OIL PUMP COVER KIT CHROME RIBBED OIL PUMP COVER VT No. 42-0715

This is a custom application and rider safety depends on proper installation. This product should only be installed by a knowledgeable and trained motorcycle technician. V-Twin Mfg. accepts no responsibility for improper installation.

This kit is designed for installation on all 1991 and later FXD, 1993 and later FXDWG, and 1987 and later ST model vehicles.

NOTE: There are separate installation procedures for the FXD and ST models covered by this kit. Make certain you follow the procedure that applies to your motorcycle. All Figures have been placed on pages 3 and 4.

Installation- All FXD Models:

1. See Figure 1. Locate speed nuts and upper (4) and lower (3) mounting brackets. Install speed nuts on brackets, as shown. The 1-1/8 in. speed nut (1) fits lower bracket (3), the 31/32 in. speed nut (2) fits upper bracket (4).

NOTE: FXD Models (Excluding FXDWG): Loosen two bolts on bottom rear brake pedal bracket. Do not remove, loosen these bolts to ease installation access.

2. See Service Parts Illustration. Locate socket screw, and 1/16 in. washer (2), 1/2 in. OD spacer (4) and lower mounting bracket (8) included with kit. Place washer on screw. Insert screw through lower hole in lower bracket for Dyna models as shown in Figure 1. Place spacer over end of screw. Set assembly aside for later installation.

NOTE: When stock screw from oil pump is removed in Step 3, a small amount of oil may leak. Place a shop rag in area around pump to soak up any excess oil.

- 3. See Figure 2. Remove stock screw (4) and washer located in lower, outside position on oil pump. Save washer. Discard screw.
- 4. Place stock washer, removed in previous step, onto end of socket screw (4), assembled onto lower bracket (3) in step 2. Assemble bracket (3) to lower position on oil pump (1). Tighten socket screw (4) just enough to hold bracket in place.
- 5. Loosen upper socket screw (5) and washer on oil pump. Slide slotted end of upper bracket into place on screw (5) between washer and oil pump. Tighten screw (5) to 90-120 **in-lbs**.

NOTE: On FXD models with stock exhaust you will need to loosen the exhaust system and use a ball end driver to remove socket head screw, as described in the next step. Remove rear worm drive clamp from front exhaust shield and rotate it 180° so screw head points downward.

- 6. See Figure 3. Remove socket head screw and washer on transmission (2) from location (1) indicated in Figure 3. Locate 3/16 in. spacer from kit. Place 3/16 in. spacer over end of screw. Begin threading screw into position (1), but leave very loose. Slide cover into position, with slotted tab of cover positioned between washer and spacer. Tighten finger tight.
- 7. Locate long acorn screw and one chrome washer from kit. Place chrome washer over acorn screw.
- 8. Position 7/16 in. O.D. spacer, from kit, under top lip of oil pump cover. Align oil pump cover and spacer with hole in upper bracket. Secure oil pump cover to upper bracket with long acorn screw and washer assembled in Step 7. Tighten finger tight.
- 9. Align hole in speed nut on lower bracket with hole in front surface of oil pump cover.
- 10. Place remaining chrome flat washer from kit on short acorn screw and use to secure oil pump cover to lower bracket. Tighten finger tight.
- 11. Carefully remove oil pump cover. Make certain lower mount bracket is not moved and tighten lower mount bracket socket head bolt to 90-120 **in-lbs**. Reinstall oil pump cover with acorn screws and washers.
- 12. Tighten screw removed from transmission to 13-16 ft-lbs.
- 13. Tighten two acorn screws to 6 ft-lbs. FXD models (Excluding FXDWG) only. Tighten rear brake pedal.

Disassembly-All ST Models with 2 Into 1 Exhaust or Dual Exhaust.

- 1. See Figure 4. To disassemble exhaust from motorcycle, remove 5/16-18x1-1/2 in. bolt (1), two 5/16 in. flat washers (2) and 5/16-18 locknut (3) from transmission mount bracket (4) slot and exhaust pipe mount clamp (5).
- 2. See Figure 5. Remove 3/8-16 hex head bolts, flat washers, and lock washers through muffler support tube.
- 3. Remove nuts and washers from exhaust port studs. Save hardware.
- 4. For Dual Exhaust only. Loosen muffler clamp on crossover pipe, but do not remove. Pull exhaust away from motorcycle enough so that installation of oil pump cover is possible, but crossover pipe remains engaged with right side exhaust pipe. Remove right footboard to aid installation of oil pump cover
- 5. For 2 Into 1 Exhaust only. Remove exhaust from motorcycle. Save all components and hardware for reassembly.

Installation - 1987 through 1991 ST Models

1. See Figure 1. Locate speed nuts and upper (4) and lower (3) mounting brackets. Install speed nuts on brackets, as shown. The 1-1/8 in. speed nut (1) fits lower bracket (3), the 31/32 in. speed nut (2) fits upper bracket (4).

NOTE: When hex screw is removed from oil pump in step 2, a small amount of oil may leak. Place a shop rag in area around pump to soak up any excess oil.

- 2. Remove hex head screw and washer from bottom, outside position on oil pump.
- 3. Insert screw and washer removed in Step 2, through upper hole in lower mounting bracket. Insert screw into hole from which it was removed in step 2 and tighten screws. (See Figure 2 for bracket orientation.)
- 4. Loosen hex head screw and washer in upper outside position in oil pump, but do not remove screw completely.
- 5. Slide slotted end of oil cover upper bracket onto screw between washer and oil pump. Tighten screw to hold bracket in place.
- 5. **ST with Stock Exhaust.** See Figure 3. Remove socket head screw and washer on transmission (2) from location (1). Locate 3/16 in. spacer from kit. Place spacer over end of screw. Begin threading screw into position (1), but leave very loose. Slide cover into position, with slotted tab on oil pump cover positioned between washer and spacer on screw.
 - ST with 2 Into 1 or Dual Exhaust. See figure 6. Loosen, but do not remove, socket head screw (1) and washer (2) securing exhaust mounting bracket (3) to transmission. Slide oil pump cover (4) (slotted end) onto screw (1), between washer (2) and bracket (3). Tighten finger tight.
- 7. Locate long acorn screw and one chrome washer from kit. Place chrome washer over acorn screw.
- 8. Align oil pump cover with hole in upper bracket. Secure oil pump cover to upper bracket with long acorn screw and washer assembled in Step 7. Tighten finger tight.
- 9. Align hole in speed nut with hole in front surface of oil pump cover.
- 10. Place remaining chrome flat washer from kit on short acorn screw and use to secure oil pump cover to lower bracket. Tighten finger tight.
- 11. Carefully remove oil pump cover. Make certain lower mount bracket is not moved and tighten lower mount bracket socket head bolt to 90-120 **in-lbs**. Reinstall oil pump cover with acorn screws and washers.
- 12. Tighten screw removed from transmission to 13-16 ft-lbs.
- 13. Tighten two acorn screws to 6 ft-lbs.

Installation- 1992 and Later ST Models

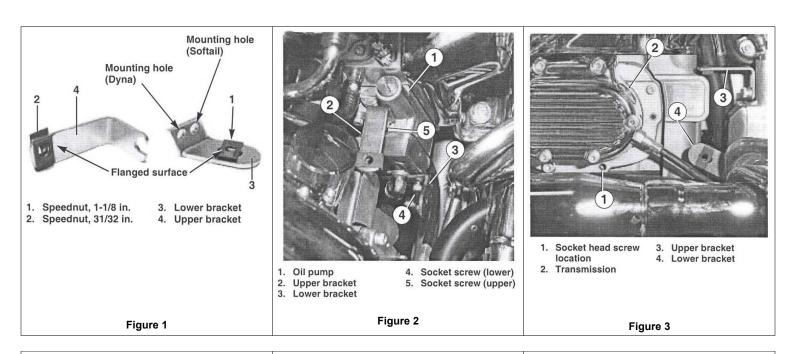
- 1. See Figure 1. Locate speed nuts and upper (4) and lower (3) mounting brackets. Install speed nuts on brackets, as shown. The 1-1/8 in. speed nut (1) fits lower bracket (3), the 31/32 in. speed nut (2) fits upper bracket (4).
- 2. See Service Parts Illustration. Locate socket screw, and 1/16 in. washer (2), 1/2 in. OD spacer (4) and lower mounting bracket (8) included with kit. Place washer on screw. Insert screw through upper hole in lower bracket for ST models as shown in Figure 1. Place spacer over end of screw. Set assembly aside for later installation.

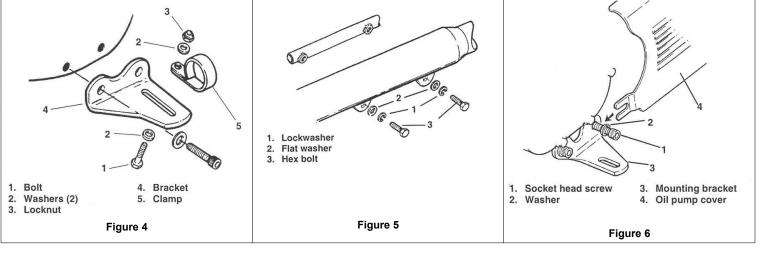
NOTE: When stock screw from oil pump is removed in Step 3, a small amount of oil may leak. Place a shop rag in area around pump to soak up any excess oil.

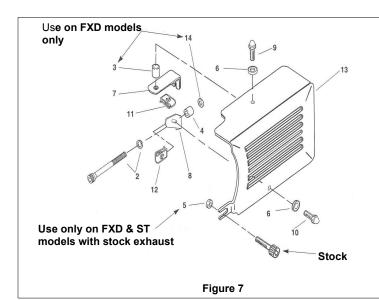
- 3. See Figure 2. Remove stock screw (4) and washer located in lower, outside position on oil pump. Save washer. Discard screw.
- 4. Place stock washer, removed in previous step, onto end of socket screw (4), assembled onto lower bracket (3) in step 2. Assemble bracket (3) to lower position on oil pump (1). Tighten socket screw (4) just enough to hold bracket in place.
- 5. Loosen upper socket screw (5) and washer on oil pump. Slide slotted end of upper bracket into place on screw (5) between washer and oil pump. Tighten screw (5) to 90-120 in-lbs.
- 6. **ST with Stock Exhaust.** See Figure 3. Remove socket head screw and washer on transmission (2) from location (1) indicated in Figure 3. Locate 3/16 in. spacer from kit. Place 3/16 in. spacer over end of screw. Begin threading screw into position (1), but leave very loose. Slide cover into position, with slotted tab of cover positioned between washer and spacer. Tighten finger tight.
 - ST Models with 2 Into 1 Dual Exhaust. See Figure 4. Loosen, but do not remove, far right socket head screw (1) and washer (2) securing exhaust mounting bracket (3) to transmission. Slide oil pump cover (4) (slotted end) onto screw (1), between washer (2) and bracket (3). Tighten finger tight.
- 7. Locate long acorn screw and one chrome washer from kit. Place chrome washer over acorn screw.
- 8. Align oil pump cover with hole in upper bracket. Secure oil pump cover to upper bracket with long acorn screw and washer assembled in Step 7. Tighten finger tight.
- 9. Align hole in speed nut with hole in front surface of oil pump cover.
- 10. Place remaining chrome flat washer from kit on short acorn screw and use to secure oil pump cover to lower bracket. Tighten finger tight.
- 11. Carefully remove oil pump cover. Make certain lower mount bracket is not moved and tighten lower mount bracket socket head bolt to 90-120 in-lbs. Reinstall oil pump cover with acorn screws and washers.
- 12. Tighten screw removed from transmission to 13-16 ft-lbs.
- 13. Tighten two acorn screws to 6 ft-lbs.

Reassembly- All ST Models with 2 Into 1 Exhaust or Dual Exhaust

- 1. Dual Exhaust Only. Re-engage right exhaust fully into crossover pipe.
- 2. All Models. Use nuts and washers, removed in step 3 of Disassembly 2 Into 1 Exhaust Section, to snug exhaust flanges into place. Do not tighten at this time.
- 3. See Figure 4. Install 5/16-18 x 1-1/2 in. hex head bolt and 5/16 in. flat washer through transmission mount bracket slot and exhaust pipe mount clamp. Install 5/16 in. flat washer and 5/16-18 locknut. Do not tighten at this time.
- 4. See Figure 5. Insert 3/8-16 x 2-1/2 in. hex head bolts, 3/8 in. flat washers and 3/8 in. lock washers through muffler support tube. Screw the bolts into the swing arm bracket stock mounting holes. Do not tighten at this time.
- 5. Tighten muffler bolts to 16 ft-lbs.
- 6. Tighten muffler clamp bolt to 16 ft-lbs.
- 7. Tighten exhaust pipe flange nuts to 60-80 in-lbs.
- 8. Dual Exhaust only. Retighten muffler clamp on crossover pipe to 16 ft-lbs. Install right footboard.







Item Description

- 1 Hardware kit (contains items 2 -5)
- 2 Screw and 1/16 in. washer
- 3 Spacer, 9/32 in. ID x 7/16 in. OD x 1/2in. thick
- 4 Spacer, 9/32 in. ID x 1/2in. OD x 7/16 in. thick
- 5 Spacer, 21/64 in. 10 x 5/8in. OD x 3/16 in. thick
- 6 Washer (2)
- 7 Mounting bracket. upper
- 8 Mounting bracket, lower
- 9 Screw. acorn, hex, 1.5 in. long
- 10 Screw, acorn, hex, 1.2 in. long
- 11 Clip nut. 31/32 in. long
- 12 Clip nut, 1-1/8 in. long
- 13 Oil pump cover
- 14 Stock washer on FXD models only