

	<i>Document Title, Revision No.</i> <b>Equipment Maintenance Procedure, Rev. 001</b>
	<i>Approved by:</i>
	<i>Approval date:</i>

**1.0 Purpose:** To ensure that equipment used in the manufacturing process meets specified requirements and is appropriately maintained on a specified schedule.

**2.0 Scope:** This procedure applies to the maintenance of production riveting setting equipment.

**3.0 Procedure:** The manufacturer specifies that the frequency and amount of lubrication is of utmost importance to maintain optimum performance and maximum machine life. The following information covers various lubrication points with specific instructions for each, and is made available to maintenance personnel for reference in the production area. Grease and lubricating oil is made available to maintenance personnel in the production area.

### **3.1 Machine lubrication**

**3.1.1 Flywheel, top pivot pin, and connecting rod – grease once a month.**

**3.1.2 Main bearings – grease once every 3 months.**

**3.1.3 Clutch and clutch trip mechanism – 3-4 drops of light oil on all wear surfaces once a week.**

**3.1.3.1** The oil hole for oiling the roller clutch is in the Toll Cage (Part # 3-20-4AR). To access oil hole, lift cover over clutch from back side of flywheel. Oil hole is a 12 o'clock position (top) when clutch is in home position.

**3.1.4 Shuttle block – 1-2 drops of oil weekly, no more. Too much oil in the area of the slide may interfere with the flow of rivets.**

**3.1.5 Toggle links – 1-2 drops of oil a day.**

**3.1.5.1** To expose the toggle links, open the inspection hole cover at the top front of the machine. Oil the plunger pin with the machine in the “up position.” To oil the center toggle pin, hand turn the machine to the “down position.” This will bring the center joint into position so that it may be oiled from the inspection hole.

**3.1.6 Hopper Shaft and ratchet rocker – 2-3 drops of oil once a week.**

**3.1.6.1** Oil from rear of hopper back through oil hole provided.

	<i>Document Title, Revision No.</i> <b>Equipment Maintenance Procedure, Rev. 001</b>
	<i>Approved by:</i>
	<i>Approval date:</i>

**3.1.7 Shuttle activator** – 2-3 drops of oil once a week.

**3.1.8 Hopper drive lever pin** – 2-3 drops of oil in ratchet slot once a week.

**3.2** At the time of area lubrication, maintenance personnel will visually inspect the area for wear or other problem which may affect machine functionality.

**3.3** All regularly scheduled maintenance is recorded on the *Rivet Equipment Maintenance Log Form*. Management reviews the form at the end of each month to ensure completed maintenance activities. Completed forms are maintained in a Maintenance Log folder.

**3.4** Nonfunctional or malfunctioning riveting setting equipment must be visibly and clearly labeled such as to prevent use in production until after repair.

#### **4.0 Records**

**4.1 Rivet Equipment Maintenance Log Form**

**4.2 Maintenance Log folder**