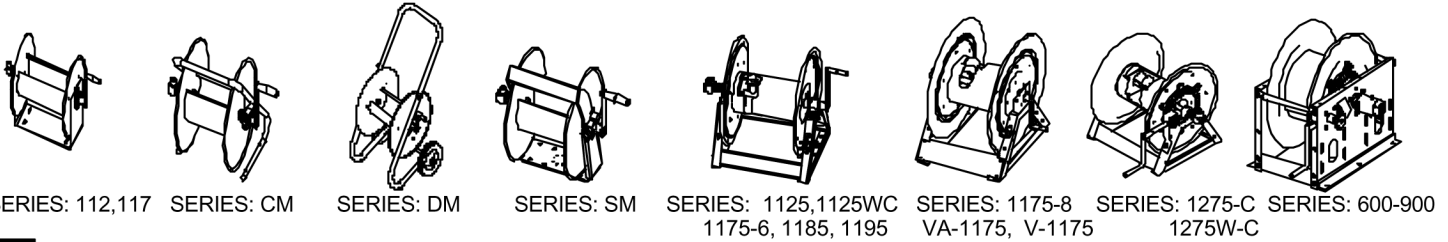


INSTALLATION AND MAINTENANCE MANUAL



⚠ READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING TO INSTALL, OPERATE, OR MAINTAIN THIS PRODUCT. ONLY QUALIFIED PERSONNEL SHOULD UNDERTAKE THE INSTALLATION AND COMMISSIONING OF THIS PRODUCT. FAILURE TO COMPLY WITH INSTRUCTIONS COULD RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE.

▪ PERSONAL SAFETY

- 1.) Ensure reel has been properly installed before connecting supply line.
- 2.) Before connecting to reel, be certain supply line does not exceed rated pressure of the hose reel or amperage rating on cable reel.
- 3.) Thoroughly review the "Hose Installation" instructions to properly install hose.
- 4.) Perform "Operational Check" per instructions to ensure reel is operating properly.
- 5.) If a leak should occur after applying pressure to the reel, immediately discontinue supply line pressure.
- 6.) **Warning:** Prevent static sparking. When working around flammables, ensure that the hose reel, hose, and equipment are properly grounded. Use only grounded hose(s). Check continuity of ground circuit with ohmmeter.

▪ MOUNT REEL / FASTEN CRANK HANDLE

- 1.) To mount reel to a solid structure you will 7/16" M12 bolts, washers, and nuts. Masonry bolts may be used depending on mounting application. Mounting hardware is NOT provided. Mounting patterns will vary depending on model. NOTE: If you choose to permanently mount series CM, you will need four 1/4" screws or nails.
- 2.) Fit mounting hardware to ceiling/wall/floor so reel can be fastened into position. Fit reel and tighten all hardware securely.
- 3.) Reels are supplied with plastic crank handle uninstalled. Remove handle and hardware from plastic bag and install onto crank arm. Models 1275 and 600-900 will include detachable crank for bevel gear design.
- 4.) The series DM portable reels will include a U-shaped handle. Position handle over swaged posts and fasten using hardware provided.

▪ INSTALLATION OF INLET HOSE

- 1.) Apply thread sealant to inlet hose and connect to the swivel joint on reel.

⚠ CAUTION: IT IS IMPORTANT TO USE A "FLEXIBLE" INLET HOSE. DO NOT USE SOLID PIPING OR RESTRAIN INLET HOSE AS TO CAUSE ANY SIDE FORCE ON SWIVEL JOINT. THE WARRANTY IS VOID IF NOT PROPERLY INSTALLED.

- 2.) Flush some product through the system before connecting inlet hose to the source. Connect end to supply source.

▪ INSTALLATION OF OUTLET HOSE

NOTE: Before proceeding, ensure that you are installing the proper size, length and type of hose that the reel is rated for. Consult factory if unsure of rating.

- 1.) Securely install hose reel prior to installing outlet hose.

Apply thread sealant to male hose fitting and insert into the drum opening. Note: It is recommended that a swivel type connector be used to ease installation of outlet hose.

- 2.) Thread male hose fitting into outlet riser(s). Refer to figure 1.0. Challenger series 112,117,CM, DM and SM, outlet will be inside drum area. Note: Outlet riser is removable on 1195 series.
- 3.) Using a wrench, firmly hold on to riser fitting while tightening hose connector.
- 4.) On Series 112,117, CM, DM, SM, the reel includes a hose clamp. Fasten hose securely to reel with hose clamp provided.

NOTE The hose clamp restrains the hose when fully extended, preventing strain on the fitting.

⚠ CAUTION: FULLY EXTEND AND CHARGE HOSE BEFORE INITIALLY WINDING ON TO REEL. THIS PREVENTS FLATTENING OF HOSE AND EXCESSIVE PRESSURE ON DRUM WHEN HOSE IS FULLY CHARGED DURING OPERATION.

- 5.) Wind hose on to reel. Hold onto crank handle and turn. The operator should hand guide the hose on to reel to achieve maximum capacity.
- 6.) Flush fluid through system. Inspect hose, connections, and swivel for leaks.

▪ INSTALLATION OF CABLE (1125WC SERIES)

NOTE: Before proceeding, ensure that you are installing the proper size, length and type of cable that the reel is rated for. Refer to label to determine amperage rating.

⚠ CAUTION: ENSURE THAT THE CABLE CONNECTOR IS SECURELY CRIMPED, SOLDERED, OR CLAMPED TO CABLE.

- 1.) Place connector over stud (fig 2.0) and install brass nut (supplied).
- 2.) Using a wrench, firmly hold onto the nut under the connector while tightening the outer nut.
- 3.) Connect the supply line in the same manner.

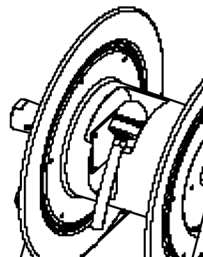


Fig 1.0

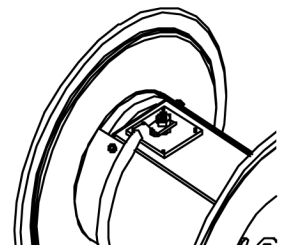


Fig 2.0

▪ **OPERATIONAL CHECK**

- 1.) Check for correct operation by pulling out some of the hose/cable. A slight friction or drag should be noticed. This drag is to prevent backlash when pulling out hose/cable.
- 2.) Adjust drag brake. Turn clockwise to add tension and counter-clockwise to decrease tension. See figures 3.0-6.0.

▪ **SWIVEL SEAL REPLACEMENT**

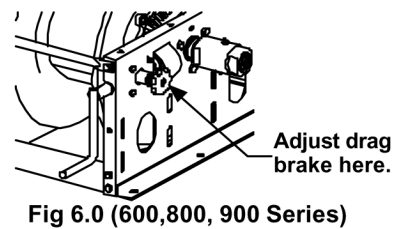
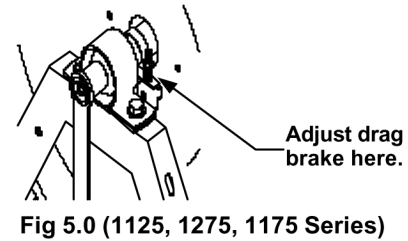
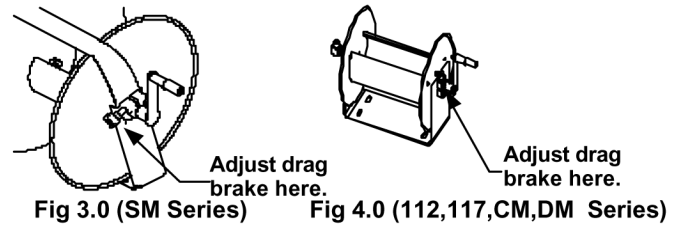
- 1.) Remove inlet hose from swivel.
- 2.) Remove swivel from reel by unscrewing swivel from shaft. Disconnect hose from swivel.
- 3.) Remove retaining ring on swivel; pull out shaft from body.
- 4.) Replace the seals, lubricate and reassemble swivel.
- 5.) Fit hose to swivel then fit swivel to reel. **Do not over-tighten.**
- 6.) Reconnect inlet hose and test for leakage.

Note: Swivels designs vary depending on the reel model. Refer to repair procedure shipped with individual seal replacement kits or consult factory.

CAUTION: Release line pressure prior to making any repairs or adjustments to the reel.

▪ **SLIP RING BRUSH REPLACEMENT (1125WC SERIES)**

- 1.) Remove cable completely from drum of reel.
- 2.) Remove access panel on drum by removing four screws.
- 3.) Remove brush retaining nut to access worn brushes.
- 4.) Replace with new copper brushes.
- 5.) Reverse above procedure to re-assemble reel.



TROUBLE SHOOTING GUIDE

TROUBLE	CAUSE	REMEDY
HOSE/CABLE WILL NOT FULLY FIT ON TO DRUM OF REEL	a) Hose/cable is longer than specified. b) Outside diameter of hose is larger than specification. c) Hose/cable was not hand guided onto reel and wound up evenly on drum.	a) Cut down hose/cable to meet reels specified capacity. b) Replace hose with a hose that meets the specified maximum outside diameter requirements. c) Hand guide hose/cable on to drum as it is wound on to the reel.
REEL KEEPS TURNING WHEN OPERATOR STOPS PULLING OUT HOSE/CABLE.	Tension drag brake is too loose causing hose/cable backlash.	Adjust tension drag brake by turning fastener clockwise.
NO ELECTRICAL CURRENT AT OUTPUT END OF CABLE. (1125WC SERIES ONLY)	a) Cable is severed. b) Slip ring brushes are worn.	a) Replace cable. b) Replace slip ring brushes. Note: Ensure current does not exceed rated amperage.
DRUM OF REEL IS CRUSHED OR DAMAGED.	Hose was not charged when initially installed on to reel.	Replace damaged drum. Contact factory. Install hose per instructions.
FLUID PATH (PLUMBING AND/OR SWIVEL) IS LEAKING OR DAMAGED.	a) Maximum pressure rating for reel has been exceeded. b) Application is not compatible with plumbing and/or swivel seal materials.	a) Replace or repair damaged components. Consult factory. Check maximum pressure rating of reel. b) Contact factory to determine chemical compatibility or environmental issues (i.e. temperature rating).
FLUID LEAKS FROM SWIVEL	Swivel seals are damaged or worn.	Replace swivel seals. See "Swivel Seal Replacement". Caution: Be sure leak is not at Hose Fitting!