



## **STYLE 3492 SEVERE DUTY HYDRAULIC MONITOR INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS**

The following is intended to provide the basic instructions for installation, operating and maintenance of the Severe Duty Monitor.

### **PRODUCT RATINGS**

#### **Monitor:**

Maximum Flow: 750 GPM (2840 lpm)  
Maximum Pressure: 200 PSI (14 bar)  
Mass: 57 lbs. (26 kg)  
Noise Emission: 91 Db @1m with maximum flow

#### **Hydraulics:**

Maximum Hydraulic Fluid Pressure: 500 psi

Maximum Hydraulic Fluid Flow: ½ US GPM

#### **Recommended Hydraulic Fluid:**

Temperatures from +10° F to +140° F (-12°C to +60°C)- SAE 10W30 or equivalent  
Temperatures from -40° F to +140° F (-40°C to +60°C) Amsoil ATF or Dextron III  
ATF or Equivalent

#### **Hydraulic Motor Connections**

(4) 9/16"–18 O-Ring, female

### **PRODUCT WARNINGS**

- ⚠ WARNING:** The maximum flow of the Severe Duty is 750 GPM. The center of the waterway outlet is 8.25 inches from the bottom of the inlet. Ensure these values and an appropriate safety factor is used to determine a proper support structure.
- ⚠ WARNING:** Aim the Severe Duty in a safe direction before pumping water through it.
- ⚠ WARNING:** If any tags or bands are worn or damaged and cannot be easily read, they should be replaced.
- ⚠ WARNING:** Disconnect hydraulic power and disable flow before maintenance.
- ⚠ WARNING:** Keep all personnel out from the front of the outlet of the monitor when the water source is attached. Dangerous flow velocities can cause serious injury.
- ⚠ WARNING:** The Severe Duty monitor contains moving parts. Keep hand, finger and
- ⚠ WARNING:** Exceeding the maximum water pressure and flow of the monitor or nozzle (if equipped) may cause damage.
- ⚠ WARNING:** Exceeding the maximum hydraulic pressure and flow of the monitor or (if equipped) nozzle may cause damage.

## WARRANTY AND DISCLAIMER

We warrant Akron Brass products for a period of one (1) year after purchase against defects in materials or workmanship. Akron Brass will repair or replace product, which fails to satisfy this warranty. Repair or replacement shall be at the discretion of Akron Brass. Products must be promptly returned to Akron Brass for warranty service. We will not be responsible for: wear and tear, any improper installation, use, maintenance or storage; negligence of the owner or user; repair or modification after delivery; failure to follow our instructions or recommendations; or anything else beyond our control. **WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, OTHER THAN THOSE INCLUDED IN THIS WARRANTY STATEMENT, AND WE DISCLAIM ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.** Further, we will not be responsible for any consequential, incidental or indirect damages (including, but not limited to, any loss of profits) from any cause whatsoever. No person has authority to change this warranty.

## GENERAL INSTRUCTIONS

- Review the instructions, hydraulic requirements, component layout and rotational stops diagram before installing this unit.
- For use with water or standard fire fighting foams only. After use with foam, flush with fresh water.
- Drain the Severe Duty monitor and nozzle after use to prevent “freeze damage” in cold weather.
- Ensure that the thread in the nozzle swivel matches the thread on the Severe Duty outlet. Do not over tighten the nozzle onto the Severe Duty Monitor.
- The Severe Duty monitor, nozzle, and field adjustable rotation stops are made for optimal performance. Do not alter in any manner.
- Do not install shutoffs on the outlet of the Severe Duty.
- The Monitor is to be mounted on the waterway with a 2 1/2” NPT thread.
- The monitor may have an optional 3” or 4” flange with a short nipple.

**THE ROTATIONAL AND ELEVATION STOPS SET THE BOUNDARIES FOR THE AREA IN WHICH THE MONITOR IS ALLOWED TO TRAVEL.** The monitor is shipped with rotation stops at 110° right, and at 110° left. All other positions are achieved by switching the factory set stop and the plug in the desired stop location. Both the stops and the plugs have a 1/2-inch hex head. Refer to Figure 1 to determine which stop location is needed for the desired rotation. The elevation stop sets the upper limit of the elevation. The monitor is shipped with elevation stops at 90° above horizontal and 65° below horizontal. All other vertical positions are achieved by switching plugs and stops to the desired locations as indicated in figure 1.

## MAINTENANCE INSTRUCTIONS

Your Severe Duty monitor and nozzle should be inspected prior to and after each use, to ensure it is in good operating condition. The monitor joints were greased and sealed at assembly, there is no greasing to be done while in use.

## **SITUATIONS THAT MAY CAUSE IRRERPAIRABLE DAMAGE**

- Operating above maximum rated water pressure and flow.
- Operating above the maximum rated hydraulic pressure and flow.
- Not draining, and allowing water to freeze inside.
- Prolonged exposure to temperatures above 130°F (54°C), or below -25°F (- 32°C).
- Having the nozzle hit a fixed object during operating or transportation.

Also there are many “tell tale” signs that indicate repair is in order, such as:

- Controls that are either inoperable or difficult to operate.
- Excessive wear.
- Poor discharge performance.
- Water leaks.

If any of the above situations are encountered, the Severe Duty should be taken out of service, repaired, and tested by a qualified technician before placing it back in service.

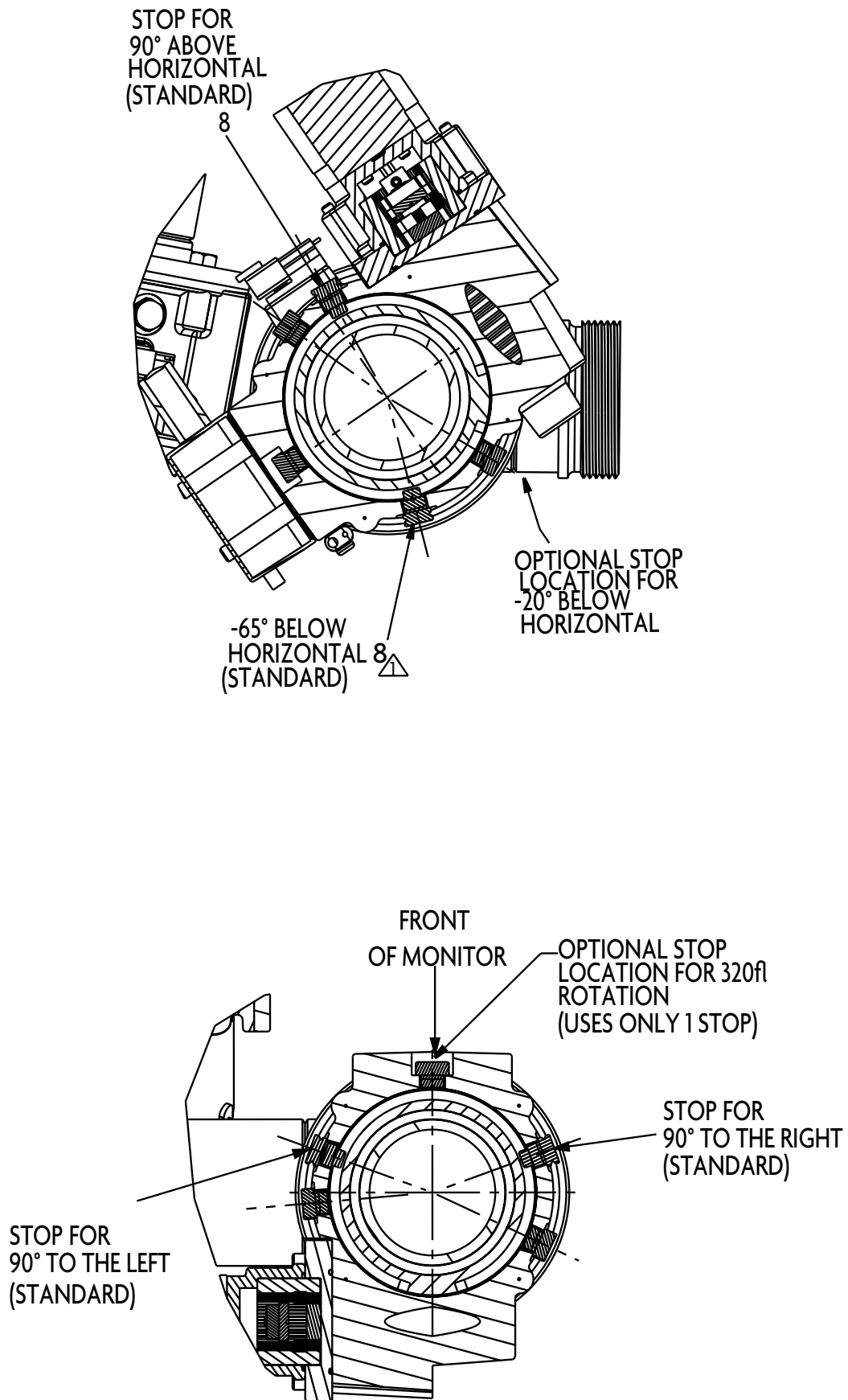
## **ROTATING JOINT REPLACEMENT**

The horizontal or vertical joints are identical in design. It is not necessary to take apart the joint to remove and replace the motor. To replace the gear sleeve or high density polyethylene (HDPE) bearings, (refer to figure 2):

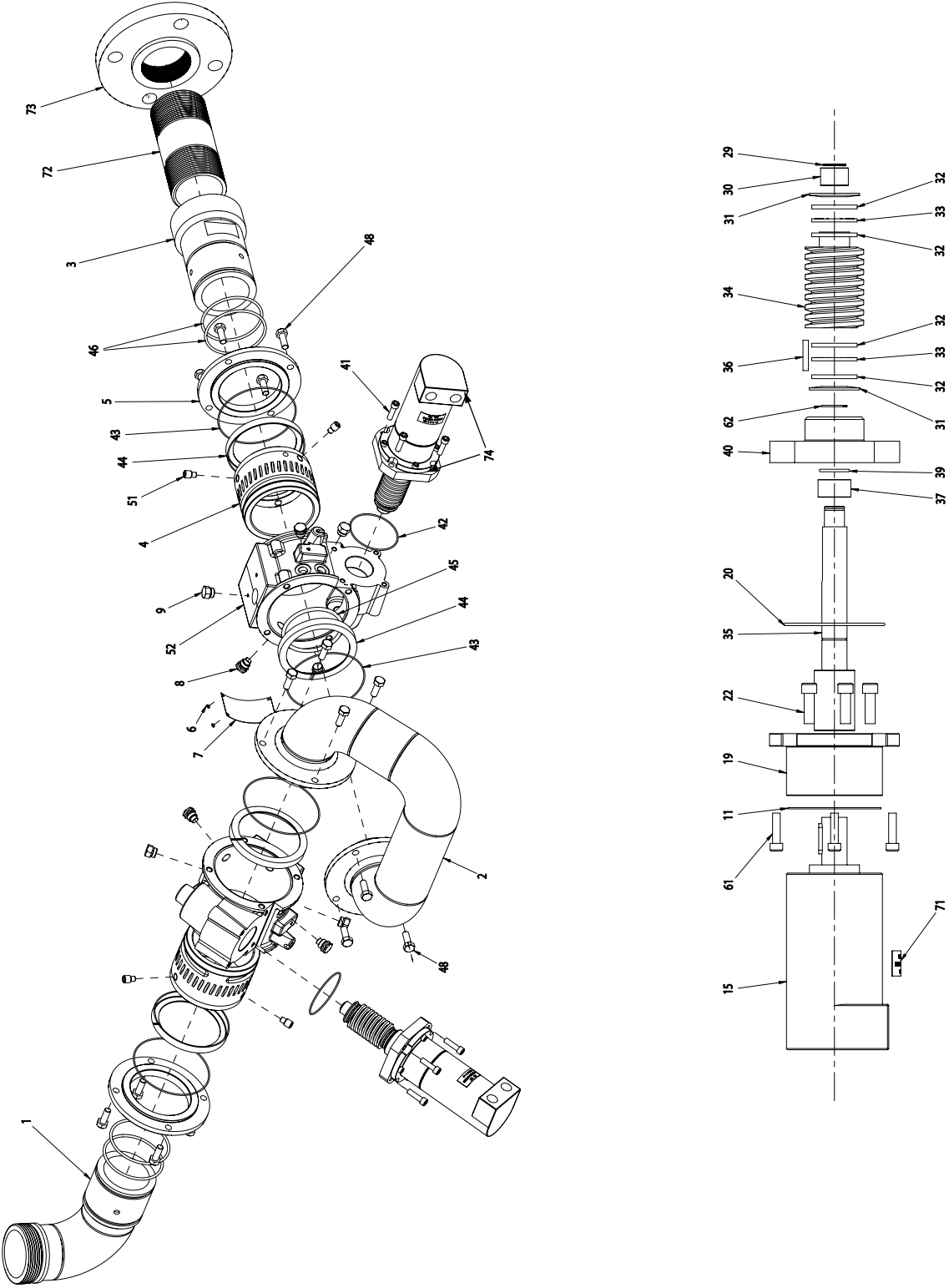
1. Disconnect Power from the unit.
2. Follow steps 2&3 outlined in MOTOR REPLACEMENT.
3. Unbolt the four 5/16 hex bolts from the flanges on both sides of the joint casting.
4. Remove travel stops
5. Slide joint apart, replace worn high-density polyethylene bearings (44), bronze gear sleeve (4), o-rings (43 & 45).
6. Use proper care to clean old grease residue and liberally apply new grease for re-assembly.
7. To re-assemble perform steps 2 & 3 in reverse order.
8. Insert travel stops.

Call Akron Brass Customer Service Department if any problems are encountered.

Figure 1



**STYLE 3492**  
**SEVERE-DUTY HYDRAULIC MONITOR**



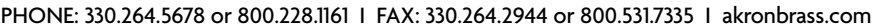
**STYLE 3492**  
**SEVERE-DUTY HYDRAULIC MONITOR**  
**TECHNICAL SERVICE PARTS LIST**

ITEM NO.	DESCRIPTION	PART NUMBER	QTY
1	ELBOW OUTLET 2.5"NH	710127	1
2	GOOSENECK	718228	1
3	INLET 2.5NPT FEM	723032	1
4	GEAR WORM BRONZE	718229	2
5	CAP JOINT	119719	2
6	NAIL GRIP	736045	4
7	PLATE ID	745157	1
8	STOP	769498	4
9	PLUG	744337	6
11	GASKET	718241	2
15	MOTOR HYD	731094	2
19	HOUSING SHAFT	119927	2
20	O-RING	757312	2
22	SCREW SOC HD CAP	765233	6
29	RING RETAINING	758192	2
30	BEARING ROLLER NEEDLE	704395	2
31	SPRING BELLEVILLE	768354	4
32	WASHER THRUST	784152	8
33	BEARING THRUST	704774	4
34	WORM	784154	2
35	SHAFT ELEVATION	769741	2
36	KEY	727051	2
37	BEARING ROLLER	704773	2
39	O-RING	757055	2
40	ADPT MOTOR HYD	119928	2
41	SCREW SOC HD CAP	767157	8
42	O-RING	757063	2
43	O-RING	757427	4
44	POLYMER BEARING	704781	4
45	O-RING	757074	2
46	O-RING	757029	4
48	SCREW HEX HD CAP	763028	16
51	STUD	769727	6
52	JOINT	119721	2
61	SCREW SOC HD CAP	767086	8
62	RING RET	758037	2

ITEM NO.	DESCRIPTION	PART NUMBER	QTY
71	LABEL	729489	1
74	HYDRAULIC MOTOR SUB ASSEMBLY	34920201	2
<b>COMPLETE ASSEMBLY</b>			
	MON SD S/A 3FLG X 2.5NH, HYDRAULIC, SS, BLK, SPC	34920003	
<b>SUB ASSEMBLY &amp; ACCESSORIES PARTS LIST</b>			
	RAMPAGE HYDRAULIC NZ, SD, 2.5NH, INCLDS NEEDLE VALVE	44630001	
	AKROFOAM HYDRAULIC NZ, SD, 2.5NH, INCLDS NEEDLE VALVE	44720001	
	NEEDLE VALVE WITH 1/8" NPT F THREAD	779060	



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**WARRANTY AND DISCLAIMER:** We warrant Akron Brass products for a period of five (5) years after purchase against defects in materials or workmanship. Akron Brass will repair or replace product which fails to satisfy this warranty. Repair or replacement shall be at the discretion of Akron Brass. Products must be promptly returned to Akron Brass for warranty service.

We will not be responsible for: wear and tear; any improper installation, use, maintenance or storage; negligence of the owner or user; repair or modification after delivery; damage; failure to follow our instructions or recommendations; or anything else beyond our control. **WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, OTHER THAN THOSE INCLUDED IN THIS WARRANTY STATEMENT, AND WE DISCLAIM ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.** Further, we will not be responsible for any consequential, incidental or indirect damages (including, but not limited to, any loss of profits) from any cause whatsoever. No person has authority to change this warranty.

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