Application: Isuzu Trooper 3.0LD

Part Number: VICF VF430015 VL430015

#### WHEN FITTING THIS TURBO, IT IS **CRITICAL** THE FOLLOWING INSTRUCTIONS ARE ADHERED TO:

### Notice to replace Oil Strainer Gaskets

Isuzu engine modification to be carried out to prevent turbocharger failure

Due to the hardening of a flexible gasket on the oil suction pipe to strainer in the sump, the oil pump draws a mixture of air and oil causing a reduction in oil pressure. This causes damage to the turbo.

The modification only needs to be carried out once. The upgraded Isuzu part number is 8971377980

The sump must be removed to perform the modification. Before refilling the sump after the work is complete, it is important to allow the sealant sufficient time to set. Failure to do so could result in sealant entering the turbocharger oil galleries, causing serious damage.



Application: Land Rover Discovery / Range Rover Sport

Part Number: **53049880069 53049880115 53049880116** 

### WHEN FITTING THIS TURBO, IT IS **CRITICAL** THE FOLLOWING INSTRUCTIONS ARE ADHERED TO:

Inspect Heat Shield for Deformation

If required, adjust shape of heat shield to ensure actuator mechanism is not obstructed

The material used for the heat shield on this turbocharger is quite flexible and can easily be bent out of shape during transit or fitment. It is possible for the malformed heat shield to interfere with the operation of the actuator, so extra care should be taken to avoid operational problems.



Application: Saab 9-3/9-5, Vauxhall Signum

Part Number: **720168-5011S 720168-0011E** 

#### WHEN FITTING THIS TURBO, IT IS **CRITICAL** THE FOLLOWING INSTRUCTIONS ARE ADHERED TO:

### Replace Oil Drain Pipe

A new oil return pipe should be fitted at the same time as the turbocharger

The oil drain pipe on this vehicle is prone to becoming restricted over time, leading to increased oil pressure inside the turbo. The increased pressure causes oil to pass into the exhaust and air intake systems, resulting in blue engine smoke. This may occur after a new turbocharger has been fitted, even if the vehicle wasn't previously displaying this problem.



Page 1

Application: PSA 1.6HDi Turbochargers 2004+

Part Number:

753420-5005S/753420-5006S 762328-5002S/762328-5003S 49173-07507/49173-07508

# **CAUTION**

# PLEASE READ ALL THESE INSTRUCTIONS CAREFULLY **BEFORE FITTING THIS TURBOCHARGER**:

These critical instructions have been produced because there has been an exceptionally high return rate of the above turbos with issues which are NOT covered by warranty.

- Experience to date suggests that the carbon build up in this application, which is causing turbos to fail prematurely, is particularly difficult to remove.
- Oil feed pipes and fittings for these turbos have been purchased from the O.E.S. and these turbos will NOT be supplied without the additional purchase of these components.
- To help reduce the potential for further turbo failure, the following instructions MUST be followed when fitting this turbocharger.
- !!! NOTE: Feedback shows, that even after the following instructions have been followed faithfully there is no guarantee the residual carbon/sludge will have been removed; which can cause subsequent damage to the turbo bearings and result in premature failure of your replacement turbo.
- Failure under these circumstances will NOT be covered under warranty as the failure is caused by external influences and not faulty turbo components.







The photographs above are from an engine which has completed approximately 110,000 miles. The engine has been serviced by an approved dealer at the correct service intervals using the manufacturer's recommended oil and filters. This engine has caused two new turbocharger failures in a very short time.

continued...



Page 2

Application: PSA 1.6HDi Turbochargers 2004+

Part Number:

753420-5005S/753420-5006S 762328-5002S/762328-5003S

49173-07507

49173-07508

### PLEASE READ THIS **BEFORE FITTING THE TURBOCHARGER**:

# THESE PARTS ARE ALWAYS REQUIRED WHEN CARRYING OUT THESE PROCEDURES.

- 1 x Air filter
- 4 x Oil filters
- 2 x 3L Engine flushing oil
- 3 x 3L Engine oil (OE spec)
- 1 x Oil pick up pipe
- 1 x Oil feed pipe
  - + banjo bolts.
- 8 x Injector retention flange nuts.

# THESE PARTS MAY BE REQUIRED FOLLOWING THESE PROCEDURES.

- 1 x Sump
- 1 x Dipstick
- 1 x Oil pump
- 1 x Vacuum pump
- 1 x Valve cover (breather)
- 1 x Oil drain pipe
- 1 x Inlet hose
- 1 x Outlet hose
- Fuel injector/gasket qty depending on results of the checks

Failure of successful operation of the turbocharger can be caused by external influences and not faulty turbocharger components. In particular residual engine carbon/sludge penetrating the turbocharger and damaging it. This risk can be reduced by, ideally, removing all engine carbon/sludge, but often this is very difficult to do. However, risk can be reduced by following all the procedures set out below:

- Before removing old turbocharger carry out 2 engine flushes using FLUSHING OIL not flushing additive. Change oil filter each time. Note: Condition of turbocharger and oil leakage needs to be assessed before this operation as not to cause excessive oil leakage allowing engine to run on own oil.
- Sump must be removed and cleaned
- Check that engine has latest specification sump
- Replace dipstick if vehicle fitted with yellow plastic version. Latest spec. is white with orange grip.
- Oil strainer (pick up) must be removed and replaced due to residual carbon/sludge build up
- Oil pump should be removed and checked.
- Oil cooler and filter assembly should be removed and cleaned
- Charge air cooler to be removed, cleaned thoroughly and any oil inside drained off
- Brake vacuum pump to be removed and checked for debris/ carbon – clean/replace as necessary
- Fuel injector gaskets to be checked as not burnt or compromised – replace as necessary
- Replace injector flange nuts.

- Check valve cover breathers and pressure regulator valve in fume re circulation circuit. **Replace/clean** as required.
- Inlet and outlet hoses to be removed and checked for damage and debris.
- Oil drain pipe **checked** for blockage/restrictions, **clean/replace** as necessary.
- Exhaust system to be checked for contamination/blockage (Catalyst, DPF etc.)
- Turbocharger oil feed pipe & banjo bolts must be replaced.
- New oil filter and oil to be **fitted**
- Oil flow must be checked:
  - Fit turbocharger to engine leaving oil return pipe off
  - Install a longer oil return line and feed into suitable container
  - Start engine and idle for 60 seconds, then switch off engine
  - Measure volume of oil in container 60 seconds of idle should produce at least 0.3 Litres of oil
  - Repeat test two or three times to confirm oil flow is correct
  - During this test, do not allow engine to run below minimum oil level!!
- Vehicles with DPF: carry out static regeneration according to manufacturer guidelines
- Engine should be run for 20 to 30 minutes then the oil and filter must be changed and the filter in the banjo bolt removed.
- Engine oil and filter must be changed after one month of normal driving.
- Advise oil/filter are changed at 3000 mile/six monthly intervals

If you do not understand the procedures or have difficulty doing so, please call your local distributor for guidance.

WARNING: To reduce the risk of premature turbocharger failure by residual carbon/sludge, you must ensure you follow the above procedure. You should NOT fit the turbocharger where you know, or have reason to believe, that the risk cannot be overcome due to the possible age of the application and/or lack of service history etc. In these circumstances you must decide how best to prepare the application in order to avoid damage to the turbocharger once fitted.

We will not be liable for failure of the turbocharger due to damage by external elements, including penetration of residual carbon/sludge.



Application: Renault Laguna

Part Number: 708639-5010S 708639-5011S

### WHEN FITTING THIS TURBO, IT IS **CRITICAL** THE FOLLOWING INSTRUCTIONS ARE ADHERED TO:

Replace Oil and Filter BEFORE fitting turbocharger

Prior to fitting the new turbocharger replace oil filter and refill SLOWLY with new oil

When filling this engine with oil, it is easy for excess oil to enter the engine breather system and collect in the air intake. If this occurs, the turbocharger will be immediately damaged on start up, therefore best practice is to replace the engine oil first. Any oil in the intake system can then be then be located and removed when fitting the turbocharger, cleaning components as required.

Care should also be taken to fit the exhaust inlet gasket in the correct orientation. It is possible to fit this incorrectly and restrict the flow of exhaust gas to the turbo.



Application: Audi / Skoda / Volkswagen 2.5LD

Part Number: 454135-5009S / 454135-5010S

#### WHEN FITTING THIS TURBO, IT IS **CRITICAL** THE FOLLOWING INSTRUCTIONS ARE ADHERED TO:

### Check Breather System

Replace filter and fit additional parts when replacing turbocharger

The engine breather system has a tendency to become restricted over time, causing an increase in sump pressure. The increased oil pressure inside the turbocharger causes oil to pass into the exhaust and air intake systems, resulting in blue engine smoke. This may occur after a new turbocharger has been fitted, even if the vehicle wasn't previously displaying this problem. Replacing the filter resolves the issue and the additional parts prevent it from occurring again.

Bracket: 059115405D

Trim: 059103547B



Part Number: **Various** 

Application: BMW (All BMW Diesel Engines) / Land Rover

#### WHEN FITTING THIS TURBO, IT IS **CRITICAL** THE FOLLOWING INSTRUCTIONS ARE ADHERED TO:

Replace Engine Breather Filter, BMW Diesel Engines

A new breather filter should be fitted at the same time as the turbocharger

The engine breather system on BMW diesel engines has a tendency to become restricted over time, causing an increase in sump pressure. The increased oil pressure inside the turbocharger causes oil to pass into the exhaust and air intake systems, resulting in blue engine smoke. This may occur after a new turbocharger has been fitted, even if the vehicle wasn't previously displaying this problem. Replacing the filter resolves this issue.



Application: Saab 9-3/9-5 Petrol Engine

Part Number: **452204–5005S 452204–0005E** 

#### WHEN FITTING THIS TURBO, IT IS **CRITICAL** THE FOLLOWING INSTRUCTIONS ARE ADHERED TO:

### Replace Oil Strainer and Oil Feed Pipe

The sump should be removed and cleaned then a new oil strainer and oil feed pipe fitted

The oil feed system to the turbocharger has a tendency to become restricted over time. Most failures of this turbocharger are caused by abrasives in the oil which collect in the system. Performing the above actions will minimise the risk of the new turbocharger being damaged.



Application: Audi A4/A6 / VW Passat 1.8LP

Part Number: 53039880029 / 53039880029E

#### WHEN FITTING THIS TURBO, IT IS **CRITICAL** THE FOLLOWING INSTRUCTIONS ARE ADHERED TO:

Fit new Oil Feed Pipe Kit

If using this 53039880029 to service a 53039880005 or 53039880005E

The replacement oil feed pipe is larger and better protected than the original design, which tends to become restricted over time, reducing oil flow to the turbocharger. Failure to perform this modification may result in immediate damage to the turbocharger on start up.

Oil Feed Pipe: 058145778

Heat Shield: 058129585B



Applications: Nissan Almera/Primera/X-Trail DCi 2.2LD

Part Number: 727477-5006S 727477-0006E

#### WHEN FITTING THIS TURBO, IT IS **CRITICAL** THE FOLLOWING INSTRUCTIONS ARE ADHERED TO:

### Check if vehicles ECU has been updated

Before fitting the new turbocharger, ensure that the vehicles ECU has been updated by Nissan (Recall No. YD22 100KW) If this has not been updated there is a possibility that the new turbocharger could fail due to an overspeed issue



Application: Vauxhall Astra/Insignia/Meriva/Zafira Engine: A14NEL (LUJ) / A14NET

Part Number: 781504-5005S 781504-5006S 781504-5007S

#### WHEN FITTING THIS TURBO, IT IS **CRITICAL** THE FOLLOWING INSTRUCTIONS ARE ADHERED TO:

### Fit new Oil Feed Pipe Kit

The oil feed pipe tends to become restricted by carbon over time, due to its close proximity to the exhaust system, which then reduces oil flow to the turbocharger. Failure to replace the oil feed pipe may result in damage to the turbocharger.

### Oil Feed Pipe Number: FP0033

We strongly recommend the Oil Feed Pipe is changed before starting any work. If you have not received the Oil Feed pipe kit with your turbocharger, please contact your supplier to purchase.





Part Number: **49131-06007** 

Application: Vauxhall Astra/Corsa/Combo/Meriva

### WHEN FITTING THIS TURBO, IT IS **CRITICAL** THE FOLLOWING INSTRUCTIONS ARE ADHERED TO:

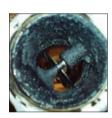
### Replace EGR valve before fitting turbocharger

There have been issues with the EGR valve sticking on this application due to high carbon/exhaust soot build up.



It is essential that the exhaust manifold is removed and checked for excessive carbon/exhaust soot build up. Clean or replace as required.

Failure to replace or clean the valve and manifold may result in immediate damage to the turbocharger.



EGR valve which is malfunctioning due to excessive carbon / coke.



EGR valve after cleaning.



Application: VW Caravelle/Transporter

Part Number: **729325–5003S 729325–0003E** 

#### WHEN FITTING THIS TURBO, IT IS **CRITICAL** THE FOLLOWING INSTRUCTIONS ARE ADHERED TO:

### Check water pump and oil cooler before fitting the turbocharger

The water pump and oil cooler are known to fail on this engine, allowing the oil and water to mix.

This reduces the lubricating properties of the oil, resulting in turbocharger failure.

It is essential that the water pump and oil cooler are checked before fitting the new turbo.

**Important:** The turbocharger warranty does not cover damage resulting from a faulty water pump or oil cooler.







Application: Audi/Seat/Skoda/VW 1.9TD

Part Number: 54399880022 751851-5003**S** 751851-5004S

#### WHEN FITTING THIS TURBO, IT IS **CRITICAL** THE FOLLOWING INSTRUCTIONS ARE ADHERED TO:

### Remove air intake pipework before fitting the turbo

Prior to fitting the new turbocharger remove the air intake and engine breather pipework, situated between the turbocharger and the air filter box.

Check the pipework for debris and/or damage and clean/replace as necessary.

Failure to carry out this operation can lead to the new turbocharger being damaged on start up or at low milage.

Please Note – Our standard warranty does not cover turbocharger failure caused by impact damage, so it is essential to follow the above instruction.







Application: Citroen/Peugeot 2.0HDi

Part Number: **756047–5005S 756047–0005E** 

#### WHEN FITTING THIS TURBO, IT IS **CRITICAL** THE FOLLOWING INSTRUCTIONS ARE ADHERED TO:

- To stop water ingress into the actuator/position sensor, it is essential that the following checks are carried out:
  - Inspect turbo control solenoid valve (Part Number 1618C9) for correct operation.
    and signs of water ingress – replace as required.
  - 2. Inspect condition and connections of vacuum pipework between control solenoid valve and turbocharger replace as required.
  - 3. Ensure soundproof scuttle trim is secured correctly.

**Important:** The turbocharger warranty does not cover

damage caused by external elements including water penetration into the actuator.







Application: Renault

Part Number: 54359880000/54359880000E 54359880002/54359880002E

#### WHEN FITTING THIS TURBO, IT IS **CRITICAL** THE FOLLOWING INSTRUCTIONS ARE ADHERED TO:

### Fitting of Exhaust Inlet Gasket

Care should be taken when fitting the exhaust inlet gasket as it is possible to fit this incorrectly and restrict the flow of exhaust gas to the turbocharger.



Correct fitting



Incorrect fitting



Application: Fiat/Saab/Vauxhall

Part Number: **767835–5001S 767835–0001E** 

#### WHEN FITTING THIS TURBO, IT IS **CRITICAL** THE FOLLOWING INSTRUCTIONS ARE ADHERED TO:

Replace Oil Strainer and Oil Feed Pipe

The sump should be removed and cleaned then a new oil strainer and oil feed pipe fitted

The oil feed system to the turbocharger has a tendency to become restricted over time. Most failures of this turbocharger are caused by abrasives in the oil which collect in the system. Performing the above actions will minimise the risk of the new turbocharger being damaged.



Application: Ford Transit 2.5LD

Part Number: 49131-05403 49S31-05403E 752610-5032S 752610-0032E

### WHEN FITTING THIS TURBO, IT IS **CRITICAL** THE FOLLOWING INSTRUCTIONS ARE ADHERED TO:

### Replace Oil Strainer and Oil Feed Pipe

The sump should be removed and cleaned then a new oil strainer and oil feed pipe fitted

The oil feed system to the turbocharger has a tendency to become restricted over time. Most failures of this turbocharger are caused by abrasives in the oil which collect in the system. Performing the above actions will minimise the risk of the new turbocharger being damaged.



Application: Scania Various

Part Number: 3776926D/3776926 3787499D/3787499 3779069, 3795622 3795453

#### WHEN FITTING THIS TURBO, IT IS **CRITICAL** THE FOLLOWING INSTRUCTIONS ARE ADHERED TO:

### Check/Replace EGR valve before fitting turbocharger

There have been issues with the EGR valve failing on this application, resulting in damage to the turbocharger. Failure to check/replace the valve may result in immediate damage to the turbocharger.





Damage caused by failure of the EGR valve.



Application: Fiat Ducato

#### Part Number:

796122-5001S/ 796122-5005S 806850-5001S/806850-5002S/ 806850-5003S

#### WHEN FITTING THIS TURBO, IT IS **CRITICAL** THE FOLLOWING INSTRUCTIONS ARE ADHERED TO:

### Potential Actuator Damage to Fiat Ducato turbochargers

We are aware of issues that may affect these vehicles and lead to premature turbocharger replacement.

Water ingress to the actuator and/or its position sensor may damage the internal components and prevent the actuator controlling the turbocharger, leading to Diagnostic Trouble Codes or Error Codes, and potentially reduced power mode.

Owners should ensure they implement all Fiat Service Bulletins relating to water ingress:

- 1. **Engine compartment water ingress** via the windscreen drain channel. Modifications may be required to prevent water collecting on top of the engine and damaging the turbo and other components.
- 2. **Water ingress to the turbocharger actuator control valve** (PWM valve or Elettrovalvola). Make sure water cannot enter the control system; it may damage the actuator and prevent it controlling the turbocharger.

If you have any questions about this issue, ask the supplier of this unit before starting work. All necessary vehicle modifications should be completed before replacing a turbocharger.

Important: warranty does not cover damage caused by water ingress to the Actuator and/or Linear Position Sensor.



Part Number: **FP0003** 

Application: all relevant vehicles

#### WHEN FITTING THIS REPLACEMENT FEED PIPE, IT IS **CRITICAL** YOU FOLLOW THESE INSTRUCTIONS:

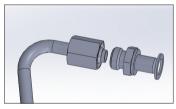
### Fit Oil Feed Pipe Kit and Fittings

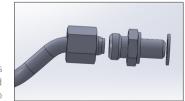
Our researches show technicians have had difficulties achieving a completely oil-tight seal using the current fittings on our replacement oil feed pipe kit FP0003.

Our supplier has now provided modified fittings for both ends of the pipe.

It is vital you use these modified fittings and tighten them to 30Nm or 22 ft./lb.

Proper installation of FP0003 requires each end of the oil line to be tightened to supplied fittings at 30Nm or 22ftlb







Application: Mercedes Sprinter

Part Number: 10009880036/ 10009880074/ 10009880074/

#### WHEN FITTING THIS TURBO, IT IS **CRITICAL** THE FOLLOWING INSTRUCTIONS ARE ADHERED TO:

### Pipes and supports required when replacing turbo

When replacing a 10009880008/10009880008E (In production between September 2008 and December 2010, fitted up to engine 30468350) with a 10009880036/10009880074, additional components are required which need to be sourced directly from the Main Dealer:

Charge air pipe A 906 528 5082 or -5182\* Coolant pipe A 906 501 1482 Support A 651 096 2940 Support A 651 096 3040 Screw (3x) N 910143 006001

\*Use -5182 if vehicle has optional equipment codes H08, N63 or HK4

This is due to a geometrical difference between the two products and without the additional products, the replacement turbo will not be able to be fitted.

