

Auger Drive Shaft Adjust

Assembly of the auger drive shaft is critical in order to prevent damage to the seals. Note that the hydraulic motor, the drive chain, and the sprockets are all assembled.

1. Assemble the drive shaft housing, thrust plate, and gasket to the auger drive housing. The grease fitting on the shaft housing is located on the top and angled toward the front of the machine. (See Fig. 1-A.)

2. Place the gate mount bracket and inner seal sleeve onto the drive shaft housing. The gate mount bracket mounts with the long leg up and the small ears toward the front. The seal sleeve mounts with the edge closest to the set screws furthest inboard.

3. Grease the seals and place them onto their respective rings. Place the seals onto the auger drive shaft and into the recess on the shaft shield* Grease the thrust washer and place it onto the end of the shaft. (Fig. 1-A.)

4. Grease the auger drive shaft and slip it into the housing until the end of the shaft begins to clear the thrust plate. Slip the bronze thrust washer-spacer behind the sprocket and onto the shaft. The 45° chamfer will help to lead the spacer onto the shaft. Rotate the shaft and slide it in just far enough to get the sprocket started on the shaft.

*NOTE: If the seal rings have separated, then place one seal in the drive shaft shield and the other seal into the inner seal ring.

5. Slip the inner seal collar out until it contrasts the inside of the drive shaft shoulder. Now rotate the drive shaft and slip it into the housing and through the sprocket as far as possible. Rotate the shaft to align the keyways and slip the key into place.

6. Turn the castle nut onto the shaft until it comes up snug against the sprocket. Insure the inner seal sleeve is against the drive shaft shield inner shoulder. Hold the auger shaft from moving and tighten the shaft nut until it takes all of the end play out of the drive shaft. Tighten the inner seal sleeve set screws and scribe a line on the sleeve. Back the castle nut off until there is 1/16" to 1/8" end play to the drive shaft. Lock the castle nut in place with a new cotter pin.

HYDRAULIC SYSTEM

The Layton D-550 Super-Paver hydraulic system is a double back-up system. All the functions of the system can be run from either engine.

Each engine drives a triple hydraulic pump which supplies hydraulic power to the paver functions. On the left and right side power unit the first and second pumps supply oil to the screed depth and screed extension respectively with power beyond to the auger drive. On the left side the third pump supplies oil to the right side functions and to the hitch arms, gate, and screed lift functions. On the right side the third pump supplies oil to the left side functions.

Each engine and triple pump has its own reservoir. The two reservoirs are connected by a single common drain line which serves to balance the fluid levels at all times.

Service of the system is relatively easy. Check the hydraulic reservoirs for adequate fluid each day before the machine is used. Change the suction filters after the first 50

hours of operation and every 200 hours of operation thereafter. Check the system regularly for fluid leaks and repair as necessary. Use International Harvester HY-TRAN hydraulic oil to replenish the system. Do not mix different brands of hydraulic oil. (See page 10 for schematic)

ELECTRICAL

The paver electrical system is not nearly as complicated as it looks. All the selector and directional valves are solenoid actuated.

Careful examination of the electrical schematic in conjunction with the hydraulic schematic will yield the logic of the system. The junction blocks in both power units tie the controls from each side to the functions on the opposite side. The color coding allows easy tracing from control to function. The fuse blocks protect the wiring harness should one of the functions short or ground out accidentally. Understanding the schematics is the key to successful trouble-shooting.

CARBURETOR ADJUST

The D-550 Super-Paver engines are fueled by propane. Some minor modifications were made to the carburetor in order to accommodate this fuel. To adjust the carburetor observe the following procedure:

1. Close the fuel mix and idle adjust screws until they seat.

2. Loosen the jam nut on the power adjust screw, turn the screw in until the needle seats, then back the needle out 1½ turns.

3. Turn on the propane at the tank valve. Start the engine and allow it to reach operating temperature.

4. Open the throttle to maximum speed and run the auger on the respective side of the machine. Open (richen) the power adjust screw until the engine runs poorly. Then close (lean out) the screw until the engine runs acceptably.

5. Open the idle crack screw until an acceptable idle is obtained.

6. Screw in the idle stop screw to obtain an idle speed of approximately 1000 RPM.

7. Adjust the engine to 3600 RPM maximum with the auger running. Shorten the linkage to the solenoid to obtain faster speed, and lengthen the linkage to get less RPM.

