SERVICE MANUAL

B95C / B95C LR / B95C TC / B110C

Tier 4B (final)

Tractor Loader Backhoe

B95C, B95C LR, B95C TC PIN NGHH02222 and above; B110C PIN NGHH02228 and above

Part number 48038049
1st edition English
November 2016

NEW HOLLAND CONSTRUCTION

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B95C / B95C LR / B95C TC / B110C
TIER 4B (FINAL)
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SERVICE MANUAL
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ELECTRICAL SCHEMATIC POSTERS **47775438**
47775439
47775440

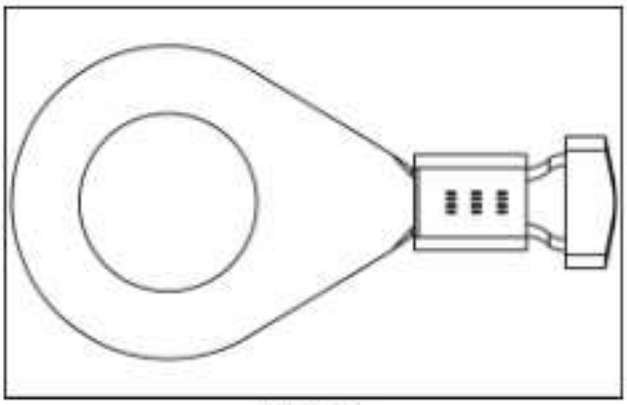
HYDRAULIC SCHEMATIC POSTER **47787159**

ENGINE SERVICE MANUAL (sold separately) **47730922**

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CONNECTOR X-502 - UNSWITCHED B+

CONNECTOR X-502 - UNSWITCHED B+			
PIN NUMBER	**WIRE NUMBER**	**CIRCUIT REFERENCE**	**ELECTRICAL SCHEMATIC FRAME**
1	1485 (OR)	+30 SUPPLY	2



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1011-Foot throttle signal out of range, throttle above 95% of input for 5 seconds

Context:
The instrument cluster measured a foot throttle signal greater than **4.75 V**. The instrument cluster will illuminate the warning lamp and will sound the alarm for one second on the next system power up following the event.

Cause:
The instrument cluster monitored a throttle signal greater than **4.75 V 95 %** for a period greater than **5 s**.

Possible failure modes:

1. Faulty wiring or connections.
2. Faulty reading from foot throttle sensor.
3. Faulty instrument cluster.

Solution:

1. Verify that the fault code is active.

   Connect the Electronic Service Tool to the service tool connector.

   To check for fault code: Start and operate machine.

   A. The fault code is not recorded again. OK to return the machine to service.

   B. Fault code 1011 is recorded again. Go to step **2**.
2. Verify that the wiring and connectors are free of damage.

   Inspect the instrument cluster and the throttle sensor connections. All connections should be secure, tight, free of corrosion, abrasion and damage.

   Inspect the harness from the instrument cluster to the throttle sensor. Verify that the harness is free of damage, corrosion, abrasion and incorrect attachment.

   A. The connectors are secure and the harness is free of damage. Go to step **3**.

   B. The connectors or the harness has damage. Repair or replace the harness or connectors as required. Return to step **1** to confirm elimination of fault.
3. Check voltage at throttle sensor.

   Turn the ignition switch OFF.

   Disconnect the foot throttle connector **X-025** .

   Turn the ignition switch to the ON position.

   Measure the voltage between **X-025 pin 5** and **X-025 pin 6**. The voltage should be between **4.8 V** and **5.2 V**. Wiggle the harness during measurement to reveal an intermittent condition.

   A. The voltage is correct. Go to step **4**.

   B. The voltage is greater than **5.2 V** go to procedure **1023-Foot throttle supply voltage too high, over 5.2 volts for 5 seconds (55.408)** OR the voltage is less than **4.8 V**, go to procedure **1024-Foot throttle supply voltage too low, under 4.8 volts for 5 seconds (55.408)** .
4. Check the throttle signal from the sensor.

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4042-Temperature signal erratic or incorrect

B110C Four-Wheel Drive (4WD) Tier 4B (Final)	NA
B95C Four-Wheel Drive (4WD) Tier 4B (Final)	NA
B95C TC Four-Wheel Drive (4WD) Tier 4B (Final)	NA

Context:
The transmission temperature changed more than **50 °C** (**122 °F**) between samples.

Cause:
The transmission temperature changed more than **50 °C** (**122 °F**) between samples.

Possible failure modes:

1. Faulty wiring or connections from the transmission temperature sensor to the Trax control module.
2. Faulty temperature sensor.
3. Faulty Trax control module.

Solution:

1. Verify that the fault code is active.

   Use the Electronic Service Tool to clear all fault codes.

   To check for fault code: Start and operate the machine.

   A. The fault code is not recorded again. OK to return the machine to service.

   B. Fault code 4042 is recorded again. Go to step **2**.
2. Verify that the wiring and connectors are free of damage.

   Inspect Trax connector **X401** and the transmission temperature sensor connections. All connections should be secure and tight and free of corrosion, abrasion and damage.

   Inspect the harness from the Trax control module to the transmission temperature sensor. Verify that the harness is free of damage, corrosion, abrasion and incorrect attachment.

   A. The connectors are secure and the harness is free of damage. Go to step **3**.

   B. The connectors or the harness has damage. Repair or replace the harness or connectors as required. Return to step **1** to confirm elimination of fault.
3. Measure the resistance of the temperature signal wire.

   Turn the ignition switch OFF.

   Measure the resistance between the transmission temperature sensor connector X108 pin 1 to **X401 pin 43** . The resistance should be less than **10 Ω**. Wiggle the harness during measurement to reveal an intermittent condition.

   Measure the resistance between the transmission temperature sensor connector X108 pin 2 and **X401 pin 17** . The resistance should be less than **10 Ω**. Wiggle the harness during measurement to reveal an intermittent condition.

   A. The resistance is less than **10 Ω**. Go to step **4**.

   B. The resistance is greater than **10 Ω**. There is an open circuit in the wire. Repair or replace the harness as required. Return to step **1** to confirm elimination of fault.
4. Measure the resistance of the temperature sensor.

   Turn the ignition switch OFF.

   Disconnect connector X108.

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Loader bucket control cylinder - Remove

⚠DANGER

Crushing hazard!
Always install the safety lock before working under the raised attachment.
Failure to comply will result in death or serious injury.

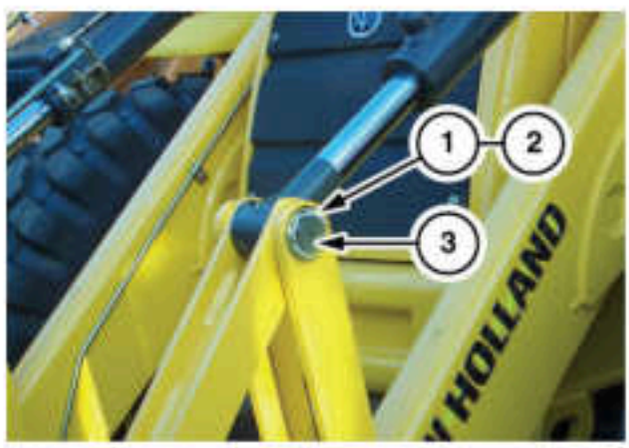
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1. Move the machine to a level and firm ground.
2. Place the bucket firmly on the ground.
3. Relieve the residual pressure in the system by moving the loader control lever through all operating positions.
4. Support the cylinder using a sling and a suitable support.
5. Disconnect the hoses.
6. Cap or plug all exposed openings.



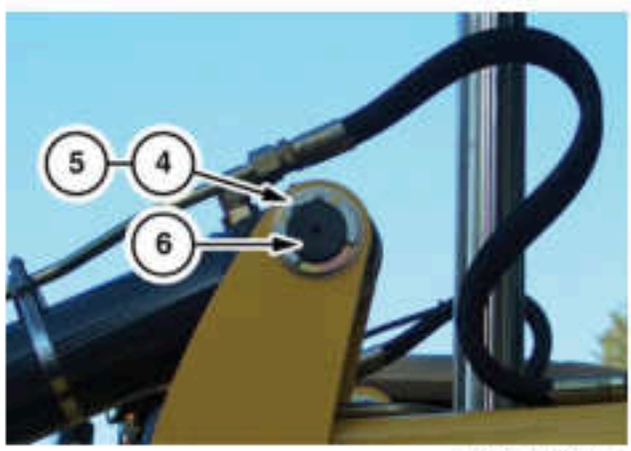
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7. Support the bucket linkage and rods.
8. Remove the snap ring **(1)** and spacer **(2)**.
9. Drive the pin **(3)** out with a hammer.



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10. Remove the snap ring **(4)** and shims **(5)**.
11. Drive out the pin **(6)** with a hammer.

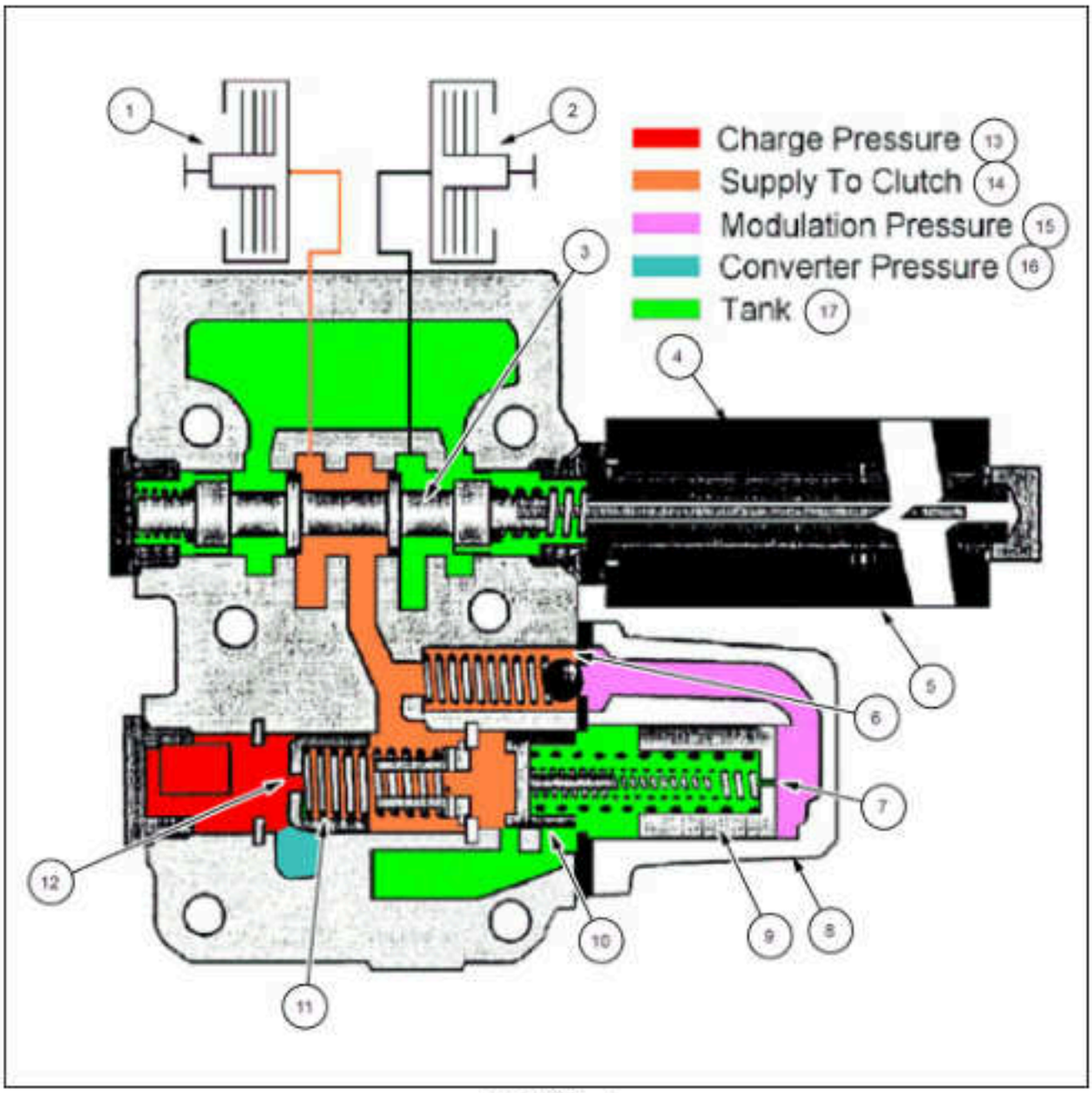


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12. Remove the loader bucket cylinder.

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Transmission control valve - Overview Control valve shifted into forward, start of modulation



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STANDARD HARNESS

COMMON HARNESS & CABLES FOR EU & NA MODELS

S. NO	PART NUMBER	ABBRE VATION	DESCRIPTION
1	47671557	CAB	HARNESS, GENERAL LINE CAB , PT
2	87668411	UC	UPPER PART CAB LINE
3	84386649	FP	HARNESS, FRONT PANEL, PT
4	85819568	RB	ROTARY BEACON CAB LINE
5	87550456	SD	HARNESS, RH SIDE DASHBOARD
6	47650253	EN	HARNESS, WIRE , F5C ECU - ENGINE
7	47652870	LHPOD	HARNESS, WIRE, LH SIDE POD
8	47652869	RHPOD	HARNESS, WIRE, RH SIDE POD
9	84292404	HSD	JUMPER HARNESS, SUPPRESSOR DIODE , BUCKET VALVE
10	84387591	HSD1	JUMPER HARNESS, SUPPRESSOR DIODE
11	47650220	CH	HARNESS, MAIN CHASSIS FRAME
12	47480105	SV	HARNESS, SOLENOID VALVES P.SHUTTLE
13	87636291	BT	BATT CHARGING CABLE , ALTERNATOR -POWER STUD
14	47478524	BT	BATTEY POSITIVE TO CUT OFF SW INPUT
15	84286444	BT	MAIN FUSE POWER CABLE
16	47512908	BT	CABLE, ALTERNATOR GND
17	87427925	BT	CABLE, BATTERY TO MAIN CHASSIS GROUND
18	47617515	BT	BATTERY CHARGING CABLE , CHASSIS POWER STUD -CUT OFF SW
19	47617385	BT	POSITIVE CABLE CUT OFF- STARTER MOTOR
20	47651563	BT	CABLE, BATTERY TO ENGINE HARNESS

STANDARD HARNESS-ONLY FOR EU VERSION

S. NO	PART NUMBER	ABBRE VATION	DESCRIPTION
1	47659712	LH	HARNESS, LH SIDE DASHBOARD
2	85819193	FR	RH FRONT LIGHT LINE
3	85819195	FL	LH FRONT LIGHT LINE
4	87303310	CUR	EU VERSION -REAR LIGHT OPTION CURLY CABLE

STANDARD HARNESS-ONLY FOR NA VERSION

S. NO	PART NUMBER	ABBRE VATION	DESCRIPTION
1	47659717	LH	HARNESS, LH SIDE DASHBOARD
2	87552128	HR	HARNESS, HORN USA

COMMON OPTIONAL HARNESS

S. NO	PART NUMBER	ABBRE VATION	DESCRIPTION
1	87427923	BT	CABLE, DOUBLE BATTERY , POSITIVE- POSITIVE
2	87427926	BT	CABLE, DOUBLE BATTERY - NEG-NEG
3	85824211	RC	RIDE CONTROL(GLIDE RIDE) KIT
4	85819237	HA	WIRE HARNESS, REAR HAMMER SYSTEM

WIRES COLORS

BK - BLACK
GN - GREEN
LG - LIGHT GREEN
YE - YELLOW
BL - BLUE
LB - LIGHT BLUE
BR - BROWN
RD - RED
GY - GRAY
OR - ORANGE
VT - VIOLET
WH - WHITE
PK - PINK
TN - TAN

LB-WH: LIGHT BLUE-WHITE EXTENDING LATERALLY

LB/WH: LIGHT BLUE/WHITE EXTENDING SPIRALLY

Where two colours are specified first letter indicates base color, second letter indicates straight stripe

CIRCUIT COLORS

INDICATES CONSTANT POWER 12V
INDICATES POWER WHEN KEY SWITCH IS ON
INDICATES POWER WHEN KEY SWITCH IS IN START POSITION
INDICATES 5V SECONDARY POWER SUPPLY FROM MODULE

SHEET 1

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