

Date: **December 15, 2006** Subject: **V-twin Engines  
Long Block Service Parts**

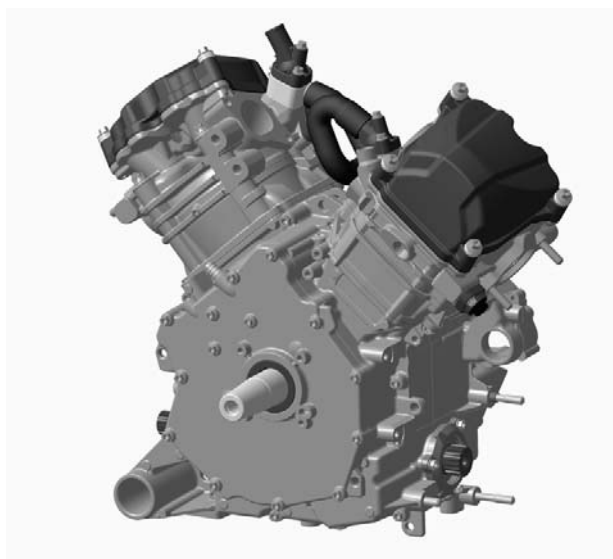
No. **2007-9**

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
2006-2007	Outlander™ with a V-twin Engine	All	All

Complete engines are no longer available as service parts. They are now replaced by long blocks and no longer include gearbox, CVT system and other peripheral components such as magneto cover, stator, flywheel, starter, ECU, wiring harness, throttle body, manifolds, fuel rails, sensors, injectors etc.

When repairing a vehicle with a long block, ensure to refer to the appropriate *Shop Manual*. A simplified **step by step procedure** is provided in this *Service Bulletin*. Use this procedure as a check list and ensure all steps are thoroughly done for a proper repair.

Please notify all involved personnel.



ENGINE TYPE	COMPLETE ENGINE P/N (obsolete)	=>	LONG BLOCK P/N
500 V-twin	707 000 491	=>	420 049 030
650 V-twin	707 000 488	=>	420 066 030
800 V-twin	707 000 505	=>	420 081 030
800 V-twin CE	707 000 504	=>	420 081 030
800 V-twin Renegade	707 000 489	=>	420 081 030

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# CHECK LIST

- Remove CVT assembly from old engine.
- Remove transmission from old engine.
- Remove air intake system (manifold, fuel rails, injectors, throttle body, ) and wiring harness from old engine and install them on new one.
- Remove oil pressure switch from old engine and install it on new one.
- Remove coolant temperature sensor from old engine and install it on new one.
- Remove magneto cover from old engine.
- Lock crankshaft and remove rotor assembly as per *Shop Manual* procedure.

**NOTE:** Ensure sprag clutch is in good condition.

- Install rotor assembly on new engine as per *Shop Manual*.
- Remove and clean oil pressure regulation valve and oil bores in magneto cover.
- Reassemble as per *Shop Manual*.
- Apply Dreibond<sup>†</sup> 2290 (P/N 420 297 906) or Loctite<sup>††</sup> 5910 (P/N 293 800 081) sealing compound on generator cable grommet, on surface to paper gasket.
- Install a new gasket and magneto cover on new engine and torque fasteners as per *Shop Manual* specifications.
- Apply engine oil on rear output shaft splines and Loctite 767 (P/N 293 800 070) in coupling sleeve in transmission.
- Ensure O-ring in rear bearing cover is not damaged, apply some engine oil on it, then install transmission onto engine as per *Shop Manual* procedure.
- Using Loctite 243 (P/N 293 800 060), secure fasteners of CVT back plate to engine and transmission; then install CVT assembly as per the *Shop Manual* procedure.
- Fill engine and gearbox with recommended oils and coolant.
- Perform a cooling system leak test.
- Connect vehicle to B.U.D.S. and perform a *Closed Throttle* and *Idle Actuator* reset.
- Leave B.U.D.S. connected; hold throttle open at 2/3 or more to put in **drowned engine mode**, then crank starter for 10 to 15 seconds to fill lubrication circuit and to build up oil pressure.
- Install oil pressure gauge then run engine at idle speed until fan comes on.
- Ensure oil pressure is up to specifications as per *Shop Manual* and check for any **Fault Codes**.
- After engine cools down, adjust valves per *Shop Manual* procedure.

<sup>†</sup> Dreibond is a trademark of Drei Bond GMBH.

<sup>††</sup> Loctite is a registered trademark of Henkel Ltd.