

„Don't touch this working system, but make it more reliable!“



This was more or less the order of the operational manager of **LION-Match Corp.** in Pretoria (South Africa) to our sales technician, Manie du Preez, when he showed him his matchstick vibrating conveyor from the year 1934. LION-Match is the leading manufacturer of matchsticks in Africa, and supplies almost the complete continent with this essential consumer product. This traditional company, which was founded in 1905, constructs many of its specialised manufacturing machinery itself, and adapts them to precisely meet its in-house requirements. From the fine splitting machine, through the matchhead immersion system, and up to the matchstick vibrating conveyor, the production

machines have been both designed and constructed by the company's own service mechanics.

The matchstick vibrating conveyor from the year 1934, which has a slider-crank drive and a steel-leaf-spring suspension, has been running almost fault-free for 74 years in three-shift operation, although the leaf spring plates break relatively often due to material fatigue, which leads to production stoppages. Even though he was very fond of the 74-year-old machine, having to accept a loss of around two hours in each case was too much for the traditionally-minded Opera-



New rocker arms consisting of two AU 18 oscillating mounts



New drive-head system with ST 27

tions Manager of LION. „Make this machine more reliable for me – but it must still work as it did before!“ was his clear message to Manie du Preez.

Within a few hours, the vibrating conveyor had been converted from leaf-spring suspension to ROSTA rocker arms, each consisting of two Type **AU 18** oscillating mountings. The service mechanic also replaced the ball bearings of the slider crank drive, which were also susceptible to breakdown, with a Type **ST 27** drive head from ROSTA. The „Oldtimer“ has now been running again in three shifts without any loss of production since May 2008 – and it will stay that way for at least the next ten years – **silent, maintenance-free, dampened and operationally reliable.**



Former drive-head with ball bearing transmission



Former steel leaf-springs as shaker support

Passive suspension of precision measurement tools at the Politec

A few weeks ago, the new Polytechnic of the City of Milan started its operations in the Milanese suburb of Bovisio. The main North/South access lines of the railway pass through Bovisio, as well as two very busy motorway access roads. In addition, there are two large gantry cranes in the immediate vicinity of the Polytechnic, which broadcast vibration emissions through the ground.



Polytechnic of Milan at IT-Bovisio

The Polytechnic of Milan also acts as the state calibration and instrument testing institute, and carries out the periodical certification of many different mechanical and thermal measurement and test instruments. The highly-sensitive equipment of the Polytechnic must not be impaired in any way by vibrations, shocks or structure-borne noise from the surroundings during test work.

As early as the planning stage for the test room for instrument certification, it was clear to the building owners that all



Calibration and measurement platform with instruments

measurement instruments must be **screened from vibration** by standing them on a vibration-shielded base plate. Along with other suppliers of vibration mountings, **ROSTA S.r.l.**, Milan was also invited to the project study. Working together with ROSTA AG, our Italian subsidiary company recommended an arrangement of a total of 28 **Type AB 50-2 TWIN** ROSTA oscillating mountings for the suspension of the 36-ton base plate (incl. test fittings). The above-mentioned oscillating mountings provide a maximum load-bearing capacity of 56 tons; a third of the load-bearing capacity had thereby be calculated as a reserve for the compensation of the dynamic acceleration of the base plate by the operating personnel.

For the 6 x 9 metre rectangular base plate, two Type AB 50-2 TWIN oscillating mountings are arranged in pairs under each of a total of 14 solid dual-T

support elements. The height of the lower „sandwich“ plate of the support can be adjusted using six adjusting screws in order to compensate for the initial settling of the rubber suspension units. In this „static“ application, an initial settling of approx. 10 mm will take place over a few months.



*Base plate: 6 x 9 metre,
 Weight: 36 tons,
 supported on 28 pcs. AB 50-2 TWIN*

cnico di Milano

On the one hand, the Type AB 50-2 TWIN ROSTA oscillating mountings offer a low natural frequency of approx. 2.2 Hz for this passive suspension, which guarantees an almost 100% screening of the accumulated, and significantly higher vibration frequency, while on the other, the rubber suspension absorbs >99% of the structure-borne noise occurring in the immediate vicinity of the building (railway lines).

Even after only a few months of operation, the measurement specialists of the Polytechnic of Milan are enthusiastic regarding the efficiency of the base plate suspension from ROSTA, as they have not experienced any negatively acting emissions of any kind on their calibration and measurement platform.

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Nivelling „Sandwich-Plates“, each with 2 AB 50-2 TWIN supports



Base plate staying on ROSTA AB 50-2 TWIN mounts



This Element is worth its Weight in Gold for your Design!

Cable winches are built for eternity!

Their construction is robust and their function is guaranteed at all times by well-proven mechanical or hydraulic systems. The weak point in cable winches is the service life of the winch cables themselves. As a result of incorrect winding and unwinding, the steel ropes, which are subject to large tensile forces, can often become crossed, which crushes the structure of the twisted rope and the core of the rope, and thereby permanently deforms them. Within a short operating period,



Crane winch with ROSTA guide roller



Guide roller equipment with ROSTA tensioning element

individual strands break away at the pinch locations due to the deformation tension that arises, and the whole, wonderful rope has to be replaced.

The orderly winding of each rope layer on the drum is thereby imperative if the expensive rope is to provide a long service life. The times in which the machinist checked the cable run-in wearing leather gloves are long gone; a continuous control device is needed!

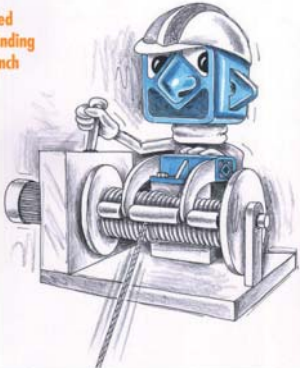
The ROSTA rubber suspension unit, with its slightly progressive spring characteristic, is the ideal suspension component for the guide rollers of the winch cable. Adapted to the respective height of the rope layers, the rollers press onto the rope with more or less guidance pressure and allow the layers to lie on the drum with the correct lateral displacement.

ROSTY'S COMMENT:

The Blue Ones from ROSTA ...

... to protect winch-ropes against destructive cross laying on the drums!

... for controlled and smooth winding of ropes on winch drums.



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Edition: d/f/e/i 10 000 Ex.
No 1/2009