Mechanical Conversion on Hitachi Carburetors

By Loyale 2.7 Turbo, June 14, 2014 in Engine

Carburetor · Hitachi · 2bbl · Vacuum · JesZeK · Primary Stage · Secondary Stage · Loyale 2.7 Turbo · Mechanical · conversion

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Overview:

If your stock carbureted Subaru EA engine feels Gutless, slower than it used to be, and some times, it overreacts during acceleration and sounds louder while your subie runs like a bat out of hell, and the Hitachi Carburetor has a Vacuum Operated Secondary (high) Stage; I Bet that the Vacuum actuator that activates it, is failing.

Even with non failing vacuum activated secondaries; I've made Mechanical Conversions on those carburetors, always with Great Results. The Difference between the Vacuum operated and the Mechanically operated Secondaries (high) Stages, lies in the **Moment** for Reaction, and **how** the engine reacts to your acceleration behaviour; let me explain:

In the vacuum operated carbs, the Secondary (high) Stage which gives the "**Power**", will work depending on the engine's vacuum; which depends on RPMs, and thus means that it will work accelerating indirectly; while on the Mechanically operated carbs, the "**Power**" is always there, to react at your very will, each time you press the Gas Pedal, and thus means that the acceleration is Directly.

The mechanically activated secondary (High) stage on the Weber carburators and its Robust, pure smart simplicity, are the main factors why a Weber Carb is super desirable on the Carburated EA engines; it also helps you to get rid of tons of unuseful things from the crowded engine bay... on those states in USA with not too restrictive laws, regarding pollution control.

But if you can't afford a Weber carb, or don't want to do ~► the Weber Carb Swap Job, then a Mechanical Conversion on your Hitachi Carb will help your ride to be more reactive to your accelerating behaviour.

There is absolutely No Downsides with such Mechanical Conversion on the Carburator, if it is Done properly.

How to do the Mechanical Conversion:

Prior to explain that, I must say this: If you really don't understand and don't have too much mechanical experience, then I kindly suggest you to Ask to a Qualified Mechanic with Knowledge / Experience in Carburetors, to do that Mechanical Conversion for you, instead of trying it by yourself; because to instal a badly assembled / damaged carb, could be pretty **Dangerous** in many different ways, so Be Careful*!* (Disclaimer: Use all the info I post, at your own Risk)

Basically talking, the Mechanical conversion is done at follows:

► Remove the Vacuum actuator attached to the secondary (High) Stage, along all its hardware,

► close any open threads with screws;

► then attach a piece of hard, inox wire, firmly secured to the mechanism that opens the primary (low) stage Butterfly, which is directly connected to the accelerator plate, (in the other side) where the accelerator cable goes.

► Then, Twist that wire giving to it the shape of a Hook or a curved finger that wanna pull something, in order to let the primary (low) stage butterfly, to touch and move the mechanism that moves the Secondary (High) stage Butterfly, just after the primary (low) has been moved and it reached around its Half (50%) opening.

You must "Calibrate" that movement on the Secondary (High) stage, by twisting the Wire, in order to achieve Full

Opening of Both Butterflies when the Accelerator Plate is at fully acceleration (Maximum) which equals to the Gas Pedal being floored, and also the Secondary (High) Stage butterfly shall remain completely closed, during the first half movement from the primary (low) stage butterfly.

Let me Show you a Short Video that Demonstrates how it Works:

Here is an easy **Repair guide** for those **Hitachi** Carburetors, plenty of pictures (Not mine, Found it online)

Download it here: ~► Hitachi 2 Barrel Carburetors Visual Repair Guide

If you find useful information here, let me Know by hitting the "**Like**" Button.

Kind Regards.

Edited October 12, 2016 by Loyale 2.7 Turbo

6

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