### TECHNICAL REPORT

With 2020 and the challenges that it created behind us, now is a good opportunity to look at the myriad of things that the New Zealand collision repair industry could do / should do (and maybe even are doing), better!!

### REPAIR PROCEDURES AND THE BIGGER PICTURE

- What Could Collision Repairers Be Doing Better ??



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### **About I-CAR**

Without delving into the ways many shop owners now manage staff, parts suppliers, work providers and so-on, this report highlights what I -CAR provides to the collision repair industry, in addition to training and advocacy. While we have a number of shops that regularly use our tech request site, many repairers could be working a little smarter by approaching us in the first instance to obtain all the appropriate required info for any particular repair they may have in their workshops, rather than taking on the liability / pressure of sourcing the material themselves directly via their local dealership, or perhaps of even more concern, "assuming" they have all the necessary documentation to complete a structural repair that would stand up to any scrutiny.

In the role of I-CAR technical specialist and supplier of repair procedures, as well as correct collision repair processes to the wider industry in New Zealand, we regularly observe repairers struggling with obtaining the correct methodology, or even understanding the information that they have received, when sourced via their local OEM parts department.



This is not taking a shot at our local OEM parts guys – it's a big ask to expect parts consultants to know what a repairer requires or needs when, for the most part, they have no training or background in our industry. We often see even trained collision technicians struggle with understanding the symbols and methodology contained within repair specs.



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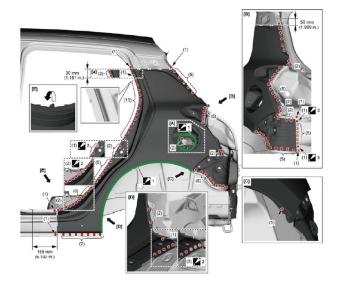




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For a parts consultant, it's a quantum leap from this -







On many occasions over the past several years, as more and more impetus is placed on following correct procedures, we have been approached to provide clarity on OEM requirements and recommendations – The best outcomes are those that are determined before the repair commences. Unfortunately, in some instances, the repair has already been completed, which can lead to costly re-work if the methodology is challenged, as well as creating animosity between the interested parties (not to mention the loss of credibility with the customer when that embarrassing phone call has to be made about getting the vehicle back in to re-repair!!)









We have New Zealand OEM approvals to provide BRM information for Suzuki, Toyota, Holden, and more recently Ford. That BRM information goes beyond just the basics that may come from the local dealer. These OEM's recognise that the dissemination of all the correct & comprehensive information is better supplied via I-CAR.

Being able to supply information on OEM general procedures (inc. welding and cutting), options for partial replacements, position statements on scanning, SH parts use and so on, can be hugely beneficial when determining a safe & cost – effective repair solution.



# TECHNICAL REPORT L-CAR

### Lets look at a recent example that we were involved with on a Ford Ranger :-

The area in question was the outer C Pillar which is damaged extensively and requires replacement. The repairer requested and received the repair procedure from the local Ford dealership for this part. While the method was described correctly, there was a misinterpretation on what the appropriate repair scenario should be – brought about by a lack of understanding of the BRM.

The repair procedure found in the Ford BRM describes replacing the C pillar reinforcement, which also includes cutting and sectioning the outer panel. As the reinforcement can only be replaced at the factory joints, the outer panel requires cutting away down into the sill /rocker, as well as up into the roof / cant rail area (as per the "service condition" of the supply part).

As this procedure is the only one supplied by Ford for the C pillar, the assumption was made (incorrectly), that the outer panel can only be cut and welded as per that method.

If the reinforcement does not require replacement, the outer panel can be sectioned anywhere the technician sees as appropriate (with some restrictions) – Ford have a 'Position Statement" that describes the processes required (see below) - importantly, this is found elsewhere in the manual.

### **COURTESY OF FORD**

### **General Information - Overview**

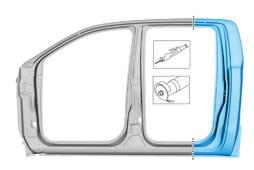
### **Exterior Skin Repairs - Non-Structural**

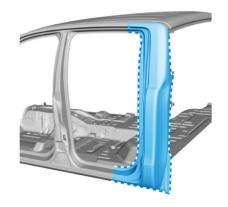
Exterior skin may be sectioned according to repair needs and technician judgment. There may be suggested cut lines or repair scenarios dictated in the workshop manual, or common industry guidelines may be applied. All joints should be done using a MIG welded butt joint with a typical 50 mm backer and must be at least 50 mm away from hinge and striker mounting points. Consideration should be made as to final finishing of repair area, and restoration of corrosion protection after repair must be restored per the workshop manual procedures and guidelines.



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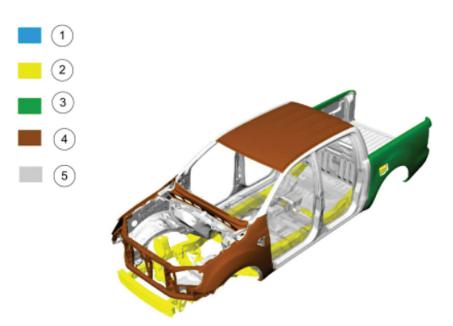
### Excerpts from the C pillar procedure:





### Other critical information found in the Ford Ranger BRM:-

High-strength and super-high-strength steels

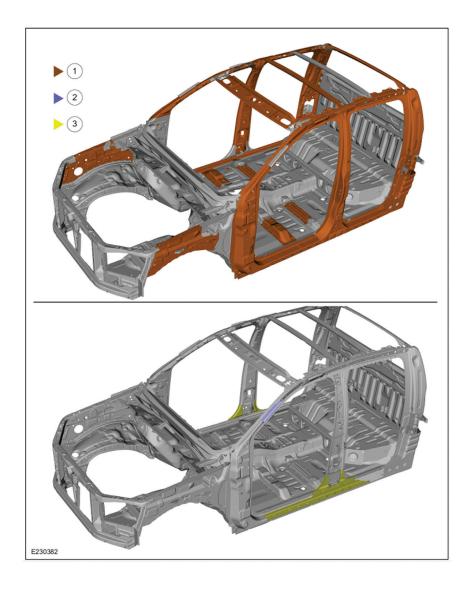








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I-CAR NZ have been (and still are), working with other vehicle-makers in New Zealand to provide OEM information – as seen with model specific course development and delivery. While copyright does limit our ability to provide specific repair methods for brands other than the four we have agreements with, we may still be able to help with technical advice - the key point is to have the appropriate discussions PRIOR to the work commencing!!

These articles have been written by Martyn Lane: I-CAR Instructor, Weld Test Administrator and Technical Specialist to the auto body industry

