

Titan Series Toolbar - Operations Manual





Tongue/Hitch Cylinder ■

- Hydraulic hoses/fittings indicated by **Yellow** hydraulic handles
- Raises and lowers front of bar for transport and in field leveling
- Hoses plumbed with 3/8" hose from tractor to dual P.O. check valve to hyd. Cylinder (P.O. check valve mounted to blind end of cylinder).



Wheel Lift Cylinders ■

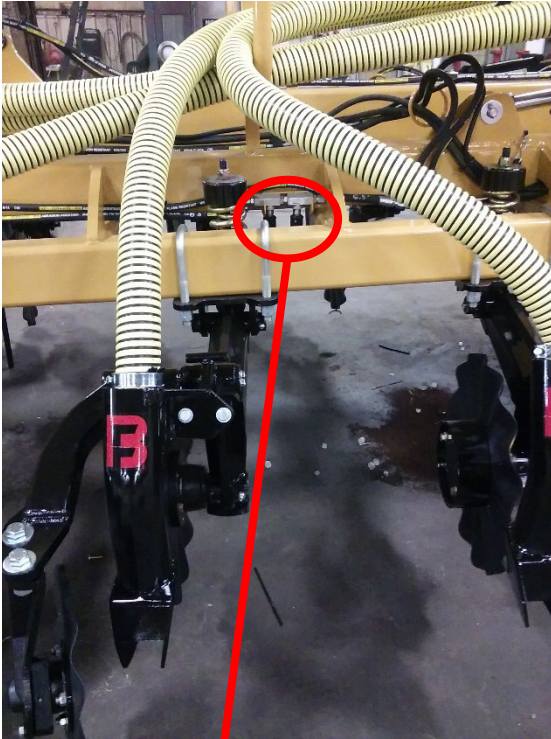
- Hydraulic hoses/fittings indicated by **Red** hydraulic handles
- Raises and lowers main wheels and gauge wheels
- Operate entirely retracted in the field
- Hoses plumbed with 1/2" hoses that run along drivers side of bar (bottom set of hoses)



Wheel Retract Pressure Relief

- set at 1700 psi Max

Wheel Lift Cylinder Synchronization



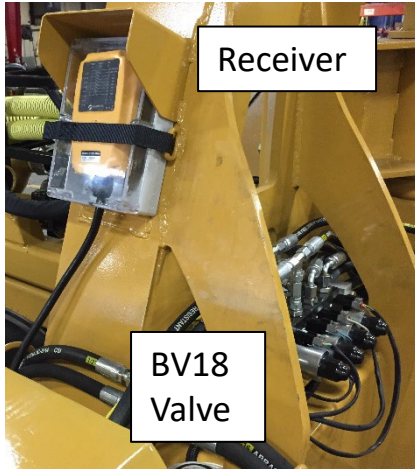
Adjustable flow restrictors on *both* sides of bar near Wing Gauge Wheel

If wings of bar lift out of sync from center section, adjust flow to the gauge wheel cylinders for each wing accordingly:

- Wing raises *before* center section - Tighten (clockwise) inside valve (closest to center section) $\frac{1}{4}$ turn at a time until synchronized
- Wing raises *after* center section – Loosen (counterclockwise) inside valve (closest to center section) $\frac{1}{4}$ turn at a time until synchronized
- Wing lowers *before* center section - Tighten (clockwise) outside valve (furthest from center section) $\frac{1}{4}$ turn at a time until synchronized
- Wing lowers *after* center section – Loosen (counterclockwise) outside valve (furthest from center section) $\frac{1}{4}$ turn at a time until synchronized

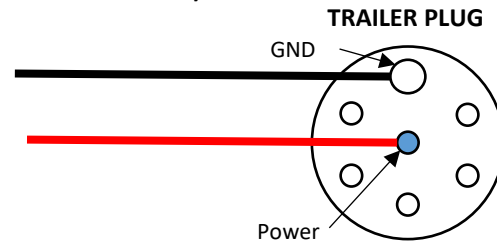


Hydraulic Function Introduction



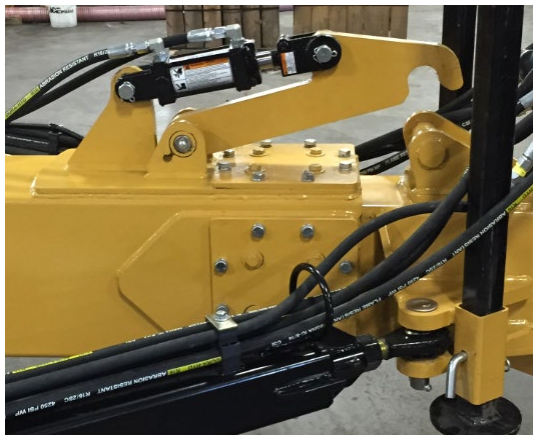
Remote / BV18 Valve Bank

- Hydraulic hoses/fittings indicated by **Green** hydraulic handles
- One tractor function operates (4) toolbar functions
- See "Remote Functions" page for proper operation
- Hoses plumbed with 3/8" hoses that run along drivers side of bar (top set of hoses)



Note: The remove receiver uses the center "accessory" power location on the plug as show above. If your tractor's plug is not equipped with accessory power in this location, the red (power) wire on the toolbar may need rewired to an alternate power source on the plug.

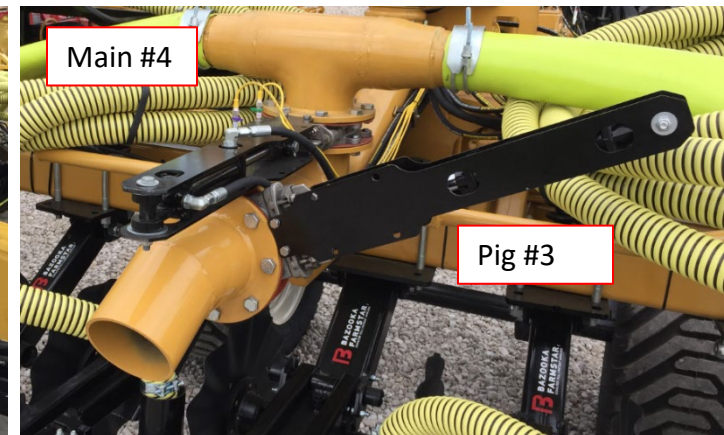
Tongue Lock Function #1



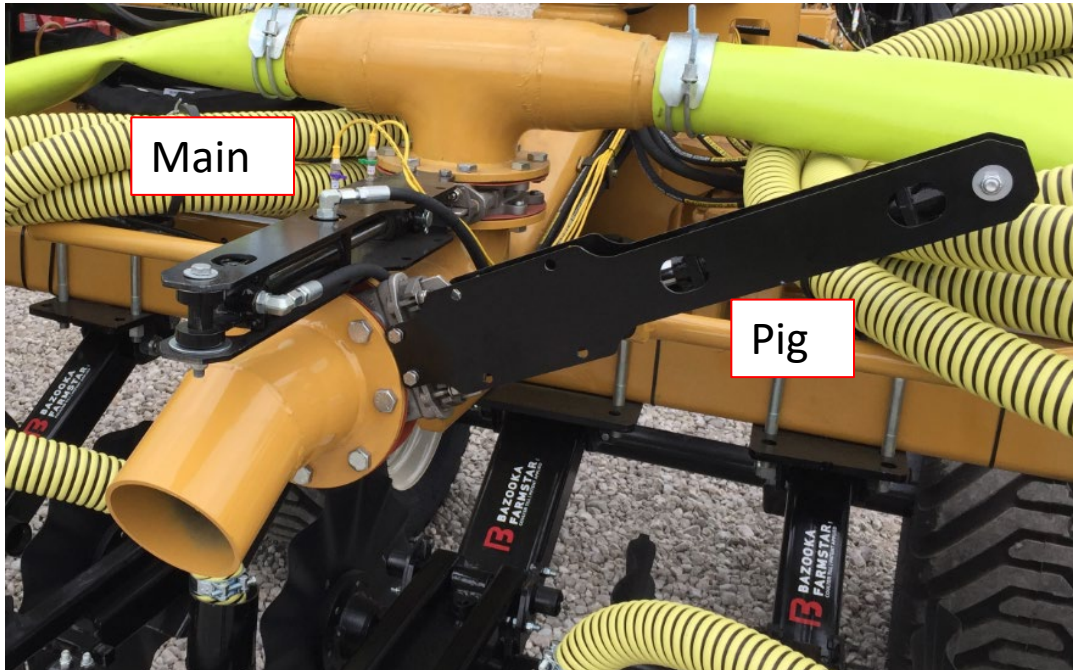
Wing Fold Function #2



Knife Gate Valves Functions #3 and #4



Knife Gate Valve Status Indicators



Knife Gate Status Indicators:

OFF

Closed



Partially Open (1/2"-5")



Fully Open (6")

MAIN = Main line Shutoff

- Turns off flow to Manifolds

PIG = Pig Discharge/Cleanout

- Opens and closes for cleanout during pumping or to discharge pig from system

Wing Float

- Hydraulic hoses/fittings indicated by **Blue** hydraulic handles
- 3/8" hoses run along passenger side of bar (top set of hoses)
- Creates downward or upward pressure on wings to keep units in ground or raise them slightly
- Ensure that no pressure is being applied during folding/unfolding for transport
- Recommend running in float during straight pulls (depends on ground conditions)
- **CRITICAL** – When turning, fully extend wing float cylinders to lock wings horizontally
 - If not used, swing arm will tilt center section and units will not stay in ground on turns.
 - Recommend using hydraulic timer settings on tractor to run hydraulics through entire turning process



Timed Manifold Motor: ■

- Hydraulic hoses/fittings indicated by **Orange** hydraulic handles
- Runs manifold motor to aid in even distribution of manure
- 1/2" hoses run along passenger side of bar (lower set of hoses)
- Ensure hydraulic flow causes manifold to spin toward sharp edges of manifold blades (inside)
- Relief valve pre-set to keep hydraulic pressure from spiking and damaging motor



MANIFOLD MOTOR SETUP



Manifold Motor Instructions

- The manifold motor blades should rotate counterclockwise with the angle of the chopping blade as the leading edge
- Recommended hydraulic operation range is 15-25% of hydraulic flow (3-5 GPM)
- Adjustments to manifold hydraulic flow should be made slowly to avoid damaging the manifold



Manifold Blocking Plate Recommendations

- 9" Best fit for 800 to 1000 gallons per minute
- 6' Best fit for 1000 to 1200 gallons per minute
- 3" Best fit for 1200 to 1400 gallons per minute

Remote Functions

Unlock Tongue (Transport)

Wing Fold – Forward (Transport)

Lights Off Pig Dump – CLOSED (Normal)

Lights Off Main Line – CLOSED
(manifold shut off)

Lock Tongue (run)

Wing Fold – Back (run)

Lights On Pig Dump - OPEN

Lights On Main Line – OPEN (run)



Hydraulic flow to valve must be on (**GREEN HYD. LINES**). Functions only work with flow in one direction, if not functioning, reverse flow and retry.

Remote buttons open valve for flow in one direction to each function; flow rate is controlled on tractor hydraulic switch.

Troubleshooting:

- Remote Status light blinks when buttons are pushed (Remote Batteries).
- Power light on top of receiver (Toolbar Tower) should be on, lights on left of receiver will turn on when remote buttons are pushed.
- If power lights are all on, remote may not be paired properly to tractor. Remote should be within 50' of tractor when receiver power is turned on.
- If receiver power isn't on, check tractor plug and plugs from receiver.

Unfolding Toolbar:

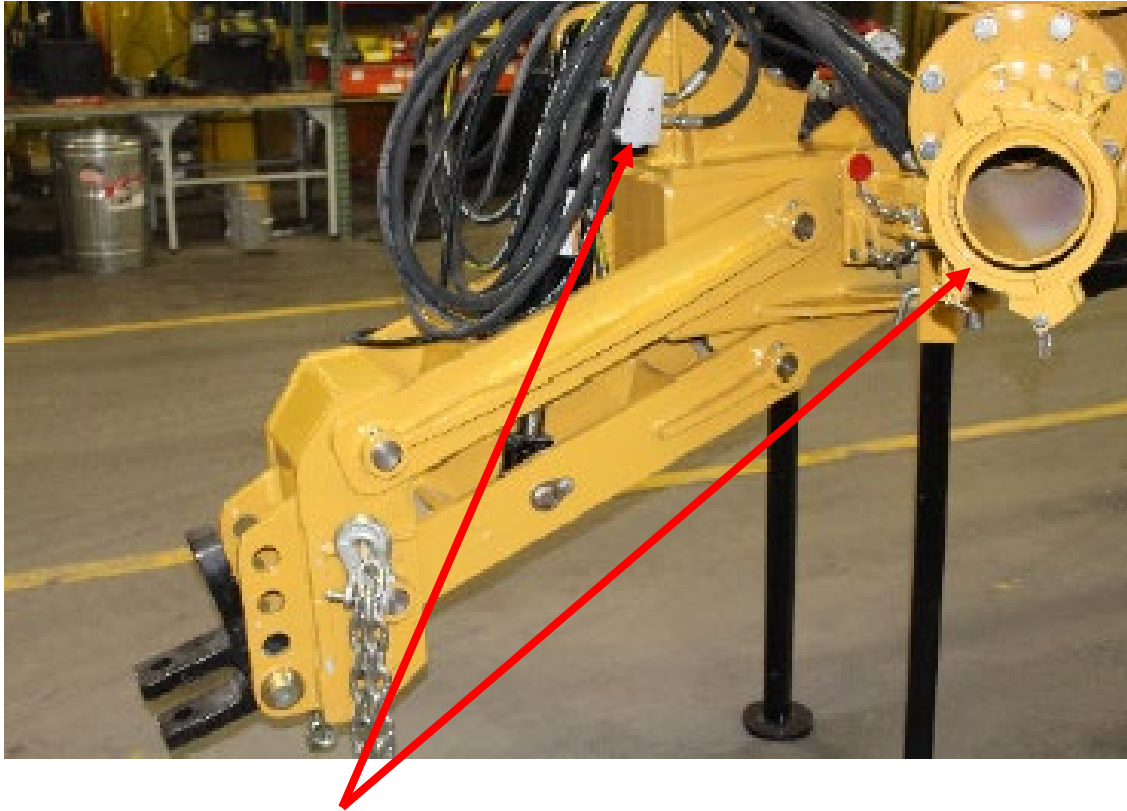
1. **Disconnect Swing Arm safety chain to allow swing arm to move freely.**
2. **Extend Tongue/Hitch Cylinder** – Fully lifting toolbar at the tongue
3. **Extend Wheel Cylinders** – Fully Lifting Toolbar at all 4 wheels
4. **Retract Tongue Cylinder slightly** – disengage tongue from under the wing/swing arm stops
The next three functions require flow to the BV18 valve (Green Hyd. Lines) for remote functions:
5. **Unlock/Retract tongue lock (remote function #1 - UP)**
6. **Unfold Wings backward (remote function #2 - OUT)** – Unfold until it hits back stops
7. **Lock/Extend tongue lock cylinder (remote function #1 - DOWN)** – Locking center section to tongue

Run In field

1. **Retract Wheel Cylinders to proper run height** – Fully lowered bar = 7" Coulter depth
2. **Retract Tongue/Hitch Cylinder** - Lower front to proper run height (to level bar if necessary)
3. **Run Manifold Motor** – Verify proper manifold run direction with blades moving toward sharp edges
4. **CRITICAL** – When turning, fully extend wing float cylinders to level/lock the wings – if not, swing arm will tilt center section and units will not stay in ground on turns. Recommend using hydraulic timer settings on tractor.

Fold In / Transport:

1. **Extend Wheel Cylinders** – Fully extend, this cannot be partially extended
The next two functions require flow to the BV18 valve (Green Hyd. Lines) for remote functions:
2. **Unlock tongue (remote function #1)**
3. **Fold wings forward (remote function #2)** – until close to tongue tube
 1. **Drop tongue/Hitch slightly (retract cylinder) if necessary**
 2. **Retract wing float cylinders (lifting wings) slightly if necessary (opposite wing downforce)**
 3. **Continue to Fold wings over tongue until fully over lock features**
4. **Retract wheel cylinder until gauge wheels are off the ground (REAR OF BAR SHOULD NOT LOWER)**
 1. **Slightly lower wing float if necessary for wings to rest on tongue**
 2. **Continue retracting wheels until front tires are just touching bottom of tongue tube**



Note: Before folding toolbar, point hose double pivot outward/backward (away from tongue), to prevent collision with hitch lift check valve.

Swing arm to swing arm stop chain



Install loop over hook on swing arm to bring swing arm around with wing during folding for transport. Be sure to detach loop from swing arm before attaching drag line hose as to not cause damage to swing arm, chain, or stop.

THIS IS NOT TO BE USED AS THE SOLE TRANSPORT SAFETY CHAIN. See following page for transport safety chain.

Swing arm stop transport safety chain



Install

- Feeder chain (17 links)
- ½" x 2" bolt and top lock nut
- Safety pin (shown in red)
- Lynch pin

PRIOR TO TRANSPORTING TOOLBAR - Loop chain through ½ hoop on swing arm and through holder. Install safety pin and lynch Pin as shown.

Bazooka Farmstar Warranty Policy

This warranty document outlines the warranty coverage provided by Bazooka Farmstar and is subject to the following provisions.

Customer Responsibility

It is the customer's responsibility to maintain the equipment in accordance with the instructions provided in the operations manual.

If an equipment failure occurs, the customer must cease operation immediately until proper repairs have been made. **Any damage resulting from continued operation after a failure may not be covered under warranty.**

Limited Warranty Coverage

New manufactured equipment warranty begins the date the equipment is invoiced to the original purchaser, or from the date the equipment was first put into use.

Limited Warranty Coverage is only valid on registered equipment to the original owner.

We guarantee components manufactured at Bazooka Farmstar to be free of material defects or workmanship issues for 1 year and unlimited hours.

For purchased components, including hydraulics and electronics, full warranty is limited to **6 months** or **500 hours of operation on any finished goods with an engine**, whichever occurs first.

Our dealers do not have authority to access, evaluate, or administer warranty on behalf of Bazooka Farmstar.

We do not guarantee our products to meet local municipal, state, or national laws or regulations.

Transportation of Equipment

In the event of warranty coverage, Bazooka Farmstar may cover the transportation costs of disabled equipment at our discretion. We limit transport to the distance of the nearest authorized dealer, up to a maximum of **200 miles**.

Any arrangement for transport must be pre-approved by Bazooka Farmstar.

Bazooka Farmstar Warranty Policy

Exclusions

This warranty does not cover damage caused by improper use, maintenance neglect, or modifications made to the equipment.

Certain components may be covered by their original manufacturer's warranty, which may differ from Bazooka Farmstar's warranty. This includes engines which are exclusively covered by manufacturer's warranty.

Any use of aftermarket or replacement parts not purchased through, manufactured by, or approved by Bazooka Farmstar will void warranty.

Submitting a Claim

If a defect is suspected, a dealer must submit a warranty claim along with necessary documentation. Bazooka Farmstar reserves the right to inspect the equipment to determine the cause of the defect and the required labor hours before repairs are performed.

If your Account Manager informs you that parts need to be returned as part of your warranty evaluation, a Return Material Authorization (RMA)** will be sent to you and you will have 30 days to return the items.

Upon receipt of the failed replacement parts, a warranty evaluation will be performed to determine a disposition. If approved, a credit will be issued in full.

Bazooka Farmstar will send your approval or denial via email for your records.

** We understand that evaluation, especially when involving a third party, may extend past 60 days. However, if the claim is in process and the items were returned by the expected return date on the RMA, no finance charges will be assessed.*

**This change is only applicable to warranty orders that require parts to be shipped when warranty coverage is not clearly approved, or the problem is not easily identified. Manufactured products containing material defects or workmanship issues, or instances where Bazooka Farmstar is undeniably at fault for the problem, will continue to be processed with no additional charges.*

***Issuance of an RMA does not guarantee credit or approval of warranty coverage.*