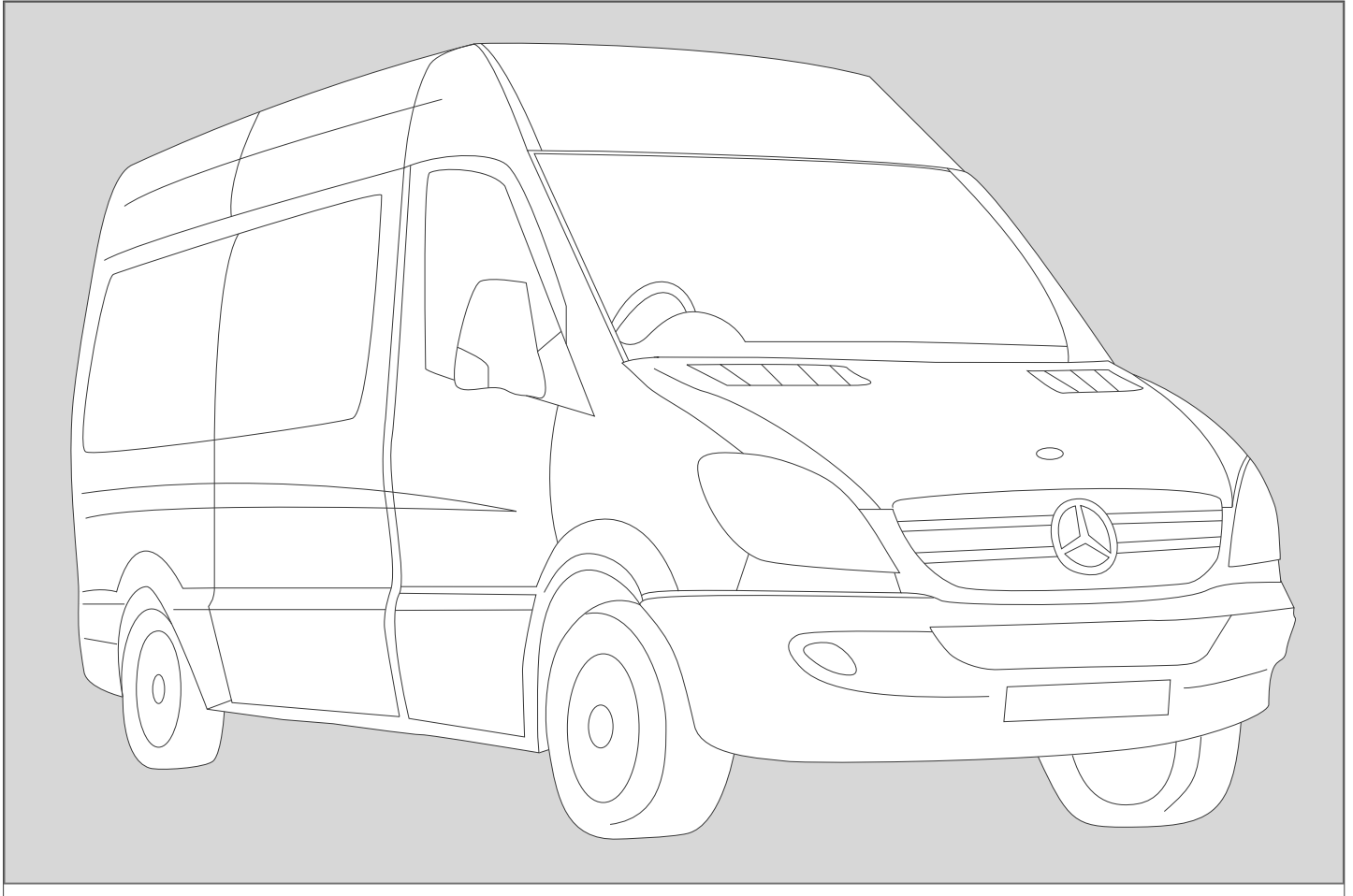


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VEHICLE DETAILS

Manufacturer	Mercedes Benz
Make	Sprinter
Model	213 CDi / 313 CDi / 413 CDi / 513 CDi
Engine CC	2148
Engine Details	OM651 129 PS
Year	10.2009 >
Chassis Nos.	N/A
LHD	YES
RHD	YES
PAS	YES
A/C	YES
Voltage	12v

KIT DETAILS

Kit Part No.	0500.6182
Description	Speed Reduction Kit
Compressor RPM	3580 @ Max Engine
	Power Output
Fitting Time	120 Minutes
Suction Fitting	90°
Discharge Fitting	90°
Belt Type	6PK 1320
Belt Part No.	0820.5071
Note	MB - Damper & Bolts are not included

COMPATIBLE COMPRESSORS

SELTEC	TM-13 HS	TM15-HS	TM16-HS
Comp No	0381.0492	0381.0092	0381.0292
Seltec No.	-	488-45063	488-46063
Mounting	Ear	Ear	Ear
Rotor	1A	1A	1A
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
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	SD5H09	SD5H14	SD7H15
Comp No	-	-	-
Sanden No	-	-	-
Mounting	-	-	-
Rotor	-	-	-
Armature	-	-	-
Diameter	-	-	-
Voltage	-	-	-
Orientation	-	-	-
Fitting	-	-	-

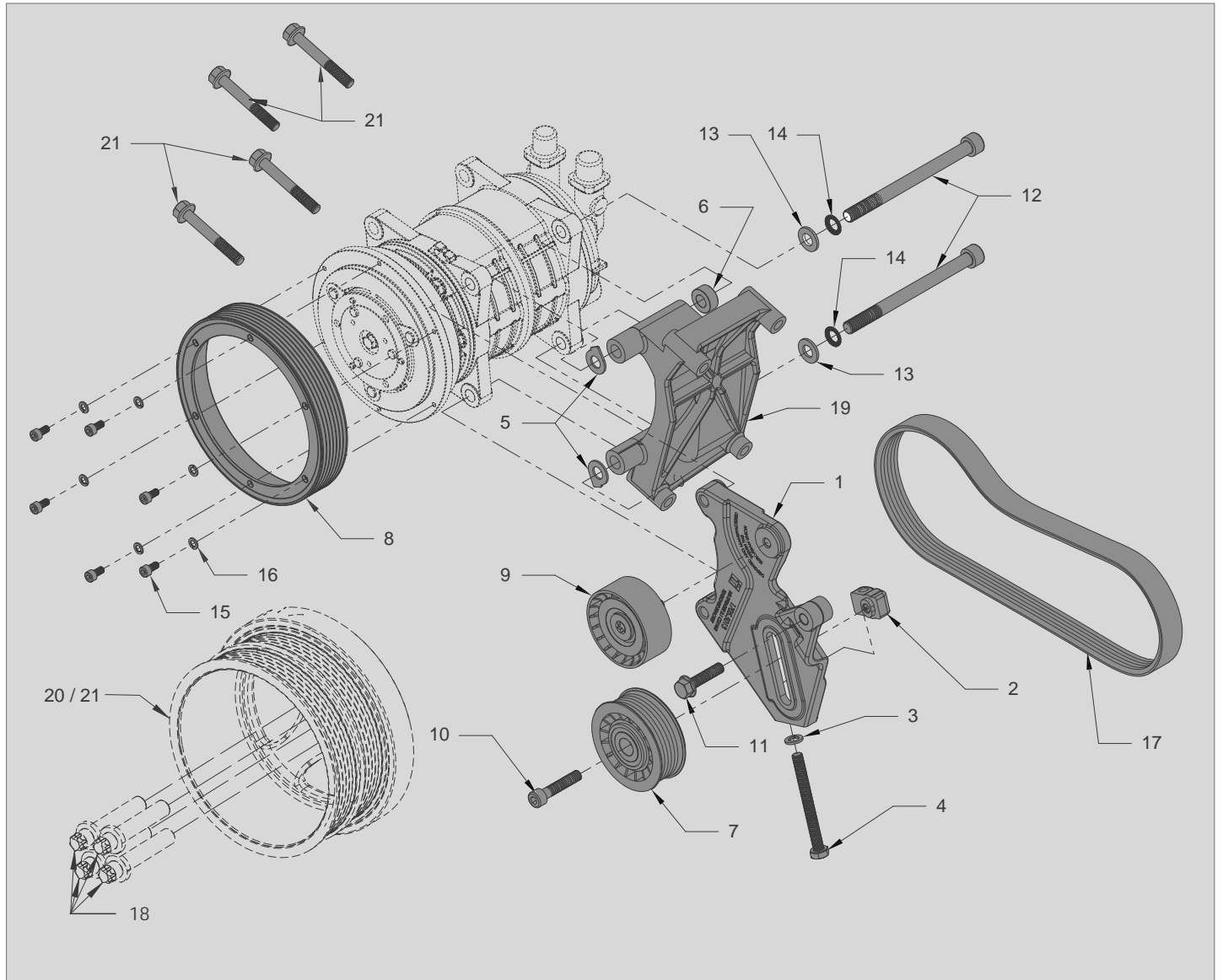
Notes

COMPRESSOR KIT CONFIGURATIONS

PART NUMBER	COMPRESSOR KIT PART NOS						DESCRIPTION	QTY.
	0513.6182	0515.6182	0516.6182	0593.6182	0595.6182	0596.6182		
0381.0492	●						TM13 Ear Mount 1A SL 126 12V V 3/4 x 7/8 Bolt	1
0381.0092		●					TM15 Ear Mount 1A SL 126 12V V 3/4 x 7/8 Bolt	1
0381.0632			●				TM16 Ear Mount 1A SL 126 12V V 3/4 x 7/8 Bolt	1
0391.0492				●			QP13 Ear Mount 1A SL 126 12V V 3/4 x 7/8 Bolt	1
0391.0092					●		QP15 Ear Mount 1A SL 126 12V V 3/4 x 7/8 Bolt	1
0391.0292						●	QP16 Ear Mount 1A SL 126 12V V 3/4 x 7/8 Bolt	1

● = Additional parts to standard kits.

PARTS VIEW



ITEM	PART NO.	DESCRIPTION	QTY.	COMMENTS
1	1705.5013	Tensioner Bracket	1	-
2	1703.5003	Idle Pulley Draw Bolt Tensioner	1	-
3	2808.0031	Washer M8 Spring	1	-
4	2719.0081	Set Screw M8 x 80 Hex 1.25 8.8	1	-
5	2803.9003	Spacer 20.00 OD x 10.40 ID x 1.50	2	-
6	2803.9013	Spacer 20.00 OD x 10.40 ID x 8.50	2	-
7	1700.5021	Idle Pulley - 6PK x 75	1	-
8	0411.5033	Speed Rotor PV7 156	1	-
9	1700.0641	Idle Pulley	1	-
10	2704.0021	Bolt M8 x 40 1.25 Hex Socket 12.9	1	-
11	2704.0481	Bolt Hex Flange Durluk - M8 x 35 : 1.25 -12.9	1	-
12	2705.0301	Bolt M10 x 135 Hex Soc 1.50 12.9	2	-
13	2809.0011	Washer M10 Flat Steel DIN 125 A 10.5	2	-
14	2809.0101	M10 Schnorr Safety Washer Type 'S'	2	-
15	2716.0051	Set Screw M5 x 15 Hex Socket 0.80	6	-
16	2805.0031	Spring Washer - M5 x 1	6	-
17	0820.5071	Belt Poly Groove 6PK 1320	1	-
18	2704.1011	Hex Flange Bolts M8 x 60 : 1.25	4	-
19	0440.3161	CMB - Sprinter N63	1	-
20	1701.0961	MB Original Drive Pulley 129PS A6510300303	4	Not Included
21	1701.0981	MB Original Drive Pulley 163PS A6510300503	1	Not Included

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:

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

Check list:

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

Installation apparatus

- Calibrated torque wrench
- Hand service tools
- Protective covers and shields

2 PRECAUTIONS

- Detach the battery negative lead.
- Torque all bolts where stated using a calibrated torque wrench.
- Take extreme care with moving parts.
- Remove the vehicles ignition key and keep it with you.
- Wear safeguards to 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.

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.

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

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.

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

1. Using a suitable tool rotate the automatic belt tensioner pulley (A) clockwise and insert a suitable 4mm pin, an Allen key is ideal for this purpose (B) - Fig.1
2. Remove original manufacturers poly groove drive belt (C), noting the original routing.
3. Remove 4 x bolts (D) from crank pulley (E) and discard- Fig 1

NB: Crankshaft locking tool is required for this operation (Mercedes tool No 651 589 00 40 00) (F) - Fig 2

4. Remove and discard original crank pulley (E)
5. Using the supplied pulley (9) cut a thread into the hole on the engine casing - Fig 2

NB: The pulley bolt has a Trilobular thread and will cut the thread - Fig 2

6. Remove the supplied pulley (9)

PULLEY & BRACKET INSTALLATION

1. Fit new crankshaft pulley (20) or (21) (Not Supplied and dependant on the engine power rating) with new bolts (18) (Not supplied) - Fig 3
2. Torque bolts (18) to 80 Nm / 59 lb ft + 90

NB: Crankshaft locking tool is required for this operation (Mercedes tool No 651 589 00 40 00) (F) - Fig 2

3. Refit drive belt previously removed.
4. Fit the supplied compressor bracket (1) to the engine using 4 x M8 x 60 bolts (21) - Fig 4
5. Torque bolts (21) to 25 Nm / 18.5 lb ft - Fig 4

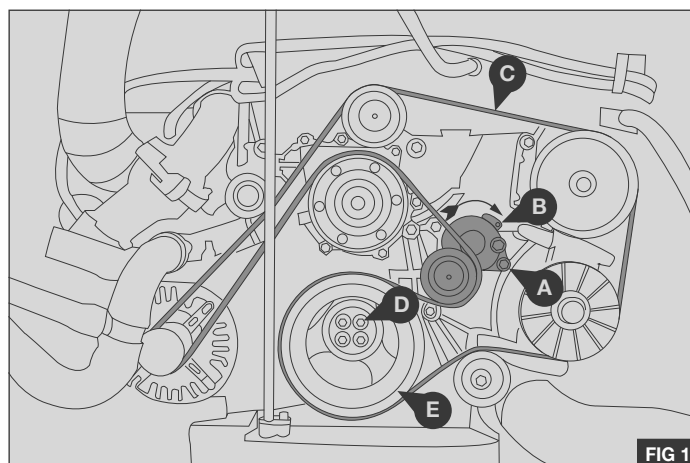


FIG 1

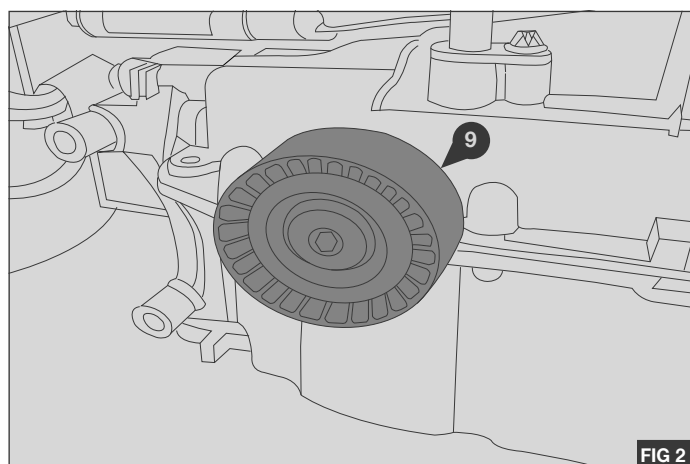


FIG 2

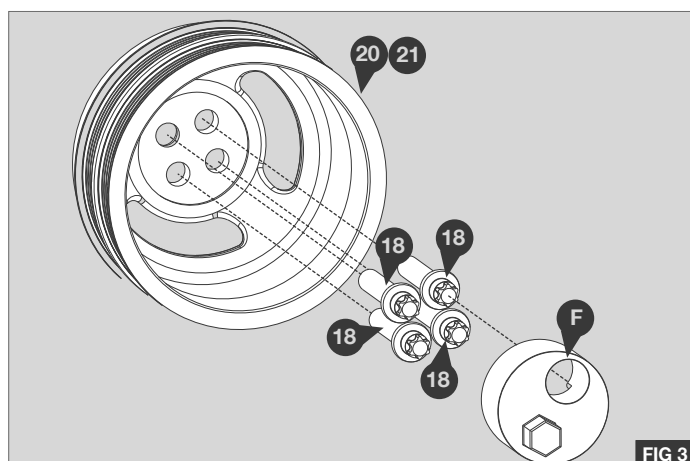


FIG 3

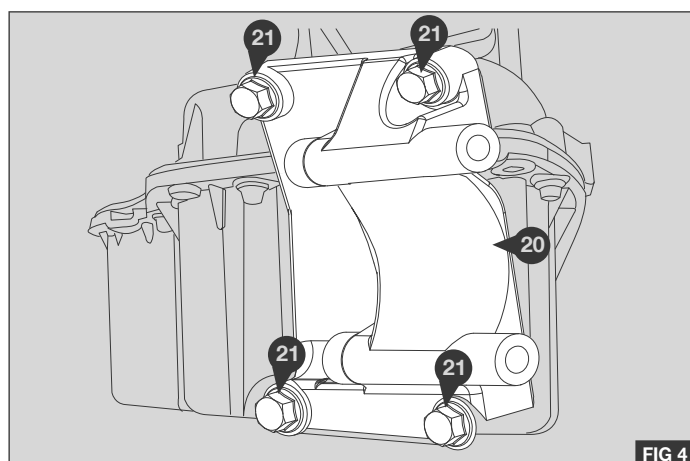
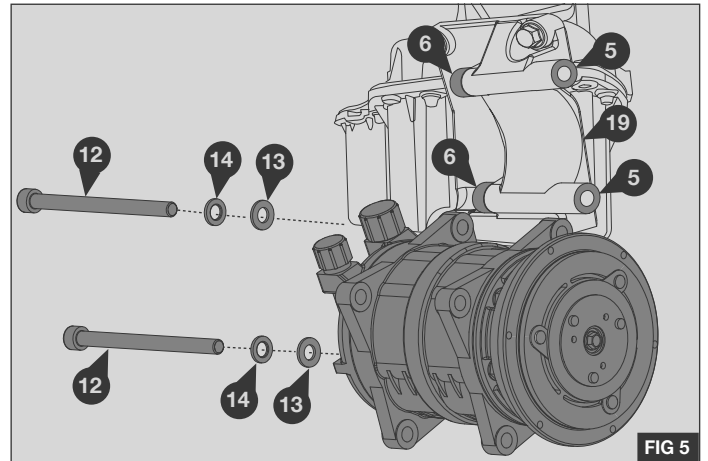


FIG 4

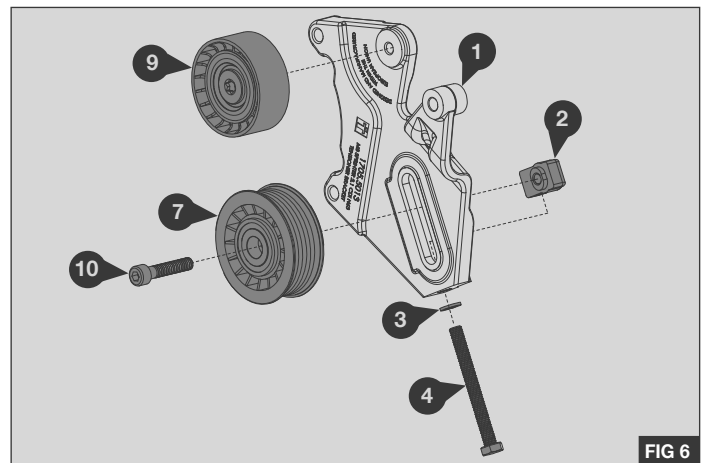
COMPRESSOR INSTALLATION

1. Mount a compatible compressor specified on page 3 to the mount bracket (19), using 2 x 8.5 MM Spacers (6) between the rear ears of the compressor and the back mounting face of the mount bracket (19), 2 x 1.6 MM Spacers (5) between the front ears of the compressor and the front mounting face of the mounting bracket (19) 2 x M10 x 130 bolts (12), 2 x flat washers (13) and 2 x Schnorr safety washers (14) - Fig 5

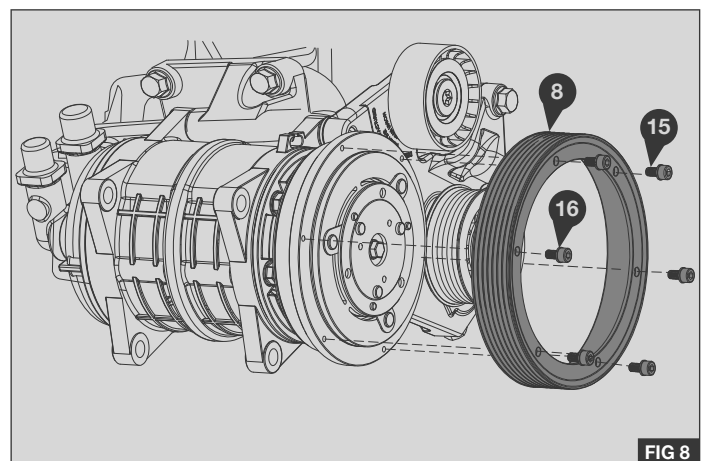
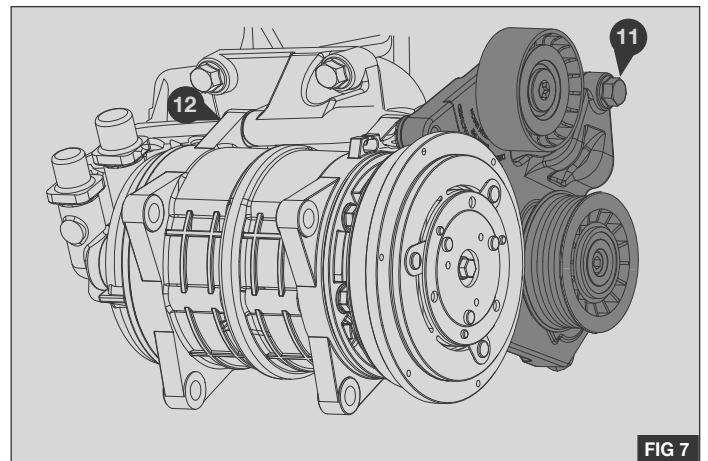


IDLE BRACKET INSTALLATION

1. Mount the idle pulley (9) previously removed onto the tensioner bracket (1) in the position shown - Fig 6
2. Torque bolt (9) to 25Nm / 18lbf using a calibrated torque wrench.
3. Mount the supplied idle pulley (7) on to the tensioner bracket (1) using bolt (10), draw bolt mounting block (2), washer (3) and M8 x 80 bolt (4) in the position shown. Leaving the idle pulley tensioner assembly loose - Fig 6.



4. Mount the tensioner bracket assembly to front compressor ears, using the 2 x M10 x130 bolts previously fitted (12) Fig 7.
5. Secure the tensioner bracket assembly to the mounting point for the original idle pulley, using bolt (11) M8 x 35 - Fig 7.
6. Torque bolts (12) to 50Nm / 37lbf using a calibrated torque wrench.
7. Torque bolt (11) to 25Nm / 18lbf using a calibrated torque wrench.
8. Secure the clutch rotor (8) to the compressor using 6 x M5 bolts (15) and spring washers (16) - Fig 8
9. Torque bolts (15) to 9Nm / 6.65lbf



DRIVE BELT INSTALLATION

1. Fit supplied poly groove drive belt (17) - Fig.9

CP Crankshaft Pulley

TP Tensioner Pulley

IP Idle Pulley

RC Refrigeration Compressor

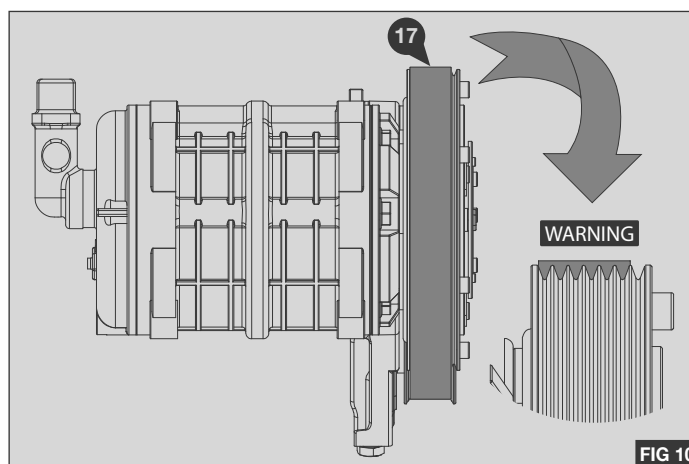
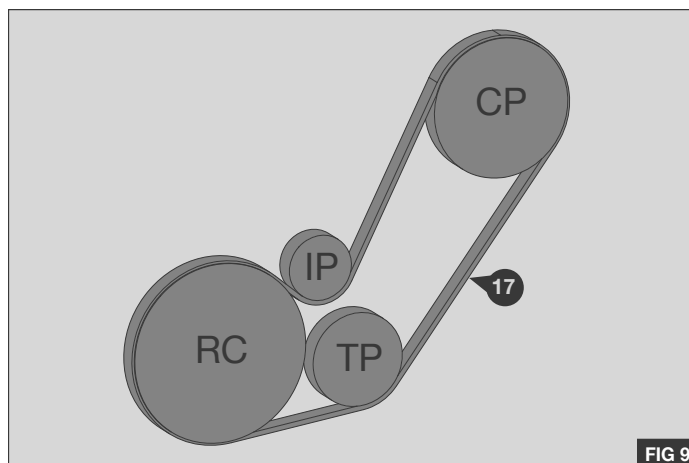
WARNING: The compressor drive belt (17) must be fitted to the rear grooves of the clutch rotor as shown in Fig 10

2. Tension the drive belt (17) using bolt (4)
3. When correct tension has been achieved, tighten bolt (10)
4. Torque bolt (10) to 25Nm / 18lbft using a calibrated torque wrench.

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 (18) 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

Note

Note

