

**Automotive Starter Remanufacturing Procedures**

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1. **Scope**—These manufacturing procedures are recommended minimum guidelines for use by remanufacturers of light-duty automotive starters to promote consistent reliability, durability, and safety of remanufactured starters. Installation of remanufactured or rebuilt products is often an economical way to repair a vehicle even though the products may not be identical to original equipment parts. Before processing any part, a remanufacturer should determine if the original design and present condition of the core are suitable for remanufacturing so as to provide durable operation of the part as well as acceptable performance when installed on the vehicle. The remanufacturer should also consider the safety aspects of the product and any recommendations of the original manufacturers related to remanufacturing or rebuilding their product.

While these PROCEDURES are meant to be universal in application, various product types have unique features of dimension and design which may require special remanufacturing processes and tests that are either not covered by or are exceptions to these PROCEDURES.

- 1.1 **Rationale**—The Service Development Technical Committee requests that this document be re-classified as “Noncurrent”. The reason for the change of designation is that we no longer have any members with expertise to maintain the document.

## 2. **References**

- 2.1 **Applicable Publications**—The following publications form a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

- 2.1.1 SAE PUBLICATIONS—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J2240—Starter Armature Remanufacturing Procedures  
SAE J2241—Automotive Starter Drive Remanufacturing Procedures  
SAE J2242—Automotive Starter Solenoid Remanufacturing Procedures

- 2.1.2 FEDERAL TRADE COMMISSION REGULATION—Available from Federal Trade Commission, FTC Building, 6th Street and Pennsylvania Avenue, NW, Washington, DC 20580.

Federal Trade Commission Regulation: 16CFR20- 2/27/79 Para 39.051 "Rebuilt, Recon....."

## 3. **Definitions**

- 3.1 Drawings shown in this document are intended for illustration only and are not meant to depict any specific unit manufacturer.

4. **Remanufacturing Procedure**—This document provides a procedure for remanufacturing light-duty starters for automobiles and light trucks, similar to the starter shown in Figure 1.

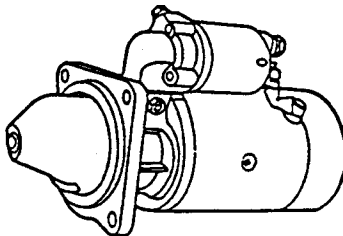


FIGURE 1—STARTER ASSEMBLY

The selection of replacement parts used in the remanufacturing process is critical to the quality, durability, and reliability of the end product. All replacement parts should be carefully evaluated prior to use.

5. **Starter Disassembly**—The starter is to be disassembled into components and subassemblies. Care should be taken to insure that these parts are not damaged by CARELESS handling during the remanufacturing process.

6. **Frame and Field Assembly**

6.1 Field coils and pole pieces may remain installed in the frame if they meet the requirements of this section.

6.2 Clean frame assembly (see Figure 2).

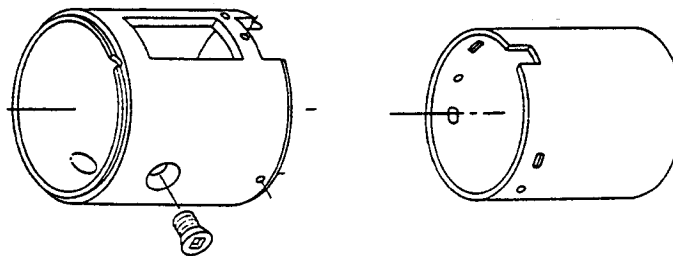


FIGURE 2—FRAME AND FIELD ASSEMBLIES

6.2.1 Inspect for any defects such as distortions or cracks which would affect the functionality of the part. Scrap frames that cannot be restored to an acceptable condition.

6.2.2 Check the inside diameter of all mounting holes. Check the integrity of all other functional holes in the housing. Threaded holes should be visually inspected, gauged, and re-tapped to the same size if necessary. Threads that are not the proper size can be restored by using a thread insert of the same size.

6.3 Clean pole pieces (see Figure 3).

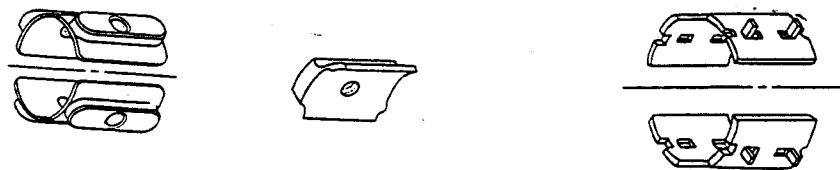


FIGURE 3—POLE PIECES

6.3.1 Inspect for cracks or other defects which may affect the functionality of the part. Replace if necessary.