

**APPLICABLE TO ALL CARTER 64200  
COMMERCIAL AND 64201 MILITARY NOZZLES**

**PN200072504  
Revised August 23, 2004**

## PRODUCT IMPROVEMENT

A key part in the 64200 and 64201 nozzles has been redesigned to lengthen its life. The 221014 Pin, (item 29 Figure 1 of SM64200 and SM64201) is part of the opening/closing system and it has been hardened to reduce wear.

Wear is accelerated on the pin by continual "over" adjustment of the position of the poppet to stop/prevent leakage. This adjustment is currently outlined in paragraph 8.1.5 of both service manuals as follows:

"The standard poppet adjustment tool used on previous Carter nozzles will not work on the 64200. A good starting point in adjusting the poppet is to bottom the poppet onto the Shaft (32) with the nozzle open, then back it out approximately 1.75 turns. Once the adjustment is made, rotate the Poppet toward the tightening direction until the next slot in the Poppet (20) is in line with the hole in the Shaft (32). Insert the Cotter Pin (12) but do not bend the ends at this time. Close the nozzle and measure the distance from the top face of the poppet to the top face of the exposed Body (6). It should be  $0.491 \pm 0.010$  (12.47  $\pm$  0.25 mm). If not within this range remove the cotter pin and readjust until the correct dimension is achieved. Then bend over the ends of the Cotter Pin (12) to retain in place in accordance with Figure 5. Note it is important that the correct length of Cotter Pin (12) is utilized for the assembly."

A poppet adjustment tool is available as part number 64200ST1. Contact your Carter distributor for price and delivery.

The adjustment instructions will be changed in the manuals to the following:

"The standard poppet adjustment tool used on previous Carter nozzles will not work on the 64200. A good starting point in adjusting the poppet is to bottom the poppet onto the Shaft (32) with the nozzle open, then back it out approximately 1.75 turns. Once the adjustment is made, rotate the Poppet toward the tightening



direction until the next slot in the Poppet (20) is in line with the hole in the Shaft (32). Insert the Cotter Pin (12) but do not bend the ends at this time. Close the nozzle and check the adjustment with the poppet adjustment tool. If the adjustment is not within the "go-no-go" range, remove the cotter pin and re-adjust until the correct dimension is achieved. Then bend over the ends of the Cotter Pin (12) to retain in place in accordance with Figure 5. Note it is important that the correct length of Cotter Pin (12) is utilized for the assembly."

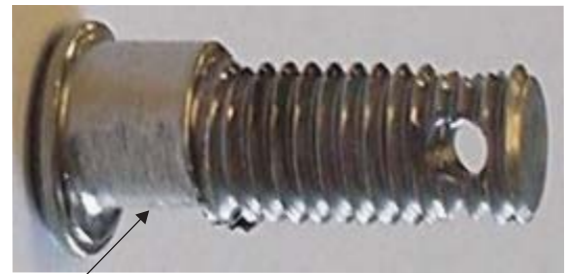
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In addition, wear check instructions on the pin will be added to paragraph 7.0 in both manuals as follows:

“Measure the larger diameter of item 29 Pin next to the head in at least two opposing directions. The larger diameter should not be less than 0.298 (7.60 mm).”

If it is at this diameter or less, it has to be replaced. Characteristic wear on the older, softer pin results in an elliptical shape rather than a diameter. This tends to make the nozzle more difficult to close and results in possible leakage when it is closed.



**221014 PIN - Characteristic wear pattern**

### **STATIC POPPET O-RING SEAL**

Item 23 O-ring in both manuals is made of fluoro-silicon (blue in color) to facilitate closure of the poppet. This material is softer and does not swell when exposed to fuel. Due to its softer makeup, it also wears faster than Nitrile compounds. A suitable alternative would be Carter's 201201-148, which is a low swell Nitrile compound that will wear longer but will present a larger closure force. The use of a standard Nitrile O-ring will lead to much greater closure forces and not present a significant

increase in life. It is not recommended for these reasons.

The basic nozzle was tested in accordance with the latest SAE Commercial and Military Specification AS5877 with the blue O-ring and it passed without a problem. This entailed several thousand connections and opening and closing cycles and should represent months of service.

### **SPECIAL KIT**

A kit that will include the harder 221014 Pin and other parts needed to install it is now available as KD64200-90. This kit will be available until Dec. 31, 2004 at no charge to facilitate the replacement of the older pin. Order it from your Carter distributor. This offer pertains to all

model 64200 nozzles with serial numbers lower than 3216, and all 64201 nozzles with serial numbers lower than 290. Your nozzle serial number must be supplied to receive the no charge kit.