

NIAGARA

MODELS 192 & 193 DEEP THROAT BEADING MACHINES

INSTRUCTIONS

FORM F-25-A

RECEIVING

Immediately upon receiving the NIAGARA Beading Machine, check it very carefully for damage or losses in transit. Since all equipment is sold F.O.B., the Niagara plant, our responsibility ceases when the transportation company signs the Bill of Lading indicating that they have received the items listed on the Bill of Lading in good condition. Report any loss or damage to the delivering carrier promptly to insure proper handling of your claim.

Shortages not appearing on the Bill of Lading or discrepancies between equipment received and the order should be reported to Niagara immediately.

WARRANTY

Refer to Terms and Conditions in effect at the time of sale.

CLEANING

In spite of precautions taken in preparing this machine for shipment, dirt and foreign material may find their way into the bearing areas, gears and other parts during transit, and can cause considerable damage unless thoroughly cleaned. It is extremely important to thoroughly inspect the bearing areas, gears, etc., and thoroughly clean off any dirt and foreign material that may have accumulated. Do not attempt to blow dirt out with an air hose as this may force some foreign material into the area. Remove rust proofing compound with an acceptable solvent.

LUBRICATION

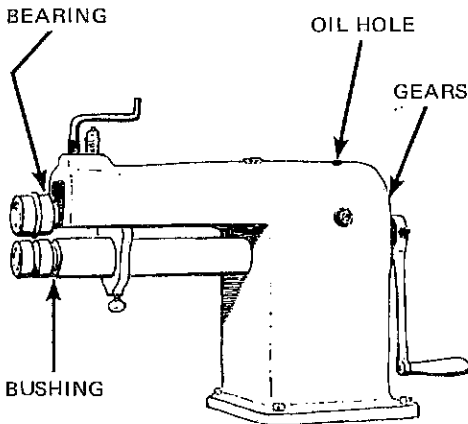
Use the recommended oil, Mobilgear 630, or its equivalent. The lubrication points for your machine are shown in Figure 1. Frequency of lubrication is dependent upon usage. A new machine should be more frequently lubricated during initial run-in periods.

CAPACITY

Never exceed the capacity of your beading machine. When forming materials harder than mild steel it is necessary to reduce the capacity rating accordingly.

SPECIFICATIONS

MODEL	192	193
Capacity, Mild Steel gage	18	20
Distance from center of roll to beading gage inches	12 ³ / ₄	7 ¹ / ₂
Distance from center of roll to frame inches	12 ³ / ₄	8 ¹ / ₄
Distance between shaft centers . inches	2.67	2.33
Length of shaft ends —		
(including collar nuts) inches	2	1 ³ / ₄
Shipping Weight (Approx.) . . pounds	240	94



LUBRICATION POINTS
FIGURE 1

NIAGARA MACHINE & TOOL WORKS • P.O. BOX 475, BUFFALO, N. Y. 14240

NM&TW 746

PRICE \$ 2.00 EACH

Printed In U.S.A.

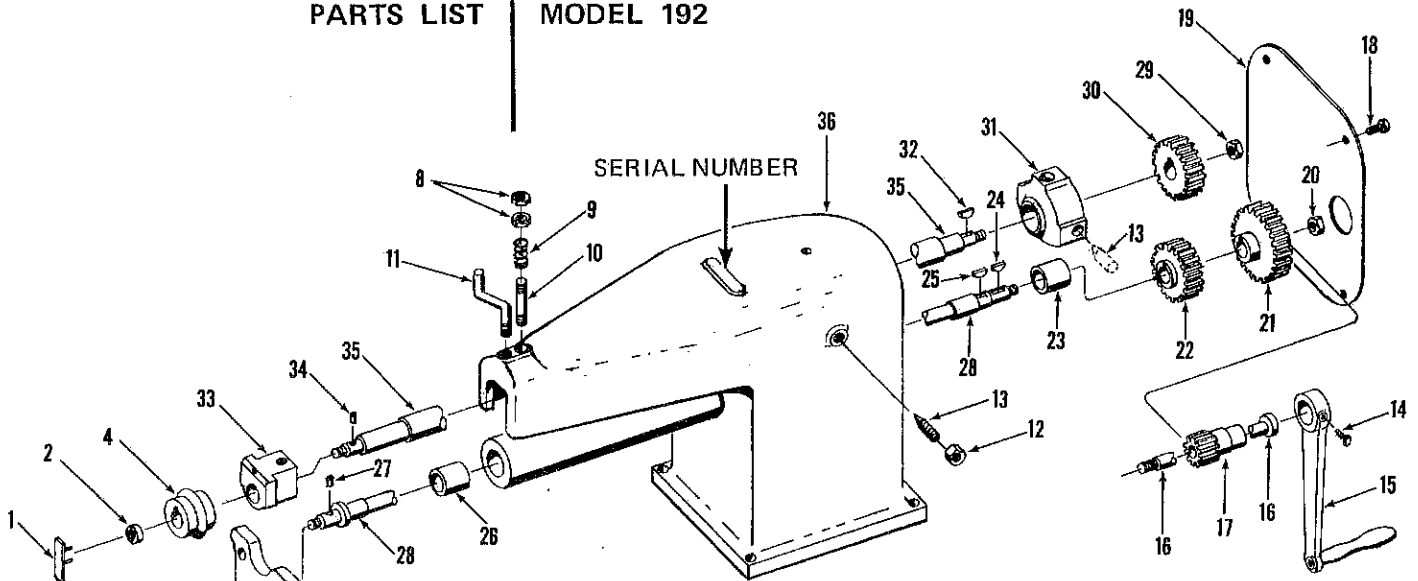
OPERATION

These machines are designed primarily for deep throat beading operations, but are also used for crimping. Their rugged construction minimizes deflection at the outer ends of the shafts. The upper shaft is raised and lowered by the crankscrew on top of the machine. Rolls are held on the shaft by means of round nuts which screw onto the ends of the upper and lower shafts. With the pin wrench provided, unscrew the two round nuts to remove the rolls.

MAKING A SINGLE OR O.G. BEAD

1. Install rolls as described above.
2. Determine the setting of the gage using a scrap piece of material.
3. Insert the work between the rolls with the edge pressed firmly against the gage.
4. Hold the work in a horizontal position with the left hand and lower the upper roll by means of the crank screw until the work is held quite firmly between the rolls.
5. While holding the work against the gage with the left hand, turn the crank handle slowly feeding the material into the rolls. The bead should be made in several revolutions of work. NOTE: The seam must not be passed between the rolls.

PARTS LIST MODEL 192



- | | | |
|-------------------------|---------------------------------|---------------------------------|
| 1. Wrench | 10. Spring Stud | 24. Key |
| 2. Upper Roll Round Nut | 11. Crank Screw | 25. Key |
| 3. Lower Roll Round Nut | 12. Check Nut | 26. Lower Front Bushing |
| 4. Upper Roll | 13. Pivot Pin | 27. Pin |
| 5. Lower Roll | 14. Set Screw | 28. Lower Shaft |
| 6. Thumb Screw | 15. Crank Lever | 29. Upper Shaft Hex Nut |
| 7. Material Gage | 16. Pinion Stud | 30. Upper Shaft Connecting Gear |
| 8. Check Nuts | 17. Pinion | 31. Rocking Box |
| 9. Spring | 18. Cover Screw | 32. Key |
| | 19. Cover | 33. Upper Front Bearing |
| | 20. Lower Shaft Hex Nut | 34. Pin |
| | 21. Driven Gear | 35. Upper Shaft |
| | 22. Lower Shaft Connecting Gear | 36. Frame |
| | 23. Lower Rear Bushing | |

STRAIGHT CRIMPING ROLLS

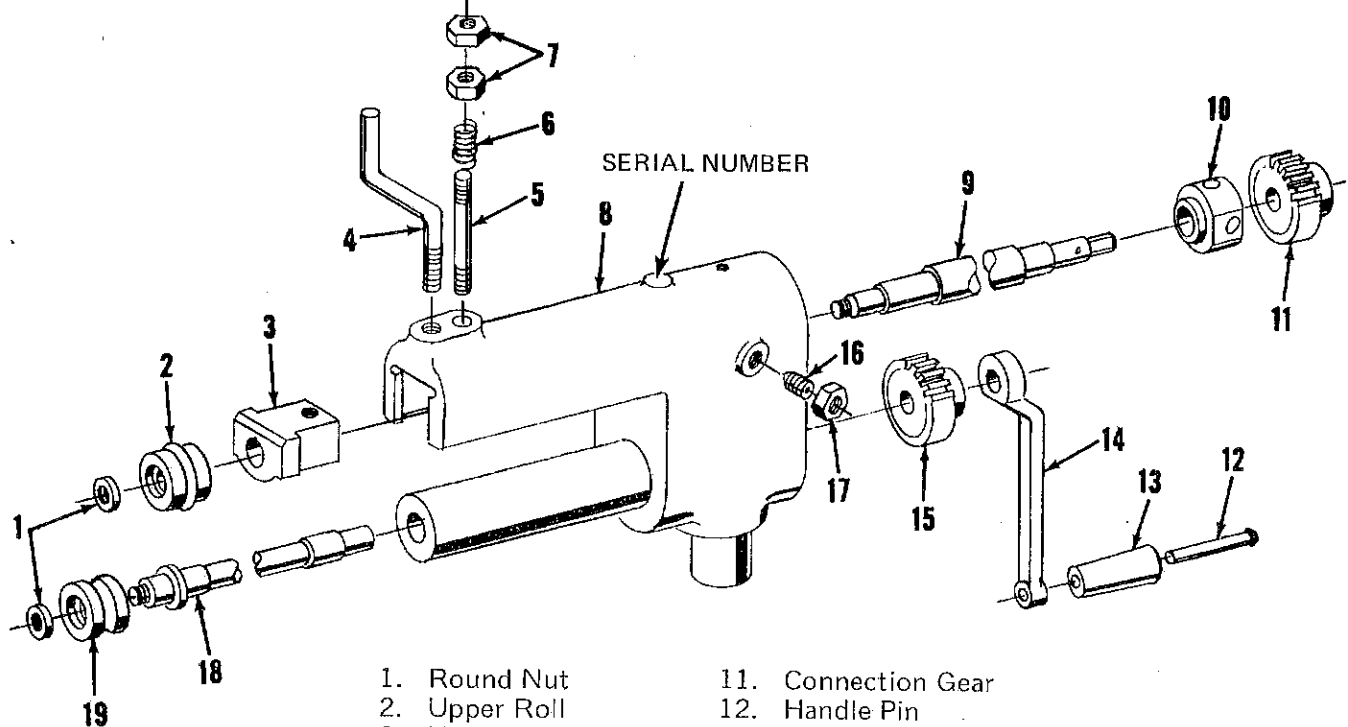
1. Install rolls as described in the paragraph OPERATION.
2. Set the gage to the desired width of crimp. Measure from the gage to the end of the lower crimping roll.
3. Proceed as previously outlined under MAKING A SINGLE OR O.G. BEAD. **CAUTION:** For jobs with riveted or single locked seams, start and finish without crossing the seam. Crossing the seam would damage the corrugations on the rolls and may spring the shafts.

Other operations such as Furnace Collar Edging can be performed on the 193 Deep Throat Beading Machine in a similar manner as described under MAKING A SINGLE OR O.G. BEAD and STRAIGHT CRIMPING ROLLS.

REPAIR PARTS

When ordering repair parts, always state the catalog number of the machine and the factory Serial Number located on the housing (See Parts List for location). Since the reference or call out numbers on the following parts lists are duplicated on other parts lists, specify part by giving model number, reference number and full part name followed by Form No. F-25-A.

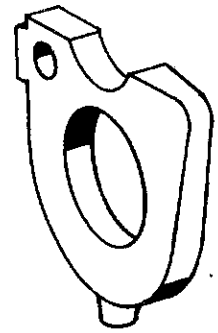
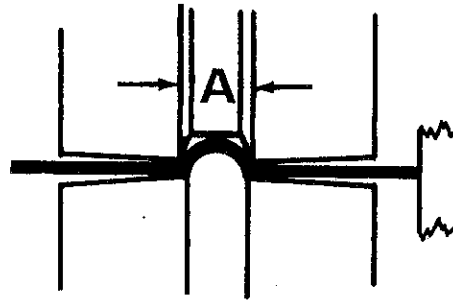
PARTS LIST MODEL 193



- | | |
|------------------------|---------------------|
| 1. Round Nut | 11. Connection Gear |
| 2. Upper Roll | 12. Handle Pin |
| 3. Upper Front Bearing | 13. Handle |
| 4. Crank Screw | 14. Crank Handle |
| 5. Spring Stud | 15. Connection Gear |
| 6. Spring | 16. Pivot Pin |
| 7. Hex Check Nuts | 17. Hex Check Nut |
| 8. Frame | 18. Lower Shaft |
| 9. Upper Shaft | 19. Lower Roll |
| 10. Rocking Box | |

MODEL	192	193
Upper	P-18302	P-17549
Lower	P-18303	P-17550
A=	1/2"	3/8"
Gage	Standard	Standard

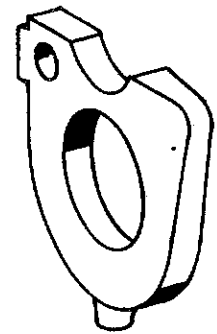
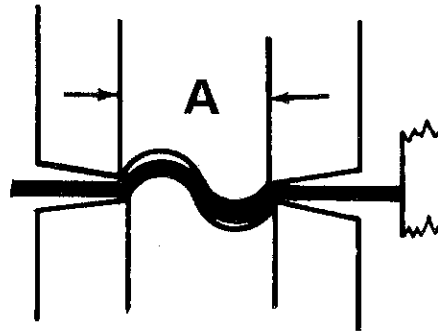
SINGLE BEADING



GAGE

Upper	P-18300	P-17548
Lower	P-18301	P-17548-A
A=	1"	3/4"
Gage	Standard	Standard

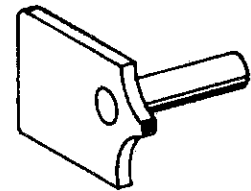
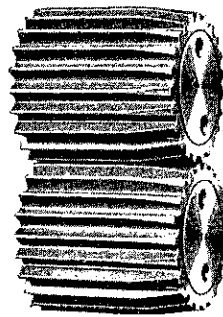
O.G. BEADING



GAGE

Upper	P-20690	P-19685
Lower	P-20690	P-19685
Gage	P-20796	P-27767
Approximately 3 1/2 Crimps Per Inch		

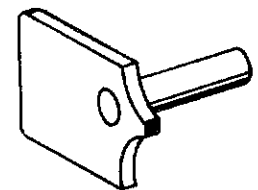
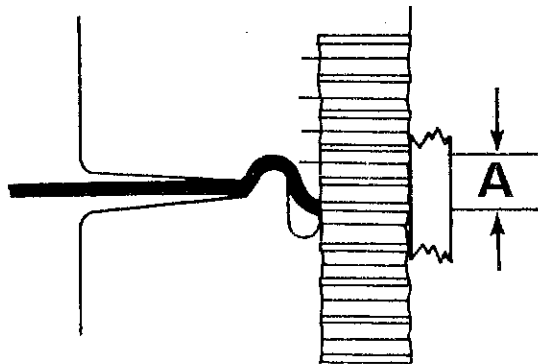
STRAIGHT CRIMPING



GAGE

Upper	[Special On Request]	P-43634
Lower		P-43633
A=		1/4"
Gage		P-27767

FURNACE COLLAR EDGING



GAGE