

Michel's

HOPPER AUGER

Operator's Manual



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For 8" & 10" Hopper Auger Systems

**** IMPORTANT ****

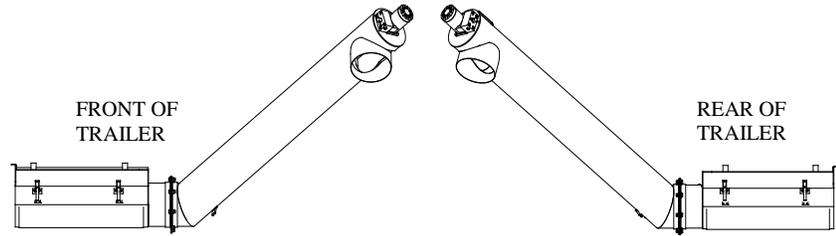


Hopper Augers

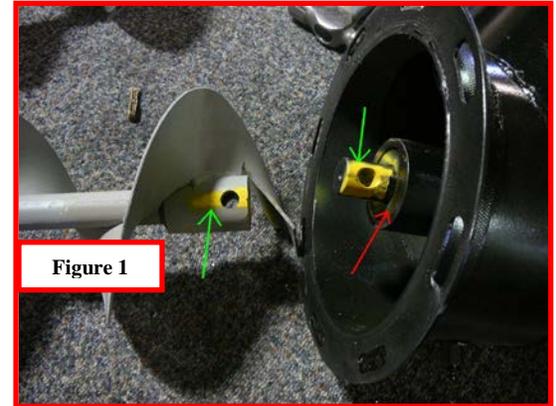
INSTALLATION INSTRUCTIONS

Please Read Entire Instructions Before Beginning

- 15 gpm is required flow rate
- Set bypass valve at 2500 psi
- Minimum 1/2" hydraulic line to hook up augers
- 10" Augers requirements are the same but we recommend 3/4" hydraulic lines instead of 1/2"
- Augers must not exceed 550 rpm



Step 1: If your augers are assembled go to Page 3. Remove the lock collar on the flighting shaft to allow the flighting to slide out. Slide the bottom flighting onto the gearbox in the discharge tube, making sure that the 1" washer is on the 1" shaft to protect the bearings in the gearbox. (see Figure 1 red line). Slide the bottom flighting onto the gearbox shaft so the yellow line on the flighting matches up with the yellow side of the shaft on the gearbox. (see Figure 1 green lines).



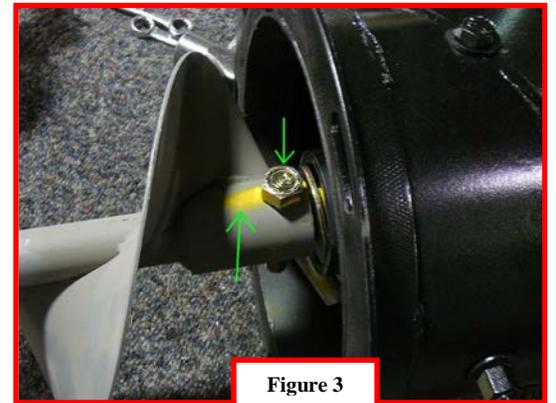
If the flighting is installed wrong, it will not be timed properly with the discharge flighting causing it to hit each other.



Figure 2

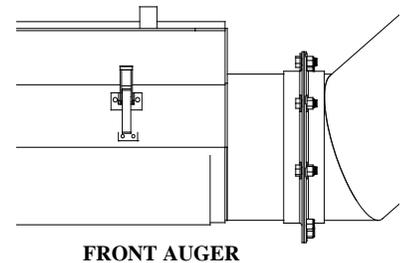
Make sure you have the front tube with the front bottom (front has right hand flighting and the rear has left hand)

Slide the 1/2" bolt in the hole to secure the flighting to the gearbox with the head of the bolt on the same side of the yellow marks on the flighting and gearbox shaft (see Figure 3).



Next slide the bottom flighting into the hopper Bottom and through the bearing. Bolt the tube to the hopper with 3/8"x1" hex bolts with flat washers and hex nuts. Match the "X"'s together on the outside faces of the mounting flange on the bottom hopper and top discharge tube. (see Figure 4 and 5). The discharge tube should be at 45 degree angle from the hopper.

When installing the bolts, have all the bolts face the rear of the trailer. On the front auger slide the bolts in so the head of the bolts is closest to the hopper while on the rear auger the bolts go opposite. (Figure 6)



Lock the bearing collar to the shaft by rotating the lock collar clockwise onto the bearing. Use a punch and hit the lock collar to rotate it clockwise to fully lock it on the shaft and bearing. Tighten the set screw with a 1/8" allen wrench.

**** IMPORTANT ****



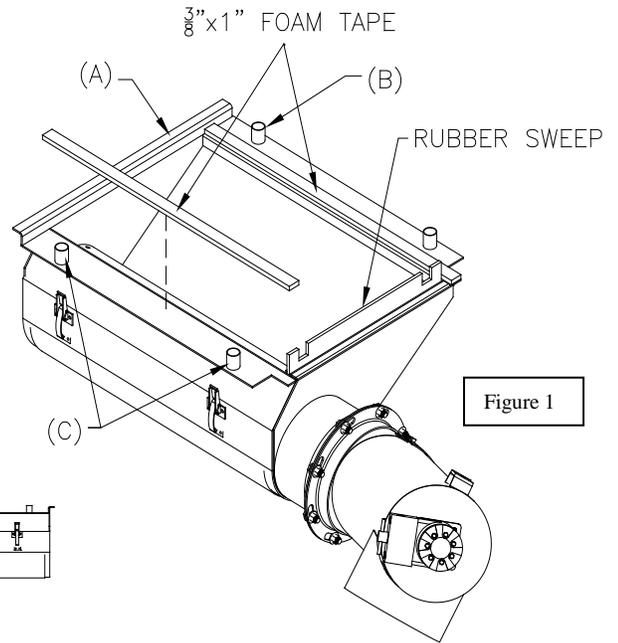
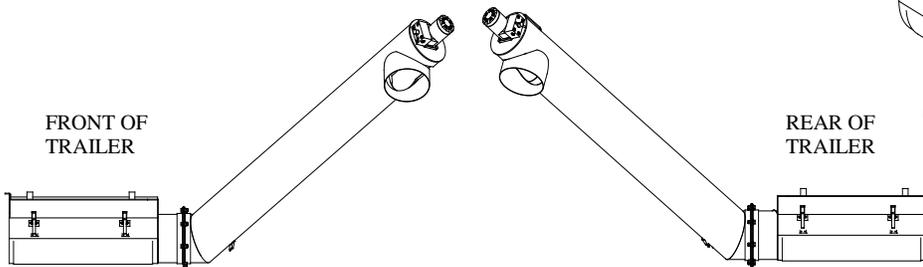
Installation Instructions

Hopper Augers

PLEASE READ ENTIRE INSTRUCTIONS BEFORE BEGINNING

Note:

- Minimum 15 GPM but must not exceed 17 GPM
- Bypass valve is set at 2500 psi.
- Use at least a 1/2" hydraulic hose for auger installation.
- **10" Augers** requirements are the same but we **recommend 3/4" hydraulic lines instead of 1/2"**
- Augers must not exceed 550 rpm.
- The oil reservoir must hold a minimum of 25 gallons of oil



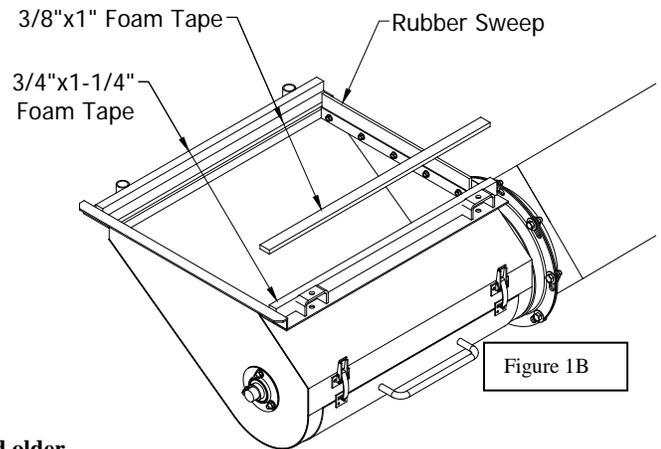
Step 1: (8" Hopper Augers):

Stick the 3/8"x1" foam tape to the hopper auger as shown in Figure 1. Align the foam tape along the inside edge of the hopper with it flush up against the angle iron and placed all the way to the end of the auger.

(If you have 10" Hopper Augers please skip to Step 1B)

Step 1B: (10" Hopper Augers)

Stick the 3/4"x1-1/4" foam tape to the hopper auger as shown in Figure 1B. Align the foam tape tight up against the spacers. Stick the 3/8"x1" foam tape to the hopper auger as shown in Figure 1B. Place the foam tape tight up against the 3/4"x1-1/4" foam tape to the inside of the auger. Have the foam tape flush up against the angle iron and placed all the way to the end of the auger.



Doepker Trailers 1999 and older

Note: If your trailer has a piece of square tubing running lengthwise on the outside of the chute, you may have to remove the standard spacers and replace them with the 3/4" tubing spacers that we have supplied. These spacers can be welded on or held in place by putting a mounting bolt through them. New mounting holes may also have to be drilled through the hopper auger frame. The chutes on these trailers all vary slightly, which is why we do not weld the 3/4" spacers on ourselves.

Step 2:

Using a floor jack, raise the hopper auger up to the trailer hopper. The auger goes on so the auger tube sticks out on the driver side of the trailer. When the auger is almost raised, push auger tight up against angle iron (A) and center auger spacers (B) from side to side and then jack up all the way

Step 3:

Locate the chain on the bottom of the chute, and mark the rubber sweep where it has to be cut out to allow the chain to travel (see Figure 1).

Step 4:

With the auger centered up against the chute, mark the driver side 2 holes (C) on the bottom of the trailer chute

Step 5:

Lower the auger down and cut the rubber sweep at your marks. Drill the driver side 2 holes out at your marks with a 3/8" drill bit.

Step 6:

Raise the hopper auger back up to the hopper and secure it to the trailer with two 3/8"x2-1/4" bolts and lock nuts through the 2 holes you drilled (**3/8" x 1" on 10" Augers**). Drill the passenger side 2 holes and secure to trailer like the front 2. (3/8" x 2-1/4" Bolts on 8" and 10")

Step 7:

Position the top tube to your desired position. To adjust the tube loosen the 8 bolts in the rings that hold the tube to the hopper and rotate accordingly. Retighten when the proper position is acquired. (see Figure 2)

Step 8:

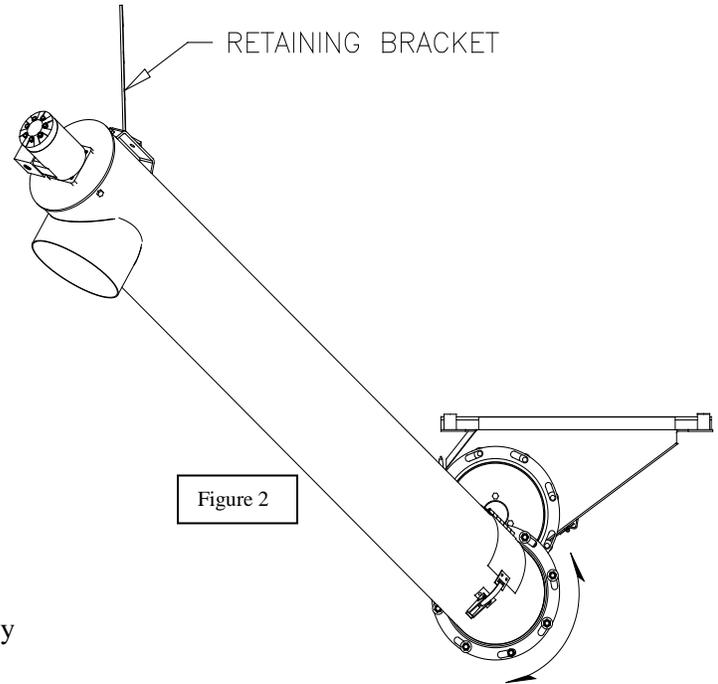
Mount the universal retaining bracket at the most feasible location to the trailer so that the auger is held solid.

Note: The retaining bracket may have to be modified to fit properly

Step 9:

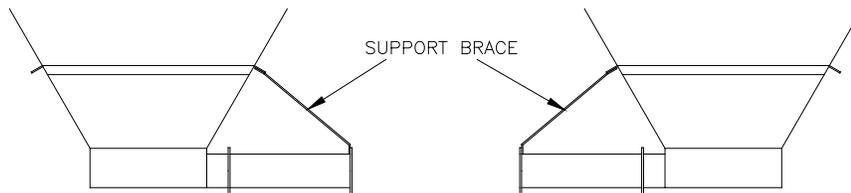
Open clean out door and rotate the core and flighting and open and close trailer chute to ensure nothing hits.

NOTE: The flow must be regulated by using the chute, and if chute is open too far the auger may plug.



For Hopper Augers that require 30" or larger extensions ONLY
(Wide Hopper Spacing)

Using the flats make two support braces. The brace will connect to the angle iron (gusset) on the hopper and on the ring connecting the extension to the top 8" tube assembly. They will need to be cut and bent to fit properly.

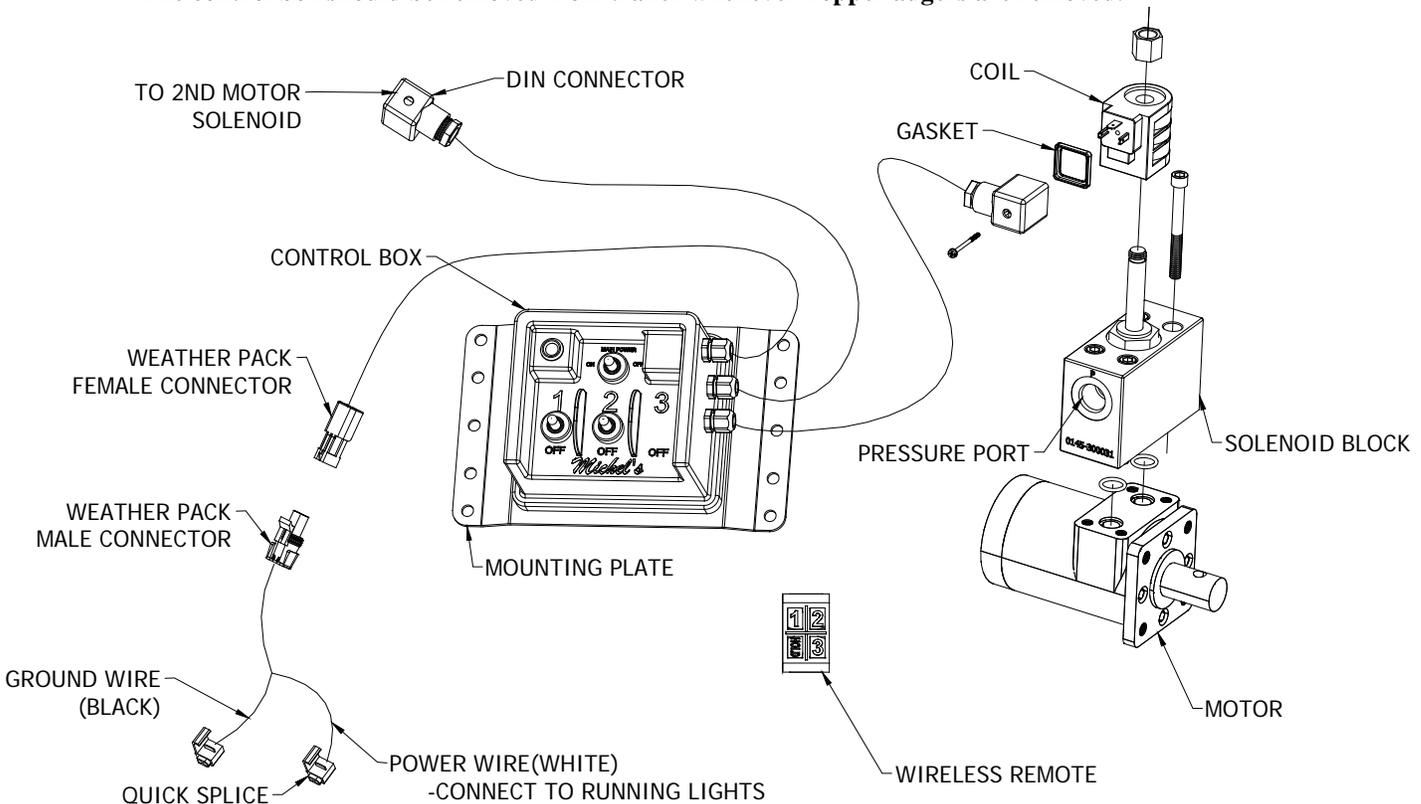


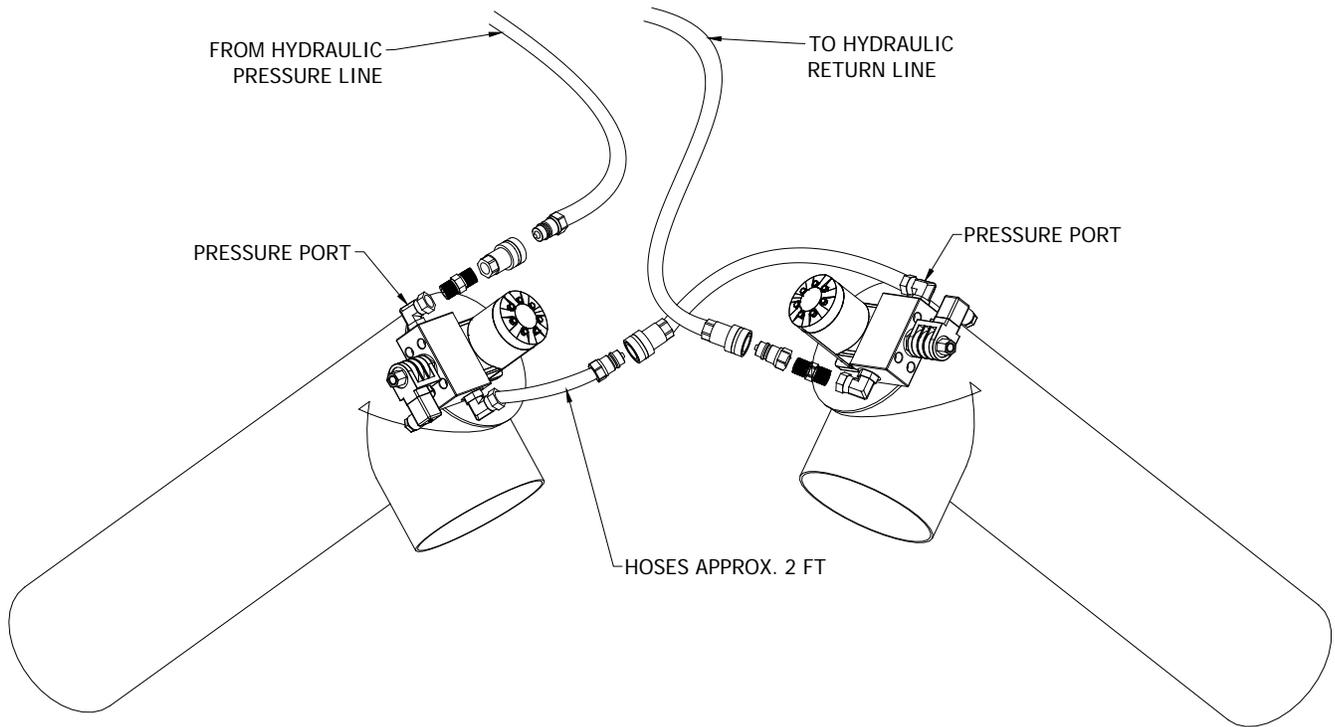
FOR INSTALLATION ASSISTANCE PLEASE CALL (306) 366-2184

Michels Industries, Ltd.
P.O. Box 119
St. Gregor, Saskatchewan
S0K 3X0 Canada
Ph#(306)366-2184 or Fax#(306)366-2145

Michels Hopper Auger – Wireless Remote Operation

- Mount unit on the under side of trailer closest to the auger as possible.
- Remove the center clearance light before drilling into trailer to be sure not to damage any air or electrical lines inside the rail. Drill a 3/8” hole in the bottom of the tubing that the center clearance light is mounted in. The supplied grommet must be installed in this hole before the power and ground wires are run through.
- Splice the male Weather Pack connector to the clearance lights of the trailer with quick splices having the WHITE wire connecting to the positive and the BLACK wire connected to the ground
- Connect the Weather Pack connectors and also connect the DIN connectors to the appropriate coils. (The wires leading to the DIN connectors are labeled on the control box. The DIN connectors can be rotated at 90° increments if needed by removing the bolt and then prying the inside block out with a screwdriver.)
- **Note:** When installing the solenoid and blocks to the motor, make sure the letter P on the block (pressure port) goes on the topside of the motor when the augers are installed on the trailer. (See plumbing Diagram)
- **Operation Of Augers:**
 - Check if hoses are installed properly.
 - Main power switch is on (the red light on the control box will illuminate)
 - Turn manual switch on – Augers should start (There is a small red light in the DIN connector that will also illuminate. These lights are difficult to see in bright daylight)
 - Turn off switch- Augers will stop.
 - Trailer lights must be on if power wire is spliced into the clearance lights.
- **Note: Wireless Remote unit will not work until two manual switches are off & Main Power switch is on.**
- **Operation of Wireless Remote**
 - Press “HOLD” and 1 at the same time to run Auger 1.
 - Press “HOLD” and 2 at the same time to run Auger 2.
 - Press “HOLD” and 3 at the same time to run Auger 3. (Optional)
 - Press the “HOLD” and appropriate buttons again & Augers will stop.
- **The control box should be removed from trailer whenever hopper augers are removed.**





Trouble Shooting for Wireless Remote

1. Augers will not run with remote or manual switches

- Check to see if Main Power switch is on
- Trailer lights are on if power wire (white) is spliced into the trailer lights
- Check to make sure ground wire (black) has a good connection

2. Toggle switches (manual) works but Remote buttons will not work properly.

- Check (**WHITE**) power wire & (**BLACK**) ground wire to see if they are making proper connection. Note: You may want to spray W-D 40 in the tractor trailer plug to make better connection.
- Make sure you are pushing HOLD and 1 buttons on wireless remote or pushing buttons HOLD and 2 on wireless remote at the **same time** to start & stop augers.

3. The Augers are turning the wrong way.

- Check hydraulic hose hook up by referring to the diagram supplied in instructions and above.
- Check if (P) which is stamped on aluminum block is on the top end of hydraulic motor when installed on the trailer.

4. The Augers won't stop completely.

- The flow rate of your pump is greater than what is recommended (15 GPM)
The augers will stop when product enters the augers.

Michel's Hopper Auger
Wet Kit and Hydraulic Line Installation

Hydraulic System Requirements

- Hopper augers require a minimum of 15 gpm, but must not exceed 17 gpm*
- A bypass valve must be installed in the hydraulic circuit and set to 2500psi relief**
- The oil reservoir must hold a minimum of 25gal of oil
- 8" hopper augers require a minimum of 1/2" hydraulic hose
- 10" hopper augers require a minimum of 3/4" hydraulic hose, except for the short length of hose between the augers where 1/2" hose may be used
- Hopper auger motors must be hooked up in series

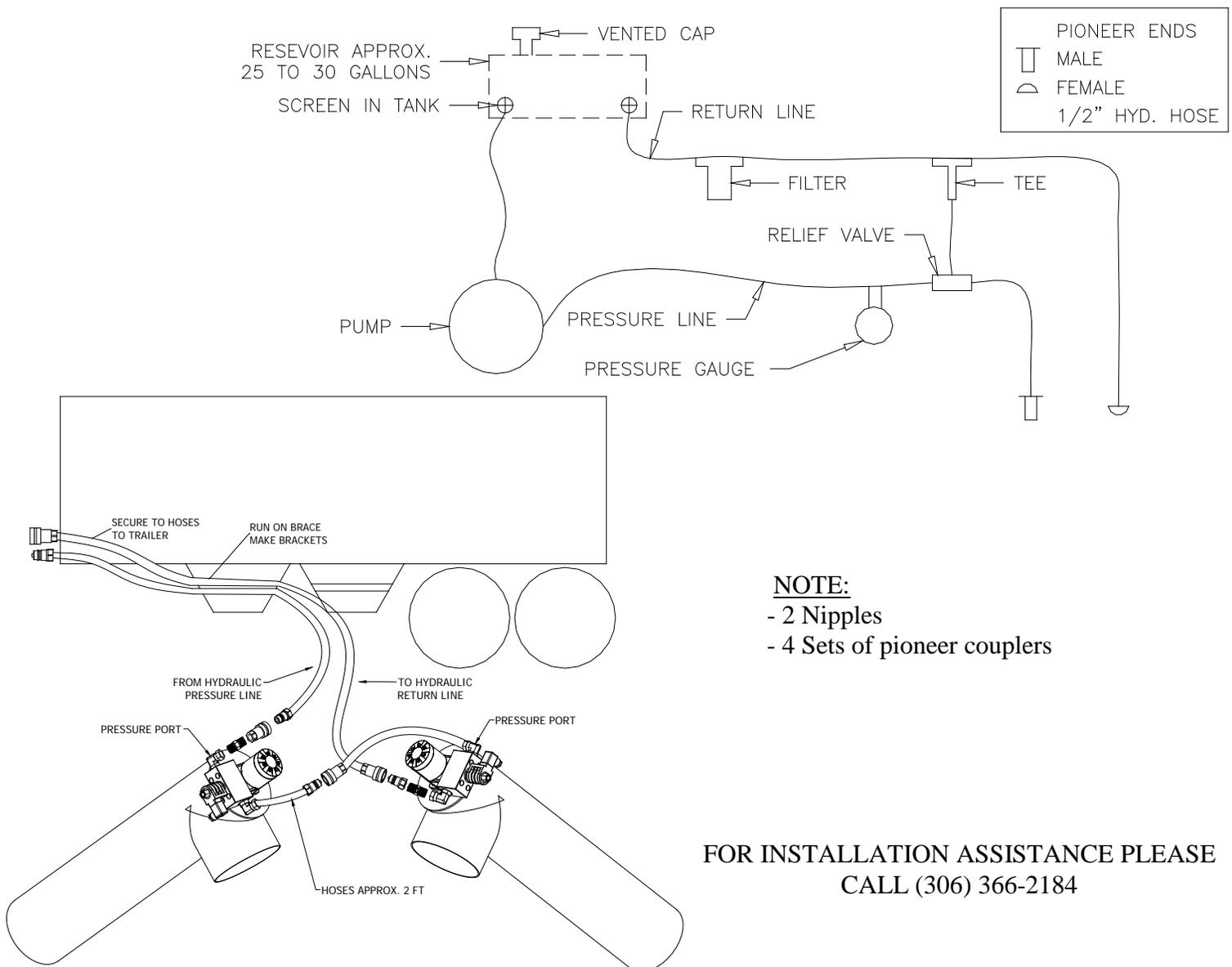
Failure to meet these requirements may cause system damage and will void warranty.

*A pump with a higher flow may be used if properly installed. Please call Michel's Industries at (306) 366-2184 for installation with pumps that exceed a flow of 17gpm.

**It is recommended that a pressure gauge is installed in the pressure line, but it is not required.

Other notes:

- On augers with wireless remotes, the aluminum solenoid blocks must be installed as shown in the diagram with the pressure port (stamped P) facing the proper direction. Failure to do so will result in augers rotating the wrong direction.



NOTE:
 - 2 Nipples
 - 4 Sets of pioneer couplers

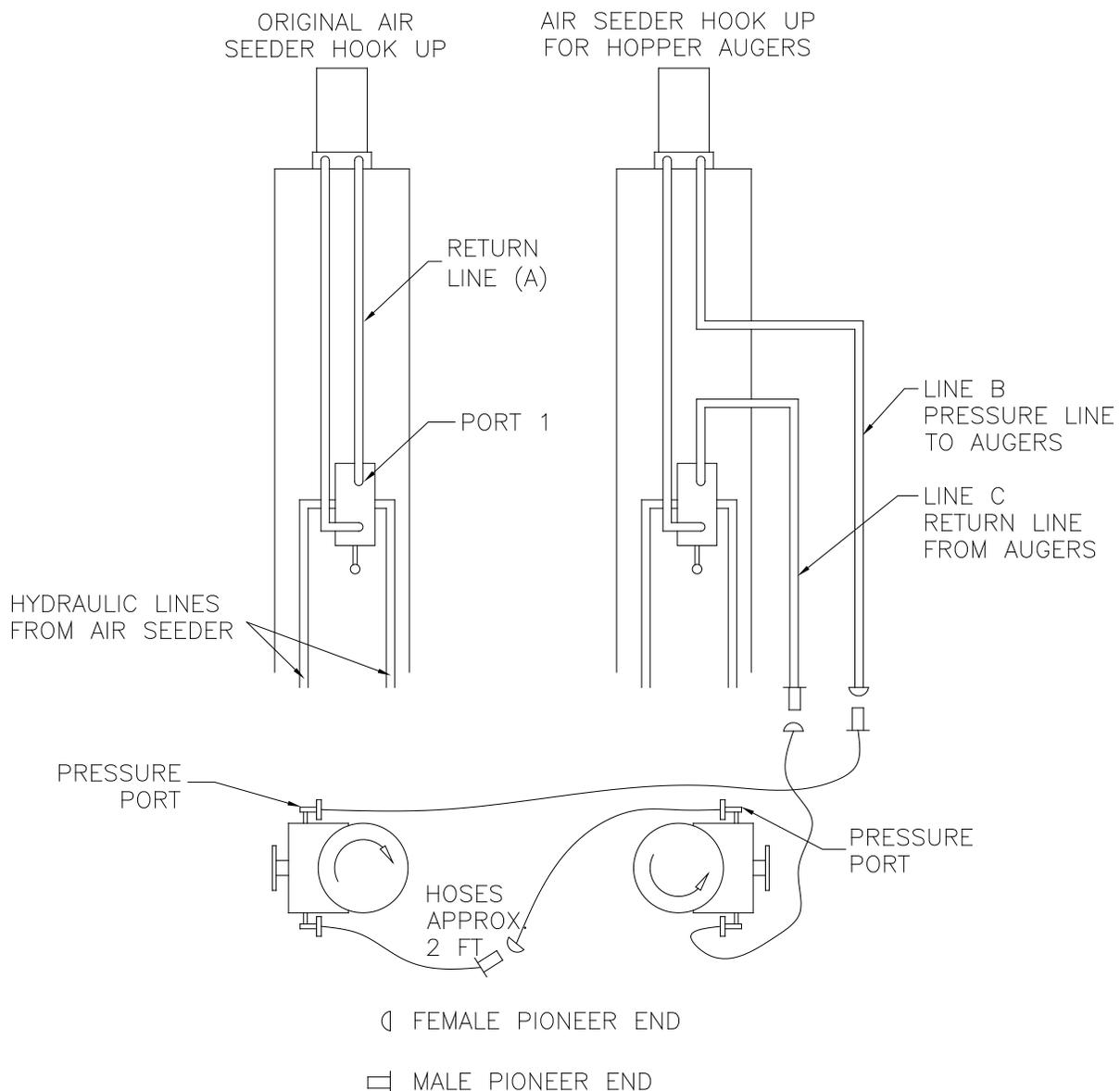
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Michels Hopper Auger Instructions

Hooking Hydraulic Lines in Series with Your Air Seeder

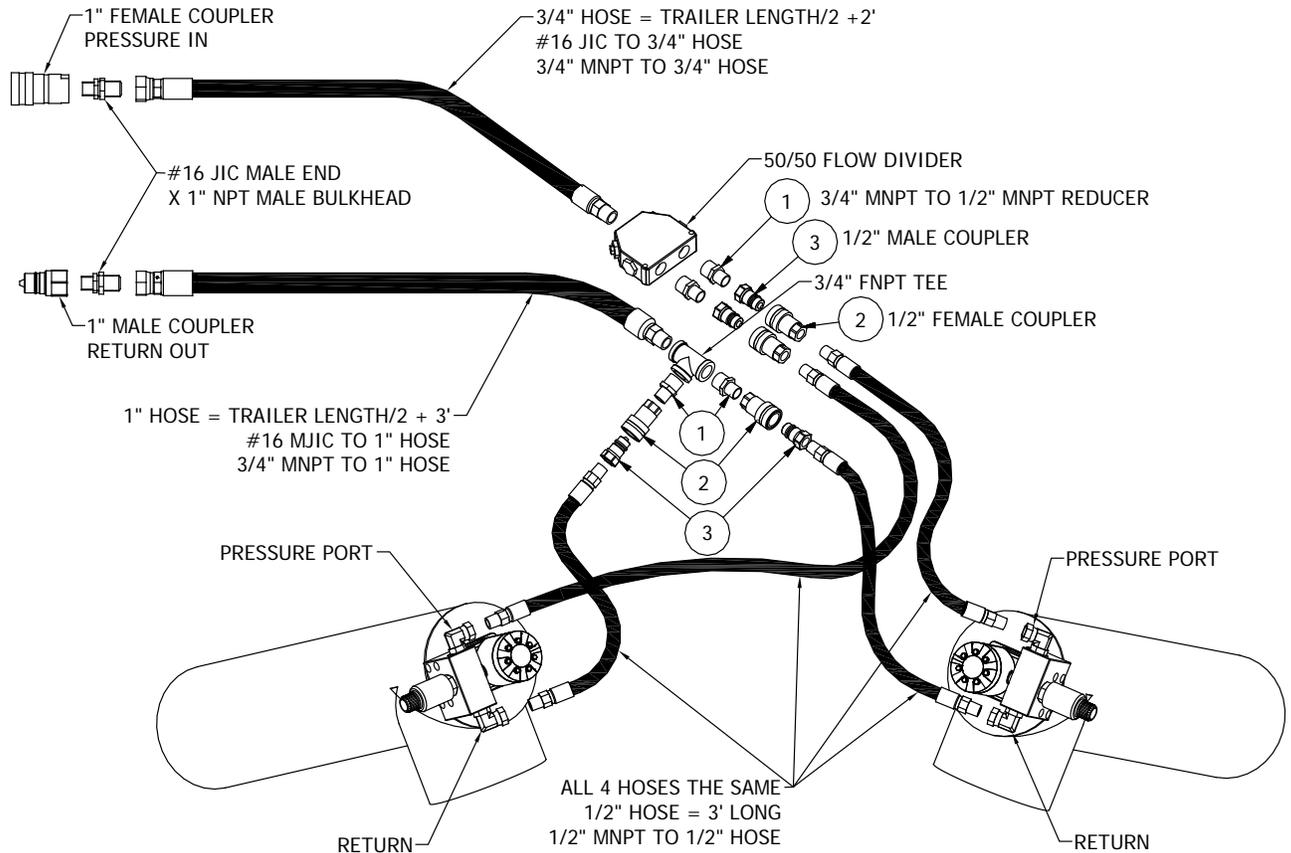
- Note:
- Use 1/2" hydraulic lines for 8" Augers
 - **10" augers we recommend 3/4" hydraulic hoses** to and from the motors. Hoses between may be 1/2"
 - Augers have to run in **SERIES** (run in one big circle)

1. Disconnect the Return Line A from Port 1.
2. Connect Line B to Line A which then becomes the pressure line to the augers
3. Connect Line C to Port 1 which becomes the return line from the augers
4. Connect Line B and C to the hopper augers using quick couplers. Make sure Line B is connected to the pressure port on the auger motor



FOR INSTALLATION ASSISTANCE PLEASE CALL (306) 366-218

50/50 FLOW DIVIDER DIAGRAM FOR 30 GPM PUMP



PLEASE NOTE:

Michel's Hopper Auger hydraulic requirements are still 15 GPM. If you have an existing 30 GPM pump it **MUST** be plumbed as per this diagram otherwise you will void warranty

- 1 – 50/50 Flow Divider - 0147-700015
- 1 – 3/4" NPT Tee – 0147-700007
- 2 – 1" NPT to #16 JIC Bulkhead Fitting – 0146-300020
- 1 – Bulkhead mounting Plate – 0003-030001
- 4 – Sets of Standard 1/2" Couplers – 0146-300011
- 1 – Set of 1" Couplers – 0146-300015
- 4 – 3/4"NPT to 1/2"NPT Reducer Nipple – 0146-300021
- 4 – 3' long 1/2" Hose c/w 1/2" NPT Male ends – 0147-700023
- 1 – 3/4" Pressure line c/w #16 JIC and 3/4" NPT (1/2 the length of the trailer + 2')
- 1 – 1" Return Line c/w #16 JIC and 3/4" NPT (1/2 the length of the trailer + 3')

Michel's Hopper Auger

SUPER "B" Hydraulic Plumbing diagram

Hydraulic System Requirements

- Hopper augers require a minimum of 15 gpm, but must not exceed 17 gpm*
- A bypass valve must be installed in the hydraulic circuit and set to 2500psi relief**
- The oil reservoir must hold a minimum of 25gal of oil
- 8" hopper augers require a minimum of 1/2" hydraulic hose
- 10" hopper augers require a minimum of 3/4" hydraulic hose, except for the short length of hose between the augers where 1/2" hose may be used
- Hopper auger motors must be hooked up in series

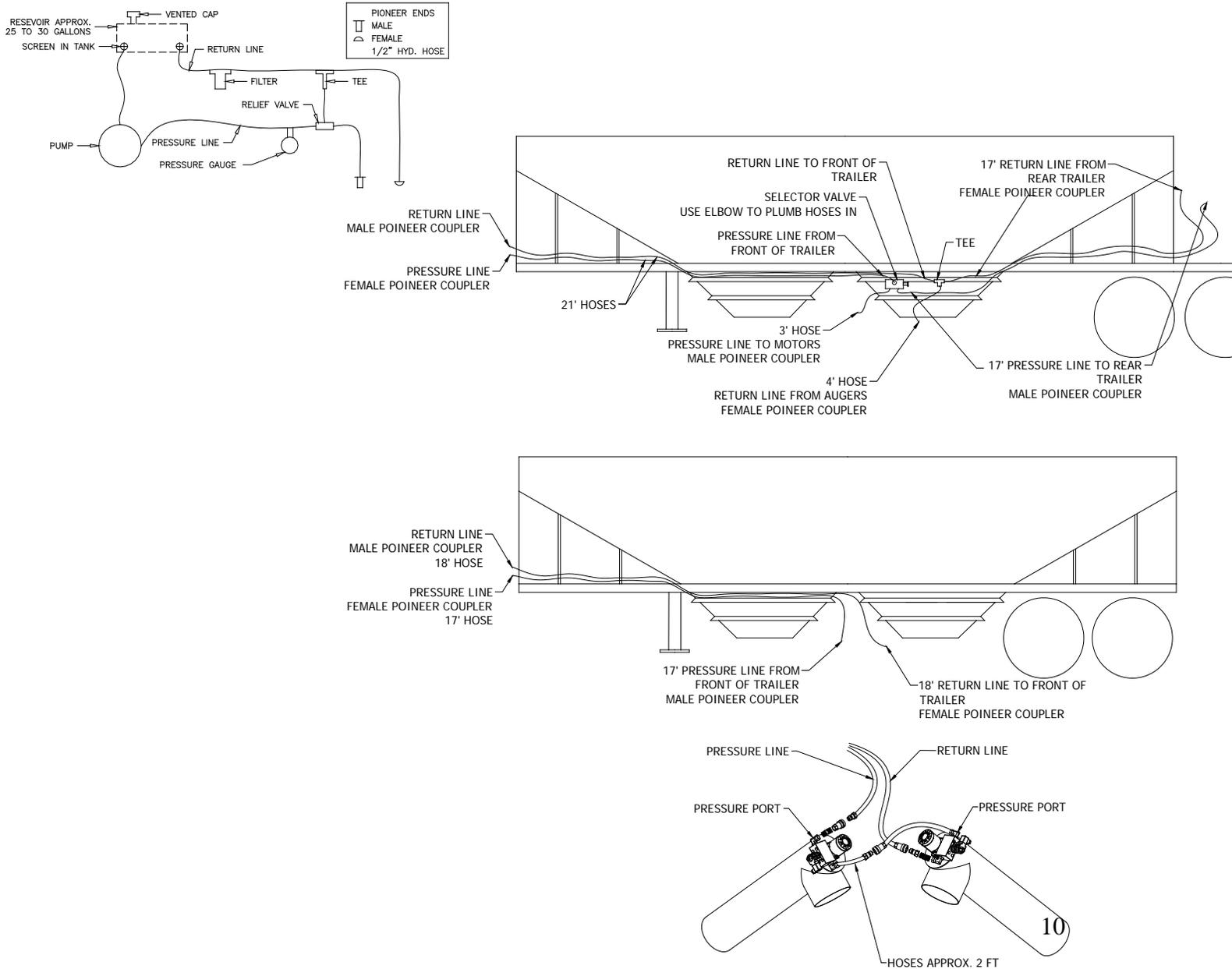
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**It is recommended that a pressure gauge is installed in the pressure line, but it is not required.

Other notes:

On augers with wireless remotes, the aluminium solenoid blocks must be installed as shown in the diagram with the pressure port (stamped P) facing the proper direction. Failure to do so will result in augers rotating the wrong direction.



Warranty:

Michel's Industries warrants their products for a period of one year from date of purchase. Any parts returned to Michel's Industries LTD. Will be shipped prepaid and will be returned F.O.B. St.Gregor, Sk. Canada. We will not assume responsibility for shipping, labor or travel expenses. Please Note: We reserve the right to make improvements, therefore specifications are subject to change without notice.

Hopper Auger Maintenance:

- When augers are not in use and off of the trailer in storage all quick couplers should be connected together to keep clean. (If plumbed correctly there should be a male and female coupler on each auger.)
- When augers are not in use they should be cleaned to prevent rust. (especially when running fertilizer threw the augers)
Augers can be blown out with air and pressure washed out with water. Another thing that can be done is run clean grain threw the augers to get rid of any fertilizer dust.
- Exterior grease zerk for the gear box should be greased 2 zerks per year.
- Wireless Remote Box should be removed when the augers are removed.

Hopper Auger Clean Out:

To clean out your Hopper Auger when changing seeds or fertilizer:

- Make sure your trailer is cleaned out
- Ensure your chute or trap is closed
- Open the trap door on the bottom of the auger bottom
- Take an air hose and blow air threw the downspout backwards down the top tube.
- Open the gear box inspection door on the side of the top tube and blow air back out the trap door on the bottom of the auger bottom.

NOTE: If you have a Wireless Remote it is NOT recommended to reverse your Hopper Augers. Running your augers backwards can damage the Wireless Remote cartridge or block.

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