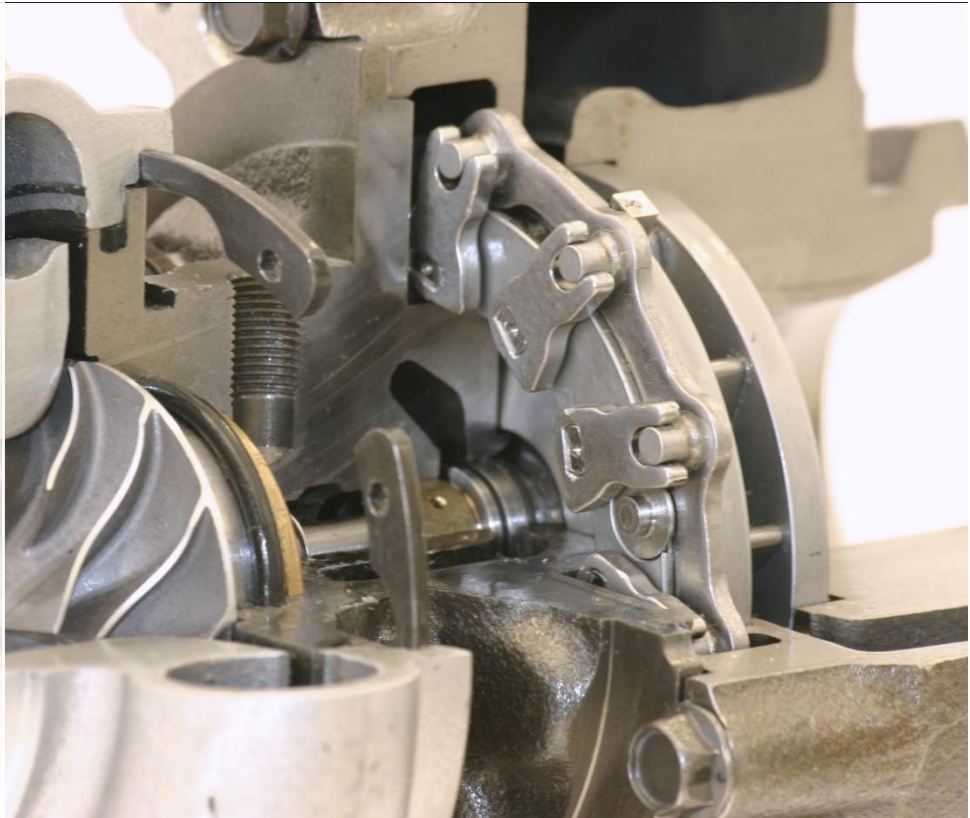




Reliable Performance

Mitsubishi Turbocharger

Independent After market



Quality Bulletin Mitsubishi Pajero

49135-02110



Reliable Performance

We have obtained another replacement part made in China, this time it is a Mitsubishi Pajero Turbocharger with reference number 49135-02110. At hand this Turbo's looks to be a fine piece of engineering. But it's nice appearance seems to be deceiving. We have analyzed the Turbo thoroughly and want to share our findings with you. Here is what we found.

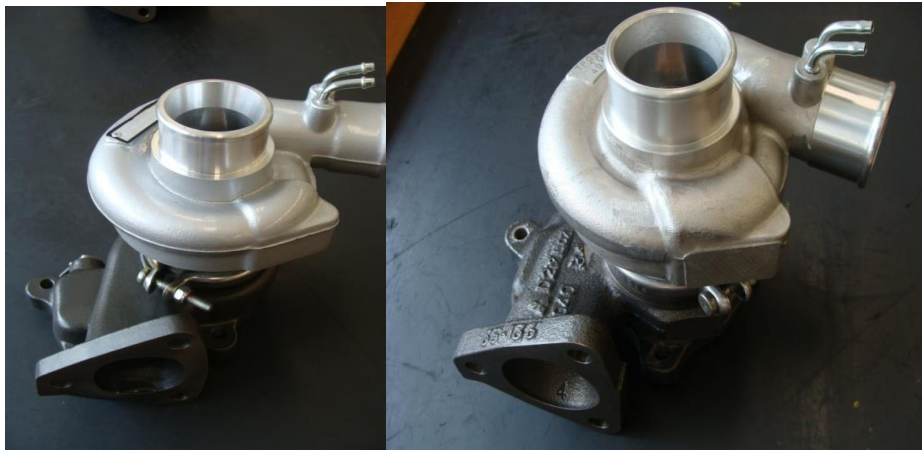


On the left you can see that Turbo seems to look very nice. But after inspecting it, it seems it is sprayed to camouflage possible imperfections in the casting. MHI Turbo's will never be sprayed or painted.

MITSUBISHI TURBOCHARGER

Reliable Performance

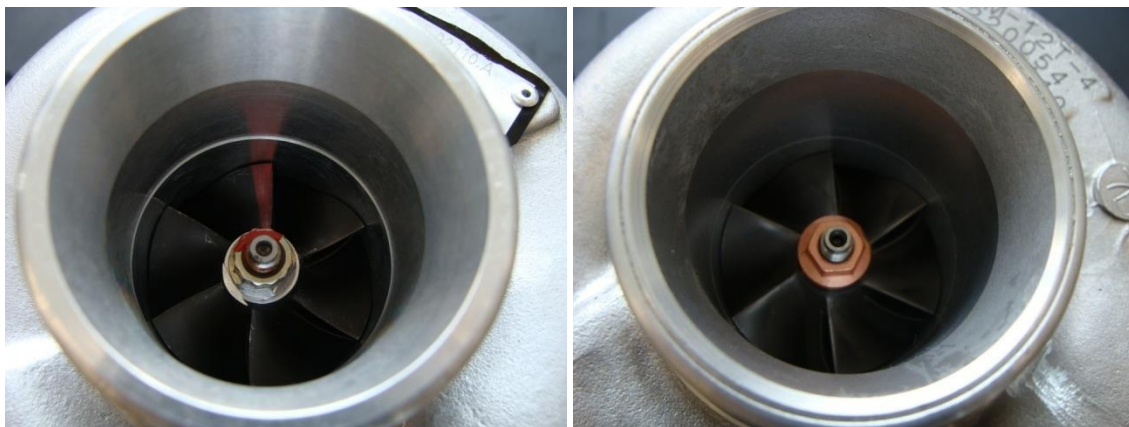
In the pictures below you can see the Chinese part on the left and the MHI on the right. Here you can see clearly that the air outlet of the Turbo is machined by MHI to reduce leakage. The replacement part outlet is not even rounded and has casting lines on it. This will never be a secure fit without leakages.



Replacement part

MHI

Just as the last replacement part Turbo we tested the compressor wheel of this Turbo is also manually balanced. It is of low quality, with burrs and out of specification. When running this wheel, it will cause a lot of vibration and noise.



Replacement part

MHI

The replacement part Turbo has the wrong coupling and is also assembled in the wrong position; this can lead to difficulties when fitting the Turbo. The V-coupling and bolt are weak and together with the wrong assembly it has a big change of leaking.

MITSUBISHI TURBOCHARGER

Reliable Performance

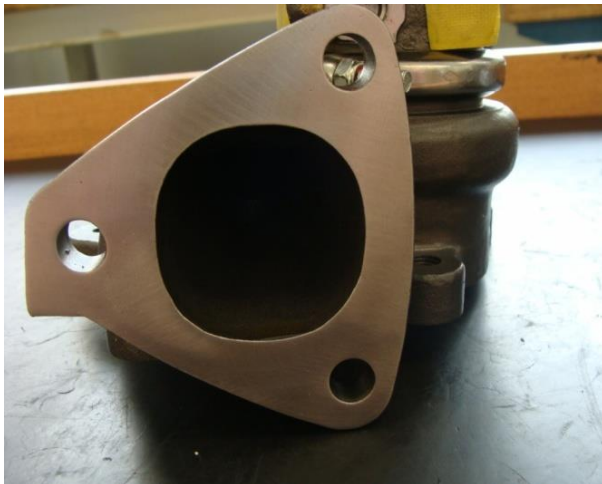


Replacement part

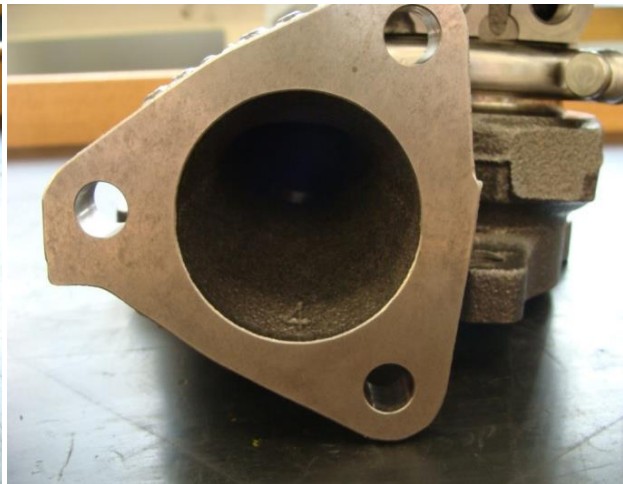


MHI

Gas inlet of the replacement part Turbo is not round and can cause gas leakage and turbulence.



Replacement part



MHI

MITSUBISHI TURBOCHARGER

Reliable Performance



Replacement part



MHI

Replacement part has low quality cast iron turbine wheel, again manually balanced. Gas inlet hole is also wrongly machined; this will cause turbulence and increase heat.



Replacement part



MHI

MITSUBISHI TURBOCHARGER

Reliable Performance

As you can see the complete design of the Turbo is different. This can also be seen at the waste gate diameter. The replacement part has a significantly smaller hole that could cause boost creep at full throttle.



Replacement part



MHI

The waste gate valve is of poor quality and will deform and cause leakage. You can clearly see the differences in design and material.



Replacement part

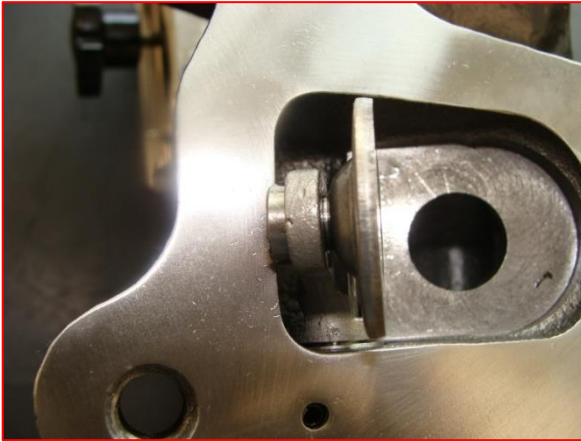


MHI

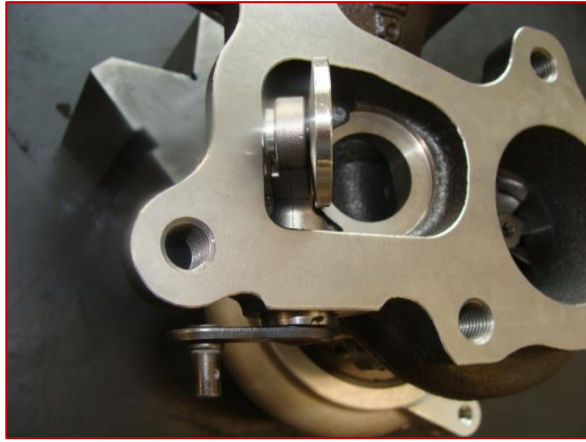
MITSUBISHI TURBOCHARGER

Reliable Performance

The faulty design of the valve will cause noise and will not function as it should.



Replacement part



MHI

To avoid rust the replacement parts used scotch tape to close the oil outlet holes. The material of the bearing housing is also of low quality. The scotch tape residue is difficult to remove and could cause leakage after fitting.



Replacement part



Replacement part

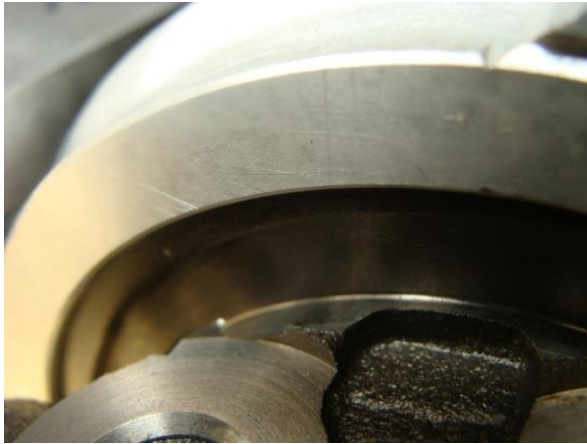
MITSUBISHI TURBOCHARGER

Reliable Performance

The snap ring is not in the correct position and could cause rotation of the Turbo sides.



Replacement part



MHI

At the beginning of this message we started with the overall appearance of the replacement part Turbo. This appearance seems to be sprayed on and only to cover up low quality casting and possible defects. Also the wall thickness of the replacement part is not good and less than 2 mm on important areas.



Replacement part



MHI



Reliable Performance

In the picture below you can clearly see the thick layer of perhaps paint to mask the very low quality cast iron.



Replacement part



MHI

Please share this knowledge with your own customers. Working together and sharing this kind of information will help us all to reduce replacement part sales and increase our market share.

Yours sincerely,

The Independent Aftermarket Turbo Team