

TECHNICAL MANUAL

OPERATOR'S MANUAL

M081 ASPHALT MIXING PLANT

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Manufactured by
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CHAPTER 1 INTRODUCTION

I. GENERAL INFORMATION

1-1 Scope

This chapter is an introduction to the M081 Asphalt Mixing Plant and provides general information about the equipment, plant layout and set up, operation, maintenance, and descriptions of support equipment. This basic information is expanded in greater detail in TM 5-3895-374-24 and TM 5-3895-374-24P.

1-2 Maintenance Forms and Procedures

The following forms are to be used in the maintenance of the M081 Asphalt Mixing Plant.

US Army Accident Investigation Report	DA Form 285
Equipment Operators Qualification Record (Except Aircraft)	DA Form 348
Equipment Improvement Recommendation Recommended Changes to Publications and Blank Forms	(EIR) SF Form 368 DA Form 2028-2
Organizational Control Record for Equipment	DA Form 2401
Equipment Inspection and Maintenance Worksheet	DA Form 2404
Maintenance Request	DA Form 2407
Preventive Maintenance Schedule and Record	DA Form 314
DOD Fire Incident Report	DA Form 2324
Report of Discrepancy (ROD)	DA Form 364
Product Quality Deficiency Report	SF Form 368

1-3 Safety Care and Handling

Operation of the M081 Asphalt Mixing Plant requires personnel to be aware of potential hazards presented by the plant. Personnel should follow the requirements listed below to ensure a safe work environment.

1. Use of ear protection for all plant personnel working outside the control van.

2. Use of all safety devices and guards provided with the plant.
3. Personnel must wear the following protective items at all times.

Coveralls (not loose fitting)
Safety glasses with side shields
Insulated gloves - non-asbestos
Hard hat
Safety shoes
4. Routine maintenance procedures to be followed at all times. Maintain all equipment in good operating condition. This includes but is not limited to:

Fuel Lines
Asphalt Lines
Hot Oil Heating Lines
Hydraulic Lines
Electric Cables and Connectors
Air Lines
5. Restrict entry to all confined spaces except for authorized and scheduled maintenance inspections. Establish a confined space entry SOP IAW DHEW (NIOSH) Publication No. 80-106 (provided with AMP) when maintenance requires work in a confined space. This SOP must be coordinated with your local medical (preventive medicine) authority. Prior to entry test for fumes and make provision for proper ventilation. Never work alone. Always use the buddy system when working in confined spaces.
6. Do not operate equipment in an enclosed area unless all exhaust fumes are safely vented away from the work area.
7. Army Field Manual (FM) 21-10 must be followed if the AMP is operated in conditions that expose its operators and maintainers to heat stress conditions.

NOTE

The following potential hazards are listed to notify of situations to be avoided during the operation of the plant Recommendations are Included to provide the necessary information so that these hazards may be avoided.

II. HAZARDS AND RECOMMENDATIONS

Table 1-1. Hazards and Recommendations

1. Control Van

HAZARD	DESCRIPTION	RECOMMENDATION
High voltage electrical	All electrical switch-gear are located in this unit and all power cables are attached to the power source in the van.	Operate and maintain in accordance with all safety procedures. Do not perform repair work without a qualified electrician.
Compressed air	The trailer air brake system is comprised of air lines, tanks and valves which activate the trailer brakes.	Maintain system in good operating condition. Release air pressure prior to repairing the system.

2. Four Bin Feeder

HAZARD	DESCRIPTION	RECOMMENDATION
Noise	Aggregate materials loaded into the four bin feeder by a front end loader may cause intermittent noise levels exceeding 85 dba.	Use of ear protection.
Operating machinery	V-Belt drives and moving conveyor belts.	Use of guards during operation. Operator should not wear loose fitting clothing.
High voltage electrical	Power cables.	Avoid contact when energized. Maintain in good condition. Use cable supports provided. Do not perform repair work without a qualified electrician.
Fluids under pressure	Hydraulic cylinders, lines and valves.	Maintain lines in good operating condition. Wear protective clothing while operating the plant. (gloves, coveralls, safety glasses, hard hat)

HAZARD	DESCRIPTION	RECOMMENDATION
Compressed air	The trailer air brake system is comprised of air lines, tanks and valves which activate the trailer brakes.	Maintain system in good operating condition. Release air pressure prior to repairing the system.

3.Feed Conveyor

HAZARD	DESCRIPTION	RECOMMENDATION
Operating machinery	Vibrating screen and moving conveyor belt.	Use of guards during operation. Operator should not wear loose fitting clothing.
Noise	Aggregate materials discharged onto the screen may cause steady noise levels exceeding 85 dba.	Use of ear protection.
High voltage electrical	Power cables.	Avoid contact when energized. Maintain in good condition. Use cable supports provided. Do not perform repair work without a qualified electrician.
Fluids under pressure	Hydraulic cylinders, lines and valves.	Maintain lines in good operating condition. Wear protective clothing while operating the plant. (gloves, coveralls, safety glasses, hard hat)
Compressed air	The trailer air brake system is comprised of air lines, tanks and valves which activate the trailer brakes.	Maintain system in good operating condition. Release air pressure prior to repairing the system.

4.Drum Mixer

HAZARD	DESCRIPTION	RECOMMENDATION
Noise	Aggregate materials discharged into the feed chute may cause steady noise levels exceeding 85 dba.	Use of ear protection.

HAZARD	DESCRIPTION	RECOMMENDATION
Operating machinery	The drum is chain driven.	Use of guards during operation. Operator should not wear loose fitting clothing.
High voltage electrical	Power cables.	Avoid contact when energized. Maintain in good condition. Use cable supports provided. Do not perform repair work without a qualified electrician.
Fluids under pressure	Diesel fuel lines, asphalt pump and lines. Hydraulic cylinders, lines and valves.	Maintain lines in good operating condition. Wear protective clothing while operating the plant. (gloves, coveralls, safety glasses, hard hat)
Compressed air	The trailer air brake system is comprised of air lines, tanks and valves which activate the trailer brakes.	Maintain system in good operating condition. Release air pressure prior to repairing the system.
High temperature	The burner creates temperatures to 8000 F. The drum, asphalt aggregate mixtures being discharged and exhaust gases will become hot (approximately 3000 F).	Wear protective clothing while operating the plant. (gloves, coveralls, safety glasses, hard hat, work boots)
Fumes	Asphalt hot mix is discharged from the drum mixer.	Avoid inhaling fumes and operating equipment in a confined area.
Flammable and combustible materials	The burner is a diesel fired unit. Liquid asphalt.	Inspect and maintain burner safety systems as per manuals. Operate equipment with trained personnel.