

SHOP MANUAL

FILE

F

THE GALION IRON WORKS & MFG. COMPANY, Galion, Ohio 44833, U.S.A.
A division of Jeffrey Galion Inc.

SECTION

9^{R1}

DOUBLE STRAND CHAIN TANDEM DRIVE

104 Series B-07601 to 09856
104H Series B-07619 to 09856

118 Series B-07601 to 09856
160 Series B-02155 to 02403

T500 Series A-02811 to 03289

To facilitate photography the Tandem Drive has been removed from the Grader. The oil has been drained from the tandem case. All inspection plates, tires, and rims have been removed.

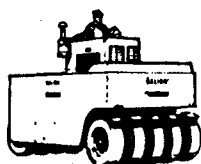
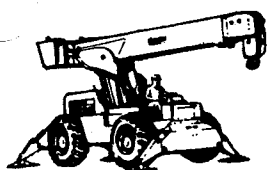
Standard torque specifications apply unless otherwise noted.

Lubrication: SAE 80 Straight Mineral Gear Oil
OR
SAE 30 HD Engine Oil

Lube Specs: File J Section 1
Torque Specs: File N Section 1.10

Capacity: 8 U.S. Gallons

September 1972



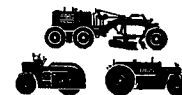


FIGURE 1

Remove drive axle cover retaining capscrews.
Remove cover and gasket.

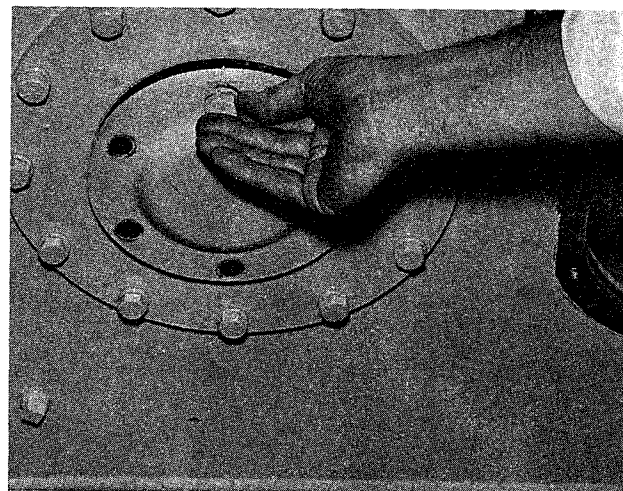


FIGURE 2

Remove drive axle retaining ring.

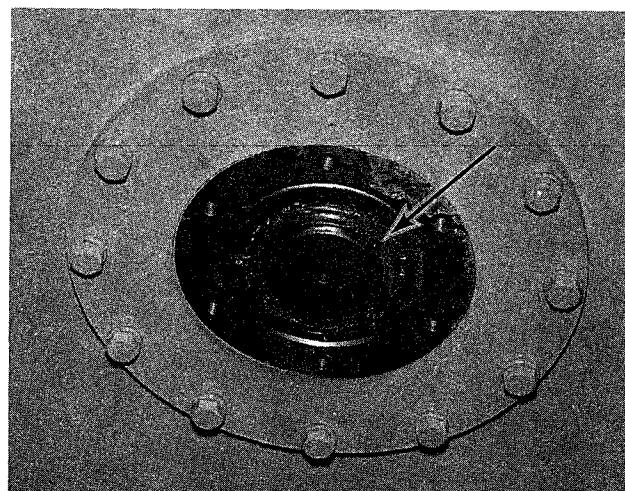
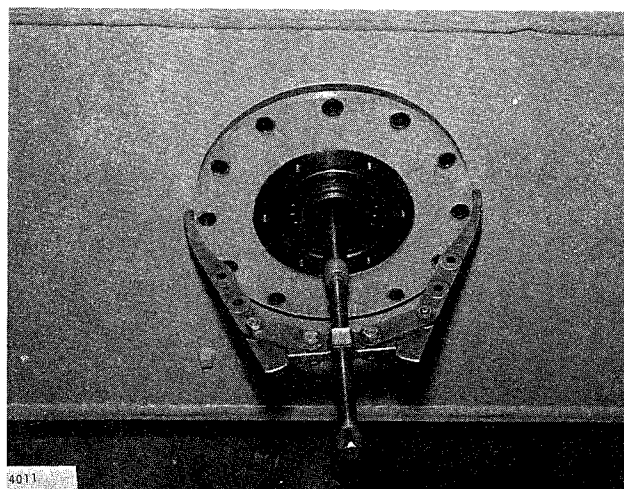


FIGURE 3

Remove capscrews from drive axle bearing carrier. Install puller. Remove carrier and bearing. Remove gasket.



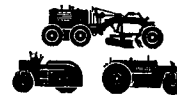


FIGURE 4

Rotate axle assembly until chain connector link appears top of sprocket. Remove cotter pins. Remove connector link side plate. Remove link. Let chain drop to bottom of case.



FIGURE 5

Remove sprocket retaining ring.



FIGURE 6

Remove sprocket. Use puller, if required.



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SHOP



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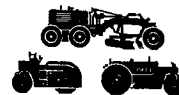


FIGURE 7

Follow steps 4 and 6 to free second chain and to remove sprocket.

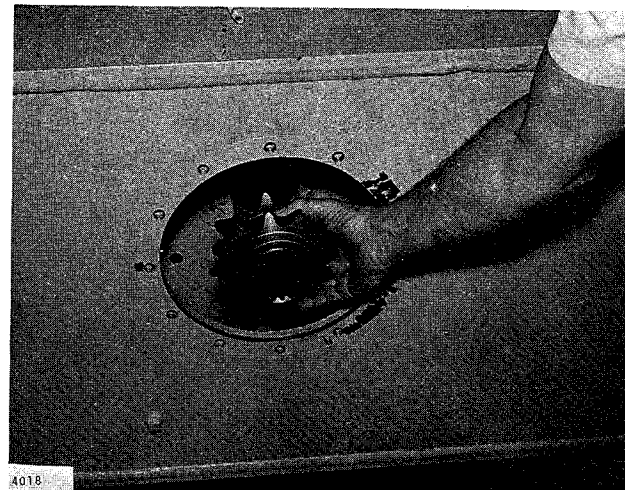


FIGURE 8

Remove spacer from axle.

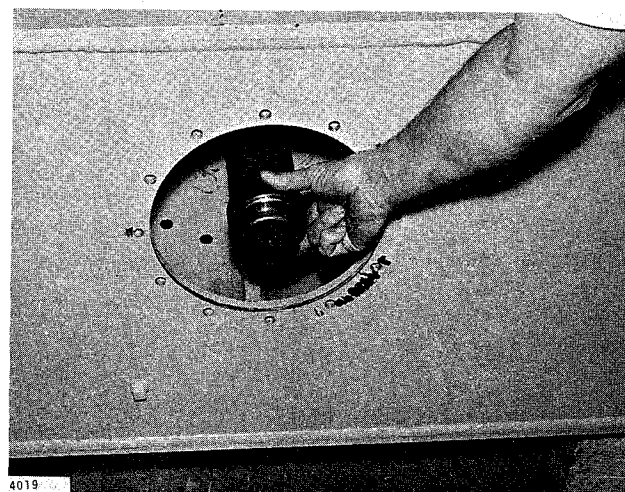


FIGURE 9

Remove axle. Note: Use care not to damage inner axle oil seal.

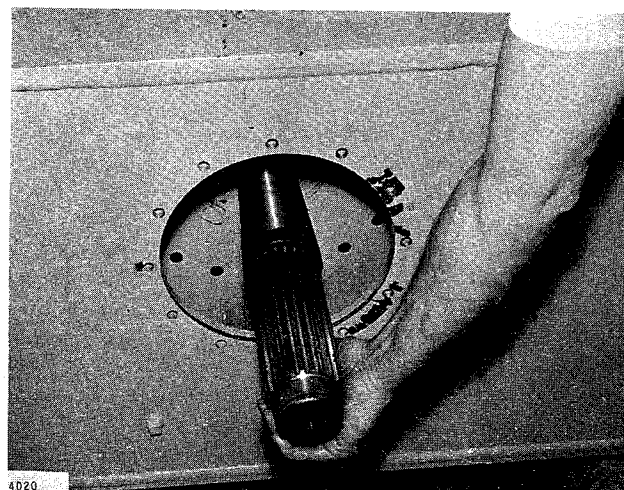




FIGURE 10

To remove axle nut, straighten bent tang of lockwasher (2). Remove nut (1), lockwasher (2) and washer (3).

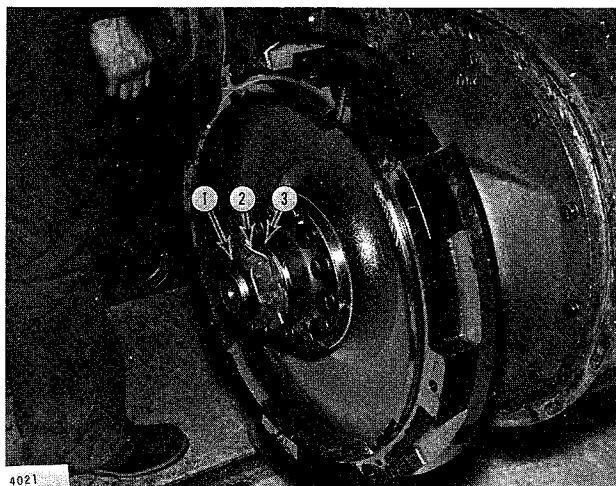


FIGURE 11

Remove wheel coupling retaining capscrews.

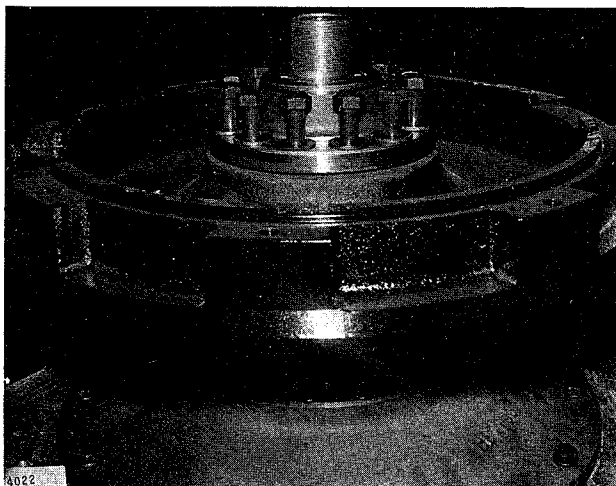
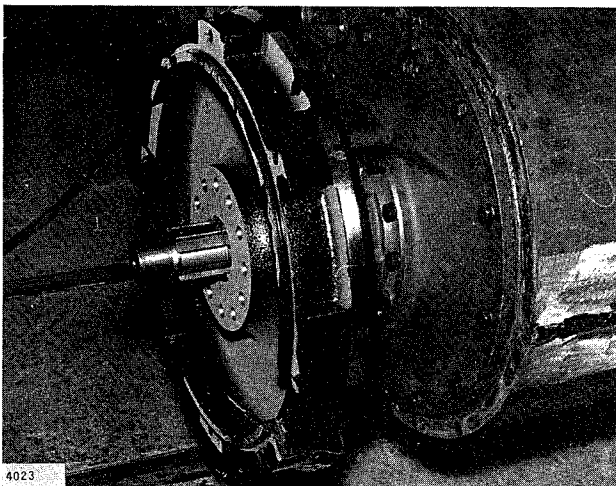


FIGURE 12

Remove flange. Remove wheel.



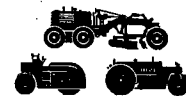


FIGURE 13

Remove capscrews (1) from wheel bearing retainer. Remove retainer (2) and shims (3) (seal will remain in retainer).

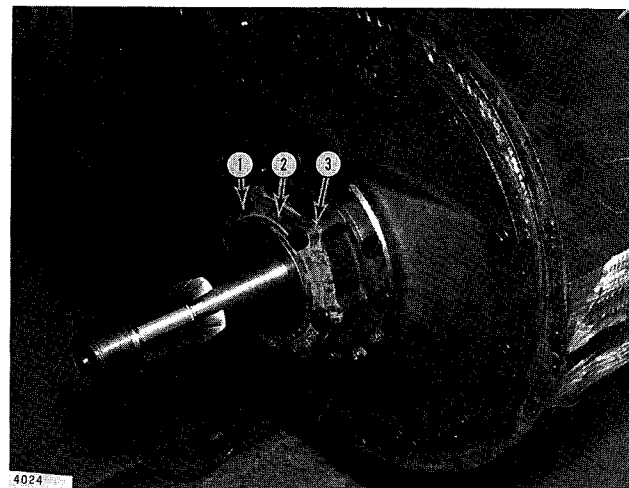


FIGURE 14

Remove axle housing retaining capscrews. Remove housing. Remove gasket.

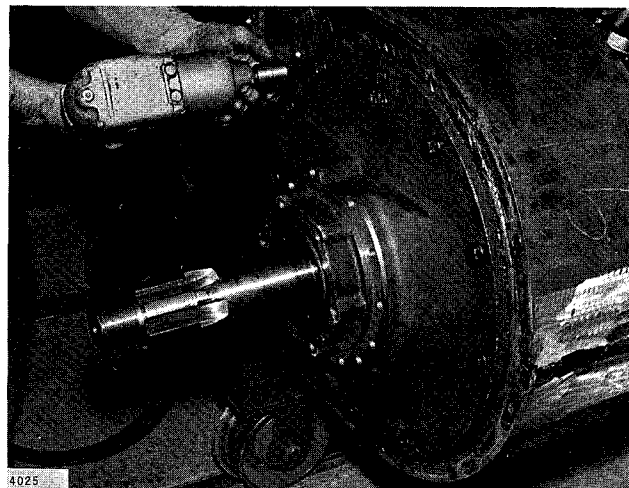
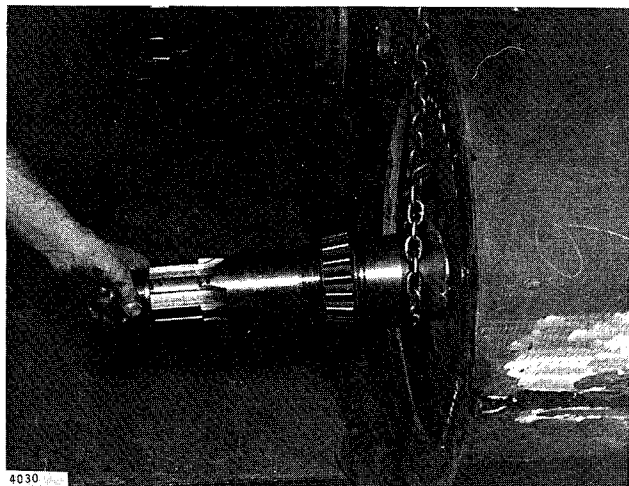


FIGURE 15

Remove axle and sprocket assembly. (Remove chain if not previously removed.)



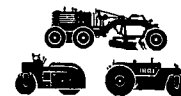


FIGURE 16

Examine axle bearing cup. Remove if replacement is required.

NOTE:

To dis-assemble other axle follow steps 10 thru 16.

ASSEMBLY

Clean and inspect all parts to determine serviceability. Clean tandem drive case.

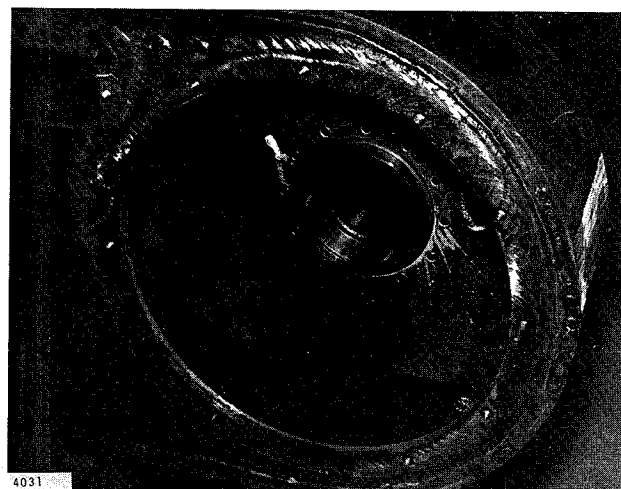


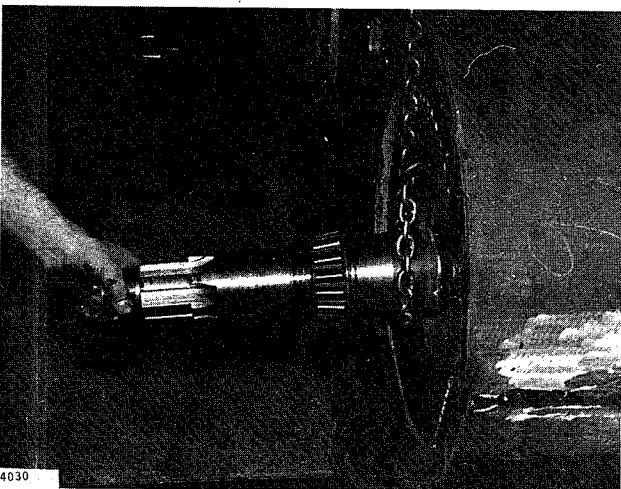
FIGURE 17

Install axle bearing cup in bearing carrier.



FIGURE 18

Install new bearings on axle if previously removed. Lubricate bearings. Install axle



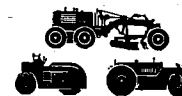


FIGURE 19

Install axle bearing housing gasket. Install housing, torque capscrews, Install bearing cup.



FIGURE 20

Install wheel bearing retainer, tighten capscrews to point of no shaft end play. Measure retainer to housing gap for correct shim pack. Remove capscrews. Remove retainer. Install shims, tighten and check for end play or excessive preload. Bearings should be adjusted to no preload, no end-play. This adjustment applicable to new or previous removed bearings.

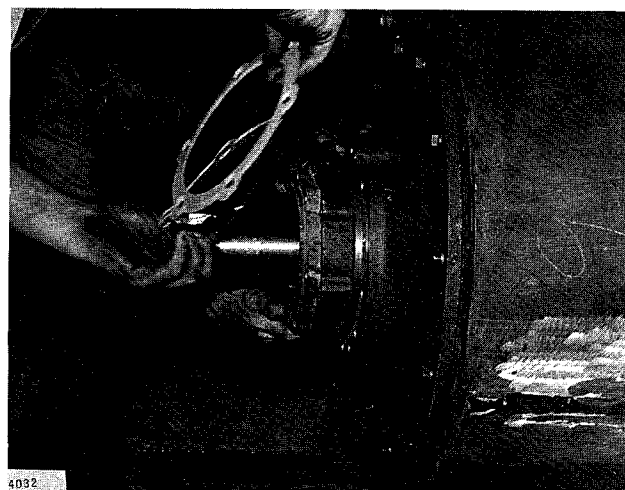
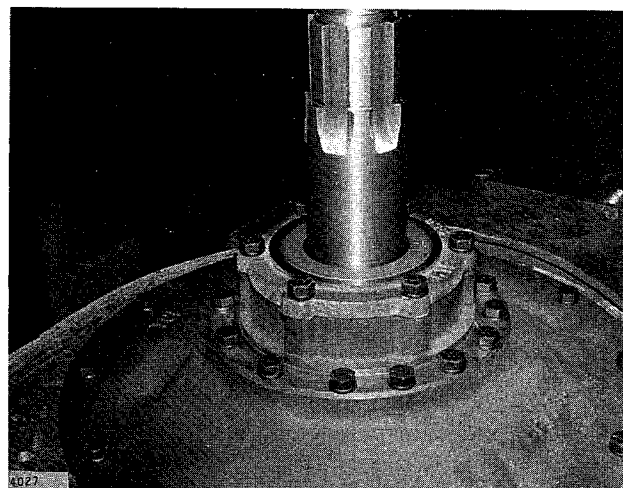


FIGURE 21

Install seal in bearing retainer.



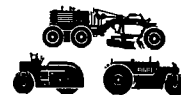


FIGURE 22

Install wheel.

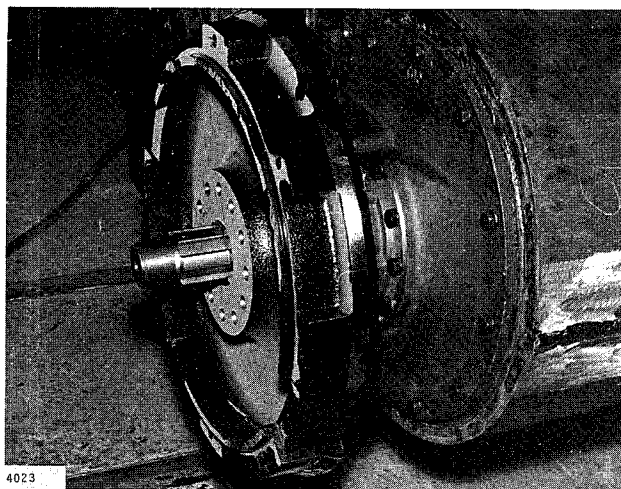


FIGURE 23

Install wheel coupling. Install grade 8 cap screws and hardened washers - lubricate. Torque 130 foot pounds.

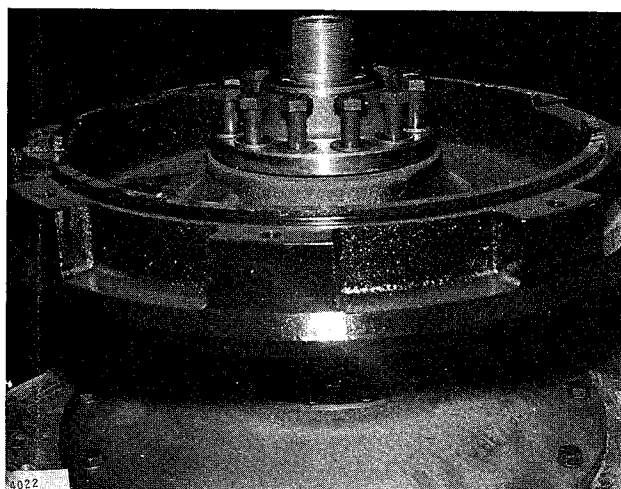


FIGURE 24

Install washer (3), lockwasher (2), and nut (1). Torque 1250 pounds. Bend tang of lockwasher (2) to secure.

NOTE:

To assemble other axle perform operation 18 thru 25.

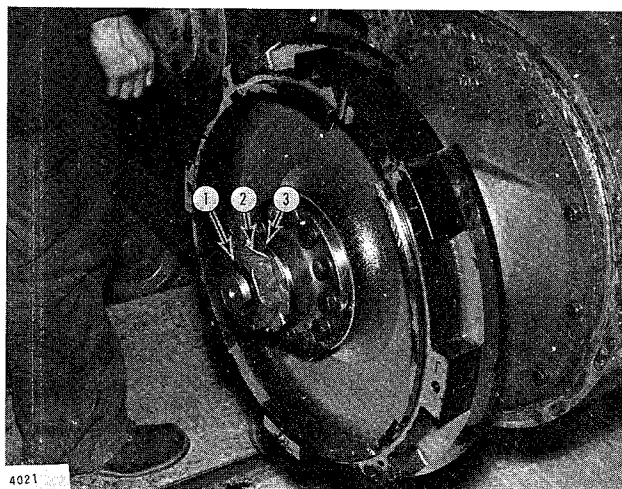




FIGURE 25

Examine inner drive axle seal with flashlight. If replacement is required, ring and pinion assembly must be removed. Install main drive axle.

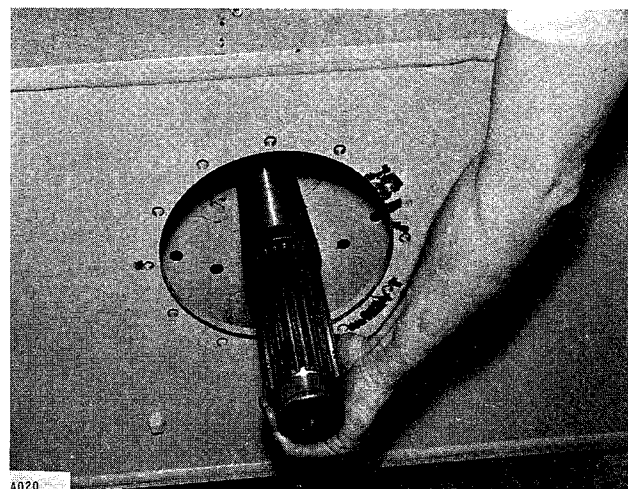


FIGURE 26

Install axle spacer.

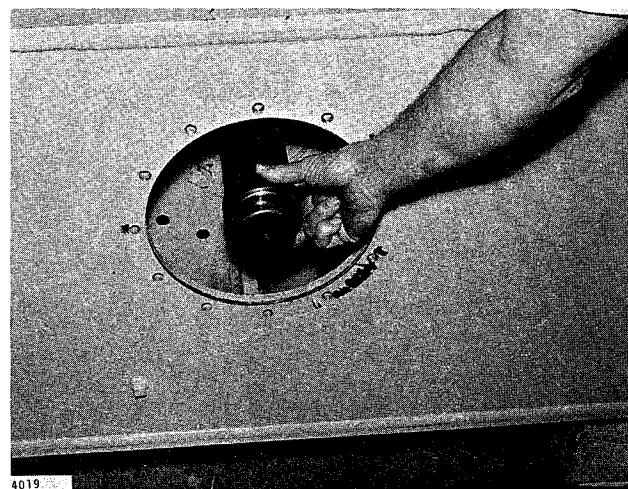
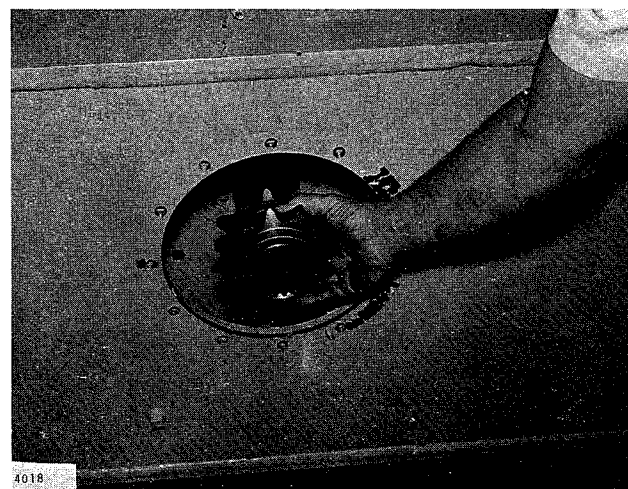


FIGURE 27

Install inner axle sprocket.



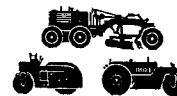


FIGURE 28

Install chain on inner sprocket, and axle and sprocket assembly. Insert connector link, side plates and cotter keys. Open end of link should face outside of case.

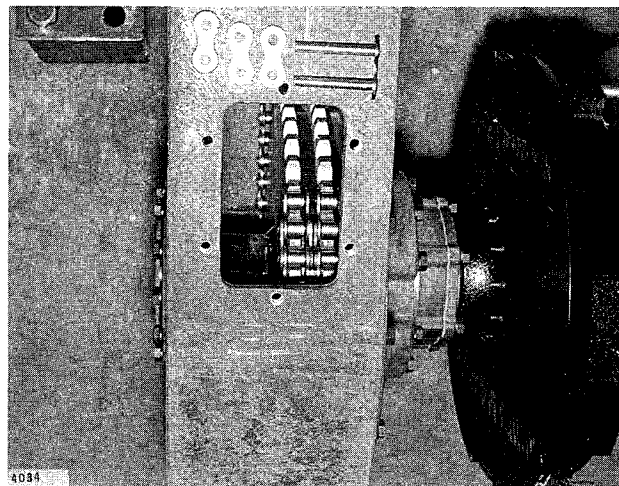


FIGURE 29

Install outer axle sprocket.

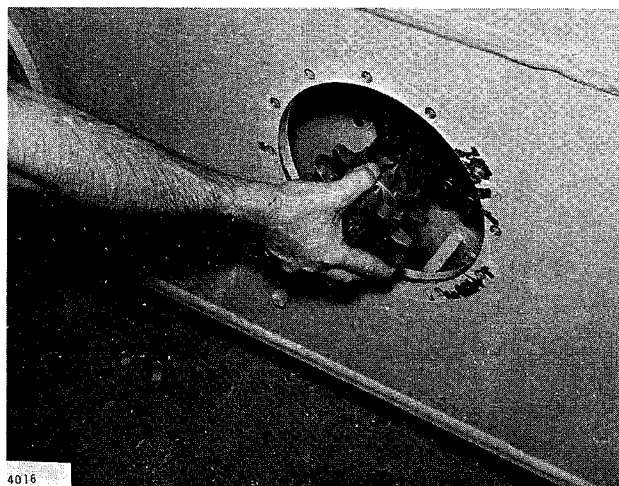
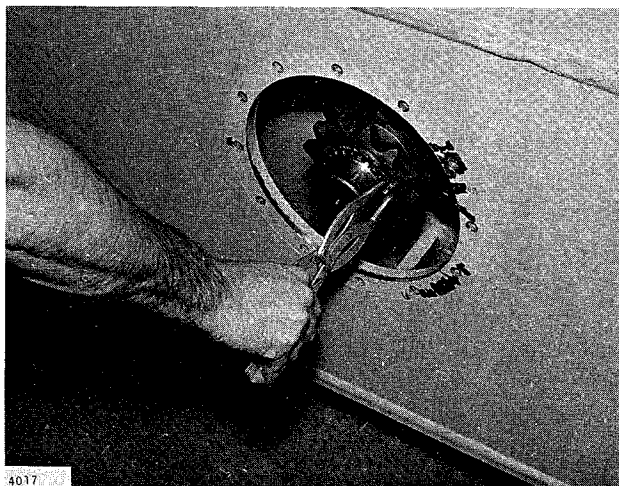


FIGURE 30

Install outer axle sprocket retaining ring.



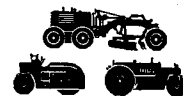


FIGURE 31

Place outer sprocket chain on outer sprocket and axle and sprocket assembly. Install connecting link, side plates and cotter keys. Open end of connecting link should face outside of case. Chain link should not be adjacent to each other when they pass at small drive sprockets.

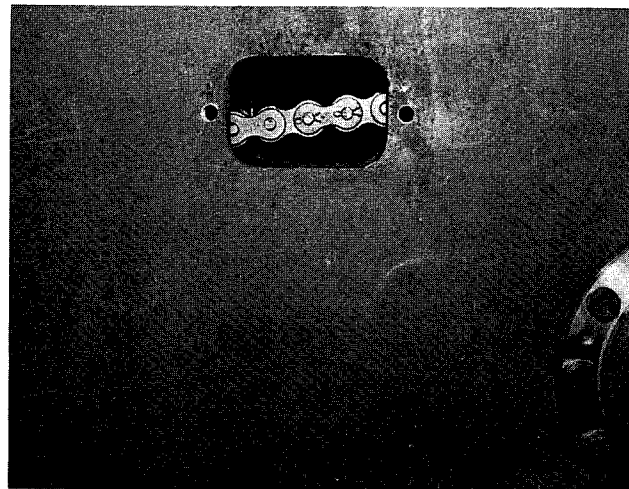


FIGURE 32

Install axle bearing carrier gasket. Install carrier. Install bearing locating ring. Install bearing and lubricate. Install bearing retaining ring. Install capscrews and tighten.

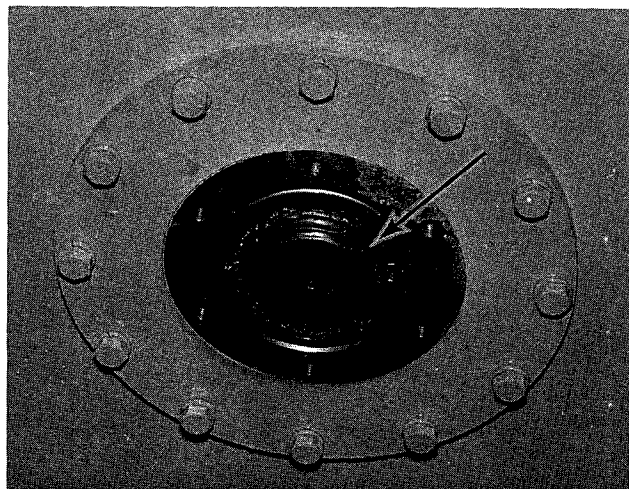


FIGURE 33

Install bearing cover gasket, cover and capscrews. Tighten capscrews.

NOTE:

Install all gaskets and covers. Fill case to proper oil level.

