

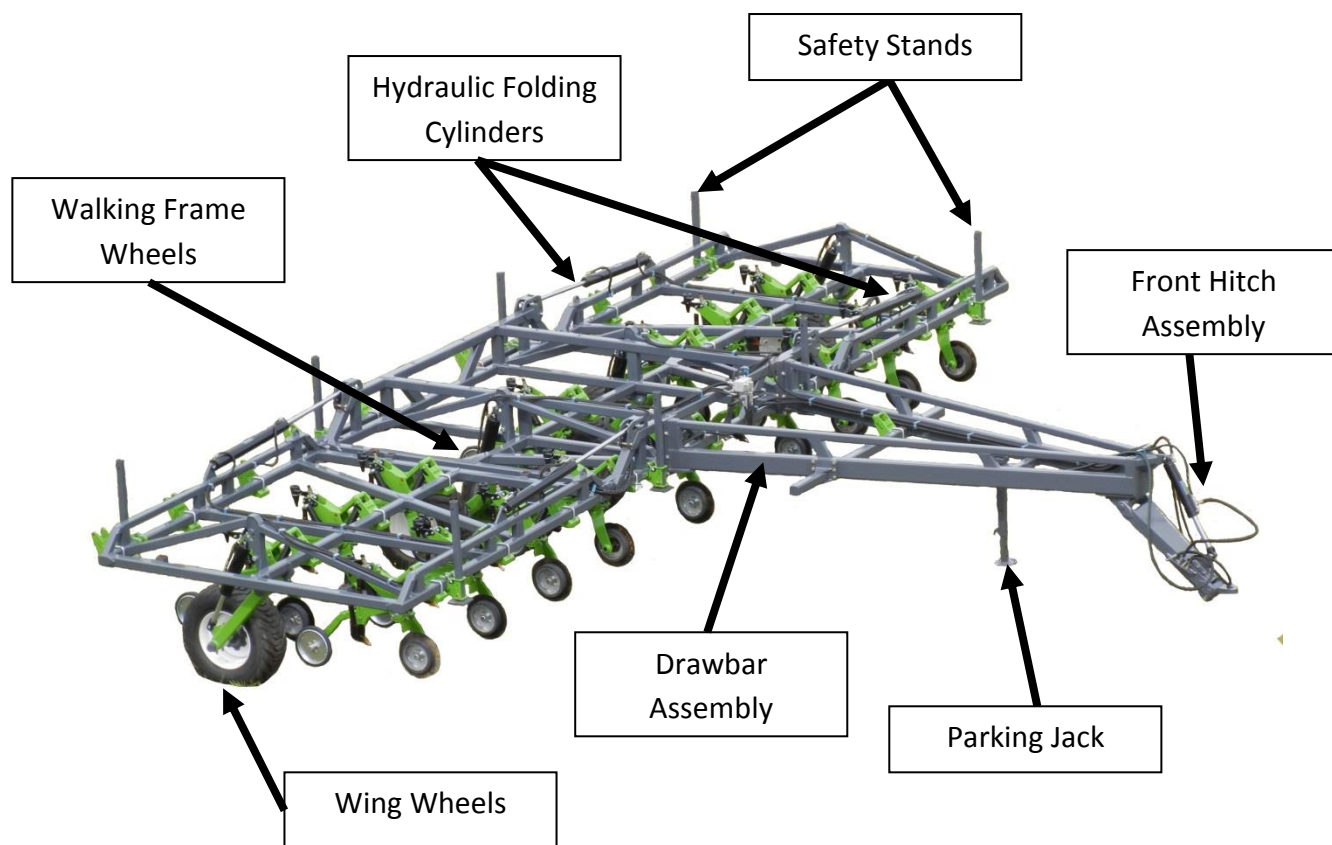
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## 1 Planter Safety

- 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 securely chocked when unhooking to prevent the machine from rolling.
- 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.
- Ensure all safety guards are in place.
- No persons within 50 metres when the machine is operating.

## **BOSS PARALIFT FRAME**



## 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, & to avoid tyre damage.

- 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.
- Ensure fold safety pins are in place & any components fitted to the machine cannot fall off during transport.

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

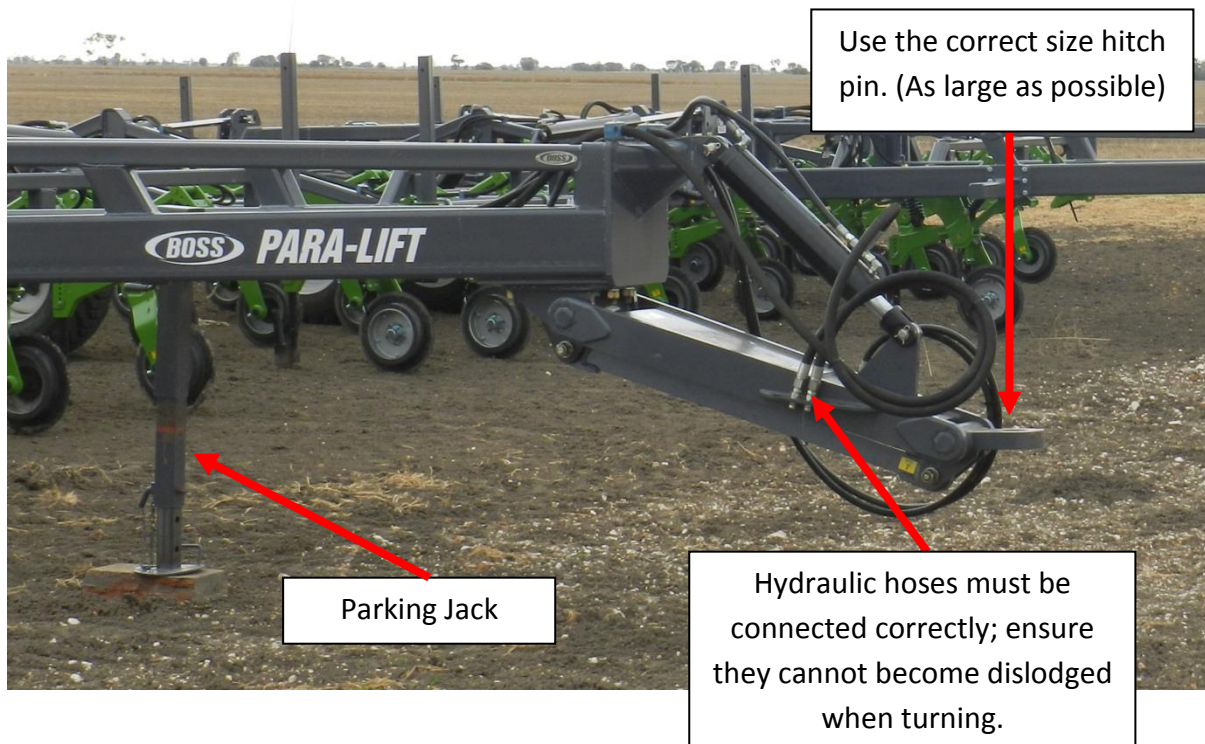
Ensure no-one is at risk of being crushed or trapped before commencing to hook up the machine to the tractor. Use the mechanical parking jack stand to set the drawbar pull to the correct height before reversing.

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).

The main hitch pin should be the correct size for both the machine & the tractor (use as large a pin as possible). The pin should be undamaged & in good condition.

Once the tractor and machine are connected remove the parking jack and place in the storage position.



## 4 Setting Frame Operating Height

Frame operating height is set by adjusting the ram stops located on the centre section cylinders. Using a  $\frac{3}{4}$  spanner loosen ram stops and adjust all 4 stops (2 on each cylinder), to achieve the required under-bar operating height. These stops **MUST be adjusted EVENLY**, a preferred method is to check with a ruler. If they are not adjusted evenly the cylinder rod can become fatigued and break off. Once all stops are evenly adjusted tighten the locating bolts. The correct operating height is determined by the row unit that is fitted to the frame; refer to the row unit operating manual for instruction on frame height.



Using a  $\frac{3}{4}$  spanner loosen the ram stop bolts and adjust both stops **equally**. The safest way is to use a ruler so all 4 stops (2 on each cylinder on the centre lift wheels) are equal.



## 5 Levelling the Paralift Frame

Your Paralift Frame will be levelled in the factory however if in field adjustments are required they can be carried out by making 2 different adjustments.

- 1) Adjusting the bolt located in the lift wheel ram adjuster. This adjustment raises or lowers the rear of the frame. This adjustment can also be used when deep sowing if the wing sections appear to nosedive in the front corners of the toolbar. If this occurs you can assist by screwing in the adjuster bolts on the **centre section only**, this will lower the centre rear frame and at the same time pick up the front of the outer wings.

When adjusting the frame using the lift wheel ram adjustment, firstly lower all frame safety stands and gently lower the machine so the frame weight is just supported to make adjusting the bolt easier. A 1½" spanner will be required, firstly undo the locknut and adjust the bolt in to lower the rear of the frame or adjust out to raise the rear of the frame. All adjustments must be made equally to each section ie. Centre section, Inner Wing Sections or Outer Wing Sections. If adjusting the bolt out ensure there is enough bolt remaining inside the thread otherwise damage may occur. The front hydraulic drawbar cylinder may also need to be adjusted if you are unable to achieve your desired settings on the lift wheels.

Lift wheel ram adjusters are located on the top of all hydraulic lift wheel cylinders.

Before making adjustments lower all frame stands & support the weight of the machine to make adjusting easier.

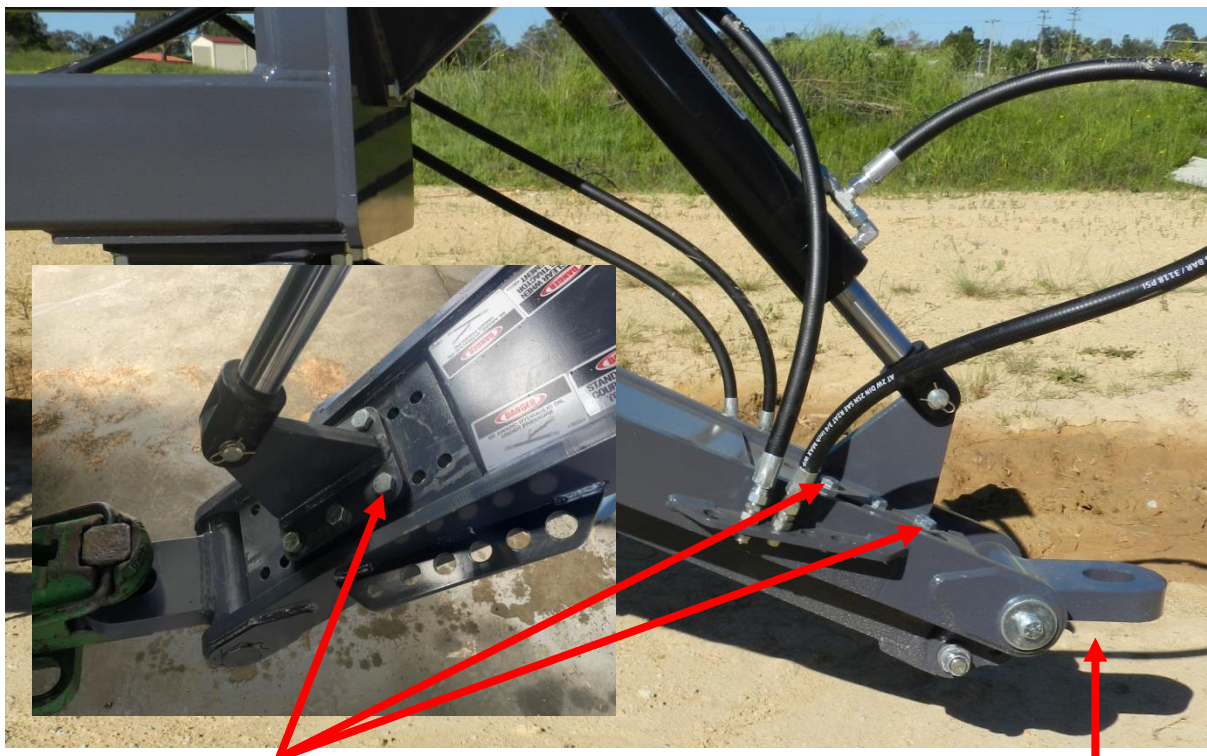
Using a 1½" spanner undo the locknut & make your required adjustments.



- 2) Adjust the position of the BOSS Paralift hydraulic drawbar cylinder to raise or lower the front of the machine.

To adjust the hydraulic drawbar cylinder, lower all frame safety stands and insert the parking jack, lower the machine onto the stands & unhook the tractor from the machine. Ensure the machine is chocked so it cannot roll. Utilising a suitable 15 tonne jack, support the weight of the drawbar tongue. Using 1½” spanners undo the positional mounting bolts & remove so the cylinder mount assembly can move. Use the jack to raise or lower the drawbar, so the cylinder mount assembly can be relocated into the required position until bolt holes are aligned. Replace the locating bolts and tighten. Raising the cylinder mount position will lift the front of the machine.

Before making adjustments lower all frame stands & unhook the machine from the tractor.



Using 1½” spanners undo the cylinder mount locating bolts & reposition the cylinder mount as required.

Moving the cylinder mount position up will lift the front of the frame.

Using a suitable 15 tonne jack support the weight of the drawbar.

When adjuster bolts have been removed raise or lower the jack until required position is achieved and the mounting bolts can be aligned.



## 6 Paralift Folding Procedure

Prior to folding your machine ensure the lift cylinders are phased correctly and the frame is level. To phase the cylinders fully raise the frame and hold levers on momentarily, then lower slightly & repeat to allow the oil to fill lines and cylinders completely to ensure phasing poppets are correctly seated.

When folding the Paralift Frame, a tractor must be hooked up to the machine & the terrain must be level and safe. Ensure the area is clear of power lines, trees & people in the vicinity of the machine are far enough away to be safe.

Ensure fold safety pins are in the storage position so no damage can occur to fold cylinders when operating.

Before folding raise the machine so the row units are off the ground, and ensure the row units do not drag across the ground as the wings are coming up. The wings should operate together and both should come up evenly. If the wings are not coming up together do not continue to fold contact a BOSS representative for instruction. Once the machine is fully folded the safety fold pins should be placed in the transport position (located on inner wings only).

When unfolding the Paralift frame remove the safety fold pins and ensure the area is clear & safe. Once the machine has been unfolded continue to extend fold cylinders until they are all the way out (approx half way in the operating slot). This will allow the wing sections to float up or down, and follow ground contours without damaging hydraulic cylinders. It is advisable to leave your folding cylinders in the float position on the hydraulics for cylinder protection.



- Be aware of the height of the frame when working around power lines.
- Ensure no-one is under the wing section at any time.

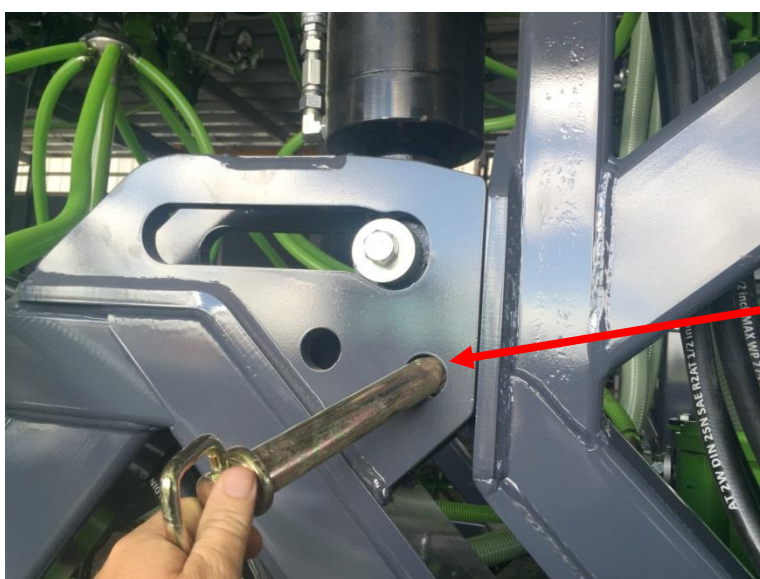


Ensure tyre pressures are correct (see page 13) and the area is clear before folding.



To avoid damage before folding check the fold safety pins are in the storage position as shown.

When unfolding the machine hold the hydraulics on until all fold cylinders are completely extended. They should be approx halfway in the operating slot.

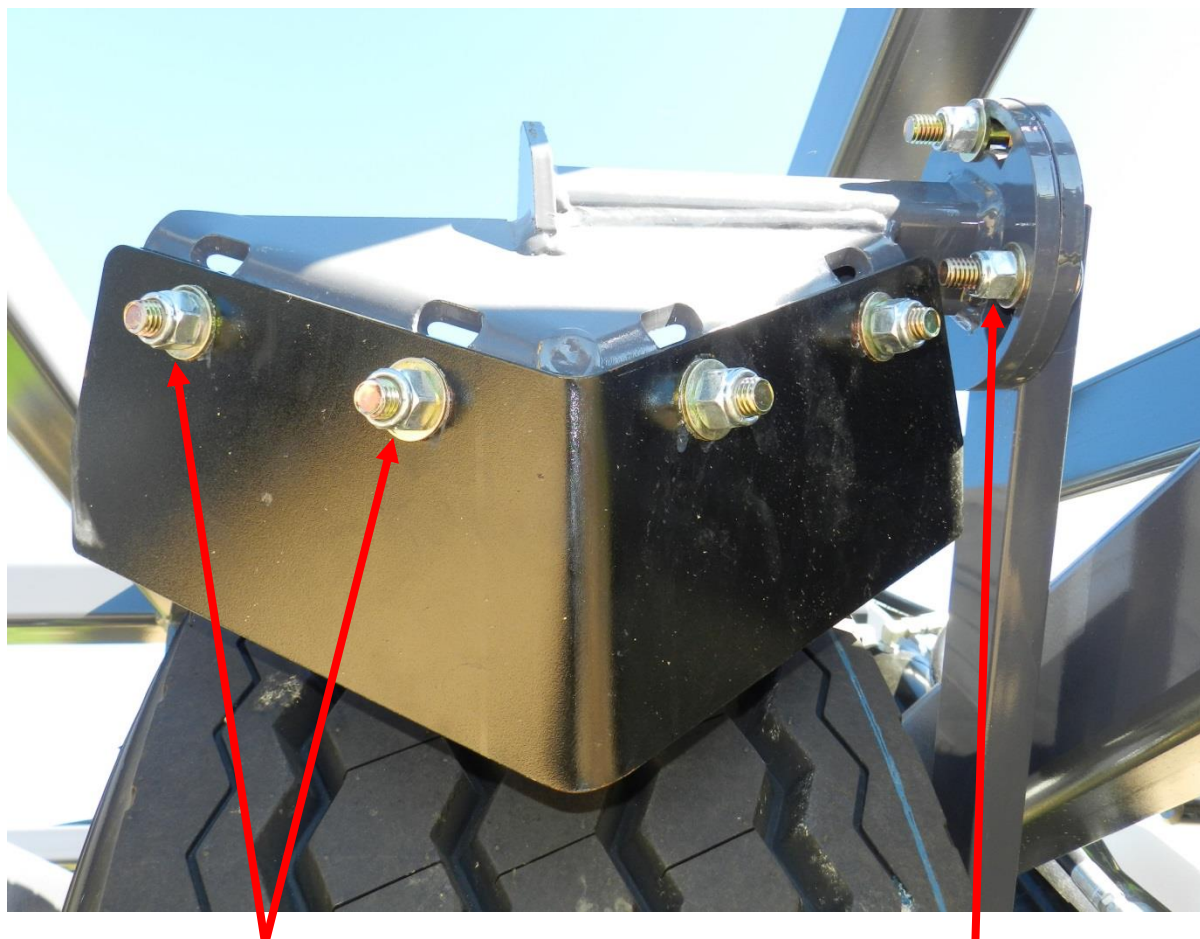


Once the machine is folded move the safety fold pins to the lockout position for machine transport or storage.

## 7 Mud Scrapers

Your BOSS Paralift Frame is fitted with mud scrapers for operating in wet conditions. Sometimes a combination of the mud scrapers and lower tyre pressures can improve your frames performance in difficult conditions. Tyre pressures however need to be accurate during any transport for safety & longevity.

The centre sections walking frame wheels mud scraper has 2 different adjustments, use a  $\frac{3}{4}$ " spanner and simply loosen the adjustment bolts on the mount to adjust the blade angle. Alternatively, the actual blade can be moved in or out as required.



The mud scraper blade can be adjusted in and out as required using a  $\frac{3}{4}$ " spanner.

On the centre frame wheels the mud scraper blade angle can be adjusted, simply loosen the adjustment bolts & position as required.



The wing wheels scraper blade is adjustable in or out.

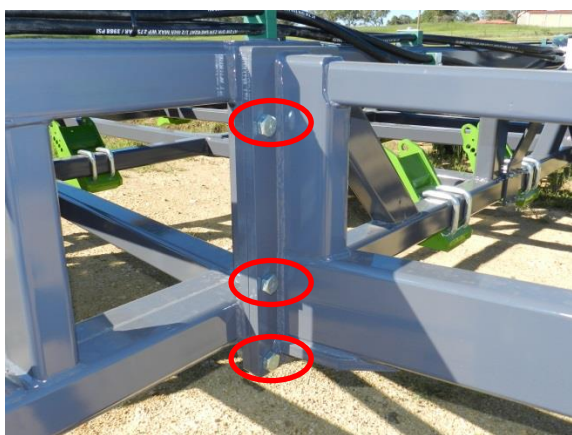
For tyre life we advise to keep the scraper blade a minimum of 25mm away from the tyres. This will allow a layer of mud to form on the tyre so the scraper does not accelerate tyre wear.



The wing frame wheels mud scraper blade can be adjusted in and out as required using a  $\frac{3}{4}$ " spanner. The minimum distance from the tyre should be approx 25mm for tyre longevity.

## 8 Important Bolts to Check

- Drawbar mounting bolts through to the front hitch bolts.



- All wheel nuts.

- Air Seeder pull bolts.



## 9 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 STANDS AND SAFETY PINS ARE IN PLACE. NEVER PLACE HANDS OR FEET UNDER ROW UNITS AS THE IMPLEMENT COULD LOWER UNEXPECTEDLY.**

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

### **Paralift Frame - Wheel Nut Torque**

8 Stud	400ft-lb
10 Stud	500ft-lb

### **Paralift Frame – Recommended Tyre Pressure**

Super Singles	100psi (maximum)
Floataction Tyres	62psi (maximum)



### 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)
- Grease frame pivots with 1-2 pumps 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:

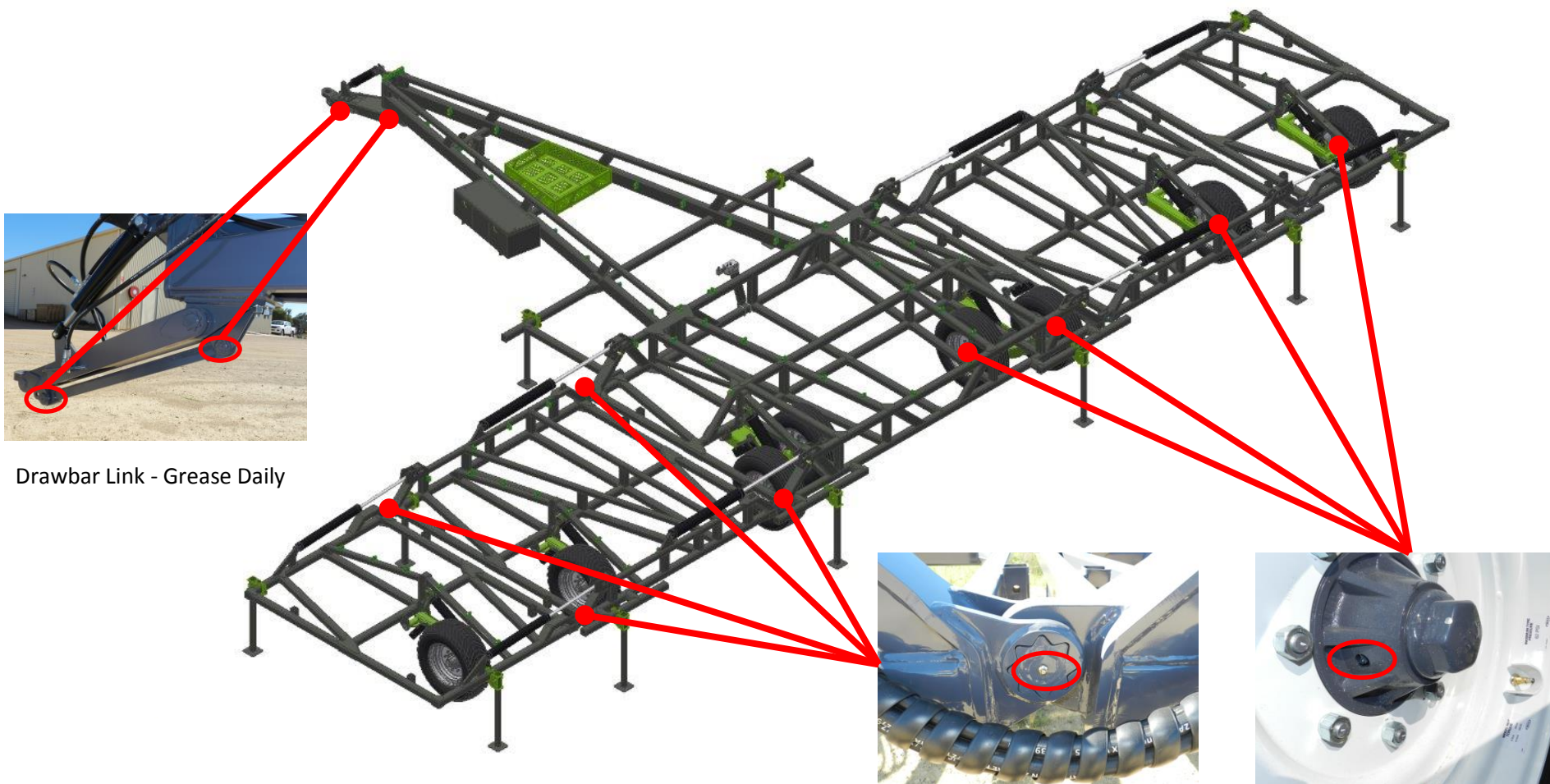
- Check all wheel nut tension. (See wheel nut torque chart on page 13)
- Check for any loose or damaged bolts & replace if necessary.
- Check for hydraulic leaks & repair if necessary.
- Check tyres are inflated correctly. (See tyre inflation chart on page 13)
- Check drawbar mounting bolts through to 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 Points



Drawbar Link - Grease Daily

Frame Pivots - Grease Daily

Grease Seasonally