

# 8N - Starter - How to Service

Related Pictures & Documents:

Page 1 & 2 shows the factory-recommended procedure for servicing the 8N starter. This info is from the Ford dealer mechanic training manual:

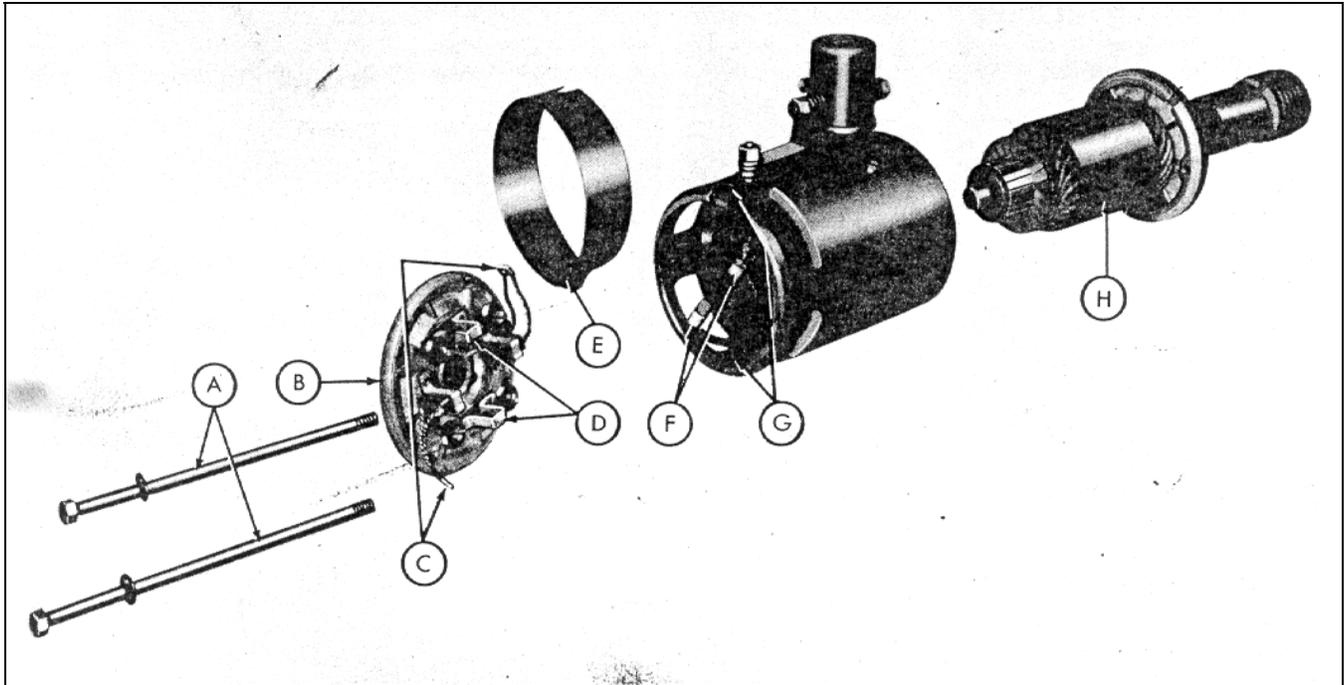


Fig. 1

**TRAINING TIME:** ½ Hr.

**TOOLS AND MATERIALS:**

1. Standard Set of Mechanics Hand Tools

**JOB PROCEDURE:**

**I. REMOVING THE STARTER FROM THE TRACTOR**

- Step 1—Disconnect the electrical leads to the starter relay.
- Step 2—Loosen the two long bolts until the starter assembly is free from the engine housing.
- Step 3—Remove the starter assembly from the tractor.

**II. DISASSEMBLING THE STARTER**

- Step 1—Remove the two long bolts (A-Figure 1).
- Step 2—Remove the armature and the bendix assembly (H-Figure 1) as a unit.
- Step 3—Remove the cover band (E-Figure 1) from the starter case.
- Step 4—Remove the brush end plate assembly (B-Figure 1).
- a. Remove the two insulated brushes

- b. Remove the two screws (G-Figure 1) that hold the ground brushes (C-Figure 1) to the starter housing.

**III. CLEANING AND INSPECTING THE STARTER**

- Step 1—Thoroughly clean the armature and commutator with a cloth and mineral spirits.
- NOTE:** Avoid getting any mineral spirits on the armature windings.
- Step 2—Check the armature windings for broken or damaged leads.
- Step 3—Check the starter shaft bearings in the brush assembly and rear starter plate and replace if necessary.
- Step 4—Check the brushes and replace them if they are broken or worn.
- a. Remove the damaged brush from the leads.
  - b. Solder new brushes to the leads.

**IV. ASSEMBLING THE STARTER**

- Step 1—Position the brush plate assembly to line

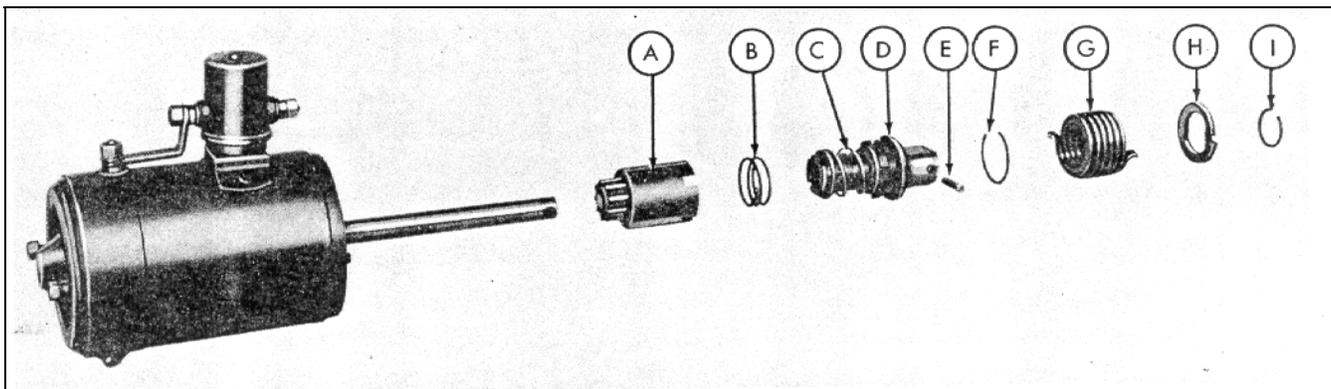


Fig. 2

up the dowel hole with the dowel hole in the starter case.

Step 2—Hold the brushes up in the brackets by positioning the spring clips on the side of the brush.

Step 3—Connect the two ground brush leads to the case.

Step 4—Install the armature and bendix assembly in the case.

**NOTE:** Make sure the fibre washer is on the end of the armature shaft.

Step 5—Install the two long bolts.

Step 6—Push the brushes down on the commutator with a small screwdriver through the starter case band opening.

Step 7—Install the starter case band.

#### V. DISASSEMBLING THE BENDIX

Step 1—Remove the lock spring (I-Figure 2).

Step 2—Remove the starter spring anchor plate (H-Figure 2).

Step 3—Remove the bendix spring (G-Figure 2).

Step 4—Remove the spring clip (F-Figure 2), and the starter spring anchor plate (D-Figure 2).

Step 5—Remove the pin (E-Figure 2) that secures the bendix assembly to the shaft.

Step 6—Remove the screw and shaft assembly (C-Figure 2).

Step 7—Remove the starter drive meshing spring (B-Figure 2).

Step 8—Remove the pinion and barrel assembly (A-Figure 2).

#### VI. ASSEMBLING THE BENDIX

Reverse the procedure in Steps 1 through 8, Part V, of this Job Plan.

#### VII. INSTALLING THE STARTER ON THE TRACTOR

Step 1—Position the starter assembly on the tractor engine.

Step 2—Tighten the two bolts that secure the starter to the engine.

Step 3—Connect the electrical leads.

**NOTE:** At conclusion of Job 19:

- a. Remove the engine lift plate.
- b. Check the spark plug gaps and install spark plugs.
- c. Install the wiring harness.
- d. Install the battery box and air cleaner.
- e. Install the tool box.
- f. Install the battery and battery box cover.
- g. Install the fan.
- h. Install the radiator.
- i. Install the hood.

This is a picture of a starter flange that has been ground out slightly at 1:00 - 2:00 to give more "wiggle room" to ease the reinstallation of the starter. It will not be visible once the starter is attached and tightened:



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of information and help  
for old Ford tractors.*

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