



Techni
ENGINEERING SOLUTIONS

MERCEDES BENZ

SPRINTER

**210 CDI / 214 CDI / 310 CDI / 314 CDI / 510 CDI / 213 CDI / 313 CDI /
413 CDI / 513 CDI / 216 CDI / 316 CDI / 416 CDI / 514 CDI / 516 CDI
BLUETEC E6**

CODE / CODICE: 0500.7842

**COMPRESSOR / COMPRESSEUR / KOMPRESSOR
/ COMPRESSORE / COMPRESOR :**

SELTEC: TM13 / 15 / 16

QUE: QP13 / 15 / 16

FITTING INSTRUCTIONS

EINBAUANLEITUNGEN

INSTRUCTIONS POUR LE MONTAGE

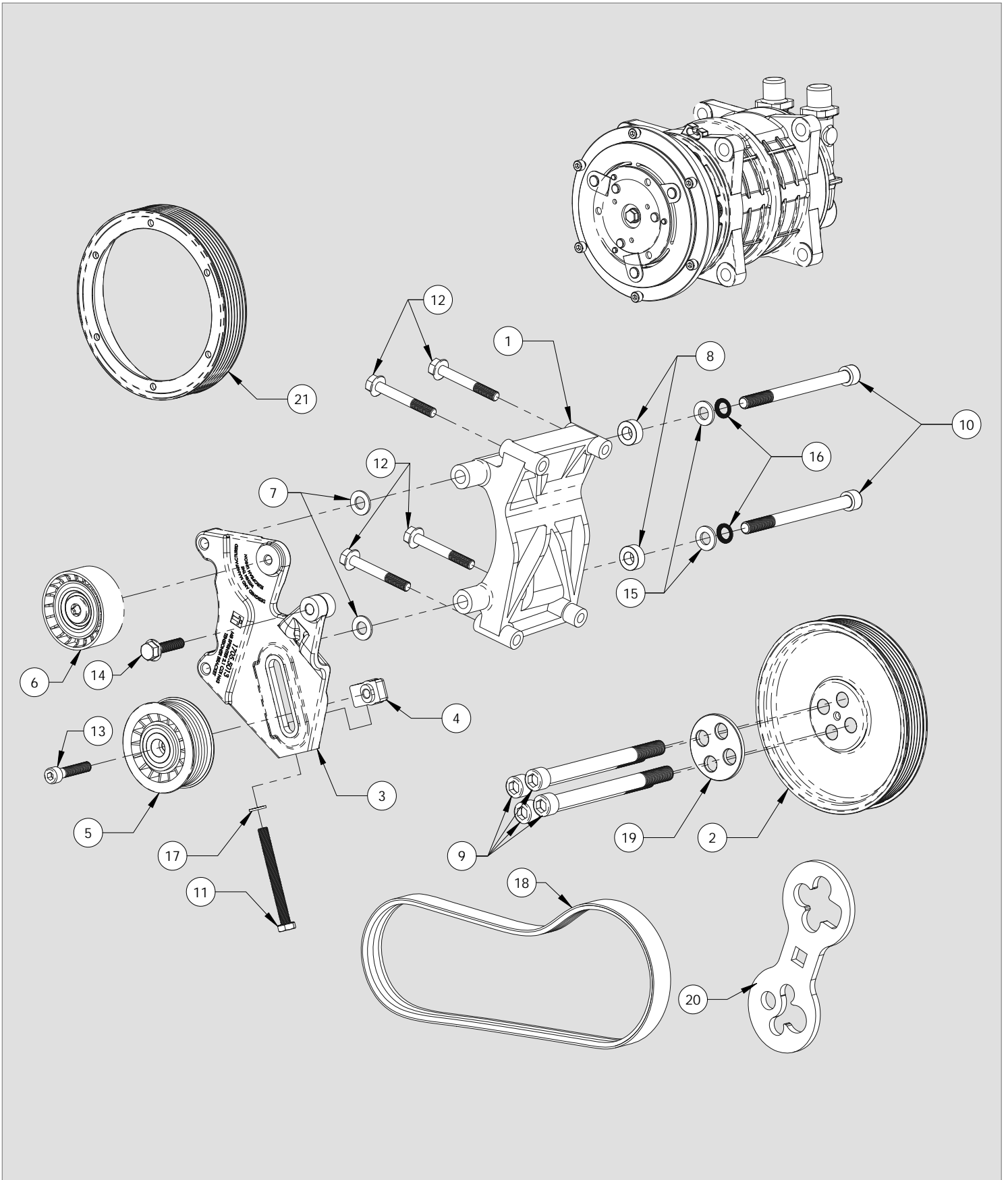
ISTRUZIONI DI MONTAGGIO

INSTRUCCIONES DE MONTAJE

Contents

ENGLISH	4
Parts View.....	4
Parts List	5
Compressor Configurations	6
Standard Fastener Torque Values	6
Kit Details	7
Vehicle Details	7
Forward	7
Pre Installation.....	8
Mount Bracket Installation	9
Compressor Installation.....	9
Idle Bracket Installation	10
Drive Belt Installation	10
Post Installation.....	11

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	0440.3161	Mount Bracket	1	
2	1701.5441	Crankshaft Pulley 6PK Dia 156	1	
3	1705.5013	Idle Pulley Bracket	1	
4	1703.5003	Idle Pulley Adjuster	1	
5	1700.5021	Idle Pulley 6PK x 75 Dia	1	
6	1700.0641	Idle Pulley 75Dia x 32	1	
7	2803.9023	Shim 20.00 OD x 10.50 ID x 1.60	2	
8	2803.9013	Spacer - 20.00 OD x 10.40 ID x 8.40	2	
9	2706.5091	Hex socket head cap screw M12 x 150 : 1.50 - 12.9	4	
10	2705.0301	Hex socket head cap screw M10 x 130 : 1.50 - 12.9	2	
11	2719.0081	Hex Set Screw - M8 X 80 : 1.25 - 8.8	1	
12	2704.1011	Hex flange bolt - M8 x 60 : 1.25 - 10.9	4	
13	2704.0021	Hex socket head cap screw M8 x 40 : 1.25 - 12.9	1	
14	2704.0481	Hex flange bolt Durlok - M8 x 35 : 1.25 - 12.9	1	
15	2809.0011	Washer M10 Flat DIN 125 - A 10.5	2	
16	2809.0101	M10 Schnorr safety washer type 'S'	2	
17	2808.0031	Spring washer M8 x 1.6 - ID 8.3 OD 14.0	1	
18	0820.5071	Belt - Poly Groove 6PK 1320	1	
19	2809.0041	Crank Pulley Washer 55Dia L4	1	
20	2510.5081	Mercedes OM651 Locking Tool	1	
21	0411.5033	Clutch Rotor - PV7 156 Dia - Seltec / QUE	1	

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

SELTEC	TM-13 HS	TM15-HS	TM16-HS
Comp No	0381.0492	0381.0092	0381.0292
Valeo No.	-	488-45063	488-46063
Mounting	Ear	Ear	Ear
Rotor	1A	1A	1A
GL	-	-	-
Armature	SL	SL	SL
Diameter	126	126	126
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	QP13-HD	QP15-HD	QP16-HD
Comp No	0391.0492	0391.0092	0391.0292
Que No.	-	QP15-1166	-
Mounting	Ear	Ear	Ear
Rotor	1A	1A	1A
GL	-	-	-
Armature	SL	SL	SL
Diameter	126	126	126
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

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

NOTES

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.

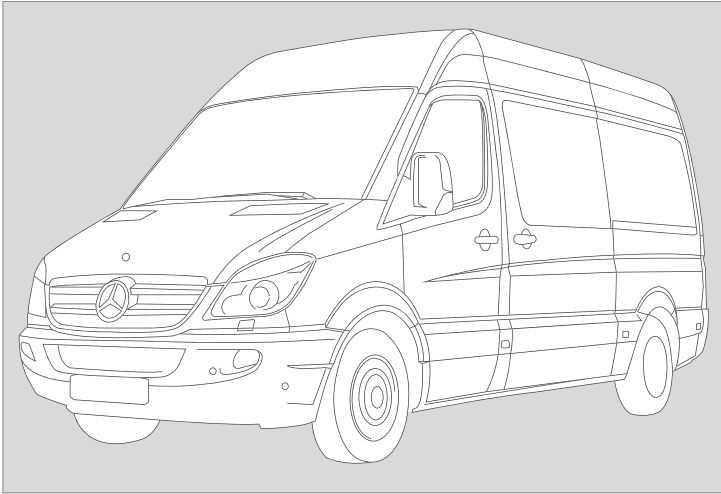
VALORI STANDARD DI SERRAGGIO PER DISPOSITIVI DI FISSAGGIO

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								
	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	Mercedes Benz
Make	Sprinter
Model	210 CDi / 214 CDi / 310 CDi / 314 CDi / 510 CDi / 213 Cdi / 313 Cdi / 413 Cdi / 513 Cdi / 216 Cdi / 316 Cdi / 416 Cdi / 514 CDi / 516 Cdi BLUETEC E6
Engine CC	2148 cc
Engine Details	OM 651 Euro 5 / EEV / Euro 6
Year	06.2013> (XM0 code facelift)
Chassis Nos.	N/A
LHD	YES
RHD	YES
PAS	YES
A/C	YES / NO
Voltage	12v

KIT DETAILS

Kit Part Number	0500.7842
Description	Speed Reduction Kit
Compressor RPM	3396 @ Max engine power output
Fitting Time	120 Minutes
Suction Fitting	90°
Discharge Fitting	90°
Belt Type	6PK 1320
Belt Part Number	0820.5071

Note: Vehicles with Stop / Start system (MJ8) require the Mercedes PSM option (ED5). This will allow system deactivation as and when required with PSM parameterization (setting the "blue light bit"). Additional information on this function is available on the Mercedes Bodybuilder Portal

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

Note: Before proceeding please read the installation precautions. The letters on drawings relate to text, numbers circled relate to the parts list in this manual.

1. Remove the front grill (A) and bumper (B) from the vehicle - Fig 1
2. Disconnect the intercooler hoses (C) from the intercooler (D). Remove the two securing bolts (E) from the intercooler (D). Remove the intercooler (D) from the vehicle - Fig 2
3. Using a suitable tool rotate the automatic belt tensioner pulley (F) clockwise and insert a 4mm pin to lock the tensioner open. Remove and retain the original drive belt, note the direction of rotation and the routing of the original belt - Fig 3

Note: - Do not turn the engine counter clockwise during the crank bolt loosening / tightening procedure. Tool (20) has different profiles for loosening / tightening.

Caution: - This mount kit is only compatible with Mercedes crankshaft pulley **A6510351612**. If this part number is not installed please contact Techni.

4. Using the supplied tool (20) as a counter-hold loosen each of the original crankshaft pulley securing bolts (G) half a turn - Fig 4
5. Once all the bolts (G) have been loosened remove and discard the 4x bolts (G)

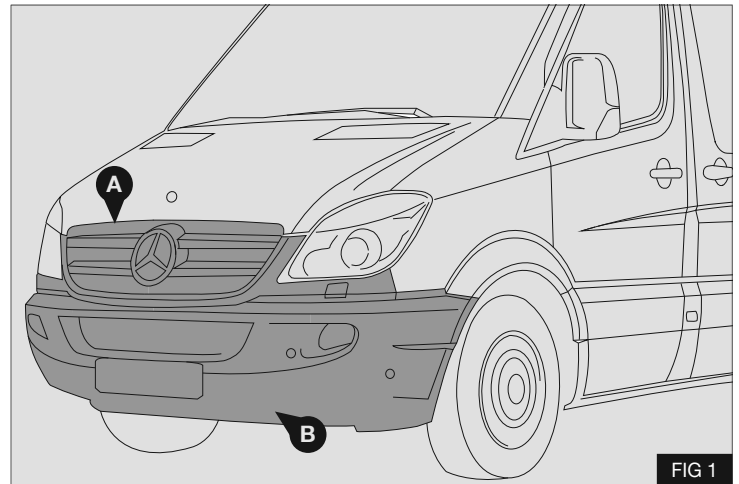


FIG 1

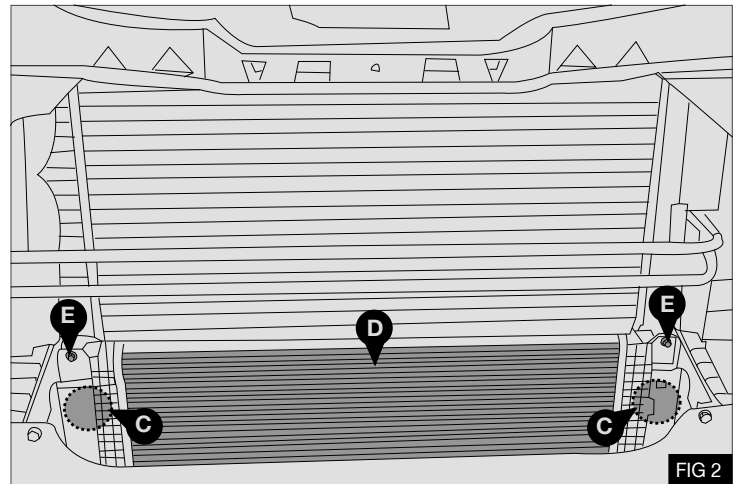


FIG 2

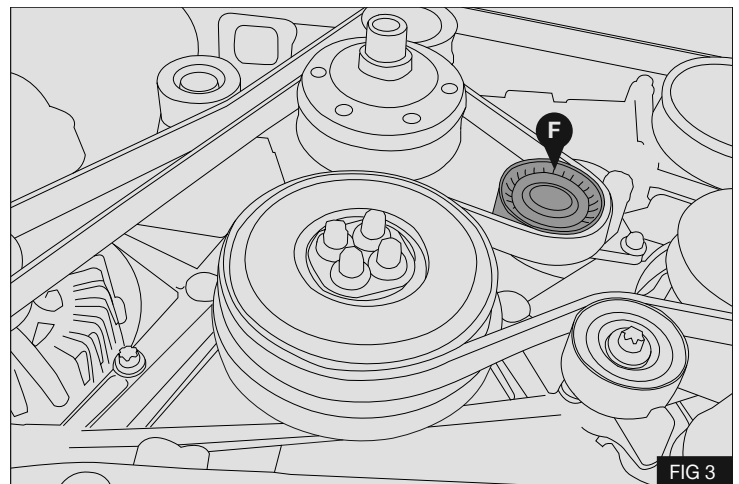


FIG 3

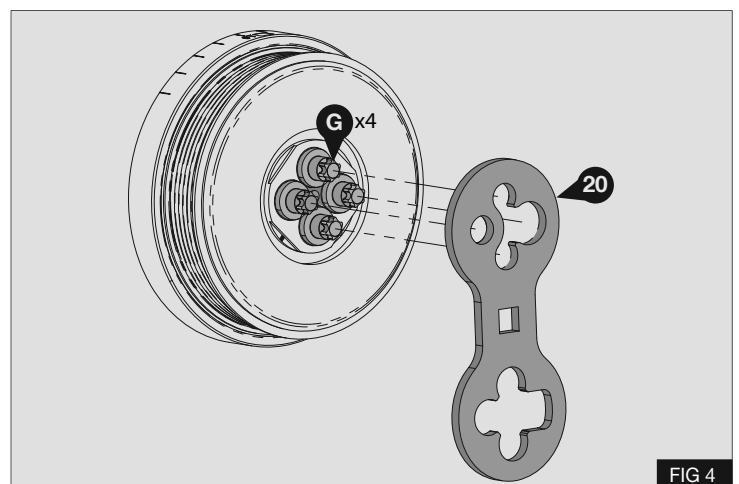


FIG 4

6. Fit the supplied crankshaft pulley (3) onto the existing crank pulley (H) using the supplied bolts (9) with crank washer (19) - Fig 5
7. Torque the M12x150 bolts (9) using the two stage procedure listed below. Use the correct end of tool (20) as a counter-hold.

Stage 1 - Torque all 4 bolts (9) to 80 Nm / 59 lb.ft

Stage 2 - Turn all 4 bolts (9) an extra 90°

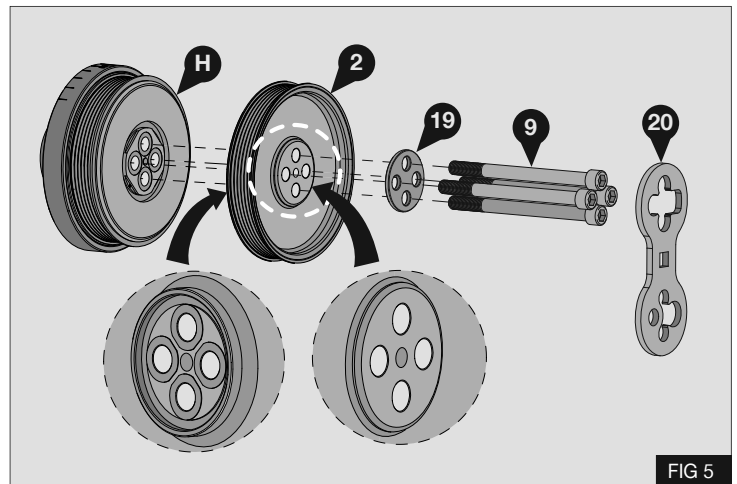


FIG 5

MOUNT BRACKET INSTALLATION

Note: Please refrain from using “Loctite” unless otherwise notified.

1. Install the mount bracket (1) to the engine using the supplied M8 x 60 bolts (12) - Fig 6
2. Torque bolts (12) to 25 Nm / 18.5 lb.ft using a calibrated torque wrench - Fig 6

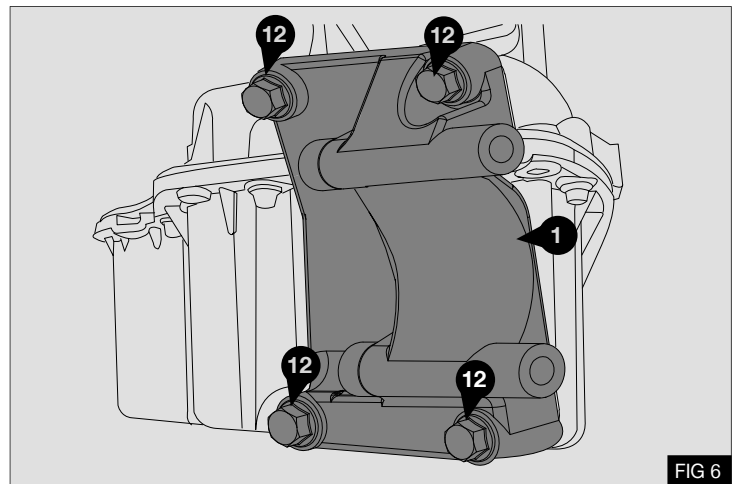


FIG 6

3. Using the supplied pulley (6) cut a thread into the hole in the sump in position shown - Fig 7

Note: The pulley bolt (6) has a Trilobular thread and will cut a thread as it is tightened. Take care to tighten the pulley squarely to the pulley mount face when starting the thread.

4. Remove the pulley (6).

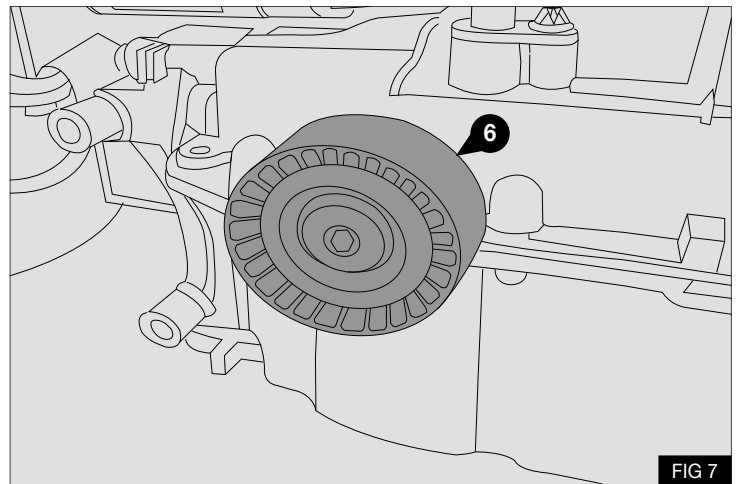


FIG 7

COMPRESSOR INSTALLATION

1. Mount a compatible compressor specified on page 6 to the mount bracket (1), using 2 x 8.5 MM Spacers (8) between the rear ears of the compressor and the back mounting face of the mount bracket (1), 2 x 1.6 MM Spacers (7) between the front ears of the compressor and the front mounting face of the mounting bracket (1), 2 x M10 x 130 bolts (10), 2 x flat washers (15) and 2 x Schnorr safety washers (16) - Fig 8

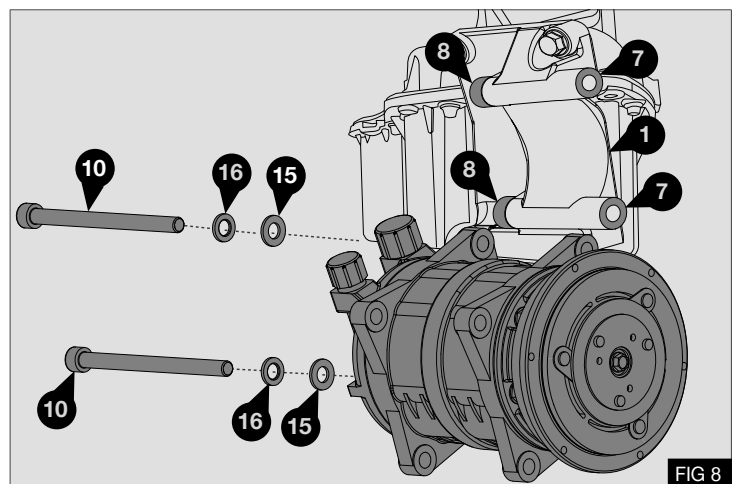


FIG 8

IDLE BRACKET INSTALLATION

1. Mount the idle pulley (6) previously removed onto the tensioner bracket (3) in the position shown - Fig 9
2. Torque the idle pulley securing bolt (6) to 25Nm / 18lbft using a calibrated torque wrench.
3. Mount the supplied idle pulley (5) on to the tensioner bracket (3) using bolt (13), draw bolt mounting block (4), washer (17) and M8 x 80 bolt (11) in the position shown. Leaving the idle pulley tensioner assembly loose - Fig 9

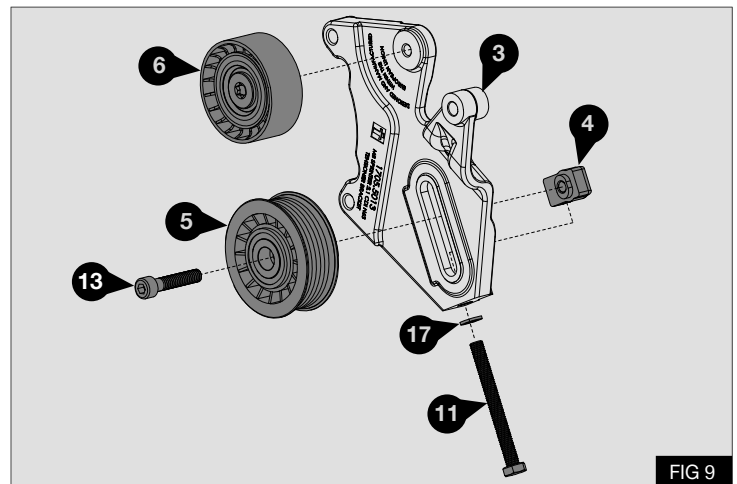


FIG 9

4. Mount the tensioner bracket assembly to the front compressor ears, using the 2 x M10 x 130 bolts (10) previously fitted - Fig 10
5. Secure the tensioner bracket assembly to the mounting point for the original idle pulley, using bolt (14) M8 x 35 - Fig 10

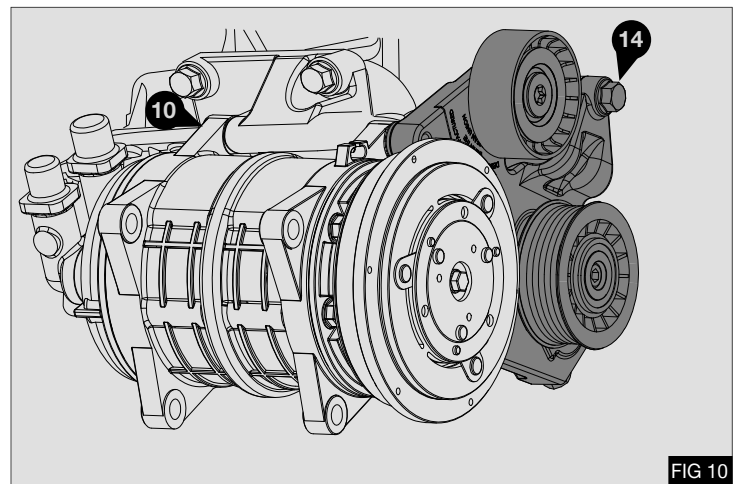


FIG 10

Torque 2x bolts (10) to 50Nm / 37lbft using a calibrated torque wrench.
 Torque bolt (14) to 25Nm / 18lbft using a calibrated torque wrench.

6. Secure the clutch rotor (21) to the compressor using 6 x M5 bolts (J) supplied with clutch - Fig 11

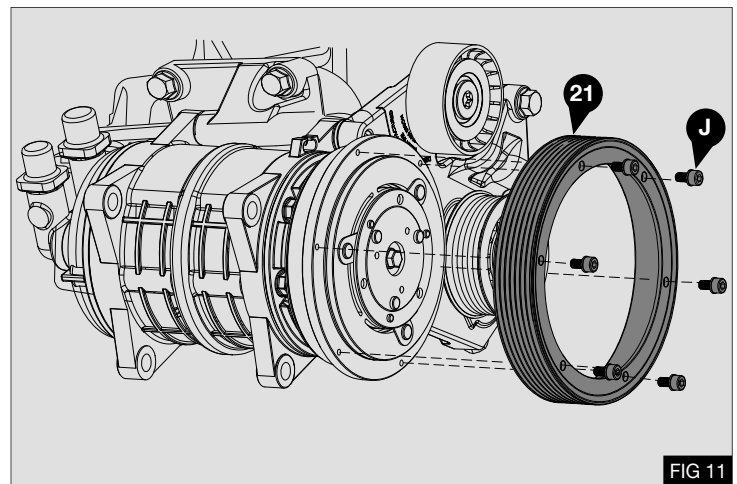


FIG 11

Torque M5 bolts (J) to 9Nm / 6.65lbft

NB: Please refrain from using "Loctite" unless otherwise notified

DRIVE BELT INSTALLATION

1. Re-fit the original drive belt (1) as shown - Fig 12
2. Fit supplied poly groove drive belt (18) - Fig 12

CP Crankshaft Pulley
TP Tensioner Pulley
IP Idle Pulley
RC Refrigeration Compressor

3. Tension the drive belt (18) using bolt (11) to the correct tension detailed in the belt tension table.
4. When correct tension has been achieved, tighten bolt (13)
5. Torque bolt (13) to 25Nm / 18lbft using a calibrated torque wrench.

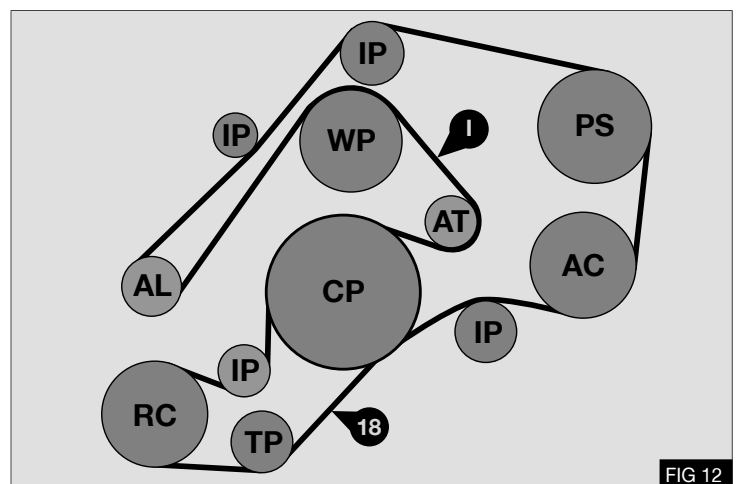
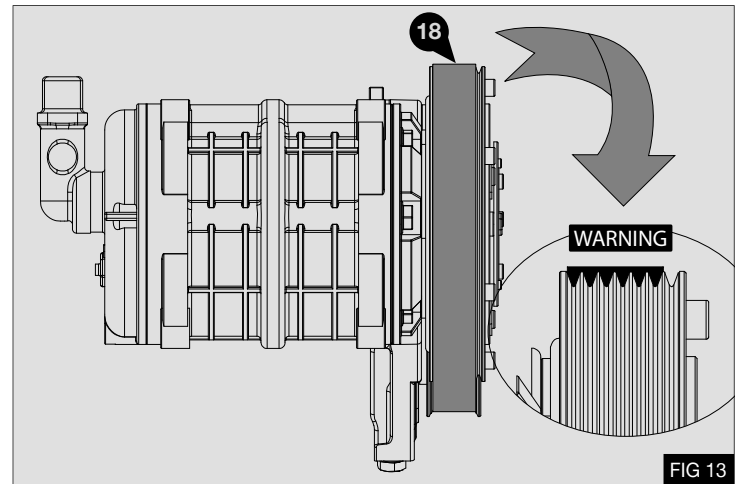


FIG 12

WARNING: The compressor drive belt (18) must be fitted one groove back as shown in Fig 13 if using an PV8 Compressor



POST INSTALLATION

1. Before starting the engine check all the installed parts and ensure that the belt is installed correctly. Run the unit for at least ten minutes, then check the whole mounting assembly and previously removed parts. Attach the supplied warning label on to a suitable location.

NB: 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.

BELT TENSION TABLE

Belt	Belt Age	Belt Tension Using a Belt Tension Gauge
6 PK	New Belt	72 - 84 kg
6 PK	Used Belt / Re-Tension	54 - 60 kg

Vehicles with automatic start / stop system -

The purpose of the automatic start / stop system is to reduce emission levels.

The start / stop system is compatible with this compressor mount kit , however it is recommended that the following measures are taken -

- The start / stop system should have a temporary deactivation triggered that only takes place when the additional compressor is running.

This is activated by PSM parameterization (setting the “blue light bit”)

For more information please contact your Mercedes dealer or refer to the relevant section on the Mercedes Bodybuilder Portal : (<http://bb-portal.mercedes-benz.com>)

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