# OPERATIONAL / MAINTENANCE INSTRUCTIONS FOR STIMPSON C1 MACHINES For use with Parts Catalog No C-1-93

The Stimpson model C-1 Machines are built to give many years of trouble free service if maintained and operated as instructed. Your machine has been adjusted for the sample work or blueprint submitted with your order, performance tested, and is ready for operation. Tools and pockets are made to order. To avoid any unnecessary downtime it is suggested that you keep a spare set of tools and pockets on hand at all times.

CAUTION: USE CARE IN REMOVING THE MACHINE FROM ITS CRATE AND PACKING. DO NOT MOVE OR LIFT THE MACHINE BY ITS HOPPER BOX, ROADWAY OR GUARDS.

(POWER TO THE MACHINE MUST BE OFF WHILE LUBRICATING, CLEANING, LOADING, ADJUSTING OR REPAIRING THE MACHINE)

### LUBRICATION

ALL C-1 MACHINES HAVE BEEN FACTORY LUBRICATED/ DO NOT OVER LUBRICATE: Excess oil, if not wiped clean, will only lead to an accumulation of dust and other abrasive particles causing premature wear and improper functioning of the machine.

NEVER LUBRICATE: Box Carrier Roadway No. 63, Box No. 3, Cut Off No. 73 or Pockets No. 58, these parts must be absolutely free of oil and grease. All points requiring lubrication are provided with oil cups or access holes, except the plunger and pivot points where pins are installed. A drop or two of oil in these areas is sufficient.

FIRST TWO WEEKS: It is advisable to oil your machine every morning at each oil point using a few drops of a good grade medium viscosity machine oil; thereafter, about twice a week for machines in steady service.

KEEP YOUR MACHINE CLEAN: It is recommended that machines in steady use be cleaned daily (more often should you find it necessary because the work is of a nature which tends to throw off lint or other particles). The best method is using air pressure, which will blow out any particles accumulated in the roadways and other places not easily accessible by hand method. Make sure there are no foreign objects mixed in with the goods. Remove the Box No. 3 periodically, clean it and remove any damaged goods.

After replacing Box No. 3, be sure that the square hole in the Box Spring No. 45 is placed on the square of the Box Stud No. 47 or 47A before tightening the Box Nut No. 46. Wipe the carrier face with a clean rag and remove any accumulation of dirt or lint. Make sure box has no play back and forth on the Box Stud No. 47 or 47A. A regularly scheduled cleaning program will help eliminate unnecessary machine downtime.

**CAUTION**: Never use a hard object, such as a screwdriver, to remove foreign matter or damaged goods from the box or roadway. Serious damage can occur.

ELECTRIC MACHINES: The most important lubrication points are the Main Shaft No. 28 which is lubricated through the Oil Cup No. 107, the Flywheel No. 31 through Oil Cup No. 26.

PNEUMATIC MACHINES: Your machine is equipped with a Pressure Gauge No. 172, Pressure Regulator No. 170, Air Filter No. 173 and an Air Lubricator No. 174. Air pressure and lubricator have been adjusted for your work. The lubricator has been filled with an S.A.E. 10 weight oil. Do not allow oil level to drop below 1/8 full. When filling or making adjustments BE SURE TO SHUT OFF AIR PRESSURE. The air filter bowl must be kept clean to assure filtering efficiency and to avoid a pressure drop. Before opening the drain cock SHUT OFF AIR PRESSURE. Water accumulation must not reach the baffle. Excessive accumulation of water at the

machine is an indication that an additional filter or an air dryer is needed downstream of the compressor.

#### LOADING MACHINE

With power off, put an adequate supply of C-E® Rivets or eyelets in the Box No. 3. DO NOT OVER-FILL. The box must never be more than 1/2 full. Overfilling will hamper the feed and cause damage to the goods. Rotate the box counterclockwise until the roadway is full. Your machine is now ready for production.

# **ADJUSTMENTS**

BEFORE ANY ADJUSTMENTS ARE MADE, SHUT OFF POWER TO MACHINE. AS AN ADDED PRE-CAUTION DISCONNECT POWER CORD OR AIR SUPPLY.

ALL C-1 MACHINES / ANVIL NO. 75 or 77: To adjust anvil to obtain correct tightness of setting, loosen Locknut No. 60 and the Anvil Lock Screw No. 59. Raise or lower the Anvil Adjusting Screw No. 61. Raising the bottom set too high will cause a loss of setting force and can damage the setting tools. Maximum setting force is exerted when the Plunger Link No. 51 is slightly less than in a vertical position.

POCKETS NO. 58: In the HOME POSITION the pockets must be set as high as possible to allow free entry of the rivet, but must never hit the bottom of the roadway strips. To adjust this position loosen the upper Locknut No. 69 and turn the Pocket Plunger Adjusting Screw No. 68 in or out until the desired position is reached. Retighten the locknut. In the setting position, the pockets should be set above the material to be riveted allowing clearance for the C-E® Rivet head. To make this adjustment, loosen the lower locknut and turn the adjusting screw until the desired position is reached.

BOX CARRIER ROADWAY NO. 63: The opening at the bottom of the roadway must be centered with the Pockets No. 58 and the Driving Stem No.56. To adjust, loosen Locknut No. 55. Back off Cut-Off Screw No. 72 and loosen Carrier Screw No. 71. Center roadway and retighten screws and locknut, making sure Cut Off No. 73 moves freely.

SPINDLE STOP ATTACHMENT - USED ON SOME EYELET MACHINES - SPINDLE STOP NO. 238: If

your machine is equipped with a spindle stop, it must be adjusted if you:

- 1. Raise or lower the bottom set.
- 2. Replace the bottom set.
- 3. Replace the top set and / or the top set spindle.
- 4. Replace or adjust the pockets or pocket holder.

The top set spindle must stop approximately 1/64" above the bottom set point. Loosen Locknut No. 55 and Clamping Screw No. 239. For foot power machines depress Treadle No. 138 until Spindle No. 240 is 1/64" above the bottom set's point.

OFF, trip the machine by pulling down on the Solenoid Trip Lever No. 506 (see clutch assembly detail) and turn flywheel until the plunger brings the spindle 1/64" above the bottom set's point.

ON PNEUMATIC MACHINES, DISCONNECT THE AIR SUPPLY, then press down on the Intermediate Lever No. 95, which is connected to the air cylinder, until desired spindle position is reached. It is recommended to do this job with the assistance of another person.

After using one of the above mentioned methods of locating the spindle 1/64" above the bottom set point, move the Spindle Stop No. 238 up so that it touches the Spindle Stop Pin No. 237 of the Top Set Spindle No 240 and then tighten the clamping screw. SEE SPINDLE STOP ATTACHMENT PARTS LIST FOR ADJUSTMENT POSITION.

DOUBLE RATCHET PAWL NO's 157 and 158: To adjust double ratchet, loosen the Pawl Stud Clamp Screw No. 153. Depress Foot Treadle No. 138. Position the Upper Pawl No. 158 above the center line of the Ratchet No. 64. The Lower Pawl No. 157 must be clear of the intermediate lever fulcrum pin. In this position retighten the pawl stud clamp screw.

C-1 ELECTRIC MACHINES BELT ADJUSTMENT NO. 33: To adjust the tightness of the belt, loosen (4) Fastening Screws No. 126, press down on Motor No. 125 to tighten and raise the motor to loosen the belt. When desired tension is obtained, tighten (4) Fastening Screws No. 126. Belt should flex approximately 1/2". Excessive tension on the belt will cause premature motor and flywheel bearing wear.

## C-1 PNEUMATIC MACHINES

AIR PRESSURE: Your machine has been factory set

at 80 P.S.I. If it becomes necessary to adjust the air pressure, merely pull up knob of Pressure Regulator No. 170 and turn until the desired pressure is reached, then push knob down to lock.

AIR LUBRICATOR: To adjust the oil flow, turn the adjusting screw on the top of the lubricator counterclockwise to increase the flow, clockwise to decrease. Oil vapor coming through the Muffler No. 163 indicates that the oil flow must be decreased. Two to five drops a minute should be sufficient. Only 5% of the oil droppings enter the air stream.

AIR FILTER: Check and drain bowl every morning.

AIR FLOW CONTROL: To adjust speed of the down stroke, loosen the Locknut No. 162 on the Adjusting Screw No. 161 of the lower muffler on the air cylinder. Turn adjusting screw No. 161 clockwise to slow down and counterclockwise to speed up the down stroke of the plunger. Tighten locknut after setting of desired speed.

To adjust the speed of the plunger return, reverse the procedure of the down stroke with adjustment of the upper muffler adjusting screw on the air cylinder. Machine is factory set for proper movement.

BEFORE MAKING ANY ADJUSTMENTS, REPAIRS OR REPLACING OF PARTS, SHUT OFF POWER TO THE MACHINE AND DISCONNECT POWER CORD OR AIR SUPPLY.

# PROCEDURE FOR CHANGING SETTING TOOLS FOR ALL C-1 MACHINES

DRIVING STEM NO. 56: Remove Locknut No. 22 and Pockets No. 58. Loosen Locknut No. 53 and Driving Stem Lockscrew No. 54. Remove the Driving Stem No. 56. To install the driving stem, reverse the above procedure being sure the driving stem bottoms in the plunger and the flat on the stem is parallel with and clear of the roadway. The lockscrew must seat on the flat of the upper part of the driving stem.

ANVIL NO. 75 or 77: Loosen Anvil Lockscrew No. 59 and remove the anvil. Before installing the new anvil, loosen Locknut No. 60 and lower the Anvil Adjusting Screw No. 61. To install the anvil, reverse the above procedure. Be sure the anvil is seated on the anvil adjusting screw and the flat on the anvil is aligned with the lockscrew, see Adjustments - Anvil.

CUT - OFF ASSEMBLY NO's 70, 73 and 74: Remove the Box Nut No. 46, Box Spring No. 45, Box No. 3, Box Spacer No. 4, Nut for Cut Off Screw No. 55, Cut Off Screw No. 72, Carrier Fastening Screw No. 71. The box carrier roadway can now be removed. Remove Cotter Pin No. 11, Washers No. 12, Ratchet Pawl No. 92 and Pawl Pin No. 13. To replace the cut-off assembly, the pawl pin is fed through the slot in the cut-off link with the head to the outside. The pawl pin is then inserted through the Head Lever No. 67. Replace the ratchet pawl, properly positioned on the Ratchet No. 64. Replace the washers and cotter pin. Spread the cotter pin legs. Replace the box carrier roadway, box spacer, box, box spring and box nut. Align the roadway opening with the pockets and driving stem. Replace the fastening screws, cut off screw and the locknut. Check the cut off to be sure it moves freely.

**CONVERSION UNIT:** Follow the same procedures as described in sections headed Driving Stem, Anvil and Cut Off Assembly.

PROCEDURE TO CHANGE CLUTCH: Machine in the neutral position. Remove End Collar No. 27 and slide flywheel back slightly, so you can see Rollers No. 500B in the Clutch No. 500. Place large rubberband over flywheel and around pins to prevent pins from falling out. Now remove the Flywheel No. 31. Remove Key No. 525 from main shaft. Pull Plate No. 519 back over shaft, and complete clutch unit has been removed. To install, reverse procedure.

## TROUBLE SHOOTING

BEFORE WORKING ON YOUR MACHINE, SHUT OFF POWER TO MACHINE. AS AN ADDED PRE-CAUTION, DISCONNECT POWER CORD OR AIR SUPPLY.

# FOR ALL C-1 MACHINES

**CAUTION:** NEVER USE a screwdriver or other hard metal implement to force goods down track. Such use will only lead to marring of the roadway and cause further sticking of goods.

### NO FEED - POOR FEED

Check box for goods. Over-filling will hamper feed. Box should never be more than 1/2 full. Check the box and roadway for damaged or incorrect size goods. Check for foreign matter, oil or grease in or

on related feed parts. Check for play between the Box No. 3 and Carrier No. 63. Check if box turns freely. Check if box spring and box nut are seated properly. Check if pawl is seated properly.

C-E® RIVETS OR EYELETS "SPIT" OUT: Check pocket adjustment. Check pocket plunger for freedom of movement. Check pockets for wear or damage. Check roadway alignment.

DAMAGED C-E® RIVETS OR EYELETS: Check box. It must not be more than 1/2 full and must be free of any foreign matter. Check cut- off for wear and freedom of movement.

OCCASIONAL LOOSE SETTING: On Pneumatic Machines, the operator must keep Foot Valve No. 131 or 183 down long enough to complete setting.

LOOSE SETTINGS: Check C-E® Rivets or Eyelets for proper length. Check anvil adjustment. On pneumatic machines, foot valve must be kept down long enough to complete the setting. Check for air leaks. Check lubricator oil level. Check air filter bowl for dirt and fluids.

POOR SETTING: Check receding spindle and anvil

for wear or breakage. Check driving stem for chipped edges. Check roadway alignment. Check pockets for wear or damage and pocket plunger for freedom of movement. Check pocket plunger for adjustments.

PROPERLY: Check the following: Missing or broken Solenoid Pin No. 504, missing or broken Solenoid Spring No. 512. Check wiring between Switch No. 39, Foot Switch No. 131 and Solenoid No. 501 for continuity. Check micro switch inside of the foot switch housing. Check solenoid for continuity. Check No. 119 Time Delay Relay.

### MACHINE JAMS

SHUT OFF POWER TO MACHINE AND DISCONNECT POWER CORD: The machine will jam when two or more settings are made on top of each other. To clear the machine, lower the bottom set. If this is not enough to free the machine, turn the flywheel by hand to clear the jam. BE SURE HANDS ARE CLEAR OF THE POINT OF OPERATION AT ALL TIMES. After the machine has been cleared from the jam, turn the machine over by hand to engage clutch in a neutral position and reset the bottom set.





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**PNEUMATIC**