

MARINE

POWERING THE MARINE INDUSTRY WITH OPTIMAL PERFORMANCE.

COASTGUARD



BEATTYS END TO END SOLUTION.

1. ASSESS Beattys will scope out the project,

identifying any critical parameters and challenges that we need to overcome to ensure we deliver a premium product.



2. DESIGN Our team of technical engineers will

then design a custom solution using state of the art CAD systems and technical expertise to ensure that we will meet all the clients needs.



3. MANUFACTURE Throughout our driveshaft

manufacturing process, you can be guaranteed the highest level of engineering excellence and commitment to quality.



4. BALANCE All driveshafts are then balanced in

one of our 4, multi-plane balancing machines. We spot-weld any weights to reduce stress on the driveshaft tube. Beattys also offers balancing services for propeller shafts and fans.

5. **REVIEW** Once a driveshaft has been balanced and painted it goes through a series of rigorous inspections and quality control measures to ensure the products we deliver will fit our commitment to premium quality.







BEATTYS DESIGN AND MANUFACTURING TEAM EXCEL THROUGH THEIR SYSTEMATIC APPROACH COMPLEMENTED BY QUALITY COMPONENTRY AND WORKMANSHIP.



PREMIUM DRIVESHAFT SOLUTIONS.

Sliding spline assemblies have heavy duty housings and an integral seal system that protects from contamination and wear.



European involute style splines that are larger in diameter with finer tolerances and less clearance result in quieter operation, increased capacity and longer service life. Rilsan[®] coated splines reduce axial load and provide electrical isolation between shaft ends.

> High grade tubing increasing the resistance to high shock loadings.

PROJECTS WITH EXCEPTIONAL RESULTS.



Client: McMullen & Wing Ship Name: Kukutai Description: 23.9m mussel harvester Engine: Caterpillar C18 (800hp) Driveshaft: Turret 55 series



Client:Allan Tongs Boat BuildersDescription:66ft elite private yachtEngine:2 x Scania DI16 070M (750hp)Driveshaft:Turret 25 series driveshaft and
TM150 thrust bearing



Marine grade two 📕 pack paint prevents corrosion in harsh environments.

TURRET

Premium automated welds allow for deep penetration and precise control while keeping consistency to a maximum.

Thrust washers help the universal joints run cooler and minimises noise and vibrations from clearance.

Completely sealed for life universal joints to keep maintenance to a minimum and ensure the engine room is kept clean.

All driveshafts are balanced to ISO 1940 standard and balance weights are spot welded to prevent fracturing and stress on the driveshaft tube.

Custom made flanges to suit any gearbox, engine or prop shaft.

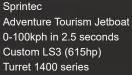


Client: Engine:

Ports of Auckland Ship Name: Wakakume Description: 22m tug boat 2 x CAT (2,200hp each) Driveshaft: 4 x Turret 60 series



Client: Description: Engine: Driveshaft:





Ship: 22m High Speed Catamaran Description: 4 x Water jets 4 x 750hp CAT Engine: Driveshaft: 4 x Turret 17 series



SHORT COUPLED SHAFTS.

Sealed or greasable universal joint options.

Heavy duty designed options with upgraded universal joints and centre yokes for competition boats.

Splined end yoke to suit water jet input spline.

Stocked models for common water jet propulsion systems.

Custom designed and manufactured flanges to suit any engine, gearbox or coupling.

Sliding coated involute spline assemblies have heavy-duty housings and an integral seal system that protects from contamination and wear.

Custom designed yokes to suit speciality high torque and angle applications.

Balanced to ISO 1940 standard with balance weights spot welded to prevent fracturing and stress on the driveshaft tube.

Completely sealed universal joints to keep maintenance to a minimum and ensure the engine room is kept clean.

DISTANCES FROM 180MM WITHOUT ANY COMPROMISE IN PERFORMANCE OR DURABILITY.



THE THING TO ME THAT SETS BEATTYS APART IS THEIR SERVICE AND QUALITY. THEY ALWAYS GET BACK TO YOUR ENQUIRY PROMPTLY AND CARRY OUT ALL WORK TO AN EXCEPTIONAL STANDARD.

152/8



UNIVERSAL JOINTS.

Large diameter journals with up to 35% higher torque capacity.

> Triple lip seals for maximum retention of grease and keeping contaminants out.

> > Thrust washers eliminate metal to metal contact preventing wear and reducing vibrations.

Joint body forged from 18NiCrMo5 steel and then machined, hardened and ground.

Sealed for life joints reduce maintenance and ensure engine room cleanliness.

Twin rows of rollers capable of handling more torque.

PREMIUM SPLINES.

SAE SPLINE

Screw on seal.

Shorter square cut male splines require more clearance and can result in noisy driveshafts with vibrations when the engine is idling.

If the seal is breached, debris comes in contact with spline immediately.

DIN SPLINE

Large diameter involute splines have finer clearances reducing noise and vibrations.

Longer splines with 100% engagement across the complete slip.

Rilsan[®] coated splines reduce axial load and provide electrical isolation between shaft ends.

Superior seal system prevents grease escaping and guarantees no debris can affect the performance and wear of the spline.



DRIVESHAFT COMPONENTS.



HANGER BEARINGS.

Turret hanger bearings allow for extended distances between engine and propulsion systems without the loss of any performance. High grade rubber and deep grove bearings result in quieter operation and extended service intervals.



SPLIT BEARINGS. Allowing for the removal of sliding splines, Turret split bearings help reduce weight and maintenance by using a solid welded midship. Heavy duty roller bearings with triple lip labyrinth seals allow for the unit to also be used as a bulkhead seal.



ADAPTER FLANGES.

Custom made adapter flanges to suit any gearbox, engine or coupling. With the use of advanced 3D CAD software and state-of-art machining technologies, we can guarantee the highest degree of accuracy.



CV JOINTS.

Turret CV joints and shafts make it possible to have unequal angles on the two ends. This coupled with a maintenance free and a low axial force ball design results in long lasting, high performing solutions.



BULKHEAD SEALS.

Turret bulkhead seals give the ability for driveshafts to pass through watertight compartments. Our superior design allows for frictionless running when there is no water pressure, reducing service intervals.



ENGINE MOUNTS.

With a range of models capable of carrying 60 - 3,000 kg per mount, Turret engine mounts will further reduce noise and vibrations by absorbing engine torque.

OVER 30,000 DRIVESHAFT PARTS HELD IN STOCK AT ALL TIMES



THRUST BEARINGS. REDUCE VIBRATIONS AND INCREASE PERFORMANCE.

- Reduce drive-train noise by up to 50% compared to any direct drive coupling.
- Prevent high frequency vibrations from causing wear and damage to the prop shaft drive-train.
 - All thrust force is absorbed through rubber pads parallel to the propeller shaft.

- **4** Allows for softer engine mounts which further reduces vibrations and noise.
- Remove prop thrust off the gearbox increasing service intervals and overall lifetime.

Models available up

to 700 hp or 60 kN of

thrust.

Save time and reduce costs with less requirements on propeller shaft alignment.

Two, four or six bolt models available depending on thrust requirements.

Custom designed flanges to connect to any propeller shaft with half coupling

machined to suit.

Standard and custom flange bolt patterns available for flexible shaft connections.

Can be used with driveshaft or CV shaft. Internal clamp system reducing the need for machining the propeller shaft.

Sealed bearings providing a clean and maintenance free solution.

DESIGNED & MANUFACTURED

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Easy to access greasable bearing for fast and easy servicing.



TORSIONAL COUPLINGS. ABSORB SHOCK LOAD AND DAMPEN TORSIONAL VIBRATIONS.

- Low torsional stiffness providing low stiffness at low torque which shifts the torsional resonance below idle speed.
- Extremely robust and fail-safe design with rubber rollers subjected only to compressive stress.
- Compact design and build makes for easy handling, installation and servicing.

- Allows for softer engine mounts which further reduces vibrations and noise
- Smooth operation and reliable transmission over the entire power range.
- Fail-safe design with rubber rollers yields smooth operation and reliable transmission.

Absorb engine and propulsion system vibrations.

Extremely robust and fail-safe design with rubber rollers subjected only to compressive stress.

> Custom options as short as 12mm available for situations where there is very limited space.

Ability to add a heavy duty outer support bearing to remove all thrust off the driveshaft and other components.

Highly flexible coupling with progressive characteristic.

Compatible with all standard flywheel connections and custom flanges can be designed and manufactured according to specifications. Smooth operation and reliable transmission over the entire power range with minimal energy loss.

Slight stiffness at lower speeds and a moderately increased stiffness at rising torques.









Optimal Performance Whatever the Challenge

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