



INSTRUCTION BULLETIN

No. 340450
Machine: ATLV 4300
Published: 11-00/03
System: HYDRAULICS

NOTE: DO NOT DISCARD the Parts List from the Instruction Bulletin. Place the Parts List in the appropriate place in your machine manual for future reference. Retaining the Parts List will make it easier to reorder individual parts and will save you the cost of ordering an entire kit.

NOTE: Numbers in parenthesis () are reference numbers for parts listed in Bill of Materials.

Installation instructions for kit number 368548

SYNOPSIS / PROBLEM:

This kit contains the parts needed to replace the hydraulic pump linkage group on the model ATLV 4300 litter vacuum.

Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: Torque wrench

(Estimated time to complete: 2 hours)

PREPARATION:

(Refer to FIG. 1 and 2)

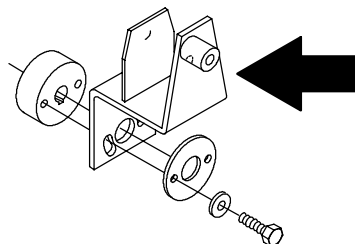
FOR SAFETY: Before leaving or servicing machine, stop on level surface and set parking brake. Then turn off machine and remove key.

1. Open the debris hopper.
2. Push the hopper down until it "snaps" free of the hopper tilt bracket and is held by the cannister cables in the debris removing position.
3. Locate the hydraulic pump linkage group on the side of the hydraulic pump, facing the rear of the machine. (Refer to FIG. 1)

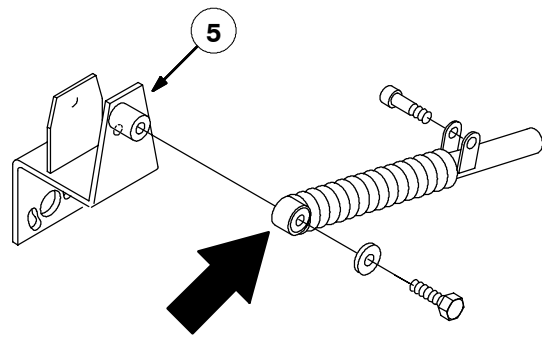
OLD HYDRAULIC LINKAGE REMOVAL:

(Refer to FIG. 1 and 2)

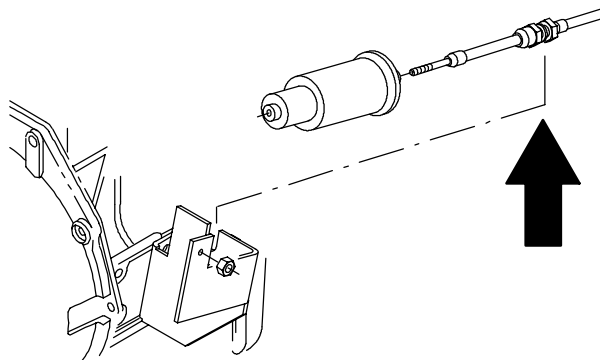
1. Disconnect the old propel lever plate from the hydraulic pump hub. Set the spacer washer, and mounting hardware aside. (Refer to FIG. 1)



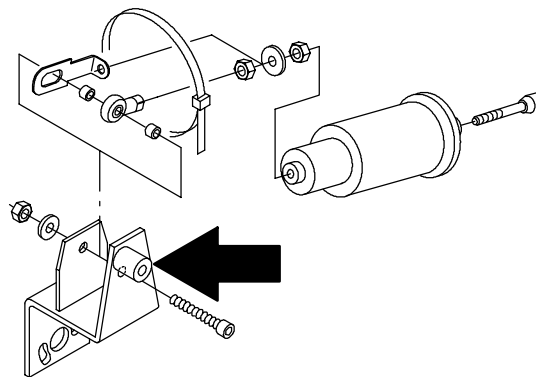
2. Disconnect the shock absorber from the propel lever plate and the cable mounting bracket. Set the shock absorber, and mounting hardware aside. (Refer to FIG. 1)



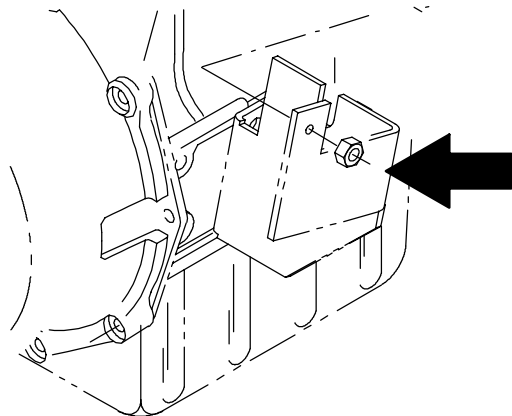
3. Loosen the propelling cable from the bulkhead. (Refer to FIG. 1)



4. Carefully disconnect the rod end and bracket assembly from inside the propel lever plate. Discard the old propel lever plate. Disconnect the propelling cable from the hydroback. Set the hydroback aside. (Refer to FIG. 1)



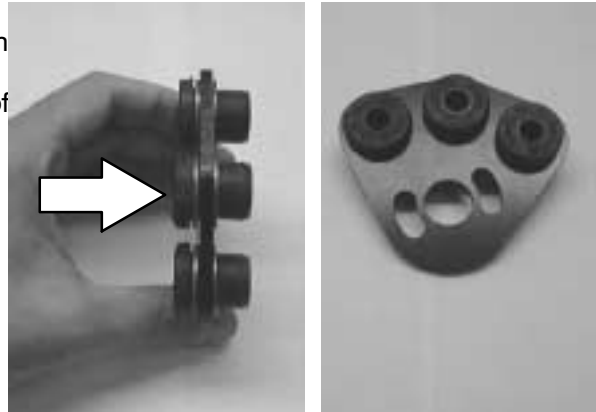
5. Remove and discard the old bulkhead from the machine. (Refer to FIG. 1)



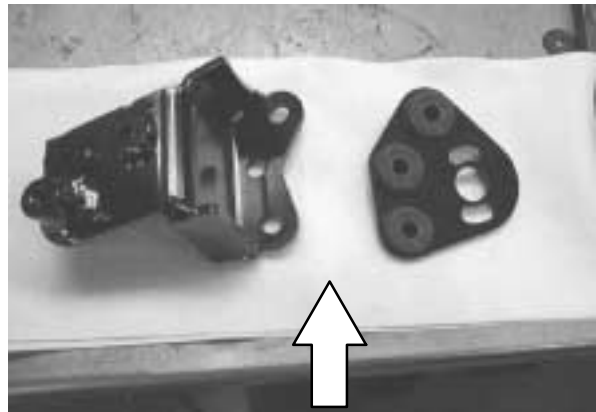
NEW PROPEL LEVER ASSEMBLY: (If not pre-assembled)

1. Insert one of 6 spacer washers onto each spacer. Press the three spacers through the lower plate with the plate in the position shown. Place a second spacer washer over each spacer on the back side of the plate.

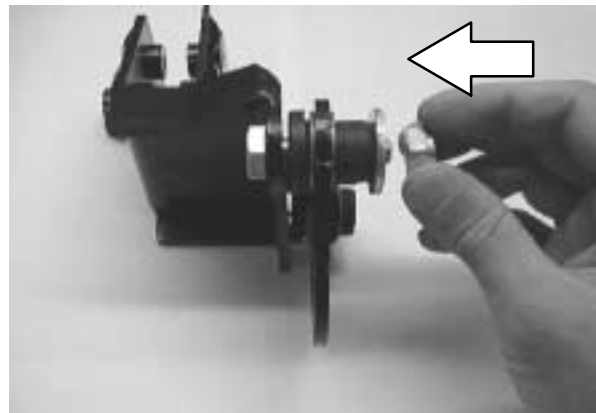
NOTE: Insert spacers from this side only. Pushing spacers through from the back side will result in improper assembly of linkage arm.



2. Align the upper half of the propel lever assembly with the lower plate as shown.



3. Assemble the upper half of the propel lever assembly and the lower plate with 3 M10 X 40 hex screws, 3 washers and 3 M10 nyloc nuts.

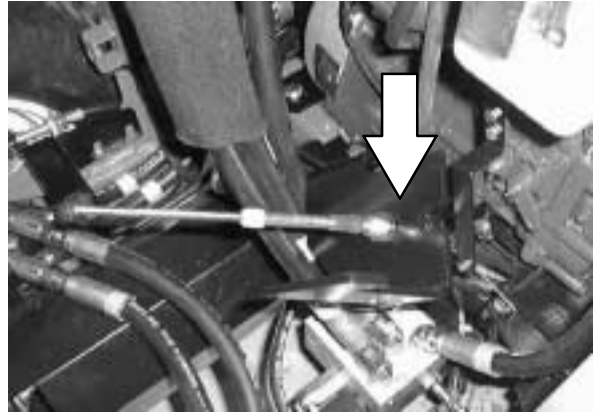


4. Tighten assembly hardware to 27-35 ft. lbs. torque.

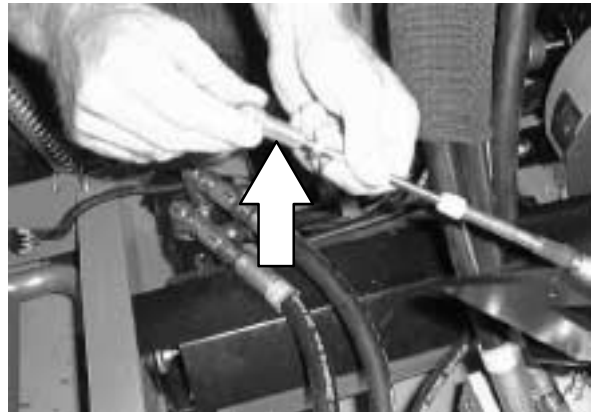


NEW HYDRAULIC LINKAGE INSTALLATION: (Refer to FIG. 1, 2 and 3)

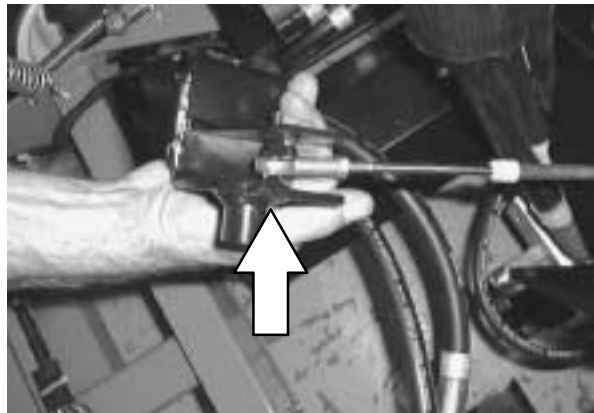
1. Slide and secure the new propelling linkage mounting bracket (2) to the propelling cable with jam nut. Mount the propelling linkage bracket to the engine with the set aside hex screws and washers. Hand tighten mounting hardware. (Refer to FIG. 2)



2. Install the jam nut (7) onto the propelling cable. Install the rod-end ball joint (12) onto the end of the propelling cable with blue locktite (16). (Refer to FIG. 2)



3. Connect the rod-end ball joint (12) to the new propel lever assembly (13) with a socket head screw (8), washer (10) and hex nut (11). (Refer to FIG. 2)



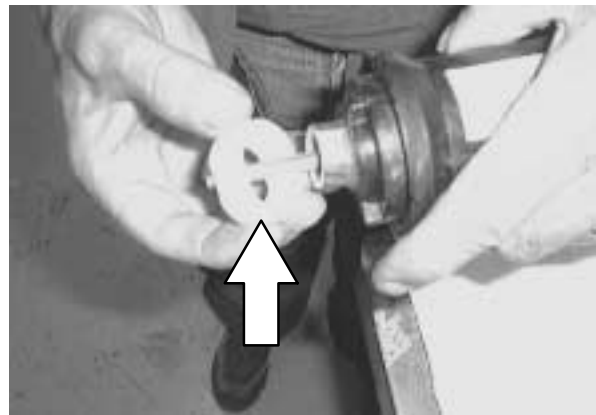
4. Guide the new threaded rod (3) through the hydroback. Insert two hex nuts (7) onto the threaded rod (3) from the tapered end of the hydroback.



5. Thread the second rod-end ball joint (12) all the way onto the end of the threaded rod (3) with blue locktite (16). Lock the rod-end ball joint (12) in place with the lock nut. Back the securing hardware off, if necessary. Leave 3/16" between the jam nuts for later fine tuning. (Refer to FIG. 2)



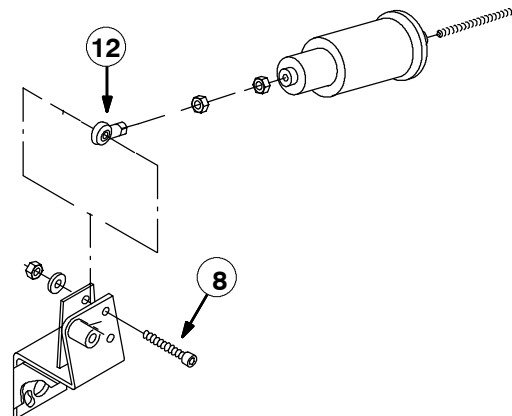
6. Install the plastic spacer (4), tapered edge first, over the threaded rod (3) on the fat end of the hydroback. (Refer to FIG. 2)



7. Insert the flat washer (5), lock washer (1) and the rod guide (6), with a drop of locktite, onto the end of the threaded rod. (Refer to FIG. 2)



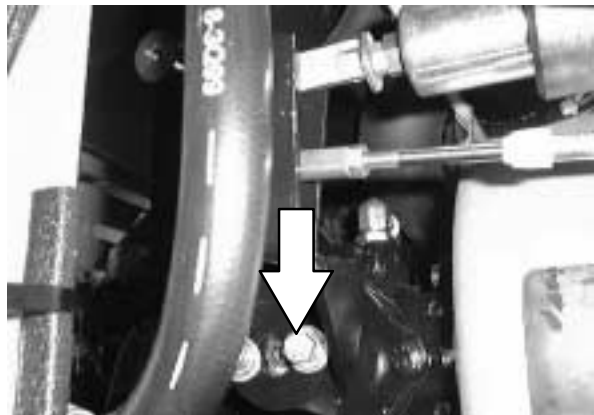
8. Connect the rod-end ball joint (12) on the end of the hydroback, to the new propel lever assembly (13) with a socket head screw (8), washer (10) and lock nut (11). (Refer to FIG. 2)



9. Move the new propel lever assembly (13) and hydroback into mounting position on the side of the hydraulic pump. (Refer to FIG. 2)



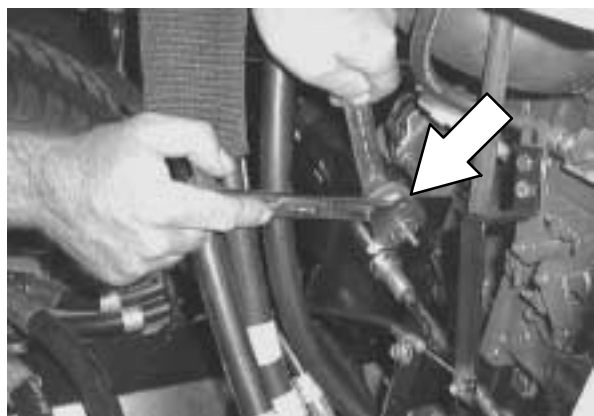
10. Mount the propel lever assembly (13) to the hub with two hex screws (14) and set aside spacer washer. (Refer to FIG. 2)



11. Secure the hydroback into position on the cable mounting bracket (2) with hardware mounted earlier. (Refer to FIG. 2)



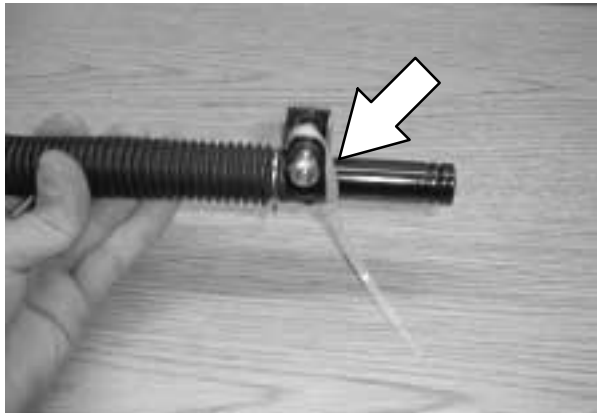
12. Tighten the hydroback securing hardware. (Refer to FIG. 2)



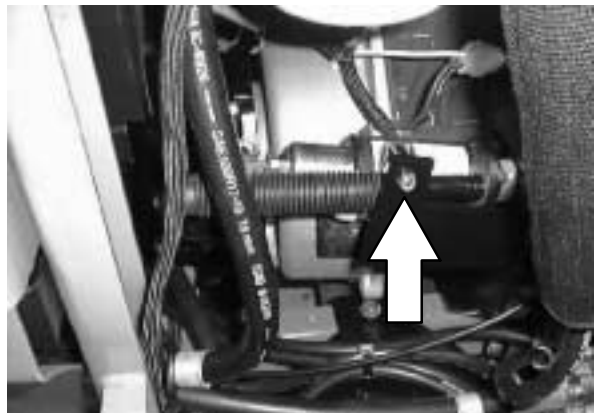
13. Install the retainer bracket (9) on the shock absorber with the shoulder bolt and rubber washer (18). (Refer to FIG. 2)



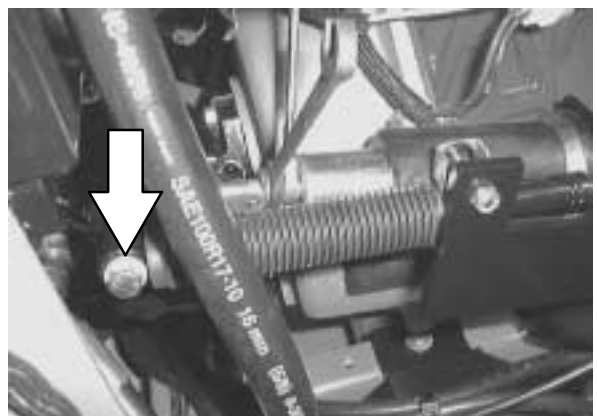
14. Secure the shoulder bolt in the shock absorber with the nylon cable tie (17). (Refer to FIG. 2)



15. Mount the shock absorber to the cable mounting bracket (2) with the shoulder bolt, and hex nut. (Refer to FIG. 2)



16. Secure the other end of the shock absorber to the propel lever assembly (13) with the set aside hex screw and flat washer. (Refer to FIG. 2)



NEUTRAL ADJUSTMENT:

1. Jack up the left rear corner of the machine **so only one rear tire is raised to check neutral adjustment.**

FOR SAFETY: When servicing machine, block machine tires before jacking machine up.

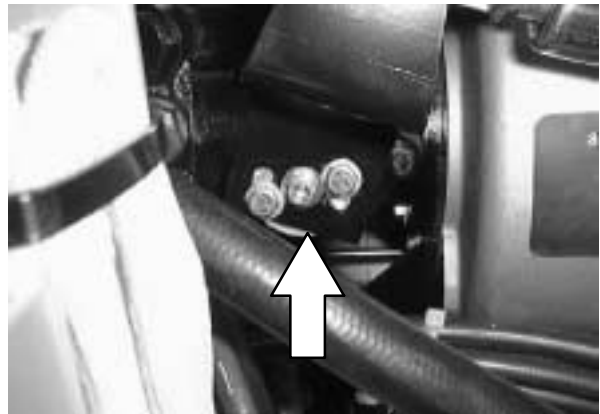
FOR SAFETY: When servicing machine, jack machine up at designated locations only. Block machine up with jack stands.

2. Start the machine, and release the parking break.
3. Make any rough neutral adjustments with the hydraulic pump cam.

If the wheel is rotating forward: turn the socket head screw clockwise.

If the wheel is rotating backwards: turn the socket head screw counterclockwise.

NOTE: Grade 8 torque 10–13 ft lbs.



4. To make any fine adjustments: loosen the jam nut, and rotate the hydroback clockwise or counterclockwise.

5. Once neutral is established, check the forward, full throttle RPM of the rear tire.

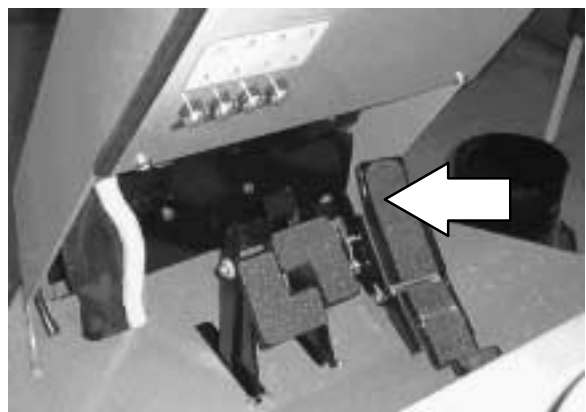
Final forward RPM should be approx. 500 RPM.

Final reverse RPM should be approx. 90 RPM

6. Set the machine parking brake, lower the rear left corner of the machine and close the debris hopper.



7. Release the machine parking brake. Slowly engage the propelling pedal, and check the hydraulic pump linkage for proper operation.



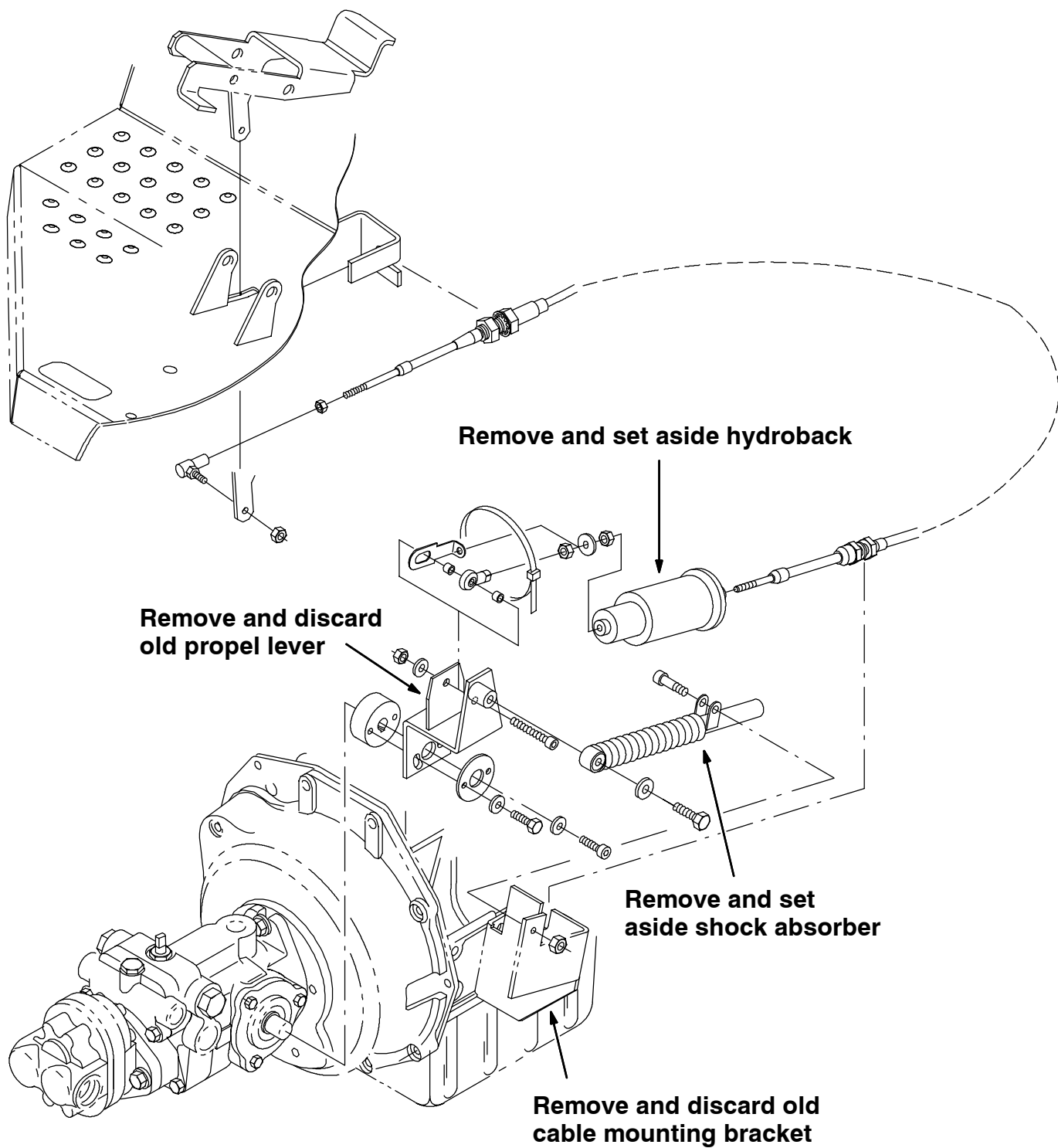


FIG. 1 - OLD HYDRAULIC PUMP LINKAGE BREAKDOWN

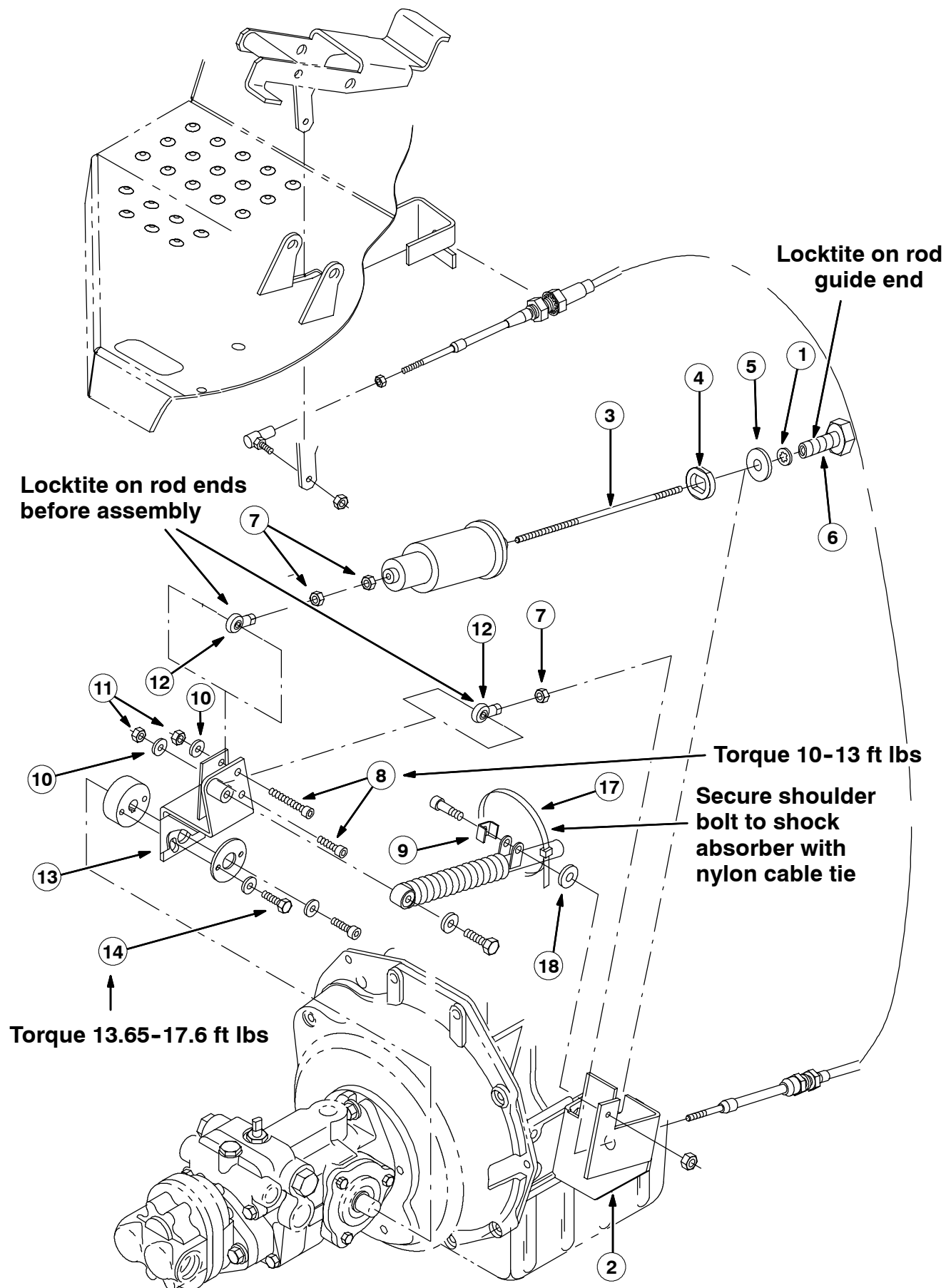


FIG. 2 - NEW HYDRAULIC PUMP LINKAGE ASSEMBLY

BILL OF MATERIALS FOR PROPELLING LINKAGE KIT 368548

Ref.	TENNANT Part No.	Description	Qty.
1	32990	Washer, lock, int, .62	1
2	368577	Bracket, cable mtg.	1
3	382628	Rod, threaded	1
4	382269	Spacer	1
5	15331	Washer, flt, .62 SAE	1
6	382511	Rod guide	1
7	01714	Nut, hex, std, .25-28	3
8	368572	Screw, soc, 0.25-20 X 2.35	2
9	84170	Bracket, retainer	1
10	32490	Washer, flt, .25 std	2
11	32981	Nut, hex, lock, 0.25-20 ml	2
12	68866	Rod-end, 0.25-28rh fem, 0.25b	2
13	368578	Lever, wldt, propel, assy	1
14	368412	Screw, hex, M08 X 1.25 X 30, 10.9	2
15	77276	Nut, hex, jam, .62-18, SS	1
16	32676	Loctite, .02 fl. oz.	1
17	49266	Tie, cable, nylon	1
18	63416	Washer, rbr, 0.318ID X 0.88OD X 0.12	1

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