

## **INSTALLATION INSTRUCTIONS FOR CORN CONES**

1. Assemble the bearings (C-10) and flangettes (C-20) onto the shafts which extend from the cones. The set collar side of the bearing goes on toward the upper (large) end of the cone. Tighten the set collar with a punch and then tighten the allen screw. Install the 7/8 washer and put the cotter pin through the small hole in the end of the cone shaft. (See Fig #1).
2. Using the stud bolts which extend down from the nose shield (C-21) as a template, mark your snout as indicated. (See Fig #2) Drill an overside 1/2" hole. Now you are ready to mount the nose shields onto each cone by bolting the loose flanges above the bearing onto the flange half which is welded on the nose shield.
3. Use the cone with nose shield mounted as a gauge now to locate the position in which you will install the drive unit. The best way to do this is to hang the drive unit above the back of the header using a hoist of some kind. With the drive unit hanging above the rear of the cone head, slip a cone onto one of the drive shafts (C-7).

NOTE: All shields which interfere with the mounting of the drive unit must be removed...this is at your discretion. These drive shafts should be pointing toward the tips of the snouts.

Move the drive unit around until it is in approximately the position indicated on the drawing (Fig #3). This position is not critical, so don't be afraid to change it around some if necessary to make your drive line up better or to keep it from getting into your windshield. The main thing to remember is that approximately 5" to 10" of the small drive shaft (C-7) should extend out of the cone so that when the snout of your corn head flexes upward, the cone will have room to rise with it...without hitting the pulley.

While positioning the drive unit, keep the top of the main bar (2" square tubing) flat with the header in the down position. If you install this bar tilted severely one way or the other, the belts will not feed onto the pulleys properly.

NOTE: On some combines, particularly Gleaners, there is very little room between the pulleys on the drive unit and the glass front of the cab. Be careful that the drive unit is installed so that it won't break the glass. Use the brackets which came with the machine to attach the drive unit. In some cases you may have to modify the mounting brackets to make them work on your corn head. See the loose supplement page pertaining to your combine for more detailed mounting instructions.

4. With the drive unit installed as described above, you are now ready to slip each cone with nose shield onto the drive shafts. The direction of the rotation of each drive shaft is predetermined at the factory. You must match LEFT HAND CONES with counterclockwise turning drive shafts (Fig #4). Turn the drive shaft with a pipe wrench the same direction that your auger turns to check rotation of cone drive shafts (C-7). (Direction of rotation is determined as if you are sitting in driver's seat looking forward).

If matched properly, each cones flighting will seem to move upward while turning the line shaft. Now insert the two studs extending out of the nose shields into two holes which you drilled into the corn head snouts earlier. Tighten the two nuts until the nose shield fits firmly onto the top of the snout. If necessary, use a hammer to make the nose shield conform as closely as possible to the snout.

5. All pulleys must be adjusted so that the belts run straight and do not rub. (Fig #5). Next, tighten all the set collars on the bearings, tighten all allen screws on the set collars and tighten the set screws on the pulley. Tighten belts slightly. (DO NOT OVERTIGHTEN).
6. Mount the reel mounting brackets (R-3 & R-4) onto the main support bar (C-8) so that the bearing supports are approximately equally spaced apart and so that support on the end which is driven is close enough to the sprocket and chain to support it properly.

Next, slide the shaft for the reel through the bearings and through the bat assemblies (R-5), which operate in the middle of the row. Adjust the mounting brackets so that the bats are in the proper place (Fig #6) and tighten all the bolts. Use the two sprockets which are bolted to the hubs to get power from the main line shaft via a # 50 chain down to the reel shaft. Use the idler arm with the wood block to take the slack out of the loose side of the chain.

7. These are two main ways to drive this machine, hydraulically and mechanically.

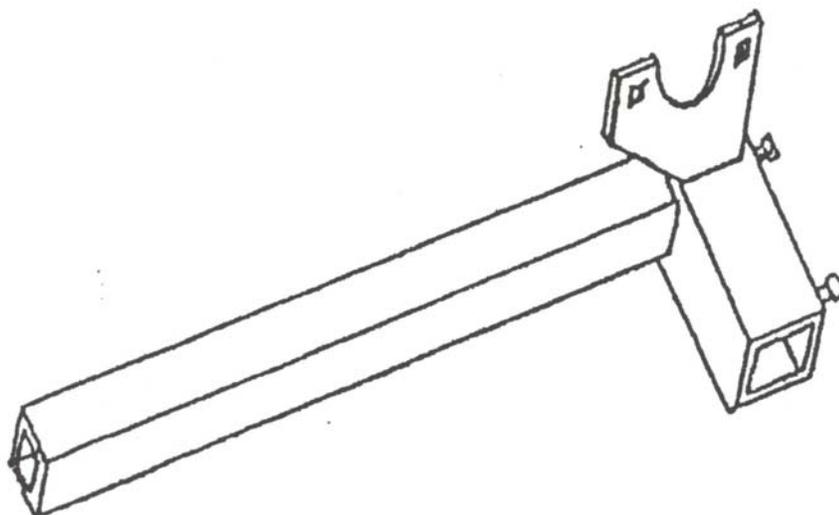
**HYDRAULICALLY:** Use the hydraulic motor off your grain head. (or any hydraulic motor which you may have) The motor mounts onto the hydraulic motor bracket (furnished). Install the drive sprocket (furnished) onto the motor. Using the # 50 chain, connect the drive sprocket to the line shaft sprocket. Tighten by sliding the entire motor bracket back toward the back and tighten the ½" set screws (Fig #7). Line shaft will vary according to the conditions but 60 – 80 RPM (line shaft speed) is a good starting point.

**MECHANICALLY:** Corn lifters can be driven mechanically on any combine and in most cases there is a factory drive method worked out. However, due to the vast number of variations of corn heads, there may be rare cases where the drive sprockets furnished do not fit. In these cases, it is the customer's responsibility to make the drive work on the combine. To do this, a rule of thumb would be to find the slowest turning shaft on the corn head. If possible, mount your drive sprocket to this shaft and drive up to the jack shaft assembly. Any method of driving which is workable and is safe is okay. The recommended cone speed varies with the conditions you have but approximately 80 RPM (at shaft speed) is a good starting point. See Fig #8.

8. Use a file or sand paper to dress any nick or rough place off the flights where they first contact the corn stalk at the small end of the cones. Check and tighten all bolts, set screws, bearing collars, and belts. Check the alignment of all the belts and drive chains. Start the machine and let it turn slowly for a few minutes. Observe carefully for a few minutes for any potential problems. If there are none, you are ready to take the machine to the field.

NOTE: There is an extra sprocket (32 tooth). This is a speed change sprocket which can be used to either speed up or slow down the machine depending on where it is mounted.

**PLEASE READ**



**FOR SHIPPING PURPOSES THIS DRIVE BRACKET IS MOUNTED BACKWARDS ON MAIN HEADBAR ASSEMBLY. RE-ASSEMBLE WITH LONG TUBE POINTING TOWARDS BACK OF COMBINE.**

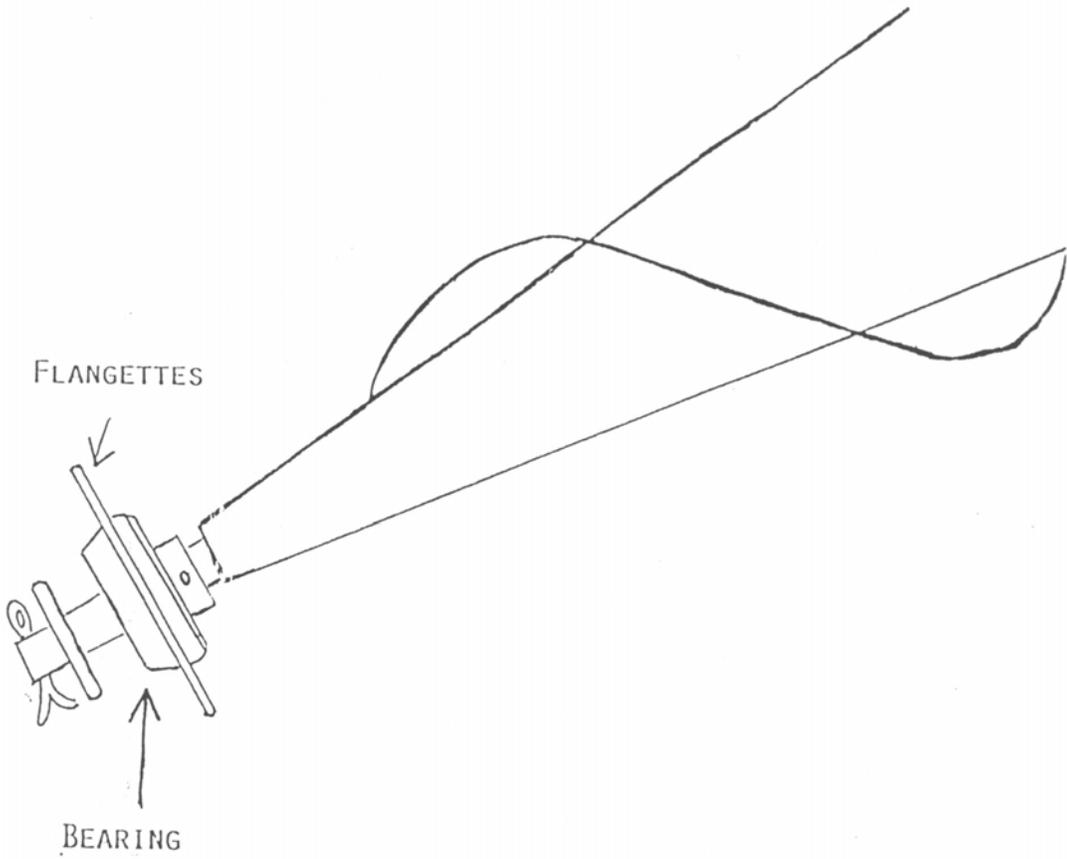


FIGURE 1