

# Catalina Yachts

21200 Victory Blvd.  
Woodland Hills, CA 91367  
(818) 884-7700

## Engineering Bulletin 57

May 7, 2002

To: Catalina Dealers

RE: Procedure to check the gear shift travel and engagement of the Universal Model 35 diesel with Hurth HBW 100 ( now known as ZF 10M transmission )

1. Shift into neutral at the pedestal. At the transmission end of the cable, tape the core of the cable to the sheath to keep it from moving. Gently pry the ball and socket apart from the fitting at the end of the cable separating it from the transmission lever. Move the lever forward and backwards to the limits of the travel in the neutral position. The ball should align with the socket in the center of the neutral position lever travel. If it doesn't adjust the position of the fitting on the end of the cable core, reattach the cable to the lever, remove the tape.
  
2. Shift into forward at the pedestal (the shift lever may hit the pedestal guard, this is of no consequence, as there is not a forward detent or stop on the transmission to stop the lever travel). Detach the cable from the lever , (the lever is aft when the gear is in forward), check that the lever has a little movement before hitting the neutral detent and is clear of the neutral detent, ( there is no detent in forward or aft gear) as long as the lever is clear of the neutral detent it is engaged in the forward gear. Reattach the cable end to the transmission lever.
  
3. Shift into reverse at the pedestal, check the engagement as was done for forward gear, note the transmission lever will be forward when the reverse gear is engaged. The lever should be clear of the neutral detent when in gear.  
Reattach the cable to the lever.

(see the included drawing with detailed instructions for installation).

If you have any questions or problems with the installation process please call customer Catalina Customer Service (818) 884-7700 ext. 237 or e-mail to [service\\_ca@catalinayachts.com](mailto:service_ca@catalinayachts.com).

Sincerely,

Eric W. Schlageter  
Catalina Yachts Engineering

REV	DESCRIPTION	APPROVAL	DATE
0	ORIGINAL RELEASE		5/6/01

1.18" (APPROXIMATELY 1 3/16") MEASURED HORIZONTALLY FROM NEUTRAL CENTERLINE TO THE CENTER OF THE BALL IN THE LOWER HOLE IS THE MINIMUM DISTANCE REQUIRED FOR GEAR ENGAGEMENT

REF: SHIFT CABLE (TO EDSON PEDESTAL)

REF: CABLE CORE

REF: CABLE SHEATH

REF: COUPLING

REF: PACKING GLAND

REF: REVERSE LEVER

REF: NEUTRAL LEVER

REF: FORWARD LEVER

REF: TRANSMISSION LEVER AT HOLE

REF: TRANSMISSION LEVER

REF: UNIVERSAL M35B DIESEL ENGINE

1.18" (30 mm)

1.18" (30 mm)

2.05" (52 mm)

2 1/16" (52 mm)

APPROX.

NOTES:

- 1) DRAWING GOOD FOR UNIVERSAL M35B ENGINE WITH HBW 100 TRANSMISSION.  
(CATALINA 34 MK II, CATALINA 36 MK II, & CATALINA 350)
- 2) BALL SHOULD BE INSTALLED IN THE LOWER HOLE ON THE TRANSMISSION LEVER.

**Catalina Yachts**  
21200 VICTORY BLVD.  
WOOLLAND HILLS, CA  
91367 - (818) 884-7700

SCALE: NONE	APPROVED BY:	DRAWN BY: K.W.N.
DATE: 5/6/02		REvised

**GEAR SHIFT TRAVEL & ENGAGEMENT CHECK**

BOAT: CATALINA 34, 36, & 350  
-- UNIVERSAL M35B

DRAWING NUMBER: 340-51002-0  
ENGR. BULLETIN 57

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

GENERAL TOLERANCES

ANGLES:  $\pm 0.5^\circ$

X-XX:  $\pm 0.1$

X-XXX:  $\pm 0.005$

SURFACE FINISH:  $\frac{1}{16}$

DONOT SCALE DRAWING

# 1 TO 1 DRAWING BULLETIN # 57 of 340-51002-0 FOR TEMPLATE

