

SERVICE BULLETIN

M-897

October, 1984



1985 1340cc Five-Speed Transmissions

A small number of 1985 five-speed transmissions may have been assembled with unseated lockrings retaining countershaft fifth gear. These transmissions must be inspected for this condition along with the remaining five lockrings.

A complete list of vehicles, assembled with a transmission from this group, is attached. If you were shipped a listed vehicle, the inspection must be performed prior to use. If any of these vehicles are currently in service, we urge you to contact the owner and arrange to have the inspection service performed.

Preparation For Inspection

1. Place adequate blocking under the frame to raise the rear wheel off the floor.

WARNING

Disconnect the battery cables (negative cable first) to prevent accidental start-up of vehicle and possible personal injury.

2. To prepare the transmission for inspection remove the following:

- A. Exhaust system and solenoid
- B. Shifter cam cover
- C. Shifter cam assembly
- D. Clutch release lever
- E. Fork shaft
- F. Shifter forks

NOTE

It may be necessary to rotate rear wheel slightly to free shifter forks for removal.

Inspection Procedure (See Figure 1)

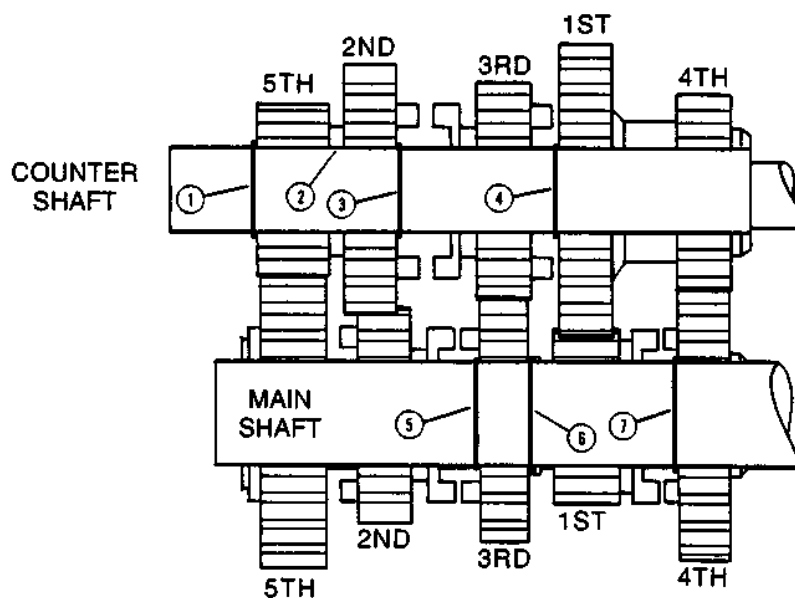
NOTE

It may be necessary to jog rear wheel to free up gears for lateral movement.

CAUTION

Each retaining ring must be inspected with a flashlight beam on the retaining ring and groove. Be sure each retaining ring is properly in the ring groove. Any ring out of its groove must be moved into the groove with a screwdriver or other thin bladed instrument.

ROUTING:	SERVICE MANAGER	SALES MANAGER	PARTS MANAGER	CHIEF MECHANIC	MECHANIC NO. 1	MECHANIC NO. 2	MECHANIC NO. 3	MECHANIC NO. 4	RETURN THIS TO:
INITIAL HERE									



1. Retaining ring — 5th gear countershaft
2. Spacer — countershaft
3. Retaining ring — 2nd gear countershaft
4. Retaining ring — 1st gear countershaft
5. Retaining ring — 3rd gear main shaft (left)
6. Retaining ring — 3rd gear main shaft (right)
7. Retaining ring — 4th gear main shaft

Figure 1 Retaining Ring Location

1. Move 1st gear mainshaft as far as possible to the left. From the left side of the vehicle, look closely to be sure retaining ring (7) is properly seated.
2. Move mainshaft 2nd gear to the left. From the left side of the vehicle, look closely to be sure retaining ring (5) is properly seated.
3. Move mainshaft 1st gear to the right. From the right side of the vehicle, look closely to be sure retaining ring (6) is properly seated.
4. Move countershaft 3rd gear to the right. From the right side, look closely to be sure retaining ring (3) is properly seated.
5. Move countershaft 3rd gear to the left. From the left side of vehicle, look closely to be sure retaining ring (4) is properly seated.
6. While standing at the right side of the vehicle, position a mirror so that retaining ring (1) is visible in the mirror. This is only a check to be sure a ring is on the shaft. With a screwdriver, pry between the countershaft 5th and 2nd gears. After all permissible clearance has been taken up, insert a feeler gauge between spacer (2) and the adjacent gear at either side. The feeler gauge measurement should not exceed .044 in. Excess clearance indicates ring (1) is out of the groove. If necessary, reposition ring (1) back in groove. Upon completion of the inspection, submit a properly completed warranty claim form, using labor code 4370. You will be credited 1.7 hours labor for FLT models and 1.0 hours labor for FXR models.

VEHICLES INVOLVED — 1985

1HD1DBL14FY500969	1HD1DBL11FY501965	1HD1DDL16FY501827
1HD1DBL10FY501777	1HD1DBL19FY501969	1HD1DDL18FY501828
1HD1DBL10FY501794	1HD1DBL18FY501977	1HD1DDL18FY501831
1HD1DBL18FY501798	1HD1DBL1XFY501981	1HD1DDL1XFY501832
1HD1DBL16FY501802	1HD1DBL14FY501989	1HD1DDL15FY501835
1HD1DBL10FY501813	1HD1DBL16FY501993	1HD1DDL17FY501836
1HD1DBL18FY501817	1HD1DBL13FY501997	1HD1DDL12FY501839
1HD1DBL11FY501822	1HD1DBL1XFY502001	1HD1DDL14FY501843
1HD1DBL10FY501830	1HD1DBL13FY502034	1HD1DDL16FY501844
1HD1DBL18FY501834	1HD1DBL11FY502050	1HD1DDL17FY501853
1HD1DBL15FY501838	1HD1DBL11FY502064	1HD1DDL10FY501855
1HD1DBL18FY501865	1HD1DBL17FY502067	1HD1DDL12FY501856
1HD1DBL13FY501866	1HD1DBL14FY502088	1HD1DDL14FY501857
1HD1DBL19FY501874	1HD1DDL14FY501776	1HD1DDL11FY501864
1HD1DBL16FY501878	1HD1DDL15FY501785	1HD1DDL17FY501867
1HD1DBL16FY501881	1HD1DDL10FY501791	1HD1DDL17FY501870
1HD1DBL11FY501884	1HD1DDL18FY501795	1HD1DDL19FY501871
1HD1DBL16FY501895	1HD1DDL19FY501806	1HD1DDL10FY501872
1HD1DBL11FY501898	1HD1DDL18FY501814	1HD1DDL12FY501873
1HD1DBL13FY501921	1HD1DDL11FY501816	1HD1DDL1XFY501877
1HD1DBL19FY501924	1HD1DDL15FY501818	1HD1DDL13FY501882
1HD1DBL14FY501927	1HD1DDL13FY501820	1HD1DDL19FY501885
1HD1DBL19FY501941	1HD1DDL15FY501821	1HD1DDL16FY501889
1HD1DBL16FY501945	1HD1DDL19FY501823	1HD1DDL12FY501890
1HD1DBL15FY501953	1HD1DDL10FY501824	1HD1DDL16FY501892
1HD1DBL14FY501961	1HD1DDL12FY501825	1HD1DDL18FY501893

1HD1DDL1XFY501894	1HD1DDL14FY501972	1HD1DDL19FY502079
1HD1DDL13FY501896	1HD1DDL11FY501976	1HD1DDL17FY502081
1HD1DDL15FY501897	1HD1DDL17FY501979	1HD1DDL19FY502082
1HD1DDL19FY501899	1HD1DDL13FY501980	1HD1DDL10FY502083
1HD1DDL16FY501925	1HD1DDL10FY501984	1HD1DDL18FY502087
1HD1DDL11FY501931	1HD1DDL18FY501988	1HD1DDL11FY502089
1HD1DDL13FY501932	1HD1DDL13FY501994	1HD1DDL18FY502090
1HD1DDL17FY501934	1HD1DDL15FY501995	1HD1DDL13FY502093
1HD1DDL12FY501940	1HD1DDL10FY501998	1HD1DDL17FY502100
1HD1DDL18FY501943	1HD1DDL17FY502002	1HD1DDL14FY502149
1HD1DDL1XFY501944	1HD1DDL19FY502003	1HD1DFL17FY501797
1HD1DDL13FY501946	1HD1DDL12FY502005	1HD1DFL14FY501837
1HD1DDL15FY501947	1HD1DDL16FY502007	1HD1DFL16FY501841
1HD1DDL17FY501948	1HD1DDL16FY502010	1HD1DFL11FY501875
1HD1DDL15FY501950	1HD1DDL11FY502013	1HD1DFL15FY501930
1HD1DDL17FY501951	1HD1DDL17FY502016	1HD1DFL17FY502139
1HD1DDL19FY501952	1HD1DDL19FY502017	1HD1DGL12FY501938
1HD1DDL12FY501954	1HD1DDL10FY502018	1HD1DGL13FY501978
1HD1DDL14FY501955	1HD1DDL19FY502020	1HD1DHL15FY501826
1HD1DDL11FY501959	1HD1DDL11FY502027	1HD1EBL13FY112645
1HD1DDL18FY501960	1HD1DDL15FY502029	1HD1EBL14FY114534
1HD1DDL13FY501963	1HD1DDL15FY502032	1HD1EBL1XFY114537
1HD1DDL10FY501967	1HD1DDL10FY502035	1HD1EBL11FY114541
1HD1DDL12FY501968	1HD1DDL18FY502039	1HD1EBL16FY114549
1HD1DDL10FY501970	1HD1DDL11FY502075	1HD1EBL18FY114553
1HD1DDL12FY501971	1HD1DDL17FY502078	1HD1EBL18FY114567

1HD1EBL1XFY114571	1HD1EBL13FY114914	1HD1ECL15FY114581
1HD1EBL15FY114574	1HD1EBL19FY114917	1HD1ECL16FY114606
1HD1EBL14FY114579	1HD1EBL1XFY114926	1HD1ECL14FY114636
1HD1EBL14FY114582	1HD1EBL14FY114937	1HD1ECL19FY114650
1HD1EBL11FY114586	1HD1EBL18FY114939	1HD1ECL19FY114907
1HD1EBL1XFY114599	1HD1EBL18FY114942	1HD1ECL18FY114915
1HD1EBL18FY114620	1HD1EBL17FY114950	1HD1ECL17FY114940
1HD1EBL13FY114623	1HD1EBL12FY114953	1HD1ECL14FY114944
1HD1EBL10FY114627	1HD1EBL1XFY114957	1HD1ECL14FY114961
1HD1EBL10FY114630	1HD1EBL13FY114962	1HD1ECL13FY114997
1HD1EBL18FY114634	1HD1EBL1XFY114991	1HD1ECL14FY115012
1HD1EBL13FY114637	1HD1EBL12FY115018	1HD1ECL16FY115027
1HD1EBL10FY114644	1HD1EBL12FY115021	1HD1ECL17FY115084
1HD1EBL18FY114648	1HD1EBL18FY115041	1HD1ECL1XFY115127
1HD1EBL18FY114665	1HD1EBL11FY115043	1HD1ECL18FY115143
1HD1EBL13FY114668	1HD1EBL12FY115049	1HD1ECL11FY115159
1HD1EBL10FY114711	1HD1EBL10FY115051	1HD1EDL13FY114746
1HD1EBL18FY114715	1HD1EBL14FY115053	1HD1EDL11FY114759
1HD1EBL15FY114719	1HD1EBL1XFY115056	1HD1EDL11FY114762
1HD1EBL19FY114741	1HD1EBL13FY115058	1HD1EDL15FY114778
1HD1EBL12FY114757	1HD1EBL11FY115060	1HD1EDL11FY115166
1HD1EBL19FY114853	1HD1EBL17FY115063	1HD1EDL10FY115174
1HD1EBL10FY114854	1HD1EBL10FY115065	1HD1EDL18FY115181
1HD1EBL11FY114863	1HD1EBL14FY115067	1HD1EDL12FY115189
1HD1EBL10FY114871	1HD1EBL13FY115108	1HD1EFL16FY114767
1HD1EBL12FY114872	1HD1EBL13FY115285	1HD1EFL14FY114783
1HD1EBL18FY114875	1HD1EBL14FY115313	1HD1EFL19FY115105
1HD1EBL19FY114903	1HD1EBL16FY115314	1HD1EFL19FY115119
1HD1EBL1XFY114912	1HD1ECL15FY114533	1HD1EFL17FY115135

REMOVAL AND INSTALLATION

1. Follow the removal procedures as described under REAR WHEEL in Section 2.
2. Remove the primary housing as described later in this section under PRIMARY CHAINCASE.
3. Remove the rear swing arm. See Section 7, Transmission Case, REMOVAL, Steps 7, 8 and 9.
4. Remove the old belt from the transmission sprocket and install the new belt. See Caution.

CAUTION

The old belt, if it is to be reused, or a replacement belt must be handled carefully to prevent bending stress. The belts must never be formed into a loop smaller than 3 inches diameter. Sharp bending can weaken the belt to such an extent that a premature failure will result.

5. Install the rear swing arm. See Section 7, Transmission Case, INSTALLATION, Steps 3, 4, 5 and 6.
6. Install the primary housing as described later in this section under Primary Chaincase, ASSEMBLY.

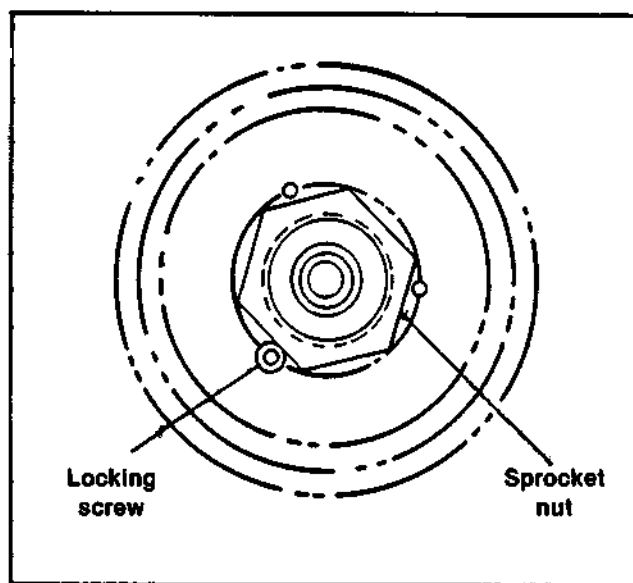


Figure 6-14. Securing Sprocket Nut

7. Install the compensating sprocket, primary chain and clutch as described under CLUTCH later in this section.
8. Follow the installation procedure as described under REAR WHEEL in Section 2.
9. Adjust the rear belt as described earlier in this section.

TRANSMISSION SPROCKET

Removal

1. Remove primary chain and case as described under PRIMARY CHAINCASE later in this section.
2. Remove the socket head cap screw installed next to one of the nut flats. Apply rear brake and remove the sprocket nut using SPROCKET NUT WRENCH, Part No. HD-94660-37A. Nut has a left hand thread.
3. Loosen rear axle nut and axle adjuster nuts and slide rear wheel forward. Remove transmission sprocket.

Cleaning, Inspection and Repair

1. Clean sprocket of all grease and dirt using solvent.
2. Replace sprocket if there is any damage or cracks.

Installation

1. Install belt on sprocket as sprocket is installed on main drive gear. Install nut finger tight.
2. Adjust rear belt as described earlier in this section.
3. Apply rear brake and tighten sprocket nut to 80-90 ft-lbs torque using Part No. HD-94660-37A. If necessary, turn the sprocket nut an additional amount (120 ft-lbs maximum), just enough to expose one of three locking screw holes. The proper hole location in relationship to the nut is shown in Figure 6-14. Coat threads of locking screw with Loctite LOCK-N-SEAL. Install locking screw in the exposed hole and tighten to 50-60 in-lbs torque.
4. Install primary chaincase and case as described under primary case ASSEMBLY late in this section.