



Safety valve and back pressure validation

The purpose of the safety valve is to “protect” the main valve from damaged caused by hydraulic backpressure.

Most of the valve on the market will be damaged if the backpressure raise above 1000 PSI. Therefore, in order to protect your investment, Anderson has design a system of components, which monitor the hydraulic pressure on the Pressure line (P) and on the hydraulic return line to the tractor (T).

If at any moment, the hydraulic pressure registered in the return line go above 1000 PSI, the computer will close the safety valve, which prevent oil pressure from building up in the main valve.

Backpressure could be cause different ways:

- Pressure line connected to the tractor, but the return line being disconnected
- Flow going to the valve the wrong way (inversion of the pressure and return hydraulic line at the tractor)
- Defective coupler on the return line, generating restrictions
- Excessive hydraulic flow coming from the tractor, comparing to the real need of your wrapper.

See next page to understand how to diagnose if your problem is related to backpressure itself or a defective components, which is parts of the safety valve system.

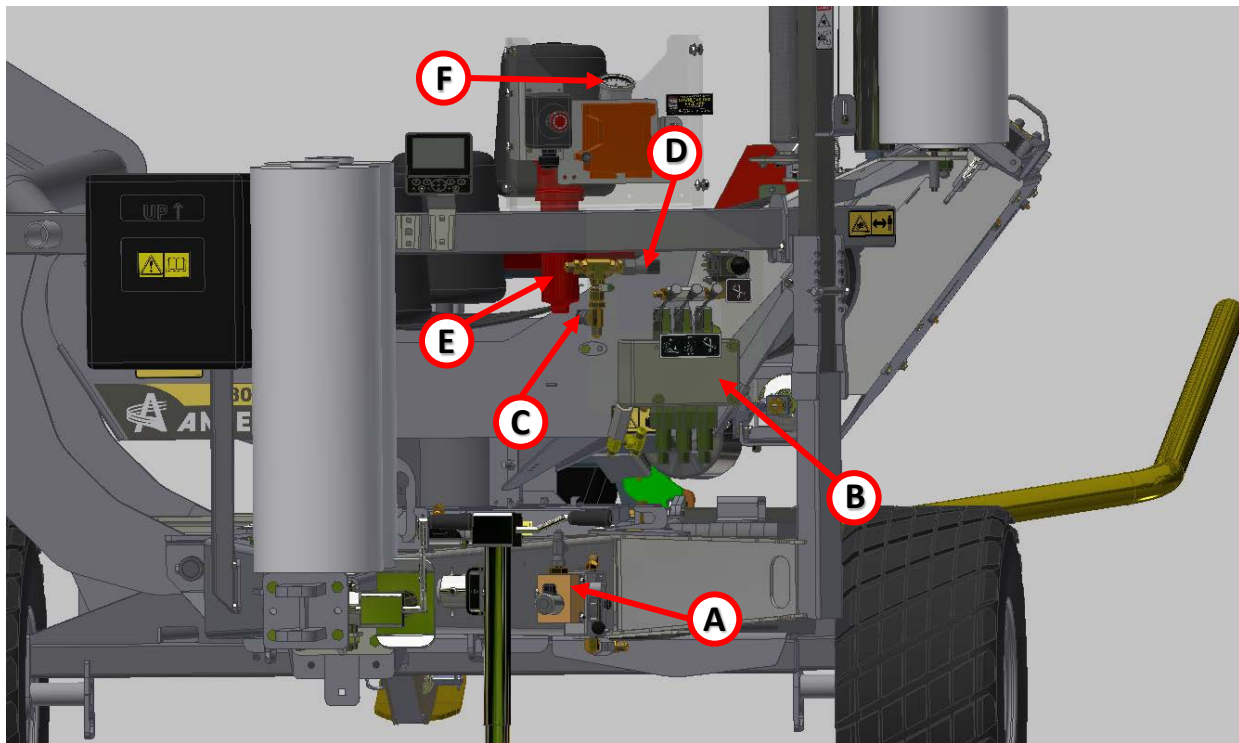
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1. Identification of the different components which are part of the safety valve system (see pictures below) and how it work

- A- Safety valve
- B- Main valve
- C- Pressure sensor (T) <1000 PSI on the hydraulic return line
- D- Pressure sensor (P) >200 PSI on the hydraulic pressure line
- E- High pressure oil filter
- F- Hydraulic gage



In order for the wrapper to “Open” the safety valve (A), the computer need to detect the following conditions:

- C- Pressure sensor (T) detected on the hydraulic return line LESS than 1000 PSI
- D- Pressure sensor (P) detected on the hydraulic pressure line HIGHER than 200 PSI

Once conditions are met, the computer will send 12V power to the connector of the safety valve (A) in order to let the oil flow to go to the main valve (B)



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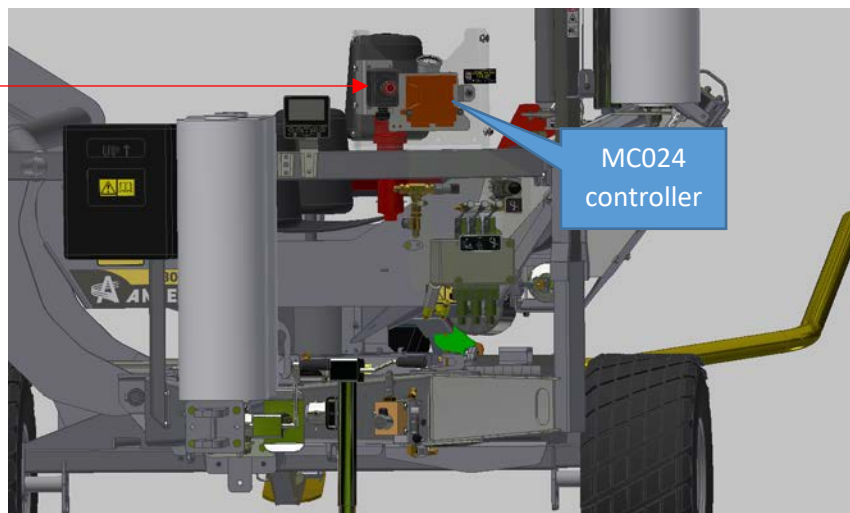
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2. Validation of the power supply to the controller.

- a. First make sure your Remote control display is powered ON and that it show at least 12V if the tractor engine is OFF, and at least 13.5V when the engine is running. The voltage is shown on the in the screen on the right hand side.
- b. Second, make sure you have your remote control display well connected to the wrapper. There is a 9 pins connector on top of the drawbar. Make sure the wires and pins inside the connector is properly secured.



- c. Pull on the **RED emergency button** next to the wrapper controller, in order to let electrical power going through the system.
- d. Validate that your wrapper controller do receive power from the Remote display, through the 9 pins connector. In order to do so, you can look at the LED light located on the MC024 controller. If the GREEN LED light is not ON, inspect the wire connection inside the connector indicated at the previous step.



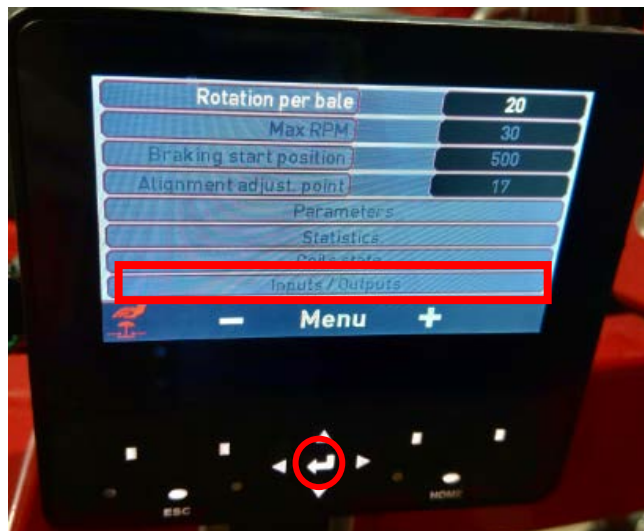


3. Validation of the good working condition of the hydraulic pressure sensor (P) & (T)

- Engage the hydraulic from the tractor, in order to pressurise the hydraulic system of the wrapper
- From the remote, click on the central button in order to reach the sub-menu (Button identify by the red circle in the pictures below)



- Then scroll down with the cursor, until you have selected "Input/Output" and then click on the central button again

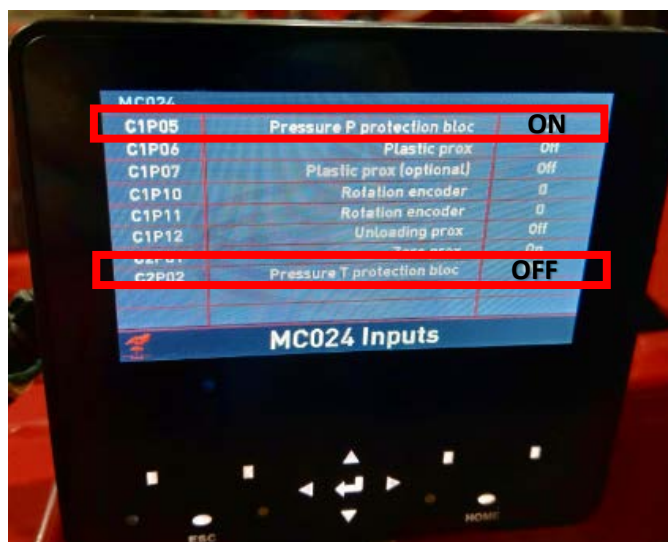




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- d. Then you should see the status of the two (2) hydraulic pressure sensor.



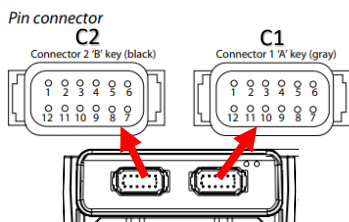
- i. The line written “C1P05 – Pressure P protection bloc” shall be ON when hydraulic is engage from the tractor

1. If the sensor is OFF;

- Your hydraulic flow from the tractor isn't engage
- Or your pressure hydraulic line is disconnected from the tractor
- Or the signal wire of that sensor is disconnected or cut in between the sensor pressure (P) and the Pin#5 of the connector #1 of the MC024

- d. Or the power supply to the switch pressure P is defective.

- Disconnect the connectors of the switch pressure P.
- Use a voltmeter and make sure you do have 12V power on the red wire.
- Inspect wire and make sure the ground cable is not broken.



- ii. The line written “C2P02 – Pressure T protection bloc” shall be OFF when hydraulic is engage from the tractor.

1. If the sensor is ON, it mean that you have backpressure exceeding 1000 PSI on the return line. It could be related to;

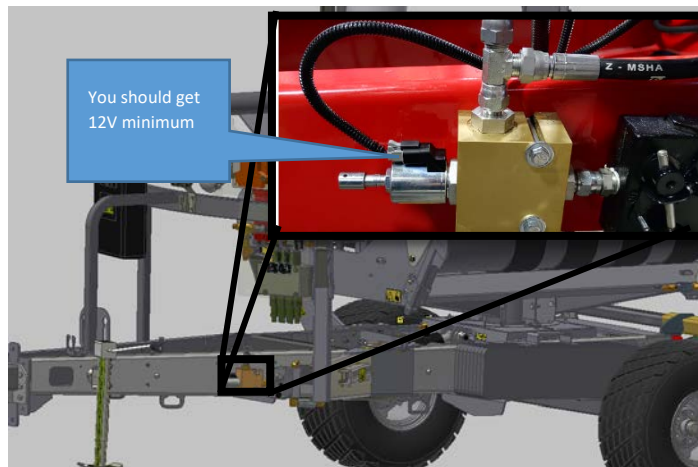
- Your return line is disconnected from the tractor
- Excessive hydraulic flow coming from the tractor, comparing to the real need of your wrapper. Adjust your tractor hydraulic flow to 15 GPM maximum
- Defective coupler on the return line, generating hydraulic flow restrictions

We recommend having a free return hydraulic line directly to the oil tank of the tractor, to prevent backpressure



4. Validating the good working condition of the safety valve

- a. Technically, at this stage, you have validate that both pressure sensor (P) status is ON and switch pressure (T) status is OFF in the “Input/Output” menu, and your hydraulic flow is engage from the tractor. At this stage if the machine do not have any hydraulic power it is most likely related to the safety valve.
- b. Before going further make sure;
 - i. Remote control Display is power ON
 - ii. Emergency red button next to the computer of the wrapper is pulled out
 - iii. Hydraulic flow from the tractor is engage so your switch pressure (P) & (T) are acting as they should
- c. Remove the connector on the safety valve and use a voltmeter to test if you have 12V minimum coming out of the connector.
 - i. If you do not have power, inspect wire up to the computer and make sure there is no broken/damaged wire, and that the wire is properly inserted inside the connections.



- ii. If you do have 12V power or more, and you don't have any hydraulic pressure on the hydraulic gage;
 1. Either the valve solenoid is defective
 - a. Replace solenoid if necessary
 2. Or the safety valve is jammed.
 - a. Open the valve, inspect and clean the spool and reassemble properly.
 - b. Replace valve if necessary