

PRODUCT DETAILS:

Part Number:	QTFD1916L	Maximum Towing Braked:	2000	kg
ECU Number:	N/A	Maximum Towing Unbraked:	750	kg
Tail Harness Length Required:	1200 mm	Maximum Static Ball Load:	200	kg
TBM/Lug Part Number:	21161			

FITTING DETAILS:

Towbar Installation Time:	90 Mins.	RPA Disable/Other:	YES
Total Installation Time:	100 Mins.		
Bumper Cut Required:	Yes		

Note:

- Electric Brake Input Location: Blue wire on T-Patch.
- Trailer Brake Controller brake signal wire should be sourced from brake light.
- Rear Park Assist will disable when trailer connects - refer to owner's manual for more information.

TRAILBOSS RECOMMENDS THAT INSTRUCTIONS ARE READ AND UNDERSTOOD COMPLETELY PRIOR TO FITMENT.

BEFORE YOU START:

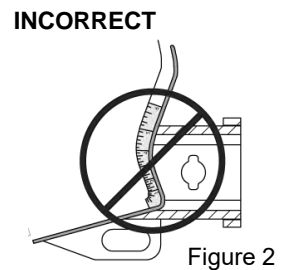
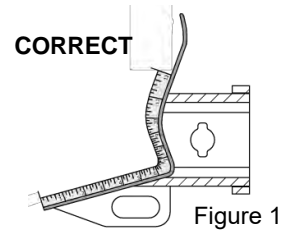
Check all hardware items have been included refer to assembly diagram.
Please ensure this towbar is only fitted to vehicle models as per Trailboss application guide.

Bumper Cuts

Vehicle and bumper variations can and do occur during vehicle manufacture after initial towbar design. Fitment of towbar to vehicle and accuracy of bumper cut must be assessed prior to any bumper modifications made. Incorrect bumper cuts are not covered under Trailboss warranty.

NOTE: Bumper cuts need to be approached with care, refer to notes below.

- Bumper centreline – where the centreline of the bumper needs to be determined, the installer must assess centre point by measurement of bumper width or determining two symmetrical reference points to give centreline.
- Bumper edge – To assist with accurate bumper cut measurement, reference to the start of the bumper edge is now being commonly used.
 - Measure from bottom edge along bumper and around corner to the 70 mm point (Figure 1).
 - Do not measure from visible bumper front of corner, upwards (Figure 2).



Drilling

- For any required drilling during installation, ensure that the area is clear of fuel, electrical & other components that may be damaged.
- All holes drilled into metal body panels shall have all burrs & swarf removed then coated with a suitable rust preventative paint.

Bolts/Fasteners

- Ensure that all hardware is fastened to correct torque as specified in this fitting instruction.
- All fasteners supplied with this product are used to achieve a specified clamp loading. If replacement is required ensure that fasteners of the same grade and class are used.

NOTE: Achieving correct torque is critical to proper installation and responsibility of the installer. Towbar failures attributed to tension issues from over tightening or under tightening are not covered by Trailboss warranty.

Product Labels

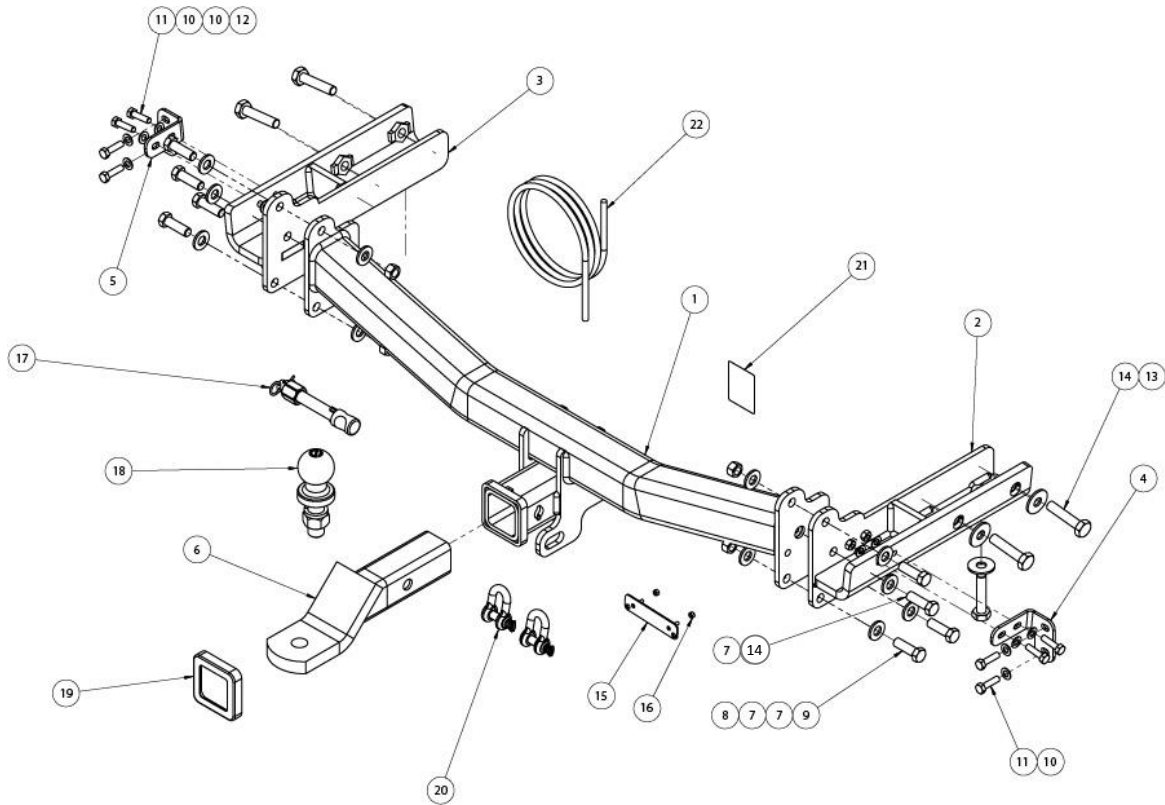
- a. Towbar load rating sticker provided with this product shall be conspicuously located on inside rear end of the driver's door.

WARNING:

Do not, drill, cut, weld or otherwise modify the towbar.

FOR TOWING PURPOSES ONLY - This towbar is designed and tested by Trailboss to adhere to ADR 62/02 which provides only for the expected load demands of towing.

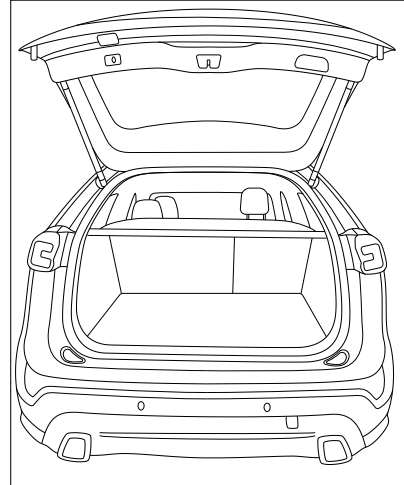
i TOWBAR ASSEMBLY DIAGRAM



ITEM	DESCRIPTION	QTY
1	FORD ENDURA WELDED ASSEMBLY	1
2	SIDEARM ASSEMBLY RHS	1
3	SIDEARM ASSEMBLY LHS	1
4	SIDEARM MOUNTING BRACKET RHS	1
5	SIDEARM MOUNTING BRACKET LHS	1
6	TRAILER BALL MOUNT	1
7	WASHER PLAIN M14x28x3	14
8	NUT HEX HD M12x1.75P	6
9	SET SCREW HEX HD M12x40x1.75P	6
10	WASHER PLAIN M8x17x1.20	12
11	SET SCREW HEX HD M8x30x1.25P	8

ITEM	DESCRIPTION	QTY
12	NUT HEX HD M8x1.25P	4
13	WASHER PLAIN M12x37x3	5
14	SET SCREW HEX HD M14x40x2.0P	7
15	PLUG BRACKET	1
16	NUT NYLOC HEX HD M4x0.7P	2
17	SMART PIN SILVER	1
18	TOWBALL 50mm	1
19	HITCH BOX COLLAR COVER	1
20	"D" SHACKLE 10mm	2
21	ACRYLIC COMPLIANCE LABEL	1
22	WIRING LOOM	1

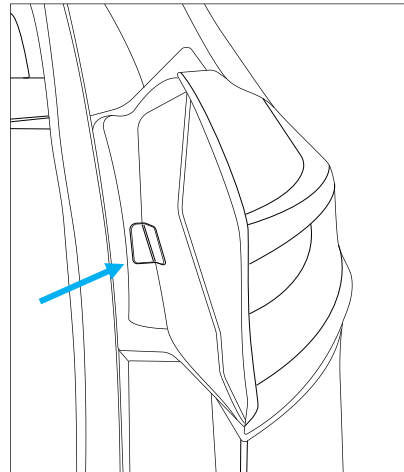
1. Open tailgate.



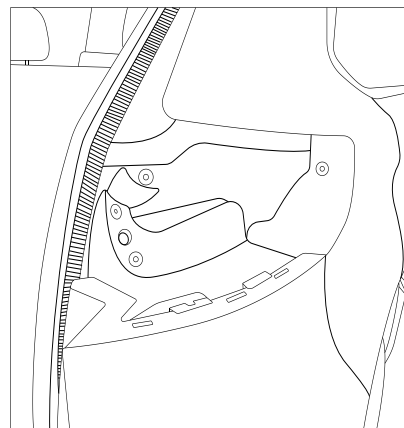
2. Using a flat head screwdriver, remove cover flap from water channel cover.

Remove 1 x screw beneath flap.

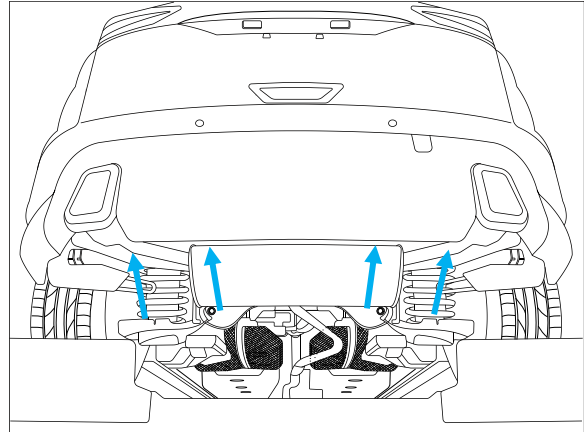
Repeat for opposite side.



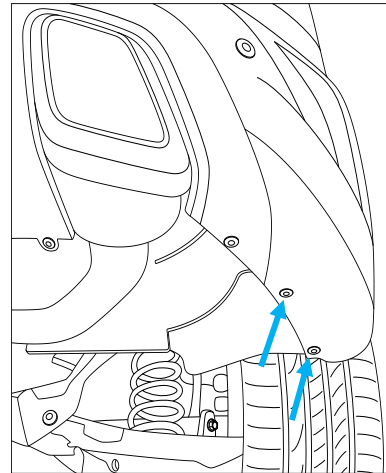
3. Remove taillights rearwards by pulling firmly, ensuring that all wiring is disconnected.



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4. Remove 4 x 5.5mm hex screws from central underside of bumper.



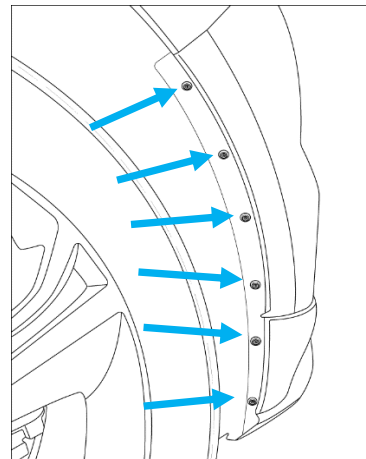
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5. Remove 2 x 5.5mm hex screws from RH underside of bumper.



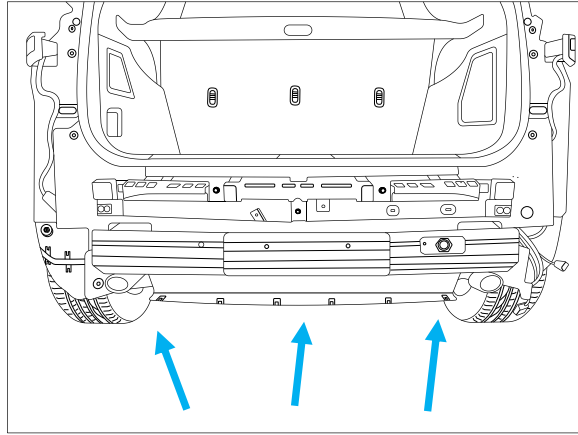
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6. Remove 6 x 5.5mm hex screws from wheel arch.

Repeat for opposite side.

Peel away bumper ensuring to disconnect plug connections on RHS.

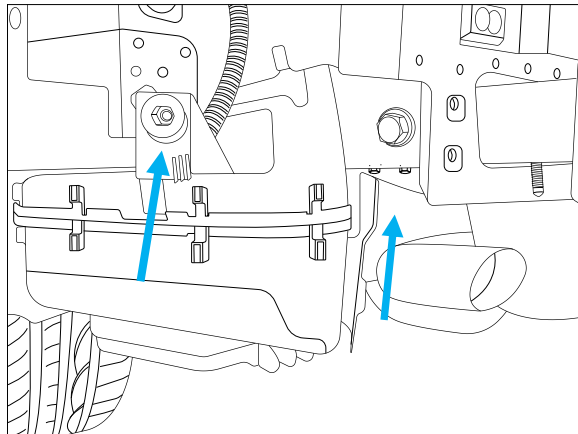


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7. Remove central heat shield secured with 3 screws.



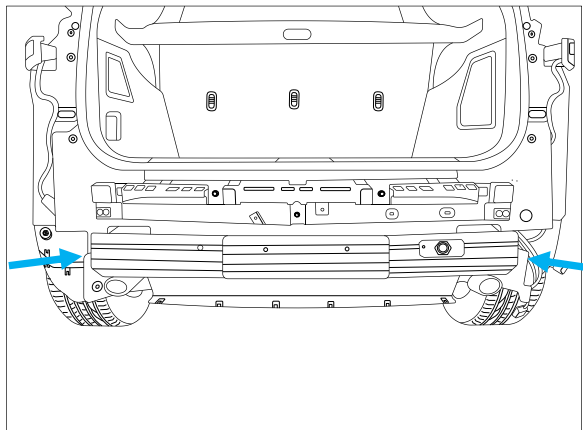
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8. Disconnect tank on LHS and support with a sling to provide access to impact beam fasteners as shown.

Retain fasteners.



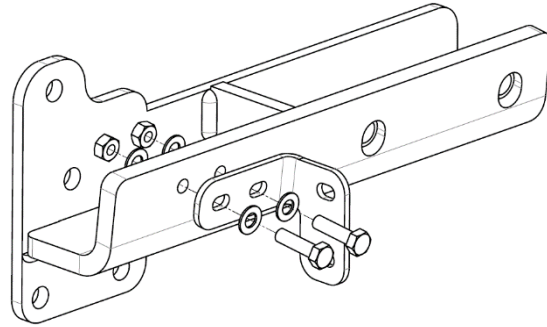
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9. Remove and discard impact beam secured with 4 x M12 screws per side.

NOTE: Retain 1 x M14 double threaded bolt from LHS used to secure tank.



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10. Attach sidearm bracket to sidearm using 2 x m8 bolts complete with 2 x washers and 1 x nut per bolt.

Repeat for opposite side.

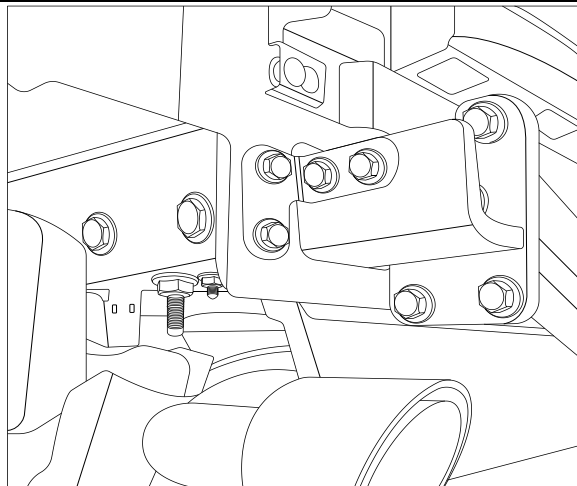


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11. Insert sidearm into chassis rail and loosely secure with:

- 3 x M14x40mm bolts complete with 2 x washers and 1 x nut per bolt
- 2 x M8 bolts complete with 1 x washer per bolt.

Repeat for opposite side.

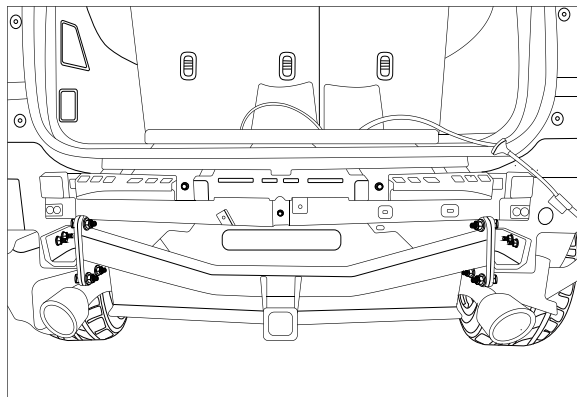
NOTE: On LHS ensure to re-use double threaded bolt retained from Step 9.



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12. With 2 people, lift the central section of the towbar to the sidearms and attach using 3 x M12 bolts and 1 x M14x40mm bolt (into captive nut) complete with fasteners.

Tighten all fasteners as follows:

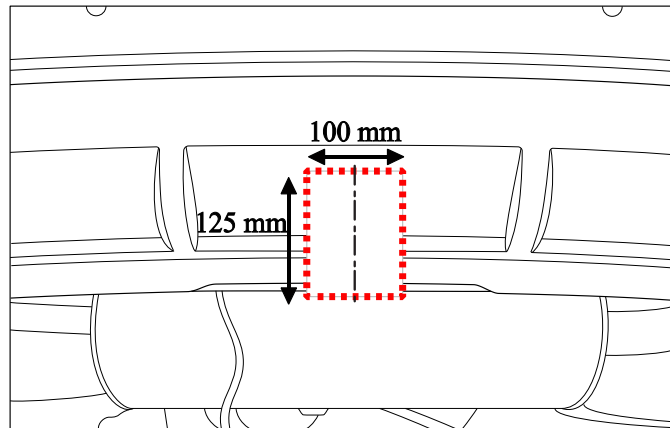
- M8 x 1.25P Gr8.8 = 22 Nm**
- M12 x 1.75P Gr8.8 = 77 Nm**
- M14 x 2.0P Gr8.8 = 124 Nm**



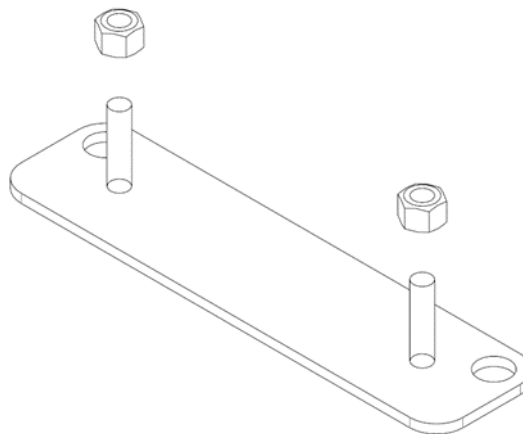
13. FOR THE BUMPER CUT

Identify the centre line of the bumper.
Measure 125mm up from the bottom edge of the bumper and 100mm wide (50mm either side of the bumper centreline). Cut this outline.

Remove all sharp edges or burrs from bumper after cut.



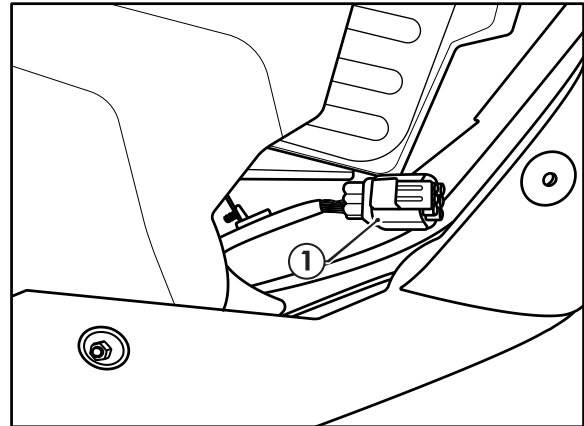
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14. For the plug bracket find an appropriate position on the bumper then mark out and drill 2 x \varnothing 5mm holes 69mm apart on bumper skin to support plug bracket.



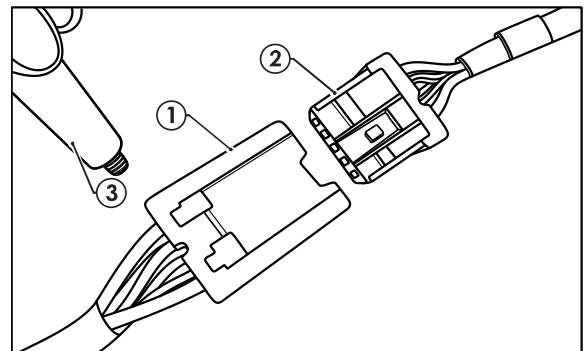
IMPORTANT

Due to possible vehicle variations, always confirm any noted vehicle colour wires with a multi-meter to ensure the correct function is identified before soldering or scotch locking. For vehicle wires denoted with two colours (example; RED/GREEN) the first colour will always be the main wire colour while the second colour is the thinner trace colour on the wire.

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15. Under the vehicle RHS behind the rear right wheel, locate the two prewire connectors (1).
 16. Remove the blanking plugs on the vehicle harnesses.
 17. Connect the two connectors on the trailer patch (102161-WL).
 18. Use the supplied Cable Ties to secure the small harness away from the vehicle exhaust.
Note: Keep harness routing clear of all sharp edges, moving parts and places of extreme heat.



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19. With the rear bumper removed, secure the tail harness (tail length 1200) to the towbar. Route the tail harness up towards the blue connector on the patch harness.
Note: Keep harness routing clear of all sharp edges, moving parts and places of extreme heat.
 20. Connect the tail harness 8-way connector (1) to the trailer patch mating 8-way connector (2).
 21. Apply silicone grease (not supplied) (3) to waterproof connector.



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22. Test the trailer patch function using a light board or multi-meter.
 23. Refit all parts removed in Steps 1 to 8 in reverse, secure all fasteners, ensuring there are no squeaks or rattles.
 24. Place the fitting instructions in the glove box after fitment.



CUSTOMER INFORMATION

PLACE THESE INSTRUCTIONS IN THE VEHICLE'S GLOVEBOX AFTER INSTALLATION

THANK YOU FOR PURCHASING TRAILBOSS. WITH CORRECT MAINTENANCE AND CARE THIS PRODUCT WILL PROVIDE A LIFETIME OF TROUBLE-FREE OPERATION.

TOWBAR MAINTENANCE AND CARE:

- Trailboss recommend that the towbar LUG or TBM (Trailer Ball Mount) Pull Pin and R-clip are removed and stored when not in use. Removal of LUG or TBM (Trailer Ball Mount) is advisable when not in use to assist with any of the following.
 - Ensure rear number plate is not obscured.
 - Allow maximum available departure angle and prevent any potential interference.
 - Prevent possible interference with vehicles reverse sensors or camera detecting a tow ball mount as an obstruction during reversing.
 - Removes towball mount as an obstruction for when moving around the rear of the vehicle.
- Trailboss recommends routine inspection of your towbar to ensure trouble free towing.
 - Bolt security and tension should be regularly inspected and checked for correct tension. Replace any worn or defective parts with suitable grade & class fasteners. Inspection should be requested to coincide with vehicle major services.
- It is the owner's responsibility to ensure towing and down ball weight capacities of the towing vehicle are not exceeded.
 - Towing and down ball weights allowable may differ according to model variations. Please refer to owner's manual or vehicle dealer to confirm exact rating for your vehicle model variant.
 - It is not uncommon for the vehicle tow rating to differ from the towbar rating. When this occurs, the lesser rating must be adhered to.
 - For vehicles fitted with enhanced vehicle functions that may be altered/changed when towing i.e Trailer sway mitigation, blind spot detection, adaptive cruise control etc. Please consult owner's manual to understand changes enabled when towing and after towing.

WARRANTY INFORMATION:

Trailboss Towbars are covered by a Lifetime Warranty.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. For further details please contact customer service on 1800 812 017.

PRO SERIES SILENT ANTI-RATTLE HITCH PIN

Your Trailboss towbar is equipped with a Pro Series Silent Anti-Rattle Hitch Pin technology to help reduce towbar tongue rattle in most driving conditions. Please ensure below instructions are understood and routine maintenance is carried out to ensure best towing experience.

Regularly inspect for wear and check the tightness of the Silent Anti-Rattle Hitch Pin. Follow instructions below to re-tighten the nut as necessary when movement and noise in the tow ball mount is noted.

- Before towing, ensure R-Clip is properly installed and hitch pin nut is installed and tensioned. Replacement parts are available from your Pro Series Distributor.

TOWBALL MOUNT REMOVAL/INSTALLATION

STEP 1

Insert Trailer Ball Mount (TBM) (a) into towbar hitchbox (b), aligning hole in TBM shank (c) with hole in hitchbox (d) (Fig. 1)

STEP 2

Insert Silent Anti-Rattle Hitch Pin (e) through hole in hitchbox and hole in TBM shank (g); ensure the locators are inserted into the notches in the hitchbox (Fig. 2)

STEP 3

Screw Silent Anti-Rattle Hitch Pin Nut (f) onto Smart Pin (g); tighten Smart Pin Nut until finger tight, ensuring TBM is restrained from up and down movement.

STEP 4

Tighten Silent Anti-Rattle Hitch Pin Nut by turning nut a further 1/8th of a turn in the clockwise direction using a 24mm spanner (Fig. 4).

STEP 5

Install Silent Anti-Rattle Hitch Pin R-Clip through the hole that provides best clearance or easiest access. (Fig. 5)

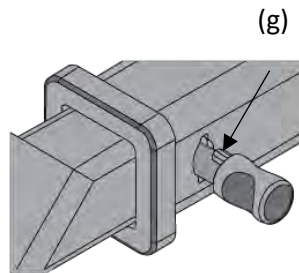
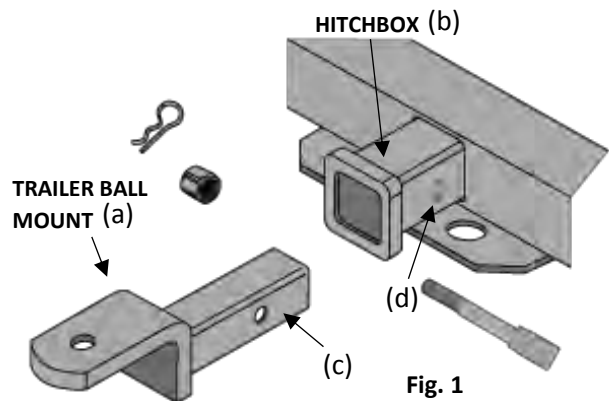


Fig. 2

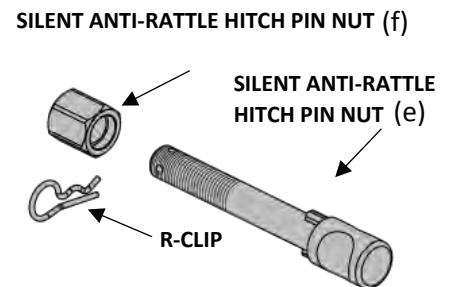


Fig. 3

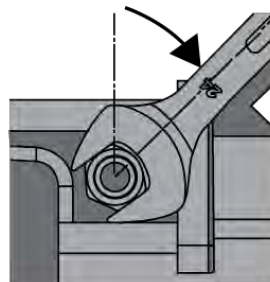


Fig. 4

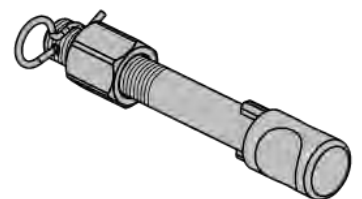


Fig. 5