle and removal and replacement with the inspection window is optional.

The oil checking procedures of vehicle owner's manuals had been updated (or supplemented) to reflect the change.



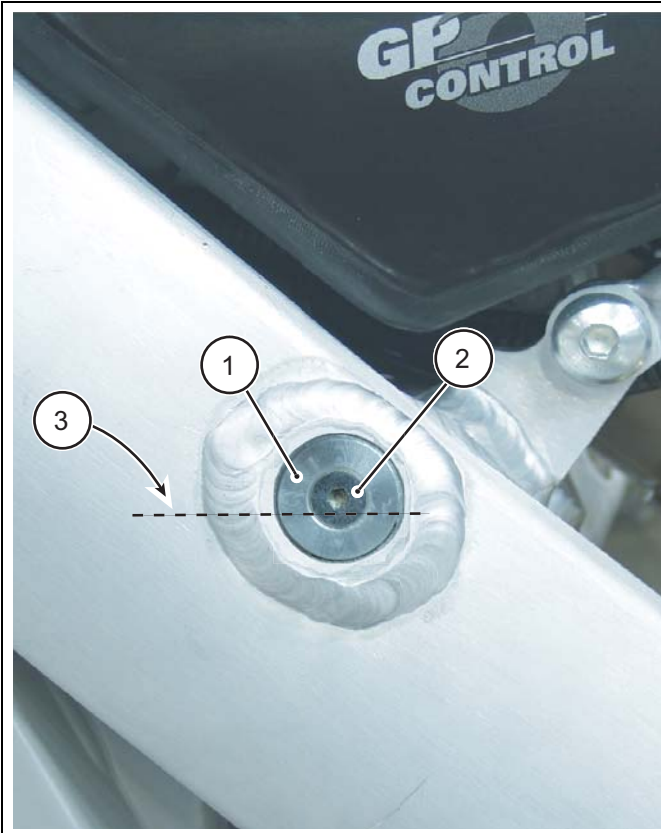
On 5/22/02, production of 2002 models with the inspection windows resumed at our factory. Checking the oil levels is more convenient with the clear inspection window.

This bulletin includes instructions for removal of the insert and installation of the inspection windows.

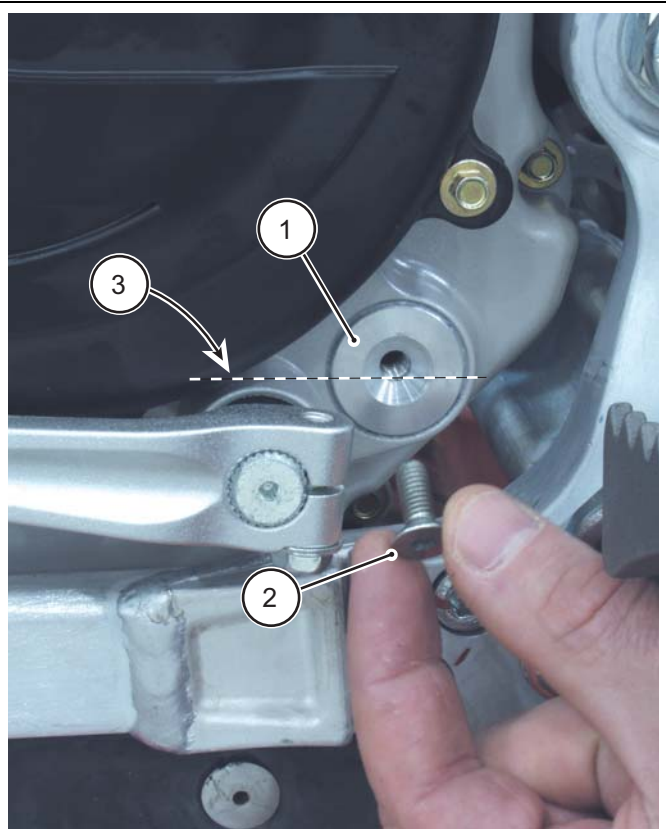
Dealerships should contact Cannondale Dealer Service for parts required to service purchased units fitted with the inserts.

Information is subject to change without notice.

OIL INSPECTION INSERTS



1. Engine oil inspection insert (left frame spar)
2. Engine oil check bolt (shown installed)
3. Correct oil level



1. Transmission oil inspection insert (crankcase)
2. Transmission oil check bolt (shown removed)
3. Correct oil level

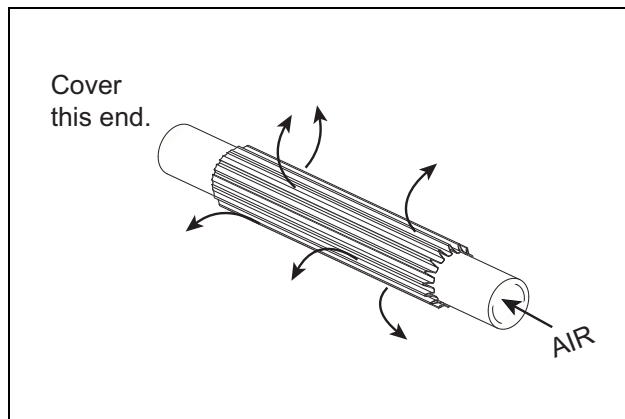
CRANKCASE INSERT REMOVAL / INSTALLATION

The following procedure can be performed as described on either a motorcycle or ATV.

1. Place an oil pan under the transmission drain bolt.
Remove the drain bolt and sealing washer and allow the transmission oil to drain completely.
Remove the filter screen from the drain hole if it did not come out together with the bolt.

NOTE :

Now would be a good time to clean the filter. Use compressed air in small bursts directed to the inside of the filter so contaminants and particles in the filter folds are forced out.

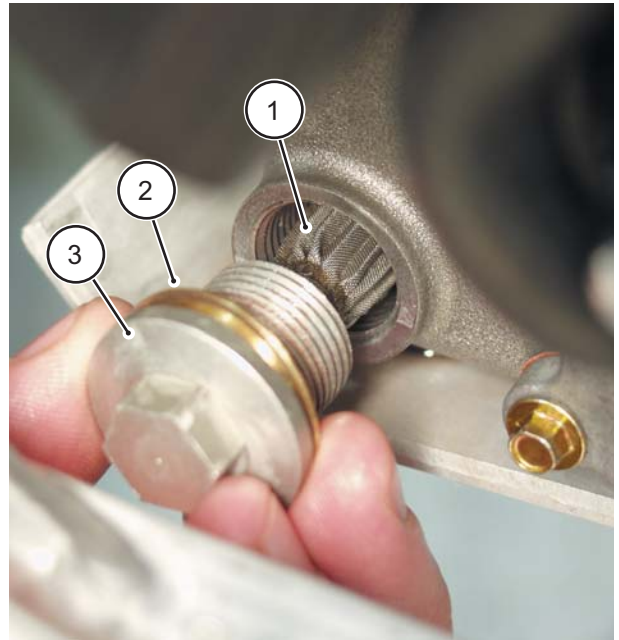


WARNING

Wear eye protection when working with compressed air.

2. When the oil is drained completely, insert the cleaned filter part way into the drain hole. Apply some anti-seize thread lubricant to the drain bolt threads, make sure the sealing washer is in good condition. Install it onto the bolt so the flat side faces the crankcase.
Insert the end of the partially inserted filter into the drain bolt hole and then thread the drain bolt into the crankcase slowly. The other end of

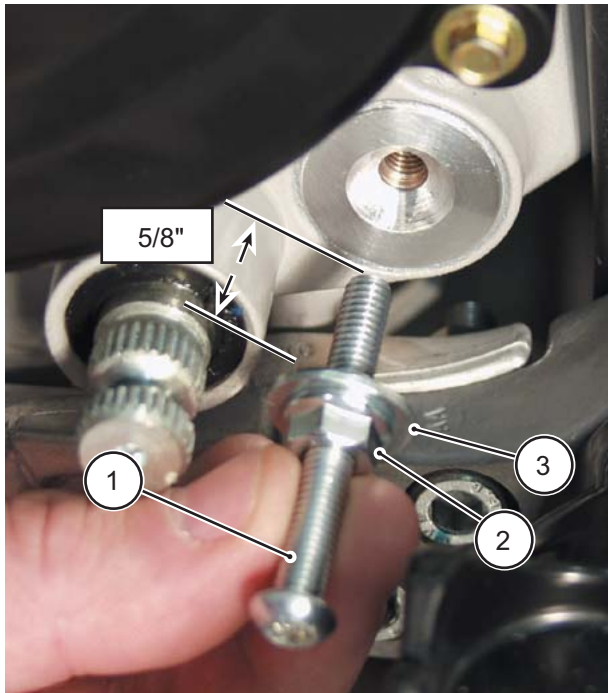
the filter screen should locate in the hole in the transmission cartridge plate easily. If the drain bolt is difficult to turn, back it off and turn slowly until the filter end finally locates. Tighten the bolt to 8.1 N•m (6.0 lbf•ft).



1. Filter
2. Sealing washer
3. Drain bolt

3. Make a reference mark on the shift lever and shift shaft to guide repositioning the lever later. Remove the shift lever pinch bolt and remove the shift lever.
4. Remove the small check bolt from the transmission insert.
5. Thread a nut and washer onto a M6x45 1.0 bolt so that the end of the bolt can be threaded into the insert hole a minimum of 5/8". This will assure that when the insert is pulled all the threads of the insert are engaged with the bolt. If the bolt is not threaded 5/8" they might strip when the force of the slide hammer is applied.

Install into the check hole and tighten finger tight.

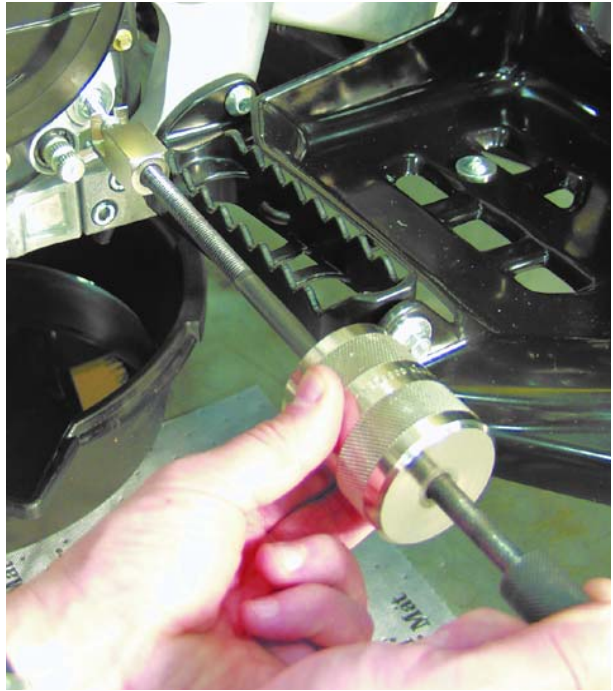


- 1. Bolt (M6x45X1.0)
- 2. Nut
- 3. Washer

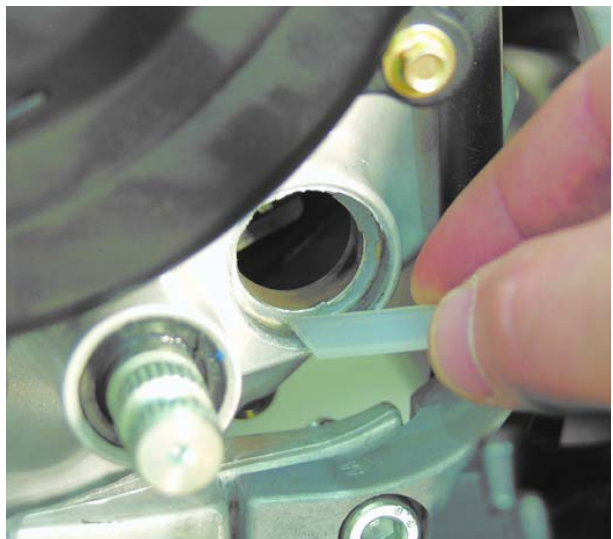
6. When the washer contacts the top of the insert, tighten the nut snug.



7. Use a slide hammer with an end adapter that will accept the head of the installed bolt to remove the insert.



8. When the insert is out, carefully clean any old silicone gasket material from the crankcase cover hole. A small plastic scraper fashioned from a piece of a large zip tie works well.



CAUTION

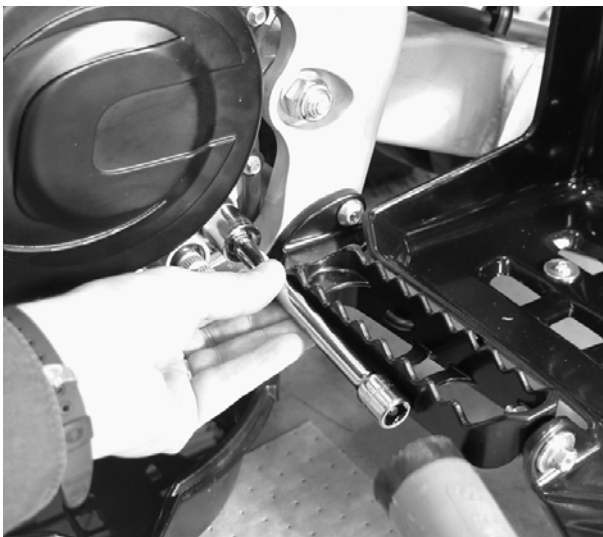
Do not use sharp instruments to scrape at the hole. Sealing surfaces can be damaged.

Be careful to not allow dirt or other debris to enter the transmission thru the hole.

9. Dampen a clean shop towel with brake system cleaner and wipe the hole in the crankcase. Install the inspection window into the crankcase evenly into the hole first using your finger tips.



10. Use a 17mm socket and 3/8" drive extension centered over the outer edge of the seal face to carefully drive the window into the hole. Drive the window until the window face is even with the top of the crankcase hole.



11. Reinstall the shift lever and tighten the pinch bolt to 8.1 N•m (6.0 lbf•ft).

12. Refill the transmission oil and check the window for leaks. Start the engine and check the window again for leaks.

MOTORCYCLE SPAR INSERT REMOVAL / INSTALLATION

Draining the engine oil is not required if the level in the spar is below the bottom edge of the spar hole. If draining the oil is required, consult the owner's manual for correct procedure. Be sure to re-fill oil correctly and check level after the window is installed.

1. Place the motorcycle on a work stand.
2. Remove the small check bolt from the transmission insert.
3. Thread a nut and washer onto a M6x45 1.0 bolt so that the end of the bolt can be threaded into the insert hole a minimum of 5/8". This will assure that when the insert is pulled all the threads of the insert are engaged with the bolt. If the bolt is not threaded 5/8" they might strip when the force of the slide hammer is applied.

Install into the check hole and tighten finger tight.

4. When the washer contacts the top of the insert, tighten the nut snug.
5. Use a slide hammer with an end adapter that will accept the head of the installed bolt to remove the insert.
6. When the insert is out, carefully clean any old silicone gasket material from the crankcase cover hole. A small plastic scraper fashioned from a piece of a large zip tie works well. Work carefully and be sure to remove all old silicone from the hole.

CAUTION

Be careful to not allow dirt or other debris to enter the spar thru the hole.

7. Dampen a clean shop towel with brake system cleaner and wipe the hole in the spar. Install the inspection window into the crankcase evenly into the hole first using your finger tips. You can

use a 17mm socket and 3/8" drive extension centered over the outer edge of the seal face to carefully drive the window into the hole if necessary. Drive the window until the window bottoms lightly in the hole.

8. Reinstall the shift lever and tighten the pinch bolt to 8.1 N•m (6.0 lbf•ft).
9. Refill the transmission oil and check the window for leaks. Start the engine and check the window again for leaks.