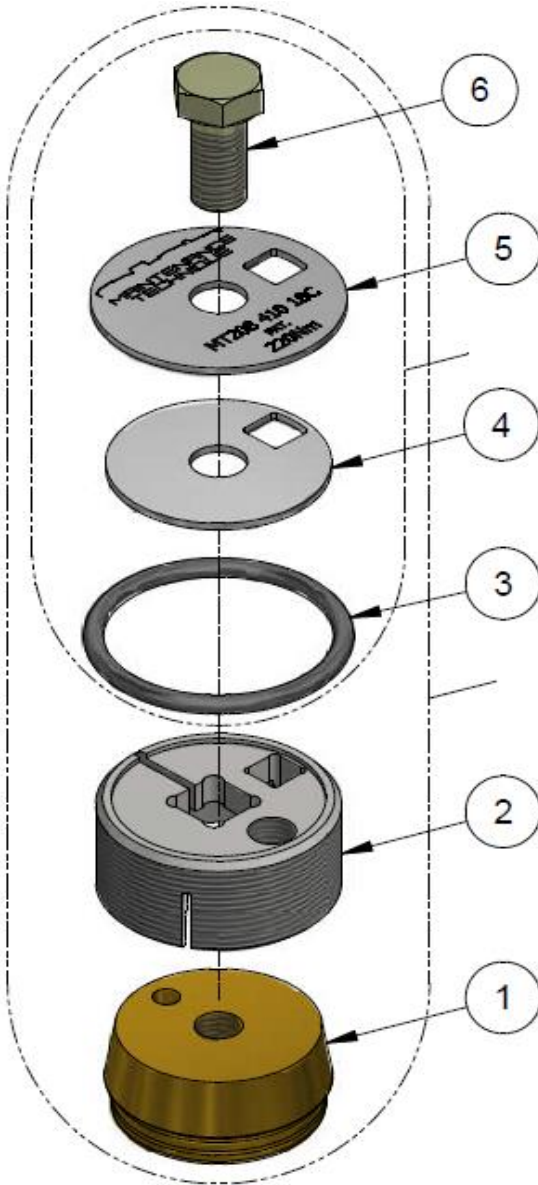


Expanding Adjuster Fitting Instruction

Background – The MT expanding boom adjuster was developed to remove all wear and damage from the boom outer tube threads, and provide a safe, reliable method of adjustment or button removal. Under normal or heavy load and long periods between service, the button will not work loose, unwind, distort or seize in its housing.



Components

Jumbo Button	MT208 410 18C
Boom Solo Button	MT208 410 18CL
Pendulum Solo Button	Button MT204 677 88C

2- Bolt M16 x 34R (taper end)
Draws Bronze Piece (5) into the Adjusting Piece (1) to expand the adjuster and set .4mm boom clearance

4- WASHER
Sealing spring washer

3- WASHER
Spring washer retains tension on Bolt

7- O-RING
Seals the unit to boom body.

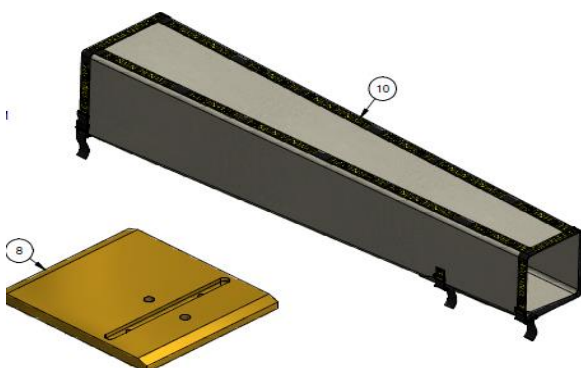
1- ADJUSTING PIECE
-Adjusting piece with $\frac{3}{4}$ ' drive for installation.
- $\frac{1}{2}$ ' drive for adjustment.
-M16 Jacking bolt hole for boom alignment and tensioning.

5 - Wear Piece
Bronze wear piece, with M16 mount hole and taper for locking the unit.

10 - TB 60/40 Zoom cover
- MT208 TB60 12
Mounting straps pre fitted, self-clearing with open underside for wear and maintenance inspection.

8 - Wear Plate - MT265 096 88
Bronze wear plate located under front and rear of the zoom tube.

Pat.



Wear Depth

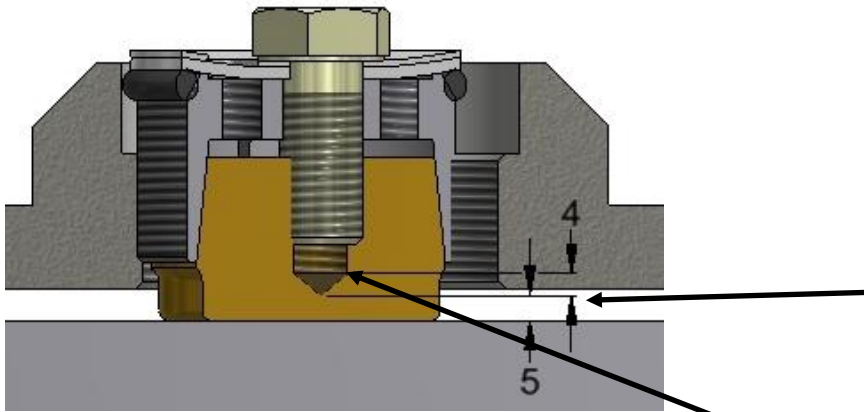


Fig 8

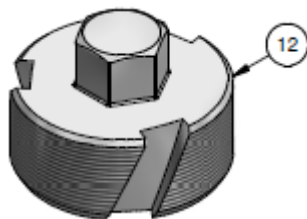
Checking Wear Fig 8

Without removing the button, wear depth can be checked by removing the M16 Bolt.

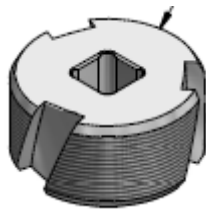
The Button has a total of 12mm wear length.

When the taper at the bottom of the M16 begins to distort or wear through, The Button is 70% worn.

**When the taper is completely distorted or worn away, (the boom is visible through the M16 hole)
The button is 95% worn.**



80mm Tap Tool MT204 677 88T



70mm Tap tool MT208 410 18T

Maintenance Schedules

- Greasing of the original boom grease points is essential **Daily**.
- Minor adjustment of the buttons is recommended **Monthly** when zoom covers are fitted, fortnightly without covers.
- Button removal should not be necessary **until the boom has worn through to the wear depth indication point. As above**

Repair time Schedules

- | | |
|---|-----------------|
| • Adjustment of 1 MT button | 1 – 2 minutes |
| • Remove OEM button Fit MT button | 15 – 20 minutes |
| • Monthly set adjustment, per boom | 20 – 30 minutes |
| • Replace all MT buttons and front wear plate | 1.5 hrs |
| • Replace All MT buttons and Both wear pads (zoom tube out) | 8 hrs |

Note : if an Adjuster does not wind out easily,

- The bronze is touching the tube, due to the tube not being straight, or the weight not unloaded, use jacking bolts as per procedure, and/or adjust the feed position.
- The bronze is touching the tube because it has not worn enough to create sufficient clearance.
- The bronze may have worn away completely and the steel may be mushroomed – Use a Long ¾ bar or impact gun to force the button anticlockwise 10 or 20deg only, strike the adjuster with a hammer and wind the jacking bolt in then out after each turn, the steel will incrementally collapse inward and wind out given enough force and impact, without major damage to the female.
- The boom female may be oversized from previous running of OEM buttons. The MT button will fit and hold, however overexpansion of the steel will make it tight to remove, adjust or refit, Replace the female weld in.

Fig 1

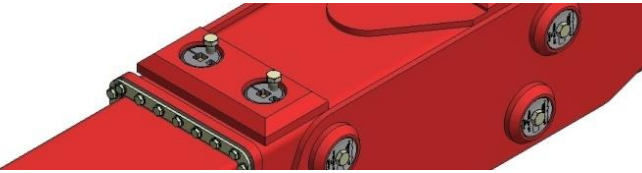


Fig 2

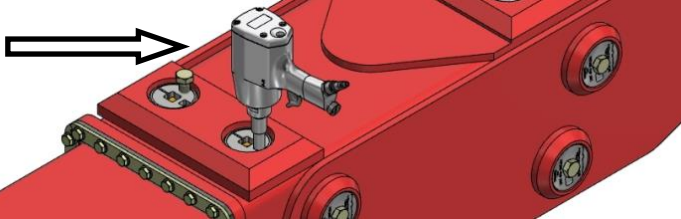


Fig 3

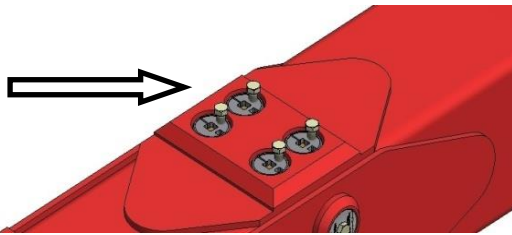


Fig 4

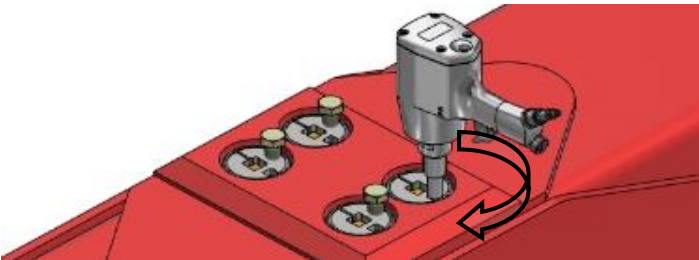


Fig 5

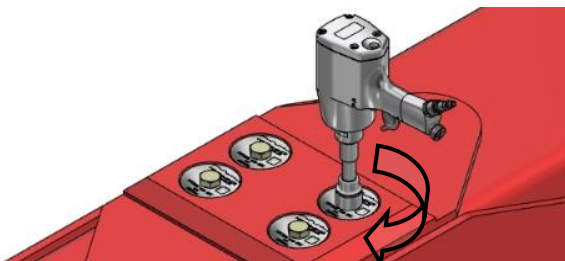


Fig 6

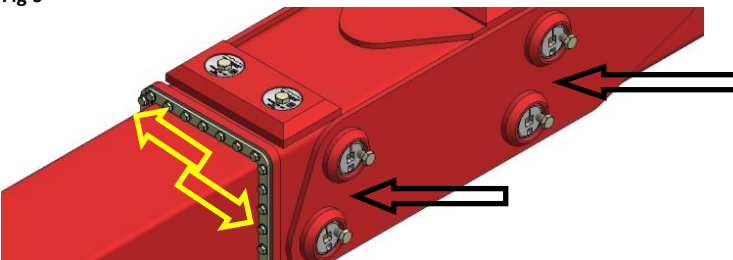
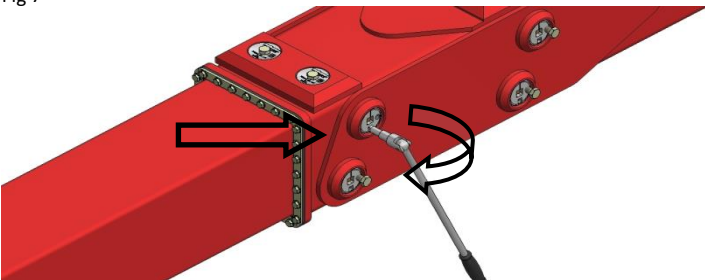


Fig 7



Button Adjusting / Replacement

Set the boom extension at 0%, Zoom Closed.
DPU off the ground.

1 – WEAR PLATE under the zoom, check for clearance from zoom to seal cover, if below 5mm remove the seal cover and inspect the wear plate. Min 3mm

For checking button wear depth see pg 2
FRONT ADJUSTERS

2 - Remove both top M16 bolts and washers, inspect the wear depth. Insert bolts into threaded jacking holes to crack the bronze taper off its steel and push it against the tube to approx. 100nm. (Fig 1)

3 – Remove 1 jacking bolt, Insert a bar or 1/2” gun with short extension and wind the adjuster out to replace or in against the bronze to approx. 220nm. Repeat step for second adjuster. (Fig2)

If an adjuster does not turn, see Page 2

TOP REAR ADJUSTERS

4- Press the front of the feed down on the ground to remove any load from the top rear buttons. Ensure the feed and dpu are straight ahead to prevent the tube twisting.

5 – Remove all 4 M16 bolts and Washers, inspect the M16 thread depth to check the adjuster for wear (Fig 3)

6 – Wind jacking bolts into all adjusters, Wind all the jacking bolts in firm (approx. 100nm) to push the zoom tube down and square. (Fig 3)

7 – Remove 1 jacking bolt, Insert a bar or 1/2” gun with short extension and wind 1 adjuster out to replace or in against the bronze to approx. 220nm. Repeat this step for all 4 adjusters. (Fig4) Tighten M16’s (Fig5)

If an adjuster does not turn, see Page 2

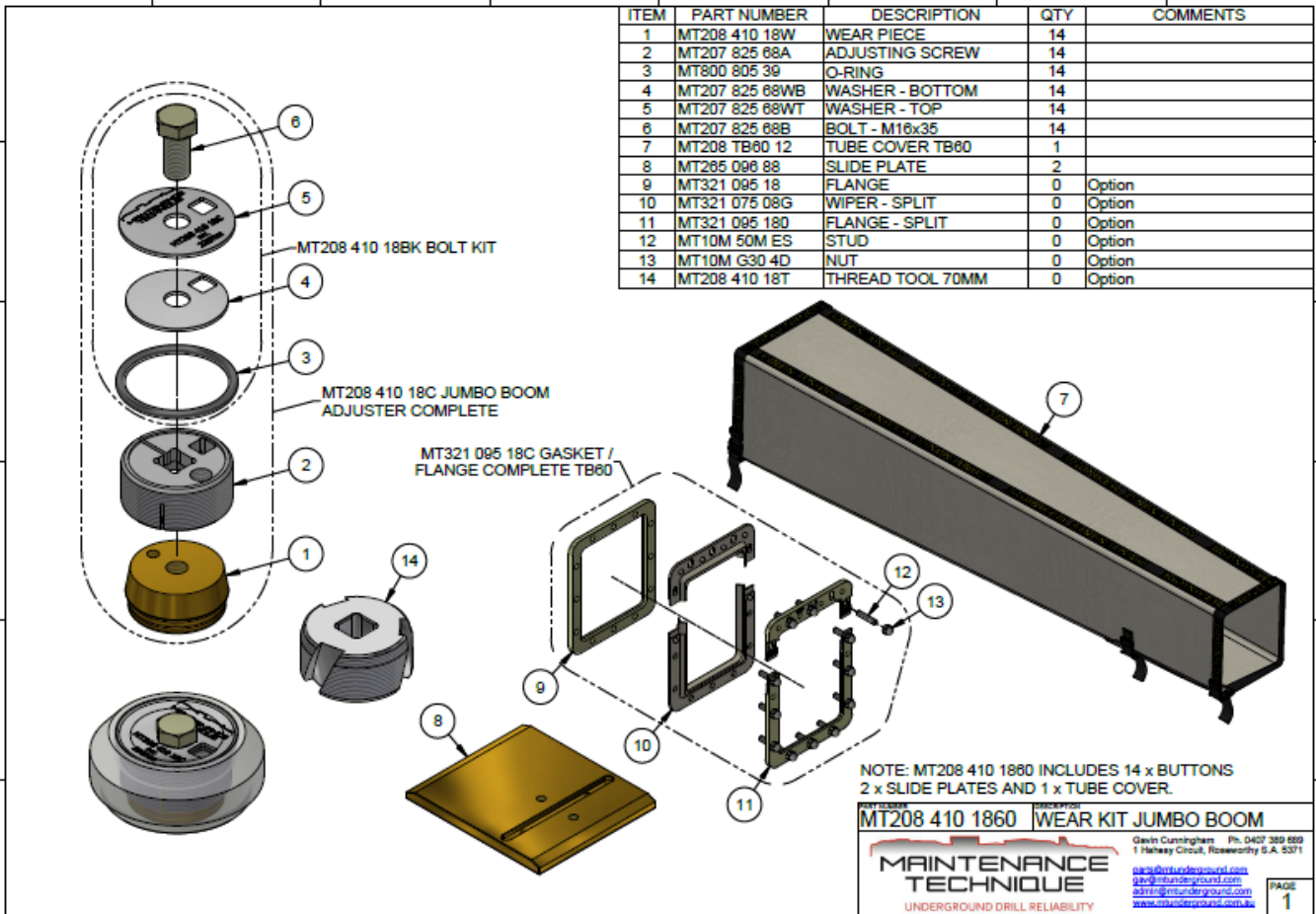
SIDE ADJUSTERS

9 - Check that the gap on left and right sides of the seal Retainer is even. Use the side jacking bolts to move the boom to centre if required. (Fig6) Service adjustment can be made on one side only, adjust the opposing side next service.

10 – Repeat steps 5 to 7 on each side of the boom to adjust or replace the side buttons.(Fig 6 and 7)

Ensure all M16 bolts are tight to approx.220nm, so that the spring washer is in its concave position.

Many thanks to Dylan Norton and Nigel Kliendienst of Goldfields, David Rainey and Mat Walter of NSR Raleigh, Gordon Taylor and his Maintenance Dept NSR KB, Barmingo Trevor Williamson and Brad Symons, Tauren Boyd - for their providing MT with field testing opportunities and feedback through 2014/2023



ITEM	PART NUMBER	DESCRIPTION	QTY	COMMENTS
1	MT208 410 18W	WEAR PIECE	14	
2	MT207 825 68A	ADJUSTING SCREW	14	
3	MT800 805 39	O-RING	14	
4	MT207 825 68WB	WASHER - BOTTOM	14	
5	MT207 825 68WT	WASHER - TOP	14	
6	MT207 825 68B	BOLT - M16x35	14	
7	MT208 TB60 12	TUBE COVER TB60	1	
8	MT265 096 88	SLIDE PLATE	2	
9	MT321 095 18	FLANGE	0	Option
10	MT321 075 08G	WIPER - SPLIT	0	Option
11	MT321 095 180	FLANGE - SPLIT	0	Option
12	MT10M 50M ES	STUD	0	Option
13	MT10M G30 4D	NUT	0	Option
14	MT208 410 18T	THREAD TOOL 70MM	0	Option

NOTE: MT208 410 1860 INCLUDES 14 x BUTTONS
2 x SLIDE PLATES AND 1 x TUBE COVER.

MT208 410 1860 WEAR KIT JUMBO BOOM

MAINTENANCE
TECHNIQUE
UNDERGROUND DRILL RELIABILITY

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Critical Spares Recommendation for SB60/40 – Per Machine

ITEM	PART NUMBER	DESCRIPTION	MIN QTY	MAX QTY	COMMENTS
*	MT208 410 18C	ADJUSTER COMPLETE	14	42	Complete adjuster unit
1	MT208 410 18W	WEAR PIECE	14	14	
2	MT207 825 68A	ADJUSTING SCREW	14	14	
3	MT800 805 39	O-RING	14	14	
4	MT207 825 68WB	WASHER - BOTTOM	14	14	
5	MT207 825 68WT	WASHER - TOP	14	14	
6	MT207 825 68B	BOLT - M16x35	14	14	
7	MT208 TB60 12	TUBE COVER TB60	4	8	
8	MT265 096 88	SLIDE PLATE	3	6	
9	MT321 095 18	FLANGE	1	2	Option
10	MT321 075 08G	WIPER - SPLIT	2	4	Option
11	MT321 095 180	FLANGE - SPLIT	1	2	Option
12	MT10M 50M ES	STUD	12	24	Option
13	MT10M G30 4D	NUT	12	24	Option
14	MT208 410 18T	THREAD TOOL 70MM	1	1	Option