

PRO-PATCH

POTHOLE PATCHER

*Year-round economical solution to asphalt street problems.
Units available in 4.25 cubic yards, 5 cubic yards or 6 cubic yards.
LP gas fired, Diesel fired and ALL Electric Truck mounted units
Trailer models are only available with LP gas fired systems.*



H.D. INDUSTRIES, INC.
Pro-Patch Pot Hole Patcher

P.O.
(901)
W.



**PUBLIC WORKS
EQUIPMENT AND SUPPLY, INC. 75766**

MONROE, NC
CLAYTON, NC
KNOXVILLE, TN

(800) 222-6803

1-800-256-6126

PRO-PATCH ASPHALT POTHOLE PATCHER MODEL TCM 425-80, TCM 425-100 & TCM 425-160-DHE and HTE

The Pro-Patch Model TCM 425-80 is a truck mounted, unitized asphalt patching machine capable of making effective and permanent asphalt repairs under all weather conditions. Its unique design allows the machine to transport hot or cold asphalt pre-mix material and road oils at controlled heated temperatures. The unit's integral hydraulic system, driven by a power take-off, provides power to operate the machine's jack hammer, screw conveyor, oil pumps, asphalt agitator, and a variety of other hydraulic tools such as concrete and asphalt saws, tampers, water pumps, tree trimmers, etc.

The Pro-Patch machine is equipped with a hydraulically driven screw conveyor for dispensing asphalt pre-mix materials. This method eliminates dump beds, shoveling and wasting of materials. A hydraulically driven asphalt agitator shaft is built into the pre-mix hopper to break up asphalt bridging due to transporting and vibratory compaction.

The machine's hydraulic pavement breaker is more than efficient for cutting out potholes and asphalt failures. The hammer is also equipped with a tamper shoe for packing asphalt and base material.

The integral tack oil system is capable of working asphalt cut back road oils and emulsions. The hydraulically driven oil pump has forward and reverse capabilities. After spray sealing the repair area, simply reverse the pump to scavenge the spray wand and lines clean. A releasing agent tank is built into the unit to flush the system if necessary. This tank is also equipped with a pump and sprayer to clean asphalt tools and apply diesel or releasing agent in the asphalt pre-mix hopper.



If moisture exists, a 200,000 BTU hand-held torch is supplied to dry the repair area.

During working hours, the Pro-Patch machine is heated by two each 150,000 BTU electronically-ignited propane burners. During non-working hours, a 230-volt built-in immersion heater provides the heat to store and maintain heated pre-mix asphalt materials.

The unit body is fully insulated with an industrial 2" high temperature insulation, and covered with a steel jacket. The insulating factor of this machine drastically reduces the use of heating fuel.

The LP gas burner and electric heating system is thermostatically controlled with a safety shut-off on the loss of flame or excessive temperatures.

H.D. Industries is licensed by the LP Gas division of the Railroad Commission of Texas. Our employees have been trained and tested according to State regulations, thus making the LP gas system offered on the Pro-Patch as safely designed as any household furnace.

In summation: the Pro-Patch provides all of the tools and materials necessary for a one or two man crew to make effective asphalt repairs, eliminating the use of air compressors, oil distributors, and dump trucks, which reduces the manpower equipment maintenance, and minimizes the amount of equipment used in high traffic areas.

The Pro-Patch, when properly utilized, will reduce the cost and increase the efficiency in street maintenance programs with 100% payback.



TRAILER MODEL TM 425-100 DH

ASPHALT POTHOLE PATCHER SPECIFICATIONS MODELS TCM 425-80-DHE, TCM 425-100-DHE AND TCM 425-160-DHE

1. GENERAL

The Pro-Patch is a unitized asphalt repair machine capable of making permanent asphalt repairs under most weather conditions.

2. BODY DIMENSIONS

The body is 112" long, 50" high and 78" wide. It has Diamond Tread safety step side fenders with two ladders, body assist handles. Body has L.E.D. style stop, turn, emergency flashers and side marker lights. The body has a lockable tool storage compartment measuring 83" long, 22" deep and 10" high. MUD FLAPS INCLUDED.

3. BODY INSULATION

The asphalt aggregate hopper and road oil tank are fully insulated with 2" high temperature 12R factor insulation encased in a double steel jacket. The top cover on the unit is an Optional double form fitted 2" insulated tarp with tie down brackets, capable of sustaining 500° F., OR Optional Hydraulic Operated Steel Top Doors.

4. CAPACITY

The asphalt aggregate hopper holds 4.25 cubic yards level full or 6 tons maximum load.

5. HEATING SYSTEMS

The body shall have a dry radiant heat chamber heated by 2 each 150,000 BTU retort tube propane burners with vertical exhaust stacks. Exhaust stacks have an automatic electronic dampner that opens when burners are fired and close when burners shut off to prevent heat loss. The burners are thermostat controlled and regulated at 10 PSI. The ignition system is 12 volt DC with electronic ignitor. Gas burner has a safety shut-off on loss of flame or excessive temperature. Automatic safety shut-off when diesel pump is operating. Burner has two stages, ignites on 10 oz. pressure, operates at 10 PSI, on high burn regulated by the same thermostat as the electric heater. Thermostats will be 0/300° F. solid state.

6. ELECTRONIC CONTROLS

All electronic controls will be solid state shock resistant. Thermostat for tack oil tank is 0/250° F. Thermostat for asphalt aggregate hopper is 0/300° F. Thermostat for the asphalt hopper has built in high limit safety shut down switch. Same thermostat controls the 12 volt LP Gas fired system and the 220 volt electric heating system.

7. EMULSION OIL TANK CAPACITY AND HEATING SYSTEM

The tank capacity is 80 to 150 gallons, depending on model, and has a double steel jacket with 2" insulation. The tank is equipped with a heat transfer system with an adjustable temperature valve that is capable of heating the emulsion oil to approximately 150° F., using the truck engine coolant system as the heat source. The emulsion pump and all lines are in an insulated heated area. The tank has 220 volt thermostat controlled dry well electric heater and a hot well for storing the spray wand in cold weather. Tank has an 8" fill spout and a 2" gate valve on tank drain. For ease of maintenance or change out of heater, tank does not have to be drained.

8. ELECTRIC HEATING SYSTEM

The asphalt aggregate hopper and liquid asphalt oil tank is heated by a 220 volt, 62 kw, NEMA 4 immersion heater, thermostat controlled with 25' of cord with ground fault interrupt system. The heating system is capable of maintaining heated material up to 300° F. during non-working hours.

9. FUEL OPTIONS

Optional 35 or 50 gallon frame mounted LP gas bottle with quick fill connector, 10 psi regulator and fuel sight gauge OR Optional 100 lb (25 gallon) removable propane bottle, complete with 10 PSI regulator.

10. TEMPERATURE GAUGES

The unit has two 3" dial type, stainless steel temperature gauges that constantly monitor the temperature of the asphalt hopper and road oil tank.

11. HAND TORCH

For drying off repair site and cleaning hand tools, the unit has a 200,000 propane BTU hand torch with shut-off valve and 10' of hose with hose rack. Hand torch has mounting bracket for transport.

12. LIQUID ASPHALT OIL PUMP

A hydraulically driven, 1 1/2" self priming, variable speed, reversible, rotary gear pump with relief valve. Operating at 20 GPM at 1200 RPM, 100 PSI. The pump will circulate the emulsion oil to prevent separation and to crush any lumps that may form and cause clogging of the spray tip. Air injection systems do not have this capability.

13. DIESEL / RELEASING AGENT STORAGE TANK

An 18 gallon capacity tank, equipped with a 12 volt DC pump and a hand sprayer for cleaning tools and unit. There shall be a connector valve for flushing road oil pump and lines and a 1" drain. For easy hopper cleaning access and to spray hopper before loading, units with a work deck shall have an additional front mounted spray wand with 3 ft. of hose.

14. PAVEMENT BREAKER

We offer optional; Stanley BR45, 72, 67 and 87 Pavement Breakers, complete with quick couplers, asphalt cutter, tamper and detachable shank with lockable transporting bracket.

15. LIQUID ASPHALT HAND SPRAYER

A 5' x 3/8" wand, equipped with fan nozzle and Deadman Control Valve. Sprayer hose is 15' x 1/2" with a reversible pump and diesel flush system for cleaning pump and lines.

16. HYDRAULIC PUMP

The pump is gear type, variable speed at 12 GPM and has an operating pressure of 2000 PSI at 900 RPM.

17. HYDRAULIC OIL RESERVOIR

30 gallon capacity with sight and temperature gauge, ventilated fill cap, 100 micron sump strainer and a 5 micron return filter.

18. HYDRAULIC OIL COOLER

A Thermal Dynamic eight tube Hydraulic Oil Cooler. The fan cooler operates on 12 volt DC and is thermostat controlled.

19. HYDRAULIC HOSE AND FITTINGS

All hoses and crimped fittings have a minimum of 8000 PSI burst pressure.

20. HYDRAULIC CONTROL VALVE

Five spool, two way, variable flow with 2000 PSI relief valve. The valve controls hydraulic screw conveyor, hydraulic doors, asphalt agitator, liquid asphalt pump and tool circuit. The valve has an internal or external safety design that will protect the operator and not allow the screw conveyor or asphalt agitator to operate when the doors are open. This system is designed to divert hydraulic oil pressure back to the tank. Electronic solenoids on hydraulic valve are not acceptable due to mechanical override feature and ease of bypassing system. The valve is operated from the rear of machine by remote levers. To reduce maintenance problems the directional control valve stack has no electric solenoids.

21. SCREW CONVEYOR

The 10' long by 6" diameter progressive screw conveyor with hard surfaced flights welded continuously on 2" scheduled 80 pipe. Ball bearing mounted and conveyor driven by a 9200 in.lb. torque variable speed hydraulic motor with forward and reverse capabilities. The delivery chute has 120" of pivot. All bearings can be greased through a feeder line mounted outside the unit from ground level.

22. ASPHALT AGITATOR

The agitator shaft is built into the premix hopper and designed to break up asphalt bridging due to vibratory compaction. The scheduled 80 shaft has 12 spikes and is ball bearing mounted and driven by a 9200 in.lb. torque variable speed hydraulic motor with forward and reverse. All bearings can be greased through a feeder line mounted outside the unit from ground level.

23. P.T.O.

The power take off unit is a Muncie or Chelsea Electric Over Air Shift or Hot Shift.

24. ELECTRONIC THROTTLE CONTROL

A two (2) or three (3) speed, depending on application, rear mounted remote switch allows operator more control over which speed and pressure each particular job requires. As a safety feature, the switch will not function unless the park brake is set on the vehicle.

25. COLOR

Customer's option, standard color is Omaha Orange.



26. SERVICE MANUALS AND TRAINING

H.D. Industries, will furnish two (2) parts, service and operators manuals with a three (3) day training program for each machine and delivery.

27. WARRANTY

H.D. Industries warrants the Pro-Patch Asphalt Pothol Patcher for a full twelve (12) months against defects in material and workmanship of the body and on all parts and labor. Labor applies to U.S. only.

U.S. PATENT NO. 5988935

U.S. PATENT NO. 4944632

WEB SITE: WWW.PRO-PATCH.COM



H.D. Industries, Inc.

Pro-Patch Pothole Patcher

P.O. Box 8250 / Jacksonville, TX 75766 / (903) 586-6126 / www.pro-patch.com

TRUCK MOUNTED MODELS:

1. **Pro-Patch Model TCM 300-40 DHE LP Gas**
3 Cubic Yard 4 Ton Capacity with 40 Gallon Emulsion Tank - Options Not Included
2. **Pro-Patch Model TCM 425-80 DHE LP Gas**
4.25 Cubic Yard 6 Ton Capacity with 80 or 100 Gallon Emulsion Tank - Options Not Included
3. **Pro-Patch Model TCM 500-100 DHE LP Gas**
5 Cubic Yard 7 Ton Capacity with 80 or 100 Gallon Emulsion Tank - Options Not Included
4. **Pro-Patch Model TCM 600-100 DHE LP Gas**
6 Cubic Yard 10 Ton Capacity with 80 or 100 Gallon Emulsion Tank - Options Not Included
5. **Pro-Patch Model TCM 600-100 DHED Diesel**
6 Cubic Yard 10 Ton Capacity with 80 or 100 Gallon Emulsion Tank - Options Not Included
6. **Pro-Patch Model TCM 425-80 DHECNG Natural Gas**
4.25 Cubic Yards 6 Ton Capacity with 80 or 100 Gallon Emulsion Tank - Options Not Included
7. **Pro-Patch Model TCM 300-40 DHED Diesel**
3 Cubic Yards 4 Ton Capacity with 40 Gallon Emulsion Tank - Options Not Included
8. **Pro-Patch Model TCM 425-80 DHED Diesel Burner**
4.25 cubic yards 6 Ton Capacity with 80 or 100 Gallon Emulsion Tank - Options Not Included
9. **Pro-Patch Model TCM 500-80 AEPHT All Electric w/on Board Generator**
5 Cubic Yard 7 Ton Capacity with 80 or 100 Gallon Emulsion Tank - Options Not Included

TRAILER MOUNTED MODELS:

1. **Pro-Patch Model TM 300-40-DH with Electric Brakes, 10K Dual Axles**
3 Cubic Yard 4 Ton Capacity-Options Not Included
With 23.5 HP Kohler Diesel Engine.....
2. **Pro-Patch Model TM 425-80 DHE with Electric Brakes, 12K Dual Axles**
4.25 Cubic Yard 6 Ton Capacity-Options Not Included
With 23.5 HP Kohler Diesel Engine.....
3. **Pro-Patch Model TM 425-80-DHE with Air Brakes, 12K Dual Axles**
4.25 Cubic Yard 6 Ton Capacity-Options Not Included
With 23.5 HP Kohler Diesel Engine.....
4. **Pro-Patch Model TM 500-100-DHE with Air Brakes, 20K Dual Axles**
5 Cubic Yard 7 Ton Capacity-Options Not Included
With 23.5 HP Kohler Diesel Engine.....
5. **Pro-Patch Model TM 600-100-DHE with Air Brakes, 20K Dual Axles**
6 Cubic Yard 10 Ton Capacity-Options Not Included
With 23.5 HP Kohler Diesel Engine.....

1. **UNITS WITH HEAT TRANSFER OIL AND CIRCULATING HEATING SYSTEM 220 GAL**.....



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2. UNITS WITH DAY HEAT CHAMBER WITH 130 GAL HEAT TRANSFER OIL APHALT HOPPER HEATING SYSTEM

3. UNITS WITHOUT TACK OIL TANK.....

4. TRUCK MOUNTED UNITS WITH LP GAS BURNER IN ROAD OIL (EMULSION) TANK