

**FORD TRANSIT RWD****2.0L TURBO DIESEL ECOBLUE EURO 6**

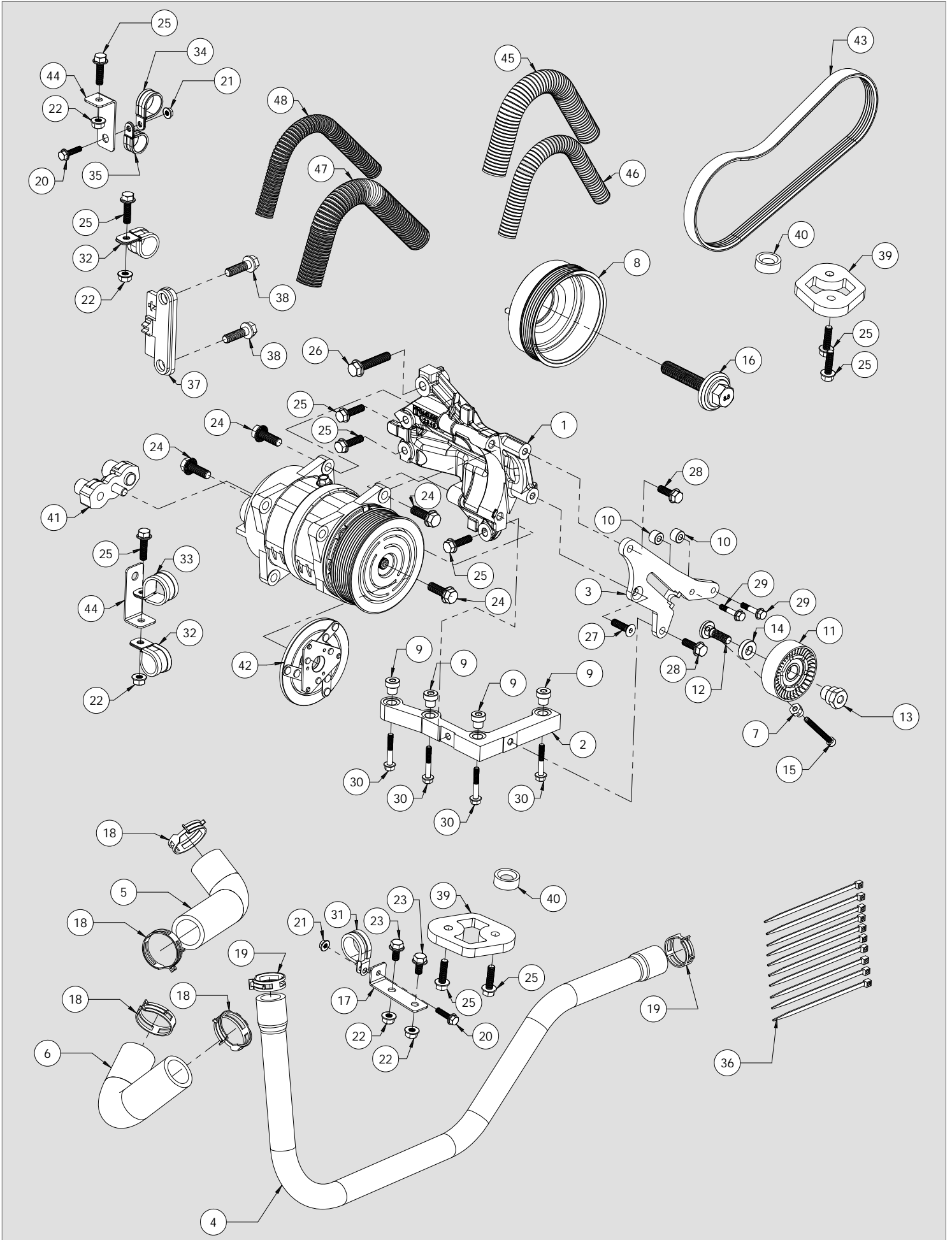
290 / 310 / 330 / 350 / 470

CODE / CODICE: 0500.8212**COMPRESSOR / COMPRESSEUR / KOMPRES-
SOR / COMPRESSORE / COMPRESOR :**SELTEC TM13 / 15 / 16
QUE QP13 / 15 / 16**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	0441.5691	CMB Assy Ford Transit 2.0L RWD inc AC	1	
2	3020.7092	Oil Pan Mounting Panther 2.0l RWD Machined	1	
3	3020.7061	Manual Tensioner Assy Transit RWD 2.0l inc AC	1	
4	1494.0051	Coolant Hose T Piece to radiator (Ø 19)	1	
5	1494.0061	Coolant Hose Water Pump to T Piece	1	
6	1494.0071	Coolant Hose -T Piece to Radiator	1	
7	2803.6511	M6 Threaded Adjuster Nut	1	
8	1701.5522	Crank Pulley Assy Ford Panther 2.0L	1	
9	2803.6521	Oil Pan Support Insert	4	
10	2803.6531	Spacer 15.0 OD x 6.5 ID x 10.5 L	2	
11	1700.5211	Back Idle Pulley 70x22 (5PK)	1	
12	1703.5031	Eye bolt _ lost head M6 X M10 : 1:5	1	
13	1710.0071	Idle Pulley Nut - M10 x 1.5 - 6H	1	
14	2803.6541	Spacer 24 OD x 10.5 ID x 6.5 L	1	
15	2702.5041	Hex Socket Cap Screw M6x60 : 1	1	
16	2711.0071	Hexagon flange bolt inc washer M16 x 90 : 1.5 - 8.8	1	
17	3020.7101	Coolant hose clip bracket	1	
18	1537.1111	45mm DIN 3021 hose clamp	4	
19	1537.1101	35mm DIN 3021 hose clamp	2	
20	2702.0111	Hexagon flange bolt Durlok - M6 x 25 : 1.00 - 12.9	2	
21	2732.0041	Hexagon flange nut Durlok - M6 : 1.00	2	
22	2734.0021	Hexagon flange nut Durlok - M8 : 1.25	5	
23	2704.1521	Hexagon flange bolt Durlok - M8 x 16 : 1.25 - 12.9	2	
24	2705.0491	Hexagon flange bolt Durlok - M10 x 30 : 1.50 - 12.9	4	
25	2704.0091	Hexagon flange bolt Durlok - M8 x 30 : 1.25 - 12.9	10	
26	2705.0341	Hexagon flange bolt Durlok - M10 x 50 : 1.50 - 12.9	1	
27	2704.5351	Flat Countersunk Head Cap Screw M8 x 30 : 1.25	1	
28	2704.0501	Hexagon flange bolt Durlok - M8 x 25 : 1.25 - 12.9	2	
29	2702.0511	Hexagon flange bolt M6 X 30 : 1.00	2	
30	2702.0501	Hexagon flange bolt M6 X 40 : 1.00	4	
31	2771.0091	P-Clip 30mm	1	
32	2771.1081	P Clip 25mm M8 Fixing	2	
33	2771.1101	P Clip 30mm M8 Fixing	1	
34	2771.1041	P Clip 25mm	1	
35	2771.1031	P Clip 19mm	1	
36	2763.0051	Cable Tie 4.8 x 370 - Black	10	
37	2510.5171	Flywheel Locking Tool Ford Panther 2.0l	1	
38	2705.5301	Hexagon flange bolt - M10 x 35 : 1.50 - 8.8	2	
39	3020.7241	Transit Cooling Pack Mount Spacer	2	
40	2803.6651	Radiator Lower Spacer	2	
41	0425.0511	Manifold Sanden FLX7 Compressor H-3/4 x 7/8	1	
42	0421.0011	Clutch Armature SL - Seltec/QUE 13/15/16	1	
43	0820.8011	Belt - Poly Groove 5PK 838	1	
44	3020.6641	90 deg Ø8.5x Ø 10.5	2	
45	1430.0251	Split tube 500mm 28 OD	1	
46	1430.0261	Split tube 500mm 20 OD	1	
47	1430.0162	Heat tube 500mm 30 ID	1	
48	1430.0142	Heat tube 500mm 30 ID	1	

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

SELTEC	TM13-HD	TM15-HD	TM16-HD
Comp No	0391.5862	0391.5852	0391.5872
Valeo No.	-	-	-
Mounting	Ear	Ear	Ear
Rotor	8PV	8PV	8PV
GL	46.55	46.55	46.55
Armature	SL	SL	SL
Diameter	123	123	123
Voltage	12	12	12
Orientation	H (P)	H (P)	H (P)
Fitting	3/4 x 7/8	3/4 x 7/8	3/4 x 7/8
Manifold	Bolt	Bolt	Bolt

QUE	QP-13 HS	QP15-HS	QP16-HS
Comp No	0381.5862	0381.5852	0381.5872
Que No.	-	-	-
Mounting	Ear	Ear	Ear
Rotor	8PV	8PV	8PV
GL	46.55	46.55	46.55
Armature	SL	SL	SL
Diameter	123	123	123
Voltage	12	12	12
Orientation	H (P)	H (P)	H (P)
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.

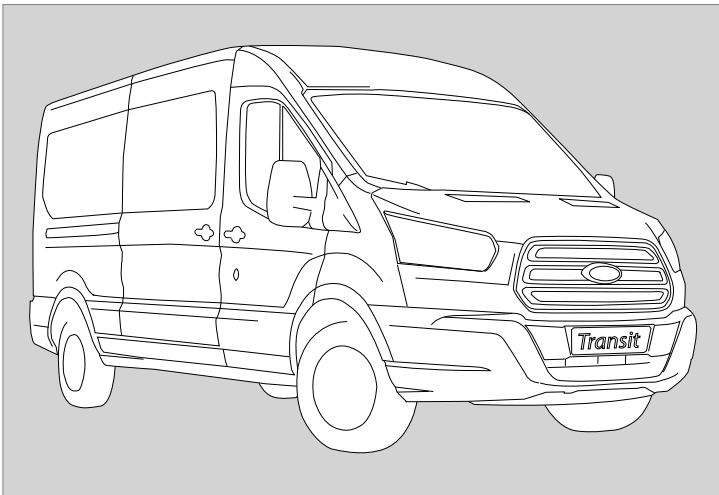
VALORI STANDARD DI SERRAGGIO PER DISPOSITIVI DI FISSAGGIO

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	Ford
Model	Transit VAN RWD
Model Type	290 / 310 / 330 / 350 / 470
Engine	2.0L Turbo Diesel Ecoblue Euro 6
Engine Details	105PS (77kW) / 130PS (96kW) / 170PS (125kW)
Year	2016>
Chassis Nos.	N/A
LHD	YES
RHD	YES
PAS	YES
A/C	YES
Voltage	12v

KIT DETAILS

Kit Part Number	0500.8212
Description	Standard
Compressor RPM	3700 @ Max engine power output
Fitting Time	150 Minutes
Suction Fitting	Straight
Discharge Fitting	Straight
Belt Type	5PK 838
Belt Part Number	0820.8011

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.

POST 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.

REMOVAL OF PARTS

1. Disconnect the batteries and remove the ignition key from the vehicle.
2. Using cable ties (36) secure the radiator (A) as shown. - Fig 1

N.B This operation is necessary to facilitate removal of the radiator lower support.

3. Remove and retain plastic guard (B) and its fixings. - Fig 2

4. Undo viscous fan (C) from the pulley hub (Anti clockwise thread). - Fig 3

Note: Suggested tools see Fig 3

5. Drain engine coolant into a clean container and retain for re-use.

6. Remove bottom coolant hose assembly (D), Disconnect from the radiator, the water pump outlet and at the union shown (E). - Figs 4 & 5

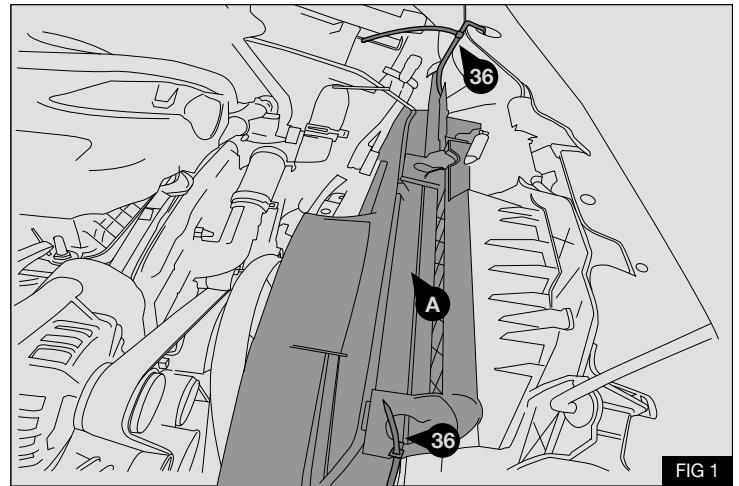


FIG 1

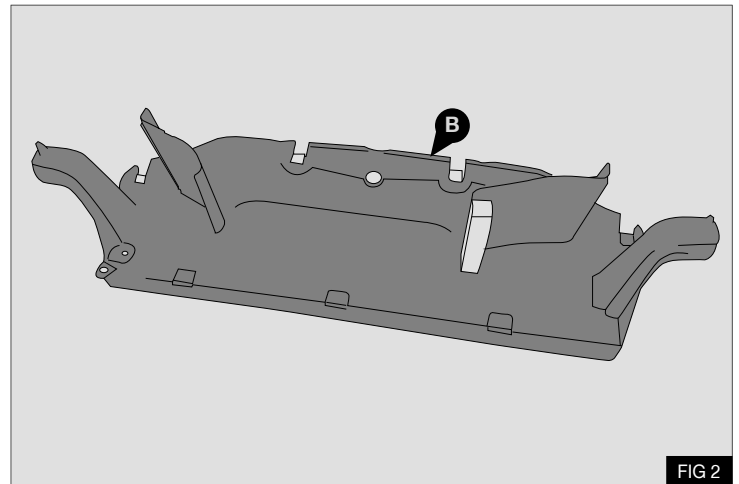


FIG 2

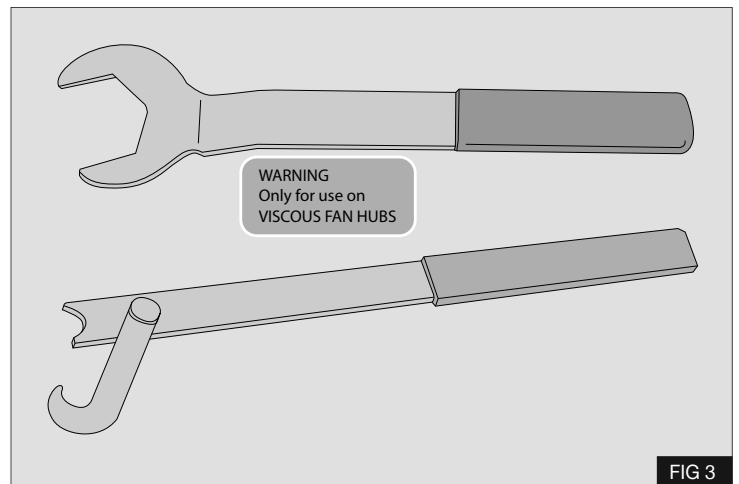


FIG 3

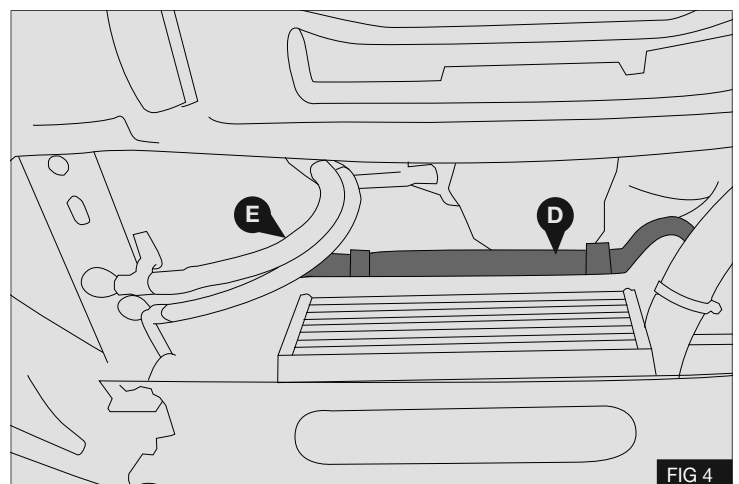
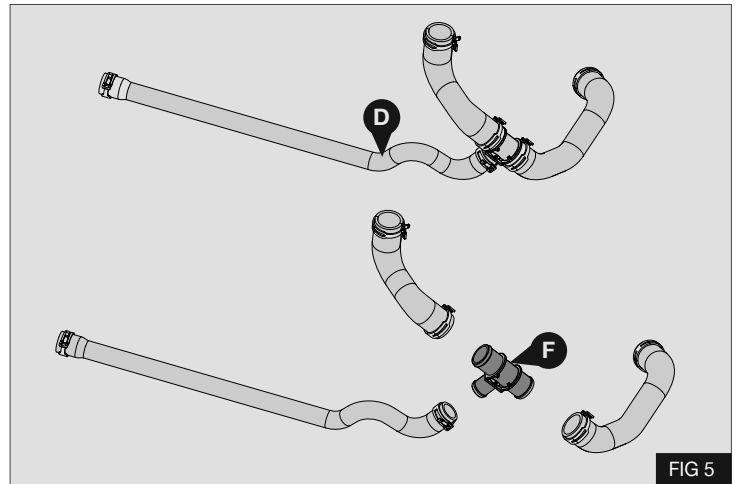


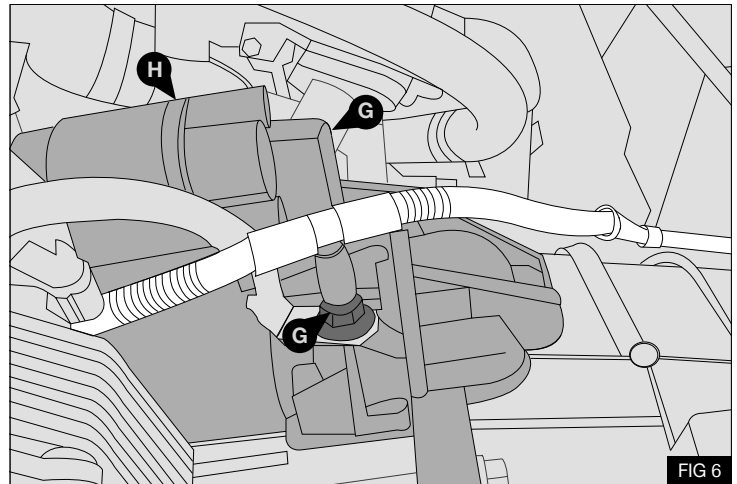
FIG 4

- When the lower coolant hose (D) is removed discard the hose clamps and hose sections from the plastic junction (F) - retain (F) for re-use. - Fig 5



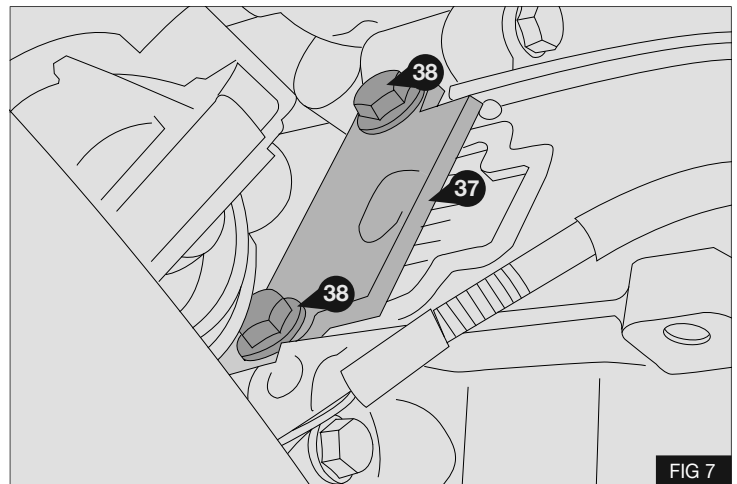
CRANKSHAFT PULLEY INSTALLATION

- Remove the bolts (G) securing the starter motor (H). - Fig 6



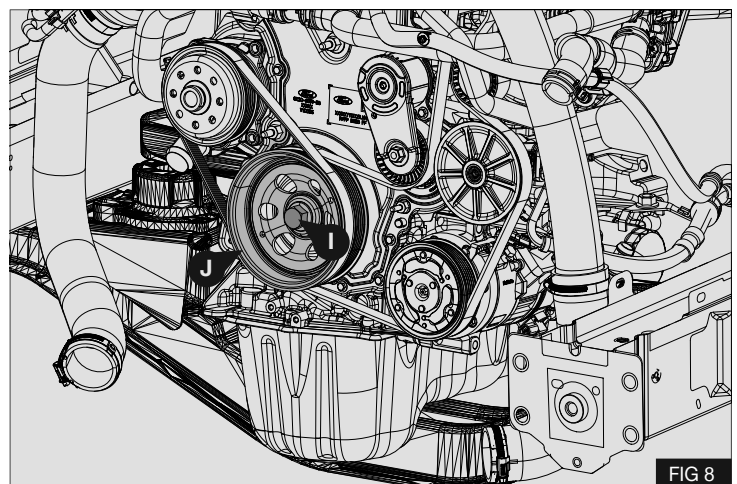
- Move the starter motor aside without disconnecting the wiring harness and install the crankshaft locking tool (37) with 2x M10 x 35 bolts (38). - Fig 7

Caution: Discard bolts (38) after use.



- Remove and discard the original bolt (I) securing the crankshaft pulley (J). - Fig 8

NOTE: Do not remove pulley or belts



4. Locate the supplied crankshaft pulley (8) on the original pulley (J), Install bolt (16) by hand. - Fig 9

Caution: Ensure the alignment pins in the supplied pulley (8) locate within the M8 threaded holes in the original pulley (J), and that the pulley (8) is centred in the original pulley (J).

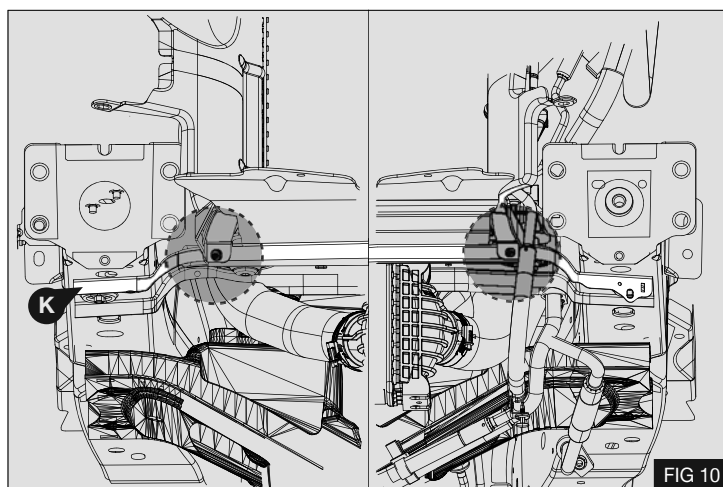
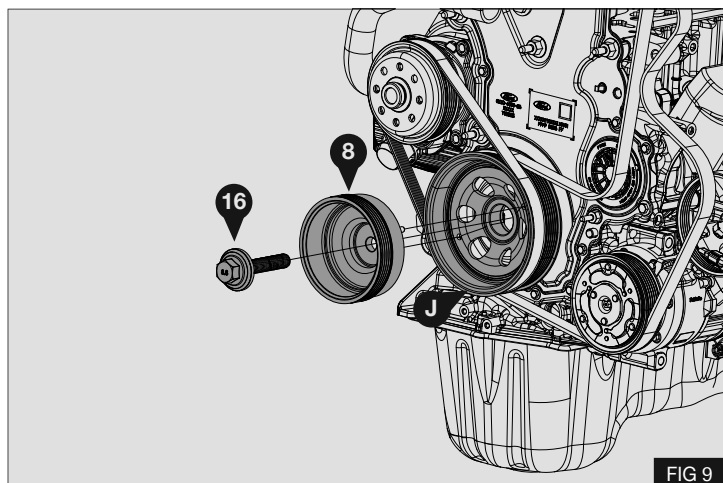
5. Tighten the crankshaft pulley bolt (16) following this procedure exactly:



CAUTION: DO NOT ATTEMPT TO TIGHTEN THE BOLT USING AN IMPACT WRENCH.

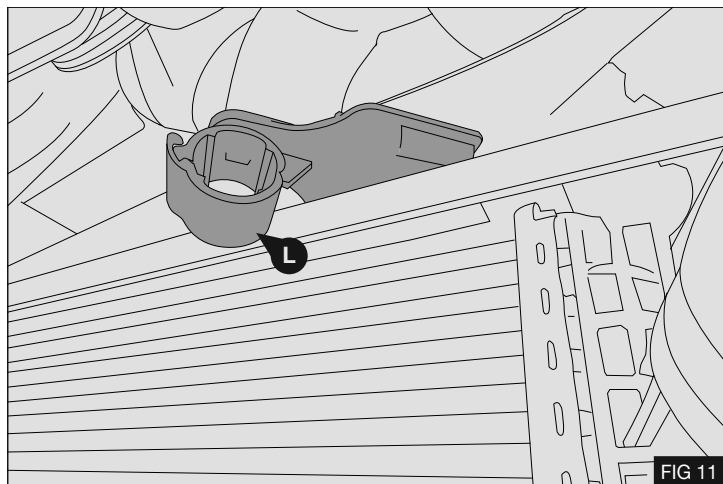
1. 10Nm
 2. Loosen: 60°
 3. 20Nm
 4. 70Nm
 5. 150Nm
 6. Loosen: 90°
 7. 100Nm
 8. 300Nm
 9. Tighten: 90°
6. Remove the flywheel locking (37) tool and re-fit the starter motor (H) using the original bolts (G). Torque bolts (G) to 35Nm

Note: Re-connect the earth wire.

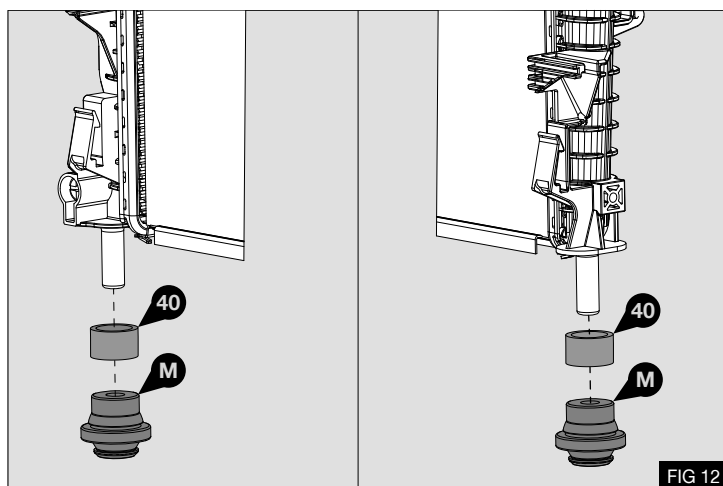


COOLING PACK MODIFICATION

1. Remove and discard the fasteners securing the cooling pack support (K), temporarily remove the plastic plugs securing the plastic side trims. Do not disconnect the intercooler charge ducts. - Fig 10
2. Gently separate the radiator from the cooling pack mounting (K).
3. Remove and discard the coolant hose support (L). - Fig 11



4. Remove the radiator lower mounting bushes (M), fit spacers (40). Then re-fit bushes (M) - Fig 12



- Re-fit the cooling pack mounting (K) using spacers (39) with 4x M8x30 bolts (25). - Fig 13

Torque bolts (25), to 29Nm

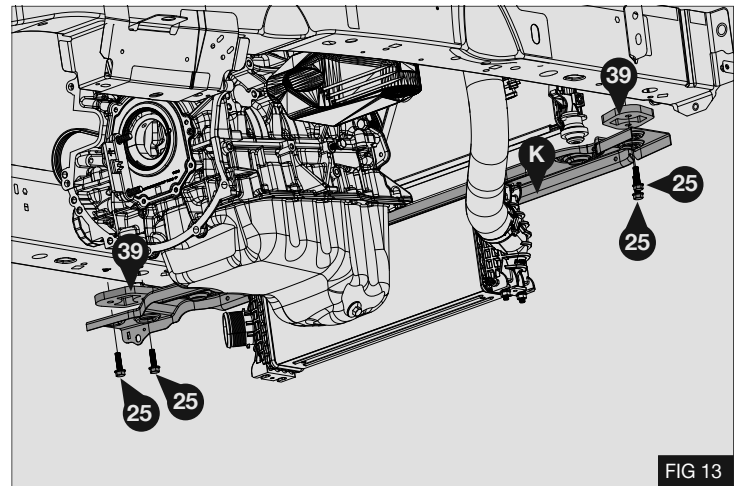


FIG 13

MOUNT BRACKET INSTALLATION

- Remove and discard the 4x bolts (N) from the oil pan (O). - Fig 14

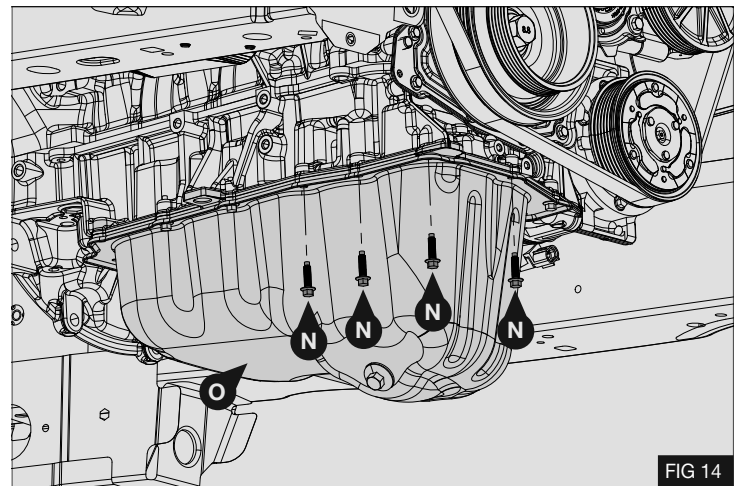


FIG 14

- Insert the spacers (9) into the oil pan mounting (2). Install the oil pan mounting assembly (2) using 4 x M6 x 40 bolts (30). Do not fully tighten. - Fig 15

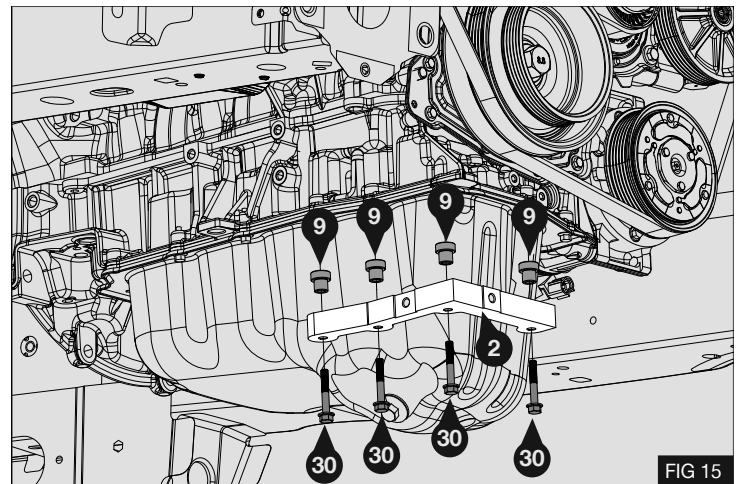


FIG 15

- Install the mount bracket (1) using 1x M10 x 50 bolt (26) and 3x M8 x 30 bolts (25). Do not fully tighten at this stage. - Fig 16

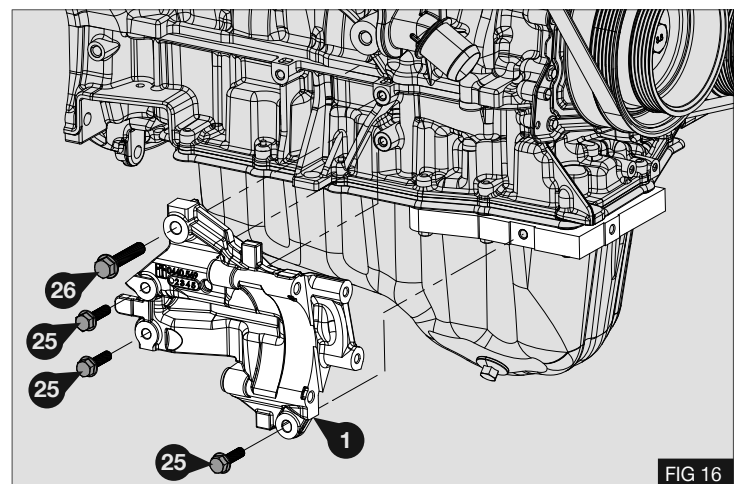
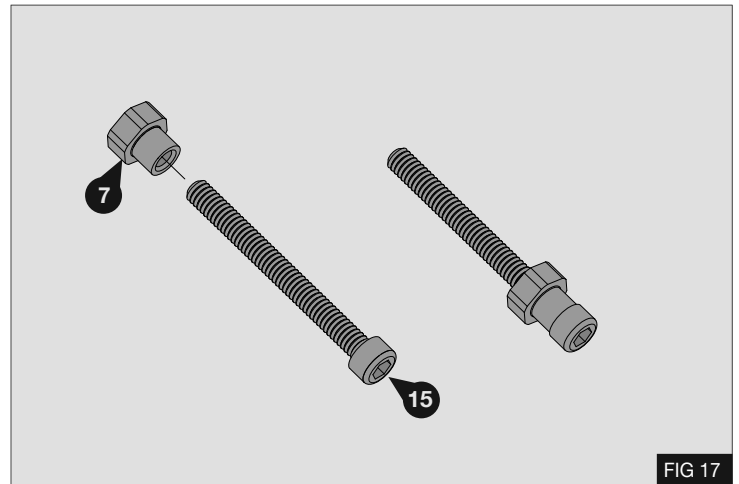
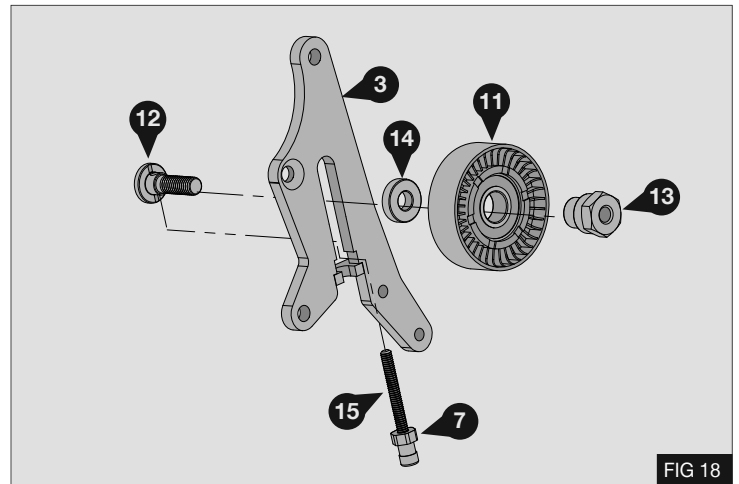


FIG 16

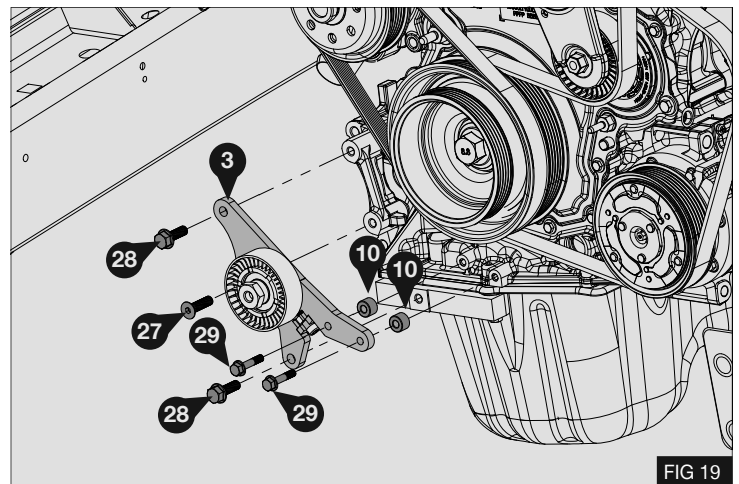
4. Fit the adjuster nut (7) to the M6x 60 bolt (15) and tighten fully. - Fig 17



5. Assemble the components (15), (7), (12), (14), and (13) with the pulley (11) onto the tensioner plate (3). - Fig 18

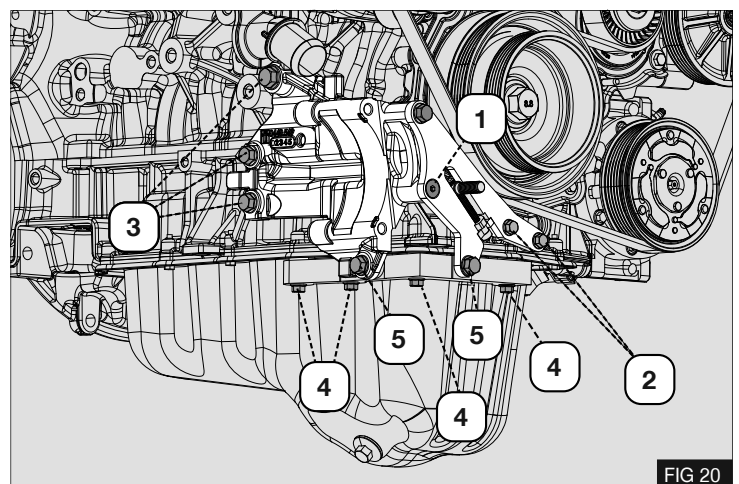


6. Fit the tensioner assembly to the engine and the mount bracket using 2x M8 x 25 flange bolts (28), 1 x M8 Countersunk head bolt (27), 2x M6 x 30 bolts (29) with Spacers (10). - Fig 19



Torque the bolts in the following order:

1. - M8 flange bolt (28) and M8 Countersunk screw (27)
Torque bolts to 29Nm
2. - M6 Flange bolts (29)
Torque bolts to 10Nm
3. - M10 Flange bolt (26)
Torque bolt to 58Nm
- M8 Flange bolts (25)
Torque bolts to 29Nm
4. - M6 Flange bolts (4)
Torque bolts to 10Nm
5. - M8 Flange bolts (28), (25).
Torque bolts to 29Nm



COMPRESSOR INSTALLATION

1. Prepare the refrigerant compressor by removing the mounting ear (P). (Que / Seltec) Install the SL armature (42) and the Manifold (41) - Fig 20

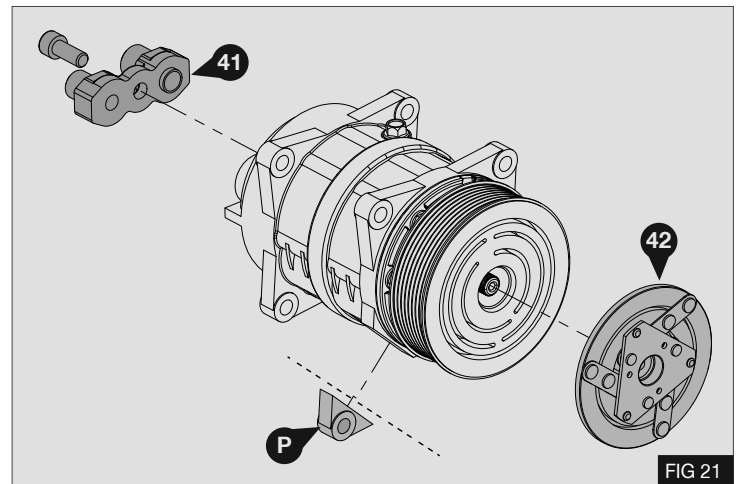


FIG 21

2. Install the modified compressor to the mounting bracket (1) using 4x M10 x 30 Bolts (24). - Fig 22

Caution: Ensure the bolts at the front of the compressor are tightened first.

3. Torque bolts (24) to 58Nm

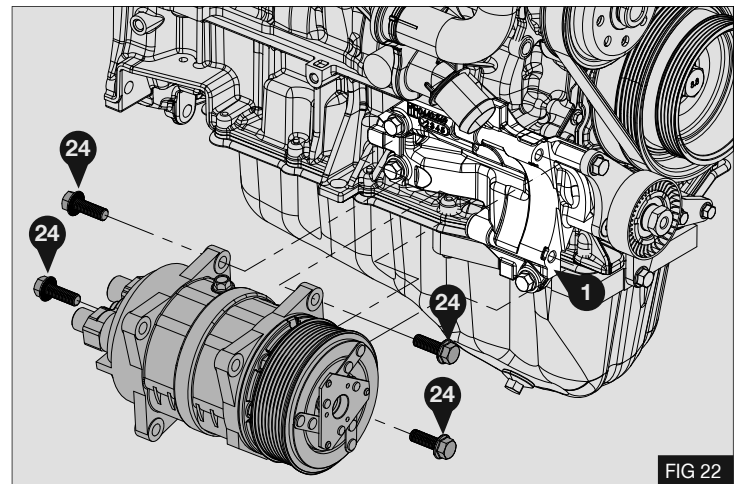


FIG 22

DRIVE BELT

1. Fit the compressor drive belt (43). Tension the belt using the adjuster bolt (15) to the value specified. When the correct tension is achieved tighten the pulley nut (13). - Fig 23/24

Caution: To prevent damage to the pulley (11) ensure there is enough free movement in the pulley assembly to clear the adjuster nut (7) during the tensioning procedure.

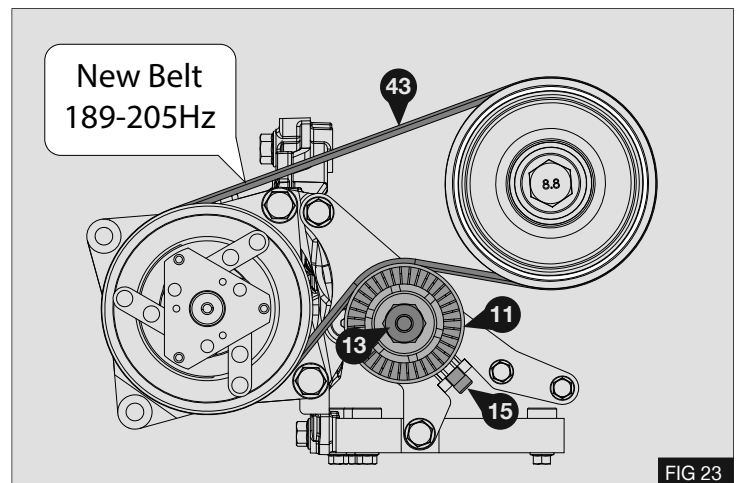


FIG 23

BELT TENSION TABLE

Belt	Belt Age	Belt Tension Using Belt Tension Gauge	Frequency. at span indicated
5PK	New Belt	60 - 70 kg	189-205Hz
5PK	Used Belt	45 - 50 kg	164-173Hz

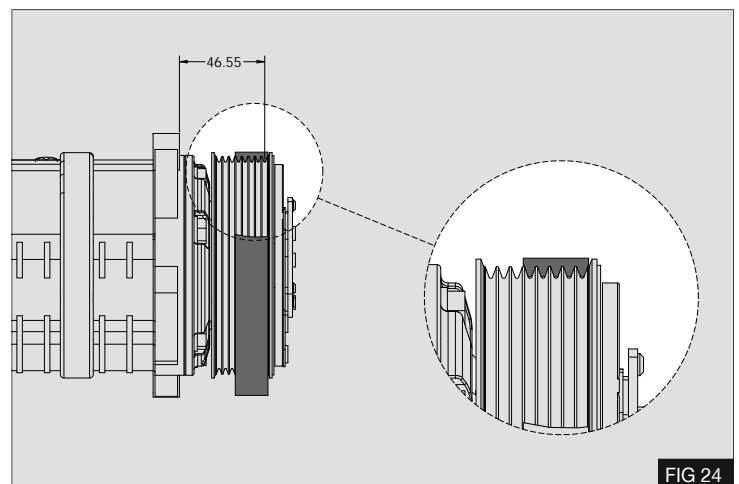


FIG 24

COOLANT HOSES

1. Re-fit the viscous fan (C) and tighten (reverse thread).
2. Assemble the hoses (4), (5), and (6) onto the original plastic T junction (F), secure with Hose clamps (18), (19). - Fig 25

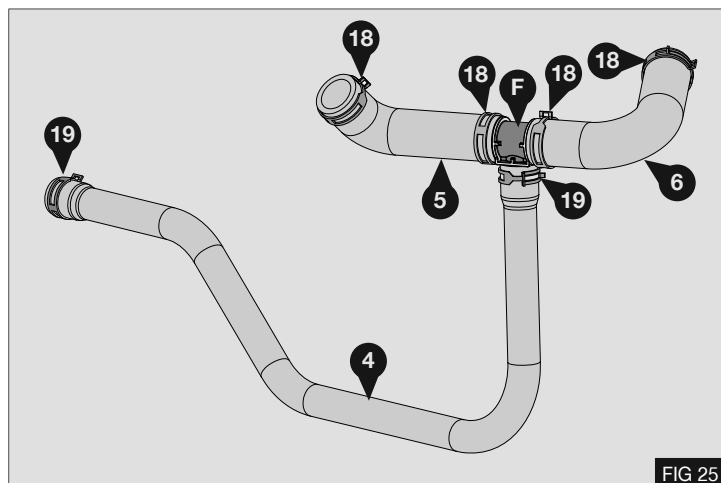


FIG 25

3. Fit the hose assembly to the vehicle and secure to coolant outlets using hose clamps (18), (19). Fit the hose into the original support (Q). - Fig 26

Caution: Adjust the hose positions for the best fit and clearance.

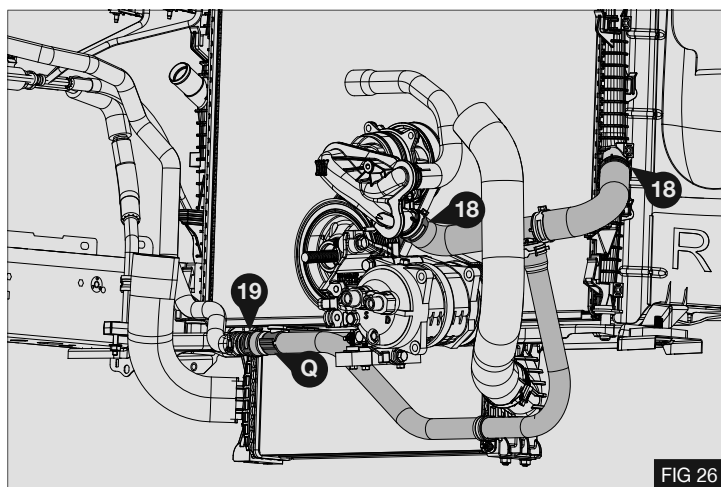


FIG 26

4. Fit the hose support plate (17) using 2x M8 x16 bolts (23) and M8 nuts (22). When the bracket is secured fix the hose using Pipe clip (31) with M6x 25 bolt (20) and M6 nut (21). - Fig 27
5. Re-fill the coolant system
6. Re-fit the plastic guard (B) using the original fasteners

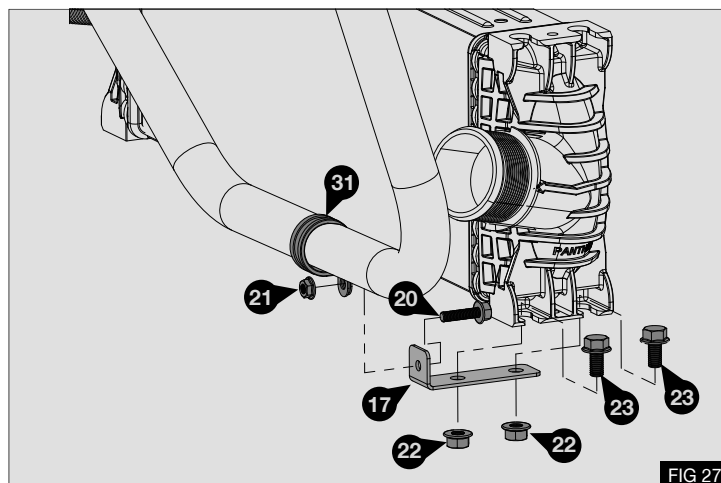


FIG 27

REFRIGERANT HOSES

1. Fit the heat shields (47) and (48) to the hoses. Fit hose support plate (44) using the original fastener (U). - Fig 28

Torque bolt (U) to 45Nm

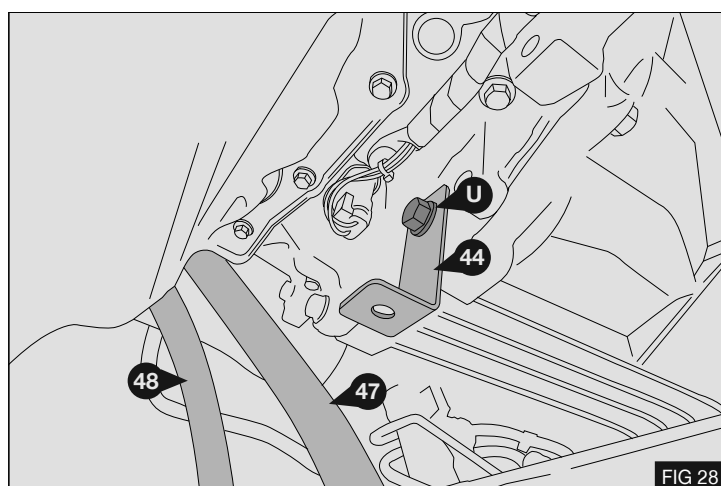
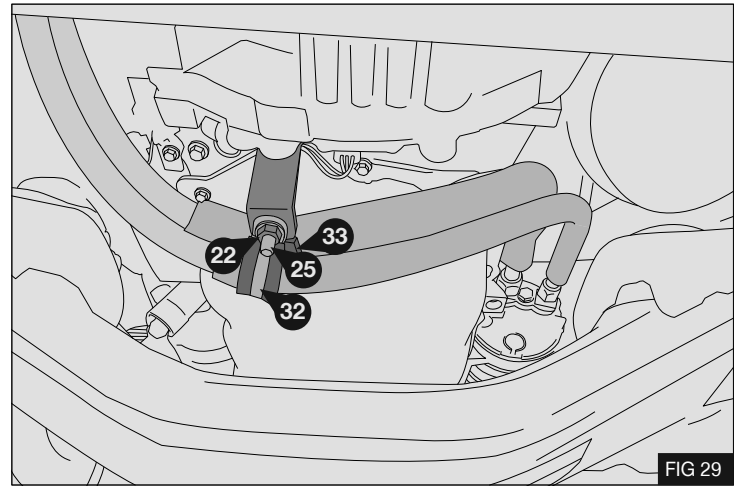
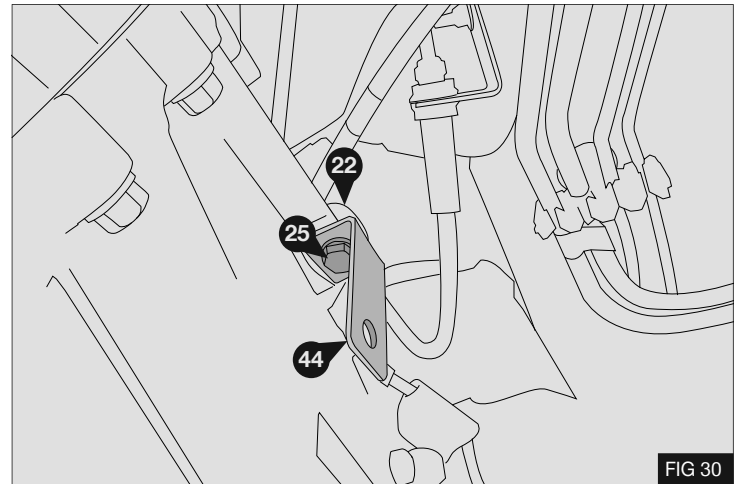


FIG 28

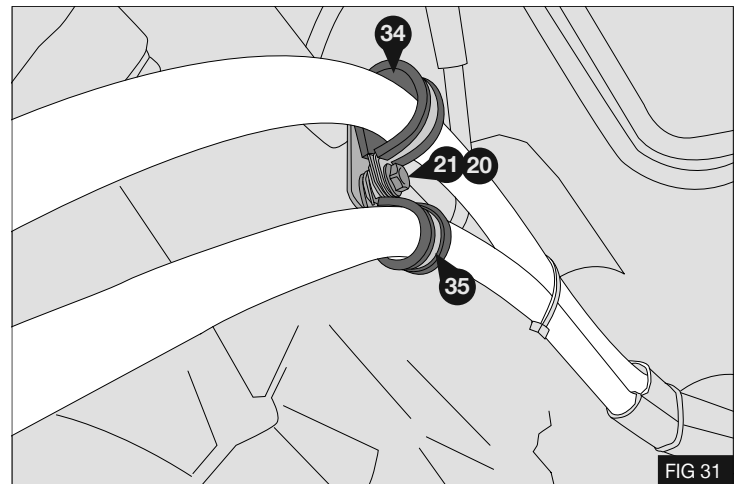
2. Route the hoses as shown and secure to the plate (44) Using P- Clips (32) and (33) with M8x30 bolt (25) and M8 nut (22).
- Fig 29



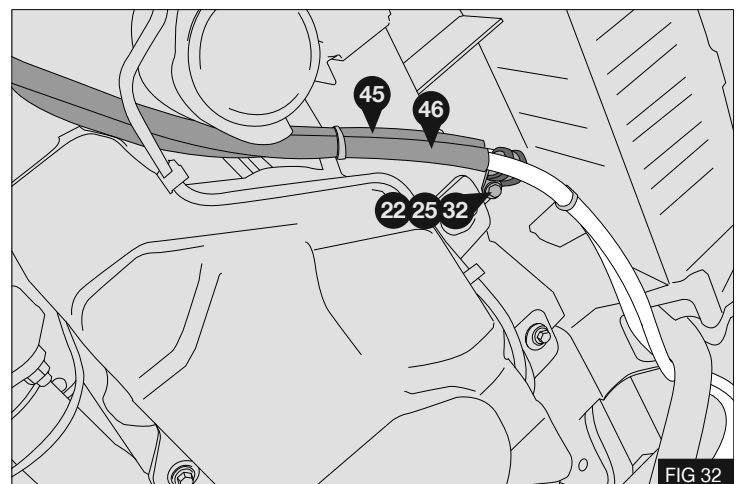
3. Install the support plate (44) using 1x M8x30 bolt (25) with Nut (22).- Fig 30



4. Route hoses alongside the gearbox and secure to the plate (44) using P-clips (34) and (35) with M6x 25 bolt (20) and Nut (21).
- Fig 31



5. Fit the protective sleeving (45), (46) to the hoses. Route as shown and secure the suction hose to the original hole in the chassis using P-clamp (32) with M8 x 30 bolt (25) and Nut (22)
- Fig 32



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.
2. Run engine with refrigerant compressor engaged for 10 minutes, Allow drive belts to cool and re-tension as necessary (See table).

(EN)

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