

## GENERAL

# M&H AWWA C508 STANDARD SWING CHECK VALVES

- ◆ Style 59-02 plain / 159-Lever & Weight / 259-02 Lever & Spring
- ◆ Sizes 2” Through 36”
- ◆ Water / Sewage Service

M&H Swing Check valves are widely specified by engineers and operating personnel. They are well proportioned and sturdily constructed - provide the ideal answer wherever check valves are needed in water and waste treatment plants.

The valve clapper swings open to allow a “Full Waterway Flow” through the valve equal to the nominal diameter of the pipe. The clapper operates freely and opens or closes in accordance with the direction of flow. Clappers for valves 2”, 2.5”, and 3” are bronze. Clappers for valves 4” through 12” are cast iron, bronze-faced. Rubber faced clappers are available on all check valves 2 ½” thru 12” and standard on 14” through 36”. For optimum performance, rubber faced clappers are recommended on all check valves 14” and larger.

Three types of M&H Check Valves are manufactured. First, the plain swing check valve which opens by line pressure and flow, and closes by gravity under a no flow condition; the clapper is lowered when the flow drops or reverses direction. The second type is outside lever-and-weight and the third type is outside lever-and-spring. These refinements are desirable to accomplish quicker closing and to minimize slamming where conditions of rapid flow reversal are encountered.

Plain, Lever and Weight, and Lever and Spring designs can be used for vertical installation. Lever-and-weight type check valves for horizontal installations require the lever arm close to parallel to the run of the pipe and the weight on the downstream side of the clapper for quick closing. For vertical installation of lever-and-weight valves, the lever arm is moved to a position perpendicular to the run of the pipe, to assist in closing.

Either lever-and-weight or lever-and-spring check valves are adjustable. Both types require field adjustment to best meet particular operating conditions. Unless otherwise ordered, the lever-and-weight or the lever-and-spring is placed on the right hand side when facing the valve inlet. Under conditions of extreme rapid flow reversal, check valves with dual lever arms can be supplied.

Stainless steel hinge pins are featured in all sizes. Check Valves 2”-12” have O-ring sealed side plugs. Levered valves use a fiber packing in its gland housing. Lever-and-weight or lever-and-spring type check valves sizes 14” through 36” using packing are regularly supplied with hinge pin extended through bronze bushing and with outside glands and rubber faced clappers.

Flanged end, increasing check valves are also available in plain, lever-and-spring or lever-and-weight configurations. These valves provide size reduction and eliminate requirements for special adapters or fittings. Increasing check valves are most often used on pump discharge outlets such as package lift stations.

Note: When lever-and-weight or lever-and-spring check valves are to be specified or used, we recommend lever-and-spring over lever-and-weight for all 14” and larger. In addition, rubber faced clappers should be used. As stated in AWWA C508, “Conditions of water hammer, hydraulic pulsation, and excessive operating noise are results of system design rather than valve design and are beyond the scope of this standard and require special design and construction considerations.”

### **Note:**

**It is generally recommended that when using M&H swing check valves that you locate the valve at least 5 pipe diameters downstream from any flow disturbance or obstruction (valve, pump, elbow, reducer, etc.). Turbulence close to the check valve may result in valve “chatter” resulting in premature failure of the check valve.**

**As stated in AWWA C508, “Conditions of water hammer, hydraulic pulsation, and excessive operating noise are results of system design rather than valve design and are beyond the scope of this standard and require special design and construction considerations.”**

## STYLE NUMBERS (2"-36")

# M&H AWWA C508 STANDARD SWING CHECK VALVES

| Size Range    | Water Working Pressure psi | Seat Test Psi | Hydrostatic Shell Test psi |
|---------------|----------------------------|---------------|----------------------------|
| AWWA 2" – 12" | 200                        | 400           | 400                        |
| AWWA 14"-36"  | 150                        | 300           | 300                        |

| Type / Facing Material / Options | Size Range | Style Number | Drawing Number |
|----------------------------------|------------|--------------|----------------|
|----------------------------------|------------|--------------|----------------|

### 2"-12" STANDARD CHECKS

|   |        |           |          |
|---|--------|-----------|----------|
| Plain / Swing Check---Rubber Faced                    | 2"-12" | 59-02A    | CV-A1-PC |
| Plain / Swing Check---Rubber Faced—With Tapped Cover  | 2"-12" | 59-02AT   | CV-A1-PC |
| Plain / Swing Check---Bronze Faced                    | 2"-12" | 59-02     | CV-A1-PC |
| Plain / Swing Check ---Bronze Faced—With Tapped Cover | 2"-12" | 59-02T    | CV-A1-PC |
| Lever & Weight—Rubber Faced                           | 2"-12" | 159-02A   | CV-A1-LW |
| Lever & Weight—Rubber Faced—With Limit Switch         | 2"-12" | 159-02ALS | CV-A1-LW |
| Lever & Weight—Rubber Faced—With Dual Arm             | 6"-12" | 159-02AD  | CV-A1-LW |
| Lever & Weight—Bronze Faced                           | 2"-12" | 159-02    | CV-A1-LW |
| Lever & Weight—Bronze Faced—With Limit Switch         | 2"-12" | 159-02LS  | CV-A1-LW |
| Lever & Weight—Bronze Faced—With Dual Arm             | 6"-12" | 159-02D   | CV-A1-LW |
| Lever & Spring—Rubber Faced                           | 2"-12" | 259-02A   | CV-A1-LS |
| Lever & Spring—Rubber Faced—With Limit Switch         | 2"-12" | 259-02ALS | CV-A1-LS |
| Lever & Spring—Bronze Faced                           | 2"-12" | 259-02    | CV-A1-LS |
| Lever & Spring—Bronze Faced—With Limit Switch         | 2"-12" | 259-02LS  | CV-A1-LS |

### 14"-36" STANDARD CHECKS

|   |         |           |        |
|---|---------|-----------|--------|
| Plain / Swing Check---Rubber Faced            | 14"-36" | 59-02A    | LCV-A1 |
| Lever & Weight—Rubber Faced                   | 14"-36" | 159-02A   | LCV-A1 |
| Lever & Weight—Rubber Faced—With Limit Switch | 14"-36" | 159-02ALS | LCV-A1 |
| Lever & Weight—Rubber Faced—With Dual Arm     | 14"-36" | 159-02AD  | LCV-A1 |
| Lever & Spring—Rubber Faced                   | 14"-36" | 259-02A   | LCV-A1 |
| Lever & Spring—Rubber Faced—With Limit Switch | 14"-36" | 259-02ALS | LCV-A1 |
| Lever & Spring—Rubber Faced—With Dual Arm     | 14"-36" | 259-02AD  | LCV-A1 |

Note: In addition to Dual Arms, Limit Switches & Tapped Cover, M&H also can provide check valves with special coatings and tapped bosses. See drawing CV-TB for location and sizes of tapped bosses.

#### Note:

**It is generally recommended that when using M&H swing check valves that you locate the valve at least 5 pipe diameters downstream from any flow disturbance or obstruction (valve, pump, elbow, reducer, etc.). Turbulence close to the check valve may result in valve "chatter" resulting in premature failure of the check valve.**

**As stated in AWWA C508, "Conditions of water hammer, hydraulic pulsation, and excessive operating noise are results of system design rather than valve design and are beyond the scope of this standard and require special design and construction considerations."**

## SUGGESTED SPECIFICATIONS

# M&H AWWA C508 STANDARD SWING CHECK VALVES

- ◆ Style 59-02 plain / 159-Lever & Weight / 259-02 Lever & Spring
- ◆ Sizes 2” Through 36”
- ◆ Water / Sewage Service

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**GENERAL** Check Valves shall be all iron body, bronze mounted, full opening swing type. Valve clapper shall swing full open permitting a “full flow” thru the valve equal to the nominal pipe diameter. They shall comply with AWWA Standard C-508 latest revision.

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**RATING** Check Valves (2” through 12”) shall be rated at 200 psi water working pressure, 400 psi hydrostatic test for structural soundness. Check valves (14” through 36”) shall be rated at 150 psi water working pressure, 300 psi hydrostatic test. Pressure testing shall be done in accordance with AWWA C508.

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**END CONFIGURATION** Check Valves shall be furnished with 125# ANSI flanged end connections.

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**MATERIALS** All cast iron shall conform to ASTM-A-126 Class B. Casting shall be clean and sound without defects that will impair their service.

Clappers 2”-3” shall be bronze.  
Clappers 4”-12 shall be faced with bronze or rubber.  
Clappers 14”-36” shall be rubber faced.

Body Rings / Seats shall be bronze.

Hinge pins shall be 18-8 stainless steel with bronze side plugs (2”-12”), or packing with a Ductile Iron packing gland with 18-8 fasteners (14”-36”).

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**DESIGN** Check Valves shall be constructed to permit top entry for complete removal of internal components without removing the valve from the line.

Plain Check Valves 2”-12” shall have O-ring sealed side plugs.  
Levered Check Valves in all sizes shall have conventional packing & packing gland design.

When specified, for application conditions of rapid flow reversal or vertical installation, check valve shall be equipped with adjustable outside lever & spring or lever & weight to accomplish faster closing and to minimize slamming effect.

All valves 14” and larger shall have extended hinge pins for future addition of levers and springs if required. Valves shall be suitable for installation in either horizontal or vertical position.

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**COATING** The inside and outside of all valves, together with the working parts except bronze and machined surfaces, shall be coated in accordance with AWWA standards.

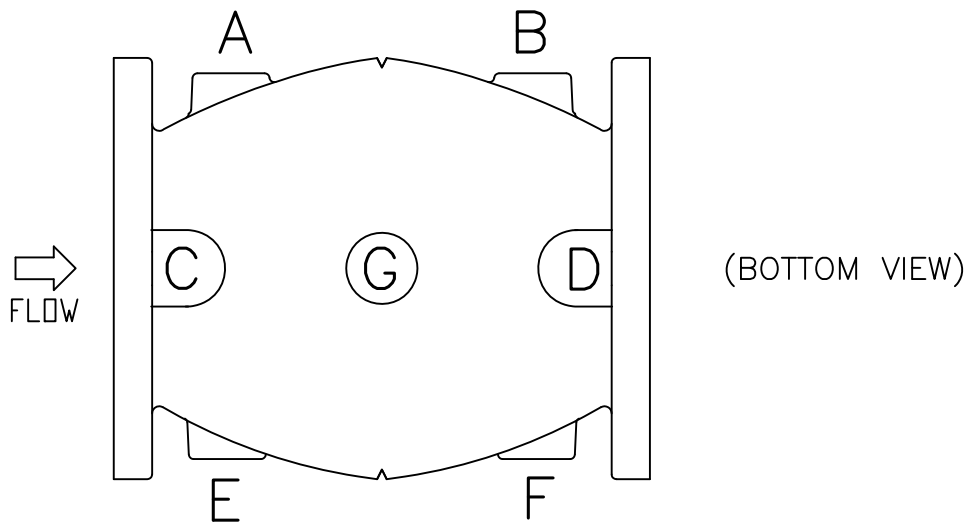
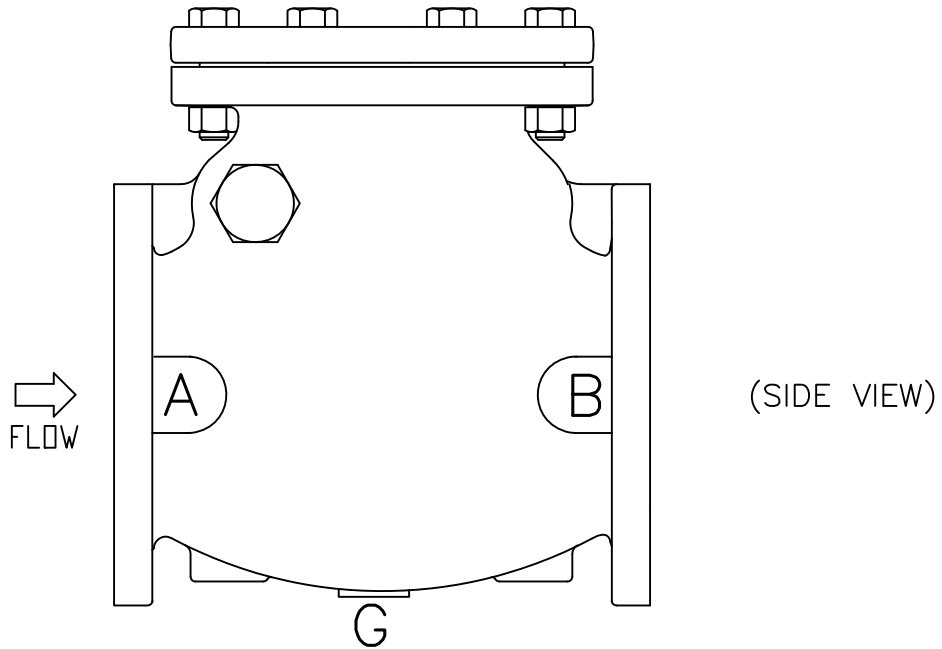
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**MARKINGS** Markings shall be in accordance with AWWA C-508 and shall include size, working pressure, cast arrow to indicate direction of flow, name of manufacturer, and year of manufacture.

**Note:**

It is generally recommended that when using M&H swing check valves that you locate the valve at least 5 pipe diameters downstream from any flow disturbance or obstruction (valve, pump, elbow, reducer, etc.). Turbulence close to the check valve may result in valve “chatter” resulting in premature failure of the check valve.

**September 1, 2012 / C508 Check Valves**



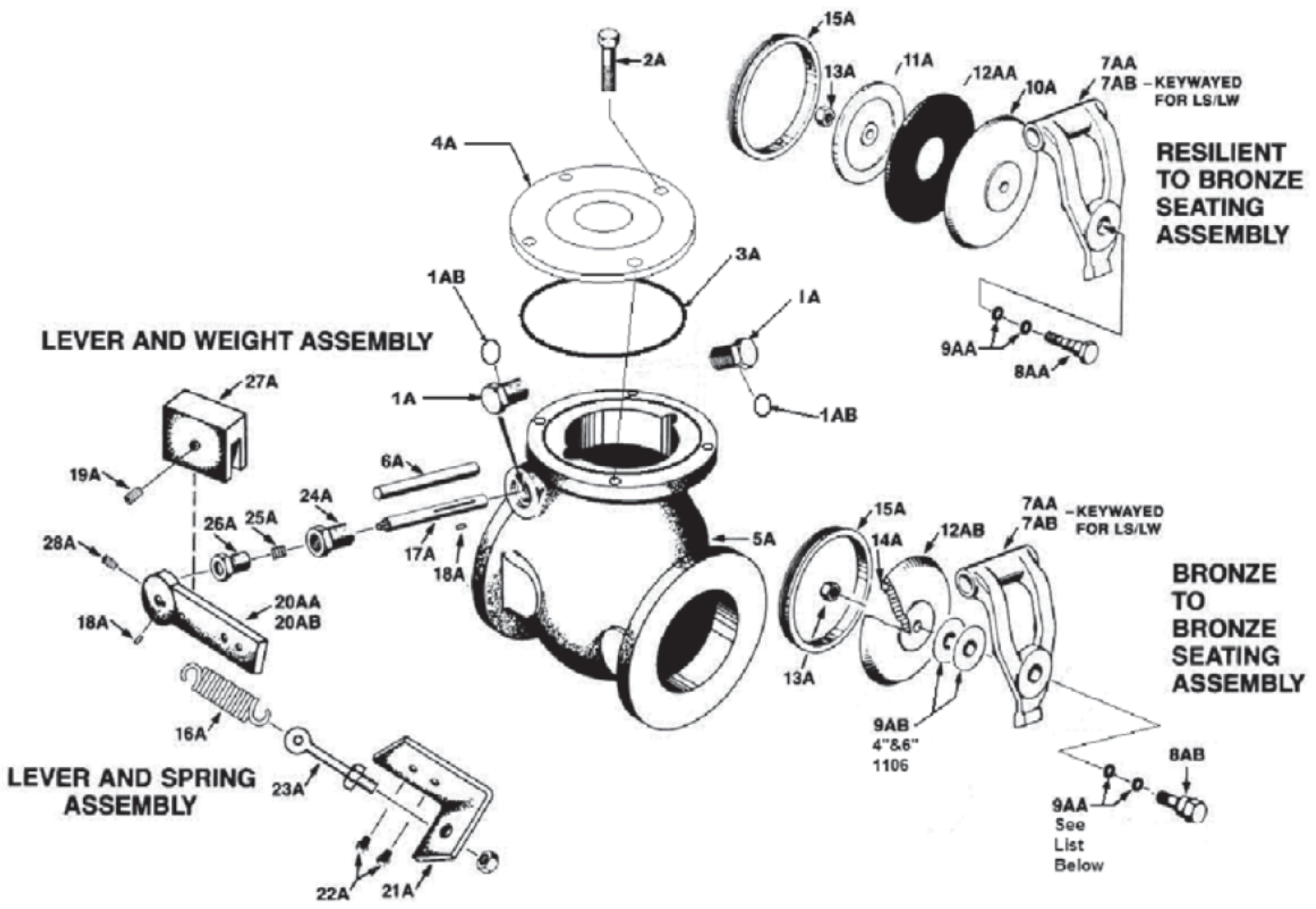
When ordering Check Valves tapped for bypass or drain, specify exact location and size of tap using letters above for boss designation. These locations of drain and by-pass tappings conform to the Manufacturers Standardization Society Specification SP-45-1953

| AWWA SWING CHECK VALVES<br>MAXIMUM TAP SIZE FOR BOSS LOCATIONS |      |      |      |      |      |      |      |
|--|------|------|------|------|------|------|------|
| SIZE   | A    | B    | C    | D    | E    | F    | G    |
| 2  | 0.75 | 0.75 | 0.75 | NA   | NA   | NA   | NA   |
| 2.5  | 0.75 | 0.75 | 0.75 | NA   | 0.75 | 0.75 | NA   |
| 3  | 0.75 | 0.75 | 0.75 | NA   | 0.75 | 0.75 | NA   |
| 4  | 1    | 1    | 1.25 | 1.25 | 1    | 1    | NA   |
| 6  | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | NA   |
| 8  | 2    | 2    | 1.25 | 1.25 | 2    | 2    | 0.75 |
| 10   | 2    | 2    | 1.25 | 1.25 | 2    | 2    | 0.75 |
| 12   | 2    | 2    | 1.25 | 1.25 | 2    | 2    | 0.75 |

M&H VALVE COMPANY  
ANNISTON, ALABAMA  
A DIVISION OF MCWANE INC.

DWN: TRIJ  
DATE: 9/1/12  
DWG. NO.  
CV-TB

2" THRU 12"  
SWING CHECK VALVES (ALL STYLES)  
AWWA C508  
LOCATION AND DIMENSIONS OF  
TAPPING BOSSES



**LEVER AND WEIGHT ASSEMBLY**

**RESILIENT TO BRONZE SEATING ASSEMBLY**

**BRONZE TO BRONZE SEATING ASSEMBLY**

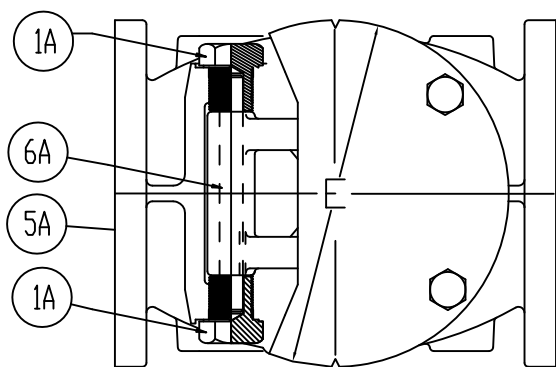
**LEVER AND SPRING ASSEMBLY**

9AA  
See  
List  
Below

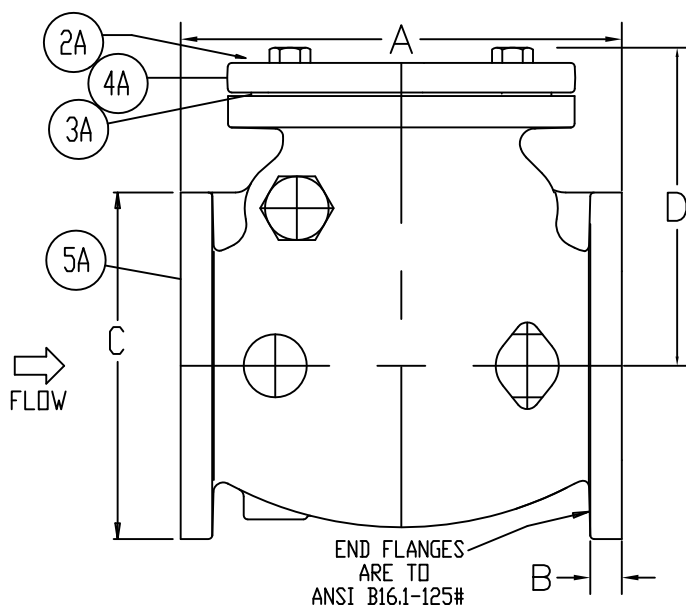
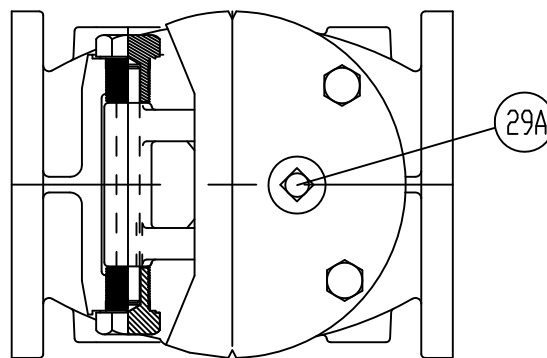
9AB  
4" & 6"  
1106

7AA  
7AB - KEYWAYED FOR LS/LW

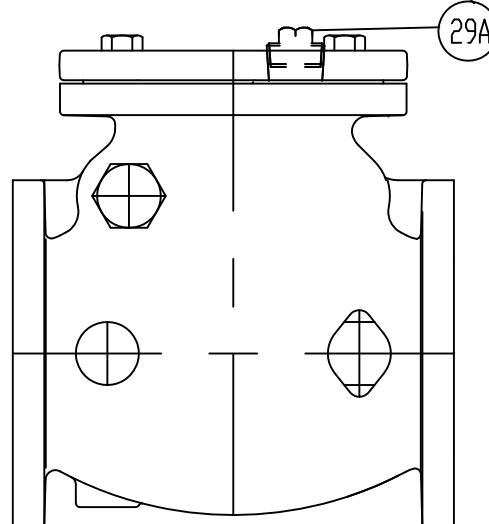
7AA  
7AB - KEYWAYED FOR LS/LW



TAPPED COVER OPTION (VIEW 1)



TAPPED COVER OPTION (VIEW 2)



| SIZE  | A    | B    | C    | D     | E     | WEIGHT |
|-------|------|------|------|-------|-------|--------|
| 2     | 8    | 0.66 | 6    | 6     | 6     | 35     |
| 2 1/2 | 8.5  | 0.72 | 7    | 6.63  | 7     | 50     |
| 3     | 9.5  | 0.78 | 7.5  | 7.06  | 7.5   | 61     |
| 4     | 11.5 | 1.00 | 9    | 8.31  | 9     | 119    |
| 6     | 14   | 1.06 | 11   | 10.06 | 11    | 190    |
| 8     | 19.5 | 1.25 | 13.5 | 12.38 | 13.50 | 347    |
| 10    | 24.5 | 1.31 | 16   | 13.93 | 16.75 | 566    |
| 12    | 27.5 | 1.38 | 19   | 16.18 | 19    | 774    |

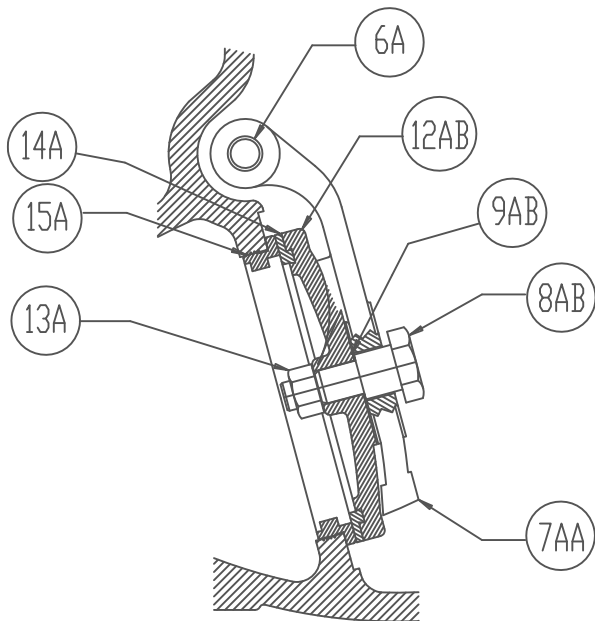
| PART | QTY | DESCRIPTION             | MATERIAL & ASTM SPEC.     |
|------|-----|-------------------------|---------------------------|
| 1A   | 2   | SIDE PLUG               | BRONZE                    |
| 2A   | 4   | BOLTS                   | 18-8 STAINLESS STEEL      |
| 3A   | 1   | O-RING                  | BUNA-N                    |
| 4A   | 1   | CAP                     | CI A-126 CLASS B          |
| 5A   | 1   | BODY                    | CI A-126 CLASS B          |
| 6A   | 1   | HINGE PIN               | 304 STAINLESS STEEL A-276 |
| 29A  | 1   | TAPERED PLUG (OPTIONAL) | STEEL                     |

STYLE-59-02A 2"-12" WITH RUBBER FACED CLAPPER  
 STYLE-59-02 2"-12" WITH BRONZE FACED CLAPPER  
 STYLE-59-02AT 2"-12" WITH RUBBER FACED CLAPPER-TAPPED COVER  
 STYLE-59-02T 2"-12" WITH BRONZE FACED CLAPPER-TAPPED COVER

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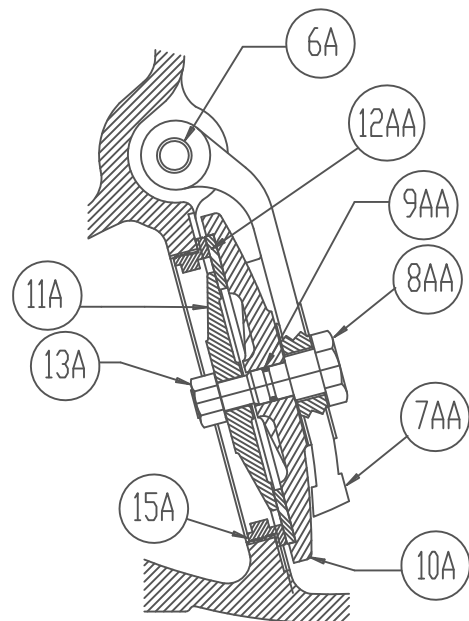
DWN: TRIJ  
 DATE: 9/1/12  
 DWG. NO.  
 CV-A1-PC

2" THRU 12"  
 STANDARD / PLAIN SWING CHECK  
 AWWA C508-STYLE 59-02  
 (PAGE 1 of 2)



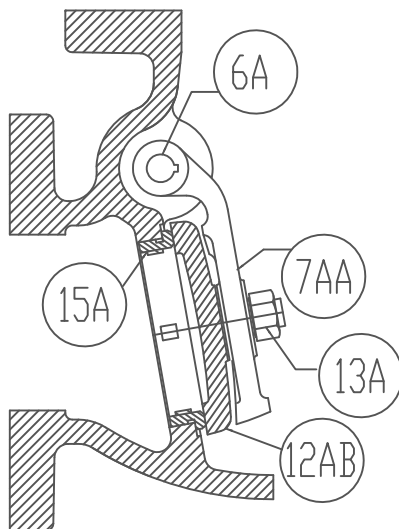
4'-12" PLAIN CHECK BRONZE SEATED DISC ASSEMBLY

|      |   |                          |                                  |
|------|---|--------------------------|----------------------------------|
| 6A   | 1 | HINGE PIN                | STAINLESS STEEL A-276 (304)      |
| 7AA  | 1 | HINGE                    | DUCTILE IRON A-536               |
| 8AB  | 1 | DISC BOLT                | (4'-8") STEEL---(10'-12") BRONZE |
| 9AB  | 2 | DISC BOLT WASHER (4'-8") |                                  |
| 12AB | 1 | DISC                     | CAST IRON A-126 CLASS B          |
| 13A  | 1 | DISC NUT                 | 18-8 STAINLESS STEEL             |
| 14A  | 1 | DISC RING                | BRONZE                           |
| 15A  | 1 | SEAT RING                | BRONZE                           |



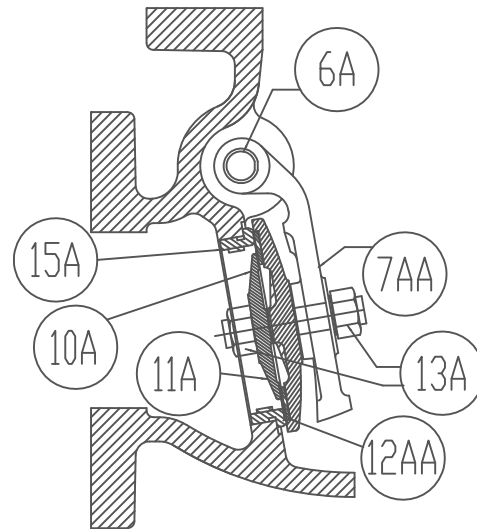
4'-12" PLAIN CHECK RESILIENT SEATED DISC ASSEMBLY

|      |   |                            |                                  |
|------|---|----------------------------|----------------------------------|
| 6A   | 1 | HINGE PIN                  | STAINLESS STEEL A-276 (304)      |
| 7AA  | 1 | HINGE                      | DUCTILE IRON A-536               |
| 8AA  | 1 | DISC BOLT                  | (4'-8") STEEL---(10'-12") BRONZE |
| 9AA  | 1 | DISC BOLT O-RING (10',12") | SYNTHETIC RUBBER                 |
| 10A  | 1 | DISC HOLDER                | CAST IRON A-126 CLASS B          |
| 11A  | 1 | DISC PLATE                 | BRONZE                           |
| 12AA | 1 | DISC                       | NITRILE (BUNA N) RUBBER          |
| 13A  | 1 | DISC NUT                   | 18-8 STAINLESS STEEL             |
| 15A  | 1 | SEAT RING                  | BRONZE                           |



2'-3" PLAIN CHECK BRONZE SEATED DISC ASSEMBLY

|      |   |                                   |                             |
|------|---|-----------------------------------|-----------------------------|
| 6A   | 1 | HINGE PIN                         | STAINLESS STEEL A-276 (304) |
| 7AA  | 1 | HINGE                             | BRONZE                      |
| 12AB | 1 | DISC<br>(WITH INTEGRAL DISC BOLT) | BRONZE                      |
| 13A  | 1 | DISC NUT                          | 18-8 STAINLESS STEEL        |
| 15A  | 1 | SEAT RING                         | BRONZE                      |



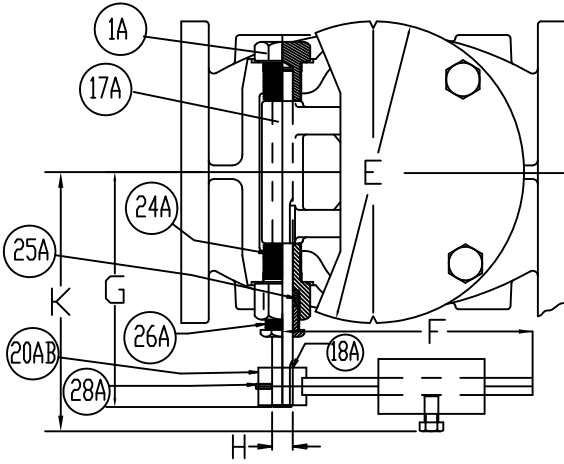
2'-3" PLAIN CHECK RESILIENT SEATED DISC ASSEMBLY

|      |   |  |                             |
|------|---|--|-----------------------------|
| 6A   | 1 | HINGE PIN                                | STAINLESS STEEL A-276 (304) |
| 7AA  | 1 | HINGE                                    | BRONZE                      |
| 10A  | 1 | DISC HOLDER (WITH<br>INTEGRAL DISC BOLT) | BRONZE                      |
| 11A  | 1 | DISC PLATE                               | BRONZE                      |
| 12AA | 1 | DISC                                     | NITRILE (BUNA N) RUBBER     |
| 13A  | 2 | DISC NUT                                 | 18-8 STAINLESS STEEL        |
| 15A  | 1 | SEAT RING                                | BRONZE                      |

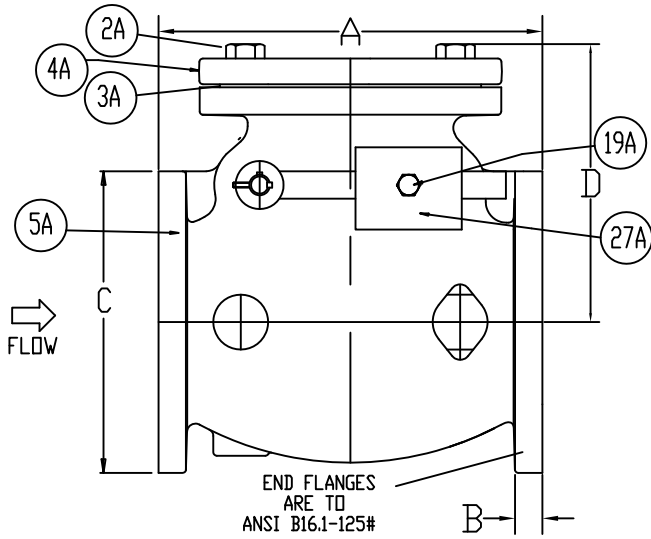
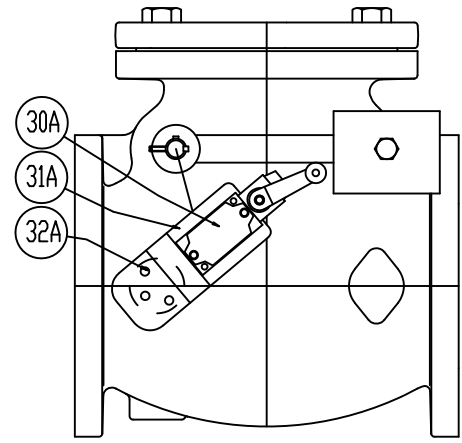
M&H VALVE COMPANY  
ANNISTON, ALABAMA  
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DWN: TRIJ  
DATE: 9/1/12  
DWG. NO.  
CV-A2-PC

2" THRU 12"  
STANDARD / PLAIN SWING CHECK  
AWWA C508-STYLE 59-02  
(PAGE 2 of 2)

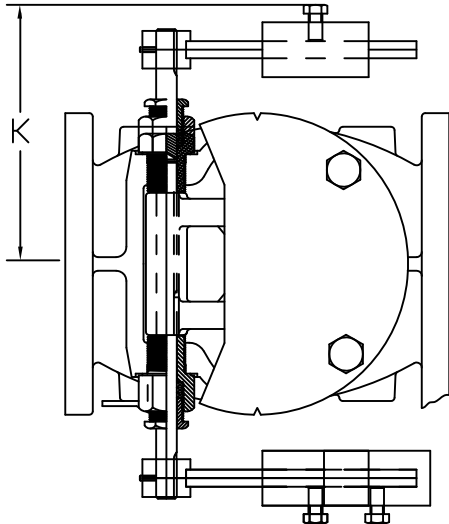


LIMIT SWITCH OPTION



| PART | QTY | DESCRIPTION            | MATERIAL & ASTM SPEC.       |
|------|-----|------------------------|-----------------------------|
| 1A   | 1   | SIDE PLUG              | BRONZE                      |
| 2A   | *   | BOLTS                  | 18-8 STAINLESS STEEL        |
| 3A   | 1   | O-RING                 | BUNA-N                      |
| 4A   | 1   | CAP                    | CI A-126 CLASS B            |
| 5A   | 1   | BODY                   | CI A-126 CLASS B            |
| 17A  | 1   | EXTENDED HINGE PIN     | STAINLESS STEEL A-276 (304) |
| 18A  | 2   | KEY FOR LEVER ARM      | STAINLESS STEEL A-276 (304) |
| 19A  | 1   | SET SCREW              | STEEL                       |
| 20AB | 1   | LEVER ARM              | STEEL                       |
| 24A  | 1   | SIDE PLUG STUFFING BOX | BRONZE                      |
| 25A  | *   | PACKING                | GRAPHITE FILLED             |
| 26A  | 1   | GLAND                  | BRONZE                      |
| 27A  | 1   | WEIGHT                 | CI A-126 CLASS B            |
| 28A  | 1   | SET SCREW              | STEEL                       |

AUXILIARY DUAL ARM OPTION



LIMIT SWITCH OPTION

|     |   |                 |                   |
|-----|---|-----------------|-------------------|
| 30A | 1 | LIMIT SWITCH    | PER ENGINEER SPEC |
| 31A | 1 | BRACKET         | STEEL             |
| 32A | * | MOUNTING SCREWS | ZINC PLATED STEEL |

\* VARIES ACCORDING TO SIZE

| SIZE  | A    | B    | C    | D     | E     | F     | G     | H    | K    | WEIGHT |
|-------|------|------|------|-------|-------|-------|-------|------|------|--------|
| 2     | 8    | 0.66 | 6    | 6     | 6     | 6     | 4.72  | 0.50 | 6.4  | 40     |
| 2 1/2 | 8.5  | 0.72 | 7    | 6.63  | 7     | 6     | 4.94  | 0.50 | 6.6  | 55     |
| 3     | 9.5  | 0.78 | 7.5  | 7.06  | 7.5   | 6     | 5.35  | 0.50 | 7.4  | 92     |
| 4     | 11.5 | 1.00 | 9    | 8.31  | 9     | 8.25  | 8.19  | 0.63 | 10.1 | 157    |
| 6     | 14   | 1.06 | 11   | 10.06 | 11    | 10.25 | 9     | 0.75 | 10.9 | 226    |
| 8     | 19.5 | 1.25 | 13.5 | 12.38 | 13.5  | 14.5  | 10.19 | 0.88 | 12.4 | 402    |
| 10    | 24.5 | 1.31 | 16   | 13.93 | 16.75 | 18    | 11.63 | 1.00 | 14.7 | 625    |
| 12    | 27.5 | 1.38 | 19   | 16.18 | 19    | 18    | 13.75 | 1.00 | 16.0 | 876    |

USE VALVE FOR VERTICAL OR HORIZONTAL FLOW

NOTE: VERTICAL FLOW MAY REQUIRE FACTORY REPOSITIONING OF LEVER ARM

NOTE: DUAL WEIGHT ARMS ONLY AVAILABLE ON 6" & HIGHER VALVES

STYLE-159-02A 2"-12" WITH RUBBER FACED CLAPPER

STYLE-159-02 2"-12" WITH BRONZE FACED CLAPPER

STYLE-159-02ALS 2"-12" WITH RUBBER FACED CLAPPER & LIMIT SWITCH

STYLE-159-02LS 2"-12" WITH BRONZE FACED CLAPPER & LIMIT SWITCH

STYLE-159-02AD 6"-12" WITH RUBBER FACED CLAPPER & DUAL ARM

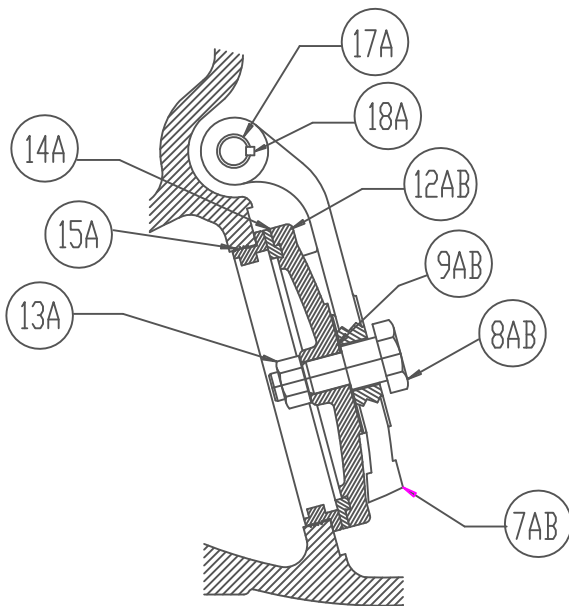
STYLE-159-02D 6"-12" WITH BRONZE FACED CLAPPER & DUAL ARM

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DWN: TRIJ  
DATE: 9/1/12  
DWG. NO.  
CV-A1-LW

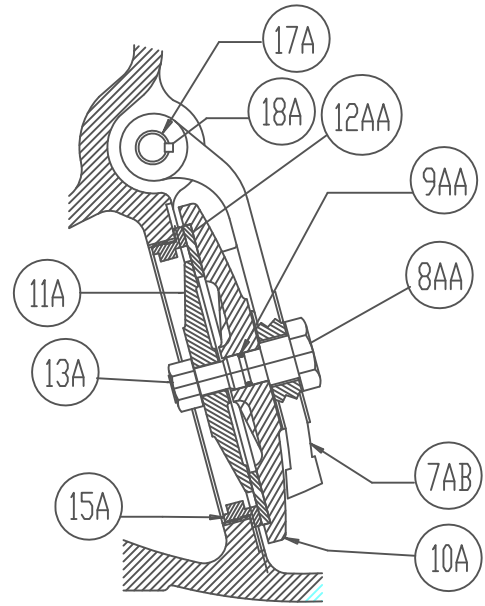
2" THRU 12"  
LEVER & WEIGHT SWING CHECK  
AWWA 508-STYLE 159-02  
(PAGE 1 OF 2)





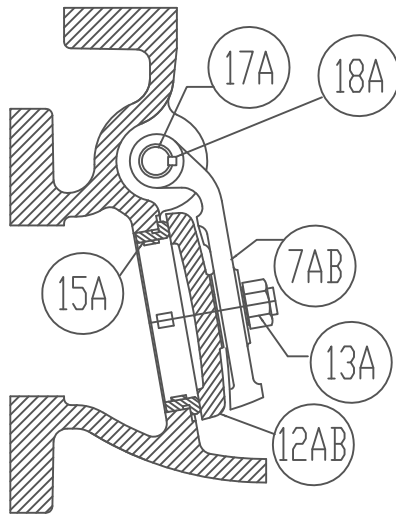
4'-12' LEVER & WEIGHT BRONZE SEATED DISC ASSEMBLY

|      |   |                          |                                  |
|------|---|--------------------------|----------------------------------|
| 7AB  | 1 | HINGE W/KEYWAY           | DUCTILE IRON A-536               |
| 8AB  | 1 | DISC BOLT                | (4'-8') STEEL---(10'-12') BRONZE |
| 9AB  | 2 | DISC BOLT WASHER (4'-8") |                                  |
| 12AB | 1 | DISC                     | CAST IRON A-126 CLASS B          |
| 13A  | 1 | DISC NUT                 | 18-8 STAINLESS STEEL             |
| 14A  | 1 | DISC RING                | BRONZE                           |
| 15A  | 1 | SEAT RING                | BRONZE                           |
| 17A  | 1 | EXTENDED HINGE PIN       | STAINLESS STEEL A-276 (304)      |
| 18A  | 2 | KEY                      | STAINLESS STEEL A-276 (304)      |



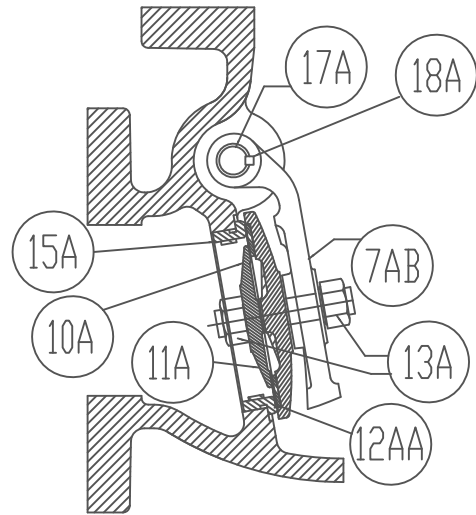
4'-12' LEVER & WEIGHT RESILIENT SEATED DISC ASSEMBLY

|      |   |                            |                                  |
|------|---|----------------------------|----------------------------------|
| 7AB  | 1 | HINGE W/KEYWAY             | DUCTILE IRON A-536               |
| 8AA  | 1 | DISC BOLT                  | (4'-8') STEEL---(10'-12') BRONZE |
| 9AA  | 1 | DISC BOLT O-RING (10',12") | SYNTHETIC RUBBER                 |
| 10A  | 1 | DISC HOLDER                | CAST IRON A-126 CLASS B          |
| 11A  | 1 | DISC PLATE                 | BRONZE                           |
| 12AA | 1 | DISC                       | NITRILE (BUNA N) RUBBER          |
| 13A  | 1 | DISC NUT                   | 18-8 STAINLESS STEEL             |
| 15A  | 1 | SEAT RING                  | BRONZE                           |
| 17A  | 1 | EXTENDED HINGE PIN         | STAINLESS STEEL A-276 (304)      |
| 18A  | 2 | KEY                        | STAINLESS STEEL A-276 (304)      |



2'-3' LEVER & WEIGHT BRONZE SEATED DISC ASSEMBLY

|      |   |                                |                             |
|------|---|--------------------------------|-----------------------------|
| 7AB  | 1 | HINGE W/KEYWAY                 | BRONZE                      |
| 12AB | 1 | DISC (WITH INTEGRAL DISC BOLT) | BRONZE                      |
| 13A  | 1 | DISC NUT                       | 18-8 STAINLESS STEEL        |
| 15A  | 1 | SEAT RING                      | BRONZE                      |
| 17A  | 1 | EXTENDED HINGE PIN             | STAINLESS STEEL A-276 (304) |
| 18A  | 2 | KEY                            | STAINLESS STEEL A-276 (304) |



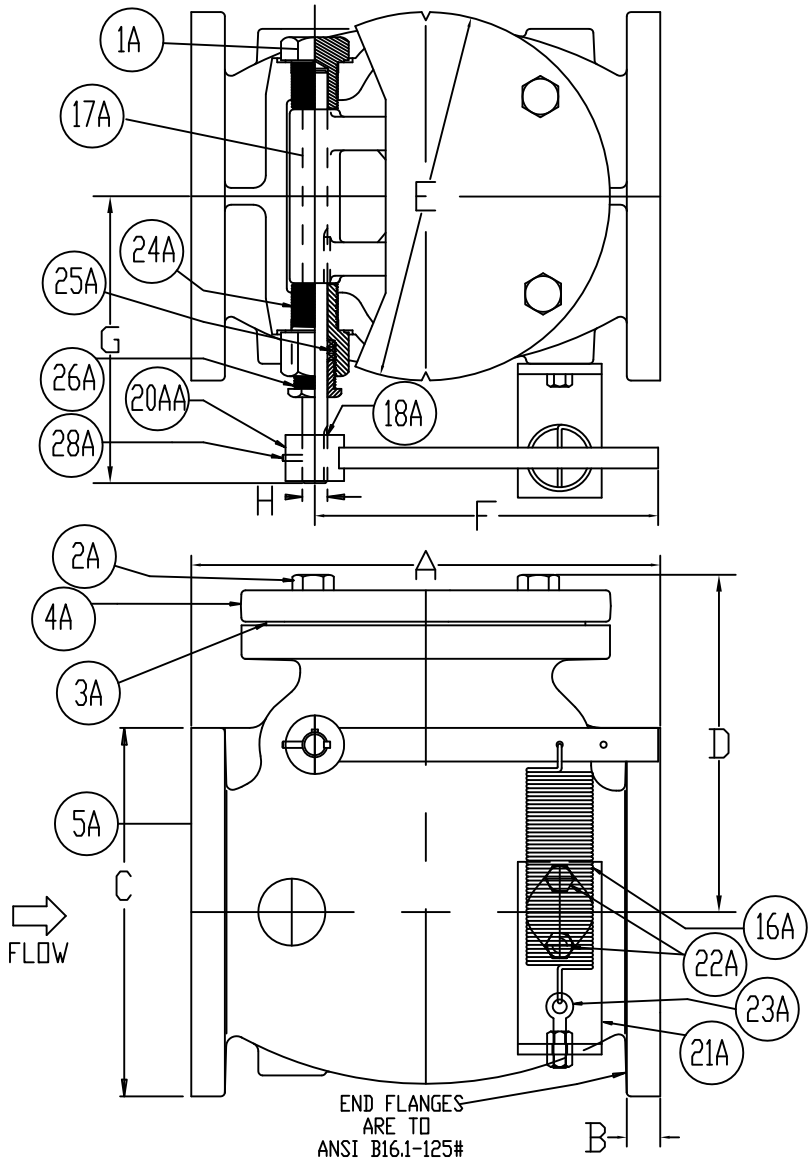
2'-3' LEVER & WEIGHT RESILIENT SEATED DISC ASSEMBLY

|      |   |                                       |                             |
|------|---|---------------------------------------|-----------------------------|
| 7AB  | 1 | HINGE W/KEYWAY                        | BRONZE                      |
| 10A  | 1 | DISC HOLDER (WITH INTEGRAL DISC BOLT) | BRONZE                      |
| 11A  | 1 | DISC PLATE                            | BRONZE                      |
| 12AA | 1 | DISC                                  | NITRILE (BUNA N) RUBBER     |
| 13A  | 2 | DISC NUT                              | 18-8 STAINLESS STEEL        |
| 15A  | 1 | SEAT RING                             | BRONZE                      |
| 17A  | 1 | EXTENDED HINGE PIN                    | STAINLESS STEEL A-276 (304) |
| 18A  | 2 | KEY                                   | STAINLESS STEEL A-276 (304) |

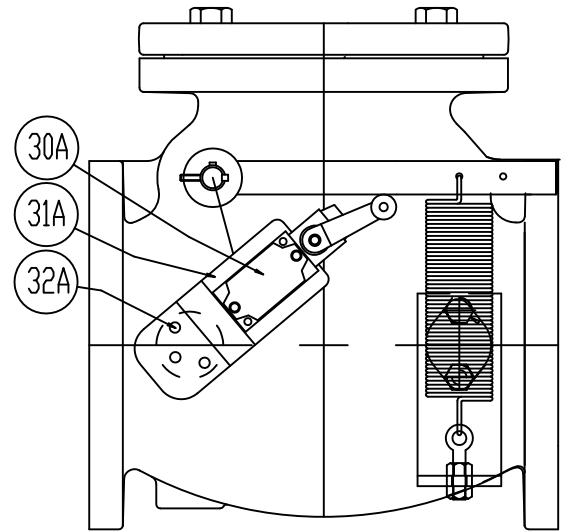
M&H VALVE COMPANY  
ANNISTON, ALABAMA  
A DIVISION OF MCWANE INC.

DWN: TRIJ  
DATE: 9/1/12  
DWG. NO.  
CV-A2-LW

2" THRU 12"  
LEVER & WEIGHT SWING CHECK  
AWWA C508-STYLE 159-02  
(PAGE 2 OF 2)



LIMIT SWITCH OPTION



| PART | QTY | DESCRIPTION            | MATERIAL & ASTM SPEC.       |
|------|-----|------------------------|-----------------------------|
| 1A   | 1   | SIDE PLUG              | BRONZE                      |
| 2A   | *   | BOLTS                  | 18-8 STAINLESS STEEL        |
| 3A   | 1   | O-RING                 | BUNA-N                      |
| 4A   | 1   | CAP                    | CI A-126 CLASS B            |
| 5A   | 1   | BODY                   | CI A-126 CLASS B            |
| 16A  | 1   | SPRING                 | STEEL                       |
| 17A  | 1   | EXTENDED HINGE PIN     | STAINLESS STEEL A-276 (304) |
| 18A  | 2   | KEY FOR LEVER ARM      | STAINLESS STEEL A-276 (304) |
| 20AA | 1   | LEVER ARM              | STEEL                       |
| 21A  | 1   | BRACKET                | STEEL                       |
| 22A  | 2   | HEX HEAD BRACKET BOLTS | STEEL                       |
| 23A  | 1   | EYE BOLT W/ 2 HEX NUTS | STEEL                       |
| 24A  | 1   | SIDE PLUG STUFFING BOX | BRONZE                      |
| 25A  | *   | PACKING                | GRAPHITE FILLED             |
| 26A  | 1   | GLAND                  | BRONZE                      |
| 28A  | 1   | SET SCREW              | STEEL                       |

| SIZE  | A    | B    | C    | D     | E     | F     | G     | H    | WEIGHT |
|-------|------|------|------|-------|-------|-------|-------|------|--------|
| 2     | 8    | 0.66 | 6    | 6     | 6     | 6     | 4.72  | 0.50 | 40     |
| 2 1/2 | 8.5  | 0.72 | 7    | 6.63  | 7     | 6     | 4.94  | 0.50 | 54     |
| 3     | 9.5  | 0.78 | 7.5  | 7.06  | 7.5   | 6     | 5.35  | 0.50 | 92     |
| 4     | 11.5 | 1.00 | 9    | 8.31  | 9     | 8.25  | 8.19  | 0.63 | 157    |
| 6     | 14   | 1.06 | 11   | 10.06 | 11    | 10.25 | 9     | 0.75 | 226    |
| 8     | 19.5 | 1.25 | 13.5 | 12.38 | 13.5  | 14.50 | 10.19 | 0.88 | 402    |
| 10    | 24.5 | 1.31 | 16   | 13.93 | 16.75 | 18    | 11.63 | 1.00 | 625    |
| 12    | 27.5 | 1.38 | 19   | 16.18 | 19    | 18    | 13.75 | 1.00 | 876    |

USE VALVE FOR VERTICAL OR HORIZONTAL FLOW  
 NOTE: VERTICAL FLOW MAY REQUIRE FACTORY REPOSITIONING OF LEVER ARM  
 STYLE-259-02A 2"-12" WITH RUBBER FACED CLAPPER  
 STYLE-259-02 2"-12" WITH BRONZE FACED CLAPPER  
 STYLE-259-02ALS 2"-12" WITH RUBBER FACED CLAPPER & LIMIT SWITCH  
 STYLE-259-02LS 2"-12" WITH BRONZE FACED CLAPPER & LIMIT SWITCH

LIMIT SWITCH OPTION

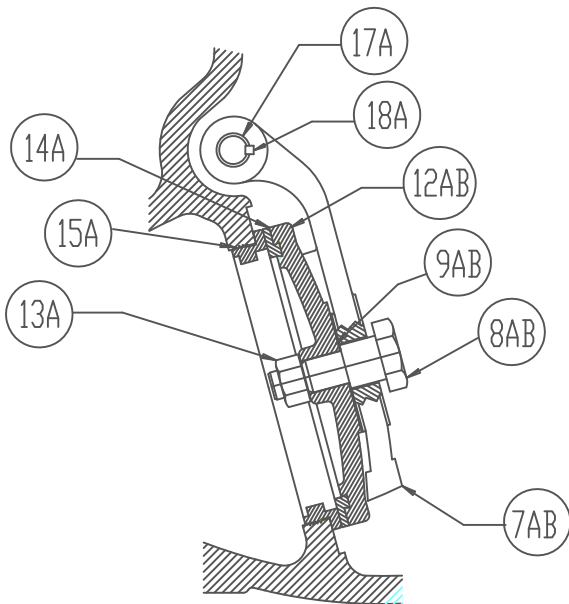
| PART | QTY | DESCRIPTION     | MATERIAL & ASTM SPEC. |
|------|-----|-----------------|-----------------------|
| 30A  | 1   | LIMIT SWITCH    | PER ENGINEER SPEC     |
| 31A  | 1   | BRACKET         | STEEL                 |
| 32A  | *   | MOUNTING SCREWS | ZINC PLATED STEEL     |

\* VARIES ACCORDING TO SIZE

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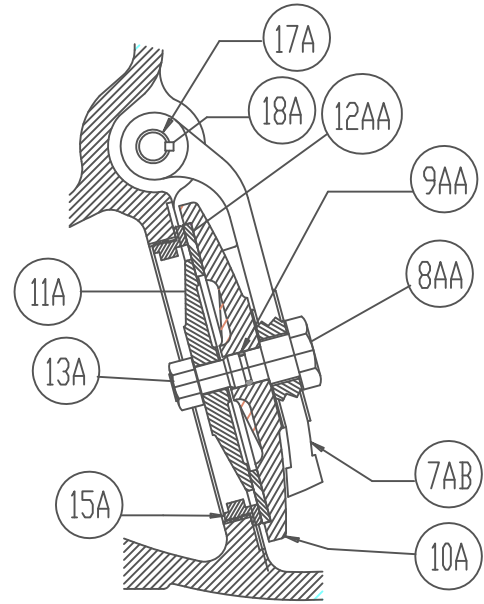
DWN: TRIJ  
 DATE: 9/1/12  
 DWG. NO.  
 CV-A1-LS

2" THRU 12"  
 LEVER & SPRING SWING CHECK  
 AWWA C508-STYLE 259-02  
 (PAGE 1 OF 2)



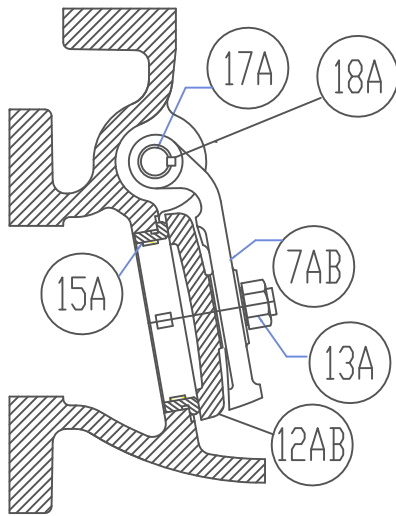
4'-12" LEVER & WEIGHT BRONZE SEATED DISC ASSEMBLY

|      |   |                          |                                  |
|------|---|--------------------------|----------------------------------|
| 7AB  | 1 | HINGE W/KEYWAY           | DUCTILE IRON A-536               |
| 8AB  | 1 | DISC BOLT                | (4'-8") STEEL---(10'-12") BRONZE |
| 9AB  | 2 | DISC BOLT WASHER (4'-8") |                                  |
| 12AB | 1 | DISC                     | CAST IRON A-126 CLASS B          |
| 13A  | 1 | DISC NUT                 | 18-8 STAINLESS STEEL             |
| 14A  | 1 | DISC RING                | BRONZE                           |
| 15A  | 1 | SEAT RING                | BRONZE                           |
| 17A  | 1 | EXTENDED HINGE PIN       | STAINLESS STEEL A-276 (304)      |
| 18A  | 2 | KEY                      | STAINLESS STEEL A-276 (304)      |



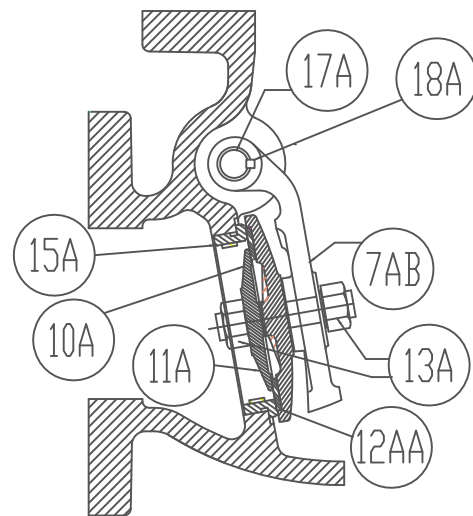
4'-12" LEVER & WEIGHT RESILIENT SEATED DISC ASSEMBLY

|      |   |                            |                                  |
|------|---|----------------------------|----------------------------------|
| 7AB  | 1 | HINGE W/KEYWAY             | DUCTILE IRON A-536               |
| 8AA  | 1 | DISC BOLT                  | (4'-8") STEEL---(10'-12") BRONZE |
| 9AA  | 1 | DISC BOLT O-RING (10',12") | SYNTHETIC RUBBER                 |
| 10A  | 1 | DISC HOLDER                | CAST IRON A-126 CLASS B          |
| 11A  | 1 | DISC PLATE                 | BRONZE                           |
| 12AA | 1 | DISC                       | NITRILE (BUNA N) RUBBER          |
| 13A  | 1 | DISC NUT                   | 18-8 STAINLESS STEEL             |
| 15A  | 1 | SEAT RING                  | BRONZE                           |
| 17A  | 1 | EXTENDED HINGE PIN         | STAINLESS STEEL A-276 (304)      |
| 18A  | 2 | KEY                        | STAINLESS STEEL A-276 (304)      |



2'-3" LEVER & WEIGHT BRONZE SEATED DISC ASSEMBLY

|      |   |                                |                             |
|------|---|--------------------------------|-----------------------------|
| 7AB  | 1 | HINGE W/KEYWAY                 | BRONZE                      |
| 12AB | 1 | DISC (WITH INTEGRAL DISC BOLT) | BRONZE                      |
| 13A  | 1 | DISC NUT                       | 18-8 STAINLESS STEEL        |
| 15A  | 1 | SEAT RING                      | BRONZE                      |
| 17A  | 1 | EXTENDED HINGE PIN             | STAINLESS STEEL A-276 (304) |
| 18A  | 2 | KEY                            | STAINLESS STEEL A-276 (304) |



2'-3" LEVER & WEIGHT RESILIENT SEATED DISC ASSEMBLY

|      |   |                                       |                             |
|------|---|---------------------------------------|-----------------------------|
| 7AB  | 1 | HINGE W/KEYWAY                        | BRONZE                      |
| 10A  | 1 | DISC HOLDER (WITH INTEGRAL DISC BOLT) | BRONZE                      |
| 11A  | 1 | DISC PLATE                            | BRONZE                      |
| 12AA | 1 | DISC                                  | NITRILE (BUNA N) RUBBER     |
| 13A  | 2 | DISC NUT                              | 18-8 STAINLESS STEEL        |
| 15A  | 1 | SEAT RING                             | BRONZE                      |
| 17A  | 1 | EXTENDED HINGE PIN                    | STAINLESS STEEL A-276 (304) |
| 18A  | 2 | KEY                                   | STAINLESS STEEL A-276 (304) |

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2" THRU 12"  
LEVER & SPRING SWING CHECK  
AWWA C508-STYLE 259-02  
(PAGE 2 OF 2)