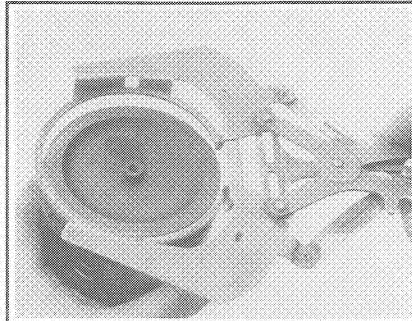


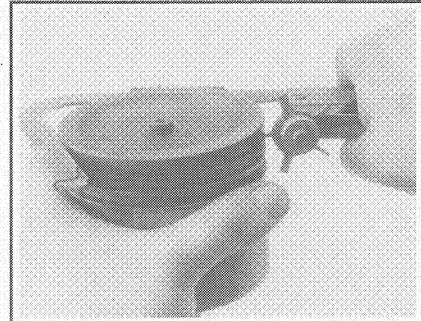
TCCS3132

Fig. 179 Use a gasket scraper to remove the old gasket material from the mating surfaces



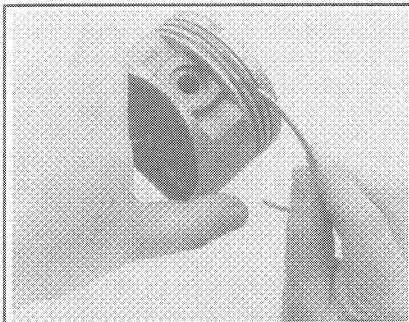
TCCS3211

Fig. 180 Use a ring expander tool to remove the piston rings



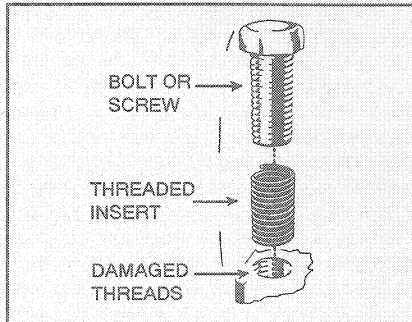
TCCS3208

Fig. 181 Clean the piston ring grooves using a ring groove cleaner tool, or . . .



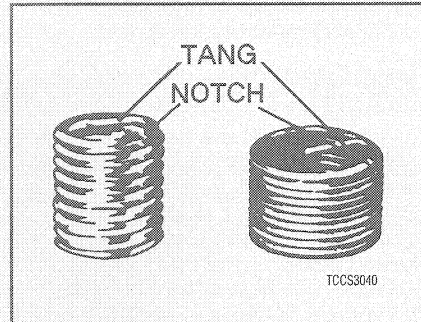
TCCS3911

Fig. 182 . . . use a piece of an old ring to clean the grooves. Be careful, the ring can be quite sharp



TCCS3039

Fig. 183 Damaged bolt hole threads can be replaced with thread repair inserts



TCCS3040

Fig. 184 Standard thread repair insert (left), and spark plug thread insert

An alternative to the mess and hassle of cleaning the parts yourself is to drop them off at a local garage or machine shop. They will, more than likely, have the necessary equipment to properly clean all of the parts for a nominal fee.

*** CAUTION

Always wear eye protection during any cleaning process involving scraping, chipping or spraying of solvents.

Remove any oil galley plugs, freeze plugs and/or pressed-in bearings and carefully wash and degrease all of the engine components including the fasteners and bolts. Small parts such as the valves, springs, etc., should be placed in a metal

basket and allowed to soak. Use pipe cleaner type brushes, and clean all passageways in the components. Use a ring expander and remove the rings from the pistons. Clean the piston ring grooves with a special tool or a piece of broken ring. Scrape the carbon off the top of the piston. You should never use a wire brush on the pistons. After preparing all of the piston assemblies in this manner, wash and degrease them again.

*** WARNING

Use extreme care when cleaning around the cylinder head valve seats. A mistake or slip may cost you a new seat.

When cleaning the cylinder head, remove carbon

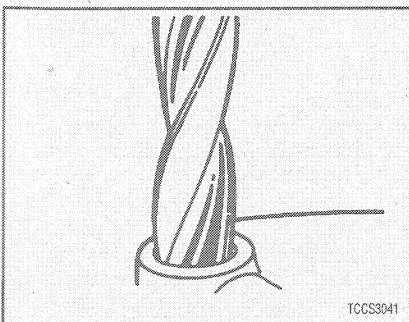
from the combustion chamber with the valves installed. This will avoid damaging the valve seats.

REPAIRING DAMAGED THREADS

♦ See Figures 183, 184, 185, 186 and 187

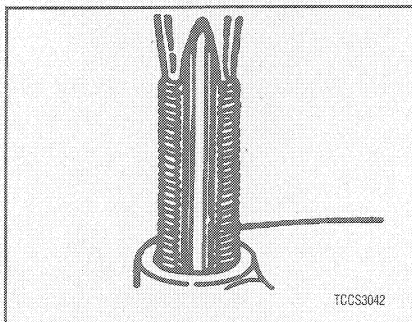
Several methods of repairing damaged threads are available. Heli-Coil® (shown here), Keenserts® and Microdot® are among the most widely used. All involve basically the same principle—drilling out stripped threads, tapping the hole and installing a prewound insert—making welding, plugging and oversize fasteners unnecessary.

Two types of thread repair inserts are usually supplied: a standard type for most inch coarse, inch fine, metric course and metric fine thread sizes and



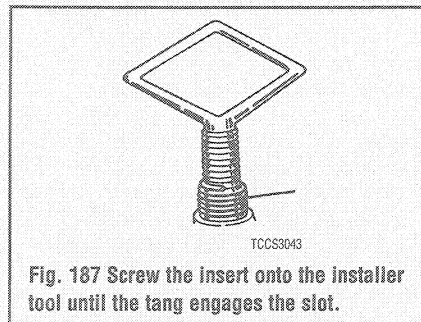
TCCS3041

Fig. 185 Drill out the damaged threads with the specified size bit. Be sure to drill completely through the hole or to the bottom of a blind hole



TCCS3042

Fig. 186 Using the kit, tap the hole in order to receive the thread insert. Keep the tap well oiled and back it out frequently to avoid clogging the threads



TCCS3043

Fig. 187 Screw the insert onto the installer tool until the tang engages the slot. Thread the insert into the hole until it is 1/4-1/2 turn below the top surface, then remove the tool and break off the tang using a punch