

GARMIN™

TR-1 Gold

Cylinder and Bracket Mounting Instructions

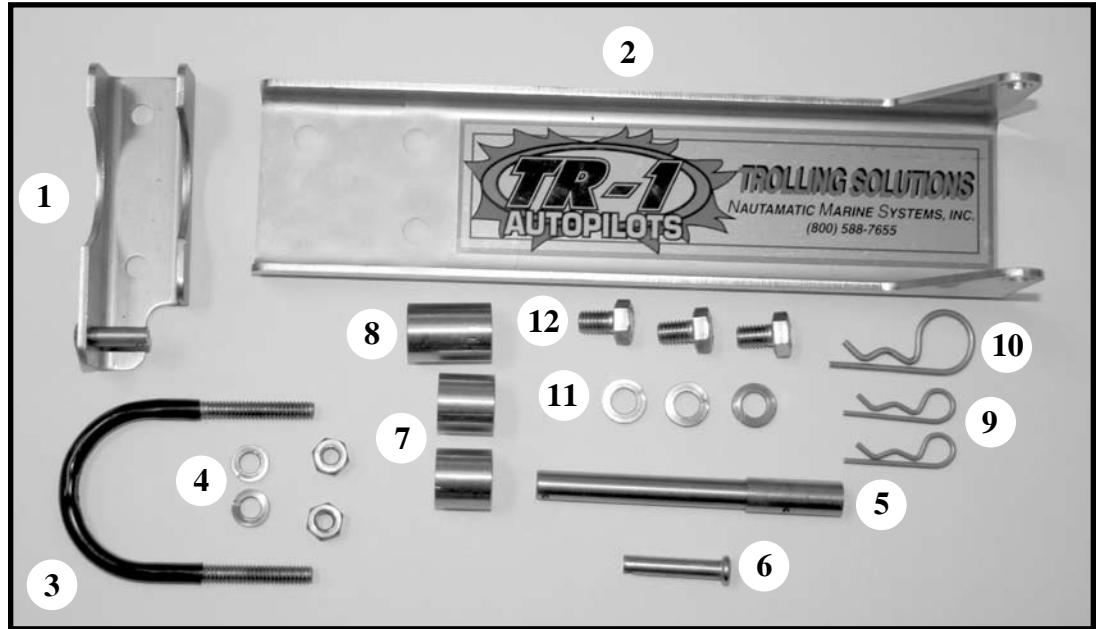
Yamaha F-15C HP
Yamaha F-20 HP
2007 and Newer



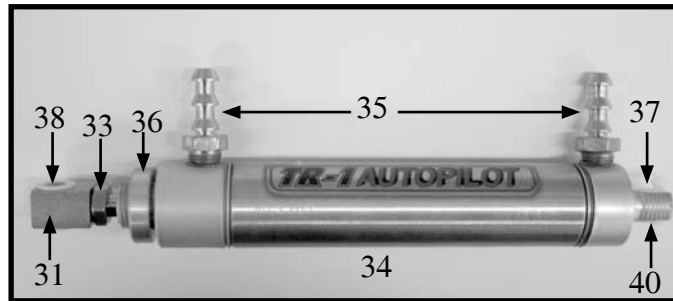
Parts:

Yamaha 15C HP and 20 HP
2007 and Newer

Mounting Bracket
Part Number
120-1086-00



Cylinder Kit
Part Number
120-0900-00



ITEM	PART NUMBER	NAME	QTY.
1	130-1082-00	Bracket, Rod Eye Mounting	1
2	380-1086-00	Channel, Cylinder Mounting	1
3	130-008402	"U" Bolt 13/4" ID 1/4-20 (w/nuts)	1
4	310-0076-25	LW, Split 1/4	2
5	330-1013-00	Pin, Stern Pivot	1
6	310-2501-25	Clevis Pin 1/4D X 1.25	1
7	330-1081-02	Standoff, Rear	2
8	330-1081-01	Standoff, Front	1
9	310-0067-02	Hair Pin Cotter Medium	2
10	310-0067-01	Hair Pin Cotter Large	1
11	310-0076-31	LW. Split 8mm	3
12	310-0208-12	Hex Cap M8 X 12mm	3

31	330-1002-00	Rod Eye, 5/16-24	1
33	310-0042-09	Hex Jam Nut 5/16-24 UNF, SS, Thin	1
34	340-0900-00	Cylinder	1
35	321-0001-00	Fitting, Barb Straight 1/8 NPT X 1/4	2
36	330-1101-00	Zinc Anode (Replaceable)	1
37	310-0040-26	Washer, Flat, Nylon 1/4 ID X 3/8" OD x .03 thick	1
38	328-0901-00	Bushing 1/4 ID X 5/16 OD X 1/4"L	2
40	328-0902-00	Cylinder Tail Bushing	1



Figure 1

Step One:

Remove the Three (3) Bolts as shown in Figure 1. (Two Bolts on the top and the right side Bottom). Hang onto them for the next step.



Figure 2

Step Two:

Insert bolts from the starboard side, as shown in Figure 2.

NOTE: It is recommended to use Loctite or similar compound to secure bolts They tend to vibrate loose over time.

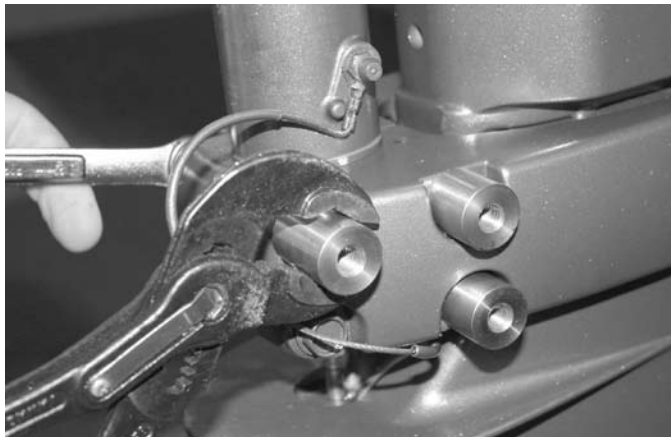


Figure 3

Step Three:

Thread the Standoffs onto the Bolts. Item #8 goes on the front, top threads, Item #7 goes on the back top and bottom. Tighten securely.



Figure 4

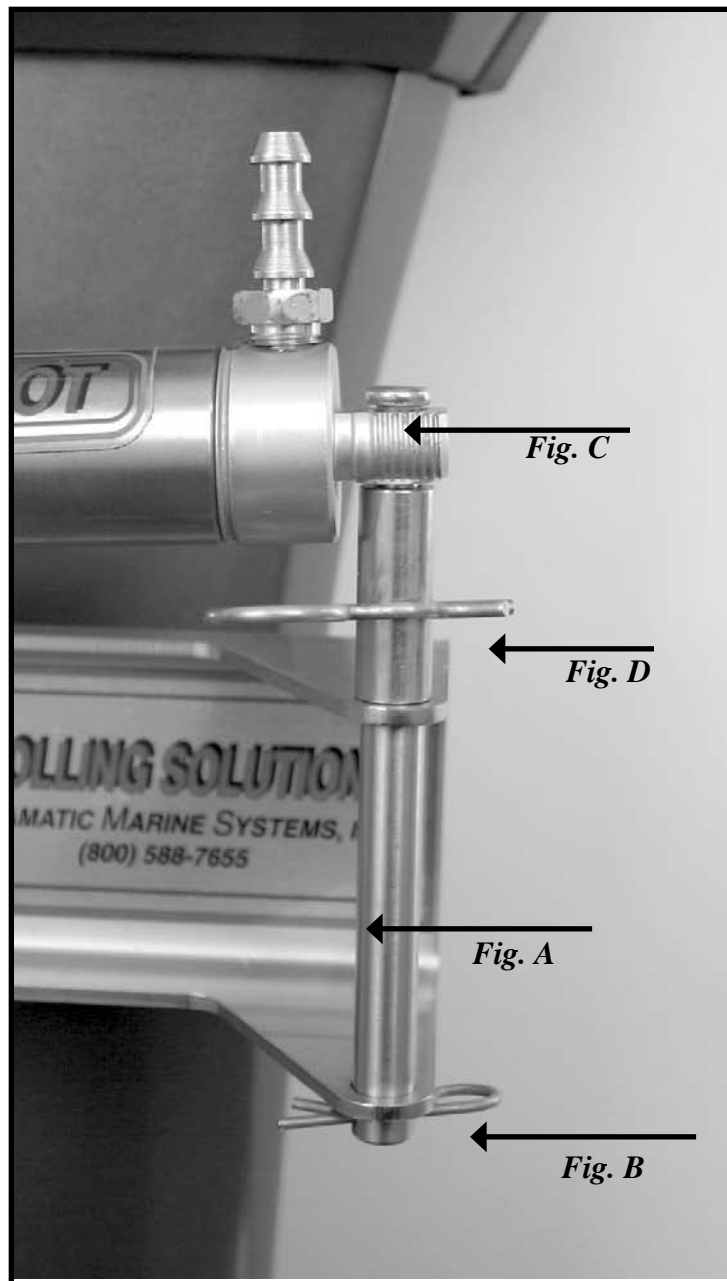
Step Four:

Fasten the Channel (item #2) with the 3 bolts (item #12) and washers (item #11) into the standoffs. Tighten bolts securely.

Step Five:

Insert the Stern Pivot Pin (item #5) through the back eye end of the cylinder (item #34) , and through the channel. (Fig A). Use a small cotter pin (Item #9) through the hole on the bottom of the stern pivot pin. (Fig B) This will keep the Stern pivot pin from coming back out of the channel.

Inset the Clevis pin (item #6) into the top of the Stern pivot pin through the rear eye of cylinder, (Fig. C) and line up the hole in the stern pivot pin and the clevis pin and insert the large cotter pin (item #10) to hold in place. (Fig. D)



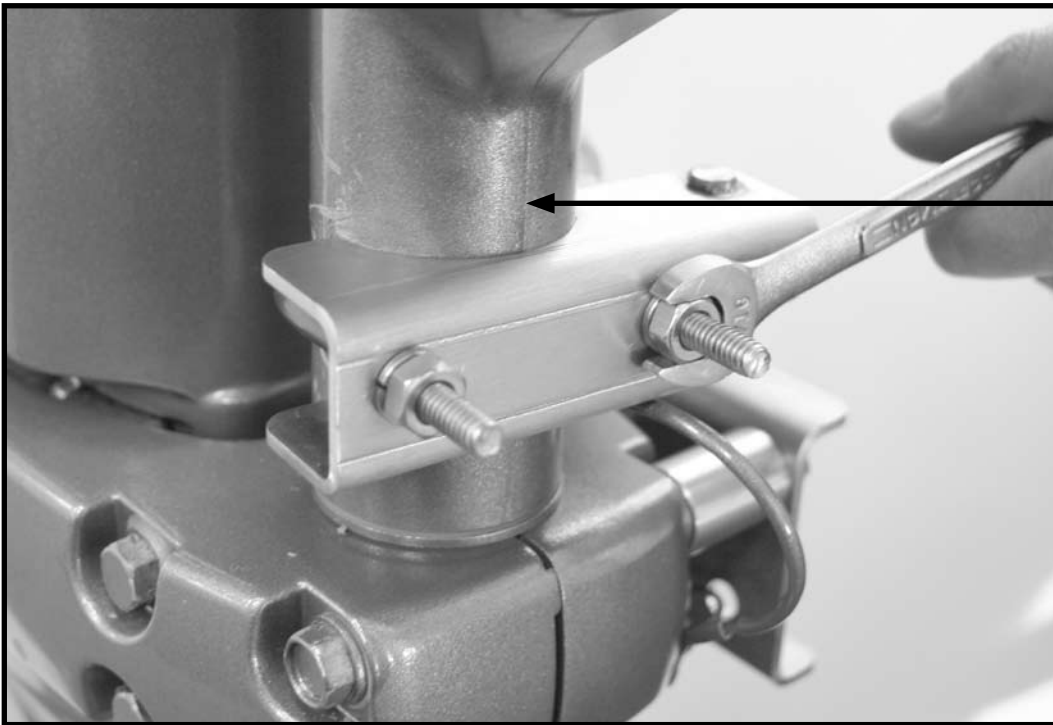


Step Six:

Locate the rod eye bracket (item #1) and place it above the grease fitting on the shock mount of motor as shown in figure 5.

Grease fitting

Figure5



Casting Seam

Figure 6

Step Seven:

Insert U-Bolt (item #3) through the Rod eye Bracket, and secure with washers (item #4) and Nuts. Tip: Try to center the rod eye bracket with the casting seam on the motor as shown

NOTE: It is recommended to use Locktite or similar compound to secure nuts. They tend to vibrate loose over time.

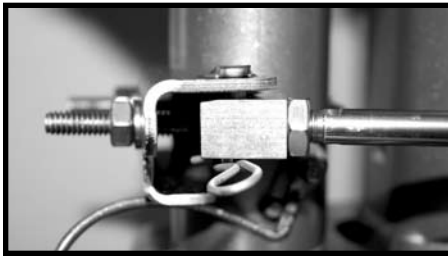


Figure 7

Step Eight:

Attach the Rod eye end (item 31) of the cylinder to the vertical pin on the Rod eye Bracket. Insert the cotter pin through the hole in the vertical pin on the rod eye bracket as shown in Figure 7.



Figure 8

Step Nine:

Turn the motor hard over to extend the cylinder rod out of the cylinder (Figure 8). Check that the cylinder rod is still free to extend at least a little more. Next, turn the motor hard over to retract the cylinder rod into the cylinder (Figure 9). Check that the cylinder rod is still free to retract at least a little more. It should have additional travel in both directions. If it does not adjust the position of the rod eye on the cylinder shaft. The cylinder shaft should turn with your fingers, if the Hex Jam Nut is loose. (If the shaft does not turn freely enough, use a thin 1/4 inch open end wrench at the shaft's wrench flats.) **Do not use any tool on the cylindrical part of the cylinder shaft. If the shaft gets scratched, bent, or dinged the seal will fail.** With the cylinder properly adjusted, secure it by tightening the Hex Jam Nut against the Rod Eye.



Figure 9

Thread locking compound (Loctite or similar) on the threads to prevent the hex jam nut from backing out.

NOTE: Be sure to use a