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### **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**

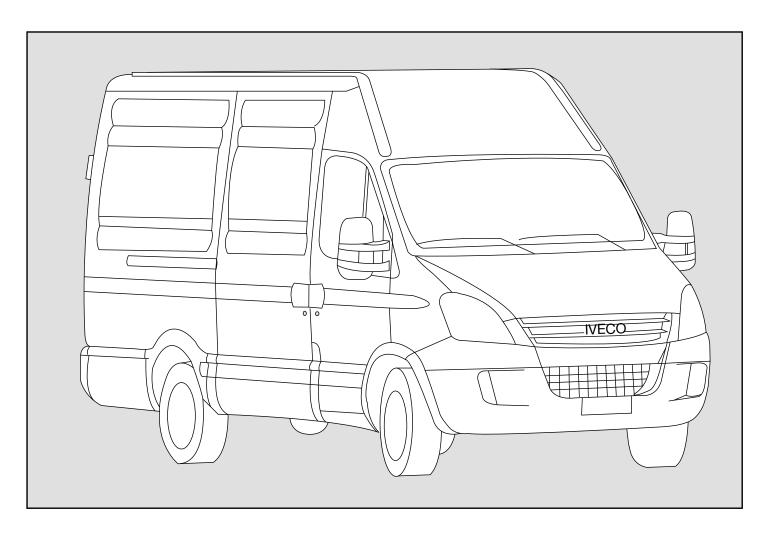
- a Detach the battery negative lead.
- **b** Torque all bolts where stated using a calibrated torque wrench.
- **c** Take extreme care with moving parts.
- **d** Remove the vehicle's ignition key and keep it with you.
- **e** Wear safeguards and make sure that liquid refrigerant never touches your skin

**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.

### 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    | 0.9   | 12    | 2.9   |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
|             | Max T | orque |
| 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   | Iveco                           |
|----------------|---------------------------------|
| Model          | Daily                           |
| Engine         | 35S 17, 35C 15/17, 40C 15/17,   |
|                | 50C 15/17, 65C 15/17, 70C 15/17 |
| Engine Details | 3.0L E5 / EEV (146/170PS)       |
|                | WG/VGT/Twin Turbo - Common Rail |
| Year           | 2012>                           |
| Chassis Nos.   | N/A                             |
| LHD            | YES                             |
| RHD            | YES                             |
| PAS            | YES                             |
| A/C            | NO                              |
| Voltage        | 12v                             |
|                |                                 |

# **KIT DETAILS**

| Kit Part No.      | 0500.7002                  |
|-------------------|----------------------------|
| Description       | Standard Kit               |
| Compressor RPM    | 4100 @ Max Engine          |
|                   | Power Output               |
| Fitting Time      | 75 Minutes                 |
| Suction Fitting   | 90°                        |
| Discharge Fitting | 90°                        |
| Main Drive        |                            |
| Belt Type         | 6PK 1320                   |
| Belt Part No.     | 0820.5071                  |
| Compressor        |                            |
| Belt Type         | 4PK 1090                   |
| Belt Part No.     | 0820.6481                  |
| Note              | Does not fit 205PS Engines |



### **COMPATIBLE COMPRESSORS**

| SELTEC      | - | - | TM21-HS   |
|-------------|---|---|-----------|
| Comp No     | - | - | 0380.0621 |
| Valeo No.   | - | - | -         |
| Mounting    | - | - | Direct    |
| Rotor       | - | - | 8PV       |
| Armature    | - | - | 3E        |
| Diameter    | - | - | 137       |
| Voltage     | - | - | 12        |
| Orientation | - | - | Н         |
| Fitting     | - | - | Pad       |
| Manifold    | - | - | Bolt      |

| QUE         | - | QP16-HD | QP21-HD   |
|-------------|---|---------|-----------|
| Comp No     | - | -       | 0390.0621 |
| Que No.     | - | -       | QP21-1562 |
| Mounting    | - | -       | Direct    |
| Rotor       | - | -       | 8PV       |
| Armature    | - | -       | 3E        |
| Diameter    | - | -       | 137       |
| Voltage     | - | -       | 12        |
| Orientation | - | -       | Н         |
| Fitting     | - | -       | Pad       |
| Manifold    | - | -       | Bolt      |

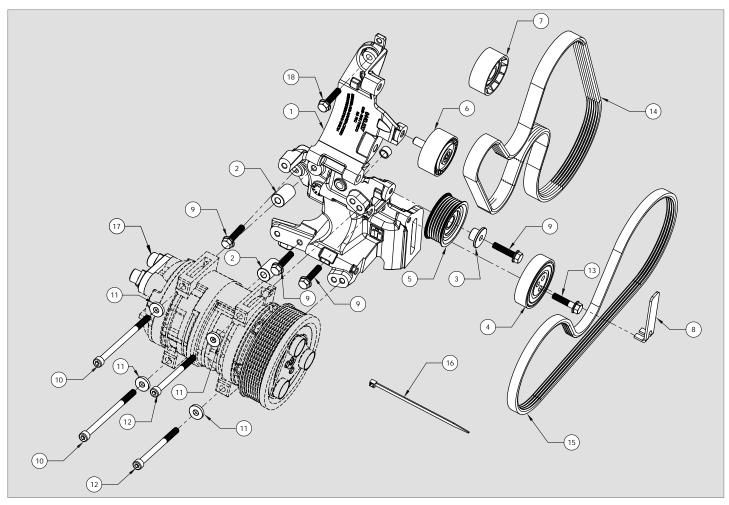
| SANDEN      | SD5H09 | SD5H14 | SD7H15 |
|-------------|--------|--------|--------|
| Comp No     | -      | -      | -      |
| Sanden No.  | -      | -      | -      |
| Mounting    | -      | -      | -      |
| Rotor       | -      | -      | -      |
| Armature    | -      | -      | -      |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

| Notes |  |  |  |
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| COMPRESSOR KIT CONFIGURATIONS |           |                 |  |   |  |  |
|-------------------------------|-----------|-----------------|--|---|--|--|
|                               |           | SSOR KIT<br>NOS |  |   |  |  |
| PART<br>NUMBER                | 0521.7002 | 0591.7002       | DESCRIPTION                            |   |  |  |
| 0380.0621                     |           |                 | TM21 Direct Mount 8PV 3E 137 12V H pad | 1 |  |  |
| 0390.0621                     |           |                 | QP21 Direct Mount 8PV 3E 137 12V H pad | 1 |  |  |

<sup>=</sup> Additional parts to standard kits.

### **PARTS VIEW**



# **PARTS LIST**

| ITEM | PART NO.  | DESCRIPTION                                      | QTY. | COMMENTS |
|------|-----------|--|------|----------|
| 1    | 0441.5371 | Compressor mount bracket - Iveco 3.0L F1C        | 1    | -        |
| 2    | 2803.5741 | Spacer OD 20 x ID 8.5 L31                        | 2    | -        |
| 3    | 2803.5611 | Spacer ID 8.3 OD 16.8 L 14.5                     | 1    | -        |
| 4    | 1700.0371 | Eccentric Idle pulley                            | 1    | -        |
| 5    | 1700.0541 | Idle pulley - 69 x 26.5 6PK                      | 1    | -        |
| 6    | 1700.5231 | Idler 6PK Ø 60 inc M10 cap bolt                  | 1    | -        |
| 7    | 1700.0341 | Idle Pulley 60.2 X 25.5                          | 1    | -        |
| 8    | 3020.3863 | Eccentric Pulley Adjusting Tool                  | 1    | -        |
| 9    | 2704.0481 | Hex flange bolt Durlok - M8 x 35 : 1.25 - 12.9   | 4    | -        |
| 10   | 2704.5421 | Hex socket head cap screw M8 x 130 : 1.25 - 12.9 | 2    | -        |
| 11   | 2808.5001 | Washer M8 Flat DIN 7349 OD21 x ID8.4 x L4        | 4    | -        |
| 12   | 2704.5611 | Hex socket head cap screw M8 x 100 : 1.25 - 12.9 | 2    | -        |
| 13   | 2704.1021 | Hex flange bolt - M8 x 35 : 1.25 - 10.9          | 1    | -        |
| 14   | 0820.5071 | 6PK 1320   | 1    | -        |
| 15   | 0820.6481 | 4PK 1090   | 1    | -        |
| 16   | 2763.0057 | Cable Tie 4.8 x 370 - Black                      | 1    | -        |
| 17   | 0425.0142 | Manifold - H 3/4 x 7/8                           | 1    | -        |
| 18   | 2704.0091 | Hex flange bolt Durlok - M8 x 30 : 1.25 - 12.9   | 1    |          |



### **PRE-INSTALLATION**

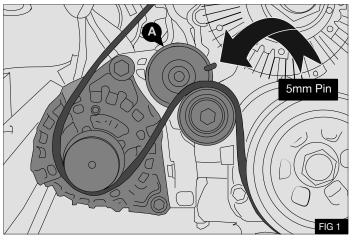
**N.B** Prior to commencing work, please examine the instructions with care. The alphabetical symbols on the diagram relate to written instructions, numerical symbols relate to the parts listing.

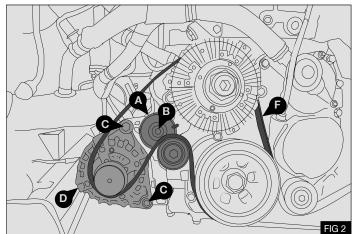
### Removal of parts:

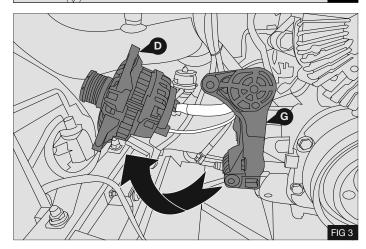
- 1. Disconnect battery negative terminal.
- 2. Remove engine under panel.
- **3.** Release the tension on the original auto tensioner (A) and lock using a suitable 5mm diameter pin Fig 1

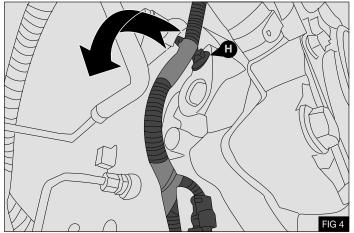
**N.B** it is necessary to lock the auto tensioner to facilitate re- installation

- **4.** Remove and discard the original drive belt (F) Fig 2
- **5.** Remove and retain the auto tensioner (A) and its fixing screw (B) Fig 2
- **6.** Remove and retain the screws © securing the alternator D Fig 2
- **7.** Disconnect the alternator ① from its bracket and place to one side Fig 3
- **8.** Remove and discard the original alternator mounting bracket G and its fasteners Fig 3
- **9.** Remove the loom support (H) from the M8 upper mounting hole.- Fig 4



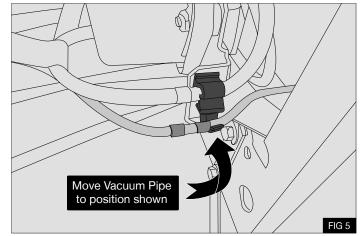




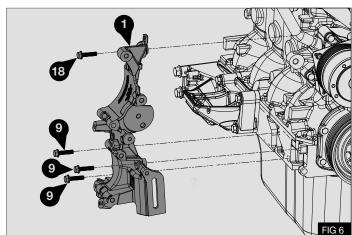


### **INSTALLATION**

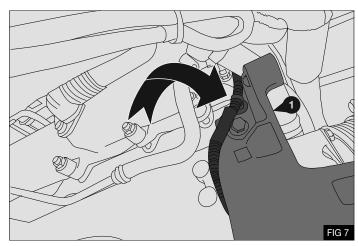
**1.** If the vacuum assistor box is installed move pipe to position shown, this will improve clearance to the compressor pulley once installed - Fig 5



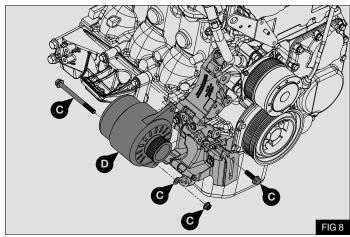
- 2. Fit the mount bracket 1 to the points shown on the engine using 4 x M8x 35 bolts 9 and M8x 35 bolt 18 Fig 6
- **3.** Torque bolts 9 and 18 to 35Nm / 26 Lbft Fig 6



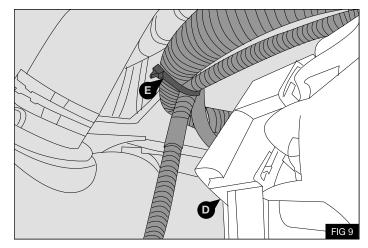
**4.** Fit loom support into the hole provided in mount bracket - Fig 7



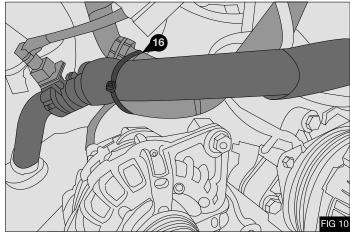
**5.** Fit the alternator  ${\Bbb O}$  using the original fasteners  ${\Bbb C}$  - Fig 8



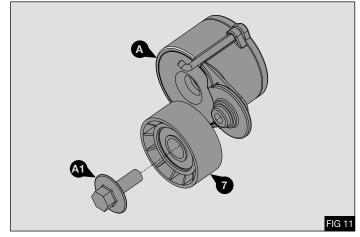
- **6.** Torque fasteners © to 45Nm / 33Lbft
- 7. Remove the cable tie (E) securing the loom at the rear of the alternator - Fig 9

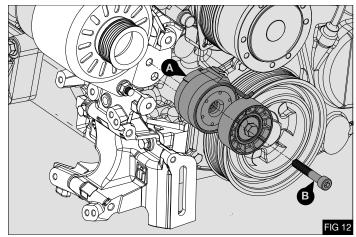


8. Secure loom using cable tie 16 at point shown - Fig 10



- 9. Remove and discard original pulley from tensioner (A1) - Fig 11
- **10.** Fit supplied pulley 7 using original fastener (A1) - Fig 11
- 11. Torque bolt (A1) to 45Nm / 33Lbft
- **12.**Fit auto tensioner assembly (A) to the bracket 1 using original fastener B - Fig 12

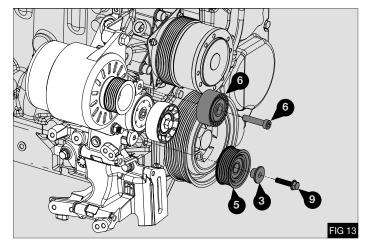


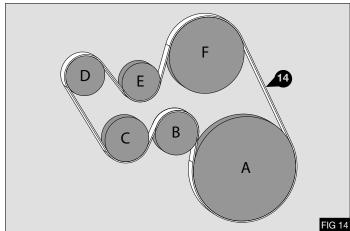


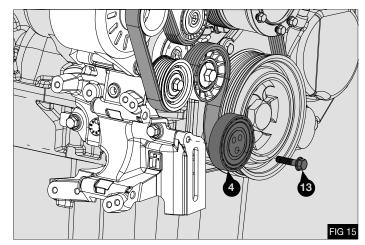
- 13. Torque fastener (B) to 45Nm / 33Lbft
- **14.**Fit reverse idle pulley assembly 6 Fig 13
- **15.**Torque bolt 6 to 45Nm / 33Lbft
- **16.** Fit grooved idler pulley 5 using M8 x 35 bolt 9 with spacer 3 Fig 13
- **17.**Torque bolt 9 to 35Nm / 26lbft
- **18.** Fit the supplied drive belt 14, and remove locking pin from auto tensioner A Fig 14
  - A Crank pulley
  - B Auto tensioner
  - C Grooved idler pulley
  - D Alternator
  - E Reverse idler pulley
  - F Fan hub
- **19.** Install the eccentric tensioner pulley 4 using bolt 13 Fig 15

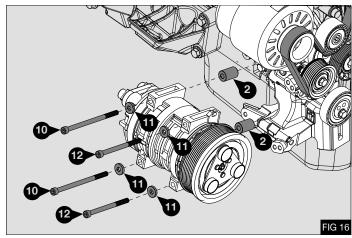
- 20. Fit the compressor (not supplied) to the bracket

  1 using M8 x 130 bolts 10 and M8 x 100
  bolts 12 with washers 11 and spacers 2
   Fig 16
- 21. Torque bolts 10, 12 to 35Nm / 26lbft







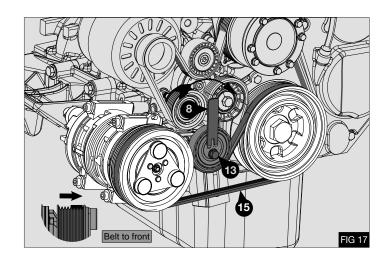


**22.** Install drive belt 15, tension belt using tool 8 once correct tension has been achieved (see table) tighten bolt 13 - Fig 17

| BELT TENSION TABLE |           |  |  |  |  |
|--------------------|-----------|--|--|--|--|
| Belt               | Belt Age  | Belt Tension Using the<br>Belt Tension Gauge |  |  |  |
| 4PK                | New Belt  | 48 - 56 kg                                   |  |  |  |
| 4PK                | Used Belt | 36 - 40 kg                                   |  |  |  |



Warning: Fit drive belt (15) to front grooves of 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.

| Notes |  |
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