



Techni
ENGINEERING SOLUTIONS

VAUXHALL / OPEL, RENAULT , NISSAN
MOVANO, MASTER, NV400
RWD / PROPULSION - 2.3 CDTI / DCI

CODE / CODICE: 0500.7652

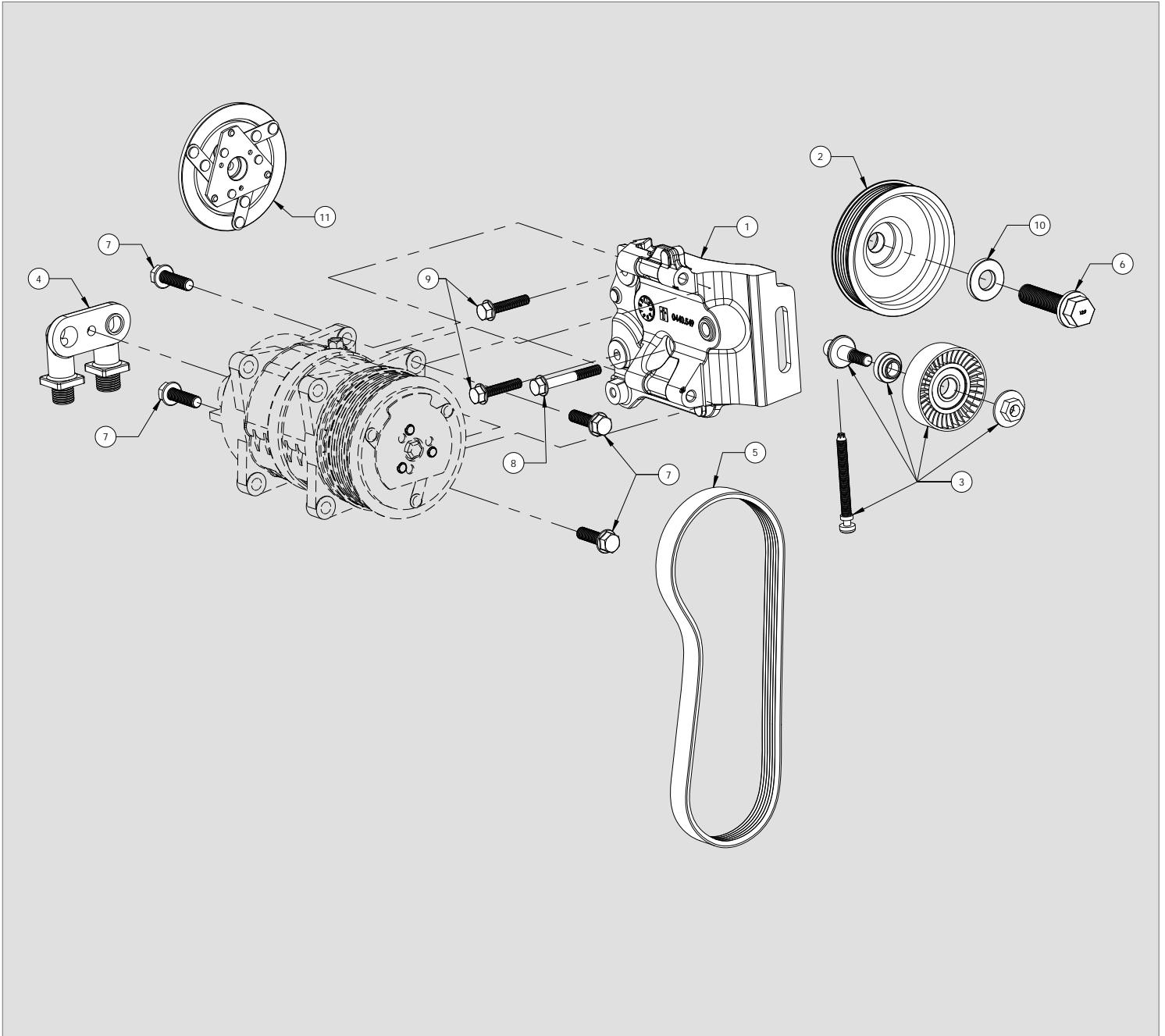
COMPRESSOR / COMPRESSEUR / KOMPRES-
SOR / COMPRESSORE / COMPRESOR :
SELTEC TM-13 HS / TM-15 HS / TM-16 HS
QUE QP-13 HD / QP-15 HD / QP-16 HD

FITTING INSTRUCTIONS
EINBAUANLEITUNGEN
INSTRUCTIONS POUR LE MONTAGE
ISTRUZIONI DI MONTAGGIO
INSTRUCCIONES DE MONTAJE

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PARTS VIEW / VUE ÉCLATÉE / TEILEANSICHT / VISTA PARTA / IMÁGENES DE LAS PIEZAS



PARTS LIST / NOMENCLATURE / TEILELISTE / ELENCO DELLE PARTI / LISTA DE PIEZAS

ITEM	CODE / CODICE / KODE / CODIGO	DESCRIPTION / DESCRIZIONE / BESCHREIBUNG / DESCRIPCION	QTY.	COMMENTS
1	0441.5491	Compressor Mount Bracket Assembly	1	
2	1701.5251	Crank Pulley 143mm	1	
3	1705.5022	Belt Tensioner Assembly	1	
4	0425.0251	Manifold Inverted - 3/4 x 7/8 Insert O-Ring	1	
5	0820.7361	Belt - Poly Groove 5PK 925	1	
6	2711.0031	Hex Flange Screw M16x64:1.5 - 12.9	1	
7	2705.0241	Hex flange bolt Durlok - M10 x 35 : 1.50 - 12.9	4	
8	2704.1011	Hex flange bolt - M8 x 60 : 1.25 - 10.9	1	
9	2704.0201	Hex flange bolt Durlok - M8 x 40 : 1.25 - 12.9	2	
10	2803.5661	Crank Washer	1	
11	0421.0011	Clutch Armature SL - Seltec/QUE 13/15/16	1	

**COMPATIBLE COMPRESSORS / COMPRESSEURS RECOMMANDÉS / EMPFOHLENE KOMPRESSOREN
RACCOMANDATO COMPRESSORI / RECOMENDADAS COMPRESORES**

SELTEC	TM-13 HS	TM-15 HS	TM-16 HS
Comp No	0381.0152	0381.0802	0381.0752
Valeo No.	435-54320	435-55320	-
Mounting	Ear	Ear	Ear
Rotor	8PV	8PV	8PV
GL	46.55mm	46.55mm	46.55mm
Armature	SL	SL	SL
Diameter	123	123	123
Voltage	12	12	12
Orientation	V	V	V
Fitting	3/4 x 7/8	3/4 x 7/8	3/4 x 7/8
Manifold	Bolt	Bolt	Bolt

QUE	QP-13 HD	QP-15 HD	QP-16 HD
Comp No	0391.0152	0391.0802	0391.0752
Que No.	QP13-1150	QP15-1512	-
Mounting	Ear	Ear	Ear
Rotor	8PV	8PV	8PV
GL	46.55mm	46.55mm	46.55mm
Armature	SL	SL	SL
Diameter	123	123	123
Voltage	12	12	12
Orientation	V	V	V
Fitting	3/4 x 7/8	3/4 x 7/8	3/4 x 7/8
Manifold	Bolt	Bolt	Bolt

DELPHI	-	-	-
Comp No.	-	-	-
Delphi No.	-	-	-
Mounting	-	-	-
Rotor	-	-	-
GL	-	-	-
Armature	-	-	-
Diameter	-	-	-
Voltage	-	-	-
Orientation	-	-	-
Fitting	-	-	-

SANDEN	-	-	-
Comp No	-	-	-
Sanden No.	-	-	-
Mounting	-	-	-
Rotor	-	-	-
GL	-	-	-
Armature	-	-	-
Diameter	-	-	-
Voltage	-	-	-
Orientation	-	-	-
Fitting	-	-	-

STANDARD FASTENER TORQUE VALUES

In the absence of specific torque values detailed in this fitting instruction manual, the following chart can be used as a guide to the maximum safe torque for specific size and grade of fastener.

COUPLES DE SERRAGE DES FIXATIONS STANDARDS

Si des chiffres de serrage au couple particuliers ne sont pas indiqués dans cette notice de montage, se référer au tableau suivant qui servira de guide pour le couple de sécurité maximum correspondant à une taille et un grade spécifiques de fixation.

ANZIEHMOMENTE FÜR STANDARDBEFESTIGUNGSMITTEL

Falls in dieser Einbauanleitung keine speziellen Anziehmomente angegeben sind, kann die folgende Tabelle als Richtlinie für das maximale sichere Anziehmoment für eine spezifische Größe oder Qualität von Befestigungsmitteln dienen.

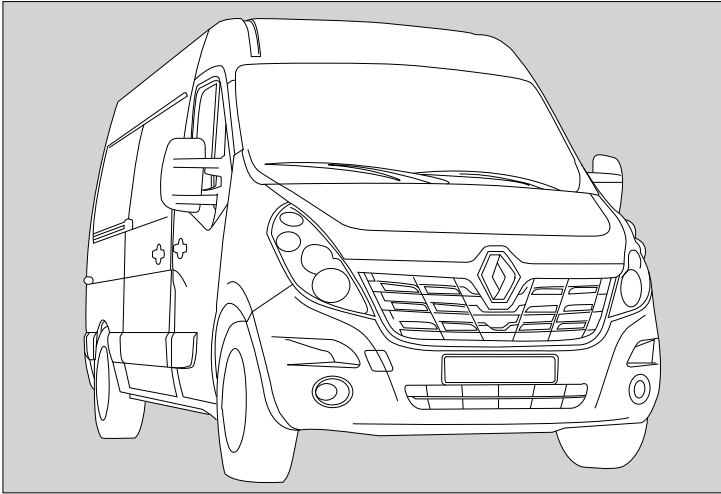
VALORI STANDARD DI SERRAGGIO PER DISPOSITIVI DI FISSAGGIO

In assenza di valori specifici di coppia nel presente manuale di istruzioni, si può utilizzare la seguente tabella come guida per conoscere la coppia massima sicura in base a dimensioni e grado del dispositivo di fissaggio.

VALORES ESTÁNDAR DE LOS PARES DE APRIETE Y FIJACIÓN

En ausencia de valores para los pares de apriete específicos detallados en este manual de instrucciones de montaje, se puede utilizar la siguiente tabla como guía para consultar el máximo par de torsión seguro para un tamaño concreto y su grado de fijación.

STRENGTH	4.8		8.8		10.9		12.9	
	Max Torque		Max Torque		Max Torque		Max Torque	
Dia / Pitch	lb.ft	Nm	lb.ft	Nm	lb.ft	Nm	lb.ft	Nm
M5 x 0.80	2	3	4.5	6	6.5	9	7.5	10
M6 x 1.00	4	5.5	7.5	10	11	15	13	18
M8 x 1.25	10	13	18	25	26	35	33	45
M10 x 1.25	20	27	39	53	57	78	66	90
M10 x 1.50	18	25	37	50	55	73	63	86
M12 x 1.75	33	45	63	85	97	130	111	150
M14 x 2.00	55	75	103	140	151	205	177	240
M16 x 2.00	85	115	159	215	232	315	273	370



VEHICLE DETAILS

Manufacturer	Vauxhall / Opel, Renault , Nissan
Make	Movano, Master, NV400
Model	RWD / Propulsion - 2.3 CDTI / dCi
Engine CC	2299
Engine Details	Euro 5B+ / 6 - M9T 110/125/135/165
Year	2014>
Chassis Nos.	N/A
LHD	YES
RHD	YES
PAS	YES
A/C	YES / NO
Voltage	12v

KIT DETAILS

Kit Part Number	0500.7652
Description	Speed Reduction Kit
Compressor RPM	4200 @ Max engine power output
Fitting Time	60 Minutes
Suction Fitting	90°
Discharge Fitting	90°
Belt Type	5PK 925
Belt Part Number	0820.7361
Note	Not compatible with Tecshift / Quickshift / Automatic / Robotised Gearbox options. Vehicles with Start / Stop require the battery interface option CABADP / KPD

FOREWORD

The purpose of this manual is to facilitate the installation of a direct drive compressor. The information given is merely instructive, should any complications arise contact the Technical department. The manufacturer's warranty does not cover any problems caused by defective installation or alterations made unless authorised. The manufacturer shall not be responsible for any injury, damage or loss caused directly or indirectly as a result of using this manual or the information contained within it.

1 SAFETY MEASURES:

Before fitting the Compressor adapter drive kit, ensure the following for damage:

- a Inner and outer trim and body work
- b Engine idle pace
- c Check all the vehicle functions

Check list:

- a Ensure that the right kit has been selected
- b Before installing, check that all the correct pieces are present; also ensure that there are no missing or broken pieces
- c When fitting, make sure the vehicle is properly protected against damage.

Installation apparatus

- a Calibrated torque wrench
- b Hand service tools
- c Protective covers and shields

2 PRECAUTIONS

- a Detach the battery negative lead.
- b Torque all bolts where stated using a calibrated torque wrench.
- c Take extreme care with moving parts.
- d Remove the vehicle's ignition key and keep it with you.
- e Wear safeguards and make sure that liquid refrigerant never touches your skin

Caution: Measures must be followed accurately to steer clear of the possibility of damage to individuals

Warning: This calls awareness to actions which must be pursued to avoid damage to the components.

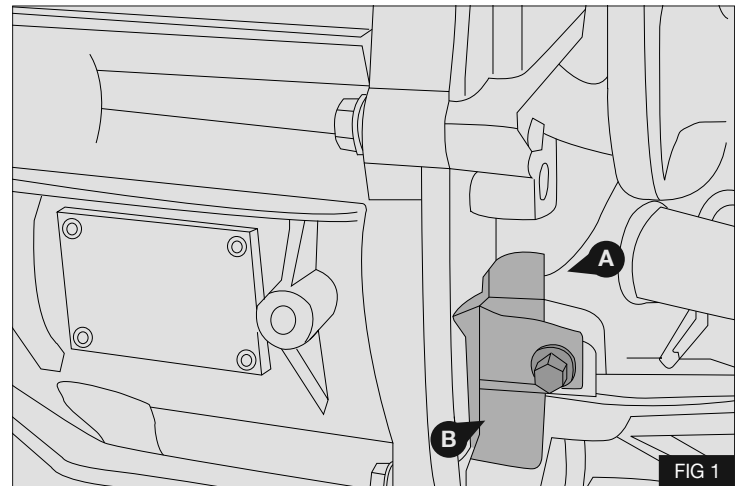
NB: This calls awareness to make the job easier or gives useful information.

PRE-INSTALLATION

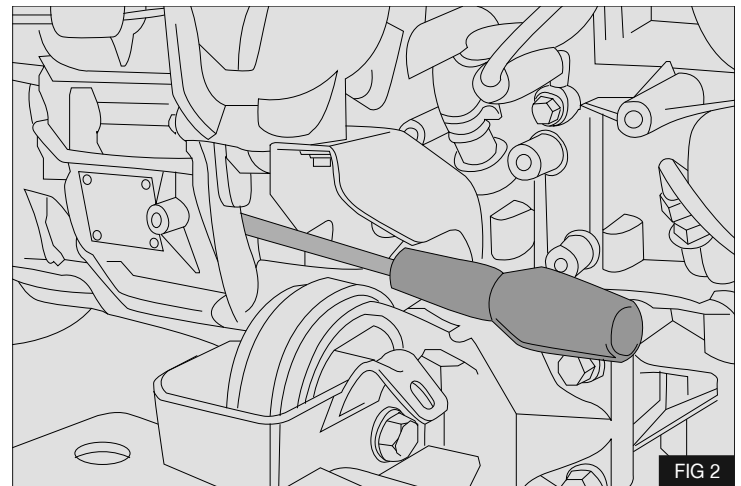
N.B Prior to commencing work, please examine the instructions with care. The alphabetical symbols on the diagram relate to written instructions, numerical symbols relate to the parts listing.

INSTALLATION

1. Mark the direction of rotation of the original drive belt. Remove and retain the drive belt.
2. Remove the viscous fan.
3. Remove and retain the M6 bolt (A) and the flywheel protection plate (B) – Fig 1

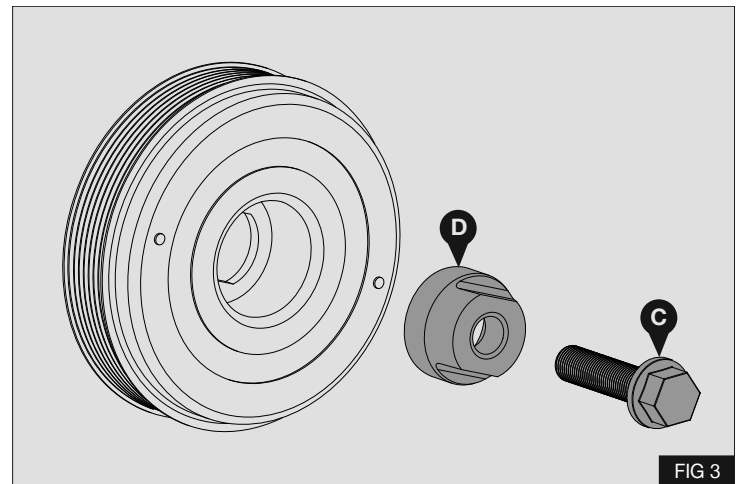


4. Lock the flywheel with a large screwdriver – Fig 2



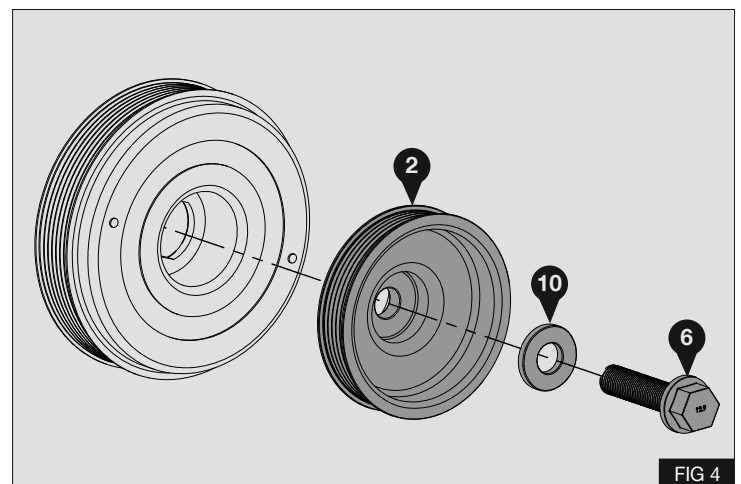
Note: If the vehicle is already fitted with a secondary crankshaft pulley this will need to be removed and discarded. It is not compatible with this mount kit.

5. Remove and discard the original crankshaft pulley bolt (C) and spacer washer (D) - Fig 3

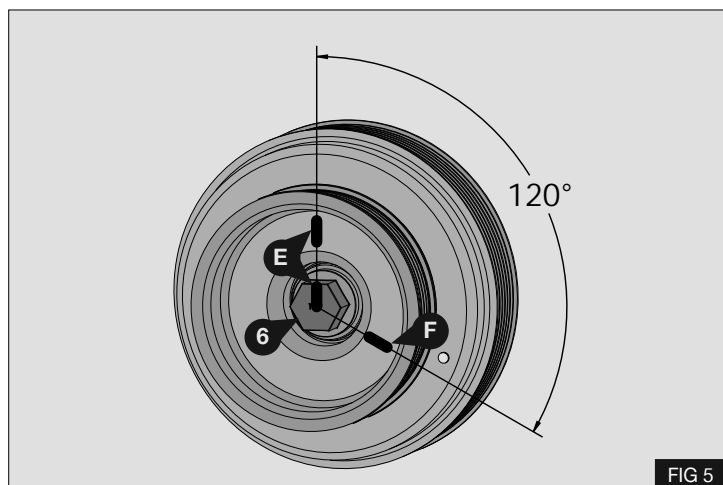


6. Fit the supplied crankshaft pulley (2) with washer (10) and bolt (6) – Fig 4

Caution: The correct torque tightening procedure for the crankshaft pulley detailed in the following text must be followed in order to avoid serious engine damage

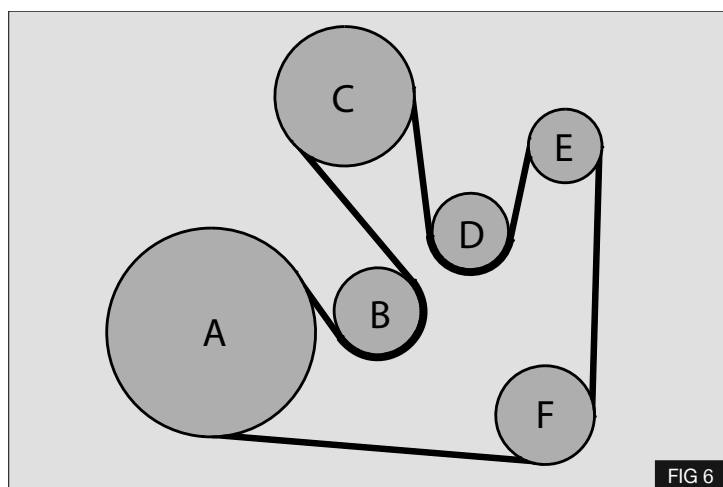


7. Tighten the crankshaft pulley bolt (6) to 50 Nm
8. Make two marks (E) that are in line
9. Make another mark (F) at 120 degrees clockwise
10. Tighten bolt (6) another 120 degrees - Fig 5
11. Refit the flywheel protection plate (B) and the M6 bolt (A)



12. Refit the original drive belt as shown opposite – Fig 6

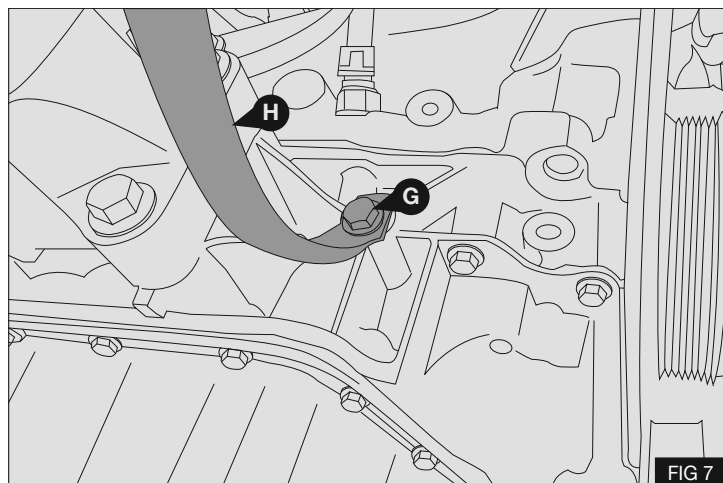
- A – Crankshaft Pulley
- B – Idle Pulley
- C – Fan Pulley
- D – Idle Pulley
- E – Alternator
- F – AC compressor / Idle Pulley



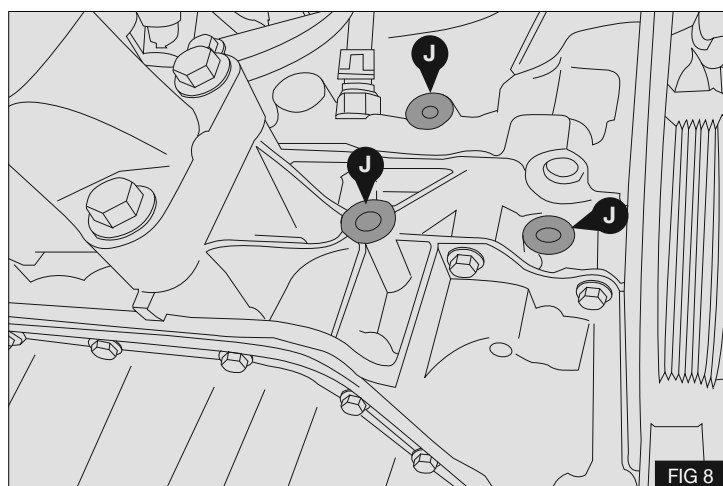
13. Refit the Viscous Fan

MOUNT BRACKET INSTALLATION

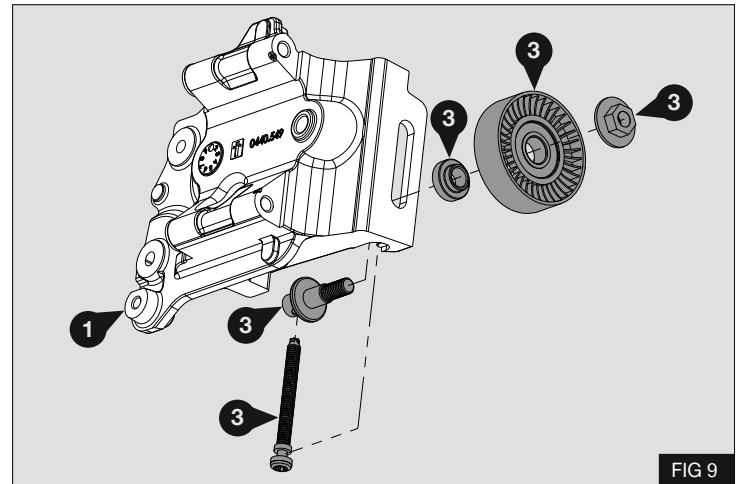
1. Remove and retain the M8 bolt (G) securing the engine earth (H) - Fig 7



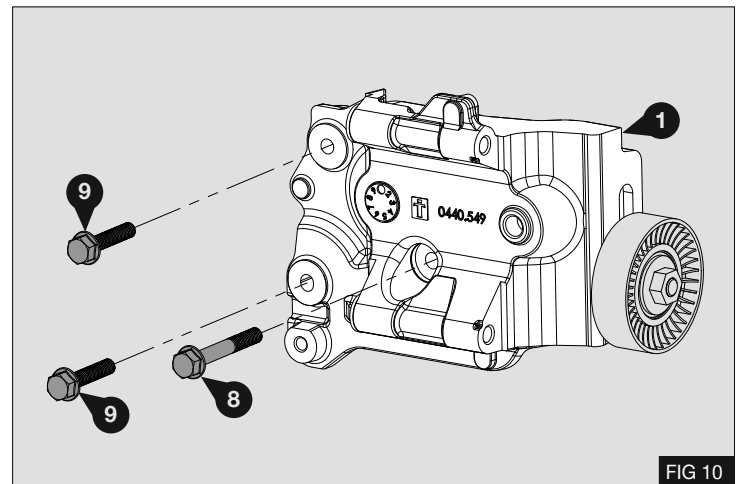
2. Locate the 3x holes (J) used to secure the mount bracket – Fig 8



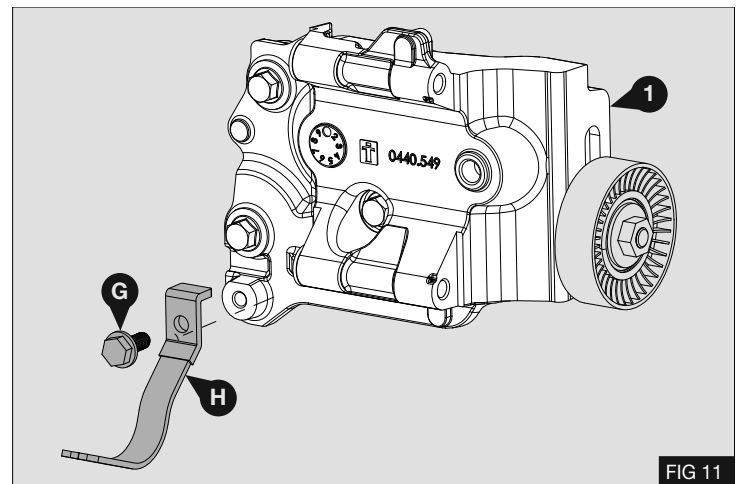
3. Install the tensioner assembly (3) as shown opposite to the mount bracket (1) – Fig 9



4. Secure the mount bracket (1) to the engine block using bolts (8) and (9) – Fig 10
5. Torque M8x60 bolt (8) to 28 Nm / 20 lb-ft, Torque M8x40 bolts (9) to 44 Nm / 32 lb-ft

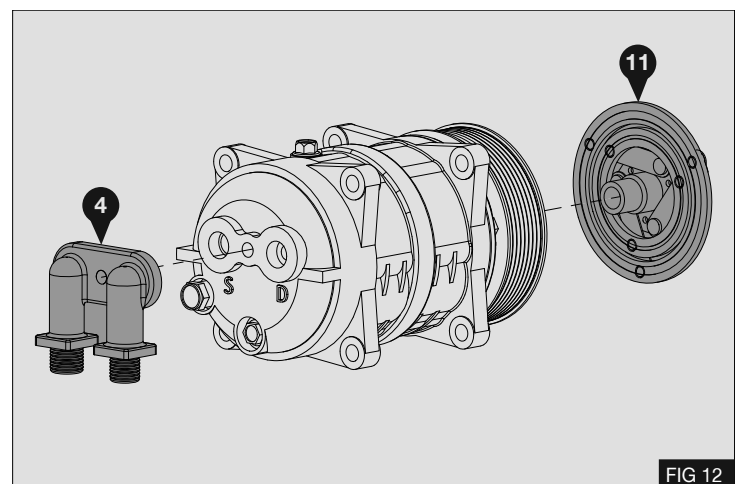


6. Install the previously removed earth strap (H) and bolt (G) to the mount bracket (1) – Fig 11



COMPRESSOR INSTALLATION

1. Fit the supplied manifold (4) to the compressor - Fig 12
2. If the compressor is already not equipped with a leaf spring armature (11) fit the one supplied in the kit following the procedure recommended by the compressor manufacturer - Fig 12



3. Install the compressor to the mount bracket (1) using the 4x supplied bolts (7) - Fig 13

Important: Follow the tighten procedure below for bolts (7)

4. Torque the 2x front bolts (7) to 63 Nm / 46 lb-ft
5. Tighten the 2x rear bolts (7) until the sliding bushes in bracket (1) contact the rear compressor ears. Then torque the 2x rear bolts (7) to 63 Nm / 46 lb-ft

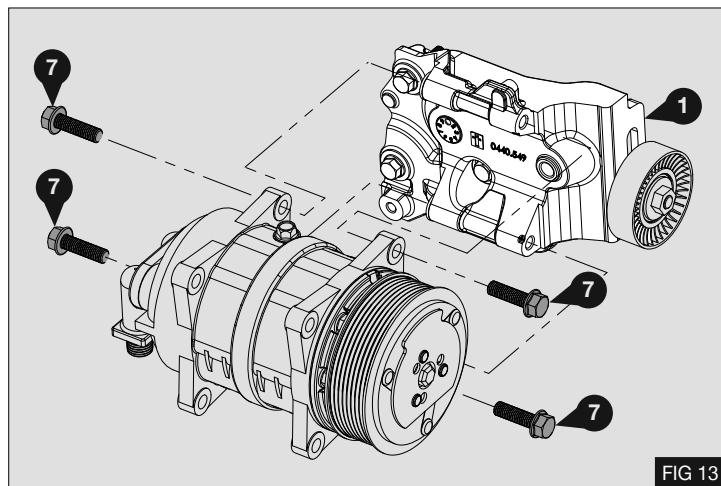


FIG 13

DRIVE BELT

1. Install the supplied drive belt (5) as shown opposite - Fig 14

- A – Crankshaft Pulley
- B – Idle Pulley
- C – Compressor

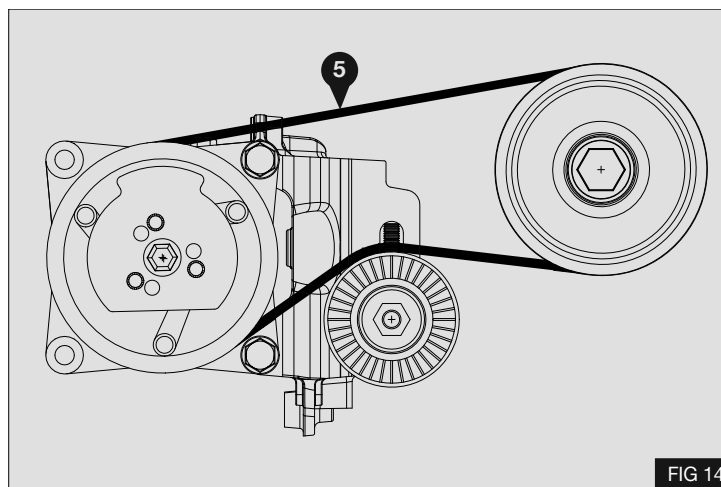


FIG 14

2. Place the belt in the correct groove of the compressor - Fig 15
3. Valeo / QUE / Sanden (1) compressors - Belt is installed in the grooves at the front of the compressor pulley - Fig 15

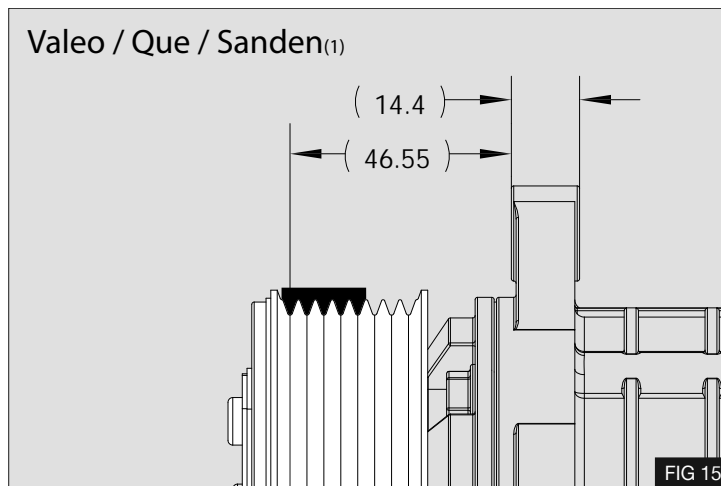


FIG 15

(1)Model specific

4. Tension the drive belt (5) using a T-40 Torx on the adjuster bolt (K) When the correct tension (new belt level) has been achieved (see table). Torque tensioner lock nut (L) to 25Nm / 18lb. ft. using a calibrated torque wrench - Fig 16

Note: A new drive belt must be tensioned to the “new belt level” in order to mesh correctly into the pulley grooves. The belt tension will then fall after a running in period.

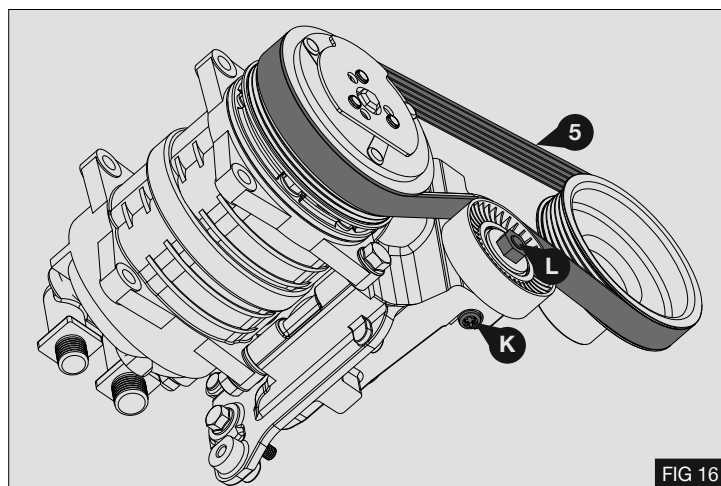


FIG 16

BELT TENSION TABLE

Belt	Belt Age	Belt Tension Using the Belt Tension Gauge
5 PK	New Belt	60 - 72 kg
5 PK	Used Belt / Re-Tension	45 - 50 kg

ELECTRICAL INTERFACE



1. Vehicles fitted with Stop / Start technology must have the fast idle activated when combined with this compressor mount kit.
2. Full details of how to complete this operation are contained within the Renault / Vauxhall / GM conversion guidelines for this vehicle in the following locations :-

Renault - 4.11 "CABADP" option / fast idle "RALENT" option

Vauxhall – 4.11 wiring loom for conversions option "KPD" / fast idle option "UF3"

3. The fast idle is activated by connecting pin 1 of the 6 way connector to earth – Fig 17
4. Location of the 6 way connector - The connector is located on the left-hand side of the dashboard, near to the panel feed-through ring, the passenger compartment fuse and relay box and the bonnet opening lever. It is secured on the dashboard wiring by a tie. Extra length is provided for the connection. The connector is in the same position for both left-hand and right-hand drive vehicles.
5. Manufacturers recommend that this connection is activated whenever the refrigeration / additional AC system is active
6. Manufacturers also provide a +12v battery power supply for use with auxiliary component wiring. This is a 2 way connector located behind the B-pillar trim.

Note: This power supply is connected directly to the battery (via fuse F6) and is therefore not protected by the energy management system. Therefore there is a risk of battery discharge.

POST INSTALLATION

1. Run the engine with compressor engaged for five minutes. Check all components.
2. Check the belt tension when the belt is hot. It is important that the belt is allowed to cool before re-tensioning. **Always re-tension new belts if the tension is less than the used belt amount.** Install the supplied belt label in the engine bay.

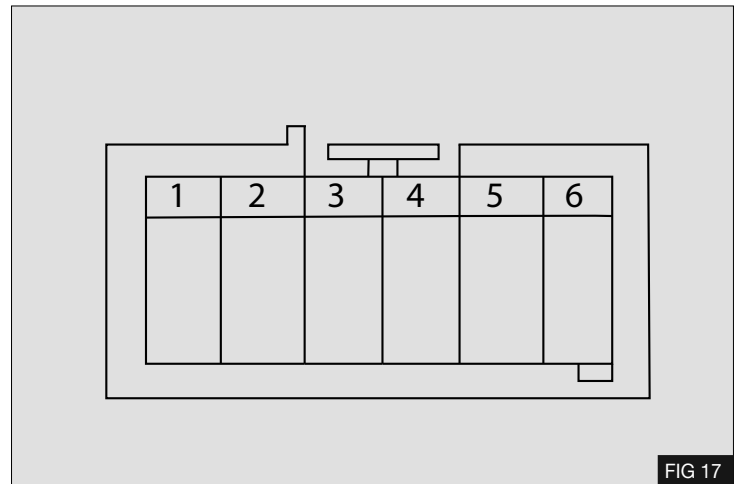


FIG 17

6 Way connector

Ways	Connections	Allocation	
1	3ADJ	Accelerated idle control (wire cross-section 0.5mm ²)	
2	BMT1	'Engine running' Information	Shared 10A Fuse (wire cross-section 1mm ²)
3	SBP4	+ 12V Load shedding current distribution power supply	
4	MAN32	Earth (wire cross-section 1.5mm ²)	
5		Reserve	
6		Reserve	

2 Way connector

Ways	Connections	Allocation
1	BP23	+12V Direct battery power supply for maximum consumption of a 40A (wire cross-section 7mm ²) 50A fuse F6 protection
2	MAN32	Ground (wire cross-section 7mm ²) large enough to adapt to the battery +12V current

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