SERVICE MANUAL

TD3.50

Tractor

Part number 47840677

English

March 2015

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NEW HOLLAND

Service Manual - TD3.50 Tractor

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CHAPTER 1 - ENGINE

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* Calculate dimension D as follows:

D = A+B+S1+S2+P+L

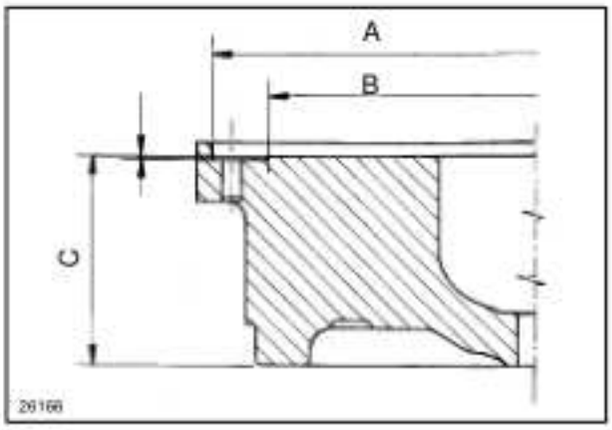
A and B= distances measured of the two pressure plates after refacing;

S1 and S2 = thickness of the power takeoff and transmission clutches friction linings

L = 2 mm, dimension of chamfer on the flywheel

P = 4 mm

(These dimensions are given with the assumption that the springs are original.)



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Make sure that while obtaining the distance (D), pressure bell dimension (C) is not lower than the prescribed values. If it is necessary, replace one or both of the pressure plates.

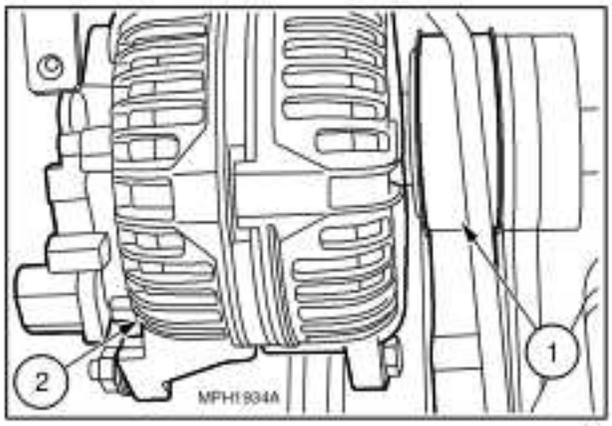
Make sure that 2 mm chamfer on the flywheel is maintained after the refacing.

Pay special attention to following while installing the clutch unit by means of special tools.

1. While installing the belleville spring over the power takeoff clutch pressure plate, centering pins must correspond to the slots.
2. Adjust the clutch.

Note - If the parts, indicated with 3 and 4 in Figures 43 and 44 have previously been refaced, transmission clutch disk starts slipping, in which case clutch assembly must completely be replaced.

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Fan Belt Tension

Figure 3. Belt for models without A/C

1. Alternator
2. Belt tensioner

TESTING THE SYSTEM AND TROUBLESHOOTING

WARNINGS

Please take the following warnings into consideration in order to prevent components of alternator charging system from being damaged.

- Do not **SEPARATE any charging system connection, including the battery, while engine is running.**
- DO NOT SHORT CIRCUIT positive terminal of the alternator during operation .
- ALWAYS DISCONNECT battery cables while charging the battery on the tractor.
- ALWAYS CHECK battery terminals while installing the battery or using a booster battery to start the engine.
- DO NOT SHORT CIRCUIT regulator inputs/outputs while engine is running.
- **CONNECT POSITIVE TERMINAL TO POSITIVE TERMINAL AND NEGATIVE TERMINAL TO NEGATIVE TERMINAL.**

PRIORITY CHECKS

Before starting out these electrical tests, generally inspect the charging system and the electrical system in general.

Check all connections are made, clean and securely connected.

1. BATTERY CHECK

All battery cells must be checked by means of densitometer (bomemeter). The battery must have a minimum charge of 70%.

2. BELT CHECK

Check alternator belt and pulley. Make sure both are in good condition and free of oil and grease.

Regularly check belt tension. If necessary, check the belt tension as follows

Models without A/C (Figure 3)

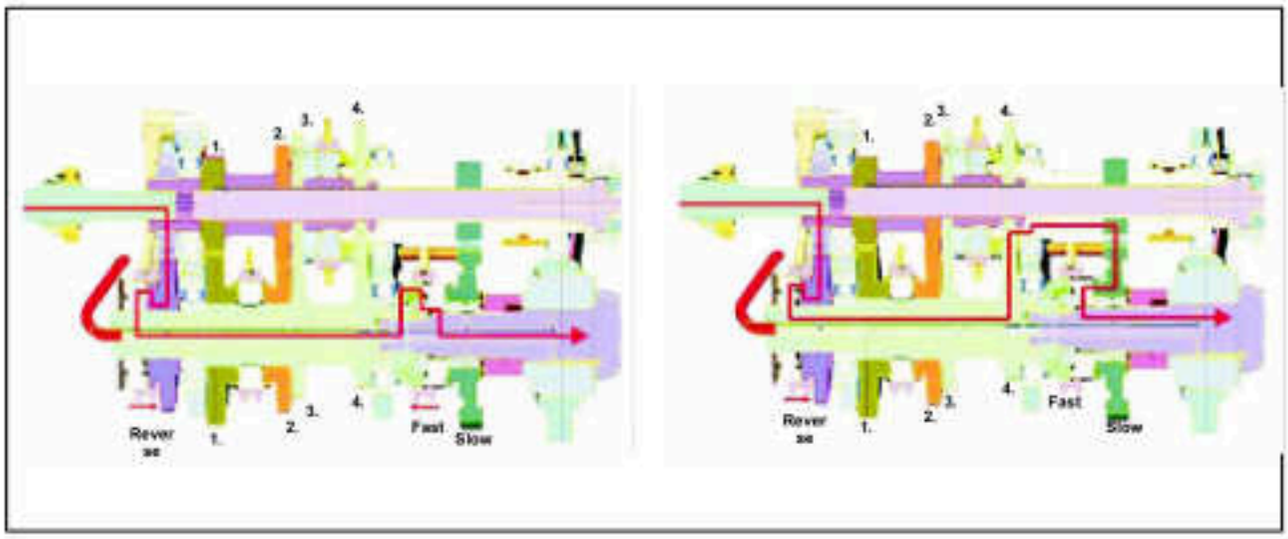
- Loosen the nut (3) fixing the alternator to the tensioner (2).
- By using a crowbar, move the alternator (1) till the required tension value (3) is obtained. Then tighten to 55 Nm torque.

Models with A/C (Figure 4)

- Loosen the nut (1) fixing the alternator to the tensioner.
- Move the tensioner arm (3) till desired tension is obtained. Then tighten the nut (1) to a torque of 55 Nm.

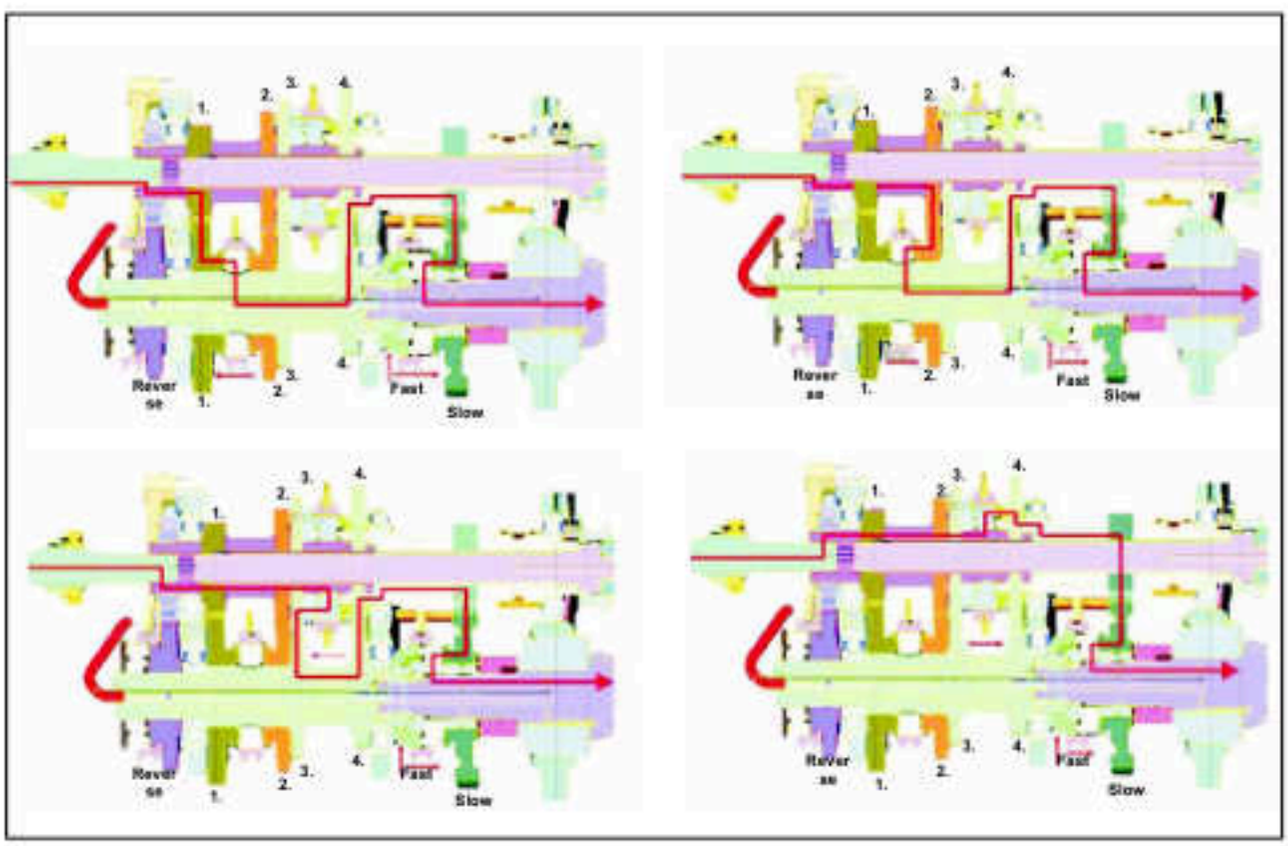
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REVERSE GEAR DRIVE LINE SCHEMA



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LOW GEAR DRIVE LINE SCHEMA



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DISTRIBUTOR OPERATION:

The Distributor is Pre-set to perform three Phases :

A) Neutral Phase

B) Lifting Phase

C) Lowering Phase

A. NEUTRAL PHASE:

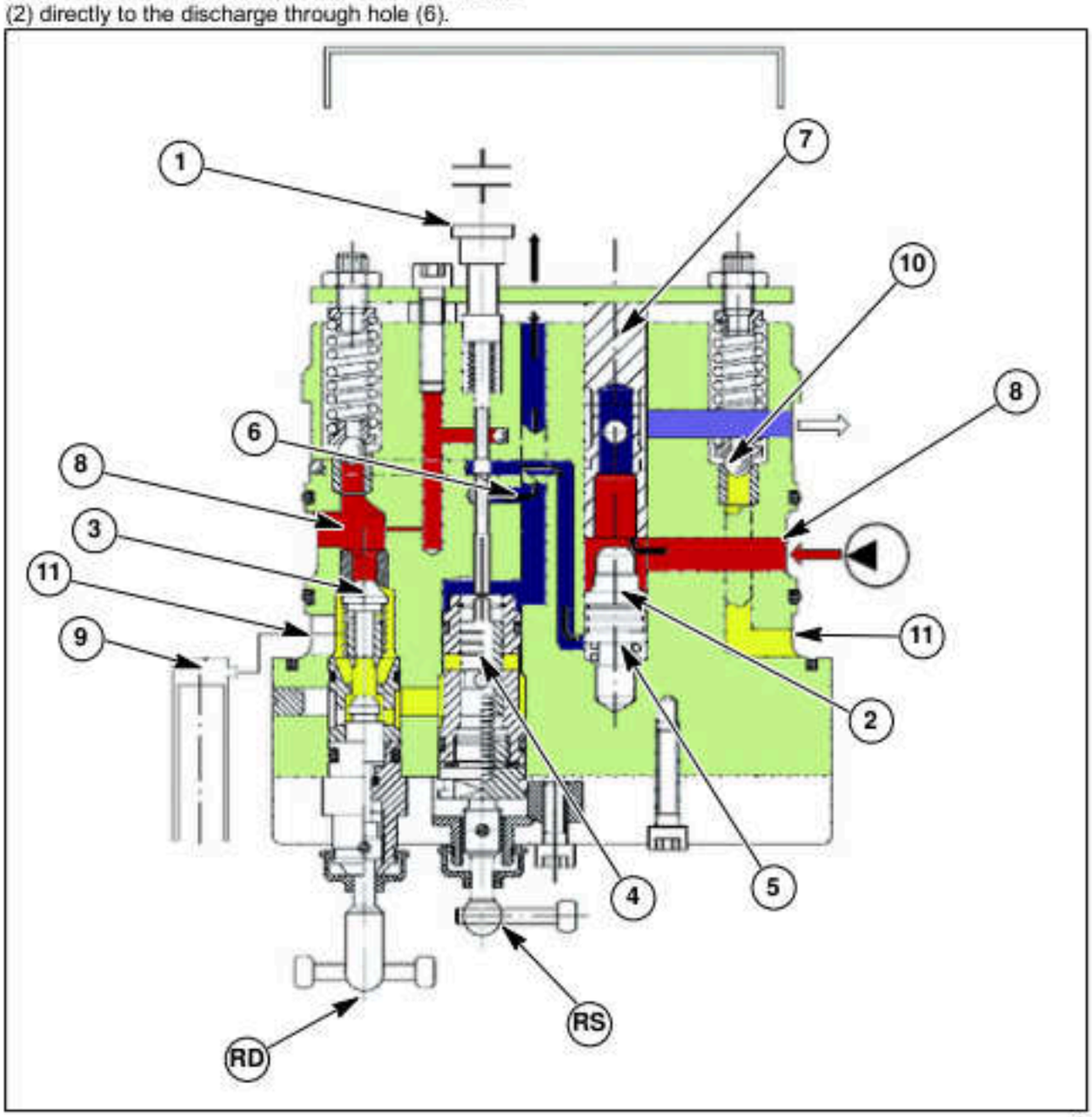
In this phase the control valve keeps pressure on the oil contaiined in the cylinder thus allowing the oil coming from the pump to flow freely to the tank.

In this phase the control spool (1) is in such a position to connect the chamber (5) of the differential valve (2) directly to the discharge through hole (6).

The oil coming from the pump enters the annular duct (8) and moves the differential valve (2) upwards which then opens the discharge hole (7) and enables the oil to go to the tank.

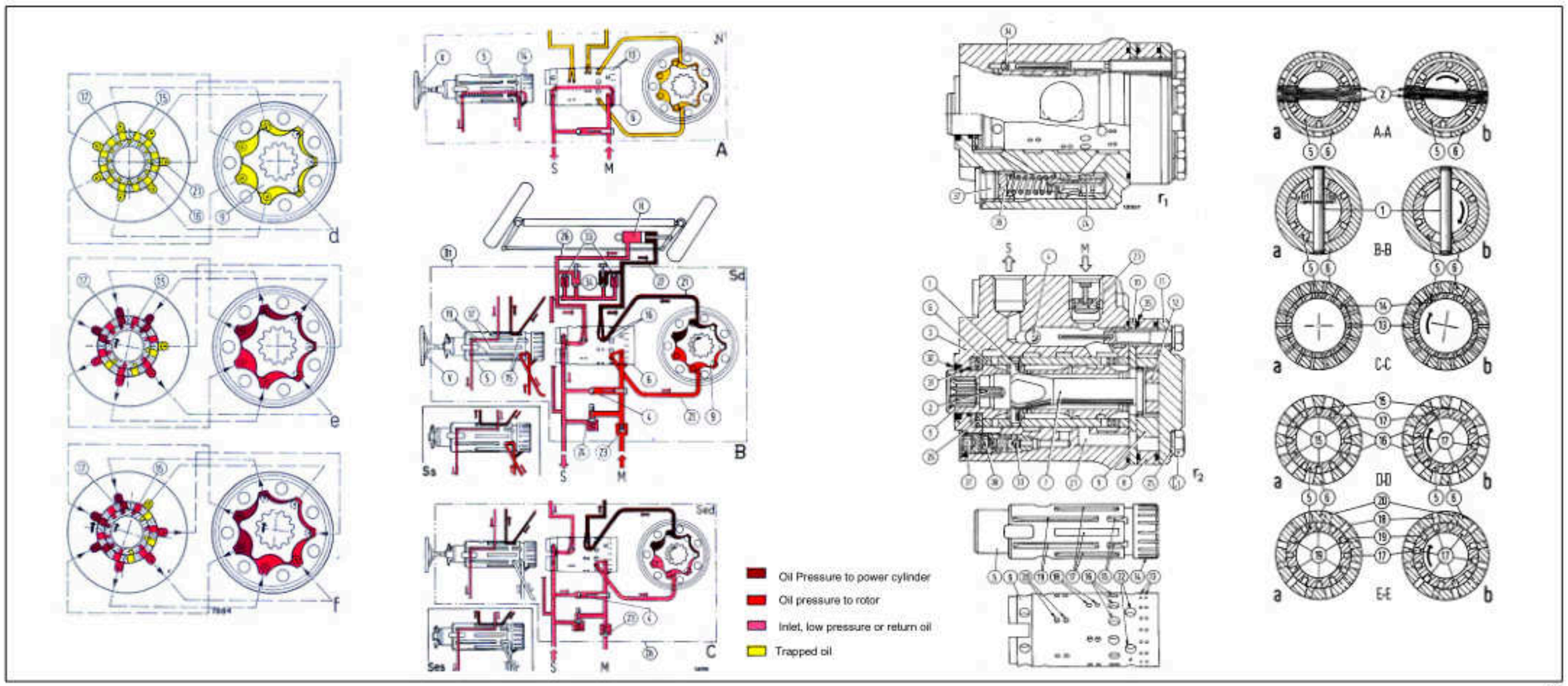
The oil contained in the cylinder (9) is kept under pressure by the check valve (3), by the discharge valve (4) and safety valve (10) connected to the cylinder (9) by the annular duct (11) thus holding the load applied to the lifting arms.

The safety valve (10) secures protection from any possible over-pressure during the implement movement.



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