

PYROPAVER 300E

OPERATIONS MANUAL

Machine Pre-Delivery Check

Book 1: Assembly and Preparation for Production

Pyrotech Asphalt Equipment Mfg. Co. Ltd.
681 Athabasca Street West
Kamloops, BC V2H 1C5
Tel: (250) 851-9991
Fax: (250) 851-9992

MACHINE PRE-DELIVERY CHECK

1. POWER UNIT CHECK LIST

- (A) CHECK FUEL LEVEL.
- (B) CRANKCASE OIL LEVEL.
- (C) RADIATOR COOLANT LEVEL AND ANTI-FREEZE LEVEL.
- (D) FAN BELTS TIGHT.
- (E) NO LEAKS - FUEL, OIL, WATER OR AIR.
- (F) ENGINE SET AT 950 RPM - IDLE THEN 1800 RPM GOVERNOR OPERATING SET POINT.
- (G) BATTERY - CHECK TERMINAL CONNECTIONS AND WATER LEVEL.
- (H) ENGINE INSTRUMENT PANEL GAUGES OPERATING PROPERLY.

2. MASTER CLUTCH

- FREE LEVER OPERATION WITH EASE OF ENGAGEMENT AND DISENGAGEMENT.

3. GEAR BOXES - PROPER OIL LEVEL AND CORRECT OIL **SHOULD BE CHECKED ONCE A WEEK UNLESS YOU SEE OIL LEAKING (VISUALLY INSPECT EVERY DAY).**

SECTION "G" LUBRICATION

- (A) 1 PUMP DRIVE BOX A UNIT.
- (B) 1 PUMP DRIVE BOX B UNIT.
- (C) A UNIT DRIVE GEAR BOX (1).
- (D) B UNIT GEAR BOXES (2) CONVEYOR AND MIXER.
- (E) PICK UP - GEAR BOX (1).

4. CHAIN DRIVES - PROPER TENSION AND ADJUSTMENTS **DO NOT OVER TIGHTEN AS IT WILL PUT STRESS ON THE GRINDER BEARINGS.**

- (A) A UNIT BOTH GRINDERS LEFT AND RIGHT.
- (B) B UNIT GRINDER (1) CONVEYOR (2).
- (C) PICK UP MACHINE (1).

NOTE: CHAINS WILL LOOSEN AFTER INITIAL HOURS OF OPERATION. **IT IS THE CUSTOMER'S RESPONSIBILITY TO ADJUST! DO NOT OVER TIGHTEN**

5. **BRAKES**

- (A) CHECK FOR AIR LEAKS.
- (B) CHECK TO ENSURE PROPER AIR PRESSURE.
- (C) CHECK MAXI BRAKES APPLIED AND ADJUST IF REQUIRED.

6. **LUBRICATION**

- ALL 10 AND 50 HOUR GREASE POINTS
"SEE LUBE CHART-SECTION E"

7. **SAFETY**

- (A) CHECK ALL CHAINS HAVE SAFETY GUARDS INSTALLED.
- (B) CHECK ALL PINCH POINTS HAVE WARNING SIGNS POSTED.

8. **PROPANE - CHECK ALL SAFETY DEVICES**

- (A) CHECK FOR PROPANE LEAKS.
- (B) CHECK ALL REGULATORS FOR PROPER PRESSURE SETTINGS.

WARNING!

Do not attempt to heat Rejuvenate if tank is less than half full. **OVER HEATING OF REJUVENATE OIL WILL CAUSE AN EXPLOSION AND POSSIBLE HUMAN INJURY**

WARNING!

DO NOT START EMISSION SYSTEM BURNER UNTIL MAIN SUCTION FAN HAS RUN FOR AT LEAST THREE MINUTES TO PURGE ALL COMBUSTION FUMES FROM SYSTEM. ALWAYS CHECK FOR PROPANE LEAKS AROUND MACHINE.

9. **ELECTRICAL**

CHECK ALL SWITCHES FOR PROPER OPERATION OF EACH SYSTEM, ENGINE RUNNING AT 1800 RPM.

- (A) A UNIT - left side operator work station.
- (B) A UNIT - right side operator work station.
- (C) B UNIT - left side operator work station.
- (D) B UNIT - right side operator work station.
- (E) B UNIT - left rear operator work station.
- (F) B UNIT - right rear operator work station.

- (G) PUGMILL - left side operator station.
- (H) PUGMILL - right side operator station.
- (I) PUGMILL - remote steering.

10. HYDRAULIC

- (A) CHECK ALL FILTER CARTRIDGES SYSTEM OPERATING.
- (B) OIL LEVEL IN HYDRAULIC TANK.

NOTE: ALL CHECKS SHOULD BE MADE AT 1800 RPM.
ALL FILTERS MUST BE CHANGED AFTER FIRST 50 HRS. OF OPERATION BY CUSTOMER

11. AUTO LEVELING

- (A) SET HYDRAULIC PRESSURE AT 800 PSI.
- (B) INSTALL GRADE CONTROLS.
- (C) ADJUST SENSITIVITY.
- (D) CHECK PROPER OPERATION OF SERVOS WITH CONTROLS.
- (E) CHECK LEFT AND RIGHT SIDES OF MAIN GRINDER.
- (F) CHECK CUTTING EDGE CONTROLS LEFT SIDE.
- (G) CHECK CUTTING EDGE CONTROLS RIGHT SIDE.

12. MISCELLANEOUS: A & B UNITS, PREHEATER AND PUGMILL

- (A) CHECK TIRE PRESSURES (90 PSI).
- (B) GENERAL INSPECTION OF NUTS, BOLTS AND HARDWARE.
- (C) CHECK THAT ALL HOSES ARE FREE OF MOVING PARTS.

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WARNING!

DO NOT START EMISSION SYSTEM BURNER UNTIL MAIN SUCTION FAN HAS RUN FOR AT LEAST THREE MINUTES TO PURGE ALL COMBUSTION FUMES FROM SYSTEM. ALWAYS CHECK FOR PROPANE LEAKS AROUND MACHINE.

Book 1

Assembly and Preparation for Production

USE OF MACHINES

PREPARING MACHINE FOR USE

THE FIRST STEP BEFORE STARTING RECYCLING OPERATIONS IS TO PREPARE THE MACHINES FOR OPERATION.

PREHEATER

1. PROPANE

- a. Check to ensure the propane tank is full of propane.
- b. Check to ensure the propane lines between the Truck and the Preheater are connected.
- c. Check to ensure main valves are open and the Snappy Joe is working and is in the open position.
- d. Light both vaporizers.

2. PREHEATER

- a. Set the skirts on the Preheater to full width and ensure steel wheels are mounted in place of the transport tires.
- b. Remove all lock pins from the Preheater allowing the hydraulic cylinders to function in the up and down motion.

A UNIT

1. PROPANE

- a. Check to ensure propane tanks are full of propane.
- b. Check to ensure main valves are open and the Snappy Joe is working and is in the open position.
- c. Ensure propane pressures are set at 4 to 5 PSI at the infrared heaters.
- d. Light both pilot lights on the vaporizers.

WARNING!

DO NOT START THE EMISSION SYSTEM BURNER UNTIL THE MAIN SUCTION FAN HAS BEEN RUNNING FOR AT LEAST THREE MINUTES TO PURGE ALL COMBUSTION FUMES FROM THE SYSTEM. ALWAYS CHECK FOR PROPANE LEAKS AROUND THE MACHINE.

WARNING!

DO NOT ATTEMPT TO HEAT REJUVENATE AGENT IF TANK IS LESS THAN ONE HALF FULL. OVER-HEATING OF THE REJUVENATE AGENT WILL CAUSE AN EXPLOSION AND POSSIBLE HUMAN INJURY. ALWAYS CIRCULATE REJUVENATE WHEN HEATING.

2. MACHINE

- a. Lower the outer heater banks and connect all emission pipes between outer heater banks and the main collection duct.
- b. Remove locking pins on the heater frames enabling the heaters to be lowered.
- c. Remove locking pins on both grinders enabling the grinders to be lowered.
- d. Set rejuvenating system to circulate back to tank and start rejuvenate pump. Do not run rejuvenate pump unless there is rejuvenate in the tank. You will damage the pump if there is no oil in it.

B UNIT

1. PROPANE

- a. Check to ensure propane tanks are full of propane.
- b. Check to ensure main valves are open and the Snappy Joe is in working order and in the open position.
- c. Ensure propane pressures are set at 4 to 5 PSI at the infrared heaters.
- d. Light both vaporizers.

WARNING!

DO NOT START THE EMISSION SYSTEM BURNER UNTIL THE MAIN SUCTION FAN HAS BEEN RUNNING FOR AT LEAST THREE MINUTES TO PURGE ALL COMBUSTION FUMES FROM THE SYSTEM. ALWAYS CHECK FOR PROPANE LEAKS AROUND THE MACHINE.

WARNING!

DO NOT ATTEMPT TO HEAT REJUVENATE AGENT IF TANK IS LESS THAN ONE HALF FULL. OVER HEATING OF THE REJUVENATE AGENT WILL CAUSE AN EXPLOSION AND POSSIBLE HUMAN INJURY.

2. MACHINE

- a. Connect the Pugmill to the B Unit and ensure the fifth wheel pin is locked.
- b. Connect hydraulic lines and propane line from Pugmill to the B Unit
- c. Lower the outer heater banks and connect all emission pipes between outer heater banks and the main collection duct.
- d. Set the emission stack in the upright position.
- e. Remove locking pins on the heater frames enabling the heaters to be lowered.
- f. Remove the locking pins from the main grinder enabling the grinder to be lowered.
- g. Install grade sensors on each side of the main grinder.
- h. Install and check mix hopper. **Keep mix hopper in the raised position.**

PUGMILL

1. PROPANE

- a. Check to ensure all propane valves are in the open position and all heaters are in the proper position on the Slat Conveyor.

2. PUGMILL

- a. Remove locking pins from Slat Conveyor allowing conveyor to be lowered.
- b. Ensure Paver and Pugmill fifth wheel pin is locked.
- c. Connect remote Pugmill steering and secure at Paver operators work station.

ASSEMBLY AND PREPARATION FOR PRODUCTION

PREHEATER

1. Check truck fluid levels and do walk around vehicle inspection.
2. Start truck engine.
3. Ensure that liquid and vapor gate valves, air controlled emergency shutdown valve and Snappy Joe valve are all closed.
4. Connect Preheater trailer to truck.
 - Truck is equipped with pintle hitch and trailer has standard ring-type connector.
5. Close all ball valves on trailer including valves for individual combustion torches and emission system torches.
 - Closed position is with valve handle 90° to propane line.
6. Clean both male and female ends of quick coupler on main propane line between truck and trailer. Once completely free of dirt or other residue, connect quick coupler.
7. Clean and connect quick couplers on hydraulic lines between truck and trailer.
8. Engage power takeoff in cab of truck and ensure hydraulic system is working correctly by operating hydraulic valve controls on front left side of trailer.

WARNING: Before operating hydraulics, ensure area below and surrounding unit is clear of obstacles and/or persons.
9. Using hydraulic valve controls, raise heater box and remove locking pins. Disengage power takeoff.
10. Remove rubber transport tires and install steel wheels.

NOTE: The steel wheels are for use during production only, but may be left on for short moves (e.g., moving to parking). Therefore, it is prudent to initially install the steel wheels at a location near the production start point.
11. Remove protective caps (lids) from trailer stacks. Lift and secure stack extensions and replace protective caps.
12. Shut off truck engine.
13. Fill truck mounted propane tank.

WARNING: Propane tank must only be filled by a certified propane handler and must not be filled to more than 85% capacity.

ASSEMBLY AND PREPARATION FOR PRODUCTION

A UNIT

1. Do complete walk around inspection checking for fluid leaks and damage or breakage on machine.
2. Check all fluid levels.
3. Open both operator consoles and ensure all controls are in neutral or off position.
4. Ensure maxi brakes are applied and install the front axle assembly.
5. Disengage master clutch.
6. Turn night switch to "on" position.
7. Pull console master power switch to "reset" or "on" position.
8. Start engine and set at 700 RPM. Allow 10 minutes for engine warm-up and air pressure to buildup.
9. Ensure all hydraulic valves to and from hydraulic tank and main drive pumps are fully opened.
10. Engage master clutch.

WARNING: When master clutch is engaged, all A Unit hydraulic systems are live and will respond to respective controls. Always ensure all areas below and surrounding Unit are clear of all persons and obstructions before activating controls. Failure to do so can result in serious bodily injury or equipment damage.

11. Remove rear steering lock pins.
12. Raise heater frame and remove locking pins. Lower heater frame to full down position, then manually lower outside heater banks.

WARNING: To avoid back injury, always have assistance when manually lowering outside heater banks.

13. Install all emission system collector pipes between outside manifolds and main emission duct.
14. If grinder assemblies have been removed for transport, re-install and test operation. Set grinders at required width.
15. Ensure that the following propane valves are in closed or off position.
 - a. Heater bank pilot light valves
 - b. All individual heater bank valves and rejuvenate tank heater torch.
 - c. Main valve to heater banks.
 - d. Liquid line gate valve.
 - e. Vapor line gate valve.
 - f. Snappy Joe valve.
 - g. Emergency shut offs on operator's consoles.
 - h. Vaporizer on/off valves.
16. Shutdown engine and turn console master power and night switch to off position.
17. Fill propane tank.

WARNING: Propane tank must only be filled by certified handler and under no circumstances may it be filled to more than 85% of capacity. Overfilling creates a very hazardous condition.

18. If a rejuvenate is required, the onboard tank must be filled.
19. Calibrate rejuvenate add system following procedure outlined in "ADDITIVE SYSTEM SETUP AND CALIBRATION."

ASSEMBLY AND PREPARATION FOR PRODUCTION

B UNIT

1. Do complete walk around inspection checking for fluid leaks and damage or breakage to unit.
2. Connect pave/pugmill/pickup machine combination to B Unit by engaging B Unit kingpin with fifth wheel plate on pugmill/pickup machine.
WARNING: Ensure fifth wheel/kingpin connection system is secured. Visually check that fifth wheel locking mechanism correctly overlaps kingpin. Once locked in, reverse paver and carefully put pressure on lock mechanism.
3. Connect all propane and hydraulic valves. Ensure the two hydraulic divert valves under B Unit are in correct position.
4. Lift landing gear.
5. Install 12 foot grinder.
6. Check all fluid levels and "top-up" if required.
7. Disengage master clutch.
8. Open both operator consoles and ensure all controls are in the neutral or "off" position.
9. Ensure maxi brakes are applied.
10. Turn night switch to "on" position. Pull console master switch to "on/reset" position.
11. Start engine and set at 700 RPM. Allow ten minutes for engine warm-up and air pressure to build up.
12. Ensure all hydraulic valves to and from hydraulic tank and main pumps are fully opened.
13. Engage master clutch.
WARNING: When master clutch is engaged, all B Unit hydraulic systems are live and will respond to respective controls. Always ensure all areas below and surrounding unit are clear of all persons and obstructions before activating controls. Failure to do so can result in serious bodily injury or equipment damage.
14. Remove steering lock pins.
15. Raise heater frame and remove locking pins. Lower heater frame to full down position; manually lower outside heater banks.
WARNING: To avoid back injury, always have assistance when manually lowering outside heater banks.
16. Install all emission system collector pipes between outside manifolds and main emission duct.
17. Ensure the following propane valves are in closed position:
 - a. Heater bank pilots.
 - b. All individual heater bank valves.
 - c. Main ball valve to heater banks.
 - d. Drag slat heaters valve.
 - e. Pickup slat heaters valve.
 - f. Liquid line gate valve.
 - g. Vapor line gate valve.

- h. Snappy Joe valve.
 - i. Emergency shutdowns on consoles.
 - j. Vaporizer on/off valves.
18. Mount add mix hopper.
19. Test all hydraulics.
- WARNING: Before operating hydraulics, ensure area below and surrounding Unit is clear of obstacles and/or persons.**
20. Shutdown engine and turn off console master power and night switch.
21. Fill propane tank.
- WARNING: Propane tank must only be filled by certified handler and under no circumstances may it be filled to more than 85% of capacity. Overfilling creates a very hazardous condition.**
22. Calibrate add hopper chain speed and gate opening following procedure outlined in ADDITIVE SYSTEM SETUP AND CALIBRATION.