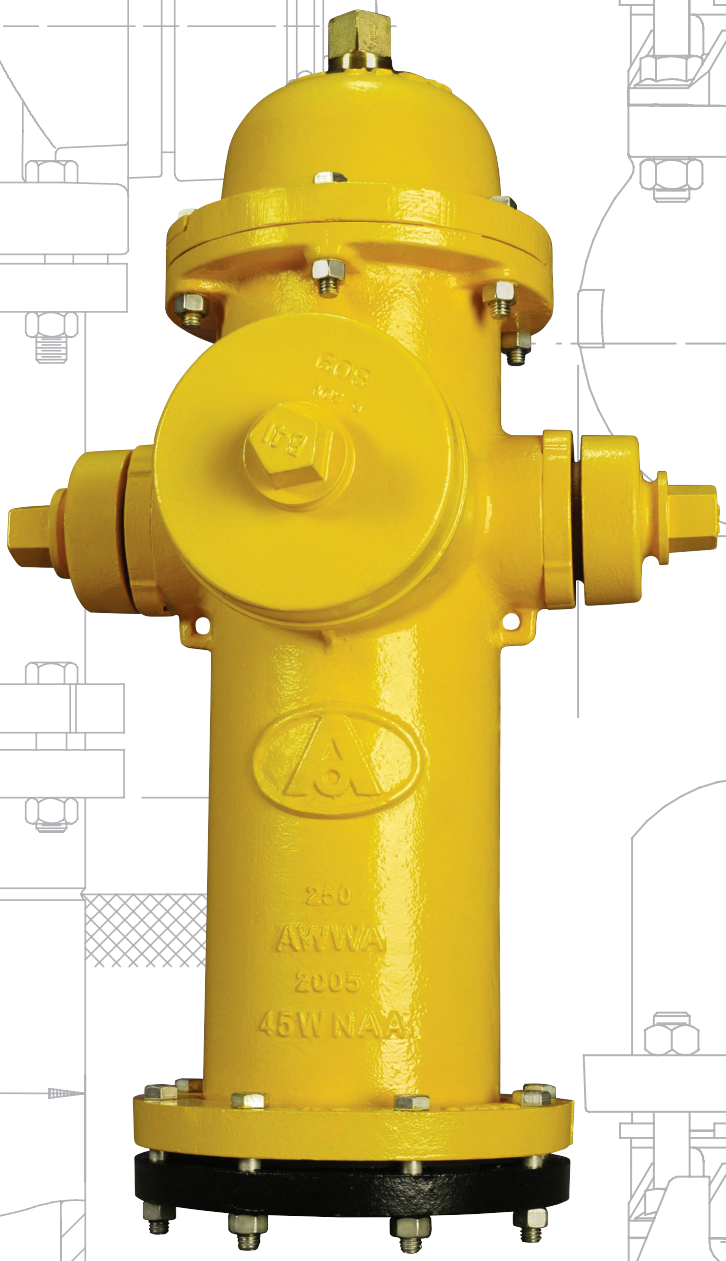
AMERICAN-DARLING FIRE HYDRANT 5¼" B-84-B-5



AMERICAN-DARLING
5¼" B-84-B-5 FIRE HYDRANT

AMERICAN FLOW CONTROL
It's What We Know.®

CONSTRUCTION

OPERATING NUT
Cast one-piece bronze operating nut. Design of the operating thread permits slow closing of the hydrant valve, reducing the possibility of water hammer.

TOP TRAVEL STOP NUT
Provides a positive limit to main rod travel. Eliminates contact of valve bottom with interior of base, thereby protecting coating.

O-RINGS
Seal lubrication chamber, assure dry-top hydrant, reduce friction, prevent water from reaching the operating mechanism.

HYDRANT ROD
Furnished in two sections of high-tensile steel. Upper section has bronze sleeve where it passes through O-rings. Upper and lower sections are connected by cast iron coupling using stainless steel pins.

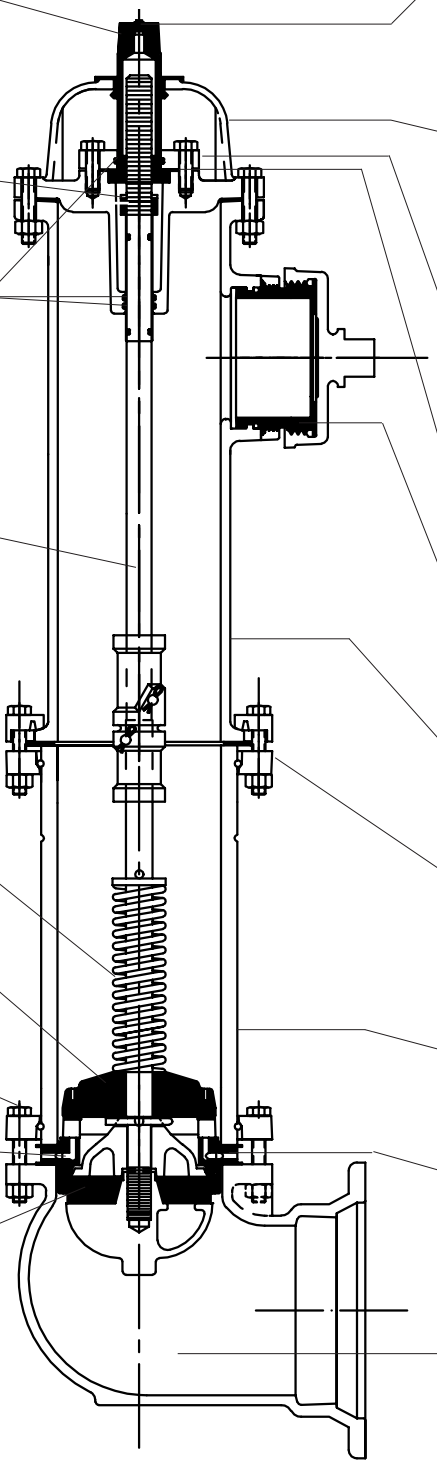
HYDRANT SPRING
Assures quick drain closure and allows throttling.

DRAIN LEVER
Rugged bronze lever performs dual function as carrier for drain lever washers and as wrench to remove working parts.

BASE BOLTS AND NUTS
Are stainless steel for corrosion resistance.

HYDRANT SEAT
Made of bronze, with accurately machined seat for hydrant valve with two drain ports.

HYDRANT VALVE
Consists of a gray iron valve top and ductile valve bottom and hydrant valve rubber. Rod threads are permanently sealed from contact with water. Hydrant valve seals against the bronze hydrant seat.



PIPE PLUG
Provides access to lubrication chamber. Pipe plug can be replaced with lubricating fitting to lubricate the rod threads and thrust washers.

WEATHER COVER
(gray iron with rubber weather shield) The word "open" and an arrow show direction to turn the operating nut. The rubber weather shield prevents water and debris from entering the housing area.

HOUSING AND HOUSING COVER
Retain operating nut and thrust washer. Rugged construction withstands operating forces.

THRUST WASHER
Takes upward thrust when opening hydrant valve and reduces operating torque.

NOZZLES
Patented design allows field replacement of damaged nozzles in minutes by one person.

UPPER BARREL
Ductile iron with markings identifying size, model, and year of manufacture.

TRAFFIC FEATURE
Upper barrel is connected to lower barrel with breakable traffic flange and 8 bolts and nuts. This feature allows 360° rotation of upper nozzle section.

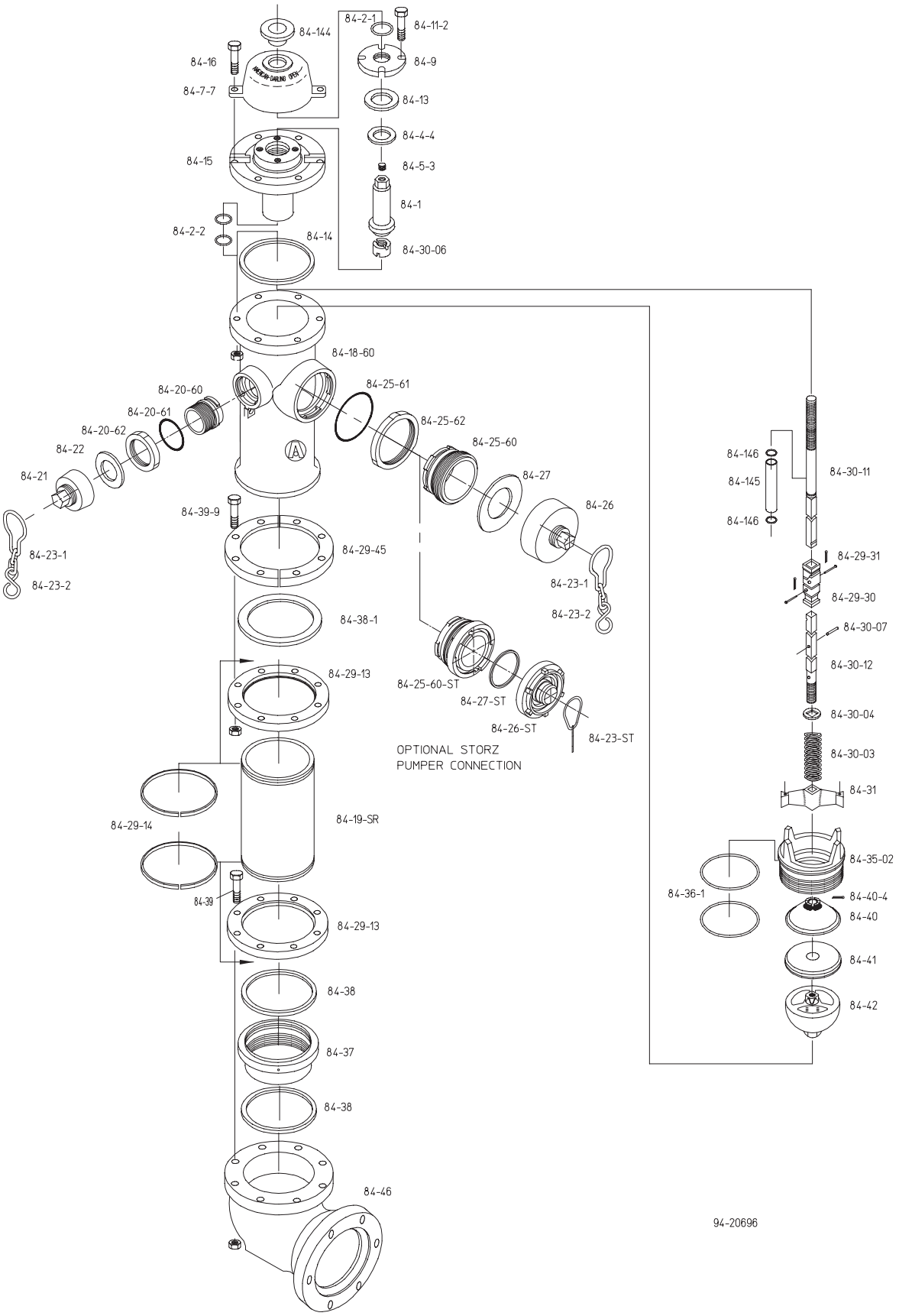
LOWER BARREL
The ductile iron lower barrel provides extra strength against traffic impact damage.

HYDRANT DRAIN RING
Securely held between barrel and base flange, provides bronze-to-bronze threaded connection for hydrant seat. Serves as four non-corrosive multiport drain channels.

BASE
Spherical-shaped base has no projections or cavities to obstruct flow or collect sediment. 6" base is epoxy-coated ductile iron.

Fully complies with AWWA C502 and is available UL 246 and Factory Mutual Approved for allowable configurations.

EXPLODED DRAWINGS



PARTS LIST

84-1	1	Operating Nut	Bronze
84-2-1	1	Cover O-ring	Buna-N
84-2-2	2	Housing O-ring	Buna-N
84-4-4	1	Thrust Washer	Nylatron
84-5-3	1	Pipe Plug	Stainless Steel
84-7-7	1	Weather Cover	Gray Iron
84-9	1	Housing Cover	Gray Iron
84-11-2	4	Housing Cover Cap Screw	See Note 4
84-13	1	Housing Cover Gasket	Fiber
84-14	1	Housing Gasket	Composition Rubber
84-15	1	Housing	Ductile Iron
84-16	6	Housing Bolt and Nut	See Note 4
84-18-60	1	Upper Barrel	Ductile Iron
84-19-SR	1	Lower Barrel	Ductile Iron
84-20-60	2	Hose Nozzle	Bronze (See Note 9)
84-20-61	2	Hose Nozzle Seal	Buna-N
84-20-62	2	Hose Nozzle Retainer	Ductile Iron
84-21	2	Hose Cap	Gray Iron
84-22	2	Hose Cap Gasket	Rubber
84-23-1	1 Per Nozzle	Hose Cap Chain	Steel
84-23-2	1 Per Nozzle	S-Hook	Steel
84-23-18	1 Per Nozzle	Pumper Cap Chain	Steel
84-25-60	1 or 0	Pumper Nozzle	Bronze (See Note 9)
84-25-61	1 Per Nozzle	Pumper Nozzle Seal	Buna-N
84-25-62	1 Per Nozzle	Pumper Nozzle Retainer	Ductile Iron
84-26	1 Per Nozzle	Pumper Cap	Gray Iron
84-27	1 Per Nozzle	Pumper Cap Gasket	Rubber
84-29-13	2	Barrel Flange	Ductile Iron
84-29-14	2	Snap Ring	Stainless Steel
84-29-30	1	Rod Coupling	Gray Iron
84-29-31	2	Coupling and Cotter Pin	Stainless/Bronze
84-29-45	1	Breakable Flange	Gray Iron
84-30-03	1	Hydrant Spring	Spring Steel
84-30-04	1	Spring Plate	Steel
84-30-06	1	Travel Stop Nut	Bronze (See Note 9)
84-30-07	1	Spring Plate Pin	Steel
84-30-11	1	Upper Hydrant Rod	Steel
84-30-12	1	Lower Hydrant Rod	Steel
84-31	1	Drain Lever	Bronze (See Note 9)
84-35-02	1	Hydrant Seat	Bronze (See Note 9)
84-36-1	2	Seat O-ring	Buna-N
84-37	1	Drain Ring	Bronze (See Note 9)
84-38	2	Drain Ring Gasket	Composition Rubber
84-38-1	1	Barrel Gasket	Composition Rubber
84-39	8	Base Bolt and Nut	Stainless Steel
84-39-9	8	Barrel Bolt and Nut	See Note 4
84-40	1	Hydrant Valve Top	Gray Iron
84-40-4	1	Cotter Pin	Stainless Steel
84-41	1	Hydrant Valve	Rubber
84-42	1	Hydrant Valve Bottom	Ductile Iron
84-46-2	1	Flanged Base	Ductile Iron
84-46-5	1	Mechanical Joint Base	Ductile Iron
84-46-TY	1	Tyton Base	Ductile Iron
84-144	1	Weather Shield	Rubber
84-145	1	Rod Sleeve	Bronze
84-146	2	Sleeve O-ring	Buna-N

NOTES

1. Size and shape of nut on operating nut and cap, threading on nozzles and caps, and the direction of opening made to specifications.
2. Cap chains are not furnished unless specified.
3. All gray iron is ASTM A126 class B.
4. Bolts and nuts are rustproofed steel ASTM A307 in accordance with AWWA C502.
5. Working pressure 250 p.s.i.g., test pressure 500 p.s.i.g.
6. Hydrant conforms to AWWA specifications C502.
7. Upper barrel can be rotated 360°.
8. Factory Mutual Approved and Underwriters Laboratories Listed at 200 p.s.i.g. in allowable configurations.
9. Bronze in contact with water contains less than 16 percent zinc.
10. 6-inch mechanical joint base is ductile iron.
11. Nominal turns to open is 19-1/2.

SUBMITTAL DATA

Depth of trench or bury				
Size and type of base connection	4" M.J.	6" M.J. FLG	6" Tyton AC	8" M.J. FLG
Direction to open	LEFT (CCW)		RIGHT (CW)	
Paint color				
Number of hose nozzles	2			
Hose nozzle size				
Steamer nozzle	YES		NO	
Steamer nozzle size				
Nozzle cap chains	YES		NO	
City specified				
UL-FM	YES		NO	

FEATURES

American Flow Control's American-Darling **5-1/4" B-84-B-5** hydrant incorporates more than 80 years of experience in design, manufacture, and field experience. This means dependable and efficient operation when needed.

Introduced in 1984, the **B-84-B-5** hydrant is rated at 250 p.s.i.g. and is seat tested at 500 p.s.i.g. This hydrant meets or exceeds all requirements of AWWA C502 for dry-barrel hydrants.

The **B-84-B-5** hydrant is loaded with the features you expect from a high-quality fire hydrant. The all bronze seat and drain ring ensure that the **B-84-B-5** hydrant is easily repaired by just one person.

Optional UL-FM

The **B-84-B-5** hydrant is listed by Underwriters Laboratories, Inc., as meeting their standard UL 246, latest edition. The Factory Mutual Research Corporation has approved the **B-84-B-5**. Both Underwriters Laboratories and Factory Mutual Research Corporation require that we consistently manufacture and test our hydrants in full compliance with their stringent requirements. Our facilities are subject to periodic inspections to ensure we are in compliance with their standards.

The B-84-B-5 hydrant has these standard features:

- Positive compression, fast-closing drains
- Travel stop located in top of hydrant
- Bronze-to-bronze seating
- Short, lightweight, disassembly wrench
- Easy 360° rotation of nozzle section
- All bases are epoxy-coated ductile iron
- Centrifugally cast, high-strength ductile iron lower and upper barrel
- Sealed lubrication chamber
- Lower valve ball is epoxy coated

BENEFITS

Spring-Loaded Multiport Drains

There are two drain ports and four drain outlets as a standard feature on the **B-84-B-5** hydrant. The rod spring assures drains close after approximately three turns of the operating nut. This important safety feature prevents wash-outs that can happen on hydrant designs that do not have this important feature.

Sealed Lubrication Chamber

Seals operating threads from water and debris which greatly reduces routine maintenance.

Top Travel Stop Nut

Helps prevent stem buckling and damage to bronze components which may occur if excessive torque is applied in the full open position.

SPECIFICATIONS

Fire hydrants shall meet or exceed AWWA C502, latest revision. Rated working pressure shall be 250 p.s.i.g., test pressure shall be 500 p.s.i.g., and hydrants shall include the following specific design criteria:

The main valve closure shall be of the compression type. Traffic feature to be designed for easy 360° rotation of nozzle section during field installation.

The main valve opening shall not be less than 5-1/4" and be designed so that removal of all working parts can be accomplished without excavating. The bronze seat shall be threaded into mating threads of bronze. The draining system of the hydrant shall be bronze and positively activated by the main operating rod. Hydrant drains shall close completely after no more than three turns of the operating nut. There shall be a minimum of two internal ports and four drain port outlets to the exterior of the hydrant. Drain shutoff to be by direct compression closure.

Hydrant barrels shall be made of centrifugally cast ductile iron.

Friction loss not to exceed 3.0 p.s.i.g. at 1000 gpm through 4-1/2" pumper nozzle. Hydrants shall be equal to American Flow Control's **American-Darling 5-1/4" B-84-B-5.**

American Flow Control

American-Darling Valve and Waterous

A Division of American Cast Iron Pipe Company

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