Falk Marine Gear Drives and Clutches

OVERVIEW

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Where durability runs deep

Nowhere is equipment durability more crucial to a company’s survival than on the world’s waterways where crews and schedules depend on reliable power. For more than 95 years, Falk® products have been rewriting the record books for longevity in marine propulsion. From heavy-duty gear sets, clutches and extended-life bearings, to the design and construction of our application-engineered housings, Falk Marine Gear Drives are built to be the most reliable solutions afloat.

That’s why demanding workboat manufacturers, owners and operators rely on Falk Marine Drives and Clutches.

“Reliability and longevity are most important. In the river industry, these gear drives will take a lot of abuse.”

Owner of a towing company

Company History

1916  
Falk’s marine efforts started in 1916 with a submarine tender for the U.S. Navy.

1939  
Falk revolutionized workboat maneuverability with the introduction of reversing reduction gears, and air clutches and drums.

1942  
During World War II, Falk provided 16.5 million horsepower-worth of power transmission products for aircraft carriers, cruisers, destroyers and Landing Ship Tanks (LSTs).

1962  

1966  
Falk introduced the first commercial gas turbine reduction gear.

1968  
Falk powered the largest ore carrier on the Great Lakes — M/V Stewart J. Cort.

1982  
Falk increased life with surface-hardened and ground gears and internal hydraulic clutches in the Falk MRH Series.

1987  
Falk reduction gears drive the Military Sealift Command’s Fleet Replenishment Oilers (T-AO) and 65,000-horsepower roll-on/roll-off ships.

1995  
Falk makes LST Drop-in Replacement Drives available in vertical and horizontal configurations.

2011  
Falk introduces Marine Drive (M) and MR gear recuts saving customers up to 40% compared to a completely new gear set.

Rexnord is so confident in the quality and reliability of our Falk products, that we are the only manufacturer offering a three-year heavy-duty warranty standard on all of our marine drives.
For more than 30 years, Falk Marine Reversing Reduction Drives with Hydraulic Clutches (MRH) have been delivering the same reliable performance and extended operating life customers have come to expect from extensively proven Falk Marine Reversing Drive (MR) Series.

The MRH Series’ integral hydraulic clutches and shaft brakes combine to produce the fastest reversing speeds available today, while maintaining smooth engagements and power transfer for more precise, predictable maneuvering.

**The MRH Series features:**
- Capacities up to 7,500 horsepower
- Ratios from 2:1 to 7.5:1
- Integral hydraulic clutches
- Integral hydraulic shaft brakes
- Surface-hardened, carburized and ground gears
- Configurations with vertical or horizontal offset for port, starboard or vertical assemblies
- Three-year heavy-duty warranty
The Falk Marine Drive (M) and Marine Reversing Drive (MR) Series have been Working the Water™ for more than 50 years. Our highly reliable external air clutches and conservative bearing design have allowed vessels to achieve more than 100,000 hours of service.

Today, the M and MR Series continue to set the standard for power transmission longevity in workboats around the world.

The M and MR Series feature:
- Capacities up to 5,000 horsepower
- Ratios from 2:1 to 8:1
- Service-proven Falk B7B Marine Air Clutches
- Through-hardened, precision ground gears
- Extended-life roller bearings
- Three-year heavy-duty warranty
In the 1940s, more than 3,000 Falk Landing Ship Tank (LST) Drives were fitted into landing ship tanks. Today, hundreds of those reliable drives are still in operation on workboats.

If you have an original LST Drive in your commercial vessel, it is now possible to achieve significantly higher capacity by upgrading your power with a Drop-in Falk 21MR Marine Drive. The Falk 21MR units with B7B Falk Marine Air Clutches deliver that extra push you need, as well as the reliability and long life you expect from a Falk Drive.

Double helical gears provide a tough, quiet drive — without massive modifications to your vessel. Steel housing units (available in vertical, port or starboard configurations) are furnished with ground finish gearing. Like other Falk MR and MRH units, the 21MR comes with our exclusive three-year heavy-duty warranty, outpowering everyone else in the industry.

“I’ve always thought highly of Falk gearboxes. They are manufactured by a solid company with a good reputation.”

Engineering manager of a major towing company

Upgrade your LST Drive with a Drop-in 21MR
Falk comes through in the clutch

Falk B7B Marine Air Clutch

Tested and proven for more than 70 years on thousands of applications, the easily-mounted Falk B7B Marine Air Clutch provides a simple and reliable engine-to-gear connecting mechanism.

The B7B Marine Air Clutch features:
- Dependable operation with excellent torsional vibration absorption
- Fast reversal times and high-cycle shifting
- Continued slip operation for slow speed maneuvering and high-cycle capability
- Enhanced load distribution, smoothness of operation and clutch life
- Automatic and complete disengagement when air pressure is released
- No maintenance (working friction surfaces are only parts subject to wear)
- Cushioning of shock loads and accommodation of reasonable amounts of shaft misalignment
- Positively regulated engagement and disengagement
- Balanced to ISO 1940-1 Grade 16

“*When it comes to quality, you can’t beat Falk.*”

Owner of a marine services company

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The friction lining on the B7B Marine Air Clutch is riveted to a ductile aluminum vented shoe which is held to the inner diameter of the gland with pins. Our friction linings exhibit additional consistent engagements under varying conditions, maintaining high coefficients of friction against our cast steel drums.
Falk genuine parts

Insist on genuine Falk quality for all your replacement components

When it’s time to repair, operators and port engineers demand OEM components that maintain the legendary reliability of their M, MR, MRH or custom reduction gears.

Falk genuine parts include:

- Precision ground gear elements
- OEM bearings
- B7B marine air clutches
- Cast steel clutch rims
- Clutch spacers
- OEM air shafts
- OEM pilot bearing assemblies
- Hardware and gaskets

American Bureau of Shipping (ABS) product-design assessed

Precision ground gear elements
OEM bearings
B7B marine air clutches
Cast steel clutch rims
Clutch spacers
OEM air shafts
OEM pilot bearing assemblies
Hardware and gaskets

“**I am really impressed with the dimensional accuracy, quality and appearance of the Falk clutches.**”

Manager at a stocking distributor

Falk M and MR gear re-cuts can save up to 40% compared to a completely new gear set.

MR re-cut low speed gear at shipping.

MR re-cut low speed gear at finish grind.

New main pinion at finish grind.
ALL AROUND THE GLOBE,

CUSTOMERS TRUST OUR PROVEN BRANDS.

WHY CHOOSE REXNORD?

When it comes to providing highly engineered products that improve productivity and efficiency for industrial applications worldwide, Rexnord is the most reliable in the industry. Commitment to customer satisfaction and superior value extend across every business function.

- **Valuable Expertise**
  An extensive product offering is accompanied by global sales specialists, customer service and maintenance support teams, available anytime.

- **Delivering Lowest Total Cost of Ownership**
  The highest quality products are designed to help prevent equipment downtime and increase productivity and dependable operation.

- **Solutions to Enhance Ease of Doing Business**
  Commitment to operational excellence ensures the right products at the right place at the right time.