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Service

Dryers, Conditioners, and Shakers



**Read the
separate
safety
manual
before
installing,
operating,
or servicing**

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ABOUT THIS MANUAL

Scope—This instruction manual is intended to provide facility requirements, machine installation procedures, preventive maintenance, service procedures, and mechanical parts identification for all MILNOR 58040, 58058, and 58080 Dryers, Conditioners, and Shakers with 58" (147cm) diameter cylinders. The word “machine” used anywhere in this manual indicates that the information applies to dryers, conditioners and shakers.

See the appropriate programming, operating and troubleshooting manual for information on the control system. See the Schematic manual for electrical parts identification and electrical troubleshooting.

Manual Number/Date Code (When To Discard or Save)—The manual number/date code is located on the inside front cover, upper right corner just above the manual name. Whenever the manual is reprinted with new information, part of this number changes. **If the *date code* after the “/” changes, the new version applies to all machines covered by the old version, but is improved— thus the old version can be discarded. If the *manual number* before the “/” changes, the new manual covers only new machines.** Example: Discard MATMODELAE/8739**C**V when MATMODELAE/8739**D**V is received (minor improvements). Also, discard MATMODELAE/8739**D**V when MATMODELAE/8746**A**V is received (major improvements). But keep MATMODELAE/8746**F**V when MATMODEL**B**E/8815AV is received, since the new manual no longer applies to machines originally shipped with the old manual.

Documents and Change Bars—The individual documents comprising this manual use the same revision criteria as the manual. Text documents also display change bars. Example: When section MSOP0599AE/9135**B**V becomes MSOP0599AE/9135**C**V, change bars with the letter “C” appear next to all changes for this revision. For a major rewrite (e.g., MSOP0599AE/9226**A**V), all change bars are deleted.

For Assistance—Please call:

Pellerin Milnor Corporation
Attn: Service Department
P. O. Box 400
Kenner, LA 70063-0400

Phone:(504) 467-9591
Fax:(504) 467-9777

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 (unless the time period is specifically extended for certain parts pursuant to a specific MILNOR published extended warranty) 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, EX Factory (labor and freight specifically NOT included). 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 tampered with, modified, or abused, used for purposes not intended in the design and construction of the machine, or is repaired or altered in any way without MILNOR's written consent.

Parts damaged by exposure to weather, to aggressive water, or to chemical attack are not covered by this warranty. For parts which require routine replacement due to normal wear—such as gaskets, contact points, brake and clutch linings, belts, hoses, and similar parts—the warranty time period is 90 days.

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.

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BMP720097/19036

How to Get the Necessary Repair Components



This document uses Simplified Technical English.
Learn more at <http://www.asd-ste100.org>.

You can get components to repair your machine from the approved supplier where you got this machine. Your supplier will usually have the necessary components in stock. You can also get components from the Milnor® factory.

Tell the supplier the machine model and serial number and this data for each necessary component:

- The component number from this manual
- The component name if known
- The necessary quantity
- The necessary transportation requirements
- If the component is an electrical component, give the schematic number if known.
- If the component is a motor or an electrical control, give the nameplate data from the used component.

To write to the Milnor factory:

Pellerin Milnor Corporation
Post Office Box 400
Kenner, LA 70063-0400
UNITED STATES

Telephone: 504-467-2787
Fax: 504-469-9777
Email: parts@milnor.com

— End of BIUUUD19 —

Safety—Dryers, Conditioners, and Shakers

1. General Safety Requirements—Vital Information for Management Personnel [Document BIUUUS04]

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 and CE in Europe) hold the owner/user ultimately responsible for maintaining a safe working environment. Therefore, the owner/user must do or ensure the following:

- recognize all foreseeable safety hazards within his facility and take actions to protect his personnel, equipment, and facility;
- work equipment is suitable, properly adapted, can be used without risks to health or safety, and is adequately maintained;
- where specific hazards are likely to be involved, access to the equipment is restricted to those employees given the task of using it;
- only specifically designated workers carry out repairs, modifications, maintenance, or servicing;
- information, instruction, and training is provided;
- workers and/or their representatives are consulted.

Work equipment must comply with the requirements listed below. The owner/user must verify that installation and maintenance of equipment is performed in such a way as to support these requirements:

- control devices must be visible, identifiable, and marked; be located outside dangerous zones; and not give rise to a hazard due to unintentional operation;
- control systems must be safe and breakdown/damage must not result in danger;
- work equipment is to be stabilized;
- protection against rupture or disintegration of work equipment;
- guarding, to prevent access to danger zones or to stop movements of dangerous parts before the danger zones are reached. Guards to be robust; not give rise to any additional hazards; not be easily removed or rendered inoperative; situated at a sufficient distance from the danger zone; not restrict view of operating cycle; allow fitting, replacing, or maintenance by restricting access to relevant area and without removal of guard/protection device;
- suitable lighting for working and maintenance areas;
- maintenance to be possible when work equipment is shut down. If not possible, then protection measures to be carried out outside danger zones;
- work equipment must be appropriate for preventing the risk of fire or overheating; discharges of gas, dust, liquid, vapor, other substances; explosion of the equipment or substances in it.

- 1.1. **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. 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.
- 1.2. **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 personnel understand and abide by the warnings on the machine and precautions in the instruction manuals.
- 1.3. **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, cover, panel or door. Service any failing or malfunctioning device before operating the machine.
- 1.4. **Hazard Information**—Important information on hazards is provided on the machine safety placards, in the Safety Guide, and throughout the other machine manuals. **Placards must be kept clean so that the information is not obscured. They must be replaced immediately if lost or damaged. The Safety Guide and other machine manuals must be available at all times to the appropriate personnel.** See the machine service manual for safety placard part numbers. Contact the Milnor Parts department for replacement placards or manuals.
- 1.5. **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 evidence of impending failure and make needed repairs (e.g., cylinder, shell, or frame cracks; drive components such as motors, gear boxes, bearings, etc., whining, grinding, smoking, or becoming abnormally hot; bending or cracking of cylinder, shell, frame, etc.; leaking seals, hoses, valves, etc.) Do not permit service or maintenance by unqualified personnel.

2. Safety Alert Messages—Internal Electrical and Mechanical Hazards [Document BIUUUS11]

The following are instructions about hazards inside the machine and in electrical enclosures.



WARNING 1: Electrocution and Electrical Burn Hazards—Contact with electric power can kill or seriously injure you. Electric power is present inside the cabinetry unless the main machine power disconnect is off.

- Do not unlock or open electric box doors.
- Do not remove guards, covers, or panels.
- Do not reach into the machine housing or frame.
- Keep yourself and others off of machine.
- Know the location of the main machine disconnect and use it in an emergency to remove all electric power from the machine.



WARNING 2: Entangle and Crush Hazards—Contact with moving components normally isolated by guards, covers, and panels, can entangle and crush your limbs. These components move automatically.

- Do not remove guards, covers, or panels.
- Do not reach into the machine housing or frame.
- Keep yourself and others off of machine.
- Know the location of all emergency stop switches, pull cords, and/or kick plates and use them in an emergency to stop machine motion.



CAUTION 3: Burn Hazards—Contact with hot goods or machine components can burn you.

- Do not remove guards, covers, or panels.
- Do not reach into the machine housing or frame.

3. Safety Alert Messages—External Mechanical Hazards [Document BIUUUS12]

The following are instructions about hazards around the front, sides, rear or top of the machine.

4. Safety Alert Messages—Cylinder and Processing Hazards

[Document BIUUUS13]

The following are instructions about hazards related to the cylinder and laundering process.



DANGER 4: Entangle and Sever Hazards—Contact with goods being processed can cause the goods to wrap around your body or limbs and dismember you.

- Do not attempt to open the door or reach into the cylinder until the cylinder is stopped.
- Do not touch goods inside or hanging partially outside the turning cylinder.
- Know the location of all emergency stop switches, pull cords, and/or kick plates and use them in an emergency to stop machine motion.
- Know the location of the main machine disconnect and use it in an emergency to remove all electric power from the machine.



WARNING 5: Crush Hazards—Contact with the turning cylinder can crush your limbs. The cylinder will repel any object you try to stop it with, possibly causing the object to strike or stab you.

- Do not attempt to open the door or reach into the cylinder until the cylinder is stopped.
- Do not place any object in the turning cylinder.



WARNING 6: Confined Space Hazards—Confinement in the cylinder can kill or injure you. Hazards include but are not limited to panic, burns, poisoning, suffocation, heat prostration, biological contamination, electrocution, and crushing.

- Do not attempt unauthorized servicing, repairs, or modification.



WARNING 7: Explosion and Fire Hazards—Petroleum and latex materials are flammable. They can produce explosive fumes when heated.

- Do not use flammable solvents in processing.
- Do not load machine with goods containing dry cleaning materials.
- Do not use the machine in the presence of solvent fumes.



WARNING 8: Poison and Corrosion Hazards—Synthetic solvents such as perchloroethylene are toxic. They can produce poisonous phosgene gas (mustard gas) and/or corrosive hydrochloric acid when heated.

- Do not load machine with goods containing dry cleaning materials.
- Do not use the machine in the presence of solvent fumes.



WARNING 9: Fire Hazards—Overheated goods can catch fire spontaneously in the machine or after discharge.

- Verify the overheat control system and plant fire extinguishers are functioning before operating the machine. Be sure to turn water supply on after testing.
- In the event of a fire, thoroughly wet all goods.
- Test or inspect the system after every automatic actuation, or monthly.



CAUTION 10: Burn Hazards—Contact with hot goods or machine components can burn you.

- Do not remove guards, covers, or panels.
- Do not reach into the machine housing or frame.
- Use care when handling recently-processed goods.

5. Safety Alert Messages—Unsafe Conditions [Document BIUUUS14]

5.1. Damage and Malfunction Hazards

5.1.1. Hazards Resulting from Inoperative Safety Devices



WARNING 11: Multiple Hazards—Operating the machine with an inoperative safety device can kill or injure personnel, damage or destroy the machine, damage property, and/or void the warranty.

- Do not tamper with or disable any safety device or operate the machine with a malfunctioning safety device. Request authorized service.



WARNING 12: Electrocution and Electrical Burn Hazards—Electric box doors—Operating the machine with any electric box door unlocked can expose high voltage conductors inside the box.

- Do not unlock or open electric box doors.



WARNING 13: Entangle and Crush Hazards—Guards, covers, and panels—Operating the machine with any guard, cover, or panel removed exposes moving components.

- Do not remove guards, covers, or panels.



WARNING 14: Fire Hazards—Sprinkler and overheat control—Failure to supply water to the sprinkler or to open the manual valve, or failure of the overheat control, eliminates the machine's internal fire protection. Normally the machine stops and water is sprayed into the cylinder if outlet temperature reaches 240 degrees Fahrenheit (116 degrees Celsius).

- Verify the overheat control system and plant fire extinguishers are functioning before operating the machine. Be sure to turn water supply on after testing.
- Keep the manual shut-off test valve open except when testing.
- Test or inspect the system after every automatic actuation, or monthly.



WARNING 15: Explosion and Fire Hazards—Gas train—Operating the machine with damaged or malfunctioning gas valves, safeties, controls, or piping can permit gas to escape into the fire box, cylinder, or laundry room. The enclosure will explode if gas comes in contact with any spark or flame.

- Do not operate the machine with any evidence of damage or malfunction.
- Stop the machine immediately and alert authorities if you smell gas.

5.1.2. Hazards Resulting from Damaged Mechanical Devices



WARNING 16: Multiple Hazards—Operating a damaged machine can kill or injure personnel, further damage or destroy the machine, damage property, and/or void the warranty.

- Do not operate a damaged or malfunctioning machine. Request authorized service.

5.2. Careless Use Hazards

5.2.1. Careless Operation Hazards—Vital Information for Operator Personnel (see also operator hazards throughout manual)



WARNING 17: Multiple Hazards—Careless operator actions can kill or injure personnel, damage or destroy the machine, damage property, and/or void the warranty.

- Do not tamper with or disable any safety device or operate the machine with a malfunctioning safety device. Request authorized service.
- Do not operate a damaged or malfunctioning machine. Request authorized service.
- Do not attempt unauthorized servicing, repairs, or modification.
- Do not use the machine in any manner contrary to the factory instructions.
- Use the machine only for its customary and intended purpose.
- Understand the consequences of operating manually.



CAUTION 18: Goods Damage and Wasted Resources—Entering incorrect cake data causes improper processing, routing, and accounting of batches.

- Understand the consequences of entering cake data.

5.2.2. Careless Servicing Hazards—Vital Information for Service Personnel (see also service hazards throughout manuals)



WARNING 19: Electrocution and Electrical Burn Hazards—Contact with electric power can kill or seriously injure you. Electric power is present inside the cabinetry unless the main machine power disconnect is off.

- Do not service the machine unless qualified and authorized. You must clearly understand the hazards and how to avoid them.
- Abide by the current OSHA lockout/tagout standard when lockout/tagout is called for in the service instructions. Outside the USA, abide by the OSHA standard in the absence of any other overriding standard.



WARNING 20: Entangle and Crush Hazards—Contact with moving components normally isolated by guards, covers, and panels, can entangle and crush your limbs. These components move automatically.

- Do not service the machine unless qualified and authorized. You must clearly understand the hazards and how to avoid them.

- Abide by the current OSHA lockout/tagout standard when lockout/tagout is called for in the service instructions. Outside the USA, abide by the OSHA standard in the absence of any other overriding standard.



WARNING 21: Confined Space Hazards—Confinement in the cylinder can kill or injure you. Hazards include but are not limited to panic, burns, poisoning, suffocation, heat prostration, biological contamination, electrocution, and crushing.

- Do not enter the cylinder until it has been thoroughly purged, flushed, drained, cooled, and immobilized.

— End of BIUUUS27 —

Proximity Safeguarding for Automatic Shuttle Conveyors

Proximity safeguarding—a means of preventing personnel from entering the path of a machine, such as an industrial robot, that moves within a large area.

1. Applicability

This document—

applies to Milnor® automated laundering systems with shuttle conveyors that move without operator intervention (automatic operation),

does not apply to shuttles that require operator input continually, such as directing all shuttle movements (manual operation).

2. References for Proximity Safeguarding

ANSI Z8.1-2016 “American National Standard for Commercial Laundry and Drycleaning Equipment and Operations - Safety Requirements”

OSHA Standard 29 CFR § 1910.212 “General Requirements for All Machines”

OSHA Directive STD 01-12-002 - Pub 8-1.3 “Guidelines for Robotic Safety”

ANSI/RIA R15.06-2012 “American National Standard for Industrial Robots and Robot Systems- Safety Requirements”

ANSI/ASME B15.1-2000 “Safety Standard for Mechanical Power Transmission Apparatus”

OSHA Publication 3067 “Concepts and Techniques of Machine Safeguarding”

ISO 10472-1 “Safety Requirements for Industrial Laundry Machinery”

3. Hazards To Personnel in Proximity to Shuttle Conveyors

Milnor automated laundering systems use automatic shuttle conveyors to transport goods among the processing machines in the system. Depending on model, an automatic shuttle conveyor may move in any of the following ways, in addition to running its conveyor belt(s):

- It may travel along (traverse) a line of machines (typically dryers).
- Its conveyor bed(s) may ascend and descend (elevate) within the machine frame.
- Its conveyor bed(s) may extend and retract within the machine frame.
- The conveyor bed and frame may pivot.
- Wet goods shuttles have a bucket that elevates and tilts.

These motions pose strike, crush, sever, and entrapment hazards to personnel in proximity to the shuttle. **For the safety of personnel, owner/users must provide proximity safeguarding that protects personnel from the moving shuttle.**

A common method of proximity safeguarding is safety fencing with interlocked gates that disable the shuttle when a gate is opened. When a shuttle is disabled, this will eventually cause other machines in the system to hold (wait for action from another machine), but it will not necessarily cause them to immediately stop moving. In the case of a tunnel system, the press or centrifugal extractor can pose additional hazards to personnel in proximity to the equipment. **Hence, the safeguards must also disable any presses or extractors.** Tunnels and dryers do not pose a significant hazard to personnel merely because they are in proximity to the equipment, and need not be automatically disabled.



WARNING 1: Multiple Hazards—Proximity safeguarding provides only partial protection and only against injury resulting from entering the shuttle path. It is not a substitute for proper

lockout/tagout procedures and good safety practices.

- Always lockout/tagout any individual machine (or follow the published maintenance procedures) when performing maintenance or clearing a fault on that machine.
- Ensure that all personnel understand the safeguards and do not attempt to defeat them.
- Inspect safeguards weekly to ensure that they are not mechanically or electrically circumvented.

4. How Milnor Accommodates Proximity Safeguarding

Milnor provides connection points on shuttles, presses and centrifugal extractors for interfacing with devices such as gate interlock switches. These connection points are tagged for easy identification. When Milnor provides equipment layout drawings for an automated laundering system, it indicates on the drawing, the perimeter of the shuttle movement area that must be guarded. The following hazard statement is displayed on connection point tags as well as equipment layout drawings prepared by Milnor:



WARNING 2: Strike, Crush, Sever, and Entrapment Hazards—Serious bodily injury or death can result to personnel in proximity to machinery/systems that traverse, elevate, extend, pivot, and/or tilt. The following mandatory minimum safety requirements must be installed with the machinery system (local codes may require additional precautions):

- Safety fence enclosing machine movement areas,
- Lockable electrical interlocks on all gates, properly interfaced as shown on machine schematics, to disable machine movement when any gate is opened,
- Signs to alert personnel to these hazards, placed prominently around the fenced area.

Although the objectives of proximity safeguarding are the same anywhere, design requirements vary with local codes (which occasionally change) and with the plant layout. For this reason, Milnor does not provide detailed designs or materials for proximity safeguarding. If the necessary expertise does not exist within the owner/user's organization, consult appropriate sources such as local engineers or architects specializing in industrial facility design.

5. Examples of Safety Fencing With Interlocked Gates

Fencing with interlocked gates like that depicted in [Figure 1](#) and [Figure 2](#), may be used to meet the proximity safeguarding requirement. Should the owner/user choose this method, the following information may be useful. However, **this information may not satisfy current or local code requirements. The owner/user must determine its suitability for his particular facility.**

Figure 1: Example Fence Layout for Automated Laundering System Where One Tunnel Serves a Bank of Dryers

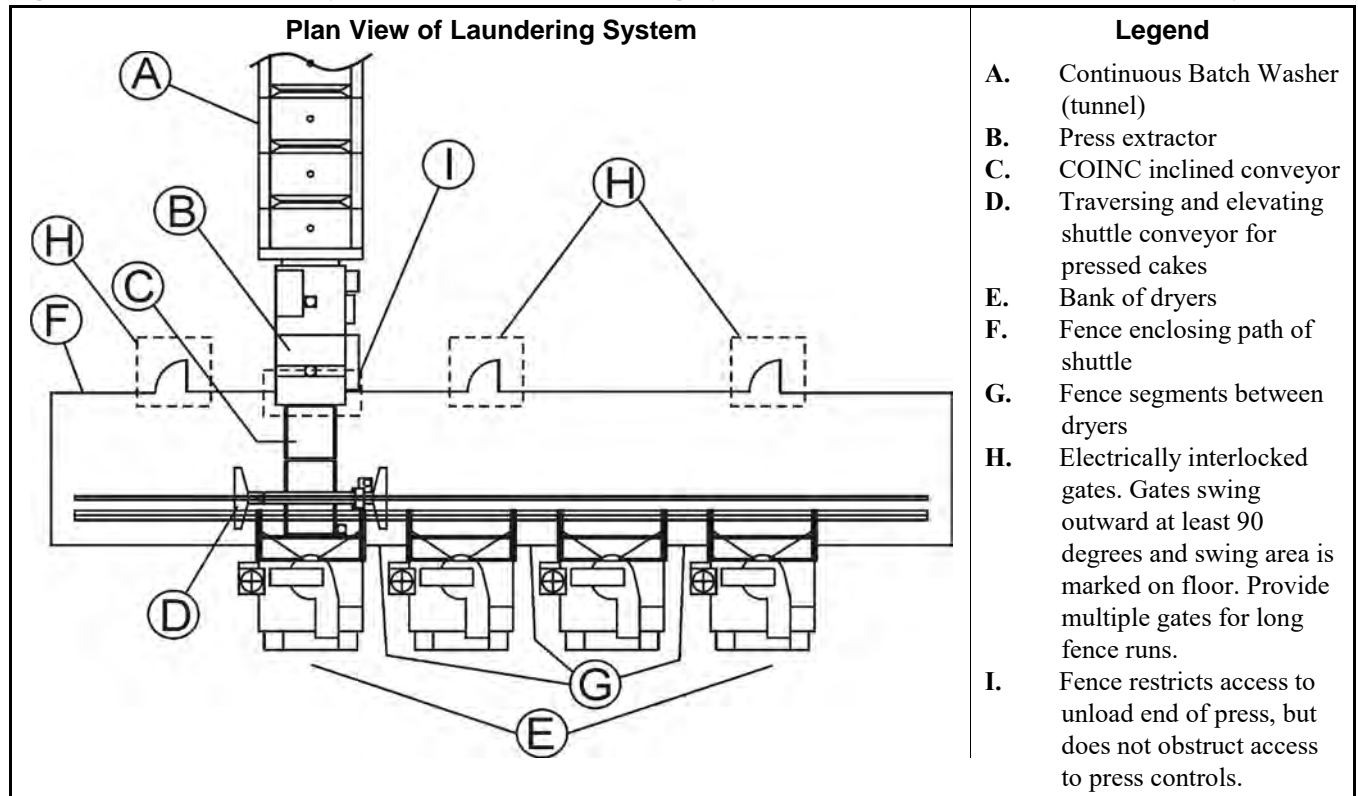
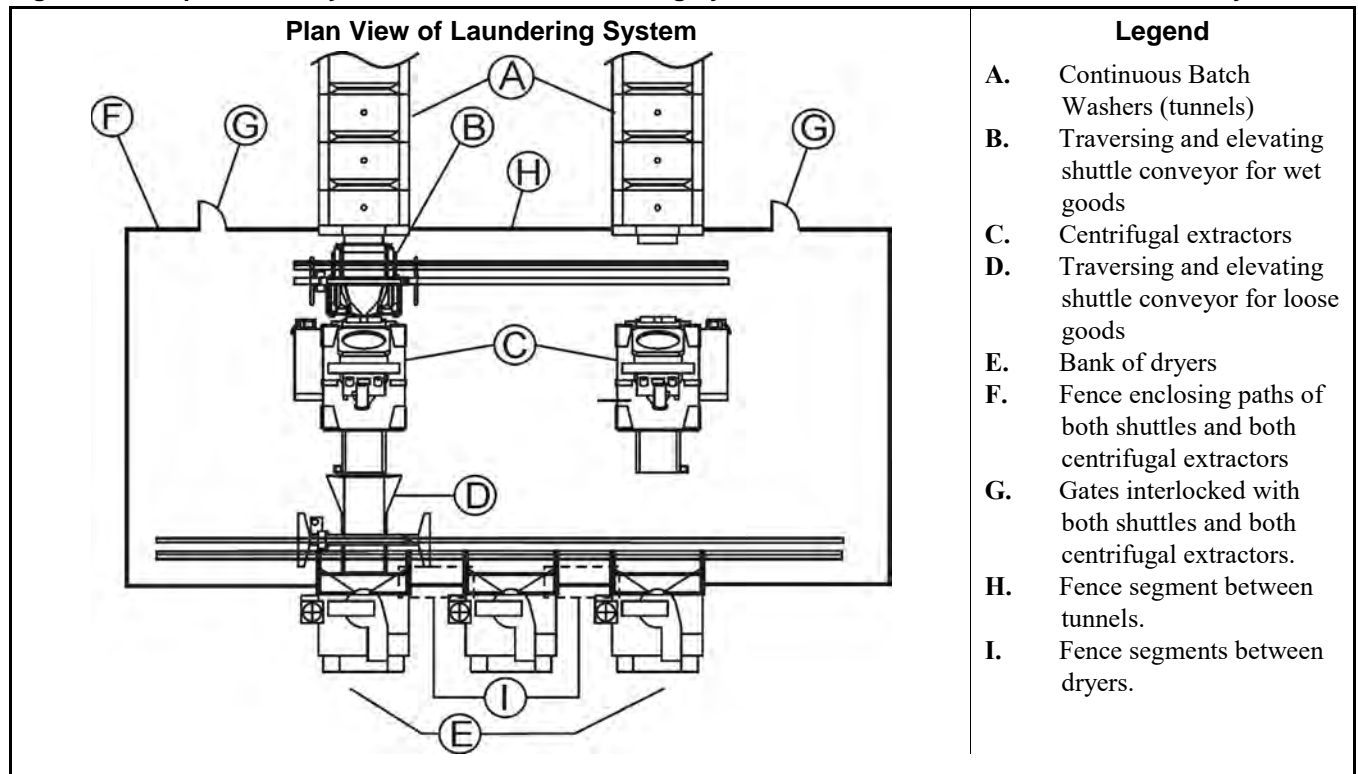


Figure 2: Example Fence Layout for Automated Laundering System Where Two Tunnels Serve a Bank of Dryers



- 5.1. Fence Dimensions**—The fence must discourage climbing over and prevent crawling under.
- 5.2. Fence Materials and Setback**—The fence must be constructed of materials and located so as to prevent personnel from reaching through gaps in the fence and contacting the enclosed machinery.
- 5.3. Gates**—Personnel gates must be held firmly closed but permit personnel to easily pass through when necessary. Gates must be equipped with a positive latching arrangement to prevent accidental opening. Adequate floor space must be provided to allow the gate to swing at least 90 degrees when fully open. Gates must open outward; that is, away from the fenced perimeter. The floor must be permanently marked to show the gate’s swing area, to discourage obstructing its movement.
- 5.4. Control Circuitry**—All gates must be electrically interlocked with any shuttle conveyors within the fenced area and with any presses or centrifugal extractors that the fence either encloses or intersects. Opening any gate must have the following effects:
1. Shuttle(s), press(es), and/or centrifugal extractor(s) stop moving immediately.
 2. An audible alarm sounds.
 3. Shuttle(s), press(es), and/or centrifugal extractor(s) cannot be restarted merely by closing the gate(s), but must be restarted at the machine control panel once the gate(s) are closed.
- Milnor shuttles, presses and centrifugal extractors provide such functionality when properly interfaced with gate interlock switches.
- 5.5. System Emergency Stop Switches**—The laundry must establish rules and procedures that prohibit personnel from remaining within the fenced area with machine(s) enabled, except in accordance with published maintenance procedures. System emergency stop switches (panic buttons) should be provided inside and outside the fenced perimeter. Emergency stop switches should be located so that personnel anywhere inside the fenced perimeter are only a short distance from a switch, and they should be clearly marked as to their locations and function. Connect switches in series with the gate interlocks so that pressing an emergency stop switch performs the same control function as opening a gate.
- 5.6. Isolating Individual Machine Controls**—The interlock circuitry for each machine must be electrically isolated from that of the other machines. Hence, each gate interlock switch must provide as many pairs of dry contacts as there are machines to interface to. A pair of switch contacts must never be shared by two or more machines.
- 5.7. Recommended Signage**—Safety placards should be posted along the fence and at each gate, alerting personnel to the hazards within. At minimum, the size of lettering and distance between placards should be such that anyone contemplating entering the fenced area will likely see and read the placard first. Wording should be provided in each native language spoken by laundry personnel.

— End of BISUII01 —

Safety Placard Use and Placement
58040, 58, 80 CS1, CT1, SA1, SB1, TS1, TT1, TG1

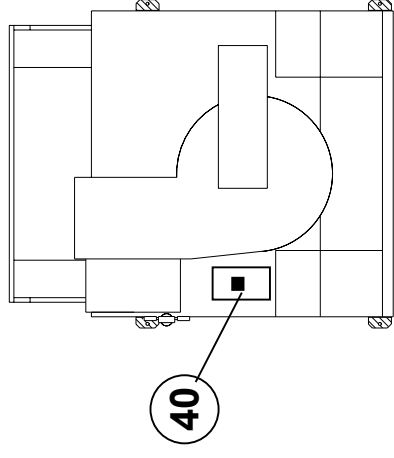
BMP030019/2003202V
 (Sheet 1 of 2)



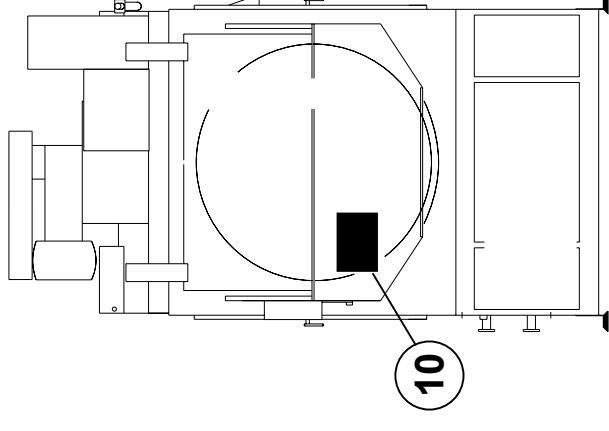
Pellerin Milnor Corporation
 P. O. Box 400, Kenner, LA 70063-0400

Litho in U.S.A.

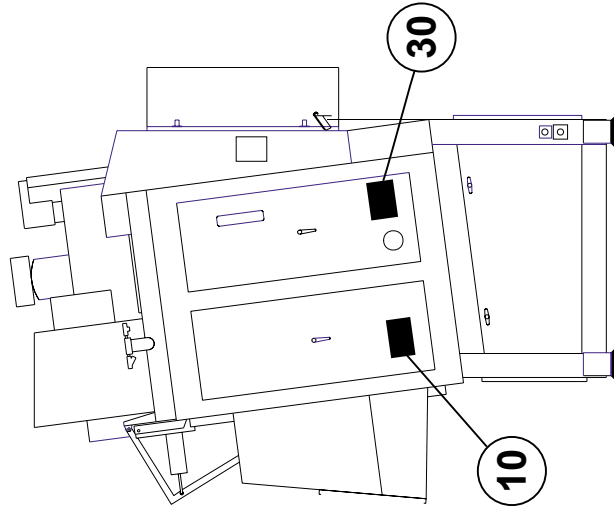
- Notes:**
1. Replace placard immediately, if removed or unreadable.
 2. Approximate locations of placards are shown. Mounting holes are provided on machine. If aluminum placard use #8 self-tapping screws.



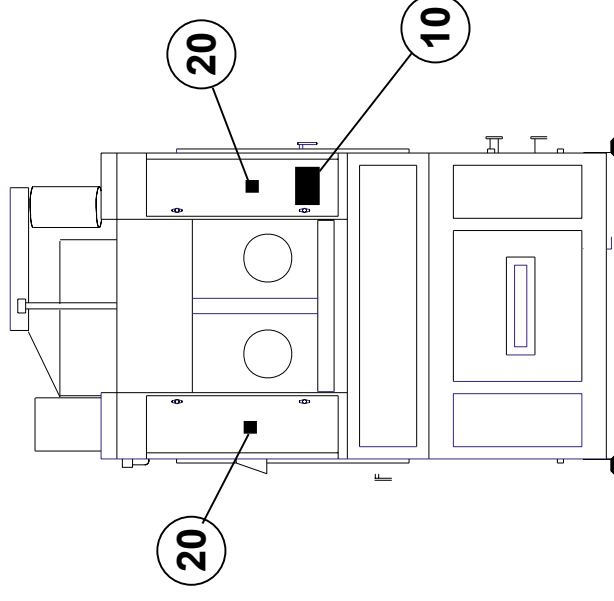
PLAN VIEW



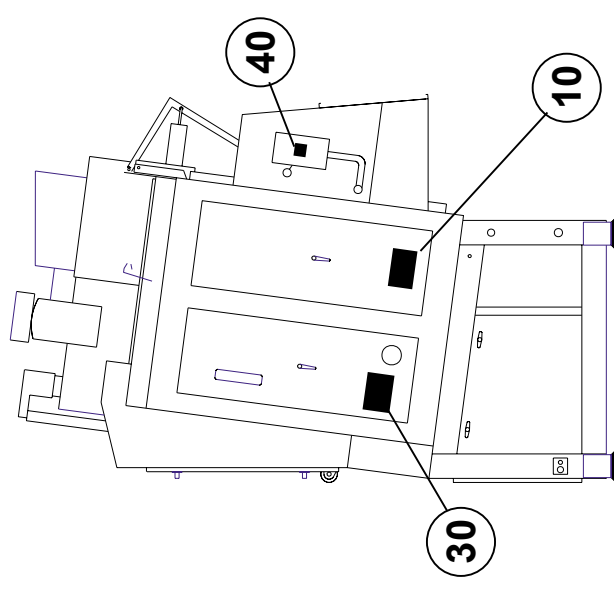
REAR VIEW



LEFT VIEW



FRONT VIEW



RIGHT VIEW



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

Litho in U.S.A.

Parts List—Safety Placard Placement

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	10	01 10451B	NPLT:DRYER WARNINGS-TCATA	
all	20	01 10377A	NPLT:ELEC HAZARD LG-TCATA	
all	30	01 10699A	NPLT:SERV HZRD-PLYEST-TCATA	
all	40	01 10375B	NPLT:ELEC HAZARD SMALL-TCATA	

Safety Placard Use and Placement ISO 58040, 58, 80 CS1, CT1, SA1, SB1, TS1, TT1, TG1

BMP030020/2004313V
(Sheet 1 of 2)



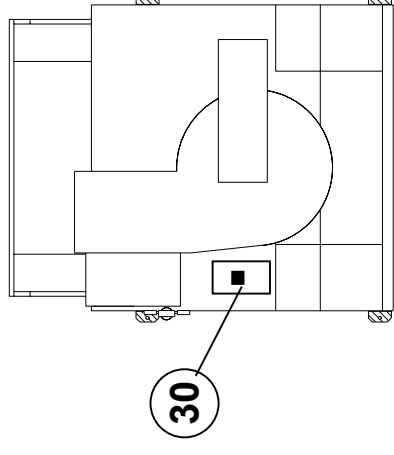
Pellerin Milnor Corporation
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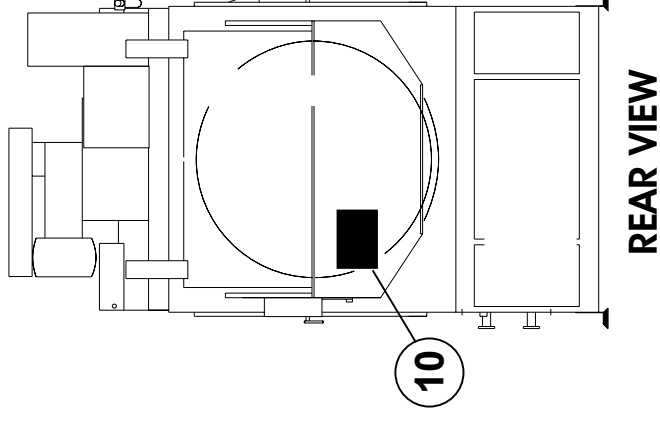
ISO Placards shown on this page

Notes:

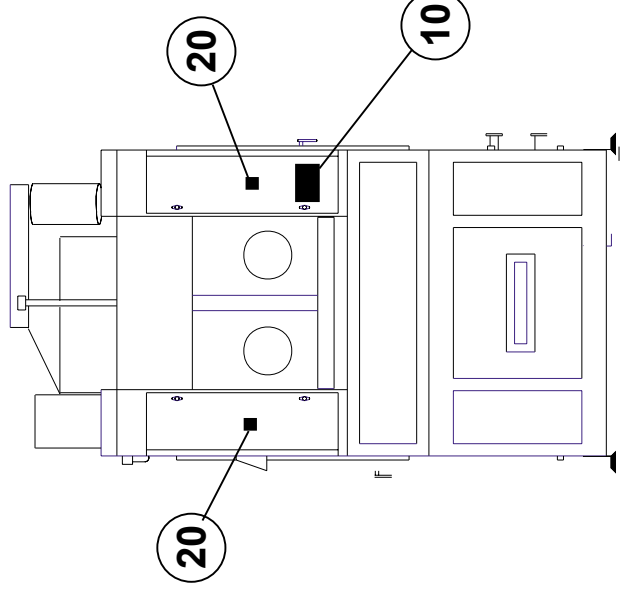
1. Replace placard immediately, if removed or unreadable.
2. Approximate locations of placards are shown. Mounting holes are provided on machine. If aluminum placard use #8 self-tapping screws.



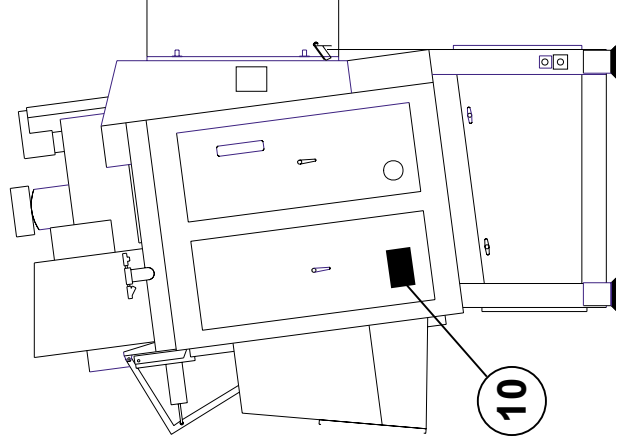
PLAN VIEW



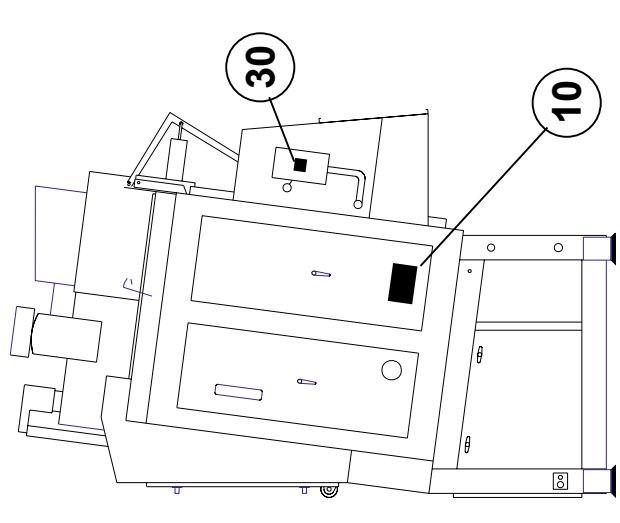
REAR VIEW



FRONT VIEW



LEFT VIEW



RIGHT VIEW



Pellerin Milnor Corporation
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Litho in U.S.A.

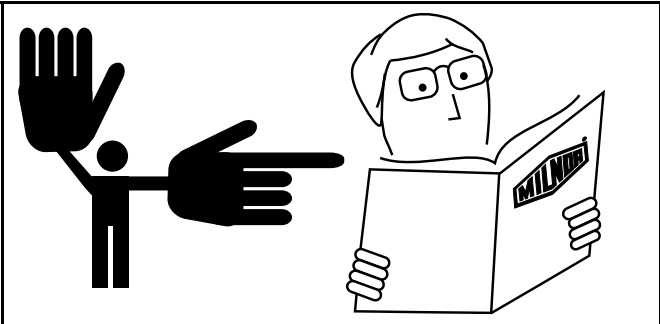
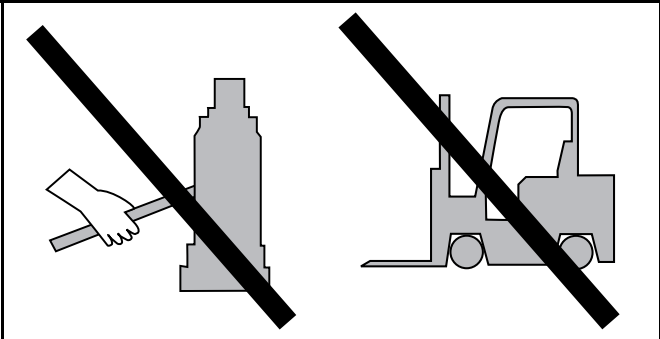
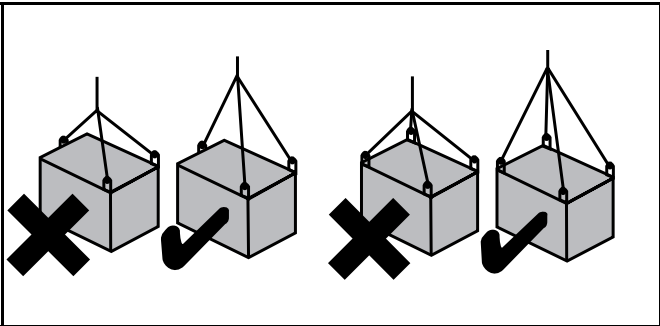
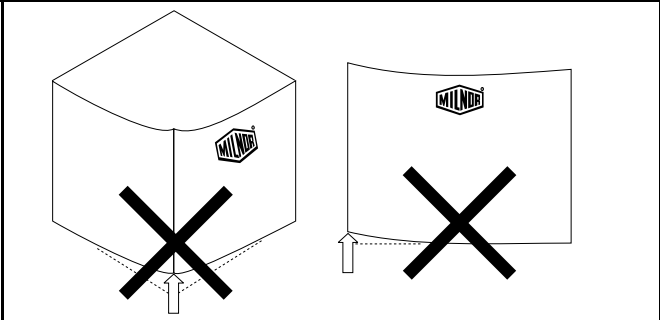
Parts List—Safety Placard Placement

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	10	01 10451X	NPLT:DRYER WARNINGS -ISO	
all	20	01 10377	NPLTE:"WARNING" 4X4	
all	30	01 10375	NPLT:DRYER WARNINGS -ISO	

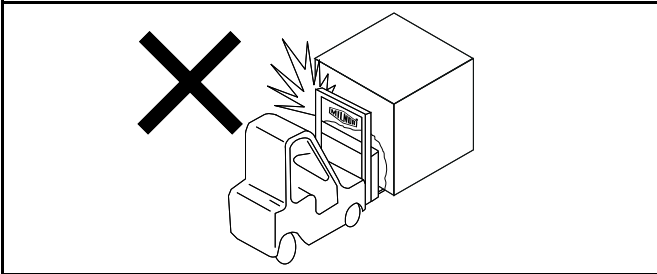
Glossary of Tag Illustrations— Dryer

MSIUDUTGAE/9449BV

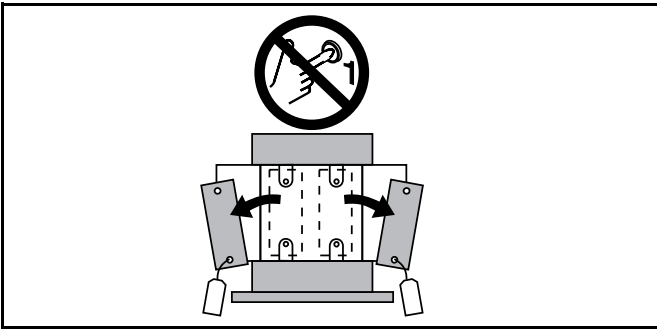
Illustration	Explanation
 An illustration showing a person on the left with one hand raised and the other pointing towards a person on the right who is reading a manual. The manual has the 'MILNOR' logo on it.	Stop! Read the manual first for complete instructions before continuing.
 Two illustrations showing incorrect lifting methods. The first shows a hand using a jack to lift a machine, and the second shows a forklift lifting a machine. Both are crossed out with a large diagonal line.	Do not jack the machine here. Do not lift the machine here.
 Four illustrations of boxes being lifted. The first and third boxes are lifted with two cables each and are marked with a large 'X'. The second and fourth boxes are lifted with three cables each and are marked with a checkmark.	Use three point or four point lifting as determined by the lifting eyes furnished. Rig the load using lifting cables of sufficient size and length to ensure cables are not over-stressed.
 Two illustrations showing incorrect lifting points. The first shows a machine being lifted from a corner, and the second shows a machine being lifted from a side edge. Both are crossed out with a large diagonal line.	Do not lift the machine from one corner or one side edge.

Illustration

Explanation



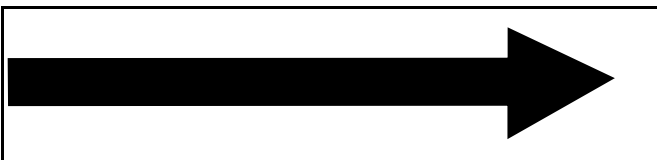
Do not strike machine or components during fork lifting.



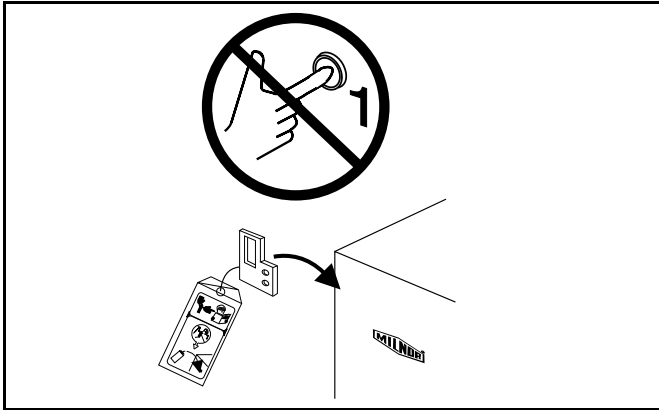
Do not start this machine until the packing materials, lifting brackets, etc. with this tag attached or behind this panel are removed. These materials are painted red. Safety stands or brackets (also painted red) may be provided with this machine. Do not discard safety stands or brackets



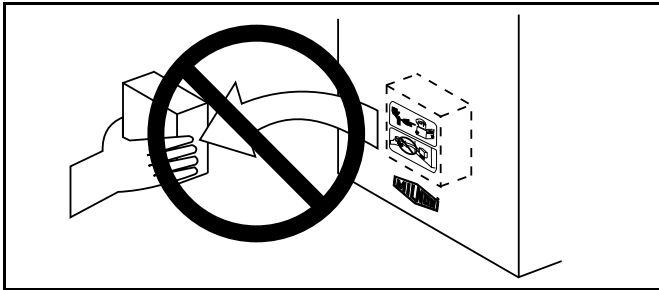
Do not step or stand on this machine part.



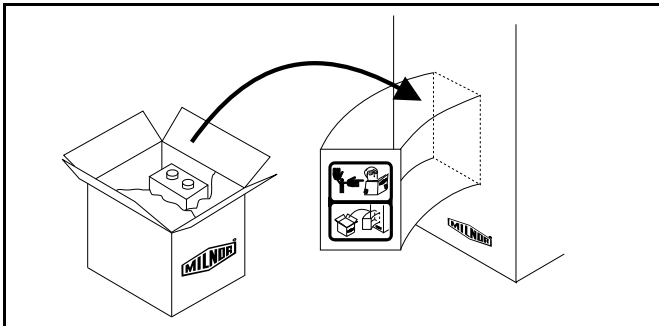
This motor or pump should rotate in the direction of the arrow.



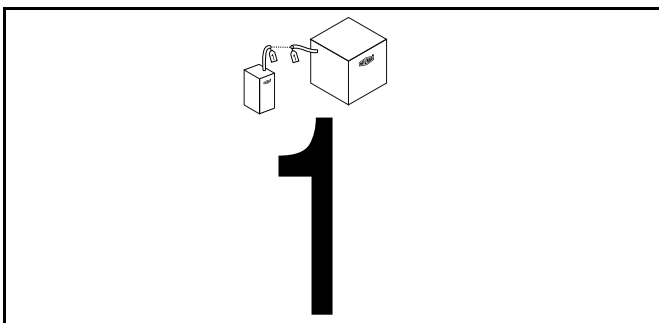
Do not start this machine until the part with this tag is installed on the machine.



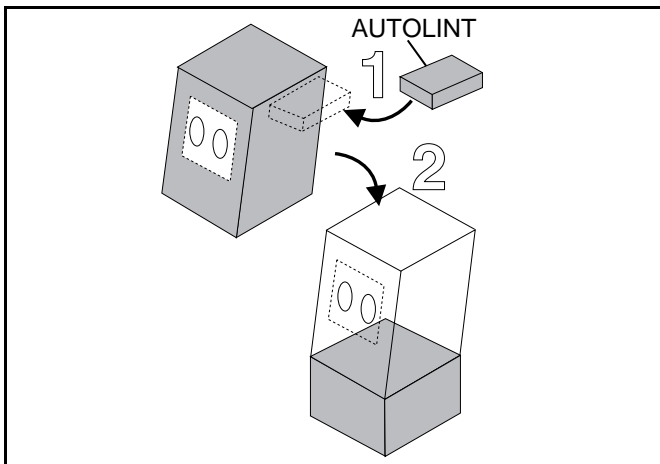
Do not remove this component from the machine.



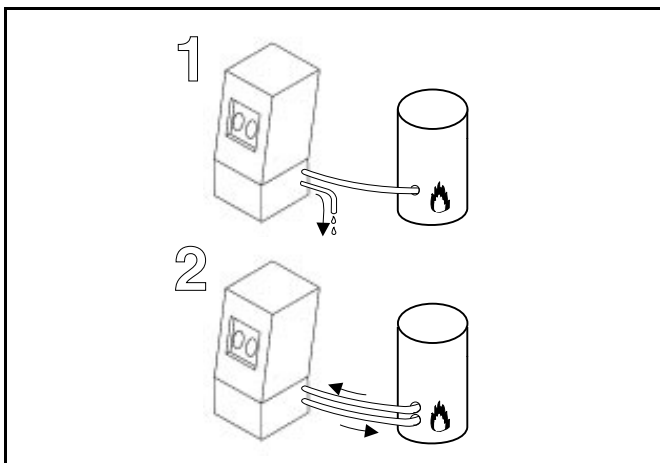
Install the appropriate part here before operating the machine.



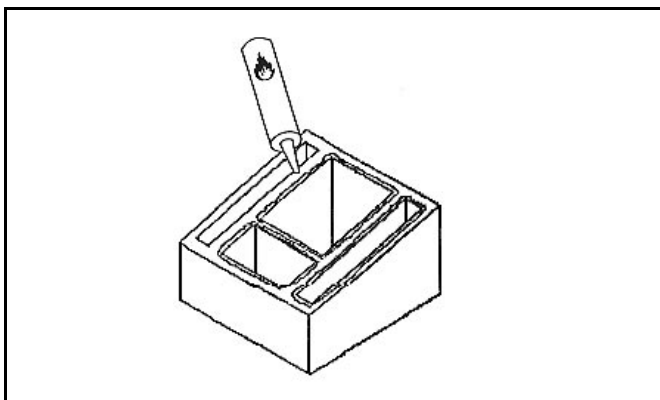
Machine was shipped in parts. Join connections with matching tags (Join 1 and 1, join 2 and 2, 3 and 3, and so on.).



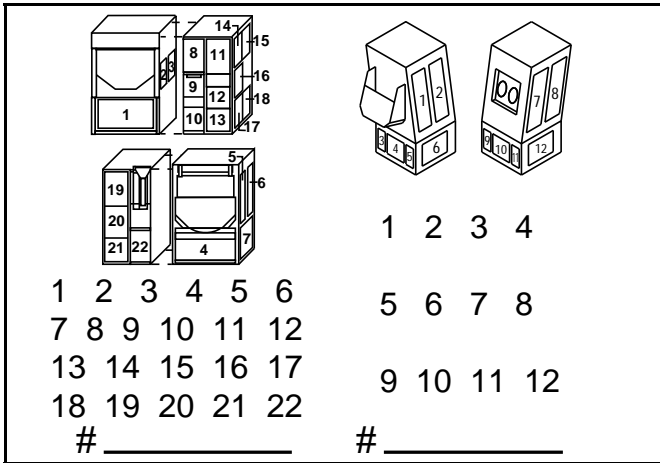
Install the Autolint pickup box on the dryer before installing the dryer on the base.



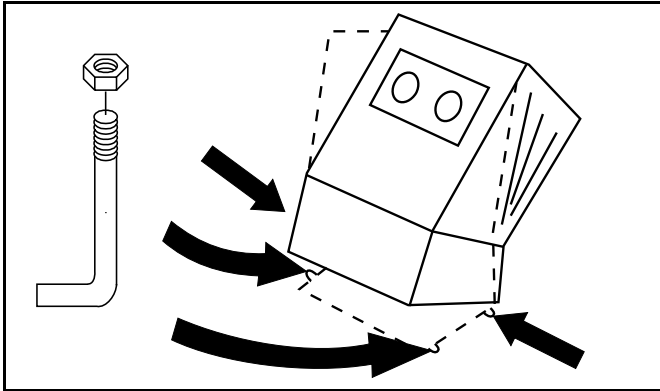
Steam dryers only—Drain the condensate to the sewer during first one hour after commissioning a new dryer or replacing the steam coil. This flushes out any residual anti-freeze that might be in the steam coil. After one hour, condensate can be returned to the boiler.



High temperature silastic must be applied between the top and bottom sections of the dryer, along the top inside edge of the three openings shown. The seal around the firebox is especially critical.



Cosmetic panels will fit only in one location on one specific machine. Always return panels to the machine and location marked on this tag.



The dryer has a rearward center of gravity and must be firmly anchored to the floor at all four corners.

Service and Maintenance

1

LUBRICATION AND PREVENTIVE MAINTENANCE FOR GAS, STEAM, AND HOT OIL MACHINES, AND DRYVACS

Lubrication Requirements

To achieve the optimum performance and service life from your MILNOR machine and as a warranty requirement, your machine must be lubricated in strict accordance with the "Preventive Maintenance Checklist" in this section and the following precautions:

▲ WARNING ▲



CRUSHING AND ENTANGLEMENT HAZARD—Rotating machinery can entangle and crush body parts. Lock OFF and tag out power at the wall disconnect for the machine.

Correct Grease Gun Procedure

1. Whenever applying grease—especially when greasing bearings—**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 can damage bearing components.
2. Apply the quantity of grease called for in the checklist. Overlubrication can be as damaging as underlubrication. Where quantities are stated in "strokes," one stroke of the grease gun is assumed to provide .0624 fluid oz. (1.77 g) (by volume) of grease. Therefore, one fluid ounce (28.3 grams) of grease would be provided by 16 strokes of the grease gun. Determine the flow rate of your grease gun by pumping one ounce into a calibrated container. If fewer than 16 strokes are required, all quantities in "strokes" in the chart should be reduced accordingly and if more than 16 strokes are required, the number of strokes should be increased. Before starting lubrication, **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.
3. **Except where noted otherwise, perform all preventive maintenance with power to the machine locked OFF.**

Lubricants used on the machines covered by this section must adhere to the following specifications:

1. Support roller bearings—Shell Darina EP-2 (#71522) high temperature or equivalent.
2. Motor bearings—As specified on motor nameplate. If not specified, use Shell Dolium R grease or equivalent.
3. Main blower shaft—Shell Darina EP-2 (#71522) high temperature or equivalent.

Preventive Maintenance Points

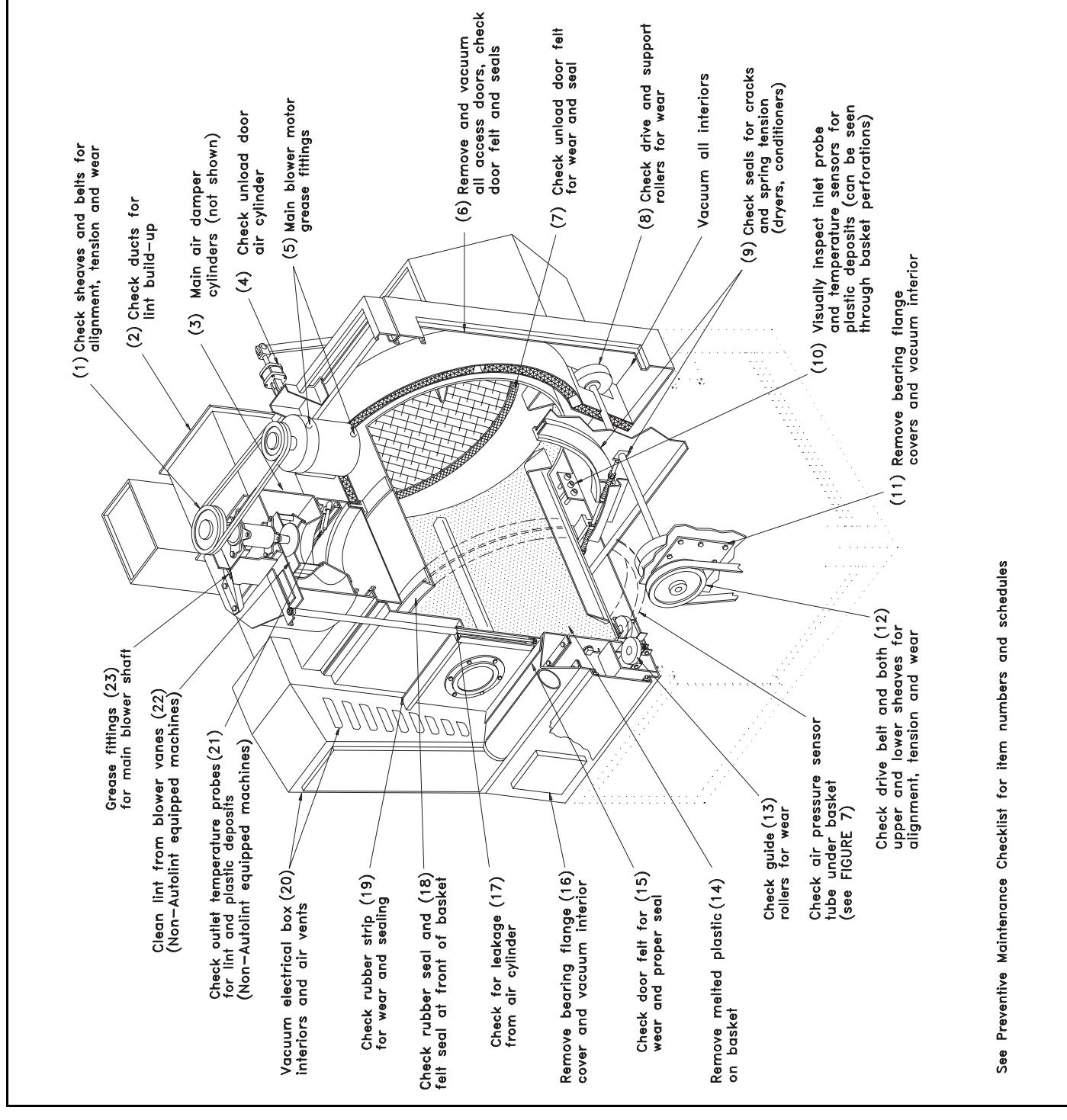
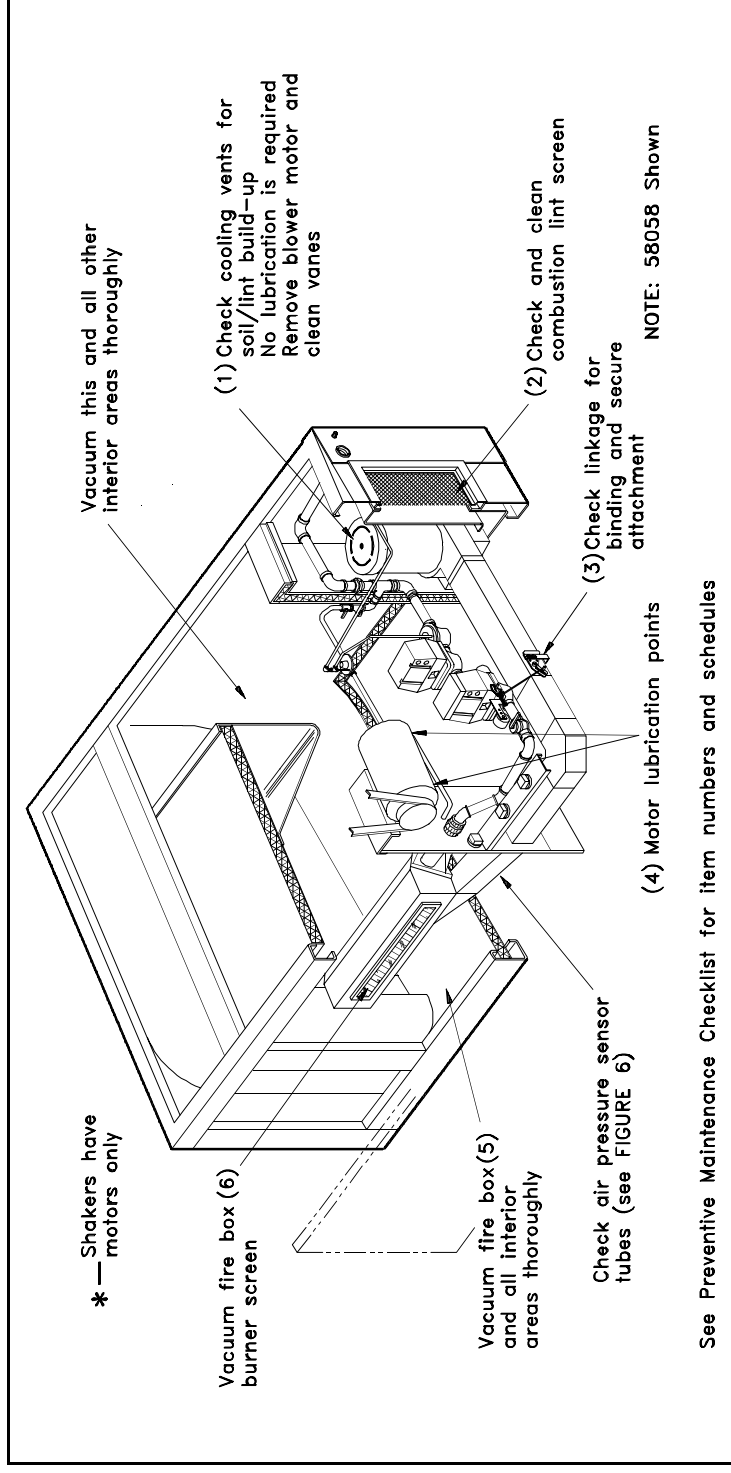
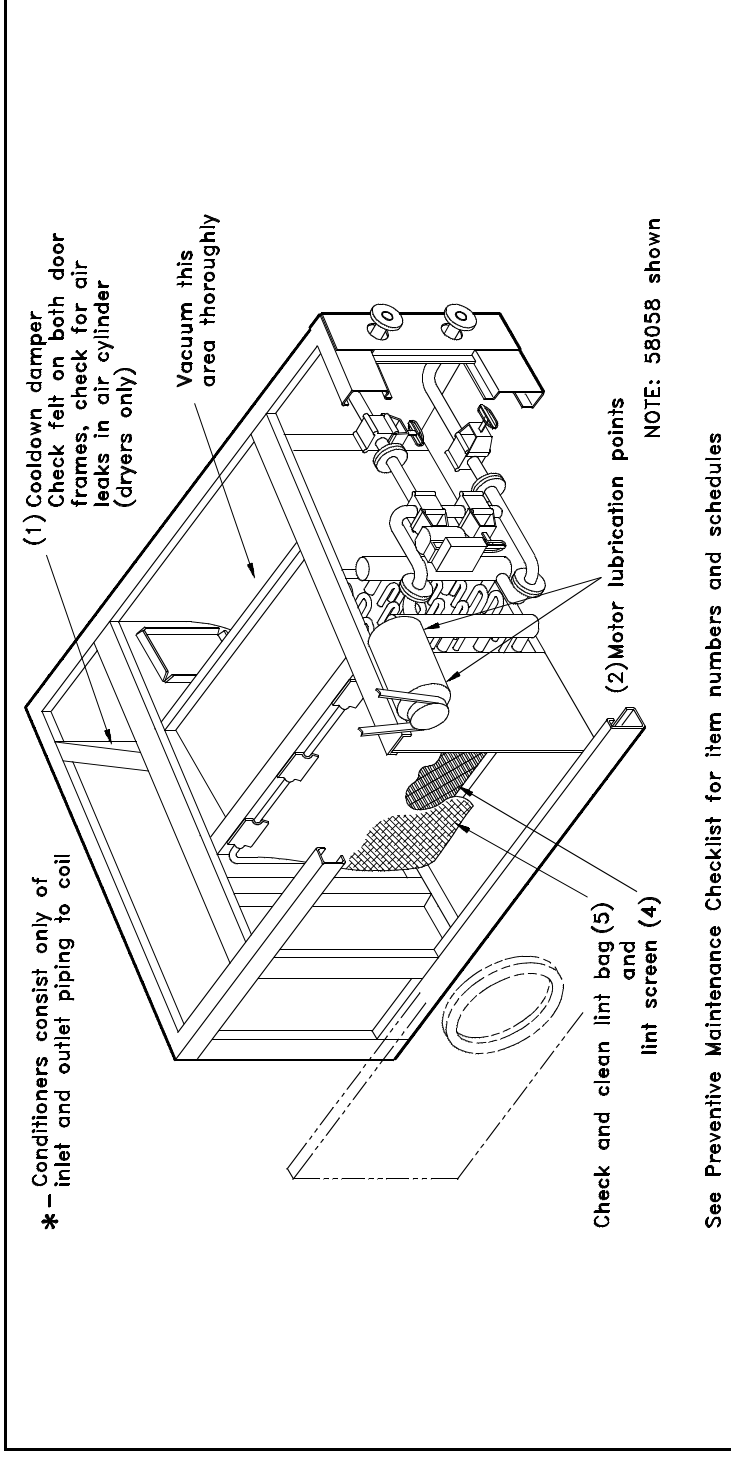


FIGURE 1 (MSSMD426BE)
Dryer Cylinder Housing Maintenance Points



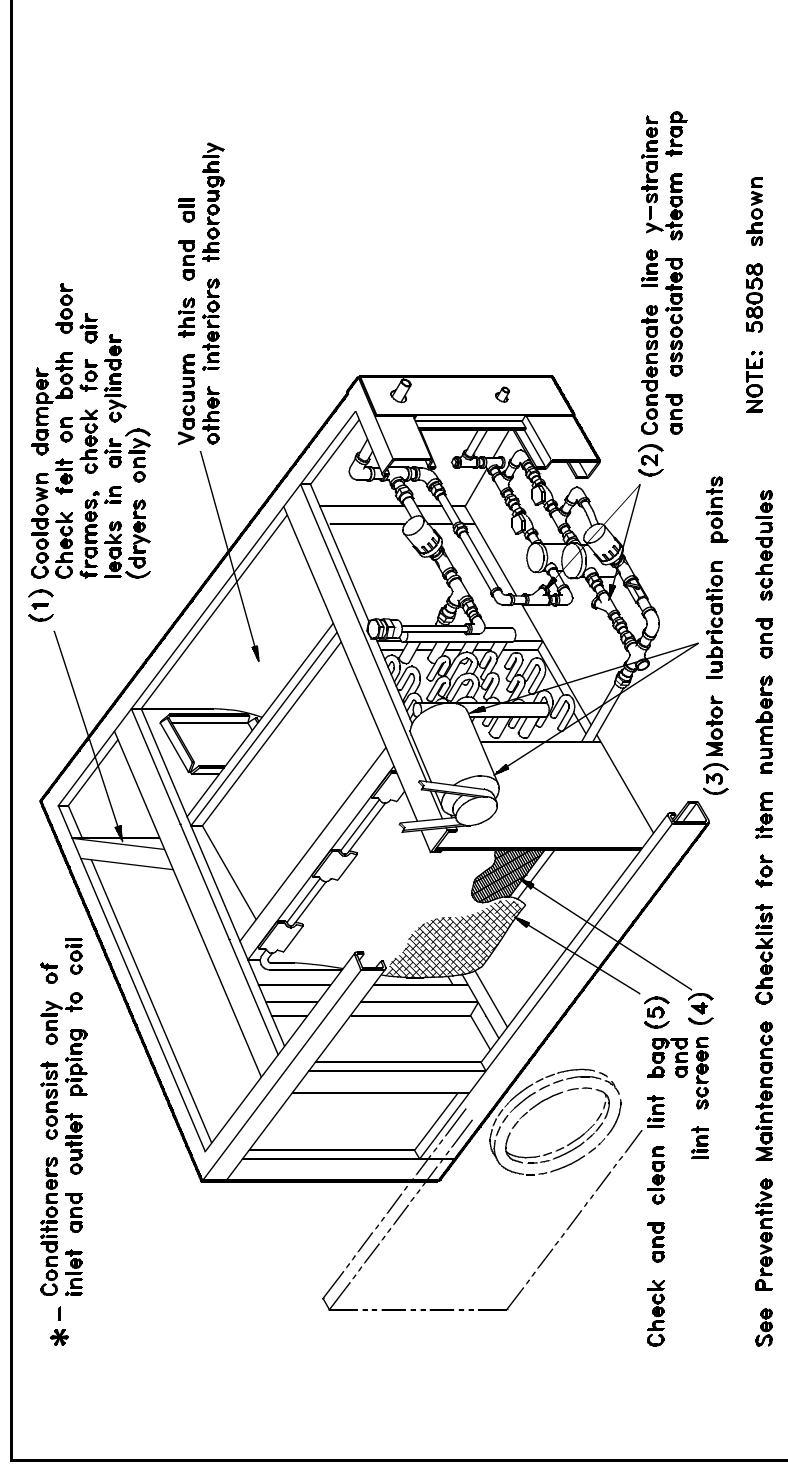
See Preventive Maintenance Checklist for item numbers and schedules

FIGURE 2 (MSSMD426BE)
Gas Dryer Base—Maintenance Points



See Preventive Maintenance Checklist for item numbers and schedules

FIGURE 4 (MSSMD426BE)
Hot Oil Dryer/Conditioner Base—Maintenance Points



See Preventive Maintenance Checklist for item numbers and schedules

FIGURE 3 (MSSMD426BE)
Steam Dryer/Conditioner Base—Maintenance Points

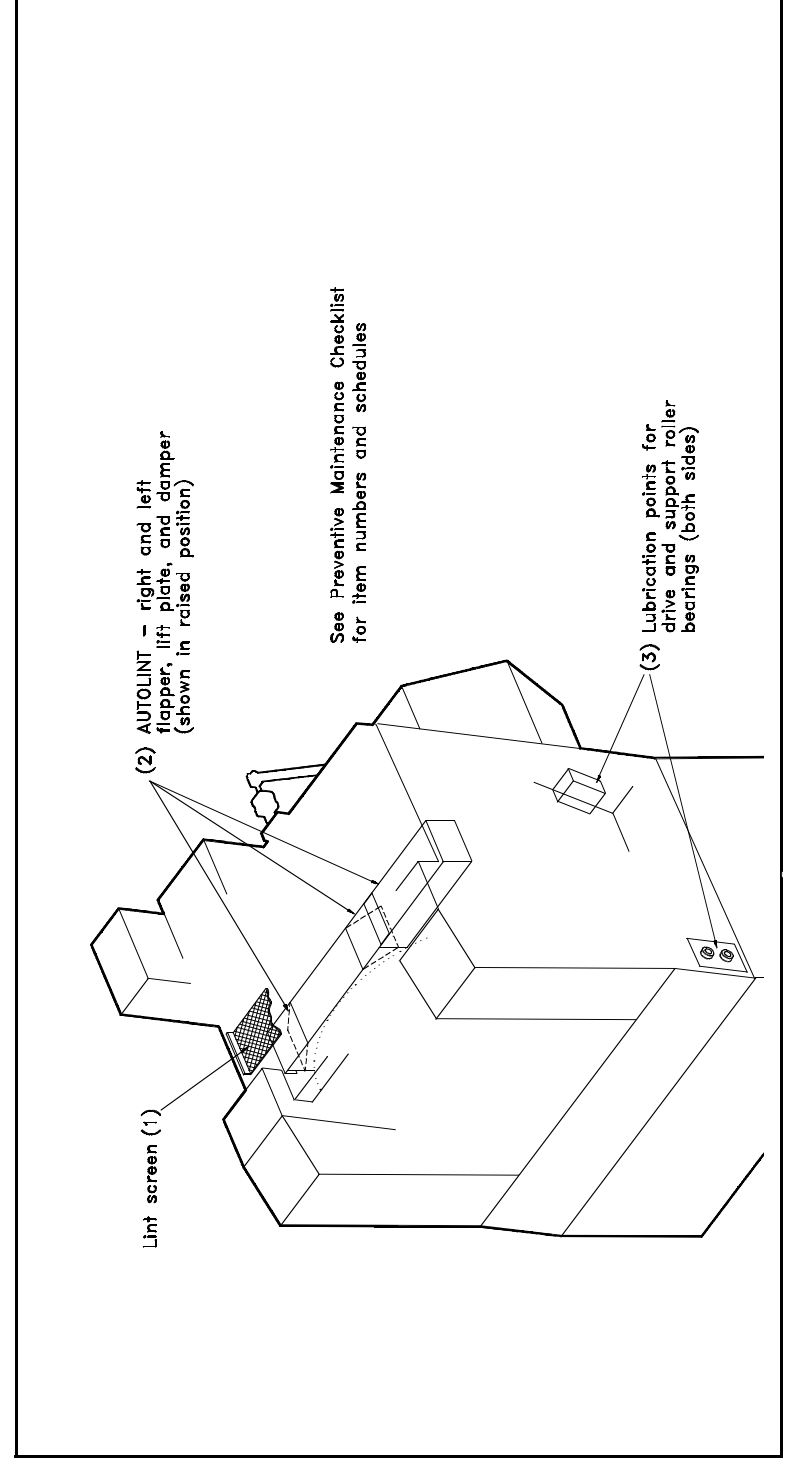


FIGURE 5 (MSSMD426BE)

Bearing Lubrication and AUTOLINT—Maintenance Points

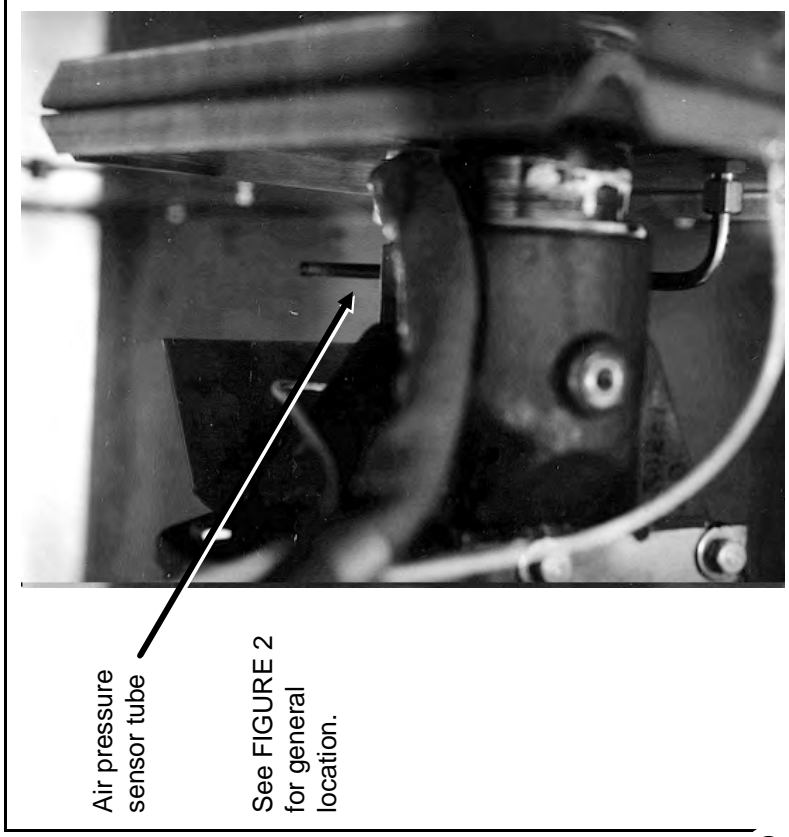


FIGURE 6 (MSSMD426BE)
Firebox Air Pressure Sensor Tube (Gas Dryer Only)

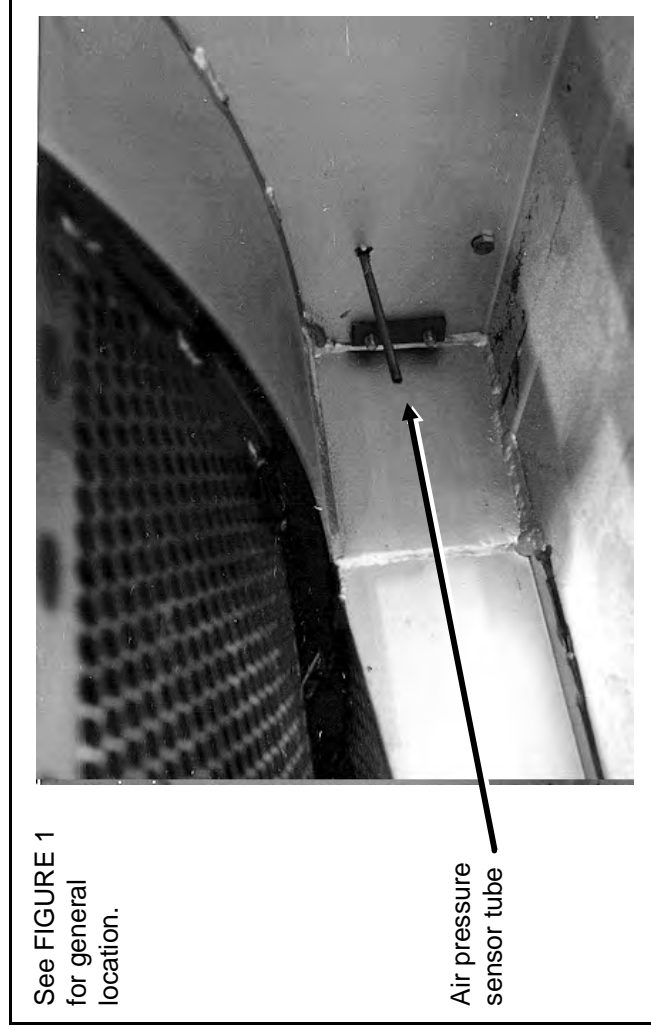


FIGURE 7 (MSSMD426BE)
Basket Air Pressure Sensor Tube (Gas Dryer Only)

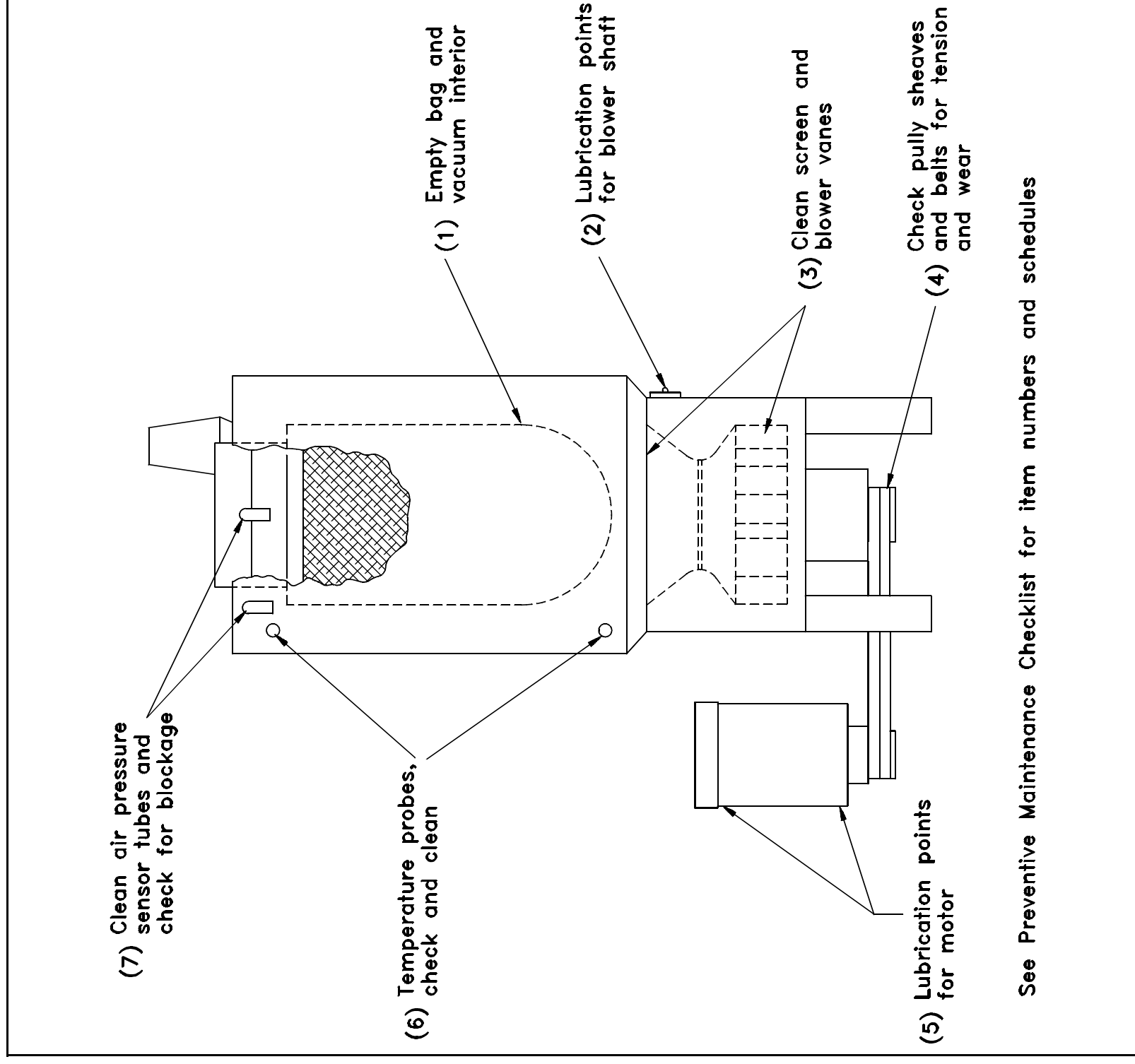


FIGURE 8 (MSSMD426BE)
DRYVAC—Maintenance Points

Preventive Maintenance Checklist

SHAKER-NO BLOWER	SHAKER-BLOWER	GAS DRYER	STEAM DRYER OR CONDITIONER	HOT OIL DRYER OR CONDITIONER	NOTE: Take only those actions listed below that apply to your machine model— gas (natural gas or propane), steam, or hot oil	ACTION	FIGURE (ITEM)	FREQUENCY							
								DAILY	WEEKLY	MONTHLY/200 HOURS	QUARTERLY	SEMI-ANNUALLY	ANNUALLY		
					General										
		X	X	X	• Dryer area	Inspect and verify that dryer area is clear and free from combustible materials, gasoline and other flammable vapors and liquids			X						
		X	X	X		Check for obstructions to the combustion and ventilation air			X						
					MOTORS AND MOTOR BEARINGS										
	X	X	X	X	• Main blower motor maintenance	See “BALDOR MOTOR MAINTENANCE...” MSSM0274AE in this manual. See NOTES 1 and 2.	FIGURE 1 (5)						X		
X	X	X	X	X	• Drive motor maintenance		FIGURES 2 (4), 3 (3), and 4 (2)						X		
		X			• Combustion blower motor	Remove motor and clean blower vanes.	FIGURE 2 (1)							X	
		X			• Combustion blower motor (No lubrication required)	Check for soil build-up around cooling vents.	FIGURE 2 (1)								X
					DRIVE AND BASKET COMPONENTS										
X	X	X	X	X	• Drive rollers and support rollers	Check for alignment and wear. If service is required, see MILNOR® dealer.	FIGURE 1 (8)				X				
X	X	X	X	X	• Belts and pulley sheaves	Check for wear, belt tension, alignment.	FIGURE 1 (1, 12)				X				
		X	X	X	• Dryer basket surfaces	Remove melted plastic.	FIGURE 1 (14)			X					
X	X	X	X	X	• Guide rollers	Check for wear. If service is required, contact MILNOR® dealer.	FIGURE 1 (13)						X		
					BEARINGS										
X	X	X	X	X	• Support and drive bearing flange covers	Remove covers and vacuum flanges thoroughly.	FIGURE 1 (11, 16)							X	
	X	X	X	X	• Main blower shaft	Slowly grease: 0.25 oz. (7.08 g) (4 strokes) at 2 places.	FIGURE 1 (23)				X				
X	X	X	X	X	• Drive and support roller shaft bearings	Slowly grease: 0.12 oz. (3.54 g) (2 strokes) at 4 places.	FIGURE 5 (3)				X				
					DOORS										
X	X	X	X	X	• Unload-door air cylinder	Check for air leaks.	FIGURE 1 (4)				X				
X	X	X	X	X	• Remove all access doors	Vacuum interiors, check felt and rubber seals for wear. Replace if required.	FIGURE 1 (6)				X				
X	X	X	X	X	• Unload-door felt seal	Check for wear. Replace if required.	FIGURE 1 (7)				X				
		X	X	X	• Load-door bottom felt seal	Check for wear. Replace if required.	FIGURE 1 (15)				X				
X	X	X	X	X	• Load-door air cylinder	Check for air leaks.	FIGURE 1 (17)				X				
X	X	X	X	X	• Load-door top rubber seal	Check for wear. Replace if required.	FIGURE 1 (19)				X				
					AIR VANES, DUCTS, PLENUMS, SENSORS, FELT, AND SEALS	Remove access panels, perform maintenance as follows, replace panels.									
	X	X	X	X	• Exhaust ducts	Check for lint build-up.	FIGURE 1 (2)			X					
		X	X	X	• Main air damper cylinders	Check for air leaks.	FIGURE 1 (3)						X		
		X	X	X	• Main air damper	Test full open & full closed positions. Use manual keypad functions.	FIGURE 1 (3) and MSOP0109BE						X		
		X	X	X	• Shaft seals, T-Seal, and T-Seal tension spring	Check for wear and tight fit. If service is required, see MILNOR® dealer.	FIGURE 1 (9)				X				
X	X	X	X	X	• Felt seal on load end of basket (or flap seal after MILDATE 91212ABG)	Check for wear and tight fit. If service is required, see MILNOR® dealer.	FIGURE 1 (18)			X					
X	X	X	X	X	• Electrical box interiors and vents	Clean out with industrial vacuum (NOTE 3).	FIGURE 1 (20)			X					
	X	X	X	X	• Main blower vanes (Non-AUTOLINT)	Clean out with industrial vacuum.	FIGURE 1 (22)			X					
		X	X	X	• Temperature probes and sensors (also in DRYVAC, if so equipped)	Check for melted plastic build up. Clean or replace if required.	FIGURES 1 (10, 21) and 8 (6)				X				
		X			• Fire box area	Clean out lint with industrial vacuum.	FIGURE 2 (5)			X					
			X	X	•Cooldown bypass damper air cylinder and felt strips (DRYERS ONLY)	Check for air leaks. Check felt strips for wear. Vacuum interiors thoroughly.	FIGURES 3 (1), 4 (1)						X		
		X			• Air pressure sensing tubes (also DRYVAC,if so equipped)	Check for blockage. Clean if required.	FIGURES 6, 7, and 8 (7)			X					
					FILTERS, SCREENS, LINKAGE, STRAINERS, AND SPRINKLER	Remove access panels, perform maintenance as follows, vacuum and replace panels.									
		X			• Combustion inlet lint screen	Clean with broom or industrial vacuum.	FIGURE 2 (2)		X						
		X			• Combustion linkage	Check for binding, attachment.	FIGURE 2 (3)						X		
		X			• Fire box burner screen	Vacuum thoroughly.	FIGURE 2 (6)				X				
			X		• Steam condensate line y-strainers and steam traps	Clean out.	FIGURE 3 (2) and MSSM0102BE						X		
			X	X	• Coil area and lint screen	Clean with broom or industrial vacuum.	FIGURES 3 (4), 4 (4)			X					
		X		X	• Automatic water sprinkler	Test automatic and manual operation.	MSSM0126AE				X				
			X	X	• Coil lint bag	Empty.	FIGURES 3 (5), 4 (5)		X						
					AUTOLINT EQUIPPED DRYERS										
	X	X	X	X	• AUTOLINT screen in dryer	Clean with broom or industrial vacuum.	FIGURE 5 (1)		X						
	X	X	X	X	• Right and left flappers, lift plates, and damper	Check felt strips and rubber bumpers for wear, vacuum thoroughly.	FIGURE 5 (2)		X						
	X	X	X	X	• External lint filter bag	Empty bag and vacuum entire interior of DRYVAC, including blower screen.	FIGURE 8 (1)		X						
	X	X	X	X	• DRYVAC blower shaft	Slowly grease: 0.12 oz. (3.54 g) (2 strokes) at 2 places.	FIGURE 8 (2)								X
	X	X	X	X	• DRYVAC blower screen and vanes	Clean with industrial vacuum.	FIGURE 8 (3)				X				
	X	X	X	X	• DRYVAC belts and sheaves	Check for wear, belt tension, alignment.	FIGURE 8 (4)				X				

	X	X	X	X	• DRYVAC blower motor maintenance	See "BALDOR MOTOR MAINTENANCE"	FIGURE 8 (5)					X		
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NOTE 1: Quarterly/500 hours=Every three months or 500 operating hours, whichever comes first.

NOTE 2: If motor manufacturer's instructions conflict with manual section MSSM0274AE, follow manufacturers instructions. Motors are warranted by their manufacturers, not by MILNOR®.

NOTE 3: Vacuum out, never blow out boxes; when blowing out boxes, lint becomes embedded in controls.

Motor Maintenance



This document uses Simplified Technical English.
Learn more at <http://www.asd-ste100.org>.

This document is for motors used on Milnor[®] machines that have grease fittings. If the motor manufacturer supplies maintenance instructions, use them. If not, use this document.

NOTICE P1: "Remove power from the machine" means use the necessary safety procedure for your location. In the USA, this is the OSHA lockout/tagout (LOTO) procedure. More local requirements can also apply.



WARNING 2: Risk of Severe Injury—A machine in operation without safety guards can pull in and mutilate your body.

- You must be an approved maintenance technician.
- Replace guards and covers that you remove for maintenance.



WARNING 3: Risk of Severe Injury—The machine has electrical power when the Master switch (M) on the control panel is off or on.

- Remove power from the machine (see Notice P1).

1. Necessary Maintenance

- 1.1. **Keep the motors clean.**—Examine and clean motors each 500 hours of operation or a minimum of each three months. Keep the motors free of dirt, oil, grease, and water. Contamination that prevents good airflow will cause too much heat and cause motor damage.
- 1.2. **Examine a motor that shows unusual symptoms.** —Examine a motor that becomes too hot, makes noise, makes smoke, smells unusual, or opens the circuit breaker frequently. Examine a motor if the inverter gives errors. Make sure that all electrical connections are tight. Make sure that the wire insulation is good. Use a low resistance ohmmeter. Disassemble the motor to clean it fully If necessary.
- 1.3. **Lubricate the motors.**—This document gives the lubricant frequency, quantity, type, and procedure. These are all important. See the related section in document BIIFUM02 which gives the calibration procedures for grease guns.

2. How to Find the Interval and Quantity of Grease to Add

frame code—codes for the standard motor dimensions used by motor manufacturers.

standard interval—the number of hours that a motor can operate in typical conditions before you must add grease.

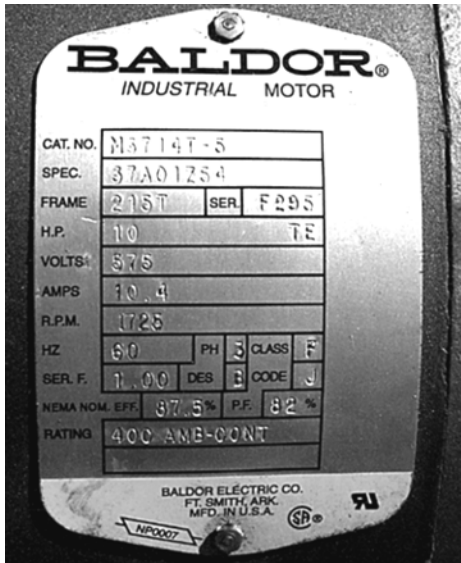
operation conditions—the conditions that can decrease the life of the motor and make it necessary to lubricate more frequently.

rating—One of three levels of operation conditions: typical, bad, very bad.

multiplication number—a decimal number given to the rating. Typical = 1.0, bad = 0.5, and very bad = 0.2.

This section gives the steps you use to find the interval and quantity of grease to add. The examples use the motor data plate shown in [Figure 1](#).

Figure 1: Typical Data Plate on a Motor



1. Find the frame code and RPM on the motor data plate. Example:

$$\text{Frame code} = 215T, \quad \text{RPM} = 1725$$

2. Find the standard interval in [Table 1](#). Example:

$$\text{Standard interval} = 12,000 \text{ hours}$$

3. Find the rating and multiplication number in [Table 2](#) for your worst operation condition. Example: ambient temperature = 102°F (39°C). Moderate contamination.

$$\text{Rating} = \text{bad}, \quad \text{Multiplication number} = 0.5$$

4. Calculate the correct interval (the number of hours of operation before it is necessary to add grease). Example:

$$12,000 \times 0.5 = 6,000 \text{ hours}$$

Where:

12,000 is the standard interval

0.5 is the multiplication number for a rating = bad.

5. Find the quantity of grease for the frame code for your motor in [Table 3](#). You can use the bearing data in the table to do maintenance. Do not use this data to adjust the quantity of grease. Example:

$$\text{grease volume} = 0.16 \text{ ounces (4.7 grams)}$$

$$\text{grease gun cycles} = 2.5$$

Table 1: Standard Interval

NEMA (IEC)** Range of Frame Codes	Interval in Hours for the Given RPM			
	3600 RPM*	1800 RPM*	1200 RPM*	900 RPM*
Up to 215 (132)	5500	12000	18000	22000
254 to 286 (160 - 180)	3600	9500	15000	18000
324 to 365 (200 - 225)	2200	7400	12000	15000
404 to 5000 (280 - 315) 6313 or 6314 bearings	2200	3500	7400	10500
	Roller bearings	1100	1750	3700

* Use this column if this is near or the same RPM as your motor.
 ** Frame codes given by the IEC are shown in parentheses.

Table 2: Operation Condition and Multiplication Number

Operation Conditions*			Rating	Multiplication Number
Maximum Ambient Temperature	Or Atmospheric Contamination	Or Bearing Type		
104°F (40°C)	Clean, not much corrosion	Ball bearing with a groove of large depth	Typical	1.0
122°F (50°C)	Moderate dirt, corrosion	Ball thrust, roller	Bad	0.5
>122°F (>50°C)	Much dirt, abrasive dust, corrosion	n.a.	Very bad	0.1

* The worst condition sets the rating.

Table 3: Grease Quantity (total quantity for all bearings in the motor)

NEMA (IEC) Range of Frame Codes	Largest Bearing Dimension in Range			Quantity of Grease *		Cycles of the Grease Gun
	Category of Bearing	Outer Diameter (mm)	Width (mm)	(Ounces)	(Grams)	
0 thru 215 (132)	6307	80	21	0.16	4.7	2.5
254 to 286 (160 - 180)	6311	120	29	0.32	9.1	5
324 to 365 (200 - 225)	6313	140	33	0.43	12.2	7
404 to 5000 (280 - 315)	NU322	240	50	1.11	31.5	18

* This is the quantity for the two bearings.

3. Grease Types and Procedures

Table 4: Type of Grease

Rating from Table 2	Type of Grease
Typical	Shell Dolium R, Chevron SRI, or equivalent
Bad	
Very Bad	Darmex 707 or equivalent



CAUTION [4]: Damage and Malfunction Risks—Too much grease gun pressure can put grease in the motor and cause electrical components to burn out. If grease touches a brake or a clutch surface, this can cause a malfunction.

- Apply grease carefully.

Apply grease as follows:

1. **Remove power from the machine (see Notice P1).**
2. Clean grease fittings.
3. If the motor has a grease outlet plug, remove it.
4. Add the recommended quantity of grease (See [Item 5](#)). Stop immediately if you see new grease around the motor shaft, wires or the grease outlet plug.
5. If the motor has a grease outlet plug, replace it.

— End of BIUUM03 —

SERVICING 580xx DRYER AUTOLINT[®] SCREENS

MSSMD447AE/9823AV

Summary—Autolint[®] equipped dryers manufactured after DATE CODE 95506 are fitted with an internal lint screen. Although high pressure air strips the lint from this screen during the stripping cycle, (see “PROGRAMMING THE MARK III, IV, AND V DRYER CONTROL” in the reference manual), sand and other material can eventually build up on the screen surface, inhibiting the stripping action. Inspect the screen per the preventive maintenance schedule. Whenever inspection indicates the screen should be cleaned, remove, clean, and replace the screen as follows.

⚠ WARNING: Entangle and Crush



Rotating machinery can entangle and crush body parts.

Do not service machine unless qualified and authorized.

Lock off and tag out power at the main machine disconnect before servicing.

Unbolting the screen

1. Lock off and tag out power at the main machine disconnect.
2. Remove all side doors.
3. Locate the *mounting bolts* (FIGURE 1) installed on the screen edge closest to the load door and the *mounting brackets* installed on the screens rear edge (FIGURE 2).
4. Remove the *mounting bolts*. Do not remove the *mounting brackets* (FIGURE 2). These brackets correctly position screen for re-installation. Remove the mounting bracket side of the screen by removing the bracket bolt (FIGURE 2), and the bracket bolt nuts (FIGURE 3) located behind the T-seal weldment.

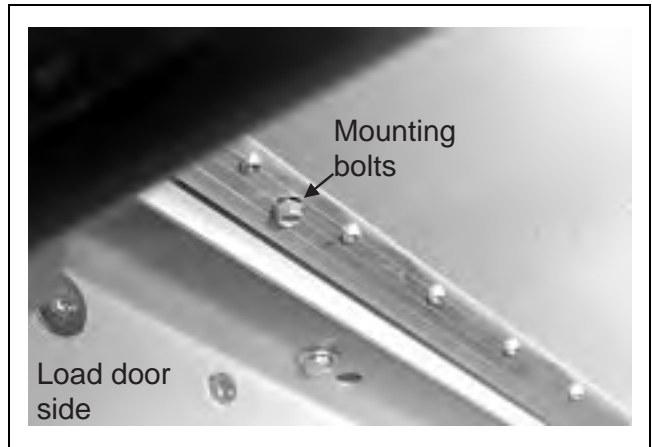


FIGURE 1 (MSSMD447AE)
Screen Mounting Bolts

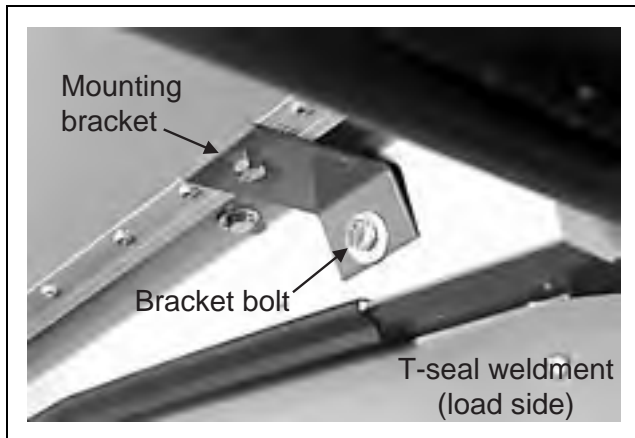


FIGURE 2 (MSSMD447AE)
Mounting Bracket and Bracket Bolt

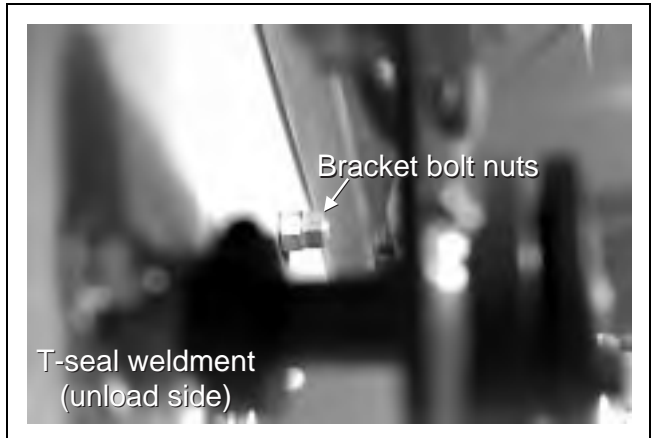


FIGURE 3 (MSSMD447AE)
Bracket Bolt Nuts

Folding and removing the screen—Remove the small sides of the screen frame then fold the screen in half and remove as follows:

1. Remove the fasteners and flanges (FIGURES 4 and 5) from both of the small frame sides.
2. Slide off the frame sides (FIGURE 6), then fold screen in half (FIGURE 7), and remove screen.

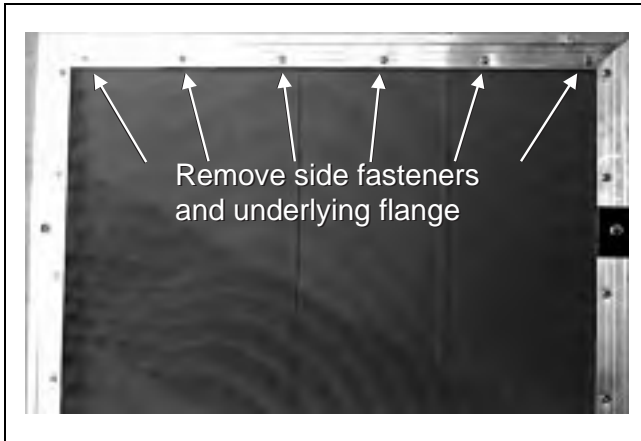


FIGURE 4 (MSSMD447AE)
Identifying the Side Fasteners and Flanges

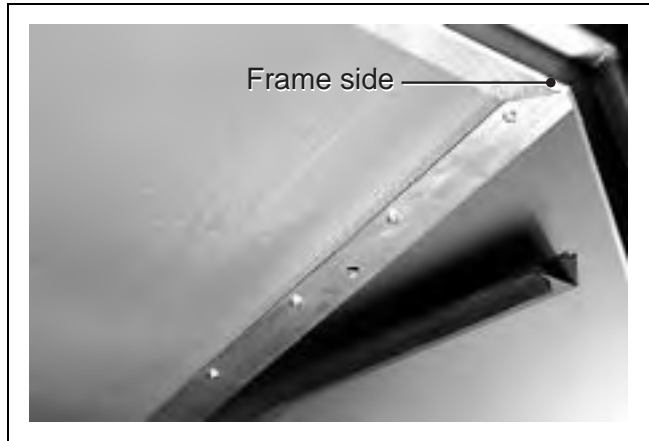


FIGURE 5 (MSSMD447AE)
Frame Side Details
(Fasteners and Flange Removed)

Re-installing screen—After cleaning, reinstall in reverse order. Use a wood block to support the front of the screen during re-installation (FIGURE 8).



FIGURE 6 (MSSMD447AE)
Frame Sides Removed Prior to Folding



FIGURE 7 (MSSMD447AE)
Folding Screen for Removal

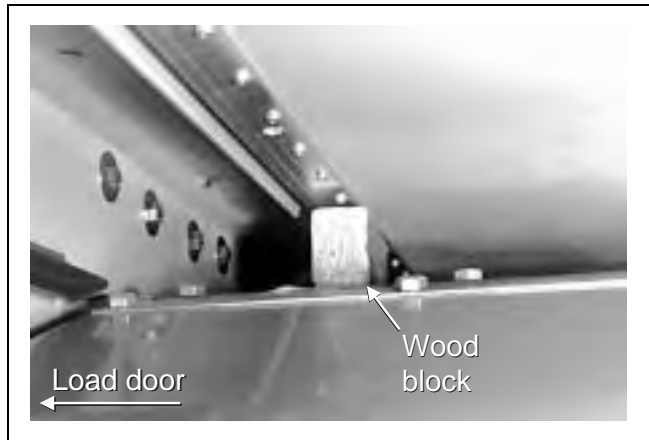


FIGURE 8 (MSSMD447AE)
Using A Wood Block as a Reinstallation Aid

Torque Requirements for Fasteners



This document uses Simplified Technical English. Learn more at <http://www.asd-ste100.org>.

The document about the assembly gives the torque requirements for other fasteners. **If fastener torque specifications or threadlocker requirements in an assembly document are different from this document, use the assembly document.**

Figure 1: The Bolts in Milnor® Equipment

The Marks on Bolt Heads	Legend
	<p>A. SAE Grades 1 and 2, ASTM A307, and stainless steel</p> <p>B. Grade BC, ASTM A354</p> <p>C. SAE Grade 5, ASTM A449</p> <p>D. SAE Grade 8 and ASTM A354 BD</p>

1. Torque Values

These tables give the standard dimension, grade, threadlocker, and torque requirements for fasteners frequently used on Milnor® equipment.

Note 1: Data from the Pellerin Milnor® Corporation “Bolt Torque Specification” (bolt_torque_milnor.xls/2002096).

1.1. Fasteners Made of Carbon Steel

1.1.1. Without a Threadlocker

Table 1: Torque Values for Standard Fasteners with Maximum 5/16-inch Diameters and No Lubricant

Dimension	The Grade of the Bolt							
	Grade 2		Grade 5		Grade 8		Grade BC	
	Pound-Inches	N-m	Pound-Inches	N-m	Pound-Inches	N-m	Pound-Inches	N-m
1/4 x 20	66	7	101	11	143	16	126	14
1/4 x 28	76	9	116	13	163	18	--	--
5/16 x 18	136	15	209	24	295	33	258	29
5/16 x 24	150	17	232	26	325	37	--	--

Torque Requirements for Fasteners

Table 2: Torque Values for Standard Fasteners Larger Than 5/16-inch Diameters and No Lubricant

Dimension	The Grade of the Bolt							
	Grade 2		Grade 5		Grade 8		Grade BC	
	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m
3/8 x 16	20	27	31	42	44	59	38	52
3/8 x 24	23	31	35	47	50	68	--	--
7/16 x 14	32	43	49	66	70	95	61	83
7/16 x 20	36	49	55	75	78	105	--	--
1/2 x 13	49	66	75	102	107	145	93	126
1/2 x 20	55	75	85	115	120	163	--	--
9/16 x 12	70	95	109	148	154	209	134	182
9/16 x 18	78	106	121	164	171	232	--	--
5/8 x 11	97	131	150	203	212	287	186	252
5/8 x 18	110	149	170	231	240	325	--	--
3/4 x 10	172	233	266	361	376	510	329	446
3/4 x 16	192	261	297	403	420	569	--	--
7/8 x 9	167	226	429	582	606	821	531	719
7/8 x 14	184	249	473	641	668	906	--	--
1 x 8	250	339	644	873	909	1232	796	1079
1 x 12	274	371	704	954	994	1348	--	--
1 x 14	281	381	723	980	1020	1383	--	--
1 1/8 x 7	354	480	794	1077	1287	1745	1126	1527
1 1/8 x 12	397	538	891	1208	1444	1958	--	--
1 1/4 x 7	500	678	1120	1519	1817	2464	1590	2155
1 1/4 x 12	553	750	1241	1682	2012	2728	--	--
1 3/8 x 6	655	888	1469	1992	2382	3230	2085	2827
1 3/8 x 12	746	1011	1672	2267	2712	3677	--	--
1 1/2 x 6	869	1178	1949	2642	3161	4286	2767	3751
1 1/2 x 12	979	1327	2194	2974	3557	4822	--	--

Table 3: Torque Values for Plated Fasteners with Maximum 5/16-inch Diameters and No Lubricant

Dimension	The Grade of the Bolt							
	Grade 2		Grade 5		Grade 8		Grade BC	
	Pound-Inches	N-m	Pound-Inches	N-m	Pound-Inches	N-m	Pound-Inches	N-m
1/4 x 20	49	6	76	9	107	12	95	11
1/4 x 28	56	6	88	10	122	14	--	--
5/16 x 18	102	12	156	18	222	25	193	22
5/16 x 24	113	13	174	20	245	28	--	--

Table 4: Torque Values for Plated Fasteners Larger Than 5/16-inch Diameters and No Lubricant

Dimension	The Grade of the Bolt							
	Grade 2		Grade 5		Grade 8		Grade BC	
	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m
3/8 x 16	15	20	23	31	33	44	29	38
3/8 x 24	17	23	26	35	37	49	--	--
7/16 x 14	24	32	37	50	52	71	46	61
7/16 x 20	27	36	41	55	58	78	--	--
1/2 x 13	37	49	56	76	80	106	70	93
1/2 x 20	41	55	64	85	90	120	--	--
9/16 x 12	53	70	81	110	115	153	101	134
9/16 x 18	59	79	91	122	128	174	--	--
5/8 x 11	73	97	113	150	159	212	139	186
5/8 x 18	83	110	127	172	180	240	--	--
3/4 x 10	129	173	200	266	282	376	246	329
3/4 x 16	144	192	223	297	315	420	--	--
7/8 x 9	125	166	322	430	455	606	398	531
7/8 x 14	138	184	355	474	501	668	--	--
1 x 8	188	250	483	644	682	909	597	796
1 x 12	205	274	528	716	746	995	--	--
1 x 14	210	280	542	735	765	1037	--	--
1 1/8 x 7	266	354	595	807	966	1288	845	1126
1 1/8 x 12	298	404	668	890	1083	1444	--	--
1 1/4 x 7	375	500	840	1120	1363	1817	1192	1590
1 1/4 x 12	415	553	930	1261	1509	2013	--	--
1 3/8 x 6	491	655	1102	1470	1787	2382	1564	2085
1 3/8 x 12	559	758	1254	1672	2034	2712	--	--
1 1/2 x 6	652	870	1462	1982	2371	3161	2075	2767
1 1/2 x 12	733	994	1645	2194	2668	3557	--	--

1.1.2. With a Threadlocker

Table 5: Threadlocker by the Diameter of the Bolt (see Note 2)

LocTite Product	Dimension			
	1/4-inch	1/4- to 5/8-inch	5/8- to 7/8-inch	1-inch +
LocTite 222	OK			
LocTite 242		OK		
LocTite 262			OK	
LocTite 272			High temperature	
LocTite 277				OK

Note 2: The acceptable bolt size ranges for various LocTite® threadlocking products is the LocTite manufacturer's **general** recommendation. Specific applications sometime require that a LocTite product is applied to a bolt size outside the ranges shown here. For example, Milnor specifies LocTite 242 for use on certain 1" bolt applications and has confirmed this usage with the LocTite manufacturer. You may see variances such as this in the documentation for specific machine assemblies.

Torque Requirements for Fasteners

Table 6: Torque Values if You Apply LocTite 222

Dimension	The Grade of the Bolt							
	Grade 2		Grade 5		Grade 8		Grade BC	
	Pound-inches	N-m	Pound-inches	N-m	Pound-inches	N-m	Pound-inches	N-m
1/4 x 20	60	7	96	11	132	15	108	12
1/4 x 28	72	8	108	12	144	16	--	--

Table 7: Torque Values if You Apply LocTite 242

Dimension	The Grade of the Bolt							
	Grade 2		Grade 5		Grade 8		Grade BC	
	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m
5/16 x 18	11	15	17	23	25	34	22	30
5/16 x 24	13	18	19	26	27	37	27	37
3/8 x 16	20	27	31	42	44	60	38	52
3/8 x 24	23	31	35	47	50	68	--	--
7/16 x 14	32	43	49	66	70	95	61	83
7/16 x 20	36	49	55	75	78	106	--	--
1/2 x 13	49	66	75	102	107	145	93	126
1/2 x 20	55	75	85	115	120	163	--	--
9/16 x 12	70	95	109	148	154	209	134	182
9/16 x 18	78	106	121	164	171	232	--	--
5/8 x 11	97	132	150	203	212	287	186	252
5/8 x 18	110	149	170	230	240	325	--	--

Table 8: Torque Values if You Apply LocTite 262

Dimension	The Grade of the Bolt							
	Grade 2		Grade 5		Grade 8		Grade BC	
	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m
3/4 x 10	155	210	240	325	338	458	296	401
3/4 x 16	173	235	267	362	378	512	--	--
7/8 x 9	150	203	386	523	546	740	477	647
7/8 x 14	165	224	426	578	601	815	--	--

Table 9: Torque Values if You Apply LocTite 272 (High-Temperature)

Dimension	The Grade of the Bolt							
	Grade 2		Grade 5		Grade 8		Grade BC	
	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m
1 x 8	350	475	901	1222	1272	1725	1114	1510
1 x 12	383	519	986	1337	1392	1887	--	--
1 x 14	393	533	1012	1372	1428	1936	--	--
1-1/8 x 7	496	672	1111	1506	1802	2443	1577	2138
1-1/8 x 12	556	754	1247	1691	2022	2741	--	--
1-1/4 x 7	700	949	1568	2126	2544	3449	2226	3018
1-1/4 x 12	774	1049	1737	2355	2816	3818	--	--
1-3/8 x 6	917	1243	2056	2788	3335	4522	2919	3958
1-3/8 x 12	1044	1415	2341	3174	3797	5148	--	--
1-1/2 x 6	1217	1650	2729	3700	4426	6001	3873	5251
1-1/2 x 12	1369	1856	3071	4164	4980	6752	--	--

Table 10: Torque Values if You Apply LocTite 277

Dimension	The Grade of the Bolt							
	Grade 2		Grade 5		Grade 8		Grade BC	
	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m
1 x 8	325	441	837	1135	1181	1601	1034	1402
1 x 12	356	483	916	1242	1293	1753	--	--
1 x 14	365	495	939	1273	1326	1798	--	--
1-1/8 x 7	461	625	1032	1399	1674	2270	1464	1985
1-1/8 x 12	516	700	1158	1570	1877	2545	--	--
1-1/4 x 7	650	881	1456	1974	2362	3202	2067	2802
1-1/4 x 12	719	975	1613	2187	2615	3545	--	--
1-3/8 x 6	851	1154	1909	2588	3097	4199	2710	3674
1-3/8 x 12	970	1315	2174	2948	3526	4781	--	--
1-1/2 x 6	1130	1532	2534	3436	4110	5572	3597	4877
1-1/2 x 12	1271	1723	2852	3867	4624	6269	--	--

1.2. Stainless Steel Fasteners

Table 11: Torque Values for Stainless Steel Fasteners 5/16-inch and Smaller

Dimension	316 Stainless		18-8 Stainless		18-8 Stainless with Loctite 767	
	Pound-Inches	N-m	Pound-Inches	N-m	Pound-Inches	N-m
1/4 x 20	79	9	76	9	45	5
1/4 x 28	100	11	94	11	56	6
5/16 x 18	138	16	132	15	79	9
5/16 x 24	148	17	142	16	85	10

Table 12: Torque Values for Stainless Steel Fasteners Larger Than 5/16-inch

Dimension	316 Stainless		18-8 Stainless		18-8 Stainless with Loctite 767	
	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m
3/8 x 16	21	28	20	27	12	16
3/8 x 24	23	31	22	29	13	18
7/16 x 14	33	44	31	42	19	25
7/16 x 20	35	47	33	45	20	27
1/2 x 13	45	61	43	58	26	35
1/2 x 20	47	64	45	61	27	37
9/16 x 12	59	81	57	77	34	46
9/16 x 18	66	89	63	85	38	51
5/8 x 11	97	131	93	125	56	75
5/8 x 18	108	150	104	141	62	84
3/4 x 10	132	179	128	173	77	104
3/4 x 16	130	176	124	168	75	101
7/8 x 9	203	275	194	263	116	158
7/8 x 14	202	273	193	262	116	157
1 x 8	300	406	287	389	172	233
1 x 14	271	367	259	351	156	211
1-1/8 x 7	432	586	413	560	248	336
1-1/8 x 12	408	553	390	529	234	317
1-1/4 x 7	546	740	523	709	314	425
1-1/4 x 12	504	683	480	651	288	390
1-1/2 x 6	930	1261	888	1204	533	722
1-1/2 x 12	732	992	703	953	422	572

2. Preparation



WARNING 2: Fire Hazard—Some solvents and primers are flammable.

- Use threadlocker and primers with sufficient airflow.
 - Do not use flammable material near ignition sources.
1. Clean all threads with a wire brush or a different tool.
 2. Remove the grease from the fasteners and the mating threads with solvent. Make the parts dry.

Note 3: Loctite 7649 Primer™ or standard solvents will remove grease from parts.

3. Apply a spray of Loctite 7649 Primer™ or equal on the fasteners and the mating threads. Let the primer dry for one minute minimum.

3. How to Apply a Threadlocker

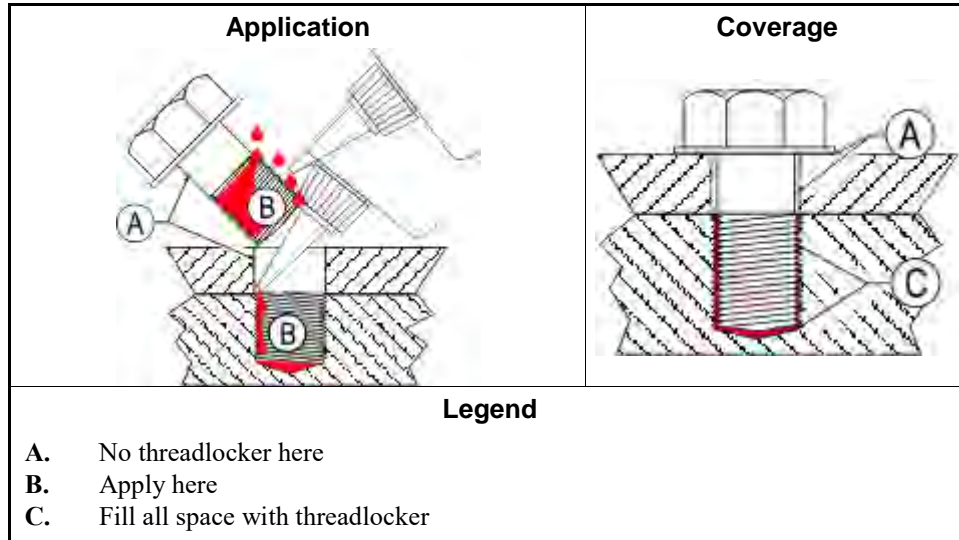


CAUTION 3: Malfunction Hazard—Heat, vibration, or mechanical shocks can let the fasteners loosen if you do not apply the threadlocker correctly. Loose fasteners can cause malfunctions of the equipment.

- Read the threadlocker manufacturer's instructions and warnings. Obey these instructions.

Apply the threadlocker only to the areas where the fastener threads and the mating threads engage.

Figure 2: Blind Hole



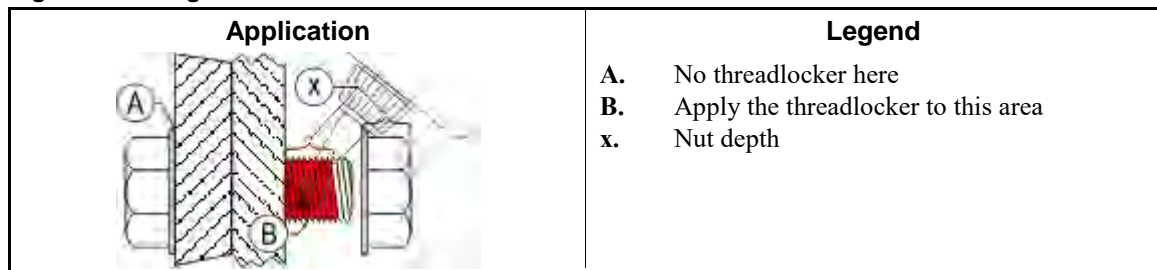
3.1. Blind Holes

1. Apply the threadlocker down the threads to the bottom of the hole.
2. Apply the threadlocker to the bolt.
3. Tighten the bolt to the value shown in the correct table ([Table 5](#) to [Table 11](#)).

3.2. Through Holes

1. Put the bolt through the assembly.
2. Apply the threadlocker only to the bolt thread area that will engage the nut.
3. Tighten the bolt to the value shown in the correct table ([Table 5](#) to [Table 11](#)).

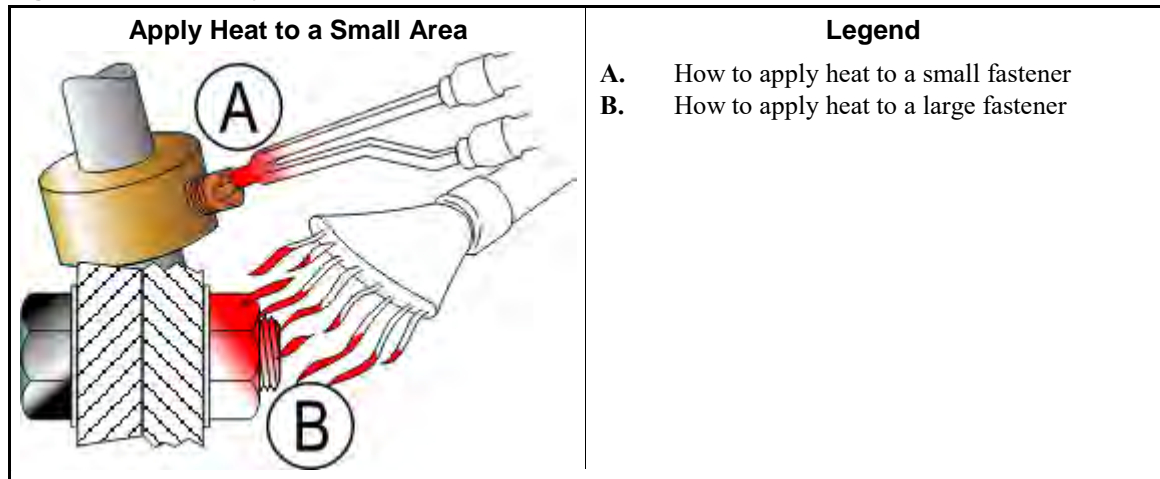
Figure 3: Through Hole



- 3.3. Disassembly**—For high-strength threadlocker, apply heat for five minutes. Disassemble with hand tools while the parts are hot.

For low-strength and moderate-strength threadlocker, disassemble with hand tools.

Figure 4: Disassembly



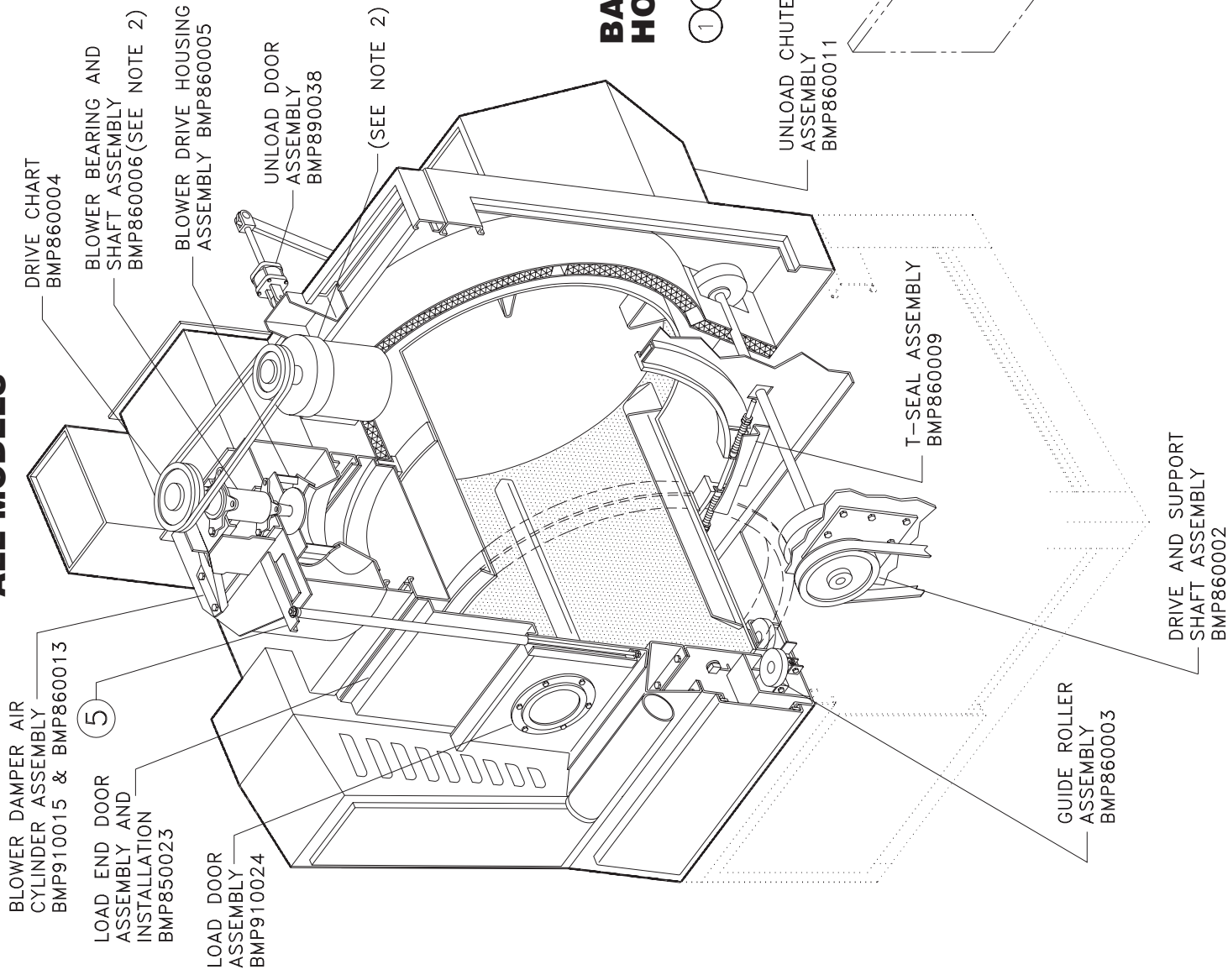
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Frame and House

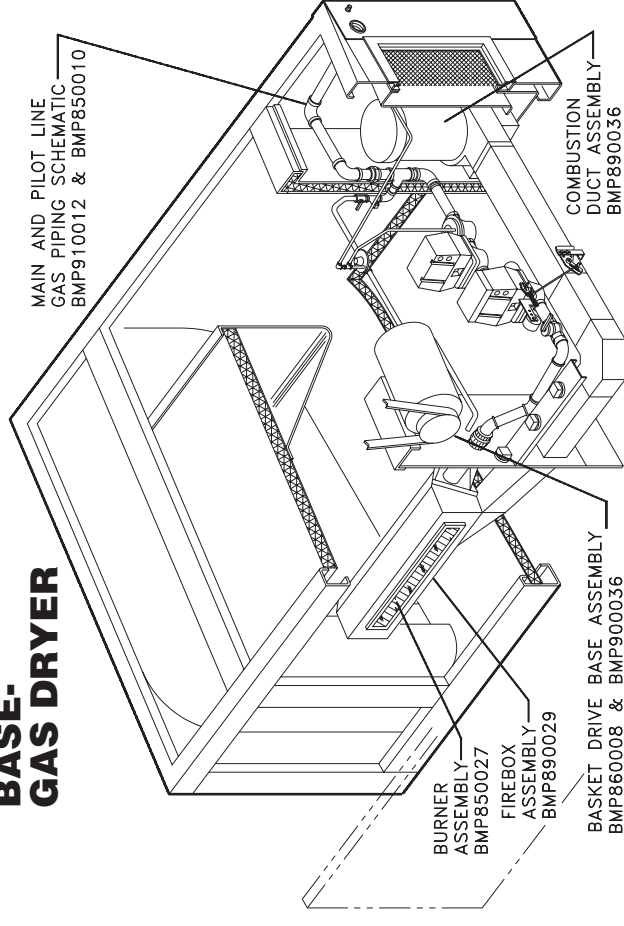
2



**UPPER FRAME
 ALL MODELS**



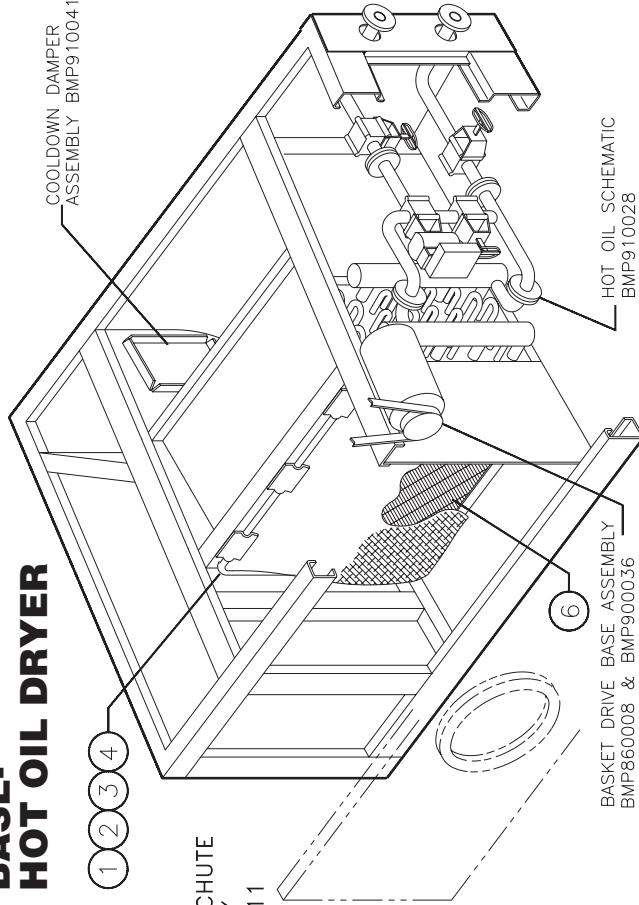
**BASE-
 GAS DRYER**



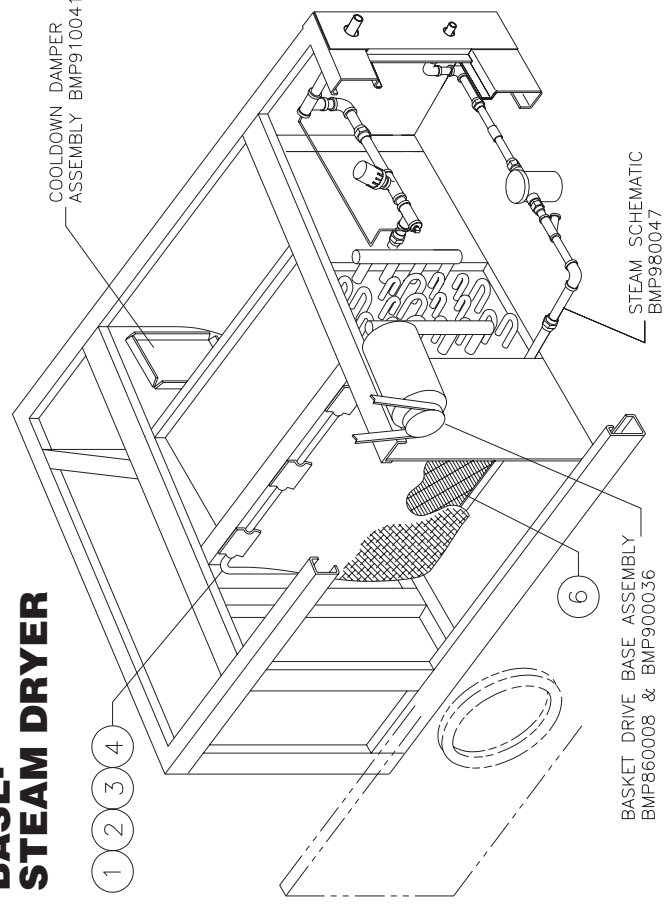
NOTES:

1. THE SHAKER AND CONDITIONER BASE CONFIGURATIONS ARE NOT SHOWN IN THESE VIEWS BUT ARE SIMILAR.
2. THE BLOWER BEARING AND MOTOR ARE NOT USED ON SHAKER MODELS 58040/58058/58080SA1.

**BASE-
 HOT OIL DRYER**



**BASE-
 STEAM DRYER**





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

Litho in U.S.A.

Parts List General 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	07 60154	87381B LINT FILTER BAG-5840	58040TS1,CS1,TT1,CT1
all	1	07 50622	87381B LINT FILTER BAG-5858	58058TS1,CS1,TT1,CT1
all	2	07 60155	88171B FRAME-LINT FILTER BAG 5840	58040TS1,CS1,TT1,CT1
all	2	07 50654	87381B FRAME-LINT FILTER BAG-5858	58058TS1,CS1,TT1,CT1
all	3	07 60156	87381B*FRAME CONNECTING TUBE	58040/58TS1,CS1,TT1, CT1
all	4	07 50611	86261B LINT BAG HOLDING BKT	58040/58TS1,CS1,TT1, CT1
all	5	07 60266A	94156C BKT LOAD DOOR CYL MTG-5840	58040
all	5	07 50079B	89346C BKT LOAD DOOR CYL MTG-5858	58058
all	5	07 70136	89347D BKT LOAD DOOR CYL MTG-5880	58080
all	6	W7 60114	89113C*LINT SCREEN WELDMENT-5840	58040TS1,CS1,TT1,CT1
all	6	W7 50615	86436C*LINT SCREEN WELDMENT 5858	58058/80TS1,CS1,TT1, CT1

Load End Door Assembly and Installation

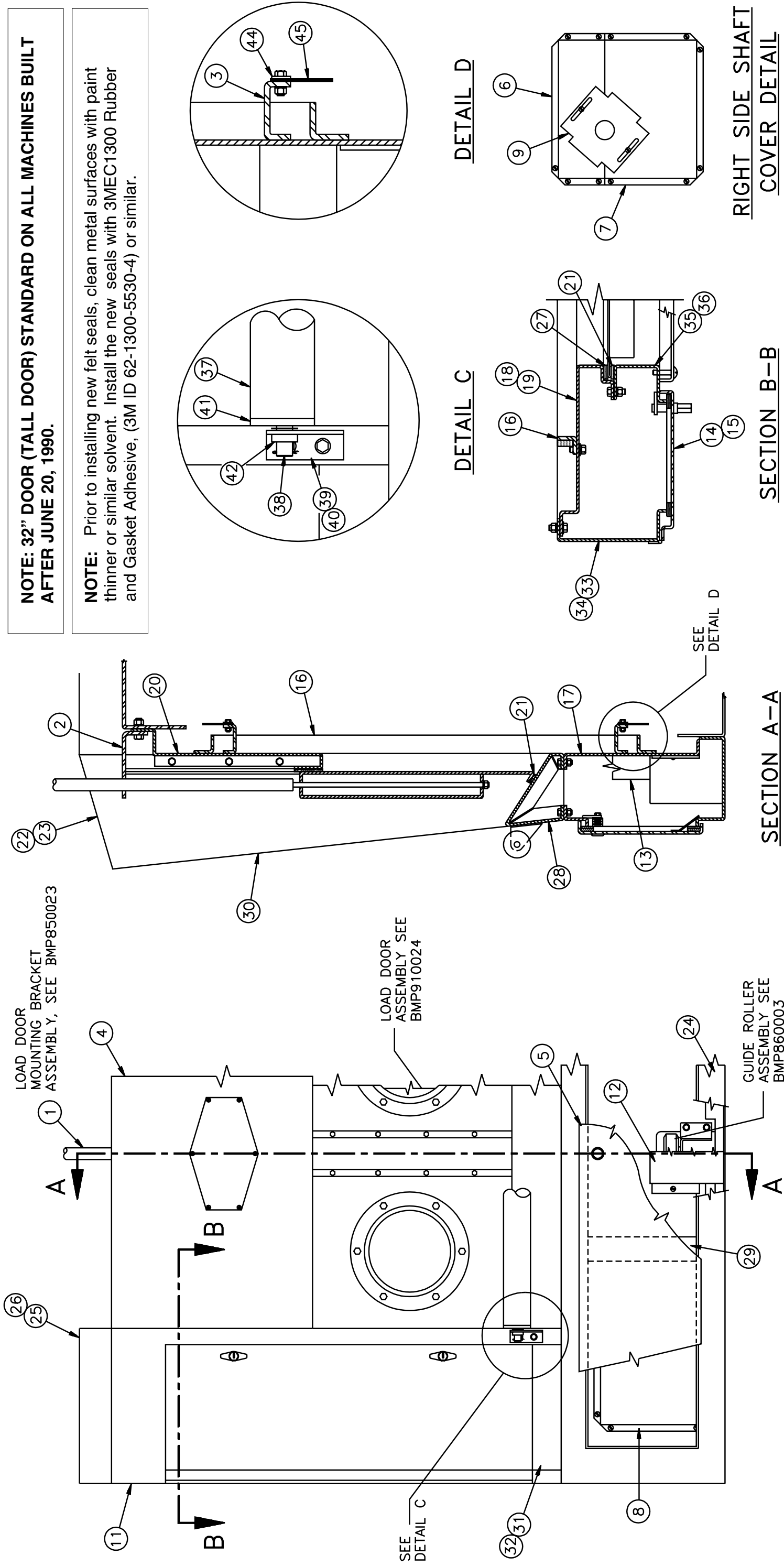
58040 58058 58058

BMP850023/99047V
(Sheet 1 of 2)

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BMP850023/99047V (1 of 2)

Litho in U.S.A.





Parts List—Load End Door Assembly and 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-----					
S			G75SD001	89281E*LOAD END COSMET+DOOR=22"INST	58040/58 22" DOOR
T			G75SD003	89281J*LOAD END COSMET+DOOR=32"INST	58040/58 32" DOOR
U			G77SD001	89281H*5880 LOAD END COS+DOOR=INST	58080 32" DOOR
V			A75SD001	94341E*LOAD END COSMET+DOOR=22"ASSY	USED ON 00S
W			A75SD003	94341H*LOAD END COSMET+DOOR=32"ASSY	USED ON 00T
X			A77SD001	94341H*5880 LOAD END COSMET+DOOR	USED ON 00U
Y			A75GB001	89253C* LOAD DOOR ROLLER ASSY	USED ON 00S,00T
Z			A77GB001	89253H*5880 LOAD DOOR ROLLER ASSY	USED ON 00U
-----COMPONENTS-----					
S		1	27C210	03Z AIRCYL 1+1/16"BORE X22"STROKE	
T-U		1	27C215	02Z AIR CYL 1.5"BORE X 34" STROKE	
S		2	07 50079	89172B ANGLE=DOOR CYL TOP MOUNT	
T		2	07 50079B	89346C BKT LOAD DOOR CYL MTG-5858	
U		2	07 70136	89347D BKT LOAD DOOR CYL MTG-5880	
W		3	Y7 50867	97047# LOAD END FLAP SEAL RING MACH	
S		4	07 50076	88461Y COVER=TOP LOAD END	
T-U		4	07 50076A	92316D COVER TOP LOAD 32" DOOR	
all		5	A75SD011	92113C*FRONT COSMET. COVER ASSY	
S-T		6	W7 50123A	86163H*WLMT=UPPER BRG/SHAFT COVER	
U		6	W7 70090	94267H*5880 BRG/SHAFT COV=LOW WLMT	
S-T		7	W7 50123	86163H*WLMT=LOWER BRG/SHAFT COVER	
U		7	W7 70091	94267H*5880 BRG/SHAFT COVER=UP WLMT	
all		8	W7 50124	86163H*WLMT=LF BEARING COVER	
all		9	07 50171	89234C COVER BRG/SHAFT ADJ PLATE	
all		10	07 50395	85326B COVER PLATE ELECT ACCESS	
all		11	07 50404C	87292B RT/LF EXT+CHIM COVER BRACKET	
all		12	W7 50129	95222H*COVER GUIDE ROLLER WELDED	
all		13	98P035	02Z INSUL.FIBRGLS.24X48X1" E=1SHT	
all		14	A75SD004	93061C*ELECTRICAL PANEL RT ASSY	
all		15	A75SD005	92133C*ELECTRICAL PANEL LT ASSY	
all		16	Y7 50077	92193# RING=SEAL LOAD END=MACH	

Used In		Item	Part Number	Description	Comments
all		17	07 50069	98183DPANEL INNER BOTTOM LOAD END	
all		18	07 50066	97021# PANEL INNER RIGHT LOAD END	
all		19	07 50067	97021D PANEL INNER LEFT LOAD END	
V		20	07 50073	88371D PANEL TOP CENTER LOAD 22OPEN	
W-X		20	07 50073A	98277DPANEL TOP CENTER LOAD 32"OP	
all		21	27A680	FELT 1/4"THK X 1"W SAE F-3	
all		22	07 50404	96167D FRONT+TOP+CHIMNEY RT S/COVER	
all		23	07 50405	96167H FRONT+TOP+CHIMNEY LF S/COVER	
all		24	07 50070	98416DPANEL OUTER BOTTOM LOAD END	
all		25	07 50404A	97423CINNER TOP RT SIDE=CHIMNEY	
all		26	07 50404B	97423HINNER TOP LF SIDE=CHIMNEY	
all		27	27A685	FELT 1/2"THK X 1+1/4"W SAE F-3	
V-W		28	07 50068A	95246D THRESHOLD DOOR LOAD 32" OPEN	
X		28	07 70089	89253D 5880 LOAD DOOR THRESHOLD	
all		29	07 50081	96242C THRESHOLD ELECTRICAL BRKT	
all		30	07 50072E	93137C FRONT COVER LOUVER COVER	
all		31	07 50406	85516C LF FRONT SIDE COVER BOTTOM	
all		32	07 50406A	85516H RT FRONT SIDE COVER BOTTOM	
all		33	07 50407	94341D OUTER LF. FRONT SIDE COVER	
all		34	07 50408	94341H OUTER RT. FRONT SIDE COVER	
all		35	07 50409	96072D INNER LF. FRONT SIDE COVER	
all		36	07 50410	96072H INNER RT. FRONT SIDE COVER	
all		37	07 50213	85516B ROLLER=LOAD DOOR	
all		38	07 50214	85516B SHAFT=LOAD DOOR ROLLER	
Y		39	07 50215	87353D BRACKET=LEFT ROLLER SUPPORT	
Z		39	07 70087	89253C 5880 ROLLER SPPT=LEFT BRKT	
Y		40	07 50216	87353H BRACKET=RIGHT ROLLER SUPPORT	
Z		40	07 70088	89281C 5880 ROLLER SPPT=RIGHT BRKT	
all		41	07 50217	85181B BRG END SUPPORT ROLLER	
all		42	54JH10750C	SHFTCOLLAR 3/4" CLPTYP CFG#12S	
all		43	20C044	041290ADHESIVE-EC1300-PINT	(NOT SHOWN)
W		44	07 50870	97147C LOAD END SEAL STRAP	
W		45	07 50869A	96031D LOAD END FLAP SEAL	

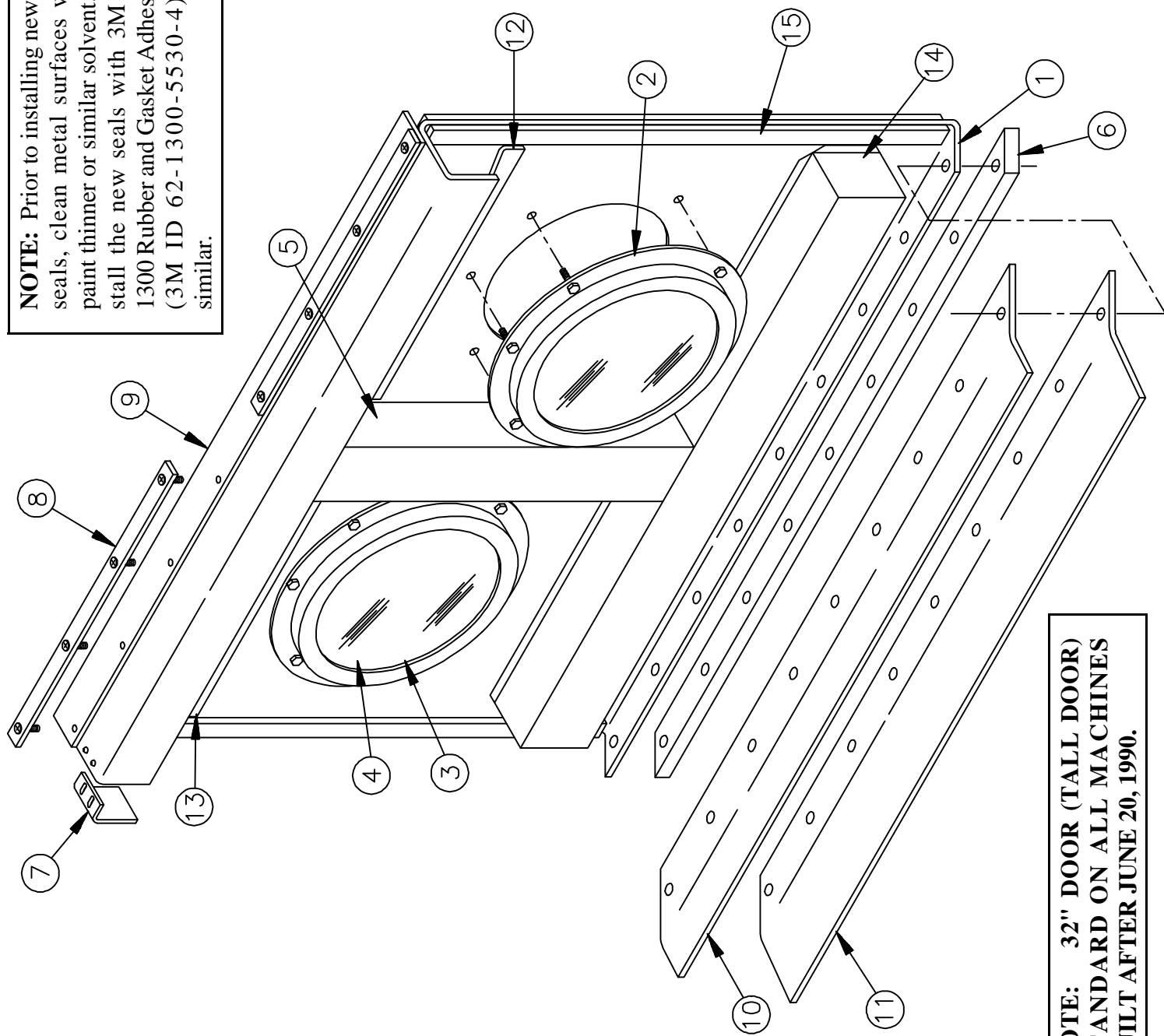


DRAWING AND PARTS LIST
 (See other page for more,
 if applicable.)

LOAD DOOR ASSEMBLY -- 58040 58058 58080

BMP910024/92503V (Page 1)

NOTE: Prior to installing new felt seals, clean metal surfaces with paint thinner or similar solvent. Install the new seals with 3M EC 1300 Rubber and Gasket Adhesive, (3M ID 62-1300-5530-4) or similar.



**NOTE: 32" DOOR (TALL DOOR)
 STANDARD ON ALL MACHINES
 BUILT AFTER JUNE 20, 1990.**

ITEM	PART NUMBER	DESCRIPTION	HOW PART IS USED IN ASSEMBLY (Only if pertinent)
00Y	A75SD006	90243C*LOAD DOOR 22" OPEN HI ASSY	22" DOOR
00Z	A75SD007	90243#*LOAD DOOR 32" OPEN ASSY	32" DOOR
001A	07 50065B	89322D LOAD DOOR DRYER 22" OPEN H1.	00Y
001B	07 50065A	91323D LOAD DOOR END DRYER 32" OPEN	00Z
002	07 50057	89517C RING-SIGHGLASS LOAD DOOR	
003	02 02366A	85352B GASKET DOORGLASS = DRYER	
004	02 09215	83096A DRGLASS 12 3/8DIA SS STAMPED	
005A	07 50064	88383C CHANNEL DOOR STIFN+CYL MTG	00Y
005B	07 50064A	91372D CHANN DOOR STFN+CYL 32" OPEN	00Z
006	27A680	FELT 1/4" X1" SAE F-3 *	
007	07 50264	85377B TARGET=LOAD DOOR DOOR POSITION	
008	07 50012	85521B LOAD DOOR SEAL STRAP	
009	07 50013A	86187B RUBBER LOAD DOOR SEAL WIDE	
010	07 50758	87237B SEAL RETAINING STRIP-LOAD DR	
011	07 50759	87237B LIP SEAL-LOADING DOOR	
012	07 50828	91323C LOAD DOOR STIFFENER-TOP RT	
013	07 50828A	91323# LOAD DOOR STIFFENER-TOP LF	
014A	07 50830	89103D LOAD DOOR STIFF-BOT-22 OPEN	00Y
014B	07 50829	91323D LOAD DOOR STIFF-BOT-32 OPEN	00Z
015A	07 50832	88432B LOAD DOOR STRIP 26.50-DRYER	00Y
015B	07 50832A	88432# LOAD DOOR STRIP 36.00-DRYER	00Z
016	20C044	ADHESIVE 3M EC-1300 IN PINT CONT. ***** END OF PARTS LIST *****	(NOT SHOWN)

How to Read Parts List

Reference Item Numbers—Items 00A, 00B, 00C, etc., or 00X, 00Y, 00Z, etc., appearing at the top of some parts lists, are for reference and provide:

- The part number for the entire assembly depicted in the drawing or a major sub-assembly thereof, and/or
- The range of machine models this drawing applies to.

If more than one reference item appears, this usually means this drawing applies to more than one assembly (and thus to more than one range of machines).

Component Item Numbers—For any item on the drawing (e.g., item ①), there may be several corresponding items on the parts list (e.g., 001A, 001B, 001C, etc.) which are similar components on different assemblies. "How Part Is Used In Assembly" identifies which components apply to your machine, by listing either the machine model, or the reference item number from the top of the parts list (e.g., 00A, 00B, 00C, etc.), or a particular characteristic (e.g., bronze or stainless steel), or special ordering information, such as a repair kit number.

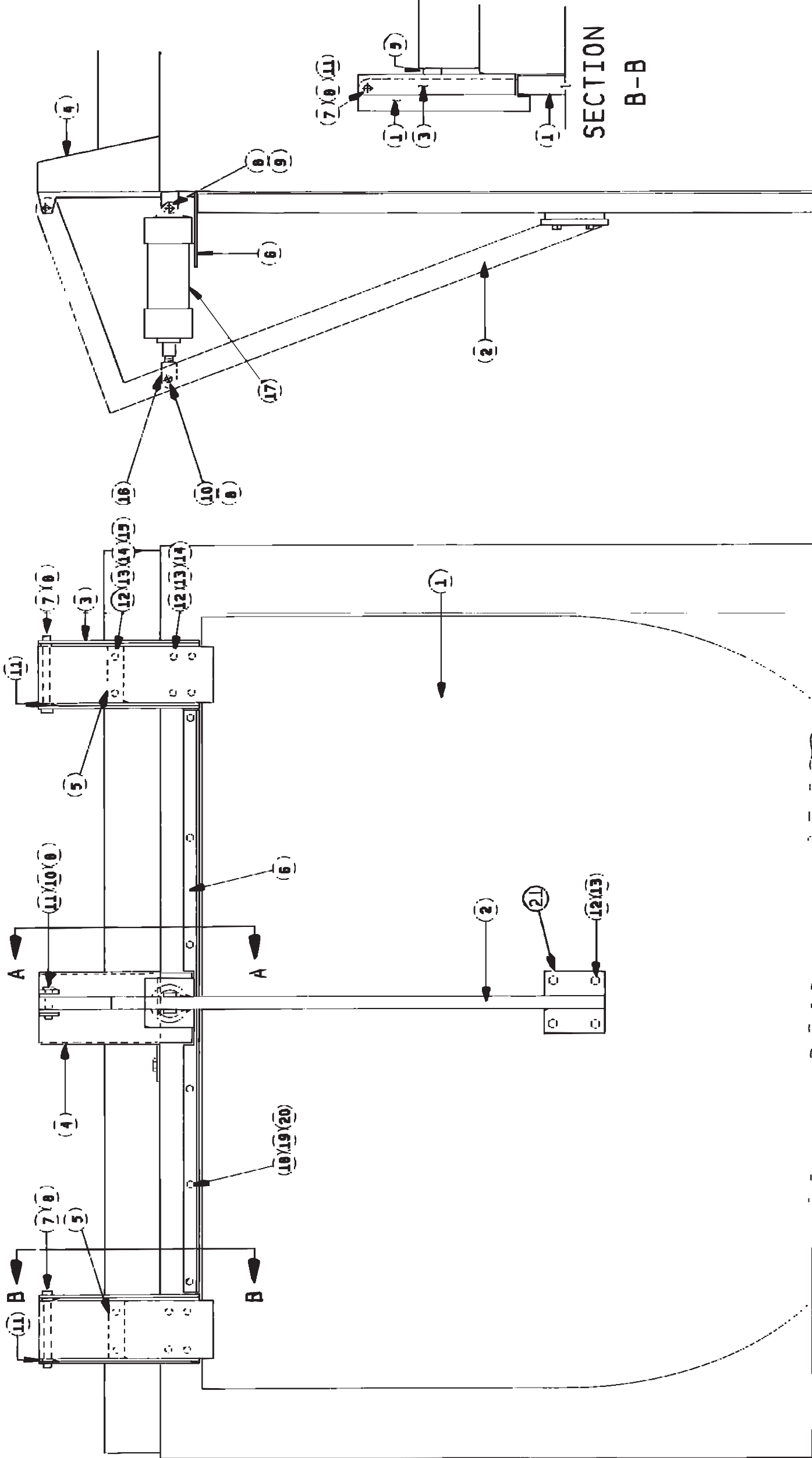


DRAWING

(See other page for parts list, if applicable.)

UNLOAD DOOR ASSEMBLY -- 58040 58058 58080

BMP890038/92503V (Page 1)



NOTE: Prior to installing new feltseals, clean metal surfaces with paint thinner or similar solvent. Install the new seals with 3M EC 1300 Rubber and Gasket Adhesive, (3M ID 62-1300-5530-4) or

PARTS LIST

(See other page for drawing.)

UNLOAD DOOR ASSEMBLY -- 58040 58058 58080

BMP890038/92503V (Page 2)

HOW PART IS USED IN ASSEMBLY
(Only if pertinent)

ITEM	PART NUMBER	DESCRIPTION	58040/58058 58080CS1,CT1 58080TG1,TS1,TT1 00Y 00Z
00Y	G75SD002A	89291E*UNLOAD DOOR INSTALL MKII	
00Z	G77SD002	90000Z 5880 UNLOAD DOOR INSTALL	
001A	A75SD002B	90443D*UNLOAD DOOR W/SM ASSY=MKII	
001B	A77SD002	90443# 5880 UNLOAD DOOR ASSY	
002	W7 50048A	89291D*UNLOAD DOOR LINKAGE ARM-WLMT	
003	07 50055	89111C UNLOAD DOOR HINGE BRACKET	
004	W7 50059A	91286C*UNLOAD LINKAGE MTG BKT WLMT	
005	07 50049	89332B UNLOAD DOOR HINGE BKT SPACER	
006	07 50056	88503C UNLOAD DOOR=TOP SHIELD	
007	17A044A	01Z CLEVIS/PIN 3/4X5+21/32 ZNC"SPEC"	
008	15H051	STDCOTTERPIN 1/8X1+1/2ZINCPL	
009	17A042	CLEVIS PIN 3/4"X 2" DRILLED +ZNC	
010	17A045A	CLEVIS PIN HARD CHROME 3/4 X 3.095	
011	15U320P	FLATWASHER(USS STD) 3/4" ZNC PLT	
012	15K162	HXCAPSCR 1/2-13UNC2AX1.5 GR5 PLATED	
013	15U300	LOKWASHER MEDIUM 1/2 ZINCPL	
014	15G230	HXNUT 1/2-13UNC2B SAE ZINC GR2	
015	15U280	FLATWASHER(USS STD) 1/2" ZNC PLT	
016	17A049B	CLEVIS ROD END 3/4-16#RC-0750 BLK	
017	27C650	08Z AIR CYL 4"X3.5"X1" CLEVIS MNT.	
018	15K060	HXCAPSCR 5/16-18UNCAX3/4 GR5 ZN/CD	
019	15U210	LOKWASHER MEDIUM 5/16 ZINCPL	
020	15G185	HXNUT 5/16-18UNC2B SAE ZINC GR2	
021	W7 50047A	91286C*LINKAGE ARM BASE BRKT WLMT ***** END OF PARTS LIST *****	

How to Read Parts List

Reference Item Numbers—Items 00A, 00B, 00C, etc., or 00X, 00Y, 00Z, etc., appearing at the top of some parts lists, are for reference and provide:

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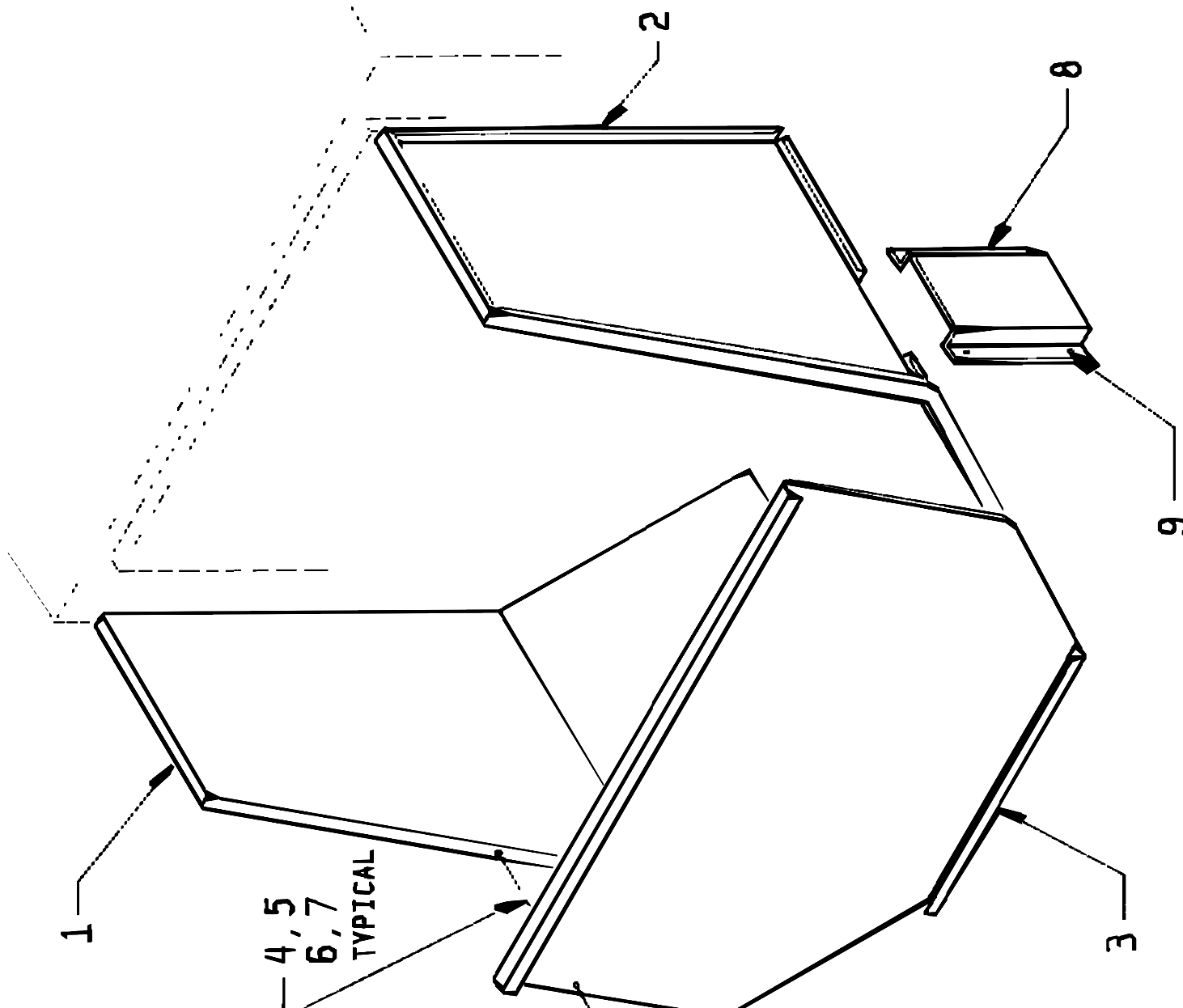
PELLERIN MILNOR CORPORATION
 700 JACKSON STREET/POST OFFICE BOX 400
 KENNER, LOUISIANA 70063-0400 USA

DRAWING AND PARTS LIST
 (See other page for more,
 if applicable.)

UNLOAD CHUTE ASSEMBLY -- 58040 58058 58080

BMP860011/91292V (Page 1)

ITEM	PART NUMBER	DESCRIPTION	HOW PART IS USED IN ASSEMBLY (Only if pertinent)
00Z	G75GS001	86202D*UNLOAD CHUTE INSTALL	
001	07 50133	89016D SIDE RIGHT UNLOAD CHUTE	
002	07 50134	89016# SIDE LEFT UNLOAD CHUTE	
003	07 50135	91182D COVER EXIT DOOR CHUTE	
004	15U210	LOKWASHER MEDIUM 5/16 ZINCPL	
005	15G185	HXNUT 5/16-18UNC2B SAE ZINC GR2	
006	15K060	HXCAPSCR 5/16-18UNCX3/4 GR5 ZN/CD	
007	15U200	FLATWASHER(USS STD) 5/16"ZNC PLT	
008	07 50253	86042C COVER BRG.UNLOAD END	
009	15P010	11ZPHILPAN TRDCWTSCTYF10-24X1/2SS ***** END OF PARTS LIST *****	



How to Read Parts List

Reference Item Numbers—Items 00A, 00B, 00C, etc., or 00X, 00Y, 00Z, etc., appearing at the top of some parts lists, are for reference and provide:

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Drive Assemblies

3



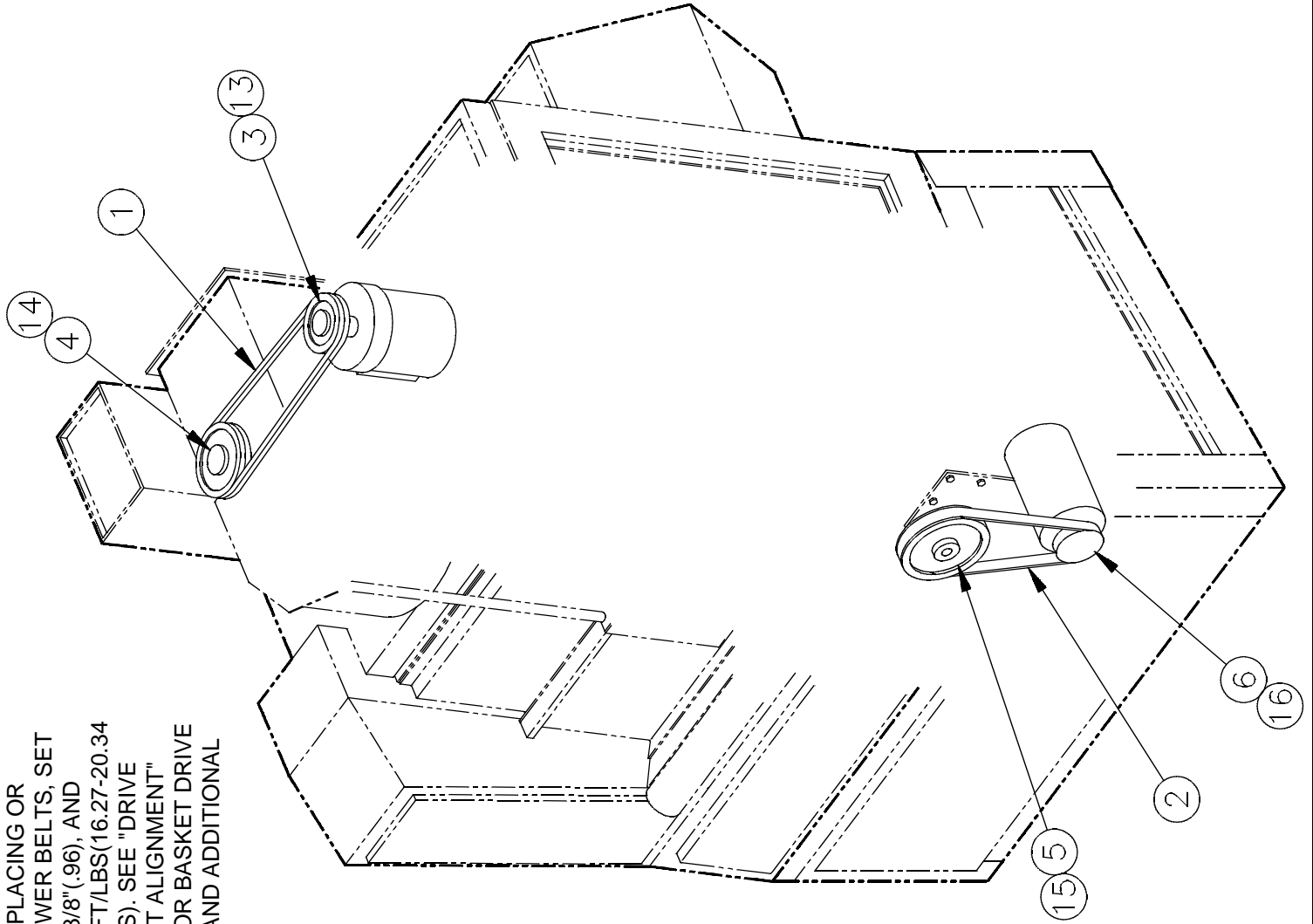
DRAWING AND PARTS LIST

(See other page for more, if applicable.)

DRIVE CHART -- 58040 58058 58080

BMP860004/97101V (Page 1)

NOTE: WHEN REPLACING OR TIGHTENING BLOWER BELTS, SET DEFLECTION AT 3/8"(.96), AND FORCE AT 12-15 FT/LBS(16.27-20.34 NEWTON METERS). SEE "DRIVE PULLEY AND BELT ALIGNMENT" (MSSM0115AE) FOR BASKET DRIVE BELT SETTINGS AND ADDITIONAL INFORMATION.



ITEM	PART NUMBER	DESCRIPTION	HOW PART IS USED IN ASSEMBLY (Only if pertinent)
00U	D76 00150	92262#*DRIVE CHART 5840 DRYER 50CYC	5840 DRYER/COND 50CYCLE
00V	D76 00160	92262#*DRIVE CHART 5840 DRYER 60CYC	5840 DRYER/COND 60CYCLE
00W	D75 00150	92262B*RIVE CHART 5858DRYER 50CYC	5858 DRYER/COND 50CYCLE
00X	D75 00160	92262B*RIVE CHART 5858DRYER 60CYC	5858 DRYER/COND 60CYCLE
00Y	D77 00150	92262#*DRIVE CHART 5880DRYER 50 CYC	5880 DRYER/COND 50CYCLE
00Z	D77 00160	92262#*RIVE CHART 5880DRYER 60 CYC	5880 DRYER/COND 60CYCLE
001A	56VB058X	VBELT BX58 DAYCO RAWEDGE COG	00U,00V
001B	56VB066X	VBELT BX66 RAWEDGE COG	00W
001C	56VB071XM2	VBELT BX71 DAYCO MATCHSET2 EA=1BELT	00X
001D	56VB075XM3	VBELT BX75 MATCHSET3 EA=1BELT	00Y,00Z
002A	54C250	GEAR BELT SYNCRO-COG #700H200	00U,00V,00W,00X
002B	54C275	GEAR BELT SYNCRO-COG #750H200	00Y,00Z
003A	56064B2H	VPUL 2B6.4/A6.0 B#2BK70H DY NAMBAL	00U
003B	56056B2H	VPUL 2B5.6/A5.2 B#2BK62H OR EQUAL	00V,00W
003C	56059B2H	VPUL 2B5.9/A5.5 B#2BK65H OR EQUAL	00X
003D	56070B3SK	VPUL 3B7.0/A6.6 (SK) TYPE OD	00Y
003E	56064B3SD	VPUL 3B6.4/A6.0 (SD) TYPE QD	00Z
004A	56060B2SDS	VPUL 2B6.0/A5.6 (SDS) TYPE QD	00U
004B	56064B2H	VPUL 2B6.4/A6.0 B#2BK70H DY NAMBAL	00V
004C	56074B2SK	VPUL 2B7.4/A7.0 (SK) TYPE QD	00W
004D	56094B2SK	VPUL 2B9.4/A9.0 (SK) TYPE QD	00X
004E	56086B3SK	VPUL 3B8.6/A8.2 (SK) TYPE QD	00Y
004F	56094B3SK	VPUL 3B9.4/A9.0 (SK) TYPE QD	00Z
005	54WH020084	PULLEY TIMEBELT(H)ELECTRON#84H200SF	00U,00W,00Y
006A	54WH020024	PULLEY TIMEBELT(H)ELECTRON#24H200SD	00V,00X,00Z
006B	54WH020020	PULLEY TIMEBELT(H)ELECTRON#20H200SH	00U,00V,00W,00X
013A	56Q1GH	1+3/8" BUSHING,VPUL TYPE H,D,OR QT	00Y
013B	56Q1MP1	1+5/8" BUSHING,VPUL BROWNING "P1"	00Z
013C	56Q1MSD	1+5/8" BUSHING,VPUL QD TYPE "SD"	00U
014A	56Q1GSDS	1+3/8" BUSHING,VPUL QD TYPE "SDS"	00V
014B	56Q1GH	1+3/8" BUSHING,VPUL TYPE H,D,OR QT	00W,00X,00Y
014C	56Q1GSK	1+3/8" BUSHING,VPUL QD TYPE "SK"	00Z
014D	56Q1MSD	1+5/8" BUSHING,VPUL QD TYPE "SD"	00U,00W,00Y
015	56Q1GSF	1+3/8" BUSHING,VPUL QD TYPE "SF"	00Y
016A	56Q1GSD	1+3/8" BUSHING,VPUL QD TYPE "SD"	00Z
016B	56Q1GSH	1+3/8" BUSHING,VPUL QD TYPE "SH"	00U
017	15E230	STRMACHKEY 3/8SQX2+1/2 TOL.+0 -.022 ***** END OF PARTS LIST *****	

How to Read Parts List

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DRIVE TRAIN MAINTENANCE

Support Roller Replacement

See “DRIVE AND SUPPORT SHAFT ASSEMBLY . . .” in this section during the following procedures.

The cylinder rotates on four rollers mounted on two shafts. One shaft is driven by an electric motor mounted near the front of the housing. As the cylinder rotates, guide rollers maintain the axial position of the cylinder within the housing. This is illustrated in FIGURE 1.

The two shafts are aligned at the factory so the basket rotates in line with the support rollers. After servicing any drive components, the shafts must be returned to exact parallel alignment before the machine is returned to regular duty. On later machines, positioning bolts are installed through each bearing bracket so the shafts can easily be returned to their original alignment.

If the shafts are not exactly parallel, the basket will walk toward one end of the dryer house. This will cause excessive wear to the guide rollers and support rollers, and may eventually cause the cylinder to rub on the discharge door.

The diameter of all the support rollers on the same shaft must be the same. If not, the basket will walk toward one end of the dryer house. Using a Pi tape or a simple flat tape measure, check the circumference of each roller on the shaft. Rollers can be replaced individually if the new roller is the same diameter as the others on the shaft.

Check the guide rollers. If they are worn excessively, the forward support rollers will ride on rough welds on the cylinder. See “GUIDE ROLLER REPLACEMENT” (see Table of Contents).

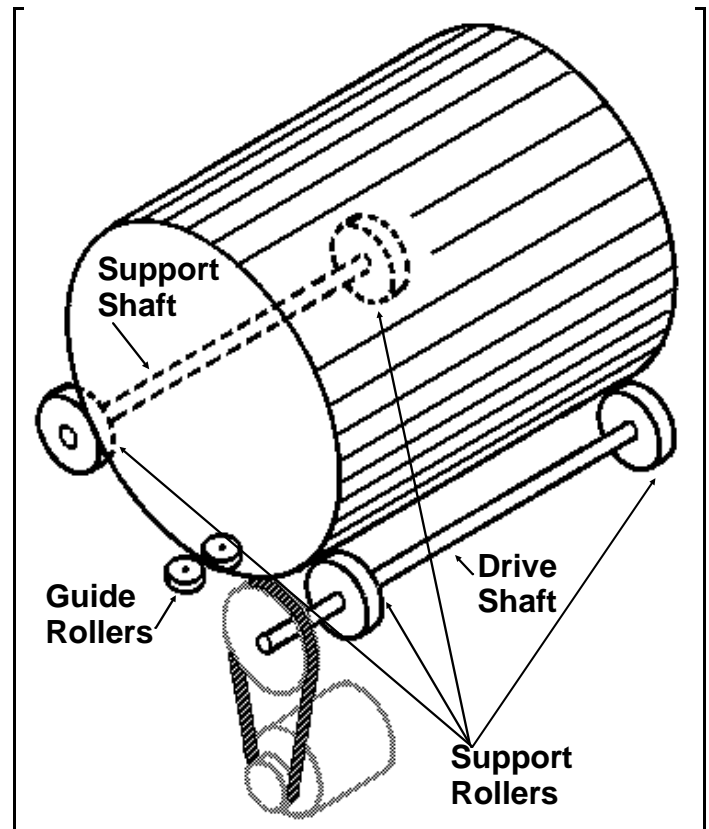


FIGURE 1 (MSSM0115AE)
Dryer Support and Guide Rollers

⚠ DANGER ⚠

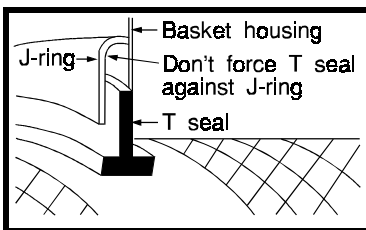


CRUSHING AND ENTANGLEMENT HAZARD—Rotating machinery can entangle and crush body parts. Lock OFF and tag out power at the wall disconnect before servicing the machine.

Raising the Cylinder

1. Rotate the cylinder by manually turning the drive pulley until a rib is at bottom dead center.
2. Loosen the bushing fasteners on each worn support roller to ease later removal. Always replace both support rollers on a shaft at the same time.

⚠ CAUTION ⚠



CYLINDER AND T-SEAL DAMAGE will occur if jack forces cylinder against top of basket housing. (T-seals are used on dryers and conditioners only.)

3. To service drive components, the basket must be raised off the support rollers using wooden blocks above and below the jack. Position a jack under the basket as shown in FIGURE 2, then carefully jack the basket up until it is off the rollers.
4. Once the cylinder is clear of all rollers, place wooden wedges between the cylinder and the housing to help hold it in position during roller replacement.

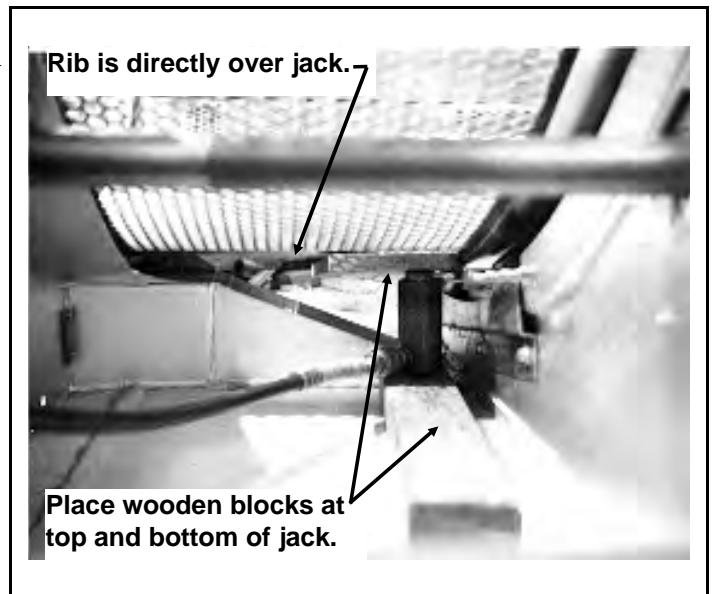


FIGURE 2 (MSSM0115AE)
Cylinder Jacking Procedure

Removing Worn Drive and Support Rollers

See “DRIVE AND SUPPORT SHAFT ASSEMBLY . . .” in this section during the following procedures.

When changing worn support rollers, it is easiest to remove the rear bearing, then slide the shaft out of the front bearing mounting bracket. Always replace both support rollers on a shaft. In older machines, the bearing mounting brackets were not provided with positioning screws. In this case, drill and tap the bearing brackets before removing the flange bolts.

1. Remove positioning screws from lower edge of mounting bracket and bearing flange bolts. Loosen adjustment bolt inner hex nuts to allow the bearing mounting bracket, tap plate, and shaft to shift downward, permitting access to the support rollers.
2. Loosen the rear bearing shaft collar set screws. Remove the bolt and washers from the rear of the shaft, then re-install the bolt to protect the shaft end.
4. Remove the three previously loosened bushing fasteners and tighten them evenly into the provided bushing push-off holes. Remove the screw securing the key in the keyway, then remove the key.
5. Thread the pulling fixture screws into the rear bearing mounting tap plate. Tighten the pulling fixture bolt against the shaft end bolt as shown in FIGURE 3, and push the shaft through the bearing.
6. Remove the shaft through the front, leaving the front bearing attached.

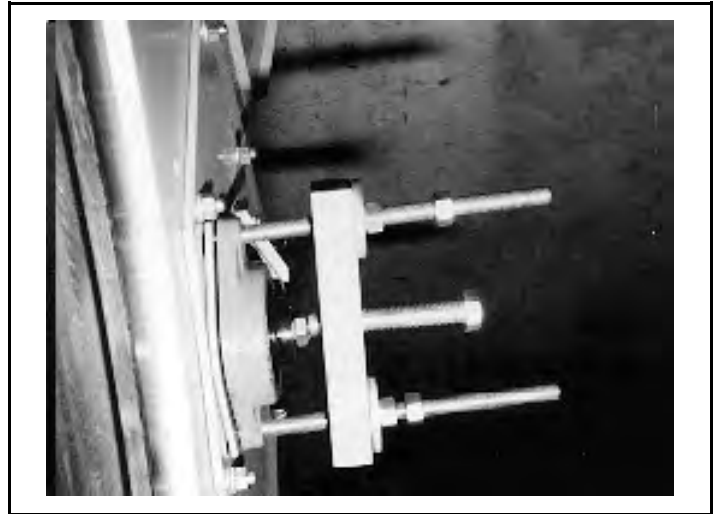


FIGURE 3 (MSSM0115AE)
Using the Pulling Fixture

Re-Installing Shaft Components

See “DRIVE AND SUPPORT SHAFT ASSEMBLY . . .” during these procedures.

All parts must be clean, dry, and free of any old adhesives before installation.

1. While re-inserting the shaft, install the bushings, support rollers, and keys (using the original screws). Do not secure the support rollers to the shaft at this time.
2. After the front bearing is flush against the bearing mounting bracket, place the rear bearing on the shaft. Apply Loctite 242 where the rear bearing seats on the shaft. Wipe excess Loctite off shaft and bearing. To press on the bearing, replace the bolt in the end of the shaft bolt with a 4"x 3/4" bolt atop several thick over-size washers or a large socket, then tighten until the bearing seats against the shoulder on the shaft.
3. Re-install the rear bearing locking collar and set screws. Tighten the locking collar set screws to 150 inch-pounds (16.9 Newton meters).
4. Position each support roller in the center of each roller opening in the basket housing frame. Alternately, tighten the three screws evenly until they are torqued to 180 inch-pounds (20.3 Newton meters).
5. Use the adjustment hex nuts to raise the bearings, then check basket alignment.

Checking Basket Alignment

After replacing support rollers, the basket must be checked for alignment within the house as shown in FIGURES 4 and 5.

1. After basket alignment, insert the bearing mounting bracket positioner screws. Drill and tap new holes if necessary.
2. If replacing the drive pulley, see FIGURES 6 and 7 to align the pulley and set the belt tension. Tighten the set-screw in the pulley bushing.

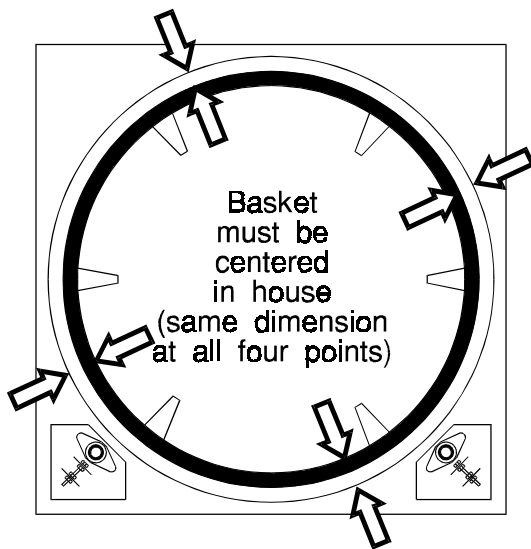


FIGURE 4 (MSSM0115AE)
Rear View of Basket

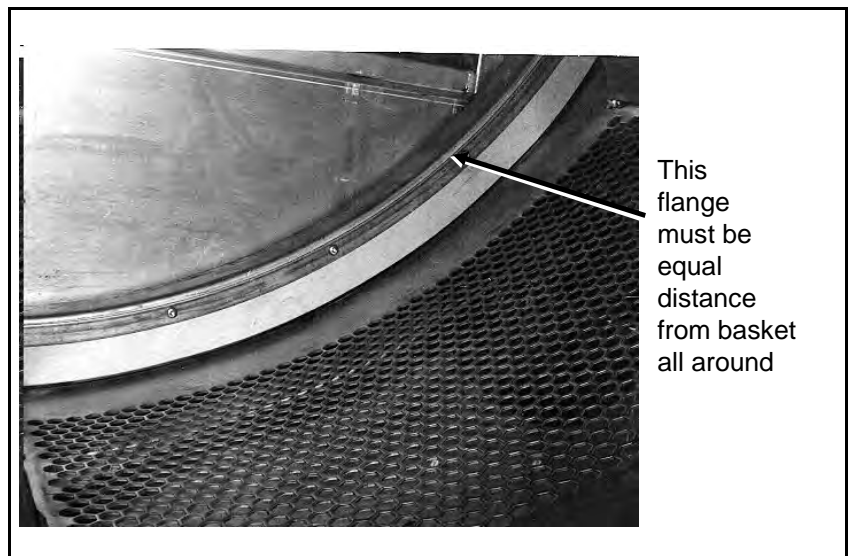


FIGURE 5 (MSSM0115AE)
Inside View of Basket

Drive Pulley and Belt Alignment

See the “BASKET DRIVE MOTOR BASE ASSEMBLY . . .” drawings in this section for drive motor mounting. When replacing either drive pulley, the drive belt, or drive motor, the pulleys must be properly aligned and adjusted as shown in FIGURES 6 and 7.

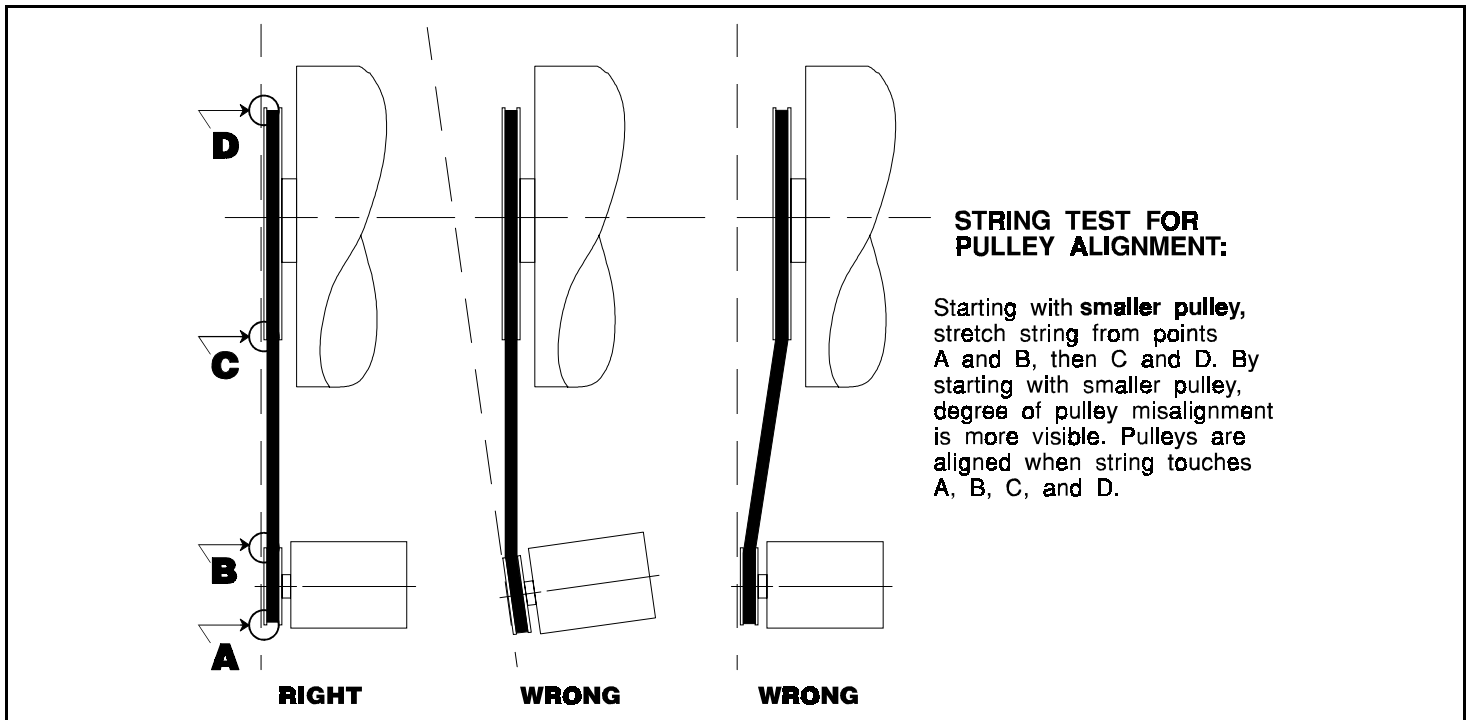


FIGURE 6 (MSSM0115AE)
Aligning Drive Pulley

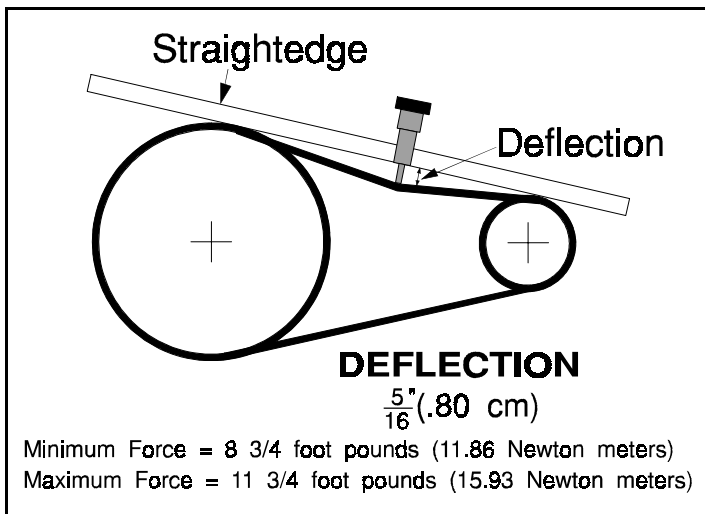


FIGURE 7 (MSSM0115AE)
Setting Belt Tension

Drive and Support Shaft Assembly

58040, 58058, 58080 Dryers

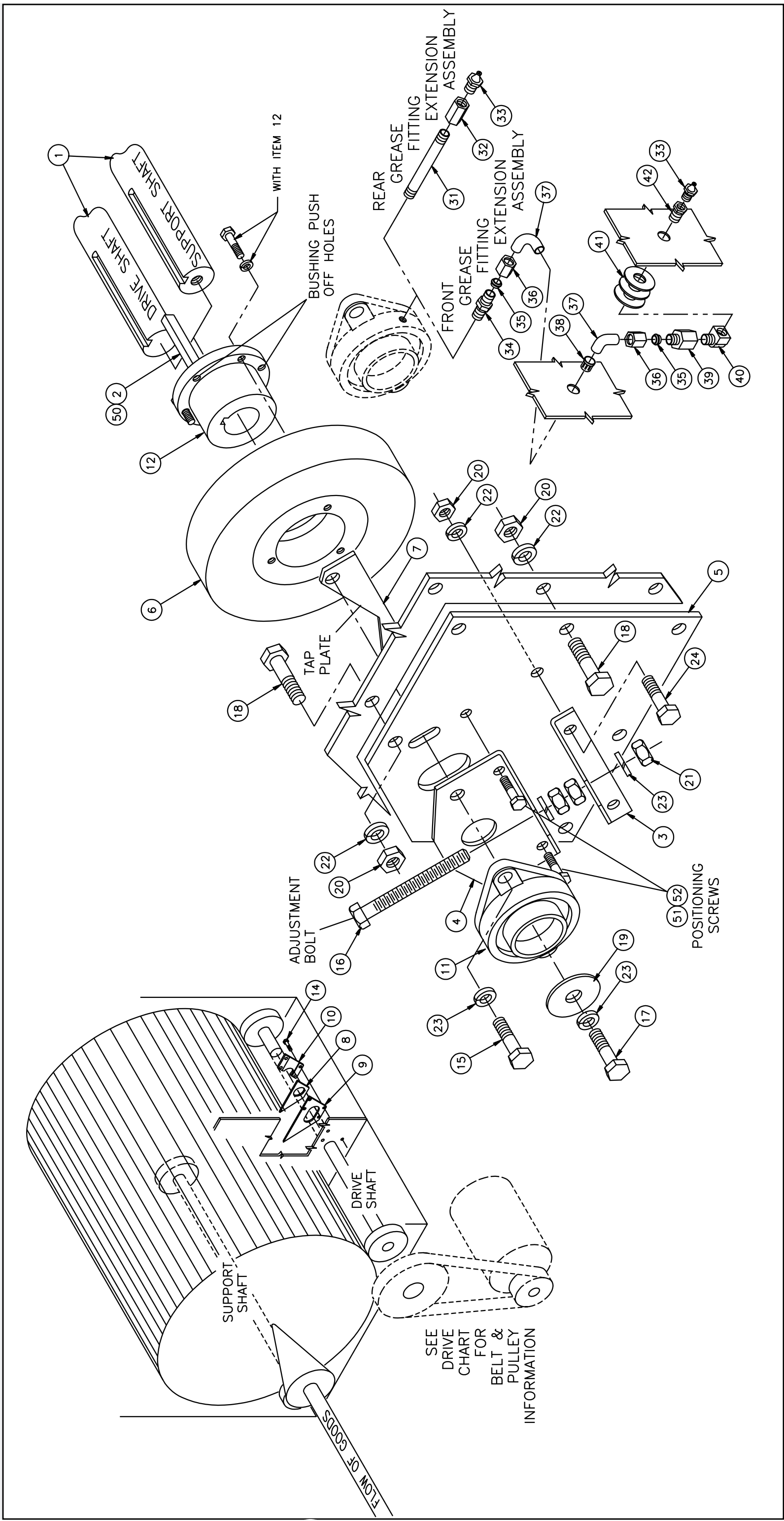
BMP860002/97082V
(Sheet 1 of 2)



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Parts List—Drive and Support Shaft 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	B	07 70029	90296B 5880 DRYER SHAFT KEY=WHEEL	00Y,00Z
all	R	G76DB001	86286N*DRIVE INSTALLATION 5840	58040
all	T	G77DB001	89267N*5880 DRIVE INSTALLATION	58080
all	U	A76DB002	93431#DRIVE SHAFT=BASKET 5840 ASSY	58040 DRIVE SHAFT
all	V	A76DB003	93431#SUPP. SHAFT=BASKET 5840 ASSY	58040 SUPPORT SHAFT
all	W	A75DB002	93431D*DRIVE SHAFT=BASKET ASSY	58058 DRIVE SHAFT
all	X	A75DB003	93431#SUPPORT SHAFT=BASKET ASSY	58058 SUPPORT SHAFT
all	Y	A77DB002	89000Z 5880 DRIVE SHAFT=BASKET ASSY	58080 DRIVE SHAFT
all	Z	A77DB003	89000Z 5880 SUPPT SHAFT=BASKET ASSY	58080 SUPPORT SHAFT
all	1	07 60018	92096C DRIVE SHAFT=DRYER	00U,
all	1	07 60017	92096C SUPPORT SHAFT=DRYER	00V,
all	1	07 50032	92096C DRIVE SHAFT= DRYER 5858	00W
all	1	07 50031	92096C SUPPORT SHAFT=DRYER 5858	00X
all	1	07 70026	96247C DRIVE SHAFT=5880 DRYER	00Y
all	1	07 70027	96247C SUPPORT SHAFT=5880 DRYER	00Z
all	2	07 50031A	87347B DRYER SHAFT KEY=WHEEL	00U,00V,00W,00X
all	3	07 50127	88456B BRKT=BEARING AJUST	
all	4	07 50128	89214B BRKT=BEARING MOUNTING	
all	5	G75DB001	86221N*DRIVE INSTALLATION	58058
all	5	07 50146	92281C SUPPORT/DRIVE BEAR MTG PLATE	LEFT
all	5	07 50146A	92281# BK/RT SUP/DRIVE BEAR/MTG PLT	RIGHT
all	6	60C509UT	01Z WHEEL SINGLE 9"OD URETHANE	00U,00V,00W,00X
all	6	60C510UT	WHEEL DOUBLE 9"OD URETHANE	00Y,00Z
all	7	07 70049A	92032B BEAR ADJUST TAP PLATE	
all	8	07 50222C	91417B BASKET SHAFT SEAL LARGE DIA	00U,00V,00W,00X
all	8	07 70031	93397B 5880 BASKET SHAFT SEAL	00Y,00Z
all	9	07 50222A	91417B BASKET SHAFT SEAL HOLDER	00U,00V,00W,00X
all	9	07 70030	89267B 5880 BASKET SHAFT SEAL BRKT	00Y,00Z
all	10	07 50222B	94091B BASKET SHAFT SEAL SUP PLATE	001,00V,00W,00X

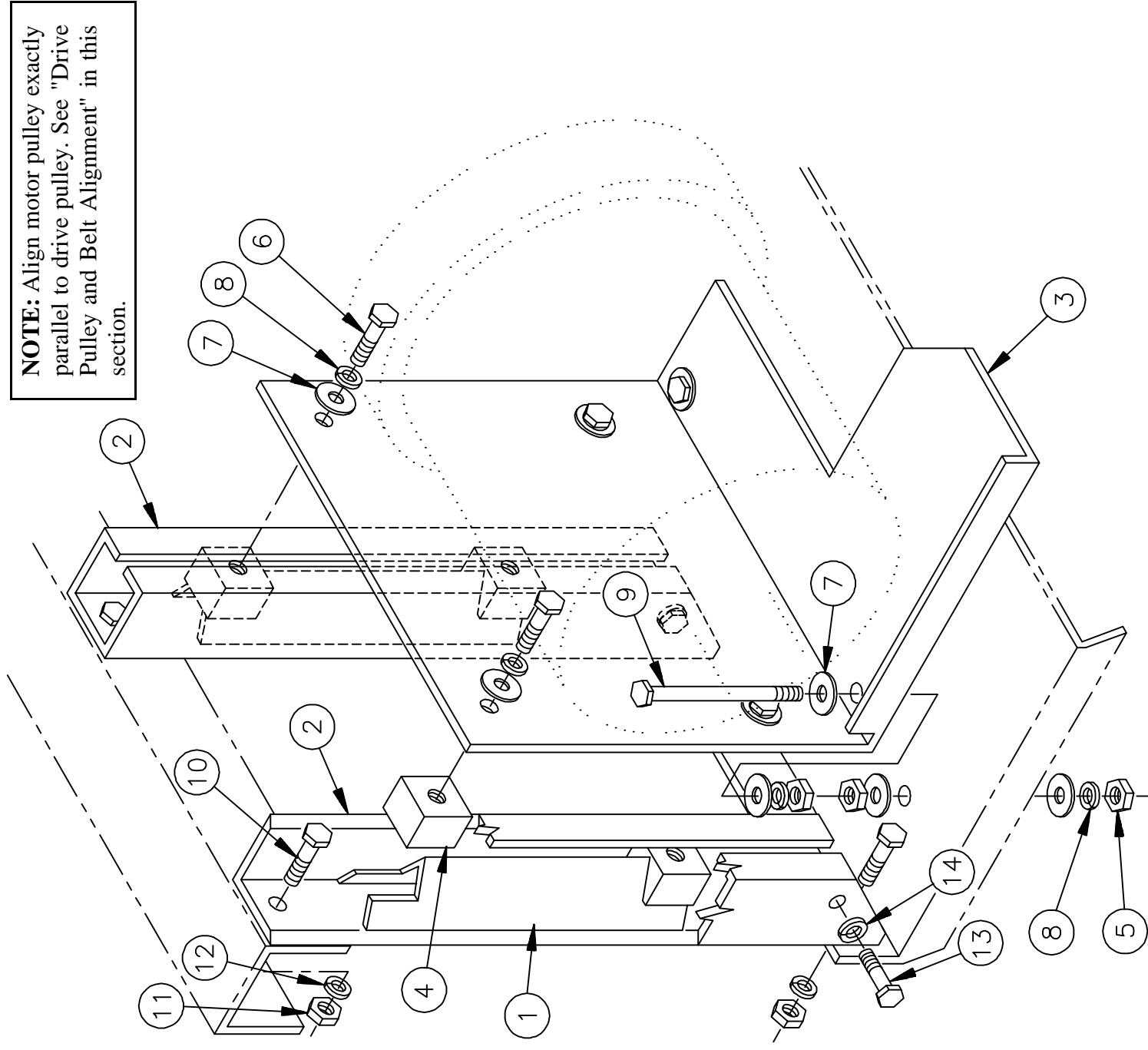
Used In		Item	Part Number	Description	Comments
all		10	07 70032	91417B 5880 BASKET SHAFT SEAL PLATE	00Y,00Z
all		11	56F1H2CSWC	92057C FLG BRG=1.438 B.D.+COLLAR	00U,00V,00W,00X
all		12	56Q1NSK	1+11/16" BUSH VPUL QD TYPE SK	00Y,00Z
all		12	56Q1TQ3	1+15/16" BUSH VPUL BROWNING Q3	
all		13	15U286	FLATWASHER 2"0DX17/32"IDX1/4" ZINC	
all		14	15P010	12Z PHILPAN TRDCUTSCRTP10-24X1/2SS	
all		15	15K162	HXCAPSCR 1/2-13UNC2AX1.5 GR5 PLATED	00U,00V,00W,00X
all		15	15K173A	HXCAPSCR 1/2-13UNC2AX1.75 GR5 PLATD	00Y,00Z
all		16	15D119	HXTAPSCR 1/2-13X4 GR5 ZNC FULLTHRD	00U,00V,00W,00X
all		16	15K202	HXCAPSCR 1/2-13UNC2AX5 GR5 ZINC/CAD	00Y,00Z
all		17	15K145	HXCAPSCR 1/2-13UNC2AX3/4 GR5 PLATED	00U,00V
all		17	15K147	HXCAPSCR 1/2-13UNC2X1 GR5 ZINC	00W,00X,00Y,00Z
all		18	15K095	HXCPSCR 3/8-16UNC2AX1 GR5 ZINC/CAD	
all		19	15U445	FLATWASH 1.453"X2"OD.X.060THK.ZINPL	
all		20	15G205	HXNUT 3/8-16UNC2B ZINC GR2	
all		21	15G230	HXNUT 1/2-13UNC2B SAE ZINC GR2	
all		22	15U255	LOCKWASHER MEDIUM 3/8 ZINCPL	
all		23	15U300	LOKWASHER REGULAR 1/2 ZINC PLT	
all		31	5N0C03AG42	NPT NIPPLE 1/8X3 TBE GALSTL SK40	
all		32	5SCC0CBE	NPT COUP 1/8 BRASS 125# 103A-A	
all		33	54M015	65408A GREASEFIT 60X36/60X44 1610BL	
all		34	53A005B	BODY=MALECONN 1/4X1/8COMP #B68A-4A	
all		35	53A059	SLEEVE 1/4" COMP IMP #60F BRASS	
all		36	53A059A	NUT 1/4"COMP.HOLYOKE ANDERSON#61A-4	
all		37	60E004TE	04Z 1/4"OD X.170"ID NYLON TUBING *	
all		38	12P1AHSB	SNAPBUSH.437MHX.312 T=1/8HEYCO#2043	
all		39	53A007B	BODY=FEMCONN 1/4X1/4 COMP W#B66X4X4	
all		40	5SL0EBEC	NPT ELBOW 90DEG STRT 1/4" BRASS 125	
all		41	15U280	01Z FL+WASHER(USS STD)1/2 ZNC PL+D	
all		42	5SB0E0CBEO	HEXPBUSH 1/4 X 1/8 BRASS 125#	
all		50	15N082	FILMACSCR 8-32UNC2X3/8SS18-8	
all		51	15K060	HXCAPSCR 5/16-18UNCAX3/4 GR5 ZN/CD	
all		52	15G193	HEXLOKNUT 5/16-18UNC2A NYL STL+ ZNC	



DRAWING AND PARTS LIST
 (See other page for more,
 if applicable.)

BASKET DRIVE MOTOR BASE ASSEMBLY--58040

BMP860008/90342V (Page 1)



ITEM	PART NUMBER	DESCRIPTION	HOW PART IS USED IN ASSEMBLY (Only if pertinent)
00Z	A76DB001	89313D*DRIVE BASE=BASKET 5840 ASSY	REFERENCE ONLY
001	07 60113	86446B CYL:DRIVE MOTOR T-NUT SPACER	
002	07 60246	87437C RAIL=MOTOR MTG-19.625 LG	
003	07 60112	88332C CYL DRIVE MOTOR MOUNT-5840	
004	02 19283	86477B NUT=1/2-13UNCX1+1/25Q SPEC	
005	15G230	HXNUT 1/2-13UNC2B SAE ZINC GR2	
006	15K147	HXCAPSCR 1/2-13UNC2X1 GR5 ZINC	
007	15U280	FLATWASHER(USS STD) 1/2" ZNC PLT	
008	15U300	LOKWASHER MEDIUM 1/2 ZINCPL	
009	15K205	HXCAPSCR 1/2-13UNC2AX8.5GR5 ZINC/CD	
010	15K095	HEXCAPSCR 3/8-16UNC2AX1"GR5 ZNC/CAD	
011	15G205	HXNUT 3/8-16UNC2B ZINC GR2	
012	15U255	LOKWASHER MEDIUM 3/8 ZINCPL	
013	15K060	HXCAPSCR 5/16-18UNCAX3/4 GR5 ZN/CD	
014	15U210	LOKWASHER MEDIUM 5/16 ZINCPL	

***** END OF PARTS LIST *****

How to Read Parts List

Reference Item Numbers—Items 00A, 00B, 00C, etc., or 00X, 00Y, 00Z, etc., appearing at the top of some parts lists, are for reference and provide:

1. The part number for the entire assembly depicted in the drawing or a major sub-assembly thereof, and/or
2. The range of machine models this drawing applies to.

If more than one reference item appears, this usually means this drawing applies to more than one assembly (and thus to more than one range of machines).

Component Item Numbers—For any item on the drawing (e.g., item ①), there may be several corresponding items on the parts list (e.g., 001A, 001B, 001C, etc.) which are similar components on different assemblies. "How Part Is Used In Assembly" identifies which components apply to your machine, by listing either the machine model, or the reference item number from the top of the parts list (e.g., 00A, 00B, 00C, etc.), or a particular characteristic (e.g., bronze or stainless steel), or special ordering information, such as a repair kit number.

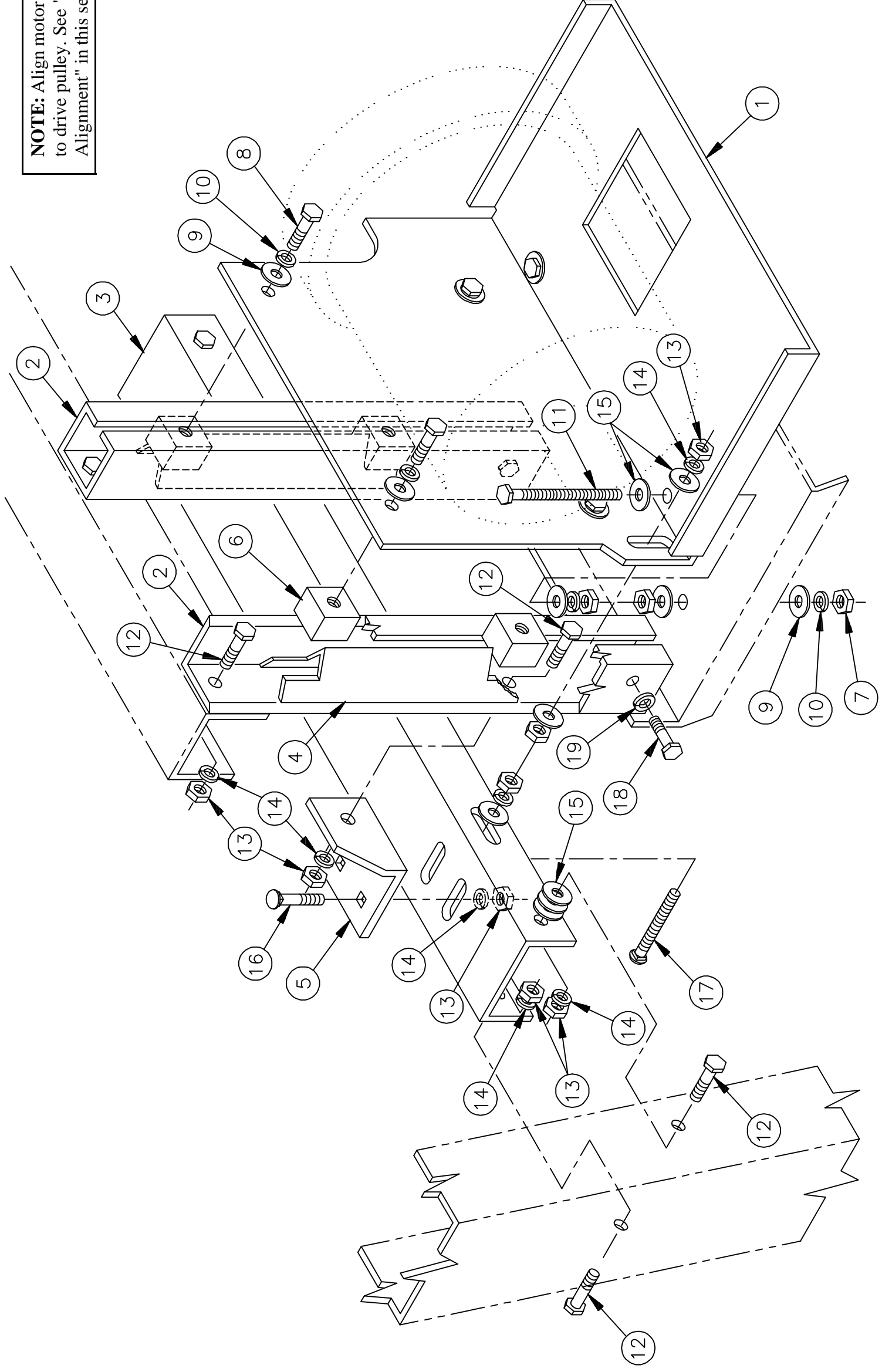


DRAWING
(See other page for parts list,
if applicable.)

BASKET DRIVE MOTOR BASE ASSEMBLY--58058 58080

BMP900036/90342V (Page 1)

NOTE: Align motor pulley exactly parallel
to drive pulley. See "Drive Pulley and Belt
Alignment" in this section.





PARTS LIST

(See other page for drawing.)

BASKET DRIVE MOTOR BASE ASSEMBLY--58058 58080

BMP900036/90342V (Page 2)

		HOW PART IS USED IN ASSEMBLY (Only if pertinent)	
ITEM	PART NUMBER	DESCRIPTION	
00Y	A75DB001	89313D*DRIVE BASE=BASKET ASSY	5858 DRYER/COND
00Z	A77DB004	89313#*5880 DRIVE BASE=BASKET ASSY	5880 DRYER/COND
001A	07 50194	89273C CYL.DRIVE MOTOR MOUNT	00Y
001B	07 70094	90331D 5880 CYL MOTOR=MOUNT PLATE	00Z
002A	07 50204	89207C RAIL=MOTOR MTG 17" LG DRYER	00Y
002B	07 70096	90282C 5880 CYL MOTOR=ADJUST RAIL	00Z
003A	07 50205A	89273C CHAN-MOTOR RAIL SUPP-5858	00Y
003B	07 70097	89301C 5880 CYL MOTOR=SPPT BRKT	00Z
004A	07 50193	85462B CYL.DRIVE MOTOR T-NUT SPACER	00Y
004B	07 70098	89301C 5880 CYL MOTOR=T-NUT SPACER	00Z
005A	07 50205B	89313B ANGLE-MOTOR RAIL MTG-5858	00Y
005B	07 70099	89301B 5880 CYL MOTOR=ANGLE MNT BKT	00Z
006	02 19283	86477B NUT=1/2-13UNCX1+1/25Q SPEC	
007	15G230	HXNUT 1/2-13UNC2B SAE ZINC GR2	
008	15K147	HXCAPSCR 1/2-13UNC2X1 GR5 ZINC	
009	15U280	FLATWASHER(USS STD) 1/2" ZNC PLT	
010	15U300	LOKWASHER MEDIUM 1/2 ZINCPL	
011	15K202	HXCAPSCR 1/2-13UNC2AX5 GR5 ZINC/CAD	
012	15K095	HEXCAPSCR 3/8-16UNC2AX1"GR5 ZNC/CAD	
013	15G205	HXNUT 3/8-16UNC2B ZINC GR2	
014	15U255	LOKWASHER MEDIUM 3/8 ZINCPL	
015	15U240	FLATWASHER(USS STD) 3/8" ZNC PLT	
016	15A015	67381A CARRSCR 3/8-16X1+1/4 SPECIAL	
017	15A035	CARRIAGSCR 3/8-16UNC2X4 BLK GR2	
018	15K060	HXCAPSCR 5/16-18UNCAX3/4 GR5 ZN/CD	
019	15U210	LOKWASHER MEDIUM 5/16 ZINCPL ***** END OF PARTS LIST *****	

How to Read Parts List

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GUIDE ROLLER REPLACEMENT

Guide Roller Installation

⚠ WARNING ⚠



CRUSHING AND ENTANGLEMENT HAZARD—Rotating machinery can entangle and crush body parts. Lock OFF and tag out power at the wall disconnect for the machine.

See “GUIDE ROLLER ASSEMBLY . . .” in this section for the following procedures:

1. Remove the front central access panel (FIGURE 1). Remove the guide roller cover (two screws).
2. Remove the four mounting bolts that secure the roller assembly to the basket housing and remove the roller assembly.
3. Remove the two rollers from the roller bracket. **Always replace both rollers.**
4. On each of the two new rollers, determine that the new snap ring is properly seated and the new bushing is installed on the roller shaft.
5. Install the two new rollers onto the roller bracket using the new locking washers and nuts. Tighten the nuts, and bend the locking washer tabs to secure the nuts.
6. Mount the guide roller assembly onto the basket housing using the four mounting bolts.

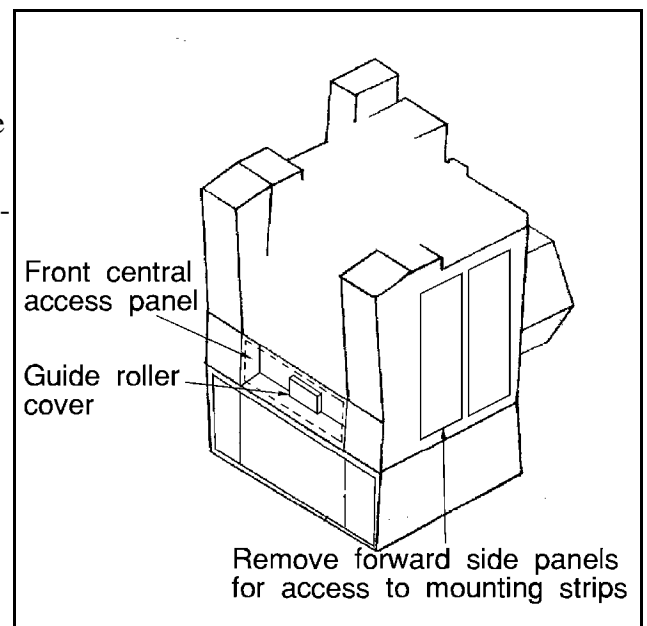


FIGURE 1 (MSSM0111AE)
Guide Roller Location

NOTE: The mounting bolts screw into two threaded mounting strips that may have fallen out of place when the roller bracket was removed. Remove the two forward panels on both sides of the machine and position these strips when re-installing the mounting bolts (FIGURE 1).

Guide Roller Adjustment

1. Vertically position the roller assembly so the exposed (forward) roller will ride completely within the surface area of the front ring on the basket (FIGURE 2).
2. Determine that the roller bracket is level with the basket housing, then tighten mounting bolts. Determine that the roller does not extend off of the basket ring.
3. With the unload door open, determine that the basket is recessed $\frac{1}{8}$ " (.31) or less within the rear of the basket housing. If necessary, turn the basket and adjust both of the positioning screws on the guide roller bracket. Ensure all lock nuts and screws are tight.

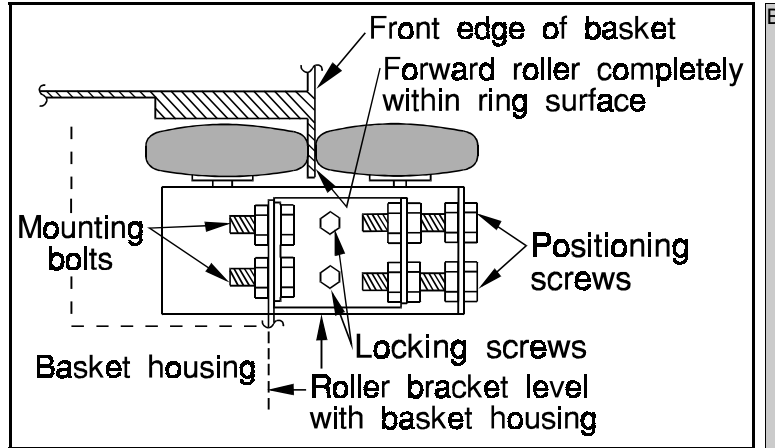


FIGURE 2 (MSSM0111AE)
**Correct Guide Roller Positioning
(Left Side View)**

NOTE: Insufficient dwell time between cylinder reversals causes the basket to “hop,” resulting in guide roller damage. Increase dwell time, (see “PROGRAMMING THE MARK II DRYER CONTROL” in the programming manual), if guide rollers need frequent replacement or basket “hopping” is observed.

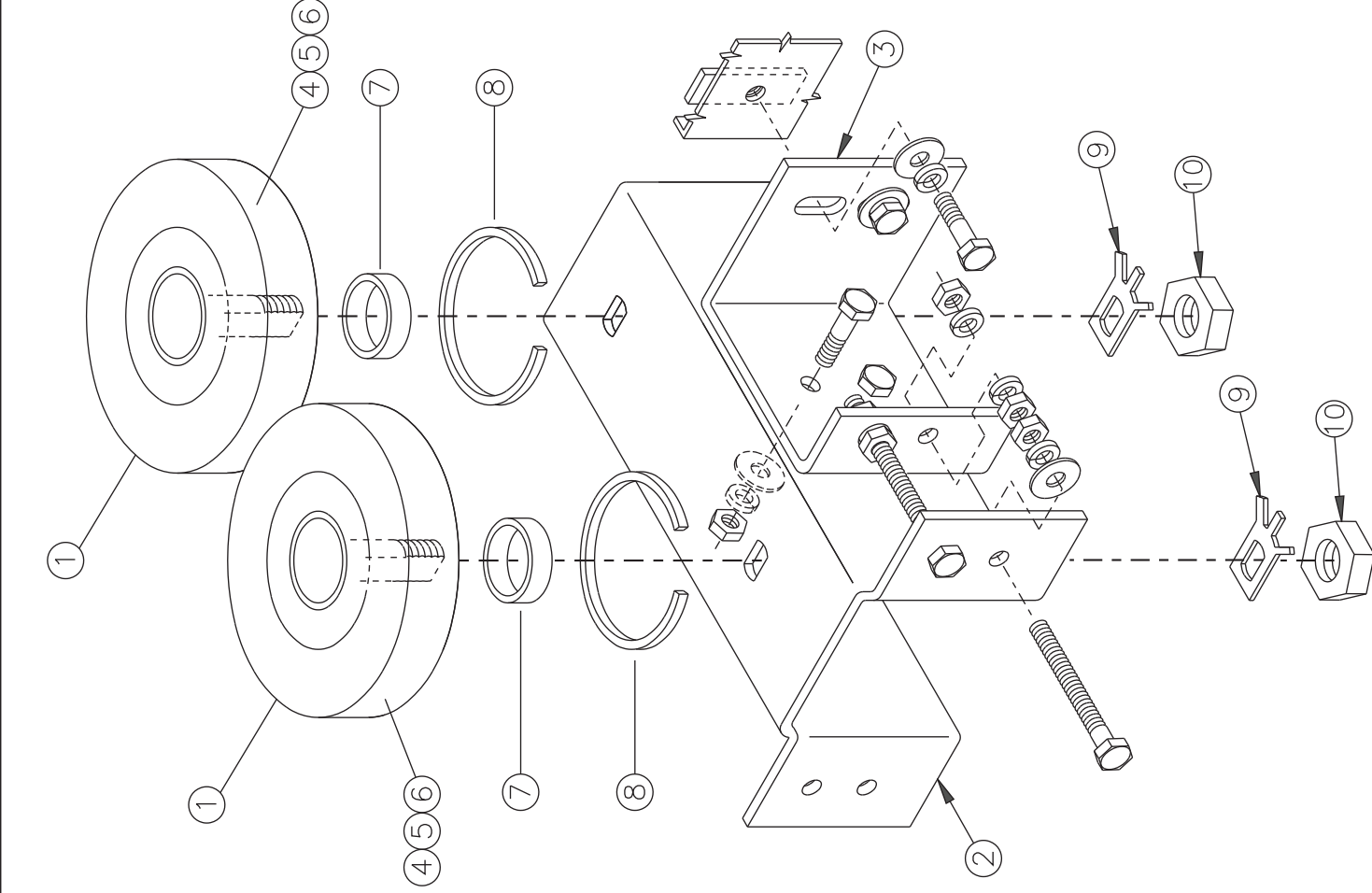
Guide Roller Assembly 58040, 58058, and 58080



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BMP860003/2021314B
(Sheet 1 of 1)

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Parts List—Guide Roller 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
			-----REFERENCE ASSEMBLIES-----	
	A	A75GB003	*GUIDE ROLLER ASSY=DRYER	5840 & 5858
	B	A77GB002	5880 GUIDE ROLLER ASSY	5880
			-----COMPONENTS-----	
A	1	A75GB003B	*4" GUIDE ROLLER WHEEL ASSY	CONTAINS ITEMS 4-10
B	1	A77GB003	5880 GUIDE ROLLER WHEEL ASSY	CONTAINS ITEMS 4-10
A	2	07 50218	BRKT SMALL GUIDE ROLLER	
B	2	07 70092	5880 5" GUIDE ROLLER BRKT	
all	3	07 50219	BRKT GUIDE ROLLER MOUNT	
A	4	60C502A	4" GUIDE ROLLER 1.50 BORE	
B	4	60C503A	5" GUIDE ROLLER 1.38 BORE	
all	5	07 50053	SHAFT=GUIDE ROLLER DRYER	
all	6	54A075	BALBRG NTN#63205LLBC3/5C 1/BX .9843"ID	
all	7	07 50054	BUSHING=GUIDE ROLLER DRYER	
all	8	17B017B	INTRETRING IND#3000X206-ST-ZD	
all	9	06 20070	LOCKING WASHER ROLLER SHAFT	
all	10	15G245	HXFJNUT 3/4-10UNC2 SS18-8	

HOW TO REPLACE THE T-SEAL

The T-Seal (used in Dryers and Conditioners) must be maintained in good working condition to maintain the proper direction of air flow and ensure drying efficiency. A drop in efficiency, particularly where outlet temperatures are prematurely achieved, is evidence of a leaking T-Seal. If this condition occurs, inspect the T-Seal tension bracket. If no tension exists, it is likely the T-Seal has broken and must be replaced. This procedure requires two people.

⚠ WARNING ⚠



CRUSHING AND ENTANGLEMENT HAZARD—Rotating machinery can entangle and crush body parts. Lock OFF and tag out power at the wall disconnect for the Dryer or Conditioner.

Removing the Old T-Seal

1. Remove the side access panels to gain access to the T-Seal and bracket. See FIGURE 1.
2. Release the tension on the bracket (if any tension exists) by loosening the hex nuts on the tension rod. See “T-SEAL ASSEMBLY . . .” in this section.
3. Disassemble the tension bracket from the T-Seal. See “T-SEAL ASSEMBLY . . .”
4. Thread a piece of strong, flexible wire through the holes in the end of the T-Seal, as shown in FIGURE 2, and remove the T-Seal from the J-ring by pulling the wire while another person hand turns the basket via the large cog belt pulley.

NOTE: Work the old T-Seal out gently while hand turning the basket to avoid breaking the T-Seal any more than it already is. **Never turn the basket under motor power.**

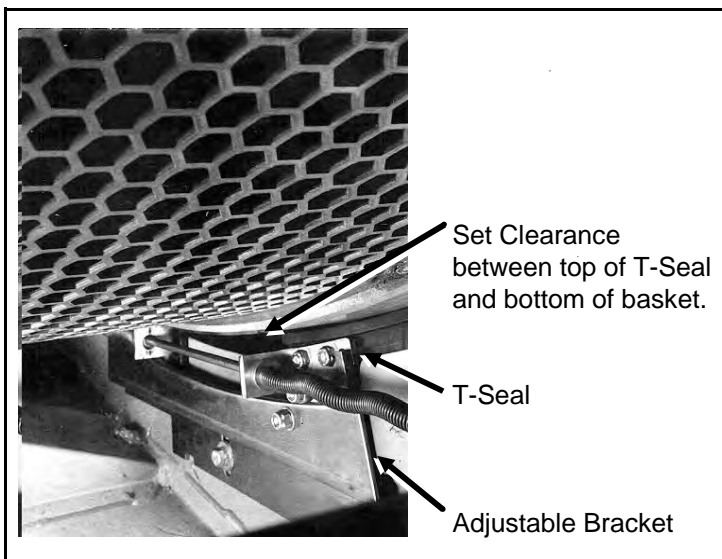


FIGURE 1 (MSSM0108AE)
T-Seal and Bracket in Place

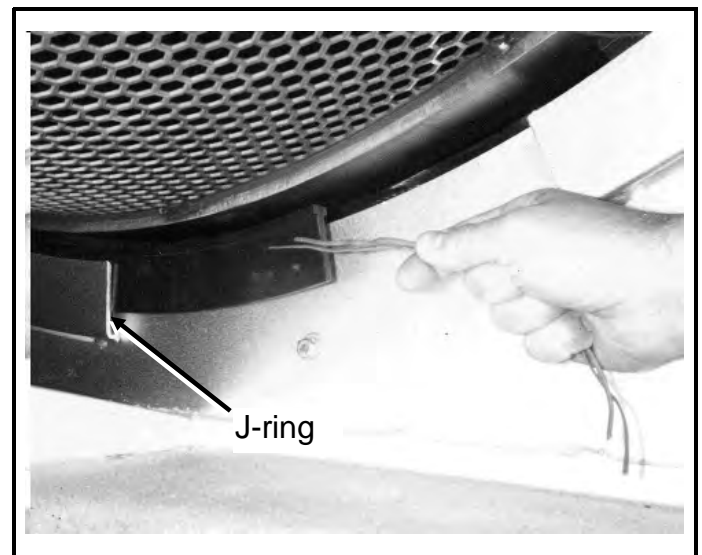


FIGURE 2 (MSSM0108AE)
Pulling Out Old T-Seal

Installing the New T-Seal

1. Check T-Seal mounting holes for fit and alignment. Studs should fit smoothly.
2. To minimize T-Seal stress and ease the threading process, place the new T-Seal atop the basket shroud. This will allow the new T-Seal to be fed easily down into the lower basket “J-ring” area.
3. Thread a piece of strong, flexible wire through two holes in the end of the T-Seal to be fed into the “J ring.” Feed this end of the T-Seal down the side of the basket. Feed the wire ends through holes in the perforated basket. Tie the wire ends together inside the basket, then start the T-Seal into the left J-ring.

NOTE: If the T-Seal becomes caught while installing, do not force the cog belt. Simply reverse the direction of the belt until the T-Seal is freed, then continue feeding the T-Seal through.

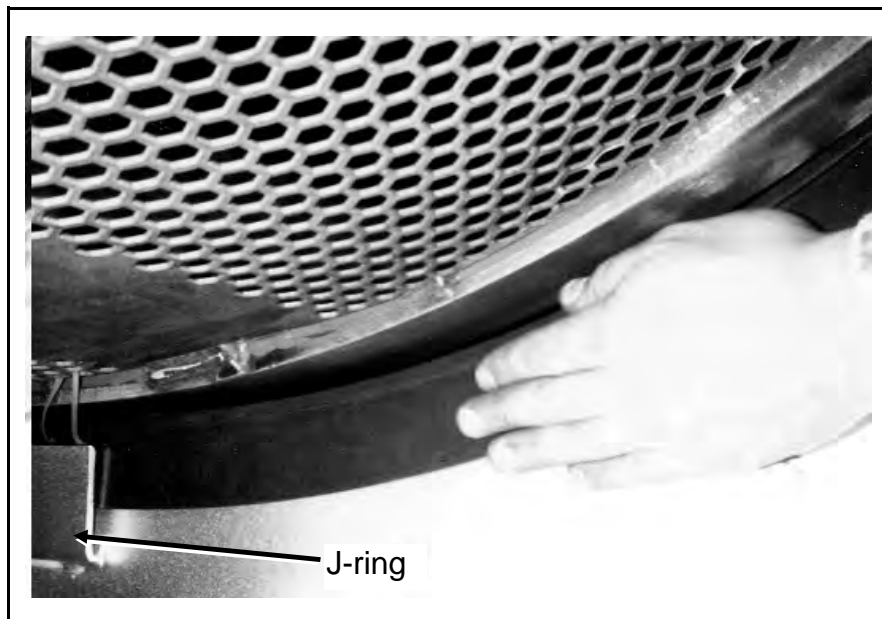


FIGURE 3 (MSSM0108AE)
Feeding New T-Seal into Retaining Channel

4. Referring to “T-SEAL ASSEMBLY . . .” reattach the left side stud and yoke assembly to the free end of the T-Seal. Also install the spring tension rod, the left side rod adjustment components, and hex nuts. Thread these hex nuts completely down the threaded portion of the spring tension rod.

NOTE: Step 4 could be done after the T-Seal has been completely fed through the J-ring channel, but it is easier to do while the end of the T-Seal is easily accessible.

5. With one person feeding the T-Seal into the J-ring and another person slowly hand turning the basket via the large cog belt, continue feeding the new T-Seal into the left J-ring as shown in FIGURE 3 until the entire T-Seal is fed through.
6. Remove the wire.
7. Install the remaining right side stud and yoke, then finish installing the right side tension rod components. Thread the right side hex nuts completely down the threaded portion of the spring tension rod.
8. Finish by installing the T-Seal retaining bracket, adjust the bracket for 1/8" - 3/16" (.31-.47 cm) clearance between the top edge of T-seal and the bottom of basket. See “T-SEAL ASSEMBLY . . .”

To verify that the T-Seal is properly installed, re-establish dryer or conditioner power and operate manually (as explained in the programming, operating and troubleshooting manual) to turn the cylinder clockwise and counterclockwise. Observe the T-Seal to be sure tension is maintained as the cylinder rotates. If any adjustments are required, **lock OFF and tag out power before proceeding.**

HOW TO SET BEARING CLEARANCES

NOTE 1: Apply a light coating of grease to the bearing cups prior to bearing installation.

NOTE 2: Do not install seals and carriers prior to setting.

Set bearing clearance (clearances are stamped on the housing, or printed on an attached B2TAG, as shown in FIGURE 1) as follows after installing new bearings and/or a shaft in a Milnor bearing housing.

BEARING ASSY. NO. _____
ASSEMBLED BY: _____ DATE: ____/____/____
BEARING CLEARANCE SPEC: $.002 \begin{smallmatrix} +.0003 \\ -.0002 \end{smallmatrix}$ _____
ACTUAL CLEARANCE SETTING: _____
SET BY: _____ DATE: ____/____/____
B22FM91042/91341V

FIGURE 1 (MSSM0127AE)
Sample Bearing Clearance B2TAG

Setting Conditions—Clean and dry all parts. Do not **pump** grease inside the bearing housing prior to setting.

Setting Procedures

1. Set up the bearing housing as shown in FIGURE 2.
2. Compress the shaft with the lifting arm, then rotate the shaft in both directions to ensure that the top bearing has fully seated in its bearing cup. With the pressure still applied, set the dial indicator to zero and smoothly pull the lifting arm upward until the bottom bearing fully seats on its bearing cup. Rotate the shaft to ensure an accurate dial indicator reading. Adjust the bearing locknut and repeat procedure as needed.
3. After reassembly, run the machine for a short time and verify that the bearing housing does not run unusually noisy or hot.

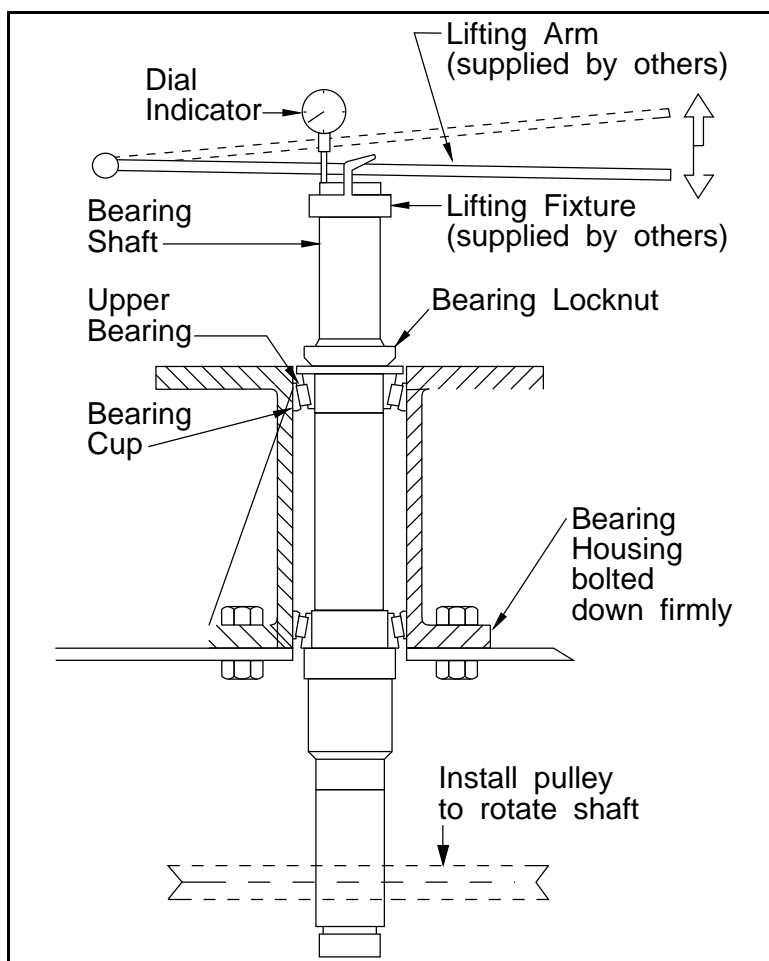


FIGURE 2 (MSSM0127AE)
Setting Bearing Clearances

T-Seal Assembly
58040,58058,58080,72072 Dryers

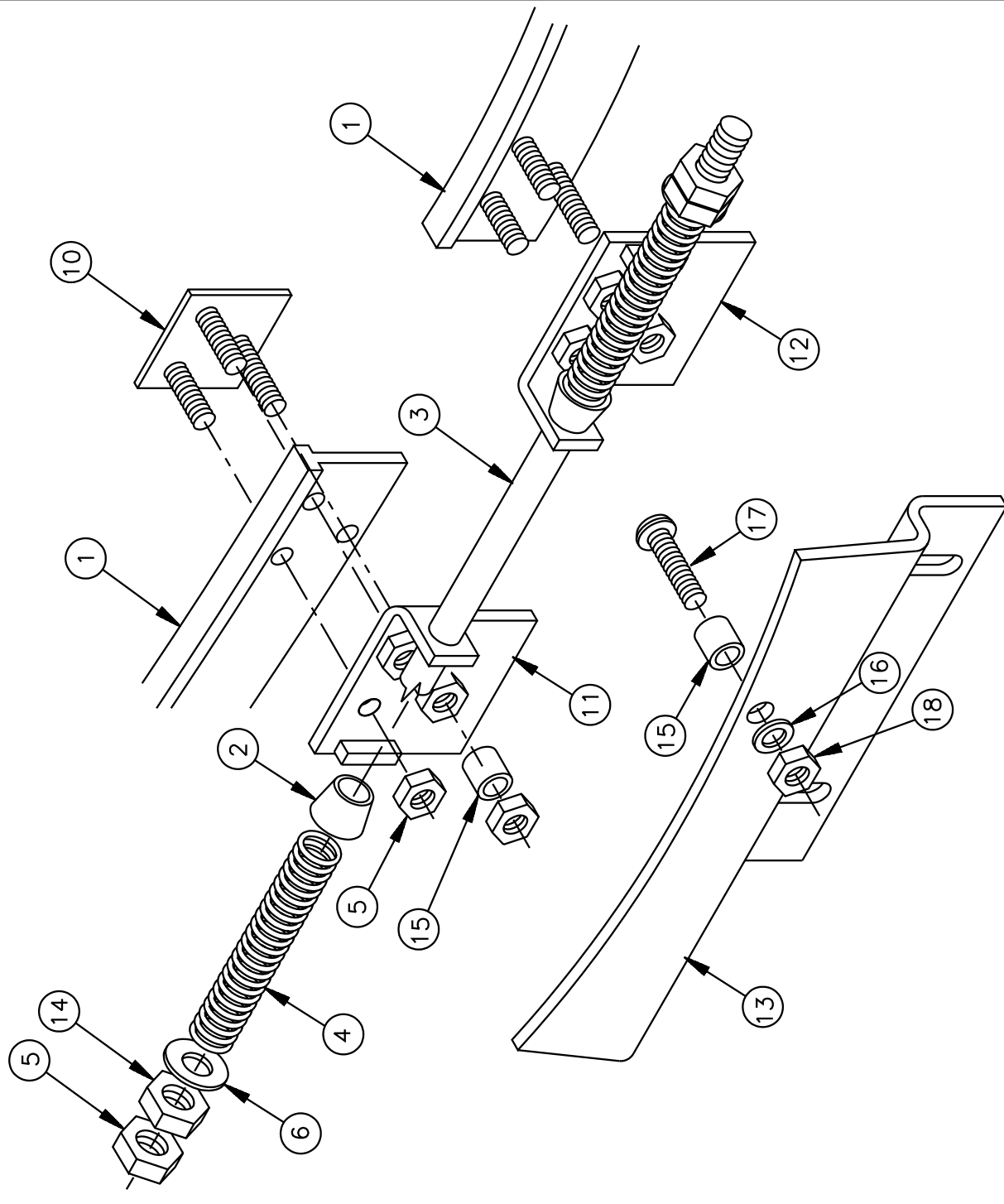
BMP860009/97117V
 (Sheet 1 of 2)



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BMP860009/97117V (1 of 2)

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Parts List—T-Seal 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	G75SH003	93286D*T-SEAL INSTALL	
	B	G78SH003	92000Z 72" T-SEAL INSTALL	
-----COMPONENTS-----				
A	1	X7 50202B	92716D 3BOLT T-SEAL NOTCH+DRILL	
B	1	X7 80202	93232C T-SEAL NOTCH+DRILL- 72"	
all	2	07 50469	86017B YOKE=T-SEAL ROD ADJUSTMENT	
all	3	07 50471	85456B ROD=SPRING TENSION T-SEAL	
all	4	07 50472	90461B SPRING=DRYER T-SEAL TENSION	
all	5	15G164	01Z HX THIN LOCKNUT NYL1/4-20 SS	
all	6	15U188	01Z FLTWASH 1/4 STD COMM SS18-8	
all	7	15G186	HEXNUT 5/16-18UNC2 SS18-8	
all	8	15U205	LOCKWASHER MEDIUM 5/16" 18-8SS	
all	10	07 50498	93201C RIBPLATE=STUD HOLDER T-SEAL	
all	11	W7 50466A	93247#*WLMT=SEAL/YOKE LF SIDE 3BOLT	
all	12	W7 50467A	93247#*WLMT=SEAL/YOKE RT SIDE 3BOLT	
all	13	07 50465	93261D BRKT=T-SEAL RETAINER DRYER	
all	13	07 50465B	94000Z 7272 T-SEAL RETAINER	
all	14	15G170	HEXNUT 1/4-20UNC2 SS18-8	
all	15	54J004H	93263N COLLAR=HEAT TREAT 45-55 RC	
all	16	15U200	FLATWASHER(USS STD) 5/16"ZNC PLT	
all	17	15N176A	TRUSSCR 1/4-20UNCX3/4 SS18-8	
all	18	15G166A	01Z HXLOKNUT NYL1/4-20 UNC2A STL/ZC	

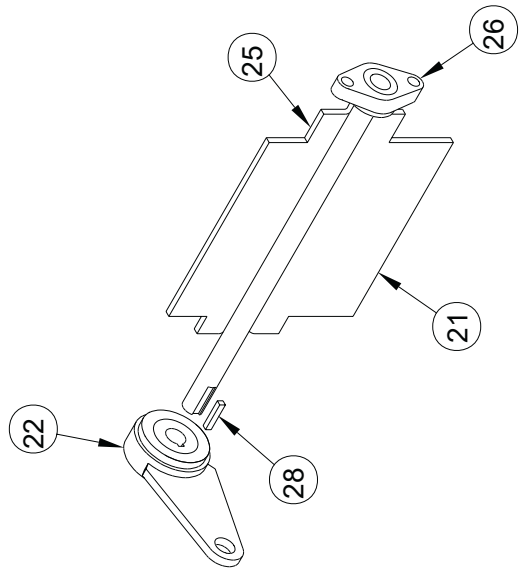
Blower Drive Housing and Bearing Installation

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(Sheet 1 of 2)

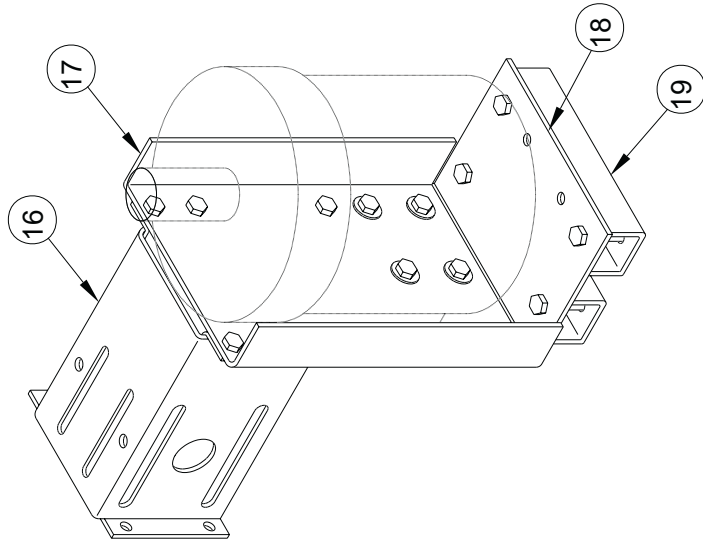


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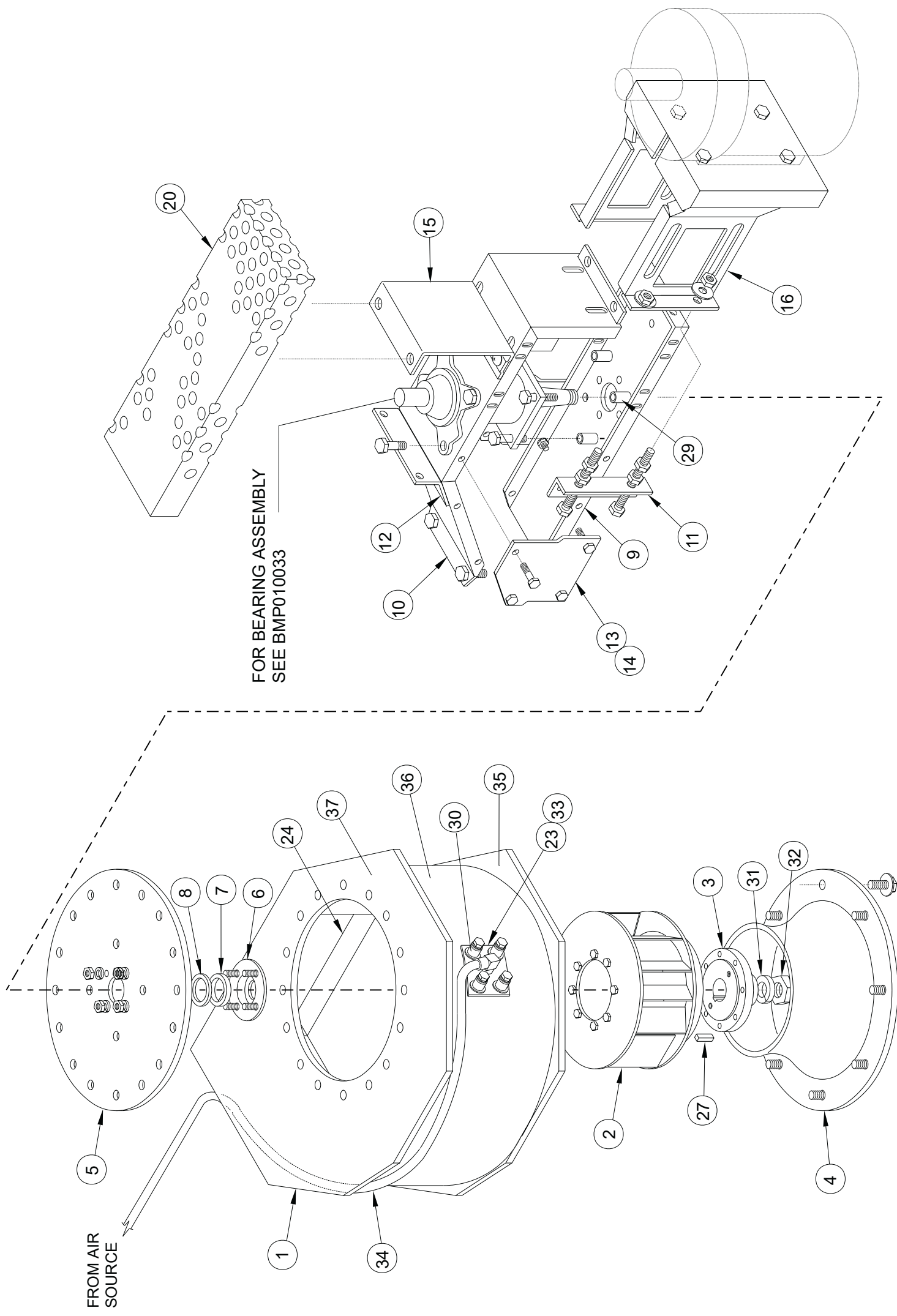
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BLOWER DAMPER ASSEMBLY



58080 BLOWER MOTOR MOUNT





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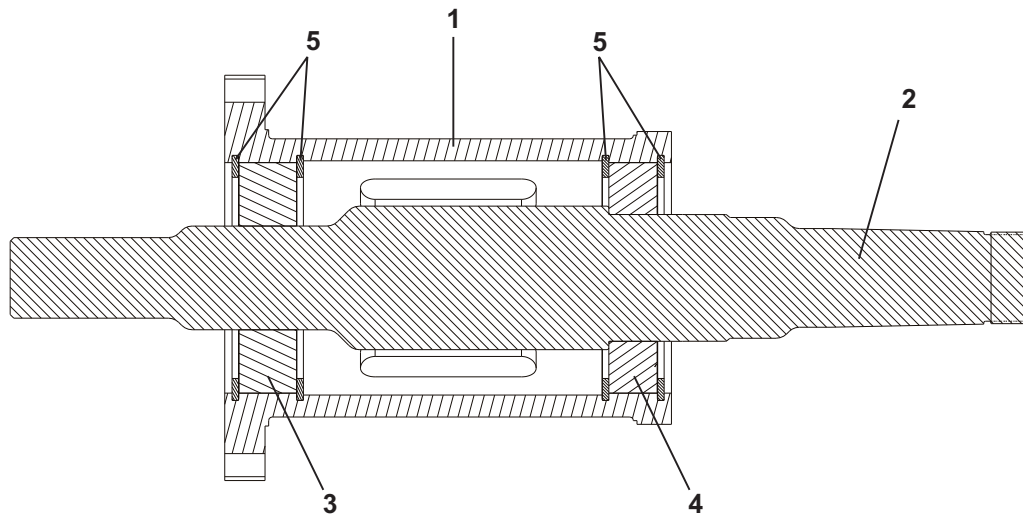
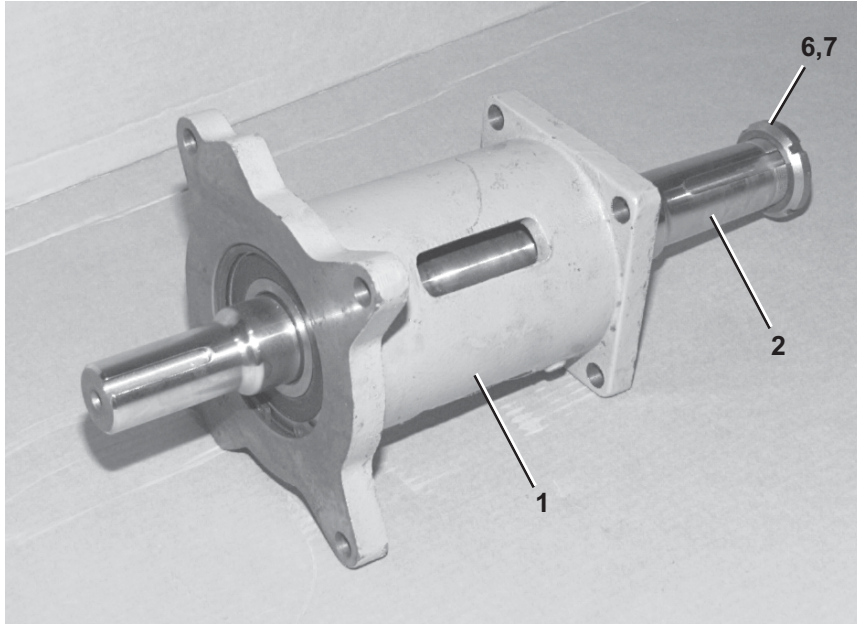
Parts List—Blower Drive Housing and Bearing Installation
Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used In" column to identify which components belong to an assembly. The item numbers (1, 2, 3, etc.)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

Used In	Item	Part Number	Description	Comments
			ASSEMBLIES	
T	U	A76BA001C	*5840 BLWR+DMPER DR ASSY MOD2	
U	U	A75BA001	BLOWER+DAMPER+DRIVE ASSY	
V	V	A77BA001	*5880 BLWR+DAMPER+DRIVE ASSY	
W	W	A76BA005C	15" DIA FAN BALANCING CW	
X	X	A76BA005CT	*15" DIA FAN TEFLON COAT	
Y	Y	A75BA004C	20" DIA FAN BALANCING CW	
Z	Z	A75BA004CT	20" DIA FAN TEFLON COAT	
			COMPONENTS	
T	1	W7 50227B	*15" BLOWER WELDMENT MOD2	
VI	1	W7 50227	*BLOWER WLMT	
W	2	A76BA005B	15" DIA FAN ASSEMBLY 5840	
X	2	A76BA005C	15" DIA FAN BALANCING CW	
Y	2	A75BA004B	20" DIA FAN ASSEMBLY CW	
Z	2	A75BA004C	20" DIA FAN BALANCING CW	
W-Z	3	X7 50479	20" DIA HUB MACHINE	
T	4	07 60067	15" DIA INLET NOZZLE 5840	
UV	4	07 50477	+20" DIA INLET NOZZLE	
TU	5	07 60037	15" BLOWER HOUS.COVER PLATE	
V	5	07 50227D	BLOWER TOP COVER PLATE	
all	6	07 50286	BLOWER SHAFT SEAL CAP	
all	7	07 50287	BLOWER SHAFT FELT SEAL	
all	8	07 50288	BLOWER SHAFT TEFLON SEAL	
T	9	07 60078A	15"BLWR BKT MTR BOT CHNL	
U	9	07 60035	15"BLWR BRG MT BOT CHANNEL	
V	9	07 50255	CHANN BRG MT LOWER BLOWER	
T	10	07 60077A	15"BLWR BKT MTR TOP CHNL	
U	10	07 60036	15"BLWR BRG MT TOP CHANNEL	
V	10	07 50254	CHANNEL=BRG MT UPPER BLOWER	
all	11	07 50252	ANGLE=BELT ADJ BLOWER MOTOR	
T	12	07 60075	BRKT=15"BLWR BELT GUARD LFT	
UV	12	07 50267	BRACKET=MAIN BLW BELT GUARD	
T	13	07 60090	15"BLWR BKT.SUPPORT L.	
UV	13	07 50257	20"BLWR BKT.SUPPORT L.	
T	14	07 60090A	15"BLWR BKT SUPPORT R	
UV	14	07 50257A	20"BLWR BKT.SUPPORT R.	
all	15	07 50262	BRACKET=MAIN BLW BELT GUARD	

Parts List, cont.—Blower Drive Housing and Bearing Installation				
Used In	Item	Part Number	Description	Comments
TU	16	07 60039	15"BLWER MOTOR MT BRKT	
V	16	07 70137	+5880 MAIN BLOWER MTR SPT BKT	
V	17	07 70138	+5880 MAIN BLOWER MOTOR PLTE	
V	18	07 70139	+5880 BLOWER MOTOR PLTE BRKT	
V	19	07 70140	+5880 BLOWER MOTOR RAIL	
TU	20	A75BA003	ASSY=BELT GUARD MAIN BLOWER	
V	20	A77BA002	*5880 BLOWER BELT GUARD ASSY	
TU	21	W7 60060	*15"BLWER DAMPER WLMT	
V	21	W7 50336	*MAIN CONT DAMPER PLATE WLMT	
all	22	W7 50234	*DAMPER ARM WLMT	
all	23	W7 60265	*LINT NOZZLE PLATE WLMT	
TU	24	07 60057	15" BLOWER CUTOFF PLATE	
V	24	07 50335	20" BLOWER CUTOFF PLATE	
all	25	56Q0PH	3/4" BUSH VPUL TYPE H,D, OR QT	
all	26	54E015	FLGMBRG 3/4 BORE BRZ #FLB12	
all	27	15E225	SQMACHKEY 3/8X1+1/2 NOTAPER-NO	
all	28	15E195	SQMACHKEY 3/16X1+1/2 NOTAPER&H	
TU	29	07 50179	BLOWER BRG HSE SPACER=00143	
V	29	07 50184	BLWR BRG HSE SPACE SH=00143	
all	30	27B2400K0L	SPACER ROLL.43ID.562L.03T SS	
all	31	56AHN08	N08 BEARING LOCKNUT	
all	32	56AHW108	TW108 BEARING LOCKWASHER	
all	33	90A025	COPPERTUBE 1/2"X.032X50' EA=1	
all	34	51E505	HOSESTEM BRASS 3/8H XMPT	
U	35	07 60028	15"BLWER HOUSING BOTTOM	
U	36	W7 60030	*15"BLWER HOUSING SIDE WLMT	
U	37	W7 60031	*15"BLWER HOUSING TOP WLMT	

Blower Bearing

5050, 64050, 64058, 64064, 72072, 76076, 82082 Dryers



1. Pressing against the inner race, press bearing (item 4) on the shaft.
2. Install one (item 5) into the inner groove at each end of item 1.
3. Pressing against the outer race, press bearing (item 4) with its shaft in housing (item 1) with guide at bearing location (item 3) to keep shaft and housing concentric.
4. Pressing bearing (item 3) against both its inner and outer race, press bearing (item 3) into housing and onto shaft, backing up bearing (item 4) at both its inner and outer race.
5. Install retaining rings (item 5) into outer grooves.

Parts List—Blower 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
			-----ASSEMBLY-----	
	A	A75BG004	BLW BRG HSE ASSY=2001354	ASSEMBLY, CONTAINS ITEMS (1-7) BELOW
			-----COMPONENTS-----	
all	1	X7 50185	BLOWR BRG HSE MACH=SNAP RING	
all	2	07 50186	BLOWER SHAFT=SNAP RING	
all	3	54A073	BALBRG NTN#6309LLBC3/5C 1/BX	
all	4	54A072	BALLBEAR NTN #6211BC3/5C	
all	5	17B014A	INTER RETRING 3000-393	
All	6	56AHN08	N08 BEARING LOCKNUT	
All	7	56AHW108	TW108 BEARING LOCKWASHER	

Air Flow Assemblies

4

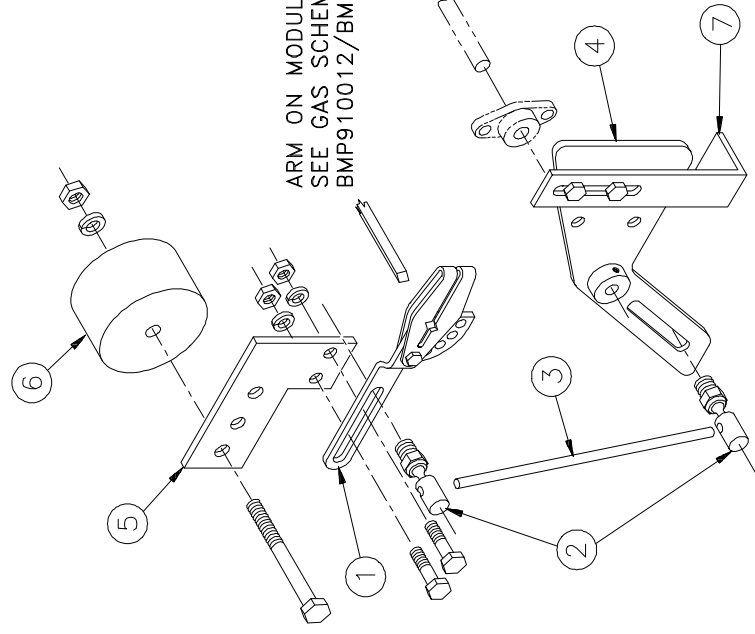
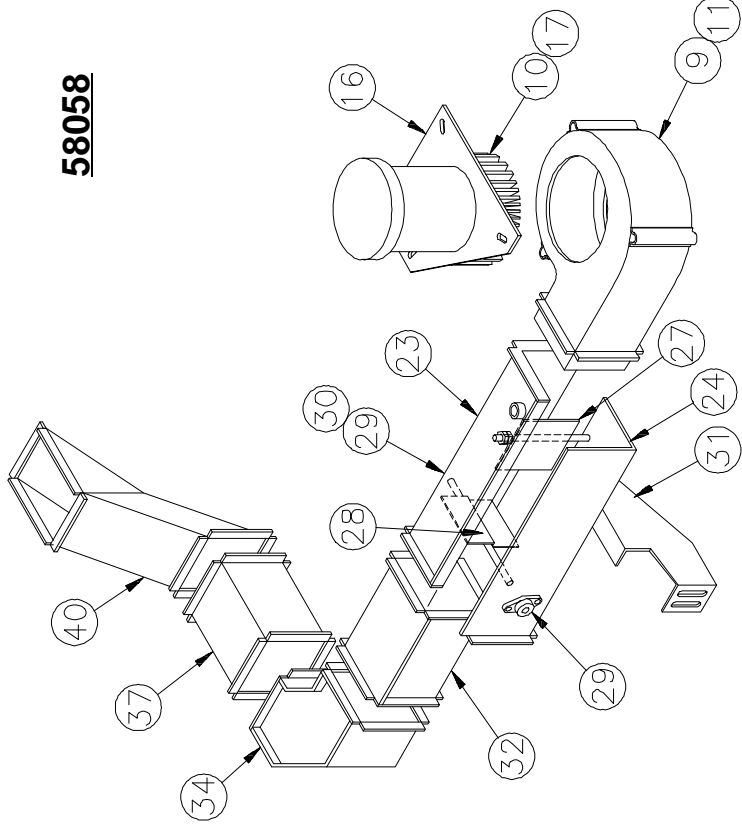
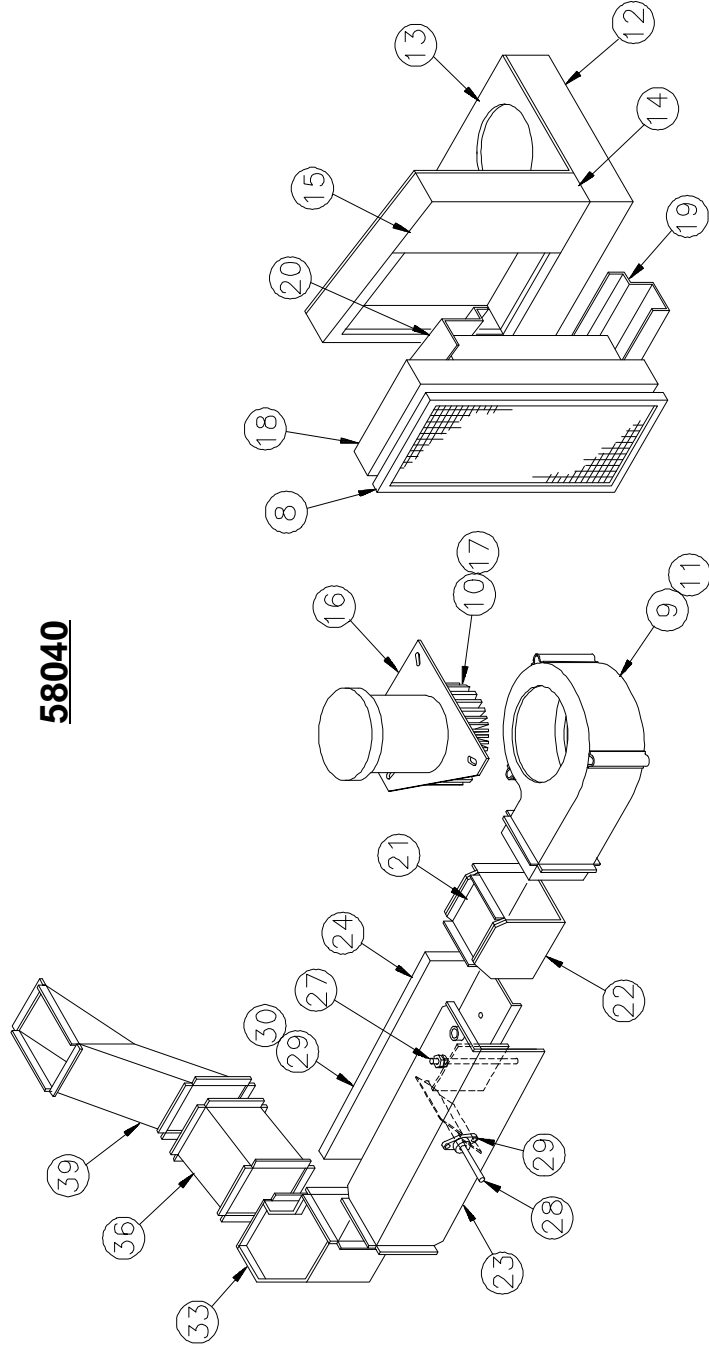


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 KENNER, LOUISIANA 70063-0400 USA

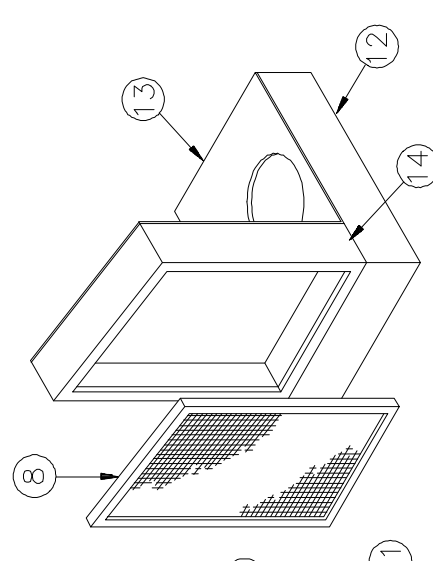
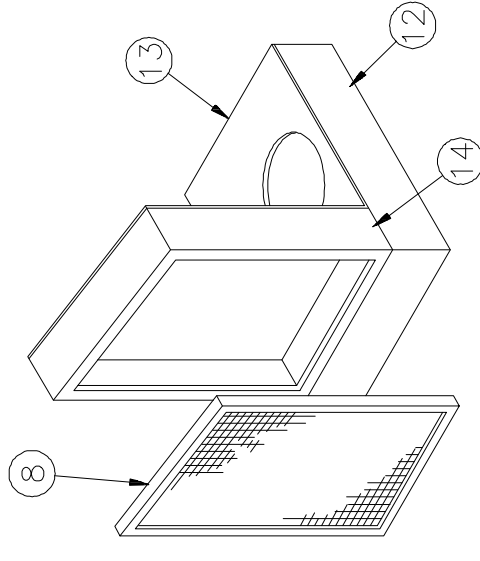
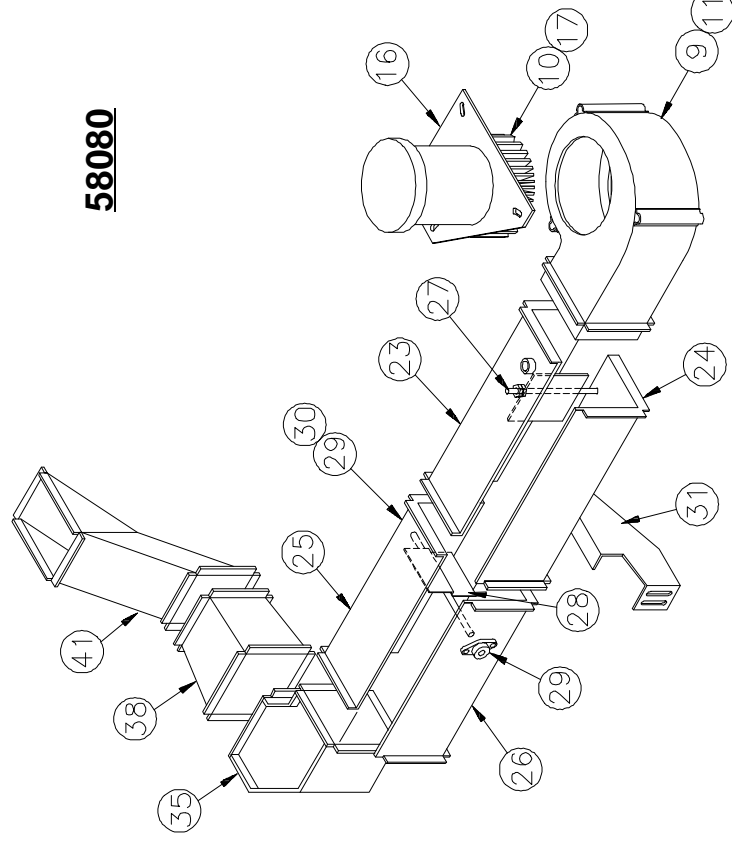
DRAWING
 (See other page for parts list,
 if applicable.)

COMBUSTION DUCT ASSEMBLY -- 58040TG2 58058TG2 58080TG1

BMP890036/91456V (Page 1)



**COMBUSTION
 AIR LINKAGE**





PELLERIN MILNOR CORPORATION
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PARTS LIST

(See other page for drawing.)

COMBUSTION DUCT ASSEMBLY -- 58040TG2 58058TG2 58080TG1

BMP890036/91456V (Page 2)

ITEM	PART NUMBER	DESCRIPTION	HOW PART IS USED IN ASSEMBLY (Only if pertinent)	ITEM	PART NUMBER	DESCRIPTION	HOW PART IS USED IN ASSEMBLY (Only if pertinent)
00S	G76BA003	89397D*COMB AIR LINKAGE ASSY 5840	58040TG2	028B	W7 50557	86192B*COMB.BLO DAMPER WLMT	00V
00T	G75BA003B	91432D*COMB AIR LINKAGE ASSY&INSTAL	58058TG2,58080TG1	028C	W7 70169	89477C*5880 COMB BLO AUTO DAMP WLMT	00W
00U	G76BA002B	89331#*COMB BLO&DUCT SH-BASE INST	58040TG2	029	54E003A	FLNGMTBRG 3/8"BORE BRONZE	00U-00W
00V	G75BA002C	89331D*MKII COMB BLO+DUCT T-BASE	58058TG2	030	54J005	SHAFTCOLLAR GRANGER#2X737 3/8"BORE	00U-00W
00W	G77BA002	89000Z 5880 COMB BLOWER+DUCT ASSY	58080TG1	031	07 50497	86356C COMB BLO DUCT SUPP BKT T-BAS	00V-00W
00X	G76V0001A	90173D*INSTALL=BURNER+GAS LINE 5840	58040TG2	032	07 50812	88392Y COMB AIR DUCT 6.875L	00V ONLY
00Y	G75V0001A	90173#*MKII INSTALL=BURNER&GAS	58058TG2	033A	07 60202	87466C COMB AIR DUCT ELBOW-TOP/BOT	00U
00Z	G77V0001	89477N 5880 BURNER+GAS LINE=INSTALL	58080TG1	033B	07 60203	87466D COMB AIR DUCT ELBOW-OUTSIDE	00U
001	96S1504	CRANK ARM ASSY HONEYWELL #7616BR		033C	07 60204	89523C COMB AIR DUCT ELBOW-INSIDE	00U
002	96S1507	BALL JOINT HONEYWELL #27518		034A	07 50553	90347C COMB BLO DUCT ELBOW T-BASE	00V
003A	07 60299	88062B COMB AIR LINK ROD CA 5840	00S	034B	07 50553A	90347# COMB.BLO.DUCT ELBOW T-BASE	00V
003B	07 50352B	91432B COMB AIR LINK ROD NEW DESIGN	00T	034C	07 50554	89517C COMB BLO DUCT ELBOW T-BASE	00V
004	W7 50347B	91432B*MKII COMB AIR SAFE ARM WLDMT		034D	07 50555	89523C COMB BLO DUCT ELBOW T-BASE	00V
005	07 50837	91432B MKII COMB AIR SAFE ARM-UPPER		035A	07 70151	89477C+5880 COMB DUCT ELBOW=TOP	00W
006	07 50838	88476B MKII COMB AIR SAFE ARM-WT.		035B	07 70152	89477# 5880 COMB DUCT ELBOW=BOT/TOM	00W
007	07 50839	91432B LOW FLOW LIM.BRKT CA SAFETY		035C	07 70153	89477C+5880 COMB DUCT ELBOW=LEFT	00W
008A	W7 60256	88381C*COMB AIR SCREEN WLMT 5840GAS	00U	035D	07 70154	89477C+5880 COMB DUCT ELBOW=RT	00W
008B	W7 50464	88147C*WLMT=COMBUSTION AIR SCREEN	00U	036A	07 60205	87456C COMB AIR DUCT INLET-TOP	00U
008C	W7 70156	89477C*5880 COMB AIR SCREEN WLMT	00U-00V	036B	07 60205A	87456# COMB AIR DUCT INLET-BOT	00U
009A	W7 50545	86304C*COMB.BLOW.HOUS.+FLG. + BKT		036C	07 60206	87483C COMB AIR DUCT INLET-RT SIDE	00U
009B	W7 70145	89477C*5880 COMB BLOWER HOUSE WLMT		036D	07 60206A	87483# COMB AIR DUCT INLET-LF SIDE	00U
010A	13E061A	86086C COMB BLOWER WHEEL #Q631-293S	00W	037	07 50810	88451C COMB AIR DUCT 7.56 LONG	00V
010B	13E062A	90000Z COMB BLOWER WHEEL #R700-300S	00U-00V	038	07 70155	90327C+5880 COMB DUCT=TRANSITION	00W
011A	13E061B	INLET FLANGE #629 TYPE J-2	00W	039A	07 60226A	88066C BURNER AIR INLET DUCT TOP	00X
011B	13E062B	INLET FLANGE # 704 TYPE J-2	00W	039B	07 60227A	88356D BURNER AIR INLET DUCT-BOT	00X
012A	07 60195	87422D COMB BLO PLENUM BOT-GAS 5840	00U	039C	07 60228A	88533C BURNER AIR INLET DUCT-RT	00X
012B	07 50496	89517D COMB.BLO.PLENUM BOT.TALLBASE	00V	039D	07 60229	87466C BURNER AIR INLET DUCT-LF	00X
012C	07 70142	89477D+5880 COMB.PLENUM=BOT/TOM	00W	040A	07 50801	88442C BURNER DUCT TRANS TOP=5858	00Y
013A	07 60196	88042D COMB BLO PLENUM TOP-GAS 5840	00U	040B	07 50802	88442C BURNER DUCT TRANS BOT 5858	00Y
013B	07 50488	89523D COMB.BLO.PLEN.TOP&BACK TALLB	00V	040C	07 50803	88442C BURNER DUCT TRANS REAR=5858	00Y
013C	07 70143	90321D+5880 COMB PLENUM=TOP+BACK	00W	040D	07 50804	88392T BURNER DUCT TRANS FT =5858	00Y
014A	07 60197	87422D COMB BLO PLENUM SIDE-GAS5840	00U	041A	07 70052	90383C+5880 TRANSITION DUCT=TOP	00Z
014B	07 50489	86356D COMB BLO PLEN SIDES TALLBASE	00V	041B	07 70052C	91221D+5880 TRANSITION DUCT=BOT/TOM	00Z
014C	07 70141	89477D+5880 COMB BLOW PLENUM SIDES	00W	041C	07 70052B	90383C+5880 TRANSITION DUCT=FRONT	00Z
015	07 60207	87422B COMB BLO PLENUM BACK-GAS5840	00U ONLY	041D	07 70052A	90383C+5880 TRANSITION DUCT=REAR ***** END OF PARTS LIST *****	00Z
016A	07 50546	86192C COMB.BLO.MOTOR SUPPORT PLATE	00U-00V				
016B	07 70144	89477B 5880 COMB BLOW MOTOR SPPT	00W				
017	54JH10625C	SHAFTCOLLAR 5/8" CLAMPINGTYPE	00U-00W				
018	07 60260	89106C SCREEN MTG ADAPTER-5840 GAS	00U ONLY				
019	07 60261	89092C SCREEN MTG ADP-BOTTOM	00U ONLY				
020	07 60262	89106C SCREEN MOUNTING ADP-TOP	00U ONLY				
021	07 60200	89523C COMB AIR DUCT BLO ADP-TOP	00U ONLY				
022	07 60201	87422B COMB AIR DUCT BLO ADP-BOT	00U ONLY				
023A	W7 60198	89233#*COMB AIR PRESS SWT TAP WLMT	00U				
023B	W7 50495	89517#*COMB AIR SWT TAP WLMT 5858	00V				
023C	W7 70148	89477# COMB AIR SWT TAP WLMT 5880	00W				
024A	07 60199	90387C COMB AIR DUCT MID SEC-BOT	00U				
024B	07 50494	89517C COMB.BLO.DUCT SECT'A T-BASE	00V				
024C	07 70149	89477D+5880 COMB AIR DUCT=REAR RT	00W				
025	07 70150	89517D+5880 COMB AIR DUCT=MIDDLE	00W ONLY				
026	07 70150A	90327D+5880 COMB AIR DUCT=MIDDLE RT	00W ONLY				
027A	W7 50560	86152B*COMB.BLOWER DAMPER WLMT	00U-00V				
027B	W7 70167	89477C 5880 COMB BLOW DAMPER WLMT	00W				
028A	W7 60328	89197B*COMB MOD DAMPER WLMT 5840	00U				

How to Read Parts List

Reference Item Numbers—Items 00A, 00B, 00C, etc., or 00X, 00Y, 00Z, etc., appearing at the top of some parts lists, are for reference and provide:

- The part number for the entire assembly depicted in the drawing or a major sub-assembly thereof, and/or
- The range of machine models this drawing applies to.

If more than one reference item appears, this usually means this drawing applies to more than one assembly (and thus to more than one range of machines).

Component Item Numbers—For any item on the drawing (e.g., item ①), there may be several corresponding items on the parts list (e.g., 001A, 001B, 001C, etc.) which are similar components on different assemblies. "How Part Is Used In Assembly" identifies which components apply to your machine, by listing either the machine model, or the reference item number from the top of the parts list (e.g., 00A, 00B, 00C, etc.), or a particular characteristic (e.g., bronze or stainless steel), or special ordering information, such as a repair kit number.



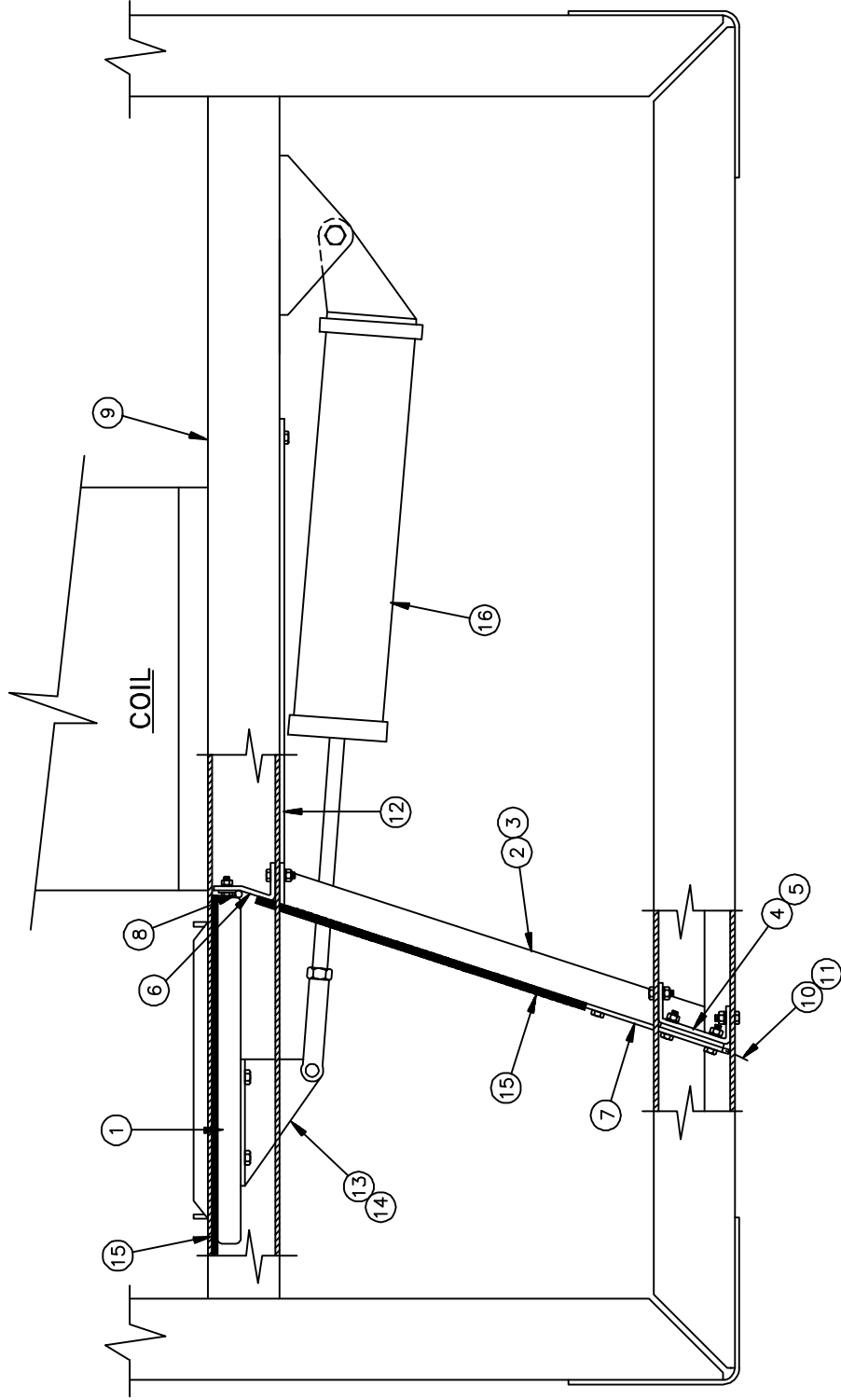
PELLERIN MILNOR CORPORATION
 700 JACKSON STREET/POST OFFICE BOX 400
 KENNER, LOUISIANA 70063-0400 USA

DRAWING AND PARTS LIST
 (See other page for more,
 if applicable.)

COOLDOWN DAMPER ASSEMBLY -- 58040/58058/58080TS1,TT1

BMP910041/92503V (Page 1)

ITEM	PART NUMBER	DESCRIPTION	HOW PART IS USED IN ASSEMBLY (Only if pertinent)
00X	A76SH003	90243E*COOLDOWN DAMPER ASSY-5840	58040TS1,TT1
00Y	A75BA012	90243#*COOLDOWN DAMPER ASSY-5858	58058TS1,TT1
00Z	A77BA004	89000Z 5880 COOLDOWN DAMPER ASSY	58080TS1,TT1
001A	07 60097	91354D DAMPER PLATE=STEAM DRYER	00X
001B	07 50565	86287C DAMPER PLATE=STEAM COIL	00Y-00Z
002A	07 60098	86243D BRKT=TOP DAMPER WALL=STEAM	00X
002B	07 50566	87156C DAMPER WALL-TOP	00Y
002C	07 70118	89253D 5880 STEAM=DAMPER WALL TOP	00Z
003A	07 60099	86243C BOTTOM DAMPER WALL=STEAM	00X
003B	07 50567	86287C DAMPER WALL-BOTTOM	00Y
003C	07 70119	89253D 5880 STEAM=DAMPER WALL BOT	00Z
004A	07 60100	86243C BRKT=TOP DAMPER WALL=STEAM	00X
004B	07 50568	86151C DAMPER WALL BRACKET-TOP	00Y
004C	07 70120	89253B 5880 STEAM=DAMPER BRKT TOP	00Z
005A	07 60101	86243C BRKT=BOT DAMPER WALL=STEAM	00X
005B	07 50569	86151C DAMPER WALL BRACKET-BOTTOM	00Y
005C	07 70121	89253B 5880 STEAM=DAMPER BRKT BOT	00Z
006A	07 60102	86243C RIGHT DAMPER WALL=STEAM DRY	00X
006B	07 50570	90526D DAMPER WALL-RH	00Y
006C	07 70116	89253C 5880 STEAM=DAMPER WALL RT	00Z
007A	07 60103	86433D LEFT DAMPER WALL=STEAM DRY	00X
007B	07 50571	91046D DAMPER WALL-LH	00Y
007C	07 70117	89253C 5880 STEAM=DAMPER WALL LF	00Z
008A	07 60105	86243B HINGE-COOLDOWN DAMPER 5840	00X
008B	07 50589	88497C DAMPER HINGE=STEAM DRYER	00Y-00Z
009A	07 60106	91232C CHANNEL=CYLINDER MOUNTING	00X
009B	07 50596	86161C CYLINDER MOUNTING CHANNEL	00Y
009C	07 70112	89253B 5880 STEAM=AIR CYL MOUNT BKT	00Z
010A	07 60107	86243B LIP SEAL-DAMPER WALL LH	00X
010B	07 50598	86171B LIP SEAL-DAMPER WALL LH	00Y
010C	07 70123	89253B 5880 STEAM=DAMPER LIP SEAL	00Z
011A	07 60108	86243B SEAL RETAINER STRIP	00X
011B	07 50597	86166B SEAL RETAINER STRIP	00Y
011C	07 70122	89253B 5880 STEAM=SEAL RETAINER BKT	00Z
012A	07 60109	86243C LF SIDE COVER=STEAM COIL	00X
012B	07 50604	86207C STEAM COIL LF PANEL	00Y-00Z
013	07 50574	86287# DAMPER CYL MOUNTING BKT-BOT	
014	07 50573	86287C DAMPER CYL MOUNTING BKT-TOP	
015	27A680	FELT 1/4" X1" SAE F-3	
016A	A40 01800	89463TS AIRCYL,2-WAY =52DRYELL	
016B	AAC75003	89463 @*AIRCYL 2 WAY HIGH TEMP=400F ***** END OF PARTS LIST *****	FOR OPTIONAL HIGH TEMP AIR SUPPLY



NOTE: Prior to installing new felt seals, clean metal surfaces with paint thinner or similar solvent. Install the new seals with 3M EC 1300 Rubber and Gasket Adhesive, (3M ID 62-1300-5530-4) or similar.

Gas Piping and Assemblies

5

GAS AND AIR ADJUSTMENTS FOR 58040, 58058, AND 58080 GAS DRYERS

Required Kits

Adjustment procedures require manometer kits KWGP030100 and KWGP150100 (available from the MILNOR factory) or equivalent equipment. Each kit includes a differential pressure gauge, fittings, and tubing.

About the Flame Control

Flame control provides both flame and ignition safeguards. After fire is desired by the microprocessor, these devices check that all safety switches are made, then switch on pilot gas, spark ignition, and main gas. While the burner is lit, the flame control monitors the flame rod voltage, and if that voltage drops below the set point, the pilot and main gas valves turn off.

Identifying the Type of Flame Control—MILNOR dryers are supplied standard with a “Fireeye” flame safety control, or optionally with a “Landis and Gyr” control, where required by local code. The type of flame control supplied must be determined before any gas and air adjustments are made.

How the Fireeye Flame Control Works—After loading is complete, the dryer control turns on the Main and Combustion Air blowers. If all safety requirements are satisfied, power is provided to the Fireeye flame control. The flame control opens the Pilot Gas valve and powers the spark ignition for a maximum of 4 seconds. When the pilot flame is sensed by the flame control, the flame control turns off the spark ignition and turns on the Main Gas valve. If the pilot flame is not detected after 4 seconds, the flame control turns off the Pilot Gas valve and the spark ignition, then locks out. This lock out energizes the Fire Eye Tripped relay, then illuminates the FIRE EYE TRIPPED status light and the alarm light on the flame control (FIGURE 2). Wait two minutes, then push Safety Reset (FIGURE 1), Signal Cancel (dryer control panel), and the Fireeye Reset button (FIGURE 2), to clear the error. Observe the flame control lamps (FIGURE 2) during the restart. If the flame control fails to automatically reset, press Fireeye Reset immediately after the Operator control lamp illuminates (before the alarm lamp illuminates). Any other errors illuminate the FIRE EYE NOT ALLOWED status light and the related error status light. Push Safety Reset and Signal Cancel to clear these errors.

How the Landis and Gyr Flame Control Works—Dryers equipped with Landis and Gyr flame controls have separate Main and Modulating Gas valves. After the dryer is loaded, the dryer control sets the Modulating Gas valve to the minimum fire position and tells the flame control that fire is desired. The flame control turns on the Main and Combustion Air motor contactors (for Dutch machines, see NOTE 1), checks that all safety requirements are satisfied (for Belgium machines, see NOTE 2), then turns on the spark ignition and opens the Pilot Gas

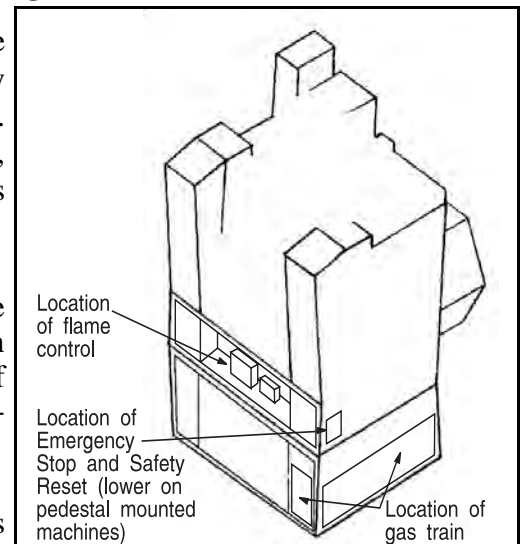


FIGURE 1 (MSSM0112BE)
Location of Flame Controller, Setting Plate, Safety Reset, Emergency Stop, and Adjustments

valves. After the Pilot valves are opened and the flame control receives an input from the flame rod, it opens the Main Gas valve. If the pilot flame or any safety is not satisfied, the flame control locks out. The lock out trips the fire eye relay and illuminates the FIRE EYE TRIPPED status light. Push either the Safety Reset (FIGURE 1) or flame control Reset (FIGURE 3), and Signal Cancel to clear any error.

NOTE 1: For dryers manufactured to Dutch specifications, the flame control also checks that the Modulating Combustion Air damper is operational by verifying that the damper opens and closes via a switched input.

NOTE 2: For dryers manufactured to Belgian specifications, the flame control incorporates an additional circuit which prevents operation if a leak is detected in the Pilot, Main, or Modulating Gas valve. See “How the Landis and Gyr Leak Detection Unit Works” below.

How the Landis and Gyr Leak Detection Unit Works (Belgium Machines Only)

After fire is called for, Belgium Landis and Gyr machines go through the leak checking sequence described below. See FIGURE 4.

1. Pilot Valve 2 opens to exhaust any trapped gas, then closes.
2. The flame control monitors the Leak Detector switch for 25 seconds; if no pressure exists, then Pilot Valve 1 and the Main Gas valve do not leak (any pressure causes a flame control trip).
3. The Main Gas valve opens for two seconds then closes. The flame control then monitors the Leak Detector pressure switch for 28 seconds. If the pressure stays constant, then Pilot Valve 2 and the Modulating Gas valve do not leak.
4. The flame control will now operate.

Changing Temperature Probe

Do not bend the temperature probe if it must be removed. Remove probe by unscrewing clamp nut “A” (FIGURE 5) first, then unscrewing pipe bushing “B”.

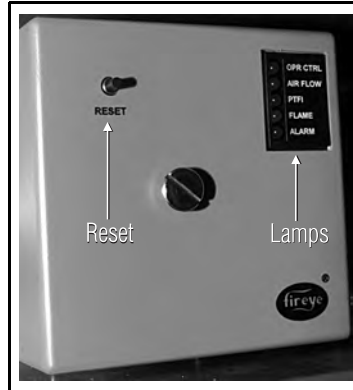


FIGURE 2 (MSSM0112BE)
Fireeye Flame Control Reset

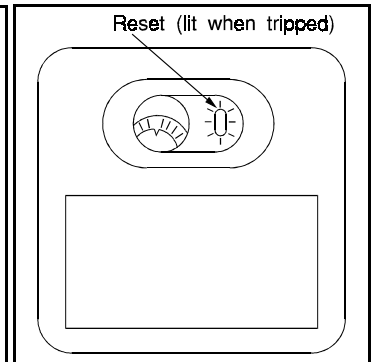


FIGURE 3 (MSSM0112BE)
Landis and Gyr Flame Control Reset

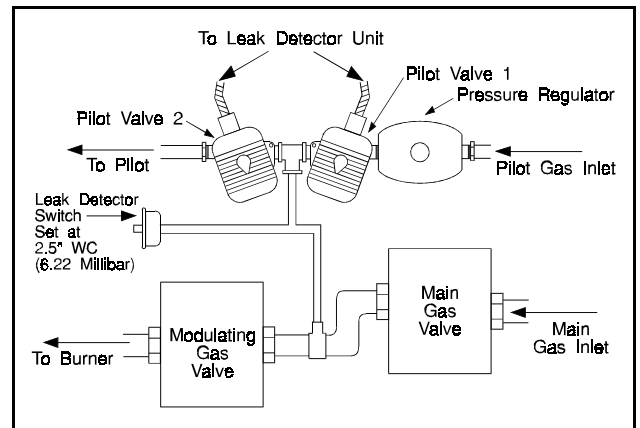


FIGURE 4 (MSSM0112BE)
Landis and Gyr Leak Detection (Belgium Machines Only)

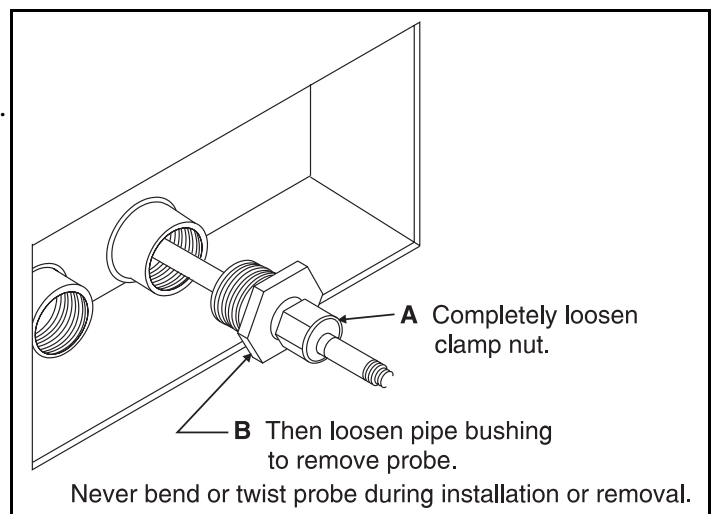


FIGURE 5 (MSSM0112BE)
Temperature Probe Removal

Adjusting the Dryer Gas Train

Follow the procedure outlined in FIGURE 7 and described in the following text to properly adjust the gas train on the dryer.

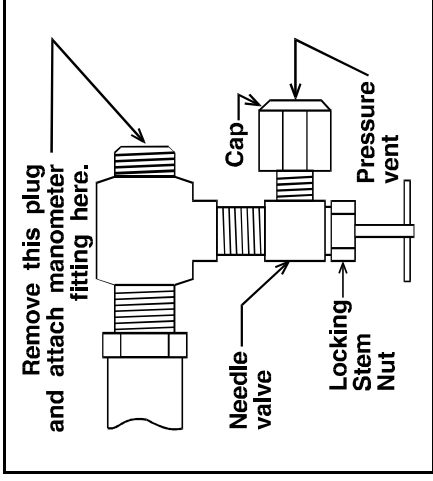


FIGURE 6 (MSSM0112BE)
Typical Manometer Connection Point

Gas Train Adjustment Procedure (FIGURE 7)

Make gas train adjustments with empty basket and main air at "MIN+1", and in the order shown below.

Shaded area for Fireye flame control unit only. See "Remaining Fireye Procedures..."

Step	Value	Device/Function	See Note	Gauge Point	Reference Point	Setup Mode	Main Valve	Test Valve	Modulating Gas Valve	Pilot Firing	Burner Firing	Combustion Air Blower	Main Blower
1		Static Gas Pressure	1	X	Atmosphere	---	ON	OFF	OFF	NO	NO	MIN	OFF
2		Combustion Air For Maximum Fire	2	N	Plenum	A	ON	OFF	OFF	NO	NO	MIN	ON
3		Combustion Air For Minimum Fire	3	N	Plenum	A	ON	OFF	OFF	NO	NO	MIN	ON
4		Low Combustion Air Pressure Switch	4	M	Atmosphere	A	ON	OFF	OFF	NO	NO	MIN	ON
5		Low Main Air (See Figure 11)	4	Z	Atmosphere	B	ON	OFF	OFF	NO	NO	MIN	ON
6A		Pilot Gas Pressure	1	U	Atmosphere	C	ON	OFF	OFF	YES	NO	MIN	ON
6B		Pilot Gas Flame	1	U	Atmosphere	C	ON	OFF	OFF	YES	NO	MIN	ON
7		Regulated Gas Pressure	1	L	Atmosphere	D	ON	ON	100	YES	YES	MOD	ON
8		Burner Minimum Fire	1	T	Inlet Temperature on Display	E	ON	ON	000	YES	YES	MIN	ON
9		Combustion Air Rod	1	N	Plenum	E	ON	ON	000	YES	YES	MIN	ON
10		High Gas Pressure	1	K	Atmosphere	E	ON	ON	000	YES/NO	YES/NO	MIN	ON
11		Low Gas Pressure	1	L	Atmosphere	E	ON	ON	000	YES/NO	YES/NO	MIN	ON

See Table of Model-Specific Settings for correct values.

NOTE: Start with valve open, close slowly, set pressure switch to interrupt flame at indicated pressure.

Expected condition

Table of Model-Specific Settings (FIGURE 8)

Setting	Natural Gas													
	Standard						CSA							
	58040		58058		58080		58040		58058		58080			
Static Gas Pressure	13.5	343	13.5	343	13.5	343	13.5	343	13.5	343	13.5	343	13.5	343
Combustion Air for Maximum Fire	1.6	41	2.2	56	2.3-2.4	58-61	1.6	41	2.2	56	2.3-2.4	58-61	1.43	36
Combustion Air for Minimum Fire	0.4	10	0.5-0.6	13-15	0.9-1.0	23-25	0.4	10	0.5-0.6	13-15	0.5-0.6	13-15	0.13	3
Low Combustion Air Pressure Switch	1.5	38	1.5	38	2.0	51	1.5	38	1.5	38	1.5	38	1.5	71
Low Main Air	0.8	20	0.8	20	0.8	20	0.8	20	1.0	25	1.0	25	1.3	33
Pilot Gas Pressure	5.0	127	5.0	127	5.0	127	5.0	127	5.0	127	5.0	127	5.0	127
Pilot Gas Flame	3.0	76	3.0	76	3.0	76	-0.8	-20	0.2	5	0.2	5	-0.8	-20
Regulated Gas Pressure	3.0	76	5.5	140	8.0	203	1.2	30	2.4	61	2.4	61	1.2	30
Burner Minimum Fire	70-80°F	21-27°C	70-80°F	21-27°C	70-80°F	21-27°C	70-80°F	21-27°C	70-80°F	21-27°C	70-80°F	21-27°C	100-110°F	38-43°C
Combustion Air Rod	0.4	10	0.5-0.6	13-15	0.9-1.0	23-25	0.4	10	0.5-0.6	13-15	0.5-0.6	13-15	0.13	3
High Gas Pressure	3.75	95	6.87	175	10.0	254	1.5	38	3.0	76	3.0	76	1.5	38
Low Gas Pressure	1.50	38	2.75	70	4.0	102	0.6	15	1.2	30	1.2	30	0.6	15

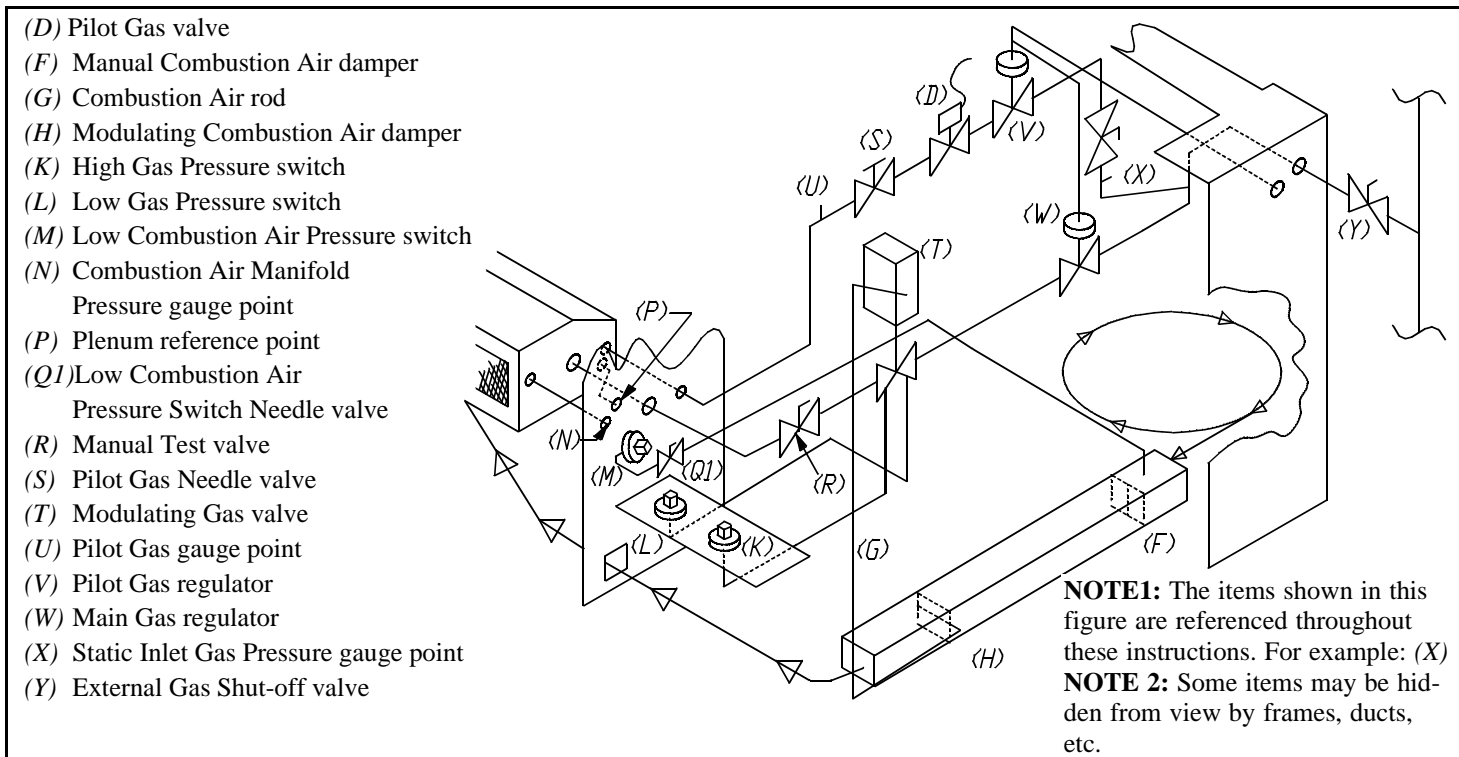


FIGURE 9 (MSSM0112BE)
Schematic of Air/Gas Train

FIREYE Equipped Dryers

Step 1 – Setting Static Inlet Gas Pressure

▲ WARNING ▲



CRUSHING AND ENTANGLEMENT HAZARD—Lock OFF and tag out power at the wall disconnect for the Dryer.

1. Turn machine OFF.
2. Attach one side of manometer (high pressure side of differential pressure gauge) to Static Inlet Gas Pressure gauge point (X), and leave the other side open to atmosphere.
3. Open External Gas Shut-off valve (Y).
4. Check the status of the following components:
 - a. External Gas Shut-off valve (Y) is OPEN,
 - b. Manual Test valve (R) and Modulating Gas valve (T) (and Main Gas valve, if so equipped) are CLOSED,
 - c. Pilot and burner are NOT FIRING,
 - d. Modulating Combustion Air damper (H) at MIN position (cut in shaft nearly vertical),
 - e. Combustion Air blower and Main blower are OFF.
5. Adjust pressure of incoming gas (upstream from dryer) to achieve value listed in FIGURE 8. **Incoming gas pressure must be at this value before further adjustments can be made.** Pressures exceeding specified range will damage regulator.

Using the Setup Mode

For dryers with Fireye control, the Dryer control has a built-in setup procedure to aid in making the remaining adjustments described herein. Specific setup modes are provided to accommodate most adjustments. Once the setup procedure is accessed, **ENTER NEXT** advances the control through each of the setup modes in the order they are needed.

After the power up sequence, the display shows

```
WAITING FOR LOAD
*****
```

MANUAL Accesses Manual Mode menu (press **CANCEL ESCAPE** to return to automatic).

```
RETURN TO AUTOMATIC
00
```

1 ABC, **2 DEF** Selects the Setup Procedure.

```
SETUP PROCEDURE
12
```

ENTER NEXT Accesses Setup Mode A (or the next mode in sequence).

Whenever the next setup mode is required, the **ENTER NEXT** key stroke and resulting display will be shown in a box.

For Quick Return to Run Mode From Setup Procedure

ENTER NEXT, **ENTER NEXT**, etc. Advances through each of the five setup modes.

Note, however, that the control requires waiting eight seconds in Mode C and five seconds in Mode D.

Display returns to

```
SET UP PROCEDURE
12
```

0 r1, **0 r2** Selects "RETURN TO AUTOMATIC."

```
RETURN TO AUTOMATIC
00
```

ENTER NEXT Returns to the Run Mode.

```
WAITING FOR LOAD
*****
```

⚠ DANGER ⚠



CRUSHING AND ENTANGLEMENT HAZARD—Rotating machinery can entangle and crush body parts. Keep body parts away from exposed rotating belts and pulleys.

Step 2 – Setting Combustion Air for Maximum Fire

To Advance to First Setup Mode

When the display =

SETUP PROCEDURE
12

This step turns on the Combustion Air motor contactor. The Main Air pressure switch (*Z*, FIGURE 13) and Modulating Gas valve (*T*) (and Main Gas valve, if so equipped) are disabled.



Accesses Setup Mode A

SETUP MODE A
SET COMBUSTION AIR

1. Attach one side of the manometer (high pressure side of differential pressure gauge) to Combustion Air Manifold Pressure gauge point (*N*) and the other side to the Plenum reference point (*P*).
2. Lock the Modulating Combustion Air damper (*H*) FULLY OPEN (cut in shaft is horizontal), and adjust the Manual Combustion Air damper (*F*) to achieve the value listed in FIGURE 8.
3. Tighten the upper and lower locking nuts on the Manual Combustion Air damper (*F*), then check value again.

Step 3 – Setting Combustion Air for Minimum Fire

This adjustment is made at the Modulating Combustion Air damper (*H*). See FIGURES 9 and 10. Manometer (differential pressure gauge) connections remain the same.

1. Check that the Modulating Gas valve (*T*) (and Main Gas valve, if so equipped) is fully closed.
2. Remove the Combustion Air Safety arm locking screw and pin (FIGURE 10). With the limit arm held against the bottom of the combustion air duct, rotate the Modulating Combustion Air damper shaft until the desired pressure is on the manometer. Tighten locking screw (re-drill hole to insert pin if necessary).
3. Verify pressure setting, ensuring the limit arm is against the underside of the Combustion Air duct and the Modulating Gas valve (*T*) is fully closed.

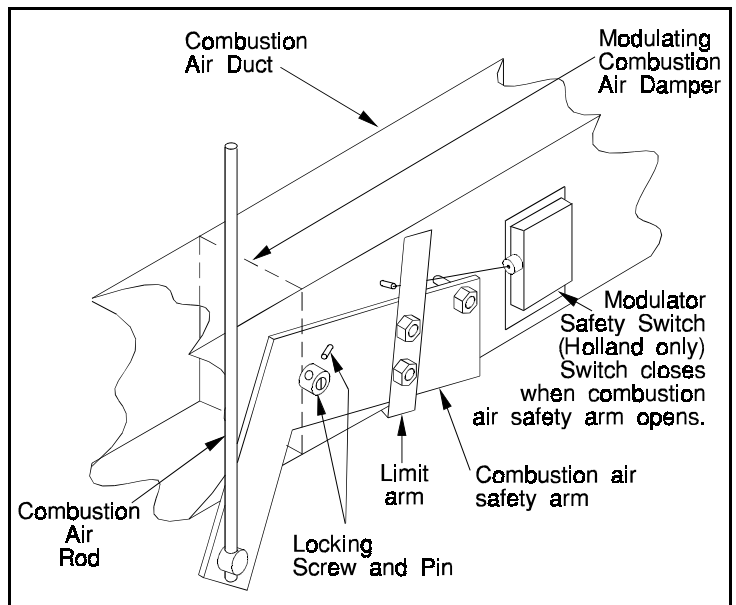


FIGURE 10 (MSSM0112BE)
Combustion Air Damper, Limit Arm and Safety Arm

Step 4 – Setting the Low Combustion Air Pressure Switch

NOTE: If replacing the Low Combustion Air Pressure switch, set it fully counter-clockwise before installing, then adjust as below.

1. Attach one side of manometer (high pressure side of differential pressure gauge) to the gauge point of the needle valve (*Q1*) near the Low Combustion Air Pressure switch (*M*); leave other side open to atmosphere.
2. Adjust the needle valve (*Q1*) to achieve the pressure shown in FIGURE 8. Slowly turn the Low Combustion Air Pressure switch (*M*) adjustment screw clockwise until the COMBUSTION AIR LOW status light is ON. Next, turn the adjustment screw counter-clockwise until the light goes OFF, then again turn slowly clockwise until light just comes ON. Close the needle valve fully.

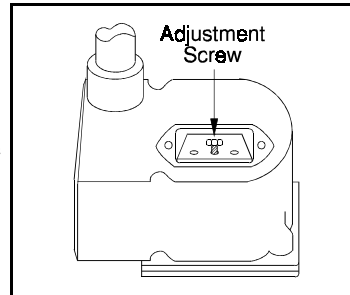


FIGURE 11 (MSSM0112BE)
Low Gas Pressure Switch (58040 Natural Gas and all Propane Models)

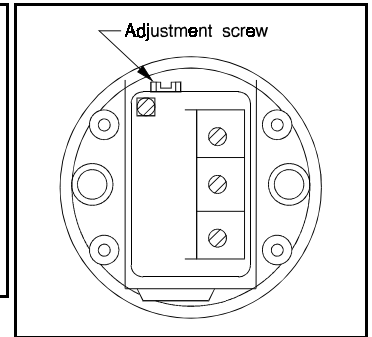


FIGURE 12 (MSSM0112BE)
Natural Gas Pressure Switch (except 58040)

Step 5 – Setting the Main Air Pressure Switch

NOTE: Adjust the Main Air Pressure switch very slowly, allowing time for pressure to drop.



Accesses Setup Mode B

SETUP MODE B
SET MAIN AIR

▲ WARNING ▲



CRUSHING AND ENTANGLEMENT HAZARD—Rotating machinery can entangle and crush body parts. Keep away from rotating belts and pulleys. Ensure blower motor belt guard is in place at all times.

1. Connect one side of the manometer (low pressure side of differential pressure gauge) to the Main Air Pressure switch needle valve (*Q2*, FIGURE 13); leave the other side open to atmosphere.
2. Verify that there is 1.2" (2.989 mbar) for non-CSA 58040 and 58058 models, 1.5" (3.736 mbar) for 58080 models, or 1.3" (3.238 mbar) for all CSA models, of vacuum at the Main Air Pressure switch (*Z*, FIGURE 13). Make necessary adjustments to Main Air Blower damper clevis arm and air cylinder stop nuts on top of dryer. Do not allow the clevis arm to strike the blower housing.

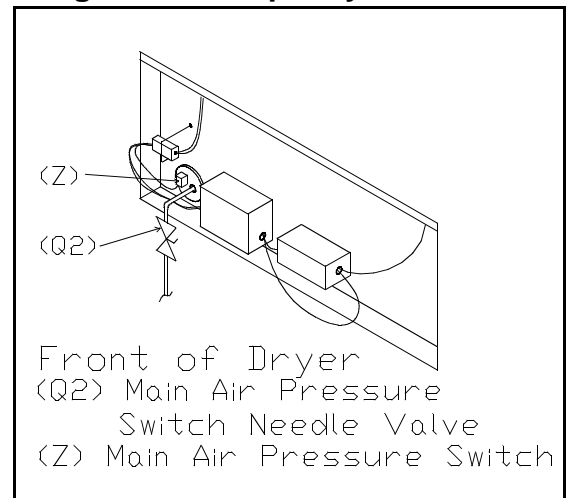


FIGURE 13 (MSSM0112BE)
Front Panel Components

3. Adjust the Main Air Pressure Switch Needle valve (Q2, FIGURE 13) to achieve the value shown in FIGURE 8. Slowly turn the Main Air Pressure switch (Z) adjustment screw clockwise until the MAIN AIR LOW status light is ON. Next, turn the screw counter-clockwise until the light goes OFF, then again turn slowly clockwise until light just comes ON.
4. After setting switch, turn the Main Air Pressure Switch Needle valve (Q2) fully counter-clockwise to secure.

Step 6A – Setting Pilot Gas Pressure

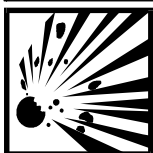


Accesses Setup Mode C used to set the pilot gas pressure

SETUP MODE C
SET PILOT VALVE

This mode turns on the Pilot Gas valve (D). After eight seconds, the dryer calls for fire.

▲ WARNING ▲



EXPLOSION AND FIRE HAZARD—Pilot Gas Pressure/Pilot Gas Flame procedure has potential for gas release. Follow instructions carefully.

1. Connect one side of manometer (high pressure side of differential pressure gauge) to Pilot Gas gauge point (U) downstream of the Pilot Gas Needle valve (S), and leave the other side open to atmosphere.
2. Remove Pilot Gas Needle valve (S) cap, then turn screw counter-clockwise fully, but do not remove.
3. Remove Pilot Gas regulator (V) cap, and adjust to achieve Pilot Gas Pressure value listed on nameplate.

Step 6B – Setting Pilot Gas Flame

NOTE 1: If the flame control trips during the procedure, press flame control Reset, Safety Reset, and Signal Cancel to reset (See FIGURES 1 and 2 for location).

NOTE 2: Procedure “B” requires an analog or digital AC-DC multimeter.

Milnor provides two separate pilot gas flame setting procedures. Procedure “A” is preferred under normal circumstances. Use procedure “B” only if the machine is experiencing intermittent cycling problems due to gas pressure extinguishing the pilot flame.

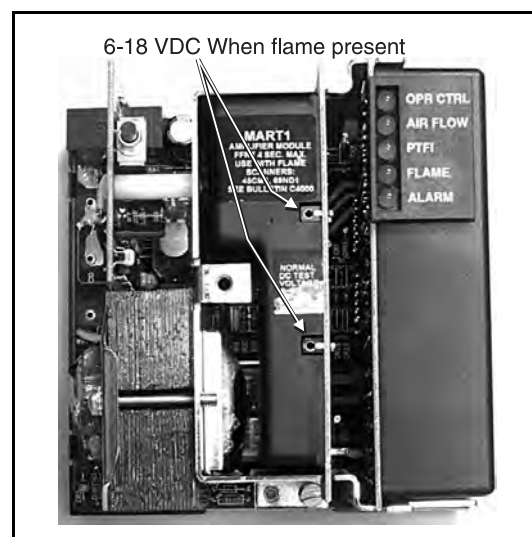


FIGURE 14 (MSSM0112BE)
**Fireeye Flame Control
Voltage Test Jacks
(cover removed for clarity)**

Procedure A: Replace Pilot Gas regulator (*V*) cap, and turn Pilot Gas Needle valve (*S*) screw clockwise to achieve Pilot Gas Flame value on nameplate.

Procedure B: Shut off Manual Test valve (*R*). Remove Fireeye flame control cover (FIGURE 2). Set the test meter to the DC scale and insert the meter leads into the test jacks shown in FIGURE 14. The meter should read a steady 6 - 18 VDC after the pilot gas flame is established. Adjust the Pilot Gas Needle valve (*S*) screw to obtain the highest voltage.

Step 7 – Setting Regulated Gas Pressure



Accesses Setup Mode D

SETUP MODE D
CHECK REG. GAS PRESS

This mode turns on the main gas. The Modulating Gas valve (*T*) (and separate Main Gas valve, if so equipped) opens and modulates to position 100.

NOTE 1: If the High Gas Pressure switch (*K*), trips during this procedure, turn the adjustment screw one turn clockwise, then press Safety Reset and Signal Cancel.

NOTE 2: If the Low Gas Pressure switch (*L*), trips during this procedure, turn the adjustment screw one turn counter-clockwise, then press Safety Reset and Signal Cancel.

1. Connect one side of manometer (high pressure side of differential pressure gauge) to gauge point at Low Gas Pressure switch (*L*); leave the other side open to atmosphere.
2. Open Manual Test valve (*R*) fully.
3. Adjust Main Gas regulator (*W*) to achieve value listed in FIGURE 8.



Accesses Setup Mode E

SETUP MODE E 079F ←
MIN FIRE, ROD, GAS SWT

This mode sets the Modulating Gas valve (*T*) to 000 and displays the inlet temperature (Fahrenheit shown).

Step 8 – Setting Burner Minimum Fire

Turn the Modulating Gas Valve Minimum Fire adjustment (FIGURE 15) fully counter-clockwise. Slowly turn clockwise until value calculated from data in FIGURE 8 appears on control panel display as shown in FIGURE 16. After making an adjustment, wait for the dryer display to settle.

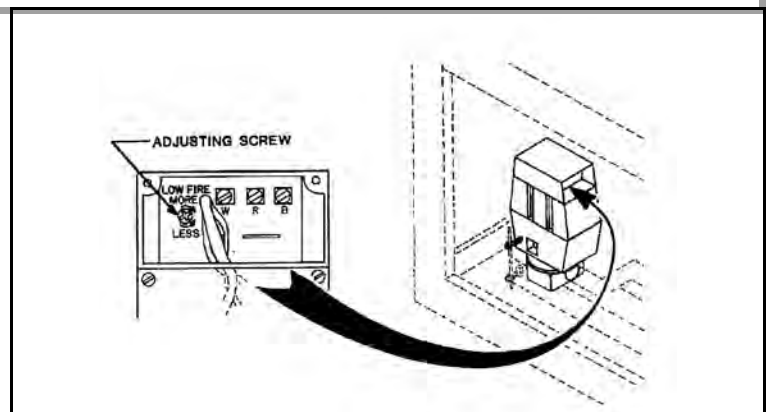


FIGURE 15 (MSSM0112BE)
**Modulating Gas Valve
Minimum Fire Adjustment**

Step 9 – Adjusting Length of Combustion Air Rod

After setting burner minimum fire, it is necessary to adjust the Combustion Air rod (G) length. Loosen the Combustion Air rod clamps. Set the Limit arm (FIGURE 10), against the underside of the Combustion Air duct, then tighten clamps.

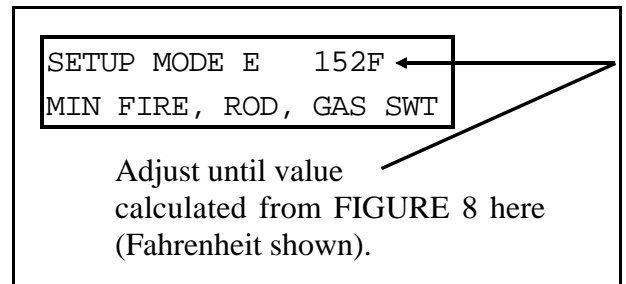


FIGURE 16 (MSSM0112BE)

Matching the Displayed Value with Value calculated from Nameplate

Step 10 – Setting High Gas Pressure Switch

NOTE 1: Set a replacement High Gas Pressure switch fully clockwise before installing, then adjust as below.

NOTE 2: Propane High Gas Pressure switches (FIGURE 17), adjust by knob instead of screw. The procedure remains the same as below.

1. Attach one side of manometer (high pressure side of differential pressure gauge) to the High Gas Pressure switch (*K*); leave other side open to atmosphere.
2. Start with the Manual Test valve (*R*) open. Close this valve slowly until value shown in FIGURE 8 is read on manometer. Slowly turn the High Gas pressure switch (*K*) adjustment screw counter-clockwise until the GAS PRESSURE HIGH status light **BLINKS**, the switch trips, and the burner extinguishes. As the flame control attempts to relight the burner, gradually turn the adjustment screw clockwise until the burner fires, then slowly counter-clockwise until switch trips again. Verify the setting by opening the Manual Test valve (*R*) fully, then close the valve while watching the manometer. The High Gas Pressure switch should trip when the set value is reached.
3. Reopen Manual Test valve (*R*) fully.

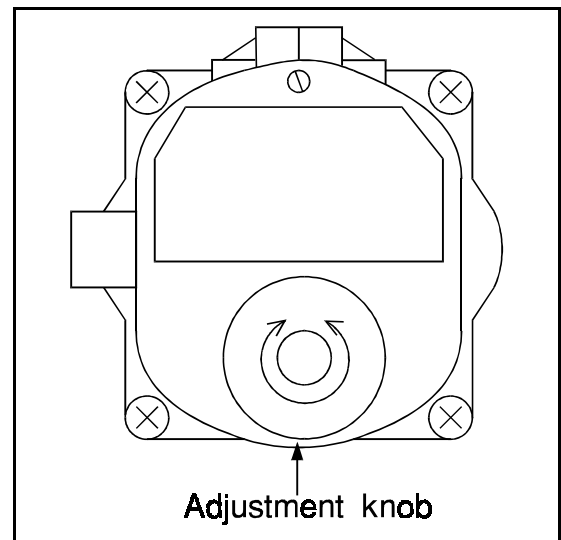


FIGURE 17 (MSSM0112BE)

Propane High Gas Pressure Switch

Step 11 – Setting Low Gas Pressure Switch

NOTE: Set a replacement Low Gas Pressure switch fully counter-clockwise before installing, then adjust as below.

1. Connect one side of manometer (high pressure side of differential pressure gauge) to the Low Gas Pressure switch (*L*); leave the other side open to atmosphere.

-
2. Start with the External Gas Shut-off valve (*Y*) open. Close this valve slowly until value shown in FIGURE 8 is read on manometer. Slowly turn the Low Gas pressure switch (*L*) adjustment screw clockwise until the GAS PRESSURE LOW status light BLINKS, the switch trips, and the burner extinguishes. As the flame control attempts to relight the burner, gradually turn the adjustment screw counter-clockwise until the burner fires, then slowly clockwise until switch trips again. Verify the setting by opening the External Gas Shut-off valve (*Y*) fully, then close the valve while watching the manometer. The Low Gas pressure switch should trip when the set value is reached.
 3. Open External Gas Shut-off valve (*Y*) fully.

Landis and Gyr Equipped Dryers

Step 1 – Setting Static Inlet Gas Pressure

▲ WARNING ▲



CRUSHING AND ENTANGLEMENT HAZARD—Lock OFF and tag out power at the wall disconnect for the Dryer.

1. Turn machine OFF.
2. Attach one side of manometer (high pressure side of differential pressure gauge) to Static Inlet Gas Pressure gauge point (*X*), and leave the other side open to atmosphere.
3. Open External Gas Shut-off valve (*Y*).
4. Check the status of the following components:
 - a. External Gas Shut-off valve (*Y*) is OPEN,
 - b. Manual Test valve (*R*) and Modulating Gas valve (*T*) (and Main Gas valve, if so equipped) are CLOSED,
 - c. Pilot and burner are NOT FIRING,
 - d. Modulating Combustion Air damper (*H*) at MIN position (cut in shaft nearly vertical),
 - e. Combustion Air blower and Main blower are OFF.
5. Adjust pressure of incoming gas (upstream from dryer) to achieve value listed. **Incoming gas pressure must be at this value before further adjustments can be made.** Pressures exceeding specified range will damage regulator.

Setting Conditions—Landis and Gyr equipped dryers must be adjusted with the dryer fired, the damper position at 2, and the Modulating Gas valve at 000. This is achieved by manually running any dry code that calls for fire, then manually setting the damper position and Modulating Gas valve, as follows:

After the power up sequences, the display shows

```

WAITING FOR LOAD
*****
    
```

For Quick Return to Automatic from Manual Load menu

CANCEL
ESCAPE

CANCEL
ESCAPE

, etc., returns to automatic

```

WAITING FOR LOAD
*****
    
```

MANUAL
LOAD

Accesses Manual Load menu

```

SELECT DRYCODE
00 REDRY
    
```

ENTER
NEXT

Accepts the default drycode 00 and prompts for load size.

```

ENTER LOAD SIZE
0 FULL LOAD
    
```

ENTER
NEXT

Accepts the default load size (full load) and prompts the operator to load dryer. Ignore this prompt.

```

LOAD DRYER WITH
REDRY
    
```



Starts the cycle. When loading sequence ends, display appears as shown below.

```
LOADING
```

```
00F TIC TOC 000 VP
XX XXXAXXX XXX XXX
```

Alternates with

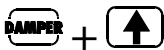
```
00F TIC TOC 000 AIR
XXX XXXDXXX XXX XXX
```

After the burner fires



Stops the timer and accesses the manual control panel for temperature, damper, and basket rotation.

```
TICHTOC LDA MVP BSPD
XXX+XXX X0X 0X XXXX
```



Sets damper position. Hold keys until damper position(D)=2.

```
TICHTOC LDA MVP BSPD
XXX+XXX X2X XXX XXXX
```



Closes Modulating Gas valve (position). Hold keys until MVP=000.

```
TICHTOC LDA MVP BSPP
XXX+XXX X2X 000 XXXX
```

The dryer will continue to fire at minimum fire (MVP=000) until commanded to return to automatic. Perform the remaining adjustments herein. Upon completion,



Returns to automatic.

▲ WARNING ▲



CRUSHING AND ENTANGLEMENT HAZARD—Rotating machinery can entangle and crush body parts. Keep away from rotating belts and pulleys.

Step 2 – Setting Combustion Air for Maximum Fire

1. Attach one side of the manometer (high pressure side of differential pressure gauge) to Combustion Air Manifold Pressure gauge point (*N*) and the other side to the Plenum reference point (*P*).
2. Lock the Modulating Combustion Air damper (*H*, FIGURE 10) FULLY OPEN (cut in shaft is horizontal), and adjust the Manual Combustion Air damper (*F*) to achieve the value listed in FIGURE 8.
3. Tighten the upper and lower locking nuts on the Manual Combustion Air Damper (*F*), then check value again.

Step 3 – Setting Combustion Air for Minimum Fire

This adjustment is made at Modulating Combustion Air damper (*H*). See FIGURES 9 and 10. Manometer (differential pressure gauge) connections remain the same.

1. Check that the Modulating Gas Valve Position is still 000 (minimum fire).
2. Remove the Combustion Air Safety arm locking screw and pin (FIGURE 10). With the limit arm held against the bottom of the combustion air duct, rotate the Modulating Combustion Air damper shaft until the desired pressure is on the manometer. Tighten locking screw (re-drill hole to insert pin if necessary).
3. Verify pressure setting, ensuring the limit arm is against the underside of the Combustion Air duct.

Step 4 – Setting the Low Combustion Air Pressure Switch

NOTE 1: If replacing the Low Combustion Air Pressure Switch, set it fully counter-clockwise before installing, then adjust as below.

NOTE 2: If the flame control trips during the following procedures, press Safety Reset or Flame Control Reset, and Signal Cancel to reset (see FIGURE 1 and FIGURE 3 for locations).

1. Attach one side of manometer (high pressure side of differential pressure gauge) to the gauge point of the needle valve (*Q1*) near the Low Combustion Air Pressure switch (*M*); leave other side open to atmosphere.
2. Adjust the needle valve (*Q1*) to achieve the pressure shown in FIGURE 8. Slowly turn the Low Combustion Air Pressure switch (*M*) adjustment screw clockwise until the COMBUSTION AIR LOW status light illuminates MOMENTARILY, the switch trips, and the burner extinguishes. Push Safety Reset and Signal Cancel to reset. While the flame control is resetting, turn the adjustment screw one turn counter-clockwise, then after the burner fires, gradually turn the adjustment screw clockwise until the switch trips again.
3. Close the needle valve fully.

Step 5 – Setting Main Air Pressure Switch

▲ WARNING ▲



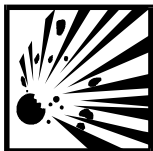
CRUSHING AND ENTANGLEMENT HAZARD—Rotating machinery can entangle and crush body parts. Keep away from rotating belts and pulleys. Ensure blower motor belt guard is in place at all times.

NOTE: Adjust the Main Air Pressure switch very slowly, allowing time for air pressure to drop.

1. Connect one side of the manometer (low pressure side of differential pressure gauge) to the Main Air Pressure switch needle valve (*Q2*, FIGURE 13); leave the other side open to atmosphere.
2. Verify that there is 1.2" (2.989 mbar) for non-CSA 58040 and 58058 models, 1.5" (3.736 mbar) for 58080 models, or 1.3" (3.238 mbar) for all CSA models, of vacuum at the Main Air Pressure switch (*Z*, FIGURE 13). Make necessary adjustments to Main Air Blower damper clevis arm and air cylinder stop nuts on top of dryer. Do not allow the clevis arm to strike the blower housing.
3. Adjust the Main Air Pressure switch Needle valve (*Q2*) to achieve the value shown in FIGURE 8. Slowly turn the Main Air Pressure switch (*Z*) adjustment screw clockwise until the Main Air status light illuminates MOMENTARILY, the switch trips, and the burner extinguishes. Push Safety Reset and Signal Cancel to reset (FIGURES 1 and 3). While the flame control is resetting, turn the adjustment screw one turn counter-clockwise, then after the burner fires, gradually turn the adjustment screw clockwise until the switch trips again.
4. After setting switch, turn the Main Air Pressure Switch Needle valve (*Q2*) fully counter-clockwise to secure.

Step 6A – Setting Pilot Gas Pressure

▲ WARNING ▲



EXPLOSION AND FIRE HAZARD—Pilot Gas Pressure/Pilot Gas Flame procedure has potential for gas release. Follow instructions carefully.

1. Connect one side of manometer (high pressure side of differential pressure gauge) to Pilot Gas gauge point (*U*) downstream of the Pilot Gas Needle valve (*S*), and leave the other side open to atmosphere.
2. Remove Pilot Gas Needle valve (*S*) cap, then turn screw counter-clockwise fully, but do not remove.
3. Remove Pilot Gas regulator (*V*) cap, and adjust to achieve Pilot Gas Pressure value listed in FIGURE 8.

Step 6B – Setting Pilot Gas Flame

Replace Pilot Gas Regulator cap (*V*), and turn Pilot Gas Needle valve (*S*) screw clockwise to achieve Pilot Gas Flame value shown in FIGURE 8.

Step 7 – Setting Regulated Gas Pressure

NOTE 1: If the High Gas Pressure switch (*K*) trips during this procedure, turn the adjustment screw one turn clockwise, then press Safety Reset and Signal Cancel.

NOTE 2: If the Low Gas Pressure switch (*L*) trips during this procedure, turn the adjustment screw one turn clockwise, then press Safety Reset and Signal Cancel.

1. Connect one side of manometer (high pressure side of differential pressure gauge) to gauge point at Low Gas Pressure switch (*L*); leave the other side open to atmosphere.
2. Open Manual Test valve (*R*) fully.
3. Adjust Main Gas Regulator (*W*) to achieve value shown in FIGURE 8.

Step 8 – Setting Burner Minimum Fire

Turn the Modulating Gas Valve Minimum Fire adjustment (FIGURE 15) fully counter-clockwise. Slowly turn clockwise until value calculated from data shown in FIGURE 8 appears on control panel display as shown in FIGURE 18. After making an adjustment, wait for the display to settle.

TICHTOC LDA MVP BSPP
XXX+XXX X2X 000 XXXX

↑ Adjust until (TIC) calculated from FIGURE 8 is reached

FIGURE 18 (MSSM0112BE)
**Matching the
Displayed Value
with FIGURE 8**

Step 9 – Adjusting Length of Combustion Air Rod

After setting burner minimum fire, it is necessary to adjust the Combustion Air rod (*G*) length. Loosen the Combustion Air rod clamps. Set the Limit arm (FIGURE 10) against the underside of the Combustion Air duct, then tighten clamps.

Step 10 – Setting High Gas Pressure Switch

NOTE 1: Set a replacement High Gas Pressure Switch fully clockwise before installing, then adjust as below.

NOTE 2: Propane High Gas Pressure switches (FIGURE 17), adjust by knob instead of screw. The procedure remains the same as below.

1. Attach one side of manometer (high pressure side of differential pressure gauge) to the High Gas Pressure switch (*K*); leave other side open to atmosphere.
2. Start with Manual Test valve (*R*) open. Slowly close this valve until value shown in FIGURE 8 is read on manometer. Gradually turn the High Gas Pressure switch (*K*) adjustment screw counter-clockwise until the GAS PRESSURE HIGH status light illuminates MOMENTARILY, the switch trips, and the burner extinguishes. Push Safety Reset and Signal Cancel to reset. While the flame control is resetting, turn the adjustment screw one turn clockwise, then after the burner fires, gradually turn the adjustment screw counter-clockwise until the switch trips again. Verify the setting by opening the Manual Test valve (*R*) fully, then closing the valve while watching the manometer. The High Gas Pressure switch should trip when the set value is reached.
3. Reopen Manual Test valve (*R*) fully.

Step 11 – Setting Low Gas Pressure Switch

NOTE: Set a replacement Low Gas Pressure switch fully counter-clockwise before installing, then adjust as below.

1. Connect one side of manometer (high pressure side of differential pressure gauge) to the Low Gas Pressure switch (*L*); leave the other side open to atmosphere.
2. Start with the External Gas Shut-off valve (*Y*) open, and close it slowly until the value shown in FIGURE 8 is read on the manometer. Slowly turn the Low Gas Pressure switch (*L*) adjustment screw clockwise until the GAS PRESSURE LOW status light illuminates MOMENTARILY, the switch trips, and the burner extinguishes. Push Safety Reset and Signal Cancel to reset. While the flame control is resetting, turn the adjustment screw one turn counter-clockwise, then after the burner fires, gradually turn the adjustment screw clockwise until the switch trips again. Verify the setting by opening the External Gas Shut-off valve (*Y*) fully, then closing the valve while watching the manometer. The Low Gas Pressure switch should trip when the set value is reached.
3. Open External Gas Shut-off valve (*Y*) FULLY.

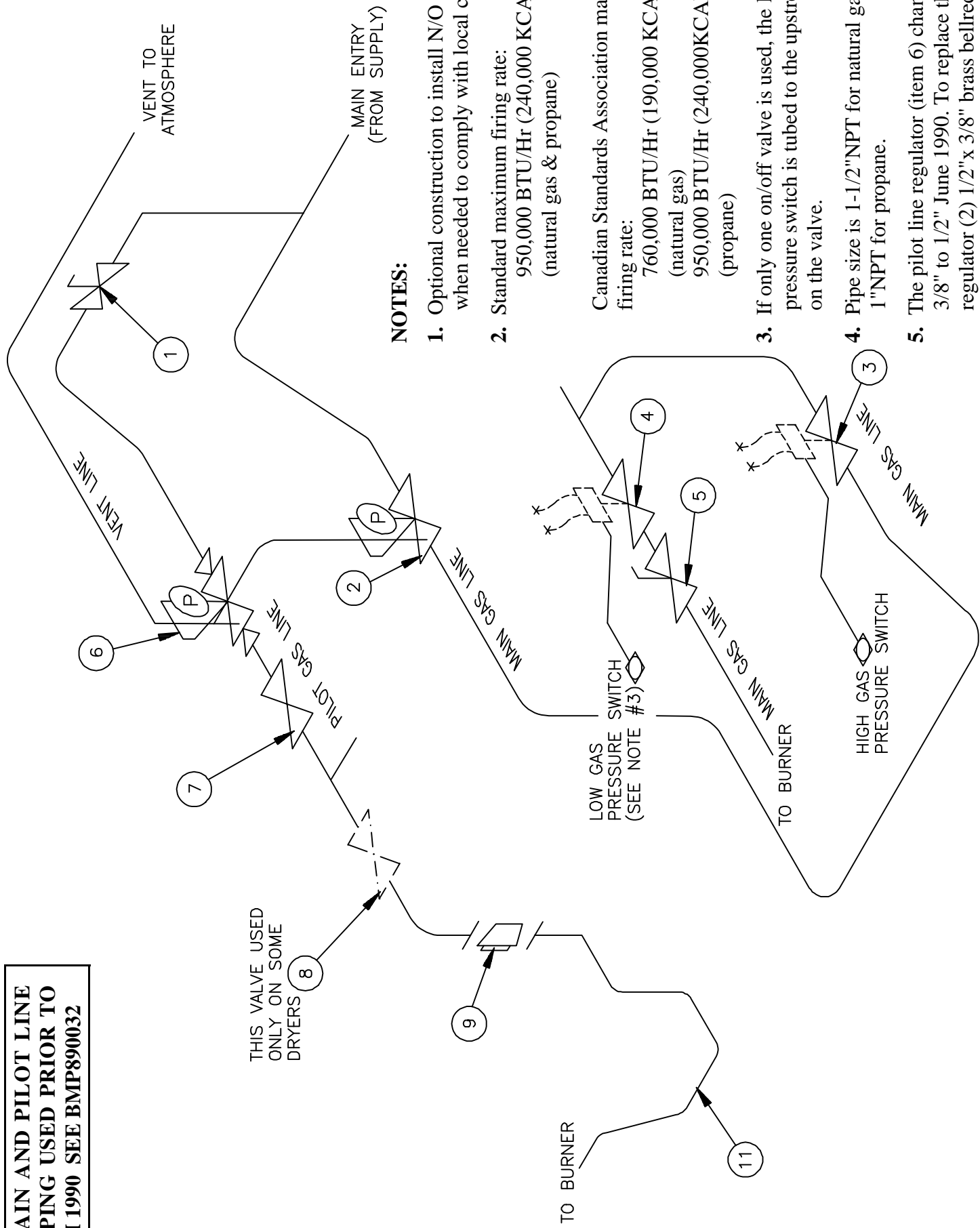


GAS SCHEMATIC -- 58040TG2
(FOR MACHINES MANUFACTURED MARCH 1990 AND LATER)

DRAWING
 (See other page for parts list,
 if applicable.)

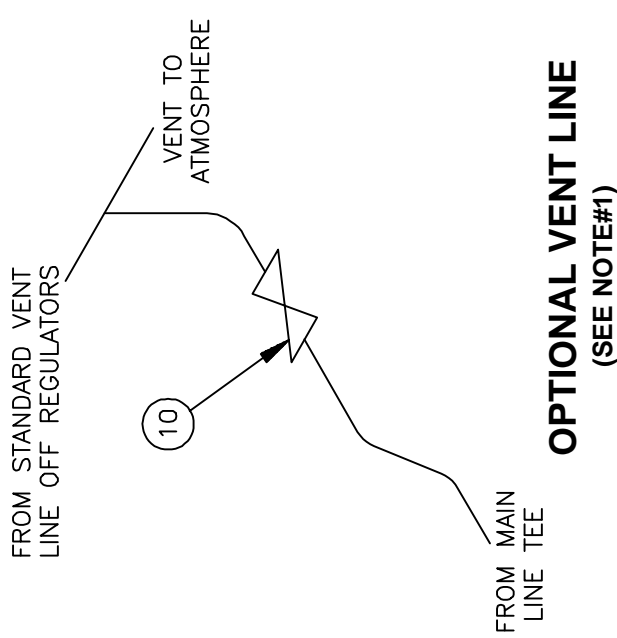
BMP910012/93043V (Page 1)

**FOR MAIN AND PILOT LINE
 GAS PIPING USED PRIOR TO
 MARCH 1990 SEE BMP890032**

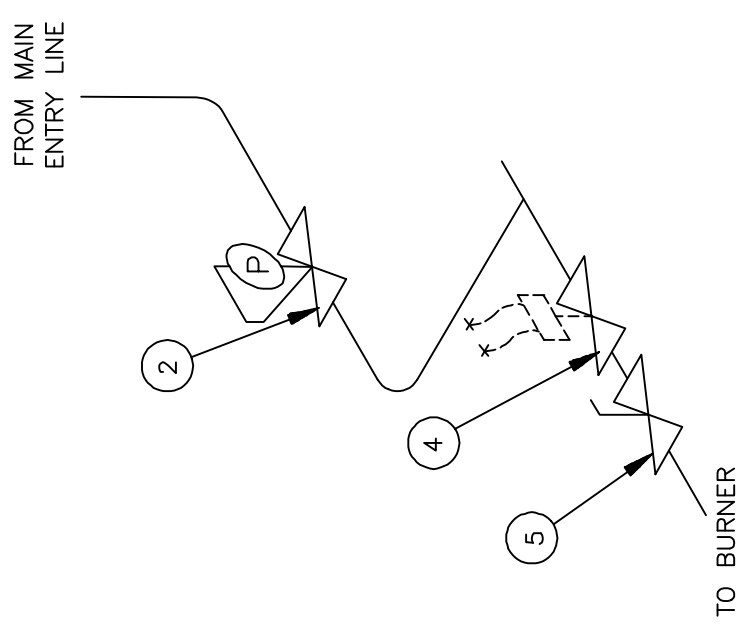


NOTES:

- Optional construction to install N/O vent valve when needed to comply with local codes.
- Standard maximum firing rate:
 950,000 BTU/Hr (240,000 KCAL/Hr) (natural gas & propane)
 Canadian Standards Association maximum firing rate:
 760,000 BTU/Hr (190,000 KCAL/Hr) (natural gas)
 950,000 BTU/Hr (240,000 KCAL/Hr) (propane)
- If only one on/off valve is used, the low gas pressure switch is tubed to the upstream tap on the valve.
- Pipe size is 1-1/2" NPT for natural gas and 1" NPT for propane.
- The pilot line regulator (item 6) changed from 3/8" to 1/2" June 1990. To replace the 3/8" regulator (2) 1/2" x 3/8" brass bellreducers and (2) 1/2" brass close nipples are required.



OPTIONAL VENT LINE
(SEE NOTE#1)



MAIN GAS LINE
(FOR MACHINES WITH ONE ON/OFF VALVE)



PARTS LIST

(See other page for drawing.)

GAS SCHEMATIC -- 58040TG2

(FOR MACHINES MANUFACTURED MARCH 1990 AND LATER)

BMP910012/93043V (Page 2)

ITEM	PART NUMBER	DESCRIPTION	HOW PART IS USED IN ASSEMBLY (Only if pertinent)
00A	A76VG001G	90407B GAS TRAIN MAIN ENTRYEND MOD2	MAIN ENTRY LINE
00B	A76VG006	90407C 5840 GAS TRAIN 2-V=STD MOD2	MAIN LINE 2V STD NAT GAS
00C	A76VG006A	90407# 5840 GAS TRAIN 2-V=ONTA MOD2	MAIN LINE 2V ONTA NAT GAS
00D	A76VG006B	90407# 5840 GAS TRAIN 2-V=PRUF MOD2	MAIN LINE 2V PRUF NAT GAS
00E	A76VG001C	91341L*5840 GAS TRAIN 1-V=FM	MAIN LINE 1V NAT GAS
00F	A76VG001H	90456L 5840 GAS TRAIN PILOT=MOD2	PILOT LINE 1-2WAY
00G	A76VG001I	90456B 5840 GAS TRN PILOT=AUST MOD2	PILOT LINE 2-2WAY
00H	A76VG001	91256B*5840 GAS TRAIN VENT	VENT LINE
00I	A76VG002A	87521B*GAS TRAIN TRANSITIONAL 5840	TRANSITIONAL LINE
00J	A76VG001F	89382B*5840 GAS TRAIN MAIN EXIT END	EXIT TO BURNER
001	96G030	02Z 3/8 GAS STOP VALVE W/CKLEVERHDL	00A
002A	96J510	02Z 1" GAS REG #R6110-25 2"-5" H2O	00B-00C
002B	96J510B	89456N1"GASREG #RV6010-13 1-3.5"W/C.	00E,PROPANE
003A	96S1002AGA	00Z 1" VALVE ON-OFF/MOD UNIVERSAL	00B-00C
003B	96S1002P0C	00Z 1"VALVE ON-OFF PROOF OF CLOSURE	00D
004A	96S1002AGA	00Z 1" VALVE ON-OFF/MOD UNIVERSAL	00B-00D
004B	96S1002P0C	00Z 1"VALVE ON-OFF PROOF OF CLOSURE	00E
005A	96G100	01Z 1"X1" GAS STOP VALVE	00B,00D-00E
005B	96G100C	01Z 1"GAS STOP VAL W/CK & RELUB	00C
006	96J506	01Z 1/2" GAS REG 5"W/C MAXTRL RV48	00F-00G
007	96TCC2BA37	03Z 3/8" N/C 2WAY 120V50/60C VALVE	00F-00G
008	96TCC2BA37	03Z 3/8" N/C 2WAY 120V50/60C VALVE	00G
009	96G037AGA	02Z 1/4X1/4 GAS COCK VALVE W/T-HDL	00F-00G
010	96TEO2AA37	03Z 1/4" N/O 2WAY 120V50/60C VALVE	00H
011	07 60217A	90407B*TUBING PILOT EXIT END-5840 ***** END OF PARTS LIST *****	00F-00G

How to Read Parts List

Reference Item Numbers—Items 00A, 00B, 00C, etc., or 00X, 00Y, 00Z, etc., appearing at the top of some parts lists, are for reference and provide:

- The part number for the entire assembly depicted in the drawing or a major sub-assembly thereof, and/or
- The range of machine models this drawing applies to.

If more than one reference item appears, this usually means this drawing applies to more than one assembly (and thus to more than one range of machines).

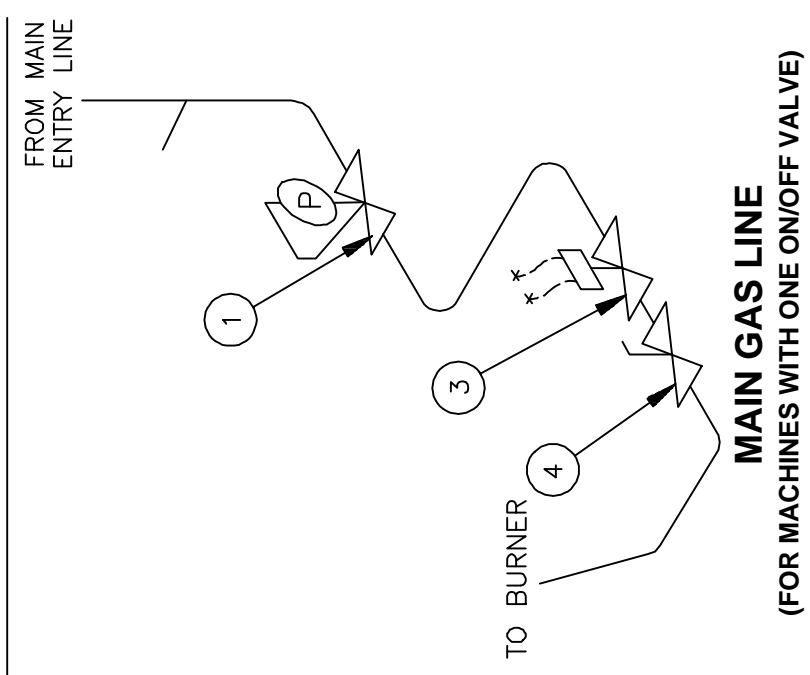
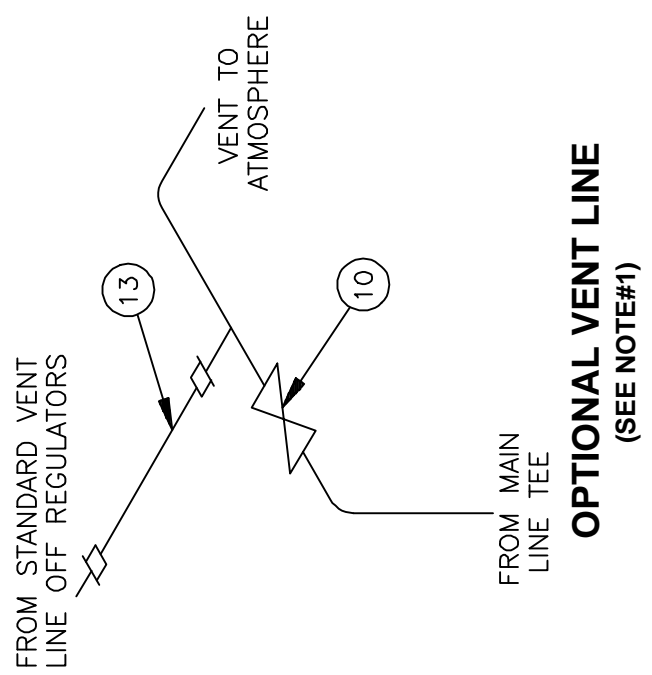
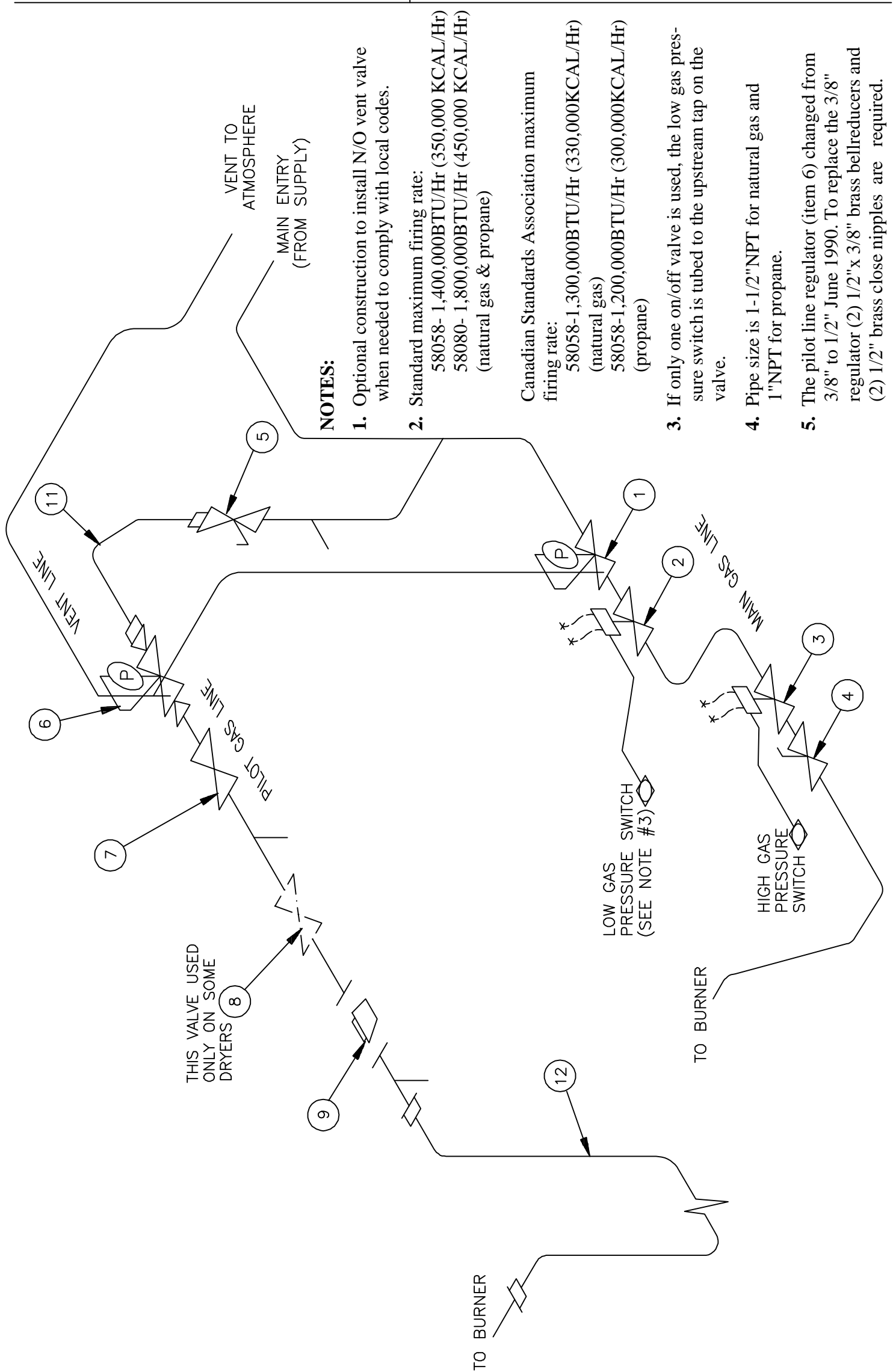
Component Item Numbers—For any item on the drawing (e.g., item ①), there may be several corresponding items on the parts list (e.g., 001A, 001B, 001C, etc.) which are similar components on different assemblies. "How Part Is Used In Assembly" identifies which components apply to your machine, by listing either the machine model, or the reference item number from the top of the parts list (e.g., 00A, 00B, 00C, etc.), or a particular characteristic (e.g., bronze or stainless steel), or special ordering information, such as a repair kit number.



DRAWING
 (See other page for parts list,
 if applicable.)

GAS SCHEMATIC -- 58058TG2 58080TG1

BMP850010/93043V (Page 1)



NOTES:

1. Optional construction to install N/O vent valve when needed to comply with local codes.
 2. Standard maximum firing rate:
 58058- 1,400,000BTU/Hr (350,000 KCAL/Hr)
 58080- 1,800,000BTU/Hr (450,000 KCAL/Hr)
 (natural gas & propane)
- Canadian Standards Association maximum firing rate:
 58058-1,300,000BTU/Hr (330,000KCAL/Hr) (natural gas)
 58058-1,200,000BTU/Hr (300,000KCAL/Hr) (propane)
3. If only one on/off valve is used, the low gas pressure switch is tubed to the upstream tap on the valve.
 4. Pipe size is 1-1/2"NPT for natural gas and 1"NPT for propane.
 5. The pilot line regulator (item 6) changed from 3/8" to 1/2" June 1990. To replace the 3/8" regulator (2) 1/2"x 3/8" brass bellreducers and (2) 1/2" brass close nipples are required.



PARTS LIST

(See other page for drawing.)

GAS SCHEMATIC -- 58058TG2 58080TG1

BMP850010/93043V (Page 2)

		HOW PART IS USED IN ASSEMBLY (Only if pertinent)	
ITEM	PART NUMBER	DESCRIPTION	
00A	A75VG001B	89477B*MAIN GAS PIPING ENTRY END	5858 MAIN ENTRY LINE
00AA	A77VG001B	89477#*5880 MAIN GAS=ENTRY END	5880 MAIN ENTRY LINE
00B	A75VG004C	89036C*MKII GAS PIPE 5858 DRY STD	5858 MAIN LN 2V STD NAT
00BB	A77VG001C	89487C*5880 MAIN GAS PIPE=STANDARD	5880 MAIN LN 2V STD NAT
00C	A75VG004E	89036J*MKII GAS TRAIN 5858 2-V=ONTA	5858 MAIN LN 2V ONTA NAT
00CC	A77VG001F	89487#*5880 MAIN GAS TRAIN 2-V=ONTA	5880 MAIN LN 2V ONTA NAT
00D	A75VG004F	89036#*MKI GAS TRAIN 5858 2-V+PRUF	5858 MAIN LN 2V PRUF NAT
00DD	A77VG001G	89487#*5880 MAIN GAS TRAIN 2-V+PRUF	5880 MAIN LN 2V PRUF NAT
00E	A75VG001F	88467T*MKII MAIN GAS TRAIN 1-V=FM	5858 MAIN LN 1V NAT GAS
00EE	A77VG001E	90333C*5880 MAIN GAS TRAIN 1-V=FM	5880 MAIN LN 1V NAT GAS
00F	A75VG005B	89337C*5858PROPANE GASTRAIN STD	5858 MAIN LN 2V STD PROP
00FF	A77VG002A	90456C 5880 PROPANE GAS TRAIN STD	5880 MAIN LN 2V STD PROP
00G	A75VG005D	89337#*5858PROPANE GASTRAIN 2V=ONTA	5858 MAIN LN 2V ONTA PROP
00GG	A77VG002B	90456# 5880PROPANE GASTRAIN 2V=ONTA	5880 MAIN LN 2V ONTA PROP
00H	A75VG005F	89337#*5858PROPANE GASTRAIN 2V+PRUF	5858 MAIN LN 2V PRUF PROP
00HH	A77VG002C	90456# 5880PROPANE GASTRAIN 2V=PRUF	5880 MAIN LN 2V PRUF PROP
00I	A75VG005A	90447C*5858PROPANE GASTRAIN 1V=FM	5858 MAIN LN 1V PROP GAS
00II	A77VG002	90456C 5880 PROPANE GASTRAIN 1V=FM	5880 MAIN LN 1V PROP GAS
00J	A75VG001E	90456B*PILOT GAS PIPE 5858DRY=AUST	5858 PILOT LN 2-2WAY
00JJ	A77VG001D	90456#*5880DRY PILOT GAS PIPE=AUST	5880 PILOT LN 2-2WAY
00K	A75VG001A	90456B*PILOT GAS PIPE 58X58 DRYER	5858 PILOT LN 1-2WAY
00KK	A77VG001A	90456#*PILOT GAS PIPE 5880 DRYER	5880 PILOT LN 1-2WAY
00L	A75VG001	86293B*PIPE=5858 GAS TRAIN VENT	5858 VENT LINE
00LL	A77VG001	89000Z 5880 GAS TRAIN VENT PIPE	5880 VENT LINE
00M	A75VG007	89312B*MKII BURNER-MAIN GAS TRANS	5858/80 BURNER TRANSITION
00MA	96J515	04Z 1.5" GAS REG RV81 W/R8110-4-8"SPR	00B-00EE
00MB	96J510	02Z 1" GAS REG #R6110-25 2"-5" H2O	00F-00II
002A	96S1502AGA	00Z 1.5" VALVE ON-OFF/MOD UNIVERSAL	00B-00CC
002B	96S1502P0C	00Z 1.5" VALVE ON-OFF PROF OF CLOSURE	00D-00DD
002C	96S1002AGA	00Z 1" VALVE ON-OFF/MOD UNIVERSAL	00F-00GG
002D	96S1002P0C	00Z 1" VALVE ON-OFF PROOF OF CLOSURE	00H-00HH
003A	96S1502AGA	00Z 1.5" VALVE ON-OFF/MOD UNIVERSAL	00B-00EE
003B	96S1002AGA	00Z 1" VALVE ON-OFF/MOD UNIVERSAL	00F-00II
004A	96G150CGA	01Z 1+ 1/2"X1+1/2" GAS STOP VALVE	00B-00BB,00D-00FF
004B	96G150C	01Z 1.5" GAS STOP VAL W/CK & RELUB	00C-00CC
004C	96G100	01Z 1"X1" GAS STOP VALVE	00F-00II
005	96G030	02Z 3/8 GAS STOP VALVE W/CKLEVERHDL	00J-00KK
006	96J506	01Z 1/2" GAS REG 5"WC MAXTRL RV48	00J-00KK
007	96TCC2BA37	03Z 3/8" N/C 2WAY 120V/50/60C VALVE	00J-00KK
008	96TCC2BA37	03Z 3/8" N/C 2WAY 120V/50/60C VALVE	00J-00JJ
009	96G037AGA	02Z 1/4X1/4 GAS COCK VALVE W/T-HDL	00J-00KK
010	96TEO2AA37	03Z 1/4" N/O 2WAY 120V/50/60C VALVE	00L-00LL
011	07 50387A	89427B PILOT GAS TUB ENTRY END MKII	00J-00KK
012A	07 50388	87521N*PILOT GAS TUBE EXIT END=DRY	00J,00K
012B	07 70171	89000Z 5880 PILOT GAS TUBE=EXIT END	00J,00KK
013	07 50005	86211N*TUBE=3/4" GAS PIPE 2-VENT ***** END OF PARTS LIST *****	00L-00LL

How to Read Parts List

Reference Item Numbers—Items 00A, 00B, 00C, etc., or 00X, 00Y, 00Z, etc., appearing at the top of some parts lists, are for reference and provide:

1. The part number for the entire assembly depicted in the drawing or a major sub-assembly thereof, and/or
2. The range of machine models this drawing applies to.

If more than one reference item appears, this usually means this drawing applies to more than one assembly (and thus to more than one range of machines).

Component Item Numbers—For any item on the drawing (e.g., item ①), there may be several corresponding items on the parts list (e.g., 001A, 001B, 001C, etc.) which are similar components on different assemblies. "How Part Is Used In Assembly" identifies which components apply to your machine, by listing either the machine model, or the reference item number from the top of the parts list (e.g., 00A, 00B, 00C, etc.), or a particular characteristic (e.g., bronze or stainless steel), or special ordering information, such as a repair kit number.

Air Box Assembly
Applicable Models

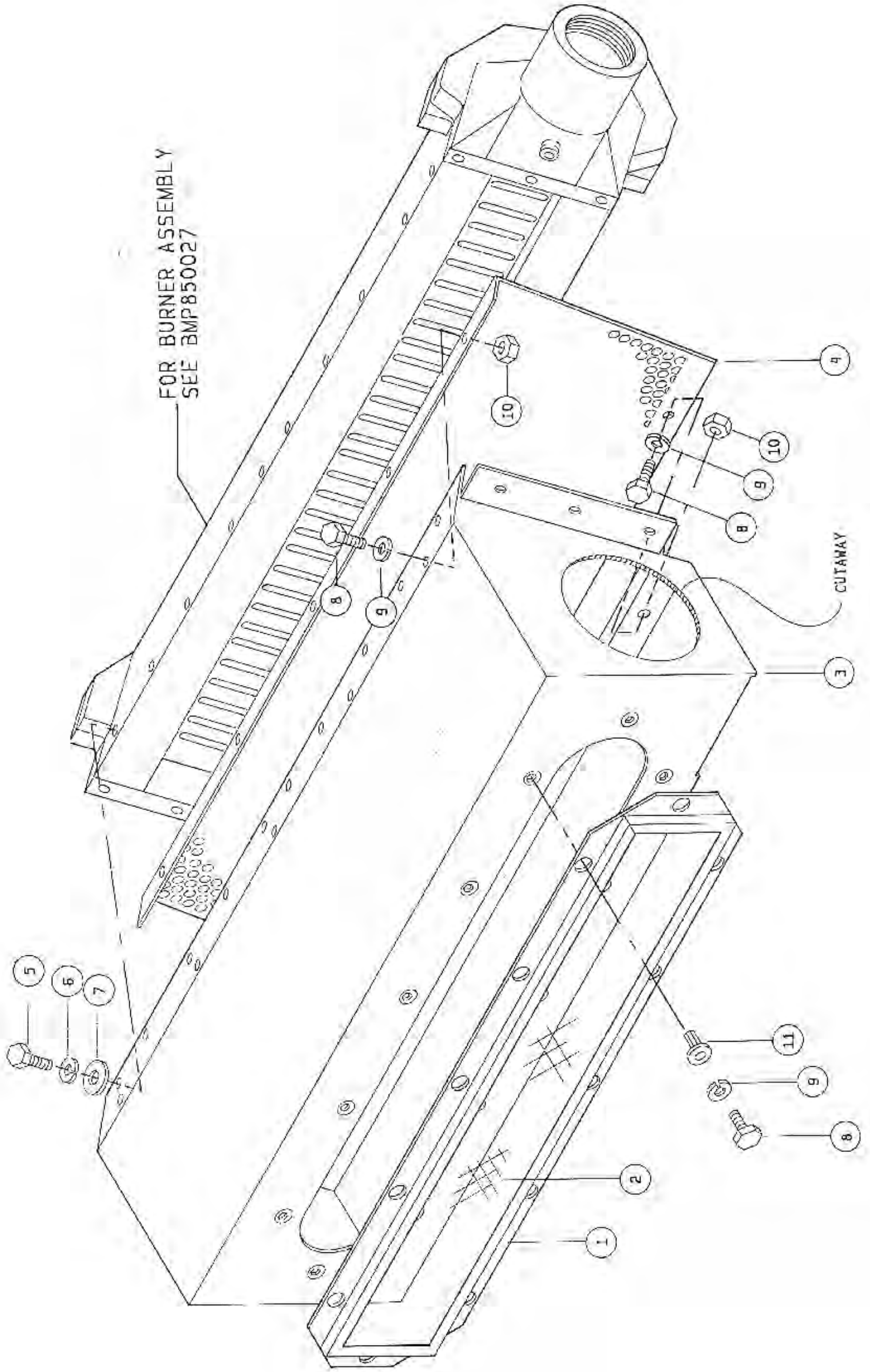
BMP890029/92457V
(Sheet 1 of 2)



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BMP890029/92457V (1 of 2)

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Parts List—Air Box 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	G76VG001A	94266D*INSTALL=BURNER+GAS LINE 5840	58040TG2
	Y	G75VG001A	94266#*MKII INSTALL=BURNER&GAS	58058TG2
	Z	G77VG001	94266N*5880 BURNER+GAS LINE=INSTALL	58080TG1
-----COMPONENTS-----				
all	1	07 60243	88346C SIGHT GLASS FRAME-5840 GAS	
all	2	07 60245	93232B BURNER SIGHT GLASS-5840	
X	3	W7 60222A	94132C*BURNER AIR INLET BOX WLMT	
Y-Z	3	W7 50805	93276C*BURNER BOX 5858 WLMT=MKII	
all	4	07 60223	88196C BURNER AIR PERF PLATE-5840	
all	5	15K037	HEXCAPSCR 1/4-20UNC2A X5/8 GR5 ZN/C	
all	6	15U181	LOCKWASHER MEDIUM 1/4 SS18-8	
all	7	15U185	FLATWASHER(USS STD) 1/4" ZNC PLT	
all	8	15P059	01Z SCRHXSELFDR:10-16X1/2 #2 ZINC	
all	9	15U181	LOCKWASHER MEDIUM 1/4 SS18-8	
all	10	15G170	HEXNUT 1/4-20UNC2 SS18-8	
all	11	17N057	01Z HEXRIVNUT1/4-20GR.01-.065STL/ZN	

Gas Burner Assembly 58040TG2 58058TG2 58080TG1

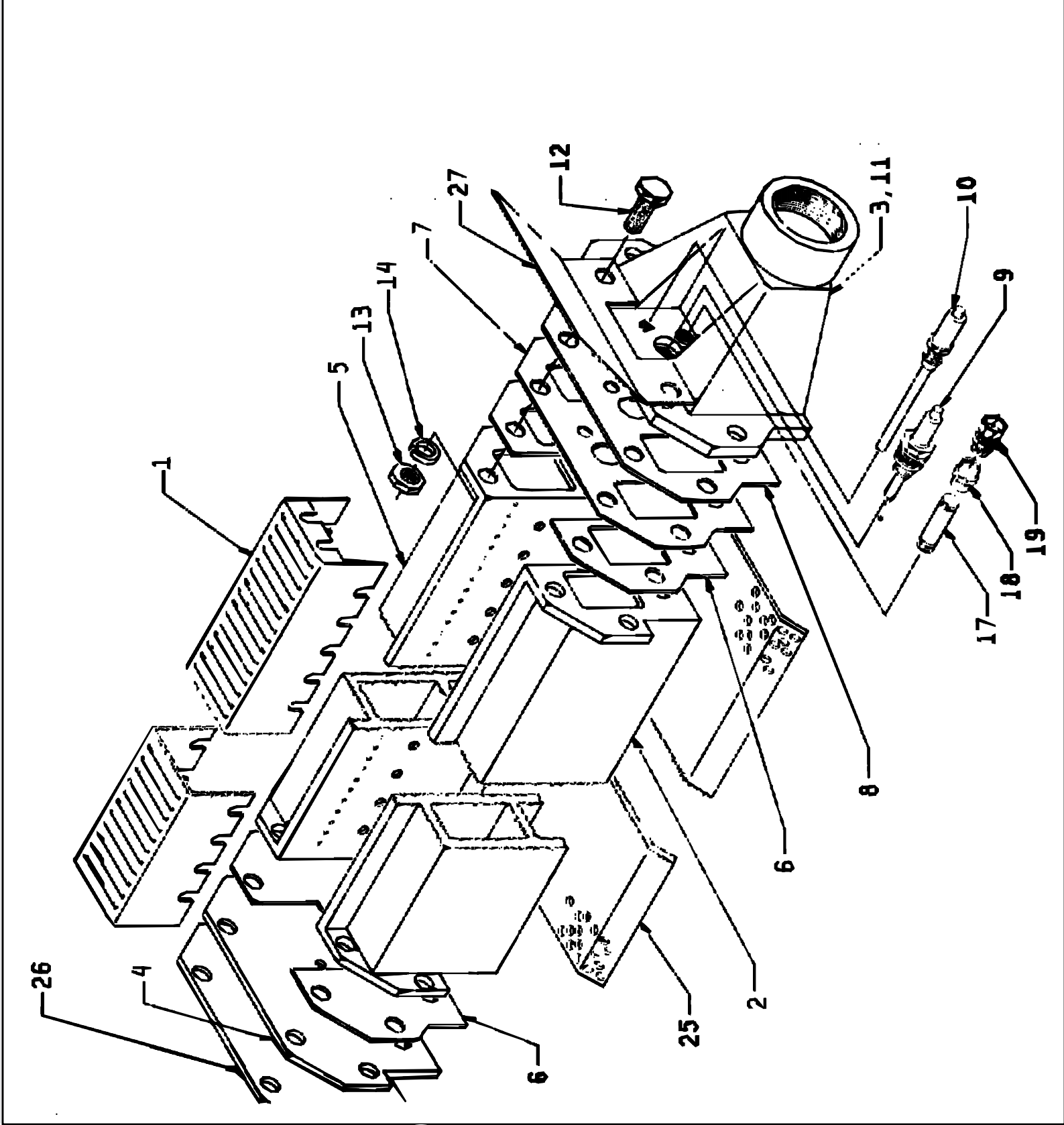


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BMP850027/91276V
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Parts List—Gas Burner Assembly
Find the correct assembly first, then find the needed components. The item letters (A, B, C, etc.) assigned to assemblies are referred to in the "Used 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
	00W	G76VG001A	90173D*INSTALL=BURNER+GAS LINE 5840	REFERENCE ONLY
	00X	G75VG001A	90173#*MKII INSTALL=BURNER & GAS	REFERENCE ONLY
	00Y	G77VG001	89477N 5880 BURNER+GAS LINE=INSTALL	REFERENCE ONLY
	00Z	A75VG006A	90503#*MKII BURNER CASTING ASSY	
	001	07 50274B	91206C COMB AIR PERF PLT LG FLANGE	
	002	X7 50248B	89483# BURNER PORT=24" MACH FRT LFLG	
	003	X7 50251	89331# GAS INLET BURNER PORT MACH.	
	004	07 50272	85477C BURNER END PLATE	
	005	X7 50248C	89483D BURNER PORT=24" MACH RR LFLG	
	006	07 50266	89477C GASKET=MTG. GAS INLET FLANGE	
	007	07 50273	89487C PLATE GASKET MT INLET PORT	
	008	07 50265	89487C GASKET=PILOT GAS INLET FLANG	
	009	25AS002	SPARK PLUG W/GROUND #1-3	
	010	25AR001A	BURNER FLAME ROD #FRS-4-6 UNCUT	
	011	51P013	PLUG PIPHCNTRSUNK 1/4 BRASS AND 630L	
	012	15K117	HEXCAPSCR 3/8-16X1+3/4 GR 5 PLATD	
	013	15G205	HXNUT 3/8-16 UNC2B ZINC GR2	
	014	15U255	LOCKWASHER MEDIUM 3/8 ZINCPL	
	017	51LQ0EB03	NIPPLE PIPE 1/4 X 3 TBE BLSTL SK40	
	018	53A023	MALECONN 3/8 TX 1/4P COMPFIT WO#68	
	019	51E024	COUPLING PIPE 1/4" BRASS WO# 103	
	026	07 50464	89136B BURNER END PLATE ANGLE BRKT	
	027	07 60235	87456B BURNER SPARK PLUG GUARD-5840 *****END OF PARTS LIST *****	

Steam Schematics and Devices

6

Steam Schematics

58040TS1, 58058TS1, 58080TS1

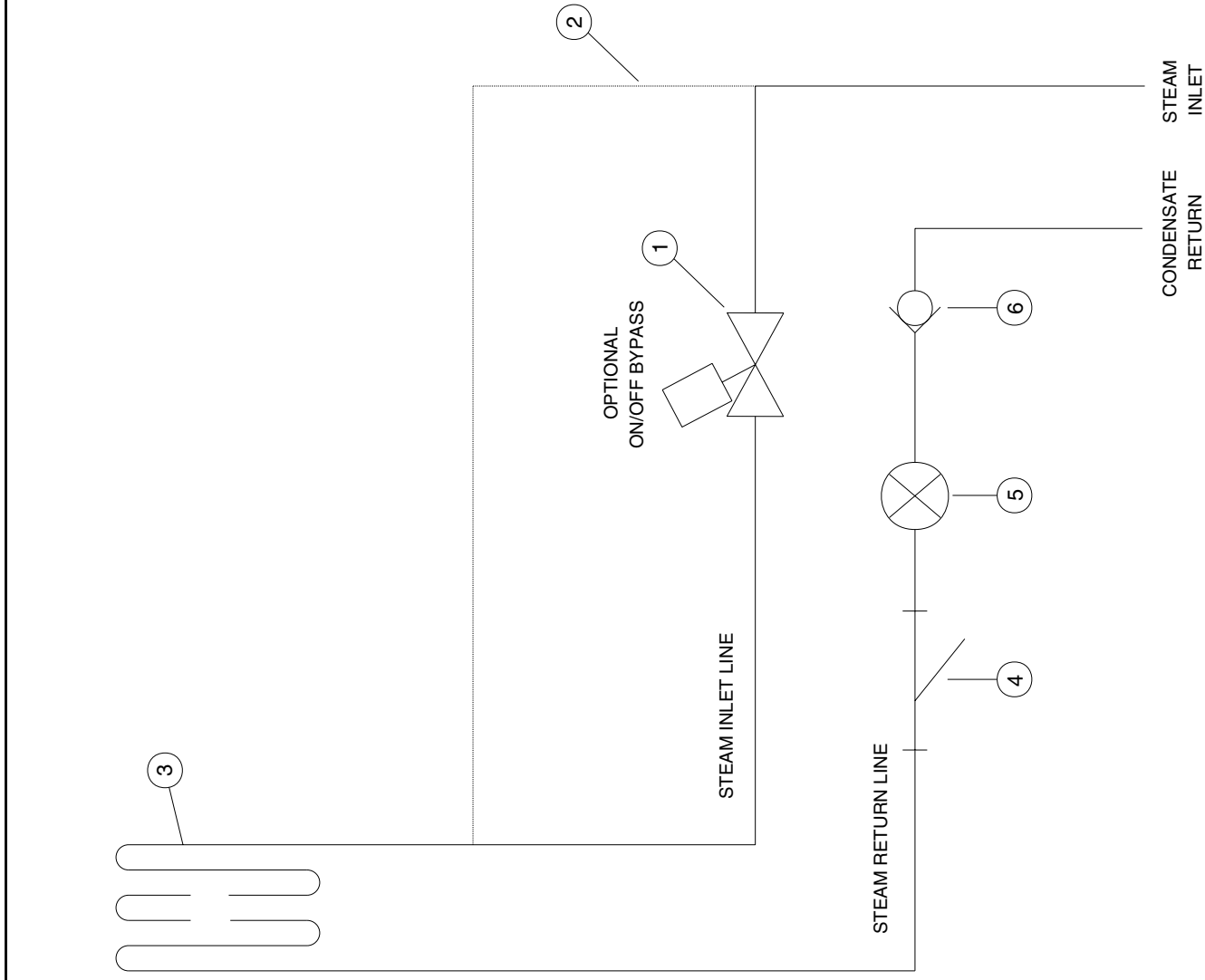


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BMP980047/98287V
(Sheet 1 of 1)



Parts List—Steam Schematics
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		A75VS001B	95463T5858 STEAM INLET PIPE STD	58058
B		A76VS001F	95463# 5840 STEAM INLET PIPE STD	58040
C		A77VS001B	95463# 5880 STEAM INLET PIPE STD	58080
D		A75VS001H	95463B 5858 STM INLET-ON/OFF+BYPASS	58058
E		A76VS001G	95463B 5840 STM INLET-ON/OFF+BYPASS	58040
F		A77VS001C	95463# 5880 STM INLET-ON/OFF+BYPASS	58080
G		A75VS001F	95463# 5858 STM RET LINE 160-225PSI	58058 160-225 PSI
H		A75VS001G	95463B 5858 STM RET LINE 85-180 PSI	58058 85-180 PSI
J		A76VS002G	95463# 5840 STM RETURN 85-180 PSI	58040 85-180 PSI
K		A76VS002H	95463# 5840 STM RETURN 160-225 PSI	58040 160-225 PSI
L		A77VS002B	95463# 5880STD STMRET/85-180 NEW BP	58080 80-180 PSI
M		A77VS002C	95463# 5880STD STMRET/160-225NEW BP	58080 160-225 PSI
			COMPONENTS	
D,F	1	96D0014E	05Z 2" NPT N/C STEAMVAL ANGLE BOD	
EL	1	96D0011E	98437A1.25"NPTBRZ N/C STEAMVALANGBD	
D,E,F	2	90A021A50A	COPPER*TUBING 3/8"00 X .032 50"L	
	3	27HS1936F	04ZSTEAMCOIL 19.5X36X.049 CARBSTL	58040
	3	27HS3136F	05ZSTEAMCOIL 31.5X36X.049 CARBSTL	58058,58080
	3	27HS3136S	04Z STEAMCOIL 31.5X36 .035 SS	58080 STAINLESS
G,H,J,K,L,M	4	51T030	98271AY-STRAINER 3/4" CAST IRON	
G,M	5	51T60B00QE	03Z 1" STMTRAP SARCO#B3S-250	
H,L	5	51T60B00QD	03Z 1"STMTRAP SARCO# B3S-180	
J	5	51T60B00QA	03Z 3/4"STMTRAP SARCO #B2S-180	
K	5	51T60B00QB	03Z 3/4"STMTRAP SARCO# B2S-250	
G,H,J,K,L,M	6	96D046	07Z CK VAL 3/4" #600-Z3 W/S/S DISH	

**Lint Filter Bag Assembly
58040TS1, 58058TS1, 58080TS1**

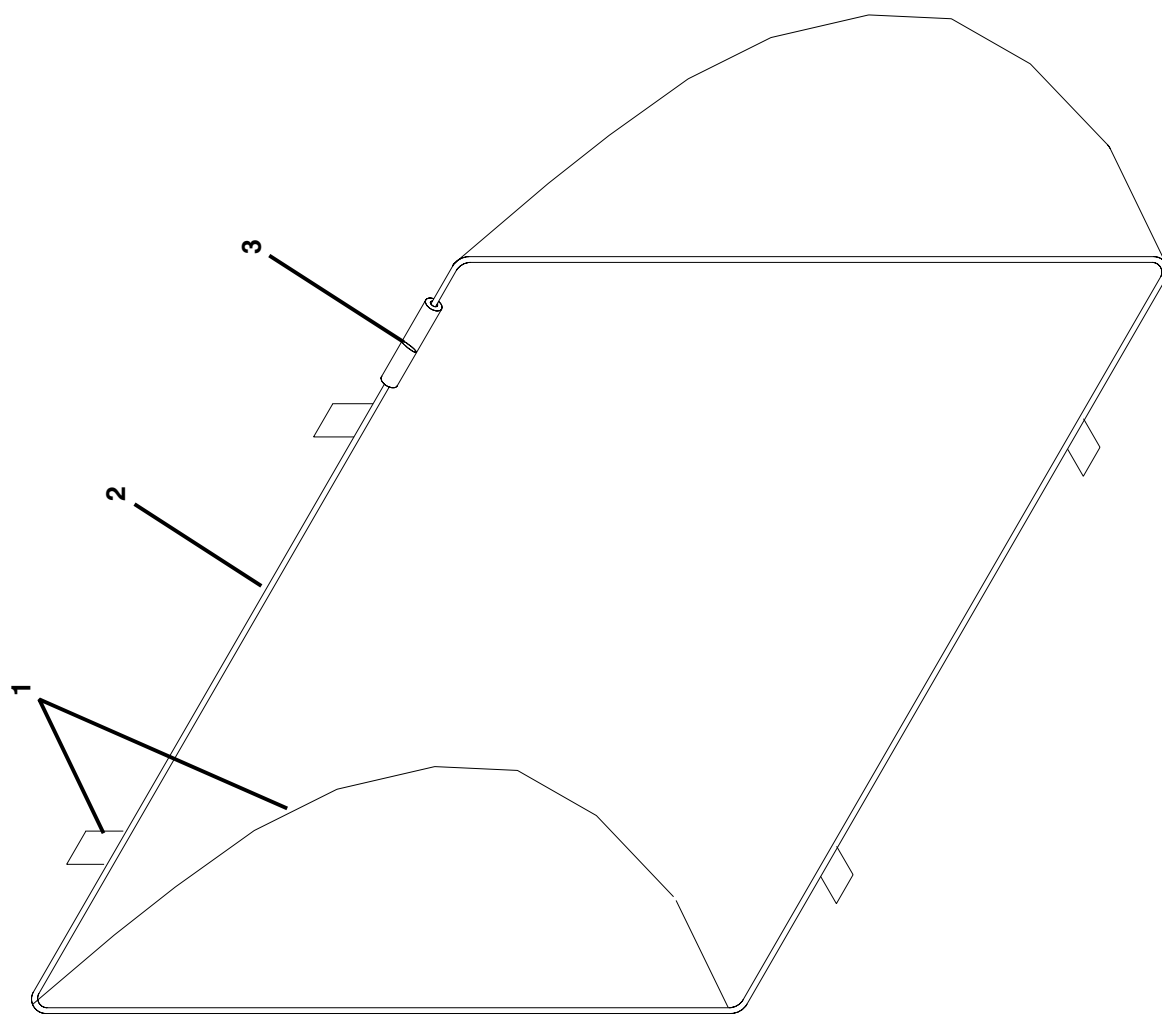
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Parts List—Lint Filter Bag Assembly

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	A76GS010	87381#*LINT FILTER BAG ASSY-5840	58040
	B	A75SD015	87381#*LINT FILTER BAG ASSY-5858	58058, 58080
-----COMPONENTS-----				
A	1	07 60154	87381B LINT FILTER BAG-5840	
B	1	07 50622	87381B LINT FILTER BAG-5858	
A	2	07 60155	88171B FRAME-LINT FILTER BAG 5840	
B	2	07 50654	87381B FRAME-LINT FILTER BAG-5858	
all	3	07 60156	87381B*FRAME CONNECTING TUBE	

ABOUT THE STEAM AND HOT OIL CONTROL SYSTEMS FOR MILNOR DRYERS

MILNOR steam dryers are available with an optional Y-type ON/OFF steam valve. MILNOR hot oil dryers use a modulating oil inlet/bypass valve.

How To Protect Steam Coils From Water Hammer Damage

Steam coils can be damaged when steam pressure is suddenly applied to a water (condensate) filled coil, or when the steam is “wet” with a high water content. The damage occurs because the condensate is forced through the coils with great speed causing a water hammer condition which can be likened to many jack hammers inside the coil. The result will be damaged coils, especially at the ends where the water must turn quickly.

▲ CAUTION ▲

Steam coils that have been damaged by water hammer are not warrantied. Any steam coil making a popping sound or cracking sound is in grave danger of serious water hammer damage.

1. Maintain the bypass piping (machines with optional ON/OFF valve, FIGURE 1) in good working order, to prevent cracking and popping sounds when steam is turned on. Do not operate Dryer unless bypass piping is in good working order.
2. If a steam trap must be replaced, be sure the pressure rating of the replacement trap is suitable for the steam pressure in your plant and that the replacement trap's capacity is equivalent to the original equipment.

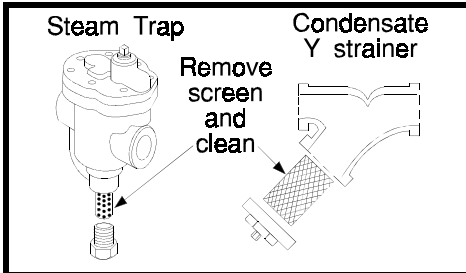
▲ CAUTION ▲

DRYERS WITH STEAM TRAPS RATED 85-180 PSI (6-12 ATU) WILL NOT OPERATE PROPERLY BELOW 60 PSI (4 ATU). STEAM TRAPS RATED 160-225 PSI (11-15 ATU) WILL NOT OPERATE PROPERLY BELOW 115 PSI (8 ATU). These pressure ranges refer only to the range of pressures through which the trap may be reasonably expected to operate properly. They are not necessarily an indication of the safe operating pressure for the steam coil. Always refer to the nameplate for the specific dryer to determine the maximum permissible pressures.

About the Standard Steam Control System

1. Each Dryer has a strainer and steam trap (FIGURE 1), to handle steam that condenses in the coil as it heats the passing air which dries the goods.

▲ CAUTION ▲



Clean and “blow down” steam trap and strainer screens after 40 hours of operation and periodically thereafter. Clogged strainer screens will cause longer drying times.

About the Optional On-Off Steam Control System with Y-type, Air Operated Valve

In addition to the steam trap and strainer, dryers equipped with the optional Main Steam Inlet ON/OFF valve are fitted with:

- a. A steam inlet valve which is open whenever the Dryer is drying (whenever the Cooldown Bypass Damper is closed). This normally closed (air-to-open) valve shuts off the flow of steam to the Dryer during Cooldown, if the Dryer Master Switch is OFF, and whenever the Dryer is not being used.
- b. Bypass piping to keep coils warm and condensate minimized while the Main Steam Inlet valve is OFF, but machine is in standby, with steam provided to the machine.

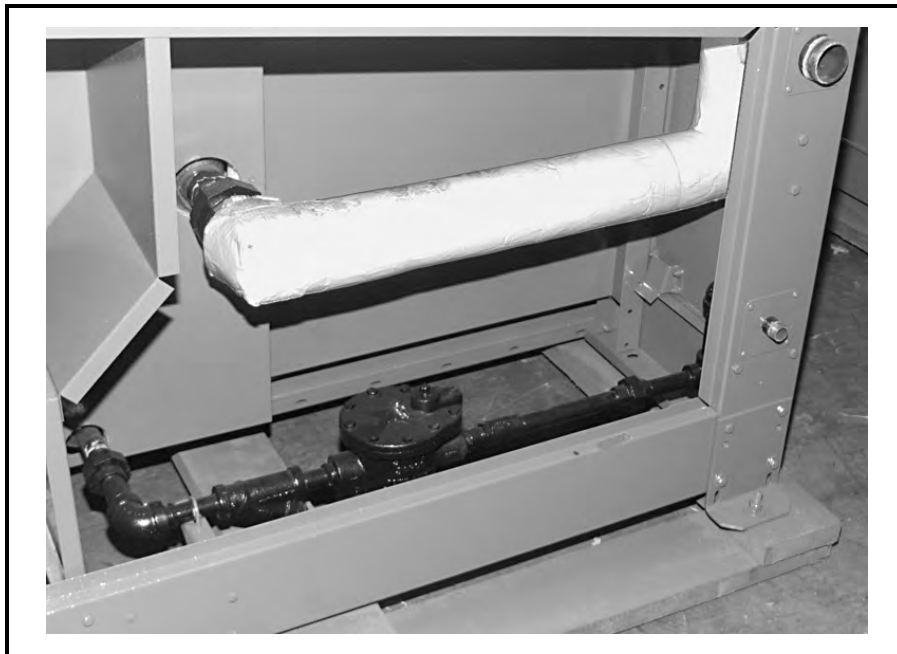


FIGURE 1 (MSSM0102BE)
Standard Steam Piping

About the Modulating Hot Oil Valve

How Modulated Hot Oil Works—Hot air inlet and outlet temperatures are monitored by the dryer control. When the dryer control detects actual temperatures that are either under or over the desired value it signals the hot oil positioner and valve to change the percent of pressurized hot oil sent to the dryer heating coil, versus the percent that bypasses the heating coil. All oil is returned to the oil heater.

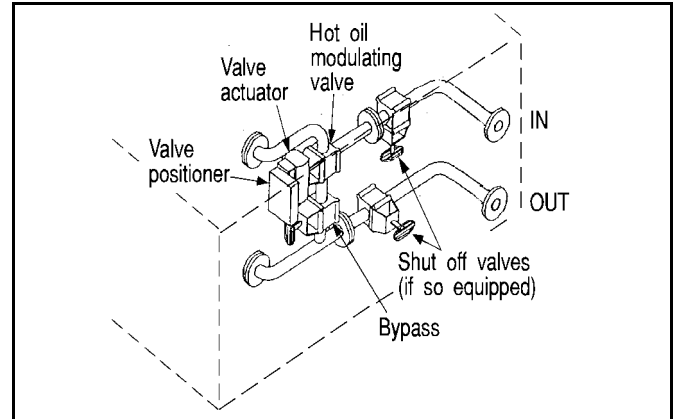


FIGURE 2 (MSSM0102BE)
Hot Oil Piping

How to Manually Command a Modulating Valve Position

This procedure applies to hot oil machines.

1. Shut off oil to dryer.
2. Turn dryer on.

After the power-up sequences, the display shows

```
WAITING FOR LOAD
*****
```



Accesses Manual Load menu

```
SELECT DRYCODE
00 REDRY
```

For Quick Return to Automatic from Manual Load menu



returns to automatic

```
WAITING FOR LOAD
*
```



Accepts the default drycode **00** and prompts for load size.

```
ENTER LOAD SIZE
0 FULL LOAD
```



Accepts the default load size (full load) and prompts the operator to load dryer. Ignore this prompt.

```
LOAD DRYER WITH
REDRY
```



Starts the cycle. When loading sequence ends, display appears as shown below.

```
LOADING
```

```
00F TIF TOF 000 VP
XXX XXXAXXX XXX XXX
```

Alternates with

```
00F TIF TOF 0021 AIR
XXX XXXDXXX XXX XXX
```



Stops the timer and accesses the manual control panel for temperature, damper, and basket rotation.

```
TIFHTOF LDA MVP BSPD
XXX+XXX XXX XXX XXXX
```



Closes modulating valve position. Hold keys until MVP=000.

TIFHTOF LDA MVP BSPD
XXX+XXX XXX 000 XXXX

Dryer will continue at minimum valve position until commanded to return to automatic.

**CANCEL
ESCAPE**

Returns to automatic.

Follow the step-by-step procedure to set the system components.

When Recalibration is Required—The hot oil positioner and valve are calibrated prior to shipping, replacing either component necessitates re-calibration. To recalibrate:

⚠ DANGER ⚠



SHOCK HAZARD—Electrical power can cause death or severe injury. Lock OFF and tag out power to the Dryer main bus at the wall disconnect before servicing.

1. Turn machine off, lock OFF and tag out.

⚠ WARNING ⚠



BURN HAZARD—Hot surfaces will cause severe burns. Shut off and tag out hot oil flow to dryer at external shut-off valve and allow piping to cool before servicing.

2. Shut off the hot oil to the dryer, tag out external valve.
3. Remove the valve positioner covers and the position indicator dial.
4. Verify that the lower arm bearing rests on the portion of the cam labeled 0-100%. See FIGURE 4.
5. Check that two gain suppression springs are mounted in positions 1 and 4 (as shown in FIGURE 3).

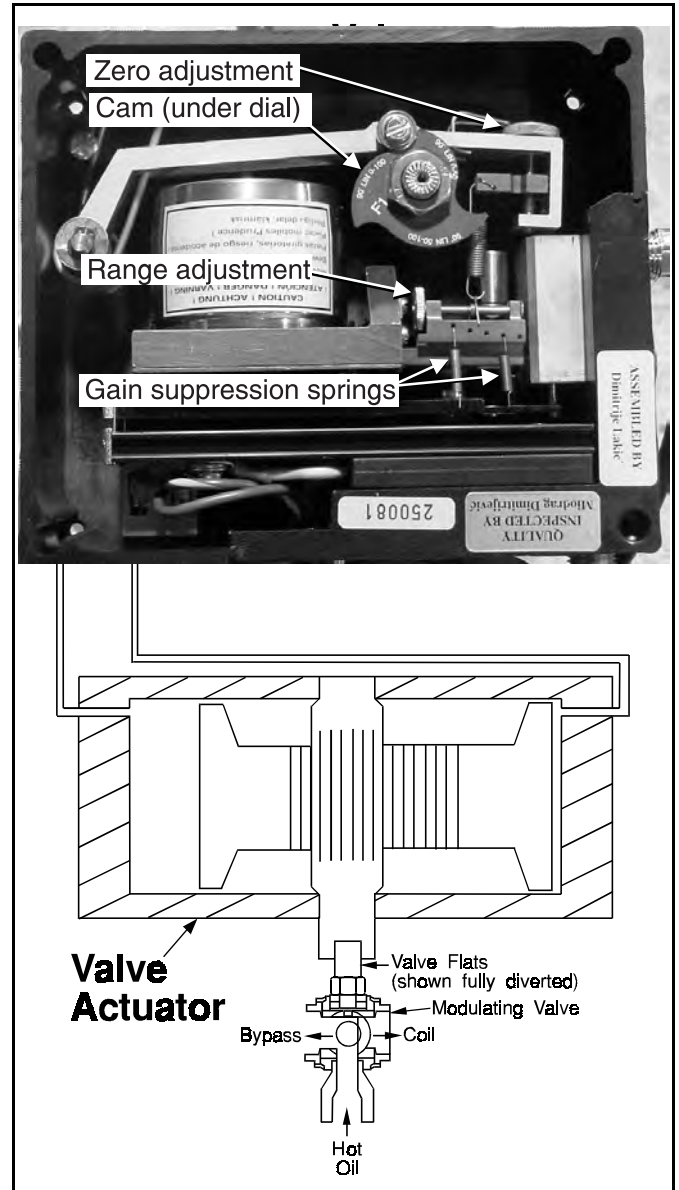


FIGURE 3 (MSSM0102BE)
Hot Oil Modulating Valve and Positioner

Calibrating the Hot Oil Positioner/Valve

The positioner cam must be adjusted so that the valve travels from fully diverted to fully open as the modulating valve position varies from 000 to 255. Refer to “How to Manually Command a Modulating Valve Position” elsewhere in this section then follow the step by step procedures below.

▲ WARNING ▲



ELECTRIC SHOCK HAZARD—Machine power is on and positioner covers removed for the following procedures. Exposed terminals are energized at 120VAC or higher. You can be killed or severely injured by contact with these terminals. Do not touch any wire terminals when calibrating or verifying settings.

Calibrating the Positioner/Valve for Minimum Temperature

hold  + 

Closes modulating valve.
Hold keys until MVP=000.

TIFHTOF LDA MVP BSPD
XXX+XXX XXX 000 XXXX

1. Check that the lower arm ball bearing rests near the deepest part of the cam curve as shown on FIGURE 4. If not, move the zero adjustment thumbwheel (FIGURE 3) until the ball bearing is in this position. If this can not be achieved, loosen the cam retaining nut, move the cam, then use the zero adjustment thumbwheel for adjustment (the cam may rotate slightly with the nut as it is tightened, be sure to allow for this).
2. After setting, check that the modulating valve flats are aligned at a 90 degree angle to the modulating valve (FIGURE 3 and 6). This ensures no hot oil reaches the dryer heating coil. All of the hot oil is returned to the heater.

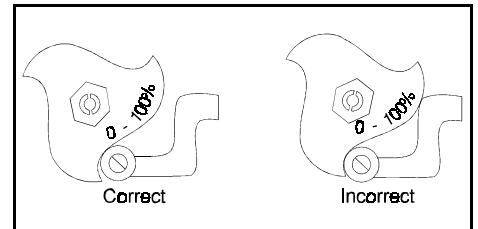


FIGURE 4 (MSSM0102BE)
Cam Setting at Modulating Valve Position 000

hold  + 

Opens modulating valve.
Hold keys until MVP=255.

TIFHTOF LDA MVP BSPD
XXX+XXX XXX 255 XXXX

NOTE: Due to mechanical considerations, settings past 200 have a very minor effect on the valve.

Calibrating the Positioner/Valve for Maximum Temperature

1. Check that the lower arm ball bearing rests on the highest part of the cam curve (FIGURE 5). If the ball bearing is not at the tip, turn the range adjustment (FIGURE 3).
2. After setting, check that the diverter valve flats are aligned exactly parallel to the diverter valve, permitting full flow to the dryer heating coil.

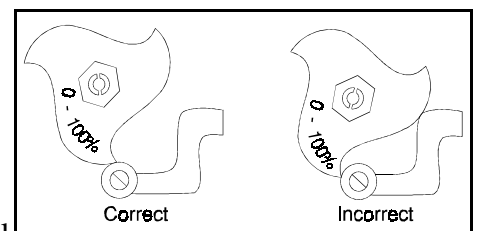


FIGURE 5 (MSSM0102BE)
Cam Setting at Modulating Valve Position 255

Verifying Positioner/Valve Settings

hold  + 

Closes modulating valve. Hold until MVP=200, verify settings then repeat for 150, 100, 050, and 000.

TIFHTOF	LDA	MVP	BSPD
XXX+XXX	XXX	200	XXX

Since the zero and range adjustments affect each other, verify that for each of the five MVP's commanded, the valve moves approximately 1/5 of the way from fully open to fully diverted, and:

- The ball bearing follows the cam slope evenly.
- The cam zero and range settings are correct for fully open and fully diverted positions.

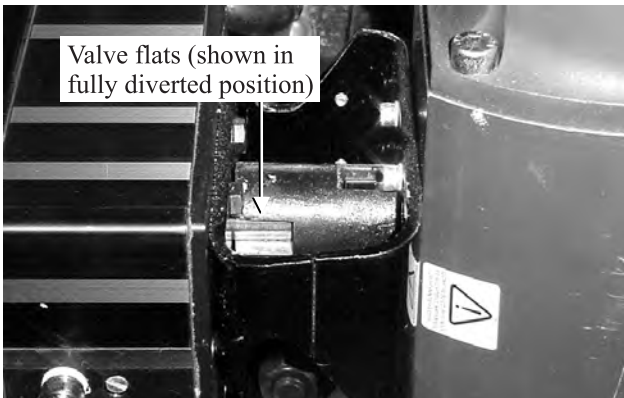


FIGURE 6 (MSSM0102BE)
Modulating Valve Flats

STEAM COIL REPLACEMENT—58058TS1, CS1

▲ DANGER ▲



SHOCK HAZARD—Electrical power can cause death or severe injury. Lock OFF and tag out power to the Dryer main bus at the wall disconnect before servicing.

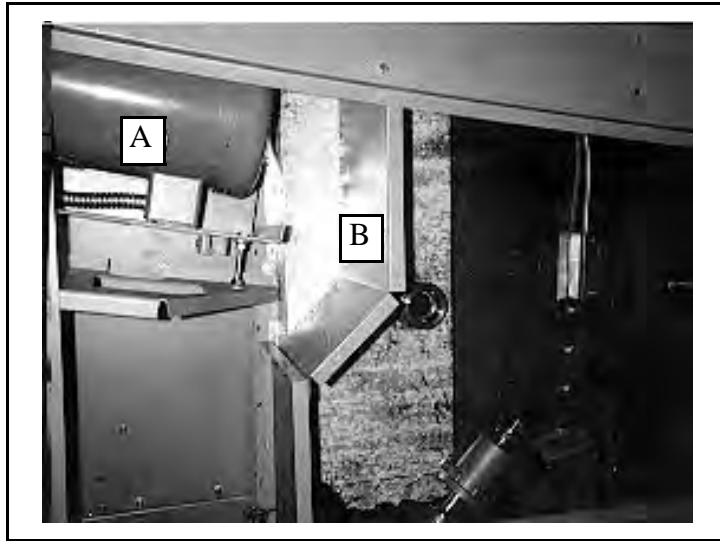


FIGURE 1 (MSSM0113AE)
Right View, Base

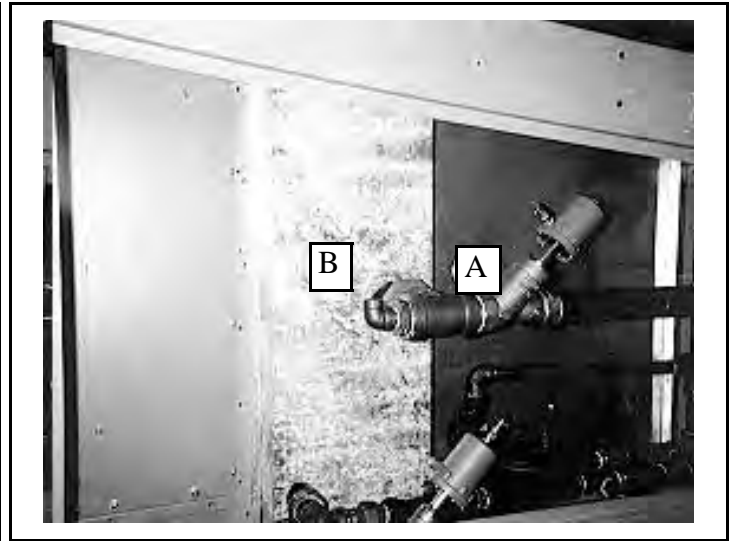


FIGURE 2 (MSSM0113AE)
Right View, Base (Motor, Supports, and Heat Shield Removed)

1. Remove the motor (FIGURE 1, Item A), motor mounting plate, and all adjustment brackets. See “BASKET DRIVE MOTOR BASE ASSEMBLY . . .” (see Table of Contents). For clarity, steam piping is not shown.
2. Remove heat shield (FIGURE 1, Item B) between motor cavity and steam piping.

▲ WARNING ▲



BURN HAZARD—Hot surfaces will cause severe burns. Shut off and tag out steam flow to dryer at external shut-off valve and allow piping to cool before servicing.

3. Remove steam piping (provided on dryers only) (FIGURE 2, Item A).

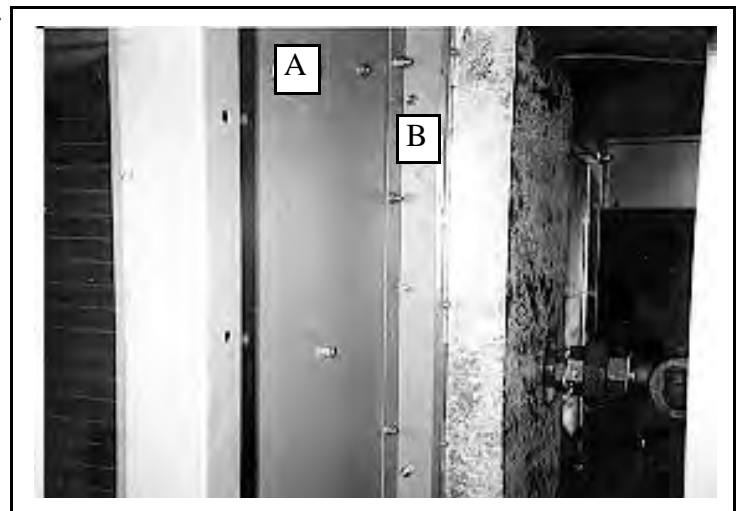
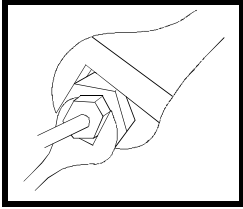


FIGURE 3 (MSSM0113AE)
Front Right View, Base

▲ CAUTION ▲



COIL DAMAGE—Damage will result if coil tubing is twisted during replacement. Use one wrench to hold tubing stationary while using another wrench to turn the union.

4. Remove cover over steam coil outlets (FIGURE 2, Item B).
5. Remove panel (FIGURE 3, Item A) from front of machine to gusset (FIGURE 3, Item B), then remove gusset.
6. Remove panel from front left of machine (FIGURE 4, Item A).
7. Remove upper and lower damper gussets (FIGURE 5, Items A) from left side of machine base. Remove cool-down damper, cylinder and cylinder support (used on dryers only) (FIGURE 5, Item B). Remove panel covering coil (FIGURE 5, Item C), and remove gusset (not shown) that damper hinge is bolted to. Remove gusset (FIGURE 5, Item D).
8. Remove upper and lower cosmetic retainers (FIGURE 6, Items A) from front of machine base. Remove screen retainers (FIGURE 6, Item B).
9. Remove bolts that secure coil. Coil should be free, allowing removal through front of machine base.
Reverse the procedure to replace.

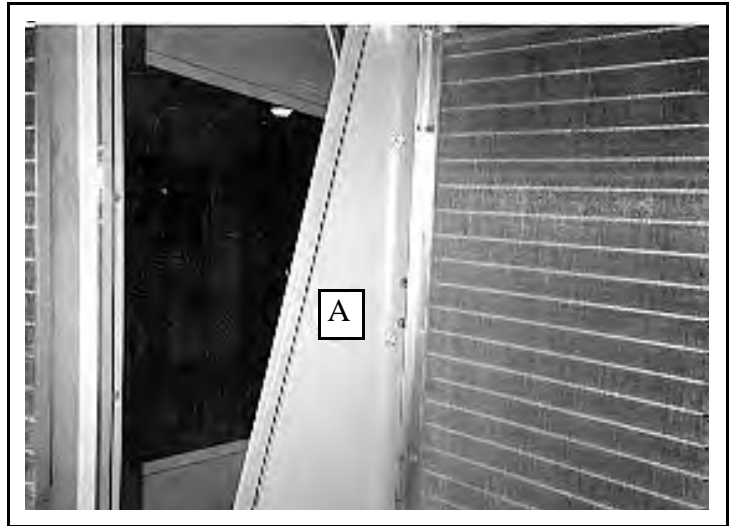


FIGURE 4 (MSSM0113AE)
Front View, Base

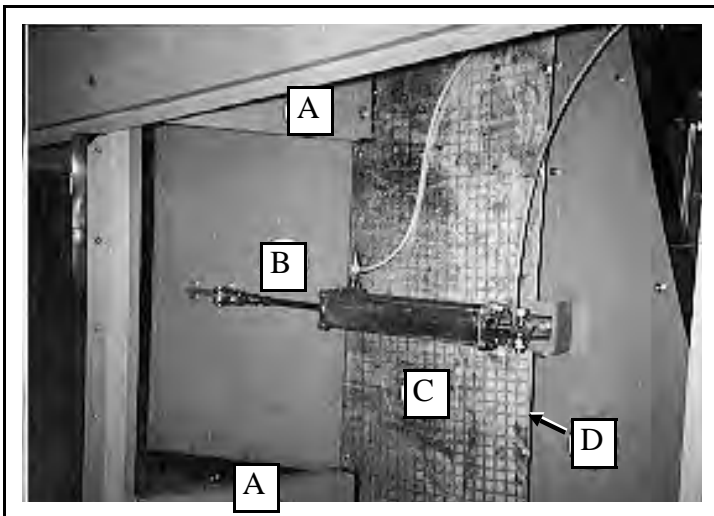


FIGURE 5 (MSSM0113AE)
Left View, Base

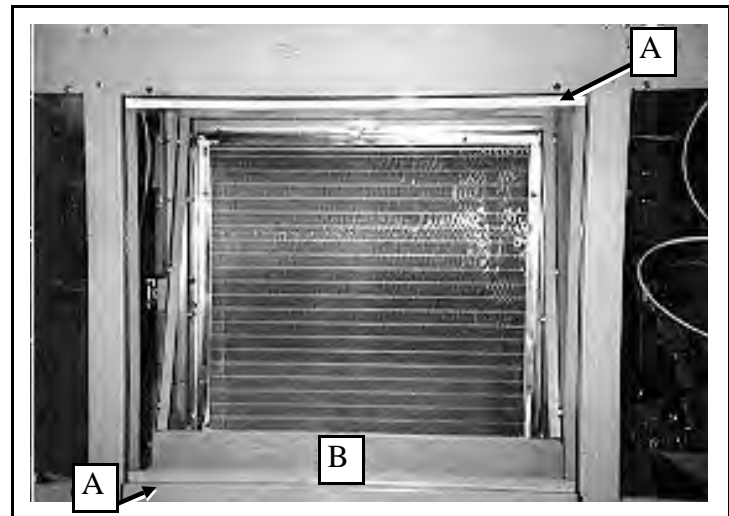


FIGURE 6 (MSSM0113AE)
Front View, Base

Hot Oil Schematics and Assemblies

7



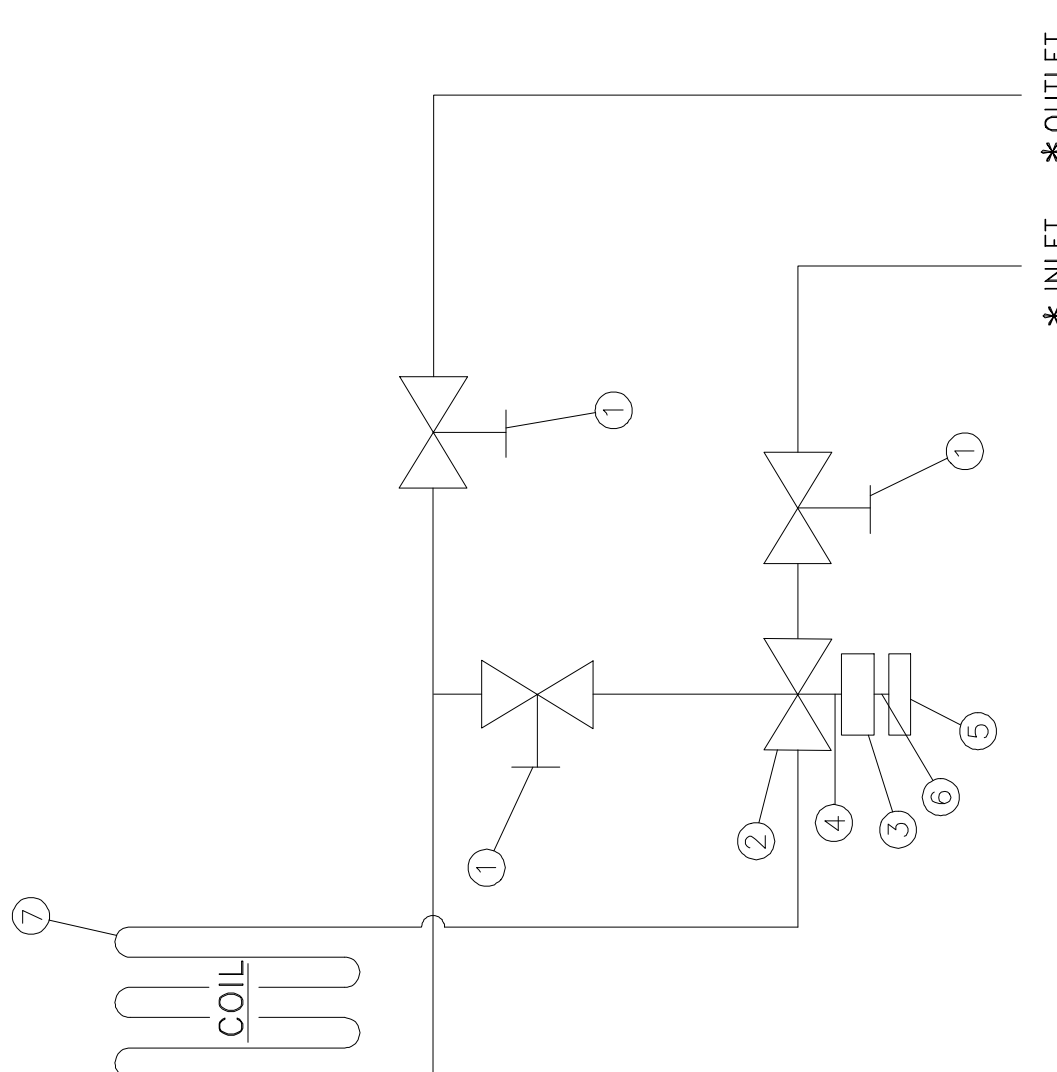
PELLERIN MILNOR CORPORATION
 700 JACKSON STREET/POST OFFICE BOX 400
 KENNER, LOUISIANA 70063-0400 USA

DRAWING AND PARTS LIST
 (See other page for more,
 if applicable.)

HOT OIL SCHEMATIC -- 58058TT1,CT1

BMP910028/92421V (Page 1)

ITEM	PART NUMBER	DESCRIPTION	HOW PART IS USED IN ASSEMBLY (Only if pertinent)
001	96F088DVTM	THERMAL MISER BALVAL 2" W/STANDARD	
002	96F088DV	BALVAL OIL 2" WORCSTER #D446 PMSWV1	
003	96F087DVS	SPRING RETURN PNEUMATIC ACT.#2039SN	
004	96F088DVAK	MOUNT.KIT 2"(ACT. TO VALVE) #MK026	
005	96D088WEPE	01Z POSITIONER=ELECT MAGNETIC VALVE	
006	96F087DVTM	THERMAL MISER BALVAL 1.5" W/STANDRD	
007	27HS3136TC	04Z THERMAL OIL COIL 31.5X36 2"FLNG ***** END OF PARTS LIST *****	



How to Read Parts List

Reference Item Numbers—Items 00A, 00B, 00C, etc., or 00X, 00Y, 00Z, etc., appearing at the top of some parts lists, are for reference and provide:

1. The part number for the entire assembly depicted in the drawing or a major sub-assembly thereof, and/or
2. The range of machine models this drawing applies to.

If more than one reference item appears, this usually means this drawing applies to more than one assembly (and thus to more than one range of machines).

Component Item Numbers—For any item on the drawing (e.g., item ①), there may be several corresponding items on the parts list (e.g., 001A, 001B, 001C, etc.) which are similar components on different assemblies. “How Part Is Used In Assembly” identifies which components apply to your machine, by listing either the machine model, or the reference item number from the top of the parts list (e.g., 00A, 00B, 00C, etc.), or a particular characteristic (e.g., bronze or stainless steel), or special ordering information, such as a repair kit number.

Water and Steam Piping Assemblies

8

Fire Safety System Operation and Maintenance

Notice 1: If the fire safety system is in operation (if there is a flow of water from the rear of the dryer)—go to [Section 5 “If Water Flow Occurs”](#).

fire safety system—the water nozzles and related equipment that put water in the dryer to stop a fire in the basket.

Water flow will start automatically if the temperature becomes too high, as told in [Section 1 “Fire Safety Functions and Components”](#). You can also start it manually. Pull the operation handle or use the control panel as told in [Section 4 “How to Do a Test of the Fire Safety System”](#). The system will start a flow of water. The water will go into the basket through the perforations. Do a test of this system at the intervals given in the routine maintenance schedule.

1. Fire Safety Functions and Components

This section gives the fire safety functions and components for 6464_ and 7272_ models. Components and their locations can be different on other dryer models but the functions are the same.

Table 1: Fire Safety Functions for 6464_ and 7272_ Dryer Models

Sensor type	Temperature switch (closes at specified temperature)			Thermocouple (gives continuous temperature data to the controller)		
Sensor name	ST225-1 & 2	ST550A & B	STBB	T3		
Location	Basket/outlet duct (Figures 1, 3, 4)	Inlet duct (Figures 1, 2)	At burner (Figures 1 and 5)	Outlet duct (Figure 3)		
Safety limit (the temperature or condition that causes the given result)	225° F (107° C)	550° F (288° C)	175° F (79° C)	–Three safety limits in software–		
				5° F increase for 15 seconds or 15° F increase for 5 seconds during min fire*	Higher than 220° F (104° C) for 5 seconds**	240°F (116°C)
Occurs when temperature is too high	Water flows and all dryer functions stop.	Flame goes off. If the flame will not come on, see the line below this one.		Each step before the cooldown is subsequently cancelled while the condition continues.		Water flows and all dryer functions stop.
Display when temperature is too high	THREE WIRE DISABLED error and operator alarm	Initially none. If the flame will not come on, the CHECK ERROR LIGHTS error and operator alarm occur.		The controller shows “MINF” and puts data in the record of dry cycle details	The controller shows “>220” and puts data in the record of dry cycle details	OUTLET TEMP EXCEEDED 240 Df - POWER DOWN error and operator alarm
Necessary procedure	See Section 5 “If Water Flow Occurs”	If the error given in the line above this one occurs, see “Error Messages” in the operator guide.		See Section 2 “About the Min Fire and Outlet Temperature Exceeded 220° Faults”		See Section 5 “If Water Flow Occurs”
* This does not apply to steam dryers						
** This does not apply to steam dryers if they do not use modulation.						

Figure 1: Component Locations for 6464_ Models

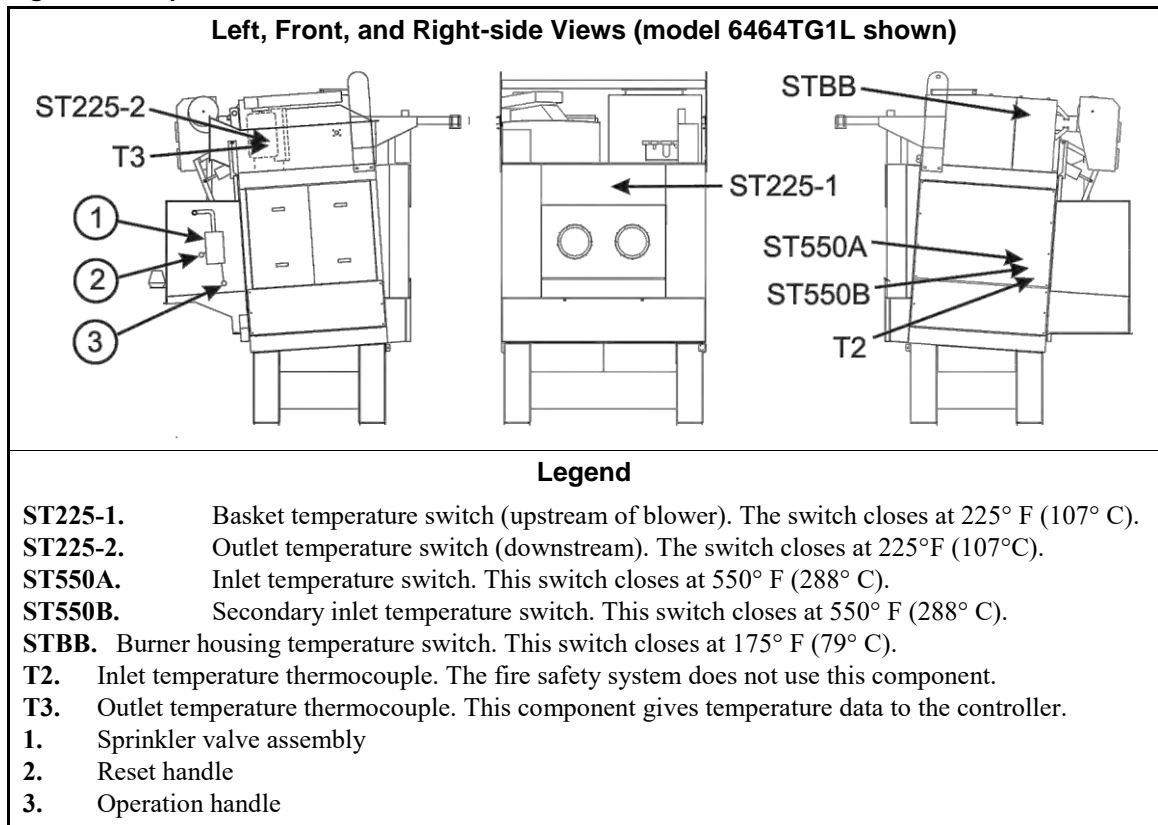


Figure 2: View of ST550A, ST550B and T2

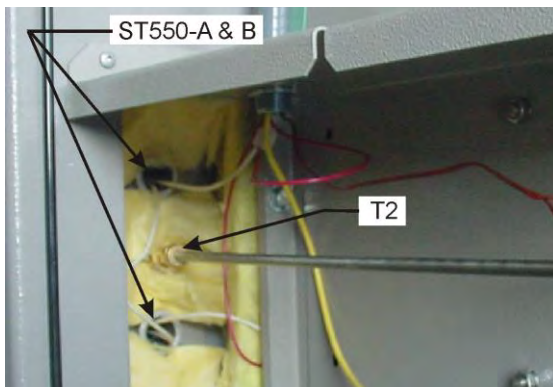


Figure 3: View of ST225-1

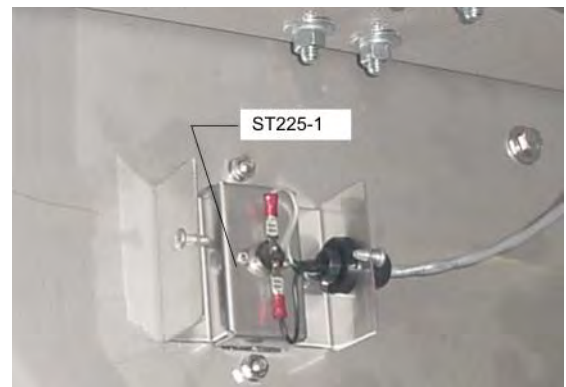


Figure 4: View of ST225-2 and T3

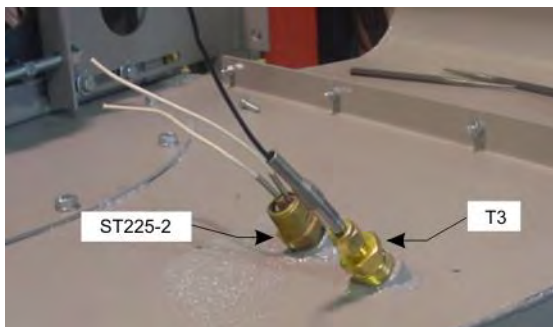
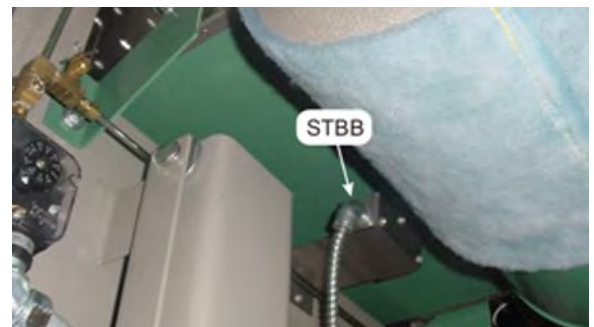


Figure 5: View of STBB



2. About the *Min Fire and Outlet Temperature Exceeded 220°* Faults

The function of these faults is to prevent conditions that can cause a fire. The controller does the necessary steps. There are no other steps for the operator to do immediately. But the controller puts data about the fault in the record of dry cycle details. These faults usually cause unsatisfactory operation. To prevent these faults, it can be necessary to change some procedures as told in the subsequent sections. Heat system adjustments and repairs are not routine maintenance. Speak to your dealer or Milnor.

2.1. Min Fire (MINF)—This condition applies to dryers that use gas or propane. Minimum fire is when the controller tells the modulating gas valve to go to the position 000. The correct condition is when the gas valve is open a small, stable increment. Under this condition, a *min fire* fault occurs if the controller senses that the outlet temperature increases. This fault usually shows that the goods became too hot and could catch fire. (One more symptom is if the goods have a burned smell.) When this fault occurs, the controller immediately goes to the subsequent cool down step. Some causes of min fire faults include:

- **The goods are held against the basket**—The correct condition is that the goods tumble in the basket. If the basket speed is too high, centrifugal force can hold the goods against the basket. Then the part of the goods that is against the basket can become too hot.
- **The gas valve does not operate correctly**—For example, the valve throttle cannot move down fully because it is damaged. This can prevent the min fire position.
- **Min fire is set too high**—The min fire position must be adjusted correctly when the gas and air as told in the procedure to set the heat system. Damage to components can cause this adjustment to change.

2.2. Outlet Temperature Exceeded 220° (degrees Fahrenheit)—This fault applies to all dryers except those with steam valves that do not modulate. The value 220° F (104° C) is 5°F (3° C) below the temperature that will close the outlet temperature switches (Fenwal switches) and start water flow. It cancels each subsequent heat step if the outlet temperature is higher than 220° F (104° C) for five seconds or more at the start of the step. This fault can also occur if the goods are held against the cylinder or the gas valve is damaged. The function of this fault is to make water flow not necessary, if the goods are not on fire. But if the goods catch fire, the temperature switches will quickly close to start water flow.

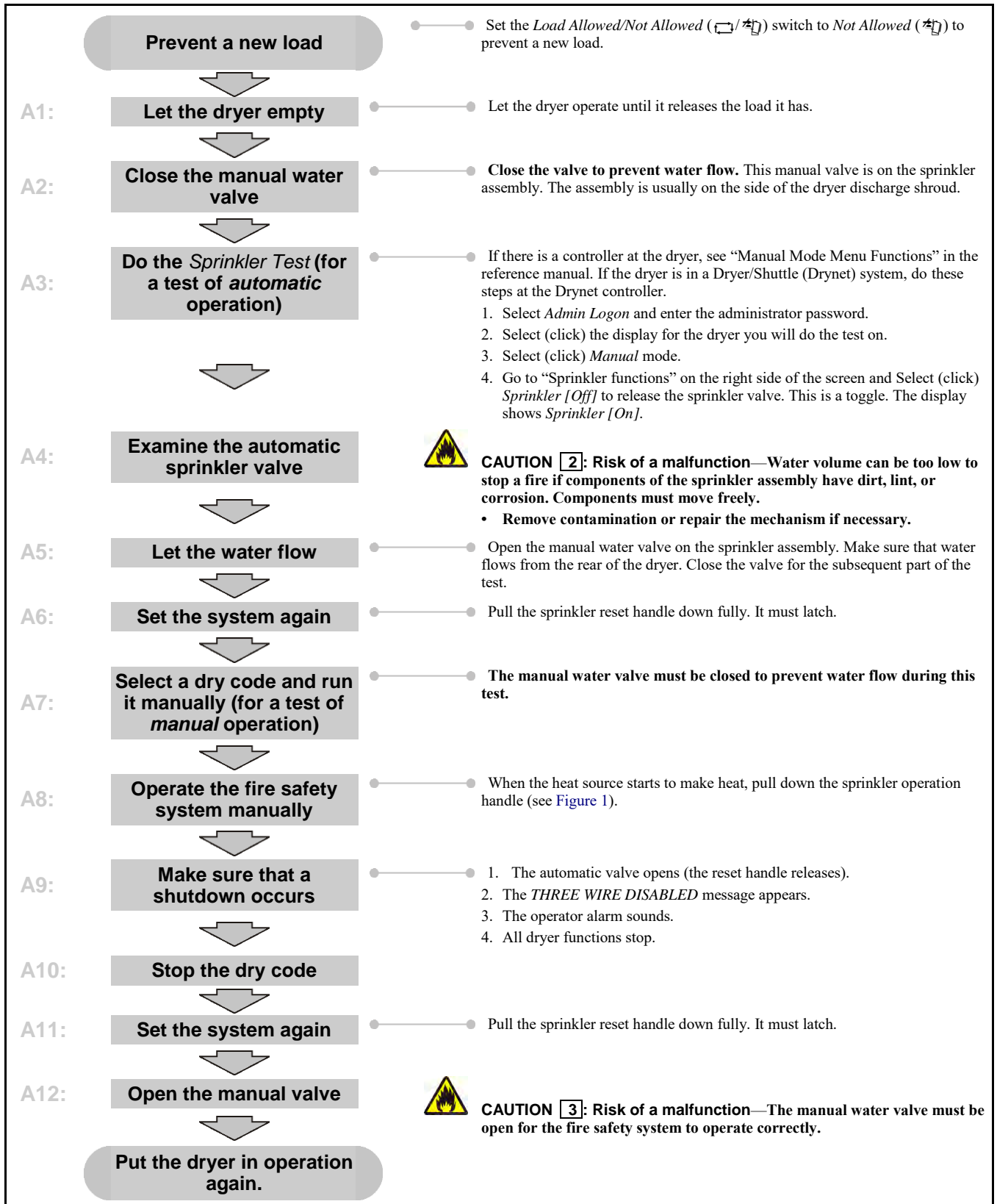
3. How to Prevent Water Flow When No Fire Occurs

If water flow occurs when there is no fire, two possible causes are:

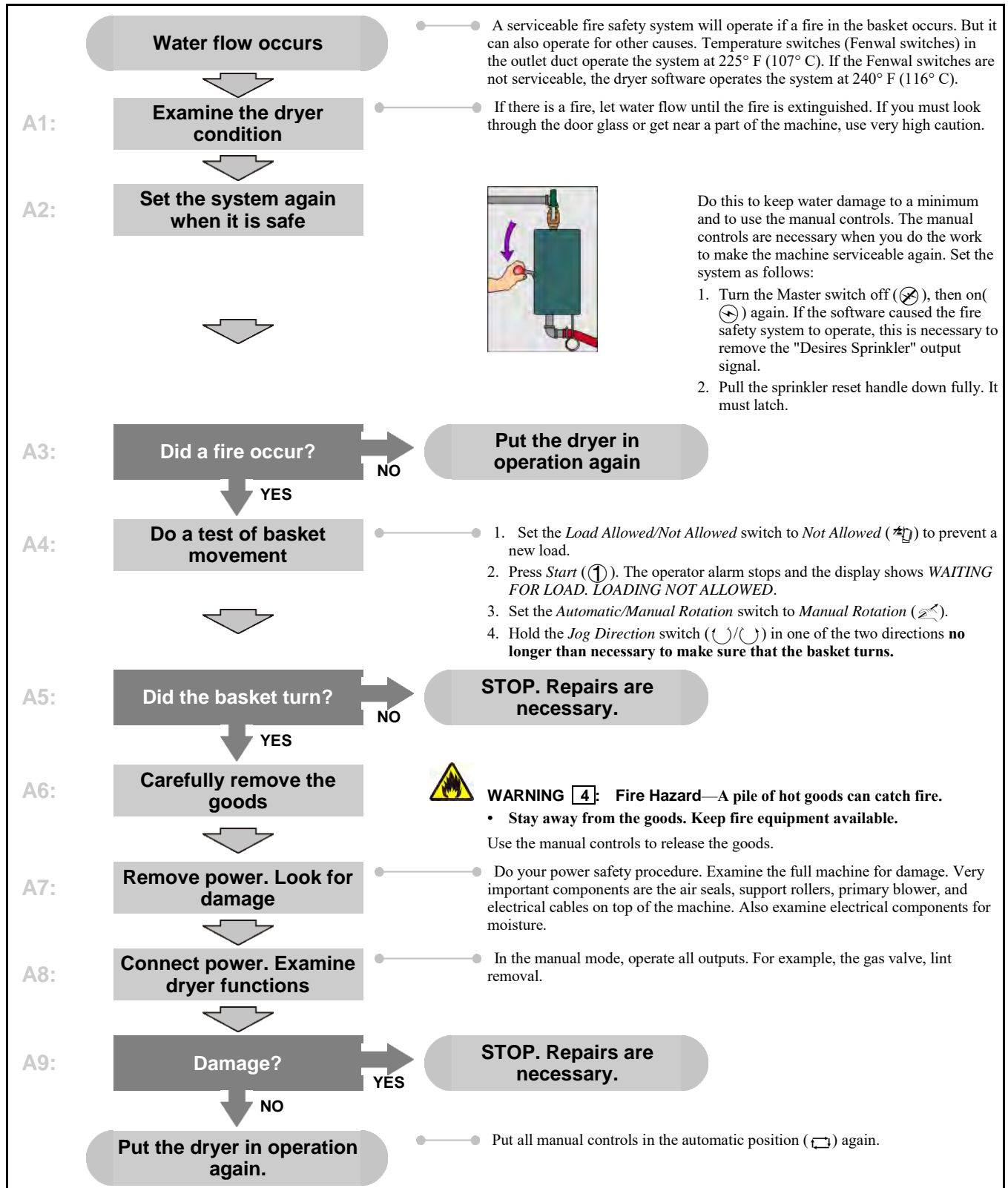
- **A temperature switch is damaged.** This is the usual cause. For example, material can hit a temperature probe and bend it. This can be a piece of goods that goes through a space where seals are worn. It is necessary to replace a damaged probe. The probe can also give an incorrect value if it has plastic contamination. It is necessary to remove the contamination.
- **Temperatures are not in the correct range.** The conditions described in [Section 2.1](#) can cause water flow if they are severe enough.

If water flow occurs when there is no fire, correct the cause. **Do not remove the fire safety system from operation.** If a fire occurs, this system is your first and best protection against a fire that is out of control.

4. How to Do a Test of the Fire Safety System



5. If Water Flow Occurs



— End of BIPDUM01 —

Sprinkler Assembly

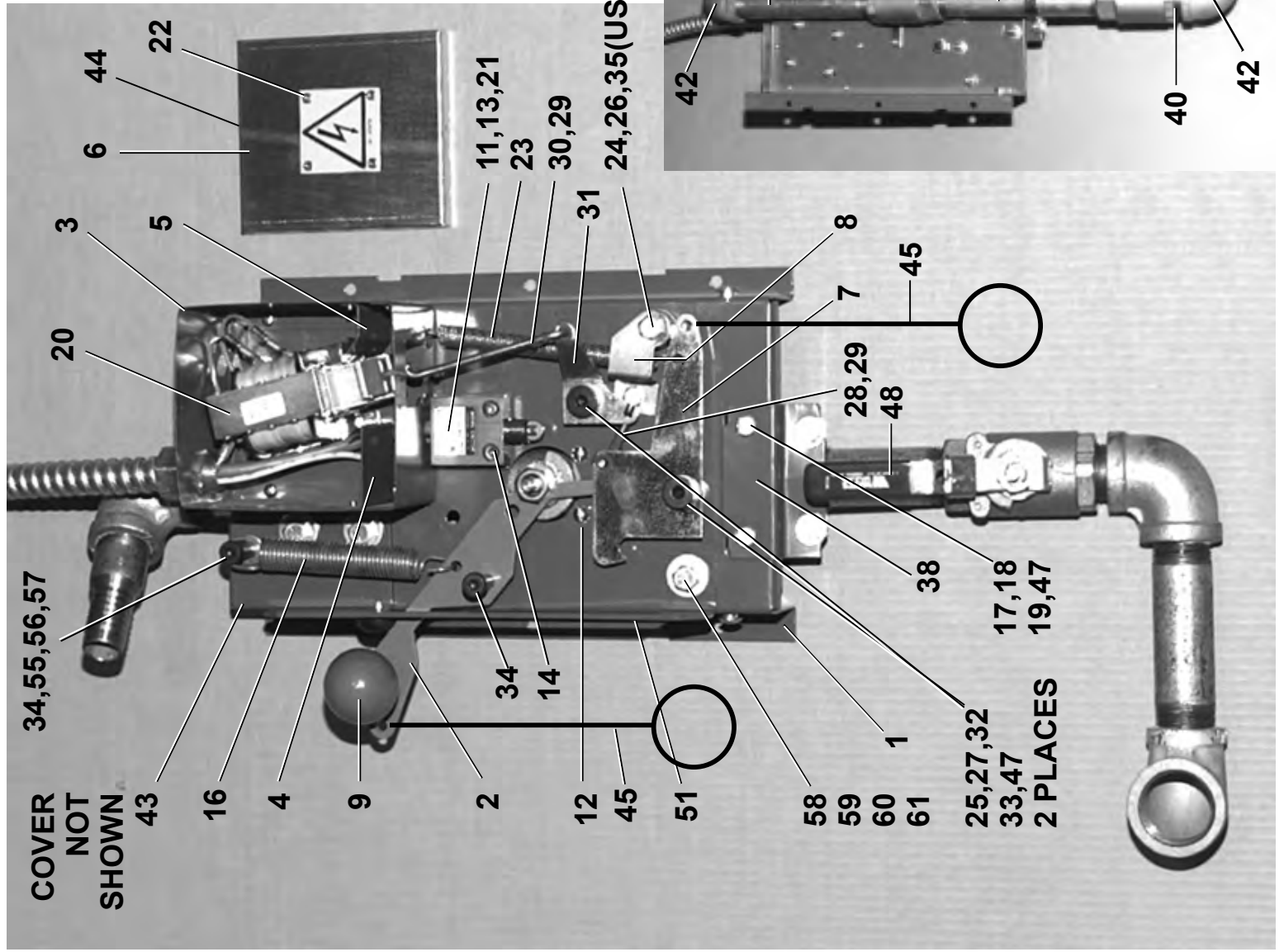
All Dryers

BMP960031/97017V
(Sheet 1 of 2)



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Parts List—Sprinkler 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	A75SM005	93000Z*ASSY=SPRINKLER MECH-1" VALVE	
			ASSEMBLIES	
			COMPONENTS	
all	1	07 50276A	96287D SPRINKLER BASE PLATE MOD	
all	2	07 50277A	93396C SPRINKLER HANDLE-STAMPING	
all	3	07 50278A	96357C SOLENOID BOX=SPRINKLER MOD	
all	4	07 50279A	94287B BAFFLE PLATE LF - SOL BOX	
all	5	07 50279B	94287B BAFFLE PLATE RT - SOL BOX	
all	6	07 50280	91381B COVER FOR SOLENOID BOX	
all	7	07 50281	87503B LATCH ARM FOR SPRINKLER	
all	8	07 50282	85133B SPRING GUARD	
all	9	12P100	02Z BALLKNOB RED PLASTIC DAVIES#45H	
all	10	96D085WEXS	09Z BALVAL 1"BRZWATT#SB6400SSZ1070SP	
all	11	09RM01209S	02ZCAPSW 9FT 180DEG ROLLER SILVER	
all	12	15K021A	SOKCAPSCR 10-24UNCX1" LG S/S	
all	13	07 50285	94287B SWITCH MOUNT SPACER PLATE	
all	14	15G126	01Z HXLOCKNUT NYLON 10-24 UNC SS NM	
all	16	07 50293	85177BSPRING.500 ODX4.00LGX.049EXT	
all	17	15U180	LOCKWASHER MEDIUM 1/4 ZINCPL	
all	18	15G165	HXNUT 1/4-20UNC2BSAE ZC GR2	
all	19	15K030	HEXCAPSCR 1/4-20UNC2X1/2 GR5 ZINC	
all	20	09K061D	07Z SOLENOID 120V 60C #8940	
all	21	20A015GA	73115A SHIM=FRICITION=CWU DOORSWITCH	
all	22	15J051	01Z POPRIVET 1/8DIA X.265 LONG S/S	
all	23	06 20162A	91206B SPRING=CONLO SAFETY SWITCH	
all	24	15K070	HXCAPSCR 5/16-18 UNC2A X1.5 GR5 ZNC	
all	25	15G205	HXNUT 3/8-16UNC2B ZINC GR2	
all	26	27B210	01Z SPCRR011 .375IDX.75LX.048T CSZN	
all	27	15U255	LOCKWASHER MEDIUM 3/8 ZINCPL	
all	28	07 50400	91456BLATCH ARM LINKAGE ROD	
all	29	17N300	3/16" ROD CLIP 4L FMP#85303	
all	30	07 50401	85343ASOLENOID LINKAGE ROD	



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Parts List, cont.—Sprinkler Assembly

Used In	Item	Part Number	Description	Comments
all	31	07 50402	86101BTRIP LINK FOR SPRINKLER	
all	32	15C060	HXSOKSTRIPBOLT 1/2X3/4W 3/8-16 GR5	
all	33	54J010	SHFTCOLL #2X568 1/2"ID EA=1PC	
all	34	15C048	HXSOKSTRIPBOLT 3/8X1"W5/16-18 GR5	
all	35	15U200	FLATWASHER(USS STD) 5/16"ZNC PLT	
all	36	15U210	LOKWASHER MEDIUM 5/16 ZINCPL	
all	37	15G185	HXNUT 5/16-18UNC2B SAE ZINC GR2	
all	38	07 50403A	96287B SPRINKLER BOX SUPPORT - BTM	
all	39	27A019	83401A 1"PIPSTRAP 2HOLE STAMPEDGALV	
all	40	5N1ACLSG42	NPT NIPPLE 1XCLS TBE GALSTL SK40	
all	41	5N1A06KG42	NPT NIPPLE 1X6.5 TBE GALSTL SK40	
all	42	5SL1ANFA	NPT ELBOW 90DEG 1" GALMAL 150#	
all	43	07 50428	96343D SPRINKLER VALVE COVER DRYER	
all	44	15N162A	TRUSMACSCR 1/4-20UNC2AX1/2 ZINC GR2	
all	45	07 50436	88166B MANUAL TRIP HNDL 8.75" LONG	
all	46	15U185	FLATWASHER(USS STD) 1/4" ZNC PLT	
all	47	15U243	FLAWASHER 7/8ODX33/64IDX16GA ZINCPL	
all	48	96D085H01	LATCH-LOK HDL WATTS #6LL-HK	
all	49	5N1A05AG42	NPT NIPPLE 1X5 TBE GALSTL SK40	
all	50	5SL1ENFA1A	NPT ELBOW 90DEG 1.25X1" GALMAL 150#	
all	51	07 50860	90121C+SPRINKLER RESET HANDLE STOP	
all	52	51E099SS	DIXON 1"KINGCOMBNIP S.S.#RST10	
all	53	60E087	02Z HOSE WATER 1" #7092-100304 *	
all	54	27A090S	HOSECLAMP 11/16-1.5"SS#225-016	
all	55	15U185	FLATWASHER(USS STD) 1/4" ZNC PLT	
all	56	15G165	HXNUT 1/4-20UNC2BSAE ZC GR2	
all	57	15U180	LOCKWASHER MEDIUM 1/4 ZINCPL	
all	58	15K083	HXCAPSCR 3/8-16 UNC2AX1/2 GR5 ZNC	
all	59	15G205	HXNUT 3/8-16UNC2B ZINC GR2	
all	60	15U240	FLATWASHER(USS STD) 3/8" ZNC PLT	
all	61	15U255	LOCKWASHER MEDIUM 3/8 ZINCPL	
all	62	5N1A08AG42	NPT NIPPLE 1X8 TBE GALSTL SK40	
all	63	5N1A08KG42	NPT NIPPLE 1X8.5 TBE GALSTL SK40	

Watts Ball Valves and Repair Kits



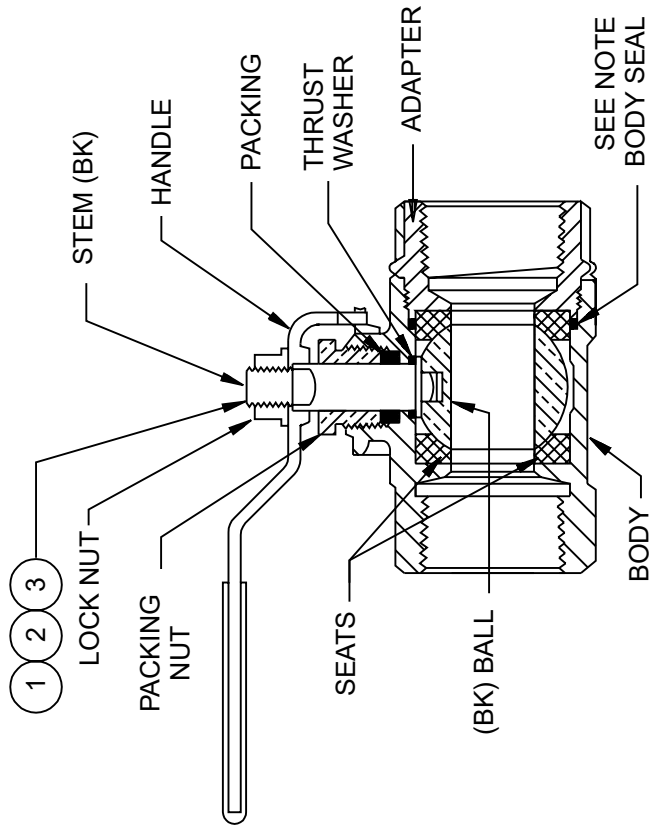
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BMP920007/96067V (1 of 2)

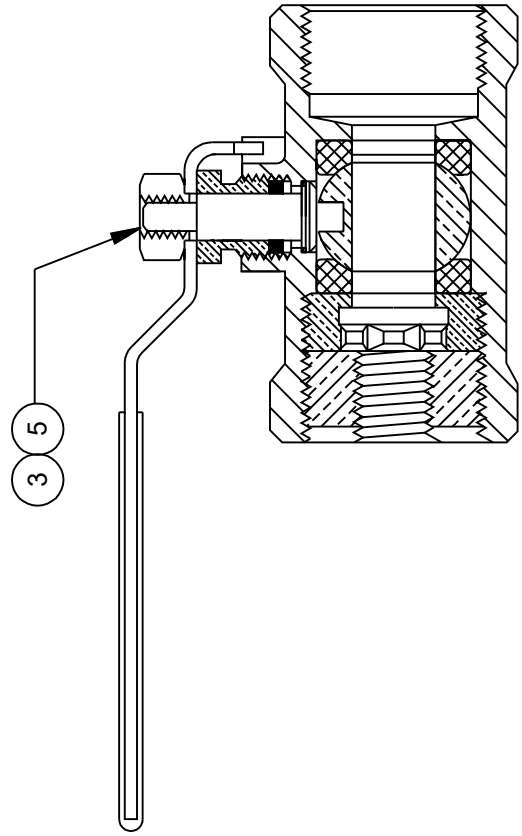
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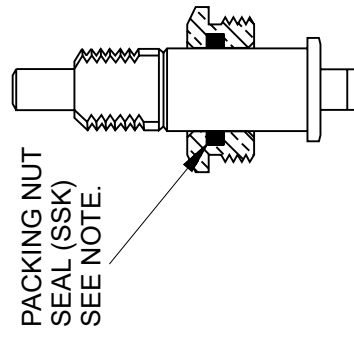
BALL VALVES WITHOUT ACTUATOR PADS FOR MANUAL OPERATION



1/2" BRONZE OR 1/2", 3/4" STAINLESS
NO REPAIR KITS

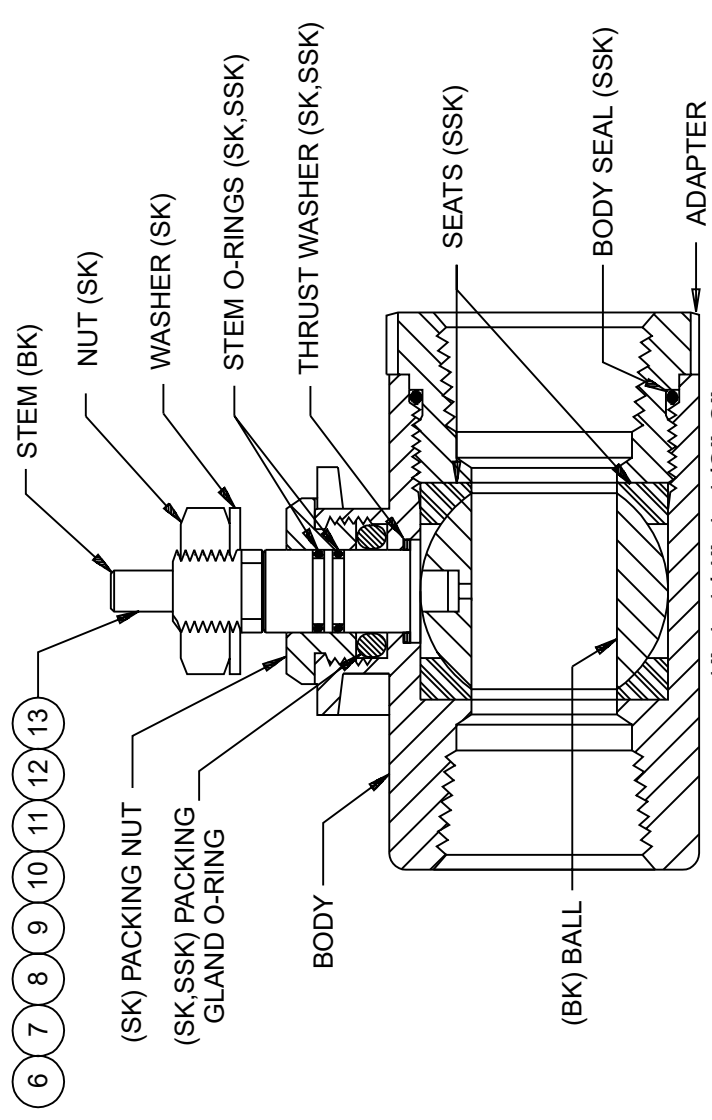


3/4", 1"
BRONZE
NO REPAIR KITS



DETAIL
OLD STYLE STEM

AIR OPERATED BALL VALVES



1", 1-1/4", 1-1/2", 2"
BRONZE & STAINLESS

(For Bracketry and Mounting Hardware, See BMP920005. For Air Cylinders that Operate Watts Ball Valves, See BMP920006.)

HOW TO USE THIS DRAWING:

The ball valves are separated by size, material, and type of operation. Find the cross section which shows your ball valve (example 1-1/2" bronze air operated). See the parts list for the item number which represents your ball valve (1-1/2" bronze air operated would be item 10 on the parts list). For valves that offer repair kits the internal parts are labeled and marked as to which kit they are found in:

- (BK) part of Ball Kit
- (SK) part of Stem Kit
- (SSK) part of Seat/Seal Kit

For the part number of the Seat/Seal Kit for item 10 (1-1/2" bronze air operated valve) see the parts list and look for item 10SSK, likewise the Stem Kit will be 10SK.

NOTE:

AIR OPERATED VALVES: (SSK) kits for air operated ball valves include all parts required to repair either our old style or new style stems. A packing nut seal is provided to repair our old style stems which had a seal in the packing nut (see Detail). Our new style stem uses a double o-ring design.



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BMP920007/96067V (2 of 2)

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Parts List—Watts Ball Valves and Repair Kits
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	96D034	04Z BALLVALVE 1/2" WATTS #6400-SS	1/2"BRONZE-MANUAL, NO KITS
all	2	96D040WSS	01Z 1/2" BALLVALVE S/S WATTS#S-8000	1/2"STAINLESS-MANUAL
all	002BK	96V040BK	BALL KIT WATTS #BV4SSA6	
all	002SSK	96V040SSK	01Z REPKIT 1/2"VAL WATTS#3SSK-02-RK	
all	3	96D050A	01Z 3/4"BALLVALVE BRZ WATTS#B6100	3/4"BRONZE-MANUAL, NO KITS
all	4	96D055WSS	01Z 3/4"BALLVALVE S/S WATTS#S-8000	3/4"STAINLESS-MANUAL
all	004BK	96V055BK	BALL & STEM KIT WATTS #4BSK-SSRK	
all	004SSK	96V055SSK	01Z REPKIT 3/4"VAL WATTS#4SSK-02-RK	
all	5	96D084	01Z BALL VALVE 1" WATTS#B6100 BRZ	1" BRONZE-MANUAL , NO KITS
all	6	96D085WEXS	07Z BALVAL 1" BRZ WATTS#B6400SSZ107	1" BRONZE-AIR OPERATED
all	006BK	96V085BK	BALL KIT WATTS #1-BALL-RK-Z107	
all	006SK	96V085SK	02Z STEM KIT 1" WATTS#1-ST-RK-Z107	
all	006SSK	96V085SSK	02Z REPKIT 1"BALVAL#1SSK-02-KK-Z107	
all	7	96D085WSS	07Z BALVAL 1" SS WATTS S8000-Z107	1" STAINLESS-AIR OPERATED
all	007BK	96V085BK	BALL KIT WATTS #1-BALL-RK-Z107	
all	007SK	96V085SK	02Z STEM KIT 1" WATTS#1-ST-RK-Z107	
all	007SSK	96V085SSK	02Z REPKIT 1"BALVAL#1SSK-02-KK-Z107	
all	8	96D086WEXS	08Z BAVAL 1+1/4BRZ WATTS#B6400SSZ107	1-1/4"BRONZE-AIR OPERATED
all	008BK	96V086BK	BALL KIT WATTS #1.25-BALL-RK-Z107	
all	008SK	96V086A7SK	02Z STEMKIT 1.25-1.5-ST-RK-Z107	

Used In	Item	Part Number	Description	Comments
all	008SSK	96V086SSK	02Z REPKIT 1.25BALVALSSK-02-RK-Z107	1-1/4"STAINLESS-AIR OPER.
all	9	96D086WSS	08Z BAVAL 1+1/4"SS WATTS S8000-Z107	
all	009BK	96V086BK	BALL KIT WATTS #1.25-BALL-RK-Z107	
all	009SK	96V086A7SK	02Z STEMKIT 1.25-1.5-ST-RK-Z107	
all	009SSK	96V086SSK	02Z REPKIT 1.25BALVALSSK-02-RK-Z107	
all	10	96D087WEXS	09Z BAVAL 1+1/2BRZ WATTS#B6400SSZ107	1-1/2"BRONZE-AIR OPERATED
all	010BK	96V087BK	BALL KIT WATTS #1.5-BALL-RK-Z107	
all	010SK	96V086A7SK	02Z STEMKIT 1.25-1.5-ST-RK-Z107	
all	010SSK	96V087SSK	02Z REPAIR KIT 1.5" BALL VALVE	
all	11	96D087WSS	08Z BAVAL 1+1/2"SS WATTS S8000-Z107	1-1/2"STAINLESS-AIR OPER.
all	011BK	96V087BK	BALL KIT WATTS #1.5-BALL-RK-Z107	
all	011SK	96V086A7SK	02Z STEMKIT 1.25-1.5-ST-RK-Z107	
all	011SSK	96V087SSK	02Z REPAIR KIT 1.5" BALL VALVE	
all	12	96D088WEXS	09Z BALVAL 2" BRZ WATTS#B6400SSZ107	2"BRONZE-AIR OPERATED
all	012BK	96V088BK	BALL KIT WATTS #2-BALL-RK-Z28	
all	012SK	96V088SK	03Z STEM KIT 2" WATTS#2-ST-RK-Z107	
all	012SSK	96V088SSK	02Z REPKIT 2"VAL WAT2SSK-02-RK-Z107	
all	13	96D088WSS	09Z BALVAL 2" SS WATTS S8000-Z107	2"STAINLESS-AIR OPERATED
all	013BK	96V088BK	BALL KIT WATTS #2-BALL-RK-Z28	
all	013SK	96V088SK	03Z STEM KIT 2" WATTS#2-ST-RK-Z107	
all	013SSK	96V088SSK	02Z REPKIT 2"VAL WAT2SSK-02-RK-Z107	

Pneumatic Piping and Assemblies

9

Schematic Symbols Key

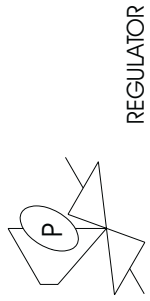
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(Sheet 1 of 1)



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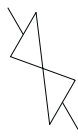
ISOMETRIC SYMBOLS



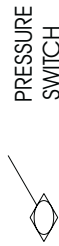
REGULATOR



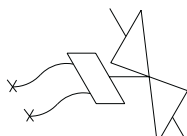
GAS COCK



2-WAY VALVE



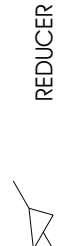
PRESSURE SWITCH



ON/OFF MODULATING VALVE



PIPE PLUG



REDUCER

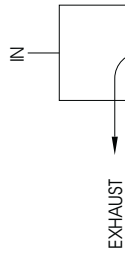


GAS STOP VALVE

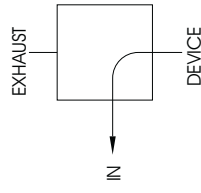


MALE CONNECTOR

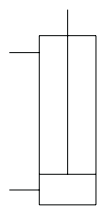
STANDARD SYMBOLS



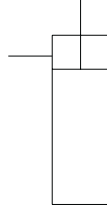
3-WAY N/C AIR PILOT VALVE



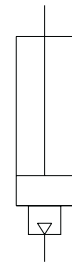
3-WAY N/O AIR PILOT VALVE



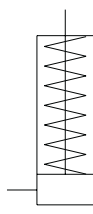
CYLINDER (DOUBLE ACTING)



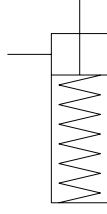
CYLINDER (SINGLE ACTING)



CYLINDER W/QUICK EXHAUST VALVE



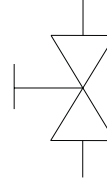
CYLINDER AIR EXTEND SPRING RETRACT



CYLINDER AIR RETRACT SPRING EXTEND



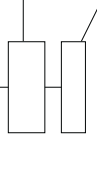
INLINE VALVE NON-SPECIFIC



MANUAL BALL VALVE



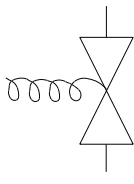
BALL VALVE (THERMAL)



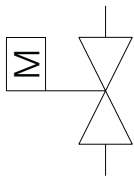
PNEUMATIC ACTUATOR



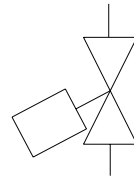
ELECTRIC VALVE POSITIONER



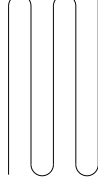
ELECTRICALLY OPERATED 2-WAY VALVE



MOTOR OPERATED VALVE



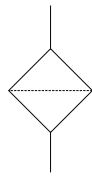
STEAM VALVE



COIL



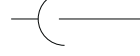
AIR LINE FILTER-AUTO



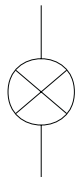
SPECIAL PURPOSE FILTER/STRAINER



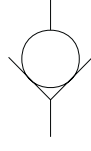
Y-STRAINER



VACUUM BREAKER



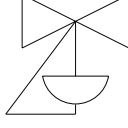
STEAM TRAP



CHECK VALVE



PRESSURE SWITCH



PRESSURE REGULATOR



RELIEF VALVE



GAUGE



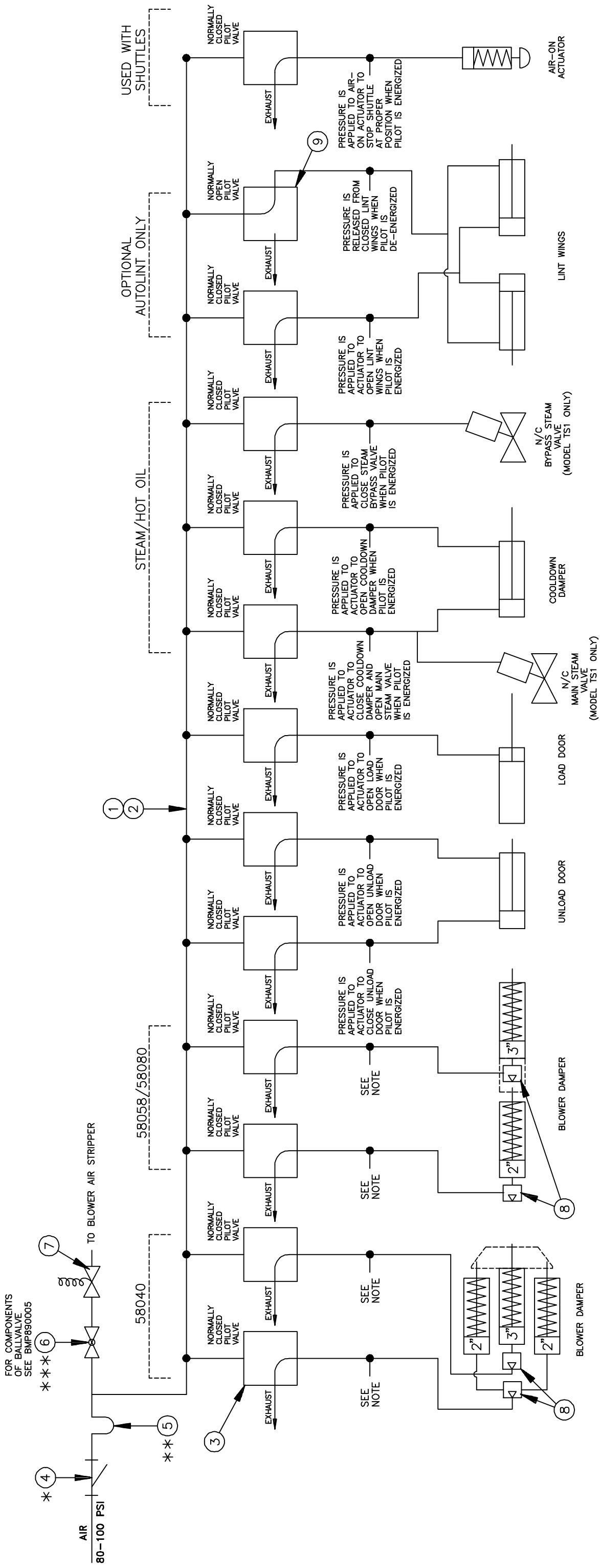
FLOW SENSOR



DRAWING
 (See other page for parts list,
 if applicable.)

PNEUMATIC SCHEMATIC -- 58040 58058 58080

BMP910029/92422V (Page 1)



NOTES:

1. MINIMUM AIR FLOW OCCURS WHEN PRESSURE IS APPLIED TO ALL BLOWER DAMPER AIR CYLINDER ACTUATORS
2. MORE THAN MINIMUM AIR FLOW OCCURS WHEN PRESSURE IS APPLIED ONLY TO THE 3" BLOWER DAMPER AIR CYLINDER ACTUATOR
3. LESS THAN MAXIMUM AIR FLOW OCCURS WHEN PRESSURE IS APPLIED ONLY TO THE 2" BLOWER DAMPER AIR CYLINDER ACTUATOR
4. MAXIMUM AIR FLOW OCCURS WHEN NO PRESSURE IS APPLIED TO ACTUATORS

- * STRAINER MUST BE CLEANED, SEE PREVENTIVE MAINTENANCE CHECKLIST FOR SCHEDULE
- ** USED ONLY WITH OPTIONAL AUTOLINT
- *** NOT USED WITH OPTIONAL AUTOLINT



PARTS LIST

(See other page for drawing.)

PNEUMATIC SCHEMATIC -- 58040 58058 58080

BMP910029/92422V (Page 2)

ITEM	PART NUMBER	DESCRIPTION	HOW PART IS USED IN ASSEMBLY (Only if pertinent)
00Y	AVA612DT24	85382Z*AIRVALASSY DRYER 24V	58040/58/80T*1
00Z	AVA61SDT24	86176Z*AIRVALASSY STEAM DRYER 24V	58040/58/80T*1,C*1,S*1
001	X3 01507A	88462# MANIFOLD BLOCK MACH 12PORTS	
002	03 LF110K	90363C LOCK BAR=VALVE SET 22STATION	
003	96R301A24	04Z 1/8" AIR PILOT 3WAY NC 24V50/60	
004	51T025	Y-STRAINER 1/2" CAST IRON	
005	30N601	1/2" AIR LINE FILTER-AUTO #07F35A	USED ONLY W/OPT AUTOLINT
006	96D034	04Z BALLVALVE 1/2" WATTS #6400-SS	
007	96P041A	92097N1/2" 2WAY 24V60/50 ASCO X8210	
008	96M051	03Z QUICK EXHAUST VALVE 1/4"	
009	96R302A24	05Z 1/8" AIR PILOT 3WAY N/O 24V50/60 ***** END OF PARTS LIST *****	USED ONLY W/OPT AUTOLINT

How to Read Parts List

Reference Item Numbers—Items 00A, 00B, 00C, etc., or 00X, 00Y, 00Z, etc., appearing at the top of some parts lists, are for reference and provide:

1. The part number for the entire assembly depicted in the drawing or a major sub-assembly thereof, and/or
2. The range of machine models this drawing applies to.

If more than one reference item appears, this usually means this drawing applies to more than one assembly (and thus to more than one range of machines).

Component Item Numbers—For any item on the drawing (e.g., item ①), there may be several corresponding items on the parts list (e.g., 001A, 001B, 001C, etc.) which are similar components on different assemblies. "How Part Is Used In Assembly" identifies which components apply to your machine, by listing either the machine model, or the reference item number from the top of the parts list (e.g., 00A, 00B, 00C, etc.), or a particular characteristic (e.g., bronze or stainless steel), or special ordering information, such as a repair kit number.

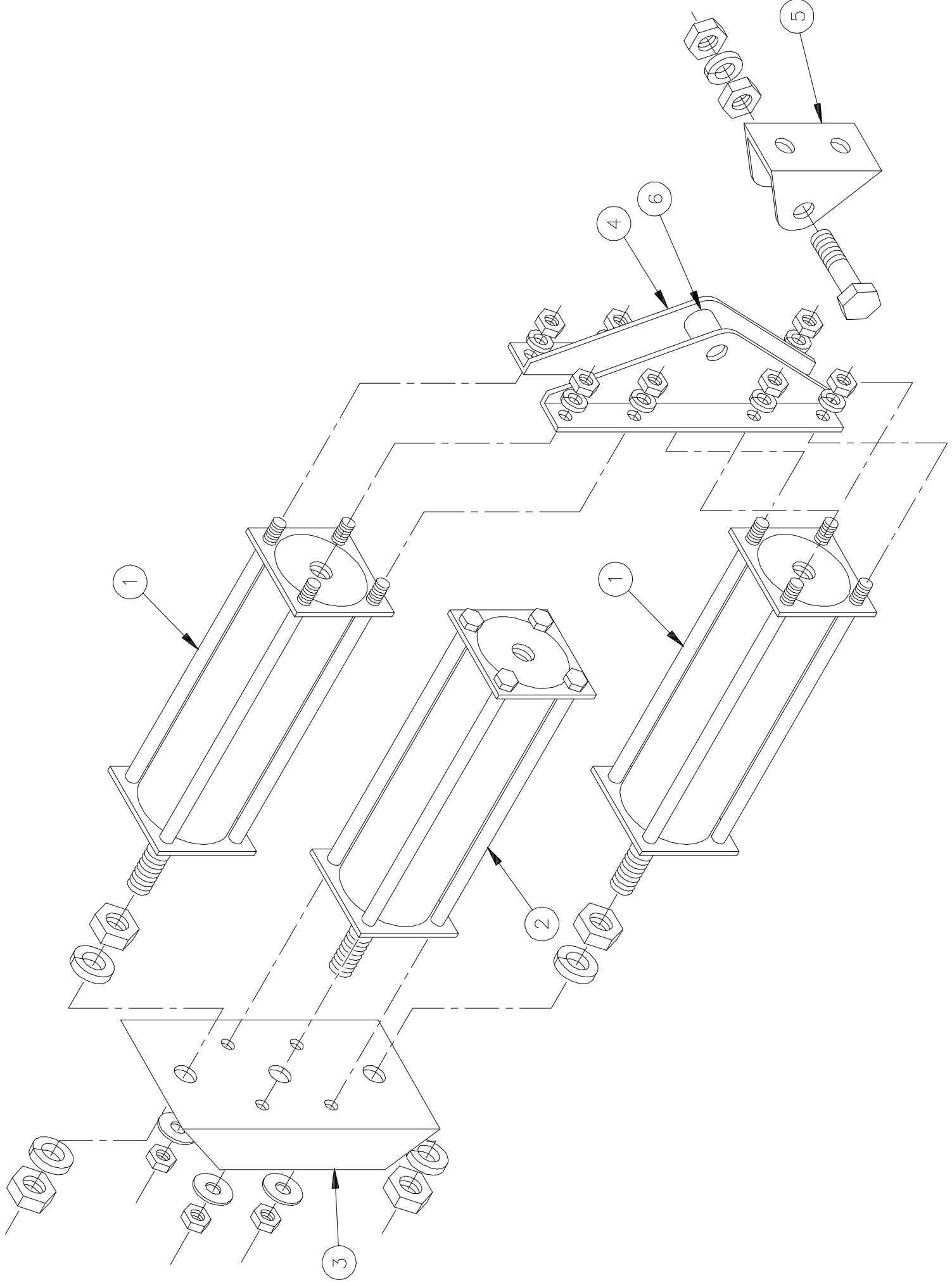


DRAWING

(See other page for parts list,
if applicable.)

BLOWER DAMPER AIR CYLINDER ASSEMBLY -- 58040

BMP910015/91153V (Page 1)





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 700 JACKSON STREET/POST OFFICE BOX 400
 KENNER, LOUISIANA 70063-0400 USA

PARTS LIST

(See other page for drawing.)

BLOWER DAMPER AIR CYLINDER ASSEMBLY -- 58040

BMP910015/91153V (Page 2)

ITEM	PART NUMBER	DESCRIPTION	HOW PART IS USED IN ASSEMBLY (Only if pertinent)
00Z	A76AC001	88161D 15" BLOWER DAMP. AIR CYL ASSY	REFERENCE ONLY
001	A76AC001A	89463C AIR CYL. 2-3/8 BORE 2" STROKE	FOR PARTS SEE BMP830078
002	A76AC001B	89463# AIR CYL. 2-3/8 BORE 3" STROKE	FOR PARTS SEE BMP830078
003	07 60072	88161C AIR CYLINDERS MOUNTING BRKT	
004	07 60071	86327B AIR CYLINDERS MOUNTING BRKT	
005	07 60070	86327L AIR CYLINDERS PIVOT BRKT	
006	27B2750L0T	SPACER ROLL .562 ID .937L .048T ZNC ***** END OF PARTS LIST *****	

How to Read Parts List

Reference Item Numbers—Items 00A, 00B, 00C, etc., or 00X, 00Y, 00Z, etc., appearing at the top of some parts lists, are for reference and provide:

1. The part number for the entire assembly depicted in the drawing or a major sub-assembly thereof, and/or
2. The range of machine models this drawing applies to.

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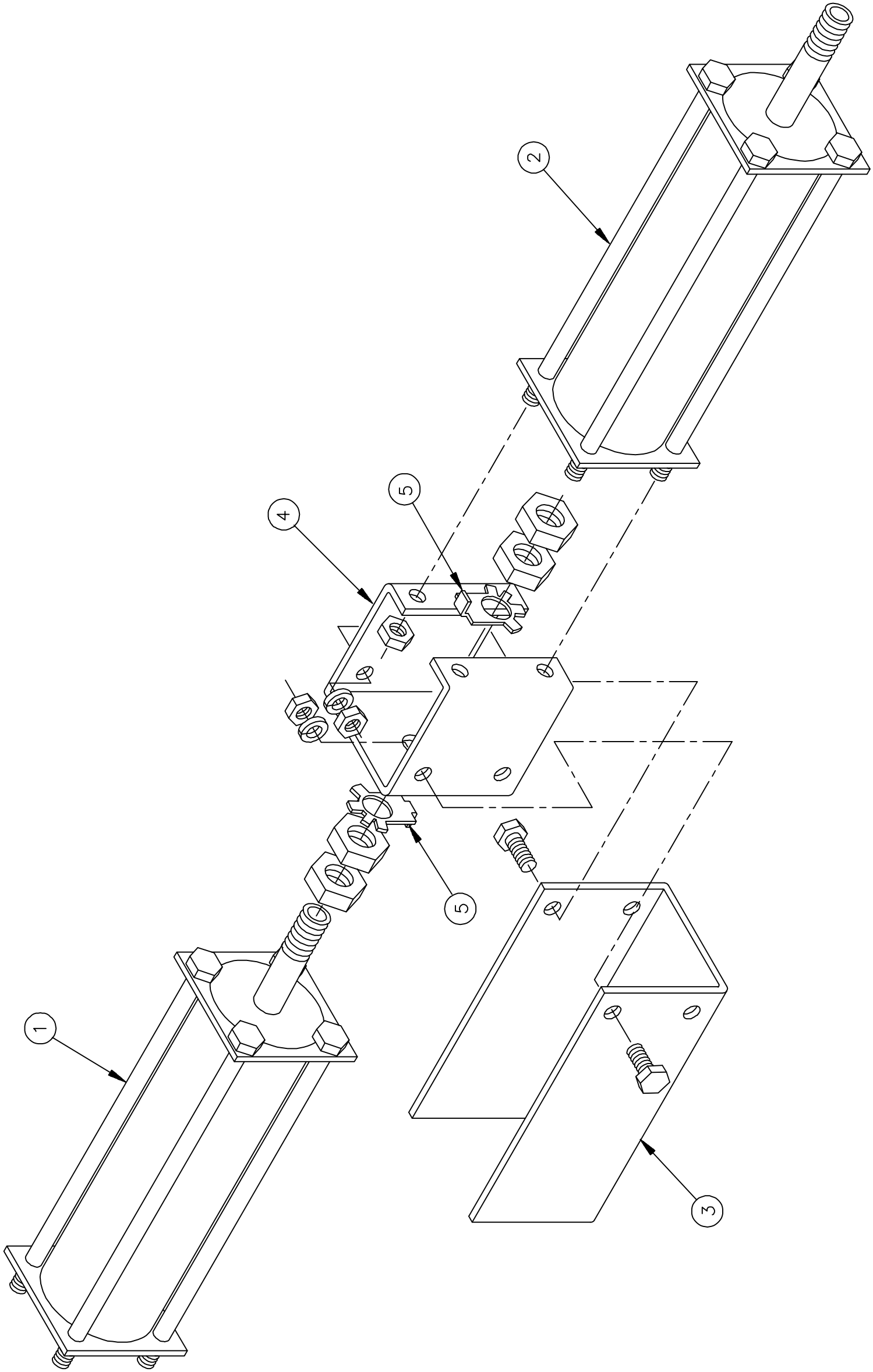
PELLERIN MILNOR CORPORATION
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KENNER, LOUISIANA 70063-0400 USA

DRAWING

(See other page for parts list,
if applicable.)

BLOWER DAMPER AIR CYLINDER ASSEMBLY -- 58058 58080

BMP860013/91153V (Page 1)





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PARTS LIST

(See other page for drawing.)

BLOWER DAMPER AIR CYLINDER ASSEMBLY -- 58058 58080

BMP860013/91153V (Page 2)

		HOW PART IS USED IN ASSEMBLY (Only if pertinent)	
ITEM	PART NUMBER	DESCRIPTION	
00Z	A75AC002A	89136C AIR CYL MAIN DAMPER BLOWER	REFERENCE ONLY
001	A75 01300	89463T\$AIR CYL. DAMPER = 2"STROKE	FOR PARTS SEE BMP830078
002	A75 01200	89463C\$AIR CYL. DAMPER = 3"STROKE	FOR PARTS SEE BMP830078
003	07 50332	88232C AIR CYLINDER GUIDING PLATE	
004	07 50331	88232C AIR CYL. BRKT. = DAMPER	
005	07 50331B	87157B LOCKING WASHER AIRCYL SHAFT ***** END OF PARTS LIST *****	

How to Read Parts List

Reference Item Numbers—Items 00A, 00B, 00C, etc., or 00X, 00Y, 00Z, etc., appearing at the top of some parts lists, are for reference and provide:

1. The part number for the entire assembly depicted in the drawing or a major sub-assembly thereof, and/or
2. The range of machine models this drawing applies to.

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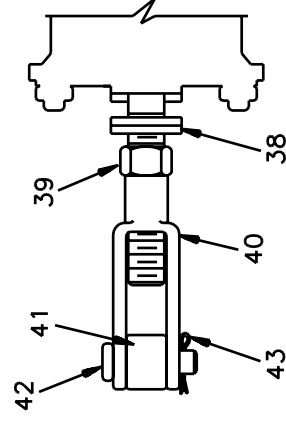
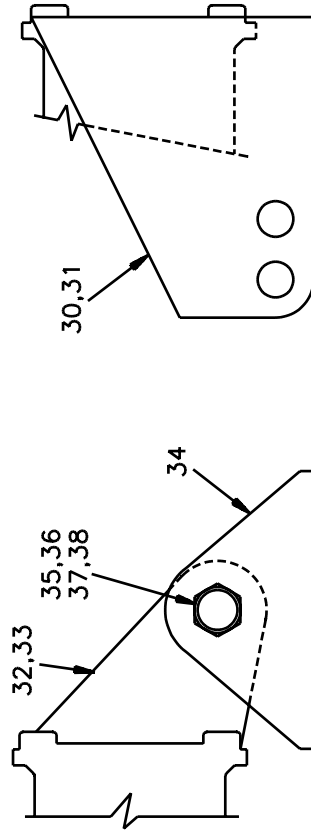
Air Cylinder Assemblies

BMP830078/2005525B
(Sheet 1 of 3)

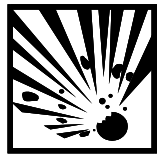


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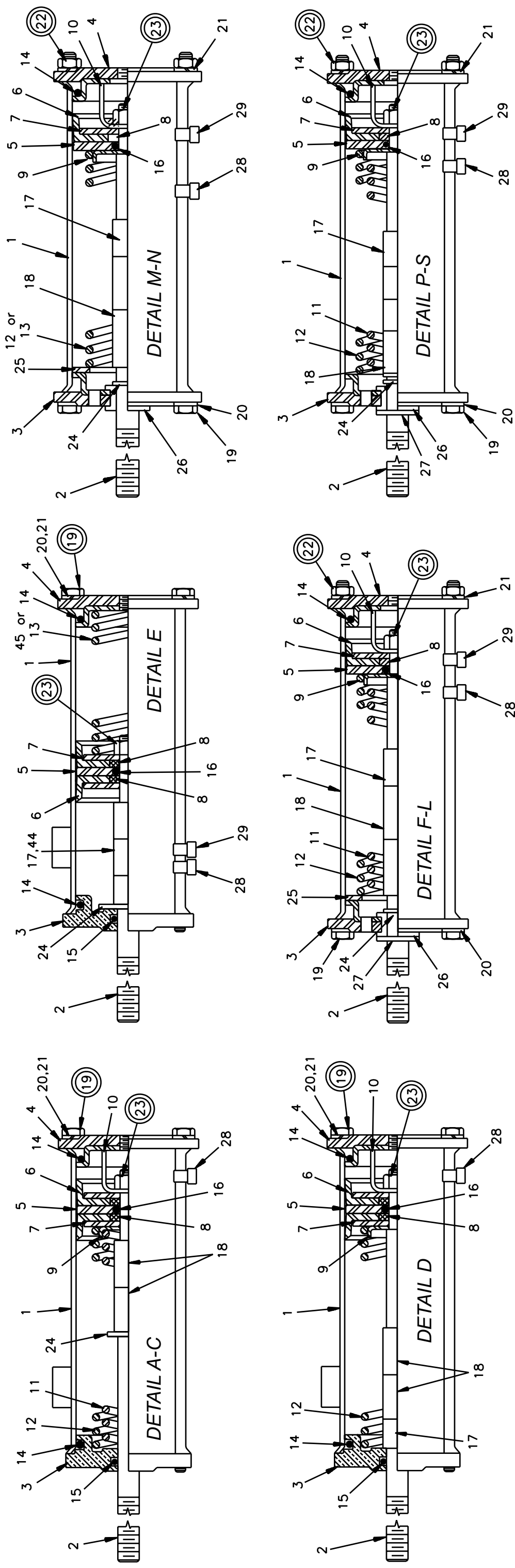


A WARNING



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





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Used In	Item	Part Number	Description	Comments
ASSEMBLIES				
A		SA 36 035	89483V* AIRCYL=BRAKE ASSY	72WP2,WP3,WE3
B		SA 28 128	89483T* BRAKE AIRCYL 2-WAY 60+72SGU	60+72SP2,SP3
C		SA 28 152	89483V* BRAKE AIRCYL 2-WAY 60WE2+3	60WP2,WP3,D3A,DA3
D		SA 10 019A	89483U* BRAKE AIRCYL,2-WAY=42WE+DAU	4231/4244 WP2/WP3 CP2/CP3 NP2/NP3 SP2/SP3
F		A52 00200	89463U* BRAKE AIRCYL=7244 TILT ONLY	72DA1/L/N,DBN, WTL/N,WP1
G		SA 10 019Q	89483T*BRAKE CYL ASSY=4226QWE+DYA	4226DP1,DA1,DYPD5P
H		AAC14001A	90000Z AIRCYL-LONG= 4256PFG	3621+26Q6X 4226Q4X,Q6X
I		A76AC001A	89463T AIR CYL.2-3/8 BORE 2"STROKE	5840TG2,TS1,TT1
J		A76AC001B	89463@ AIR CYL.2-3/8 BORE 3"STROKE	5840TG2,TS1,TT1
K		A75 01200	89463T*AIR CYL. DAMPER = 3"STROKE	5858+80TG1/2,TS1,TT1
L		A75 01300	89463U*AIR CYL. DAMPER = 2"STROKE	5858+80TG1/2,TS1,TT1
M		SA 10 019	89497U* BRAKE AIRCYL=BALCOM+DIVCYL	3621F8P
N		AAC14001	90041U*AIRCYL=RATE 50-91 STRK 2.09	52LWN/H,WTL/N,WP/E1,DYA
P		A25 00600	89457V* BRAKE AIRCYL=52WE1 +52TILT	64BTL,BTN,BHP, DA1,DAL,DAN
Q		AAC64001	894613*AIRCYL=BRAKE ASSY 6442	6446,7246,7258,M7E 4244SP2 SM 7258J2N
R		AAC65001	93481B AIRCYL=BRAKE ASSY 6446E6N	
S		AAC58001	95000Z AIRCYL=BRAKE ASSY 7258J2N	
COMPONENTS				
A-D	1	W2 18646	93344L*CYLINDER-AIR=DOUBLEACT BRAKE	
F-S	1	02 02068	94266A AIRCYL-STAINLESS=DUMPVALVE	
A-D,F-G,S, I-K,M-Q	2	02 18650	96431B STEM=2 WAY AIRCYLINDER BRAKE	
H	2	03 06313A	96431# STEM=AIR CYL 304SS	
L	2	02 18650A	96417B STEM-AIRCYL UPLOCK PRESS	
R	2	02 18650B	97362B STEM=2WAY AIRCYL BRAKE 7.88L	
A-D	3	02 18660	CYLHEAD-BRASS=2WAY AIRCYL	
F-Q	3	02 02546	CYLHEAD=SLIDESTEM	
R	3	06 20702E	91227B FLOW NOT ACTUATOR CYL HEAD	
S	4	02 02101	71334A CYLHEAD W/TAPPED HOLE	
ALL	5	02 02105	91522A PISTON CUP WASHER STNLS STL	
S	5	02 02105B	92253B 2.38"ACYL BRASS PISCUP WASHR	
ALL	6	02 02194	93217B PISTONCUP=DUMPVALVE 2+3/8"	
ALL	7	02 02085	75161A UP WASHER=2"OD=PISTONCUP	

Parts List, cont.—Air Cylinder Assemblies				
Used In	Item	Part Number	Description	Comments
ALL	8	02 02185	79237A WASHER=PISTON CUP COMP LIMIT	
A-D,F-Q,S	9	02 18651	73171A WASHER=2WAY BRAKECYL	
A-D,F-Q,S	10	03 01313	70219A STOP=AIR CYL W/2+11/16STROKE	
A-C,F-L,P-Q S	11	02 15880	96471B SPRING=BRAKE1.5OD10.3FL17#"	
A,D,F-M,Q,S	12	02 15881	96471# SPRING=BRAKE2.1OD11FL15.5#"	
N	13	02 17023	83392B SPRING-SS=DUMP 1.5OD8FL21#"	
ALL	14	60C132	ORING 2"IDX3/16CS BUNA70 #329	
A-D	15	60C110	ORING 1/2IDX3/32CS BUNA70 #112	
ALL	16	60C106	ORING 5/16ID 1/16CS BUNA70#011	
D,G-J,L-N Q,S	17	27B240	SPCRROLL.5ID.813L.062T STLZNC	
A,C-D,F-Q,L S	18	27B250	SPCRROLL.5ID1.5L.062T STLZNC	
S	19	02 10585E	91142# TIE BOLT=5/16-18X8.25LG PLTD	
ALL	19	02 10585E	91142# TIE BOLT=5/16-18X8.25LG PLTD	
R ONLY	19	W6 20702F	90293B*FLOW NOT VLV=AIR-CYL ROD WLD	
ALL	20	15U200	FLATWASHER(USS STD) 5/16"ZNC PLT	
ALL	21	15U210	LOKWASHER MEDIUM 5/16 ZINCPL	
F-Q	22	15G185	HXNUT 5/16-18UNC2B SAE ZINC GR2	
ALL	23	15G220	02Z LTHX THIN LOKNUT 3/8-24 SSNTE	
A,C,F-G,I-J L,Q,S	24	15U243	FLAWASHER 7/8ODX33/64IDX16GA ZINCPL	
F-N	25	15U520	FLAT WASHER 2+3/8X1+4/164X12GA ZINC	
F-Q,S	26	54E220	NYLNR 8L2FF BUSH 1/2X9/16X.140	
F,K,I-J,Q,S	27	17B012	EXTRETRING IND#1000-50-ST-ZD ZINC	
A	28	20L601R	ID TAG NAT'L #1614 ALUM EMB LET "R"	
B	28	20L601U	ID TAG NAT'L #1614 ALUM EMB LET "U"	
C	28	20L601P	ID TAG NAT'L #1614 ALUM EMB LET "P"	
D	28	20L601X	ID TAG NAT'L #1614 ALUM EMB LET "X"	
S	28	20L601J	ID TAG NAT'L #1614 ALUM EMB LET "J"	
F,H,Q,S	28	20L601A	ID TAG NAT'L #1614 ALUM EMB LET "A"	
G	28	20L601Q	ID TAG NAT'L #1614 ALUM EMB LET "Q"	
M	28	20L601F	ID TAG NAT'L #1614 ALUM EMB LET "F"	
N	28	20L601D	ID TAG NAT'L #1614 ALUM EMB LET "D"	
P	28	20L601V	ID TAG NAT'L #1614 ALUM EMB LET "V"	
K	28	20L601V	ID TAG NAT'L #1614 ALUM EMB LET "V"	
I-J,L	28	20L601E	ID TAG NAT'L #1614 ALUM EMB LET "E"	
F,I-L	29	20L601A	ID TAG NAT'L #1614 ALUM EMB LET "A"	
G-H	29	20L601F	ID TAG NAT'L #1614 ALUM EMB LET "F"	



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Parts List, cont.—Air Cylinder Assemblies

Used In	Item	Part Number	Description	Comments
N	29	20L601C	ID TAG NAT'L #1614 ALUM EMB LET "C"	
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	27B2750LOT	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	SPCRROLL.512ID.625L.062T STLZC	
ALL	45	02 17024	94302B SPRING-SS=DUMP 1.5OD4FL40#"	

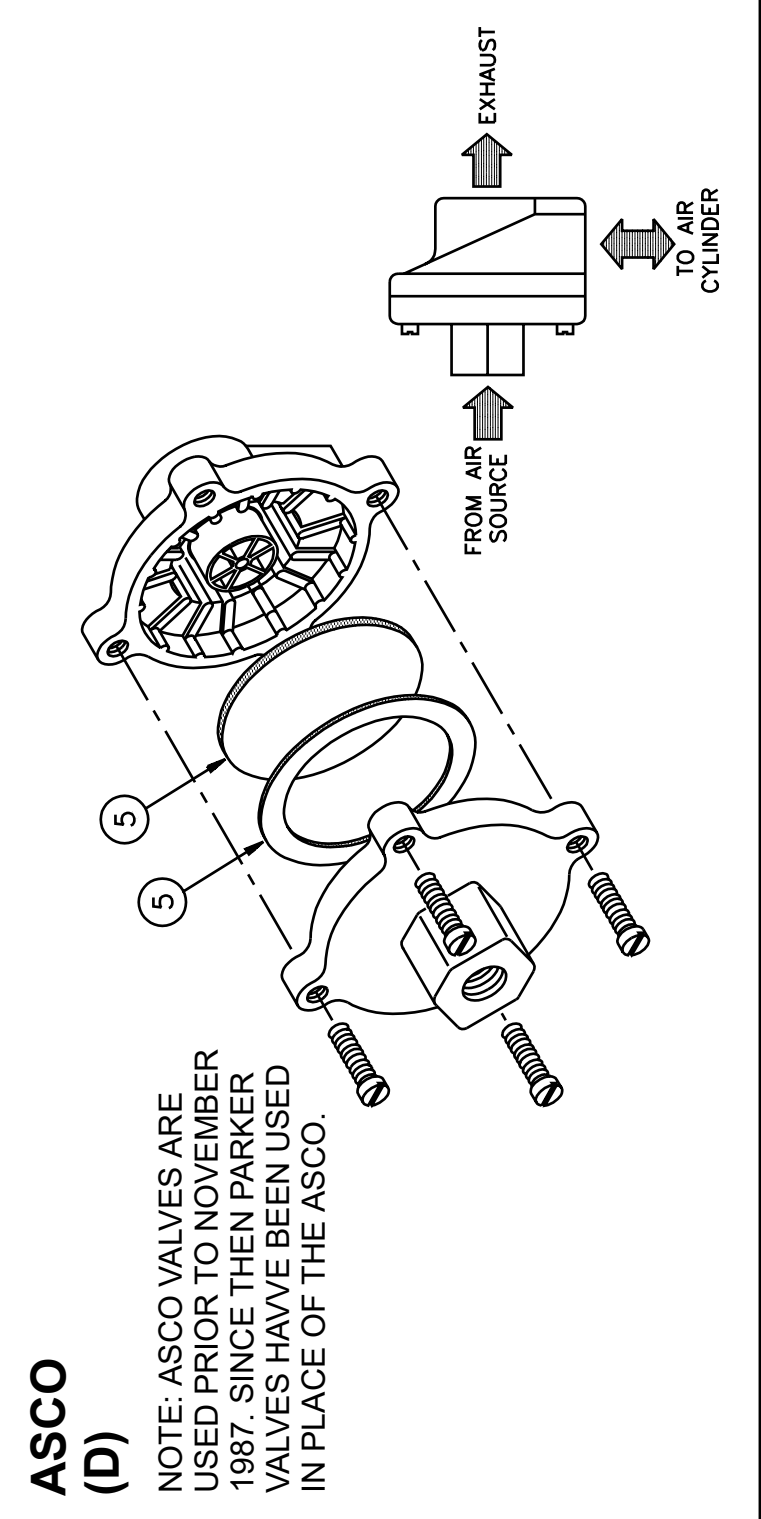
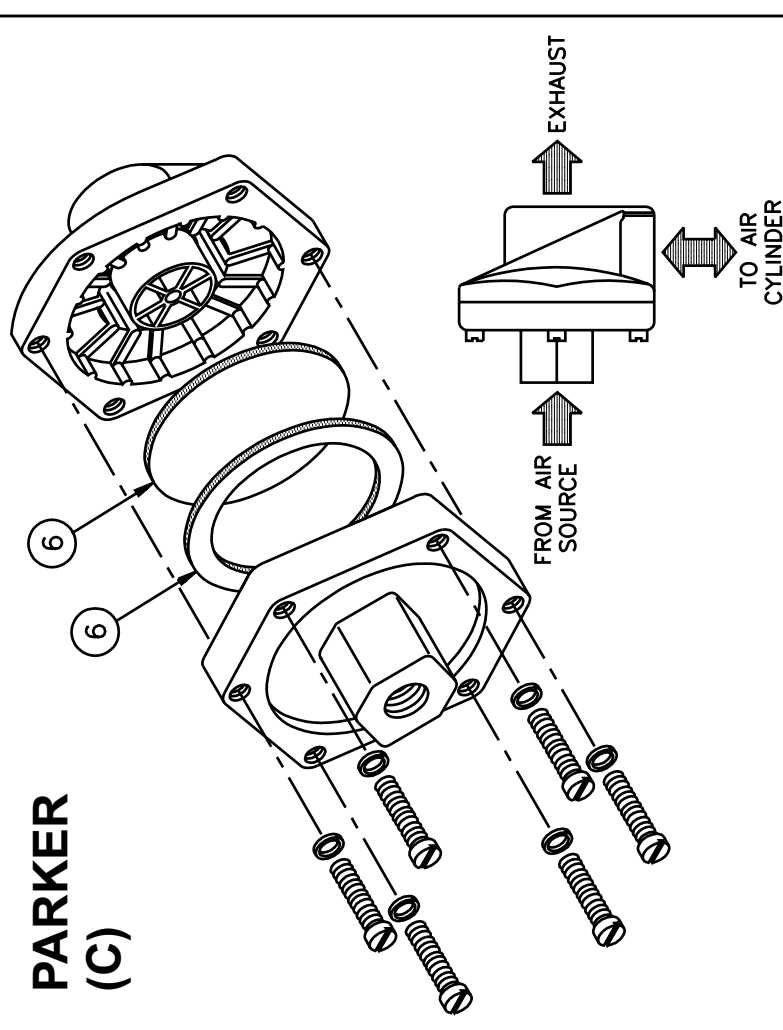
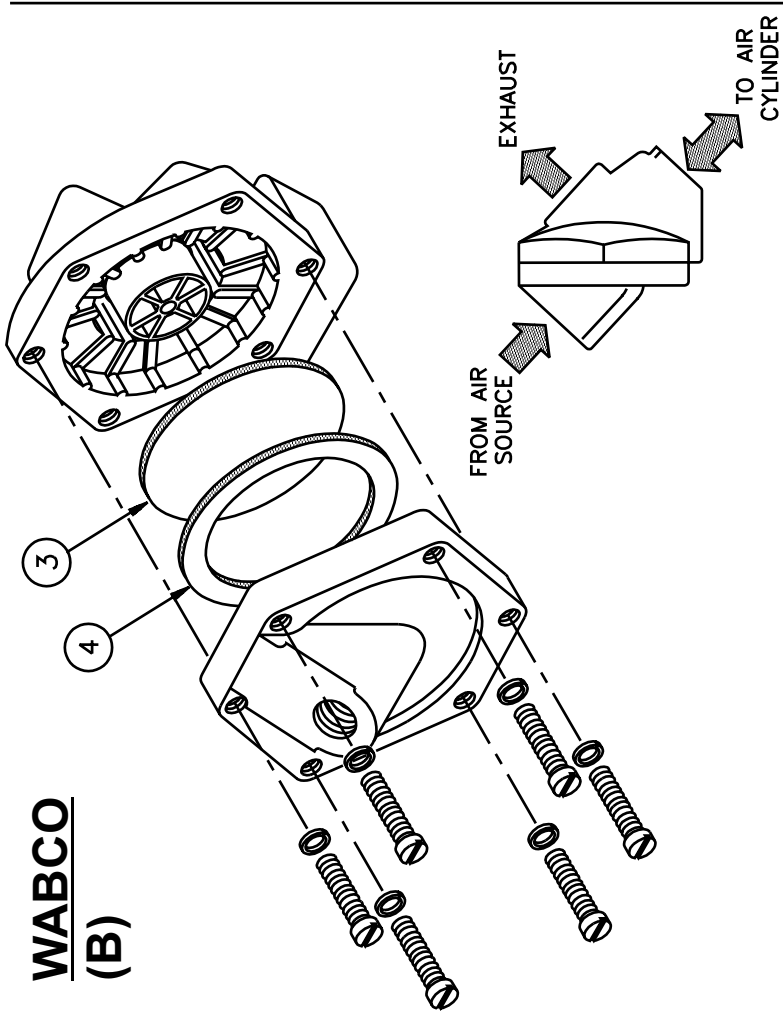
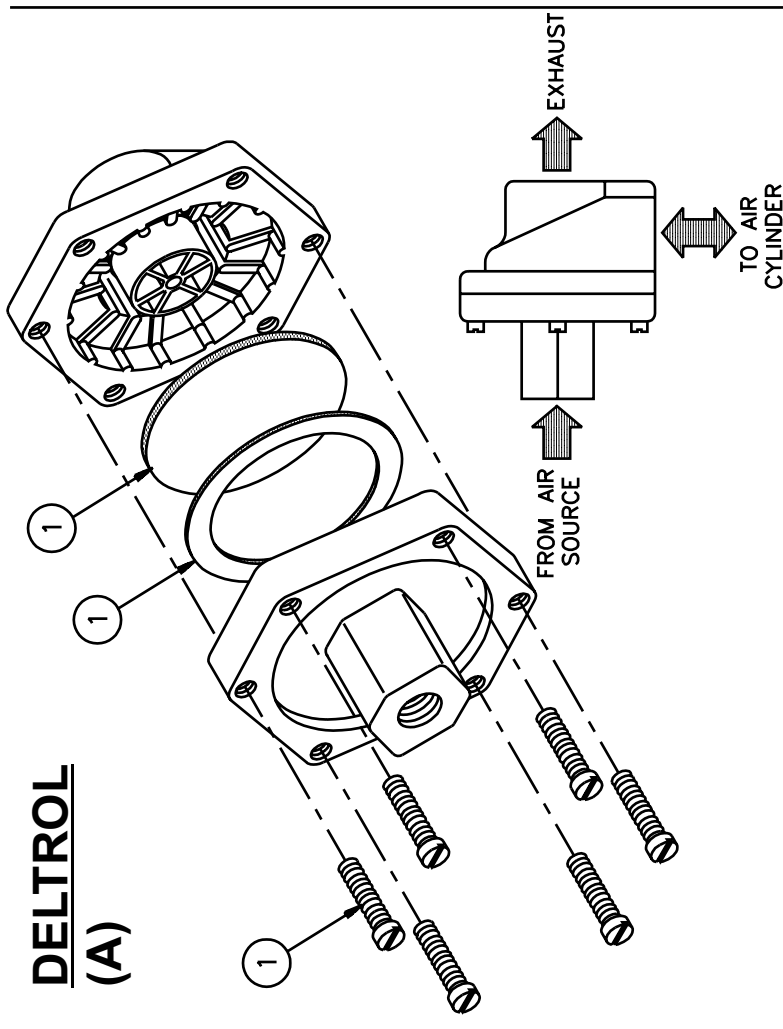
Quick Exhaust Valves

BMP701406/2002382V
(Sheet 1 of 2)

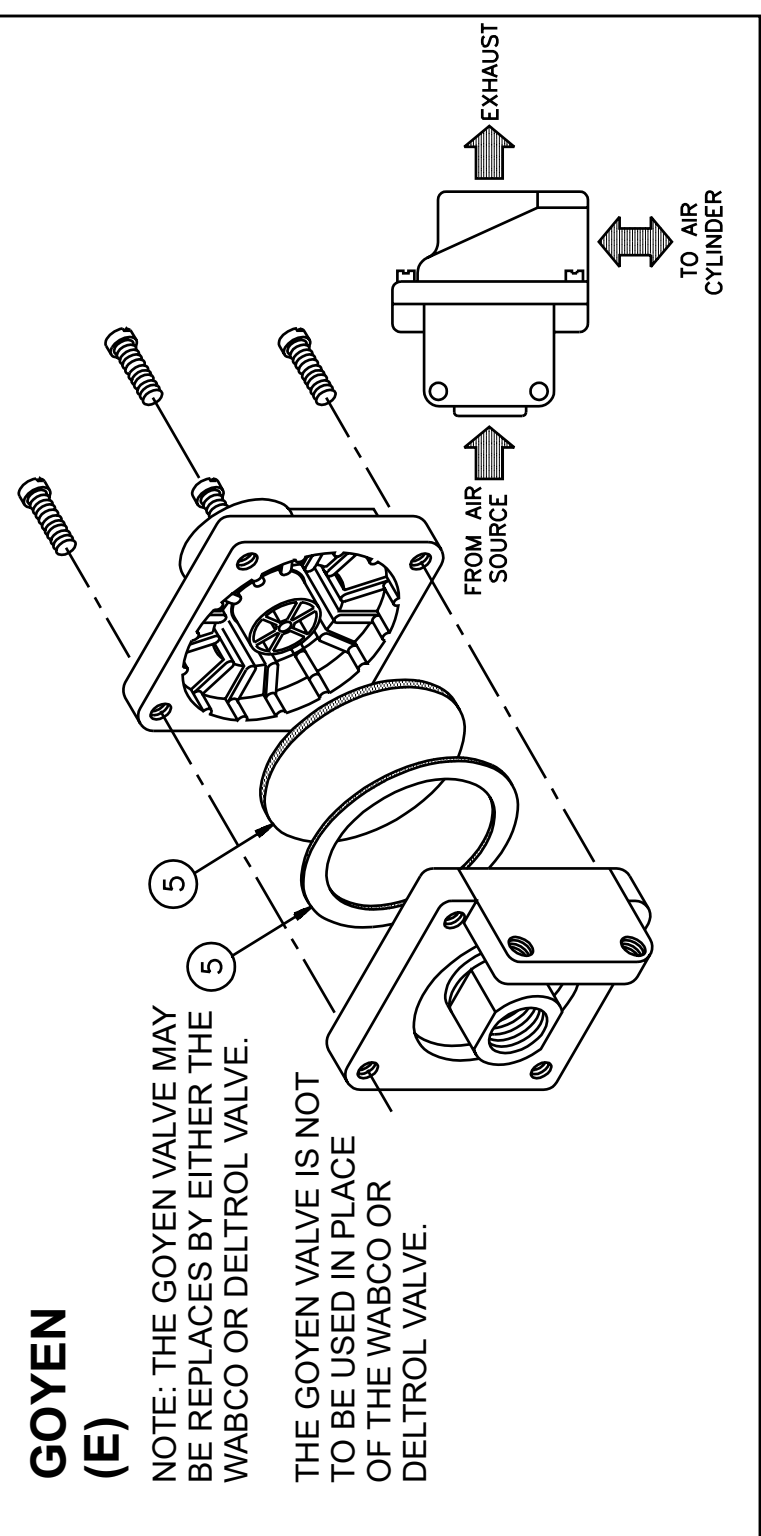


Pellerin Milnor Corporation
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Litho in U.S.A.



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



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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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

3-Way Pilot Valves

BMP900032/91182V
(Sheet 1 of 1)



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BMP900032/91182V (1 of 1)

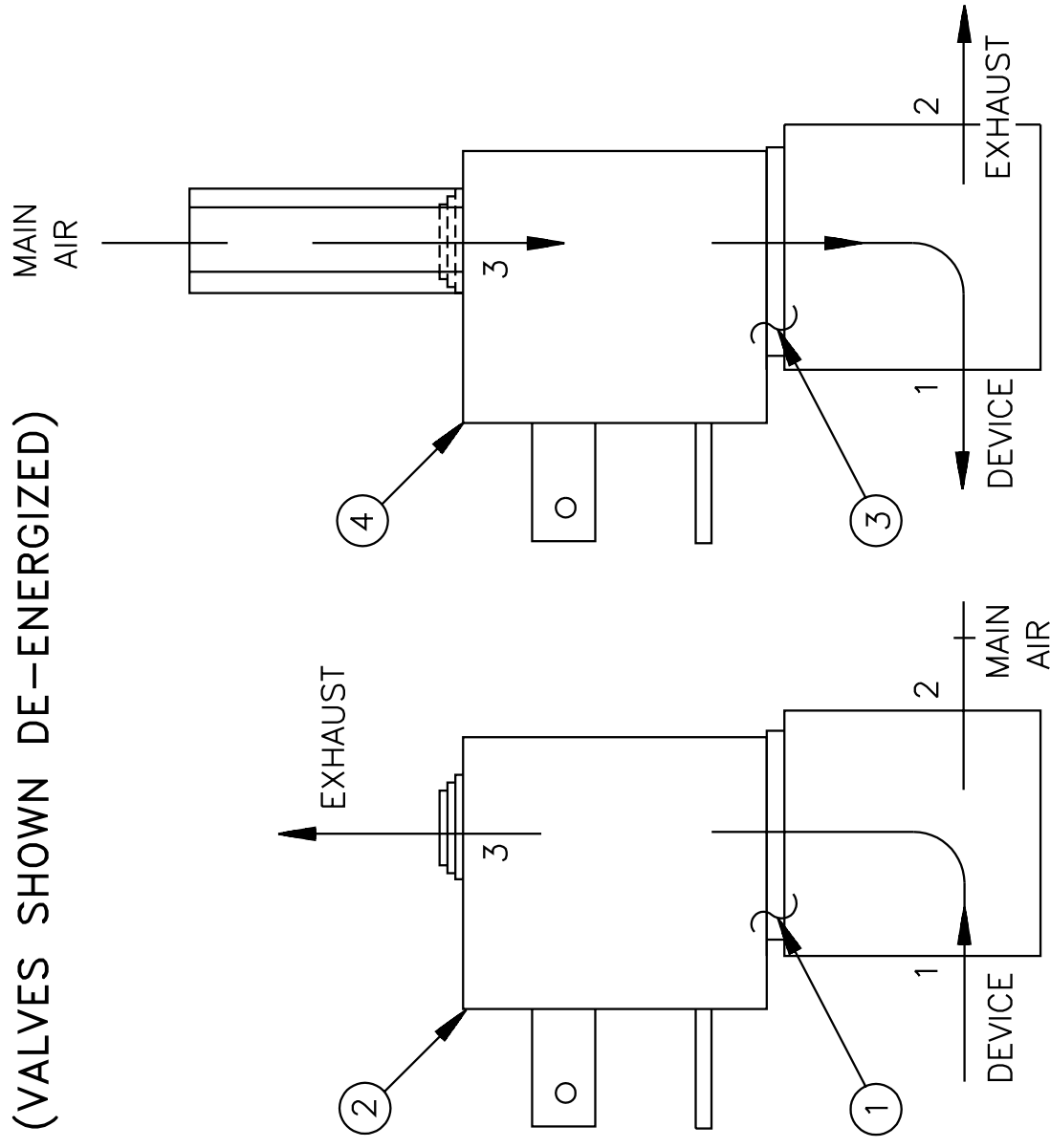
Litho in U.S.A.

(VALVES SHOWN DE-ENERGIZED)

Parts List—3-Way Pilot 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	
			none	
			COMPONENTS	
all	1	96R301A37	05Z 1/8" AIRPILOT 3W NC 120V/50/60	
all	1	96R301A24	06Z 1/8" AIRPILOT 3W NC 24V/50/60	
all	3	96R302A37	06Z 1/8" AIRPILOT 3W NO 120V/50/60	
all	3	96R302A24	07Z 1/8" AIRPILOT 3W NO 24V/50/60	



NORMALLY
CLOSED

NORMALLY
OPEN

FOR REPAIR OR REPLACEMENT PARTS FOR PILOT VALVES
USED ON WASHER EXTRACTORS GENERALLY PRIOR TO
JUNE 1, 1985, SEE BMP701359.

B SETTING LIMIT SWITCHES

Limit Switches—Including Microswitches— Will Be Damaged If Over-actuated!

Any limit switch will be damaged if it bottoms out forcefully. This can bend the rotary shaft or damage internal components and may cause the switch to stick in one position either permanently or intermittently. Be aware that an intermittently sticking switch can be mistaken for a malfunctioning microprocessor!

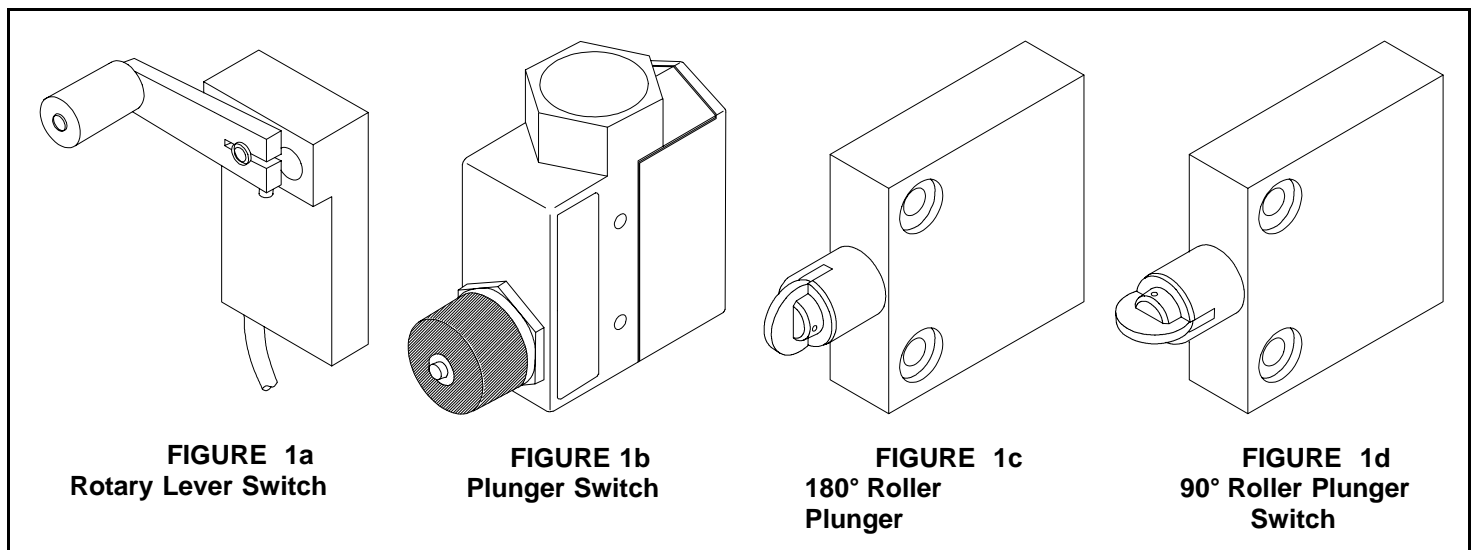


FIGURE 1 (MSSM0116AE)
Limit Switch Types

⚠ WARNING ⚠

Limit switches must function properly to ensure the safe operation of the machine.

- ☞ Inspect switches regularly.
- ☞ Never operate a machine with a malfunctioning limit switch.

Setting Switches

Travel of Rotary Lever or Plunger—Set switch and target so that after the switch contacts close (as determined by an ohmmeter), the lever or plunger will then move approximately half of its additional available travel (see FIGURE 2).

NOTE: It is impossible to determine by feel, sound, or experience at what point the switch contacts make. The only reliable method is to use an ohmmeter. Switches may also be bench-tested, and the plunger or rotary shaft scribed to mark this point.

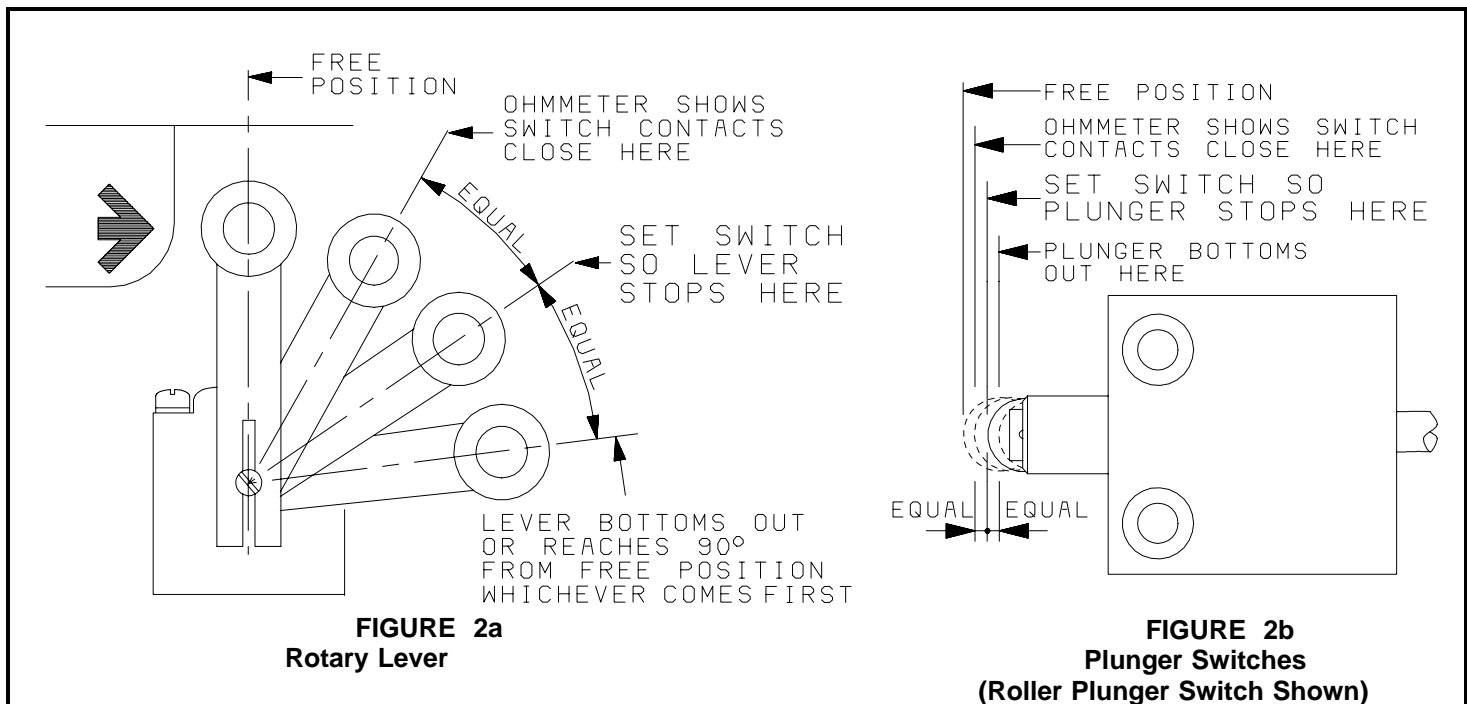


FIGURE 2 (MSSM0116AE)
Where Lever or Plunger Should Stop

Free Position of Rotary Lever—Attach the rotary lever to the shaft so that, in the free position, the lever is at a right angle to the direction of relative movement between the switch and target (see FIGURE 3).

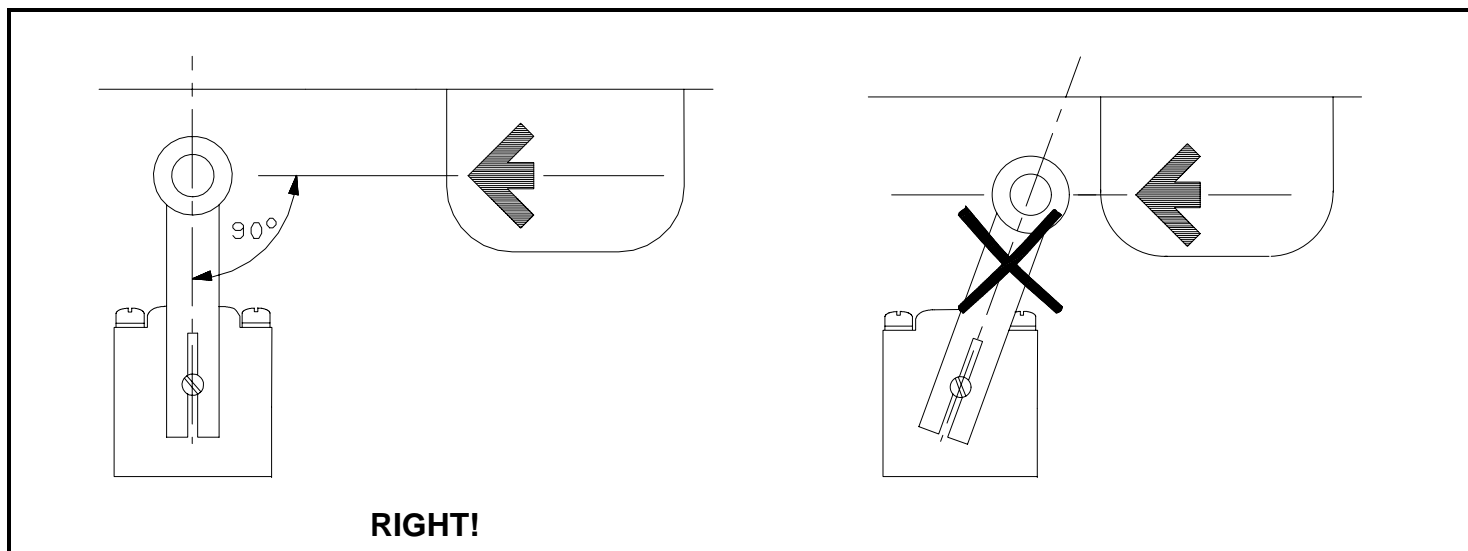


FIGURE 3 (MSSM0116AE)
Free Position of Rotary Lever

Angle of Switch—Set a plunger switch so that the target and plunger move parallel to each other. It will be approximately correct when properly installed on its mounting bracket, but may require fine adjustment.

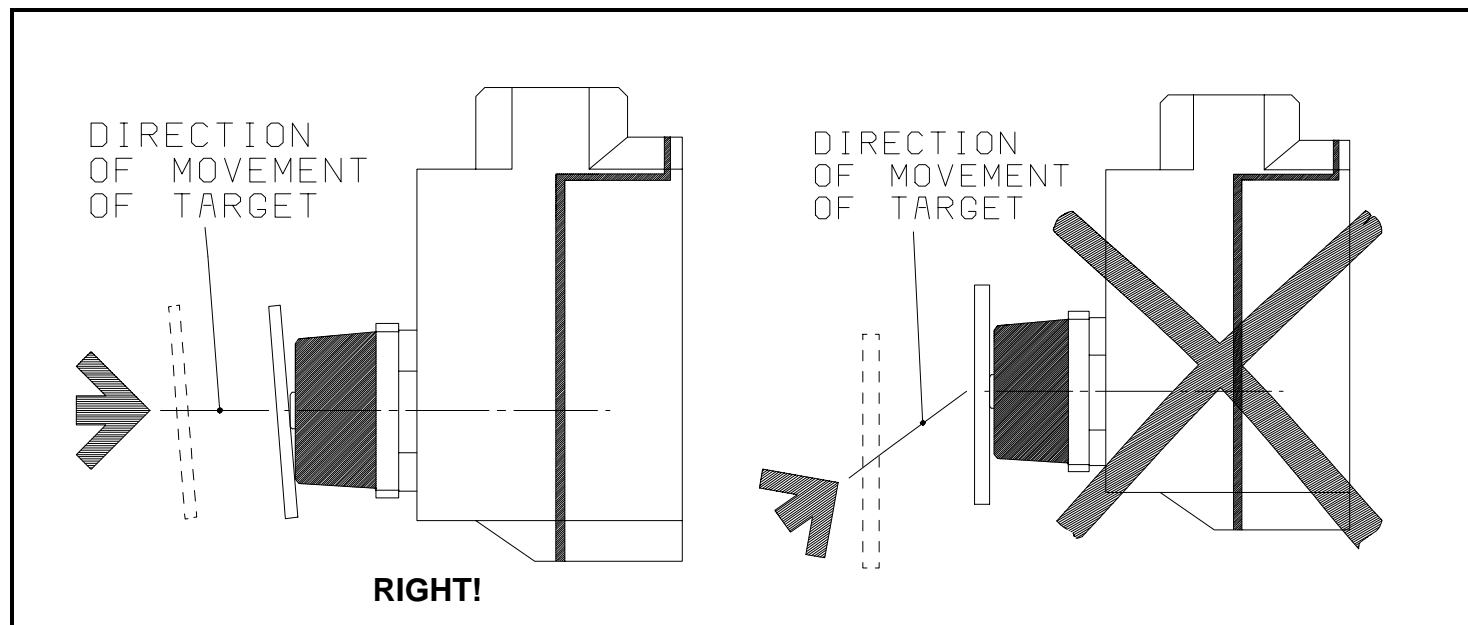


FIGURE 4 (MSSM0116AE)
Plunger Switch Angle

With a roller plunger switch, make sure that the roller rotates in the direction that will accommodate the movement of the target (not at a right angle to the target movement). Also, be sure that a replacement switch has the roller oriented the same way as the switch it replaces (see FIGURE 5).

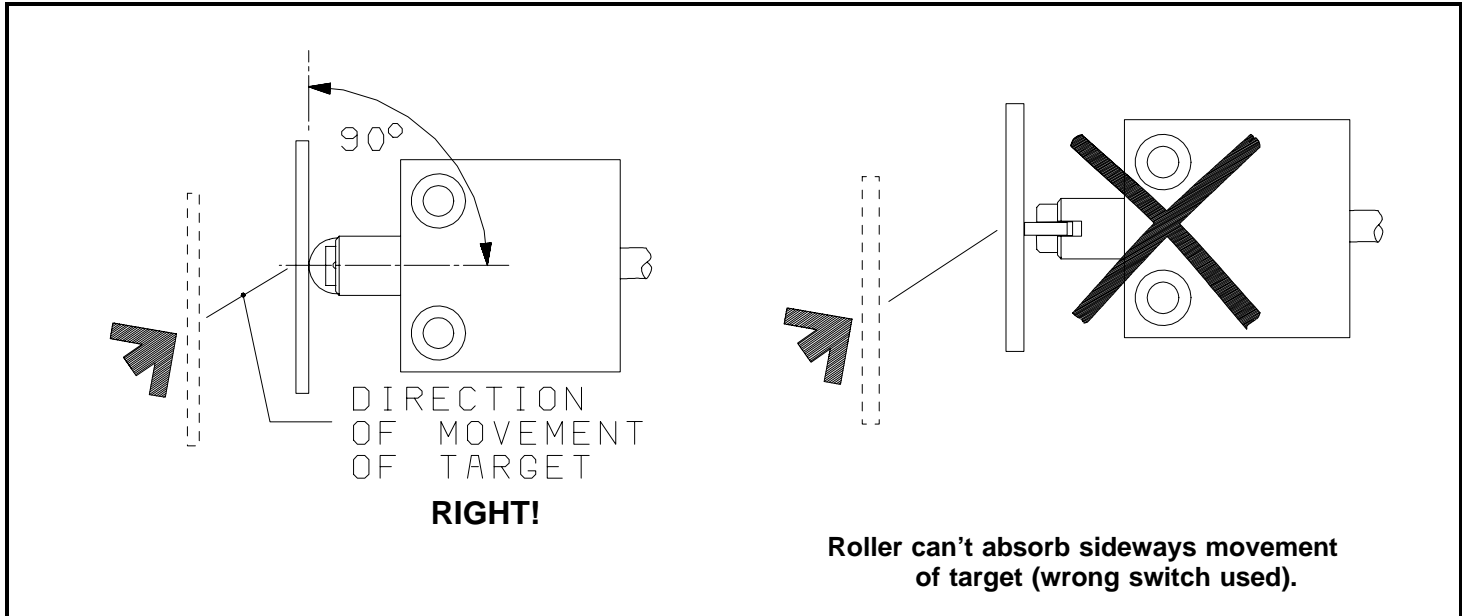


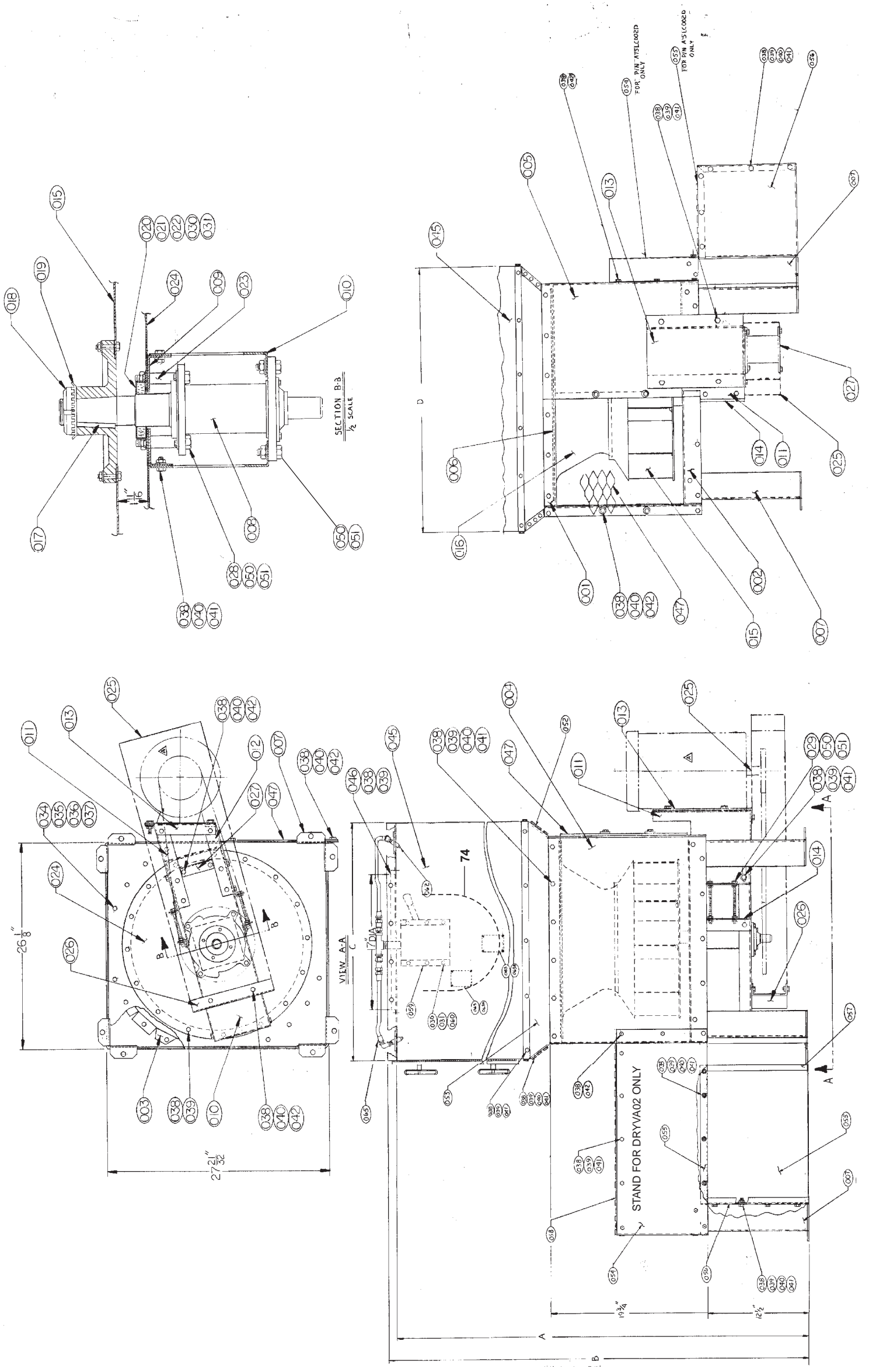
FIGURE 5 (MSSM0116AE)
Roller Plunger Switch Angle

Lint Collector Assembly
 DRYVAC01, DRYVAC02

BMP070007/2013305B
 (Sheet 1 of 3)

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

Litho in U.S.A.



Lint Collector Assembly

DRYVAC01, DRYVAC02



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

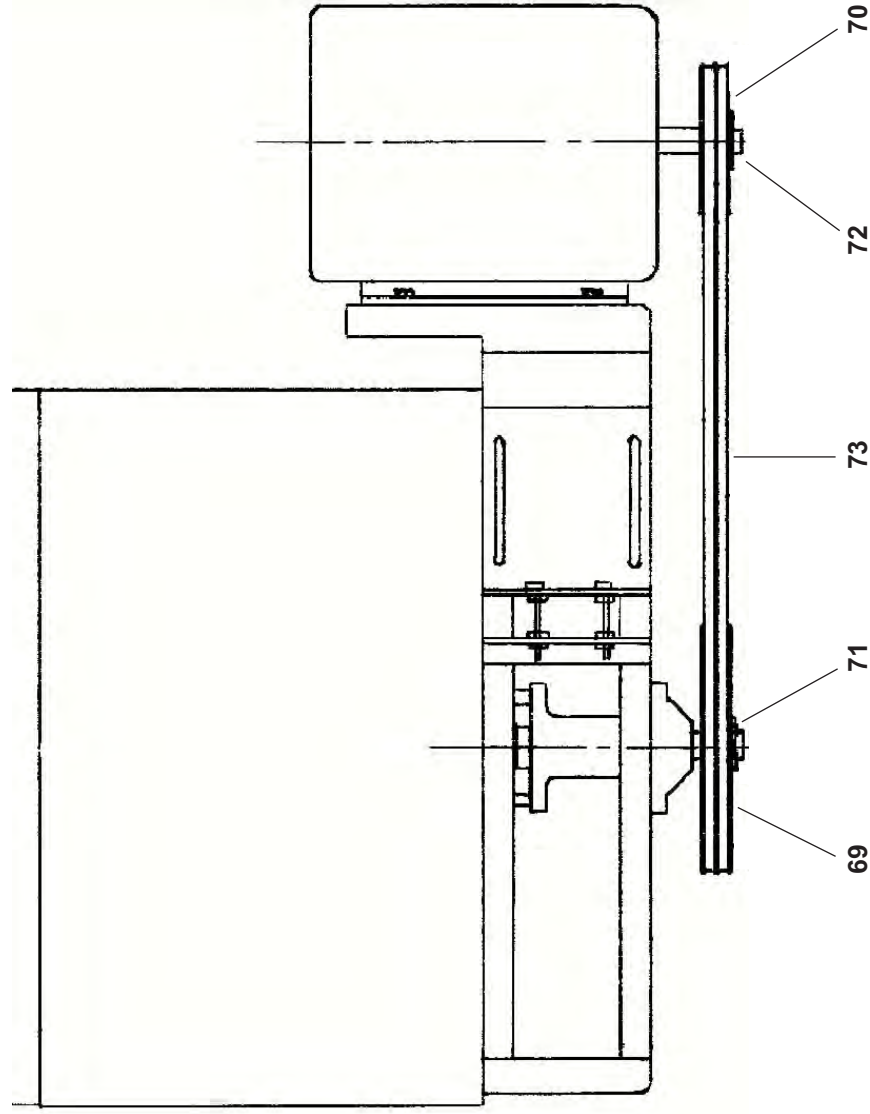
Litho in U.S.A.

BMP070007/2013305B
(Sheet 2 of 3)

Parts List—Lint Collector 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		A75LC002B	*LINT COLLECTOR ASSY-DRYVAC	DRYVAC01
B		A75LC002D	*36X36 LINT COLLECT ASSY-DRYV	DRYVAC02
C		D75 00250	DRIVE CHART FOR DRYVAC 50CYC	DRYVAC01 50 CYC
D		D75 00260	DRIVE CHART FOR DRYVAC 60CYC	DRYVAC01 60 CYC
E		D75-00350	MK2 DRIVE CHART DRYVAC 50CYC	DRYVAC02 50CYC
F		D75 00360	MK2 DRIVE CHART DRYVAC 60CYC	DRYVAC02 60CYC
			-----COMPONENTS-----	
all	1	W7 50705	*TOP BLOWER WELDMENT	
all	2	W7 50706	*BOTTOM BLOWER WELDMENT	
all	3	07 50707	WRAPPER BLOWER-LINT BOX	
all	4	07 50708	BLOWER ENCLOSURE-LINT BOX	
all	5	07 50709	BLOWER ENCLOSURE-OUTLET SIDE	
all	6	07 50710	BLOWER INLET COVER-LINT BOX	
all	7	07 50711	LEG-LINT COLLECTOR BOX	
All	8	A75BG004	BLW BRG HSE ASSY=2001354	
all	9	07 50712	CHANN-BRG MT UPPER BLOWER	
all	10	W7 50713	WLDMT-BRG MT LOWER BLOWER	
all	11	07 50714	BKT-BLOWER BELT ADJ-RH	
all	12	07 50715	BKT-BLOWER BELT ADJ-LH	
all	13	07 50716	MOTOR MOUNTING PLATE	
all	14	07 50252	ANGLE=BELT ADJ BLOWER MOTOR	
all	15	13E203T	BLOWER WHL 20"CL-3 CW TAPERHUB	
all	16	07 50477	+20" DIA INLET NOZZLE	
all	17	15E225	SQMACHKEY 3/8X1+1/2 NOTAPER-NO	
all	18	56AHN08	N08 BEARING LOCKNUT	
all	19	56AHW108	TW108 BEARING LOCKWASHER	
all	20	07 50286	BLOWER SHAFT SEAL CAP	
all	21	07 50287	BLOWER SHAFT FELT SEAL	
all	22	07 50288	BLOWER SHAFT TEFLON SEAL	
All	23	07 50184	BLWR BRG HSE SPACE SH=00143	
all	24A	07 50727	BLOWER COVER PLATE-LINT BOX	
all	24B	07 50727A	BLOWER SEAL RETAINER	



DRIVE CHART



Pellerin Milnor Corporation
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Litho in U.S.A.

Parts List—Lint Collector 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
all		25	A75LC004	*BELT GUARD-LINT BOX ASSY	
all		26	07 50717	BRKT-BELT GUARD-LINT BOX	
all		27	07 50262A	BRACKET=DRYVAC BELT GUARD	
all		29	15K202	HEXCAPSCR 1/2-13UNC2AX5 GR5	
all		30	15K039	HXCAPSCR 1/4-20UNC2AX3/4 GR5	
all		31	15U180	LOCKWASHER MEDIUM 1/4 ZINCPL	
all		34	15K060	HXCAPSCR 5/16-18UNCAX3/4 GR5	
all		35	15U200	FLATWASHER(USS STD) 5/16"ZNC	
all		36	15U210	LOKWASHER MEDIUM 5/16 ZINCPL	
all		37	15G185	HXNUT 5/16-18UNC2B SAE ZINC GR	
all		38	15K095	HXCPCSCR 3/8-16UNC2AX1 GR5 ZINC	
all		39	15U255	LOCKWASHER MEDIUM 3/8 ZINCPL	
all		40	15U240	FLATWASHER(USS STD) 3/8" ZNC	
all		41	15G205	HXNUT 3/8-16UNC2B ZINC GR2	
all		42	17N070P	RETAIN NUT 3/8-16 #S10100-27	
all		43	15K105	HXCAPSCR 3/8-16UNC2A1.25 GR5	
A		45	A75LC002A	LINT COLLECTOR BOX ASSY	
B		45	A75LC002C	*36X36 LINT COLLECT BOX ASSY	
All		46	X7 50750	FLANGE=17" DIA DUCT MACHINED	
all		47	07 50753	BLOWER OUTLET COVER-DRYVAC	
all		48	20C041	SUPRFLXSIL ADH SEAL RED 10.2OZ	
all		50	15U300	LOKWASHER REGULAR 1/2 ZINC PLT	
all		51	15G230	HXNUT 1/2-13UNC2B SAE ZINC GR2	
B		52	07 50771	36X36 DRYVAC ADAPTER FRAME	
B		53	07 50771A	36X36 DRYVAC ADAPTER FRAME	
B		54	07 50772	36X36 DRYVAC STEP FRAME WRAP	
B		55	07 50769A	36X36 DRYVAC SIDE STEP	
B		56	07 50773	36X36 DRYVAC STEP SPPT RT	
B		57	07 50773A	36X36 DRYVAC STEP SPPT LF	
B		58	07 50769	36X36 DRYVAC STEP	
A		59	A75SM001A	*SPRINKLER SYSTEM ASSY-DRYVAC	

Used In		Item	Part Number	Description	Comments
B		59	A75SM001B	*SPRINKLER SYSTEM ASSY-36X36	
all		60	15G165	HXNUT 1/4-20UNC2BSAE ZC Gr2	
all		61	15U185	FLATWASHER(USS STD) 1/4" ZNC	
A		62	A75LC007	DRYVAC PRESSURE SWITCH ASSY	
B		62	A75LC008	36X36 PRESSURE SWITCH ASSY	
all		63	15J065	POPRIVET 5/32 DIA X.425L AL/ST	
all		64	15J065	POPRIVET 5/32 DIA X.425L AL/ST	
A		65	A75VS008	LINT BAG BLOW DOWN PIPE ASSY	
B		65	A75VS008A	BAG BLOW DN PIPE ASSY=36X36	
all		66	15U280C	FLATWASH(US STD)1/2"CLIP+ZNC	
all		67	5SB0E0CBEO	NPTHEXBUSH 1/4X1/8 BRASS 125#	
all		68	53A007B	BODYFEMCON.25X.25COMP#B66A-4B	
All		68	15K191	HXCAPSCR 1/2-13UNC2AX2.5 GR5	
CDEF		69	56094B2H	VPUL 2B9.4/A9.0 2BK100H R EQUAL	
CDE		70	56059B2H	VPUL 2B5.9/A5.5 2BK65H R EQUAL	
F		70	56066B2SDS	VPUL 2A6.2B6.6-SDS TYPE QD	
CDEF		71	56Q1GH	1+3/8" BUSH VPUL TYPE H,D,ORQT	
CDE		72	56Q1GH	1+3/8" BUSH VPUL TYPE H,D,ORQT	
F		72	56Q1GSDS	1+3/8" BUSH VPUL QD TYPE SDS	
CDEF		73	56VB064X	VBELT BX64 EA=1 BELT	
A		74	A75SD017	LINT COLLECTOR BAG 24X36ASSY	
B		74	A75SD017A	LINT COLLECT BAG 36X48 ASSY	