CCLIFE 1456

CCLIFE Universal Clutch Alignment Tool Kit

INSTRUCTION MANUAL

1. Product Overview

The CCLIFE Universal Clutch Alignment Tool Kit, model 1456, is designed to simplify the process of centering clutch discs during transmission assembly. This 17-piece set provides a comprehensive solution for aligning clutch components across a wide range of common vehicles, ensuring precise fitment and reducing installation time.

The kit includes various adapters to accommodate different clutch disc bore sizes and crankshaft pilot bearing diameters, making it a versatile tool for automotive professionals and enthusiasts.

Figure 1: The complete CCLIFE 17-piece Universal Clutch Alignment Tool Kit, neatly organized in its blue storage case.

2. Kit Contents

The CCLIFE Universal Clutch Alignment Tool Kit (Model 1456) contains the following components:

- **1x Centering Shaft:** A 145 mm long shaft used as the primary alignment tool.
- **8x Conical Centering Adapters:** Designed for clutch discs with bore diameters ranging from 14.5 mm to 25.5 mm. These adapters ensure a snug fit within the clutch disc spline.
- **8x Crankshaft Centering Adapters:** Used for aligning with the crankshaft pilot bearing, available in sizes: 10.8 mm, 12.2 mm, 13.5 mm, 14.7 mm, 15.8 mm, 17.1 mm, 18.3 mm, and 19.9 mm.

Figure 2: A detailed view of the individual conical and crankshaft adapters, along with the main centering shaft.

3. Setup and Preparation

Before beginning the clutch alignment process, ensure the vehicle is safely supported and the transmission has been removed according to the vehicle manufacturer's service manual. Clean the clutch disc, pressure plate, and flywheel surfaces thoroughly to remove any grease, oil, or debris.

1. Identify the correct conical adapter that fits snugly into the center bore of the clutch disc.
2. Select the appropriate crankshaft centering adapter that matches the diameter of the pilot bearing in the crankshaft.
3. Assemble the chosen adapters onto the 145 mm centering shaft. The conical adapter typically slides onto the shaft first, followed by the crankshaft adapter, which secures the conical adapter in place.

Figure 3: The centering shaft with an adapter mounted, ready for use.

4. Operating Instructions

Follow these steps for effective clutch alignment:

1. Place the clutch disc onto the flywheel. Ensure the correct side of the clutch disc faces the pressure plate (usually marked 'Flywheel Side' or 'FW').
2. Insert the assembled centering tool (shaft with both adapters) through the clutch disc and into the pilot bearing in the crankshaft. The conical adapter should engage the clutch disc's splines, and the crankshaft adapter should fit securely into the pilot bearing.
3. Gently push the tool until the clutch disc is centered on the flywheel. The tool will hold the clutch disc in the correct position.

4. Install the pressure plate over the clutch disc and secure it to the flywheel using the appropriate bolts. Tighten the pressure plate bolts evenly and in a star pattern to the manufacturer's specified torque.
5. Once the pressure plate is securely fastened, carefully remove the clutch alignment tool. The clutch disc should now be perfectly centered, allowing for smooth reinstallation of the transmission.

5. Maintenance

To ensure the longevity and optimal performance of your CCLIFE Clutch Alignment Tool Kit, follow these maintenance guidelines:

- **Cleaning:** After each use, wipe down all components with a clean, dry cloth to remove any grease, oil, or dirt. For stubborn grime, a mild degreaser can be used, followed by thorough drying.
- **Lubrication:** Periodically apply a light coat of rust-preventative oil to the metal components, especially the shaft and adapters, to prevent corrosion.
- **Storage:** Always store the kit in its original robust blue case. This protects the components from damage, loss, and environmental factors like dust and moisture. Store in a dry place away from direct sunlight and extreme temperatures.
- **Inspection:** Before each use, inspect all adapters and the shaft for any signs of wear, damage, or deformation. Do not use damaged tools, as this may compromise alignment accuracy or cause injury.

6. Troubleshooting

While the CCLIFE Clutch Alignment Tool is designed for ease of use, you may encounter minor issues. Here are some common scenarios and their solutions:

- **Difficulty inserting the tool:** Ensure you have selected the correct size adapters for both the clutch disc bore and the crankshaft pilot bearing. The fit should be snug but not require excessive force. Check for any burrs or debris in the clutch disc or pilot bearing.
- **Clutch disc not staying centered after tool removal:** This usually indicates that the pressure plate was not tightened sufficiently or evenly before the tool was removed. Re-insert the tool, ensure the clutch disc is centered, and then re-tighten the pressure plate bolts to the manufacturer's specifications.
- **Adapters slipping on the shaft:** Ensure the adapters are correctly seated and secured on the centering shaft. Some adapters may have a tapered fit.

If you experience persistent issues, consult a professional mechanic or refer to the specific vehicle's service manual for detailed clutch replacement procedures.

7. Specifications

Feature	Detail
Brand	CCLIFE
Model Number	1456
Item Weight	1.1 Kilograms
Product Dimensions (L x W x H)	27 x 14.5 x 6.5 cm
Kit Contents	1x Centering Shaft, 8x Conical Clutch Disc Adapters, 8x Crankshaft Pilot Bearing Adapters

Feature	Detail
Clutch Disc Bore Range	14.5 mm to 25.5 mm
Crankshaft Pilot Bearing Adapter Sizes	10.8, 12.2, 13.5, 14.7, 15.8, 17.1, 18.3, 19.9 mm

8. Warranty and Support

For information regarding product warranty, returns, or technical support, please refer to the original product packaging, the point of purchase, or the official CCLIFE website. Keep your purchase receipt as proof of purchase for any warranty claims.