



Type S/Section

MEGANE range
equipped with F3R engines

XA0 X

16

LAGUNA range
with F3P and F3R engines

X56 X

16

ESPACE
with F3R engines

JE0 A

16

Cancels and replaces Technical Note No. 3168A of January 1999

Modifications = Part Numbers

16 NOISE FROM ACCESSORIES BELTS ON F3P/F3R ENGINES (VERSIONS WITH PAS AND AC/PAS)

Other sub-section concerned:

09 10 16 19

- Engines: F3P/F3R PAS and AC/PAS
- Gearbox: XXX

Basic manuals: Mot. "F"

CUSTOMER COMPLAINT

- Noise from the accessories belt in both hot and cold conditions, in some cases with a buckled appearance of the crankshaft pulley when the engine is running, in particular on **F3P engines with air conditioning and power steering**.

"The repair methods given by the manufacturer in this document are based on the technical specifications current when it was prepared.

The methods may be modified as a result of changes by the manufacturer in the production of the various component units and accessories from which his vehicles are constructed".

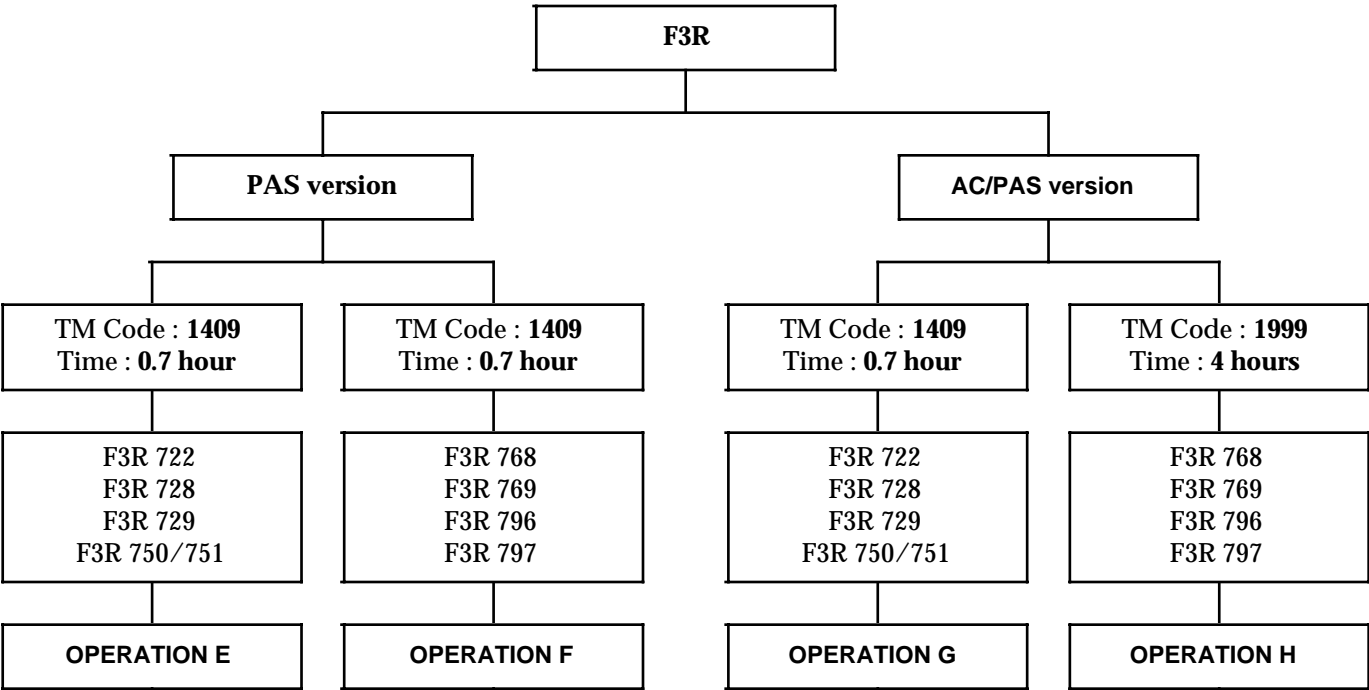
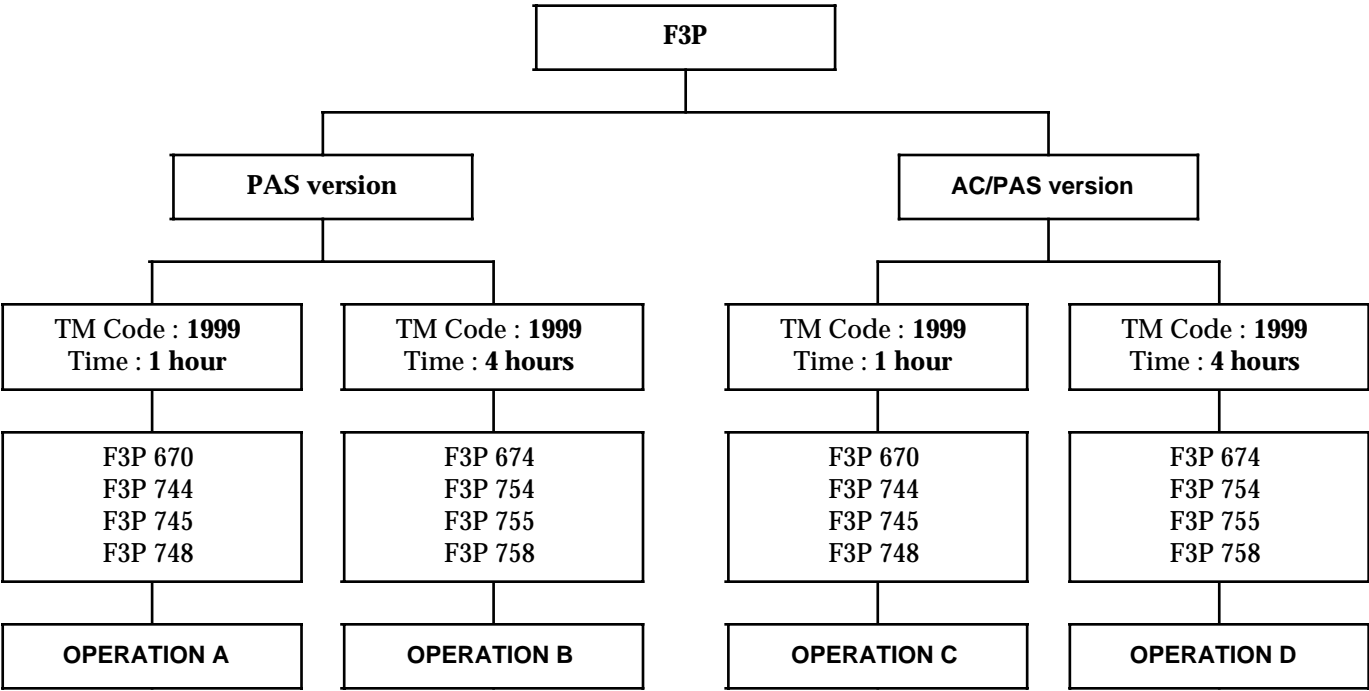
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Before starting any work, it is essential to ascertain the type of engine, the equipment level of the vehicle (whether it is equipped with **PAS** and **AC/PAS**) in order to be able to carry out the relevant operation to deal with the customer complaint.

**DETAIL OF OPERATIONS TO CARRY OUT FOR EACH TYPE OF ENGINE
AND EQUIPMENT LEVEL**



OPERATION A

F3P VERSION, PAS WITH intermediate shaft

Vehicles concerned :

- November 1996 to February 1998.

Customer complaint:

- Screeching/whistling noises which start when the PAS pump is put under load.
- PAS pump hub offset of **3.45 mm** towards the engine.

Description of the operation :

- Fit a spacer between the hub and the PAS pulley (alignment to be checked **before** work is carried out). (**Fig. 1**)
- Replace the crankshaft pulley, the bolt and the accessories belt and timing gear cowl (Fig. 2 - page 16-3).

Parts required:

- 1 Spacer, PAS pulley/hub
Part No.: 77 00 113 788.
- 1 Lower timing gear cowl
Part No.: 77 00 101 010.
- 1 Crankshaft pulley
Part No.: 77 00 109 260.
- 1 Bolt for crankshaft pulley
Part No.: 77 00 739 905.
- 1 Accessories belt
Part No.: 77 00 868 878.

Values for belt tension:

- Accessories belt fitting tension:
107 US (Mot. 1273)
- Tightening, crankshaft pulley bolt:
2 daN \pm 115°

Checking the PAS pump hub position (PAS version only)

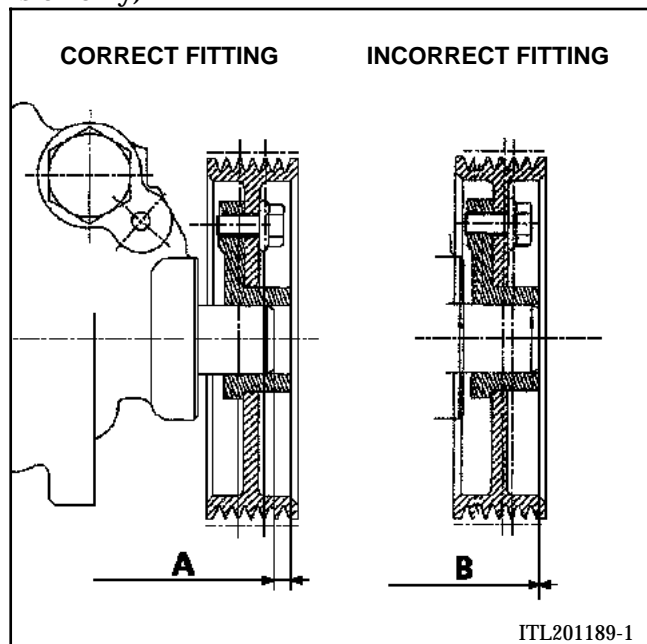


Fig. 1

OPERATION B

F3P VERSION, PAS WITHOUT intermediate shaft

Vehicles concerned:

- May 1997 to February 1998.

Customer complaint

- Screeching/whistling noises which start when the PAS pump is put under load.
- PAS pump hub offset of **3.45 mm** towards the engine.

AND/OR

- Screeching/whistling noises when cold and hot, with buckled appearance of the crankshaft pulley.

Description of the operation:

- Fit a spacer between the hub and the PAS pulley (alignment to be checked **before** work is carried out). (**Figure 1**)
- Replace the timing gear cowl and the timing belt. (**Figure 2 - page 16-3**)
- Replace the crankshaft pulley, the bolt and the accessories belt.

Parts required:

- 1 Spacer, PAS pulley/hub
Part No.: 77 00 113 788.
- 1 Lower timing gear cowl
Part No.: 77 00 101 010.
- 1 Crankshaft pulley
Part No.: 77 00 109 260.
- 1 Bolt for crankshaft pulley
Part No.: 77 00 739 905.
- 1 Accessories belt
Part No.: 77 00 868 878.
- 1 Timing belt
Part No.: 77 00 725 577.
- 1 Timing gear
Part No.: 77 00 718 503.

Values for belt tension:

- Accessories belt fitting tension:
107 US
- Timing belt fitting tension:
25 US min. 22 US
- Tightening, crankshaft pulley bolt:
2 daN \pm 115°

NOTE: It is not necessary to carry out the PAS pump and timing/gear crankshaft pulley operations unless the vehicle displays both incidents.

- A Approx. 4 mm
- B Equal to 0 mm

OPERATION C

F3P VERSION, AC/PAS
WITH intermediate shaft

Vehicles concerned:

- November 1996 to February 1998.

Customer complaint:

- Screeching/whistling noises which start when the PAS pump is put under load.

Description of the operation:

- Replace the crankshaft pulley, the crankshaft bolt and the accessories belt.

Parts required:

- 1 Lower timing gear cowl
Part No.: 77 00 101 010.
- 1 Crankshaft pulley
Part No.: 77 00 109 260.
- 1 Bolt for crankshaft pulley
Part No.: 77 00 739 905.
- 1 Accessories belt
Part No.: 77 00 857 070.

Values for belt tension:

- Accessories belt fitting tension:
109 US (Mot. 1273)
- Tightening, crankshaft pulley bolt:
2 daN \pm 115°

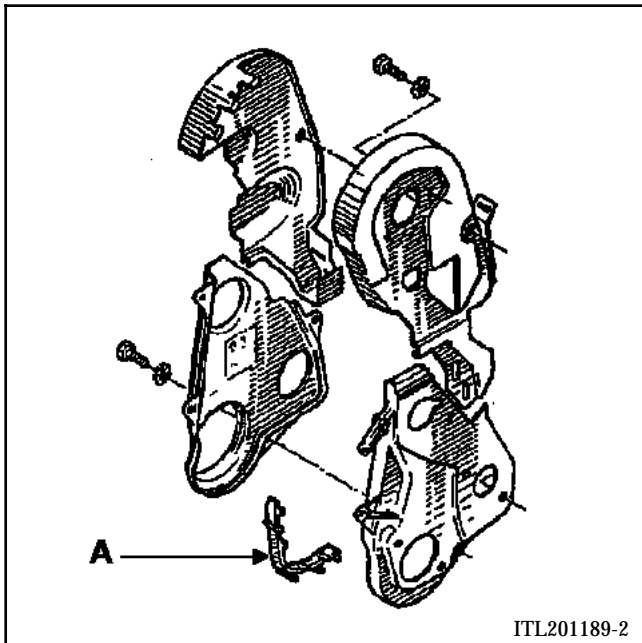


Fig. 2

- A Part to be scrapped to fit the crankshaft pulley

OPERATION D

F3P VERSION, AC/PAS
WITHOUT intermediate shaft

Vehicles concerned:

- May 1997 to February 1998.

Customer complaint:

- Screeching/whistling noises when cold and hot with buckled appearance of the crankshaft pulley.

Description of the operation:

- Replace the timing gear, the timing belt and the crankshaft pulley.
- Replace the crankshaft pulley bolt and the accessories belt.

Parts required:

- 1 Lower timing gear cowl
Part No.: 77 00 101 010.
- 1 Crankshaft pulley
Part No.: 77 00 109 260.
- 1 Bolt for crankshaft pulley
Part No.: 77 00 739 905.
- 1 Accessories belt
Part No.: 77 00 857 070.
- 1 Timing belt
Part No.: 77 00 725 577.
- 1 Timing gear
Part No.: 77 00 718 503.

Values for belt tension:

- Accessories belt fitting tension:
107 US (Mot. 1273)
- Timing belt fitting tension:
25 US min. 22 US
- Tightening, crankshaft pulley bolt:
2 daN \pm 115°

OPERATION E

F3R VERSION, PAS WITH intermediate shaft

Vehicles concerned:

- November 1996 to February 1998.

Customer complaint:

- Screeching/whistling noises which start when the PAS pump is put under load.
- PAS pump hub offset of **3.45 mm** towards the engine.

Description of the operation:

- Fit a spacer between the hub and the PAS pulley (alignment to be checked **before** work is carried out). **(Figure 3)**
- Replace the accessories belt.

Parts required:

- 1 Spacer, PAS pulley/hub
Part No.: **77 00 113 788.**
- 1 Accessories belt
Part No.: **77 00 868 878.**

Values for belt tension:

- Accessories belt fitting tension:
107 US (Mot. 1273)

Checking the PAS pump hub position (PAS version only)

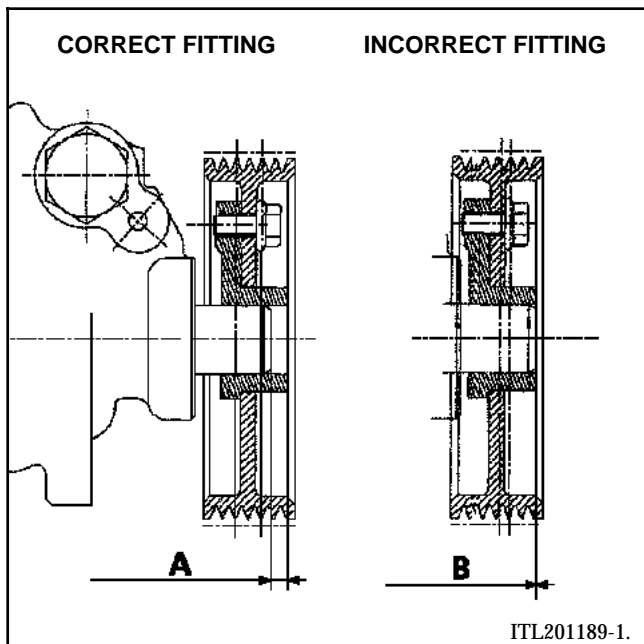


Fig. 3

- A Approx. 4 mm
- B Equal to 0 mm

OPERATION F

F3R VERSION, PAS WITHOUT intermediate shaft

Vehicles concerned :

- May 1997 to February 1998.

Customer complaint:

- Screeching/whistling noises when cold which start when the PAS pump is put under load.
- PAS pump hub offset of **3.45 mm** towards the engine.

Description of the operation :

- Fit a spacer between the hub and the PAS pulley (alignment to be checked **before** work is carried out). **(Figure 3)**
- Replace the accessories belt.

Parts required:

- 1 Spacer, PAS pulley/hub
Part No.: **77 00 113 788.**
- 1 Accessories belt
Part No.: **77 00 868 878.**

Values for belt tension:

- Accessories belt fitting tension:
107 US

NOTE: Carry out **OPERATION H** if crankshaft pulley is buckled in appearance.

OPERATION G

F3R VERSION, AC/PAS
WITH intermediate shaft

Vehicles concerned:

- November 1996 to February 1998.

Customer complaint:

- Screeching/whistling noises which start when the PAS pump is put under load.

Description of the operation:

- Replace the accessories belt.

Part required:

- 1 Accessories belt Part No.: 77 00 857 070.

Value for belt tension:

- Accessories belt fitting tension:
109 US (Mot. 1273)

OPERATION H

F3R VERSION, AC/PAS
WITHOUT intermediate shaft

Vehicles concerned:

- May 1997 to February 1998.

Customer complaint:

- Screeching/whistling noises when cold and hot, with buckled appearance of the crankshaft pulley.

Description of the operation:

- Replace the timing gear and belt.
- Replace the crankshaft pulley bolt and the accessories belt.

Parts required:

- 1 Accessories belt Part No.: 77 00 857 070.
- 1 Timing belt Part No.: 77 00 857 325.
- 1 Timing gear Part No.: 77 00 718 503.
- 1 Bolt for crankshaft pulley
Part No.: 77 00 739 905.

Values for belt tension:

- Accessories belt fitting tension:
107 US (Mot. 1273)
- Timing belt fitting tension:
29 US min. 25 US