

Press Information

RAPID METALLOCK REPAIR GETS TOYOTA UK BODY PRESSING DIE BACK IN OPERATION IN QUICK TIME

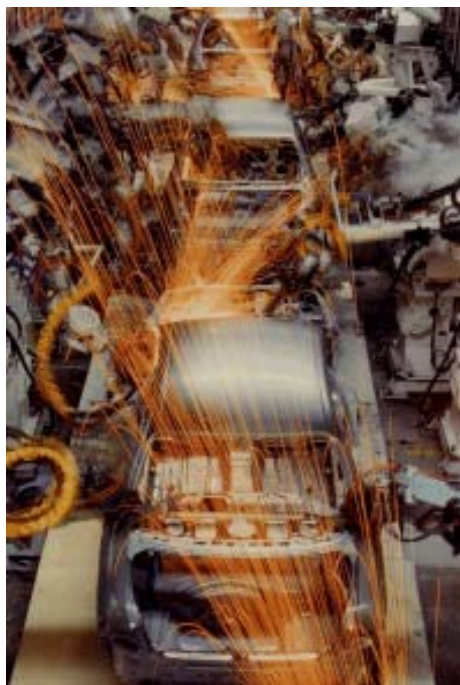
By responding quickly to a request from Toyota UK to carry out metallocking repairs to a fractured body panel die Metallock Engineering enabled the pressing line to get back into operation with minimum downtime.

Using their expertise Metallock's engineers were able to perform initial repairs to the cast iron die sufficient to allow it to be put back on line to clear a backlog of body panels. In total there was 4 metres of fracture to be repaired which Metallock did in two stages. As much as possible was completed in the first three days by working round-the-clock on 12-hour shifts to get the press back on line. Five days later the Metallock team returned on a day shift basis to complete the task.

Part of the repair involved the application of special steel strengthening plates designed to fit into the tool pockets to connect to the internal ribs and become an integral part of the 75mm thick casting.

The Metallock process is accepted as a method of repairing cracked and broken castings across a wide range of industries. One of the main advantages of the process is that it is heat free and can be carried out either on site, as in the Toyota case, or in one of the company's workshops. Fractures are jig drilled across the crack to accept multi-dumbbell shaped keys manufactured from a ductile high tensile nickel alloy. The keys are peened into the apertures to become integral with the parent metal. Holes are then drilled and tapped along the line of the fracture and filled with studs, each one positioned to overlap its neighbour. This combination of keys and studs produces a rigid and pressure tight repair and final peening and hand dressing completes the operation.

Following the repair, the Metallock team was congratulated by the tool and die department at Toyota UK on its co-operation, professionalism and technical support which had achieved an excellent and permanent repair following this major die smash.



The bodypanel die needed 4 metres of fracture repairs which Metallock carried out in two stages.

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