General specification - 7310 Tier 4B

Model 7310	
Engine	FPT NEF 6.7L Tier 4B **212 kW** (**310 Hp**)
Fuel capacity and type	**553 L** (**146 US gal**) Ultra low sulfur diesel
Diesel Exhaust Fluid (DEF) Capacity	**91 L** (**24 US gal**)
Cooling package	Stacked side by side single pass design, hydraulically driven fan
Engine/transmission	Located in rear - ISO mounted
Transmission	Torq-Trac® hydrostatic drive system with one Danfoss heavy duty pump
Hydro pump displacement	165cc
Final drives	Planetary drives
Parking brake	4 wheel
Service brake	4 wheel internal wet disc
Steering	
Standard front wheel	Hydrostatic with two steering cylinders, no tie rods, **5 m** (**17 ft**) turn radius
Optional 4 wheel steer	**4.6 m** (**15.0 ft**) turn radius in 4 wheel steer, **6.4 m** (**21.0 ft**) turn radius in 2 wheel steer
HYDRALINK™ Suspension	Full suspension travel of **51 cm** (**20 in**) . 4-wheel independent with integrated hydraulic leveling/shock absorbers, auto leveling for each wheel leg.
Crop clearance	**190.5 cm** (**75.0 in**)
Wheel width adjustment	**300 – 406 cm** (**118 – 160 in**), hydraulic adjust, wheels move in/out equally on both sides. Operator remains centered.
Air system	Direct engine driven, water cooled air compressor and air storage tank.
Auxiliary hydraulic circuit	**166.6 L/min** (**44.0 US gpm**) closed center
Product tank options	
Stainless steel	**3785 L** (**1000 US gal**)
Stainless steel	**4542 L** (**1200 US gal**)
Poly	**3785 L** (**1000 US gal**)
Product pump standard	Hypro 9306C - **795 l/min @ 5.5 bar** (**210 US gpm @ 80 psi**)
Product pump optional	Hypro 9307C high capacity - **795 l/min @ 5.5 bar** (**210 US gpm @ 80 psi**)
Rinse tank standard	**568 l** (**150 US gal**), Poly
Boom options	Mono Boom: **80 ft**/ **60 ft**, **90 ft**/ **60 ft**, **100 ft**/ **60 ft**, **120 ft**/ **70 ft**, **27 m**/ **18 m**, **30 m**/ **18 m**, **32 m**/ **18 m**, **36 m**/ **22 m** Truss Boom (non–air): **120 ft**, **132 ft**. **135 ft**
Boom lines	Standard **2.54 cm** (**1 in**) stainless steel
Cab	Deluxe cab or Luxury cab
Height	**401 cm** (**158 in**)
Width (transport)	**368 cm** (**145 in**)
Length (boom unfolded)	**922 cm** (**363 in**)
Wheel base	**381 cm** (**150 in**)
Boom travel	Lowered **56 cm** (**22 in**) — Raised **300 cm** (**118 in**)
Weight (approximate)	**13154 kg** (**29000 lb**)

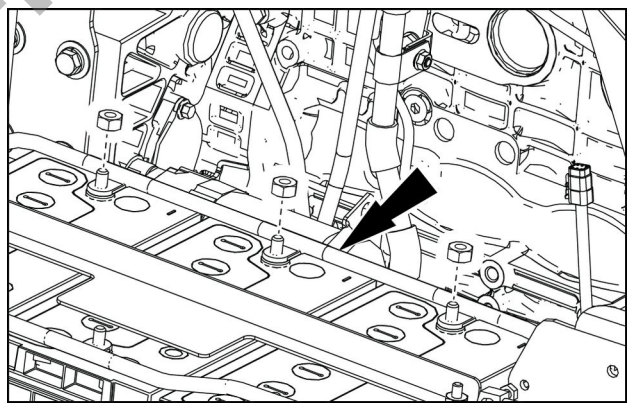
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Engine and crankcase - Remove

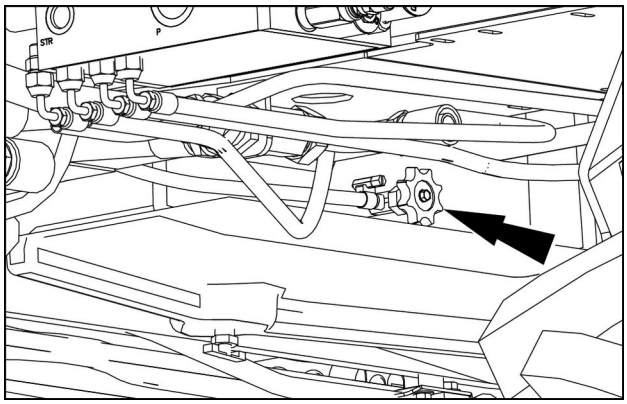
Prior operation:
Remove the engine enclosure. **Engine hood and panels - Remove (90.100)**
Prior operation:
Remove the engine air cleaner. **Air cleaners and lines - Remove (10.202)**
Prior operation:
Remove the Selective Catalytic Reduction (SCR) muffler and catalyst. **Selective Catalytic Reduction (SCR) muffler and catalyst - Remove - Diesel Oxidation Catalyst (DOC) (10.500)**
Prior operation:
Remove the auxiliary pump. Refer to **Auxiliary hydraulic pump - Remove (35.220)**
Prior operation:
Remove the side panel. Refer to **Side panels - Remove (90.100)**
Prior operation:
Remove the hydrostatic pump. Refer to **Pump - Remove (29.218)**
Prior operation:
Remove the Ultraflow pump if equipped. Refer to **High flow hydraulic pump - Remove (35.600)**
Prior operation:
Evacuate the air conditioning system.

1. Park the machine on a solid, level surface.
2. Set the park brake.
3. Turn off the engine.
4. Remove the key.
5. Disconnect the negative cable from the batteries.



RAIL18SP01028AA 1

6. Shut off the fuel.



RAIL18SP01029AA 2

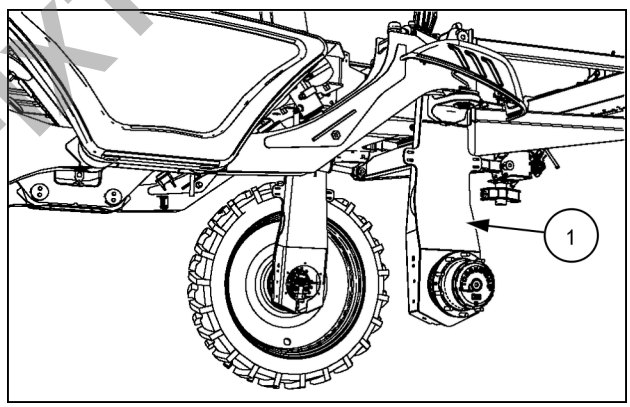
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Front axle - Remove

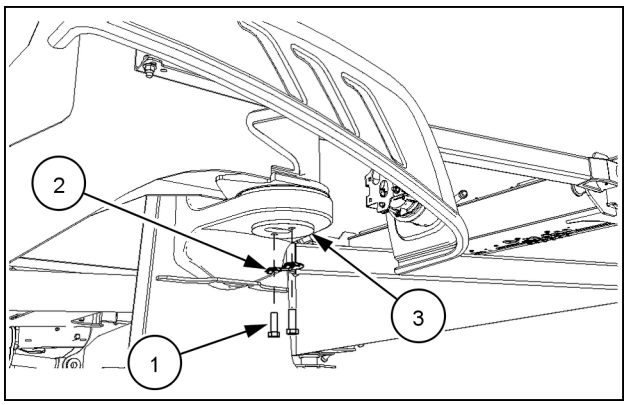
Prior operation:
Remove the Wheel from the vehicle. Refer to **Front wheels - Remove (44.511)**
Prior operation:
Remove the Planetary drive hub from the vehicle. Refer to **Planetary drive and hub - Remove (25.108)**
Prior operation:
Remove the steering cylinder from the vehicle. Refer to **Steering cylinder - Remove (41.216)**

1. Drive the vehicle onto a hard, level surface.
2. Engage the vehicle park brake.
3. Shut off the vehicle engine and remove the key from the ignition.
4. Access the vehicle wheels and place wheel chocks at each wheel.
5. Attach an appropriate lifting device to the suspension arm of the wheel leg being removed.
6. Attach an appropriate lifting device to the wheel leg being removed.
7. Access the wheel leg **(1)** to be removed from the vehicle. Perform the prior operations listed above. Access the underside of the wheel leg mounting area.



RAIL18SP00808AA 1

8. Remove the bolts **(1)** attaching the retainer **(2)** to the king pin **(3)**.



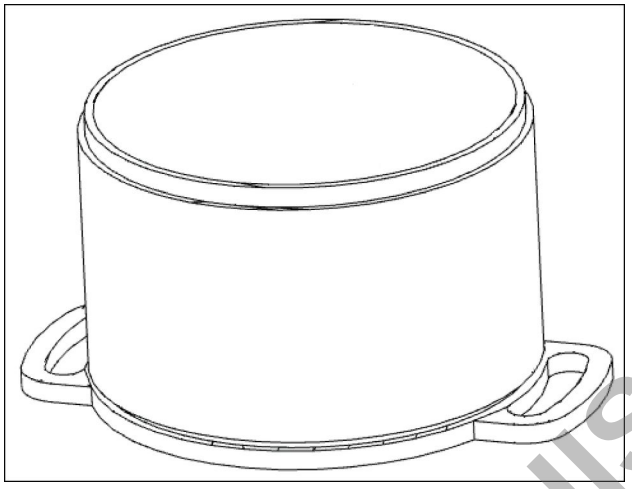
RAIL18SP00807AA 2

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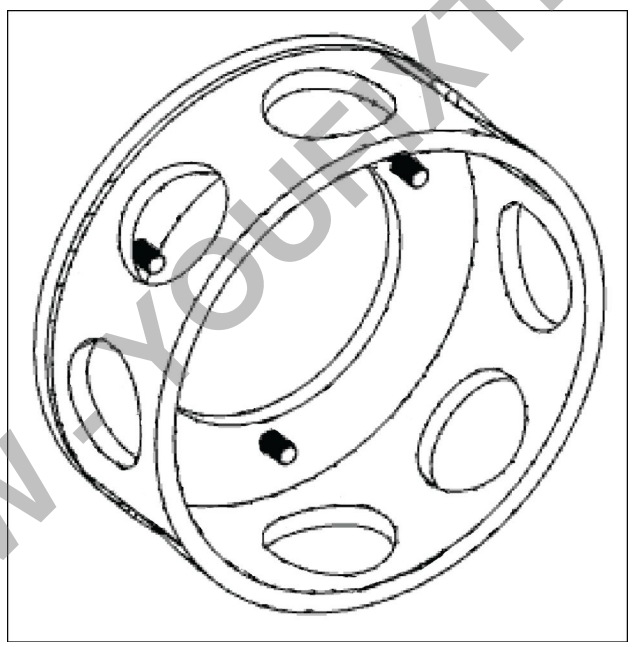
Planetary drive and hub - Special tools

NOTE: *These tools are available through the parts system. Order through the parts depot.*



RAIL15SP01366FA 1

380003482 – Pressing tool main bearing cone



RAIL15SP01367FA 2

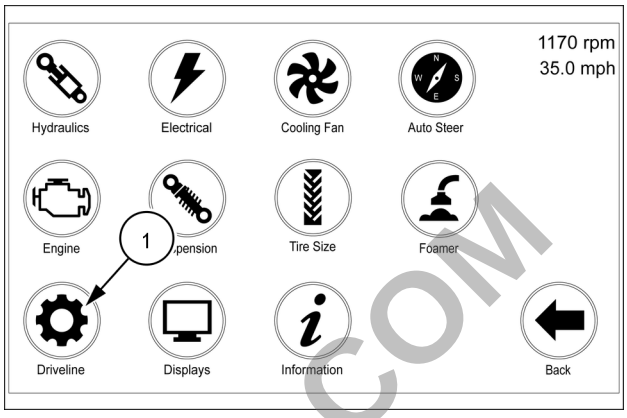
380003480 — Service brake test plate

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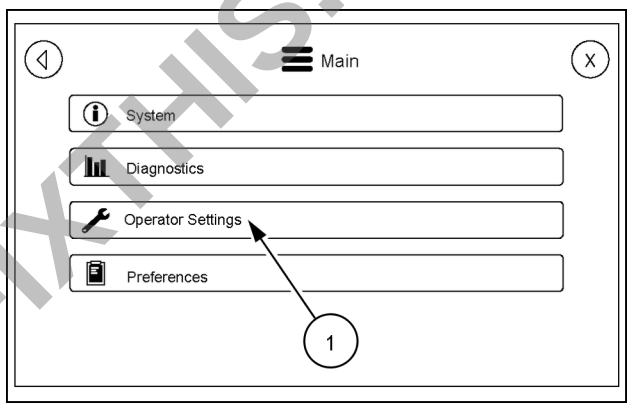
Hydraulic service brakes - Calibrate

1. From the HOME screen page, press the DRIVELINE icon **(1)**.



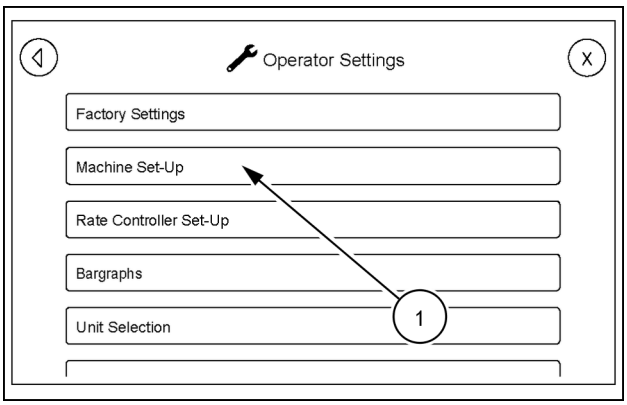
RAIL17SP00109FA 1

2. Press the OPERATOR SETTINGS option **(1)**.



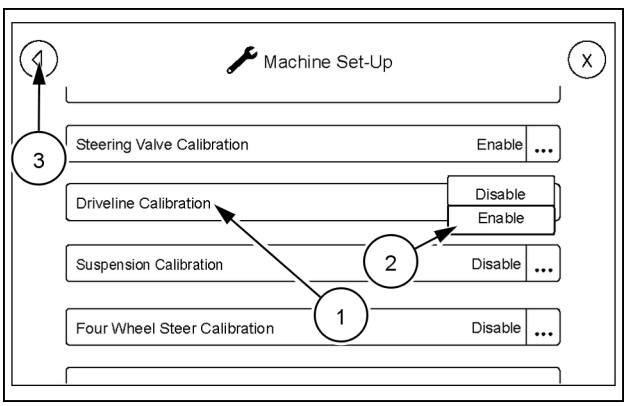
RAIL18SP00864AA 2

3. Press the MACHINE SET-UP option **(1)**.



RAIL18SP00860AA 3

4. Press the options icons **(2)** of the DRIVELINE CALIBRATION option **(1)** and ENABLE the Calibration mode and then select the back arrow **(3)**.

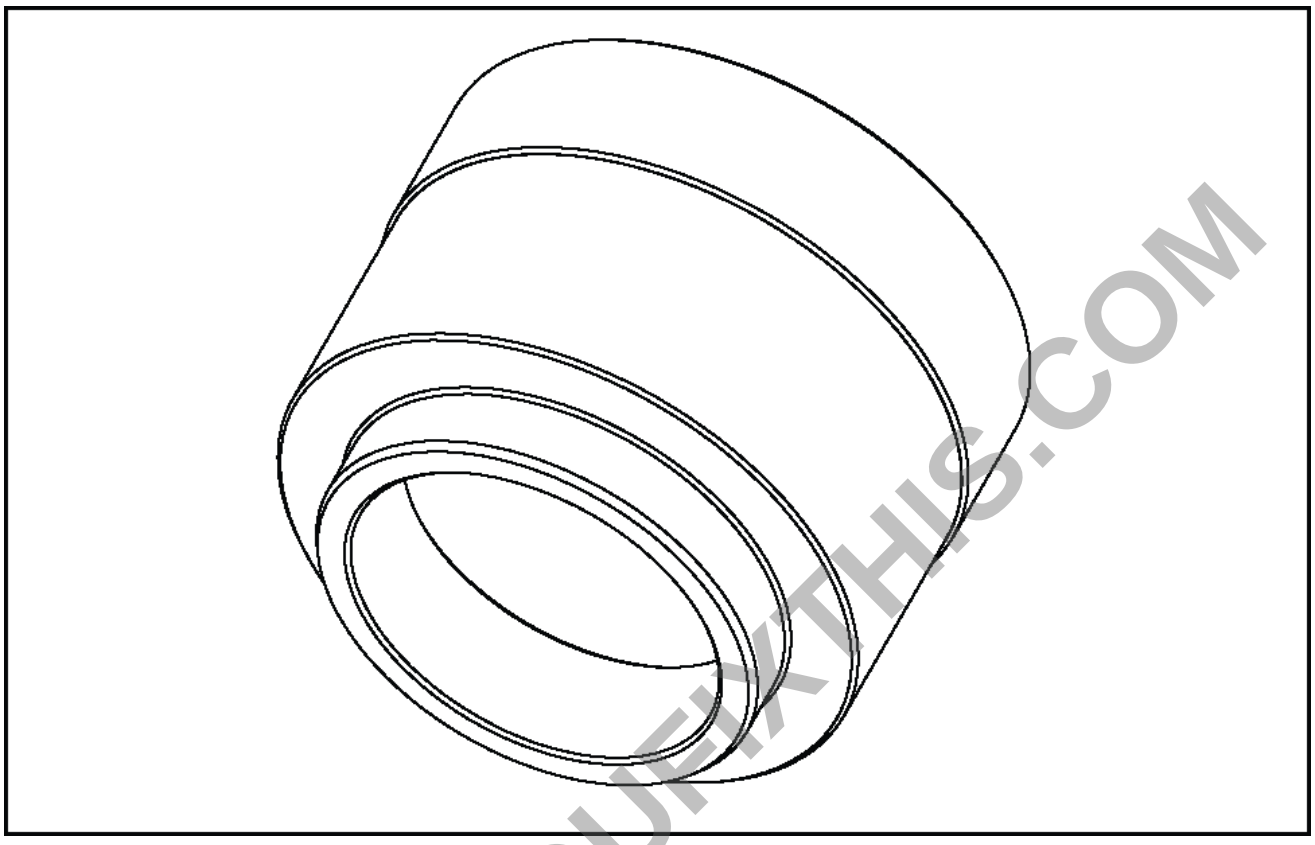


RAIL18SP00874AA 4

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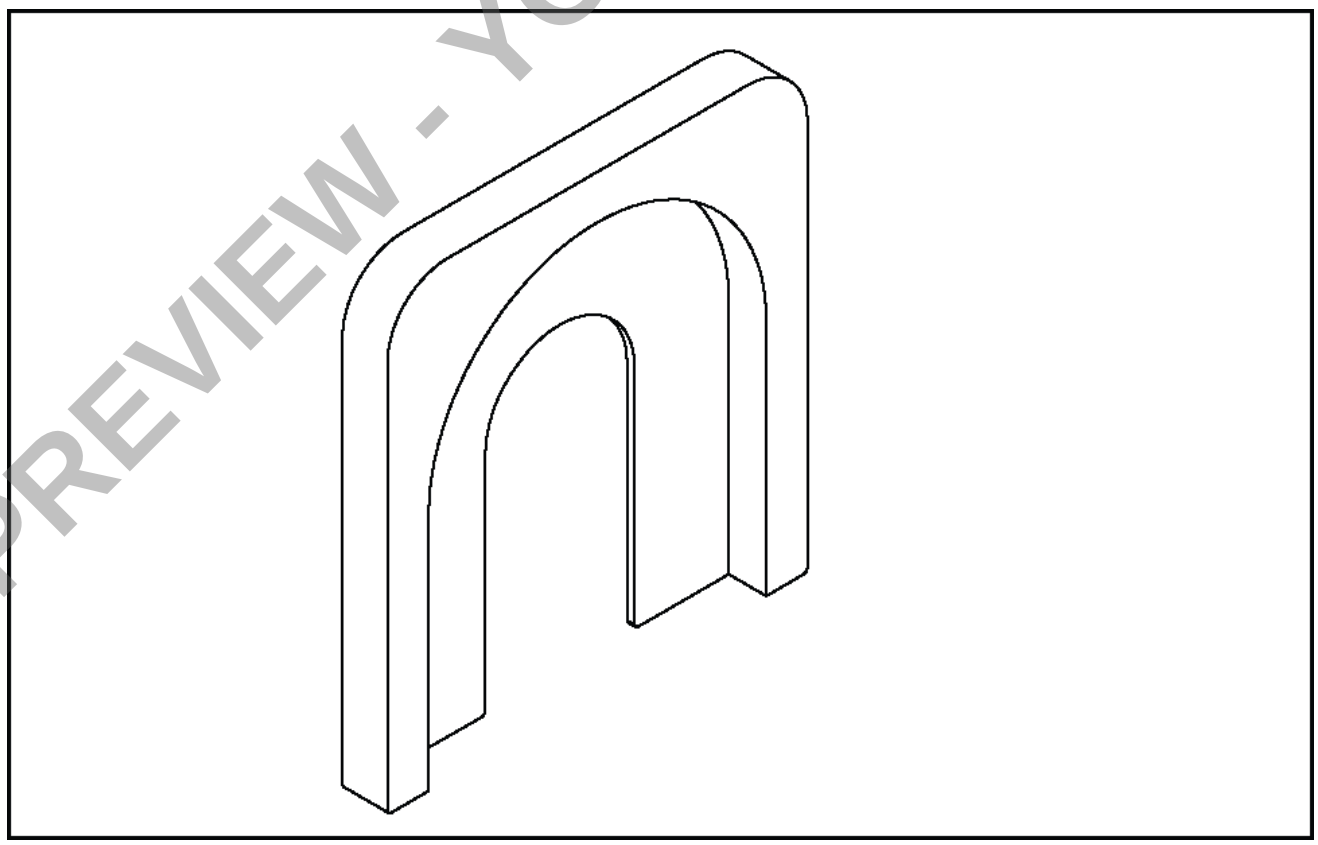
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High flow hydraulic pump - Special tools



RAIL18SP01510AA 1

380003490 – Ultraflow pump alignment tool



RAIL18SP01511AA 2

380003488 Ultraflow pump spacer plate

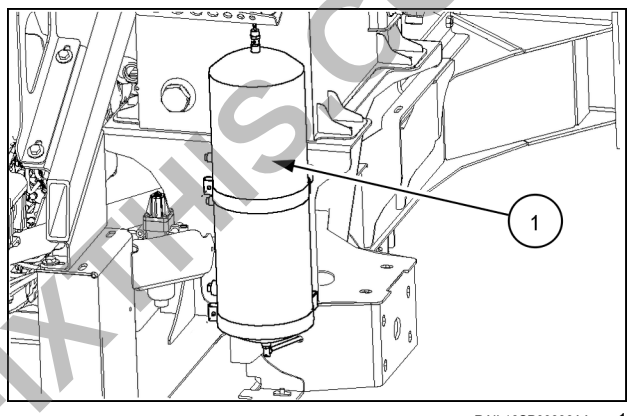
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Pneumatic system tank - Remove

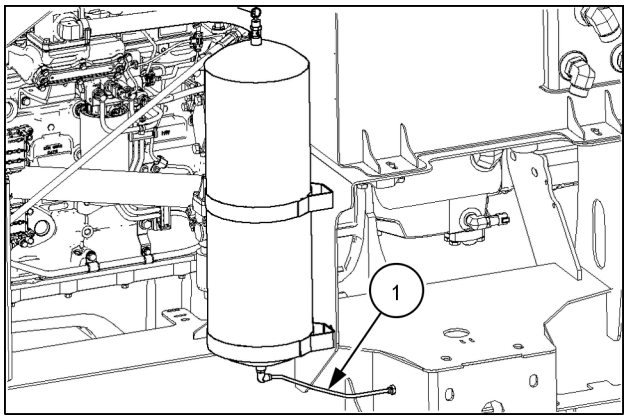
Prior operation:
Remove the side panel from the vehicle. Refer to **Side panels - Remove (90.100)**

1. Drive the vehicle onto a hard, level surface.
2. Apply the vehicle park brake.
3. Turn off the vehicle engine and remove the key from the ignition.
4. Open the vehicle engine compartment hood and remove the side panel.
5. Disconnect the air lines attached to the air tank assembly **(1)** .



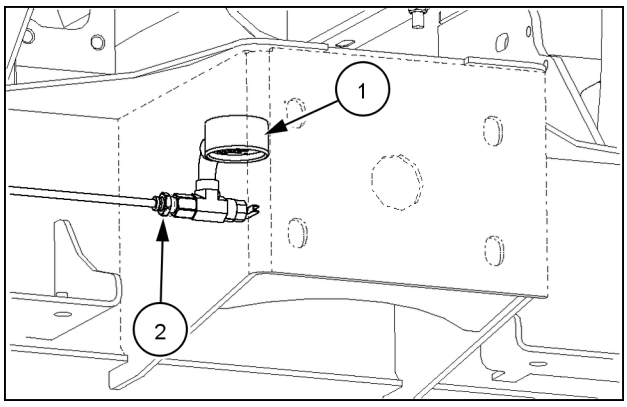
RAIL18SP00838AA 1

6. Disconnect the air line **(1)** from the bottom of the tank which connects to the pressure gauge.



RAIL18SP00839AA 2

7. Remove the pressure gauge assembly **(1)** from the frame mounting area by removing the nut **(2)**. Pull the air line through the opening to remove the pressure gauge assembly.



RAIL18SP00837AA 3

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Steering control - Overview - Steering system dynamic description

The steering system for the Class 3 front boom sprayer can have two steering modes, two wheel steer (2WS) and the optional four wheel (4WS) steer.

Two wheel steer

The two wheel steer mode is the standard steering for the vehicle, with the steering function only turning the front wheels. The main component of the steering system is the Danfoss OSPEDC LSRM Integrated Steering Unit. This unit is a hydraulic steering unit and an electrohydraulic unit combined into one unit. The component is located on lower end of steering column.

Front wheels steer using basic hydrostatic steering. Steering cylinders are connected in series. One cylinder extends and other retracts during turning. The rod end oil from first cylinder fills the rod end of second cylinder to synchronize right and left cylinder movement Proper bleeding/phasing procedure is necessary. Oil is trapped in cylinders with a counterbalance valve. The position sensor on left front wheel reports steering angle for multiple vehicle systems.

All-Wheel Steering

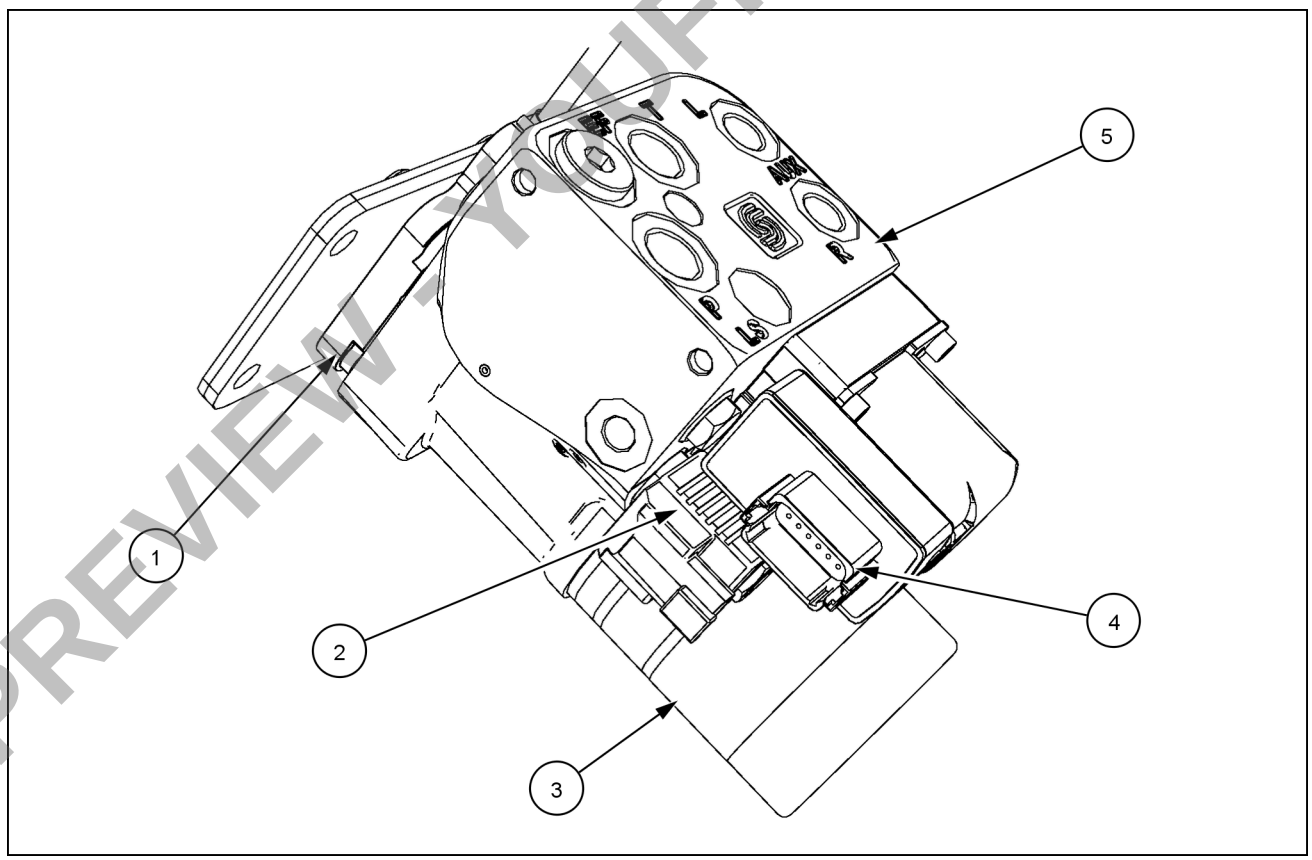
Guidance

Drive System wheel speed control

The rear wheels must be locked in center, straight position during 2- Wheel Steer Mode. The following steps are performed automatically to assure rear wheels are properly aligned. The operator selects 2-wheel steer from the armrest display, the controller will start the rear wheel alignment process. The controller sends commands to rear wheel steering valves to adjust wheel position. The rear wheels are moved to the straight-ahead position.

The rear wheel position is reported by wheel position sensor signals to the controller. When wheels are correctly positioned, lock cylinder valves are activated to extend lock cylinders. Proximity sensors signal when lock cylinders are extended and rear wheels are locked in position. Controller signals display to show 2-Wheel Steer mode.

The steering unit components are as follows:



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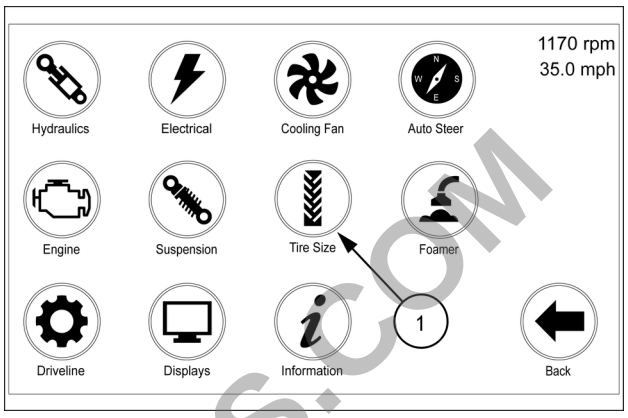
Item	Description
1	Steering Wheel Sensor
2	Digital Valve and Valve Position Sensor
3	Body
4	Cut-Off Valve
5	Spool and Valve Body

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Front wheels - H1 - Calibration procedures

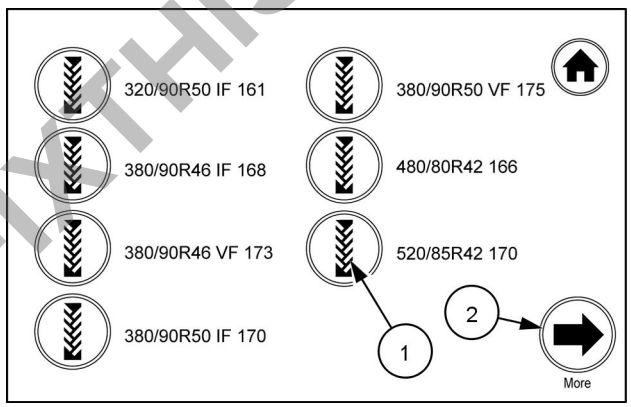
Standard tires

1. The wheel circumference, as displayed on the armrest display, must be updated when tires are changed.
   From the arm rest display second home page touch the Tire Size icon **(1)**.
   The Tire Size screen displays.



RAIL17SP00109FA 1

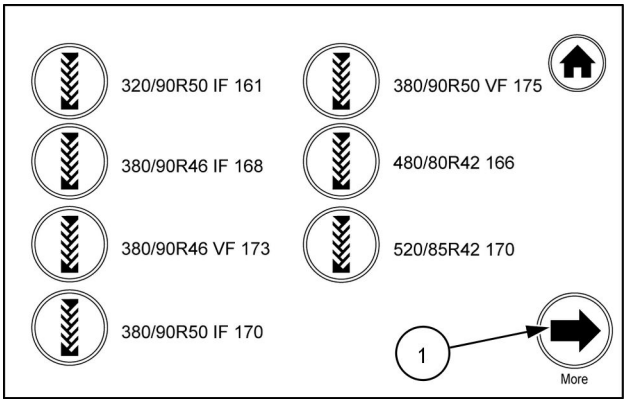
2. Select the appropriate tire size **(1)** from the list of standard tires sizes.
   Press the Home key **(2)** to save the selected tire size.



RAIL17SP00202AA 2

Non-standard tire size

3. To enter a tire size not in the standard tire size list, touch the More icon **(1)** to bring up the Custom Tire Size screen.



RAIL17SP00202AA 3

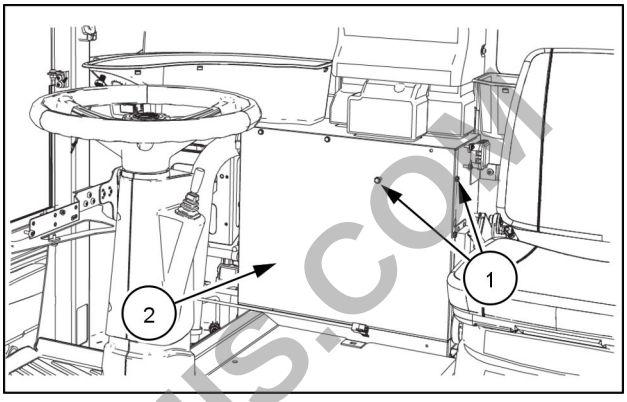
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Heater core - Remove

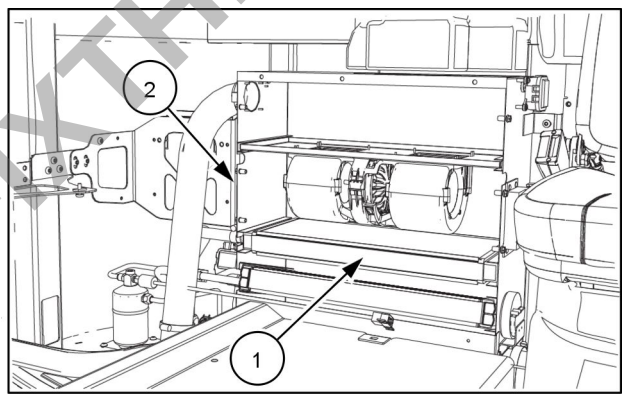
Prior operation:
Refer to **Cab interior trim and panels - Remove (90.160)** for proper instructions.

1. Remove the bolts **(1)** holding the heater box cover plate **(2)** in place. Remove the cover plate and set aside.



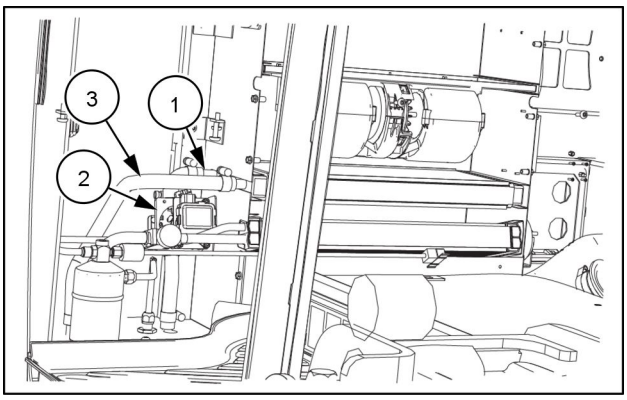
RAIL18SP00395AA 1

2. Locate the heater core **(1)** inside the heater box. **(2)**.



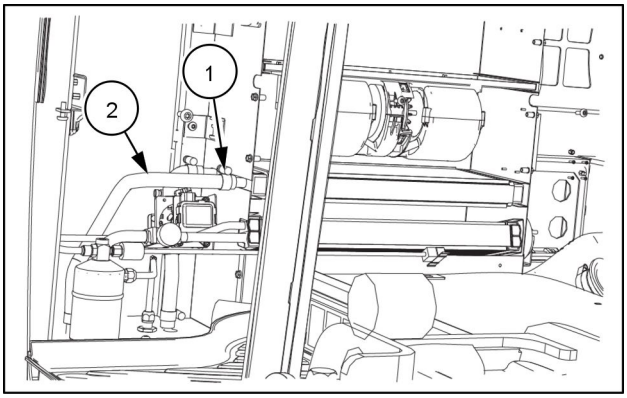
RAIL18SP00396AA 2

3. On the right-hand side of the heater core there is a heater core inlet hose **(1)** (rear hose) between the water valve **(2)** and the heater core. The front hose is the return hose **(3)**.



RAIL18SP00398AA 3

4. Loosen the hose clamp **(1)** on the return hose **(2)**. Remove the hose from the heater core.

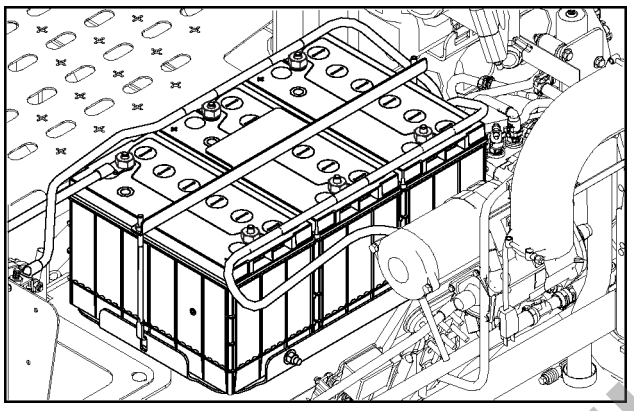


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Batteries

Three batteries supply power to the vehicle. Two batteries are for the primary starting circuit, one battery is for the vehicle electronics. The batteries are hybrid style with high temperature flooded epoxy bonded plates. Battery rating is 12 volts at 1000 cold cranking amps. The batteries are connected in parallel.



RAIL17SP01017AA 1

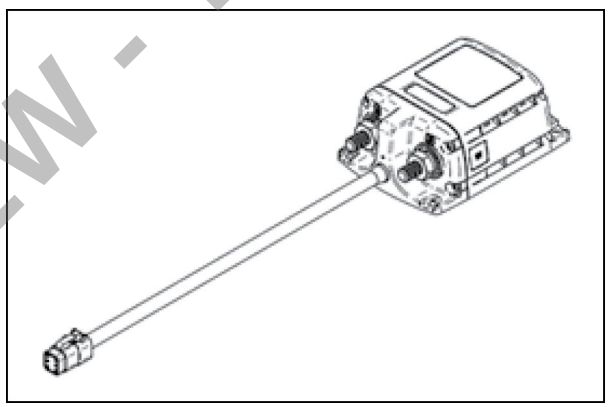
Battery combiner

The battery combiner functions to protect sensitive electronic equipment during cranking by separating the battery banks (starting – two batteries, electronics - one battery)

When engine cranking is completed, the combiner senses a charging level voltage over **13.1 V** (direct current) and combines the battery banks. This allows machine to have all three batteries at its disposal during operation.

When the machine is shut off (engine turned off), the combiner will once again separate the battery banks when the voltage drops below **12.7 V** (direct current).

With the batteries separated, the normal loads on the machine are isolated to only the electronics battery. If the operator was to drain this battery (leave lights on, leave the field computer on, etc.), the starting battery bank would see no ill effect, meaning they would stay completely charged since they are separated from the electronics battery.

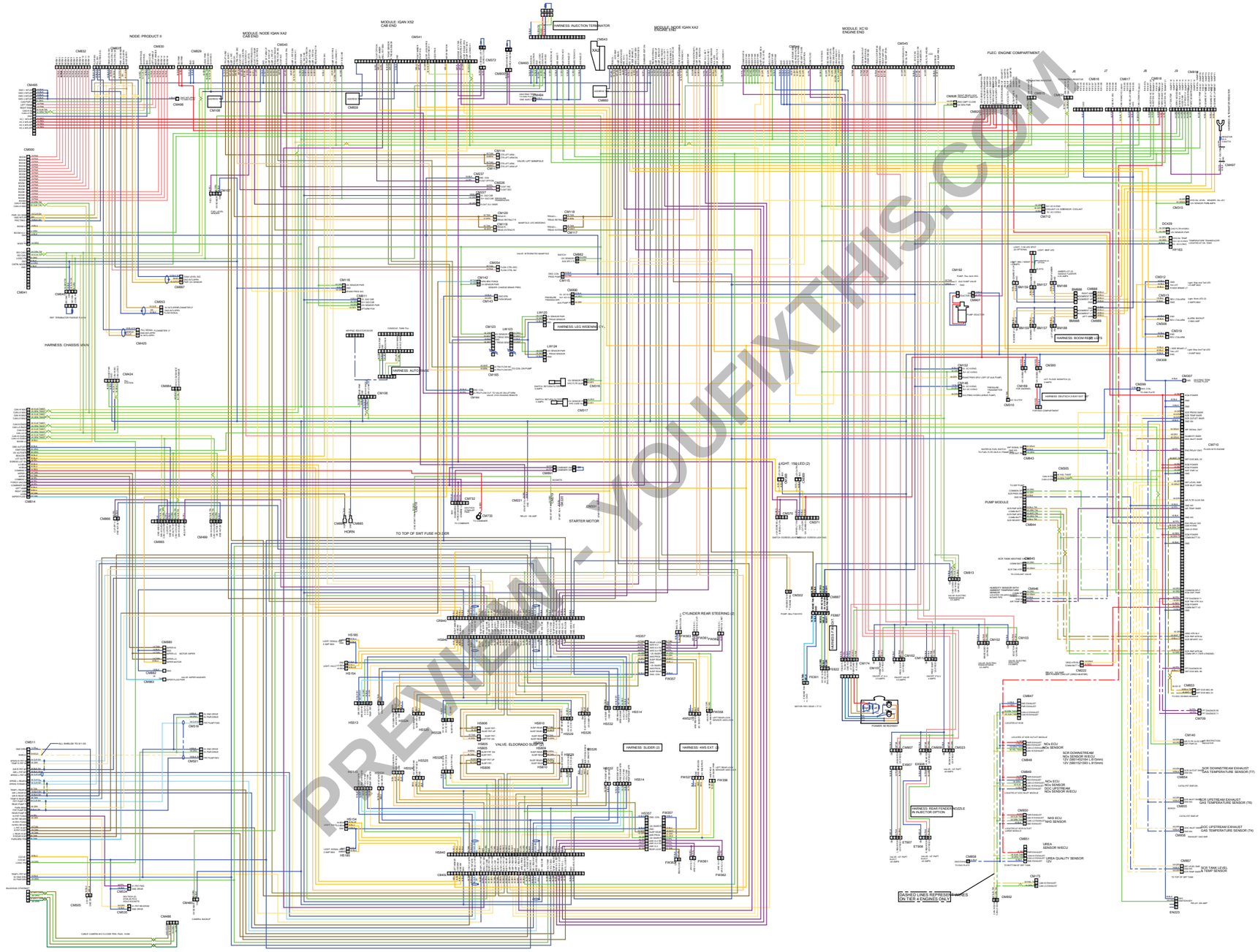


RAIL15SP00358AA 2

The battery combiner switch **(1)** is located under the storage tray behind the training seat . To access the combiner switch, remove the storage tray.

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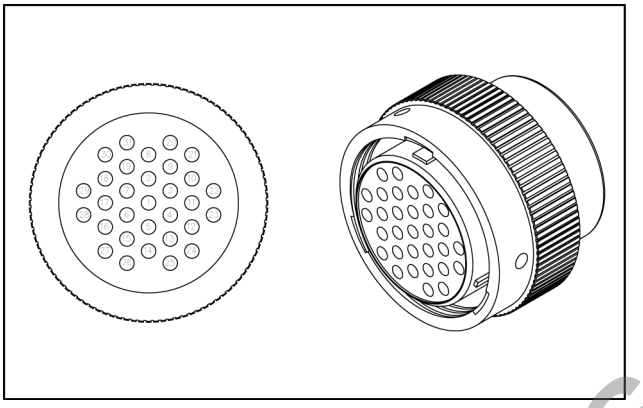
ELECTRICAL SCHEMATIC
CLASS 3 FRONT BOOM SPRAYER

RAIL17SP01802JA SHEET 2 1

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Wire connectors - Component diagram 00 - Connectors 0 through 9

BM000 - 5 Sect Truss Boom Harness



87700172 1

Pin	Color-Size	Description	From	Electrical schematic frame
1	PK - 18	BOOM 1	**BM17L-5T pin 1**	**SHEET 06 Truss boom 5 section harness SHEET 01 Machine electrical schematic - Sheet 1**
2	PK - 18	BOOM 2	**BM17L-5T pin 6**	
3	PK - 18	BOOM 3	**BM003-5T pin A**	
4	PK - 18	BOOM 4	**BM17R-5T pin 6**	
5	PK - 18	BOOM 5	**BM17R-5T pin 1**	
6	-	-	-	
7	-	-	-	
8	-	-	-	
9	-	-	-	
10	-	-	-	
11	-	-	-	
12	-	-	-	
13	-	-	-	
14	-	-	-	
15	-	-	-	
16	-	-	-	
17	GN - 18	CAN LO MACH 1	**BM546 pin 40**	**SHEET 06 Truss boom 5 section harness SHEET 01 Machine electrical schematic - Sheet 1**
18	YE - 18	CAN HI MACH 2	**BM546 pin 26**	
19	-	-	-	
20	-	-	-	
21	CL - 18	PWR 12V SENSOR	**BM024-5T pin A**	**SHEET 06 Truss boom 5 section harness SHEET 01 Machine electrical schematic - Sheet 1**
22	SHIELD	GND SENSOR	**BM024-5T pin B**	
23	BK -18	PRS TRNS SIG	**BM024-5T pin C**	
24	-	-	-	
25	BL -18	BOOM LGT	**BM039-5T pin A** **BM040-5T pin A**	**SHEET 06 Truss boom 5 section harness SHEET 01 Machine electrical schematic - Sheet 1**
26	-	-	-	
27	OR - 14	BOOM VLV 12V	**BM17L-5T pin 3** **BM17R-5T pin 3** **BM003-5T pin B** **BM910-5T pin 4** **BM911-5T pin 4**	**SHEET 06 Truss boom 5 section harness SHEET 01 Machine electrical schematic - Sheet 1**
28	BK -18	GND SENSOR	**BM042-5T pin A** **BM17L-5T pin 4** **BM17R-5T pin 4** **BM003-5T pin C** **BM039-5T pin B** **BM040-5T pin B** **BM910-5T pin 1** **BM911-5T pin 1** **BM546 pin 15**	
29	-	-	-	
30	-	-	-	
31	OR - 14	NODE PWR	**BM546 pin 28**	**SHEET 06 Truss boom 5 section harness SHEET 01 Machine electrical schematic - Sheet 1**

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Electronic modules - View Armrest display Input/output alarms

The following table lists the alarms which are displayed on the armrest display.

Input/Output

Input/Output Description	Input/ Output Type	Location	Possible Fault Types
Aux Dump Valve (Hydro Unload)	Digital out	Engine End XA2 (XA2[1])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Beacon Signal Select	Digital out	Cab End XA2 (XA2[0])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Boom Blow Out	Digital out	Engine End XC10 (XC10[0])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Chime 1	Digital out	A-Post Display (MD4-7[0])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Combiner Force Open	Digital out	Cab End XS2 (XS2[0])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Eductor Valve	Digital out	Cab End XA2 (XA2[0])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Egress Lights	Digital out	Cab End XS2 (XS2[0])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Engine Crank	Digital out	Cab End XS2 (XS2[0])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Fence Row - Left	Digital out	Boom Node (XA2[2])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Fence Row Left	Digital out	Engine End XC10 (XC10[0])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Fence Row Right	Digital out	Engine End XC10 (XC10[0])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Fence Row-Right	Digital out	Boom Node (XA2[2])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Flasher - Left	Digital out	Tool Bar Node (XS2[1])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Flasher - Right	Digital out	Tool Bar Node (XS2[1])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Float Valve	Digital out	Cab End XS2 (XS2[0])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Foamer Left	Digital out	Engine End XC10 (XC10[0])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Foamer Right	Digital out	Engine End XC10 (XC10[0])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Indirect Lighting	Digital out	A-Post Display (MD4-7[0])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Left 4WS Locking Pins	Digital out	Cab End XA2 (XA2[0])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Left Fold - Out	Digital out	Tool Bar Node (XS2[1])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Left Fold -In	Digital out	Tool Bar Node (XS2[1])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Left Rear Fender Nozzle	Digital out	Engine End XC10 (XC10[0])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Left Side Amber Lights	Digital out	Cab End XS2 (XS2[0])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Left Side Red Brake Light	Digital out	Engine End XA2 (XA2[1])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.
Lower LED Light	Digital out	Arm Rest Display (MD4-7[1])	1) Open load - Output is disconnected. 2) Overload- Output is overloaded.

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Hydrostatic drive control system - Calibrate Driveline

⚠ WARNING

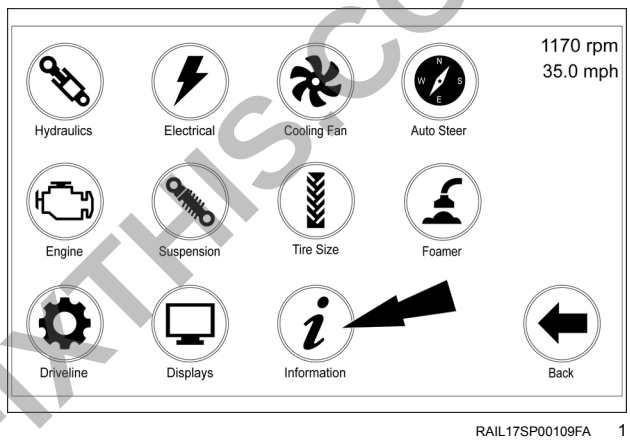
Equipment rolling hazard!
Securely block both sides of the wheels before you release the parking brake.
Failure to comply could result in death or serious injury.

W1478A

NOTICE: *The below procedure has to be preformed with the engine running and park brakes in release state. Exercise caution to avoid the movement of the machine.*

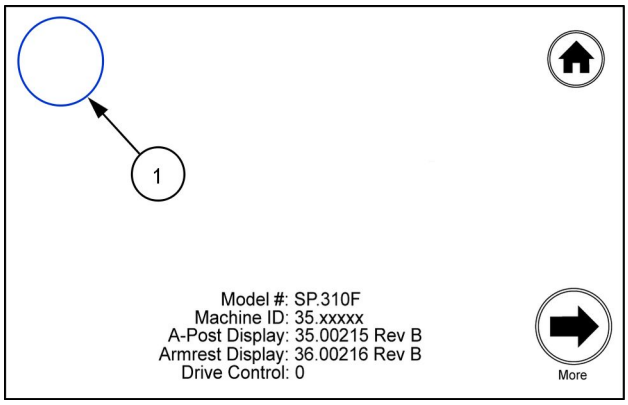
Unlock the machine level as follows:

1. Press the INFORMATION icon **(1)** on the display.



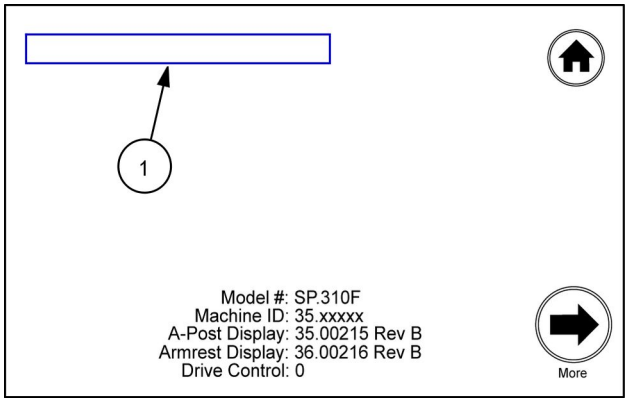
RAIL17SP00109FA 1

2. Access the hidden keyboard by pressing on area **(1)** marked on the top-left corner of the screen.



RAIL17SP00216AA 2

3. Enter the unlock code (1357) on the Virtual keyboard.
4. Once the machine level is unlocked, a message “Machine Level Unlock” will be displayed in the indicated area **(1)** on top-left corner of the display.



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Electrical systems - 55

FAULT CODES - DTC

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Nitro® 7310 MLRCIH Model 7310 Tier 4B (final), Four-Wheel Steer (4WS), fixed axle, 1000 gallon tank [HEKY7310YHF001227 - HEKY7310YJF999999], Nitro® 7310 MLRCIH Model 7310 Tier 4B (final), Four-Wheel Steer (4WS), fixed axle, 1200 gallon tank [HEKY7310YHF001227 - HEKY7310YJF999999], Nitro® 7310 MLRCIH Model 7310 Tier 4B (final), Four-Wheel Steer (4WS), hydraulic axle, 1000 gallon tank [HEKY7310YHF001227 - HEKY7310YJF999999], Nitro® 7310 MLRCIH Model 7310 Tier 4B (final), Four-Wheel Steer (4WS), hydraulic axle, 1200 gallon tank [HEKY7310YHF001227 - HEKY7310YJF999999], Nitro® 7310 MLRCIH Model 7310 Tier 4B (final), Two-Wheel Steer (2WS), fixed axle, 1000 gallon tank [HEKY7310YHF001227 - HEKY7310YJF999999], Nitro® 7310 MLRCIH Model 7310 Tier 4B (final), Two-Wheel Steer (2WS), fixed axle, 1200 gallon tank [HEKY7310YHF001227 - HEKY7310YJF999999], Nitro® 7310 MLRCIH Model 7310 Tier 4B (final), Two-Wheel Steer (2WS), hydraulic axle, 1000 gallon tank [HEKY7310YHF001227 - HEKY7310YJF999999], Nitro® 7310 MLRCIH Model 7310 Tier 4B (final), Two-Wheel Steer (2WS), hydraulic axle, 1200 gallon tank [HEKY7310YHF001227 - HEKY7310YJF999999],

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3001 (DTC 3AB1) - Diagnostic fault check of synchronism for double potentiometer and Low Idle Switch (LIS)

Context:
The Engine Control Unit (ECU) monitors the low idle switch and accelerator pedal position sensor 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 position signal and low idle switch signal to the ECU do not agree.

Possible failure modes:

1. Faulty low idle switch and accelerator pedal position sensor position signal or low idle switch circuit wiring, grounded.
2. Faulty low idle switch and accelerator pedal position sensor position signal or low idle switch circuit wiring, shorted to a high source.
3. Faulty low idle switch and accelerator pedal position sensor, failed internally.
4. Faulty ECU, 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 wiring for a short circuit.

   Disconnect the vehicle (VE) harness from the low idle switch and accelerator pedal position sensor 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. Locate and repair the grounded or shorted voltage source condition. Repair or replace the harness as required.

3. Check the low idle switch and accelerator pedal position sensor.

   Use a multimeter to measure resistance on the low idle switch and accelerator pedal position sensor from:

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17517 (DTC F19F) - SCR Inducement: Level 1 (Torque reduction), triggered by EGR valve blocked fault

Control Module: ECU

NOTE: *Since this fault is part of the inducement strategy, it may be necessary to perform the Engine Restart Counter Reset / Unlock Inducement configuration with the Electronic Service Tool (EST) before you return the machine to service, unless this was accomplished as part of the resolution of the fault causing this fault. See* ***Selective Catalytic Reduction (SCR) exhaust treatment - Configure - Engine restart counter reset (10.500)****, if necessary.*

Context:
This fault is only for informational purposes and requires no action other than the resolution of the active fault causing this fault to occur. One of the Exhaust Gas Regeneration (EGR) valve or related faults, active for more than **2 h**, will cause this fault to occur.

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298965-11 - PSM task, Unknown root-cause

NOTE: *This fault code will be active with* ***520208-31 – Demanded safe state, Condition exists****. Troubleshoot this fault code first, then resolve* ***520208-31 – Demanded safe state, Condition exists****.*

Context:
The steering orbital has detected an internal problem.

Cause:
The steering orbital has detected an internal problem.

Possible failure modes:

1. PSM task record buffer is full or slow PSM data processing.

Solution:

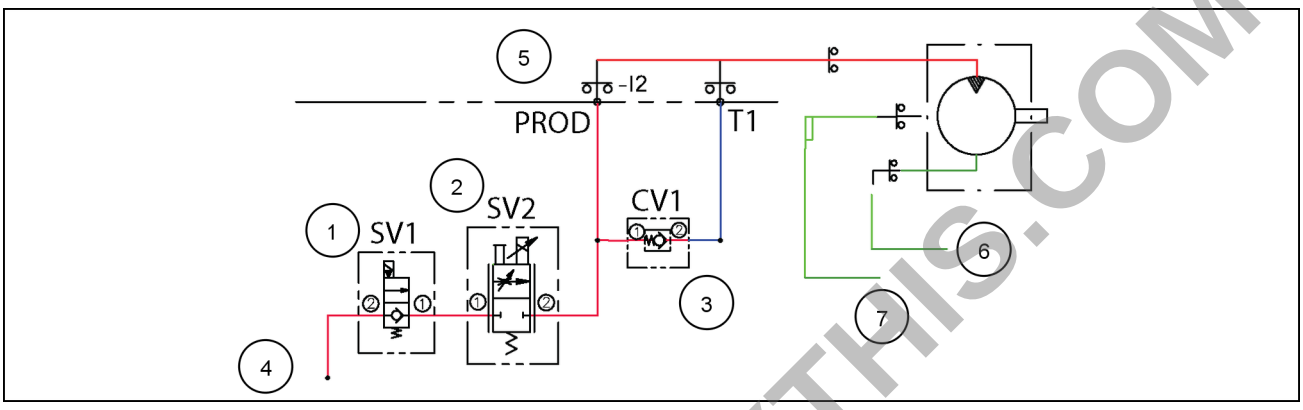
1. Verify that the fault code is still active.
   A. The fault code is still active. Replace the steering orbital.
   B. The fault code is not active. Return the machine to service.

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Product pump - Dynamic description

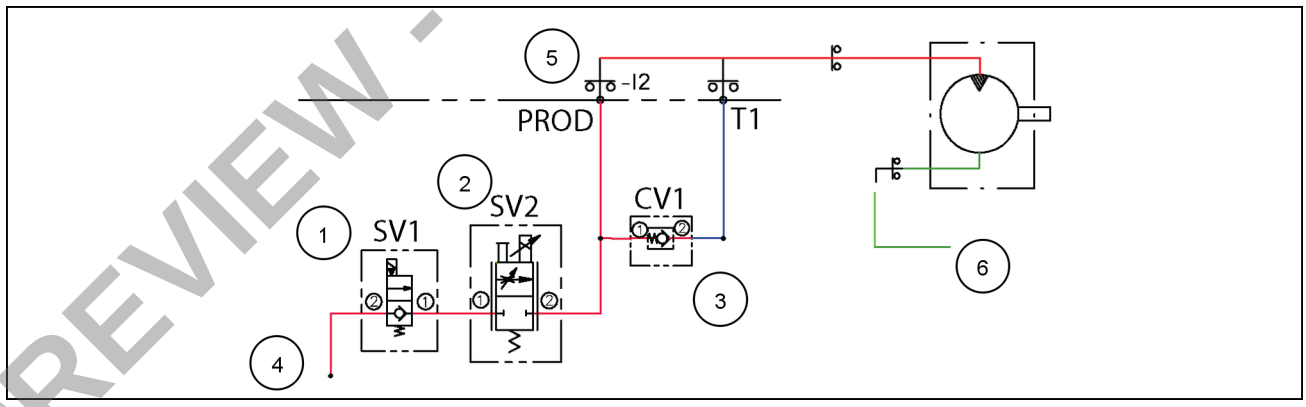
The product pump circuit is feed hydraulic flow from the auxiliary pump through the integrated valve. The flow is activated with 12 volts to the coil / cartridge in SV1. The product system display then controls the amount of hydraulic flow by use of a PWM valve cartridge in SV2 to increase or decrease the pump output. There is also a PWM hydraulic check valve with screen installed in the circuit if opened returns to tank.
There are two different sized product pumps: 9306 — Standard flow pump, and the 9307 High flow pump. The difference between the two pumps is the case drain return to tank hydraulic line which is only attached to the Standard flow product pump.



RAIL18SP00183EA 1

9306 Standard flow pump

Item	Description
1	SV1 Product pump on/off coil
2	SV2 PWM coil and cartridge
3	Check valve for product pump hydraulic motor.
4	Hydraulic flow from the integrated manifold feed
5	Hydraulic flow to product pump motor P port
6	T port main return to tank
7	Case drain return to tank



RAIL18SP00184EA 2

9307 High flow pump

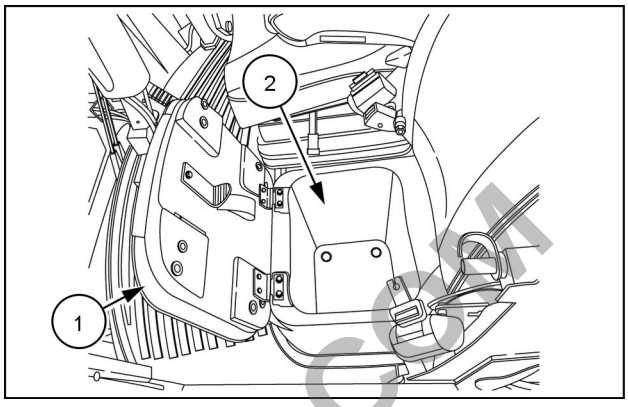
Item	Description
1	SV1 Product pump on/off coil
2	SV2 PWM coil and cartridge
3	Check valve for product pump hydraulic motor.
4	Hydraulic flow from the integrated manifold feed
5	Hydraulic flow to product pump motor P port
6	T port main return to tank

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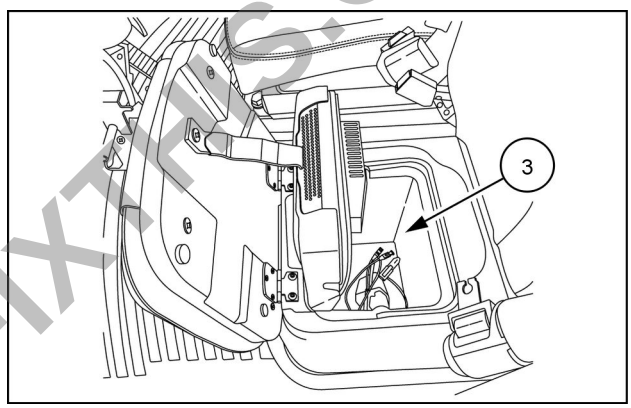
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Instructional seat - Remove

1. Lift the instructional seat **(1)** up to gain access to the inside of the seat support base **(2)**. If your vehicle is equipped with the optional cooler **(3)**, remove it from the inside of the seat support base.

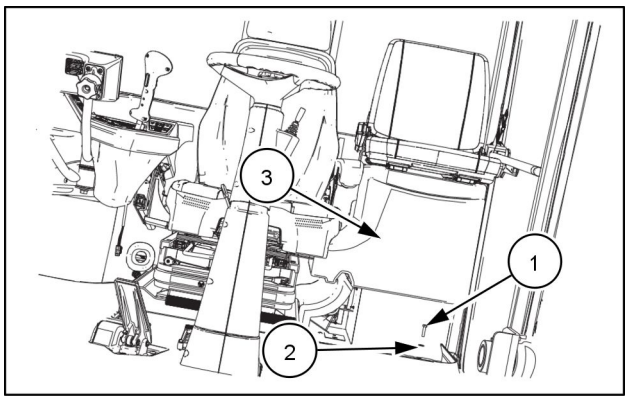


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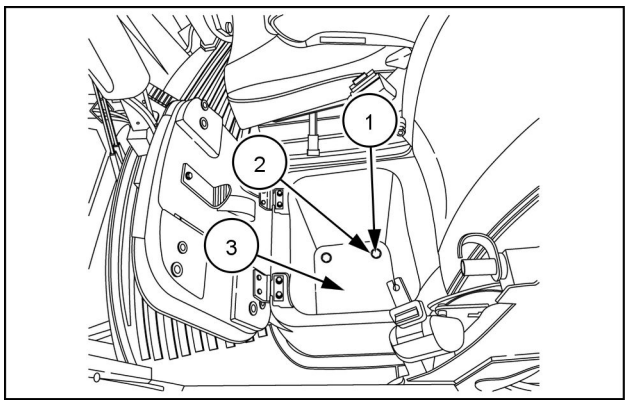


RAIL17SP00371AA 2

2. Inside the seat support base remove the bolts **(1)** and washers **(2)** securing the seat support base **(3)** to the cab floor.



RAIL18SP00687AA 3



RAIL17SP00373AA 4

3. Lift the seat support base with the instructional seat attached up to remove it from the cab.

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SPECIAL TOOL INDEX

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380003479 [Service brake snap ring installation tool]	Planetary drive and hub - Special tools	29.1 / 4
380003478 [Service brake piston & sealing ring press tool]	Planetary drive and hub - Special tools	29.1 / 4
380003481 [Assembly roll check and leak check tool]	Planetary drive and hub - Special tools	29.1 / 4
380003482 [Bearing cone pressing tool]	Planetary drive and hub - Assemble	29.1 / 21
380003478 [Service brake piston & sealing ring press tool]	Planetary drive and hub - Assemble	29.1 / 21
380003478 [Service brake piston & sealing ring press tool]	Planetary drive and hub - Assemble	29.1 / 21
380003480 [Service brake test plate]	Planetary drive and hub - Assemble	29.1 / 22
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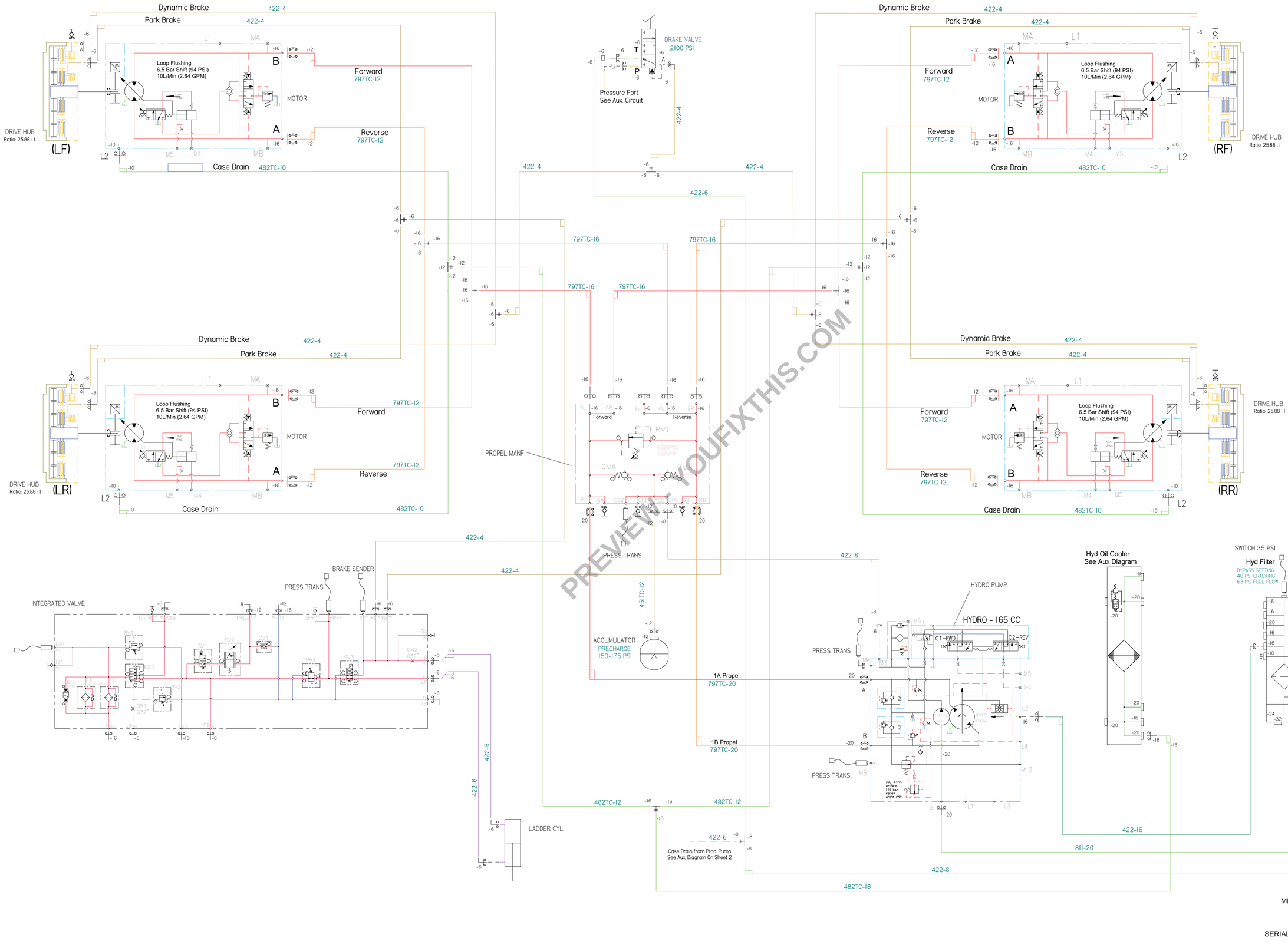


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ELECTRICAL SCHEMATIC
MILLER FRONT BOOM SPRAYER
MODEL: 7310 Tier 4B S/N: HEKY7310YHF001227 AND ABOVE
RAC 48180593

48180593S1S1

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MILLER FRONT BOOM SPRAYER MODELS:
7310 & 7285
PROPEL CIRCUIT
HYDRAULIC SCHEMATIC
SERIAL NUMBER: HEKY7310YHF001227 AND ABOVE
RAC 48180595

48180595S1S1

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Link Product / Engine

Product	Market Product	Engine
Nitro® 7310 Model Year 2019: Model 7310 Tier 4B (final), Two-Wheel Steer (2WS), fixed axle, 1000 gallon tank [HEKY7310JKF000001 -]	North America	F4HFE614A*B006
Nitro® 7310 Model 7310 Tier 4B (final), Two-Wheel Steer (2WS), fixed axle, 1000 gallon tank [HEKY7310YHF001227 - HEKY7310YJF999999]	North America	F4HFE614A*B004
Nitro® 7310 Model Year 2019: Model 7310 Tier 4B (final), Four-Wheel Steer (4WS), fixed axle, 1000 gallon tank [HEKY7310JKF000001 -]	North America	F4HFE614A*B006
Nitro® 7310 Model 7310 Tier 4B (final), Four-Wheel Steer (4WS), fixed axle, 1000 gallon tank [HEKY7310YHF001227 - HEKY7310YJF999999]	North America	F4HFE614A*B004
Nitro® 7310 Model Year 2019: Model 7310 Tier 4B (final), Two-Wheel Steer (2WS), hydraulic axle, 1000 gallon tank [HEKY7310JKF000001 -]	North America	F4HFE614A*B006
Nitro® 7310 Model 7310 Tier 4B (final), Two-Wheel Steer (2WS), hydraulic axle, 1000 gallon tank [HEKY7310YHF001227 - HEKY7310YJF999999]	North America	F4HFE614A*B004
Nitro® 7310 Model Year 2019: Model 7310 Tier 4B (final), Four-Wheel Steer (4WS), hydraulic axle, 1000 gallon tank [HEKY7310JKF000001 -]	North America	F4HFE614A*B006
Nitro® 7310 Model 7310 Tier 4B (final), Four-Wheel Steer (4WS), hydraulic axle, 1000 gallon tank [HEKY7310YHF001227 - HEKY7310YJF999999]	North America	F4HFE614A*B004
Nitro® 7310 Model Year 2019: Model 7310 Tier 4B (final), Two-Wheel Steer (2WS), fixed axle, 1200 gallon tank [HEKY7310JKF000001 -]	North America	F4HFE614A*B006

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