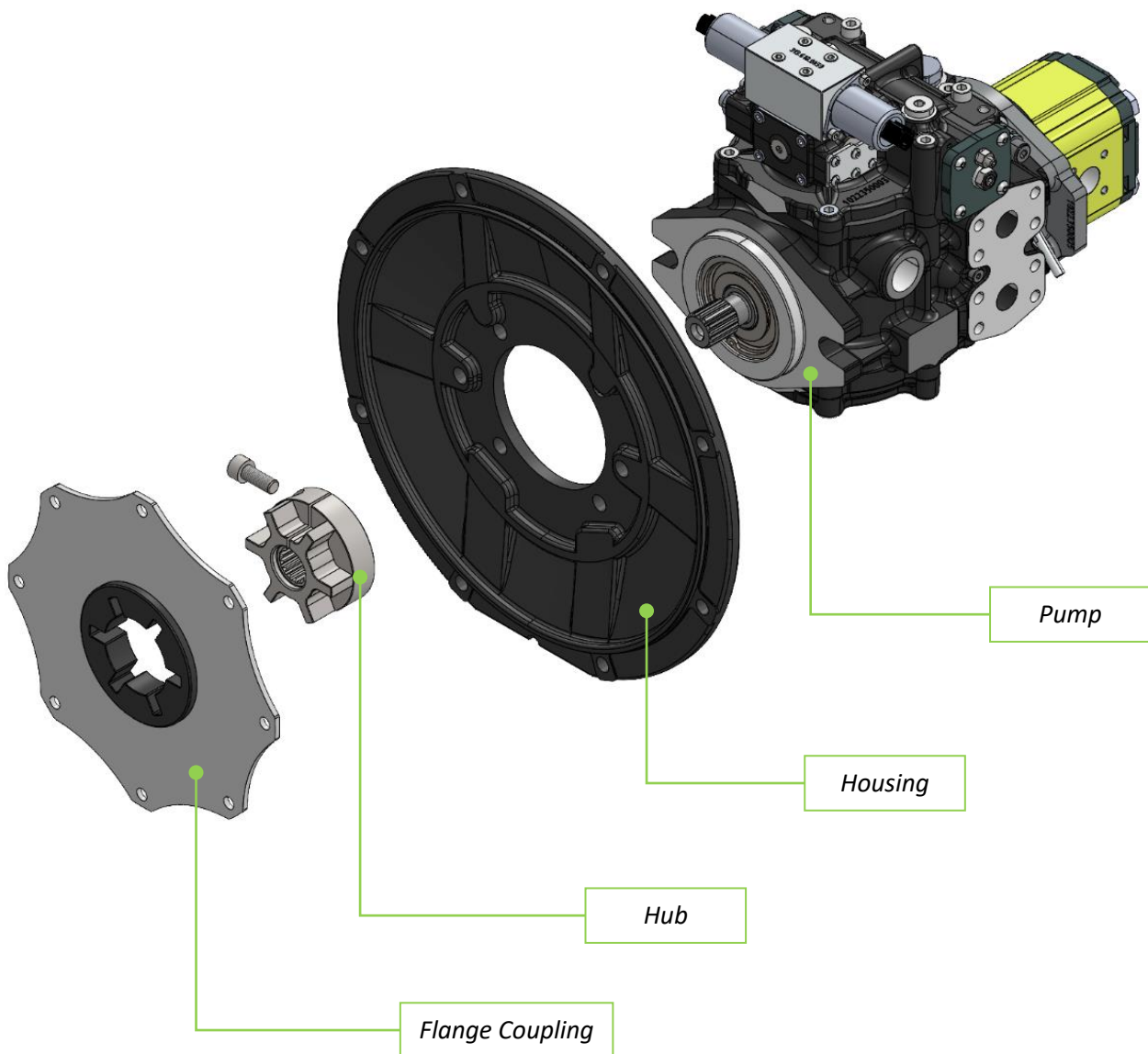
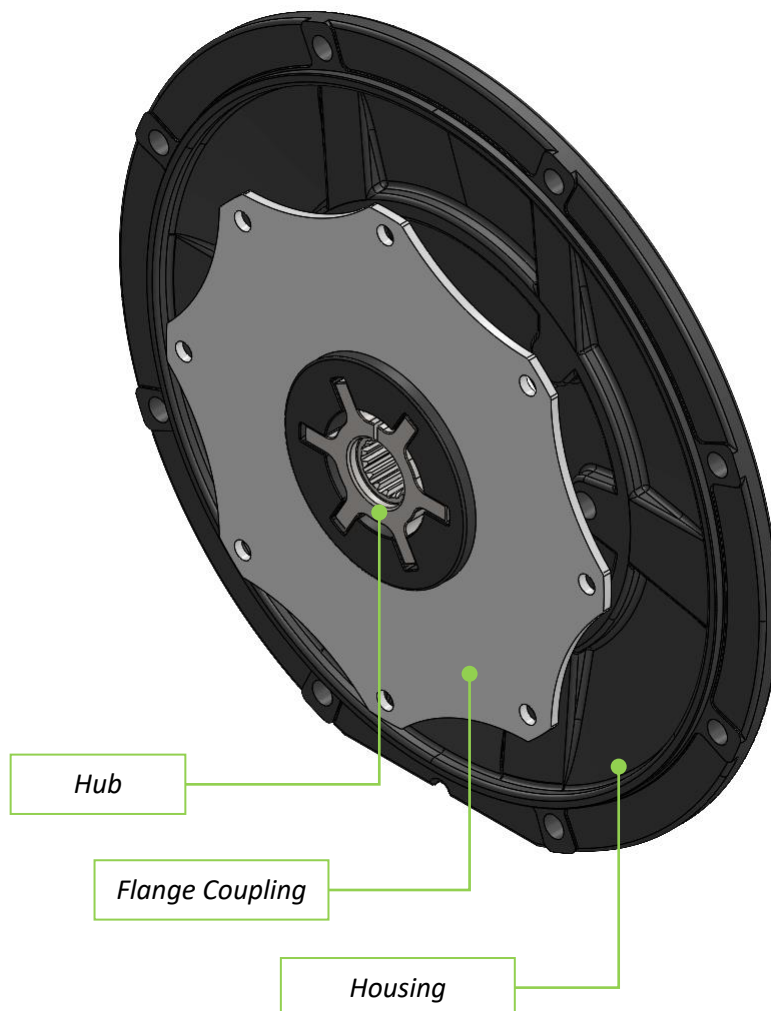


USER MANUAL – Use & Maintenance

Tecnomotor Single Pump Adapters



This manual is released in order to provide general instructions to handle, store and assemble Tecnomotor single pump adapters.



1. Storage

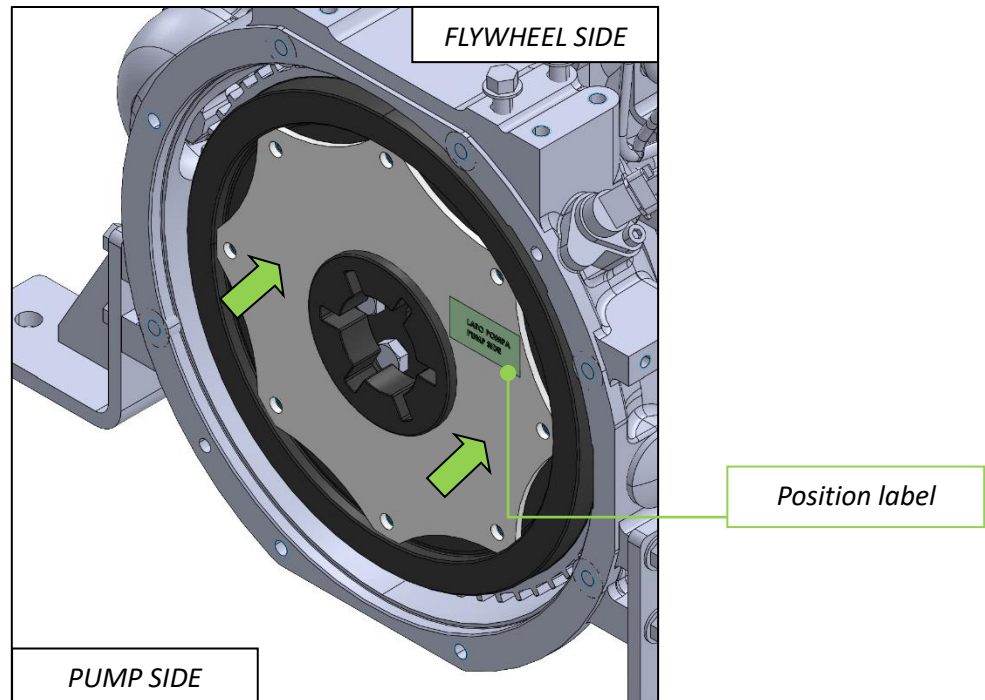
Flange couplings can be stored up to six months in an indoor and dry facility after receiving them.

2. Handling

Make sure that single pump adapter handling is carried out through a proper lifting device to avoid any type of damage of the single pump adapter or an injury of the operator.

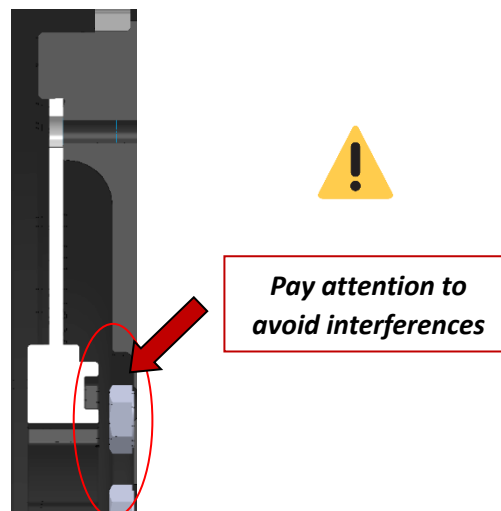
3. Assembly of 6-tooth hub flange.

Put the PSP flange on to the flywheel housing location checking out the proper side as indicated by the drawing supplied by Tecnomotor and by the label on the flange.

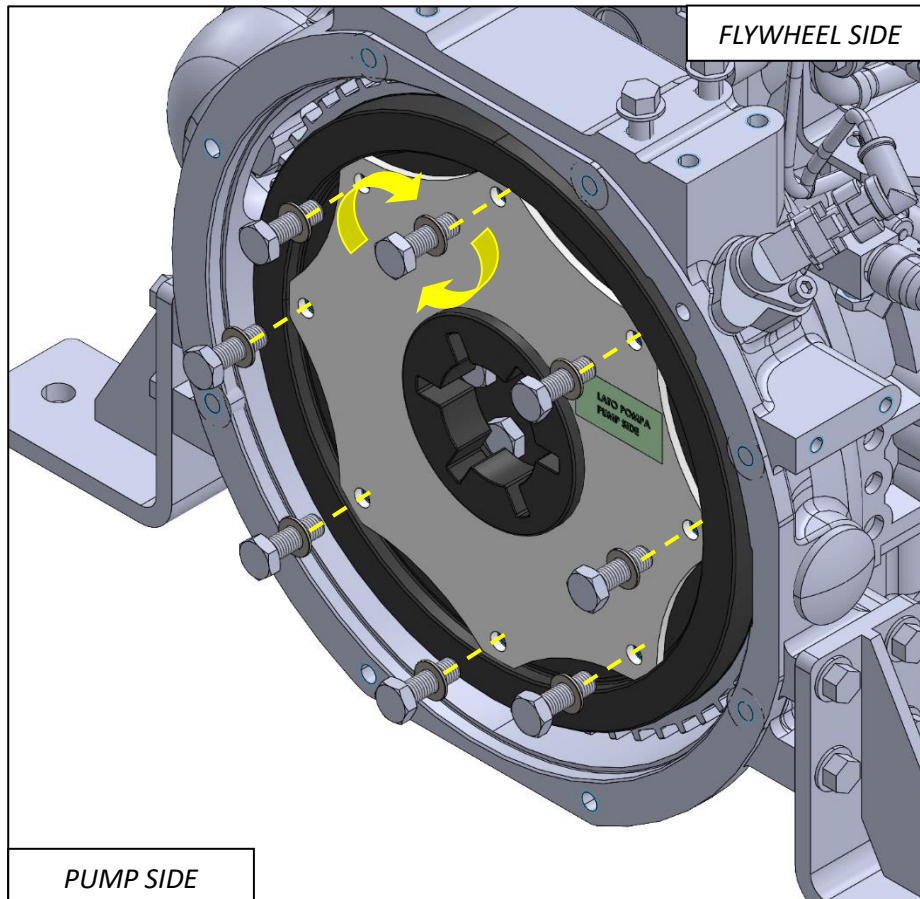


Important ⚠ Perform this operation smoothly, without forcing it, otherwise the supply is not appropriate and shall go to waste.

Important ⚠ In case of assembling the flange with the protruding part on the flywheel side, make sure that there are not any interferences with the bolts* or the flywheel.



Fix the flange with hexagonal bolts* type TE ISO 4017 8.8.



TIGHTENING TORQUE:

M8 = 25Nm

M10 = 49Nm

M12 = 78Nm

Important ⚠ Usage of washers is not mandatory. When using washers make sure that their thickness doesn't cause interferences between the head of the bolt and the housing inside and that their outer diameter does not interfere with the internal parts of the engine.

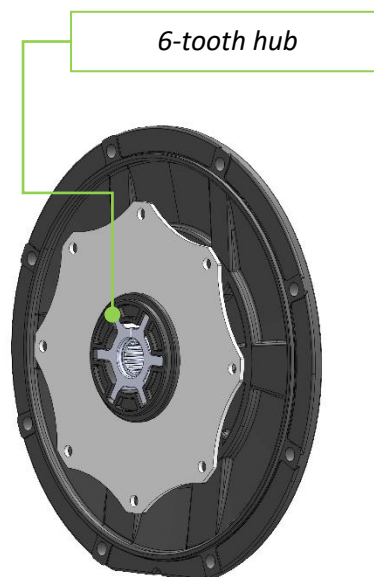
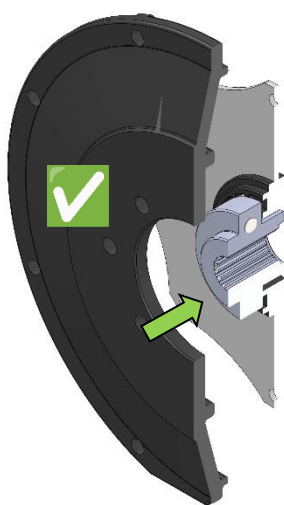
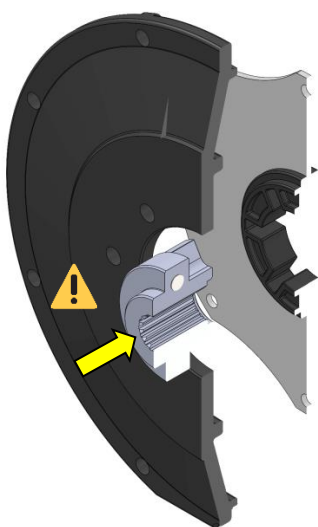
***Note** ⚠ Fixing bolts to flange, housing and pump are not supplied.

4. Housing Assembly.

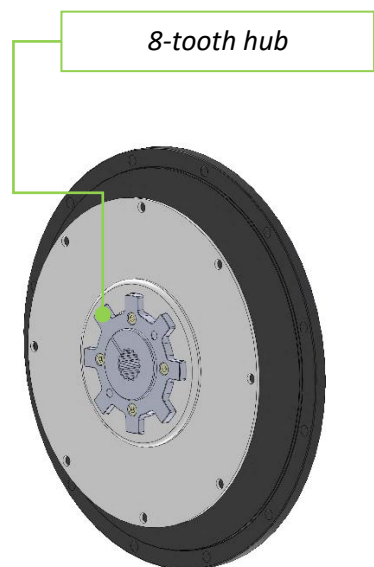
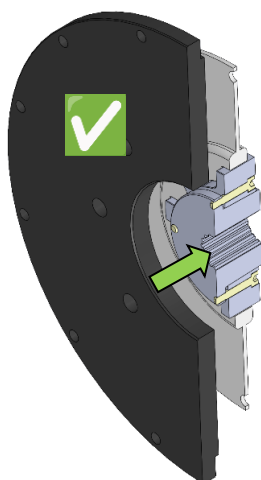
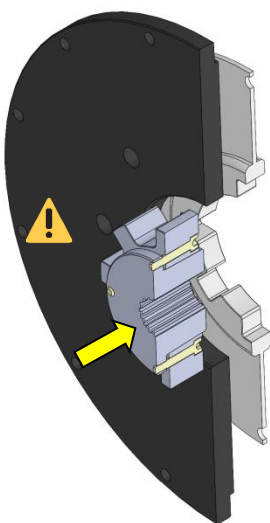
Before assembling the housing, identify if the application is with 6 teeth or 8 teeth by checking that the hub goes through the bore of the housing itself.

Types of assembly:

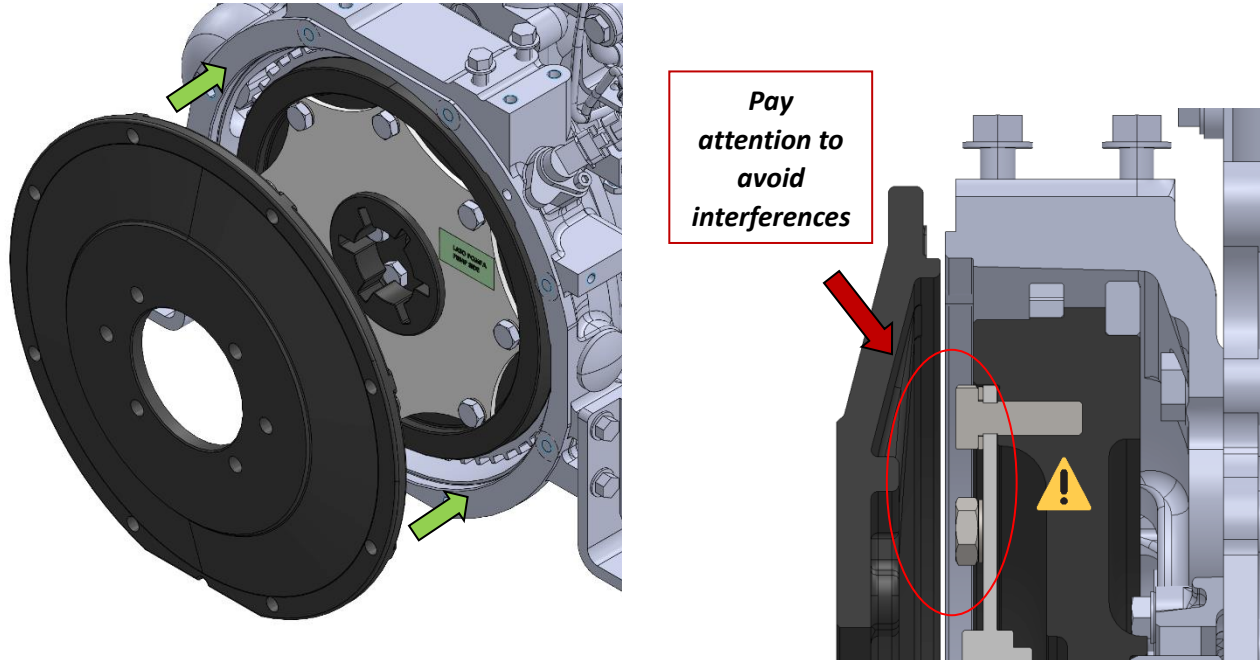
A) 6-TOOTH HUB



B) 8-tooth hub

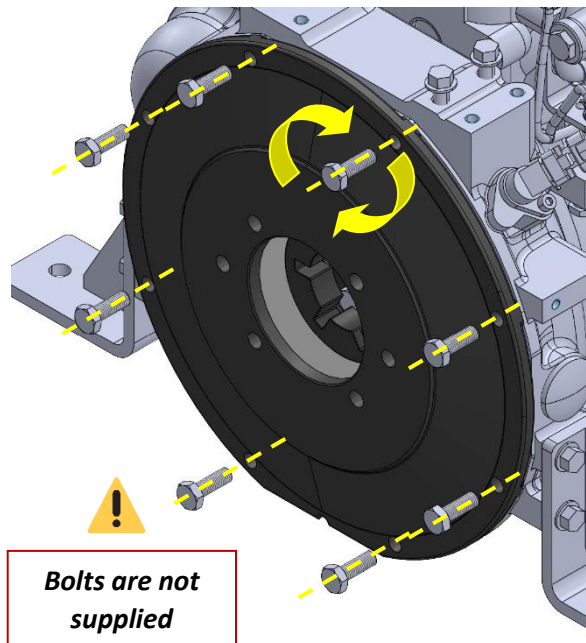


Put the housing on to the proper engine location.

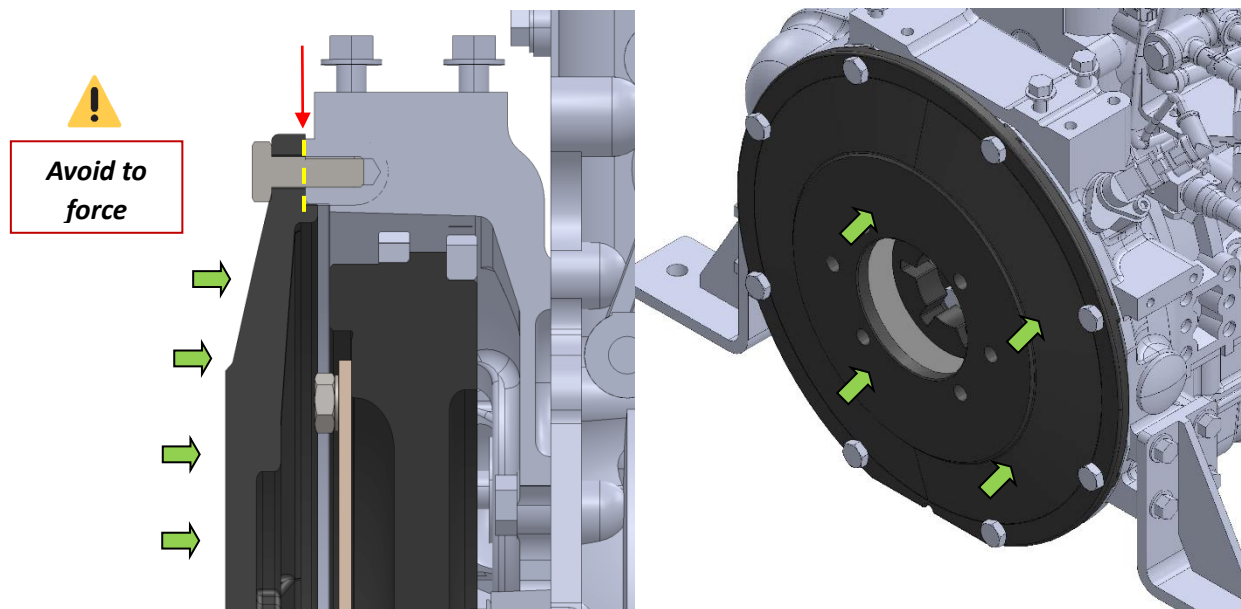


Important ⚠ Make sure that the bolts* used to fix the flange do not interfere with the internal surface of the housing.

***Note** ⚠ Fixing bolts to flange, housing and pump are not supplied.



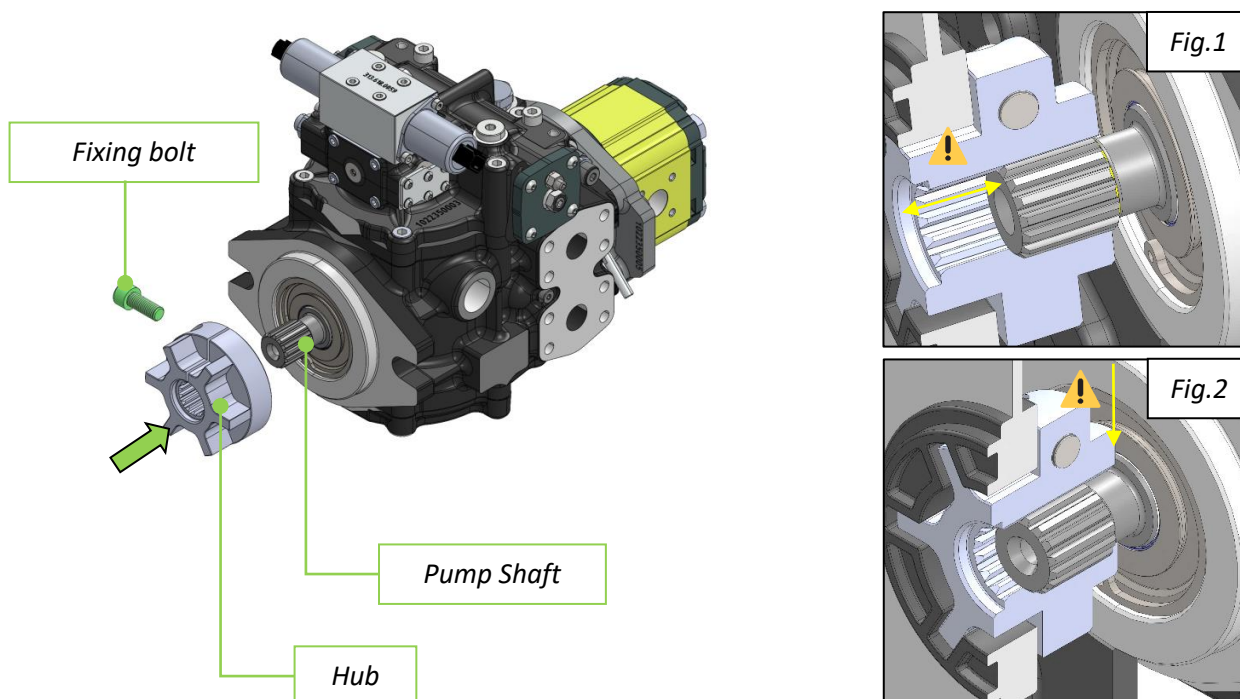
Important Note ⚠ To avoid axial loads that are dangerous for the engine, housing assembly on the flywheel must be carried out smoothly, without forcing it.



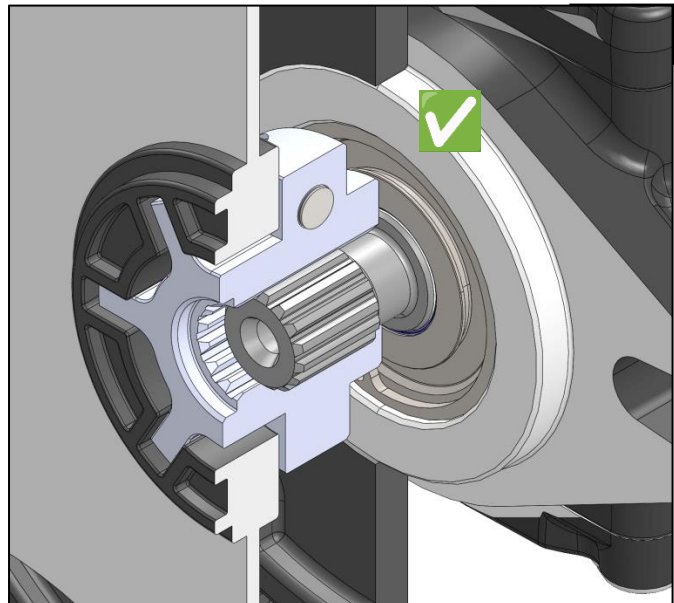
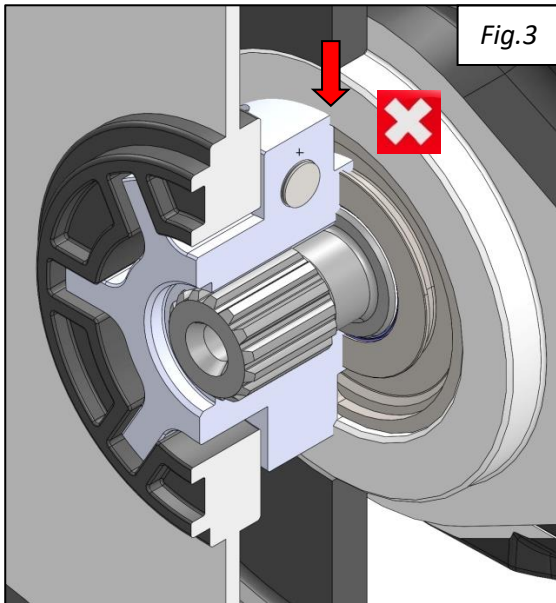
5. 6-tooth hub assembly to the pump shaft.

For spline or cylindrical keyed shafts, put the hub on the pump shaft by following the assembly dimension indicated by Tecnomotor on the drawing (see fig.1).

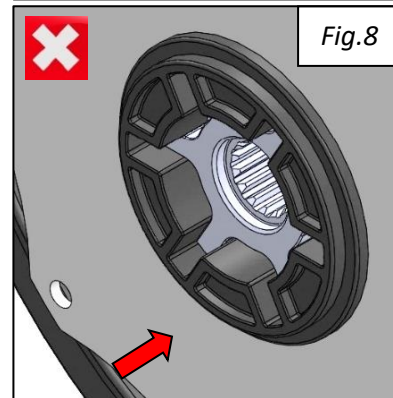
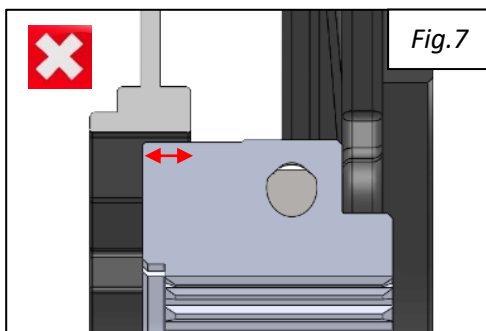
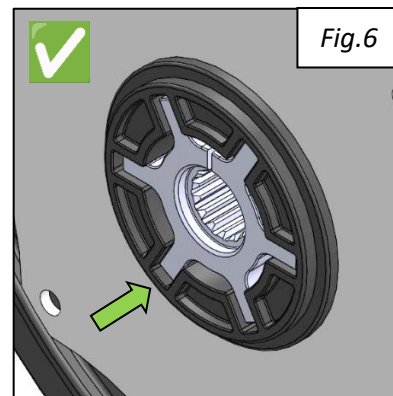
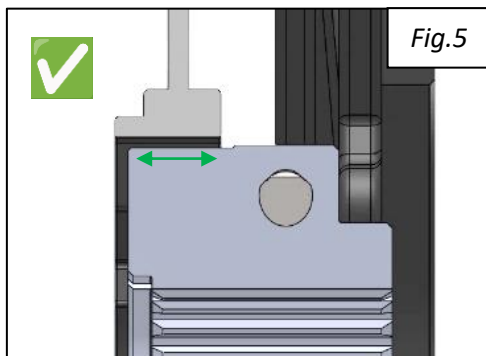
If such dimension is not shown, slide the item all the way down to the end of the shaft (see fig.2).



Important ⚠ Make sure that the hub doesn't touch any fixed parts of the pump (see fig.3), otherwise it is not suitable and must be replaced with another item with a different profile (see fig.4).



Important ⚠ Based on the relevant dimensions or the spigot, make sure that hub teething will totally fit to flange teething (see fig.5 and fig.6)

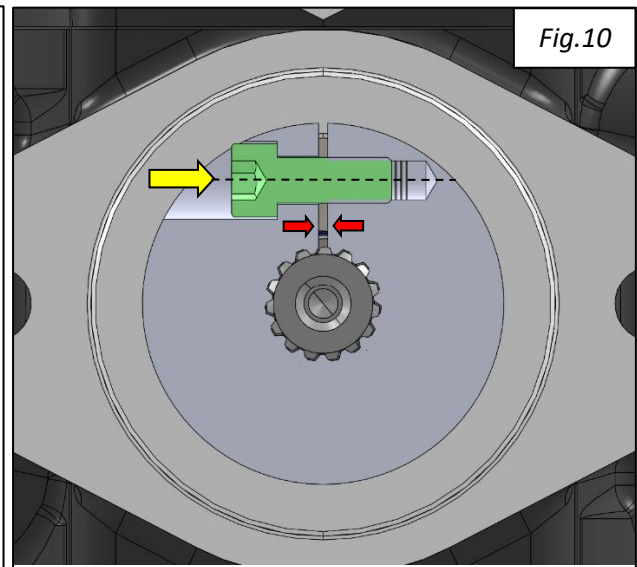
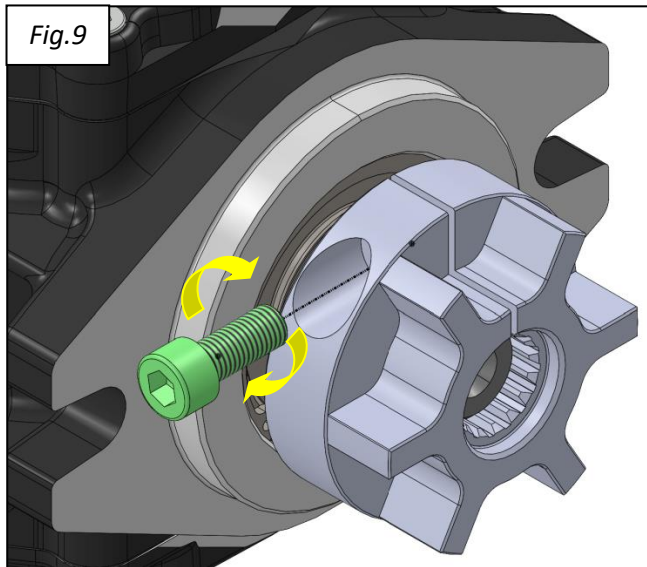


Istruzione Operativa

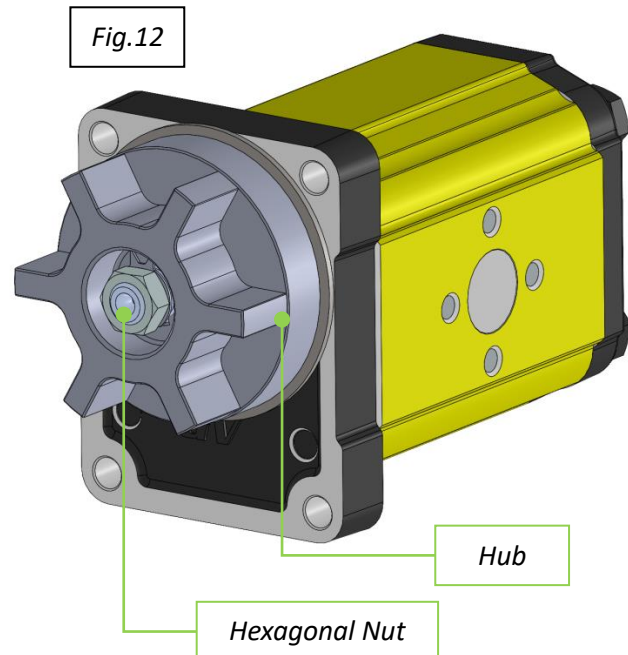
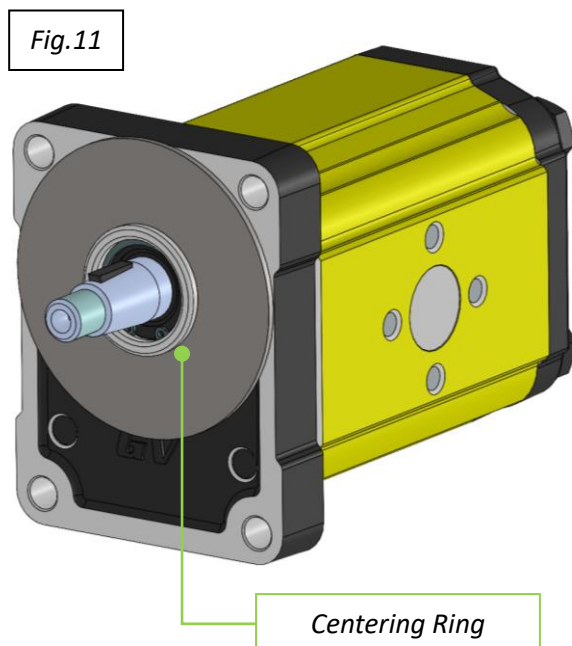
Work Instruction

Assembly - Type A

Tighten pump shaft by screwing the bolt included in the supply with reference to the tightening torque that is shown by the drawing (see fig.9 and fig.10)

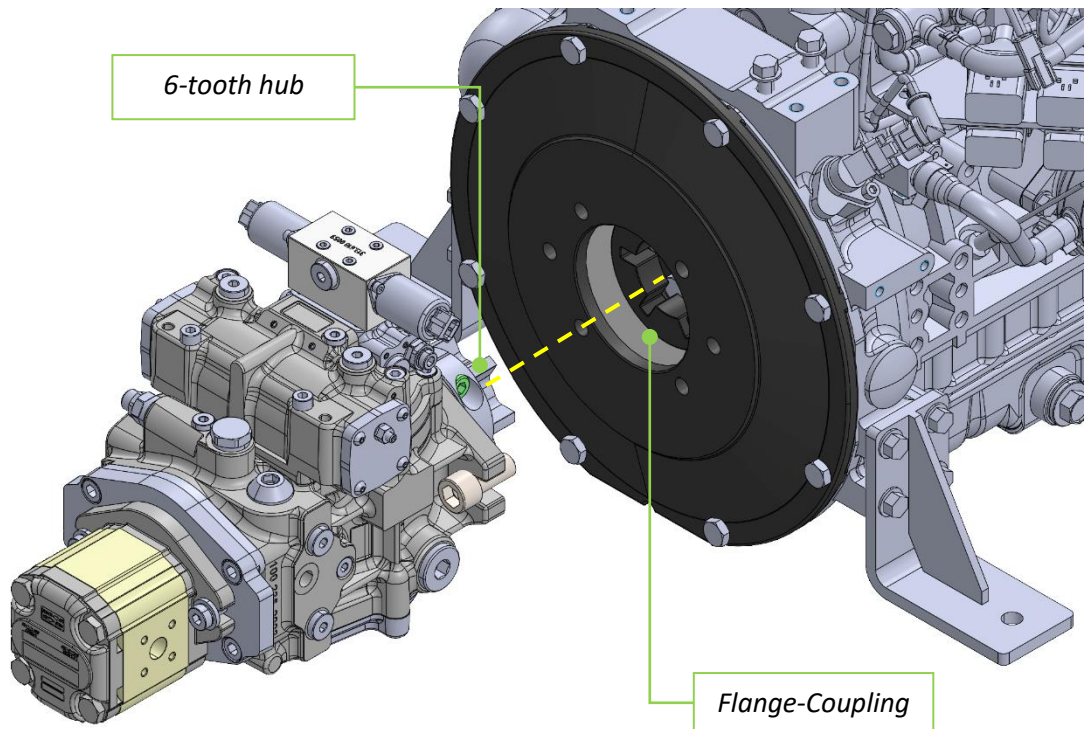


In case of gear pumps with European rectangular flange and tapered shaft, position centering ring beforehand, then put the hub on all the way down and slide it to the end of the stroke. Finally, fix it on the top with the nut supplied by the manufacturer of the pump (see fig.11 and fig.12)

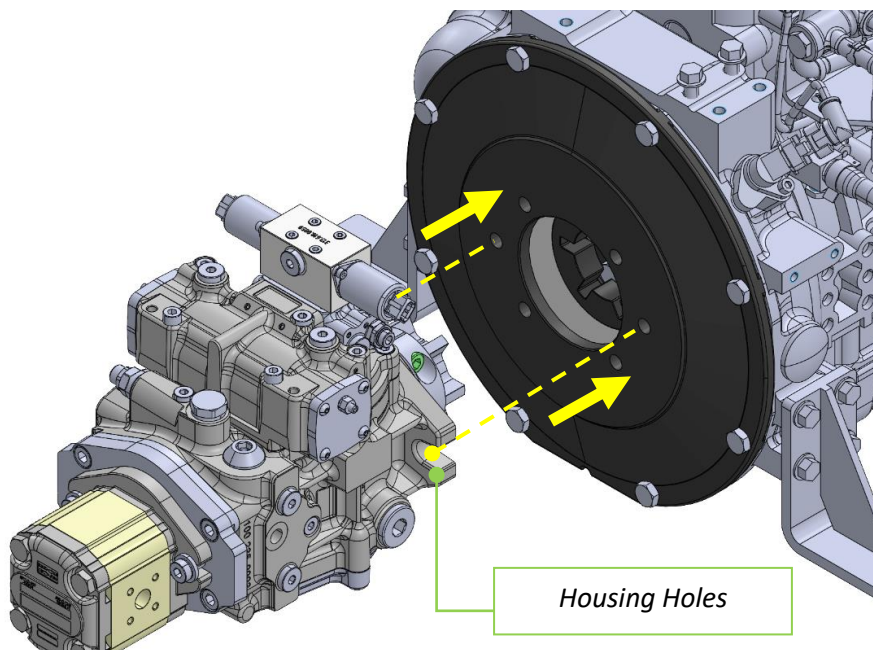


6. Assembling pump and hub on the housing.

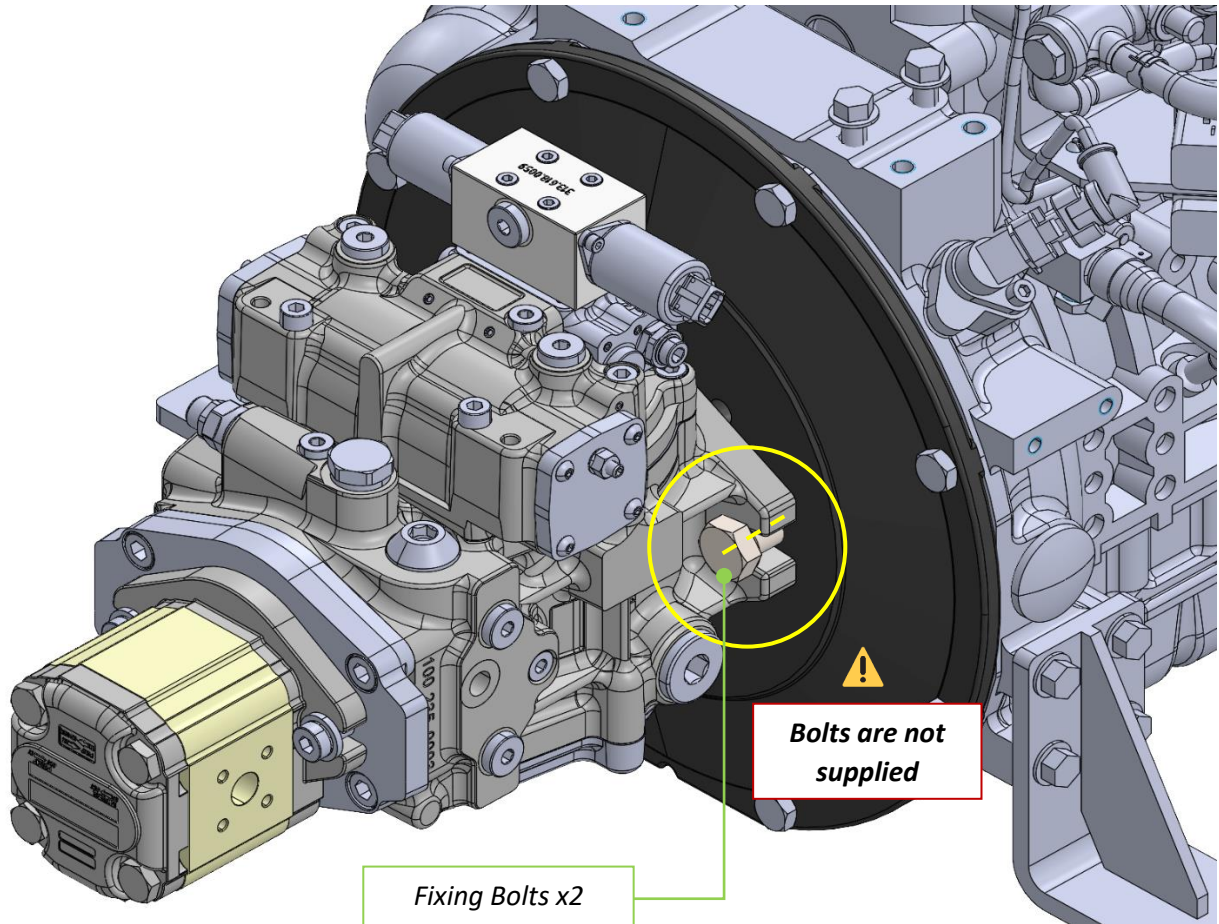
Fit the pump on the housing in the proper pilot bore and at the same time put in the hub teething into the flange teething.



Rotate the pump to make the center of the bolts* coincide with the pattern of the tapped holes on the housing.



Fix the pump with bolts*.



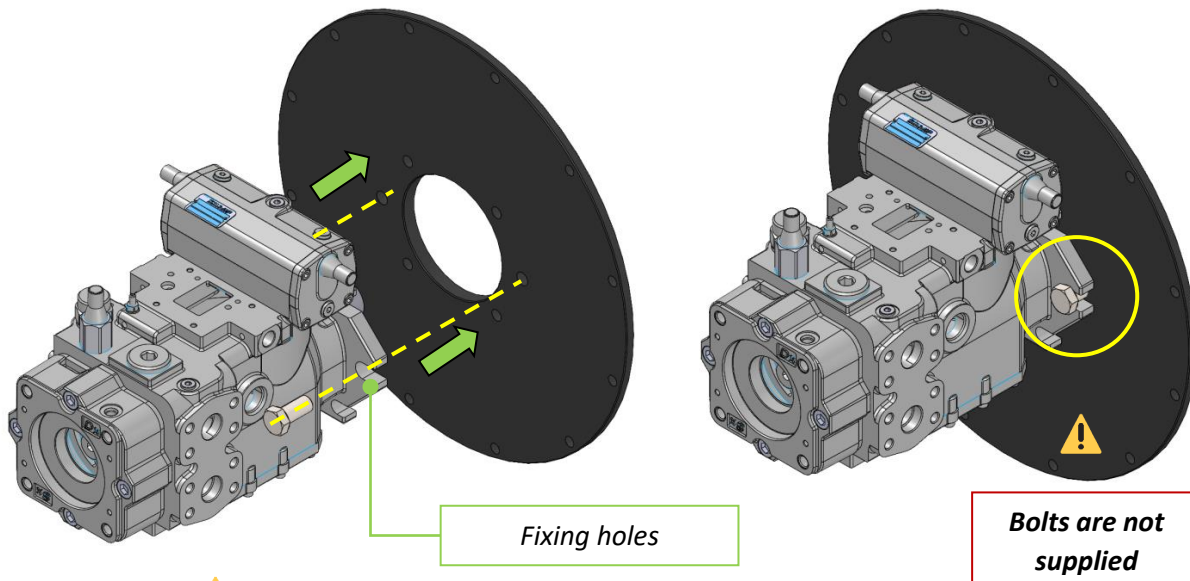
***Important Note** ⚠ Bolts to flange, housing and pump are not supplied.

Assembly – Type B

After flange assembly (see page 3 and page 4: 6-tooth hub flange) to the engine flywheel, assemble the pump on to the housing according to following instructions:

7. Pump assembly to the housing.

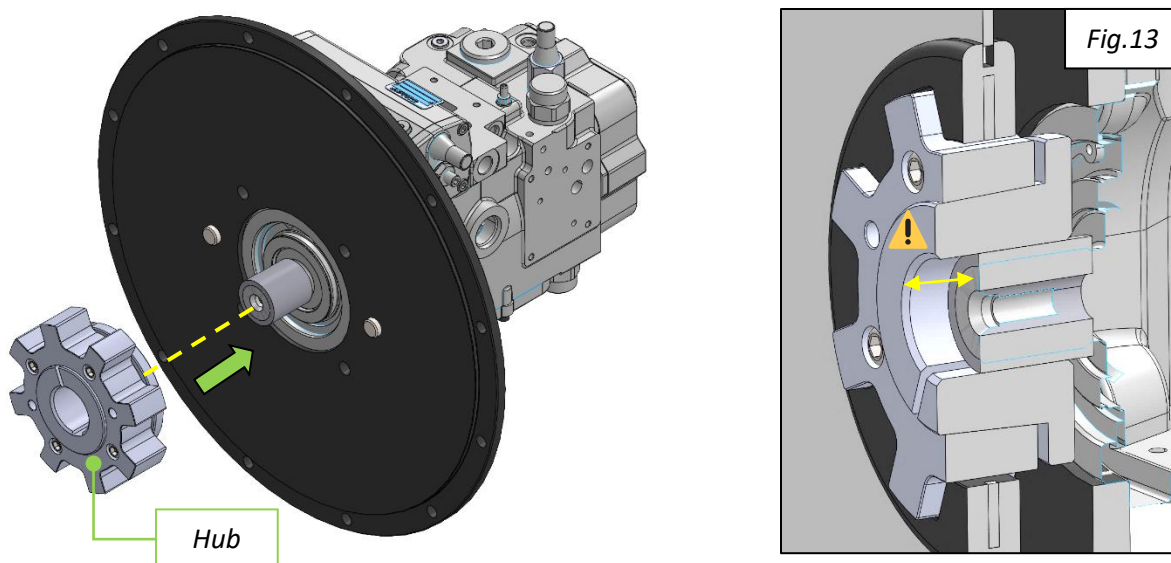
Assemble the pump to the housing in the relevant pilot bore and rotate the pump to make the center of the bolts* coincide with the pattern of the tapped holes on the housing.



***Important note** ⚠ Bolts to flange, housing and pump are not supplied.

8. 8-tooth hub assembly to pump shaft.

For spline or cylindrical keyed shafts, put the 8-tooth hub on the pump shaft by **strictly** following the assembly dimension indicated by Tecnomotor on the drawing (see fig.13).



Istruzione Operativa

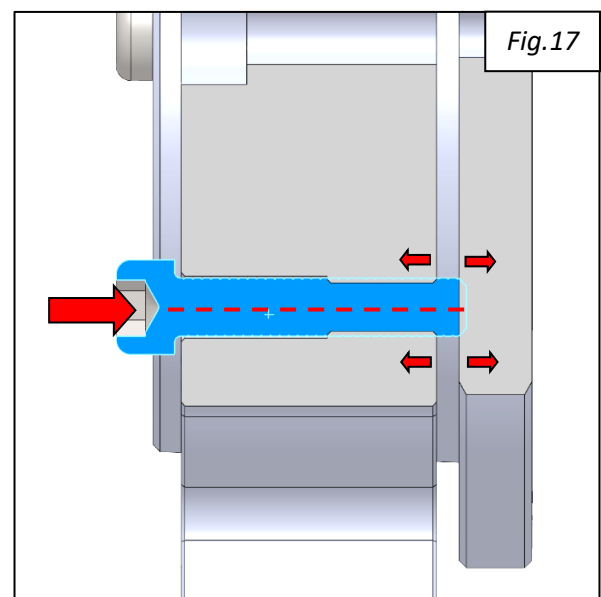
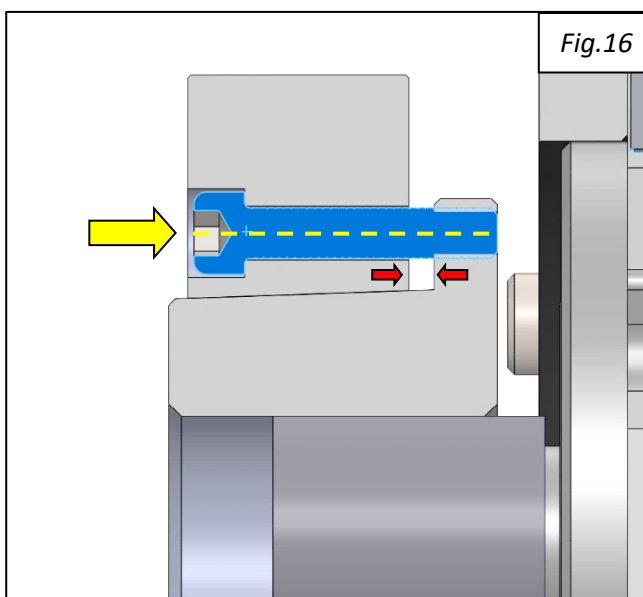
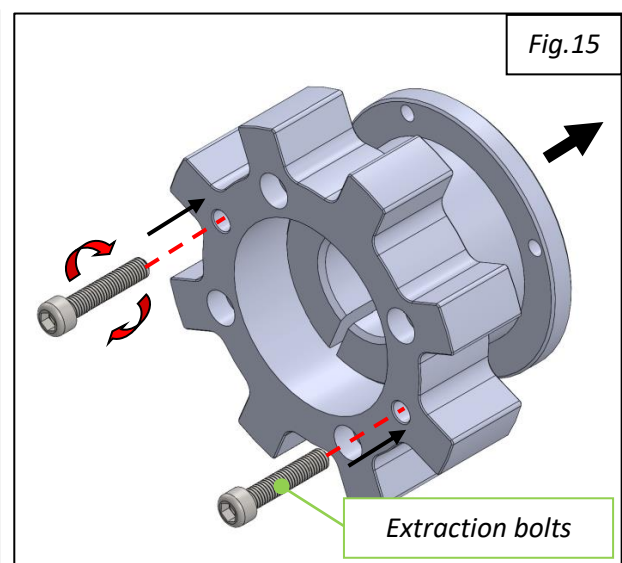
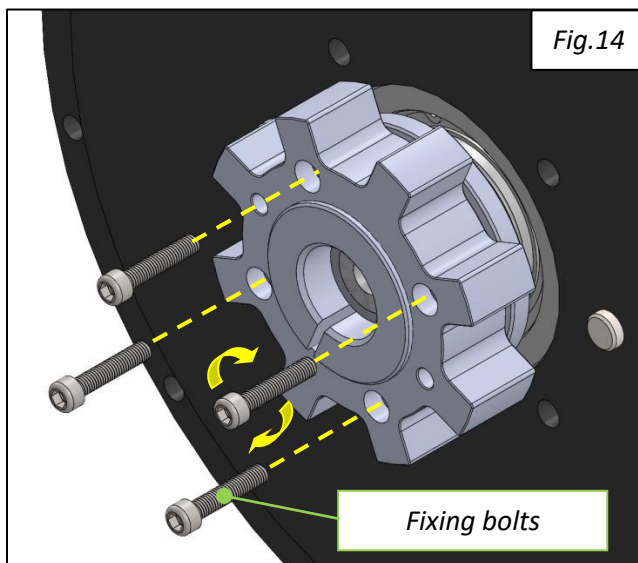
Work Instruction

Assembly – Type B

Important ⚠ Make sure that the hub doesn't touch fixed parts of the pump, otherwise it is not suitable and must be replaced by another component with a different profile (see page 8).

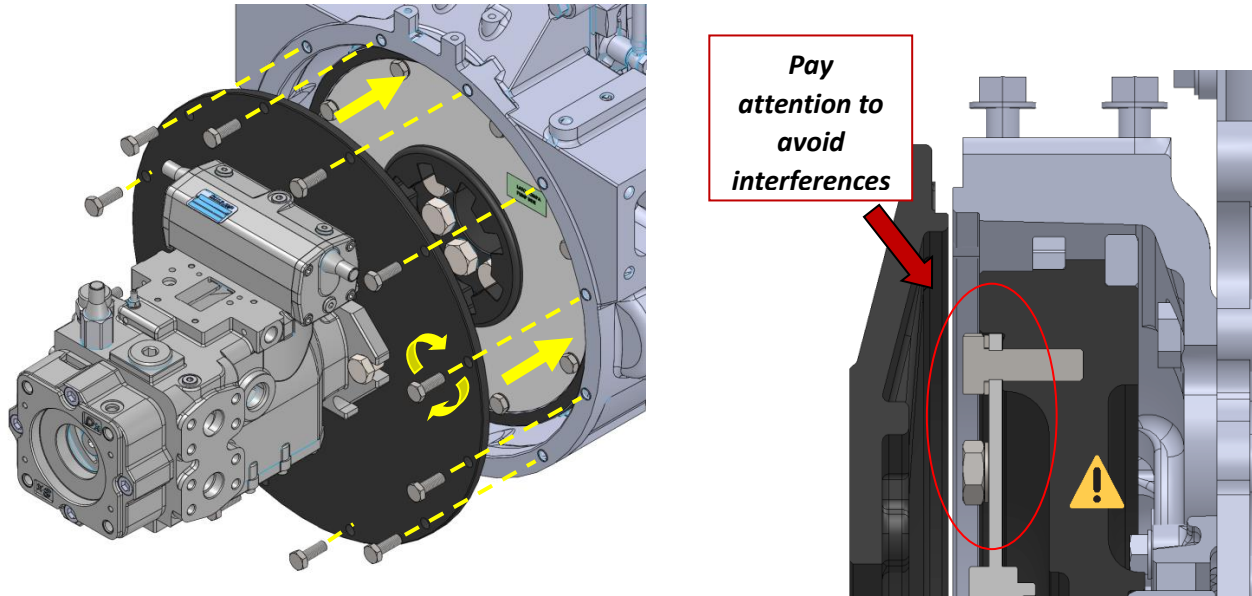
Important ⚠ Based on the relevant dimensions or the spigot, make sure that hub teething will totally meet flange teething (see page 8).

Tighten the hub on to the pump shaft by screwing the bolts supplied with it according to the tightening torque shown by the drawing (see fig.14 and fig.16). Removing the hub is possible through 2 threaded holes (see fig.15 and fig.17).



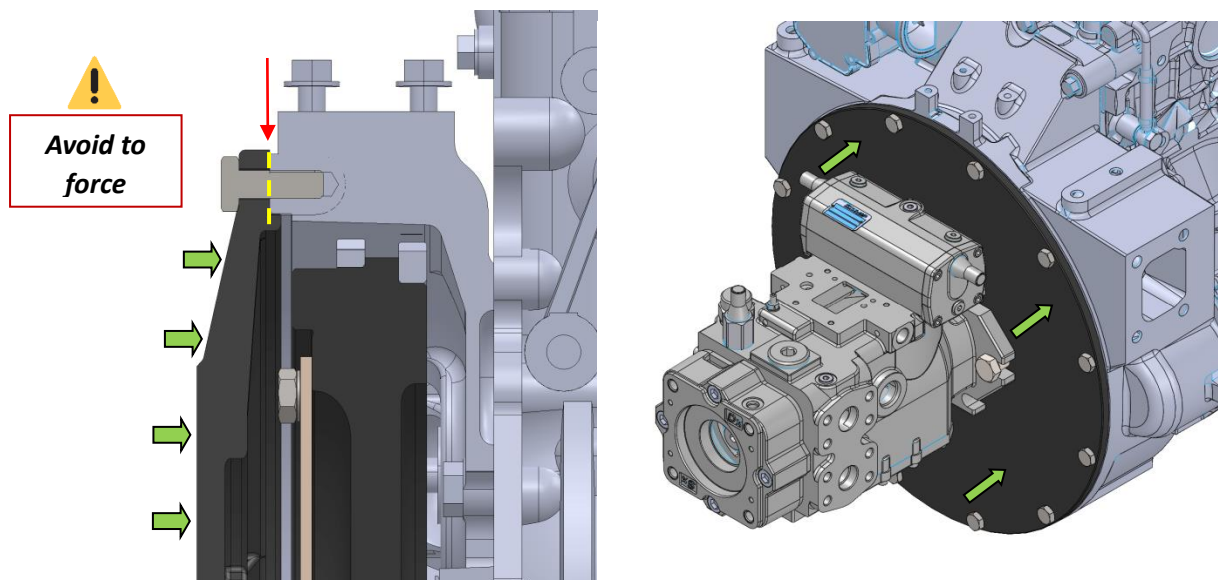
9. Assemble pump to engine location

Fit pump on to the engine location by putting hub teething into flange teething and positioning the fixing* bolts of the housing.



Important note ⚠ Make sure that the bolts that are used to fix the flange will not interfere with the internal surface of the housing.

***Note** ⚠ Bolts to flange, housing and pump are not supplied.



Important note ⚠ To avoid dangerous axial loads for the engines, housing assembly to the flywheel housing must be carried out smoothly, without forcing it.

7. Labeling and Tracking

An identification tag is placed on the housings, whilst flange ID number is forged on it.

It is important that both numbers are supplied to Tecnomotor when inquiring spare parts.