

Tiller shear pin failure:

Tiller RAM has an internal shear pin which holds the motor to the screw drive. This can fail and the symptom is that the screw rod will have no resistance and float free.

To repair unscrew the outer shell located about 8" up from bulkhead side of the Ram. At this point if the pin is sheared the unit will separate into 2 parts.

Using a small nail tap out the remains of the pin from the two components. It will become clear that part of the pin will be in both sections.

Debur the rod as when the pin breaks it may scratch the rod section. Carefully reinsert the rod and line up for pin insertion using toothpick or other non-metal alignment tool.

Now gently press or tap the 3/32" x 3/8" dowel pin in, lightly grease the screw shaft and reassemble.

Testing can be performed with a 12V supply, the two horizontal pins control the motor apply power to them and check operation, reverse polarity to check return. The manual calls for less than 2A draw, mine came in at .8A

I was able to find the shear pin at ABT fasteners on the web they ran about 6.9 cents each, but were only available lots off 100 (so \$6.95 + shipping).