

SKF 17387

SKF 17387 Power Steering Pitman Arm Shaft Seal

INSTRUCTION MANUAL

Brand: SKF | Model: 17387

1. Product Overview

The SKF 17387 is a high-quality rotary shaft seal designed for automotive applications, specifically for power steering pitman arm shafts. This seal features a dual lip with a spring and is constructed from durable Nitrile Rubber, ensuring positive fluid control and effective exclusion of dirt and contaminants. It is engineered to provide reliable dynamic sealing and a long service life under various operating conditions.

This manual provides essential information regarding the installation, function, and maintenance of your SKF 17387 seal.

2. Safety Information

Important Safety Notice: Always exercise caution when working with automotive components. Wear appropriate personal protective equipment (PPE) such as safety glasses and gloves. Ensure the vehicle is properly supported and secured before beginning any work.

Proposition 65 Warning: This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit www.P65Warnings.ca.gov.

3. Product Features and Components

The SKF 17387 seal is designed with advanced features for optimal performance:

- **Seal Lip Profile:** All SKF seals incorporate a seal lip design that meets or exceeds OE specifications, providing tough exclusion of dirt and contaminants, reliable dynamic sealing, and a long service life.
- **Sealing Element:** SKF's synthetic rubber blends are formulated from complex polymers to operate in temperatures ranging from minus 40 degrees to 400 degrees Fahrenheit. These blends are engineered to be compatible with aggressive additive packages found in modern lubricants.
- **Case Components:** Made from the highest grade of carbon steel and coated with phosphate for rust protection. Most metal-cased seals are coated with Bore-Tite, a flexible coating on the outside diameter that fills small housing bore imperfections, ensuring a tight and leak-proof seal.



Figure 3.1: Front view of the SKF 17387 Power Steering Pitman Arm Shaft Seal. This image shows the primary sealing lip and the internal spring mechanism designed for consistent pressure against the shaft.



Figure 3.2: Rear view of the SKF 17387 Power Steering Pitman Arm Shaft Seal, displaying the part number "SKF 17387 USA" stamped on the outer casing. This view highlights the robust construction and the Bore-Tite coating on the outer diameter.

4. Installation (Setup)

Installation of the SKF 17387 seal requires specific automotive knowledge and tools. It is highly recommended that installation be performed by a qualified mechanic or automotive technician.

General Installation Steps (Consult Service Manual for Specific Vehicle):

1. **Preparation:** Ensure the vehicle's power steering system is depressurized and the pitman arm shaft area is clean and free of debris.
2. **Removal of Old Seal:** Carefully remove the old seal using appropriate seal removal tools. Avoid damaging the shaft or housing bore.
3. **Inspection:** Inspect the shaft and housing bore for any nicks, burrs, or wear that could compromise the new seal's integrity. Address any imperfections before proceeding.
4. **Lubrication:** Lightly lubricate the new SKF 17387 seal's lips and outer diameter with clean power steering fluid or a compatible lubricant.
5. **Installation:** Using a proper seal installation tool or a socket of appropriate size, gently and evenly press the new seal into the housing bore until it is fully seated. Ensure the seal is installed squarely and not cocked.

6. **Reassembly:** Reassemble the pitman arm and other components according to the vehicle manufacturer's specifications.
7. **Fluid Refill and Bleeding:** Refill the power steering system with the correct fluid type and bleed the system as per the vehicle's service manual.
8. **Leak Check:** Start the engine and check for any leaks around the newly installed seal.

Note: Specific torque specifications and procedures may vary by vehicle model. Always refer to the vehicle's official service manual for precise instructions.

5. Operating Principle

Once installed, the SKF 17387 seal functions by creating a dynamic barrier between the rotating pitman arm shaft and the stationary housing. The primary sealing lip, reinforced by an internal spring, maintains constant contact with the shaft surface, preventing power steering fluid from leaking out. The auxiliary dirt lip provides an additional layer of protection, excluding contaminants like dust, dirt, and moisture from entering the system. The Bore-Tite coating on the outer diameter ensures a static seal within the housing bore, preventing external leaks.

6. Maintenance

The SKF 17387 seal is designed for long-term, maintenance-free operation once properly installed. Regular maintenance of the seal itself is generally not required. However, it is advisable to:

- **Periodically Inspect:** During routine vehicle maintenance, visually inspect the area around the pitman arm shaft for any signs of fluid leakage.
- **Maintain Fluid Levels:** Ensure the power steering fluid level is always within the recommended range for your vehicle. Low fluid levels can indicate a leak.
- **Use Correct Fluid:** Always use the power steering fluid type specified by your vehicle manufacturer. Incorrect fluid can degrade seal materials over time.

7. Troubleshooting

If you observe issues related to the seal, consider the following common troubleshooting points:

Symptom	Possible Cause	Solution
Fluid Leakage around Pitman Arm Shaft	Improper seal installation (cocked, damaged during install)	Re-inspect installation; re-install or replace seal if necessary.
	Damaged shaft surface (nicks, burrs)	Inspect shaft; repair or replace if damaged.
	Worn or aged seal (if not newly installed)	Replace seal.
	Incorrect fluid type	Drain and refill with correct fluid.
	Excessive system pressure	Diagnose and repair power steering system.
Premature Seal Failure	Contamination (dirt, grit)	Ensure clean working environment during installation.
	Overheating of fluid/system	Check power steering cooler and fluid condition.
	Improper lubrication during installation	Ensure proper lubrication of seal lips and bore during installation.

If troubleshooting steps do not resolve the issue, it is recommended to consult a professional automotive technician.

8. Specifications

Specification	Value
Shaft Diameter	1.750 in / 44.450 mm
Bore Diameter	2.502 in / 63.550 mm
Outer Diameter	2.506 in / 63.650 mm
Width	0.313 in / 7.950 mm
Seal Construction Type	CRWA1
Seal Lip Material	Nitrile Rubber
Boretite	Yes
Item Weight	0.01 ounces
Exterior	Machined
Manufacturer Part Number	17387

9. Warranty Information

Specific warranty terms for the SKF 17387 Power Steering Pitman Arm Shaft Seal are provided by the manufacturer, SKF. Please refer to the official SKF website or contact SKF customer service for detailed warranty coverage, terms, and conditions. Keep your proof of purchase for any warranty claims.


10. Customer Support

For technical assistance, product inquiries, or support regarding the SKF 17387 seal, please contact SKF directly through their official website or customer service channels. You may also reach out to the seller from whom you purchased the product for assistance.

SKF Official Website: www.skf.com

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Related Documents - 17387

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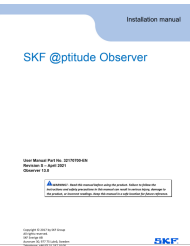
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Comprehensive installation guide for SKF @ptitude Observer 13.0 software, detailing system requirements, software and SQL Server Express installation, database setup, monitor service configuration, and network settings for condition monitoring.



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User manual for the SKF Dynamic Motor Analyzer EXP4000, detailing its features, intended use, software license agreement, and support information.

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Comprehensive guide to SKF Automatic Lubricators, including LAGD, TLSD, TLMR, and TLMP series. Learn about features, benefits, applications, technical specifications, and accessories for improved safety, reliability, and maintenance.