WHEEL ALIGNMENT CLAMP FOR MAGNETIC CAMBER CASTOR & KINGPIN GAUGES

MODEL NO: **GA470**

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions, and properly maintained, give you years of trouble free performance.

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.

Refer to instruction manual

1. SAFETY

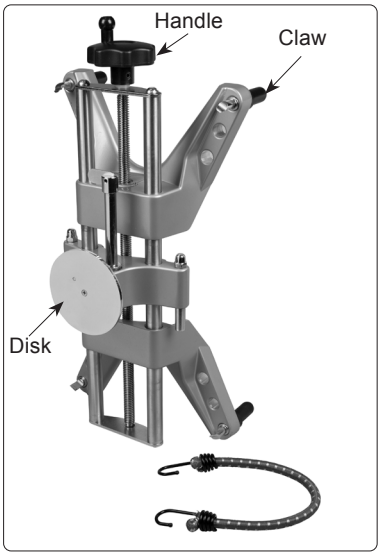
- ✓ Read and understand all instructions before using the alignment clamp and gauge.
- ✓ Only trained personnel should perform wheel alignment procedures.
- ✓ Wear appropriate PPE at all times, including safety shoes, eye protection, and gloves.
- ✓ Ensure the vehicle is on a stable, level surface and properly secured before beginning work.
- ✓ Inspect the clamp and for damage, cracks, missing parts, or loose fasteners before each use. Never use the equipment if it is damaged or malfunctioning.
- ✓ Keep magnetic surfaces clean and free of metal debris to ensure secure attachment.
- ✓ Ensure the vehicle's wheels are clean and dry before attaching the clamp.
- ✓ Confirm the clamp is correctly centred and securely tightened to prevent slipping during measurement.
- ✓ Keep hands, fingers, and clothing clear of moving parts when securing the clamp to the wheel.
- ✓ Never attempt to attach or remove the clamp while the vehicle is in motion or the engine is running.
- ✓ Use caution when handling a magnetic gauge—strong magnets can pinch fingers or attract tools unexpectedly.
- ✓ Ensure the gauge is fully seated and stable before taking measurements.
- ✓ Follow the manufacturer's recommended alignment procedures and torque specifications.
- ✓ Only make adjustments when the vehicle is securely supported, with no risk of rolling.
- ✓ Avoid placing any body parts under the vehicle unless it is properly lifted and supported.
- ✓ Double-check all measurements and clamp stability before adjusting camber, caster, or kingpin angles.
- ✓ Remove the wheel alignment clamp carefully to avoid sudden detachment.
- ✓ Store the clamp in a dry, clean environment to prevent corrosion or damage.
- ✓ Clean the magnetic surfaces after use to ensure consistent performance.
- ✓ Remove faulty items from service.
- × **DO NOT** stand directly in front of or behind the vehicle while adjustments are being made.
- × **DO NOT** apply excessive force to the gauge when mounted; this may damage both the gauge and the clamp.

2. INTRODUCTION

The clamp is designed to hold alignment tools firmly in place, ensuring accurate and precise measurements. The magnetic adaptor plate provides compatibility with magnetic alignment gauges. Plate Diameter: Ø100mm. The rotating adjustment knob allows for quick length adjustment and a secure fit on most wheels. Fits wheel rim ranging from 11to 25 inches. Compatible with Sealey GA450 and GA45 magnetic camber gauges and AK9991 digital inclinometer.

3. SPECIFICATION

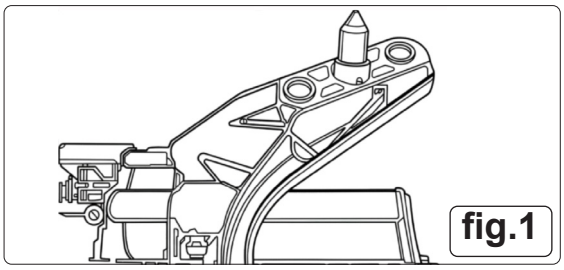
Model no	GA470
Nett Weight	3.86kg

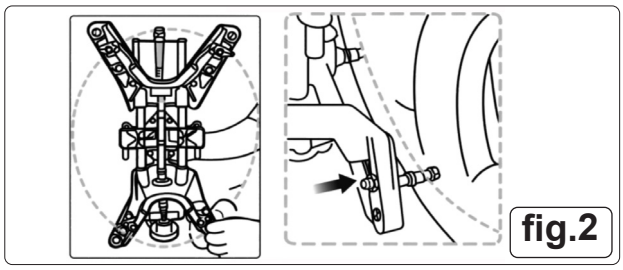


Replacement parts		
Photo	Item	Part number
	Claw	GA470.01
	Disk	GA470.02
	Handle	GA470.03

4. ASSEMBLY & INSTALLATION

4.1. INSERT LOCATOR PINS (fig.1)





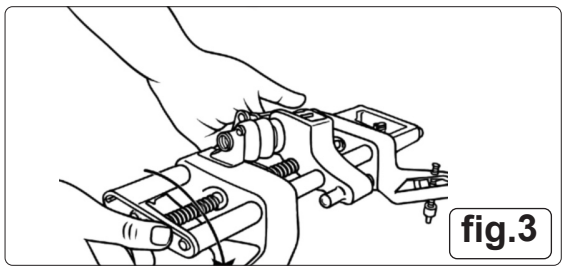
4.1.1. Insert the locator pins into the appropriate slots on the clamp frame.

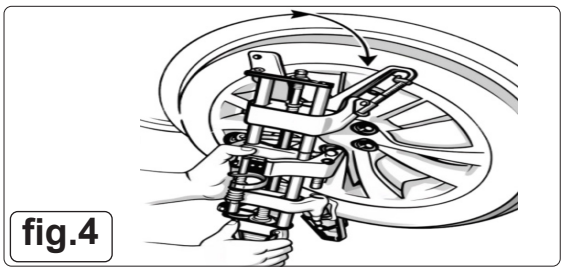
4.2. **ADJUST THE PINS TO FIT THE RIM (fig.2)**

4.2.1. Ensure all locator pins are oriented inward so they align correctly with the rim.

4.3. SET THE REQUIRED CLAMP WIDTH (FIG.3)

4.3.1. Widen the clamp slightly past the rim for installation.



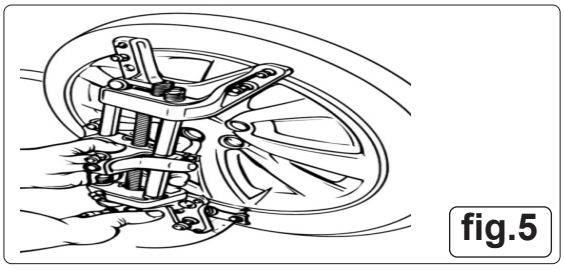


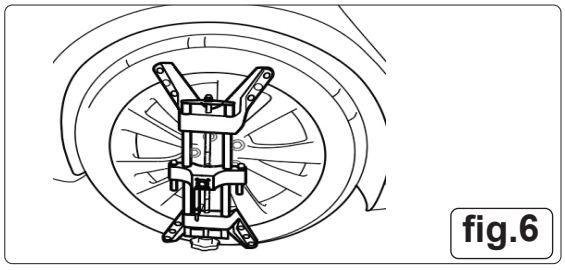
4.4. SET THE CLAMP IN POSITION (fig.4)

4.4.1. Gently align the top locator pins with the outer edge of the rim and lower them into place.

4.5. CONFIGURE & SECURE (fig.5)

4.5.1. Align the bottom locator pins and tighten the clamp until all four pins are firmly seated against the rim.





4.6. READY FOR ALIGNMENT PROCEDURES (fig.6)

4.6.1. Verify that the clamp is securely fastened before starting the alignment process.

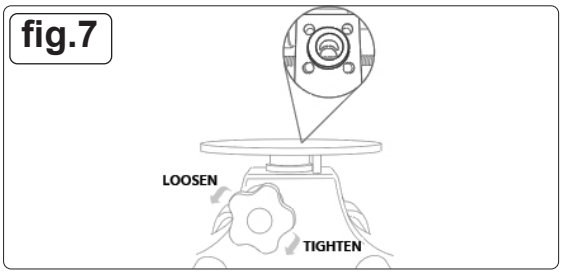
4.7. **MOUNTING ADAPTER PLATE (fig.7)**

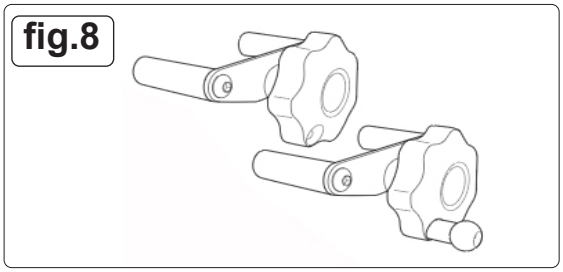
4.7.1. Turn the spindle counter-clockwise to release the adapter plate lock.

4.7.2. Position the adapter plate in the mounting location.

4.7.3. Turn the spindle clockwise to securely lock the adapter plate in place.

❑ **WARNING!** Ensure the adapter plate's protruding metal piece is inserted into one of the four designated slots near the bore hole for a proper fit.



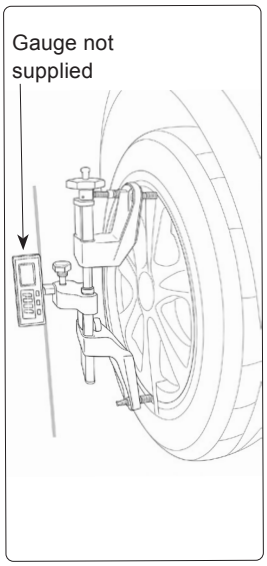


4.7.4. INSTALLING THE CONTROL KNOB (fig.8)

4.7.5. Insert the knob into the rotary handle, ensuring the hex nut is aligned with the screw hole. Secure the knob by threading the screw into the hex nut until it is firmly tightened.

4.8. RUNOUT ELIMINATION AND MANUAL WHEEL ALIGNMENT PROCESS

4.8.1. If performing a manual wheel alignment without a 3D Wheel Alignment System, it is essential to eliminate any misalignment between the wheel clamp adapter and the wheel hub. This ensures accurate camber and caster measurements.
To zero the wheel clamp adapter, the key objective is to align the adapter plate so it sits in the exact same plane as the wheel hub. Any tilt or misalignment of the adapter plate can introduce measurement errors, affecting both camber and caster readings.



4.9. STEPS TO ZERO THE WHEEL CLAMP ADAPTER

4.9.1. Inflate the Tire – Confirm the tire is inflated to the manufacturer's recommended pressure.
4.9.2. Raise the Wheel – Jack up the vehicle so the wheel can spin freely.
4.9.3. Mount the Digital Level – Attach a digital level securely to the adapter plate.
4.9.4. Rotate the Wheel – Turn the wheel in small increments (⅛ or ¼ turn each time).
4.9.5. Compare Readings – Check the digital level reading at every rotation point.
4.9.6. Adjust the Clamp – If the readings change as the wheel rotates, reposition the clamp until the measurements stay consistent through a full rotation.
4.9.7. Verify Zeroing – When the level reads the same at all rotation points, run-out has been eliminated and the adapter is properly centred.

5. MAINTENANCE

5.1. CLEANING

5.1.1. Wipe the clamp after each use to remove dirt, brake dust, and metal particles.
5.1.2. Use a non-abrasive cleaner to prevent corrosion and keep the surfaces smooth.
5.1.3. Ensure the magnetic faces (if applicable on the gauge, not the clamp) are clean so readings remain accurate.

5.2. INSPECTION OF MOVING PARTS

5.2.1. Check threads, knobs, and sliding components for wear or grit build-up.
5.2.2. Confirm that the grip arms move freely without sticking or binding.
5.2.3. Inspect the pivot points for signs of looseness or distortion.

5.3. LUBRICATION

5.3.1. Apply a small amount of light machine oil to:
5.3.2. Threaded adjusters.
5.3.3. Sliding arms.
5.3.4. Pivot joints.
5.3.5. Wipe away excess oil to avoid attracting grit.

5.4. CHECK THE CLAMPING SURFACES

5.4.1. Inspect the contact pads or jaws for:
Damage.
Excessive wear.
Debris that could cause slippage or inaccurate centreing.

5.5. VERIFY STRUCTURAL INTEGRITY

5.5.1. Look for:
Bent arms
Cracks in welds or castings
Warping from excessive force
A damaged clamp can produce inaccurate alignment results and should be repaired or replaced.

5.6. **CHECK ACCURACY AND CENTERING**

5.6.1. Regularly verify the clamp can be zeroed correctly on a wheel (as in your previous instruction).
5.6.2. If the clamp cannot maintain consistent readings through rotation, inspect for mechanical issues.

5.7. PERIODIC CALIBRATION CHECK (INDIRECT)

5.7.1. The clamp itself does not usually require calibration, but:
5.7.2. Ensure the gauge (camber/caster/kingpin tool) used with the clamp is calibrated to avoid misleading results.

6. TROUBLESHOOTING

CAUSE	ISSUE DESCRIPTION	CORRECTIVE ACTION
Vehicle Not Level on Turnplates	An uneven workshop floor or incorrectly positioned turnplates can cause the vehicle to sit at an angle, resulting in inaccurate alignment readings.	Verify that the turnplates and the working surface are completely level before beginning any measurements.
Excessive Wheel Bearing Play	Worn or loose wheel bearings allow the wheel to move or shift during rotation, causing inconsistent readings.	Inspect the wheel bearings. Tighten or replace them if any play or wear is detected.
Hub Not Truly Round or Flat	Imperfections, rust, or dirt on the hub can cause the clamp, wheel, or gauge to sit unevenly and introduce runout.	Clean the hub thoroughly and ensure it is flat, smooth, and free of damage.
Wheel Not Round or Square (Bent Rim)	Deformed or damaged rims introduce wobble during rotation and prevent accurate zeroing.	Check the wheel for bends or other defects. Repair or replace the rim before aligning.
Clamp Not Centered or Evenly Tightened	An off-center or unevenly tightened clamp can tilt the adapter and create false runout.	Re-seat the clamp so it is flush and centered on the wheel. Tighten all points evenly.
Gauge Not Mounted Flat or Square	A warped, damaged, or incorrectly mounted gauge will produce inaccurate measurements.	Ensure the gauge is mounted correctly and inspect it for damage or warping.
Gauge Not Zeroed Before Use	If the gauge isn't zeroed on the adapter before measurements, all readings will be incorrect.	Always zero the gauge on the clamp adapter before taking any measurements.

7. STORAGE

7.7.1. Store the clamp in a dry, clean environment to prevent rust.
7.7.2. Avoid dropping or placing heavy items on top of it.

8. END OF LIFE

When this Wheel Alignment Clamp reaches the end of its service life, it must be disposed of in accordance with applicable EU waste-management regulations. The clamp contains recyclable metal components and should not be discarded with general household waste. At end-of-life, the product should be sent to an authorised metal recycling facility or approved industrial waste handler in line with Directive 2008/98/EC on Waste (the Waste Framework Directive). Always follow local environmental regulations to ensure responsible recovery, recycling, or scrapping of the product.

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ENVIRONMENT PROTECTION
Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

Note: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.
Important: No Liability is accepted for incorrect use of this product.
Warranty: Guarantee is 12 months from purchase date, proof of which is required for any claim.

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