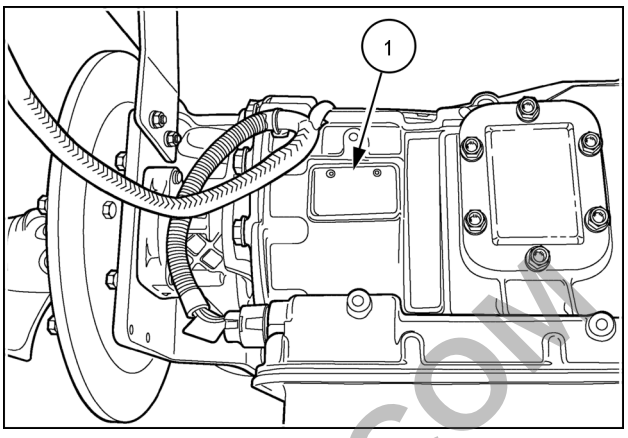
Transmission identification

The transmission identification plate **(1)** is located on the right-hand side of the transmission.

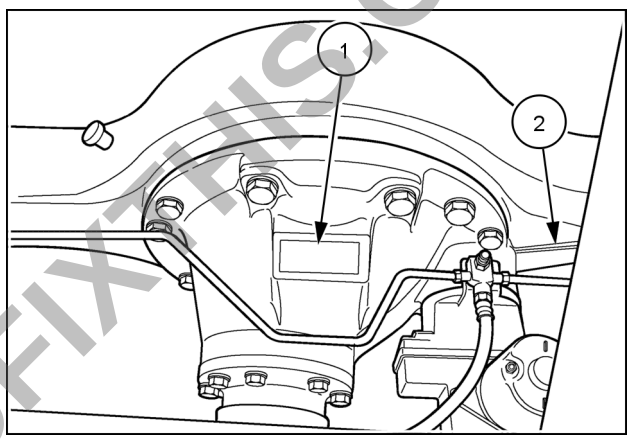


50034073 4

Rear axle identification

The carrier identification plate **(1)** is on the front side of the differential housing.

The axle identification plate **(2)** is to the left-hand side of the differential housing.



50034074 5

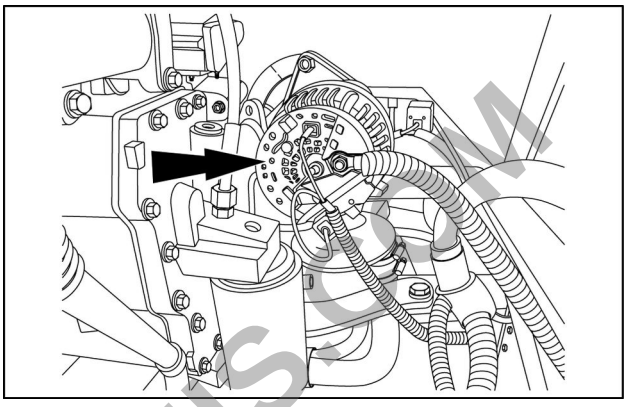
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Engine - Disconnect

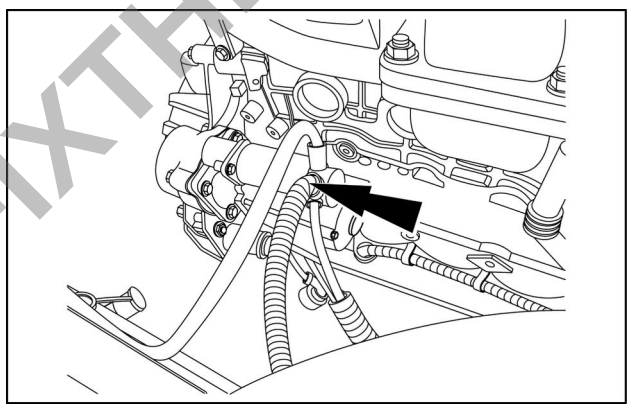
Prior operation:
Battery - Disconnect (55.302)

1. Disconnect the electrical connections from the alternator.



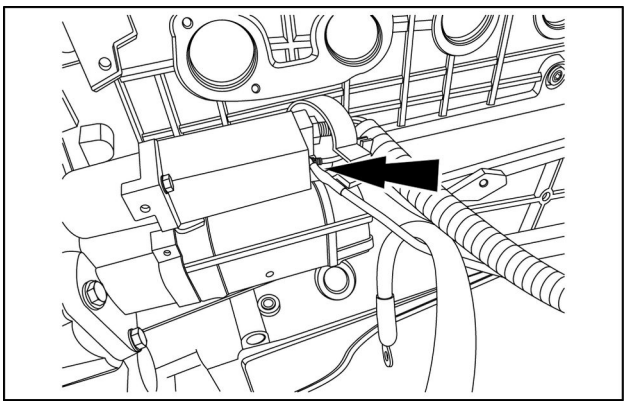
NHIL15BW00242AA 1

2. Disconnect the electrical connections from the starter.



NHIL15BW00243AA 2

3. Remove the black cover on the starter and remove the small control wire.



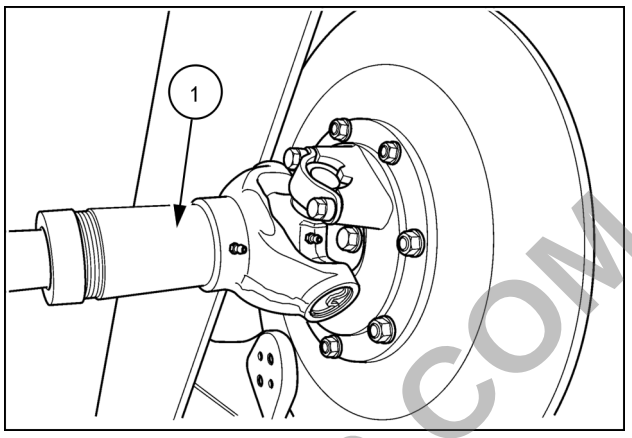
NHIL15BW00244AA 3

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Drive shaft from transmission to rear axle - Overview

The Allison transmission drives the rear driveshaft **(1)**. The rear driveshaft transfers power from the transmission to the rear axle. The rear axle provides traction power to the rear wheels.

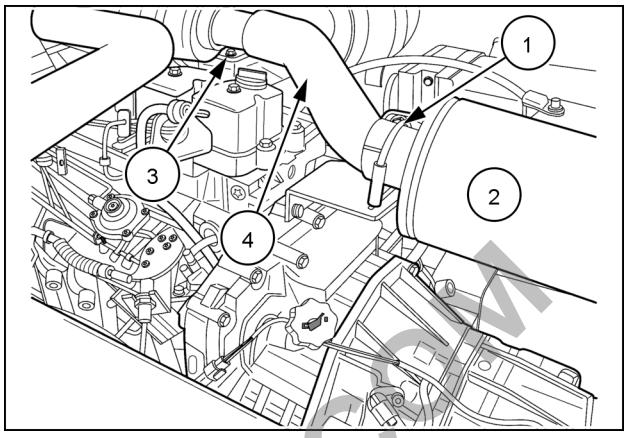


10035723 1

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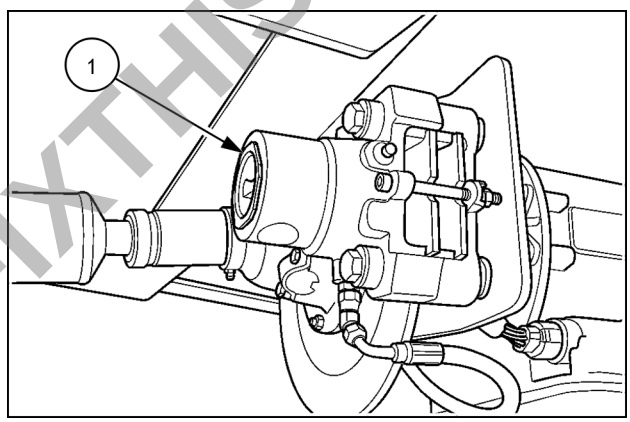
4. Remove the clamp **(1)** and remove the muffler **(2)**. Remove the clamp **(3)** and take off the exhaust pipe **(4)**.



86070623 4

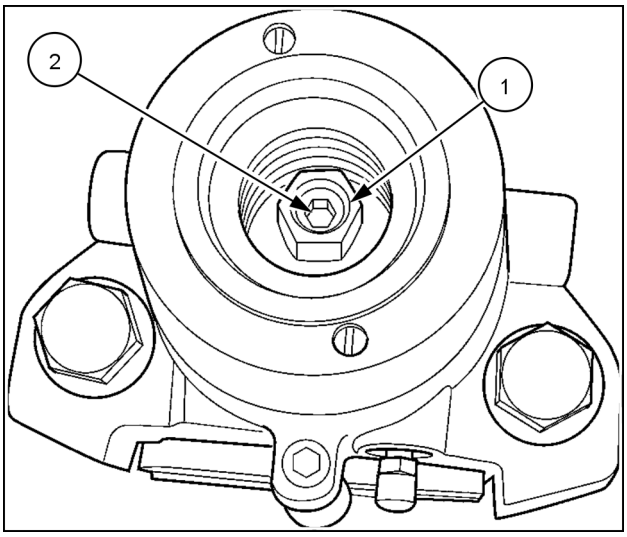
PIN Number Y7B665549 and Prior

5. To release the parking brake, turn the plug **(1)** counterclockwise and remove it.



10035785 5

6. Unlock the long nut **(1)** with a **13/16 in** socket.
7. With a **5/16 in** hex wrench, screw out the hex socket screw **(2)** far enough to disengage the parking brake. Install the plug hand-tight.

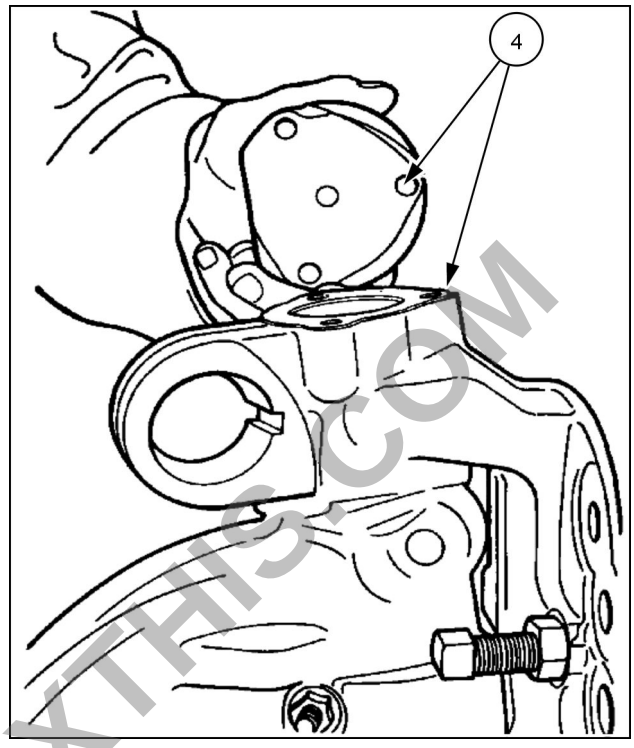


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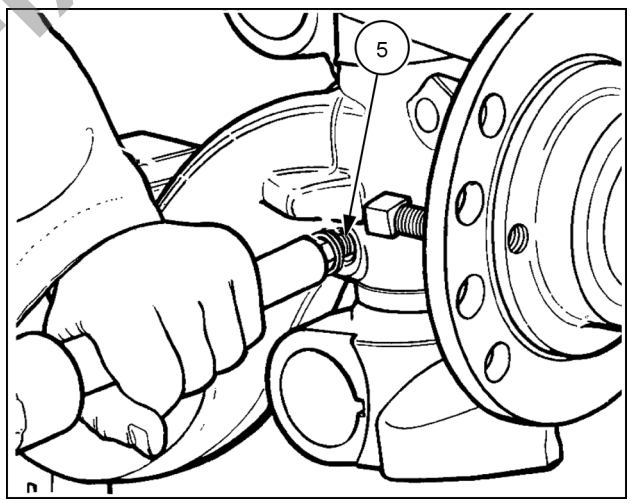
6. Remove the three bolts to remove the cap **(4)** grease fitting and gasket from the top and bottom of the knuckle.



20095853 4

7. Remove the threaded draw keys **(5)** from the axle as follows:
   A. Loosen the threaded draw key lock nut until the top of the lock nut is even with the end of the draw key.
   B. Use a brass drift and a hammer to hit the end of the draw key. Remove the nut from the draw key. Remove the draw key from the knuckle.

      NOTICE: *Be sure the drift contacts the nut and key squarely to prevent damage to the threads. Do not use a steel drift.*

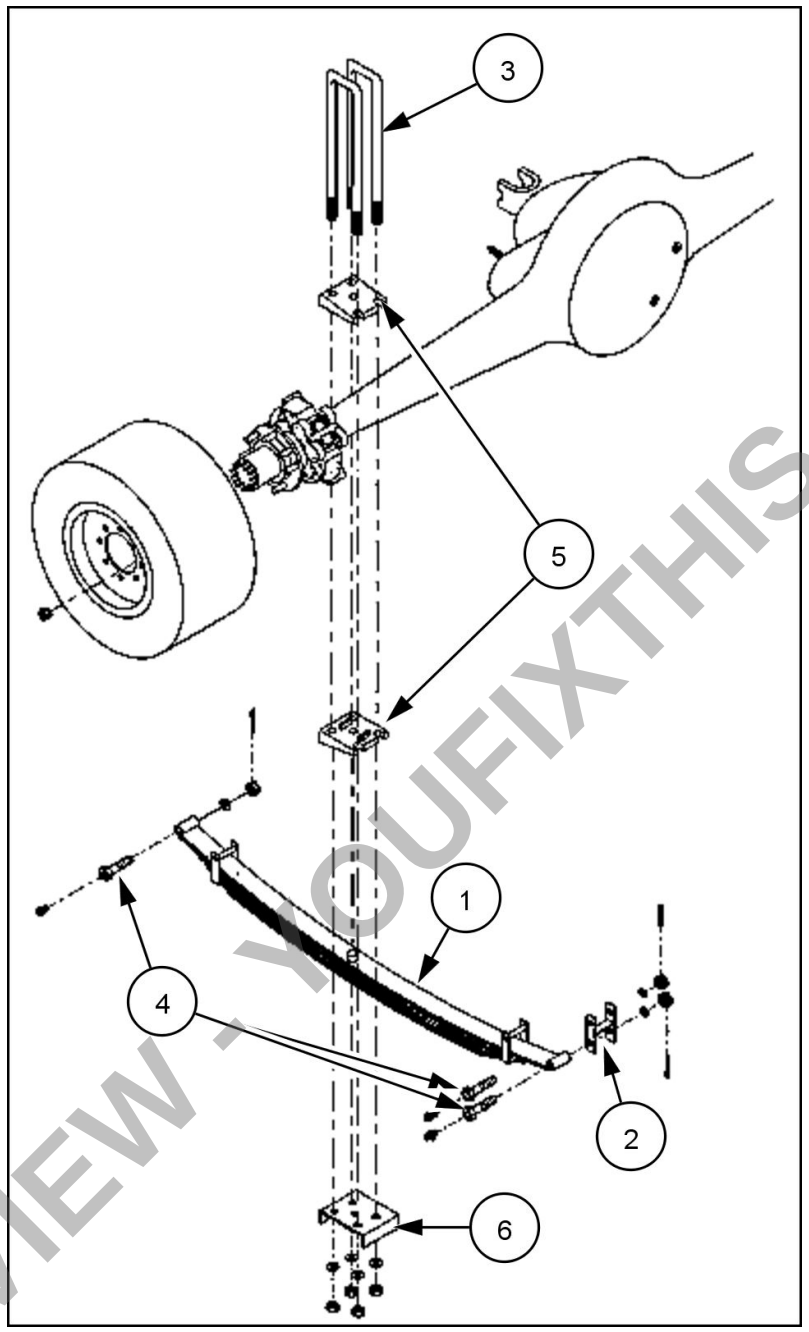


20095854 5

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Axle suspension - Overview



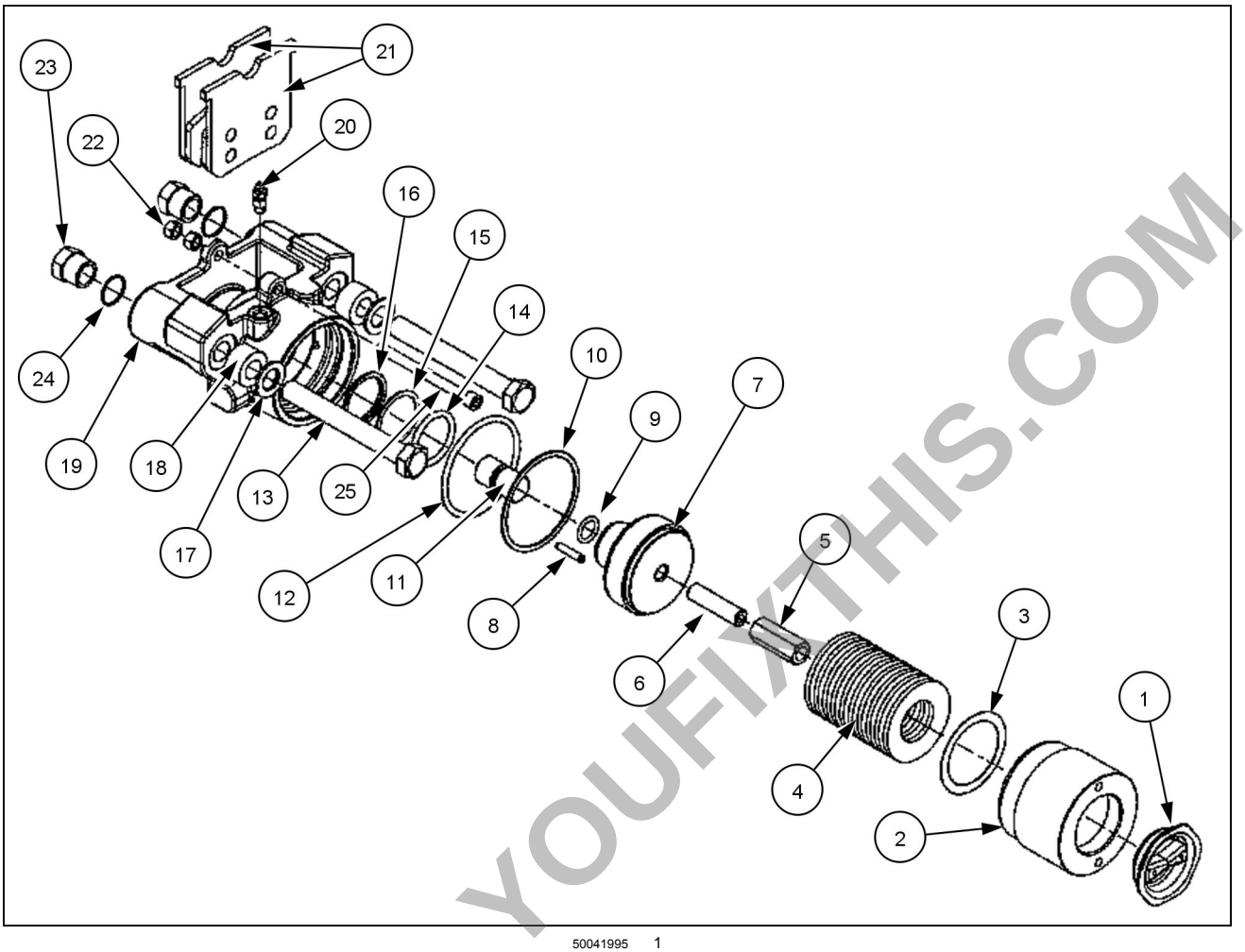
50041993 1

The rear springs **(1)** are of the semi-elliptic, leaf type. The springs are mounted to the frame side rails by shackles **(2)**. The axles are fastened to the leaf springs by U-bolts **(3)**. Whenever a leaf fails, the replacement leaf must be re-arced to match the remaining springs. It is suggested the leaves be replaced as a set.

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Parking brake caliper - Exploded view



50041995 1

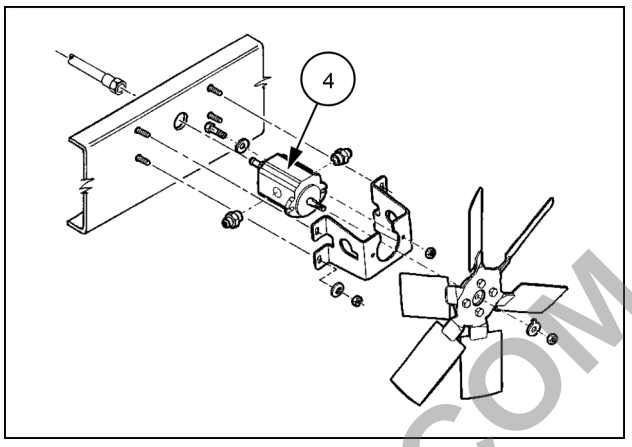
Item	Description	Item	Description
(1)	Screw-in plug	**(14)**	O-Ring seal
(2)	Spring housing	**(15)**	Backup ring
(3)	Shim	**(16)**	Wiper
(4)	Disc spring	**(17)**	Washer
(5)	Coupling nut 5/8 in -18	**(18)**	Urethane spring
(6)	Hex socket-head set screw 5/8 in -18	**(19)**	Torque plate
(7)	Piston	**(20)**	Bleeder
(8)	Roll pin **6 × 30 mm**	**(21)**	Brake pad lining
(9)	O-Ring seal	**(22)**	Hex nut 3/8 in -16
(10)	Backup ring	**(23)**	Jam-nut/sleeve **3/4 in** -10
(11)	Piston	**(24)**	O-Ring seal
(12)	O-Ring Seal	**(25)**	Hex socket-head cap screw 3/8 in x 4-1/2 in -16
(13)	Hex bolt 3/4 in -10		

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(4) – Fan motor

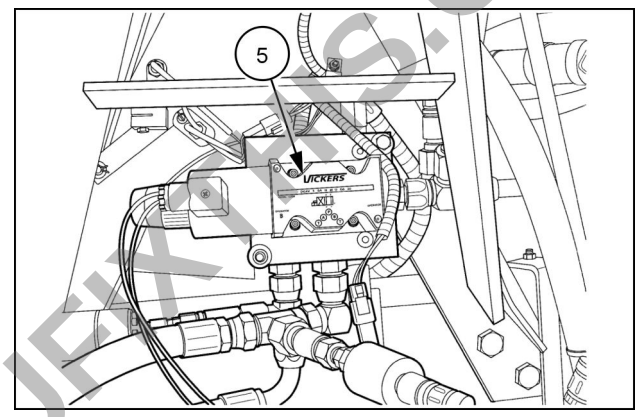
The fan motor mounts in the cooling package on the left-hand side of the bale wagon.



20043112 6

(5) – Fan-reversing valve

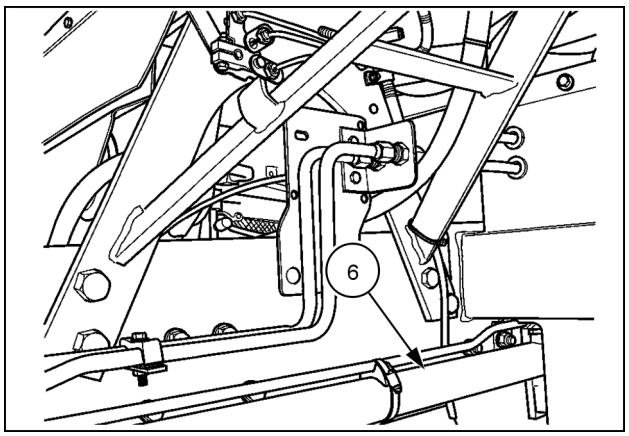
The fan-reversing valve mounts to the front of the cooling package on the left-hand side of the bale wagon.



24706334 7

(6) – Left-hand push-off cylinder

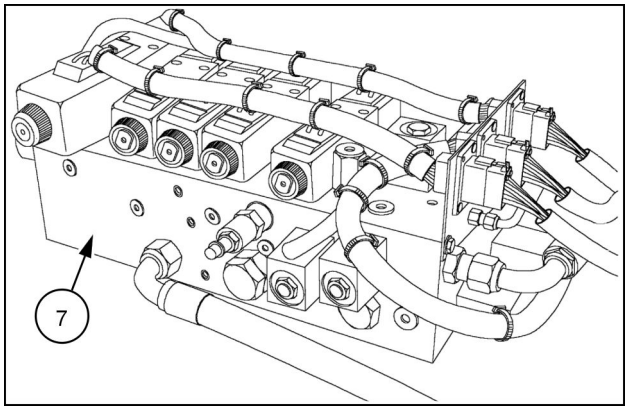
The left-hand push-off cylinder mounts along the bottom of the frame channel on the left-hand side of the bale wagon.



10031938 8

(7) – Piston Pump Manifold (PPM)

The Piston Pump Manifold (PPM) mounts on the left-hand side of the bale wagon.

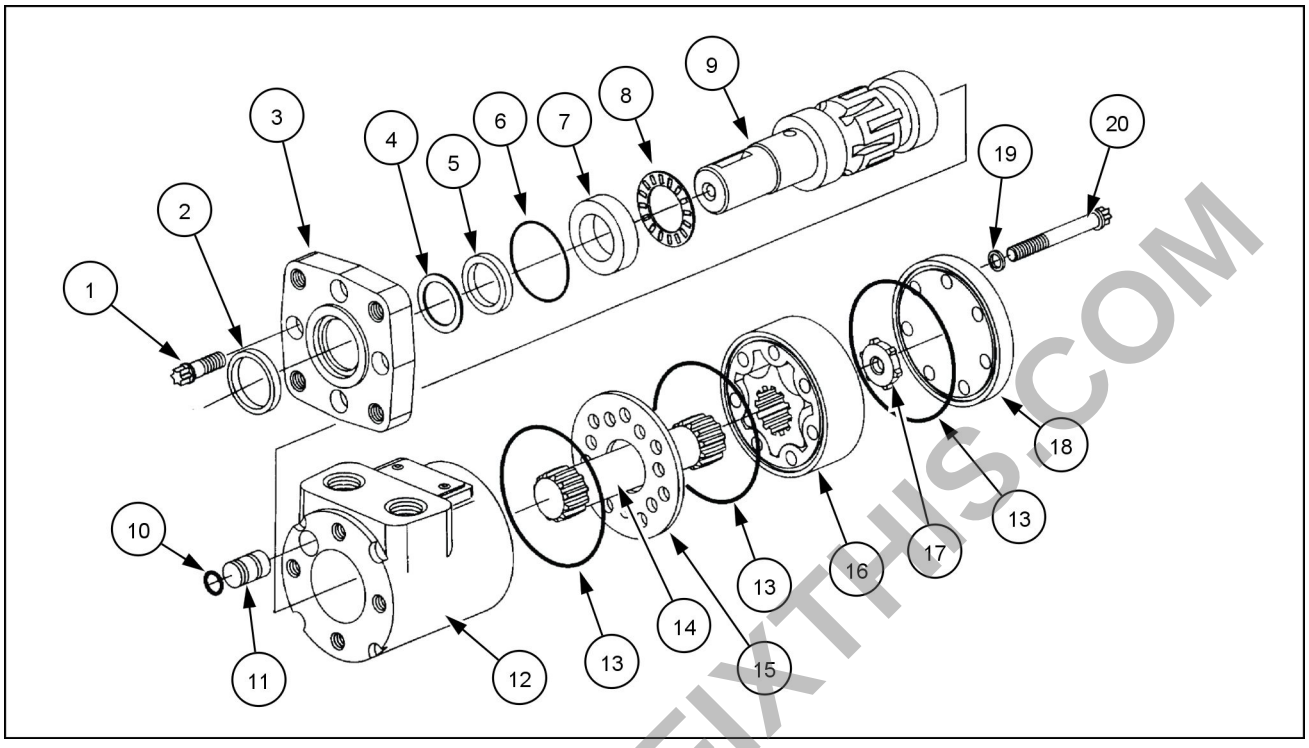


40035062N 9

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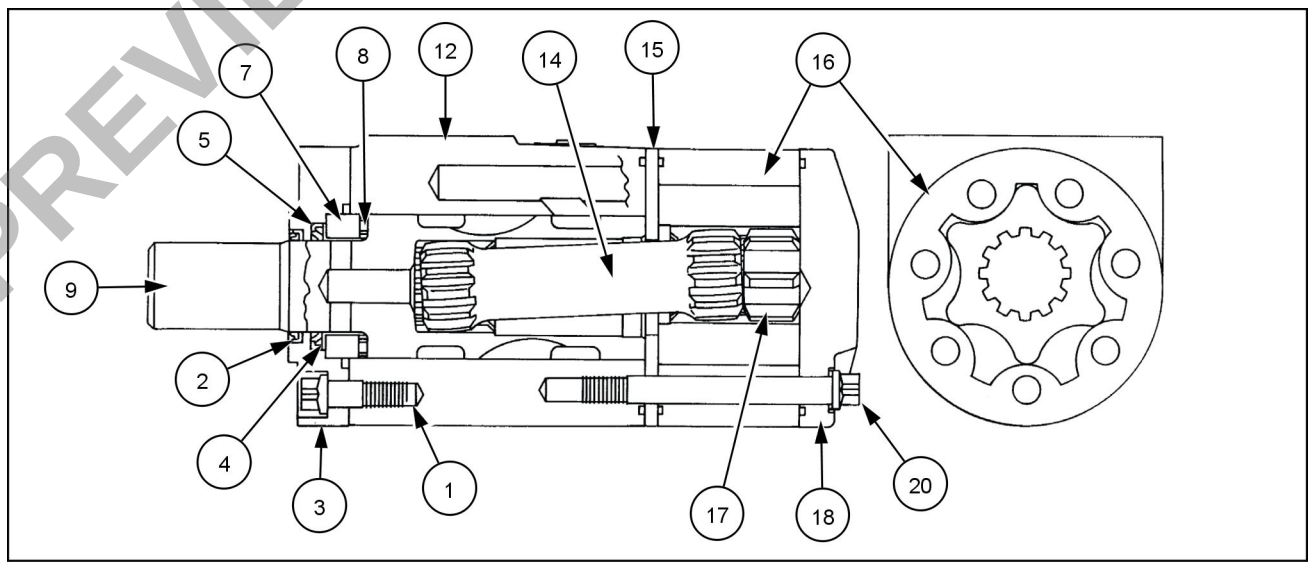
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Orbit motor - Exploded view



NHIL15BW00330FA 1

(1) Bolt, 12-pt, 7/8 inch
(2) Exclusion seal
(3) Mounting flange
(4) Backup washer
(5) Pressure seal
(6) Static seal, small
(7) Thrust bearing race
(8) Thrust needle bearing
(9) Output shaft
(10) O-ring
(11) Plug
(12) Housing
(13) Static seal, large
(14) Drive
(15) Spacer plate
(16) Gerotor
(17) Drive spacer
(18) End cap
(19) Seal washer
(20) Bolt, 12-pt, 1-3/4 inch



NHIL15BW00329FA 2

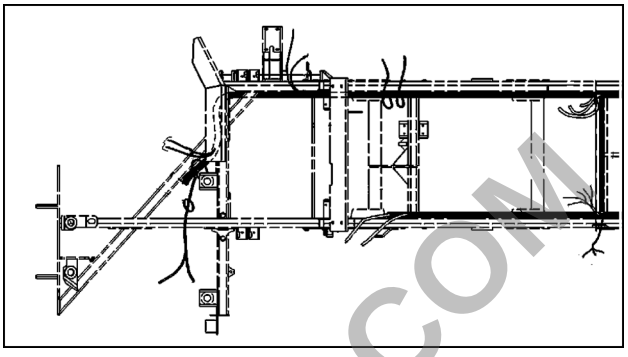
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Frame - Overview

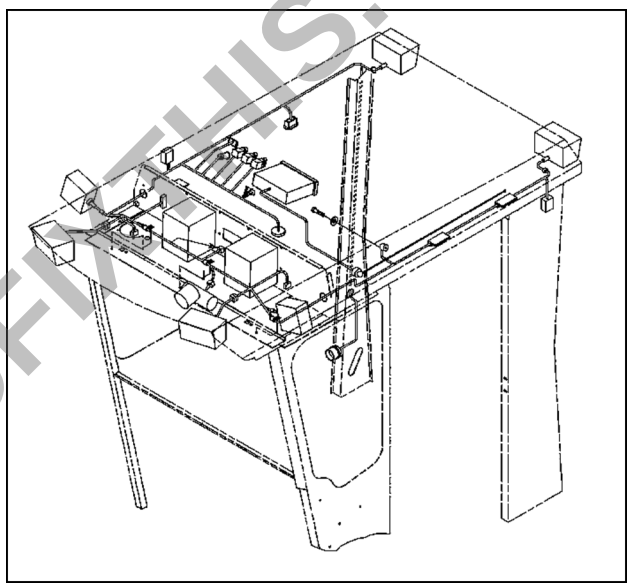
The bale wagon consists of two separate frames:

The main frame



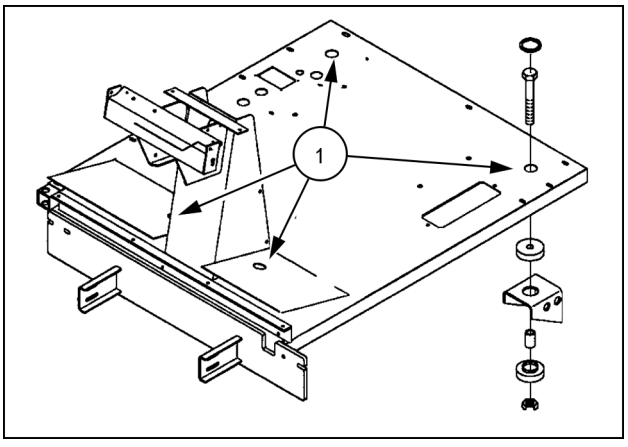
50040846 1

The cab frame



50040844 2

The entire cab platform is mounted n four rubber isolation mounts at **(1)** to reduce twisting, vibration, and noise transmitted from the engine and the drivetrain.

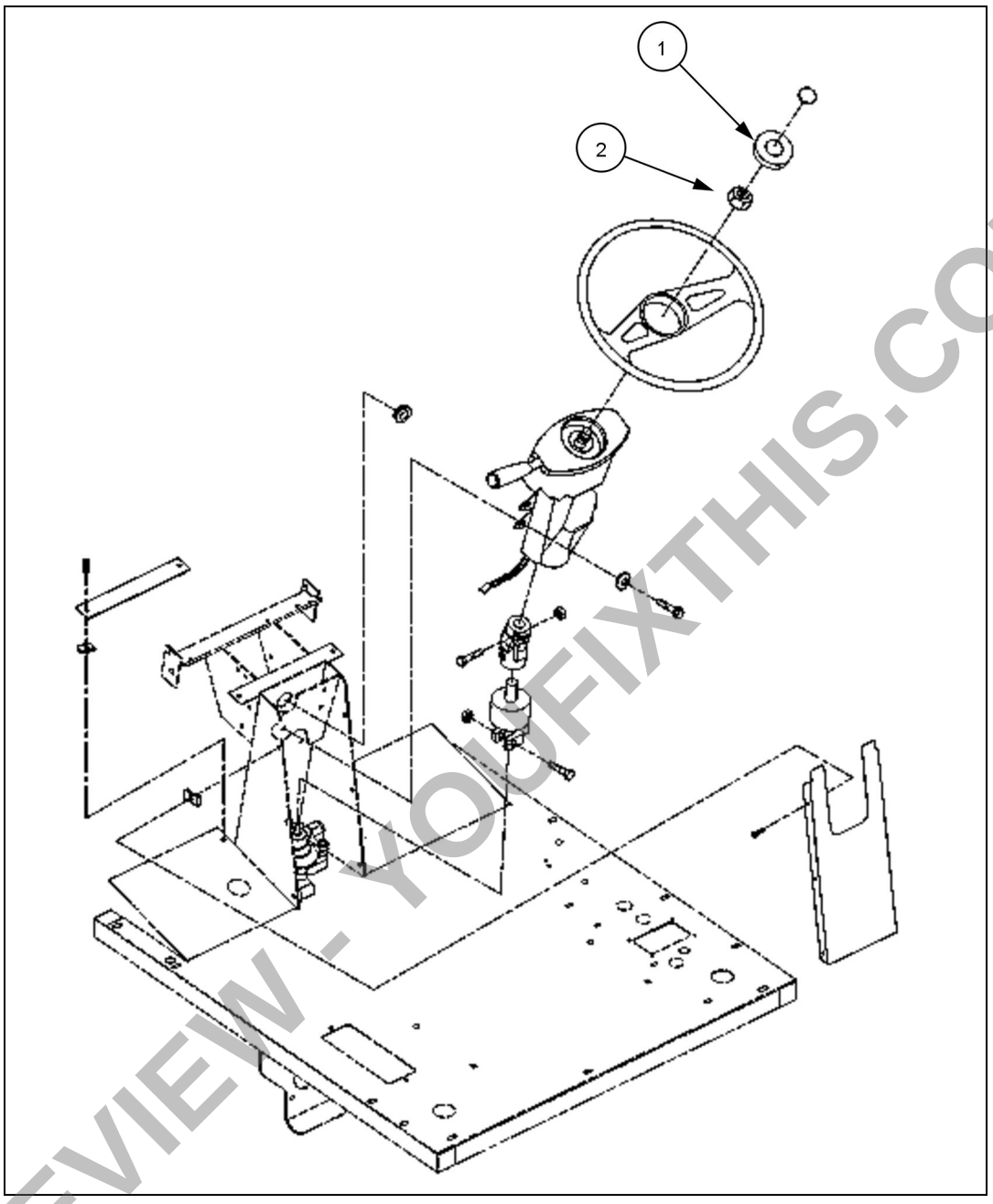


50040887 3

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Manual steering wheel - Remove – Steering wheel cap



50031971 1

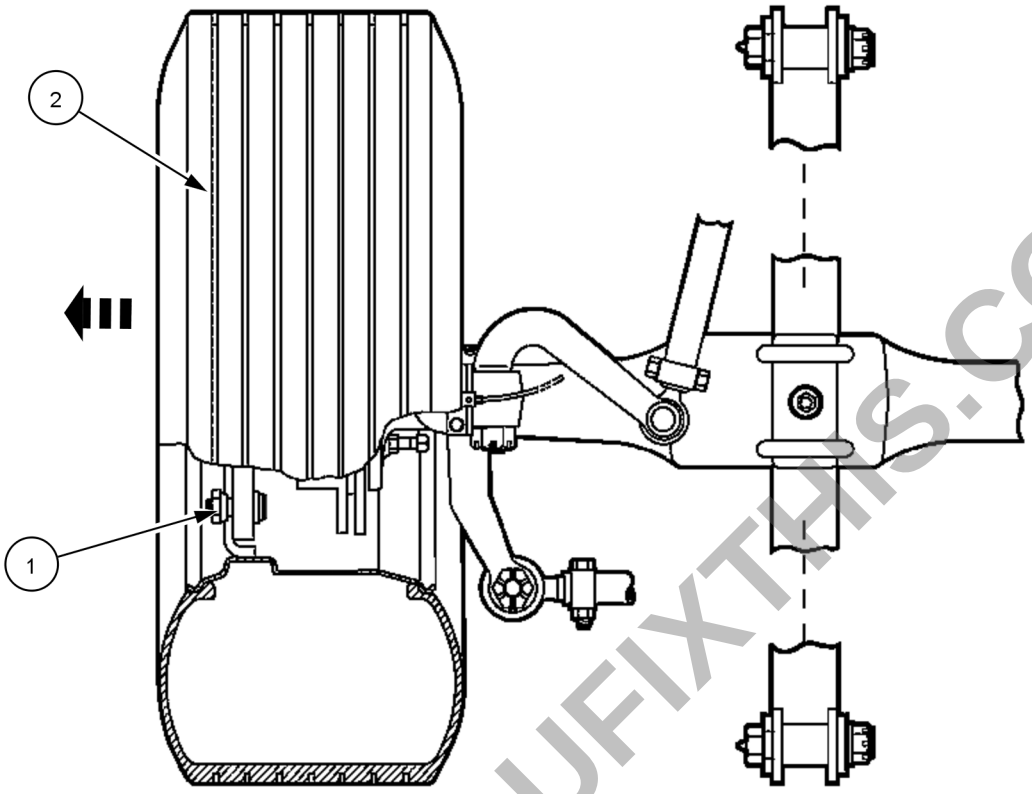
1. Pry the cap (**1**) from the center of the steering wheel.

Next operation:
Manual steering wheel - Remove (41.101)

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Front wheels - Remove



50031954 1

⚠ WARNING

Jack stands can slip or fall over. Dropping, tipping, or slipping of machine or its components is possible.
DO NOT work under a vehicle supported by jack stands only. Park machine on a level surface. Block wheels. Support machine with safety stands.
Failure to comply could result in death or serious injury.

W0069A

⚠ WARNING

Crushing hazard!
When jacking under the front axle, make sure the machine is on level ground. Engage the parking brake. Securely block rear wheels.
Failure to comply could result in death or serious injury.

W0085A

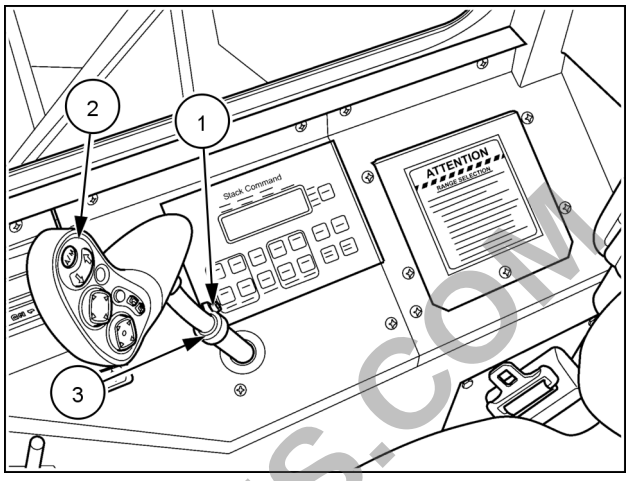
1. Loosen the wheel hub lug bolt nuts **(1)**. Use a jack to lift the wheel off the ground and install a jack stand under the axle.
2. Remove the wheel and tire **(2)**.

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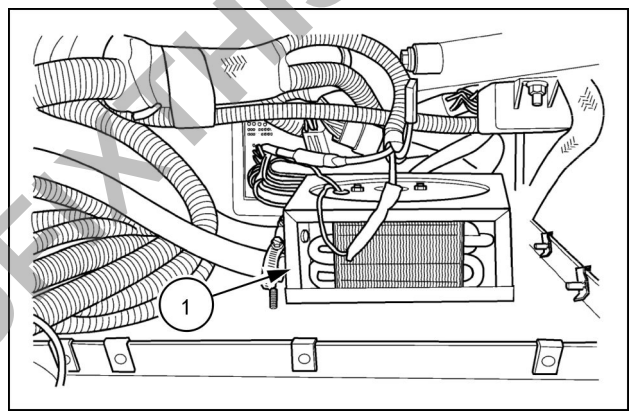
Heating - Service instruction – Accessing the heater components

1. Remove the truss head screws from the panels in the cab.
2. Loosen the bolt **(1)** on the Multi-Function Handle (MFH) **(2)**.
3. Pull the MFH **(2)** and the clamp **(3)** from the support tube.



10031931 1

4. Remove the panels to access the heater assembly **(1)**. Do not remove any connections from the back of the panels.

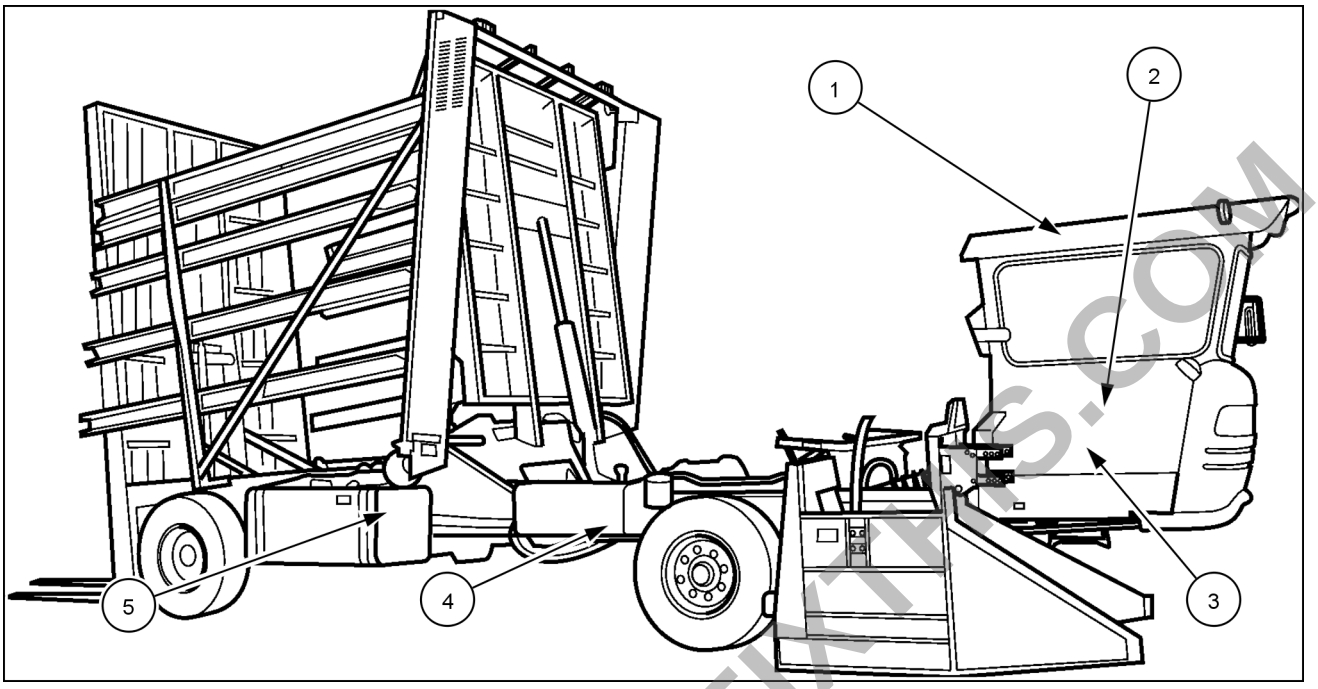


56063763N 2

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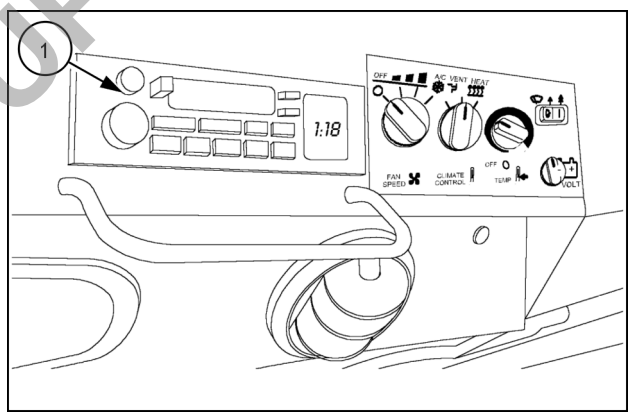
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Electrical system - Component localization – Electronic control units



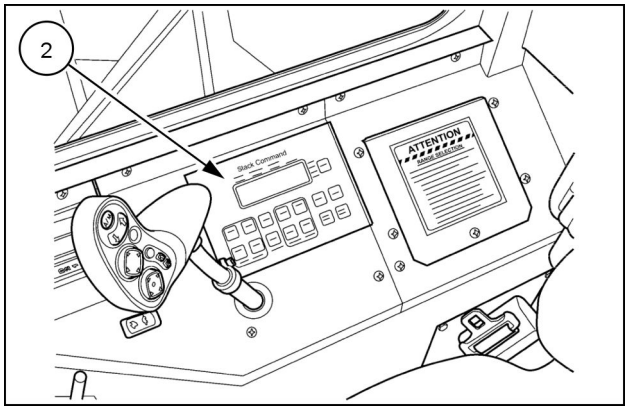
10035816 1

(1) - Radio A-01



40032489N 2

(2) - Operator display panel ECU-04

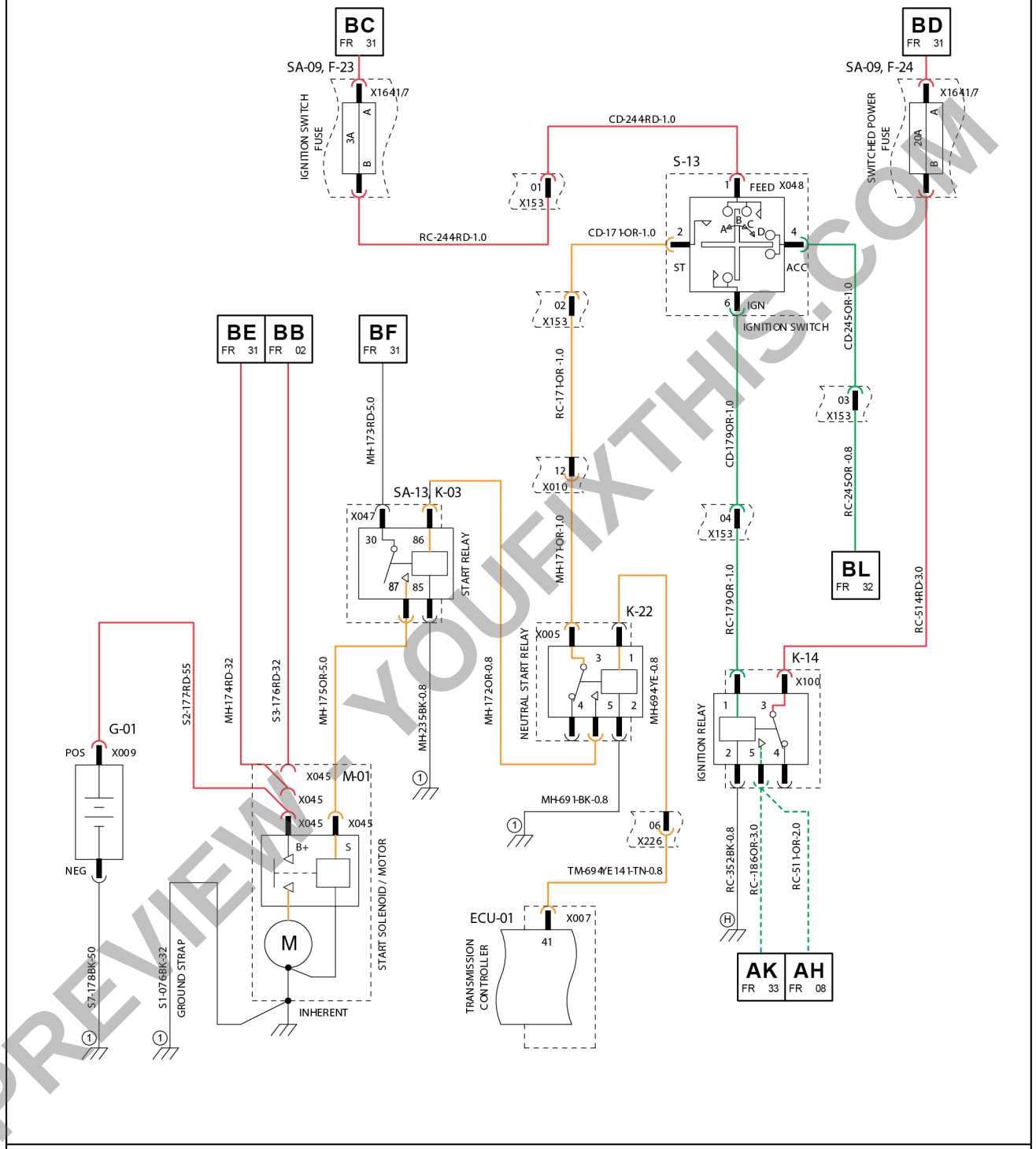


10031931N 3

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ENGINE STARTING SYSTEM



ECU-01 = TRANSMISSION CONTROLLER
F-23 = IGNITION SWITCH FUSE
F-24 = SWITCHED POWER FUSE
G-01 = BATTERY
K-03 = START RELAY
K-14 = IGNITION RELAY
K-22 = NEUTRAL START RELAY
M-01 = START MOTOR
S-13 = IGNITION SWITCH

FRAME-01

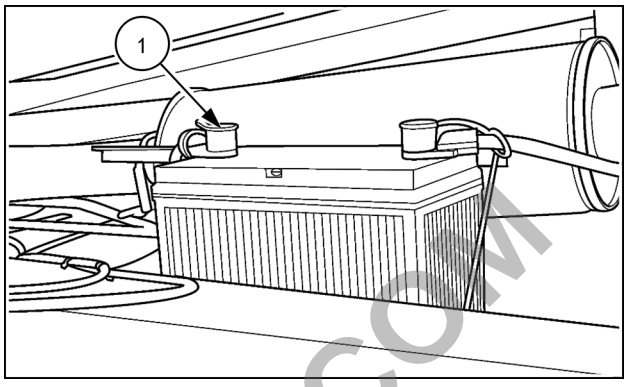
NHIL15BW00084HA 1

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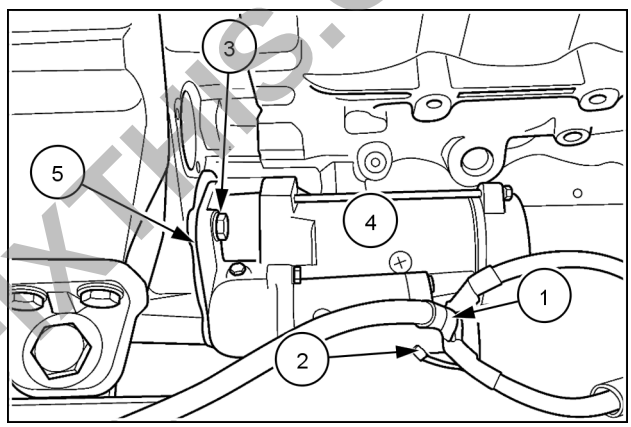
Engine starter - Remove

1. Remove the ground cable (black) **(1)** at the battery.



10035773 1

2. Remove the three red (+) wires and the solenoid wire **(2)**.
3. Remove the three bolts **(3)**.
4. Take off the starter **(4)** and the spacer **(5)**.

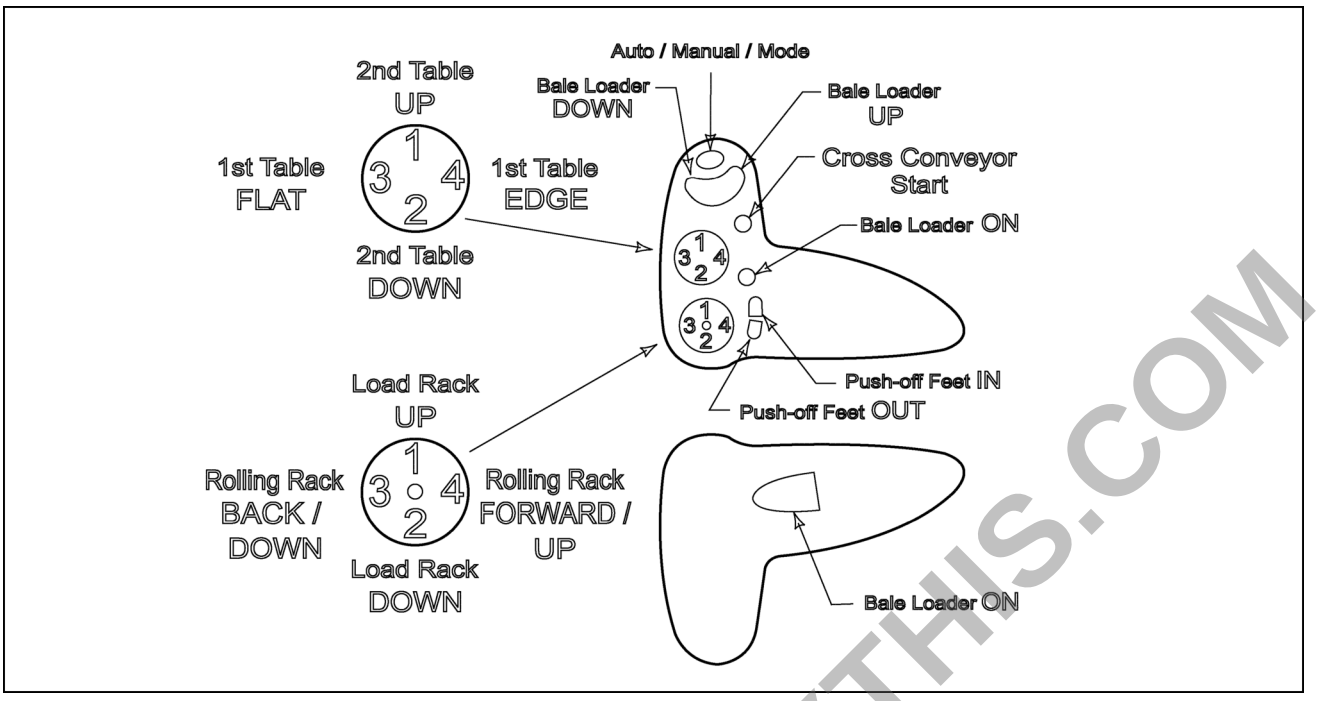


10035823 2

NOTE: *The starter is only available as a complete unit.*

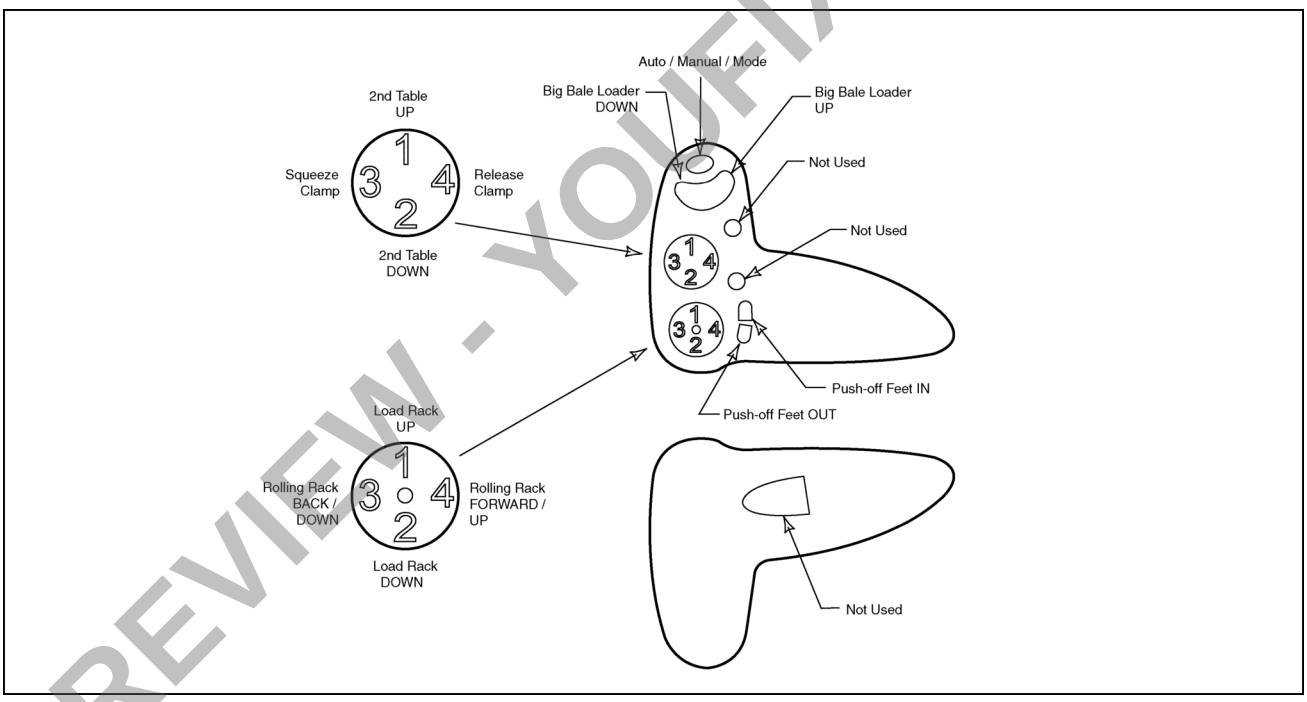
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50032555 3

With small bale loader

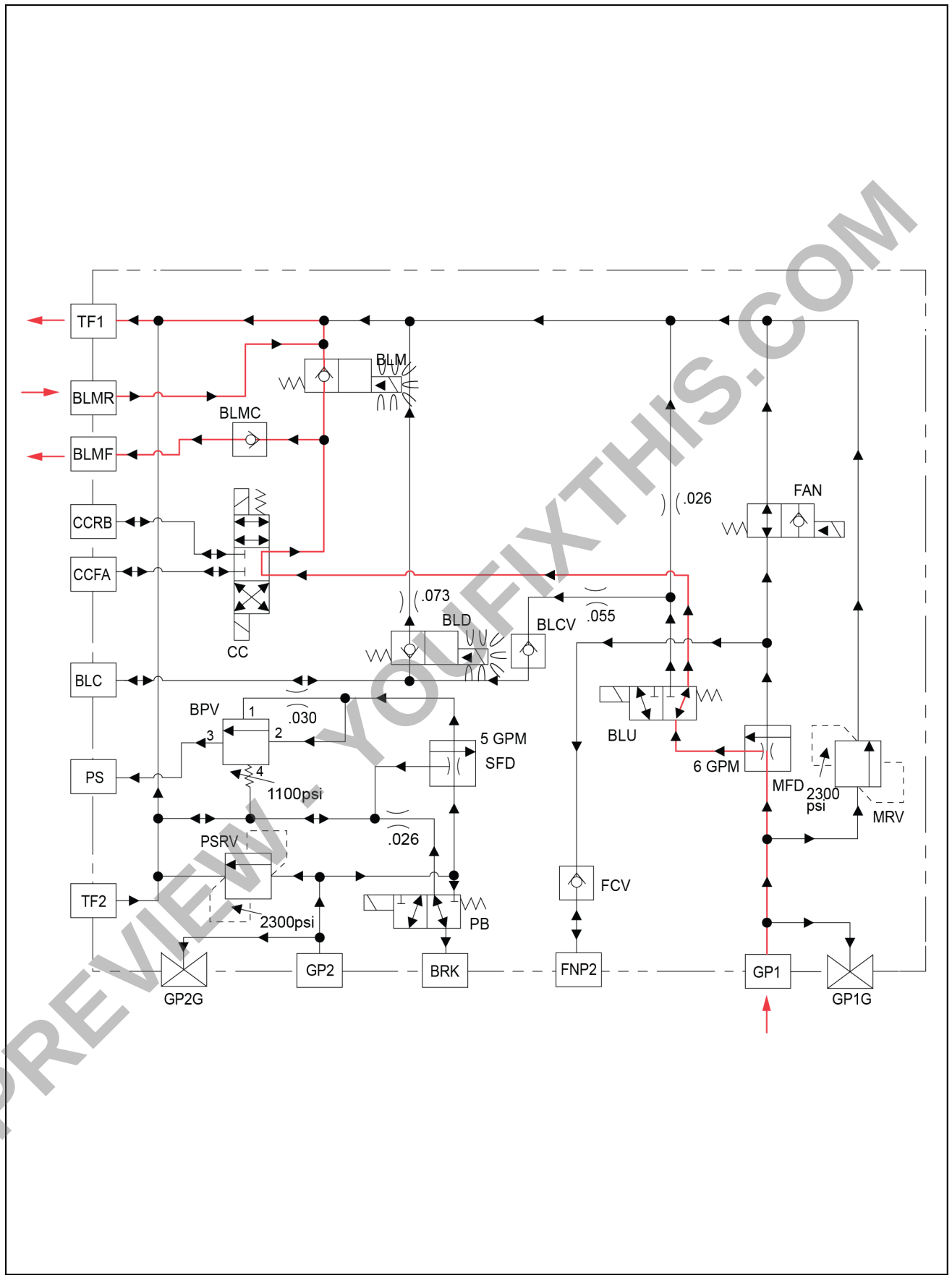


76082756 4

With big bale loader

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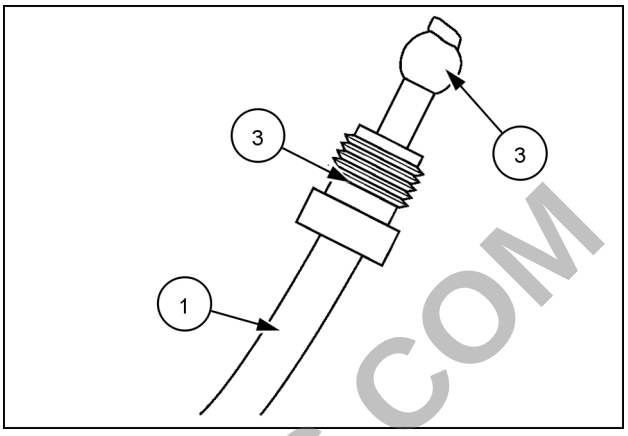
Bale loader motor on

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Lubrication lines - Replace

Each end of the grease lubrication line **(1)** consists of a ferrule **(2)** and a nut **(3)**.



10024749 1

To replace a grease lubrication line:

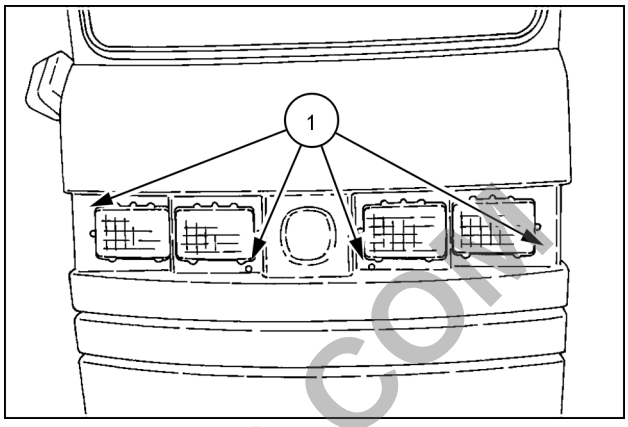
1. Loosen the nut from the coupler on each end to free the lubrication line.
2. Remove the lubrication line from the bale wagon.
3. Cut a new piece of plastic tubing to match the length of the tube that you removed.
4. Place a nut over each the plastic tubing.
5. Place the ferrule onto the plastic tubing.
6. Keep the ferrule in place as you turn the nut onto the coupler on the machine.

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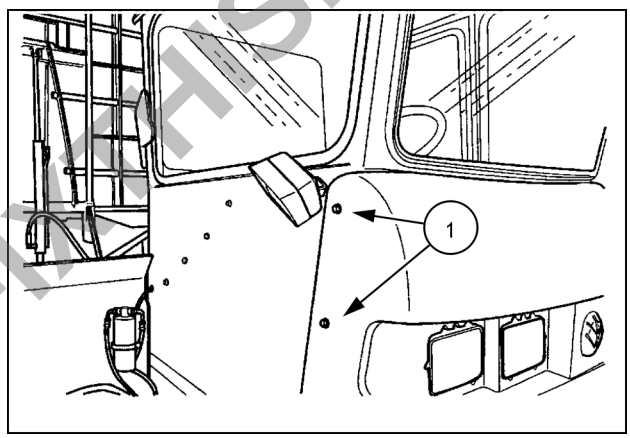
Front shield - Remove

1. Remove the four flange bolts **(1)** from the front of the shield that secures the headlight brackets.



20035801 1

2. Remove the three pan head screws **(1)** from each side of the shield.
3. Remove the shield from the machine.



50024075 2

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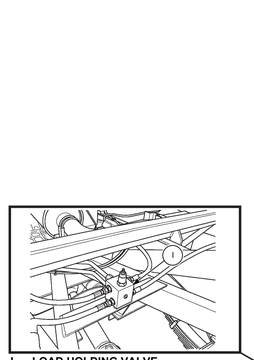
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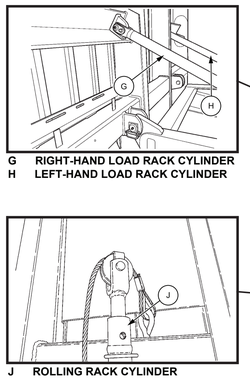
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I LOAD HOLDING VALVE



G RIGHT-HAND LOAD RACK CYLINDER
H LEFT-HAND LOAD RACK CYLINDER

J ROLLING RACK CYLINDER

F RIGHT-HAND PUSH-OFF CYLINDER

Q DOUBLE GEAR PUMP
U PISTON PUMP

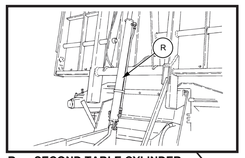
D HYDRAULIC RESERVOIR
E HYDRAULIC RETURN FILTER

V GEAR PUMP MANIFOLD (GPM)

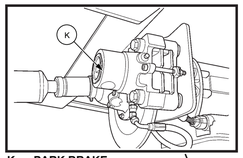
A CROSS CONVEYOR MOTOR

B BALE LOADER MOTOR

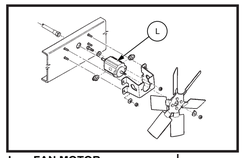
C LOADER LIFT CYLINDER



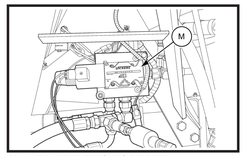
R SECOND TABLE CYLINDER



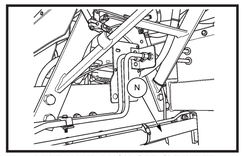
K PARK BRAKE



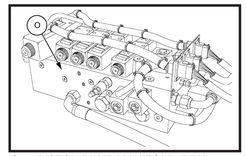
L FAN MOTOR



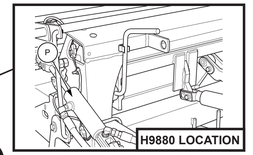
M FAN-REVERSING VALVE



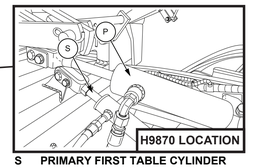
N LEFT-HAND PUSH-OFF CYLINDER



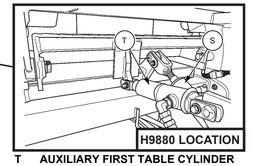
O PISTON PUMP MANIFOLD (PPM)



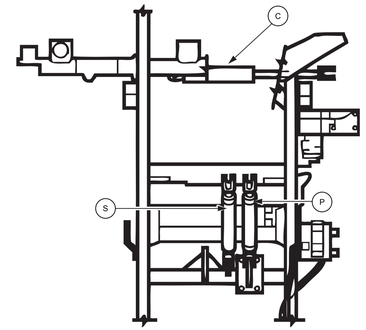
P AUTO-TIE SPIKES CYLINDER

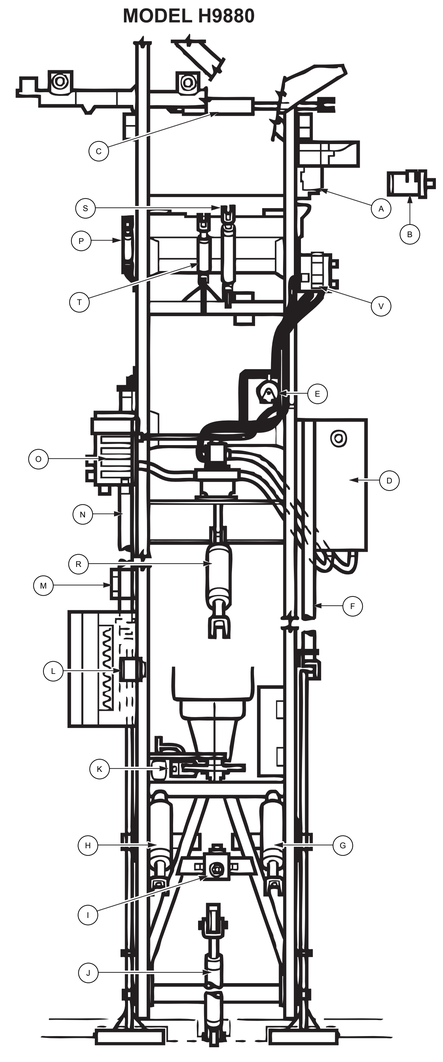


S PRIMARY FIRST TABLE CYLINDER
P AUTO-TIE SPIKES CYLINDER



T AUXILIARY FIRST TABLE CYLINDER
S PRIMARY FIRST TABLE CYLINDER





H9870 / H9880
SELF-PROPELLED BALE WAGON
47928896
HYDRAULIC COMPONENT LOCALISATION

ITEM	DESCRIPTION	ITEM	DESCRIPTION	ITEM	DESCRIPTION	ITEM	DESCRIPTION
A	CROSS CONVEYOR MOTOR	G	RH LOAD RACK CYLINDER	M	FAN-REVERSING VALVE	S	PRIMARY FIRST TABLE CYLINDER
B	BALE LOADER MOTOR	H	LH LOAD RACK CYLINDER	N	LH PUSH-OFF CYLINDER	T	AUXILIARY FIRST TABLE CYLINDER
C	LOADER LIFT CYLINDER	I	LOAD HOLDING VALVE	O	PISTON PUMP MANIFOLD (PPM)	U	PISTON PUMP
D	HYDRAULIC RESERVOIR	J	ROLLING RACK CYLINDER	P	AUTO-TIE SPIKES CYLINDER	V	GEAR PUMP MANIFOLD (GPM)
E	HYDRAULIC RETURN FILTER	K	PARK BRAKE	Q	DOUBLE GEAR PUMP		
F	RH PUSH-OFF CYLINDER	L	FAN MOTOR	R	SECOND TABLE CYLINDER		

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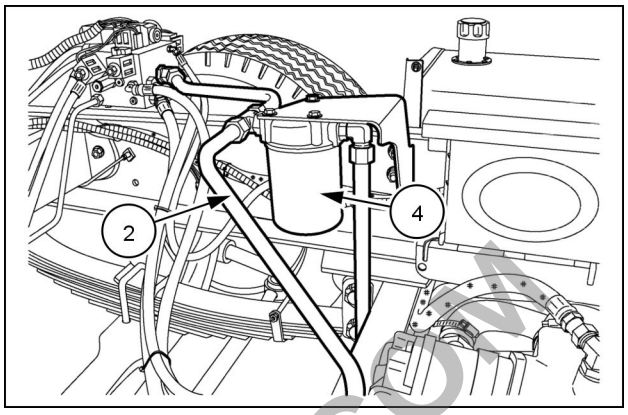
[35.106] Variable displacement pump 35.4

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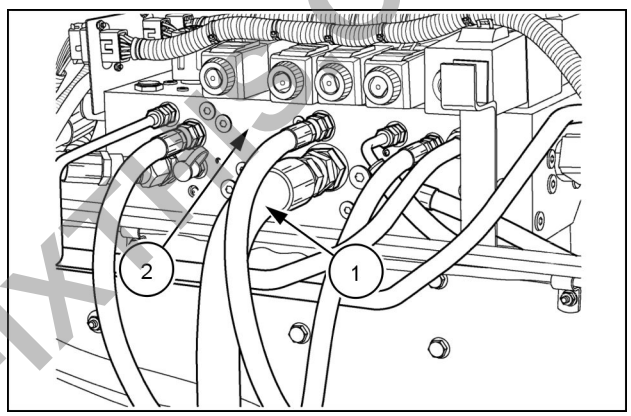
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(For PIN numbers starting with Y8G)

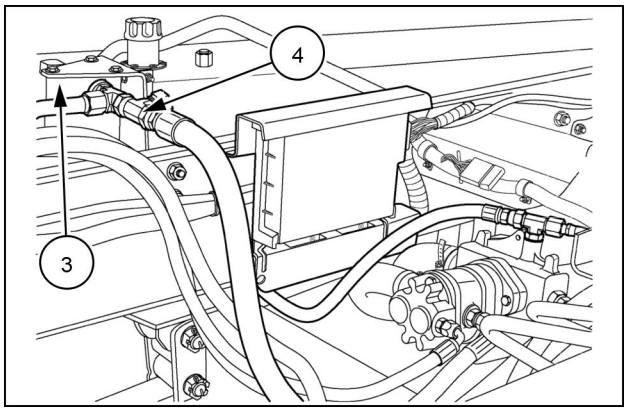


86080068N 4

3. Install a hose **(1)** between the PPM **(2)** and the filter **(3)** with a “T’ fitting **(4)** at the filter end.

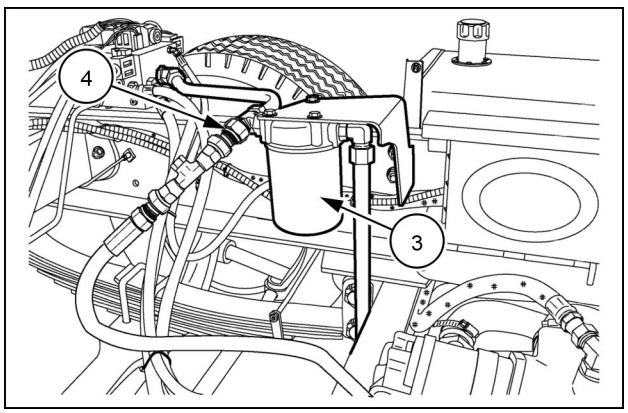


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(For PIN numbers starting with Y8G)

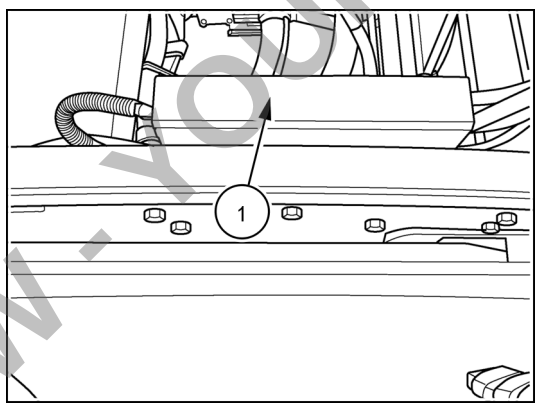


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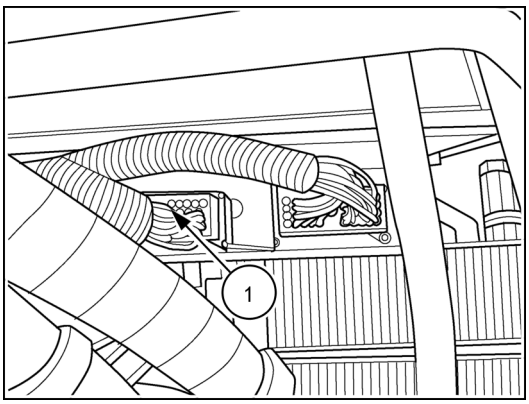
Pin	From	Wire	Description	Color-Size	Frame
19	Connector **X-046 pin 5**	MH-705	Bale clamp pressure sense	YE - 0.8	**Wiring harnesses - Electrical schematic sheet 41 (55.100)**
21	Connector **X-038 pin 1**	MH-019	Fan reversing solenoid L-25	GY - 0.8	**Wiring harnesses - Electrical schematic sheet 22 (55.100)**
22	Splice SPL-003	MH-195	Alternator G-02 charging signal	YE - 0.8	**Wiring harnesses - Electrical schematic sheet 04 (55.100)**
24	Connector **X-046 pin 3**	MH-699	**MILSTAK®** up sensor B-19	YE - 0.8	**Wiring harnesses - Electrical schematic sheet 41 (55.100)**
25	Connector **X-026 pin 2**	MH-193	Left push off feet retracted switch B-12	YE - 0.8	**Wiring harnesses - Electrical schematic sheet 18 (55.100)**
26	Connector **X-059 pin 02**	MH-194	Right push off feet retracted switch B-17	YE - 0.8	**Wiring harnesses - Electrical schematic sheet 19 (55.100)**
27	Connector **X-046 pin 1**	MH-695	**MILSTAK®** down sensor B-19	YE - 0.8	**Wiring harnesses - Electrical schematic sheet 41 (55.100)**
28	Connector **X-083 pin 02**	MH-047	Load rack down switch B-13	YE - 0.8	**Wiring harnesses - Electrical schematic sheet 18 (55.100)**
29	Connector **X-046 pin 4**	MH-700	Bale clamp pressure	OR - 0.8	**Wiring harnesses - Electrical schematic sheet 41 (55.100)**
30	Splice SPL-045	MH-018	Push off retract solenoid L-24	GY - 0.8	**Wiring harnesses - Electrical schematic sheet 20 (55.100)**
34	Connector **X-010 (Female) pin 24**	MH-608	Multi-Function Handle (MFH) S-29	YE -0.8	**Wiring harnesses - Electrical schematic sheet 17 (55.100)**
35	Connector **X-010 (Female) pin 25**	MH-609	Multifunction handle S-29	YE - 0.8	
36	Connector **X-010 (Male) pin 39**	MH-164	To operator panel ECU-04	YE - 0.8	**Wiring harnesses - Electrical schematic sheet 16 (55.100)**
37	Splice SPL-009	MH-166	To operator panel ECU-04	YE - 0.8	
38	Connector **X-025 pin 2**	MH-046	Second table down switch B-11	YE - 0.8	**Wiring harnesses - Electrical schematic sheet 18 (55.100)**
39	Connector **X-010 (Female) pin 23**	MH-607	Multi-Function Handle (MFH) S-29	YE - 0.8	**Wiring harnesses - Electrical schematic sheet 17 (55.100)**



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Right frame channel, behind hydraulic oil tank

1. Main controller ECU-02



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Bottom of controller

1. Connector X-028

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