

PRIORITY LEVEL**Urgent****Important****INFORMATION**

Subject: **Electromagnetic clutches – air gap adjustment**

Involved models:

All ride-on models equipped with blades engagement controlled by adjustable electromagnetic clutch (see beside picture as reference).

**Condition:**

There have been limited number of reports concerning the electromagnetic clutch not engaging in hot conditions especially after extended working time. The related investigation concluded that the malfunction was due to rotor/armature air gap too large.

Possible cause:

There are several possible reasons why the rotor/armature air gap is too large and one of the most probable is the wear due to normal use or caused by frequent blades engagements on high grass with the cutting deck in low position.

What to do when electromagnetic clutch fails to engage:

1. Fail to engage is not always due to rotor/armature air gap too large. Before proceeding to the air gap adjustment please make sure that the blades engagement failure is not due to other causes such as:
 - Belt slipping – please check the belt wear condition and the belt proper tension;
 - Electrical failure of the clutch – (please check the clutch activation according to the procedure in Annex 1)
2. If the recommended troubleshooting in point 1 has been performed but the clutch still fail to engage it is possible that the cause of failure is due to air gap too large. In this case **do not replace the clutch** but proceed with the air gap adjustment according to the step by step instructions attached to this Service Bulletin (Annex 2).

Warranty:

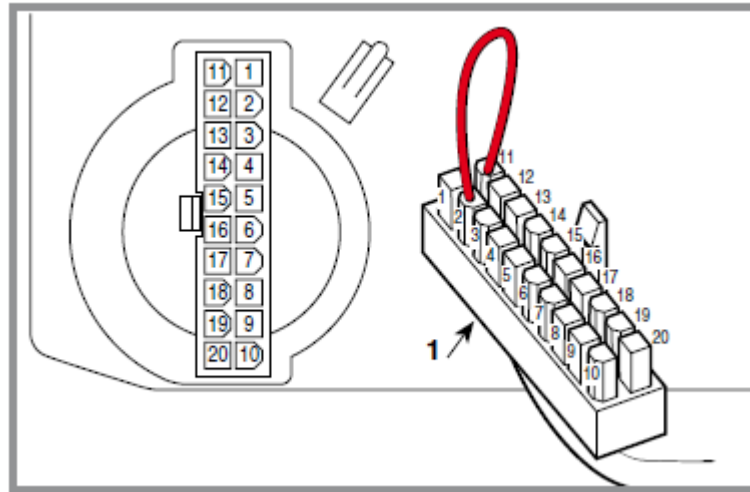
Although the too large air gap cannot be attributed to a construction defect, the adjustment can be managed within the 24 months warranty period by setting the air gap according to the given specification. Complete clutch replacement will not be covered by warranty.

When entering the warranty request on Stiga Connect please choose the operation "Electromagnetic clutch adjustment". Labor time will then be automatically displayed.

Best Regards
Stiga Customer Service

Annex 1 to Service Bulletin RO-054 Clutch activation procedure

Operations



Disconnect connector CN1 from the printed circuit board and bridge terminals 2 and 11 of cabling connector CN1 (1).

With the key set to «ON», when the switch is operated a click must be heard from the moving part of the clutch, due to excitation of the electric wiring.

If not, check the electric harness integrity and control switch operation.

The clutch must be replaced if cannot engage after these checks.



1
Bridge terminals 2 and 11

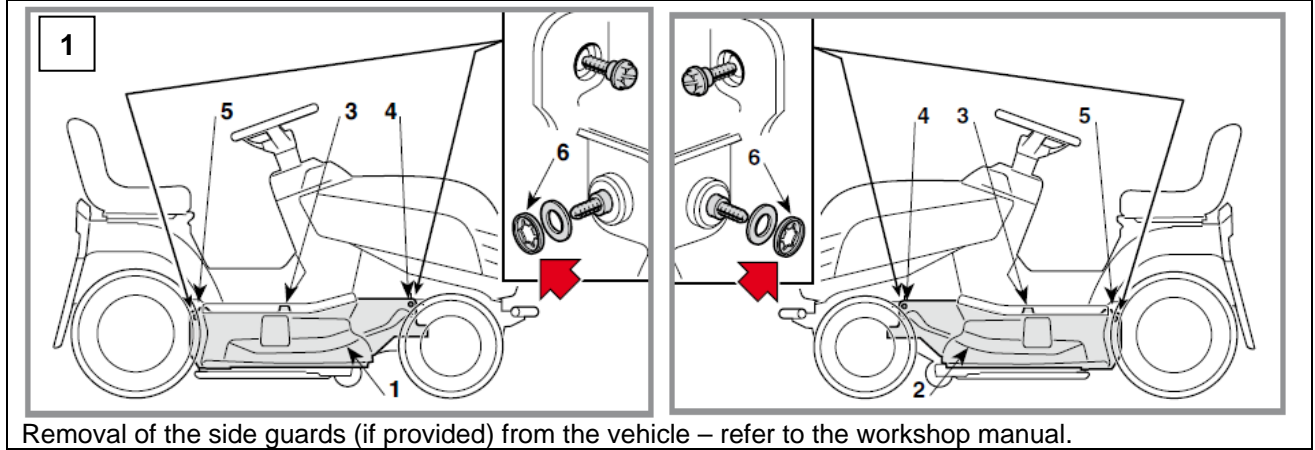


2
Turn the key to ON position and engage the blade, a click must be heard from the clutch

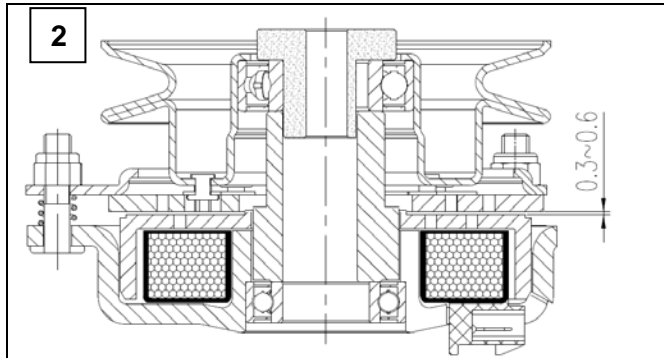
Annex 2 to Service Bulletin RO-054 Electromagnetic Clutch rotor/armature air gap (check and adjustment)

NOTE: This adjustment can be executed without removing the clutch from the machine.

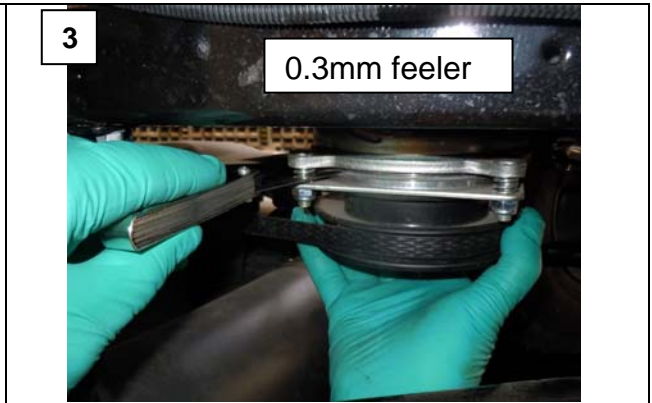
Operations



Removal of the side guards (if provided) from the vehicle – refer to the workshop manual.



Inspect the air gap with a feeler gauge.
NOTE: air gap should be 0,3-0,6 mm



Rotate the clutch for a full 360° turn.
0.3 mm feeler should go through freely.



Rotate the clutch for a full 360° turn.
0.6 mm feeler shouldn't go in.



The air gap can be adjusted by tightening the 3 nuts.
After adjusting please check the air gap according to step 3 and 4.

NOTE: Start the engine and warm it up for a few minutes. Perform 10 blade engagements to confirm the clutch is working properly.

WARNING: NEVER adjust the air gap at less than 0,3 mm this could lead to permanent clutching