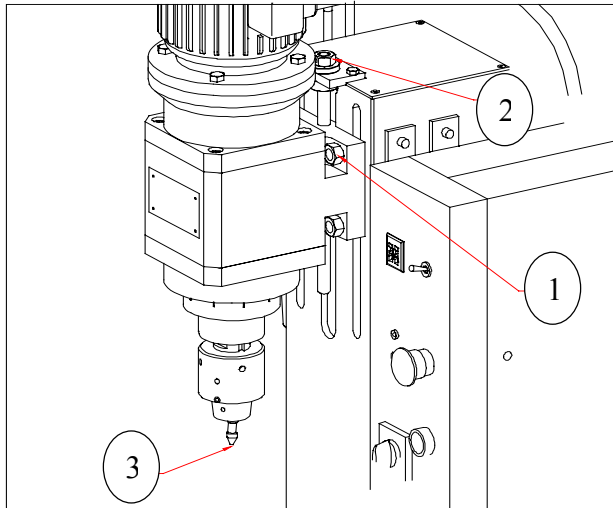


## Setting the machine:

The Riveting power head can be lowered or raised by turning the nut of the jacking arrangement. Follow following instructions during lowering or raising the head:-



At first keep the fixture (in components loaded condition) on base and see the gap between tool tip and rivet tip. Depending upon the gap, you have to decide whether the power head is required to be raised or lowered from its existing level. If you have to raise or lower the level of power head follow the following steps.

Step-1 : Loosen the nuts and raise the powerhead more than required and clamp there lightly.

Step-2 : Rotate the dial anticlockwise as seen from top till it stops rotating.

Now the machine will work with its full stroke available.

Step-3 : Rotate the dial clockwise as seen from top for three complete turns.

Now the machine will work with a stroke = full stroke – 6mm

Step-4 : Put the machine in SET mode and take a stroke.

Step-5 : Now bring the power head downwards such that tool tip is about 0.5mm away from rivet tip. Clamp the power head at this level firmly.

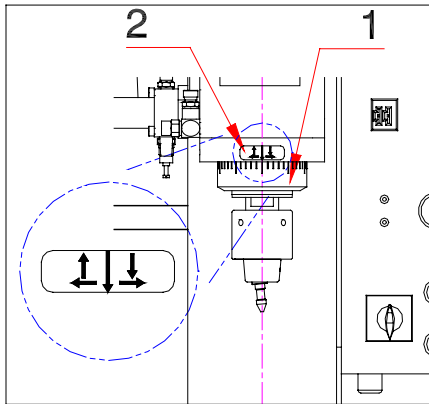
Step-6 : Put the machine into RUN mode and start the riveting.

Step-7 : Increase the stroke gradually and set the stroke as required.

Step-8 : You can lock the dial to clamp this stroke permanently with the help of grub screw provided on the dial holder at the right side of operator.

## Setting the stroke:

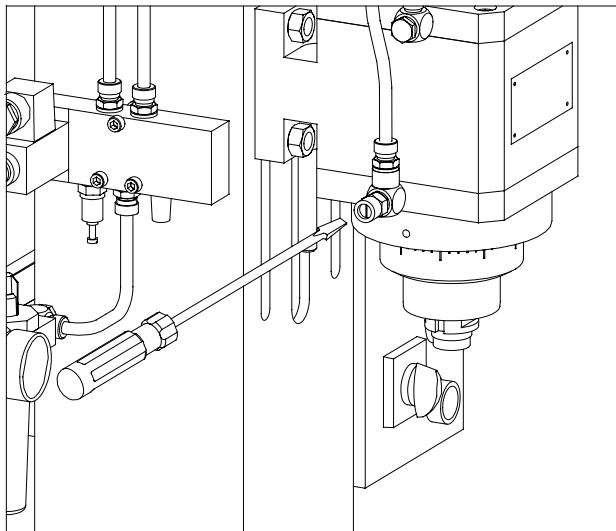
For the convenience of loading and unloading the job, the stroke should be kept as large as possible. To achieve this follow the instructions given in above point in step-1 to step-8.



The stroke of the spindle can be increased or decreased by rotating the micromatic dial. One graduation mark on the dial corresponds to 0.04mm. A legend plate on the head indicates the direction of rotation of the dial to increase or decrease the stroke. As seen from top of the machine, clockwise rotation of micromatic dial reduces the stroke and anti clockwise rotation of micromatic dial increases the stroke. The stroke should be set such that the rivet head is formed to the required shape but the riveting tool does not touch the workpiece.

1. Micromatic dial
2. Direction indicating legend

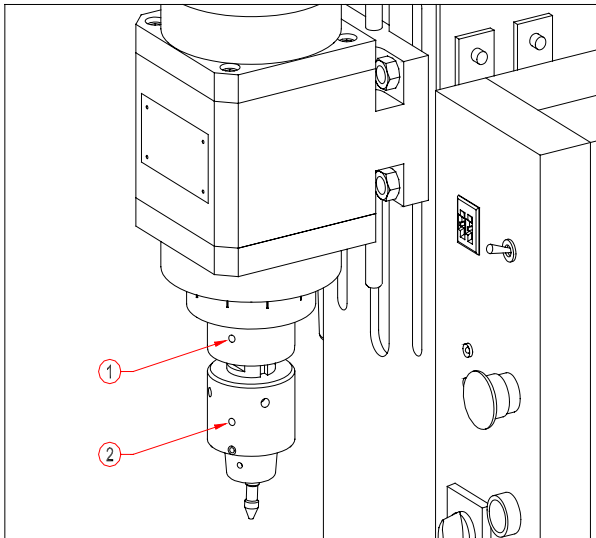
## Setting spindle downward speed :



A flow control valve is provided on the bottom connection of the riveting power head. The speed of the spindle is controlled by controlling the outward flow of air from the bottom connection of the head. To increase the speed of the spindle, rotate the screw inside the flow control valve with a screwdriver in counter clock-wise direction.

## Lubrication points on machine and lubrication chart:

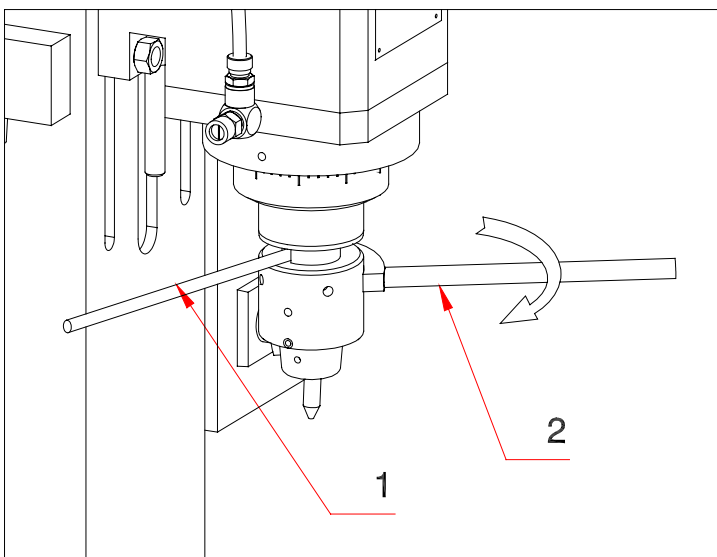
Lubrication is needed at two points as shown in figure. Lubricated air is also important factor.



Make	Oil to be filled in FRL	Lub point 1	Lub point 2
1. Castrol	Magna-10	AP-3	AP-3
2. Shell	R-10	NLGI-3	NLGI-3
3. Servo	SPINTEK-10/12		
Lub frequency	According to the use of m/c Check weekly	Once in two weeks	Once in two weeks
Remarks	Fill the lubricator bowl upto the mark	2-3 strokes of grease gun	2-3 strokes of grease gun

For air lubrication sufficient oil quantity and proper setting of 1 drop per 15 strokes is important.

## Removing tool holder from the spindle:



To remove or mount tool holder on the spindle use the tool kit supplied with the machine. This consists of a C' spanner and a open end spanner for model 005 and two C' spanners for model 008, 012 .

1. Engage the C' spanner / open end spanner with rotary spindle and rest the C'spanner / open end spanner on the machine frame.
2. Engage the other C'spanner in the tool holder and rotate it in clock wise direction as shown.

## Trouble Shooting Guide :

TROUBLE	POSSIBLE CAUSE	REMEDY
1. Motor not rotating.	- No three phase supply.	- Check three phase, 415 V supply at panel.
	- Contactor, O/L Relay.	- Check setting on Overload Relay and reset the Relay if required.
2. Spindle not coming down.	- No air supply.	- Check whether the system is connected to compressed air supply. Minimum air supply pressure should be 3.0 kg/cm.sq.
	- Filter unit clogged	- Drain water collected in the filter bowl. Remove filter element and clean in petrol.
	- Solenoid valve is not operating.	- Check electric supply at solenoid coil. Replace coil if found defective. - Check PCB Card. - Check whether there is NEUTRAL connection on the terminal strip. A bulb must glow when connected between phase and neutral. If not, connect neutral from mains supply. - Check the continuity of glass fuse in the panel. Replace the fuse if it is defective.
	- Foot switch connection loose Or faulty.	- Check continuity of wire going to foot switch. - Check and replace foot switch if required.
	- Timer setting is zero.	- Check timer setting and set it for required cycle time if necessary.
3. Spindle not going up.	- Manual override of Solenoid Valve is ON i.e. operated.	- Check if the manual override of solenoid valve is ON. It should be always OFF i.e. at its normal position.
	- Toggle switch in SET MODE.	- Change the toggle switch to Run mode.
4. Riveting finish Poor.	- Tool worn out.	- Check tool length whether it is as per drawing or not.
	- Downward travel speed of spindle is very fast.	- Reduce the spindle speed by tightening the screw of flow control valve and set it as required by trial and error method.
	- Tool holder defective.	- Dismantle the tool holder and check for wornout bearings and replace if required.
5. Incomplete Riveting.	- Inlet air pressure is low.	- Increase the air pressure by regulator (Max.air pressure 6.0 kg/cm.sq.)
	- Riveting time too short.	- Increase the time setting on the thumb wheel switch on the panel.
	- Insufficient stroke.	- Check that the required stroke is within the capacity of the machine. If necessary bring down the power head to achieve full riveting.
	- Insufficient force developed by the cylinder due to internal leakages.	- Check the cup seals and O-rings for leakage. Replace damaged cup seals & O-rings.