

Rasspe Innovation 2015

Innovation Rasspe double bow knotter / new constructive approach for knotters and knotter tables shows several advantages / for strong and heavy big bales/ performance of square balers can be increased / awarded with DLG Innovation - silver medal

Eichelhardt and Wermelskirchen, 09 September 2015

For the first time the bow knot concept is applied in a double knotter system for big square balers. The system enables higher press densities than so far. Moreover the knotter table based on RS 9000 offers further advantages such as the utilization of thicker twine qualities and easy maintenance.

RS 9000, made by brand Rasspe, respectively the binding system based on RS 9000 realizes higher bale densities and weights with the same width of the press canal. Therewith it has positive economic effects on the work and logistic costs of the collection and transport chain in straw and hay harvesting.

The innovation is awarded with the DLG Innovation - silver medal on Agritechnica 2015:

- 20% higher utilization of twine strength
- Higher retention force of the binding system and therewith higher bale densities
- Increase of higher bale weights reduce logistic costs for handling, transport and storage

Innovative character

To realize increase in efficiency and to apply the advantages of a bow knot system in a double knotter, Rasspe redesigned a completely new double bow knotter. The innovative character of RS 9000 is based on several construction features and distinguishes clearly from current double knotters:

- Application of two bill hooks
- Closed and service reduced main drive
- Reduction to 1 drive shaft instead of 3-shaft-system (knotter, twine finger, upper twine)
- Integration of several elements of the knotter periphery
- Elimination of knotter disc
- Permanent operating of upper twine (no upper needle anymore)

Relevant for the performance increase is the higher knot strength realized as well as the higher utilization of the maximum breaking-load of the twine. Derived from the construction and technical data of RS 9000 different possibilities for power increase can be applied to machine concepts.

Advantage – performance increase with same amount of knotters

The Rassepe double bow knotter system makes it possible to realize higher bale densities with the same amount of knotters on a knotter shaft, e.g. a 6-twine-system for press canal width of 1,20 m.

Advantage - Downsizing

RS 9000 holds up to 20% higher bale extension forces with same amount of knotters. Thus, to bind comparable bale densities securely, less double bow knotters than in common double knotter systems are necessary. Therewith, machine costs as well as costs for the twine are reduced. For example, savings in twine costs of a 5-twine-system based on RS 9000 compared to a common 6-twine-system come to 16 %. For 5.000 bales per season this mounts up to a reduction of 1.500 Euro.

Advantage – more knotters on same working width

The reduction of the twine distance of the knotters on a knotter shaft is possible since the new RS 9000 has a very compact design. On a working width of the press canal of 1,20 m now 8 knotters can be installed which means even higher binding capacities.

Service speed and thicker twines

The modularity of RS 9000 results in a very good handling and service speed. Single knotters can be easily decoupled from the single knotter shaft. Thus the service or down times are reduced and the power of the baler is increased.

For the first time thicker twines can be used in baling. So far the use was limited to twines with a quality of 110-130 m/kg due to constructive restrictions. Now twine qualities of 90-100 m/kg are also possible.

RS 9000 - Rassepe double bow knotter / binding system

- Higher knot strength
- Higher utilization of max. breaking-load of twines
- Thicker twines can be used, up to 90-100 m/kg
- Permanent operating of upper twine
- Low fault liability
- Modular and compact construction design
- Easy decoupling of knotter for easy maintenance
- No twine rest as result of the knotting process
- Extremely compact knotter design, so reduction of twine distance in between knotters on the shaft is possible. Thus more knotters can be applied to same working widths.

Advantage for baling

- Good for logistics, since less bales per mass of straw or hay have to be transported and handled
- Higher utilization of truck space and therewith reduction of transport costs
- Increase of throughput of square balers, since thicker layers can be bounded securely
- Increase of campaign performance of square balers
- Reduction of machine and twine costs

Resumée

Rasspe offers a new knotter and binding innovation in the field of high performance square baling which has various advantages for machine producers as well as farmers and contractors.

Together with the product RS 9000 a new complementary periphery goes along, concerning the knotter table, drives, twine guidance, twine needles, spanners and twine brakes.

Profile Rasspe – a brand of GROUP SCHUMACHER

The traditional brand Rasspe produces knotters and knotter parts since the beginning of the 19th century. Since the year 2000, Rasspe is integrated in GROUP SCHUMACHER and since then has strengthened its position as specialist for innovative products for high density baling. The recognition of DLG with the Innovation Award - silver medal 2015 is proof of this development.

Besides the production and further advancement of single and double knotters Rasspe dedicates to the optimization of binding systems and the integration of knotters in the complexity of the binding process. The vertical integration for all knotter parts in production is above 90 % and secures the high and sustainable quality of Rasspe products.

GROUP SCHUMACHER is a global player in AG Business. Having a mid-sized company structure and being independent, it is specialized on components and systems for harvesting machines. Based on three traditional German brands Gebr. Schumacher, EWM und Rasspe, GROUP SCHUMACHER offers ist products and services worldwide wherever stalks are cut, chopped or collected.

On the European, African and Asian markets as well as in Australia all products and brands are represented by the distribution & service organisation SCHUMACHER.plus.

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