INSTRUCTION BOOKLET FOR

COMBINATION CRADLE STRAIGHTENERS

MODEL # MDCC & HDCC

& PINCH ROLLS

MANUFACTURERS OF COIL HANDLING EQUIPMENT
Durant Tool Company

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ATTENTION: PLANT MANAGER

Thank you for purchasing Durant equipment. Enclosed are very important safety instructions, operating instructions, and setup procedures.

Read all these materials completely and carefully. Please distribute copies to your SAFETY MANAGER, PRODUCTION MANAGER, and MACHINE OPERATORS.

If there is any help required in setup or operation, we will be readily available for your assistance.

Thank you again and we look forward to developing and maintaining a fine relationship with your company.

Sincerely,

DURANT TOOL COMPANY

SAFETY INSTRUCTIONS FOR ALL DURANT EQUIPMENT

The enclosed information and instructions must be forwarded and distributed to the Plant Safety Director, Plant Manager, Production Manager, and all Operators of Durant equipment.

Operators of Durant equipment must have a minimum of (3) three years operating experience with similar Durant press room equipment or a minimum of (3) three years experience with identical equipment manufactured by other press room equipment manufacturers.

WARNING

Never operate, install, or maintain this machine without understanding the complete and safe operation thereof.

It is the employer's responsibility to provide proper safety devices and equipment to safeguard the operator from harm and to safeguard this machine at all times to meet all current government safety codes and standards.

CAUTION

All Durant equipment must be securely fastened to the floor. This will prevent the machine from tipping. Failure to follow the above instructions could cause harm to the operator or machine.

ATTENTION

If any danger points are observed:

1. Immediately stop machine.
2. Do not run machine until danger point is eliminated.
3. Report danger point in writing to your employer.
4. Keep a copy of your report for your records.
5. Do not run machine again until danger point has been corrected.
6. It is your employer's responsibility to safeguard this machine to meet all government safety codes and standards.
7. There are U.S. companies that specifically specialize in safe guarding machines to plant requirements and government codes. The safe guarding companies are located throughout the United States, Canada, and foreign countries. Representatives will visit your site to advise and recommend safe guarding procedures for your company.

IMPORTANT

Before the first use and monthly thereafter, all nuts, screws, and bolts should be checked for tightness. Gears, sprockets, chains, and belts should also be checked for tightness.

Grease and oil fittings and reducers monthly.

INSTRUCTIONS TO ATTACH PINCH ROLL
MAKE SURE POWER IS OFF TO CRADLE BEFORE STARTING

1. Remove loop arm from Cradle.
2. Redrill hole in cradle from which loop arm was removed to 41/64".
3. Remove Micro Switch from Cradle.
4. Attach loop arm to Pinch Roll.
5. Mount Micro Switch onto Pinch Roll.
6. Using the two adaptor plates attach Pinch Roll to Cradle.
7. Position sprocket on lower Pinch Roll to line up with sprocket on cradle. Attach chain.
8. Rewire Micro Switch (Add Cable).

COMBINATION CRADLE / STRAIGHTENERS
LOADING THE COIL CRADLE

A coil cradle is more readily loaded than a stock reel. Also, no consideration has to be given to the inside diameter of the coiled material when it is handled in a cradle.

The first step in loading a coil cradle is to clear the loop control arm in the back of the cradle.

On lighter coils the coil of material may be rolled directly into the cradle so that it rests on the four cradle rolls. The end of the coil of material comes out the back of the cradle.

The crossbar is replaced in position and the material is fed under the crossbar and up over the cradle into the press.

As the material lifts the crossbar the motor starts, the rolls on the cradle turn, and the coil of material is unwound to the point that the loop control (crossbar) drops back and the motor stops. As the material is used in the press the cycle is repeated.

For frequent stops and starts a time delay switch is recommended.

For material that is difficult to unwind a Pinch-Roll Attachment is recommended. This is a pair of rolls that attach to the back of the coil cradle with a chain drive to the drive of the coil cradle. The material is threaded through these pinch rolls and then under the loop control and up and over the cradle. This gives a positive drive to the coil cradle.

If your material tends to expand within the cradle, binding against the side plates, oiled plywood or metal discs can be inserted on each side of the coil. This allows the coil to rotate more freely.

Note: A time delay control is provided on several models. This timer is located inside the control box. It can be adjusted to allow your material to continue to run after the loop control limit switch has been given a stop signal. The time delay is utilized to reduce the amount of start / stop signals or to increase the size of your loop.

Standard on #3000, #5000, and #6000 Models.

COMBINATION CRADLE / STRAIGHTENER
ADJUSTING THE STOCK STRAIGHTENERS

1. Release all top rolls of the straightener including the entrance and exit rolls.

2. Insert a piece of material through the straightener. This material should pass through the straightener freely.

3. Tighten the top entrance and exit rolls on straighteners having both entrance and exit rolls or just the entrance roll on MSC and SC units so the material will pass through the straightener without slippage. Do not overtighten so the material will be “ironed”.

4. Adjust the first top straightening rolls (closest to the entrance rolls) so material is deflected slightly.

5. Adjust subsequent top straightening rolls with sufficient pressure to remove coil currature. The correct pressure is determined by the thickness, type, and temper of material. As the curvature of material increases toward the center of the coil it may be necessary to readjust the top straightening rolls slightly to compensate for changes in curvature.

6. On motorized stock straighteners the material comes out of the straightener and goes under the loop control arm. As the material is used the loop control arm rises and actuates the micro switch on the straightener to start the flow of material. As the loop control arm drops to a given point the flow of material stops and feeding is done out of the loop.

7. On straighteners with a variable speed drive it is important to adjust the vari-speed so that the flow of material approximates the use requirement and the off and on of the motor is kept to a minimum.

8. On straighteners with single phase motorization no more than six starts and stops a minute can be made or the motor will burn out.

Note: A time delay control is provided on several models. This timer is located inside the control box. It can be adjusted to allow your material to continue to run after the loop control limit switch has been given a stop signal. The time delay is utilized to reduce the amount of start/stop signals or to increase the size of your loop.

Standard on #MDCC and HDCC models.