

# Plasser Combo Provides High-Capacity Maintenance

A continuous action three-sleeper tamping machine, which is claimed to be faster than any other tamper, has been coupled with a dynamic track stabiliser to produce a new high-capacity maintenance machine.

**A** NEW standard in track maintenance has been achieved with the development of the 09-3X Dynamic Tamping Express, according to the manufacturer, Plasser & Theurer, Austria. The new machine has already been supplied to German Rail (DB) and the German contractor, Joseph Hubert, following its introduction at the end of last year.

The design optimises the working sequences of two high-capacity machines and incorporates the latest measuring systems to offer a combined machine which the company says will not only increase output dramatically, but will also improve the quality of track so that the necessary interval between track maintenance will be extended by 30%.

The continuous lifting, lining, and three-sleeper tamping process carried out by the tamping machine section leaves behind a durable track geometry. The stabilisation section which follows behind comprises two units which are able to anticipate initial settlements and increase the track's resistance to lateral displacement. Careful compaction of the ballast is produced through the dynamic settlement of the ballast stones.

The six-axle tamping machine section is linked by an articulated coupling to the stabilisation trailer which is supported on a two-axle bogie. The design of the plain line tamping machine—a main frame with a separate satellite carrying the work unit with 48 tamping tools, together with the combined roller lifting and lining unit—enables continuous motion and cyclic tamping. The drive



The Dynamic Tamping Express consists of a three-sleeper tamper coupled to a dynamic track stabiliser.

system and the two working and driving cabins are located on the main frame.

The operating controls for the levelling and lining unit and the ALC automatic guiding computer are housed in the front cabin. The control desks for tamping operations and stabilising units are both housed in the cabin in the rear section. Also mounted on the stabilisation section are the stabilising units, a 146kW supplementary engine, fuel tank, roofed loading platform, and enclosed driver's cabin.

The two stabilising units, with four running rollers and two guide rollers per rail, are positioned under the frame of the trailer. They incorporate a synchronous action flywheel gear which produces a

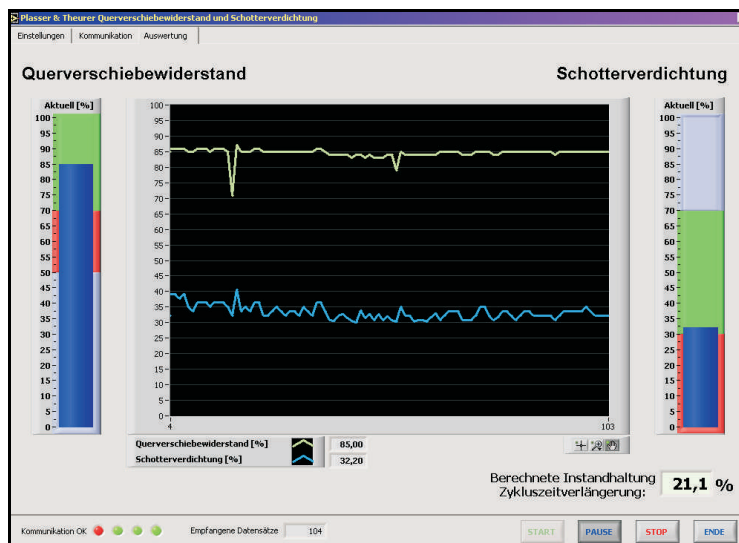


horizontal vibration directed crosswise to the track axis, which is transmitted to the track through pressing rollers together with a vertical load.

Plasser & Theurer claims that the 09-3X Dynamic Tamping Express will produce major cost savings through its high working speed. It states: "With the introduction of the three-sleeper tamping machine, the

working output has been raised by 40% compared with the fastest machine previously known. This is not just a peak output—it is the average. Besides the reduction in track possession times and staff requirements, the actual track maintenance costs are also lower as a result.

"This is combined with the benefits of dynamic track stabilisation. The consolidating effect of the track stabiliser on the ballast bed increases the track's resistance to lateral displacement to a level which permits trains to travel at maximum speed on the line immediately after the completion of work." **IRJ**



The machine incorporates the latest measuring systems, the results of which are displayed on screen.