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Service Information Bulletin

SUBJECT	DATE
Additional Cleaning and Preparing	September 2014

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0080	DD Platform	Additional Cleaning and Preparing	Changed gasket removal procedure
DDC-SVC-MAN-0180 DDC-SVC-MAN-S180	Euro IV		

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2 Additional Cleaning and Preparing

Steam Cleaning

A steam cleaner is a necessary item in a large shop and is useful for removing heavy accumulations of grease and dirt from the exterior of the engine and its subassemblies.

Solvent Tank Cleaning

Aluminum or plastic parts such as the flywheel housing, fuel pump drive, air intake manifold, oil filter adaptor, camshaft gear access cover, oil pan or rocker covers, should not be cleaned in this manner.

A tank of sufficient size to accommodate the largest part that will require cleaning (usually the cylinder block) should be provided and provisions made for heating the cleaning solution.

WARNING: PERSONAL INJURY

To avoid injury while performing the test or procedure, wear adequate eye, face protection, and heat-resistant gloves.

Fill the tank with a commercial heavy-duty solvent, that is heated to 52°C (125°F). Lower large parts directly into the tank with a hoist. Place small parts in a wire mesh basket and lower them into the tank. Immerse the parts long enough to loosen all of the grease and dirt.

Rinsing Bath

Provide another tank of similar size containing hot water for rinsing the parts.

Drying

WARNING: EYE INJURY

To avoid injury from flying debris when using compressed air, wear adequate eye protection (face shield or safety goggles) and do not exceed 276 kPa (40 psi) air pressure.

Parts may be dried with compressed air. In some cases the heat from the hot tanks will quite frequently complete drying of the parts without the use of compressed air.

Rust Preventive

If parts are not to be used immediately after cleaning, dip them in a suitable rust preventive compound. The rust preventive compound should be removed before installing the parts in an engine.

Gasket Removal

The gasket used on numerous mating surface joints results in a very thin film that must be removed from both surfaces prior to reassembly. Detroit® recommends non-metallic scrapers for cleaning gasket surfaces. The use of abrasive pads or bristles compromises the sealing surface integrity as well as creates grit that is known to cause internal engine damage.

Inspection

The purpose of parts inspection is to determine which parts can be used and which must be replaced. Although the engine specifications given throughout the text will aid in determining which parts should be replaced, considerable judgment must be exercised by the inspector. The guiding factors in determining the usability of worn parts, that are otherwise in good condition, is the clearance between the mating parts and the rate of wear on each of the parts. If it is determined that the rate of wear will maintain the clearances within the specified maximum allowable until the next overhaul period, the reinstallation

of used parts may be justified. Rate of wear of a part is determined by dividing the amount the part has worn by the hours it has operated.

Many service replacement parts are available in various undersize or oversize as well as standard sizes. Also, service kits for reconditioning certain parts and service sets that include all of the parts necessary to complete a particular repair job are available.

A complete discussion of the proper methods of precision measuring and inspection are outside the scope of this manual. However, every shop should be equipped with standard gages, such as dial bore gages, dial indicators, and inside and outside micrometers.

In addition to measuring the used parts after cleaning, the parts should be carefully inspected for cracks, scoring, chipping and other detrimental conditions.

