

### 2 ½" HOSE NOZZLE REPLACEMENT

# All American-Darling Fire Hydrants Manufactured From 2005 Through 2011

WARNING: EXERCISE CAUTION WHEN WORKING WITH PRESSURE CONTAINING DEVICES. POTENTIAL HAZARD - FAILURE TO RELIEVE HYDRANT CAP PRESSURE CAN RESULT IN THE CAP OR NOZZLE BLOWING OFF, CAUSING SERIOUS INJURY. DO NOT STAND IN FRONT OF A HYDRANT NOZZLE WHEN OPERATING A HYDRANT. To ensure the hydrant is not charged with pressure when removing a cap, it is considered safe practice to close the auxiliary gate valve in the lateral water line between the main line and the fire hydrant.

#### **Nozzle Verification**

- Take care to follow proper safety procedures. Be sure to wear eye protection and gloves when working on a fire hydrant. DO NOT STAND DIRECTLY IN FRONT OF A FIRE HYDRANT NOZZLE.
- Verify the hydrant to be remediated is an American-Darling fire hydrant marked with a 2005 to 2011 manufacture date. This date is cast on the top, front of the hydrant upper barrel just above the pumper nozzle.
- 3. Remove the hose nozzle caps. The inside surface of each nozzle has an as-cast identification mark. In some cases the mark may be in the top of the nozzle, and it may be necessary to use a mirror, or even remove the nozzle, to more easily see it. The mark is just above the vendor ID "WN25OR". As detailed in Figure 1, the nozzle ID cast marking is an "S", "L", or L followed by a number, such as "L5".

WN25OR, WN25OR, or WN250OR.

S L L5

- 4. Be sure to check both hose nozzles. If either one of the nozzles exhibits an "L" or L followed by a number cast mark, leave the nozzle in place and securely replace the hose nozzle cap.
- If either hose nozzle exhibits an "S" cast mark, remove and replace the nozzle as detailed on the following page.



Figure 1- American-Darling Hose Nose Nozzle Exhibiting "S" Casting Mark

- 6. NOTE: Excluded from this service notice are a limited number of American-Darling hydrants produced in 2006 using the Amlok nozzle system. This design used set screws to retain the nozzle and does not employ the hose nozzle retainer, detailed in Figure 2.
- 7. As referenced in the Hydrant Reinstatement Section, and detailed in Figures 3 and 4, a metal tag must be placed on all 2005 to 2011 hydrants, including those with an Amlok nozzle system and other hydrants not requiring nozzle replacement, to show the hydrant has been inspected. Use Figure 5 to aid in identifying an Amlok nozzle.

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#### Nozzle Removal

- To avoid potential injury, be sure to wear gloves when handling threaded components. Refer to Figure 2. Place the hose nozzle wrench on the retainer so it engages the rounded protrusions. Turn the retainer in a counterclockwise direction. Unthread the retainer from the hose nozzle.
- 2. If necessary to aid in the removal of the nozzle, slide a standard screwdriver behind the O-ring between the hose nozzle and the upper barrel. In some cases, it may be necessary to lightly tap the nozzle with a hammer to loosen. While depressing the hose nozzle, rotate the nozzle counterclockwise until the two lugs on the nozzle disengage the recesses in the hydrant upper barrel socket. The nozzle can now be removed from the fire hydrant.

## **Nozzle Replacement**

- 1. Referring to Figure 2, thread the retainer onto the retainer threads of the hose nozzle.
- 2. Initial 2005 and 2006 shipments of this design did not include the hose nozzle retainer washer. The washer should be installed during the replacement procedure. To install, place the washer over the nozzle starting from the end with the two lugs and press into the chamfer recess in the retainer.
- Grease the O-ring and place it over the nozzle starting from the end with the two lugs and against the washer.
- 4. Insert the nozzle assembly (the retainer, washer and O-ring) into the socket. Rotate the assembly clockwise until it stops and the lugs on the nozzle are fully engaged in the socket recesses. If it cannot be rotated, turn the retainer in a direction to allow the nozzle to be inserted further into the socket so the assembly rotates clockwise against the stops.
- 5. Hand tighten the retainer to press the O-ring against the face of the socket.
- Place the hose nozzle wrench on the nozzle retainer so it engages the rounded protrusions and apply a minimum of 150 ft.-lbs., but no more than 190 ft.-lbs., of torque.
- 7. Clean any rust or corrosion from the nozzle cap threads. Apply a light coat of grease to the nozzle threads and install the cap.
- Securely attach a return tag on all nozzles that have been removed. Record the utility name and note the GIS location, or the street address, including city and state, on the tag.
- Record all fire hydrant inspections, including those that do not require nozzle replacement, on an AMERICAN Flow Control log sheet. Information must include year

of manufacture, model of hydrant, and street address or GIS location. Use different log sheets for different utilities. All log sheets are considered internal documents and are to be submitted only to AMERICAN Flow Control.

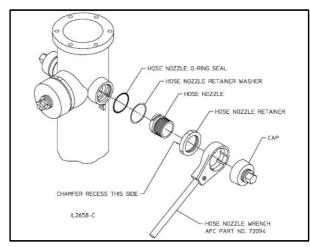


Figure 2 - Hose Nozzle Assembly

10. Return all unused and replaced nozzles in the packaging that the new nozzles arrived in. Take care to prevent damage to the nozzles. AMERICAN will provide Nozzle Material Authorization (NMA) instructions and tracking information. Return all items to:

AMERICAN Valve & Hydrant ATTN: Nozzle Remediation 445 South Tenth Street Beaumont, TX 77701

## **Hydrant Reinstatement**

- AMERICAN Flow Control will furnish a tag and washer.
   As detailed in Figure 3, the tag will have the letters "NOZ" on the top surface. Install the tag on the top of the hydrant housing flange as shown in Figure 4. To install the tag, remove one of the bolts on the hydrant housing. Place the housing bolt through the washer and then the tag, and replace the bolt on the hydrant. Secure the nut underneath, and tighten the bolt with approximately 60 ft.-lbs. of torque.
  - Important: Tag all inspected fire hydrants, including those with Amlok nozzles and other hydrants not requiring nozzle replacement, to show the hydrant was inspected and the nozzle(s) replaced if necessary.
- If a nozzle is removed or replaced, and unless prohibited by the local authorities, the fire hydrant should be pressurized to check for a proper seal of the hydrant hose nozzles. To avoid potential injury, do not stand in front of a hydrant nozzle when operating a hydrant.
  - Important: Open the hydrant slowly, with at least one cap loosened enough to allow air to escape. Once air is released, tighten the cap and check for leaks.
- 3. Make sure the hydrant is properly shut off and follow the city's maintenance protocol to reinstate the hydrant to service. If the hydrant is a non-draining hydrant, and the utility requires it, or freezing climates dictate, care should be taken to pump the hydrant.

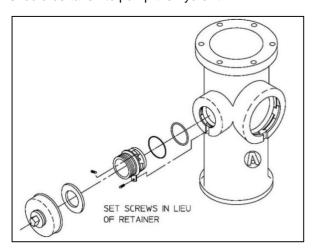


Figure 5 – For Reference Only: Amlok Nozzle



Figure 3 - "NOZ" Tag Detail

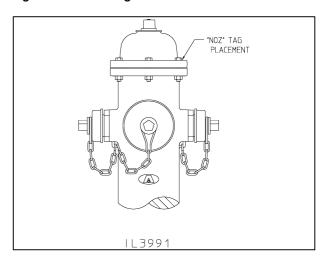


Figure 4 - "NOZ" Tag Placement



NOTE: Where grease is required, use an AMERICAN Flow Control recommended food grade grease, such as CITGO Clarion Food Machinery Grease No. 2, ExxonMobil FM 222, or Lubriplate Super FGL-2. Do not, under any circumstances, use a grease labeled EP (extreme pressure) or HT (high temperature), or any grease containing calcium acetate as an additive.

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