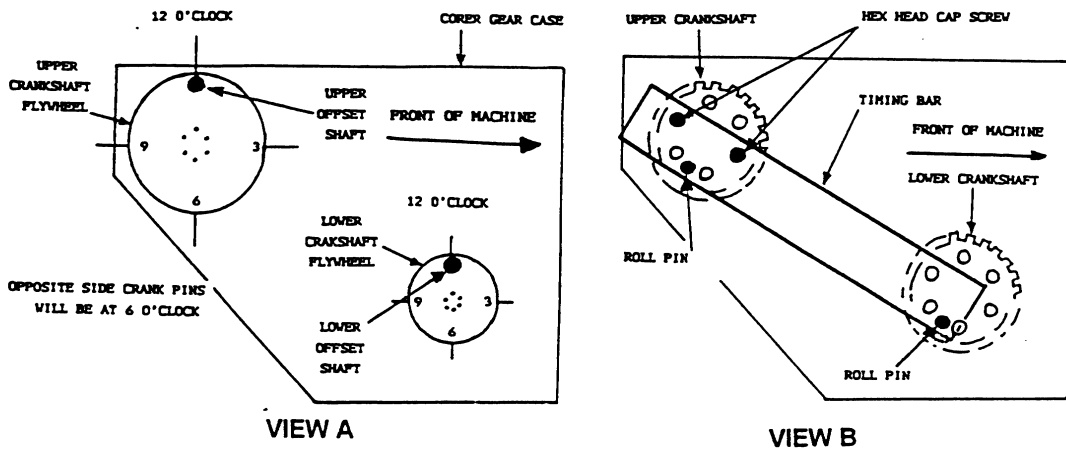


I. TIMING OF INDIVIDUAL CORER GEAR CASE

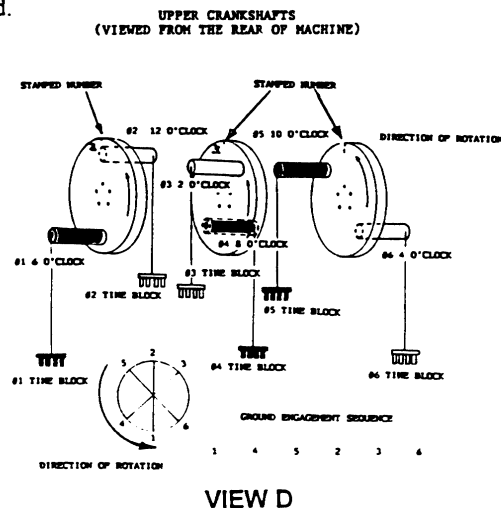
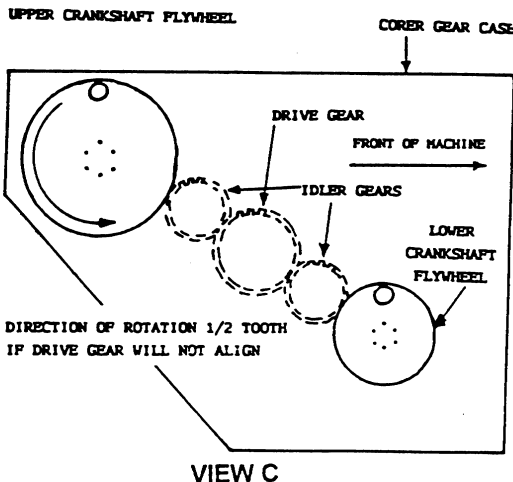
The purpose for timing each individual Gear Case is to ensure that the tine will enter and leave the soil at the proper angle and sequence.

There are three corer gear cases on the Fairway Aerator. The upper and lower crankshaft flywheels for each Tine Arm must be assembled so the Offset Shafts are located in the same "clock" position. That is, if the Upper Offset Shaft is positioned at 12 o'clock, then the Lower Offset Shaft must be at the 12 o'clock position (View A). The upper and lower shafts for the opposite side of the shared Gear Case will be 180 degrees apart. If the Shaft position on one side of the Gear Box is at 12 o'clock, then the Shaft position will be at 6 o'clock for the opposite side.



To achieve the proper "clock" position for each gear case, install Timing Bar (82-3200) to the upper and lower crankshaft by aligning each Roll Pin and securing with Socket Hex Head Cap Screws (View B). Timing one side of the gear case will automatically align the opposite side of the gear case because the two sides are connected by a common shaft.

NOTE: Be sure to install Timing Bar as shown (View B). If the Timing Bar is installed upside down, the crankshafts will be misaligned.



While holding the upper and lower crankshafts in alignment with the timing bar, install the Drive Gear into the Gear Case (View C).

NOTE: If the external teeth of the Drive Gear will not align with the Idler Gears, remove Timing Bar (82-3200) and the Drive Gear, then rotate the upper crankshaft *1/2 gear tooth* toward the rear of the aerator to align the teeth. Reinstall the Drive Gear (View C). Be careful not to move the upper crankshaft position any more than 1/2 tooth to achieve proper alignment.

When the bearings have been installed on the Drive Gear, it no longer can be removed without first removing the Idler Gears. If both bearings are installed on the Drive Gear and a timing adjustment is necessary, remove the Upper Crankshaft Assembly from one side of the Gear Case, move the gear one tooth in the direction noted in View C, and reinstall in the same location. Moving the Upper Crankshaft Assembly is easier/faster than removing the Drive Gear and also provides a more finite timing adjustment than the Drive Gear.

IMPORTANT: Do Not achieve alignment by rotating upper crankshaft towards the front of the Aerator. For optimum hole quality, alignment must be accomplished by rotating the upper crank toward the rear of the machine as indicated by the arrow in View C.

II. SYNCHRONIZING GEAR CASES TOGETHER

The purpose for timing the three Gear Cases, is to ensure the Aerator operates with the lowest amount of vibration, and to minimize the amount of reaction force the unit must absorb when the tines engage the soil.

IMPORTANT: The tine arms are numbered 1 to 6 from the left to right, as viewed from the rear of the unit.

The next step is to perform a final orientation of the Corer Gear Cases. This step must be performed to align the Drive Line Assembly with Gear Case Drive Gears.

Each of the three Corer Gear Cases must be connected to the other in a "Proper-Phase" condition so that only one set of tines will enter the turf at a time. Rotate the "Number one" tine block to its lowest position as a starting point. When viewed from the left side of the Coring Head, the stamped numbers "2", "3", and "1" should be visible at the top of the first, third, and fifth upper crank respectively (View D). While maintaining the relationship between the three Gear Cases, install the Drive Line Spline Shafts to the couplings. If you are unable to achieve spline alignment, re-index the spline using the bolt hole pattern in the coupling flanges as required.