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## Four Wheel Chassis Boom Service List

Type ..... Serial Number.....

1: Check the following components for straightness:

- Boom Sections
- Track Rods
- 4 Wheel Steering Arm
- Drawbars

Straighten if possible or replace as required.

2: Ensure check chains are correctly adjusted to take equal tension on both drawbars.

3: Grease all steering joints, Track Rods, Steering Arm, Offset Cross-link, Universal Joints and Kingpins.

4: Check the amount of wear on the water feed skid and replace if necessary using 30 x 5 flat steel.

5: Dismantle hubs and check wheel bearings. Replace bearings and seals as necessary and repack with grease. Assemble hubs and tension wheel nuts.

6: Grease turntable.

7: Check boom 'O' rings and replace as necessary. Use Loctite 480 to glue in place.

8: Check offset water feed 'O' rings and replace as necessary. Use Loctite 480 to glue in place.

9: Offset water feed check that the water feed locking cams are tight. On Pre '97 booms, check 'Bauer' fittings and replace ball and clamp if necessary.

10: With the boom folded, adjust the support brackets so they do not carry the weight of the boom.

11: Unfold the boom and check all locking catches have the correct tension. Adjust by rotating the mating cam. Grease all locking catch hooks.

12: Check condition of hoses and clamps and replace as necessary.

13: If the central spinning joint seal was leaking replace it.

14: Check the end section wires and adjust as necessary (making sure that they are equally tensioned)

15: Manually check smooth operation of ball valves, rotator jets and sprinklers and ensure valves are open.

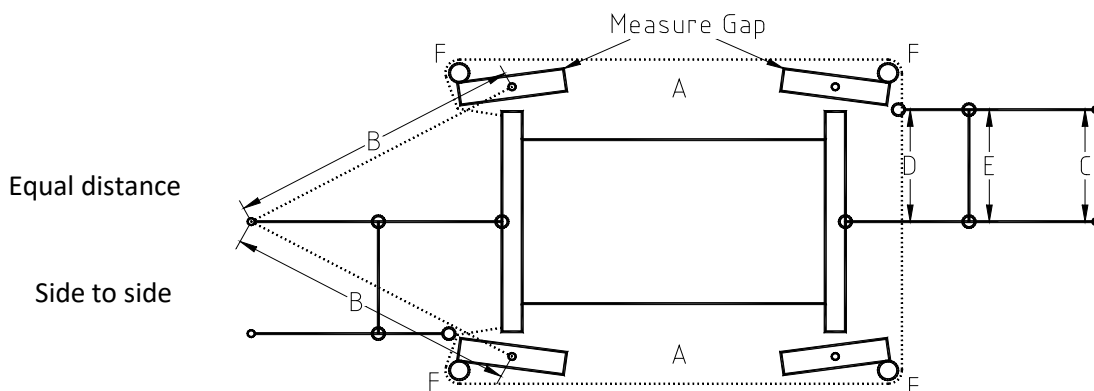
continued

**Boom Service List Continued...**

16: If it has been necessary to straighten or replace steering components, the boom will require the wheel alignment to be checked and reset as follows:-

- Ensure the boom is on a flat surface.
- Disconnect centre 4 wheel steering arm.
- Slacken the drawbar chains and rest drawbars on stands approximately 500mm from the ground.
- Measure from centre of the drawbar to the centre of the kingpin, (Line B) to centralise. Set both drawbars. Take care not to knock these while carrying out other checks.
- Tension a string around the outside of 4 wheels at the centre line of the hub height, (Line A) and tie off to stub axle. Install a 25mm spacer between string and the widest point on each tyre sidewall leading edge. Ensure these are in the same position on each tyre, (F).
- Measure the gap between the string and tyre wall on the trailing edge of the tyre. This dimension must be 22-23mm giving 2-3mm of tow-in. Adjust the track rod if necessary. Repeat on all wheels and double check.
- Re-connect central steering arm. Adjust to suit drawbars if necessary.
- Measure the centre-line between the drawbar and water feed pipe at point D & C. Hold the water feed pipe up to get an accurate measurement at point C. There must be 25-35mm tow-in between point D & C, i.e. point C must be 25mm shorter than D. Adjust this through the link E.
- Note: on side slopes it may be necessary to adjust water feed pipe tow-in.
- Check all bolts, nuts and clamps are tight.

Wheel Alignment - Diagram:



17: On hydraulic raising booms grease the rollers and the roller shafts and store with the ram in the closed position. At the base of the raising tower open the ball valve to release any water in the boom. Unfold both the 1<sup>st</sup> sections from the centre section and lock in position. Raise the sections to the maximum height, clean and remove any material build up on the telescopic stainless tube.

18. On hydraulic raising booms with the electro-hydraulic pack check oil level and remove battery (disconnect the negative terminal first).

For any other service/maintenance enquiries please contact Briggs Irrigation on:

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Service completed date: ...../...../..... by engineer name: .....