

# SERVICE BULLETIN

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MODEL: All HBW Transmissions and V-Drives

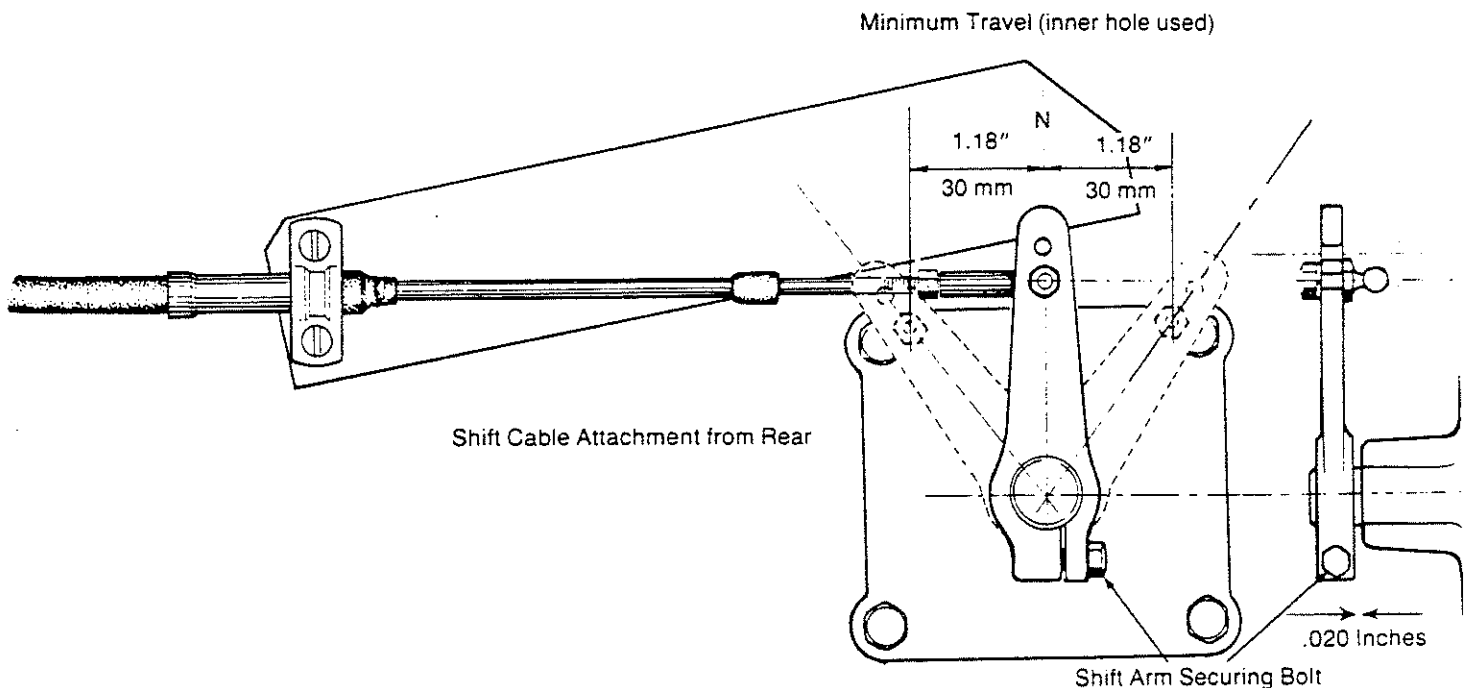
SUBJECT: HBW (Short Profile Sailing Gears) Transmission Shift Lever Adjustment

The adjustment of the shift lever on the transmission when attaching the shift control cable to it, is of prime importance to insure proper clutch engagement and long service life for the transmission.

The control cable, when attached to the transmission shift arm ball joint connector, should be attached so as to be at a 90° angle with the lever and transmission in the neutral position (Ref. Illustration).

The transmission shift arm can be rotated on the transmission side cover shifting shaft by loosening the securing bolt (13mm) and rotating the shift arm to produce the 90° angle between the arm and the shift cable when the transmission is in neutral. Insure that there is at least .020 inch clearance between the shift arm and the shift cover before retightening the securing bolt.

The shift cable and pedestal control must allow the transmission shift arm to move from the neutral position into the forward or reverse engagement a MINIMUM of 1.37 inches (35mm) when the outermost ball joint attachment hole is used on the shift arm, or 1.18 inches (30mm) when the inner is used. Use of the inner attachment hole is preferred (Ref. Illustration).



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Failure to properly adjust the shift arm and cable to produce the MINIMUM shift arm travel required for clutch engagement will result in clutch slippage and eventual failure.

Adjusting the shift arm and shift cable to produce shift lever movement greater than the minimum is recommended.

Movement at the shift arm preferably should be 1.5 to 2 inches of arm movement into the forward and reverse position. Cockpit controls must be of a design that will allow for this desired cable travel.

This shift lever travel should be verified at initial commissioning, and periodically thereafter (at least once a year).

When shifting the transmission from the controls in the vessel's cockpit, it should be done smoothly and without hesitation (dump it into gear).