

## Marine Thrusters and Drives | Repair and Refurbish



**FALK RENEW<sup>®</sup> PRAGER**

**REXNORD**



**In these times of uncertainty, one constant remains – timely, innovative, reliable repair and service from Falk™ RENEW® Prager®.**

We understand the importance of keeping your system up and running and how integral a properly running system is to overall productivity. In today's business climate, it is imperative to get the most out of any investment. In nearly all cases, Falk RENEW Prager in most cases will repair your bow and tunnel thrusters and Z drives to better-than-new performance, improving productivity and providing a more reliable system for the future.

**RE-no-vate:** *to restore to a former better state by cleaning, repairing, or rebuilding*

Falk RENEW Prager's standard procedure calls for a complete disassembly of all thrusters and drives. Individual components are cleaned and inspected, followed by repair or replacement as needed.

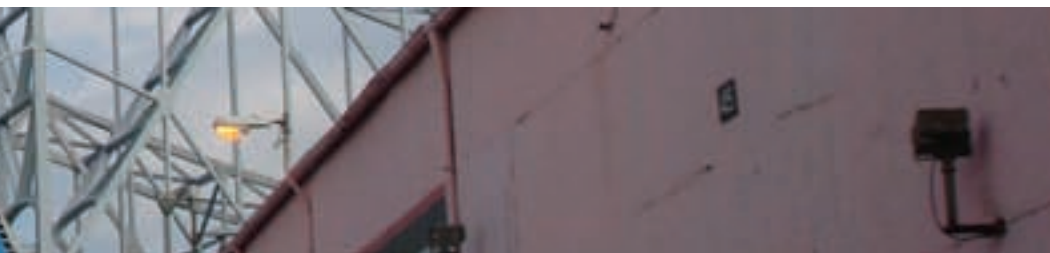
**RE-liable:** *suitable or fit to be relied on, dependable or giving the same result on successive trials*

Falk RENEW Prager offers more standard services than anyone else in the business. Multiple inspection steps are covered with each thruster and drive brought in for repair, ensuring RE-peated success due to our industry-leading attention to detail.

**RE-lax:** *to seek rest or recreation*

Maximize your uptime, ROI and peace of mind by selecting Falk RENEW Prager as your exclusive service partner.





## It Begins With a Free Onsite Analysis and Equipment Audit

As part of our detailed record-keeping process, the RENEW process begins with a site visit and equipment audit. In this discovery phase, experienced team members take a hands-on approach in the review and analysis of your installed equipment.



Regardless of the age or condition of your equipment, Falk RENEW has the right solution.

## Services Provided

- Complete disassembly and inspection of parts with report, including ABS report if needed
- Inspect and record all clearances:
  - »Steering Pinion Bearings
  - »Steering Tube Bearings
  - »Upper OT Box Finish Size
  - »Lower OT Box
  - »Crank Pin
  - »Pinion Shaft
  - »Propeller Shaft
  - »Spiral Bevel

Everything we do is focused toward maximizing your uptime and increasing your bottom line.





## Services Provided

### Gears and drives

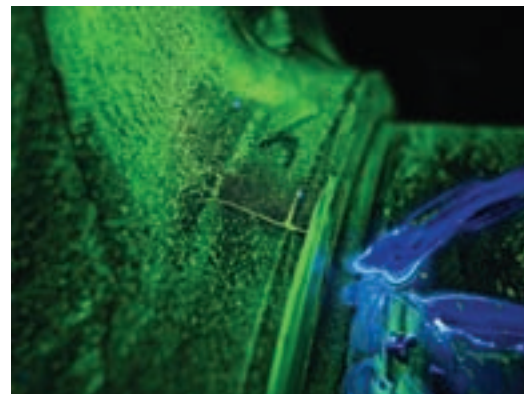
- Dressing or replacement of gearing and spiral bevel pinions to remove and repair damage
- Any new gearing or pinions manufactured as needed
- Repair or replacement of pitch piston cylinders
- Line boring of bearing bores to suit pinion or other bearings
- Repair or replacement of crank rings
- Repair or replacement of cylinder rod anti-rotation plates and keys
- Crown wheels and pinions reconditioned or replaced
- Crank rings sleeved and machined to fit new bore sizes
- Repair or replacement of oil transfer pipes
- Repair or replacement of cylinder rods

### Shafts

- Polish and check shafts for proper runout
- Re-chrome and re-machine shafts
- Manufacture new shafts

### Props

- Prop hubs bored and the faces cut true
- Tru-cut palms on prop blades
- Replacement of prop slide blocks
- Prop blades reconditioned and ABS certified
- Repair or replacement of prop shafts, prop bearings and covers
- Die checking and reconditioning or replacement of Kortz-nozzles
- New sliding blocks manufactured for prop assembly



Gears and parts are magnaflux inspected to detect hidden flaws.



## Rebuilt to Factory Specifications, Not Simply Repaired

When a thruster or drive experiences a damaged gear, a broken shaft, failing bearings or a cracked housing, you can either patch it with a quick repair or you can restore the drive to its original operating specification.

At RENEW, we understand that what we do is more than repair work—we help ensure your operation is up and running and generating revenue.

We don't cut corners by simply welding components and grinding surfaces smooth to give the appearance of repair. Our engineers test and match the metallurgy of the original components to ensure they meet the torque requirements they were designed to handle.



Regardless of the age or condition of your equipment, Falk RENEW has the right solution.

## Services Provided

### Bearings

- Proper re-torque of bearing carriers
- Repair of input shaft bearing fits
- Repair or replacement of input pinion bearing carriers

### Seals

- Repair or replacement of azimuth seal rings
- Replacement of deep sea seals
- Replacement of o-rings
- Repair or replacement seals
- Repair or replacement of dowty seals and thrust rings
- Replacement of sham-bam seals
- New deep sea seal landings manufactured if old landing is out of tolerance

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**When it comes to restoring all the original Falk designed-in, built-in power and precision, RENEW leaves nothing to chance.**

- Sandblast and paint thruster housing and parts with 2 coats of antifouling and/or epoxy paint
- Internal components cleaned and polished to remove corrosion and grease film
- Replacement of zinc anodes
- Replacement of pitch feed-back cables
- Pod arms repaired and inspected by ABS

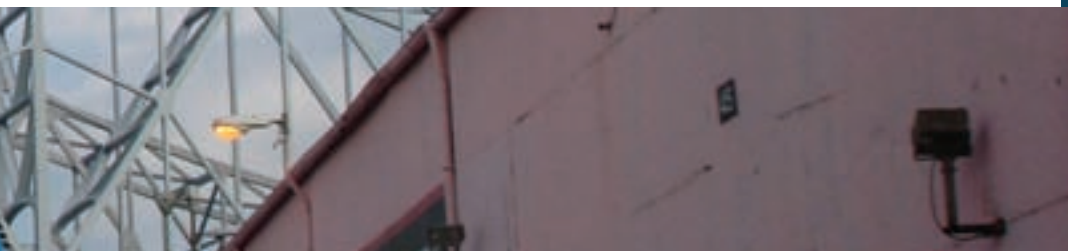
Housings are systematically cleaned. Repairs are made where needed. All dimensions and alignments are carefully checked against the original engineering, manufacturing and performance data and specifications. Gears are Magnaflux-inspected to detect hidden flaws. Assemblies are put back together just as carefully as Falk did it the first time.

Thorough inspection and complete testing verifies proper lubrication and assures correct bearing, gear and backlash settings.

There's more to Falk RENEW than living up to Rexnord's legendary standards for quality and reliability. Because all sales, engineering and production data is immediately available through computer-managed engineering files, RENEW helps minimize the need for costly and time-consuming re-engineering. So we can help you get your critical drive system components back online quickly and cost effectively.







Regardless of the age or condition of your equipment, Falk RENEW has the right solution.

## Complete Testing and Certification

Before any refurbished thruster or drive leaves our facilities, it is cleaned, tested, leak tested, and ultimately painted to your specifications.

The results of all tests are part of the detailed documentation that accompanies the drive when it is returned for reinstallation.



## Services Provided

### Other Products and Services

- New propulsion drives
- Renew of gearbox propulsion drive gearing
- Marine loading arm repair and renew
- Field service and repair
- Falk marine B7B air clutches and drums

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# WHY RENEW

***Quite simply, we have built more gear reducers in the last 120 years than any other manufacturer. Who better to ensure all your assets deliver like-new performance.***

Our experience, technical strength and repeatable quality deliver maximum up-time and performance reliability at the lowest cost of ownership. We have over 30 technicians with over 20 years experience EACH! This combined 600 years of experience gives us second-to-none, world-class expertise.

This experience aligned with our cutting-edge design software and dedicated manufacturing facilities around the globe, makes Falk RENEW Prager the final line in our total customer service network. Our quality reputation, financial strength and world-wide recognition for quality, performance and durability make us the leader in total customer support. And to prove we stand behind our work.

And should you need emergency service, we provide 24 hour support, 365 days per year.

Call today toll free at 888-827-9808.

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