

**OPERATING MANUAL
PARTS LIST**

Model SR

PLATE BENDING ROLL

COLE-TUVE

SHEET AND LIGHT PLATE BENDING ROLLS

Model SR

**Operating Manual
and
Parts List**

OPERATING AND MAINTENANCE MANUAL

INTRODUCTION

This manual is intended to provide operating instructions for your COLE-TUVE Machine. These instructions do not purport to cover all the details or variations in equipment and do not provide for every possible contingency to be met in conjunction with operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to COLE-TUVE, Inc. This manual contains valuable information directly relating to the safety of the operator. It is the purchaser's responsibility to familiarize the operator and maintenance personnel with the content of this manual.

This cannot be over-emphasized:

- **Most breakdowns are due to exceeding the rated capacity of the machine or other incorrect use by the operator.**

IMPORTANT NOTICE

Providing a safe and proper working environment consistent with the use and operation of the machine is the sole responsibility of the owner and user of the machine. All operating and maintenance personnel should be specifically instructed by the user in the operating principles. The owner and/or operator of the machine should be constantly aware of this responsibility for the safe operation of the equipment. They must be constantly alert to the danger of possible injury points, and should never leave the machine unattended while it is operating. When power is not required, it is recommended to TURN OFF the Power Supply Control.

To assure proper performance and SAFETY FOR THE OPERATOR, any minor problems noticed should be immediately corrected.

WARNING

Owner (or lessee in case of a leased machine) and machine operator jointly and severally assume all responsibility for damage and/or injury resulting from use and operation of this machine in any manner inconsistent with the cautions and instructions in this operating manual and with normal trade practice for the safe use of this type machine.

Owner (or lessee) and operator are responsible for knowledge of such instructions and trade practice and agree, by allowing the machine to be used or by operating it, to hold Vendor (and/or Lessor) of the machine harmless from any failure to comply with such instructions and trade practice.

TO ALL CONCERNED: MAKE SURE THAT THE OPERATOR UNDERSTANDS THE FOLLOWING

WARNING

TO PREVENT SERIOUS BODILY INJURY

- NEVER** PLACE ANY PART OF YOUR BODY AT THE POINT OF OPERATION
- NEVER** OPERATE, SERVICE, REPAIR OR ADJUST MACHINE WITHOUT PROPER INSTRUCTION FROM YOUR SUPERVISOR AND WITHOUT READING AND UNDERSTANDING THE INSTRUCTION MANUAL.
- NEVER** SERVICE MACHINE WITH MOTOR ON

IT IS THE EMPLOYER'S RESPONSIBILITY TO IMPLEMENT THE ABOVE INSTRUCTIONS AND TO PROVIDE PROPER SAFETY MEASURES NECESSARY FOR EACH PARTICULAR USE, OPERATION, SET-UP OR SERVICE OF THE MACHINE.

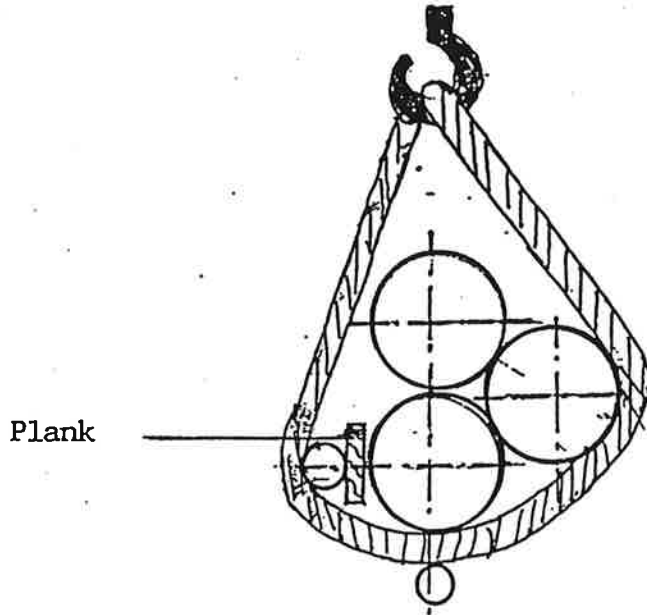
**ONLY PROPERLY TRAINED
AND AUTHORIZED
PERSONNEL SHOULD
OPERATE THIS MACHINE**

SAFETY INSTRUCTIONS

- ***PRESS THE STOP WIRE AT THE BASE OF THE MACHINE TO STOP THE MACHINE IN ANY EMERGENCY.***
- ***PRESSING THE EMERGENCY STOP BUTTON (COLOR RED) ON THE OPERATING CONTROL WILL ALSO STOP THE MACHINE.***
- ***ONLY THE OPERATOR SHOULD CONTROL THE OPERATING CONTROL.***
- ***THE OPERATOR SHOULD NOT WEAR GLOVES.***
- ***THE OPERATOR MUST KEEP HIS HANDS, FEET, HAIR AND CLOTHES AWAY FROM THE ROLLS WHEN THE MACHINE IS WORKING.***
- ***NEVER EXCEED THE CAPACITIES OF THE MACHINE.***
- ***NEVER DISCONNECT OR REMOVE OR OTHERWISE TAKE OUT OF SERVICE THE STOP WIRE OR THE RED BUTTON IN THE OPERATING CONTROL.***
- ***ALWAYS TURN THE MACHINE OFF WHEN LUBRICATING, MAINTAINING OR REPAIRING IT.***
- ***NEVER LEAVE THE MACHINE RUNNING WHEN NOT IN USE OR WHEN NOT ATTENDED BY AUTHORIZED PERSONNEL.***

COLE-TUVE

METAL FABRICATING MACHINERY



LIFTING AND PLACING THE MACHINE

Lifting and placing the machine can be made easily by following the recommended steps below:

- 1) Move the top and bottom rolls together as shown in above figure
and be sure to add the plank between the lower roll and the tie rod.
- 2) Use a strong rope or nylon sling.
We do not recommend steel cable.
- 3) Do not hit the machine against anything.

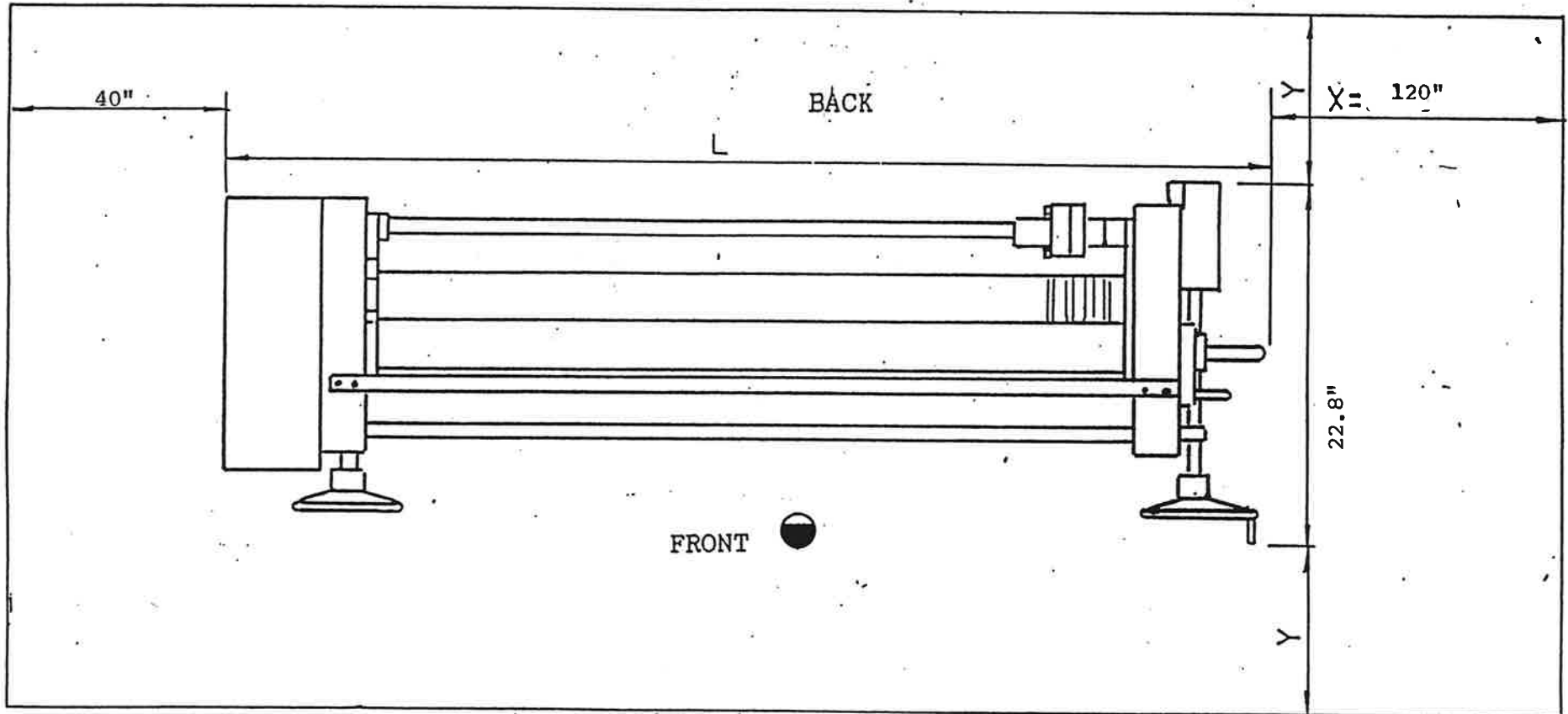
THE SPACE THAT THE MACHINE OCCUPIES

The machine should be mounted on and anchored to an adequate foundation prepared according to you floor thickness and below-floor conditions.

Then refer to following Drawing 1 for suggested minimal space allowances around the machine. There must always be enough space for the operator to work safely and comfortably.

Space must also be allowed for the length of materials that will be worked on in the machine and for the finished cylinders to be removed.

THE SPACE THAT THE MACHINE OCCUPIES



Model	L	Y
4'	70"	48"

COLE-TUVE

METAL FABRICATING MACHINERY

INTRODUCTION

Refer to the drawing on the following page (Figure 1).

Rolls numbered 1 and 2 are driven by motor, gearbox and chain.

Rolls numbered 2 and 3 are adjusted by respective handwheels.

Roll number 3 is an idler roll.

TO MAKE A BEND

Place the sheet beneath roll number 1, square to the rolls.

Then roll number 2 is moved upward by the handwheel to clamp the sheet.

Now the sheet is between rolls number 1 and 2, ready for bending.

To start bending, roll number 3 is moved to desired position for the required radius of bend. It should be adjusted as may be necessary as bending proceeds.

Operate the foot pedal to cause rolls number 1 and 2 to rotate for the bending process.

THE MACHINE IS EQUIPPED WITH AN EMERGENCY STOP PALM BUTTON ON THE FOOT CONTROL STAFF AND WITH AN EMERGENCY STOP BAR ACROSS THE FRONT AND REAR OF THE MACHINE.

COLE-TUVE

METAL FABRICATING MACHINERY

TO PREPARE THE MACHINE FOR OPERATION:

Connect the movable foot control to the machine by inserting the plug on the end of the trailing lead into the receptacle at the center front of the machine.

Connect your power supply to the main control box of the machine in accordance with the governmental electrical code of your area. Be especially careful that your power supply is proper for the electrical circuit for which the machine was ordered and supplied.

The bending process consists of three steps. These are:

- a) Prebending
- b) Bending the end of the sheet
- c) The bending process

Use the foot control as necessary throughout the bending process to advance the sheet or to move it backward.

PREBENDING (refer to Figure 1)

- 1) Roll number 2 is moved downwards by the handwheel.
- 2) Roll number 3 is also moved downwards by the handwheel.
- 3) Sheet is placed upon rolls numbered 2 and 3.
- 4) After the sheet is placed, roll number 2 is moved upward to clamp the sheet. (Figure 2)
- 5) Roll number 3 is adjusted upward for the required bending radius.

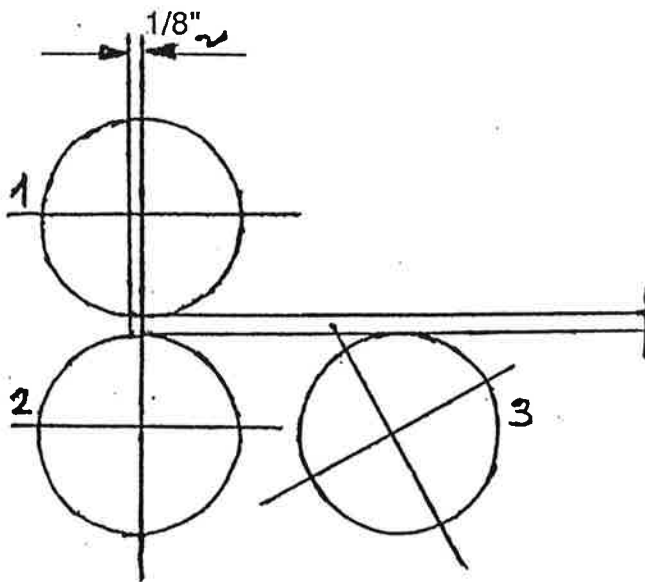
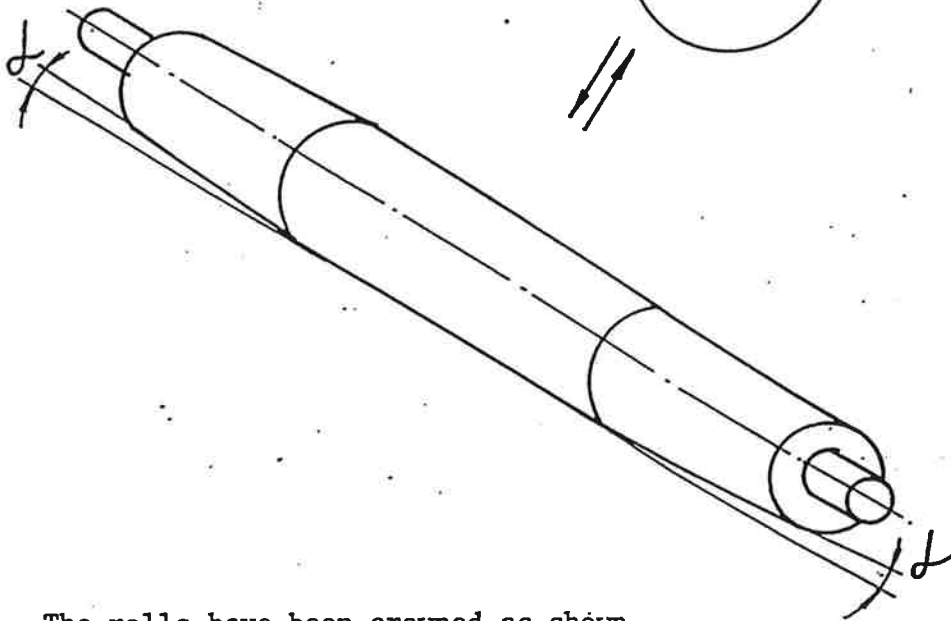
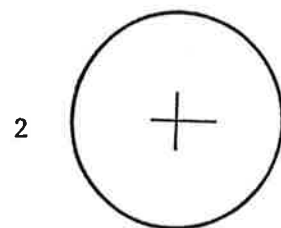
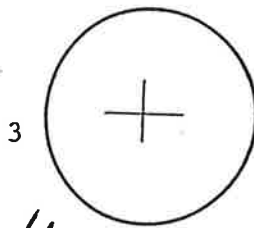
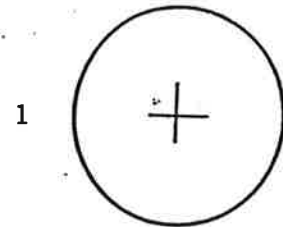


Figure 1

CAUTION: BE SURE THAT ROLL NUMBER 1 IS ALWAYS SECURELY LODGED AND LOCKED IN PROPER POSITION DURING THE BENDING PROCESS.

THE ROLLS

- 1 - TOP ROLL
- 3 - REAR ROLL
- 2 - BOTTOM ROLL



The rolls have been crowned as shown above.

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METAL FABRICATING MACHINERY

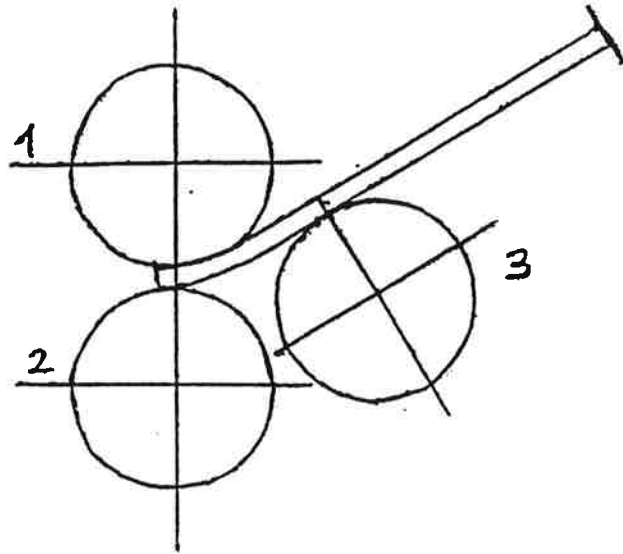


Figure 2

BENDING THE OTHER END OF THE SHEET OR PLATE

- 1) Bending is done as shown in Figure 3.
- 2) Rolls numbered 2 and 3 are again moved upwards. (Figure 4)

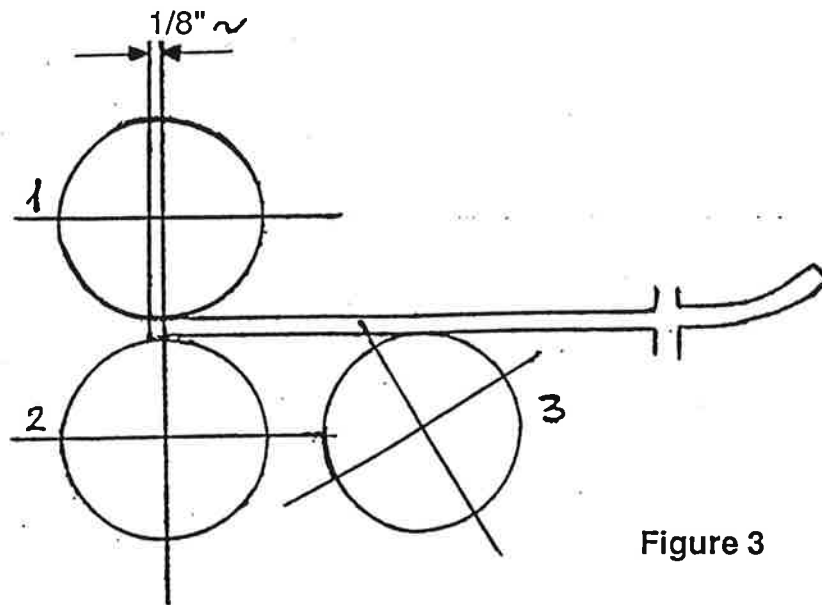


Figure 3

CAUTION: BE SURE THAT ROLL NUMBER 1 IS ALWAYS SECURELY LODGED AND LOCKED IN PROPER POSITION DURING THE BENDING PROCESS.

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METAL FABRICATING MACHINERY

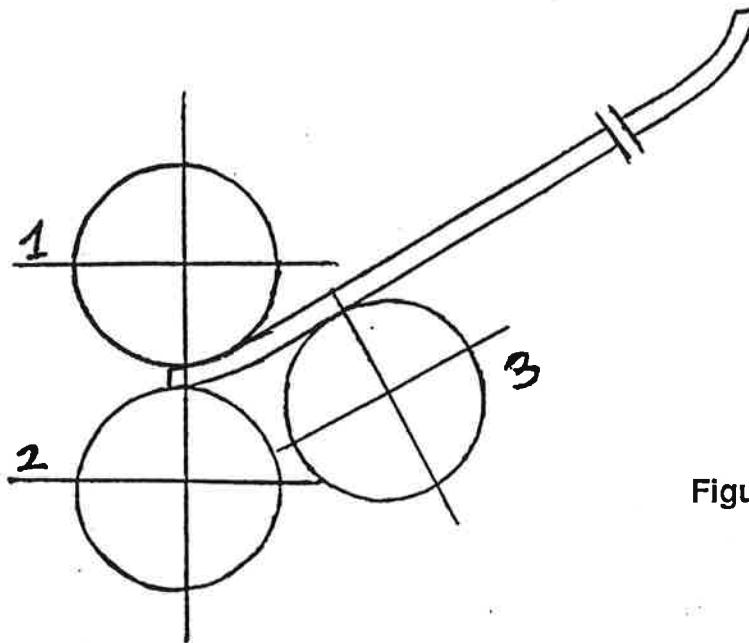


Figure 4

BENDING PROCESS

Bending is continued. (Figure 5) until it reaches the position in Figure 6.

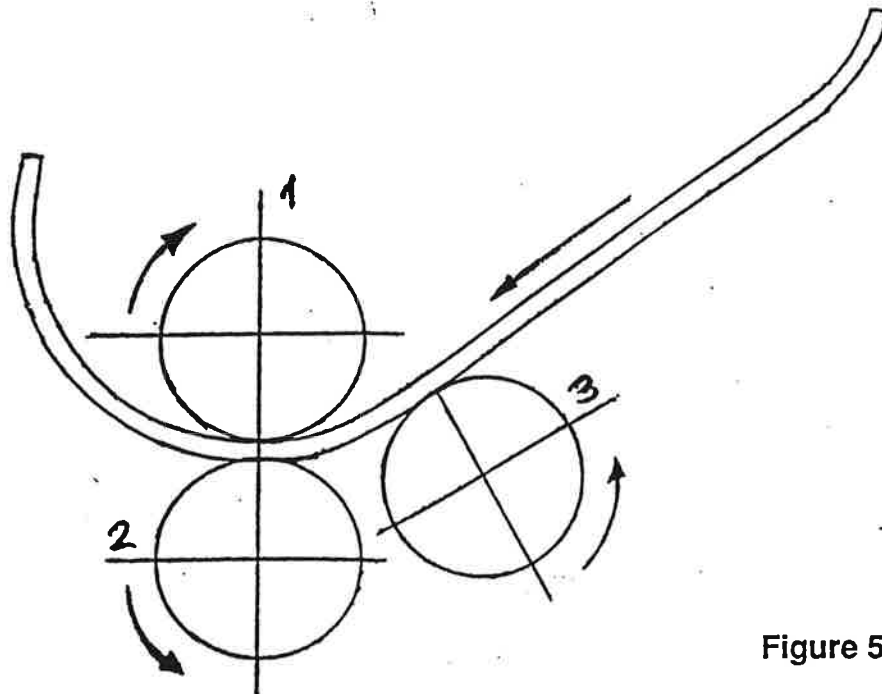
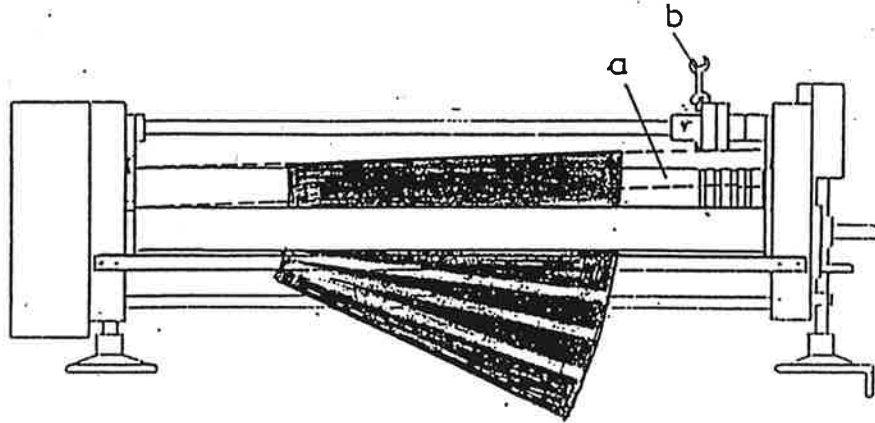


Figure 5

CAUTION: BE SURE THAT ROLL NUMBER 1 IS ALWAYS SECURELY LODGED AND LOCKED IN PROPER POSITION DURING THE BENDING PROCESS.

CONE BENDING



TO BEND CONES, THE REAR ROLL CAN BE TILTED AS FOLLOWS TO GRIP THE GRIP THE PLATE IN THE BEST POSITION TO MOVE IT THROUGH THE MACHINE:

Release the coupling at "b" with a wrench.

Use the handwheel which is used to move the roll "a" up and down to tilt the roll to the desired position.

Re-join the coupling.

The cone plate should have been cut to the configuration required to obtain the desired cone.

The cone plate is put into the machine and bent using normal bending procedures.

After cone bending and before normal bending is resumed, the rear roll must be returned to its normal position by again releasing the coupling, using the handwheel to return the roll to level position and re-joining the coupling.

REMOVING THE BENT CYLINDER

- 1 - When the bending operation is completed, C roll is lowered; and space is left between the rolls.
- 2 - A roll is released from its locked position; and then it is swung open; and the bent sylinger can be removed, slowly.

NOTE: WHEN THE BENDING OPERATION IS COMPLETED, THE MACHINE MUST BE STOPPED COMPLETELY BEFORE BEGINNING THE REMOVAL OPERATION.

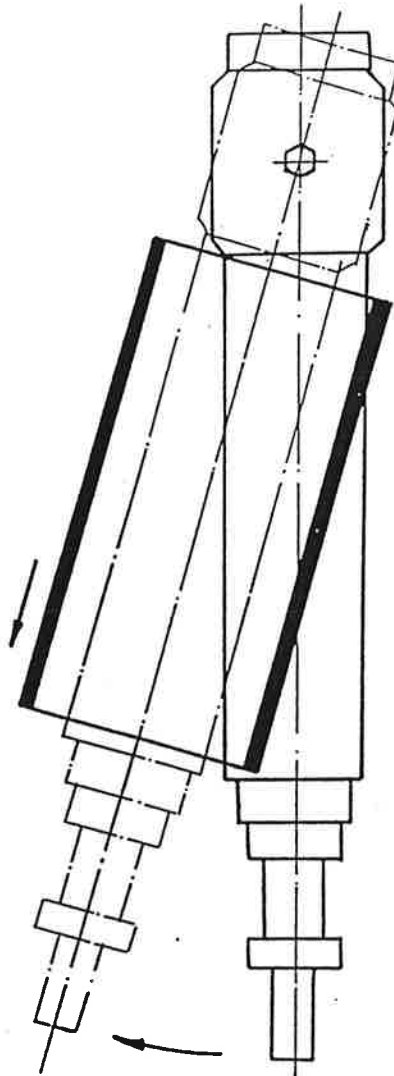


Figure 9

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METAL FABRICATING MACHINERY

LUBRICATION

Lubrication is important for the moving parts of the machine.

Working parts are lubricated at the lubrication points indicated on the machine.

It is recommended that the machine be lubricated twice a day.

Use normal lubricating grease.