

# SUCCESS STORY

Where ROSTA made the difference



## HOW TO ENHANCE MACHINE QUALITY



### John Deere

John Deere is the brand name of Deere & Company, an American corporation that manufactures agricultural, construction, and forestry machinery, diesel engines, drivetrains (axles, transmissions, gearboxes) used in heavy equipment, and lawn care equipment. The company also provides financial services and other related activities. Employees: 60 500, Turnover: 30 Mrd. US-Dollar



### CONTACT

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The harvester in action

## THE INITIAL SITUATION

John Deere is a brand with a solid reputation. In order to further solidify their quality reputation, John Deere was looking for a technically superior solution for the current vulcanised sockets that are pressed into the conventional swing arm.

The new solution had to meet three requirements:

- higher technical quality
- cost reducing
- the exchange must be possible without redesign

## THE SOLUTION

In collaboration with John Deere the arm was redesigned to meet the required specifications. The ROSTA element is a torsional rubber spring with an operation range of  $\pm 30^\circ$ . The inner square is held by the very high biasing force of the elastomers (natural rubber). Rubber and metal are not glued or vulcanized. Torsion work takes place in the elastomers thus, no shear forces occur. The results from the field test were very successful.

## BENEFITS

- Increasing lifetime
- Increased yield
- 1 : 1 retrofittable
- Protection of investment



Fritz Lauer  
Engineer /  
Combine Functions  
John Deere

“ Thanks to the ROSTA elements, it was possible to improve quality and reduce costs without redesign. ”

## PRODUCTS USED

The ROSTA custom lever arm incorporates two DR-S elements. Since the dimensions are equivalent to the previously used component, every sold harvester can be retrofitted with the new ROSTA designed solution.



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