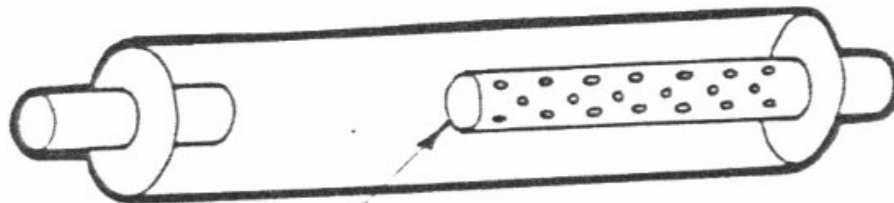


SILENCE is GOLDEN

TOM LUCAS explores the possibilities of home-made silencers

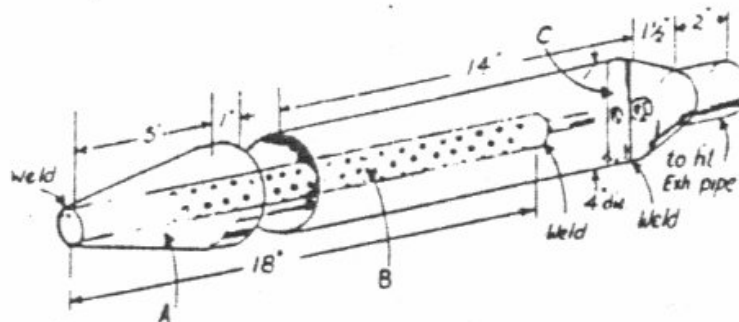
THERE IS NO DOUBT about it. New motorcycle-type silencers are an expensive proposition, and because they are mounted a fair distance from the engine on most Citroën specials, they never get really hot. Because they rarely exceed lukewarm, water vapour condenses inside them - and they rust from the inside out. Replacement every few years makes them an even more expensive proposition. So what can be done? Well, how about making your own?

Let's start off with David Ferraby's plan. Over to you, David! "Like Nik François, my silencers also burnt out/rotted through after a short time (8,000 miles) - even the drain holes I drilled didn't stop it. Seems to me, horizontally opposed engines must run very wet, as my R65 BMW eats silencers in even less mileage. I had a mind to make my own in steel, but couldn't get any thinnish 3" tubing, so bought two oval car silencers for £5 each and fitted them. Still a nice noise, but not deafening as before. Time will tell if we still have to use a washing machine drain tube to speak to each other!"



Blank Off End Of Tube

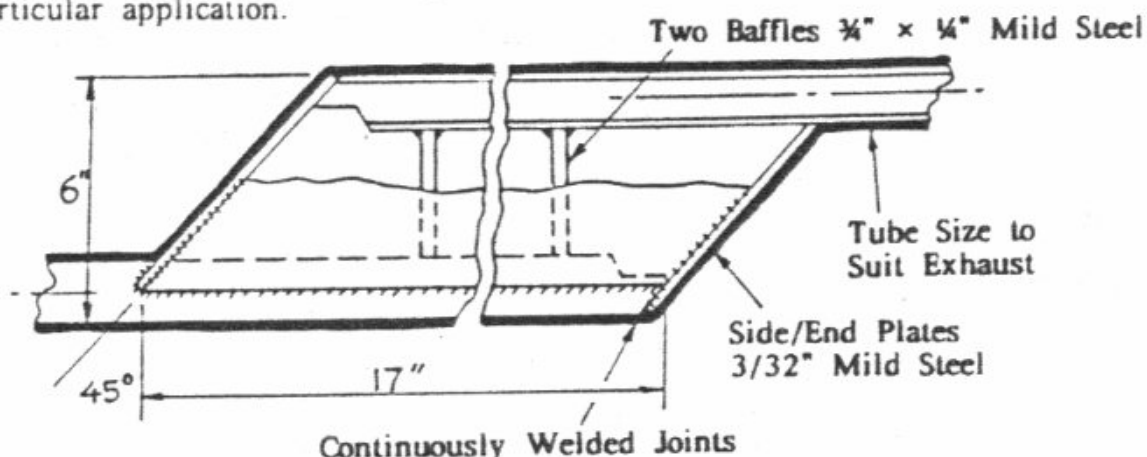
"I'm now working on the idea of making a pair in aluminium - lightweight and shouldn't rust. I either have to find the right tubing or make up my own, and rivet or weld it up. The drawing shows the rough idea. The drilled tubing should be at the exit so the gases have a chance to expand a bit before being stifled. Local aluminium fabricators will usually give one an armful of very useful stuff from their scrap bin."



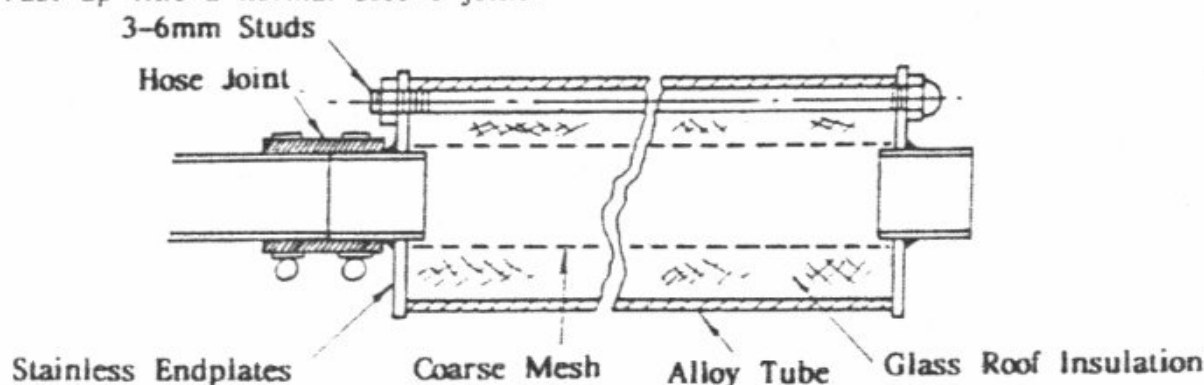
The cone A, which fits over the shell, is welded to the perforated pipe B, which is screwed to bracket C.

While re-keying the 1960 *Motorcycle Mechanics* 'Build Your Own Three Wheeler' series, I came across the instructions opposite for a home-made silencer. Admittedly, it is intended for a 197cc two-stroke but the basic design could be easily adapted. *Motorcycle Mechanics* have this to say. "The sketch below should give you the main design features for a good silencer which will not seriously affect performance but will silence effectively. It can be stripped for cleaning (more important with a two-stroke - ED). The one inch diameter stout steel tube has one end sealed with a 3/8 inch bolt welded to it. Drill sixty 1/8 inch diameter holes in this pipe for a start. If this results in loss of power, drill more until satisfactory."

Derek Smith, our club Technical Advisor, passed on the diagram below which originates from a non-member. For those of you who want to make their own Brooklands can style silencer, it could be just the thing. The diagram is pretty well self-explanatory, and again, the dimensions could be altered to suit your particular application.



When Tony Taylor built his utility special, he made his own absorption-type silencer. This can be dismantled for cleaning, and the packing renewed at intervals, so it is likely to last almost indefinitely. The tube part is about 24" long, and the packing material is easily-obtainable (just look in any builder's skip) fibreglass roofing insulation. Tony made the joints to the exhaust pipe with reinforced radiator hose and jubilee clips. The rubber radiator hose tends to harden in use but has the great advantage of being easily removeable, since it does not rust up like a normal sleeve joint.



Finally, if the idea of making your own silencer does not appeal, you could do worse than contact member Paul Leaney (Mem No. 058) who has found a source of Indian-made chrome cigar-shaped motorcycle silencers at an incredible £9 each ! They might not be wonderful quality (although the one I saw looked fine to me), but at that price you could fit a new one each year !

