

Blockage Prevention System (BPS) Installation Manual



REQUIRED TOOLS

Be sure to have the following tools and parts available before you begin your initial installation.

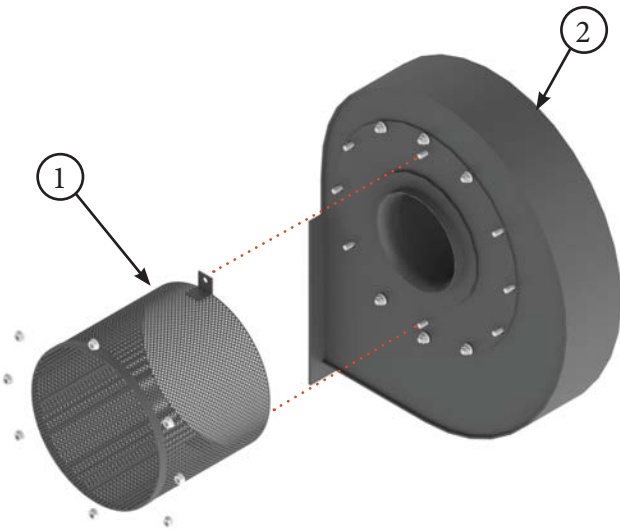
- Socket Set
- Open End Wrenches
- Large Adjustable Wrench
- Impact Driver
- Pliers
- Zip Ties
- Shop Towels

SUPPLIED PARTS:

- | | |
|--|---|
| 1 Main Blockage Prevention System Assembly (BPS) | 1 Pressure Test Kit |
| 1 Mounting Bracket | 1 Pressure Relief Connection Kit |
| 2 Mounting Pins | 1 Snorkel Kit (Optional) Single or Double |
| 4 Cotter Pins | |
| 2 Hydraulic Hoses - 3/4" x 4ft Long | |
| 1 Hydraulic Hose Adapter Kit | |

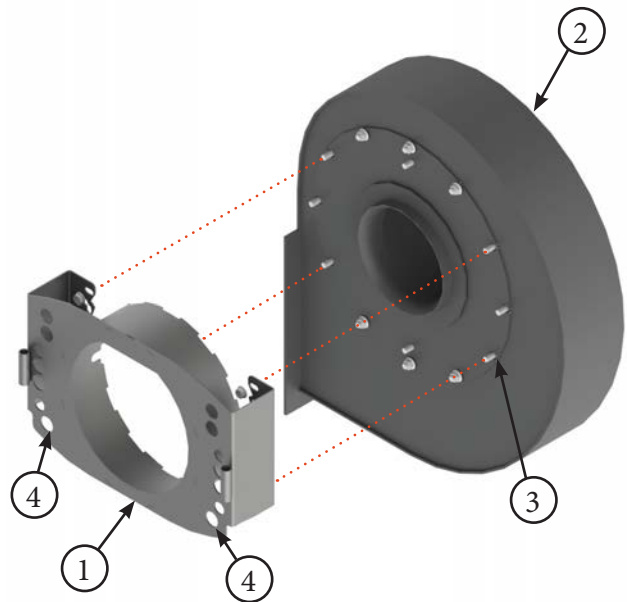
INSTALL IN 12 STEPS

****STEP 12 MUST BE FOLLOWED AFTER INSTALL****



STEP 1

Remove existing fan screen (Item 1) from the fan housing (Item 2).

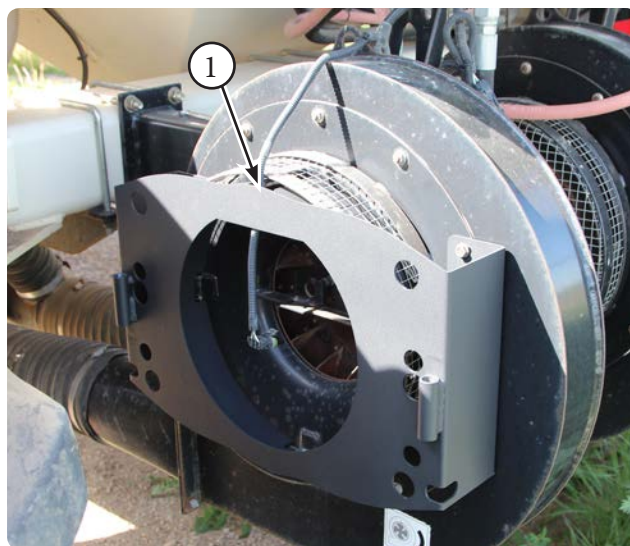


STEP 2a

Install supplied mounting bracket (Item 1) to fan housing (Item 2) using existing bolts and nuts (Item 3). Angle mounting bracket in a position that ensures the supplied 4ft hydraulic hoses reach the fan motor. Additional holes in bracket face (Item 4) are for easy access with an impact driver. See pages 2 & 3 for reference of various brackets mounted to fan housings. Sometimes the fan may need to be moved. See pages 4-6 for more details.



7700 - CNH (7701 Kit)

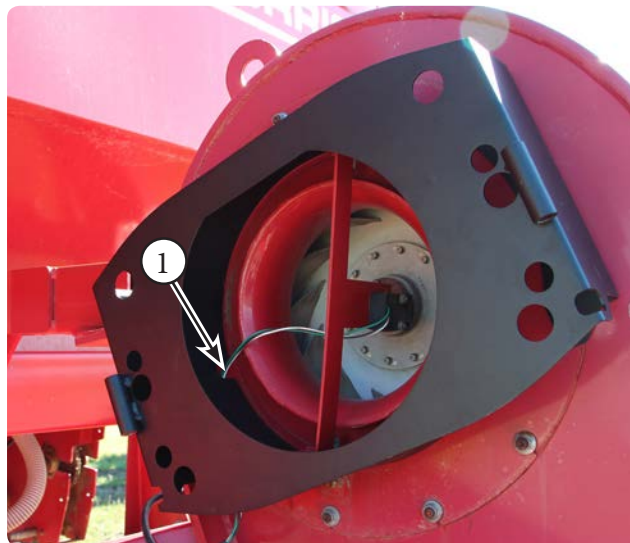


7710 - Bourgault (7711 Kit)

Fan sensor wire must be removed and reinstalled (Item 1)

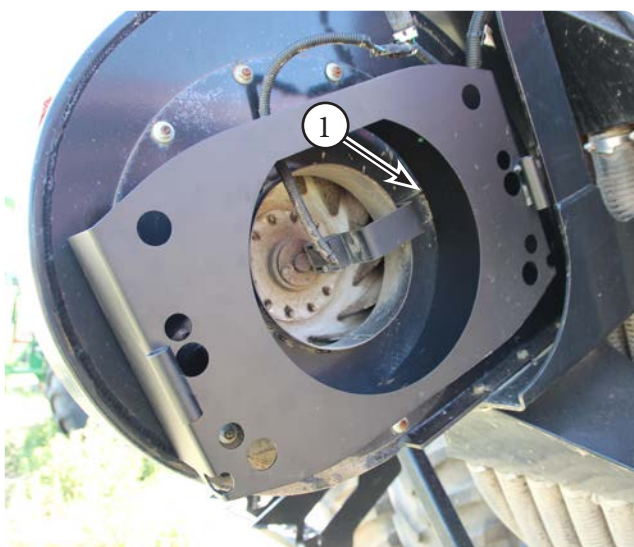


7720 - John Deere 1900, 1910 (7721 Kit)



7720 - Morris (7721 Kit)

Fan sensor wire must be rerouted through notch (Item 1)



7720 - Vaderstad/Seed Hawk(7721 Kit)

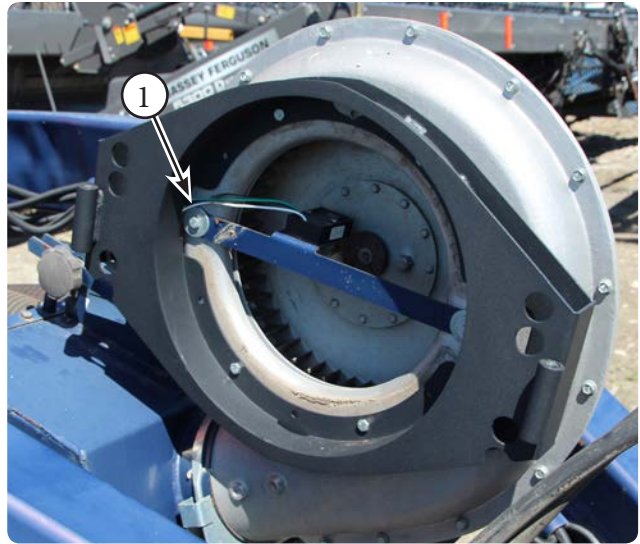
Fan sensor bar must line up with notches (Item 1)



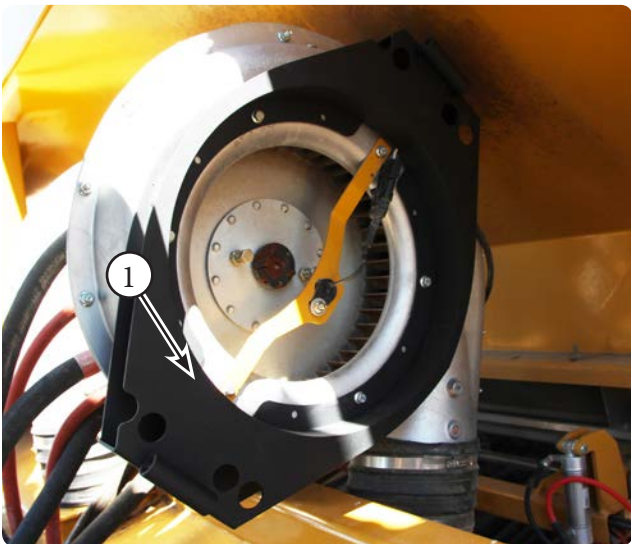
7720 - Seed Master (7721 Kit)



7730 - John Deere 1910 Cast Fan (7731 Kit)



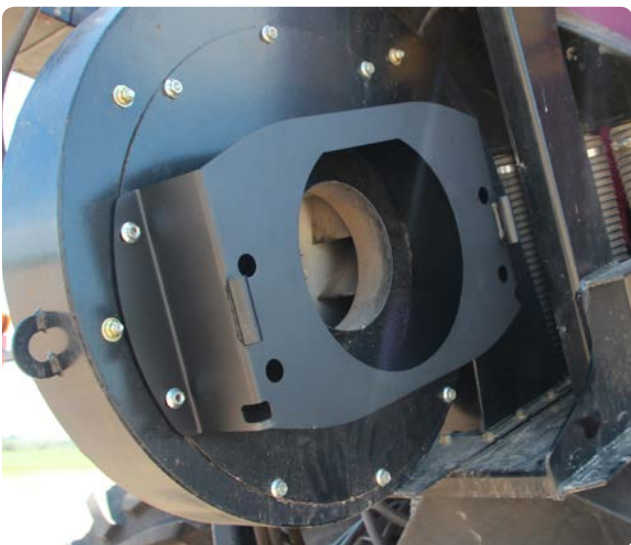
7740 - Cray 6" Fan (7741 Kit)
Fan sensor bar must line up with notches (Item 1)



7740 - Seed Master -Cray 6" (7741 Kit)
Fan sensor bar must line up with notches (Item 1)



7750 - Seed Master -Cray 8" (7751 Kit)

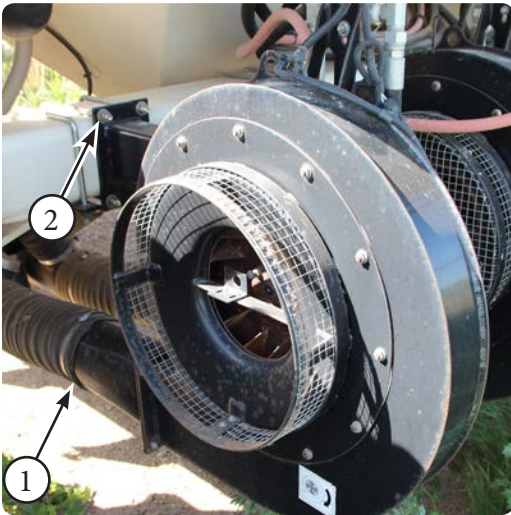


7760 - Vaderstad/Seed Hawk (7761 Kit)
Tsunami Fan



7770 - John Deere Airpower 2 (7771 Kit)

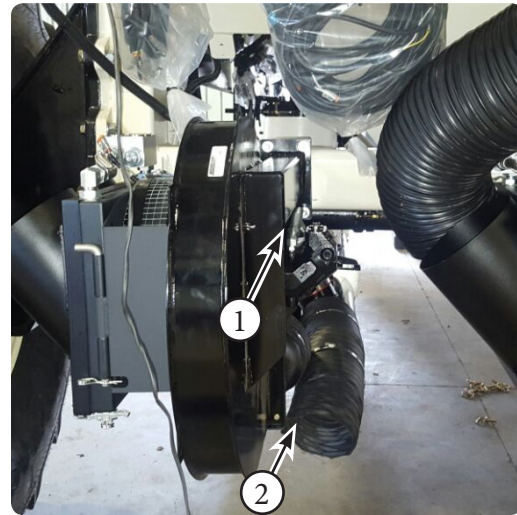
7710 - Bourgault U-Bolted to Rear Axle



STEP 2b

Disconnect flexible hose (Item 1) from fan outlet on fan #1 &/or #2. Loosen U-Bolts (Item 2) that hold the fan mount bracket to the axle. In some cases the U-bolts need to be completely removed to allow fan to be shifted over for sufficient room to install the Airguard parts.

WARNING: Support fan housing from below with a jack or wood to avoid injury and so no extra stress is put on the hydraulic hose connections



STEP 2c

Re-attach fan housing mount bracket to axle using U-Bolts just loosened or removed. Allow for 10-12" of space between the fan motor and the intake screen of the neighboring fan. Loosen and adjust hydraulic hoses from under the cart to allow the fan motor hose connections to be shifted to their new location. Proceed to install supplied longer hose ducting kit to fan outlet (see page 6).

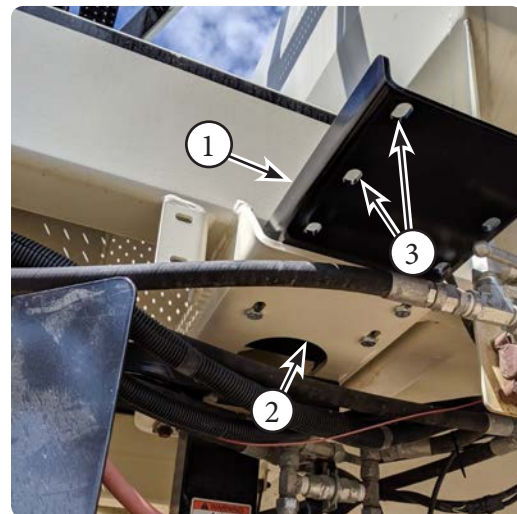
7930 - Bourgault L6000 Series



STEP 2b

Remove hardware that attaches fan housing mount bracket to the air cart frame (Item 1).

WARNING: Support fan housing from below with a jack or wood to avoid injury and so no extra stress is put on the hydraulic hose connections



STEP 2c

Install frame extension bracket (Item 1) to air cart frame (Item 2) using hardware that was just removed. Re-attach fan housing mount bracket to frame extension in new slots (Item 3). This allows for 10-12" of space between the fan motor and the intake screen of the neighboring fan. Loosen and adjust hydraulic hoses from under the cart to allow the fan motor hose connections to be shifted to their new location. Proceed to install supplied longer hose ducting kit to fan outlet (see page 6).

7840 - Bourgault L7000 Series

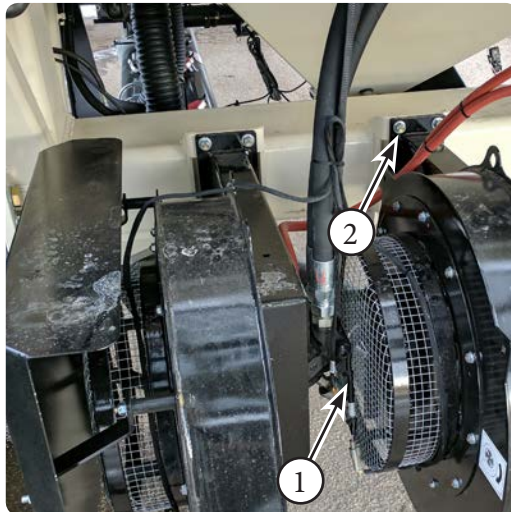


STEP 2b

Disconnect flexible hose (Item 1) from fan outlet on fan #1 &/or #2. Loosen U-Bolts (Item 2) that hold the fan mount bracket to the axle. In some cases the U-bolts need to be completely removed to allow fan to be shifted over for sufficient room to install the Airguard parts.

WARNING: Support fan housing from below with a jack or wood to avoid injury and so no extra stress is put on the hydraulic hose connections

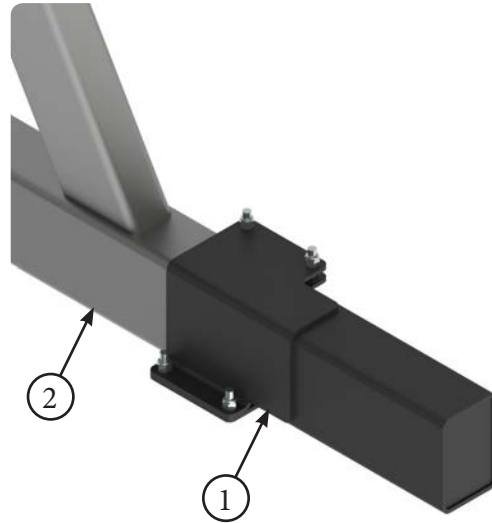
7820 - Bourgault 71300



STEP 2b

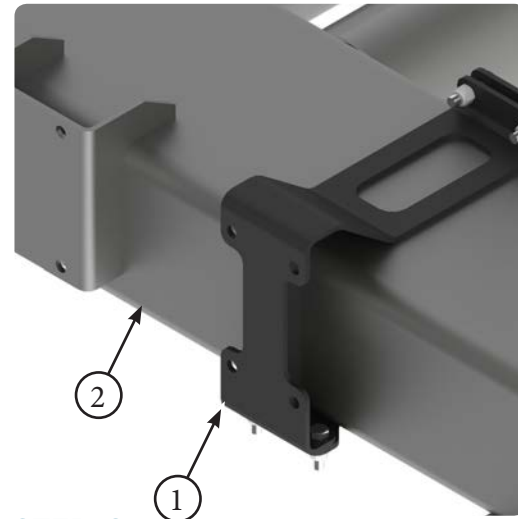
Disconnect flexible hose (Item 1) from fan outlet on fan #1 &/or #2. Remove hardware (Item 2) that hold the fan mount bracket to the axle.

WARNING: Support fan housing from below with a jack or wood to avoid injury and so no extra stress is put on the hydraulic hose connections



STEP 2c

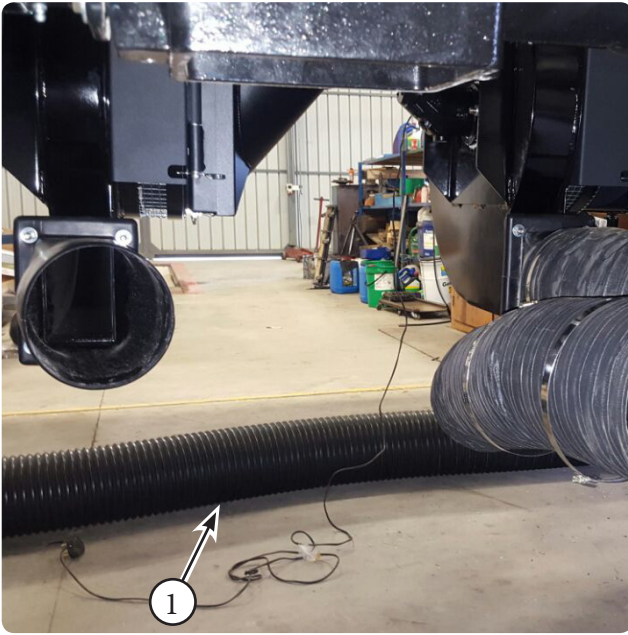
Install frame extension bracket (Item 1) to air cart frame (Item 2) using hardware provided. Proceed to re-attach fan housing mount bracket to frame extension using U-Bolts just loosened or removed. This allows for 10-12" of space between the fan motor and the intake screen of the neighboring fan. Loosen and adjust hydraulic hoses from under the cart to allow the fan motor hose connections to be shifted to their new location. Proceed to install supplied longer hose ducting kit to fan outlet (see page 6).



STEP 2c

Install frame extension bracket (Item 1) to air cart frame (Item 2) using hardware provided. Proceed to re-attach fan housing mount bracket to frame extension using hardware provided. Allow 10-12" of space between the fan motor and the intake screen of the neighboring fan. Loosen and adjust hydraulic hoses from under the cart to allow the fan motor hose connections to be shifted to their new location. Proceed to install supplied longer hose ducting kit to fan outlet (see page 6).

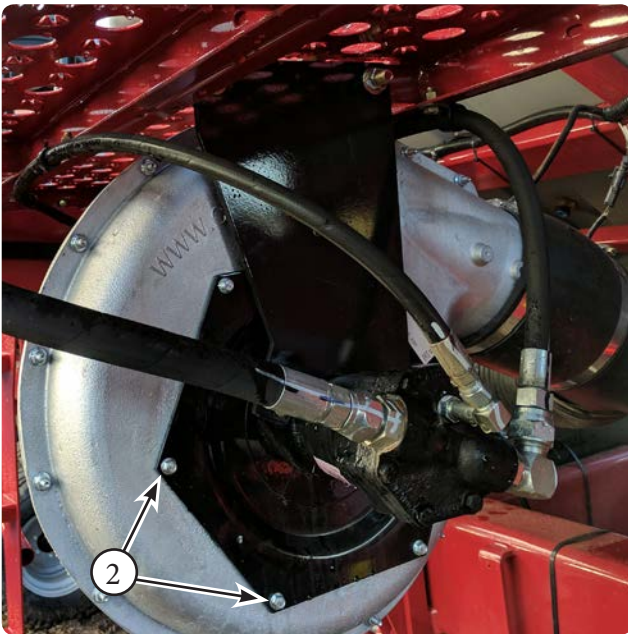
Bourgault fan outlet extension



STEP 2d

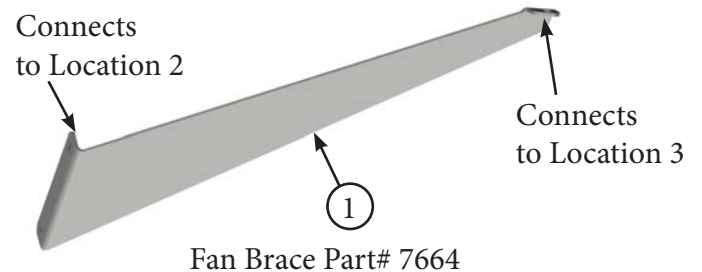
Attach longer ducting hose (Item 1) to fan and pipe using existing hose clamps. Pull ducting tight and cut to length for a snug fit.

7810 - CNH 500T, New Holland P2080 & P2085

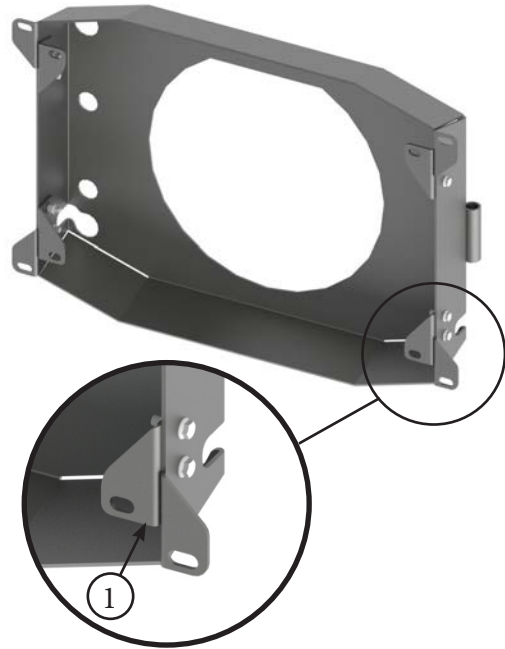


STEP 2b

A brace is required (Item 1) to support the fan for the Case Ih 500T and New Holland P2080 & P2085. Attach supplied bracket using existing hardware at locations (2) and (3).



7780 - MONTAG 1808 & 2210

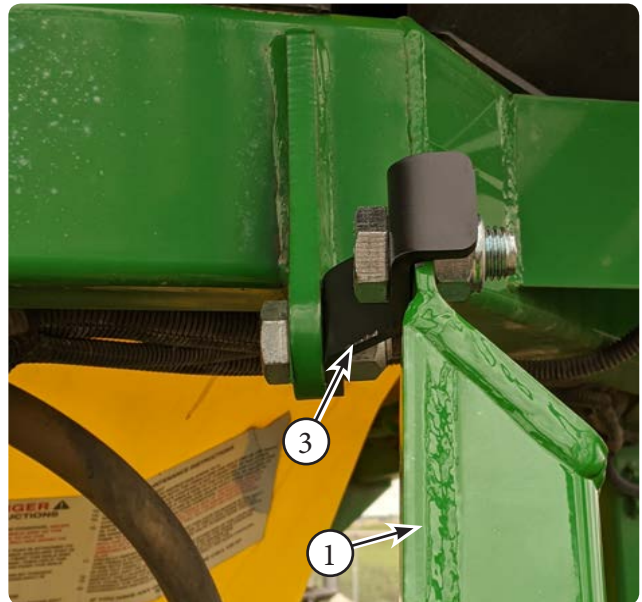
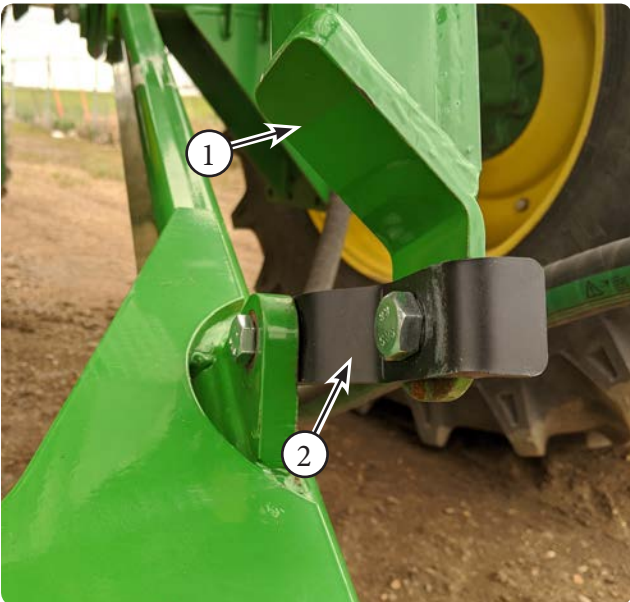


STEP 2b

Supplied 90deg brackets (Item 1) are required when mounting to the Montag 1808 fan. Bolt the 90deg brackets inside the mounting bracket as shown using hardware provided. These brackets are not required when installing on a Montag 2210 fan.

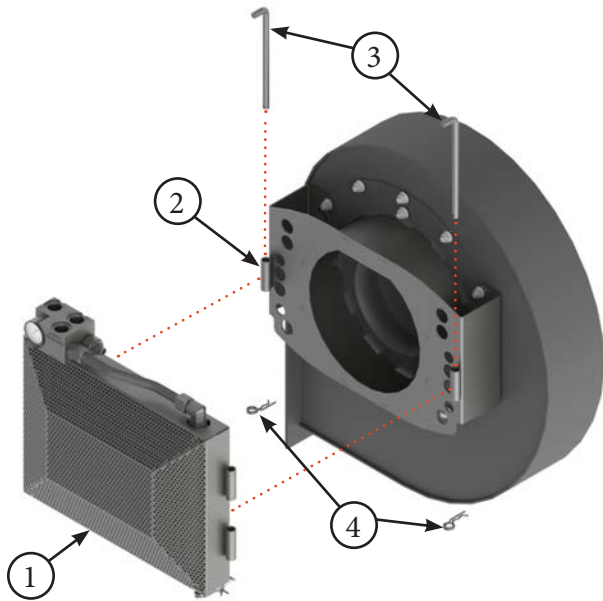


7730 - John Deere 1910 with Heavy Duty Hitch



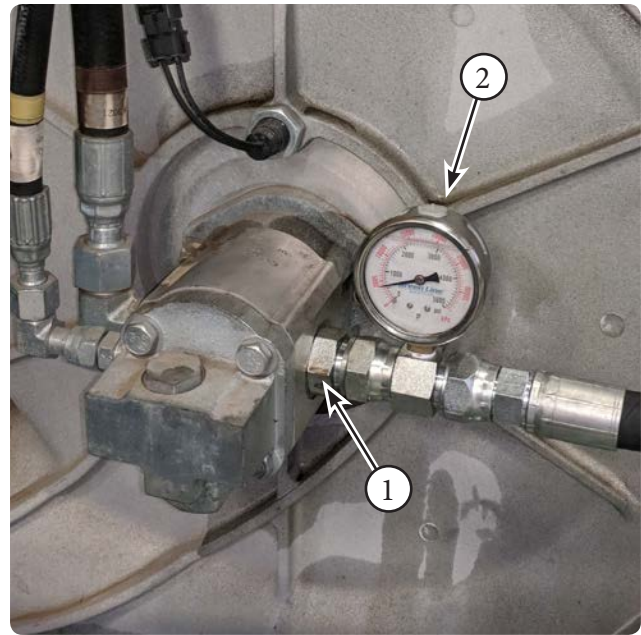
STEP 2b

For install on John Deere 1910 with cast fan and heavy duty hitch, the hitch cross member (Item 1) must be moved using adapter plates on top and bottom of cross member. (Item 2 and 3)



STEP 3

Mount BPS assembly (Item 1) to mounting bracket (Item 2) using supplied pivot pins (Item 3). Secure in place with cotter pins (Item 4). Plastic Gauge protector and plug should be removed prior to install.



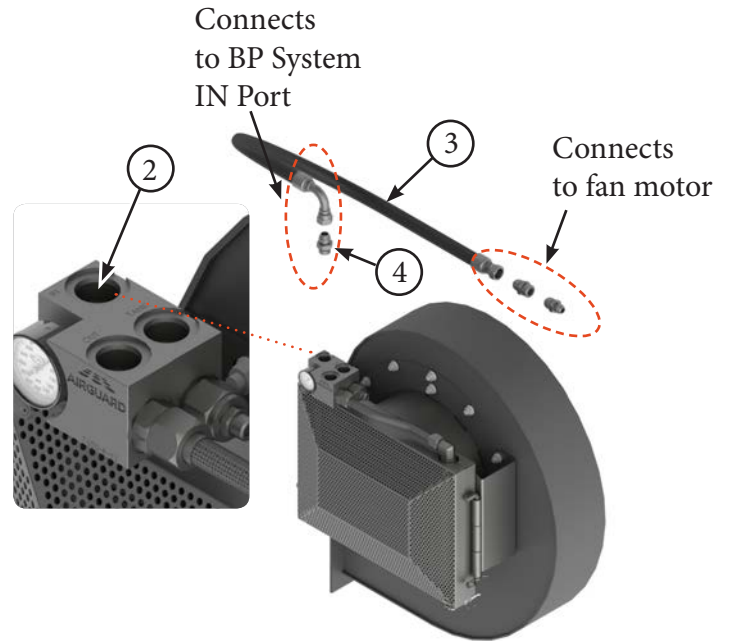
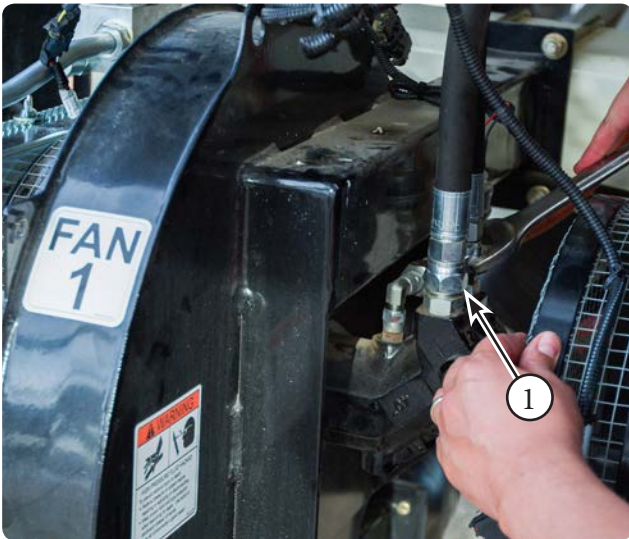
STEP 4a

Remove factory hose from side of fan motor for the first pressure test (Item 1). Install supplied Pressure Test Kit (Item 2). The test kit is made to fit 3/4" JIC hoses. Adapters for kit are included to fit 3/4" ORFS as well. Proceed to test and run the fans to full operation speed to identify if this is the correct port. The return hose pressure should be below 1000psi. **If the pressure gauge reads 2000-3000psi this is NOT the return flow port. Install pressure test kit on opposite port on motor and do a second test.** You may choose to keep this test kit installed on the machine as an extra pressure reference.

WARNING: You must identify the return flow port on the fan motor. This is where the BP System will be connected and damage may occur if the incorrect port is used.

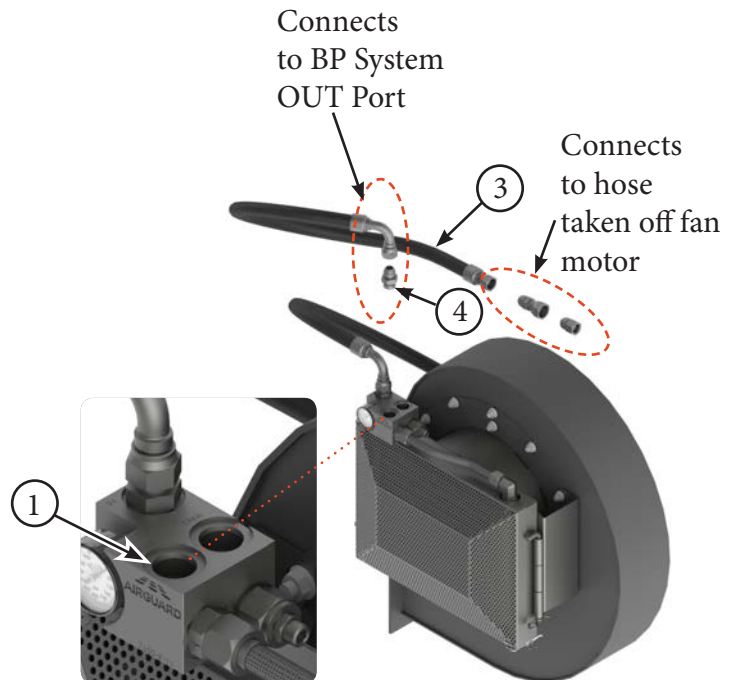
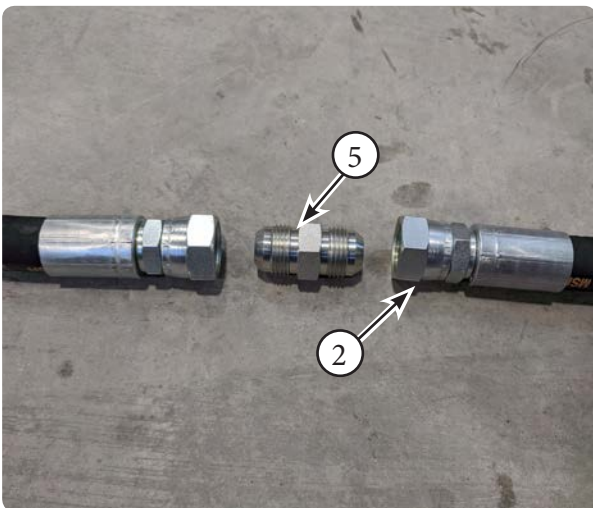
REFER TO PAGES 9-13 FOR SPECIFIC MODEL HYDRAULIC CONNECTIONS

For Part #'s : 7720, 7730, 7740, 7750, 7760, 7770, 7780, 7790, 7800, 7810, 7820, 7840, 7880, 7910
Most Installations



STEP 5

Install supplied 3/4" x 4ft hydraulic hose (Item 3) to the identified return flow port (Item 1) and to the "IN" port on the radiator block (Item 2) using adapter P/N 7543 (Item 4). Typically the hose end with the 90deg elbow is mounted at the block to eliminate kinking of hose.

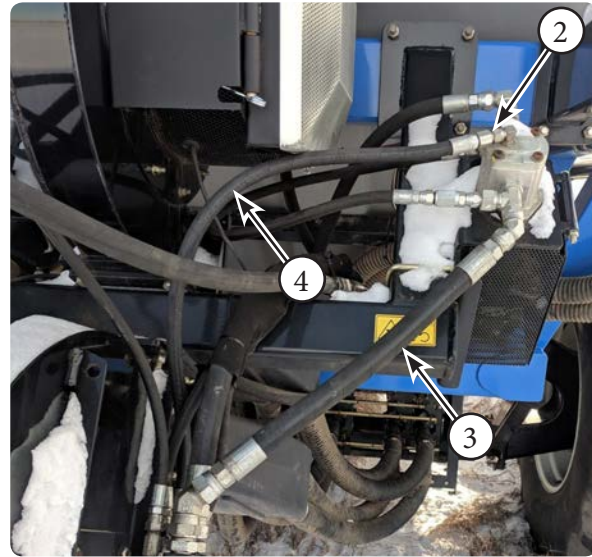
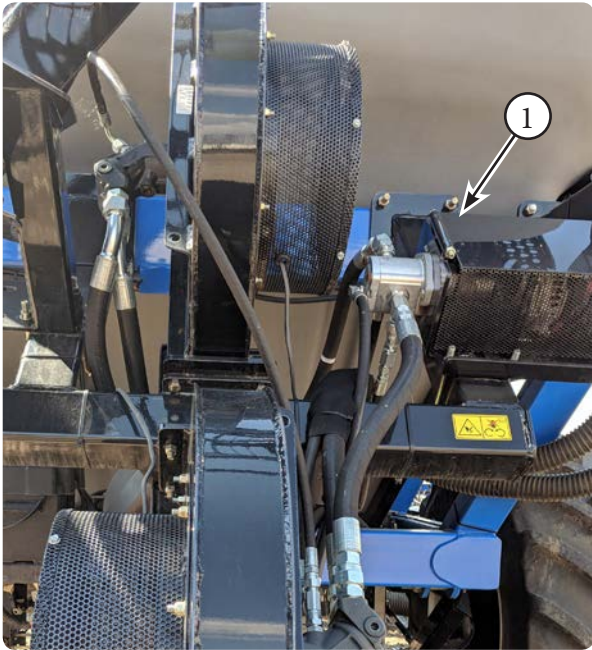


STEP 6

Install supplied 3/4" x 4ft hydraulic hose (Item 3) to the "OUT" port of the radiator block (Item 1) using adapter P/N 7543 (Item 4), and to the factory return line that was removed from the fan motor (Item 2). Use the appropriate fittings provided to complete the connection (Item 5).

7798, 7888 - Crary FAN (Top Fan) CNH / NEW HOLLAND 3445, 3555, 3580, 4000 Series

FOR NEWER CNH DRILLS WITH ALTERNATORS MOUNTED CLOSE TO THE FANS, HOSES MUST BE INSTALLED ON RETURN SIDE OF ALTERNATOR TO ENSURE CORRECT OIL FLOW TO ALTERNATOR.



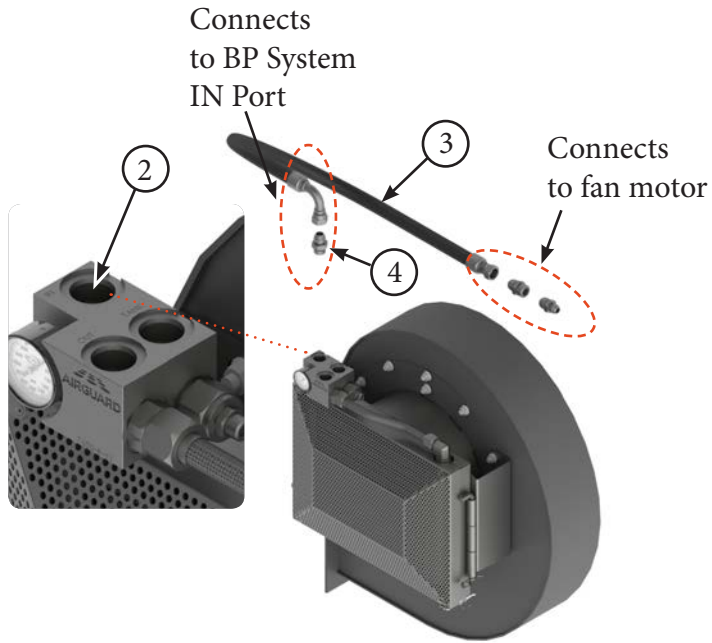
STEP 5a

The alternator will need to be repositioned 90 degrees on HSS frame to make room for the BPS install. Factory Position (Item 1). New Position (Item 2). Use supplied 1" x 2ft hydraulic hose (Item 3) and 1/2" x 3ft hydraulic hose (Item 4) to reconnect alternator to fan hydraulic motor.



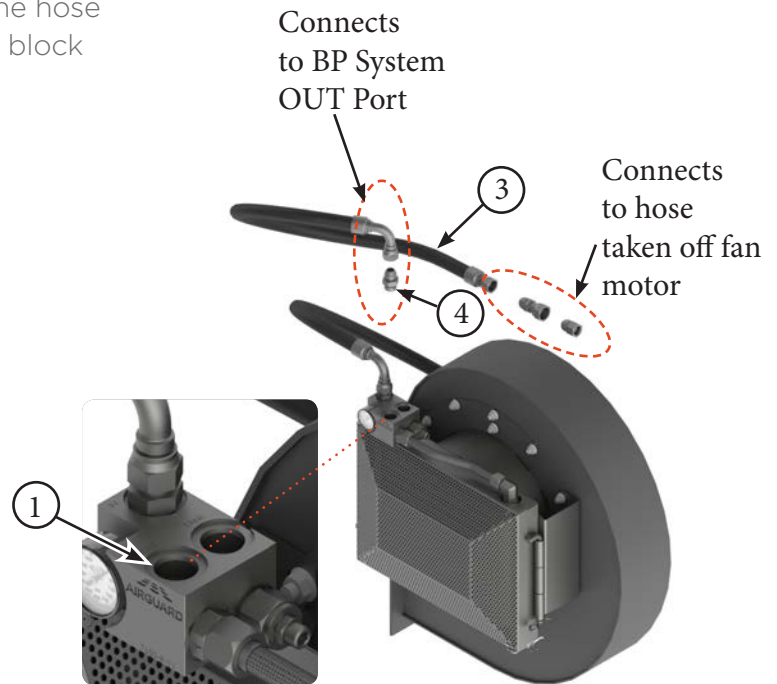
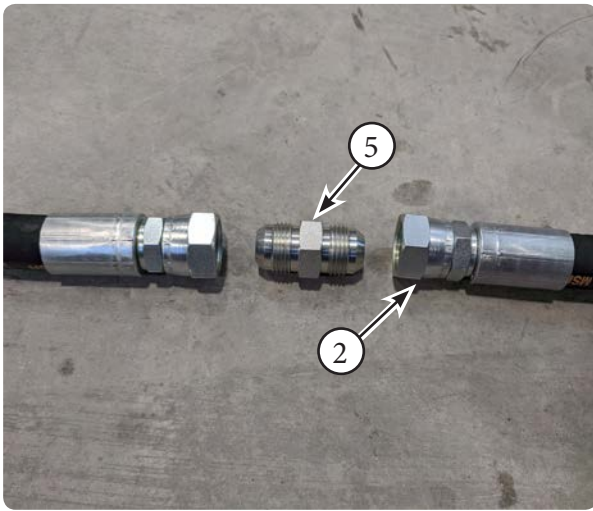
STEP 5b

Remove factory hose from side of alternator motor (Item 1). Install supplied 3/4" x 4ft hydraulic hose to the alternator port and to the "IN" port on the radiator block as shown in step 5c.



STEP 5c

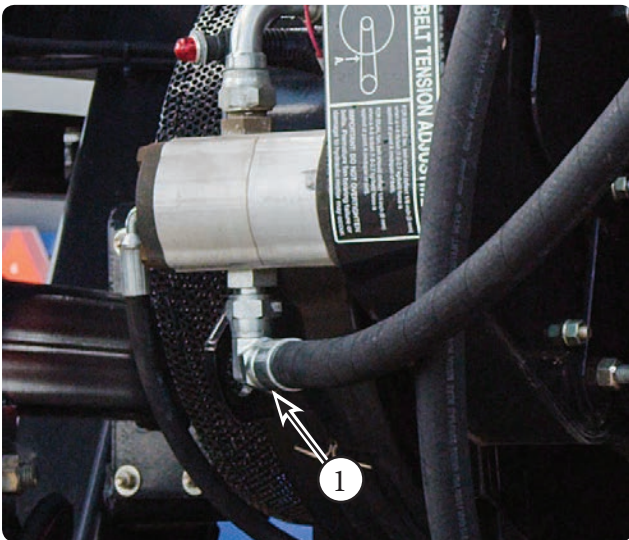
Install supplied 3/4" x 4ft hydraulic hose (Item 3) to the identified return flow port (Item 1) in Step 5b and to the "IN" port on the radiator block (Item 2) using adapter P/N 7543 (Item 4). Typically the hose end with the 90deg elbow is mounted at the block to eliminate kinking of hose.



STEP 6

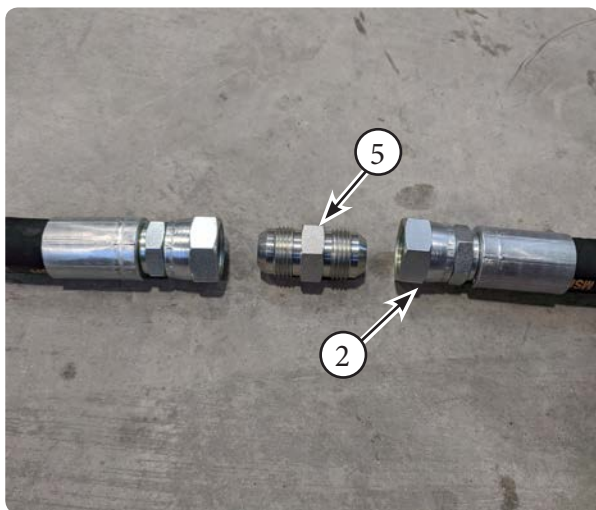
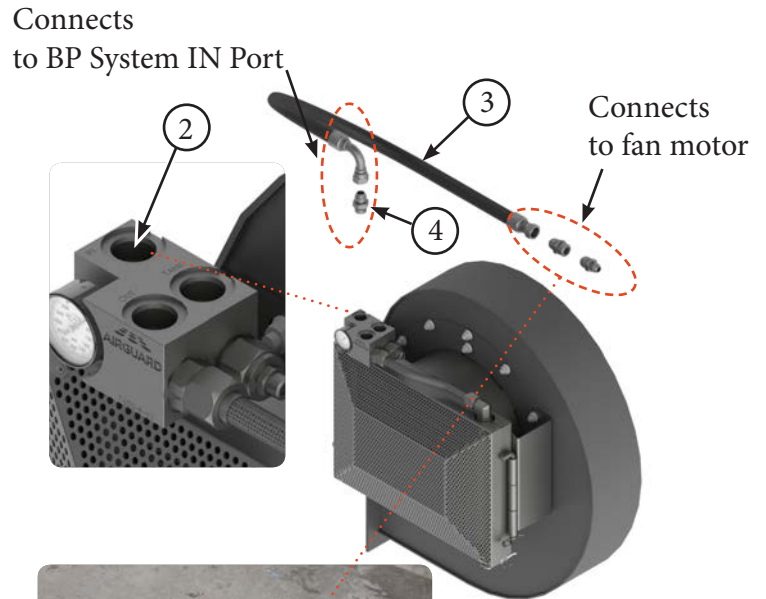
Install supplied 3/4" x 4ft hydraulic hose (Item 3) to the "OUT" port of the radiator block (Item 1) using adapter P/N 7543 (Item 4), and to the factory return line that was removed from the fan motor (Item 2). Use the appropriate fittings provided to complete the connection (Item 5).

7700 - CNH 2230, 2280, 2330, 3380, 3430, New Holland P1000 Series FOR DUAL FAN SETUP



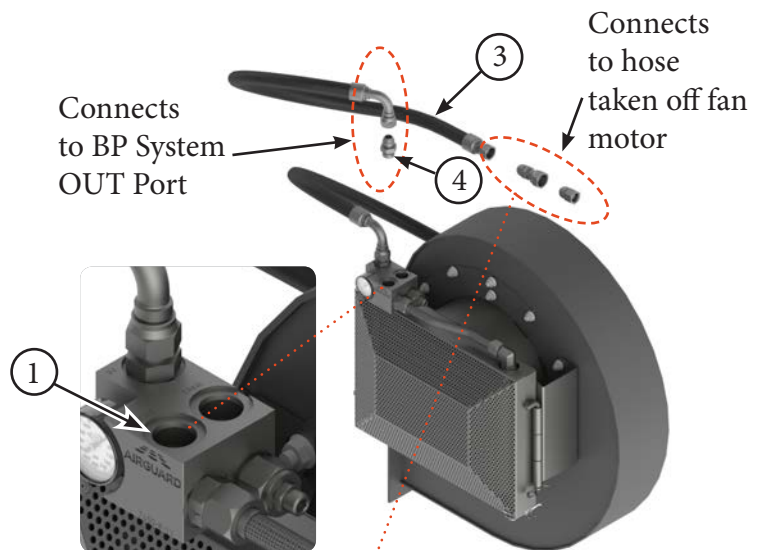
STEP 5

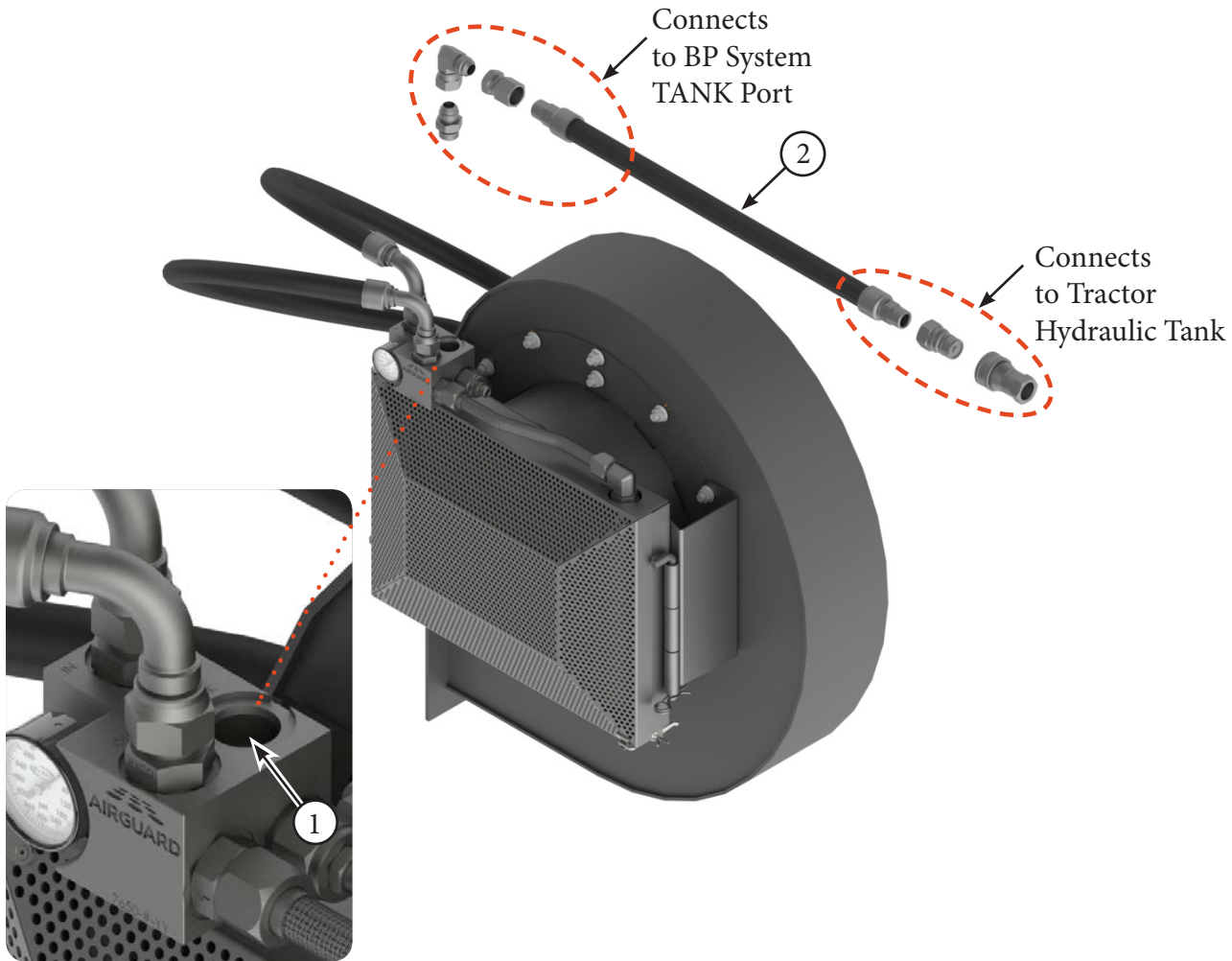
Install supplied 3/4" x 4ft hydraulic hose (Item 3) to the identified return flow port (Item 1) and to the "IN" port on the radiator block (Item 2) using adapter P/N 7543 (Item 4). Typically the hose end with the 90deg elbow is mounted at the block to eliminate kinking of hose. Use the appropriate fittings provided to complete the connection. For P1060 / P1070 Models use supplied T fittings to attach both 3/4" x 4ft hoses together when installing BP Systems on both fans.



STEP 6

Install supplied 3/4" x 4ft hydraulic hose (Item 3) to the "OUT" port of the radiator block (Item 1) using adapter P/N 7543 (Item 4), and to the factory return line that was removed from the fan motor (Item 2). Use the appropriate fittings provided to complete the connection (Item 5). Use supplied T fittings to attach both 3/4" x 4ft hoses together when installing BP Systems on both fans.





STEP 7

For detailed instructions on how to install this hose, refer to the **PRESSURE RELIEF CONNECTION KIT & GUIDE (Step 8, 9 & 10)**.

Install supplied 3/4" x 10ft - 60ft hydraulic hose (Item 2) from the "TANK" port (Item 1) of the radiator block. Route hose(s) to front of cart/ rear of tractor. Use the appropriate fittings provided to complete the connection.

WARNING: This 3/4" relief line **MUST NOT** have any restrictions and **MUST** connect to the reservoir tank of the tractor. **Quick Couplers** used for this connection **MUST** allow free flow when disconnected.

PRESSURE RELIEF CONNECTION KIT

SUPPLIED PARTS - 7200 Kit:



7201 - Adapter - 1 pc
3/4" JIC - M27



7207 - Tee - 1 pc
5/8" JIC



7208 - Adapter - 1 pc
3/4" JIC - BSPP



7209 - Adapter - 1 pc
3/4" JIC - ORFS



7222 - Elbow - 1 pc
3/4" ORFS



7223 - Tee - 1 pc
5/8" ORFS



7224 - Tee - 1 pc
3/4" ORFS



7226 - Adapter - 1 pc
5/8" - 3/4" JIC



7227 - Adapter - 1 pc
5/8" JIC - ORFS



7228 - Elbow - 2 pcs
5/8" JIC



7229 - Elbow - 1 pc
5/8" ORFS



7231 - Adapter - 1 pc
5/8" JIC - ORFS



7232 - Adapter - 1 pc
5/8" JIC - ORB



7241 - Adapter - 1 pc
5/8" JIC - M18



7254 - Adapter - 1 pc
3/4" JIC - NPT



7256 - Adapter - 1 pc
5/8" JIC - 1/2" ORB



7539 - Elbow - 2 pcs
3/4" JIC



7543 - Adapter - 1 pc
3/4" JIC - ORB



7551 - Tee - 1 pc
3/4" JIC



7588 - Adapter - 1 pc
3/4" JIC - ORFS



7689 - Adapter - 1 pc
3/4" JIC - NPT



7684 - Male Quick Coupler &
7685 - Female Quick Coupler
1 per hose kit



Extension Hoses - 2 kits required for Tow Behind carts.
1 required for Tow Between cart typically. Supplied in 5 foot
increments. Available from 10ft to 60ft long.



7712 - Rear Tractor to Tank Hose - 20ft - 1pc

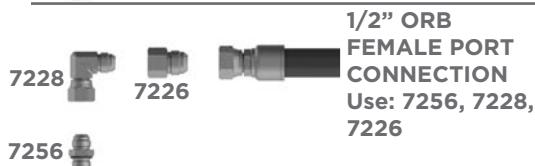
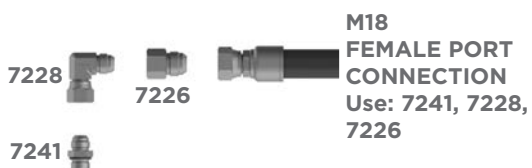
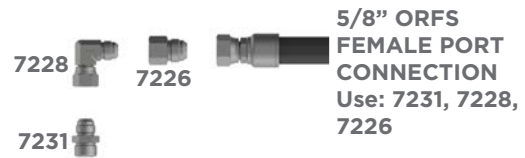


7729 - TANK Port to TANK Port Connection (OPTIONAL) - 1pc



PRESSURE RELIEF CONNECTION GUIDE

ATTACH TO TRACTOR HYDRAULIC TANK ZERO PRESSURE PORT (CONNECTION PORTS WILL VARY IN SIZE & TYPE)



WARNING: Male quick coupler must always be on implement side of connection as it contains a check valve to prevent reverse flow.

ATTACH TO BLOCKAGE PREVENTION SYSTEM TANK PORT

TO TRACTOR



TANK PORT

BP SYSTEM TANK PORT CONNECTION
USE: 7689, 7539

ATTACH QUICK COUPLERS

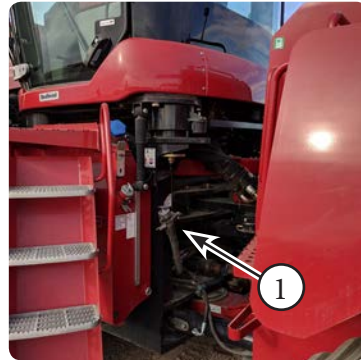
TO TRACTOR



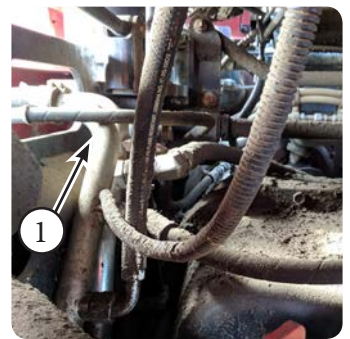
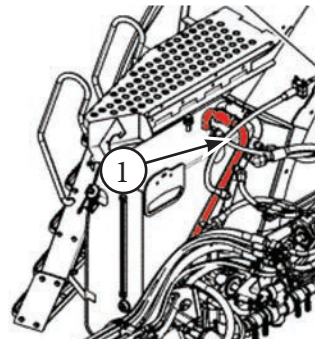
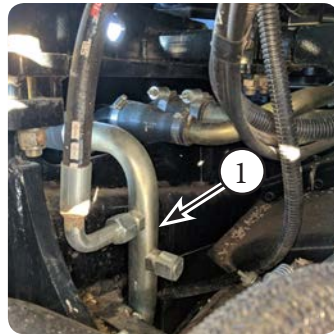
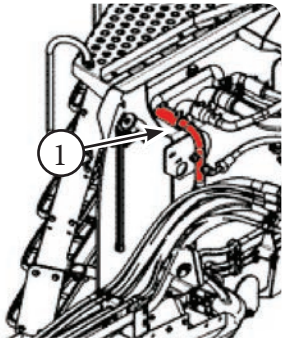
QUICK COUPLER CONNECTION
USE: 7685, 7684

INSTRUCTIONS TO FIT CASE IH - NEW HOLLAND

STEP 8: Identify hydraulic reservoir/oil tank and splice location. The hydraulic tanks on most CNH and New Holland Tractors are found just ahead of the articulating point of the tractor. (Item 1)



Attach Supplied 3/4" x 20ft hose (P/N 7212) to Return port on hydraulic tank. Port must be 1/2" in diameter or larger. If there are no empty ports available "Tee" into an existing line and share the port. Use the appropriate fittings provided to complete the connection. See pressure relief connection guide for reference.



MODELS

**CASE IH STEIGER 350, 370, 400, 420, 450, 470
NEW HOLLAND T9.390, T9.435, T9.450,
T9.480, T9.505, T9.530, T9.560, T9.565**

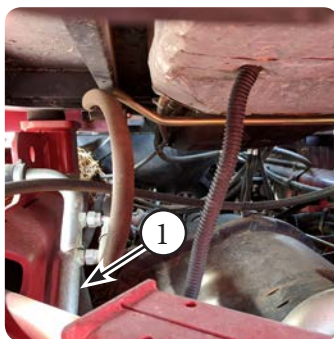
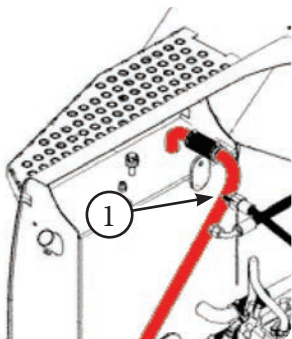
Factory 1" Line (Item 1)

MODELS

**CASE IH QUADTRAC 500, 540, 550, 580, 600,
620**

NEW HOLLAND T9.600, T9.645, T9.700

Factory 1" Line (Item 1)



MODELS

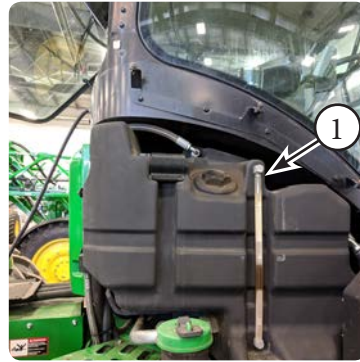
CASE IH QUADTRAC 385, 430, 435, 485, 530

Factory 1" Line (Item 1)

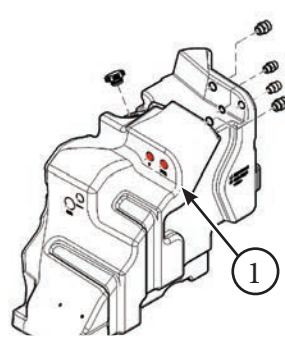
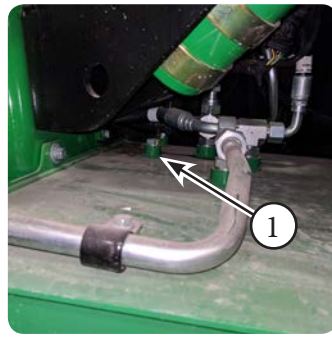
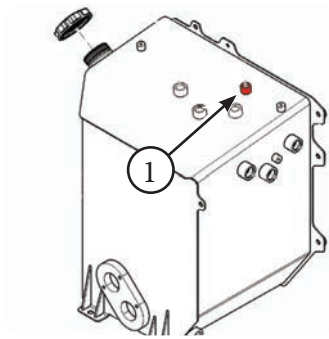
WARNING: If you are unsure which port should be used, contact your local dealer to confirm the proper Low Pressure Return port location. Damage to the tractor or your Blockage Prevention System may occur if this is not done correctly.

INSTRUCTIONS TO FIT JOHN DEERE

STEP 8: Identify hydraulic reservoir/oil tank and splice location. The hydraulic tanks on most John Deere Tractors are found just ahead of the articulating point of the tractor. (Item 1)



Attach Supplied 3/4" x 20ft hose (P/N 7212) to Return port on hydraulic tank. Port must be 1/2" in diameter or larger. If there are no empty ports available "Tee" into an existing line and share the port. Use the appropriate fittings provided to complete the connection. See pressure relief connection guide for reference.

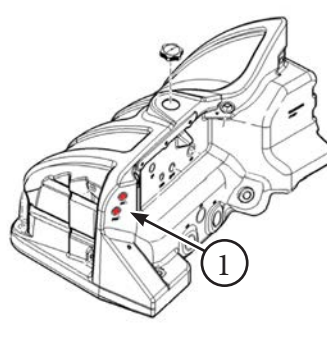
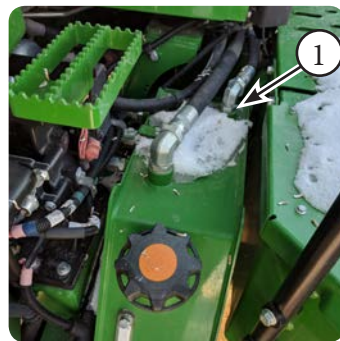
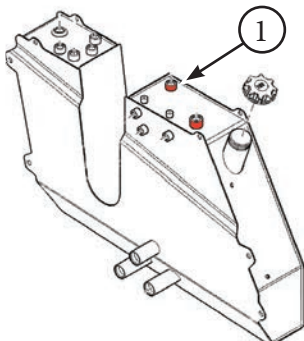


MODELS
JOHN DEERE 9370R, 9420R, 9470R, 9520R, 9570, 9620

Open M18 port on top of tank (Item 1)

MODELS
JOHN DEERE 9360R, 9410R, 9460R, 9510R, 9560R

Tee into port on front of tank (Item 1)



MODELS
JOHN DEERE 9470RT, 9520RT, 9570RT

Tee into port on top of tank (Item 1)

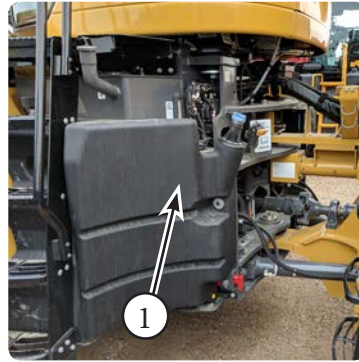
MODELS
JOHN DEERE 9460RT, 9510RT, 9560RT

Tee into port on front corner of tank (Item 1)

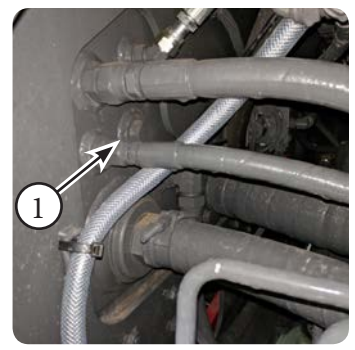
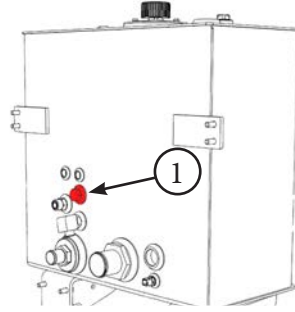
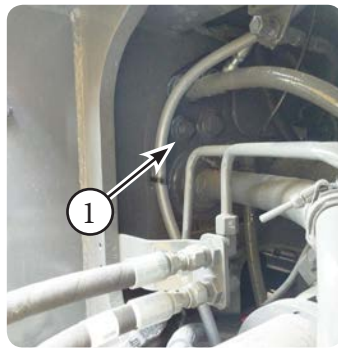
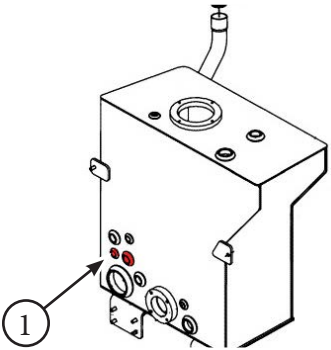
WARNING: If you are unsure which port should be used, contact your local dealer to confirm the proper Low Pressure Return port location. Damage to the tractor or your Blockage Prevention System may occur if this is not done correctly.

INSTRUCTIONS TO FIT AGCO

STEP 8: Identify hydraulic reservoir/oil tank and splice location. The hydraulic tanks on most AGCO Tractors are found just ahead of the articulating point of the tractor. (Item 1)



Attach Supplied 3/4" x 20ft hose (P/N 7212) to Return port on hydraulic tank. Port must be 1/2" in diameter or larger. If there are no empty ports available "Tee" into an existing line and share the port. Use the appropriate fittings provided to complete the connection. See pressure relief connection guide for reference.



MODELS
CHALLENGER MT955E, MT965E, MT975E

Open ports at rear of tank (Item 1)

MODELS
CHALLENGER MT945C, MT955C, MT965C, MT975C

Open port at rear of tank (Item 1)

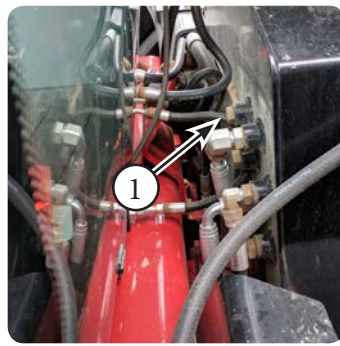
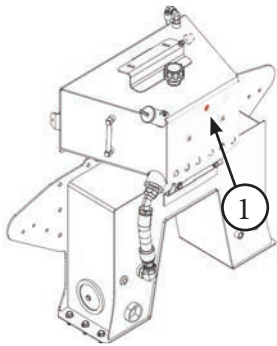
WARNING: If you are unsure which port should be used, contact your local dealer to confirm the proper Low Pressure Return port location. Damage to the tractor or your Blockage Prevention System may occur if this is not done correctly.

INSTRUCTIONS TO FIT VERSATILE

STEP 8: Identify hydraulic reservoir/oil tank and splice location. The hydraulic tanks on most Versatile Tractors are found just ahead of the articulating point of the tractor. (Item 1)



Attach Supplied 3/4" x 20ft hose (P/N 7212) to Return port on hydraulic tank. Port must be 1/2" in diameter or larger. If there are no empty ports available "Tee" into an existing line and share the port. Use the appropriate fittings provided to complete the connection. See pressure relief connection guide for reference.



MODELS

VERSATILE 520, 570, 610

Open port at rear of tank (Item 1)

WARNING: If you are unsure which port should be used, contact your local dealer to confirm the proper Low Pressure Return port location. Damage to the tractor or your Blockage Prevention System may occur if this is not done correctly.

STEP 9: Connect female quick coupler to the tractor side and the male end of the quick coupler to the implement side. See pressure relief connection guide for reference.

ATTACH QUICK COUPLERS

TO TRACTOR



QUICK COUPLER CONNECTION
USE: 7685, 7684




STEP 10: Install supplied 3/4" x 10ft - 60ft hydraulic hose from TANK port with provided fittings as shown. Route hose to front of cart/rear of tractor. Optional: To connect TANK ports to Relief line kit when installing two Blockage Prevention System units on the same cart, use 7299 kit, comes with hose and Tee fitting

ATTACH TO BLOCKAGE PREVENTION SYSTEM TANK PORT

TO TRACTOR



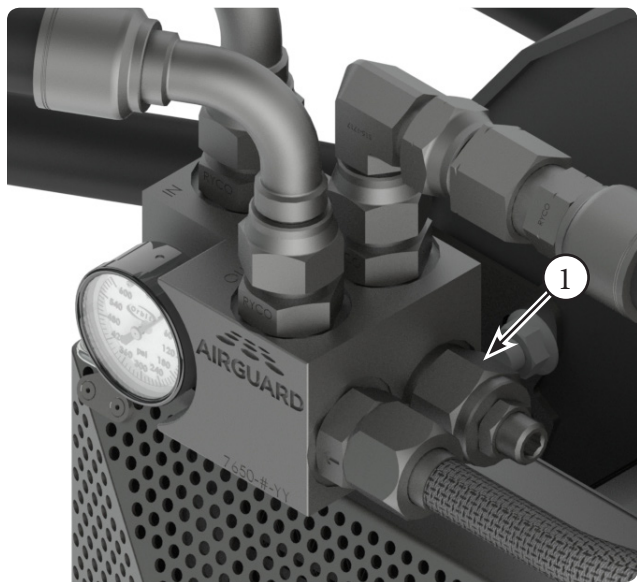
BP SYSTEM TANK PORT CONNECTION
USE: 7689, 7539



TANK PORT

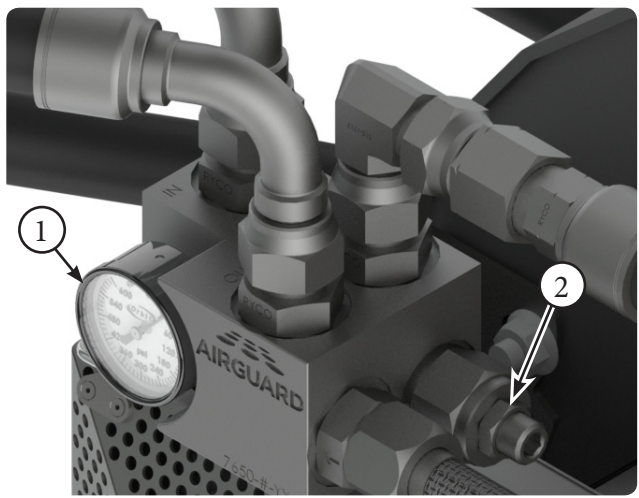


7299 - TANK Port to TANK Port Connection (OPTIONAL)



STEP 11
Your radiator block assembly will look similar to this when installation is complete. All ports MUST be used. DO NOT leave any ports open or closed with a plug. This will VOID warranty.

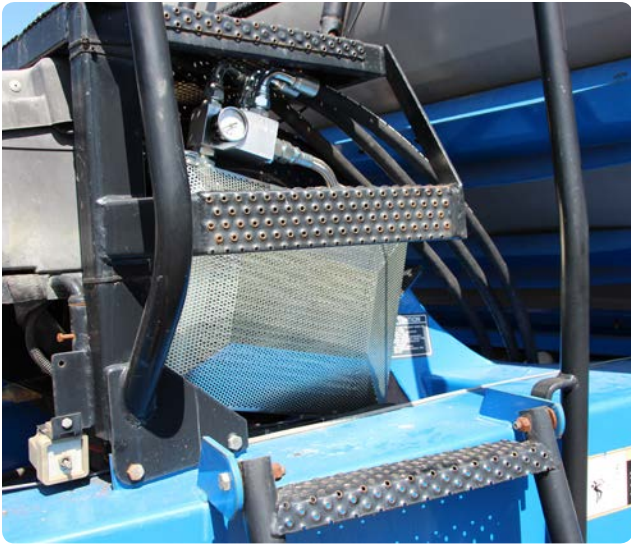
Note: BPS system valve block is fitted with a Safety Pressure Regulator which vents to the dedicated return line if system backpressure is too high. (Item 1).



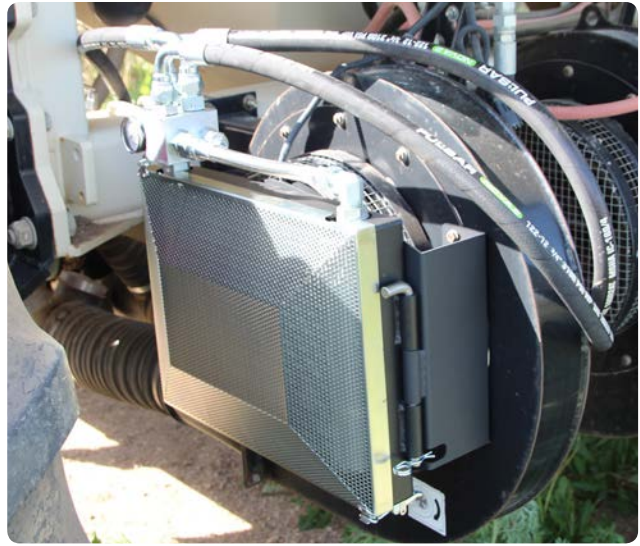
STEP 12
You MUST monitor the oil pressure (Item 1) and set the pressure relief valve (Item 2) **before operating in the field.** **STEP 1.** Start by turning the relief valve screw all the way out (counterclockwise). **STEP 2.** Start the tractor and slowly run the fan(s) at the highest RPM used while seeding. Your oil pressure should be close to 0 psi. If not call Airguard Inc. **STEP 3.** Turn in the relief valve screw (clockwise), slowly, watching the pressure gauge reading. When the needle stops rising, STOP turning in the screw. If the pressure is higher than 500 psi call Airguard Inc. **STEP 4.** If fan RPM is lower than required, the pressure setting can be reduced by 50-100psi by turning the relief valve screw (counterclockwise). This will allow some oil to bypass and keep the fan RPM's higher. Check with Tractor manufacturer recommendations to see if this is advised.

AIRGUARD INC. 604-744-0070

WARNING:
STEP 12 must be repeated every year before startup to ensure that pressure relief cartridge is working correctly



7700 - CNH (7701 Kit)



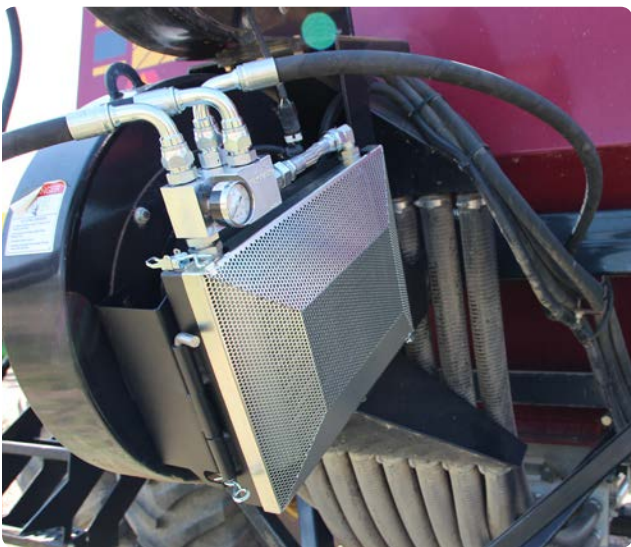
7710 - Bourgault (7711 Kit)



7720 - John Deere 1900, 1910 (7721 Kit)



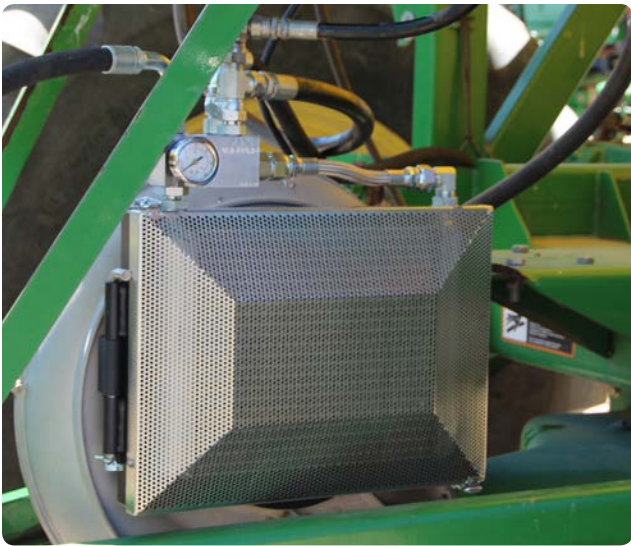
7720 - Morris (7721 Kit)



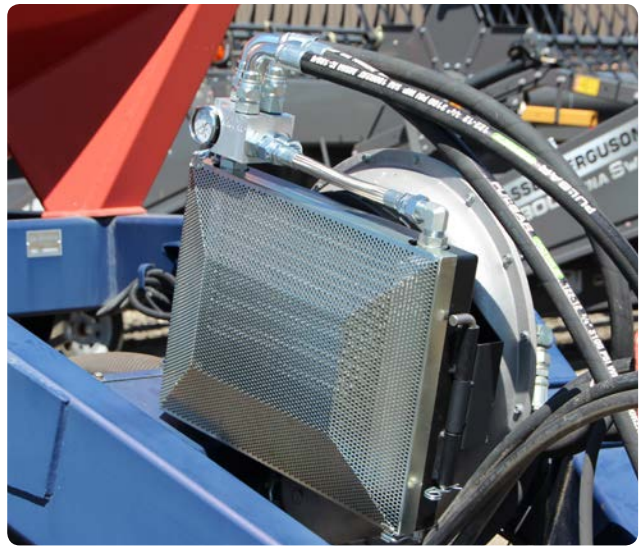
7720 - Vaderstad/Seed Hawk(7721 Kit)



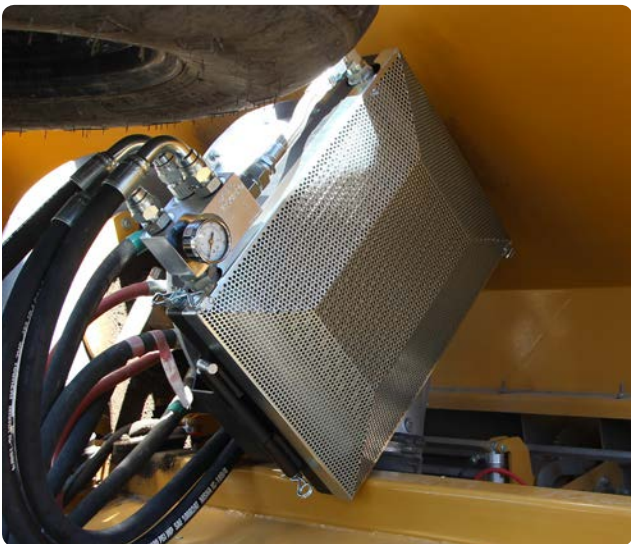
7720 - Seed Master (7721 Kit)



7730 - John Deere 1910 Cast Fan (7731 Kit)



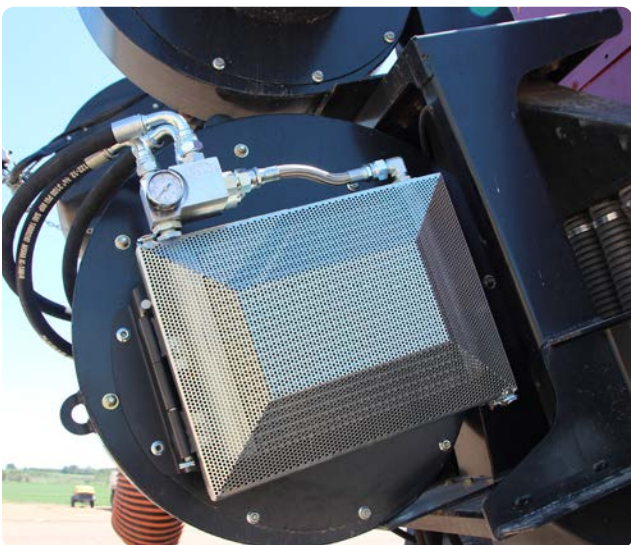
7740 - Cray 6" Fan (7741 Kit)



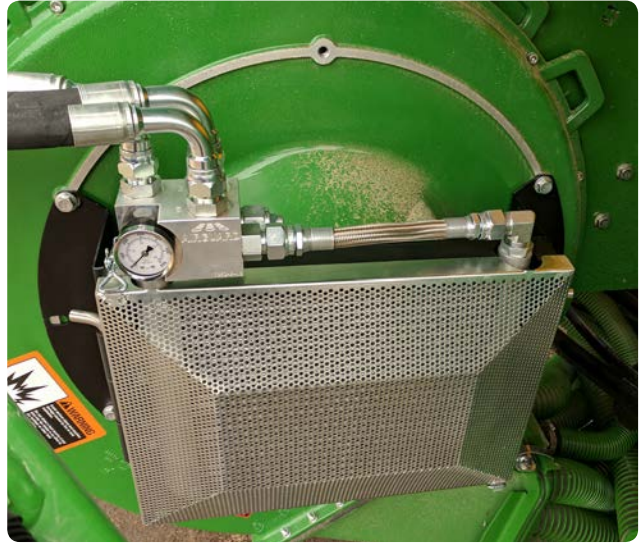
7740 - Seed Master - Cray 6" (7741 Kit)



7750 - Seed Master - Cray 8" (7751 Kit)



7760 - Vaderstad/Seed Hawk (7761 Kit)



7770 - John Deere Airpower 2 (7771 Kit)

WARNING:

It is critical that the BPS is installed with the Airguard Universal Pressure Relief Kit (P/N 7200) to ensure that oil will relieve back to the tractor during a pressure spike. Warranty will be VOID if this is not installed as per this installation manual.

NOTE: Some air cart models use different hose sizes and standards. Airguard supplies all of the hydraulic adapters and fittings needed for all air carts and tractors. Keep any extra fittings for other uses. Your kit will have more than you require.

FOR INSTALLATION OF OPTIONAL SNORKEL KIT REFER TO
SNORKEL KIT INSTALLATION MANUAL



Congratulations! You are now ready to
seed with the added protection of the
AIRGUARD™ Blockage Prevention System

For more information or support on using AIRGUARD™ Products, visit our
support page at airguardproducts.com, or call 1-604-744-0070

Thank you for choosing AIRGUARD™.

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info@airguardproducts.com | 1.604.744.0070 | airguardproducts.com