

STEERING CLUTCHES

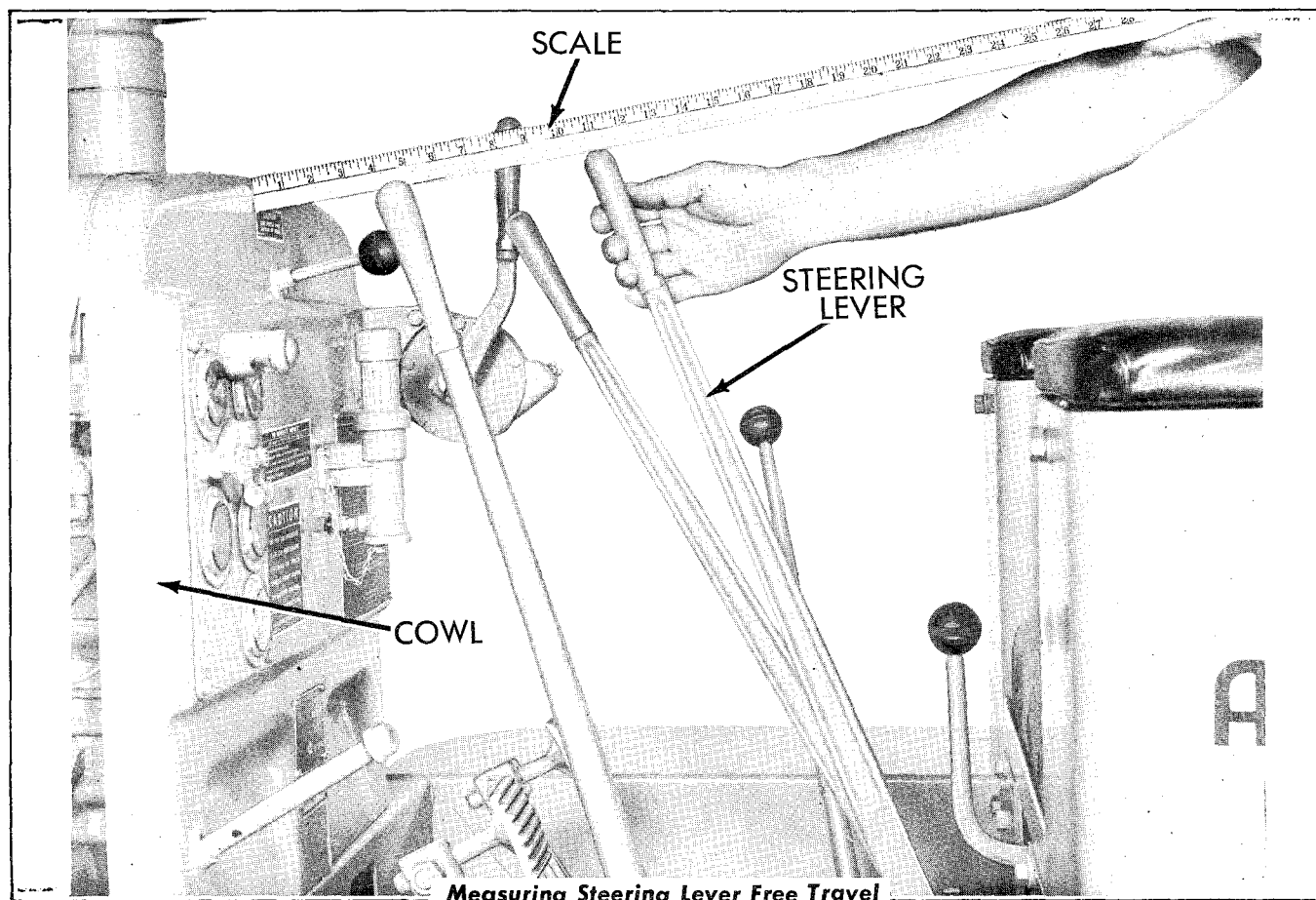


FIG. 44

A. Description

The two steering clutches are multiple disc clutches. Each clutch contains 17 friction discs and 17 steel discs, assembled alternately, with springs holding the steel and friction discs tightly together. Pulling back on a steering lever disengages the corresponding steering clutch by forcing a throwout sleeve against a throwout plate in the steering clutch assembly and compresses the steering clutch springs. Compressing the steering clutch springs allows the steel discs and friction discs to separate, therefore no power is delivered to the corresponding track sprocket.

B. Steering Clutch Linkage Adjustment

The steering clutch linkage is properly adjusted when the steering levers each have 3" of free travel, measured at the tops of the levers. As the clutch discs wear, this free travel becomes less and an adjustment is required when the free travel has de-

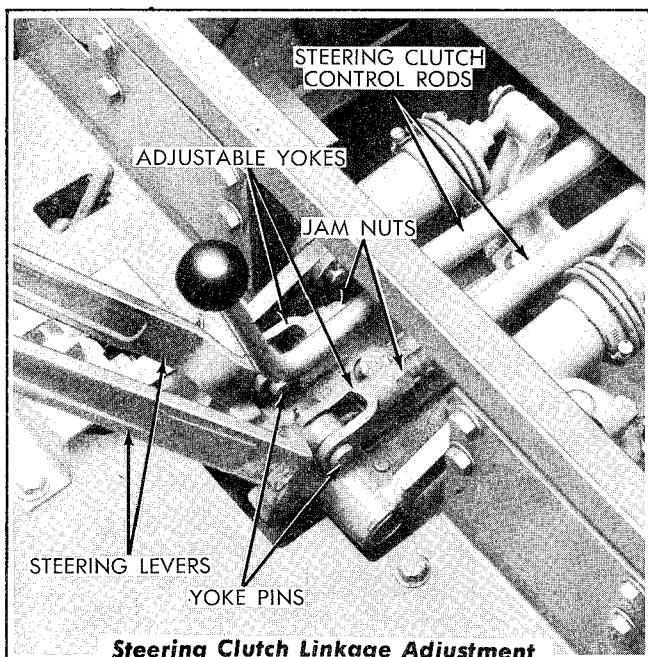
creased to less than 1". Free travel of the steering levers is necessary to assure clearance between the clutch throwout sleeve and the clutch throwout plate and to assure full engagement of each clutch.

C. To Measure the Free Travel of Either Steering Lever

1. Place one end of a ruler or scale against the cowl so that it projects horizontally past the top of the steering lever.
2. With the lever forward against its stop, measure the distance from the cowl to the top of the lever.
3. Pull the lever back until pressure is felt, which is the point where disengagement of the clutch begins. NOTE: The distance between the cowl and the top of the lever. The difference between the two measurements is the free travel of the lever. If this distance is less than 1" or more than 3", an adjustment must be made.

D. To Adjust the Steering Lever Linkage for Each Clutch

1. Remove the seat cushion.
2. Loosen the jam nut of the adjustable yoke on the front end of the steering clutch control rod, extending from the steering lever to the control rod lever on the steering clutch throw-out shaft.
3. Remove the yoke pin connecting the steering clutch control rod to the steering lever, then turn the yoke to lengthen or shorten the rod as necessary to obtain 3" of free travel at the top of the steering lever. When the correct adjustment is obtained, connect the control rod to the steering lever, then tighten the jam nut.

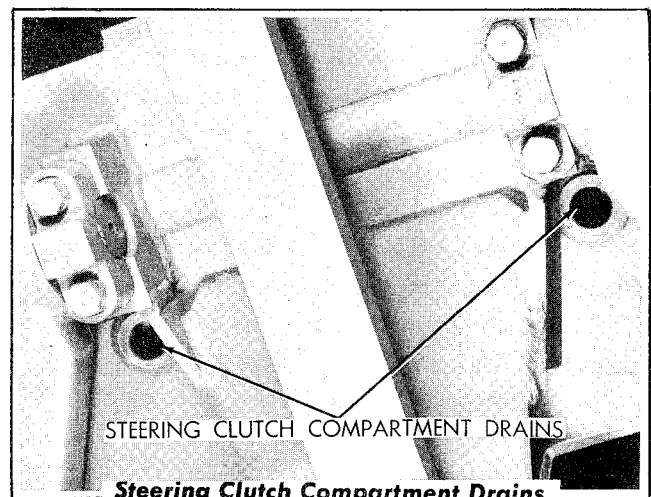


Steering Clutch Linkage Adjustment
FIG. 45

E. Washing Steering Clutches

If the steering clutches slip due to oil getting on the clutch discs as a result of oil leaking into the steering clutch compartments, wash the clutches with cleaning solvent in the following manner:

1. Install a drain plug in the drain hole in the bottom of each steering clutch compartment.
2. Remove the brake adjusting hole covers from the top of the housing and pour about three gallons of solvent into each clutch compartment. A suitable funnel or trough is needed to do this. Drive the tractor back and forth in a straight line for five minutes, leaving the steering clutches engaged. The oil on the exterior of the clutches and brakes will be washed off in this operation.
3. Drain the compartments and refill with the same amount of solvent, then drive the tractor back and forth for another five minutes, disengaging one clutch and then the other continually during this period. Disengaging the clutches allows the clutch discs to separate so that the solvent can get between them to wash the oil from their friction surfaces.
4. Drain the compartments and allow the clutches to dry for a short time. Operate the tractor with a light load in low gear until the clutches become thoroughly dry, otherwise they may slip due to the presence of solvent on the discs.



Steering Clutch Compartment Drains
FIG. 46

STEERING BRAKES

A. General

The steering brakes are properly adjusted when each brake pedal has $1\frac{3}{4}$ " to 2" of free travel. As the brake linings wear, the brake pedals will move farther forward and eventually will strike the floor plate before the brakes are fully applied; the brakes then require adjustment. Brakes being adjusted too tightly will cause heating, unnecessary brake wear, and loss of power. When the brakes are too loose they will not hold properly and will wear more rapidly because of excessive slipping.

If the brakes are properly adjusted, yet fail to hold, this condition may be due to oil on the brake linings. Remove the steering clutch compartment covers, located over each steering clutch, and observe if oil is present on the brakes. If oil is present on the brakes, this condition can be corrected by washing the brakes in the same manner as washing the steering clutches. Refer to "WASHING STEERING CLUTCHES" and follow steps 1 and 2, then drain the compartments.

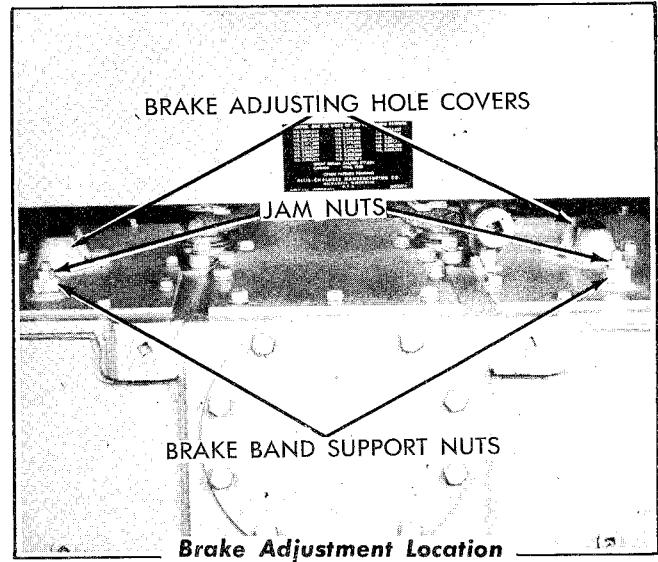
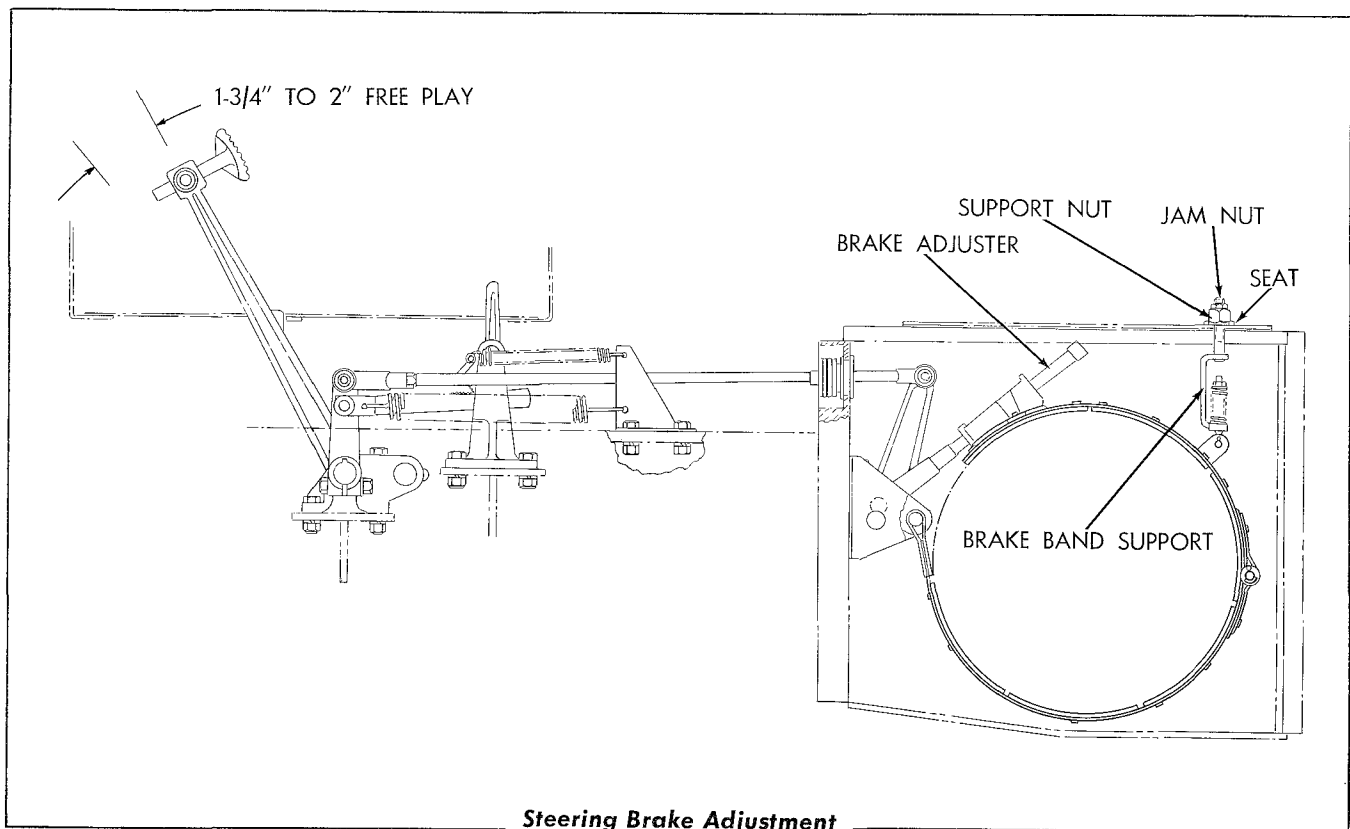


FIG. 47

Where frequent brake adjustments have been necessary, periodically remove the steering clutch compartment cover, located over each steering clutch, and inspect the brake linings for wear. The brake linings must be replaced before the linings are worn to a point where the lining retaining rivets will contact and score the brake drums.



Steering Brake Adjustment

FIG. 48

B. To Adjust Each of the Steering Brakes

1. Remove the brake adjusting hole cover from the steering clutch compartment cover.
2. Turn the brake adjuster clockwise until the brake pedal has 1 $\frac{3}{4}$ " to 2" of free travel. *NOTE: When adjusting the brakes it is necessary to turn the adjuster in $\frac{1}{2}$ turn increments so that the lobes on the adjuster will center in the grooves of the spring loaded*

locking block.

3. With the brake pedal free (pedal all the way back), loosen the jam nut on the brake band support, then back off the brake band support nut from its seat in the cover. Turn the support nut down until it contacts the seat in the cover and give the nut an additional $\frac{1}{2}$ turn, then lock the support nut in this position with the jam nut; this centers the brake band on the brake drum. Install the brake adjusting hole cover.