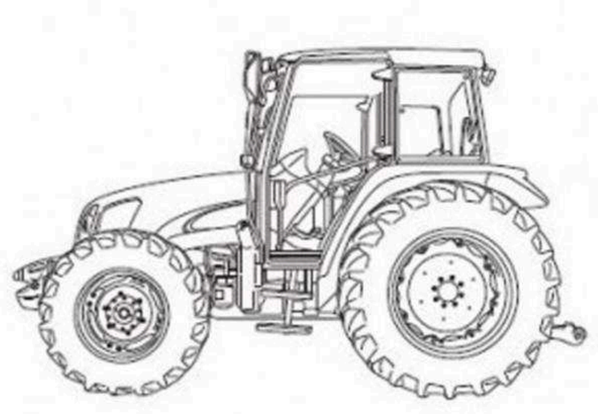


NEW HOLLAND

REPAIR MANUAL

TL70
TL80
TL90
TL100
Tractor

NEW HOLLAND AGRICULTURE

SERVICE

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TL70, TL80, TL90, TL100
REPAIR MANUAL
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The following pages are the collation of the contents pages from each section and chapter of the TL Series Tractor Repair manual. Complete Repair part # 87043516.

The sections used through out all New Holland 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 TL Series Tractors.

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SECTION 00 - GENERAL GUIDELINES

BOOK 1 - 87043517

Chapter 1 - General Guidelines

CONTENT

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SECTION 10 - ENGINE

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Chapter 1 - Engine

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Chapter 1 - Clutch

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SECTION 21 - TRANSMISSIONS

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Chapter 1 - Transmission and range gear (12 x 4)

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	Tightening Torques	3
	Tools	4
	Cross-sectional views	6
	Description and Operation	8
	Fault diagnosis	8
	Gearbox/transmission casing R.I.	(See operation **21 118 12**)*
	Gearbox/transmission casing D.A. and adjustments	(See operation **21 118 85**)*

*Note: These operations are covered in Section 27.

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79. The axial movement of the sun gears (2 and 5) without adjustment shims is given by:

Gs or **Gd** = $H_1 - H_2$

where:

Gs = axial movement of LH sun gear;

Gd = axial movement of RH sun gear;

H_1 and H_2 = are the LH or RH sun gear measurements.

The normal clearance envisaged between the sides of the sun and planet gear teeth is 0.0059 in. (0.15 mm) for models TL70, 0.0070 in. (0.18 mm) for models TL80, TL90 and TL100.

Therefore, the normal clearance and the equivalent axial movement of the sun gears has an average ratio of **1:1.7**.

The axial movement of the sun gears corresponding to the normal clearance is:

0.15 x 1.7 = **0.0098 in. (0.25 mm)** for models TL70.

0.18 x 1.7 = **0.0118 in. (0.30 mm)** for models TL80, TL90 and TL100.

Therefore the adjustment rings (1 and 6) to insert on the differential housing will be given by:

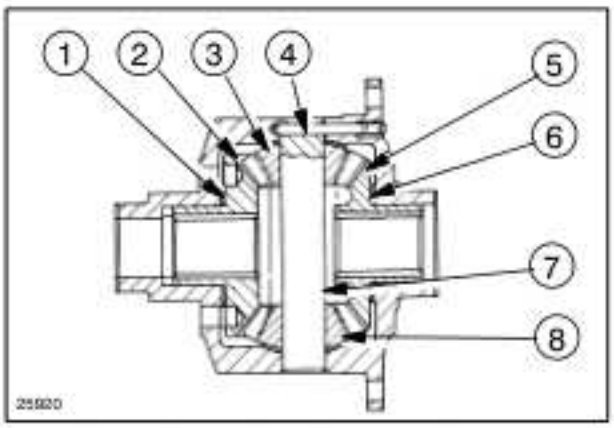
Ss = Gs - 0.0098 in. (0.25 mm)
(for LH sun gear models TL70)

Sd = Gd - 0.0098 in. (0.25 mm)
(for RH sun gear models TL70)

Ss = Gs - 0.0118 in. (0.30 mm)
(for LH sun gear models TL80, TL90 and TL100).

Sd = Gd - 0.0118 in. (0.30 mm)
(for RH sun gear models TL80, TL90 and TL100).

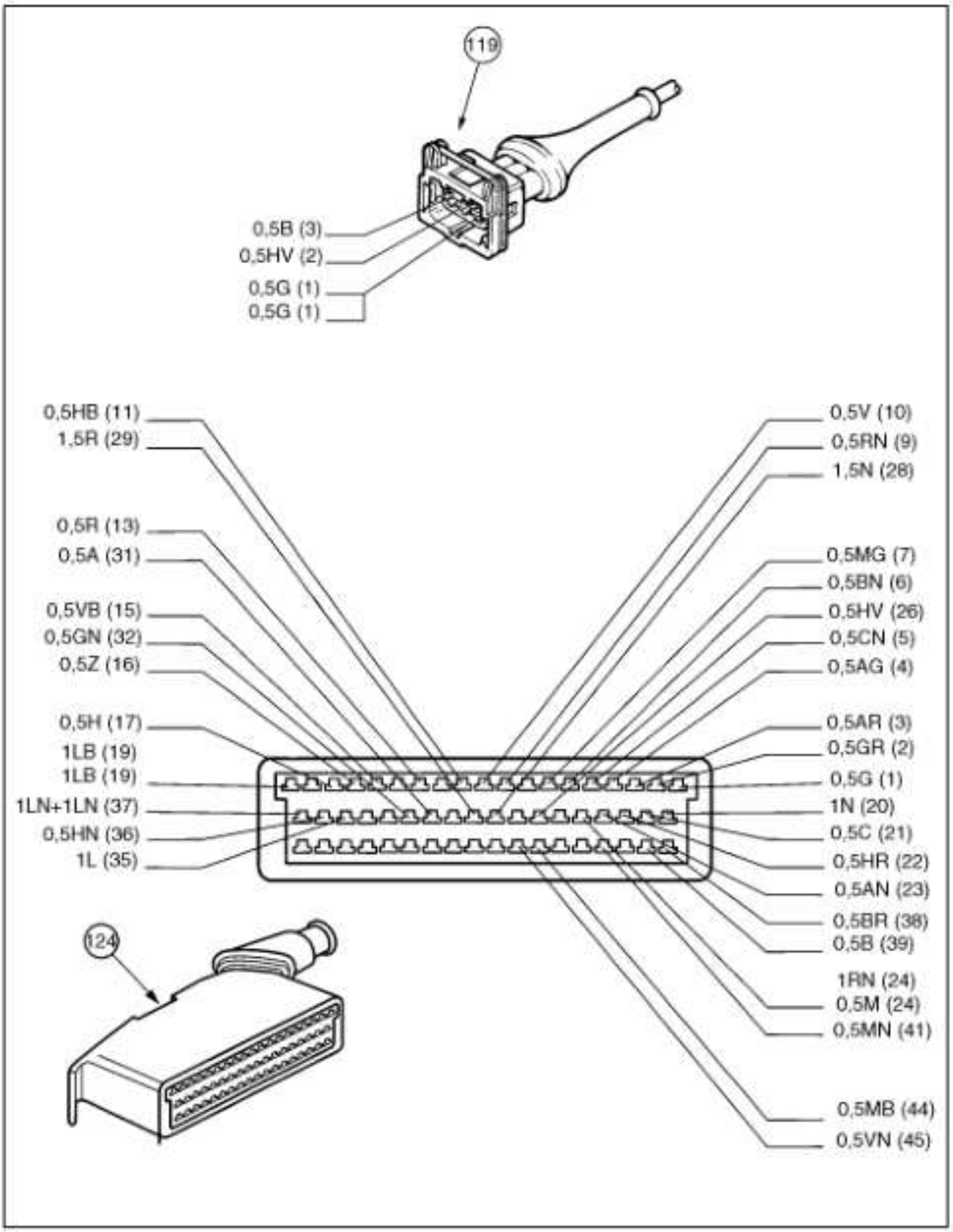
Insert the adjustment rings closest to the value obtained (the available values are listed on page 2).



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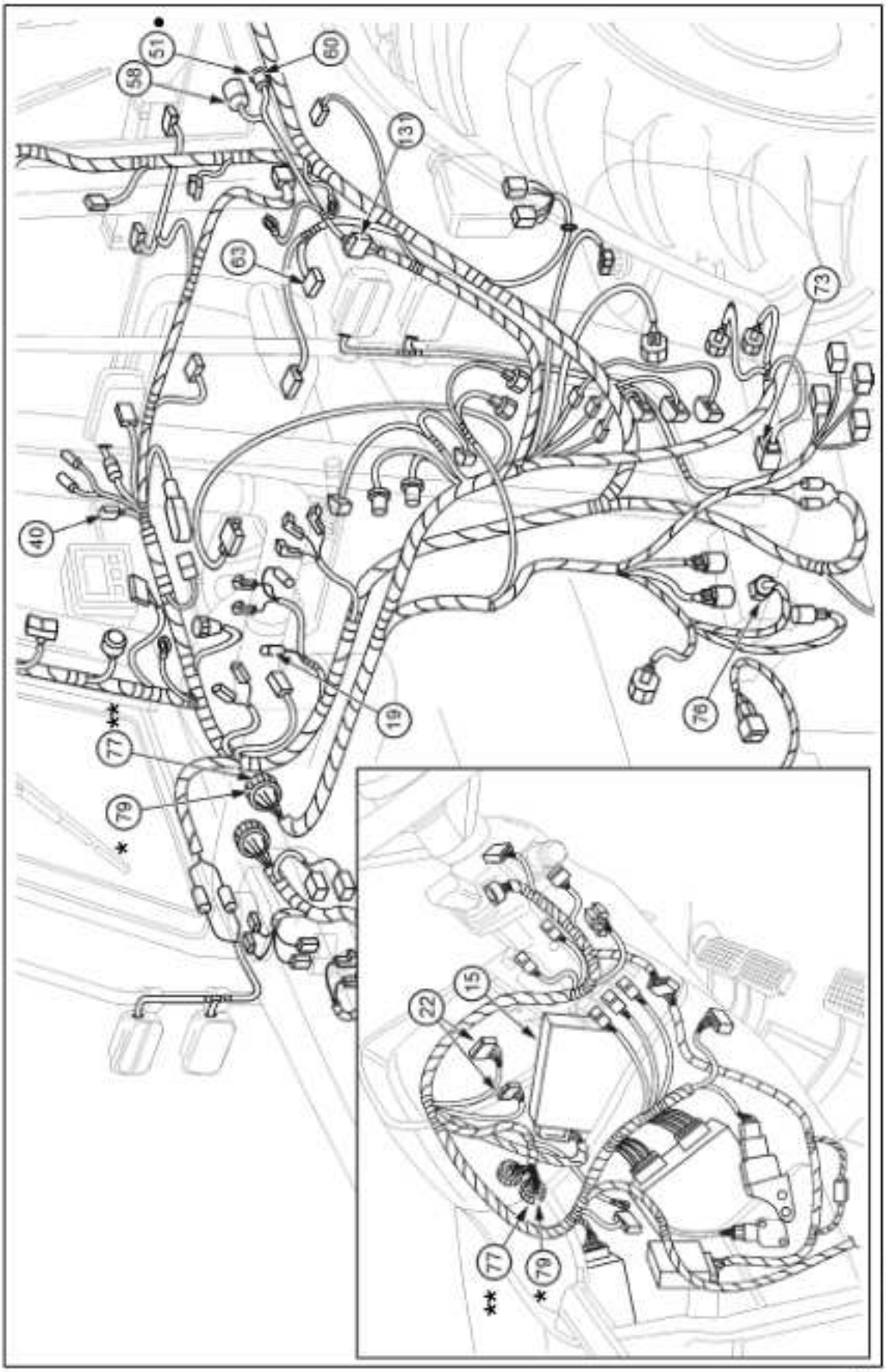
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FAULT CODE 31



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COMPONENT LOCATION FOR WIRING DIAGRAMS Z - X

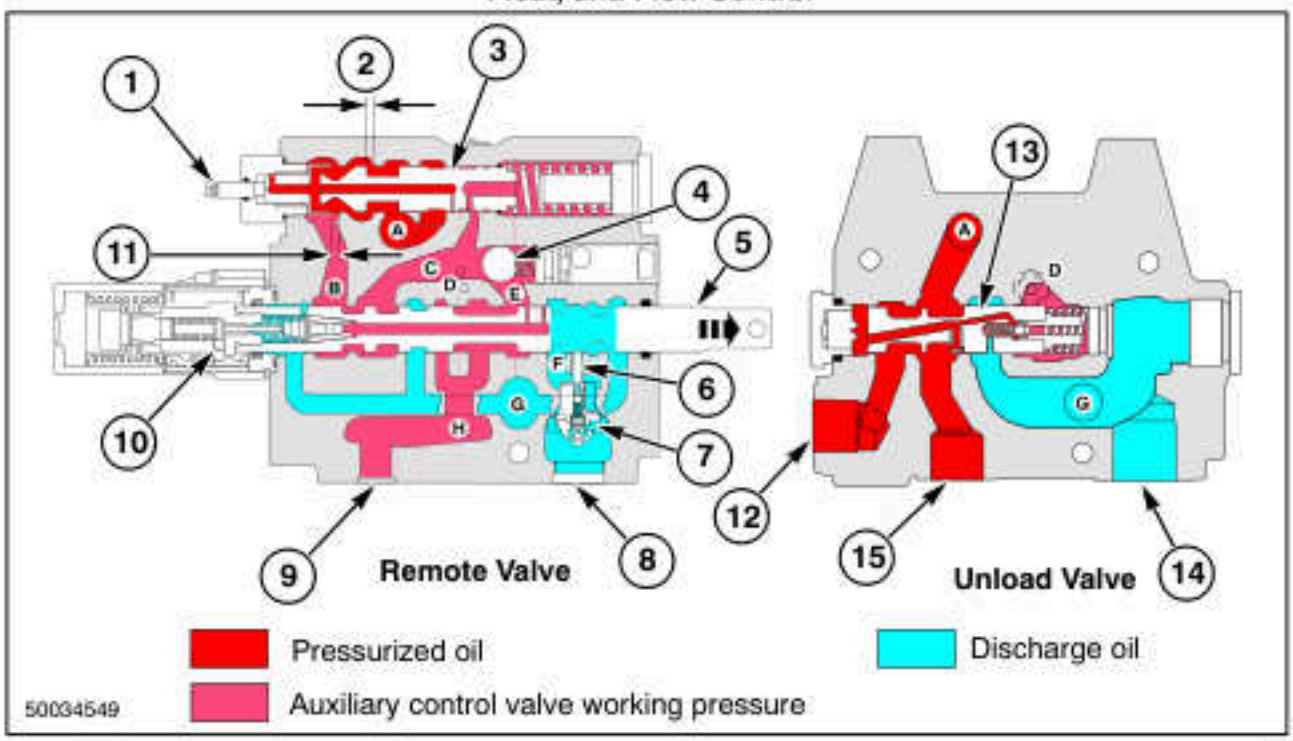


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• NASO version
* For Power Shuttle version cabs (OHIO BILL CONFORMITY) and flatbeds (version ISO-NASO)
** For Dual Command (HI-LO) version cabs (OHIO BILL CONFORMITY) and flatbeds with Dual Command (HI-LO) (ISO version)

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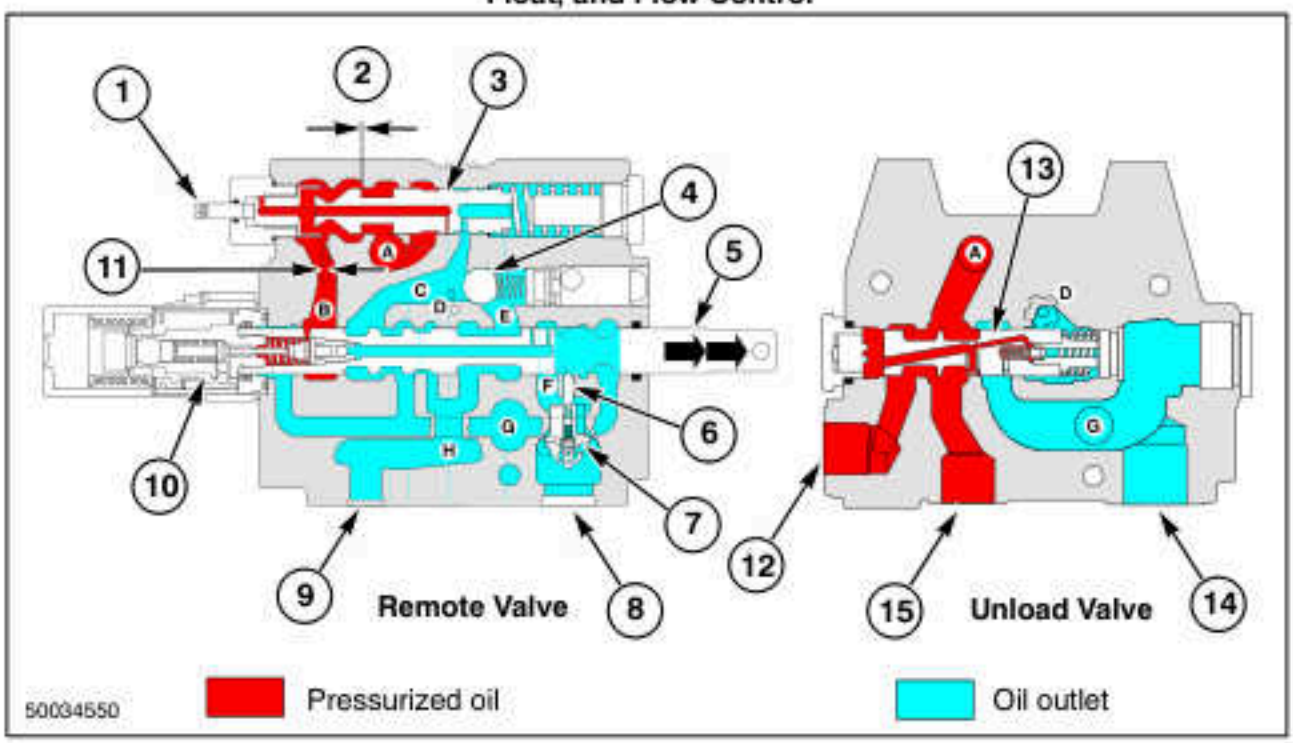
Bosch Remote Valve Operation With Detent (Non-Adjustable), Float, and Flow Control



9

LOWERING Operation

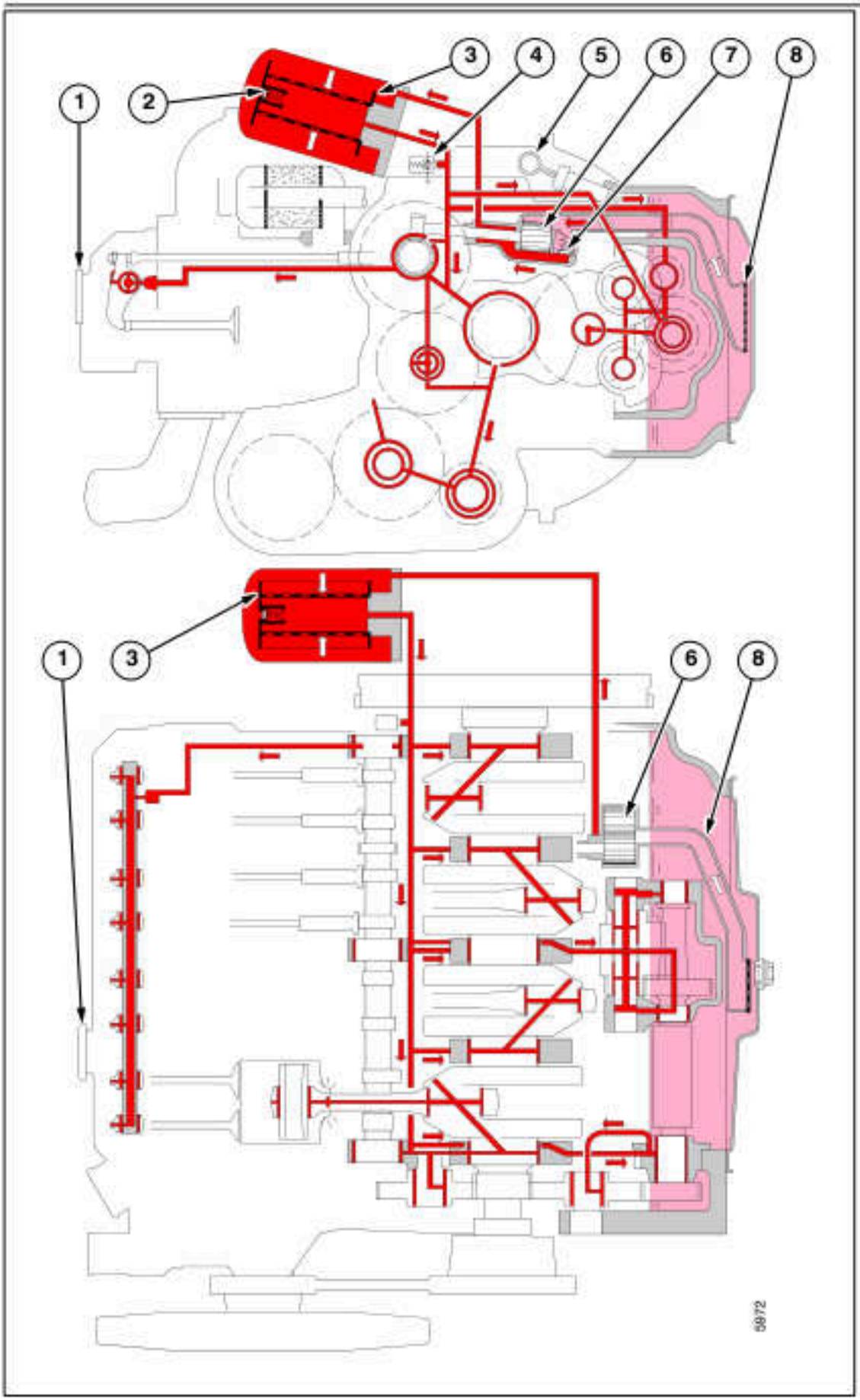
Bosch Remote Valve Operation With Detent (Non-Adjustable), Float, and Flow Control



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FLOATING Operation

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4-cylinder engine lubrication system diagram

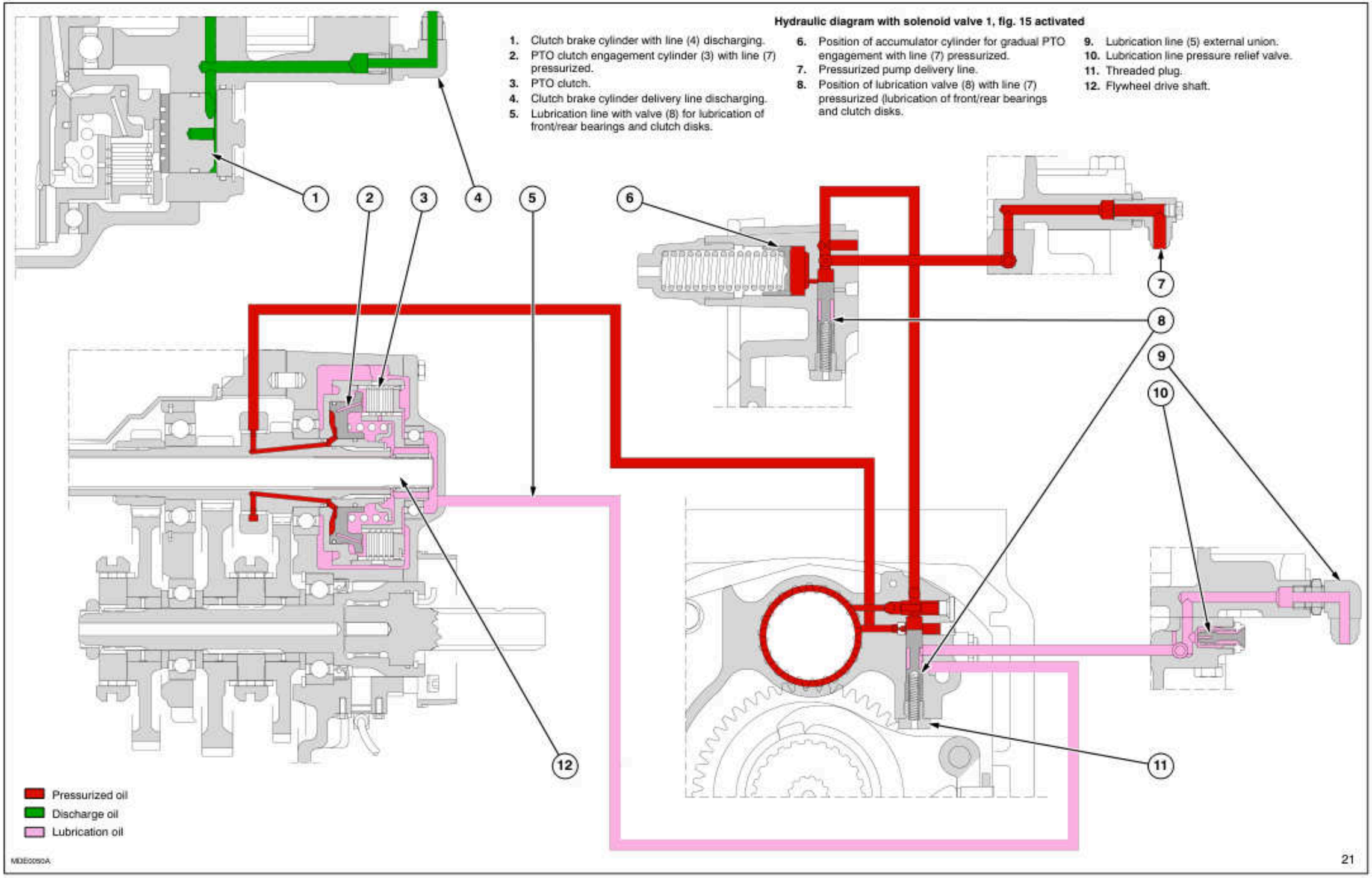
1. Oil filler cap - 2. Filter safety valve (opens when oil pressure at filter infeed exceeds the outfeed pressure by 21.75-24.66 psi (1.5-1.7 bar) 3. Filter - 4. Engine lubrication oil low pressure indicator light switch (on dashboard) - 5. Dipstick - 6. Pump - 7. Oil pressure limiting valve - 8. Mesh filter on intake

5

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Hydraulic diagram with solenoid valve 1, fig. 15 activated

1. Clutch brake cylinder with line (4) discharging.
2. PTO clutch engagement cylinder (3) with line (7) pressurized.
3. PTO clutch.
4. Clutch brake cylinder delivery line discharging.
5. Lubrication line with valve (8) for lubrication of front/rear bearings and clutch disks.
6. Position of accumulator cylinder for gradual PTO engagement with line (7) pressurized.
7. Pressurized pump delivery line.
8. Position of lubrication valve (8) with line (7) pressurized (lubrication of front/rear bearings and clutch disks.
9. Lubrication line (5) external union.
10. Lubrication line pressure relief valve.
11. Threaded plug.
12. Flywheel drive shaft.



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