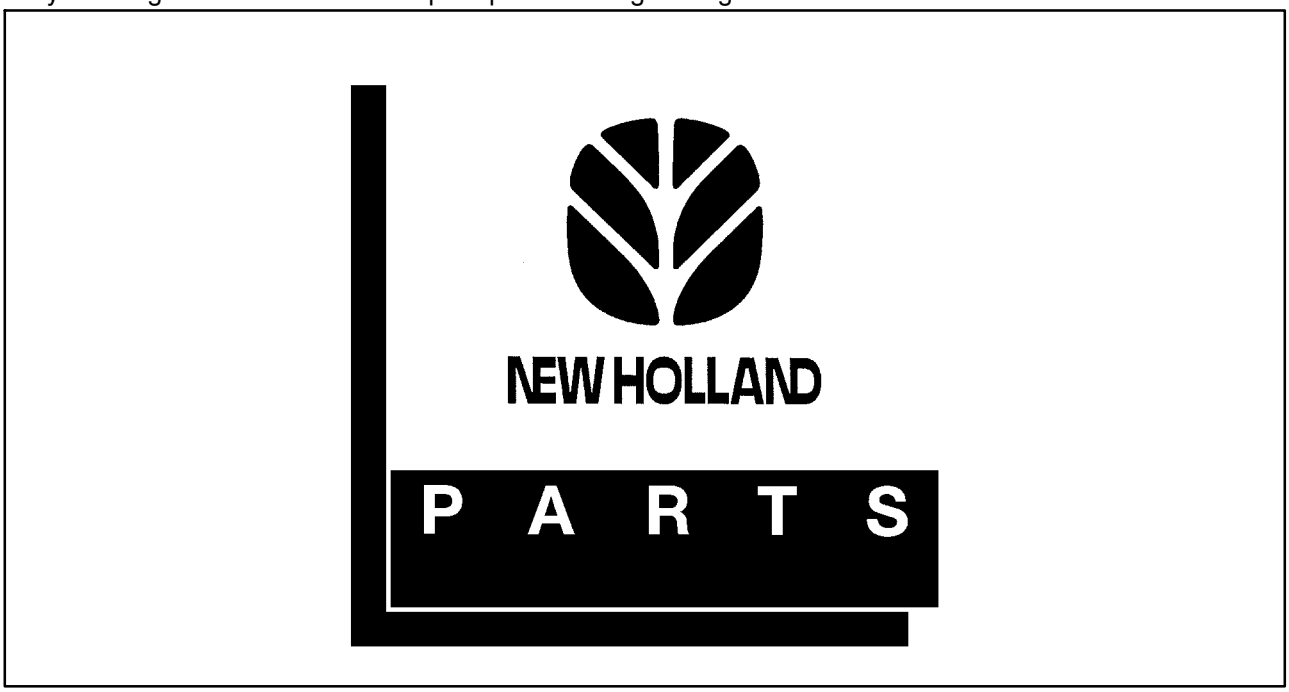
SPARE PARTS

Only use original NEW HOLLAND spare parts bearing the logo shown below.



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Only original spare parts guarantee the same quality, duration and safety as they are the same parts that are assembled during production.
Only **original NEW HOLLAND parts** can offer this guarantee.
When ordering spare parts, always provide the following information:

- tractor model (commercial name) and frame number;
- engine type and number;
- part number of the ordered part, which can be found in the "Microfiches" or the "Spare Parts Catalogue", used for order processing.

TOOLS

The tools that NEW HOLLAND propose and illustrate in this manual are:

- specifically researched and designed for use with NEW HOLLAND tractors;
- essential for reliable repair operations;
- accurately built and rigorously tested so as to offer efficient and long-lasting operation.

By using these tools, Repair Personnel will benefit from:

- operating in optimal technical conditions;
- obtaining the best results;
- saving time and effort;
- working in safe conditions.

NOTE

Wear limit values indicated for certain parts are recommended, but not binding. The terms "front", "rear", "right-hand" and "left-hand" (when referred to different parts) are intended as seen from the driving position with the tractor in the normal direction of movement.

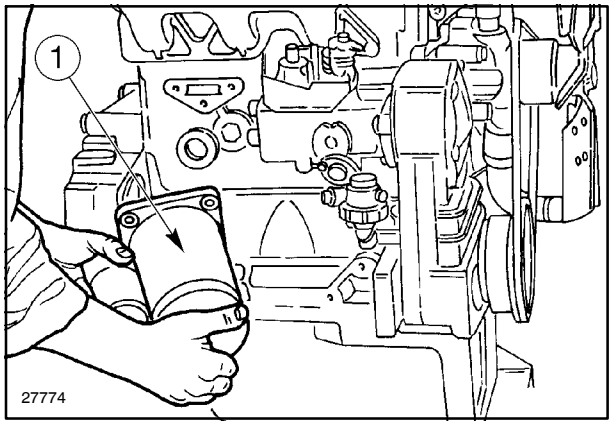
MOVING THE TRACTOR WITH THE BATTERY REMOVED

External power supply cables should only be connected to the respective positive and negative cable terminals, using efficient clamps that guarantee adequate and secure contact.
Disconnect all services (lights, windshield wipers, etc.) before starting the tractor.
If the tractor electrical system requires checking, carry out operations with the power supply connected. Once checking is completed, disconnect all services and switch off the power supply before disconnecting the cables.

(continued)

GENERAL SPECIFICATIONS	
Timing	overhead valves operated camshaft located in engine block through tappets, pushrods and rockers; camshaft is driven by the crankshaft through helical gears
Inlet:	
- start: before TDC	12°
- end: after BDC	31°
Exhaust:	
- start: before BDC	50°
- end: after TDC	16°
Valve clearance for timing check	0.45 mm (0.02 inches)
Valve clearance for normal running (engine cold):	
- inlet	0.30 ± 0.05 mm (0.01 ± 0.002 inches)
- exhaust	0.30 ± 0.05 mm (0.01 ± 0.002 inches)
For further timing data	See page 16
Fuel system	
Air cleaning	dual cartridge dry air filter, with clogged filter indicator with centrifugal pre-filter and automatic dust ejector
Fuel supply pump	double diaphragm
Fuel filtering	through wire filter in fuel supply pump, and replaceable cartridge on delivery line to injection pump
Minimum fuel flow rate with pump shaft rotating at 1600 rpm	100 litres/hour (26.42 gallons/hour)
Operated by eccentric cam	on camshaft
BOSCH injection pump	distributor type
All-speed governor, incorporated in pump:	
BOSCH	centrifugal counterweights
Automatic advance regulator, incorporated in pump:	
BOSCH	hydraulic
For further fuel system data:	
For fixed advance (pump setting for start of delivery before TDC) - Pressure setting - Injection order, and other information regarding the BOSCH pump	refer to the data for the relevant engine type in the table on page 2

5. Unscrew the retaining bolts and remove the starter motor (1).



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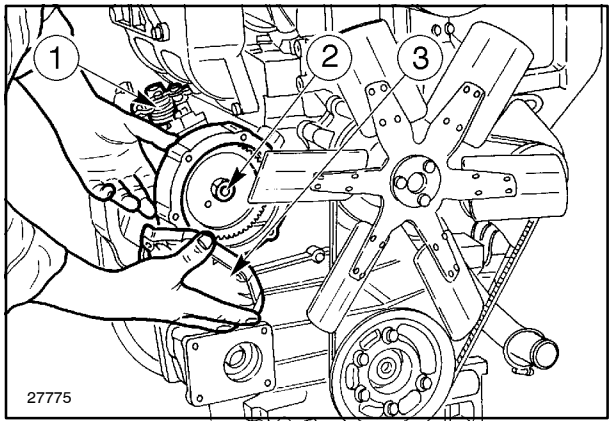
6. Unscrew the retaining bolts and remove the cover (3), loosen the retaining nut (2) on the injection pump (1) and remove from the opposite side.



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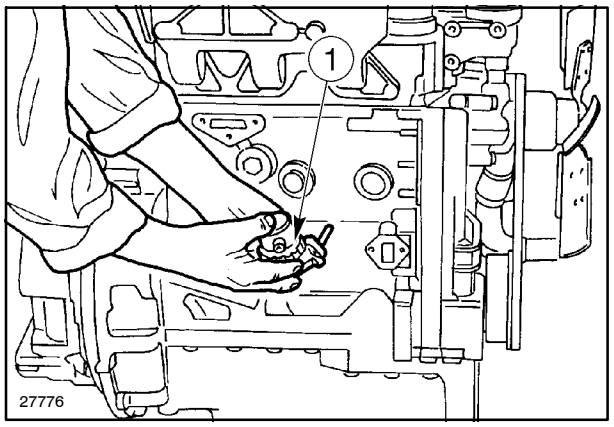
7. Unscrew the retaining nuts and remove the fuel pump (1).



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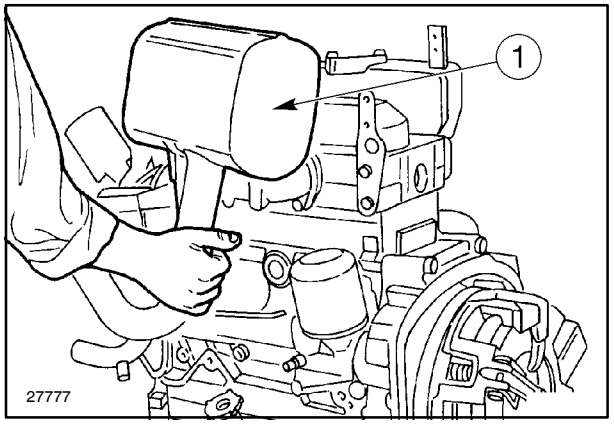
8. Unscrew the retaining bolts and remove the exhaust silencer (1) complete with the vertical pipe. On models with horizontal exhaust pipes, remove when disassembling the engine.



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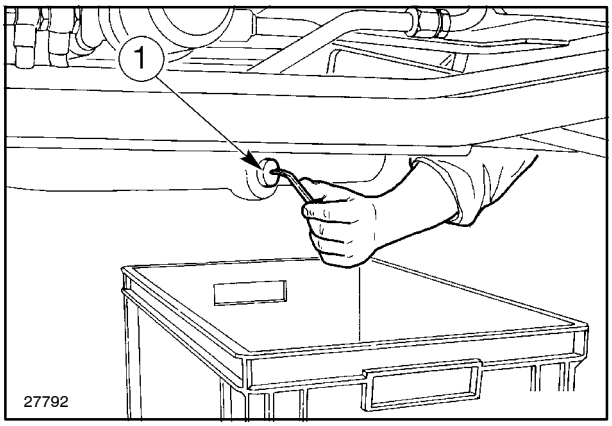
Op. 10 216 10
FUEL TANK
Removal - Installation

⚠ WARNING ⚠

Handle all parts carefully. Do not put your hands or fingers between parts. Wear suitable safety clothing - safety goggles, gloves and shoes.

Proceed as follows.

1. Lock the front wheels using chocks.
2. Using a hoist, slightly raise the rear part of the tractor, position a support stand under the left-hand lateral gear casing, then remove the rear left hand wheel.
3. Unscrew the plug (1) and drain the fuel from the tank into a suitable container (capacity 65 litres-17.17 gal.).
4. Loosen the clamp and detach the fuel intake pipe (1).
5. Disconnect the two unions (1) and the fuel return line (2) from the fuel gauge.



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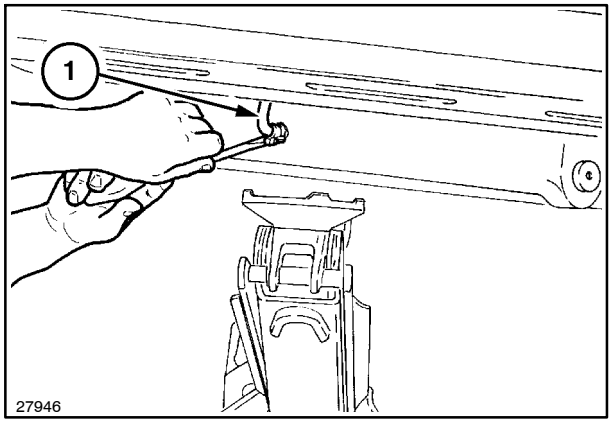

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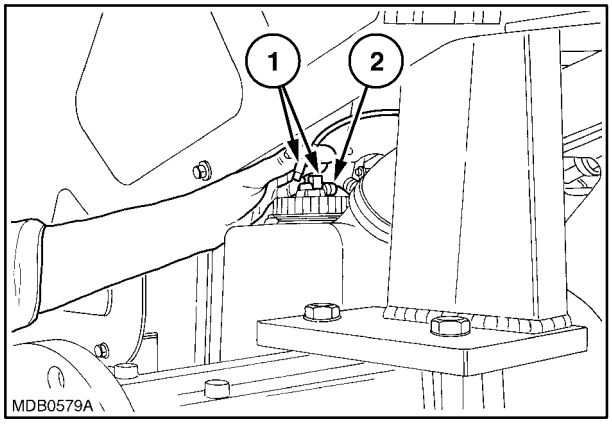

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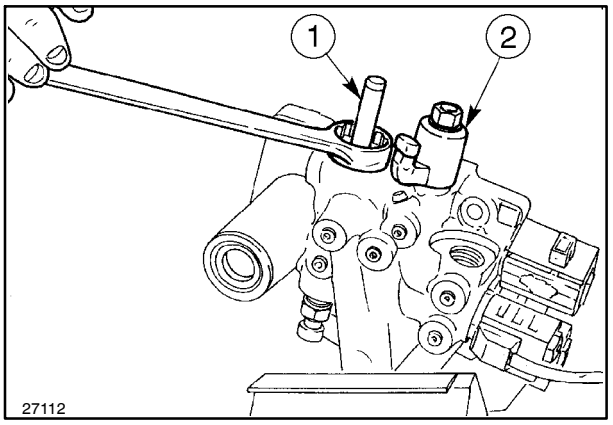
4. Unscrew the solenoid valve pin (1).
5. Repeat operations 3 and 4 with solenoid valve (2).



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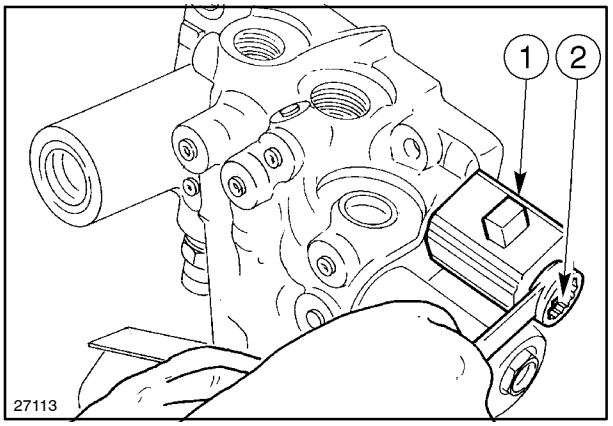
6. Unscrew the nut (2) and extract the solenoid valve (1).



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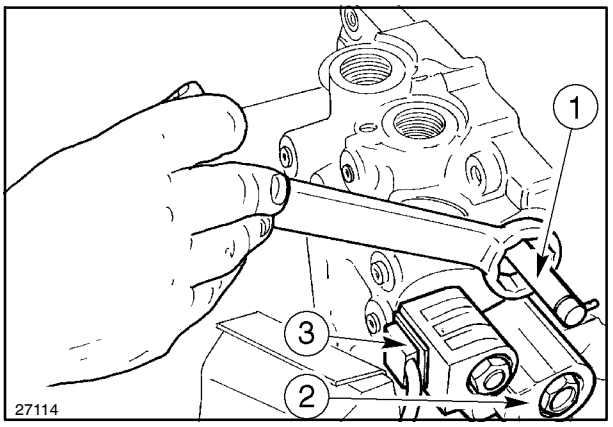
7. Unscrew the solenoid valve pin (1).
8. Repeat operations 6 and 7 with solenoid valves (2 and 3).



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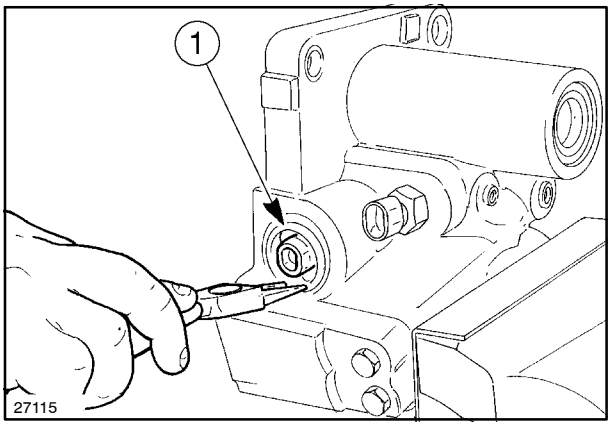
9. Remove the circlip (1).



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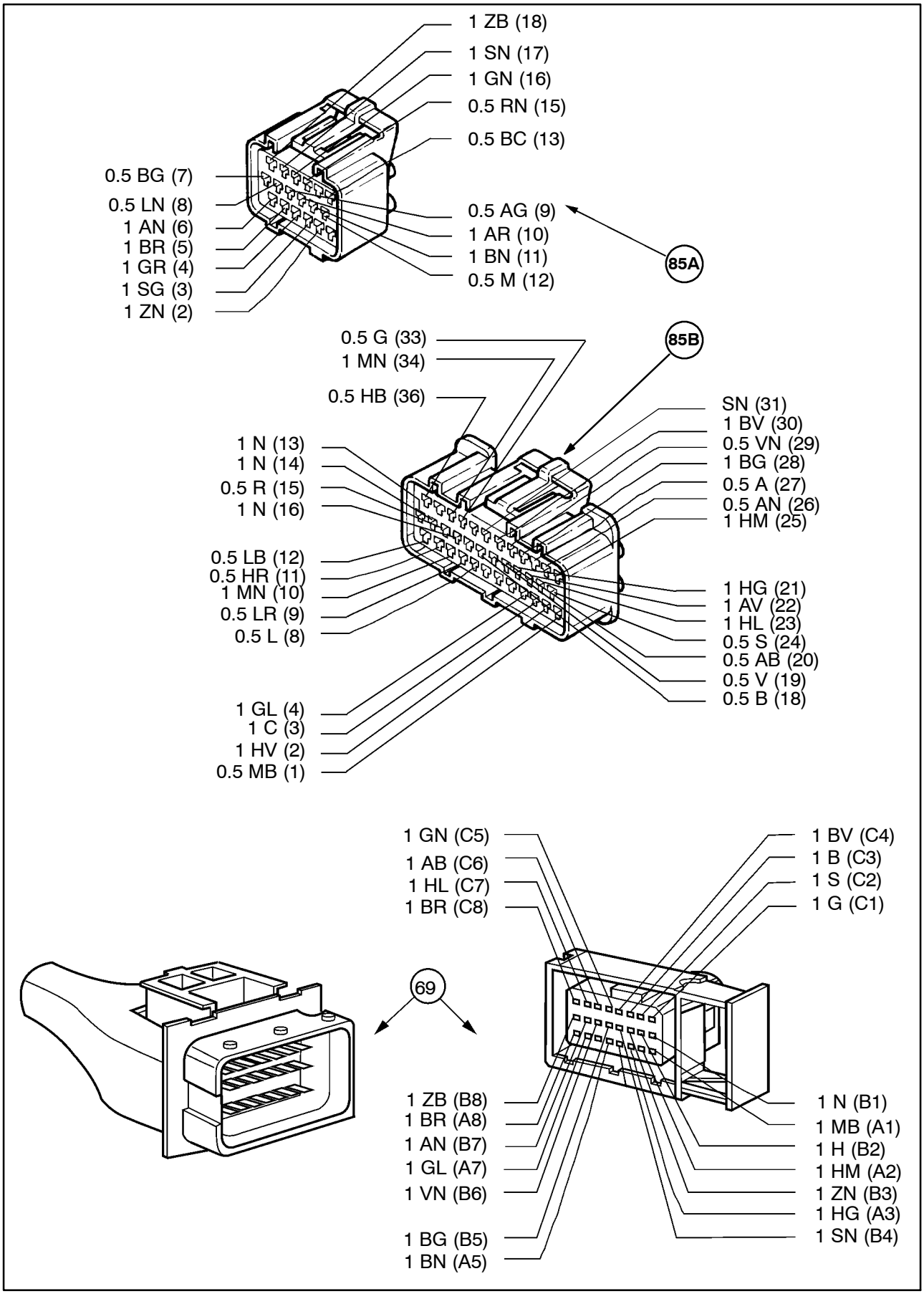
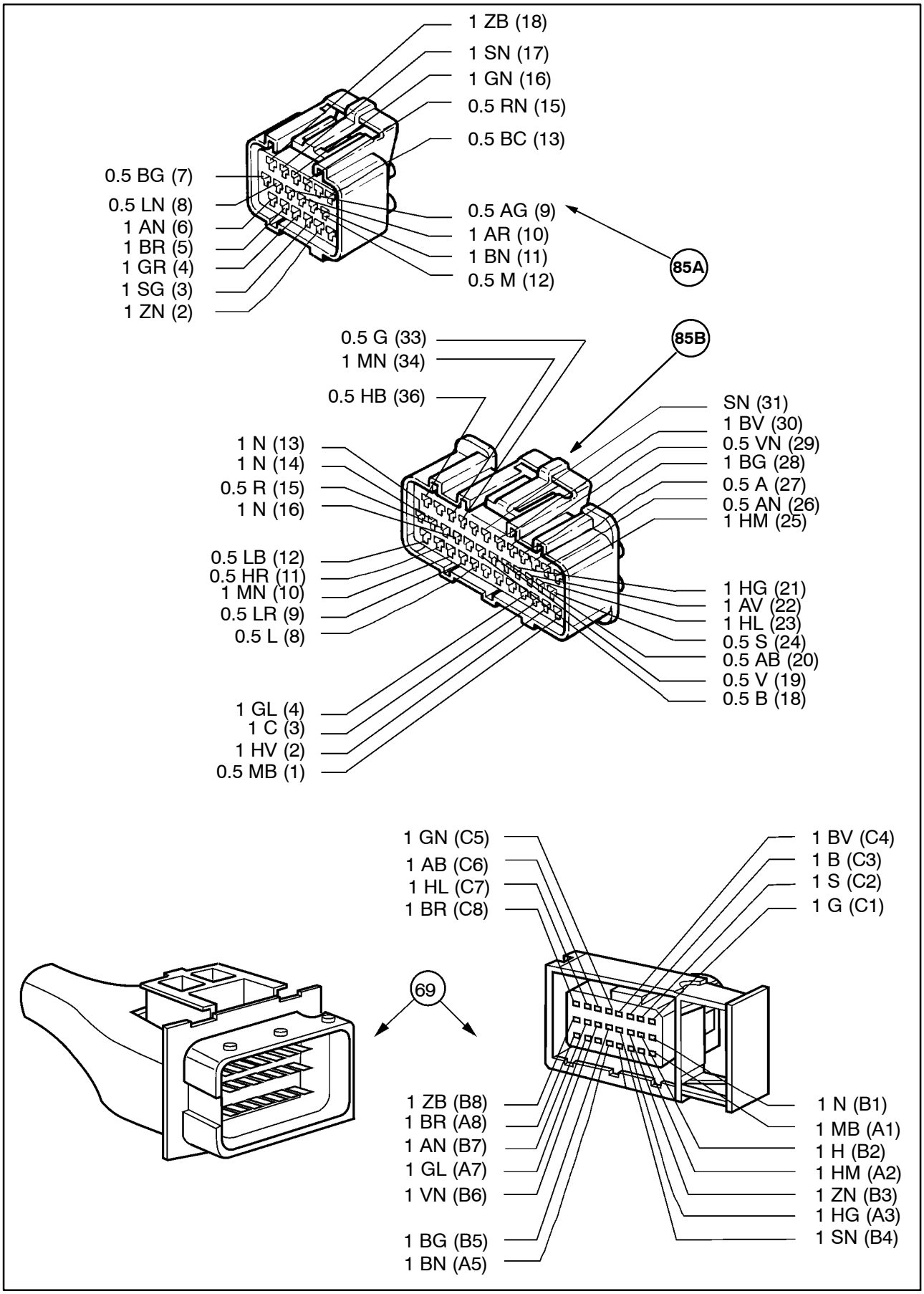
Action	Description	Display
1	Enter the H5 menu with the clutch pedal released and the Shuttle lever in Forward.	d0
2	Slowly press the clutch pedal (time > 2 seconds). The potentiometer status change should be read first, followed by the pushbutton.	d20 d21
3	With the clutch pedal lowered, move the Shuttle lever from the Forward position to neutral, to check the Forward selection pushbutton.	d22
4	Leave the Shuttle lever in the neutral position for at least 1 second to check for disagreement between the Forward/Neutral/Reverse pushbuttons (E59).	(d22)
5	Holding down the clutch pedal, move the Shuttle lever from the neutral position to Reverse, to check the relative pushbutton.	d23
6	Release the clutch pedal slowly (time > 2 seconds). The pushbutton status change should be read first. Clutch pedal calibration is checked (E10, E11 and E12). Clutch pedal pushbutton adjustment is checked (E47 and E48). Finally, the potentiometer status change is read.	d21 d20
13	Carry out a status change on the oil temperature sensor.	d29
15	Carry out a status change on the gear lever pushbutton.	d33
16	Carry out a status change on the Range lever pushbutton.	d34
17	Carry out a status change on the pressure switch.	d30
18	Carry out a status change on the operator seat switch.	d36

FAULT CODE 15



FAULT CODE 33



FAULT CODE 64 – F/R SYNCHRONIZER DID NOT MOVE INTO THE SHUTTLE (REVERSE) POSITION.

(NOT USED TN Standard)

NOTE: *This is the same as the synchronizer not disengaging from forward.*

NOTE: *The Transmission Status Lamp is the Hi(Rabbit) and Lo(Turtle) lamps. They will flash in a alternating manner.*

NOTE: *On the 32x16 transmission, the Shuttle (Reverse) and Hi-Lo (Forward) Synchronizer is located on the left side of the transmission behind the Power Shuttle Control Valve. The Synchronizer Shuttle (Reverse) position is toward the front of the tractor. The Synchronizer Hi-Lo (Forward) position is toward the rear of the tractor.*

Conditions:

- During directional change (a shuttle), moving the PS FNR Lever to reverse position, the F/R Synchronizer did not engage the reverse position within the time allowed.

Causes:

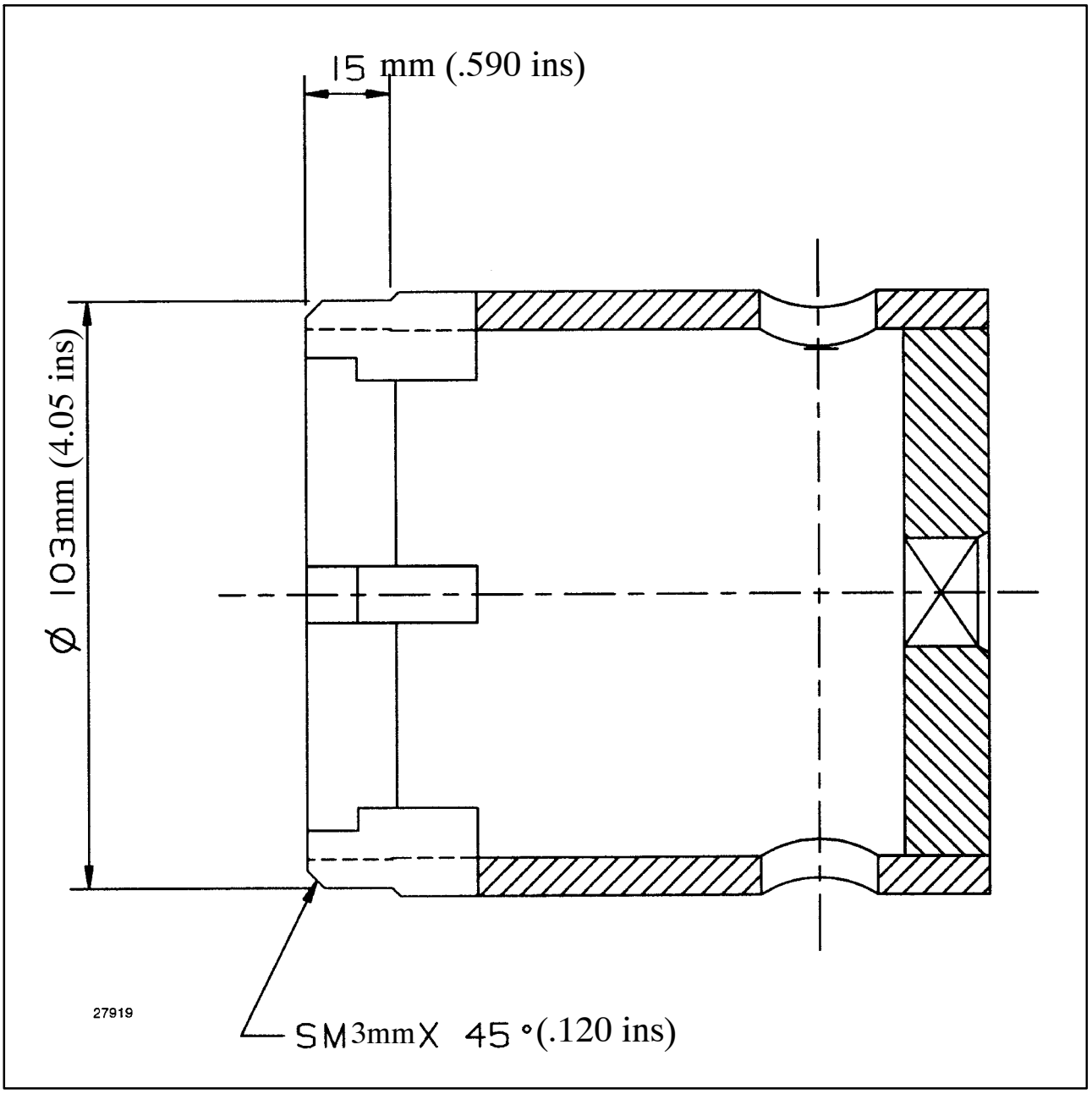
- Faulty F/R Synchronizer.
- Faulty Synchronizer Shuttle (Reverse) Position Switch.
- Faulty F/R Synchronizer linkage.
- Tests:
- H9, channel 6 is not within allowable range.
- H5 doesn't display "d27".
- HD displays "unkn".

Effects:

- The Transmission Status Lamp is flashing.
- Transmission is disabled but can be re-enabled by cycling the Power Shuttle FNR Lever or Clutch Pedal.
- Once the error has been cleared, the ECM will attempt to put the F/R Synchronizer into the Shuttle (Reverse) position again. This error will be triggered until an attempt to shift the F/R Synchronizer into reverse position has been successful.

Recovery:

- Cause must be resolved and error must be cleared using the CDU, HF Menu.



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(TN55 only) Modification to make earlier version of tool 295030 [Measurement in mm (ins)]

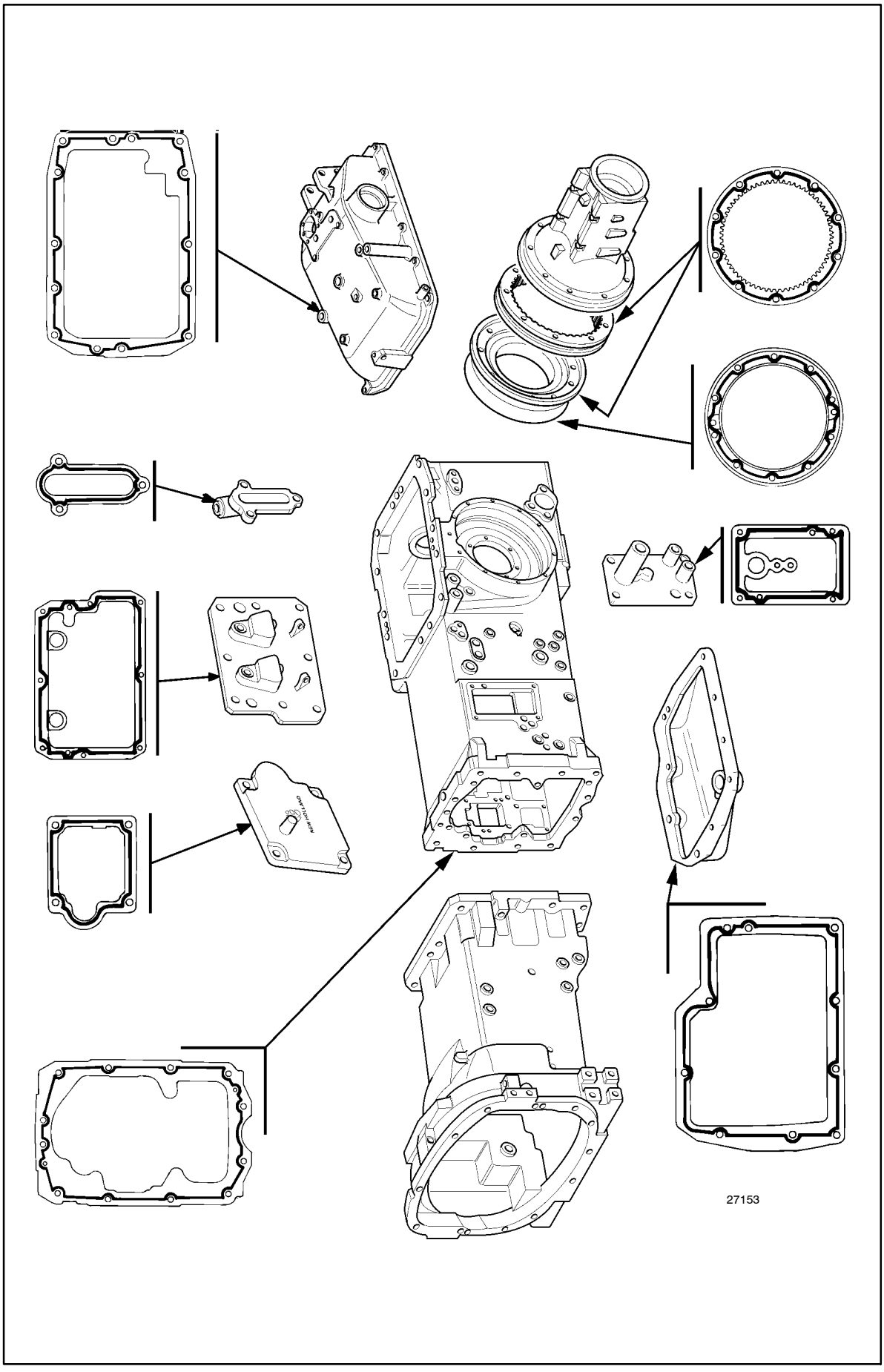
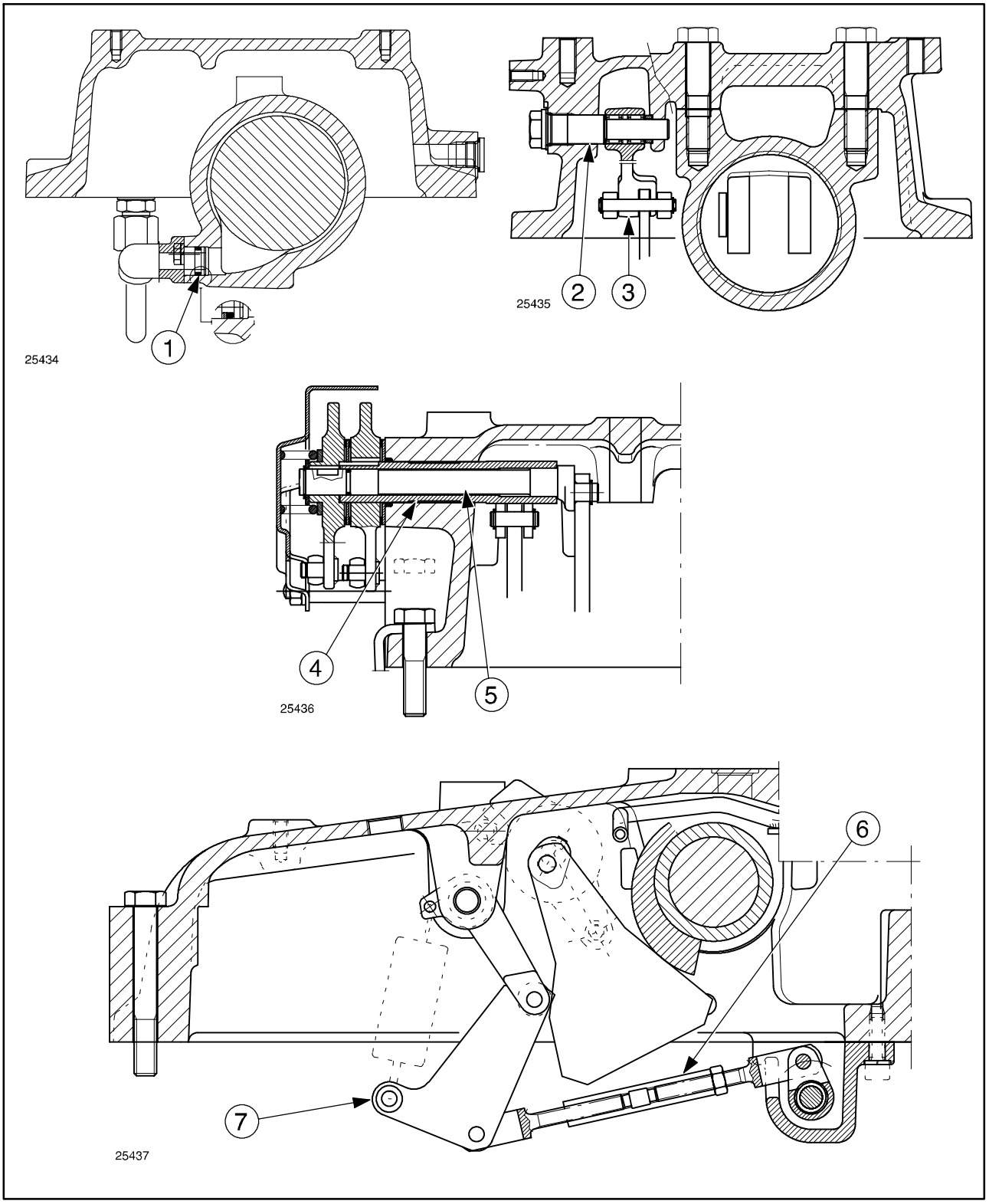


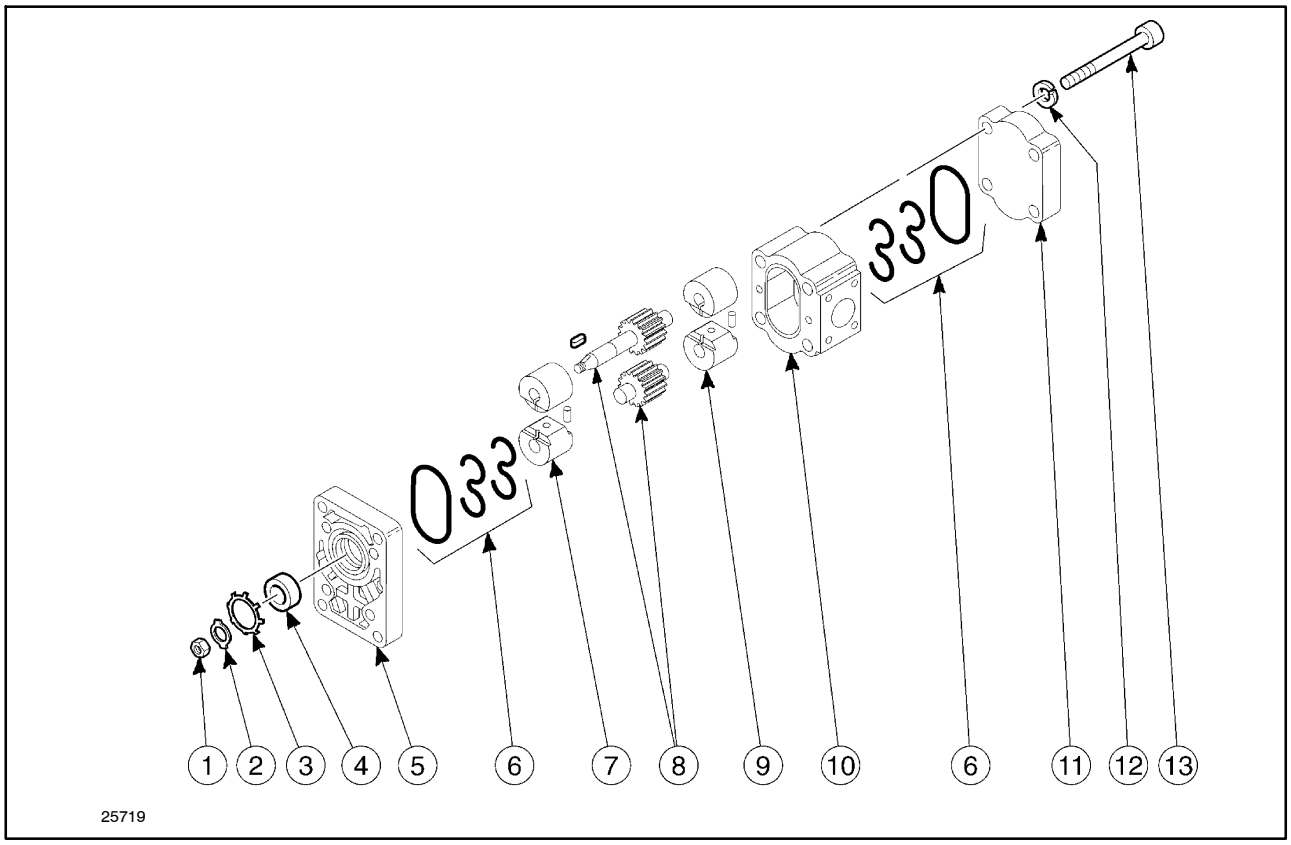
Diagram for application of sealing compound for rear transmission-gearbox
The types of sealing compound are indicated on page 1, Section 00



6

Longitudinal and cross-sectional views of lift

1. Anti-extrusion seal and ring.
2. Control valve block arm lever pin.
3. Control valve block arm lever.
4. Draft control transmission shaft.
5. Position control transmission shaft.
6. Lever mechanism unit in operation with controlled position.
7. Lever mechanism unit in operation with controlled position.

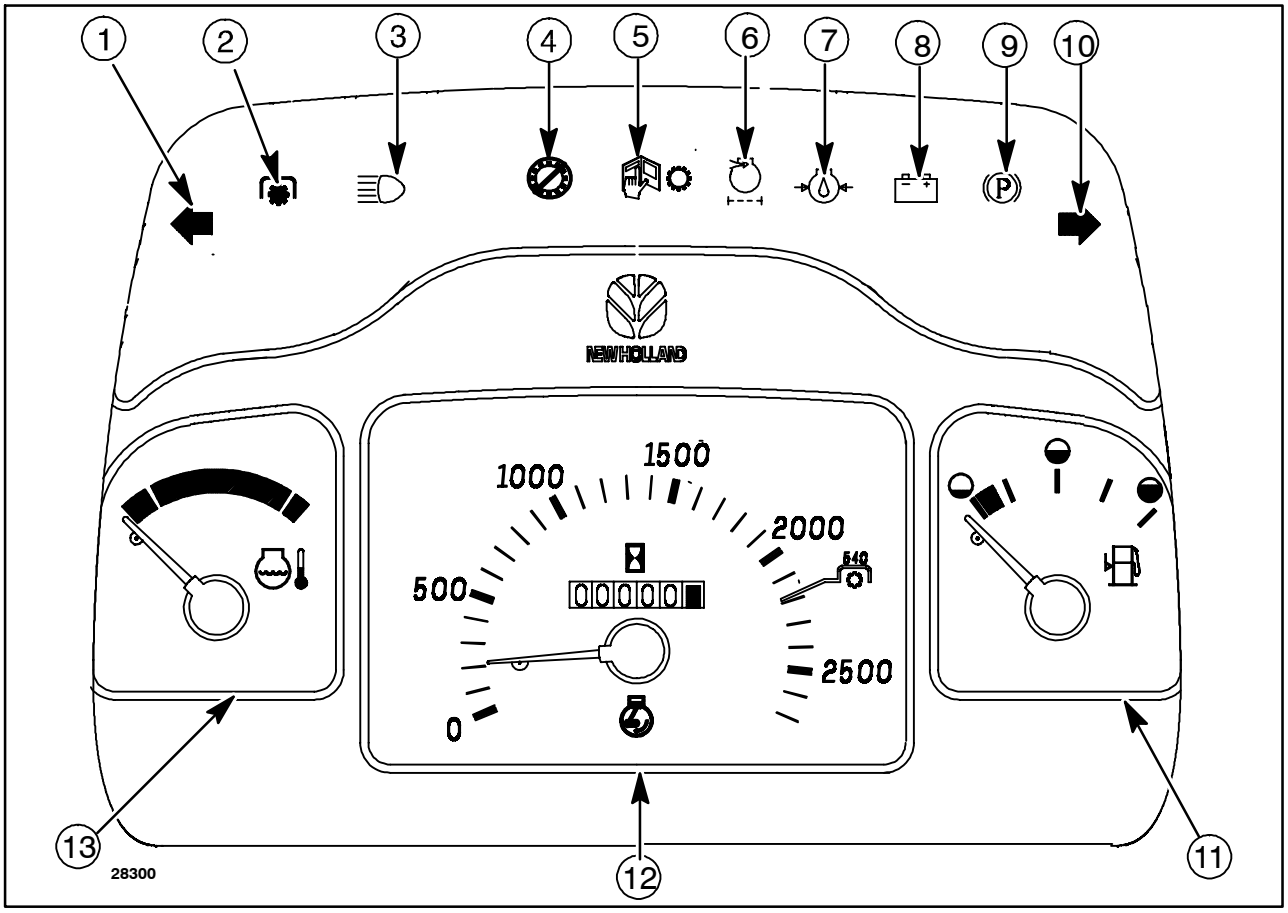


1

Components of C 42 pumps, BOSCH 25

1. Nut.
2. Safety washer.
3. Circlip.
4. Driving shaft seal.
5. Control side cover.
6. Cover seals.
7. Gear support.
8. Driven and driving gear shafts.
9. Gear support.
10. Pump body.
11. Front cover.
12. Safety washer.
13. Bolt.

ANALOG INSTRUMENTS



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Instrument panel

	Condition	Indicator
1.	Tractor left-hand turn indicators	Flashing (green)
2.	Power take-off ON	Fixed (yellow)
3.	Full beam headlights ON	Fixed (blue)
4.	Transmission status	Fixed (yellow)
5.	Power Shuttle alarm	Fixed (red)
6.	Dry air filter clogged	Fixed (yellow)
7.	Engine oil pressure low	Fixed (red)
8.	Low battery charge	Fixed (red)
9.	Handbrake ON	Fixed (red)
10.	Tractor right-hand turn indicators	Flashing (green)
11.	Fuel gauge	
12.	Speedometer/tachometer	
13.	Engine coolant temperature	

WIRING FOR DIAGRAM D