



Hitachi Construction Machinery
REMANUFACTURED

HITACHI

Reliable solutions

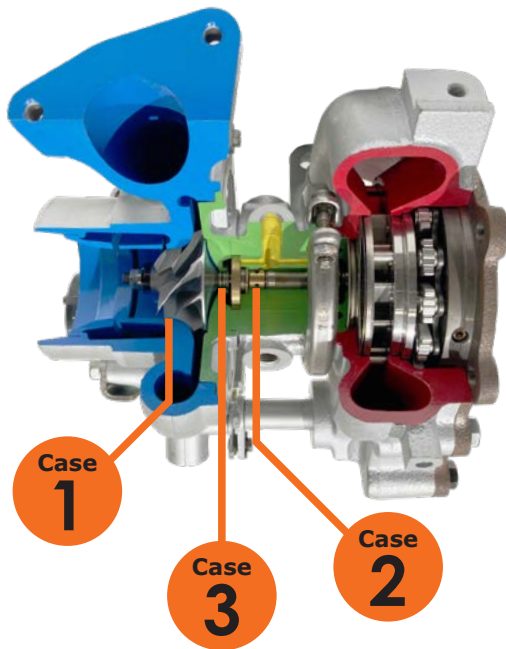
**Our remanufactured
Turbocharger will
reduce risk of
machine breakdown!**



All remanufactured turbochargers are the same. Do you think so? With Hitachi Construction Machinery's high-quality remanufactured turbochargers, you can reduce the risk of breakdown of construction equipment.

Using low-quality remanufactured turbochargers can increase the risk of breakdown of your construction equipment due to premature failures. In the following cases, we introduce the hidden dangers in the low-quality remanufactured turbochargers.

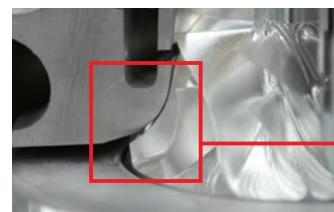
Turbocharger cut model



Case 1

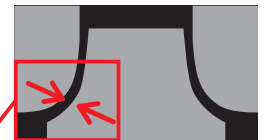
When parts before and after the design change are combined, **the shape of the impeller and the inside of the housing are not matched.**

There's too much space between the impeller and the housing, which makes it inefficient in the air intake, and may cause decrease in engine output and worse fuel consumption.



Normal clearance

*Sample image



The clearance will be too much if different parts are assembled.

Case 2

The most important bearing that supports the shaft of the turbocharger, which rotates at a high speed of approximately 100,000 rpm, **has no groove for lubricating oil.**

Turbine wheel's wear and burning by lubrication failures may cause a malfunction of turbocharger itself.



Genuine parts

Copied parts

Case 3

The bearings parts, which are the most important to keep a smooth wheel rotation, are **all re-used.**

Even in new condition, low quality remanufactured turbocharger with re-used bearing parts cannot keep a smooth wheel rotation. This is one of the critical cause to make turbocharger's life much shorter.

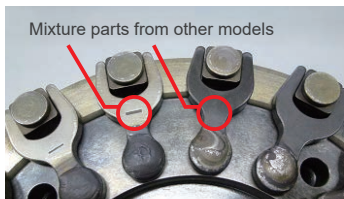


Bearings using re-used parts

Case 4

In Nozzle link plate, which drives constantly without lubrication at high temperature around 700 degrees, **different components parts from other turbocharger are re-used.**

There are two types of nozzle link plate identified by mark in heat process and surface process. The mixtures of those nozzle link plates may be a cause of failure.



Fake parts

Case 5

Nozzle link plate, which drives constantly in harshest environments, **is welded**, although it must be swaged in regular process.

High accuracy is needed in Nozzle link plates, but Welded Nozzle link plates may not keep required position and degree and these may cause a VGS*operating failure and wearing.



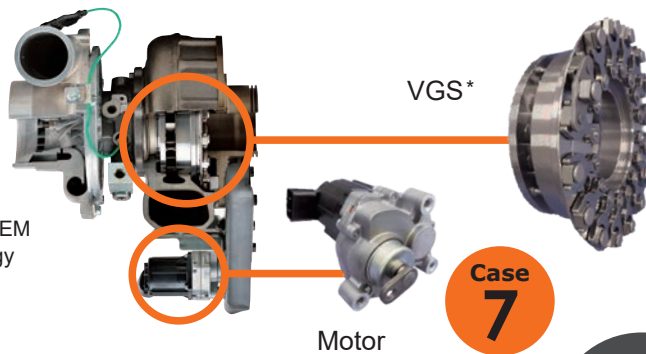
Genuine parts



Fake parts

Turbocharger cut model

VGS* =VARIABLE GEOMETRY SYSTEM
Efficient utilization of exhaust gas energy
by variable Nozzle link plate



Case 4

Case 5

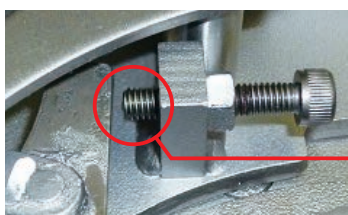
Case 6

Case 7

Case 6

VGS setting is not completed.
The setting details are confidential, **it cannot be adjusted.**

This part must be touched to the stopper, but is not touching. Malfunction of VGS may bring serious troubles, such as low output from the engine, worse fuel economy and increase of harmful materials in exhaust gas.



There's a space.

Case 7

VGS motor is remodeled by **gathering disassembled parts** from other turbochargers.

As 3 different motor combined forcibly, its performance, quality, and durability are doubtful. Motor failures cause a malfunction of VGS.



It looks like one motor, but it combined 3 different parts gathered.

Differences of Our remanufactured Turbocharger!

1

All parts of the rotating body, which is the heart of the turbocharger, are replaced with brand-new genuine parts.

Using brand-new genuine parts in turbine shaft, wheel, each bearing and housing realizes higher performance and durability than other remanufactured turbochargers.

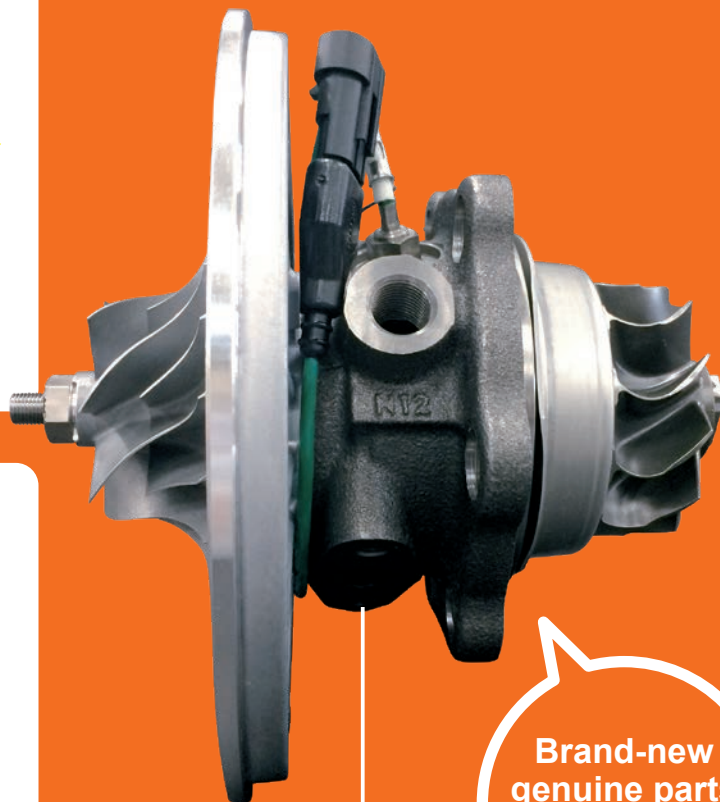
2

In Hitachi Construction Machinery's remanufactured turbocharger, genuine parts are used in all components.

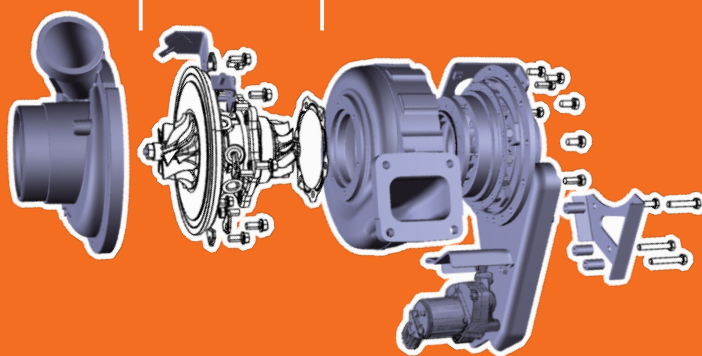
As all genuine parts are used, our remanufactured turbochargers keep high quality and high accuracy. Also We can easily adapt whenever there are changes in design of genuine parts.

3

The same warranty as the brand-new parts.



**Brand-new
genuine parts**
(rotation part as
the center section)



You can watch the promotion video of the remanufactured parts, scanning the QR codes.



These specifications are subject to change without prior notice. Illustrations and photos show the standard mode ls, and may or may not include optional equipment , accessories, and all standard equipment & parts with some differences in color and features. Before use, read and understand the Operator's Manual for proper operation.