

TURBOCHARGERS – EFFICIENT AND POWERFUL





TURBO BY INTEC THE BRAND FOR TURBOCHARGERS

Turbochargers are used in almost all modern passenger car engines and are increasingly also found in utility vehicle engines. A lack of maintenance or other defective engine components can have a major impact on a turbocharger's durability – and may even cause it to fail. With its turbochargers under the turbo by Intec brand, Motorservice offers high-quality replacement part solutions for any vehicle application.

The product range includes turbochargers for passenger cars, utility vehicles and off-highway applications as well as products relating to turbochargers – a complete product range from a single source. Under the turbo by Intec brand, Motorservice offers its own assortment of replacement products for common turbocharger applications with its turbocharger range – in order to meet market requirements even better. As a result, by replacing the turbocharger on older vehicles, repair shops can respond to the competitive pressure in the passenger car sector with high-quality solutions.



We provide a comprehensive product portfolio covering a wide range of engines – Some examples of our turbochargers for the aftermarket are listed below:

Item no.	Manufacturer	OE ref. no. *	Engines
221890016	Fiat	71784113	Opel / Fiat 1.3 JTD-CDTI
221890018	Fiat	71724445	Panda / Grande Punto 1.3 CDTI / JTD
221900154	Hyundai	282012A400	1.5L CRDI 110 CV
221890060	Fiat	55198317	1.3L D Multijet
226120025	PSA	0375Q6	1.6L HDI 90CV
221890061	Renault	7701476880	1.5 dCi 85 CV
221900222	Ford	1899517	Transit 2.2L TDCI 100CV
221890093	Nissan	1441100Q1G	Renault 1.5L DCI 110CV
221900127	Ford	1669557	Transit 2.4L TDCI 140CV
221900216	Ford	1741779	Transit 2.2L TDCI 100CV
221890131	Audi	03L253056T	VAG 2.0L TDI 140CV
226120032	Citroën	9804945280	1.6L BlueHDi
221900196	Audi	03L253016T	VAG 1.6L TDI 105CV
221900047	Citroën	037569	PSA 1.6 HDi 110 CV
221900258	Opel	25201063	1.4L ESSENCE 140CV
226120002	Ford	1684949	PSA / Ford 1.6 HDi 90 & 75 CV
221900240	Opel	95516212	1.7L CDTI 125CV
221900152	Citroën	0375N1	PSA 1.6 HDi 112 CV
221890020	Citroën	0375G9	PSA 206 / C1 / C2 / C3 – Ford Fiesta 1.4 HDi
221890127	Renault	144119252R	1.6L DCI 130CV
221890063	Audi	06J145713L	VAG 2.0L TFSI 200CV
221890064	Audi	06J145701N	VAG 2.0L TFSI 155CV
221890056	Renault	7701476891	1.5 dCi 70 CV
221890059	Nissan	1441100Q0F	Renault 1.5 dCi 105 CV
226120015	Ford	1372799	2.4 TDCI 100 & 115 CV
221890014	Nissan	14411BN700	Renault 1.5 dCi 65 CV
221890054	Hyundai	28200-4A470	Kia Sorento 2.5 CRDI 170 CV
221900261	Ford	9677063780	2.0L TDCI 165CV
226120019	Ford	1 362 834	Transit 2.4L TDE 120CV
221890029	Mercedes-Benz	646 090 02 80	Sprinter 2.1L CDI 130CV
221900119	Mercedes-Benz	6460900480	Sprinter 2.1L CDI 150CV
226120018	lveco	504137713	Daily 3.0L D 140CV

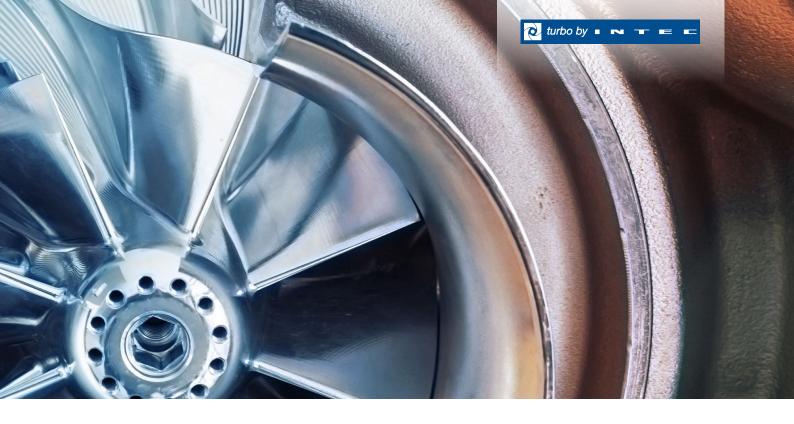
^{*} The reference numbers given are for comparison purposes only and must not be used on invoices to the consumer.

All content including pictures and diagrams is subject to change. For assignment and replacement, refer to the current catalogues or systems based on TecAlliance.



TURBOCHARGER DIAGNOSTICS MATRIX

	Possible causes of failure														
Symptoms	Lack of oil supply to the turbocharger	Unsuitable engine oil / lack of oil maintenance	Foreign particles in engine oil	Foreign bodies in compressor housing or turbine housing	Air filter blocked/suction or pressure lines leaking	Crankcase ventilation or oil return line blocked / faulty	Valve guides, piston rings, engine or cylinder liners are worn / increased blow-by	Fuel system / injection system faulty or incorrectly configured	Boost pressure regulating throttle/ valve does not open or close	VTG restricted in its movement	Actuator of regulating throttle / valve / VTG unit faulty	Electrical / electronic control unit of turbocharger faulty	Exhaust system has excessive flow resistance	Exhaust gas leak upstream or downstream of turbine housing	Turbocharger has excessive speed
Compressor impeller / turbine impeller faulty															
Boost pressure too low															
Boost pressure too high															
Turbocharger is making noises											5 0 1 2 3 3 4 5 5 6 6 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8				
Black smoke															
Blue smoke											2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2				
High oil consumption															
Oil leak in compressor housing											2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2				
Oil leak in turbine housing															
Turbocharger overheated															
Increased axial / radial shaft play															
Error message in engine management															
Central nut loose / missing															



Operating principle of turbochargers

The exhaust gases produced during combustion drive a turbine, which is connected to the compressor impeller by a shaft. The compressor impeller on the latest and smallest turbochargers rotates at speeds of up to 400,000 revolutions per minute. It compresses the intake air and thus increases the air mass provided to the engine. This enables CO₂ emissions and fuel consumption to be minimised while also increasing performance.





With its turbochargers under the turbo by Intec brand, Motorservice offers high-quality solutions for any vehicle application.

You can find further information here:



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