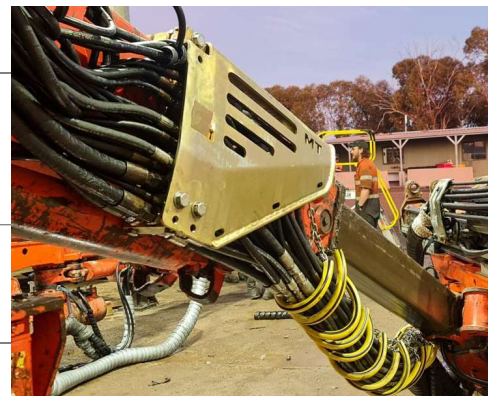


# MT Product Overview - Instructions

Document	MTSB BOOM MANIFOLD SYSTEM
Machine/group	Sandvik Jumbo



## Background

Hoses from the drilling block and cabin are strained by the drilling boom weight, movement and become inconsistent in length where they progress to the boom looms as hose repairs are made. The low hanging position of the standard looms leads to common damage and snagging from the rear of the feed during drilling of lifters, slash cuts or swinging the booms into bolting position.

Applying a bulkhead ensures consistent hose length and tidy, high hanging hose looms, The robust swing out cover protects from damage from feed strikes while making service or hose change quick and simple.

Using the cotton reel length hose throughout the entire drilling and positioning looms means only one hose length is required as spare. Hosing document below.

Using a chain and loop system to support and protect the boom area hoses promotes consistent hose length, a clean and unstressed hose loom, simple and fast hose change and greatly reduced cost and time to maintain this section compared to wrapping or covering.

Hose service life has shown to be comparable or better than wrap, averaging 1 chain ring per 8 days requiring replacement and one hose per 18 days from wear, damage or snagging by the feed.

Prepared by:

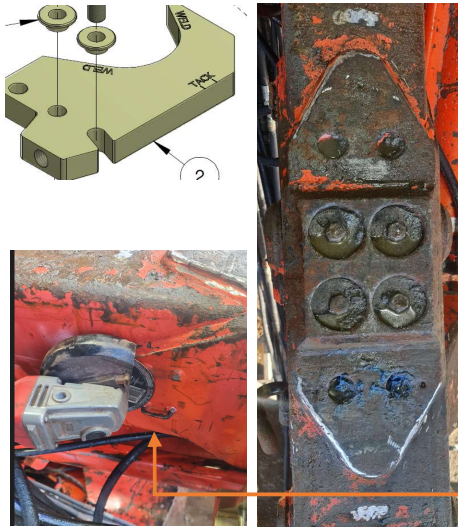
Gavin Cunningham  
[gav@mtunderground.com](mailto:gav@mtunderground.com)  
0407 389 689

## Required items

Bulkhead kit left MT550 531 0302  
Bulkhead kit right MT550 531 0301  
2 x Premade hose set to suit **8/14** Split -MT550 814 814 opt **10/16** MT550 016 016  
or premake all hoses as per hose list below prior to starting the job.

Grinder, welder and welding mask  
Spanner set.

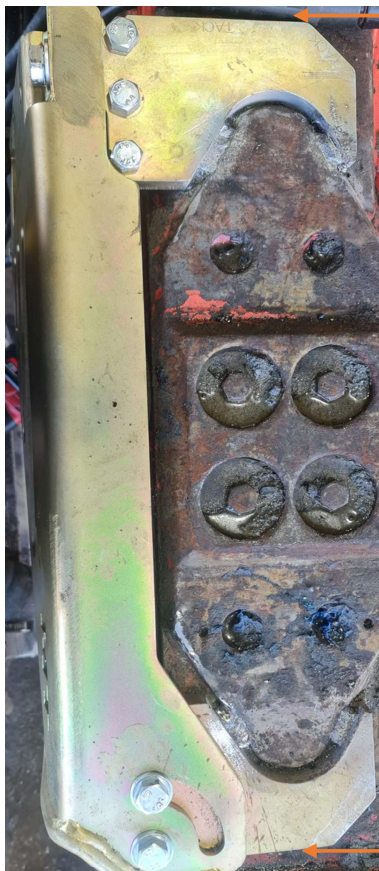
## Implementing the change



Remove the paint from the edge of the raised plates on top of the boom, and at the Tack position as per figure 1.

The mounts should be primarily welded to these plates so as to not detract from the boom body structural integrity

Cut the hose strap mounts off the side of the boom



With the bulkhead cover affixed, lower the bulkhead into place.

Place a 10mm spacer between the bulkhead and the lift cylinder to ensure clearance is retained while welding.

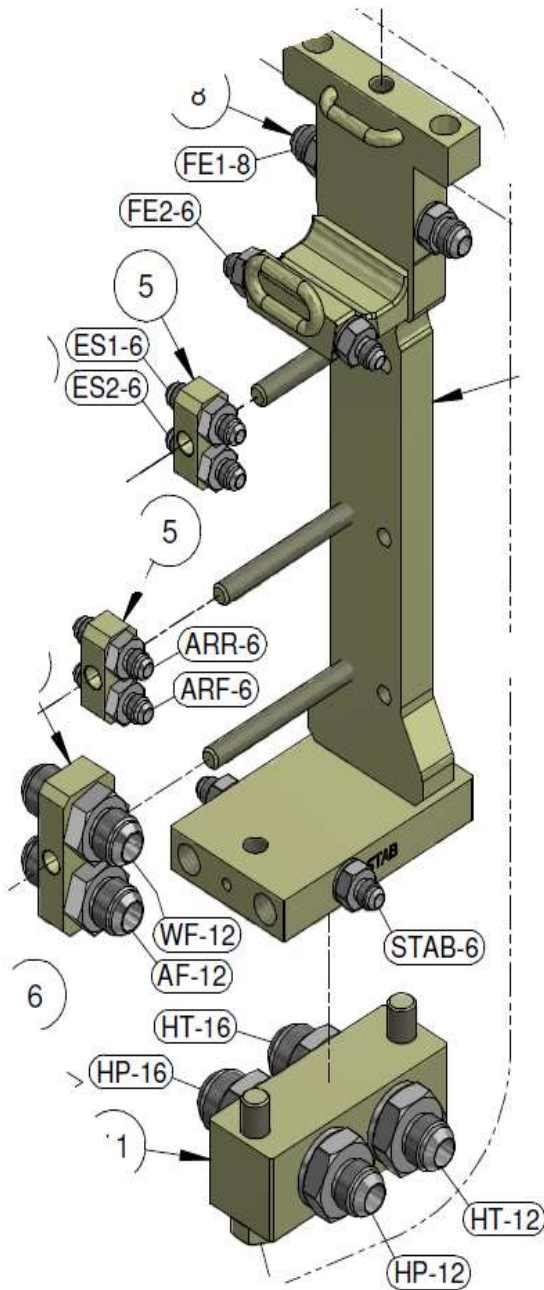
Tack the outer ends of the mounts to the boom body first (aprox 30mm weld), this will prevent distortion when the main welds are laid.

Weld the mounts to the boom plates along the flat inner section.  
Leaving the inner radius unwelded allows the mount to be cut off, for outer tube chance if required.

Remove the Bulkhead cover completely for hose connections.

Strap the DPU hoses on top or over the boom, to be secured in the top section of the bulkhead last.

Check that the 3 rear bolts attaching the manifold to the mount are tight. 240nm



Load the stack manifolds onto the bulkhead as per picture. 2 x -6 and 1 x -12

Work from bottom to top attaching hoses to the manifold and through to the feed manifold or feed holder in one length at a time.

8/14 Drilling loom 1 x 450 and 3 x 1900 for each hose.

10/16 Drilling loom, 3 x 2200 for each hose.

Positioning loom 3 x cotton reel hose length for each hose

DPU loom 2 x cotton reel hose length for each hose

1 Attach percussion T then Percussion P, from the bulkhead to the hose tree,

2 Connect the Stabilizer hose from bulkhead to hose tree

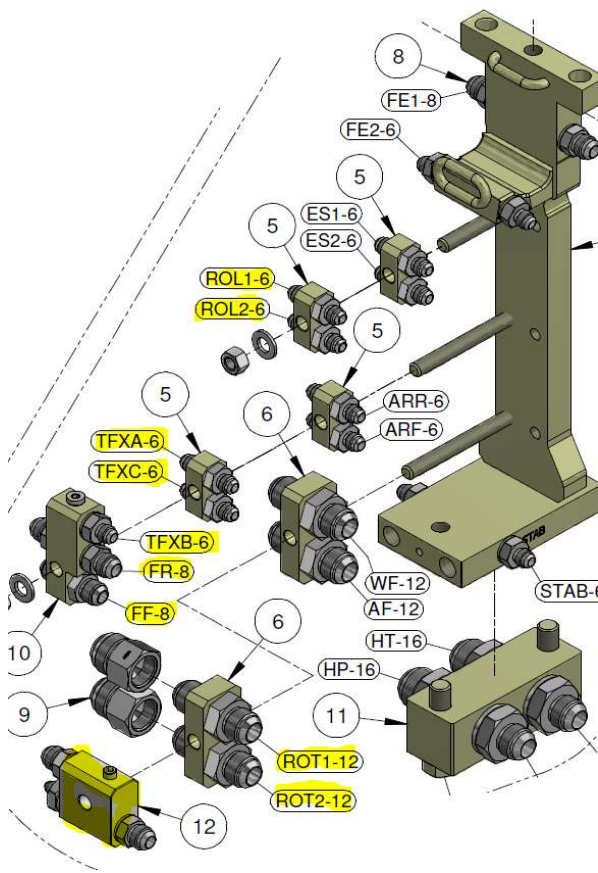
3 Connect the water flushing hose, and AF if fitting to 422i

4 Connect Auto return front and Auto return Rear.

5 Connect the Extra Swing hoses

6 Connect the FE2 extension forward hose, then FE1 reverse hose, normally -8 but commonly changed to -6

Note, For hardy Spicer hose tails it is advisable to locktite the -6 jic connections to the bulkhead



Load the second stack manifolds onto the bulkhead as per picture. 2 x -6, 1 x -8(feed and TFX) 1 x -12

Work from bottom to top attaching hoses to the manifold and through to the feed manifold or feed holder in one length at a time.

8/14 Drilling loom 1 x 450 and 3 x 1900 for each hose.

10/16 Drilling loom, 3 x 2200 for each hose.

Positioning loom 3 x cotton real hose length for each hose

DPU loom 2 x cotton reel hose length for each hose

7. Connect the Rotation hoses

8. Connect the TFXC and TBXA hoses

9. Connect the forward feed, then the linked feed reverse and TFXB hose

10. Connect the Roll over hoses

11. fit and connect the stainless lube splitter block item 12.

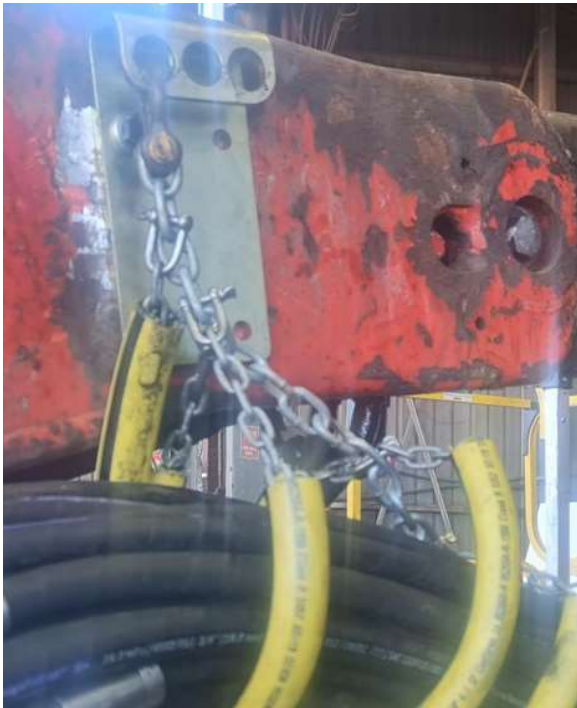
Caution - the connection (splitter) for TFXB/Reverse feed is built into the top 2 ports of the 3 port bulkhead. Item 10

12. Place the DPU loom in the top support and strap in place.

13. install the M12 retaining nuts for the top 2 manifold stacks

14. Install the Manifold Cover and attach the support chain





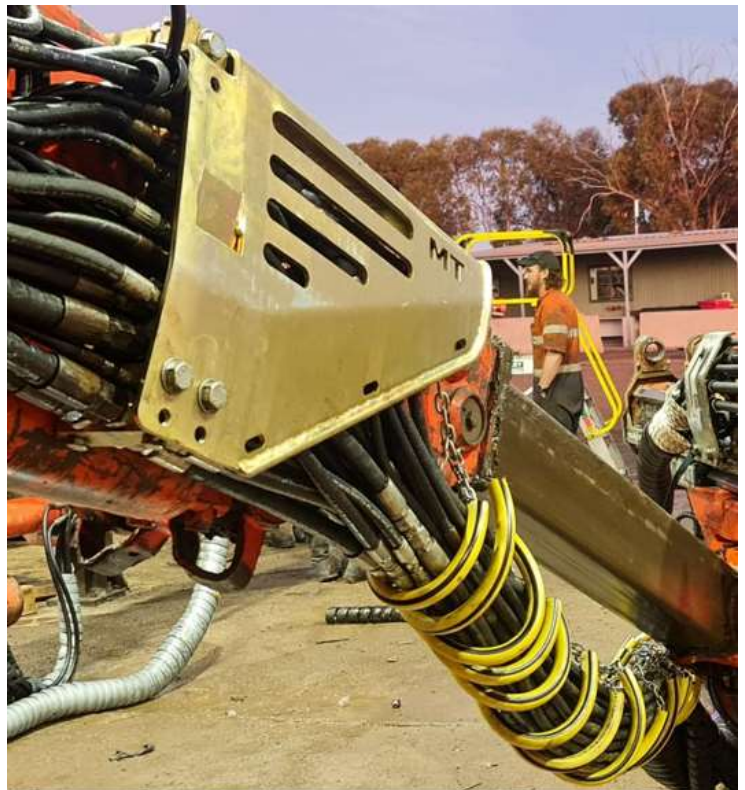
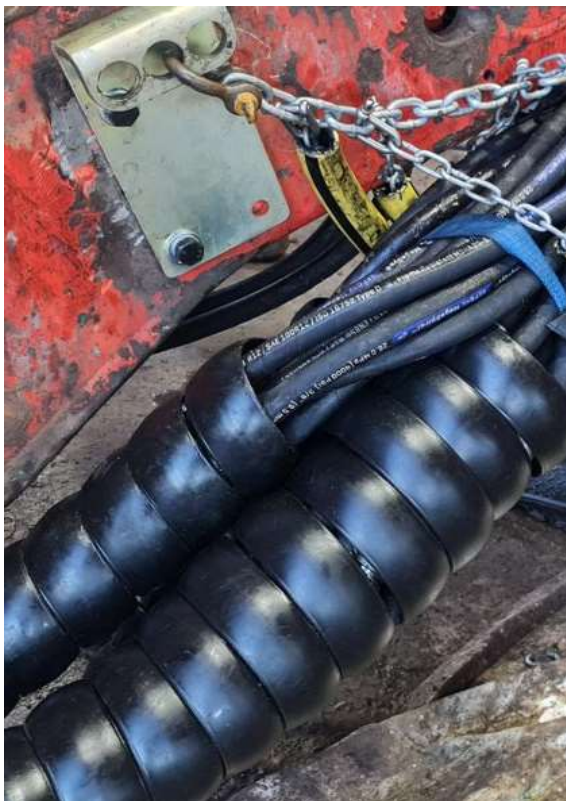
15. Fit the chain mount to the M12 inner zoom bolt holes

16. Attach the chain, with a small amount of slack when the zoom is fully extended. The higher the loom sits at full extension the better for reducing damage and catching on the rear of the feed.

17. Split and wrap the looms to separate Drilling loom, DPU loom and Position loom after the last chain ring. As per picture below

Test full extension and retraction.  
Check all functions for operation  
Check all connections for leaks.

Close and bolt the manifold cover.

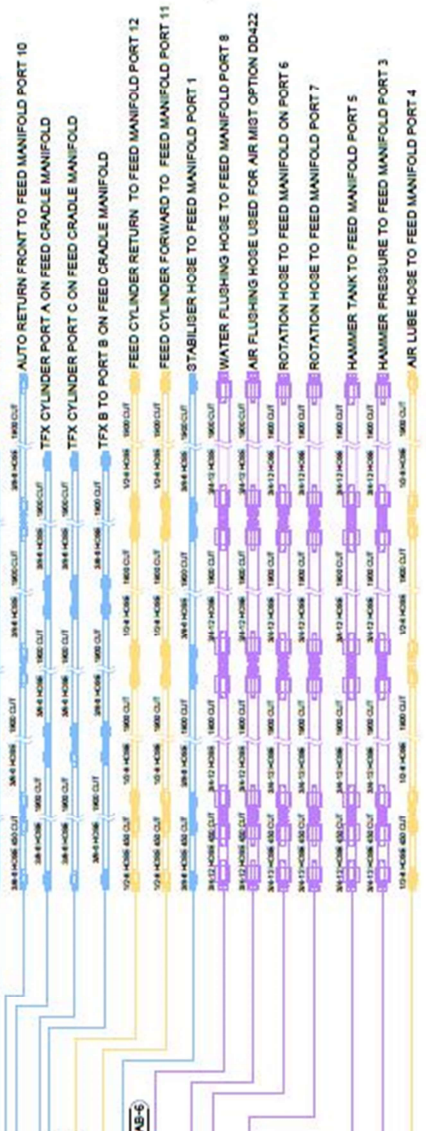
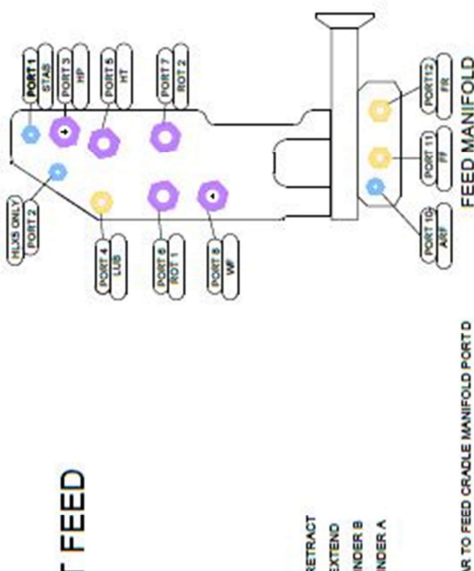
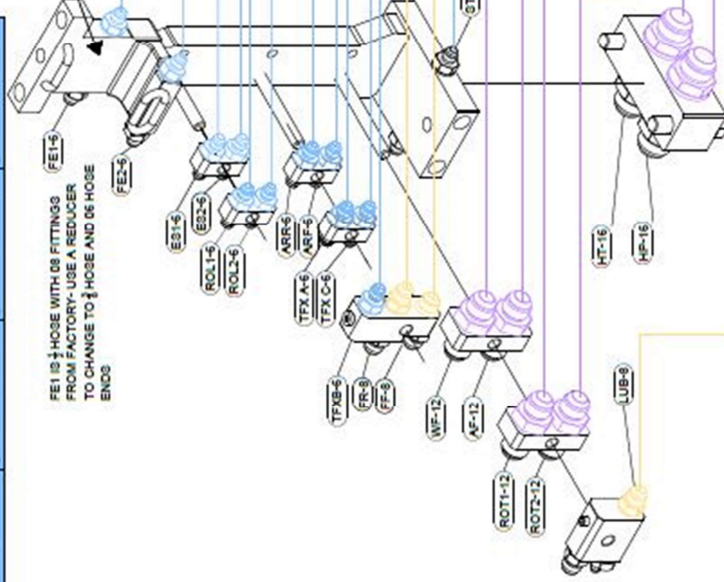


MT FEED HOLDER LOOM		MT 550 140 800		MT 550 080 140		MT FEED LOOM 4		MT 550 008 014	
FUNCTION	HOSE 1 (CABIN END)	HOSE 2	HOSE 3	HOSE 1 (CABIN END)	HOSE 2	HOSE 3	HOSE 4	FUNCTION	HOSE
FEED EXT RETRACT	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	FRONT AUTORETURN	HOSE - 8 1900 CUT LENGTH
FEED EXT EXTEND	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 450 CUT LENGTH	HOSE - 8 450 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	STABILISER	HOSE - 8 1900 CUT LENGTH
ROLLOVER B	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 12 450 CUT LENGTH	HOSE - 12 450 CUT LENGTH	HOSE - 12 1900 CUT LENGTH	HOSE - 12 1900 CUT LENGTH	PERCUSSION RETURN	3/4 HOSE - 12 1900 CUT LENGTH
ROLLOVER A	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 12 450 CUT LENGTH	HOSE - 12 450 CUT LENGTH	HOSE - 12 1900 CUT LENGTH	HOSE - 12 1900 CUT LENGTH	PERCUSSION	3/4 HOSE - 12 1900 CUT LENGTH
EXTRA SWING CYL A	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 12 450 CUT LENGTH	HOSE - 12 450 CUT LENGTH	HOSE - 12 1900 CUT LENGTH	HOSE - 12 1900 CUT LENGTH	FLUSHING	3/4 HOSE - 12 1900 CUT LENGTH
EXTRA SWING CYL B	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 12 450 CUT LENGTH	HOSE - 12 450 CUT LENGTH	HOSE - 12 1900 CUT LENGTH	HOSE - 12 1900 CUT LENGTH	ROTATION R	3/4 HOSE - 12 1900 CUT LENGTH
TFX CYL PORT A	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 12 450 CUT LENGTH	HOSE - 12 450 CUT LENGTH	HOSE - 12 1900 CUT LENGTH	HOSE - 12 1900 CUT LENGTH	ROTATION L	3/4 HOSE - 12 1900 CUT LENGTH
TFX CYL PORT C	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 12 450 CUT LENGTH	HOSE - 12 450 CUT LENGTH	HOSE - 12 1900 CUT LENGTH	HOSE - 12 1900 CUT LENGTH	FLUSHING HEAD	3/4 HOSE - 12 1900 CUT LENGTH
AUTO RETURN REAR	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 12 450 CUT LENGTH	HOSE - 12 450 CUT LENGTH	HOSE - 12 1900 CUT LENGTH	HOSE - 12 1900 CUT LENGTH	FEED HOSE OUTER	HOSE 1900 CUT LENGTH
	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 12 450 CUT LENGTH	HOSE - 12 450 CUT LENGTH	HOSE - 12 1900 CUT LENGTH	HOSE - 12 1900 CUT LENGTH	FEED HOSE INNER	HOSE 1900 CUT LENGTH
	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 12 450 CUT LENGTH	HOSE - 12 450 CUT LENGTH	HOSE - 12 1900 CUT LENGTH	HOSE - 12 1900 CUT LENGTH	LUBE	HOSE 1900 CUT LENGTH

MT DPU LOOM		MT 550 140 808	
FUNCTION	HOSE 1 (CABIN END)	HOSE 2	HOSE 3
TLT A	HOSE - 8 450 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH
TLT B	HOSE - 8 450 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH
TANK T	HOSE - 8 450 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH
SWING A	HOSE - 8 450 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH
SWING B	HOSE - 8 450 CUT LENGTH	HOSE - 8 1900 CUT LENGTH	HOSE - 8 1900 CUT LENGTH

### MANIFOLD RE-HOSE KIT MT 550 814 525

### MANIFOLD HOSE KIT TO SUIT RD 525/520 8/14 SPLIT FEED



### HOSE SIZE COLOR CHART

HOSE - 6 FITTINGS

HOSE - 12 FITTING

HOSE - 8 FITTINGS

**MT550 814 814** DESCRIPTION **SB 60 HOSE KIT TO SUIT 8/14**

PORT 12 ONLY

GAVIN CUNNINGHAM Ph. 0407 389 689  
1 HANEYS CIRCUIT, ROSEWORTHY S.A. 5371

**MAINTENANCE TECHNIQUE**  
UNDERGROUND DRILL RELIABILITY

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