Standard
HAND BENDING BRAKES

INSTRUCTIONS AND PARTS LIST

CHICAGO
DREIS & KRUMP

WHEN ORDERING REPLACEMENT PARTS BE SURE TO GIVE THE FOLLOWING

MODEL NO.        SERIAL NO.

- Model and Serial Numbers
- Quantity of Part Required
- Part Number and Name
- Whether for Right or Left Hand Side Facing Machine

A Tradition of Quality and Value since 1899

DREIS & KRUMP MANUFACTURING CO.
7400 SOUTH LOOMIS BOULEVARD        CHICAGO 36, ILLINOIS
GENERAL INSTRUCTIONS

BENDING EDGE ALIGNMENT

When Bending Leaf is in down position, edge of Leaf should be ¼" below Bed edge at the ends and ¼" below Bed edge at the center. To maintain this alignment:

1. Adjust Leaf center with Bolt (2).
2. Adjust Bed center with Bolt (7).
3. Adjust Leaf ends with Screws (H).

ADJUSTING FOR METAL THICKNESS

Clearance for bends is obtained by moving Top Leaf back at bending edge. If material to be bent is within four gauges of capacity, move Top Leaf back twice thickness of the material. With lighter material, move Top Leaf proportionately forward if sharper bends are desired:

1. Loosen Screws (O).
2. Adjust Top Leaf with Screws (M) and (P).
3. Lock adjustment with Screws (O).

Clamping pressure is changed by adjusting Link Blocks (EE):

1. Loosen Screws (BB) which hold Link Adjustment Blocks (EE).
2. Adjust Blocks with Screws (FF).
3. Lock adjustment with Screws (BB).

CAPACITY

The bending capacity of the brake is determined by the bending edge thickness of the various Bending Leaf Bars, (S, SS, U, U5 and U6) when used in the standard position:

1. (S, SS) Angle Bars allow the full rated 1" minimum flange on capacity material.
2. (U6) ¾" Bars with the (SS) Angle Bars in the reinforcing, low position, reduce capacity of brake four gauges.
3. (U5) ½" Bars with the (SS) Angle Bars in the reinforcing, low position, reduce capacity of brake seven gauges. These Bars are used only to make narrow offset bends.
4. (U) ¼" Bars without the (S) Angle Bars reduce capacity of brake seven gauges. These bars are used without Angle Bars only to make narrow offset bends.

NARROW OFFSET BENDS

Attach (SS) Angle Bars in reinforcing, low position as provided by holes (14A) in Bending Leaf and use (U5) or (U6) Bending Leaf Bars in standard position.

If brake is style that uses (S) and (U) Bars, simply remove the (S) Angle Bars.

DUPLICATE BENDS

Adjustable stop (Q) may be positioned at any point on stop gauge rod (GG) to limit degree of bend.

LUBRICATION

Oil occasionally at points (C), (L) and (20) with SAE-30 oil (Government Specification, Mil-0-2104).

COUNTERBALANCE

Balance Weights (R) can be raised or lowered to properly counterbalance Bending Leaf.

CAUTIONS

Bend short pieces of material in center of brake to equalize the strain.

Never bend against seams unless Links (DD) are adjusted to clamp the full multiple thickness of seam, and Top Leaf is set back for clearance of the same full multiple thickness.

Always have (SS) Angle Bars in the reinforcing, low position when using (U5) and (U6) Bars to make narrow offset bends.

When forming sections of wide girth such as cornices, equalize the buckles in the sheet:

1. Start bend near the center of sheet, or,
2. Make a kink in the opposite end of sheet from the bend first made.

Sheets are not always perfectly flat and a buckle left in one end while the other is straightened by clamping in the brake, will throw the first bend out of line when it, in turn, is straightened.

CREEPING TOP LEAF ADJUSTMENT

Should Top Leaf creep forward when clamping material:

1. Check that brake sets level on floor.
2. Check tightness of Screws (O) and (P).
3. If still creeping, wedge up rear leg at point (8) under end that creeps until stopped. Replace wedge with permanent block of correct height.

OVERRIDE ADJUSTMENT

If sheet bends over further on one side than on the other, set Top Leaf back on end where sheet is overbending:

1. Loosen Screws (O).
2. Adjust Top Leaf with Screws (M) and (P).
3. Lock the adjustment with Screws (O).

BOWED BENDING LEAF ADJUSTMENT

If Leaf becomes bowed in center after use, tighten both Bolts (10) until center is brought into straight line.

FORMERS (Not Standard Equipment)

These moulds or Formers (V) can be obtained in half-round sizes: ½", 1", 1¼", 2¼" and 3".

Attach to brake by means of Clamps (Y):

1. Place ¼" clearance side of Formers against Bending Leaf as shown in sketch.
2. Position Clamps and tap lightly with mallet. This creates enough friction to hold Formers.
3. To remove Clamps, tap upward or turn.

Square bends can be made on a number of sheets and the curves bent afterwards on Formers. The wide opening of the jaw permits these semi-formed sheets to pass over Formers.

DREIS & KRUMP MFG. CO., 7400 South Loomis Blvd., Chicago 36, Illinois, U.S.A.
PARTS LIST

FORMERS

Cross Section of Brake Models

Cross Section of Brake Models: 316, 416, 516, 616, 618, and 818 only.

NOTE - CLAMP HANDLES ARE CONNECTED ON 3 AND 4 FOOT BRAKES

A - Clamping Handle
AA - Bending Leaf Handle
BB - Link Set Screw
C - Lock Shaft
DD - Link
EE - Link Adjust. Block
FF - Link Adjust. Screw
GG - Stop Gauge Rod
K - Stop Gauge Guide
L - Slot Casting Pin
M - Slot Casting Adj. Screw
N - Slot Casting
O - Slot Casting Lock Screw
P - Slot Casting Adj. Screw
Q - Adjustable Stop
R - Balance Weight
R1 - Balance Weight Rod
S, SS - Bending Leaf Angle Bar
U - Bending Leaf (1/2") Bar
US - Bending Leaf (1"") Bar
U6 - Bending Leaf (1"") Bar
U8A - Bending Leaf Bar Holder
V - Formers (Specify Sizes)
W - Bending Leaf Hinge
W1 - Bending Leaf Hinge Pin
Y - Former Clamp
Z - Bed End Housing
2 - Bending Leaf Adj. Bolt
7 - Bed Adj. Bolt
10 - Bending Leaf Tension Bolt
12B - Bottom Bar
12C - Top Nose Bar
13 - Bending Leaf (1"") Bar Screw
13B - Bottom Bar Screw
13C - Top Nose Bar Screw
14 - 45 Angle Bar Screw
16 - Clamping Handle Spring
17 - Clamping Handle Nut
18 - Clamping Handle Nut
20 - Bottom Shaft
21 - Bottom Shaft Set Screw
33 - (SS) Angle Bar Screw

When ordering parts give model and serial number of machine.
Also advise whether for right or left hand side facing the machine.