

9 - TECHNICAL DESCRIPTION

9 - 1 MECHANICAL STRUCTURE

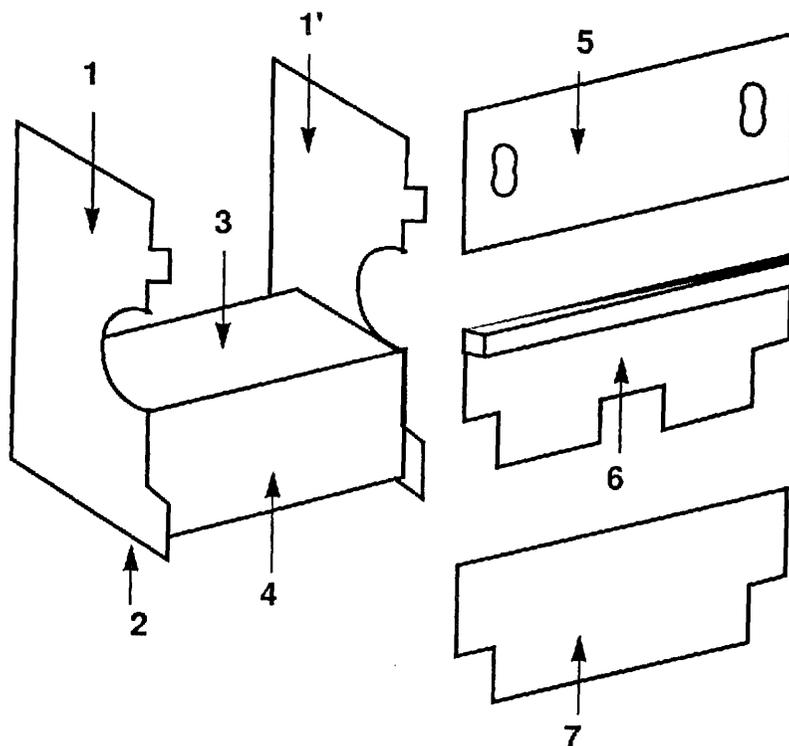
made of:

1) A welded frame including

- 2 uprights items 1, 1',
- 1 sole item 2,
- 1 table item 3,
- 1 front plate item 4.

2) Movable mechanical elements:

- 1 upper beam item 5,
- 1 lower beam item 6,
- 1 front support item 7.



9 - 2 MECHANICAL CONNECTIONS

9 - 2 - 1 UPPER BEAM

The upper beam is supported by ball and socket joints resting on each of the uprights. Transverse adjustment is made using eight push-pull Mechanisms that also serve to adjust table linearity.

9 - 2 - 2 FRONT SUPPORT

The front support rests on the uprights via ball and socket joints for 80/25, 103 and 125/30 machines, and via jacks for 50/12 and 50/20 machines.

9 - 2 - 3 JACKS

The number of jackscrews is:

- 1 on 50/12 and 50/20 machines
- 2 on 80/25 and 103 machines
- 3 on 125/30 machines.

Their functions are to:

- transmit the force needed for bending to the lower beam
- separate the front plate and the front support
- provide lateral guidance for the lower portion of the lower beam.

The jack(s) rest on the front plate and front support via ball and socket joints.

9 - 2 - 4 UPPER GUIDE

The upper guide is designed:

- to separate the front plate and the front support.
- to provide lateral guidance to the upper portion of the lower table.
- to provide the lowermost endstop for the lower table.

9 - 2 - 5 LATERAL GUIDANCE

- it ensures strict parallelism of the lower beam stroke
- to provide a reaction to offset loads.

Lateral guidance is provided:

- by 8 bearings on 50/20 machines,
- by 8 sectors on 80/25, 103 and 125/30.

9 - 2 - 6 TRANSVERSE GUIDANCE

It provides:

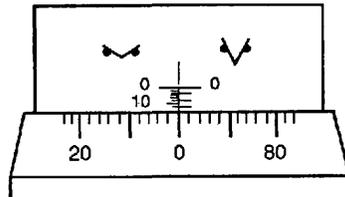
- correspondence between the functional axes of the punches and dies along the lower beam stroke.

9 - 3 Y AXIS MECHANISM

The end-of-bending level is obtained by actuating the hydraulic valve (hydraulic back gauge) which discharges the pump system when bending is completed.

9 - 3 - 1 MANUAL CONTROL

Manual control is done by means of a crank with a graduated vernier on which each division represents a 0.02 mm penetration of tools.



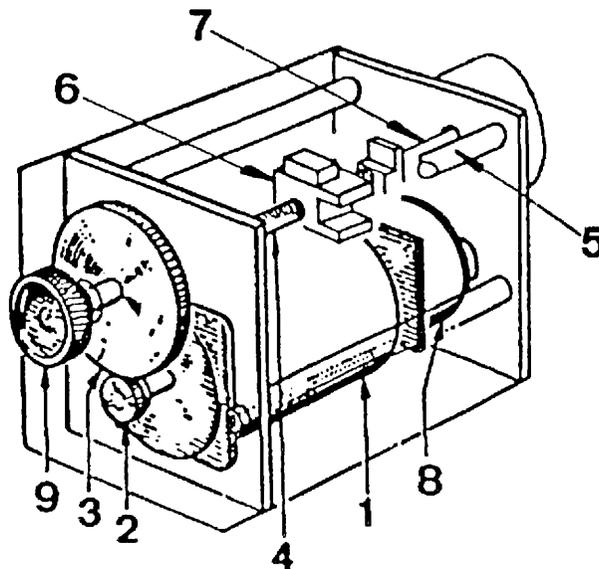
9 - 3 - 2 MOTOR-ACTUATED CONTROL

Control of this valve can be motor-driven. The motorization consists of a compact assembly attached to the left upright, instead of the manual control.

The D.C. motor (item 1) transmits the rotational motion from the pinions (items 2 and 3) to the screw (item 4). The spacer (item 5) locks the nut (item 6) in place so that it will not turn. The control rod (item 7) is pushed by the nut.

Movement of the valve control rod is controlled by the encoder (item 8), which is coupled to the motor.

The knob (item 9) is used to manually adjust the end-of-bending level.



9 - 4 SPEED SEQUENCE

Your press brake is factory-fitted with a speed change device* which changes speeds during closing. This device consists of a safety element and must be adjusted as a function of the height of the die and the thickness of the worksheet to be bent. There must be a maximum clearance of 6 mm between the tip of the punch and the worksheet.

An adjusting cam fitted with a locking knob can be accessed through the door located on the lower right cover of your machine. This door is key-locking. Raising of the cam determines a lower sequence level and vice-versa.

* The approach and working speeds are listed in the table of general characteristics. The adjustment must be made in relation to the height of the tools used and the thickness of the worksheet.