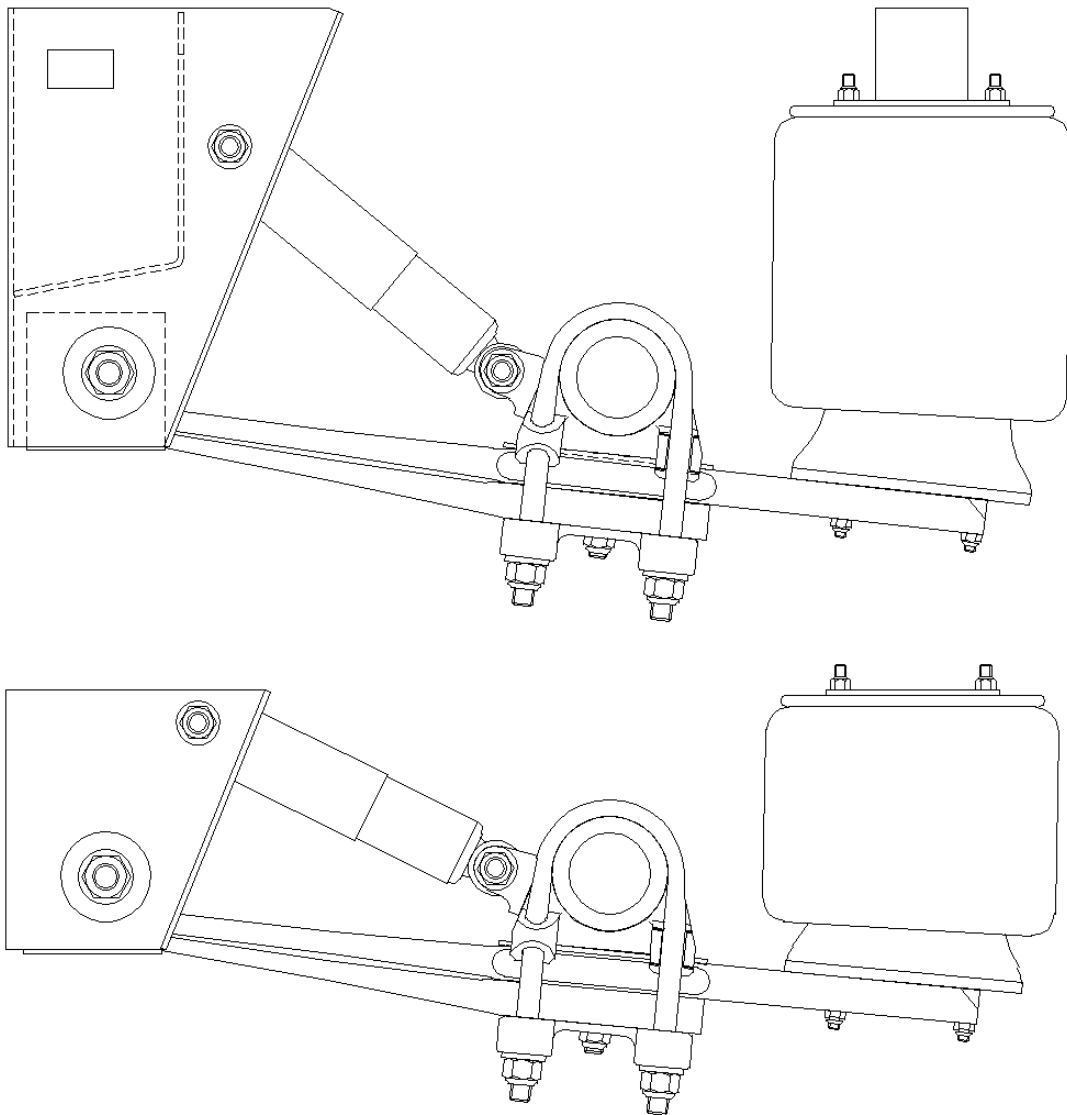




TMC Axle Mfg. Sdn. Bhd.
TMC ARS Air Suspension Service Manual

TMC ARS AIR SUSPENSION

SERVICE MANUAL



TMC Axle Manufacturing Sdn. Bhd.
79 & 81, Jalan 5/10B, Spring Crest Industrial Park,
68100 Batu Caves, Kuala Lumpur, Malaysia.

Telephone: + (60) 3 6187 7788
Facsimile: + (60) 3 6187 6722
E-mail: info@tmc.com.my

Engineered To Move



TMC ARS AIR SUSPENSION SERVICE INSTRUCTIONS.

Recommended Service Schedule.

On Delivery or at 500 km.

Check all torque settings for all fasteners.

Every 25,000km or Quarterly.

Check all torque settings for all fasteners and inspect for visual damage and wear.

Repair and replace parts as necessary.

Every 100,000 km or Annually.

Check all torque settings for all fasteners and inspect for visual damage and wear.

Check all suspension bushings for wear and deterioration, replace or repair as necessary.

Check all suspension hangers and trailing arms for wear and deterioration, replace or repair as necessary.

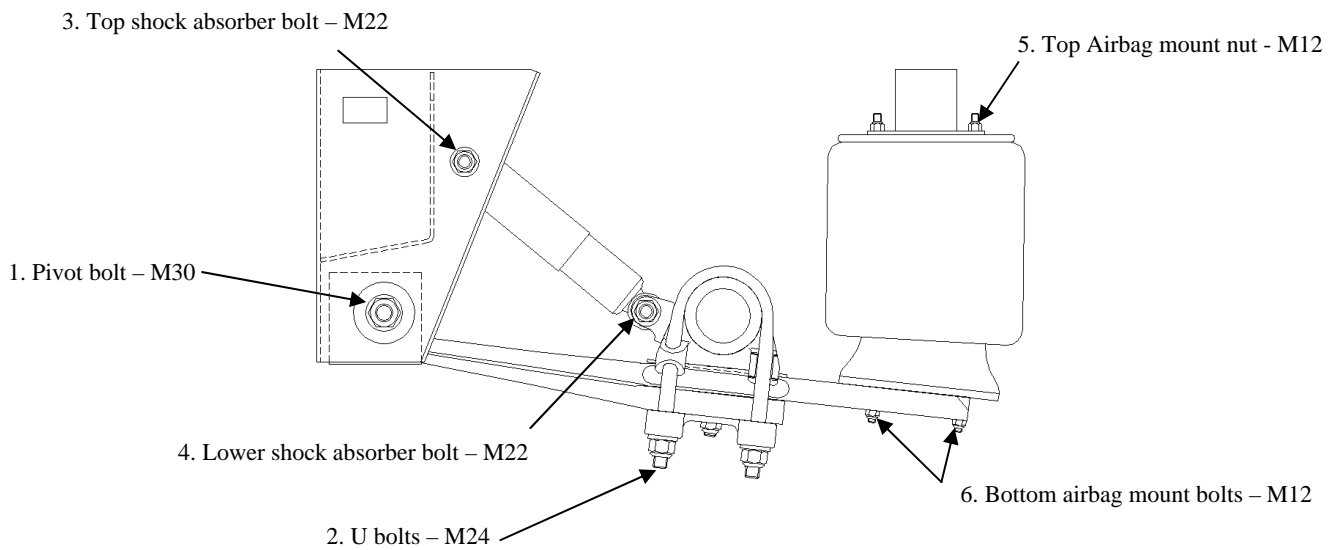
Carry out a visual inspection of the suspension for wear and damage, repair or replace any worn or damaged parts as necessary.

Check the axle alignment and readjust as necessary. Axle alignment must be checked when ever serve kerb contact, accident damage or the trailing leaf spring pivot bush is replaced.

Note: These are the minimum recommended service requirements, dependant on service conditions more frequent service and maintenance schedules may be required for the correct operation of the trailer axle.

Recommended Torque Settings.

- | | |
|---------------------------------------|----------------------------|
| 1. Pivot bolt: | - 1100 Nm. (M30) |
| 2. U bolt: | - 750/800 Nm. (M24) |
| 3. Top Shock Absorber bolt: | - 300 Nm. (M22) |
| 4. Lower Shock Absorber bolt: | - 300 Nm. (M22) |
| 5. Top Airbag mount nyloc nut: | - 65/75 Nm. (M12) |
| 6. Bottom airbag mount bolts: | - 35 Nm. (M12) |



Replacement of Suspension Airbags.

The trailer can be driven at reduced speeds (maximum of 40kph) with no air in the airbags. Blocking off of the air supply to a damaged / punctured airbag is possible so that the remaining airbags can be used normally (either by crimping the supply air line or blocking off the air port to the airbag) to travel to a service area where the airbag replacement can be effected.

Note this is a temporary measure only and airbag replacement must be effected as soon as practicable.

■ To replace an airbag the trailer should be parked preferably on a level hard service with the brakes applied. The trailer must be set at the correct ride height. Suspension airbags cannot be replaced with the air suspension deflated and sitting on its bump stops.

■ With the trailer at or near its correct ride height place either jacks or stands under the trailers frame to support it. Either block off the air supply to the airbag to be replaced or deflate the whole air suspension. Remove the air supply line to the airbag, the airbag can then be unbolted from its position in the trailers air suspension.

■ Replacement airbags as approved by the manufacturer must only be used. Bolt the replacement airbag back into its correct position in the trailer, and reconnect the air supply line to the airbag. Torque all the mounting bolts to the correct values as shown on the torque settings chart. Ensure when fitting the airbag that the rubber bellows is not twisted, the top airbag plate and airbag base can be rotated if alignment is not correct.

■ Reconnect the air supply to the air suspension and remove the jacks / stands from under the trailers frame, check the air suspension for air leaks and correct as necessary. Recheck the air suspensions ride height and reset as necessary.

Shock absorber replacement.

The suspensions shock absorbers only need replacement when they become ineffective or leak oil.

The shock absorbers can be replaced by removing both the top and bottom mounting bolts and removing the shock absorber from the air suspension. When replacing the shock absorber ensures that the catch strap and catch strap clips are replaced in their correct positions. Torque the top and bottom shock absorber mounting bolts to the correct values as per the torque settings chart.

Levelling Valve Adjustment.

The air suspensions levelling valve should be installed in the trailers frame in a protected position. Care must be taken to ensure that the levelling valves linkage can move from the air suspensions maximum up position to the air suspensions maximum down position without any interference from any frame parts, any suspension parts or any brake components.

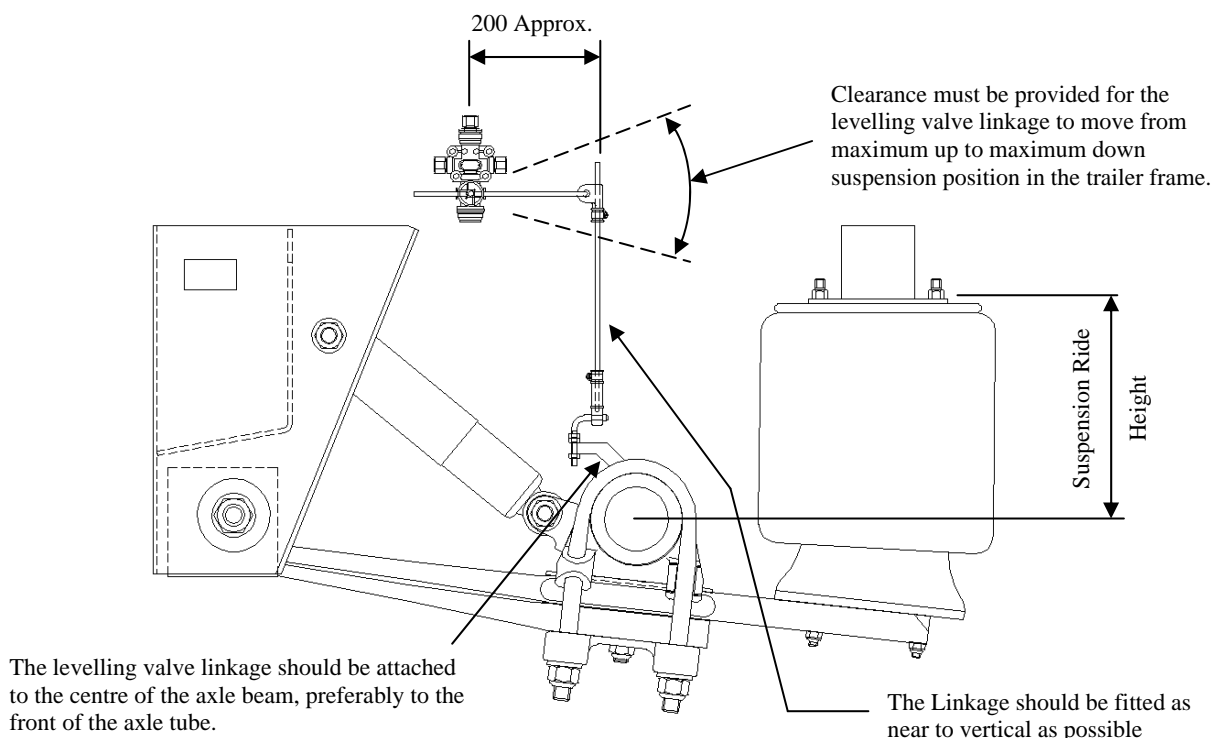
The levelling valve linkage must be adjusted to keep the air suspension at its correct ride height.

Once the correct ride height for the air suspension is determined, this height will be determined from the air suspensions model number or as marked on the air suspensions nameplate the ride height can be set. The ride height is the dimension as shown on the diagram below.

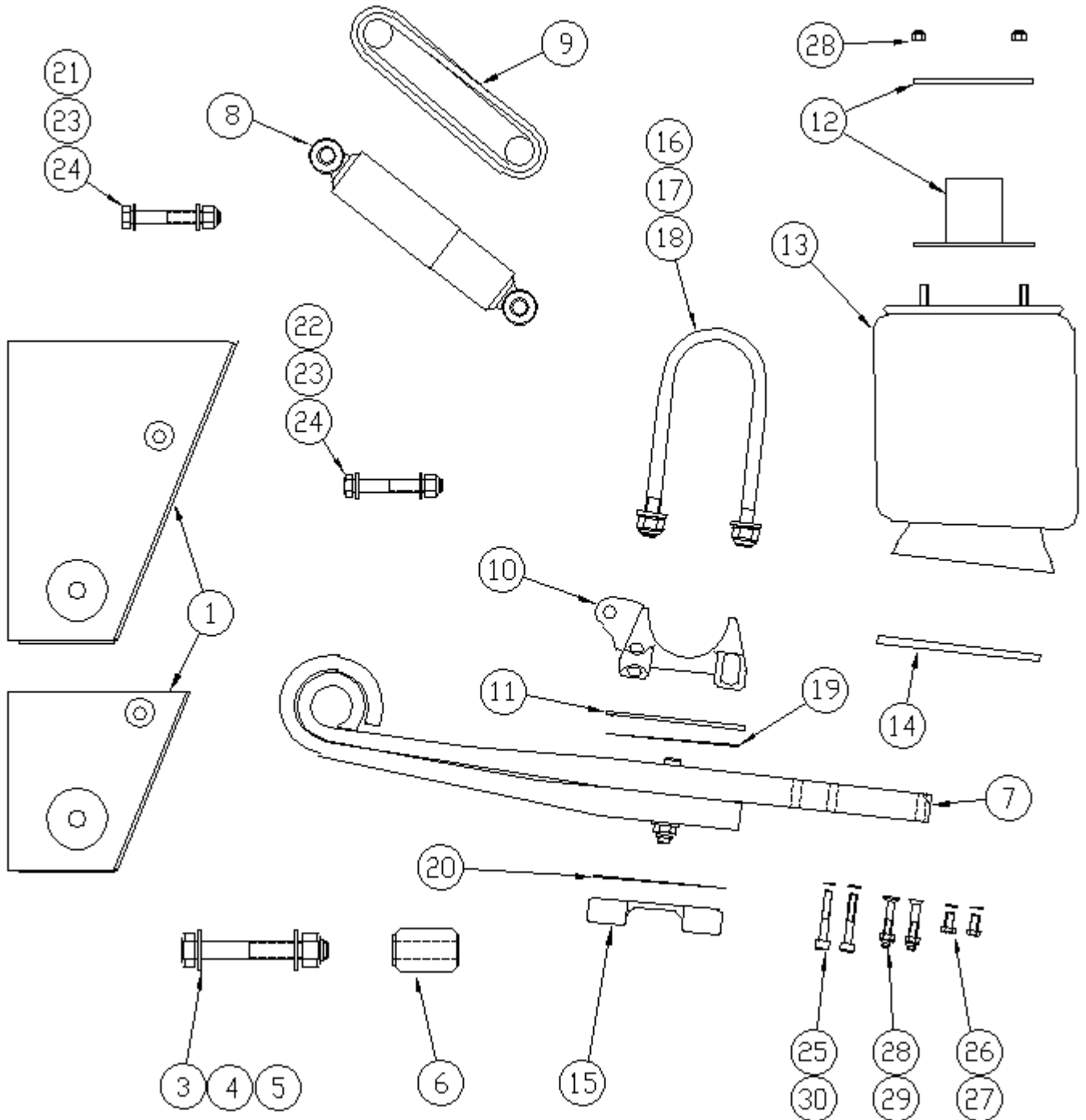
■ The trailer should be parked on level ground preferably with the trailer loaded or at least partly loaded and with the trailer brakes released.

■ All air reservoirs should be fully charged before any suspension adjustments are performed. After final adjustments have been made recheck all suspension ride heights with the air reservoirs all fully charged.

■ To adjust the air suspension ride height loosen the clamps on the vertical linkage rod and slide the rod through the clamp to achieve the correct suspension ride height. Retighten the clamps.



TMC ARS Air Suspension Spare Parts Listing.





TMC Axle Mfg. Sdn. Bhd.

TMC ARS Air Suspension Service Manual

TMC ARS Air Suspension Spare Parts Listing.

Item	Part Number	Description
1	616150 L&R	Front hanger assembly 200 ride height
	616100 L&R	Front hanger assembly 400 ride height
	616160 L&R	Front hanger assembly 500 ride height
3	616106SB	Pivot bolt c/w nut and washer
4	9FWHM30	Hardened flat washer M30
5	9HLNM30	Pivot bolt lock nut M30
6	616107	Pivot bush
7	616120 L&R	2 Leaf spring
8	616110	Shock absorber
	616110B	Shock absorber eye bush
	616110S	Shock absorber steel sleeve
9	616113/420	Catch strap (Orange)
10	616134	Spring seat
	616138F	Spring seat – overslung 500 ride height
11	616132	Spring seat tracking plate
12	616145	Airbag top pedestal plate 200 & 500 ride height
	616146/400	Airbag top pedestal assembly 400 ride height
13	626908	Air spring 200 & 500 ride height
	626909	Air spring 400 ride height
14	616147	Airbag reinforcement plate
15	616125	Spring clamp plate
	616127F	Spring clamp plate – overslung 500 ride height
16	616140	U bolt M24
17	9FWHM24	Hardened flat washer M24
18	9LNHM24	U bolt lock nut M24
19	616131	Upper shim plate
20	616130	Lower shim plate
21	616111	Top bolt shocker M22 x 175 long
22	616112	Lower bolt shocker M22 x 120 long
23	9FWM22	Flat washer M22
24	9LNM22	Lock nut M22
25	9SHM12175090	Socket head bolt M12 x 90 long
26	9SHM12175040	Socket head bolt M12 x 40 long
27	9SWM12	Spring washer M12
28	9LNM12	Lock nut M12
29	9CSM12175080	Countersunk bolt M12 x 80 long
30	9FWM12	Flat washer M12