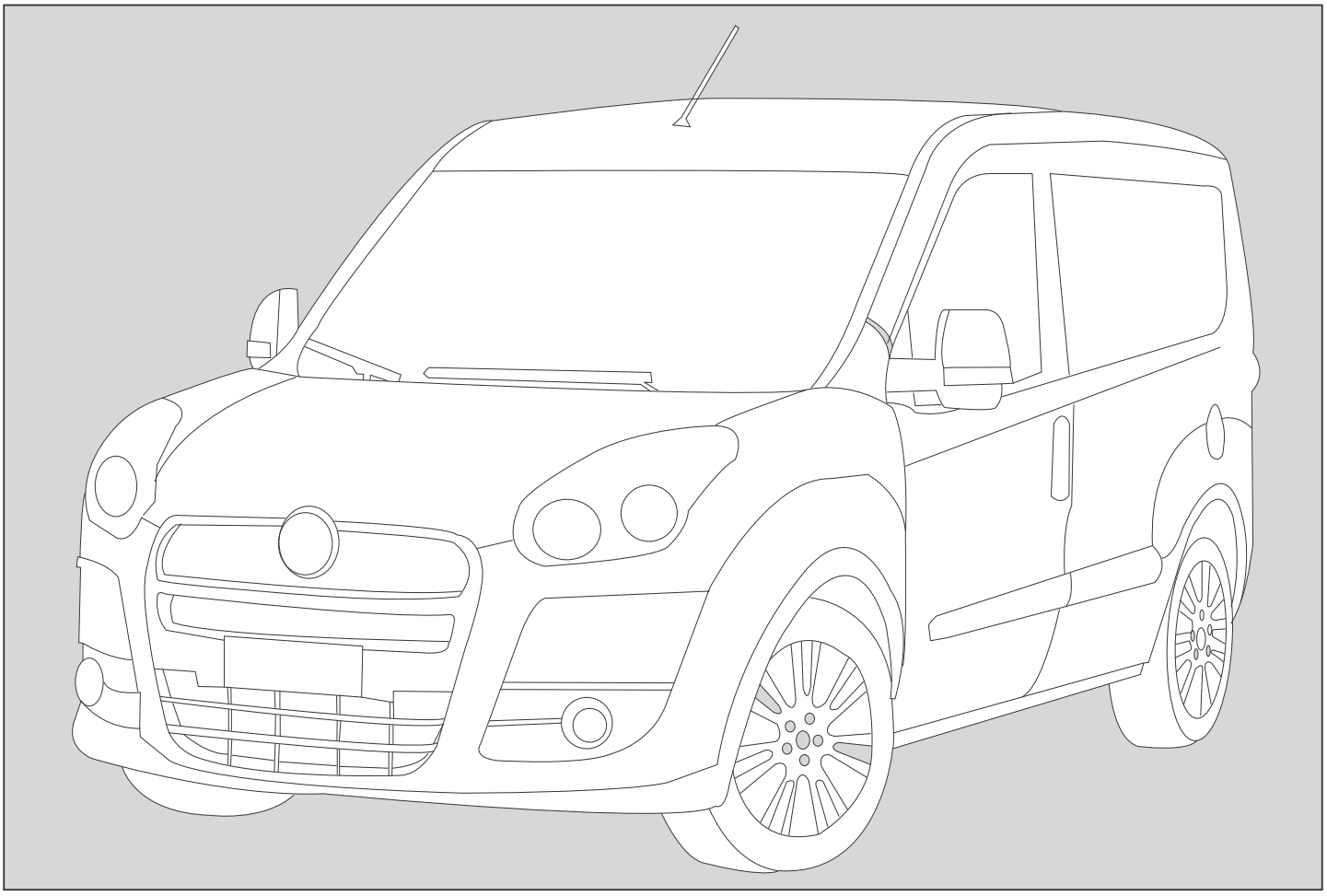
Contents



VEHICLE DETAILS

Manufacturer	Fiat
Make	Doblo
Model	1.6 Multijet 16V E4
Engine CC	1598cc
Engine Details	198A3000 E4 - 105 BHP
Year	03.10 > 08.11
Chassis Nos.	N/A
LHD	YES
RHD	YES
PAS	YES
A/C	NO
Voltage	12v

KIT DETAILS

Kit Part No.	0500.4322
Description	Standard Kit
Compressor RPM	4125 Max engine power output
Fitting Time	60 Minutes
Suction Fitting	90°
Discharge Fitting	90°
Belt Type	6PK1855
Belt Part No.	0820.5051

RECOMMENDED COMPRESSORS

SELTEC	TM-13 HS	TM15-HS	TM16-HS
Comp No	0381.0492	0381.0382	-
Seltec No.	-	-	-
Mounting	Ear	Ear	-
Rotor	1A	1A	-
Armature	SL	SL	-
Diameter	126	126	-
Voltage	12	12	-
Orientation	V	V	-
Fitting	3/4 x 7/8	3/4 x 7/8	-
Manifold	Bolt	Mono	-

QUE	QP13-HD	QP15-HD	QP16-HD
Comp No	0391.0492	0391.0382	-
Que No.	-	-	-
Mounting	Ear	Ear	-
Rotor	1A	1A	-
Armature	SL	SL	-
Diameter	126	126	-
Voltage	12	12	-
Orientation	V	V	-
Fitting	3/4 x 7/8	3/4 x 7/8	-
Manifold	Bolt	Mono	-

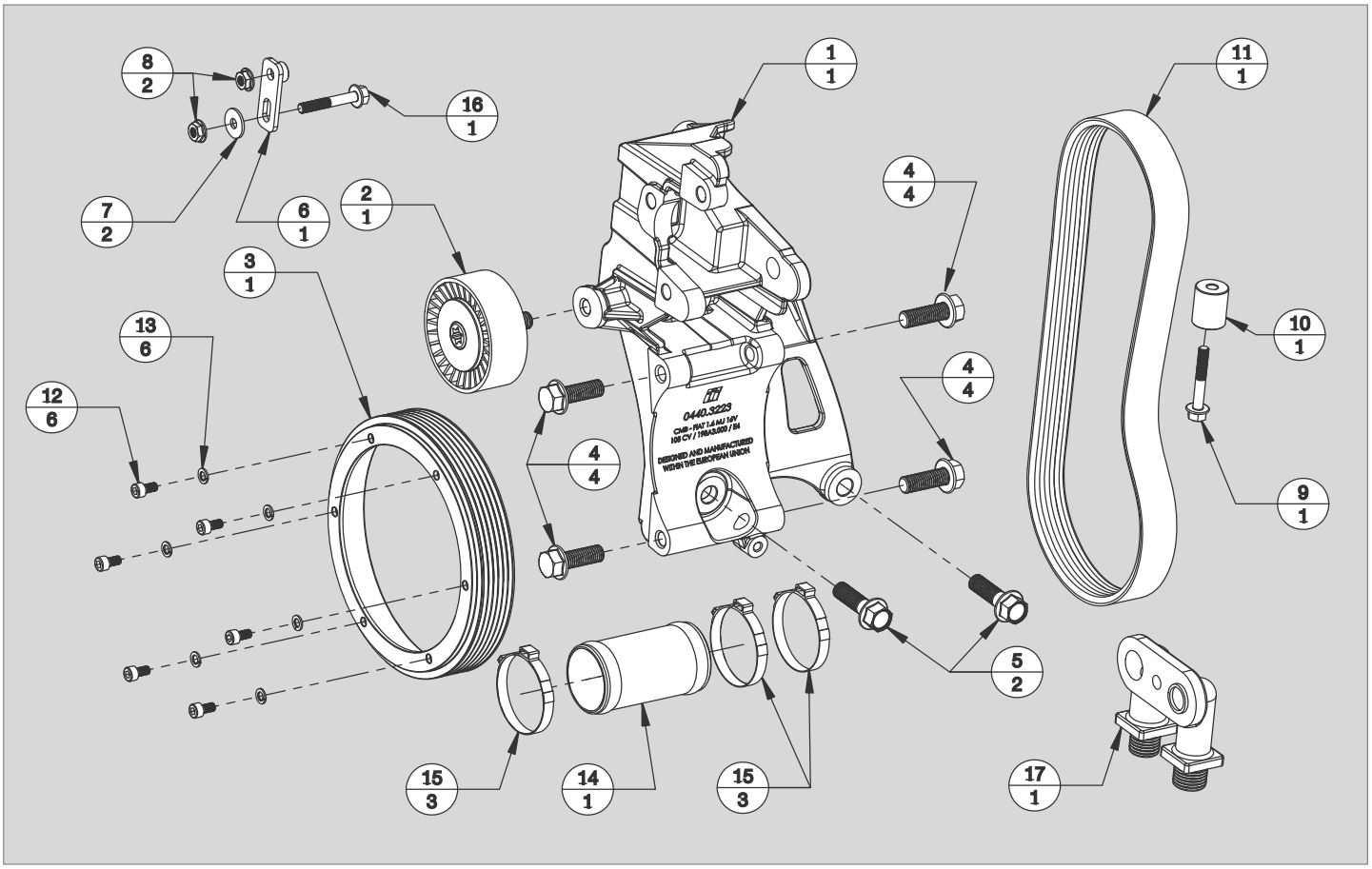
SANDEN	SD5H09	SD5H14	SD7H15
Comp No	-	-	-
Sanden No.	-	-	-
Mounting	-	-	-
Rotor	-	-	-
Armature	-	-	-
Diameter	-	-	-
Voltage	-	-	-
Orientation	-	-	-
Fitting	-	-	-

Notes

COMPRESSOR KIT CONFIGURATIONS							
PART NUMBER	COMPRESSOR KIT PART NOS					DESCRIPTION	QTY.
	0513.4322	0515.4322	0593.4322	0565.4322	0550.4322		
0381.0492	⬬					TM13 Ear Mount 1A SL 126 12V V 3/4 x 7/8 Bolt	1
0381.0382		⬬				TM15 Ear Mount 1A SL 126 12V V 3/4 x 7/8 Mono	1
0391.0462			⬬			QP13 Ear Mount 1A SL 126 12V V 3/4 x 7/8 Bolt	1
0391.0382				⬬		QP15 Ear Mount 1A SL 126 12V V 3/4 x 7/8 Mono	1
0410.0121					⬬	TM/QP Clutch 1A 125 OD 12V Over Hang	1

⬬ = Additional parts to standard kits.

PARTS VIEW



ITEM	PART NO.	DESCRIPTION	QTY.	COMMENTS
1	0440.3223	Compressor Mount Bracket	1	-
2	1700.5001	Back Idle pulley 70 x 26	1	-
3	0411.0333	Clutch Rotor - PV6 160 Dia	1	-
4	2705.0491	Hex flange bolt durlok - M10 x 30 : 1.50	4	-
5	2705.5001	Hex flange bolt - M10 x 35 : 1.25	2	-
6	3020.9143	Air pipe support bracket	1	-
7	2806.0501	M6 penny washer	1	-
8	2732.0041	Hexagon flange nut durlok - M6 :1.00	2	-
9	2702.0501	Hex flange bolt M6 x 40 :1.00	1	-
10	2803.2803	Turbo pipe spacer	1	-
11	0820.5051	Belt - Poly Groove 6PK 1855	1	-
12	2716.0051	Hex socket head cap screw - M5 x 10 - 0.80	6	Ref only
13	2805.0031	Spring washer M5 x 1 - ID 5.1 x 5.1 OD 9.2	6	Ref only
14	1494.0003	Turbo Pipe connector	1	-
15	1537.1001	Turbo pipe clip	3	-
16	2702.0511	Hex Flange Bolt M6 x 30 : 100	1	-

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

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.

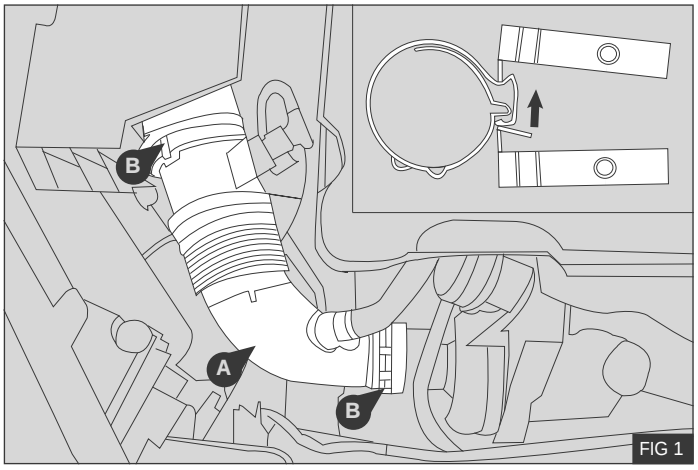


FIG 1

1. Remove the under panel
2. Remove the turbo hose Ⓐ and pipe clips Ⓑ using correct removal pliers Clic-R ® - Fig 1.

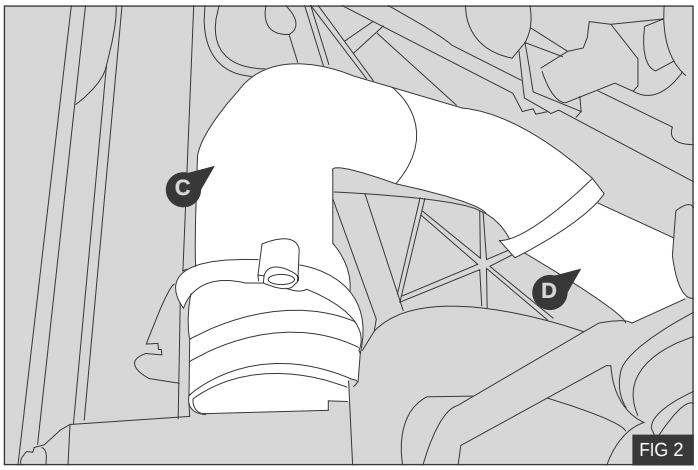


FIG 2

3. Remove the rubber air hose Ⓒ and the top metal pipe Ⓓ and 2 x M8 bolts Ⓤ - Fig 2 and Fig 3.

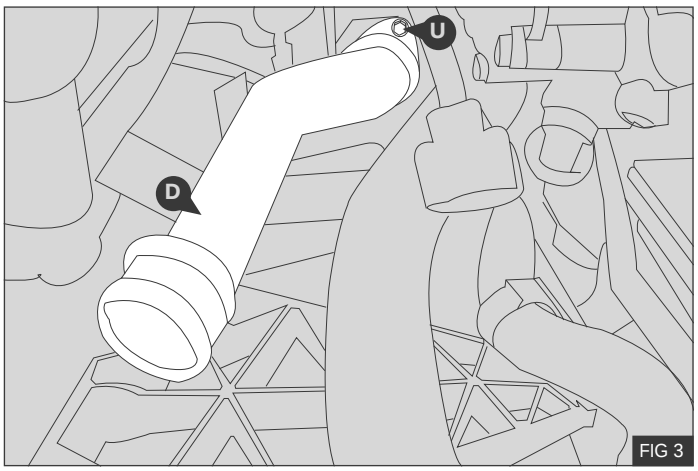


FIG 3

4. Remove OE bolt Ⓔ that secures the metal air pipe Ⓕ to the chassis - Fig 4.

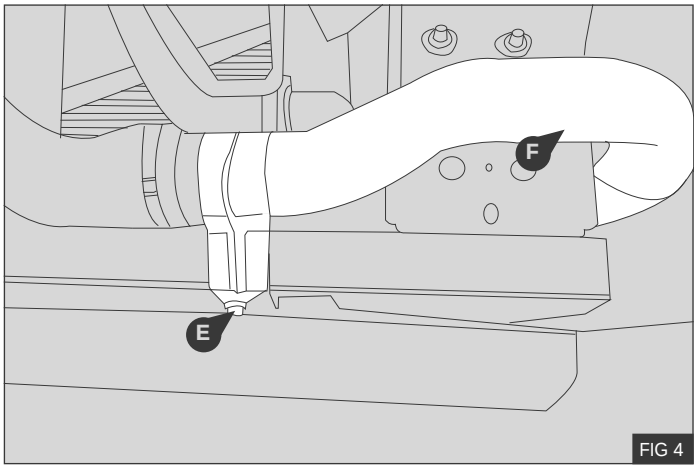


FIG 4

5. Remove the support bracket Ⓖ for the pipe Ⓕ off the chassis stud Ⓗ - Fig 5

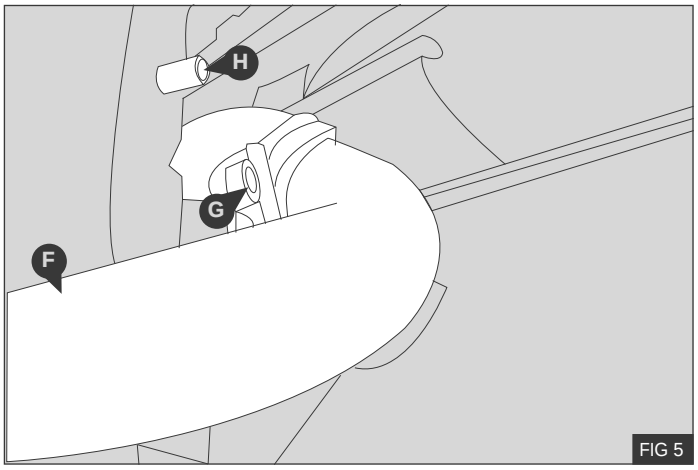


FIG 5

6. Cut the rubber hose Ⓒ on the line indicated in the image - Fig 6.

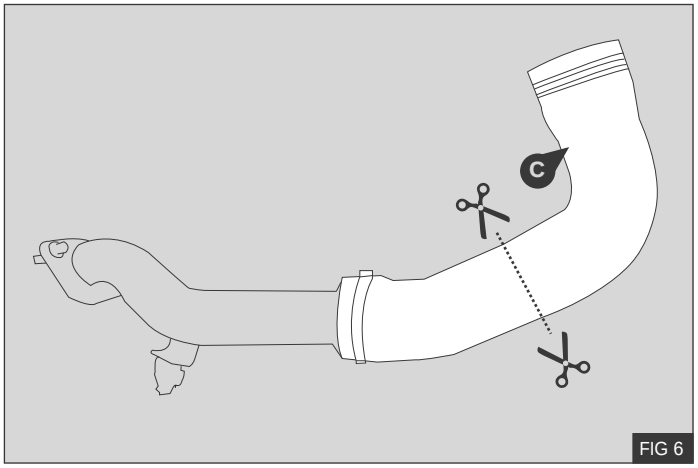


FIG 6

7. Remove the OE belt and the PAS pump Ⓙ Retain the OE M8 socket head bolts Ⓚ and washers for use later. Remove the PAS rotor Ⓛ from the PAS pump Ⓙ. Retain the OE bolts for use later - Fig 7.

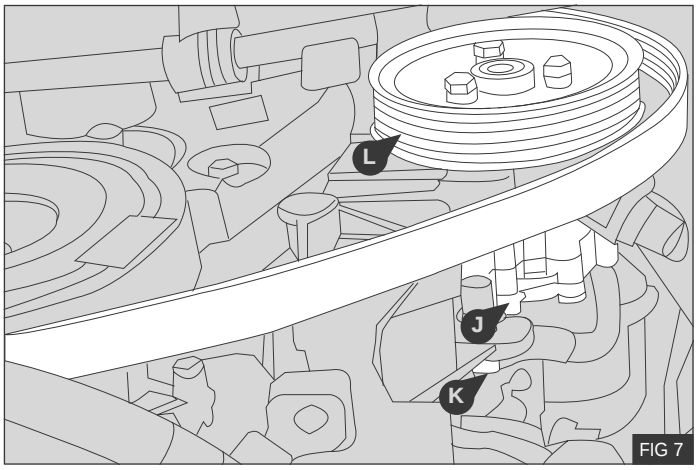


FIG 7

8. Remove the PAS pipe support bracket Ⓜ from the OE mount bracket Ⓝ and retain the M6 bolt and washer Ⓞ for use later - Fig 8.

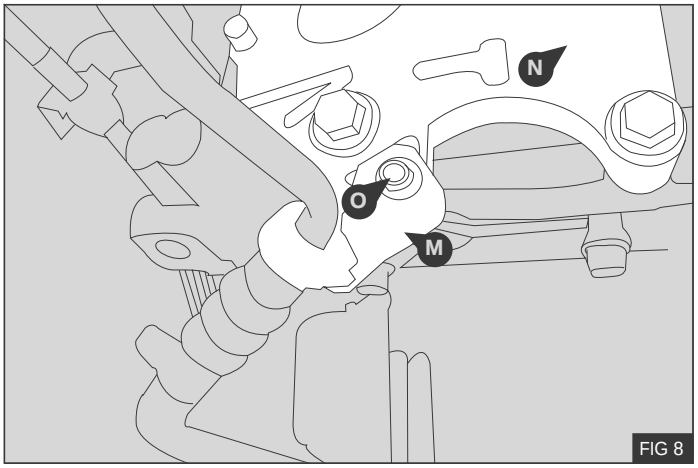


FIG 8

9. Remove the OE mount bracket Ⓝ and retain 3 of the 5 OE M10 x 45 bolts Ⓟ for use later.- Fig 9.

10. Remove the sliding bush Ⓠ from the OE mount bracket Ⓝ for use later - Fig 9

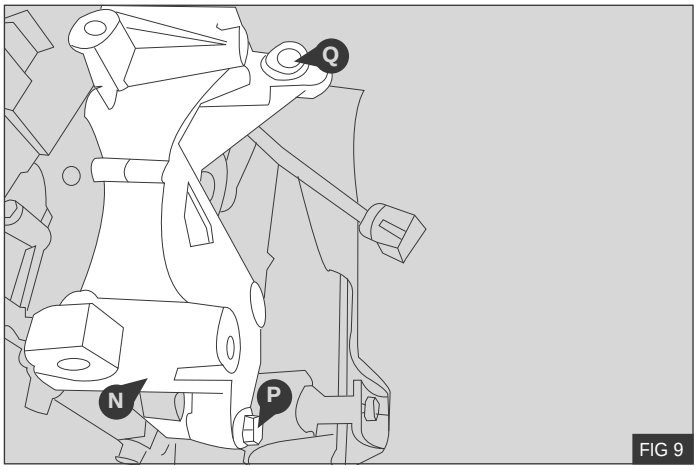


FIG 9

MOUNT BRACKET INSTALLATION

1. Mount the idler ② onto the mount bracket Torque M10 x 30 bolt - 58 Nm / 42.7 lb.ft

2. Install the sliding bush Ⓠ into the mount bracket ① - Fig 10

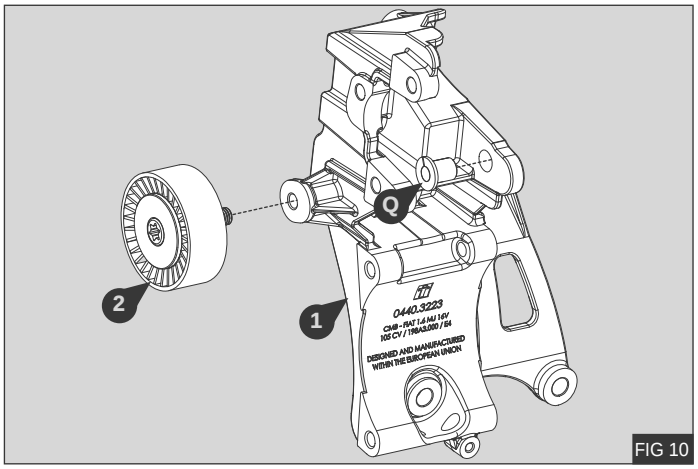


FIG 10

3. Install the mount bracket ① to the engine block using three OE M10 bolts Ⓟ, and two M10 x 35 flange bolts ⑤ and (5a) - Fig 11

4. Torque bolts OE M10 x45 bolts Ⓟ 58 Nm / 42.7 lb.ft and M10 x 35 bolt ⑤ and (5a) 58 Nm / 42.7 lb.ft - Fig 11

5. Now loosen the M10 x 35 flange bolt (5a) and temporarily remove to allow access.- Fig 11

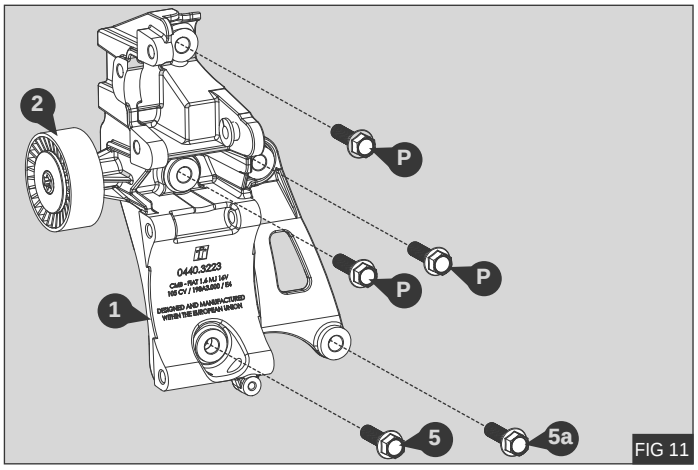


FIG 11

COMPRESSOR INSTALLATION

1. Mount the compressor to the bracket ① using four M10 x 30 set screws ④ - Fig 12

Note: It is advisable to do the back top set screw from the top side of the engine.

2. Replace the M10 x 35 flange bolt and washer (5a) back into the mount hole that it was removed from.

3. Torque the bolts M10 x 30 set screw ④ 58 Nm / 42.7 lb.ft and M10 x 35 bolt (5a) 58 Nm / 42.7 lb.ft - Fig 12.

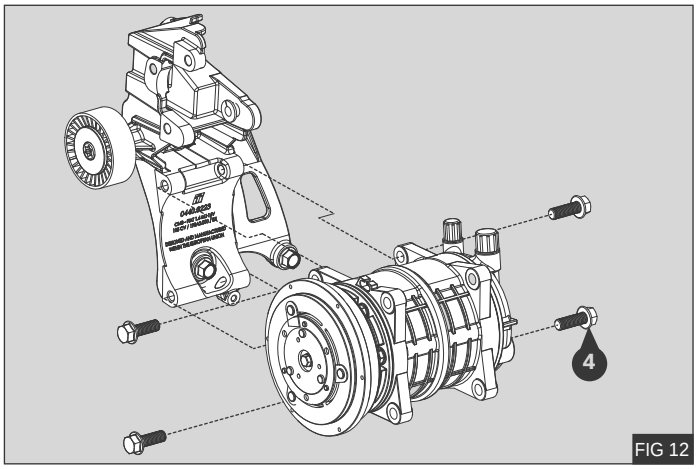


FIG 12

PAS INSTALLATION

1. Secure the PAS pump Ⓙ, minus the rotor, to the mount bracket ① using the OE M8 socket head bolts Ⓚ and washers - Fig 13.

Note: It is easier to put the PAS pump Ⓙ into position from the top side of the engine.

2. Torque OE M8 socket head bolts Ⓚ to 29 Nm / 21.4 lb.ft - Fig 13.

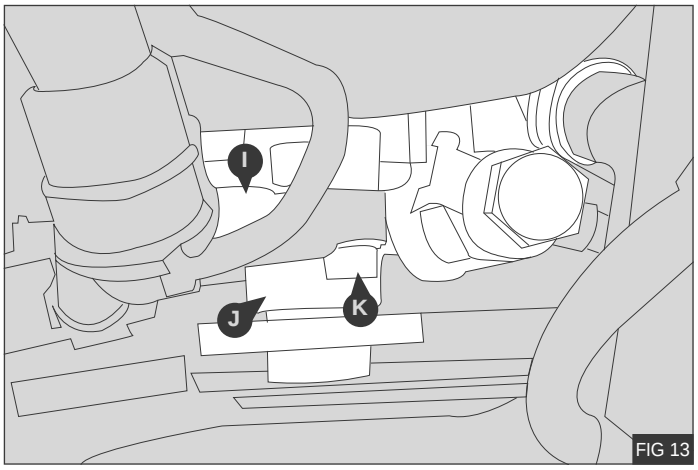


FIG 13

3. Re-install the PAS pump rotor Ⓛ to the PAS pump Ⓙ using the OE bolts - Fig 14

4. Torque the OE bolts to 29 Nm / 21.4 lb.ft - Fig 14

Warning : Check PAS pump rotor Ⓛ is fitted correctly, it is possible fit the wrong way round

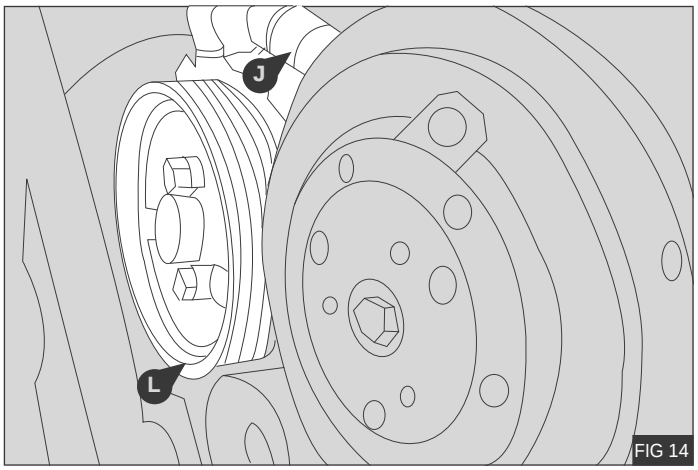


FIG 14

CLUTCH ROTOR INSTALLATION

1. Install the compressor rotor ③ to the compressor using six M5 socket head set screws (12) and spring washers (13) - Fig 15

2. Torque M5 socket head set screws (12) to 7.1 Nm / 5.24 lb.ft - Fig 15

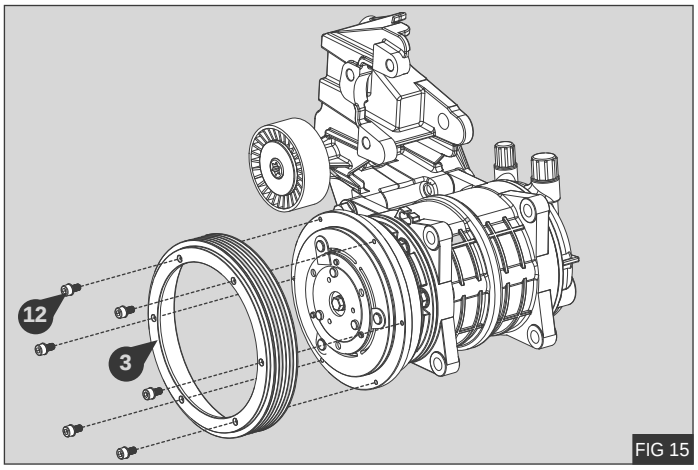


FIG 15

POST INSTALLATION

1. Secure the PAS pipe support bracket Ⓝ to the main mount bracket ① using the OE M6 bolt and washer Ⓞ - Fig 16

2. Torque OE M6 bolt Ⓞ to 12 Nm / 8.85 lb.ft - Fig 16.

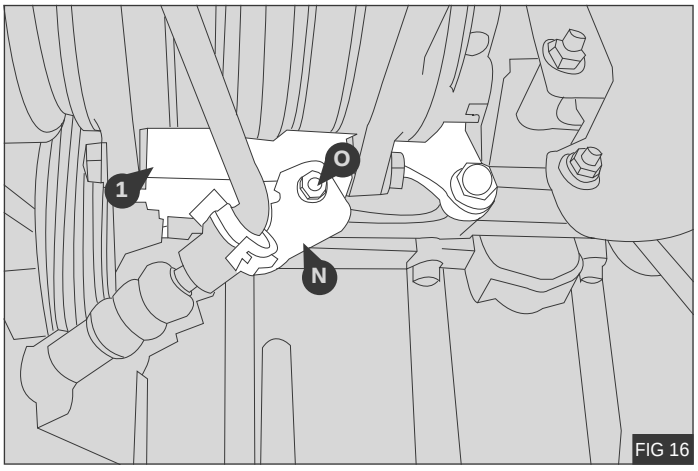


FIG 16

3. Re-fit hose assembly Ⓓ - Fig 17.

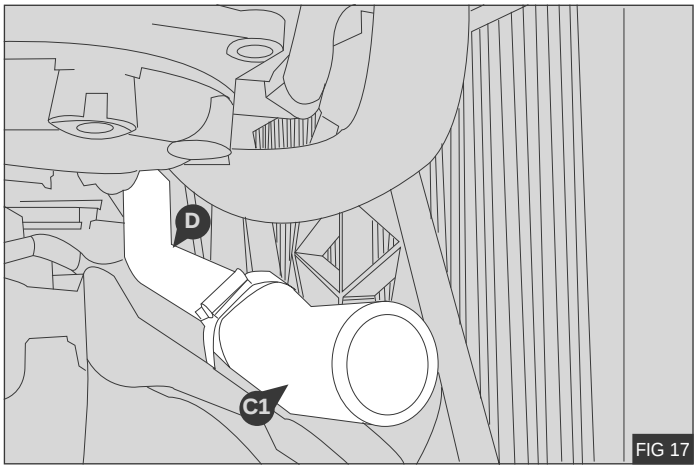


FIG 17

4. Secure the lower metal air pipe Ⓕ to the air pipe support bracket ⑥ using one M6 x 30 bolt (16) going through the air pipe Ⓕ support bracket and being secured in place with one M6 nut ⑧ onto one M6 flat washer 25mm ⑦ - Fig 18

5. Secure the air pipe support bracket ⑥ to the chassis stud Ⓗ using an M6 nut ⑧ - Fig 18.

Note: Do not torque nuts at this time.

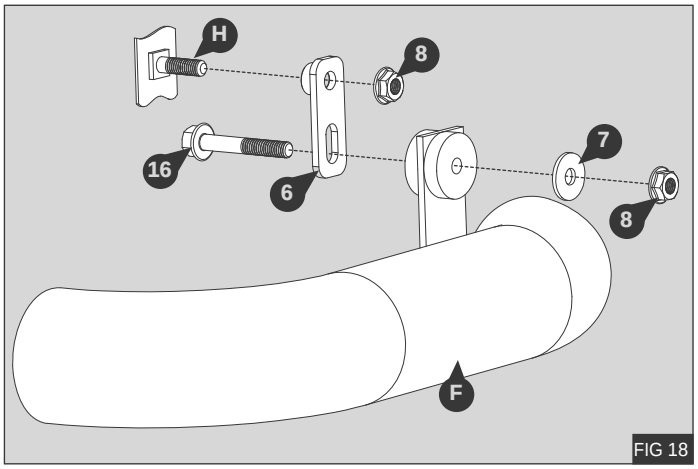


FIG 18

6. Secure the lower metal air pipe Ⓕ to the chassis using one M6 x 40 bolt ⑨ going through the air pipe spacer (10) - Fig 19

7. Torque the M6 x 40 bolt (9) and M6 x 30 bolts (16) to 12 Nm / 8.85 lb.ft.

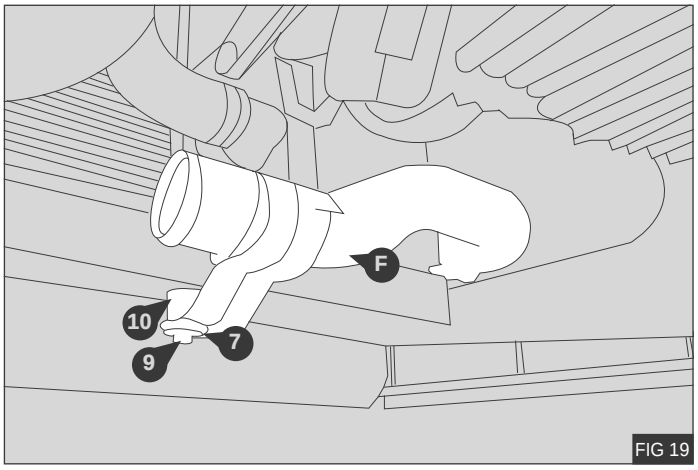


FIG 19

8. Secure the Air hose connector (14) to the bottom half of the cut rubber air hose (C2) using one 40-60mm pipe clip (15) - Fig 20

9. Place one 40-60mm pipe clip (15) to top half of the hose assembly (C1) - Fig 20

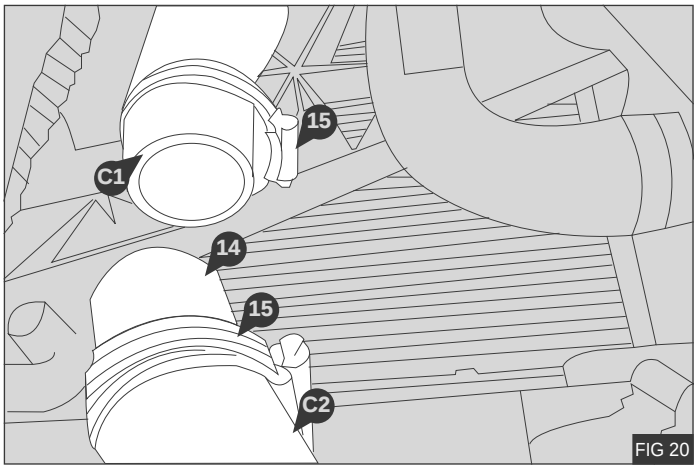


FIG 20

10. Fit the bottom half of the cut hose (C2) to the top half of the cut hose (C1) leaving a gap between (C1) & (C2) to allow for the whole hose assembly to be extended - Fig 21

11. Secure both halves together with the top 40-60mm pipe clip (15) - Fig 21

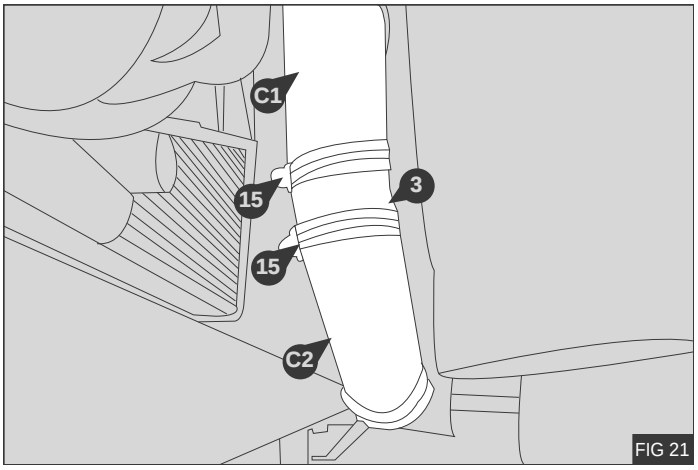


FIG 21

12. Secure the newly assembled air hose to the lower metal air pipe (F) using one 40-60mm pipe clip (15) - Fig 22.

Note: Pipe clip (15) torque cap is designed to break off at the correct torque to allow for the expansion and contraction of the spring.

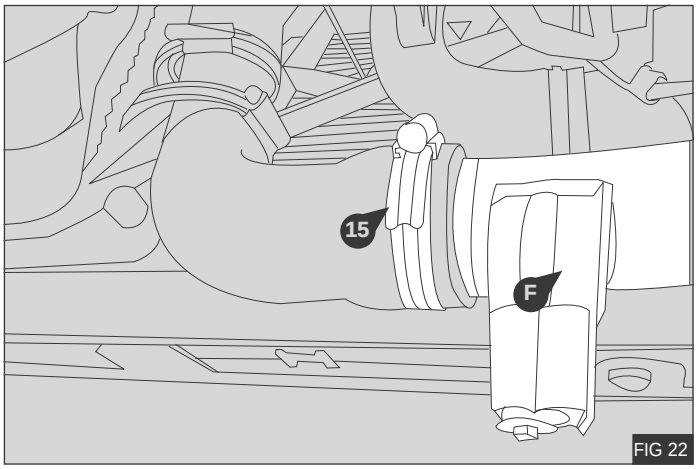


FIG 22

13. Re-fit the turbo hose (A) using the original clic - R® pipe clips (B) - Fig 23

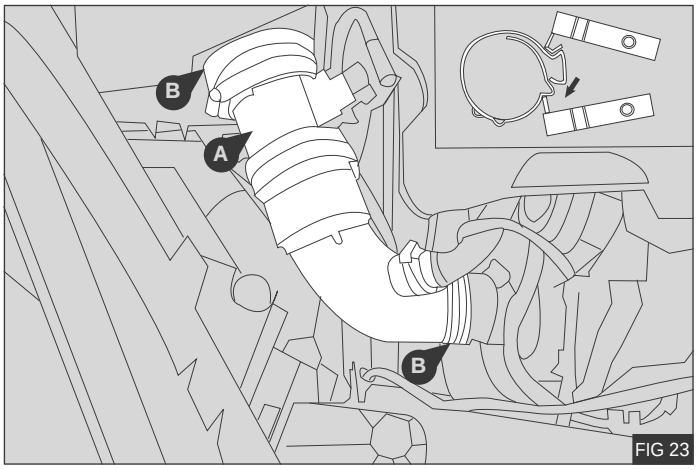


FIG 23

DRIVE BELT

Fit the belt provided (11) as shown in the diagram - Fig 24

A. Crank Pulley
B. Automatic Tensioner
C. Alternator
D. Idle Pulley
E. PAS Pump
F. Compressor
G. Idle Pulley

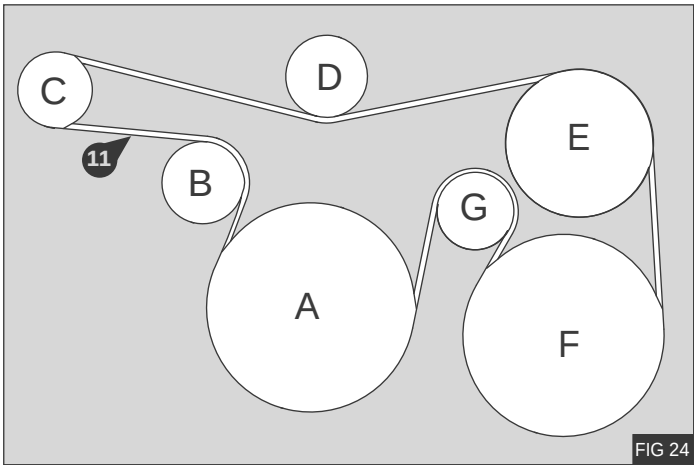


FIG 24

FINISH

Run the engine with the compressor clutch engaged for five minutes, check all components and fit belt label.

Note / Notas / Notes / Notas / Hinweise