

Throttle Return Trial

Background

Following the investigation into a significant injury sustained as a result of a collision between an 'unmanned' IRB and lifeguard, and other similar incidents, SLSNZ is trialling the use of a 'throttle return mechanism' in order to minimise the potential for a similar incident occurring again. This solution is similar to the throttle return mechanism introduced and used by the RNLI since 2000. Mercury/Tohatsu have approved the modification of SLSNZ motors to include this throttle return mechanism.

Throttle returns will be installed on all existing SLSNZ IRB motors, along with a selection of club motors from September to October 2018. The purpose of the trial is to gauge the operational limitations, potential benefits and any issues that throttle returns may create.

Scope of trials and feedback.

SLSNZ has identified that throttles on SLSNZ modified motors, have a tendency to remain open even when released, which is problematic if the driver and or crew do not remain in the IRB. The installation of the throttle return plate and spring are expected to return the throttle to a lower enough speed, which will enable those in the path of an unmanned IRB to swim away. As part of this trial, SLSNZ requires feedback from participating clubs as detailed below.

1. The simplicity, or not, to fit the throttle return plate and spring.
2. The immediate effect that the throttle return has on the existing idle speed of the motor.
3. Comments on adjustments, if any, which were required to the motor after installation of the throttle return, in order to ensure that the motor remains fit for purpose.
4. Comments on any limitations or benefits of the throttle return during operations.
 - a. Testing Guide
 - i. Parallel Running
 - ii. In's and out of surf zones
 - iii. Full speed test in flat water and release of throttle and note distance travelled before back to idle.
 - iv. Fast turn in flat water and release of throttle and note distance travelled before back to idle. E.g. did it still do another full circle.
 - v. Note what the effects are on your ability to hold the throttle open for extended periods.

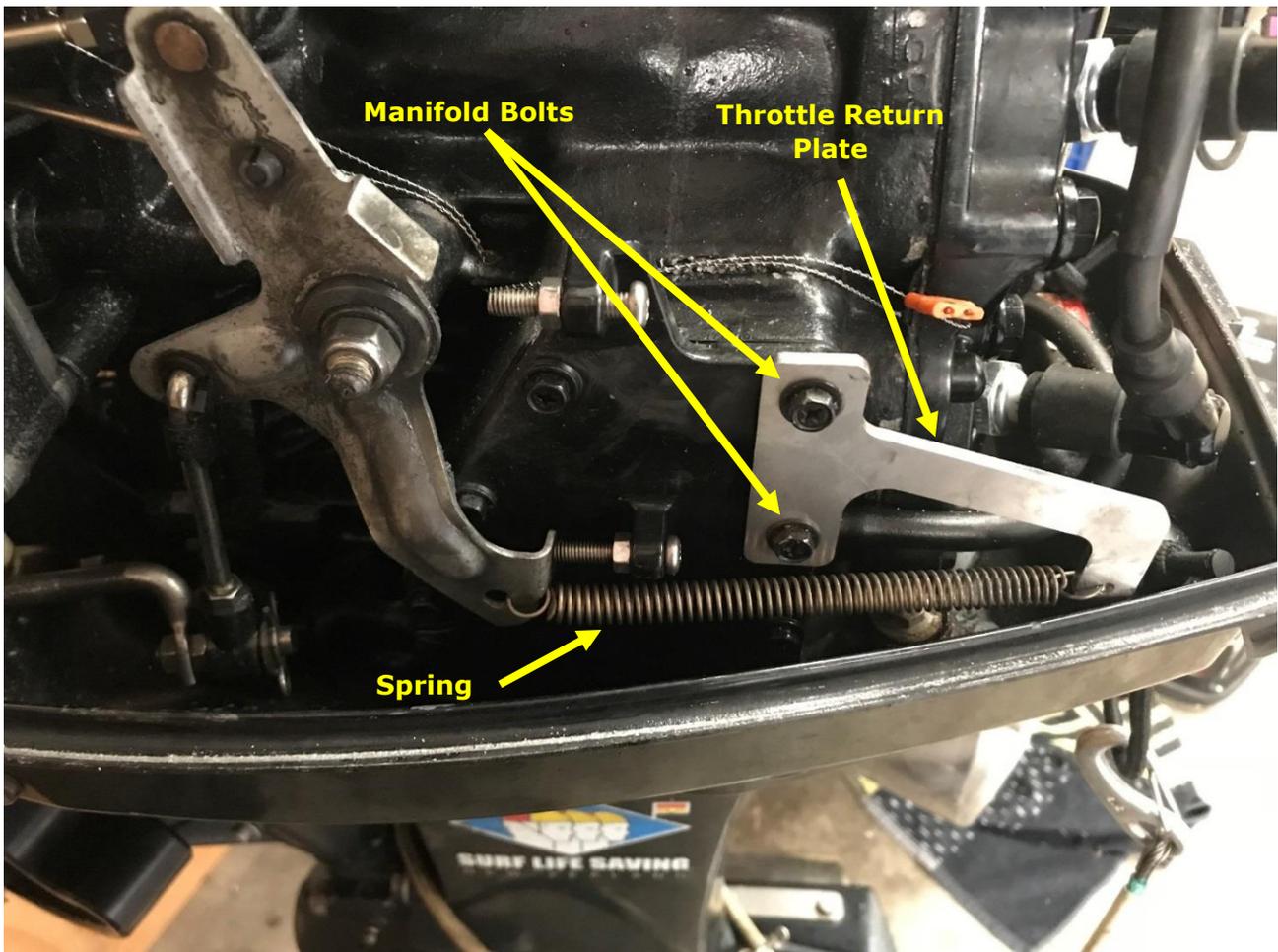
Health and Safety Considerations

1. Clubs using throttle returns must notify all potential users of the modified motors to ensure they are aware of the purpose and likely effects that a throttle return will have during normal operations.
2. SLSNZ requires that all personal involved in the trial of throttle returns be qualified IRB Drivers. Trainee drivers may use motors with throttle returns, so long as a qualified IRB Driver is present in the IRB at all times.

In it for life



Below is a photo of the correct installation of a throttle return plate and throttle return spring.



Installation Instructions.

1. Remove the two rear manifold bolts.
2. Secure the stainless steel throttle return plate to the manifold using the same two manifold bolts.
3. Attach one end of the spring to the hole at the base of the throttle cam as detailed above.
4. Pull the other end of the spring towards the rear of the throttle plate, and use needle nose pliers to grasp and fit the spring hook to the throttle return plate.
5. Place the motor in a tank of water, and initiate normal starting procedures.
6. Once the motor is warmed up, adjust the idle speed until it is set at the lowest possible idle speed without causing the motor to stall when placed in reverse gear.

Please email all feedback to Ross Merrett ross.merrett@surflifesaving.org.nz by 31 October 2018.

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