

APPLICATION FOR APPROVAL OF VALVES, CLOSURES AND FITTINGS

Applicant Midland Manufacturing Corp AAR No. E 18 2103
 Description of Device 2" Top Transfer Angle Valve for use as Vapor and Liquid Valves

Applicant No. _____ Device Ident. No. A-721-B 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/LPG
 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-B REV N		
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

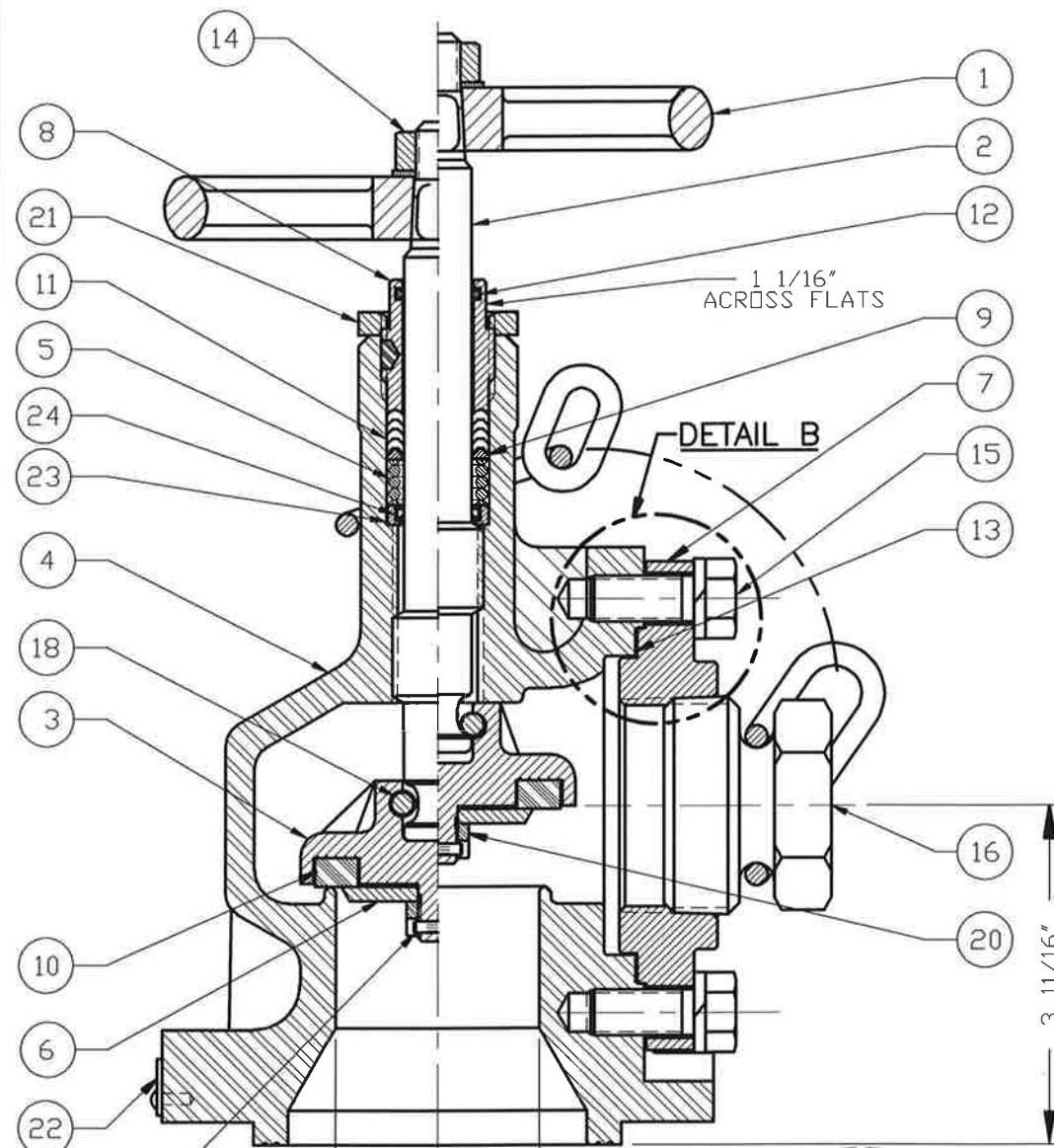
Date Approved for Service Trial 5/31/2018
 Service Trial Number ST-472

Kenneth B Dorsey
 (Signature) on behalf of Tank Car Committee

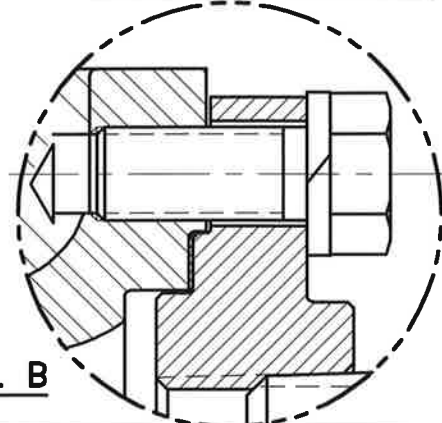
APPROVAL AAR Tank Car Committee Service Completed / Not Required

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

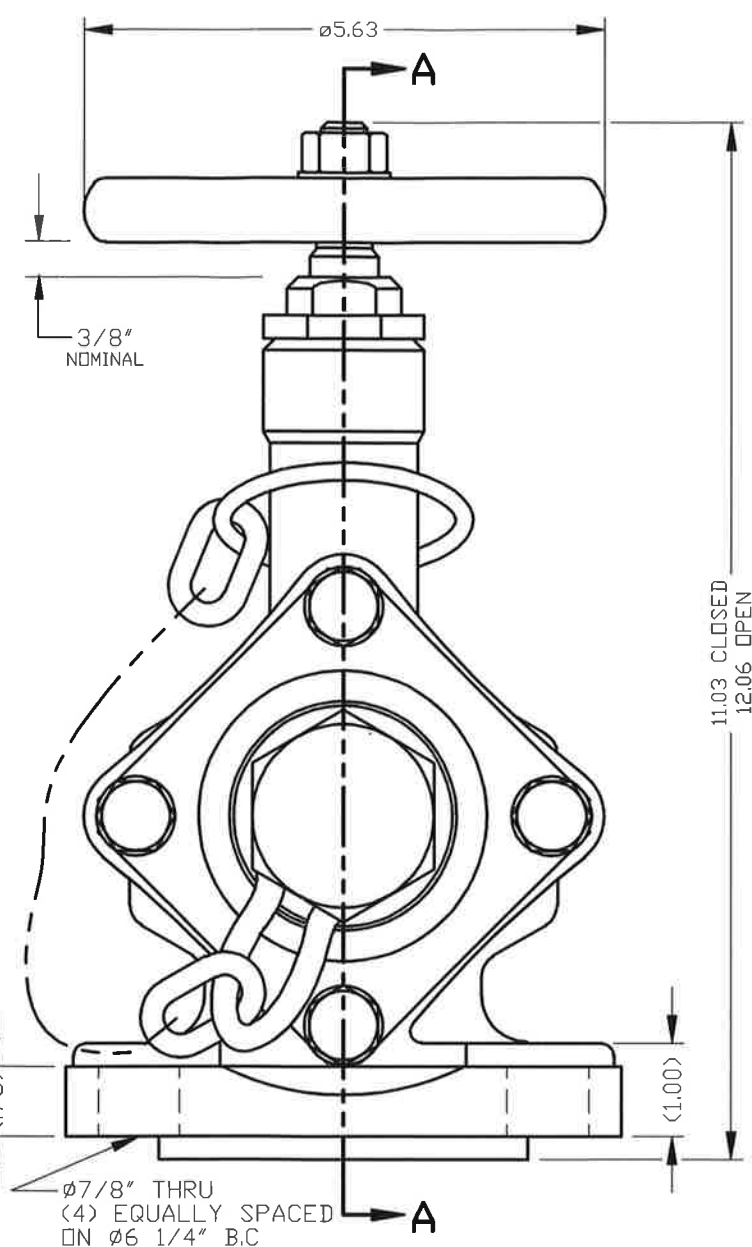
Kenneth B Dorsey
 (Signature) on behalf of Tank Car Committee



SECTION "A-A"



DETAIL B



ITEM	QTY.	DESCRIPTION	A-721-B	
			MATERIAL	PART No.
1	1	HANDWHEEL	ALUMINUM (1)	720-1-AL (2)
2	1	STEM	STAINLESS	720-2A-SS
3	1	GASKET RETAINER	STEEL	720-3-CS (3)
4	1	BODY	DUCTILE IRON	721-42B-DI
5	1	SPRING, COIL	STAINLESS	720-5-SS
6	1	RETAINER COVER	STEEL	720-6-CS (3)
7	1	OUTLET FLANGE	STEEL	721-71-CS
8	1	PACKING SCREW W/INSERT	STEEL	720-8-CS
9	1	PACKING WASHER TOP	STAINLESS	720-93-SS
10	1	SEAT SEAL	TEFLON	720-10-TF (3)
11	4	PACKING	TEFLON	720-11-TF
12	1	STEM SEAL	BUNA N	720-12-BN
13	1	FLANGE GASKET	GYLON 3510	721-13-GY
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 (3)
20	1	RETAINER NUT	STEEL	720-20-CS (3)
21	1	PACKING LOCK NUT	STEEL	720-21-CS-G
22	1	NAME PLATE	STAINLESS	721-22B-SS
23	1	SPACER	STAINLESS	720-95-SS
24	1	WIPER	PEEK	713-33-PK

NOTES:

1. ALTERNATE MATERIAL AVAILABLE
2. FOR OPTIONAL $\phi 7 \frac{1}{2}$ HANDWHEEL, ORDER PART NO. 720-101-AL.
3. FOR RETAINER ASSEMBLY CONSISTING OF ITEMS 3, 6, 10, 19 & 20, ORDER PART NO. 720-301-CS.

LTR	REVISIONS	DRN	DATE	APP
N	ADDED "COIL" TO DESCRIPTION OF SPRING (ITEM 5)	FS	3/15/18	KQH
M	720-5-SS & 720-95-SS WERE 713-17-IN & 720-96-SS, QTY.4 WAS 5 FOR 720-11-TF REMOVED (1) ALTERNATE MATERIAL AVAILABLE NOTE FROM 713-33-PK (ITEM 24) REMOVED BLANK SPACE IN TABLE FOR ITEM 17	FS	1/22/18	KQH
L	721-42B-DI WAS 721-42-DI	FS	11/17/17	KQH

K	720-21-CS-G & 720-96-SS WERE 720-21-CS & 720-94-SS, ADDED 713-33-PK	FS	11/16/17	KQH
J	720-2A-SS WAS 720-2-SS, REMOVED AAR E132006, CAD FILE NO. WAS 5737	FS	5/10/17	KQH
H	E132006 WAS E032001	CHP	12/3/13	HLJR
G	REMOVED NOTE (1) CALL-OUT FROM ITEM 12	FS	4/8/11	MN
F	10-15-SS WAS 720-14-SS	FS	11/30/06	CHP
E	NOTE 1 WAS *, ADDED NOTES 2 & 3	FS	11/8/06	CHP
D	720-14-SS WAS 720-14-CS	KM	3/3/05	RHD
C	713-17-IN WAS 713-17-SS; REMOVED ITEM 17, "OUTLET PLUG & CHAIN" IN ITEM 16 WAS "OUTLET PLUG". 720-16-CS WAS 201-MI. ITEM 11 QTY WAS 4.	KM	1/5/04	RG
B	ADDED DETAIL B	RG	11/11/03	RHD
A	ADDED "AAR APPROVAL E-032001"	RG	10/30/03	RG
LTR	REVISIONS	DRN	DATE	APP

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

2" ANGLE VALVE

MATERIAL: SEE TABLE

TOLERANCES UNLESS SPECIFIED:
2 PLACE DECIMAL $\pm .015$
3 PLACE DECIMAL $\pm .005$
ANGULAR $\pm 1'$, FRACTIONS $\pm 1/64$
CHAMFERS AND WELD PREP $\pm 5'$

REMOVE ALL BURRS.
BREAK ALL EDGES & CORNERS.

FINISH (Ra) : $\sqrt{\quad} =$

SCALE: 1/2 DRAWN: RG DATE: 10/8/03 APPROVED: RHD

CAD FILE NO. A-721-B SIZE B DWG NO. A-721-B REV N