



# Carburetor Clean & Repair Pictorial

*Page last modified: 11/09/02*

These pages created by [John Bloemer](#)

**M**ost GSResources readers are ready and willing to work on their chosen GS model. We get many requests for assistance on how to do a various number of things to these machines, one of which deals with carburetor problems. In this pictorial, John has tried to give us the step by step process which will allow us to work on those gummy carburetors and plugged up fuel jets.

So, clear the decks and work bench -- and put on some ratty clothes to get ready for this feature. Positive comments and feedback welcome.

**Note #1:** Follow the images from Left to Right, Top To Bottom for the proper sequence. Also, there is **not** a "slide 15" so, don't go looking for it!

**Note #2:** [Bill Kingston \(wkings41@pop.infi-net.mindspring.com\)](mailto:wkings41@pop.infi-net.mindspring.com) has brought it to our attention that the references to a Pilot Air Screw may be incorrect. He states that on these carbs use a Fuel Flow Screw instead. This means that you are controlling fuel running through the passages with this adjustment, not air. So when turning the screw counterclockwise you are increasing fuel flow and when you turn it clockwise you decrease fuel flow.

Carburetor Cleaning and Rebuilding Pictorial for CV type carburetors in general use on Suzuki GS's after 1980.

BE CAREFUL - Read Instructions, Warnings, and Cautions on all solvents and cleaners, as most are toxic and flammable!!!

Carburetors and their parts are delicate - treat as such!



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Suggestions:

Work on one carb. at a time so parts don't get mixed-up, and looking at an assembled carb. may help with reassembly.

Use an egg carton, or something similar, to keep track of small parts.

Use proper fitting tools - brass carb parts are deformed and nicked easily - don't FORCE things.

Refer to a manual when needed!!!



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The following are SUGGESTIONS ONLY that worked for the author during his carburetor cleaning & rebuilding experience. Use any of these suggestions at YOUR OWN RISK!!

Refer to a manual when needed!!!



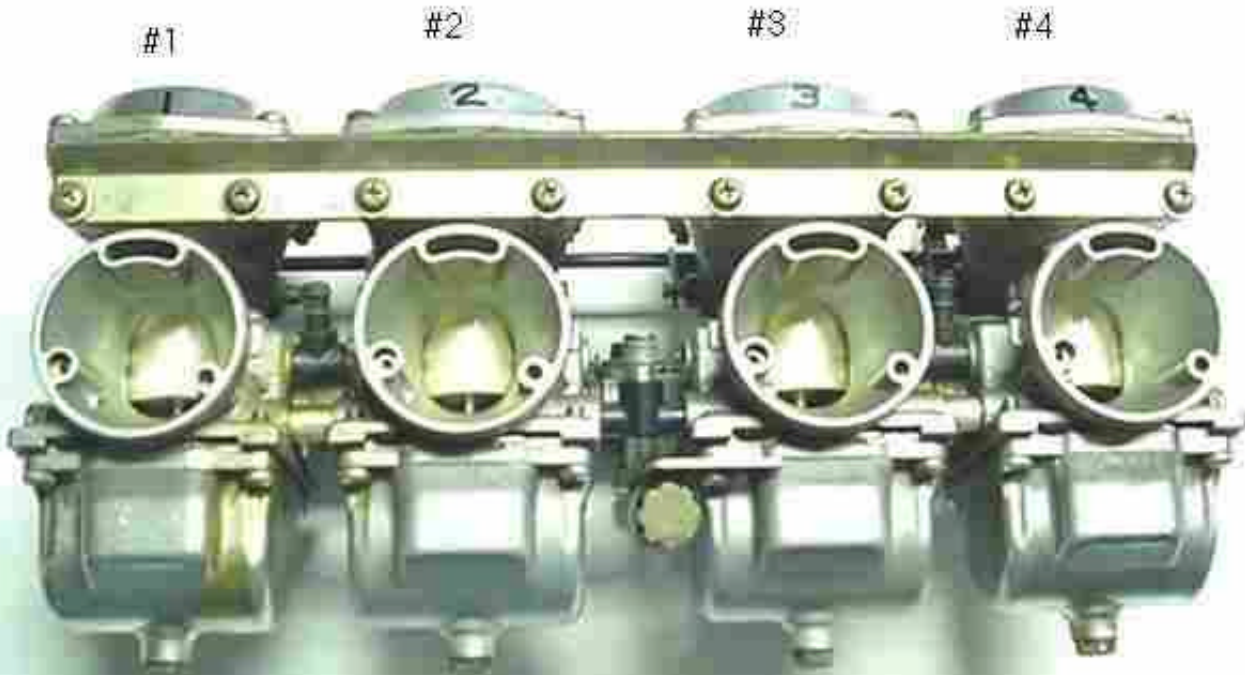
Engine

Carburetors

Air Box

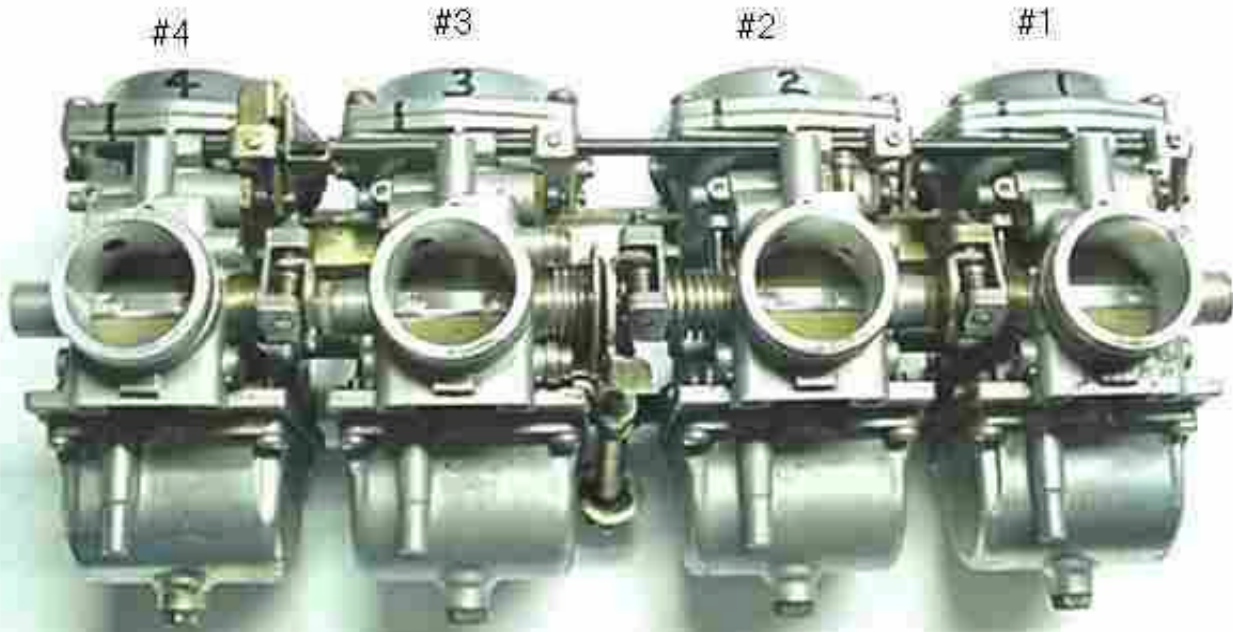
J. G. Bloemer 1/2001

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View of carbs from airbox (rear of bike) side.

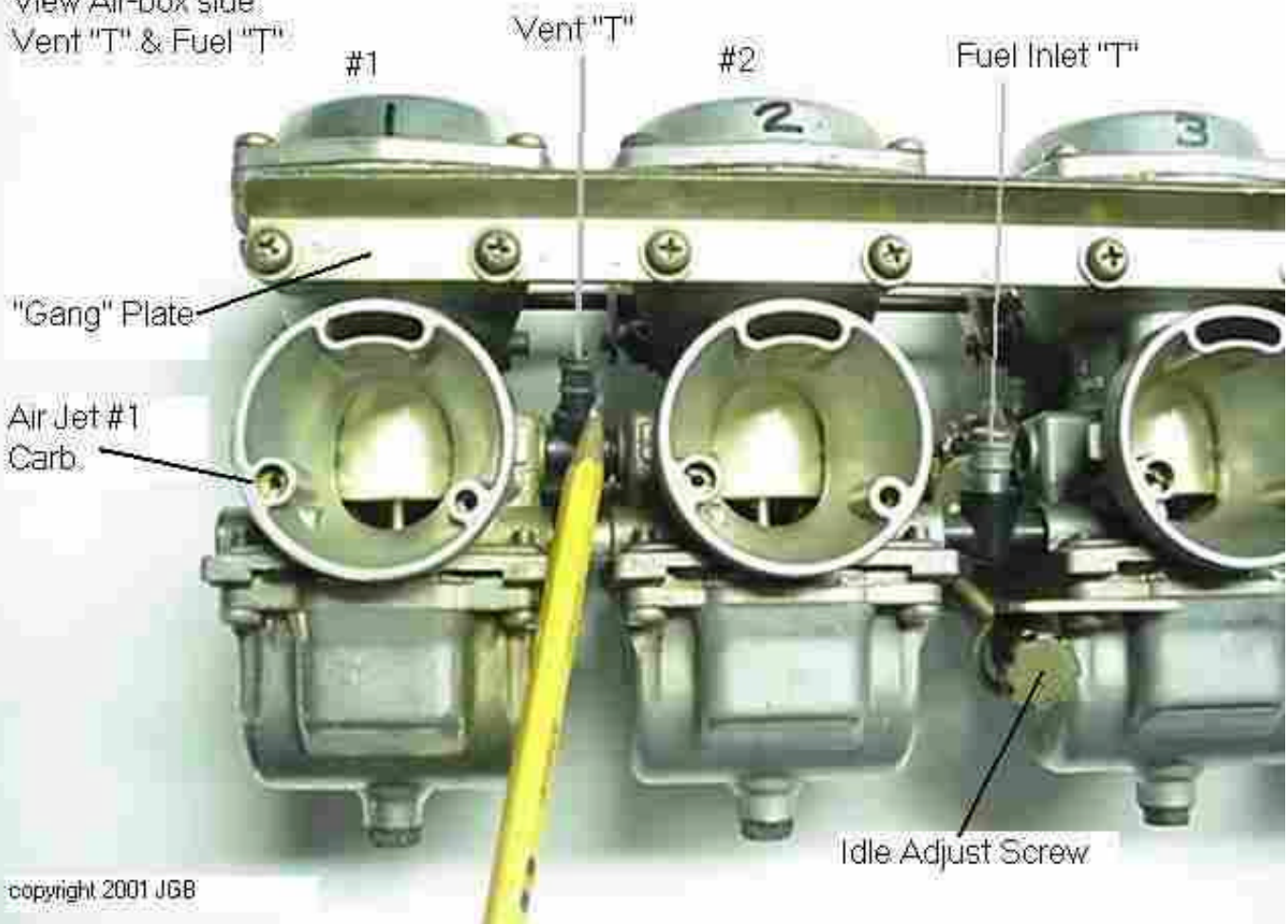
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View of Carbs from Engine (front of bike) side

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View Air-box side  
Vent "T" & Fuel "T"



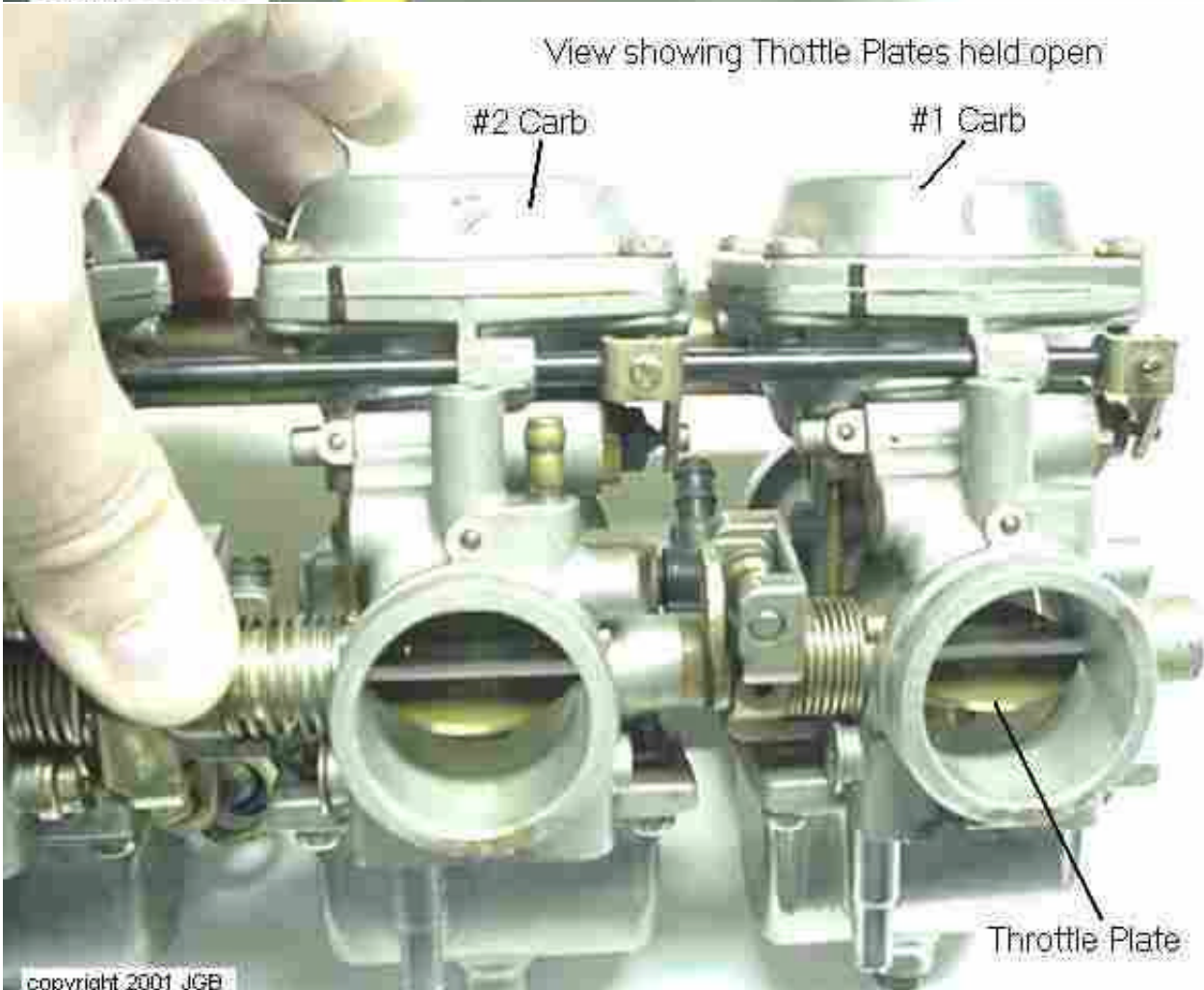
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Vacuum Port on #2 Carb pointed out. This port goes to the Fuel petcock small tube fitting



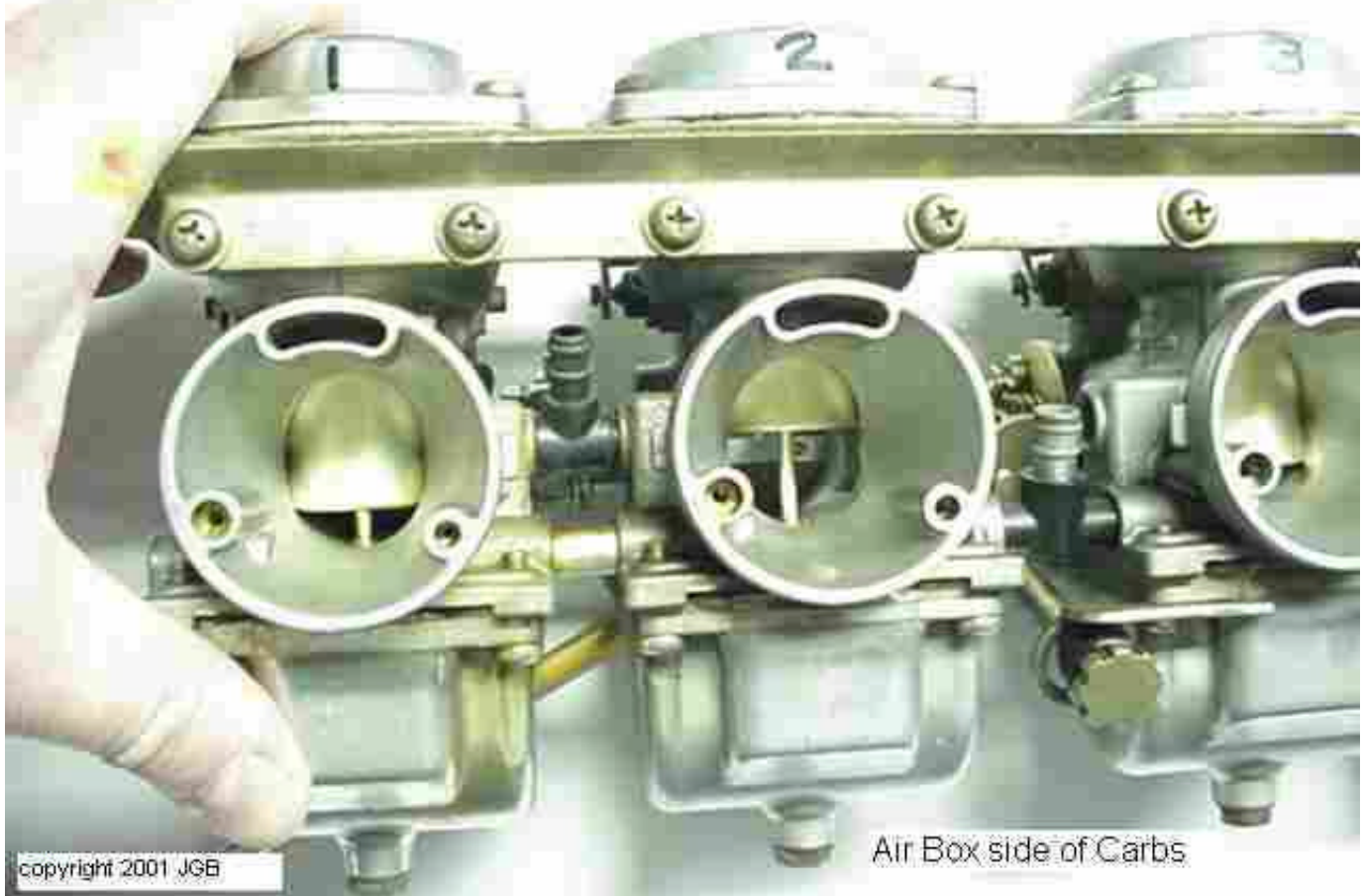
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View showing Throttle Plates held open



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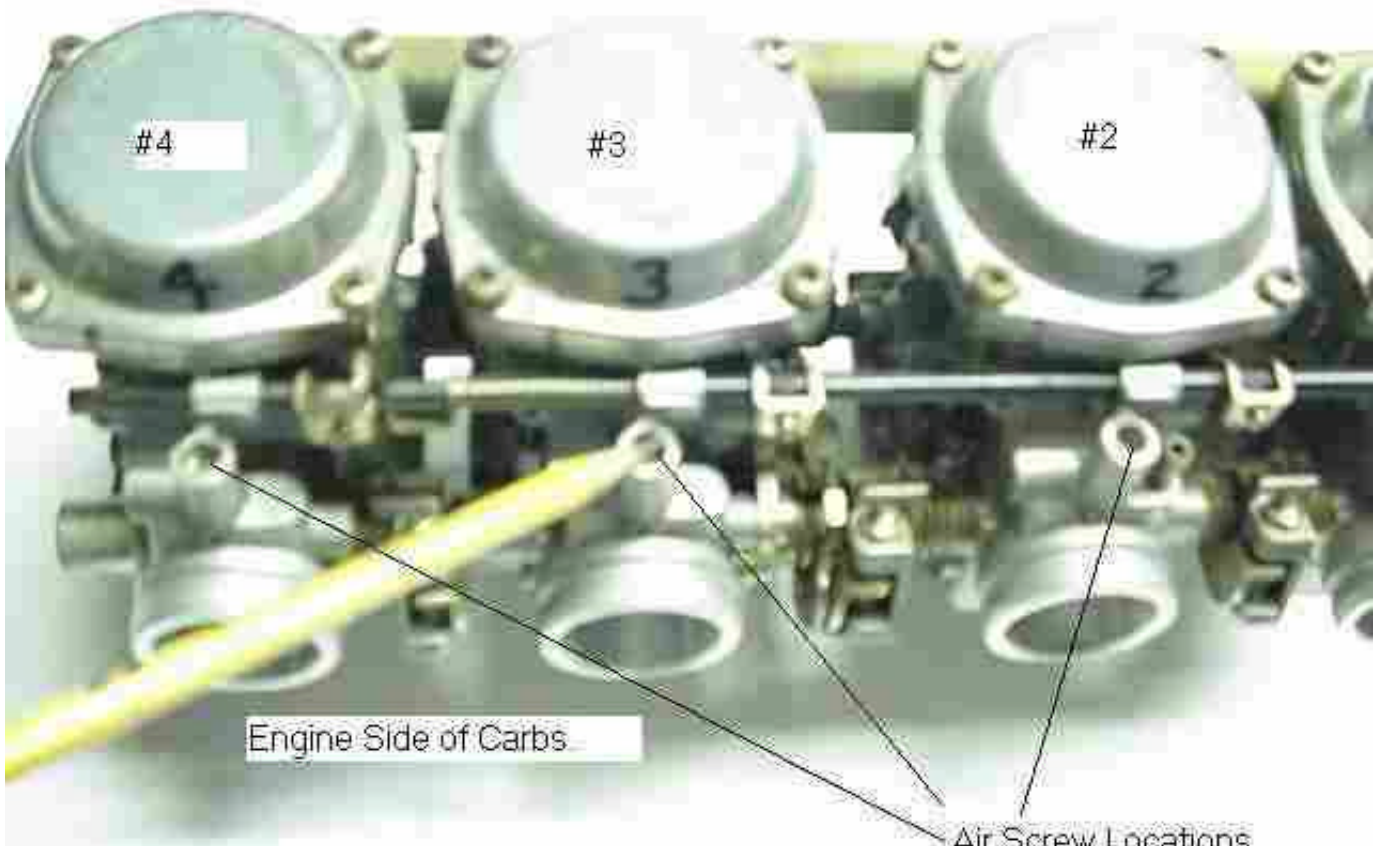
Throttle Valve (Slides) shown #1 Down, #2 part way Up....



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Air Box side of Carbs

Air Box Side of Carbs:

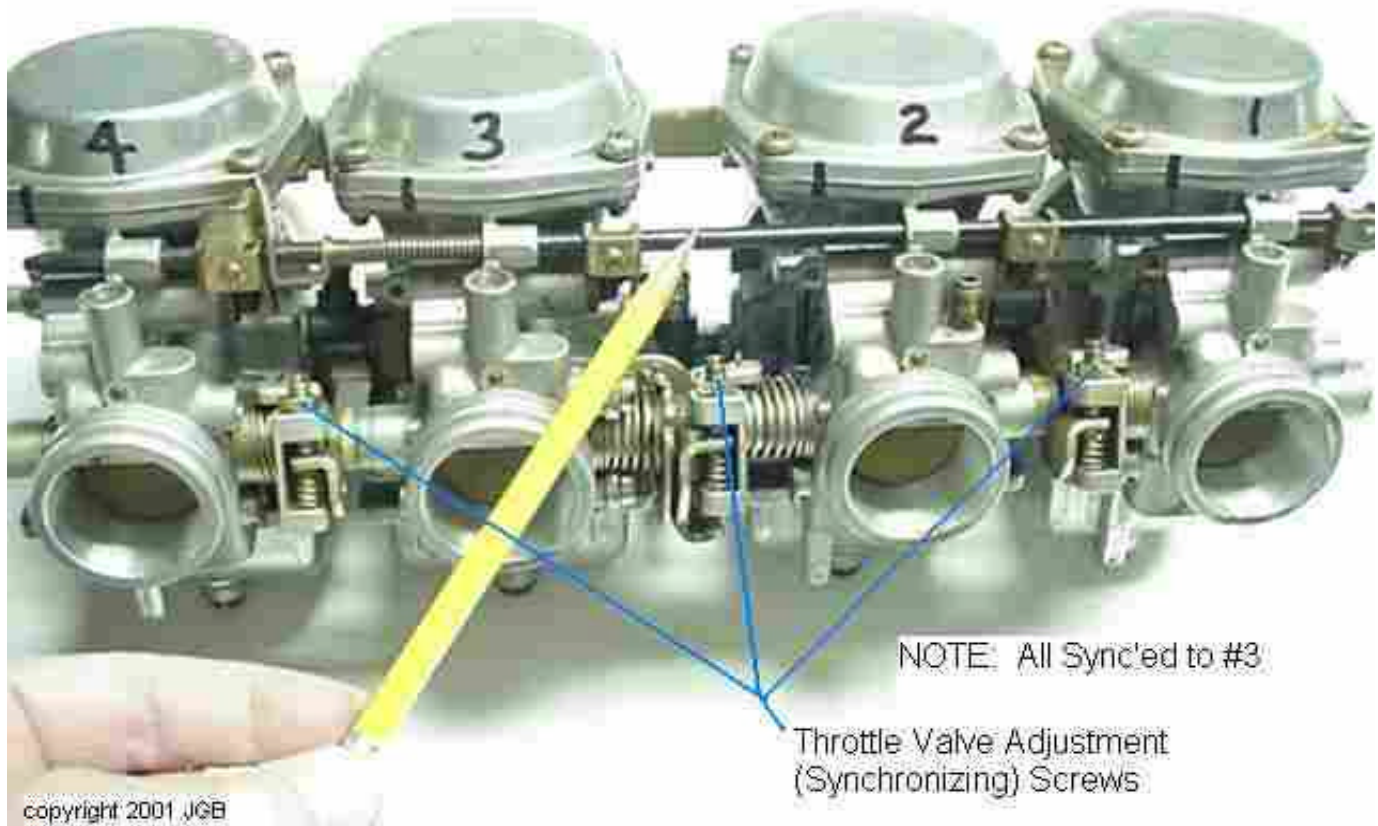


Engine Side of Carbs

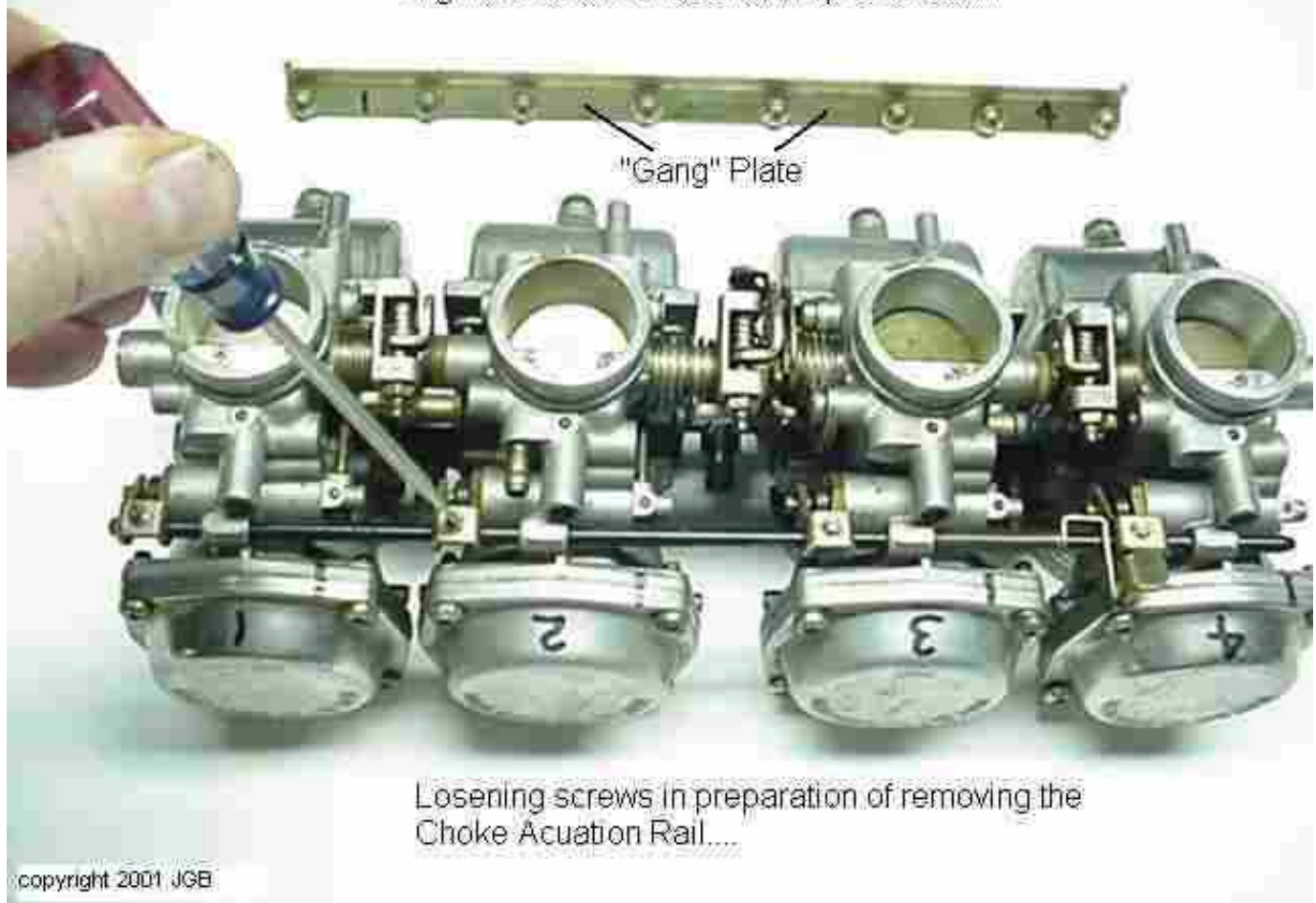
Air Screw Locations  
#4, 3, & 2 Carbs

copyright 2001 JGB

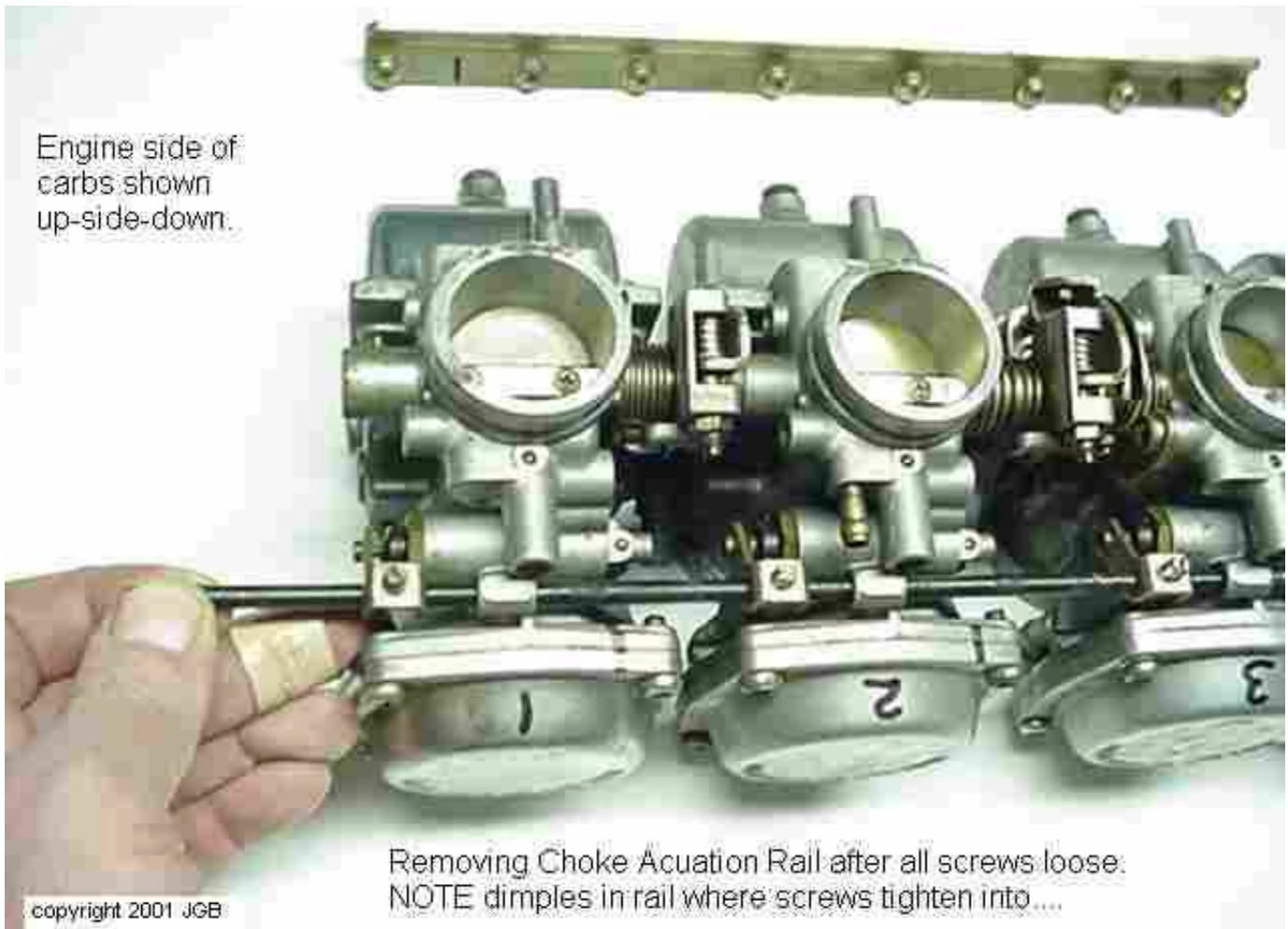
Engine Side of Carbs shown with Choke Rail pointed out....



Engine Side of Carbs shown up-side-down



Engine side of  
carbs shown  
up-side-down.



Removing Choke Actuation Rail after all screws loose.  
NOTE dimples in rail where screws tighten into ...

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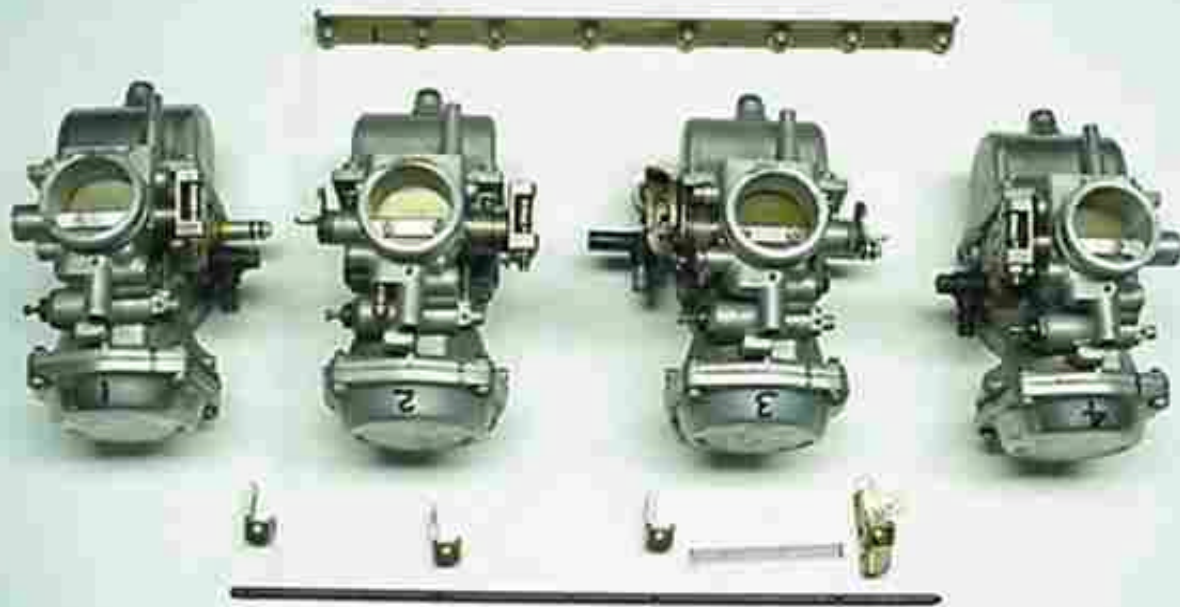
Engine side of carbs shown ready to separate, with choke rail (foreground) and  
"gang" plate removed (background) ...



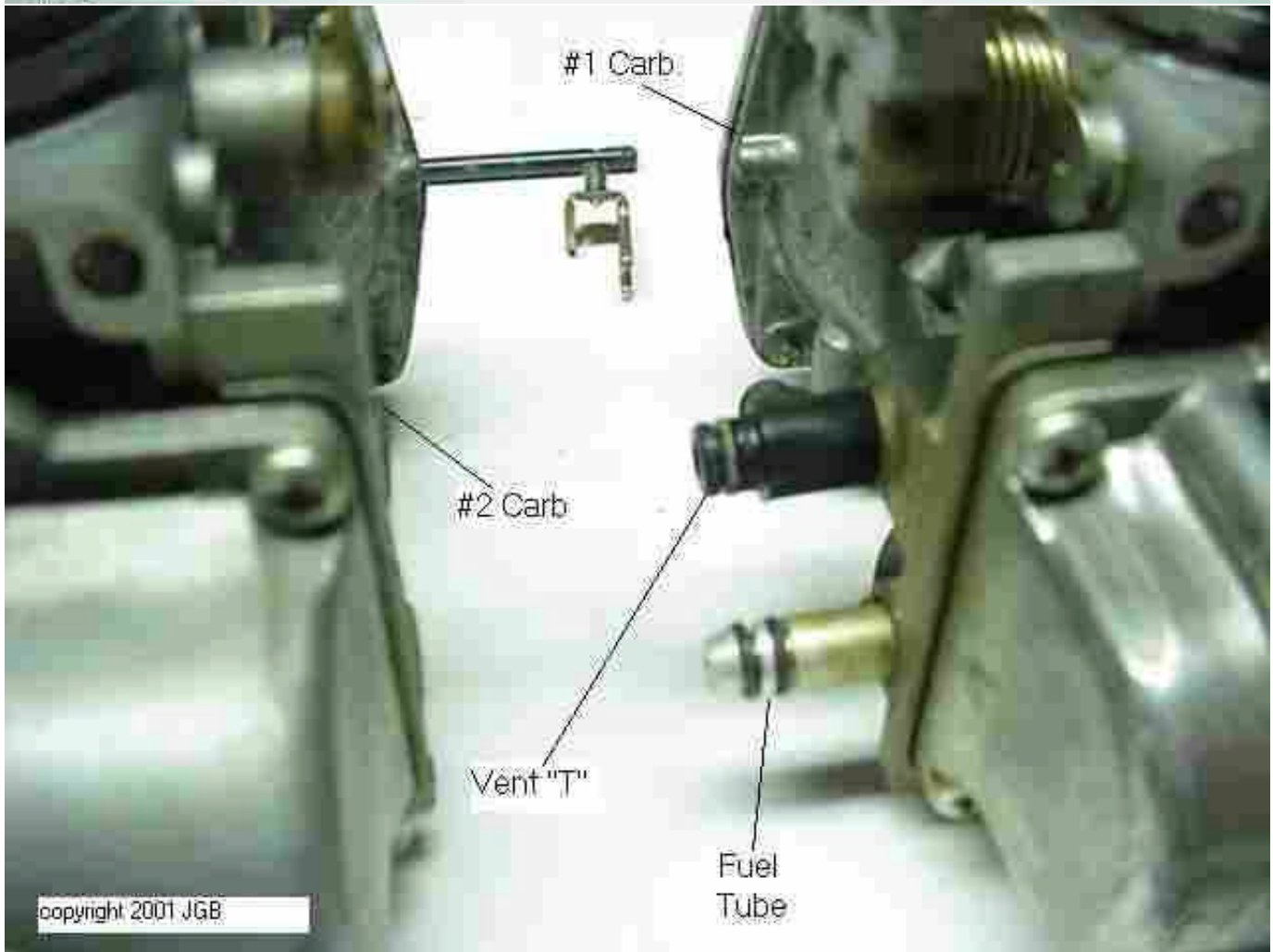
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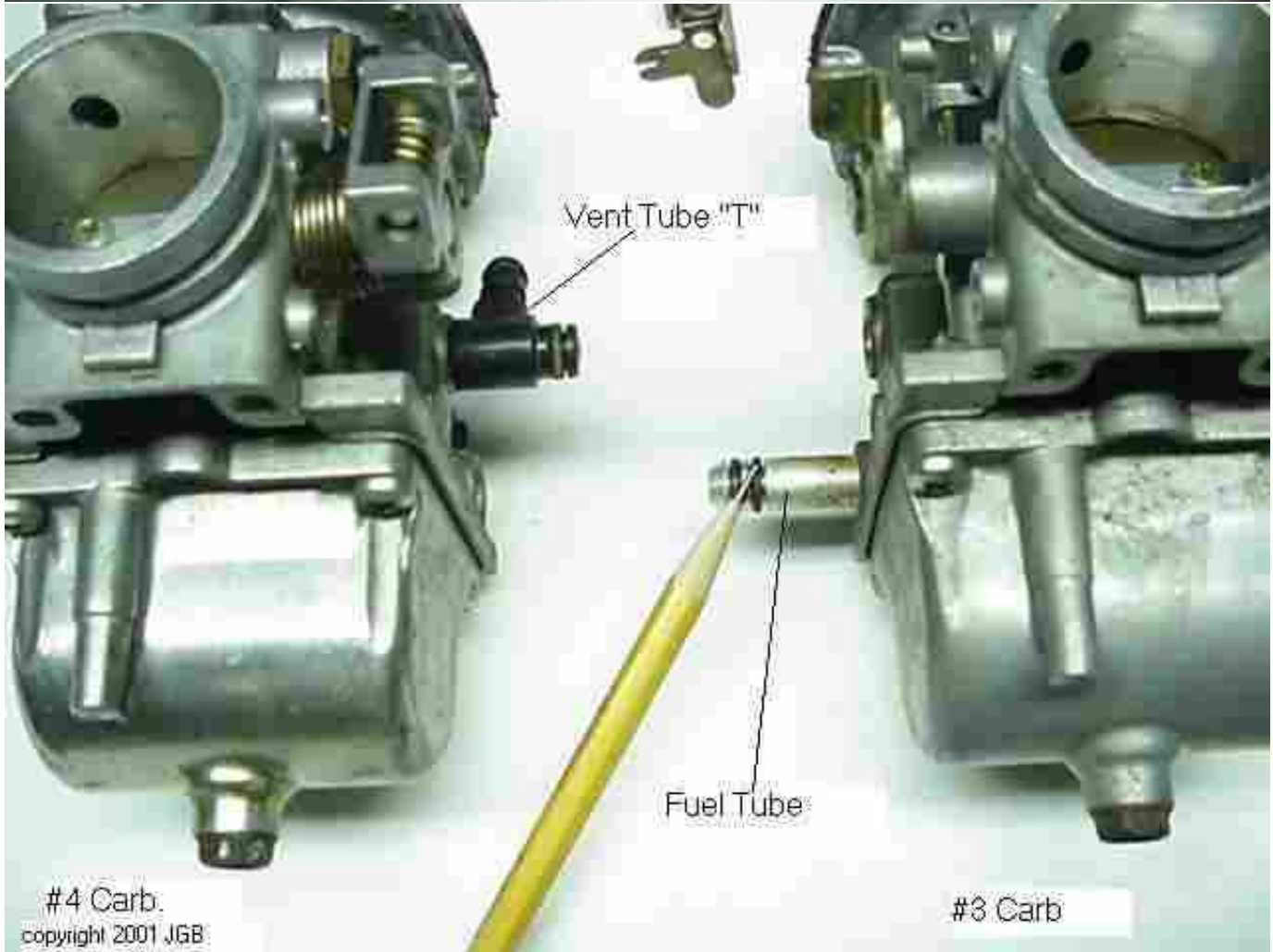
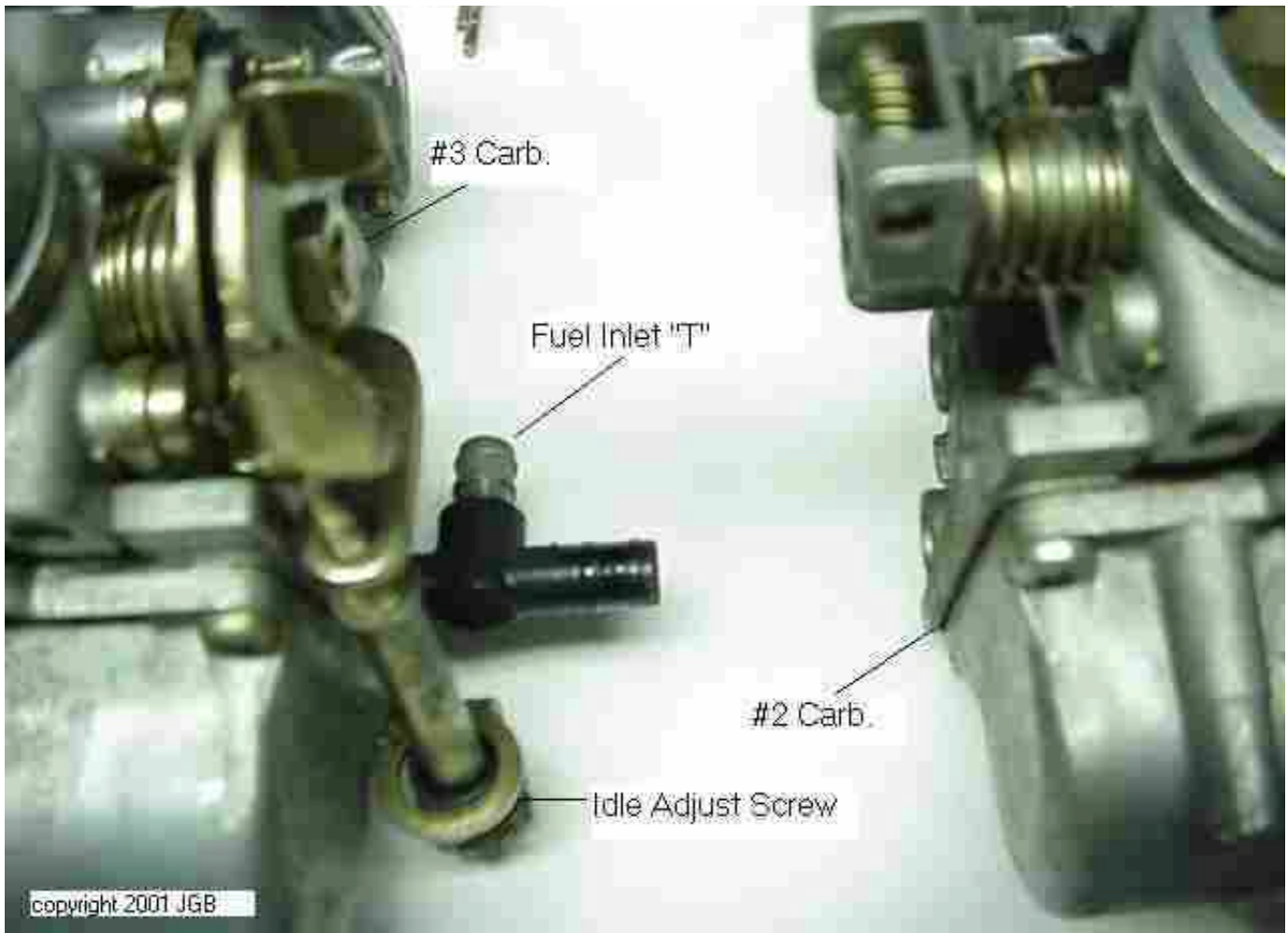
Engine Side of Carbs shown seperated, and up-side-down, with choke rail components in the foreground ...

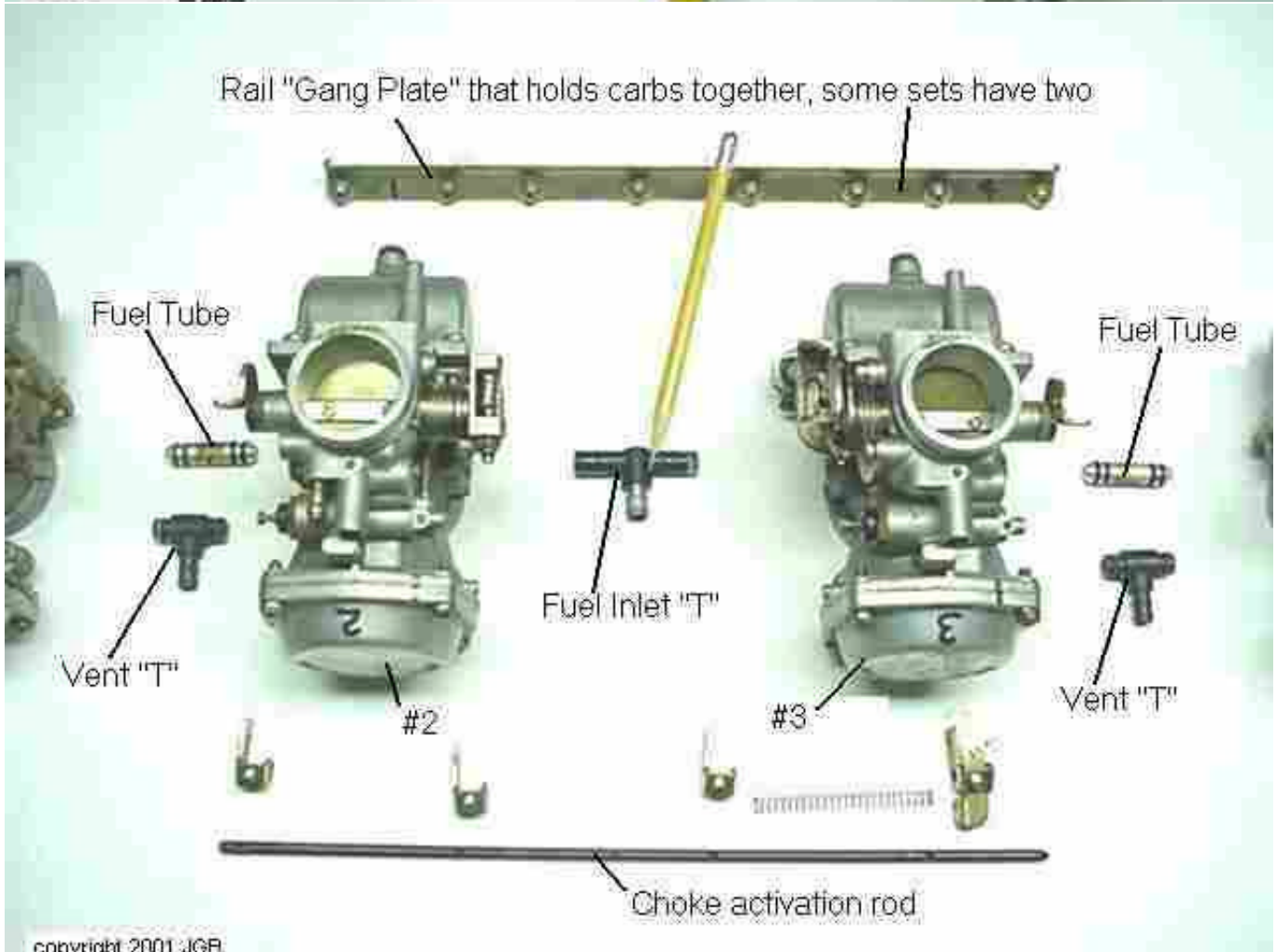
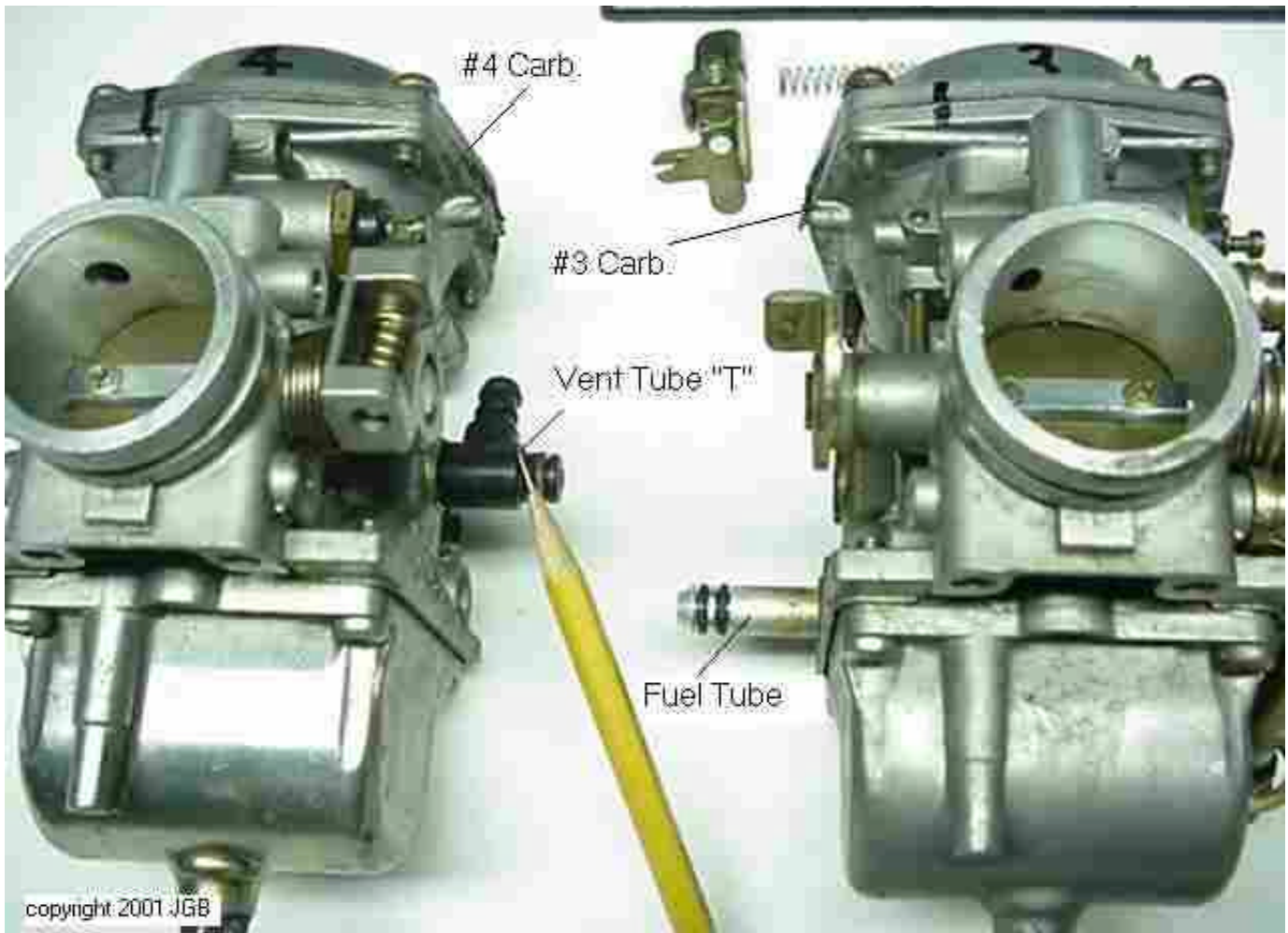


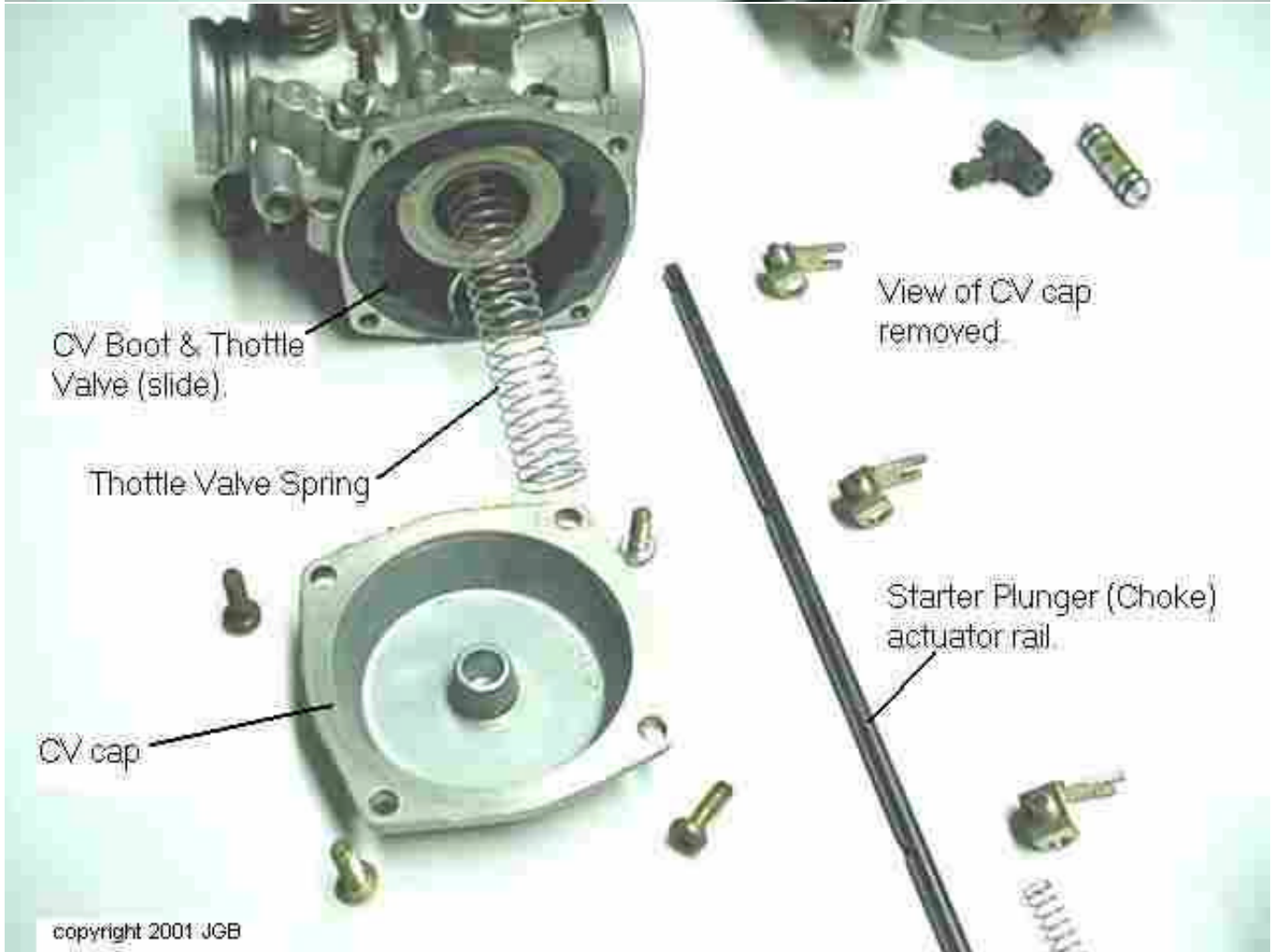
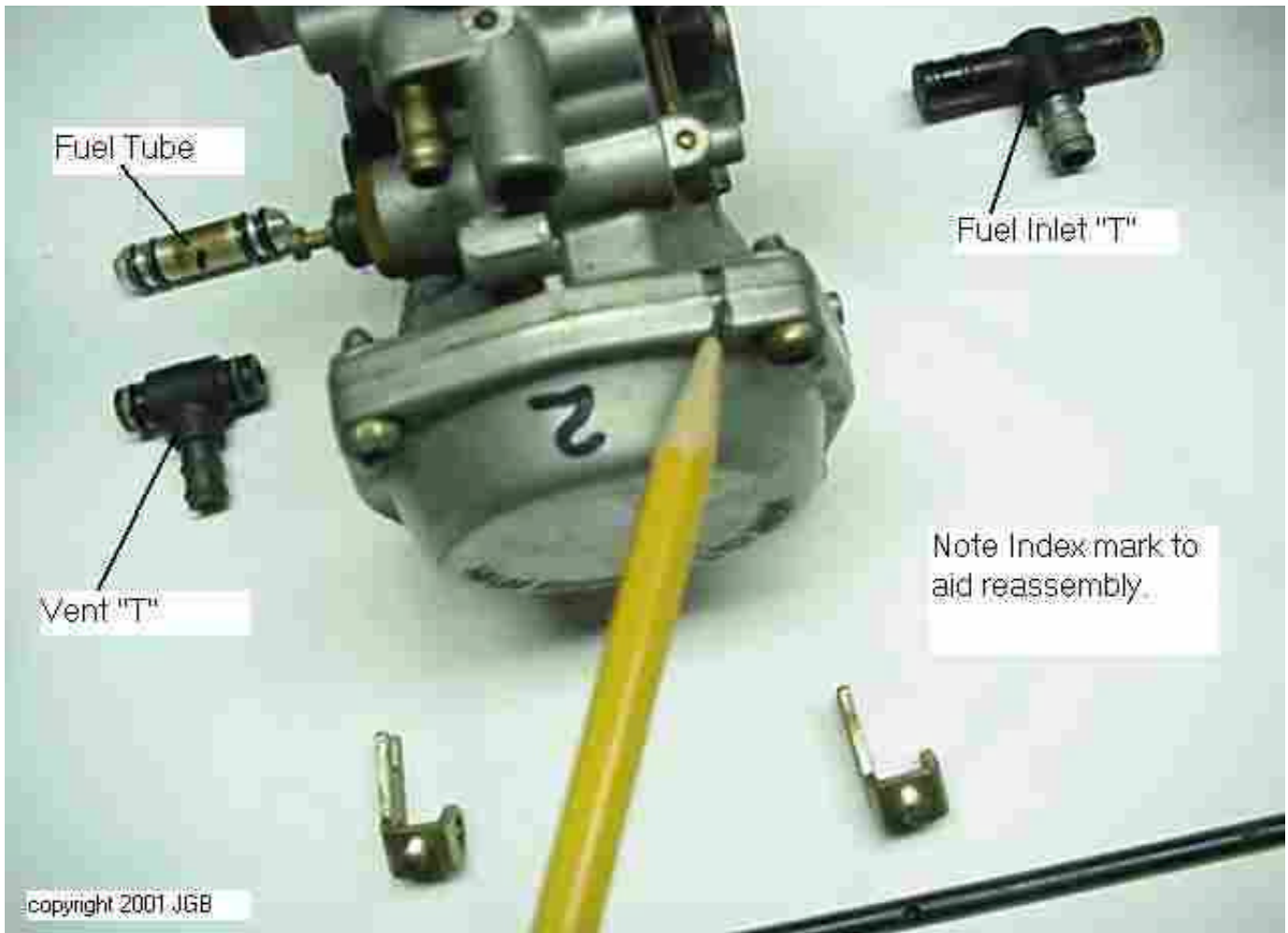
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Preparing to remove slide. If stuck, spray with carb cleaner and let soak....

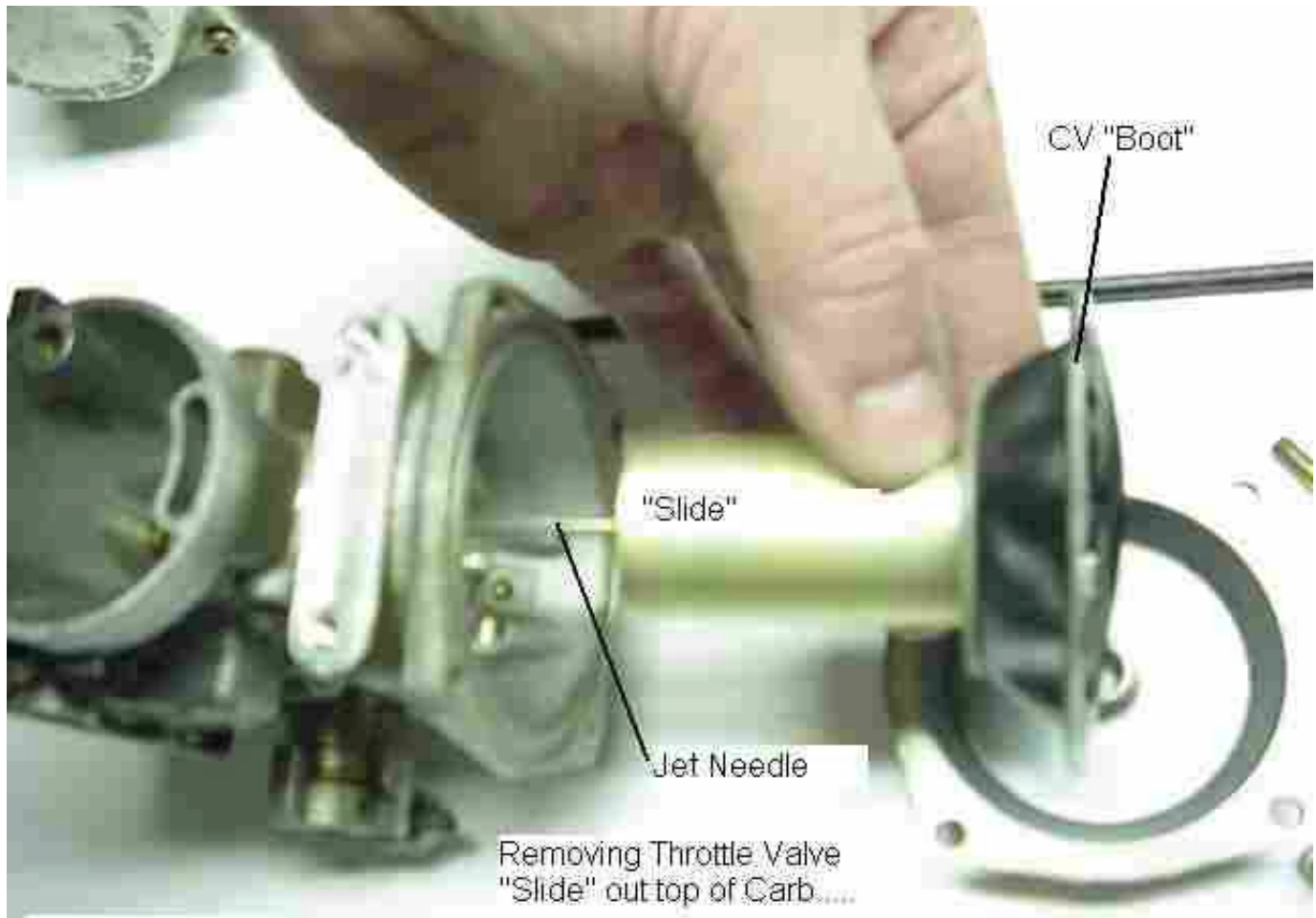
copyright 2001 JGB



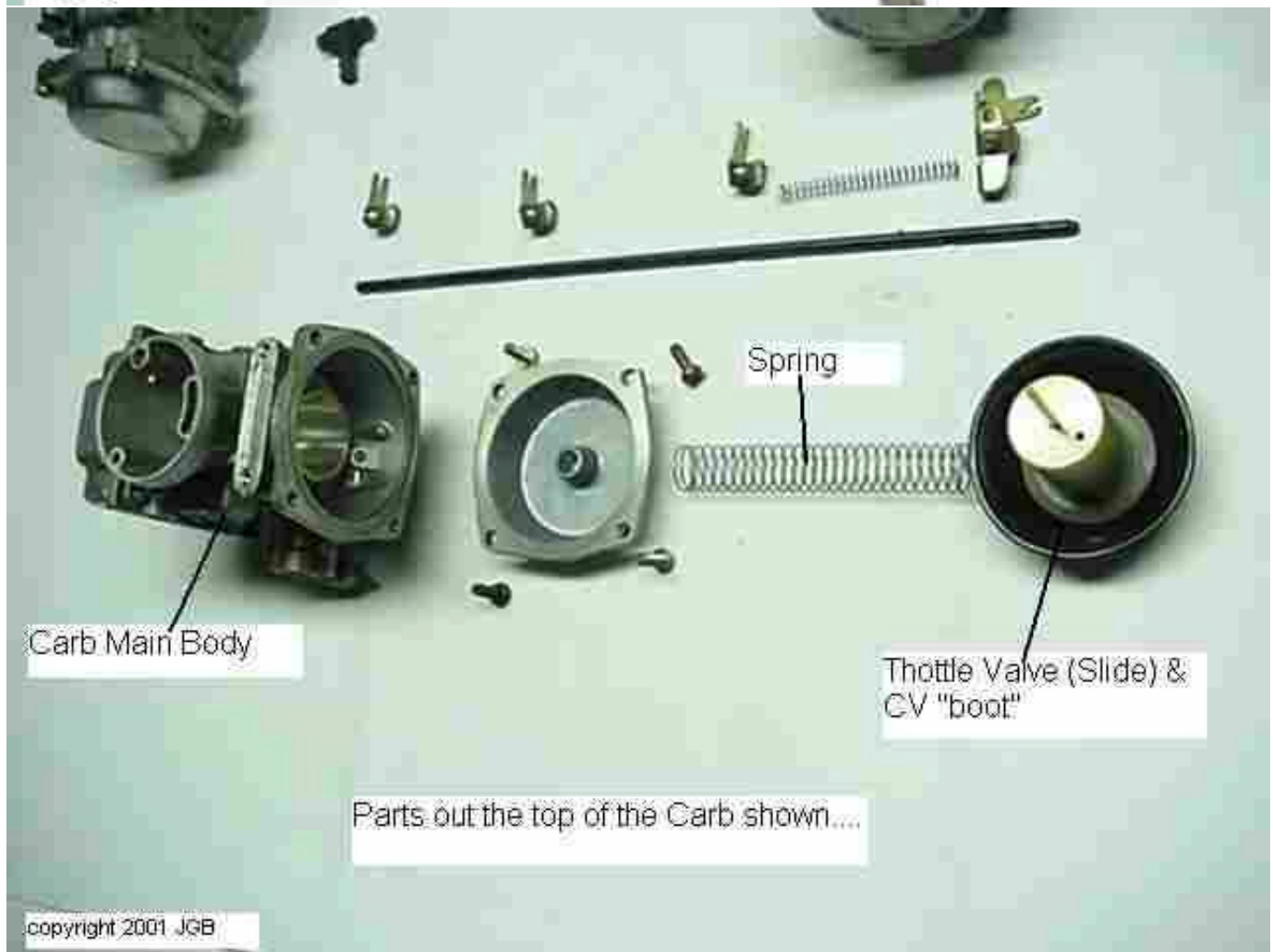
Removing Throttle Valve (Slide) out top of carb, AFTER spraying/soaking if stuck.....

if stuck, gently pry with WOOD stick

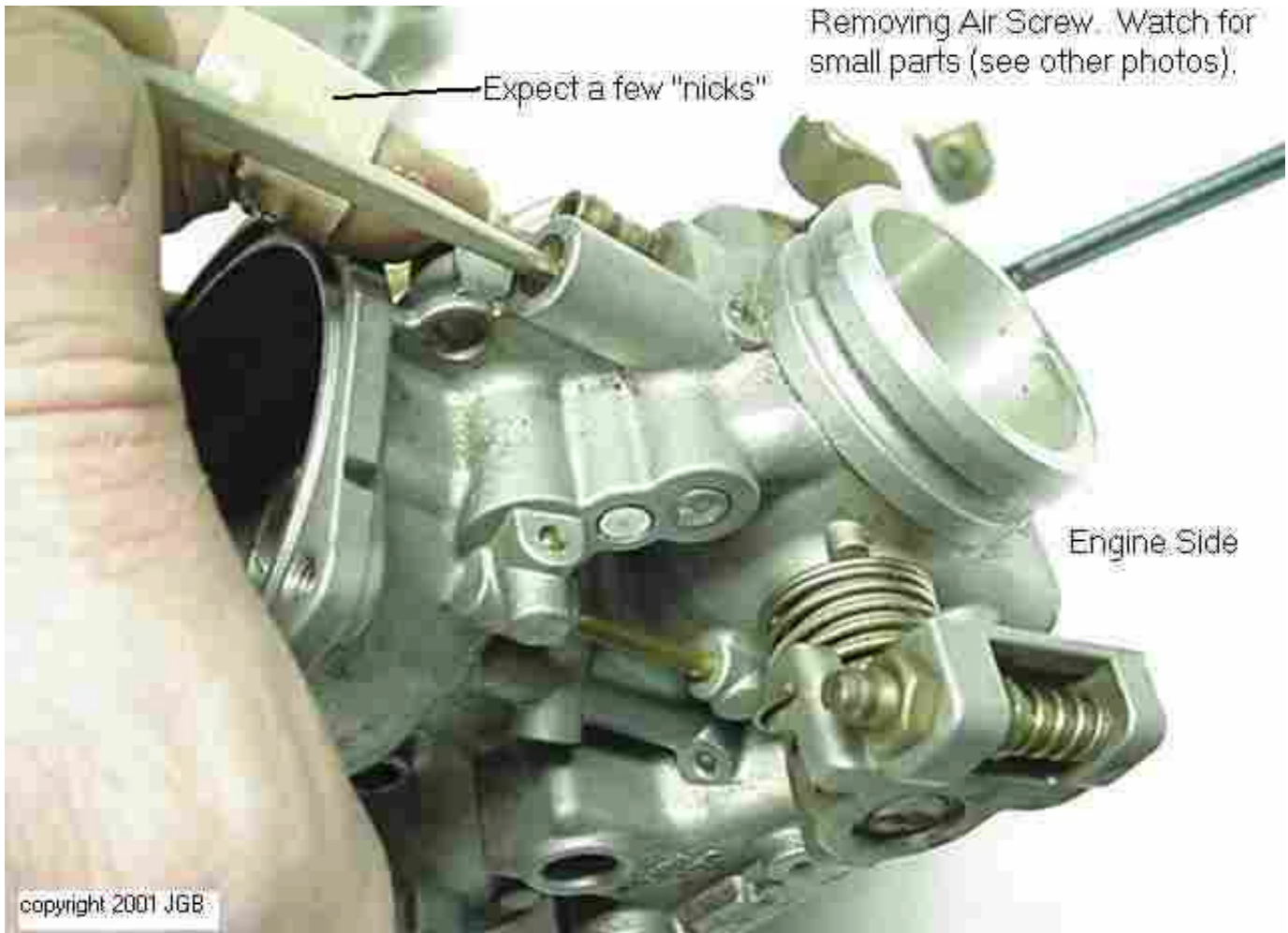
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Removing Air Screw. Watch for small parts (see other photos).

Expect a few "nicks"

Engine Side

copyright 2001 JGB

Air Screw Removed



Air Screw

Copyright 2001 JGB

Air Screw Spring Removed



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Air Screw Components "exploded"

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Air Screw Components Assembled

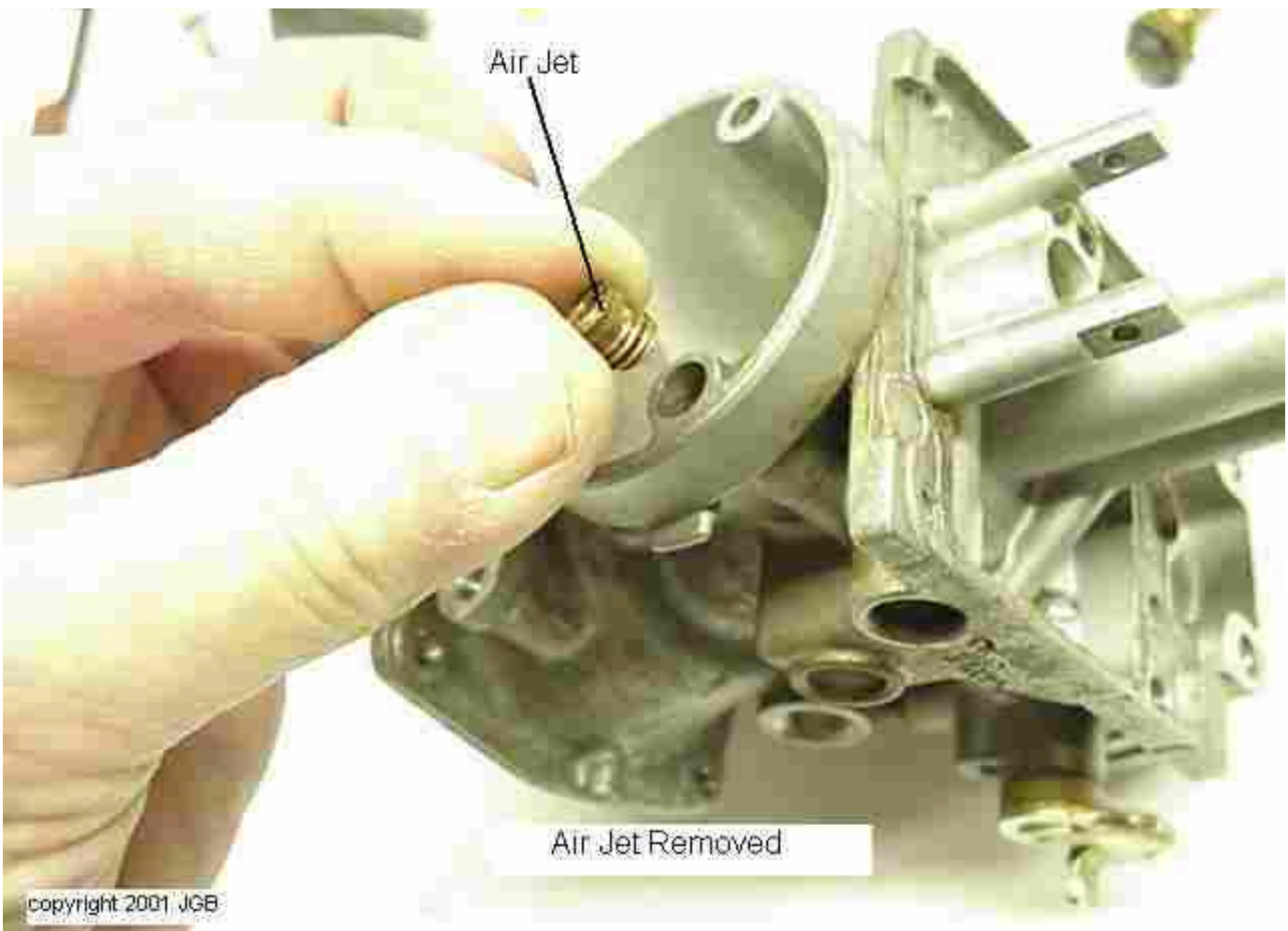
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Removing Air Jet. NOTE use good fitting screw driver and if stuck, spray/soak with carb cleaner.....



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Air Jet Removed

copyright 2001 JGB



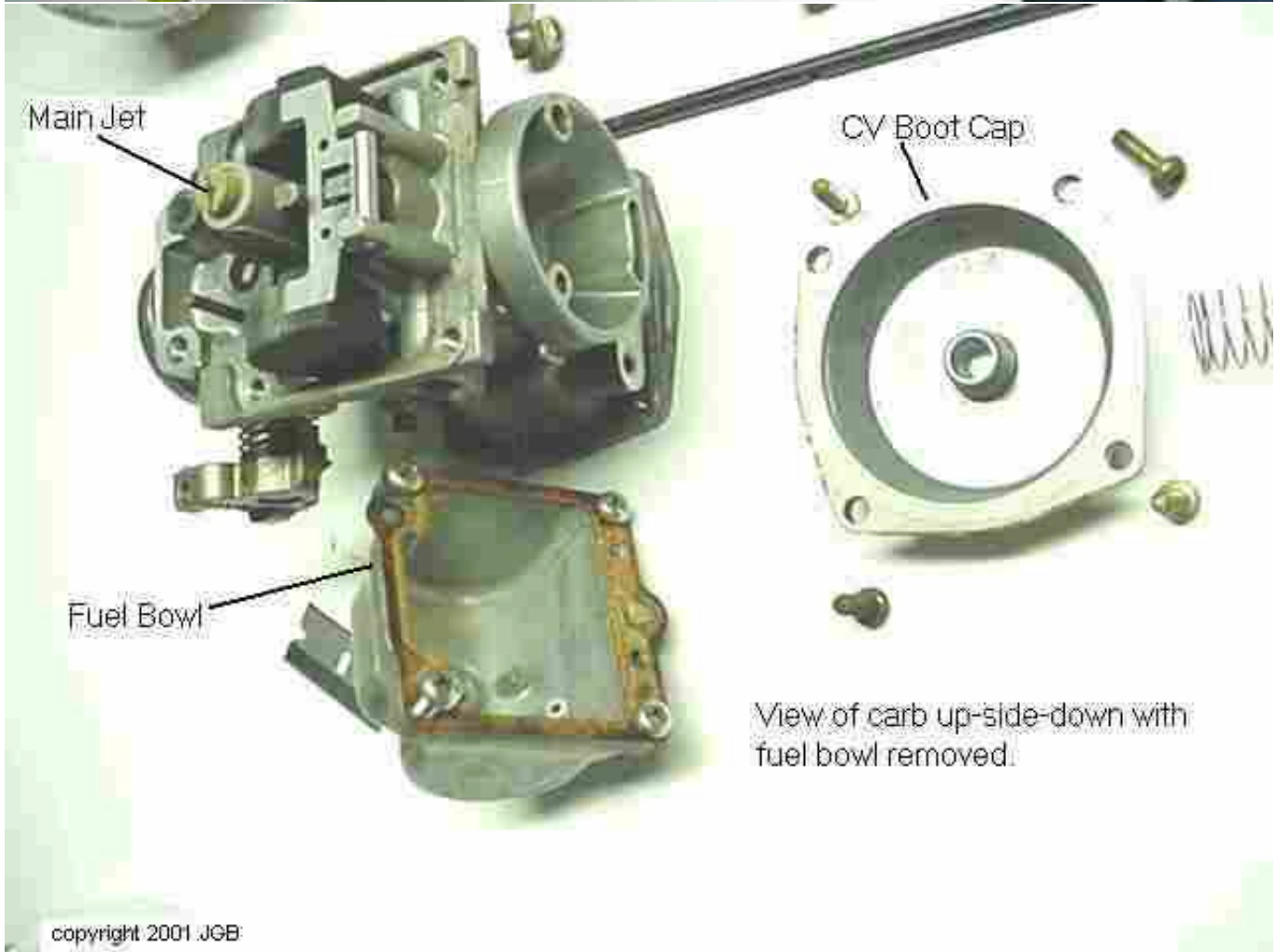
Removing fuel bowl screws preparing to remove fuel bowl....

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While removing fuel bowl, gently coaxing fuel bowl gasket with a razor blade to prevent fuel bowl gasket from tearing during removal.

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Main Jet

CV Boot Cap

Fuel Bowl

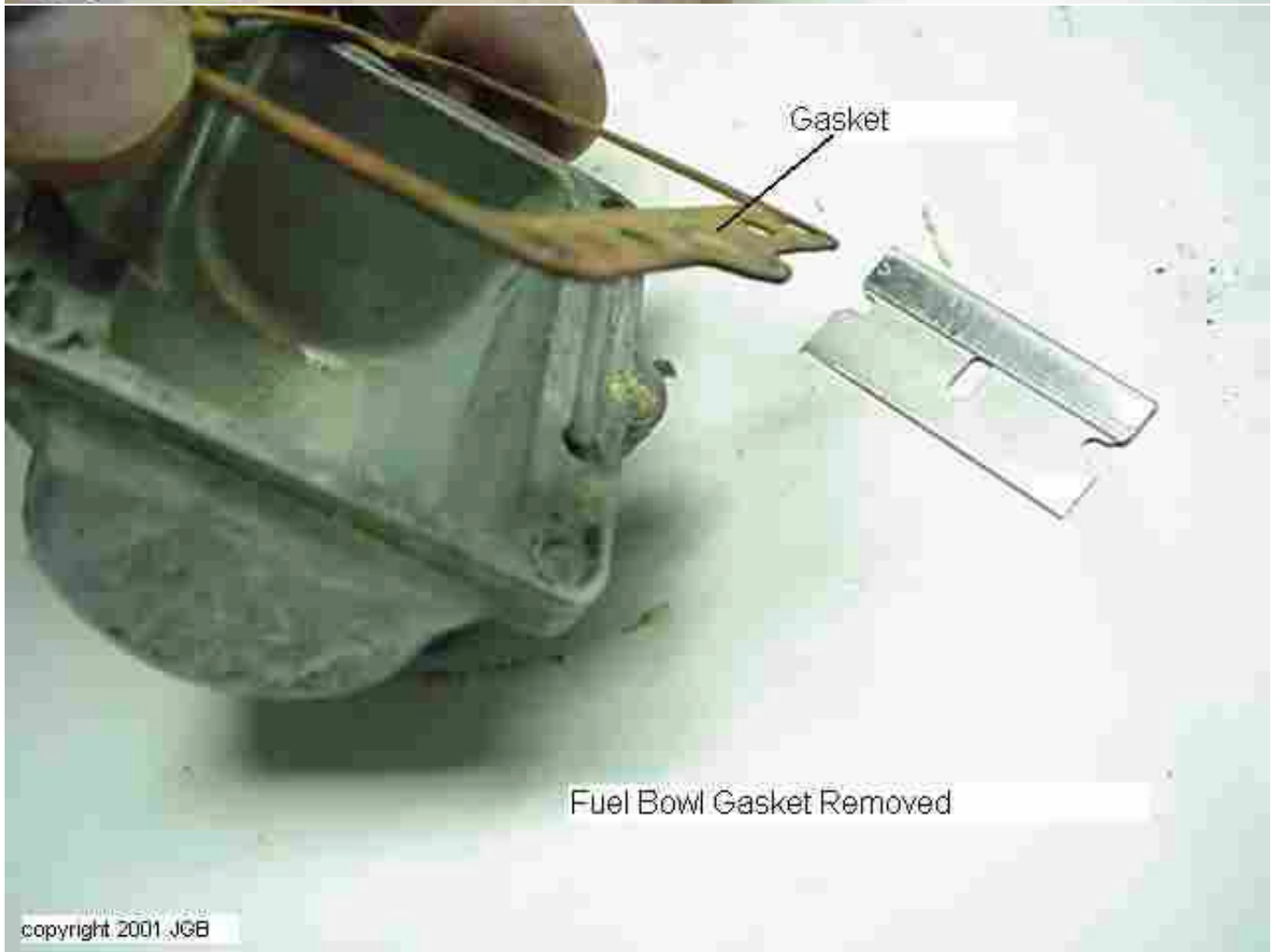
View of carb up-side-down with fuel bowl removed.

copyright 2001 JGB



Gently removing Float Bowl gasket with razor blade. NOTE: gasket may have stuck to carb body, gently remove in similar fashion....

copyright 2001 JGB



Gasket

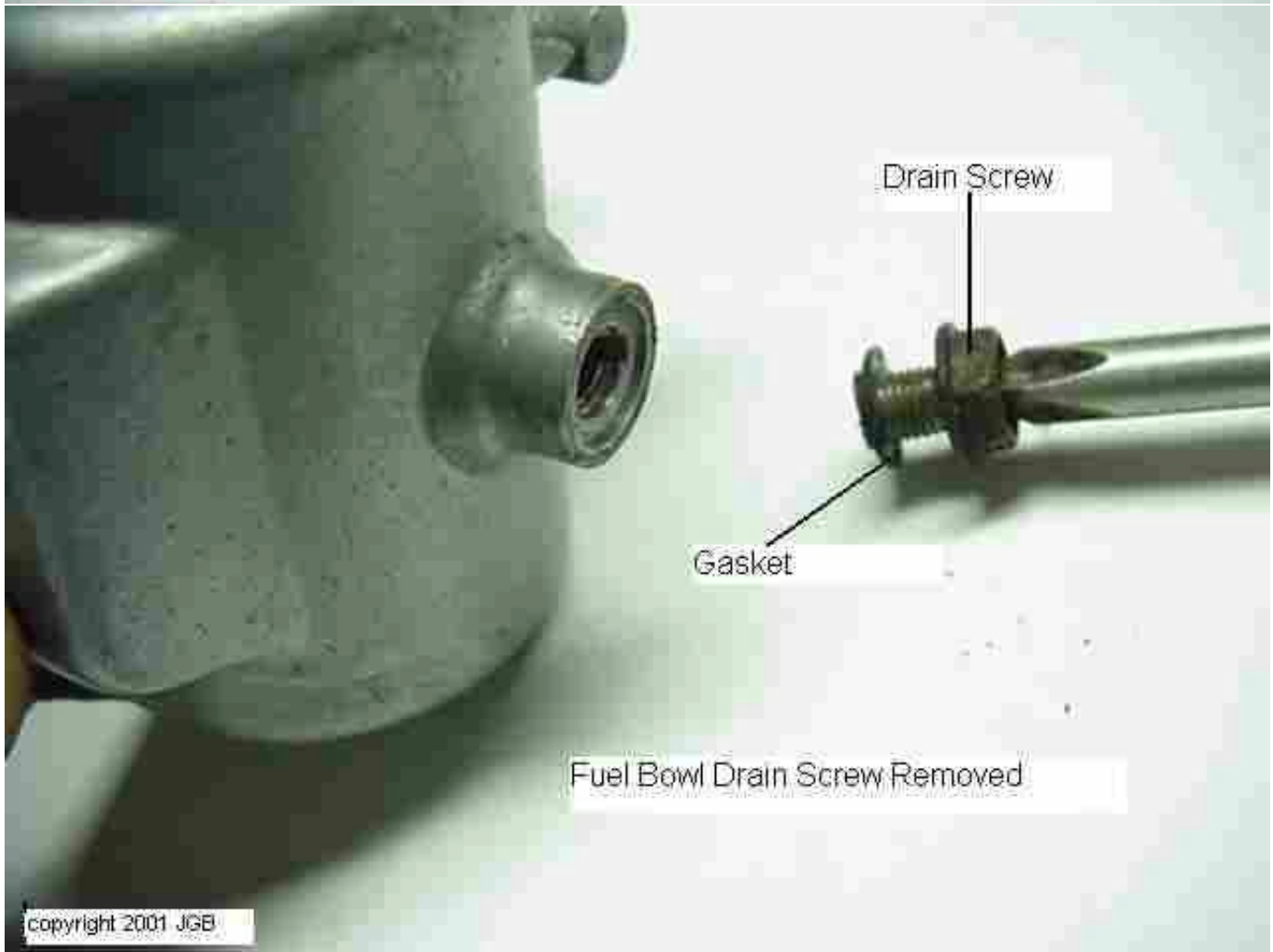
Fuel Bowl Gasket Removed

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Removing Fuel Bowl Drain Screw...

copyright 2001 JGB

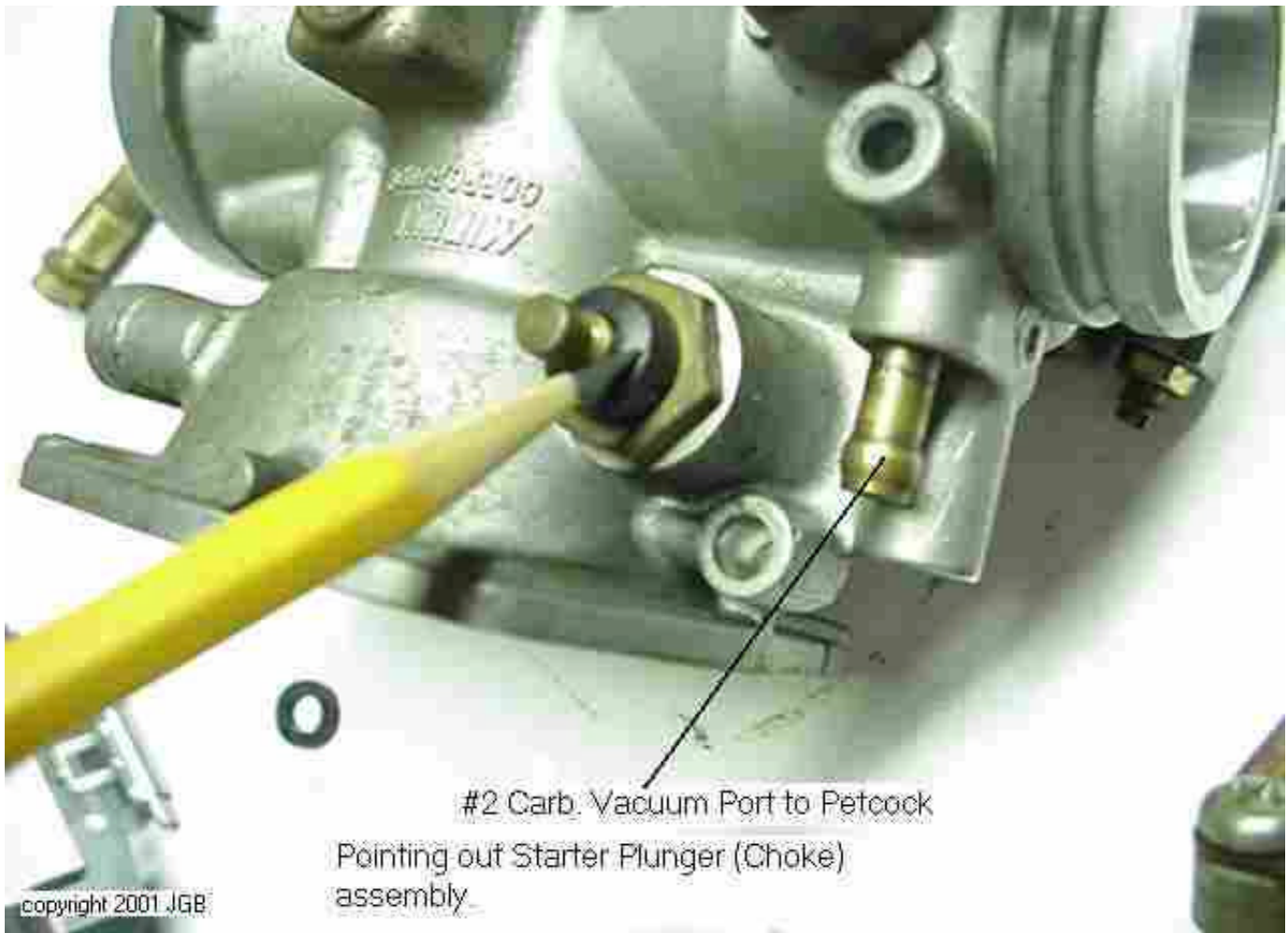


Drain Screw

Gasket

Fuel Bowl Drain Screw Removed

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#2 Carb. Vacuum Port to Petcock

Pointing out Starter Plunger (Choke)  
assembly

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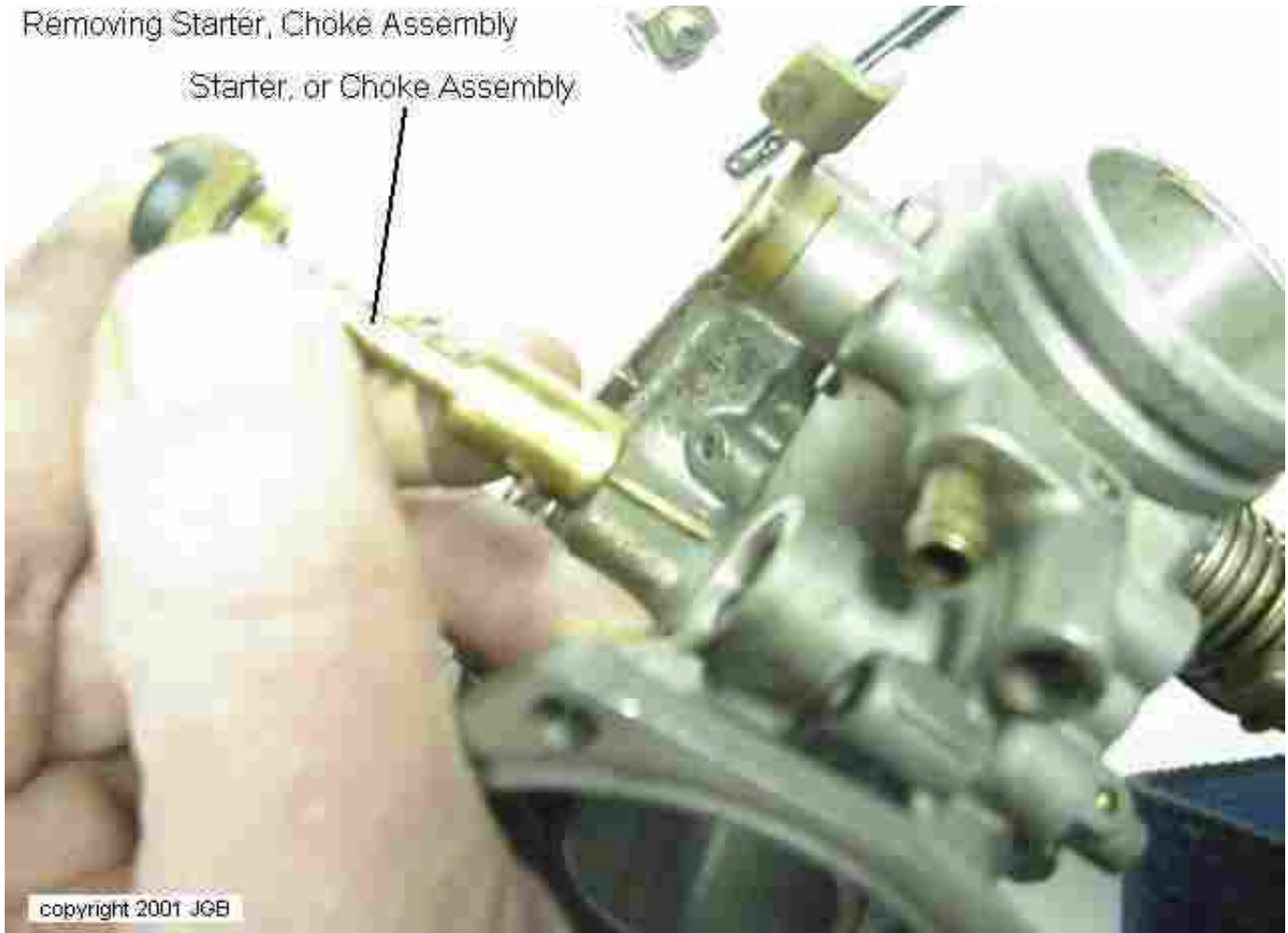
Preparing to remove  
Starter Plunger (Choke)

#2 Carb only - Vacuum Port to Petcock

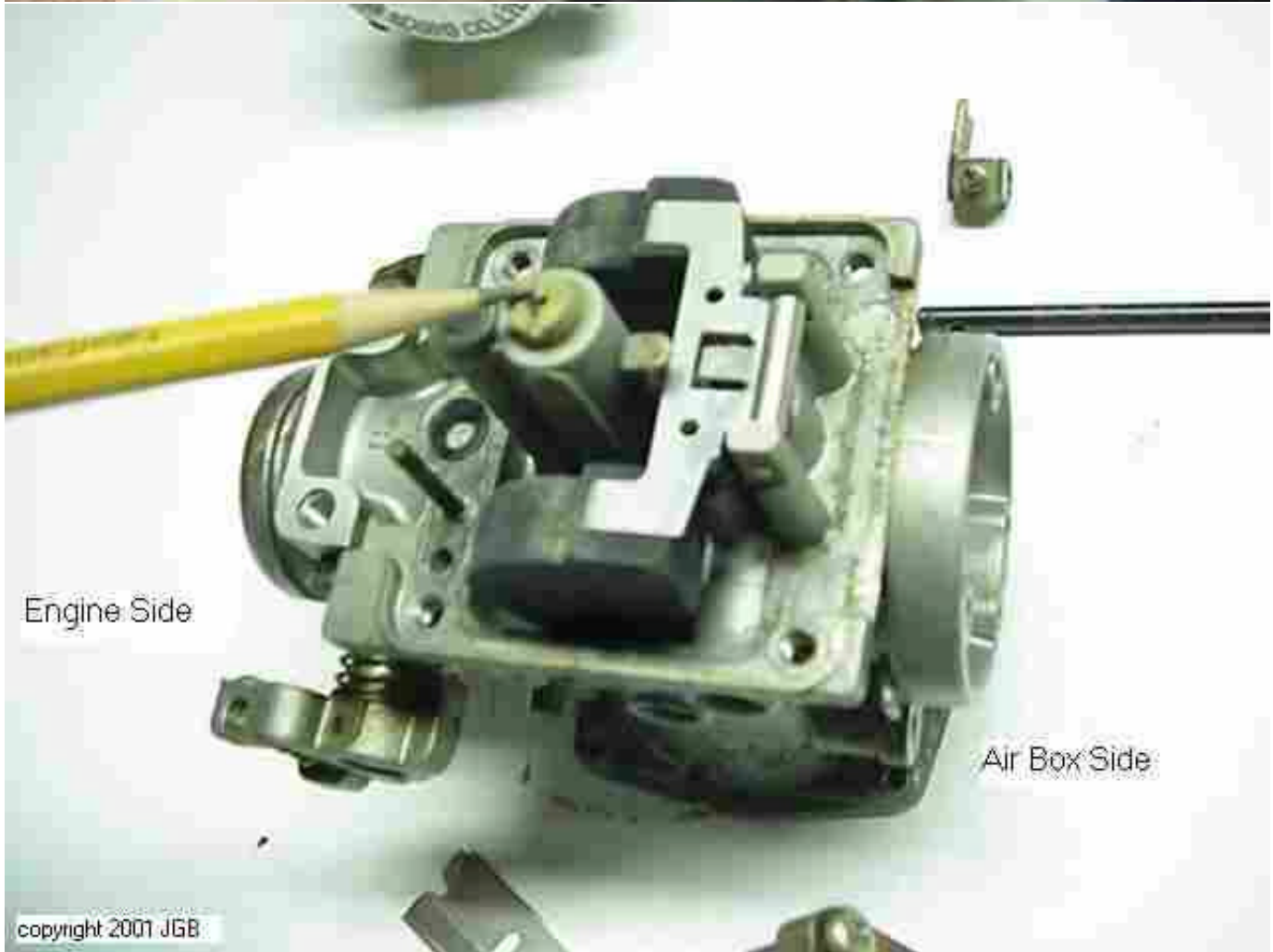
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# Removing Starter, Choke Assembly

Starter, or Choke Assembly



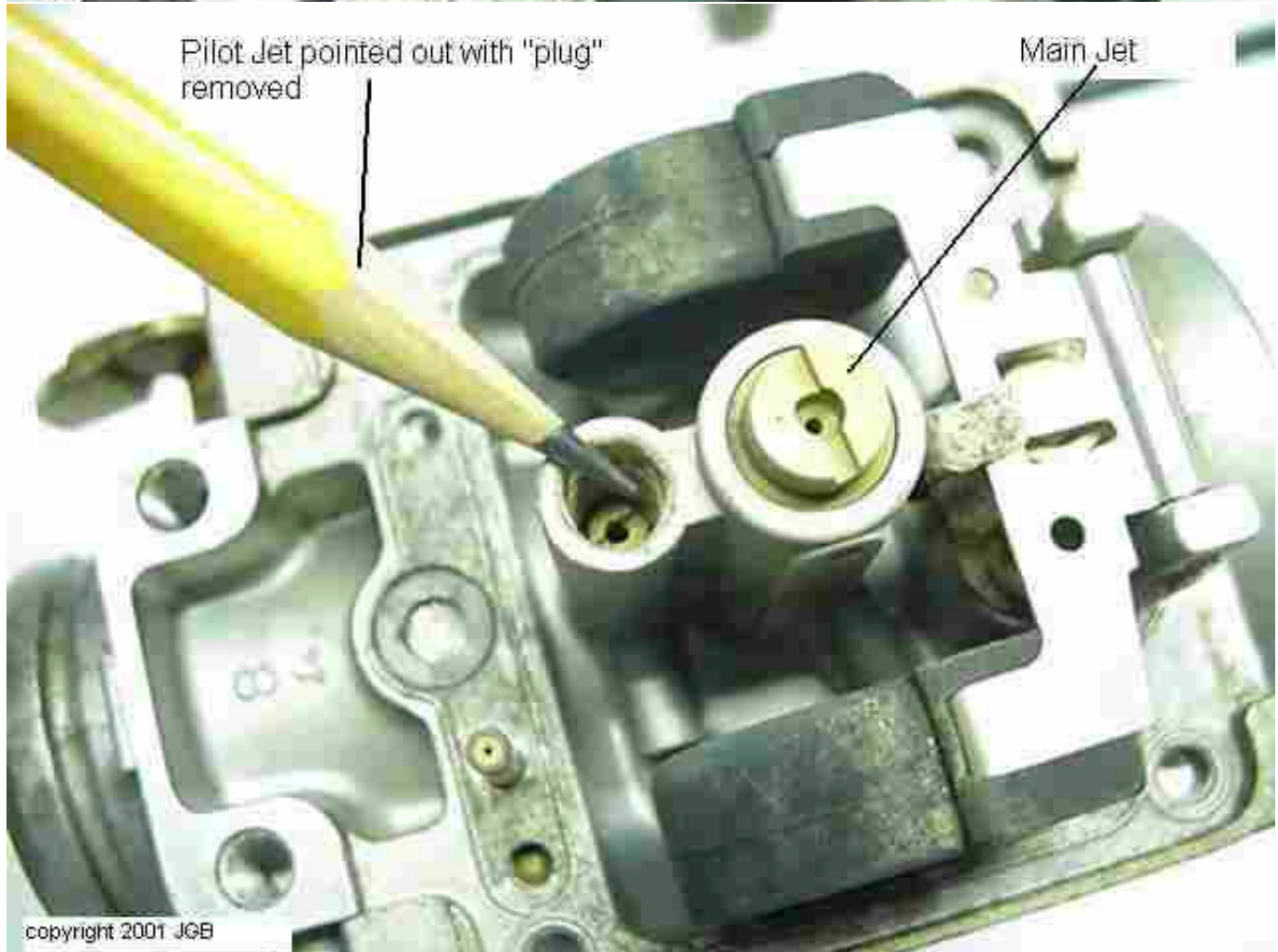
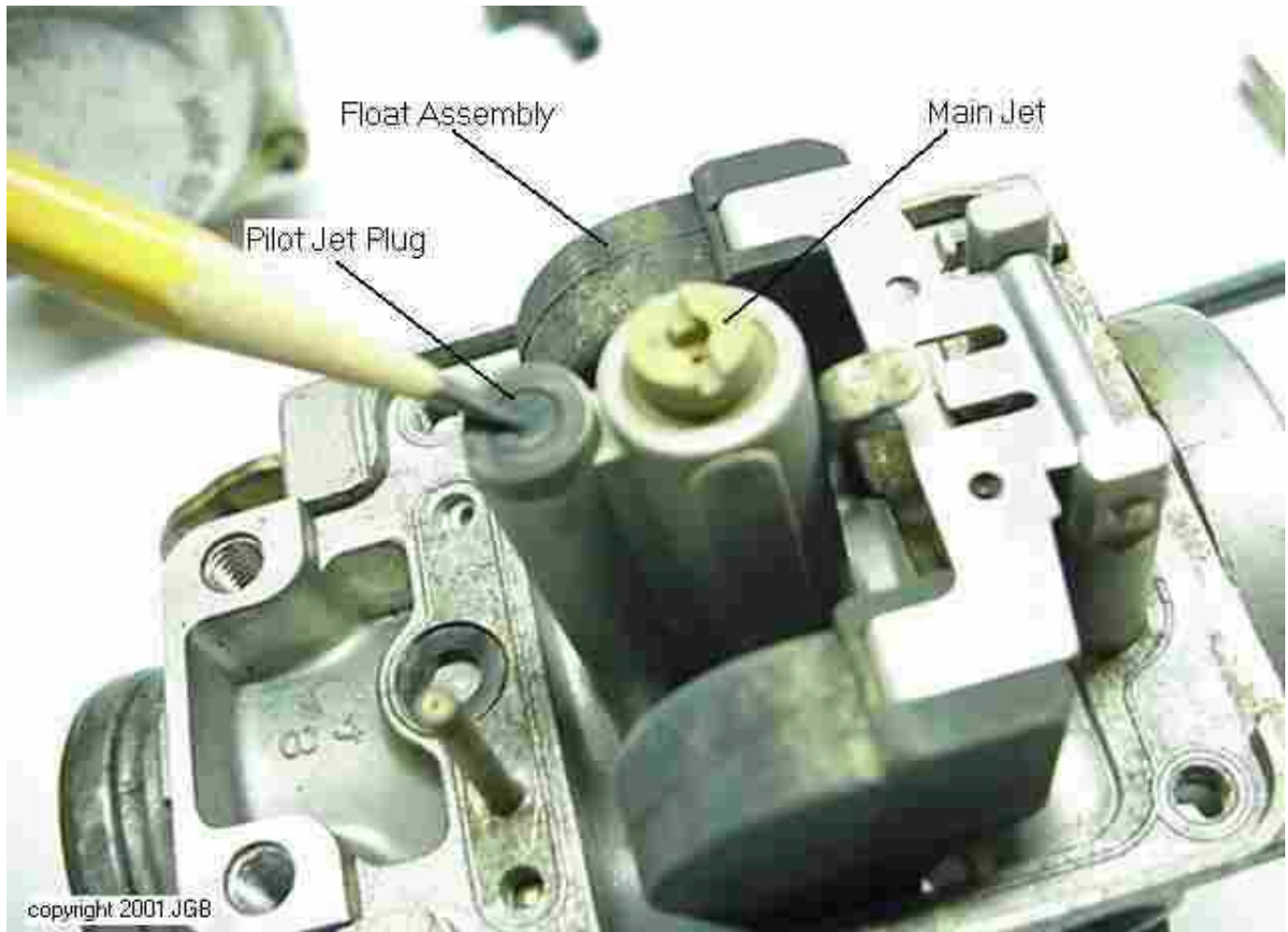
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Engine Side

Air Box Side

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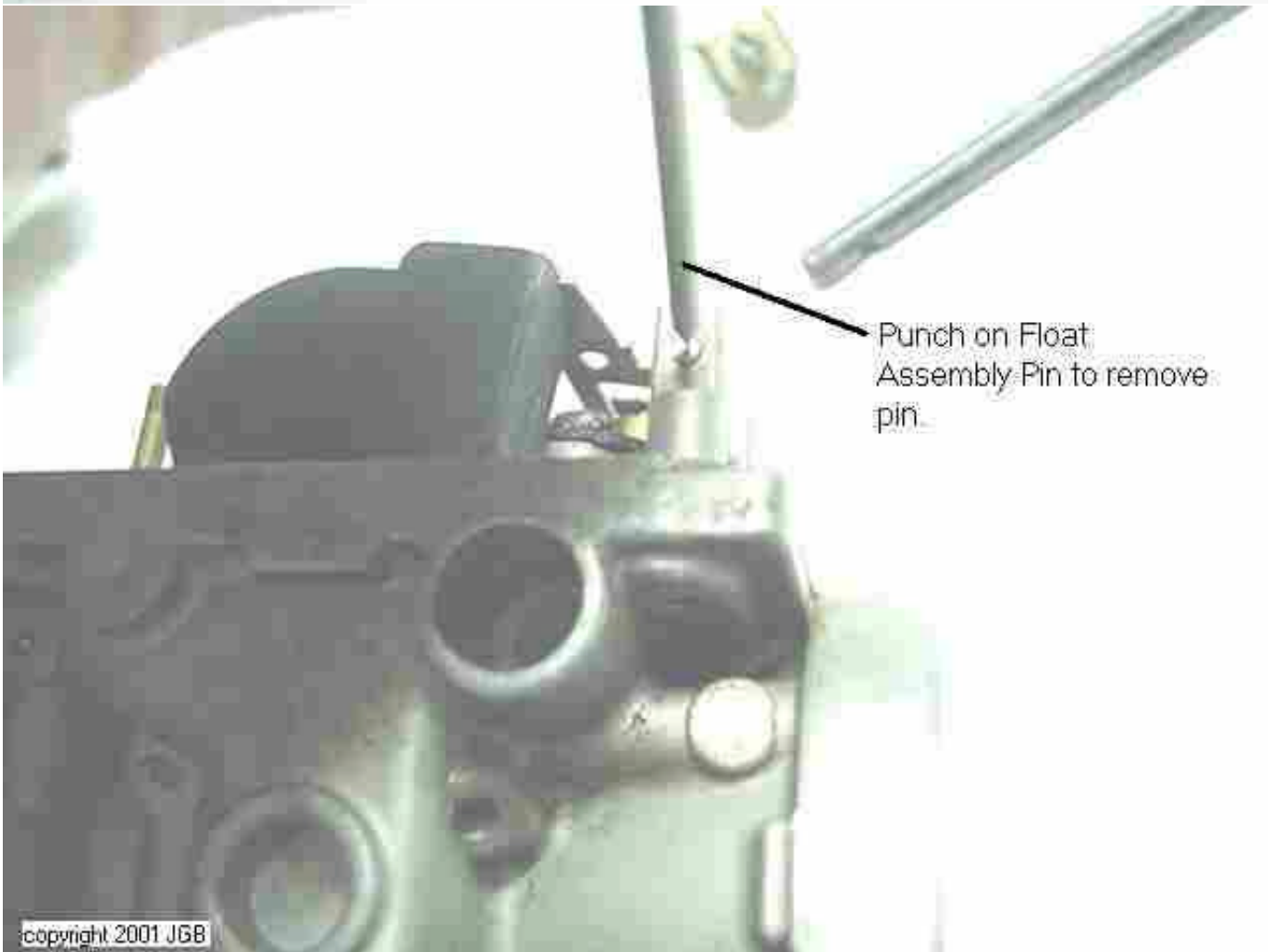






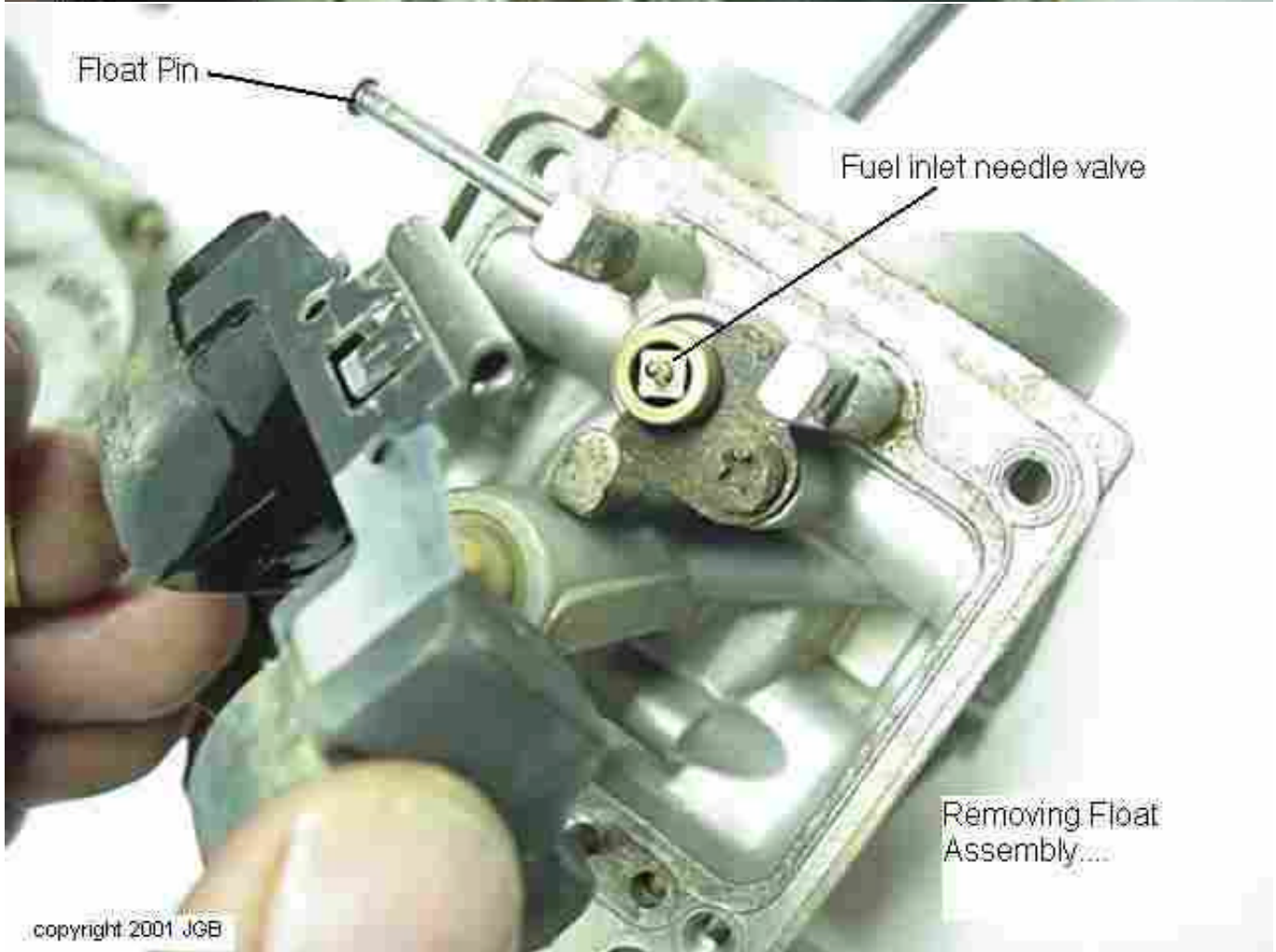
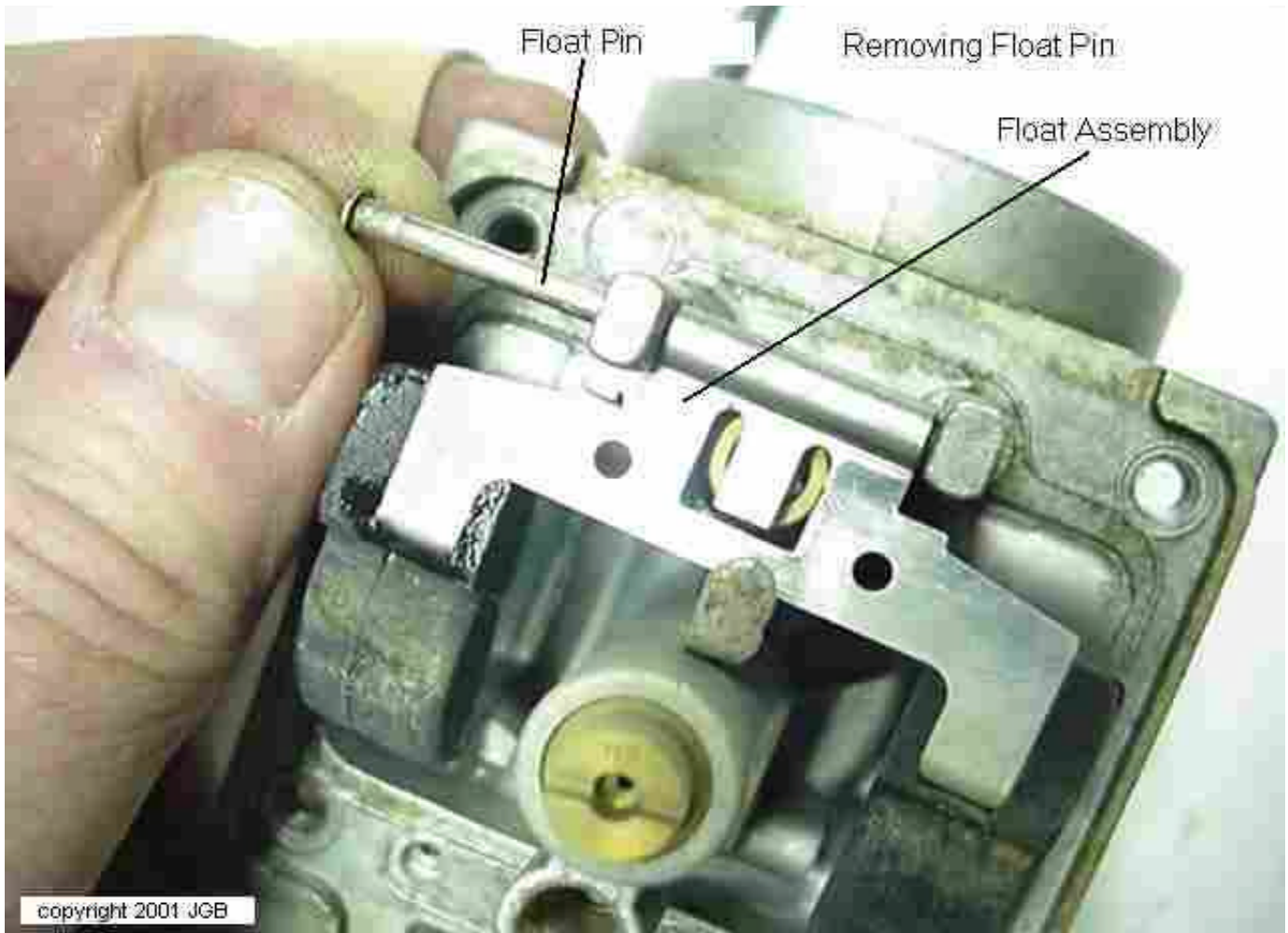
Carb Float Pin pointed out...

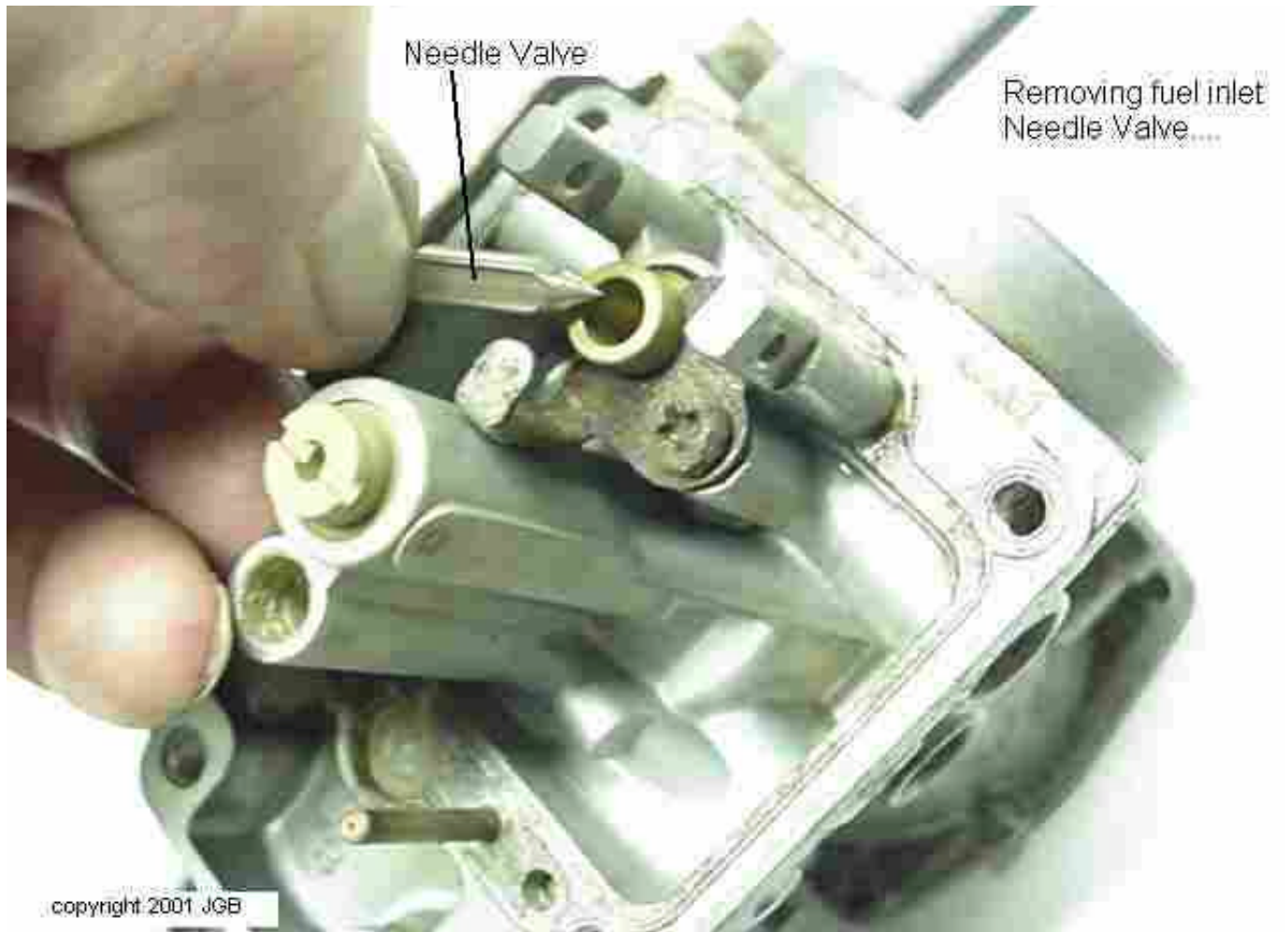
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Punch on Float Assembly Pin to remove pin.

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Removing fuel inlet Needle Valve Seat Clamp....

Needle Valve Seat clamp with screw



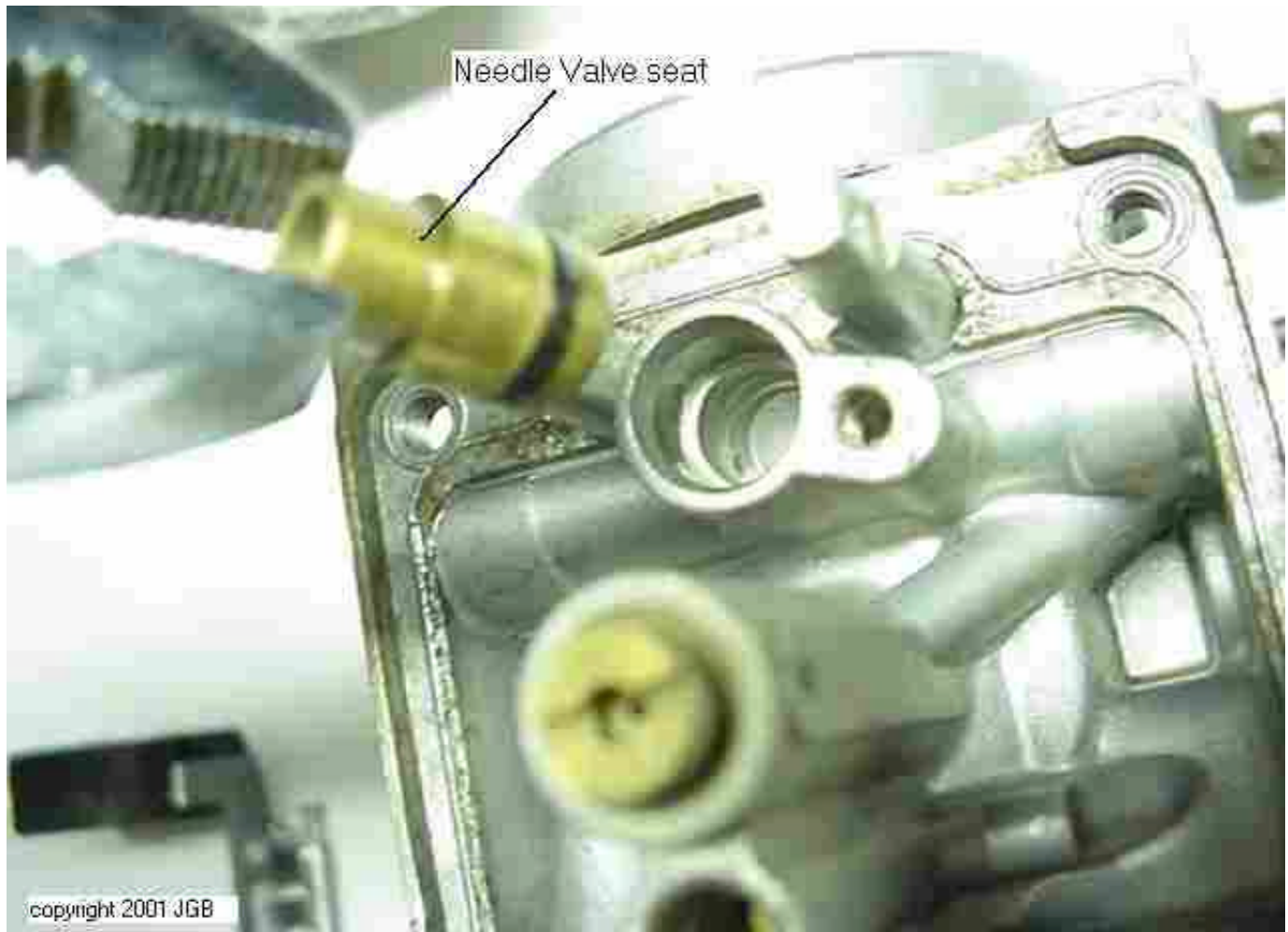
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Gently wiggle out - pull straight out - NOT threaded



Removing fuel inlet Needle Valve Seat Assembly....

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Needle Valve seat

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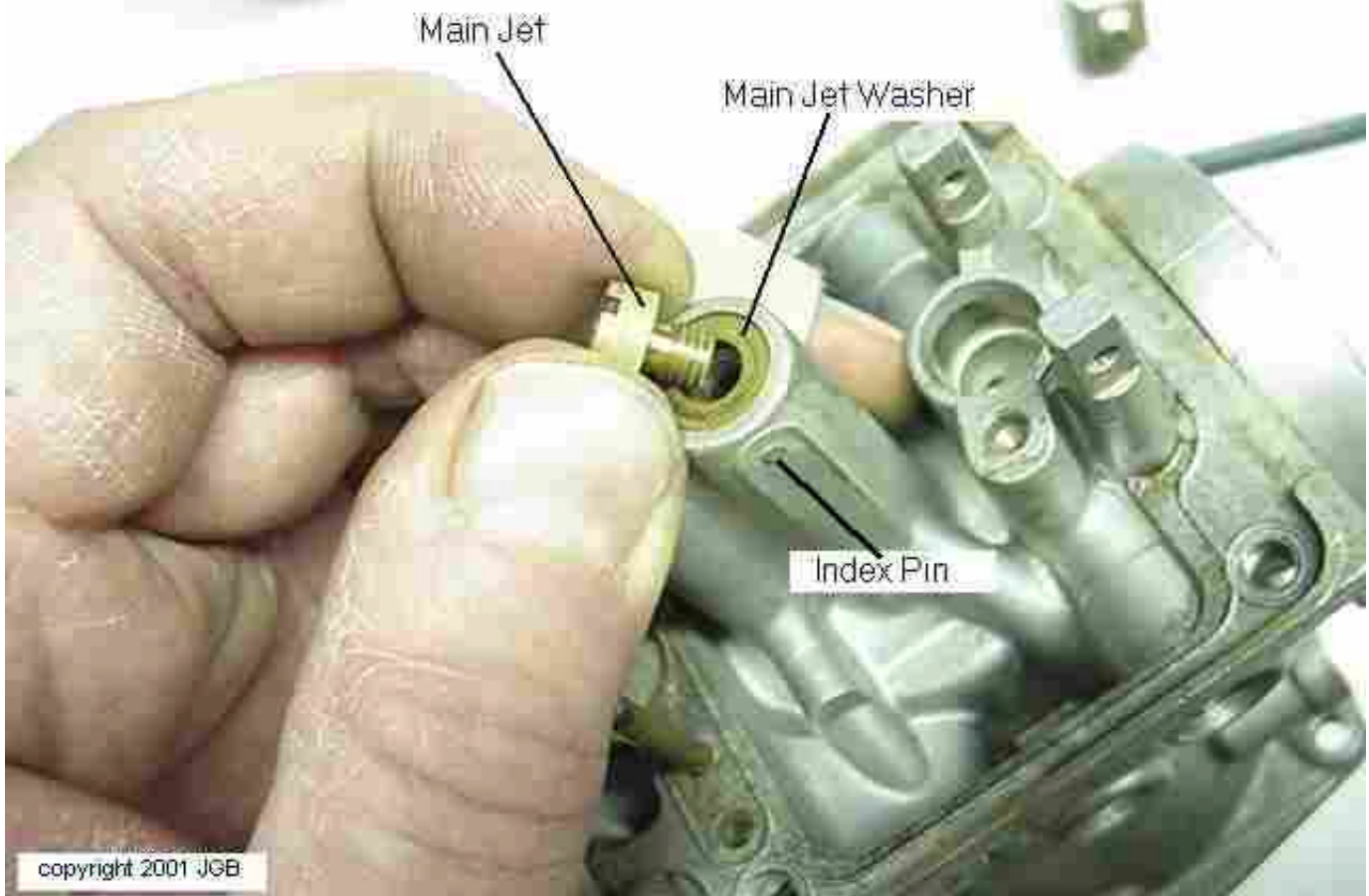


Unscrewing Main Jet

Use a  
screwdriver  
that fits  
well.

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Removing Main Jet



Removing Main Jet Washer...





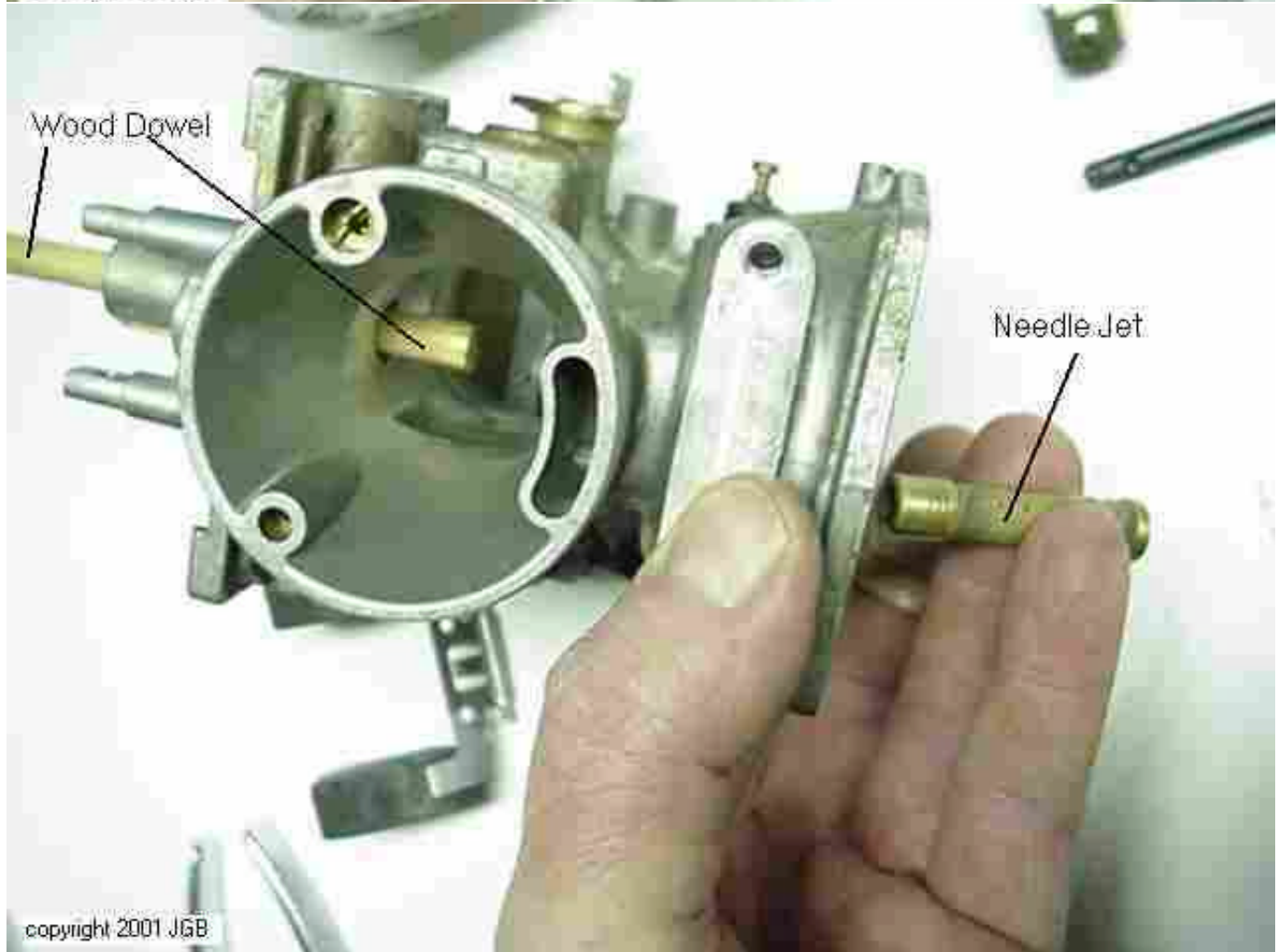
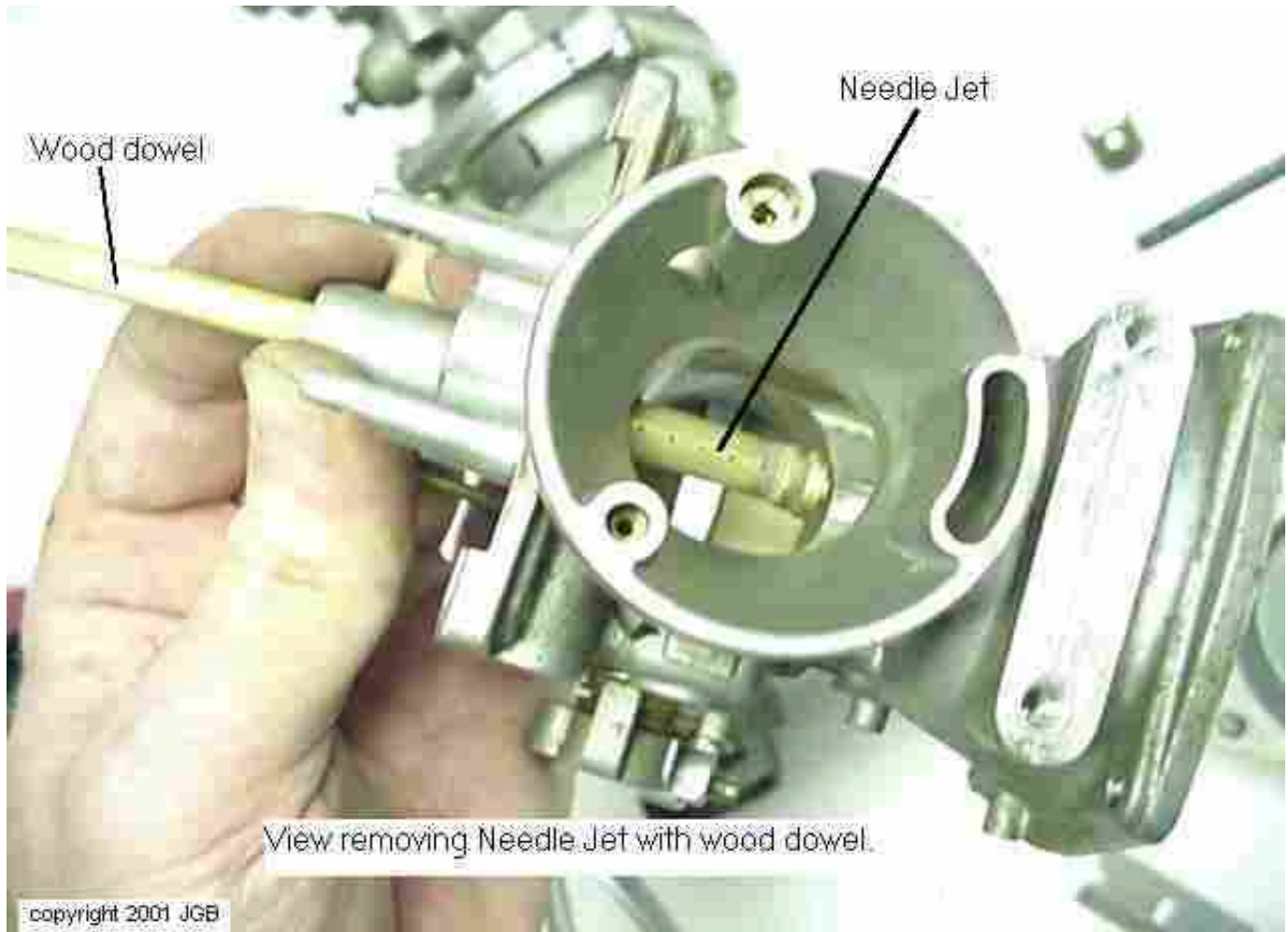
Spray Needle Jet to free-up prior to removal with wooden dowel (see other photos).

copyright 2001 JGB

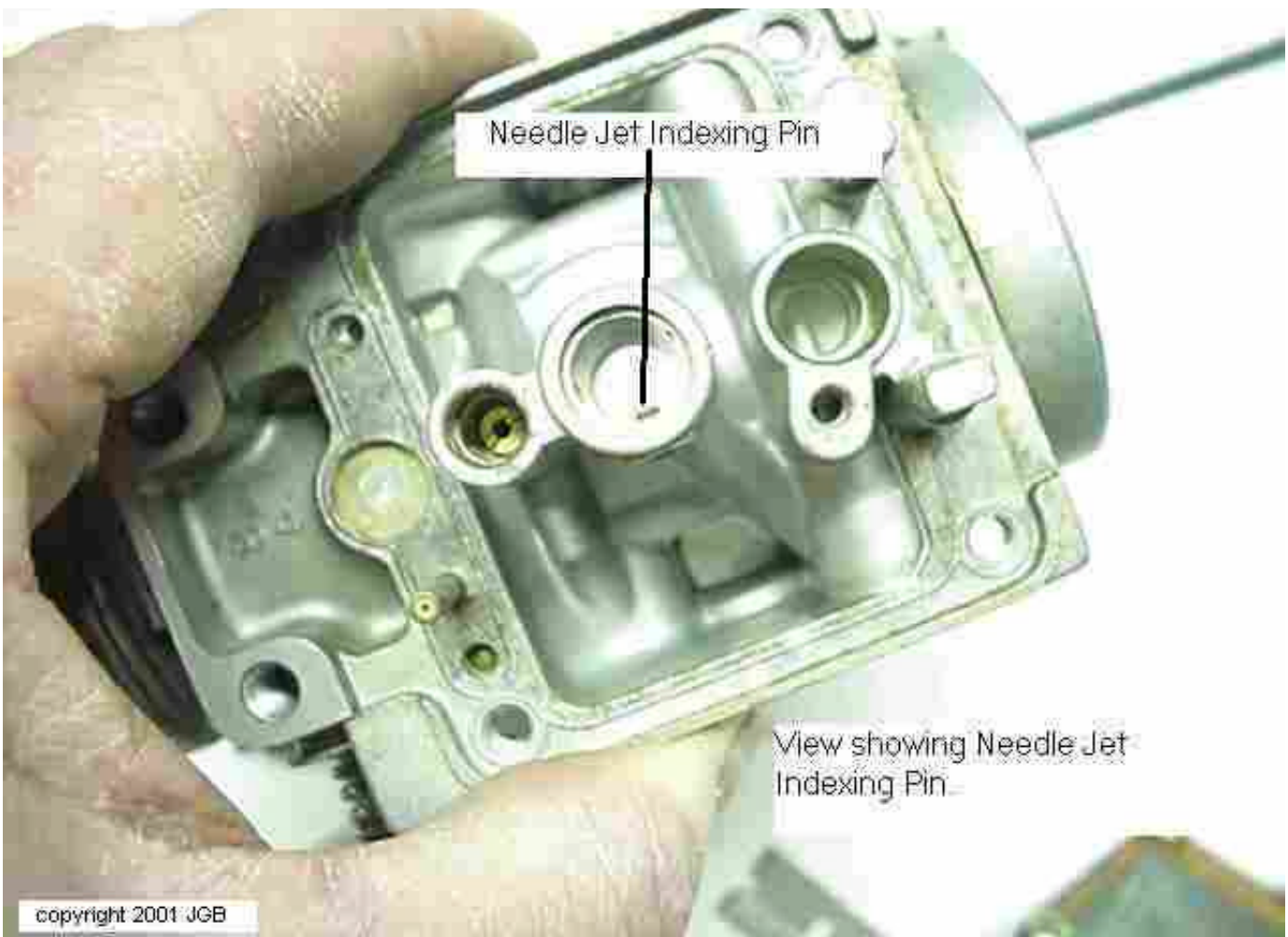


Gently tapping out Needle Jet with wooden dowel after spraying with carb cleaner and letting soak for a few moments.

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View showing Needle Jet Indexing Pin

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Preparing to remove Pilot Jet. NOTE: use good fitting screw driver & soak if stuck...

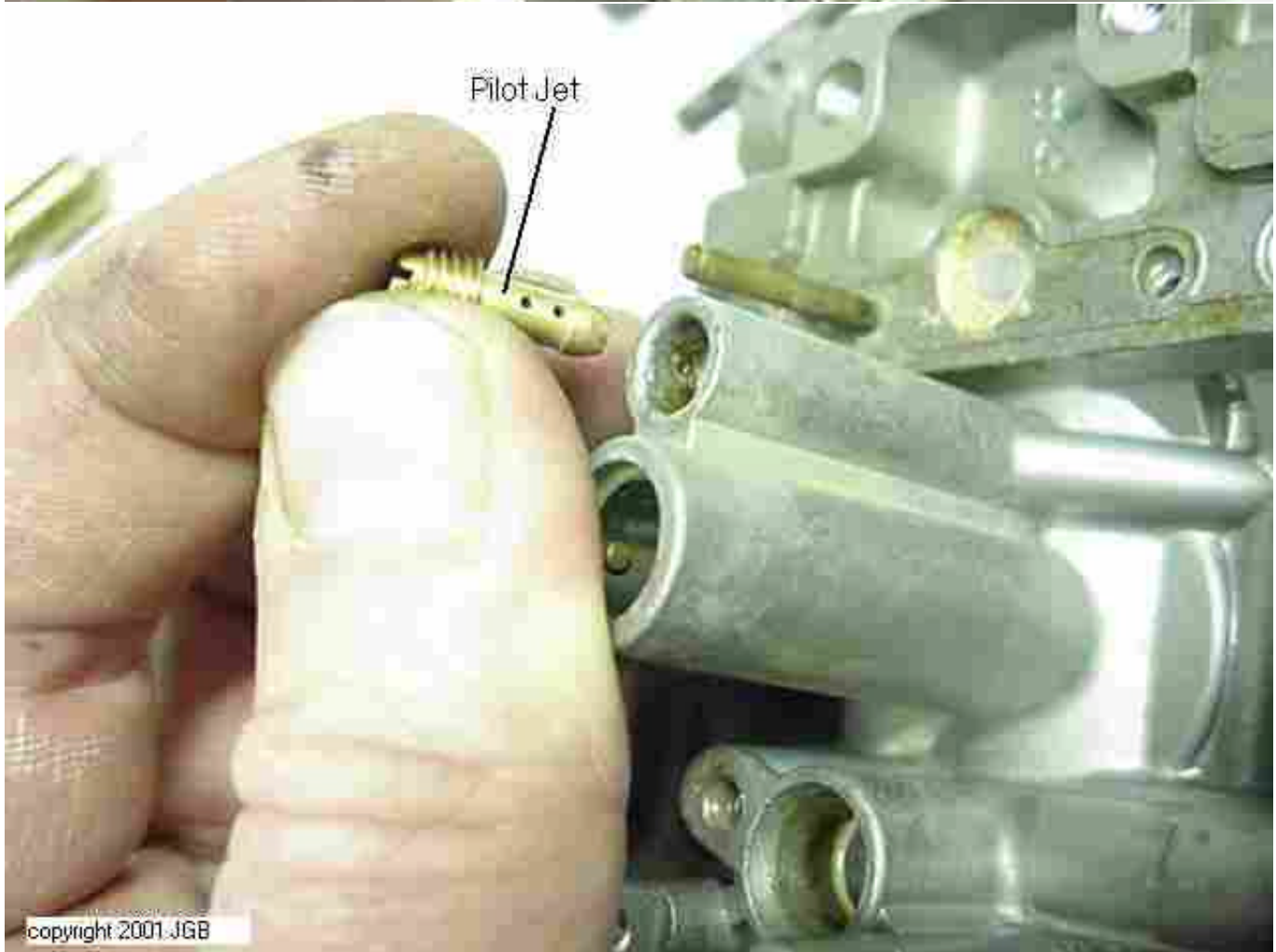
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Removing Pilot Jet...

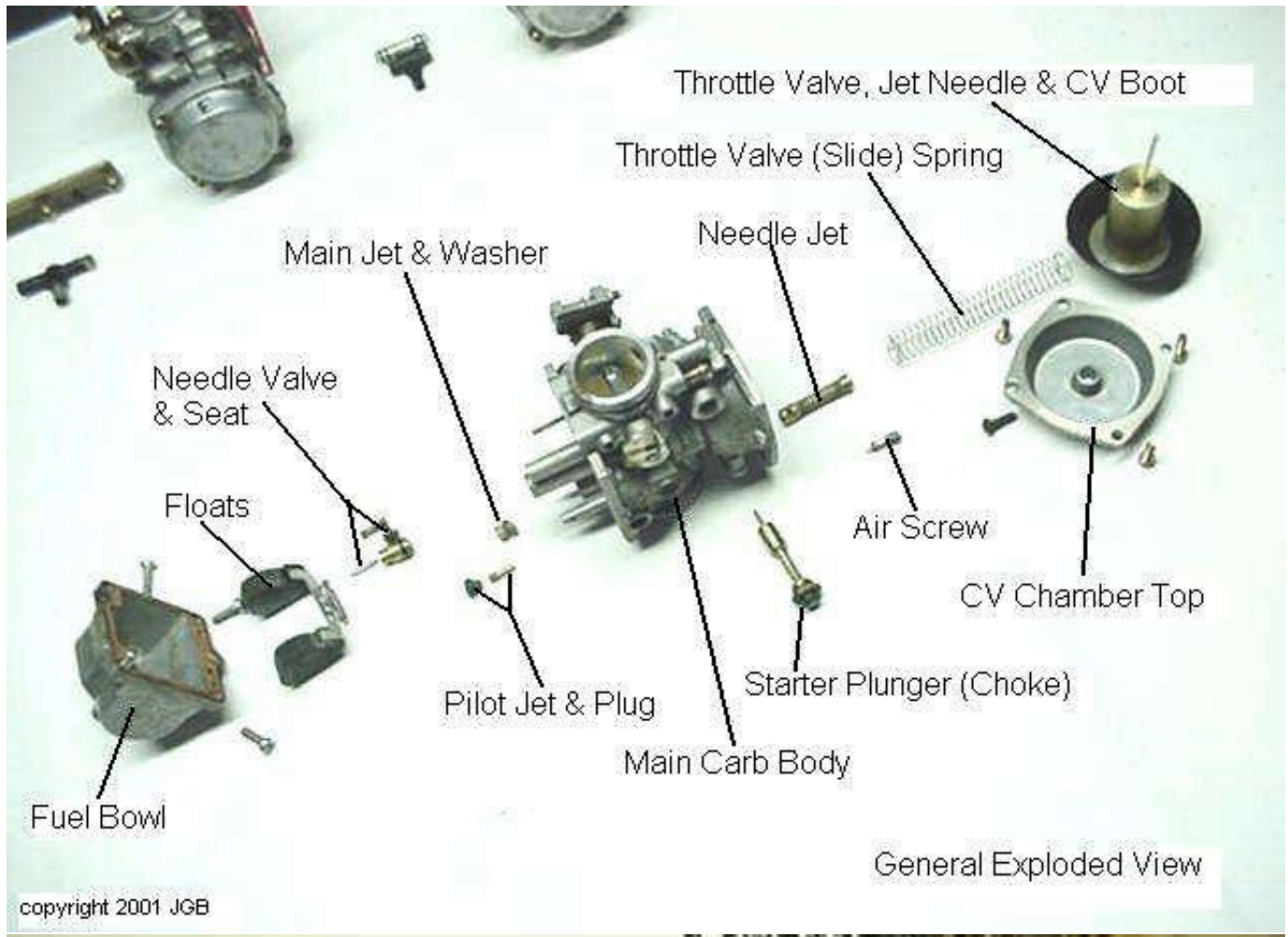


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Pilot Jet



copyright 2001 JGB





Assembling "special tool" for cleaning/clearing small holes from wirebrush bristle and wood match stick.

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Completed "Special Tool"

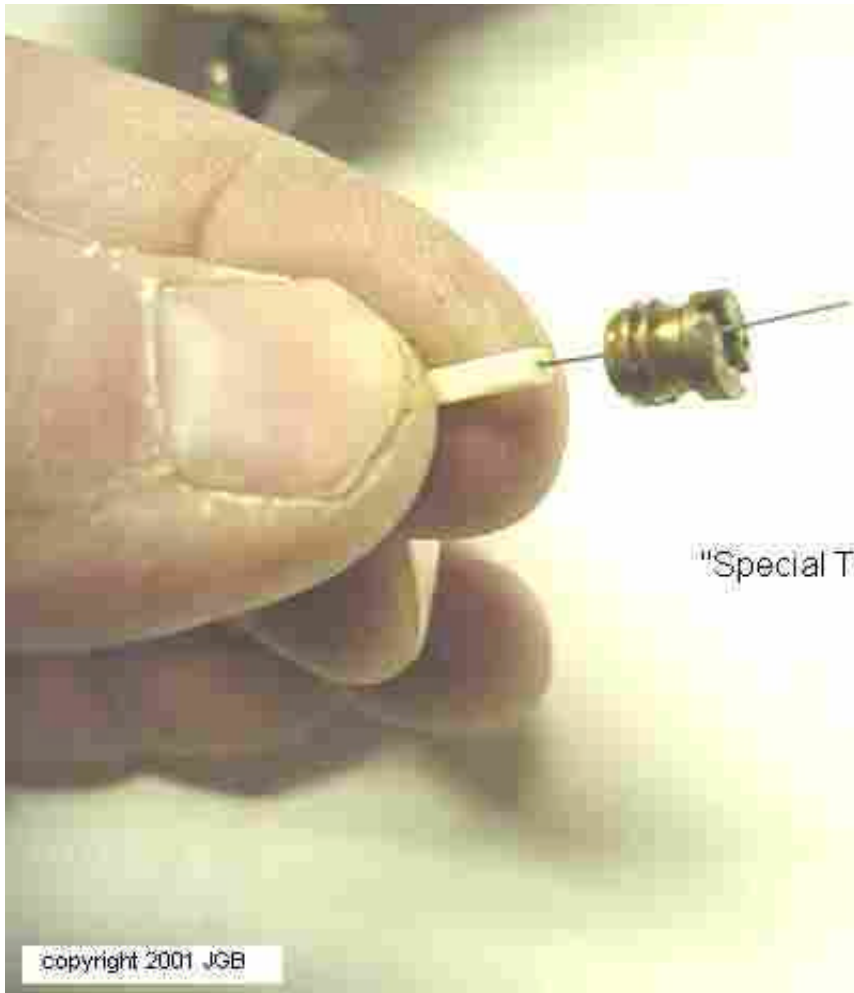
Wooden Match or small wood dowel



Wire Brush "wire"

High-tech small hole cleaning tool

copyright 2001 JGB



"Special Tool" cleaning Air Jet bore.....

copyright 2001 JGB



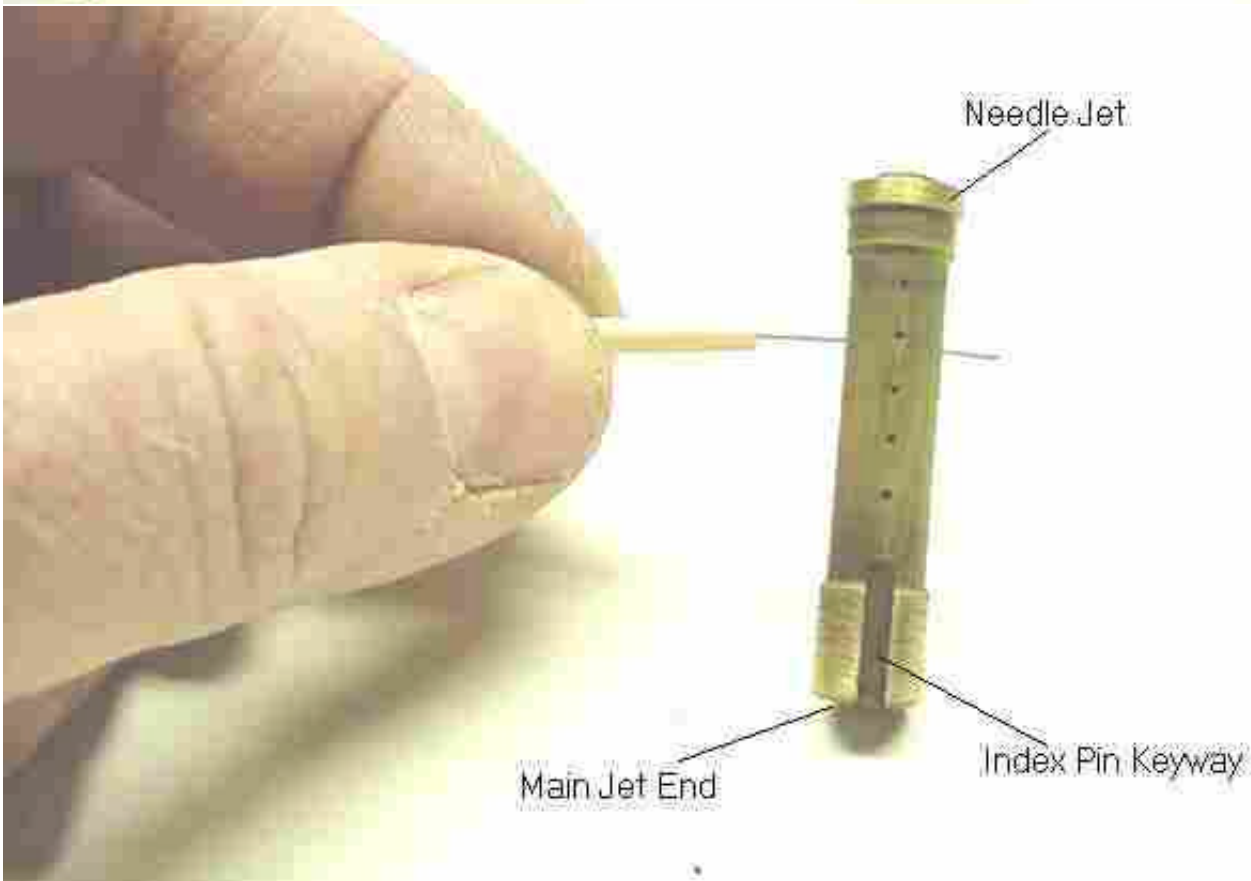
"Special Tool" clearing Pilot Jet holes.....

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"Special Tool" Clearing side holes on Pilot Jet...



copyright 2001 JGB



"Special Tool" clearing bleed holes in Needle Jet...

copyright 2001 JGB

"Special Tool" clearing Air Screw hole....



copyright 2001 JGB

"Special Tool" cleaning air passage across from Air Jet location....



copyright 2001 JGB



"Special Tool" clearing small hole in choke circuit fuel pick-up tube .....

copyright 2001 JGB

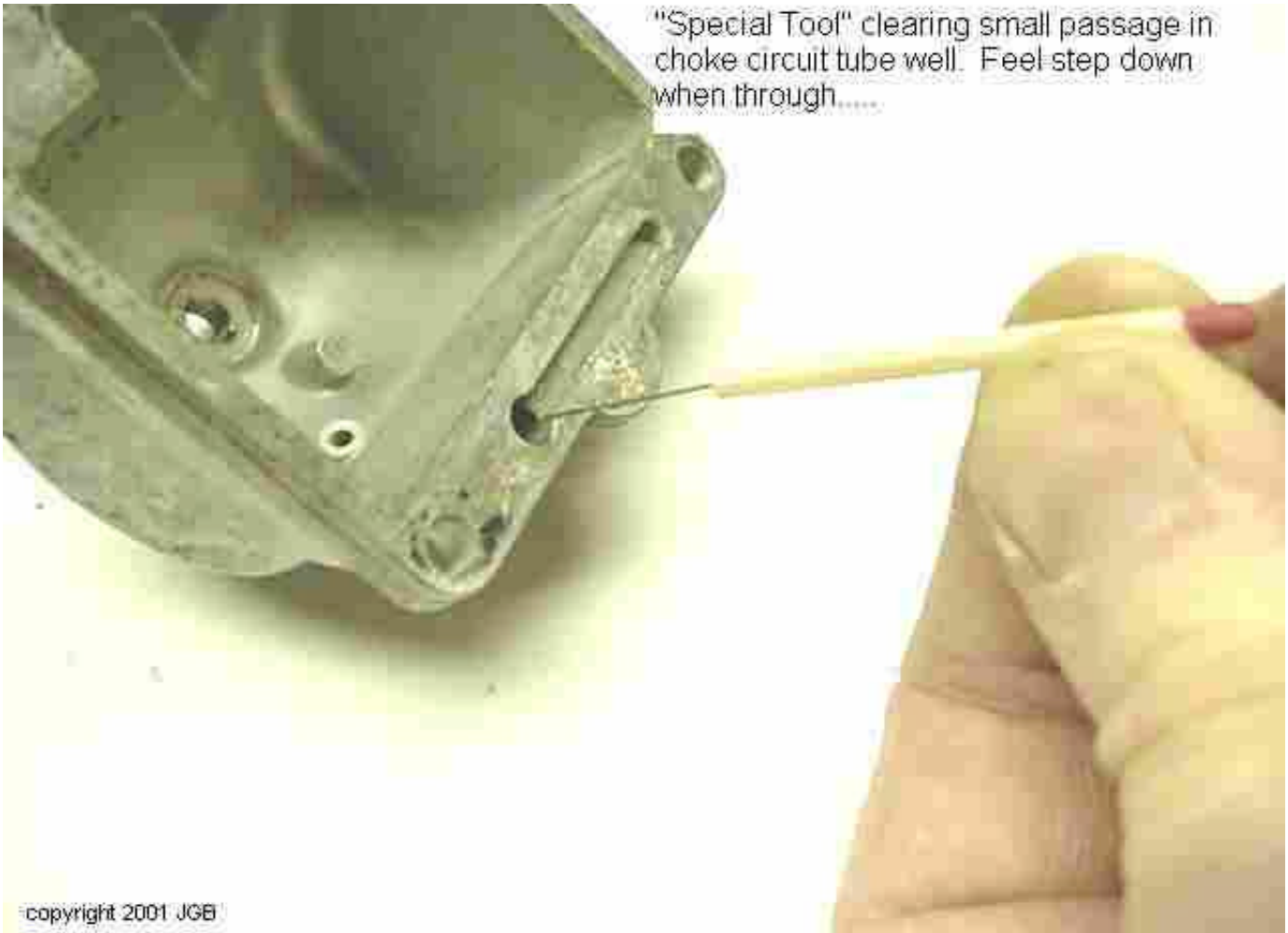


"Special Tool" clearing side holes in choke circuit pick-up tube.....

copyright 2001 JGB



"Special Tool" clearing small passage in choke circuit tube well. Feel step down when through.....



copyright 2001 JGB

"Special Tool" clearing small hole in Fuel Bowl. Feel the "step" down when hole cleared.....



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Small internal Carb parts ready to "dip."  
NOTE: FOLLOW "DIP" MANUFACTURER'S INSTRUCTIONS & CAUTIONS

Basket comes with "dip"

NO rubber or plastic parts in the "dip," or they are ruined!!!

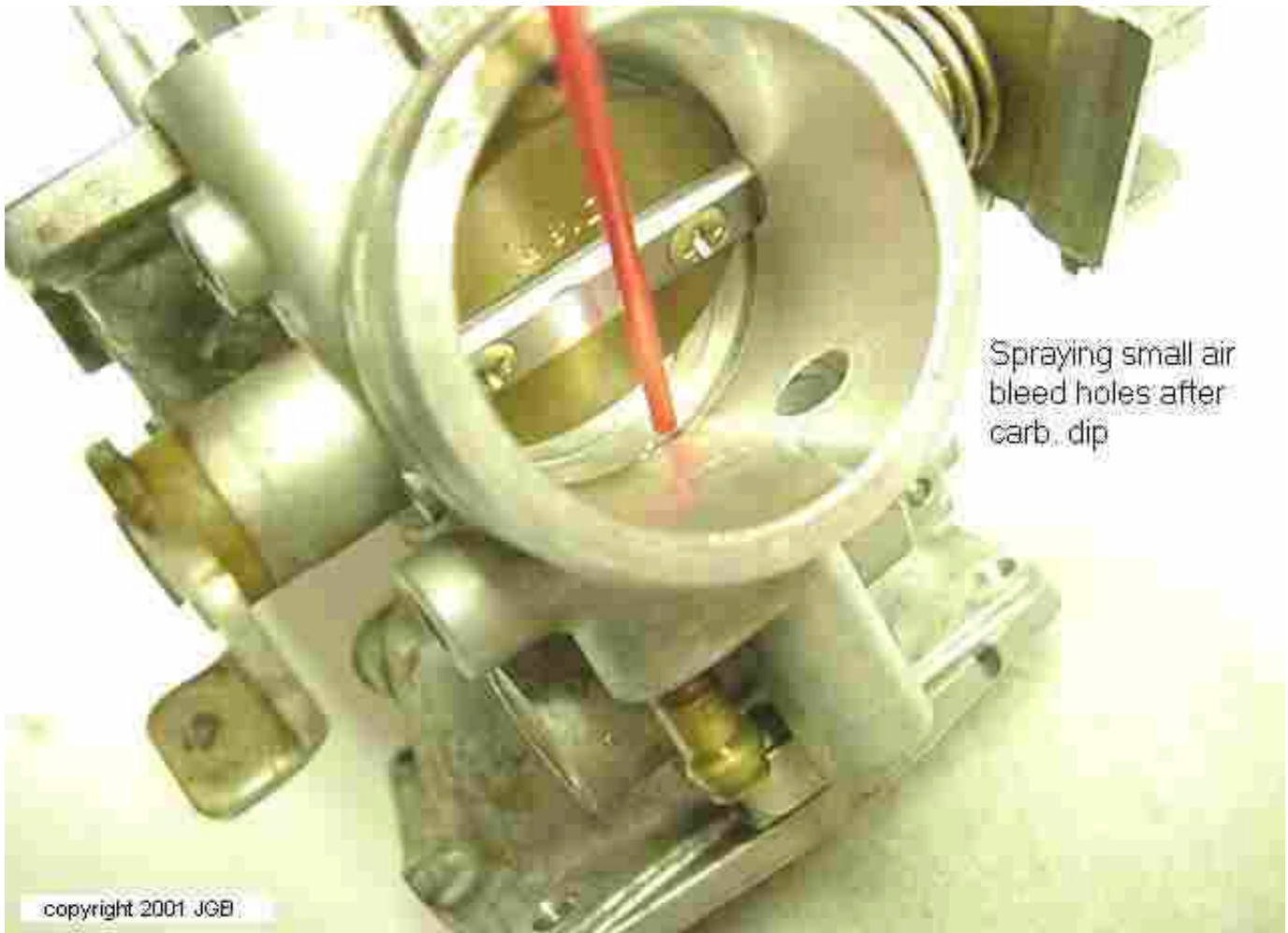
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Carb Main  
Body ready to  
"dip"

Carb Fuel Bowl  
ready to "dip"





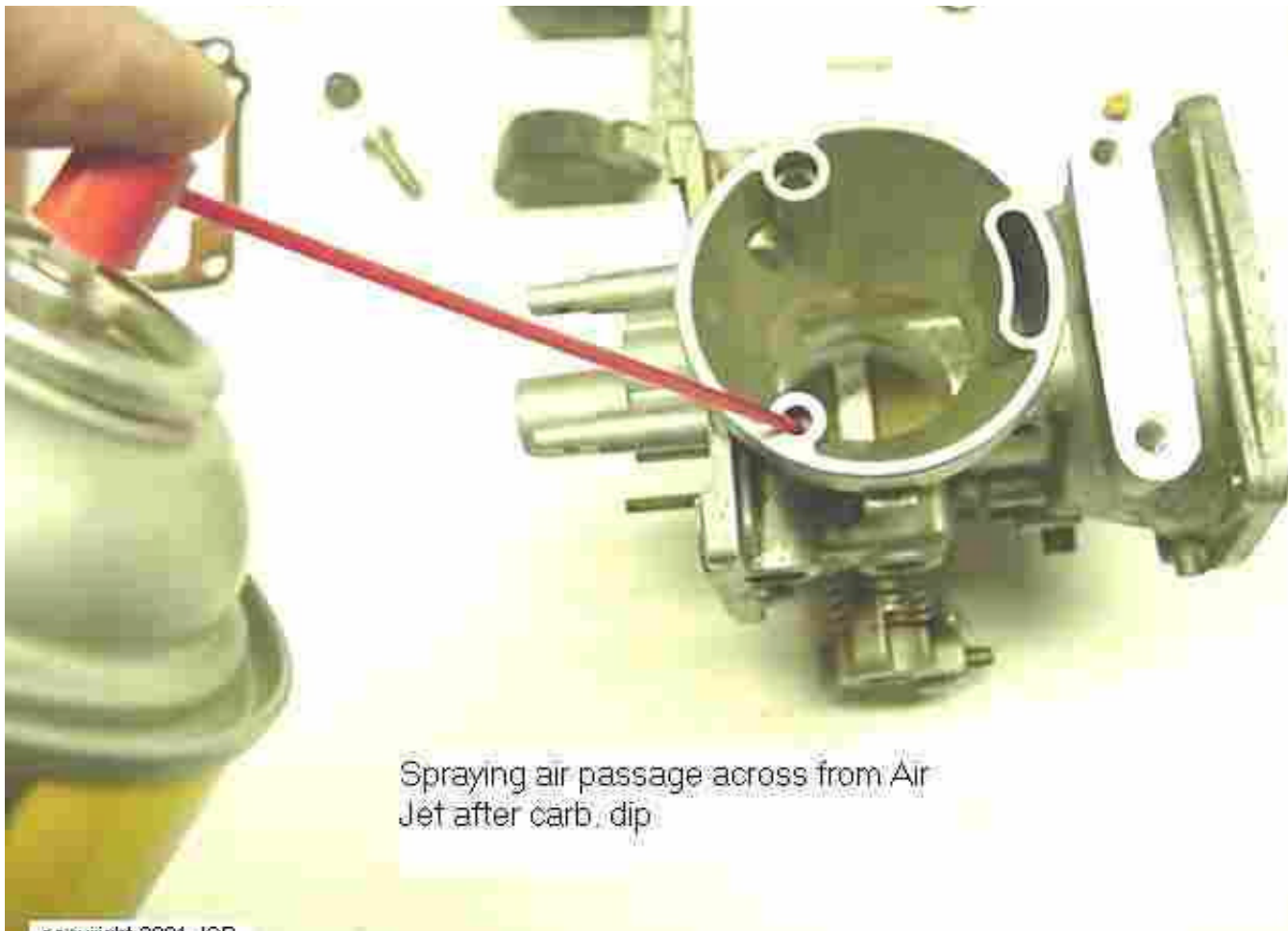
Spraying small air bleed holes after carb. dip

copyright 2001 JGB



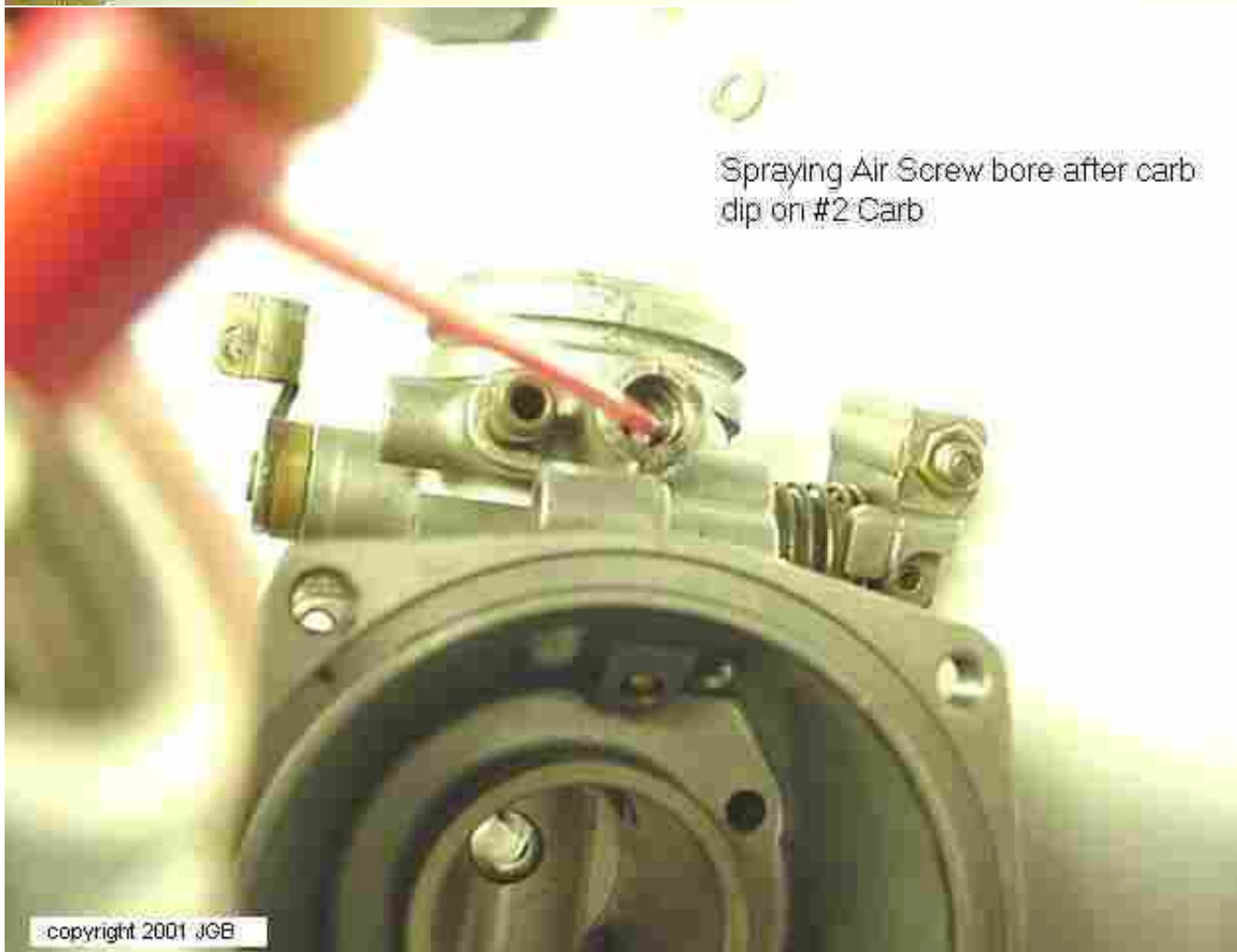
Spraying Air Jet Bore after dipping

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Spraying air passage across from Air Jet after carb. dip

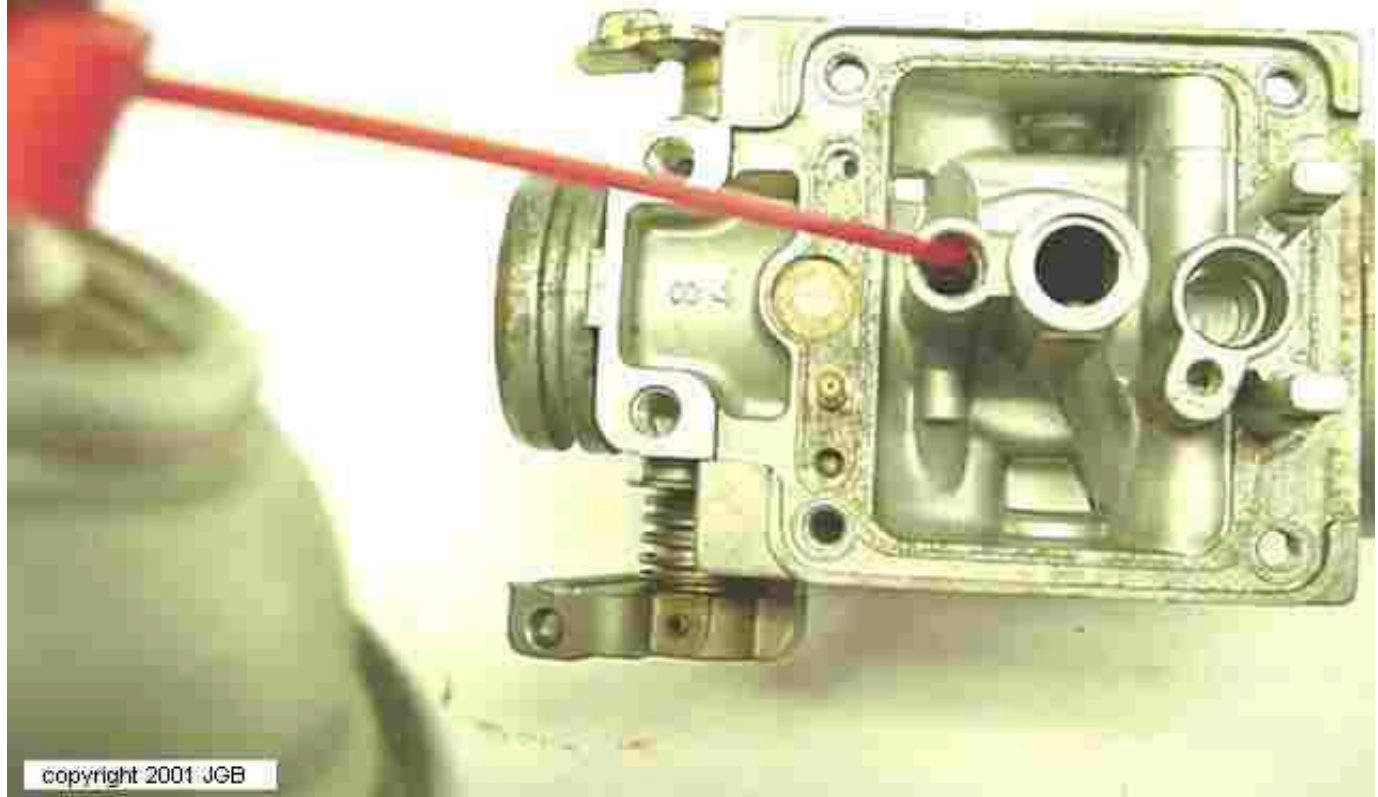
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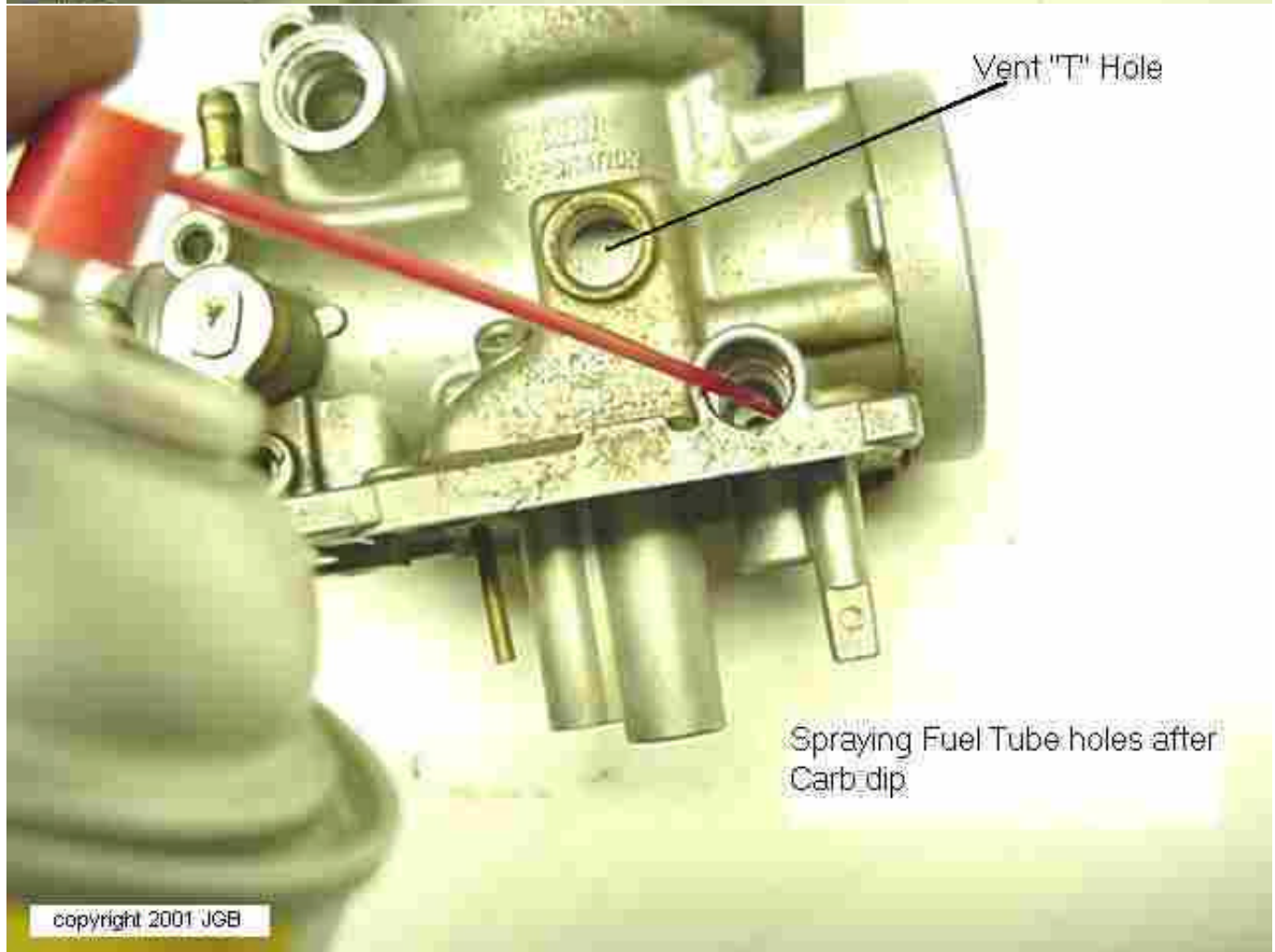
Spraying Air Screw bore after carb. dip on #2 Carb

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Spray Pilot Jet bore after carb dip



Vent "T" Hole

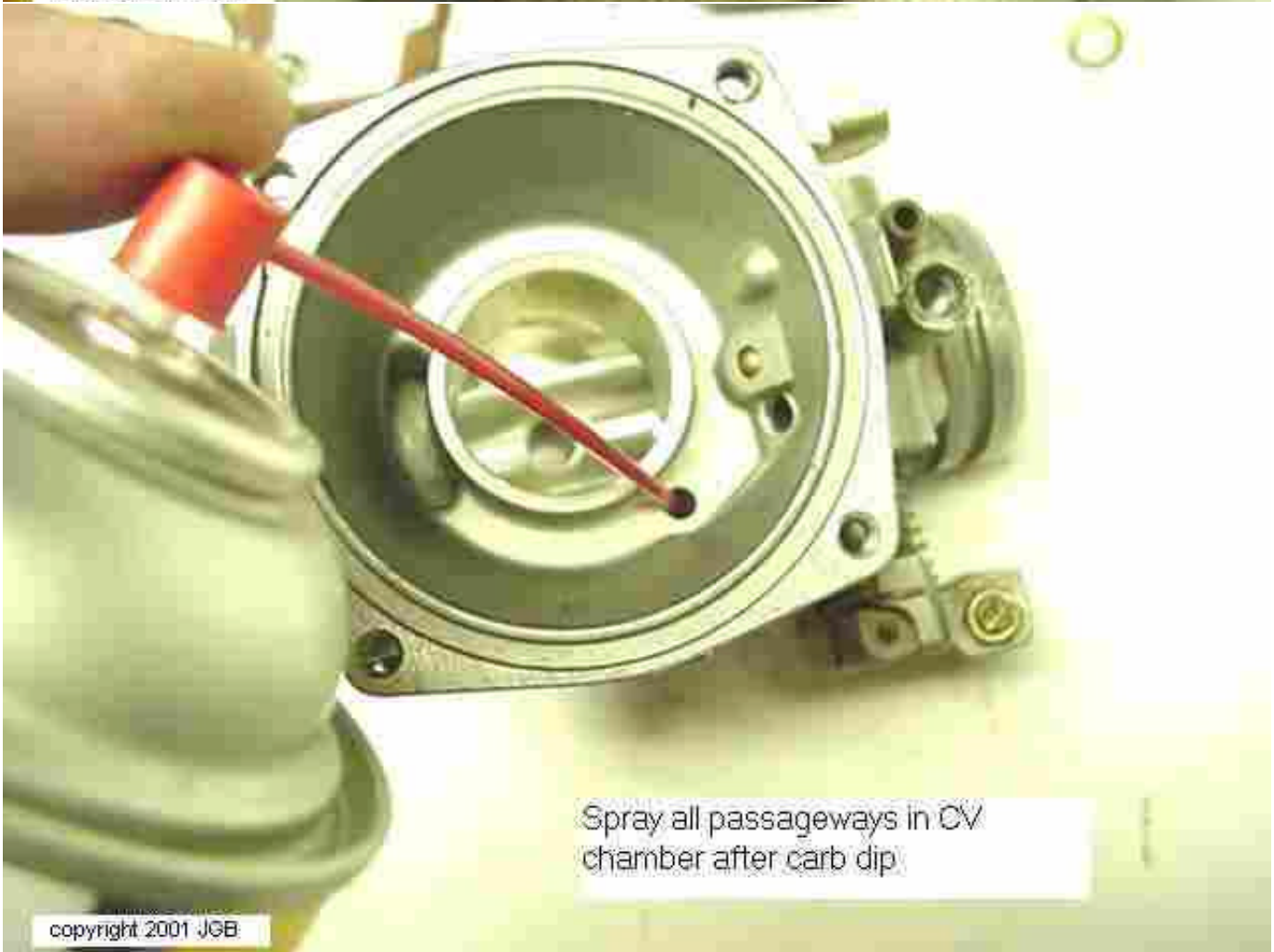


Spraying Fuel Tube holes after Carb dip

Spray Starter Plunger (Choke)  
bore hole after carb dip.



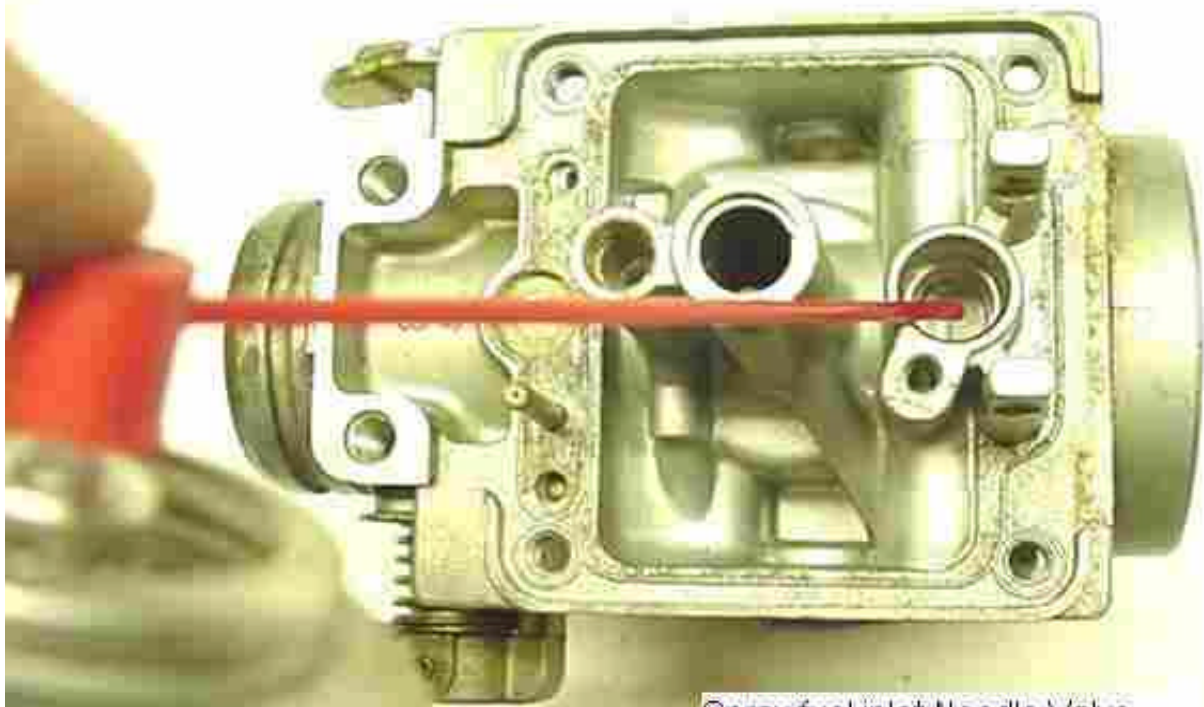
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Spray all passageways in CV  
chamber after carb dip.

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Spray fuel inlet Needle Valve  
Seat hole after carb dip.

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Spray shoots out  
here

This passage must be cleared.  
Spray and use special tool  
(see other photos) after dip.

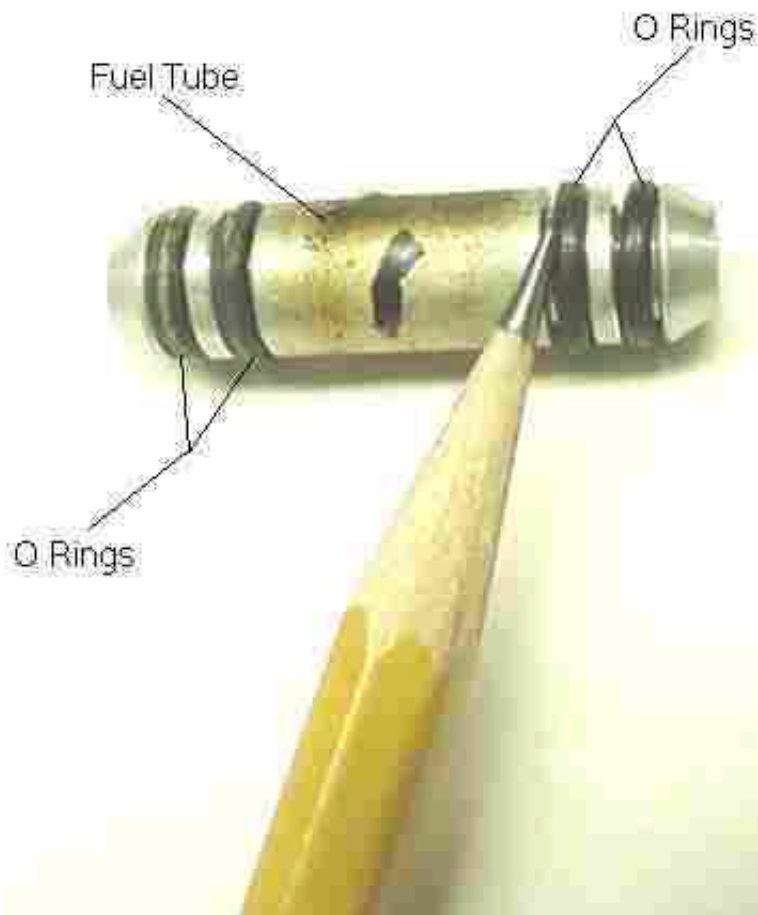
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Bowl Vent "T" O-Rings to replace...



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Four O-Rings on Fuel Tubes to replace....



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Replace O-Ring on fuel inlet Needle Valve Seat...

O-Ring



Fuel Inlet Needle Valve Seat

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Replace Rubber Pilot Jet "Plug" .....

Rubber Pilot Jet Plug



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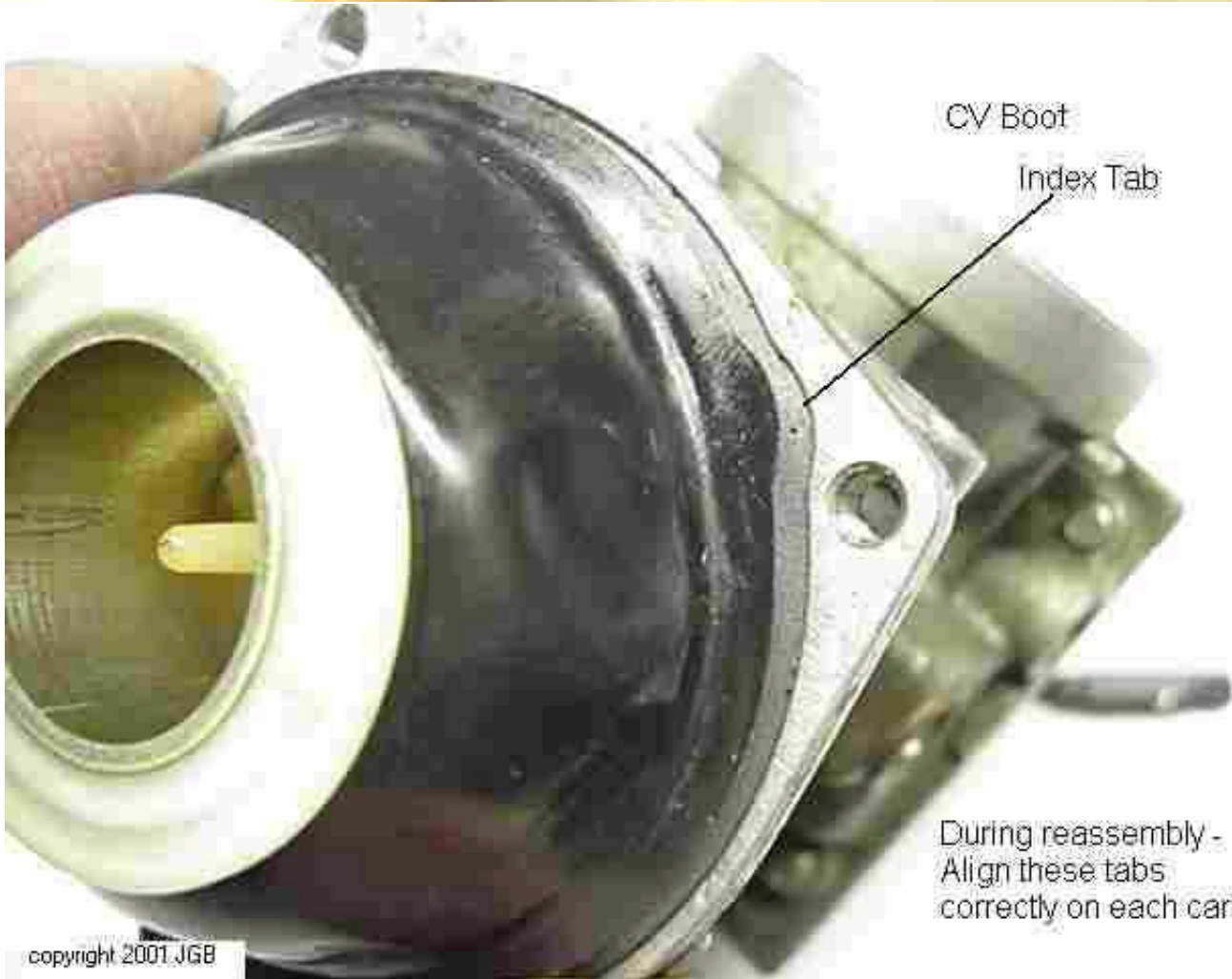
Replace gasket on Fuel Bowl Drain Screw...

Small Gasket

Fuel Bowl Drain Screw



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CV Boot

Index Tab

During reassembly -  
Align these tabs  
correctly on each carb.

copyright 2001 JGB

Installing Fuel Bowl Vent Lines (also do Fuel Supply line) during reassembly, NOTE: These are VERY difficult to install after the carbs are all bolted back together!!



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END - Good luck with yours....

GOOD LUCK with yours!!

NOTE: There is no picture #015, I messed-up.....

Reassembly is the reverse of disassembly shown. Lube O-Rings with some type of "no water" vinyl - rubber - plastic "protectant" spray. Check engine and air-box carb "boots" for leaks, tears, stiffness - replace, or repair as necessary.

Check for and repair all fuel leaks, they are VERY dangerous!!

Refer to a manual when needed!!!  
(like to set float levels since they differ across models)



Engine

Carburetors

Air Box

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