TECHNICAL MANUAL

OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS INFORMATION AND SUPPLEMENTAL OPERATING MAINTENANCE AND REPAIR PARTS INSTRUCTIONS)

MELTER, ASPHALT
SKID MOUNTED
HOT OIL CIRCULATING, 750 GPH
CHAUSSE MODEL STMD-3000
(NSN 3895-01-102-3564)

HEADQUARTERS, DEPARTMENT OF THE ARMY

DECEMBER 1982

WARNING

DO NOT OPERATE ASPHALT MELTER WITHOUT PROTECTIVE, INSULATED CLOTHING, PARTICULARLY GLOVES. HIGH OPERATING TEMPERATURE OF HEAT TRANSFER OIL PIPING AND ASPHALT MELTER MAY CAUSE SEVERE BURNS BY GRABBING OR LEANING ON EQUIPMENT.

CAUTION

Do not operate the asphalt melter in the rain. Operation of melter during rain may cause the asphalt to boil and catch fire. After a rain or during humid conditions, open the tunnel doors and dry the unit before operating. Keep the heat transfer piping system full to minimize condensation.

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HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 27 December 1982

Operators, Organizational, Direct Support and General Support Maintenance Manual (Including Repair Parts Information and Supplemental Operating, Maintenance and Repair Parts Instructions)

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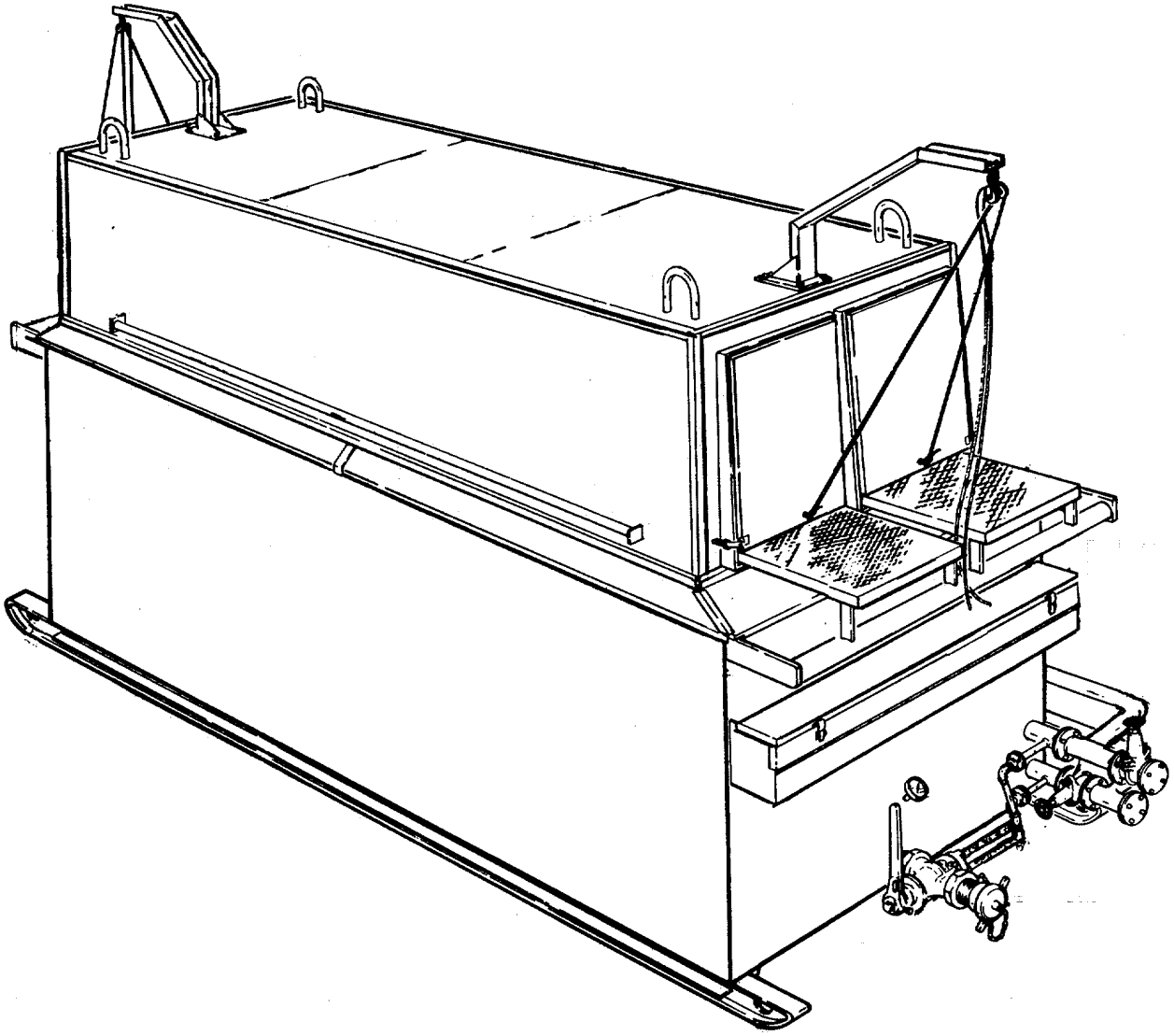
REPORTING OF ERRORS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to: Commander, US Army Tank-Automotive Command, ATTN: DRSTA-MB, Warren, MI 48090. A reply will be furnished direct to you.

PART I	**OPERATION AND MAINTENANCE MANUAL WITH REPAIR PARTS LIST**

PART II	**SUPPLEMENTAL OPERATING, MAINTENANCE AND REPAIR INSTRUCTIONS (SOMARPI)**

This technical manual is an authentication of the manufacturers commercial literature and does not conform with the format and content specified in AR 310-3, Military Publications. This technical manual does, however, contain available information that is essential to the operation and maintenance of the equipment.



PART I

OPERATION AND MAINTENANCE MANUAL WITH REPAIR PARTS LIST

Section I. INTRODUCTION

1-1. Description

a. This manual provides instructions of operation and service and lists repair parts for the Chausse Model STMD-3000, asphalt de-drumming melter, manufactured by Chausse Manufacturing Co., Inc. The unit consists of a dual de-drumming tunnel and a 3000 gallon capacity, heated storage tank. The tunnel is constructed to handle a maximum of twelve, 55 gallon drum at one time, with a melting rate of 750 gallons per hour of 85-100 penetration asphalt cement. The melted asphalt cement can be maintained in the storage tank at pouring temperature (235° F.), and transferred to bulk storage tanks or distributors by means of a separately supplied asphalt pump. Figure 1-1, identifies major components and features of the melter in its basic operating configuration.

b. The tunnel and storage tank are equipped with heat dissipating coiled piping, interconnected with removable external piping and valves to permit control of heat transfer medium. A separately supplied heat supply must provide 1,000,000 BTU per hour to the melter. Circulating hot oil is recommended as the most efficient heat transfer medium. When oil is not available, hot water or steam can be substituted, but only when proper safety devices are installed in the heat transfer piping system.

1-2. Tabulated Data

Mode	STMD-3000
De-drumming Rate	750 GPH
Tunnel Capacity	12-55 Gal. Drums
Storage Tank Capacity	3000 Gal.
Heat Requirement	1,000,000 BTU/Hr.
Heat Transfer Piping	2 inch.
Asphalt Piping	3 inch.
Shipping Dimensions:	
Height	73 inch.
Width	79 inch.
Length	209 inch.
Weight (Clean)	10,500 pounds
Operating Dimensions:	
Height (overall)	145.75 inch.
Width	91 inch.
Length	227 inch.
Height (Drum loading platforms)	75 inch.
Weight (Clean)	10,500 pounds

1-3. Safety Precautions

a. When lifting unit in shipping configuration, do not use lifting eyes of tunnel. Attach lifting sling to eyes in ends of skid rails and guide sling cables over the stand-off guard at front and rear of unit.

b. Do not operate unit without protective, insulated clothing, particularly gloves. Severe burns may result from grabbing or leaning on piping or unit.

c. Do not operate unit in the rain. Operation of melter during rain may cause the asphalt to boil and catch fire. After a rain or during humid conditions, open the tunnel doors and dry the unit before operating. Keep the heat transfer piping system full to minimize condensation.

d. Keep an accurate record of the amount of asphalt that is de-drummed. Do not overfill the storage tank, maximum capacity is 3000 gallon.

e. Allow unit to cool to ambient temperature before starting cleaning operations or dismantling of unit.

f. When using kerosene or diesel fuel as a cleaning solvent, no open flame should be within 50 feet of the melter. Flash point of kerosene is 100-160° F., providing the potential of explosion of vapors.

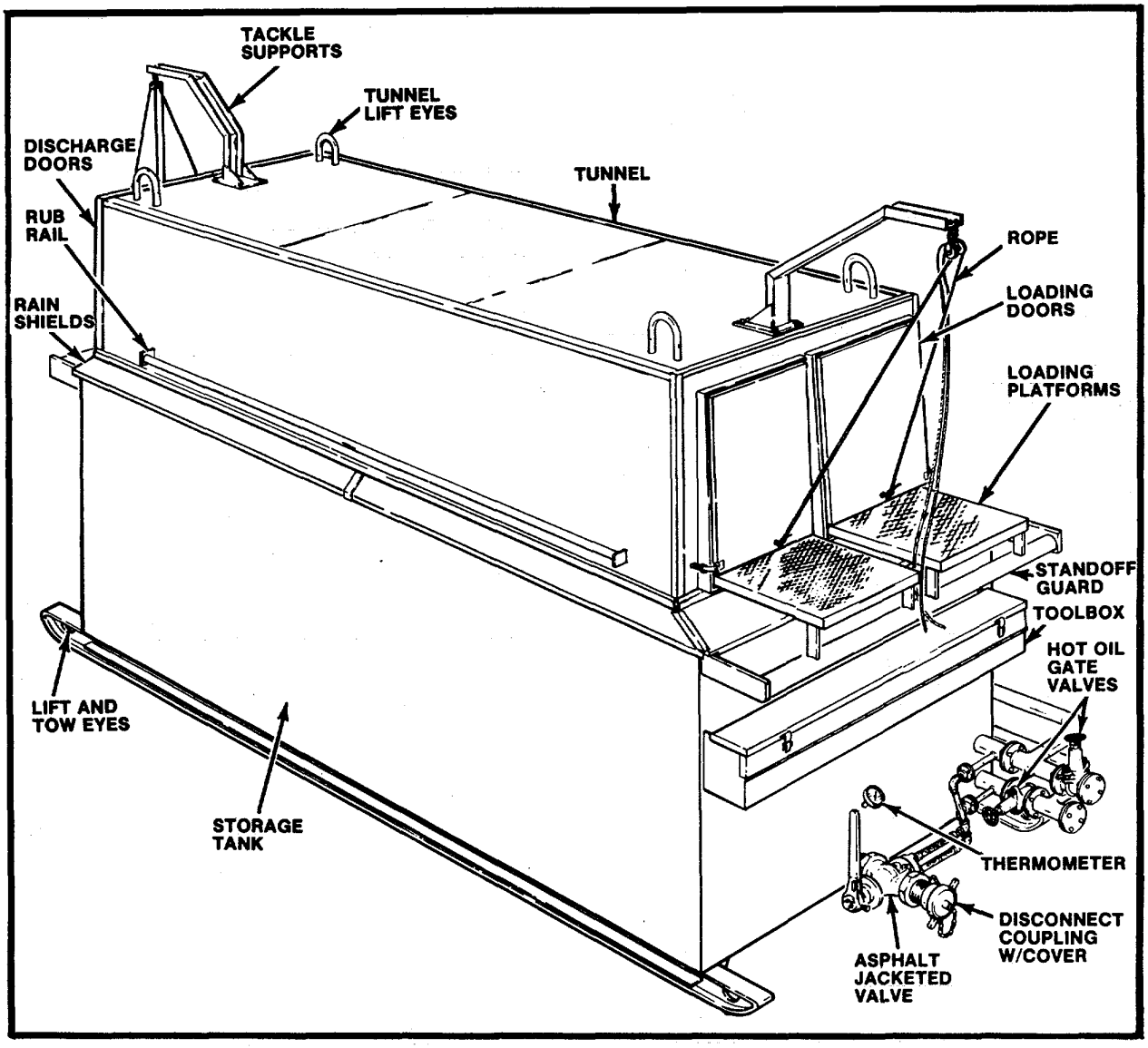


Figure 1-1. Asphalt Melter, Model STMD-3000, right front, three-quarter view.

Section II. INSTALLATION

2-1. General

The asphalt meter unit may be installed as a single unit where job requirements call for 750 gallons or less, of asphalt cement per hour. Where job requirements in excess of 750 gallons per hour exist, two units may be interconnected in parallel, with piping provided with each unit.

2-2. Site Preparation

a. The asphalt melter must be installed on a solid, level and well drained base or concrete pad. The minimum area required for installation of the asphalt melter is 10 x 20 feet.

b. Site planning must also provide for positioning of the asphalt melter(s), the heat plant and the asphalt pumping unit so that sufficient additional space is available at the front and rear of the melter (s) for loading and unloading of drums.

c. When installing two or more units in parallel, the site must provide for spacing of the asphalt melters, four feet apart (measured between outside walls of storage tanks) to align and install interconnect piping.

2-3. Unpacking

a. The asphalt melter is shipped as a self-contained unit, requiring unpacking and set-up before operation can begin.

b. A suitable lifting device, of sufficient capacity, must be available for unloading, unpacking and set-up of the asphalt melter. Remove all tiedown cables or strapping and all blocking used to secure the unit to the carrier.

CAUTION

Do not attach lifting sling to lift eyes on top of tunnel or to the stand-off guards at front and rear of unit. Attach lifting sling to eyes in the front and rear of the skid rails, guiding the sling cables over the stand-off guards at each end of unit.

c. Attach a suitable lifting sling to the eyes of skid rails, with cables guided over the top of the stand-off guards at front and rear of the unit. Lift the unit from the carrier bed and position unit on worksite.

NOTE

The asphalt melter may be moved short distances on its skid rails by attaching towing chains to the eyes in the front or rear skid rails.

d. Remove the four holddown bars, securing the tunnel support beams to the storage tank (Figure 2-1). Lift out the two tunnel support beams.

e. Attach a four-point sling to the lifting eyes on top of the tunnel and lift the tunnel out of the storage tank with a suitable lifting device. Place the tunnel on wood blocks, positioned to support the tunnel support rails.

f. Re-install the tunnel support beams in the storage tank, securing with the holddown bars.

g. Open the tunnel doors and remove the items listed in table 2-1 from inside the tunnel. Leave the loading platforms folded inside the tunnel and close the tunnel doors.

NOTE

If any items, listed in table 2-1, are not found inside the tunnel, check the bottom of the storage tank and the toolbox. Report missing items to supervisor.

h. Open the toolbox and remove the items listed in table 2-2. Report missing or damaged parts to supervisor.

Table 2-1. Loose Items Shipped Inside Tunnel

Part No	Description	Qty..	Fig. Index No.
3000-9	Flex-hose, asphalt (assembled with following four items)	1	6-2-3
245SS	Hose end, disconnect, 3 inch	2	6-2-1
673-3IN-GAL	Coupling; pipe, 3 NPT	1	6-2-2
179433	Tee, pipe, 3 NPT	1	6-2-4
WWP471	Plug, pipe, 3 NPT, square head	1	6-2-5
3000-11	Connector pipe -	1	6-3-1
3000-12	Shield, front rain	1	6-4-6
3000-13	Shield, LH forward side rain	1	6-4-7
3000-14	Shield, RH forward side rain	1	6-4-8
3000-15	Shield, LH rear side rain	1	6-4-9
3000-16	Shield, RH rear side rain	1	6-4-10
3000-17	Shield, rear rain	1	6-4-11
3000-18	Support, tackle (with swivel eye, eyebolt and nuts	2	6-4-17
3000-30	Chute, discharge	1	6-4-41

Table 2-2. Loose Items Shipped In Toolbox

PART NO.	DESCRIPTION	QTY	FIG./INDEX NO.
3000-4	Offset, inlet tee	1	6-1-12
3000-5	Inlet Elbow, tunnel	1	6-1-13
3000-6	Gasket, 2 inch pipe ring	12	6-1-16
			6-2-8
488-1/2-2	Valve Assembly, gate, 2 inch	3	6-1-17
3000-7	Offset, outlet tee	1	6-1-18
3000-8	Outlet Elbow, tunnel	1	6-1-19
T304SS-2	Union, pipe, stainless steel	2	6-1-22
3000-10	Reducer Tee	2	6-2-7
MS90725-164	Screw, hex head cap, 5/8 NC x 2 inch long	24	61-14
MS90725-166	Screw, hex head cap, 5/8 NC x 2-1 /2 inch long	20	6-1-20
			62-10
MS51967-20	Nut, plain hex, 5/8 NC	48	6-1-15
			6-1-21
			62-11
MS51884-19ZH	Plug, pipe, 2-1/2 NPT, square head	2	6-2-1
MS51953-195	Nipple, pipe, 3 NPT short	1	6-3-5
TC571	R6pe, 5/16 dia. x 20 feet long	4	64-12

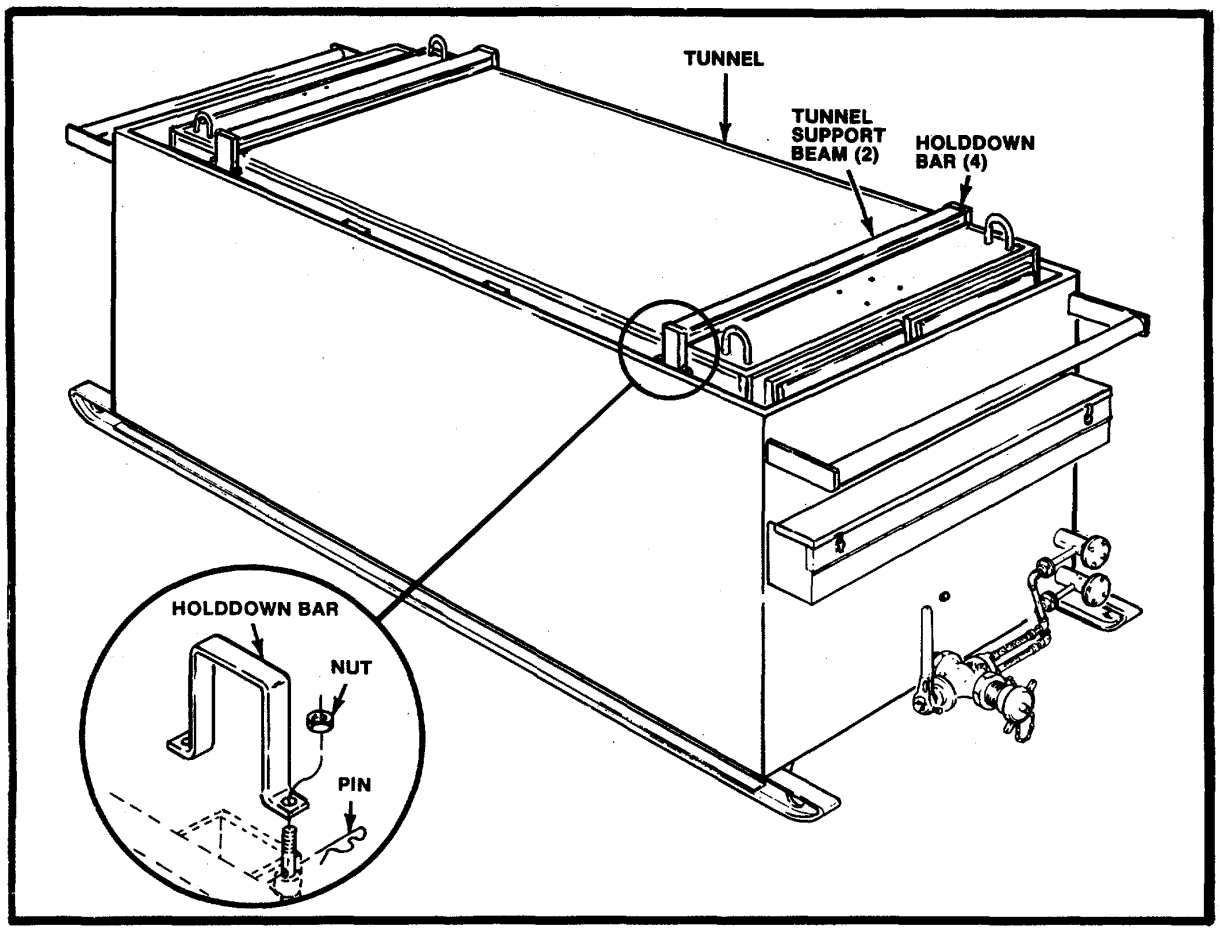


Figure 2-1. Asphalt Melter in shipping configuration.

2-4. Installation

a. Position the tackle supports on the front and rear top of the tunnel, securing each with the four hexagon head capscrews and flat washers provided (see Figure 2-2).

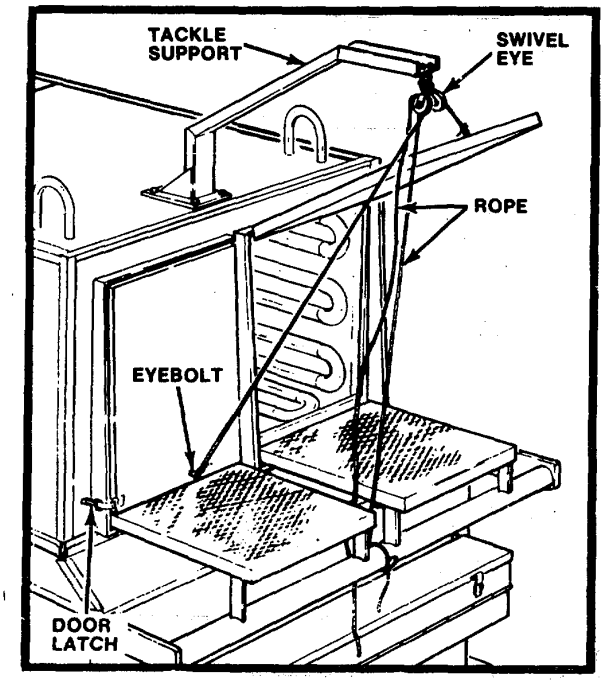


Figure 2-2. Installing tackle supports.

b. Thread a rope through each pulley wheel of the swivel eyes and tie one end of each to eyebolt on tunnel doors.

c. With a suitable hoist and a four-point sling attached to lifting eyes of tunnel, lift the tunnel into position over the storage tank. Align the tunnel so that the support rails (channels) on bottom of tunnel are directly over the tunnel support beams and lower the tunnel onto the beams. Center the tunnel between the sides of the storage tank.

d. Install the six-piece rain shield around base of tunnel as shown in figure 2-3. The rear rain shield must be installed first, then the side rain shields, working from the rear forward, with the front rain shield installed last.

e. Open the front doors of tunnel and fold out the loading platforms. Support legs of platforms must rest on the front stand-off guard.

f. Install the rear discharge chute (41, Figure 6-4) by hooking over the support angle welded to tunnel, just below the discharge door frames. The outer edge of the discharge chute will rest on the rear standoff guard.

g. Install thermometer (1, Figure 6-4) by threading into opening in front wall of storage tank.

h. Install heat transfer piping and asphalt jacketed valve as shown in figure 6-1. Insure that gaskets at each flanged coupling are not damaged or folded in such a way that would hinder sealing the joints.

NOTE

Install flange joint hexagon head capscrews and nuts finger tight, until all connections have been made then tighten all hardware securely.

i. For operation as a single unit installation, install connecting heat transfer piping and asphalt discharge hose as shown in figure 6-2.

j. For installations of multiple units make interconnections of heat transfer piping and asphalt hoses as shown in figure 6-3.

k. Inspect all connections to insure that they are tight and that the storage tank drain cap, in rear of storage tank, is installed.

l. Connect the heat transfer piping to the heat source at the 2-/2 inch reducer coupling on the ends of connector pipes (7, Figure 6-2). Insure that the flow of heat transfer oil is as indicated on figure 3-1.

m. Connect the asphalt discharge hose to supplied pumping unit for transfer of melted asphalt to working distributor or bulk storage tank.

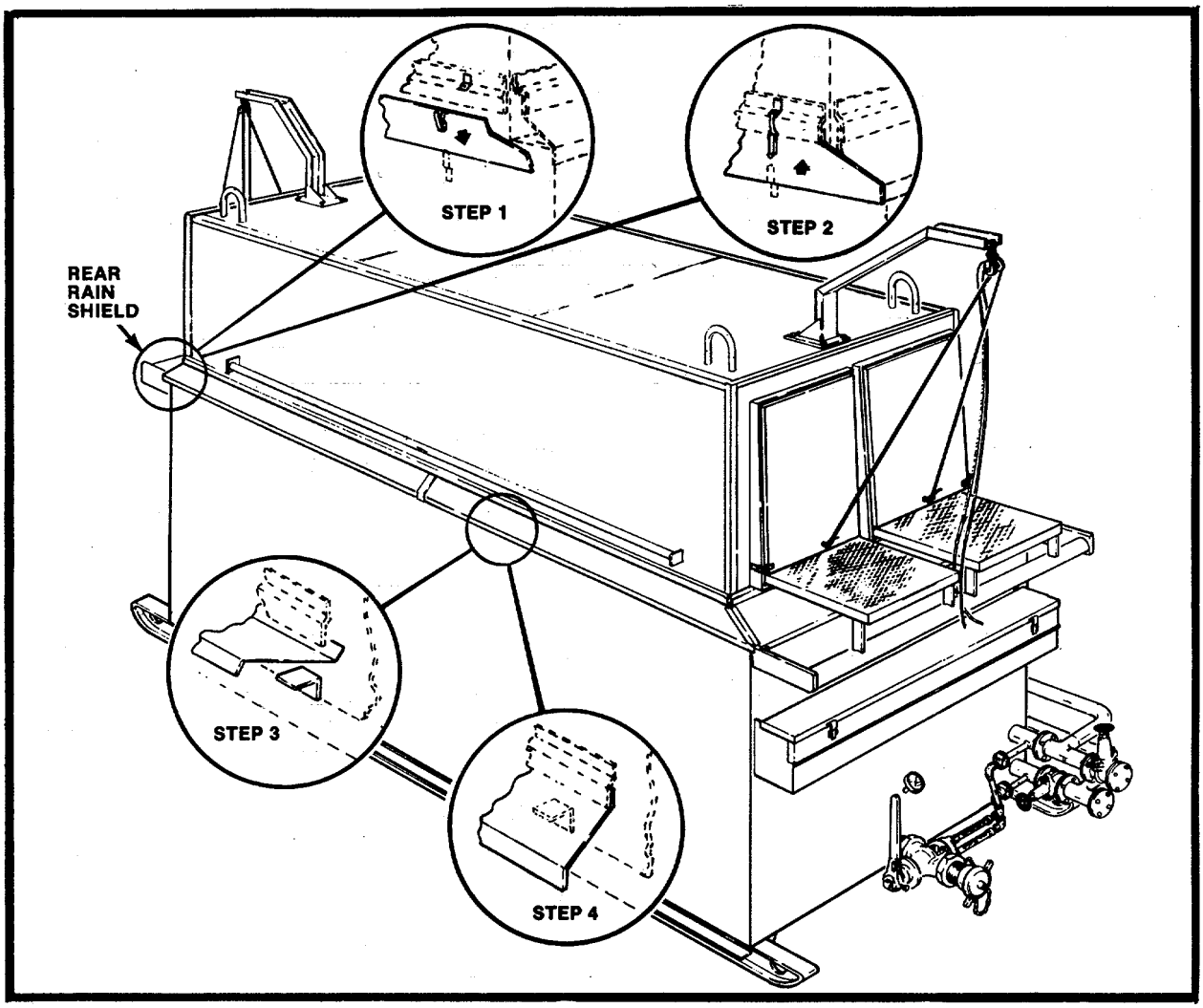


Figure 2-3. Installing rain shields.

Section III. OPERATING INSTRUCTIONS

3-1. Controls and Instruments

a. General. Before beginning operation of the asphalt melter unit, operators should become thoroughly familiar with the location and function of all controls and instruments. The following paragraphs describe each control and instrument unique to the asphalt melter. Consult operator instructions supplied with heat source unit and asphalt melter. Consult operator instructions supplied with heat source unit and asphalt distributor pump for identification of controls on those units.

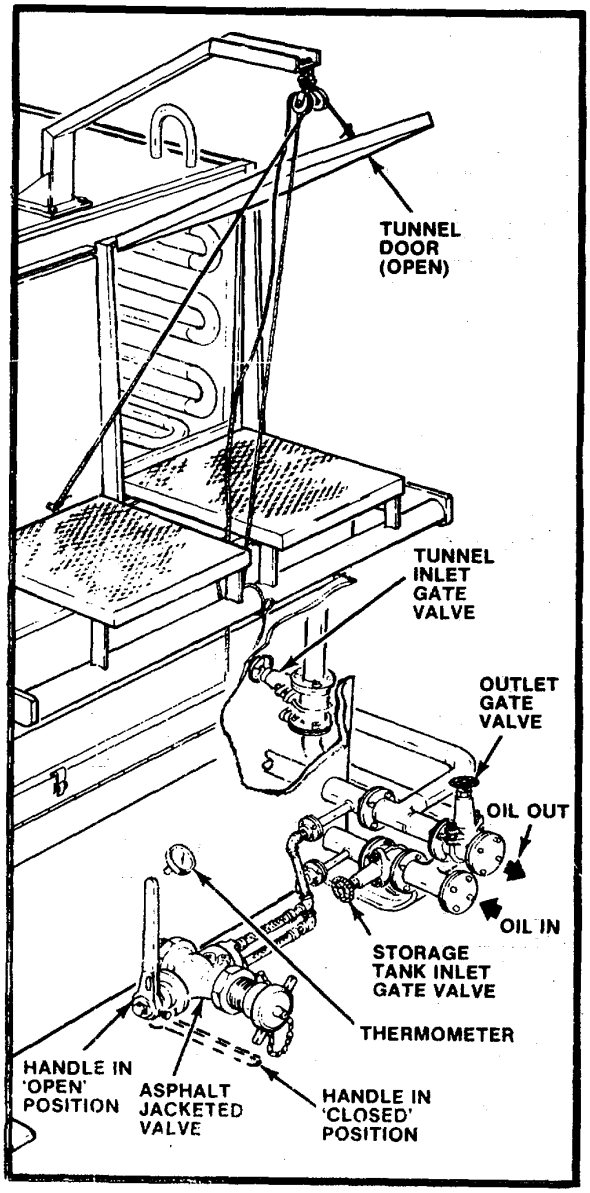


Figure 3-1. Controls and Instruments

b. Thermometer. The asphalt material temperature gauge (Figure 3-1) is a direct, gauge reading, bi-metal thermometer for monitoring the temperature of the melted asphalt material in the storage tank. For most efficient transfer of asphalt material, temperature should be maintained at approximately 235° F. For 85-100 penetration asphalt cement.

c. Tunnel Inlet Gate Valve. The tunnel inlet gate valve (Figure 3-1), located at the right side of the melter, is an all iron, rising stem gate valve, with a forged steel disc. This valve is used to regulate the flow of heat transfer oil to the heat coils of the de-drumming tunnel. During de-drumming operations, this valve is normally in the full open position. When de-drumming has been completed, this valve is closed, directing all heat transfer oil to the heat coils in the bottom of the storage tank.

d. Storage Tank Inlet Gate Valve. The storage tank inlet gate valve (Figure 3-1), located on the lower piping connection to the storage tank, is identical in construction to the tunnel inlet gate valve. This valve regulates the flow of heat transfer oil to the heating coils in the storage tank. During de-drumming operations, this valve must be used in conjunction with the tunnel inlet gate valve to divide the flow of heat transfer oil between the tunnel and the storage tank. When de-drumming this valve must be partially closed to divert most of the heat transfer oil flow to the tunnel coils, but must not be completely closed. Melted asphalt cement that is allowed to drop onto cool or cold coils in the storage tank will quickly solidify, resulting in the loss of time and additional consumption of energy to remelt the asphalt. After de-drumming operations are completed, this valve may be fully opened.

e. Outlet Gate Valve. The outlet gate valve (Figure 3-1), located on the upper piping -connection to the storage tank, is identical in construction to the tunnel inlet gate valve. This valve is used to throttle the flow of heat transfer oil through the melter, providing control of the temperature. Opening, of this valve, fully will tend to raise the temperature; while partial closing of this valve will restrict the flow and tend to lower the temperature.

f. Asphalt Jacketed Valve. The asphalt jacketed valve (Figure 3-1) is a plug type, rotary valve, with a cored jacket for the flow of heat transfer oil to heat the valve assembly. The valve stem and collar provide positive stops in the full open and full closed position. For valve installation shown, the valve is fully open when lever is straight up and fully closed when lever is horizontal, pointing away from the storage tank.

3-2. Initial Start-Up

WARNING

Do not operate asphalt melter without protective, insulated clothing, particularly gloves. High operating temperature of heat transfer oil piping and asphalt melter may cause severe burns by grabbing or leaning on equipment.

CAUTION

Do not operate the asphalt melter in the rain. Operation of melter during rain may cause the asphalt to boil and catch fire. After a rain or during humid conditions, open the tunnel doors and dry the unit before operating. Keep the heat transfer piping system full to minimize condensation.

a. Inspect installation of melter unit and all piping for proper connections.

b. Refer to operating instructions of heat source plant, and start heater. Adjust heater as required to insure delivery of heat requirements of melter.

c. Close the asphalt jacketed valve.

d. Open all three gate valves on heat transfer oil piping. Tunnel inlet and outlet gate valves should be opened fully, with the storage tank inlet valve opened only half way.

e. Open the tunnel front doors and load six asphalt drums, open end down, on each side of the tunnel.

NOTE

Loading of drums must be done quickly. Asphalt may start to come out of drums and adhere to heat coils, preventing their being moved farther into the tunnel. If this happens, close the doors and allow asphalt to melt completely before proceeding to load melter.

f. When all drums are loaded, close the front doors of tunnel and allow the asphalt to melt and drain into the storage tank.

3-3. Operating Instructions

a. Perform initial start-up as instructed in paragraph 3-2.

b. When initial charge of drums is empty, open doors at both the front and rear of the tunnel. Load new asphalt drums, open end down, in same manner as loading of initial load. Empty drums will be pushed out the rear door as full drums are loaded into the front.

NOTE

It is recommended that six drums be loaded into one side of tunnel at a time, then loading the other side of the tunnel.

CAUTION

Do not overload the storage tank. The storage tank is designed to hold 3000 U.S. gallons. Maintain records of amount of asphalt cement de-drummed and amount pumped from storage tank to insure that this capacity is not exceeded.

c. Continue loading the de-drumming tunnel as required to provide amount of asphalt required for job application.

d. Periodically monitor the thermometer (Figure 3-1) for proper operating temperature range, 235° ± 150° F. for asphalt cement rated at 85-100 penetration. Temperature of asphalt cement in storage tank may be lowered by adjustment of heat transfer oil gate valves to restrict flow of hot oil to coils of storage tank. Do not restrict oil flow to tunnel during de-drumming operations, maximum heat is desired to shorten melt-down of asphalt cement.

e. To transfer melted asphalt cement from storage tank, start supplied material pump and open asphalt jacketed valve (Figure 3-1). Meter the flow of asphalt pumped from storage tank, so a record can be maintained of the amount of material in the tank at all times.

f. When required amount of asphalt cement has been melted, heat in the tunnel coils is no longer required. Push empty drums from tunnel and close the tunnel inlet gate valve (Figure 3-1). Adjust storage tank inlet gate valve and outlet gate valve (Figure 3-1) as necessary to maintain proper temperature of asphalt cement in storage tank.

3-4. Shutdown Instructions

a. All melted asphalt cement must be pumped from the storage tank. Visually check storage tank by removing front rain shield.

b. When satisfied that all material has been pumped from storage tank, close the asphalt jacketed valve (Figure 3-1).

NOTE

Not all material can be removed by pumping, approximately 1-1/2 to 2 inches of material will remain in the storage tank.

c. Disconnect all sections of asphalt flexible hose piping and drain all material.

d. Shutdown hot oil heater (Refer to heater instructions).

e. Close all gate valves (Figure 3-1).

Section IV. MAINTENANCE INSTRUCTIONS

4-1. Cleaning Instructions

a. Periodic clean out of residue and sludge provides for a more efficient operation of the Asphalt Melter; and when moving the melter to a new worksite, reduces the overall weight also.

b. Effort required to clean out the asphalt melter can be held to a minimum by draining all asphalt material, when hot, before unit is shut down. Remove the rear drain cap (2, Figure 6-4) to drain the storage tank.

CAUTION

Allow unit to cool to ambient temperature before starting cleaning operations or dismantling of unit.

c. Before beginning clean out procedures, the unit must be partially dismantled to gain access to the storage tank (see paragraphs 4-2 and 5-1). Do not disassemble the melter farther than needed. To properly clean storage tank the storage tank heating coil (39, Figure 6-4) must be removed.

WARNING

When using kerosene or diesel fuel as a cleaning solvent, no open flame should be within 50 feet of the melter. Flash point of kerosene is 100-160° F., providing the potential of explosion of vapors.

d. Clean walls and floor of storage tank and tunnel support beams by scraping. With proper precautions kerosene, diesel fuel, or other cleaning solvent (as recommended for use with asphalt cement) may be used.

e. The asphalt flexible hose and disconnect couplings may be cleaned by soaking in a trough filled with the desired cleaning solvent.

f. Allow the unit to thoroughly air dry before attempting to reassemble the melter.

4-2. Maintenance Instructions

a. The asphalt melter, as designed and' constructed, is virtually maintenance free. Most all damage or deterioration of the melter will be the direct result of careless operation or handling during installation and/or disassembly.

b. During operation, make periodic inspection of all hot oil piping connections for signs of leakage. Inspection of the three piping connections inside storage tank, must be done when asphalt cement has been drained from the tank. Tighten all leaking connections or replace ring gasket(s) as required.

c. The three, 2-inch gate valves, used in the hot oil piping, are each equipped with stem packings. Tighten packing nut, if signs of oil leakage is evident around the stem.

d. Should there be signs of oil contaminating the asphalt cement, first check the three hot oil piping connections inside the storage tank. If no leakage is evident, inspect for broken weld on coil piping inside the storage tank or tunnel. Tighten flange bolts or weld piping as necessary.

e. Disassembly of melter for repair or parts replacement is essentially reverse of installation instructions (paragraph 2-4).

f. Replace storage tank heating coil (39, Figure 6-4) as follows:

(1) Drain storage tank (paragraph 4-1).

(2) Remove four holddown bars (34, Figure 6-4).

(3) Remove eight bolts and nuts which secure coil connector pipe (35), and remove the connector pipe and two ring gaskets (38).

(4) Remove four bolts and nuts from lower flanged coil connection, and lift coil (39) from the storage tank. Remove ring gasket (38) from face of flanges.

(5) Using new ring gaskets (38), install the storage tank heating coil (39) in reverse of instructions of paragraphs (1) through (4) above.

g. Refer to figures 6-1 through 6-4 for identification and location of components, removing, repairing or replacing as required.

Section V. PREPARATION FOR SHIPMENT OR STORAGE

5-1. Preparation For Shipment

a. Disassemble the asphalt melter in reverse of instructions for installation, (paragraph 2-4).

NOTE

The asphalt jacketed valve (5, Figure 6-1) and 3/4 inch hot oil piping need not be removed for shipping or storage purposes.

b. Clean the melter and piping(paragraph 4-1).

c. Cap or tape all pipe sections to prevent entry of foreign material.

d. Stow all items listed in table 2-2 in toolbox.

e. Strap items listed in table 2-1 into suitable groups, and place inside the tunnel.

f. Install pipe caps (2, Figure 6-4) on hot oil pipe openings of tunnel and flange cover plates (3) on openings of storage tank piping.

g. Stow the tunnel inside the storage tank, reversing the instruction for “Unpacking", (paragraph 2-3).

5-2. Transporting

a. The asphalt melter may be transported by any carrier of adequate size and capacity (see paragraph 1-2, for weight and shipping dimensions).

b. The unit must be mounted on deck of carrier with adequate blocking on all four sides and tied down with cables or chain through the four eyes in the skid rails.

5-3. Storage

a. Disassemble and pack the melter as instructed in "Preparation For Shipment", (paragraph 5-1).

b. Elevate the unit off the ground and support with suitable wood blocking under skid rails.

c. If unit is to be stored outdoors for any extended period of time, completely cover the unit with a tarp.

Section VI. REPAIR PARTS LIST

6-1. How To Order Repair Parts

a. Repair parts listed in this section may be ordered directly from manufacturer identified, or through Chausse Manufacturing Co., Inc. The manufactured parts, not made by "Chausse" are identified by the actual component manufacturer's part number, with the identity of the manufacturer given in the description column in coded form. The code is taken from the Federal Supply Code for Manufacturers, handbook H4-1. Codes used are identified as follows:

FSCM	*Manufacturer*
11740	Chausse Manufacturing Co., Inc. Detroit, Mich. 48204
14959	Crane Co. Fairfield, N.J. 07006
16327	Dayton Electric Mfg. Co. Chicago, I1. 60648
29215	Homestead Industries Inc. Jenny Division Coraopolis, PA. 15108
38056	Dresser Industries, Inc. Dresser Industrial Valve & Instrument Div. Stratford, Conn. 06497
41592	Morrison Bros. Co. Dubuque, Ia. 52001
88772	Capitol Mfg. Co. Div. of Harsco Corp. Columbus, Ohio 43216
96906	Military Standards, Promulgated By Standardization Div. Directorate of Logistic Services DSA

b. When ordering repair parts from Chausse Manufacturing Co., Inc., always provide serial number of unit, part number of repair part, description, quantity desired and complete shipping instructions. If the unit serial number is not supplied when ordering parts, Chausse Manufacturing Co., Inc. cannot assume the responsibility for supplying the correct replacement part for your unit. All repair parts are shipped C.O.D. unless otherwise agreed upon.

c. Responsibility for breakage, loss or damage in shipment ceases upon delivery to the transportation company from where a receipt is always obtained to show that the shipment was accepted by the carrier in good condition. When shipment arrives at destination if any parts are short, broken or damaged, a notation should be made by the carrier's agent of the shortage or damage on the expense bill and a claim filed by the consignee against the transportation company covering the loss of goods short or damaged.

6-2. Repair Parts List

a. *Introduction*. The following parts lists, with illustrations, provide parts-breakdown and ordering data for the Model STMD-3000, Asphalt Melter, as manufactured by the Chausse Manufacturing Co., Inc., Detroit, Michigan.

b. Column Definitions.

(1) *Fig/Index Number*. This column identifies the figure and key number on the illustration for identification and location of the part.

(2) *Part Number*. This column provides the primary number used by the manufacturer which controls the design and characteristics of the item by means of its engineering drawings, specifications, standards, and inspection requirements, to identify an item or range of items. All part numbers entered in this column can be assumed to be parts manufactured by Chausse Manufacturing Co., Inc., except when a Federal Supply Code for Manufacturers (FSCM) is provided in the "Description" column. The entry of a FSCM, identifies a purchased component for which the actual manufacturer's part number is given. Refer to paragraph 6-1 for identification of the part manufacturer.

(3) *Description*. The description column provides part nomenclature and size data for commercial parts. When the part listed is a purchased component, the FSCM code is provided in parentheses to identify the actual manufacturer. The indenture of the nomenclature provides for the grouping of parts within their next higher assembly.

(4) *Quantity*. Entries in this column provide the quantity of the listed item used within the next higher assembly. The unit of measure for stated quantities shall be "each", unless otherwise identified.

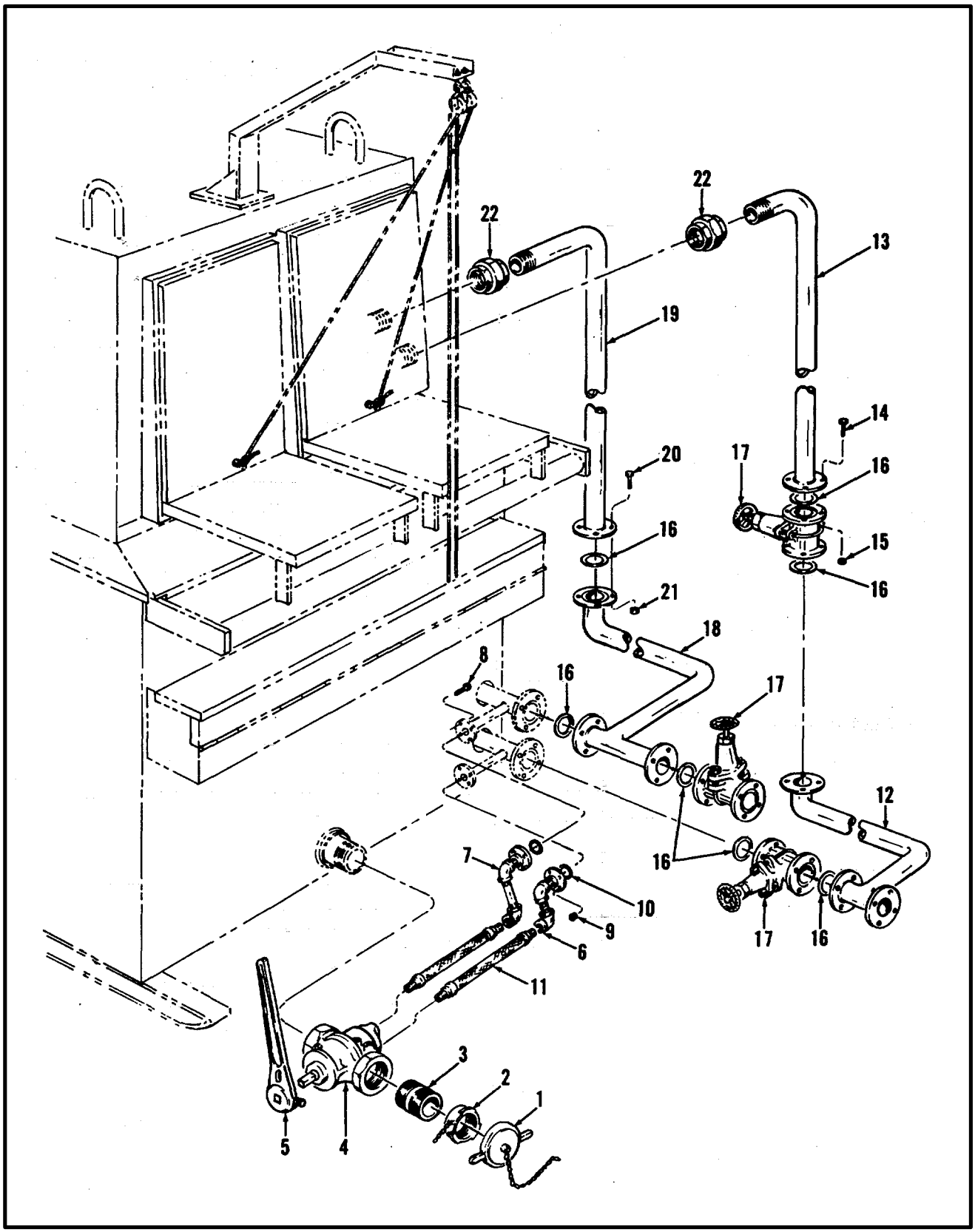


Figure 6-1. Asphalt Melter basic piping and valve installation.

Fig./Index Number	Part Number	Description 1 2 3 4 5 6	Qty
6-1-1	277SS	CAP, dust, 3 inch (41592)	1
-2	2951-4	END, faucet, 3 inch (41592)	1
-3	MS51953-241	NIPPLE, close, 3 inch NPT (96906)	1
-4	1878-W	HANDLE (29215)	1
-5	601-SJ-3	VALVE ASSEMBLY, jacketed (29215)	1
-6	3000-1	INLET CONNECTOR (11740)	1
-7	3000-2	OUTLET CONNECTOR (11740)	1
-8	MS90725-115	SCREW, hex head cap, 1/2 NC x 2 long (96906)	8
-9	MS51967-14	NUT, plain hex, 1/2 NC (96906)	8
-10	3000-3	GASKET, 3/4 inch standard pipe ring (11740)	2
-11	4Z067	FLEX-HOSE (16327)	2
-12	3000-4	OFFSET, inlet tee (11740)	1
-13	3000-5	INLET ELBOW, tunnel (11740)	1
-14	MS90725-164	SCREW, hex head cap, 5/8 NC x 2 long (96906) (used at valve flanges)	24
-15	MS51967-20	NUT, plain hex, 5/8 NC (96906)	24
-16	3000-6	GASKET, 2 inch standard pipe ring (11740)	7
-17	488-1/2-2	VALVE ASSEMBLY, gate, 2 inch (14959)	3
-18	3000-7	OFFSET, outlet tee (11740)	1
-19	3000-8	OUTLET ELBOW, tunnel (11740)	1
-20	MS90725-166	SCREW, hex head cap, 5/8 NC x 2-1/2 long (96906) (used at double flanges)	8
-21	MS51967-20	NUT, plain hex, 5/8 NC (96906)	8
-22	T304SS-2	UNION, pipe' with stainless steel seats (88772) (Union halves are welded to tunnel and items 13 and 19 above)	2

Figure 6-1. Basic unit valves and piping - legend.

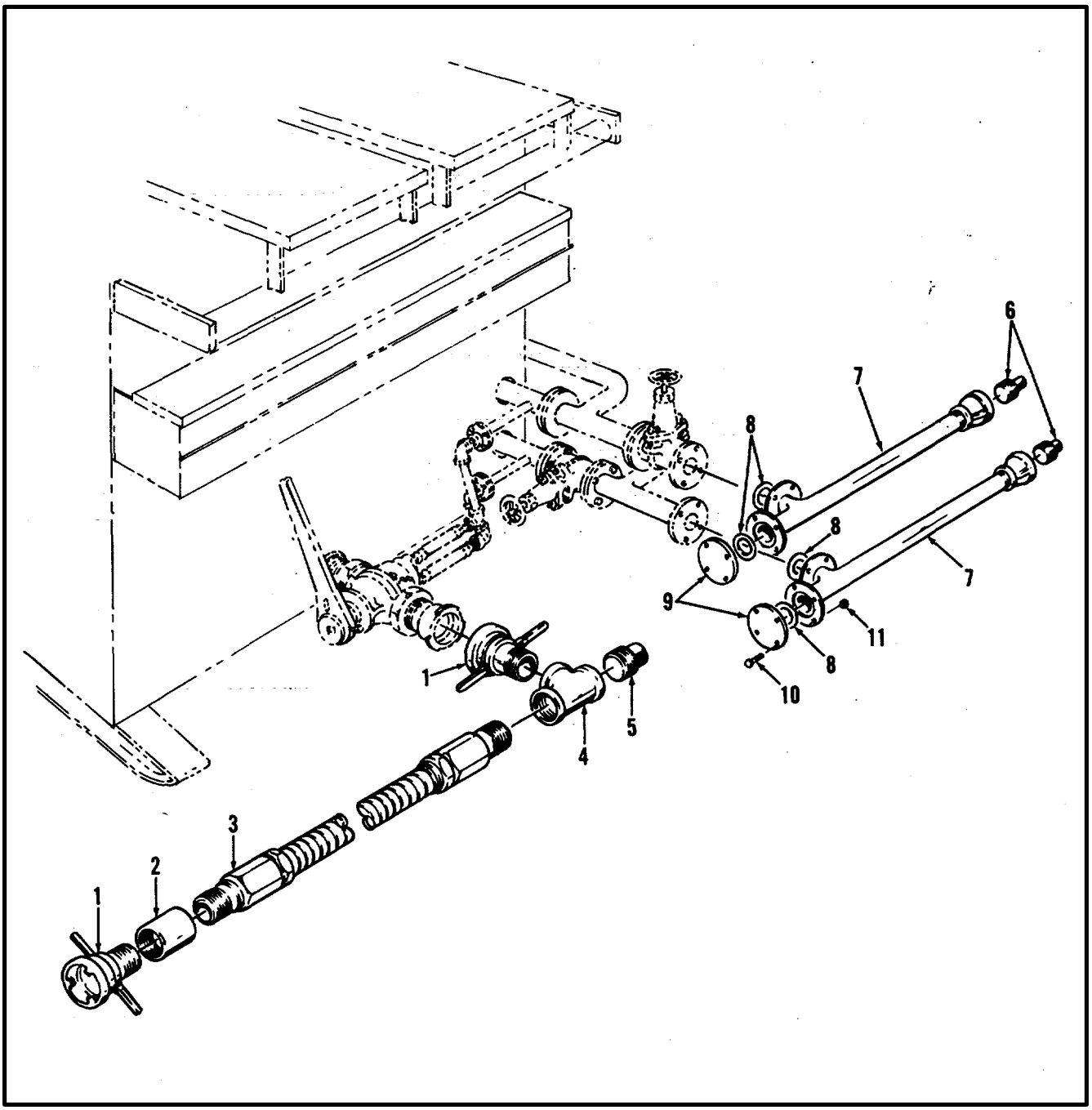


Figure 62. Hot oil and asphalt piping for single unit Installation.

Fig./Index Number	Part Number	Description 1 2 3 4 5 6	Qty
6-16-2-1	245SS	HOSE END, disconnect, 3 inch (41592)	2
-2	673-3IN-GAL	COUPLING, pipe, 3 inch (82666)	1
-3	3000-9	FLEX-HOSE, asphalt (11740)	1
-4	179433	TEE, pipe, 3 inch (19207)	1
-5	WWP471	PLUG, pipe, 3 inch square head (81348)	1
-6	MS51884-19ZH	PLUG, pipe, 2-1/2 inch square head (96906)	2
-7	3000-10	REDUCER TEE (11740)	2
-8	3000-6	GASKET, 2 inch standard pipe ring (11740)	4
-9	555-2	FLANGE, blind (14959) (same covers used in Fig. 6-4)	Ref
-10	MS90725-166	SCREW, cap, hex head, 5/8 NC x2-1/2 long (96906)	12
-11	MS51967-20	NUT, plain hex, 5/8 NC(96906)	12

Figure 6-2. Hot oil and asphalt piping for single unit installation - legend.

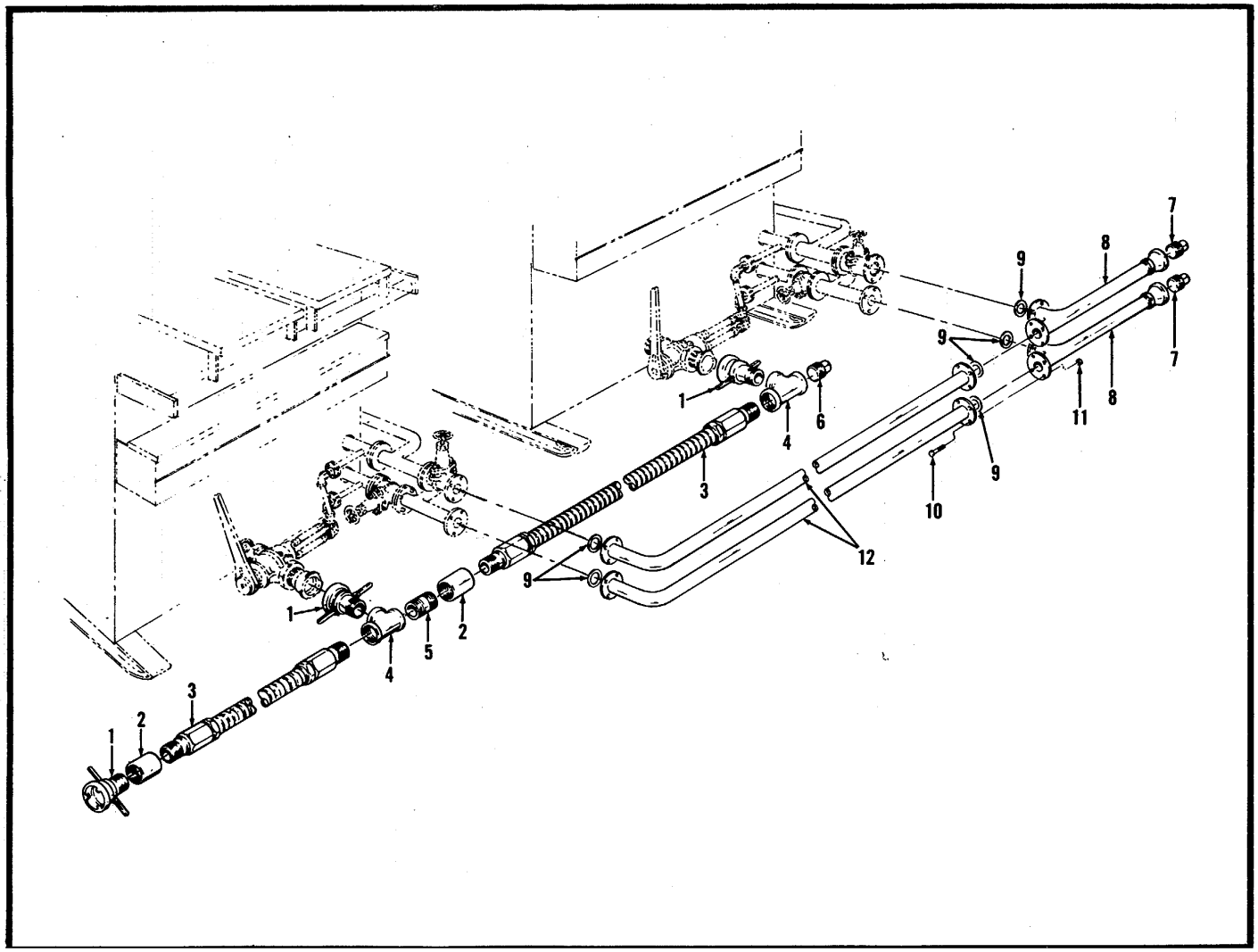


Figure 6-3. Hot oil and asphalt piping for multiple unit installation.

Fig./Index Number	Part Number	Description 1 2 3 4 5 6	Qty
6-16-2-1	245SS	HOSE END, disconnect, 3 inch (41592)	2
6-3-1	245SS	HOSE END, disconnect, 3 inch (41592) (only 2 with each unit)	3
-2	673-3IN-GAL	COUPLING, pipe, 2 inch (only 1 with each unit) (82666)	2
-3	3000-9	FLEX-HOSE, asphalt (11740) (only 1 with each unit)	2
-4	179433	TEE, pipe, 3 inch (only 1 with each unit) (19207)	2
-5	MS51953-195	NIPPLE, 3 inch short pipe (96906)	I
-6	WWP471	PLUG, pipe, 3 inch square head (81348)	1
-7	MS51884-19ZH	PLUG, pipe, 2-1/2 inch square head (96906)	2
-8	3000-10	REDUCER TEE (11740)	2
-9	30006	GASKET, 2 inch standard pipe ring (11740)	6
-10	MS90725-166	SCREW, cap, hex head, 5/8 NC x 2-1/2 long (96906)	16
-11	MS51967-20	NUT, plain hex, 5/8 NC (96906)	16
-12	3000-11	CONNECTOR PIPE (11740) (only 1 with each unit)	2

Figure 6-3. Hot oil and asphalt piping for dual unit operation - legend.

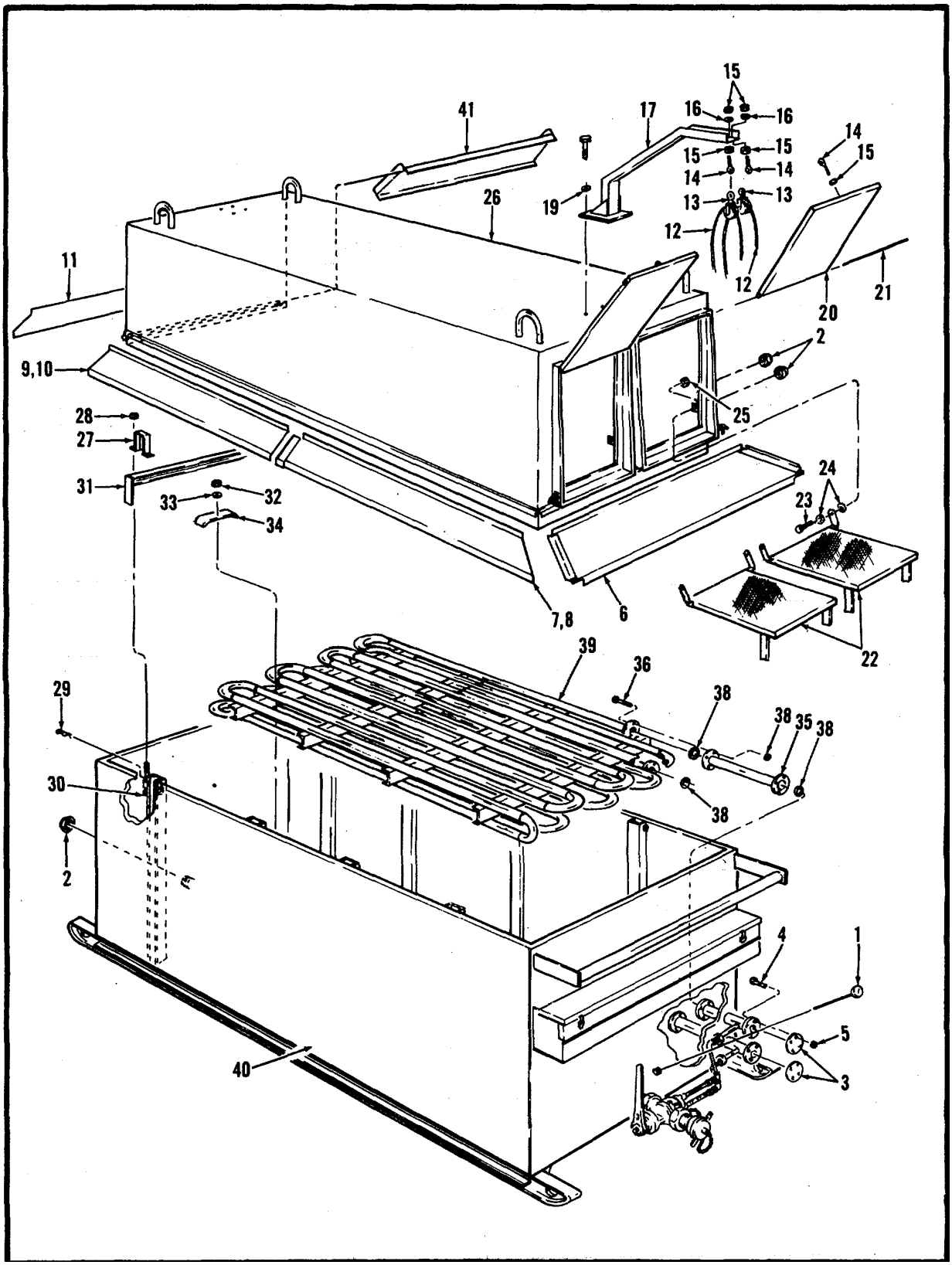


Figure 6-4. Asphalt Melter basic components.

Fig./Index Number	Part Number	Description 1 2 3 4 5 6	Qty
6-4-1	30A160R24050/ 550F	THERMOMETER (38056)	1
-2	BM11359-01A06	CAP, pipe, 2 inch (19422)	3
-3	555-2	FLANGE, blind, 2 inch pipe (14959)	2
-4	MS90725-166	SCREW, cap, hex head, 5/8 NC x 2-1/2 long (96906)	Ref
-5	MS51967-20	NUT, plain hex, 5/8 NC (96906)	Ref
-6	3000-12	SHIELD, front rain (11740)	1
-7	3000-13	SHIELD, LH forward side rain (11740)	1
-8	3000-14	SHIELD, RH forward side rain (11740)	1
-9	3000-15	SHIELD, LH rear side rain (11740)	1
-10	3000-16	SHIELD, RH rear side rain (11740)	1
-11	3000-17	SHIELD, rear rain (11740)	1
-12	TC571	ROPE, 5/16 inch dia. x 20 feet long, manila (81348)	4
-13	COMMERCIAL	SWIVEL EYE, No. 7	4
-14	9414K31	EYEBOLT, 3/8 NC (39428)	6
-15	MS51967-8	NUT, plain hex, 3/8 NC (96906)	8
-16	MS35338-46	LOCKWASHER, 3/8 inch dia. split (96906)	2
-17	3000-18	SUPPORT, tackle (111740)	2
-18	MS90725-60	SCREW, hex head cap, 3/8 NC x 1 inch long (96906)	8
-19	MS27183-14	WASHER, 3/8 inch standard flat (96906)	8
-20	3000-19	DOOR, tunnel (11740)	4
-21	3000-20	PIN, hinge (11740)	4
-22	3000-21	PLATFORM, loading (11740)	2
-23	MS90725-113	SCREW, hex head cap, 1/2 NC x 1-1/2 long (96906)	4
-24	MS27183-17	WASHER, 1/2 inch standard flat (96906)	8
-25	MS51922,33	NUT, self-locking, 1/2 NC (96906)	4
-26	3000-22	TUNNEL (11740)	2
-27	3000-23	BAR, holddown (11740)	4
-28	MS51967-14	NUT, plain hex, 1/2 NC (96906)	8
-29	ST-M-C-7	PIN, hitch (11740)	8
-30	3000-24	BOLT, clamp (11740)	8
-31	3000-25	BEAM, tunnel support (11740)	2
-32	MS51967-20	NUT, plain hex, 5/8 NC (96906)	4
-33	MS27183-21	WASHER, 5/8 inch standard flat (96906)	4
-34	3000-27	BAR, holddown (11740)	4
-35	3000-26	EXTENSION PIPE (11740)	1
-36	MS90725-166	SCREW, hex head cap, 5:8 NC x 2-1/2 long (96906)	12
-37	MS51967-20	NUT, plain hex, 5/8 NC (96906)	12
-38	3000-6	GASKET, 2 inch standard pipe ring (11740)	3
-39	3000-28	COIL., heat, storage tank (11740)	1
-40	3000-29	TANK, storage (11740)	1
-41	3000-30	CHUTE DISCHARGE(11740)	1

Figure 6-4. Asphalt melter basic components - legend.

PART II

SUPPLEMENTAL OPERATING, MAINTENANCE AND REPAIR PARTS INSTRUCTIONS (SOMARPI)

SECTION I

GENERAL

1-1. Purpose

To provide User and Support personnel supplemental maintenance and repair parts instructions that have special application for the Melter, Asphalt-Model STMD-3000.

1-2. Scope

This publication applies to Department of the Army Units, Organizations and Activities that use and/or support the Melter, Asphalt.

1-3. Description

The Melter, Asphalt is manufactured by Chausse Mfg. Co. Inc., Detroit, Michigan. The Melter is a skid mounted, 750 GPH de-drumming asphalt melter. The de-drumming tunnel is capable of removing 85-100 penetration asphalt cement from twelve 55 gallon drums at one time. The unit also contains a 3000 gallon hot storage compartment for heating the asphalt to pumping temperature (235 OF). The Melter can operate either individually, in pairs, or in trios, in parallel from a single source of hot oil.

1-4. Procurement Status

The procurement was awarded under Contract DAAE07-80-C-6076 and is a single year procurement.

1-5. Equipment Publications

a. Initially two sets of the manufacturer's commercial publications will be overpacked and shipped with each melter.

b. The overpacked publications are located in the equipment storage box at the front of the melter.

1-6. Personnel and Training

a. MOS Requirements.

(1) Operator: 62H General Construction Machine Operator.

(2) Organizational Maintenance: 62B Construction Equipment Repairman.

(3) Direct and General Support Maintenance: 62B Construction Equipment Repairman, 44B Metal Body Repairman.

b. New Equipment Training. New Equipment Training Teams (NETT) are available to major field commands. Request for NETTs should be forwarded to Command, US Army Tank-Automotive Command (TACOM), ATTN: DRSTA-MLT, Warren, Michigan 48090. Training teams should be requested only when trained personnel are not available in the command to operate and/or maintain the melter.

1-7. Logistics Assistance

Tank-Automotive Command Field Maintenance Technicians stationed at CONUS and OCONUS installations will be fully qualified and available to furnish onsite training and/or assistance concurrent with receipt of the melter.

1-8. Warranty

The Melter contractor warrants the products furnished under this contract according to the terms and conditions described in the equipment publications and Appendix B of this publication. All warranties furnished to the Melter contractor by subcontractors of assemblies or components utilized in the manufacture of the end item will be extended to the Government. See appendix B for warranty guidelines.

SECTION II

MAINTENANCE

2-1. Maintenance Concept

The Melter will not require any new or special maintenance considerations. All maintenance functions can be accomplished within the current maintenance concepts established for construction equipment.

a. Operator/Crew Maintenance. Operator and crew maintenance is limited to daily preventive maintenance checks and services.

b. Organizational Maintenance. Organizational Maintenance consists of scheduled preventive maintenance services, minor repairs and adjustments.

c. Direct Support Maintenance. Direct Support Maintenance consists of repairs on-site or in a direct support unit's shop. Repairs are accomplished with a minimum of tools and test equipment: the assemblies and end items thus repaired are returned to their users.

d. General Support Maintenance. General support maintenance overhauls selected assemblies and repairs items designated by the area support command for return to stock.

e. Depot Maintenance. Depot maintenance overhauls end items and selected major assemblies when they are required to satisfy overall Army requirements. Overhaul of the end item may also be performed by contract with manufacturer.

2-2. Maintenance Allocation Chart

Maintenance will be performed as necessary by the category indicated in the Maintenance Allocation Chart (MAC) (appendix C) to retain or restore serviceability. All authorized maintenance within the capability of a using organization will be accomplished before referring the item to support maintenance. Higher categories will perform the maintenance functions of lower categories when required or directed by the appropriate Commanders. Using and support units may exceed their authorized scope and functions in the MAC when approval is granted by the next higher authority maintenance Commander.

2-3. Equipment Improvement Recommendations (EIR)

Equipment Improvement Recommendations will be submitted in accordance with TM 38-750.

2-4. Equipment Readiness Reporting

Readiness Reporting will be accomplished as required by the current TM 38-750.

2-5. Maintenance Expenditure Limits

The average life expectancy for the Melter is 11 years.

PERCENT OF REPAIR	*YEARS*
65%	1983
59%	1985
45%	1987
40%	1989
35%	1991
30%	1992
20%	1994

2-6. Shipment and Storage

a. Shipment and Storage. Refer to TB 740-97-2 for procedures covering preservation of equipment for shipment and storage.

b. Administrative Storage. Refer to TM 740-90-1 for instructions covering administrative storage of equipment.

2-7. Destruction to Prevent Enemy Use

Refer to TM 750-244-3 for procedures covering destruction of equipment to prevent enemy use.

2-8. Fire Protection and Safety

a. Fire Protection

(1) A hand operated fire extinguisher may be installed at discretion of the using unit.

(2) Approved hand portable fire extinguishers are listed in TB 5-4200-200-10.

b. Safety

(1) When de-drumming or heating asphalt cement, do not allow smoking or open flames within 50 feet of equipment.

(2) Do not allow open flames around asphalt or fuel storage tanks.

2-9. Basic Issue Items Lists (BIIL)

See appendix B for a list of items which accompany the end item or are required for operation and/or operator's maintenance.

2-10. Maintenance and Operating Supply List

Not required.

2-11. Special Tools and Equipment

No special tools or equipment are required for operation and maintenance of the Melter.

2-12. Facilities

No special maintenance facilities are required for the Melter.

2-13. Support Equipment

a. An external heat supply must be provided that will deliver 1,000,000 BTU's per hour for circulation of hot oil through the Melter.

b. A suitable lifting device such as a forklift or 5 ton wrecker for handling the asphalt drums (ref. TM 5-331D).

c. Electric or pneumatic chisels are suggested methods of opening drums.

CAUTION

Never use a welding torch to open drums.

2-14. Maintenance Forms and Records

Operational Maintenance and Historical records will be maintained as required by the current TM 38-750.

SECTION III

REPAIR PARTS SUPPLY

3-1. General

a. The basic policies and procedures in AR 710-2 and AR 725-50, are generally applicable to repair parts management for construction equipment.

b. Manufacturer's parts manuals are furnished with the Melter instead of Department of the Army Repair Parts and Special Tool List (RPSTL).

c. National Stock Number (NSNs) are initially assigned only to PLL/ASL parts and major assemblies, i.e., engines transmissions, etc. Additional NSNs are assigned by the supply support activities as demands warrant.

d. Automated Processing (AUTODIN) of Federal Supply Code Manufacturer (FSCM) part number requisitions, without edit for matching NSNs and exception data, is authorized.

e. Proper use of project codes on parts requisitions is essential.

f. Repair parts are available from commercial sources and may be purchased locally in accordance with AR 710-2 and AR 735-110.

g. Initial Prescribed Load List (PLL) and Authorized Stock List (ASL) will be distributed by US Army Tank Automotive Command (TACOM), ATTN: DRSTA-FH, Warren, Michigan 48090.

3-2. Prescribed Load List (PLL)

The PLL distributed by TACOM is an estimated 15 days supply recommended for initial stockage at organizational maintenance. Management of PLL items will be governed by the provisions of AR 710-2 and local command procedures. Selection of PLL parts for shipment to CONUS/OCONUS units is based upon the receiving Commands recommendation after their review of the TACOM prepared list. Organizations and activities in CONUS/OCONUS will establish PLL stocks through normal requisitioning process.

3-3. Authorized Stockage List (ASL)

The ASL distributed by TACOM is an estimated 45 days supply of repair parts for support units and activities. The ASL parts will be shipped according to the recommendations of the receiving commands, after they have reviewed the initial list distributed by TACOM. Support units and activities in CONUS/OCONUS will establish ASL stocks through normal requisitioning process.

3-4. Requisitioning Repair Parts

a. Using Units/Organizations. Requisitions (DA Form 2765 Series) will be prepared according to AR 710-2 and local command directives. Units in CONUS will use project code "BGW" in block 19. Units OCONUS will enter in block 19 project code "JZC", appendix F.

b. Support Units and Activities.

(1) General: All MILSTRIP requisitions (DD Form 1348 Series) prepared for repair parts support will include distribution and project codes, see appendixes G, H, and I.

(2) Distribution Code. Supply customers in CONUS will use code "F" in card column 54. Customer OCONUS will use the appropriate code from Appendix P, paragraph P-3, AR 725-50.

(3) Project Codes. The applicable project code will be entered in card columns 57-59 of requisitions for NSN parts, whether CONUS or OCONUS customers. Project Code "BGW" will also be used by CONUS customers when requisitioning part numbered parts. Supply customers OCONUS will use project code "JZC" for part numbered parts.

3-5. Submitting Requisitions

a. Using Units and Organizations will submit DA Form 2765 Series requisitions to designated support units or activities in accordance with local procedures.

b. Support units and activities will forward MILSTRIP requisitions for NSN parts through the Defense Automated Addressing System (DAAS) to the Managing Supply Support Activity. Requisitions for part numbered part will be forwarded through DAAS to the Defense Construction Supply Center (DCSC).

NOTE

When the manufacturer's part number and Federal Supply Code for Manufacturer (FSCM) exceed the space in card columns 8 through 22 of A02/AOB requisitions, prepared an A05/AOE requisitions (DD Form 1348-6) and mail it to Commander, Defense Construction Supply Center, ATTN: DCSC-OSR, Columbus, OH 43215.

APPENDIX A

REFERENCES

A-1. Equipment Publications

TM 5-331D	Utilization of Engineer Construction Equipment: Volume D-1: Asphalt and Construction Equipment
TM 5-337	Paving and Surfacing Operations

NOTE

Supervisors and operators should refer to TM 5-331D to get the most use from this equipment.

A-2. INDEX

DA PAM 310-1	Consolidated Index of Army Publications and Forms

APPENDIX B

WARRANTY GUIDELINES

B-1.

A warranty period of 15 months or 1500 hours of operation applies to the Asphalt Melter, Model STMD 3000, contract number DAEE07-80-C-6076, manufactured by Chausse Mfg. Co. after delivery to the Government. This warranty applies to the end item, components and all supplies furnished under the contract.

B2.

Using units may not contact their local dealer. You must mail DA Form 2407 to the Maintenance Directorate,' TACOM, at the following address: US Army Tank-Automotive Command, ATTN: DRSTAMVB, Warren, Michigan 48090. To expedite actions you may call the information to AUTOVON 786-7439, 7349 or 7387 with the information from your DA 2407, section 1, block 1 through 11, blocks16, 17, 18, and 20.

B-3. General Information.

a. DA Form 2407 (prepared in accordance with warranty claim actions in TM 38-750) will be used to submit warranty claims actions for end items when components, parts or assemblies are defective and are covered by a manufacturer's warranty. End items under warranty are identified by a decal plate and/or warranty statement included in the operator's and maintenance manual for the end item. All warranty actions settled or unsettled will be reported to the National Maintenance Point (NMP) on DA Form 2407. For warranties settled locally the DA Form 2407 will contain a statement "For Information Only" in block 35.

b. Maintenance activities in support of organizational maintenance are the responsible points of contact between the originator of warranty claims and the National Maintenance Point (US Army Tank-Automotive Command, DRSTA-MVB, AUTOVON 786-7439, 786-7349, 786-7387, Warren, Michigan 48090, which serves as the DA Representative with the contractor in warranty matters.

NOTE

In certain instances, the originating organization and the support activity are one and the same.

c. Before you take your equipment to a dealer for repair, whether or not it was necessary for you to go through the NMP (TACOM), check with your local procurement office to see if a fund commitment document is needed. Sometimes, even though the majority of the repairs are covered by the warranty, there may be a small charge for normal maintenance costs, i.e., oil filters, oil, etc. Further, the cause of damage could be determined by the dealer to be directly related to "operator abuse." In that case, the Government may be obligated to pay for teardown services even if the repairs are no longer desired, or for the complete cost if repairs are to be completed by the dealer.

d. When the equipment is given to the dealer for repairs, find out how long the work will take, the extent of the problem, if possible and the charges, if any, which may be involved. Leave the name and telephone number of the person to be contacted for pickup of the equipment and specifically state that he should be called as soon as the repairs are finished. In addition, state he should be telephoned if unexpected problems, costs, and/or delays are encountered. Get the name and telephone number of the Service Manager, for any required follow-up purposes.

e. When you arrive to pick up your equipment after completion of services, make certain that you know exactly what repairs were performed and/or parts replaced. This is required for overall problem trend evaluation by the NMP and must be identified upon completion of warranty services.

f. Telephone the NMP at TACOM, AUTOVON 786-7439,786-7349, and/or 786-7387 if:

(1) Your equipment requires repairs and you cannot obtain these services using the procedures listed above.

(2) The length of time required for repairs may seriously hamper your mission, or if the dealer's overall response to your requirements are not satisfactory,

(3) You have any questions regarding warranty procedures-either in general or about a specific job. Do not wait until your problems become critical.

g. Do not attempt to conduct negotiations regarding a breach of warranty. This is a function of the Contracting Officer, through the NMP at TACOM.

APPENDIX C

BASIC ISSUE ITEMS LIST

Table C-1. Basic Issue Items List

Nomenclature:
Manufacturer:
Serial Number Range:

DATE:

(1) Mfr. Part No.	(2) Mfr. Fed Code	(3) Description	(4) Unit of Issue	(5) Quanity Furnished w/Equip.
		NONE		

Table C-2. Items Troop Installed or Authorized List

(1) SMR Code	(2) National Stock Number	(3) Description Ref. No & Mfr. Code / Usable on Code	(4) Unit of Meas.	(5) Qty Auth.
		The following items are authorized but not issued with the Melter.		
	7520-00-559-9618	Case, Cotton Duck MIL-B-11743(81349)	ea	1
	4210-00-889-2221	Extinguisher, Fire Dry Chemical	ea	1

APPENDIX D
MAINTENANCE ALLOCATION CHART

Section I. INTRODUCTION

D-1. General

This Maintenance Allocation Chart designates responsibility for performance of Maintenance functions to specific Maintenance categories.

D-2. Maintenance Functions

a. Inspect: To determine the serviceability of an item by comparing its physical, mechanical and/or electrical characteristics with established standards through examination.

b. Test: To verify serviceability and detect incipient failures by measuring the mechanical or electrical characteristics of an item and comparing those characteristics with prescribed standards.

c. Service: Operations required periodically to keep an item in proper operating condition, i.e., to clean (decontaminate), to preserve, to drain, to paint, or to replenish fuel, lubricants, hydraulic fluids, or compressed air supplies.

d. Adjust: To maintain, within prescribed limits, by bringing into proper or exact position, or by setting the operating characteristics to specified parameters.

e. Align: To adjust specified variable elements of an item to bring about optimum or desired performance.

f. Calibrate: To determine and cause corrections to be made or to be adjusted on instruments or test measuring and diagnostic equipment used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the, instrument being compared.

g. Install: The act of emplacing, seating, or fixing into position an item, part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system;

h. Replace: The act of substituting a serviceable like type part, subassembly, or module (component or assembly) for an unserviceable counterpart.

i. Repair: The application of maintenance services or other maintenance actions to restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

j. Overhaul: That maintenance effort (service/action) necessary to restore an item to a completely serviceable/operational condition as prescribed by maintenance standards (i.e., DMWR) in appropriate technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.

k. Rebuild: Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of materiel maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (hours/miles, etc) considered in classifying Army equipments/components.

D-3. Column entries

Columns used in the Maintenance allocation chart are explained below:

a. Column 1, Group Number: Column 1 lists group numbers, the purpose of which is to identify components, assemblies, subassemblies, and modules with the next higher assembly.

b. Column 2, Component/Assembly: Column 2 contains the noun names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

c. Column 3, Maintenance Functions: Column 3 lists the functions to be performed on the item listed in Column 2.

d. Column 4, Maintenance Category: Column 4 specifies, by the listing of a "work time" figure in the appropriate subcolumn(s), the lowest level of maintenance authorized to perform the function listed in Column 3. This figure represents the active time required to perform that maintenance function at the indicated category of maintenance.-If the number or complexity of the tasks within the listed maintenance function vary at different maintenance categories, appropriate "work time" figures will be shown for each category. The number of manhours specified by the "work time" figure represents the average time required to restore an item (assembly, subassembly, component, module, end item or system) to a serviceable condition under typical field operating conditions.

This time includes preparation time, troubleshooting time, and quality assurance/quality control time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the Maintenance Allocation Chart.

e. Column 5, Tools and Equipment: Column 5 specifies by code those common tool sets (not individual tools) and special tools, test and support equipment required to perform the designated function.

f. Column 6, Remarks: Column 6 contains an alphabetic code which leads to the remark in Section IV, Remarks, which is pertinent to the item opposite the particular code.

Section II. MAINTENANCE ALLOCATION CHART
MELTER, ASPHALT, SKID MOUNTED MODEL STMD-3000

(1) GROUP NUMBER	(2) COMPONENT ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY					(5) TOOLS AND EQUIP	(6) REMARKS
			C	O	F	H	D		
15	Frame, Towing Attachments and Drawbars								
1501	Frame Assy							1,2	
	Base Skid	Replace			.1				
		Repair			.2				
	Tunnel Supports	Replace		.5					
		Repair			.1				
	Tunnel Doors	Replace		.5					
	Support Arms	Repair		.5					
	Rope Nylon	Replace	.3						
22	Body, Chassis and Hull Accessory Items							1	
2210	Data Plates								
	Plate, Instruction	Replace		.3				1,2	
	Plate, Data	Replace			.3				
47	Gauges (Non-Electrical Weighing and Measuring Devices)							1	
4702	Gauge, Temperature	Replace		.3					
60	Heating Units								
6001	Housing							1,2	
	Flashing, Sides and Ends	Replace		.5					
	Valve, Gate	Replace			.5				
	2 in	Repair		.5					
	Valve, Gate 3 in Jacketed	Replace			.5				
	Coils, Tank Heating	Replace			4.0				
		Repair			4.0				
	Pipe Assembly	Replace		.2					
	Pipes, Elbows, Fitting								
	Plugs	Replace			1.5				
	Gaskets and Packings	Replace		1.5					
	Tank, Melting and Storage	Service	.2						
		Replace		3.0					
		Repair		2.0					
	Accessory Items								
	Tubing, Flexible Metal	Replace			1				

(1) GROUP NUMBER	(2) COMPONENT ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY					(5) TOOLS AND EQUIP	(6) REMARKS
			C	O	F	H	D		
	End Assembly Flange Fittings Quick Disc Tunnel Dedrumming	Replace Service Replace Repair	 .2 	2 4.0 4.0					

The subcolumns are as follows:

C-operator/crew F-direct support D-depot
O-organizational H-general support

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS

TOOL OR TEST EQUIPMENT REF CODE	MAINTENANCE CATEGORY	NOMENCLATURE	NATIONAL/NATO STOCK NUMBER	TOOL NUMBER
	NOTE Unless otherwise noted, all maintenance functions can be accomplished with the tools contained in the following common tool sets.			
1	O,F,H	Shop Equip Org Repair Light TRK MTD (SC 4940-97-CL-E04)	4940-00-294-9516	T13152
1	O,F,H	Tool Kit Automotive Maint, Org Maint Common #1 (SC 4910-95-CL-A72)	4910-00-754-0654	W32593
1	O,F,H	Tool Kit Automotive Maint, Org Maint Common #2 (SC 4910-95-CL-A72)	4910-00-754-0650	W32720
1	O,F,H	Tool Kit, Light Weight (SC 5180-90-CL-N26)	5180-00-177-7033	W33001
1	O,F,H	Shop Equip Auto Maint and Repair Org Maint Supp #1 (SC 4910-95-CL-A73)	4910-00-754-0653	W32867
2	F,H	Shop Equip Contact Maint TRK MTD (SC 4940-97-CL-E05)	4940-00-294-9518	T10138
2	F,H	Shop Equip Gen Purp Repair Semitrlr MTD (SC 4940-97-CL-E03)	4940-00-287-4894	T10549
2	F,H	Tool Kit, Master Mechanic Equip Maint and Repair (SC 5180-90-CL-N05)	5180-00-699-5273	W45060
2	F,H	Shop Set, Fuel and Elec Sys Field Maint Basic Supp #2 (SC 4910-95-CL-A65)	4910-00-390-7775	T30688

TOOL OR TEST EQUIPMENT REF CODE	MAINTENANCE CATEGORY	NOMENCLATURE	NATIONAL/NATO STOCK NUMBER	TOOL NUMBER
2	F,H	Shop Equip Machine Shop, Field Maint Basic (SC 3470-95-CL-A02)	3470-00-754-0708	T15644
2	F,H	Measuring and Lay out Tool Set, Mach (SC 5280-95-CL-A02)	5280-00-511-1950	W44512
2	F,H	Shop Equip Welding Field Maint (SC 3470-95-CL-AO8)	3470-00-357-7268	T16714

APPENDIX E

PRESCRIBED LOAD LIST (PLL)
AUTHORIZED STOCKAGE LIST (ASL)

End Item: Melter, Asphalt		Make: Chausse Mfg. Cp.		Model: STMD 3000
MFR, Par No: STMD-3000	NSN: 3895-01-102-3564	Serial Number Range _____To_____		Date

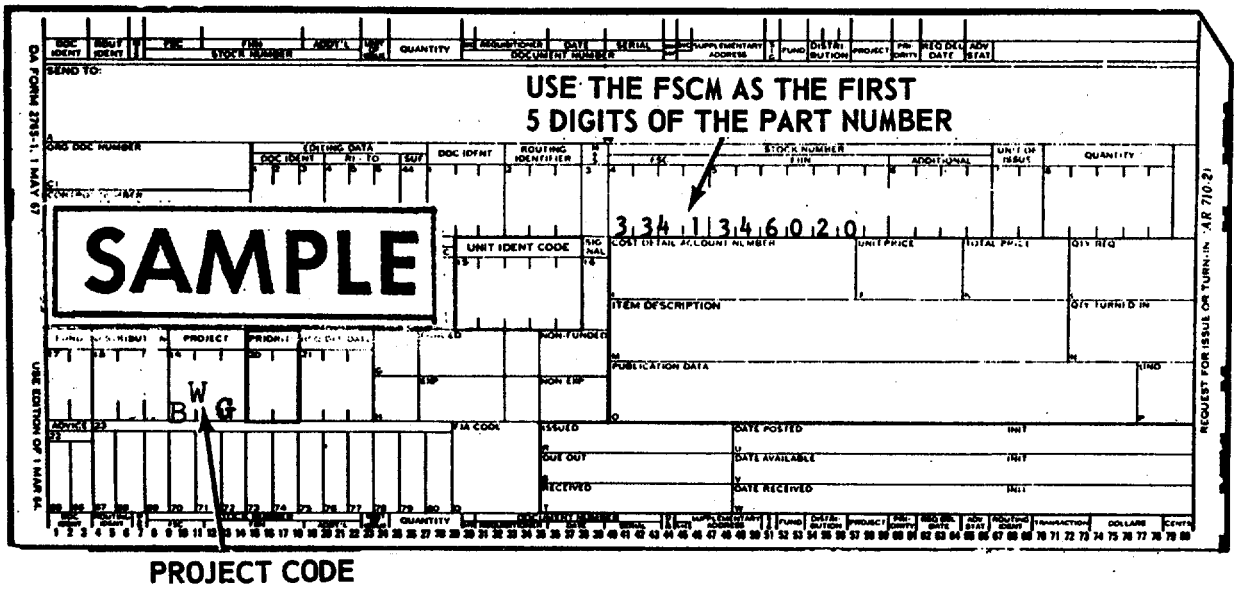
SMR Code	National Stock Number	Part Number	FSCM	Part Description	U/M	Qty. Of Parts Req'd. For No. Of End Items			
						PLL	ASL		
						1-5	1-5	6-20	21-50
PAOZZ	4720-01-117-8253	4Z067	16327	Flex-Hose Metal	EA	1	1	1	1
PAOZZ	4720-01-118-6088	3000-9	11740	Flex-Hose, 10"	EA	1	1	1	1
PAOZZ	6685-01-117-9655	30AI60R24050/550F	38056	Thermometer	EA	1	1	2	3
PAOZZ	5330-01-119-4407	3000-6	11740	Gasket, Ring	EA	2	2	3	4
PAOZZ	5330-01-119-5081	3000-3	11740	Gasket, Ring	EA	2	2	3	4

APPENDIX F

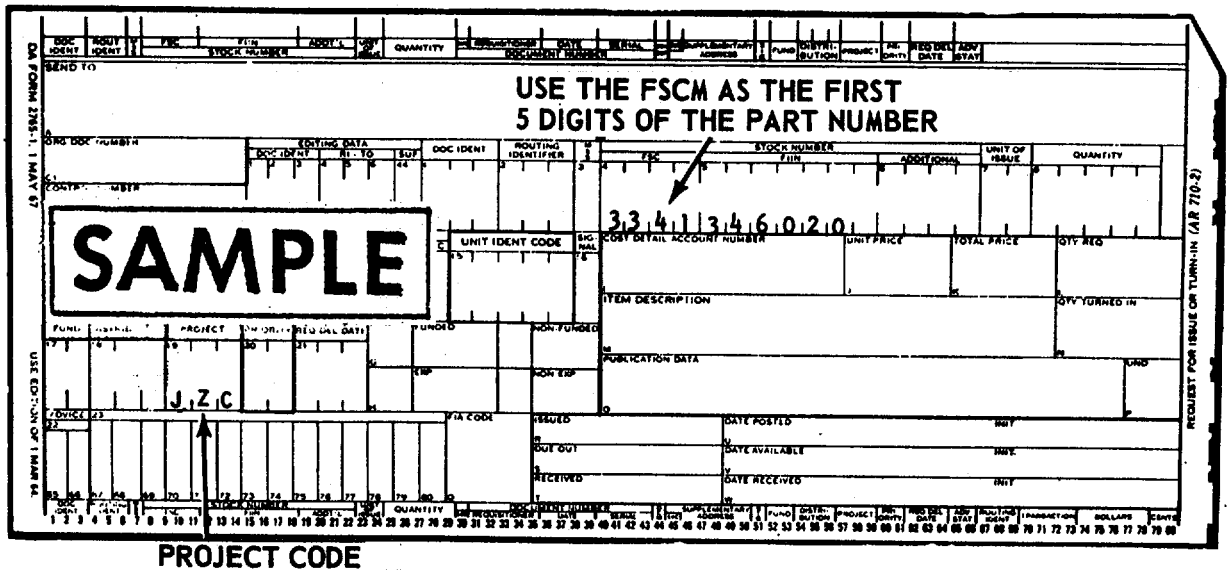
SAMPLE FORMAT

DA FORM 2765 PART NUMBER REQUEST

(CONUS REQUESTOR)

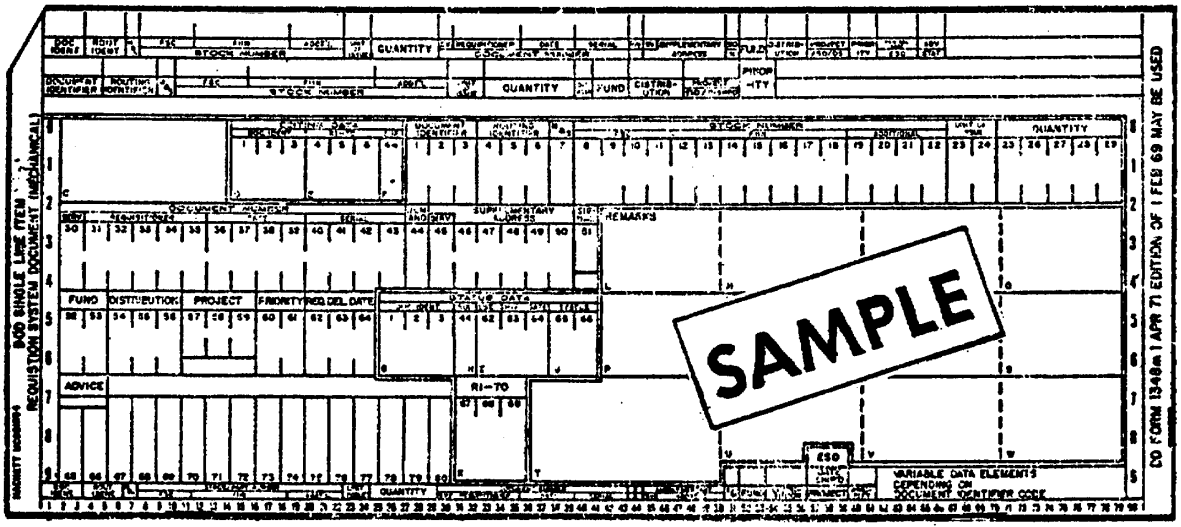


(OCONUS REQUESTOR)



APPENDIX G

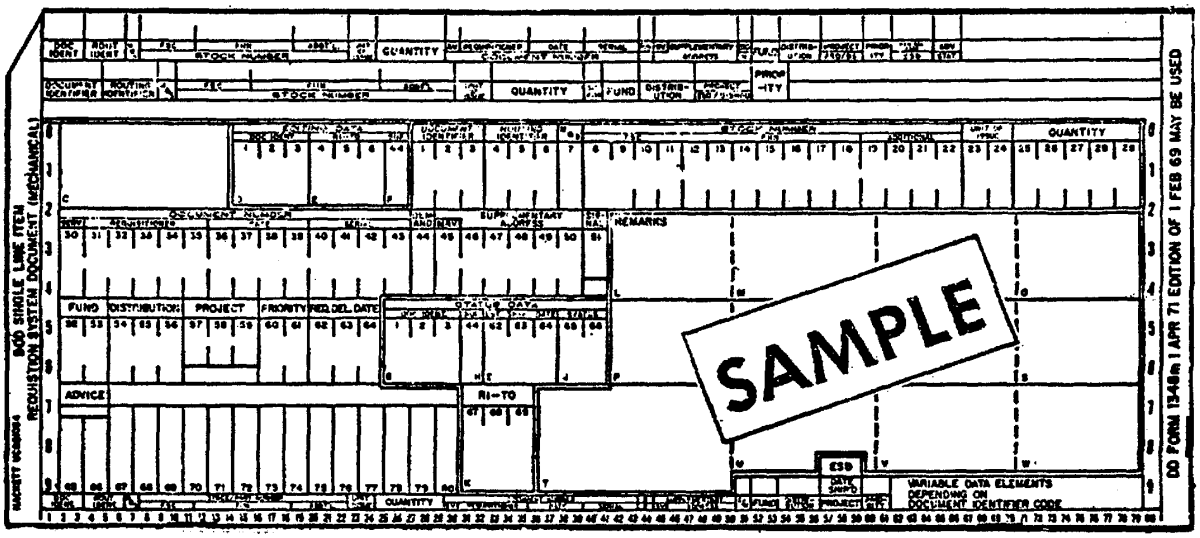
SAMPLE FORMAT - MILSTRIP REQUISTION FOR CCE (NSN)



CARD COLUMN	DESCRIPTION OF DATA	MANDATORY ENTRY FOR CCE
1-3	Document Identifier Code	AØA - CONUS AØ1 - Overseas
4-6	Routing Identifier Code	
7	Media/Status Code	
8-22	NSN	
23-24	Unit of Issue	
25-29	Quantity	
30-43	Document Number	
44	Demand Code	
45-50	Supplementary Address	
51	Signal Code	
52-53	Fund Code	
54-56	Distribution Code CC-54	"F" for CONUS; see AR 725-50 for OCONUS
	CC-55-56	Weapon System Code
57-59	Project Code	"BWG" for CONUS; "JZC" for OCONUS
60-61	Priority Code	
62-64	Required Delivery Date	
65-66	Advice Code	

APPENDIX H

SAMPLE FORMAT - MILSTRIP REQUISTION FOR CCE (NON-NSN)

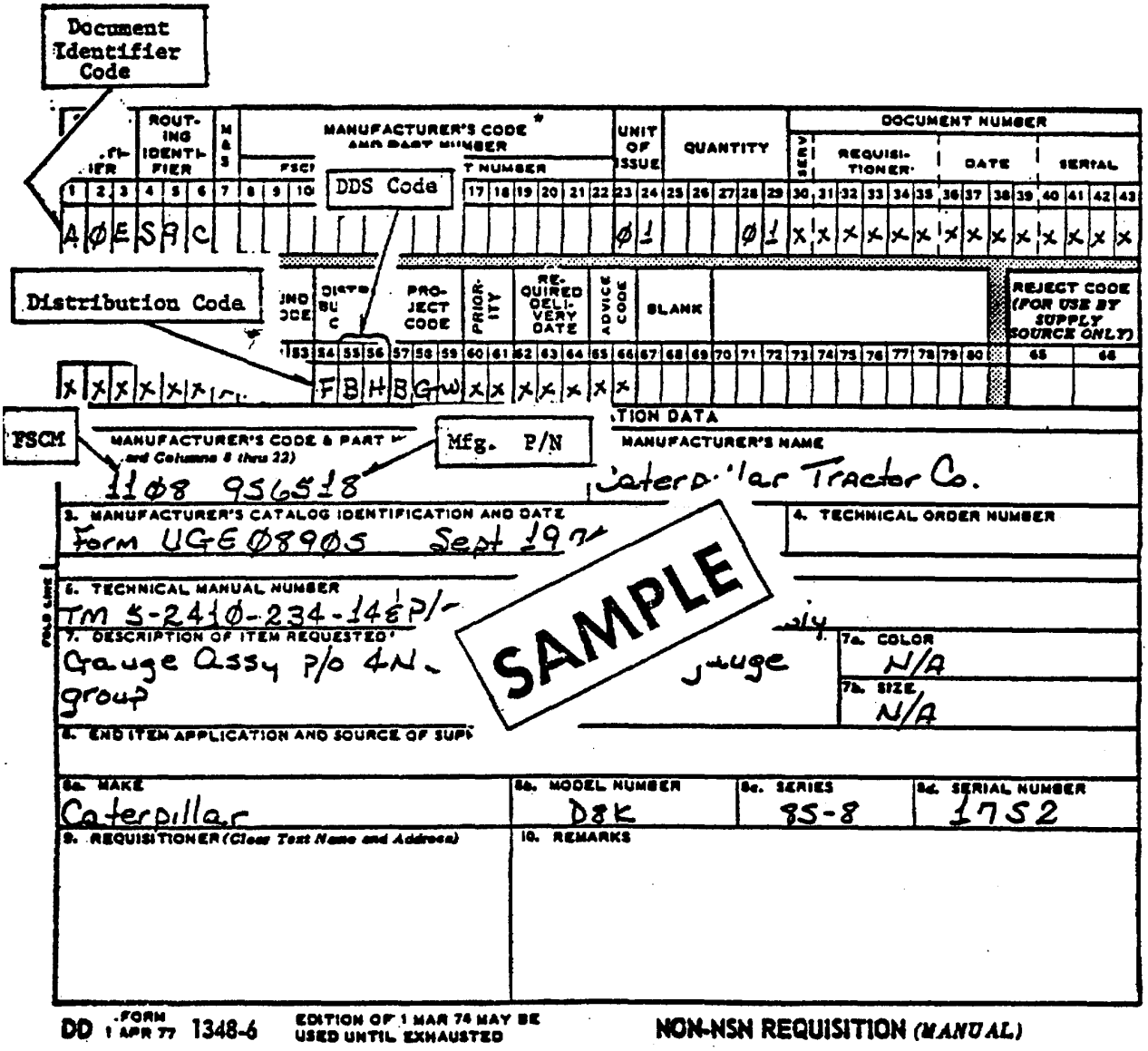


CARD COLUMN	DESCRIPTION OF DATA	MANDATORY ENTRY FOR CCE
1-3	Document Identifier Code	AØB - CONUS AØ2 - Overseas
4-6	Routing Identifier Code	Always S9C
7	Media/Status Code	
8-22	FSCM and Part Number	
23-24	Unit of Issue	
25-29	Quantity	
30-43	Document Number	
44	Demand Code	
45-50	Supplementary Address	
51	Signal Code	
52-53	Fund Code	
54-56	Distribution Code CC-54	"F" for CONUS; see AR 725-50 for OCONUS
	CC-55-56	Weapon System Code
57-59	Project Code	"BWG" for CONUS; "JZC" for OCONUS
60-61	Priority Code	
62-64	Required Delivery Date	
65-66	Advice Code	

CARD COLUMN	DESCRIPTION OF DATA	MANDATORY ENTRY FOR CCE
67-69	Blank	
70	Identification code applicable to entry in cc 71-80. A - Technical order or Technical Manual. B - End Item Identification C - Noun Description D - Drawing or Specification No.	
71-80	Reference Identification	Identification of reference specified in cc 70.

APPENDIX I

SAMPLE FORM ----- MILSTRIP REQUESTION FOR (NON-NSN) (MANUAL)



INSTRUCTIONS

This form will only be used in those cases where the manufacturer's code and part number exceed the spaces allocated in card columns 8 - 22 of the

Card Column	Description Data	Mandatory Entry for CCE
1-3	Document Identifier Code	AØE - CONUS AØ5 - OCONUS
4-6	Routing Identifier Code	Always S9C
7	Media Status Code	
8-22	FSCM and Part Number	Leave Blank Enter in Block 1 under Identification Data
23-24	Unit of Issue	
25-29	Quantity	
30-43	Document Number	
44	Demand Code	
45-50	Supplementary Address	
51	Signal Code	
52-53	Fund Code	
54-56	Distribution Code CC-54 CC-55-56	"F" for CONUS; see AR 725-50 for OCONUS
57-59	Project Code	"BWG" for CONUS; "JZC" for OCONUS
60-61	Priority Code	
62-64	Required Delivery Date	
65-66	Advice Code	
67-80		Blank

IDENTIFICATION DATA - Lower half of DD Form 1348-6. complete Blocks 1 thru 9,

APPENDIX J

PREVENTIVE MAINTENANCE CHECKS AND SERVICES

J-1. Maintenance Forms and Records

Every mission begins and ends with the paperwork. There isn't much of it, but you have to keep it up. The forms and records you fill out have several uses. They are a permanent record of the services, repairs, and modifications made on your equipment. They are reports to organizational maintenance and to your commander. And they are a checklist for you when you want to know what is wrong with the equipment after its last use, and whether those faults have been fixed. For the information you need on forms and records, see TM 38-750.

J-2. Preventive Maintenance Checks and Services

a. When you do your preventive maintenance, take along the tools you need to make all the checks. You always need a rag or two.

WARNING

Drycleaning solvent SD-2, used to clean parts, is potentially dangerous to personnel and property. Do not use near open flame or excessive heat. Flash point of solvent is 138°F.

(1) Keep it clean: Dirt, grease, oil, and debris only get in the way and may cover up a serious problem. Clean as you work and as needed. Use drycleaning solvent (SD-2) to clean metal surfaces. Use soap and water when you clean rubber or plastic material.

(2) Bolts, nuts and screws: Check them all for obvious looseness, missing, bent, or broken condition. You can't try them all with a tool, of course. But look for chipped paint, bare metal, or rust around bolt heads. If you find one you think is loose, tighten it or report it to organizational maintenance.

(3) Welds: Look for loose or chipped paint, rust, or gaps where parts are welded together. If you find a bad weld, report it to organizational maintenance.

(4) Electric Wires and Connectors: Look for cracked or broken insulation, bare wires, and loose or broken connectors. Tighten loose connectors and make sure the wires are in good shape.

(5) Hoses and Fluid Lines: Look for wear, damage, and leaks, and make sure clamps and fittings are tight. Wet spots show leaks, of course. But a stain around a fitting or connector can mean a leak. If a leak comes from a loose fitting connector, tighten it. If something is broken or worn out, report it to organizational maintenance.

b. It is necessary for you to know how fluid leakage affects the status of your equipment. The following are definitions of the types/classes of leakage you need to know to be able to determine the status of your equipment. Learn, then be familiar with them and REMEMBER-WHEN IN DOUBT, NOTIFY YOUR SUPERVISOR!

Leakage definitions are:

CLASS I	*Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops.*
CLASS II	*Leakage of fluid great enough to form drops but not enough to cause drops to drip from item being checked/inspected.*
CLASS III	*Leakage of fluid great enough to form drops that fall from the item being checked/inspected.*

CAUTION

Equipment operation is allowable with minor leakage (Class I or II). Of course, consideration must be given to the fluid capacity in the item/system being checked/inspected. When in doubt, notify your supervisor. When operating with Class I or II leaks, continue to check fluid levels as required in your PMCS. Class m leaks should be reported to your supervisor or to organizational maintenance.

5-3. Operator/ Crew Preventive Maintenance Checks and Services

a. Do your (B) preventive maintenance just before you operate the equipment. Pay attention to the cautions and warnings.

b. Do your (D) preventive maintenance during operation. (During operation means to monitor the equipment while it *is* actually being used).

c. Do your (A) preventive maintenance right after operating the equipment. Pay attention to the cautions and warnings.

d. Do your (W) preventive maintenance weekly.

e. Do your (M) preventive maintenance once a month.

f. If something doesn't work, troubleshoot it with the instructions in your manual or notify your supervisor.

g. Always do your preventive maintenance in the same order, so it gets to be a habit. Once you've had some practice, you'll spot anything wrong in a hurry.

h. If anything looks wrong and you can't fix it, write it on your DA Form 2404. If you find something seriously wrong, report it to organizational maintenance RIGHT NOW

Table. J- 1. Operator/Crew Preventive Maintenance Checks and Services

B-Before D-During A-After W-Weekly M-Monthly

Item No.	Interval B	D	A	W	M	Item To Be Inspected Procedure: Check For And Have Repaired, Filled Or Adjusted As Needed	Equipment Is Not Ready/ Available If:
						NOTE Perform weekly as well as before PMCSs if: *a.* You are the assigned operator but have not operated the equipment since last weekly PMCS. *b.* You are operating the equipment for the first time.	
						WARNING Operation while wet may cause the asphalt to boil and catch on fire.	
1.	X					General	
	X					*a.* Visually check unit for moisture. If present, dry before operation.	
	X	X				*b.* Visually check for damaged piping or hoses.	Class III leaks found
	X					*c*. Visually check for evidence of fluid leakage.	
2.	X					*d*. Inspect installation for proper connections of heat transfer oil and asphalt piping.	Broken or missing
		X				Controls and Instruments *a*. Visually inspect thermometer for damage and loose mounting	
	X	X				*b.* Periodically observe thermometer for proper operating temperature. (200-250° F Normal Operation).	Class III Leaks found.
3.	X					*c*. Check - valves for leakage or damage and proper operation.	Class III leaks found.
4.		X				Asphalt Transfer Hoses	
	X					Inspect for loose connections, breaks and leaks..	
5.			X			De-drumming Tunnel Doors Inspect for damage and proper operation.	
						Meltank Insure all asphalt has been pumped from tank and asphalt piping has been emptied.	

Table J-2. Organizational Preventive Maintenance Checks and Services

Q-Quarterly S-Semiannually A- Annually B-Biennially H- Hours MI-Miles

Item No.	Interval Q	S	A	B	H	MI	Item To Be Inspected Procedure: Check For And Have Repaired, Filled, Or Adjusted As Needed PERFORM ALL OPERATOR PMCS FIRST
1.							Fluid, Lines, Fittings and Valves
	X						a. Visually *inspect* for leaks, breaks, loose mountings and connections.
	X						*b.* Check valves for operation.
2.							De-drumming Tunnel Doors
	X						Visually inspect for damage and proper operation of doors.
3.							Heating Coils
	X						Open de-drumming tunnel doors and visually inspect the coils for damage and excessive
4.							wear.
	X						Meltank
5.							Visually inspect tank for leaks.
	X						Meltank Cleaning
							Clean tank IAW instructions in Chausse Manual, Model STMD-3000, paragraph 4-1.

By Order of the Secretary of Army:

E. C. MEYER
General, United States Army
Chief of Staff

Official:

ROBERT M. JOYCE
Major General, United States Army
The Adjutant General

Distribution:

To be distributed in accordance with DA Form 12-25B, Organizational maintenance requirements for Mixer, Bitumious.

* U.S. GOVERMENT PRINTING OFFICE: 1196-406-421-53161

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