NEW HOLLAND



TC48DA
TC55DA
Tractor

REPAIR MANUAL

NEW HOLLAND AGRICULTURE

SERVICE

87357371

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The following pages are the collation of the contents pages from each section and chapter of the TC48DA, TC55DA Repair manual. Complete Repair part # 87357371.

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 TC48DA, TC55DA Tractors.

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SECTION 00 - GENERAL INFORMATION

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Chapter 1 - General Information

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SECTION 10 - ENGINE

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Chapter 1 - Engine Dismantling Sequence

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TROUBLESHOOTING - FUEL INJECTORS

CONDITION	CAUSE	REMEDY
Nozzle does not "buzz" while injecting	Needle valve stuck	Check needle valve for carbon build-up and binding
	Excessive fuel leakage	Check valve and valve seat for scores or other indications of leakage
	Nozzle damage	Inspect faces and tighten nozzle retaining nut
Nozzle leakage	Needle valve worn	Replace nozzle assembly
	Blocked nozzle assembly	Check for carbon or foreign matter on faces of nozzle and nozzle holder. Flush, clean, or replace
	Loose nozzle retaining nut	Inspect faces and tighten nozzle retaining nut
Nozzle opening pressure incorrect	Incorrectly adjusted nozzle retaining nut	Check retaining nut for looseness
	Damaged nozzle or seized needle valve	Replace nozzle assembly
	Blocked nozzle orifice	Check orifice for carbon or foreign matter. Flush clean or replace.
Nozzle seat leakage	Nozzle incorrectly seated	Check for carbon or foreign matter on faces of nozzle and nozzle holder. Flush, clean, or replace
	Sticking or binding needle valve	Repair or replace nozzle assembly

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ENGINE GLOW PLUG CIRCUIT
TC48DA - On or Above PIN #HV11282, TC55DA - On or Above PIN #HX11752

When the key switch is in the "HEAT" position, electrical current is being supplied to the safety controller, which transfers current to the glow plug relay for approximately four seconds. The relay sends current to the glow plugs to preheat the engine to aid in starting.

NOTE: *When the safety controller shuts off the current to the relay, the current is also cutoff to the glow plugs.*

Operation

1. Current starts at the battery and flows through the positive (+) battery cable to the engine starter motor.
2. From the starter motor, current flows through the fusible link wire. From the fusible link, the current spits into two different directions due to a wire connector.

#1 terminal of connector – Sends current to:

- Terminal "30" of the key switch
- Switch side of the glow plug relay
- #4 fuse (25 amp)

3. When the key switch is place in the "HEAT" or "START" position, current transfers from terminal "30" to " 19" and "AC" terminals.
4. Terminal "19" of the key switch sends current to terminal #6 of the safety controller.
5. Terminal "AC" of the key switch provides current to the #2, (10 amp) fuse.
6. The #2, (10 amp) fuse supplies current to:

- #3 terminal of the instrument panel
- Terminals #7 and #18 of the safety controller

Ground Circuits

The ground source for the glow plug circuit is located on the front of the engine cylinder head. Ground source is provided to the following components.

- Safety controller, terminal #11
- Glow plug relay, coil side

Safety Controller Functions:

Inputs:

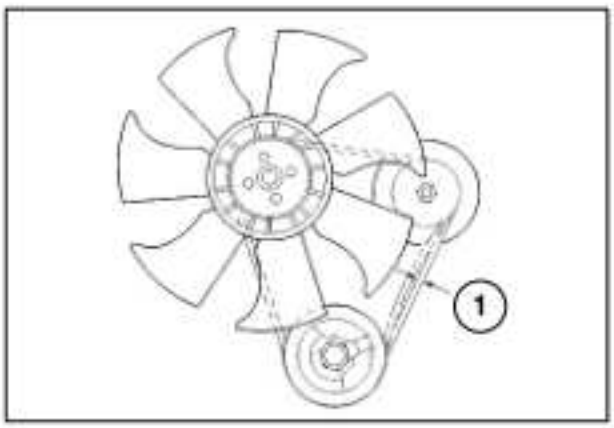
- Terminal #6, from key switch terminal "19"
- Terminals #7, from the #2 (10 amp) fuse.
- Terminal #10, from the #4 (25 amp) fuse.
- Terminals #18, from the #2 (10 amp) fuse.

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PRELIMINARY ALTERNATOR TESTS

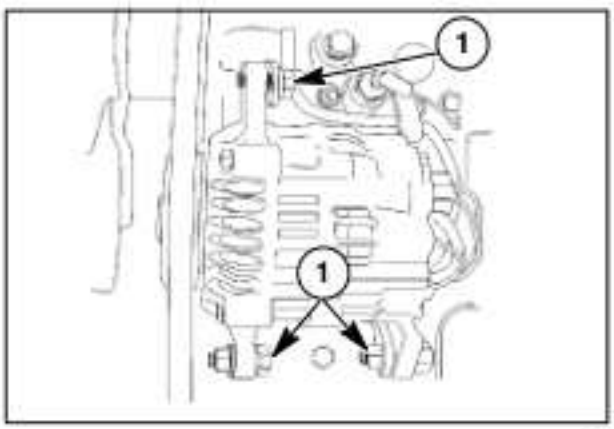
Drive Belt

1. Check the alternator drive belt deflection by applying 5 kg (12 lbs.) of force between the crank pulley and the alternator pulley, 1. Belt deflection should be 5 - 10mm (0.2 - 0.39in.).



3

2. If the drive-belt deflection needs adjusted, loosen the adjusting/mounting bolts, 1, and adjust the alternator as needed to obtain proper belt deflection.

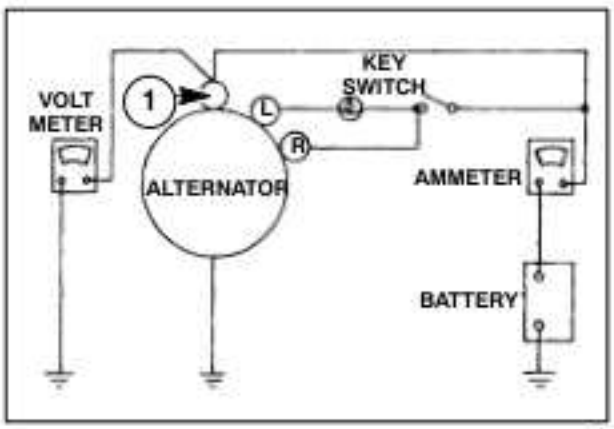


4

Alternator Output

NOTE: *Use the following methods if an alternator/ charging system analyzer is unavailable.*

1. Connect a 50-amp capacity test ammeter between the positive (+) battery cable and the key switch.
2. Connect a voltmeter to the battery terminal, 1, of the alternator and to a ground source.
3. Observe the voltmeter. The meter should indicate battery voltage. If the voltmeter does not read battery voltage, the wiring between the alternator and the battery may be faulty and should be repaired or replaced.



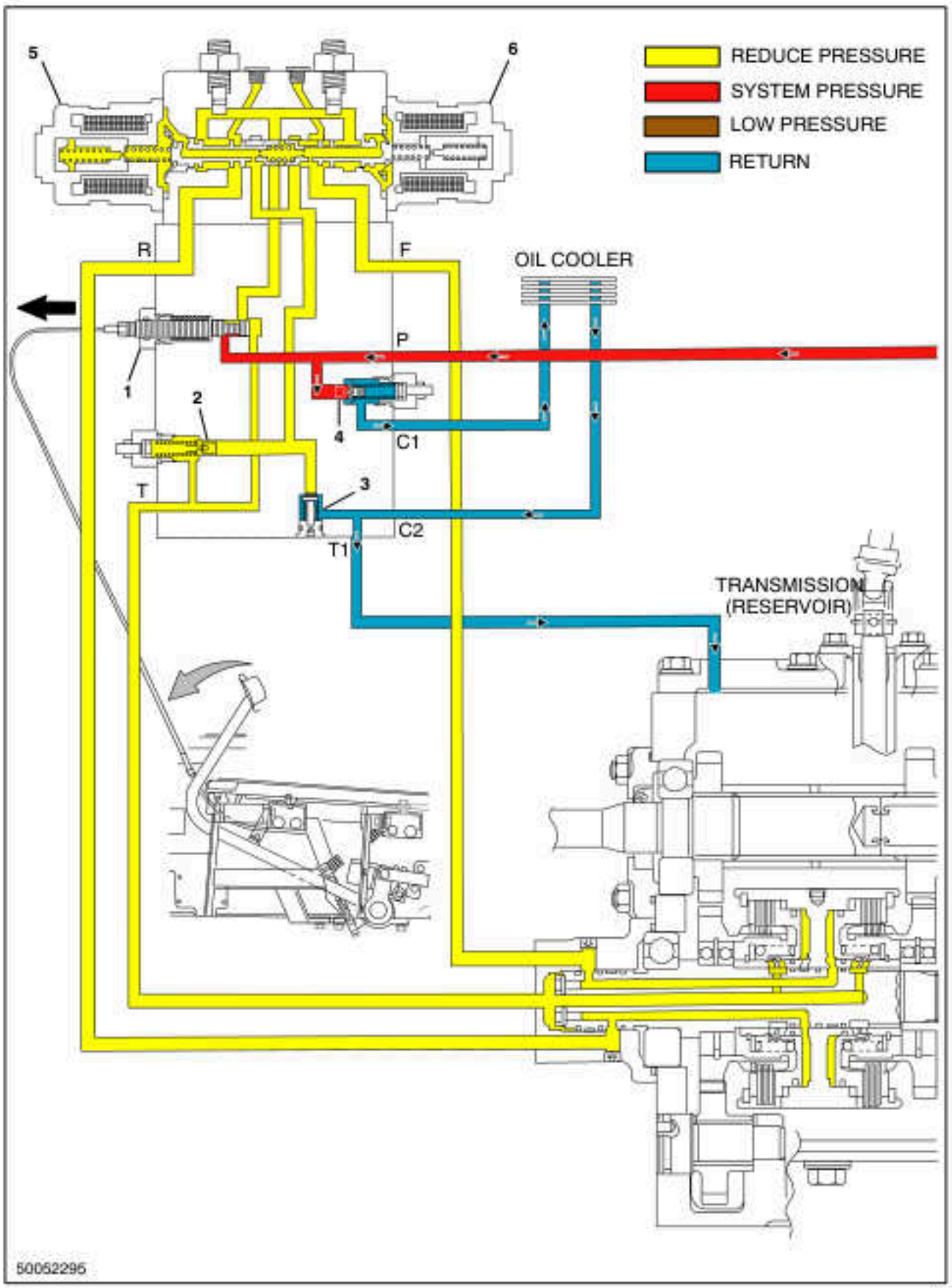
5

⚠ WARNING ⚠

Do not attempt to start the engine without first shorting the wires between the ammeter leads. Otherwise, injury or damage to the charging and testing components may occur.

4. Use a jumper wire to short the test ammeter leads and start the tractor engine.

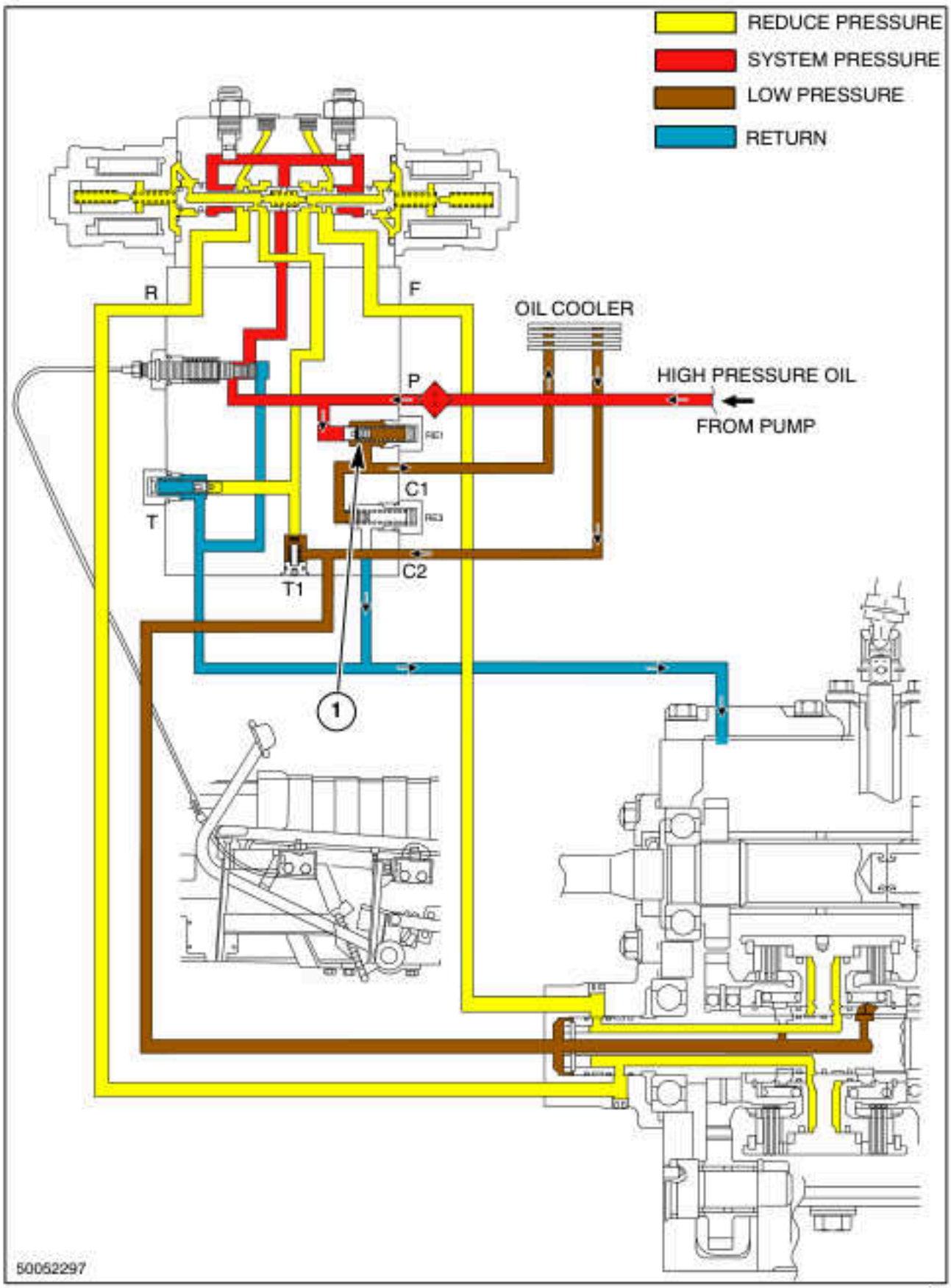
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Control Valve - Oil Flow - Reverse Position - Inching Pedal Full Depressed Position

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