

**AAR Manual of Standards and Recommended Practices**  
**Specifications for Tank Cars**

CHAPTER 1

M-1002

**APPLICATION FOR RENEWAL OF APPROVAL FOR PRESSURE RELIEF  
DEVICES, VALVES, CLOSURES, AND FITTINGS**

1. AAR APPROVAL No. E252115  
2. Date of Application 10-31-25  
3. Previous AAR Approval E152113  
4. Applicant: Aalberts Integrated Piping Systems Americas, Inc. - DBA Conbraco Inc.  
5. Address: PO BOX 125 PAGELAND, SC 29728  
6. Drawing No. 87A/88A-380 7. Latest rev. A 8. Date of latest rev. 01-11-16  
9. Description of device: 1", 2", & 3" TWO PIECE FLANGED X NPT 10. Device ID No. 87A/88A-380 SERIES

**CERTIFICATION:** The subject device is **unchanged** from the previous approval, and conforms with the latest revision of AAR Specifications for Tank Cars, Appendix A. The device conforms with drawing listed above.

11. By: Aiden Broadway Title: Product Support Engineer

If device is **changed** since latest approval, fill in the following blanks

| 12. Reference Previous Drawing |            |            | New Drawing |            |            | If on Service Trial |  |  |
|--------------------------------|------------|------------|-------------|------------|------------|---------------------|--|--|
| No. _____                      | Rev. _____ | Date _____ | No. _____   | Rev. _____ | Date _____ | S.T. No. _____      |  |  |
| No. _____                      | Rev. _____ | Date _____ | No. _____   | Rev. _____ | Date _____ | S.T. No. _____      |  |  |
| No. _____                      | Rev. _____ | Date _____ | No. _____   | Rev. _____ | Date _____ | S.T. No. _____      |  |  |

13. New drawing supersedes previous one ☐ or does not obsolete it ☐

CHANGES

REASONS FOR CHANGES

|              |          |
|--------------|----------|
| 14. a. _____ | a. _____ |
| b. _____     | b. _____ |
| c. _____     | c. _____ |
| d. _____     | d. _____ |

(if needed use supplemental sheet)

15. Normal operational effect of changes of device: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

16. Drawing submitted with this application: \_\_\_\_\_

**CERTIFICATION:** The above data is correct and conforms with AAR Specifications for Tank Cars, Appendix A. The device conforms with drawing listed above.

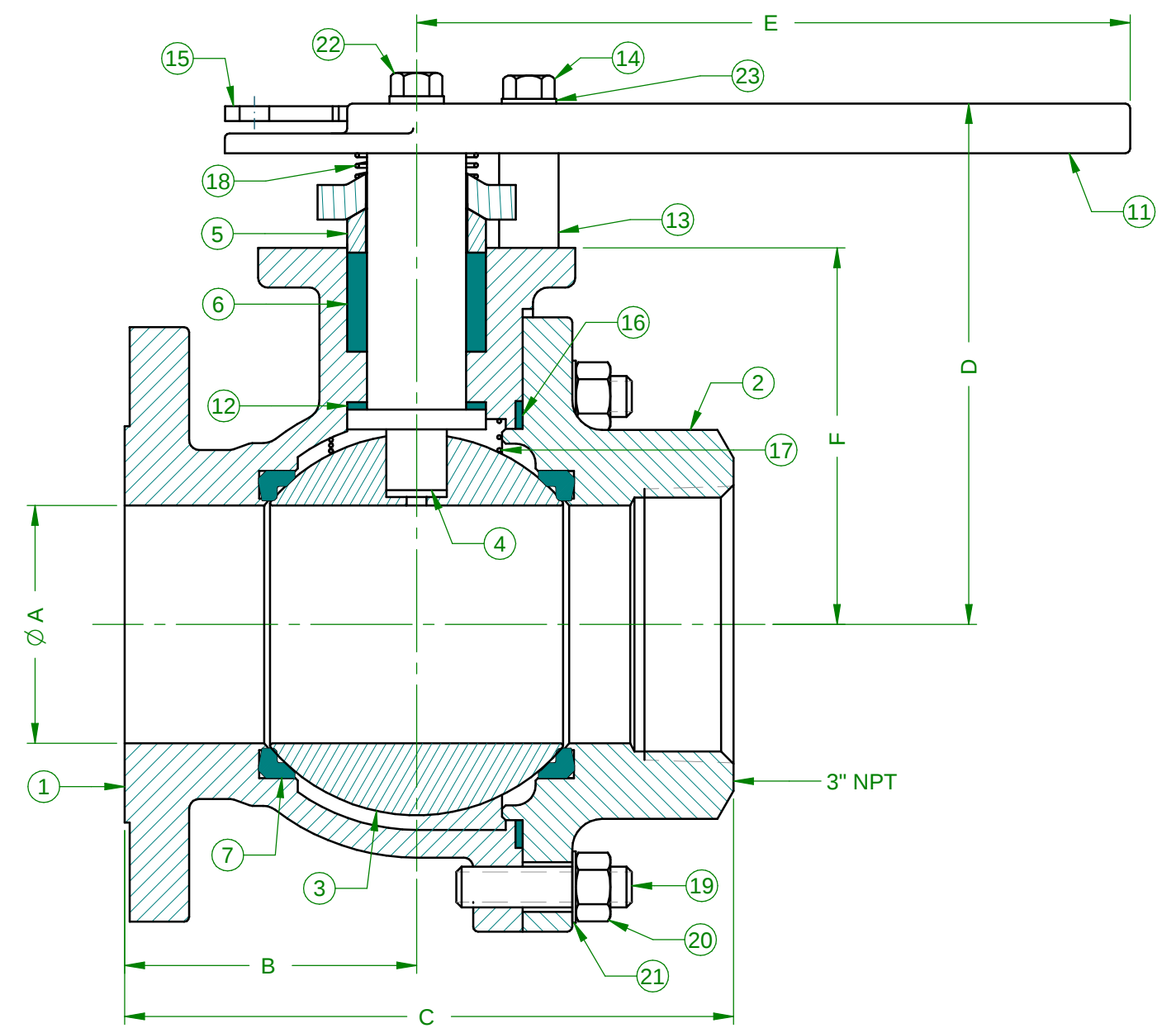
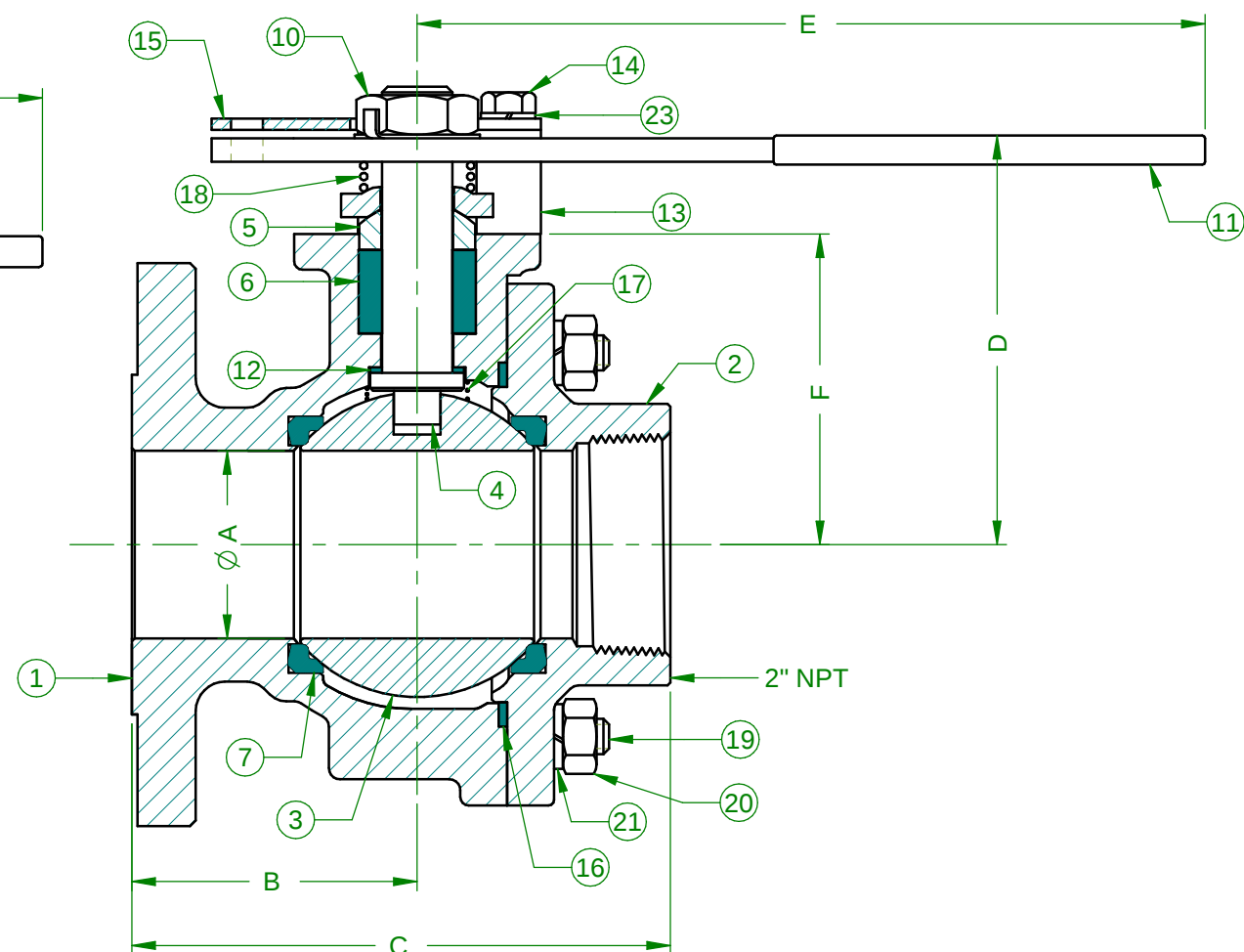
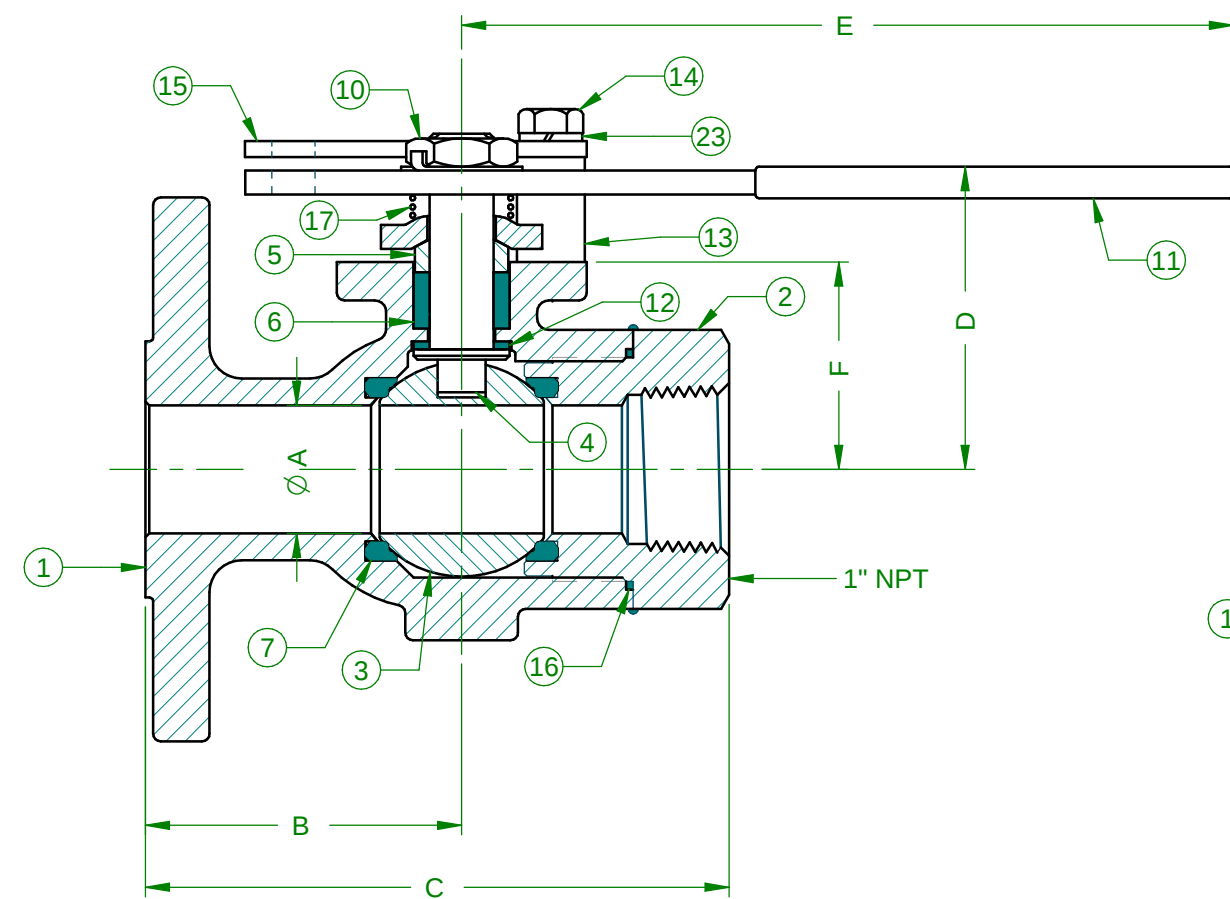
17. By: \_\_\_\_\_ Title: \_\_\_\_\_

APPROVAL AAR Tank Car Committee:

Date Approved: 11/13/2025 \_\_\_\_\_  
(Signature) on behalf of Committee

Form AAR 4-7 8/1/2014

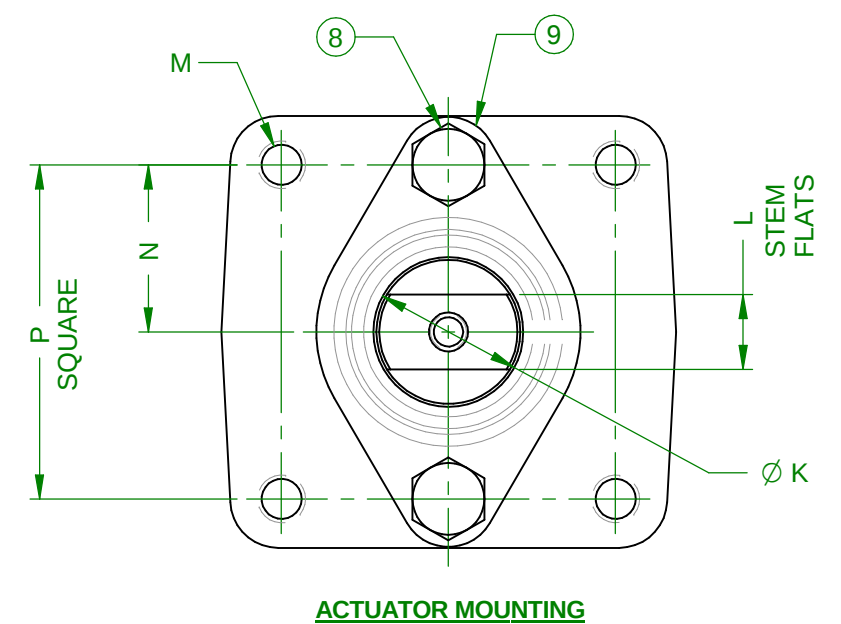
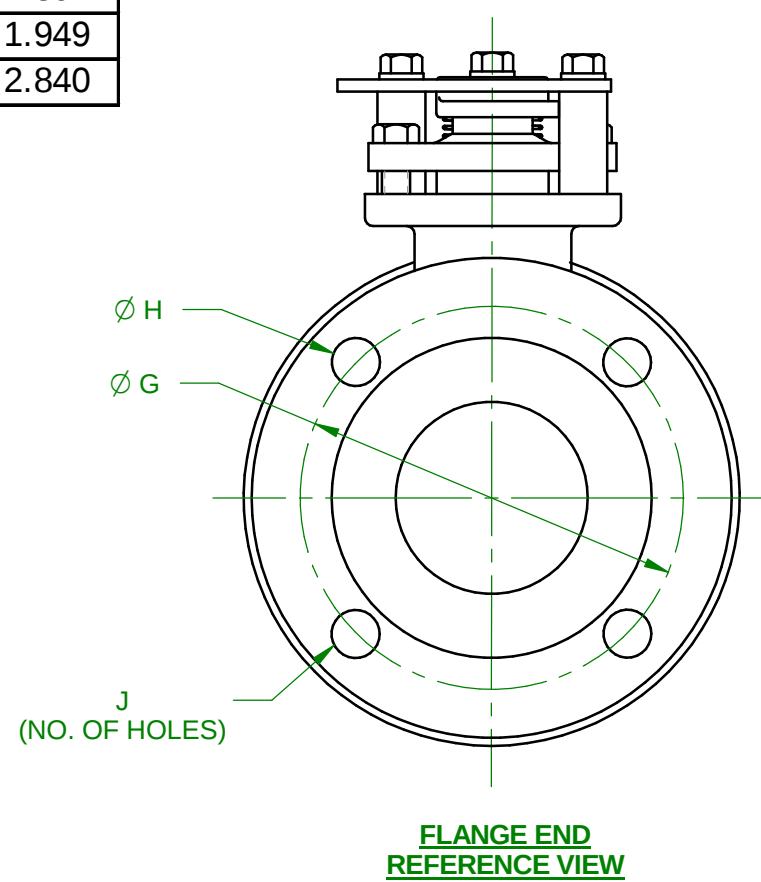
**Fig. 1.5 Form AAR 4-7 Application for Renewal of Approval for Pressure Relief Devices, Valves, Closures, and Fittings**



## ASME CLASS 150 FLANGED X NPT FULL PORT BALL VALVES

|        | SIZE | Ø A  | B    | C    | D    | E    | F    | Ø G  | Ø H  | J | Ø K   | L     | M        | N     | P     |
|--------|------|------|------|------|------|------|------|------|------|---|-------|-------|----------|-------|-------|
| FIG. 1 | 1"   | 1.00 | 2.09 | 4.56 | 2.37 | 6.03 | 1.62 | 3.13 | 0.62 | 4 | 0.500 | 0.287 | 1/4"-20  | 0.696 | 1.392 |
| FIG. 2 | 2"   | 2.00 | 3.04 | 5.74 | 4.36 | 8.40 | 3.31 | 4.75 | 0.75 | 4 | 0.750 | 0.477 | 5/16"-18 | 0.974 | 1.949 |
| FIG. 3 | 3"   | 3.00 | 3.68 | 7.68 | 6.57 | 9.00 | 4.75 | 6.00 | 0.75 | 4 | 1.250 | 0.725 | 3/8"-16  | 1.420 | 2.840 |

| Standard Material List                 |                  |                                        |                                       |
|----------------------------------------|------------------|----------------------------------------|---------------------------------------|
|                                        | Part             | Material (Stainless Option)            | Material (Carbon Option)              |
| 1                                      | Body             | ASTM A351 CF8M SS                      | ASTM A216 WCB CS                      |
| 2                                      | Retainer         | ASTM A351 CF8M SS                      | ASTM A216 WCB CS                      |
| 3                                      | Ball             | ASTM A351 CF8M SS                      | ASTM A351 CF8M SS                     |
| 4                                      | Stem             | ASTM A276 316 SS                       | ASTM A276 316 SS                      |
| 5                                      | Packing Gland    | ASTM A276 316 SS                       | ASTM A276 316 SS                      |
| 6                                      | Stem Packing*    | GARLOCK QUICK SET 9001 GRAPH           | GARLOCK QUICK SET 9001 GRAPH          |
| 7                                      | Seats*           | TFM 1700                               | TFM 1700                              |
| 8                                      | Gland Screws     | ASTM A193 GRADE B8                     | ASTM A193 GRADE B8                    |
| 9                                      | Gland Plate      | ASTM A351 CF8M SS                      | ASTM A351 CF8M SS                     |
| 10                                     | Stem Nut         | ASTM A276 316 SS                       | ASTM A276 316 SS                      |
| 11                                     | Lever*           | ASTM A351 CF8M SS or ASTM A276 302/304 | ASTM A216 WCB CS or ASTM A276 302/304 |
| 12                                     | Stem Bearing     | RPTFE                                  | RPTFE                                 |
| 13                                     | Stop             | ASTM A276 304 SS                       | ASTM A276 304 SS                      |
| 14                                     | Stop Screw       | ASTM A276 316 SS                       | ASTM A276 316 SS                      |
| 15                                     | Lock Plate       | ASTM A276 302 or 304 SS                | ASTM A276 302 or 304 SS               |
| 16                                     | Body Seal*       | SPIRAL WOUND SS & GRAPHITE             | SPIRAL ROUND SS & GRAPHITE            |
| 17                                     | Grounding Spring | ASTM A313 SS                           | ASTM A313 SS                          |
| 18                                     | Grounding Spring | ASTM A313 SS                           | ASTM A313 SS                          |
| 19                                     | Body Joint Stud* | ASTM A193 GRADE B8M                    | ASTM A193 GRADE B7                    |
| 20                                     | Body Joint Nut*  | ASTM A194 GRADE 8                      | ASTM A194 GRADE 2H                    |
| 21                                     | Lock Washer      | 18-8 SS                                | 18-8 SS                               |
| 22                                     | Stem Screw       | ASTM A276 304 SS                       | ASTM A276 304 SS                      |
| 23                                     | Stop Lock Washer | 18-8 SS                                | 18-8 SS                               |
| *Material may change based upon option |                  |                                        |                                       |



|                                                                                                                                                                                                                                                   |             |                                                        |                |           |            |                                                |        |  |  |      |                    |         |    |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------------------------------------|----------------|-----------|------------|------------------------------------------------|--------|--|--|------|--------------------|---------|----|------|
| NOTE: This drawing and the subject matter disclosed therein is the property of Conbraco Industries, Inc. and is not to be copied, used, appropriated or disclosed to others without the expressed written permission of Conbraco Industries, Inc. |             |                                                        |                |           |            |                                                |        |  |  | REV. | CHANGE DESCRIPTION | ECN NO. | BY | DATE |
|                                                                                                                                                              |             | NAME: 87A/88A SERIES, 1" - 3" FP, 150# FLG X NPT VALVE |                |           |            | <b>AAR APPROVAL #</b><br><u><b>E252115</b></u> |        |  |  |      |                    |         |    |      |
|                                                                                                                                                                                                                                                   |             | MAT'L: SEE CHART                                       |                |           |            |                                                |        |  |  |      |                    |         |    |      |
| EXP. NO.                                                                                                                                                                                                                                          | SCALE: NONE | DRN: DKH                                               | DATE: 01/11/16 | CHKD: CRT | APP'D: KDB | NO. 87A/88A-380                                | REV. A |  |  |      |                    |         |    |      |