

service bulletin

TRACK-TYPE TRACTORS • NOVEMBER 18, 1955

STEERING CLUTCHES ¹²

STEERING CONTROL LINKAGE

D8 Tractors 2U21513 and up, and 13A1 and up

EFFECTIVE with D8 Tractor 13A2251, the steering clutch linkage was changed to provide more separation of the steering clutch discs during disengagement. This overcomes steering clutch drag, reduces clutch and steering brake heating and permits the tractor to be steered without excessive applications of the steering brakes. The linkage change, which consists of the following parts, causes the steering clutch hub assemblies (pressure plates) to move farther for a given movement of the control levers.

New Parts	Description	Former Parts
1-5H5368	Support Assembly	1-2H9453
1-5H4737	Bellcrank (R.H.)	2-2H9480
1-5H4738	Bellcrank (L.H.)	
2-5H4647	Pin	2-3H210

An instruction booklet, Form No. 739-31412, contains full details for installing the new linkage which is adaptable to D8 Tractors having serial numbers 2U21513 and up and serial numbers 13A1 through 13A2250.

Steering clutch adjustment with the new linkage is the same as that outlined in later Operation and Maintenance Instructions for D8 Tractors equipped with helical type clutches.

Operators may notice a slightly different "feel" of the steering clutch levers on tractors equipped with the new linkage. The initial lever pull is somewhat less and the pull near the middle of the stroke is greater.

CLUTCH DISC ASSEMBLIES

D8 Tractors 2U21513 and Up, and 13A1 and Up

If, after making the above linkage changes, steering difficulties have not been corrected on D8 Tractors 2U21513 and up and 13A1 through 13A2227, it is possible that the 8F4453 Steel Disc next to the 3H3718 Hub Assembly (pressure plate) has warped.

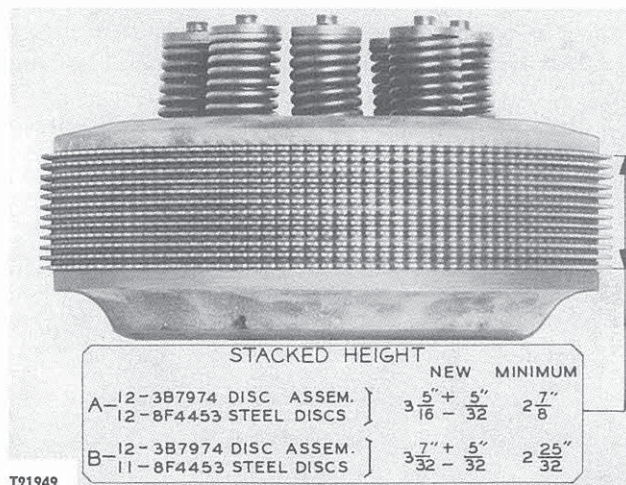


FIGURE 1—Stacked height dimensions of the 11 steel discs and 12 steel disc clutch assemblies. Removal of one steel disc does not affect clutch capacity.

Steering clutch assemblies on these machines contained twelve 3B7974 Disc Assemblies and twelve 8F4453 Steel Discs. The 8F4453 Steel Disc assembled next to the 3H3718 Hub Assembly (pressure plate) has occasionally warped, causing clutch drag. Removal of this steel disc does not affect clutch capacity.

Effective with D8 Tractor 13A2228, the steel disc next to the pressure plate was omitted in steering clutches assembled at the factory. Clutch assemblies now contain twelve 3B7974 Disc Assemblies and eleven 8F4453 Steel Discs with a 3B7974 Disc Assembly assembled next to the pressure plate.

When steering clutches of D8 Tractors 2U21513 and up and 13A1 through 13A2227 are reconditioned, the steel disc next to the pressure plate should be omitted. When steering clutches are reassembled, the total stacked height of the discs should be measured to assure that the correct num-

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CLUTCHES, *continued*

ber of discs are used and to determine the remaining wear life in the disc assemblies.

The total stacked height of twelve 3B7974 Disc Assemblies and eleven 8F4453 Steel Discs is $3\text{-}7/32'' \pm 5/32''$. If the stacked height of the discs measures less than $2\text{-}25/32''$, the 3B7974 Disc Assemblies should be replaced as the clutch may slip.

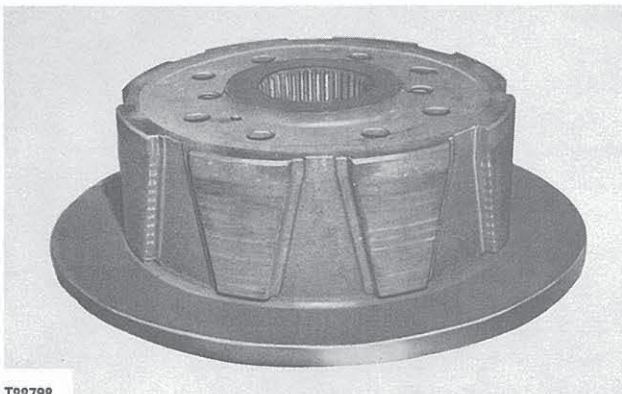
For clutches with twelve 3B7974 Disc Assemblies and twelve 8F4453 Steel Discs, the total stacked height is $3\text{-}5/16'' \pm 5/32''$. If the stacked height of the discs measures less than $2\text{-}7/8''$, replace the 3B7974 Disc Assemblies.

HELICAL INNER DRUM WEAR D8 Tractors, No. 583 Pipelayers

Service Reports and parts returned to the factory indicate that many steering clutch inner drums of the helical lug type used in D8 Tractors 2U21513 and up, 13A1 and up, Series D and E and No. 583 Pipelayers are being replaced unnecessarily. It appears that the wavy wear pattern which develops across the helical cut lugs has led servicemen to replace inner drums on the assumption that this would cause the clutch discs to "hang up", resulting in slippage.

This is not the case, since such wear patterns are normal and do not affect steering clutch capacity. The notches or steps produced are angled rather than square and do not hinder free engagement of the discs.

If inspection of steering clutch inner drums reveals wear such as that shown on the lugs, but the



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FIGURE 2—Wavy pattern on drive lugs does not affect clutch operation.

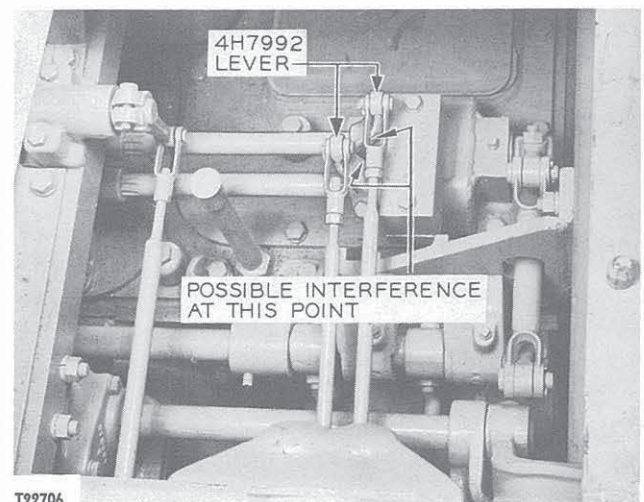
drums are otherwise sound, the drums should be reinstalled. Care must be taken, however, to follow the correct assembly procedure. If the same discs are to be reinstalled, their positions in the stack can be rearranged to provide better wear distribution. Each disc must be installed with the same face up as was used in the previous assembly.

STEERING CLUTCH CONTROL LINKAGE D8 Tractors (Series D and E) and No. 583 Pipelayers

Two 4H7992 Levers are used in the steering clutch control linkage of D8 Tractors (Series D and E) and No. 583 Pipelayers. On some of the first of these machines the rear lever (for left hand steering clutch) could interfere with the forward lever when the left hand steering clutch control lever was pulled all the way back. This interference could move the forward lever enough to partially release the right steering clutch.

Field correction of this problem is quite easily made by grinding the necessary material off the rear lever to eliminate any interference. The 4H7992 Lever has now been modified so there will not be any interference. There is no change in part number.

Tractors and pipelayers having serial numbers 14A693 and up, 15A486 and up, and 16A165 and up have the new levers which eliminate the possibility of interference.



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FIGURE 3—Should interference occur between steering clutch levers, grind the rear lever to increase clearance.