

**APPLICABLE TO ALL 4" API CARTER
HYDRANT VALVES**

**PN554050105
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NEW POPPET ASSEMBLY MEETS LATEST API SPEC.

The 3rd Edition of API 1584 requires that hydrant valves be designed and tested to show that they meet certain "break-a-way" strengths. Most Carter hydrant valves in production at the time of the test were tested to this requirement and were found to meet the requirements except for the poppet. That is the main structure of the hydrant valve successfully exhibited break-a-way characteristics in excess of those in the specification. During testing the weakest link in the design was found to be in the poppet. The requirement was an addition to the specification and thereby required design improvements. As it happened, a high strength steel poppet (original one was aluminum) was already used in some options of the 61654. This poppet was tested and found to meet the specification. Hence all 60554 and 61654 Hydrant valves shipped since 2002 with serial numbers 11161 and 1289 respectively and subsequent, include the product improvement using the steel poppet design. To achieve the strength requirements of the latest API 1584 Specification, earlier hydrants should be updated. This Product News outlines the parts and instructions needed to update older units.

**60554 4" X 4"
HYDRANT
VALVE**



**61654 4" X 6"
HYDRANT
VALVE**

**60554 4" x 4" API Hydrant Valves -
Serial Numbers 11161 & subsequent -**
These hydrants were shipped in accordance with the 3rd Edition of API 1584 and no further action is needed.

**61654 4" x 6" API Hydrant Valves -
Serial Numbers 1289 & subsequent -**
These hydrants were shipped in accordance with the 3rd Edition of API 1584 and no further action is needed.

If you can not find the serial number the differences between the older and newer valves with two-piece upper halves can be easily identified by its appearance and magnetic properties. The steel parts

(the two major parts in the assembly items 11 Poppet and 16 Shroud in Figure 1 on the next page are magnetic and are electroless nickel plated resulting in a bright shiny surface compared to a dull gray color for the aluminum. The flange of the two-piece upper half on valves shipped in accordance to the 2nd Edition will also be different from those that meet the latest requirements. The bolts (item 5) that hold the upper half to the lower half will bear on a flat upper surface for the former units. The bolt holes on the later units are counterbored in a thicker flange on the units that are in accordance with the latest specification.

60554 - Serial Numbers 101 through 8453 & 61654 Serial Numbers 10 through 1019 - These valves were shipped from Carter with a ductile iron or stainless steel upper housing assembly with an aluminum poppet. The housing structurally meets the 3rd Edition requirements. Hence only the poppet and mating parts need replacing to upgrade to the latest requirements. **KD60554-10** should be ordered. It contains the new improved steel poppet and all seals and attaching parts needed.

Replacement Instructions (item numbers are from the Figure 1).

1.0 Place the unit in a container sufficiently large enough to contain a minimum of 5 gallons (19 l) of fuel. Remove the Cover Assy (23). Push the Adapter Poppet (11) open and hold it open with a flexible plastic rod, or another non-marring item, to allow the unit to drain. Hint: A scrap 23620 Rod used in Carter 60427 Nozzle is suitable for this job. Turn the unit over onto its outlet, being sure to place it on a surface that will not damage the outlet surfaces. Grasp the inlet

flange and apply pressure to the piston to push it open sufficiently to insert a flexible plastic rod to keep the piston open as with the Adapter Poppet (11) above. Turn the valve over a few times to allow the trapped fuel to drain. The rods can then be removed to close the piston and adapter poppet.

2.0 Remove Screws (3 & 5) and Washers (4). Note that Screw (5) is shorter than Screws (3). It should be noted that it was installed in the hole to the left of the various Pilot Valves when facing the unit with the Pilot Valve directly in the center. Note that on newer units this shorter Screw (5) is made of stainless steel, for ease of identification only, instead of the normal cadmium plated Screws (3).

3.0 Using a thin, wide blade screwdriver, gently pry the Upper Half Assy (6) from the Lower Half Assy. Be careful not to damage the epoxy coating. Remove and discard O-ring (22).

4.0 Reassemble using parts from KD60554-10.

60554 - Serial Number 8454 through 11160 & 61654 Serial Numbers between 1020 and 1288 (except those with option K) - The original aluminum/stainless steel upper half assembly was designed and tested to the 2nd Edition of API 1584 and met that specification. Hence to meet the 3rd Edition requirements it is necessary to also upgrade not only the poppet assembly but to also update the two-piece upper half assembly. (Note - any hydrants with all stainless steel or ductile iron upper halves need only follow the upgrade instructions for valves with serial numbers 8453 for 60554 and 1019 for 61654 and lower as noted above). **KD60554-9** should be ordered to upgrade the entire valve to meet the design change revised by the 3rd Edition.

Replacement Instructions (item numbers are from the Figure 2 on page 3).

1.0 Follow the instructions given in paragraph 1.0 - 3.0 above.

2.0 Discard the upper half assembly and replace it during reassembly with the new upper half furnished in the kit. Refer to Figure 2

3.0 Reassemble in reverse order replacing the appropriate parts furnished in KD60554-9. Note that Screw (5) is shorter than Screws (3). It should be noted that it was installed in the hole to the left of the various Pilot Valves when facing the unit with the Pilot Valve directly in the center.

This is the time to also consider overhauling the entire valve by ordering the appropriate kit from Table 9 SM60554 to match the type of hydrant.

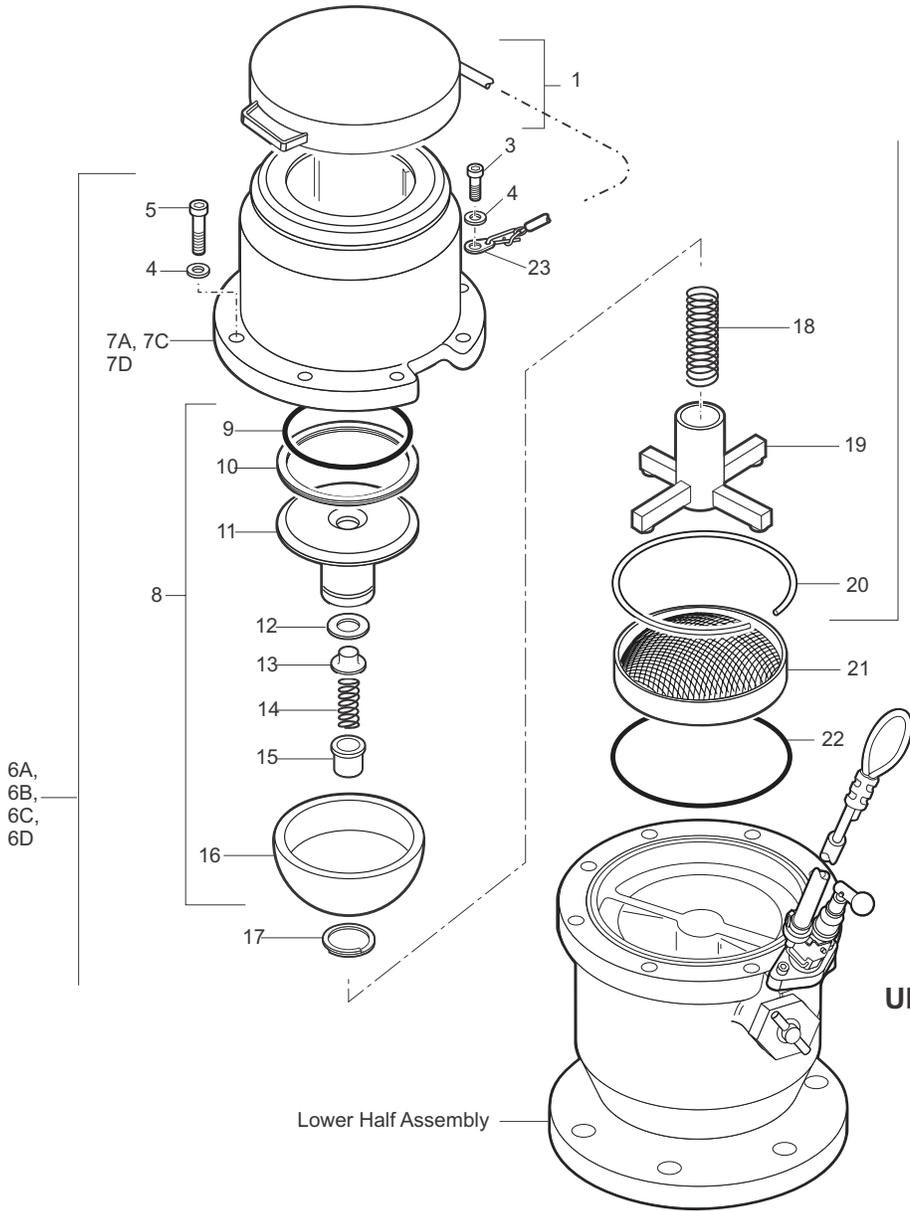


FIGURE 1
60554 & 61654
UPPER HALF ASSEMBLY
PARTS BREAKDOWN

FIGURE 2
60554 & 61654
UPPER HALF ASSEMBLY

