

GOLDEN-ANDERSON[®]

“Cushioned”

CONTROLLED-CLOSING SWING CHECK

FOR SEWAGE AND WASTE-WATER APPLICATION

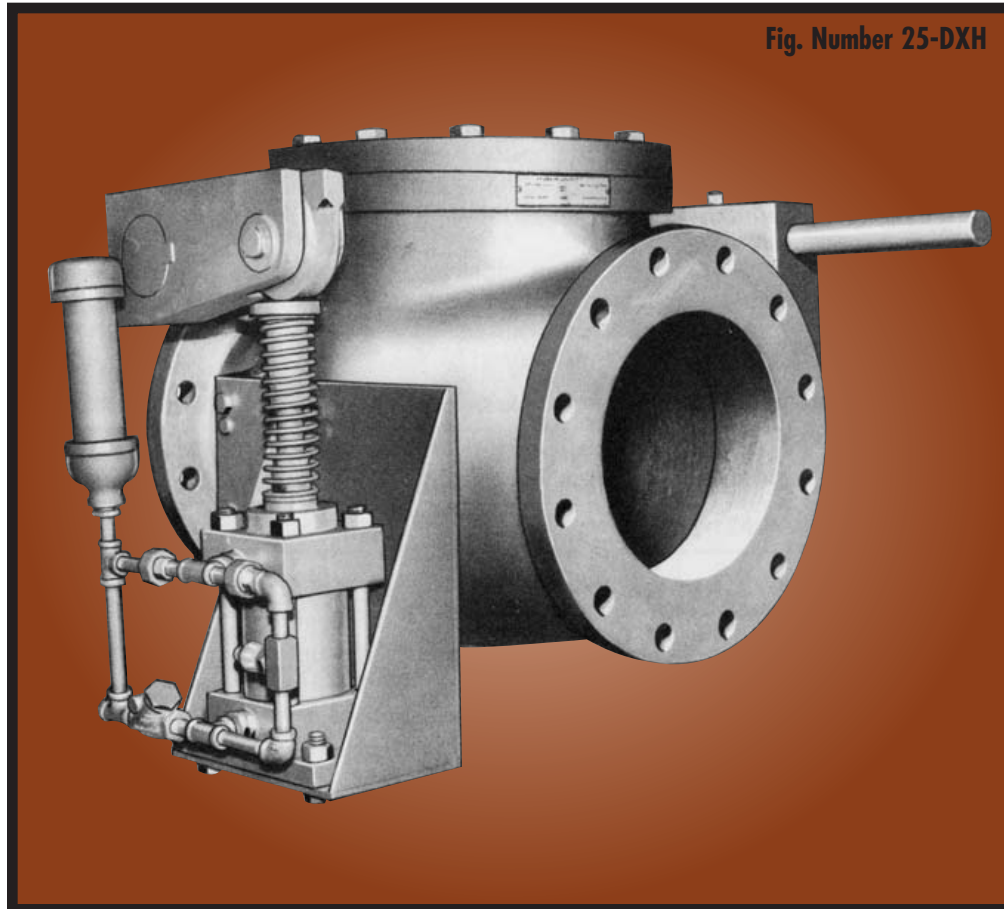


Fig. Number 25-DXH

BULLETIN-S-25-DX

GA Industries Inc.

GA Industries Inc.

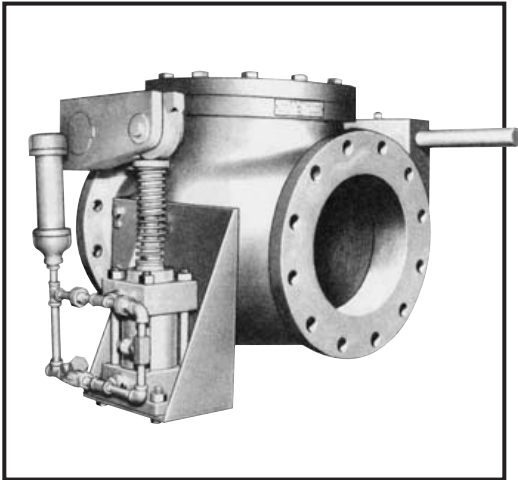


MANUFACTURERS OF
GOLDEN ANDERSON[®] VALVES

GOLDEN-ANDERSON

Controlled Closing Swing Check Valves

Fig. Number 25-DXH



SPECIFY AND USE the “Controlled Closing” Swing Check Valve. This valve is designed to open smoothly on pump start-up, provide full pipe line flow, permit minimum head loss AND close at a controlled speed for the final predetermined (adjustable) portion of its stroke following the pump shutdown. **PROTECT YOUR SYSTEM FROM SURGE AND HAMMER.**

FEATURES

1. Adjustable final, closing speed
2. Adjustable cushioned closing stroke
3. Rapid initial closing
4. Minimum resistance to flow
5. No electric required
6. No outside power source
7. Tight closing
8. Renewable Seat Washer

DIN, ISO, BS or Special Flanges are available.
Consult the Factory for details.

DESCRIPTION

Controlled Closing Swing Check Valves, Fig. 25-DXH, are designed for installations on the discharge of a pump to minimize normal shut-down surges.

SPECIFICATIONS

The function of the Controlled Closing Check Valve is to open smoothly on the start-up of a pump and close at a controlled rate of speed for the final predetermined portion of its stroke, following the pump shut-down. The valve shall be installed in a (horizontal or vertical) position, and shall be of the Swing Check Design such that the hinge shaft is above the water way.

The valve body shall be Cast Iron ASTM A126-B. The disc arm and chamber level shall be of heavy steel construction and keyed to the hinge shaft. The hinge shaft shall be of 18-8 stainless steel and of adequate diameter to withstand a complete hydraulic unbalance pressure of 125 psi on the valve disc. A single cushioning device mounted on the external side of the valve shall control the valve closure by way of the interchange of oil to and from an oil reservoir. The use of air or gas pressurized oil reservoir shall not be permitted. The oil plunger assembly shall be rigidly attached to the valve body by shoulder bolts or dowel pins to prevent fretting.

The manufacturer, if required by the engineer, shall submit design calculations of principle component stresses to substantiate the integrity of the valve for the working pressure involved.

On the start-up of the pump, the check valve disc shall open in response to the flow and then afford the minimum resistance to the flow.

Upon the pump shut-down, the valve’s counterweight shall initiate the valve closure at an unrestricted rate until the valve disc reaches the pre-selected point of closure. The point at which the adjustable closing speed occurs may be modified in the field. The closing speed shall also be adjustable in the field, and shall be by way of a micrometer type needle valve.

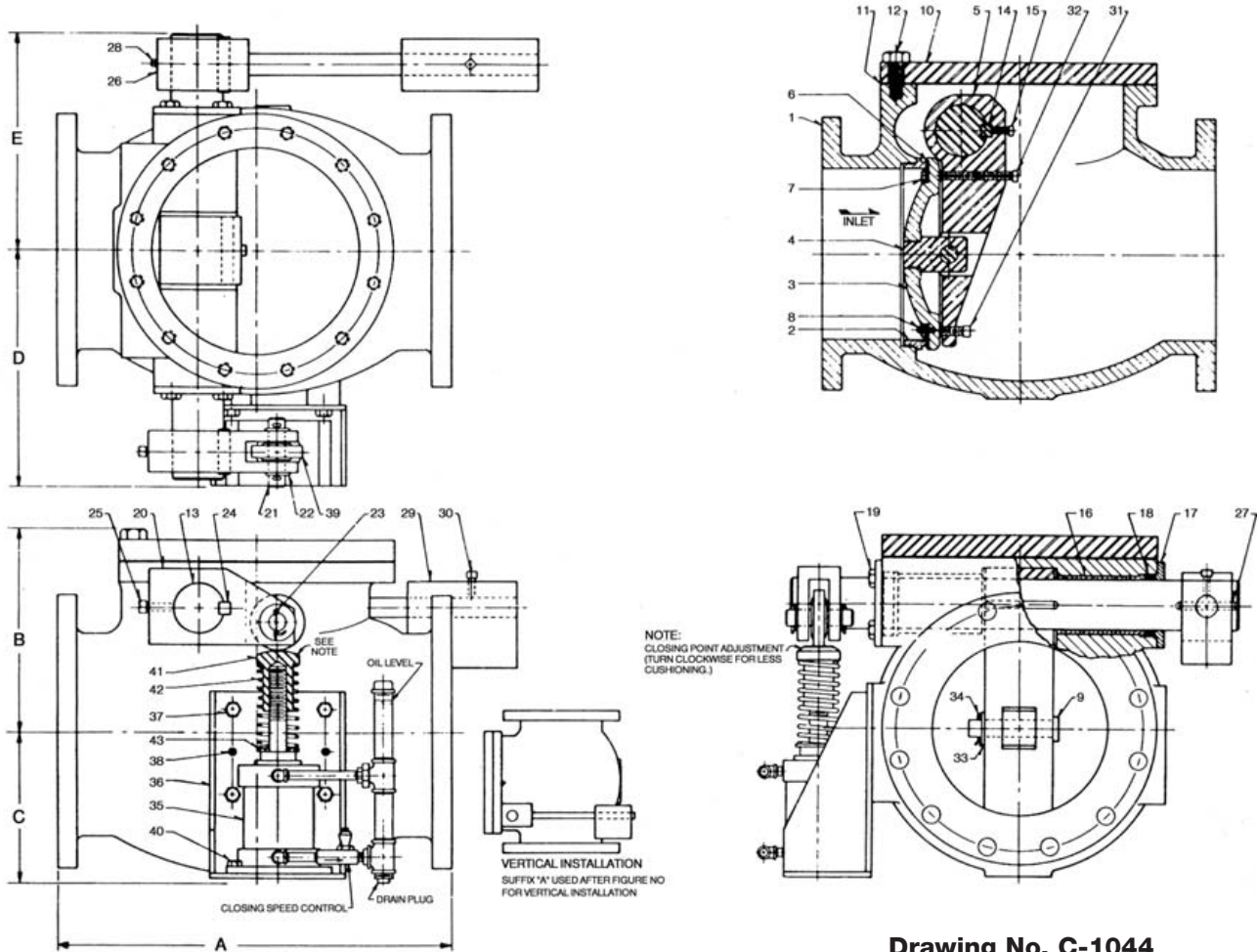
The valve when closed shall be tight seating by way of a resilient replaceable seat against a bronze seat ring in the body.

Material and workmanship shall be first class throughout and the valve shall be as manufactured by GA Industries of Mars, PA and shall be their _____ size Fig. 25-DXH.

MATERIALS OF CONSTRUCTION

| PART | MATERIAL | ASTM or SAE |
|---------------------------------|-------------------------------|-----------------------------|
| Body, Cover Disc, Levers | Cast Iron (semi-steel) | A 126 Cl. B. |
| Disc Arm | Cast Steel | A 216 Cl. WCB |
| Seat | Bronze or Stainless Steel | B 62 A-157-C 9 |
| Seat Ring | Rubber or Metal to Suit | 80 Dur. |
| Yoke Gasket | Composition or Composition | Garlock660 7021 or equal |
| Hinge Shaft | Stainless Steel | Type 303 |
| Studs, Bolts, Nuts | Steel | Commercial |
| Shhhockless Chamber Assembly | Steel | Commercial |
| Stuffing Box Packing | Composition | Garlock 234 or equal |

Arrangement And Dimensions



Drawing No. C-1044

GENERAL DIMENSIONS — Inches & Millimeters

| VALVE SIZE | IN | 2 | 2 1/2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 |
|-----------------|-----|-----|-------|-----|-----|--------|-----|-----|------|------|------|
| | MM | 50 | 63 | 76 | 101 | 152 | 203 | 254 | 304 | 355 | 406 |
| A | IN | 12 | 12 | 12 | 13 | 17 1/2 | 18 | 23 | 28 | 33 | 36 |
| | MM | 305 | 305 | 305 | 330 | 445 | 457 | 584 | 711 | 838 | 914 |
| B | IN | 8 | 8 | 8 | 9 | 10 | 12 | 15 | 15 | 27 | 27 |
| | MM | 203 | 203 | 203 | 229 | 254 | 305 | 381 | 381 | 686 | 686 |
| C | IN | 11 | 11 | 11 | 12 | 12 | 14 | 14 | 12 | 19 | 19 |
| | MM | 279 | 279 | 279 | 305 | 305 | 356 | 356 | 305 | 483 | 483 |
| D | IN | 10 | 10 | 10 | 11 | 11 | 13 | 15 | 17 | 20 | 21 |
| | MM | 254 | 254 | 254 | 279 | 279 | 330 | 381 | 432 | 508 | 533 |
| E | IN | 7 | 7 | 7 | 8 | 9 | 11 | 13 | 15 | 20 | 21 |
| | MM | 178 | 178 | 178 | 203 | 229 | 279 | 330 | 381 | 508 | 533 |
| Shipping Weight | LBS | 145 | 147 | 150 | 200 | 300 | 400 | 550 | 1100 | 1650 | 1995 |
| | KGS | 65 | 66 | 68 | 90 | 136 | 180 | 249 | 498 | 748 | 904 |

Notes: Flanges per ANSI B16.1, unless otherwise called out on customer's order. For valves larger than shown consult factory

LIST PARTS

| | | | |
|----|----------------------|----|-----------------------------------|
| 1 | BODY | 24 | LEVER KEY |
| 2 | SEAT | 25 | LEVER SETSCREW |
| 3 | DISC | 26 | COUNTERWEIGHT ARM |
| 4 | DISC CLEVIS | 27 | CWT ARM KEY |
| 5 | DISC ARM | 28 | CWT ARM SET SCREW |
| 6 | SEAT WASHER | 29 | COUNTERWEIGHT |
| 7 | SEAT FOLLOWER | 30 | CWT SET SCREW |
| 8 | SEAT FOLLOWER SCREWS | 31 | LOWER DISC ARM SCREW |
| 9 | DISC CLEVIS PIN | 32 | UPPER DISC ARM SCREW |
| 10 | COVER | 33 | DISC CLEVIS WASHER |
| 11 | COVER GASKET | 34 | DISC-CLEVIS COTTER PIN |
| 12 | COVER BOLTS | 35 | ADJ. HYDRAULIC CLOSING SPEED UNIT |
| 13 | SHAFT | 36 | BRACKET |
| 14 | DISC ARM KEY | 37 | BRACKET BOLTS |
| 15 | DISC ARM SET SCREW | 38 | BRACKET DOWEL PINS |
| 16 | SHAFT BUSHING | 39 | CAM ROLLER |
| 17 | PACKING GLAND | 40 | HYDRAULIC UNIT |
| 18 | PACKING | 41 | MOUNTING BOLTS |
| 19 | GLAND BOLTS | 42 | ADJUSTABLE STRIKER |
| 20 | LEVER | 43 | SPRING |
| 21 | LEVER PIN | | SPRING WASHER |
| 22 | LEVER WASHER | | |
| 23 | LEVER COTTER PINS | | |

GOLDEN-ANDERSON® “Cushioned”

THE “CUSHIONED” CONTROLLED CLOSING SWING CHECK VALVE

PARTIAL LIST OF INSTALLATIONS

| User | Size | Year | User | Size | Year |
|--------------------|---------|------|--------------------|------|------|
| Pensacola, FLA | 14” | 1975 | Aurora, NY | 8” | 1982 |
| Hazelton, PA | 8” & 6” | 1975 | Rocky Mount, NC | 12” | 1982 |
| West Chester, PA | 14” | 1979 | Belton, SC | 12” | 1982 |
| Greensboro, NC | 10” | 1980 | Stratford, Ontario | 14” | 1982 |
| Shrewsbury, MA | 10” | 1979 | Toronto, Ontario | 18” | 1981 |
| Essex, MD | 16” | 1979 | Hellertown, PA | 18” | 1981 |
| Greenwich, CT | 4” | 1980 | Jackson, MS | 6” | 1978 |
| Strathory, Ontario | 6” | 1980 | Starkville, MS | 10” | 1980 |
| Rochester, NY | 4” | 1981 | Mineral Wells, TX | 12” | 1980 |
| Falls Church, VA | 12” | 1982 | Smithtown, NY | 6” | 1980 |
| London, Ontario | 14” | 1981 | Montgomery, PA | 6” | 1981 |
| Richmond, VA | 10” | 1982 | Natchitoches, LA | 12” | 1982 |
| | | | Birmingham, AL | 16” | 1979 |

WARRANTY

This GA Industries product is made of the finest available suitable materials and every possible precaution has been taken to assure premium workmanship consistent with established quality control. Valves or parts which are proved faulty due to defective materials or poor workmanship will be replaced free of charge, FOB. our plant upon presentation of such proof. This warranty shall not cover the cost of installation and is valid for a period of one year from date of shipment. Specifications are subject to change; certified prints upon request with order.

GA Industries Inc.



MANUFACTURERS OF
GOLDEN ANDERSON® VALVES

GA Industries Inc.

9025 MARSHALL ROAD
CRANBERRY TOWNSHIP, PA 16066-3696 USA
PHONE: (724) 776-1020 • FAX: (724) 776-1254
WEB SITE: www.gaindustries.com
E-MAIL: ga@gaindustries.com

MEMBER



Water & Wastewater Equipment
Manufacturers Association, Inc.

ESTABLISHED 1908



Member AWWA

COMM 07/04
PRINTED IN THE USA