

# DAVID REEKIE & SONS LTD

MACHINE TOOL MAKERS

INCHINNAN INDUSTRIAL ESTATE  
RENFREWSHIRE PA4 9RL SCOTLAND



YOUR REF.

OUR REF.

DATE

OPERATING AND MAINTENANCE INSTRUCTIONS FOR  
PATENTED PORTABLE MODEL R8 REEKIE  
WELD PREPARATION MACHINE TOOL  
GENERAL ARRANGEMENT DRAWING R8

1. SETTING OF MACHINE IN TUBES

The Machine is located in the bore of tubes by expanding Collets. Select Collet and appropriate set of bore Adaptor Segmental Rings from Bore Location Capacity Plate mounted on Machine Tool Container. Prior to changing Collets rotate Red Mandrel Levers fully anti-clockwise (unexpanded position).

Procedure: Mount Bore Adaptor Segments on each end of Collet and lock securing screws; remove Locknut and Cone from Drawbar. Mount selected Collet Assembly on Drawbar, replace Cone ensuring that Cone Key is located in the Collet Slot and finally tighten Locknut. It is important that the Collet is clean and all working surfaces have a light covering of oil. Rotate Black Feed Levers fully anti-clockwise.

Rotate Red Mandrel Levers fully anti-clockwise and check that the Collet is in the closed position. Set Toolholders with cutting tools to approximate tube diameter and enter Collet in bore of tube until cutting tools are approximately 1/4" from highest point of tube face. Revolve Red Mandrel Levers clockwise until Collet is fully expanded and machine rigidly locked in bore. To facilitate tool setting a box key is provided which fits over the end of the Wormshaft and permits the Faceplate to be rotated by hand. For access to Wormshaft remove Part No.28-R8.

Set Cutting Tool(s) to exact cutting position ensuring that both Cutting Tool(s) and Toolholder(s) are locked in position. Machine is set in motion progressively by opening the air control cock; rotate Black-Feed-Levers slowly clockwise until high point of tube is determined thereafter impart Capstan Feed to Cutting Tool(s) by applying a steady pressure to the Black-Feed-Levers to ensure a good quality machine finish of the Tube End.

2. AIR TURBINE MOTOR SERVICING:

If motor Type DR180 is sluggish or inefficient flush with clean paraffin in well ventilated area. Disconnect air line and pour several teaspoonfuls of clean paraffin into air inlet. With machine standing on its feet remove Knurle Cap Part No.28-R8 and rotate Wormshaft and motor with Box Key provided. Replace Cap, reconnect air line and apply air pressure slowly until there is no trace of paraffin in the exhaust. Re-lubricate motor with squirt of 'Shell Clavis 17' oil or equivalent into air motor inlet.

When freezing or near freezing conditions are encountered we recommend that Shell 'Clavis 17' oil or equivalent be introduced into the air line to prevent formation of ice in air motor exhaust.

3. COMPRESSED AIR:

Always provide clean, dry compressed air at a minimum of 90 psi. to the machine. Maximum air pressure not to exceed 100 psi.

4. CUTTING TOOLS

The 1/2" square section HSS Butt Welded Tools supplied are ground to give maximum efficiency and it is very important when re-grinding operation is undertaken that the chip breaker and all clearance angles are accurately maintained. The Tools, unless otherwise specified, are ground for cutting ferrous and non-ferrous tubes and generating single bevel welding angle of 37.1/2 degrees.

5. SAFETY PRECAUTIONS

When replacing or radially setting cutting tools in the Faceplate, we strongly recommend that the Operator in addition to closing the compressed Air Control Cock on the Machine MUST ALSO CLOSE THE STOP VALVE IN THE COMPRESSED AIR SERVICE LINE.

6. LUBRICATION

On despatch the Machine has been filled with Shell 'Macoma R41' Gear Oil or equivalent.

Grease Nipple: use Shell 'Alvania No.2' or equivalent

Bennet Oilers: use Shell 'Vitrea 33' or equivalent.

DAILY BEFORE USING MACHINE

- (1) With Machine standing on feet, check oil in gear box by removing Part No.28-R8, oil should be level with bottom lip of hole, add oil when necessary through filling hole on top of machine.
- (2) Charge Auto Oiler with Shell 'Clavus 17' or equivalent.

7. SPARE PARTS

When ordering or enquiring for Spare Parts, please always quote TYPE AND SERIAL NUMBER OF REEKIE MACHINE TOOL AND APPROPRIATE PART NUMBERS FROM PARTS LIST AND GENERAL ARRANGEMENT DRAWING. It is not possible to supply Spares without this full information.

AMENDMENT

PARA: AIR TURBINE MOTOR SERVICING.

Prevention of Formation of ICE in Air Motor

Where freezing or near freezing/high humidity conditions are encountered on exposed sites we recommend that "Shell Clavus 17" Oil or equivalent mixed in equal parts with an Anti-Freeze fluid be introduced into the air line system at the outlet connection on the Compressor each morning before commencing in situ machining operations. It will also be advantageous under such severe climatic conditions to use between the REEKIE Machine and Compressor larger bore air hoses than normally specified. For a 50' to 75' length of run of air hose a 1/2 pint of oil/anti-freeze solution should be sufficient.