



***BOSS Engineering Pty Ltd***  
***Stackfold Operator's Manual***

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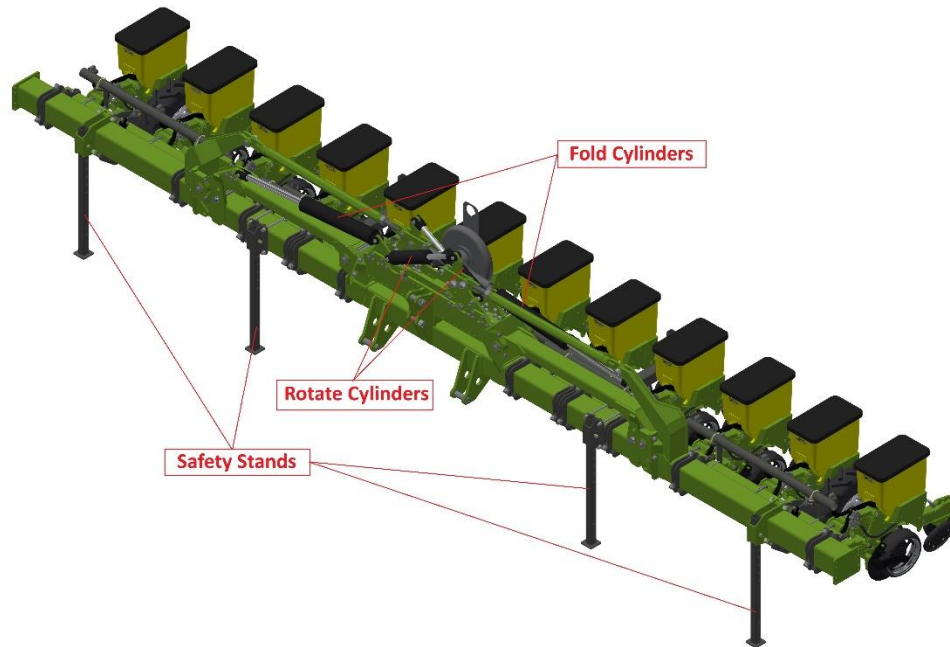
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## 1 - Planter Safety

- Read & understand the Operator's Manual before using this equipment.
- Ensure safety stands are in place before working under machine.
- Ensure the tractor is shut down and the key removed before working on machine.
- Be aware of pinch points on the row units & planter frame.
- Ensure the machine is on hard ground when unhooking to prevent machine sinking.
- Do not disconnect hydraulic breakaway couplings while the hydraulic system is under pressure.
- Inspect for hydraulic leaks and replace hoses if required. Do not inspect for oil leaks with bare hands, as small invisible high pressure oil leaks can penetrate the skin & require treatment.
- Pressurised hydraulic oil can harm or kill.
- Never ride on machine when operating.
- Do not let children climb or play on machine.
- Ensure safety pins are in place when the machine is in the folded position.
- Ensure the tractor is ballast correctly for linkage machines.
- Be aware of overhead powerlines when transporting a folded machine.
- Width and height restrictions may apply when travelling on public roads, consult your local transport regulator for specific requirements in your area.
- **Max travelling speed is 20km/h.**
- Ensure tyres are inflated to the correct pressure as recommended.
- Inspect the machine regularly for loose bolts, damaged or worn components and replace as required.
- Inspect and keep wheel studs tight.
- Do not stand between the tractor and implement while coupling the machine up.
- Ensure all safety signs are in place and replace if damaged.

- No persons within 50 metres when the machine is operating.



## 2 - Road & Field Travel

BOSS planters are designed primarily for **in field** operation, this means tyre selection and position is for optimum in field use. Continuous high speed road travel is not recommended as this is not the machines primary design function.

We understand road travel may be required from time to time, and as such certain steps/guidelines need to be considered for personal & public safety.

- Always use an agricultural tractor large enough & with sufficient braking capacity to stop the combined unit quickly and safely.
- Make sure tyre pressures are correct as per operators manual or inflation stickers located on the rim.
- Ensure all wheel nuts are present and tight as per operators manual or wheel nut torque stickers located on the rim.
- Make sure connection pin & hitch components are in good order with no possibility of the machine coming unhooked.
- Travel Speed should not exceed 20km per hour.
- Know the machines limitations when negotiating changes in road conditions. Reduce speed over uneven or rough terrain, & be aware of hazards such as bridges, trees, fences, power lines & other road users.
- Machines are often oversize & as such follow local laws regarding excess dimension transport requirements.
- Exercise caution when transporting BOSS Planters on public roads in poor visibility, or when road conditions are wet as stopping capability may be reduced.
- Be aware of overhead powerlines at all times.
- Do not allow anyone to ride on the machine at any time.
- High road temperatures significantly reduce tyre carrying capacity, stop and check tyres regularly and allow to cool before continuing.

It is important to remember that BOSS Planters are **NOT** designed for frequent, high speed or long distance road transport and as such BOSS

Agriculture does **NOT** recommend on road travel other than necessary, infrequent, short distance road travel at a reduced speed following above guidelines.

### 3 - Hooking Up

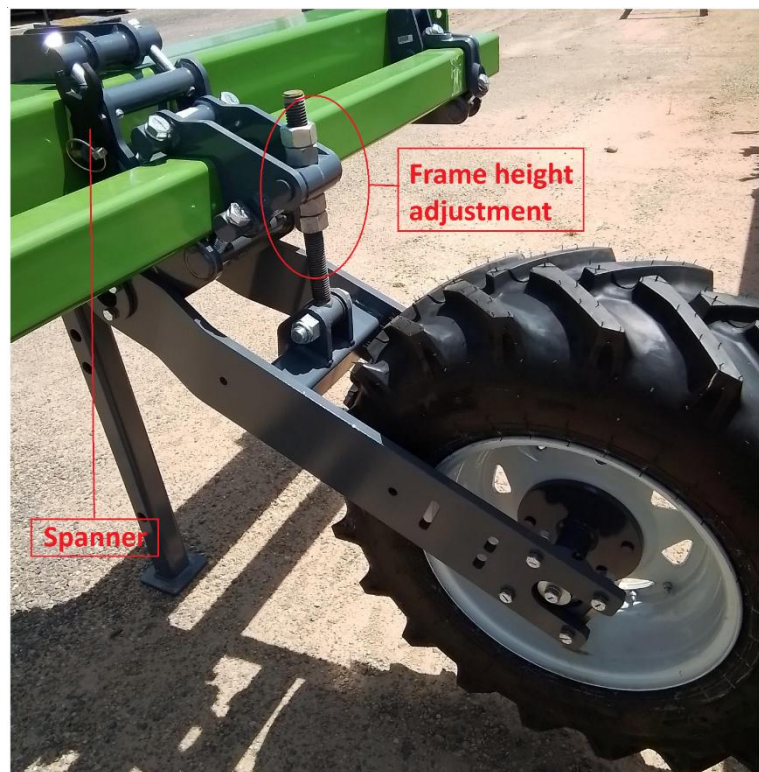
Ensure no-one is at risk of being crushed or trapped before commencing to hook up the machine to the tractor.

Connect all hydraulic lines making sure all hydraulic fittings are clean prior to connection. All hydraulic dump lines are required to be connected correctly to avoid damage to the machine, row units or air seeder. BOSS dump lines are generally labelled, however, ensure you have an understanding of the machines operation and connect hydraulic lines accordingly.

Connect electrical wiring harnesses (if applicable).

### 4 - Setting Frame Operating Height

Frame operating height is set by adjusting frame gauge wheels using spanner provided. (See picture below). The correct operating height is determined by which row unit is fitted to frame; refer to row unit operating manual for instruction on frame height. Some frame configurations may need to be carried on the linkage. Ensure frame is level when setting the lower linkage limit.

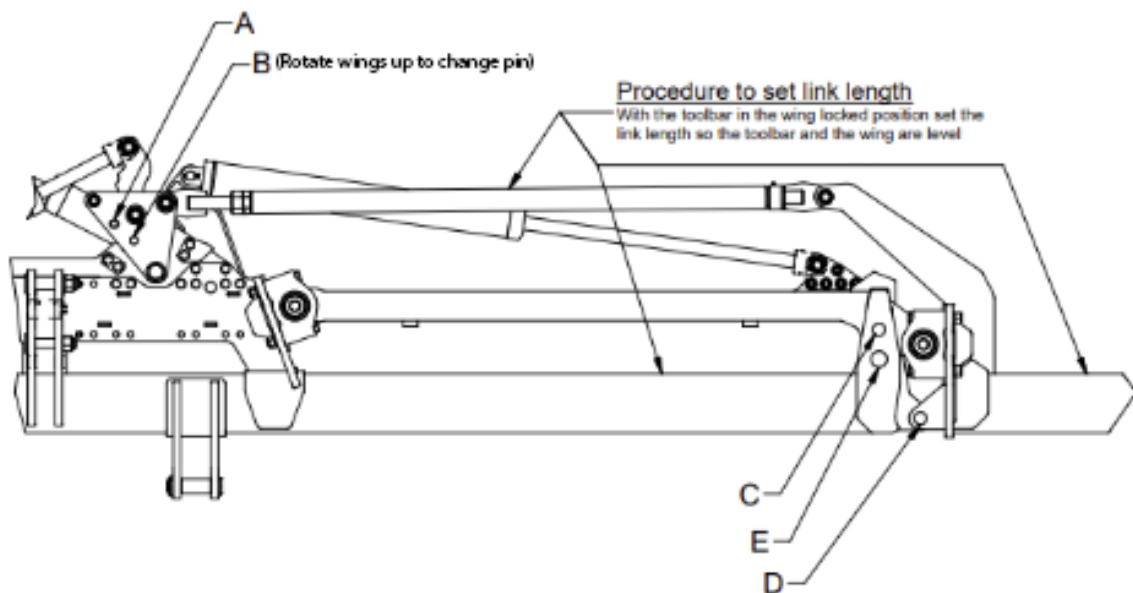


## 5 - Rigid Bar Configuration / Operation

- 1) Unfold bar as normal
- 2) Reposition pin from pin stowage position E and install into rigid frame position (D).
- 3) **Note: The use of rotate or stackfold circuits whilst in this configuration may cause structural or hydraulic damage.**
- 4) Prior to folding reposition pin from rigid frame position D to pin stowage position E.

### Toolbar Mode Pin Positions

1. Wing Locked - B & D
2. Wing Float Up - B & C
3. Wing Float Up/Down - A & C
4. Wing Folded - Pin Position B & E

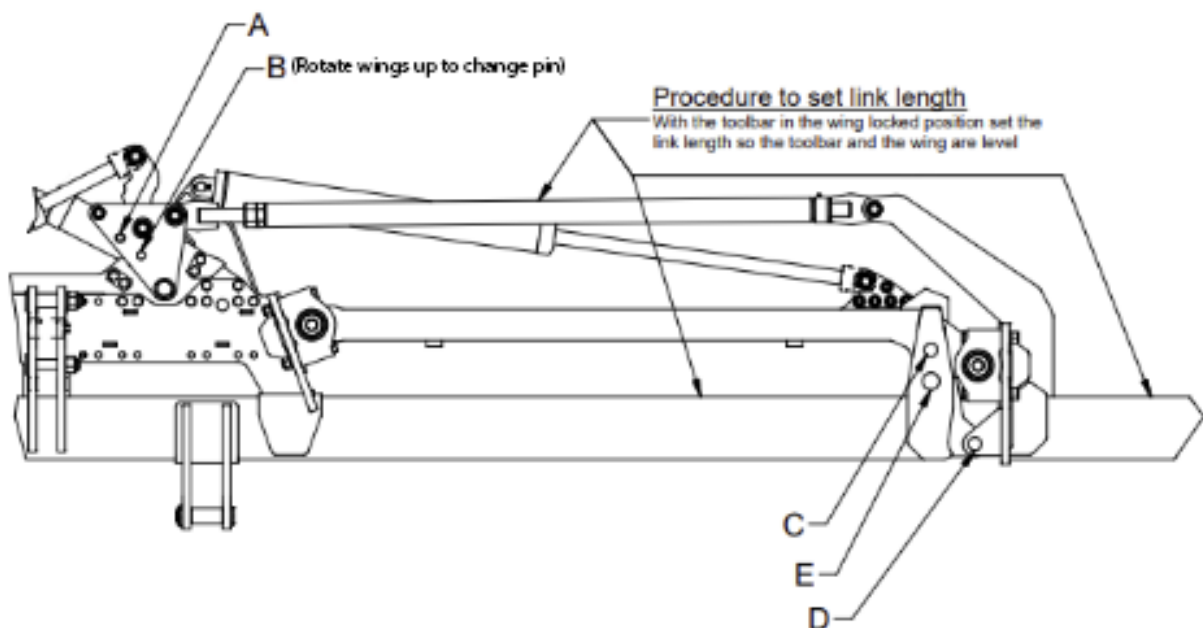


## 6 - Wing Float Up Configuration / Operation

- 1) Unfold bar as Normal
- 2) Reposition pin from stowage position (E) and install into contour follow, position (C) (This will allow the wing to float up but not down)
- 3) **Note: The use of stackfold circuit whilst in this configuration may cause structural or hydraulic damage.**
- 4) Prior to folding reposition pin from contour follow (C) to pin stowage (E)

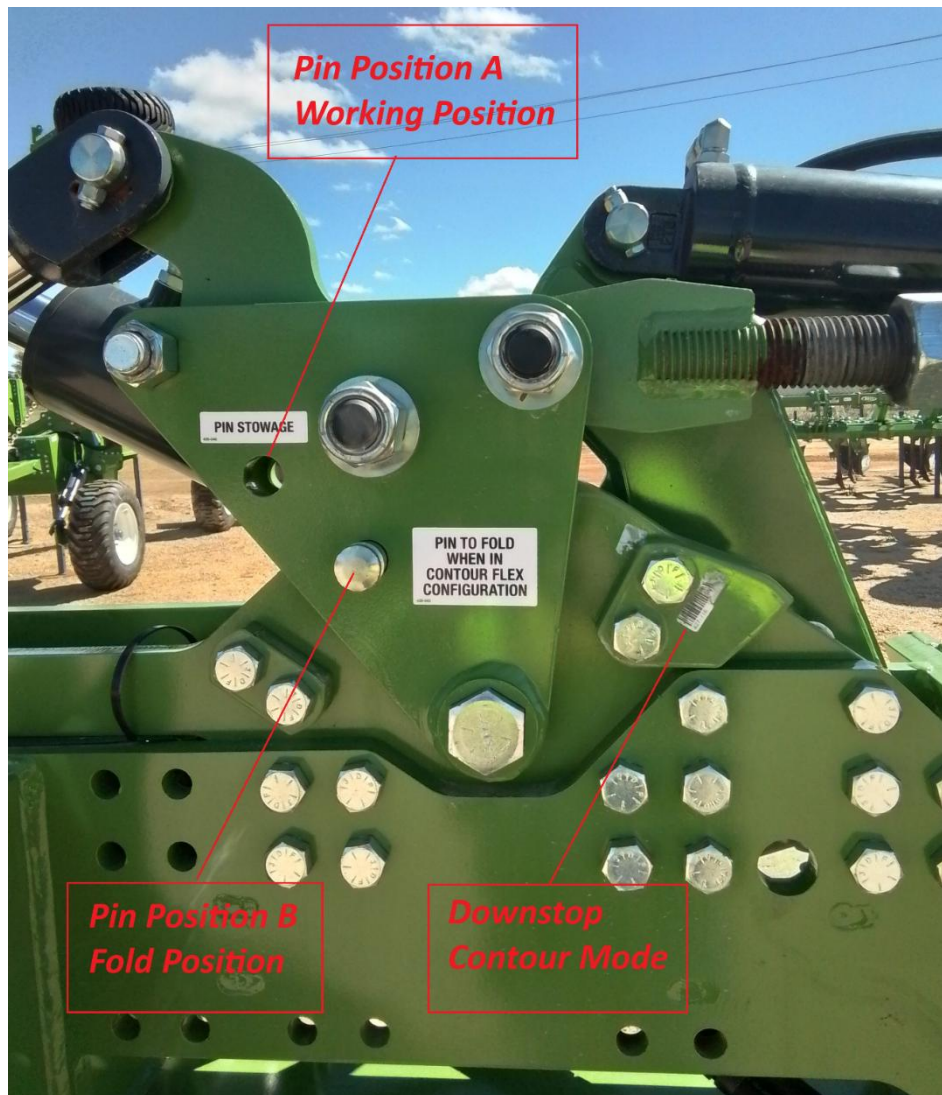
### Toolbar Mode Pin Positions

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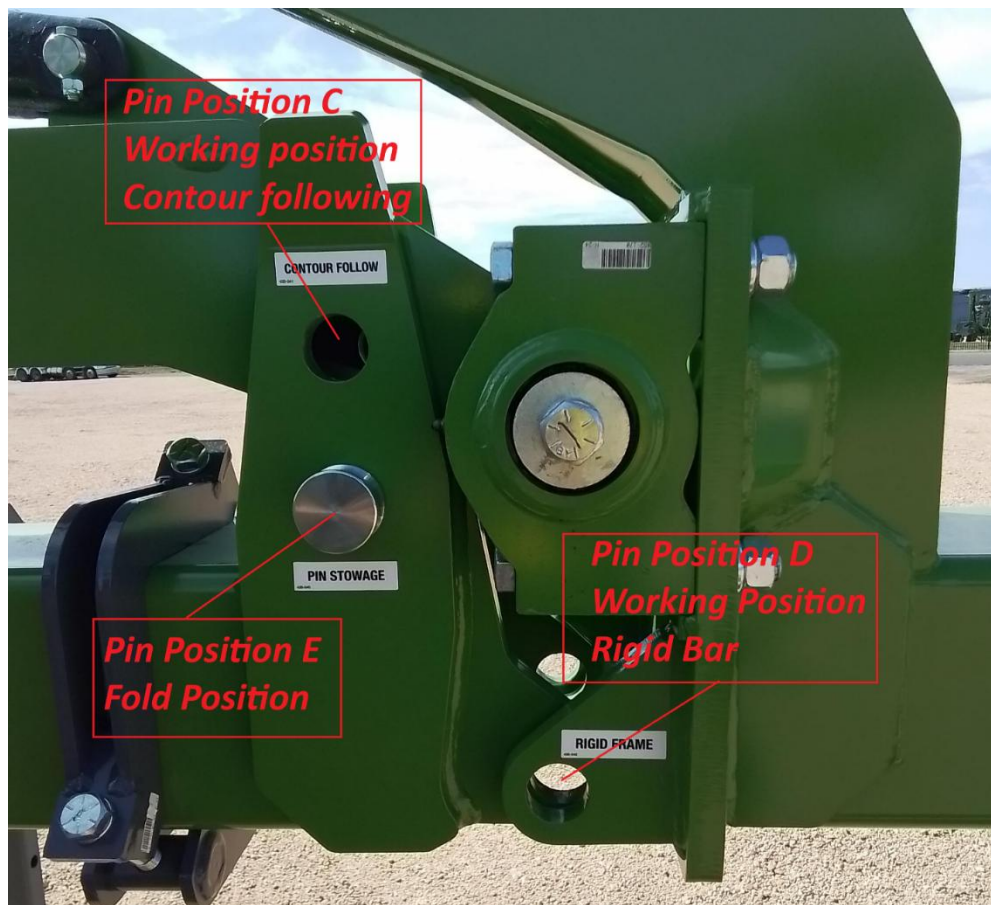
## 7 - Contour Flex Configuration

- 1) To be able to use stackfold in full contour flex configuration you will have to turn downstop over (Next Picture) ensuring pin is the pin to fold when in contour flex configuration (B) position.
- 2) Unfold as normal
- 3) Rotate wing up
- 4) Turn downstop over (picture below) ensuring pin is in pin stowage.frame position (A).



## 8 - Contour Flex Operation

- 1) Unfold stackfold as normal
- 2) Then Activate rotate cylinders and reposition pin position from pin to fold when in contour flex configuration (B) and install into pin stowage (A). This will allow wing to float up and down.
- 3) Then reposition pin from pin stowage (E) and install into contour follow (C).
- 4) **Note: Machine cannot be folded in this configuration**
- 5) To fold stackfold activate rotate cylinders, Change pin from pin stowage (A) and install into pin to fold in contour flex configuration (B)
- 6) Then reposition pin from contour follow (C) to pin stowage (E)
- 7) Float rotate cylinders, Then fold like normal



## 9 - Safety Notices



**Be aware of the height of the frame when working around power lines.**

**Ensure no-one is under the wing section at any time.**

## 10 - Important Bolts to Check

All wheel nuts:



All Fold mechanism bolts:



## 11 - Maintenance



**SHUT OFF THE TRACTOR ENGINE, REMOVE THE KEY FROM THE IGNITION AND BE CERTAIN THAT ALL MOVING PARTS HAVE STOPPED BEFORE SERVICING.**

**BEFORE SERVICING MAKE SURE ALL SAFETY LOCKS ARE IN PLACE. NEVER PLACE HANDS OR FEET UNDER ROW UNITS AS THE IMPLEMENT COULD LOWER UNEXPECTEDLY.**

Your BOSS Stackfold Frame requires minimal maintenance to keep in good shape. Below is a guide to maintain your Stackfold Frame. All maintenance procedures may vary depending on ground/soil conditions & the amount of use your machine does both in-field & on-road.

### **Stackfold Frame - Wheel Nut Torque**

6 Stud	275ft-lb
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### **Stackfold Frame – Recommended Tyre Pressure**

Wing Tyres	38 psi (maximum)
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### After First 5 hours Check:

- All wheel nuts.
- Drawbar mounting bolts through to the front hitch.
- Air Seeder pull bolts.
- Wheel bearing preload
- Hydraulic leaks

### 9.1 Daily Maintenance:

- Periodically check all wheel nut tension throughout the first days after delivery until wheel nut tension is maintained.  
(See wheel nut torque chart on page 13)
- Purge frame pivots with Grease
- Check for hydraulic leaks.
- Check tyres are inflated correctly. (See tyre inflation chart on page 13)
- Check hydraulic pins are secure with end clips in place.
- Check hitch pins are in place and secure.

### 9.2 Weekly Maintenance:

- Check all wheel nut tension. (See wheel nut torque chart on page 13)
- Check for any loose or damaged bolts & replace if necessary.
- Check for hydraulic leaks & repair if necessary.
- Check tyres are inflated correctly. (See tyre inflation chart on page 13)
- Check drawbar mounting bolts through to the front hitch bolts are tight.
- Check Air Seeder pull bolts are tight.
- Check hydraulic fold rams & lifting rams are in good condition with all mounting pins secure with safety clips or end bolts in place.

- Check safety stands & safety decals are in place.
- Visually check bearings in fold pivots, ensure the circlips are in place & bearings are retained properly in the housing.
- Check main frame wheel axle retaining bolts are tight and the axle has not moved.

### 9.3 Annual Maintenance:

- Check all wheel nut tension. (See wheel nut torque chart on page 13)
- Check for any loose or damaged bolts & tighten or replace if necessary.
- Check for hydraulic leaks & repair if necessary.
- Check hydraulic hoses are in good condition & replace if necessary.
- Grease wheel bearings. (bearings are fitted with purge seals however always ensure the seal is seated correctly after greasing)
- Check wheel bearing preload & adjust as necessary.
- Check tyres are in good operating condition.
- Check tyres are inflated correctly. (See tyre inflation chart on page 13)
- Check drawbar mounting bolts through to the front hitch bolts are tight.
- Check Air Seeder pull bolts are tight.
- Grease frame pivots with 1-2 pumps grease.
- Check hydraulic fold rams & lifting rams are in good condition with all mounting pins secure with safety clips or end bolts in place.
- Check safety stands & safety decals are in place.
- Visually check bearings in fold pivots, ensure the circlips are in place & bearings are retained properly in the housing.
- Check frame wheel axle retaining bolts are tight and the axle has not moved.
- Check all pins and bushes for wear and replace as required.

- Clean and wash the machine down touching up any areas where paint has been removed.

**Some hydraulic components such as hydraulic cylinders depend on oil residue for rust protection; avoid using any harsh cleaning products during wash-down.**

**Service Information - Grease Point**