

APPLICATION FOR APPROVAL OF VALVES, CLOSURES AND FITTINGS

Applicant Midland Manufacturing Corp AAR No. E282104
 Description of Device 2" Top Transfer Angle Valve for use as Vapor and Liquid Valves

Applicant No. _____ Device Ident. No. A-721 Series Date 3/15/2018

1. Manufacturer Midland Manufacturing Corp
 2. Address 7733 Gross Point Rd City Skokie State IL Zip 60077
 3. Test facility if other than the manufacturer Gaynes Lab Inc Address Bridgeview IL
 4. Test date 9/17-12/17 4. Observer See Supplemental

Title: _____

TEST PROCEDURE:

5. Description of prototype testing: See supplemental Information

6. Cycles	Min. Temp.	@ Pressure	Cycles	Max. Temp.	@ Pressure	Test Medium	Remarks
See Supplemental	____ °F ____ °C	____ psi ____ kPa	____	____ °F ____ °C	____ psi ____ kPa	____	____
Cycles	____ °F ____ °C	____ psi ____ kPa	____	____ °F ____ °C	____ psi ____ kPa	____	____
Cycles	____ °F ____ °C	____ psi ____ kPa	____	____ °F ____ °C	____ psi ____ kPa	____	____

7. Commodity: Regulated Commodity Non Regulated Commodity Specific Commodity VCM/AA/Mercaptan
 8. Flow rate (if applicable) _____ gpm (_____ L/min)

Applicable drawings	Material	Drawing Number latest revision	Precedent	
			Drawing Number	Application/Certificate
9. Device application				
10. Device assembly	Ductile Iron	A-721 REV M		
11. Device details	See Supplemental			


12. Quality Control Statement MIDLAND IS CERTIFIED TO AAR M-1003 C4 AND C5 AND ISO 9001

REVISIONS:


CERTIFICATION: The above data is correct and conforms with AAR Specifications for Tank Cars, Appendix A. The devices tested conform with drawings listed above.

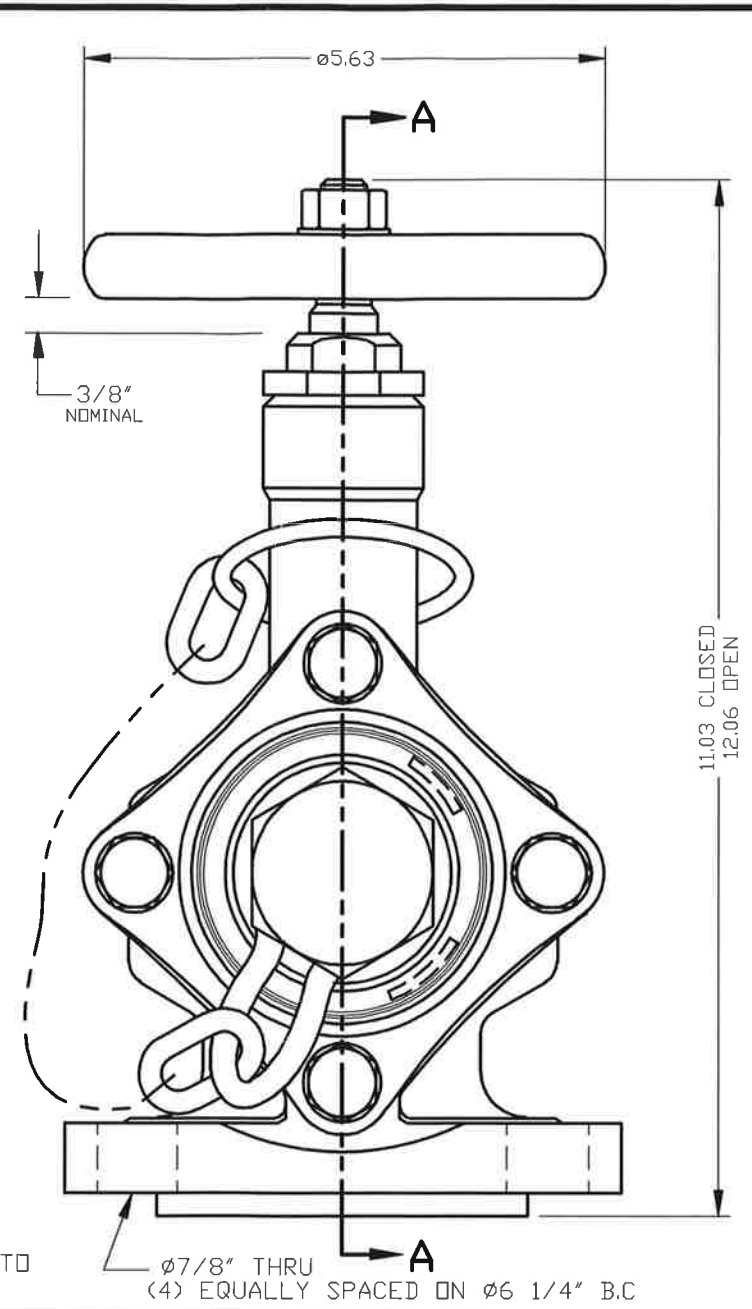
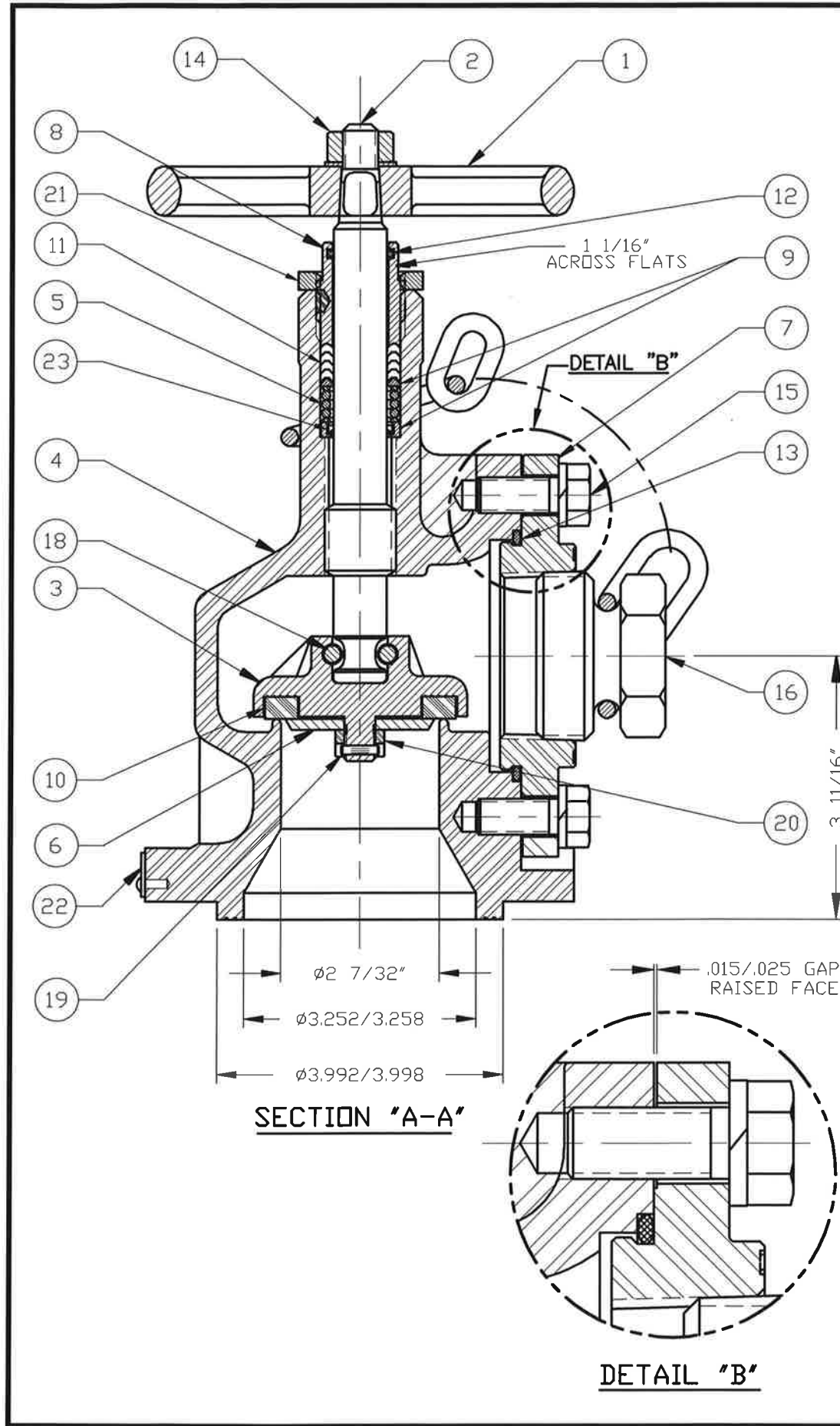
By Khiem Q Hoang Title Engineering Manager

APPROVAL AAR Tank Car Committee Service Trial Required

Date Approved for Service Trial 5/31/2018
 Service Trial Number ST-473

 (Signature) on behalf of Tank Car Committee

APPROVAL AAR Tank Car Committee Service Completed / Not Required

Date Service Trial Completed 12/12/2023
 Date Approved 3/29/2024
 Expiration Date 5/31/2028

 (Signature) on behalf of Tank Car Committee



ITEM	QTY.	DESCRIPTION	A-721	
			MATERIAL	PART No.
1	1	HANDWHEEL	ALUMINUM (1)	720-1-AL
2	1	STEM	STAINLESS	720-2A-SS
3	1	GASKET RETAINER	STEEL	720-3-CS (2)
4	1	BODY	DUCTILE IRON	721-4-DI
5	1	SPRING, COIL	STAINLESS	720-5-SS
6	1	RETAINER COVER	STEEL	720-6-CS (2)
7	1	OUTLET FLANGE	STEEL	720-71-CS
8	1	PACKING SCREW W/INSERT	STEEL	720-8-CS
9A	1	PACKING WASHER TOP	STAINLESS	720-93-SS
9B	1	SPACER	STAINLESS	720-95-SS
10	1	SEAT SEAL	TEFLON	720-10-TF (2)
11	4	PACKING	TEFLON	720-11-TF
12	1	STEM SEAL	BUNA-N (1)	720-12-BN
13	1	"O" RING OUTLET	BUNA-N (1)	720-131-BN
14A	1	HANDWHEEL NUT	STAINLESS	10-15-SS
14B	1	WASHER	STEEL	308-12-CS
15A	4	BOLT	STAINLESS	724-15-SS
15B	4	LOCK WASHER	STAINLESS	724-152-SS
16	1	OUTLET PLUG & CHAIN (1)	STEEL, PLATED	720-16-CS
18A	1	STEM RETAINER	STAINLESS	720-18-SS
18B	2	NUT	STAINLESS	720-181-SS
19	1	PIN	STAINLESS	720-19-SS (2)
20	1	RETAINER NUT	STEEL	720-20-CS (2)
21	1	PACKING LOCK NUT	STEEL	720-21-CS-G
22	1	NAMEPLATE	STAINLESS	721-22-SS
23	1	WIPER	PEEK	713-33-PK

NOTES:

- ALTERNATE MATERIAL AVAILABLE.
- FOR RETAINER ASSEMBLY CONSISTING OF ITEMS 3, 6, 10, 19 & 20, ORDER PART NO. 720-301-CS.

LTR	REVISIONS	DRN	DATE	APP
M	ADDED "COIL" TO DESCRIPTION OF SPRING (ITEM 5)	FS	3/15/18	KQH
L	REMOVED (1) ALTERNATE MATERIAL AVAILABLE NOTE FROM 713-33-PK (ITEM 23) REMOVED BLANK SPACE IN TABLE FOR ITEM 17	FS	1/22/18	KQH
K	720-95-SS WAS 720-91-SS, ADDED 713-33-PK, QTY.4 WAS 5 FOR 720-11-TF 720-21-CS-G WAS 720-21-CS	FS	11/15/17	KQH
J	720-2A-SS WAS 720-2-SS, REMOVED AAR E-002013, CAD FILE NO. WAS 2954	FS	5/10/17	KQH
H	10-15-SS WAS 720-14-SS, ADDED NOTE 2	FS	11/30/06	CHP
G	720-14-SS WAS 720-13-CS	KM	5/3/04	CHP
F	REMOVED ITEM 17, "OUTLET PLUG & CHAIN" ON ITEM 16 WAS "OUTLET PLUG". 720-16-CS WAS 201-MI. ITEM 11 QTY WAS 4.	KM	1/5/04	RG
E	ADDED AAR APPROVAL NUMBER	RG	11/11/03	RHD
D	720-131-BN WAS 720-13-BN	KM	7/17/03	RG

MIDLAND MANUFACTURING CORP.
SKOKIE, IL, U.S.A.

2" ANGLE VALVE

MATERIAL: SEE TABLE

TOLERANCES UNLESS SPECIFIED:
2 PLACE DECIMAL ± .015
3 PLACE DECIMAL ± .005
ANGULAR ± 1°, FRACTIONS ± 1/64
CHAMFERS AND WELD PREP ± 5°

REMOVE ALL BURRS.
BREAK ALL EDGES & CORNERS.

FINISH (Ra) : √ =

SCALE: 1/2 DRAWN: KM DATE: 12/22/98 APPROVED: RHD

CAD FILE NO. SIZE DWG NO. REV

A-721 B A-721 M