Rigid Bullet – Rear Subframe (Part No.99150)

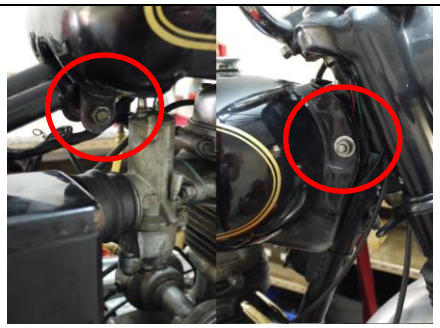
Task - Replacement of the original subframe with a rigid one

The development of this product has identified minor differences in the locations of some of fixing lugs, toolbox fixings lugs, rear brake pedal stop, etc. Some tolerance differences in the rigid subframe fixing lugs may require gentle easing when fitting the subframe fixing studs.

Fitting the rigid subframe does not require the engine to be removed from the frame. However, the rear loops of the original frame need to be cut off and the cut areas need to be dressed to remove all the welds, so the engine/carburettor needs to be suitably protected before commencing work. There are many variations in electrical components and the way these are mounted and wired. As we recommend mounting as many of these as possible within the toolbox, this may require modifications to the wiring loom.

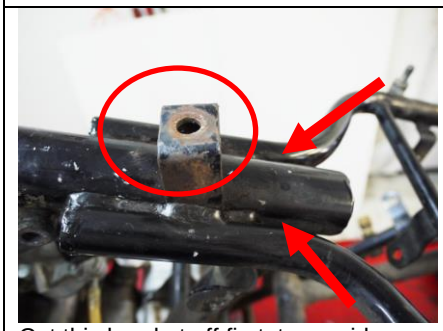
Removing the old sub frame

Remove the seat by removing the bolts each side as circled.



Petrol tank removal (retained by two bolts (circled).

Disconnect the tail light wiring loom. Remove the mudguard and frame complete, by undoing the retaining bolts and pulling up and rearwards.

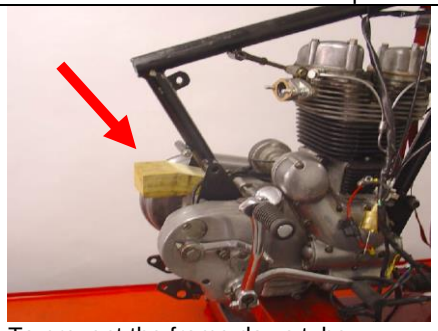


Cut this bracket off first, to provide more room for cutting through the frame loop welds on both sides (arrowed).

Cutting through the bracket prior to cutting through the welds between the main tube and the sub frame loops.

Frame welds successfully cut through.

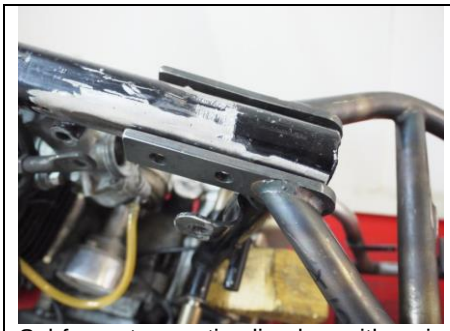
Old subframe removed (shocks, wheel, toolboxes and chainguard taken off first to lighten it).



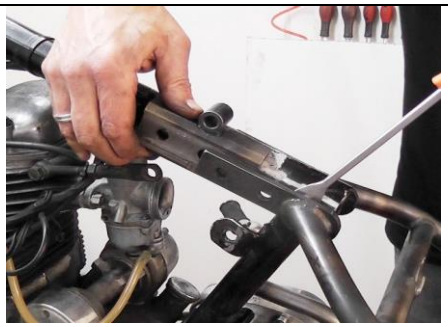
To prevent the frame down tube dropping, after the rear frame is removed, wedge a wooden block on top of the gearbox (arrowed).

Main frame tube ‘cleaned up’ with a disc sander.

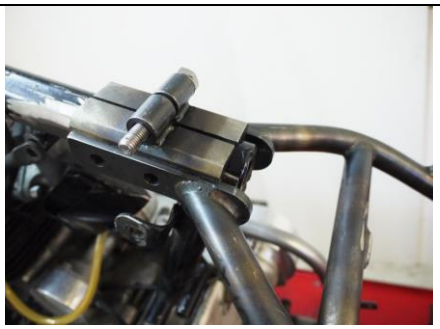
Attaching the new Rigid frame



Subframe top section lined up with main frame (attach subframe via it's lower mounting points first).

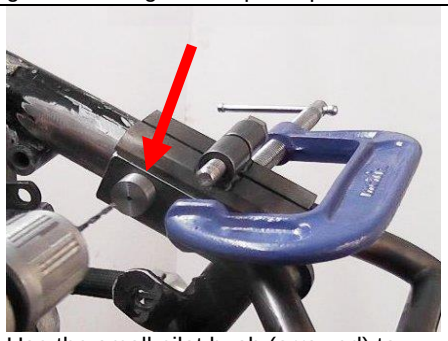


Slide the subframe fixing plates into place. You may have to apply some gentle leverage and tap into position.



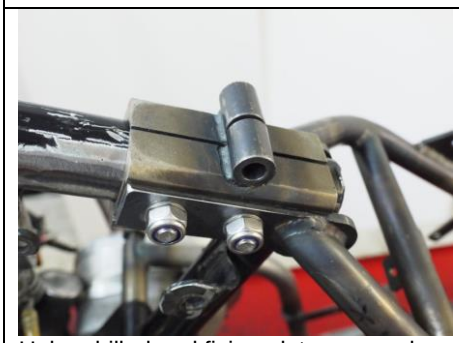
Fixing plates correctly positioned. Push a bolt through the top lugs to hold the plates in position.

Clamp the fixing plates to the main tube to prevent movement while drilling.

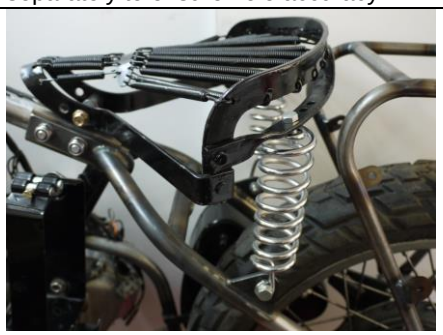


Use the small pilot bush (arrowed) to drill a 3mm pilot hole. Do each side separately to ensure hole accuracy.

Drilling the final holes (10mm drill). Do each side separately. Don't drill right through in one go.

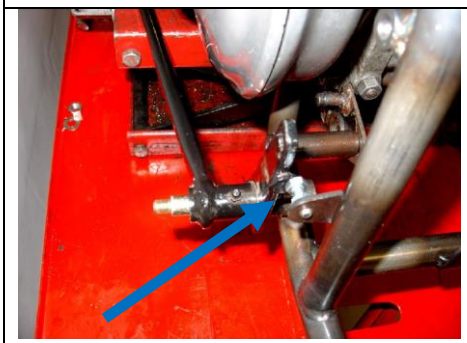


Holes drilled and fixing plates securely bolted in place.



Saddle and springs bolted in place. Note the positioning of front securing bolt and how the springs are attached.

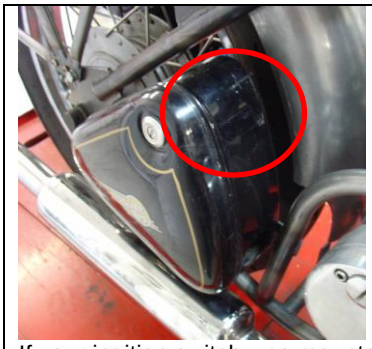
Chainguard fitted. It attaches in two places (circled).



Due to variations on the rear brake pedal it may be necessary to remove metal from the inner face of the brake pedal fixing lug to ensure the stop plate on the lever lines up vertically with the stop screw on the frame (arrowed).

The rear carrier is secured to the sub frame by a single bolt on each side (arrowed). The carrier is then secured to the mudguard by means of the lugs and supports as circled.

Mudguard attached, drilled and number plate bolted in place.

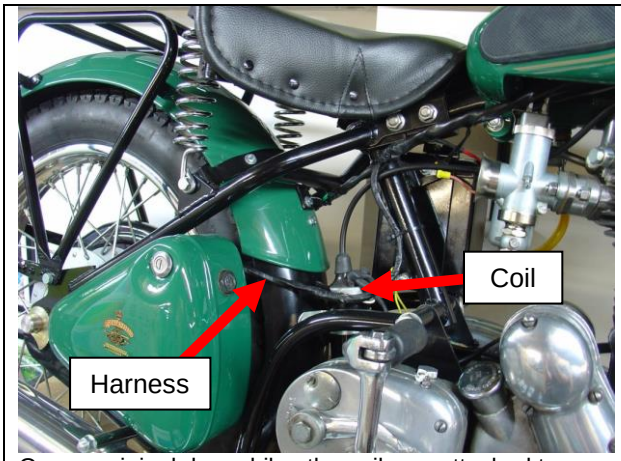


If your ingition switch was mounted in the LH toolbox, you will need to relocate it to the RH one. Drill a suitable size hole in the area circled.

Saddle, carrier, mudguard, number plate holder and tail light bolted in place.

Toolbox bolted in place and exhaust reinstalled.

Final notes



On our original demo bike, the coil was attached to a rear mudguard extension. Wiring harness for the ignition switch was routed in through a hole at the rear of the RH toolbox.

Hope fully once painted and reassembled, your bike should look something like this!