



June 18, 1973

#### POWER DISCONNECT EVALUATION

Reports have been received that in a few cases, power disconnects have had high electrical resistance which can cause reduced range by undercharging the power pack or producing electrical loss during tractor operation.

If complaints are received related to shortened range, it is suggested that the following procedure be used:

1. Temporarily remove the battery clamp from the positive post of battery B2.
2. Connect the positive (red) cable clamp of the discharge tester to terminal A of the power disconnect. (See Fig. 1 for orientation, Fig. 2 for connection.)

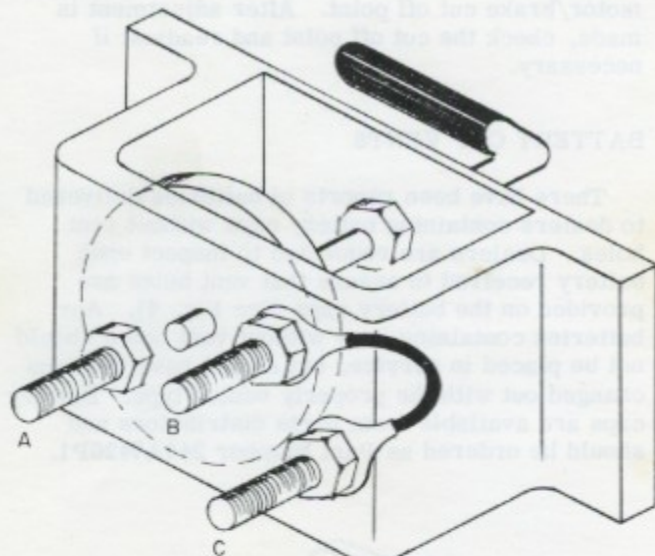


Figure 1

3. Connect the negative (black) cable clamp of the discharge tester to the negative post of battery B5.
4. Reconnect the battery clamp on battery B2.
5. Perform the discharge test with the power disconnect engaged, and during discharge measure the voltage drop across power disconnect terminals A and C, using the 10-vdc voltmeter setting.
6. If voltage reading is 1/2 volt or greater, stop the test, remove battery B2 positive cable, and replace the power disconnect.

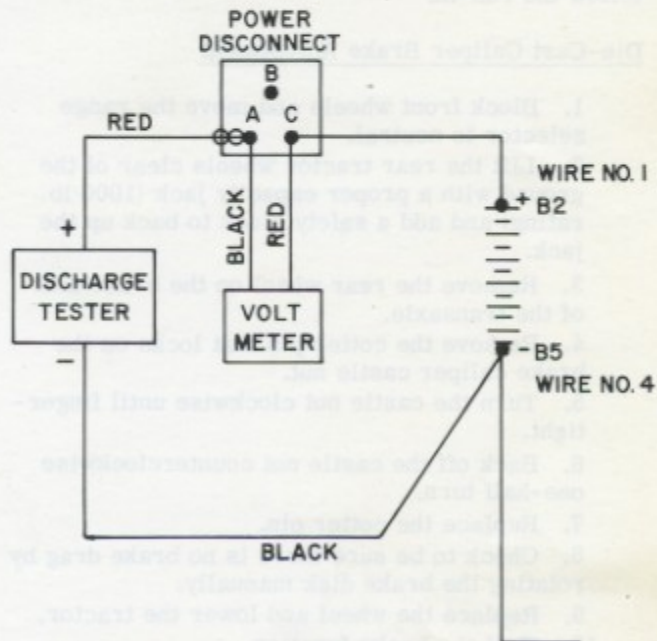


Figure 2

7. If the voltage reading is less than 1/2 volt, continue testing the power pack for evaluation of capacity. Refer to Product Service Bulletin No. 72-25.

Additional potential causes of shortened range or lack of power include:

1. Loose drive belts which slip.
2. Low charger output.
3. Corroded battery connections.
4. Lack of lubrication.
5. Brake drag.

Refer to Product Service Bulletin 72-24 for a detailed list of checks to be performed.

#### LARGE-FRAME BRAKE SERVICE

To prevent brake drag, which reduces tractor range considerably, instruct homeowners to periodically lubricate the brake pedal shaft at its bushing where it passes through the frame. The pedal should return to its full up position after each depression. If full return does not occur after lubrication, the action of the brake caliper unit and the brake switch should be inspected for interference during depression and release. Also

inspect the brake disk for warp, scoring or rust. Replace the disk if necessary.

Two types of brake calipers are used on large frame tractors. When either type is replaced, a short run-in period of repeated applications of the brake while the tractor is in motion should follow initial adjustment. Final adjustment should follow the run-in.

#### Die-Cast Caliper Brake Adjustment

1. Block front wheels and move the range selector to neutral.
2. Lift the rear tractor wheels clear of the ground with a proper capacity jack (1000 lb rating) and add a safety block to back up the jack.
3. Remove the rear wheel on the brake side of the transaxle.
4. Remove the cotter pin that locks on the brake caliper castle nut.
5. Turn the castle nut clockwise until finger-tight.
6. Back off the castle nut counterclockwise one-half turn.
7. Replace the cotter pin.
8. Check to be sure there is no brake drag by rotating the brake disk manually.
9. Replace the wheel and lower the tractor.
10. Test the brake function.

#### Steel Caliper Brake Adjustment

1. Block the front wheels and move the range selector to neutral.
2. Lift the rear tractor wheels clear of the ground with a proper capacity jack (1000 lb.) and add a safety block to back up the jack.
3. Remove rear wheel on brake side of transaxle.
4. Remove the cotter pin from the brake clevis pin.
5. Remove the brake clevis pin.
6. Rotate the brake clevis to shorten the brake linkage. Shorten until the brake drags (test by manually rotating the brake disk), then back off one-half turn at a time until brake drag is eliminated. The clevis and clevis pin must be temporarily reinstalled to check brake drag.
7. Reinstall the clevis, clevis pin, and cotter pin on the brake actuating lever.
8. Reinstall the wheel and test brake function.

#### Brake Switch Adjustment

As part of any brake service procedure, the brake switch adjustment should also be checked

and corrected if necessary. Proper brake switch adjustment causes the drive motor to shut off when the brake pedal is depressed to 1/4 inch from its bottom stop. See Fig. 3.



Figure 3. Brake Switch Adjustment

If adjustment is necessary, locate the brake switch mounted on the underside of the frame immediately to the right of the brake pedal. Notice that the switch is actuated when its lever arm is deflected as the brake pedal is depressed. During this actuation, the lever arm rides on a shoulder bolt mounted on a slotted pawl. It is this bolt that must be repositioned in the slot to adjust the drive motor/brake cut off point. After adjustment is made, check the cut off point and readjust if necessary.

#### BATTERY CAP VENTS

There have been reports of batteries delivered to dealers containing battery caps without vent holes. Dealers are requested to inspect each battery received to assure that vent holes are provided on the battery caps (See Fig. 4). Any batteries containing caps without vent holes should not be placed in service, but should have the caps changed out with the properly vented type. Battery caps are available from parts distributors and should be ordered as Part Number 244A7420P1.

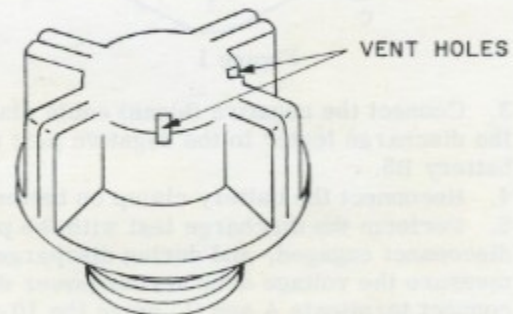


Figure 4  
Part Number - 244A7420P1