

Pump TCP1 Mocal cooling pump

Suitable for use in axle, gearbox and turbocharger oil cooling installations as well as water cooled brake installations. This pump is self priming and can be positioned anywhere relative to intake.

Note: If vertically mounted, ports should be downwards to prevent leaking into motor. Remove 2 recessed screws (No. 20 on drawing) to rotate complete head to simplify plumbing. Direction of flow is marked on ports. Use 3/8 NPTF threaded adaptors in the ports with thread sealant, do not over tighten or the lightweight nylon housing may crack.

This pump is not equipped with a bypass so damage may result from pumping against a blockage. **For this reason the pump must not be switched on until the oil has reached an operating temperature of at least 70⁰c. Use 3/8" bore (-6) hose or larger.**

A pre-filter MUST be used before the pump as any damage caused by debris will not be covered under warranty.

Operating problems can be caused by:

Clogged lines
Faulty motor
Crack in Pump housing

Air leak in suction line
Reversed polarity (+ = RED - = BLACK)
Seized cam bearing

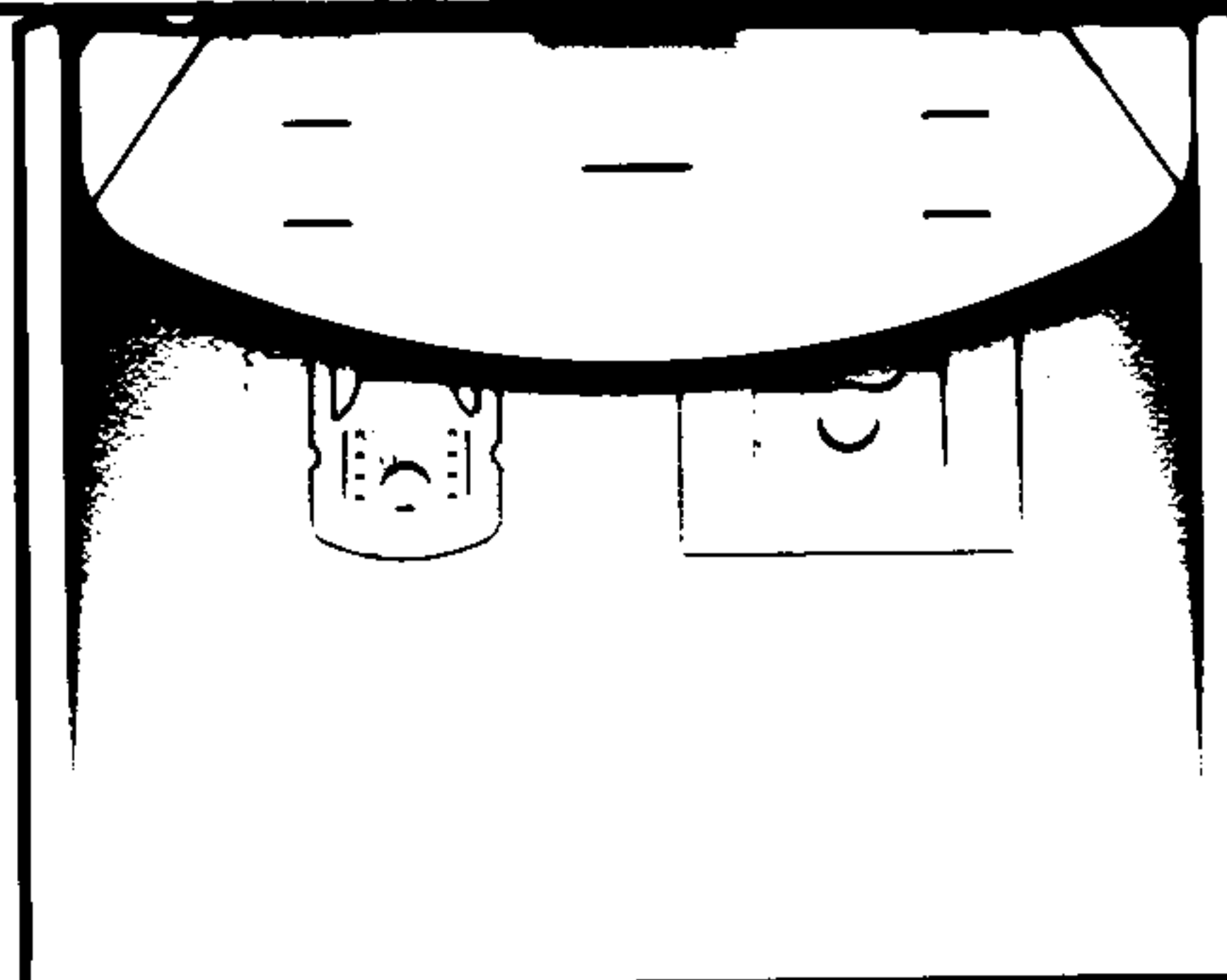
Punctured Diaphragm (ensure oil has reached operating temperature)
Debris in pump (always use a filter)

Specification:

12 Volt DC, 8 amp max
50 psi/3.5bar max

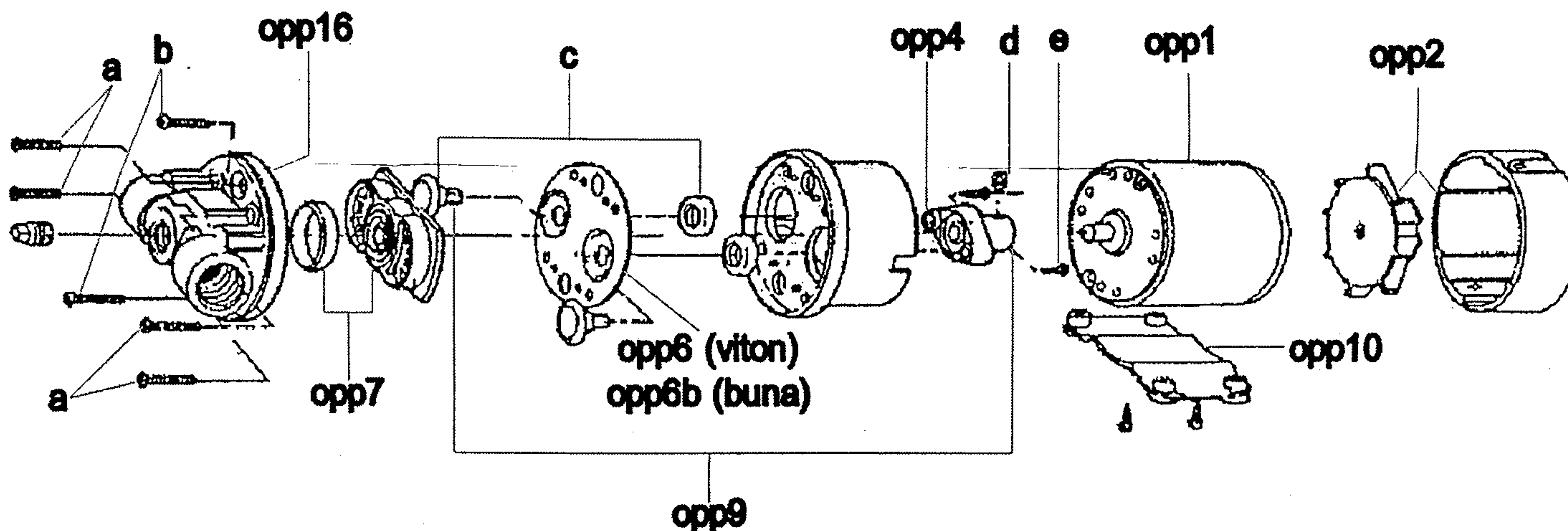
Free flow rate 1.6 gals / 7.5 litres per min
Max temperatures 130⁰c, 150⁰c intermittent

Warning: Do not use to pump flammable fluids, gasoline, kerosene fuel oil, or fluids with a flash point below 37⁰c. Do not use in an explosive environment.



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The following parts may be replaced



Disassembly:

To disassemble, remove six pump head screws (A & B), rotate bearing cover (OPP9) so drain notch is aligned with cam/bearing assembly set screw (D), loosen set screw (use 1/8" size Allen wrench) and slide pump head off shaft.

Pistons (C) should always be replaced when a new diaphragm is installed. Replace worn parts and reassemble. Be sure raised side of diaphragm faces the motor and radiused corner of pistons face the diaphragm.

Hex stem of inner piston (C) must be aligned (free to enter) into Hex hole in outer piston set (C). Install flat head screws (E) through outer piston set and tighten screws partially, centre pistons in diaphragm then tighten screws securely.

Place cam bearing assembly over outer piston set, align locating pins in the holes in cam bearing assembly. Install round head screws and tighten securely. (Torque to 18inch pounds, coat motor shaft prior to assembly.)

Reassemble bearing and cam bearing assembly to motor and retighten the set screw securely. Set screw MUST be positioned in shaft indentation.

Position of the screw is critical to avoid misalignment and subsequent diaphragm damage. Reassemble remaining pump head parts, using care to properly seal "O" ring (OPP7) in check valve assembly and tighten pump head screws evenly.