



Technical Service Information

FORD 5R110W

PUMP DAMAGE SOON AFTER OVERHAUL

COMPLAINT: A Ford truck equipped with a 5R110W transmission is delivered to the owner after transmission repairs have been completed. The truck returns with a “No Move” condition usually within 100 miles of driving. Upon disassembly, the pump gear are welded to the pump plate and may even be broken, Refer to Figure 1. The torque converter neck is discolored and also damaged. Close inspection of the pump spacer plate shows electrical tracking, Refer to Figure 2.

CAUSE: A compromised main ground from the negative side of the battery(s) or the ground is attached to an inappropriate location such as a bell housing bolt, Refer to Figure 3.

CORRECTION: The battery(s) negative ground cable should always be secured and clean to the engine block as seen in Figure 4. An additional ground strap should be ran from the transmission to the frame. Transmission to engine mounting surfaces should be clean and free of paint.

NOTE: It is always a good practice to perform a voltage drop test, preferably with the engine running, from the negative battery cable to a “GOOD KNOWN” ground and should never have more than 0.3 Volts DC (300 Millivolts) as seen in Figure 5.

It is also a good practice to perform this voltage drop test from the transmission case to the vehicle frame with the same voltage results to insure that the transmission is not carrying significant voltage as shown in Figure 6.

If a ground cable is being attached to a stud and double nut affair, make certain the inner nut and stud are tight before tightening the outer nut. It is a good practice to use “Star Washers” rather than lock washers which may loosen when attaching ground cables.

Many thanks to Henry Schmidt, Certified Transmission for the use of the photos that made this bulletin possible.



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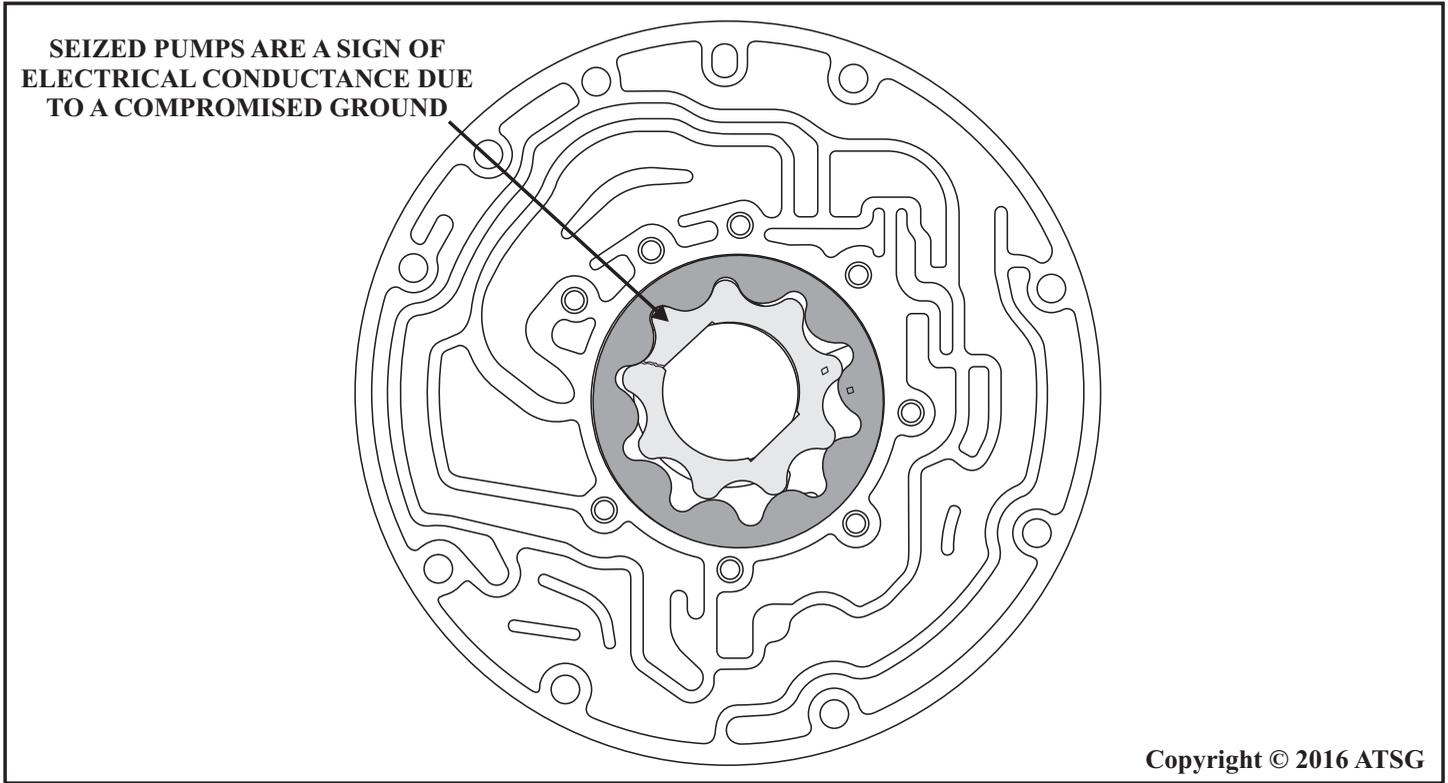


Figure 1

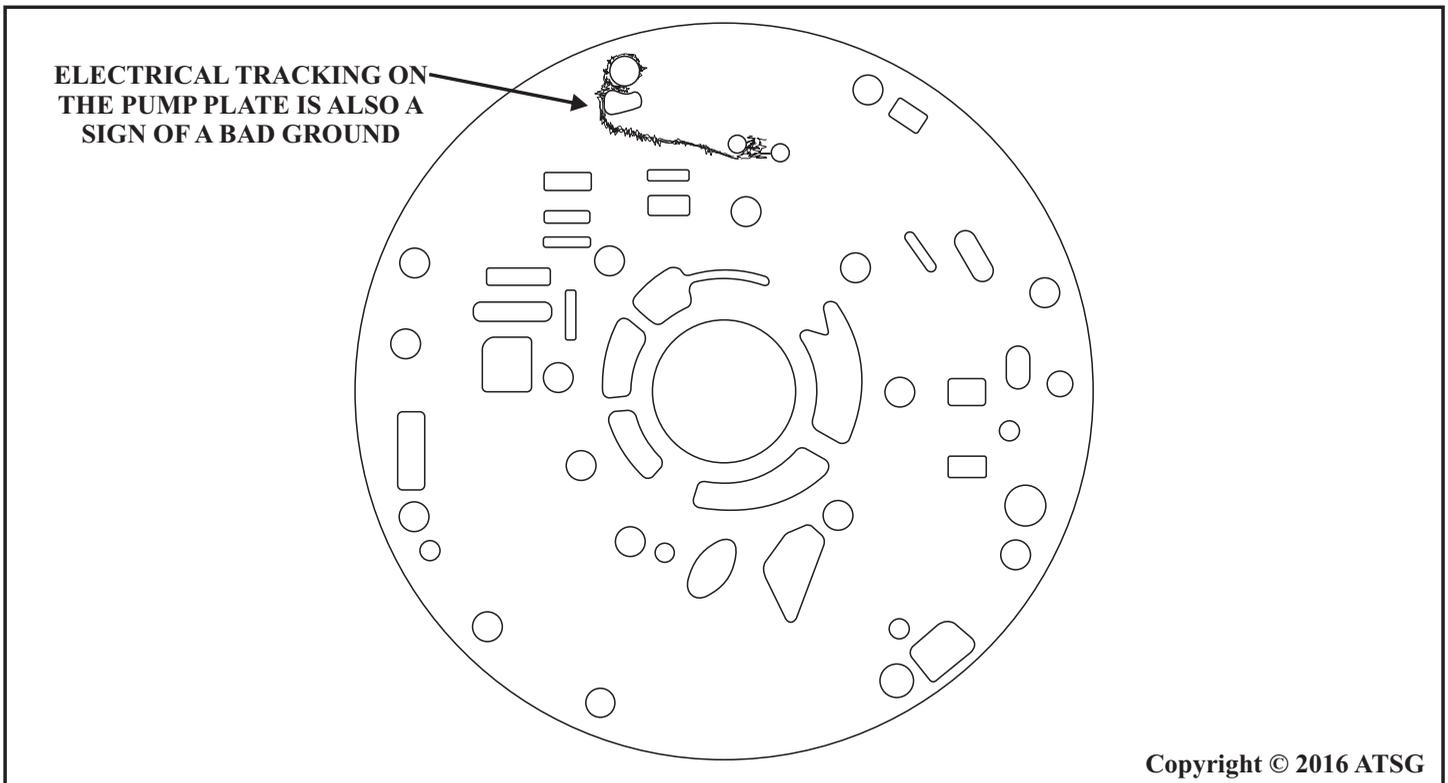
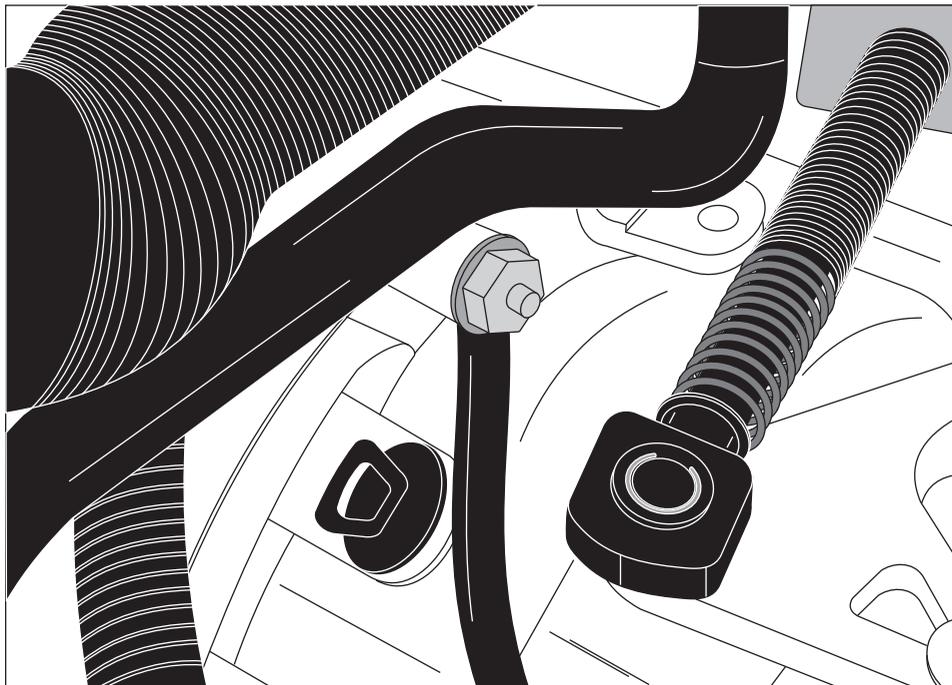


Figure 2

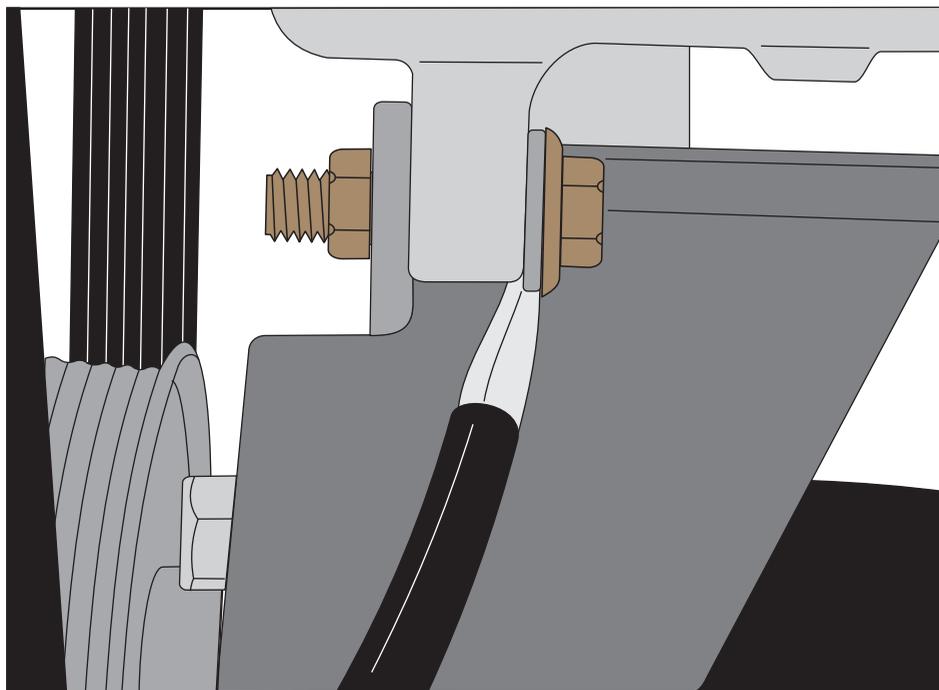
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Attaching The Negative Battery Ground Cable To A Transmission Bell Housing Bolt Is Not Recommended



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Figure 3



Attach Negative Battery Cable To Engine

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Figure 4

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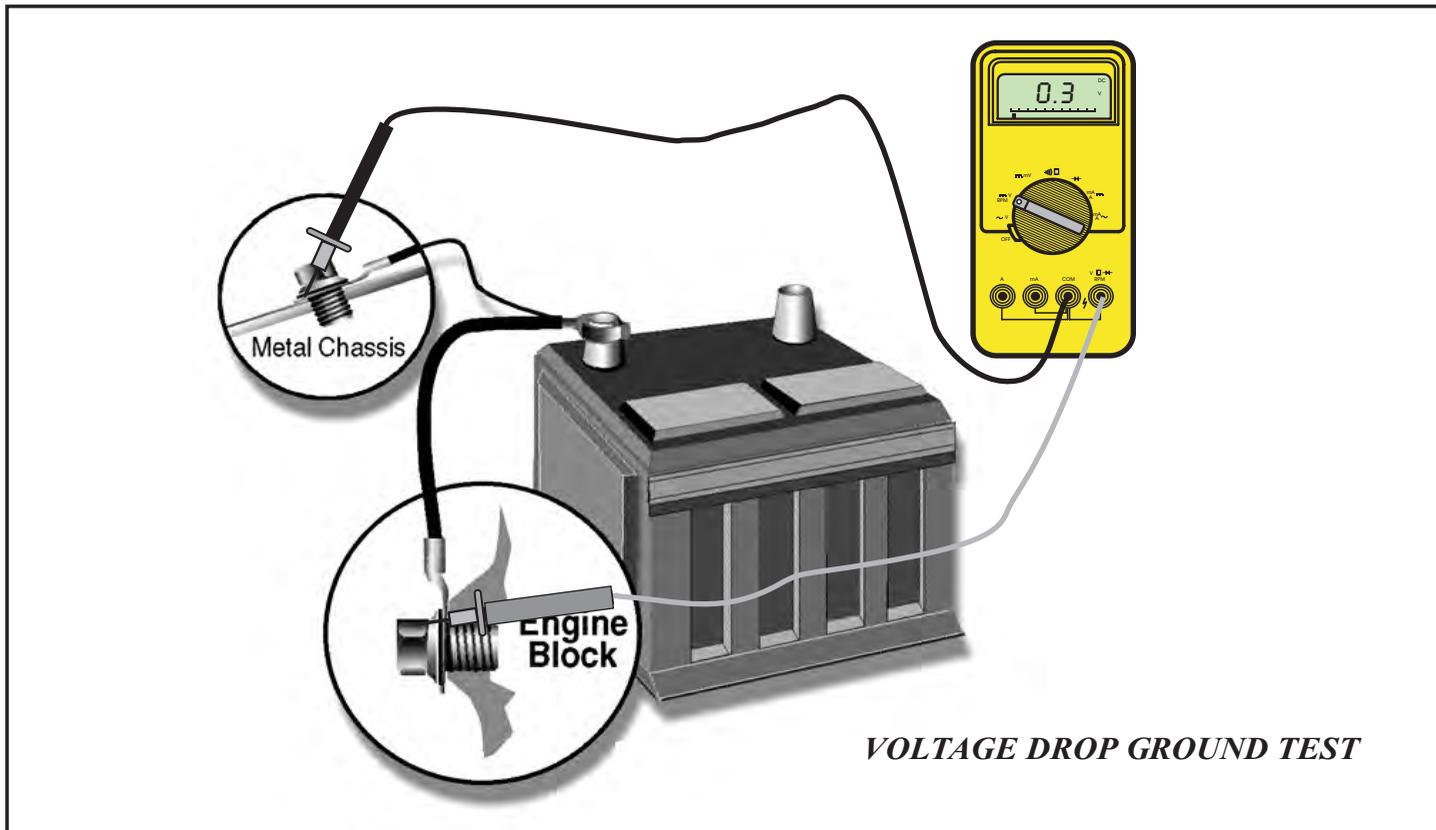


Figure 5

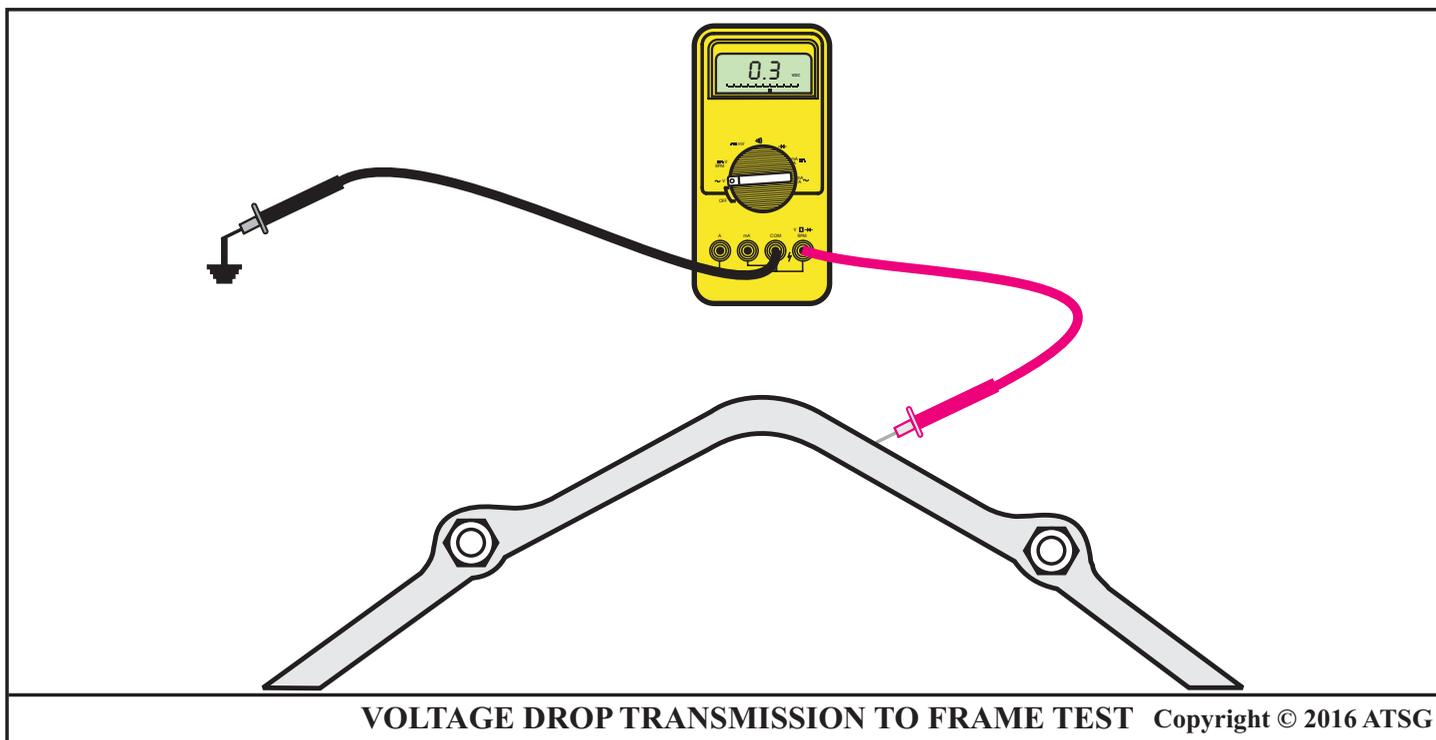


Figure 6