General specification - Three wheel units

Titan™ 3040	
Titan™ 3540	

Item	Titan 3040 Specification	
Engine	**8.7 l** (**530 in³**) **330 Hp** Case IH Cursor Emission level (tier) 4B (final)	
Transmission	Allison 3000 RDS 6 speed automatic	
Auxiliary transmission (if equipped)	Fabco 2 speed	
Rear Axle	Axle Tech PRC 674 2 speed with wheel end planetary	
Front Axle	**115 mm** (**4.53 in**) solid shaft, **70 mm** (**2.76 in**) axle bearings	
Frame	12 x 4 x 0.3125 inches HSLA cold formed steel main frame with high strength reinforcement plates.	
Dimensions	Wheelbase	**6.8 m** (**268 in**)
	Cab to Axle	**2.89 m** (**114 in**)
	Cab to end of frame	**3.78 m** (**149 in**)
	Overall length	**8.59 m** (**338 in**)
	Overall width	**3.5 m** (**138 in**)
	Overall height	**3.62 m** (**142.5 in**) with 66/66 tires
	Weight	**10428 kg** (**22990 lb**) (without auxiliary transmission)
Chassis vehicle rated capacity	Front axle (static)	**7257 kg** (**16000 lb**)
	Rear Axle (static)	**15422 kg** (**34000 lb**)
	Total (static)	**22680 kg** (**50000 lb**)
Brakes	Front	Air (36 cubic inch chamber) over hydraulic applied **711 mm** (**28 in**) disc brake w/ dual piston floating caliper
	Rear	Air applied 16.5 x 5 inch with 36 cubic inch chambers
	Park	Spring applied, air release
Tires	Front and rear	Firestone: 66 x 43-25 bias, 16 ply, 73 x 44.00–32 bias, 16 ply Goodyear: 1000/50R25 radial, 1050/50R32 radial Michelin: 1000/50R25 radial, 1050/50R32 radial
Steering	Hydraulic with flow control pump and load sensing dual displacement steering valve.	
Paint	Roof, bottom and side panels, hood and frame: Two part urethane. Cab metal parts: Thermal set acrylic.	

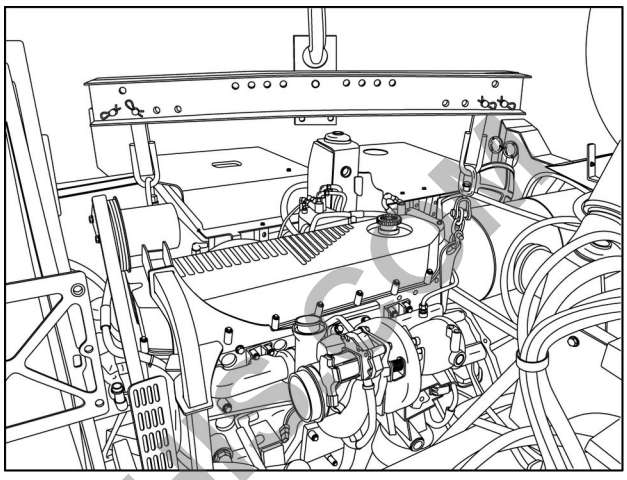
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Engine - Install - Three wheel units

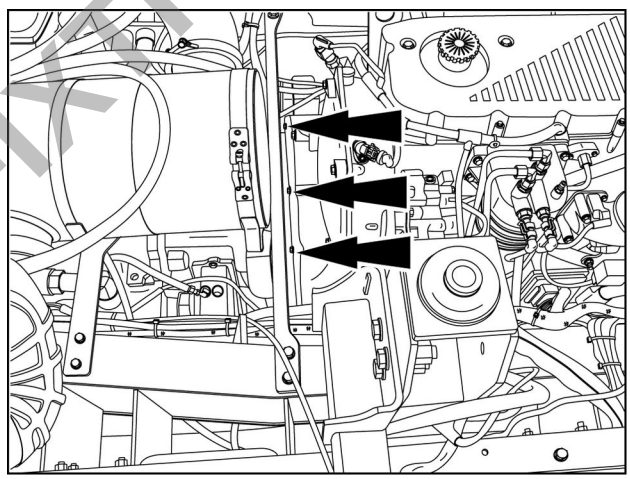
Titan™ 3040	
Titan™ 3540	

1. Using engine lift fixture, lift engine into frame.



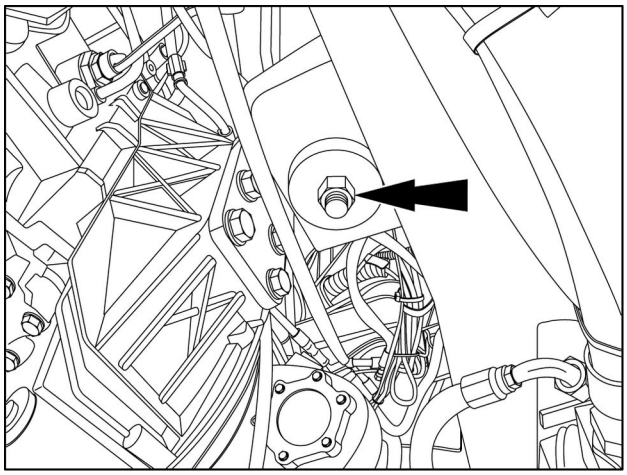
RAIL14SP01261AA 1

2. Mate the engine to the transmission.
3. Use **LOCTITE® 242®** on bolts and loose assemble the bolts **(1)** removed during the disassembly. (Top bolts shown, assemble all bolts).



RAIL14SP01262AA 2

4. Loose assemble all of the engine mount bolts and nuts.



RAIL14SP01263AA 3

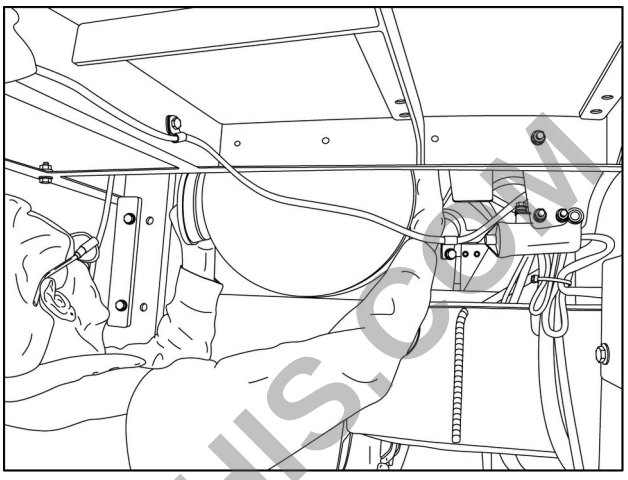
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Diesel Oxidation Catalyst (DOC) - Install - Four wheel units

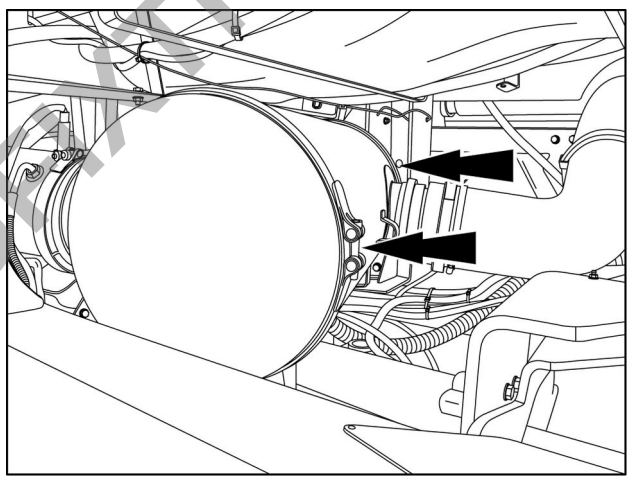
Titan™ 4040	
Titan™ 4540	

1. Install the DOC over the top of the left hand frame rail on to the support brackets as shown.



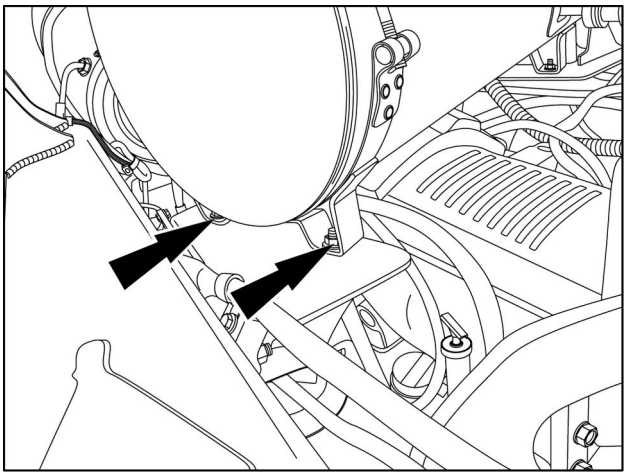
RAIL14SP00568AA 1

2. Loose assemble the strap clamps to the DOC. Do both sides.



RAIL14SP00567AA 2

3. Assemble and tighten the mounting bolts securing the strap clamps to the support brackets. Do both sides.



RAIL14SP00565AA 3

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	A	B	C	D	E	F	G	H	I
Torque	**678 N·m (500 lb ft)**	**407 N·m (300 lb ft)**	**122 N·m (90 lb ft)**	**95 N·m (70 lb ft)**	**7 N·m (5 lb ft)**	**9 N·m (7 lb ft)**	**34 N·m (25 lb ft)**	**41 N·m (30 lb ft)**	**61 N·m (45 lb ft)**
output shaft front nut	X								
output shaft rear yoke nut		X							
intermediate shaft front bearing lock nut		X							
intermediate shaft rear bearing lock nut		X							
input shaft front yoke lock nut		X							
input shaft rear bearing lock nut		X							
output and intermediate shaft rear cover			X						
output shaft front cover				X					
input shaft rear cover				X					
input shaft front seal carrier				X					
vent					X				
Not shown									
shift shaft cover plate						X			
range shift fork bolts							X		
shift piston retaining nut								X	
housing cover plate bolts									X

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Front axle - Torque - Three wheel units

Titan™ 3040	
Titan™ 3540	

Description	Torque value
Bushing bolts	**300 - 350 N·m** (**221 - 258 lb ft**)
Wheel bolts	**610 - 678 N·m** (**450 - 500 lb ft**)
Bearing lock nuts	**535 N·m** (**395 lb ft**)

Front axle - Special tools - Three wheel units

Titan™ 3040	
Titan™ 3540	

380001784 Bearing nut spanner.

Front axle - Torque - Four wheel units

Titan™ 4040	
Titan™ 4540	

Description	Torque value
Front spring u-bolts	**420 N·m** (**310 lb ft**)
Wheel nuts	**610 - 678 N·m** (**450 - 500 lb ft**)
King pin cap bolts	**27 - 41 N·m** (**20 - 30 lb ft**)
Steering spindle draw key nut	**41 - 61 N·m** (**30 - 45 lb ft**)

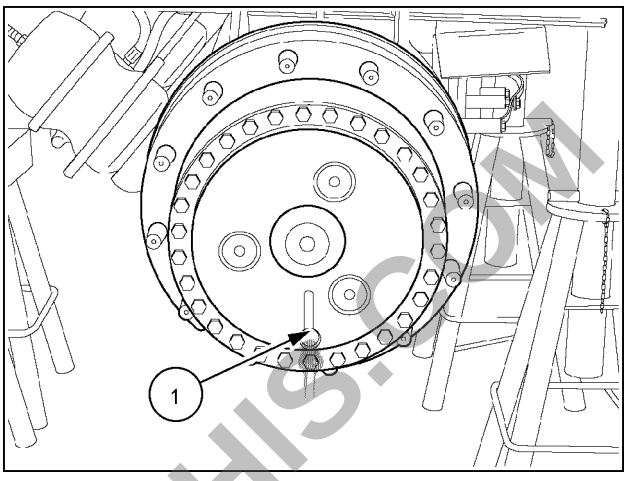
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Pneumatic service brakes - Replace - Rear axle brake shoes

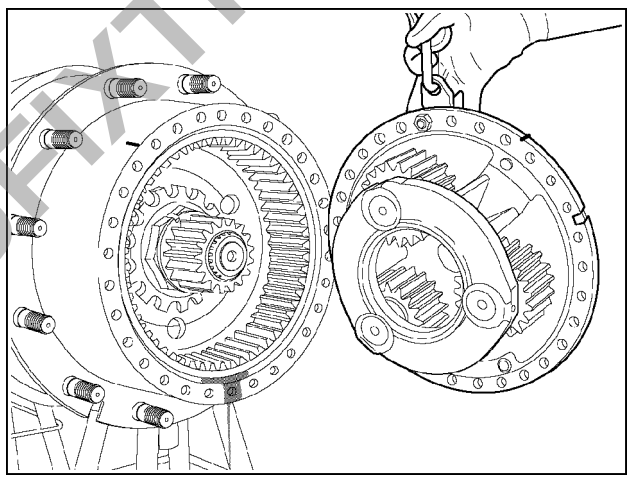
Chock front wheel, raise rear of vehicle per **Frame - Raise - Three wheel units, rear (39.100)** for three wheels models or **Frame - Raise - Four wheel units, rear (39.100)** for four wheel models. Remove rear tires.

1. Drain the hub carrier fluid **(1)** into a container.



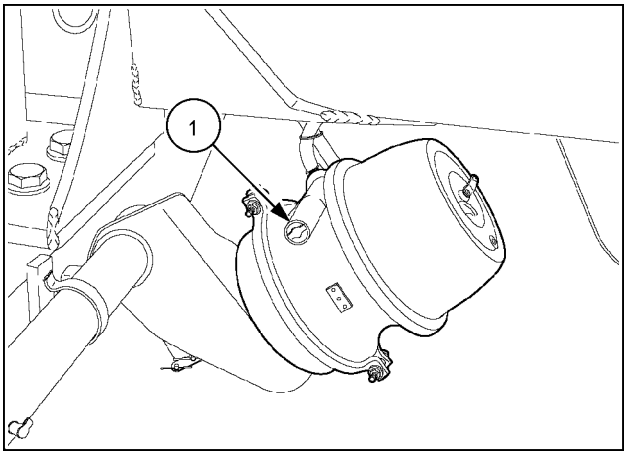
RCPH10FLT064BAO 1

2. Remove the planetary hub cover.



RCPH10FLT067BAO 2

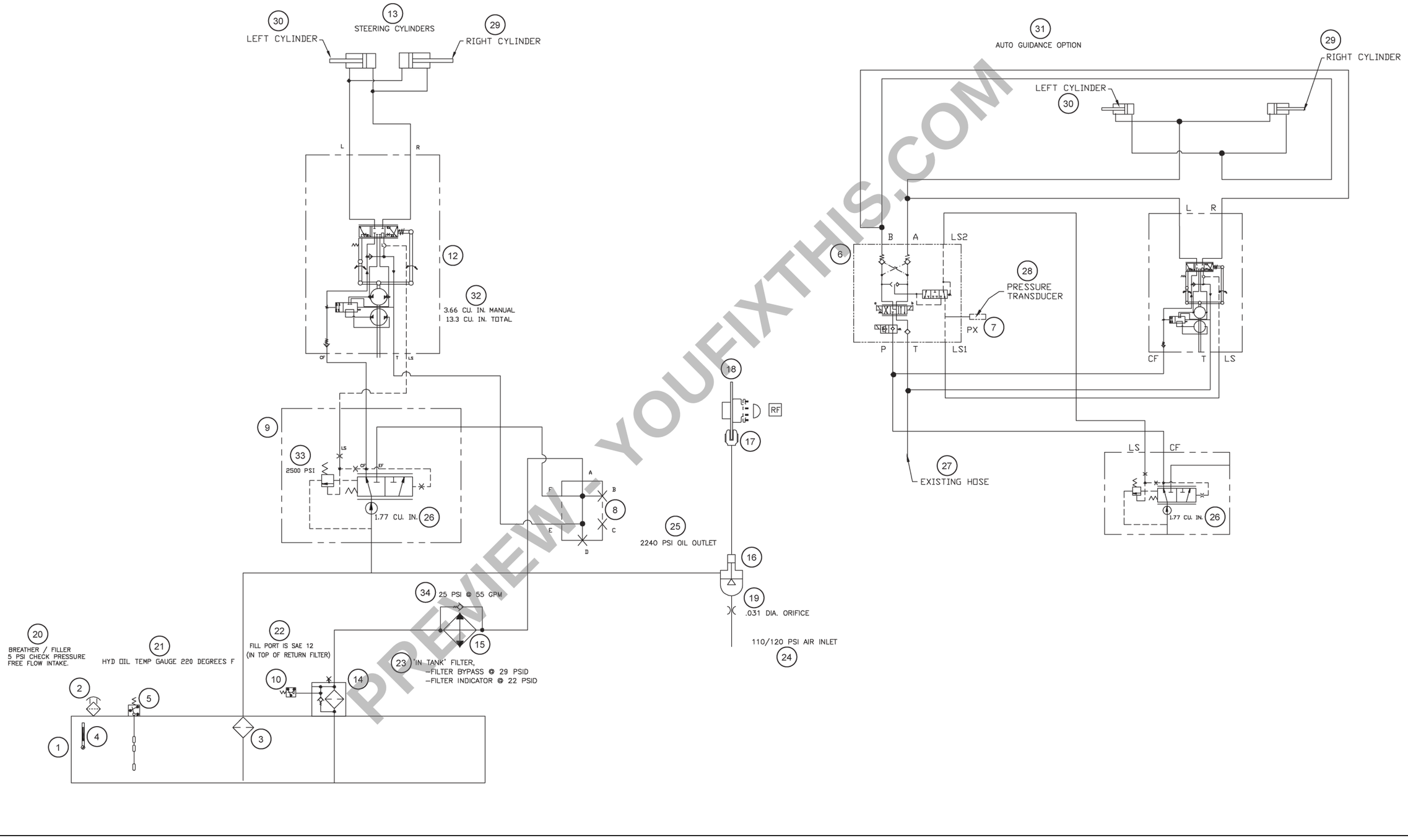
3. Remove the cage bolt from the air chamber and insert the cage release bolt with nut and washer into the top of the air chamber.



RCPH10FLT072BAO 3

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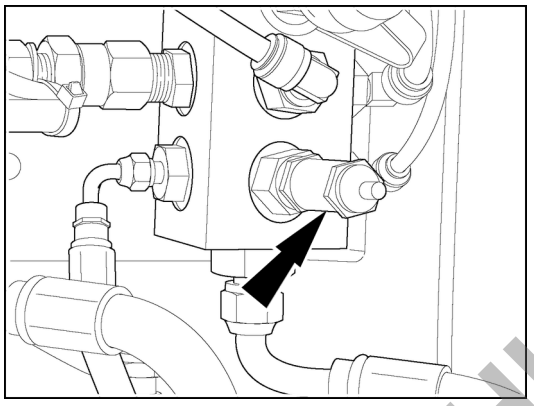
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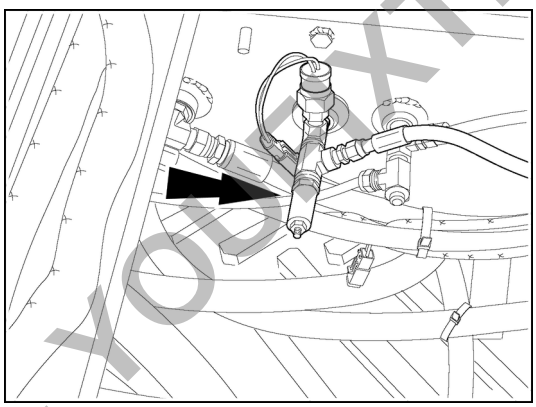
System relief valve

The pneumatic system uses a relief valve for over pressure protection. The valve is located on the primary air tank manifold located behind the left swing out ladder on the 3 wheeled chassis models. For the 4 wheeled chassis models the valve is located directly on the primary tank, which is the left frame rail. The relief valve is set to exhaust at **10 bar** (**150 psi**).



RCPH10CCH020FAE 6

3 wheeled chassis relief valve

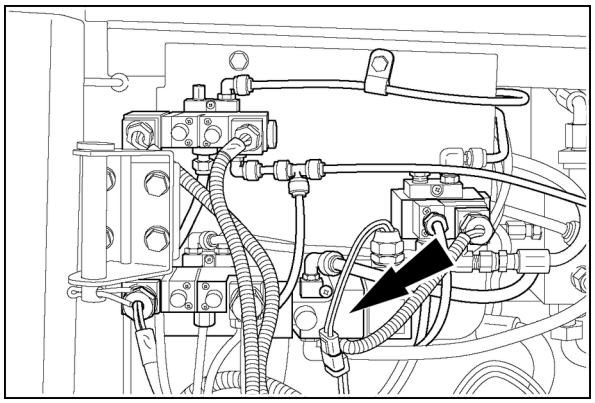


RCPH10CCH021FAE 7

4 wheeled chassis relief valve

Air horn

The air horn is located on the right hand side under cab on 3 wheeled chassis and on right hand walkway near front of cab on 4 wheeled chassis. The valve used to operate the pneumatic air horn is mounted behind the left swing out ladder on 3 wheeled chassis and the 4 wheeled chassis valve is located in an enclosure attached to the right rear walkway.



RCPH10CCH016FAE 8

3 wheeled chassis air horn solenoid

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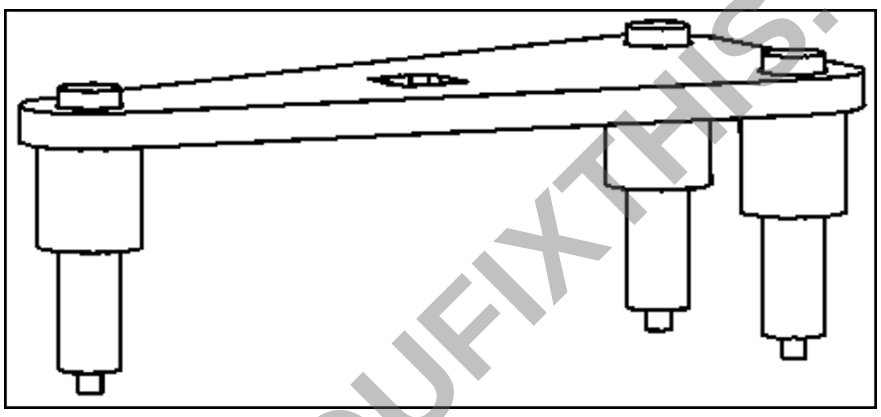
Steering control - Torque - Three wheel units, front steering fork

Titan™ 3040	
Titan™ 3540	

Item	Torque value
Bearing assembly nut	**765 - 845 N·m** (**564 - 630 lb ft**)
Retainer plate bolts	**502 - 603 N·m** (**370 - 445 lb ft**)
Retainer ring bolt	**156 - 183 N·m** (**115 - 135 lb ft**)

Steering control - Special tools - Three wheel units, front steering fork

Titan™ 3040	
Titan™ 3540	



1

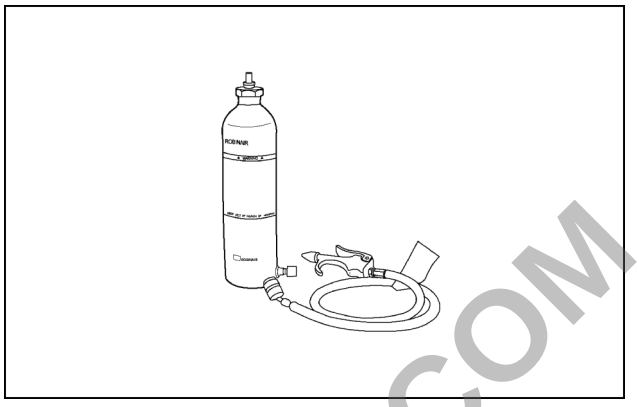
380001677 Chassis kingpin spanner wrench

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Flush gun – 17585

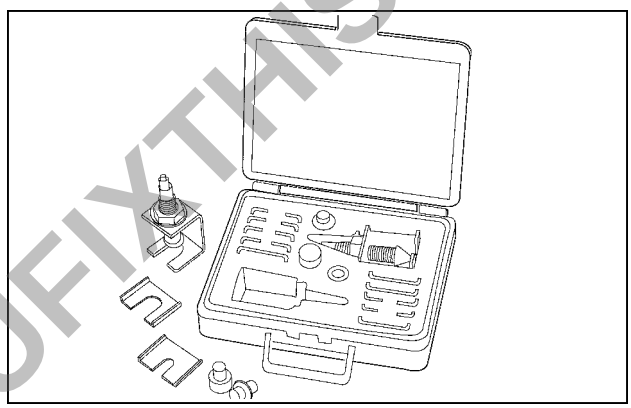
Shop air-charged canister used to flush individual hoses or small components like the thermal expansion valve.



RCPH07SPT103AAA 13

Flushing adapter kit – 17582

Flushing adapters used to connect the power flush tool to the air conditioning system.



RCPH07SPT095AAA 14

Air conditioning - General specification - Temperature/pressure chart

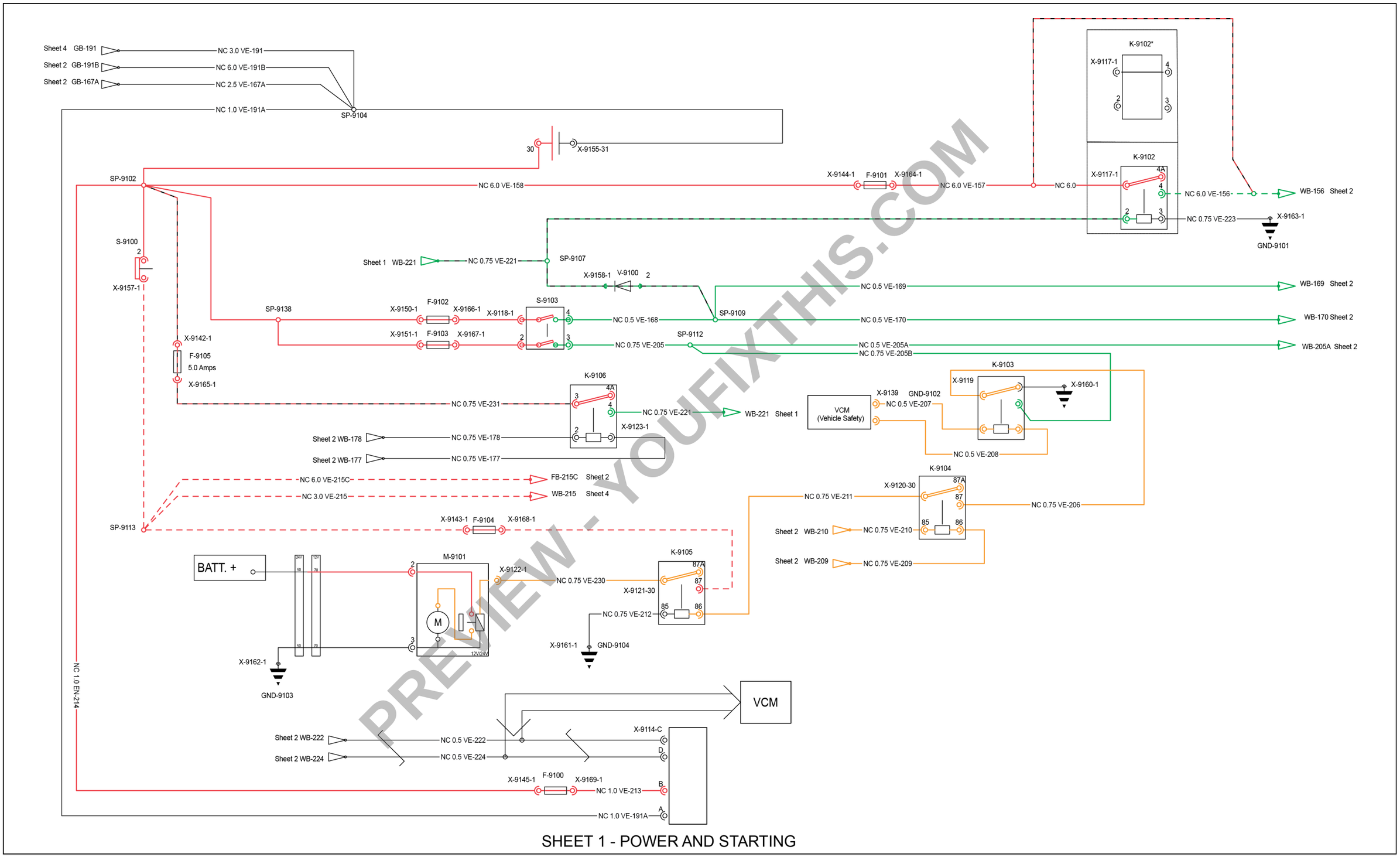
Metric standard

Ambient temp	Normal low side pressure		Normal high side pressure		Louver temperature*	
	Low relative humidity**	High relative humidity	Low relative humidity**	High relative humidity	Low relative humidity**	High relative humidity
21 °C	117 - 138 kPa	145 - 172 kPa	938 - 1117 kPa	1040 - 1214 kPa	13 °C	17 °C
27 °C	145 - 172 kPa	172 - 207 kPa	1158 - 1379 kPa	1262 - 1469 kPa	16 °C	19 °C
32 °C	179 - 207 kPa	207 - 234 kPa	1372 - 1641 kPa	1482 - 1724 kPa	19 °C	22 °C
38 °C	200 - 241 kPa	228 - 276 kPa	1593 - 1951 kPa	1662 - 2027 kPa	22 °C	25 °C
43 °C	228 - 276 kPa	255 - 319 kPa	1813 - 2213 kPa	1875 - 2289 kPa	25 °C	27 °C
49 °C	255 - 319 kPa	283 - 345 kPa	2034 - 2482 kPa	2089 - 2551 kPa	28 °C	30 °C

U.S. standard

Ambient temp	Normal low side pressure		Normal high side pressure		Louver temperature*	
	Low relative humidity**	High relative humidity	Low relative humidity**	High relative humidity	Low relative humidity**	High relative humidity
70 °F	17 - 20 psi	21 - 25 psi	136 - 162 psi	151 - 176 psi	55 °F	62 °F
80 °F	21 - 25 psi	25 - 30 psi	168 - 200 psi	183 - 213 psi	60 °F	67 °F
90 °F	26 - 30 psi	30 - 34 psi	199 - 238 psi	215 - 250 psi	67 °F	71 °F
100 °F	29 - 35 psi	33 - 40 psi	231 - 283 psi	241 - 294 psi	71 °F	76 °F
110 °F	33 - 40 psi	37 - 45 psi	263 - 321 psi	272 - 332 psi	77 °F	81 °F
120 °F	37 - 45 psi	41 - 50 psi	295 - 360 psi	303 - 370 psi	82 °F	86 °F

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SHEET 1 - POWER AND STARTING

NHVE14ENG0412JA 1

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Wiring harnesses - Electrical schematic sheet 86 - Viper Flexair main node

Item	Description	Item	Description
1	Left-hand RPM	2	Main control node
3	Fan on solenoid	4	Auger enable
5	Main auger	6	Main auger sensor
7	Fan RPM sensor	8	Open
9	Fan RPM sensor signal	10	Fan RPM sensor ground
11	Fan RPM sensor power	12	Auger sensor signal
13	Auger sensor ground	14	Auger sensor power
15	Fan on +	16	Fan on -
17	Clean power	18	Clean ground
19	CAN high	20	CAN low
21	Left-hand RPM sensor power	22	Left-hand RPM sensor ret
23	Left-hand RPM sensor signal	24	Right-hand RPM sensor power
25	Right-hand RPM sensor ret	26	Right-hand RPM sensor signal
27	Bin sensor level power	28	Bin sensor level ground
29	Bin sensor level signal	30	Left-hand motor power
31	Left-hand motor ground	32	Fan speed increase
33	Right-hand motor power	34	Right-hand motor ground
35	Fan speed decrease	36	Power
37	Ground	38	not used
39	Main prop valve +	40	Main prop valve
41	Right-hand main motor	42	Left-hand main motor
43	Fan increase/decrease	44	Main level
45	Main level optional	46	Right-hand RPM

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Wire connectors - Component Diagram 00 - Connectors X-9000 to X-9009

Connector X-9001 - Engine Control Unit (ECU)

CONNECTOR X-9001 - Engine Control Unit (ECU)			
PIN NUMBER	**WIRE NUMBER**	**CIRCUIT REFERENCE**	**ELECTRICAL SCHEMATIC FRAME**
1	VE-156A	Battery voltage, from Main relay **K-9102**	**Wiring harnesses - Electrical schematic sheet 02 - Engine control unit (ECU) power and vehicle inputs/outputs (engine schematics) (55.100)**
2	-	-	
3	VE-164B	Battery ground	**Wiring harnesses - Electrical schematic sheet 02 - Engine control unit (ECU) power and vehicle inputs/outputs (engine schematics) (55.100)**
4	-	-	
5	VE-164C	Battery ground	**Wiring harnesses - Electrical schematic sheet 02 - Engine control unit (ECU) power and vehicle inputs/outputs (engine schematics) (55.100)**
6	-	-	
7	VE-141	Signal, SCR pressure sensor **B-9100**	**Wiring harnesses - Electrical schematic sheet 03 - After treatment system (Non CAN) (engine schematics) (55.100)**
8	VE-119	Temperature signal, SCR tank level and temperature sensor **B-9101**	
9	VE-109	Signal, SCR downstream exhaust gas temperature sensor **B-9104**	
10	VE-107	Reference ground, SCR downstream exhaust gas temperature sensor **B-9104**, DOC upstream exhaust gas temperature sensor **B-9106** and SCR upstream exhaust gas temperature sensor **B-9107**	
11	-	-	
12	-	-	
13	VE-181	Signal, Water in fuel switch **S-9102**	**Wiring harnesses - Electrical schematic sheet 02 - Engine control unit (ECU) power and vehicle inputs/outputs (engine schematics) (55.100)**
14	-	-	
15	VE-104	Signal, Humidity sensor **B-9105**	**Wiring harnesses - Electrical schematic sheet 02 - Engine control unit (ECU) power and vehicle inputs/outputs (engine schematics) (55.100)**
16	VE-106	Signal, DOC upstream exhaust gas temperature **B-9106**	**Wiring harnesses - Electrical schematic sheet 03 - After treatment system (Non CAN) (engine schematics) (55.100)**
17	-	-	
18	VE-111	Reference ground, Air filter clogging pressure sensor **B-9102**	**Wiring harnesses - Electrical schematic sheet 02 - Engine control unit (ECU) power and vehicle inputs/outputs (engine schematics) (55.100)**
19	VE-210	Supply, Starter control relay **K-9104**	
20	VE-179	High side driver, Auxiliary power relay **K-9107**	

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Cavity	Wire ID	Description	Color	Frame
40	350	MIRROR COMMON	BL	
41	167A	REVERSE	VT	
42	263	BRAKE LIGHT	VT	
43	99B	BATTERY –	BK/WH	
44				
45	135A	SENSOR/RADAR PWR	OR	
46	504	PARK BRAKE ON	YE	
47	037D	PARK BRAKE VERIFY	BK	
48				
49				
50	236A	LH MARKER LIGHT	VT	
51	268A	RH MARKER LTS	VT	
52	706	2SP ON / AXLE IN	WH	
53	707	AUX DR. ON /AXLE OUT	WH	
54				
55				
56	767	AUX DRIVE OFF	GY	
57	997	K-LINE	PK	
58	VC12Y	CAN HIGH	YE	
59	VC12G	CAN LOW	LG	
60				
61	765	2 SPEED OFF	GY	
62				
63	740	HYD OIL WARN	YE	
64	704	HYD OIL LEVEL	YE	
65	703	HYD OIL TEMP	YE	
66	741	HYD OIL DERATE	YE	
67	994	DCU - K LINE	PK	
68	161	UNSWITCHED +24V	RD	
69				
70				
71				
72				
73				
74	021A	SENSOR RETURN ICU	BL	
75	415	AIR FILTER RSTR SW	YE	
76	702	HYD. FILTER RSTR	YE	
77	409	ALT EXCITE	WH	
78				
79	414	FUEL SENDER SIG	YE	
80	127	HORN	WH	
81	135E	SENSOR POWER	OR	
82	423	AIR PSI SIG (AP)	YE	
83	214	LH LOW BEAM	VT	
84	215	RH LOW BEAM	VT	
85	217	LH HIGH BEAM	VT	
86	218	RH HIGH BEAM	VT	
87				
88	226A	LEFT TURN	LB	
89	227A	RIGHT TURN	LG	
90				
91				
92	845	TORQUE SELECT	YE	
93	815	TORQUE SELECT	YE	
94				
95				
96				

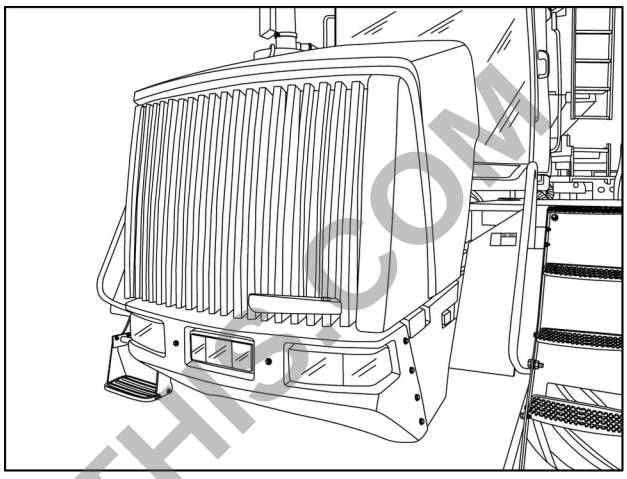
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Selective Catalytic Reduction (SCR) humidity sensor - Remove - Four wheel units

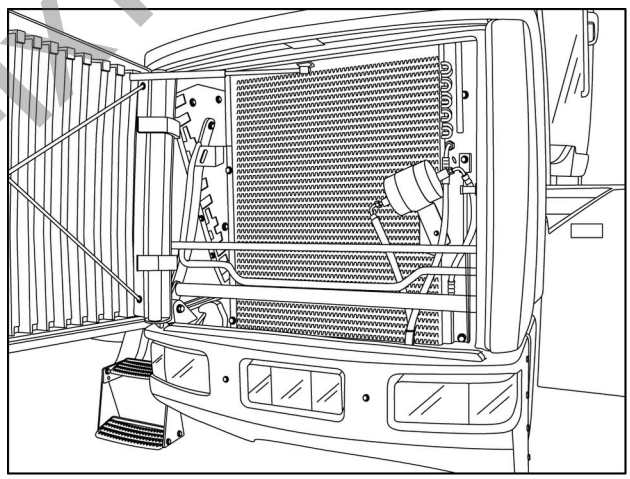
Titan™ 4040	
Titan™ 4540	

1. Open the grill.



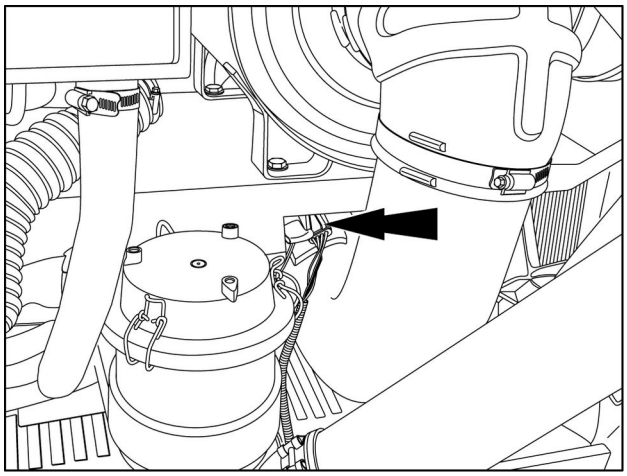
RAIL14SP00569AA 1

2. Open the hood.



RAIL14SP00570AA 2

3. Disconnect the harness lead from the sensor.



RAIL14SP00572AA 3

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10031-Controller memory error

Cause:
Loss of engine hour information

Possible failure modes:

1. Instrument cluster (ICU) controller memory error
2. Incorrect flashing of controller memory

Solution:

1. Check for other error codes being displayed concerning ICU function.
   A. If any other error code is being displayed, continue to these tests.
   B. If no other error code is displayed, continue to step **2**
2. Clear the error code with the approved diagnostic equipment. Run the machine under normal conditions and retest.
   A. If the fault is no longer present, return the unit to operation.
   B. If the fault is still present, download the correct level of software for the instrument cluster (ICU). If the fault reoccurs, submit a concern to ASIST before replacing controller.

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19001-Battery voltage is higher than expected

Context:
The Electronic Control Unit (ECU) **A-9000** monitors battery voltage. If the **A-9000** determines that battery voltage has exceeded **35.7 V** , this fault will occur.

Cause:
Battery voltage is greater than **35.7 V**.

Possible failure modes:

1. Faulty charging system.
2. Faulty **A-9000**, software.

Solution:

1. Verify fault is present and active.

   Use the Electronic Service Tool (EST) to check the status of this fault.

   A. If the fault is present and active, continue with Step **2**.

   B. If the fault is no longer present or in an inactive state, the fault may be intermittent and not currently active. Continue with Step **4**.
2. Check the battery voltage.

   The engine must be running.

   Use a multimeter to perform the following voltage check:

From	To	Value
Battery (+) terminal	Battery (–) terminal	There should be approximately **12 V**

   A. If there is not approximately **12 V**, continue to Step **3**.

   B. If there is approximately **12 V**, check the ECU **A-9000** for the appropriate software and re-flash, if necessary.
3. Check the charging system for proper operation.

   A. If the charging system is not functioning properly, repair the charging system as necessary.

   B. If the charging system is functioning properly, check the ECU **A-9000** for the appropriate software and re-flash, if necessary.
4. 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.

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19105-DEF/AdBlue tank heater actuator over temperature failure

Context:
The Electronic Control Unit (ECU) **A-9000** monitors the DEF/AdBlue tank heating valve **Y-9102** circuit. If the **A-9000** detects an over temperature/current condition in the **Y-9102** circuit, this fault will occur.

Cause:
The **A-9000** has detected an over temperature/current condition in the **Y-9102** circuit.

Possible failure modes:

1. Faulty **Y-9102**, internal failure.
2. Faulty **Y-9102** wiring.
3. Faulty **A-9000**, software.

Solution:

1. Verify fault is present and active.

   Use the Electronic Service Tool (EST) to check the status of this fault.

   A. If the fault is present and active, continue with Step **2**.

   B. If the fault is no longer present or in an inactive state, the fault may be intermittent and not currently active. Continue with Step **5**.

2. Check the **Y-9102** for an internal failure.

   Disconnect connector **X-9112**.

   Use a multimeter to perform the following resistance check:

From	To	Value
Y-9102 PIN 1	**Y-9102 PIN 3**	There should be between **11 - 16 Ω**.

   A. If the value is within the specified range, leave the connector disconnected and continue to Step **3**.

   B. If the value is not within the specified range, the **Y-9102** has failed internally. Replace the **Y-9102**.

3. Check the **Y-9102** for a short to battery power condition.

   Disconnect connector **X-9001**.

   The key must be in the OFF position.

   Use a multimeter to perform the following continuity check:

From	To	Value
X-9001 pin 72	**X-9001 pin 50**	There should be no continuity.
X-9001 pin 72	All other pins	There should be no continuity.

   A. If there is continuity, there is a short circuit condition in the **Y-9102** circuit, wire VE-120. Locate and repair the shorted conductor.

   B. If there is no continuity, leave the connector disconnected and continue to Step **4**.

4. Check the **Y-9102** for a short to key battery power condition.

   The key must be in the ON position.

   Use a multimeter to perform the following voltage check:

From	To	Value
X-9001 pin 72	Chassis ground	There should be no voltage.

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3001-Diagnostic fault check of synchronization for double potentiometer and Low idle switch

Context:
The Engine Control Unit (ECU) **A-9000** monitors the low idle switch and accelerator pedal position sensor **B-9111** to determine synchronization status. The switch and potentiometer are two separate devices mechanically coupled and contained within the sensor module. The analog position sensor signal is compared to the status of the low idle switch position. If the analog position signal is less than **0.591 V** and the low idle switch is actuated or the analog position signal is greater than **0.958 V** and the low idle switch is not actuated, this fault will occur.

Cause:
The low idle switch and accelerator pedal position sensor **B-9111** position signal and low idle switch signal to the ECU **A-9000** do not agree.

Possible failure modes:

1. Faulty low idle switch and accelerator pedal position sensor **B-9111** position signal or low idle switch circuit wiring, grounded.
2. Faulty low idle switch and accelerator pedal position sensor **B-9111** position signal or low idle switch circuit wiring, shorted to a high source.
3. Faulty low idle switch and accelerator pedal position sensor **B-9111**, failed internally.
4. Faulty ECU **A-9000**, software.

Solution:

1. Verify fault is present and active.

   Use the Electronic Service Tool (EST) to check the status of this fault.

   A. If the fault is present and active, continue with Step **2**.

   B. If the fault is no longer present or in an inactive state, the fault may be intermittent and not currently active. Continue with Step **4**.

2. Check the low idle switch and accelerator pedal position sensor **B-9111** position signal circuit wiring for a short to ground or a voltage source condition.

   Disconnect the vehicle (VE) harness from the low idle switch and accelerator pedal position sensor **B-9111** at connector **X-9100**.

   With the key switch in the OFF position, use a multimeter to check for continuity on the vehicle (VE) harness from:

From	To	Value
X-9100 pin 3	chassis ground	there should be no continuity.
X-9100 pin 6	chassis ground	there should be no continuity.

   Then with the key switch in the ON position, use a multimeter to check for voltage on the vehicle (VE) harness from:

From	To	Value
X-9100 pin 3	chassis ground	there should be no voltage.
X-9100 pin 6	chassis ground	there should be no voltage.

   A. If there is no continuity or voltage, leave connector **X-9100** disconnected and continue with Step **3**.

   B. If there is continuity or voltage, there is a short to ground or a voltage source condition in the vehicle (VE) harness. Use the appropriate vehicle service manual and electrical schematics to locate and repair the grounded or shorted voltage source condition.

3. Check the low idle switch and accelerator pedal position sensor **B-9111**.

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3301-Fuel rail pressure has exceeded maximum negative deviation limits

Context:
The Electronic Control Unit (ECU) **A-9000** monitors fuel pressure control. Fuel pressure is controlled by the fuel metering unit **Y-9000**. If the **A-9000** determines that desired fuel pressure has been exceeded although the **Y-9000** is fully closed, fuel rail pressure has exceeded maximum deviation limits and this fault will occur.

Cause:
The **A-9000** has determined that desired fuel pressure has been reached despite the **Y-9000** being closed.

Possible failure modes:

1. Faulty **Y-9007**, internal failure.
2. Faulty **Y-9007**, wiring.
3. Faulty gear pump pressure.
4. Faulty low pressure fuel lines from high pressure pump to tank, clogged or damaged.

Solution:

1. Check for the following related faults:

   3137 - Fuel metering unit has an open load error

   3910 - Fuel metering unit intermittent electrical connection failure

   3735 - Fuel metering unit has an over temperature error

   A. If any of the listed faults are active, diagnose them first and then return to this fault, **3301 - Fuel rail pressure has exceeded maximum negative deviation limits**.

   B. If none of the listed faults are active, continue to Step **2**.
2. Check the low pressure fuel lines from high pressure pump to tank for damage or clogging. Also check for proper gear pump pressure.

   A. If the lines show damage or signs of clogging, there may be blockage that is not allowing excess fuel to be returned to the fuel tank. If gear pump pressure is excessive, a fuel rail pressure maximum negative deviation condition may be present. Repair the fuel system as necessary.

   B. If the lines are free of damage, clogging and the gear pump pressure is within the specified range, check the ECU **A-9000** for the appropriate software and re-flash, if necessary.

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3805-Maximum rail pressure exceeded

NOTE: *Because this fault causes inducement, it is necessary to perform the Engine Restart Counter Reset / Unlock Inducement configuration with the Electronic Service Tool (EST) before you return the machine to service. Refer to the service manual for more information.*

Context:
The Electronic Control Unit (ECU) **A-9000** monitors fuel rail pressure during limp home mode. If the **A-9000** determines that fuel pressure has exceeded **2250.0 bar** (**32625.0 psi**) during lime home mode, this fault will occur.

Cause:
Maximum fuel pressure has been exceeded.

Possible failure modes:

1. Faulty fuel metering unit **Y-9000**, wiring or mechanical failure.
2. Faulty Pressure Relief Valve (PRV), clogged.
3. Faulty fuel injectors, electrical or mechanical failure.
4. Faulty fuel return lines.
5. Faulty gear pump pressure, too high.
6. Faulty **A-9000**, software.

Solution:

1. Use the Electronic Service Tool to check for related faults. The following faults may have caused this fault, **3805 - Maximum rail pressure exceeded** to occur and should diagnosed first if active:

   3910 - Fuel metering unit intermittent electrical connection failure

   3137 - Fuel metering unit has an open load error

   3107 - Fuel metering unit is shorted to battery voltage at the low side

   3912 - Fuel metering unit is shorted to ground at the high side

   3735 - Fuel metering unit has an over temperature error

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Ground number	Location
1	Engine block
2	Frame near engine
3	Frame under cab
4	Inside cab left-hand compartment
5	Top of A-post
6	Outside bottom of cab
7	Cab roof near radio
8	Studs on inside frame near battery box
9	Studs on inside frame opposite battery box

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