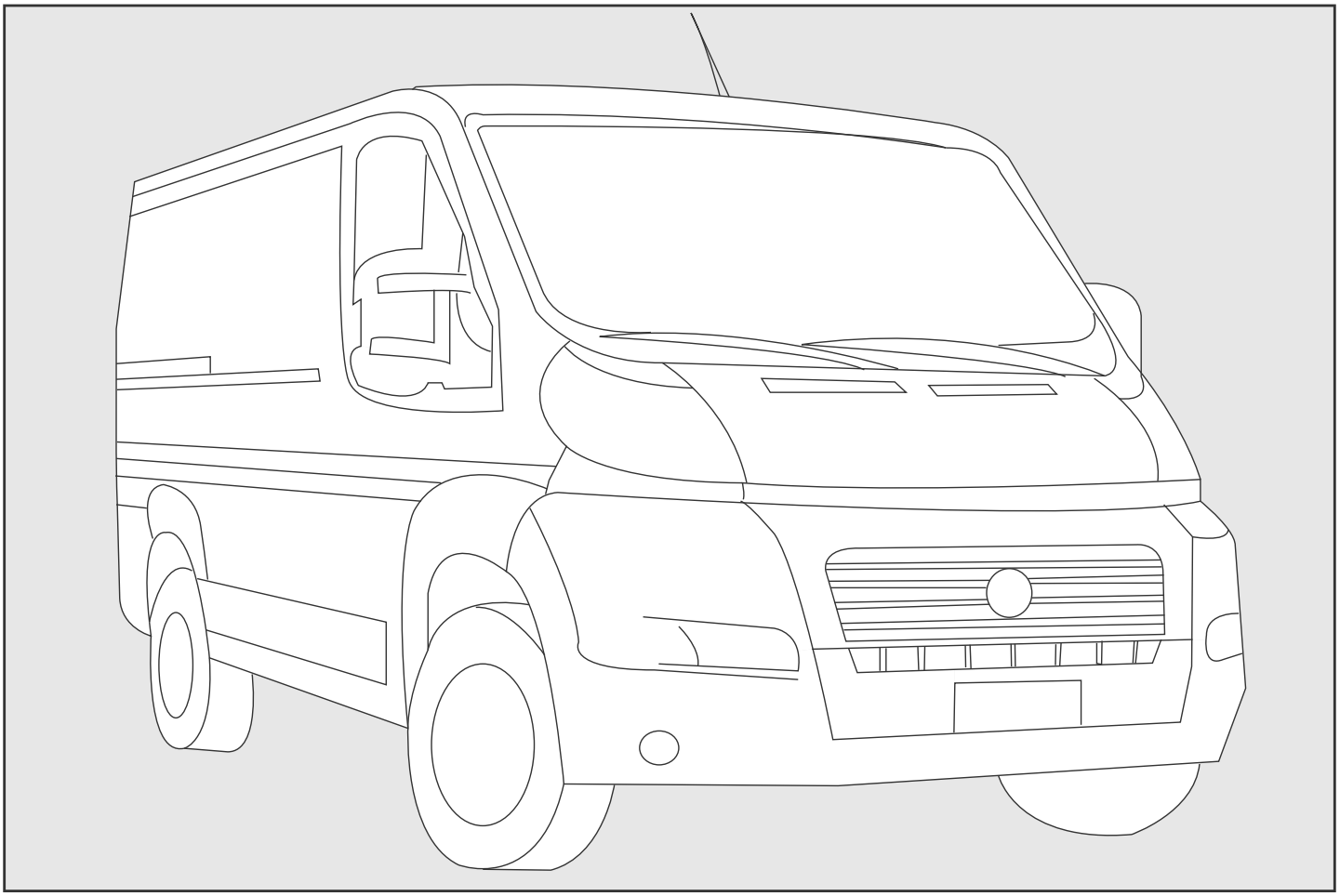
0500.6442

Contents



VEHICLE DETAILS

Manufacturer	Fiat
Make	Ducato
Model	110, 130, 150 Multijet
Engine CC	2.3 MJ - Euro 5 / 5b+
Engine Details	F1AE
Year	06.2011
Chassis Nos.	N/A
LHD	YES
RHD	YES
PAS	YES
A/C	NO
Voltage	12v

KIT DETAILS

Kit Part No.	0500.6442
Description	Speed Kit
Compressor RPM	3000 @ Max Engine Power Output
Fitting Time	45 Minutes
Suction Fitting	90°
Discharge Fitting	90°
Belt Type	4PK 872
Belt Part No.	0820.1661

RECOMMENDED COMPRESSORS

SELTEC	TM-13 HS	TM15-HS	TM16-HS
Comp No	0381.0352	0381.0032	0381.0372
Seltec No.	48844122	48845322	48846122
Mounting	Ear	Ear	Ear
Rotor	8 PV	8 PV	8PV
Armature	3E	SL	3E
Diameter	123	123	123
Voltage	12	12	12
Orientation	H	H	H
Fitting	3/4 x 7/8	3/4 x 7/8	3/4 x 7/8
Manifold	Bolt	Bolt	Bolt

QUE	QP-13 HD	QP15-HD	QP16-HD
Comp No	0391.0352	0391.0032	0391.0372
Que No.	-	QP151624	QP161197
Mounting	Ear	Ear	Ear
Rotor	8 PV	8 PV	8PV
Armature	3E	SL	3E
Diameter	123	123	123
Voltage	12	12	12
Orientation	H	H	H
Fitting	3/4 x 7/8	3/4 x 7/8	3/4 x 7/8
Manifold	Bolt	Bolt	Bolt

SANDEN	SD5H09	SD5H14	SD5H15
Comp No	-	0300.0451	0300.1961
Sanden No.	-	6628	8027
Mounting	-	Ear	Ear
Rotor	-	7 PV	8 PV
Armature	-	SL	SL
Diameter	-	124	125
Voltage	-	12	12
Orientation	-	H	H
Fitting	-	3/4 x 7/8	3/4 x 7/8

Notes

COMPRESSOR KIT CONFIGURATIONS

PART NUMBER	COMPRESSOR KIT PART NOS						DESCRIPTION	QTY.
	0513.6442	0515.6442	0516.6442	0516.6442	0516.6442	0516.6442		
0381.0352	⬬						TM13 Ear Mount 8 PV 3E 123 12V H 3/4 x 7/8 Bolt	1
0381.0032		⬬					TM15 Ear Mount 8PV SL 123 12V H 3/4 x 7/8 Bolt	1
0381.0372			⬬				TM16 Ear Mount 8 PV 3E 123 12V H 3/4 x 7/8 Bolt	1
0391.0352				⬬			QP13 Ear Mount 8 PV 3E 123 12V H 3/4 x 7/8 Bolt	1
0391.0032					⬬		QP15 Ear Mount 8PV SL 123 12V H 3/4 x 7/8 Bolt	1
0391.0372						⬬	QP16 Ear Mount 8 PV 3E 123 12V H 3/4 x 7/8 Bolt	1

⬬ = Additional parts to standard kits.

FOREWORD

1. 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 vehicles ignition key and keep it with you.
- **e** Wear safeguards to make sure that liquid refrigerant never touches your skin

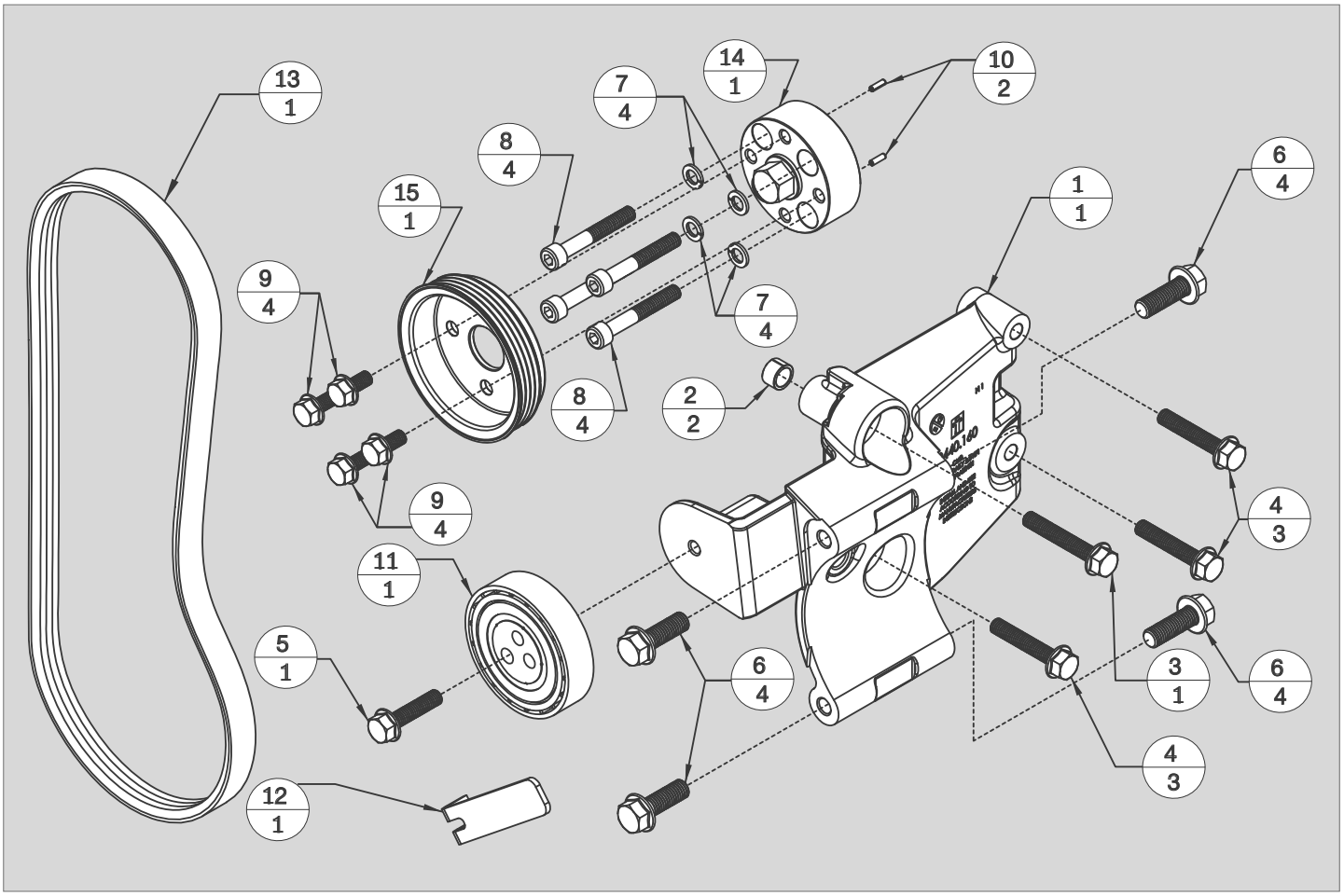
Caution: Measures must be followed accurately to steer clear of the possibility of damage to individuals
Warning: This calls awareness to actions which must be pursued to avoid damage to the components.
NB: This calls awareness to make the job easier or gives useful information.

STANDARD FASTENER TORQUE VALUES

1. 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	 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

PARTS VIEW



ITEM	PART NO.	DESCRIPTION	QTY.	COMMENTS
1	0440.1603	Compressor Mount Bracket - Assembly	1	-
2	2800.0291	Split Dowel Bush	2	-
3	2704.0101	Hex flange bolt M8 x 50 : 1.25 - 10.9	1	-
4	2704.0161	Hex flange bolt Durlok - M8 x 45 : 1.25 - 12.9	3	-
5	2704.0481	Hex flange bolt Durlok - M8 x 35 : 1.25 - 12.9	1	-
6	2705.0491	Hex flange bolt Durlok - M10 x 30 : 1.50 - 12.9	4	-
7	2808.0031	Spring washer M8 x 1.6 - ID 8.3 OD 14.0	4	-
8	2705.0431	Hex Socket head cap screw M8 x 55 : 1.25 - 12.9	4	-
9	2704.1521	Hex flange bolt Durlok - M8 x 16 : 1.25 - 12.9	4	-
10	2762.0091	Spring Pin ISO 8752 - 3 x 10	2	-
11	1700.0371	Eccentric Idle Pulley	1	-
12	3020.3863	Eccentric Pulley Adjusting Tool	1	-
13	0820.1661	Belt - Poly Groove 4PK 872	1	-
14	1701.0733	Drive Pulley Spacer	1	-
15	1701.0723	Crankshaft Drive Pulley	1	-

PRE-INSTALLATION

Remove the following parts:

1. Remove under tray
2. Remove original alternator, PAS & Fan drive belt. Take note of the belt route for re-fitting
3. Remove and retain the four crank pulley bolts Ⓑ - Fig 1
4. Remove crank pulley Ⓐ from vehicle

CAUTION: Do not undo bolt Ⓒ

5. Remove earth cable Ⓓ from engine block & retain all fixtures for re-fitting

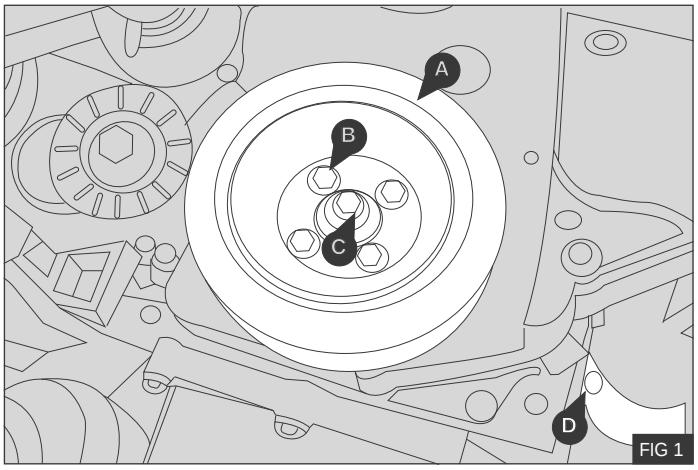


FIG 1

CRANKSHAFT PULLEY INSTALLATION

1. Insert the two roll pins ⑥ completely into the original holes in the crank pulley - Fig 2
2. IFit the drive pulley spacer ③ onto the roll pins ⑥ and crank pulley Ⓐ - Fig 2.
3. Refit the crank pulley Ⓐ and drive pulley spacer ③ using bolts [10] with spring washers [15] - Fig 2
4. Torque bolts [10] to 30Nm / 22Lb ft - Fig 2
5. Fit the supplied drive pulley ② onto the drive pulley spacer ③ using bolts [13] - Fig 3.
6. Torque bolts [13] to 30Nm / 22Lb ft - Fig 3

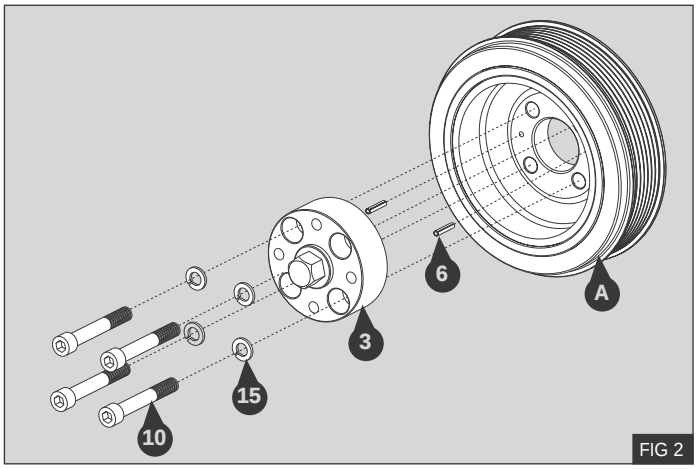


FIG 2

CAUTION: Use the Hex on the Drive Pulley Spacer ③ to turn the Crank Pulley Ⓐ to gain access to the bolts [13] for torqueing - Crank pulley should only be turned clockwise

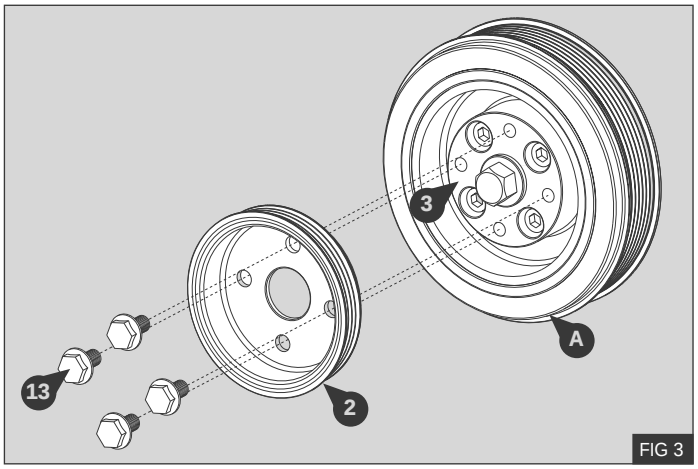


FIG 3

COMPRESSOR MOUNT BRACKET IN-STALLATION

1. Fit the mount bracket ①, to the engine using bolts [11] - Fig 4
2. Torque bolts [9] & [11] to 44Nm / 32Lb ft - Fig 4

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

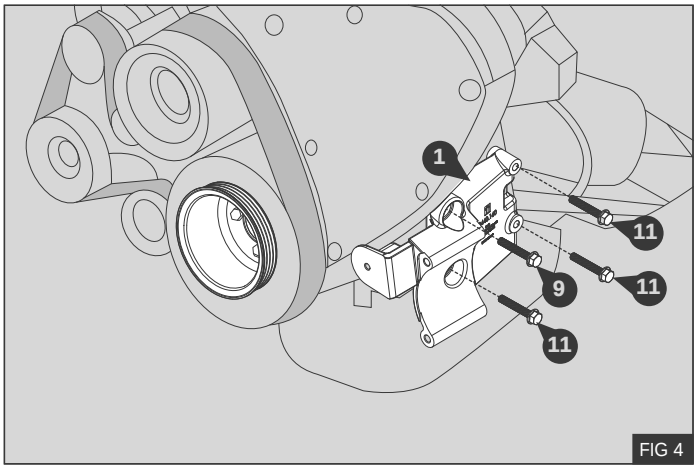


FIG 4

3. Fit compressor to mount bracket ① using bolts ⑧ - Fig 5
4. Torque bolts ⑧ to 84Nm / 62lb.ft - Fig 5.
5. Fit the supplied Eccentric pulley ④ to the mount bracket ① using bolt 12 but do not tighten at this stage - Fig 6

DRIVE BELT

1. Re-fit the original Alternator, PAS & Fan Belt
2. Fit the drive belt ⑦ as shown - Fig 7

A. Compressor
B. Eccentric Pulley
C. Crank Pulley

Note: Make sure that the drive belt is fitted into the correct groove of the compressor clutch as shown - Fig.8
Seltec PV8 has the same gauge line as the Sanden PV6 & PV7, belt is fitted to front groove. Sanden PV8 has a unique gauge line, belt is fitted to second groove.

3. Tension the drive belt to correct tension (see table) using the supplied eccentric tool 5, tighten bolt 12, to lock eccentric pulley.
4. Torque bolt 12 to 44 Nm / 32 lb ft - Fig 7.

BELT TENSION TABLE		
Belt	Belt Age	Belt Tension Using the Belt Tension Gauge
4 PK	New Belt	48 - 56 kg
4 PK	Used Belt / Re-Tension	36 - 40 kg

FINISH

1. Refit engine earth cable. Run the engine with the compressor clutch engaged for five minutes, check all components and fit belt label stickers.

Note: 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.

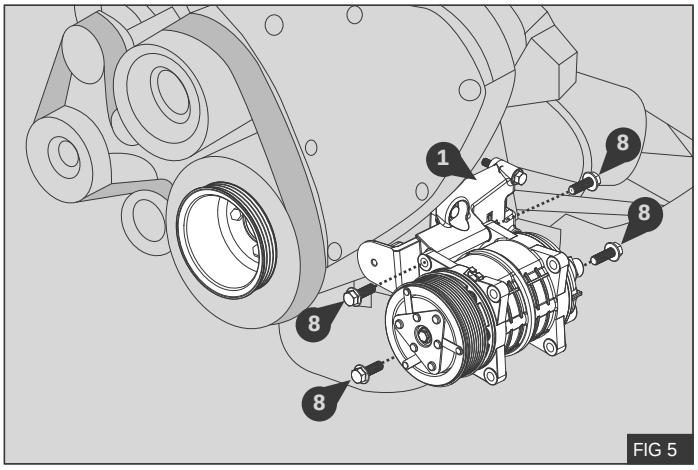


FIG 5

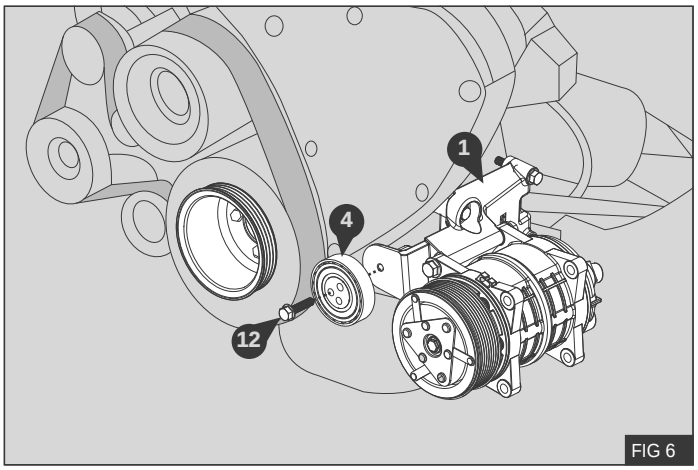


FIG 6

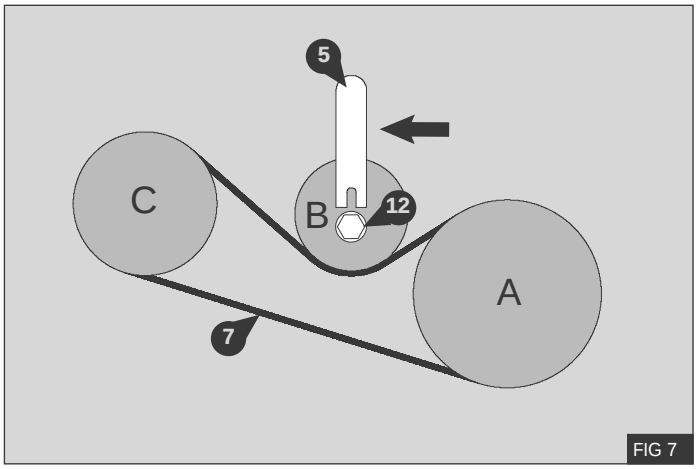


FIG 7

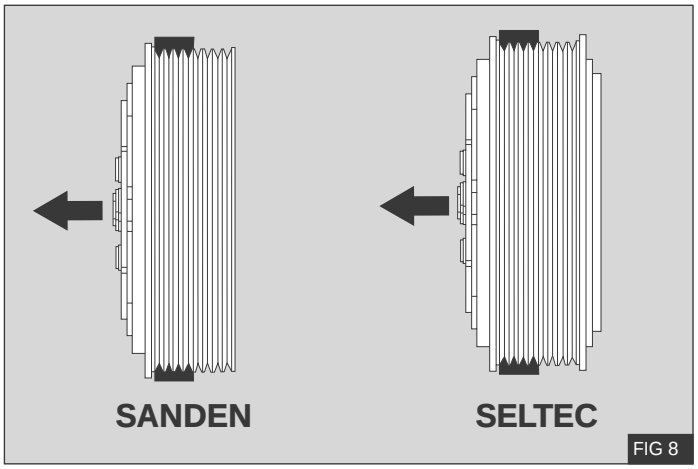


FIG 8

Note / Notas / Notes / Notas / Hinweise