SECTION I

REVISION 00



TigerTail Tow System: Disassembly & Assembly Manual

TigerTail Tow Systems are built for the most extreme applications. In some cases, service will be required. This manual is intended to minimize downtime and provide service procedures that are safe and informative.



Team Tech Engineering Inc. PO Box 83 Yankton, South Dakota 57078

Phone: 605 370 1071

E-mail: teamtechengineering@gmail.com

SECTION I



TigerTail Tow System: Disassembly & Assembly Manual

REMOVE/REPLACE/CLEAN tow system SPRING/SPRING HOUSING

SCOPE OF WORK ADDRESSES:

- CRACKED/BROKEN SPRING HOUSING
- INCONSISTENT AND/OR LACK OF RECOIL (*AFTER FIELD USE)
- HARSH ENVIRONMENT MAINTENANCE: CLEAN & INSPECT

RECOMMENDED TOOLS/SUPPLIES/GEAR:

- Painters (masking) tape; 8" zip ties (2)
- 3/8" wrench or nut driver; Safety Glasses
- Shop or paper towels; flat blade screwdriver
- Grease (suited for regional temperatures)
- 3/4" wrench (torque wrench)



SECTION I

Remove the TigerTail from the ATV. Note: If the application has a receiver mount—remove pin and leave mount attached to TigerTail. Removing the TigerTail from the mount may be easier and quicker with other type mounts.



Secure the TigerTail to work area. If you have a receiver style mount—removal is not necessary. If you do not—remove TigerTail from mount and secure to work area.





Secure the spool from rotating using masking tape or equivalent by applying the tape to the short (non-spring housing) side of the TigerTail ensuring the tape contacts both ends of the base plate and around the spool. Several wraps may be necessary.



Team Tech Engineering Inc.





SECTION I

NOTE: To ensure safe removal, it is recommended that an additional technician assists with the removal of the housing. Remove the lock nuts (6). Be sure to secure spring housing while removing the last nut. Housing is under spring tension and must be held in place.





One technician should firmly grip the housing with both hands. To assist in a clean release of spring tension, the second technician should push all six machine screws toward spool to minimize the distance that the housing has to be from baseplate. Gradually pull housing off of fasteners (maintaining a firm grip) and allow the tension (3-4 rotations) in the spring to unwind slowly.





While one technician securely holds the spring housing, the second technician should insert a small flat screw driver or equivalent to pry the spring off of the shaft. NOTE: Make sure to keep the spring completely within the spring housing at all times. Failure to do so could result in serious bodily harm and/or damage to the surrounding room and contents.







SECTION I



Before fully removing the spring housing, insert zip tie into a bolt hole on the spring housing and between the spring and the base plate. Insert another zip tie through the opposite side bolt hole and attach the two together. Tighten to remove slack. Remove spring housing with spring intact from the shaft.



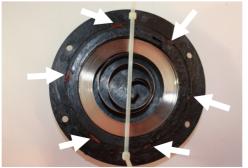


Thoroughly clean base plate surface and inspect for seal damage. If seal is damaged, refer to SECTION II of the manual for the seal replacement procedure. Inspect and clean spring/spring housing. If spring is damaged or can't be fully cleaned—purchase new spring and spring housing (p/n 41027-00). Clean and inspect o-ring for damage, replace if necessary (p/n 41024-00). Clean o-ring groove in spring housing.





Put one fluid ounce of grease into spring housing (select grease based on the expected temperature range of operation). Install o-ring into o-ring groove. NOTE: Placing a small amount of grease in a few locations to retain the o-ring will ensure that the o-ring does not fall out of groove during assembly.





Team Tech Engineering Inc.



SECTION I

Make sure that all previous steps are completed and spring housing is clean and ready to be replaced. Organize lock nuts and necessary tools to prepare for reinstalling spring housing. Remove zip tie carefully.



Identify shaft slot and spring flat. Align spring flat with shaft slot. Once spring flat is aligned with shaft slot, slide housing as far as possible towards base plate without engaging the screws.







Rotate (less than a full turn) spring housing counter-clockwise until the text on spring housing is right side up and horizontal (parallel to base). Starting location may be different than illustrated. Rotate housing 3 additional counter clockwise turns.





Team Tech Engineering Inc.



SECTION I

Ensure that o-ring is still in place. Align the six fasteners with the holes in the spring housing. Secure spring housing to base plate with 6 lock nuts.





Remove tape from spool. Remove hook from lock position and fully cycle (pull the rope all the way out – then let it slowly wind back up). Do this 3 times to ensure proper operation and spring lube dispersion.



Remove TigerTail from secured work area and reinstall on vehicle. If the TigerTail was removed from the mount, the fasteners that are used to secure the TigerTail to the mount should be tightened to 78 ft-lbs of torque (clean, dry threads).



Team Tech Engineering Inc.