

## Care is critical for complex tillage tools

CHICAGO, Ill. — For decades, the most overlooked machinery on most farms was tillage equipment. Plows, harrows and field cultivators were built so simply that they seldom posed mechanical problems. Any problem that arose usually could be fixed with a wrench or the shop welder.

That's not true today, according to Joe Neville, marketing planning manager for International Harvester. He says tillage equipment is growing larger and more sophisticated with the introduction of every new model. Owners also are utilizing the tools to perform more jobs than ever before.

"It used to be that all a farmer wanted was to prepare the ground for seeding, but today, there's a shift toward chemical incorporation and reducing the number of trips a farmer makes over a field," Neville says. "As equipment design changes to accommodate precise depth control and increased amounts of plant residue, there are more areas that require maintenance."

Perhaps the most significant change has been the increased reliance on hydraulic systems. Older tools usually were composed of a rockshaft, wheels and one hydraulic cylinder. Today's multi-wing folding units require several cylinders.

"The hydraulic system is the most complex part of today's tillage equipment and requires some additional, but simple, maintenance," Neville says.

To properly care for the hydraulic system, Neville suggests storing machinery in the down position to eliminate any pressure buildup that might cause the hydraulic fluid to expand and damage the cylinders or hoses.

If an owner has had problems with the hydraulic system, it should be repaired before storage. Neville advises that a protective coating or grease be applied to any exposed portions of the cylinder rod.

"Owners think because the rod is chrome, it won't rust," he says. "But, chrome plated parts can rust if not adequately protected from the elements. A rusted cylinder rod can damage seals."

In addition to hydraulic system care, Neville suggests the following maintenance procedures prior to storage: Inspect each piece of equipment for loose bolts and worn or bent tillage tools, such

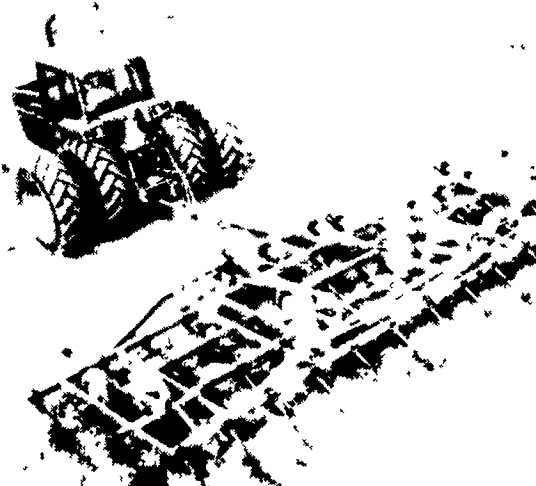
as shanks or plowshares. Lubricate all wear points and bearings to displace moisture. If bearing are worn, they should be replaced.

During the inspection, Neville says, ground working tools and moldboards should be cleaned and coated to prevent rust. And, look for worn shank bushings or pins. Replacing a bushing is less expensive than replacing an entire shank, he notes. Bent or worn shanks can leave skips in the fields and should be replaced.

Neville also points out that due to the vast range of field conditions under which tillage equipment is expected to operate, a piece of equipment should be set correctly for each condition. He suggests adjusting each unit according to instructions found in the operator's manual to assure efficient operation.



Fourth highest seller at the sale was a Lancaster County cow consigned by Maurice and Paul Welk. From left are: Steve Wilson, Maurice Welk, Penrose Hollowell, Paul Welk, Bill Nichol, Gary and Mark Welk. J. Mowery Frey, also of Lancaster County, purchased the cow.



Today's larger, more complex tillage equipment requires more attention to proper maintenance.

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