



H.D. INDUSTRIES, Inc.

Pro-Patch Pot Hole Patcher

P.O. BOX 8250 • JACKSONVILLE, TEXAS 75766 • (903) 586-6126 • www.pro-patch.com

ASPHALT POTHOLE PATCHER SPECIFICATIONS MODEL TCM 500-100-DHER TRUCK MOUNTED UNIT

1. GENERAL

The **Pro-Patch** model TCM 500-100-DHER is a unitized asphalt repair machine capable of making permanent asphalt repairs under most weather conditions.

2. BODY DIMENSIONS

The body is 112" long, 54" high and 78" wide. It has Diamond Tread safety step side fenders with two ladders, body assist handles. Ladders and assist handles are not available on bodies with a work deck. Body has L.E.D. style stop, turn, emergency flashers and marker lights. The body has a lockable tool storage compartment measuring 83" long, 22" deep and 10" high. All electrical wiring shall be color coded, soldered, shrink wrapped in polyvinyl, and incased in conduit. **MUD FLAPS INCLUDED.**

3. BODY INSULATION

The asphalt aggregate hopper and road oil tank are fully insulated with 2" industrial, high temperature 12R factor insulation encased in a double steel jacket. Optional: Hydraulic Operated Steel Top Doors *OR* Optional 2" Insulated Tarp with tie downs.

4. HYDRAULIC OPERATED STEEL TOP DOORS

Two (2) hydraulically operated bi-fold steel top doors with hex brake for rigidity. Doors are insulated with 2" of high Temperature insulation in a double steel jacket. The doors have rain seal caps and flex plates to keep asphalt out of door hinges. Each door shall have a 1 1/2" bore with 13" stroke hydraulic cylinder with bypass and flow control valves. The controls for doors are at the rear of the unit.

5. CAPACITY

The asphalt aggregate hopper holds 6 cubic yards level full or 9 tons maximum load.

6. SPOILS BIN

The spoils bin is 30" wide with a 1.25 cubic yard capacity, gravity dump. Asphalt spoils may be loaded or discharged from both sides of the truck.

7. HEATING SYSTEMS

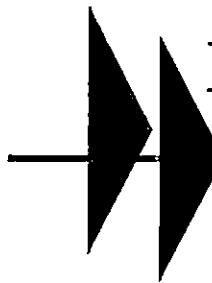
The heat transfer oil tank and asphalt aggregate hopper shall be heated by a submerged retort tube with vertical exhaust stacks. The burner is a 2 stage 200,000 BTU vapor propane that is thermostat controlled and regulated to light on 5 PSI and advanced to a 10 PSI high burn. The ignition system is 12 volt DC with electronic ignitor. Gas burner has safety shut-off on loss of flame or excessive temperature. Thermostats will be 0/300° F. solid state.

8. ELECTRONIC CONTROLS

All electronic controls will be solid state shock resistant. Thermostat for tack oil tank is 50/200° F. A digital 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.

9. EMULSION OIL TANK CAPACITY AND HEATING SYSTEM

The tank, built onto the main body, has a capacity of 100 gallons and 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 from 0 to 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 **NEMA explosion proof** dry well electric heat. 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.*



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10. EMULSION REJUVENATOR

The tank is equipped with and automatic rejuvenation system, US patent pending No. 16597547, that will help keep the emulsion oil from separating which will prevent pump and lines from clogging up and eliminate sludge and build-up in the tank.

11. ELECTRIC HEATING SYSTEM

The asphalt aggregate hopper and liquid asphalt oil tank is heated by a 220 volt, 62 kw ***OSHA required NEMA explosion proof*** dry well electric heater, thermostat controlled with 25' of cord with dual in-line 30 amp fuses with MOV 220 vac surge absorber. The heating system is capable of maintaining heated material up to 300° F. during non-working hours.

12. 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.

13. 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.

14. 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 emulsion pump and all oil lines are in an insulated heated area.* 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.*

15. DIESEL FUEL / RELEASING AGENT STORAGE TANK

An 18 gallon capacity tank, equipped with a 1.6 gpm @ 60 psi 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.

16. 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.

17. DIESEL FUEL HOSE REEL

Hose reel for diesel fuel spray wand has 20' of hose. Reel is spring loaded auto-retractable.

18. PAVEMENT BREAKER

Stanley BR45, Pavement Breakers, complete with quick couplers, asphalt cutter, tamper and detachable shank with lockable transporting bracket.

19. HYDRAULIC TOOL LINE HOSE REEL

Shall be 3000 PSI with dual 25' hydraulic tool lines. Reel is spring loaded auto-retractable.

20. HYDRAULIC PUMP

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



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21. HYDRAULIC OIL RESERVOIR

30 gallon capacity with sight and temperature gauge, ventilated fill cap, 150 micron sump strainer and a 10 micron return filler with 1" gate cutoff valve at filter.

22. HYDRAULIC OIL COOLER

An AKG 15 tube hydraulic oil cooler with shroud. Fan operates on 12 vdc and is thermostat controlled at 115° F.

23. HYDRAULIC HOSE AND FITTINGS

All high pressure hoses and crimped fittings have a minimum of 9600 PSI burst pressure.

24. VIBRATORY COMPACTOR PLATE

A Wacker WP1550AW Compactor equipped with a 5.5 hp gasoline Honda Engine with auto oil alarm shut down. Operating weight is 196#, centrifugal force 3375#, plate size 19.5 x 23", a water tank and locking holding down brackets. Dolly Attachment Part No. – 0162986

25. HYDRAULIC REAR LIFT PLATFORM FOR COMPACTOR OR ROLLER

Equipped with a hydraulically operated lift platform for loading or unloading compactor plate or roller. The platform has a Safety latch in the up position, an in cab "platform down" indicator light with compactor holding down brackets and A pavement breaker mount. All controls for platform are at the rear of the unit.

26. HYDRAULIC CONTROL VALVE

Five spool, two-way, variable flow with 2200 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. Electric 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 main directional control valve stack has no electric solenoids.

27. SCREW CONVEYOR

9' long by 10" diameter progressive screw conveyor has hard surfaced flights welded continuously on 2" scheduled 80 pipe and is ball bearing mounted. Conveyor is driven by a 13,000 in.lb. torque variable speed hydraulic motor with forward and reverse. Shall have a delivery chute with 120° of pivot. *All bearings can be greased through a feeder line mounted outside the unit from ground level.*

28. HYDRAULIC SECONDARY AUGER MOTOR

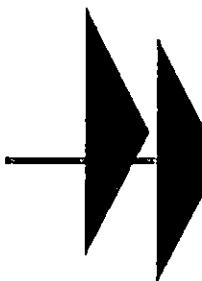
A secondary, hydraulic, 13,000 in. lb. torque, variable speed booster motor installed at rear of auger to assist in dispensing bad or stiff asphalt mix. This also eliminates shearing coupler keys and bolts in the auger shaft.

29. ASPHALT AGITATOR

The agitator shaft is built into the premix hopper and designed to break up asphalt bridging due to vibratory compaction. The scheduled 160 shaft has 12 spikes and is ball bearing mounted and driven by a 13,000 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.*

30. DRIP PAN

An eight (8) gallon drip pan for waste oil combination, for flushing pump, spray wand and lines at the end of the work Day, with necessary valve for draining.



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31. **WATER TANK**

A frame mounted stainless steel ten (10) gallon tank with valve and hose. Water supply for asphalt compactor plate.

32. **FRAME MOUNTED LP GAS BOTTLE**

50 Gallon frame mounted LP gas Bottle with quick fill connector, 10 PSI regulator and fuel sight gauge.

33. **16-LIGHT DIRECTIONAL ARROW BOARD**

State D.O.T. Approved Superior Signal model SRTA16. With 16 amber (L.E.D.) lights, 32 flash patterns, 8 patterns per function. Arrow flashing left, right, and warning bar. The board is mounted on the rear of the patch unit with in cab controls.

34. **STROBE LIGHT**

A pedestal mounted Meteorlight model SY2000.

35. **GRILL MOUNT STROBE LIGHT**

Superior Signal SS-SYLED04-AA, Amber or White 4" Front Grill Strobe Lights, 22 flash patterns.

36. **BACKUP CAMERA**

Backup Camera RVS-770613 – Kit1 Color w/ audio sound and Mobile Mule 5500 Mobile DVR on-board Recording with Two (2) 128 GB SD Cards (256 GB Total) with GPS Capabilities.

37. **WORK DECK**

18" X 46" work deck shall be constructed of $\frac{1}{4}$ " angle iron and 3/16" expanded metal and expanded metal steps with assist hand rails and shall be mounted between hopper and truck cab. Deck provides easy and safe access to emulsion oil tank and asphalt hopper.

38. **ASPHALT LUTE AND SHOVEL HOLDERS**

Two (2) each spring loaded asphalt lute and shovel holders. One (1) mounted driver's side and one (1) mounted curb side of unit.

39. **P.T.O.**

A Chelsea Hot Shift

40. **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.

41. **COLOR**

Standard color Gloss Black. Two (2) parts epoxy primer, two (2) finish coats polyurethane with epoxy hardener.

42. **SERVICE MANUALS AND TRAINING**

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



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43. WARRANTY

H.D. Industries warrants the *Pro-Patch* Asphalt Pothole Patcher for a full twelve (12) months against defects in material and workmanship of the body and on all parts.

The warranty shall include factory technical support by emailing info@pro-patch.com or call 1-800-256-6126. The Purchaser or end user shall be given a password that will give them 24 hour operating and maintenance instructions on any computer or smart phone.