# MASTER (XDD)

#### Renault Group

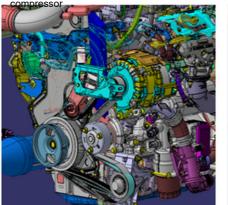
# **6\_MECHANICAL CONVERSIONS**

## 6.1. ADDITIONAL COMPONENTS ON ACCESSORIES SUPPORT

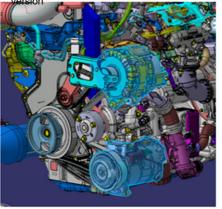
## 6.1.1 GENERAL

#### **BASIC VERSIONS:**

Basic version: without air conditioning



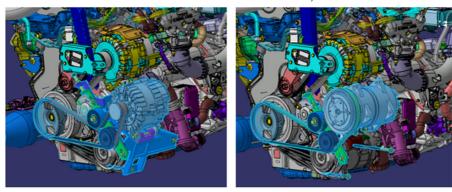
Alternator + air conditioning compressor



### VERSIONS FOR CONVERTERS

Version with 2nd alternator (for converters)

Version with 2nd compressor (for converters)





FRONT-WHEEL DRIVE vehicles are all equipped with "stop and start". <u>REAR-WHEEL DRIVE vehicles are not equipped with "stop and start".</u>

It is recommended to use the fast idle function.

For conversions requiring an engine running, see the following sheets:

- ✓ Sheet 4.7 "Stop & Start"
- ✓ Sheet 4.11 "WIADA"
- ✓ Sheet 4.16 "CONVERTER INFORMATION SIGNALS".

The maximum power absorbed by the accessory component replacing the engine's free-wheeling pulley must not exceed  ${\bf 6}~{\bf kW}$ 

One additional component may be driven in front- and rear-wheel drive versions.

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#### The converter must:

- Define the frequency for replacing the drive belt for the fridge conversion and also comply with RENAULT's rules for dismantling/refitting vehicle parts.



- Define the layout of the coolant pipes in the vehicle, while complying with the functional constraints of architecture and environment.

- Preserve the original pulley alignment.

#### 6.1.2 ADDITIONAL PULLEY

When installing the support kit, the converter must add an additional pulley at the crankshaft outlet.

The crankshaft output pulley has a diameter of 120mm

Additional pulley reference  $\rightarrow$  <u>123039792R</u>

#### 6.1.3 SUPPORT FOR KIT FRONT-WHEEL DRIVE ENGINES

In partnership with OLIVA TORRAS, Renault has developed a support kit for the assembly of an additional alternator OR an additional compressor:

This kit is available from OLIVA TORRAS

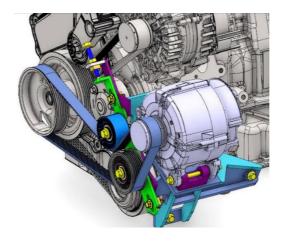
It includes the bracket as well as the belt and the additional pulley.

The functional drawing of this support is available in appendix 1 of this sheet.

#### 6.1.4 ASSEMBLY OF A SECOND ALTERNATOR (FRONT WHEEL DRIVE **VERSIONS**)

When fitting an additional alternator, Renault recommends fitting an alternator 2311000788R.

The diameter of the pulley is 55 mm.

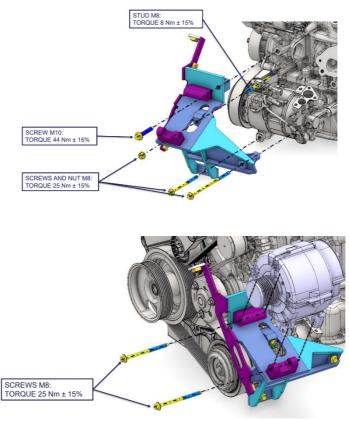


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MASTER (XDD)

Assembly of the alternator:



# 6.1.5 INSTALLATION OF A REFRIGERATION COMPRESSOR (FRONT WHEEL DRIVE VERSIONS)

The fridge compressor drive must be dependent on the running engine info (see sheet 4.16 "Running engine info") and it may be recommended to add a 5-second delay time after engine starting in order to reach a stable engine speed.

Renault recommends the use of the OLIVA TORRAS adaptation kit compatible with the compressor **TM16/QP16**.

Driving a piece of equipment may call for the use of the fast idle.

The utmost care must be taken to comply with the following points for assembly minimising the impact on engine reliability.

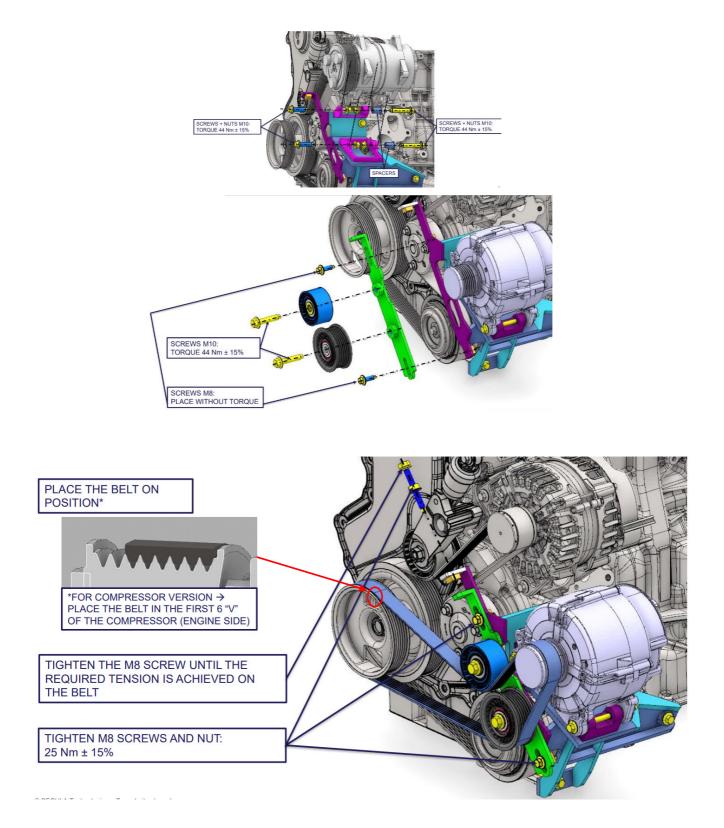
- The weight of the added compressor must not exceed 7.5 kg.
- The equipment must use the existing mounting points on the engine block.
- The equipment pulley and the additional crankshaft pulley must be aligned.
- The maximum power absorbed by the equipment should not exceed 6 kW.
- The additional belt must be adapted to the number of Vs in the crankshaft pulley.
- Check that the additional belt is correctly lined up.
- The changing frequency for the additional belt should be assessed and the user notified.

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# **MASTER (XDD)**

- With this type of assembly, the full equipment and mount should be tested for vibratory resistance and the additional belt for slippage, jump and longevity.
- The routing of the refrigerant pipes must be reviewed to take into account any changes to the engine compartment (Refer to the engine digitisations to check the compatibility of the adaptations)



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