

TENSIONING TECHNOLOGY!

Take off with ROSTA Chain Tensioners



This year, 105 universities took part at the competition in Troy (Ohio/USA) with 121 vehicles. The main evaluations for the elimination competition are technology, comfort, originality and cost relation.

In the previous year's competition, the "Mini Baja" vehicle of the Technical University of Buenos Aires (ITBA) in Argentina was disqualified due to a breakdown of the chain transmission, and the student team had to travel home again without a single point.

With rapid changes of load, such as in the jumps and on the mogul track, the chain could not withstand the high tension, and broke.

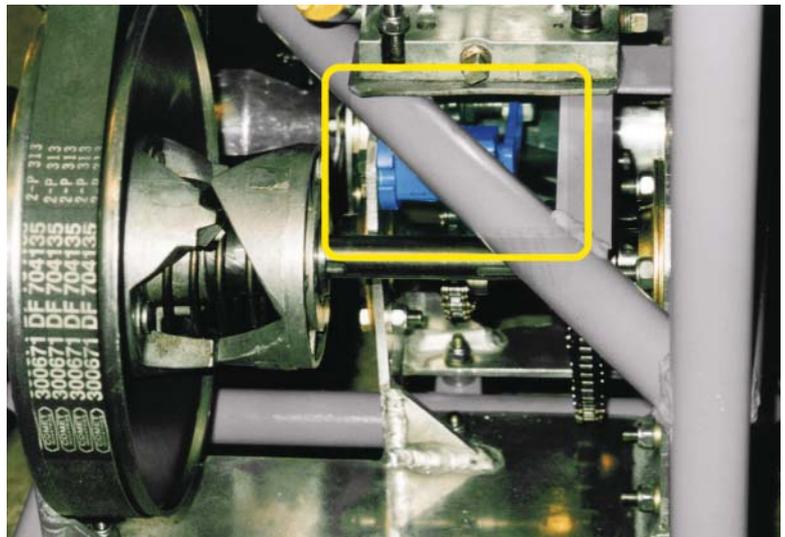
They then looked for a chain tensioner that could progressively dampen the peak loadings as they arrived, and that would be maintenance-free and total insensitive to water and dirt.

The ROSTA Type SE18 tensioning element fulfilled all these conditions optimally; the "Mini Baja" passed all the tests, and even reached the second place overall.



Editor: ROSTA AG, Martin Richei

Every year, the SAE (Society of Automotive Engineering) organises a worldwide university competition for light all-terrain vehicles.



TENSIONING TECHNOLOGY!

The "Magnificent Seven" Tensioning Devices from ROSTA ... at a Glance!



Universal tensioning elements, types SE 11 to SE 50

Suitable as chain and belt tensioners, conveyor belt scraper mounts, elastic bearings for tensioning rollers, hold-down devices and stops.

7 standard sizes with 80 to 4,200 N tensioning pressure, elastic inserts made from natural rubber, Rubmix 10, application temperatures from -40°C to +80°C.



Tensioning elements for threaded blind hole fixation, types SE-F 15 to SE-F 50

Approx. 15-20% of all chain and belt tensioners are screwed into a so-called threaded blind hole; i.e., where no fixation is possible from the rear side. The SE-F ("Front") is the ideal solution for this type of fixations.

6 standard sizes with 135 to 4,200 N tensioning pressure, elastic inserts made from natural rubber, Rubmix 10, front fixation using Allen screws and spring bushings on the housing base of the tensioning element.



Stainless steel tensioning elements, types SE-I 15, 18, 27 and SE-I 40

The chain and belt tensioners for the foodstuff and pharmaceutical industry, made from stainless steel! Sizes identical with SE 15, 18 and 27; SE-I 40 = dimensions similar to Type SE 38.

4 standard sizes with 150 to 1,500 N tensioning pressure, elastic inserts made from natural rubber, Rubmix 10, housing and lever arms from stainless steel casting DIN 1.4308, SE-I 40 welded from stainless steel DIN 1.4301.



Chain and belt tensioner, accessories

- **Sprocket sets**, Type "N", for ISO 06 B 1 to ISO 24 B 3 chains in "Simplex", "Duplex" and "Triplex" models
- **Chain rider sets**, Type "P", for ISO 06 B 1 to ISO 12 B 2 chains in "Simplex" and "Duplex" models
- **Tension rollers** (idlers), Type "R", for flat- and V-belts in five sizes, diameter 30 to 90 mm
- **Installation support for tensioning elements**, Type WS, 6 standard sizes, matching all tensioning elements

Heat-resistant tensioning elements, types SE-W 15 to SE-W 50

Suitable as chain and belt tensioners in drying installations, for example: noodles (pasta), textiles, tobacco, granulates, etc. The average temperature in continuous operation should not fall below +80°C.

6 standard sizes with 81 to 2,520 N tensioning pressure, elastic inserts made from synthetic rubber, Rubmix 40, application temperatures from +80°C to maximum +120°C. Characteristic: red point on the lever.



Belt tensioners with V-belt pulley, types KSE 18, 27 and 38

The V-belt tensioner ready for installation, with shaped pulley for belt profiles SPZ, SPA and SPB, 1 to 3 groove. Simplest installation with individually adjustable belt track.

9 standard models with 1- to 3-groove V-belt pulleys for belt profiles SPZ, SPA and SPB. Elastic inserts made from natural rubber, Rubmix 10, V-belt track individually adjustable on the threaded shaft.



Oil-resistant tensioning elements, types SE-G 11 to SE-G 50

Suitable as chain and belt tensioners with direct, continuous contact with mineral oil and oil mist in fuel pumps, gear boxes and oil sumps, etc.

7 standard sizes with 80 to 4,200 N tensioning pressure, elastic inserts made from synthetic rubber, Rubmix 20, steel parts galvanised; application temperatures from -30°C to +90°C. Characteristic: yellow point on the lever.



Boomerang chain tensioners, types SE-B 18 and 27

The chain tensioner with high compensation for the age elongation of roller chains. The chain loops around the two sprocket wheels in an S-shape, which leads to the **triple compensation** capacity of the tensioner.

2 standard sizes with 175 to 400 N tensioning pressure, elastic inserts made from natural rubber, Rubmix 10, with curved dual arm for the fixation of 2 sprocket wheels for installation into very long chain drives.



OSCILLATING CONVEYOR TECHNOLOGY!

Mobile Gravel Processing Plant on ROSTA Type AB Oscillating Mountings



Mr. Heinrich Mueller

The specialist Swiss company for gravel processing technology, **Mueller & Co. Aufbereitungstechnik AG**, enjoys a good reputation, in Switzerland, Germany and South Africa, as a designer of very efficient and tailor-made machines for screening and silt processing.

These machines and installations cannot be "bought off the shelf"! Without a report of the geological condition of the extraction area, and the details of the specific wishes of the customer in relation to the yield and the product, the company owner, Heinrich Mueller, will not start on the design of the custom plant. The

guideline: "the matching, individually designed installation for every gravel extraction area, material and required product!", is always leading Mueller's constructions – than gravel is not "just gravel" and the encasing sand can be loamy, grained, sticky and even slimy. This requires a technology adapted to the process, for both the silting and the subsequent screening.

"Anyone who has never produced sand and gravel should not attempt to design relevant processing machinery!", another saying from Mueller, which cannot be rebuffed. The Mueller & Co. AG company



Figure 1

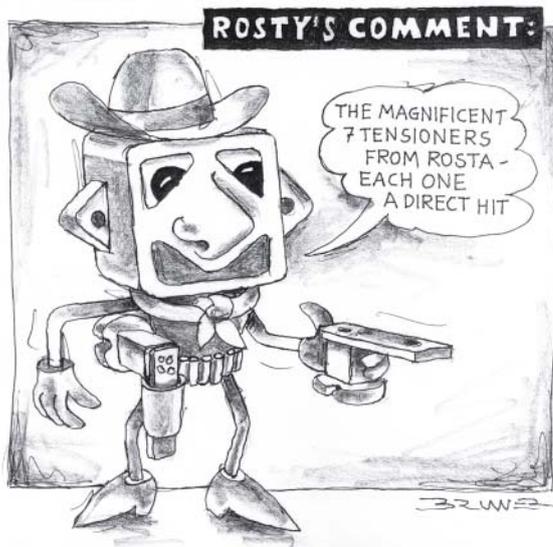
builds mobile and stationary screening plant in small series, using well tried-and-tested screening technology, such as the "NIAGARA" vibratory screen from HAVER & BOECKER, shown in the picture 1.

Screening plants should run for many years in a calm, guided and insulated manner, and, above all, without producing expensive breakdowns and maintenance work. For many years now, Mueller & Co. AG has used the well proven Type AB oscillating mountings from ROSTA AG for the suspension of screens. Fig. 1 shows the mobile plant ready for the transportation to the production location. The "Grizzly" feeder for the coarse screening and the continuous loading of the two-deck Niagara screen is suspended on a total of 8 ROSTA Type AB 38 oscillating mountings. In order to compensate for the impacts, caused by the spontaneous feeding using front-end loaders, several oscillating mountings mounted in series were used.

The frame of the "NIAGARA" circular vibratory screen has been mounted on a total of 4 ROSTA Type AB 50 oscillating mountings. The resulting insulation efficiency is > 96%, and amazed even the manufacturer during its trial run!

"Mobile rental plants are driven 'to the limit' by the operators – and that is why only the best components are good enough for me!", says Mueller, satisfied with another successful job.

Represented by:



Publisher:
ROSTA AG, Hauptstrasse 58
CH-5502 Hunzenschwil
Phone: +41 062 897 24 21
Telefax: +41 062 897 15 10
E-Mail: info@rosta.ch
Internet: http://www.rosta.ch

Copyright by ROSTA AG
Edition: d/f/e/i/sp 12 000 Ex.
No. 2/2005