T-Bar Instruction Sheet

Caution: Always wear safety glasses and gloves. Disconnect all power to the trolling motor before beginning any work or maintenance. Johnson Outdoors Inc. is not responsible for any damage due to improper rigging or installation. If you do not have the skills, experience and tools to perform the following maintenance and repairs, we recommend you seek the help of a Minn Kota Authorized Service Center. A list of Authorized Service Centers can be found at www.minnkotamotors.com/Authorized-Service-Providers/. Or contact our Technical Service Department by email at service@minnkotamotors.com or, by dialing 800-227-6433.

The following instructions show how to replace the T-Bar on a Minn Kota 10 position lever lock transom bracket. This bracket is used on all Minn Kota Endura, Endura C2, Endura Max, Maxxum Transom motors with 55 pounds or less thrust, camouflaged Waterfowl Edition, Turbo, and select Riptide Transom motors manufactured from 2002 to the present. A broken T-Bar is usually the result of a significant impact with an underwater obstruction and is usually not covered by the warranty. The T-Bar will normally break before any other components are damaged.

To complete this repair you will need a pry bar or large flat blade screwdriver, a 1/8" or smaller punch and hammer.

Note: For the most of this procedure the motor should be off of the boat with the weight of the motor supported by the ground.

The parts referenced in this repair are the T-bar (2063605), T-bar Spring (2062706), Tilt Lever (2067201), and Tilt Lever Pin (2060516); parts shown in Figure 1. Figure 2 shows the 10 Position Lever Lock Bracket.

Figure 1: T-Bar, T-Bar Spring, Tilt Lever, and Tilt Lever pin

Figure 2: 10 position Lever Lock Bracket

Remove the Tilt Lever Pin. Position the bracket so that the ends of the Tilt Lever Pin are exposed, the extreme high and low bracket positions block access to the tilt lever pin. Use the small punch and hammer to drive the pin out aproximately 1/8" (this exposes the knurled end)(figures 3 and 4), if you do not see the knurled end drive the pin the other direction. When the knurled end is fully exposed the pin should be able to be easily removed by hand(figure 5).

Figure 3: Start of removing the Tilt Lever pin

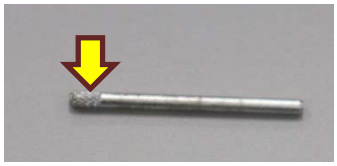

Figure 4: Tilt lever pin, Knured end indicated by arrow

Figure 5: Knurls exposed removing Tilt Lever Pin by hand

For the remaining steps the motor should be removed from the boat with the lower unit supported by the ground, as this will lessen the risk of injury from pinching.

With the lower unit supported tilt the bracket all the way to the highest postion to allow access to the T-bar; if the T-bar is still partially functioning you will need to pull straight up on the tilt lever (figure 6) to allow the bracket to change positions. With the bracket in the highest position you can easily access the T-Bar. Use the pry bar or large screw driver to push the T-Bar up (figure 7) until it is out of its guide slots in the hinge, and then leave it supported by the edge of the hinge (figure 8).

Figure 6: Pulling up on Tilt Lever to allow the bracket to tilt.

Figure 7: Pry bar positioned to lift T-Bar

Figure 8: Underside fo bracket with T-Bar supported by hinge.

With the T-bar supported by the hinge lower the bracket to allow access to the tilt lever(figure 9) (Tip, Lower the bracket down gently as allowing it to drop will likely cause the T-bar to fall back into its standard position). Guide the wide portion of the opening in the Tilt Lever (figure 10) over the knob at the top of the T-Bar and remove the Tilt Lever (figure 11).

Figure 9: T-Bar knob in position to allow removal of Tilt Lever

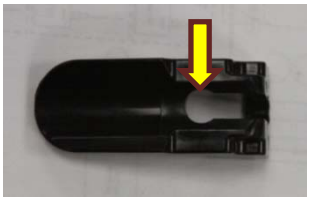

Figure 10: Close up of Tilt Lever, wider portion of opening indicated by arrow

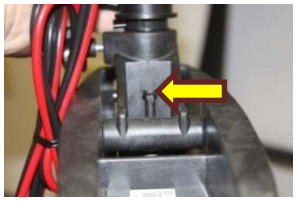

Figure 11: Bracket with Tilt Lever removed T-Bar knob indicated by arrow

With the Tilt lever removed tilt the bracket back up so you can access the T-bar. To remove the T-Bar pull it off of its perch on the hinge twisting it so that is at an angle to the bracket and does not catch on the bracket on its way out (figure 12); remove the T-Bar, the T-Bar spring will be attached to the T-Bar (figure 13).

Figure 12: T-bar being guided out of bracket assembly

Figure 13: T-bar with T-Bar spring installed

Install the T-bar Spring on the new T-bar as shown in figure 13. Note that the bottom edge of the T-Bar has an angle (figure 14); the longer side will be toward the motor when the T-Bar is installed correctly. With the spring installed guide the end of the new T-Bar into the hole at the top of the hinge (figure 15), the T-Bar will need to be at an angle to clear the bracket, just as it was when removed. Once through the hole leave the T-bar supported by the hinge and install the Tilt Lever (figure 16).

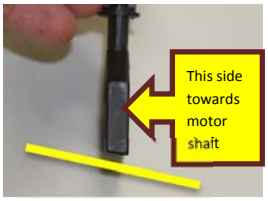

Figure 14: Profile of T-Bar, angle accented by line

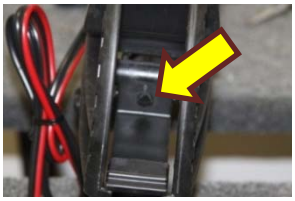

Figure 15: Below view of bracket, hole for T-Bar indicated by arrow

Figure 16: T-Bar supported by hinge

Install the tilt lever. Guide the wider portion of the opening in the tilt lever (figure 10) over the knob at the top of the T-Bar (figure 11) with the longer arm of the tilt lever parallel to the motor shaft (figure 17). Holding the tilt lever pin by the knurled end guide it into through the hole in the hinge assembly (figure 18) and the hole in the tilt lever until the pin is in the hole on the opposite side of the hinge (figure 19).

Figure 17: Tilt lever in place without Tilt Lever Pin

Figure 18: Tilt Lever Pin being pushed into position

Figure 19: Tilt Lever Pin ready to be driven into place

With the pin in position use a hammer to drive the pin in until it is flush. With the tilt lever pin in place tip the bracket so you can see the T-Bar. Push the T-Bar off of its temporary hinge support and allow it to drop into the grooves in the hinge that normally support it.

Figure 20: Tilt Lever Pin fully installed

Figure 21: Tilt lever still supported by the hinge

Figure 22: T-Bar fully installed

With the T-Bar captured by its groove in the hinge the T-Bar replacement is complete and the motor is ready to be returned to the boat.