JX95 STRADDLE MOUNT

Tractor

SERVICE MANUAL

87519319

CASE IH AGRICULTURE

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The following pages are the collation of the contents pages from each section and chapter of the JX95 Straddle Mount Repair manual. Complete Repair part # 87519319.

The sections used through out all Case IH product Repair manuals may not be used for each product. Each Repair manual will be made up of one or several books. Each book will be labeled as to which sections are in the overall Repair manual and which sections are in each book.

The sections listed above are the sections utilized for the JX95 Straddle Mount Tractors.

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SECTION 00 - GENERAL

BOOK 1 - 87519320

Chapter 1 - General

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SECTION 10 - ENGINE

BOOK 1 - 87519320

Chapter 1 - Engine

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SECTION 10 - ENGINE

BOOK 1 - 87519320

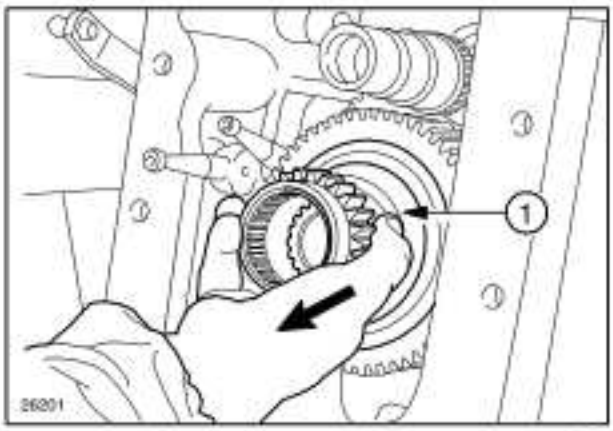
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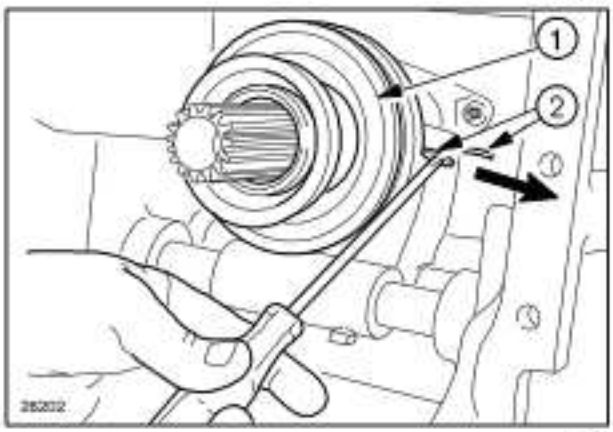
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8. Remove the driven shaft gear (1) together with the roller bearings and remove the thrust washer.



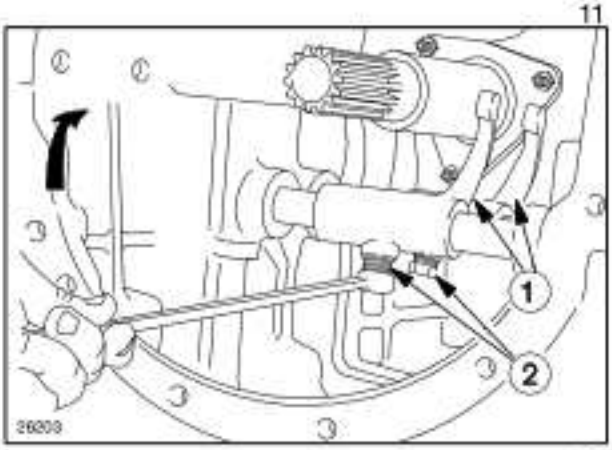
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9. Remove the control fork retaining springs (2) and remove the clutch pressure plate bearing assembly (1).



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10. Unscrew the retaining screws (2) and remove the control forks (1).



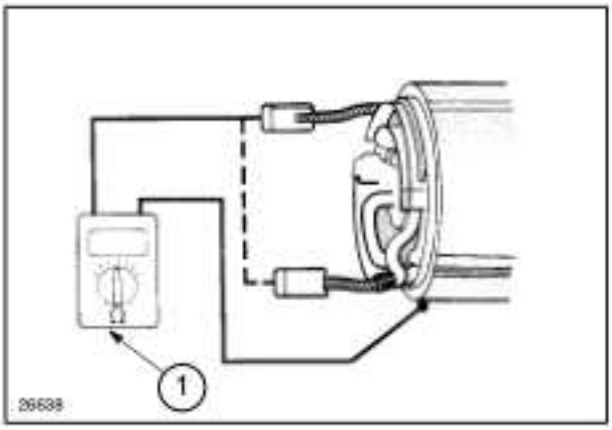
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3. Armature insulation can be checked by connecting an ohmmeter (1) between commutator segments and armature shaft. This reading should show infinity, in other words there should be no continuity.
4. To test there are no short circuits, use an appropriate testing device. The only alternative is to try changing the armature.
5. If the armature circumference has obviously been in contact with pole pieces, the pole bearings are probably worn. First check the pole pieces are fixed and that the armature spins well in a lathe. If necessary, change the armature bearing.

Field Windings

1. To test field winding insulation, connect an ohmmeter to each of the coil brushes in turn and to a clean and unpainted area of the casing. There should be no readings, that is, there should be no continuity.
2. To test coil continuity, connect an ohmmeter to each of the coil brushes in turn and to the main power clamp (biggest braided wire). The reading should be 1 Ω.
3. If there is a failure in the field windings, then it will be necessary to change the whole box and field winding system.



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Bearing Bushings

1. Check if the bushing on the brush plate and in the box on the pinion side are worn. Assemble the armature shaft and note play. Change the bushing if there is too much play. Check the field poles to see if there are any signs of scraping against the casing. This can also be caused by a worn bushing.

Driving Pinion

1. Check the roller clutch operation. The pinion must spin clockwise only. If the pinion is either seized or spins in both directions, or if the pinion teeth are damaged, assemble a new control group.
2. If there is clear evidence of damage to the pinion teeth, check the flywheel ring gear, as described in section 10, Engines.

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SPECIFICATIONS

CHARACTERISTICS	TYPE OF BATTERY
Voltage (V)	12
Cold start amperage (C.C.A)	800
Capacity (Ah)	120
Number of elements	6
Number of plates per element	21
Energy reserve (SAE) (min.)	210
Weight (kg)	35
Earth (ground) terminal	Negative

TROUBLESHOOTING

Discrepancy

1. Internal open circuit.
2. Internal short-circuit.
3. Battery electrolyte leakage.
4. Grid active material separation.
5. Accumulation of sulphate crystals too big to be dispersed.

Probable Causes

1. Component failure inside the elements.
2. Excessive crystal growth which can pierce the spacers and cause short circuits.
3. Excessive overload (bad charging system, high voltage fast charging, high operating temperatures).
4. Battery electrolyte freezing.
   A fully charged battery freezes at -65°C. A 50% charged battery freezes between -17°C and -27°C. A completely flat battery freezes between - 3°C and -11°C. Excessively fast charging and boiling caused by gas formation cause the separation of active material from the grids. Separation destroys the battery chemical function.
5. Crystals are formed when batteries are left flat. High temperature and long periods with the battery flat increase this condition. If a battery is left at room temperature for a week it can rarely be charged in the vehicle. Battery recharge requires higher constant voltage. After three weeks the battery will be permanently jeopardized and it will be necessary to follow the procedure described for "very flat batteries".

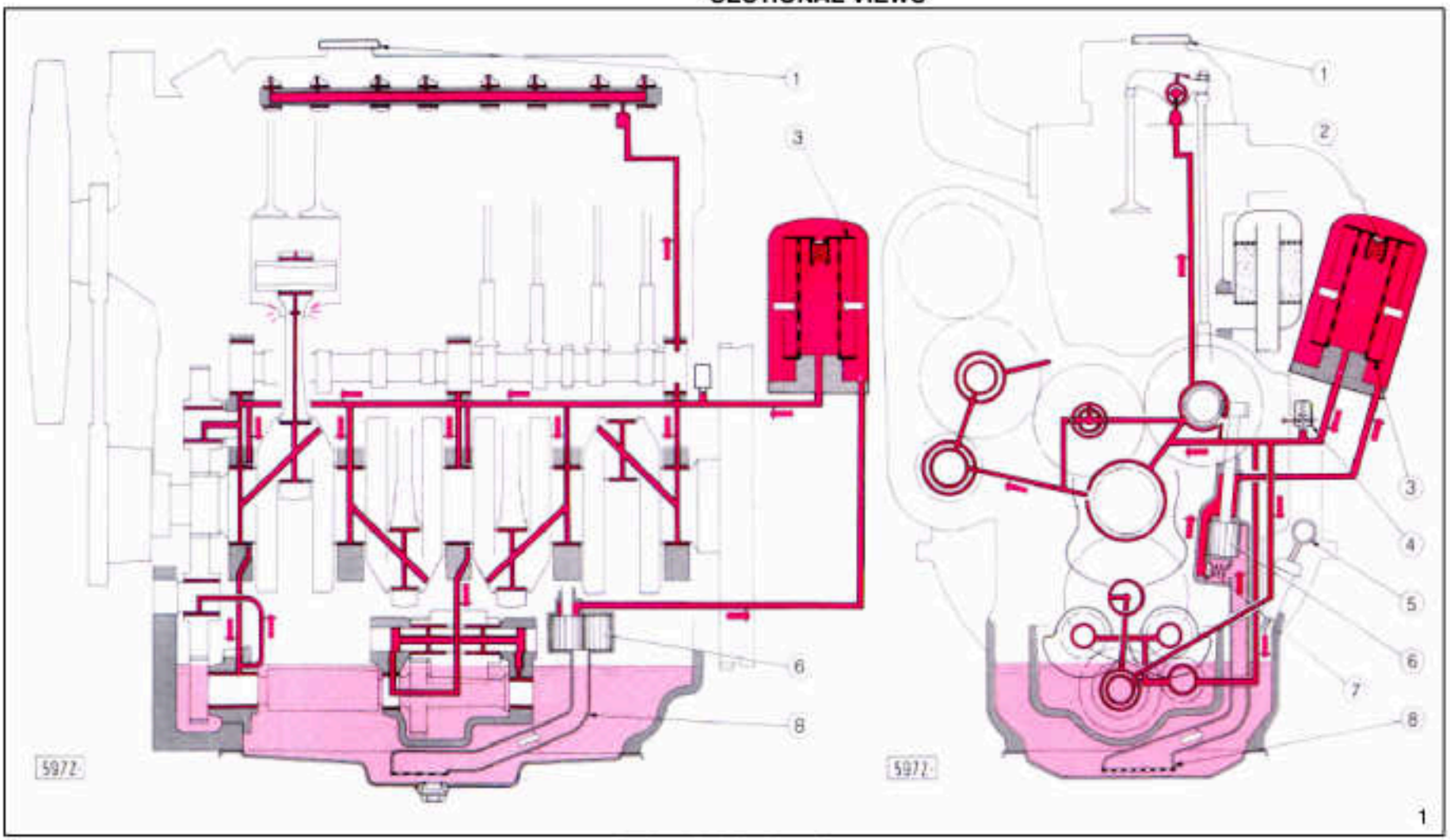
Fully charged batteries have longer a life. A lead-calcium battery discharges 3% a month. This means that in 16 months it will reach 50% charge. In the tractor, inactive load is approximately 50 mA. To forecast discharge on a vehicle not in use add approximately 8 Ah a week to this value.

It is worth noting that if a battery is weak during engine start-up, it is best to let the battery rest for two minutes. This rest time increases as the temperature decreases.

When two batteries are installed, do not use an old battery with a new one. One battery will always stop before the other one. If the battery has lasted as forecasted, charge both batteries. If one has stopped before the forecasted time due to a defect, then change only the defective battery.

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SECTIONAL VIEWS



Engine Lubrication System

1. Oil filler cap
2. Filter savety valve (opens when oil pressure at filter inlet exceeds the pressure at the outlet by 1.5-1.7 bar/cm^2)
3. Filter
4. Switch for low engine oil pressure warning (on dashboard)
5. Dipstick
6. Pump
7. Oil pressure limiting valve
8. Screen filter on pick-up pipe

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OPERATION

Steering Right

When the steering wheel is turned in a clockwise direction, the springs (11) deform, allowing the valve (12) to rotate in relation to the sleeve (11).

Under these conditions the following occurs:

- The internal passages on parts (11 and 12), which were previously communicating in the neutral phase, become misaligned and the oil outflow is interrupted.
- The alignment with the same number of ducts, that are connected with the compartments on the rotor in the pump suction phase (7) and in the delivery phase of the steering cylinders (2), allow turning to the right to be carried out.

Steering Left

When the steering wheel is turned counterclockwise, the internal grooves on parts (11 and 12) and the delivery to the steering cylinder are inverted, allowing turning to the left to be carried out.

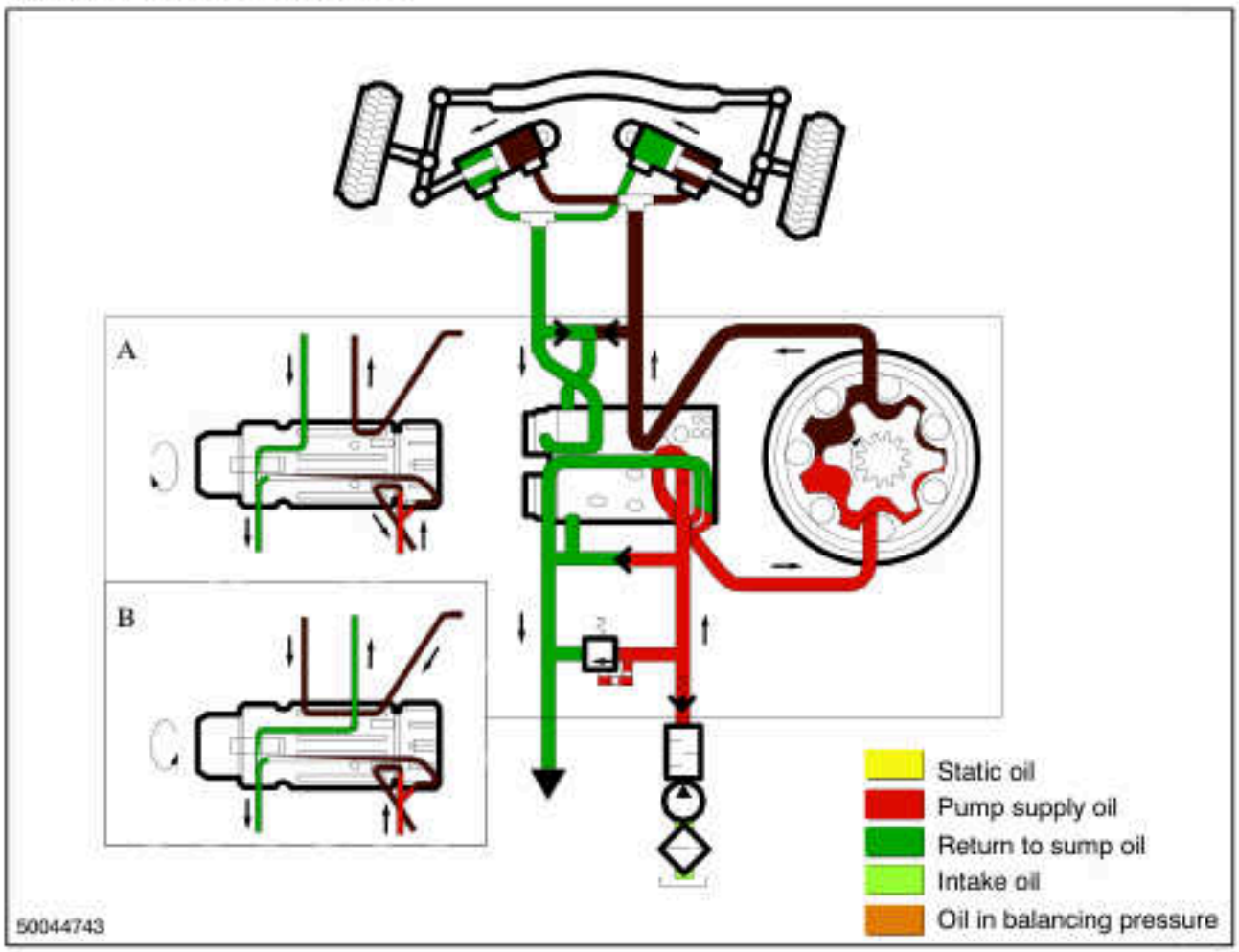
Manual Steering to Right

In the event of power steering pump failure or insufficient oil pressure, turning is possible manually.

When the steering wheel is turned in a clockwise direction, the power steering control valve (3) internal rotor operates as a hand pump, directing the oil to the rod side of the cylinders (2), allowing manual turning to the right.

Manual Steering to Left

When the steering wheel is turned counterclockwise, the internal power steering control valve rotor operates as a hand pump (as previously described), directing the oil to the cylinder piston side, allowing manual turning to the left.



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Hydrostatic Power Steering Oil Flow (Turning) (Models With MFD Shown - Similar on 2WD)

A. Right-hand turn

B. Left-hand turn

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