

## STEERING HEADS

JP3 Steering heads are available in two principle styles, **chain & sprocket** and **vectran drum**. Both styles can be supplied with either a tapered conical wheel attachment or a flange attachment.

- o Wheel attachments can be readily customized to suit your wheel.
- o Steering head lengths can be customized to suit your pedestal width.

## Chain & Sprocket

These steering head use a chain & sprocket for the drive to the steering cable. The steerers are available to suit stainless steel chain sizes 5/8", 3/4" and 1" pitch in any number of teeth as specified by the naval architect.

The steering shaft is supported by two deep groove sealed ball bearings mounted in anodized aluminum housings which in turn are mounted in the pedestal.

### Vectran Drum

The vectran drum steering head provides it's drive by the friction created by the steering cable be wrapped around the drum. Drum steerer are available in four nominal sizes, diameter 60mm, 70mm, 80 mm and 90 mm.

The steering drum is supported by two deep groove sealed ball bearings mount in anodized aluminum housings which mount in the pedestal.

### COMPLIMENTARY PARTS

## Steering Head Brakes

Steering head brake is available for most steering heads. The brake allows the wheel to be locked off when the boat is moored to keep the rudder central.

These features separate clamp located on the main steering shaft with a small hand wheel that is mounted in the side of the pedestal. Tightening the hand wheel clamps the shaft and locks the steering head.

## Harness Points

Padeyes at combine the washer for retaining the steering wheel and form a secure attachment point for helmsman's harness tether are available.

These can be supplied in Stainless Steel or Titanium.

## **CUSTOM PARTS**

## Steering Head and Trim Tab Control

Combination steering head and trim tab controls are available on request. These feature a main chain and sprocket steering head for steering the yacht main rudder with an inner steering head and wheel for controlling the trim tab.

The trim tab control features detents which relate to predetermined trim tab angles and the straight ahead position. The helmsman then knows when the trim tab is at the correct setting.



### INSTALLATION

# CHAIN & SPROCKET STEERING HEAD ASSEMBLY Refer to the typical installation shown on page 5

- 1. Install the forward bearing housing with bearing in the pedestal.
- 2. With the thrust collar on the shaft loose, install the remainder of the steering head aft bearing housing with bearing in the pedestal. Fitting the shaft into the bearing in the forward bearing housing.



Forward and aft bearing housings should be aligned with the steering shaft centre line. The two bearing housings should be a precise fit in the pedestals to ensure the housing is well supported. The fasteners into the backing plates are to clamp the pedestal face only.

- 3. Tighten the aft bearing housing fasteners.
- 4. Ensuring the shaft is fully located in the fwd bearing, position the thrust collar so it firm against the aft bearing.
  - Tighten the three (3) grub screws to fix the thrust collar and check there is no fore/aft movement of the steering shaft.
- 5. Steering heads with longer shafts will have keyways that are longer than the key supplied. This is to provide greater adjustment for the sprocket position.



Adjust the position of the chain sprocket so the chain leads smoothly onto and off the sprocket. Check the key is positioned centrally in the chain sprocket groove.

6. Tighten the three (3) grub screws to fix the sprocket and check there is no movement of the sprocket.



At final assmebly is it recommended that the grub screws are locked with Loctite Threadlocker or equivalent. Ensure you use a Loctite grade that can be disassembled manually.

#### VECTRAN STEERING HEAD ASSEMBLY

Refer to the typical installation shown on page 6

1. Install the forward bearing plate tighten the screwing ring from the inside.



At final assembly is it recommended that the screwing ring is locked with Loctite Threadlocker or equivalent. Ensure you use a Loctite grade that can be disassembled manually.

2. Install the remainder of the steering drum and aft bearing housing with bearing in the pedestal. Fitting the bearing in the drum onto the shaft on the forward bearing plate.



Forward bearing plate and aft bearing housing should be aligned with the steering shaft centre line. The forward bearing plate and aft housing should be a precise fit in the pedestals to ensure the housing is well supported. The fasteners into the backing plates are to clamp the pedestal face only.



- 3. Tighten the aft bearing housing fasteners.
- 4. Ensure the drum is fully located in the fwd bearing plate
- 5. Open a hole in the middle vectran cable and fit the cable clamp screw and clamp. Wrap the drum with the cable.



Ensure there is at least ½ turn of cable remaining on the drum at full lock in each direction.

## **MAINTENANCE**

The steering heads uses sealed bearings that require little maintenance.

All parts are manufactured from marine grade materials and anodized.

While no further immediate maintenance is required to the steering heads there are moving parts. It is recommended the complete steering system is regularly inspected for any signs of chafe or wear on the cables or chain.

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