FARMALL® 40C
FARMALL® 50C
Tier 4B (final)
Compact Tractor

SERVICE MANUAL

Part number 48144023
2nd edition English
March 2016

CASE IH AGRICULTURE

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Contents

INTRODUCTION

Foreword (*) 3
Safety rules (*) 4
Safety rules (*) 5
Safety rules Service precautionary statements climate control 6
Safety rules – Personal safety (*) 15
Safety rules - Ecology and the environment (*) 27
Basic instructions - Important notice regarding equipment servicing (*) 28
Basic instructions Important “Notice” regarding equipment servicing (*) 29
Basic instructions - Shop and assembly (*) 30
Torque - Minimum tightening torques for normal assembly (*) 32
Torque Standard torque data for hydraulics (*) 37
General specification (*) 39
General specification – Biodiesel usage (*) 44
Consumables (*) 47
Dimension (*) 48
Dimension (*) 51
Product identification (*) 53
Product identification Machine orientation (*) 54
Product identification Machine orientation (*) 55

(*) See content for specific models

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Contents

Engine - 10

[10.001] Engine and crankcase 10.1

[10.202] Air cleaners and lines 10.2

[10.206] Fuel filters 10.3

[10.304] Engine lubrication system 10.4

[10.400] Engine cooling system 10.5

[10.501] Exhaust Gas Recirculation (EGR) exhaust treatment 10.6

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Contents

Engine - 10

Engine and crankcase - 001

SERVICE

Engine

Remove (*) 3

Remove (*) 8

Install (*) 13

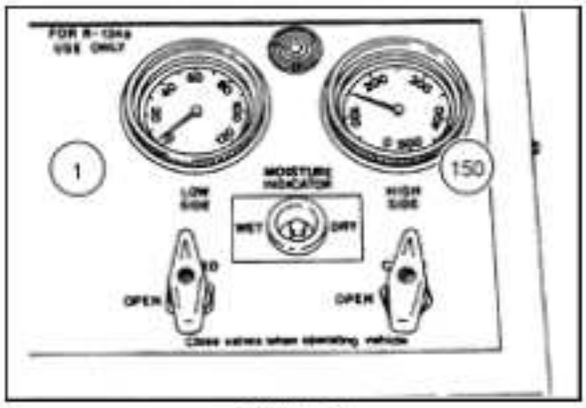
Install (*) 18

(*) See content for specific models

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Air conditioning - Pressure test Example 1

Farmall® 40C TIER 4B (FINAL), Cab	NA
Farmall® 50C TIER 4B (FINAL), Cab	NA



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Symptoms

1. Evaporator air is lukewarm
2. Low side pressure is too low. The gauge should read **20.7 - 207 kPa (3 - 30 psi)**
3. High side pressure is too low. See pressure-temperature chart **Air conditioning - General specification - Ambient temperature versus manifold pressure gauge reading (50.200)** for correct gauge readings.

DIAGNOSIS: System refrigerant is low. A small leak may cause this.

Corrective Procedures

1. Leak test the system.
2. Extract the refrigerant from the system.
3. Repair the leaks. Replace any faulty lines or components.
4. Check compressor oil and add oil if necessary.
5. Evacuate the system.
6. Charge the system.
7. Performance test the system.

NOTE: *Test procedure based upon ambient temperature of **35 °C (95 °F)**. For proper high side gauge reading for other ambient temperatures, refer to the pressure-temperature chart.*

Ambient Temperature* °C (°F)	High Pressure Gauge Reading kPa (psi)
21 °C (70 °F)	786 - 924 kPa (114 - 134 psi)
24 °C (75 °F)	869 - 1007 kPa (126 - 146 psi)
26 °C (80 °F)	972 - 1110 kPa (141 - 161 psi)
29.5 °C (85 °F)	1096 - 1234 kPa (159 - 179 psi)
32 °C (90 °F)	1158 - 1296 kPa (168 - 188 psi)
35 °C (95 °F)	1248 - 1386 kPa (181 - 201 psi)
38 °C (100 °F)	1386 - 1524 kPa (201 - 221 psi)
40.5 °C (105 °F)	1503 - 1641 kPa (218 - 238 psi)
43 °C (110 °F)	1696 - 1834 kPa (246 - 266 psi)

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Wiring harnesses - Electrical schematic sheet 15 – Radio and warning devices (mechanical transmission, cab models)

Farmall® 40C TIER 4B (FINAL), Cab	NA
Farmall® 50C TIER 4B (FINAL), Cab	NA

Type	Component	Connector / Link	Description
ECU	**A-010**	**X-155 X-155A**	RADIO
Speaker	**H-001**	**X-017**	WARNING BUZZER
Speaker	**H-002**	**X-005**	HORN
Speaker	**H-003**	**X-153**	SPEAKER(LH)
Speaker	**H-004**	**X-154**	SPEAKER(RH)
Switch	**S-005**	**X-053**	HORN SWITCH
Connector	X-005	**X-005**	
Connector	X-017	**X-017**	
Connector	X-053	**X-053**	
Connector	X-153	**X-153**	
Connector	X-154	**X-154**	
Connector	X-155	**X-155**	
Connector	X-155A	**X-155A**	
Connector	X-207	**X-207**	
Connector	X-209	**X-209**	
Connector	X-213	**X-213**	

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Place the key switch ON.

Monitor the diagnostic screen for fault code 4201-4.

A. If the fault code 4201-4 is not present, continue with Step **5**.

B. If the fault code 4201-4 is present, the sensor has failed. Replace the sensor.

5. Check the wiring harness.

Place the key switch OFF.

Disconnect the wiring harness from ECU.

Use a multimeter to perform the following checks on the wiring harness.

From	To	Value
Connector X-9009 pin 1	Connector X-9000 pin 10	There should be continuity.
Connector X-9009 pin 2	Connector X-9000 pin 8	There should be continuity.
Connector X-9009 pin 3	Connector X-9000 pin 9	There should be continuity.
Connector X-9009 pin 1	Chassis ground	There should be no continuity.
Connector X-9009 pin 2	Chassis ground	There should be no continuity.
Connector X-9009 pin 2	Connector X-9009 pin 1	There should be no continuity.
Connector X-9009 pin 2	Connector X-9009 pin 3	There should be no continuity.

A. If the wiring harness test passes, see **Electronic module - Electrical test Engine Control Unit (ECU) verification (55.640)** to verify the ECU is working properly.

B. If the wiring harness test fails, locate and repair the broken conductor.

6. Visually inspect the relevant harnesses and connectors for damage, bent or dislocated pins, corroded terminals, or broken wires. Verify that the connectors are fully installed. Flex the harnesses involved to reveal intermittent breaks or shorts in the wiring concerned. Operate the machine while you monitor the display.

A. If you find damage or the display indicates other than normal display readings, then repair the damage discovered during the inspection or locate and repair the other than normal display condition and verify that the error has been resolved.

B. If you do not find damage and the display indicates only normal readings, then erase the fault code and continue operation.

Wiring harnesses - Electrical schematic sheet 05 – Engine Control Unit (ECU) (engine schematics) (55.100.DP-C.20.E.05)

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ELECTRICAL SYSTEMS - 55

[55.000] Electrical system - 55.1
[55.011] Fuel tank system - 55.2
[55.031] Parking brake electrical system - 55.3
[55.048] Rear Power Take-Off (PTO) control system - 55.4
[55.100] Harnesses and connectors - 55.5
Wiring harnesses
Electrical schematic sheet 01 - 16 (Mechanical transmission - ROPS)
Electrical schematic sheet 01 - 16 (Hydrostatic transmission - ROPS)

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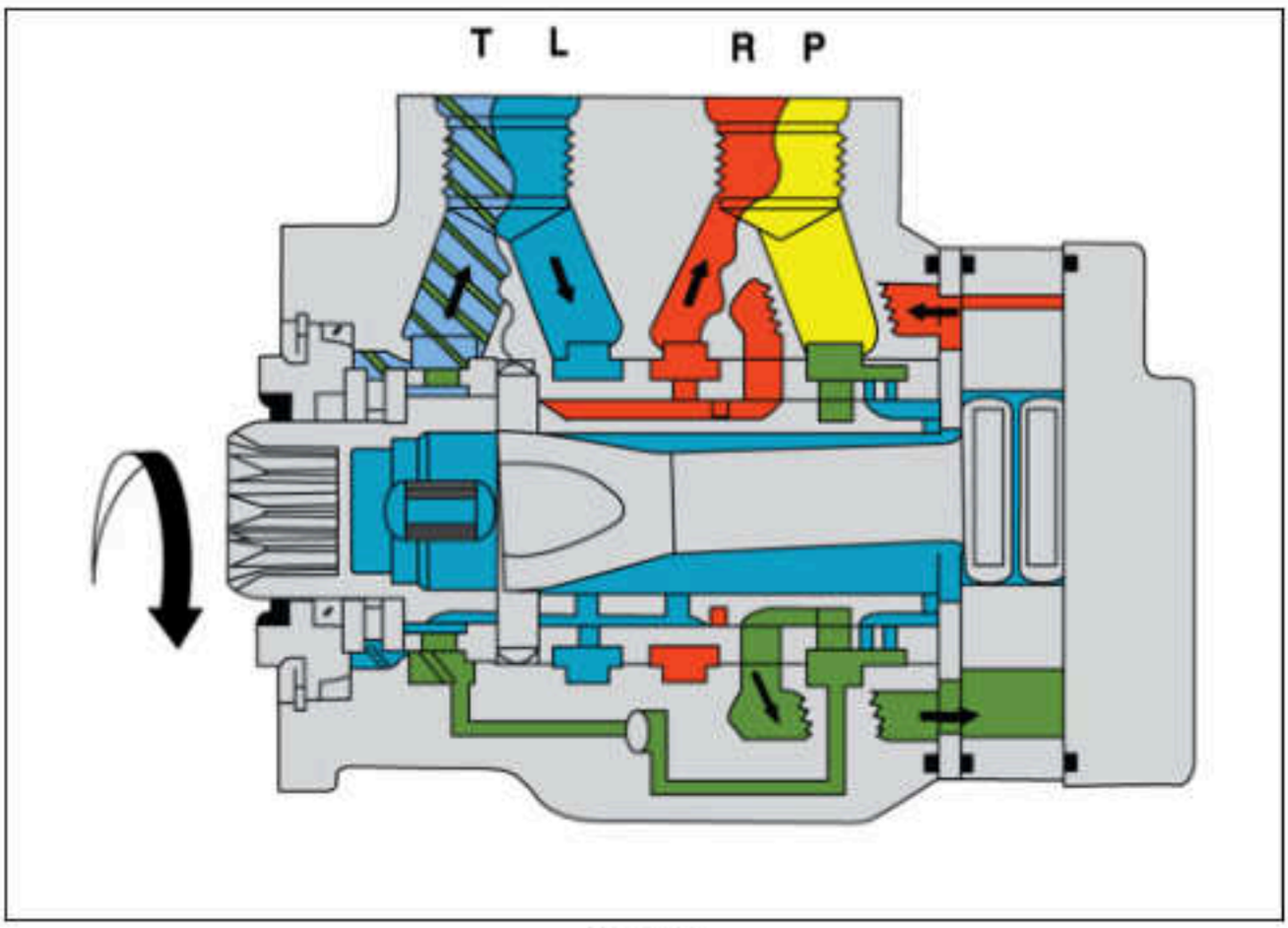
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Emergency operation

⚠ WARNING

Loss of control hazard!
Because of the slow responsiveness of the steering in this condition, you should not travel at high speeds or on downhill roads.
Failure to comply could result in death or serious injury.

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14

Emergency mode steering manually

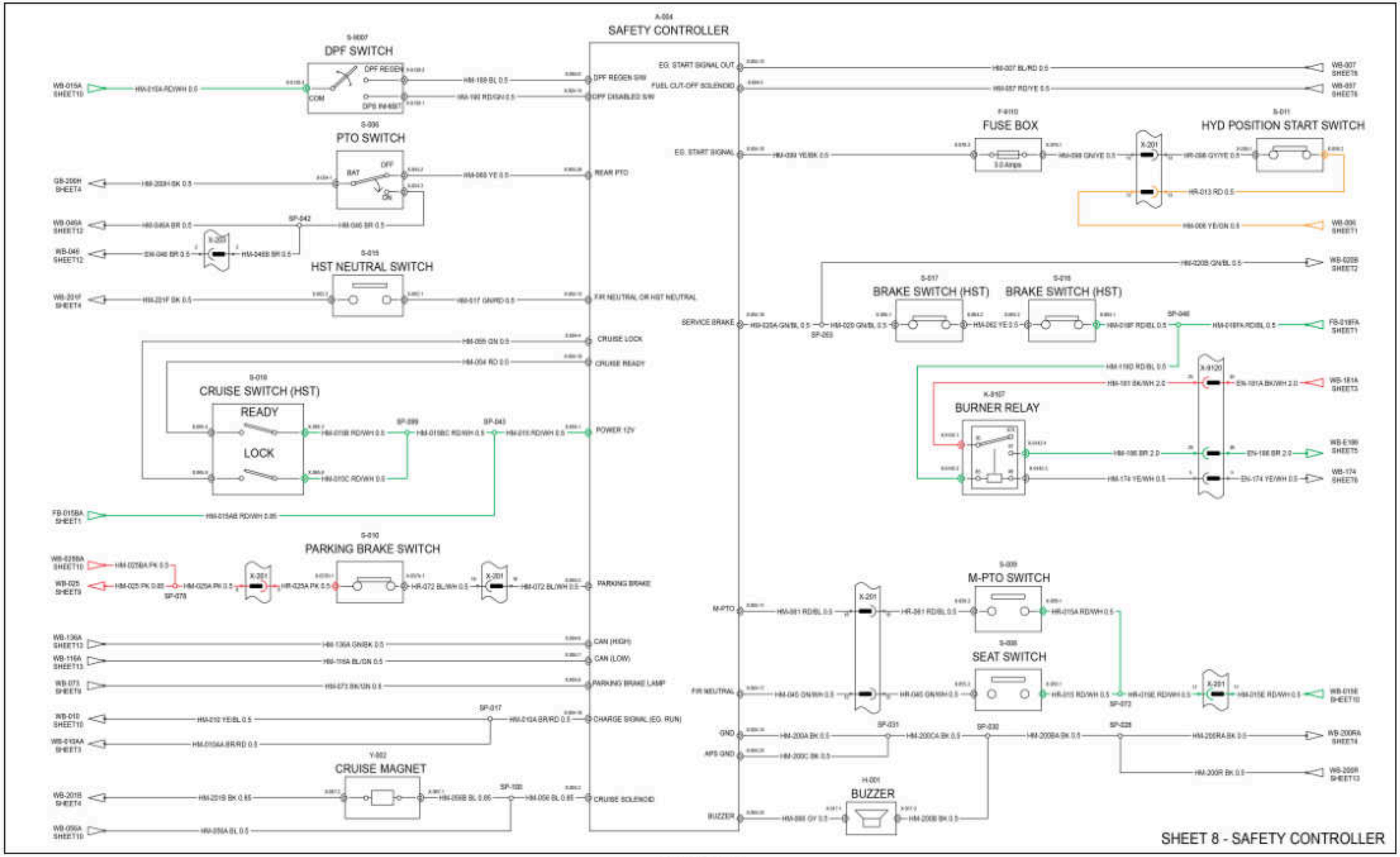
(T) - Tank
(L) - Left steer port
(R) - Right steer port
(P) - Pump discharge

- Pressurized oil from pump
- Oil from rotor
- Discharge
- Suction
- Suction or discharge
- Neutral

NOTICE: *In the EMERGENCY manual steering mode, if steering becomes difficult to do, STOP and transport the tractor by trailer.*

If hydraulic pressure is not generated by the hydraulic pump, the "Rocker" inside the valve serves as a hand pump, and allows the steering cylinder to operate.
The oil returning to the port **(T)** is sent to the rotor **(1)** through the check valve and the rotor sends oil to the cylinder. At this time, the oil in the opposite side returns to the port **(T)** again and repeats the procedure previously described.

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