STRESSING ROLLERS

Improving the rail stressing process

Vortok Stressing Rollers have been designed to improve the accuracy and efficiency of the rail stressing operation. The Vortok Stressing Roller simply drops into place and locks itself to the rail clip housing with two pins locking into the shoulder which is cast into the sleeper. The operator will then put the roller into the raised position, all within a maximum of 15 seconds!



Pictured here is the Vortok Stressing Roller on a Pandrol SA (Pty) e-clip type bracket for the FIST type sleepers.

The removal process is just as quick as the rollers literally lift off the housing, all aiding the general speed of the operation. The rollers are contained within a purpose-built racking system on a trolley for ease of use. The life expectancy of the Vortok Stressing Roller is at least 10 times that of conventional under rollers. Over the lifetime of the equipment, at least 50 operations, a significant saving in the region of 75% can be achieved. Attaching a cost to the improved quality is almost impossible, however, the number of rail breaks at the weld will reduce because of the reduction in localized tension.

Significant increase in stress performance.

The function of the rollers during a stressing operation is to minimize the friction and allow the stress to be even along the whole length of the rail. The Vortok Stressing Roller combines a lift function with a very low friction contact bearing under the head of the rail. Each unit also acts as, and therefore replaces, the side roller. Common to all Vortok products is the emphasis on safety in the design process and an effort to remove as much risk as possible from rail operations. The fact that the rail is supported over the entire length and is self-locking also adds to the removal safety of the system. It is also worth noting that the lifting process is very easy and requires very little exertion on the part of the operator.

Benefits

- Even distribution of stress
- Significant cost reduction
- Quicker operation
- Improved safety
- Can be used on PY & P2 sleepers.



By adding the FIST roller bracket, the same roller can be used on FY & F4 sleepers. Vortok's Stressing Roller removes many issues from the process. This very low friction system vastly improves the quality of the stressing operation with even distribution of tension along the length of rail.