LASER®

Part No. 5868

Master Front Wheel Bearing Tool Set - Ford Transit

Instructions

MADE IN SHEFFIELD

A comprehensive set of tools for Ford Transit front wheel bearing and front brake disc removal from 2000 onwards.

- Allows separation from suspension upright of the bearing/housing drive flange assembly for disc removal.
- No press required and allows the re-use of drive flange.
- Grips on the bearing taper and provides a safer, faster means of bearing removal without grinding.
- An engineered solution specifically designed for the Ford Transit with 3 legged puller design.

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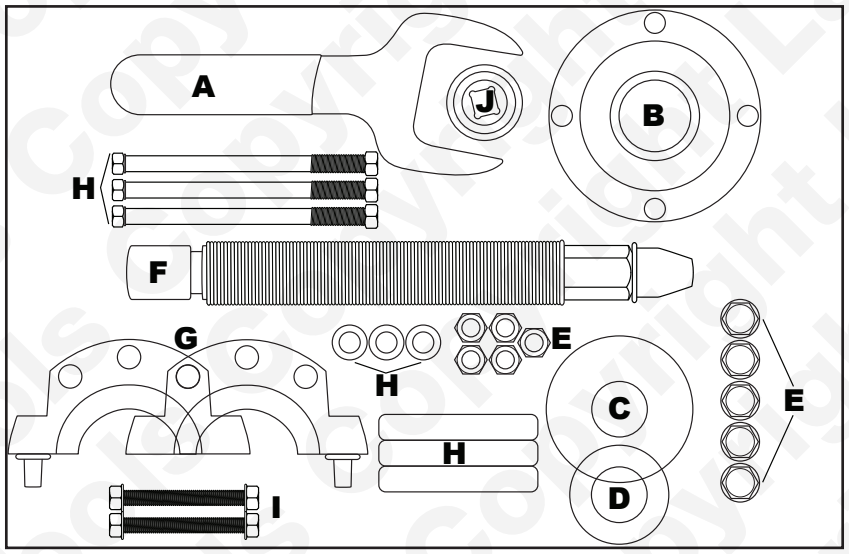
Introduction

This kit has been developed to remove the front wheel bearing housing from the front drive flange. The front bearings are integral of their outer housing and due to their design are rendered unserviceable when separated from the drive flange.

This tool kit separates the old bearing from the drive flange to allow the bearing to be replaced without having to replace the drive flange.

Once the outer bearing housing has been removed, the outer inner bearing race ring must be removed. For this task additional equipment is required.

Components



Ref.	Description
A	Puller Body Holding Wrench
B	Puller Body
C	Large Impact Boss
D	Small Impact Boss
E	Fixing Bolts (M10), Nuts, Washers (x5)
F	Impact Force Screw
G	Clamp Shells (x2)
H	Puller Legs, Sleeves (x3), Washers (x6)
I	Fixing Bolts (x2)
J	30mm Socket

Instructions

Removing the drive flange/wheel bearing assembly

1. Remove the ABS sensor.
2. Place the large impact boss **(C)** into the drive flange tube from the back of the hub upright as shown. Fig.1.

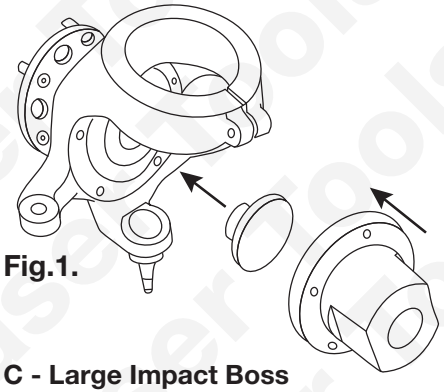


Fig.1.

C - Large Impact Boss
B - Puller body
Attach puller body using original bearing housing bolts.

3. Place the puller body **(B)** behind the suspension strut as shown in Fig.1 so that the 5 holes align with the back of the 5 mounting holes in the hub upright and using the original mounting bolts bolt the body in place tightening them evenly.
4. Ensure that the mating threads of the impact force screw and the puller body are lubricated with high pressure grease (molybdenum disulphide grease - black U/J grease) screw **F** into the puller body **(B)** until it contacts **C**.
5. Continue tightening the impact force screw **(F)** to force the wheel bearing/drive flange assembly off the hub upright.
6. If the impact force screw becomes tight then a hammer strike directed to the end of the impact force screw may be used to assist removal.
7. Once the assembly has been removed from the hub upright the brake disc can be removed. If the bearing needs replacement then please proceed only after reading the following notes.

Component Descriptions

Component A - Puller Body Holding Wrench
Designed to hold the puller body steady whilst tightening the impact force screw.

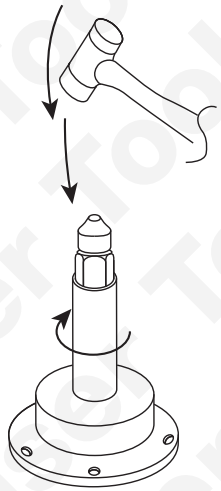
Component B - Bearing Puller Body
Designed specifically to bolt to the wheel bearing housing using the 5 nuts and bolts supplied. The centre thread of **B** is specifically sized to fit the impact force screw **(F)** provided but any mechanical or hydraulic centre screw equipped with a 11/2" could be used.

Component C - Large Impact Boss
Used to protect the bearing and drive flange when removing them as an assembly from the suspension leg.

Component D - Small Impact Boss
Used to protect the drive flange tube when removing the bearing from the flange.

Components E - Bolts, Nuts & Washers
Used to connect the wheel bearing housing to the puller body **(B)**. These items are consumable – spare part numbers.

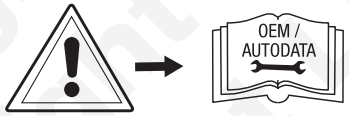
Component F - Impact Force Screw
A threaded tube with a large Hex at one end and a solid metal bar up the middle.
By tightening the threaded body down into the centre of the puller body **(B)** the centre bar of **F** will push against the drive flange.
Once tight simply hit the outer end of the centre bar with a copper mallet.
This hammer strike will deliver a direct shock to the joint being separated.
Hit twice and re-tighten **F** then repeat until the bearing has separated.



Instructions

The following instructions are for guidance only. Please refer to OEM derived data such as the vehicles manufacturers own data or Autodata.

The use of this tool is purely down to the user's discretion and The Tool Connection Ltd. cannot be held responsible for any damage caused what so ever.



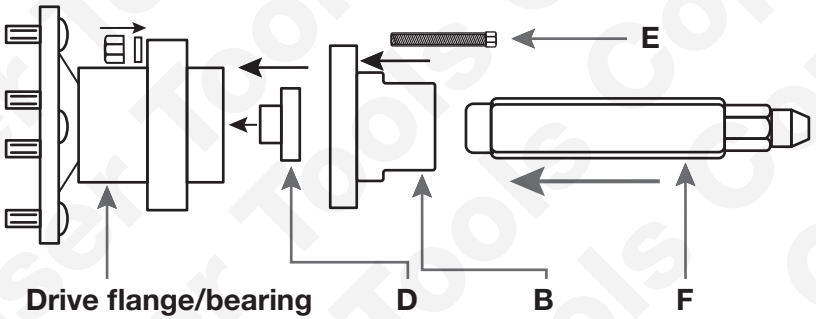
Removing the bearing housing from the drive flange

1. Fig. 2 shows the bearing and drive flange assembly removed from the vehicle with the disc removed.

Fig. 2

2. Assemble the puller body and impact force screw as shown below, remember to tighten the five M10 fixing bolts/nuts/washers as shown to an even 80Nm.

Warning: ensure the force screw thread is fully lubricated with molybdenum disulphide grease.



Instructions

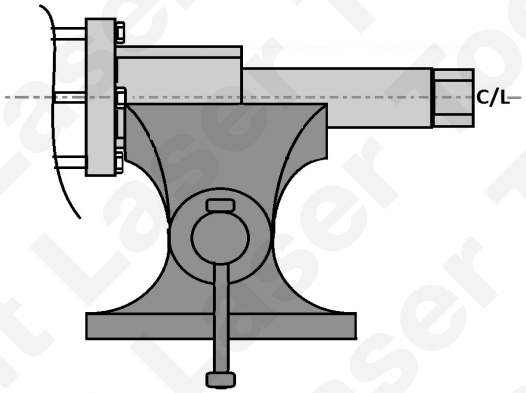
3. Once correctly assembled using the puller body holding wrench or holding the puller body in a suitable vice, tighten the impact force screw.

Warning: the vice top face must be below the centre line of the puller body to avoid crushing the threaded portion of the body - see drawing below.

4. Once the force screw is tight, remove the assembly from the vice and place the drive flange face down on a suitable strong surface (avoiding damage to the wheel studs) and strike the top of the impact force screw twice with a suitable copper faced mallet.

Warning: if a vice is used to hold the assembly do not strike the force screw with the assembly mounted in the vice.

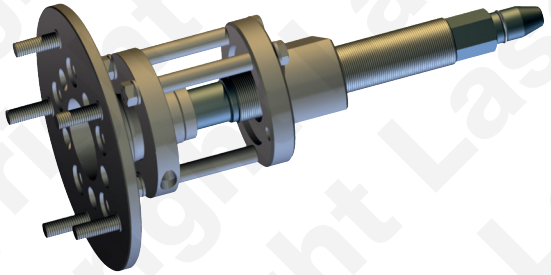
5. Retighten the impact force screw and repeat steps 3 and 4 until the bearing housing starts to move.



Note: The bearing housing will initially take a high force to get it to start moving but once moving the bearing should pull off with tightening torque only. Once the bearing housing is removed the drive flange will be left with one inner bearing ring still in place.

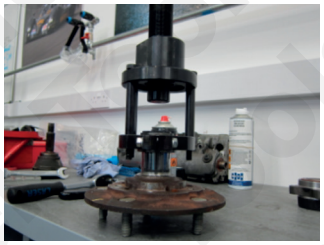
This inner ring will need to be removed. For this task additional equipment is required, traditionally this is done with an angle grinder. However to remove the inner bearing ring without grinding, Laser Tools recommend the use of the Laser 5738 inner bearing removal tool that is designed to work with this kit (available separately).

Assembly



Assemble shells just below top lip on bearing ring.

Tighten clamp bolts till gap closes.



Assemble the force screw and upper body using the bolts and crush tubes provided.

Note: Ensure all three bolts are used and tighten prior to applying force.

Transit Inner Bearing Ring Removal

This kit comprises of an accurately machined pair of clamp shells specifically sized to fit the Ford Transit inner bearing ring. Unlike other similar designs it is specifically sized for this operation and as such grips on the bearing tapper and does not need to act as a wedge.

This minimises tool damage over time giving significantly increased tool life. This design utilises 3 puller legs so ensuring a square and even pulling load. This 3 leg design is significantly better than the more common 2 leg designs.

Bearing ring, top of clamp should butt up to upper lip on the bearing ring.

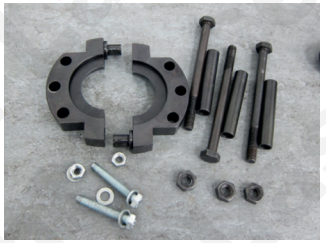


Fig 1.

Fig 2.

Fig 3.

Assemble as shown in figure 3.

Once assembled wind the force screw down with 30mm socket provider and continue loading to remove the inner bearing ring.

Note: Ensure the force screw is well lubricated with molybdenum disulphide grease (as used in CV joints).

When removing inner ring there is need to use hammer force.

Precautions

- Always wear appropriate safety clothing including gloves, safety goggles and safety boots.
- Ensure the vehicle is safely jacked up and supported on suitable stands to provide a stable platform.
- Remove appropriate road wheels.
- Remove the appropriate brake calliper etc.
- Separate the lower suspension ball joint and steering track rod end.
- Remove dummy drive shaft nut and dummy shaft on rear wheel drive vehicle hubs. For front wheel drive vehicles remove the drive shaft nut and drive shaft from the front hub and tie it up out of the way.
- Remove the 5 mounting bolts (Torx® bolts) that bolt the wheel bearing housing to the front suspension leg. Accessed through the drive flange/disc assembly.
- Thoroughly clean the threads in the 5 mounting holes on the suspension leg.
- Removing the bearing/drive flange assembly from the suspension leg – if available use the Laser 4288 brake disc removal tool to push the drive flange/bearing assembly off the leg. If the 4288 is not available this tool can be used in the same manner but first the ABS sensor must be removed. See overleaf.

Safety First. Be Protected.

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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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Guarantee

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