OPERATING INSTRUCTIONS MANUAL

MUELLER®

Super Centurion® 350 Fire Hydrant

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Reliable Connections™

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⚠ **WARNING:** Before working on, or disassembling the Hydrant (including removing any bolts(s) holding the Hydrant together), shut off gate valve to isolate Hydrant from main water source. Loosen (do not remove) one nozzle cap two turns and check for water under pressure inside Hydrant - bleed off any pressure, then remove nozzle cap completely. Open Hydrant main valve completely. A continuous flow of water, no matter how slight, indicates Hydrant is not properly isolated from the main water supply, and that problem must be corrected before any Hydrant disassembly can proceed. Disassembly of Hydrant with pressurized water acting against the main valve could result in unexpected ejection of Hydrant parts, debris or high-pressure water stream, which could cause serious bodily injury.

GENERAL

This manual applies to all Mueller Super Centurion 350 Fire Hydrants.

Inspection

To ensure their readiness for immediate use, it is recommended that Fire Hydrants be inspected and tested at six-month intervals.

Inspect visually for damaged or missing parts.

Loosen one Nozzle Cap slightly and tighten the others. Open Hydrant fully. Tighten loose Nozzle Cap when water starts to flow. Remove Oil Filler Plug to check oil level. If oil level is low, fill as shown on page 3. Check all flange connections for leaks. Turn Operating Nut to fully CLOSED position.

If water or oil overflowed from Oil Filler Hole, remove Bonnet and replace O-rings in both the Bonnet and the Hold Down Nut. Inspect and clean Stem, and replace it if corroded or pitted. Check oil level. Replace Bonnet and test for leaks.

Use A-367 Brass Sleeve when removing or replacing Bonnet or Hydrant Barrel to protect stem O-rings.

Remove one Nozzle Cap, stand on the side of Hydrant opposite the cap removed, open Hydrant fully, and flush Barrel and Hydrant Lateral. Turn Operating Nut to fully CLOSED position.

Remove all Nozzle Caps. Clean and lubricate threads.

Examine inside of Barrel to make certain Drain Valves have completely drained water from Barrel. If water fails to drain from Barrel, it may be caused by one or more of the following conditions:

1. Water Table in ground is higher than drains.

2. When Hydrant was installed, coarse gravel was not placed around Drains, in locations where ground has a make up such that it will not absorb water.

3. Drains are stopped by some foreign material.

4. Failure to leave Cap off of Hydrant to allow air to enter so Barrel will drain.

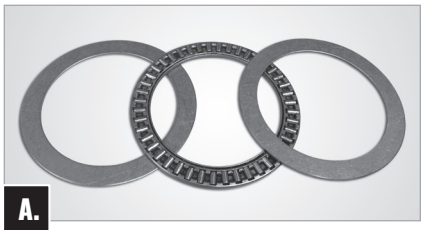
The foregoing procedure introduces full line pressure to Drain Valves. It provides the best method for cleaning Drain Valves using water pressure.

IMPORTANT - Initial installation of Hydrant MUST BE MADE PROPERLY so Traffic Flange will function properly. Hydrant should be blocked at ground line and around Shoe using concrete or similar substance to prevent ground from giving way when Hydrant is struck.

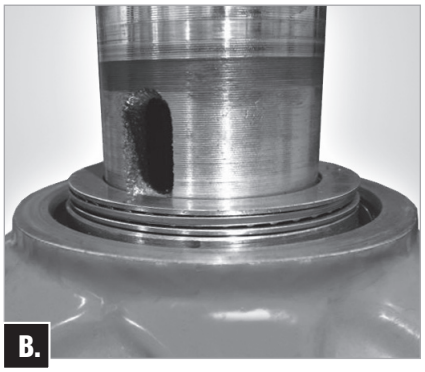
For additional information on Hydrant anchorage, blocking, and drainage, see AWWA Standard C600 and Manual M17.

Assembly

Proper assembly of Super Centurion 350 Hydrant Thrust Bearing on top of Thrust Collar. (**A.**)



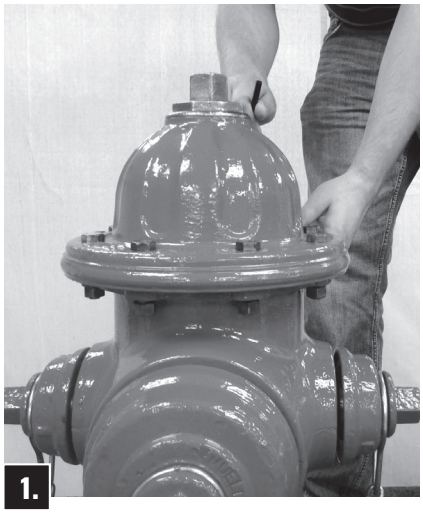
3-piece Thrust Bearing assembled on Operating Nut Thrust Collar (shown partially withdrawn from bonnet to show bearing detail). Roller Bearing/Race must be located between the upper and lower Bearing Washers (**B.**).



Filling Oil Reservoir

⚠ CAUTION: Always fill the oil reservoir with the Bonnet installed, the Hydrant in its normal upright position, and the main valve fully closed. If the Hydrant is filled with lubricant under any other circumstances, excess lubricate can overfill the Bonnet and create a pressure lock. This could result in damage to the seals or Bonnet or prevent proper Hydrant operation.

EQUIPMENT & TOOLS NEEDED – PPE: Safety shoes, safety vest, safety glasses, work gloves.
Tools: 1/4" hex-head wrench, A-51 lubricating oil.



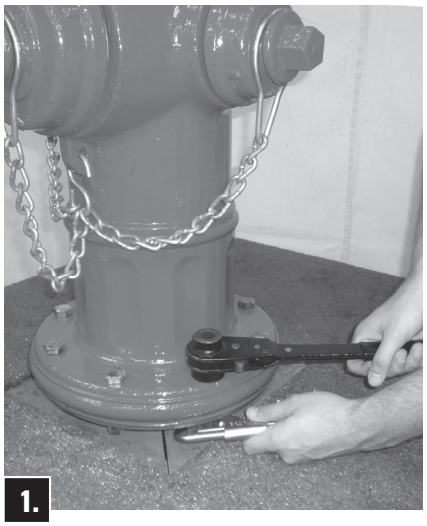
1. Remove Oil Filler Plug and check oil level. Oil should be level with Oil Filler Plug Hole.

2. If oil is low, use a small funnel to add MUELLER Hydrant Lubricant.

3. When oil is level with Oil filler Plug Hole, replace Oil Filler Plug.

Facing the Hydrant

EQUIPMENT & TOOLS NEEDED – PPE: Hard hat, safety shoes, safety vest, safety glasses, work gloves.
Tools: A-311 operating wrench and proper bolt/nut wrenches.



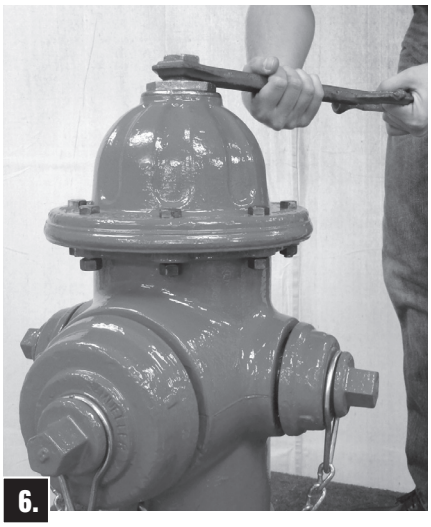
Loosen Nuts on Traffic Flange Bolts.

Turn Operating Nut slightly in the opening direction to relieve compression between Barrel sections.

Rotate Upper Barrel section as desired.

Tighten Operating Nut, turning in closing direction.

Tighten Traffic Flange Bolts to 60 ft-lbs.



Turn Operating Nut in closing direction to make sure Main Valve is closed tightly, then turn in opening direction approximately 1/4 turn to relieve tension on operating mechanism.

MUELLER® Super Centurion® 350 Fire Hydrant

Restoring Service after Traffic Knockover

⚠ WARNING: Before removing any bolt(s) holding the Hydrant together, shut off gate valve to isolate Hydrant from main water source. Loosen (do not remove) one nozzle cap two turns and check for water under pressure inside Hydrant – bleed off any pressure, then remove nozzle cap completely. Open Hydrant main valve completely. A continuous flow of water, no matter how slight, indicates Hydrant is not properly isolated from the main water supply, and that problem must be corrected before any Hydrant disassembly can proceed. Disassembly of Hydrant with pressurized water acting against the main valve could result in unexpected ejection of Hydrant parts, debris or high-pressure water stream, which could cause serious bodily injury.

EQUIPMENT & TOOLS NEEDED – PPE: Hard hat, safety shoes, safety vest, safety glasses, work gloves.
Tools: Wrench, A-311 operating wrench, A-367 Brass Sleeve, Traffic Flange Repair Kit.

1.

Remove stainless steel Cotter Pin from stainless steel Clevis Pin. Remove Clevis Pin and broken Traffic Coupling from Upper Stem. Unbolt and remove broken Traffic Flange from Upper Barrel. Remove Hold-Down Nut, Thrust Bearing, and Operating Nut from Bonnet. Lubricate A-367 Brass Sleeve and slide over threaded Stem end to prevent O-ring damage. Unbolt Bonnet from Upper Barrel. Slide Upper Stem out of Bonnet and remove Brass Sleeve.

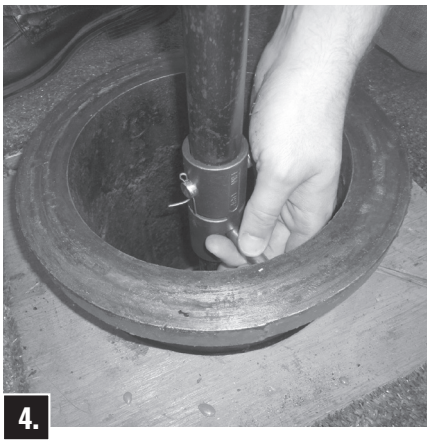
2.

Remove stainless steel Cotter Pin from stainless steel Clevis Pin in Lower Stem (throw away the old Clevis Pin, Cotter Pin, and old Traffic Coupling).

3.

Assemble new Traffic Coupling to Upper Stem with new stainless steel Clevis Pin and new stainless steel Cotter Pin.

NOTE: "This End Up" Molded on Coupling.



4.

Assemble Upper Stem and new Traffic Coupling onto Lower Stem and retain it with the new stainless steel Clevis Pin and new stainless steel Cotter Pin.

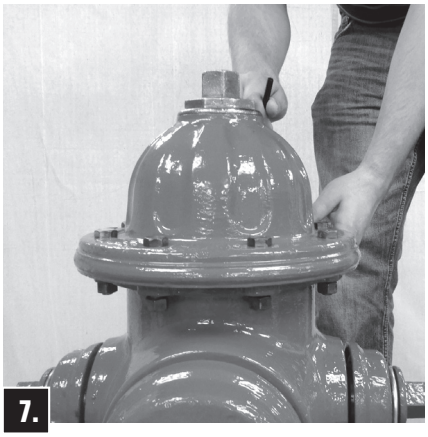
Restoring Service after Traffic Knockover

⚠ CAUTION: Always fill the oil reservoir with the Bonnet installed, the Hydrant in its normal upright position, and the main valve fully closed. If the Hydrant is filled with lubricant under any other circumstances, excess lubricate can overfill the Bonnet and create a pressure lock. This could result in damage to the seals or Bonnet or prevent proper Hydrant operation.

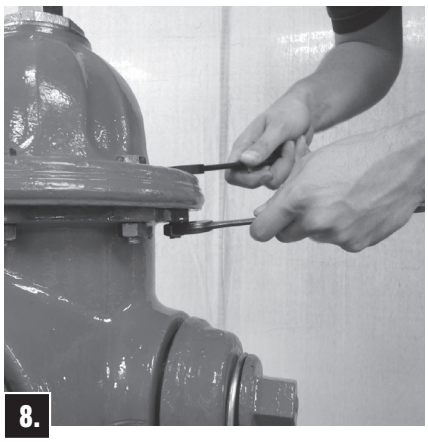
EQUIPMENT & TOOLS NEEDED – PPE: Hard hat, safety shoes, safety vest, safety glasses, work gloves.
Tools: Wrenches, A-311 operating wrench, A-367 Brass Sleeve, Traffic Flange Repair Kit.

5. Attach Upper Barrel with new Traffic Flange Halves (with bevel on outer edge downward) and Bolts; being sure Traffic Flange O-ring* is in groove in Upper Barrel. Tighten Bolts to 60 ft-lbs.

6. Check Bonnet O-ring* for proper position and condition. Attach Brass Sleeve to Upper Stem and lubricate outside to protect O-ring Seals from thread damage. Place Bonnet onto Upper Barrel and assemble Bonnet Bolts only hand-tight. Remove Brass Sleeve. Reassemble Operating Nut, Thrust Bearing, and Hold-Down Nut (snug-tighten). Be sure O-ring Seals are in good condition at thread shoulder on outside of Hold-Down Nut and on inside where contact is made with Operating Nut.



7. Remove Oil Filler Plug in side of Bonnet. Pour MUELLER Hydrant Lubricant into Oil Reservoir until it is level with Oil Filler Plug Hole. Replace Oil Filler Plug (see Lubrication section on page 3).



8. Torque Bonnet Bolts to 40-80 ft-lbs. Torque Hold-Down Nut to 200-300 ft-lbs. after Bonnet Bolts are tight. Open Gate Valve. Unscrew one Hose Nozzle Cap slightly to bleed air. Open Hydrant fully. Tighten Hose Nozzle Cap when water starts flowing and check all flange connections for leaks. Turn Operating Nut to fully closed position and remove Hose Nozzle Cap to allow Barrel to drain. Replace Hose Nozzle Cap.

9. Turn Operating Nut in closing direction to make sure Main Valve is closed tightly, then turn in opening direction approximately 1/4 turn to relieve tension on operating mechanism.

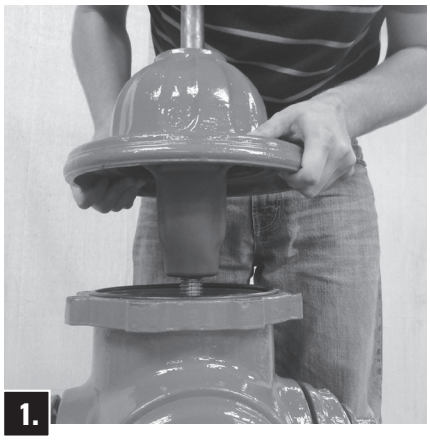
*To determine correct O-rings for Bonnet and Ground Line flanges, which are similar in appearance: smaller diameter O-ring is used at Bonnet flange; larger at Ground line flange.

MUELLER® Super Centurion® 350 Fire Hydrant

Main Valve Replacement: Bonnet Flange

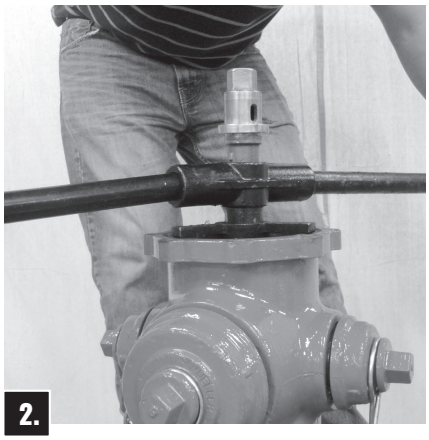
⚠ WARNING: Before removing any bolt(s) holding the Hydrant together, shut off gate valve to isolate Hydrant from main water source. Loosen (do not remove) one nozzle cap two turns and check for water under pressure inside Hydrant – bleed off any pressure, then remove nozzle cap completely. Open Hydrant main valve completely. A continuous flow of water, no matter how slight, indicates Hydrant is not properly isolated from the main water supply, and that problem must be corrected before any Hydrant disassembly can proceed. Disassembly of Hydrant with pressurized water acting against the main valve could result in unexpected ejection of Hydrant parts, debris or high-pressure water stream, which could cause serious bodily injury.

EQUIPMENT & TOOLS NEEDED – PPE: Hard hat, safety shoes, safety vest, safety glasses, work gloves.
Tools: Wrench, A-367 brass sleeve, A-359 seat wrench, A-311 operating wrench, Main Valve Repair Kit, A-51 lubricating oil.



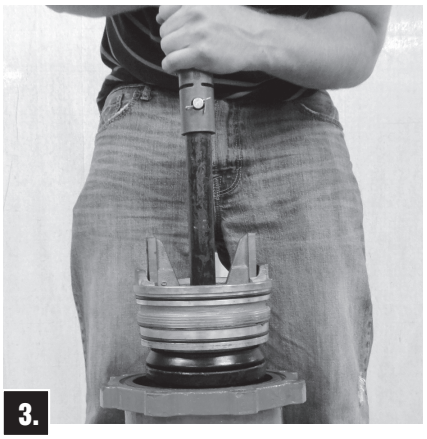
1.

Remove Hold-Down Nut Operating Nut and Thrust Bearing from Bonnet. Lubricate A-367 Brass Sleeve and slide over threaded stem to prevent O-ring damage. Unbolt and remove Bonnet. Remove Brass Sleeve.



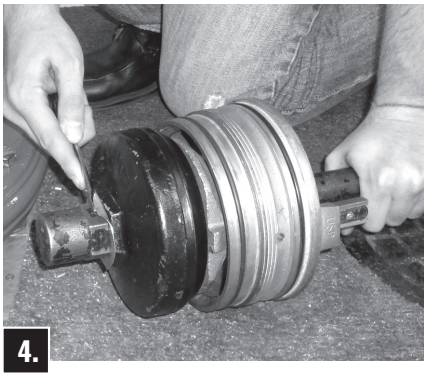
2.

Slide slotted end of the A-359 Seat Wrench over top of Stem and engage the slot with Pin in Upper Stem. Thread Operating Nut onto stem and tighten against wrench to hold it securely. Pull up on the Seat Wrench to be sure the main valve is completely closed. Lower support arm onto top flange of the Upper Barrel and tighten Thumb Screw to hold the Main Valve in the closed position. Remove Main Valve Assembly by turning Seat Wrench counter-clockwise.



3.

Lift out Wrench, Lower Stem, Main Valve Assembly and Seat Ring from Hydrant Barrel as a unit.



4.

Straighten stainless steel Lock Washer, unscrew Cap Nut and remove Washer, Stem Seal, Lower Valve Plate, Main Valve and Seat Ring. Clean, inspect and replace any damaged parts (Main Valve can be reversed to provide new seal). Replace Drain Valve Facings. Inspect and lubricate Top and Bottom Seat Ring O-rings (replace if necessary). Lubricate all threaded surfaces and reassemble. With Cap Nut tightened to 100 ft-lbs, bend edges of stainless steel Lock Washer over one flat on the Lower Valve Plate and one flat on the Cap Nut.

5.

Lower Main Valve into the Barrel. Lower Support Arm and tighten Thumb Screw. Carefully thread main valve assembly clockwise into the base of the Hydrant. Hand tighten.

Main Valve Replacement: Bonnet Flange

⚠ CAUTION: Always fill the oil reservoir with the Bonnet installed, the Hydrant in its normal upright position, and the main valve fully closed. If the Hydrant is filled with lubricant under any other circumstances, excess lubricate can overfill the Bonnet and create a pressure lock. This could result in damage to the seals or Bonnet or prevent proper Hydrant operation.

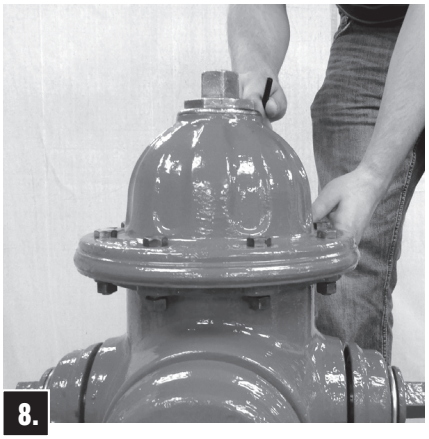
EQUIPMENT & TOOLS NEEDED – PPE: Hard hat, safety shoes, safety vest, safety glasses, work gloves.
Tools: Wrench, A-367 brass sleeve, A-359 seat wrench, A-311 operating wrench, Main Valve Repair Kit, A-51 lubricating oil.

6.

Tighten Main Valve to 100-150 ft-lbs. Remove Wrench from Stem by removing Operating Nut.

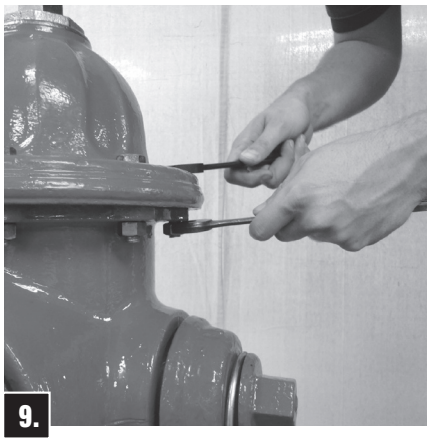
7.

Check Bonnet O-ring* for proper position and condition. Attach A-367 Brass Sleeve to Upper Stem and lubricate outside to protect O-ring Seals from thread damage. Place Bonnet onto Upper Barrel and assemble Bonnet Bolts only hand-tight. Remove Brass Sleeve. Reassemble Operating Nut, Thrust Bearing, and Hold-Down Nut (snug-tighten). Be sure O-ring Seals are in good condition at thread shoulder on outside of Hold-Down Nut and on inside where contact is made with Operating Nut.



8.

Remove Oil Filler Plug on side of Bonnet. Pour MUELLER Hydrant Lubricant into Oil Reservoir until it is level with Oil Filler Plug Hole. Replace Oil Filler Plug (see Lubrication section on page 3).



9.

Torque Bonnet Bolts to 40-80 ft-lbs. Torque Hold-Down Nut to 200-300 ft-lbs. after Bonnet Bolts are tight. Open Gate Valve. Unscrew one Hose Nozzle Cap slightly to bleed air. Open Hydrant fully. Tighten Hose Nozzle Cap when water starts flowing and check all flange connections for leaks. Turn Operating Nut to fully closed position and remove Hose Nozzle Cap to allow Barrel to drain. Replace Hose Nozzle Cap.

10.

Turn Operating Nut in closing direction to make sure Main Valve is closed tightly, then turn in opening direction approximately 1/4 turn to relieve tension on operating mechanism.

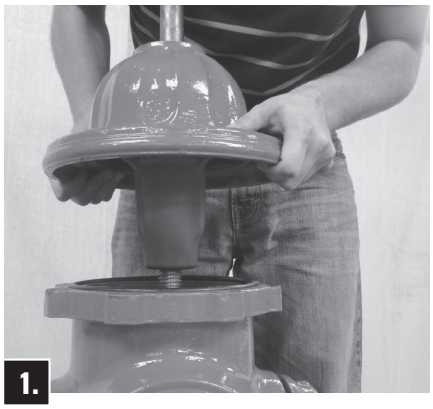
*To determine correct O-rings for Bonnet and Ground Line flanges, which are similar in appearance: smaller diameter O-ring is used at Bonnet flange; larger at Ground line flange.

MUELLER® Super Centurion® 350 Fire Hydrant

Main Valve Replacement: Lower Barrel Flange

⚠ WARNING: Before removing any bolt(s) holding the Hydrant together, shut off gate valve to isolate Hydrant from main water source. Loosen (do not remove) one nozzle cap two turns and check for water under pressure inside Hydrant – bleed off any pressure, then remove nozzle cap completely. Open Hydrant main valve completely. A continuous flow of water, no matter how slight, indicates Hydrant is not properly isolated from the main water supply, and that problem must be corrected before any Hydrant disassembly can proceed. Disassembly of Hydrant with pressurized water acting against the main valve could result in unexpected ejection of Hydrant parts, debris or high-pressure water stream, which could cause serious bodily injury.

EQUIPMENT & TOOLS NEEDED – PPE: Hard hat, safety shoes, safety vest, safety glasses, work gloves.
Tools: Wrench, A-367 brass sleeve, A-359 seat wrench, A-311 operating wrench, Main Valve Repair Kit, A-51 lubricating oil.



1.

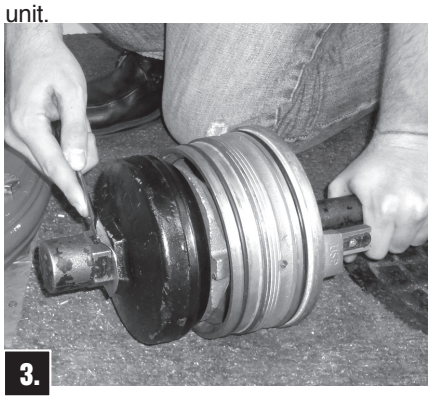
Remove Hold-Down Nut, Thrust Bearing and Operating Nut from Bonnet. Lubricate Brass Sleeve and slide over threaded stem end to prevent O-ring damage.

Unbolt and remove Bonnet. Remove Traffic Flange Bolts and Traffic Flange. Remove Upper Barrel.

Remove Upper Stem and Stem Coupling from Lower Stem.

2.

Slide slotted end of A-359 Seat Wrench over Lower Stem. Align holes in Wrench and Stem and attach Wrench to Stem with Clevis Pin. Lower Support Arm onto the Flange of Lower Barrel and tighten Thumb Screw (to hold Main Valve in closed position). Remove Main Valve Assembly by turning Wrench counter-clockwise and lift out Wrench, Lower Stem, Main Valve Assembly and Seat Ring from Hydrant Barrel as a unit.



3.

Straighten stainless steel Lock Washer, unscrew Cap Nut and remove Washer, Stem Seal, Lower Valve Plate, Main Valve and Seat Ring. Clean, inspect and replace any damaged parts. Replace Drain Valve Facings. Inspect and lubricate Top and Bottom Seat Ring O-rings (replace if necessary). Lubricate all threaded surfaces and reassemble. With Cap Nut tightened to 100 ft-lbs, bend edges on stainless steel Lock Washer over one flat on the Lower Valve Plate and one flat on the Cap Nut.

4.

Lower Main Valve into the Barrel. Lower Support Arm and tighten Thumb Screw. Carefully thread main valve assembly clockwise into the base of the Hydrant. Hand tighten.

⚠ CAUTION: Always fill the oil reservoir with the Bonnet installed, the Hydrant in its normal upright position, and the main valve fully closed. If the Hydrant is filled with lubricant under any other circumstances, excess lubricate can overfill the Bonnet and create a pressure lock. This could result in damage to the seals or Bonnet or prevent proper Hydrant operation.

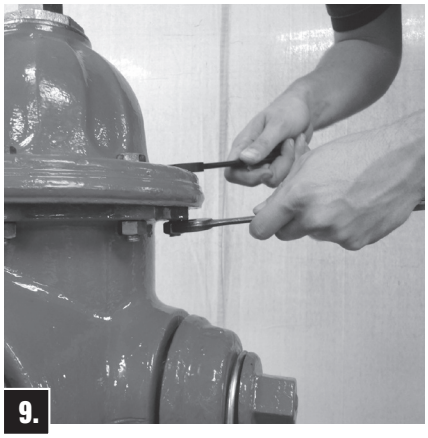
EQUIPMENT & TOOLS NEEDED – PPE: Hard hat, safety shoes, safety vest, safety glasses, work gloves.
Tools: Wrench, A-367 brass sleeve, A-359 seat wrench, A-311 operating wrench.

5. Tighten Main Valve to 100-150 ft-lbs. Remove Wrench from Stem by removing Clevis Pin.

6. Reassemble Upper Stem to Lower Stem. Place Upper Barrel in place and reassemble Traffic Flange.* Tighten Bolts to 60 ft-lbs.

7. Check Bonnet O-ring* for proper position and condition. Attach Brass Sleeve to Upper Stem and lubricate outside to protect O-ring Seals from thread damage. Place Bonnet onto Upper Barrel and assemble Bonnet Bolts only hand-tight. Remove Brass Sleeve. Reassemble Operating Nut, Thrust Bearing, and Hold-Down Nut (snug-tighten). Be sure O-ring Seals are in good condition at thread shoulder on outside of Hold-Down Nut and on inside where contact is made with Operating Nut.

8. Remove Oil Filler Plug on side of Bonnet. Pour MUELLER Hydrant Lubricant into Oil Reservoir until it is level with Oil Filler Plug Hole. Replace Oil Filler Plug (see Lubrication section on page 3).



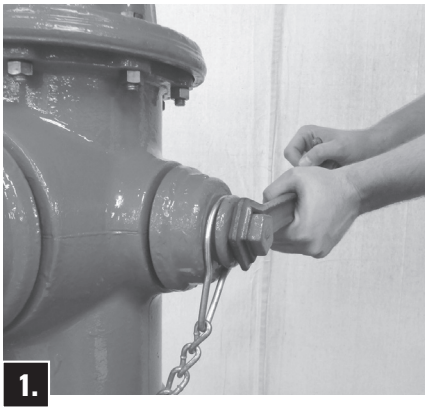
9. Torque Bonnet Bolts to 40-80 ft-lbs. Torque Hold-Down Nut to 200-300 ft-lbs. after Bonnet Bolts are tight. Open Gate Valve. Unscrew one Hose Nozzle Cap slightly to bleed air. Open Hydrant fully. Tighten Hose Nozzle Cap when water starts flowing and check all flange connections for leaks. Turn Operating Nut to fully closed position and remove Hose Nozzle Cap to allow Barrel to drain. Replace Hose Nozzle Cap.

10. Turn Operating Nut in closing direction to make sure Main Valve is closed tightly, then turn in opening direction approximately 1/4 turn to relieve tension on operating mechanism.

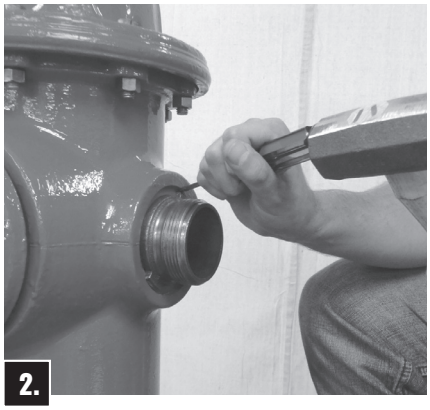
*To determine correct O-rings for Bonnet and Ground Line flanges, which are similar in appearance: smaller diameter O-ring is used at Bonnet flange; larger at Ground line flange.

Replacing Damaged Nozzles

EQUIPMENT & TOOLS NEEDED – PPE: Hard hat, safety shoes, safety vest, safety glasses, work gloves.
Tools: Wrench, A-316 nozzle wrench, A-317 Nozzle Lock Installation Tool, brass hammer.

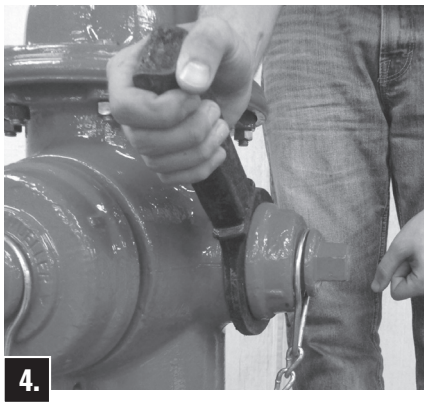


Remove Nozzle Cap.



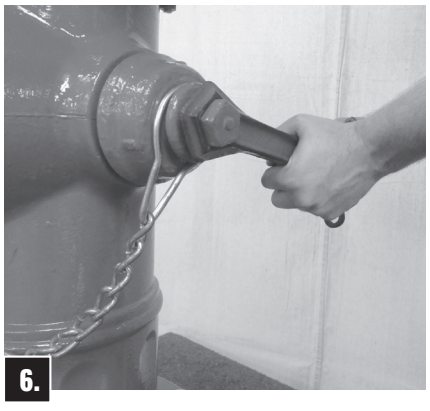
Remove stainless steel Nozzle Lock by driving it out with a pointed tool and hammer.

Place A-316 Nozzle Wrench on Nozzle with Wrench Forks facing toward Hydrant Barrel and locked onto Nozzle Drive Lugs. Replace Nozzle Cap and tighten until Cap rests loosely against backside of Wrench. Remove Nozzle (nozzle threads out in a clockwise rotation). Additional leverage may be obtained by placing a length of 2" schedule 40 steel pipe over the handle of the Nozzle Wrench.



Install Nozzle O-ring on the inlet side of the Nozzle. Thread new Nozzle into Upper Barrel, attach Nozzle Wrench as described in Step 3, and tighten Nozzle (nozzle threads in a clockwise rotation) to approximately 600 ft-lbs torque (100 lbs. pull on a 6' lever).

Remove Nozzle Cap and Nozzle Wrench. Place the Nozzle Lock (Part 143137), lengthwise in the slot formed by the Nozzle Drive Lugs and the Barrel Bore. Drive the A-316 Nozzle Lock in place by striking the Nozzle Lock Installation Tool several times with a heavy brass hammer.



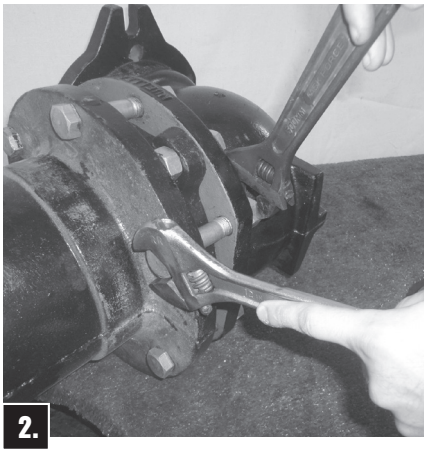
Replace and tighten Nozzle Cap.

⚠ CAUTION: Wear safety glasses when using a striking tool. The Nozzle Lock does not have to be completely seated into the slot, but it should be well engaged along the entire length of the Nozzle Drive Lug and Barrel Bore.

Changing the Shoe

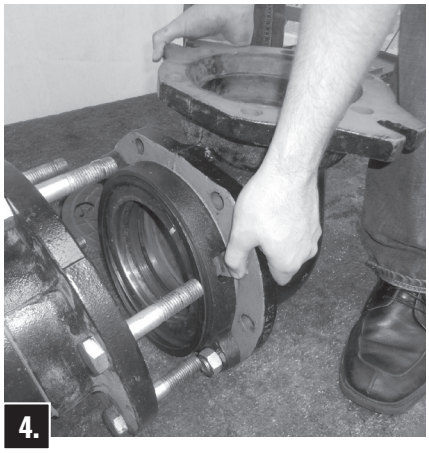
EQUIPMENT & TOOLS NEEDED – PPE: Hard hat, safety shoes, safety vest, safety glasses, work gloves.
Tools: Wrench, A-316 nozzle wrench.

Tighten Operating Nut to be sure Main Valve is in the fully closed position.

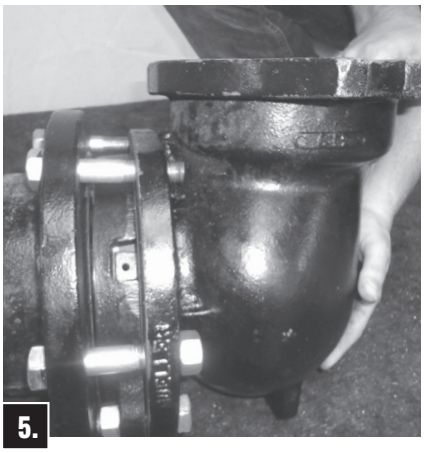


Remove all 6 Shoe Bolt Nuts.

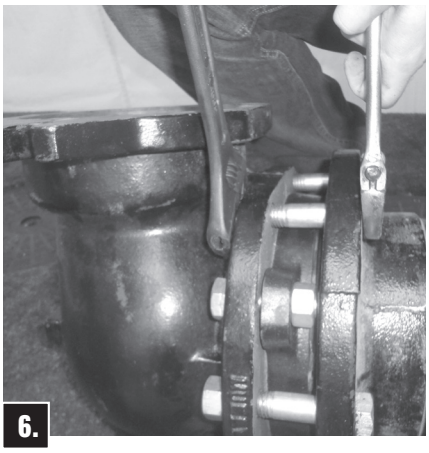
Slip off Hydrant Shoe.



Lubricate new Shoe and Bottom Seat Ring O-ring. Position Shoe to slip in place.



Slip new Shoe in place being careful not to damage Bottom Seat Ring O-ring.



Replace Shoe Bolts and Nuts and tighten to 100 ft-lbs.

Adding an Extension

⚠ WARNING: Before removing any bolt(s) holding the Hydrant together, shut off gate valve to isolate Hydrant from main water source. Loosen (do not remove) one nozzle cap two turns and check for water under pressure inside Hydrant – bleed off any pressure, then remove nozzle cap completely. Open Hydrant main valve completely. A continuous flow of water, no matter how slight, indicates Hydrant is not properly isolated from the main water supply, and that problem must be corrected before any Hydrant disassembly can proceed. Disassembly of Hydrant with pressurized water acting against the main valve could result in unexpected ejection of Hydrant parts, debris or high-pressure water stream, which could cause serious bodily injury.

EQUIPMENT & TOOLS NEEDED – PPE: Hard hat, safety shoes, safety vest, safety glasses, work gloves.
Tools: Wrench, A-311 operating wrench, pliers, A-367 Brass Sleeve, Hydrant Extension Kit.

1.

Remove Hold-Down Nut, Thrust Bearing and Operating Nut from Bonnet. Lubricate outside of A-367 Brass Sleeve and slide over threaded stem end to prevent O-ring damage. Unbolt Bonnet from Upper Barrel and remove. Remove Brass Sleeve.

2.

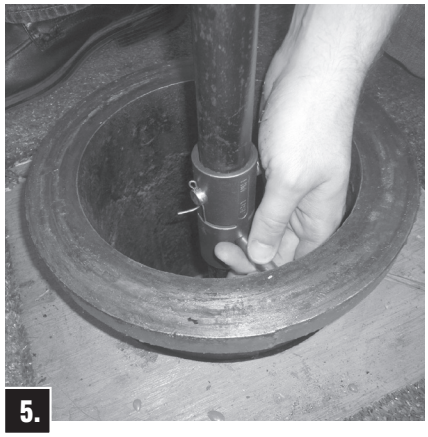
Unbolt Traffic Flange. Remove Upper Barrel. Remove Upper Stem and Traffic Stem Coupling by removing the lower stainless steel Cotter Pin and stainless steel Clevis Pin.

3.

Place Extension Stem and Extension Coupling on Lower Stem and retain it with stainless steel Clevis Pin and stainless steel Cotter Pin.

4.

Attach Extension Barrel to Lower Barrel with solid Extension Flange halves (without groove) and Bolts, being sure O-ring is in place.



5.

Assemble Upper Stem and Traffic Stem Coupling onto Extension Stem and retain it with stainless steel Clevis Pin and stainless steel Cotter Pin.

NOTE: Make sure Traffic Stem Coupling is installed with "This End Up" towards the Upper Stem.

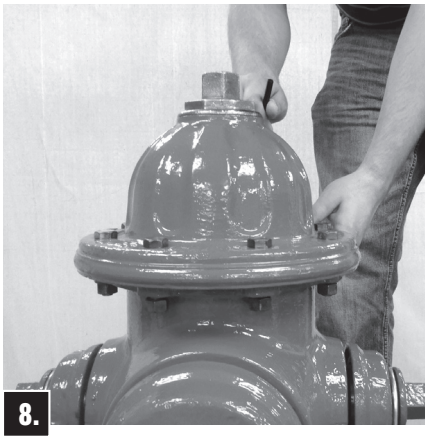
Adding an Extension

⚠ CAUTION: Always fill the oil reservoir with the Bonnet installed, the Hydrant in its normal upright position, and the main valve fully closed. If the Hydrant is filled with lubricant under any other circumstances, excess lubricate can overfill the Bonnet and create a pressure lock. This could result in damage to the seals or Bonnet or prevent proper Hydrant operation.

EQUIPMENT & TOOLS NEEDED – PPE: Hard hat, safety shoes, safety vest, safety glasses, work gloves.
Tools: Wrenches, A-311 operating wrench, A-367 Brass Sleeve, Hydrant Extension Kit.

6. Attach Upper Barrel with Traffic Flange Halves (with bevel on outer edge downward) and Bolts; being sure Traffic Flange O-ring* is in groove in Upper Barrel. Tighten Bolts to 60 ft-lbs.

7. Check Bonnet O-ring* for proper position and condition. Attach Brass Sleeve to Upper Stem and lubricate outside to protect O-ring Seals from thread damage. Place Bonnet onto Upper Barrel and assemble Bonnet Bolts only hand-tight. Remove Brass Sleeve. Reassemble Operating Nut, Thrust Bearing, and Hold-Down Nut (snug-tighten). Be sure O-ring Seals are in good condition at thread shoulder on outside of Hold-Down Nut and on inside where contact is made with Operating Nut.

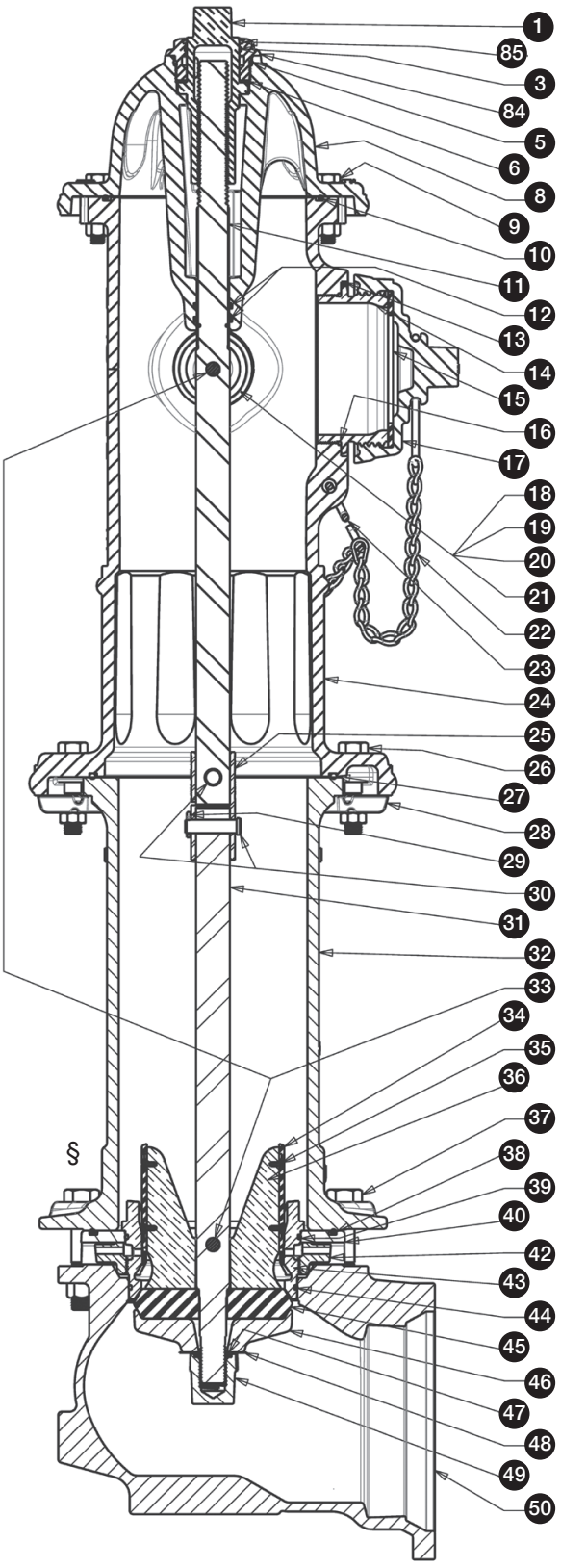


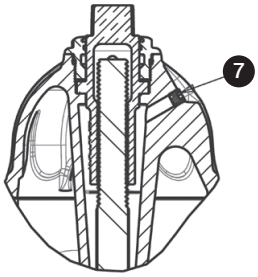
8. Remove Oil Filler Plug on side of Bonnet. Pour MUELLER Hydrant Lubricant into Oil Reservoir until it is level with Oil Filler Plug Hole. Replace Oil Filler Plug (see Lubrication section on page 3).

9. Torque Bonnet Bolts to 40-80 ft-lbs. Torque Hold-Down Nut to 200-300 ft-lbs. after Bonnet Bolts are tight. Open Gate Valve. Unscrew one Hose Nozzle Cap slightly to bleed air. Open Hydrant fully. Tighten Hose Nozzle Cap when water starts flowing and check all flange connections for leaks. Turn Operating Nut to fully closed position and remove Hose Nozzle Cap to allow Barrel to drain. Replace Hose Nozzle Cap.

10. Turn Operating Nut in closing direction to make sure Main Valve is closed tightly, then turn in opening direction approximately 1/4 turn to relieve tension on operating mechanism.

*To determine correct O-rings for Bonnet and Ground Line flanges, which are similar in appearance: smaller diameter O-ring is used at Bonnet flange; larger at Ground line flange.





A-1 Operating Nut
A-85 Weather Seal [1]
A-3 Hold-Down Nut O-ring [1]
A-84 Hold Down Nut
A-5 Bonnet O-ring [1]
A-6 Thrust Bearing
A-7 Oil Filler Plug
A-8 Bonnet
A-9 Bonnet Bolt & Nut
A-10 Bonnet Flange O-ring [1, 4]
A-11 Upper Stem
A-12 Stem O-ring [1]
A-13 Nozzle Locks (Pumper & Hose)
A-14 Pumper Nozzle
A-15 Pumper Nozzle Gasket
A-16 Pumper Nozzle O-ring
A-17 Pumper Nozzle Cap
A-18 Hose Nozzle
A-19 Hose Nozzle Gasket
A-20 Hose Nozzle O-ring
A-21 Hose Nozzle Cap
A-22 Cap Chain
A-23 Chain Ring
A-24 Upper Barrel
A-25 Traffic Stem Coupling [4]
A-26 Traffic Flange Bolt & Nut [4]
A-27 Traffic Flange O-ring [4]
A-28 Traffic Flange [4]
A-29 Cotter Pin [4]
A-30 Clevis Pin [4]
A-31 Lower Stem
A-32 Lower Barrel
A-33 Stem Pin
A-34 Drain Valve Facing [2]
A-35 Drain Valve Facing Screw [2]
A-36 Upper Valve Plate
A-37 Shoe Bolt & Nut [2]
A-38 Drain Ring Housing O-ring [2]
A-39 Top Seat Ring O-ring [2, 3]
A-40 Drain Ring Housing
A-42 Drain Ring
A-43 Seat Ring [3]
A-44 Bottom Seat Ring O-ring [2, 3]
A-45 Main Valve [2, 3]
A-46 Lower Valve Plate [2, 3]
A-47 Cap Nut Seal [2, 3]
A-48 Lock Washer [2]
A-49 Lower Valve Plate Nut
A-50 Shoe

1. Available as part of Bonnet Repair Kit
2. Available as part of Shoe Repair Kit
3. Available as part of Main Valve Repair Kit
4. Available as part of Traffic Flange Repair Kit

MUELLER® Super Centurion® 350 Fire Hydrant

Repainting the Hydrant

Preparation and Instructions

Coating Repair/Repainting

Since 2010, Mueller Co. has been coating shoes, lower and upper barrels, bonnets and hose cap castings (inside and outside) with PPG Amercoat® 370 epoxy primer and top coated exposed portions of the hydrant – including the exterior of the bonnet, upper barrel and hose caps – with Sherwin-Williams® Polane® SP Polyurethane Enamel. (Prior to 2010 alkyd enamel paint was used.)

While precautions are taken to protect hydrants during transit, top coat repair is sometimes necessary due to damage from transportation and handling. Hydrants may also require re-coating after extended periods of exposure to prevailing environmental conditions. Re-coating and touch-up require the same process.

The process to repair or re-coat a hydrant is similar to that used for most other painted products, requiring surface preparation, application of an appropriate primer and care in applying the top coat.

The following procedure is recommended to touch up/repair hydrants coated with Amercoat 370 fast dry epoxy coating to assure a good finish.

1. Thoroughly clean the hydrant. Wash off any dirt or lose debris.

2. Remove surface rust by wire brushing, sandblasting, etc.

3. Roughen shinny surfaces with light sanding (to improve paint adhesion).

4. Primer coat bare metal. Spot prime with one of these recommended spray primers:

- **Preferred** – PPG Amercoat® 370 (2-part epoxy) or Amercoat® One (single component epoxy). These expoxies can be ordered directly from PPG (see order form available on Mueller Co. website muellercompany.com).
- **Optional** – Rust-Oleum® brand Clean Metal Primer, Professional Primer, Rusty Metal Primer, or Rust Reformer Primer.
- **Optional** – Krylon® brand Rust Tough® Rust Preventative enamel.

5. Apply top coat at above 50° F.

- Sherwin-Williams® Polane® SP Polyurethane Enamel – 2-part enamel designed to be sprayed. Requires Personal Protective Equipment (PPE).
- Sherwin-Williams® KEM® 400 Acrylic Enamel – single component that can be brushed. Also available in spray cans, 3 oz. paint pens and 6 oz. brush in cap bottles. Can be ordered directly from Sherwin-Williams® (see order form available on Mueller website muellercompany.com).

Ordering Touch-up Kit

Download a Coating Touch-up Kit form from the Mueller Co. website at www.muellercomapny.com, click on Resources>Downloads>Fire Hydrant–Sec 9. Under “Coatings & Data Sheets” click on either:

- Primer Touch-up Kit Order Form
- Top Coat Touch-up Kit Order Form

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Form 12860 - Rev 06/17