Kawasaki SERVICE

Date: 8-20-73 N

BULLETIN SER 73 H-24

Title: H1D, H2 STATOR INSPECTION

H SERIES

PROBLEM:

There are several different problems which can result from a stator assembly failure on the H1D or H2. The purpose of this bulletin is to supply some of the possible effects of a defective stator and to offer a comprehensive guide for checking the stator assembly.

CAUSES:

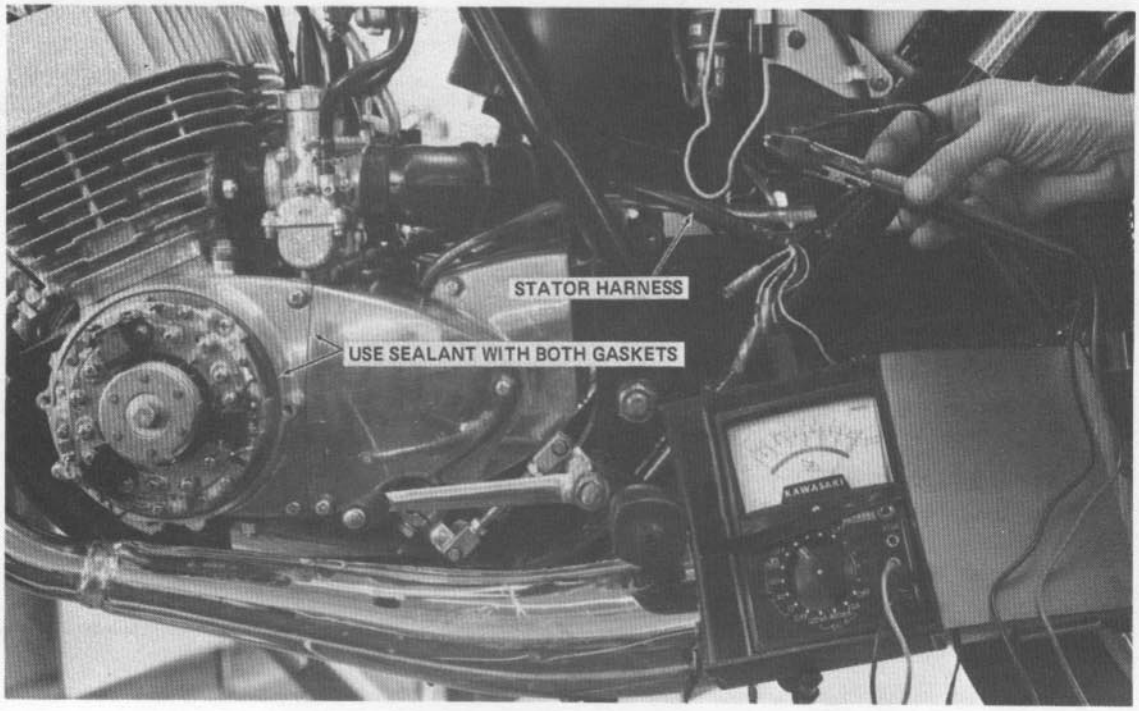
1. The insulation of the coils can be too thin in areas causing an internal short or a short to ground.
2. Engine vibration can lead to an open or short circuit.
3. Engine heat contributes to stator assembly failure.
4. Water corrosion on the AC generator due partially to condensation but primarily resulting from leakage is a large contributor to stator assembly failure.

SOLUTION:

The most important measures that a technician can take to prevent stator assembly failures are in preventing water from entering the L.H. engine cover. Because the inspection cover gasket (P/N 14050-005 for H1D and H2) is stiff and quite narrow, it occasionally does not conform well to the sealing surfaces of the LH engine cover and the inspection cover. G.E. Silicone Seal or any similar sealant should be used with this gasket and with the LH engine cover gasket (P/N 14045-012 for H1D and H2).

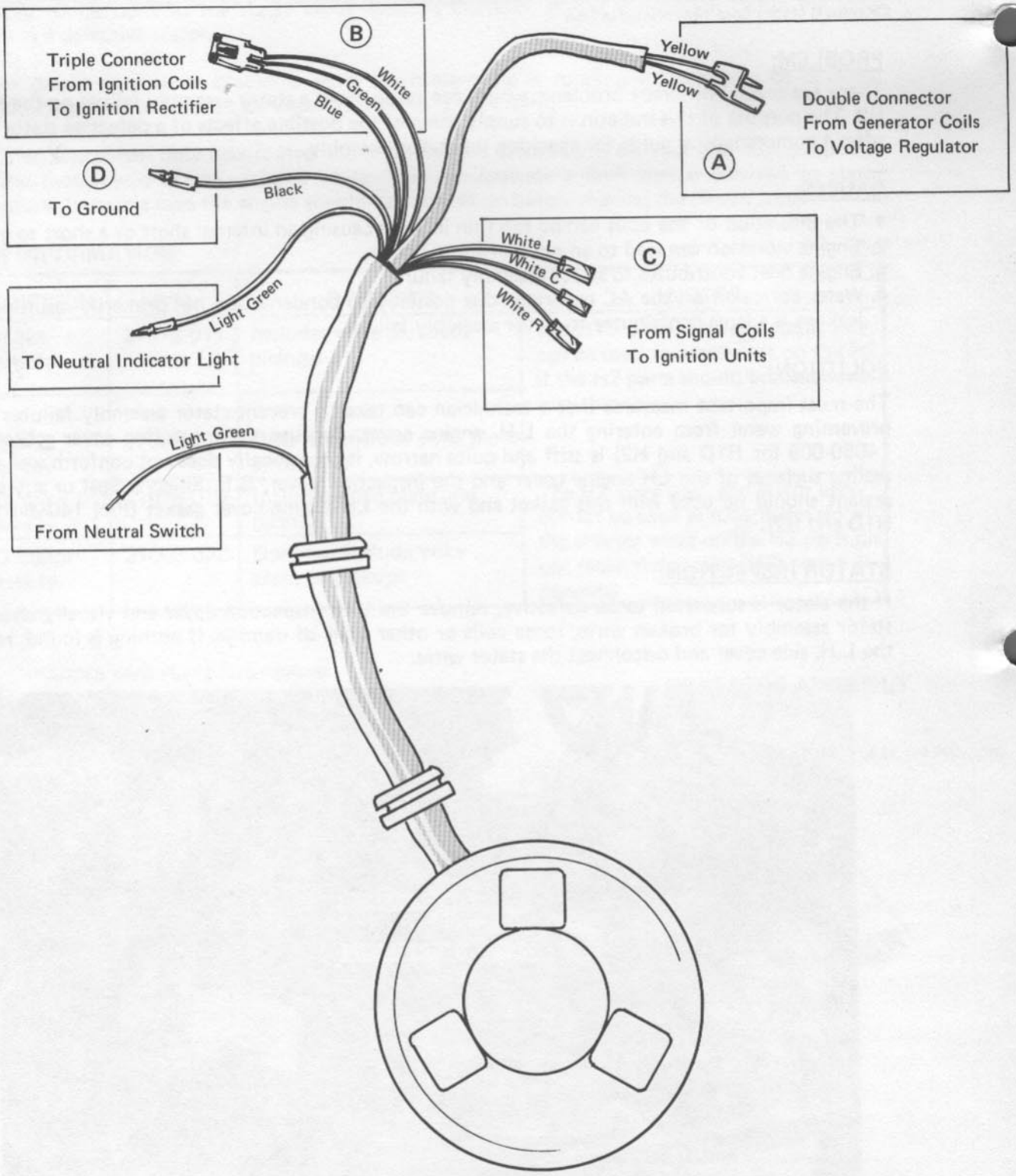
STATOR INSPECTION:

If the stator is suspected to be defective, remove the L.H. inspection cover and visually check the stator assembly for broken wires, loose coils or other signs of damage. If nothing is found, remove the L.H. side cover and disconnect the stator wires.



Then by using a Kawasaki ohm meter (P/N 56019-037) follow the circuit tests below. **NOTE:** It is advisable to make these checks with the stator installed on the engine, because some problems such as the stator coils touching the engine crankcase may otherwise go undetected.

Please see reverse side for additional information.



H2 Yoke Assy. and
Circuit Test Reference Code

CIRCUIT TESTS

TEST Illustration Reference Code		CIRCUIT FUNCTION	STD. ±10% Service Limit	RELATED MALFUNCTION
Ⓓ	Black to Stator Body	Auxiliary Ground for Ignition Signal Coils	0 Ω	∞ = Open circuit, poor performance of signal coils if stator does not ground well through engine to frame.
Ⓐ	Yellow to Yellow	Battery Charging	0.4 Ω	∞ = Open circuit, dead battery
Ⓐ+Ⓓ	Yellow to Ground (or to engine)	Battery Charging	∞	Continuity = Short to ground, dead battery
Ⓑ	Blue to Green	Ignition High Speed Coil	5.0 Ω	∞ = Open circuit, engine will not run
Ⓑ	White to Green	Ignition Low Speed Coil	200 Ω	Less than 180 Ω = Internal short, weak spark, poor performance, fouling plugs, or no spark at low RPM. ∞ = Open circuit, engine will not run at low RPM.
Ⓑ+Ⓓ	Green to Ground (or to engine)	Ignition Insulation	∞	Continuity = (1) If short to ground is in the high speed coil there may be no noticeable effect in performance. (2) If short to ground is in the low speed coil there will be a very weak spark or no spark at all.
Ⓒ+Ⓓ	Black to L-C-R White	Ignition Signal Coils	200 Ω	∞ = Open circuit, engine will not run on 1, 2, or 3 cylinders. Less than 180 Ω = Internal short, weak spark, poor performance, fouling plugs on 1, 2, or 3 cylinders.

Please see reverse side for additional information.

NOTES:

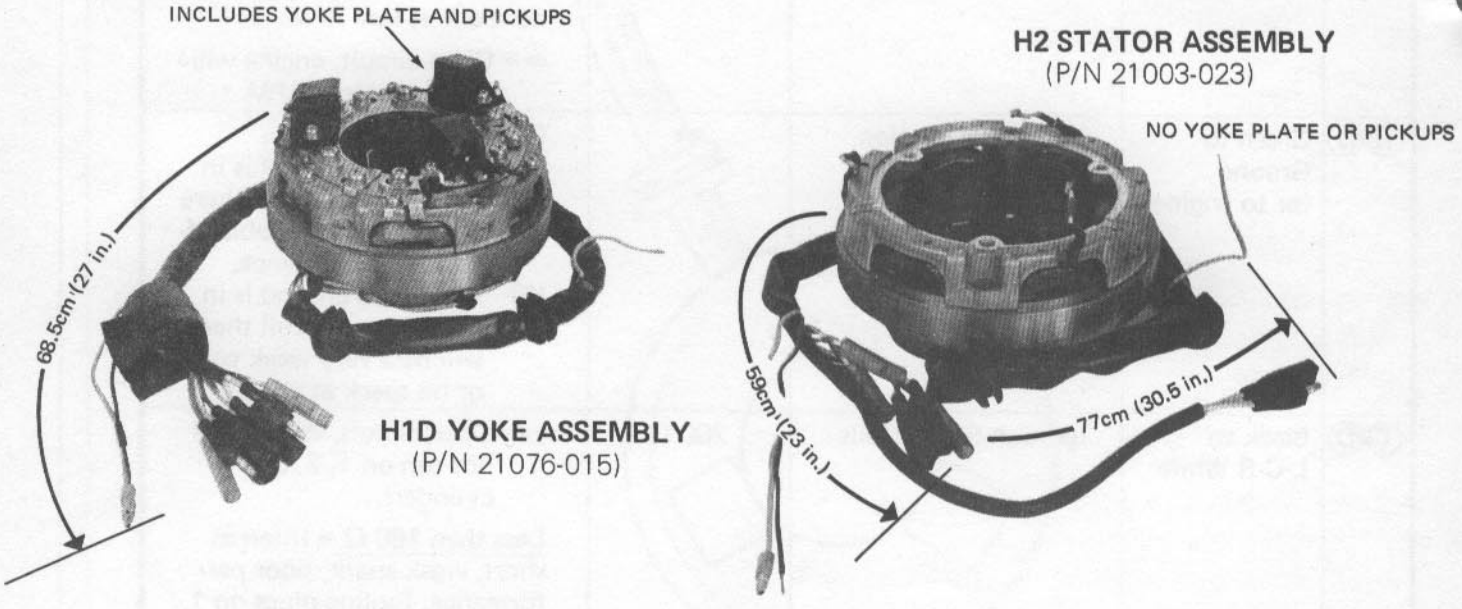
All of the connections to the stator wires must be checked. A bad connection causes the same problem as a defective stator.

A stator defect may cause problems when the motorcycle is running but may not be detected during the circuit tests. In this case visual inspection is important.

Sometimes, a problem only occurs after the motorcycle is driven some distance and then disappears when the motorcycle is parked for a while. This can indicate a fault that is sensitive to stator temperature. In such a case the engine should be warmed up before making the circuit tests.

PARTS INFORMATION:

DESCRIPTION	P/N	REMARKS	NOTES
H2 Yoke Assembly	21076-011	Includes yoke plate and pickups	The H1D yoke assy. and stator assy. can be used as substitutes on the H2 if the H2 parts should become unavailable.
H2 Stator Assembly	21003-023	Does not include yoke plate or pickups	
H1D Yoke Assembly	21076-015	Includes yoke plate and pickups	The H2 yoke assy. and stator assy. cannot be used as substitutes since the shorter wires on the H2 parts do not reach the proper H1D components.
H1D Stator Assembly	21003-022	Does not include yoke plate or pickups	



NOTE: The above photos illustrate the following:

1. The difference between a yoke assembly and a stator assembly.
2. The difference between an H1D and an H2 wiring harness. All the wires of the H1D harness are the same length. The wires of the H2 are two lengths – two wires longer than the H1D harness and the rest shorter.■