

SHOPPING FOR STEEL

Purchasing sheet steel of the correct specifications is vital for effective DIY repairs.

WORDS AND PHOTOGRAPHY BY ROB MARSHALL

Most enthusiasts aren't familiar with buying the raw material that's required to repair their classic car. Not only does the metal's thickness and type need to be considered, but there are also health and safety implications for both handling and storing sheet steel domestically.

Thanks to

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Types and variations

Most metal merchants rack and colour-code metal sheets by their type and thickness. Hot-rolled product is inexpensive but likely to contain impurities that can spit out from the metal during welding. We'd therefore recommend you specify cold-rolled mild steel.

Galvanising involves the hot-dipping of steel into another molten metal – the resultant sacrificial coating prevents rust from occurring. However, those glistening surface layers vaporise at a lower temperature than steel. Not only could health problems result should the fumes be inhaled, but the welding of galvanised plate can also be tricky.

Some repairers find that Zintec sheet (which is electro-galvanised) is a good compromise between corrosion-resistant hot-dipped galvanised metal and mild steel.



The colour-coding system relates to the type of steel.

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WORKSHOP Buying Steel



TECH TIP
Buy a test sheet to practice your welding on before investing in large amounts of metal.

Thickness and size



Be sure you're buying an appropriate gauge of steel for your application.

Repairing classic car bodywork with material that possesses a similar specification to that used originally is crucial. A separate chassis is likely to be manufactured from thicker metal than a door panel, for example. Using calipers (pictured), determine the thickness of your classic's metalwork – using both metric (mm) and imperial (inches) measurements – prior to buying any plate. In the metal supply trade, 'gauges' are used to establish steel plate's

thickness. Larger numbers equate to thinner material, with 22 gauge (0.75mm or 0.030in) being the most popular size that many companies will stock.

Most metal wholesalers will stock full steel sheets that measure 8ft x 4ft, but some companies will not cut them down, so do enquire prior to venturing to the supplier's premises. Average price for an 8ft x 4ft sheet is £30 for 1mm thickness or less.

Basic tools

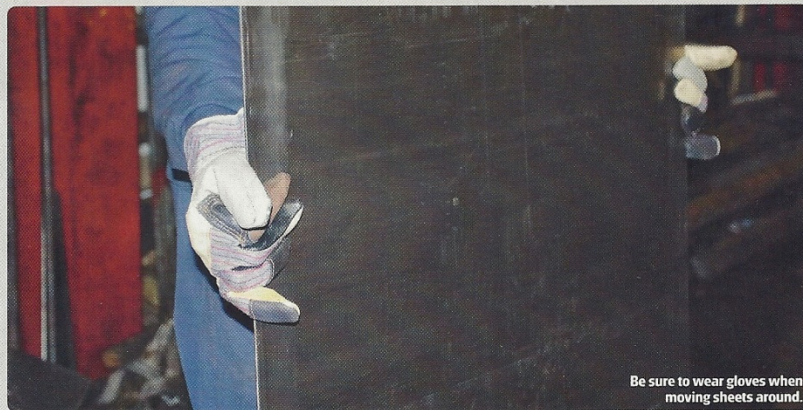
Measuring calipers are essential to establish the thickness of the steel used by the manufacturer of your classic. You can estimate the quantity of steel you'll need based on the number of repair panels and patches that your restoration project requires.

Cutting the steel will require either a pair of metal cutters or, for cutting larger repair sections, a metal 'nibbler' (pictured) will be a useful purchase. Using an angle grinder fitted with the appropriate cutting disc is a quicker but noisier alternative. Additionally, a tape measure, a ruler and a marker pen are inexpensive and invaluable additions to your restorer's toolkit.



Having the correct tools will make working with steel much easier.

Storage and handling



Be sure to wear gloves when moving sheets around.

The edges of sheet steel are razor sharp, so you should always wear thick gloves when handling it. Gardening gloves or welding gauntlets are ideal for this purpose. Be wary of the protective oil film present on untreated mild steel, which could indelibly stain both your clothes and car upholstery during transportation.

Once at home, ensure that the plate isn't stored in a location where it could be handled, accidentally or otherwise, by either children or pets. Untreated steel should be stored in a dry location to prevent the surface from rusting, but the sacrificial surface of galvanised plate can also oxidise in the presence of moisture. **CM**