

# WHY CRAFT, THE AMERICAN SPLIT BEARING IS SUCH A SOLID IDEA.



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OF BORE SIZES  
1 7/16" THRU 12"  
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UP TO 32"  
ALSO AVAILABLE.**

Craft split bearings are easy to install because they eliminate the need to remove shafts and drive components. In addition, to increase reliability and longevity, we've added a host of other innovative features. Count on Craft for solid ideas and superior American technology.

- Strong ductile iron casting, standard
- **NEW!** Stainless Steel casting, optional
- Split triple labyrinth seal eliminates shaft wear and has an extended life span
- Split integral locking roller cage with cylindrical pockets for positive roller retention
- Standard base-to-center height
- Metric, special applications and custom bearings also available
- Rapid response to all orders
- Complete technical support
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**Bearing Company, Inc.**

U.S. Patent No. 5,630,669, No. 5,743,659



# DRIVE SHAFT PROBLEM SOLVED

## Craft Split Roller Bearings Help Turn Ordinary Pipe Into A Precision Drive Shaft For The Navy's New Spacecraft Rendezvous And Docking Simulator

A couple of standard 2-1/2 inch schedule 80 pipes were quickly transformed into precision drive shafts for critical positioning equipment in the United States Navy Research Laboratory's new Spacecraft Rendezvous and Docking Simulator with the help of Craft Split Roller Bearings. Craft's engineers designed this large, state-of-the-art equipment to maneuver full-sized spacecraft to simulate the terminal docking phase during rendezvous in space. They needed a long, rigid, lightweight drive shaft for the precision control of the docking spacecraft. Craft's engineers developed an effective and inexpensive solution that could be applicable to almost any situation where line shafts are needed.

Craft's engineers simply made the drive shaft from standard pipe rather than solid machined steel. This was possible because the use of a Craft Split Bearing required machining only the area where the bearing was to be installed. The rough 2.875 inch outside diameter of the pipe was easily turned to 2.750 for about 6 inches near the center of the 20 foot pipe sections. Each end was bored to 2.375 inside diameter to accept Trantorque keyless bushings.

The pipe sections were installed on either side of the girder mounted, low-backlash, parallel shaft gear reducer. Short stub shafts at each end were fitted with drive sprockets. The standard Craft S1-212 BCH Split Roller Bearing was then installed around the shaft.

Due to the high lateral stiffness and light weight of the pipe sections, only one Craft Bearing was required at the mid-span of each pipe drive shaft. When engineers compared the pipe drive shaft with a conventional 2-inch solid drive shaft, they found that the pipe shaft was:

- 28% lighter
- 70% stronger and
- 140% more rigid

The ability of the Craft Split Roller Bearing to be assembled around the shaft saved hours of machining, reduced installation time, and made the concept feasible. This innovative approach should be suggested to anyone using line shafts that need intermediate support.

Let Craft help you solve power transmission problems.