

HYDRAULIC VERTICAL RAIL JOINT STRAIGHTENER

MODEL JA 40

The **Hydraulic Vertical Rail Joint Straightener model JA 40** is specially designed to **straighten welded or fish-plated sag rail joints without the need to dismount fishplates.**

It is suitable for all **kind of flat bottom rails** up to 46 kg/m.



1. DESCRIPTION AND OPERATION

The Hydraulic Vertical Rail Joints Straightener model JA 40 measures and accurately controls the straightening operation with graduated and stepped gauges.

The solid steel welded frame includes a spring mounted double flanged roller and a bearing skate on each side. Additionally it is fitted with two carrier bars and two articulated crutches. During operation the articulated crutches keep lateral steadiness of the machine.

In the centre is a rail clamp whose vertical displacement is ensured through a double acting hydraulic ram during the straightening operation; this ram is fed by a two speed hydraulic pump.

The rail clamp is composed of two articulated arms which go both sides of the rail and a locking system linking both arms under the rail.

This assembly is fitted with a screw-operated vertical adjustment system which eliminates the space between the rail foot and the locking system.

The principle of operation is to bear on two points on the rail head and to lift the rail joint with a central vertical pull under the rail foot.

For moving on rail, the clamp arms are locked in high position through spindles. With the springs release, the machine can rest on its rollers and then move freely.

1. DESCRIPTION AND OPERATION (Cont'd)

When lifted horizontally the crutches enable ergonomic handling and allows two operators to easily push the machine from one joint to the other one.

The Hydraulic Vertical Rail Joint Straightener model JA 40 is mainly composed of the following elements:

- A solid frame;
- Two bearing skates;
- Two spring-mounted double flanged rollers;
- Two articulated crutches;
- One rail clamp and a vertically adjusted locking system;
- One double acting hydraulic ram;
- One two speed manual pump with automatic switch of flows (high / low pressure);
- One stepped gauge;
- One graduated gauge.

All active parts of the bender are made of high tensile steel.

2. TECHNICAL DATA

- Two Speed Hydraulic hand pump and automatic switch:

High flow (high speed):	32.6 cc/stroke from 0 to 50 bar
Feed per stroke (high speed):	3.8 mm
Low flow (low speed):	4.6 cc/stroke from 50 to 470 bar
Feed per stroke (low speed):	0.5 mm
Working pressure:	470 bar
- Double acting hydraulic ram:

Nominal power	400 kN (≈ 40 tonnes)
Stroke:	70 mm
- Bending moment: 120 000 Nm
- Distance between both bearing points: 1 200 mm
- Mass of rails to bend: 46 kg/m
- Dimensions (in working position):

Length:	1470 mm
Width:	≈ 1000 mm
Height:	≈ 1250 mm
- Mass: 165 kg

3. ACCESSORIES AND OPTIONS (at extra price)

- **Pressure gauge graduated from 0 to 1,000 bar**

*We reserve the right to modify any equipment specification of the present offer to take into account the latest technical improvements and working conditions at the date of manufacturing.
Pictures and drawings may include some options and are not contractual.*