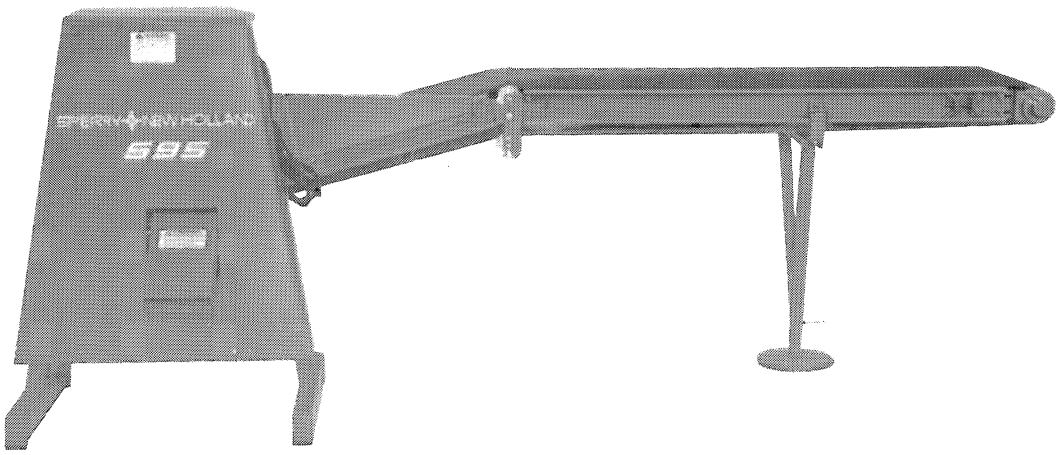
SERVICE MANUAL

TOBACCO LEAF STRIPPER 595

GEARBOX

SPERRY NEW HOLLAND



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REMOVAL

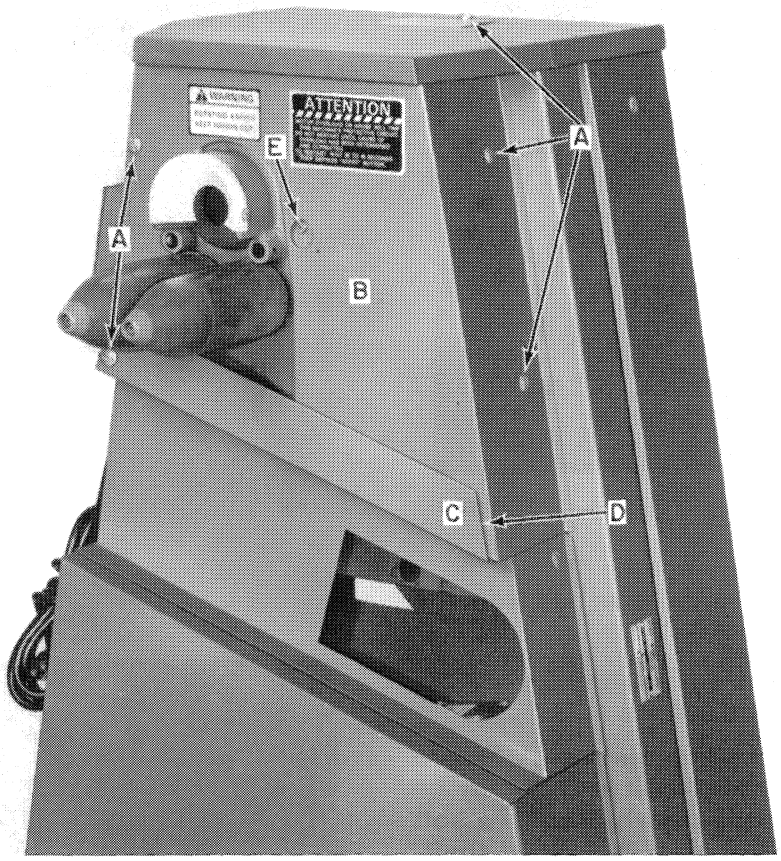

FIGURE 1

CAUTION: DISCONNECT THE POWER CORD BEFORE DOING ANY WORK TO THE MACHINE.

1. Remove cap shield weld assembly, B, Figure 1, by removing the five truss head cap screws at A.
2. Remove rear shield, A, Figure 2, by removing four truss head screws at B.

FIGURE 2

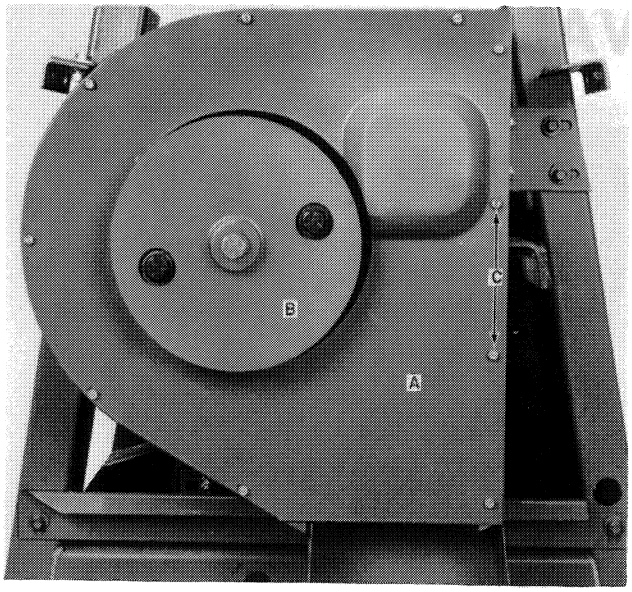

FIGURE 3

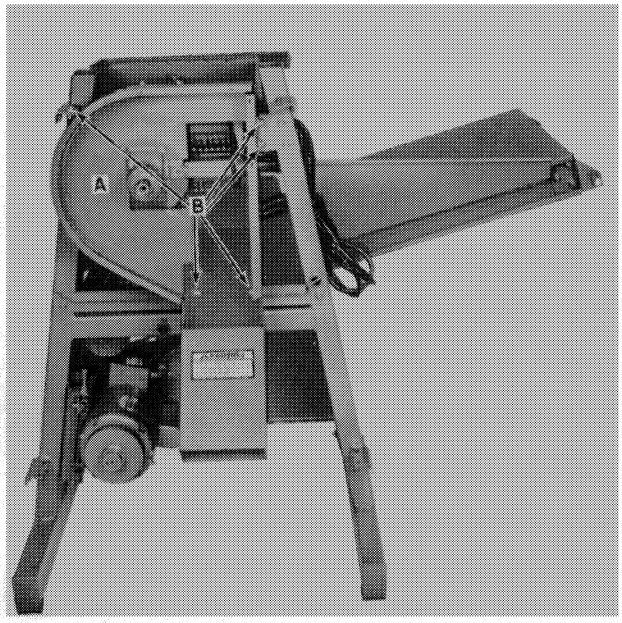

FIGURE 5

3. Remove the cutter knife drive belt from the flywheel at B, Figure 3.
4. Remove the shield, A, Figure 3, by removing the ten machine screws at C.
5. Remove the cutter knife flywheel, A, Figure 4, by removing the ½" bolt at B. It may be necessary to hit this flywheel with a soft hammer to unseat it from its splined shaft.
6. Remove the shroud, A, Figure 5, by removing the five cap screws and truss head screws at B.
7. Remove the conveyor drive chain, A, Figure 6, by loosening the drive chain idler at B.

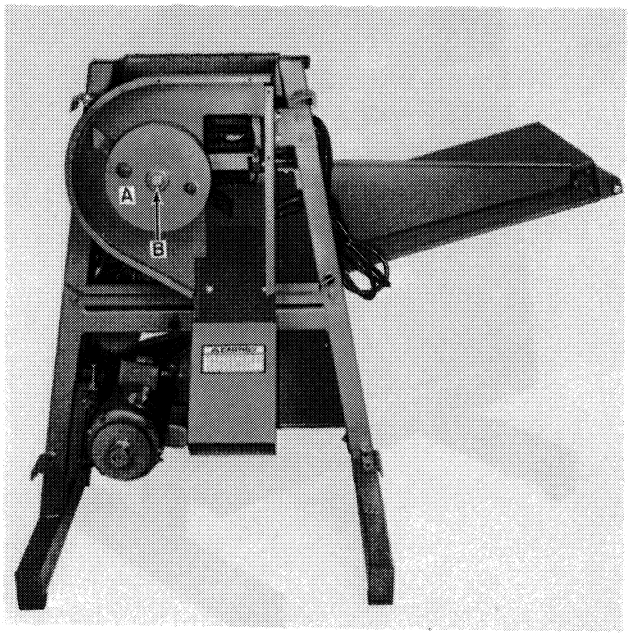

FIGURE 4

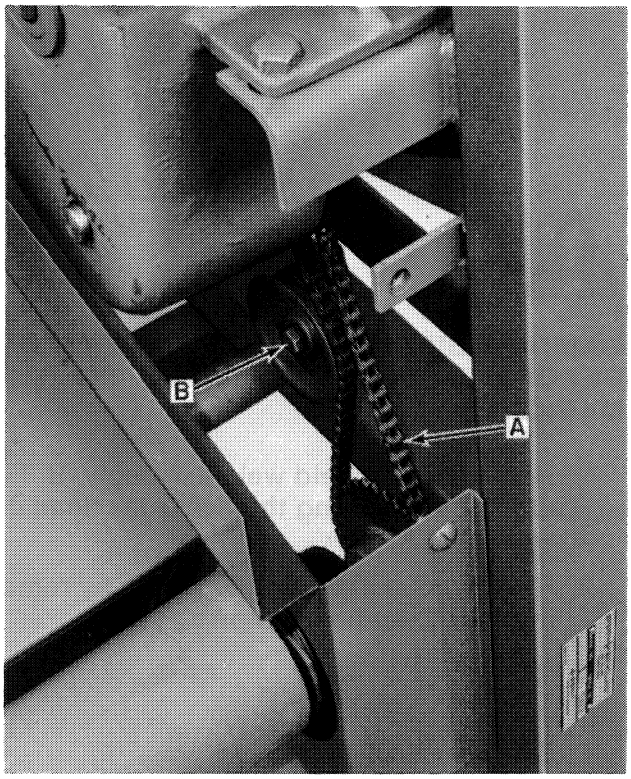

FIGURE 6

8. Remove the four ½" mounting bolts at C, Figure 7, and remove the gearbox from the tobacco leaf stripper main frame.

DISASSEMBLY

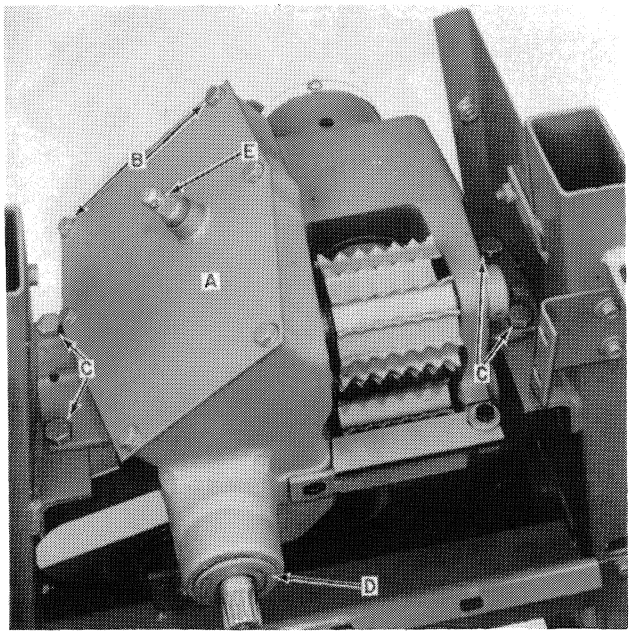

FIGURE 7

1. Remove the gearbox cover at A, Figure 7, by removing the six mounting bolts at B. Remove the gasket sealer from this cover and drain the gearbox oil at this time.
2. Remove the in-feed tube drive chain at A, Figure 8, by disconnecting it at its master link.
3. Remove the conveyor jack shaft drive chain, B, by disconnecting it at its master link.
4. Using a sharp chisel, remove the two input shaft seals located at D, Figure 7, and C, Figure 8.
5. Remove the outer snap ring located just behind the seal at D, Figure 7.
6. Slide the input shaft toward the rear of the gearbox as indicated by the arrow in Figure 8. Slide this shaft just far enough to gain access to the roll pin at D, Figure 8, as shown at A, Figure 9.

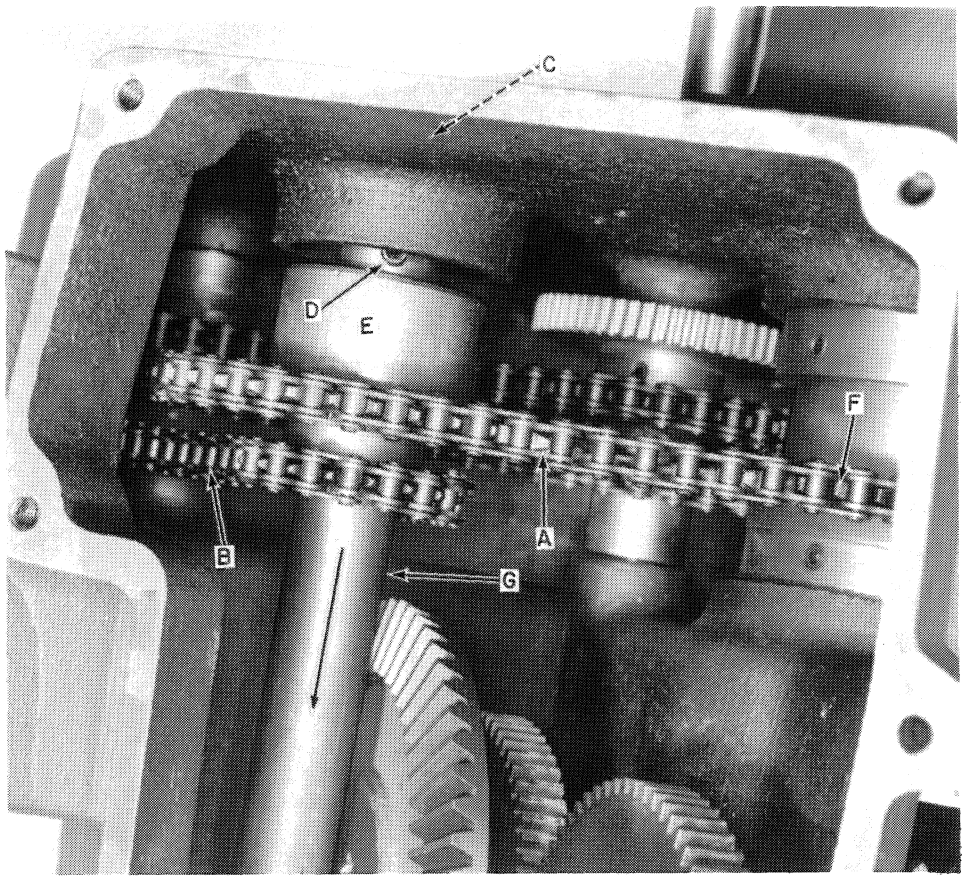

FIGURE 8

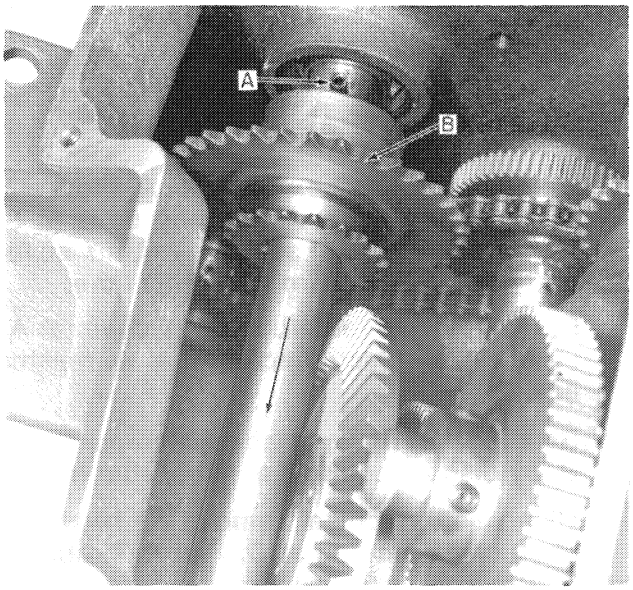

FIGURE 9

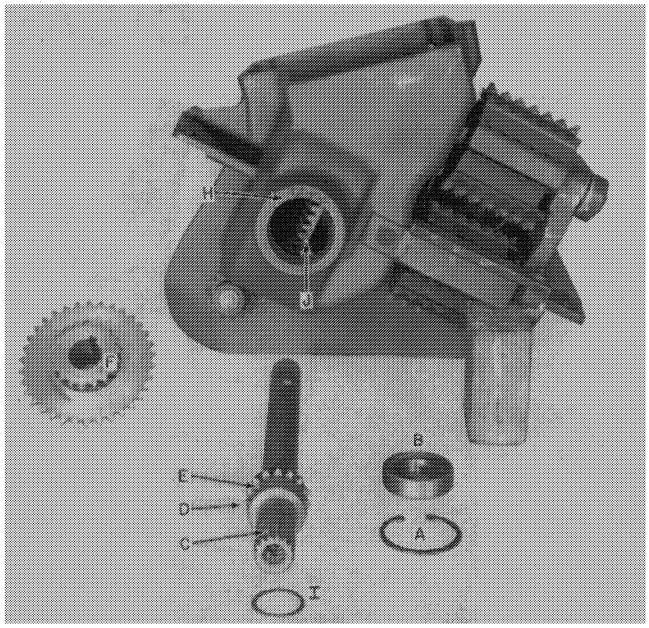

FIGURE 10

7. Loosen the set screws in the double sprocket at B, Figure 9, and continue sliding the input shaft, C, Figure 10, toward the front of the gearbox, and completely out of the gearbox. As this shaft slides out of the gearbox, it will disconnect from the double sprocket at F, Figure 10, (also shown at B, Figure 9).

You will have removed the snap ring at A, Figure 10, prior to taking the shaft out, but as you take the shaft itself out of the gearbox, note that the bearing, B, shim pack, I, friction pin, D, and pinion gear, E, will all be assembled on the shaft. All these parts can be removed from the shaft at this point.

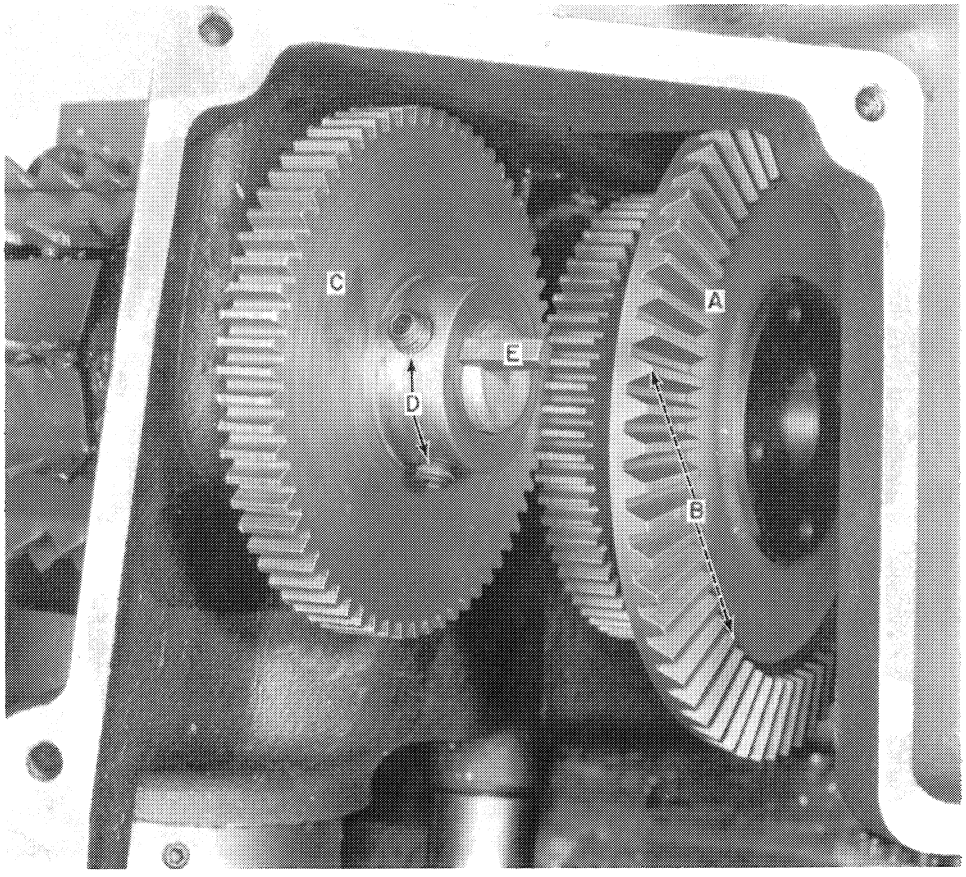

FIGURE 11

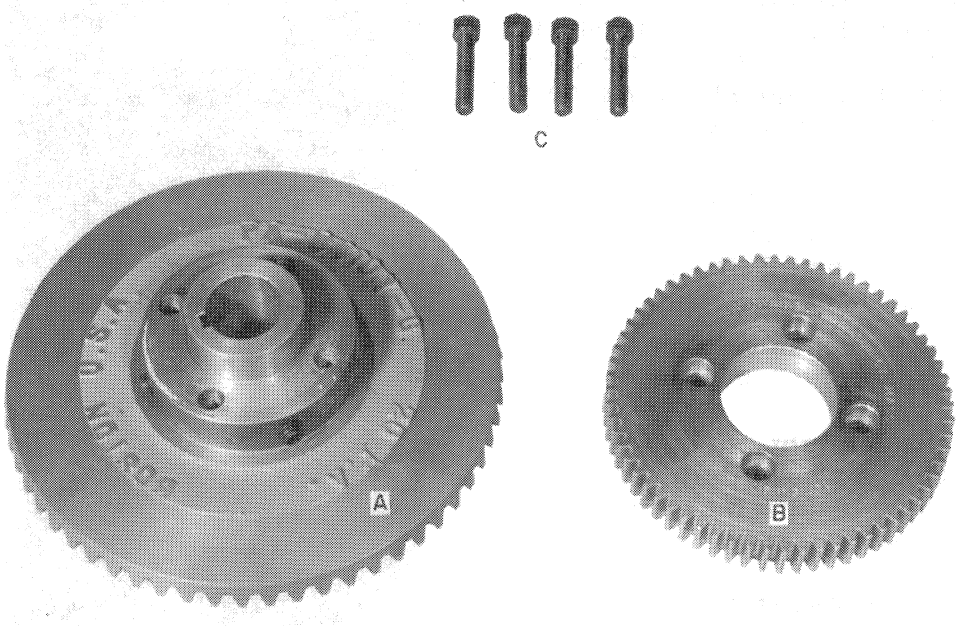

FIGURE 12

8. Remove the large bevel gear, A, Figure 11, after loosening the two set screws in the gear at B. Note the square key connecting this gear to its shaft.
9. Remove the feed roll drive gear, C, Figure 11, after loosening the two set screws at D. Note the square key which connects the gear to its shaft shown at E, Figure 11.
10. Should the large bevel gear, A, Figure 11, require replacement parts, it can be disassembled by removing the four allen-head screws at C, Figure 12. At this point the bevel gear portion, A, can be separated from the straight cut gear portion, B, Figure 12.
11. Remove the upper and lower feed rolls, A, Figure 13, by removing the two friction pins shown at B. At this point the shafts which support the feed rolls can be slid out of their mounts and out of the feed rolls themselves.

    If necessary, remove the collars at C, Figure 13, by loosening the set screws at D. It is not necessary to remove the collars at C, to remove the feed rolls.

Further disassembly is accomplished after removing the rotary knife and funnel as described in the operator's manual.

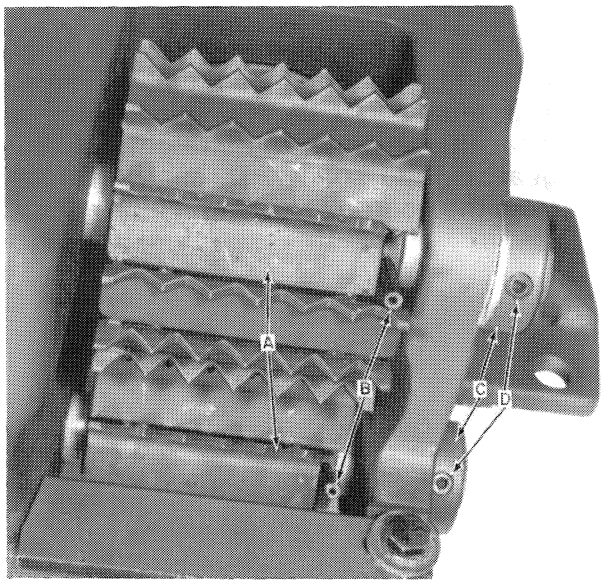

FIGURE 13

12. Remove the in-feed tube, A, by loosening the set screw, D, Figure 14, on the retainer, E, and by loosening the set screw, B, on the driven sprocket, C, Figure 14. Now slide the in-feed tube in the direction indicated by the arrow.

13. Remove the nip rolls, E, Figure 15, after removing the screw, washer and cone, F, from the nip roll shaft. Both nip rolls can be removed at this time.

14. Remove the nip roll drive chain, A, Figure 16, by disconnecting it at its master link.

15. Remove the straight cut gear, B, and sprocket, C, by removing the friction pins at D and E, Figure 16. After the friction pins at D and E are removed, slide the nip roll shaft in the direction indicated by the arrow in Figure 16. **NOTE: Keep the shim packs at C, Figure 15, with each nip roll shaft, A.**

16. The straight cut gear, B, and the sprocket, C, can now be removed from the gear box housing.

    Remove the nip roll driven shaft, A, Figure 17, in the direction indicated by the arrow, after removing the friction pin located at C. After this is done, the straight cut driven gear, B, and spacer, D, can be removed from the gearbox housing, Figure 17.

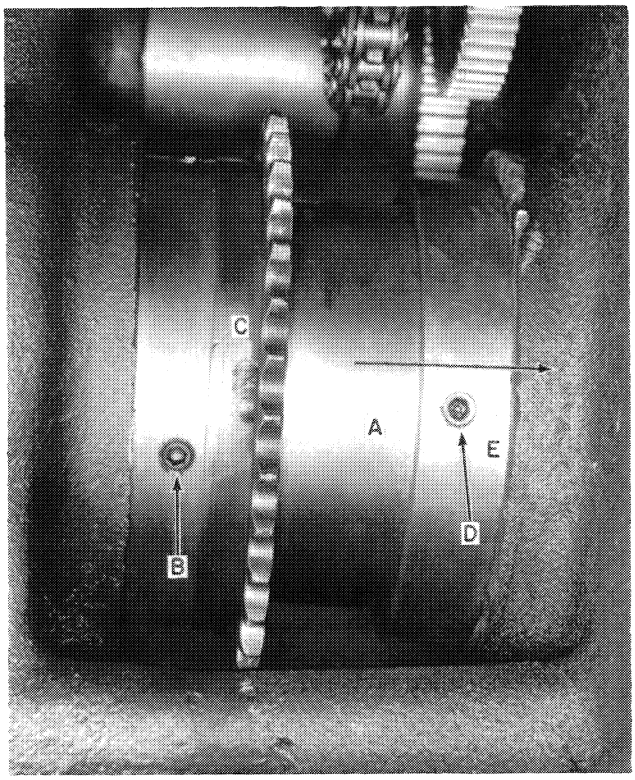

FIGURE 14

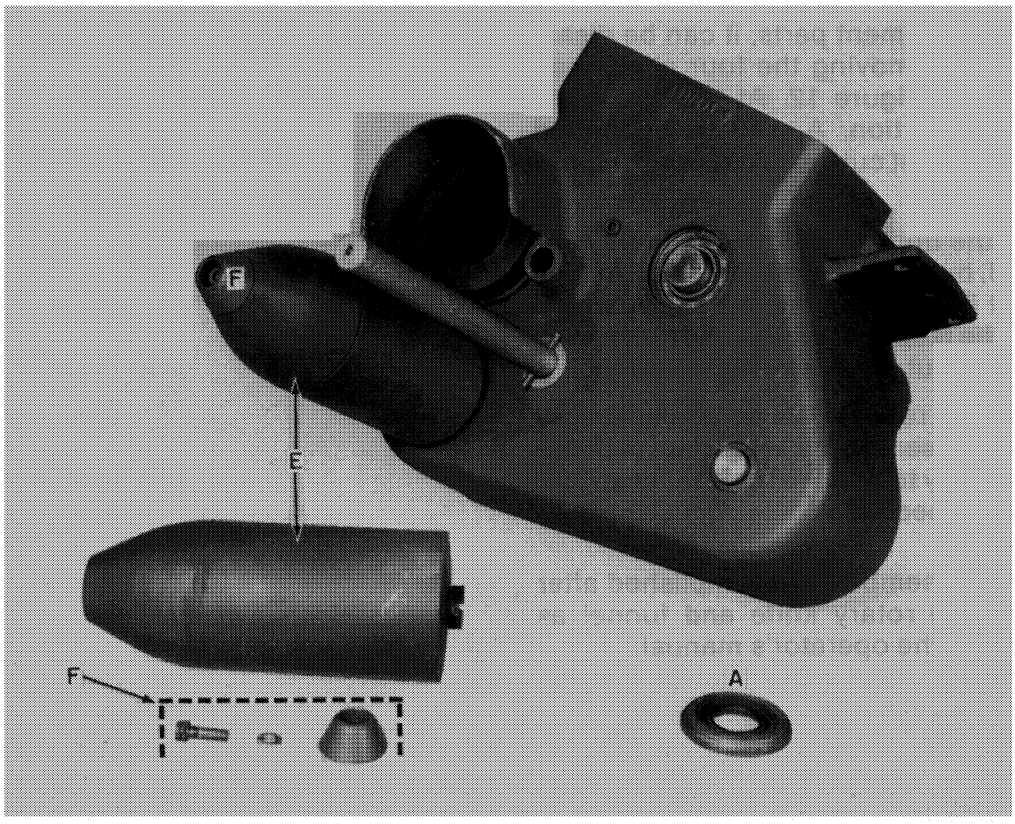

FIGURE 15

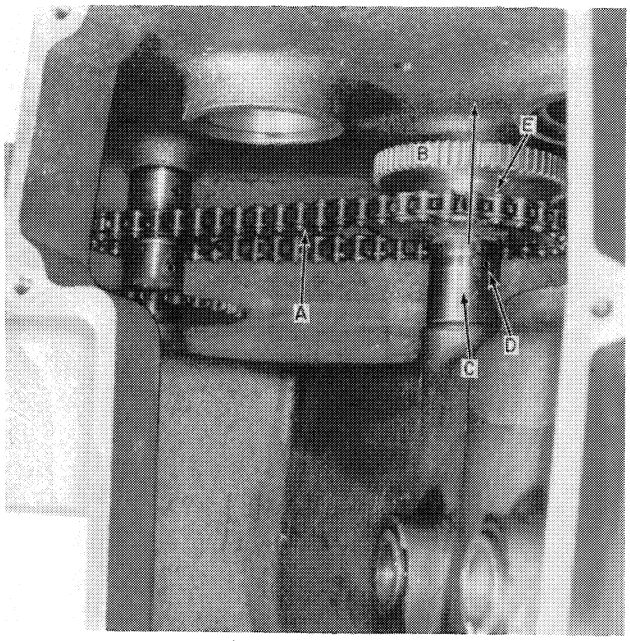

FIGURE 16

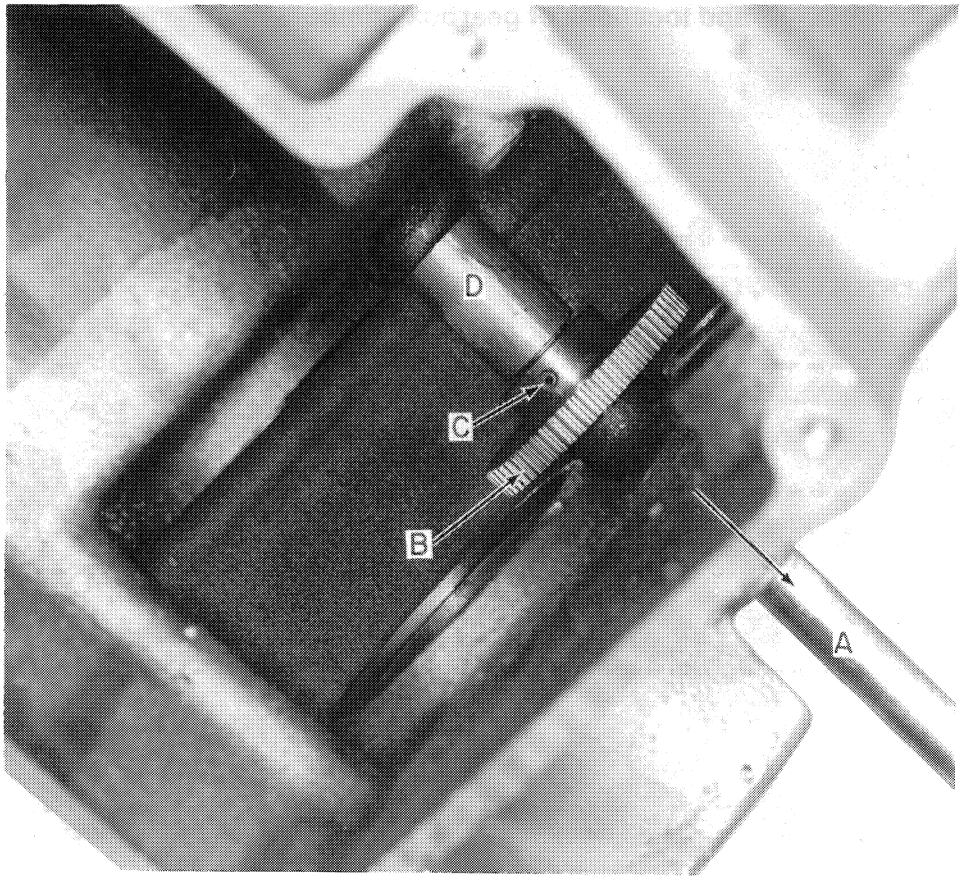

FIGURE 17

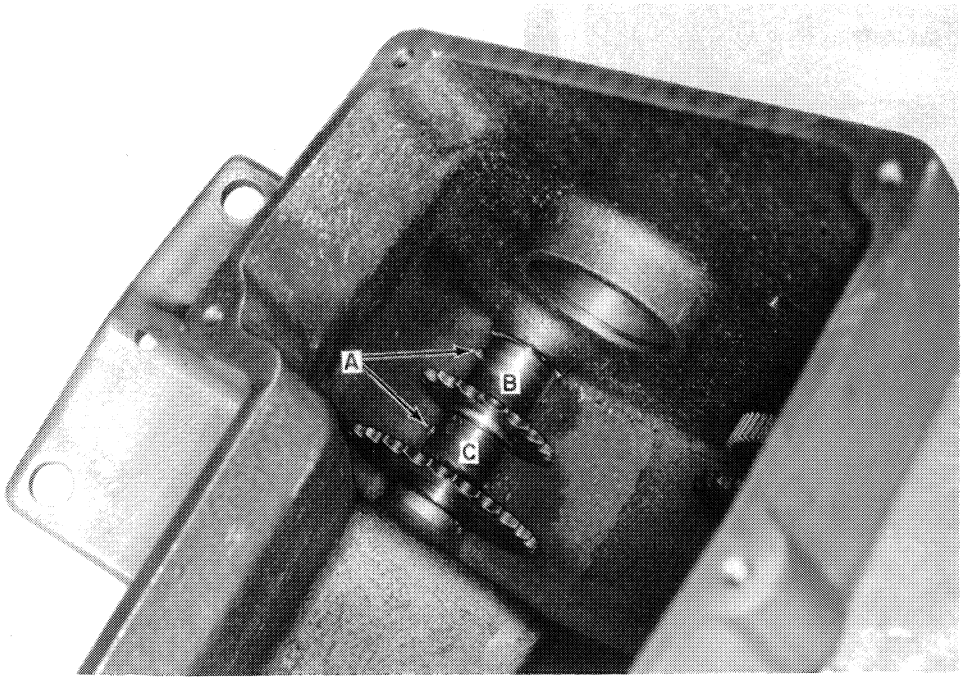

FIGURE 18

17. Remove the conveyor drive jack shaft sprockets, B and C, Figure 18, by removing the two friction pins at A. The conveyor drive jack shaft can now be slid out of the gearbox housing. **NOTE: There is an externally mounted gear on this shaft which is the drive gear for the conveyor system, refer to FF, Figure 19.**

18. Refer to Figures 19 and 20 for descriptions and locations of gearbox components.

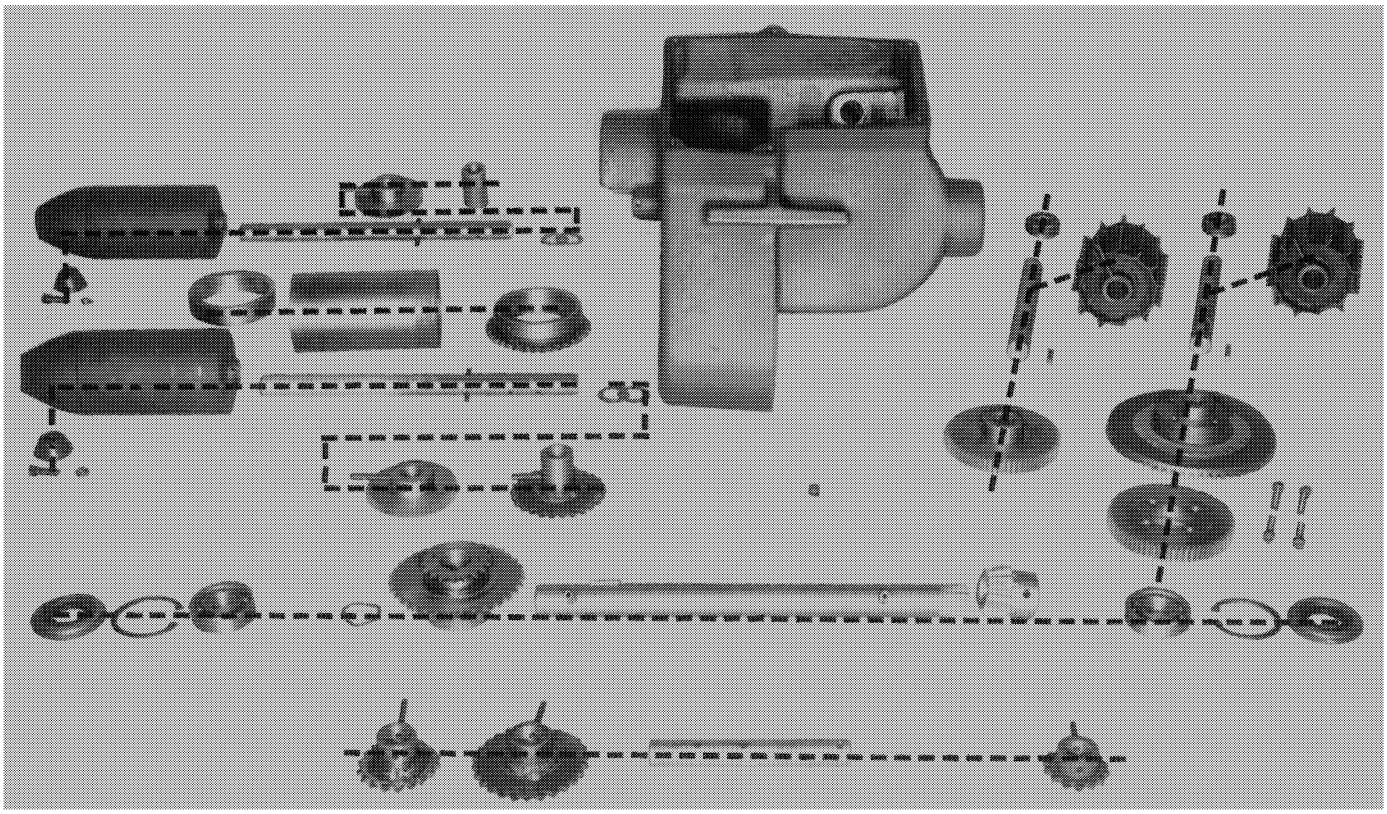

FIGURE 19

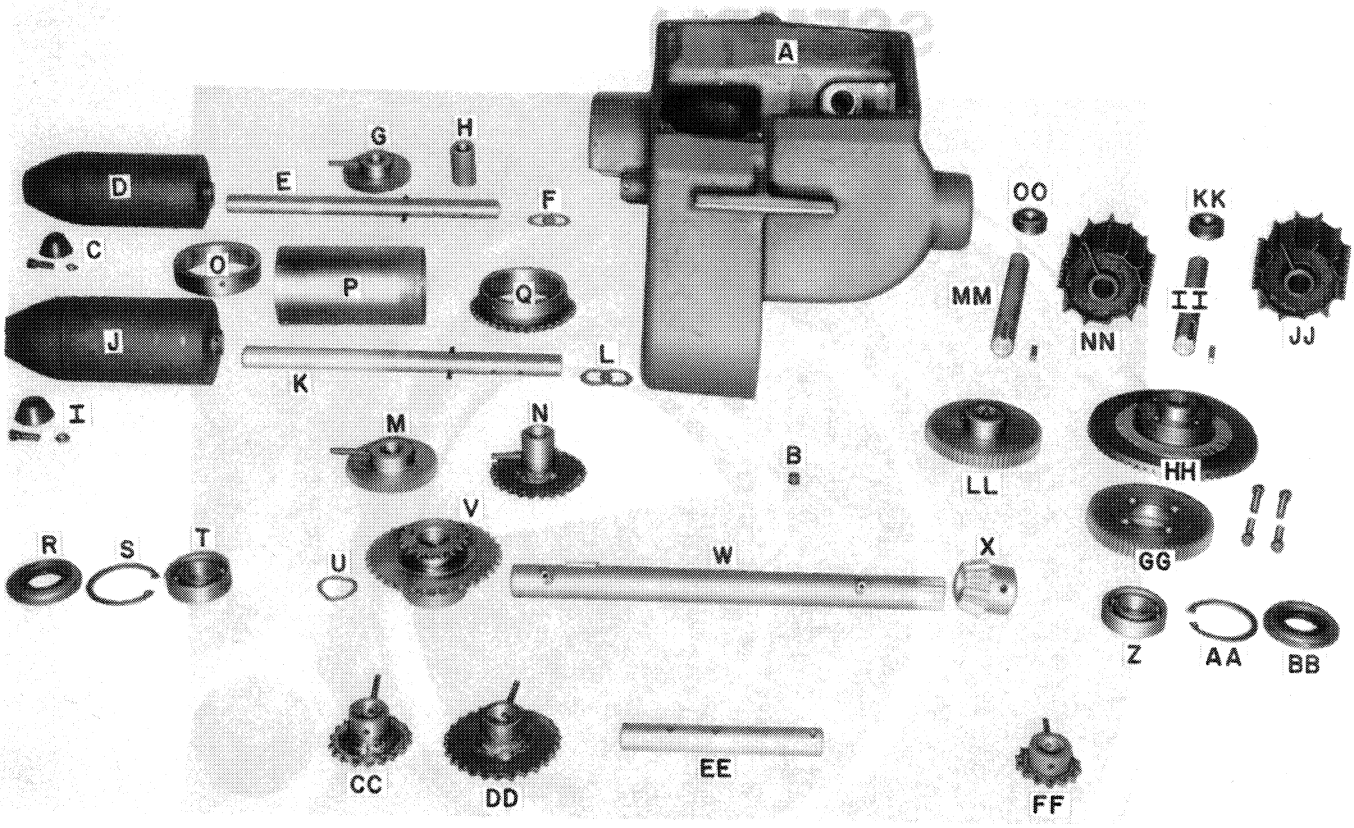

FIGURE 20

A. Gearbox housing
B. Oil check plug
C. Allen cap screw and cone washer
D. Nip roll
E. Nip roll driven shaft
F. Shims
G. Driven gear
H. Spacer
I. Allen bolt and cone washer
J. Nip roll
K. Nip roll drive shaft
L. Shim
M. Nip roll drive gear
N. Sprocket
O. In-feed tube retainer
P. In-feed tube
Q. In-feed tube driven sprocket
R. Seal and retainer assembly
S. Snap ring
T. Bearing
U. Shim
V. Double sprocket
W. Input shaft
X. Input pinion
Z. Bearing
AA. Snap ring
BB. Seal and retainer
CC. Sprocket
DD. Sprocket
EE. Jack shaft
FF. Conveyor drive sprocket
GG. Feed roll drive gear
HH. Feed roll drive pinion
II. Feed roll shaft
JJ. Feed roll
KK. Collar
LL. Feed roll driven gear
MM. Feed roll shaft
NN. Feed roll
OO. Collar

PRE-ASSEMBLY INSPECTION

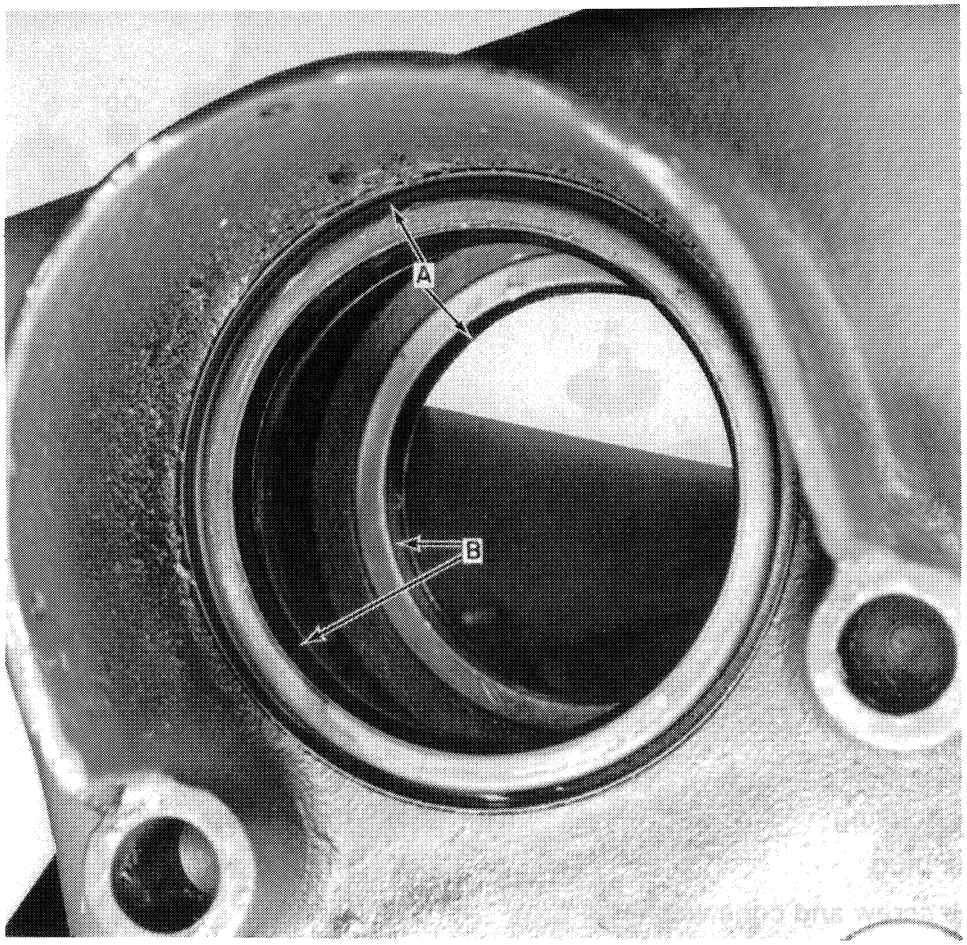

FIGURE 21

1. Inspect the seals and bushings shown at A and B, Figure 21, for damage and wear. Should replacement of either of these components be necessary, a bushing and seal driving tool will be necessary to insure that they are reinstalled in the gearbox housing squarely, without damage.
2. Should replacement of the feed roll bushings at A, Figure 22, be necessary, again make sure you use a bushing drive tool, and replace any shims that were located behind the old bushings. After installing new bushings at A, Figure 22, they should be reamed, full length, to obtain a .876" to .878" internal diameter.
3. All other seals, bushings and bearings should be inspected for wear, damage, or leakage, and replaced at this point.

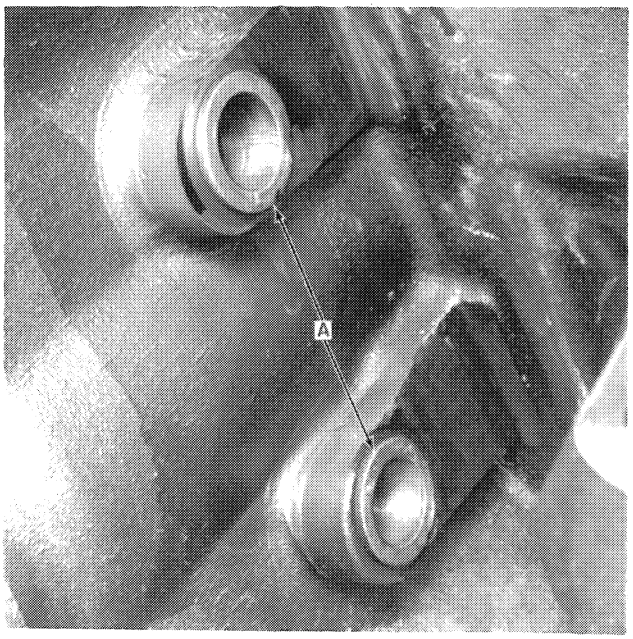

FIGURE 22

PLEASE READ CAREFULLY!

INCLUDED THROUGHOUT THIS MANUAL AND ON MACHINE DECALS YOU WILL FIND PRECAUTIONARY STATEMENTS SUCH AS "CAUTION", "WARNING" AND "DANGER", FOLLOWED BY SPECIFIC INSTRUCTIONS.

THESE PRECAUTIONS ARE INTENDED FOR THE PERSONAL SAFETY OF YOU AND THOSE WORKING WITH YOU. PLEASE TAKE THE TIME TO READ THEM.

PERSONAL SAFETY!

CAUTION: THE WORD "CAUTION" IS USED WHERE A SAFE BEHAVIORAL PRACTICE ACCORDING TO OPERATING AND MAINTENANCE INSTRUCTIONS AND COMMON SAFETY PRACTICES WILL PROTECT THE OPERATOR AND OTHERS FROM ACCIDENT INVOLVEMENT.

WARNING: THE WORD "WARNING" DENOTES A POTENTIAL OR HIDDEN HAZARD WHICH HAS A POTENTIAL FOR SERIOUS INJURY. IT IS USED TO WARN OPERATORS AND OTHERS TO EXERCISE EVERY APPROPRIATE MEANS TO AVOID A SURPRISE INVOLVEMENT WITH MACHINERY.

DANGER: THE WORD "DANGER" DENOTES A FORBIDDEN PRACTICE IN CONNECTION WITH A SERIOUS HAZARD.

ADDITIONAL PRECAUTIONARY STATEMENTS SUCH AS "ATTENTION" AND "IMPORTANT" ARE FOLLOWED BY SPECIFIC INSTRUCTIONS. THESE STATEMENTS ARE INTENDED FOR MACHINE SAFETY.

MACHINE SAFETY!

ATTENTION: THE WORD "ATTENTION" IS USED TO WARN THE OPERATOR OF POTENTIAL MACHINE DAMAGE IF A CERTAIN PROCEDURE IS NOT FOLLOWED.

IMPORTANT: THE WORD "IMPORTANT" IS USED TO INFORM THE READER OF SOMETHING HE NEEDS TO KNOW TO PREVENT MINOR MACHINE DAMAGE IF A CERTAIN PROCEDURE IS NOT FOLLOWED.

IMPORTANT!

FAILURE TO FOLLOW THE "CAUTION", "WARNING", AND "DANGER" INSTRUCTIONS MAY POSSIBLY RESULT IN SERIOUS BODILY INJURY.

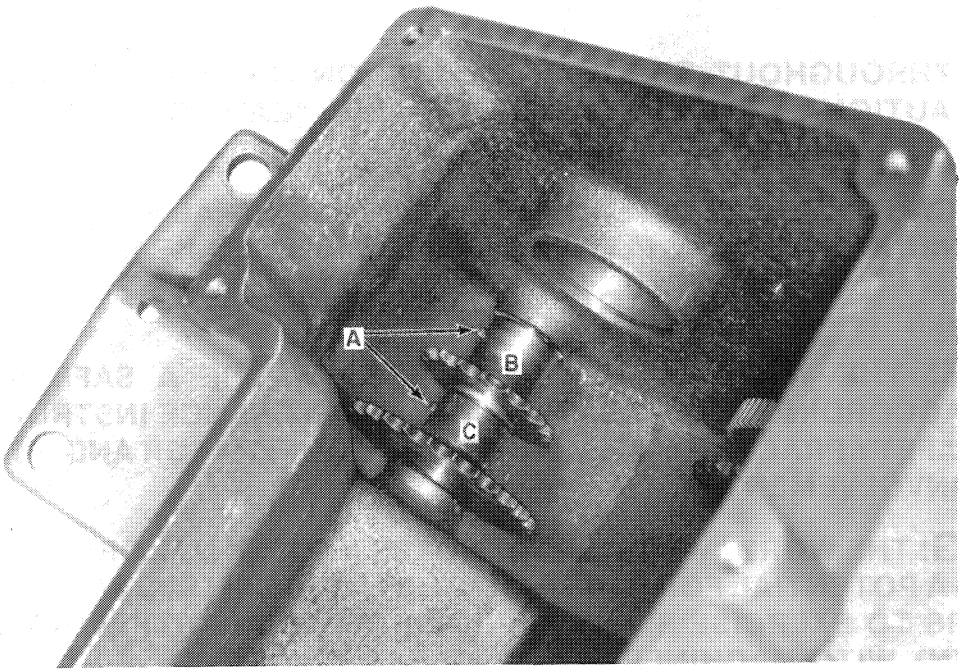

FIGURE 23

1. Install the conveyor jack shaft into the gearbox housing, sliding it through the nip roll sprocket, B, and the input shaft sprocket, C, Figure 23. Note the direction of the hubs of each of these sprockets prior to securing them to the shaft with two new friction pins at A, Figure 23. Also, note this conveyor jack shaft, EE, Figure 20, has three holes in it. The two holes on the left end of the shaft are for securing the two sprockets, DD and CC. The hole on the right hand end of the shaft is used for securing the external conveyor drive sprocket, FF, Figure 20.
2. Install the nip roll shaft, A, Figure 24, into the gearbox housing, after installing the friction pin shown at B, and two shims shown at C, Figure 24. As this shaft, A, Figure 25, is being slid into the gearbox, slide it through the straight cut gear, B, and spacer, D, Figure 25. Secure the straight cut gear, B, Figure 25, to the shaft, A, with a new friction pin at C. Note that the hub of the straight cut gear should be facing the spacer, D, Figure 25.

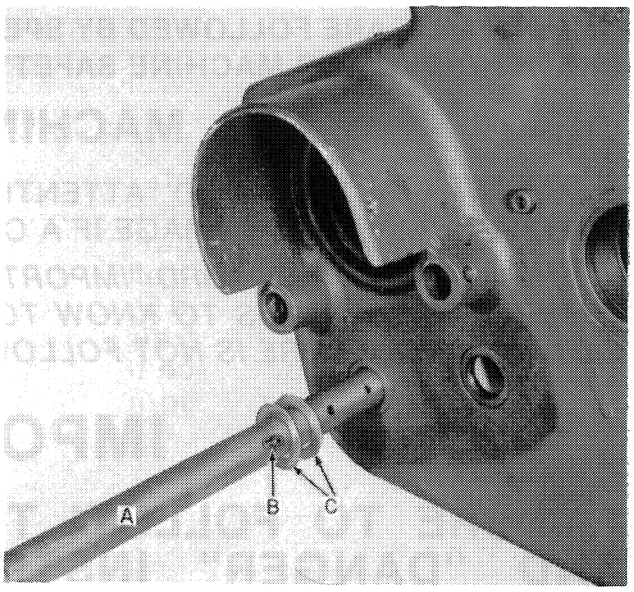

FIGURE 24