

# Model A-522-C2-CS-SJ and A-522-C2-MO-SJ

## 4" Ball Valve



A-522-C2-CS-SJ  
A-522-C2-MO-SJ

### Features and Benefits

- Lower and more consistent torque requirements
- 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

### Technical Specifications

- Available with and without a steam jacket
- Full 4" Dia. port opening
- Flow Coefficient (Cv): 2500 (Est.)
- Max Pressure: 300 PSIG @ 100°F
- Max Temperature: 400°F
- Operating Torque: 70~160 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
- AAR Approval No. E122005

### Notes

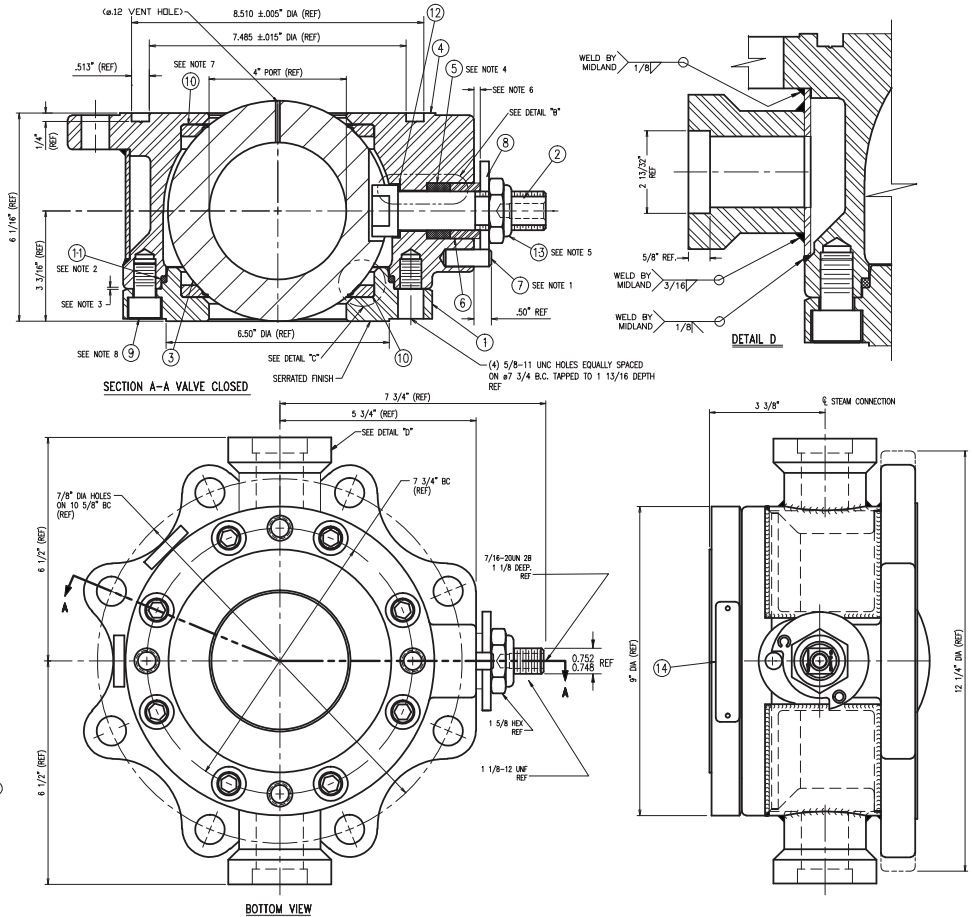
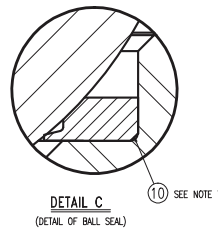
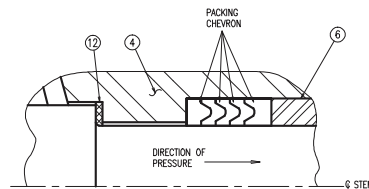
- For more information refer to the "Series A-520 and A-522 Installation, Operation, Inspection, and Maintenance (IOM) Manual" Midland doc. No. "INST A520/522"

# Model A-522-C2-CS-SJ and A-522-C2-MO-SJ

## 4" Ball Valve

Item	Qty	Part Name	A-522-C2-CS-SJ		A-522-C2-MO-SJ	
			Part No.	Material	Part No.	Material
1	1	Cap	520-112-CS	Steel	520-112-MO	Stainless Steel
2	1	Stem	520-2-SS	Stainless Steel	520-2-SS	Stainless Steel
3	1	Ball	520-30-MO	Stainless Steel	520-30-MO	Stainless Steel
4	1	Body and Steam Jacket Assembly	522-43-CS	Steel	522-43-MO	Stainless Steel
5	1	Packing	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
7	1	Pin	520-7-CS	Steel	520-7-CS	Steel
8	1	Stop Plate	520-8-CS	Steel Plated	520-8-CS	Steel Plated
9	8	Capscrew, Hex-Soc, 5/8"-11UNC-2A X 1" Lg	520-9-CS	Steel	520-9-CS	Steel
10	2	Seal, Ball	See Line Chart	See Line Chart	See Line Chart	See Line Chart
11	1	Seal, Valve Body	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
13	1	Locknut, Hex, Thin, 1 1/8"-12UNF, Nylon Insert	520-13-CS	Steel Plated	520-13-CS	Steel Plated
14	1	Nameplate	522-14-95-SS	Stainless Steel	522-14-85-SS	Stainless Steel

Valve Model Number	Seal, Ball	
	Part No	Material
A-522-C2-CS-SJ	520-10-01-TF	Virgin Teflon
A-522-C2-MO-SJ	520-10-01-TF	Virgin Teflon
A-522-C2-CS-SJ-ST	520-10-04-TF	316 SS Filled Teflon
A-522-C2-MO-SJ-ST	520-10-04-ST	316 SS Filled Teflon



**NOTES:**

- STOP PIN ⑦ INSTALLATION INTO BODY ④ IS AN INTERFERENCE FIT. THE STOP PIN MUST EXTEND 0.50" AFTER BEING PRESSED INTO BODY.
- BODY SEAL ⑩ MUST BE PRESS-FIT INTO BODY ④ BEFORE CAP ① IS INSTALLED.
- AFTER ASSEMBLY THE BODY ④ AND CAP ① MUST MAKE INTIMATE CONTACT. NO GAP IS ALLOWED.
- STEM PACKING ⑤ TO BE INSTALLED WITH CHEVRONS ORIENTED PER DETAIL "B".
- TORQUE PACKING NUT TO 150 FT-LBS INITIALLY.
- 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.
- APPLY SMALL AMOUNT OF DOW CORNING 111 LUBRICANT ON 45° TAPER OF BALL SEALS ⑩ PRIOR TO ASSEMBLY.
- TORQUE SOCKET HEAD CAP SCREWS TO 130 FT-LB, IF THE REQUIREMENT OF NOTE 3 IS NOT MET, INCREASE TORQUE IN 40 FT-LB INCREMENTS UNTIL THE REQUIREMENT IS MET. DO NOT EXCEED 250 FT-LB.
- VALVE IS ASSEMBLED FOR COUNTER CLOCKWISE SHAFT ROTATION TO CLOSE.
- 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.