

# Model A-522A-C2

## 4" Ball Valve



### Features and Benefits

- Lower and more consistent torque requirements across all temperatures
- Single packing nut for easy packing adjustment
- Easy to repair due to minimal number of parts
- Flat-stem design for easy indication of valve positioning
- Bolts mounting the valve to the tank car are on the bottom of the valve as opposed to top therefore not exposed to the commodity for easy maintenance
- Direct replacement to original A-522

### Technical Specifications

- Full 4" Dia. port opening
- Flow Coefficient (Cv): 2500 (Est.)
- Max Pressure: 300 PSIG @ 100°F
- Max Temperature: 400°F
- Operating Torque: 50~150 ft-lb
- Handle Rotation: Counterclockwise to CLOSE VALVE. For Clockwise rotation to close, remove Locknut (Item #13), remove and turn over Stop Plate (Item #8), reinstall Locknut and tighten to 150 ft-lb.
- Mounting: Mounts to Universal Saddle with 8.485" OD x 7.500" ID x 0.350" High Tongue and (8) 3/4-10 UNC tapped holes on a 10.63 BCD
- Recommended Gasket Size: 8.50" OD x 7.50" ID x 0.12" Thick
- Same AAR Approval No. as the A-522

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## 4" Ball Valve

Item	Qty	Part Name	A-522A-C2-CS		A-522A-C2-MO		A-522A-C2-MO-PRA-PA	
			Part No.	Material	Part No.	Material	Part No.	Material
1	1	Cap	520-113-CS	Steel	520-113-MO	Stainless Steel	520-113-MO-PRA-PA	Stainless Steel
2	1	Stem	520-2-SS	Stainless Steel	520-2-SS	Stainless Steel	520-2-SS-PRA-PA	Stainless Steel
3	1	Ball	520-30-MO	Stainless Steel	520-30-MO	Stainless Steel	520-30-MO-PRA-PA	Stainless Steel
4	1	Body	522-45-CS	Steel	522-45-MO	Stainless Steel	522-45-MO-PRA-PA	Stainless Steel
5	1	Packing	520-5-01-TF	Virgin Teflon	520-5-01-TF	Virgin Teflon	520-5-01-TF	Virgin Teflon
6	1	Spacer	520-6-SS	Stainless Steel	520-6-SS	Stainless Steel	520-6-SS	Stainless Steel
7	1	Pin	520-7-CS	Steel	520-7-CS	Steel	520-7-CS	Steel
8	1	Stop Plate	520-8-CS	Steel Plated	520-8-CS	Steel Plated	520-8-CS	Steel Plated
9	8	Cap Screw, Hex-Soc, 5/8"-11UNC-2A x 1" LG	520-9-CS	Steel	520-9-CS	Steel	520-9-CS	Steel
10	1	Seal, Ball	520-10-03A-TF	Teflon	522-10-03A-TF	Teflon	522-10-03A-TF	Teflon
11	1	Seal, Valve Body	520-11-01-TF	Virgin Teflon	520-11-01-TF	Virgin Teflon	520-11-01-TF	Virgin Teflon
12	1	Washer, Thrust	520-12-01-TF	Virgin Teflon	520-12-01-TF	Virgin Teflon	520-12-01-TF	Virgin Teflon
13	1	Locknut, Hex, Thin, 1-1/8"-12UNF, Nylon Insert	520-13-CS	Steel Plated	520-13-CS	Steel Plated	520-13-CS	Steel Plated
14	1	Nameplate	520-14-SS	Stainless Steel	520-14-SS	Stainless Steel	520-14-SS	Stainless Steel
15	1	Seal, Ball	522-10-03-TF	Teflon	522-10-03-TF	Teflon	522-10-03-TF	Teflon

**NOTES:**

1. Stop Pin (7) installation into Body (4) is an interference fit. The Stop Pin must extend 0.50" after being pressed into the Body.
2. Body Seal (11) must be press-fit into Body (4) before Cap (1) is installed.
3. After assembly the Body (4) and Cap (1) must contact. No gap greater than .002" is allowed. See note #8.
4. Stem Packing (5) to be installed with chevrons oriented per Detail "B".
5. Torque Packing Nut to 150 ft-lbs initially.
6. After assembly of valve there must be a 1/8" min. and 1/4 max. gap between the Body (4) and the Valve Stem Stop (8).
7. Apply small amount of dow corning 111 lubricant on 45° taper of Ball Seals (10) and (15) prior to assembly.
8. Torque Socket Head Cap screws into 130 ft-lbs, if the requirement of Note 3 is not met, increase torque to 40 ft-lbs increments until the requirement is met. Do not exceed 250 ft-lbs.
9. Valve is assembled for counter clockwise shaft rotation to close.
10. For clockwise shaft rotation to close, close valve, remove Item #13, remove, turn over and reinstall Item #8, and reinstall and tighten item #13 per note #5.

