SERVICE MANUAL

L213 Tier 3
200 Series Skid Steer Loader

PIN NEM459110 and above

L216 Tier 4B (final)
200 Series Skid Steer Loader

PIN NEM477964 and above

Part number 47711677
1st editon English
May 2014

NEW HOLLAND CONSTRUCTION

Copyright © 2014 CNH Industrial America LLC. All Rights Reserved.

MidWestTech | New Holland L213 Tier 3, L216 Tier 4B Skid Steer Compact Track Loader Se... Order the manual at mid-west-tech.com >

Contents

INTRODUCTION

Engine 10

[10.001] Engine and crankcase 10.1

[10.220] Throttle linkage 10.2

[10.400] Engine cooling system 10.3

[10.414] Fan and drive 10.4

[10.501] Exhaust Gas Recirculation (EGR) - Diesel Particulate Filter (DPF) exhaust treatment 10.5

Front axle system 25

[25.450] Chain drive system 25.1

Rear axle system 27

[27.650] Chain drive system 27.1

Hydrostatic drive 29

[29.202] Hydrostatic transmission 29.1

[29.200] Mechanical control 29.2

[29.218] Pump and motor components 29.3

Brakes and controls 33

[33.110] Parking brake or parking lock 33.1

Hydraulic systems 35

[35.000] Hydraulic systems 35.1

[35.104] Fixed displacement pump 35.2

[35.128] Auxiliary hydraulic function control 35.3

[35.300] Reservoir, cooler, and filters 35.4

[35.350] Safety and main relief valves 35.5

[35.359] Main control valve 35.6

[35.701] Front loader arm hydraulic system 35.7

MidWestTech | New Holland L213 Tier 3, L216 Tier 4B Skid Steer Compact Track Load... Order the manual at mid-west-tech.com >

[35.723] Front loader bucket hydraulic system 35.8
[35.724] Front loader hydraulic system control 35.9
[35.734] Tool quick coupler hydraulic system 35.10
Frames and ballasting 39
[39.140] Ballasts and supports 39.1
Wheels 44
[44.511] Front wheels 44.1
[44.520] Rear wheels 44.2
Cab climate control 50
[50.100] Heating 50.1
[50.200] Air conditioning 50.2
Electrical systems 55
[55.000] Electrical system 55.1
[55.010] Fuel injection system 55.2
[55.011] Fuel tank system 55.3
[55.012] Engine cooling system 55.4
[55.014] Engine intake and exhaust system 55.5
[55.015] Engine control system 55.6
[55.019] Hydrostatic drive control system 55.7
[55.031] Parking brake electrical system 55.8
[55.036] Hydraulic system control 55.9
[55.050] Heating, Ventilation, and Air-Conditioning (HVAC) control system 55.10
[55.100] Harnesses and connectors 55.11
[55.201] Engine starting system 55.12
[55.302] Battery 55.13
[55.404] External lighting 55.14
[55.408] Warning indicators, alarms, and instruments 55.15
[55.415] Loader arm and bucket control system 55.16

MidWestTech | New Holland L213 Tier 3, L216 Tier 4B Skid Steer Compact Track Load... Order the manual at mid-west-tech.com >

[55.512] Cab controls 55.17
[55.525] Cab engine controls 55.18
[55.640] Electronic modules 55.19
[55.DTC] FAULT CODES 55.20
Front loader and bucket 82
[82.100] Arm 82.1
[82.300] Bucket 82.2
Platform, cab, bodywork, and decals 90
[90.154] Cab doors and hatches 90.1

MidWestTech | New Holland L213 Tier 3, L216 Tier 4B Skid Steer Compact Track Load... Order the manual at mid-west-tech.com >

Counterweight - Install

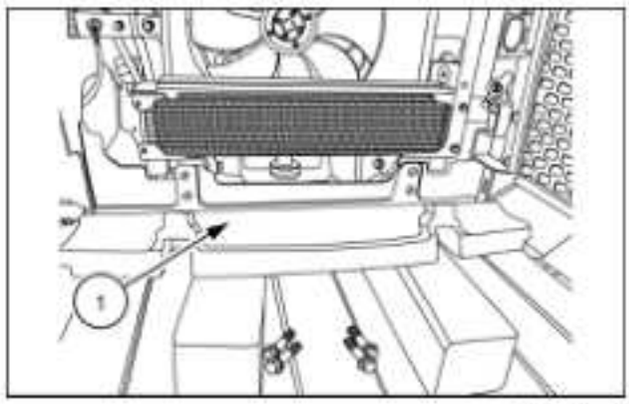
L213	WE
L216	WE

DANGER

Heavy objects!
Lift and handle all heavy components using lifting equipment with adequate capacity. Always support units or parts with suitable slings or hooks. Make sure the work area is clear of all bystanders. Failure to comply will result in death or serious injury.

D0076A

1. Place rear center bumper **(1)** in position.



921301008 1

2. Install center bumper mounting hardware .

MidWestTech | New Holland L213 Tier 3, L216 Tier 4B Skid Steer Compact Track Load... Order the manual at mid-west-tech.com >

Wire harnesses - Electrical schematic sheet 17 (55.100.DP-C.20.E.17)
Medium EH machines
Wire harnesses - Electrical schematic sheet 19 (55.100.DP-C.20.E.19)
Wire harnesses - Electrical schematic sheet 20 (55.100.DP-C.20.E.20)
Wire harnesses - Electrical schematic sheet 13 (55.100.DP-C.20.E.13)
Wire harnesses - Electrical schematic sheet 14 (55.100.DP-C.20.E.14)
Case machines
Wire harnesses - Electrical schematic sheet 17 (55.100.DP-C.20.E.17)
New Holland machines
Wire harnesses - Electrical schematic sheet 17 (55.100.DP-C.20.E.17)

MidWestTech | New Holland L213 Tier 3, L216 Tier 4B Skid Steer Compact Track Load... Order the manual at mid-west-tech.com >

9152-CAN Connection - CAN Communication Timed Out After 5 Seconds

L216 TIER 4 [NEM477964 -] WE

Context:
CAN bus communications between modules on the data link have been lost. This fault code may be displayed with other CAN bus fault code messages.

Cause:
CAN bus communications between modules on the data link have been lost.

Possible failure modes:

1. CAN data link wiring or circuits open.
2. CAN data link wiring or circuits shorted.
3. Faulty CAN Data Link device.
4. Faulty instrument cluster.
5. Faulty ECU.

Solution:

1. Verify that the fault code is active.

   Use the Electronic Service Tool to verify that the CAN data link faults are ACTIVE.

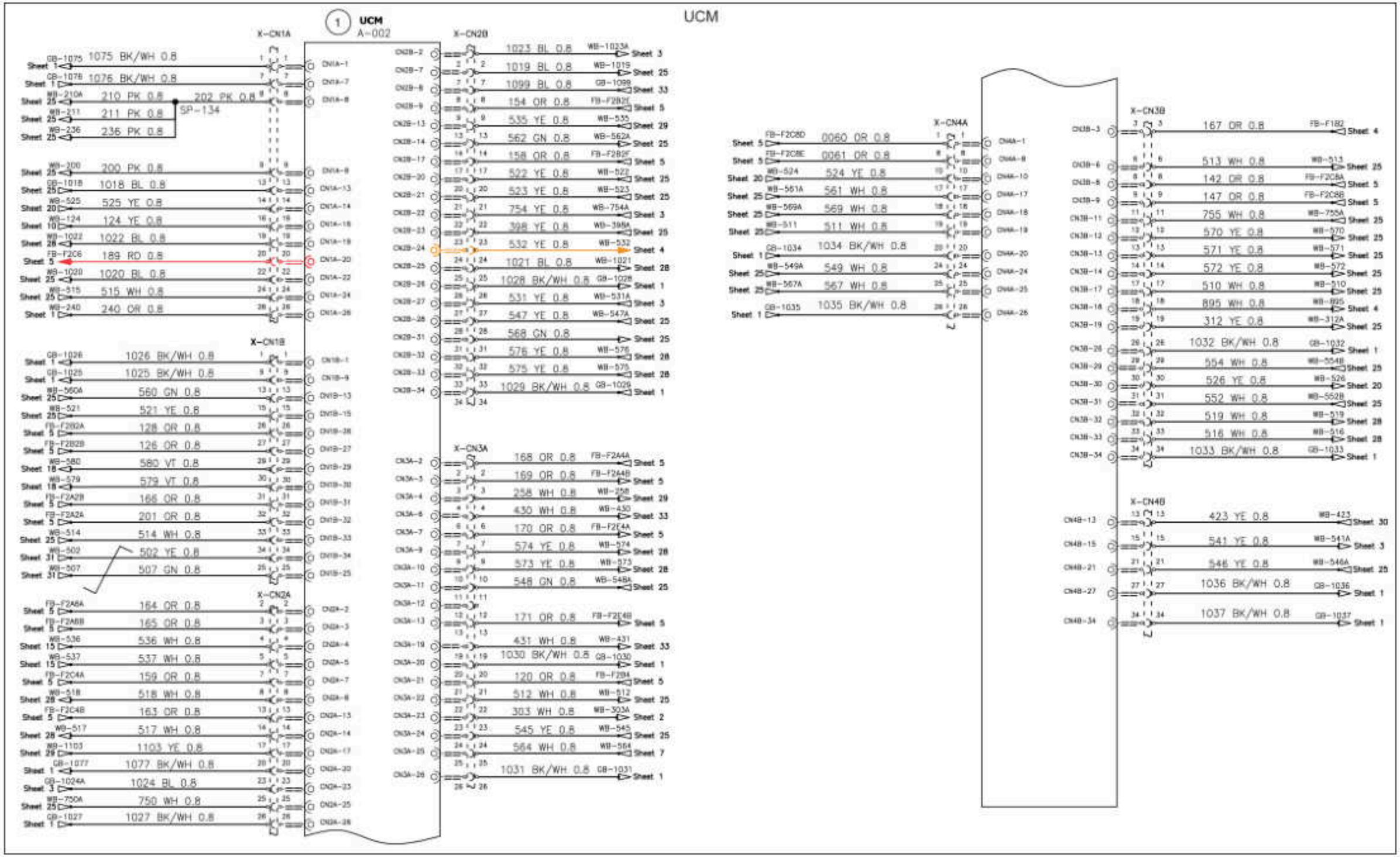
   To check for fault codes: Start and operate the machine. Wiggle the harness to reveal an intermittent condition.

   If three or more fault codes are active, such as 1051 through 1059 or 9151, 9152, 9153 or 9154 this is an indication of a problem in the CAN bus circuit, continue with this procedure. If one or two CAN bus fault codes are active, this is an indication of an intermittent connection in the CAN circuit. Check the wiring and connectors to verify they are secure and free of damage, corrosion, abrasion or incorrect attachment.

   A. CAN bus fault codes are not recorded again and are no longer ACTIVE. OK to return the machine to service.

   B. CAN bus fault codes are present and ACTIVE. Refer to **1051-Timeout of CAN message EEC1, 5 seconds without message (55.408)**

MidWestTech | New Holland L213 Tier 3, L216 Tier 4B Skid Steer Compact Track Load... Order the manual at mid-west-tech.com >



RAS.14SSL012UA 2

MidWestTech | New Holland L213 Tier 3, L216 Tier 4B Skid Steer Compact Track Loader Service Manual | Publication 47711677
Order the manual at mid-west-tech.com >