Bulletin No.: PI1024C Date: Jun-2015



Service Bulletin

# PRELIMINARY INFORMATION

Subject: Chevrolet Spark Product Information for Jatco CVT Automatic Transmission

Models: 2014-2015 Chevrolet Spark

**Equipped With Jatco CVT Automatic Transmission** 

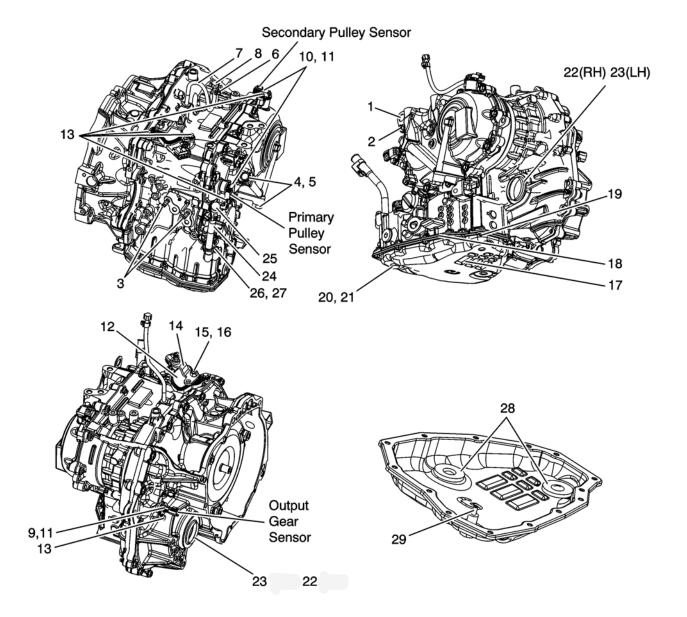
This PI has been revised to update the section titled: Transmission Fluid Cooler Flushing and Flow Test, by removing this text "when performing the Flushing and Flow Test on the Jatco CVT" and adding a footnote for DEXRON® VI being a registered trademark. Please discard PI1024B.

# **Transmission General Description**

The JATCO CVT Transmission is a continuous variable transmission with a pair of variable pulleys, a steel belt and a shifting ratio planetary gear set designed to improve the overall performance of the transmission. Each pulley set has one fixed sheave and one moving sheave which determine the transmission ratio in each range. This transmission has an overall ratio spread of 7.3:1

For detailed information and component pictures regarding this transmission refer to SI. Go to > 2014 or 2015 > Chevrolet Spark (US/Canada) > Service Manual/Bulletins > Transmission > Automatic Transmission - Jatco CVT > Description and Operation > Transmission Component and System Description

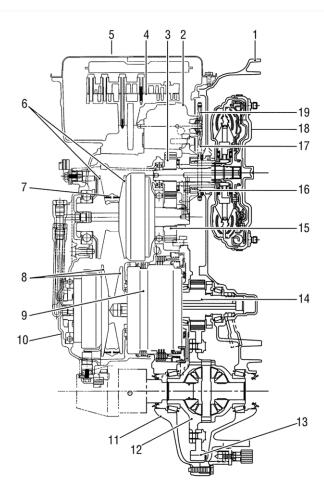
## **Transmission Component View**



- 1. Engine Lift Bracket
- 2. Engine Lift Bracket Bolt/Screw
- 3. Transmission Case Bolts/Studs
- 4. Transmission Case Plug Seal (O Ring)
- 5. Transmission Case Plug
- 6. Transmission Vent Pipe
- 7. Transmission Vent Hose
- 8. Transmission Vent Hose Clip
- 9. Transmission Output Speed Sensor
- 10. Transmission Input Speed Sensor
- 11. Vehicle Speed Sensor Seal (O Ring)
- 12. Manual Shift Detent Assembly Lever (With Shift Position Switch)
- 13. Transmission Speed Sensor Bolt/Screw
- 14. Transmission Range Selector Lever Assembly
- 15. Transmission Range Selector Lever Washer
- 16. Transmission Range Selector Lever Nut
- 17. Transmission Fluid Pan Assembly

- 18. Transmission Fluid Pan Gasket
- 19. Transmission Fluid Pan Bolt/Screw
- 20. Transmission Fluid Pan Drain Plug
- 21. Transmission Fluid Pan Drain Plug Gasket
- 22. Font Wheel Drive Shaft Oil Seal Assembly (RHS)
- 23. Font Wheel Drive Shaft Oil Seal Assembly (LHS)
- 24. Transmission Fluid Fill Tube
- 25. Transmission Fluid Fill Tube Plug Assembly
- 26. Transmission Fluid Fill Tube Bolt/Screw
- 27. Transmission Fluid Fill Tube Seal (O Ring)
- 28. Transmission Fluid Pan Magnet
- 29. Transmission Fluid Drain Plug and Overflow Tube

# **Transmission Cross-Sectional View**



- 1. Converter Housing
- 2. Oil Pump
- 3. Counter Drive Gear
- 4. Control Valve
- 5. Oil Pan
- 6. Primary Pulley
- 7. Steel Belt
- 8. Secondary Pulley

- **9.** Planetary Gear (Auxiliary Gearbox)
- 10. Side Cover
- 11. Transmission Case
- 12. Differential Case
- 13. Final Gear
- 14. Reduction Gear
- 15. Counter Driven Gear
- 16. Drive Sprocket
- 17. Oil Pump Chain
- 18. Torque Converter
- 19. Driven Sprocket

#### **Transmission Fluid**



- In the United States use: ACDelco CVT Fluid P/N 19260800 (Shown)
- In Canada use: ACDelco CVT Fluid P/N 19299096

The Jatco CVT automatic transmission uses a transmission fluid which is green in color. This fluid is **DIFFERENT** from the Saturn CVT green automatic transmission fluid.

**DO NOT** use the Saturn CVT green automatic transmission fluid or DEXRON® VI, as these fluids **ARE NOT** compatible with the Jatco CVT automatic transmission.

## **Transmission Fluid Level and Condition Check**

Caution: Use the correct transmission fluid as identified in this PI. Failure to do so may result in internal transmission damage.

1. The vehicle must be on a flat surface.

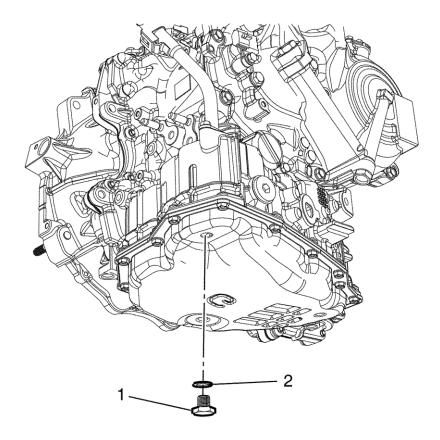
- 2. Move the selector lever into the Park (P) position and then completely engage the parking brake.
- 3. Start and idle the engine.

Notice: The CVT fluid is largely affected by temperature, therefore be sure to use the diagnostic tool to check the fluid temperature while adjusting.

- 4. Wait until the transmission fluid temperature reaches 122°F (50°C).
- 5. Move through the selector lever positions with the foot brake depressed. Switch the selector lever from position P to L and then back to P. Hold each position for at least 5 seconds.
- 6. Verify that there are not any transmission fluid leaks.

Notice: Continue to perform this work with the engine idling.

- 7. Check the transmission fluid temperature with the diagnostic tool.
- 8. When the transmission fluid temperature has reached approximately 122–176°F (50–80°C), raise the vehicle.



- 9. Remove the drain plug (1). Remove and DISCARD the drain plug gasket (2).
  - ⇒ If the fluid is flowing as a steady stream, wait until the fluid begins to drip. If no fluid comes out, add fluid until it drips out.

Notice: Do not re-use drain plug gasket, replace with a NEW gasket.

- 10. When the fluid drips out from the overflow tube, install the drain plug (1) with a NEW gasket (2) and tighten to 34 Y (25 lb ft).
- 11. Lower the vehicle.

# **Transmission Fluid Cooler Flushing and Flow Test**

Notice: Refer to SI for the complete transmission fluid cooler flushing and flow test procedure. Go to > Chevrolet Spark (US/Canada) > Service Manual/Bulletins > Barina Spark Automatic Transmission > Transmission Cooling > Diagnostic Information and Procedures > Transmission Fluid Cooler Flushing and Flow Test (JATCO CVT)

GM studies indicate that plugged or restricted transmission oil coolers and pipes cause insufficient transmission lubrication and elevated operating temperatures which can lead to premature transmission failure. Many repeat repair/replacement cases could have been prevented by following published procedures for transmission oil cooler flushing and flow checking. The procedure includes flow checking and flushing the auxiliary transmission oil cooler.

The Spark ONLY USES GM transmission fluid ACDelco CVT Fluid P/N 19260800 - United States, and in Canada ACDelco CVT Fluid P/N 19299096.

Cooler Flow Check and Flushing Steps

Time allowance for performing the cooler flow checking and flushing procedure has been included in the appropriate labor time guide operation. The service procedure steps for oil cooler flushing and flow testing are as follows:

- 1. Machine Set-up
- 2. Determine Minimum Flow Rate
- 3. Back Flush
- 4. Forward Flush
- 5. Flow Test
- 6. Code Recording Procedure
- 7. Clean-up

#### **Special Tools**

For equivalent regional tools, refer to Special Tools in SI.

- DT-45096 Transmission Oil Cooling System Flush and Flow Test Tool
- DT-45096-50 Transmission Cooler Flush Adapter
- DT-51175 Range Switch Tool
- DT-51323 Seal Installer
- Shop air supply with water/oil filters, regulator and pressure gauge minimum 90 psi
- Eye Protection
- Rubber Gloves

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GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.

