EXHAUST AFTER TREATMENT PRODUCTS



DPF Sales and Service Australia dpfsalesandserviceaustralia.com.au

Warranty Policy

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Definitions:

- 1. **DPF**: Diesel Particulate Filter, 8-10-micron ceramic filter known as the wall flow filter, traps over 98% of all PM
- 2. **DOC**: Diesel Oxidising Catalyst, flow through ceramic or metal catalyst responsible for burning off 80% of PM and OF increasing the exhaust gas temp through diesel injection converting harmful Carbon Monoxide (CO) & Hydrocarbon (HC) into harmless Co2 & H20 and soot regeneration into ash stored in the DPF
- 3. **SCR**: Selective Catalytic Reduction, single or multiple flow through ceramic catalyst used in conjunction with DEF. Responsible for reducing 95% of particulate matter & NOx
- 4. **P-DOC:** Primary Diesel Oxidising Catalyst
- 5. **S-DOC:** Secondary Diesel Oxidising Catalyst
- 6. P-SCR: Primary Selective Catalytic Reduction
- 7. S-SCR: Secondary Selective Catalytic Reduction
- 8. **OF**: Organic Fractions, unburnt hydrocarbons derived from the fuel and engine oil
- 9. **DEF**: Diesel Emissions Fluid, AdBlue
- 10.UN: United Nations, the world governing body responsible for drafting, implementing and governing vehicle emissions standards
- 11.ADR: Australian Design Rules
- 12.**OEM**: Original Manufacturer's Equipment
- 13.**EGR**: Exhaust Gas Recirculation, a component of the exhaust aftertreatment system
- 14.**EATS**: Exhaust Aftertreatment System
- 15.**PMC**: Precious Metals Coating, found on the DOC, SCR consisting of platinum, palladium, rhodium, and in some parts of the world, copper, nickel, cerium, iron, and manganese are used also
- 16.**OVTR**: Off Vehicle Thermal Regeneration, specially designed kiln used for reducing soot to ash at high temperatures
- 17.SA: Soot Accumulation, measurement of build-up of soot in the EATS
- 18.AB: Ash Build-up, measurement of ash in the DPF substrate
- 19.**PM**: Particulate Matter, made up of burnt and unburnt OR from the combustion process
- 20.**RQP:** Rhino Quality Parts
- 21. DPF Sales Aust: DPF sales and service Australia
- 22.**K Value:** Smoke Opacity measuring the optical properties of diesel exhaust. Method used to quantify the amount of visible black smoke emission from diesel engines.

MANUFACTURING WARRANTY POLICY for RHINO QUALIY PARTS PRODUCTS

DPF Sales & Service Australia, supplier of Rhino Quality Parts provides a 1 (one) Year "Manufacturing Warranty" for any defect in materials or the manufacturing process under the condition of normal vehicle and engine operation according to the set out in this document.

The Warranty provided in this policy is limited to repairing and or replacing defective RQP parts or product. The warranty does not include labour or 3rd party costs, freight, or any other parts used, related expenses or loss. Any other warranty expressed or implied for sale or special purpose is not recognized.

NOTE: Exhaust aftertreatment systems are only covered for structural failure from manufacturing. Products returned due to blockage will not be considered a warranty claim

Installation conditions for DOC, DOC / DPF combination and DPF

Please follow these guidelines, **DO NOT** fit new parts if any of the following is evident

- 1. Diesel exhaust opacity "K value" must be ≤ the AUS standard for the engine (EU spec, see Euro emissions standards)
- 2. If opacity is > the AUS standard required for the engine, the frequency of ash accumulation will increase the risk of DOC, DPF or SCR substrate failure
- 3. If the exhaust opacity level is **NOT** within the AUS standard, we **DO NOT** recommend installation of new EATS parts as the risk of parts failure is extremely high
- 4. If the sulphur content in the diesel fuel used is more than 10 ppm (AUS standard is ≤10ppm)
- 5. If the vehicle is regularly exposed to prolonged idle time
- 6. If using bio diesel
- 7. If the engine oil being used is not as per OEM specifications
- 8. If the engine has very high kms and is in poor operating condition
- 9. If the diesel fuel is not atomizing as per OEM specifications, during normal operation and regeneration phases
- 10. If the engine burns oil, note recommended min oil consumption is <0.5% per oil changes
- 11. If the turbo is not operating as per OEM specifications, the blades & oil seals must be intact, and the engine oil does not leak oil into the EATS
- 12. If the <u>installer</u> is not trained and competent to diagnose EAT systems

The engine and EATS must be serviced regularly or as per OEM specifications

Euro Emissions Standards

Smoke opacity levels "K value" is measured before the exhaust aftertreatment system.

• Euro 3 engine: 0.3 m-1<K<0.8 m-1

• Euro 4 engine: 0.1 m-1<K≤0.3 m-1

• Euro 5 engine: 0.1 m-1<K<0.3 m-1

The engine opacity test value can directly reflect whether the engine is performing to OEM specifications. Excessive K value, Oil, Fuel, AdBlue and Foreign substances entering the system WILL cause DOC, DPF or SCR failure.

Note:

If the diesel engine does not meet all the conditions set out in this warranty policy, it is **NOT** recommended to install a new DOC, DPF or SCR. If under the warranty process it is found that the unit was installed and the engine does not meet the installation conditions of this document, it will be deemed to automatically waive all warranty relating to the product(s).

Supply of incorrect parts / Return for credit

It is the purchaser's responsibility to ensure that they have purchased the correct part. Assistance from our technical department is highly recommended if you are unsure.

Returns for credit will only be accepted if the item is in its original **UN-OPEN UN-DAMAGED** packaging.

NO credit will be given if the item has been unpacked, damaged, scratched, has dirty marks, or fitted to a vehicle.

A restocking fee of \$55 + GST will be applicable if the item is accepted as a return for credit.

Specific to Primary Diesel Oxidising Catalyst DOC, Large Commercial vehicles ONLY

All RQP DOC's will be inspected and certified in Australia before packaging and dispatch. Individual units will be supplied with a certificate detailing the amount of Precious Metal Coating PMC, applied to the substrate.

The inspection will be conducted by a trained DPF Sales & Service Australia staff member at our Perth operations, using our Bruker S1 Titan XRF spectrometer. For qualifying purposes, the applied PMC coating will be equivalent to (plus or minus 3%) of the relevant equivalent OEM unit.

Certification certificates from the manufacturer and cross-checking certification from DPF Sales & Services Australia will be kept on file, documenting the following

- 1. PMC content = ppm
- 2. Specific element measured = Platinum Pt, Rhodium Rh, Palladium Pd
- 3. Size of catalyst in ft³
- 4. Part number
- 5. Serial number
- 6. Date of manufacture

In the event of a warranty claim requested by the customer the correct procedural documents must be submitted, and the items sent to DPF Sales & Service Australia.

The DOC in question will be subject to inspection at DPF Sales & Service Australia's premises. The reinspection / measurement of PMC will be conducted with the use of our XRF spectrometer and crossed referenced with initial documentation.

If the XRF spectrometer analysis reveals a loss of 25% or more of the PMC a warranty claim will be processed with the manufacturer. If the inspection reveals excessive fuel, oil, a high sulphur content or other foreign substances that cause a reduction in catalytic performance, it will be deemed that the cause of failure is directly related to undiagnosed upstream failures and not the fault of the product No warranty claim will be processed.

3rd Party Sales

Where in instances the purchaser on sells to a 3rd party it is the initial purchaser's prime responsibility to inform their customer, they must conduct meticulous diagnostics before fitting new EATS products and to supply all supporting documentation including all documents listed below in **Item 1** and including this warranty policy. **NO warranty will be supported if the initial purchaser does not inform the 3rd party and fails to provide the supporting documentation.**

Warranty Procedure

Once the selling agent has identified a warranty claim, the item must be accompanied by our warranty form, receipt of purchase and all required documentation set out in the warranty form and be sent with the items to DPF Sales Aust for assessment.

For DPF claims, it is highly recommended the DOC accompany the DPF and vice versa. For DOC claims it is highly recommended the DPF accompany the DOC for proper assessment. Failing to do so could negate the warranty.

Products can be subject to rigorous testing to determine actual failures.

- Flow bench testing
- Endoscope internal inspections
- XRF spectrometer testing
- Backscatter X ray

It is the purchaser of the goods, responsibility to produce all test results to conform to Euro specs, provide receipts for new gaskets, ECU data downloads and any other information required to support their claim.

It is also the purchaser's responsibility to use only trained competent technicians when fitting RQP exhaust aftertreatment products. Products deemed damaged or incorrectly fitted by inexperienced technicians will void any warranty claim.

The selling agent is solely responsible to rigorously identify with their customer, if in fact, there is a genuine warranty claim before contacting DPF Sales Aust.

If the selling agent does not conduct due diligence for a warranty claim before engaging DPF Sales Aust to assess the item and it is found to not be a warranty claim, the purchaser will be liable for all costs incurred.

Item 1: Please refer to our extensive supportive documentation.

- DPF How it works
- Warranty card, Attention Read Me
- White smoke from diesel engines
- Catalytic poisoning
- Web site: dpfsalesandserviceaustralia.com.au

Non-warranted items / Void of warranty

Warranty does not apply to any of the following if:

- 1. The distributor or the end user does not obtain the prior written consent or instruction from DPF Sales Aust for any products sold, to fit new parts, changes or modifies the products, or installs accessories manufactured by a third party that is not deemed to be suitable for the operation of the system which may cause related problems and/or failures.
- 2. Warranty is VOID if the Primary DOC or SCR or Secondary DOC or SCR is not inspected, cleaned and flow tested
- 3. Cleaning of product via professional means or attempts by the installer
- 4. Soot accumulation found in the DOC, DPF or SCR is excessive
- 5. Oil, fuel or foreign substances are found to contaminate the EATS
- 6. Not servicing and testing the primary or secondary DOC or SCR, prior to fitting new parts
- 7. Blocking or restriction of flow of the DOC, DPF or SCR substrate
- 8. When using and maintaining the product, disregarding the OEM maintenance procedures and or other instructions issued by DPF Sales Aust causing related problems and or failures.
- 9. Not using new gaskets & incorrectly fitting them when repairing the EAT system
- 10. Improper product handling or repair or the use of non-RQP original parts.
- 11. Product problems and/or failures that are confirmed by the manufacturer which are not caused by defects in materials or manufacturing process
- 12. Any wearable parts
- 13. The diesel engine does not meet the installation conditions mentioned in this document but the DOC, DPF or SCR is still installed
- 14. The monitoring parameters on the ECU shows that the back pressure of DPF has alarmed but the blocked DPF is not checked or replaced within 24 hrs
- 15. Altering of hardware & software causing problems or failures
- 16. Damage caused by natural disasters
- 17. Damage caused by accident or collision
- 18. Damage caused due to undiagnosed upstream issues
- 19. Exceeding the warranty service period of 1 year
- 20. Diesel fuel is not used with less or equal to 10 ppm of sulphur content. (S≤10ppm)
- 21. If bio diesel is used or additives have been added or a cleaning agent has been used
- 22. Other normal operating items such as: wear and aging of housing or fittings
- 23. If poor quality AdBlue is used in SCR systems, which will lead to the crystallization or failure of the substrate

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The purchase of any of DPF Sales Aust product is conformation of your acceptance of this Warranty Policy.