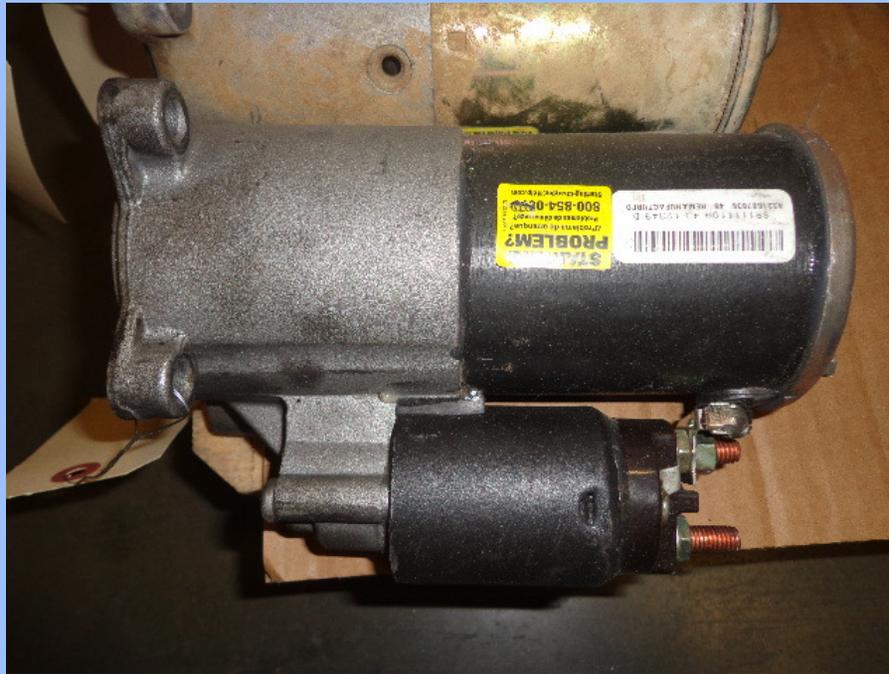




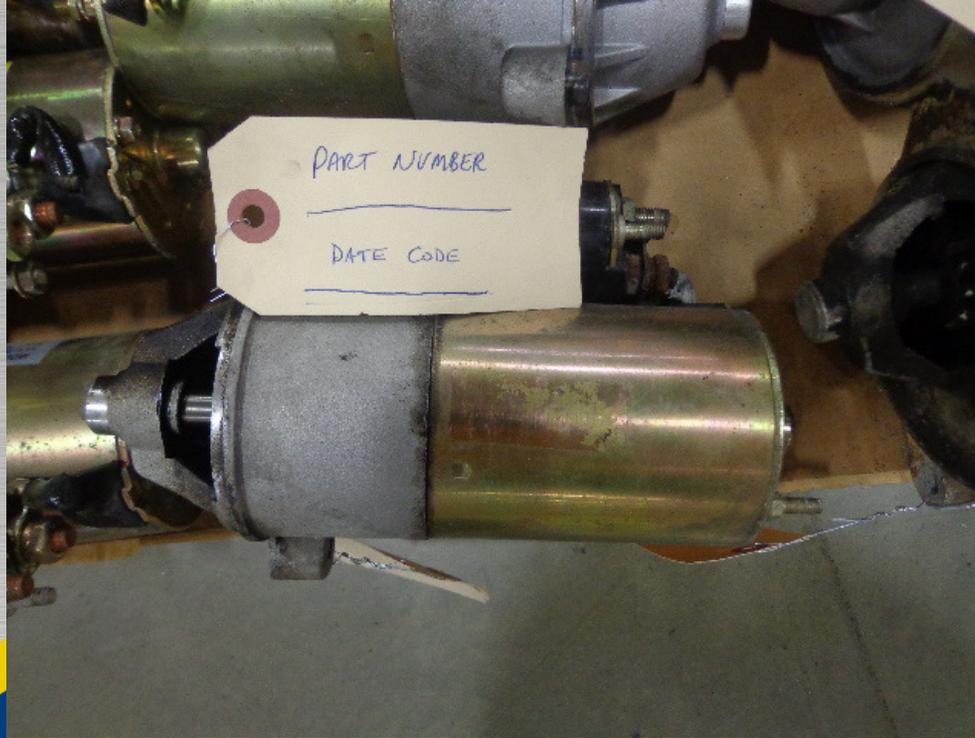
Starter Warranty Approval Criteria



Starter Warranty Approval Criteria



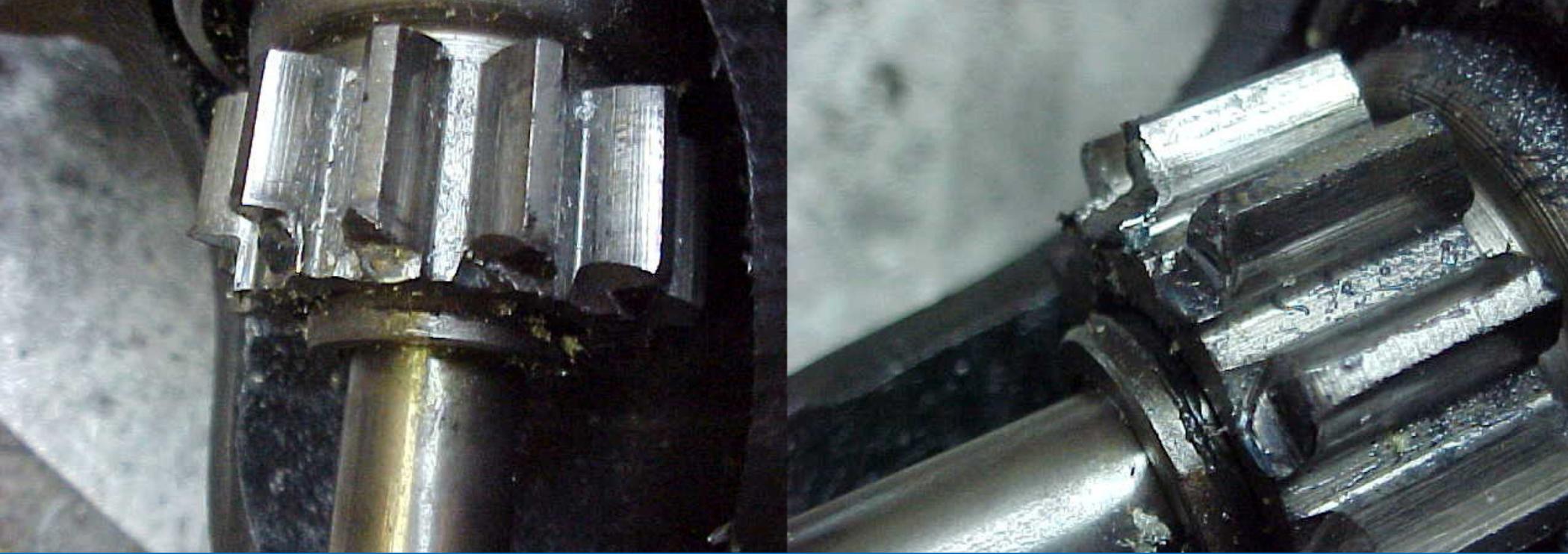
Non WAI product



Starter Warranty Approval Criteria



Returned unit must be properly identified with original WAI labels, and date codes. In special circumstances, if original labels are missing, unit **must** be clearly identified with attached tag containing WAI part number, and date code of product.



Starter Warranty Approval Criteria



Milled Pinion - Starter Drive engaged with running Ring Gear.

Improper use of product

Pinion tooth is worn on over run side

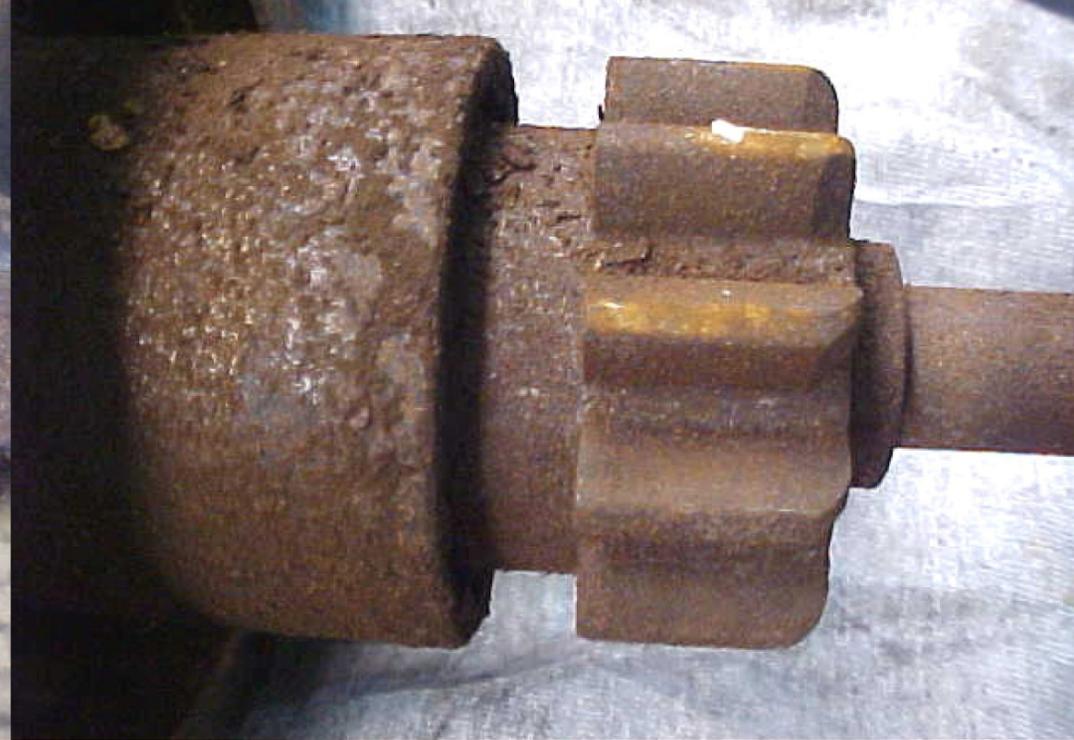
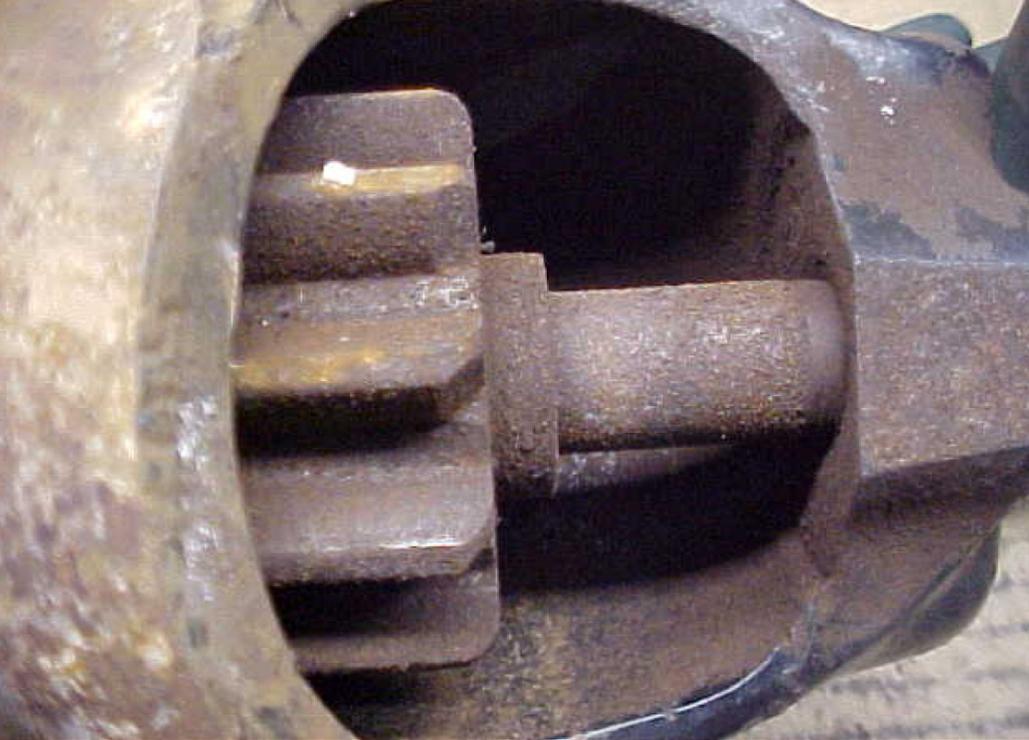


Starter Warranty Approval Criteria



This occurred when the starter drive stayed engaged due to a mechanical interference between the pinion and the ring gear, or as a result of Engine Rock Back. It will cause the damage to the spline or even shaft fracture. In more severe cases the nose of the DE Housing may fracture.

Improper use of product (Engine Rock Back)



Starter Warranty Approval Criteria



Drive sticks and is difficult to move. This is caused by high humidity level in flywheel housing due to improper venting/drainage forming a corrosive environment, possibly in combination with corrosive agents such as road salt. This causes extreme corrosion on the armature shaft and drive assembly increasing friction and preventing free-drive movement. Repeated starting attempts cause discoloration on solenoid coils or cause them to burn open. If the starter is located low on the engine with the nose housing opening facing up, the situation may be more aggravated.

Improper use of product



Starter Warranty Approval Criteria



Evidence of mechanical damage to the external components.

Damage to product (1)

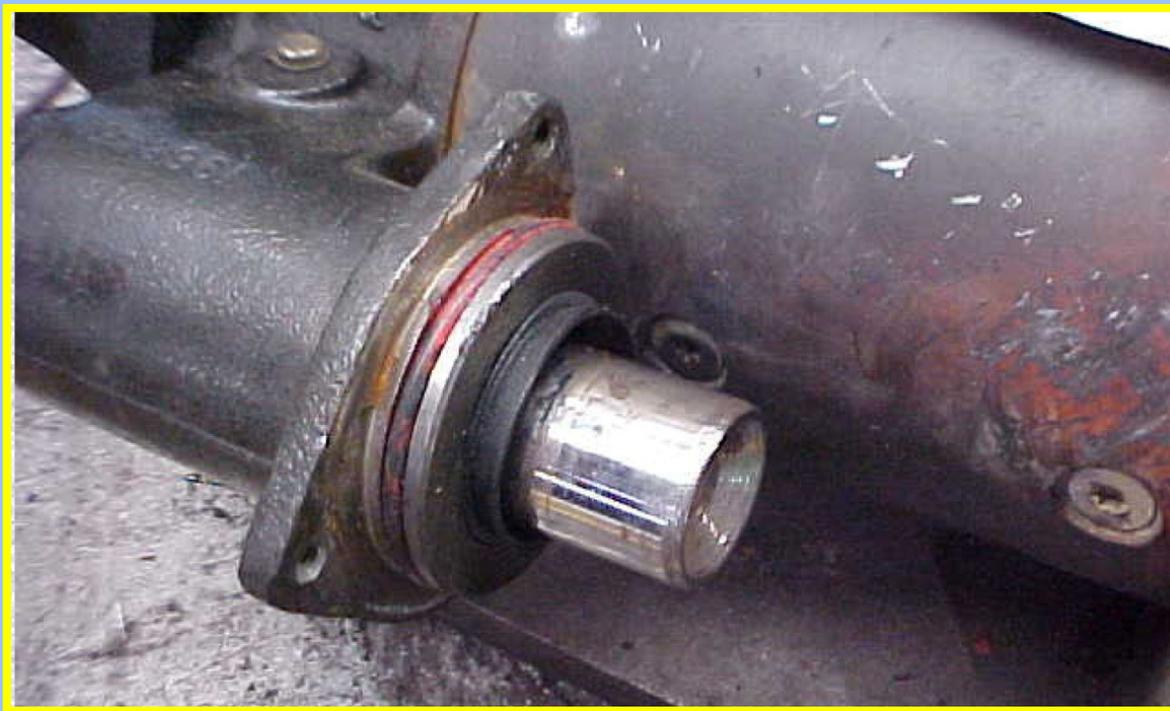


Starter Warranty Approval Criteria



Evidence of mechanical damage to the external components.

Damage to product (2)

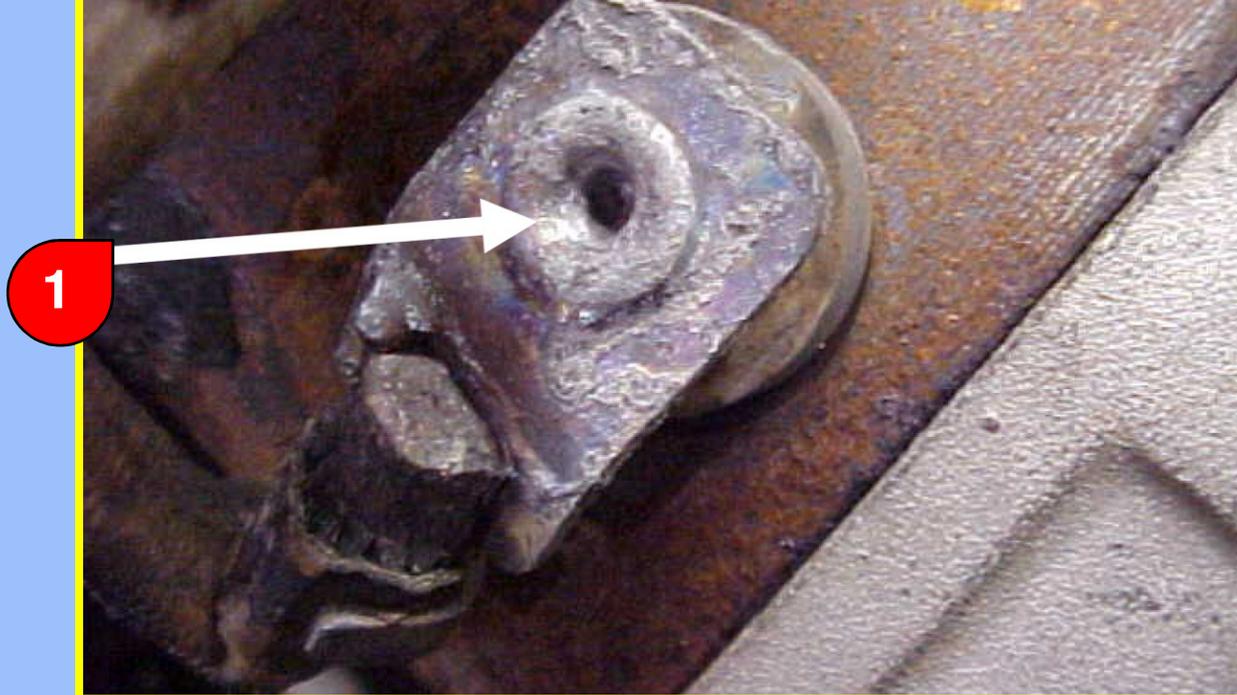


Starter Warranty Approval Criteria



Physical evidence of disassembled or modified unit.

Alteration to product



Starter Warranty Approval Criteria



1- Extreme heating melted solder connection to Motor Field Terminal.

Improper use of product (1)



Starter Warranty Approval Criteria



Prolonged power supplied to the pull-in coil is caused by damaged ring gear on engine or attempted engagement into running engine.

Improper use of product (2)

(Typical for PG Starters)



Melted varnish will flow from the starter and become black from heat.



Motor strap insulator discolored by over-crank.



Non-discolored motor strap insulator for reference. Insulator color may vary.

Starter Warranty Approval Criteria

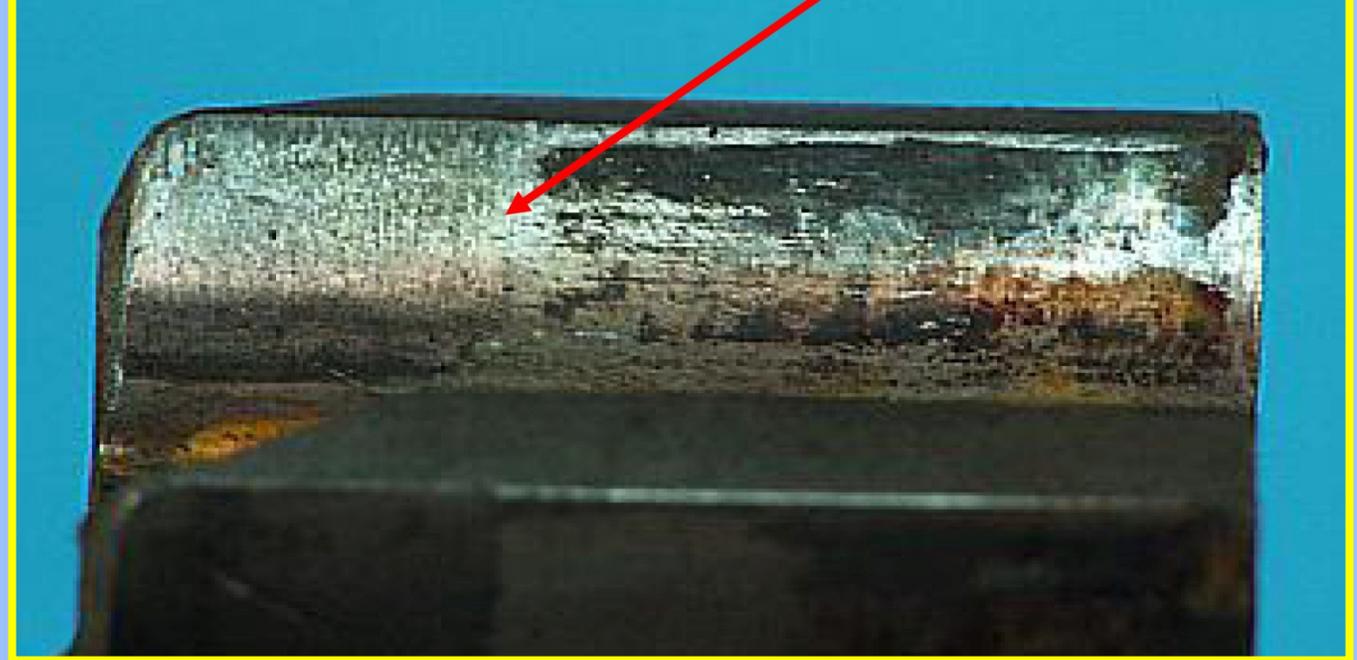


Over-cranked starters are not covered by warranty, because the operator caused the failure by the holding the ignition switch for too long when the engine would not start.

Improper use of product (3)

(Typical for PG Starters)

4-6 mm wear pattern from the face of the Pinion. Normal Pinion engagement depth into a ring gear is 17.4mm



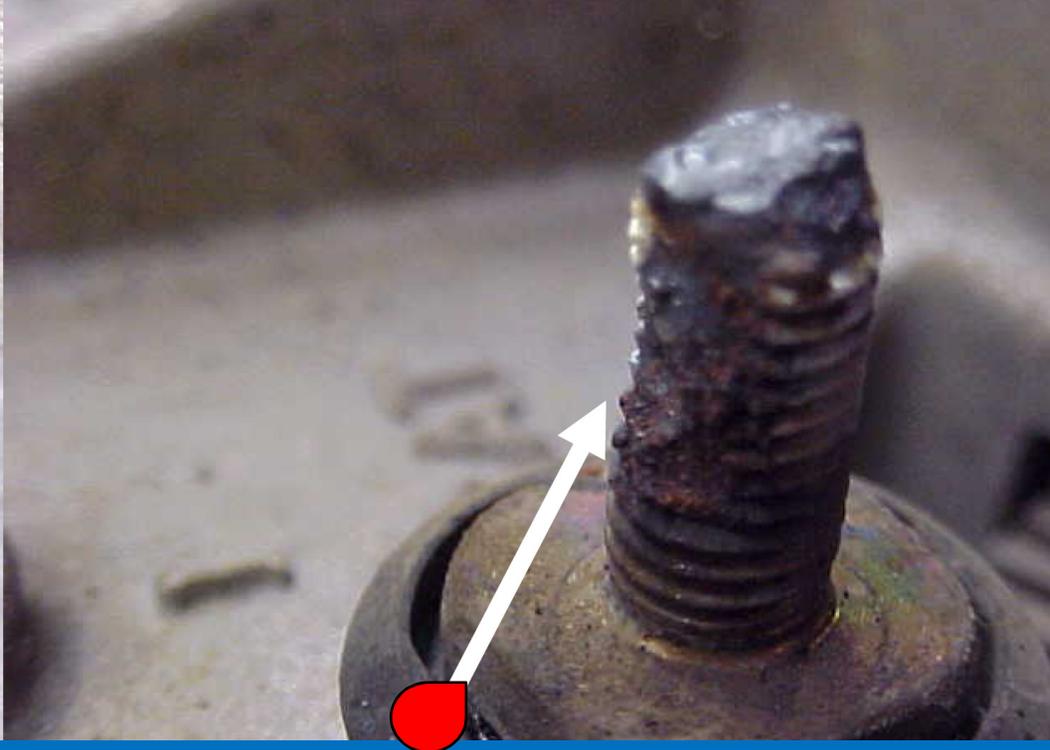
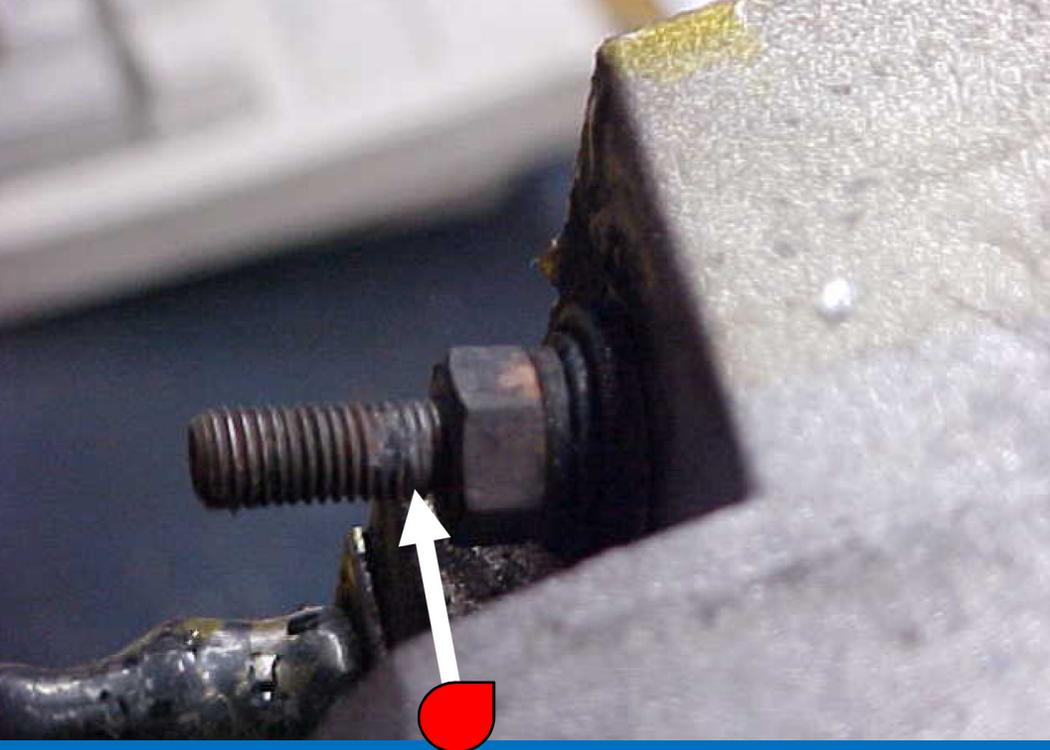
Starter Warranty Approval Criteria



Wrong ring gear axial position due to wrong or no spacer installed.

Improper use of product (4)

(Typical for PG Starters)



Starter Rejection Criteria



Damaged terminals caused by heavy arcing present from loose cable terminal. Result of improper installation or insufficient vehicle maintenance.

Damaged Product (8)