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Mechanical Parts—

Dye Tanks and Heat Exchanger for 64046, 72046, and 72058Jxx

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

PELLERIN MILNOR CORPORATION POST OFFICE BOX 400, KENNER, LOUISIANA 70063-0400, U.S.A.

Please Read

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

When communicating with the Milnor factory regarding this manual, please also provide the other identifying information shown on the cover, including the publishing system, access date, and whether the document ECN's are the latest available or exact.

Best Available Information—This manual contains the most accurate and complete information available when Milnor shipped your machine/software. Products are occasionally released with the best available documentation, even though the device identification (model numbers, etc.) on the documentation does not explicitly include the delivered model. In such cases, use the documentation provided.

Although unlikely, incorrect manuals may have been shipped with your machine. If you believe you received the wrong manuals, or if you need specific information about any aspect of your machine not addressed in the provided documentation, contact the Milnor Customer Service group.

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

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for MAQ72J5NAE/2007044A
Dye Tanks and Heat Exchanger 64046, 72046, and 72058Jxx

ABOUT THIS MANUAL

Scope—This manual provides preventive maintenance, service, and mechanical parts information for your machine. See the safety manual for safety instructions before installing, servicing, or operating this machine. See the installation guide for facility requirements, installation instructions, and assembly instructions. See the operator guide for operator instructions. See the reference manual for programming, operating and troubleshooting instructions. 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/87**39D**V when MATMODELAE/87**46A**V is received (major improvements). But keep MATMODEL**A**E/8746FV when MATMODEL**B**E/8815AV is received, since the new manual no longer applies to machines originally shipped with the old manual.

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About the Forces Transmitted by Milnor® Washer-extractors

Document BIWUUI02
Specified Date 20001108
As-of Date 20001108
Access Date 20001108

Applicability ..... WUU

During washing and extracting, all washer-extractors transmit both static and dynamic (cyclic) forces to the floor, foundation, or any other supporting structure. During washing, the impact of the goods as they drop imparts forces which are quite difficult to quantify. Size for size, both rigid and flexibly-mounted machines transmit approximately the same forces during washing. During extracting, rigid machines transmit forces up to 30 times greater than equivalent flexibly-mounted models. The actual magnitude of these forces vary according to several factors:

- machine size,
- final extraction speed,
- amount, condition, and type of goods being processed,
- the liquor level and chemical conditions in the bath preceding extraction, and
- other miscellaneous factors.

Estimates of the maximum force normally encountered are available for each Milnor® model and size upon request. Floor or foundation sizes shown on any Milnor® document are only for on-grade situations based only on previous experience without implying any warranty, obligation, or responsibility on our part.

1. Rigid Machines

Size for size, rigid washer-extractors naturally require a stronger, more rigid floor, foundation, or other supporting structure than flexibly-mounted models. If the supporting soil under the slab is itself strong and rigid enough and has not subsided to leave the floor slab suspended without support, on grade installations can often be made directly to an existing floor slab if it has enough strength and rigidity to safely withstand our published forces without transmitting undue vibration. If the subsoil has subsided, or if the floor slab itself has insufficient strength and rigidity, a deeper foundation, poured as to become monolithic with the floor slab, may be required. Support pilings may even be required if the subsoil itself is “springy” (i.e., if its resonant frequency is near the operating speed of the machine). Above-grade installations of rigid machines also require a sufficiently strong and rigid floor or other supporting structure as described below.

2. Flexibly-mounted Machines

Size for size, flexibly-mounted machines generally do not require as strong a floor, foundation, or other supporting structure as do rigid machines. However, a floor or other supporting structure having sufficient strength and rigidity, as described in section 3, is nonetheless vitally important for these models as well.

3. How Strong and Rigid?

Many building codes in the U.S.A. specify that laundry floors must have a minimum live load capacity of 150 pounds per square foot (732 kilograms per square meter). However, even compliance with this or any other standard does not necessarily guarantee sufficient rigidity. In any event, it is the sole responsibility of the owner/user to assure that the floor and/or any other supporting structure exceeds not only all applicable building codes, but also that the floor and/or any other supporting structure for each washer-extractor or group of washer-extractors actually

has sufficient strength and rigidity, plus a reasonable factor of safety for both, to support the weight of all the fully loaded machine(s) including the weight of the water and goods, and including the published 360º rotating sinusoidal RMS forces that are transmitted by the machine(s). Moreover, the floor, foundation, or other supporting structure must have sufficient rigidity (i.e., a natural or resonant frequency many times greater than the machine speed with a reasonable factor of safety); otherwise, the mentioned 360º rotating sinusoidal RMS forces can be multiplied and magnified many times. It is especially important to consider all potential vibration problems that might occur due to all possible combinations of forcing frequencies (rotating speeds) of the machine(s) compared to the natural frequencies of the floor and/or any other supporting structure(s). A qualified soil and/or structural engineer must be engaged for this purpose.

Figure 1: How Rotating Forces Act on the Foundation

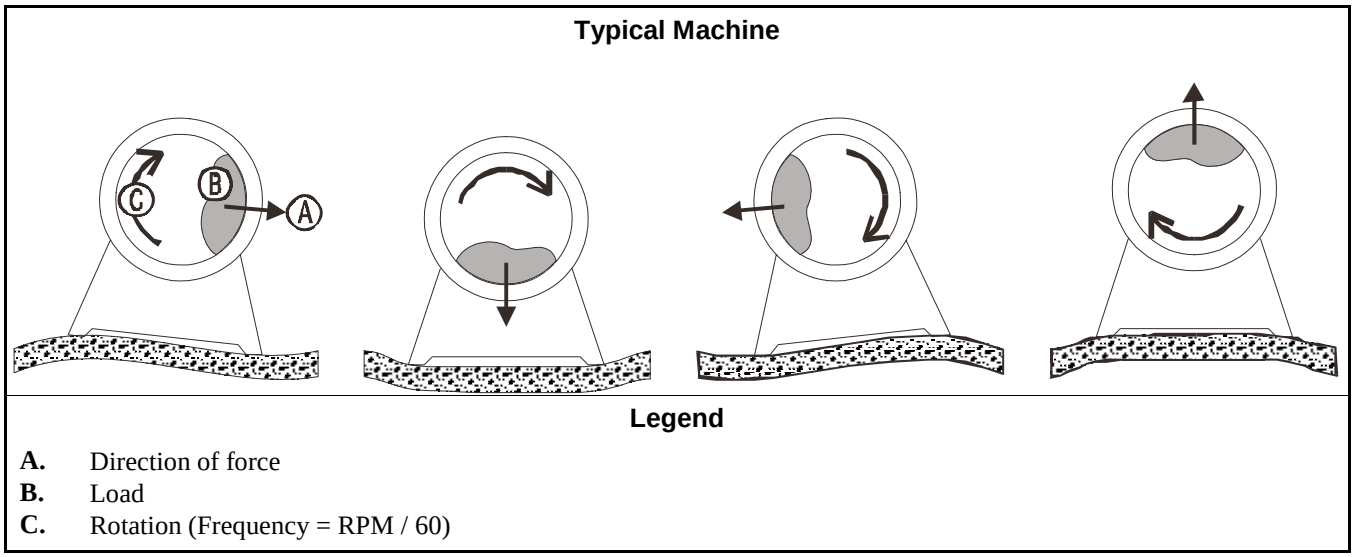


Figure 1 above is intended to depict both on-grade and above-grade installations and is equally applicable to flexibly-mounted washer-extractors, as well as to rigid models installed either directly on a floor slab or on a foundation poured integrally with the slab. Current machine data is available from Milnor® upon request. All data is subject to change without notice and may have changed since last printed. It is the sole responsibility of every potential owner to obtain written confirmation that any data furnished by Milnor® applies for the model(s) and serial number(s) of the specific machines.

— End of BIWUUI02 —

Avoiding Damage From Allied Remote Chemical Delivery Systems

Milnor® does not manufacture or supply remote chemical delivery systems and this document is meant only to illustrate some of the possible problems that can be minimized during installation of such systems by the chemical supply company. Milnor washer-extractors and CBW® batch washers (tunnels) are available with convenient inlets for such systems (see Figure 1). Most common of the types of systems currently used in commercial laundering operations are pumped chemical systems. Other types, such as constant pressure, re-circulating ring main systems have also been, and may continue to be used with Milnor equipment.

This document warns about some of the possible hazards posed by chemical systems and lists certain requirements needed to minimize those hazards. The procedures for interfacing with allied chemical systems and information pertinent to chemical use in general are provided elsewhere in the product manuals (see Note 1).

Figure 1: Pumped Chemical Inlets on CBW Batch Washer

Note 1: Misuse of laundering chemicals (such as injecting excessive concentrations of chlorine bleach or permitting acid sours to react with hypo chlorite) due to incorrect formulation can also be hazardous. Information pertinent to chemical use is provided elsewhere in the product manuals.

1. How a Chemical System Can Damage the Machine It Serves

Milnor has manufactured washer-extractors and tunnel washers with the same stainless steel specification since its founding. Every batch of steel used is certified and documented by the steel mill. Testing of samples damaged by corrosion have, in every case, proven the steel to be well within the AISI 304 specification.

Chemical products commonly found in the laundry industry, when used in **established** dosages and proper operating parameters, under the auspices of an experienced chemical specialist, should produce satisfactory results, with no consequential detrimental effects. The industry has published standards in Riggs and Sherrill, “Textile Laundering Technology”. However, the stainless steel can be damaged and even destroyed by **abnormal** contact with chlorine bleach, hydrofluosilicic acid and other commonly used chemicals, as will occur if chemicals are unintentionally leaked into the machine, particularly when it is no longer in use and especially when machine surfaces are dry.

Some chemical systems have been found to permit chemicals to dribble from the supply lines, or worse, to siphon from the supply tank into the machine, during operation and long after the system is shut down—as after working hours and during weekends. If this occurs, **deterioration (rusting) of the stainless steel and damage to any textiles therein will inevitably result. If this condition goes undetected, machine damage is likely to be catastrophic.** No machine is immune to such damage.

CAUTION 1: Equipment and Textile Damage Hazards—Chemicals leaked into the machine, particularly when it is idle can destroy machine components and textiles left in the machine. **Pellerin Milnor Corporation accepts absolutely no responsibility for damage to its equipment or to textiles therein from abnormal contact with chemicals.**

- Ensure that the chemical system prevents unintentional release of chemicals.
- Inspect regularly for proper operation and evidence of damage.

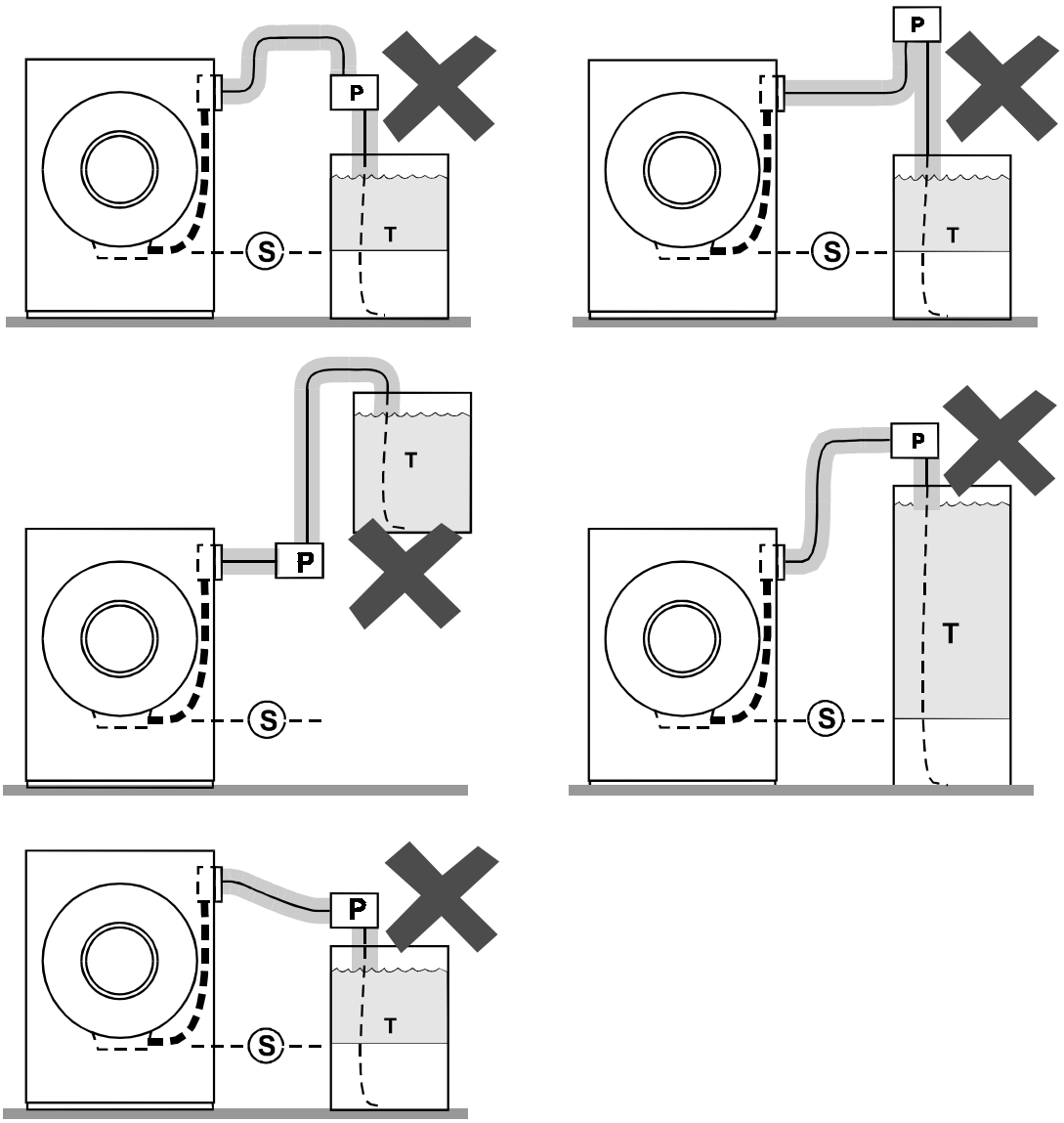
2. Requirements for Chemical Systems Used With Milnor Machines

It is the responsibility of the chemical system manufacturer and supplier to ensure that their system is safe for personnel and equipment. Some important points are described below.

2.1. Ensure the System Cannot Siphon.—The supply system must be designed to counteract any siphoning that could occur as a result of having a sealed supply line between the bottom of the chemical tank and the internal machine connection at the drain trough. As shown in the Figure 2 examples, if the pump (P) and/or the valving does not provide positive closure and there is no vacuum breaker protection, siphoning is likely to occur. In each of the Figure 2 illustrations, the volume of chemical in the tank above the siphon level (S), and indicated by shading, will flow into the machine.

Figure 2: Siphoning From the Chemical Tank into the Machine

Examples

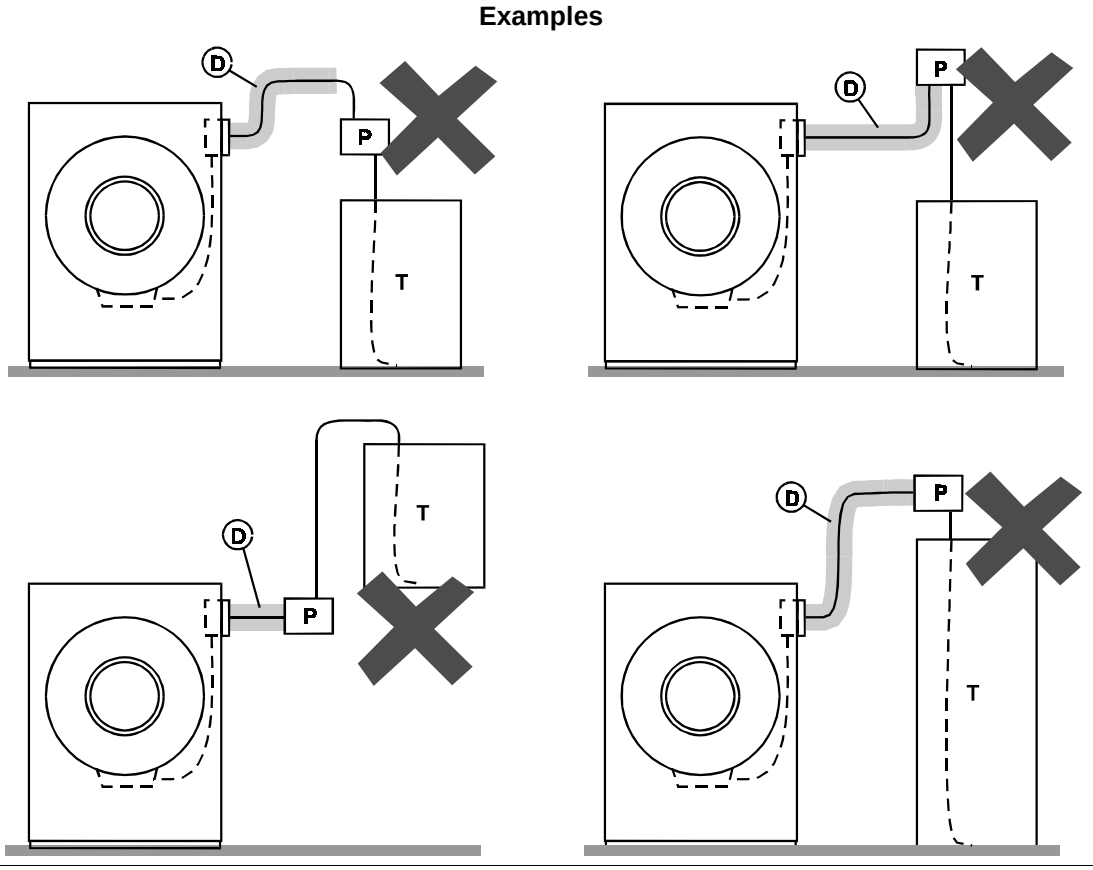


Legend

P. Pump
S. Siphon level. Shading indicates the chemical delivery line and tank content that can siphon into the machine.
T. Chemical tank

2.2. Ensure the Chemical Lines Cannot Dribble—The pumped chemical system may provide a means of positively closing the chemical line at the pump location, but not at the injection site. Hence, any concentrated chemical that remains in the injection line between the pump and the machine is free to flow into the machine. Some examples of this are shown in Figure 3.

Figure 3: Dribbling From Chemical Supply Line Into Machine (assumes positive closure at the pump)



Legend

D. Portion of supply line, the contents of which can dribble into the machine
P. Pump
T. Chemical tank

3. Design and Installation Recommendations

It is the responsibility of the chemical system manufacturer and supplier to use whatever measures are necessary to ensure that their system is safe for personnel and equipment. The following are some of the possible methods the manufacturer or supplier may wish to use, as appropriate.

3.1. Siphoning: Positively close the line.—If the pump does not provide positive closure when the system is off, employ a shutoff valve in the line to serve this purpose.

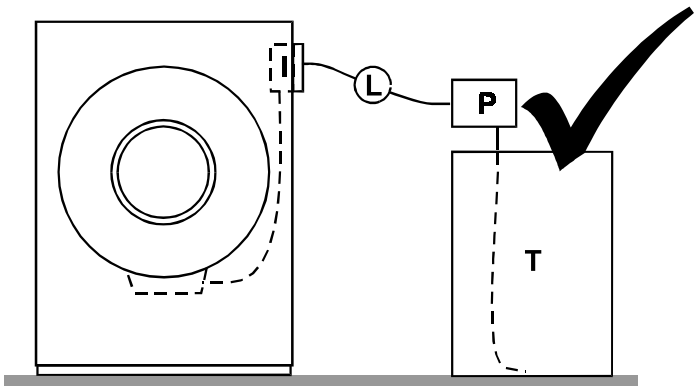
3.2. Siphoning: Break the siphon.—Provide an air gap or vacuum breaker in the chemical delivery line. This must be located above the "full" line of the tank.

3.3. Dribbling: Flush the entire chemical delivery line.—If any concentrated chemical that remains in the injection line between the pump and the machine is free to flow into the machine, employ a system that flushes the entire line between the pump and the injection point with fresh water after each injection.

3.4. Dribbling: Locate the entire chemical line below the machine inlet.—Assuming the chemical system does not retain any line pressure and that the pump provides positive closure when the system is off, locate the entire chemical delivery line below the level of the chemical inlet. An example of this is shown in Figure 4.

Figure 4: Locating a Pumped Chemical System With Positive Closure To Protect Against Machine Damage

Example of Correct Placement



Legend

I. Chemical inlet on machine
L. Chemical delivery line
P. Pump with positive closure when system is off
T. Chemical tank

4. Guarding Against Leaks

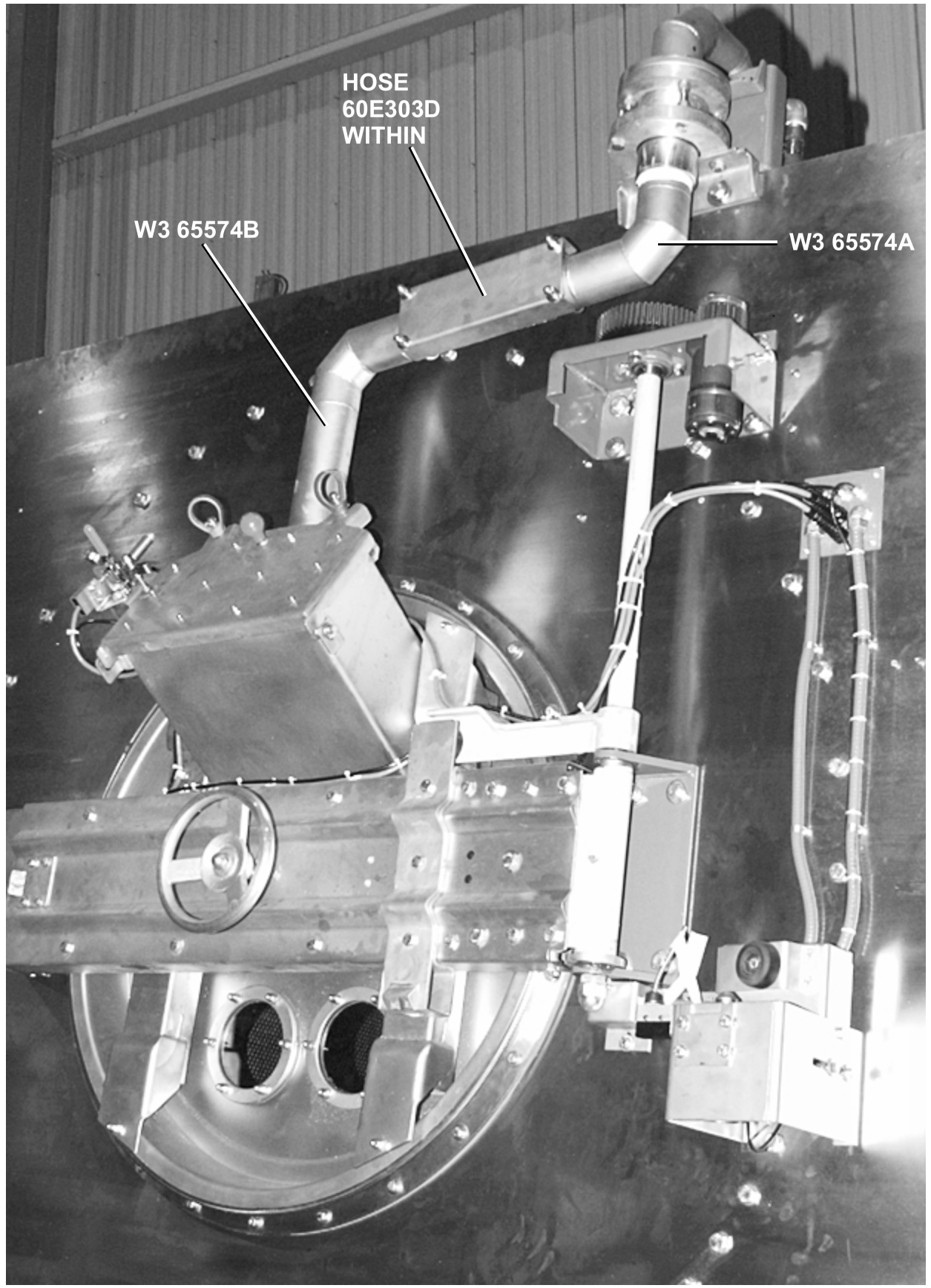
All personnel who may work with the chemical system (e.g., chemical system manufacturer, chemical system supplier, chemical supplier, operator, maintenance personnel) should be vigilant in observing for leaks in the system. When connecting, or reconnecting chemical lines, whether at installation, after taking samples, or when replacing components, at a minimum ensure that:

1. the proper components are used,
2. all connections are the proper fit, and
3. all components are securely connected.

CAUTION 2: Injury and Damage Hazards—Chemicals leaking from a chemical system may be corrosive or toxic. Such chemicals can injure personnel and damage equipment.

- Use care when connecting chemical lines.
- Inspect regularly for leaks.

— End of BIWUUI03 —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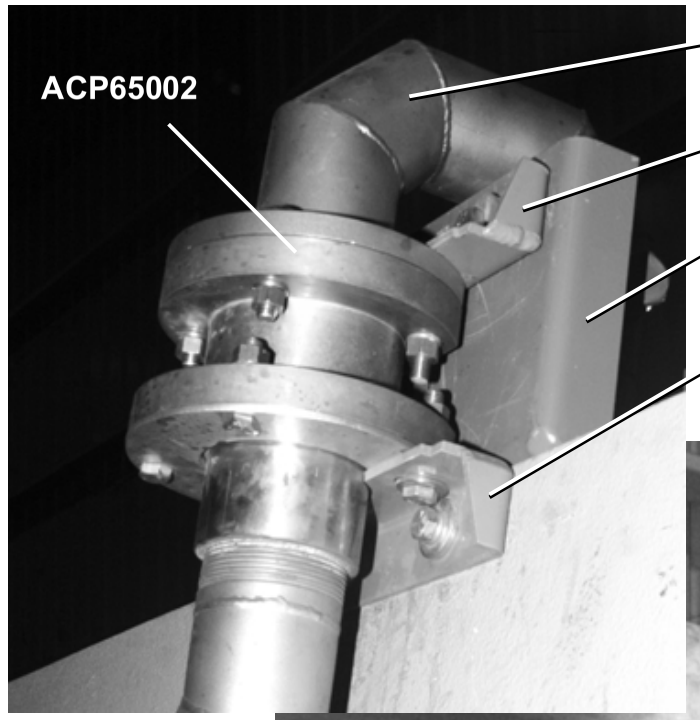
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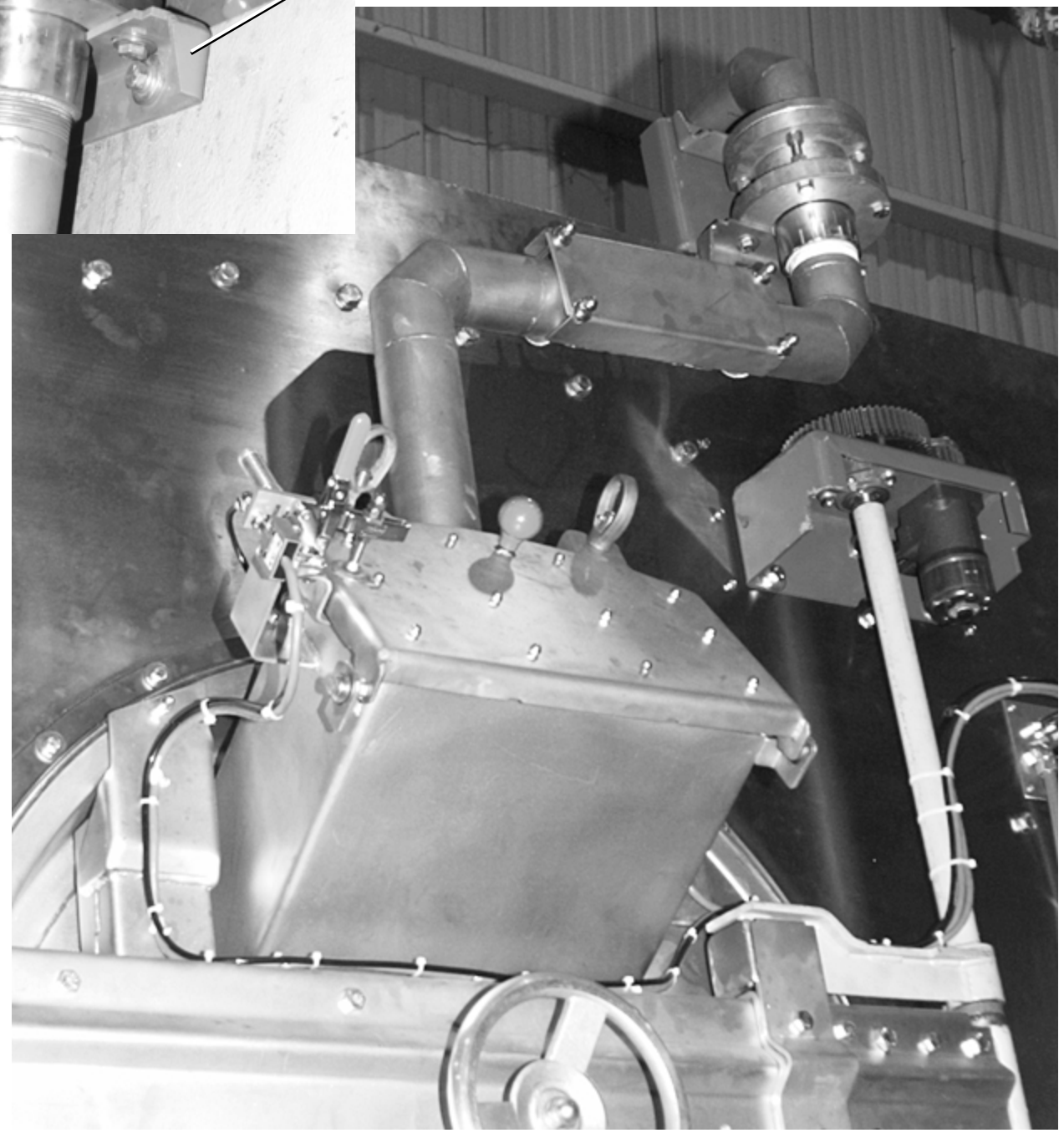

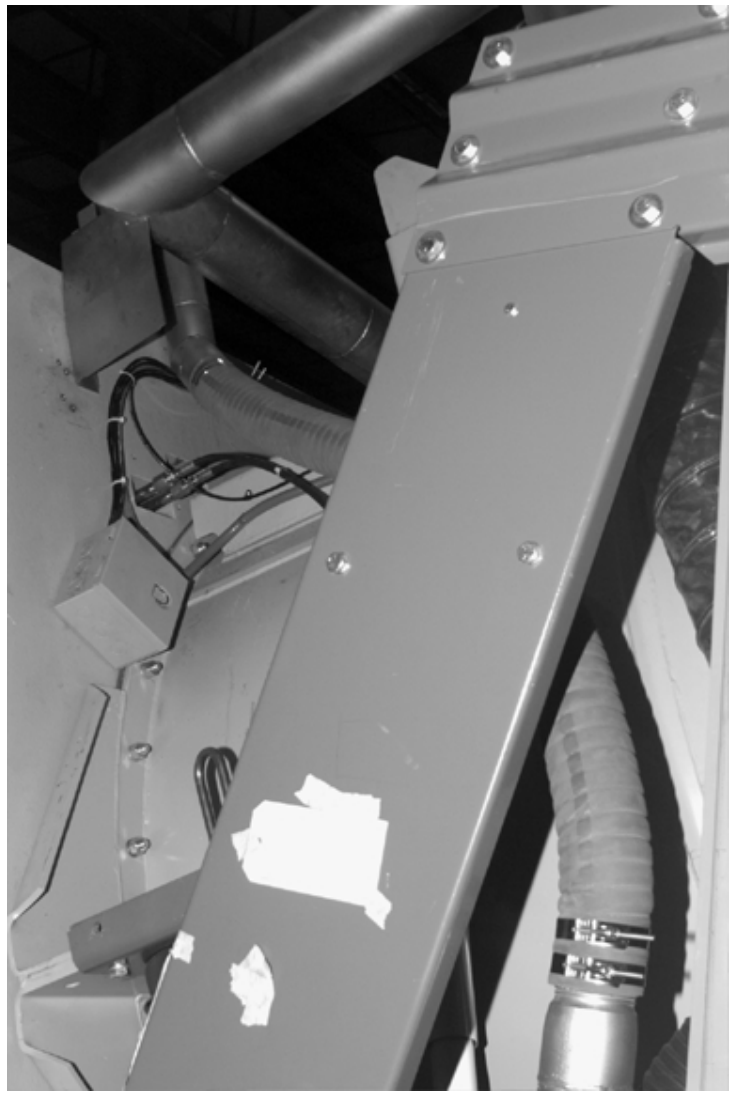

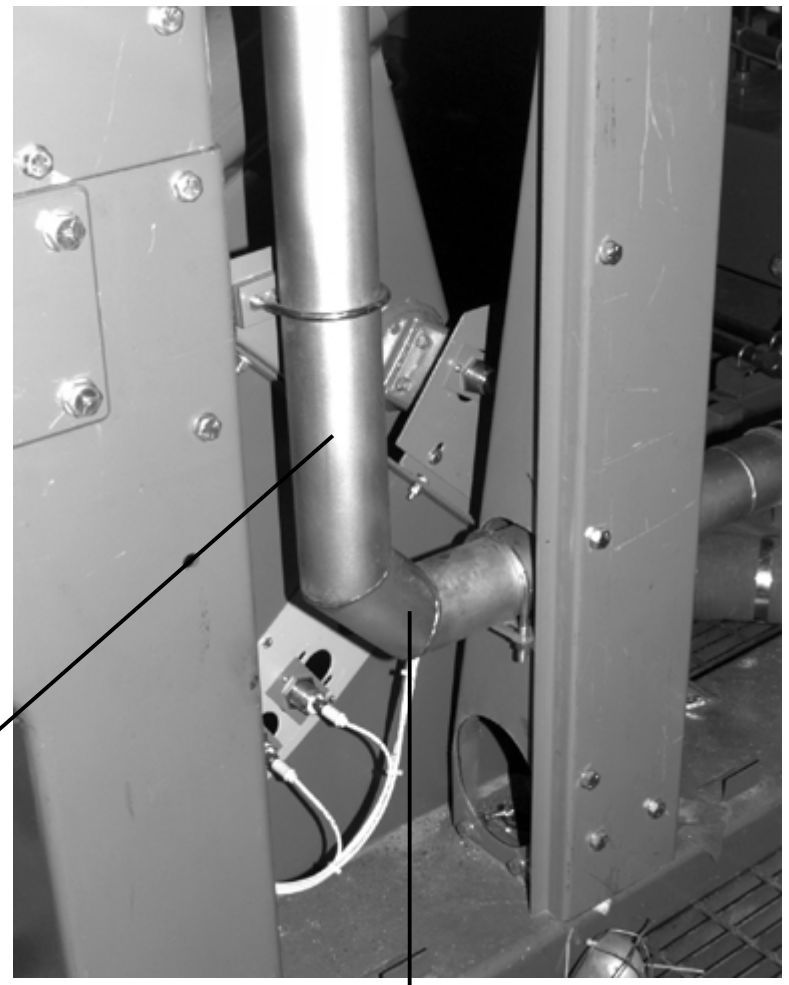
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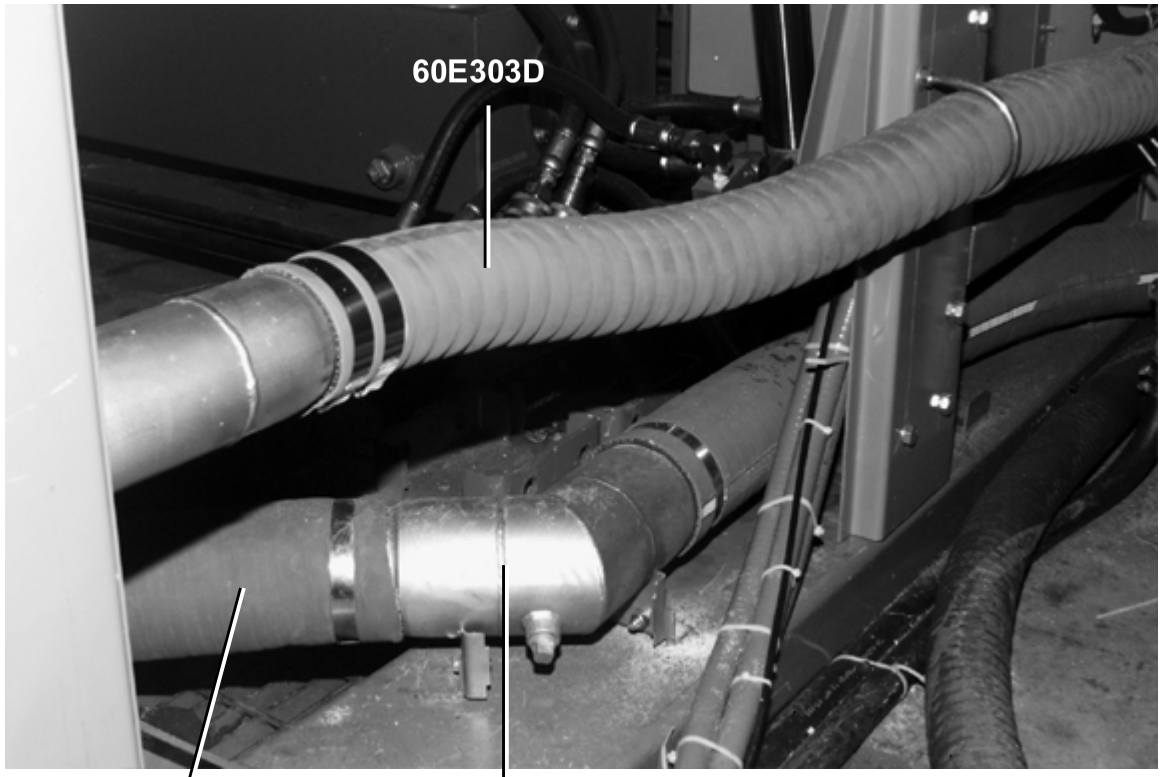
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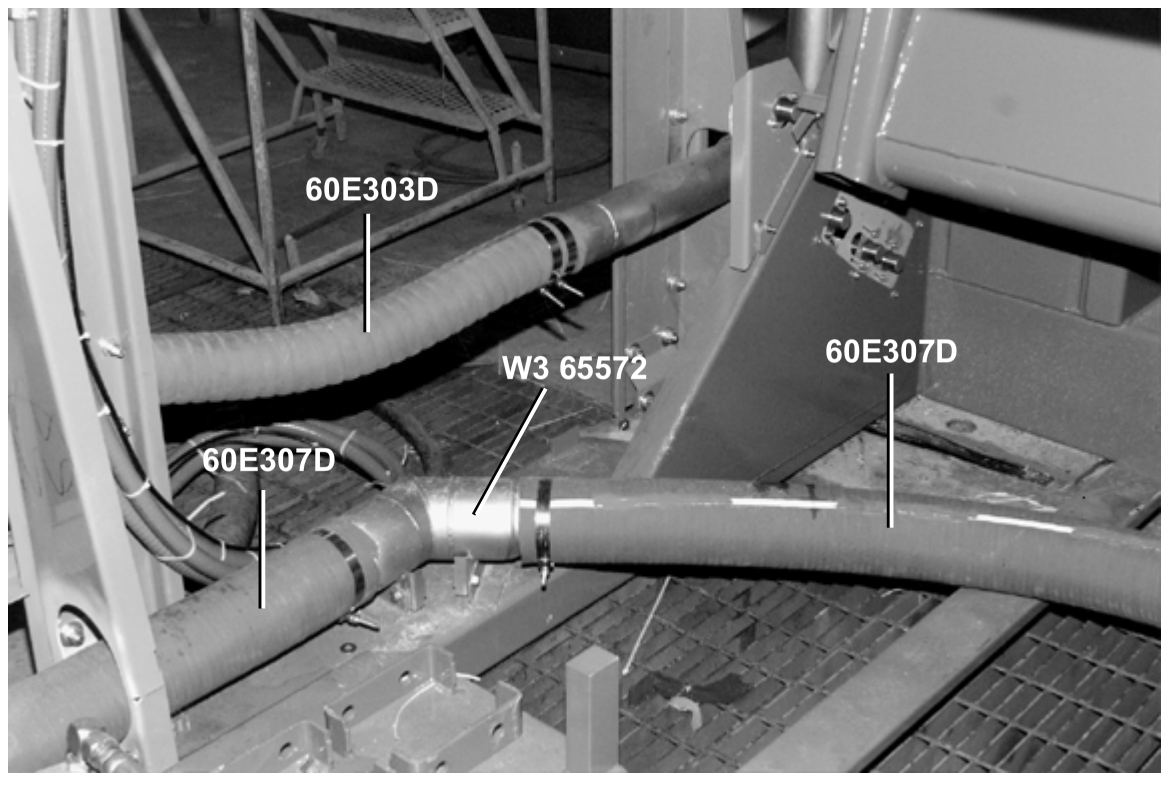
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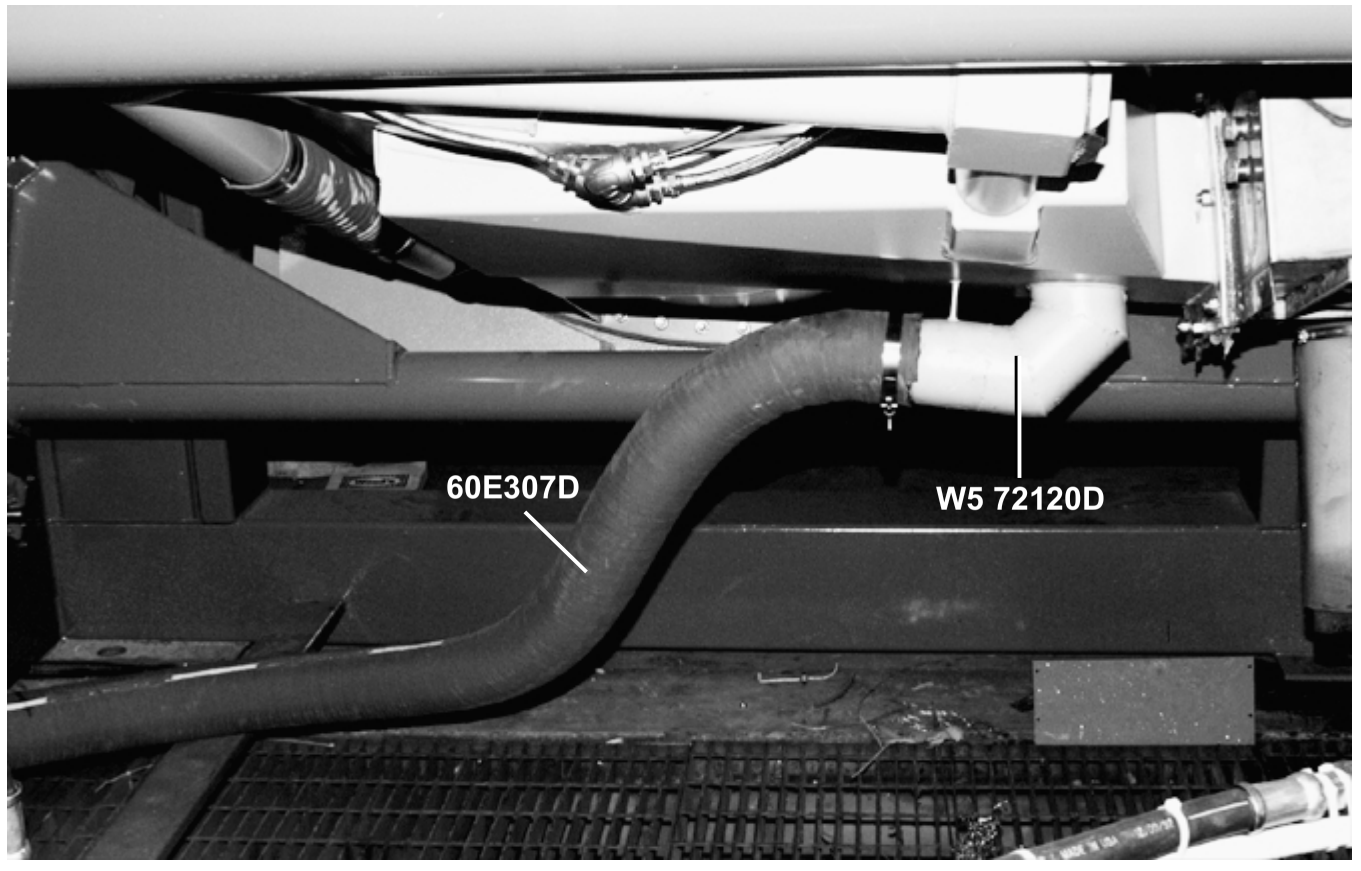
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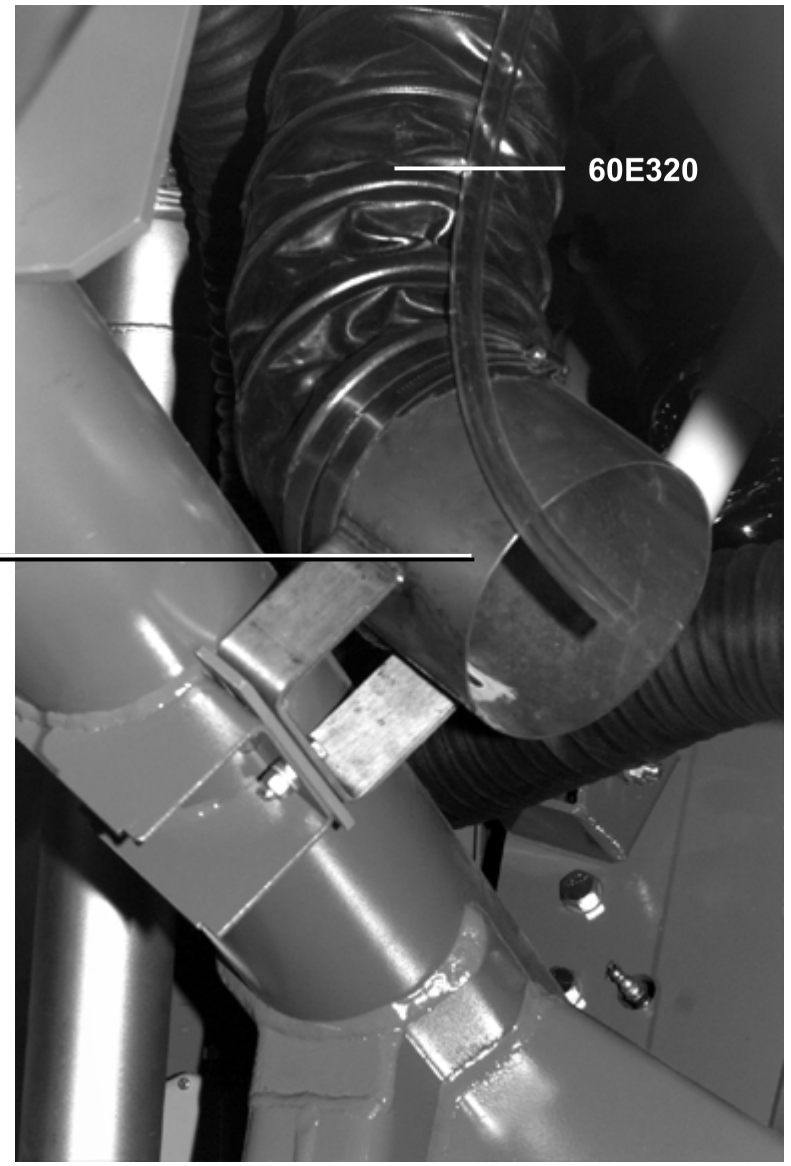
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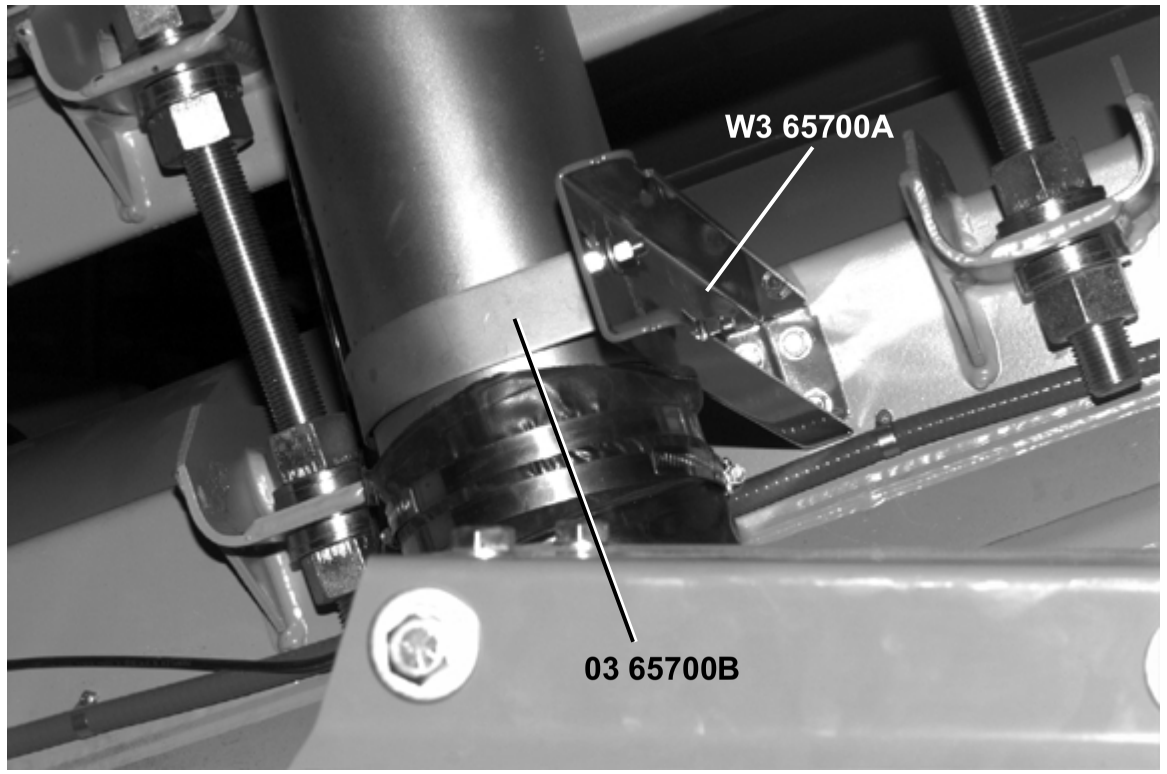
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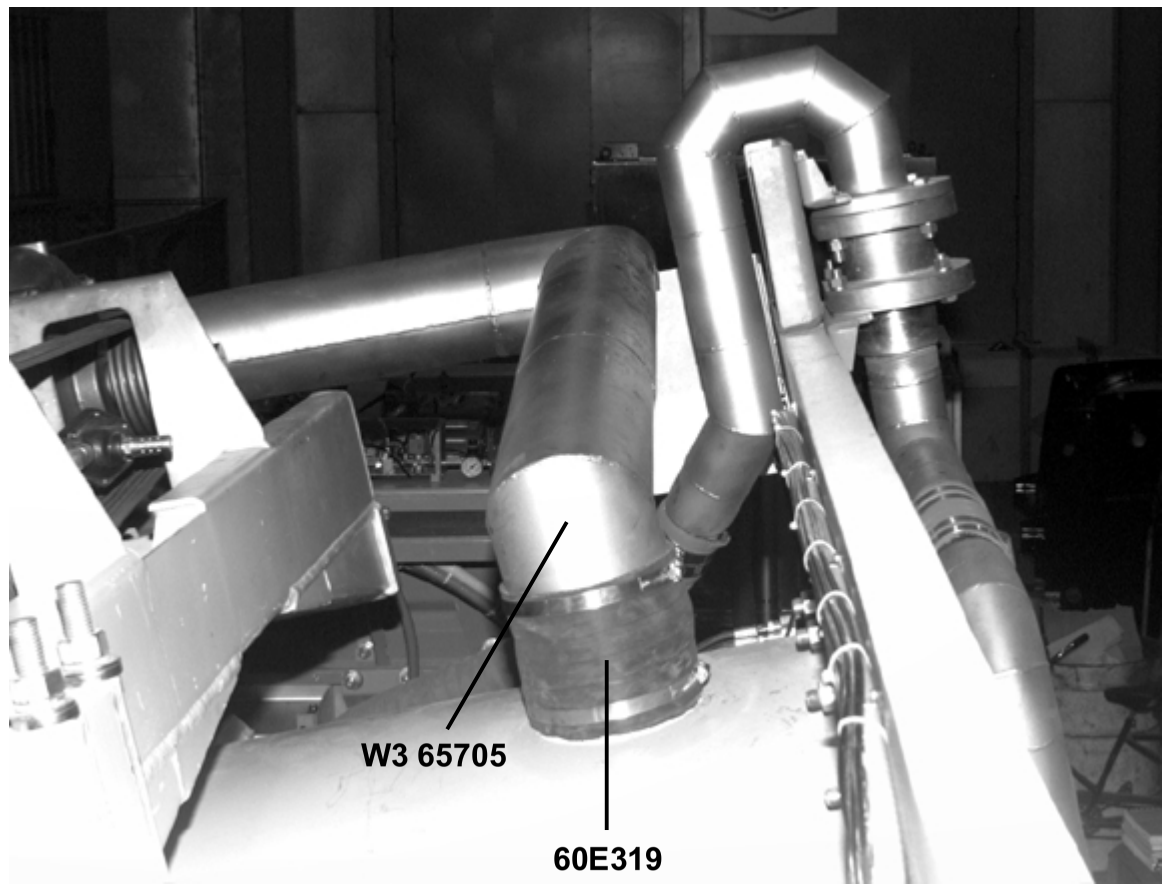
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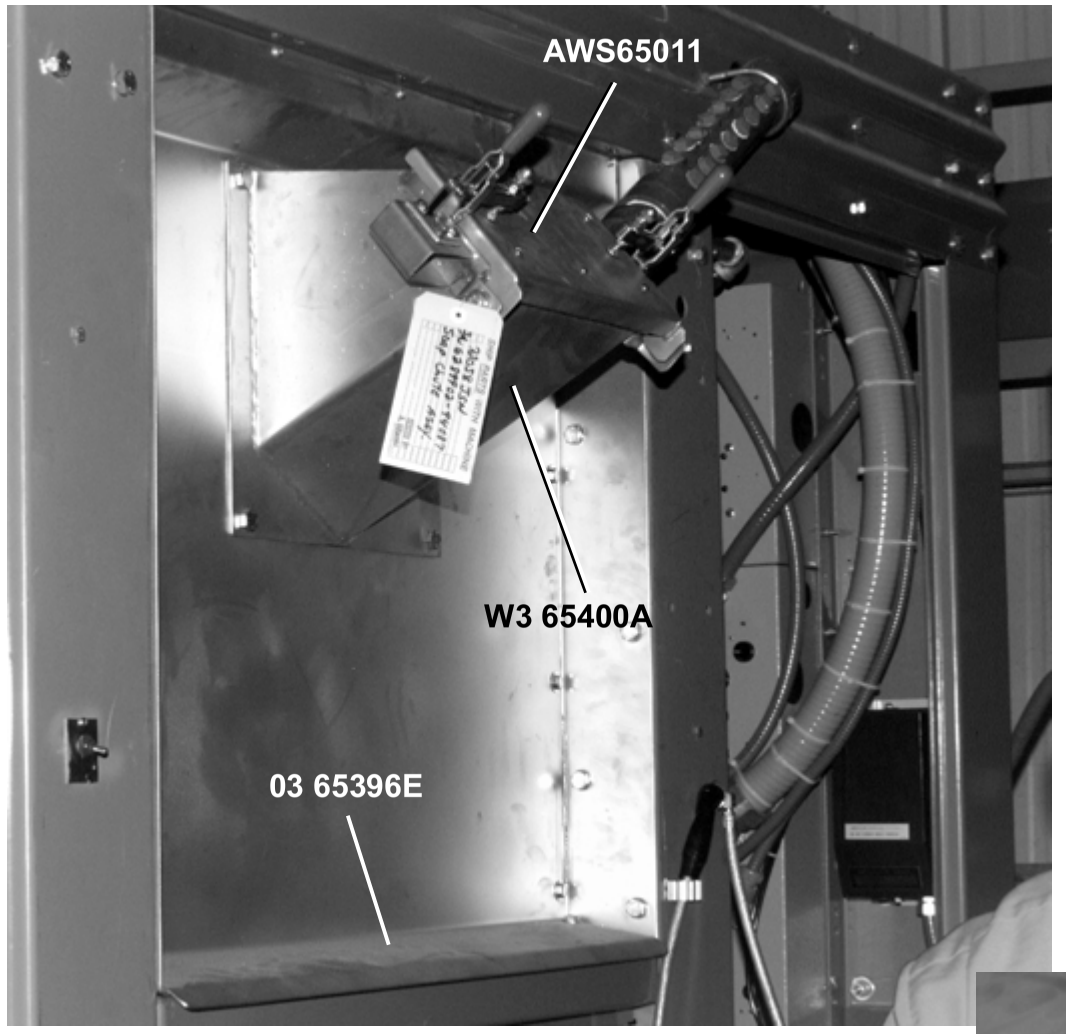

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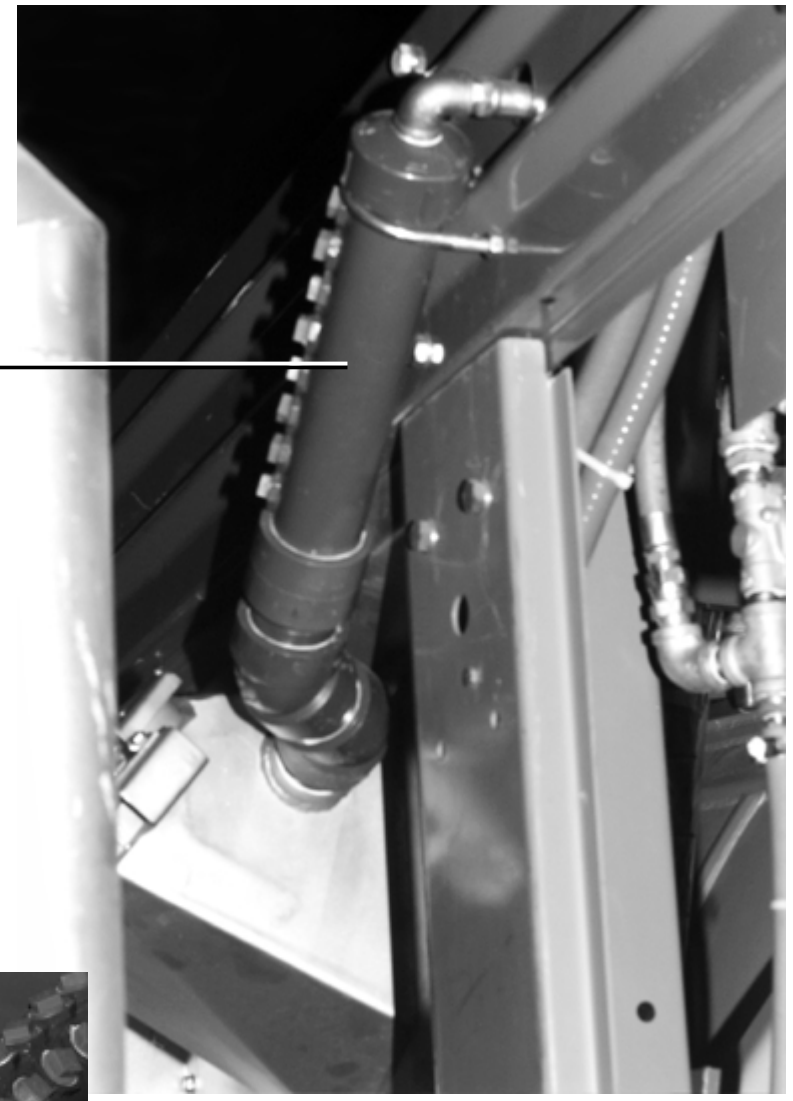

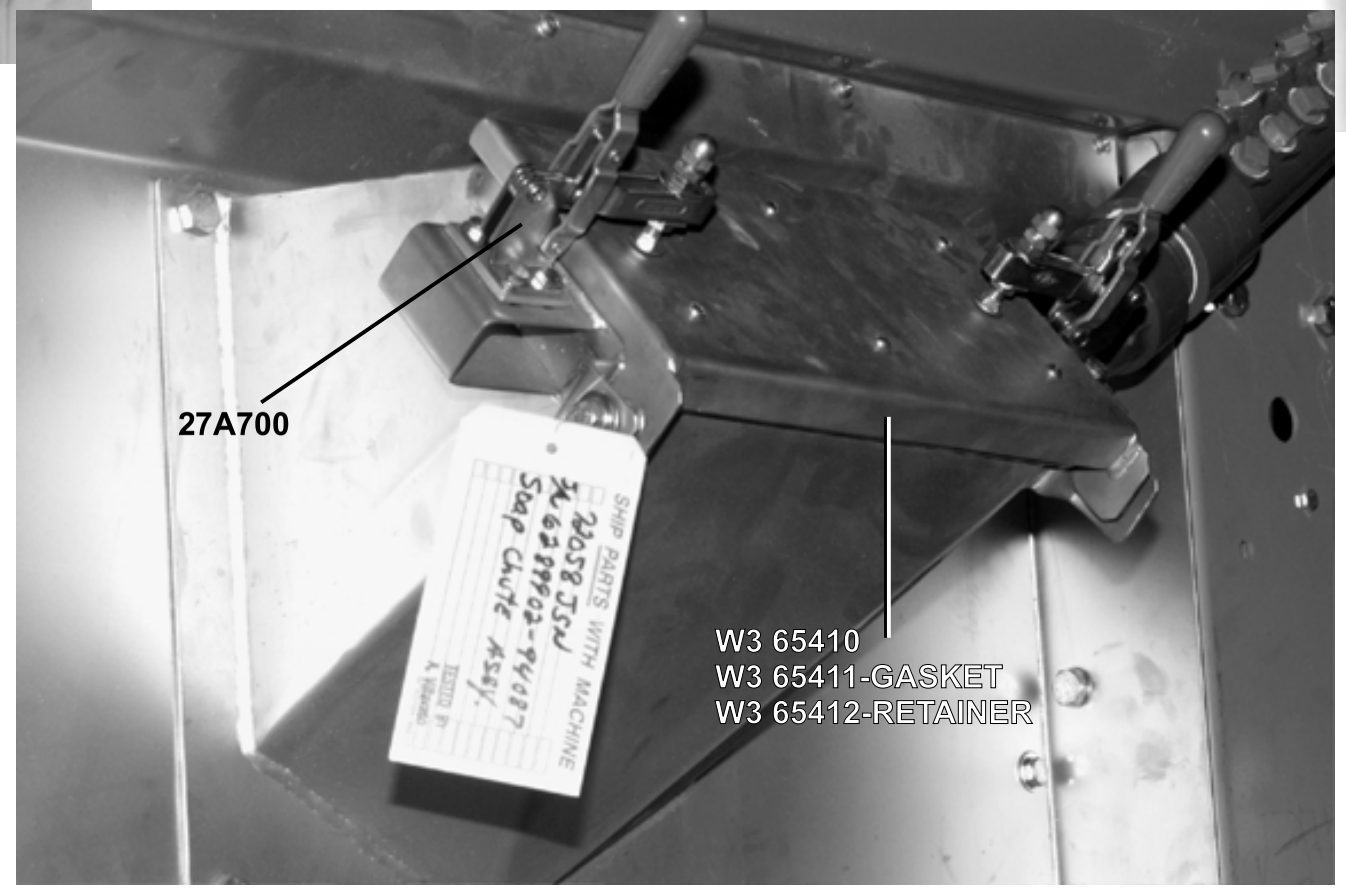

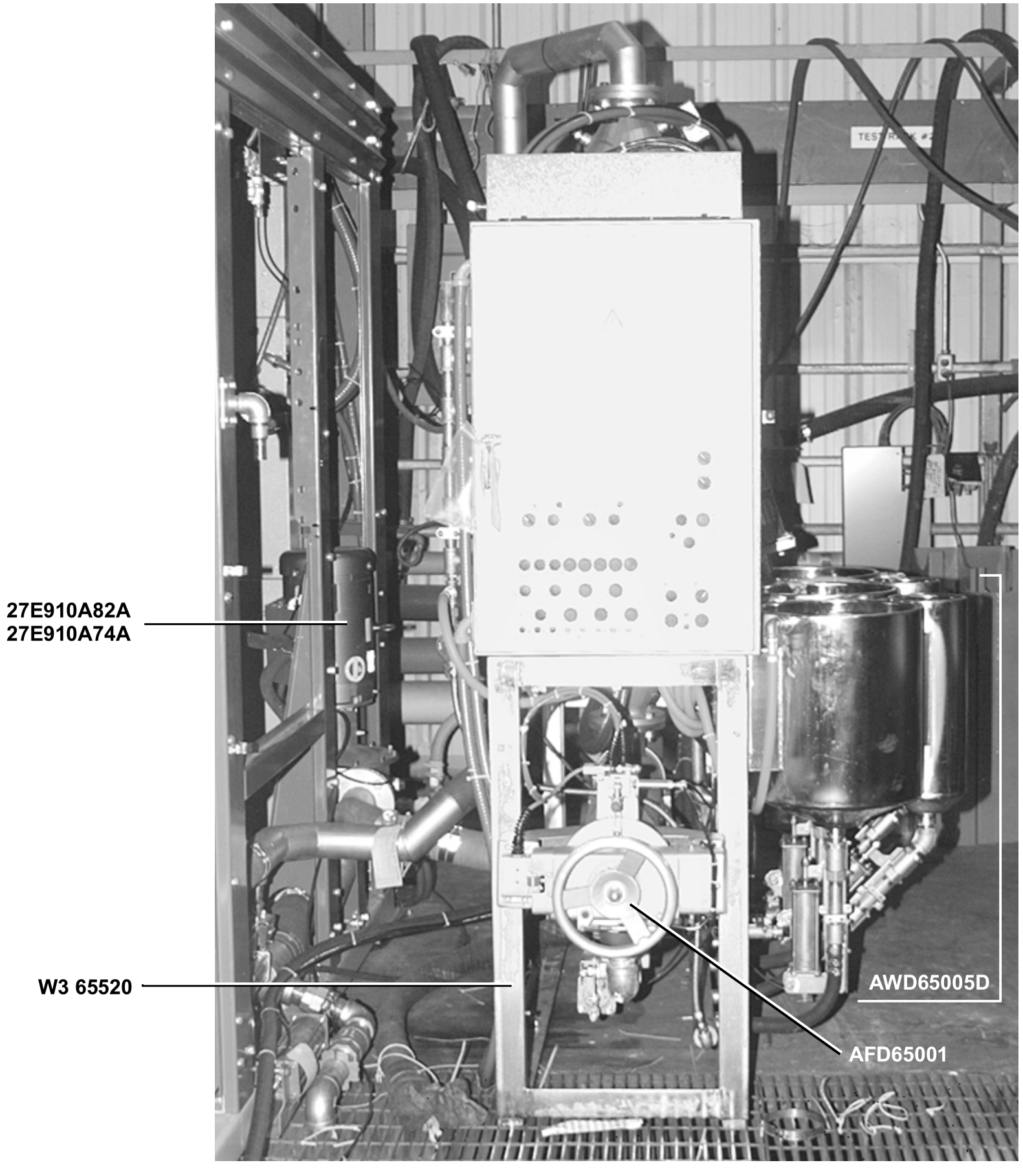
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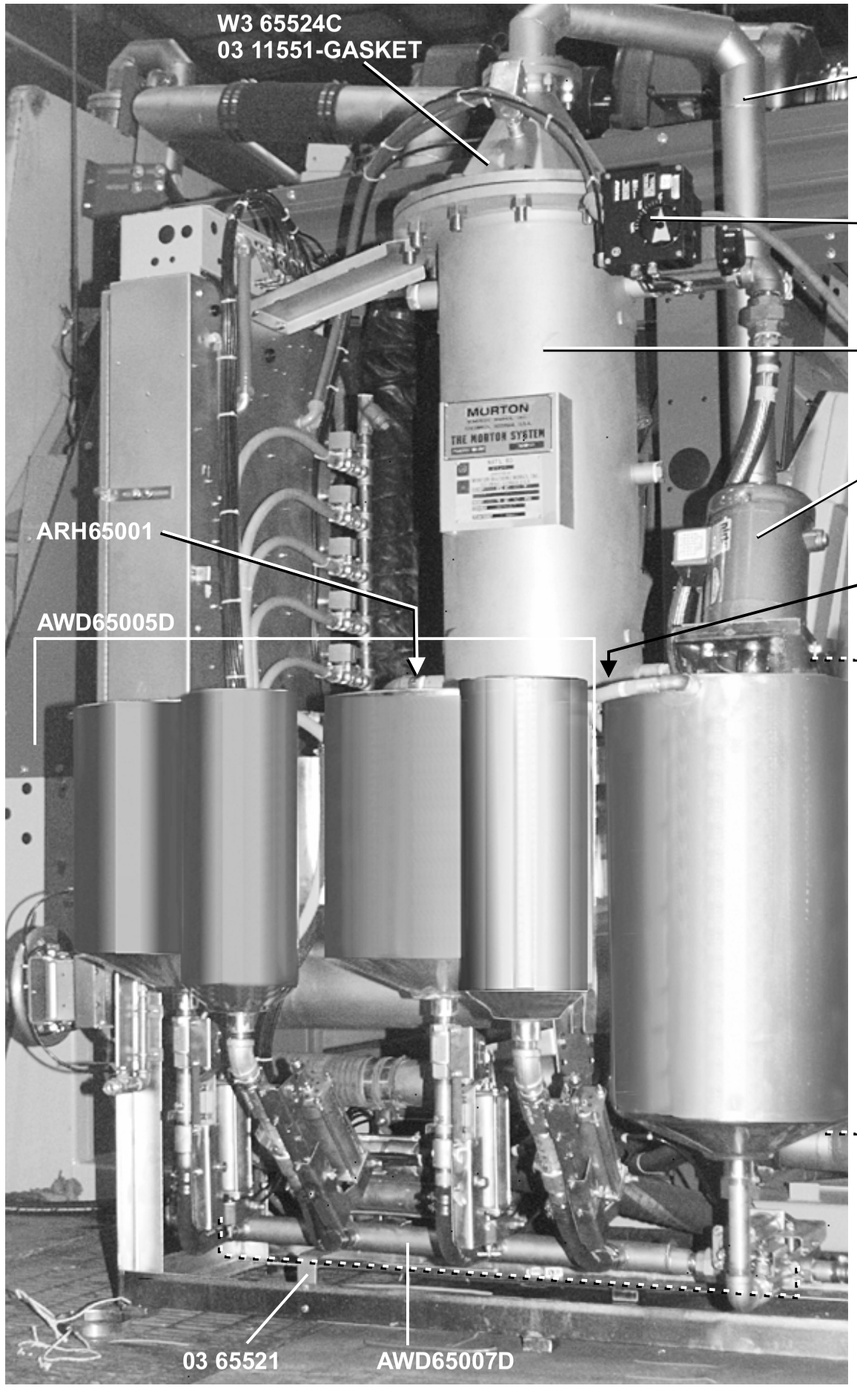

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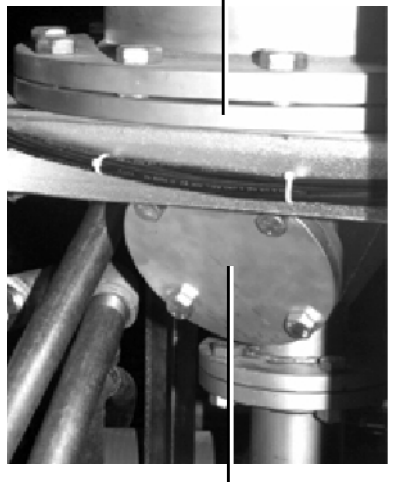

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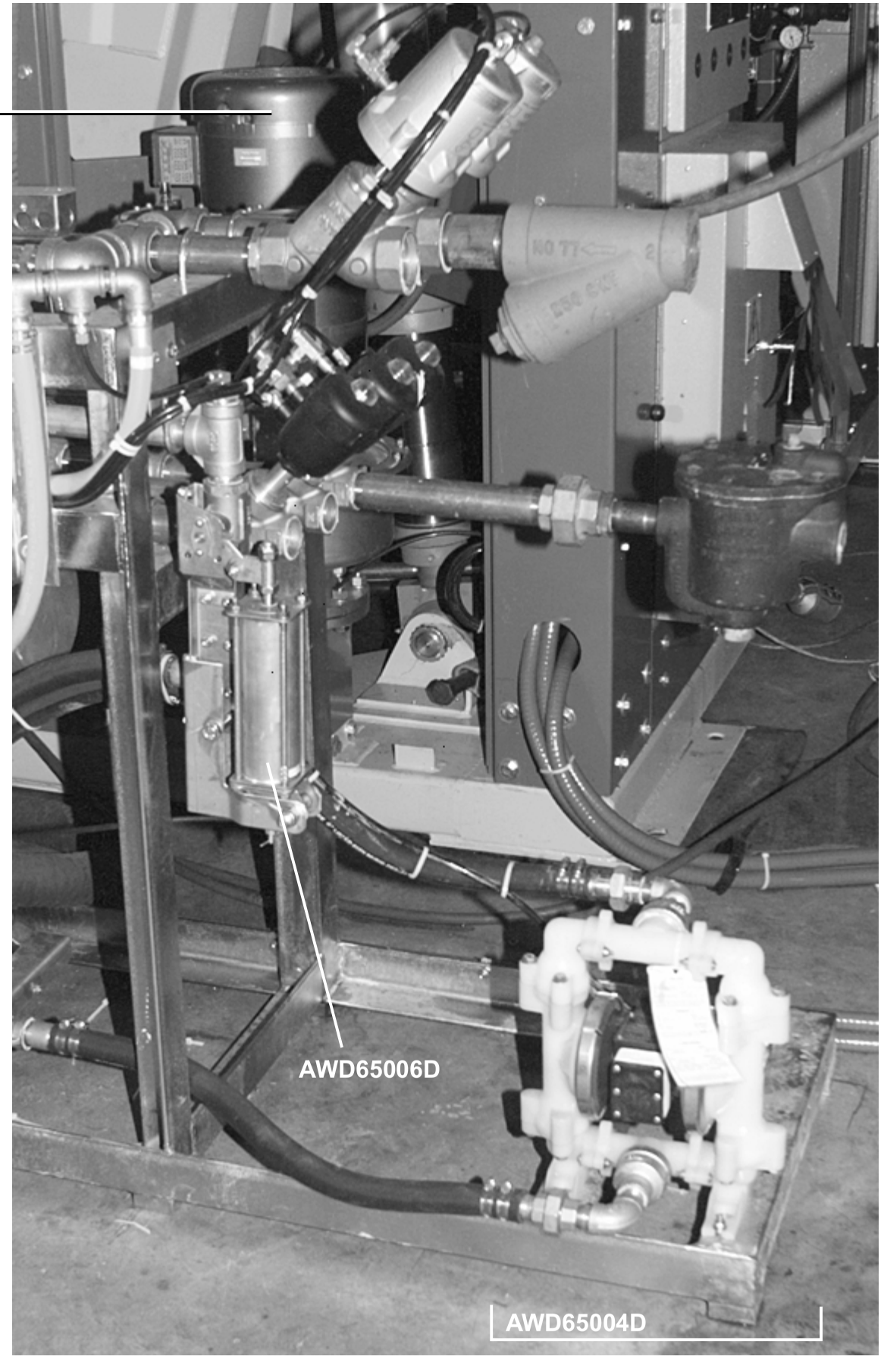

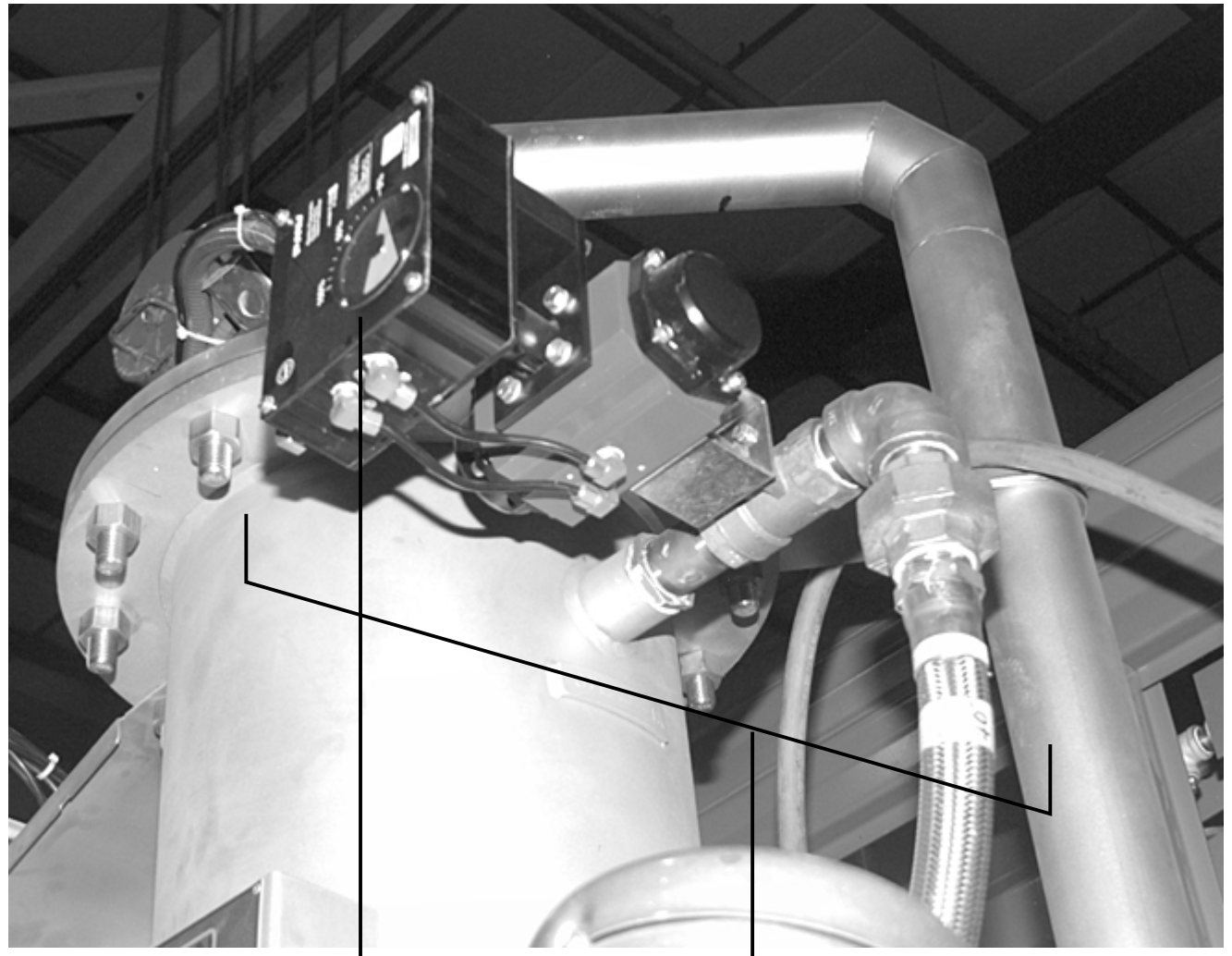

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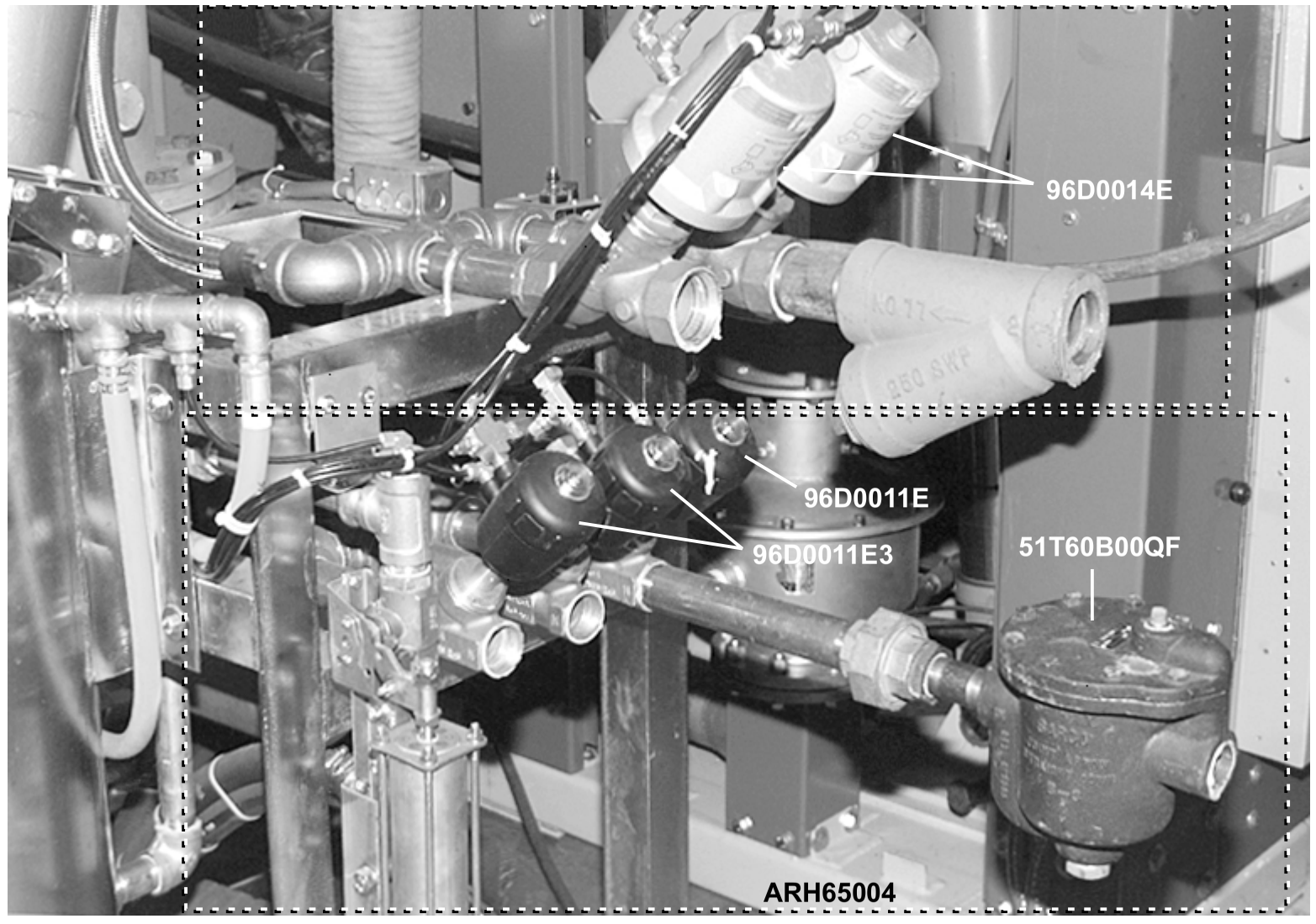

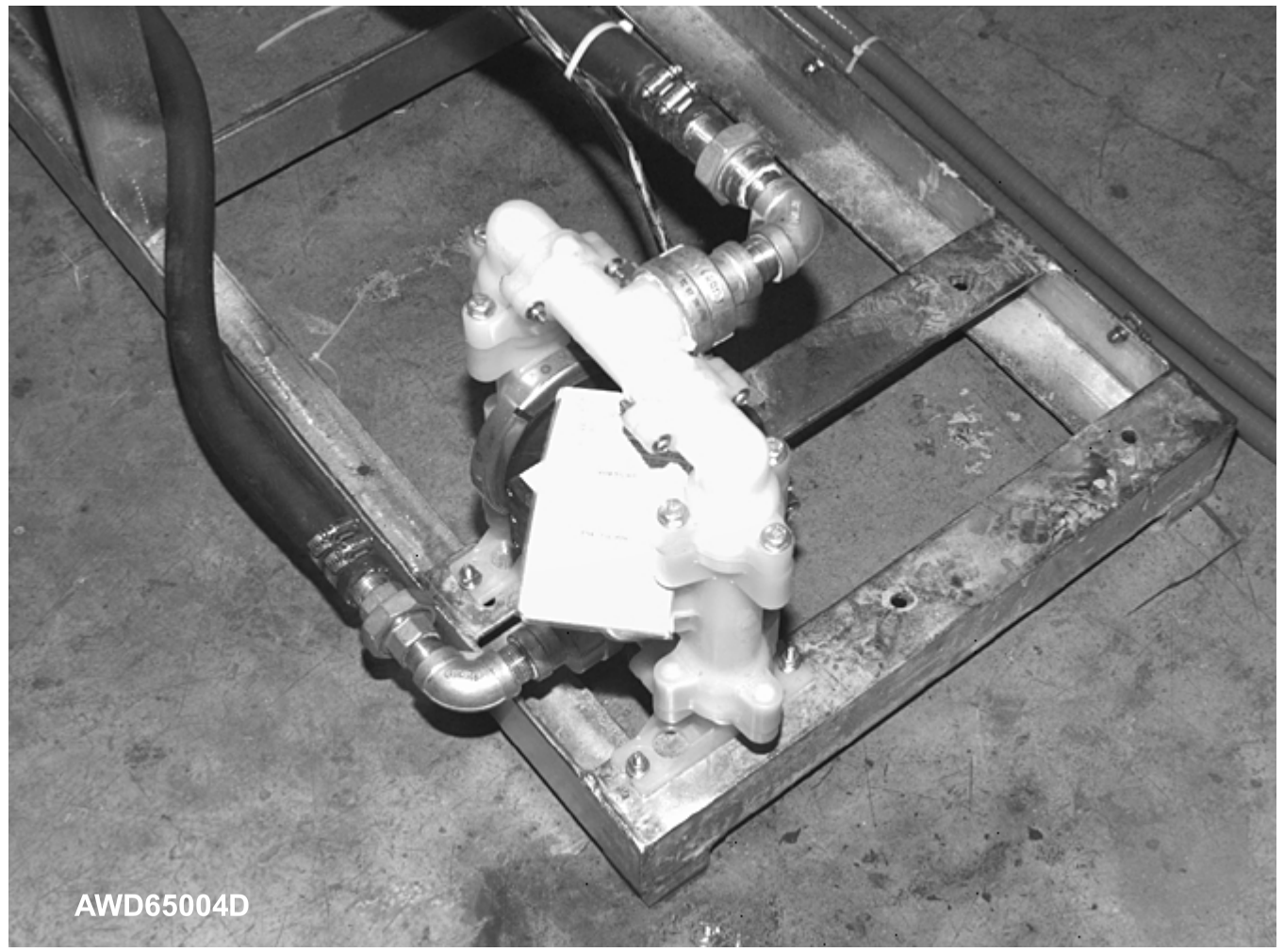
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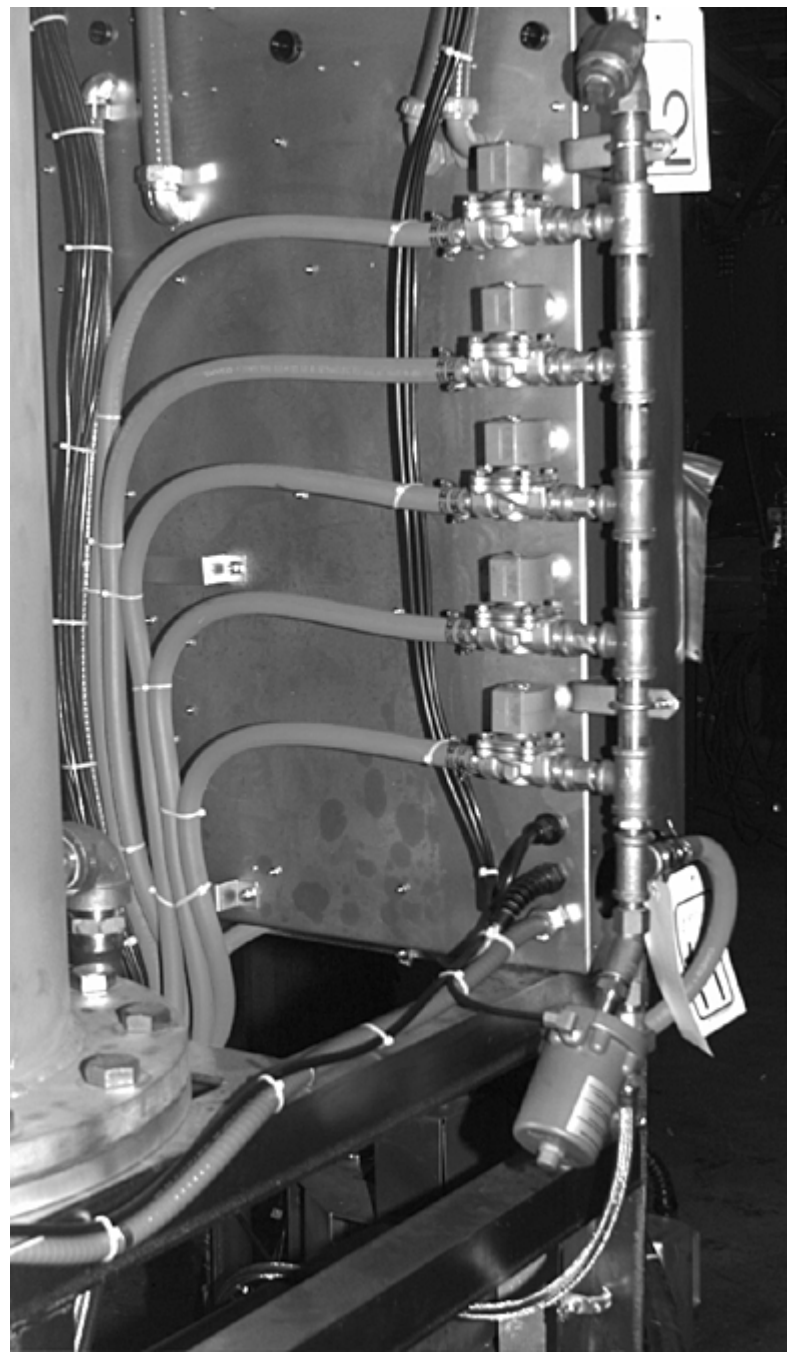
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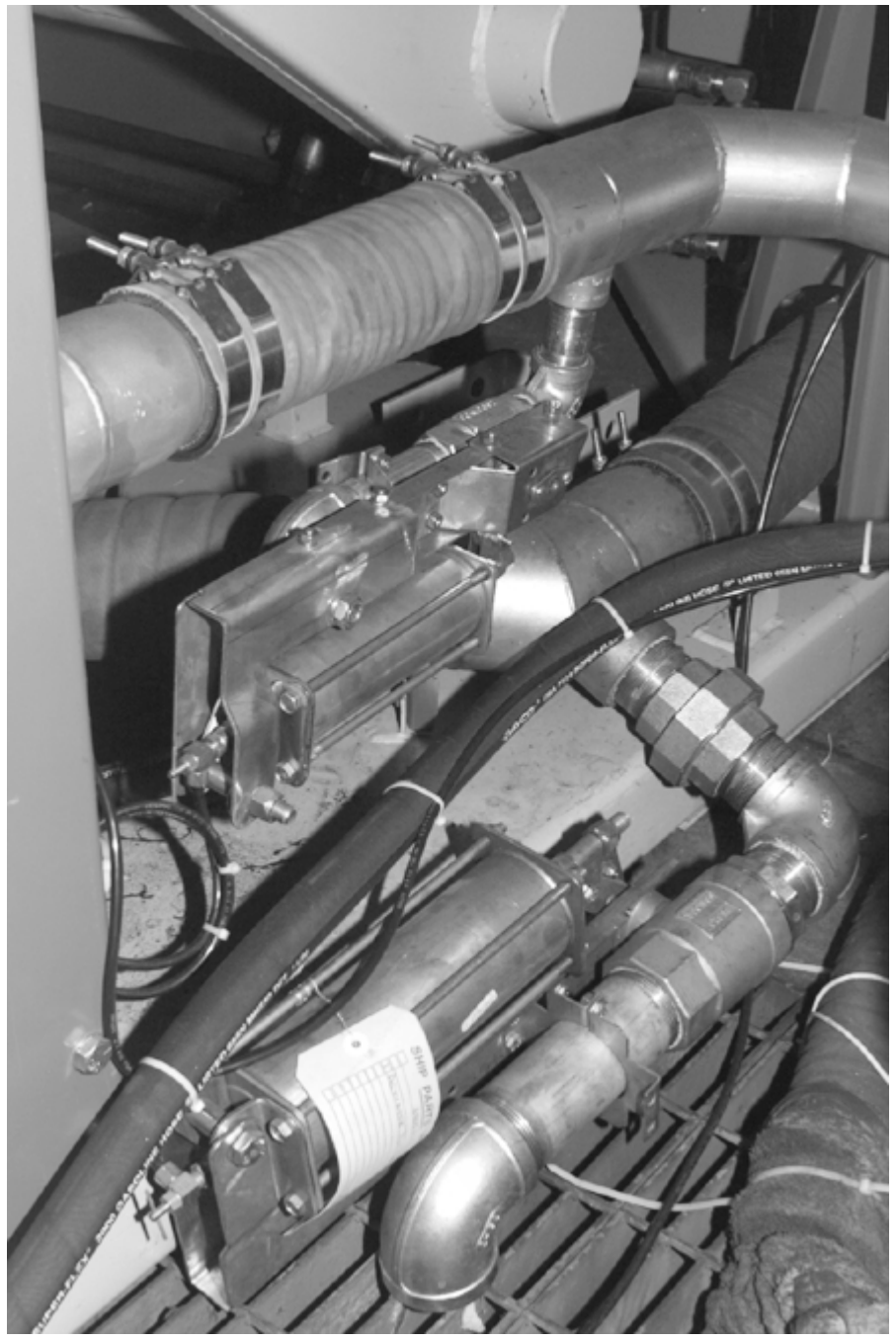

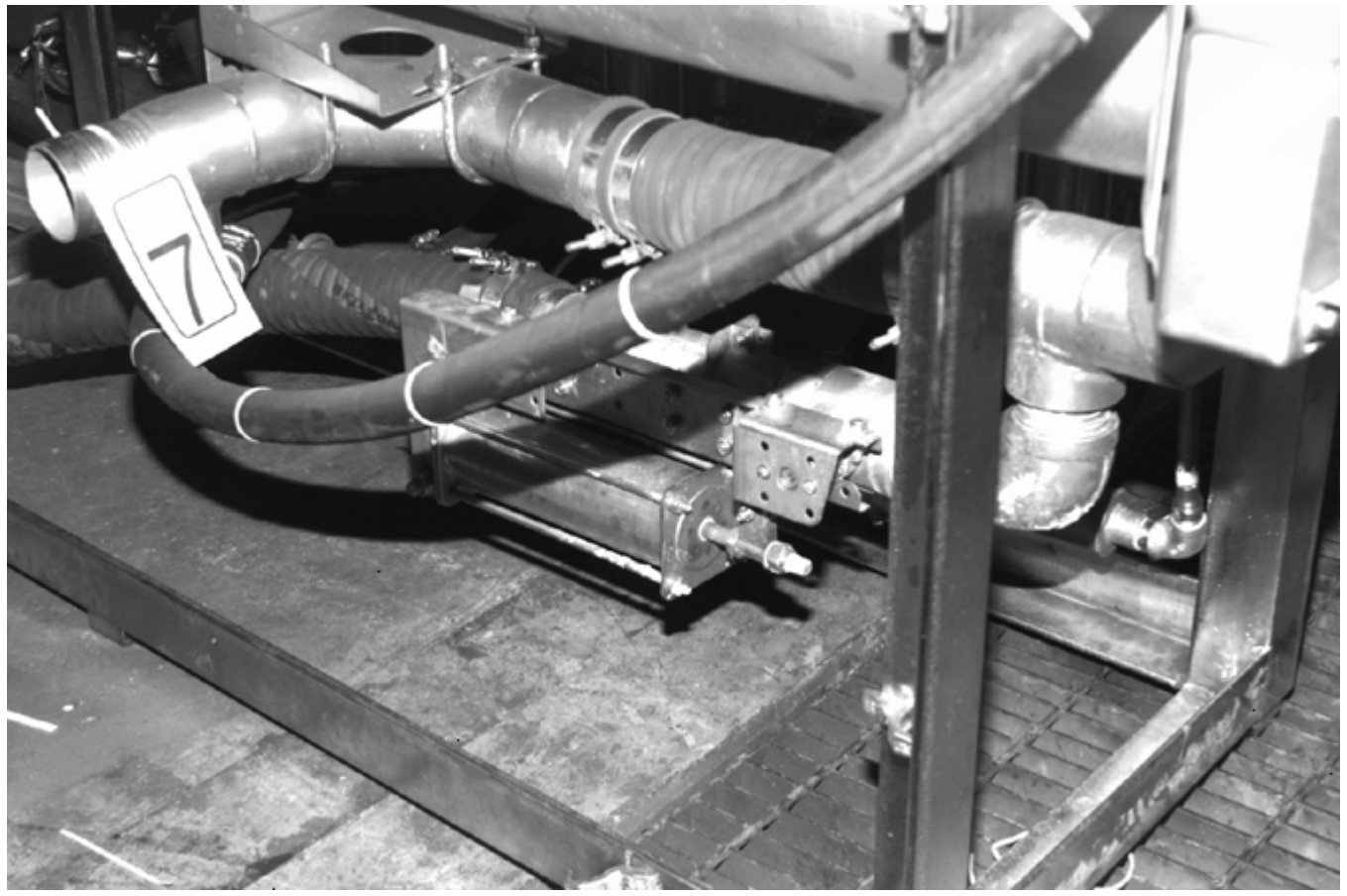

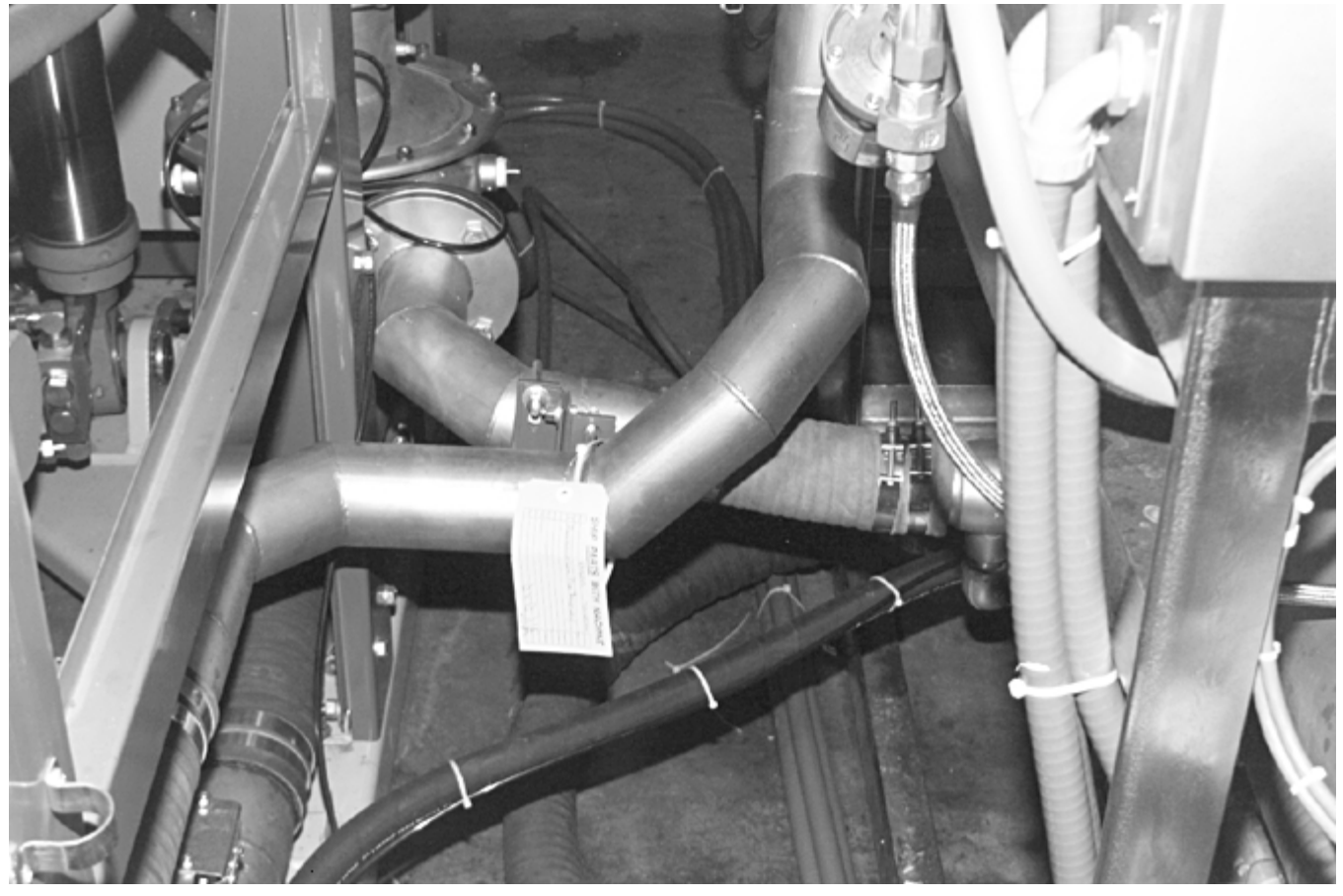

*** Assembly *and* sub-assembly numbers are bold, not indented, and listed alphabetically. Sub-assemblies/components are repeated (indented) under their parent assemblies.***

Part Number	Description
A81 01200D	**92172C ASSY=AIR IN/SANDPIPER PUMP72**
52XY0GR001	STRADAPT 3/8"SWIV.#A1404-6-6
5SL0KNFA0G	NPTELB 90DEG 1/2X3/8 GALMAL150
5N0K02AG42	NPT NIP 1/2X2 TBE GALSTL SK40
30N601	1/2"AIRLINE FILTER PH#07F35AC
5N0KCLSG42	NPT NIP 1/2XCLS TBE GALSTLSK40
30N600	1/2"AIRLINE LUBE PARK#07L35BE
5SL0KNFA0E	NPTELB 90DEG 1/2X1/4 GALMAL150
5N0E02ABE2	NPT NIPPLE 1/4X2TBE BRASS 125#
96J019F	1/4PRESREG5-100PS#R07-200-RNKA
30N101	09ZPRESSGAUGE 1/8"BACKCN.0-60PSI
51PE0CB0LV	PLUGSQPIPE 1/8 BLACK W/LVENT SOLID
53A511	SLEEVE 3/8"OD TUBE #60PT-6
60E005B	01ZTUBING NYL.3/8"OD X.275"ID *
53A512	TUBE INSERT 3/8"OD #63PT-6-62
53A060C	NUT 3/8"COMP ANCH+OR #61-6
07 20920	88512C OIL HOLDER BKT
ACP65002	**93000Z ASSY=3.5ROTARY COUPL 6446J6N**
W3 65574A	95392C*WLMT=OUTLET ROT COUPL 316S/S
X5 20204D	92772C MACH=OUT SLV 3-1/2"ROT COUP
60C145A	ORING 3+1/2IDX1/8CS VITONTEFCOAT238
X5 20205D	92497B MACH=INR SLV 3-1/2" ROT COUP
05 72113	92747B PL=3/16"THK.X DIA.8.12
05 72121	93051B GASKET=TEF.03X4.50X5.50 OUT
05 72121A	93051# GASKET=TEF.03 X3.62X5.25 IN
W5 72100	92596#*WLMT=3.5 ROT COULD SUPT UP
W5 72100A	92596#*WLMT=3.5 ROT COULD SUPT LOW
15K190S	HXCAPSCR 1/2-13UNC2AX2.5 FLTHRD SS
15U285A	87451B FLATWASH 1/8THK 1/2ID SS18-8
15U310	LOKWASHER REGULAR 1/2 SS18-8
15G234B	HEXNUT 1/2-13UNC2B BRASS
AFD65001	**94000Z ASSY=FLTR DOOR REM DYE STAND**
X3 65519A	94463# MACH=FLTR DR PL .44X9.62OD
X2 15035	87387A RETAINER=DOOR HANDLE SCREW
03 64039D	97216B COVER PLATE HANDWHEEL SCREW
W3 64039S	92316#*WLDMT=NUTPLATE S/S
15E007	KEY #7 WOODRUFF 3/4X1/8 SAE1035
X3 65546	96417B BUSH=.38IDX.63ODX.44L W/GRV
02 15036D	84527# DOOR HANDLE SCREW 304SS
X2 15053	94061# HANDWHEEL=10"FACED MNT HOLES
03 65539	96247C CHANNEL=INNER /FILTER DR DYE
03 65540	96247D CHANNEL=MID/FLTR DR REM DYE
03 65541	96247C CHANNEL=OUTTER/FLTR DR DYE
03 65542	94506B SPACER=4.5DIA UHMW
03 65543	94422B SPACER=4.5DIA 304 SS
03 65544	94433B RATCHET=FLTR DOOR OPEN
03 65545	94477B PAWL=RATCHET DOOR OPEN
03 65547	96247B BRKT=FLTR DR AIR CYL SUPT
15K022	SOKCPSCR 10-24UNC2 X1+1/4 SS18-8
15U151	FLTWSHR .625OD,.343ID,.078T SS
27B208250D	01Z SPACER SOLID.26ID.218L.062T SS
15K023	05Z SKCPSCR 10-24X2 BLK GR8
15G193	HEXLOKNUT 5/16-18UNC2A NYL STL+ ZNC
15H031	STDCOTTERPIN 3/32X3/4 SS18-8
17A004A	CLEVISPIN 1/4"X3/4"DRILLED SS18-8
15G207	HEXLIGHTLOKNUT 3/8-16 18-8SS NTE066
17A004	ADJ YOKE END 1/4-28 XYLAN COA+ED
27B210G01Q	SPCRROLL.39ID1.81L.048T STLZNC
15U181	LOCKWASHER MEDIUM 1/4 SS18-8
15U201	FLATWASH 7/80DX3/8IDX.062THK SS18-8
15K140T	HEXCAPSCR 3/8-16 X 4.75 SS 18-8
02 10222	82391B SPRING=DOOR LATCH=BALCOM
02 15836	68201A DOOR LATCH SPRING (302SS)
27C206	00ZAIRCYL 3/4"BOREX1"STR(PIVOT)
AMM65001D	**93000Z ASSY=MIX MTR 20 GAL DYE TANK**
15K086	HXCAPSCR 3/8-16NCX3/4 SS18-8
15Q140S	SOKSETSCR CUP 3/8-16X1/2 SS TY 18-8
03 25487B	83147B COUPLING 1.001 BORE X 3"LONG
08 01008S	91041# BKT-RUBBER MNT MIX MTR S/S
15U260	LOCKWASHER MEDIUM 3/8 SS18-8
15G206	HEXNUT 3/8-16 UNC2 SS 18-8
15K145S	HXCAPSCREW 1/2-2OUNF2AX3/4 18-8SS
15U285	01Z FLATWASHER 1/2 STD COMM SS18-8
60B070	01Z VIBRO-ISOLATOR REINFORCED 40 D
15G190	HEXFINJAMNUT 5/16-18NC2 SS18-8
W8 01073S	91296B*WELD=PROP/SHFT CHEM MIX 1X28
15K051	HXCAPSCR 5/16-18UNC2AX1/2 SS18-8
ARH65000	**94000Z ASSY=HT/EXCHR 6446D6N**
27H11439	01ZHEATXCH 1PASS 14X39 ASME 150
W3 65524C	97102D*WLMT=HTX TRANSITION TOP
W3 65524B	94383Y*WLMT=HTX TRANSITION BTM
03 11551	92393C GASKET=14.5IDX.06 42D5P
49005A	GASKET,FLATRING 5" PIPEFLANGE 125WP
X3 48712	94247# MACH=COV TRAN CLN OUT HT/ECH
15G247J	HEXNUT 7/8-9 UNC2B BRASS
15K235H	HEXCAPSCR 7/8-9UNC2A X 3.5 S/S 18-8
15G236B	HEX NUT 5/8-11UNC2B BRASS
15K224C	HEXCAPSCR 5/8-11X2-1/2 S/S 18-8
5SP1KBESS	NPT PLUG 1.5 SQ SOLID BRASS
5SP1ABESC	NPT PLUG 1"SQ BRASS 125#
30R0300PS	02ZTHERMOSW.FENWAL CLOSE @ 300F
12H050	03Z HANDYBOX 4X2+1/8X2+1/8
12H095	HANDY BOX COVER 4+2+1/8
ARH65001	**94000Z ASSY=HT EXCHR WATER INLET**
5SB1K1EBEO	NPTHEXBUSH 1.5X1.25 BRASS 125#
5N1ECLSB82	NPT NIP 1.25XCLS TBE BRASS XHVY
5SL1EBHA	NPTELB 90DEG 1.25 BRASS 250#
ARH65002	**94000Z ASSY=STN IN/RATE/RISE PIPING**
5SB1K1EBEO	NPTHEXBUSH 1.5X1.25 BRASS 125#
5N1E03ABH2	NPT NIP 1.25X3 TBE BRASS XHVY
96D086WEPS	10ZBALVAL1.25BRZ B6400SSZ1070SPPK
96D086WEPM	MOUNT KIT PNEUVAL WATTS#BMK-6
96D088WEPA	02Z MOUNT KIT=ELEC MAG VALVE POS.
96D088WEPE	01Z POSITIONER-ELECT MAGNETIC VAL
96D088WEPP	02Z ACTUATOR-PNEUMATIC DBL ACTING
96D088WEPC	SPRING KIT FOR PNEU ACTUATOR
5N1ECLSB82	NPT NIP 1.25XCLS TBE BRASS XHVY

*** Assembly *and* sub-assembly numbers are bold, not indented, and listed alphabetically. Sub-assemblies/components are repeated (indented) under their parent assemblies.***

Part Number	Description
5SL1EBHA	NPTELB 90DEG 1.25 BRASS 250#
5SU1EBH	NPT UNION 1.25" BRASS 250#
ARH65003	**94000Z ASSY=COOLDN /STEAM IN 6446D6**
5S1EBHA	NPT TEE 1.25" BRASS 250#
5N1E03ABH2	NPT NIP 1.25X3 TBE BRASS XHVY
5SL1EBHA	NPTELB 90DEG 1.25 BRASS 250#
5N1E06AB82	NPT NIP 1.25X6 TBE BRASS XHVY
5SB2A1EBEO	NPTHEXBUSH 2X1.25 BRASS 125#
96D0014E	03Z 2" NPT N/C STEAMVAL ANGLE BODY
5SB2A1EBEO	NPTHEXBUSH 2X1.25 BRASS 125#
5N2A04AB42	NPT NIP 2X4 TBE BLKSTL SK40
5SP1ACESC	NPT PLUG 1" SQ CORED BLK CI
51T062	04Z Y-STRAINER 2" NPT CAST IRON
ARH65004	**94000Z ASSY=HTX DR/COOLDN/COND RETR**
5SU1EBH	NPT UNION 1.25" BRASS 250#
5N1ECLSB82	NPT NIP 1.25XCLS TBE BRASS XHVY
5S1EBHA	NPT TEE 1.25" BRASS 250#
5SL1EBHA	NPTELB 90DEG 1.25 BRASS 250#
5N1E06AB82	NPT NIP 1.25X6 TBE BRASS XHVY
96D0011E	13Z 1.25"NPTBRZ N/C STEAMVALANGBD
5N1E10AB42	NPT NIP 1.25X10 TBE BRASS STD
5N1E03ABH2	NPT NIP 1.25X3 TBE BRASS XHVY
51T60B00QF	03Z 1.25"STMTRP SARCO#B4S-125
96D0011E3	06Z 1.25"NPTBRZ N/C STEAMVALANGBD
ARH72001	**92396C ASSY=HT/EXCHR STM IN PP72D6N**
5SU2ABH	NPT UNION 2" BRASS 250#
5N2ACLSB42	NPT NIP 2XCLS TBE BLKSTL SK40
5SL2ABHA	NPT ELBOW 90DEG 2" BRASS 250#
5N2A08AB42	NPT NIPPLE 2X8 TBE BRASS STD
5N2A54AB42	NPT NIPPLE 2X54 TBE BRASS STD
5N2A25AB42	NPT NIPPLE 2X25 TBE BRASS STD
5N2A04AB42	NPT NIP 2X4 TBE BLKSTL SK40
5S2ABHA	NPT TEE 2" BRASS 250#
5SB2A1EBEO	NPTHEXBUSH 2X1.25 BRASS 125#
5N1ECLSB82	NPT NIP 1.25XCLS TBE BRASS XHVY
5SL1EBHA	NPTELB 90DEG 1.25 BRASS 250#
5N1E04ABH2	NPT NIP 1.25X4 TBE BRASS XHEVY
5SU1EBH	NPT UNION 1.25" BRASS 250#
AVS64019	91296B ASSY=STEAM MOD VALVE 6442D6N
96D088WEPS	10ZBALVAL 2"BRZ B6400SSZ1070SPPK
96D088WEPP	02Z ACTUATOR-PNEUMATIC DBL ACTING
96D088WEPE	01Z POSITIONER-ELECT MAGNETIC VAL
96D088WEPA	02Z MOUNT KIT=ELEC MAG VALVE POS.
96D088WEPM	01Z MOUNT KIT=PNEUMATIC ACTUATOR
96D088WEPC	SPRING KIT FOR PNEU ACTUATOR
96D0011E	13Z 1.25"NPTBRZ N/C STEAMVALANGBD
ARH72001	**92396C ASSY=HT/EXCHR STM IN PP72D6N**
5SU2ABH	NPT UNION 2" BRASS 250#
5N2ACLSB42	NPT NIP 2XCLS TBE BLKSTL SK40
5SL2ABHA	NPT ELBOW 90DEG 2" BRASS 250#
5N2A08AB42	NPT NIPPLE 2X8 TBE BRASS STD
5N2A54AB42	NPT NIPPLE 2X54 TBE BRASS STD
5N2A25AB42	NPT NIPPLE 2X25 TBE BRASS STD
5N2A04AB42	NPT NIP 2X4 TBE BLKSTL SK40
5S2ABHA	NPT TEE 2" BRASS 250#
5SB2A1EBEO	NPTHEXBUSH 2X1.25 BRASS 125#
5N1ECLSB82	NPT NIP 1.25XCLS TBE BRASS XHVY
5SL1EBHA	NPTELB 90DEG 1.25 BRASS 250#
5N1E04ABH2	NPT NIP 1.25X4 TBE BRASS XHEVY
5SU1EBH	NPT UNION 1.25" BRASS 250#
AVS64019	91296B ASSY=STEAM MOD VALVE 6442D6N
96D088WEPS	10ZBALVAL 2"BRZ B6400SSZ1070SPPK
96D088WEPP	02Z ACTUATOR-PNEUMATIC DBL ACTING
96D088WEPE	01Z POSITIONER-ELECT MAGNETIC VAL
96D088WEPA	02Z MOUNT KIT=ELEC MAG VALVE POS.
96D088WEPM	01Z MOUNT KIT=PNEUMATIC ACTUATOR
96D088WEPC	SPRING KIT FOR PNEU ACTUATOR
96D0011E	13Z 1.25"NPTBRZ N/C STEAMVALANGBD
AWD65004D	**92000Z ASSY=SANDPIPER PUMP 6446T/D6**
27E92055	00Z PUMP AIR-OP MP03P-TTK0P3H0
5SR0P0KSF	NPT RED 3/4X1/2 SS304 150#
5N0K03AS42	NPT NIP 1/2X3 TBE 304SS SK40
5N0KCLSS42	NPT NIP 1/2XCLS TBE 304SS SK40
96D0403SS	01Z 1/2"BALLVALVE S/S 3-WAY 90DEG
03 25429S	80123@ HOSE ADAPT=1"HOSE 3/4"NPT SS
5SL0PSFA	NPTELB 90DEG 3/4 304SS 150#
AWD65005D	**94000Z ASSY=DUAL 3GAL+10GAL TK 6446**
W2 16190G	921762*WLMT=3GAL + 12GAL TK 7244D6N
5N1ACLSS42	NPT NIP 1XCLS TBE 304SS SK 40
96D085SCSR	92000Z 1.00WAT BVAL+ACT/SS/NC/ST/RH
5SL1ASFK	NPT ELBOW 45DEG 1" 304SS 150#
5N1A05AS42	NPT NIPPLE 1X5 TBE 304SS SK40
5SCC1ASF	NPT COUP 1" SS304 150#
51E099SS	DIXON 1"KINGCOMBNIP S.S.#RST10
5N0KCLSBE2	NPT NIP 1/2XCLS TBE BRASS STD
5SL0KBEA	NPTELB 90DEG 1/2 BRASS 125#
5S0KBEA	NPT TEE 1/2" BRASS 125#
51E509	HOSESTEM BRASS 1/2MPX1/2HOSEID
60E085B18A	94122N ASSY=1/2"WTR HOSE 18LG+1 END
60E085B16K	94122N ASSY=1/2"WTR HOSE16.5L+1 END
AWD65006D	**94387B ASSY=20GAL DYE SALT TK 6446D**
W2 16190I	94393Y*WLDMT=15"X26"DYE TK+MIX BRKT
03 65568A	94367B GUSSET=MIX MTR BRKT 20+80GAL
15K086	HXCAPSCR 3/8-16NCX3/4 SS18-8
15U260	LOCKWASHER MEDIUM 3/8 SS18-8
15G206	HEXNUT 3/8-16 UNC2 SS 18-8
5N1A07AS42	NPT NIPPLE 1X7 TBE 304SS SK40
5SL1ASFA	NPT ELBOW 90DEG 1" 304SS 150#
5N1A03AS42	NPT NIPPLE 1X3 TBE 304SS SK40
96D085SCSR	92000Z 1.00WAT BVAL+ACT/SS/NC/ST/RH
5N1A05AS42	NPT NIPPLE 1X5 TBE 304SS SK40
5S1ASFA	NPT TEE 1" 304SS 150#
5N1A04AS42	NPT NIPPLE 1X4 TBE 304SS SK40
51E099SS	DIXON 1"KINGCOMBNIP S.S.#RST10
5SCC1ASF	NPT COUP 1" SS304 150#
5SU1ASF	NPT UNION 1" 304SS 150#

*** Assembly *and* sub-assembly numbers are bold, not indented, and listed alphabetically. Sub-assemblies/components are repeated (indented) under their parent assemblies.***

Part Number	Description
5N1A15AS42	NPT NIPPLE 1X15 TBE 304SS SK40
5N1ACLSS42	NPT NIP 1XCLS TBE 304SS SK 40
5N1A09AS42	NPT NIPPLE 1X9 TBE 304SS SK40
5SB1A0ESFO	NPTHEXBUSH 1X1/4 SS304 150#
5N0KCLSBE2	NPT NIP 1/2XCLS TBE BRASS STD
5SL0KBEA	NPTELB 90DEG 1/2 BRASS 125#
5S0KBEA	NPT TEE 1/2" BRASS 125#
51E509	HOSESTEM BRASS 1/2MPX1/2HOSEID
60E085B21A	94122N ASSY=1/2"WTR HOSE 21LG+1 END
AWD65007D	**94000Z ASSY=DYE TK FILL MANIF 6446D**
W3 65525	94377C*WLMT=DYE TNK FILL MANIF 6446
5N0KCLSS42	NPT NIP 1/2XCLS TBE 304SS SK40
5SL0KSFA	NPTELB 90DEG 1/2 304SS 150#
5N1ACLSS42	NPT NIP 1XCLS TBE 304SS SK 40
5SU1ASF	NPT UNION 1" 304SS 150#
AWI65000	**94000Z ASSY=FLUSH MANIFOLD REM STND**
51T030B	Y-STRAINER-BRONZE 3/4" W/PLUG
5N0PCLSB42	NPT NIP 3/4XCLS TBE BRASS STD
5S0PBEA0K	NPT TEE 3/4X3/4X1/2" BRASS 125#
5N0KCLSBE2	NPT NIP 1/2XCLS TBE BRASS STD
51E513	3/4HX1/2FP-SWIVEL AND#5AS-12D
53A060HA	WASHER=HOSE #901GH-12
51E508A	GARDEN HOSE-BRASS 1/2MP X 3/4H
96TDC2AA37	04Z 1/2" N/C 2WAY 120V50/60C VALVE
51E509	HOSESTEM BRASS 1/2MPX1/2HOSEID
5N0P03AB42	NPT NIPPLE 3/4X3 TBE BRASS STD
5SB0P0KBEO	NPTHEXBUSH 3/4X1/2 BRASS 125#
5N0KCLSBE2	NPT NIP 1/2XCLS TBE BRASS STD
5S0KBEA	NPT TEE 1/2" BRASS 125#
51X017	UNIONSTRADT 1/2"PH#0107-8-8
5N0KCLSS42	NPT NIP 1/2XCLS TBE 304SS SK40
96D0008S	02Z 1/2"NPTS/S N/C STEAMVALANGBOD
5SU0KSF	NPT UNION 1/2" 304SS 150#
AWS65011	**93000Z INST=SOAP CHUTE LID 6446**
W3 65410	93397#*WLMT=LID SOAP CHUTE 64E6N
03 65411	93257B GASKT=SOAP CHUTE LID
03 65412	95067B PLAT=GASKET COVER SOAP CHUTE
15N141	RDMACSCR 10-24NCX3/4 SLOTTED SS18-8
24G018N	ROLLED WASH.194ID NYLTITE 10W
15U135	FLATWASH#10 .4370DX.203IDX.04TSS188
15U160	LOCKWASHER MEDIUM #10 SS18-8
15G130	HEXMACHSCRNUT 10-24UNC2 SS18-8
W3 25460H	81227C*VENT TUBE WELDMENT
W3 65574	95392D*WLMT=INLET ROT COUPL 316S/S
W3 65400A	96403#*WLMT=SOAPCHT BODY+PIPE 64E6N
W3 65410	93397#*WLMT=LID SOAP CHUTE 64E6N
W3 65520	94391E*WLMT=REM STND 48DYE THRU 72D
W3 65524B	94383Y*WLMT=HTX TRANSITION BTM
W3 65524C	97102D*WLMT=HTX TRANSITION TOP
W3 65572	97247#*WLMT=4"316 PIP-TRA SHELL/PUM
W3 65573A	96447D*WLMT=3"PIPE-TRN PMP/ROT 316
W3 65574A	95392C*WLMT=OUTLET ROT COUPL 316S/S
W3 65574B	95392D*WLMT=PP/GL DR ROT CPL 316
W3 65592	95392D*WLMT=HEAT-OUT PIPING 316
W3 65700A	94027#*WLMT=BRKT VENT TO GRND
W3 65705	97186C*WLMT=VENT TO GRND LONG 72E5N
W5 58511	94337#*WLMT=ROT COUPL SHL MNT BRKT
W5 72100A	92596#*WLMT=3.5 ROT COULD SUPT LOW
W5 72120D	95392# WLMT=ELB 10"DUMPVAL 4" 316L
W5 72100	92596#*WLMT=3.5 ROT COULD SUPT UP
W8 01254	97171C*SSY=PARIST CONECT 20 HOLES
X3 48712	94247# MACH=COV TRAN CLN OUT HT/ECH
03 11551	92393C GASKET=14.5IDX.06 42D5P
03 65411	93257B GASKT=SOAP CHUTE LID
03 65412	95067B PLAT=GASKET COVER SOAP CHUTE
03 65396E	96537D MNT PLATE SOAP CHUTE MD2
03 65521	94397B BRKT=SUPT DY TK FILL MANIFLD
03 65700B	93487B STRAP=6.03 ID VENT TUBE ASSY
27A700	TOGGLECLAMP GOODHAND E=1
27E910A74A	06Z PUMP 4"SUC 3" DIS 208/230/460
27E910A82A	01Z PUMP 4X3 220/380/440-50
27H11439	01ZHEATXCH 1PASS 14X39 ASME 150
51T60B00QF	03Z 1.25"STMTRP SARCO#B4S-125
60E303D	01Z 3"ID VITON BLEND TUBE *
60E307D	01Z 4"ID VITON BLEND TUBE *
60E319	01Z 6"ID HOSE GATES#4175-0902 *
60E320	08Z DUCTHOSE 6+1/16"ID 2NE0PRDIP *
96D0011E	13Z 1.25"NPTBRZ N/C STEAMVALANGBD
96D0011E	13Z 1.25"NPTBRZ N/C STEAMVALANGBD
96D0014E	03Z 2" NPT N/C STEAMVAL ANGLE BODY
96D088WEPA	02Z MOUNT KIT=ELEC MAG VALVE POS.
96D088WEPC	SPRING KIT FOR PNEU ACTUATOR
96D088WEPE	01Z POSITIONER-ELECT MAGNETIC VAL
96D088WEPP	02Z ACTUATOR-PNEUMATIC DBL ACTING

******** END OF BILL OF MATERIAL ********