

5-1/4" AMERICAN-DARLING® B-84-B-5 PARTS LIST



Part No.	Qty.	Description	Material
84-1	1	Operating Nut	Bronze
84-2-1	2	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	Plated Steel
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	Plated Steel
84-18-60	1	Upper Barrel	Ductile Iron
84-19-SR	1	Lower Barrel	Ductile Iron
84-20-60	2	Hose Nozzle	Bronze
84-20-61	2	Hose Nozzle O-ring Seal	Buna N
84-20-62	2	Hose Nozzle Retainer	Ductile Iron
84-20-63	2	Hose Nozzle Retainer Washer	Teflon
84-21	2	Hose Cap	See Note 8
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
84-25-61	1 Per Nozzle	Pumper Nozzle O-ring Seal	Buna N
84-25-62	1 Per Nozzle	Pumper Nozzle Retainer	Ductile Iron
84-25-63	1 Per Nozzle	Pumper Nozzle Retainer Washer	Teflon
84-26	1 Per Nozzle	Pumper Cap	See Note 8
84-27	1 Per Nozzle	Pumper Cap Gasket	Rubber
84-29-13	1	Barrel Flange	Ductile Iron
84-29-13B	1	Base Flange	Ductile Iron
84-29-14	2	Snap Ring	Stainless Steel
84-29-30	1	Rod Coupling	Epoxy Coated Gray Iron
84-29-31	2	Rod Coupling Pin and Clip Pin	Stainless Steel
84-29-45	1	Breakable Flange	Gray Iron
84-30-03	1	Spring	Stainless Steel
84-30-04	1	Spring Plate	Stainless Steel
84-30-06	1	Travel Stop Nut	Bronze
84-30-07	1	Spring Plate Pin	Stainless Steel
84-30-11	1	Upper Rod	Steel
84-30-12	1	Lower Rod	Steel
84-31	1	Drain Lever	Bronze
84-35-02	1	Hydrant Seat	Bronze
84-36-1	2	Hydrant Seat O-ring	Buna N

5-1/4" AMERICAN-DARLING® B-84-B-5 TRAFFIC DAMAGE REPAIR



[View Video](#)

WARNING: Special care should be taken in the installation, inspection and repair of pressure containing devices such as valves and hydrants. FAILURE TO FOLLOW PROPER PRACTICE AND GUIDELINES CAN RESULT IN SERIOUS INJURY OR DEATH. High pressure and water hammer, due to rapid opening or closing of a hydrant or valve, can also cause major damage to the hydrant, valve, water main, fire hose, or other attached equipment.

Should a hydrant be struck by a vehicle such that the upper barrel is separated/broken from the lower barrel, the following procedure should be followed to reassemble the hydrant and make it operational. (A traffic damage repair kit for the specific **5-1/4" American-Darling B84-B** hydrant is required to perform this procedure.)

1. Although it is possible to repair break features of the hydrant under pressure, the extent of a traffic impact may be unknown. It is considered safe practice to close the auxilliary valve ahead of the hydrant, or use another means to cut off flow and pressure to the hydrant.
2. Inspect the upper barrel (84-18-60) to determine if any of the components are fractured. Traffic impact usually results in a fractured traffic flange (84-29-45), broken or bent flange bolts (84-39-9), a fractured rod coupling (84-29-30) and damage to the gasket between the upper and lower barrels (84-38-1). Should cracking or fracture of any component occur, it should be replaced.
3. The operating nut (84-1) should be rotated to verify that it turns smoothly and easily and that the hydrant rod is centered in the barrel. (Should there be any binding or difficulty in turning the operating nut, the upper barrel should be disassembled and inspected for damaged parts.)
4. Remove the broken coupling (84-29-30) and verify that the upper hydrant rod (84-30-11) is not bent or damaged.
5. Inspect the lower barrel (84-19-SR) and clean any dirt or debris from the gasket seating surface.
6. Inspect the lower barrel flange (84-29-13) to determine that it will receive the new bolts contained in the traffic damage repair kit.
7. Turn the operating nut to place the hydrant in the full open position; this will extend the upper hydrant rod and ease the replacement of the rod coupling (84-29-30). Remove the broken rod coupling segment from the lower hydrant rod and verify that the rod end will receive the new coupling.
8. Orient the new rod coupling such that the end with the word "TOP" is placed on the upper hydrant rod such that the hole in the coupling aligns with the half hole on the hydrant rod. Lock coupling in place with stainless steel coupling pin (84-29-31) and clip pin.
9. Lift the upper barrel assembly and position it over the lower barrel while aligning the hydrant rod coupling on the upper hydrant rod with the lower hydrant rod such that the hole in the coupling aligns with the half hole on the lower hydrant rod. Slide the coupling over the lower valve rod and insert coupling pin and clip pin. Lift upper barrel assembly to insure upper and lower rods are connected to coupling.
10. Turn operating nut in the closing direction which will lower the upper barrel onto the lower barrel. Rotate the hydrant to position the hose and pumper nozzles in the desired orientation to the curb. Be careful to position the barrel gasket (84-38-1) to achieve full coverage of the end faces of the upper and lower barrels. Install new traffic flanges (84-29-45). (Note: While lowering the upper section onto the lower section, a pinch point exists. Keep fingers clear.)
11. After nuts have been started on all bolts, tighten the flange bolts in an alternating pattern to a torque value of between 55 and 60 ft-lbs.
12. Once the hydrant has been reassembled, it is essential that it be operated to determine that it is fully functional via the following procedure.
13. Open the auxiliary or secondary gate valve in the lateral to allow water pressure to the hydrant.
14. The hose and pumper caps should be tightened and the operating nut turned in the open direction. After cracking the valve seat open, the operating nut should rotate freely without binding.

Traffic Damage Repair Kit Parts		
84-29-31	2	Rod Coupling and Clip Pin
84-29-30	1	Breakable Rod Coupling
84-29-45	2	Traffic Flange
84-38-1	1	Barrel Gasket
84-39-9	8	Barrel Bolts and Nuts

5-1/4" AMERICAN-DARLING® B-84-B-5 EXTENSION INSTRUCTIONS



[View Video](#)

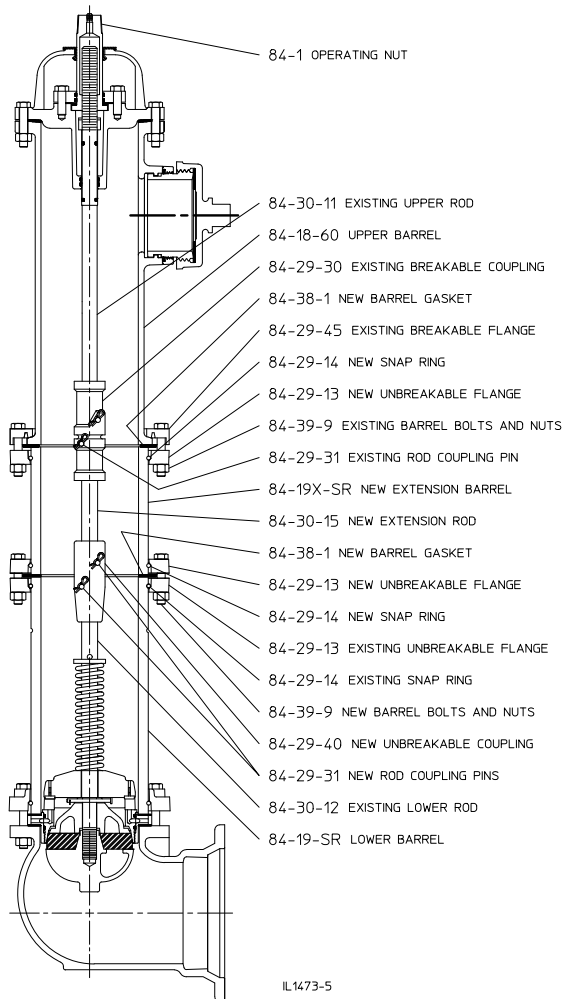
Procedure

The 5-1/4" American-Darling B-84-B-5 hydrant is extended at the barrel flange above the ground line, eliminating the need for excavation.

Parts Required for Hydrant Extension

84-19X-SR	1	Extension Barrel*
84-29-13	2	Unbreakable Flanges
84-29-14	2	Snap Rings
84-29-31	2	Rod Coupling Pins
84-29-40	1	Unbreakable Rod Coupling
84-30-15	1	Extension Rod
84-38-1	2	Barrel Gaskets
84-39-9	8	Barrel Bolts and Nuts

*Extension barrels and rods are available in increments of 6", starting at 6" long.



NOTE: The use of extension lengths made by more than one extension kit is not recommended. When combined extension kit and existing trench depth exceeds 9 feet, replace existing lower rod with appropriate length lower rod instead of using rod extension. When combined length exceeds 12 ft, rod guides are recommended for lower rod.

1. Close hydrant valve. It is considered safe practice to close the auxiliary valve ahead of the hydrant, or use another means to cut off flow and pressure to the hydrant. Always standing to the side of the hydrant and away from the direction of the hydrant caps, loosen one of the hose caps to relieve any pressure that may be present in the hydrant barrel. **WARNING: FAILURE TO RELIEVE PRESSURE CAN RESULT IN THE CAP BLOWING OFF, CAUSING SERIOUS INJURY OR DEATH.**
2. Remove existing barrel bolts and nuts (84-39-9).
3. Remove existing traffic barrel flange halves (84-29-45).
4. Raise upper barrel (84-18-60) from lower barrel (84-19-SR) by turning operating nut (84-1) in the opening direction and lifting the upper barrel at the same time to prevent the hydrant valve from opening.
5. Raise the upper barrel until there is sufficient separation from the lower barrel to permit removing of the lower rod rod coupling pin (84-29-31) and clip pin. **Block upper barrel in this position to ensure protection while removing the coupling pins.**
6. Safely remove lower rod coupling pin and clip pin. Lift and remove upper barrel assembly. **Use proper lifting techniques to avoid injury.**
7. Assemble new unbreakable rod coupling (84-29-40) to one end of the new extension rod (84-30-15) in position as shown. Insert a new coupling pin (84-29-31) and clip pin. Assemble other end of new unbreakable rod coupling to existing lower rod (84-30-12) using a new coupling pin (84-29-31) and clip pin.
8. Remove old gasket and place new barrel gasket (84-38-1) on lower barrel.
9. Place assembly on lower barrel making sure gasket and hydrant barrel inside diameters are aligned.
10. Assemble new barrel bolts and nuts (84-39-9). Torque in an alternating pattern to 80 ft.-lbs.
11. Place new barrel gasket (84-38-1) on extension barrel. Lift upper assembly and attach existing breakable rod coupling (84-29-30) to new extension rod (84-30-15). **Use proper lifting techniques to avoid injury.**
12. **Block the upper barrel assembly as in Step 5** and insert a new coupling pin (84-29-31) and clip pin in the existing breakable rod coupling (84-29-30).
13. Lower upper barrel assembly to the extension barrel by turning operating nut in the closing direction, making sure gasket remains centered. Lift barrel flange and assemble breakable flange halves by using existing barrel bolts and nuts (84-39-9). Torque in an alternating pattern to 55-60 ft.-lbs. Important: **Make sure gap between barrel flange (84-29-45) and new barrel flange (84-29-13) is equal around circumference of flanges.**
14. Safely shell test hydrant for joint tightness.