LASER®

Part No. 9510

Precision Screw Extractor Kit

13pc

Instructions

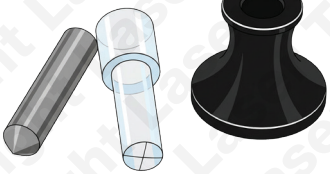


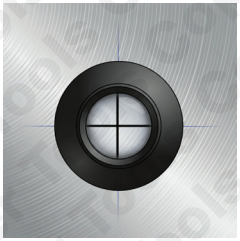
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Introduction

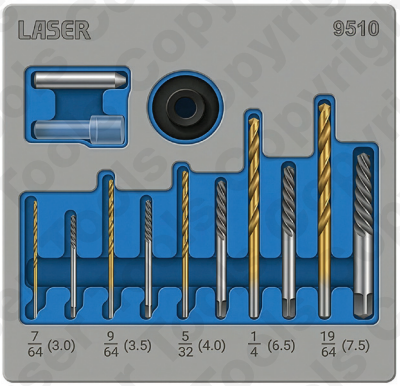
The Laser 9510 kit brings together the Laser 3744 screw extractor kit with the Laser 9086 optical centre-punch set. This combination kit gives the user all the tools to assist in the safe removal of sheared studs and bolts.





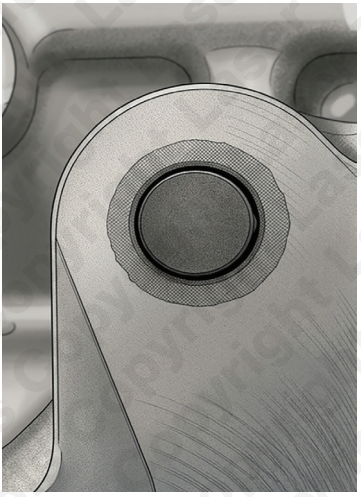
The kit includes a 9x magnification optical magnifier with crosshairs which simplifies the finding of dead centre. Then the extremely hard SUJ2 high-carbon chromium alloy steel punch is used to centre-punch the stud or bolt to be removed.
Short size allows access to restricted access and awkward areas.

NOTE: When centre-punching broken studs and bolts ensure the surface has been filed flat and flush prior to use.



Stud extractor and titanium-coated drill sizes included:

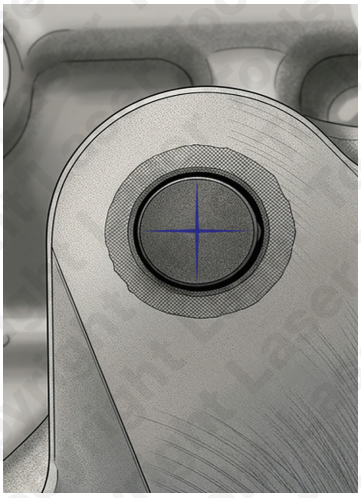
Sizes: 7/64" (3.0mm), 9/64" (3.5mm), 5/32" (4.0mm), 1/4" (6.5mm) & 19/64" (7.5mm).



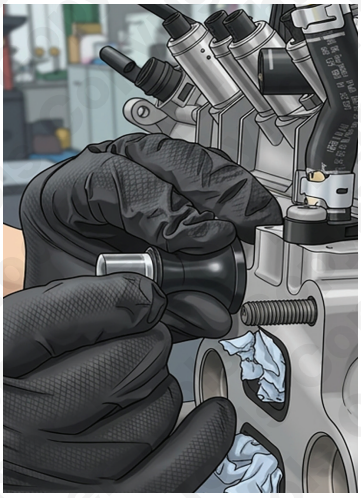
Operation

1. Before centre-punching broken studs and bolts ensure the exposed surface of the stud has been filed flat and flush.

2. Carefully measure and mark the centre of the stud.



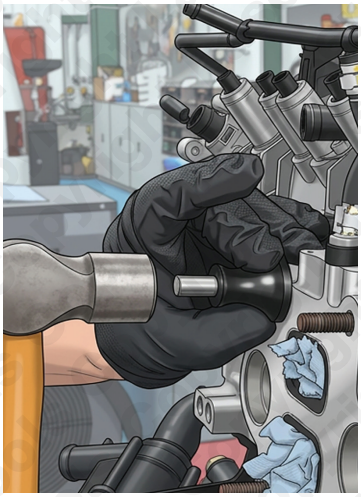
3. Fit the optical magnifier over the stud.



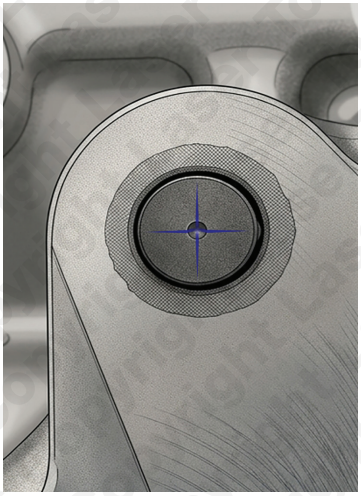
4. Look directly through the magnifier and align the crosshairs with the centre mark.



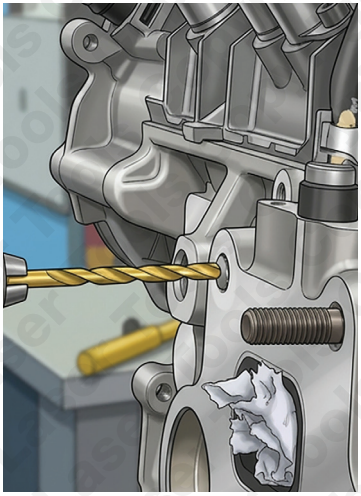
5. Remove the magnifier and replace it with the steel punch. Hold the unit firmly then strike the punch sharply with a hammer.



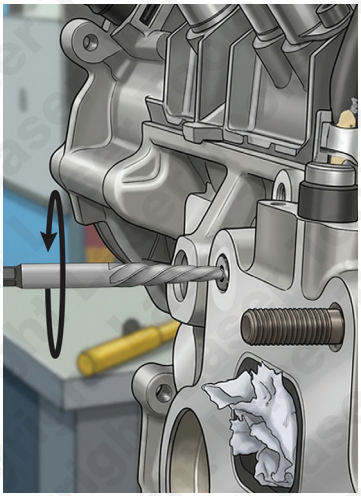
6. The stud is now centre-punched accurately on the marked centre point.



7. Select a suitably-sized titanium-coated drill bit from the set and drill into the centre of the stud. Begin drilling slowly to ensure the drill bit remains centred. Use a suitable cutting lubricant when drilling steel fasteners to prolong drill bit life and improve cutting performance.



8. Insert the corresponding extractor into the drilled hole. Using a spanner or socket on the square end of the extractor, turn anticlockwise. As the extractor bites deeper into the hole, it will remove the stud.



Good Practice:

- Apply a suitable penetrating fluid to the broken stud before attempting removal and allow sufficient time for it to penetrate the threads.
- File the broken stud flat and flush with the surrounding surface before marking the centre point.
- If the stud or fastener is seized due to corrosion, the controlled application of heat may assist removal where appropriate and safe to do so.
- Clean and inspect the original threads after extraction before fitting a replacement stud or fastener.

Precautions:



- Read and understand these instructions before use.
- Always wear suitable eye protection when centre-punching, drilling or using extractors.
- Ensure the workpiece is securely clamped or supported before commencing work.
- Never use impact tools with screw extractors.
- Do not use excessive force when turning the extractor. If excessive resistance is encountered, stop and reassess the removal method (broken extractors are manufactured from hardened steel and are extremely difficult to drill out).
- Do not use damaged, worn or chipped drill bits, punches or extractors.
- Always keep away from children.
- Store the 9510 set in a clean, dry and secure area.
- At end of life, dispose of the set components according to local authority guidelines.
- No liability is accepted for incorrect use of this product — do not use the product for tasks it is not designed for. Use the product correctly and with care. Failure to do so may cause damage and/or personal injury and will invalidate the warranty.



Safety First. Be Protected.

Our products are designed to be used correctly and with care for the purpose for which they are intended. No liability is accepted by the Tool Connection for incorrect use of any of our products, and the Tool Connection cannot be held responsible for any damage to personnel, property or equipment when using the tools. Incorrect use will also invalidate the warranty.

If applicable, the applications database and any instructional information provided has been designed to offer general guidance for a particular tool's use and while all attention is given to the accuracy of the data no project should be attempted without referring first to the manufacturer's technical documentation (workshop or instruction manual) or the use of a recognised authority such as Autodata.

It is our policy to continually improve our products and thus we reserve the right to alter specifications and components without prior notice. It is the responsibility of the user to ensure the suitability of the tools and information prior to their use.

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