



# SERVICE BULLETIN NO. 7

SEC. VIII, DIV. A  
SERVICE BULLETIN No. 7  
ISSUED, MARCH, 1961

SUBJECT: LOOSE SCREWS

Due to removal and replacement, equipment usage, vibration, etc. screws do not maintain their original locking characteristics. To assist in securing proper holding properties of screws, Clinton Engines Corporation is stocking Loctite Sealant and the two Loctite kits available, the prices, and the part numbers are listed at the end of this bulletin. Instructions for usage are included in kit and are also listed below.

Many of the screws installed in an engine are lock thread screws. If these lock thread screws loosen over a period of time, the screws may lose their original effective locking ability due to vibration of engine and/or equipment, or due to screws being tightened several successive times. Example of these screws would be air horn screws, manifold screws, and/or bearing plate screws. Air horn screws have been a steadily decreasing problem, however, this is a good example of a screw that has caused problems over the years. The location of the fastening of air horn to carburetor places it in a position where the vibration "amplitude" can loosen the screws fairly readily if engine is operated at high or overspeed or if vibration picked up from equipment.

The magneto bearing plate screws on cast iron block engines are another example of a place for use of Loctite. Loctite should be used on the magneto bearing plate screws if the torque needed to overcome the lock thread on installation of screws is less than 20 inch lbs. Loctite can safely be used at all times on these screws. The use of Loctite is especially recommended on the bearing plate screws of the taper roller bearing equipped engines such as B1290, due to the change of forces on a taper roller bearing supporting plate. It is recommended that the engines equipped with taper roller bearings have the bearing plate screws coated with Loctite sealant on installation of the screws. In the case of the B1290, the torque on the screws should be 130 to 150 inch lbs. which is higher than has been recommended in the past torque information. Loctite sealant is a liquid which converts to a tough bond when confined between metal parts. Mating parts exclude air causing the liquid to harden by chemical action. There is no shrinking as Loctite hardens.

#### To Use Loctite

1. Pre-clean screws or nuts, also clean threads of tapped hole in block, carburetor, etc. where screws are to be installed. Kit contains locquic for cleaning which quickly cleans and prepares screws for installation. After cleaning, allow screws and tapped holes in block, carburetor, etc. to dry.
2. After parts are cleaned with Locquic and dried, add few drops of Loctite to each screw, replace screw and torque according to recommendations listed in Section VI, Div. H. (Note: B1290 and A1200 bearing plate screws should be torqued 130 to 150 inch lbs. which is higher than previous recommendations.)
3. After installing and torquing of loctite coated screws, allow engine to stand for about two (2) hours before putting into service. The application of heat (max. 175°F.) will cause Loctite to set up quickly, however, room temperature will be adequate if a few hours time is allowed after installation.

#### 4. Removing Loctite Treated Screws.

The grade supplied by Clinton is Loctite C and screws can be removed without special methods. CAUTION: If grade B Loctite is used it may be necessary to apply heat to head of screw with a soldering iron (up to 500°F.) which causes Loctite to lose strength and allows removal while hot. Loctite Grade "C" is not readily available except from Clinton and the previous comment on Grade "B" is important as many Service Accounts may already have the Grade "B".

5. Re-use of treated parts. Simply reapply Loctite Sealant. It is not necessary to clean off old hardened loctite if previously used.

#### Loctite Kits Available

A. TL-987 consists of one (1) 50 cc. bottle of Grade "C", Loctite, one (1) 6 oz. aerosol spray can of Locquic for cleaning screws, nuts and tapped holes.

TL-987 is \$ 9.50 net and contains about 2-1/2 times as much as the following Kit.

B. TL-988 consists of two (2) 10 cc. bottles of Grade "C" Loctite and a 4 fluid ounce jar of Locquic.

TL-988 is \$ 5.50 net.