

MUELLER®

Improved And Centurion® Fire Hydrants

Replacing Traffic Flange And Stem Coupling

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Reliable Connections®

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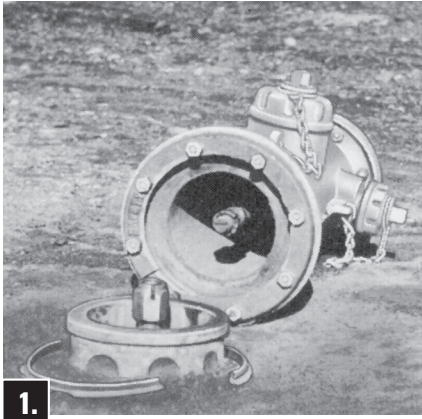
⚠ WARNING: Before working on, or disassembling the Hydrant (including removing any bolts(s) holding the Hydrant together), shut off gate valve to isolate Hydrant from main water source. Loosen (do not remove) one nozzle cap two turns and check for water under pressure inside Hydrant - bleed off any pressure, 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.

MUELLER® Improved Fire Hydrant

Replacing Traffic Flange and Brass Stem Coupling (All Models Prior to 1962)

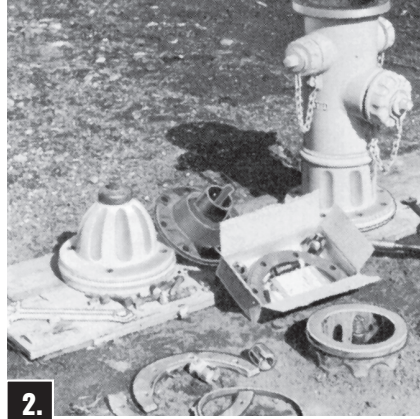
⚠ WARNING: Failure to shut off gate valve to isolate Hydrant from main water source can result in serious bodily injury. Follow instructions at the bottom of page 1 before attempting any repairs.

🔧 EQUIPMENT & TOOLS NEEDED – PPE: Hard hat, safety shoes, safety vest, safety glasses, work gloves.
Tools: Wrench, A-311 Operating Wrench, A-366 Brass Sleeve, MUELLER Hydrant Lubricant.



1.

MUELLER Improved Hydrant with Upper Barrel knocked over by truck. Note broken pieces of Traffic Flange lying on ground.



2.

Remove Bonnet Assembly, Stuffing Box, and Stem from Upper Barrel. Before removing Stem from Stuffing Box, lubricate Brass Sleeve and slide Sleeve over the threaded area of the Stem to prevent damage to the O-rings.



3.

Remove damaged Coupling and Sleeve. Screw new Stem Coupling onto Lower Stem down against shoulder. Slip Sleeve over lower end of Upper Stem.

NOTE: If Upper Stem of Hydrant is 1 1/4" In diameter, cut sleeve as Indicated by lettering on sleeve.

Screw Upper Stem into Stem Coupling until it contacts the Lower Stem.



4.

Turn Stem Coupling and Upper Stem so that slot in Stem Coupling aligns with the tongue and groove of Stems. Hold Upper Stem in alignment and screw Stem Coupling upward until tongue and groove of Stems firmly lock together. Tighten with wrench. With Stem Coupling in place, slide Sleeve downward so that lower end of Sleeve surrounds upper end of Stem Coupling. Be sure Sleeve projections fit into Stem Coupling slots. With Sleeve in place, tighten set screw in Sleeve.



5.

Place Flange Gasket on exposed Flange of Lower Barrel. Place Upper Barrel carefully in position on Lower Barrel. Be sure that it is concentric with Lower Barrel and the gasket is centered. Bolt the two halves of Traffic Flange into place with bevel on outer edge downward and with Traffic Flange snugly fitting around Lower Barrel.

MUELLER® Improved Fire Hydrant

Replacing Traffic Flange and Brass Stem Coupling (All Models Prior to 1962)



EQUIPMENT & TOOLS NEEDED – PPE: Hard hat, safety shoes, safety vest, safety glasses, work gloves.
Tools: Wrench, A-311 Operating Wrench, A-366 Brass Sleeve, MUELLER Hydrant Lubricant.



6.

Check Stuffing Box gasket. Lubricate Brass Sleeve. Slide Sleeve over threaded area of Stem to protect O rings from damage by threads. Place Stuffing Box plate in position and bolt to Barrel. Remove Brass Sleeve. Pour MUELLER Hydrant Lubricant into Oil Reservoir until $\frac{3}{4}$ " from top.



7.

Replace Bonnet. Turn Operating Nut in **closing direction** to engage stem. If Bonnet has filler plug, make sure that the filler plug hole is aligned with the offset portion of the Oil Reservoir. Bolt in place.

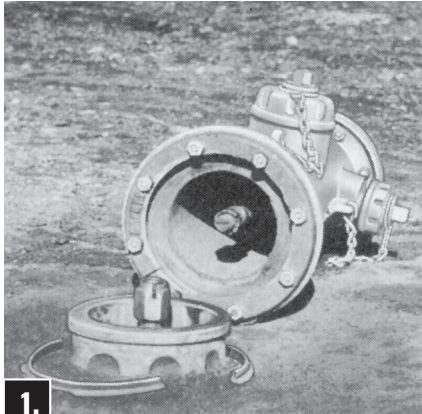
8. Turn Operating Nut in the **closing direction** to make sure Main Valve is closed, then in the **opening direction** approximately 1/4 turn to relieve tension on the operating mechanism.

MUELLER® Improved Fire Hydrant

Replacing Traffic Flange and Brass Stem Coupling (Sealed Oil Reservoir 1962 Style)

⚠ WARNING: Failure to shut off gate valve to isolate Hydrant from main water source can result in serious bodily injury. Follow instructions at the bottom of page 1 before attempting any repairs.

🔧 EQUIPMENT & TOOLS NEEDED – PPE: Hard hat, safety shoes, safety vest, safety glasses, work gloves.
Tools: Wrench, A-311 Operating Wrench, A-366 Brass Sleeve, MUELLER Hydrant Lubricant.



1. MUELLER Improved Hydrant with Upper Barrel knocked over by truck. Note broken pieces of Traffic Flange lying on ground.



2. Unbolt and remove broken Traffic Flange from Upper Barrel. Remove Weather Cap, Hold Down Nut, and Operating Nut from Bonnet. Lubricate Brass Sleeve and slide over threaded Stem end to prevent O-ring damage. Unbolt Bonnet from Upper Barrel. Slide Upper Stem out of Bonnet. Remove damaged Stem Coupling and Sleeve from Upper and Lower Stem.



3. Place new Stem Coupling sleeve part onto Upper Stem.
NOTE: If Upper Stem of Hydrant is 1 1/4" In diameter, cut sleeve as Indicated by lettering on sleeve. Screw new Stem Coupling part onto Lower Stem as far as threads permit. Screw Upper Stem into Stem Coupling until it contacts the Lower Stem.



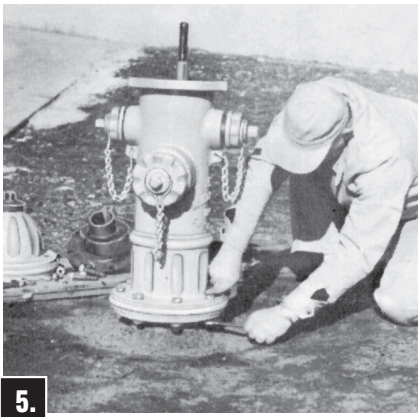
4. Turn Stem Coupling and Upper Stem so that slot in Thimble aligns with the tongue and groove of Stems. Hold Upper Stem in alignment and screw Stem Coupling upward until tongue and groove of Stems firmly lock together. Tighten with wrench. With Stem Coupling in place, slide Sleeve downward so that lower end of Sleeve surrounds upper end of Stem Coupling. Be sure Sleeve projections fit into Stem Coupling slots. With Sleeve in place, tighten set screw in Sleeve.

MUELLER® Improved Fire Hydrant

Replacing Traffic Flange and Brass Stem Coupling (Sealed Oil Reservoir 1962 Style)

⚠ 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-311 Operating Wrench, A-366 Brass Sleeve, MUELLER Hydrant Lubricant.



Place Flange gasket on exposed Flange of Lower Barrel. Place Upper Barrel carefully in position on Lower Barrel. Be sure that it is concentric with Lower Barrel and that gasket is centered. Bolt the two halves of Traffic Flange into place with bevel on outer edge downward and with Traffic Flange snugly fitting around Lower Barrel.



Check Bonnet Gasket. Attach the Brass Sleeve, if it had been removed, 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* and remove Oil Plug in side of Bonnet. Pour MUELLER Hydrant Lubricant into oil reservoir until it is level with Plug. Replace Oil Plug.

*Tighten hold down nut to 200-300 ft-lbs of torque. If torque wrench is not available, use a 3 lb hammer to strike the end of the A-311 wrench firmly two times to assure the nut is properly tightened.



Replace Hold Down Nut being sure O-ring seals are in good condition at thread shoulder on outside of Hold Down Nut and on the inside where contact is made with Operating Nut. Replace Weather Cap. Tighten Bonnet Bolts. Check gasket tightness by opening one hose cap slightly before opening hydrant to bleed air. Open Hydrant until Barrel fills with water, tighten hose cap, open hydrant fully. Check gaskets, and then turn Operating Nut to fully closed position.

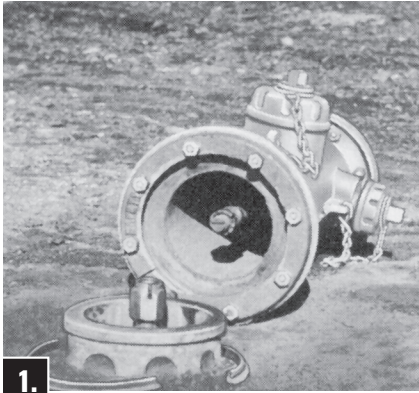
8. Turn Operating Nut in the **closing direction** to make sure Main Valve is closed, then in the **opening direction** approximately 1/4 turn to relieve tension on the operating mechanism.

MUELLER® Improved Fire Hydrant

Replacing Traffic Flange and Steel Stem Coupling (Sealed Oil Reservoir 1962 Style)

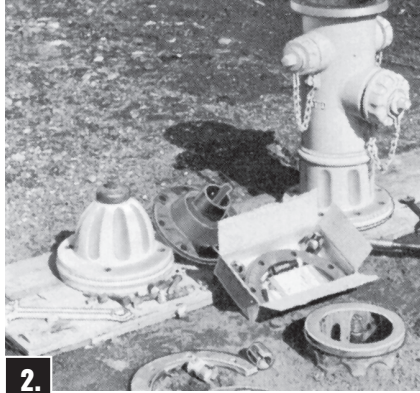
⚠ WARNING: Failure to shut off gate valve to isolate Hydrant from main water source can result in serious bodily injury. Follow instructions at the bottom of page 1 before attempting any repairs.

🔧 EQUIPMENT & TOOLS NEEDED – PPE: Hard hat, safety shoes, safety vest, safety glasses, work gloves.
Tools: Wrench, A-311 Operating Wrench, A-366 Brass Sleeve, MUELLER Hydrant Lubricant.



1.

MUELLER Improved Hydrant with Upper Barrel knocked over by truck. Note broken pieces of Traffic Flange lying on ground.



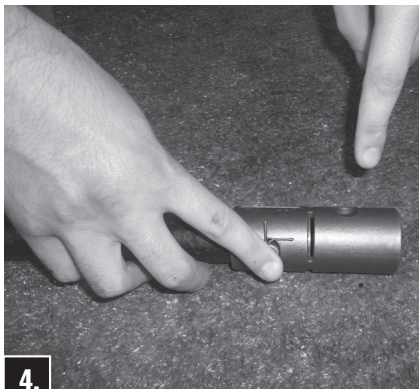
2.

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



3.

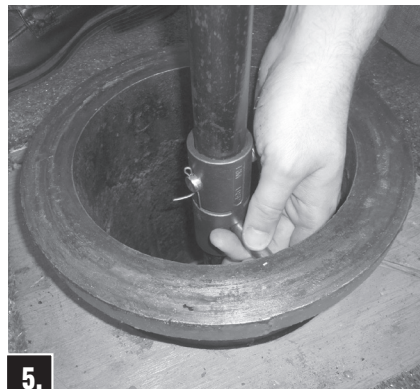
Remove stainless steel Cotter Pin from stainless steel Clevis Pin in Lower Stem (throw away the old Clevis Pin and Cotter Pin).



4.

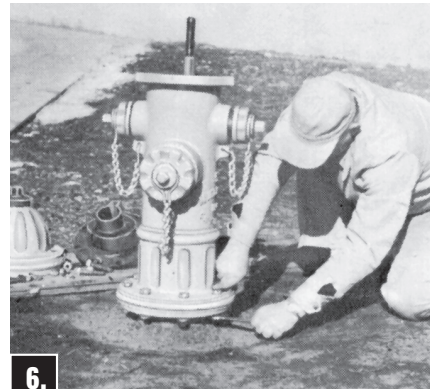
Assemble new Stem Coupling to Upper Stem with new stainless steel Clevis Pin and new stainless steel Cotter Pin.

NOTE: "This End Up" Stamped on Coupling.



5.

Assemble Upper Stem and new Stem Coupling on to Lower Stem and retain it with new stainless steel Clevis Pin and new stainless steel Cotter Pin furnished with Stem Coupling.



6.

Place Flange Gasket on exposed Flange of Lower Barrel. Place Upper Barrel carefully in position on Lower Barrel. Be sure that it is concentric with Lower Barrel and that Gasket is centered. Bolt the two halves of Traffic Flange into place with bevel on outer edge downward and with Traffic Flange snugly fitting around Lower Barrel.

MUELLER® Improved Fire Hydrant

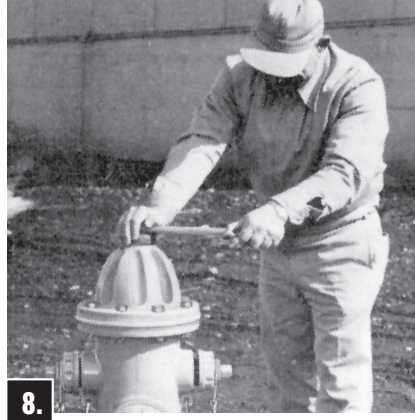
Replacing Traffic Flange and Steel Stem Coupling (Sealed Oil Reservoir 1962 Style)

⚠ 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 overflow 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-311 Operating Wrench, A-366 Brass Sleeve, MUELLER Hydrant Lubricant.



Check Bonnet Gasket. Attach the Brass Sleeve, if it had been removed, 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 and remove Oil Plug in side of Bonnet. Pour MUELLER Hydrant Lubricant into Oil Reservoir until it is level with Plug. Replace Oil Plug.



Replace Hold Down Nut* being 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. Replace Weather Cap. Tighten Bonnet Bolts. Check Gasket tightness by opening one hose cap slightly before opening Hydrant to bleed air. Open Hydrant until Barrel fills with water, tighten hose cap, open Hydrant fully. Check gaskets, and then turn Operating Nut to fully closed position.

*Tighten hold down nut to 200-300 ft-lbs of torque. If torque wrench is not available, use a 3 lb hammer to strike the end of the A-311 wrench firmly two times to assure the nut is properly tightened.

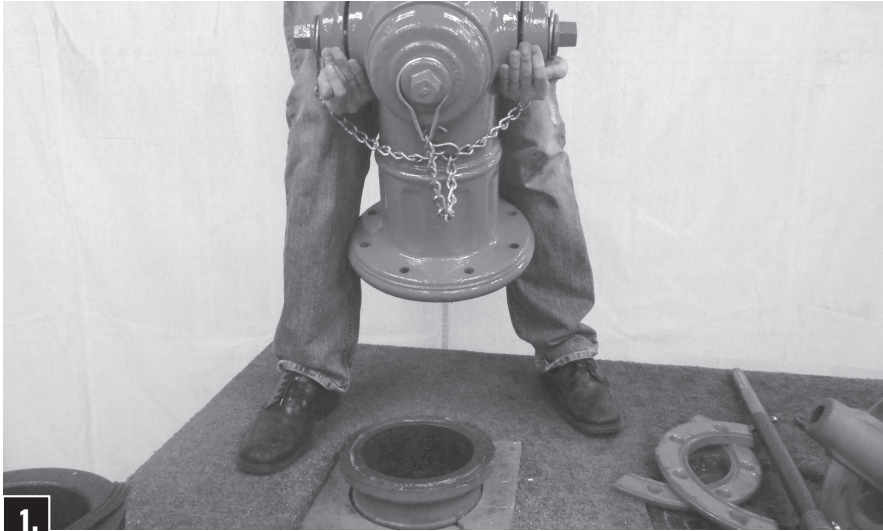
9. Turn Operating Nut in the **closing direction** to make sure Main Valve is closed, then in the **opening direction** approximately 1/4 turn to relieve tension on the operating mechanism.

MUELLER® Centurion® Fire Hydrant

Replacing Traffic Flange and Stem Coupling

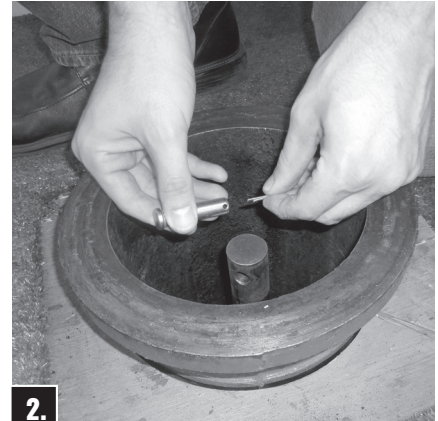
⚠ WARNING: Failure to shut off gate valve to isolate Hydrant from main water source can result in serious bodily injury. Follow instructions at the bottom of page 1 before attempting any repairs.

🔧 EQUIPMENT & TOOLS NEEDED – PPE: Hard hat, safety shoes, safety vest, safety glasses, work gloves.
Tools: Wrench, A-311 Operating Wrench, A-366 Brass Sleeve, MUELLER Hydrant Lubricant.



1.

Remove stainless steel Cotter Pin from stainless steel Clevis Pin. Remove Clevis Pin and Coupling from Upper Stem. Unbolt and remove broken Traffic Flange from Upper Barrel. Remove Hold-Down Nut, Anti-Friction Washer, and Operating Nut from Bonnet. Lubricate 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.

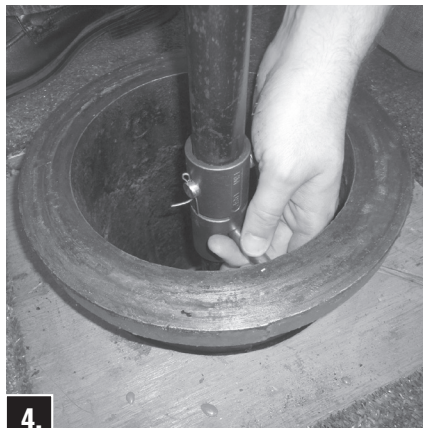
Remove stainless steel Cotter Pin from stainless steel Clevis Pin in Lower Stem (throw away the old Clevis Pin, Cotter Pin, and old coupling).



3.

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

NOTE: "This End Up" Molded on Coupling.



4.

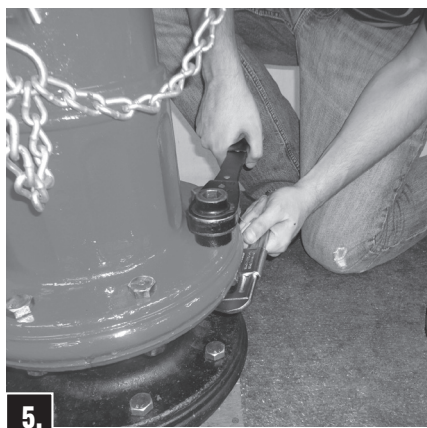
Assemble Upper Stem and new Stem Coupling onto Lower Stem and retain it with the new stainless steel Clevis Pin and new stainless steel Cotter Pin furnished with Stem Coupling.

MUELLER® Centurion® Fire Hydrant

Replacing Traffic Flange and Stem Coupling

⚠ 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 overflow the Bonnet and create a pressure lock. This could result in damage to the seals or Bonnet or prevent proper Hydrant operation.

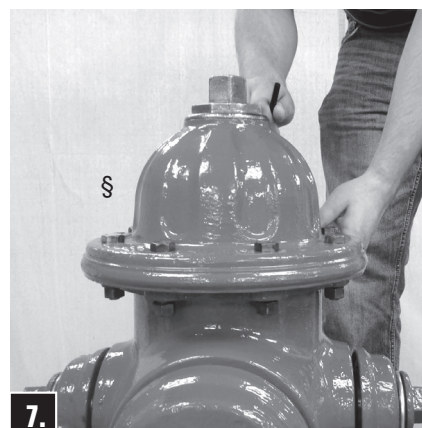
🔧 EQUIPMENT & TOOLS NEEDED – PPE: Hard hat, safety shoes, safety vest, safety glasses, work gloves.
Tools: Wrench, A-311 Operating Wrench, A-366 Brass Sleeve, MUELLER Hydrant Lubricant.



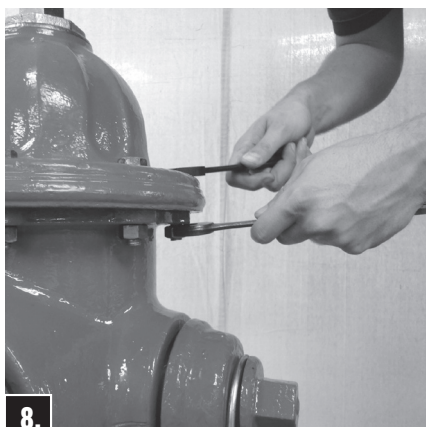
5. Attach Upper Barrel with new Traffic Flange Halves (with bevel on outer edge downward) and Bolts; being sure Traffic Flange O-ring* is in groove in Upper Barrel. Tighten Bolts to 60 ft-lbs.



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, Anti-Friction Washer, 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.

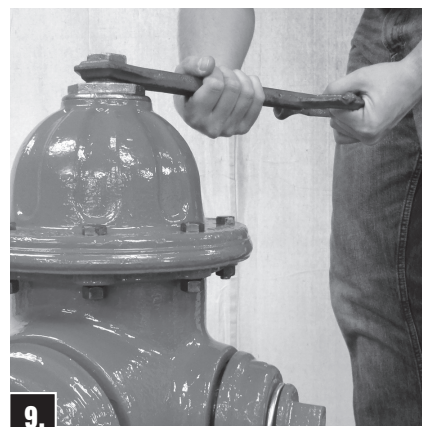


7. Remove Oil Filler Plug in side of Bonnet. Pour MUELLER Hydrant Lubricant into Oil Reservoir until it is level with Oil Filler Plug Hole. Replace Oil Filler Plug (see lubrication section on page 8 of the Mueller Centurion Manual).



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.

*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.



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.

MUELLER® Improved and Centurion® Fire Hydrant

Notes

MUELLER® Improved and Centurion® Fire Hydrant

Notes



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