

SPEED ROLLER MODULE BUILDER

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Introduction

Good afternoon. My name is Tim Tenhet of the KBH Corporation. Instead of still photography, I believe you will agree that a video presentation will give you a much better understanding of the Speed Roller Module Builder. A-V operator, would you please roll the tape.

Discussion

The invention of the module builder was one of the great improvements in the history of cotton production. Picking efficiency improved and it helped negate the need to grow cotton in close proximity to a gin, enabling the development of bigger, more efficient gins and a longer ginning season. There have been some design improvements in module builders over the past twenty-five years - in hydraulics and, most recently, in electronic automation - but one basic principle has remained the same. One of the main constraints has been the speed limit of a reciprocating tamper and, no matter how fast you can make the tamper foot operate, compression has been an intermittent action. As you have just witnessed from the previous presentation by John Deere, enhanced harvester speed has created a need for faster support equipment.

Necessity being the Mother of Invention, Australian farmer Geoff Hewitt was determined to relieve the bottleneck at the module builder and the Speed Roller was born. The continuous action of the roller is obviously more efficient than the intermittent action of a tamper foot, the up-across-down and up-across-down wasted motion that is repeated by hands working the levers. The Speed Roller is a hydraulically driven roller which replaces the tamper foot and this forty-eight inch diameter drum rolls the cotton under continuous downward pressure. The result is a dramatically faster bridge. For example, the fast working KBH automatic bridge takes approximately fifty-five seconds to tamp the surface from one end of a thirty-two foot module to the other. The Speed Roller accomplishes the same feat in only thirteen seconds - literally four times faster. Also, compared to a conventional manual module builder, operation of the Speed Roller's hydraulic levers is much simpler and easier on the operator. Although speed has been accomplished, cotton compaction has not been compromised. In fact, since the Roller's bridge is four times faster, that many more trips across the module can be made and every surface inch is compacted in every trip. The controls can be operated in the same fashion as a

conventional machine so that multiple tamps can be put on each end to ensure that the module will withstand being moved more than once. The Speed Roller is boxed shaped in order to fit into the module builder's square ends and it is also contoured to roll a latitudinal crown onto the module to negate any polling effect of water on covers. A by-product of the Speed Roller is larger modules. Because the Roller is so fast, operators are able to work cotton down more quickly and can afford to take the time to receive another basket of cotton where before it was too inefficient to stay on that same module. Also, by rotating the roller in the opposite direction in which it is traveling, the Speed Roller has much more ability to move or level cotton than a conventional tamper. This unique feature makes it possible to quickly open a place for that additional basket when topping off a module. Fewer, better modules made more quickly is the end result.

The development period of the Speed Roller has been about three years and over one thousand modules have been made with numerous models. Studies have shown that a module builder equipped with the Speed Roller is a minimum 60% and a maximum 100% more productive than a conventional module builder. Most of the development work has been done in Australia but KBH had several units operating domestically, notably at Mitchener Farms in Sumner, Mississippi and at J. G. Boswell's farming operation here in California. Although we will soon be offering the technology on new machines, we anticipate an even stronger demand for retrofit machines.

GT Enterprises of Australia has licensed The KBH Corporation to manufacture, market and sell the Speed Roller in the United States. Also, GT Enterprises was recently issued a U. S. Patent for the Speed Roller.