FITTING INSTRUCTIONS

PART NUMBER :

4421175 – SUMMIT SIDE STEP | US LANDCRUSIER 250 MY24 ON
4421180 – SUM FRONT RAIL SILV TREAD| PRADO 250 MY24 ON
4421180B – SUM FRONT RAIL BLK TREAD| PRADO 250 MY24 ON
4421190 – SUMMIT RETURN SILVER TREAD | PRADO 250 MY24 ON
4421190B – SUMMIT RETURN BLK TREAD | PRADO 250 MY24 ON

Suited to vehicle/s:

TOYOTA LANDCRUSIER 250 2024 ONWARDS

WARNING

NOTE THE FOLLOWING:

- This product must be installed exactly as per these instructions using only the hardware supplied.
- In the event of damage to any Side Step and Side Rail component, contact your nearest authorised ARB stockist. Repairs or modifications to the impact absorption system must not be attempted.
- Do not use this product for any vehicle make or model, other than those specified by ARB.
- This product or its fixing must not be modified in any way.
- The installation of this product may require the use of specialized tools and/or techniques.
- It is recommended that this product is only installed by trained personnel.
- These instructions are correct as at the publication date. ARB Corporation Ltd. cannot be held responsible for the impact of any changes subsequently made by the vehicle manufacturer.
- During installation, it is the duty of the installer to check correct operation/clearances of all components.
- Work safely at all times.
- Unless otherwise instructed, tighten fasteners to specified torque.

ARB 4x4 ACCESSORIES

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GENERAL CARE AND MAINTENANCE

By choosing an ARB Side Step and Side Rail, you have bought a product that is one of the most sought after 4WD products in the world. Your step and rail is a properly engineered, reliable, quality accessory that represents excellent value. To keep your step and rail in original condition it is important to care and maintain it following these recommendations:

- Prior to exposure to the weather your step and rail should be treated to a Carnauba based polish on all exposed surfaces. It is recommended that this is performed on a six monthly basis or following exposure to salt, mud, sand or other contaminants.

As part of any Pre Trip Preparation, or on an annual basis, it is recommended that a thorough visual inspection of the step and rail and surrounding components is carried out, making sure that all bolts are torqued to the correct specification. Also check that nearby wiring and plumbing are free of damage. Replace any components as necessary. This service can be performed by your local authorized ARB Stockist.

FITTING REQUIREMENTS

REQUIRED TOOLS FOR FITMENT OF PRODUCT:

Basic tool kit	**Silicon**
Masking tape	**Power drill – (Ø13mm Capacity)**
Axle stands (optional)	**Ø4, Ø10, Ø11 & Ø12mm Drill Bits**
Torque Wrench/Wrenches - (5Nm TO 100Nm)	**Metric Stepped Drill (with Ø24mm Step)**
Scissors or Stanley Knife	**Centre Punch**
Rust Preventing Paint - Black	**½" Drive Allen Key Set - (8mm Allen Key Bit).**

HAVE AVAILABLE THESE SAFETY ITEMS WHEN FITTING PRODUCT:

Protective eyewear 	**Hearing protection** 

NOTE: 'WARNING' notes in the fitting procedure relate to OHS situations, where to avoid a potentially hazardous situation it is suggested that protective safety gear be worn or a safe work procedure be employed. If these notes and warnings are not heeded, injury may result.

FASTENER TORQUE SETTINGS:

SIZE	Torque Nm	Torque lb/ft
M6	9Nm	7lbft
M8	22Nm	16lbft
M10	44Nm	32lbft
M12	77Nm	57lbft

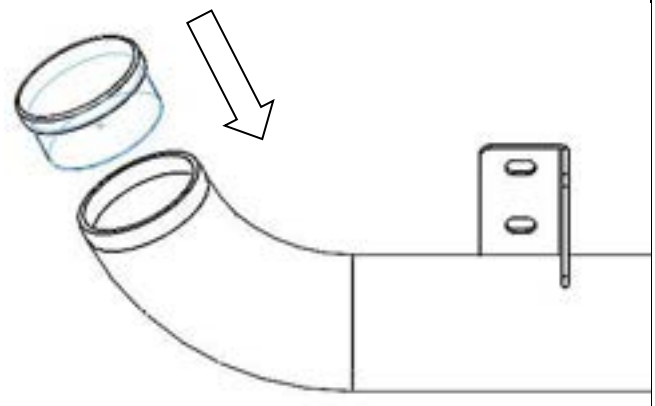
PARTS LISTING			
APPLICATION.	**PART NO.**	**QTY**	**DESCRIPTION**
SIDE STEPS TO VEHICLE	6562934R	1	WELD ASM RH STEP PRADO 250
	6562934L	1	WELD ASM LH STEP PRADO 250
	215637	2	STKR DECAL ARB SMALL
	3194639R	2	PLATE NUT FRNT UPR RH AMAROK
	4584305	8	WASHER FLAT 10.2ID X 25OD X 10 ZP
	4584363	4	WASHER FLAT M12x26x4 | HV300 TZP480
	5848566	1	BRAKE LINE SADDLE SUIT PRADO 250
	6151574	4	NUT HEX NYLOC M12x1.75 | TZP480
	6151785	2	BOLT U M12x1.75x(190x125) | PC8.8 TZP FLAT BACK
	6151786	4	BOLT HXHD FL M10x1.25x135 | PC10.9
	6151897	2	BOLT HXHD FL M10x1.5x30 | PC8.8 ZNN480
	6500002	2	PLUG RUBBER 60.3 TUBE BLANKING PLUG
RAILS TO VEHICLE COMMON PARTS	6562935R	1	WELD ASM RHS RAIL SUIT PRADO 250
	6562935L	1	WELD ASM LHS RAIL SUIT PRADO 250
	6151022	4	BOLT M8 x 1.25 x 25 Gd 8.8 ZP
	4581044	8	WASHER FLAT, M8 ZP
	6151032	4	NUT NYLOC M8 x 1.25
	6250024	4	SPACER S/STEP / RETURN LG RAD
	3789336	1	TEMPLATE S/RAIL CLAMP LG RAD
	6151128	16	NUT FLANGE M6 x 1.0 ZP
	4581072	16	WASHER FLAT M6 x 20 x 1.6 TZP
	6582464	1	CLAMP KIT S/RAIL LG RAD
4421180B – SUM FRONT RAIL SILVER TREAD	6151256	16	SCREW BTN HD M6 x 16 SS
	3197052R	1	TRD PLT RAIL RH SUIT PRADO 250
	3197052L	1	TRD PLT RAIL LH SUIT PRADO 250
4421180B – SUM FRONT RAIL BLK TREAD	3197076R	1	T/PLT ASM STUD RH GUARD RAIL
	3197076L	1	T/PLT ASM STUD LH GUARD RAIL
RETURNS TO VEHICLE COMMON PARTS	6562865R	1	RTN ASM RH SUIT Y62
	6562865L	1	RTN ASM LH SUIT Y62
	6151022	4	BOLT M8 x 1.25 x 25 Gd 8.8 ZP
	4581044	8	WASHER FLAT, M8 ZP
	6151032	4	NUT NYLOC M8 x 1.25
	6250024	4	SPACER S/STEP / RETURN LG RAD
	6151128	16	NUT FLANGE M6 x 1.0 ZP
	4581072	16	WASHER FLAT M6 x 20 x 1.6 TZP
4421190 SUM RETURN SILV TREAD	6151256	16	SCREW BTN HD M6 x 16 SS
	3197053R	1	TRD PLT RAIL RH SUIT PRADO 250
	3197053L	1	TRD PLT RAIL LH SUIT PRADO 250
4421190B SUM RETURN BLK TREAD	3197063R	1	T/PLT ASM STUD RH SUITS PRADO
	3197063L	1	T/PLT ASM STUD LH SUITS PRADO

FITTING PROCEDURE – PREPARATION TO VEHICLE

1. If fitted, remove the factory side steps.

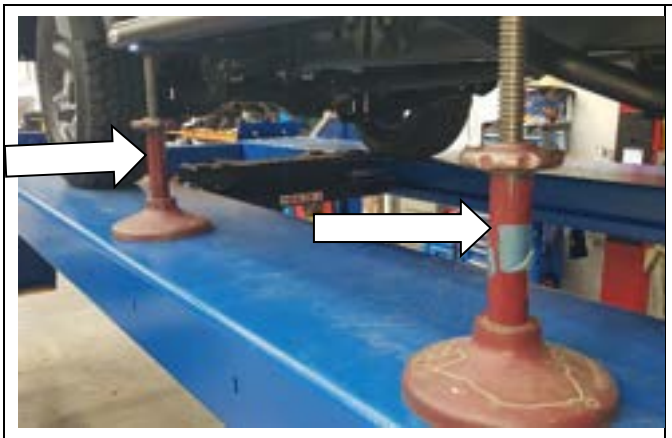
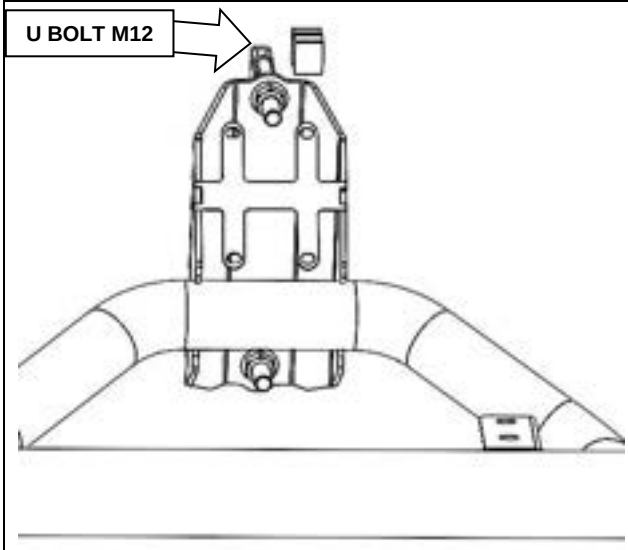
2. Replace original fasteners to seal holes.

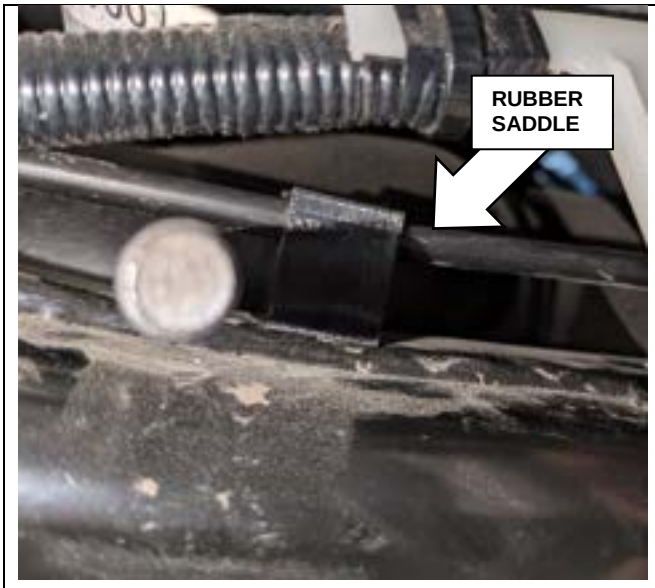
SIDE STEP FITMENT TO VEHICLE



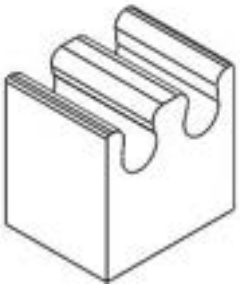
3. Fit the Rubber Plugs into the ends of the Side Steps.

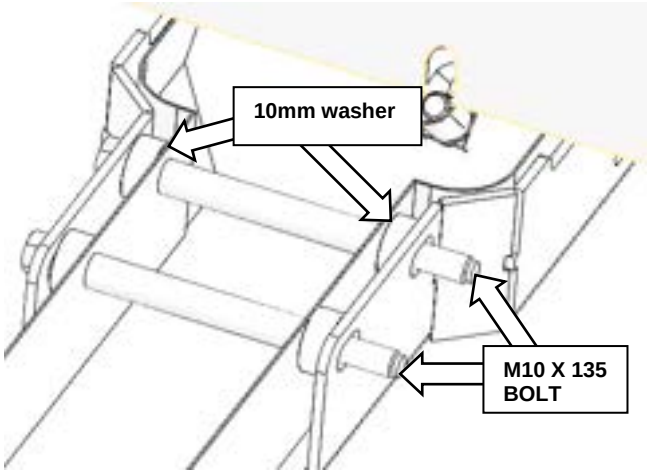
4. Support the gearbox crossmember. Remove Two OEM M10 nuts and bolts. Retain the fine thread OEM nuts for reuse.

	5. Place the RHS Step against the chassis. Use adjustable axle stands or a second person to hold the rails in place.
	6. Assemble M12 u bolt through rear step mount and use flat washer with M12 Nyloc nut <u>Leave loose at this stage.</u>
	7. Use a trim removal tool to remove the loom clip out of the chassis.

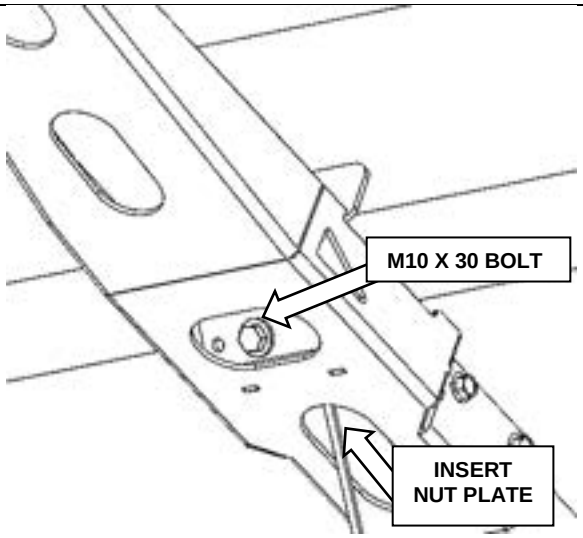


8. Instal rubber saddle (5848566) under the brake lines on top of the chassis to prevent contact with the U Bolt.

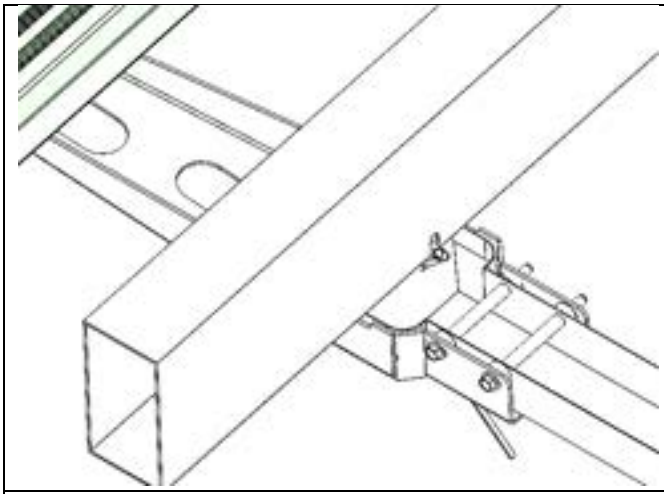




9. At the front mount use the M10x135 bolts and 10mm thick washers. Insert the washer as the bolt is passed through the cross member

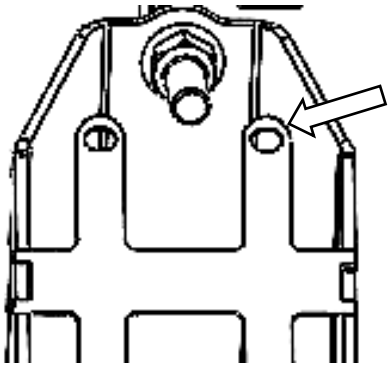


10. Attach the front mount to the chassis at the side using an M10 x 30 bolt and M10 nut plate.



11. Break the exposed nut plate tails or alternatively push the nut plate tails inside the chassis rail.

12. Repeat Steps 1 to 11 on the LH side of vehicle



13. Secure the loom clip at the R/H rear mount into the hole provided on the mount.

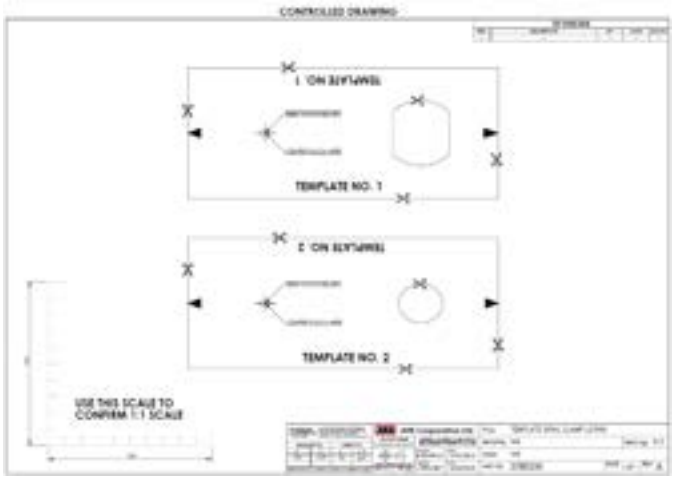
14. Adjust the rail so that it is level with the vehicle and tighten all fasteners to specified torque.
15. Repeat for both sides.

Torque to specification.

M12 U BOLT - 44Nm

M10 PC11.9 - 54Nm

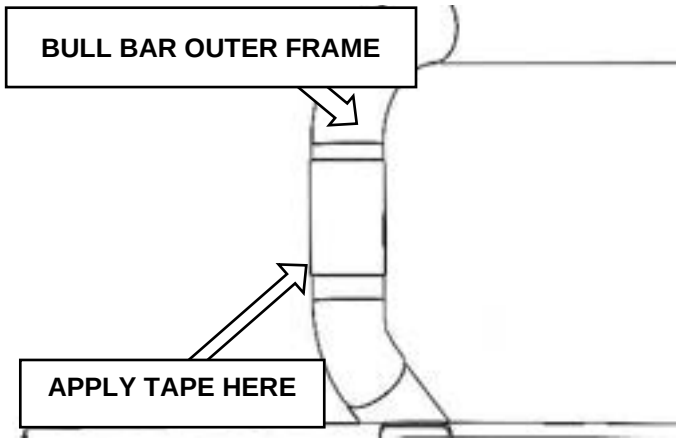
FITTING PROCEDURE
FRONT SIDE RAIL FITMENT TO VEHICLE



Note: If installing Front Rails, continue to Step 1, otherwise go to Step34.

1. Use Scissors or a Stanley Knife carefully cut out Templates 1 and 2 including the 2 x pieces from the inside – (See image at left).

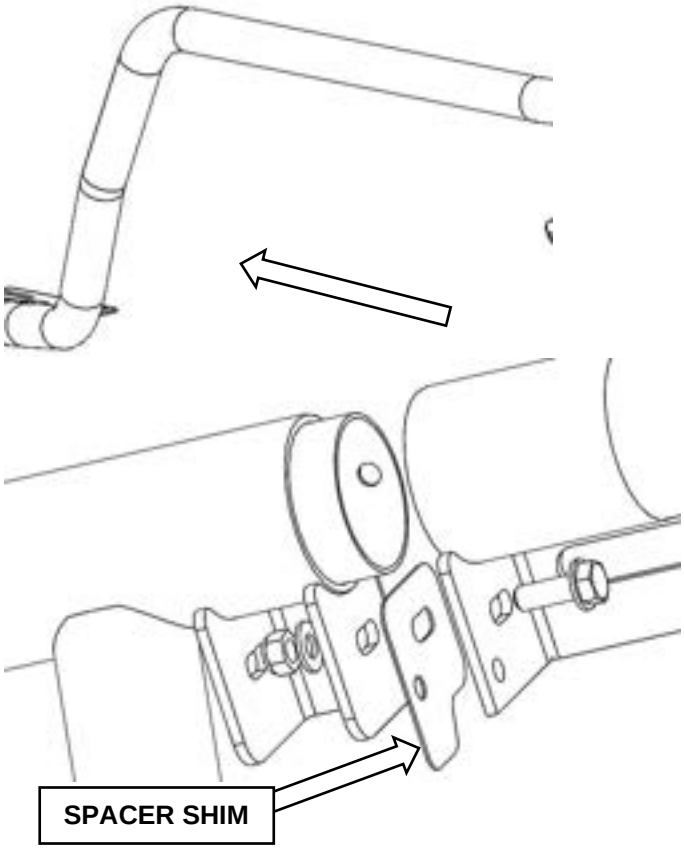
   Check Scale before cutting.



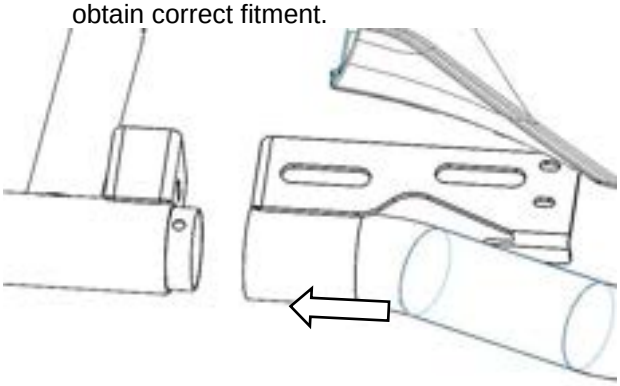
2. Use masking tape to wrap 1 x layer only of tape around the bull bar outer frame to protect it from damage. Ensure masking tape is applied flat and without creases.

WARNING: If more than 1 x layer of masking tape is applied and/or creases are present it will affect the use of the drilling templates and could result in the bull bar being incorrectly drilled and not serviceable.

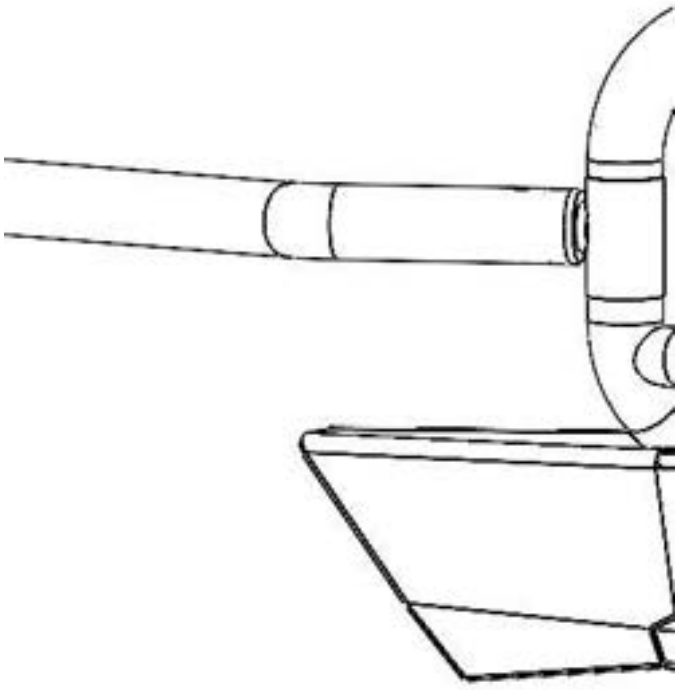
3. Install tube spigot into the front of the side rail. Do not initially install the 5mm or 10mm round spacer provided, these will be used at a later stage if adjustment is required.



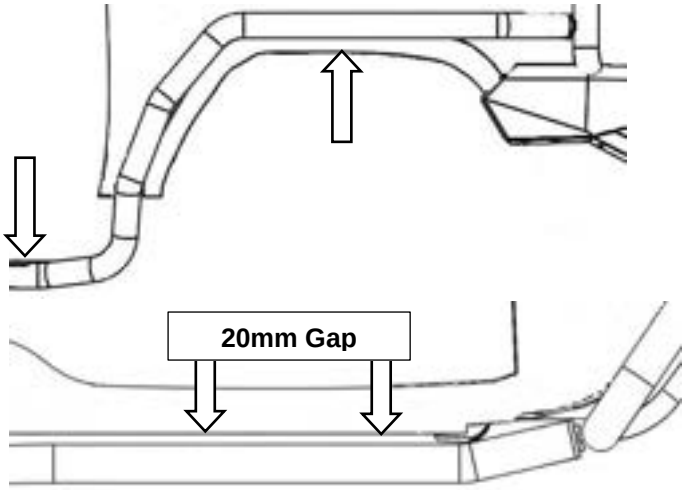
4. Place the front rail assembly onto the end of the side step. When the step and front rail tubes butt together, assess if any gap exists between the bracket faces. Should a gap exist, up to 2 x 1mm Spacer Shims (6250024) may be installed between Side Step and Side Rail brackets to obtain correct fitment.



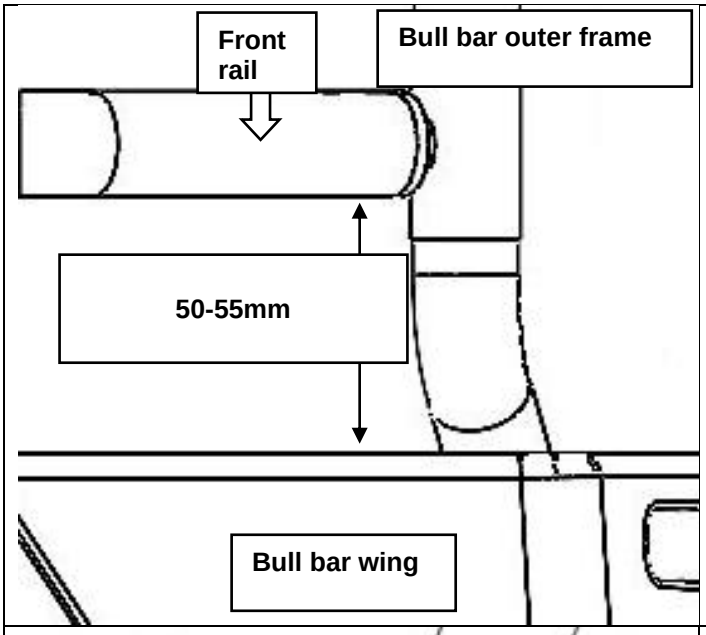
Attach using an M8x20mm Hex bolt, two M8 flat washers and an M8 nyloc nut
Note: Do not fully tighten at this stage.



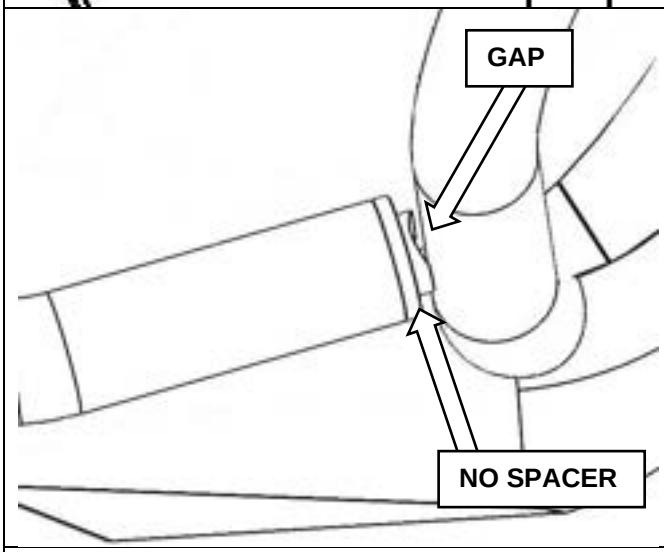
5. Hold front rail so that when viewed from the side of the vehicle the top tube is parallel to the side-step main tube and the side rail sits as desired against the side of the vehicle.



6. Offer side rail/tube spigot up to the back of the bull bar outer frame. – If a gap exists slide tube spigot forwards until it contacts the bull bar outer frame.

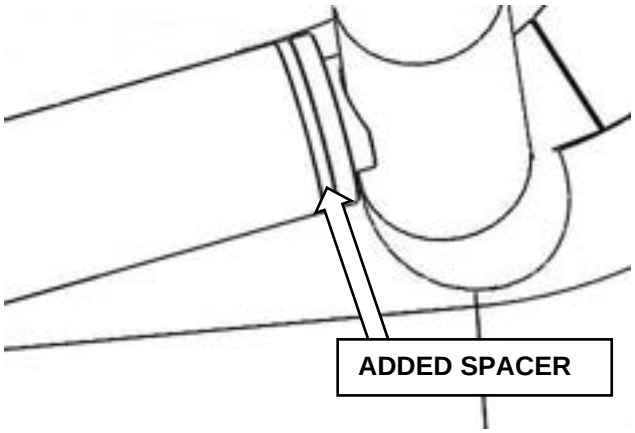


7. Set distance from top face of the bull bar wing to bottom of front rail to 50-55mm.

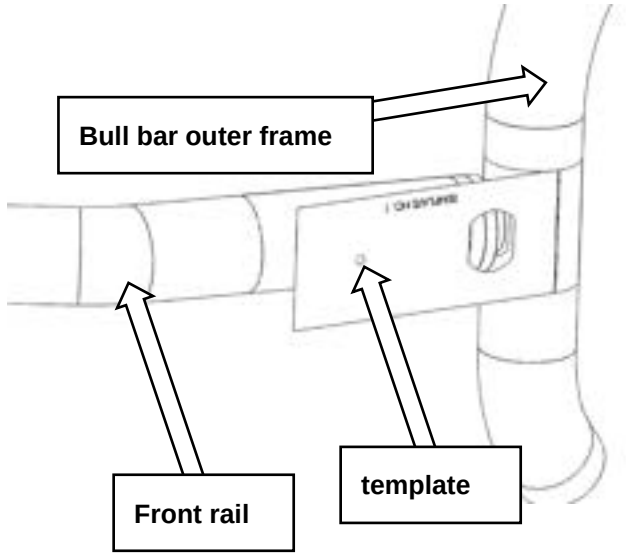


8. Assess the gap between the front end of the side rail and the tube spigot. Select the closest matching spacer(s) to fill the gap. (Spacer options: Nil / 5mm / 10mm or 15mm (5mm + 10mm Spacers).

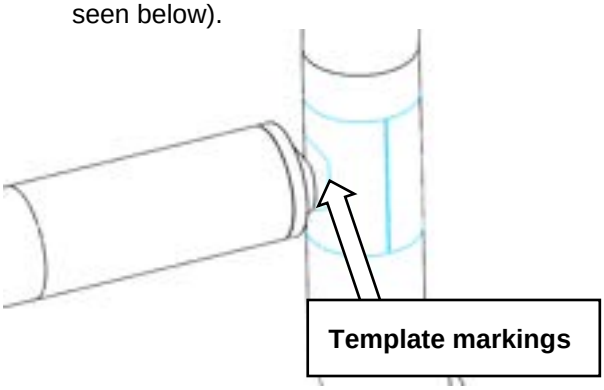
Note: If the gap is too large for the Spacers to fill or too small (ie. the tube spigot cannot be fitted) adjustment of the Bull Bar and/or Side Step may be required.

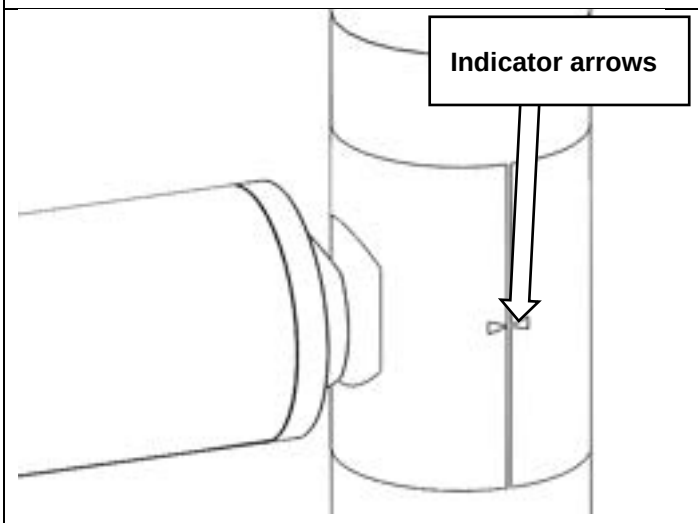


9. Add spacers as required.



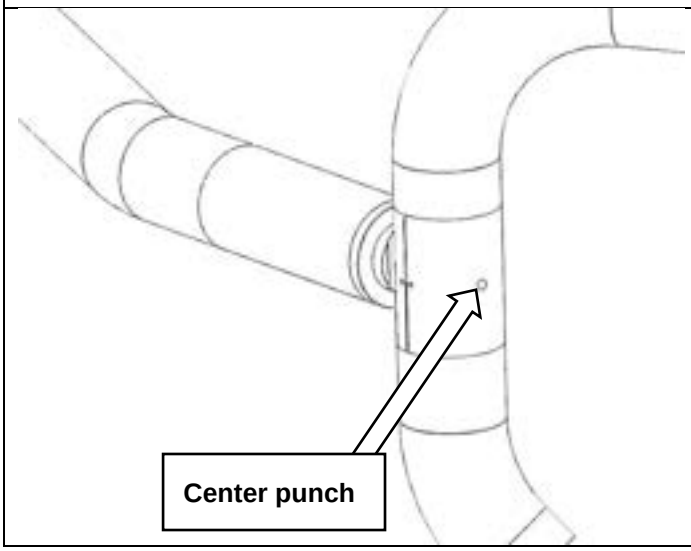
10. Insert “TEMPLATE 1” between the end of the tube spigot and the bull bar outer frame.
11. Align spigot footprint with the template marking (as seen below).





12. Carefully align and centre “TEMPLATE 1” with the end of the tube spigot and wrap around the bull bar outer frame tube.

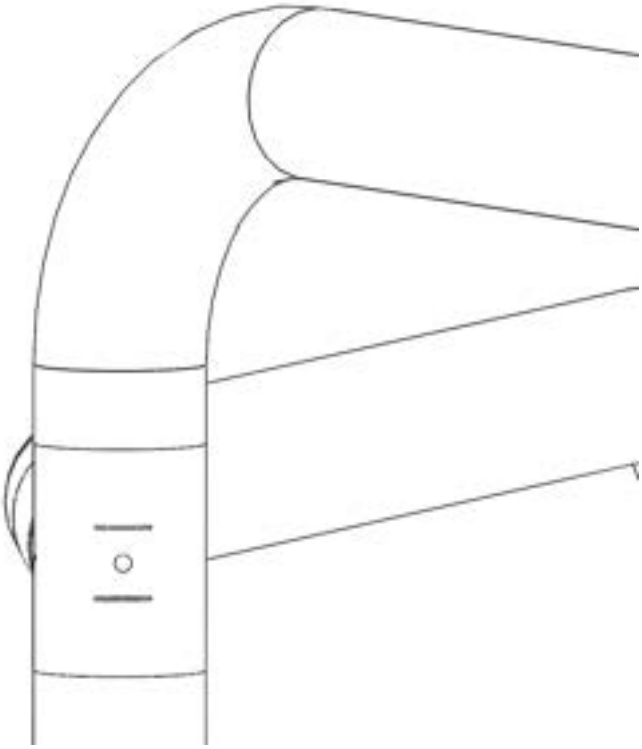
Note: Ensure the indicator arrows are aligned before taping into position with masking Tape.



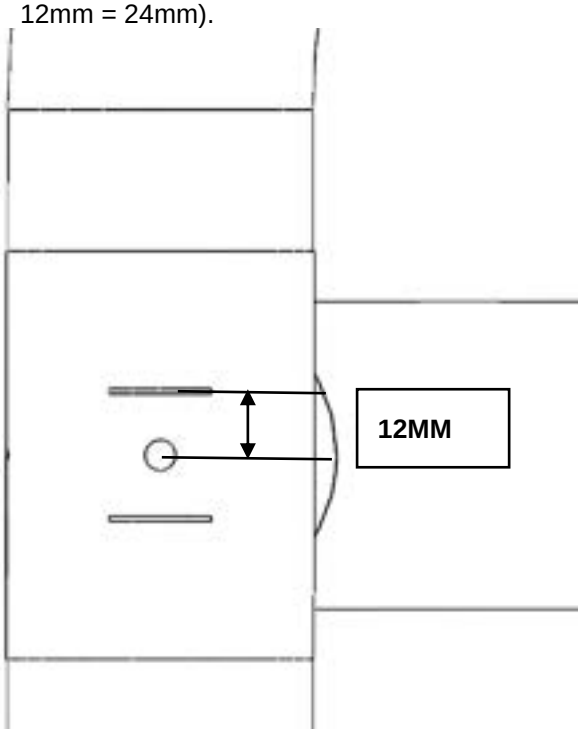
13. Using a centre punch, carefully punch the outer frame at the centre mark of “TEMPLATE 1”.
14. Remove the front rail and set aside.
15. Remove “TEMPLATE 1”.

Note: Do not discard. Template will be re-used for the opposite side clamp installation.

IMPORTANT: COVER THE UPPER SURFACES OF THE BULL BAR WING WITH MASKING TAPE OR RAGS TO PREVENT DAMAGE FROM DRILL SWARF.



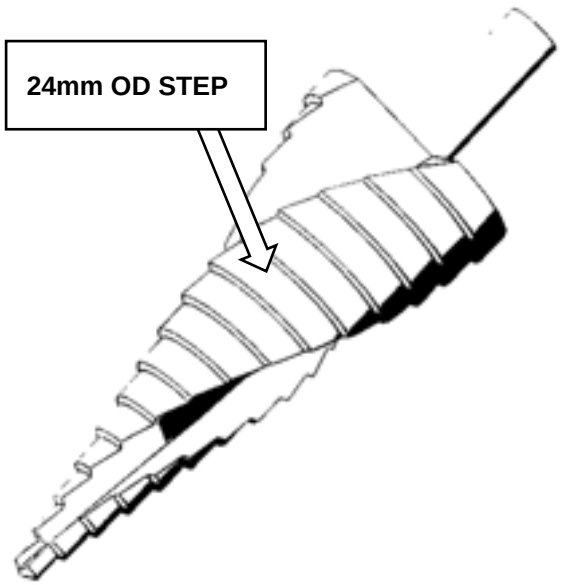
16. Using a marker pen, mark the tape applied in step 2 on the outer frame. Mark a line 12mm above and below the Centre Punch mark (12mm + 12mm = 24mm).

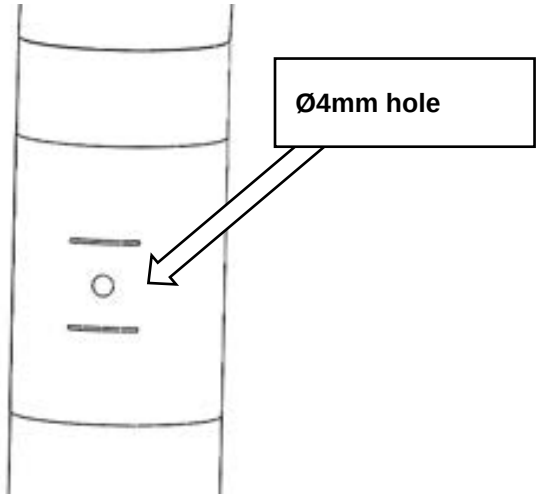


Note: These marks on the outer frame give an indication of how far to drill with the Stepped Drill.

17. Using a marker pen, mark the Ø24mm step on the stepped drill.

Note: These marks on the stepped drill give an indication of how far to drill to achieve the correct diameter hole in the outer frame.

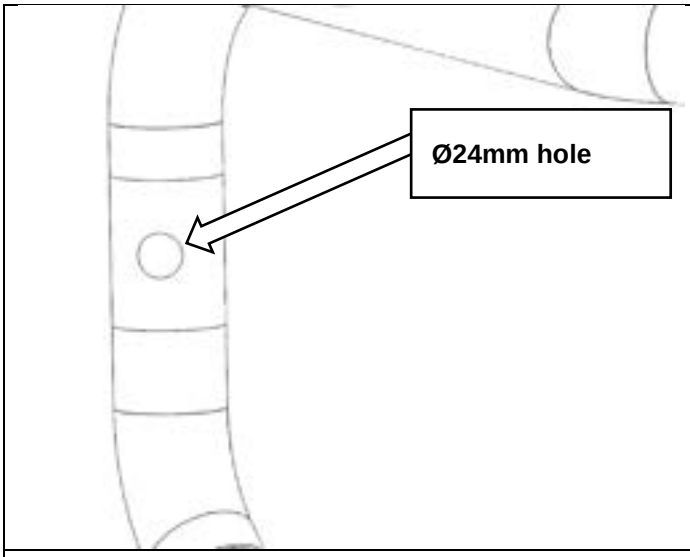




18. At the location of the centre punch mark, use a Ø4mm (or similarly sized) drill bit to drill a pilot hole through the front face of the bull bar outer frame.

Note: Ensure to adequately cover vehicle and bar prior to drilling.

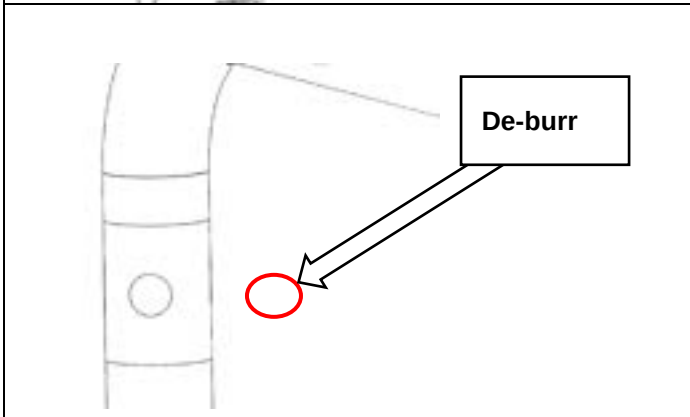
Warning: Drilling operations can result in flying metal debris, safety glasses should be worn.



19. Use a stepped drill bit to drill the Ø4mm pilot hole out to Ø24mm.

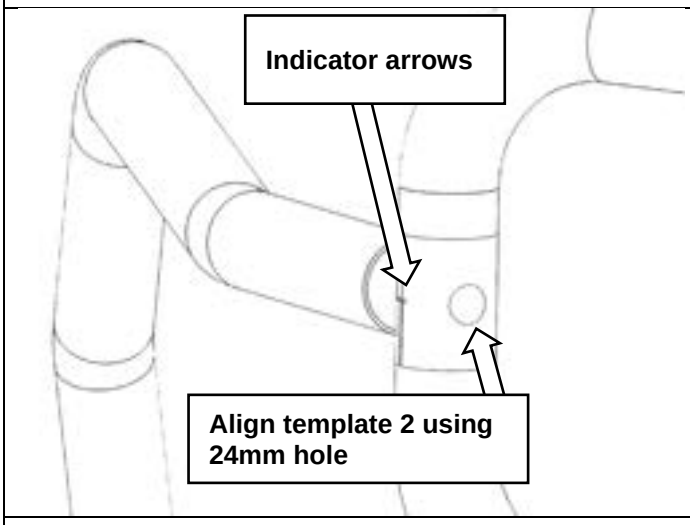
WARNING - Do not drill past the 24mm marks on the outer frame or the Ø24mm mark on the stepped drill - Drilling too far will destroy the bull bar.

Warning: Drilling operations can result in flying metal debris, safety glasses should be worn.



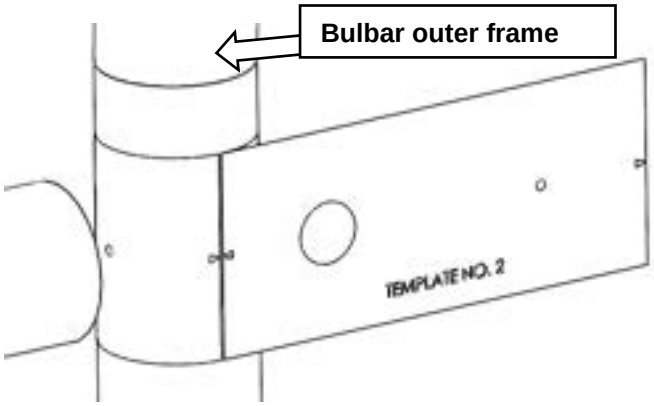
20. Using a small round or half-round file carefully remove any burrs from the edge of the Ø24mm hole.

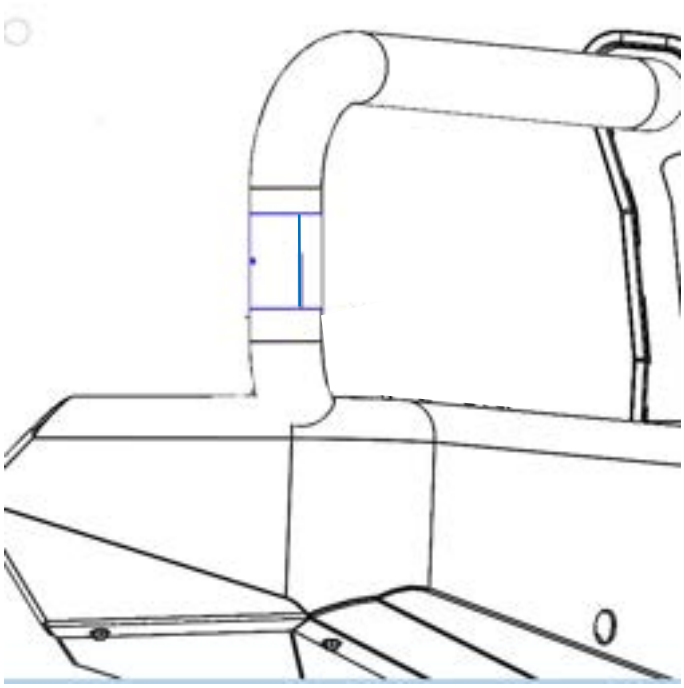
-Note: Care should be taken to avoid damaging the outer frame paintwork surrounding the Ø24mm hole.



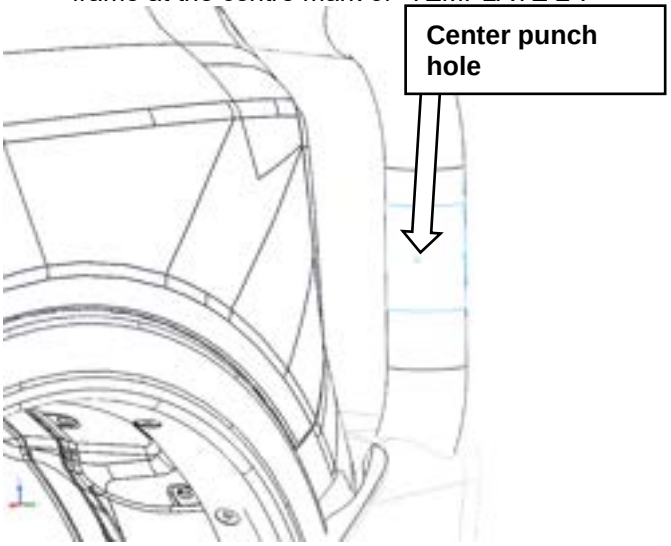
21. Carefully align “TEMPLATE 2” and centre over the Ø24mm hole. Wrap around the outer frame tube.
22. Remove front rail.

Note: Ensure the indicator arrows are aligned before taping into position with Masking Tape – (AS SHOWN).



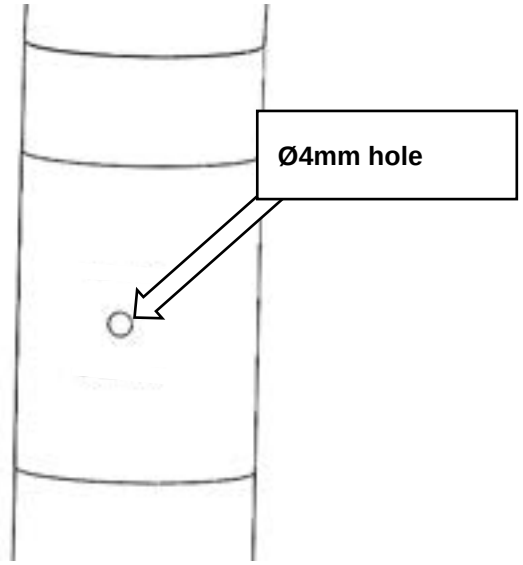


23. Using a centre punch, carefully punch the outer frame at the centre mark of “TEMPLATE 2”.



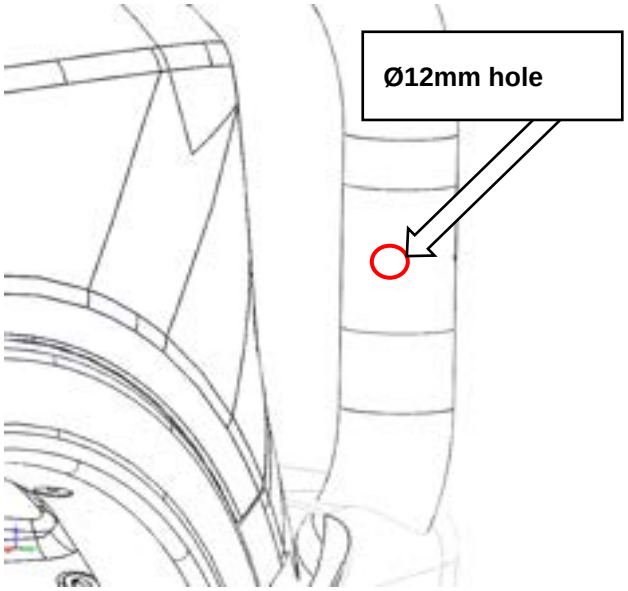
24. Remove “TEMPLATE 2”.

Note: Do not discard. Template will be re-used for the opposite side clamp installation.



25. At the location of the centre punch mark, use a Ø4mm (or similarly sized) drill bit to drill a pilot hole through the rear face of the bull bar outer frame.
26. Use a Ø12mm drill bit to drill the Ø4mm pilot hole out to Ø12mm.

Warning: Drilling operations can result in flying metal debris, safety glasses should be worn.

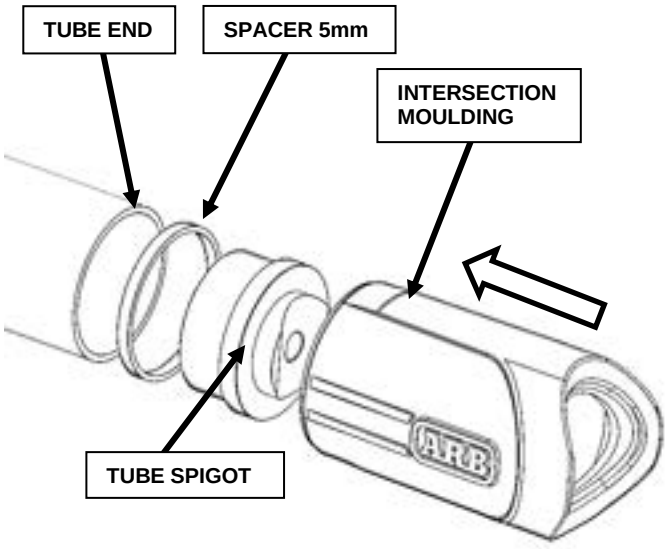


27. Using a small flat or half-round file carefully remove any burrs from the edge of the Ø12mm hole.

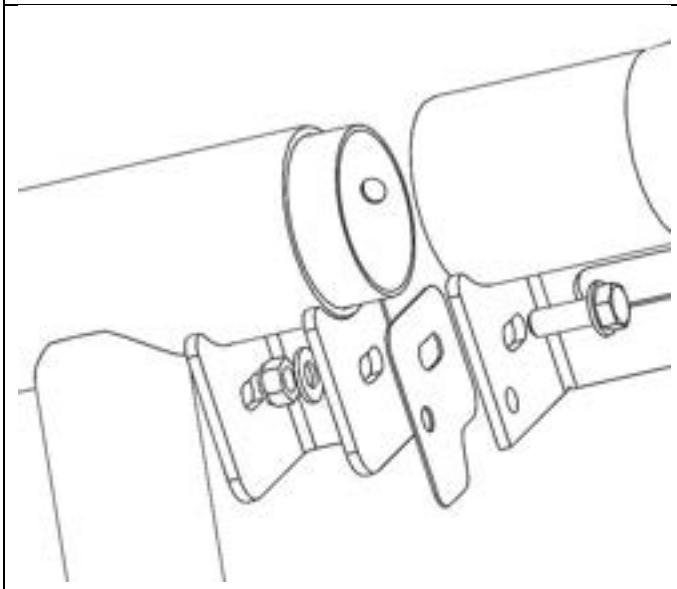
Note: Care should be taken to avoid damaging the outer frame paintwork surrounding the Ø12mm hole.

28. Remove all drill/file swarf and then paint any exposed/bare metal surfaces left after drilling with rust preventative paint.

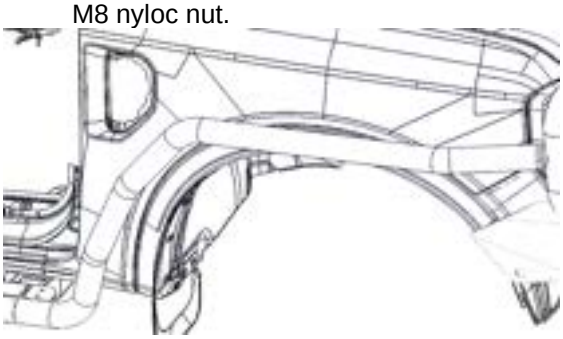
Note: Use tape/paper to mask surrounding areas to avoid getting paint overspray in undesired locations.



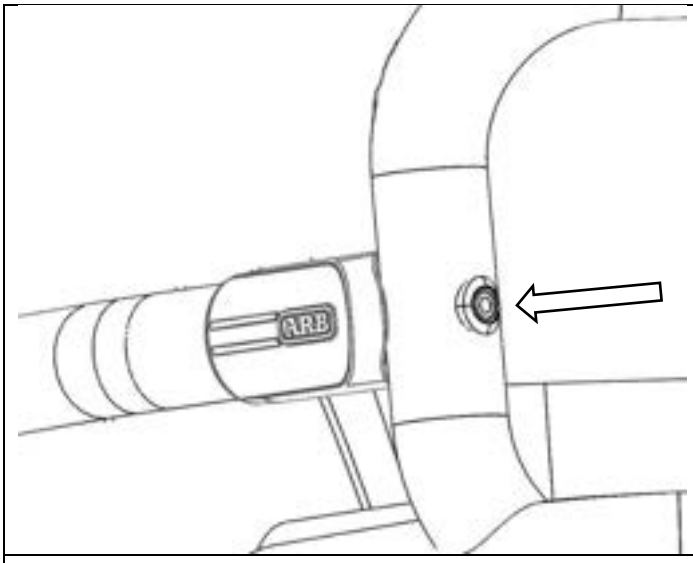
29. Install tube spigot, selected spacer(s) and intersection moulding into place on the side rail.



30. Re-install front rail (with clamp components fitted) onto side step spigot and attach using an M8x20mm Hex bolt, 2 x M8 flat washers and an M8 nyloc nut.



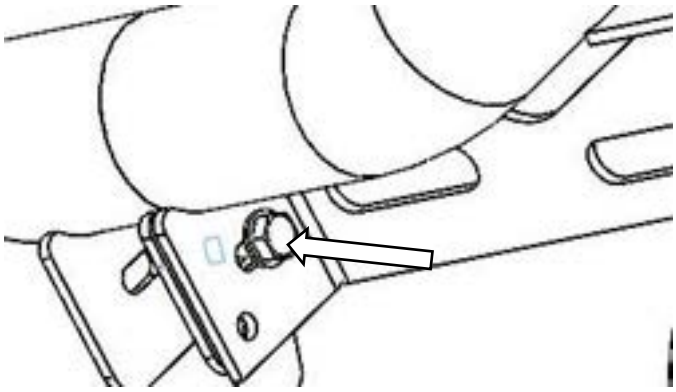
Note: Install spacers selected in previous step.
Note: Do not fully tighten at this stage.



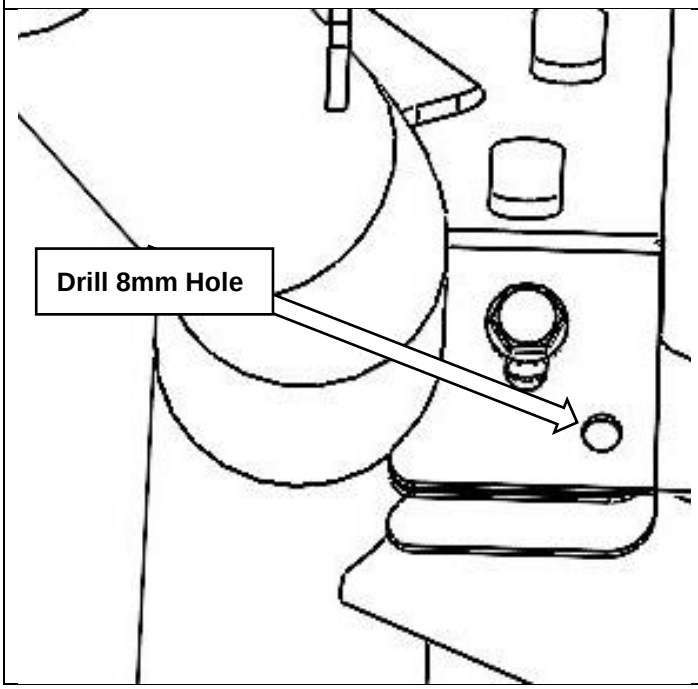
31. Install submerged bush and M10x140 Socket head bolt into drilled hole in bull bar outer frame (as seen in the image to the left).

Torque to Specification.

M10 - 57Nm <u>(CRITICAL).</u>



32. Tighten M8 hex head bolt ensuring the slot and holes in the 6250024 1mm spacers (if fitted) are aligned with the holes in the step / front rail brackets.

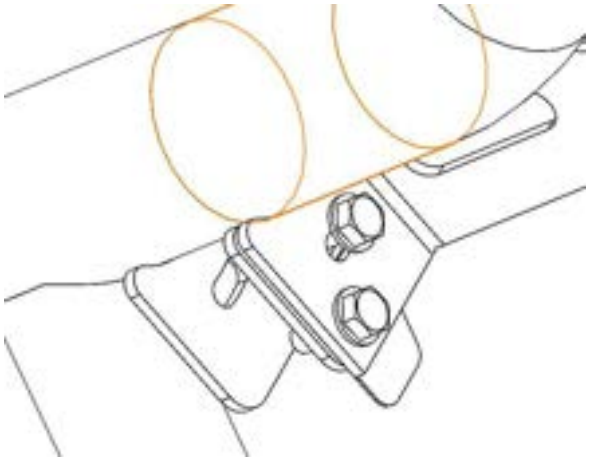


33. Using an electric drill with an Ø8mm drill bit and the pre-cut hole in the front side rail as a guide, drill through the rear section.

NOTE: IT MAY BE NECESSARY TO TEMPORARILY REMOVE THE MUD FLAPS TO GAIN ACCESS WITH THE DRILL.

34. Apply paint or a rust preventative to the bare metal.

Warning: Drilling operations can result in flying metal debris, safety glasses should be worn.

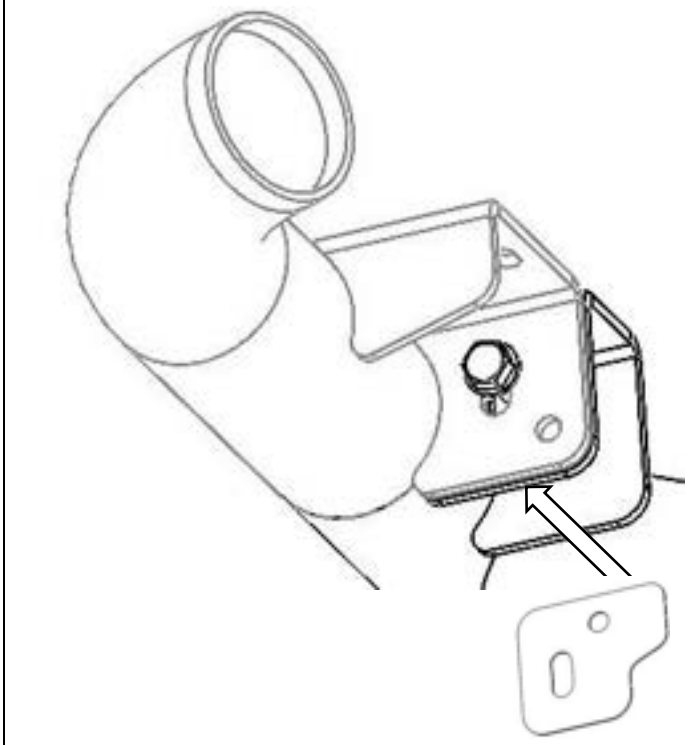


35. Pin the front of the side step to the rear section of the front rail using an M8x20 hex head bolt, two M8x17x1.2mm flat washers and an M8 Nyloc nut.
36. Repeat on other side.

Torque to Specification.

M8 - 22Nm

FITTING PROCEDURE – SIDE STEP RETURN TO VEHICLE



FITTING RETURNS

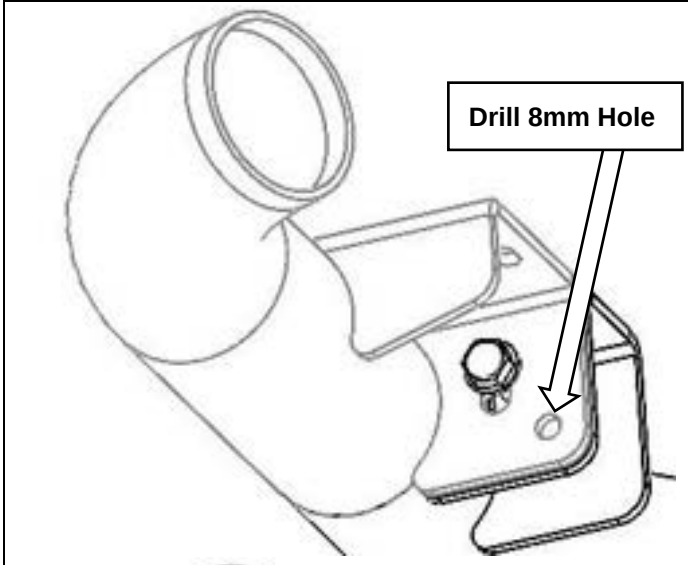
37. Place the return tube onto the end of the side step section as shown.

    When the step and return tubes butt together, assess if any gap exists between the bracket faces. Should a gap exist, up to 2 x 1mm spacers (6250024) may be installed between side step and return tube brackets to obtain correct fitment.

38. Attach using an M8X20 bolt, M8x17x1.2mm flat washers and an M8 Nyloc nut. Ensure the top faces of the return tube and the side step are parallel. Tighten the M8 bolt, ensuring the slot and holes in the spacers (if fitted) are aligned with the holes in the step / return tube brackets.

Torque to Specification.

M8 - 22Nm



39. Using an electric drill with an Ø8mm drill bit and the pre-cut hole in the curved end section as a guide, drill through the rear section.

NOTE: IT MAY BE NECESSARY TO TEMPORARILY REMOVE THE MUD FLAPS TO GAIN ACCESS WITH THE DRILL.

Warning: Drilling operations can result in flying metal debris, safety glasses should be worn.

40. Apply paint or a rust preventative to the bare metal.

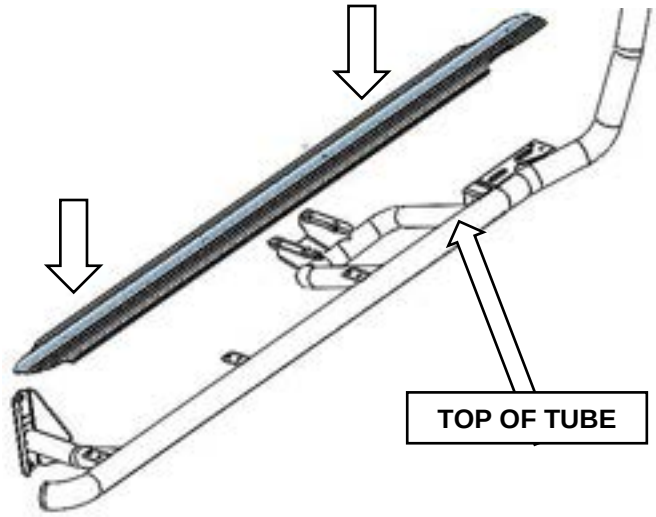
41. Pin the curved end section to the rear section using an M8X20 bolt, two M8 flat washers and an M8 nyloc nut.

42. Add rubber caps.

Torque to Specification.

M8 - 22Nm

FITTING PROCEDURE – FRONT RAIL & SIDE STEP RETURN TO VEHICLE



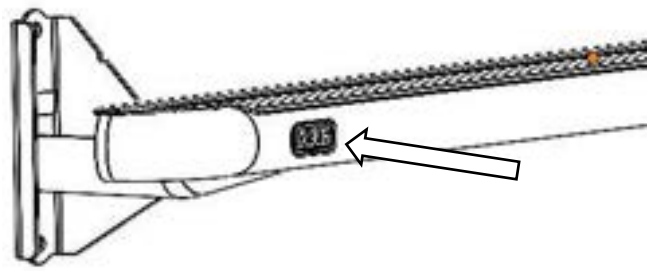
THE FOLLOWING STEPS APPLY TO BOTH FRONT RAIL AND RETURN TUBE SECTION FITMENT

43. Run a bead of silicon along the top of the side step where the Tread Plate will sit. (This will help prevent vibration).
44. Position the Tread Plate on the step, aligning the bolt holes with the corresponding holes in the side step. Starting at the front of the step, secure the Tread Plate with S/Steel M6X16 Button Head Bolts, M6 Flat Washers and M6 Flange Nuts.

Note: Over tightening of bolts may result in damage to the Tread Plates.

Torque to Specification.

M6 - 5Nm (<u>CRITICAL</u>)



45. Apply the supplied ARB decals here on both the RH and LH sides of the vehicle.

FITTING PROCEDURE – SIDE STEP RETURN TO VEHICLE