



33PC GLOW PLUG THREAD REPAIR SET

MODEL NO: **VS311.V3**

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.



Refer to instruction manual



Wear eye protection



Wear protective gloves



Wear protective clothing



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1. SAFETY

IMPORTANT: These instructions are provided as a guide only. Always refer to vehicle manufacturer's service instructions for guidance.

- WARNING!** Ensure Health and Safety, local authority and general workshop practice regulations are adhered to when using tools.
- WARNING!** Failure to comply with these instructions may result in damage to the thread repair set or vehicle and/or personal injury.
- WARNING!** The warnings referred to in this guide cannot cover all possible conditions and situations that may occur. It must be understood that common sense and caution are factors which cannot be built into this product, but must be applied by the operator.
- DO NOT** use tools if damaged.
- DO NOT** use this tool for purposes other than for which it is designed.
- DO NOT** use the thread repair set when you are tired or under the influence of alcohol, drugs or intoxicating medicines.
- DO NOT** attempt to start engine or move vehicle, whilst tools are fitted and work is in progress.
- Maintain tools in good and clean condition for best and safest performance.
- Wear approved eye protection. A full range of personal safety equipment is available from your Sealey stockist.
- Wear suitable clothing and tie back long hair to avoid snagging. **DO NOT** wear jewellery.
- Keep children and unauthorised persons away from the work area.
- Account for all tools and parts being used and do not leave them in or near the engine.
- Ensure any disconnected fuel pipes are plugged to avoid spillage.
- Account for all tools and parts being used, return all parts to the case and store this in a safe, dry, childproof location. **DO NOT** leave them in or near the engine.

2. INTRODUCTION

Fast and effective remedy for damage to cylinder head glow plug threads. Set includes tools for the precise insertion of threaded inserts into the head and features a unique tap guide system to ensure their correct alignment. Includes four sizes of threaded adaptors suitable for common sizes of glow plug. Supplied in storage case.

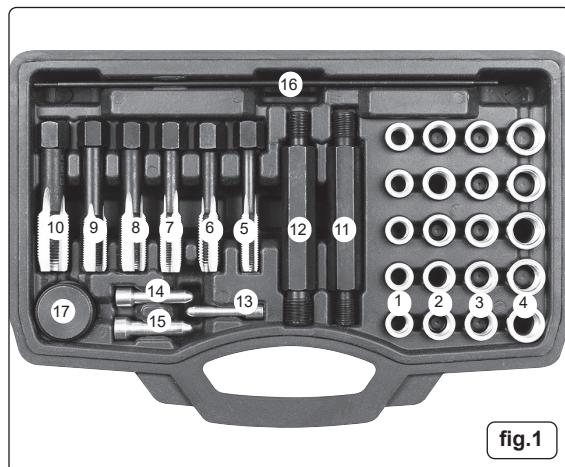
3. SPECIFICATION

Inserts: M8 x 1mm, M10 x 1mm, M10 x 1.25mm, M12 x 1.25mm

Nett Weight: 0.72kg

Taps: M8 x 1mm, M10 x 1mm, M10 x 1.25mm, M12 x 1mm, M12 x 1.25mm, M14 x 1.25mm

4. CONTENTS



Item	Part No:	Description:
1	VS311.01	Thread Insert M8 x 1.0 (Pack of 5)
2	VS311.02	Thread Insert M10 x 1.0 (Pack of 5)
3	VS311.03	Thread Insert M10 x 1.25 (Pack of 5)
4	VS311.04	Thread Insert M12 x 1.25 (Pack of 5)
5	VS311-V3-05	Tap M8 x 1.0
6	VS311-V3-06	Tap M10 x 1.0
7	VS311-V3-07	Tap M10 x 1.25
8	VS311-V3-08	Tap M12 x 1.0
9	VS311-V3-09	Tap M12 x 1.25
10	VS311-V3-10	Tap M14 x 1.25
11	VS311-V3-11	Threaded Rod M8x1.0 & M10x1.0
12	VS311-V3-12	Threaded Rod M10x1.25 & M12x1.25
13	VS311-V3-13	Tap Guide Pin ø8 x 33.5mm
14	VS311-V3-14	Tap Guide Pin ø10 x 33.5mm
15	VS311-V3-15	Tap Guide Pin ø12 x 33.5mm
16	VS311-V3-16	Extension Bar 200ml
17	VS311-V3-17	Knurled Head

Consumable Parts:

VS311.01 - M8 x 1mm (Pack of 5),

VS311.02 - M10 x 1mm (Pack of 5)

VS311.03 - M10 x 1.25mm (Pack of 5)

VS311.04 - M12 x 1.25mm (Pack of 5)

5. OPERATION

NOTE: To minimise the possibility of damage to the engine, it is advisable to remove the cylinder head from the engine prior to commencing work of this nature.

The tap guide system included with this set will significantly reduce the ingress of swarf/debris into the combustion chamber and cylinder.

Always wear eye and hand protection when cleaning any swarf/debris from the engine. A full range of personal safety equipment is available from your Sealey stockist.

fig.2



13 14 15

5 6 7 8 9 10

17



16



fig.3

5.1. REPAIRING A DAMAGED THREAD USING A TAP

WARNING! Ensure you have read, understood and apply Section 1 safety instructions.

5.1.1. Determine the size of the thread to be repaired. This can be done by carefully using the insert drivers to compare with the thread of an undamaged glow plug aperture.

5.1.2. Using the correct size of tap and insert guide, assemble the set as shown in fig.2 and fig.3.

5.1.3. If a ring spanner is to be used, position on the tap before inserting the insert guide pin into the glow plug aperture. Apply a layer of general purpose grease to the insert guide to help prevent swarf/debris from entering the engine and place into the glow plug aperture.

5.1.4. Hold the knurled head (17) and position the guide rod (16) so that the insert guide pin is squarely positioned in the glow plug aperture.

5.1.5. Using a spanner with adequate downward pressure, carefully run the tap down the damaged thread 1/2 of a turn forward then 1/4 of a turn back to repair the damaged thread. Always use a suitable cutting fluid. Periodically remove the tap and insert

guide to clean away the swarf/debris. Apply a layer of general purpose grease to the insert guide before re-inserting into the glow plug aperture. Continue until the full length of the thread has been repaired.

NOTE: It is very important to clean away as much swarf/debris as possible during the thread cutting process to avoid any ingress into the engine.

5.1.7. Once the thread has been repaired, ensure that all swarf/debris has been completely removed and carefully fit the glow plug.

5.1.8. Ensure all tools are removed from the engine bay and stored away. Store in a safe, dry, childproof location.

5.2. REPAIRING A DAMAGED THREAD USING AN INSERT

WARNING! Ensure you have read, understood and apply Section 1 safety instructions.

5.2.1. Determine the size of the thread to be repaired. This can be done by carefully using the insert drivers to compare with the thread of an undamaged glow plug aperture.

5.2.2. Using the table above, assemble the set, as shown in fig.2 and fig.3 with the correct tap and insert guide configuration for the size of insert required.

5.2.3. If a ring spanner is to be used, position on the tap before inserting the insert guide into the glow plug aperture.

5.2.4. Apply a layer of general purpose grease to the insert guide to help prevent swarf/debris from entering the engine and place into the glow plug aperture.

5.2.5. Hold the knurled handle and position the guide rod so that the insert guide is squarely positioned in the glow plug aperture.

5.2.6. Using a spanner with adequate downward pressure, carefully run the tap down through glow plug aperture 1/2 of a turn forward then 1/4 of a turn back to cut a thread for the insert. Always use a suitable cutting fluid. Periodically remove the tap and insert guide to clean away the swarf and debris. Apply a layer of general purpose grease to the insert guide to assist with the removal of swarf/debris before re-inserting into the glow plug aperture. Continue until the length of thread cut is sufficient to accommodate the insert. Ensure that all swarf/debris is completely removed from the glow plug aperture.

5.2.7. Screw the insert onto the relevant insert drive (fig.4).

5.2.8. Apply a suitable thread locking solution to the exterior thread of the insert. Screw the insert into the prepared glow plug aperture until the flange at the top of the insert locates at the top of the aperture thread and tighten using a suitable spanner.

5.2.9. Remove the insert driver, taking care not to dislodge the insert.

5.2.10. Allow the thread locking solution to completely cure before fitting the glow plug.

5.2.11. Ensure all tools are removed from the engine bay and stored away. Store in a safe, dry, childproof location.

Insert/Tap/Guide Configurations (Refer to fig.1 & fig.2)

Insert Size:	Tap Size:	Guide Size:
M8x1.0 (1)	M10x1.0 (6)	M8 (13)
M10x1.0 (2)	M12x1.0 (8)	M10 (14)
M10x1.25 (3)	M12x1.25 (9)	M10 (14)
M12x1.25 (4)	M14x1.25 (10)	M12 (15)



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.

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.



fig.4

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. Please note that other versions of this product are available. If you require documentation for alternative versions, please email or call our technical team on technical@sealey.co.uk or 01284 757505.

Jack Sealey Ltd t/a Sealey Group, Kempson Way, Suffolk Business Park, Bury St Edmunds, Suffolk, IP22 7AR UK

Jack Sealey (EU) Ltd t/a Sealey Group, Farney Street, Carrickmacross, Co. Monaghan, A81 PK68 Ireland

Tel: 01284 757500 • Email: sales@sealey.co.uk • Web: www.sealey.co.uk