

# TEKO

ADVENTURE

TUFF  
HAULERS

TUFF RIDE

Adventure Unlimited



## TEKO/TUFFRIDE

Independent Suspension

User Manual,

Setup Guide and

Service Schedule

**TEKO/TUFFRIDE Independent Suspension** has been specifically designed for the harsh Aussie environment, with Hundreds of Thousands of kilometres tested in extreme conditions.

TEKO/TUFFRIDE has been torture tested in the gruelling Australian outback, from scorching temperatures and severe corrugations in the Desert to steep rocky Victorian High-Country tracks, we can safely say TEKOTUFFRIDE'S Independent Suspension has been real world tested.

Whether you are looking to take to the bitumen or the beaten track, TEKOTUFFRIDE Independent Coil Suspension is the smart choice.

TEKO/TUFFRIDE is engineered with ultimate ground clearance, maximum stability, and class leading EMT ride comfort in mind, with fully adjustable wheel alignment as standard.

This in turn offers superior on and off-road ability.

TEKO/TUFFRIDE Independent Coil Suspension is the proven product for your Caravan or Trailer.

✓ **Australian Owned**

✓ **Australian Tested**

✓ **Australian Manufactured**

✓ **5-year warranty**

✓ **EFS Shock Absorbers**

✓ **Lifetime warranty on bushes**

✓ **F.E.A Tested**

✓ **Fully adjustable wheel alignment**

✓ **Airbag Compatible\***

✓ **Disc Upgradable\*\***

✓ **Sway Control Ready**

\*When optioned with Airbag Compatibility \*\*Available only in 12" brakes

### **TEKO/TUFFRIDE Suspension - General Maintenance Guide**

Servicing your TEKO/TUFFRIDE Independent Suspension regularly, will ensure you keep you and your family safe and allow peace of mind while on your adventure.

TEKO/TUFFRIDE Independent requires the below maintenance schedule to be used as a guide under normal working conditions. If extreme or abnormal usage has occurred, additional maintenance measures may be required.

Check	Required Function	Daily Checks	300 - 1,000km Service or 1 month	Every 10,000km or 12 months
<b>Trailer Brakes</b>	Test brakes are functioning correctly.	✓		
<b>Tyre Pressure</b>	Check tyre pressure is within manufactures specifications.	✓		
<b>Wheel Nuts</b>	Tightened to manufactures torque specifications.	✓		
<b>Rim Inspection</b>	Check for damage to rims.	✓		
<b>Tyre Wear</b>	Check for uneven tyre wear.	✓		
<b>Wheel Bearing</b>	Check for wheel bearing play and discoloured/burnt grease.		✓	✓
<b>Brake Adjustment</b>	Clean and inspect for brake shoe wear.		✓	✓
<b>Suspension Mounting Bolts</b>	Torque to manufactures specifications.		✓	✓
<b>Shock Absorber Mounting Bolts</b>	Torque to manufactures specifications.		✓	✓
<b>Shock Absorber Visual Check</b>	Inspect for leaks and dents.		✓	✓
<b>Suspension Bushes</b>	Re-Grease & visually inspect for damage.		✓	✓
<b>Wheel Alignment</b>	Perform a wheel alignment		✓	✓
<b>Bump Stop</b>	Inspect for wear or damage		✓	✓

## **TEKO/TUFFRIDE Suspension Specifications:**

### **TEKO/TUFFRIDE Air-Volution™:**

#### **Wheel Bearings:**

Replacement Bearing Kit - TRB12J  
Replacement Inner Bearings - 25580  
Replacement Inner Cone - 25520  
Replacement Outer Bearings - 15123R  
Replacement Outer Cone - 15245R  
Replacement Seal - 33940

#### **Torque Specifications:**

Suspension Mounting Bolts (M16) - 190Nm/140ft-lb  
Shock Absorber Mounting Bolts (M12) - 75Nm/55.3ft-lb

## **12" Drum Brake / TEKO/TUFFRIDE DRS:**

#### **Wheel Bearings:**

Replacement Bearing Kit - TRB12J  
Replacement Inner Bearings - 25580  
Replacement Inner Cone - 25520  
Replacement Outer Bearings - 15123R  
Replacement Outer Cone - 15245R  
Replacement Seal - 33940

#### **Torque Specifications:**

Suspension Mounting Bolts (M16) - 190Nm/140ft-lb  
Shock Absorber Mounting Bolts (M12) - 75Nm/55.3ft-lb

## **10" Drum Brake / KTR / XTR:**

#### **Wheel Bearings:**

Replacement Bearing Kit - TRB10PJ  
Replacement Inner Bearings - L68149  
Replacement Inner Cone - L68110  
Replacement Outer Bearings - L68149  
Replacement Outer Cone - L68110  
Replacement Seal - 28600

#### **Torque Specifications:**

Suspension Mounting Bolt (M20) - 300Nm/221.3ft-lb  
Shock Absorber Mounting Bolts (M12) -  
75Nm/55.3ft-lb

## **Disc Brake:**

#### **Wheel Bearings:**

Replacement Bearing Kit - TRBD12J  
Replacement Inner Bearings - 25580  
Replacement Inner Cone - 25520  
Replacement Outer Bearings - 15123R

Replacement Outer Cone - 15245R  
Replacement Seal – 82130

**Torque Specifications:**

Suspension Mounting Bolts (M16) - 190Nm/140ft-lb  
Shock Absorber Mounting Bolts (M12) - 75Nm/55.3ft-lb

**TEKO TuffBag (Airbag):**

**Load Capacity (Per axle group):**

Minimum - 600KG  
Maximum - 3000KG

**Pressure:**

Minimum - 5PSI / 34.5KPA  
Maximum - 100PSI / 690KPA

**Shock Absorber:**

**EFS Enforcer:**

3 Year/100,000km warranty

**EFS Elite:**

3 Year/100,000km warranty

**All spare parts are available from TEK0/TUFFRIDE Pty Ltd.**

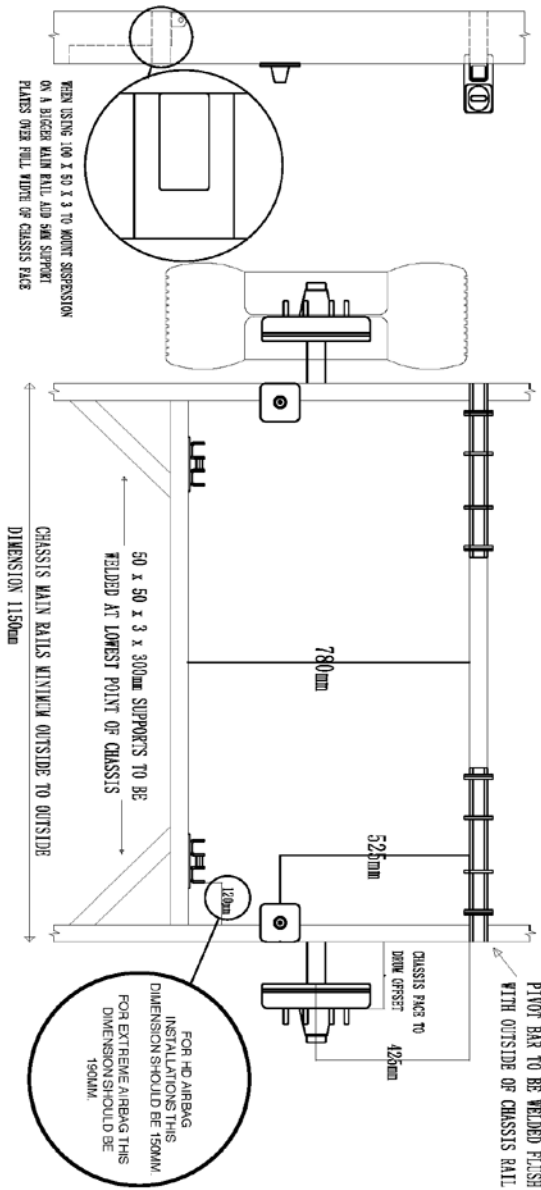
[www.tuffride.com.au/tuffride-shop-parts](http://www.tuffride.com.au/tuffride-shop-parts) [sales@TuffRide.com.au](mailto:sales@TuffRide.com.au) (03) 9351 1085

## **Bush Installation**

- Step 1: Ensure you have the correct number of bushes (8x for Single Axle) or (16x for Tandem Axle).
- Step 2: Remove any obstructions inside the steel bush, such as weld spatter or paint.
- Step 3: Put a thin layer of grease inside of the steel bush all the way around the radius, ensuring it is well covered to help lubricate the plastic bush when inserting.
- Step 4: Insert plastic bush as far as possible by hand.
- Step 5: Using a **small soft** hammer, **lightly** tap the plastic bush in the **centre**, until it is home. Ensure not to hit this bush too hard, as it will break
- Step 6: Repeat steps 1 to 5 for each bush.

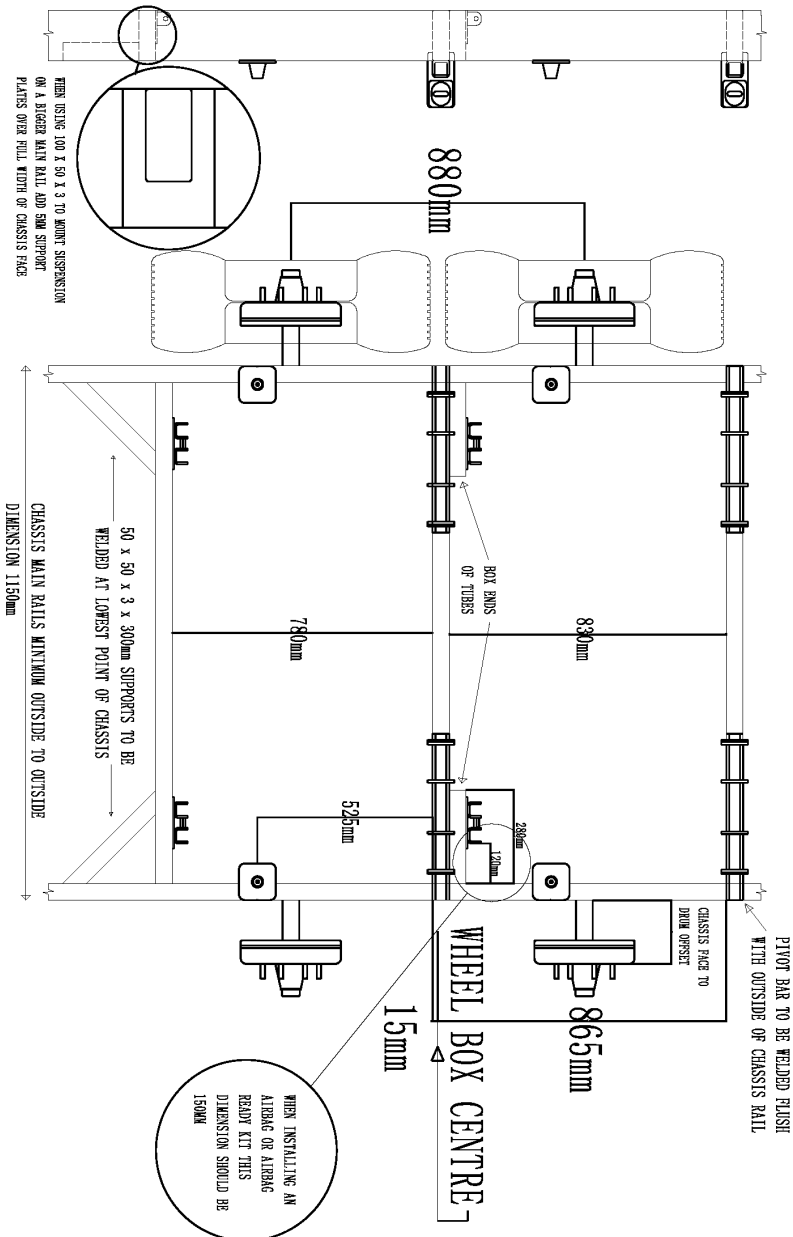
## Single Weldon Diagram

### TUFFRIDE INDEPENDENT SUSPENSION MOUNTING DIAGRAM



## Tandem Weldon Diagram

### TUFFRIDE INDEPENDENT SUSPENSION MOUNTING DIAGRAM



## **Toe and Camber Adjustment**

Toe-in and Camber adjustment procedure for trailers or caravans fitted with TEKO/TUFFRIDE Independent trailing arm suspension.

### **You will need the following tools:**

1. Straight edge 900mm long (to hold on the outside tyre face at height of chassis main rail).
2. Steel rule of 500mm long.
3. Torque wrench (190Nm) & 24mm impact socket (normal socket can be used but is not preferred).
4. 24mm open ended spanner, or 36mm ring spanner.

### **Toe Measuring Procedure:**

1. Before commencing any adjustment, check wheel bearings for free play (loose wheel bearings will greatly affect the accuracy of the adjustment). If wheel bearings are found to be loose, adjust or replace, if necessary, before proceeding.
2. Check that tyre pressures are equal and that opposing tyres (left to right) have similar wear.
3. Find a flat level surface and roll your trailer/caravan back and forth in a straight line to minimize any stresses in the suspension components.
4. To measure the Toe-in, hold the straight edge (900mm) horizontally across the outside face of the tyre at the height of the main chassis rail (be mindful that the straight edge is even across the tyre, avoiding any bulges or side wall lugs), and measure from the outside chassis face to the tyre face.
5. For a single axle and the front axle of a tandem axle setup, the front measurement should be 1mm less than the back. For example, if the back of the tyre measured 250mm (from outside chassis rail to tyre face) then the front of the tyre needs to be 249.00mm.
6. For the rear axle of a tandem axle group the tyre should be parallel to the chassis. For example, if the back measurement was 250mm, then the front measurement should also be 250mm.

### **Camber Measuring Procedure:**

1. Repeat steps 1-3 in Toe Procedure.
2. Hold the straight edge vertically along the outside face of the tyre, in the centre (be mindful that the straight edge is even across the tyre, avoiding any bulges or side wall lugs), and measure from the outside chassis face to the tyre face.
3. The tyre should be parallel to the chassis, both top and bottom. For example, if the top measurement was 250mm, then the bottom measurement should also be 250mm. This is correct for all variants, single axle and for both front and rear of a tandem axle setup.

### **Toe Adjustment Procedure:**

1. To adjust the toe, first loosen both hinge nuts, but do not remove them.
2. Use a 24mm or 36mm spanner to rotate the toe cam adjuster until your toe measurements are within the above specs. If you also need to adjust Camber, please skip the next step, and move to step 2 of the Camber Adjustment Procedure.
3. Re-tighten both hinge nuts to 190Nm of torque.

### **Camber Adjustment Procedure:**

1. To adjust the Camber, first loosen both hinge nuts, but do not remove them.
2. Use a 24mm or 36mm spanner to rotate the camber cam adjuster until your camber measurements are within the above specs.
3. Re-tighten both hinge nuts to 190Nm of torque.

*\*Please note, all maintenance including Toe and Camber adjustment is the customer's responsibility and should be checked every 10,000km or 12 months (whichever comes first).*

*This is only a recommendation and may not be suitable for all suspension setups.  
TEKO/TUFFRIDE takes no responsibility for incorrect toe and camber adjustments.*

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# **WARRANTY**

## **REGISTRATION INSTRUCTIONS**

TEKO/TUFFRIDE Suspension carries a 3-year warranty on all parts and workmanship including the swing arm bushes. This excludes consumable parts such as brake pads, shoes, and bearings.

\*Extended 2-year (5 years/100,00km total) warranty is available when you register your TEK0/TUFFRIDE Suspension with us.

To do this please go to:  
<https://www.tuffride.com.au/tuffride-register>

Alternatively, please call or email TEK0/TUFFRIDE and we will register your suspension for you and answer any warranty related issues or questions you may have.

(03) 9351 1085  
[info@TuffRide.com.au](mailto:info@TuffRide.com.au)

-Warranty is non-transferable.

When applying for any warranty claim, you must provide TEK0/TUFFRIDE with the up-to-date service history of the caravan/trailer that has been filled out by an accredited caravan/trailer service centre, as per the attached service schedule. If this service schedule has not been filled out, TEK0/TUFFRIDE reserves the right to void the warranty of the caravan/trailer suspension.



**For more information, please visit:**

**[www. TUFFRIDE.com.au](http://www.TUFFRIDE.com.au)**

**[info@ TuffRide.com.au](mailto:info@TuffRide.com.au)**

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