

**TELESIS**  
TECHNOLOGIES, INC.

Industrial Identification/  
Traceability Equipment

## Hybrid TMM7200/TMM5000 Marking System Marks Hardened Steel Truck Frames

A major truck frame manufacturer recently added two new production lines to their plant. The lines produce frames for many truck manufacturers like Peterbilt, Kenworth and Freightliner. The hardened steel C-channel frames have variable dimensions, according to the customer's specifications. The frame manufacturer needed to mark 17-character Vehicle Identification Numbers (VINs) or 15-character part numbers on top, underneath, or on either side, according to the customer's specification. Some customers require the message in several locations.

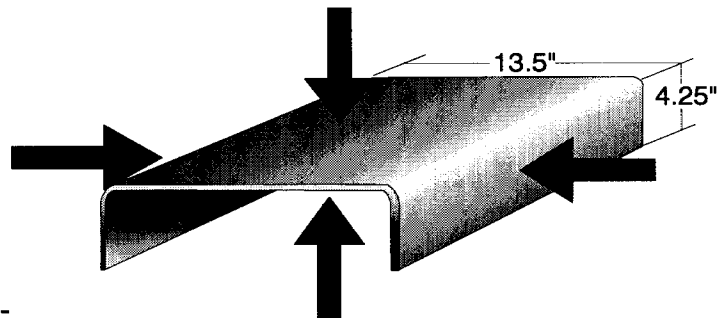
The diagram at the right shows a section of a frame with the maximum dimensions. The arrows point to the areas where the message may be imprinted. To accomplish this, the marker must be maneuverable and able to mark in any orientation.

The hardened steel called for a heavy-duty marking system and the variety of messages and orientations called for versatility.

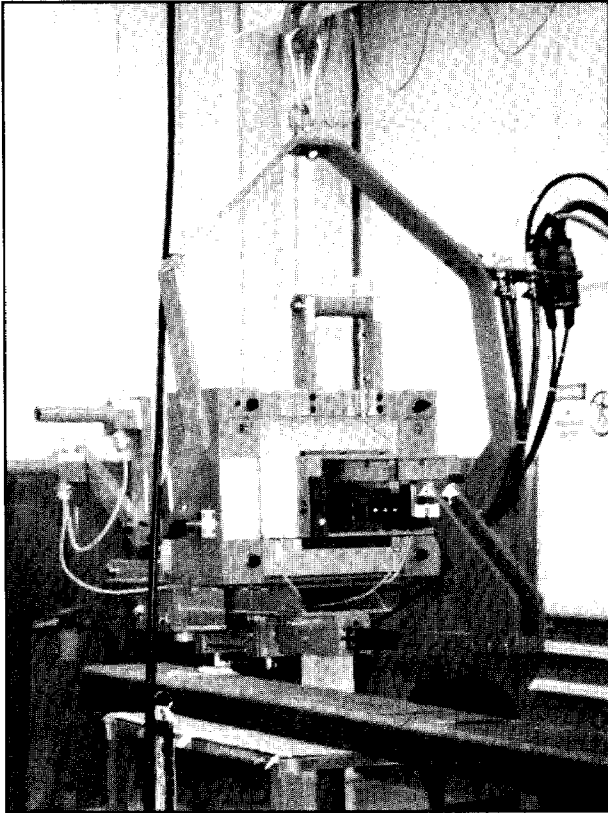
Telesis Technologies' Custom Applications Engineers designed two "hybrid" marking systems to solve this complex marking problem. They combined heavy-duty PINSTAMP® TMM7200 Six-Pin Marking Heads with TMM5000 software and TMC100 controllers to create marking systems with the maneu-

verability and versatility to do the job. They added high performance stepper motor driver boards to the controllers to handle the higher load demand of the heavier TMM7200.

Custom-designed clamps and gimbals allow the operators to move the marking heads into position and grip the frames from any orientation. The operators must press two anti-tie-down buttons on the handle to activate the pneumatic clamping devices. This built-in safety feature keeps the operators' hands away from the closing clamp.



The messages may be either manually entered before marking or downloaded from the manufacturer's host computer. Messages can be either 17-character VINs or 15-character part numbers. The 1/2 inch high, 5x7 dot matrix character messages are printed in less than 7.5 seconds. "Start Print" and "Abort Print" buttons are conveniently located on the handles.



The custom-designed gimbal enables the operator to maneuver the massive TMM7200 marking head into any marking position or orientation. The V-shaped apparatus on the right is the custom-designed, pneumatic clamp, used to hold the marker in position during the marking cycle.

The systems have rework functions that allow the operator to cross out incorrect messages and mark the correct messages nearby.

The manufacturer needed to mark a variety of information on hardened steel truck frames right side up, up side down and sideways, on parallel assembly lines. This required two very specialized systems that only Telesis' Custom Applications Engineers could supply. The solution—easy to use TMM7200/TMM5000 hybrid marking systems, robust enough to stand up to the hardened steel frames with the versatility to handle any message or marking orientation.