MESH CHANGE PROCEDURE

Power Screen 1400 & 2100, Warrior 1800

- **Never allow unqualified personnel to attempt to operate, maintain, remove or replace any part of the machine.**
- **Never allow anyone to remove large or heavy components without adequate lifting tackle.**
- **If the machine is free to move (i.e. not connected to any other machines etc.) follow the procedure laid out below.**
- **Only lifting equipment capable of lifting 500 Kg or more may be used for this operation.**
- **All personnel must wear all required PPE.**
- **For Warrior 1800 screen changes in addition to this procedure please also review machine manual**

Pre-screen mesh 1400, Top Deck 2100&1800

Remove

1. Observe all safety warnings.
2. Tap wedges out off pins, to relieve tension on screen.
3. Remove all pins and spacers.
4. Remove side tension rails.
5. Remove screen mesh.
6. Check rubber cushions and replace if necessary.

Install

1. Install new screen mesh.
2. Install side tension rails.
3. Install pins, spacers and wedges.
4. Tap wedges into pins, working evenly on both tension rails.
5. Ensure screen is tensioned by checking mesh is hard down on cushion rubbers.

Note: 2100 screen box uses bolts and nuts instead of wedges.

Top Deck 1400

Remove

1. Observe all safety warnings.
2. Lower tail conveyor to ground and pin in position.
3. Retract the main conveyor to its lowest point.
4. Lower the screen box to its lowest point and pin in position.

Warning: Tail conveyor must not be used as platform unless:

1. **Tail conveyor has been pinned in lower position,**
2. **Screen box has been pinned in position and**
3. **Engine Lockout procedure has been implemented.**

5. Move the screen tension hydraulic cylinders from the main conveyor support strut to the appropriate positions on the screen box and secure in place using pins.
6. Move up lever, of screen tension cylinder control valve, to extend screen tension cylinders so they contact tension bar.
7. Move up lever, of screen tension cylinder control valve, so that the tension bar moves clear of the retaining pins (Note, Adjuster bolts may have to be slackened off to relieve tension on bar)

8. Remove the retaining pins and retract the hydraulic cylinders by moving the lever of the control valve down. This will retract the tension bar from the screen hooks

9. Switch off the engine and implement lockout procedure. Once Lockout has been implemented Tail conveyor may be used as a platform for changing meshes.

10. Remove screen tension bar.

11. Push screen mesh back until it is free to lift up.

12. Lift up using a pry bar and slide the old mesh out.

13. Check rubber cushions and replace if necessary.

14. Clean the screen box and tension bar recesses to remove any build up of material.

Install

1. Insert new screen mesh ensuring the hooked end of the mesh is in the correct position around fixed tension beam in screen box.

2. Slide the removable screen tension bar into other end of screen mesh, ensuring the bar is both facing the correct direction (Highest point of curve in direction of tension, so as tension is applied bar will straighten) and is fitted correctly into screen mesh slot.

3. Restart engine

Note: Tail Conveyor cannot be used as a platform when engine is running. Lockout procedure must be implemented

4. Move lever up to extend the hydraulic cylinders and push the tension bar far enough forward to tension the mesh and to allow retaining pins to be inserted.

5. Insert retaining pins in adjusters.

6. Tighten screen tension bolts so mesh is tensioned correctly.

7. The centre, of the mesh tensions first and the appropriate tension is reached when the outside edges of the mesh are taut.

8. Absolute maximum tension is obtained when the screen tension bar is parallel with the hook on the screen mesh as shown
   Note: This amount of tension is not always required.
   Fig.1

9. Retract hydraulic cylinders, remove them from the screen box and secure them back in position on the screen sub frame using the pins provided.

10. Run machine and check for vibration in the screen unit.

Bottom Deck 1400, 2100, and 1800 warrior

Remove

1. Observe all safety warnings.

2. Lower tail conveyor to ground and pin in position

3. Set screen box at appropriate height and pin in position

Warning: Tail conveyor must not be used as platform unless:

1. Tail conveyor has been pinned in lower position,
2. Screen box has been pinned in position and
3. Engine Lockout procedure has been implemented.

4. Start by removing the screen closest to the tail belt. Move the screen tension hydraulic cylinders from the main conveyor support strut to the appropriate positions on the screen box and secure in place using pins.

5. Move the lever, of screen tension cylinder control valve, to extend screen tension cylinders so they contact tension bar.

6. Move the lever, of screen tension cylinder control valve, so that the tension bar moves clear of the retaining pins (Note, Adjuster bolts may have to be slackened off to release tension on bar)

7. Remove the retaining pins and retract the hydraulic cylinders by moving the lever of the control valve down. This will retract the tension bar from the screen hooks

8. Switch off the engine and implement lockout procedure. Once Lockout has been implemented Tail conveyor may be used as a platform for changing meshes.

9. Lift top of screen out of tension rail

10. Remove screen tension bar.

11. Push screen mesh back until it is free from the middle tension beam to lift up.

12. Push screen up using a pry bar and slide the old mesh out.

13. To remove the 2nd screen, release tension as described previously, and remove tension bar

14. Slide screen toward middle tension beam, lift up to “unhook”, and slide out and away from tension beam.

15. Once end of screen is out of tension beam, the screen can be slid out following the path of the 1st screen mesh.

16. Check rubber cushions and replace if necessary.

17. Clean the screen box to remove any material build up.

Install

1. Observe all safety warnings.

2. Lower tail conveyor to ground and pin in position

3. Set screen box at appropriate height and pin in position

Warning: Tail conveyor must not be used as platform unless:

a. Tail conveyor has been pinned in lower position,
b. Screen box has been pinned in position and
c. Engine Lockout procedure has been implemented.

4. Start by installing the screen mesh closest to the tail belt. Move the tension hydraulic cylinders, from the main conveyor support strut to the appropriate positions on the screen box and secure in place using pins.
Note: Special care must be taken to ensure screen hooks are correctly fitted into tension beam before hydraulic tension is used. Pry bars may have to be used to hold mesh in place until tensioned.

5. Move up lever, of screen tension cylinder control valve, to extend screen tension cylinders so they contact tension bar.

6. Move up lever, of screen tension cylinder control valve, so that the tension bar pushes into hook on screen mesh

7. Install the retaining pins in adjusters.

8. Tighten adjuster bolts to tension screens. The centre of the mesh tensions first and the appropriate tension is reached when the outside edges of the mesh are taut.
Note: This amount of tension is not always required.
Fig.1

9. Switch off the engine and implement lockout procedure. Once Lockout has been implemented Tail conveyor may be used as a platform for changing meshes.

10. The 2nd screen mesh can now be fitted by sliding the mesh in over the first mesh.

11. The top end of the mesh must be fitted first by sliding hook through lower slot of the tension beam until it can drop down and hook into position.

Note: Special care must be taken to ensure tension rail has fitted fully into the mesh hook; it may have to be prised into position.

12. The other end of the mesh can now fit in the lower end of the screen box, and the tension rail and adjusters fitted.

13. Fit hydraulic cylinders at lower end of screen box and secure in place with pins.

14. Move the lever, of screen tension cylinder control valve, to extend screen tension cylinders so they contact tension bar.

15. Move the lever, of screen tension cylinder control valve, so that the tension bar pushes against the hook of the screen mesh.

16. Install the retaining pins in adjusters.

17. Tighten adjuster bolts to tension screens. The centre of the mesh tensions first and the appropriate tension is reached when the outside edges of the mesh are taut.
Note: This amount of tension is not always required.
Fig.1

18. Retract hydraulic cylinders, remove them from the screen box and secure them back in position on the screen sub frame using the pins provided.

Notes:

- **When bottom deck is not used, the rubber flap on the end of screen box must be hanging back into the box.**
- **Speed harps do not require as much tension as other screen meshes and do not require cushion rubbers.**
- **Aggi vibes do not require as mush tension as square mesh screens.**
- **Meshes should be rotated when half worn.**
- **Meshes should be inspected daily.**