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Technical Reference— 60" WE2



Please Read

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The front cover displays pertinent identifying information for this manual. Most important, are the published manual number (part number) /ECN (date code). Generally, when a replacement manual is furnished, it will have the same published manual number, but the latest available ECN. This provides the user with the latest information applicable to his machine. Similarly all documents comprising the manual will be the latest available as of the date the manual was printed, **even though older ECN dates for those documents may be listed in the table of contents.**

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References to Yellow Troubleshooting Pages

This manual may contain references to "yellow pages." Although the pages containing troubleshooting procedures are no longer printed on yellow paper, troubleshooting instructions, if any, will be contained in the easily located "Troubleshooting" chapter or section. See the table of contents.

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PATENT WARNING PAGE

THIS MACHINE IS MANUFACTURED UNDER ONE OR MORE OF THE FOLLOWING U.S. LETTERS PATENT:

2,516,252;	2,779,937;	2,874,714;
2,927,600;	3,117,926;	3,214,946;
3,297,284;	3,318,122	

AND UNDER COMPARABLE PATENTS IN MOST FOREIGN COUNTRIES.

ADDITIONAL U.S. AND FOREIGN PATENTS ARE NOW PENDING OR HAVE BEEN APPLIED FOR.

PELLERIN MILNOR CORPORATION

LIMITED STANDARD WARRANTY

We warrant to the original purchaser that MILNOR machines including electronic hardware/software (hereafter referred to as "equipment"), will be free from defects in material and workmanship for a period of one year from the date of shipment from our factory with no operating hour limitation. This warranty is contingent upon the equipment being installed, operated and serviced as specified in the operating manual supplied with the equipment, and operated under normal conditions by competent operators.

Providing we receive written notification of a warranted defect within 30 days of its discovery, we will – at our option – repair or replace the defective part or parts, FOB our factory. We retain the right to require inspection of the parts claimed defective in our factory prior to repairing or replacing same. We will not be responsible, or in any way liable, for unauthorized repairs or service to our equipment, and this warranty shall be void if the equipment is repaired or altered in any way without MILNOR's written consent.

Parts which require routine replacement due to normal wear – such as gaskets, contact points, brake and clutch linings and similar parts – are not covered by this warranty, nor are parts damaged by exposure to weather or to chemicals.

We reserve the right to make changes in the design and/or construction of our equipment (including purchased components) without obligation to change any equipment previously supplied.

ANY SALE OR FURNISHING OF ANY EQUIPMENT BY MILNOR IS MADE ONLY UPON THE EXPRESS UNDERSTANDING THAT MILNOR MAKES NO EXPRESSED OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE OR PURPOSE. MILNOR WILL NOT BE RESPONSIBLE FOR ANY COSTS OR DAMAGES ACTUALLY INCURRED OR REQUIRED AS A RESULT OF: THE FAILURE OF ANY OTHER PERSON OR ENTITY TO PERFORM ITS RESPONSIBILITIES, FIRE OR OTHER HAZARD, ACCIDENT, IMPROPER STORAGE, MISUSE, NEGLIGENCE, POWER OR ENVIRONMENTAL CONTROL MALFUNCTIONS, DAMAGE FROM LIQUIDS, OR ANY OTHER CAUSE BEYOND THE NORMAL RANGE OF USE. REGARDLESS OF HOW CAUSED, IN NO EVENT SHALL MILNOR BE LIABLE FOR SPECIAL, INDIRECT, PUNITIVE, LIQUIDATED, OR CONSEQUENTIAL COSTS OR DAMAGES, OR ANY COSTS OR DAMAGES WHATSOEVER WHICH EXCEED THE PRICE PAID TO MILNOR FOR THE EQUIPMENT IT SELLS OR FURNISHES.

WE NEITHER ASSUME, NOR AUTHORIZE ANY EMPLOYEE OR OTHER PERSON TO ASSUME FOR US, ANY OTHER RESPONSIBILITY AND/OR LIABILITY IN CONNECTION WITH THE SALE OR FURNISHING OF OUR EQUIPMENT TO ANY BUYER.

How to order repair parts

Repair parts may be ordered either from the authorized dealer who sold you this machine, or directly from the MILNOR factory. In most cases, your dealer will have these parts in stock.

When ordering parts, please be sure to give us the following information:

1. Model and serial number of the machine for which the parts are required
2. Part number
3. Name of the part
4. Quantity needed
5. Method of shipment desired
6. In correspondence regarding motors or electrical controls, please include all nameplate data, including wiring diagram number and the make or manufacturer of the motor or controls.

All parts will be shipped C.O.D. transportation charges collect only.

Please read this manual

It is strongly recommended that you read the installation and operating manual before attempting to install or operate your machine. We suggest that this manual be kept in your business office so that it will not become lost.

PELLERIN MILNOR CORPORATION

P.O. BOX 400, KENNER, LA., 70063-0400, U.S.A.

FAX: Administration 504/468-9307, Engineering 504/469-1849, Service 504/469-9777

BMP720097R
72332A

READ BEFORE USING MACHINE!

MSOP0205AE/9322CV (1 of 5)

SAFETY INSTRUCTIONS FOR WASHER-EXTRACTOR OPERATION

General Safety Requirements (specific warnings, next page and throughout manual)

Incorrect installation, neglected preventive maintenance, abuse, and/or improper repairs or changes to the machine can cause unsafe operation and personal injuries, such as *multiple fractures, amputations, or death*. The owner or his selected representative (*owner/user*) is responsible for understanding and ensuring the proper operation and maintenance of the machine. The *owner/user* must familiarize himself with the contents of all machine instruction manuals. The *owner/user* should direct any questions about these instructions to a Milnor[®] dealer or the Milnor[®] Service department.

Most regulatory authorities (including OSHA in the USA) hold the *owner/user* ultimately responsible for maintaining a safe working environment. Therefore, the *owner/user* must do the following:

- recognize all foreseeable safety hazards within his facility and take actions to protect his personnel, equipment, and facility
- require that personnel are familiar with all functional and safety aspects of the machine
- ensure safety devices installed on the machine are in place and properly maintained
- ensure all machine parts and assemblies are properly maintained.

Laundry Facility—Provide a supporting floor that is strong and rigid enough to support--*with a reasonable safety factor and without undue or objectionable deflection*--the weight of the fully loaded machine and the forces transmitted by it during operation. (For washer-extractors, see “ABOUT THE FORCES TRANSMITTED BY MILNOR[®] WASHER-EXTRACTORS.”) Provide sufficient clearance for machine movement. Provide any safety guards, fences, restraints, devices, and verbal and/or posted restrictions necessary to prevent personnel, machines, or other moving machinery from accessing the machine or its path. Provide adequate ventilation to carry away heat and vapors. Ensure service connections to installed machines meet local and national safety standards, especially regarding the electrical disconnect (see the National Electric Code). Prominently post safety information, including signs showing the source of electrical disconnect.

Personnel—Inform personnel about hazard avoidance and the importance of care and common sense. Provide personnel with the safety and operating instructions that apply to them. Verify that personnel use proper safety and operating procedures. Verify that that personnel understand and abide by point-of-hazard tags on the machine and procedure-specific precautions in the instruction manuals.

Safety Devices—Ensure that no one eliminates or disables any safety device on the machine or in the facility. Do not allow machine to be used with any missing guard or cover. Service any failing or malfunctioning device before operating the machine.

Maintenance—Ensure the machine is inspected and serviced in accordance with the norms of good practice and with the preventive maintenance schedule. Replace belts, pulleys, brake shoes/disks, clutch plates/tires, rollers, seals, alignment guides, etc. before they are severely worn. Immediately investigate any

The Danger From a Rotating Cylinder

A tremendous amount of potential energy is stored in the rotating cylinder of any washer-extractor (even at slow speed). Washer-extractors are equipped with a *door interlock* designed to prevent the door from being opened if the cylinder is turning and to prevent the machine from starting unless the door is closed and locked.

Some smaller machines permit the door to be opened only during the first few minutes of the formula and only while the machine is rotating in wash speed. If the door is opened, the drain valve opens immediately, the formula terminates, and (provided the machine still has electric power) on most, a brake is immediately applied.

All larger washer-extractors are equipped with a spring-applied, air-released brake which remains applied as long as the door is open and stops the cylinder whenever any of the following occurs: 1) the extract cycle ends, 2) the extract is manually terminated, or 3) the machine loses electric power.

Most machines permit the cylinder to be inched or jogged at slow speed, but only with two hands.

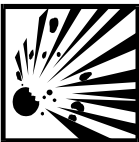
⚠ DANGER ⚠



ENTANGLE HAZARD—The linen inside or hanging partially outside the turning cylinder can suddenly wrap around your hand, arm, or body and twist off/sever it.

- ☞ DO NOT put any part of your body in the machine while it is moving.
- ☞ DO NOT operate the machine with the door open.
- ☞ DO NOT open the door while the cylinder is turning.
- ☞ DO NOT touch the linen or load/unload machine while the cylinder is turning.
- ☞ DO NOT open the door if there is water in the machine. You can be scalded by hot water.
- ☞ DO NOT tamper with or disable any safety device on the machine.
- ☞ DO NOT operate the machine with a malfunctioning door interlock mechanism.
- ☞ DO NOT operate the machine with malfunctioning two hand inching, if so equipped.

⚠ DANGER ⚠



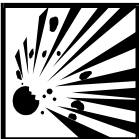
EXPLOSION HAZARD—A damaged cylinder can rip apart during extract, throwing out metal fragments at high speed like an exploding grenade, killing/injuring personnel and damaging property.

- ☞ DO NOT operate machine with any evidence of cylinder damage.

The Danger From Processing With Flammable Materials

Washer-extractors are manufactured specifically for use with water, *not with any type solvent nor with any other material that might be flammable*. They are not suitable for any type of solvent cleaning process.

⚠ DANGER ⚠



EXPLOSION AND FIRE HAZARDS—Goods containing flammable materials or fumes can explode or ignite spontaneously, killing/injuring personnel and damaging property.

- ☞ NEVER process goods containing any significant quantity of flammable chemical.

The Danger From Operating With Guards or Covers Removed

Like other types of industrial equipment, Milnor[®] washer-extractors utilize *high voltage electrical power* and, depending on model, pneumatic and hydraulic power to drive a wide variety of *moving parts*. Even with external power completely removed, the machine may contain energy such as tensioned springs, compressed air, and heavy parts that may fall if released. As previously stated, the washer cylinder acquires tremendous potential energy during extract, which must be absorbed by the brake or permitted sufficient time to dissipate. **Every guard, side panel, and door on the machine exists to isolate energized or moving parts from laundry personnel and must be securely in place for safe operation.**

⚠ DANGER ⚠



ELECTROCUTION HAZARD—Electric boxes and other electrical components contain high voltage that will kill or seriously injure you on contact. Power switch(es) on the machine disable only control circuit power, not three-phase power.

- ☞ **NEVER** operate the machine with electric box doors open or any electrical conductors exposed.
- ☞ **NEVER** attempt any electrical repair or troubleshooting unless you are a qualified electrician, authorized to work on the machine. Before proceeding, service personnel must consult all applicable safety and service information displayed on the machine and provided in the manuals.

⚠ DANGER ⚠



CRUSH AND ENTANGLE HAZARDS—Moving components such as belts, hydraulics, tilting machine housings, etc., can entangle, crush and/or sever parts of your body, killing or severely injuring you.

- ☞ **NEVER** operate machine with any guards, covers, or side panels removed.
- ☞ **NEVER** permit anyone to place any part of his body inside any part of the machine housing when the machine is operational.
- ☞ **NEVER** attempt any mechanical repair or troubleshooting unless you are a qualified mechanic, authorized to work on the machine. Before proceeding, service personnel must consult all applicable safety and service information displayed on the machine and provided in the manuals.
- ☞ **ALWAYS** make sure personnel are clear of machine before starting it.

The Danger From a Malfunctioning Clutch System

The low speed (wash speed) drive train *on machines with multiple motor drives* is disengaged during extract. At the end of extract, the cylinder will slow down before the low speed drive train is permitted to re-engage. **Although extremely unlikely in a properly maintained machine, a malfunction could cause the low speed drive to engage prematurely** (a possibility in all types of industrial machines that utilize clutches to switch between high speed and low speed operating cycles).

⚠ DANGER ⚠



EXPLOSION HAZARD *for machines with multiple motor drives*—Pulleys can be spun fast enough to explode into shrapnel-like fragments, injuring personnel and/or damaging property, if the low speed drive engages during or at the end of extract.

- ☞ **IMMEDIATELY** shut down the machine if any of these conditions occur:
 - The machine makes a sound like skidding automobile tires as it comes out of extract,
 - The wash or drain clutch does not disengage or it reengages during extract,
 - V-belts jump off at the start of, during, or at the end of extract,
 - A strange whining sound occurs at any time during extract.
- ☞ **DO NOT** permit the machine to operate until the cause of the offending condition is found and remedied.

Special Safety Considerations for Tilting Machines

Restricted areas must be established and maintained around tilting machines to protect laundry personnel from being struck or crushed when the machine tilts.

Tilt washer-extractors that pivot at *both the front and rear* of the machine have redundant *safety limit switches* and *electrical interlocks* designed to prevent the machine from 1) tilting forward (rear up) unless *both* front-down limit switches are depressed, and 2) tilting rearward (front up) unless *both* rear-down limit switches are depressed. Because the safety limit switches and electrical interlocks cannot be bypassed at the operator control panel, these ensure safe tilting during normal operation *if* the safety limit switches and all related components and circuitry are in proper working order. **Electrical interlocks and safety limit switches are ignored when the machine is tilted manually with the hydraulic tilting valves. This procedure must be restricted to competent, knowledgeable, authorized service personnel.**

⚠ DANGER ⚠



CRUSH HAZARD—Machine will crush body parts caught in mechanisms during tilting. Personnel behind, above, or in front of machine may be crushed if caught between machine and a nearby object during tilting.

- ☞ NEVER tilt machine with any guards, covers, or side panels removed.
- ☞ NEVER permit anyone to place any part of his body inside or under machine when the machine is operational.
- ☞ NEVER permit anyone on top of the machine or within restricted areas around the machine when the machine is operational. Laundry must restrict access to dangerous areas.
- ☞ ALWAYS ensure personnel are clear of machine before tilting.
- ☞ NEVER operate a tilting machine unless all tilting components, including but not limited to safety limit switches, electrical interlocks, and operator controls, are functioning properly.
- ☞ NEVER attempt to test or perform maintenance on any portion of the tilting mechanisms unless you are a qualified mechanic authorized to work on the machine. Before proceeding, service personnel must consult all applicable safety and service information displayed on the machine and provided in the manuals.
- ☞ NEVER attempt to tilt the machine using the hydraulic tilting valves unless you are a qualified mechanic authorized to work on the machine. Before using manual hydraulic controls, service personnel must thoroughly understand the system and all consequences of manual operation.

⚠ DANGER ⚠



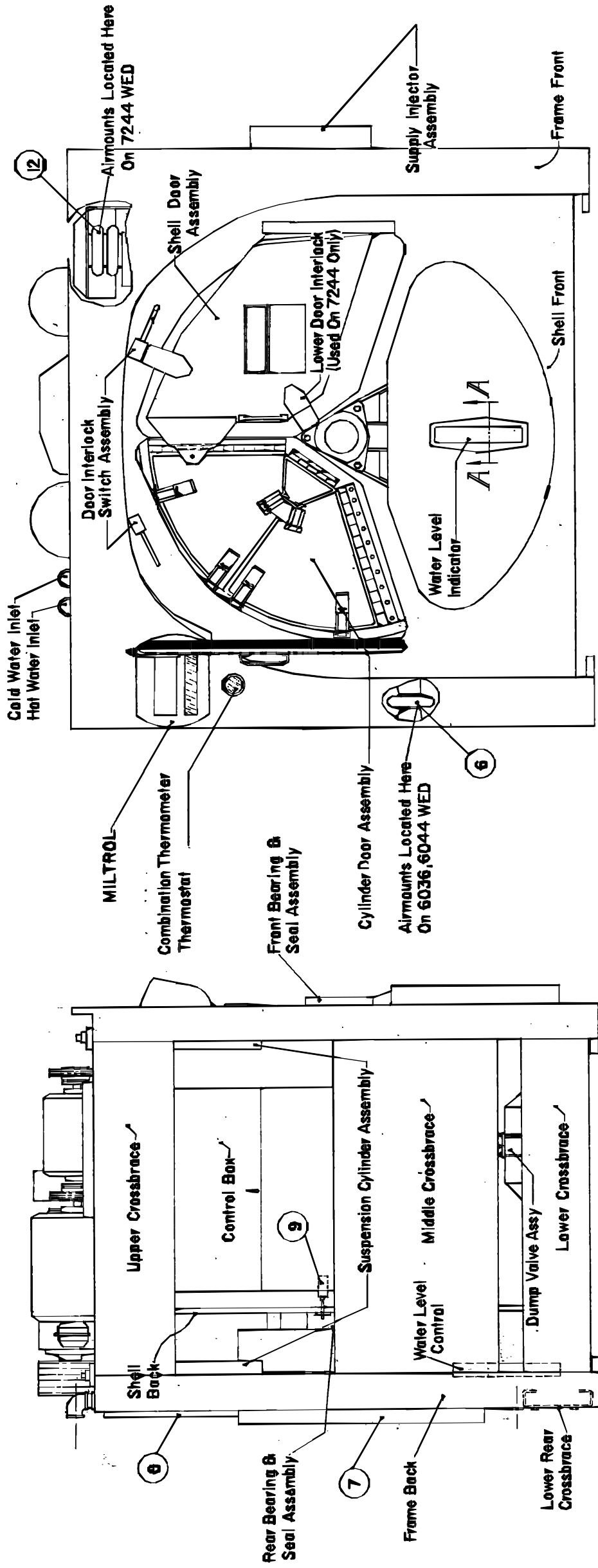
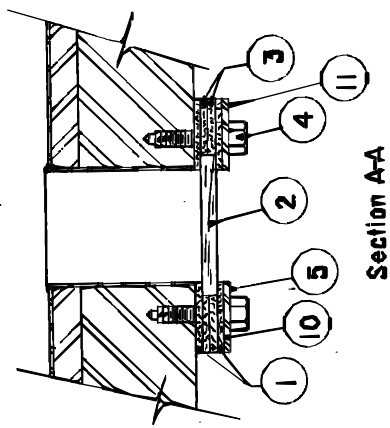
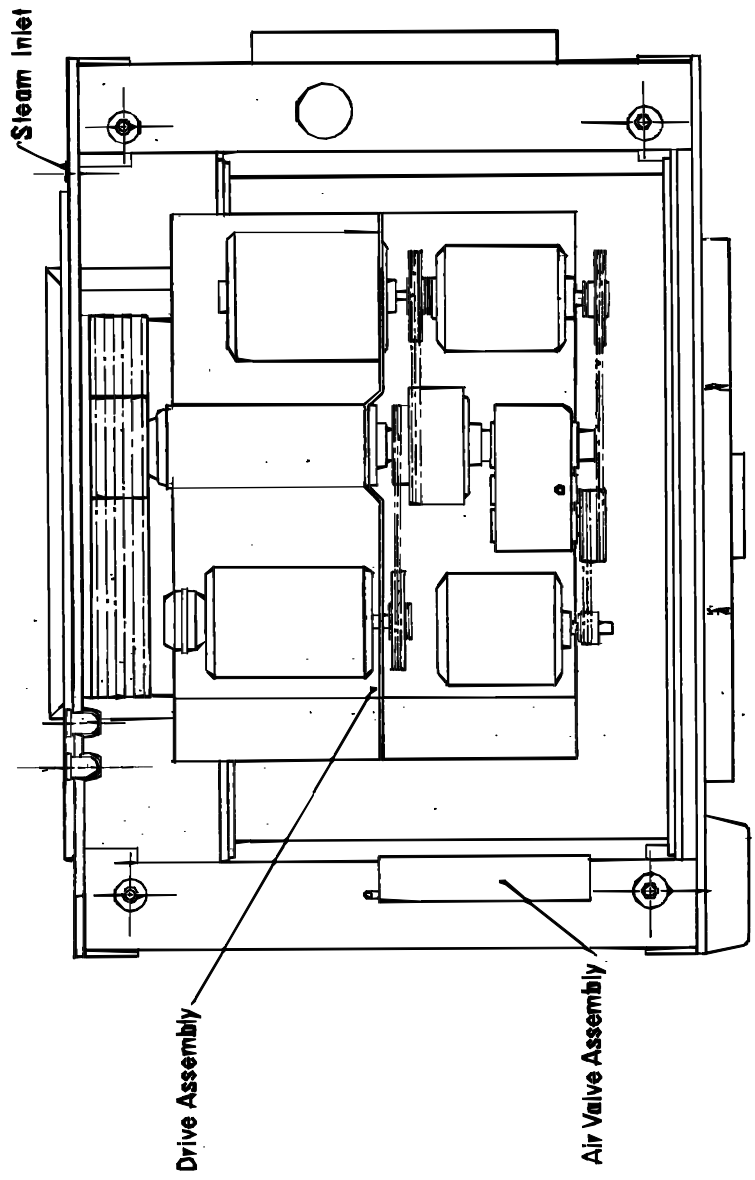
CRUSH HAZARD for machines with both front and rear pivots—A tilted machine may lunge forward or rearward and even fall over, crushing personnel, if the tilt wheels at the non-tilted end are raised out of their cradles.

- ☞ NEVER tilt machine using the hydraulic tilting valves unless you are a qualified mechanic authorized to work on the machine. These valves bypass all safeties.

Section
Service and Maintenance

1

LITHO. IN U.S.A.



**GENERAL ASSEMBLY
RAPID-LOAD 2-POCKET WASHER EXTRACTOR**

70473
IM 1387

General Assembly - WED

BMP701387R/71152A
(Sheet 1 of 1)



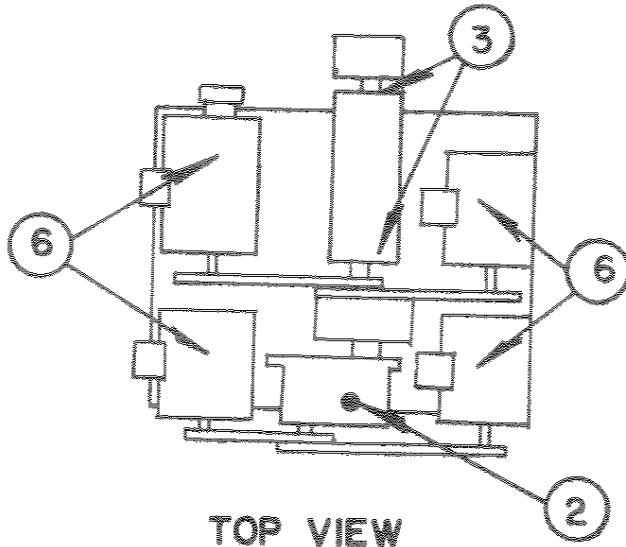
Pellerin Milnor Corporation
P. O. Box 400, Kenner, LA 70063-0400

Litho in U.S.A.

Parts List—General Assembly - WED

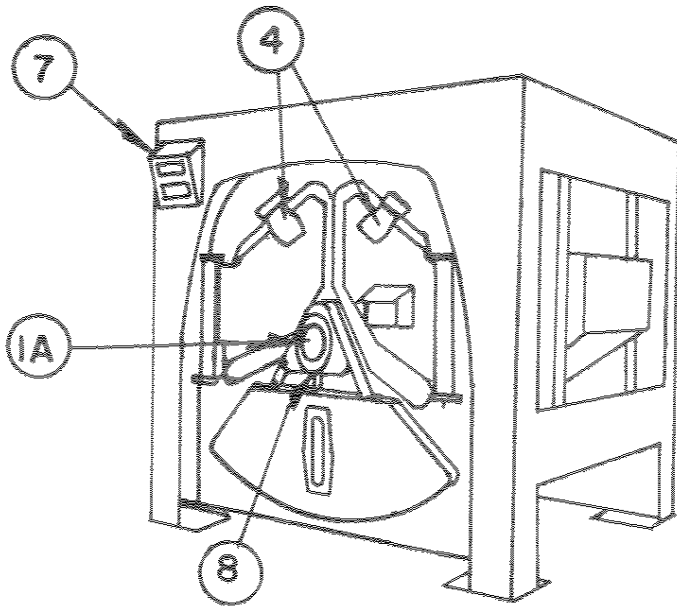
Item	Description	Part List		
		6036	6044	7244
-----ASSEMBLIES-----				
1.	Level Indicator Gasket, Outer	2-18940	2-18940	2-18940
2.	Sight Glass	2-18657	2-18657	2-18657
3.	Level Indicator Gasket, Inner	2-18941	2-18941	2-18941
4.	Hex Cap Screw, 3/8"-16 X 1 1/4"	15K100	15K100	15K100
5.	Water Level Clamp Ring	2-19128	2-19128	3-6075
6.	Airmount, Firestone #3582-01-7264	60B100	60B100	-----
7.	Lower Belt Guard W/O AUTOSPOT	2-19111	2-19111	3-6095
	Lower Guard W/AUTOSPOT	2-175043	2-175043	3-6095
8.	Upper Belt Guard W/O AUTOSPOT	2-19110	2-19110	3-6099
	Upper Belt Guard W/AUTOSPOT	2-185045	2-175045	3-6099
9.	Excursion Switch	9R008	9R008	9R008
10.	Marker, Water Level Indicator, cm	2-175071	2-175071	2-175071
11.	Marker, Water Level Indicator, Inches	2-18980	2-18980	2-18980
12.	Airmount, Firestone #3582-01-7081	-----	-----	60B120

For Lubrication Information See
Lubrication Chart (Section 7)
Located Elsewhere Herein

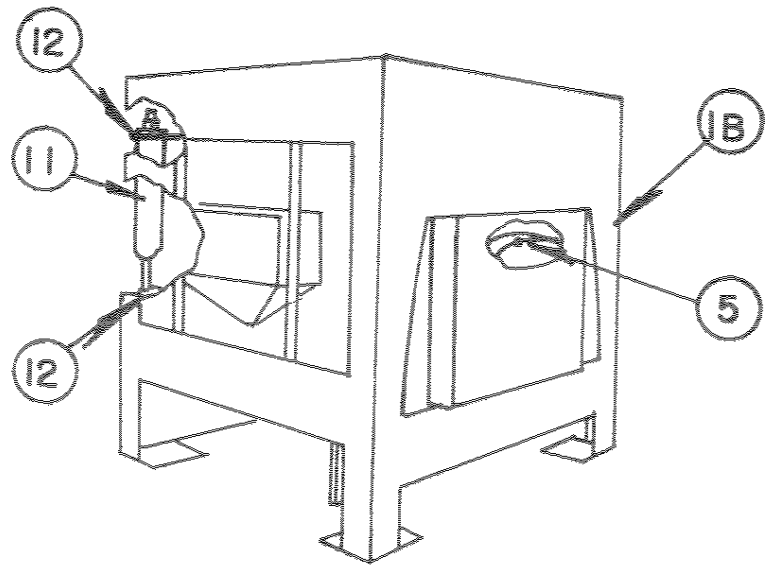


TOP VIEW

- LUBRICATION POINTS**
1. Main Bearings & Seals
IA-Front IB-Rear
 2. Gear Reducer
 3. Jackshaft Bearings
 4. Door Interlock Plungers
 5. Brake Band Stud
 6. Motor Bearings
(Front & Rear)
 7. MILTROL Meter Clutch
 8. Shaft Seal Leak-Off
(Front & Rear)
 9. HYDRO-CUSHION[®]
Cylinder
 10. Ball Joints
(11 & 12, 4 Places)



FRONT VIEW



REAR VIEW

Location - Lube Points = WED
PELLERIN MILNOR CORPORATION

SECTION 7

LUBRICATION CHART

FOR DIVIDED CYLINDER WASHER-EXTRACTORS & 42" DYA MACHINES WITH GREASE LUBRICATED MAIN BEARINGS AND SEALS.

- I. MAIN BEARINGS AND SEALS: The main bearings and seals in this machine are designed for grease lubrication, and are arranged as shown in the main bearing assembly drawings shown elsewhere herein. There are two grease fittings on each housing, one for the bearing and for the seals. The proper lubrication of both bearings and seals is mandatory to get satisfactory life from the machine. The following instructions must be adhered to carefully:
 - A. Use Shell Alvania EP #2 grease.
 - B. PUMP GREASE IN SLOWLY - not faster than 5 strokes per minute. Work grease gun lever slowly. TAKE 10 - 12 SECONDS TO COMPLETE EACH STROKE OF THE LEVER. A grease gun can build up extremely high pressures which will force the seals out of position and cause them to leak, even though both seal and bearing cavities are equipped with spring loaded relief plugs.
 - C. RUN WASHER CYLINDER AT EITHER WASH OR DRAIN SPEED DURING GREASING, AND FOR ONE MINUTE THEREAFTER.

WARNING: (FOR 42" DA2 MACHINE ONLY) NEVER GREASE MAIN BEARING ASSEMBLIES DURING DYE CYCLE. GREASE THESE ASSEMBLIES WITH MACHINE RUNNING AT WASH OR DRAIN SPEED WITHOUT A LOAD OF CLOTHES IN THE CYLINDER. AFTER GREASING, RUN MACHINE UP TO BOIL AND HOLD FOR ABOUT 10 MINUTES.

- D. LUBRICATE THE FOLLOWING EVERY 200 OPERATING HOURS, OR EVERY 30 DAYS; WHICHEVER OCCURS FIRST:
 1. PUMP 6 STROKES INTO EACH BEARING GREASE FITTING.
 2. PUMP 2 STROKES INTO EACH SEAL CAVITY GREASE FITTING.

NOTE: The main bearings and the jackshaft bearings have been pre-packed with lubricant at the factory. Do not add grease for 30 days.

During the first month's operation, some grease will ooze out of the automatic grease relief fittings at the bottom of the housing(s). This is a perfectly normal condition. These relief fittings permit excess grease to escape, thus avoiding over-heating. This escaping lubricant need not be replaced.

Every time these bearings are re-lubricated, the surplus grease will come out of the spring loaded relief fittings after a few hours running time. This is a normal condition.

NOTE: MAKE SURE YOUR GREASE GUN IS WORKING AND THAT YOU GET A FULL CHARGE OF GREASE WITH EVERY STROKE. Never pump the grease gun quickly - even if it is air bound. Damaging excessive pressures can easily be built up if this is done.

NOTE: Be careful to keep grease from dropping on the brake drum. This will reduce the braking action considerably, and could permit the cylinder to creep while loading and unloading.

(continued)

SECTION 7 (LUBRICATION CHART) (continued:)

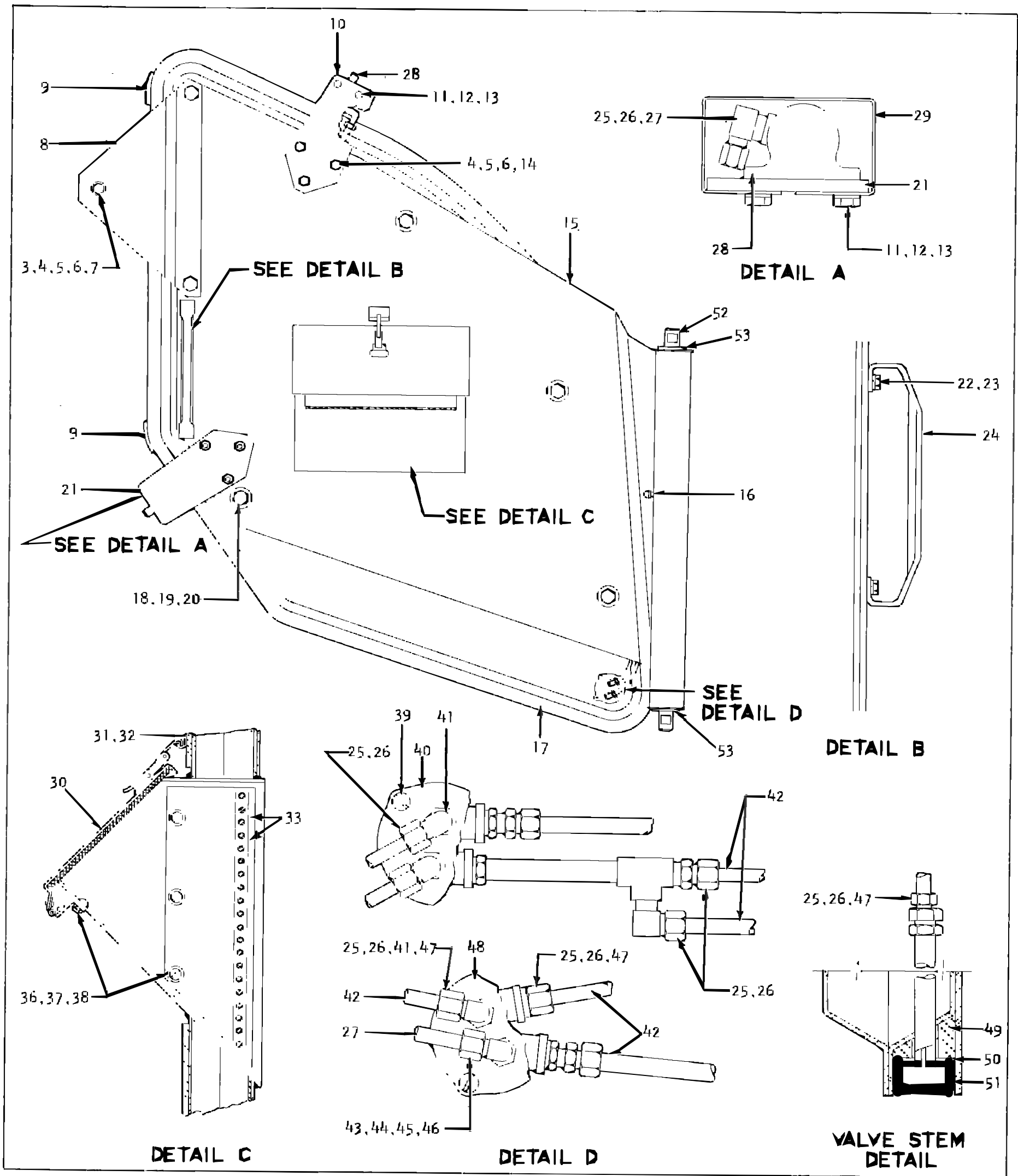
2. GEAR REDUCER: Check level before operating and refill if necessary. After 100 hours operation, drain gear reducer and refill with oil as specified on nameplate. Be sure to clean off the magnetic drain plug before replacing. Check and refill as needed every 6 months. Drain and replenish oil yearly.
3. JACKSHAFT BEARINGS: Lubricate every 200 operating hours, or every 30 days; whichever occurs first: Lubricate the two jackshaft bearings with 2 or 3 strokes of the grease gun (if machine has jackshaft).
4. Lubricate door interlock plunger with a few drops of light machine oil weekly.
5. Lubricate handwheel screw monthly with a few drops of light machine oil (if machine has handwheel screw).

Lubricate handwheel screw universal with good grade of pressure cup grease monthly, or more frequently if needed. A grease gun fitting is on the outer door channel near hinges (if machine has handwheel screw).
6. Lubricate the door hinge pin with a good grade of pressure cup grease monthly, or more frequently if necessary. A grease fitting is provided on the hinge.
7. Lubricate brake band stud with good grade of pressure cup grease every 3 months. Be careful not to let grease drip onto the brake drum as this will considerably reduce the braking action, and may permit cylinder to creep during loading and unloading. (Machines equipped with Nylon Brake Band Bushing do not require lubrication).
8. Lubricate motor bearings in accordance with motor manufacturer's recommendations. Always open bearing relief plug before forcing grease into motor bearings. Remember that more motors are ruined by over lubrication, which forces grease into the motor windings, than fail due to lack of lubrication. Excessive lubrication of rear bearings of extractor motor will force grease into centrifugal switch housing, resulting in centrifugal switch malfunction.
9. MILTROL motor clutch and chart drag spring assembly require lubrication in accordance with instructions on MILTROL Parts Drawing elsewhere herein.
10. SHAFT SEAL LEAKOFF: Both front and rear bearing assemblies are fitted with leakoff passages that will carry off any water that leaks past the main water seals. The leakoff connection is shown on the bearing assembly drawing elsewhere herein. The leakoff cavity is also provided with a plugged cleanout connection. This cleanout plug is vented. NEVER REPLACE THIS PLUG WITH ANY OTHER. Every six months remove this cleanout plug and pour about one-half cup of mineral spirits into the seal leakoff cavity. The mineral spirits should immediately run out the leakoff connection. The mineral spirits will keep the leakoff cavity clean and free from obstruction so it can perform its intended purpose.
11. USE SHELL X100 10W 30 OIL OR OIL OF EQUIVALENT VISCOSITY, FILL HYDRO-CUSHION CYLINDER TO LEVEL PLUG. GENERALLY, THE OIL IN THE HYDRO-CUSHION CYLINDERS WILL NOT BE CONSUMED - BUT MAY PICK UP MOISTURE FROM CONDENSATION. THE OIL LEVEL SHOULD THEREFORE BE CHECKED EVERY 3 MONTHS AND COMPLETELY DRAINED AND REPLENISHED AT LEAST ONCE EACH YEAR. Do not operate the machine unless the oil in the HYDRO-CUSHION cylinders is at the proper level!
12. Lubricate upper and lower ball joints on suspension cylinders of HYDRO-CUSHION Mounted machines with 2 strokes of the grease gun every 200 operating hours, or 30 days; whichever occurs first.

Section

2

Shell and Door Assemblies



60" & 72" WEH - SHELL DOOR ASSEMBLY
 PELLERIN MILNOR CORPORATION

Shell Door Assembly

60 & 70 WEH

BMP780109R/81433A
(Sheet 1 of 2)



Pellerin Milnor Corporation
P. O. Box 400, Kenner, LA 70063-0400

Litho in U.S.A.

Parts List—Shell Door Assembly

Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
-----ASSEMBLIES-----				
none				
-----COMPONENTS-----				
all	1	SA 36 010	930721*SHELL DOOR ASY 72WE2 RIGHT	
all	2	SA 28 122	930721*SHELL DOOR ASY 60WE2 RIGHT	
all	3	60C075	TRUCK BUMPER 2+1/2"OD+3/8"HOLE #613	
all	4	15G200	01Z HXCPNUT 3/8-16 UNC2A 5/8X1/2	
all	5	15U240	FLATWASHER(USS STD) 3/8" ZNC PLT	
all	6	15U255	LOCKWASHER MEDIUM 3/8 ZINCPL	
all	7	15K095	HXCPCSCR 3/8-16UNC2AX1 GR5 ZINC/CAD	
all	8	03 06068	70358C PLATE=DOOR OPENING 1/72WED	(USED ON SA-36-010)
all	8	02 18961	91071C PLATE=DOOR OPENING 60WED	(USED ON SA-28-122)
all	9	02 175134	71143A PATCH=SHELL DOOR GASKET	
all	10	02 175131	82231B PLATE-LATCH MOUNT RT 60+72WE	
all	11	15K039	HXCAPSCR 1/4-20UNC2AX3/4 GR5 ZNC/CD	
all	12	15U180	LOCKWASHER MEDIUM 1/4 ZINCPL	
all	13	15U185	FLATWASHER(USS STD) 1/4" ZNC PLT	
all	14	15K097	PLOWSCR-#3 3/8-16NCX1 BLK GR5	
all	15	W3 06063	93072#* HINGE PLATE WELDMNT-RIGHT	(USED ON SA-36-010)
all	15	W2 18874	93072D* HINGEPLATE WELDMNT-RITE=WED	(USED ON SA-28-122)
all	16	54M015	65408A GREASEFIT 60X36/60X44 1610BL	
all	17	W3 06061	89412#* SHELLDOOR WELDMNT-RITE=WED	(USED ON SA-36-010)
all	17	W2 18960	93362#* SHELL DOOR-60"WED-RIGHT	(USED ON SA-28-122)
all	18	15U490	FLAWASH 1+1/2X17/32X1/4ZINC	
all	19	15G228	01Z HXCPNUT 1/2-13 UNC GR-2	
all	20	15U300	LOKWASHER REGULAR 1/2 ZINC PLT	
all	21	03 06310	89393B PLATE=LATCH MOUNTING LOWER	(USED ON SA-36-010 ONLY)
all	22	15K084S	HXCAPSCR 3/8-16NCX5/8 SS18-8	
all	23	15U260	LOCKWASHER MEDIUM 3/8 SS18-8	



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Parts List, cont.—SHELL DOOR ASSEMBLY

Used In	Item	Part Number	Description	Comments
all	24	02 175037	92452C HANDLE=SHELDOR=WED-SS	
all	25	53A500	1/4" SLEEVE-DELRIN	
all	26	53A059A	NUT 1/4"COMP.HOLYOKE ANDERSON#61A-4	
all	27	53A005F	BODY=FEMCONN 1/4X1/8 COMP W#B66X4	
all	28	SA 10 020	90516B* DOORLATCH ASSY-SMALL	
all	29	03 06301	87233T COVER=LOWER DOOR LATCH CYL	(USED ON SA-36-010 ONLY)
all	30	SA 28 125	93402C*LID ASSY=SOAP CHUTE-GASKETED	
all	31	02 18640	65531Z HOOK=SOAPCHUTE LATCH	
all	32	15P100	07Z THDCUT-F PANHD 8-32 X 3/8 SS410	
all	33	02 19308	81247C GUARD=60+72WE SOAP CHUTE	
all	36	15N117	RDMACSCR 10-24UNC2X3/8SS18-8	
all	37	24G018N	ROLLED WASHER .194"ID NYLTITE #10W	
all	38	15G121	HXCAPNUT 10-24UNC2 #3266BR NKLPLTG2	
all	39	15P010	12Z PHILPAN TRDCUTSCRTP10-24X1/2SS	
all	40	AAM36001R	82246J PIPING=SEAL+LATCH RITE 72WED	
all	41	53A031B	BODY-MAL90ELL1/4X1/8COMPPH#269C-42B	
all	42	60E004TE	04Z 1/4"OD X.170"ID NYLON TUBING *	
all	43	53A039B	BODY=BRMAL90 5/16X1/8COMP #B69A-5A	
all	44	53A060A	NUT BRASS 5/16 COMP W#61X5	
all	45	53A508	5/16" SLEEVE-DELRIN	
all	46	53A509	TUBEINSERT .187"OD	
all	47	53A501	TUBEINSERT .170"OD	
all	48	AAM28001R	77512J PIPING=SEAL+LATCH RITE 60WED	
all	49	02 18888	92601A DOORFILLER RUBBER 75FT/COIL*	
all	50	02 175267	76119B RUBBER STRIP=CORNERS+DR STEM	
all	51	03 06050B	81441D 72"DORSEAL,G-28-6X124+1/2"	(USED ON SA-36-010)
all	51	02 18889B	83426D 60"DORSEAL,G-28-6X100"	(USED ON SA-28-122)
all	53	54A716	FLANGEBEAR 1"ID SEAL SCHATZ#TW-25	
all	54	02 18878	73056B PIN-HINGE=SHELL DOOR 60WED	

AIR OPERATED VACUUM PUMP FOR DOOR SEALS

MILNOR Rapid load door seals are now deflated with an air operated vacuum pump. The air operated vacuum pump quickly deflates the door seals when the stop button is pressed. Once the stop button is pressed a timer in the door circuit prevents the doors from being opened for 7-1/2 seconds. This allows the seals time to deflate before the doors are open. The air operated vacuum pump is mounted on the side of the main valve set. The two valves, the relay and the time delay for the vacuum pump is shown on the wiring diagram that was shipped with the machine. The two valves that operate the vacuum pump are labeled deflator enable and deflator supply valve, the relay is aux 3-wire and the time delay is door latch delay.

Door Latch Assembly
36030F8S 42032F7S 52038WTL 60044WP2 72044DA1,WP2

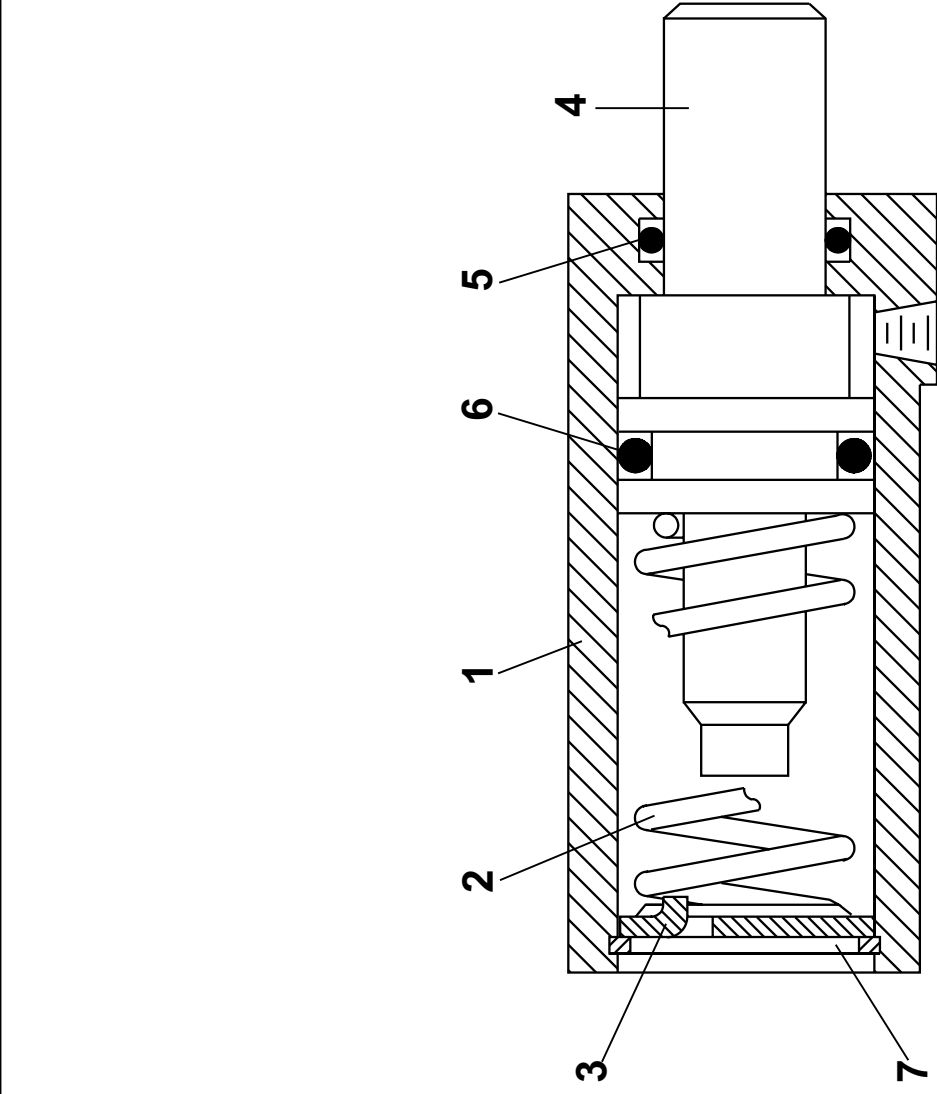
BMP701316/98183V
 (Sheet 1 of 1)



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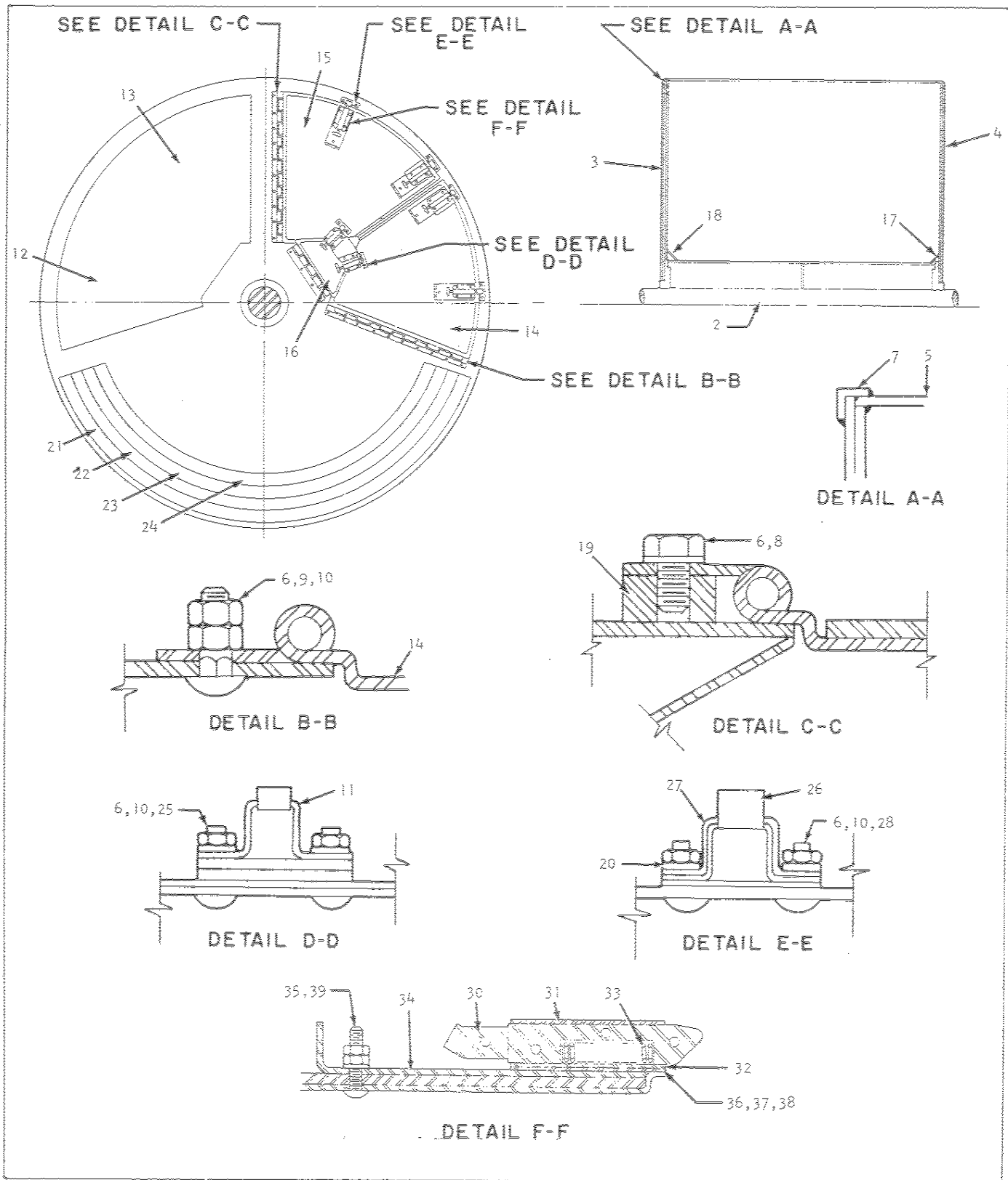
BMP701316/98183V (1 of 1)

Litho in U.S.A.



Parts List—Door Latch Assembly
 Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
	A	SA 10 020	ASSEMBLIES 90516B* DOORLATCH ASSY-SMALL	
			COMPONENTS	
all	1A	02 10188	CYLINDER-DOORLATCH	
all	1B	02 10188L	97087# CYL=DR LATCH W/TAP LEFT SIDE	
all	2	02 10222	82391B SPRING=DOOR LATCH=BALCOM	
all	3	02 10221	RETAINER-DOORLATCH SPRING	
all	4	Y2 10314	70256B* PLUNGER=DOOR INTERLOCK	
all	5	60C112	ORING 5/8 ID 3/32CS BN 70 DURO #114	
all	6	60C115	ORING 3/4 ID 1/8CS BN70 DURO #210	
all	7	17B014	INTRETRING IND#3000-X100-ST-ZD ZINC	



CYLINDER ASSEMBLY
 6036, 6044, & 7244 WE2
 PELLERIN MILNOR CORPORATION

P/L CYLINDER ASSEMBLY

60 & 70 WE2

BMP780043R/86387A
(Sheet 1 of 2)



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Parts List—P/L CYLINDER ASSEMBLY

Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
-----ASSEMBLIES-----				
none				
-----COMPONENTS-----				
all	1	ACA18WE2A	91091Y* CYL ASSY=6036WE2 WELD/SHAFT	(USED ON 6036 WE2)
all	1	ACA19WE2A	91091@* CYL ASSY=6044WE2 WELD/SHAFT	(USED ON 6044 WE2)
all	1	ACA36WE2A	91091D* CYL ASSY=7244WE2 WELD/SHAFT	(USED ON 7244 WE2)
all	2	Y2 175001	93421D MAINSHAFT 6036	(6036 WE2)
all	2	Y2 19216	93421# MAINSHAFT 6044	(6044 WE2)
all	2	Y3 06368	94247D MAINSHAFT 7244WE2+3	(7244 WE2)
all	3	X2 18825	92413D CYLFRONT 60WE2 ONLY	(6036&6044 WE2)
all	3	X3 06013	92413D+CIRCLE-CYLFRONT=1/72WED	(7244 WE2)
all	4	X2 18678	92413C CYLBAK W/SPRAYHOLES WE2	(6036&6044 WE2)
all	4	X3 06014	92413C CIRCLE-CYLBACK=1/72WED	(7244 WE2)
all	5	X2 18813	70256C CYLSIDE=2/6036WEDU	(6036 WE2)
all	5	X2 19161	70256C CYLSIDE=2/6044WED+6044SGD	(6044 WE2)
all	5	X3 06011	70256C SHEET-CYLSIDE=2/72WEDU	(7244 WE2)
all	6	15U260	LOCKWASHER MEDIUM 3/8 SS18-8	
all	7	02 18096	70123C RING=REAR CYL REINFORCING	(6036&6044 WE2)
all	7	03 06018	89321C RING=CYL REINFORCING	(7244 WE2)
all	8	15K084S	HXCAPSCR 3/8-16NCX5/8 SS18-8	
all	9	15A010	67346A CARRSCR 3/8-16UNC2X1 SPECIAL	
all	10	15G206	HEXNUT 3/8-16 UNC2 SS 18-8	
all	11	X2 15201	89207A KEEPER=CYLDOOR LATCH	
all	12	SA 28 110	83206D* CYLDOR LOLT 60WE2+ MIN-REIF	(6036&6044 WE2)
all	12	SA 36 003	93461@* CYLDOR LOLT 72WE2+ MAX-REIF	(7244 WE2)
all	13	SA 28 111	83206D* CYLDOR UPLT 60WE2+ MIN-REIF	(6036&6044 WE2)
all	13	SA 36 004	93397@* CYLDOR UPLT 72WE2+ MAX-REIF	(7244 WE2)
all	14	SA 28 112	93386D* CYLDOR LORT 60WE2+ MIN-REIF	(6036&6044 WE2)



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Parts List, cont.—P/L CYLINDER ASSEMBLY

Used In	Item	Part Number	Description	Comments
all	14	SA 36 001	93397Y* CYLDOR LORT 72WE2+ MAX-REIF	(7244 WE2)
all	15	SA 28 113	93386D* CYLDOR UPRT 60WE2+ MIN-REIF	(6036&6044 WE2)
all	15	SA 36 002	93461Y* CYLDOR UPRT 72WE2+ MAX-REIF	(7244 WE2)
all	16	SA 28 114	96172D* CYLDOR ASY,SMALL =60+72WE2	
all	17	02 18899C	78202B FAIRING=REAR SIDES	
all	18	02 18901A	81442# FAIRING TOP	
all	19	02 18857	91091B TAPSTRIP-CYL DOOR 2/60WEDU	(6036&6044 WE2)
all	19	02 18859	86216A TAPSTRIP=SMALL CYL DOOR	(7244 WE2)
all	20	03 06174	77426A KEEPER=DOORLATCH REINFORCE	
all	21	02 19207	90372D COUNTERWEIGHT=CYL 60WE2	(6036&6044 WE2)
all	21	03 06177	81333# COUNTERWEIGHT=CYL 72WE2	(7244 WE2)
all	25	15K106E	BUTSOKCAPSCR 3/8-16NCX1+1/2 SS18-8	(6036&6044 WE2)
all	25	15A015	67381A CARRSCR 3/8-16X1+1/4 SPECIAL	(7244 WE2)
all	26	X3 06166	89207A KEEPER=CYL DOOR LATCH	
all	27	03 06167	88161L COVER-LARGE CYLDOOR KEEPER	
all	28	15A015	67381A CARRSCR 3/8-16X1+1/4 SPECIAL	
all	30	X3 06150	72195B PLUNGER=LARGE CYLDOOR(CAST)	
all	31	03 06151	94222A LATCHBODY-LARGE=CYLDOOR	
all	32	X3 06152	87346A PLATE = LARGE DOORLATCH	
all	33	03 06156	70025A SPRING=LARGE CYLDOOR LATCH	
all	34	02 18869	78041B SPACER-LATCH PULL BND@PRNT	
all	35	15K042K	BUTSOKCAPSCR 1/4-20UNCX1+1/4 SS18-8	
all	36	03 06172	77422A SHIM=DOOR LATCH-18GA	
all	38	03 06173A	77422A SHIM=DOOR LATCH-11GA	
all	39	15G170	HEXNUT 1/4-20UNC2 SS18-8	

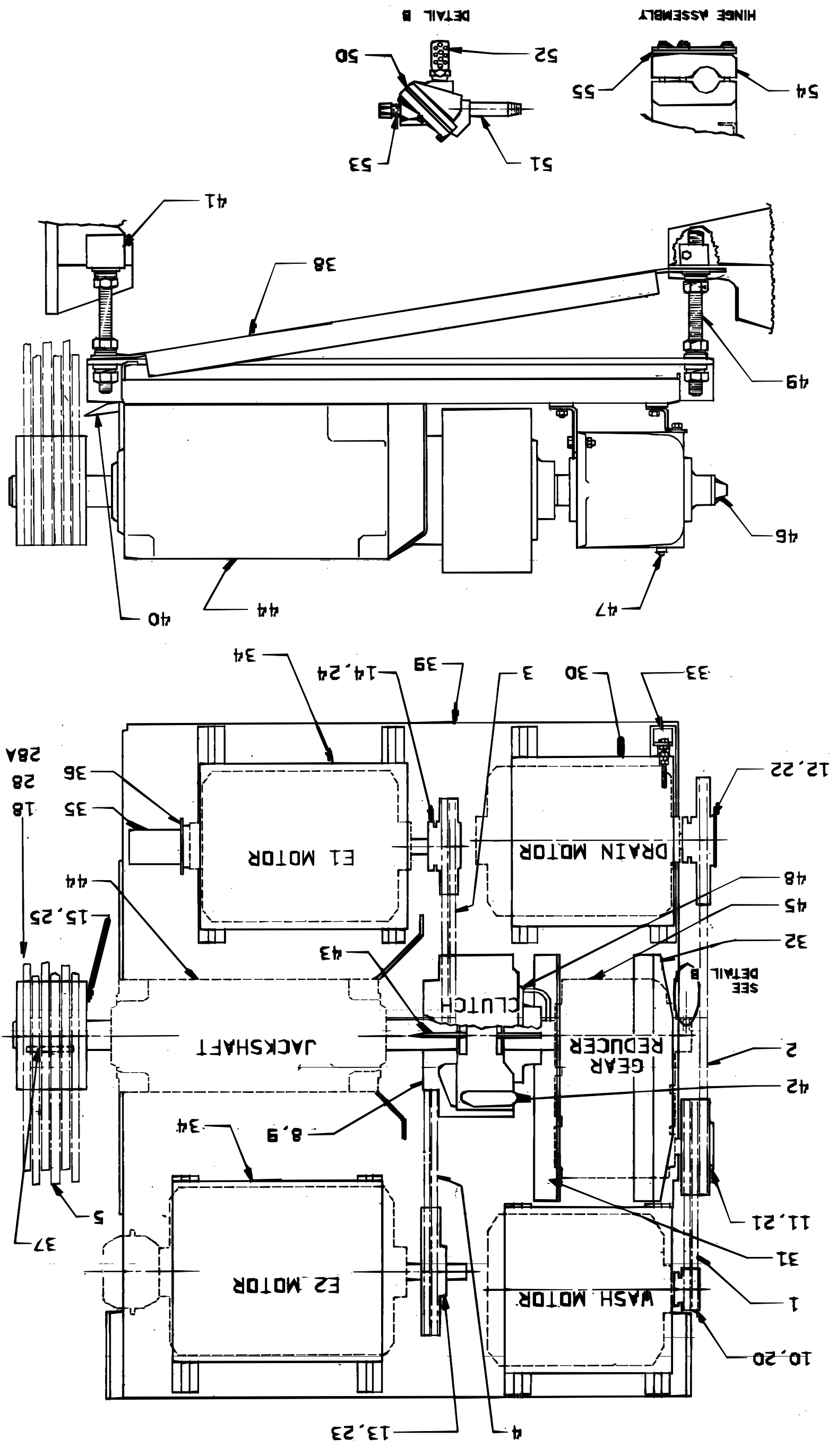
Section

3

Drive and Brake Assemblies

BMP 840021
91107D

DRIVE ASSEMBLY 50 + 60 CYCLE MACHINES
6036WE2, 6036WE3, 6044WE2, 6044WE3

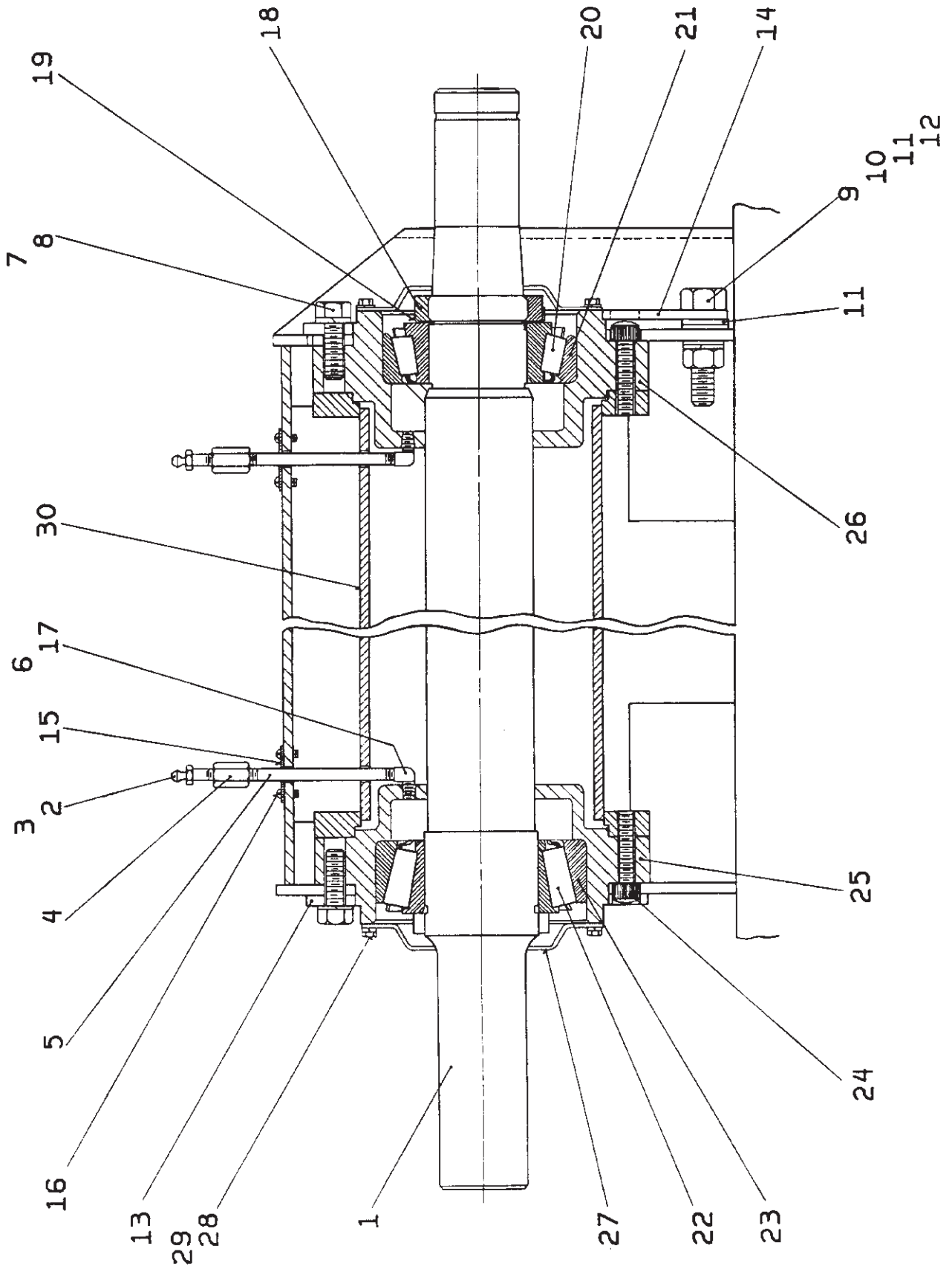




JACKSHAFT BEARING ASSEMBLY

5238, 6036, 6044, 6442, 7244

BMP820109
89253C



Jackshaft Bearing Assembly

52, 60, 64, 72

BMP820109R/89253A
(Sheet 1 of 2)



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Parts List—Jackshaft Bearing Assembly

Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
-----ASSEMBLIES-----				
	X	GBJ25001	87332# JKSHFT ASSY TIMKEN 52U+72S	52 W/E,60+72 STAPHGUARD
	Y	GBJ28001	87332D JKSHFT ASSY TIMKEN 60W+72W+T	60,64+72 W/E
	Z	ABJ25001	92327C*JKSHFT-BRGHOU ASSY-TIMKENS	ONLY
-----COMPONENTS-----				
all	1	X2 18711B	93417D JACKSHAFT=TIMBRG W/TRUSTWASH	
all	2	54M025	HYDRAULICFIT 1/8"-90 ALEMITE#1613-B	
all	3	20H012	SHELL ALVANIA EP-2 # 71125 E=35LBPL	
all	4	5SCC0CBE	NPT COUP 1/8 BRASS 125# 103A-A	
all	5	5N0C04AG42	NPT NIPPLE 1/8X4 TBE GALSTL SK40	
all	6	5SL0CBEC	NPT ELBOW 90DEG STRT 1/8"BRASS 125#	
all	7	15K151	HXCAPSCR 1/2-13UNC24X1.25 GR5 PLATE	
all	8	15U300	LOKWASHER REGULAR 1/2 ZINC PLT	
all	9	15K221	HEXCAPSCR 5/8-11 UNC2X2GR5 ZINC	
all	10	15U315	LOKWASHER MEDIUM 5/8 ZINCPL	
all	11	15U314	FLATWASHER(USS STD) 5/8" ZNC PLT	
all	12	15G238	HXNUT 5/8-11UNC2B SAE ZINC GR2	
(Y only)	13	02 19382	89016D BEARHOUSE MT PLATE REAR)
(X,Y)	14	02 19383	89016D BEARHOUSE MT PLATE FRONT	
all	15	01 10237	82446B NAMEPLATE LUBG BRG JACKSHAF	
all	16	15P185	TRDCUT-F HXHD 1/4-20UNC2AX3/4 ZNC	
all	17	51A001	ADAPTER 1/8 PT BRASS	
all	18	56AHN14	N14 BEARING LOCKNUT	
all	19	56AHW14	W14 BEARING LOCKWASHER	
all	20	54AT060	01Z CONE TIMKEN 644 1/BOX+ PT NO	
all	21	54AU060	01Z CUP TIMKEN 632 1/BOX+PT NO	
all	22	54AT050	01Z CONE TIMKEN 6461 1/BOX+ PT NO	
all	23	54AU050	01Z CUP TIMKEN 6420 1/BOX+ PT NO	
all	24	15K193	06Z SKCPSC-1/2-13X2.75GR8 HK	

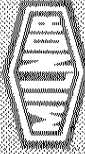


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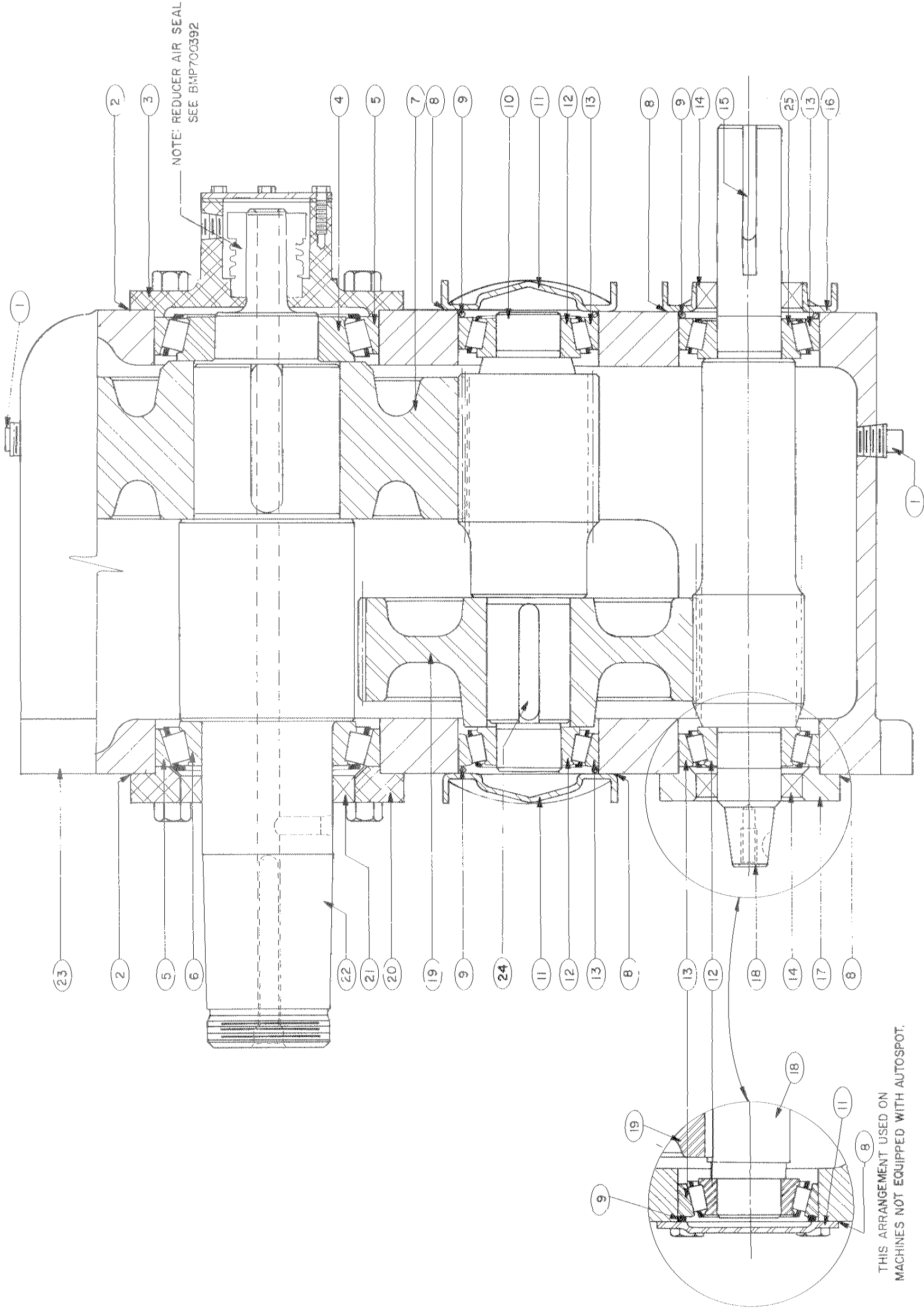
Parts List, cont.—Jackshaft Bearing Assembly

Used In	Item	Part Number	Description	Comments
all	25	X2 19381	94182D BEARHOUSE=LG BRG REAR TIMKEN	
all	26	X2 19381B	94182D BRGHSE=SM BRG FRONT W/WASHER	
all	27	02 19384	82296C COVER=BRG HOUSE FT+REAR	
all	28	15U180	LOCKWASHER MEDIUM 1/4 ZINCPL	
all	29	15K030	HEXCAPSCR 1/4-20UNC2X1/2 GR5 ZINC	
all	30	X2 19378	88506C BRGHSG SUP=TIMKENS MACHINED	



GEAR REDUCER ASSEMBLY
4231, 4244, 5238, 6036, 6044, 6442, 7244

BMP701405
89273D



JPS09A/PS0205 PARTS LIST FOR: BMP701405R/89273A PARTSLIST=GEAR REDUCER ASSY

ITEM	HOW PART IS USED IN ASSY (ONLY IF PERTINENT)	P/N	DESCRIPTION
00B	5238 W/O AUTOSPOT	54S022A	REDUCER 3220-300EC=AUTOSPOT
00C	6036 + 6044	54S023A	REDUCER T3210-375EC=AUTOSPOT
00D	6442+7244	54S025A	REDUCER T3210-600EC2=AUTOSPOT DURBOX
001	SEE DESCRIPTION ----->	51P016	SQPIPLUG 3/8 BLK W/LVENT SOLID STL
002	DORRIS 2561	MESSAGE NS	NOT STOCKED-ORDER FROM MANUFACTR.<>
003	SEE DESCRIPTION ----->	54Z105	LOW SPEED CLOSED CAP DORRIS #3104
004	SEE DESCRIPTION ----->	54A904	TIMKEN CONE 398 INDIVIDUAL BOXES
005	SEE DESCRIPTION ----->	54A908	TIMKEN CUP 394A INDIVIDUAL BOXES
006	SEE DESCRIPTION ----->	54A907	TIMKEN CONE 390A INDIVIDUAL BOXES
007A	DORRIS 3213-91-1	MESSAGE NS	NOT STOCKED-ORDER FROM MANUFACTR.<>
007AA	4231+44;+5238W/O AUTOSPOT	MESSAGE CO	MESSAGE CONTINUED FROM LINE ABOVE<>
007B	6036 + 6044	54Z131	HIGH SPEED GEAR DORRIS #3212-86
007C	DORRIS 3212 86-1-G; 7244	MESSAGE NS	NOT STOCKED-ORDER FROM MANUFACTR.<>
008	DORRIS 14276S	MESSAGE NS	NOT STOCKED-ORDER FROM MANUFACTR.<>
009	SEE DESCRIPTION ----->	54Z140	BEARING RING DORRIS #14276-R
010A	4231+44;+5238W/O AUTOSPOT	54Z141	INTERMEDIATE PINION #3209-23-1
010B	DORRIS 3209-28-1	MESSAGE NS	NOT STOCKED-ORDER FROM MANUFACTR.<>
010BB	6036+44 W/O AUTOSPOT	MESSAGE CO	MESSAGE CONTINUED FROM LINE ABOVE<>
010C	DORRIS 3209-28	MESSAGE NS	NOT STOCKED-ORDER FROM MANUFACTR.<>
010CC	6036+44 W AUTOSPOT	MESSAGE CO	MESSAGE CONTINUED FROM LINE ABOVE<>
010D	DORRIS 3209-28-1-G	MESSAGE NS	NOT STOCKED-ORDER FROM MANUFACTR.<>
011	SEE DESCRIPTION ----->	54Z125	HIGHSPEED CLOSED CAP DORRIS#14276-X
012	SEE DESCRIPTION ----->	54A902	BEAR CONE TIMKEN#14124 1/BOX
013	SEE DESCRIPTION ----->	54A912	TIMKEN CUP 14276 INDIVIDUAL BOXES
014	SEE DESCRIPTION ----->	54Z025	INPUTSEAL 1.25" SER#3220 NAT#410244
015	SEE DESCRIPTION ----->	54Z136	HIGHSPEED SHAFT KEY DORRIS #3231
016	SEE DESCRIPTION ----->	54Z126	HIGHSPEED OPEN CAP DORRIS#14276-C
017A	DORRIS 3207-EC	MESSAGE NS	NOT STOCKED-ORDER FROM MANUFACTR.<>
017AA	4231+44,6036+44 W/ ATSPOT	MESSAGE CO	MESSAGE CONTINUED FROM LINE ABOVE<>
018A	DORRIS 3210-21-A	MESSAGE NS	NOT STOCKED-ORDER FROM MANUFACTR.<>
018AA	4231+44;5238 W/O AUTOSPOT	MESSAGE CO	MESSAGE CONTINUED FROM LINE ABOVE<>
018B	DORRIS 3210-21-EC	MESSAGE NS	NOT STOCKED-ORDER FROM MANUFACTR.<>
018BB	4231+44 W/ AUTOSPOT	MESSAGE CO	MESSAGE CONTINUED FROM LINE ABOVE<>
018C	DORRIS 3210-29	MESSAGE NS	NOT STOCKED-ORDER FROM MANUFACTR.<>
018CC	6036+44 W/O AUTOSPOT	MESSAGE CO	MESSAGE CONTINUED FROM LINE ABOVE<>
018D	SEE DESCRIPTION ----->	54Z129	HIGHSPEED PINION DORRIS #3210-29
018E	DORRIS 3210-29-EC-2-G	MESSAGE NS	NOT STOCKED-ORDER FROM MANUFACTR.<>
018EE	6442+7244	MESSAGE CO	MESSAGE CONTINUED FROM LINE ABOVE<>
019A	DORRIS 3211-104	MESSAGE NS	NOT STOCKED-ORDER FROM MANUFACTR.<>
019AA	4231+44;+5238 W/O AUTSPOT	MESSAGE CO	MESSAGE CONTINUED FROM LINE ABOVE<>
019B	6036 + 6044	54Z130	INTERMEDIATE GEAR DORRIS #3211-96-1
019C	DORRIS 3211-96-1-G	MESSAGE NS	NOT STOCKED-ORDER FROM MANUFACTR.<>
020	DORRIS 2505	MESSAGE NS	NOT STOCKED-ORDER FROM MANUFACTR.<>
021	SEE DESCRIPTION ----->	54Z040	SLOWSEAL 100W+300C+375C NAT#410330
022A	DORRIS 3208-1	MESSAGE NS	NOT STOCKED-ORDER FROM MANUFACTR.<>
022AA	4231+44; 5238 W/O AUTSPOT	MESSAGE CO	MESSAGE CONTINUED FROM LINE ABOVE<>
022B	6036+44;6442+7244	54Z128	LOW SPEED SHAFT DORRIS #3208-2
023	DORRIS 3201-1	MESSAGE NS	NOT STOCKED-ORDER FROM MANUFACTR.<>
024A	DORRIS 22032	MESSAGE NS	NOT STOCKED-ORDER FROM MANUFACTR.<>
024AA	4231+44; 5238 W/O AUTSPOT	MESSAGE CO	MESSAGE CONTINUED FROM LINE ABOVE<>
024B	6036+44;6442+7244	54Z138	INTERMEDIATE GEARKEY DORRIS#2433
025A	ALL MACH. EXC. 6442+7244	54A902	BEAR CONE TIMKEN#14124 1/BOX
025B	6442+7244	54A910	TIMKEN CONE #14137A(1/BOX+PT #)

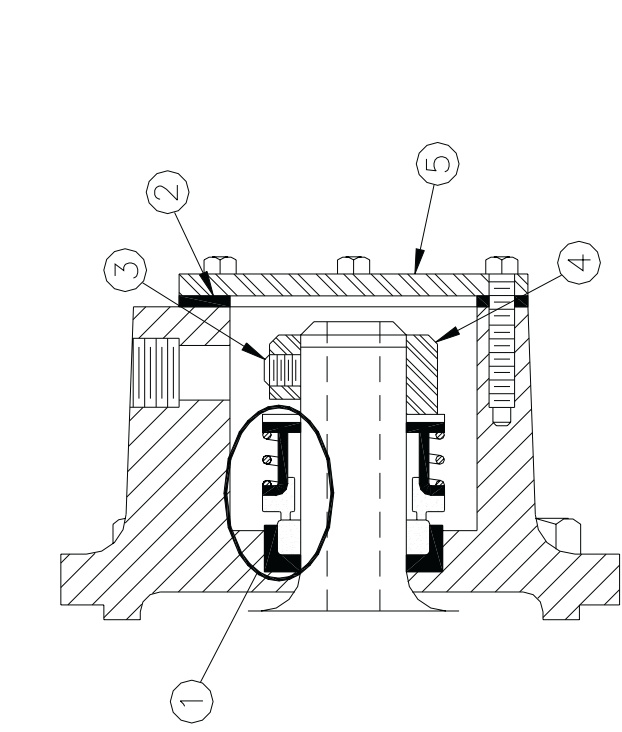
Reducer Air Seal

BMP700392/2002496V
(Sheet 1 of 1)

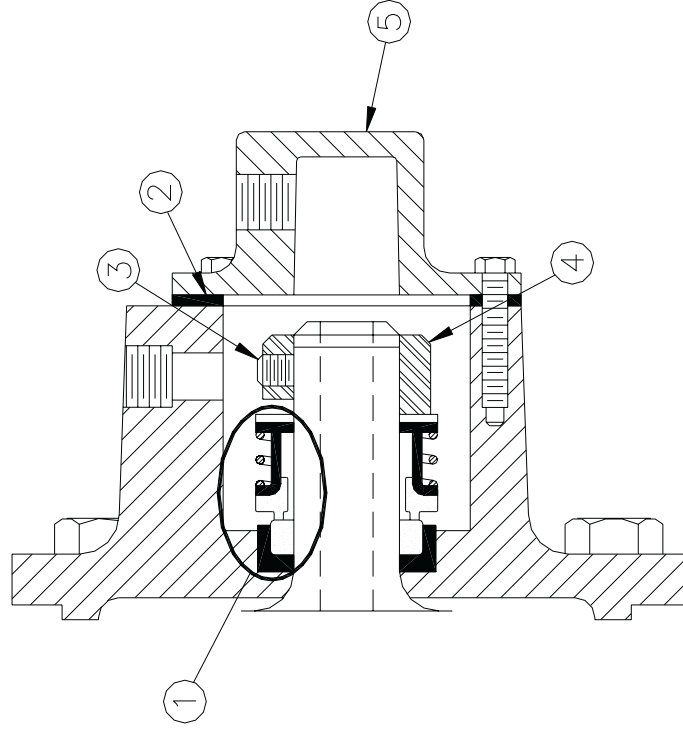


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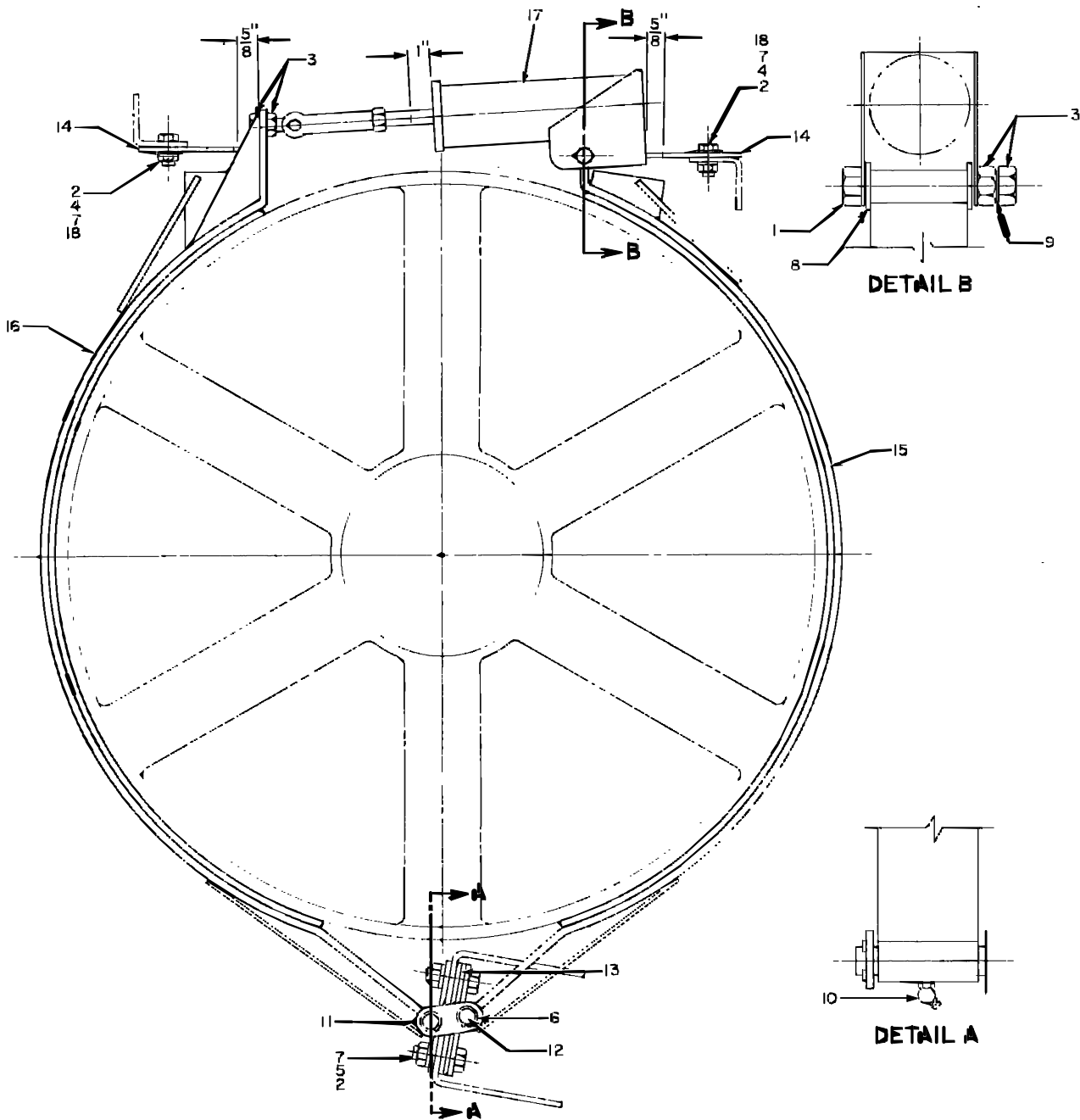
00A-00C



00D-00F

Parts List—Reducer Air Seal
Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
			-----ASSEMBLIES-----	
A		54S014HC	REDUCER 15.4 DORRIS#1115-60HC	3621,3626,4226,4832, 4836
B		54S012HC	REDUCER 15.4 DORRIS #1115-25HC	SHUTL36/40/48R+L
C		54S015	REDUCER 19.6 SKK/DOR 3220-60C	4226DYE
D		54S022A	REDUCR 19.59:1 3220-300EC1	4231,4244,5238
E		54S023B	REDUCR 10.16:1 3210-375EC2	6044
F		54S025A	REDUCR 10.16:1 3210-600EC2	6442,6446,7244 6440/50
			-----COMPONENTS-----	
B-F	1	K10 0002	KIT=ROTARY AIR SEAL	
B-F	2	02 15111	GASKET AIRSEALHOUSING COVER	
B-F	3	15Q077	SOKSETSCR 1/4-20X1/4 ZINC ALLE	
all	4	02 10380	Z SHAFT COLLAR FOR AIR SEAL	
A-C	5	02 15108	COVER=ROTARY AIRSEAL HOUSING	
D-F	5	02 15108A	AIRINLET=CLUTCH DIECAST+TAP	



1. WITH BRAKE APPLIED, GROOVE ON AIR CYLINDER STEM SHOULD BE 1" FROM AIR CYLINDER HEAD. ADJUST ROD END AND YOKE TO SET THIS DIMENSION.
2. WITH BRAKE APPLIED, BRAKE STOPS MUST BE 5/8" ($\pm 1/16$ ") FROM BRAKE SHOES.
3. WHEN BRAKE IS RELEASED, BRAKE SHOE AND AIR CYLINDER ASSEMBLY SHOULD REST FIRMLY AND SQUARELY AGAINST STOPS.
4. WHEN BRAKE IS RELEASED, IT SHOULD CLEAR THE DRUM BY APPROXIMATELY 3/16".
5. DO NOT OVERTIGHTEN PIVOT BOLT. AIR CYLINDER MUST MOVE EASILY ABOUT BOLT.
6. KEEP BOTH YOKE ARMS IN A HORIZONTAL PLANE - DO NOT SKEW OR COCK YOKE.
7. ENSURE THAT BRAKE SHOES PIVOT EASILY ON PINS.
8. DO NOT ALLOW GREASE OR OIL ON BRAKE DRUM.

BRAKE INSTALLATION - 6036 & 6044
PELLERIN MILNOR CORPORATION

Brake Installation

60WED

BMP760001R/85341A
(Sheet 1 of 1)



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Parts List—Brake Installation

Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
-----ASSEMBLIES-----				
none				
-----COMPONENTS-----				
all	1	15D119	HXTAPSCR 1/2-13X4 GR5 ZNC FULLTHRD	
all	2	15G205	HXNUT 3/8-16UNC2B ZINC GR2	
all	3	15G230	HXNUT 1/2-13UNC2B SAE ZINC GR2	
all	4	15K095	HXCPSCR 3/8-16UNC2AX1 GR5 ZINC/CAD	
all	5	15K117	HEXCAPSCR 3/8-16X1+3/4 GR 5 PLATD	
all	6	17B062	EXTRETRING S/S INDUST#3100-75-SS2	
all	7	15U255	LOCKWASHER MEDIUM 3/8 ZINCPL	
all	8	15U280	01Z FL+WASHER(USS STD)1/2 ZNC PL+D	
all	9	15U300	LOKWASHER REGULAR 1/2 ZINC PLT	
all	10	54M025	HYDRAULICFIT 1/8"-90 ALEMITE#1613-B	
all	11	02 18516B	BRAKEPIN WASHER	
all	13	02 18786	85451A SHIM=BRAKE BAND 60+72WE	
all	14	02 175080	78196B PLATE-BRAKE STOP	
all	15	SA 28 154N	94153#*BRAKEBAND LT(NON-ASB)52+60WE	
all	16	SA 28 153N	94153#*BRAKEBAND RT(NON-ASB)52+60WE	
all	17	SA 28 152	89483V* BRAKE AIRCYL 2-WAY 60WE2+3	
all	18	15U240	FLATWASHER(USS STD) 3/8" ZNC PLT	

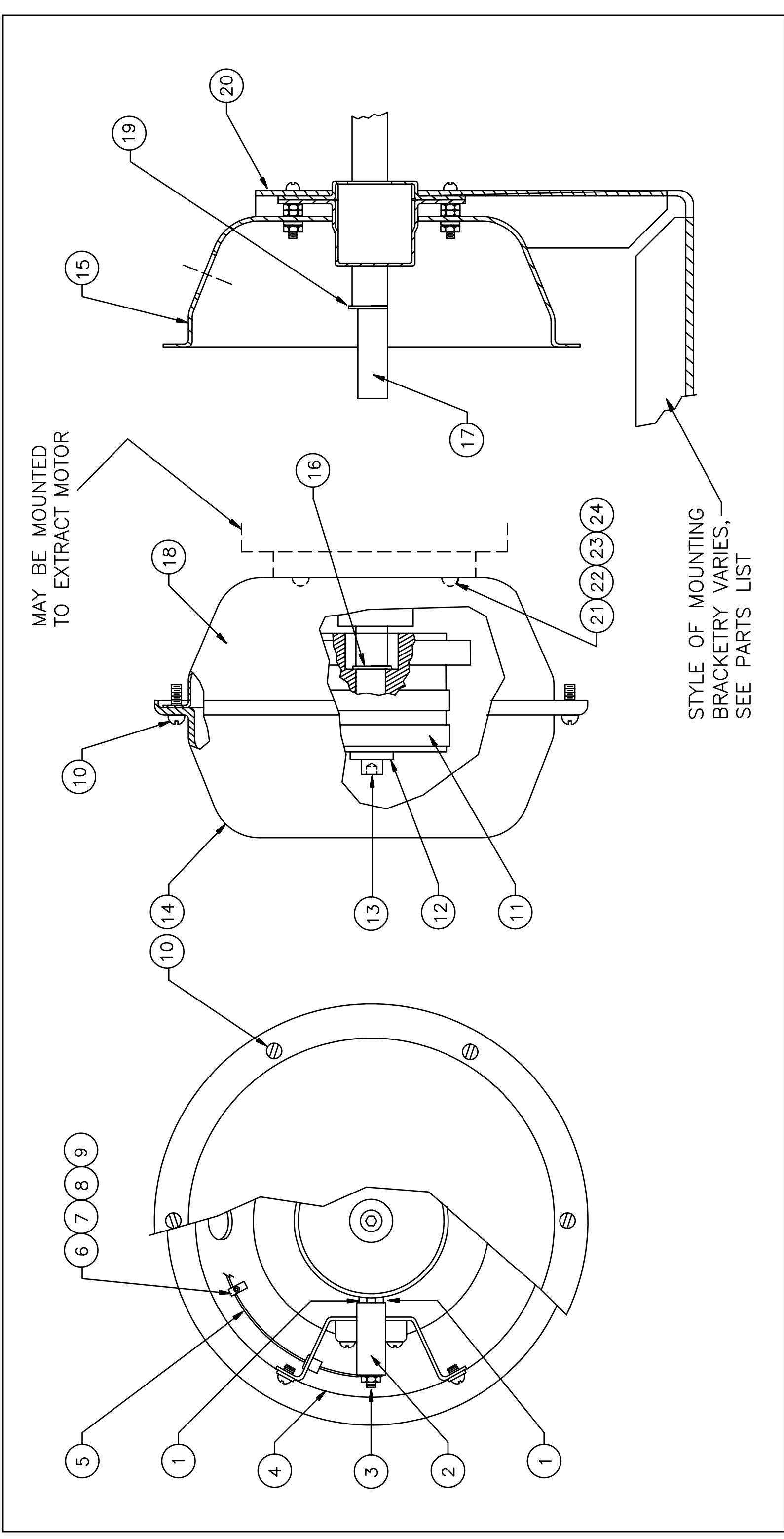
Centrifugal Switch Assembly

BMP701195/2000242V
(Sheet 1 of 2)



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Parts List—Centrifugal Switch Assembly
Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
			-----ASSEMBLIES-----	
	N	EDC14003	92000Z*CENTSW + MTG BRKT 3621/26F	3621Q'S MANUFACTURED AFTER JAN. 6, 1993
	P	EDC14002	90000Z CENTSW+MTG BRKT 36/42QG/J/P	3621/26+4226Q4'S, Q6'S
	Q	G10 05000B	84412# CENTSW ASSY=FRAME NO-PLATE	3621CPE,BWP,NSP 4226DA1, 64040/64050E6N 64046E6N/J6N/D6N
	R	G03 04500A	84412C CENTSWITCH=MOTOR MT NO-PLATE	6044,6442,6446,7244
	T	SAE03 088	792571 ASSY=CENSW + MOUNTBKT 42	42031,42044,48032,48036
	U	SAE03 088A	83417J ASSY=CENSW + MOUNTBKT 42DYA	5238 DYE
	V	ADC11001	84122D ASSY=CENSW + MOUNTBKT4226QH	4226
	W	ADC14001	90351C CENT SWITCH ASSY 3621F8P	3621F8P
	X	EDC14801	86252C ASSY=CENSW+MTGBRKT RWP	3621/26,4226RWP/SYS 7
	Y	SAE13 001	83246I ASSY=CENSW + MOUNTBKT SWE	3626SWE
	Z	SAE13 001A	83417J CENTRIFUGAL SW ASSY 42QHE	4226,4832,4836
			-----COMPONENTS-----	
all	1	09X100	CARBON BRUSH 3/16"SQ=CENSW	
all	2	ESC0001	82281B* CENT SWITCH BRUSHOLDER ASSY	
all	3	15G071	MACHSCRLOKNUIT 6-32 NM SER ZINC	
all	4	03 IF2X3	85046B INSUL.AUTOSPOT/CENTRIFUGL.SW	
all	5	60E005E	TUBING VINYL 3/8IDX.025"W #HT105C *	
all	6	12P015C	CABLECLAMP 5/16-1/2	
all	7	15G070	HXMACHSCRNUIT 6-32UNC2B ZINC GR2	
all	8	15N045	RDMACHSCR 6-32UNC2AX3/8 ZINC GR2	
all	9	15U100	LOKWASHER MEDIUM #6 ZINCPL	
all	10	15P010	12Z PHILPAN TRDCUTSCRTP10-24X1/2SS	
all	11	SAE03 012B	83407#*SLIPRING+CENT SW.ASSY(LORES)	
all	12	15U342	FLTWASH .255/.260IDX.750DX.125T SS	
all	13	15K036	05Z SKSELLOKCP SCR 1/4-20X5/8	

Parts List, cont.—Centrifugal Switch Assembly

Used In	Item	Part Number	Description	Comments
all	14	02 15582	COVER=CENSW-CADSTL	
N-R	15	03 01147	HOUSING FOR CENTRIFUGAL SWITCH	
all	15	A33 11000	75675B\$ HOUSE+BKT+SHAF=CENSW CWM	00S
T	15	A03 01300	75491C*HOUSE+BKT+SHAFT=CENSW 42+52U	
U	15	A03 01300A	75491#* HOUSE+BKT+SHAF=CENSW 42DYA	
V	15	A03 11000	82506T*CENTSWITCH=HOUSING+BRKT 42Q	
W	15	ADC14001A	93381C*C-SWITCH=MNT BRKT+HOUSING	
X	15	ADC14801	86246C*CENT SW HOUSING & BRKT ASSY	
Y	15	A13 02700	83246C\$ HOUSE+BKT+SHAF=CENSW SWE	
Z	15	A13 02700A	83246# CENSW HSG+BRKT ASSY 2SPD WAS	
T-Z only	16	17B059W	RETAIN RING-ROTOR CLIP# SH-62-ST	
T-Z only	17	A03 01400	71103B SHAFT ASSY=CENTSWITCH	
T-Z only	18	03 01147	HOUSING FOR CENTRIFUGAL SWITCH	
T-Z only	19	17B059W	RETAIN RING-ROTOR CLIP# SH-62-ST	
T	20	02 15359	CENSW MOUNTBRACKET	
U	20	03 25417	76154C BRKT=CENT SWITCH MT	
V	20	02 11452	94222D CENTRIFUGAL SWITCH BRKT-42Q	
W	20	02 14609	93381D+BRKT=CENTRIF SWITCH 3621F8P	
X	20	02 14836	89391C CENT=SW MTG BRKT	
Y	20	02 13111	77481C BRKT=CENT-SWITCH MT BND@PRNT	
Z	20	03 48170	83246C BRACKET=CENT.SW.MT.2SP WASH	
all	21	15N117	RDMACSCR 10-24UNC2X3/8SS18-8	
all	22	15U130	FLAWAS#10 .031X7/16ODX.203ID ZINCPL	
all	23	15U150	LOKWASHER MEDIUM #10 ZINCPL	
all	24	15G201	01Z HXLOKNUIT 3/8-16 NYL/SS TYPE NE	

CENTRIFUGAL SWITCH OPERATION

After an extraction, the centrifugal switch will signal the MILTROL as soon as the washer-cylinder has slowed sufficiently to permit the wash speed clutch to reengage. Also, until this low speed has been attained, the MILTROL circuits prevent the opening of the shell door - thus providing safety interlocking.

This centrifugal switch assembly consists of three mercury tube switches wired in parallel, and connected to two copper rings. This entire assembly is mounted on a rear extension of the extractor motor shaft, and rotates at the same speed as the extract motor. At a predetermined speed, centrifugal force will cause the mercury switches to open the circuit. At lower speeds, there is always at least one switch closed, thus maintaining the circuit continuity. Two spring loaded carbon brushes, riding on the copper contact rings, transmit this electrical signal to the MILTROL.

This electrical signal is used to energize the speed relay at the expiration of extraction - when the *predetermined re clutching* speed has been reached. The combined operation of the extract relay and the speed relay in the MILTROL perform all the functions of operating the brake, clutch and extractor motors incidental to the automatic entrance into extraction, and subsequent return to wash speed.

The centrifugal switch is very simple - yet of VITAL importance. Failure of one of the mercury switches to make contact, or an irregular contact between the brushes and the contact rings, or a loose connection in the wiring, or any other condition that would cause an open circuit will prevent the clutch from engaging - in which case the machine will not operate after having braked down from extraction speed.

WARNING: A SHORT CIRCUIT OR GROUND IN THE CENTRIFUGAL SWITCH OR ITS ASSOCIATED WIRING WILL CAUSE THE WASH SPEED CLUTCH TO ENGAGE IN HIGH SPEED ROTATION. THIS CONDITION WOULD BE IDENTIFIED BY AN EXTREMELY LOUD SCREECHING SOUND AS SOON AS THE MACHINE STOPS EXTRACTING. THE SOUND WOULD BE SIMILAR TO SKIDDING AUTO TIRES. SUCH A MALFUNCTION IS VERY DANGEROUS AND MUST BE CORRECTED AT ONCE - BEFORE FURTHER OPERATION.

CAUTION: Over-lubrication of extractor motor bearings will force grease into centrifugal switch housing and will cause centrifugal switch to malfunction.

The carbon brushes should be inspected occasionally, and replaced when worn. The copper contact rings may be cleaned with fine emery when needed. (Do not scratch the surface of the contact rings.)

WARNING: TURN "OFF" POWER AT MAIN WALL SWITCH BEFORE ENTERING CENTRIFUGAL SWITCH. THIS ASSEMBLY CARRIES HIGH VOLTAGE, AND REMAINS ENERGIZED WHEN MILTROL MASTER SWITCH IS "OFF".

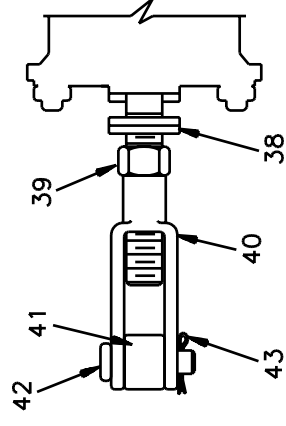
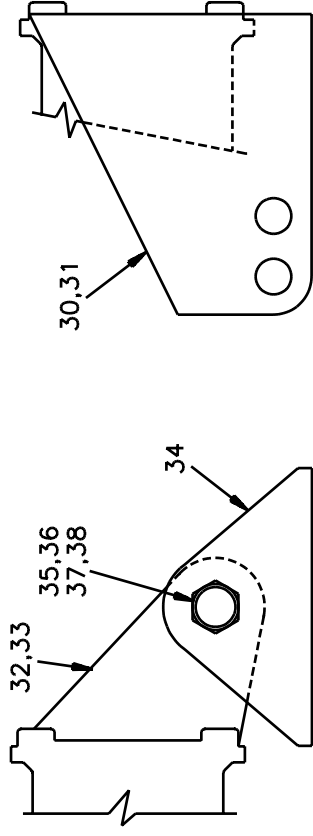
Air Cylinder Assemblies

BMP830078/2000133V
(Sheet 1 of 3)

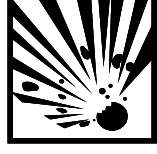


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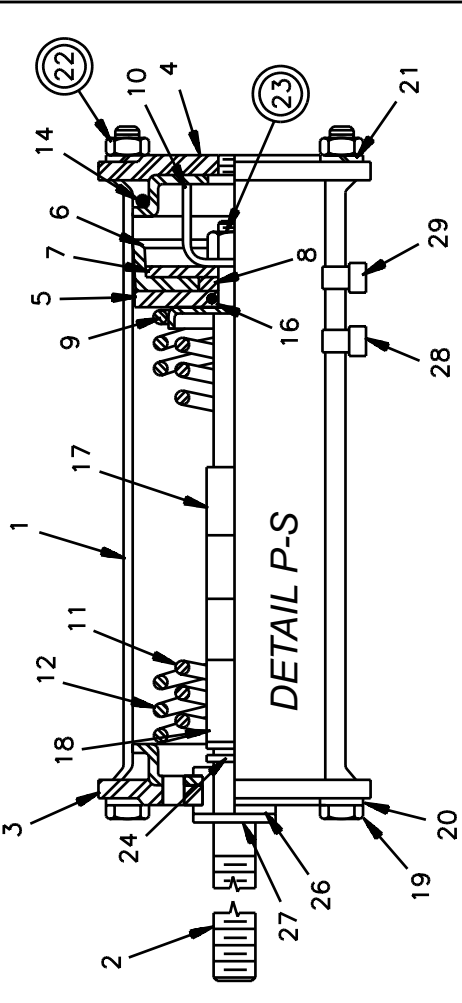
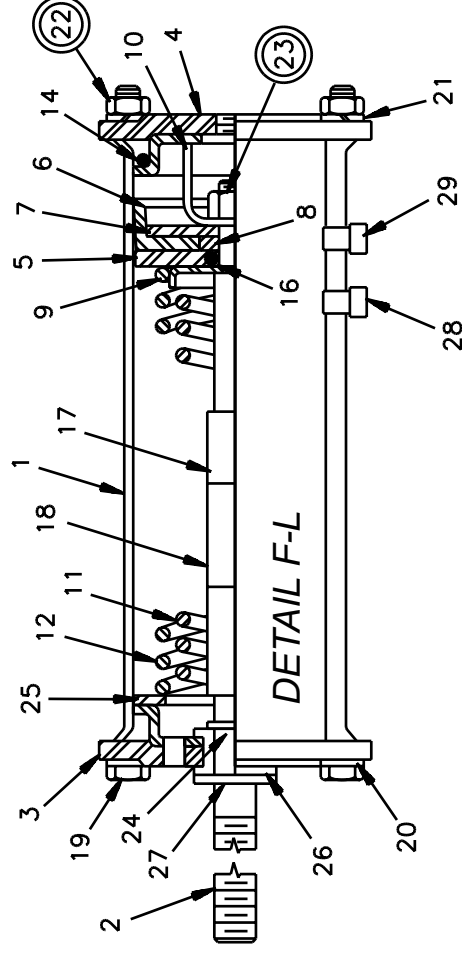
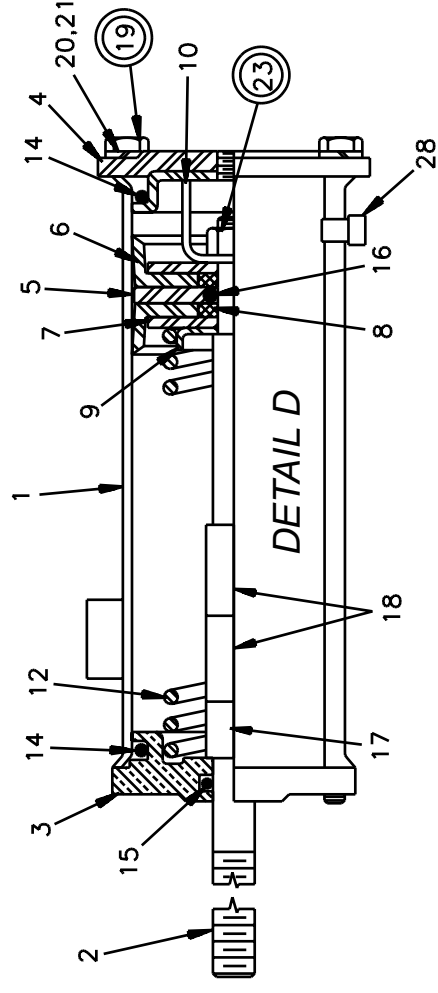
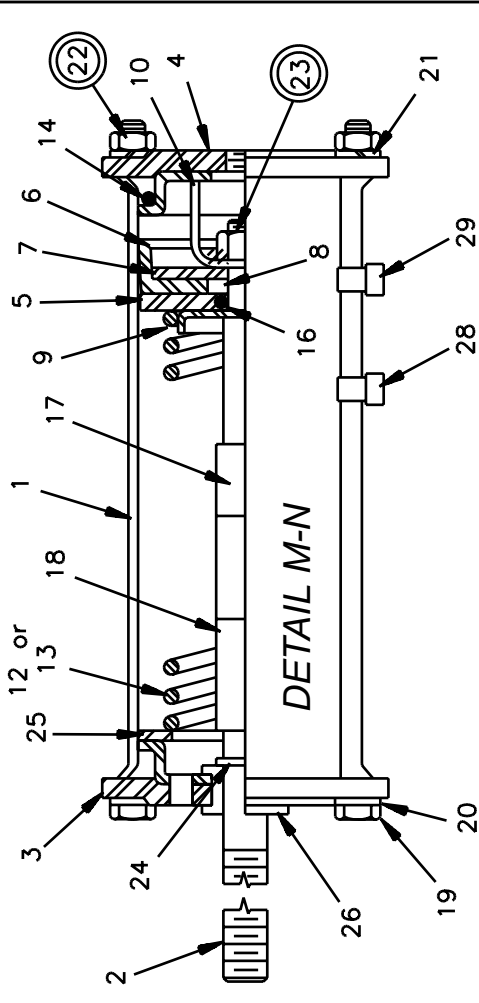
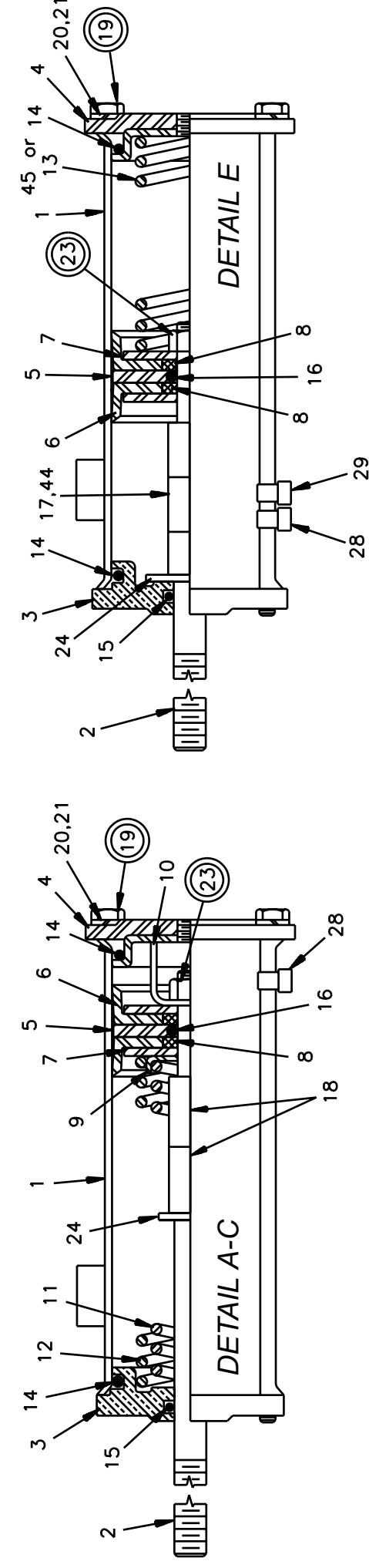


A WARNING



EXPLOSION HAZARD - Air cylinder can burst apart with great force.
Circled items are under high spring tension.
Follow maintenance instructions MSSM0130AE carefully.

AIR CYLINDER MOUNTING HARDWARE



Parts List—Air Cylinder Assemblies				Parts List, cont.—Air Cylinder Assemblies			
Used In	Item	Part Number	Description	Used In	Item	Part Number	Description
Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.							
ASSEMBLIES							
A	SA 36 035	89483V* AIRCYL=BRAKE ASSY	72WP2,WP3,WE3	A-D,F-Q,S	9	02 18651	73171A WASHER=2WAY BRAKECYL
B	SA 28 128	89483T* BRAKE AIRCYL 2-WAY 60+72SGU	60+72SP2,SP3	A-D,F-Q,S	10	03 01313	70219A STOP=AIR CYL W/2+11/16STROKE
C	SA 28 152	89483V* BRAKE AIRCYL 2-WAY 60WE2+3	60WP2,WP3,D3A,DA3	A-C,F-L,P-Q	11	02 15880	96471B SPRING=BRAKE1.5OD10.3FL17#"
D	SA 10 019A	89483U* BRAKE AIRCYL,2-WAY=42WE+DAU	4231/4244 WP2/WP3 CP2/CP3 NP2/NP3 SP2/SP3	S			
F	A52 00200	89463U* BRAKE AIRCYL=7244 TILT ONLY	72DA1/L/N,DBN, WTL/N,WP1	A,D,F-M,Q,S	12	02 15881	96471# SPRING=BRAKE2.1OD11FL15.5#"
G	SA 10 019Q	89483T*BRAKE CYL ASSY=4226QWE+DYA	4226DP1,DA1,DYPD5P	N	13	02 17023	83392B SPRING-SS=DUMP 1.5OD8FL21#"
H	AAC14001A	90000Z AIRCYL-LONG= 42S6P5G	3621+26Q6X 4226Q4X,Q6X	ALL	14	60C132	ORING 2"IDX3/16CS BUNA70 #329
I	A76AC001A	89463T AIR CYL.2-3/8 BORE 2"STROKE	5840TG2,TS1,TT1	A-D	15	60C110	ORING 1/2IDX3/32CS BUNA70 #112
J	A76AC001B	89463@ AIR CYL.2-3/8 BORE 3"STROKE	5840TG2,TS1,TT1	ALL	16	60C106	ORING 5/16ID 1/16CS BUNA70#011
K	A75 01200	89463T*AIR CYL. DAMPER = 3"STROKE	5858+80TG1/2,TS1,TT1	D,G-J,L-N	17	27B240	SPCRROLL.5ID.813L.062T STLZNC
L	A75 01300	89463U*AIR CYL. DAMPER = 2"STROKE	5858+80TG1/2,TS1,TT1	Q,S			
M	SA 10 019	89497U* BRAKE AIRCYL=BALCOM+DIVCYL	3621F8P	A,C-D,F-Q,L	18	27B250	SPCRROLL.5ID1.5L.062T STLZNC
N	AAC14001	90041U*AIRCYL=RATE 50-91 STRK 2.09	52LWN/H,WTL/N,WP/E1,DYA	S	19	02 10585E	91142# TIE BOLT=5/16-18X8.25LG PLTD
P	A25 00600	89457V* BRAKE AIRCYL=52WE1 +52TILT	64BTL,BTN,BHP, DA1,DAL,DAN	ALL	19	02 10585E	91142# TIE BOLT=5/16-18X8.25LG PLTD
Q	AAC64001	894613*AIRCYL=BRAKE ASSY 6442	6446.7246.7258.M7E 7258J2N	R ONLY	19	W6 20702F	90293B*FLOW NOT VLV=AIR-CYL ROD WLD
R	AAC65001	93481B AIRCYL=BRAKE ASSY 6446E6N		ALL	20	15U200	FLATWASHER(USS STD) 5/16"ZNC PLT
S	AAC58001	95000Z AIRCYL=BRAKE ASSY 7258J2N		ALL	21	15U210	LOKWASHER MEDIUM 5/16 ZINCPL
COMPONENTS							
A-D	1	W2 18646	93344L*CYLINDER-AIR=DOUBLEACT BRAKE	A,C,F-G,I-J	24	15U243	FLAWASHER 7/8ODX33/64IDX16GA ZINCPL
F-S	1	02 02068	94266A AIRCYL-STAINLESS=DUMPVALVE	L,Q,S			
A-D,F-G,S, I-K,M-Q	2	02 18650	96431B STEM=2 WAY AIRCYLINDER BRAKE	F-N	25	15U520	FLAT WASHER 2+3/8X1+4/164X12GA ZINC
H	2	03 06313A	96431# STEM=AIR CYL 304SS	F-Q,S	26	54E220	NYLNR 8L2FF BUSH 1/2X9/16X.140
L	2	02 18650A	96417B STEM-AIRCYL,UPLOCK PRESS	F,K,I-J,Q,S	27	17B012	EXTRETRING IND#1000-50-ST-ZD ZINC
R	2	02 18650B	97362B STEM=2WAY AIRCYL BRAKE 7.88L	A	28	20L601R	ID TAG NATL #1614 ALUM EMB LET "R"
A-D	3	02 18660	CYLHEAD-BRASS=2WAY AIRCYL	B	28	20L601U	ID TAG NATL #1614 ALUM EMB LET "U"
F-Q	3	02 02546	CYLHEAD=SLIDESTEM	C	28	20L601P	ID TAG NATL #1614 ALUM EMB LET "P"
R	3	06 20702E	91227B FLOW NOT ACTUATOR CYL HEAD	D	28	20L601X	ID TAG NATL #1614 ALUM EMB LET "X"
S	4	02 02101	71334A CYLHEAD W/TAPPED HOLE	S	28	20L601J	ID TAG NATL #1614 ALUM EMB LET "J"
ALL	5	02 02105	91522A PISTON CUP WASHER STNLS STL	F,H,Q,S	28	20L601A	ID TAG NATL #1614 ALUM EMB LET "A"
S	5	02 02105B	92253B 2.38"ACYL BRASS PISCUP WASHR	G	28	20L601Q	ID TAG NATL #1614 ALUM EMB LET "Q"
ALL	6	02 02194	93217B PISTONCUP=DUMPVALVE 2+3/8"	M	28	20L601F	ID TAG NATL #1614 ALUM EMB LET "F"
ALL	7	02 02085	75161A UP WASHER=2"OD=PISTONCUP	N	28	20L601D	ID TAG NATL #1614 ALUM EMB LET "D"
ALL	8	02 02185	79237A WASHER=PISTON CUP COMP LIMIT	P	28	20L601V	ID TAG NATL #1614 ALUM EMB LET "V"
				K	28	20L601V	ID TAG NATL #1614 ALUM EMB LET "V"
				I-J,L	28	20L601E	ID TAG NATL #1614 ALUM EMB LET "E"
				F,I-L	29	20L601A	ID TAG NATL #1614 ALUM EMB LET "A"
				G-H	29	20L601F	ID TAG NATL #1614 ALUM EMB LET "F"
				N	29	20L601C	ID TAG NATL #1614 ALUM EMB LET "C"



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Parts List, cont.—Air Cylinder Assemblies

Used In	Item	Part Number	Description	Comments
Q	29	20L601D	ID TAG NAT'L #1614 ALUM EMB LET "D"	
ALL	30	03 06309	70310C RIGHTMOUNT=BRAKE CYL ZNC	RIGHT
ALL	31	03 06308	70310C LEFTMOUNT=BRAKE CYL ZINC	LEFT
ALL	32	02 02550	97437ABRKT=AIRCYL-RIGHT ZINC/CAD	RIGHT
ALL	33	02 02547	LT BRACKET=AIRCYL CAD	LEFT
ALL	34	02 02556	SUPPORT=AIRCYL CADSTL	
ALL	35	27B2750L0T	01Z SPC RROLL.562ID.937L.048T ZNK	
ALL	36	15K206	HEXCAPSCR M5-.8X40MM 18-8SS	
ALL	37	15G235F	HXFNJAMNUT 9/16-12UNC2B ZINC GR2	
ALL	38	15U280	01Z FL+WASHER(USS STD)1/2 ZNC PL+D	
ALL	39	15G230	HXNUT 1/2-13UNC2B SAE ZINC GR2	
ALL	40	17A020	ADJ CLEVIS MACHINED 1/2-13 ZINC PLT	
ALL	41	17A065	01Z EYEEND 1/2-13 X2.25 ZINC	
ALL	42	17A040	CLEVISPIN 1/2"X1+3/8" DRILLED	
ALL	43	15H030	STDCOTTERPIN 3/32X3/4 ZINCPL	
ALL	44	27B34010SZ	SPCROLL.512ID.625L.062T STLZC	
ALL	45	02 17024	94302B SPRING-SS=DUMP 1.5OD4FL40#"	

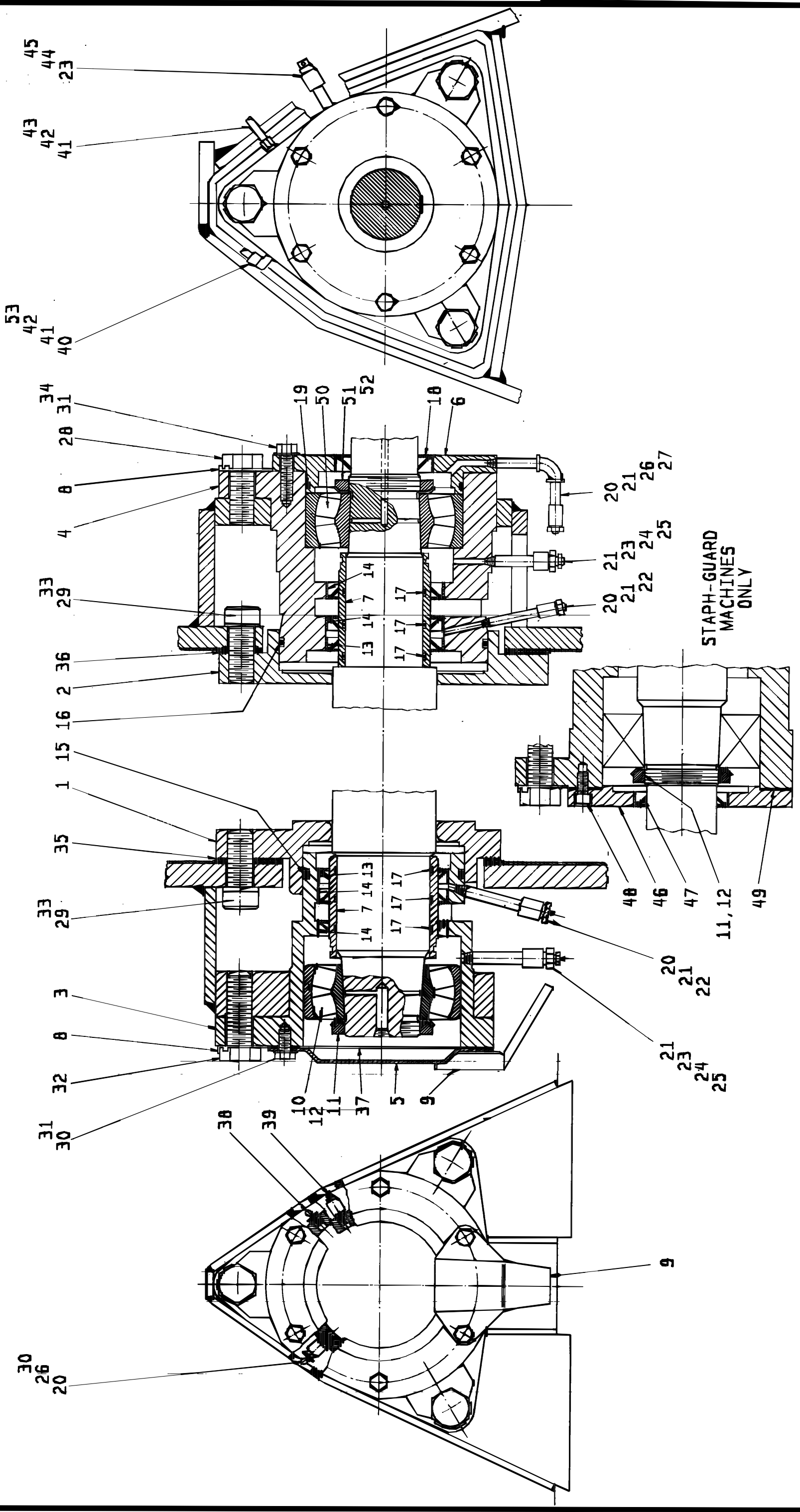
Section
Bearing Assemblies

4



MAIN BEARING ASSEMBLY
 60036, 60044 AND 72044 WE2, WE3, SG2, SG3 AND DA3

BMP840039
 84336D





Pellerin Milnor Corporation
P. O. Box 400, Kenner, LA 70063-0400

BMP840039R/96142V (1 of 2)

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BMP840039R/96142V
(Sheet 1 of 2)

Used In	Item	Part Number	Description	Comments
			ASSEMBLIES-----	
			none	
			COMPONENTS-----	
all	1	X2 175008	72111C SUPORT=FNTSHFT=60" :C2-18843	60036,44WE2
all	1	X2 175009	72111C SHAFTSUPORT= 60"WE :C2-18592	60036,44WE3,DA3, SG2+3
all	1	X3 06047	72111C SUPORT=FNTSHFT=72" :C2-18843	72044WE2+3
all	1	X3 06047S	82082C SHAFTSURPORT-FRONT 4.81"D SS	72044DA3
all	1	X3 06003	82261C SHAFTSUPORT= 72"WE :C2-18592	72044SG2+3
all	2	X2 175009	72111C SHAFTSUPORT= 60"WE :C2-18592	60036,44WE2+3,DA3, SG2+3
all	2	X3 06003	82261C SHAFTSUPORT= 72"WE :C2-18592	72044WE2+3,SG2+3
all	2	X3 06003S	82261C SHAFTSURPORT-REAR 4.81"D S/S	72044DA3
all	3	X3 06005	94277D HOUSING=FNT BRG+SIL:C2-18842	60036,44WE2, 72044WE2+3
all	3	X2 175005	95522D BRGHOUS=FNT=SG: C2-18590	60036,44WE3,SG2+3, DA3
all	3	X2 175005	95522D BRGHOUS=FNT=SG: C2-18590	72044SG2+3
all	3	X3 06005S	81086D FRT BRG HSG W/ S/S CAP 60WEU	72044DA3
all	4	X2 175007	95522D BRGHOUS=REAR=WEH:C2-18590	60036,44WE2+3,DA3, SG2+3
all	4	X2 175007	95522D BRGHOUS=REAR=WEH:C2-18590	72044SG2+3
all	4	X3 06369	95522D HOUSING=REAR=BRG :C2-18590	72044WE2+3
all	4	X3 06369S	81422D HOUSING REAR BRG S/S CAP	72044DA3
all	5	02 18618A	70120A COVER=BEARING 60 WED	
all	6	X2 18190	87382C HOLDER=SHAFT SEAL	60036,44WE2+3,DA3
all	6	X2 175052	75873C HOLDER=SEAL=60SG CS W/AUTOSP	60036,44SG2+3
all	6	X3 06370	87387C HOLDER=REAR SEAL	72044WE2+3,DA3
all	6	X2 175053	75631C HOLDER=SEAL=60SG SS W/AUTOSP	72044SG2+3
all	7	X3 06006	95103B SLEEVE=SEAL 2/60WEHU	60036,44WE2+3,DA3, SG2+3
all	7	X3 06165	95103B SLEEVE=SHAFT SEAL=2/72WEDU	72044WE2+3,DA3,SG2+3
all	8	02 18219	86176B LOCKWASH=MAIN BEARHOUSE ZINC	
all	9	02 18928	91046C DRIPSHIELD=60" WE + ZINC	ALL EXCEPT SG'S

Parts List, cont.—60036, 60044 AND 72044 WE2, WE3, SG2, SG3, AND DA3				
Used In	Item	Part Number	Description	Comments
all	10	56S22316T	08Z SPHEROLBRG 22316 BK-C3-W33	
all	11	56AHN16	AN16 BEARING LOCKNUT	
all	12	56AHW16	W16 BEARING LOCKWASHER	
all	13	24S114	06Z SEAL 4.5X5.5X.50 JM# 9170 LUP	
all	14	24S114	06Z SEAL 4.5X5.5X.50 JM# 9170 LUP	
all	15	60C161	ORING 6"IDX1/4CS BUNA-N 70 #437	60036,44WE2, 7244WE2+3,DA3
all	15	60C172	ORING 8"IDX1/4CS BUNA-N 70 #445	60036,44WE3,DA3, SG2+3
all	15	60C172	ORING 8"IDX1/4CS BUNA-N 70 #445	72044SG2+3
all	16	60C172	ORING 8"IDX1/4CS BUNA-N 70 #445	
all	17	60C154	ORING 3+7/8"IDX3/16CS BUNA-N70 #344	60036,44WE2+3,DA3, SG2+3
all	18	24S111	01Z SEAL 3X4.008X.437 CS/BUNA	60036,44WE2+3,DA3, SG2+3
all	18	24S111	01Z SEAL 3X4.008X.437 CS/BUNA	72044SG2+3
all	18	24S112	03Z SEAL 3.75X4.75X.500 CS/BUNA	72044WE2+3,DA3
all	19	60C160J	ORING 6+1/4"IDX1/8CS BUNA-N 70 #259	
all	20	5SCC0CBE	NPT COUP 1/8 BRASS 125# 103A-A	
all	21	54M029	RELIEFFIT 1/8"STR ALEMITE#47200	
all	22	5N0C03AG42	NPT NIPPLE 1/8X3 TBE GALSTL SK40	
all	23	5SCC0EBE	NPT COUP 1/4 BRASS 125# #103	
all	24	5N0E02KG42	NPT NIPPLE 1/4X2.5 TBE GALSTL SK40	
all	25	5SB0E0CBEO	HEXPIPBUSH 1/4 X 1/8 BRASS 125#	
all	26	5N0CCLSB42	NPT NIPPLE 1/8XCLS TBE BRASS STD	
all	27	5SLOCBEA	NPT ELBOW 90DEG 1/8" BRASS 125#	ALL EXCEPT SG'S
all	27	5SLOENFK	NPT ELBOW 45DEG 1/4" GALMAL 150#	SG MACHINES ONLY
all	28	15B243	HEXCAPSCR 1-8X2+1/2 GR5 ZINC	
all	29	15U400	LOCKWASHER MEDIUM 1" ZINCP	
all	30	15K145	HXCAPSCR 1/2-13UNC2AX3/4 GR5 PLATED	ALL EXCEPT SG'S
all	31	15U300	LOKWASHER REGULAR 1/2 ZINC PLT	
all	32	15B236	HEXCAPSCR 1-8UNC2AX3 SAEGR5 ZNC/CAD	60036,44WE2, 7244WE2+3,DA3
all	32	15B243	HEXCAPSCR 1-8X2+1/2 GR5 ZINC	60036,44WE3,DA3, SG2+3



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Parts List, cont.—60036, 60044 AND 72044 WE2, WE3, SG2, SG3, AND DA3

Used In	Item	Part Number	Description	Comments
all	32	15B243	HEXCAPSCR 1-8X2+1/2 GR5 ZINC	72044SG2+3
all	33	15K236	05Z SKCPSCR 1-8 3X 2.75BLK-HK	
all	34	15K162	HXCAPSCR 1/2-13UNC2AX1.5 GR5 PLATED	60036,44WE2+3,DA3
all	34	15K162	HXCAPSCR 1/2-13UNC2AX1.5 GR5 PLATED	72044WE2+3,DA3,SG2+3
all	34	15K147C	03Z SKCPSC 1/2-13X1 BLK HK	60036,44SG2+3
all	35	02 18768D	93123A GASKET=SHAFT SUPT DA3	
all	35	02 18870	93362B GASKET=SHAFTSUPPORT 2/60WEDU	60036,44WE2 ONLY
all	36	02 18768D	93123A GASKET=SHAFT SUPT DA3	
all	37	02 18105	93362A BEARING CAP GASKET	ALL EXCEPT SG'S
all	38	54M015	65408A GREASEFIT 60X36/60X44 1610BL	
all	39	5SP0CFESSV	NPT PLUG 1/8SQSOLIDBLKSTL LVENT125#	
all	40	53A039B	BODY=BRMAL90 5/16X1/8COMP #B69A-5A	
all	41	53A508	5/16" SLEEVE-DELTRIN	
all	42	53A509	TUBEINSERT .187"OD	
all	43	53A019B	BODY=BRMALCON 5/16X1/8COMP #68B-52	
all	44	5N0E01KBE2	NPT NIPPLE 1/4X1.5 TBE BRASS 125#	
all	45	51P008B	PLUG PIPE SQ 1/4"BLKW/LVENTSOLIDSTL	
all	46	X2 175053	75631C HOLDER=SEAL=60SG SS W/AUTOSP	60036,44SG2+3 ONLY
all	46	X2 175052	75873C HOLDER=SEAL=60SG CS W/AUTOSP	72044SG2+3 ONLY
all	47	24S111	01Z SEAL 3X4.008X.437 CS/BUNA	SG MACHINES ONLY
all	48	15K147C	03Z SKCPSC 1/2-13X1 BLK HK	60036,44SG2+3 ONLY
all	48	15K162	HXCAPSCR 1/2-13UNC2AX1.5 GR5 PLATED	72044SG2+3 ONLY
all	49	02 18105	93362A BEARING CAP GASKET	SG MACHINES ONLY
all	50	56S22316T	08Z SPHEROLBRG 22316 BK-C3-W33	ALL EXCEPT 72044WE2+3
all	50	56S23220T	04Z SPHEROLBRG 23220LBK-C3-W33	72044WE2+3 ONLY
all	51	56AHN16	AN16 BEARING LOCKNUT	ALL EXCEPT 72044WE2+3
all	51	56AHN20	AN20 BEARING LOCKNUT	72044WE2+3 ONLY
all	52	56AHW16	W16 BEARING LOCKWASHER	ALL EXCEPT 72044WE2+3
all	52	56AHW20	W20 BEARING LOCKWASHER	72044WE2+3 ONLY
all	53	53A060A	NUT BRASS 5/16 COMP W#61X5	

Section

5

Frame, Pivots and Suspension

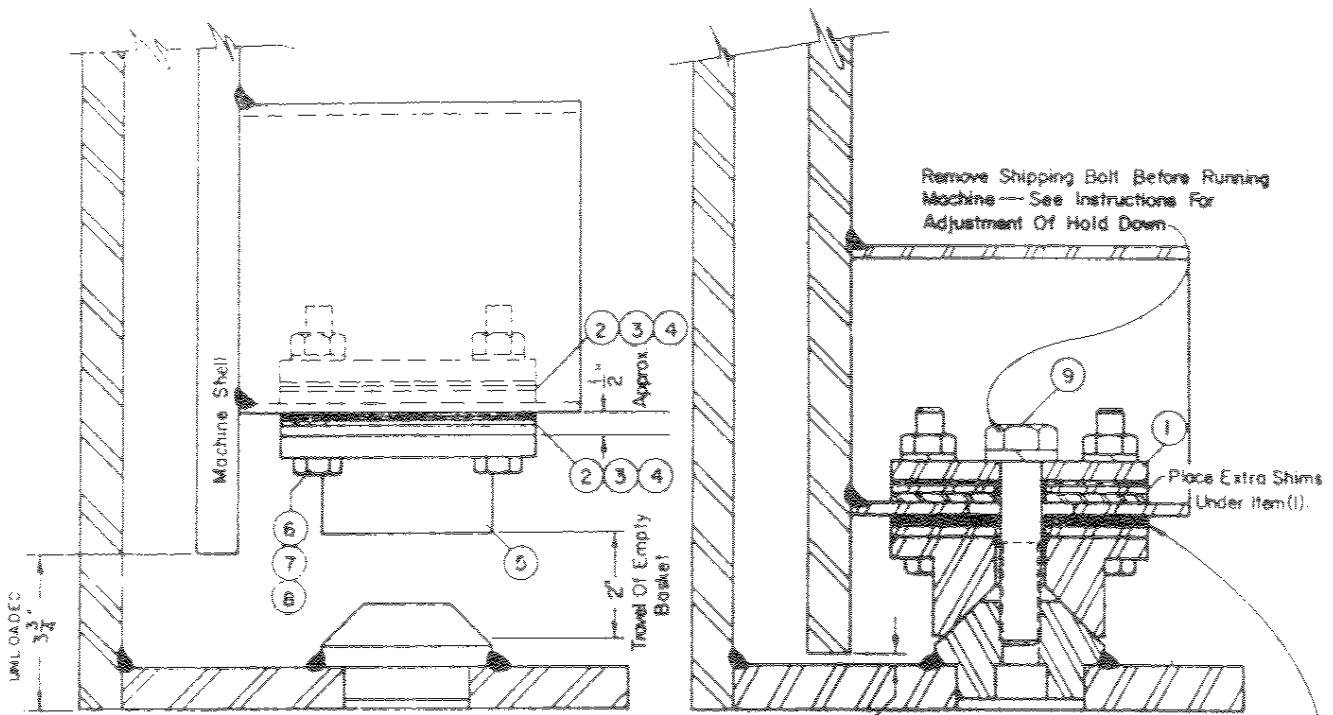


FIGURE 2.
(Adjustment Completed, Machine Up)

NOTE: Be Sure Shell Does Not Bottom On Base Pad—There Must Be Clearance At This Point—Check At Each Corner.

Remove Shipping Bolt Before Running Machine—See Instructions For Adjustment Of Hold Down

9

1

Place Extra Shims Under Item (1).

NOTE: Place Shims Here To Adjust Ring Weldment So That All Four Corners Seal Simultaneously.

FIGURE 1
(Machine Locked Down For Shipment)

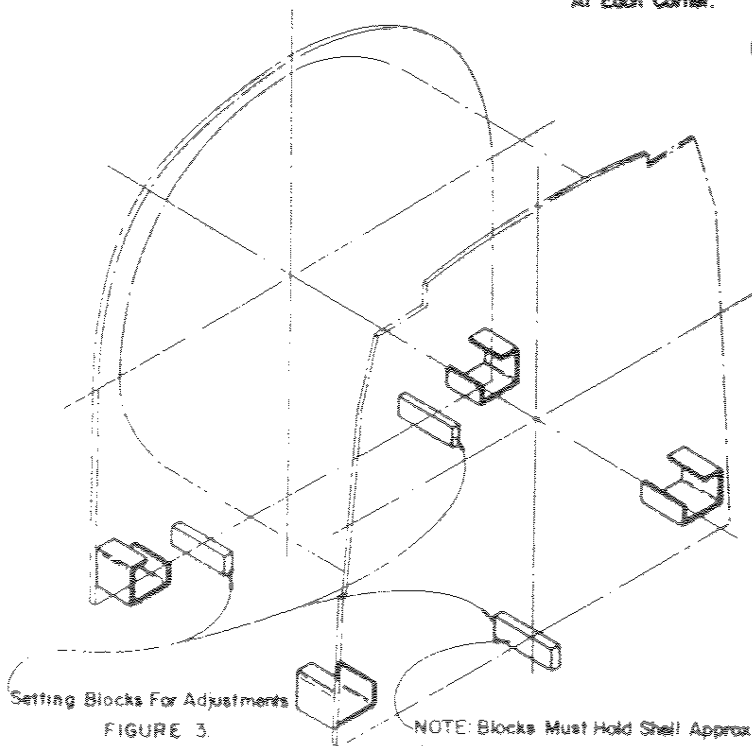


FIGURE 3.

NOTE: Blocks Must Hold Shell Approx. $\frac{3}{8}$ " Above Base Pads When Machine Is Pushed Down.

HOLD DOWN ADJUSTMENTS
60" & 72" RAPID LOAD & STOP-GUARD[®]
WASHER-EXTRACTORS

PELLERIN MILNOR CORPORATION

Hold Down Adjustments

60" & 72" Rapid Load and Staph-Guard

BMP701672R/71051
(Sheet 1 of 1)



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Parts List—Hold Down Adjustments

Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

The shipping bolt (Item 9) must be removed from all four hold downs before the machine is operated and before making any adjustment. The four base pads of the machine must be adjusted so that the machine touches all four pads simultaneously with uniform pressure.

This holds the machine steady during washing and allows the machine to travel vertically without "twist" or undulating motion.

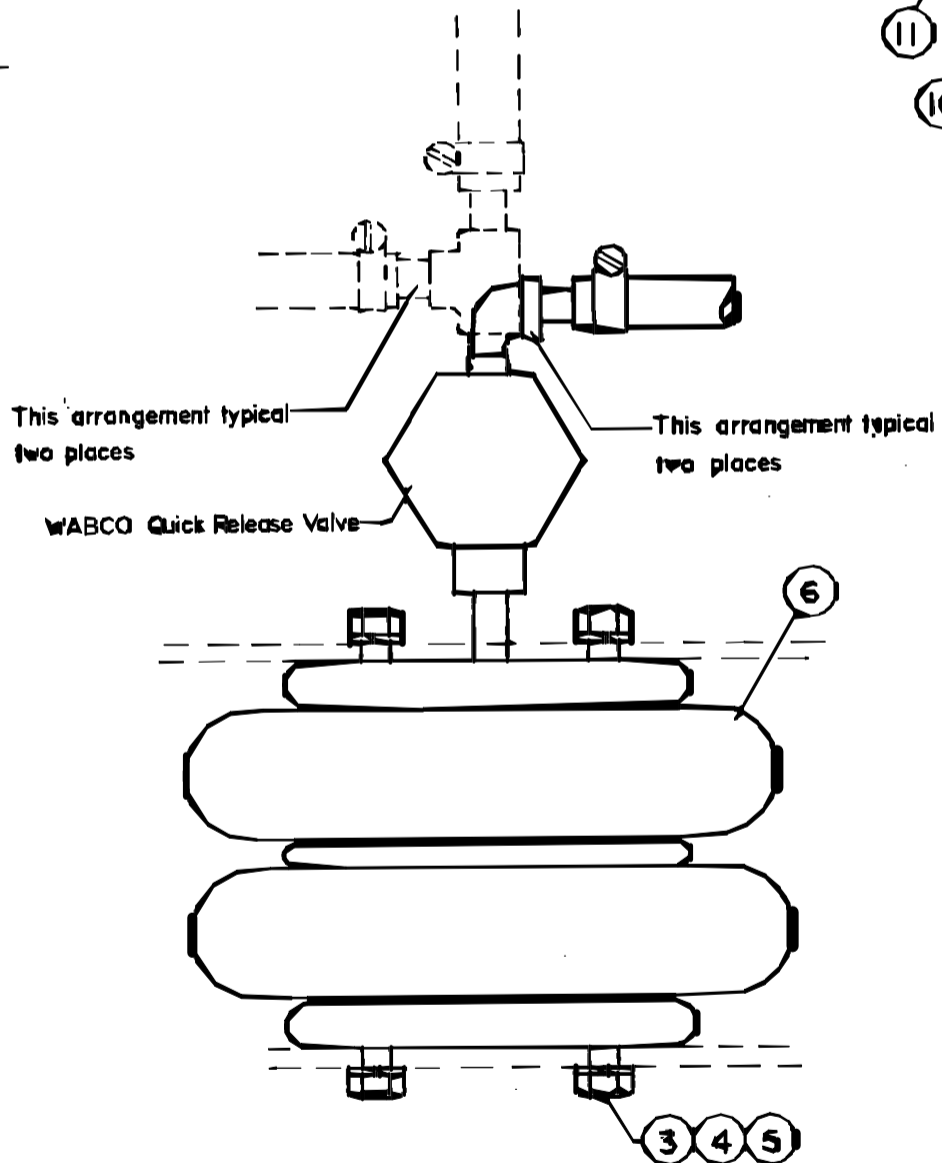
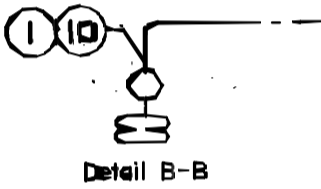
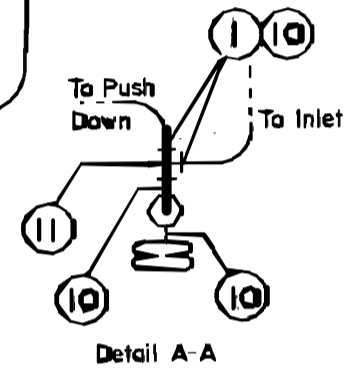
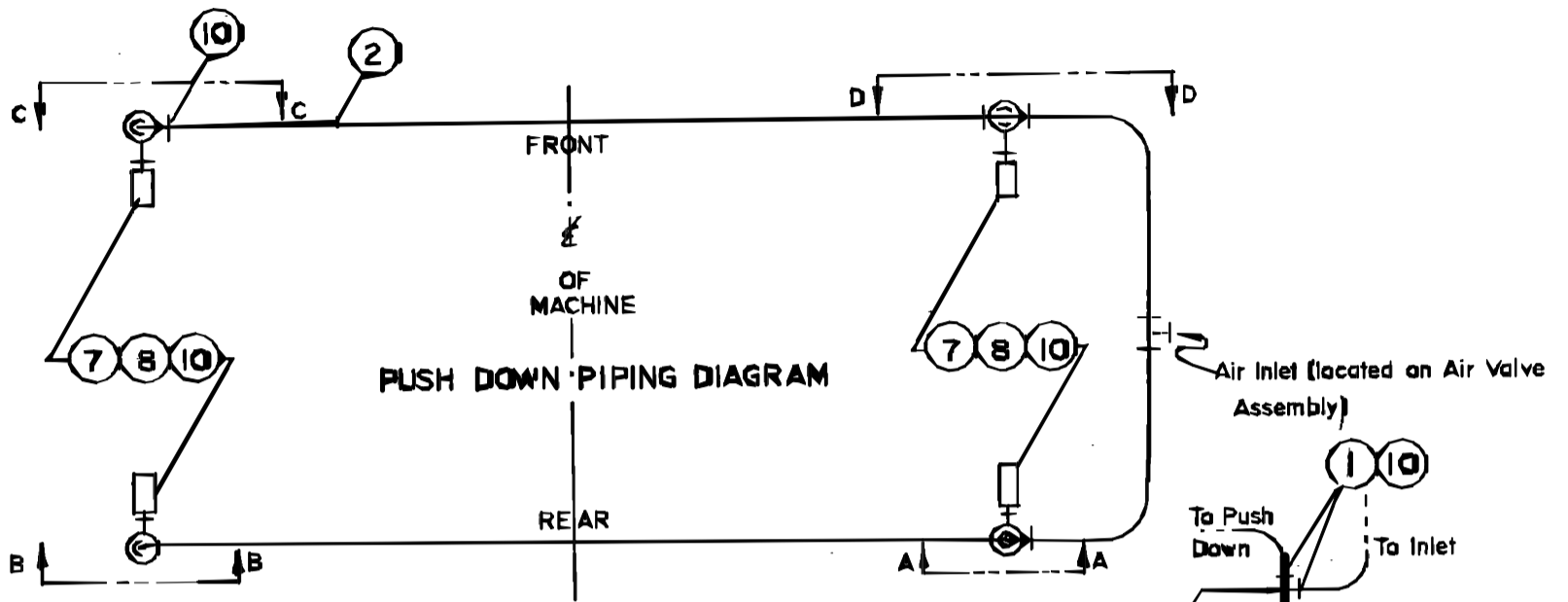
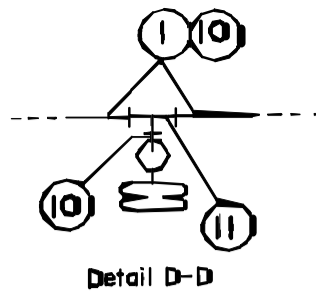
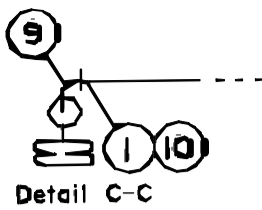
Place the machine on a level floor. Lower the shell front and back onto three blocks. Locate two blocks in front and one block in the rear. The blocks must hold the machine shell about 3/8" above the base pads.

Remove the four bolts holding the ring weldment (Item 5). Place the ring weldment firmly on top of the plug welded onto the base pad and measure the clearance between the mounting bracket and the ring weldment (Item 5). Stack the necessary number of shims to remove all of the measured clearance. Place extra shims on top of the mounting bracket so that they may be used for later adjustments if necessary.

Check the adjustment by turning the master switch (located on the MILTROL) on and observing how the machine seats itself on the pads, and how it rises vertically off of the pads. No rocking motion as the machine goes down, or twisting motion as it rises should be present. Repeat the adjustments if necessary.

Enough clearance must exist between the ring weldment (Item 5) and the plug on the base pad when the machine goes into extraction to prevent binding, but must not be so much that it prevents the machine from being pushed down solidly while the machine is in wash and drain. When the machine is empty it should move 2" from the down-solid to the free-hanging position.

<u>ITEM</u>	<u>PARTS LIST</u> <u>DESCRIPTION</u>	<u>PART NO.</u>
1.	Plate, Hold Down Centering	03-06215B
2.	Shim, Hold Down Ring, 0.25"	03-06216A
3.	Shim, Hold Down Ring, 0.12"	03-06216B
4.	Shim, Hold Down Ring, 0.06"	03-06216C
5.	Ring Weldment	W3-06215
6.	Hex Nut, 5/8"-11 UNC2	15G238
7.	Lockwasher, 5/8", Medium	15U315
8.	Hex Tap Screw, 5/8"-11X4", Full Thread	15D125
9.	Hex Cap Screw, 1"-8X4-1/2", Grade 5	15K300



PUSH DOWN ASSEMBLY
PELLERIN MILNOR CORPORATION

Push Down Assembly

BMP701671R/70526
(Sheet 1 of 1)



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Parts List—Push Down Assembly

Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
-----ASSEMBLIES-----				
	1.	27A090	Hose Clamp, 9/16" - 1-1/2"	
	2.	60E085	Air Hose, 1/2", Single Braid	
	3.	15K095	Hex Cap Screw, 3/8"-16UNC2 X 1"	
	4.	15U240	Flatwasher, 3/8", U.S. Std.	
	5.	15U255	Lockwasher, 3/8", Medium	
	6.	60B120	Airmount, Firestone #3582-01-7081	
	7.	27A005	Muffler, 1/4" Pipe, Unipress #27583	
	8.	51A025	Hex Pipe Bushing, 3/8" X 1/4"	
	9.	51J020	Elbow, Street, 1/4" X 90°, Brass	
	10.	51L030	Nipple, Pipe, 1/4" X 1-1/2", Brass	
	11.	51V015	Tee, Pipe, 1/4", Brass	

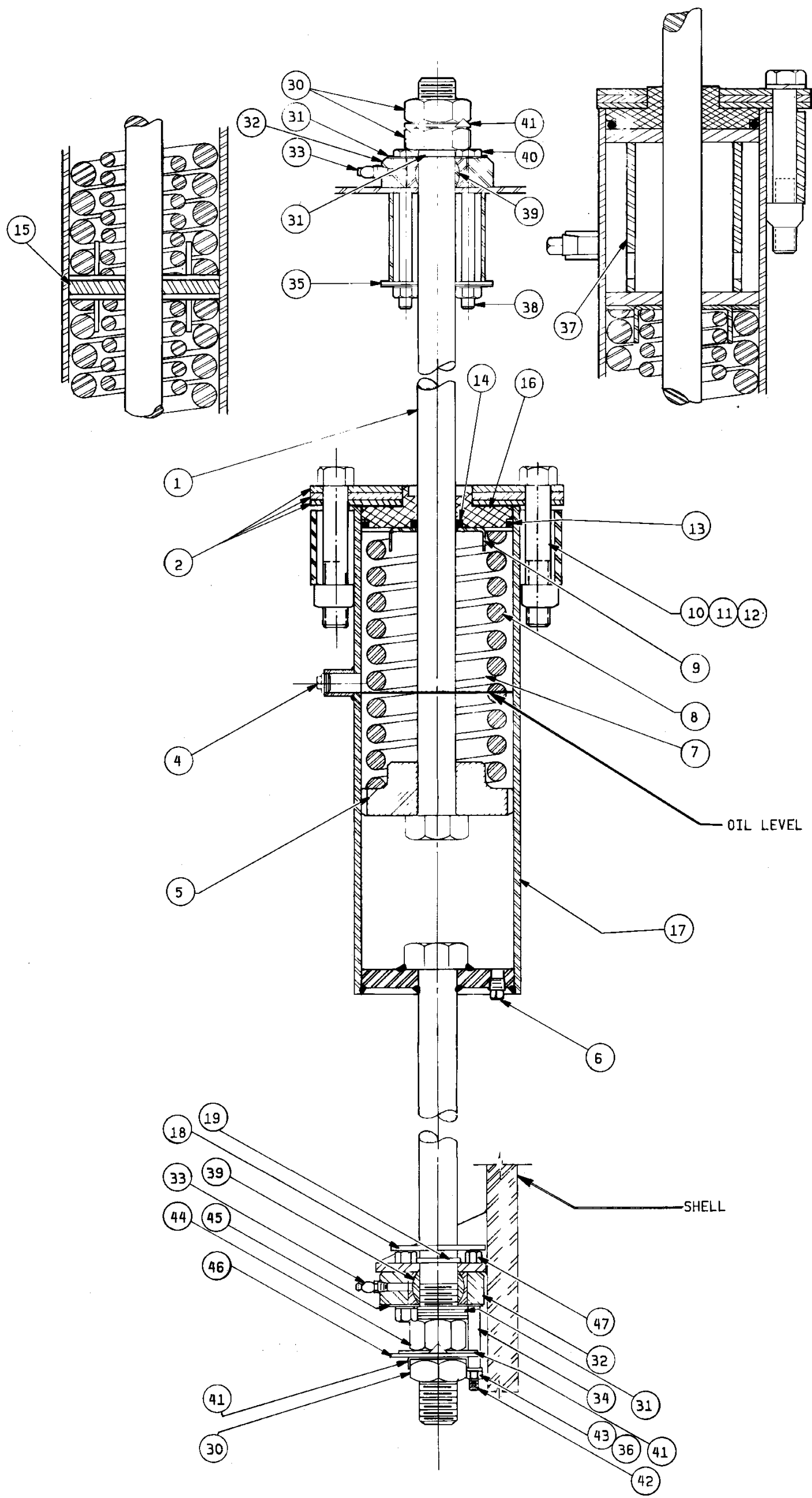
Suspension Cylinder Assemblies

42031,42044,52038,60044,72044

BMP701408/2000133V
(Sheet 1 of 2)

MILNOR
Pellerin Milnor Corporation
P. O. Box 400, Kenner, LA 70063-0400

Litho in U.S.A.



Parts List—Suspension Cylinder Assemblies
Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
			ASSEMBLIES	
	B	SA 16 039	*HYDROCUSHION CYL ASSY-"B"	CYLINDER ASSY B
	C	SA 16 038	*HYDROCUSHION CYL ASSY-"C"	CYLINDER ASSY C
	D	SA 28 091	*HYDROCUSHION CYL ASSY-"D"	CYLINDER ASSY D
	F	SA 36 021	*HYDROCUSHION CYL ASSY-"F"	CYLINDER ASSY F
	G	SA 36 023	*HYDROCUSHION CYL ASSY-"G"	CYLINDER ASSY G
	H	SA 36 047	*HYDROCUSHION CYL ASSY-"H"	CYLINDER ASSY H
	K	SA 29 031K	*HYDROCUSHION CYL ASSY-"K"	CYLINDER ASSY K
			(Note: To identify which cylinder is supplied with your machine, see BMP701235/2000133V which should be located in the manual next to this document. Once you know which cylinder assembly you have, "B-K" listed above, identify your parts by referencing the "Used In" coding.)	
			COMPONENTS	
ABCDK	1	02 18244	BOLT=HYDCYL 27+7/8LG+KEYWAY	
K	1	02 18244A	BOLY=HYDCYL 28+7/8LG+KEYWAY	
FGH	1	03 06201	BOLT=HYDCYL 41+7/8LG+KEYWAY	
all	2	02 18840A	UPCAP=HYDROCYL 42+52+60	
all	4	5SP0KGFSS	NPT PLUG 1/2 SOSOLID GALSTL	
BC	5	X2 15356	PISTON=HYDROCYL 6"- 6 NOTCH	
DFGHK	5	X2 18228	PISTON=HYDROCYL 6"- 3 NOTCH	
all	6	5SP0GGFSS	NPT PLUG 3/8 SQ SOLID GALSTL	
FG	7	03 06139	SPRING=INNER HYDRO CYL 331LB/IN	FULL SPRING (PURPLE)
G	7	03 06139A	SPRING=INNER HYDRO CYL	PLUS 1/2 SPRING "G" ONLY (PURPLE)
H	7	03 06338	SPRING INNER-GOLD 14"LONG	GOLD
B	8	02 16068	MAIN SPRING 212LB/IN RED	RED
C	8	02 16125	MAIN SPRING 300LB/IN BLACK	BLACK
D	8	02 19039	MAIN SPRING 480LB/IN GREEN	GREEN
FG	8	03 06138	SPRING=OUT HYDROCYL 667LB/IN	ORANGE
G	8	03 06138A	SPRING=OUT HYDRO CYL	ORANGE
H	8	03 06337	SPRING-OUTER-GOLD 14.5"LONG	GOLD
K	8	03 09016	MAIN SPRING 1035LB/IN BLUE	BLUE
ABCDGK	9	02 18619	BUSHING RETAINER + CAD	
H	9	03 06358	BUSHING RETAINER.CAD	
all	10	15B237	HXCAPSCR 1-8UNC2AX5.5 SAEGR5 Z	

Used In	Item	Part Number	Description	Comments
all	11	15G255A	SQNUIT 1-8UNC2B SAE ZINC GR2	
all	12	15U400	LOCKWASHER MEDIUM 1" ZINCPL	
all	13	60C159A	ORING 5.475ID 1/4CS BN70 #433	
all	14	24S040	SEAL URETHNE 1-7/16 2.25 13/32	
GH	15	M2 18690	LOWER CAP=HYDROCYL	
all	16	02 18839A	MACHBUSH HYDRCYL CAP #433-OR	
BC	17	SA 15 084	*HYDCUSH CYL WLDMT (18"X/12")	
DI	17	SA 28 090	*HYDCUSH CYL WLDMT (18"/23")	
FGH	17	W3 06203	*HYDCUSH CYL WLDMT (35"/12")	
K	17	W2 18233	*HYDCUSH CYL WLDMT (20"X22")	
all	18	02 175034	SHIELD-BALBUSH-4/HYDRO MACH	
BDFGH	19	02 02230	6 WATER BARRIER (NEOPRENE)	
all	30	15G268	HXFJNAMNUT 1+1/2-12UNF2B ZINC	
all	31	02 18571A	PISTON ROD WASHER-.25"TK	
all	32	X3 06252	RETAINER-BALBUSH=4/72WEDU	
all	33	54M025	HYDFIT 1/8"-90 ALEMITE 1613-B	
all	34	27B240	SPCROLL.5ID.813L.062T STLZNC	
all	35	02 18534	HOLDPLATE= BALLBUSH ZNC/CAD	
all	36	15G230	HXNUT 1/2-13UNC2B SAE ZINC GR2	
F	37	W3 06200	*SPACER=HYDRO-CUSHION CYL	
all	38	15K203	HXCAPSCR TFL 1/2-13X5 GR5 ZINC	
all	39	54A705	BALBUSH 1.5 SKF#GEZ108ESAVE467	
all	40	15N037	HXCAPSCR 1/2-13UNC2AX6.5 GR5 Z	
all	41	02 18256	LOKWASH-TONGUE 8WEH ZINC	
all	42	15K202	HXCAPSCR 1/2-13UNC2AX5 GR5 ZIN	
all	43	15U300	LOKWASHER REGULAR 1/2 ZINC PLT	
all	44	15G231	HXFJNAMNUT 1/2-13UNC2B ZINC G	
all	45	02 18534	HOLDPLATE= BALLBUSH ZNC/CAD	
all	46A	02 18795A	WASH-TIMING=HYDRO CYL 45DEG	USE ONE
all	46B	02 18795B	WASH-TIMING=HYDRO CYL 75DEG	USE ONE
all	47	15K191	HXCAPSCR 1/2-13UNC2AX2.5 GR5 Z	
FGH	48	AVH52001	ASSY=OILFIL SPOUT 72HYD CYL	

Suspension Cylinder Locations

Use with BMP701408

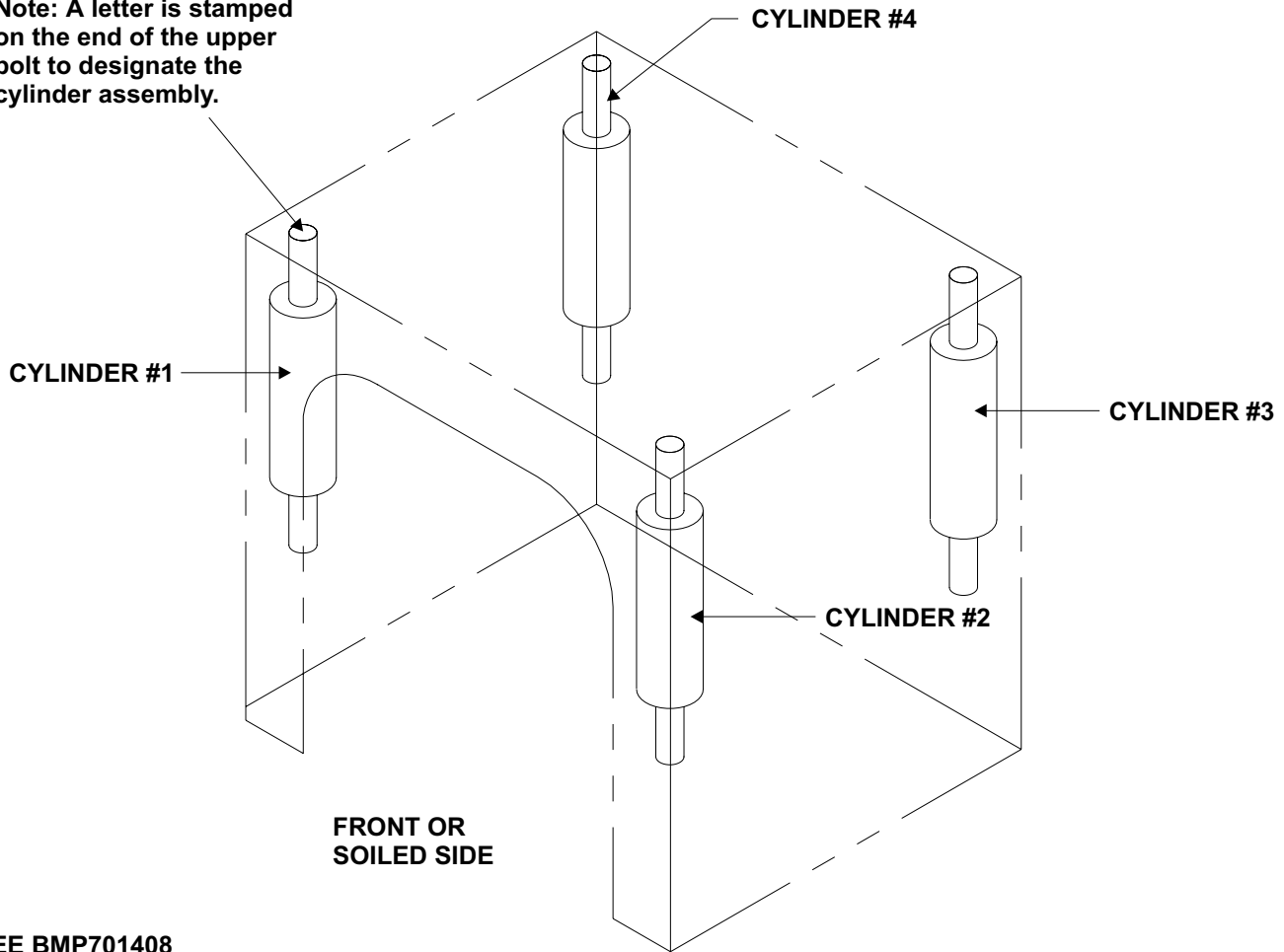
BMP701235/2000133V
(Sheet 1 of 1)



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Note: A letter is stamped on the end of the upper bolt to designate the cylinder assembly.



SEE BMP701408
FOR REPAIR PARTS:
HYDROCUSHION CYLINDER ASSEMBLY "B"
THROUGH HYDROCUSHION CYLINDER ASSEMBLY "K"

POSITION:	MACHINE MODELS:							
	42031 CP2,NP2 WP2,WP3	42031 SP2,SP3	42044 CP2,NP2 WP2,WP3 D7P	42044 SP2,SP3	52038 WTL,WTN WP1	60044 WP2,WP3 SP2,SP3	72044 WP2,WP3 DA1	72044 SP2,SP3
CYLINDER #1	B	B	C	C	D	K	H	G
CYLINDER #2	B	C	B	C	D	K	H	G
CYLINDER #3	B	C	B	C	D	K	F	G
CYLINDER #4	B	C	C	C	D	K	F	G

Section

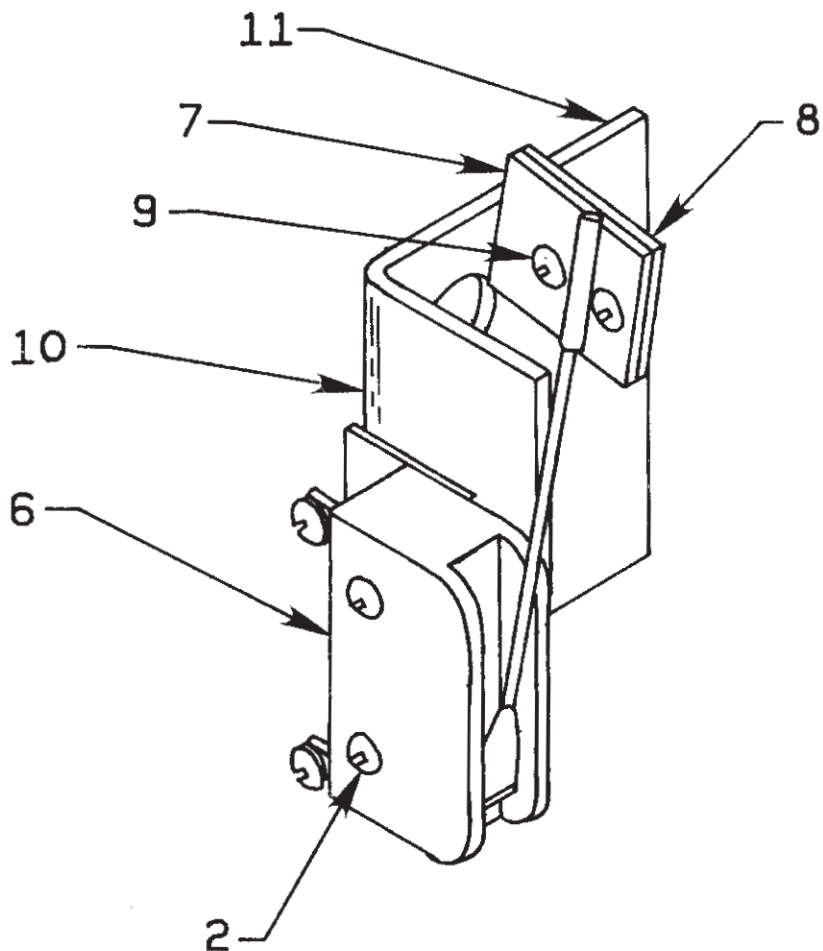
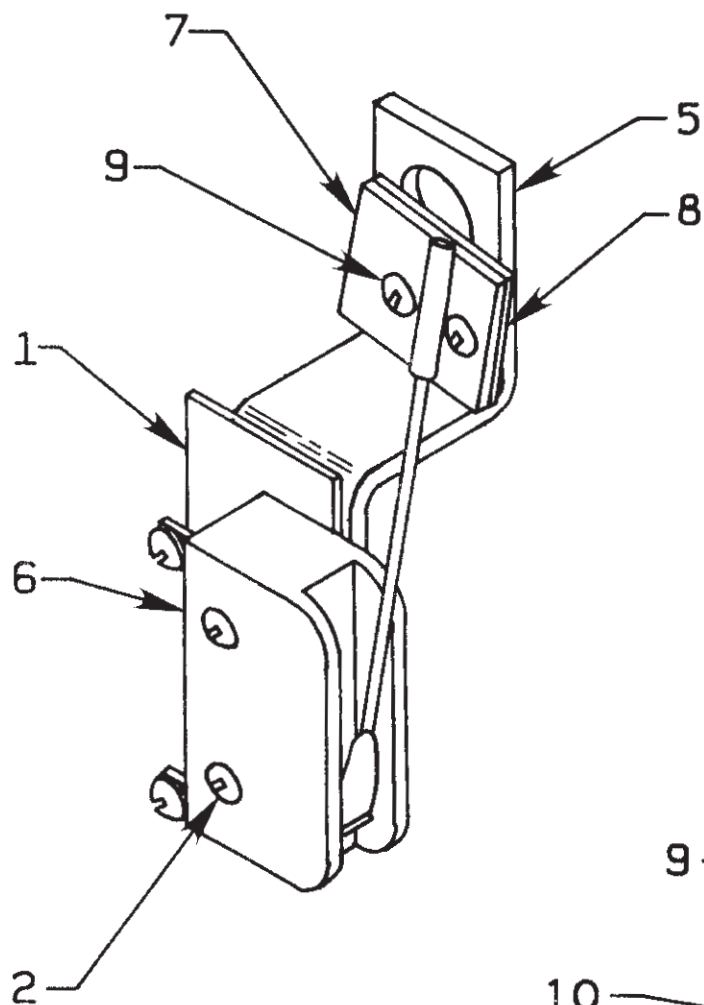
6

**Control and Sensing
Assemblies**



VIBRATION SWITCH ASSEMBLY

BMP700613
83211A



Vibration Switch Assembly

BMP700613R/83211A
(Sheet 1 of 1)



Pellerin Milnor Corporation
P. O. Box 400, Kenner, LA 70063-0400

Litho in U.S.A.

Parts List—Vibration Switch Assy.

Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
-----ASSEMBLIES-----				
	A	SAE03 151	80142B* ASSY-VIBRATION SWT=LG CONTR	CONTAINS 001,002, 005-009
-----COMPONENTS-----				
all	1	02 02038	85482A PLATE INSULATING SMALL9NOV51	
all	2	15P008	02Z TRDCUT PANHD 6-32X1 NIKSTL +WAX	
all	5	02 15119	BRACKET = VIBRATION SWITCH	
all	6	09R020	04Z SWITCH NC VIBR #WZ-2RW84429-P52	
all	7	03 01059	91046A VIBSWITCH CLAMP CADSTL	
all	8	03 01058	89417A VIBSWITCH WEIGHT-CADSTL	
all	9	15P101	04Z TRDCUT-F PANHD 8-32X3/8 NIKSTL	
all	10	02 02038	85482A PLATE INSULATING SMALL9NOV51	
all	11	02 10264	BRACKET=SAFESW CAD	

MAINTENANCE - VIB SAFETY SWITCH

The vibration safety switch will shut off the machine if properly adjusted. The unit consists of a sensitive micro switch having a long extended actuating arm on which is mounted on eccentric weight. The weight may be adjusted both by moving it up and down on the arm, and also by rotating it on the arm. In addition, the micro switch itself may be turned from side to side.

Upon repeated machine movement caused by out-of-balance, the weight will vibrate sufficiently to momentarily actuate the switch with electrically causes the 3 wire relay to de-energize.

The unit should be adjusted so that the weighted lever will always reset by itself, this being accomplished by rotating either the switch or the weight to give just enough bias to cause the switch to reset. Check the adjustment by moving the arm to the left then slowly releasing it. Make sure the micro switch “clicks” when arm is slowly released, thus indicating that it has reset. In the released position, the arm should reset lightly but definitely against the stop on the micro switch case that prevents any further arm movement to the right.

The sensitivity of the unit increases as the weight is raised on the arm and decreases as the weight is lowered.

It is not recommended that the adjustment of this switch be changed from the factory setting. It is, however, true that many installation conditions will dictate readjustment. Essentially, this device senses the movement of the machine during extraction. In installations with very substantial foundations and ideal sub-soil condition, very little machine movement will occur for a given degree of out-of-balance and under such conditions it may be well to adjust the switch to be very sensitive. In poor installations, or ones where the sub-soil is mushy or springy or otherwise not as desirable, considerably greater machine movement will occur for a given degree of out-of-balance, in which case a less sensitive vibration switch adjustment may be indicated.

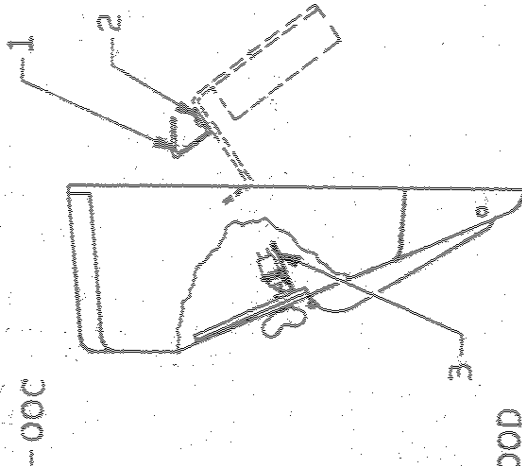
The vibration safety switch is attached to the frame of the sensing device on the right side of the machine base of 25 and 60 lb. washer-extractors. Remove the sensing device cover to work on this switch. On larger machines the vibration safety switch is located in the control box.

NOTE: The vibration safety switch is not installed on machines for shipboard use.



MILTROL HEAD ASSEMBLY

BMP800024
83517B



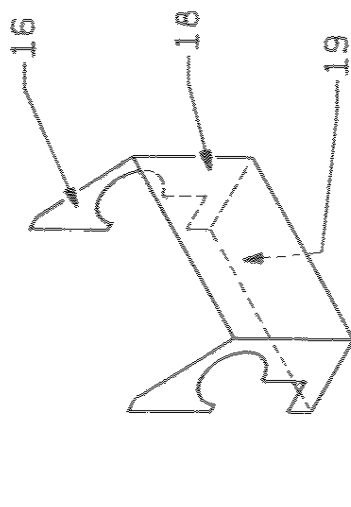
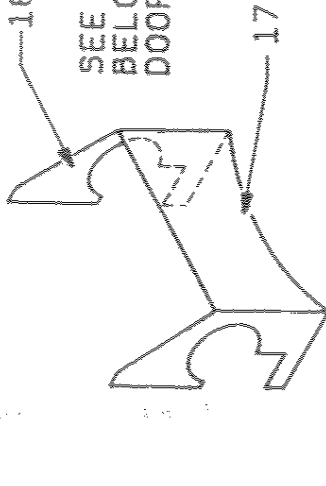
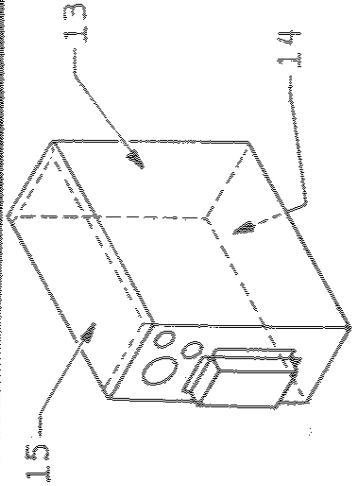
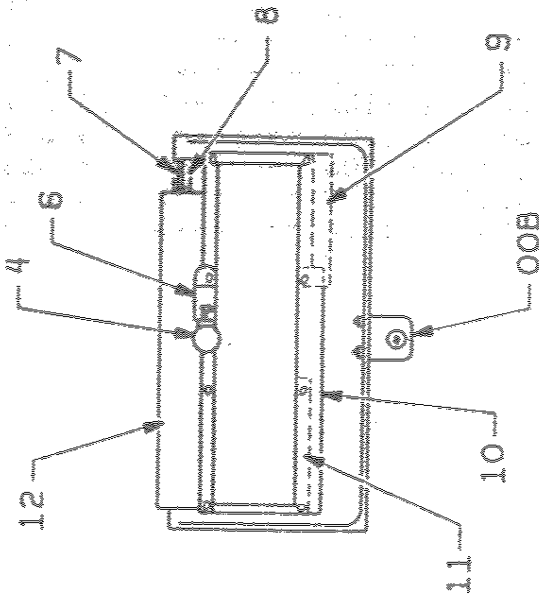
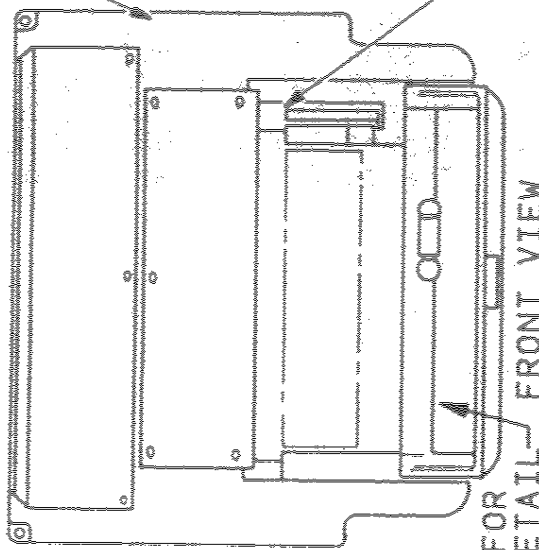
NOTES:

1) EACH MILTROL HEAD ASSY USES ONE OF THE THREE DETAILS SHOWN, WHICH DETAIL IS USED IS DETERMINED BY THE TYPE OF MACHINE:

DETAIL A - HYDRO MACH.
STAPH GUARD

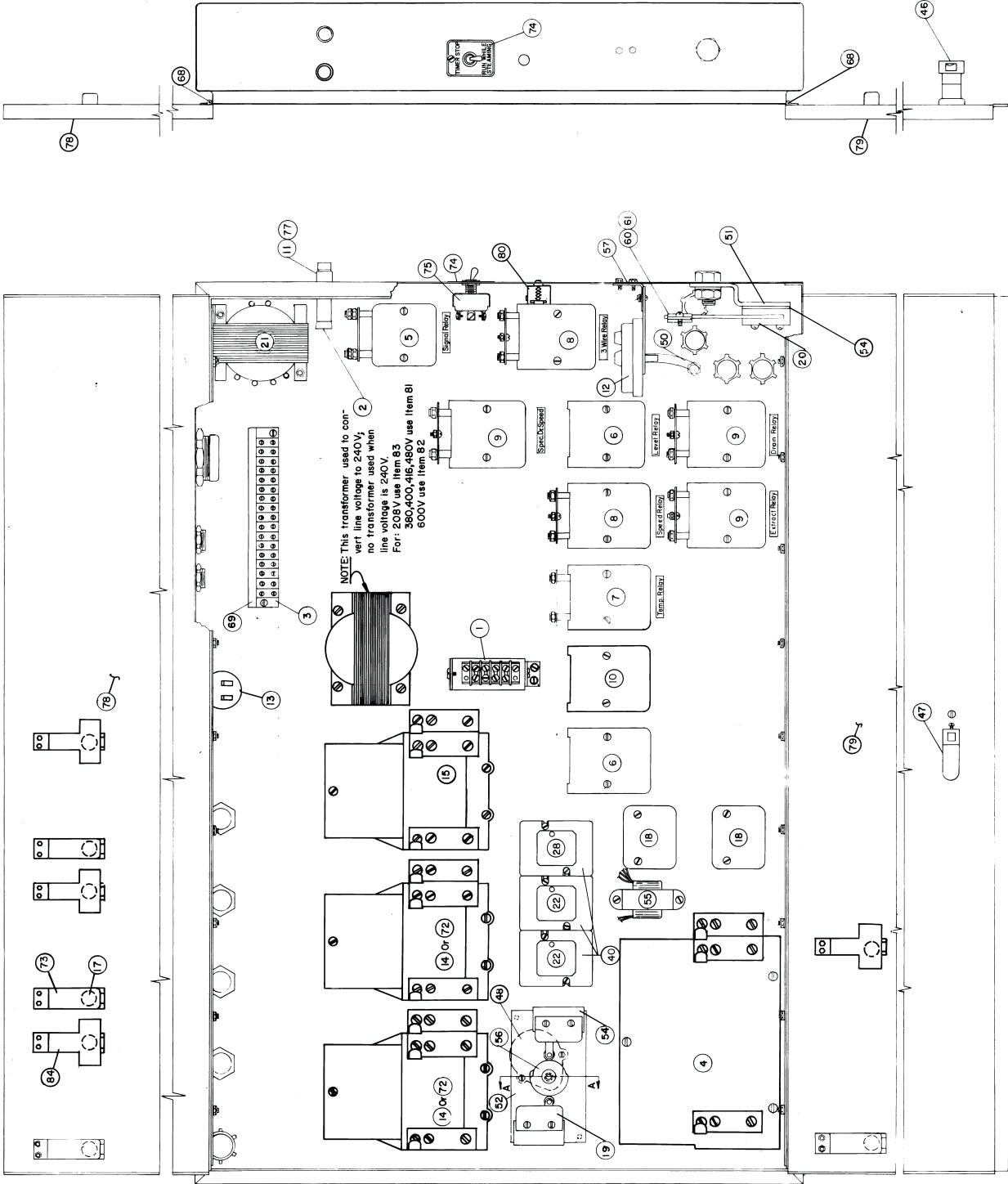
DETAIL B - 60# MACH.
CW MACHINES

DETAIL C - BALCOM MACH.
TILT CONSOLE
DRYERMIL



SEE BELOW FOR DOOR DETAIL

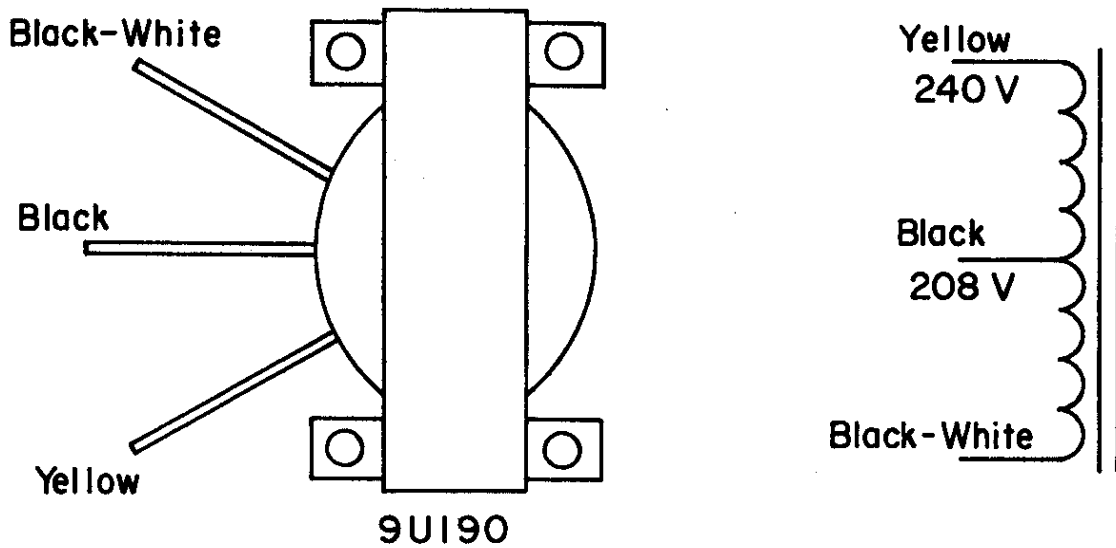
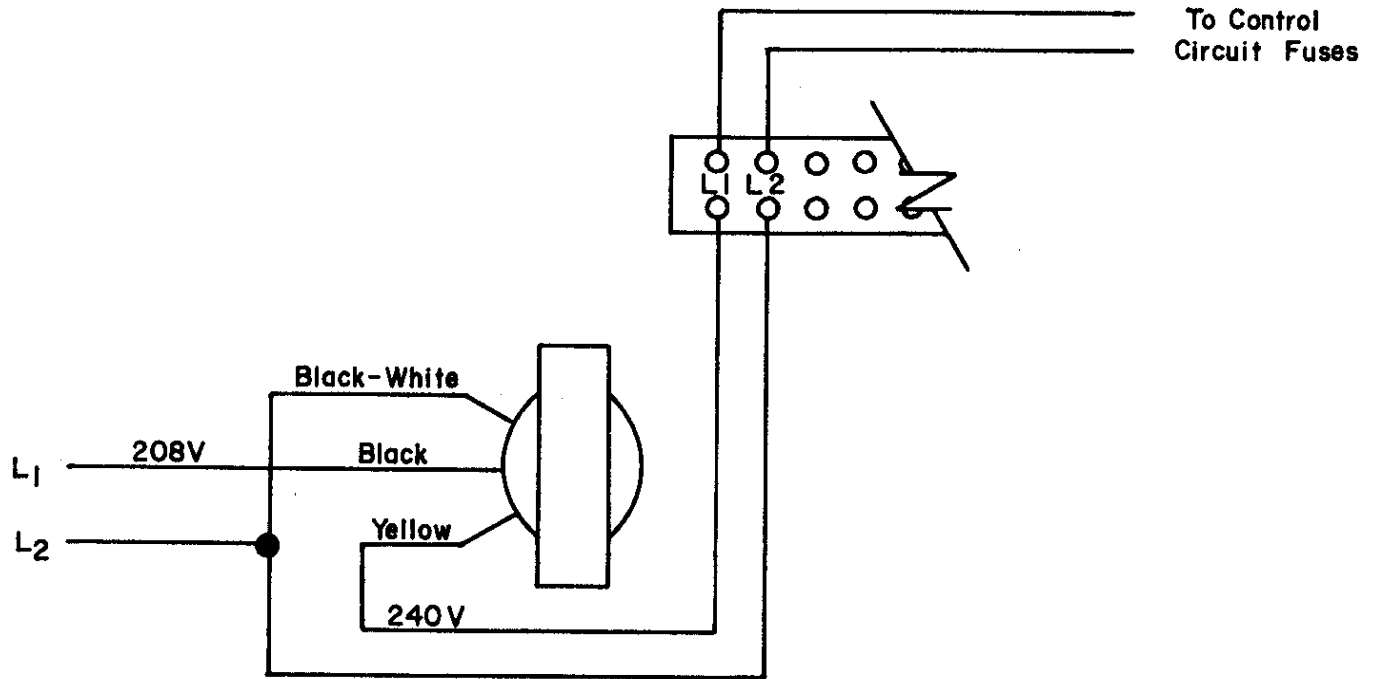
ITEM	HOW PART IS USED IN ASSY (ONLY IF PERTINENT)	P/N	DESCRIPTION
00A	SEE DESCRIPTION ----->	EMHA000001	81336D UNIV MILT HEAD ASSY DWG <>
00B	SEE DESCRIPTION ----->	SAE02 023	70228A*DOOR LATCH ASSY=MILTROL
00C	SEE DESCRIPTION ----->	SA 03 010A	81397D*MIL.FRNT+DOOR ASSY,PLASTIC
00D	SEE DESCRIPTION ----->	EMPA10071A	82017S\$ WETPART 34F96MPR 240V60 LGC
001	SEE DESCRIPTION ----->	03 01490A	80302B BRKT=1/4 TURN RECEPTACLE NUT
002	SEE DESCRIPTION ----->	170101	RECEPTACLE NIC PL #9805-20-00-1680
003	SEE DESCRIPTION ----->	A03 04200	76313B*ANGLE+CENTER GUARD=MILTROL
004	SEE DESCRIPTION ----->	09E030	LAMP 28V 2-CONTACT BAYBASE GE #1252
005	SEE DESCRIPTION ----->	03 01193	67088B WINDOW=23F MILTROL
006	SEE DESCRIPTION ----->	09J041	01Z LAMP SOCKET 2-CONTACT BAYBASE
007	SEE DESCRIPTION ----->	60E007	TUBING BLACK VINYL 5/8"IDX.030WALL*
008	SEE DESCRIPTION ----->	12P027	TYRAP 30# 1/8"X5 1/2" DENN #08-376
009	SEE DESCRIPTION ----->	01 10155	81307B NAMEPLATE=MILTROL MARK II
010	SEE DESCRIPTION ----->	01 10367	88467B NMPLT: PATENT NOTICE
011	SEE DESCRIPTION ----->	02 02952	64558ANMPLATE TIMERCYLINDER WARNING
012	SEE DESCRIPTION ----->	01 10155B	81306B NAMEPLATE= MILTROL MARK IV
013	SEE DESCRIPTION ----->	03 01121	83407D MILTROL BOX FLUSH MOUNT
014	SEE DESCRIPTION ----->	03 01122	MILTROL TOP+BOTTOM CAD
015	SEE DESCRIPTION ----->	03 01122A	81333B MILTROL BOX TOP
016	SEE DESCRIPTION ----->	03 01217	77357C PARTITION=SW BOX MTG. PLATE
017	SEE DESCRIPTION ----->	03 01229	77357B SKIRT=TIMING CYL COVER
018	SEE DESCRIPTION ----->	03 01225A	77357C SKIRT=TIMER CYL COVER CWM
019	SEE DESCRIPTION ----->	03 01437	74657C CHART PAN=MILTROL+51TMIL=CON



MODEL N CONTROL BOX
 60x36 & 60x44 & 72x44 WED/WEH
 COMBINATION WASHER EXTRACTOR
 PELLERIN MILNOR CORP.

PARTSLIST=MODEL N CONTROL

<u>ITEM NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
001	SAE03-138	70246B TRIAC ASSY
002	09B084	INSULATION SLEEVE AMP#2-325137-5
003	09B127	TERMBLOCK KULKA600-17
004	09C036K	02Z #1 OPENREVSTART Y54141 240V60C
005	09C054	10Z RELAY 24V PR2940-5 SPNO+SPNC
006	09C056	09Z RELAY 24V PR1939-4 DPDT
007	09C056A	09Z RELAY 24V PR2941-4SPDT+NO+AUXNC
008	09C059A	09Z RELAY 240V PR3407-3 DPDT+SPDT
009	09C059B	09Z RELAY 24V PR3915-3 3PDT 2XLOWVA
010	09C060	08Z RELAY 240V PR2522-2 DPDT
011	09F004	67459Z FUSEHOLDER-YELLOWLD-BUSS#HKP
012	09N069	PRESSW CCA#MR741-731-668-3=4" LEVEL
013	09N082A	01Z PRESSW NASON#SP2X4262 CLOSE@62#
014	09M075AK	02Z#1 OPENSTARTER LONGOL 240V
015	09M075K	02Z#1 OPENSTARTER STDOL 240V
017	09M080	01Z RESET BUTTON AB#F11219 BLK
018	09C055	04Z RELAY 24V PR1955-2 SPDT
019	09R016	01Z MICSW NC ROL WZ-2RW8422-P42
020	09R020	01Z MICSW NC VIBR WZ-2RW447-P52
021	09U026AAA	07Z XFMR 120-240/24V+75VA
022	09C075	02Z TMR 7.5S DPDT24V60C+CUA4131001
025	15G175	KNURL THUMBNUIT 1/4-20UNC2 BRASS
028	09C085	03Z TMR 55S 2PDT24V60C+CUA41-31002
039	15Q020	SOKSETSCR CUP 4-40X1/8BLK ALLENONLY
040	09B321	01Z SOCKET-11 BLADE TIMER 27E121
046	27A012	01Z LOCK NAT#68-0340CH TY-4 CHR-292
047	27A013	LATCH PLATE #61-082-10 ZP-1 FINISH
048	39A014	63216Z TIMERMOTOR 2RPM 220V60
050	60E002	TUBING 3/16"IDX5/16"OD TYGON B44-3
051	02-15119	70226A BRACKET=VIBSW CAD
052	02-02035	REV-H CONTROL TIMER CHASSIS
053	02-02037	REV-D SHAFTTEXTENDER=REVCONTRL TIMER
054	02-02038	9NOV51Z INSULATINGMATL .0625" FIBER
055	09U030AAA	04Z XFMR 10VA 240/120V X 24V 50/60C
056	02-02184	11JUL50 CAM=REVCONTROL TIMER
057	02-02700	64402A BRACKET=PRESSWITCH CAD
060	03-01058	67236Z VIBSWITCH WEIGHT-CADSTL
061	03-01059	67236Z VIBSWITCH CLAMP CADSTL
068	03-01133	70276B HINGE=CONTROL BOX
069	03-01051	23JN60A MARKER=17F MIL KULKA#600-17
072	09M077K	02Z #2 OPENSTARTER LONGOL 240V
073	03-01346	71114A SPRING=RESET EXTENSION
074	03-01178	66335Z NPLATE TMR RUNSTOPS@STEAMING
075	09N045	TOGSW DPDT-NO OFF CH#7564K6 UNIPAK
077	09D022	FUSE AGC 1+1/2 GLASS TUBE BUSS BULK
078	X3-01350	DOOR=CONTROL BOX OFFSET UPPER
079	X3-01349	DOOR=CONTROL BOX OFFSET LOWER
080	09H016	BUZZER 230V60 ESSEX24459-1 6" LEADS
081	09U200AAA	05Z XFMR MULTIVOLT 250VA
082	09U036	01Z XFMR 250VA 600X240+ D#35-25-S
083	09U190	05Z AUTOXFMR 208/240V 250VA
084	03-01299	72055A SPRING = 2 RESET BUTTON



Note: This Is An Auto-Transformer Used To Supply 240V To Control Circuit For Machines Used On 208V Service.

INSTALLATION=09U190 XFMR

Section

7

Chemical Supply Devices

Supply Injector
6036, 6044 & 5238

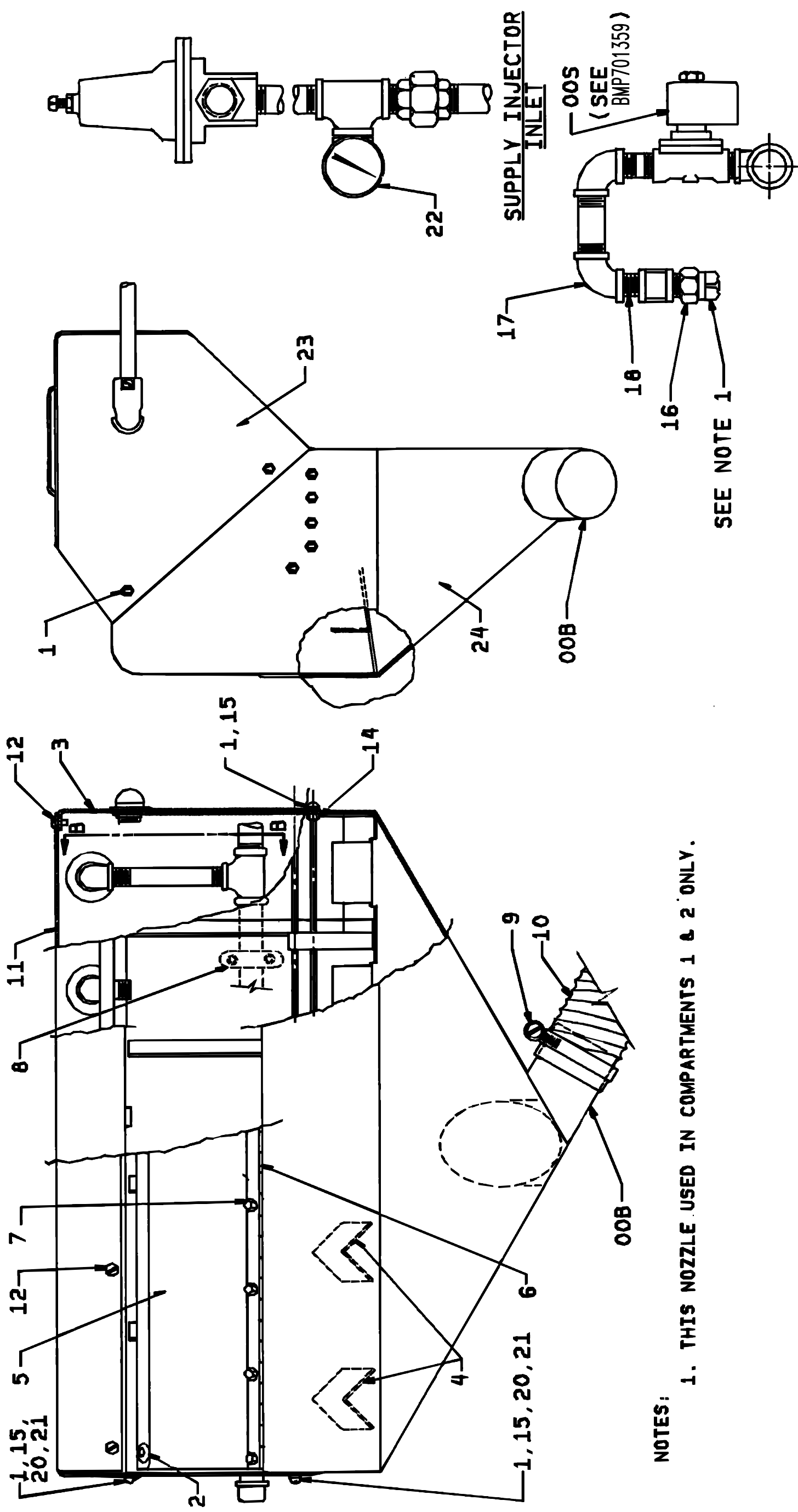
BMP700940/97287V
(Sheet 1 of 2)



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BMP9700940/97287V (1 of 2)

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NOTES:
1. THIS NOZZLE USED IN COMPARTMENTS 1 & 2 ONLY.

SECTION B-B



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Parts List—Supply Injector

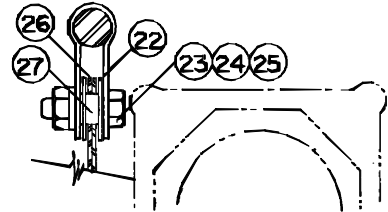
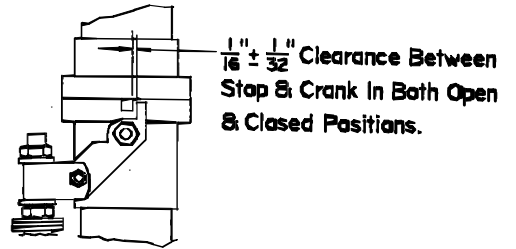
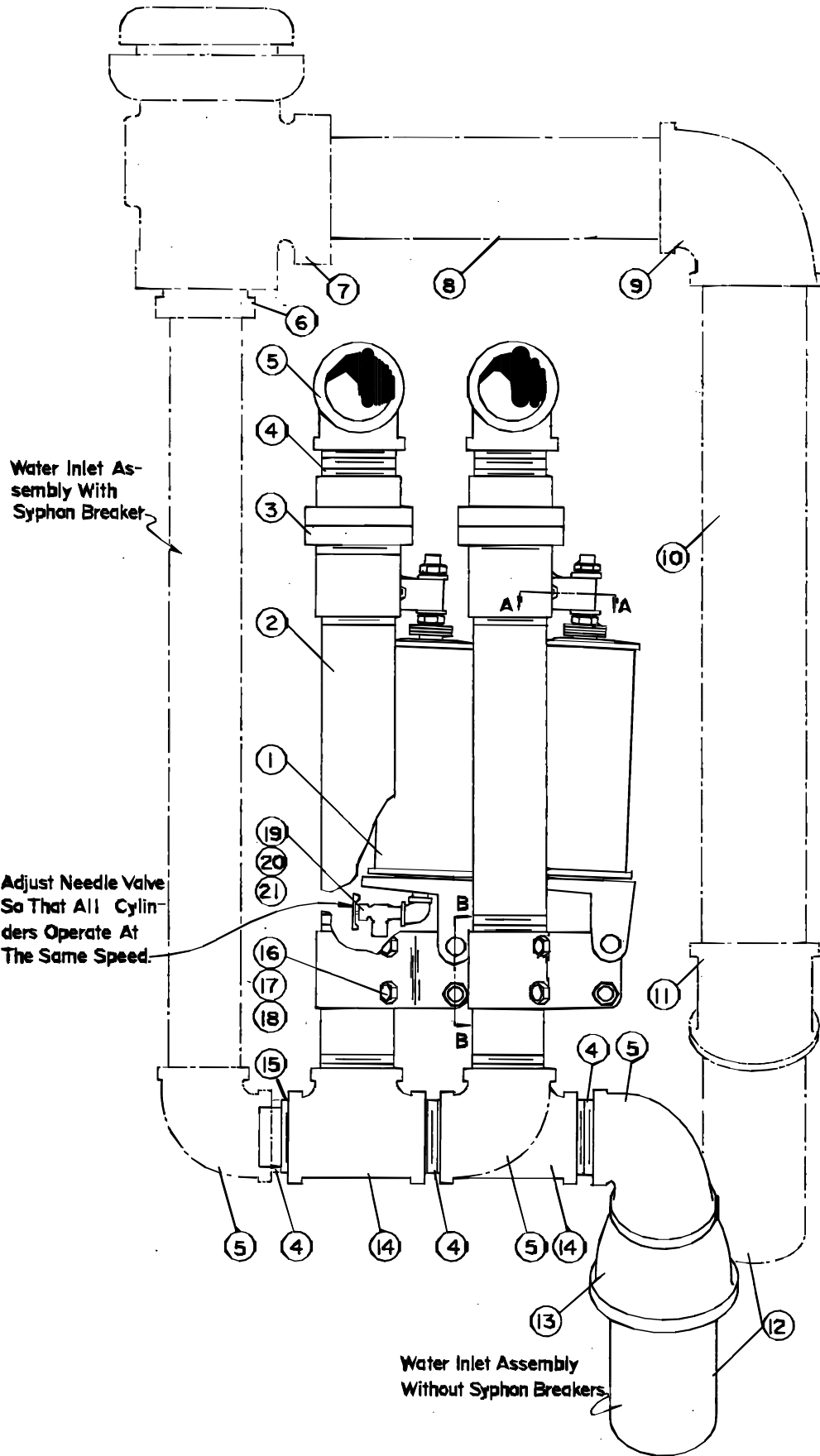
Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
-----ASSEMBLIES-----				
	A	A28 18300	85031D* ASSY,5FLUSH SUPINJ=6036WE	6036
	B	SA 28 085	SUPPLYINJECTOR 5FLUSH=60" DIVCYLS	6044
	D	A28 18600	90346D\$PIPING+VALVE=SUP INJ ASSY	
	E	SA 28 086	70256C* COVER ASSY=SUPPINJ	00A & 00B
-----COMPONENTS-----				
all	1	15G121	HXCAPNUT 10-24UNC2 #3266BR NKLPLTG2	
all	2	60C001	RUBBER BUMPER BLK W/WASHER ONLY#698	
all	3	02 18024	66023Z FRONT VALVCLOZ	
all	4	02 18179	76164B DIVIDER-SUP INJ	
all	5	02 18543	93352C LID=SUPPLY INJECTOR	
all	6	02 02649	89356A HINGE=VALVE ENCLOSURE-16.25"	
all	7	15J004	01Z TUBULAR RIVET TRS#40988 3/16"	
all	8	15K105	HXCAPSCR 3/8-16UNC2A1.25 GR5 PLATED	
all	9	27A074	HOSECLAMP 2+1/16-3"CADSCR+1/25 BAND	
all	10	60E301A24A	HOSE= *2.5"ID PE X 24"	
all	11	02 18564	85013C ENCLOSURE=SUPPLY INJ VALVE	
All	12	15P010	12Z PHILPAN TRDCUTSCR TYP10-24X1/2SS	
all	13	27A126	MEASURECUP 48OZ STOWAY1025P	
all	14	15G130	HEXMACHSCRNUT 10-24UNC2 SS18-8	
all	15	24G018N	ROLLED WASHER .194"ID NYLTITE #10W	
all	16	27A001	NOZZLE BRASS 1/2" SPRAYSYS #HH29SQ	
all	17	5SL0PNFA	NPT ELBOW 90DEG 3/4" GALMAL 150#	
all	18	5N0PCLSB42	NPT NIPPLE 3/4XCLS TBE BRASS STD	
all	20	15N117	RDMACSCR 10-24UNC2X3/8SS18-8	
all	21	15U160	LOCKWASHER MEDIUM #10 SS18-8	
All	22	30N100	07Z PRESSGUAGE 1/8"BACKCONN 0-30PSI	
all	23	02 18025	66022Z REAR VALVCLOZ	
all	24	W2 18559	92612#* SUP-CHUTE 5-FLUSH=6044W+S+	

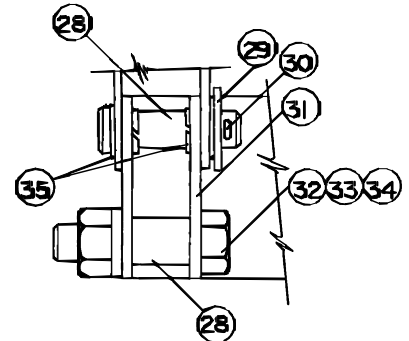
Section

8

**Water and Steam Piping
and Assemblies**



Section A-A



Section B-B

NOTE: EFFECTIVE JUNE 1, 1988 SMITH VALVES, ACTUATORS AND MOUNTING HARDWARE HAVE BEEN REPLACED BY WATTS BALLVALVES, ACTUATORS AND MOUNTING HARDWARE ON MILNOR MACHINES. SOME SMITH PARTS ARE STILL AVAILABLE. FOR PARTS INFORMATION WATTS BALLVALVES, ACTUATORS AND MOUNTING HARDWARE SEE BMP890005, BMP890006 AND BMP890007.

**BALL VALVE WATER INLET ASSEMBLY
6036 & 6044 HYDRO-CUSHION & RAPID LOAD
WASHER-EXTRACTOR
PELLERIN MILNOR CORPORATION**

Waterinlet

BMP701617R/71517A
(Sheet 1 of 1)



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Parts List—Waterinlet

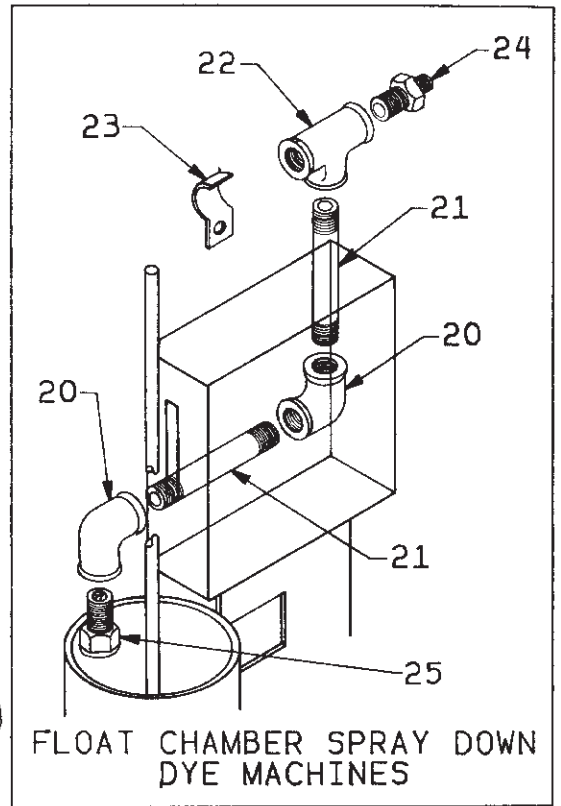
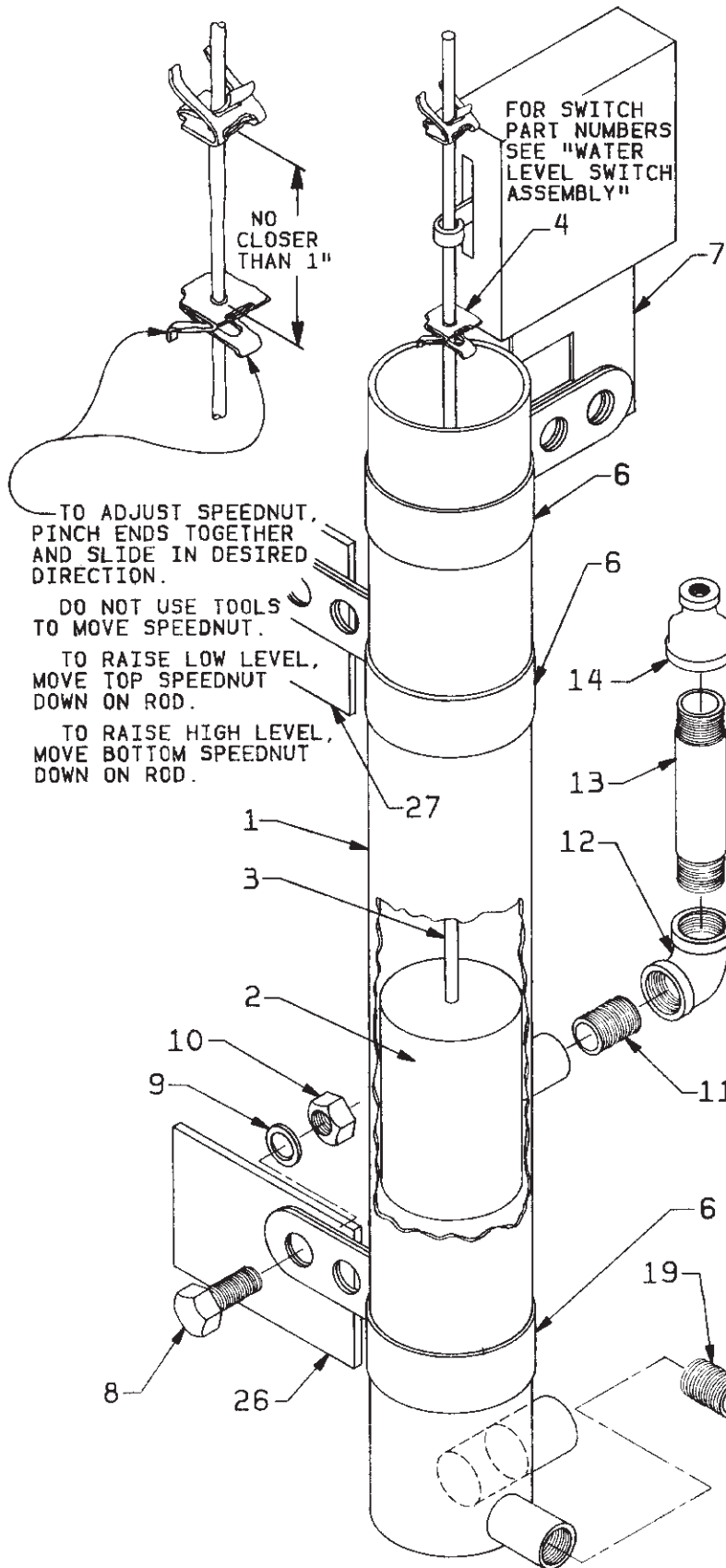
Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
-----ASSEMBLIES-----				
	001	SA10-56	Actuator Assembly	
	002	51L282	Nipple, 2" X 16"	
	003	96D088	Ball Valve, 2"	
	004	51L251	Nipple, Close, 2"	
	005	51J120	Elbow, 2" X 90°	
	006	51A074	Reducer Bushing, 3" X 2"	
	007	96M034	Syphon Breaker, 3"	
	008	51L299SH	Nipple, 3" X 12"	
	009	51J145	Elbow, 3" X 90°	
	010	51L311	Nipple, 3" X 30"	
	011	51J143	Elbow, 3" X 45°	
	012	2-10438A	Nipple, 3" X 7 1/4" T.O.E.	
	013	51R130	Bell Reducer, 2" X 3"	
	014	51V100	Tee, 2"	
	015	51P060	Pipe Plug, 2"	
	016	15K095	Hex Cap Screw, 3/8"-16NC X 1"	
	017	15G205	Hex Nut, 3/8" - 16NC	
	018	15U255	Lockwasher, 3/8"	
	019	96H018	Needle Valve, 1/8" Npt X 1/4" Tube	
	020	51J007D	Elbow, 1/8" X 90°	
	021	51L005	Nipple, 1/8" Close	
	022	15U243	Flatwasher, 13/32" I.D. X 7/8" O.D.	
	023	15G165	Hex Nut, 1/4"-20NC	
	024	15K041	Hex Cap Screw, 1/4"-20NC X 1"	
	025	15U180	Lockwasher, 1/4"	
	026	2-15685	Crank	
	027	2-15893	Spacer, 5/16" Lg.	
	028	17A036	Clevis Pin	
	029	15U280	Flatwasher, 1/2"	
	030	15H040	Std. Cotter Pin, 1/8" X 3/4"	
	031	2-15687	Bracket	
	032	15K180	Hex Cap Screw, 1/2"-13NC X 2"	
	033	15G230	Hex Nut, 1/2"-13NC	
	034	15U300	Lockwasher, 1/2"	
	035	54E221	Nyliner 8L5+1/2F Bush	



WATER LEVEL FLOAT CHAMBER ASSEMBLY

BMP810111
83404C



WATER LEVEL FLOAT CHAMBER ASSEMBLY

BMP810111R/89256A
(Sheet 1 of 2)



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Parts List—WATER LEVEL FLOAT CHAMBER

Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
-----ASSEMBLIES-----				
	A	A03 03100	78226U FLOAT CHMBR ASSY=8.25"CLDCON	
	B	ALL11001	92052D*FLOAT CHAMBER INSTAL=4226QHE	
	C	A14 07200C	80326L\$ ASSY=FLOAT SPRAY 42DAZ	
	D	ALL48001	92052#*FLOAT CHAMBER ASSY 4832-36	
	E	AD 14 046	78267U*FLOAT CHMBR INSTAL=35#+60#W	
	F	AD 15 047	92053# FLOAT CHMBR 25.25ASY=42+72WE	
	G	ALL11000	92053#*FLOAT CHMBR 33.25ASSY=4226Q	
	H	G28 18700A	80086D FLOAT CHAMBER 25.25 INST=60"	
	I	G36 07500A	80086# FLOAT CHAMBER 25.25 INST=72"	
	J	G25 02600A	77137# FLOAT CHAMBER INSTAL=5238	
	K	GLL64002	85376D FLOAT CHAMB=FRAME INSTL 64NP	
	L	ALL64002	92086D FLT CHAMBR ASSY64NP W/90D 1N	
-----COMPONENTS-----				
alL	1	W2 14432	91436T* FLOAT-TUBE L=25.25"	
alL	1	X2 14432K	77521B FLOAT CHAMBER 96"LG REUSE	FOR USE WITH REUSE SUMP
alL	1	W2 14432M	84472T*FLOAT CHAMBER-33.25"W/90DIN	
alL	2	X2 02239	92683# FLOAT=PLAST LVL CONT(SANDED)	TO ORDER SEE ITEMS 30+31
alL	3	02 02146	84277A LEVEL CONTROL FLOAT ROD=25"L	TO ORDER SEE ITEM 30
alL	3	02 02146E	84277# LEVEL CONTROL FLOAT ROD=66"L	TO ORDER SEE ITEM 31
alL	3	02 02146B	73336A COUPLING=FLOAT ROD	FOR USE WITH REUSE SUMP
alL	4	17N050	10-24 SPEEDNUT #C10733-1024-373	TO ORDER SEE ITEMS 30+31
alL	6	02 15642A	CLAMP-3"FLOAT CHAMBER	
alL	7	02 15097C	88036B BRACKET LEVCONT PER PRINT	
alL	8	15K039	HXCAPSCR 1/4-20UNC2AX3/4 GR5 ZNC/CD	
alL	9	15U180	LOCKWASHER MEDIUM 1/4 ZINCPL	
alL	10	15G165	HXNUT 1/4-20UNC2BSAE ZC GR2	
alL	11	5N0KCLSG42	NPT NIPPLE 1/2XCLS TBE GALSTL SK40	
alL	12	5SLOKNFA	NPT ELBOW 90DEG 1/2" GAlMAL 150#	COOLDOWN OPT.



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Parts List, cont.—WATER LEVEL FLOAT CHAMBER

Used In	Item	Part Number	Description	Comments
aL	13	5N0K04AG42	NPT NIPPLE 1/2X4 TBE GALSTL SK40	COOLDOWN OPT.
aL	14	5SR0K0CNF	NPT RED 1/2X1/8 GALMAL 150#	COOLDOWN OPT.
aL	15	5S0KNFA1A	NPT TEE 1/2X1/2X1" GALMAL 150#	4226,4832,4836,6442
aL	16	5SP0KGFSS	NPT PLUG 1/2 SOSOLID GALSTL	4226,4832,4836,6442
aL	17	5N1A07AG42	NPT NIPPLE 1X7 TBE GALSTL SK40	4226,4832,4836,6442
aL	18	5SR1A0ENF	NPT RED 1X1/4 GALMAL 150#	4226,4832,4836,6442
aL	19	5N0KCLSG42	NPT NIPPLE 1/2XCLS TBE GALSTL SK40	4226,4832,4836,6442
aL	20	5SL0EBEA	NPT ELBOW 90DEG 1/4" BRASS 125#	SPRAY-DOWN /DYE MACHINES
aL	21	5N0E03KBE2	NPT NIPPLE 1/4X3.5 TBE BRASS 125#	SPRAY-DOWN /DYE MACHINES
aL	22	51V015	03Z TEE PIPE 1/4"FGDBRASS101-T7-444	SPRAY-DOWN /DYE MACHINES
aL	23	12P014KK	01Z CABLE CLMP NONMTL 1/2IDX1/2WIDE	SPRAY-DOWN /DYE MACHINES
aL	24	53A008B	BODY=BRMALCON 1/4X1/4COMP W#B68X4X4	SPRAY-DOWN /DYE MACHINES
aL	25	27A003	NOZZLE 1/4" BRASS SQUARE PATTERN	SPRAY-DOWN /DYE MACHINES
aL	26	02 10506	84417B BRACKET-BOTTOM FLOAT=CHAMBER	3016,3621
aL	26	02 15663	85093C BRKT=FLOAT CHAMBER MTG	4231,4241,7244
aL	26	02 15649	83403B BRKT=FLOAT CHAMBER MTG	6036,6044
aL	26	03 25298A	83182C FLOAT CHAMBER BRACK	4832,4836,6442
aL	27	02 10505	70097B BRACKET=TOP FLOATCHMBR	3016,3621
aL	27	02 15649	83403B BRKT=FLOAT CHAMBER MTG	4231,4241,6036, 6044,7244
aL	27	08 01065	84402B BRACKET=LEVEL CNTRL MT 90DEG	4226DYA
aL	27	03 25298A	83182C FLOAT CHAMBER BRACK	4832,4836,6442
aL	30	SA 02 011	90013C*FLOAT ASSY L=25"-STD LEVEL	ITEMS 002,003A,004
aL	31	SA 02 011B	90013#*FLOAT ASSY L=66" 42DA+52DYA	ITEMS 002,003B,004

Water Level Switch Assembly

BMP800186/2002226V
(Sheet 1 of 1)

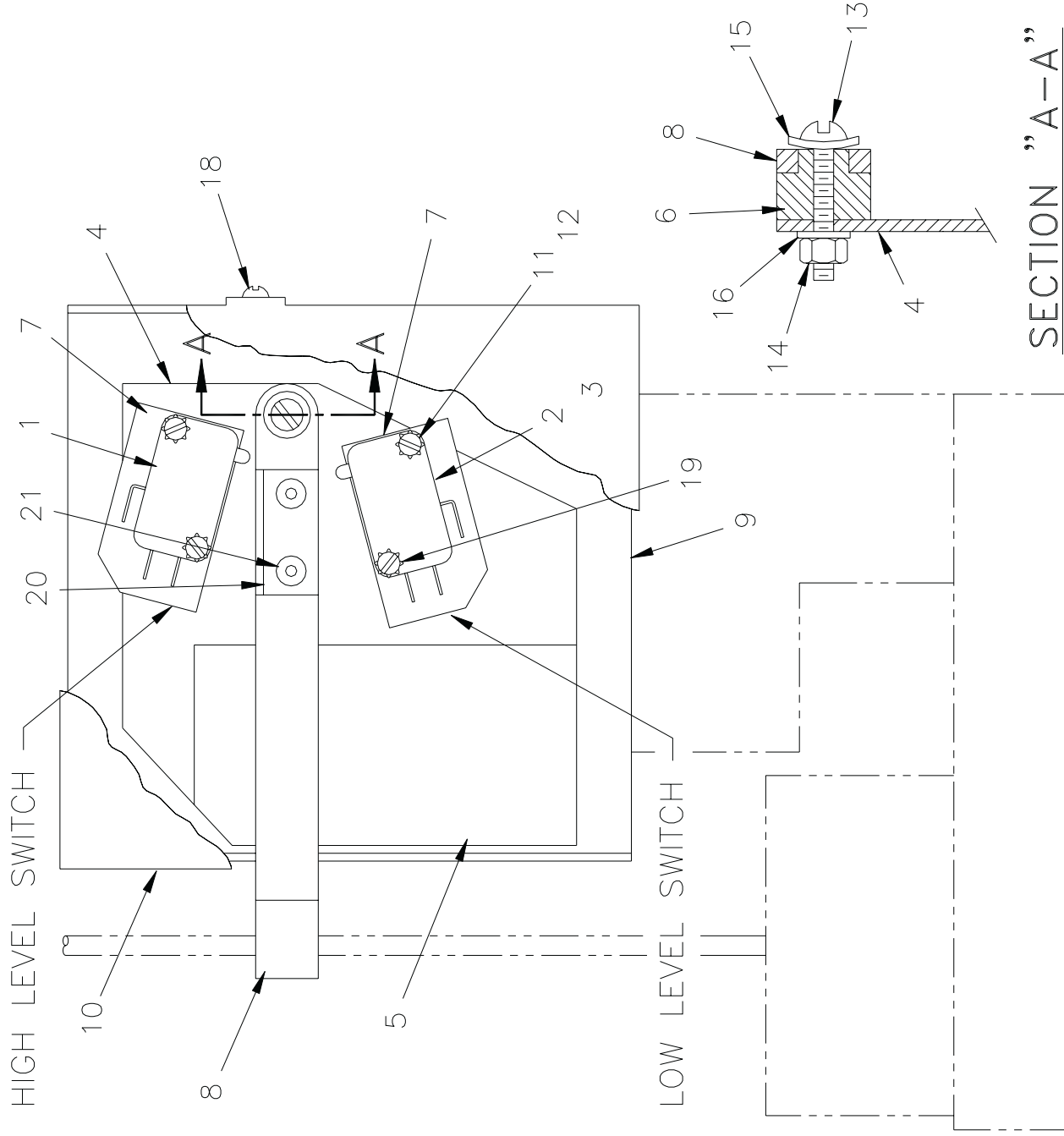


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Notes:

1. Disconnect power at main switch before operating this enclosure.
2. Wiring must not interfere with movement of item 8.
3. To order complete water level switch assembly, see items A-G.
4. When item 20 is used in assembly G, flange will be on top (shown).
When item 20 is used in assembly F, flange will be on bottom.



Parts List—Water Level Switch Assembly

Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
			ASSEMBLIES	
	A	ELL000MK1	*LIQUOR LEVEL SW ASSY CBW	1 UP + 0 LO
	B	ELL000MK2	*WATER LEV SW ASSY: 1 UP+ 1LO	1 UP + 1 LO
	C	ELL000MK2A	*CONVEYOR E-STOP ASSY 1UP-1DN	1 UP + 1 LO
	D	ELL000MK2S	*MK2 WATER LEVE SWITCH ASSYSS	1 UP + 1 LO SS
	E	ELL000MK3	WATER LEV SW ASSY:0 UP +1 LO	0 UP + 1 LO
	F	ELL000MK4	*WATER LEV SW ASSY:1 UP +2 LO	1 UP +2 LO
	G	ELL000MK5	\$WATER LEV SW:2UP +1LO	2 UP + 1 LO
			COMPONENTS	
A-D,F-G	1	09R014A	MINI-SW SPDT STAKON #V15G1C26K	
B-G	2	09R014A	MINI-SW SPDT STAKON #V15G1C26K	
F-G	3	09R014WS	MICROSW SPDT STAKON V3-2101-D8	
004-C,E-G	4	02 02150M	SW MOUNTPLATE=LEVCONT ZINCPL	
D only	4	02 02150S	PLATE=SWITCH MNT LEVEL S/S	
all	5	01 10227	LABEL=WATER LEVEL SWITCH ASMB	
all	6	02 02152	BUSHING=FLOAT LEVER	
all	7	02 02164	INSULATION=V3-1 MICROSWITCH	
all	8	02 02190	FLOATLEVER=LEVEL SW	
A-C-E-G	9	02 02553	BASE=LEVEL CONTROL	
D only	9	02 02553S	BASE=LEVEL CONTROL ENCL S/S	
A-B-E-G	10	02 02554	COVER=LEVEL CONTROL-PLTD	
C only	10	02 02554A	COVER=CONVEYOR E-STOP-PLATED	
D only	10	02 02554S	WATER LEVEL CONTROL ENCL S/S	
all	11	15N019	RDMACSCR 4-40UNC2AX5/8 ZINC GR	
all	12	15U021	LOKWASH EXTTOOTH #4 (US STD) ZI	
A-C-E-G	13	15N055	RDMACHSCR 6-32UNC2AX5/8 ZINC G	
A-C,E-G	14	15G070	HXMACHSCRNUT 6-32UNC2B ZINC GR	
D	14	15G075	HEX MACH SCREW NUT 6-32UNC2 S	
all	15	15U060	FLAT WASHER#6 ANSI TYPEB BRASS	
A-C,E-G	16	15U100	LOKWASHER MEDIUM #6 ZINCPL	
D only	16	15U102	LOKWASHER MEDIUM #6 SS18-8	
A-C,E-G	17	15P105	TRDCUT-F PANHD 8-32X5/8 NIKSTL	
D only	17	15P103	TRDCUT-F RDHDSLOT 8-32UNCX1/2	
all	18	15P100	#8 X 3/8 PHILPANHD TYPE B SMS	
F-G only	19	15N021	RDMACSCR 4-40 UNC2X1 ZINC PLT	
F-G only	20	03 01462C	ANGLE=H20 LEVEL ACTUATOR	
F-G only	21	15J051	POPRIVET 1/8DIAX.265 LONG S/S	

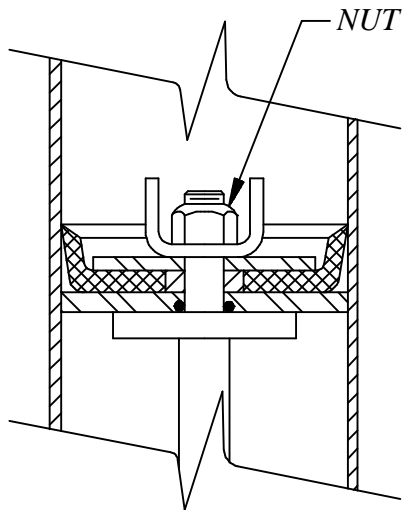
SECTION "A-A"



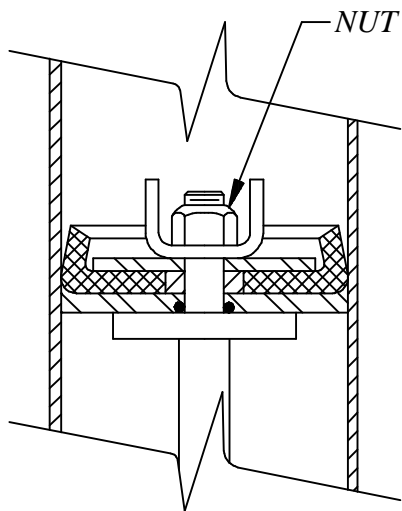
PISTON CUP AND WASHER INSTALLATION

BMP700051/84386V

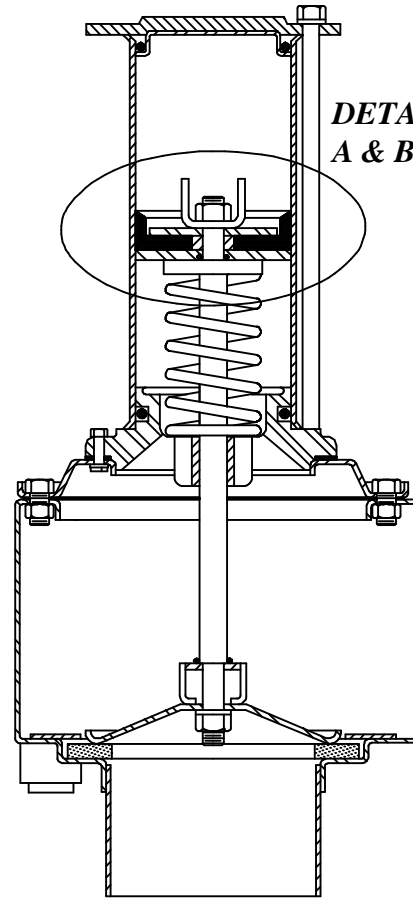
When installing new piston cups in MILNOR automatic dump valves, tighten nut until it is just barely possible to turn the piston cup and washer assembly on the valve. After tightening, the piston cup should appear as shown in Dump Valve Detail A.



**DUMP VALVE
DETAIL A**



**DUMP VALVE
DETAIL B**



DUMP VALVE

Tightening the nut too tight causes the piston cup to extrude to shape shown in Dump Valve Detail B and may cause piston to bind in cylinder.

Note: Nut is self-locking and does not need to be drawn fully tight to lock on to valve stem.

8" & 10" Stainless Dump Valve
42044WP2/CP2/SP2/SP3/NP2 52038WP1 60044WP2/WP3/SP2/SP3
72044WP1/D5N 72058SP2

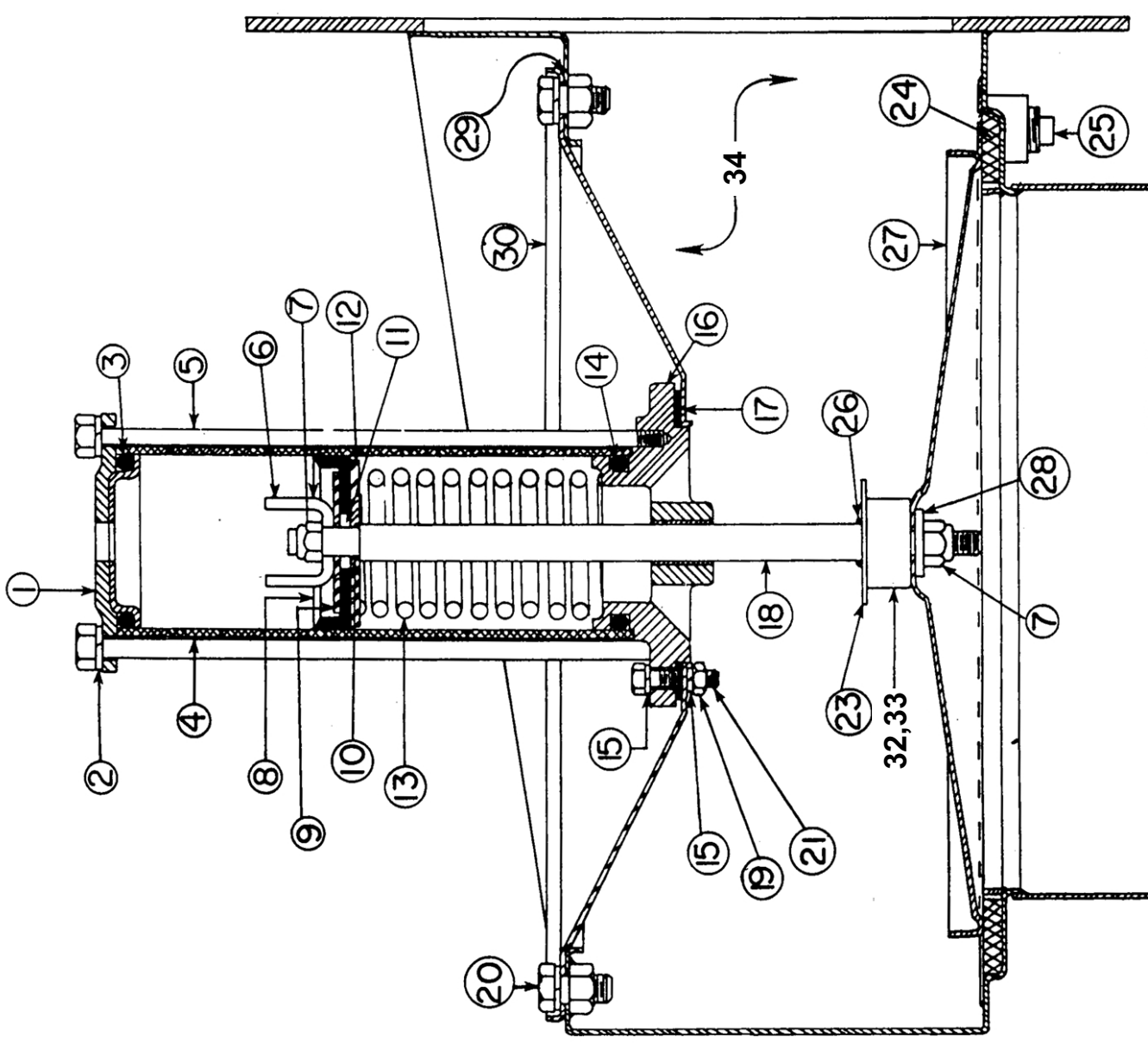
BMP780095/2000133V
 (Sheet 1 of 1)

MILNOR
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Parts List—8" & 10" Stainless Dump Valve
 Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
	A	SA 28 124	*8"SGL.DUMPVALVE 4244+52+60	42044WP2/CP2/SP2/SP3/NP2 52038WP1
	B	SA 36 015	10"SGL.DUMP VALVE 72WE+SG+WT	60044WP2/WP3/SP2/SP3
	C	SA 28 158	* BONNET+AIRCYL=8"SS DUMPVALV	72044WP1/SP2, 72058D5N
	D	SA 36 044	* BONNET+AIRCYL=10"SS DUMPVAL	8" DUMP VALVE 10" DUMP VALVE
	1	02 02101	---COMPONENTS---	
all	2	15U210	CYL HEAD W/TAPPED HOLE	
all	3	60C132	LOK WASHER MEDIUM 5/16 ZINCP L	
all	4	02 02068	ORING 2"IDX3/16CS BUNA70 #329	
all	5	02 10585D	AIRCYL-STAINLESS=DUMPVALVE	
all	6	03 01313	TIE BOLT=5/16-18X7.875 PLTD	
all	7	15G220	STOP=AIR CYL W/2+11/16STROKE	
all	8	02 02194	LTHX THIN LOKNUT 3/8-24 SSNTE	
all	9	02 02085	PISTONCUP=DUMPVALVE 2+3/8"	
all	10	60C106	UP WASHER=2"OD=PISTON CUP	
all	11	02 02185	ORING 5/16ID 1/16CS BUNA70#011	
all	12	02 02105	WASHER=PISTON CUP COMP LIMIT	
all	13	03 06429	PISTON CUP WASHER STNLS STL	
all	14	60C132	SPRING=2.11ODX6.5FL 64#"	
all	15	24G020N	ORING 2"IDX3/16CS BUNA70 #329	
all	16	X2 02743	ROLLED WASH.252ID NYLTITE 25W	
all	17	02 18931F	BONNET=2"DUMP VALVE	
all	18	02 16021I	GASKET=DUMPVALVE-1/60+72WEHU	
all	19	15G168	DUMPVALV STEM-4"+8"316SS	
all	20	15K086	SQUNUT 1/4-20UNC2 SS18-8	
all	21	15K041S	HXCAPSCR 3/8-16NCX3/4 SS18-8	
all	22	02 16021E	HEXCAPSCR 1/4-20UNC2AX1 SS18-8	
A	23	02 18068	WASHER 3/8IDX1.250D DUMPVALV	
BI	24	03 06084	9 SEAT-RESILIENT=8"DUMPVALVE	
all	25	5SP0KGFSS	SEAT-RESILIENT=10"DUMPVALVE	
all	26	60C106	NPT PLUG 1/2 SOSOLID GALSTL	
A	27	02 18796	ORING 5/16ID 1/16CS BUNA70#011	
B	27	03 06083	DISC-8" DUMP VALVE S/S	
all	28	15U245	DISC-10"DUMP VALVE S/S	
A	29	03 06086G	FLT WASH 3/8 STD COMM 18-8 SS	
A	30	02 18931E	GASKET=10" DUMP VALVE BONNET	8" DUMP VALVE
B	30	03 06086F	BONNET=8"DUMP VALVE	10" DUMP VALVE
All	32	02 16021C	BONNET=10"DUMP VALVE	
all	33	02 16021D	BUMPER=DUMP VALVE BONNET	
A	34	W2 18931	DUMP VALVE BUMPER RETAINER	
B	34	W3 06086	* BODY=8"DUMPVALV=4244,60,52 *BODY=10"DUMP VALVE 72WE,SG,T	8" DUMP VALVE 10" DUMP VALVE



Burket Steam Valve

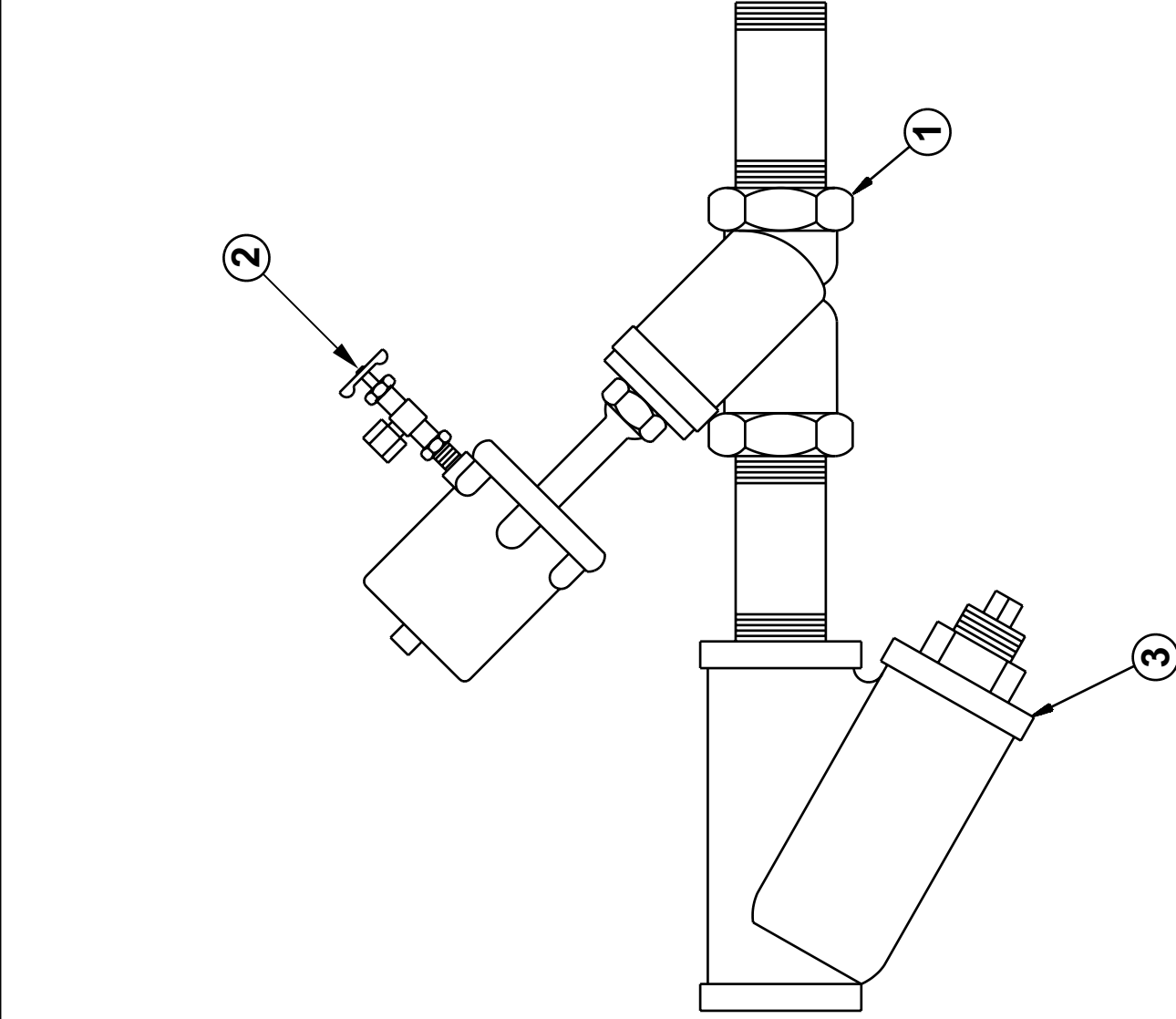


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BMP800020/96066V (1 of 1)

Litho in U.S.A.

BMP800020/96066V
(Sheet 1 of 1)



Parts List—Burket Steam Valve
Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
			-----ASSEMBLIES-----	
	W	96D0009ER1	02Z REPAIRKIT 3/4" STEAM VALVE	KIT FOR 001A
	X	96D0011ER1	02Z REPAIR KIT 1.25" STEAM VALVE	KIT FOR 001B
	Y	96D0011ER2	ACTUATOR HOUSING FOR BURKET #251	KIT FOR 001B
	Z	96D0011ER3	REPAIR KIT MULLER 1.25 VALVE #554	KIT FOR 001B
			-----COMPONENTS-----	
all	1	96D0009E	03Z 3/4"NPT N/C STEAMVAL ANGLE BODY	3/4"
all	1	96D0011E	08Z 1/25"NPT N/C STEAMVAL ANGLEBODY	1-1/4"
all	2	96H018	NEEDLE VALVE	
all	3	51T030	01Z Y-STRAINER 3/4" CAST IRON	USED WITH 001A
all	3	51T060	01Z Y-STRAINER 1+1/4" CAST IRON	USED WITH 001B

Section

9

**Pneumatic Piping and
Assemblies**

Asco 3-way Solenoid Valves

Applicable Models

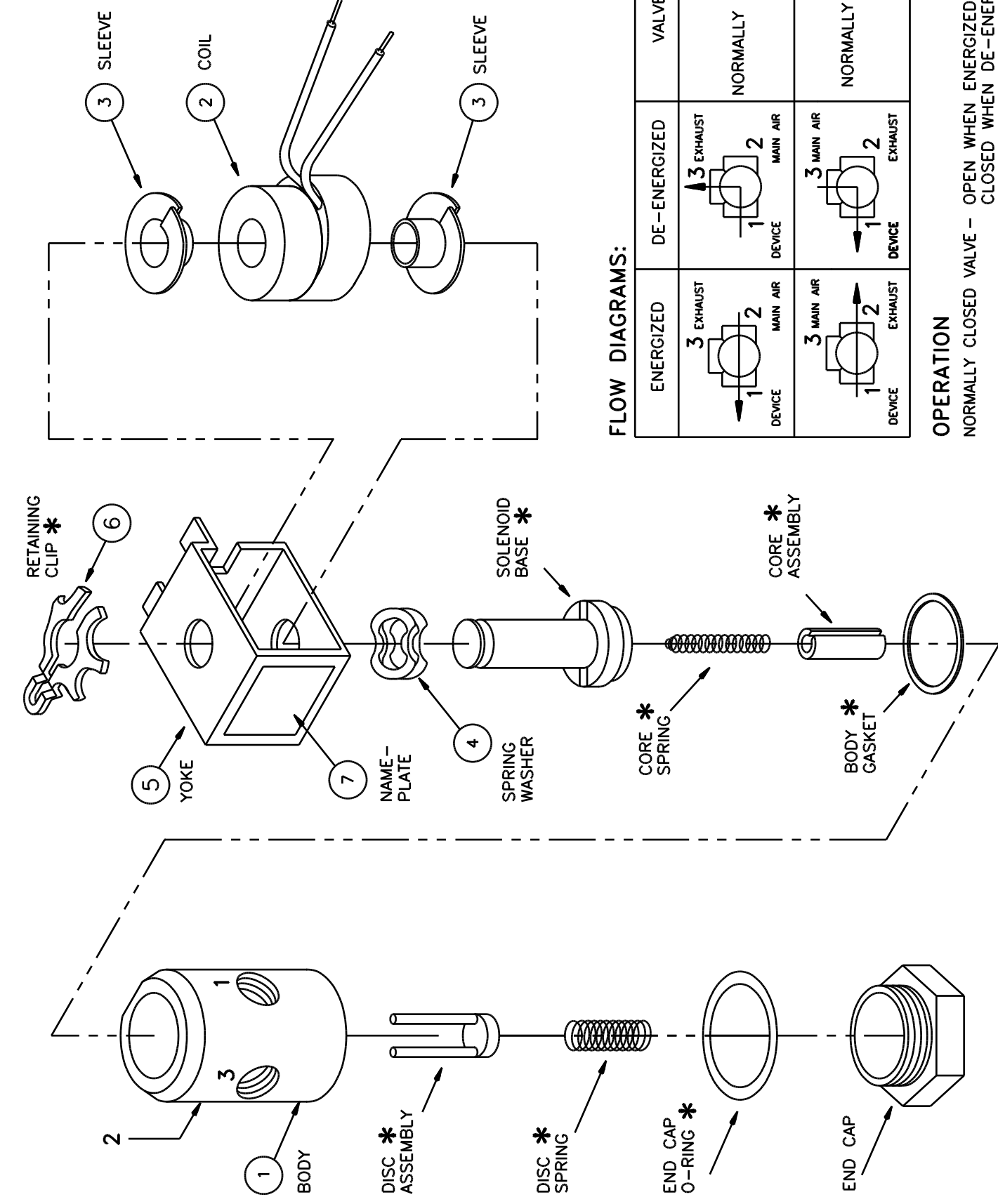


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BMP701359/97086V (1 of 2)

Litho in U.S.A.

BMP701359/97086V
(Sheet 1 of 2)



FLOW DIAGRAMS:

ENERGIZED	DE-ENERGIZED	VALVE
		NORMALLY CLOSED
		NORMALLY OPEN

OPERATION

NORMALLY CLOSED VALVE – OPEN WHEN ENERGIZED
CLOSED WHEN DE-ENERGIZED

NORMALLY OPEN VALVE – CLOSED WHEN ENERGIZED
OPEN WHEN DE-ENERGIZED

COMPONENTS LABELED (*) ARE CONTAINED IN KIT "00Q", SEE PARTS LIST FOR OTHER AVAILABLE KITS.

Identification and Description

Check nameplate for correct catalog number, pressure, voltage, and service.

Safety Instructions



⚠ DANGER ⚠

SHOCK HAZARD - will cause death or severe injury.
 ⚠ Lock OFF - and tag out power at wall disconnect before servicing. Power switches on machine and control box disable only control circuit power in electrical boxes.



⚠ WARNING ⚠

EXPLOSION HAZARD- may cause serious injury.
 ⚠ Release pressure to valve before disassembly.



⚠ CAUTION ⚠

BURN HAZARD - Solenoid enclosures become too hot to touch when energized for a long period. This will not damage the solenoid, but may cause a painful burn.
 ⚠ Allow solenoids to cool before servicing the valves.

Cleaning - Clean all solenoid valves periodically. If the voltage to coil is correct, sluggish valve operation usually indicates that cleaning is required.

Maintenance

READ ALL SAFETY STATEMENTS ABOVE BEFORE PROCEEDING ANY FURTHER!

Coil Replacement

1. Remove retaining clip. NOTE: When metal retaining clip disengages, it springs upwards.
2. Slip yoke containing coil and sleeves off solenoid base sub-assembly.
3. Replace coil.
4. Reassemble in reverse order.

Valve Disassembly and Reassembly

1. Remove retaining clip.
2. Slip entire solenoid enclosure off the solenoid base sub-assembly.
3. Remove solenoid base sub-assembly, core assembly and core spring.
4. Remove diaphragm spring, diaphragm assembly and gasket.
5. Replace all worn or damaged parts
- 6.

Troubleshooting

Control Circuit: Listen for a metallic click when energizing the solenoid. Absence of the click indicates loss of power to the solenoid. Check for loose connections, blown fuses, open or grounded coil circuit, and broken lead wires.

Faulty Coil: Check for open circuit in coil. Replace coil if necessary.

Low Voltage: Voltage across coil leads must be at least 85% of nameplate rating for proper operation.

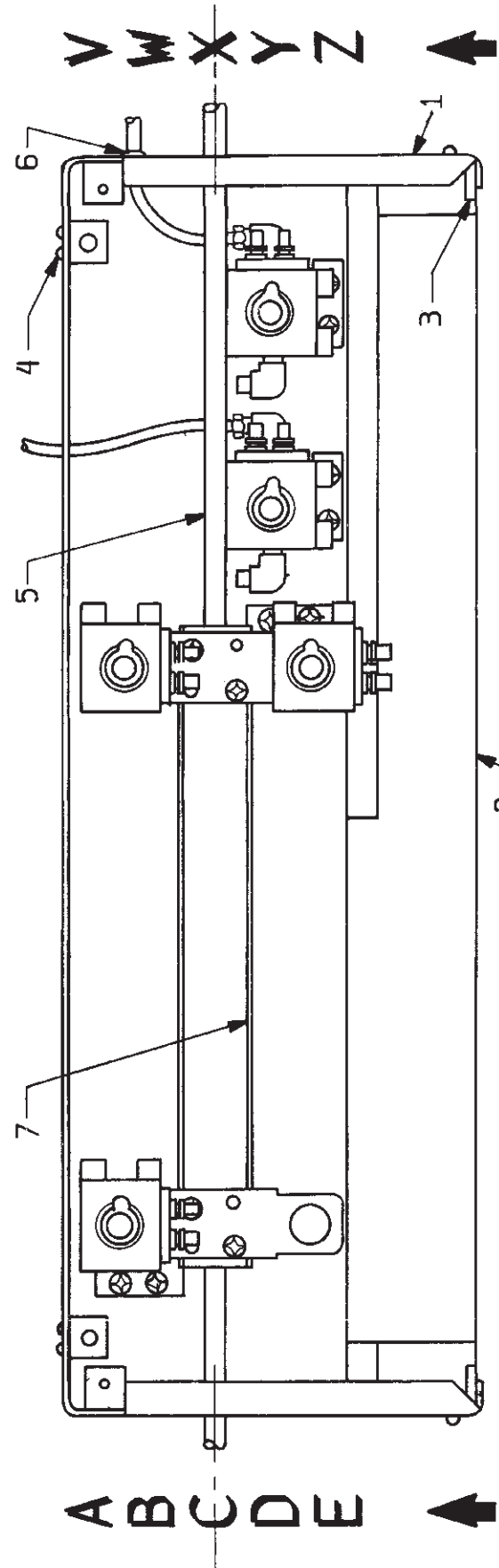
Incorrect pressure: Pressure to valve must be within range specified on nameplate.

Excessive leakage: Disassemble valve and clean all parts. Replace all worn parts for best results.



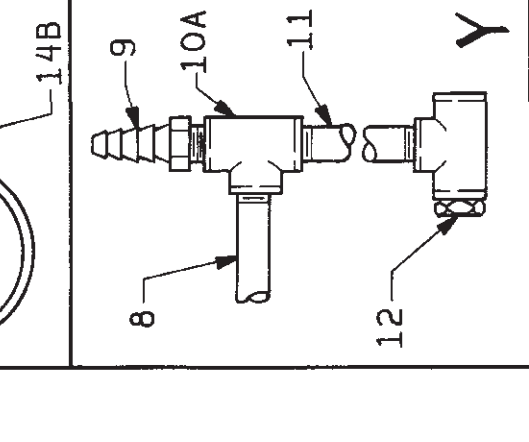
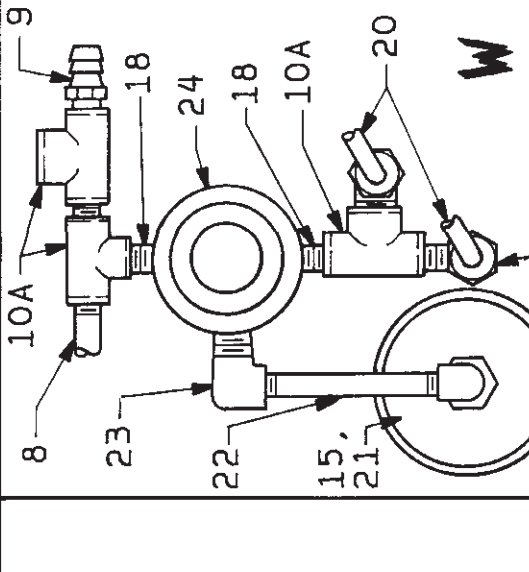
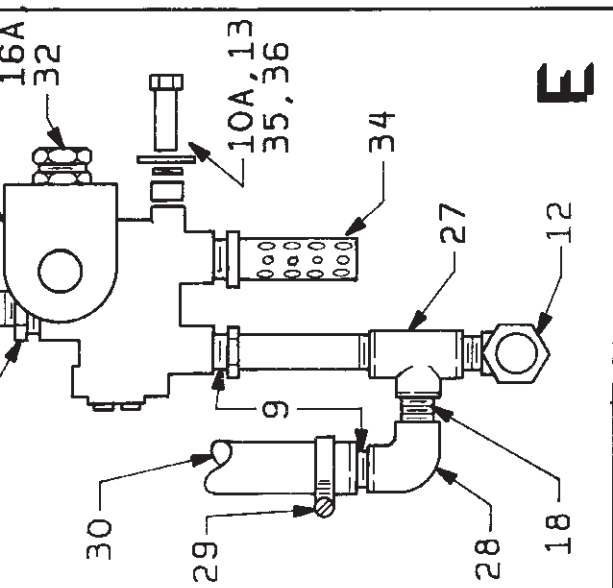
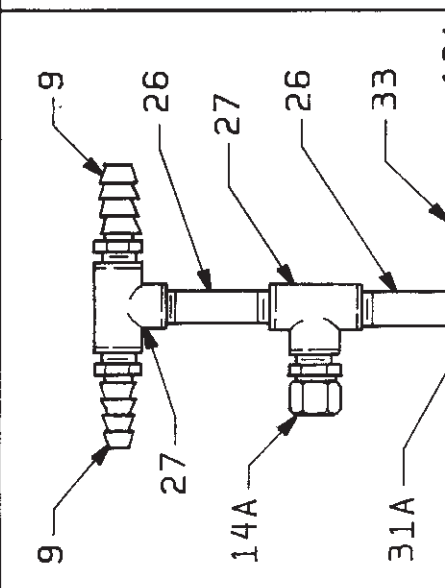
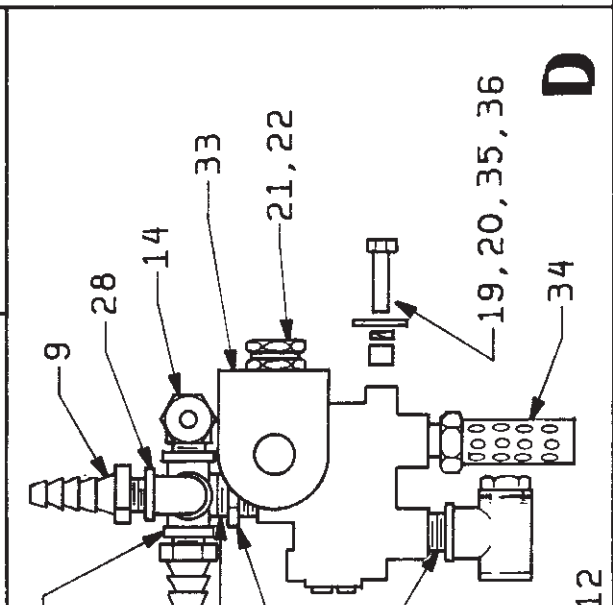
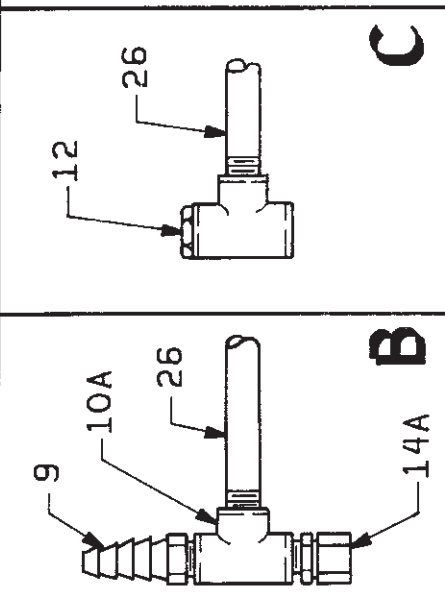
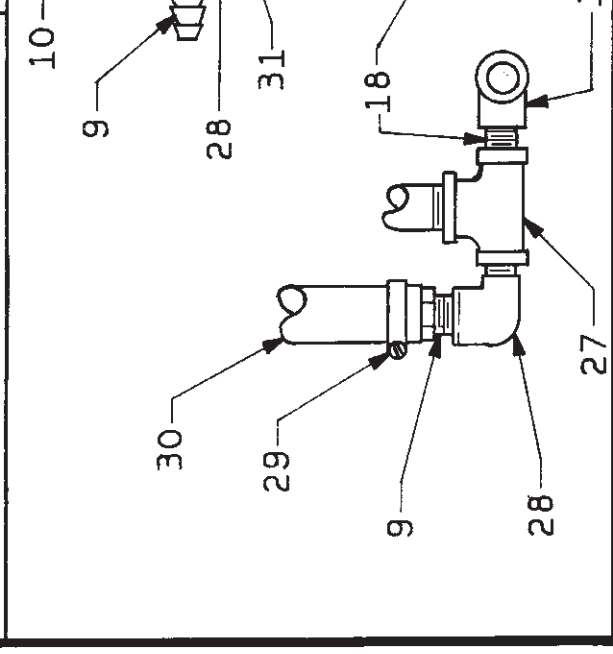
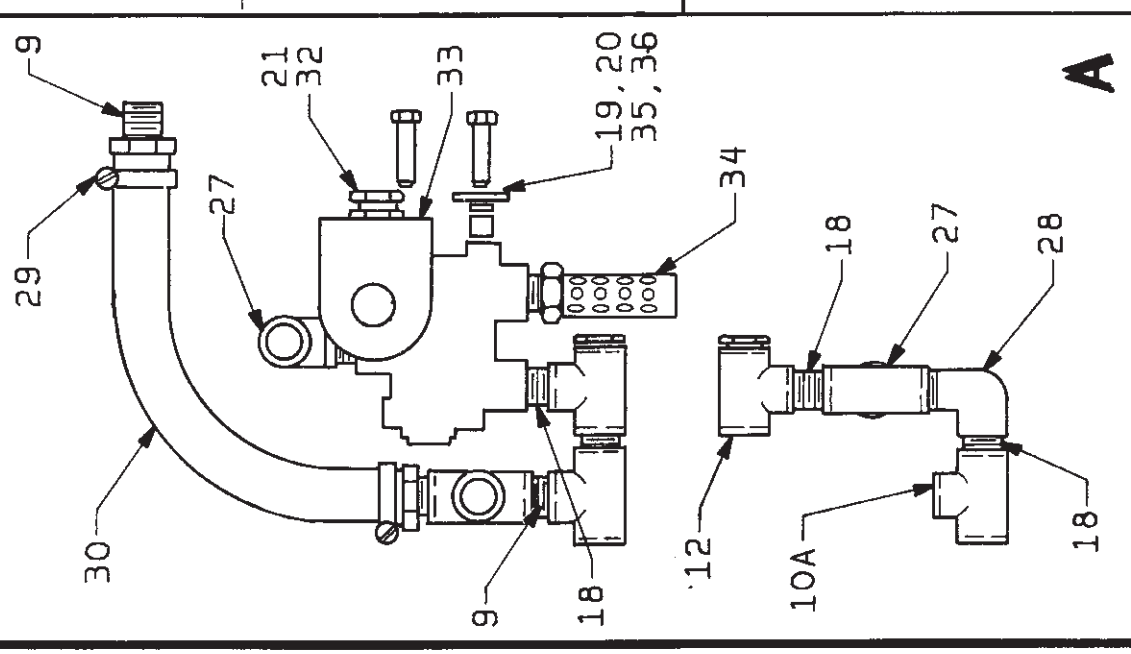
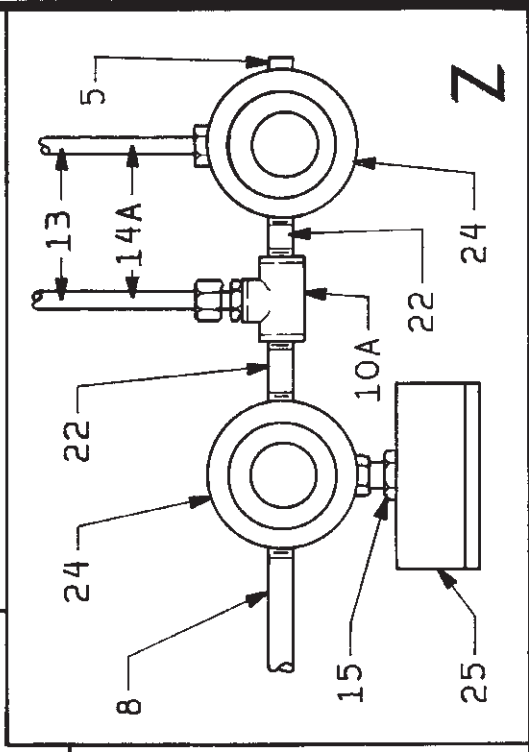
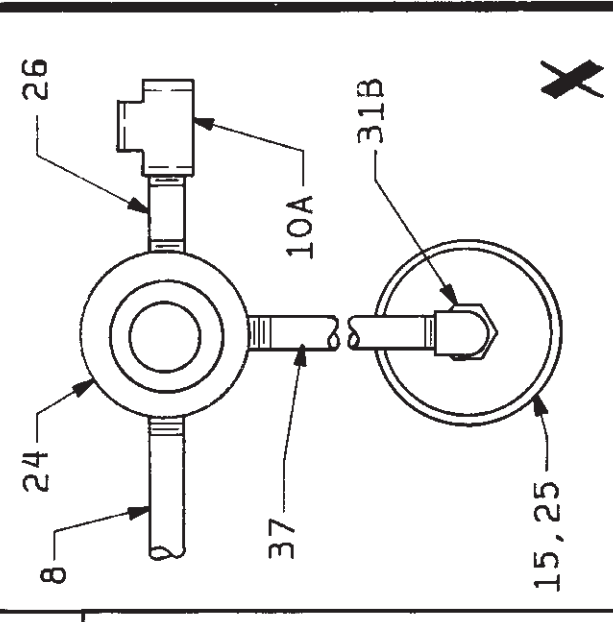
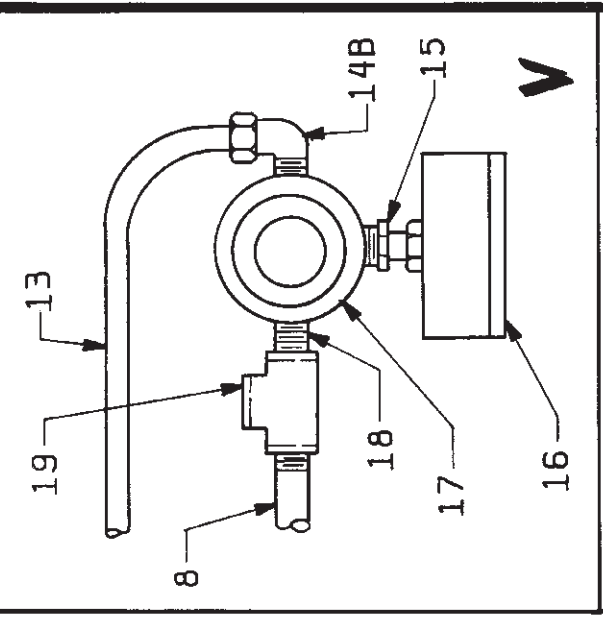
UNIVERSAL AIRVALVE BOX ASSEMBLY

BMP780088
83457C



DETAILS A-E SHOW SOME POSSIBLE CONFIGURATIONS ON THIS END OF THE AIRVALVE BOX.

DETAILS V-Z SHOW SOME POSSIBLE CONFIGURATIONS ON THIS END OF THE AIRVALVE BOX.



P/L UNIVERSAL AIRVALVE BOX

BMP780088R/93046N
(Sheet 1 of 2)



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Litho in U.S.A.

Parts List—P/L UNIVERSAL AIRVALVE BOX

Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
-----ASSEMBLIES-----				
none				
-----COMPONENTS-----				
	1	03 01180A	84232D ENCL=AIR VALVE FORMED	
all	2	03 01180B	84136B PLATE=BOTTOM AIRVALVE BOX	
all	3	17C051	01Z RECP BKT #2 FAST CAMLOCK	
all	4	15J051	01Z POPRIVET 1/8DIA X.265 LONG S/S	
all	5	51P013	PLUG HXCNTRSUNK 1/4"BRASS	
all	6	12P1AHSB	SNAPBUSH.437MHX.312 T=1/8HEYCO#2043	
all	7	X3 01507A	88462# MANIFOLD BLOCK MACH 12PORTS	
all	8	5N0E11ABE2	NPT NIPPLE 1/4X11 TBE BRASS 125#	
all	9	51E507	HOSESTEM BRASS 1/4 MPTX1/2 HOSE I.D	
all	10	51V015	03Z TEE PIPE 1/4"FGDBRASS101-T7-444	52DRA+DYA ONLY
all	10	5SX0EBF	NPT CROSS 1/4" BRASS 150# 2205P-4	52WE1;60;72;WE2+WE3
all	11	5N0E05KB42	NPT NIPPLE 1/4X5.5 TBE BRASS STD	
all	12	51T020	STRAINER-T 1/4"ANCHOR #101ST-4	
all	13	60E004TE	04Z 1/4"OD X.170"ID NYLON TUBING *	
all	14	53A008B	BODY=BRMALCON 1/4X1/4COMP W#B68X4X4	52DRA+DYA ONLY
all	14	53A031XB	BODY=MAL90EL 1/4X1/4COMP #269C-4-4B	52WE1;60;72;WE2+WE3
all	15	5SB0E0CBEO	HEXPIPBUSH 1/4 X 1/8 BRASS 125#	
all	16	30N100	07Z PRESSGUAGE 1/8"BACKCONN 0-30PSI	60;72;WE3 ONLY
all	16	30N101	08Z PRESSGAUGE 1/8"BACKCONN 0-60PSI	60;72;WE2 ONLY
all	17	96J019BE	78486T*PRESSURE REG=EPOXY SET 28PSI	
all	18	5N0ECLSBE2	NPT NIPPLE 1/4XCLS TBE BRASS 125#	
all	19	15U185	FLATWASHER(USS STD) 1/4" ZNC PLT	
all	20	02 10456	65025A BUSHING=SENSDEV PIVOTPIN	
all	21	12K005	01Z 1/2 CONDUIT NIPL-CHASE"LONG TYP	
all	22	5N0E02ABE2	NPT NIPPLE 1/4X2TBE BRASS 125#	
all	23	5SLOCBEC	NPT ELBOW 90DEG STRT 1/8"BRASS 125#	



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Parts List, cont.—P/L UNIVERSAL AIRVALVE BOX

Used In	Item	Part Number	Description	Comments
all	24	96J019E	1/4"PRESSREG2-50PSI #R07-200-RNEA	
all	25	30N095	03Z PRESSGAUGE 1/8"BACKCONN 0-15PS1	
all	26	5N0E03KBE2	NPT NIPPLE 1/4X3.5 TBE BRASS 125#	
all	27	5S0EBEA0G	NPT TEE 1/4X1/4X3/8 BRASS 125#	
all	28	5SL0EBEC	NPT ELBOW 90DEG STRT 1/4" BRASS 125	
all	29	27A090	HOSECLAMP,11/16-1.5" CADSCR HS-16	
all	30	60E085	07Z H0SE WATER 1/2" DAY 7192-50250*	
all	31	5SB0G0EDE0	NPTHEXBUSH 3/8X1/4 GALCI 125#	
all	31	5SL0EBEA	NPT ELBOW 90DEG 1/4" BRASS 125#	(USED ON 52 DRA ONLY)
all	32	12K070	1/2" CONDUIT LOCKNUT PECO #201J	
all	33	96TCC3AA71	04Z 3/8" N/C 3WAY 240V50/60C VALVE	
all	34	27A005	MUFFLER 3/8" ALLIED #B38 "BANTAM"	
all	35	15K039	HXCAPSCR 1/4-20UNC2AX3/4 GR5 ZNC/CD	
all	36	15U180	LOCKWASHER MEDIUM 1/4 ZINCPL	
all	37	5N0E07AB42	NPT NIPPLE 1/4X7 TBE BRASS STD	

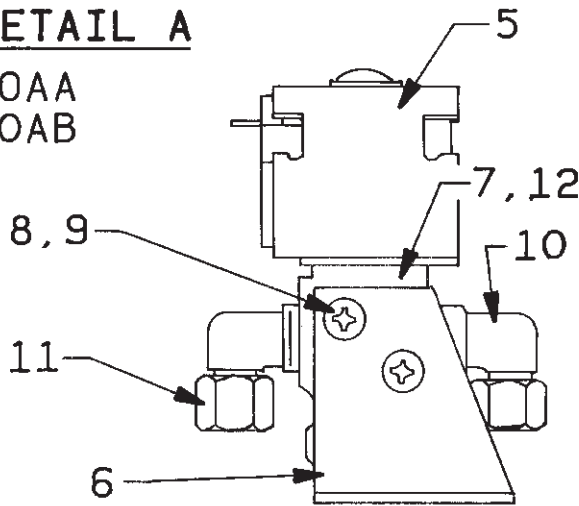


AIR VALVES & MOUNTING HARDWARE

BMP780087
83457B

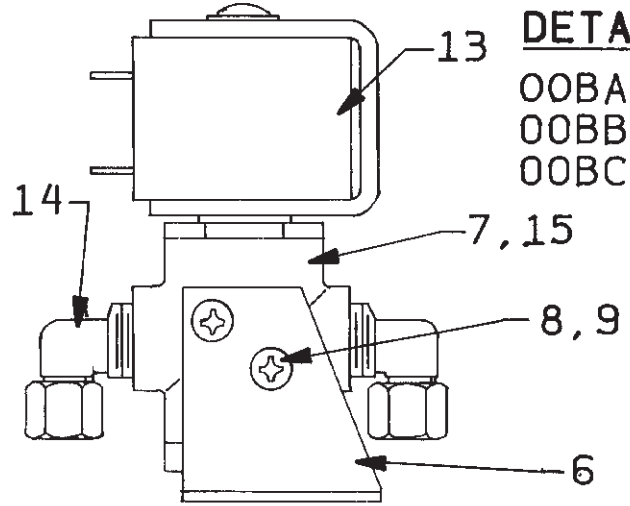
DETAIL A

00AA
00AB



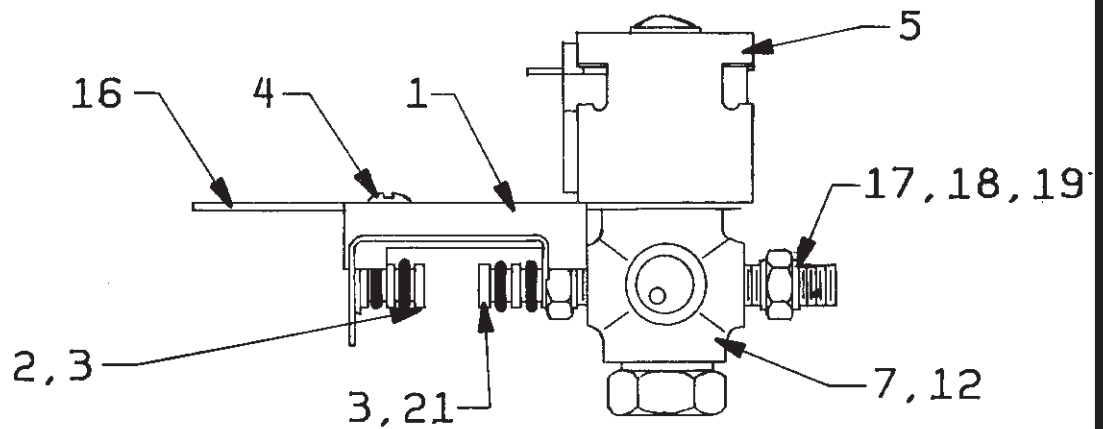
DETAIL B

00BA
00BB
00BC



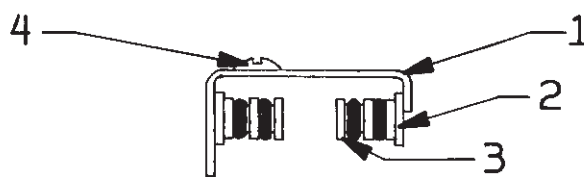
DETAIL C

00CA
00CB
00CC



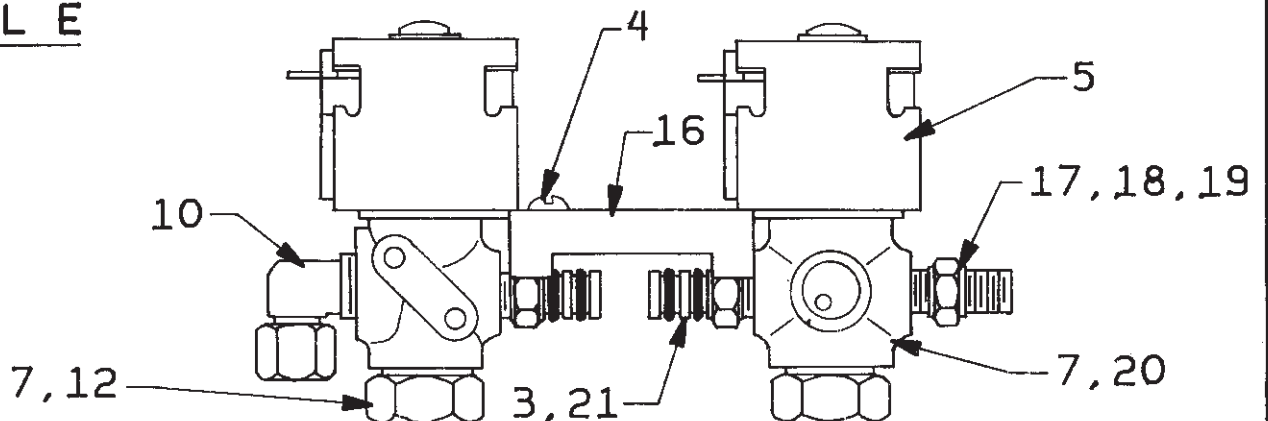
DETAIL D

00DA



DETAIL E

00EA
00EB
00EC
00ED
00EE
00EF



Air Valves & Mounting Hardware

BMP780087R/83457A
(Sheet 1 of 2)



Pellerin Milnor Corporation
P. O. Box 400, Kenner, LA 70063-0400

Litho in U.S.A.

Parts List—Air Valves & Mounting Hardware

Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
-----ASSEMBLIES-----				
	AA	AVA030537	78173S ONE 1/8 AIRVALVE REG.AIR120V	
	AB	AVA030571	84386S ONE 1/8 AIRVALVE REG.AIR240V	
	BA	AVA030324	79066S1/4"NC24V ASCO AIRVAL+MTG HWD	
	BB	AVA030337	79066S1/4"NC120VASC0 AIRVAL+MTG HWD	
	BC	AVA030371	79066S1/4"NC240VASC0 AIRVAL+MTG HWD	
	CA	AVA030224	78173S1/8"NC24V ASCO AIRVAL+MTG HWD	
	CB	AVA030237	84386S1/8"NC120VASC0 AIRVAL+MTG HWD	
	CC	AVA030271	84386S1/8"NC240VASC0 AIRVAL+MTG HWD	
	DA	AVA0304	78136# TWO PLUGS+MTG HWD	
	EA	AVA030124	78173S TWO 1/8"AIRVALVE+MTG HWD 24V	
	EB	AVA030124A	78182S TWO 1/8AIRVAL+MTG HWD 1-NO	
	EC	AVA030137	82183S TWO 1/8 AIRVALVE+MTG HWD120V	
	ED	AVA030137A	78182S TWO 1/8AIRVAL+MTG HWD 1-NO	
	EE	AVA030171	78173S TWO 1/8"AIRVALVE+MTG HWD240V	
	EF	AVA030171A	78182S TWO 1/8AIRVAL+MTG HWD 1-NO	
-----COMPONENTS-----				
	all	1	03 01524	79177B CHANNEL=PLUG HOLDER
	all	2	03 01509	77362A PLUG=MANIFOLD PORTS
	all	3	60C105	ORING 1/4 ID 1/16CS BN 70 DURO #010
	all	4	15P105	05Z TRDCUT-F PANHD 8-32X5/8 NIKSTL
	AA,CB,EC, ED	5	96T1001A37	SOLENOID 120V50/60C ASCO#260283-002
	AB,CC,EE, EF	5	96R300B02	COIL 220/50SFT-240/60SFT#162-919-26
	EA,EB,CA	5	96T1001A24	SOLENOID 24V50/60C ASCO#260283-001
	all	6	03 01182B	78036B ANGLE=SUPPORT AIR VALVE
	all	7	03 01538	86053B CHANNEL=OIL SHIELD-1/8AIRVAL
	all	8	15P101	04Z TRDCUT-F PANHD 8-32X3/8 NIKSTL
	all	9	15U120	LOCKWASHER MEDIUM #8 ZINCPL
	all	10	53A031B	BODY-MAL90ELL1/4X1/8COMP#269C-42B
	AB only	11	53A032	MAL90ELL 5/16X1/8POLYFLO #169P-5-2
	all	12	96R300AAM	78183L*NC VALVEBODY+HARDWARE
	BA only	13	96T1002A24	SOLENOID 24V50/60C ASCO#260283-005
	BB only	13	96T1002A37	SOLENOID 120V50/60C ASCO#260283-006
	BC only	13	96T1002A71	SOLENOID 240V50/60C ASCO#260283-007
	all	14	53A031XB	BODY=MAL90EL 1/4X1/4COMP #269C-4-4B



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Litho in U.S.A.

Parts List, cont.—Air Valves & Mounting Hardware

Used In	Item	Part Number	Description	Comments
all	15	96V350	1/4" VALVEBODY ASCO #UFTX8320A89	
all	16	03 01523	85096C BRKT=LOCK AIR VALVE	
all	17	53A005B	BODY=MALECONN 1/4X1/8COMP #B68A-4A	
all	18	53A059	SLEEVE 1/4" COMP IMP #60F BRASS	
all	19	53A059A	NUT 1/4"COMP.HOLYOKE ANDERSON#61A-4	
EB,EC,EF	20	96R300ABM	78183@*NO VALVEBODY+HARDWARE	
all	21	03 01508	77362A FITTING-SCREW 7/16 HEX	

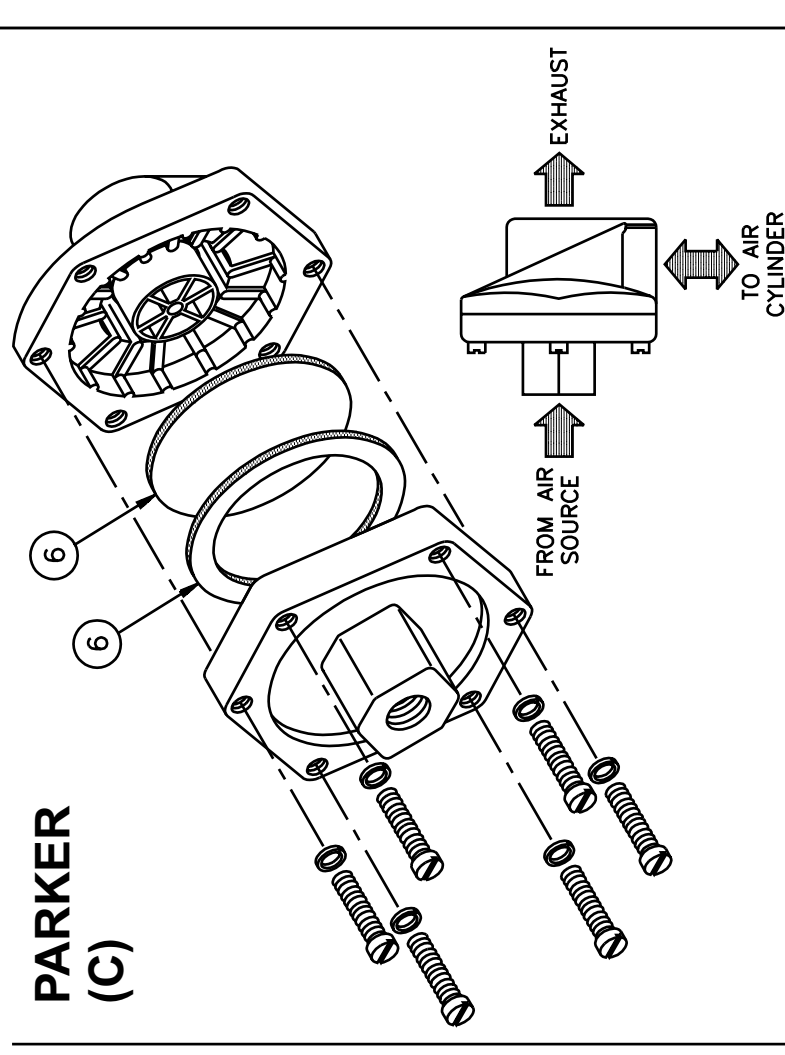
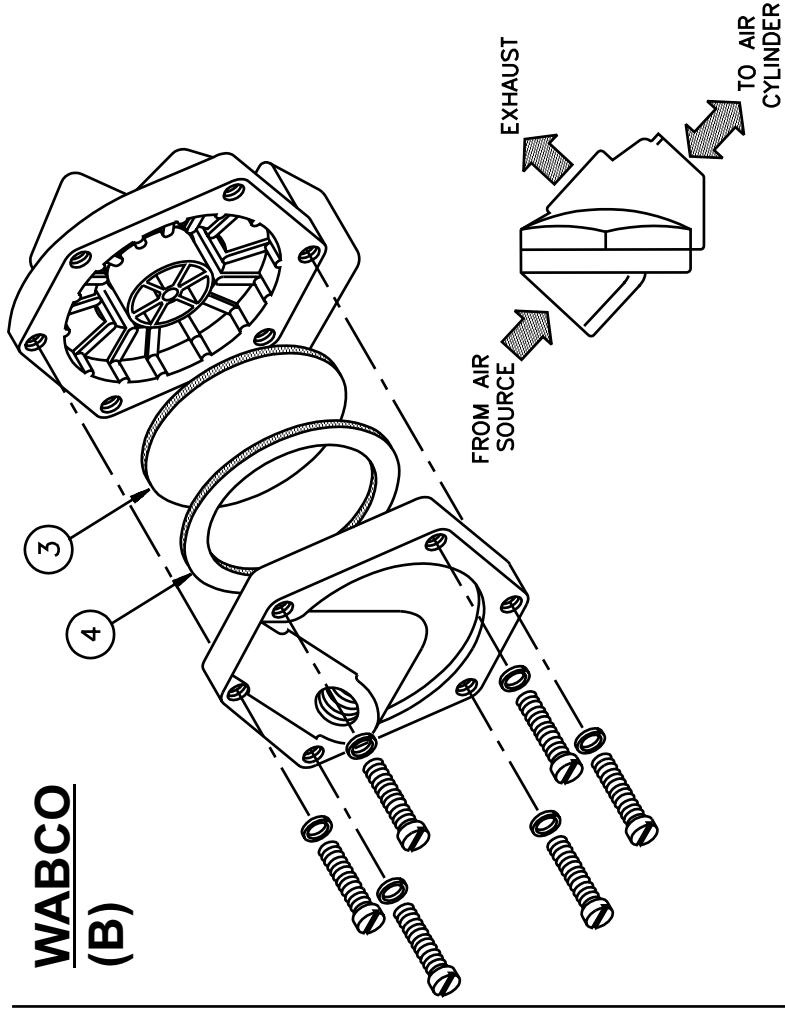
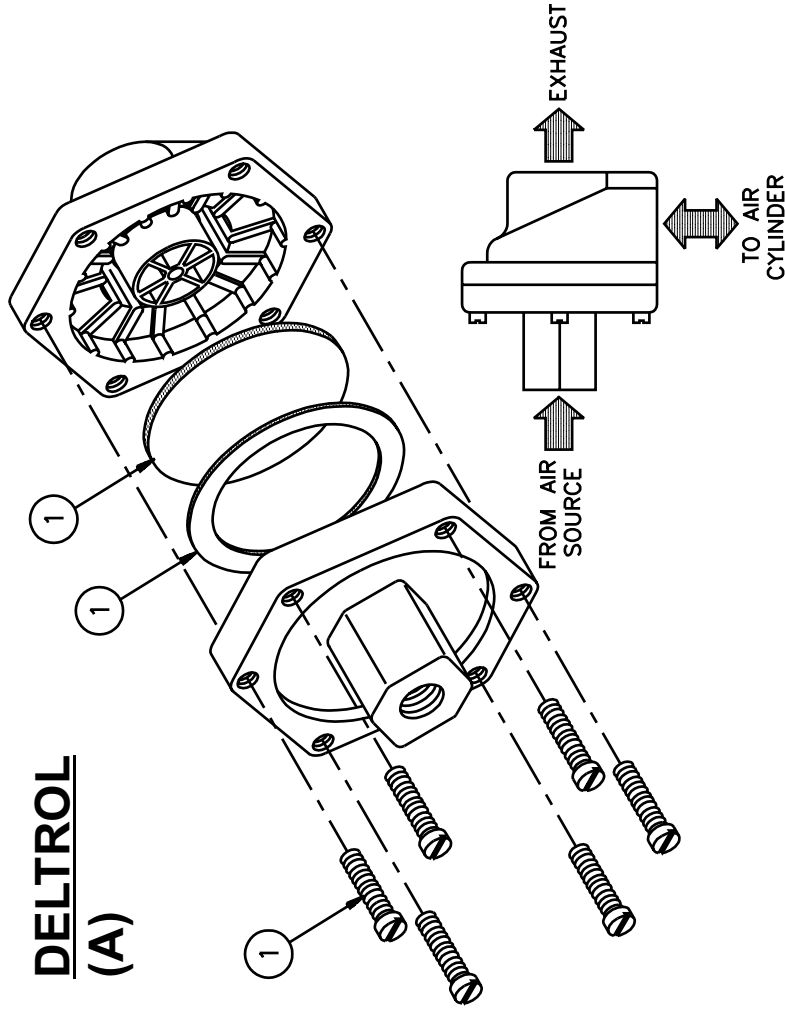
Quick Exhaust Valves

BMP701406/2002382V
(Sheet 1 of 2)



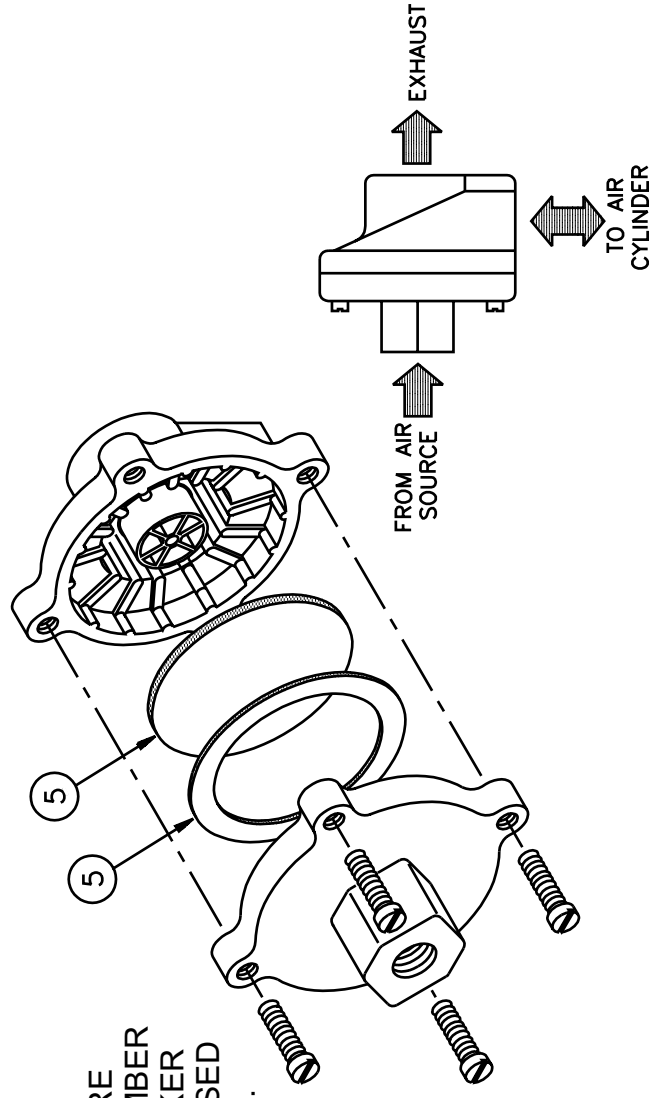
Pellerin Milnor Corporation
P. O. Box 400, Kenner, LA 70063-0400

Litho in U.S.A.



ASCO (D)

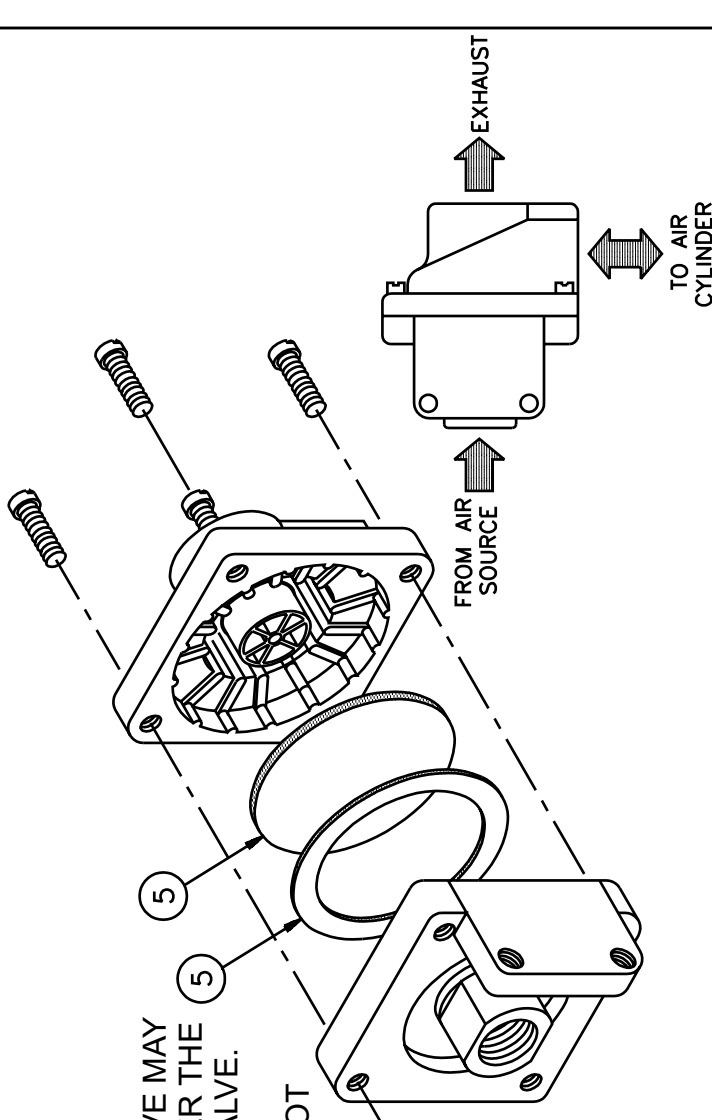
NOTE: ASCO VALVES ARE USED PRIOR TO NOVEMBER 1987. SINCE THEN PARKER VALVES HAVE BEEN USED IN PLACE OF THE ASCO.



GOYEN (E)

NOTE: THE GOYEN VALVE MAY BE REPLACES BY EITHER THE WABCO OR DELTROL VALVE.

THE GOYEN VALVE IS NOT TO BE USED IN PLACE OF THE WABCO OR DELTROL VALVE.





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Litho in U.S.A.

Parts List—Quick Exhaust Valves

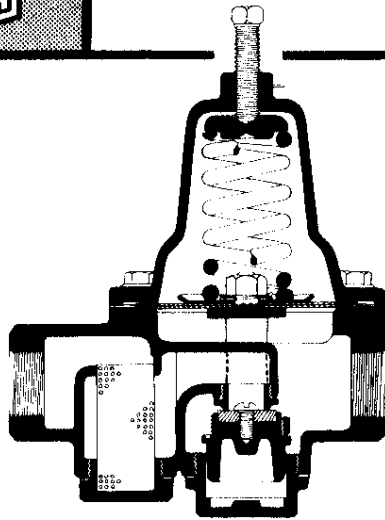
Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.) assigned to components relate the parts list to the illustration.

Used In	Item	Part Number	Description	Comments
-----ASSEMBLIES-----				
	A	MESSAGE B2	REPAIR KITS ONLY <>	DELTROL
	B	96M051	USE KZK5B00100	WABCO
	C	96M054	QWIKEXHAUSTVLV 3/4"URETHANE	PARKER
	D	MESSAGE B1	PARTS NO LONGER SOLD	ASCO
	E	MESSAGE B2	REPAIR KITS ONLY <>	GOYEN
	F	96M055	QUICK EXHAUST VALVE 1/4"	DELTROL
-----COMPONENTS-----				
all	1	96M053A	KIT,QWIKRELVLV EV20A#10091-18	DELTROL VALVE ONLY
all	3	96M051B	DIAPHRAM,QWIKREL WAB#PS112-12	WABCO VALVE ONLY
all	4	96M051A	GASKET,WABCO QUICK EXHAUST VLV	WABCO VALVE ONLY
all	5A	96M052A	REPKIT,QES#M1319 (FOR 96M052)	GOYEN VALVE ONLY
all	5B	96M055A	REPAIR KIT FOR 96M055# 10128-99	DELTROL VALVE ONLY
all	6	96M054K	REPKIT 3/4"QWIKEXHAUSTVLV	PARKER VALVE ONLY



PRESSURE REGULATOR ASSEMBLY

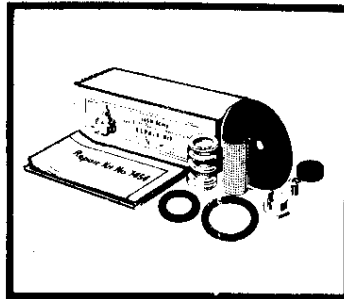
BMP700518
71143A



TYPE E-93 INTERIOR

TYPE E-93 REPAIR KITS

For convenience in ordering, a handy pre-packaged repair kit is available for all Type E-93 pipe sizes, containing a diaphragm, seat disc and screw, strainer screen and gasket, bottom plug gasket, body seat and pressure spring. The kits are complete with full installation instructions. To order, specify E-93-KIT, stock no. 96VI58.



HOW TO MAKE REPAIRS

(SHUT OFF SERVICE BEFORE STARTING DISASSEMBLY)

Figure 1: First loosen lock nut, then back off adjusting screw by turning counter-clockwise until free of spring tension. Next, remove the six assembly bolts using two standard end wrenches. When re-assembling, tighten opposite sides alternately.

Figure 2: Lift off spring chamber, spring button and pressure spring.

Figure 3: Loosen hexagon bottom plug with standard wrench and carefully unscrew by hand. Bottom plug gasket normally comes off as bottom plug is removed.

Figure 4: Unscrew the hexagon seat-shell, using a standard adjustable wrench. It is important to prevent distortion of seat-shell.

Figure 5: Composition seat disc may now be removed by unscrewing seat screw.

Figure 6: Diaphragm and yoke assembly is now free to be lifted out. Do not use force on removal; yoke must not be distorted. Diaphragm is removed from assembly by unscrewing the stem nut and removing pressure plate. To prevent distortion of yoke, it is advisable to place assembly in a vise.

Figure 7: Unscrew body seat with a socket wrench of proper size to prevent distortion. On reassembly, place small amount of pipe dope on thread.

Figure 8: To remove strainer screen, unscrew hexagon clean-out plug. Gasket and screen easily drift out.

NOTE: To reassemble valve, follow above steps in reverse order. After replacing seat-shell assembly in valve, make sure seat-shell and yoke assembly moves freely without binding.

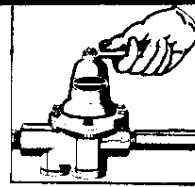


FIGURE 1

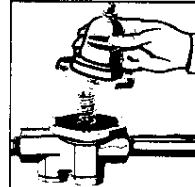


FIGURE 2

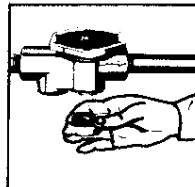


FIGURE 3

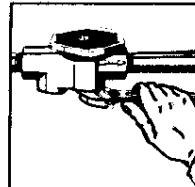


FIGURE 4

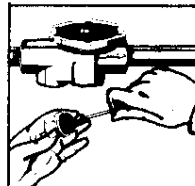


FIGURE 5

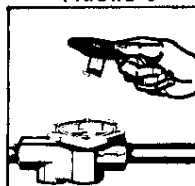


FIGURE 6

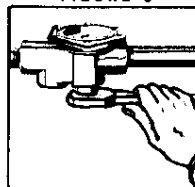


FIGURE 7

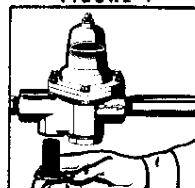
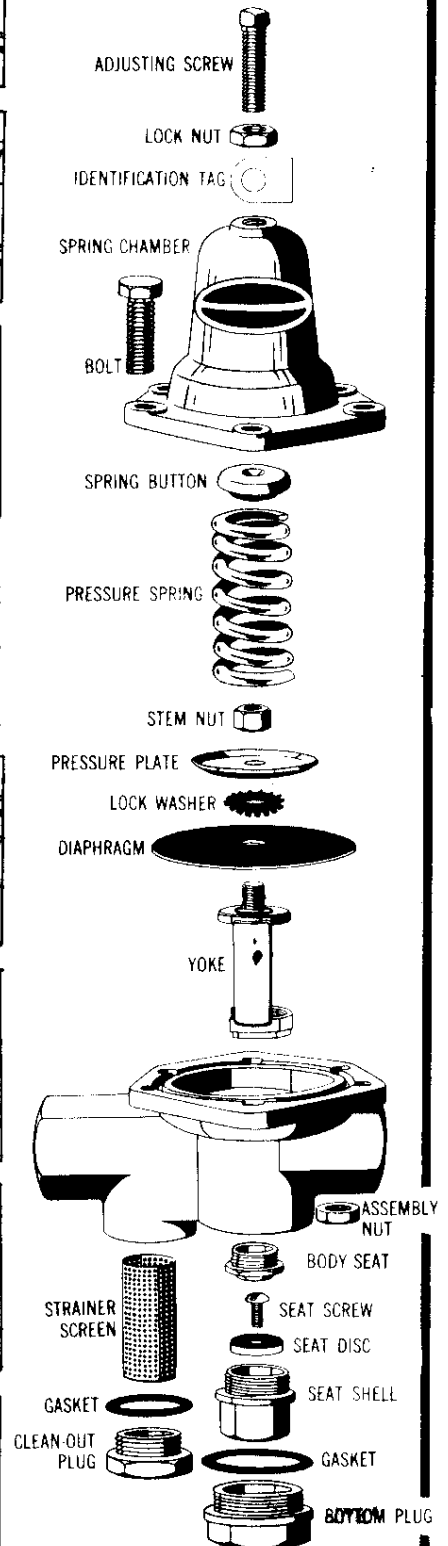


FIGURE 8





PRESSURE REGULATOR ASSEMBLY

BMP700518R
76096A

INSTALLATION AND MAINTAINENCE INSTRUCTIONS

INSTALL VALVE IN THE LINE WITH ARROW ON VALVE BODY POINTING IN THE DIRECTION OF FLOW.

Install the reducing valve, when possible, so that the sill cock line is on the high or street side of the reducing valve as shown in diagram. Before installing the reducing valve, flush out the line to remove loose dirt and scale which might damage valve disc and seat.

TO READJUST reduced pressures, loosen adjusting screw nut and turn adjusting screw clockwise to raise reduced pressure and counter clockwise to lower reduced pressure.

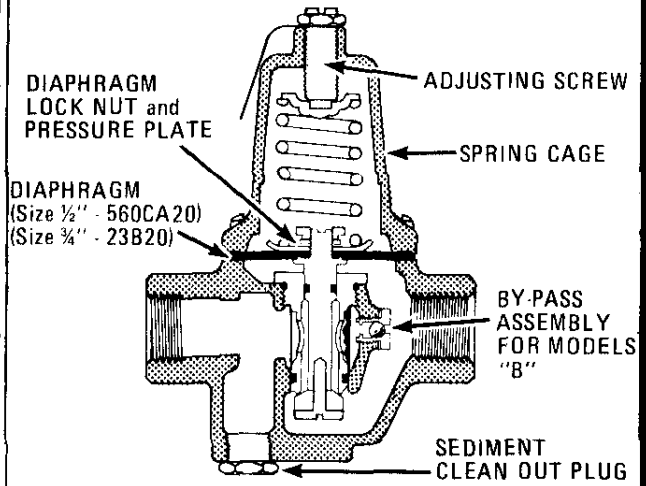
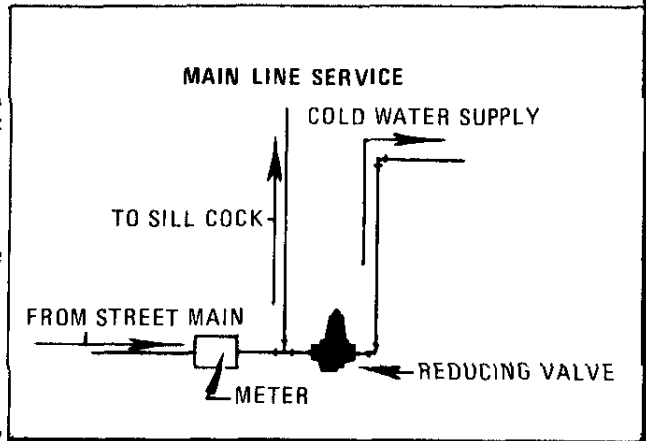
When reducing valve is used, it makes a closed system; therefore, pressure relief protection must be provided on the downstream side of the reducing valve to protect equipment.

SERVICING

This series is a new development for standard capacity domestic water regulation service. It has special unitized construction which consists of the seat, disc and stem assembly, and strainer screen altogether in one unit for complete replacement maintenance.

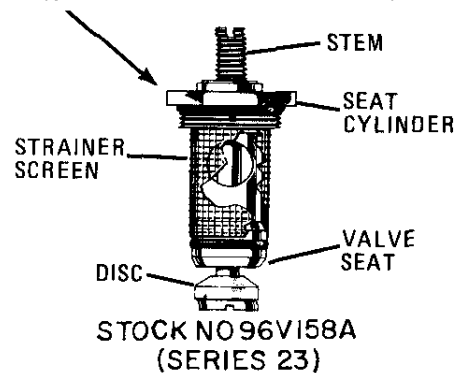
To clean or replace parts.

1. Remove spring cage and all parts above diaphragm.
2. Loosen and remove diaphragm lock nut, lock washer, pressure plate, and diaphragm from valve stem.
3. Unscrew seat cylinder from body and remove entire assembly. For diaphragm replacement only, see part number.
4. Remove clean-out plug to flush out collected sediment.



COMPLETE REPLACEMENT ASSEMBLY (Includes Diaphragm)

When ordering parts, specify size of valve, Type No. and model shown on nameplate.

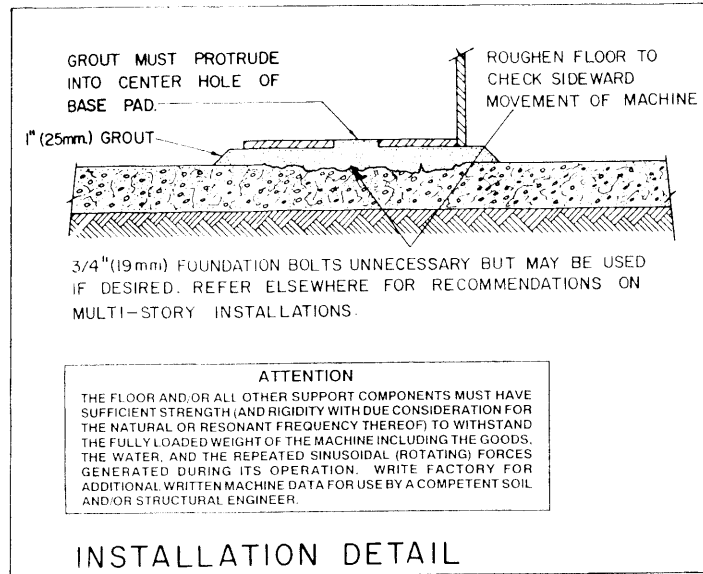


Section

10

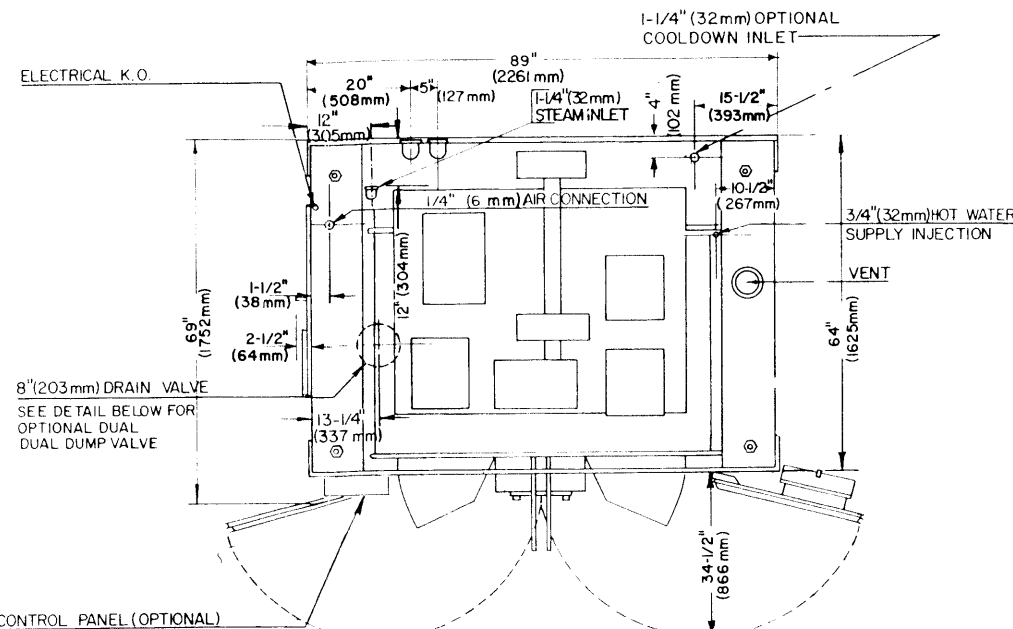
Dimensional Drawings

Litho in U.S.A.



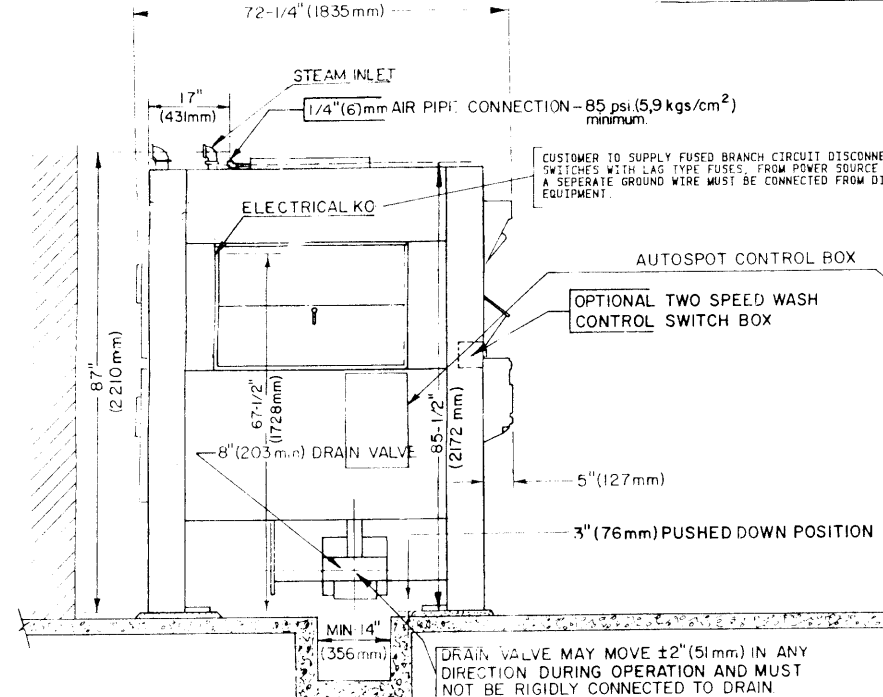
ATTENTION
THE FLOOR AND/OR ALL OTHER SUPPORT COMPONENTS MUST HAVE SUFFICIENT STRENGTH (AND RIGIDITY WITH DUE CONSIDERATION FOR THE NATURAL OR RESONANT FREQUENCY THEREOF) TO WITHSTAND THE FULLY LOADED WEIGHT OF THE MACHINE INCLUDING THE GOODS, THE WATER, AND THE REPEATED SINUSOIDAL (ROTATING) FORCES GENERATED DURING ITS OPERATION. WRITE FACTORY FOR ADDITIONAL WRITTEN MACHINE DATA FOR USE BY A COMPETENT SOIL AND/OR STRUCTURAL ENGINEER.

INSTALLATION DETAIL

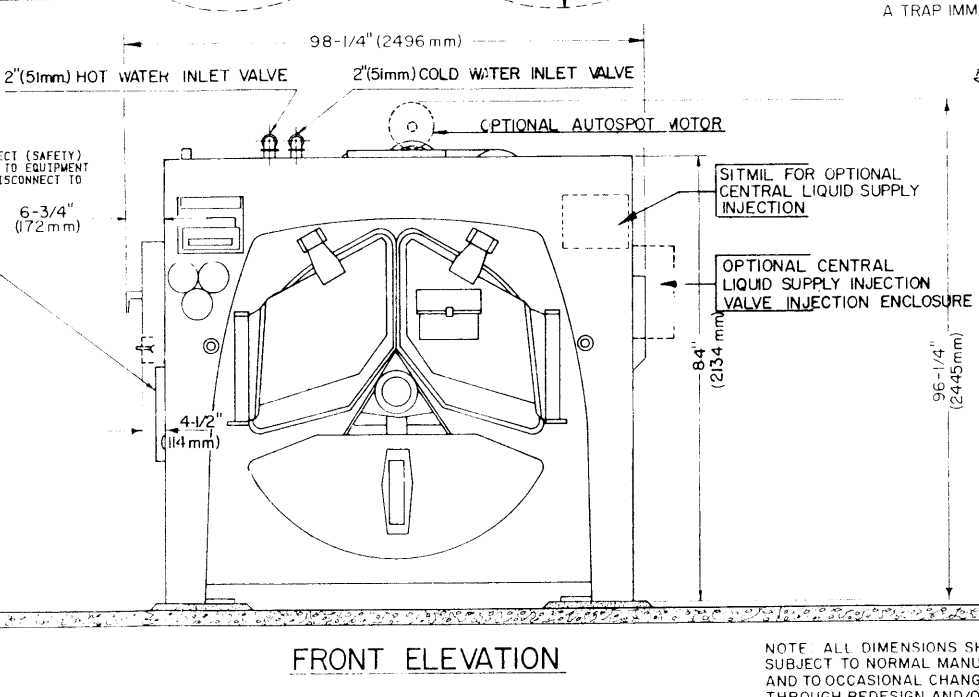


SPECIFICATIONS		Metric
CYLINDER SIZE	60" X 36"	152cm X 91cm
WEIGHT (FULLY LOADED)	13,086Lbs	5,936Kgs.
HEIGHT (OVERALL) (STANDARD)	94-1/2"	2400mm
HEIGHT (WITH AUTOSPOT)	96-1/4"	2445mm
WIDTH (OVERALL) (STANDARD)	98-1/4"	2496mm
DEPTH (OVERALL) (STANDARD)	72-1/4"	1835mm
FLOOR LOADING (PROJECTED AREA)	332lbs/ft ²	1621 kgs/m ²
FLOOR LOADING (UNDER EACH FOOT)	2785lbs/ft ²	13596kgs/m ²
WIDTH (WITH LIQUID SUPPLY)	98-3/4"	2509mm.
WIDTH (WITH LIQUID SUPPLY AND TWO-SPEED WASH)	101"	2565mm.
HEIGHT (WITH SIPHON BREAKER)	99"	2515mm.

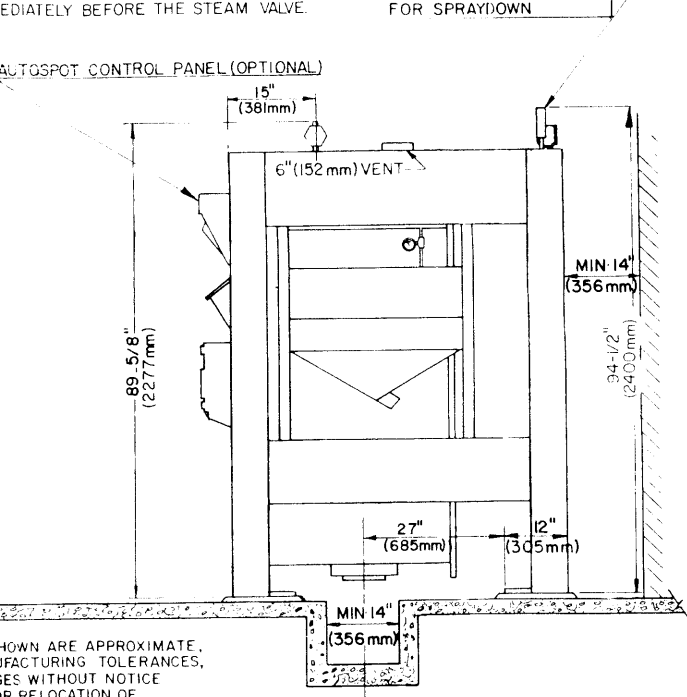
NOTE: "STEAM HAMMER," CAUSED BY WET STEAM OR CONDENSATION, MAY BE PREVENTED BY INSTALLING A TRAP IMMEDIATELY BEFORE THE STEAM VALVE. 1-1/4" (32mm) COLD WATER FOR SPRAYDOWN



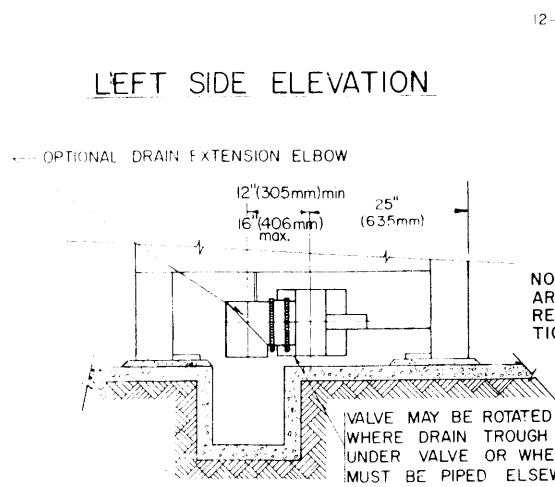
LEFT SIDE ELEVATION



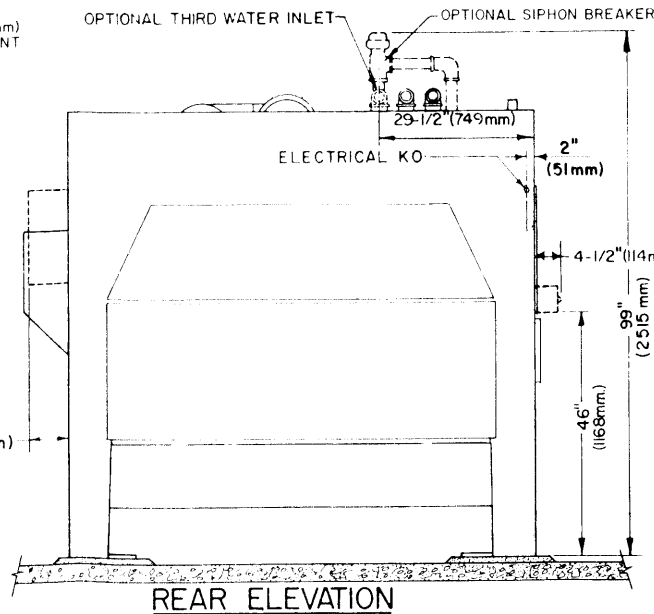
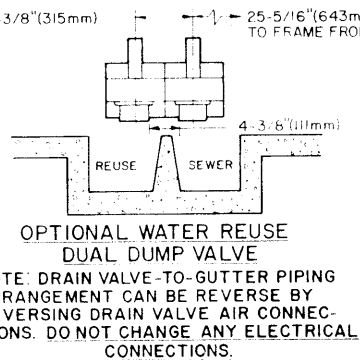
FRONT ELEVATION



RIGHT SIDE ELEVATION



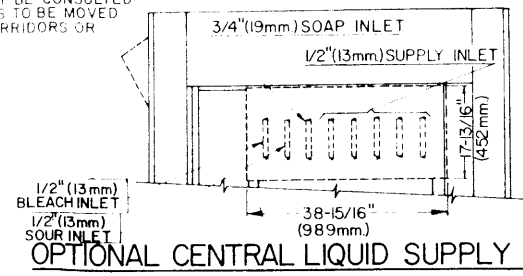
DRAIN VALVE ALTERNATE POSITION



REAR ELEVATION

NOTE: ALL DIMENSIONS SHOWN ARE APPROXIMATE, SUBJECT TO NORMAL MANUFACTURING TOLERANCES, AND TO OCCASIONAL CHANGES WITHOUT NOTICE THROUGH REDESIGN AND/OR RELOCATION OF COMPONENTS, ETC. DO NOT USE FOR CONSTRUCTION UNLESS CERTIFIED AND IN NO EVENT PRE-PIPE CLOSER THAN FIVE FEET FROM MACHINE FACTORY MUST BE CONSULTED FOR DIMENSIONS IF MACHINE IS TO BE MOVED THROUGH NARROW OR LOW CORRIDORS OR OPENINGS.

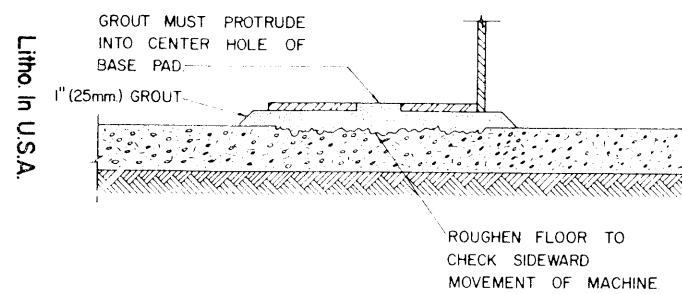
ATTENTION
MOST REGULATORY AUTHORITIES (INCLUDING OSHA IN THE USA) HOLD THE OWNER/USER ULTIMATELY RESPONSIBLE TO MAINTAIN A SAFE WORKING ENVIRONMENT. ACCORDINGLY, THE OWNER/USER MUST RECOGNIZE ALL FORESEEABLE SAFETY HAZARDS, FURNISH SAFETY INSTRUCTIONS AND GUIDANCE TO ALL PERSONNEL WHO MAY COME IN CONTACT WITH THE INSTALLATION, AND PROVIDE ALL NECESSARY ADDITIONAL SAFETY GUARDS, FENCES, RESTRAINTS, DEVICES, ETC. NOT FURNISHED BY THE EQUIPMENT MANUFACTURER OR VENDOR.



OPTIONAL CENTRAL LIQUID SUPPLY INJECTION

**DIMENSIONS=6036 WED
PELLERIN MILNOR CORPORATION**

BMP701630/92393E

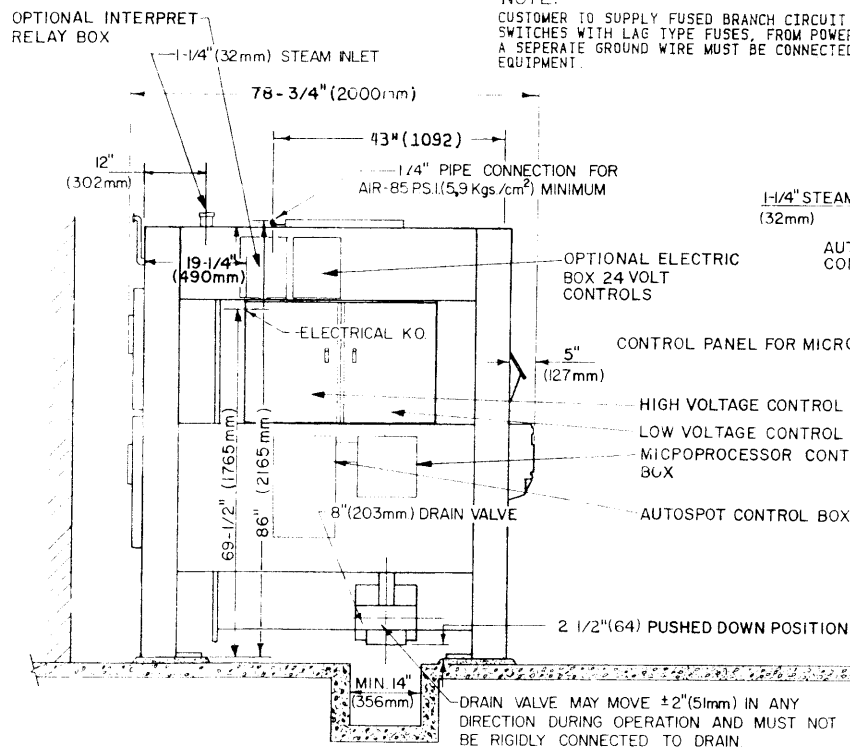


3/4" (19mm) FOUNDATION BOLTS UNNECESSARY BUT MAY BE USED IF DESIRED CONTACT FACTORY FOR RECOMMENDATIONS ON MULTI-STORY INSTALLATIONS.

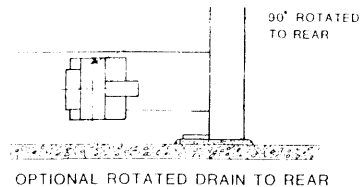
INSTALLATION DETAIL

NOTE: "STEAM HAMMER," CAUSED BY WET STEAM OR CONDENSATION, MAY BE PREVENTED BY INSTALLING A TRAP IMMEDIATELY BEFORE THE STEAM VALVE.

NOTE: CUSTOMER TO SUPPLY FUSED BRANCH CIRCUIT DISCONNECT (SAFETY) SWITCHES WITH LAG TYPE FUSES, FROM POWER SOURCE TO EQUIPMENT. A SEPARATE GROUND WIRE MUST BE CONNECTED FROM DISCONNECT TO EQUIPMENT.

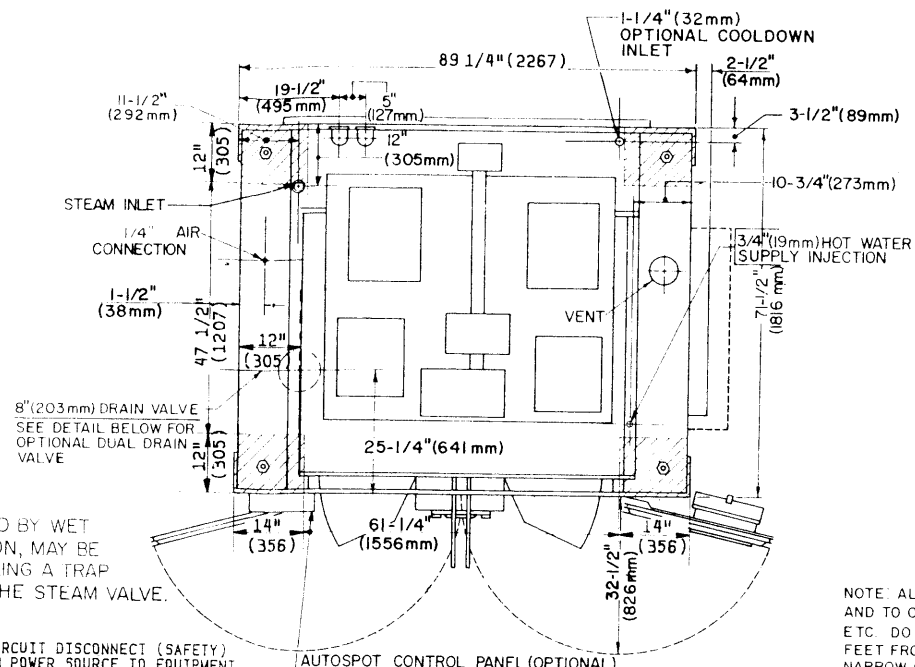


LEFT SIDE ELEVATION

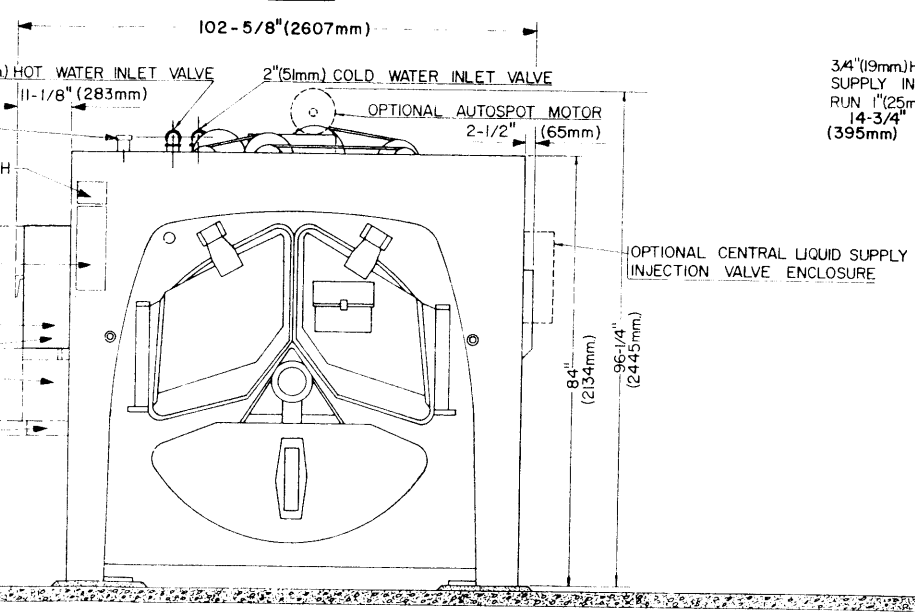


ATTENTION
 THE REGULATORY AUTHORITIES (INCLUDING OSHA IN THE USA) HOLD THE OWNER USER PRIMARILY RESPONSIBLE TO MAINTAIN A SAFE WORKING ENVIRONMENT, ACCORDING TO THE OWNER USER MUST RECOGNIZE ALL FORESEEABLE SAFETY HAZARDS, FURNISH SAFETY INSTRUCTIONS AND GUIDANCE TO ALL PERSONNEL WHO MAY COME IN CONTACT WITH THE INSTALLATION, AND PROVIDE ALL NECESSARY ADDITIONAL SAFETY GUARDS, FENCES, RESTRAINTS, DEVICES, ETC. NOT FURNISHED BY THE EQUIPMENT MANUFACTURER OR VENDOR.

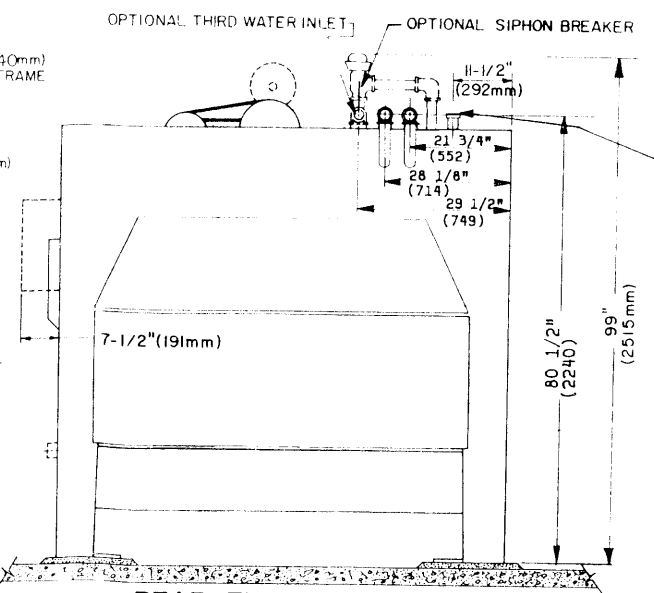
ATTENTION
 THE FLOOR AND/OR ALL OTHER SUPPORT COMPONENTS MUST HAVE SUFFICIENT STRENGTH (AND RIGIDITY WITH DUE CONSIDERATION FOR THE NATURAL OR RESONANT FREQUENCY THEREOF) TO WITHSTAND THE FULLY LOADED WEIGHT OF THE MACHINE INCLUDING THE GOODS, THE WATER, AND THE REPEATED SINUSOIDAL (ROTATING) FORCES GENERATED DURING ITS OPERATION. WRITE FACTORY FOR ADDITIONAL WRITTEN MACHINE DATA FOR USE BY A COMPETENT SOIL AND/OR STRUCTURAL ENGINEER.



PLAN



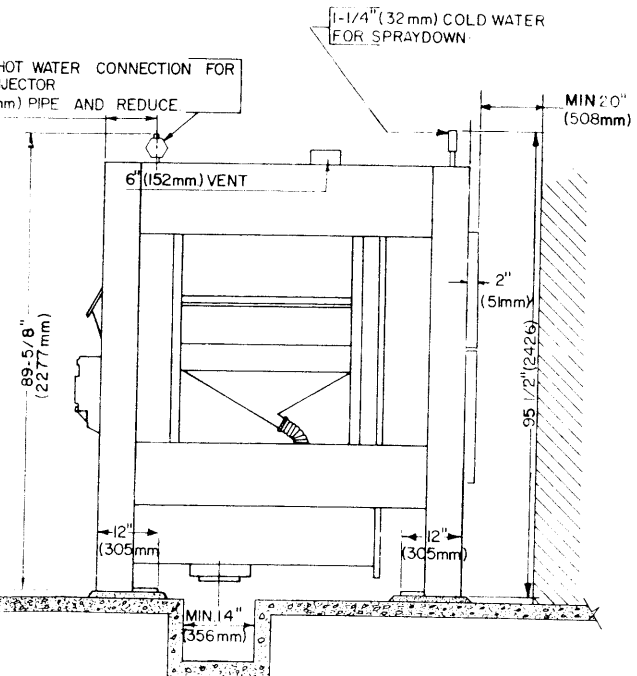
FRONT ELEVATION



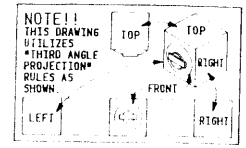
REAR ELEVATION

SPECIFICATIONS		Metric
CYLINDER SIZE	60"x 44"	152cm x 112cm.
WEIGHT (FULLY LOADED)	14,565 Lbs.	5972 Kgs.
HEIGHT (OVERALL) (STANDARD)	94-1/2"	2400mm
HEIGHT (WITH AUTOSPOT)	96-1/4"	2445mm.
WIDTH (OVERALL) (STANDARD)	102-5/8"	2607mm
DEPTH (OVERALL) (STANDARD)	78-3/4"	1200 mm
FLOOR LOADING (PROJECTED AREA)	329 Lb/Ft ²	1606Kg/m ²
FLOOR LOADING (UNDER EACH FOOT)	3119 Lb/Ft ²	15,227 Kg/m ²
WIDTH (WITH LIQUID SUPPLY)	96-1/2"	2451mm.
WIDTH (WITH LIQUID SUPPLY AND TWO-SPEED WASH)	102-1/2"	2604mm.
HEIGHT (WITH SIPHON BREAKER)	99"	2515mm.

NOTE: ALL DIMENSIONS SHOWN ARE APPROXIMATE, SUBJECT TO NORMAL MANUFACTURING TOLERANCES, AND TO OCCASIONAL CHANGES WITHOUT NOTICE THROUGH REDESIGN AND/OR RELOCATION OF COMPONENTS, ETC. DO NOT USE FOR CONSTRUCTION UNLESS CERTIFIED AND IN NO EVENT PRE-PIPE CLOSER THAN FIVE FEET FROM MACHINE. FACTORY MUST BE CONSULTED FOR DIMENSIONS IF MACHINE IS TO BE MOVED THROUGH NARROW OR LOW CORRIDORS OR OPENINGS.



RIGHT SIDE ELEVATION



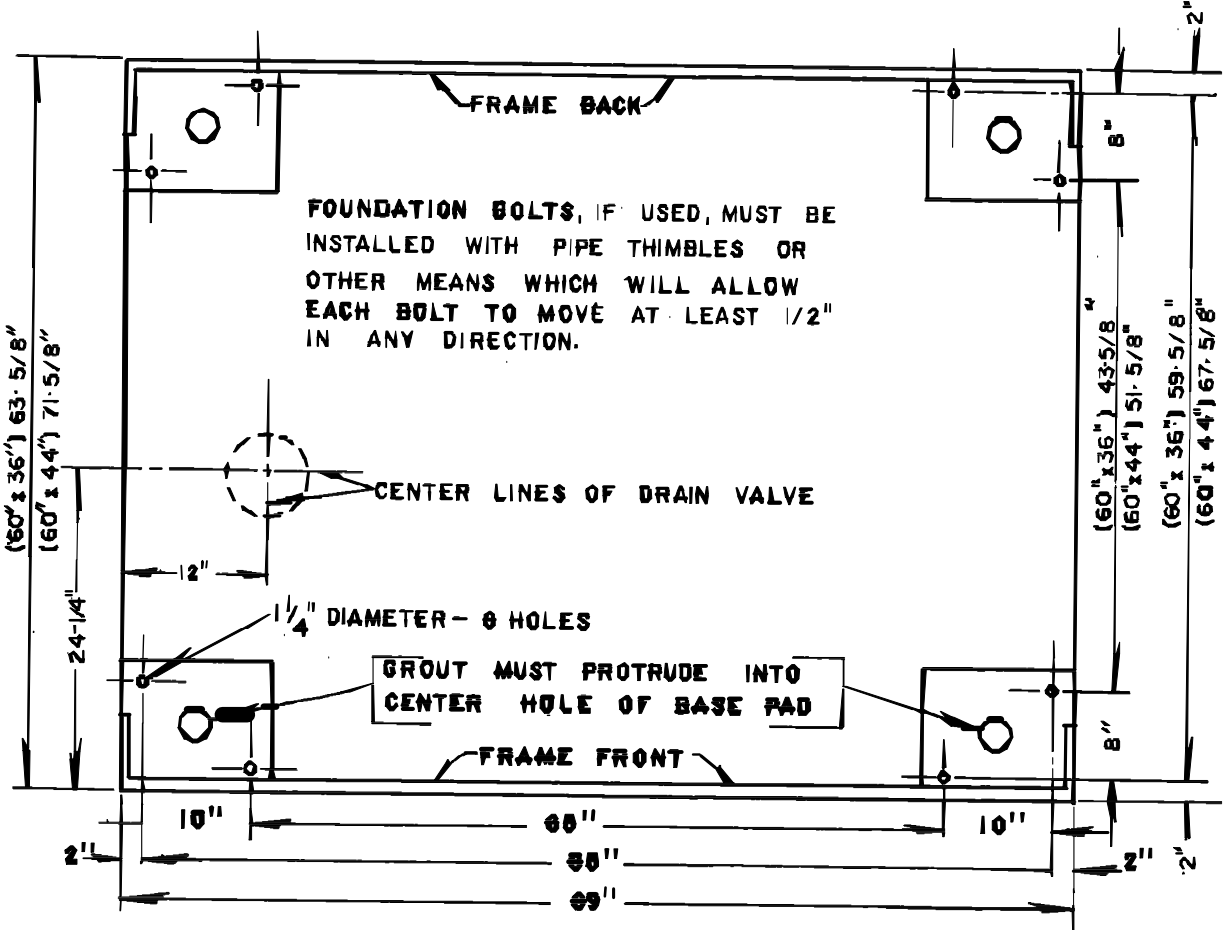
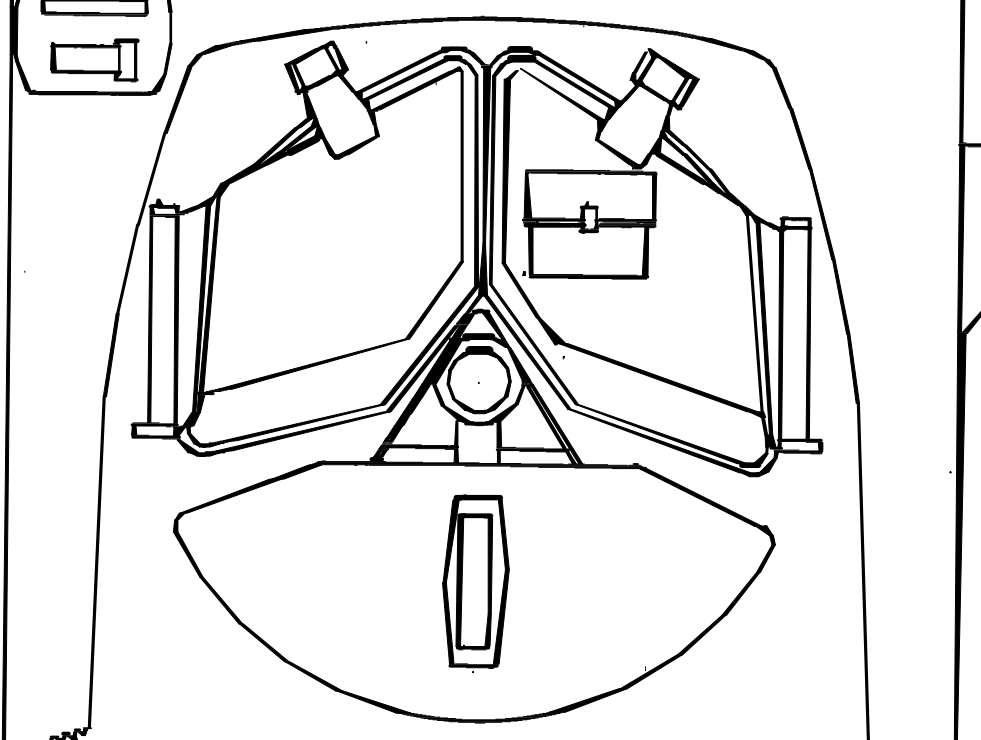
OPTIONAL CENTRAL LIQUID SUPPLY INJECTION
 (STANDARD UNIT INCLUDES FIVE VALVES, ADDITIONAL VALVES EXTRA COST)

DIMENSIONS=6044 WP2
PELLERIN MILNOR CORPORATION

BMP701623 / 93223E

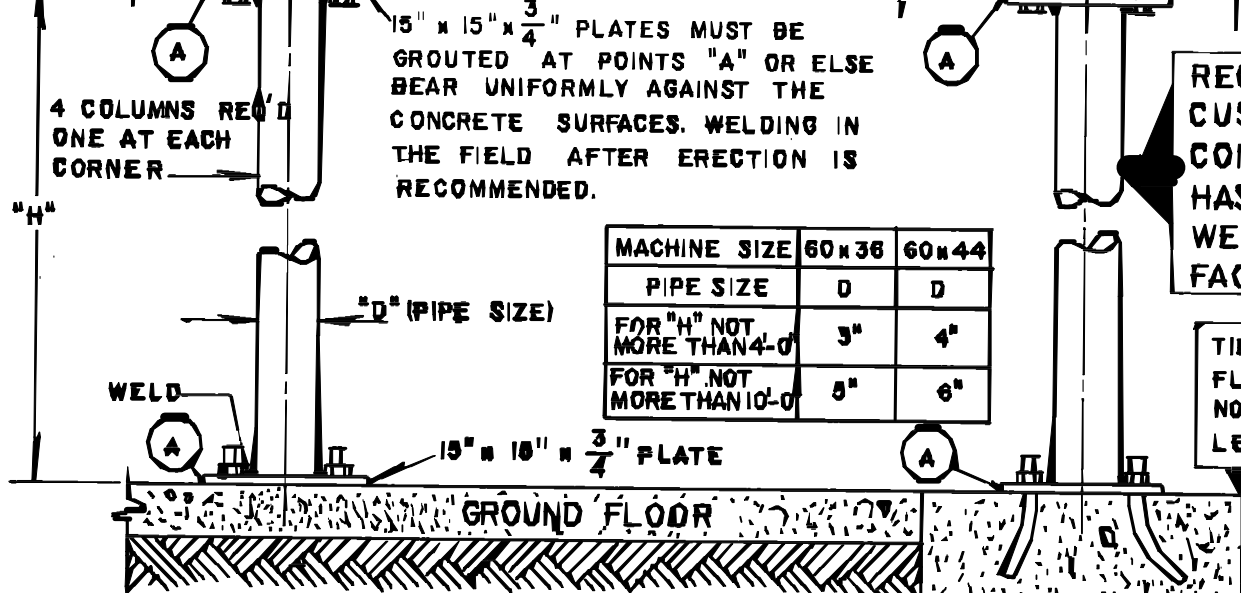
SUPPORT COLUMNS = WED
PELLERIN MILNOR CORPORATION

MILNOR 60" x 36" AND 60" x 44" RAPID-LOAD WASHER-EXTRACTOR



BASE PAD AND FOUNDATION BOLT LOCATION DETAIL

ELEVATED FLOOR



MACHINE SIZE	60x36	60x44
PIPE SIZE	D	D
FOR "H" NOT MORE THAN 4'-0"	3"	4"
FOR "H" NOT MORE THAN 10'-0"	5"	6"

RECOMMENDED SUPPLEMENTAL SUPPORT COLUMNS FOR MILNOR HYDRO-CUSHION MOUNTED WASHER-EXTRACTOR WHEN INSTALLED ON CONCRETE FLOOR OR BASEMENT. FOR USE WHEN EXISTING FLOOR SLAB HAS INSUFFICIENT STRENGTH AND RIGIDITY TO SUPPORT THE STATIC WEIGHT OF THE MACHINE AND ITS LOAD, WITH A REASONABLE FACTOR OF SAFETY.

TIE FOOTING INTO BASEMENT FLOOR SLAB. WHEN BASEMENT IS NOT COVERED, SINK FOOTING AT LEAST 12" DEEP INTO SOLID SOIL.

NOTE: THIS DRAWING NOT VALID FOR WOODEN FLOORS NOR FOR FLOORS LESS THAN 4" THICK. REFER TO FACTORY FOR FURTHER DETAILS.

FIGURE NO.1 FOR INSTALLATIONS WHERE BASEMENT FLOOR IS SUBSTANTIAL.

FIGURE NO.2 FOR INSTALLATIONS WHERE BASEMENT FLOOR IS NOT SUBSTANTIAL.

30" SQUARE (MINIMUM)

*INCREASE IF NECESSARY TO PROVIDE LOAD BEARING CAPACITY OF NOT LESS THAN 3750 LBS. PER FOOTING WITH A SAFETY FACTOR OF 3.