IDENTIFICATION OF VEHICLE SIDE FRAME

The system proposed is designed to mark with excellent quality and <u>no noise</u> side frames and other car/truck structural parts by an indelible Vehicle Identification Number (V.I.N.) indented in the metal; the system consists of a <u>scratch marking unit</u> fixed to a manipulator to clamp it onto the marking area.

CONFIGURATION

Scratch marking head consisting of a robust X-Y plotter moving a stylus (made of hard metal or industrial diamond); the stylus penetrates the metal, pushed by a pneumatic unit, then is dragged by the plotter motors in order to create the characters indented in the metal. The scratching operation is completely noiseless and for this reason is preferred to the microdot stamping for parts whose shape increases booming.

Manipulator (to which the marking head is fixed) having the following functions:
- be manoeuvred simply and safely by an operator,
- be a stiff support for the head,
- be a precise positioner of the head.

The manipulator is a light and strong frame equipped with a pneumatic slide to clamp the side frame and a number of fittings to position precisely the head respect to selected reference points.

The manipulator is designed to be hung to a balancer and is provided with handles for the manoeuvring and with an onboard pushbutton panel for the commands.

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CONTROL UNIT

The control unit is a box containing the microprocessor, the electric power distribution control equipment and the operator interface with LCD display and keyboard.

The software controlling the stamping operation has a variety of functions including selection of marking parameters (penetration force, marking position and orientation, characters fonts, graphic jobs, real time tracking of the marking, etc.)

The data to be marked can be filled in by the operator via keyboard or arrive from a host or from a bar code reader via RS232 serial line.

After positioning and clamping the device, the operator gives the START command and the marking head automatically marks the characters.

ACCESSORIES

The following accessories can be supplied upon request:
- Balancer for sustaining the marking unit
- Rails and trolleys system for positioning the stamping device
- Bar code reading system
- Special communication protocols

TECHNICAL DATA

Marking area (X-Y)	*max 150 x 80 mm*
Marking speed	*up to 65 mm/s*
Indenting depth	*up to 0.4 mm (depending on the material)*
Character height	*min 0.5 mm; max depending on marking area*
Voltage	*110/230 Vac 50/60 Hz*
Power	*200 W*
Air pressure	max 7 *bar*
Air quality	dry and clean and not oily
Air consumption	*typ. 10 Nl/min*
Temperature	*min.5°C - max. 40°C*