Orion Motor Tech OMT-BJS000100

Orion Motor Tech OMT-BJS000100 Blind Hole Bearing Puller Kit Instruction Manual

1. Product Overview

The Orion Motor Tech OMT-BJS000100 is a 16-piece blind hole collet bearing race and seal puller extractor kit designed for efficient removal of tight and jammed axles, bearings, and bushings without causing damage to the removed parts. This comprehensive set is suitable for a wide range of vehicles and applications, offering both slide hammer and counterstay pulling methods.

Key Features:

- **16-Piece Set:** Includes a slide hammer, counterstay puller, spare pin bolt, 3 screw adapters, and 10 split collets.
- **Wide Application:** Collets cover parts from 1/4 to 2-1/3 inch diameter (6-59 mm).
- **Heavy-Duty Construction:** Made from AISI 1045 medium carbon steel, forged and galvanized for durability. Chromoly steel collets handle stubborn bearings.
- **Dual Pulling Methods:** Utilizes both slide hammer for quick removal and counterstay for controlled extraction.
- **Organized Storage:** Comes in a custom blow-molded case for easy organization and transport.

2. Safety Information

WARNING: Always wear appropriate personal protective equipment, including safety glasses, when using this tool kit. Failure to do so may result in serious injury.

- Ensure the work area is clean, well-lit, and free from obstructions.
- Always select the correct collet size for the bearing or bushing to ensure a secure grip.
- Verify that all connections are tight before applying force.
- Do not use damaged or modified tools.
- Keep hands and fingers clear of moving parts during operation.
- Use caution when applying force with the slide hammer to prevent sudden release of components.

3. Package Contents

The Orion Motor Tech OMT-BJS000100 kit includes the following components, neatly organized in a durable blow-molded case:

- 1 x Slide Hammer
- 1 x Counterstay Puller (2-jaw)
- 1 x Spare Pin Bolt
- 3 x Screw Adapters
- 10 x Split Collets (sizes: 6-13 mm, 10-17 mm, 15.5-22 mm, 22-29 mm, 28.5-35 mm, 35.5-39 mm, 38.5-45 mm, 42.5-49 mm, 48.5-55 mm, 52.5-59 mm)

Image: All 16 components of the Orion Motor Tech blind hole bearing puller kit, including the slide hammer, counterstay, screw adapters, and various collets, neatly arranged in their red storage case.

4. Setup and Operation

4.1. Selecting the Correct Collet

Choose the split collet that best fits the internal diameter of the bearing or bushing you intend to remove. The collet should fit snugly into the inner race of the bearing.

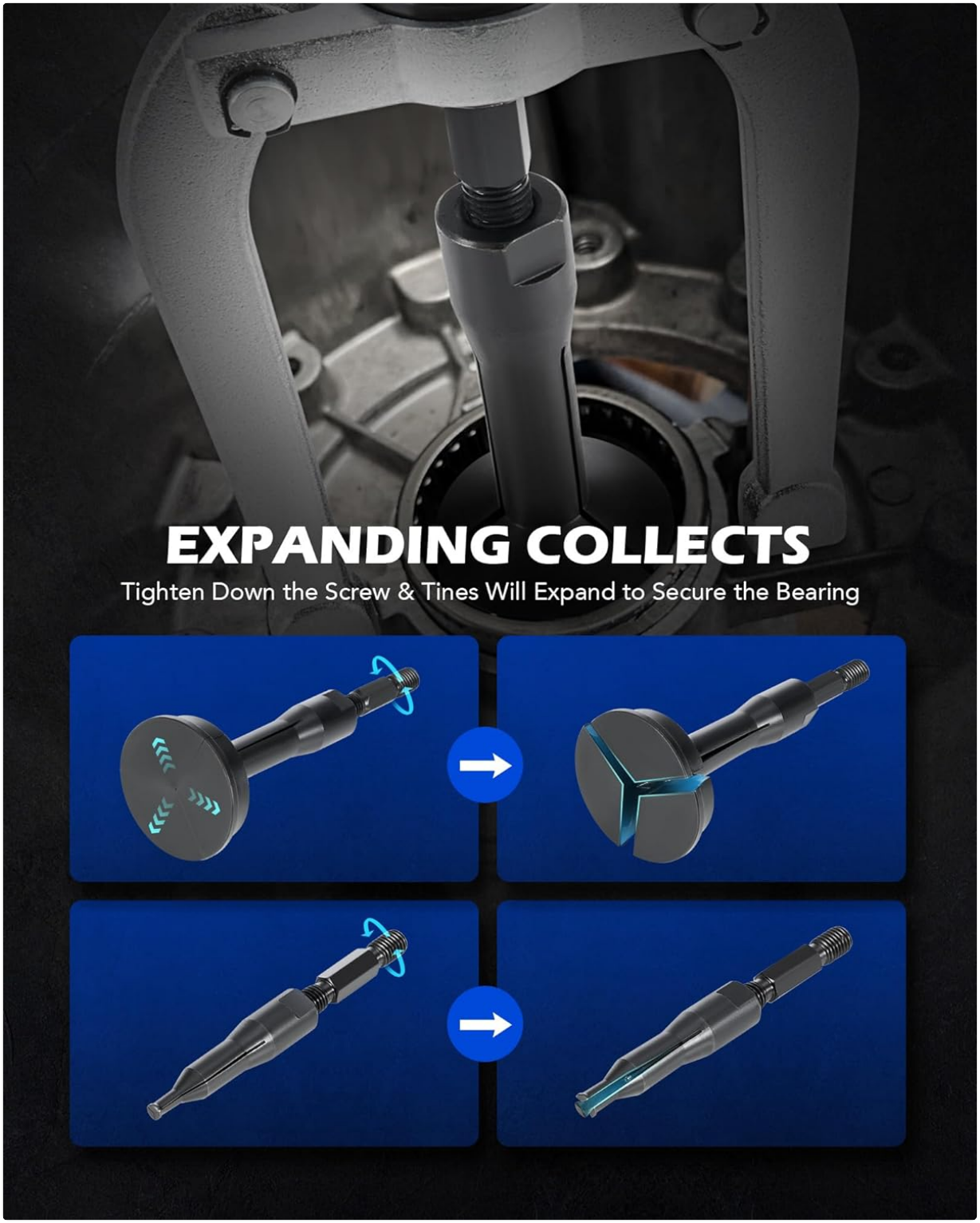

Image: A visual guide displaying the 10 different split collet sizes included in the kit, ranging from 6-13 mm up to 52.5-59 mm, to assist in selecting the appropriate tool for various bearing diameters.

4.2. Using the Slide Hammer

1. **Assemble the Slide Hammer:** Attach the chosen collet to the end of the slide hammer shaft. Ensure it is securely threaded.
2. **Insert Collet:** Insert the collet into the center of the blind bearing.
3. **Expand Collet:** Tighten the screw adapter on the collet to expand its segments, firmly gripping the inner race of the bearing.
4. **Extract Bearing:** Hold the slide hammer firmly and slide the weight back towards the handle, then forcefully forward to impact the collet, pulling the bearing out. Repeat until the bearing is removed.

Image: A mechanic demonstrating the use of the slide hammer, with the collet inserted into a blind bearing on an engine component, ready for extraction.

Your browser does not support the video tag.

Video: Official demonstration of the Orion Motor Tech Blind Hole Collet Bearing Race and Seal Puller Extractor Kit, showcasing its components and basic operation for bearing removal.

4.3. Using the Counterstay Puller

1. **Assemble the Counterstay:** Attach the chosen collet to the threaded rod of the counterstay puller.
2. **Insert Collet:** Insert the collet into the center of the blind bearing.
3. **Expand Collet:** Tighten the screw adapter on the collet to expand its segments, firmly gripping the inner race of the bearing.

4. **Position Counterstay:** Place the arms of the counterstay puller against a stable surface surrounding the bearing.
5. **Extract Bearing:** Use a wrench to slowly tighten the main screw of the counterstay puller. This will apply steady pressure, gradually extracting the bearing. This method is ideal for tighter or more delicate operations.

Image: A close-up view of the counterstay puller in action, with its arms braced against a component and the central screw being tightened to extract a bearing.

Your browser does not support the video tag.

Video: A full demonstration of the Orion Motor Tech Bearing Puller Set, illustrating both slide hammer and counterstay methods for various bearing removal scenarios.

5. Maintenance

- **Cleaning:** After each use, clean all components thoroughly to remove grease, dirt, and debris. Use a suitable degreaser if necessary.
- **Lubrication:** Lightly lubricate threaded parts and moving joints with a general-purpose machine oil to prevent rust and ensure smooth operation.
- **Storage:** Store the kit in its original blow-molded case in a dry, clean environment to protect the tools from damage and corrosion.
- **Inspection:** Periodically inspect all components for wear, damage, or deformation. Replace any worn or damaged parts immediately to maintain tool effectiveness and safety.

6. Troubleshooting

- **Bearing Not Moving:**
  - Ensure the correct collet size is used and fully expanded to grip the bearing securely.
  - Apply penetrating oil to the bearing and surrounding area, allowing it to soak for some time.
  - For extremely stubborn bearings, consider using the counterstay puller for a more controlled, continuous force, or increase the force with the slide hammer carefully.
- **Collet Slipping:**
  - The collet may be too small or not fully expanded. Re-check the collet size and ensure it is tightened sufficiently.
  - Clean any grease or debris from the collet and bearing inner race to improve grip.
- **Difficulty Assembling Tools:**
  - Ensure threads are clean and free of debris. Apply a small amount of lubricant if necessary.
  - Verify that components are aligned correctly before attempting to thread them together.

7. Specifications

Attribute	Specification
Model Number	OMT-BJS000100
Item Weight	12.01 pounds
Product Dimensions	18.5 x 12.59 x 4.72 inches
Collet Sizes (Diameter)	6-13 mm, 10-17 mm, 15.5-22 mm, 22-29 mm, 28.5-35 mm, 35.5-39 mm, 38.5-45 mm, 42.5-49 mm, 48.5-55 mm, 52.5-59 mm
Material	AISI 1045 Medium Carbon Steel (forged and galvanized), Chromoly Steel (collets)

8. Warranty and Support

For warranty information, technical support, or to inquire about replacement parts, please contact Orion Motor Tech customer service. Refer to your purchase documentation or the official Orion Motor Tech website for the most up-to-date contact details.