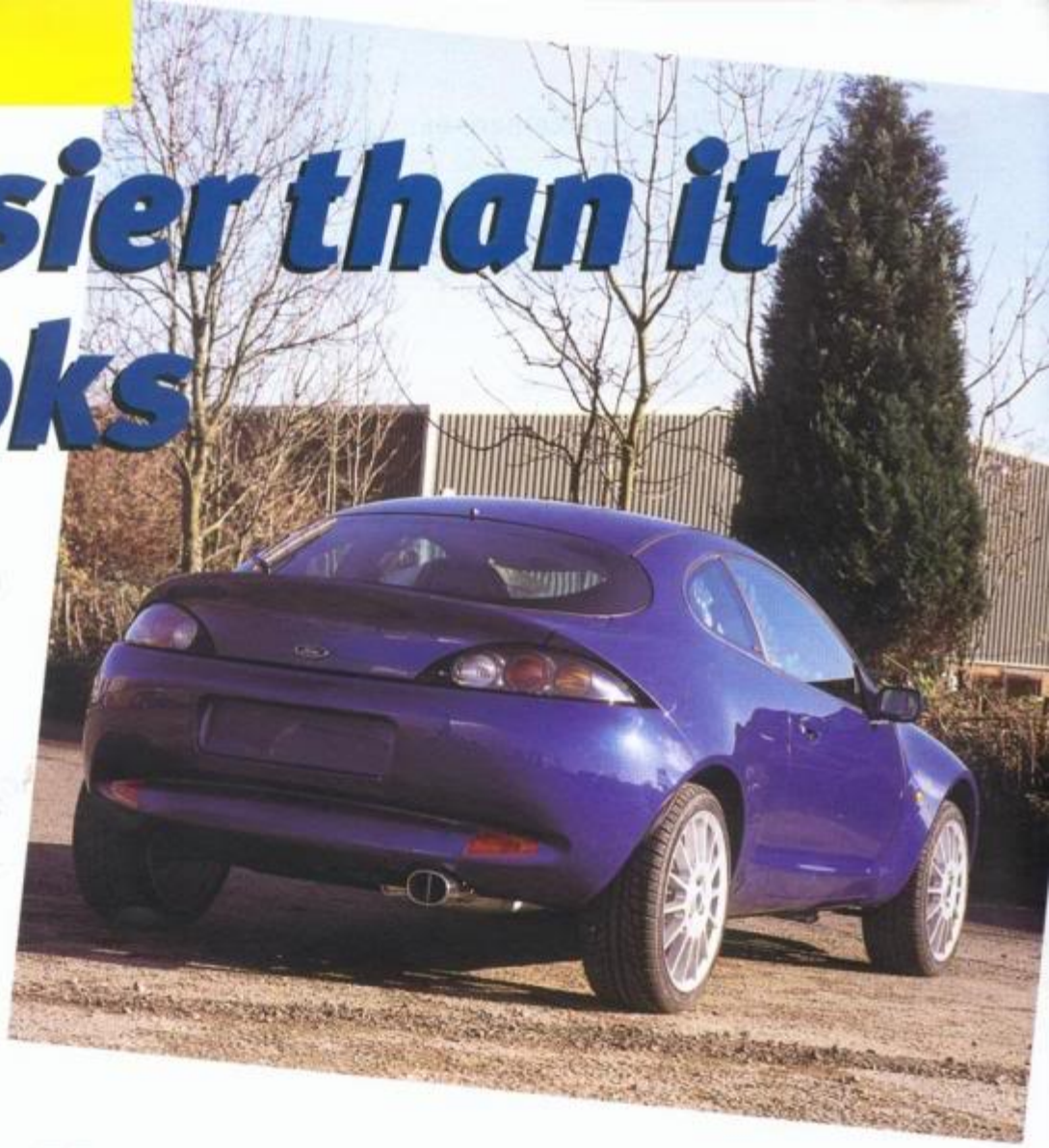
Easier than it looks

The transformation of 1000 Ford Pumas to Racing Pumas is being undertaken at a purpose built factory in Daventry – we watched the process and were enthralled.



However, we did wonder what sort of job it would be to fix one after accident damage to the rear quarter.

When a Racing Puma comes in with damage to the rear quarter panel, the extent of the damage will determine the repair process, but it is highly likely that it will not be possible to effect a repair except by renewing the entire panel.

Tickford's factory in Daventry.

As you will see later the rear quarter panel that gives the Racing Puma its flared wheel arch is bonded to the modified original quarter panel. Consequently, if this overpanel needs to be renewed then the modified original quarter panel must also be renewed.

Before we get bogged down trying to work out just how complicated the job is let's backtrack a bit. Racing Puma is only being sold through 42 'Ford Racing' franchise dealers. Parts will only be available, and the vehicle will only be repairable, through these dealers. This means that the majority of you can breathe a collective sigh of relief because you probably won't ever have to repair one. Having said that it is worth understanding the process, which, although complex, is quite bodyshop friendly.

Removal

The process used at Tickford's factory to build Racing Puma is exactly the process that will be used to repair a damaged car. We have detailed the procedure in a step by step guide. First the damaged vehicle must be put back to its original specification:

- The following items must be removed: the rear bumper, rear lamp, tailgate weatherstrip, fuel filler flap and fuel tank filler neck (if the damage is nearside), rear quarter window, interior trim panels, rear seat cushion and backrest, safety belt, door weatherstrip and the door striker;
- The floor covering and all cables must be moved away from the work area;
- The quarter panel should be cut at the rocker panel and at the B- and C-pillars;
- Separate the folded joint in the wheel arch area;
- The original quarter panel, overpanel and wheel arch liner should be removed.

Weld

- Before fitting the new original specification quarter panel apply clinched flange protection material within the wheel arch area;
- With the modified original quarter panel in place, MIG weld at the B- and C-pillars;
- Spot weld the backing strip at the cut edge of the quarter panel by the rocker panel and produce a continuous MIG weld seam;
- Flange the folded joint in several stages;
- Puddle weld from the B-pillar to the rocker panel, from the rocker panel to the base of the wheel arch, from the bottom of the rear lamp position to the C-pillar.

At this point in the process the car is back to its original specification and from here the procedure is that used at the Tickford factory.

Cut

- Cut out the wheel arch liner following the line in the panel. On the near-side panel, cut out the fuel filler housing around the outer lip of the hole;
- Indent the modified original quarter panel for a length of 175 mm by the rocker panel as shown in our photograph. To obtain a good fit for the Racing Puma quarter panel (overpanel) use a 'soft'-headed mallet to avoid damaging the paint layer;
- Position the wheel arch liner in place and secure it temporarily with four rivets, one at each end and two evenly spaced between them;
- Place the overpanel in position – rear lamp corner first – and temporarily secure it there with two rivets along the window edge;

Cut out the fuel filler housing.

Carefully indent the modified original quarter panel.

Other modifications

Front wings

Minor alterations are required to fit the front wings (see photographs):

- The engine mountings need to be reworked to ensure that they do not foul the wheel. This is accomplished by cutting a section from the corner and reworking this area.
- The wheel arch flange must be bent out and up. This has to be done gradually and carefully to avoid unnecessary damage.
- Finally, part of a bracket must be cut off.

Lock mounting panel

If this needs to be renewed you should note that the flange in the middle needs to be bent away from the engine to avoid fouling. The cable that attaches to the clip on this flange must be re-routed on the other side of the flange.

Before

A. The engine mountings need to be reworked.

B. The wheel arch flange must be bent out and up.

C. Part of a bracket must be cut off.

After

For your information

The workshop manual for Racing Puma is available on TIS. Parts for Racing Puma will not appear on Microcat, instead a unique parts list will be available from Ford Racing.

If you need to contact Ford Racing concerning any of the unique parts on Racing Puma you can either fax them on 01245 234212 or telephone Andrew Smith on 01245 234264.

The wheel arch liner is secured in position by ten rivets.

- Remove both the wheel arch liner and the overpanel;
- Drill and countersink ten holes in the wheel arch liner, prepare the surfaces for welding and apply seam sealer to the back before securing in position with ten rivets;
- MIG weld the wheel arch liner to the quarter panel in five places.

Note: *The wheel arch panel should not touch the overpanel. Leave a small gap, which should be filled with sealer.*

Overpanel

- Our photograph (below) shows the areas on the rear of the overpanel where adhesive and seam sealer need to be applied. These areas must be 'Scotchbrited' and degreased both on the rear of the overpanel and the front of the original panel beforehand;
- Seam sealer should be applied around the inside edge – the white line in our photograph of the overpanel, and adhesive

The overpanel is fitted, starting at the rear. Ensure the flange fits into the slot.

Seam sealer is applied around the outside edge – shown in white, and adhesive to the remaining marked area – shown in yellow.

to the area shown by the yellow zigzag (The colours are for illustration purposes only.).
Note: *Do not allow the seam sealer and body adhesive to come in contact with each other or curing will be impaired.*

The overpanel is ready for fitting.

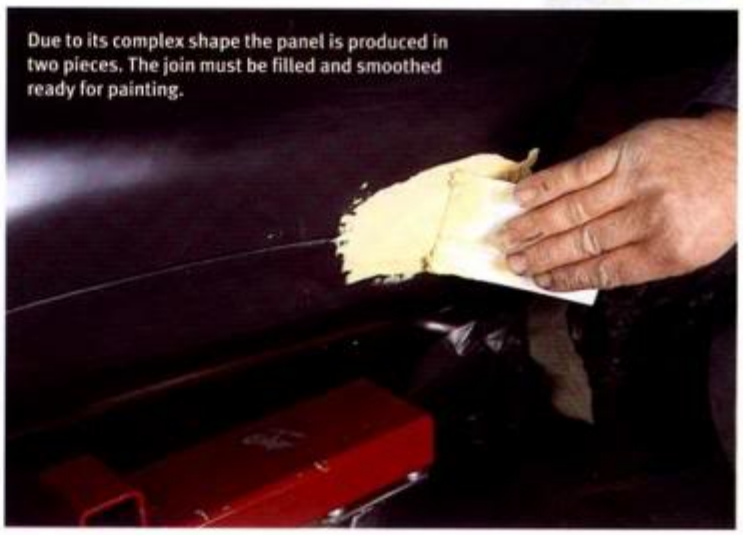
- Starting at the rear, ensure that the flange fits into the slot;
- Secure the overpanel with two rivets, using the holes made earlier;
- In the tailgate opening rivet the overpanel in place through the tang;
- Prepare the surfaces and MIG weld the flange joint at the C-pillar. This joint, plus those at the rocker panel and on the panel itself, need to be filled and smoothed.

The vehicle can now be prepared for painting. All Racing Pumas leave the Tickford factory painted in Imperial Blue – the same colour that is used on the ST200. And that's all there is to it. Easier than it looks? ❑

'Production has only just started, but the total run of 1000 vehicles has already been sold!'

Prepare the original panel ready for welding.

Take care when welding that you do not overheat and distort the panel.



Due to its complex shape the panel is produced in two pieces. The join must be filled and smoothed ready for painting.