

FORWARD MODE ADJUSTING PROCEDURE

- 1) Place the cockpit shifting lever in neutral.
- 2) Recheck to be sure the reversing gear is in neutral by turning the prop shaft. The neutral position is at the point where the prop shaft turns most freely.

NOTE: If the forward clutch assembly is not in a good neutral position prior to adjustment, it will be very difficult to rotate the notched adjusting collar in step 6. It's frequently necessary to move the shifting lever slightly in the reverse direction for the reversing gear to free completely.

- 3) Remove the access plate on top of the reversing gear assembly.
- 4) Rotate the gear case cluster until the retaining pin of the adjusting collar is facing upward.
- 5) Loosen the retaining pin until the staked collar can be turned on its threads. It is not necessary to completely remove the retaining pin from its threads to turn the adjusting collar.
- 6) Turning the adjusting collar clockwise (as you would be facing the engine from the rear) will tighten the clutch disks when in forward. As a frame of reference, one notch on the adjusting collar make a large difference and is usually sufficient to prevent slippage.
- 7) Retighten the retaining pin.

CAUTION: It is very important that the end of the retaining pin extends into one of the notches on the adjusting collar before final tightening. If the end of the pin presses on the collar itself (between notches); or if the pin is simply over-tightened, it is extremely easy to break the cast iron pressure plate.

- 8) Place the cockpit lever in and out of the forward detent several times to insure a proper "feel". A solid detent should be felt while going in and out of forward, but the adjustment should not be so tight as to cause any concern that the ships cable and levers may be over stressed.

NOTE: Moving the forward adjusting collar one notch makes a rather profound difference in the force required to get the clutch assembly into and out of the forward detent. In some cases (particularly in pedestal mounted shifting levers) one setting can result in more force than might be desired, while the very next notch looser results in some slippage of the clutch assembly at high power settings. In the very latest engines (circa 1979 - 1981), Universal installed forward clutch adjustment collars with notches closer together to provide more control when adjusting the forward clutch assembly. You can check the difference in the two collars in our online catalog at moyermarine.com, product number: OREV_05_306.

9) If, after readjusting the forward clutch assembly, the neutral position of the shifting lever in the cockpit is in an awkward location, you can adjust the cable shackle at the engine, or cockpit shifting lever, until the cockpit lever is in a more natural neutral location.

REVERSE MODE ADJUSTING PROCEDURE

1) When the forward mode adjustment is correct, recheck the reverse mode for proper adjustment. There should be a well defined neutral range when coming out of the forward detent, and reverse mode should be felt comfortably before the shifting lever in the cockpit reaches the limits of its rearward travel.

NOTE: There is no detent in the reverse mode.

2) If the shifting lever in the cockpit reaches the limits of its travel before reverse mode is securely established, turn the 3/4" hex-headed nut of the reversing brake band clockwise.

3) If the reverse mode is reached too soon, and/or the neutral zone is so small that it is difficult to find a spot where the prop is not turning (one way or the other), turn the adjusting nut counterclockwise.

NOTE: It is not necessary to remove the retaining spring in order to turn the nut on the reversing band adjusting bolt.

FOR PEDESTAL MOUNTED SHIFTING LEVERS:

By way of background, pedestal mounted shifting systems typically have somewhat less cable travel than those which are mounted on the side of the cockpit. This makes them very prone to having problems associated with being able to reach both forward and reverse, and still have a reasonable neutral zone.

It's very important that the cable assembly is adjusted so that you're able to engage the forward detent near the end of the travel in the forward direction. This adjustment is necessary so that you will have sufficient travel in the rearward direction to accommodate reverse, and still have a reasonable neutral zone between forward and reverse.

In the past, we have seen several pedestal mounted systems where the range of cable travel had shifted so far in the forward direction, that there was barely sufficient travel remaining to reach the forward detent before encountering stops within the cable system. In this configuration, whenever the forward adjusting collar is set to provide a "stiffer" adjustment, the additional force required to get the reversing gear into the forward detent, results in the cable system reaching the limits of its travel before the detent is reached.