

Hydrants D-5

American-Darling B-84-B-5



American Flow Control's American-Darling 5¼" 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.

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 5¼" 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 4½" pumper nozzle. Hydrants shall be equal to American Flow Control's American-Darling 5¼" B-84-B-5.

| BURY | DIR. TO OPEN | PRODUCT NUMBER | |
|-------|--------------|-----------------|-----------------|
| | | HYDRANT W/DRAIN | HYDRANT L/DRAIN |
| 5' 0" | OL | 42682 WD | 42682 ND |
| 5' 6" | OL | 42682 1 WD | 42682 1 ND |
| 6' 0" | OL | 42681 2 WD | 42681 2 ND |
| 6' 6" | OL | 42681 3 WD | 42681 3 ND |
| 7' 0" | OL | 42681 4 WD | 42681 4 ND |
| 7' 6" | OL | 42681 5 WD | 42681 5 ND |
| 5' 0" | OR | 42684 WD | 42684 ND |
| 5' 6" | OR | 42684 1 WD | 42684 1 ND |
| 6' 0" | OR | 42684 2 WD | 42684 2 ND |
| 6' 6" | OR | 42684 3 WD | 42684 3 ND |
| 7' 0" | OR | 42684 4 WD | 42684 4 ND |
| 7' 6" | OR | 42684 5 WD | 42684 5 ND |

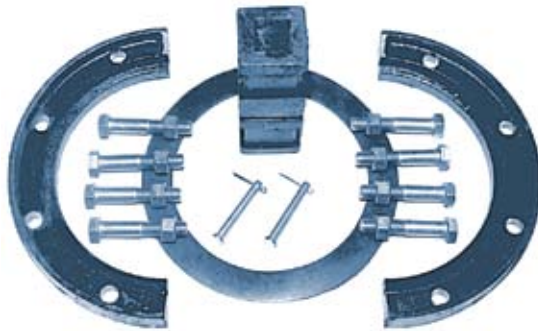
WD — With drains open

ND — With drains plugged

* Hydrants listed are with 1½" Pentagon operating nut and 2-2½" Hose nozzles and 1-4½" Pumper nozzle all NST (national standard).

NOTE: Demonstration trailer and training tapes are available. Please call your local Team EJP sales office for more information.

B-84-B-5 Break Repair Kit



The B-84-B Break Repair Kit makes it a quick and simple job to repair a hydrant that has been damaged by traffic. This kit contains all the parts needed to replace those parts designed to break away upon impact from a vehicle.

| DESCRIPTION | PRODUCT NUMBER |
|---------------------------------|----------------|
| B-84-B Hydrant Break Repair Kit | 42714 |

B-84-B-5 Top Extension Kit



The 5¼" B-84-B hydrant is extended at the barrel flange above the ground line, eliminating any need for excavation. The B-84-B Top Extension Kit (for traffic model hydrants) includes all parts necessary to extend the hydrant.

| DESCRIPTION | PRODUCT NUMBER |
|----------------------------------|----------------|
| 6" B-84-B Hydrant Top Extension | 42720 |
| 12" B-84-B Hydrant Top Extension | 42720 1 |
| 18" B-84-B Hydrant Top Extension | 42720 2 |
| 24" B-84-B Hydrant Top Extension | 42720 3 |

NOTES:

- Longer extension barrels are available by special order. Contact your local Team EJP sales office for price and availability.
- When extending hydrants, the existing breakable coupling must be moved to the top of the new extension barrel to maintain traffic feature.

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American-Darling B-84-B-5

5 1/4" B-84-B-5 Fire Hydrant 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

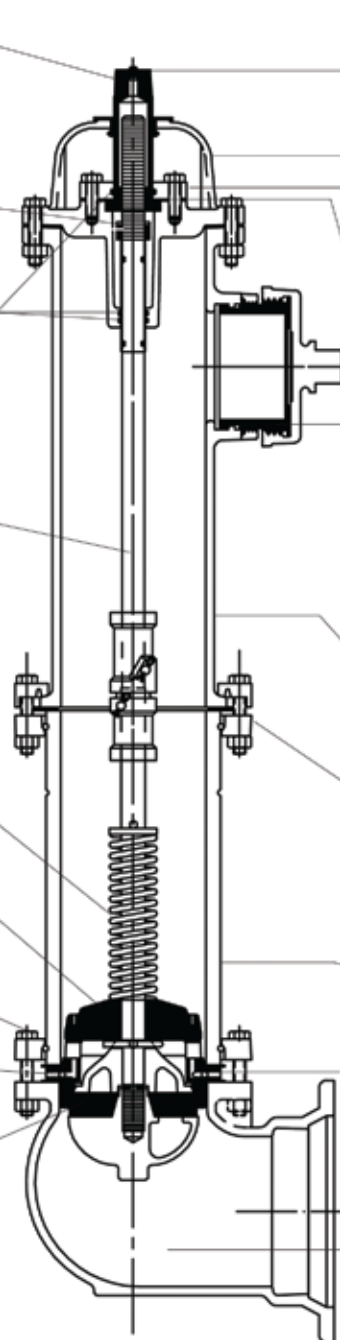
The ductile iron lower barrel provides extra strength against traffic impact damage.

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.

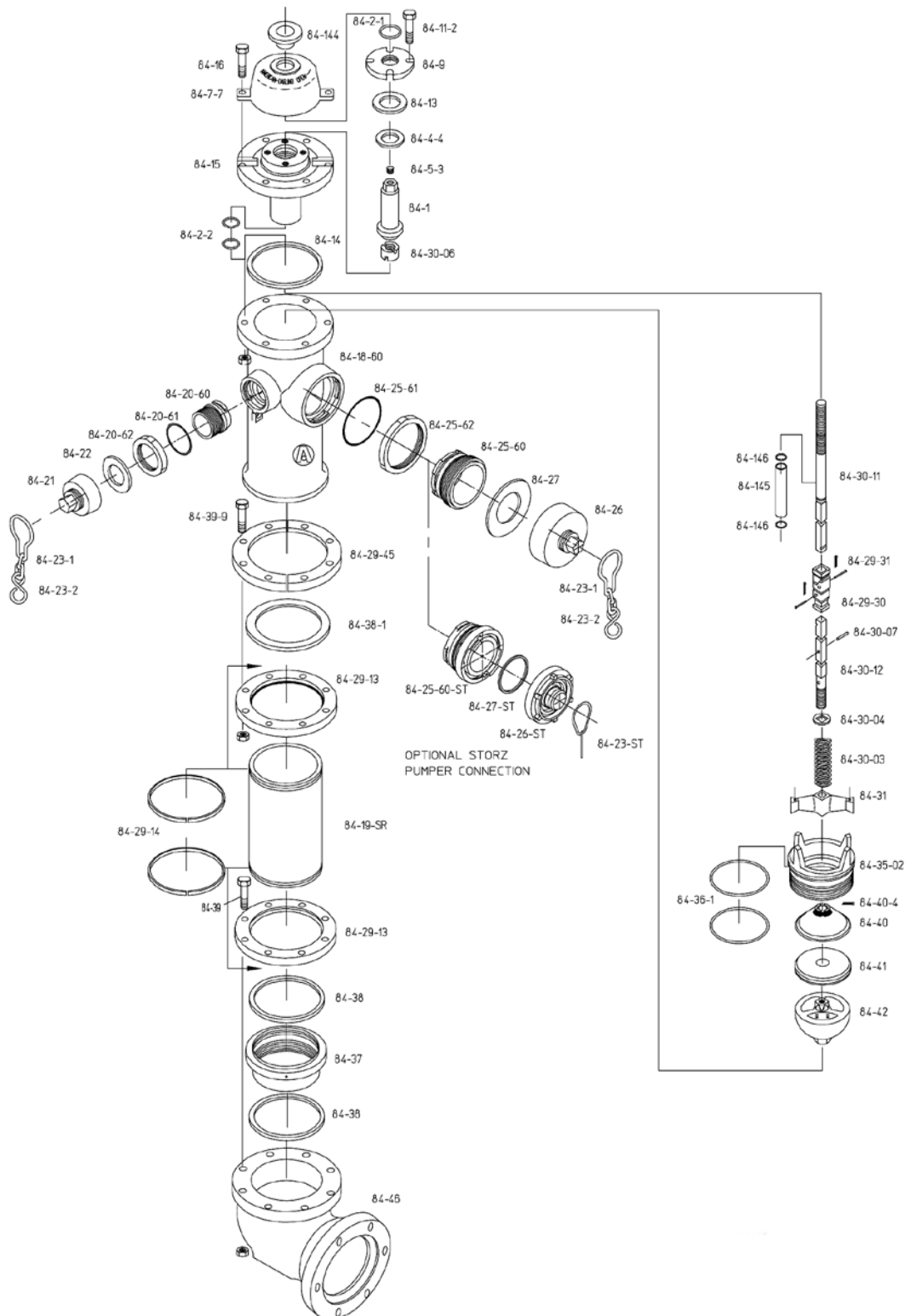


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American-Darling B-84-B-5



B-84-B-5 Parts Illustration



Hydrants D-8

American- Darling B-84-B-5

Parts List For 5¼" B-84-B-5 Fire Hydrant

How to Order Parts

The part number shown should be prefixed by the following numbers to designate the size and model of hydrant:

54 for 5¼" valve opening

45 for 4½" valve opening

EXAMPLE:

5¼" Operating Nut — 54-84-1

NOTES:

- Size and shape of nut on operating nut and cap, threading on nozzles and caps and the direction of opening made to specifications.
- Cap chains not furnished unless specified.
- All gray iron is ASTM A126 class B.
- Bolts and nuts are rustproofed steel ASTM A307 in accordance with AWWA C502.
- Working pressure 250 psig, test pressure 500 psig.
- Hydrant conforms to AWWA Standard C502.
- Upper barrel can be rotated 360°.
- Factory Mutual Approved and Underwriters Laboratories Listed at 200 psig in allowable configurations.
- Bronze in contact with water contains less than 16% zinc.
- 6" Mechanical joint base is ductile iron.
- Nominal turns to open is 19½.

| PART NO. | QTY | DESCRIPTION | MATERIAL | PRODUCT NUMBER |
|----------|--------------|-----------------------------|---------------------|----------------|
| 84-1 | 1 | Operating Nut OR | Bronze | 42718 02 |
| 84-1 | 1 | Operating Nut OL | Bronze | 42718 01 |
| 84-2-1 | 1 | Cover O-ring | Buna-N | 42718 03 |
| 84-2-2 | 2 | Housing O-ring | Buna-N | 42718 04 |
| 84-4-4 | 1 | Thrust Washer | Nylatron | 42718 05 |
| 84-5-3 | 1 | Pipe Plug | Stainless Steel | 42718 06 |
| 84-7-7 | 1 | Weather Cover OL | Gray Iron | 42718 071 |
| 84-7-7 | 1 | Weather Cover OR | Cast Iron | 42718 072 |
| 84-9 | 1 | Housing Cover OR-OL | Gray Iron | 42718 10 |
| 84-11-2 | 4 | Housing Cover Cap Screw | See Note 4 | 42718 11 |
| 84-13 | 1 | Housing Cover Gasket | Fiber | 42718 08 |
| 84-14 | 1 | Housing Gasket | Composition Rubber | 42718 09 |
| 84-15 | 1 | Housing | Ductile Iron | 42718 12 |
| 84-16 | 6 | Housing Bolt and Nut | See Note 4 | 42718 13 |
| 84-18-60 | 1 | Upper Barrel w/Steamer | Ductile Iron | 42718 141 |
| 84-19-SR | 1 | Lower Barrel | Ductile Iron | 42718 17 |
| 84-20-60 | 2 | 2½" Hose Nozzle NST | Bronze (See Note 9) | 42718 151 |
| 84-20-61 | 2 | Hose Nozzle O-Ring | Buna-N | 42718 161 |
| 84-20-62 | 2 | Hose Nozzle Retainer | Ductile Iron | 42718 162 |
| 84-20-63 | 2 | Hose Nozzle Washer | Teflon | 42718 163 |
| 84-21 | 2 | Hose Cap | Gray Iron | 42718 18 |
| 84-22 | 2 | Hose Cap Gasket | Rubber | 42718 19 |
| 84-23-1 | 1 Per Nozzle | Nozzle Cap Chain | Steel | 42700 24 |
| 84-23-2 | 1 Per Nozzle | Cap Chain S-Hook | Steel | 42700 241 |
| 84-25-60 | 1 or 0 | Pumper Nozzle | Bronze (See Note 9) | 42718 221 |
| 84-25-61 | 1 Per Nozzle | Pumper Nozzle O-Ring | Buna-N | 42718 201 |
| 84-25-62 | 1 Per Nozzle | Pumper Nozzle Retainer | Ductile Iron | 42718 202 |
| 84-25-63 | 1 Per Nozzle | Pumper Nozzle Washer | Teflon | 42718 203 |
| 84-26 | 1 Per Nozzle | Pumper Cap | Gray Iron | 42718 23 |
| 84-27 | 1 Per Nozzle | Pumper Cap Gasket | Rubber | 42718 241 |
| 84-29-13 | 2 | Non-Breakable Flange | Ductile Iron | 42718 25 |
| 84-29-14 | 2 | Snap Ring | Stainless Steel | 42718 26 |
| 84-29-30 | 1 | Break Rod Coupling | Gray Iron | 42718 27 |
| 84-29-31 | 2 | Rod Cplg. Pin and Clip Pins | Stainless/Bronze | 42718 28 |
| 84-29-45 | 1 | Breakable Barrel Flange | Gray Iron | 42718 29 |
| 84-30-03 | 1 | Hydrant Spring | Spring Steel | 42718 30 |
| 84-30-04 | 1 | Spring Plate | Steel | 42718 31 |
| 84-30-06 | 1 | Travel Stop Nut OL | Bronze (See Note 9) | 42718 38 |
| 84-30-06 | 1 | Travel Stop Nut OR | Bronze (See Note 9) | 42718 39 |
| 84-30-07 | 1 | Spring Plate Pin | Steel | 42718 40 |
| 84-30-11 | 1 | Upper Hydrant Rod OR | Steel | 42718 41 |
| 84-30-11 | 1 | Upper Hydrant Rod OL | Steel | 42718 411 |
| 84-30-12 | 1 | Lower Hydrant Rod | Steel | 42718 42 |
| 84-31 | 1 | Drain Lever | Bronze (See Note 9) | 42718 43 |
| 84-33 | 2 | Drain Lever Washer | Rubber | 42718 44 |
| 84-34 | 2 | Drain Lever Rivet | Brass | 42718 45 |
| 84-35-02 | 1 | Hydrant Seat Solid | Bronze (See Note 9) | 42718 46LD |
| 84-35-02 | 1 | Hydrant Seat Draining | Bronze (See Note 9) | 42718 46WD |
| 84-36-1 | 2 | Seat O-ring | Buna-N | 42718 47 |
| 84-37 | 1 | Drain Ring | Bronze (See Note 9) | 42718 48 |
| 84-38 | 2 | Drain Ring Gasket | Composition Rubber | 42718 49 |
| 84-38-1 | 1 | Barrel Gasket | Composition Rubber | 42718 52 |
| 84-39 | 8 | Base Bolt and Nut | Stainless Steel | 42718 53 |
| 84-39-9 | 8 | Barrel Bolt and Nut | See Note 4 | 42718 54 |
| 84-40 | 1 | Hydrant Valve Top | Gray Iron | 42718 55 |
| 84-40-4 | 1 | Cotter Pin | Stainless Steel | 42718 551 |
| 84-41 | 1 | Hydrant Valve | Rubber | 42718 50 |
| 84-42 | 1 | Hydrant Valve Bottom | Ductile Iron | 42718 51 |
| 84-46-5 | 1 | 6" Mechanical Joint Base | Ductile Iron | 42718 56 |
| 84-144 | 1 | Weather Shield | Rubber | 42718 57 |
| 84-147 | 1 | Seat Wrench | Cast Iron | 42718 60 |
| 84-149 | 1 | Hose Nozzle Wrench | Cast Iron | 42718 601 |
| 84-150 | 1 | Pumper Nozzle Wrench | Cast Iron | 42718 602 |