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WKNYSYK WKNYSYK123

Instruction Manual

BRAKE DRAIN AIR DRYER PURGE VALVE WITH HEATER

Brand: WKNYSYK | Model: WKNYSYK123

1. Product Overview

This manual provides essential information for the installation, operation, and maintenance of the WKNYSYK Brake Drain Air Dryer Purge Valve with Heater, designed as a direct replacement for Bendix 800405 and other compatible models (Interchange Part Number: 800405 5004341). This component is crucial for the proper functioning of your vehicle's air brake system, ensuring efficient air drying and preventing moisture buildup.

Key features include:

- Built to strict control standards for wonderful performance.
- Precision manufacturing ensures stable performance.
- Simple installation process, saving time and effort.
- Excellent quality for reliable operation.
- Directly replaces old or faulty units.

2. Safety Information

WARNING: Always prioritize safety when working with vehicle air brake systems. Failure to follow these instructions could result in serious injury or property damage.

- Ensure the vehicle's air system is completely depressurized before beginning any work.
- Wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- If you are not experienced with automotive air brake systems, it is highly recommended to seek professional assistance for installation.
- Do not modify the product. Use only as intended.
- Keep children and pets away from the work area.

3. Package Contents

Verify that all components are present and undamaged before proceeding with installation. If any parts are missing or damaged, contact your supplier immediately.



Figure 3.1: Complete package contents including the purge valve, mounting hardware, and seals.

- 1x Brake Drain Air Dryer Purge Valve with Heater Assembly
- 3x Mounting Bolts
- 2x Large O-rings (Seals)
- 1x Small O-ring (Seal)
- 1x Lubricant Packet (for O-rings)

4. Setup and Installation

This purge valve is designed for direct replacement. Professional installation is recommended.

1. Preparation:

- Park the vehicle on a level surface and engage the parking brake.
- Completely drain the air system pressure. Verify pressure gauges read zero.
- Locate the existing air dryer purge valve.

2. Removal of Old Valve:

- Disconnect any electrical connections to the heater element.
- Carefully unbolt and remove the old purge valve assembly. Be prepared for any residual air or moisture.
- Clean the mounting surface thoroughly, removing any old gasket material or debris.

3. Installation of New Valve:



Figure 4.1: Front view of the purge valve assembly.

- Apply a thin layer of the provided lubricant to the new O-rings.
- Position the new O-rings correctly on the valve assembly.
- Align the new purge valve with the mounting holes on the air dryer.
- Secure the valve using the new mounting bolts. Tighten bolts evenly to the manufacturer's specified torque (refer to vehicle service manual for exact specifications).
- Reconnect the electrical connector to the heater element. Ensure a secure connection.

4. Post-Installation Check:

- Re-pressurize the air system and check for any air leaks around the newly installed valve using a soapy water solution.
- Observe the purge cycle to ensure proper operation.

5. Operating Instructions

The Brake Drain Air Dryer Purge Valve operates automatically as part of the vehicle's air brake system. Its primary function is to expel moisture and contaminants collected by the air dryer during the compression cycle. The integrated heater prevents freezing in cold weather conditions.

- The valve will open periodically to purge accumulated moisture and oil from the air dryer reservoir. This typically occurs when the air compressor unloads.
- During cold temperatures, the heater element will activate to prevent ice formation within the valve, ensuring continuous and effective purging.
- No manual intervention is required for its normal operation.

6. Maintenance

Regular inspection of the air dryer system, including the purge valve, is recommended to ensure optimal performance and longevity.

- **Visual Inspection:** Periodically check the valve for any signs of physical damage, corrosion, or air leaks.
- **Purge Cycle Check:** Listen for the distinct "hiss" sound of air being purged when the compressor unloads. If no purge sound is heard, or if it sounds weak, further investigation may be required.
- **Heater Function:** In cold weather, ensure the heater element is functioning. This can often be checked by feeling for warmth around the heater portion of the valve after the vehicle has been running in cold conditions.
- **Cleanliness:** Keep the area around the valve free from excessive dirt and debris.

7. Troubleshooting

Refer to the table below for common issues and their potential solutions.

Problem	Possible Cause	Solution
No air purge during compressor unload.	Valve stuck closed; electrical issue with solenoid; air dryer malfunction.	Inspect electrical connections. Check for obstructions. Consider professional diagnosis or replacement.
Constant air leak from purge valve.	Valve stuck open; damaged seals/O-rings; debris in valve.	Check for proper seating. Inspect and replace O-rings if necessary. Clean valve area.
Moisture/oil in air tanks.	Purge valve not functioning correctly; air dryer desiccant saturated.	Verify purge valve operation. Consider replacing air dryer desiccant cartridge.
Heater not working in cold weather.	Faulty heater element; electrical connection issue; blown fuse.	Check electrical connections and fuses. Test heater element for continuity. Replace if faulty.

For issues not listed or if troubleshooting steps do not resolve the problem, consult a qualified automotive technician.

8. Specifications

Detailed specifications for the WKNYSYK Brake Drain Air Dryer Purge Valve with Heater:

Attribute	Value
Model Number	WKNYSYK123
Manufacturer Part Number	TR19948
Interchange Part Number	800405, 5004341
Replaces Bendix Part	800405
Package Dimensions	1.18 x 0.79 x 0.39 inches
Item Weight	1.76 ounces
Assembly Required	No
Number of Pieces	1 (assembly)
Origin	Mainland China

9. Warranty and Support

For specific warranty terms and conditions, please refer to the documentation provided at the time of purchase or contact the seller directly. WKNYSYK products are designed for reliability and performance.

If you encounter any issues or require technical assistance, please reach out to your point of purchase or the manufacturer's customer support channels. When contacting support, please have your product model number (WKNYSYK123) and purchase details readily available.

