

增壓器特性：

1. 國內第一座渦輪增壓器性能測試暨數據平台。
2. 測試能量涵蓋世界上所有廠牌產品，壓縮比 0~5；流量範圍 0~2 kg/sec。
3. 網際網路遙控遙測系統。

The Characteristic of Turbocharger :

1. The first Local Turbocharger Performance Tester and Digital Platform.
2. The Test Capacity covers all the brands in the worldwide market with the Compression Rate 0~5; flow capacity range 0~2 kg/sec.
3. Internet Remote Control System.

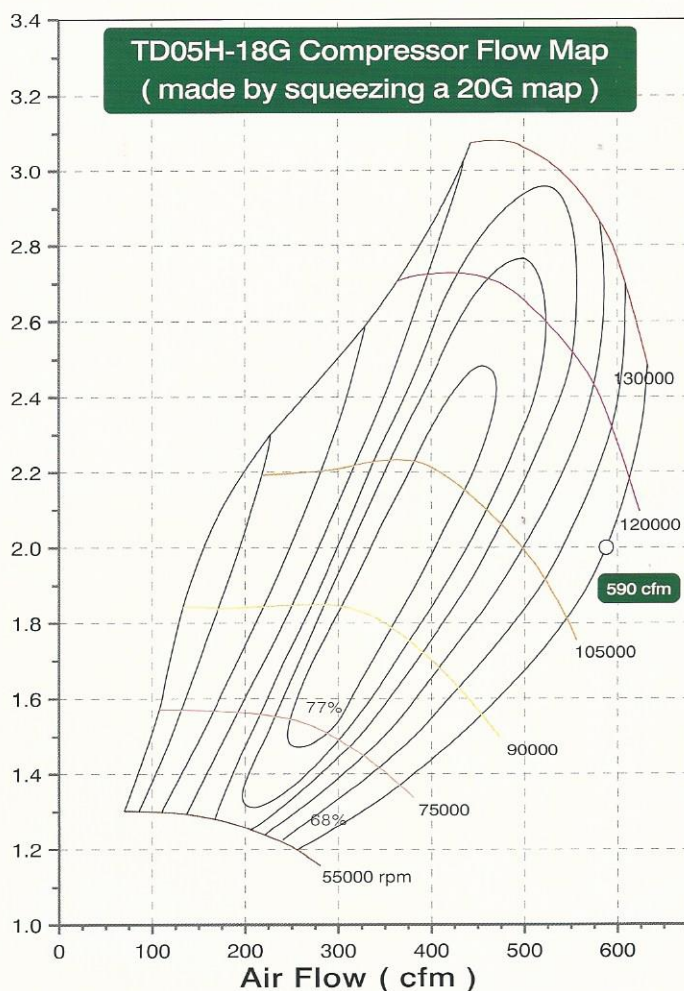
Specifications

Model		TD02	TD025	TD03	TD04	TD05	TD06	TD07	TD08
Max. Speed	rpm	270000	250000	230000	200000	170000	145000	132000	114000
Max. Gas Temperature	°C	900	900	900	900	900	900	760	760
Max. Pressure Ratio		2.2	2.2	2.3	2.4	2.6	2.7	2.8	3.1
Weight	kg								
	without W/G*	—	—	3.0	3.5	4.0	5.0	9.0	10.5
Weight	kg								
	with W/G*	2.0	2.3	3.5	4.0	5.0	6.5	—	—

• W/G* : Waste Gate Valve System

• Specifications subject to change without prior notice.

Pressure Ratio



技術特點與技術應用範圍描述

特點：

1. 渦輪機械設計，分析技術（實驗室）。
2. 葉輪鑄造技術。
3. 渦輪機械測試平台設計技術（整廠）。
4. 內燃機引擎渦輪增壓。

The Description of The Technical Features and Technical Application Range

Characteristic :

1. Design and analysis of turbomachinery.
2. Gas turbine blisc casting techniques.
3. Test rig design for turbomachinery.
4. Turbomachinery the internal combustion engine.

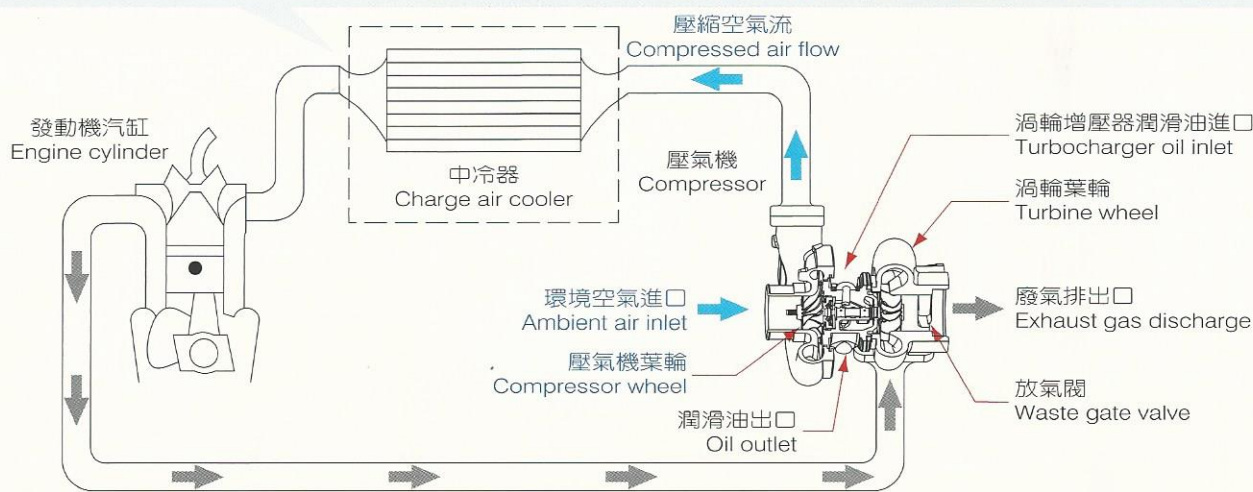
渦輪增壓器的基本知識 - TURBOCHARGER BASIC CONCEPTS

渦輪增壓器是用來提高引擎功率和減少排放黑煙的重要部件。渦輪增壓器本身不是一種動力源，它利用引擎排氣中的剩餘能量來工作，其作用是向引擎提供更多的壓縮空氣。

Turbocharger is an essential part which used to increase the efficiency of engine and reduce the black smoke exhaust discharge. Actually, the Turbocharger itself is not as a power unit source; it mainly utilizes the remaining energy from the engine exhaust to force the engine supply more compressed air.

在增壓中冷型發動機系統中，中冷器位於渦輪增壓器壓氣機的下游，其作用是降低壓縮空氣的溫度，從而進一步增加壓縮空氣的密度。

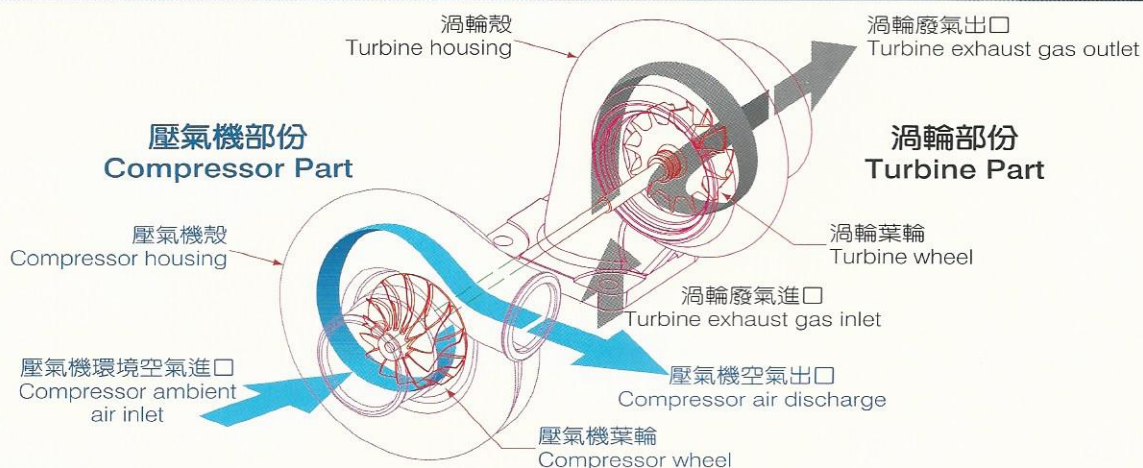
In a boosting cold start engine system, the charge air cooler, placed downstream from the turbocharger compressor, works to lower the temperature of and thereby increase the density of the compressed air.



渦輪增壓器工作原理圖 - Illustration of Turbocharger Operating Principle

渦輪增壓器安裝在引擎排氣管上，引擎汽缸排出的廢氣推動渦輪葉輪轉動，再帶動壓氣機葉輪將經空濾器濾清的空氣加壓後送入氣缸。因為進入氣缸的空氣增多，所以允許噴入更多的燃油，使燃油更充分的燃燒，然而使引擎產生更大的功率或降低排放黑煙。渦輪增壓器還可使引擎在高原上工作時獲得功率補償。

Fundamentally, Turbocharger is installed on the exhaust manifold of the engine. The exhaust from the engine cylinder causes the turbine wheel to spin, which then causes the compressor wheel to compress air, filtered through the air filter, to deliver to the cylinder. Regarding of more air increasingly gets into the cylinder which allows for more fuel injection; the fuel burns more efficiently then leads the engine produce stronger power along with the result of reduction for the amount of black smoke exhaust. Furthermore, the Turbocharger also compensates power when the engine is operating at higher altitudes.



PERFORMANCE TURBOCHARGERS

SUBARU GC 8



Models	Turbine		Compressor		Max HP	Application
	Wheel	Diameter (mm)	Wheel	Diameter (mm)		
S5167	TD05H	49.2 / 56	16 G	48.3 / 68	380	EJ20 IMPREZA WRX STI
S5187			18 G	50.5 / 68	400	
S5207			20 G	52.6 / 68	430	
S6167	TD06SL2	54.08 / 61	16 G	48.3 / 68	380	
S6187			18 G	50.5 / 68	400	
S6207			20 G	52.6 / 68	430	
	NOZZLE AREA 7 CM ²		A / R 49		Actuator 0.9 BAR	

SUBARU GC 8



Models	Turbine		Compressor		Max HP	Application
	Wheel	Diameter (mm)	Wheel	Diameter (mm)		
S5188	TD05H	49.2 / 56	18 G	50.5 / 68	420	EJ20 IMPREZA WRX STI
S5208			20 G	52.6 / 68	450	
S6188	TD06SL2	54.08 / 61	18 G	50.5 / 68	420	
S6208			20 G	52.6 / 68	450	
	NOZZLE AREA 8 CM ²		A / R 57		Actuator 0.9 BAR	

UNIVERSAL



Models	Turbine		Compressor		Max HP	Application
	Wheel	Diameter (mm)	Wheel	Diameter (mm)		
U6208	TD06SL2	54.08 / 61	20 G	52.6 / 68	430	TRIANGLE FLANGE
NOZZLE AREA 8 CM ²			A / R 89		EXTERNAL WASTEGATE	

UNIVERSAL



Models	Turbine		Compressor		Max HP	Application
	Wheel	Diameter (mm)	Wheel	Diameter (mm)		
U4156	TD04H	44 / 52	15 G	43.4 / 56	250	T25 / 28 FLANGE
NOZZLE AREA 6 CM ²			A / R 41		Actuator 0.4 BAR	

MITSUBISHI
EVOLUTION III



Models	Turbine		Compressor		Max HP	Application
	Wheel	Diameter (mm)	Wheel	Diameter (mm)		
M5167	TD05H	49.2 / 56	16 G	48.3 / 68	380	4G63 EVO III ECLIPSE VR4
M5187			18 G	50.5 / 68	400	
M5207			20 G	52.6 / 68	430	
M6167	TD06SL2	54.08 / 61	16 G	48.3 / 68	380	
M6187			18 G	50.5 / 68	400	
M6207			20 G	52.6 / 68	430	
	NOZZLE AREA 7 CM ²		A / R 49		Actuator 0.8 BAR	

PERFORMANCE TURBOCHARGERS

EVOLUTION IV - VIII
MITSUBISHI



Models	Turbine		Compressor		Max HP	Application
	Wheel	Diameter (mm)	Wheel	Diameter (mm)		
M5160	TD05H	49.2 / 56	16 G	48.3 / 68	380	4G63 EVO IV ~ VIII
M5180			18 G	50.5 / 68	400	
M5200			20 G	52.6 / 68	430	
M6160	TD06SL2	54.08 / 61	16 G	48.3 / 68	380	
M6180			18 G	50.5 / 68	400	
M6200			20 G	52.6 / 68	430	
	NOZZLE AREA 10.5 CM ²		A / R 58		Actuator 1 BAR	

NISSAN SLIVA



Models	Turbine		Compressor		Max HP	Application
	Wheel	Diameter (mm)	Wheel	Diameter (mm)		
N5188	TD05H	49.2 / 56	18 G	50.5 / 68	400	T25 FLANGE SILVA S13. 14. 15 SR20DET
N5208			20 G	52.6 / 68	430	
N6188	TD06SL2	54.08 / 61	18 G	50.5 / 68	400	
N6208			20 G	52.6 / 68	430	
	NOZZLE AREA 8 CM ²		A / R 57		Actuator 1 BAR	



GT 2 WASTEGATE

Models	Colors
14005-AK002	

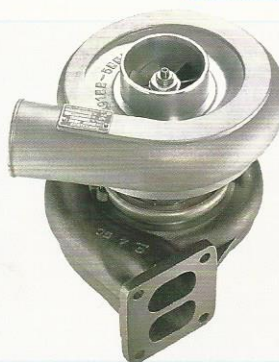
DIESEL TURBOCHARGERS

MITSUBISHI



8DC91T (LH)
ME097476
49174-00592

MITSUBISHI



8DC91T (RH)
ME091427
49174-00593

MITSUBISHI



6D22T (90 mm)
ME053934
49174-01140

6D22T (98 mm)
ME053939
49188-01261