



FLEXIGLASS FITTING MANUAL - SECTION 3.3D

FLEXIGLASS FORD RANGER (PK) DC TRAY FIT - ISSA5

Note: Familiarise yourself with the instructions before you start to ensure you are clear on all aspects of the fit

SAFETY EQUIPMENT

- Hearing protection as required
- Eye protection as required

TOOLS REQUIRED

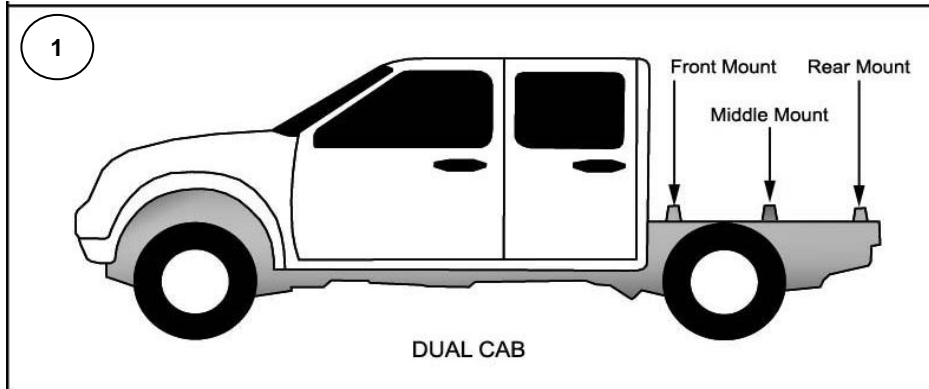
- Pneumatic / electric drill
- Pneumatic / electric hacksaw
- Drill bits: 21/64", 1/4" & 3/16"
- Sockets: 10, 13 & 18
- Würth Cable strippers
- Pneumatic driver
- Rivet gun with 5mm tip
- Loctite 243
- Toledo cable strippers

These instructions will be suitable for the Flexiglass Deluxe Tray with the substitution of 4 of PAN500 mudguard panels in place of 2 each PAN440 & PAN450.

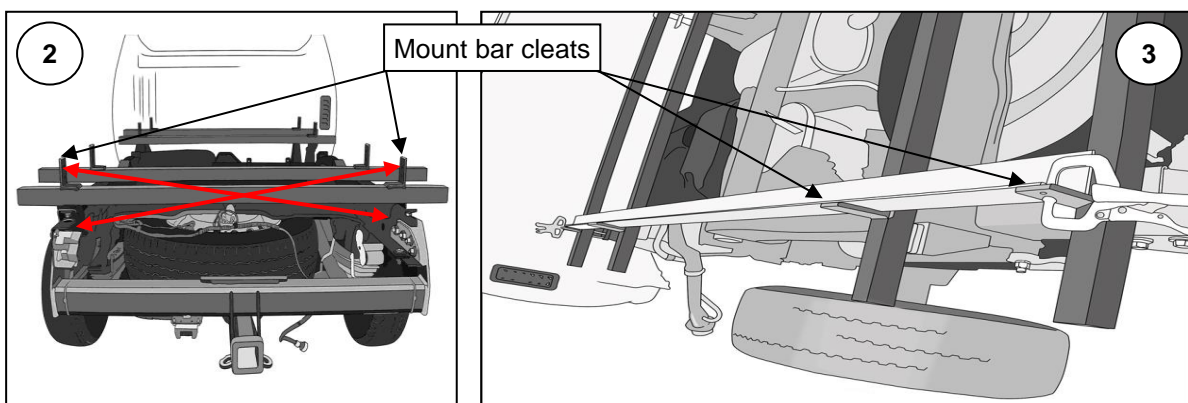
TRFITRAND Tray Fit Ranger DC - Kit BOM				
Type	No.	Description	Quantity per	Unit of Measure Code
Item	BLK200C	Block For Cross Bars 40MM Coat	6	EACH
Item	BLTHHZZP1290	Bolt & Nut Hex ZP 12X90mm	6	EACH
Item	NUT12C	Nut Channel M12	6	EACH
Item	NUT6N	Nut Nyloc M6	29	EACH
Item	NUT8N	Nut Nyloc M8	12	EACH
Item	PLT390C	Fish Plate forTrayBearers Coat	6	EACH
Item	RIVET200	Rivet 6-6 Steel	1	EACH
Item	SCRHHSS620	Screw Set Hex Head S/S 6x20mm	28	EACH
Item	SCRHHSS825	Screw Set Hex Head S/S 8x25mm	12	EACH
Item	SPACER30	Mounting Spacer 50 X 50 X 3	4	EACH
Item	SPACER40	Mounting Cross Bar Spacer	4	EACH
Item	SPACER50	Mounting Block Spacer 10MM	4	EACH
Item	SPACER60	Plastic Packer Spacer 4.5	2	EACH
Item	TIE100	Tie Cable BLK 4.8x300mm	6	EACH
Item	WSH220	Washer 5/16 X 3/4 Flat	12	EACH
Item	WSH10	Washer BRT Z/P 1/2x1-7/8x14G	6	EACH
Item	WSH300	Washer Spring Z/P 12x2.5x2.5mm	6	EACH
Item	BAR310FC	Bar Universal Cross Mount Coat	3	EACH
Item	BKT420	Bracket Fuel Filler	1	EACH
Item	SCRHHSS625	Screw Set Hex Head S/S 6x25mm	1	EACH
Item	WSH180	Washer Brt Z/P 1/4x5/8x18G	4	EACH
Item	WSH240	Washer Brt Z/P 1/2x1-1/8x16G	6	EACH
Item	SCRPHSS416	Screw Philips Hd SS M4 x 16	4	EACH
Item	NUTSSM4	Nut SS M4	4	EACH
Item	TRSTDFITKIT	Tray STD Fitting Kit	1	EACH

FIT INSTRUCTIONS

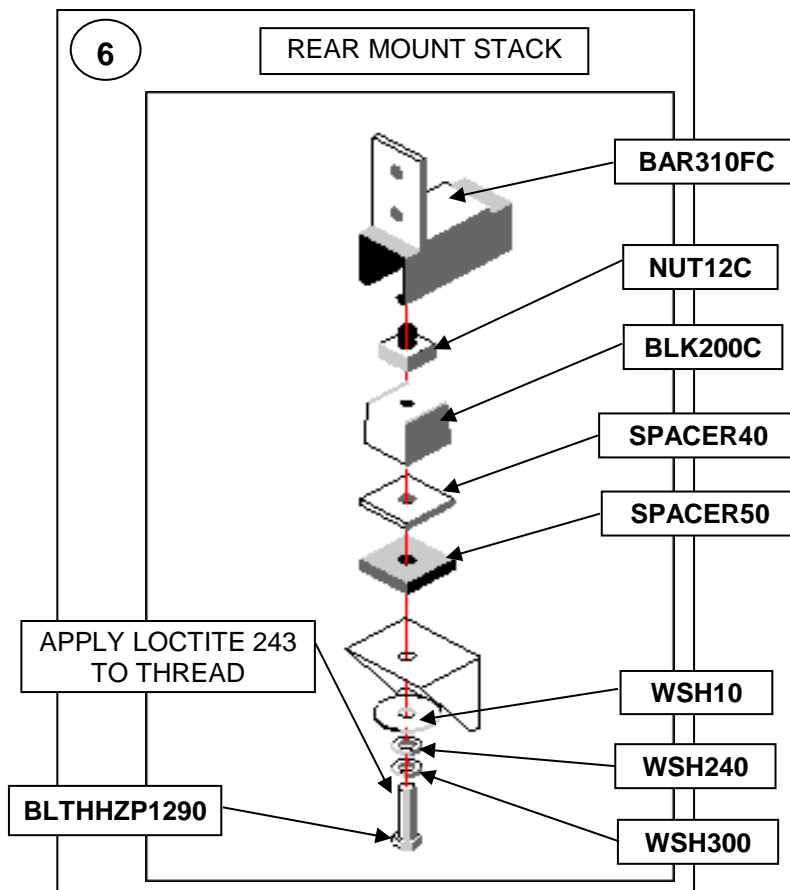
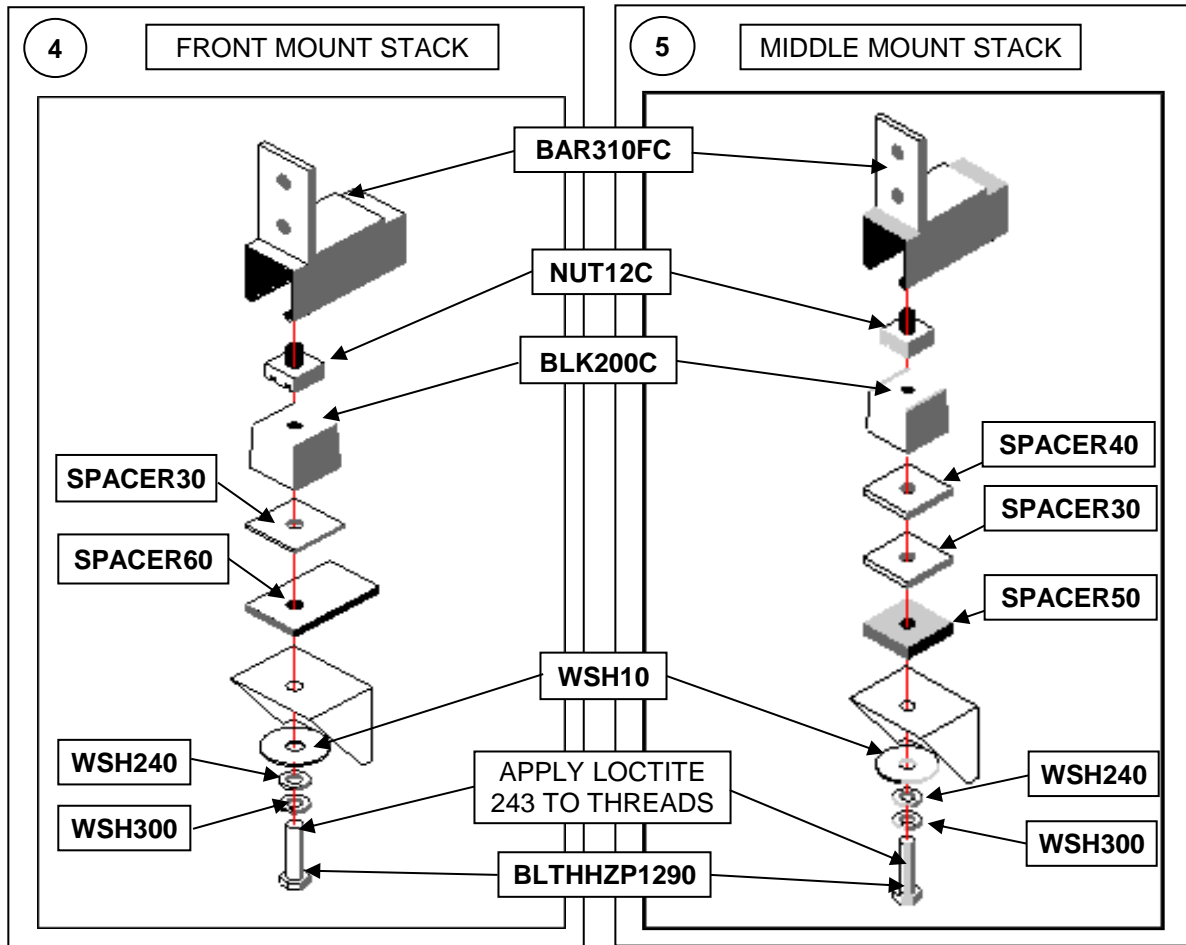
- 1 Refer to **ILL 1** showing dual cab mounting positions. Locate these positions on the vehicle.
Note: All mount points on the vehicle must be used when fitting a Flexiglass Tray.
- 2 Refer to mount diagrams on **Page 3** which illustrates standard part usage for mounts on DC Ford Ranger and Flexiglass Tray.
- 3 Fit the mounts in place on the chassis, using the parts and applying lock tight to thread as shown in the three diagrams on **Page 3**.

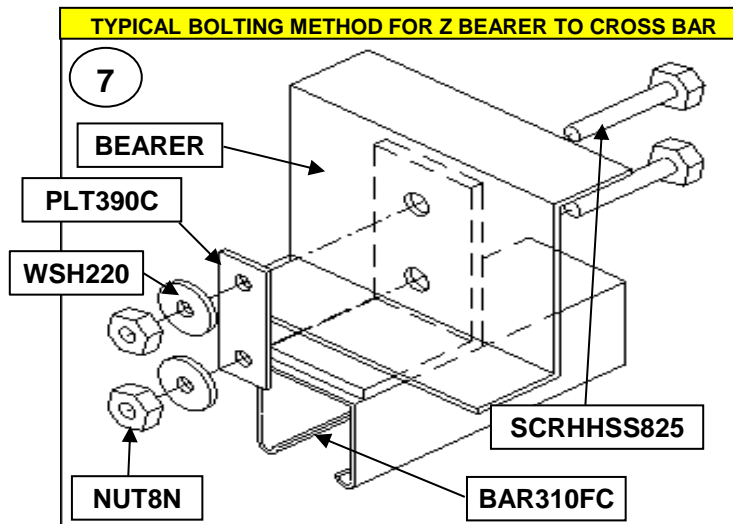


- 4 With all parts in place and the bolts still loose check the front and rear mounts are central over the chassis by measuring from the inside of one mount cleat to the inside of the opposite chassis rail. Repeat this for the other mount cleat and rail, sliding the mounting cross bar "to and fro" until the measurements are equal. See ILL 2.
- 5 Tighten the four bolts securing the mount bars to the chassis mounts front and rear.
- 6 Place a length of **ALUM10** between the vertical faces on one side of the front and rear mounting cross bar cleats and clamp it to them. See **ILL 3**
- 7 Slide the middle mount cross bar across until the cleat is against the same face of the angle as the front and rear cleats. **Note:** This ensures that all three bars are now central and in line with each other.
- 8 Tighten the two bolts securing the middle mounting cross bar.

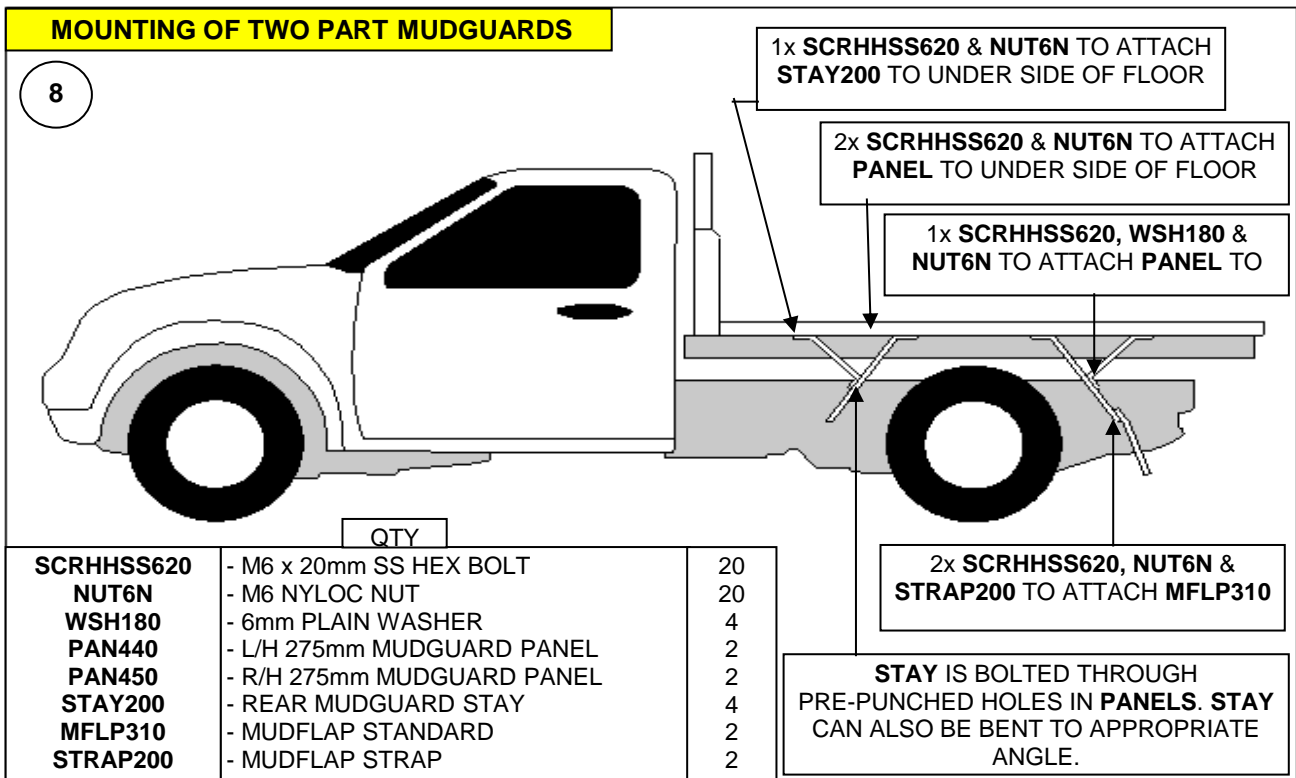


- 9 Place the Flexiglass Tray in place on the mounts. **Note:** There must not be more than 700mm overhang of the tray bearers from the rear mounting position.
- 10 The front section (Z Bearer) of the tray needs to be a least 25mm back from the cab to allow for chassis twist.





- 11 Once tray is lined up drill 21/64" Holes into the bearers using the mounting cross bar as a guide. See ILL7.
- 12 Secure tray to the bearers as shown in the diagrams above.



- 13 The stays are mounted to the mudguards in pre-drilled holes using 1 of **SCRHHSS620, WSH180 & NUT6N**.
- 14 Mount the mudguards to the underside of the tray deck by lining up the pre-punched holes in the mudguard with one of the ribs running along the underside of the tray. Drill 1/4" holes and attach with 2 of **SCRHHSS620 &NUT6N**.

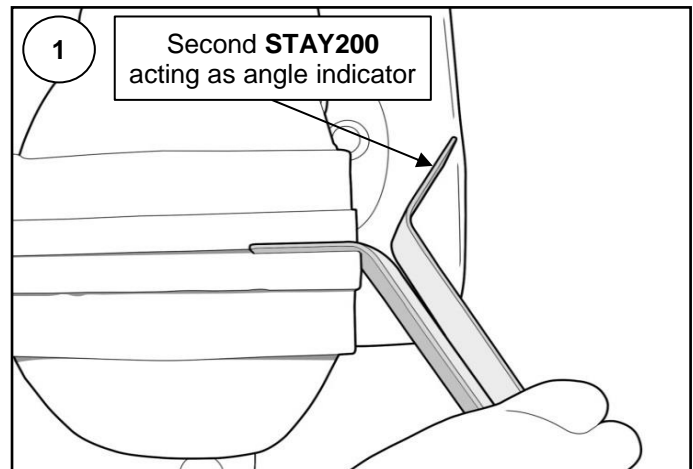
Note: Make sure the spacing between the mudguard and wheel is sufficient for both aesthetic and functional purposes. See **diagram 8**.

- 15 Attach the other end of the stay to the underside of the tray using same method but with only one fixing.

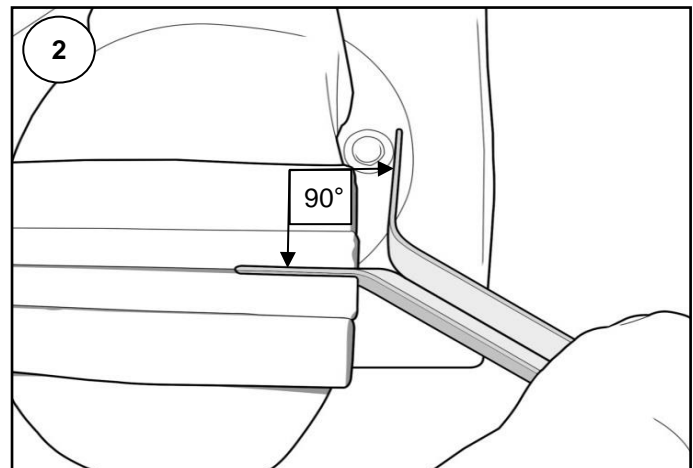
STAY200 MODIFICATION

About 1/3 of tray fits will require a shorter mudguard stay than the **STAY200**, supplied, to accommodate fuel fillers etc. In those cases two of the **STAY200**'s will require modifying in the following manner.

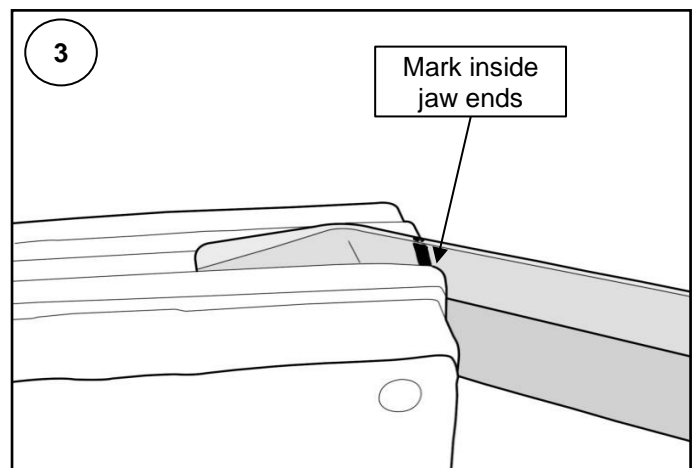
- 1 Clamp the bottom end (large diameter hole) of the **STAY200** in a vice. See **ILL 1**.



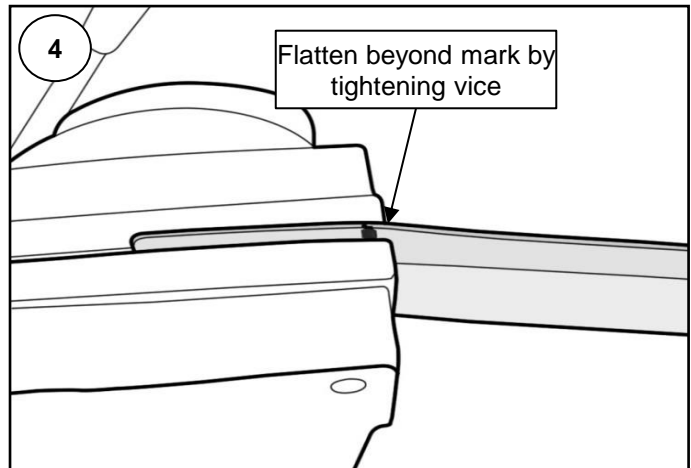
- 2 Use a second stay as a guide to straighten the bottom end, use the guide stay to achieve about 90° between the two ends. See **ILL 2**.



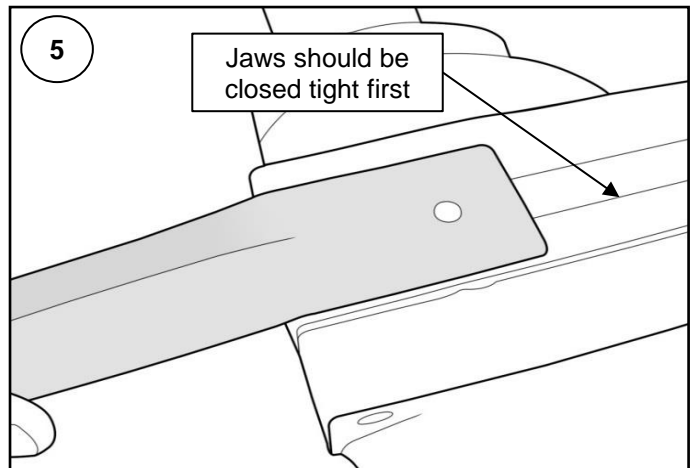
- 3 Measure from the inside of the bottom bend. About 255 - 260mm towards the top and make a mark.
- 4 Clamp the top end into the vice with the mark inside the end of the jaw. See **ILL 3**.



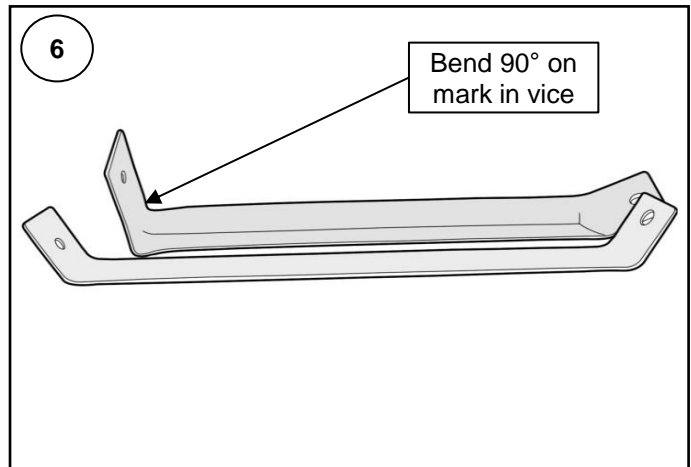
5 Press end flat by tightening vice jaws.
See **ILL 4**.



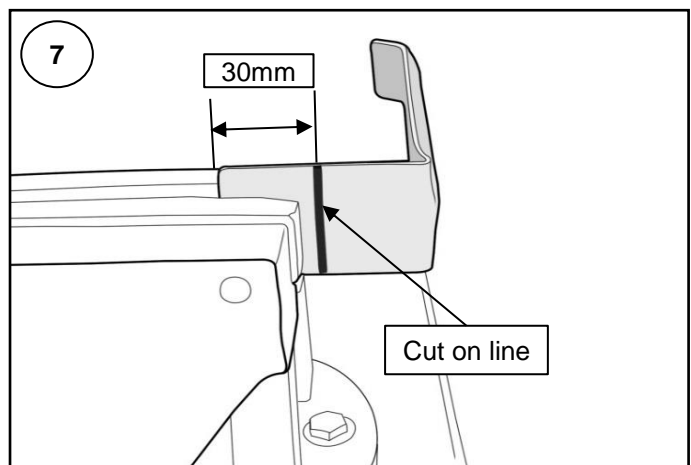
6 Lightly hammer the last bit of distortion out on the tightened jaws of the vice.
See **ILL 5**.



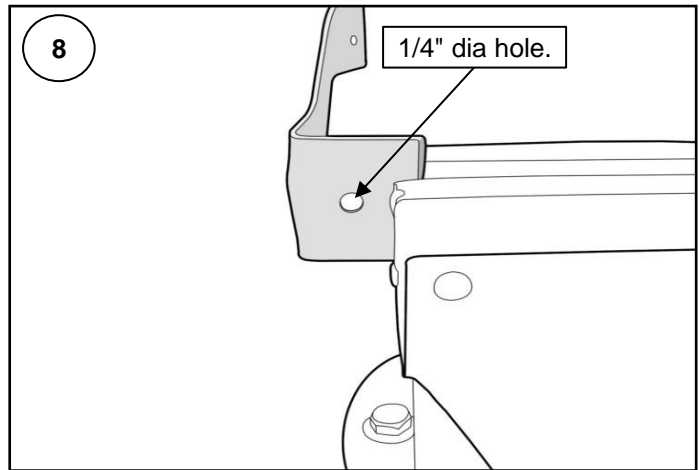
7 Clamp in the vice and bend the flattened end 90° at the mark to make the shape shown in **ILL 6**.



8 Shorten the newly bent end by about 30mm. See **ILL 7**.

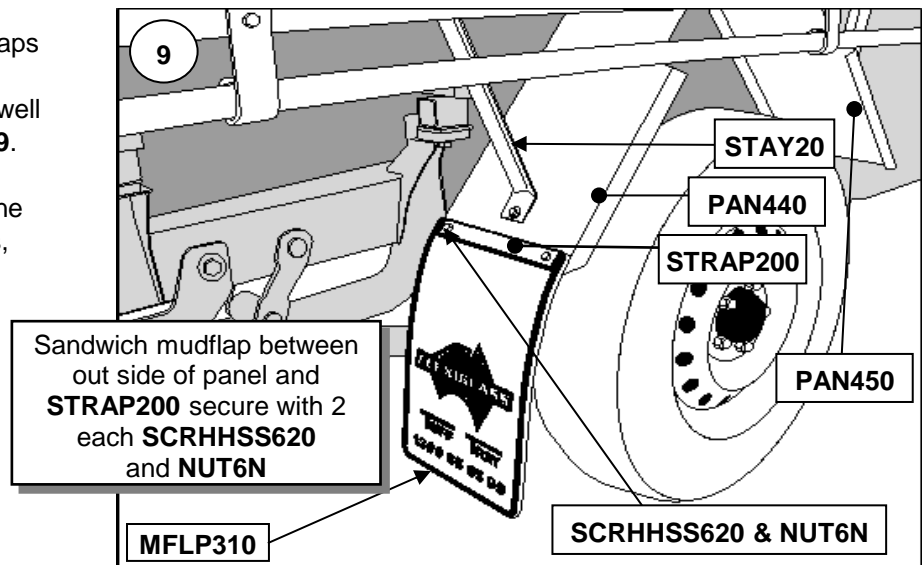


- 9 Drill a 1/4" hole in the middle of the new end. See ILL 8.
- 10 Remove sharp edges and corners with a file.



- 16 Attach both **MFLP310** mud flaps to the mudguards using 4 of **SCRHHSS620** & **NUT6N** as well as 2 of **STRAP200**. See ILL 9.

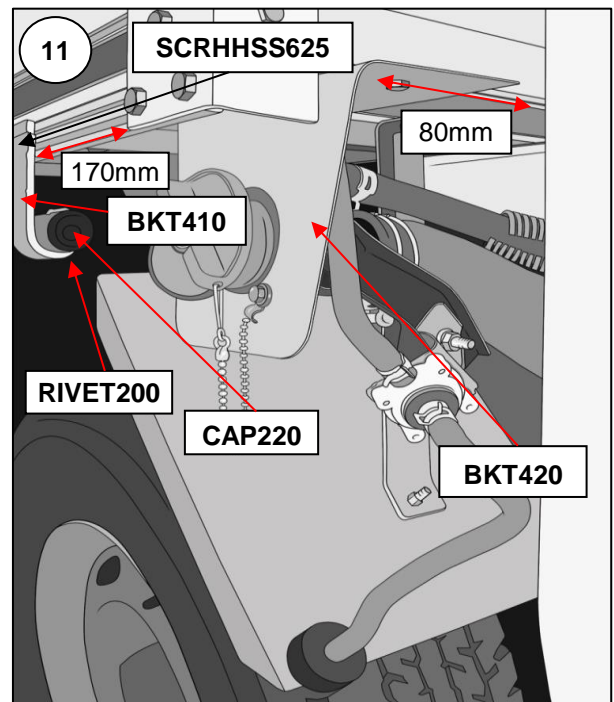
Note: Diagram only shows one side and requires only 2 bolts, washers, nuts and 1 strap.



- 17 From the rear edge of the headboard angle measure back about 140mm and cut through the rope rail. See ILL 11.
- 18 Carefully cut the bottom of the headboard angle flush with the underside of the coaming and remove sharp edges.

NOTE: If it is at all possible the cutting of the angle should be done during the build as 65mm can be removed in a drop saw or similar far easier and quicker than cutting in situ.

- 19 Slide **BKT410** over the cut end of the rope rail and position it about 170mm behind the headboard angle.
- 20 Drill side coaming and fix bracket with **SCRHHSS625** and **NUT6N** and rivet to rope rail with **RIVET200**. Fit **CAP220** to end of rope rail.



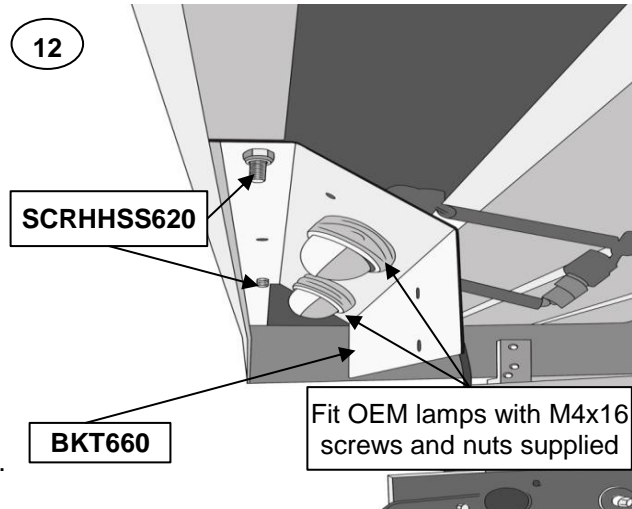
- 21 Bend about 80mm down from the top edge of the **BKT420** to approximately 90°.

- 22 Remove filler cap and fit **BKT420** over the filler and position it onto the tray underside. When comfortably positioned clamp to one of the plank flanges and mark holes for fixing. Use a scribe to mark through the filler neck flange holes onto the back of the bracket. See **ILL 11**.
- 23 Remove bracket and drill all holes, use of an 8mm drill for the flange holes is recommended to give a safe margin for error.
- 24 Fit bracket to filler neck using original screws, then position bracket on plank flanges and drill through the bracket holes into the flanges. Secure with 2 of **SCRHHSS620** & **NUT6N**, tighten all screws fully.

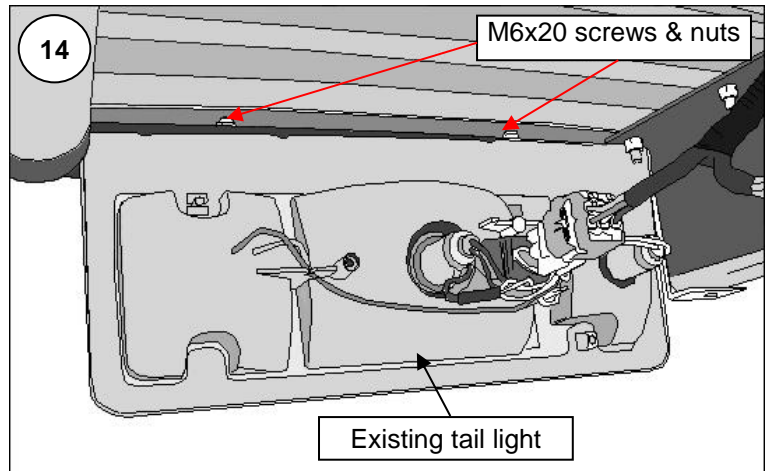
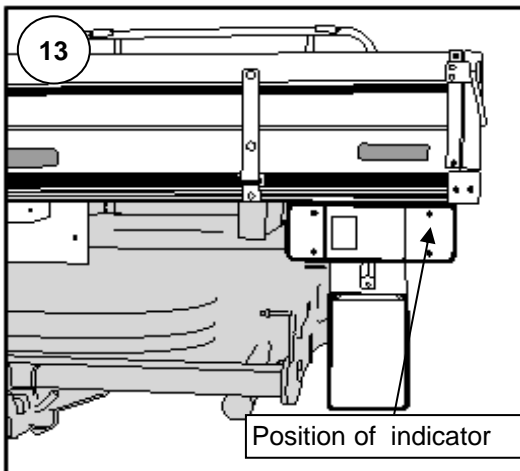
25 Attach the two OEM licence plate lamps to the **BKT660** using the **SCRPHSS416** & **NUTSSM4** M4x16 screws and nuts provided, through the appropriate holes in the bracket. See **ILL 12**.

26 Attach **BKT660** Number plate bracket in the centre at the rear end of the tray. Use 4 of M6x20 SS bolts and M6 Nylock nuts to fit to the underside of tray. See **ILL 12**.

Important: BKT660 Number plate bracket must be fitted to the rear end of the tray to meet ADR requirements (as shown in the image).



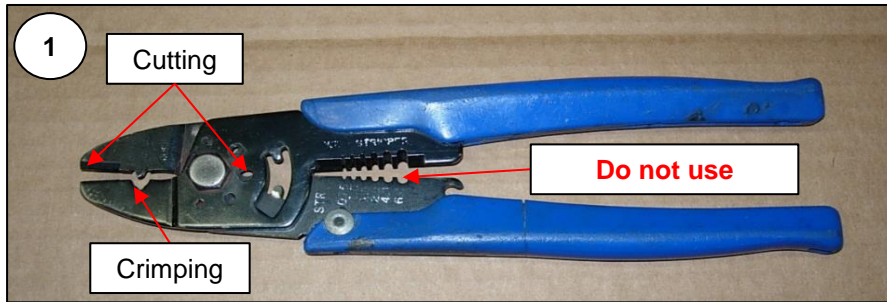
27 The OEM lamps and brackets should now be attached to the underside of the tray rear, ensure that the lenses are fully exposed and the indicator lenses are to the outside.



28 All lamps can now be re-connected to the main harness using the existing multi-snap connectors, check for correct operation.

ELECTRICAL WIRE STRIPPING SAFETY PROCEDURE

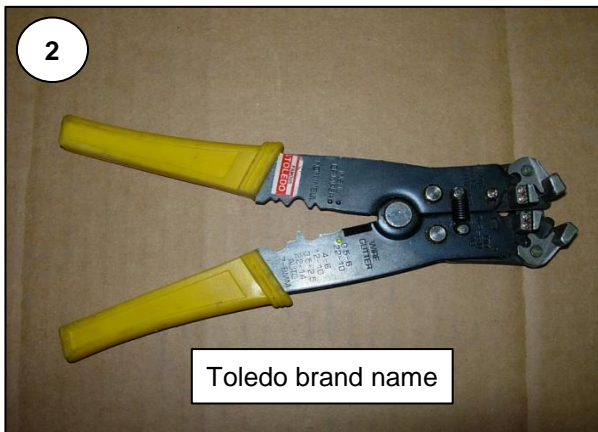
It is Flexiglass policy that the use of combination electrical cutting/crimping and stripping pliers be restricted to cutting and crimping use only.



It is a documented fact that the use of these pliers can cause personal injury due to the fact that they are reliant upon holding the cable in one hand while pulling with the pliers with the opposite hand. Any attachments to the gripped end can be pulled into and through the palm of the gripping hand causing injury.

The single hand action strippers are to be used at all times for stripping cable ends ready for joining or connecting.

Two types of cable strippers are recommended, one operates with the pliers at 90° to the cable (2) the other operates in-line with the cable (3).



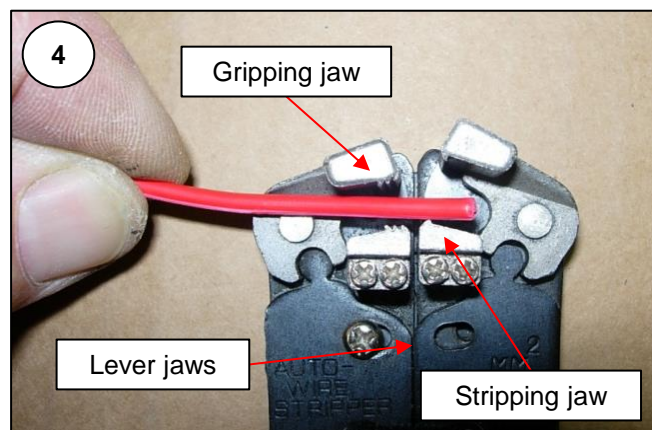
The tool in ILL 2 is a generally stronger and harder wearing item but the other is very useful for getting to cables in restricted space, it is therefore recommended that both types be available.

OPERATING INSTRUCTIONS

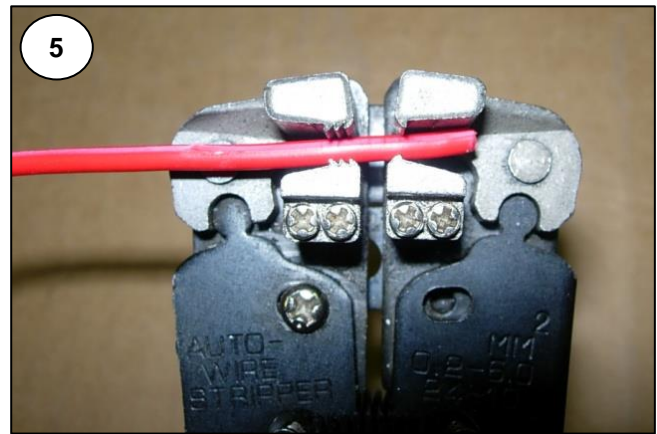
- 1 Squeeze handles sufficiently to bring the lever jaws together. Lay cable between stripping jaws as shown in ILL 4.

Note:

There should be no necessity to strip more than 10mm of sheathing from the cable end for any of the connectors used by Flexiglass. If for any reason a longer stripped end is required, do it in repeated 10mm bites, the pieces can then be slid off the end using the fingers.



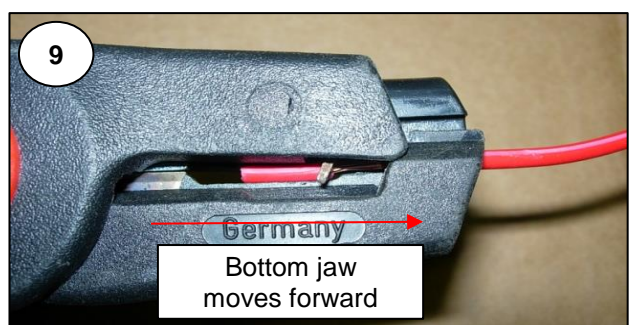
- 2 Continue squeezing the handles together to engage the gripping and stripping jaws.



- 3 Increase the pressure slightly as you continue to squeeze. The stripping jaws will then move independently of the pliers cutting and stripping the end of the wire until with a sharp click both sets of jaws will automatically disengage.



- 4 The Wurth pliers are simpler in operation. After placing the cable in the "V" of the bottom jaw, **ILL 7**, squeeze the handles together. The squeezing action brings the jaws together and forces the bottom jaw forward both cutting and pulling the sheath from the cable. See **ILL 8 & 9**.



FIT INSTRUCTIONS (cont..)

- 29** Restrain loose electrical cables by tying to bearers, cross bars etc using the **TIE100** supplied.
- 29** If alterations to the wiring need to be made it is recommended that you consult an auto electrician first.
- 30** Detail and clean the tray for delivery to the client.

**NO DETAILS ARE CURRENTLY AVAILABLE FOR A
WELL BODY REPLACEMENT FOR THIS VEHICLE**