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# EVO: Specific Troubleshooting

## Common Failures - Be Aware

Following a regular schedule of maintenance (see the Owner's Manual and the Factory Service Manual) will help you find signs of impending problems which you can then fix before total failure. Don't ignore new sounds from the engine - check them out to see if a problem is developing. Brakes are a critical part of your bike - check them regularly. You can prevent many roadside failures by simply examining the bike regularly while still at home.

Over the course of many years, the following problems have been shown as 'common' for various reasons.<sup>1)</sup>

### Noises

A common occurrence with Sportsters is all the noise they make. Especially for new owners, it's difficult to nail down if the noises are a sign of problems or if they are just normal. A list of noises that you may hear has been compiled to help with diagnosis or some just to ease your mind.

————— [Described in the Sportsterpedia HERE](#) —————

### Clutch Spring Plate Failure

The Spring Plate has caused untold headaches for many riders. When the rivets fail they get caught in between the friction & steel plates, causing the clutch to malfunction, damaging the plates & the clutch basket. This problem is best addressed before it happens. The XLForum did an ad hoc poll of those who have or have not had failures of their Spring Plate. The poll showed the rubbermount models (2004-later) failing at double the rate of the frame mount models (1986-2003). The reason for the failures is unknown (??? due to a change in design and/or material, from rider increased horsepower or from the way the rider uses the clutch. ???).

————— [Described in the Sportsterpedia HERE](#) —————

### The Dreaded Clutch Basket Wobble (L84-90 models).

This is a known issue beginning either from a worn out basket or trap door bearing or possibly a worn inner basket spline or maybe a combination of them:

The late 84-90 sportster has the stator mounted behind the clutch shell, the problem is the stator needs a tight 0.060 clearance to operate right.

A clutch shell wobbles even when the bearing in the trap door is good, but once it gets worn, it's enough for the magnets to start contacting the stator. Then it's catastrophic for the charging system.

[Described in the Sportsterpedia HERE](#)

#### **04-05 Oil Cap popping up.**

If you've noticed your oil cap mysteriously popping up, it could be a broken internal sleeve. One of the first symptoms is that the cap will not stay flush, but will protrude maybe an eighth of an inch above the tank surface. Eventually it will not click down in place at all. There is a fix for this instead of buying a new one.

[Described in the Sportsterpedia HERE](#)

#### **Loose Battery Cables**

Whenever you have electrical issues, the first thing to do is check the battery cables and do the basic four voltage tests. Then check the various ground points & straps. A huge number of issues are caused by battery cable deterioration and/or loose connectors. The negative cable to the frame is especially critical. All Sportster models occasionally have trouble with the battery cables but it seems to be even more prevalent on the rubber-mounted engine models from 2004-up (since the motor moves more in relation to the frame).

[Described in the Sportsterpedia HERE](#)

#### **Starter Clicks**

Usually, this has one of four causes, in order of frequency: Battery Cables Loose, Battery, Starter Relay or Solenoid Contacts.

[Battery Cables & Battery Testing in the Sportsterpedia HERE](#)

[Battery Options in the Sportsterpedia HERE](#)

[Relays in the Sportsterpedia HERE](#)

[Starter & Solenoid in the Sportsterpedia HERE](#)

#### **1998-2003 Nosecone Ignition Failure**

The 1998-2003 Non-Sport model used an integrated ICM on the Sensor Plate which was still located in the 'nosecone' behind the round cover. These OEM modules had a high failure rate, apparently due to the high heat in their mounting location. The MoCo stopped providing replacement units as soon as they were allowed. The only current choice for replacement is aftermarket versions (such as the Ultima brand).

[Ultima Described in the Sportsterpedia HERE](#)

#### **2007-2009 Electrical Fuse Box**

The 2007-2009 model years have a significant history of corrosion and gunk collecting in the fuse/relay tray causing low-grade shorts and erratic electrical operation - This is especially problematic if the bike is left outside or operated in the rain. It's a good idea to check & thoroughly clean this tray at least every year (or 4 to 6 months if parked outside).

————— [Described in the Sportsterpedia HERE](#) —————

# Increased HP Failures / Recommended Upgrades

## Oil Pump Drive Gear & Pump Upgrade

The drive gear failure a common failure in Sportsters, even when nothing gets into the pump to lock it up first. The teeth get sharp and then they break off. If something gets into the pump and locks it up, the teeth get ripped off the gear. It's cheap insurance, even if you only plan to visit 7,000 RPM instead of living there, especially if you are already in the cam chest to install other cams.

————— [Drive Gear described in the Sportsterpedia HERE](#) —————

In addition to the upgraded Drive Gear, there is also an upgrade of the entire Oil Pump (first installed on 07-later Sportsters). The internal Gerotor return & feed gears were altered to increase the scavaging capability, but note, the internal parts for the new pump design are not backward compatible to (cannot be installed in) the 98-06 pump design.

————— [Oil Pump described in the Sportsterpedia HERE](#) —————

## Clutch Slipping - Upgrade Pressure Plate

Once you have upgraded to 90hp or more, it is very likely that you are going to notice clutch slippage under extreme acceleration. It is important to upgrade your clutch friction & steel plates & include a higher rated pressure plate. You also want to have an upgraded Release Bearing.

————— [Described in the Sportsterpedia HERE](#) —————

**Clutch Release Bearing Upgrade** You might consider replacing the stock bearing, P/N 8885, which is a standard ball type bearing (equiv. to 6200). Using an angular contact bearing, which provides additional support in the axial direction, is a better alternative for this application. The upgraded replacement would be 7200B (not supplied by HD) and is an angular contact bearing.

————— [Described in the Sportsterpedia HERE](#) —————

# Typical Failures from Sitting Too Long (months-years)

**Carb Issues**

**Tire Issues**

**Fuel Tank/Pump Issues**

**Oil & Hoses Issues**

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1)

List prompted by 'lostNdallas' <http://xlforum.net/forums/showthread.php?t=2074270>

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