SERVICE BULLETIN

M1527 2021-05-07

M1527: REVOLUTION MAX LEAK DETECTION

Reason for Revision

Table 1. Document History

Date	Revision Description
2021-05-07	Fix typo
	* Updated Required Dealer Action
2021-05-03	Initial release

Purpose for Service Bulletin

To inform dealers of the potential to misdiagnose leaks on the Revolution® Max engine.

Motorcycles Affected

Vehicles equipped with Revolution Max engine.

Markets Affected

All markets are affected.

Required Dealer Action

NOTE

***Do not** use PJ1 Super Cleaner or any cleaner with Acetone in the contents.*

Leak Detection O-Rings & PIP Seals

Concern:

Revolution Max O-Rings & Press In Place (PIP) seals diagnosed with a false positive for leaks.

Cause:

- Harley-Davidson uses P-80® in assembly of the engine which is an emulsion lubricant to help with installation of O-rings and seals. During heat cycles, this lubricant can leave traces on engine components that can be misdiagnosed as an oil leak.
- PIP seals have deep glands that they seat into on covers that can retain residual oils if the seal is not removed completely and thoroughly cleaned before reassembly.

Leak Detection Gaskets

Concern:

Revolution Max cylinder head & base gaskets diagnosed with a false positive for leaks.

Cause:

- The use of aggressive chemicals to clean the outside of the Revolution Max powertrain can cause the Acrylonitrile Butadiene Rubber (NBR) coating on the base & cylinder head gaskets to break down leaving staining visible in the base and cylinder head areas.

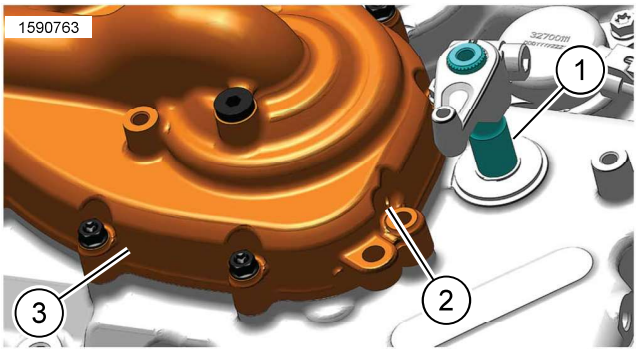
Leak Detection Water Pump

Concern:

Revolution Max water pump diagnosed with a false positive for leaks.

Cause:

- See Figure 1. The Revolution Max coolant manifold (3) has a weeping hole (2) that can leave traces of leaking before the pump seal has broken in completely. This is not necessarily an indication of a leak until after the 1,000 mi (1,600 km) service interval.



1. **Shift shaft**
2. **Weeping hole**
3. **Coolant manifold**

Figure 1. Weeping Hole (Bolt remove for clarity)

Cleaning

Clean all items and surrounding area that has leak traces with a mixture of 50% isopropyl alcohol and 50% distilled water. Dry area completely.

Corrective Action: Initial Diagnostics

Put the vehicle back into service until the 1,000 mi (1,600 km) service allowing enough time for the item to break in completely.

NOTE

In the interest of preserving customer safety and satisfaction, always check for outstanding recalls whenever any motorcycle is brought into your dealership for either maintenance or service.

ROUTING	SERVICE MANAGER	SALES MANAGER	PARTS MANAGER	WARRANTY PROCESS MANAGER	LEAD TECHNICIAN	TECHNICIAN NO. 1	TECHNICIAN NO. 2	TECHNICIAN NO. 3	RETURN THIS TO
INITIAL HERE									

Corrective Action: Next Steps

If the item still exhibits signs of leakage at or after the 1,000 mi (1,600 km) service contact Technical Service for repair approval.