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Power Beyond Connections for Great Plains 3PYP Planters Equipped With Hydraulic Steering

This Guide Contains Information For Connecting Great Plains 3PYP Planters Equipped With Hydraulic Steering to Power Beyond Hydraulics on John Deere, Case IH, New Holland, Massey, AGCO, Challenger, & Fendt Tractors
Current revisions of this Power Beyond Connections for 3PYP Planters Equipped With Hydraulic Steering are posted on the Great Plains Mfg public website under:

www.greatplainsmfg.com/support/servicedocuments.html

and

www.greatplainsmfg.com/manuals/plantermanuals.html

Make sure you are using the most current revision of the guide. The date of the revision is shown at the bottom of each page.
**Explanation**

The purpose of this guide is to show the port locations for connecting Great Plains 3PYP planter fan motor to case drain & motor return and steering hydraulics to tractor power beyond hydraulic connections. The information obtained for this guide was taken directly from the tractor manufacturer’s information that is available on-line and through tractor dealers.

Since tractor equipment and options vary, the connections shown in this guide must be verified through the tractor manufacturer or dealer to prevent damage to the tractor and implement hydraulic systems.

Great Plains continuous flow fan motors require case drain and motor return lines to protect the motor during use. The case drain line must be connected first, then connect motor return line before connecting the fan pressure line. Failure to do so can cause damage to the motor seals. When disconnecting, always disconnect fan pressure, then motor return, and case drain last.

**ALWAYS Connect**
- Case Drain First
- Motor Return Second
- Fan Pressure Last

**ALWAYS Disconnect**
- Fan Pressure First
- Motor Return Second
- Case Drain Last

Power beyond pressure and load sense connections are also required for Great Plains 3PYP planters equipped with hydraulic steering. The power beyond pressure connection supplies flow when required for the steering circuit. The load sense line determines when and how much flow is required for the steering circuit. When no flow is required, (i.e. when driving straight or above speed of 8 mph), the system goes into low pressure stand-by mode to reduce hydraulic heating and lessen tractor horsepower draw. The tractor must be turned off before making these connections.

**Case Drain**

This connection is required to carry the fan motor case internal leakage and steering pilot return flow directly to the tractor hydraulic reservoir (sump) with zero pressure. The case drain oil serves to lubricate and cool motor components not directly exposed to the working oil. Great Plains supplies a 3/8” body size ISO 16028 zero pressure flat face case drain male coupler on a 1/4” hydraulic hose for the fan/steering case drain line. It is normal to have seepage from this fitting when disconnected from the tractor to protect the motor seals from thermal expansion. If the tractor is not equipped with a female flat face case drain coupler, then it must be sourced through a tractor dealer or hydraulic supplier.

**Great Plains**

P/N 841-099C

NOTE: Dimensions are for reference only. Not exact size.
Explanation - Continued

**Motor Return**
This connection is required to carry the low pressure return oil from the fan motor and steering valve return flow to the hydraulic reservoir or charge circuit. Using a motor return port prevents accidental reverse operation and possible flow checking of the return SCV coupling. Great Plains supplies a 3/4" body size ISO 7241-1 Series A male and female coupler with each 3PYP planter. The male coupler is installed on the 1/2" return hydraulic hose from the factory. The mating female coupler must be connected to the tractor motor return port. The motor return hose and couplers are large to reduce back pressure to the motor.

**NOTE:** Fan Motor/Steering Return and Steering Power Beyond Pressure have the same size couplers. **DO NOT** confuse these two connections or damage to the fan motor will occur.

![Diagram of Motor Return Connection](image)

---

**Power Beyond Pressure**
This connection is required to supply flow to the steering circuit. Great Plains supplies a 3/4" body size ISO 7241-1 Series A male and female coupler with each 3PYP planter. The male coupler is installed on the 1/2" power beyond pressure hydraulic hose from the factory. The mating female coupler must be connected to the tractor power beyond pressure port. The tractor must be turned off before making this connection.

**NOTE:** Fan Motor/Steering Return and Steering Power Beyond Pressure have the same size couplers. **DO NOT** confuse these two connections or damage to the fan motor will occur.

![Diagram of Power Beyond Pressure Connection](image)

---

**Load Sense**
The load sense line signals the tractor hydraulic pump when flow is required for the power beyond pressure. Great Plains supplies a 1/4" body size male and female coupler with each 3PYP planter. The male coupler is installed on the 1/4" load sense hydraulic hose from the factory. The mating female coupler must be connected to the tractor load sense port. The tractor must be turned off before making this connection.

![Diagram of Load Sense Connection](image)

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Tractor Requirements

Tractors connected to 3PYP planters must meet each of the following requirements:

1. LS Closed or PC Closed hydraulic systems with power beyond connections which include case drain, motor return, power beyond pressure, and load sense. Open Center hydraulic systems MUST NOT be used.
   
   NOTE: Load sense is not required with PC Closed hydraulic systems and the load sense line on the planter steering manifold must be removed and the port plugged. See Removing Planter Steering Manifold Load Sense Line in this guide.

2. Three point hitch with minimum lift capacity of 16,000 pounds.


4. Capability of minimum 13,000 pounds at the front wheels.

Verify the specifications of the tractor with a tractor dealer. Articulated tractors are not compatible with 3PYP planters equipped with steering.

Tractors Equipped with PC Close Hydraulic Systems

Tractors with PC Closed hydraulic systems will not have a load sense connection. The load sense line on the planter steering manifold must be removed and the port must be plugged. See Removing Planter Steering Manifold Load Sense Line in this guide.
Tractors Equipped with Additional Accessories Connected to Power Beyond

Some tractors may be equipped with additional accessories that connect to power beyond connections on the rear of the tractor (i.e. auto steering). If the tractor power beyond connections are already in use, then there are exceptions that need to be followed for the particular type of tractor hydraulic system before tee’s are installed for case drain, motor return, power beyond pressure, and load sense connections.

Determine the type of closed center hydraulic system and use the information provided for each type before connecting.

**LS Closed with Load Sense Active**

Tractors with this system must have a shuttle valve installed in the load sense line to be compatible with the 3PYP. The shuttle valve is required to determine which component requires and receives hydraulic pressure. Order and install load sense shuttle valve kit 401-715A, instructions are included in the kit. Once the load sense shuttle valve kit is installed, then the case drain, motor return, and power beyond pressure connections can be tee’d to add connections.

**LS Closed with Load Sense By-Passed**

If the load sense has been internally by-passed, then the load sense line on the planter steering manifold must be removed and the port must be plugged. See *Removing Planter Steering Manifold Load Sense Line* in this guide. Consult a tractor dealer for verification if the load sense has been internally by-passed. Case drain, motor return, and power beyond pressure can be tee’d. This system will not utilize a load sense connection.

**PC Closed Hydraulic System**

This tractor hydraulic system will not have a load sense connection. The load sense line on the planter steering manifold must be removed and the port must be plugged. See *Removing Planter Steering Manifold Load Sense Line* in this guide. Case drain, motor return, and power beyond pressure can be tee’d to add connections.

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Removing Planter Steering Manifold Load Sense Line

The load sense line must be removed from the planter steering manifold when:

- Connecting to a tractor with a PC Closed hydraulic system.

OR

- Connecting to a tractor with an LS Closed hydraulic system that has the load sense internally by-passed.

Remove the load sense hose and elbow from the “LS” port on the planter steering manifold. Plug the “LS” port with 9/16-18 MORB plug (Great Plains P/N 811-675C). Keep the hose and elbow for use when the planter is connected to a tractor with active load sense.
Terminology

Agricultural manufacturer’s use different terminology to describe case drain, motor return, power beyond pressure, and load sense. Below is a list of terms used to describe them:

### Case Drain

<table>
<thead>
<tr>
<th>Zero Pressure Return</th>
<th>Low Volume Sump Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Volume Case Drain</td>
<td></td>
</tr>
<tr>
<td>Motor Drain</td>
<td></td>
</tr>
<tr>
<td>Motor Seal Drain Return</td>
<td></td>
</tr>
<tr>
<td>Low Pressure Drain Return</td>
<td></td>
</tr>
<tr>
<td>Low Flow Low Pressure Drain</td>
<td></td>
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<tr>
<td>Free Return</td>
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</table>

### Motor Return

<table>
<thead>
<tr>
<th>High Flow Low Pressure Return</th>
<th>Tank Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Volume Hydraulic Motor Return</td>
<td>Auxiliary Return</td>
</tr>
<tr>
<td>High Volume Low Pressure Return</td>
<td>Sump</td>
</tr>
<tr>
<td>Power Beyond Return</td>
<td></td>
</tr>
</tbody>
</table>

### Power Beyond Pressure

<table>
<thead>
<tr>
<th>Auxiliary Pressure</th>
<th>High Pressure Carry Over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Outlet Pressure</td>
<td></td>
</tr>
</tbody>
</table>

### Load Sense

| Power Beyond Load Sense      | Load Signal                |

Below is a list of abbreviations used in this guide to describe types of fittings:

- FORB  Female O-Ring Boss
- FORFS Female O-Ring Face Seal
- MORB  Male O-Ring Boss
- FJIC  Female JIC
- MJIC  Male JIC
- DIN   Deutsch (German) Industrial Norm
- BSPP  British Standard Parallel Pipe

Sourcing Adaptor Fittings

This guide lists part numbers for Eaton-Aeroquip and Parker hydraulic adaptor fittings since these two brands are widely used in North America. There are many other brands of hydraulic high pressure steel adaptor fittings available that can be used as long as the thread combinations match as shown in the illustrations. The part numbers listed can be used to cross reference with other brands if using a local hydraulic distributor or supplier.
IMPORTANT!

**DO NOT** tee case drain into motor return. Case drain must have zero pressure return. Great Plains warranty will be voided if case drain has been connected and/or teed to a motor return line. Case drain should only be returned directly to the hydraulic reservoir. The case drain line must utilize an ISO 16028 coupler that will allow seepage due to thermal expansion when disconnected from the tractor.

**DO NOT** connect the fan motor to power beyond pressure. Continuous flow through the power beyond will deprive the tractor rear differential and pto drive gears of hydraulic flow and cause damage to the tractor.

If tractor case drain circuit is filtered, it is necessary to make sure to have a clean filter to prevent excessive case pressure. High case pressure will cause motor seal failure.

Some tractor manufacturer’s have chosen to use the same type coupler for power beyond load sense lines as for case drain lines. It is very important that these not be confused to prevent motor seal damage. **DO NOT** connect the case drain hose to a power beyond load sense coupler.

The motor return couplers and power beyond pressure couplers are the same. **DO NOT** confuse these two connections or damage to the fan motor will occur.

Some tractor manufacturer’s recommend running motor return through a tractor SCV return port. **DO NOT** run motor return through a tractor SCV return port. Minimum pressure on most tractor SCV return ports is approximately 250 to 300 psi. Only connect motor return to a motor return port. Motor return ports allow pressures less than 50 psi, which prolongs motor seal life.

Failure to use the correct motor return port can cause oil starvation to the transmission pump and hydraulic charge circuit on some tractors. This is caused when oil is returned into the differential housing rather than the transmission or hydraulic charge circuit.

Make sure all hydraulic couplers and hose ends are clean before connecting.
Connecting Fan Motor & Steering to Tractor

Always connect case drain first, motor return second, then fan pressure line to prevent motor damage. Always disconnect fan pressure line first, motor return second, then case drain last to prevent motor damage. Tractor must be turned off before connecting power beyond pressure and load sense lines.

**CONNECT FIRST**
Must be connected to zero pressure return directly to the hydraulic reservoir.
1/4” i.d. hydraulic hose with 3/8” body size male flat face coupler.

**CONNECT SECOND**
Connect to power beyond return port or tractor manufacturer suggested port location for high flow low pressure return.
1/2” i.d. hydraulic hose with large 3/4” body size male coupler, labeled with “SUMP” decal.

**CONNECT LAST**
Connect to tractor hydraulic remote (SCV) capable of continuous flow.
1/2” i.d. hydraulic hose with standard 1/2” body size male coupler.

**NOTE:** Fan Motor/Steering Return and Steering Power Beyond Pressure have the same size couplers. **DO NOT** confuse these two connections or damage to the fan motor will occur.

3PYP Fan Hydraulics with Forward & Rear Steering

**Tractor must be turned off before making this connection!**
Connect to Power Beyond Load Sense Connection. 1/4” i.d. hydraulic hose with small 1/4” body size male coupler.
Tractor Models

This guide lists port locations for connecting case drain, motor return, power beyond pressure, and load sense for John Deere, Case-IH, New Holland, Massey, AGCO, Challenger, & Fendt tractors. See the tables for each tractor manufacturer to find the models included in each series.

---

### John Deere

<table>
<thead>
<tr>
<th>8010 Series</th>
<th>8010T Series</th>
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<tr>
<td>8410</td>
<td>8410T</td>
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<table>
<thead>
<tr>
<th>8020 Series</th>
<th>8020T Series</th>
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<td>8420T</td>
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<tr>
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<table>
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<th>8030T Series</th>
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</thead>
<tbody>
<tr>
<td>8330</td>
<td>8330T</td>
</tr>
<tr>
<td>8430</td>
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</table>

<table>
<thead>
<tr>
<th>8000R Series</th>
<th>8000RT Series</th>
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<tr>
<td>8270R</td>
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</tr>
<tr>
<td>8295R</td>
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<tr>
<td>8320R</td>
<td>8320RT</td>
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<tr>
<td>8345R</td>
<td>8345RT</td>
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Information for these tractor models can be found on pages 1 through 4.

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### Case-IH

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<th>Magnum Series</th>
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<td>MX285</td>
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<tr>
<th>TG Series</th>
<th>T8000 Series</th>
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<tbody>
<tr>
<td>TG275</td>
<td>T8030</td>
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<td>T8040</td>
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<tr>
<td>TG305</td>
<td>T8050</td>
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Information for these tractor models can be found on page 5.

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<table>
<thead>
<tr>
<th>DTA Series</th>
<th>DTB Series</th>
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<tbody>
<tr>
<td>DT240A</td>
<td>DT250B</td>
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<td>DT275B</td>
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<th>8400 Series</th>
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<table>
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<th>CHALLENGER MT600 Series</th>
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<td>MT665B</td>
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<tr>
<td>MT665C</td>
</tr>
<tr>
<td>MT675C</td>
</tr>
<tr>
<td>MT685C</td>
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</tbody>
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Information for these tractor models can be found on pages 6 through 10.
Power Beyond Adaptors & Couplers

The parts shown for case drain, motor return, power beyond pressure, and load sense apply to all John Deere tractors listed in this guide.

**Case Drain**

If the tractor is not equipped with a 3/8” body size female flat face case drain coupler, then order and install the following parts:

<table>
<thead>
<tr>
<th>Eaton Aeroquip P/N GG108-NP-10-22</th>
<th>Parker P/N 10M22F80MXS</th>
</tr>
</thead>
<tbody>
<tr>
<td>M22 x 1.5 MORB</td>
<td>7/8-14 MJIC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Eaton Aeroquip P/N 2215-10-8S</th>
<th>Parker P/N 10-8TRTXN</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/8-14 FJIC</td>
<td>3/4-16 MJIC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Eaton Aeroquip P/N 2266-8-8S</th>
<th>Parker P/N 8F650XS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4-16 FJIC</td>
<td>3/4-16 MORB</td>
</tr>
</tbody>
</table>

Parker P/N FF-371-8FO

**Motor Return**

If the tractor is not equipped with a 3/4” body size, ISO 7241-1 Series A, female motor return coupler, then order and install the following parts:

<table>
<thead>
<tr>
<th>Eaton Aeroquip P/N GG108-NP12-22</th>
<th>Parker P/N 12M22F80MXS</th>
</tr>
</thead>
<tbody>
<tr>
<td>M22 x 1.5 MORB</td>
<td>1-1/16-12 MJIC</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Eaton Aeroquip P/N 2266-12-12</th>
<th>Parker P/N 12F650MXS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1/16-12 FJIC</td>
<td>1-1/16-12 MORB</td>
</tr>
</tbody>
</table>

**IMPORTANT:** ALWAYS connect case drain first, motor return second, then fan pressure line to prevent motor damage. ALWAYS disconnect fan pressure line first, motor return second, then case drain last to prevent motor damage.

**NOTE:** Can use John Deere P/N RE248312 to extend case drain coupler and motor return coupler out from rear of tractor if needed.

John Deere P/N RE248312

M22 x 1.5 MORB

5.7”

M22 x 1.5 FORB

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Power Beyond Adaptors & Couplers

The parts shown for case drain, motor return, power beyond pressure, and load sense apply to all John Deere tractors listed in this guide.

**Power Beyond Pressure**
If the tractor is not equipped with a 3/4" body size, ISO 7241-1 Series A, female power beyond pressure coupler, then order and install the following parts:

- Eaton Aeroquip P/N GG108-NP12-22
  - Parker P/N 12M22F8OMXS
  - Eaton Aeroquip P/N 2266-12-12
  - Parker P/N 12F65OMXS

**Load Sense**
If the tractor is not equipped with 1/4" body size female load sense coupler, then order and install the following parts:

- Eaton Aeroquip P/N GG108-NP-06-14
  - Parker P/N 6M14F8OMXS

**NOTE:** Can use John Deere P/N RE248312 to extend power beyond pressure coupler out from rear of tractor if needed.

John Deere P/N RE248312

**IMPORTANT:** Tractor must be turned off before connecting power beyond pressure and load sense lines.
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Port Locations

NOTE: Two possible power beyond pressure and motor return port locations are shown.

8030 Series

8030T Series

8000R Series

8000RT Series

NOTE: Two possible power beyond pressure and motor return port locations are shown.

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Port Locations
MX Series
Magnum 275, 305, & 335
TG & T8000 Series

These tractor models must be equipped with optional power beyond to have case drain and motor return connections. Consult your Case-IH and/or New Holland dealer for parts needed to install power beyond.

The couplers supplied through Case and/or New Holland are compatible with the couplers supplied from Great Plains.

**IMPORTANT:** Always connect case drain first, motor return second, then fan pressure line to prevent motor damage. **ALWAYS disconnect** fan pressure line first, motor return second, then case drain last to prevent motor damage.

**IMPORTANT:** Tractor must be turned off before connecting power beyond pressure and load sense lines.
Great Plains Manufacturing reserves the right to make changes or to add improvements to this guide at any time without notice or obligation.

**Port Locations, Adaptors, & Couplers for 8400 Series / DTA Series / MT600B Series**

***IMPORTANT:*** **ALWAYS connect** case drain first, motor return second, then pressure line to prevent motor damage. **ALWAYS disconnect** pressure line first, motor return second, then case drain last to prevent motor damage.

**IMPORTANT:** Tractor must be turned off before connecting power beyond pressure and load sense lines.

---

**Motor Return & Power Beyond Pressure**

If the tractor is not equipped with 3/4" body size ISO 7241-1 Series A female couplers, then order and install the following parts:

- **Power Beyond Pressure**
  - Eaton Aeroquip P/N 15.163-16-12
    - M26 x 1.5 DIN
    - 1-1/16-12 MJIC
  - Eaton Aeroquip P/N 2266-12-12S
    - 1-1/16-12 FJIC
    - 1-1/16-12 MORB

- **Motor Return**
  - connected to tractor
  - connected to fan motor return hose from Great Plains
  - supplied with Great Plains planters and air drills (p/n 811-069C)

---

**Case Drain**

If the tractor is not equipped with a 3/8" body size female flat face case drain coupler, then order and install the following parts:

- Eaton Aeroquip P/N 15.163-8-8
  - M16 x 1.5 DIN
  - 3/4-16 MJIC
- Eaton Aeroquip P/N 2266-8-8S
  - 3/4-16 FJIC
  - 3/4-16 MORB
- Eaton Aeroquip P/N FF-371-8FO
  - 3/4-16 FORB

- **flush face coupler connected to fan case drain hose from Great Plains**
  - connect to tractor

---

**Load Sense**

If the tractor is not equipped with 1/4" body size load sense coupler, then order and install the following parts:

- Eaton Aeroquip P/N 15.163-10-8
  - M18 x 1.5 DIN
  - 3/4-16 MJIC
- Eaton Aeroquip P/N 2266-6-8S
  - 3/4-16 FJIC
  - 9/16-18 MORB

- **load sense coupler connected to load sense hose from Great Plains**
  - connect to tractor
  - p/n 841-466C
  - p/n 841-467 C

- **supplied with Great Plains planters and air drills (p/n 841-457C for pair)**

---

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Determining Type of Fittings Needed for
8600 Series / DTB Series / MT600C Series

These tractor models may or may not be equipped with power beyond lines from the factory. The part numbers given for these models is assuming the power beyond lines are installed. Contact an AGCO dealer if power beyond lines are not installed.

**IMPORTANT:** The couplers called out in the AGCO parts books for the case drain and load sense connections are **NOT** compatible and must be changed.

AGCO calls for using a female flat face coupler for load sense and a standard 1/2” male coupler for the case drain which are not compatible. Case drain requires a 3/8” body size ISO 16028 zero pressure female flat face coupler. Load sense requires a 1/4” body size female coupler.

The couplers supplied through AGCO for motor return and power beyond pressure are compatible and can be used.

There are two different types of fittings used on these models of tractors. The difference is in the type of caps on the bulkhead fittings. One type is ORFS (one piece), the other type is DIN.

Determine which type of caps are on the tractor and use the correct diagram and parts listing on the following two pages to install adaptor fittings for case drain and load sense couplers.

---

**FORFS plug**

**ORFS Caps - see page 8 of 14**

**DIN plug**

**DIN Caps - see page 9 of 14**

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IMPORTANT: The couplers called out in the AGCO parts books for the case drain and load sense connections are **NOT** compatible and must be changed.

### Case Drain

If the tractor is not equipped with a 3/8” body size female flat face case drain coupler, then order and install the following parts:

- Eaton Aeroquip P/N FF1010-0810S
- Parker P/N 8-10-F5OG5-S

### Motor Return

If the tractor is not equipped with 3/4” body size ISO 7241-1 Series A female motor return coupler, then order and install part number 4293732M2 from an AGCO dealer.

This motor return coupler is male and has a bulkhead. Remove the bulkhead fitting from the tractor motor return line (labeled “T”) and install this bulkhead coupler. Also, remove the male coupler from the motor return hose on the planter, then install one of the 3/4” body size ISO 7241-1 Series A female coupler supplied with the planter.

### Power Beyond Pressure

If the tractor is not equipped with 3/4” body size ISO 7241-1 Series A female power beyond pressure coupler, then order and install part number 4293730M2 from an AGCO dealer.

This power beyond pressure coupler has a bulkhead. Remove the bulkhead fitting from the power beyond pressure line (labelled “P”) and install the bulkhead coupler.

### Load Sense

If the tractor is not equipped with 1/4” body size load sense coupler, then order and install the following parts:

- Eaton Aeroquip P/N FF2130T0808S
- Parker P/N 8-8-F5OG5-S

**IMPORTANT:** Tractor must be turned off before connecting power beyond pressure and load sense lines.

**IMPORTANT:** ALWAYS connect case drain first, motor return second, then pressure line to prevent motor damage. ALWAYS disconnect pressure line first, motor return second, then case drain last to prevent motor damage.
**IMPORTANT:** The couplers called out in the AGCO parts books for the case drain and load sense connections are **NOT** compatible and must be changed.

### Case Drain

If the tractor is not equipped with a 3/8” body size female flat face case drain coupler, then order and install the following parts:

- Eaton Aeroquip P/N 15.163-13-10
- Eaton Aeroquip P/N 2266-8-10S
- Parker P/N 10-8-F650X-S
- Parker P/N FF-371-8FO

**IMPORTANT:** Always connect case drain first, motor return second, then pressure line to prevent motor damage. Always disconnect pressure line first, motor return second, then case drain last to prevent motor damage.

**IMPORTANT:** Tractor must be turned off before connecting power beyond pressure and load sense lines.

### Motor Return

If the tractor is not equipped with 3/4” body size ISO 7241-1 Series A female motor return coupler, then order and install part number 4293732M2 from an AGCO dealer.

This motor return coupler is male and has a bulkhead. Remove the bulkhead fitting from the tractor motor return line (labeled “T”) and install this bulkhead coupler. Also, remove the male coupler from the motor return hose on the planter, then install one of the 3/4” body size ISO 7241-1 Series A female coupler supplied with the planter.

### Load Sense

If the tractor is not equipped with 1/4” body size load sense coupler, then order and install the following parts:

- Eaton Aeroquip P/N 15.163-10-8
- Eaton Aeroquip P/N 2266-6-8S
- Parker P/N 6-8-F650X-S

**IMPORTANT:** Always connect power beyond pressure first, load sense second, then case drain last to prevent motor damage.

**IMPORTANT:** Always disconnect case drain first, motor return second, then pressure line last to prevent motor damage.

**IMPORTANT:** Tractor must be turned off before connecting power beyond pressure and load sense lines.

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Great Plains Manufacturing reserves the right to make changes or to add improvements to this guide at any time without notice or obligation.
Port Locations
900 Vario Series Com 3

All North American Com 3 tractors have power beyond couplers installed from the factory. These couplers are compatible with the couplers supplied from Great Plains.

However, the motor return coupler installed on the tractor from the factory is male. Remove the male coupler from the motor return hose on the planter. Then install a 3/4” body size ISO 7241-1 Series A female coupler supplied with the planter.

**IMPORTANT:** ALWAYS connect case drain first, motor return second, then pressure line to prevent motor damage. ALWAYS disconnect pressure line first, motor return second, then case drain last to prevent motor damage.

**IMPORTANT:** Tractor must be turned off before connecting power beyond pressure and load sense lines.