INSTALLATION INSTRUCTIONS

P2-201A – FLOAT CHAMBER GASKET FOR SOLEX WH.2 TYPE 26 CARBURETOR

Before getting started …

Figure 1 – Packet contents include 1 x gasket, 3 x hammer drive screws, and 1 x instruction slip.

The Solex WH.2 – Type 26 Carburetor was used on both the Triumph TRW and the Dutch Army 3TA. Original manufacturer part numbers are different between these two motorcycles, but these instructions apply to both just the same.

Please review these instructions prior to installation and take note that the gasket is intended to be installed dry – that is, **no RTV, anaerobic sealant, oil, or grease should be used to "wet" this gasket prior to installation.**

If there are any parts missing, please contact PNT-Garage directly at info@pnt-garage.ca

Tools required for the installation are broken down into two parts: REMOVAL of the old gasket and INSTALLATION of the new gasket.

Required tools for removal of the old gasket and hammer drive screws:
1. Side Cutters
2. Scraper

Required tools for installation of the new gasket & hammer drive screws:
1. Emery cloth set (coarse, medium and fine grits)
2. A flat, clean surface (such as a piece of glass)
3. WD-40 or another water-based solvent.
4. Chemical/residue cleaner (e.g. carburetor cleaner, acetone, brake-clean)
5. Jeweller's Hammer (or a small mallet or ball-peen hammer)

To minimize the risk of damage to your Solex carburetor, it is recommended that the removal and installation steps be carried out on top of a soft work mat or a piece of leather. It is also recommended that you use clean gloves to minimize direct skin contact with cleaners and to prevent oils and residues from your fingers from making contact with the gasket and mating surfaces of the carburetor.

Step 1 – Removal of old gasket (if required)

With side cutters firmly pressed against the gasket, grasp the hammer-drive screw below the head (fig. 2). With the head held firmly by the side-cutters, twist in a counter-clockwise direction to "unscrew" the hammer drive screw from the float chamber cover. Repeat this for the remaining screws and then discard the old gasket and hammer drive screws (fig. 3).

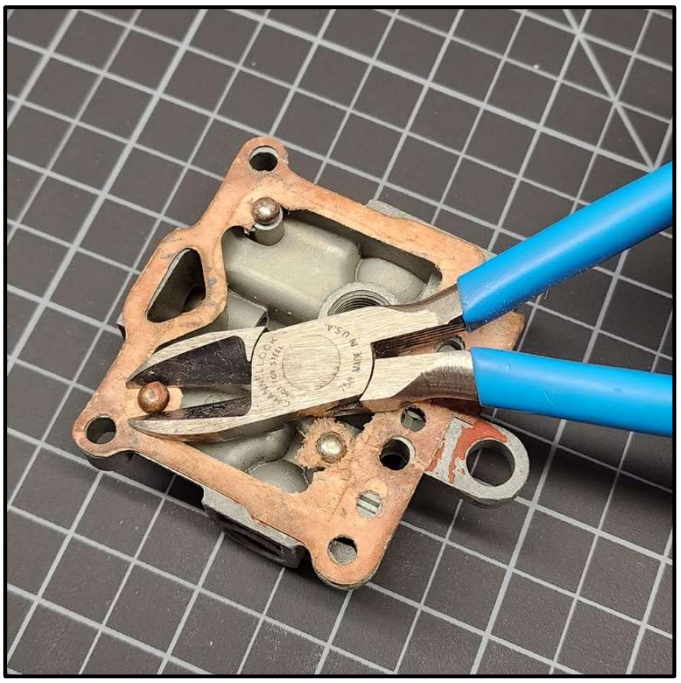

Figure 2 – Side cutters grasping under the head of the hammer drive screw.

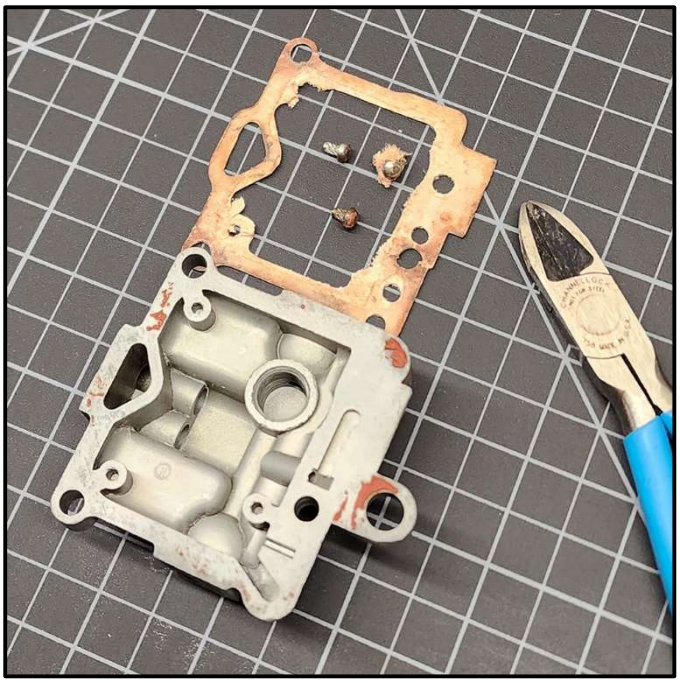

Figure 3 – Used gasket and hammer drive screws removed, showing RTV from previous installation that needs to be cleaned off.

Step 2 – Cleaning of the of old gasket and sealant (if required)

Using a scraper, remove any residual gasket material or previously used sealant off the mating surfaces, making sure not to gouge or score the mating surfaces (figs. 4 & 5).

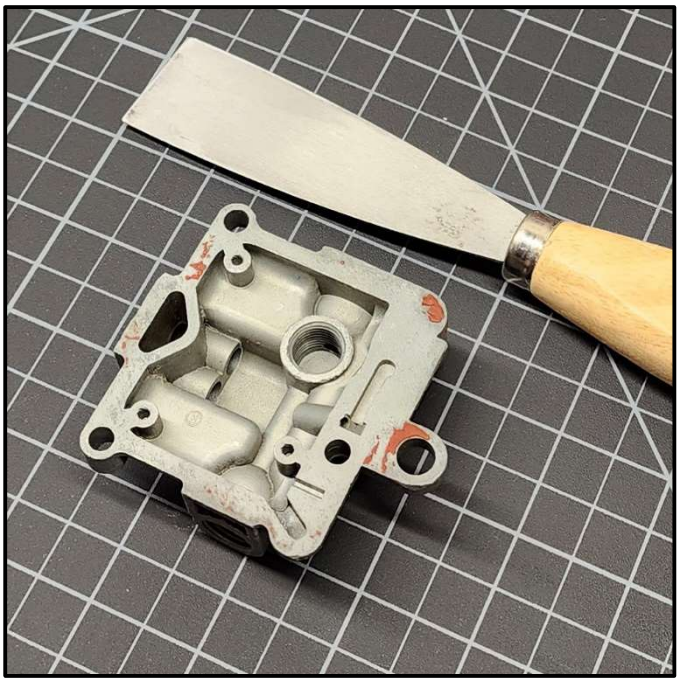

Figure 4 – Residual RTV fluid used in the previous installation is visible, and needs to be removed to ensure a proper seal.

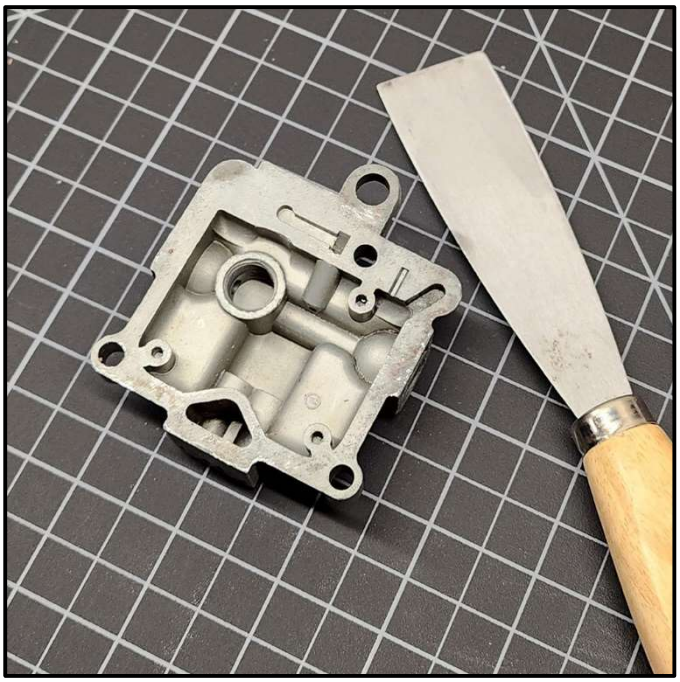

Figure 5 – The scraper effectively cleaned off the RTV material without damaging the mating surface of the float chamber cover.

Step 3 – Preparing the mating surfaces

It is crucial to remove any chemical residue, nicks, or burrs, and that the mating surfaces are **flat, clean, and dry**. Check the surfaces by placing the float chamber cover on top of the carburetor body and checking for gaps (fig. 6). If the parts are warped or there is a gap greater than 0.25mm (0.01"), it is recommended to plane down the surface to ensure it is flat. If this is required:

3.a Spray the coarse (50 grit) emery cloth with WD-40 (or similar water-based solvent) and lay it onto a piece of clean glass. Using a figure-8 pattern, sand the mating surface until the entire area is smoothed (figs. 7-10). Repeat this with the medium (80 grit) and then fine (150 grit) emery cloths (figs. 11 & 12). Once complete, repeat this process with the mating surface of the carburetor body. Take note, the goal is to even out the surfaces until they are flat, while removing as little material as possible from the carburetor parts, so plane only as much as required to get a flat, smooth surface.

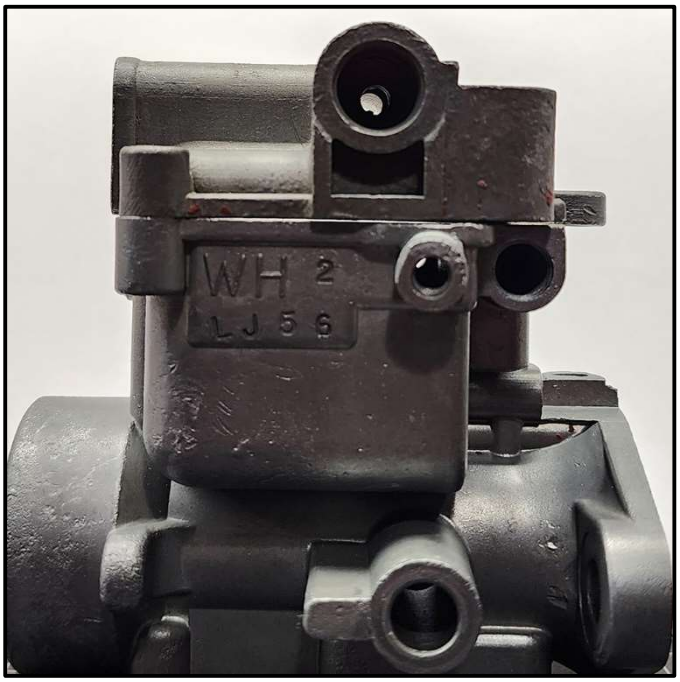

Figure 6 – A large space is evident between the float chamber cover and the carburetor body when looked from the side. The gap is greater than the tolerance of the gasket and will likely result in a fuel leak. In this case, the mating surfaces should be planed.

Figure 7 – To plane a small mating surface by hand, a piece of glass offers an ideal smooth surface. Three grits of emery cloth are required; coarse (50 grit), medium (80 grit), and fine (150 grit).

Figure 8 – With the coarse emery cloth sprayed with WD-40, the float chamber cover is pressed down in the middle, and run across the emery cloth in a figure-8 pattern, ensuring an even planing of the surface.

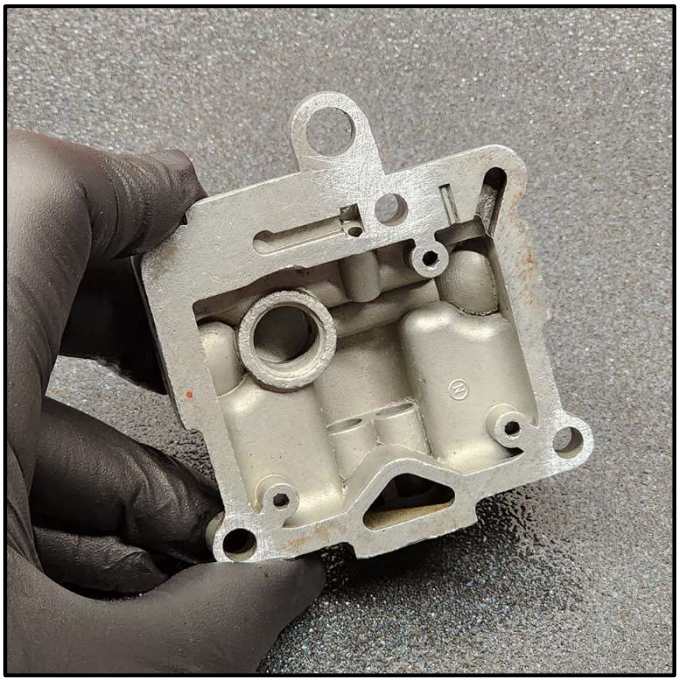

Figure 9 – After the first few figure-8 runs across the coarse emery cloth, the high-points are visible. This is an extreme example of warping; numerous runs over the coarse emery cloth will be required to get a flat surface.

Figure 10 – The coarse emery cloth has flattened the mating surface, as there is evidence of sanding on the entire surface. It is now ready for the medium grit emery cloth.

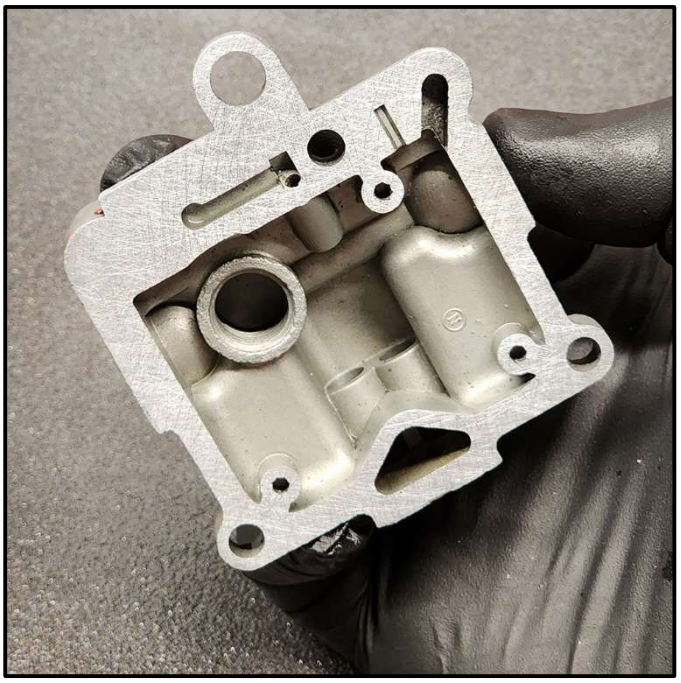

Figure 11 – The medium grit emery cloth is only required to remove the deeper scratches left from the coarse emery cloth. Once all of the deeper scratches are removed, the piece is ready for the fine cloth.

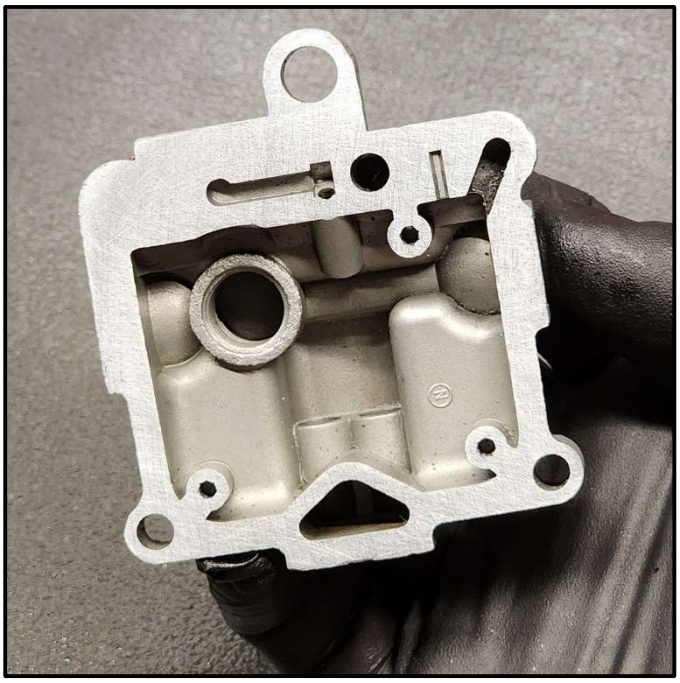

Figure 12 – As with the medium grit, the fine grit emery cloth is required to remove the remaining scratches. Here you see the finished result; the mating surface has been planed smooth.

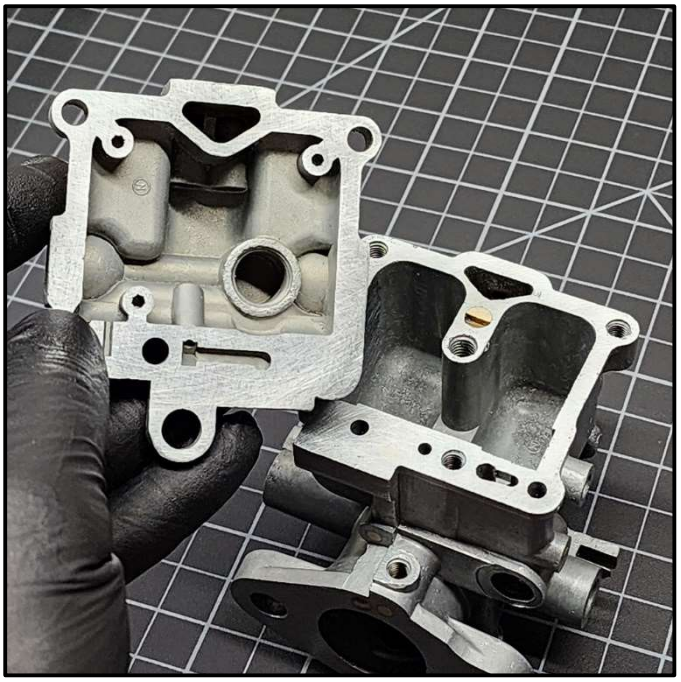

Figure 13 – Both mating surfaces are planed and the parts have been cleaned using carb cleaner to remove all metal particulates from the planing process.

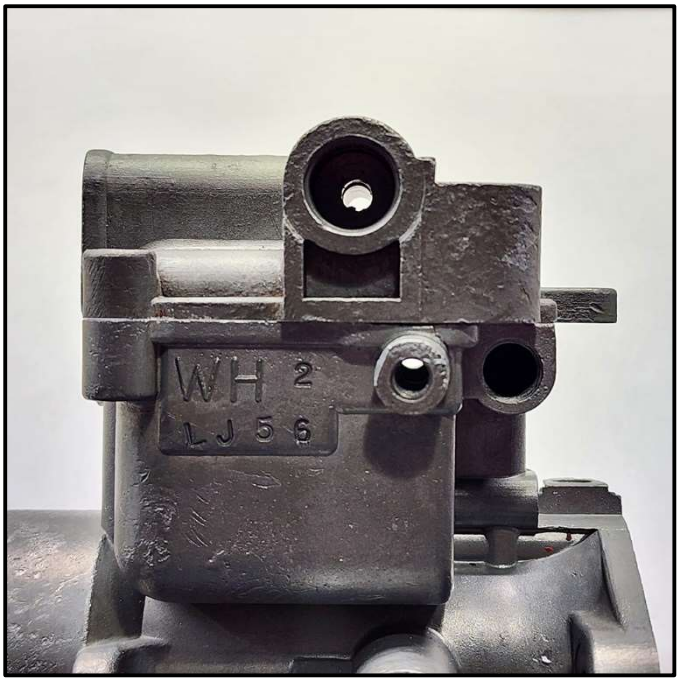

Figure 14 – The float chamber cover is placed onto the carburetor body to confirm fit. Unlike figure 6, there is no gap present, ensuring a proper fit of the gasket, reducing any chance of a fuel leak.

3.b With a chemical cleaner such as carburetor cleaner or acetone, clean off the mating surfaces, as well as all the passages, to ensure there are no metal shavings or residue remaining from the previous step (fig. 13). It is important to ensure that the mating surfaces are left clean, dry, and free of all chemical residue before test fitting (fig. 14).

Step 4 – Installing the gasket into the float chamber cover

With a clean set of gloves on, lay the float chamber cover upside down on your work-space. Lay the new gasket down so that the three small holes in the gasket line up with the 3 small holes for the hammer drive screws (fig. 15).

Insert a new hammer drive screw through the gasket into the hole in the float chamber cover and turn it clockwise until the threads catch. This will ensure the hammer drive screw follows the previously made threads and will prevent any metal fragments or chips being created by forcing the hammer drive screws to create their own threads.

Tap the hammer drive screw with a jeweller's hammer (or small mallet or ball-peen hammer) enough to make sure the hammer drive screw won't fall out, but not enough to hammer it fully into place. Repeat this for the remaining two screws.

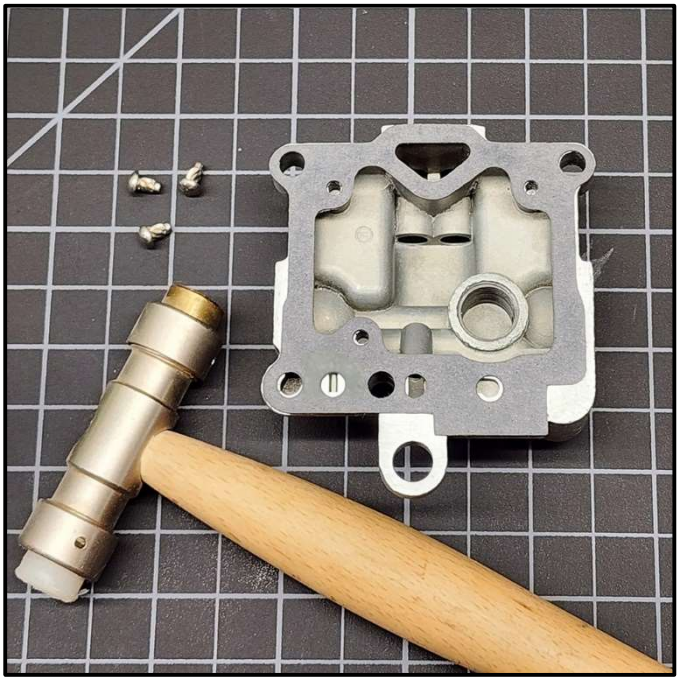

Figure 15 – The gasket is placed onto the float chamber cover. Pictured along with it are the 3 hammer drive screws and the jeweller's hammer that will be used to drive the screws into place.

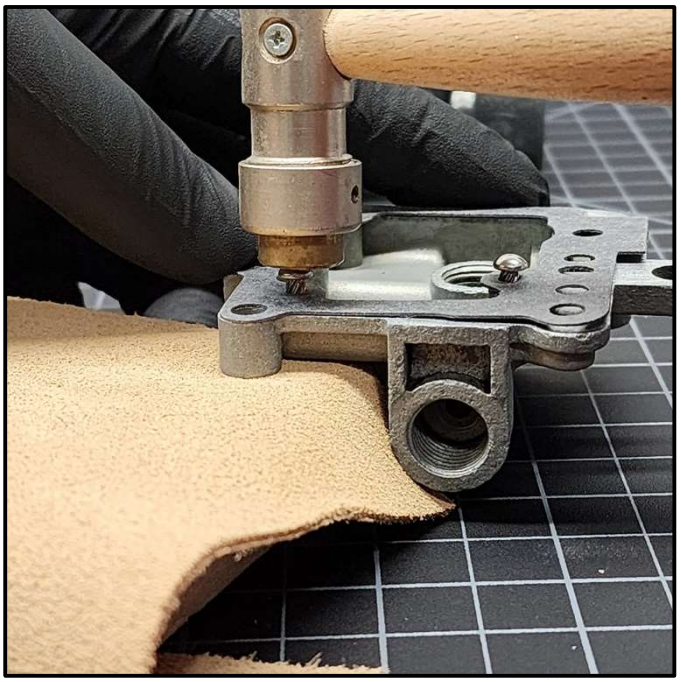

Figure 16 – Using a piece of 0.5" pine board wrapped with leather, the first hammer drive screw is driven into the float chamber cover. The wood and leather will prevent the force of the hammer from warping the soft metal of the float chamber cover during this step.

Once the screws are all in place, use the jeweler's hammer to drive the screws fully into place. To prevent damage or warping to the float chamber cover, it is recommended that you place a soft material (such as softwood or leather) directly under the hammer drive screws (fig. 16).

CAUTION: Avoid striking the gasket with the hammer or mallet, as this will cause damage to the gasket.

Excessive force on the hammer drive screws is not required. The hammer drive screws only hold the gasket in place during installation and assembly. Once the float chamber cover has been assembled onto the carburetor body, the 3 float chamber cover screws will secure both the cover and gasket onto the carburetor body. Excessive force may result in damaging the gasket, float chamber cover, or both.

Step 5 – Reassembly of the carburetor

Once the previous step has been completed, the carburetor is ready to be reassembled (fig. 17).

The first time the gasket is used in normal operation (or when it comes into contact with fuel), it will swell from the liquid and begin to conform to the shape of the mating surfaces. In order to ensure there are no leaks or weeping between the float chamber cover and the carburetor body, it is recommended to run the engine to temperature prior to going out for a ride. Allowing the engine to fully cool and then check the tightness of the 3 float chamber cover screws, tightening them as required.

This rechecking is especially important if the mating surfaces have not been planed down (as described in step 3).

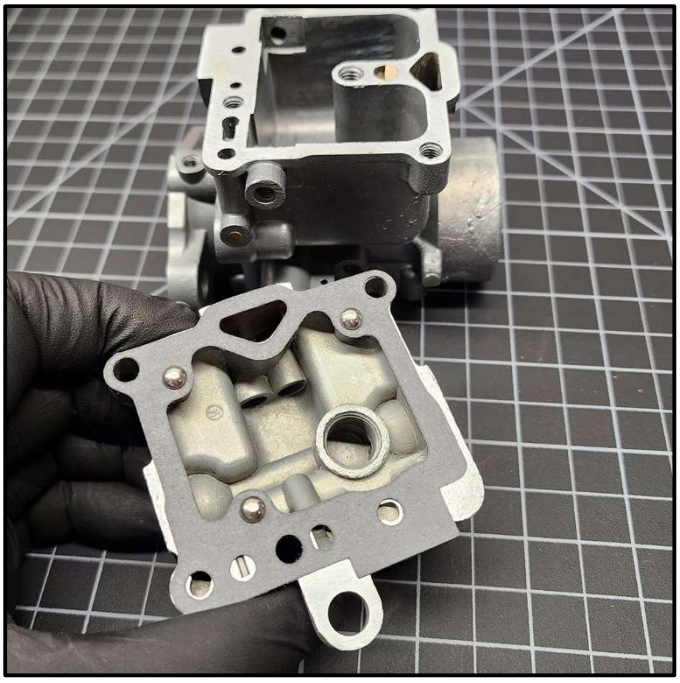

Figure 17 – With the gasket installed, the remainder of the carburetor can be assembled.

If you have any questions, do not hesitate to contact PNT-Garage directly, at info@pnt-garage.ca.