

TROUBLE CHART FOR GASOLINE ENGINES

As the fall of the year approaches much of our powered equipment will begin to cost us much "down time." Possible these trouble shooting guides can help your men keep all machinery running smoothly until winter rebuilding begins. These charts, if posted on large size poster boards, would enable your crew to avoid many end of season breakdowns.

Engine Won't Start or Stops Running

- Empty fuel tank.
- Fuel valve closed or line clogged.
- Fuel filter or strainer clogged.
- Fuel tank vent clogged.
- Carburetor flooded or float stuck.
- Spark plugs defective.
- Moisture on porcelain of plugs.
- Weak battery or loose battery cable.
- Ignition switch turned off or defective.
- Water in fuel or frozen fuel line (vapor lock).
- Defective ignition system (check for spark).
- Tractor in gear.
- Throttle not advanced.

Overheating

- Lack of water in cooling system.
- Lack of oil in crankcase.

- Overloaded engine.
- Slipping fan belt.
- Oil too heavy
- Radiator or cooling system clogged.
- Radiator shutters closed.
- Excess engine deposits.
- Improper fuel.
- Timing or carburetor adjustment off.

Excessive Fuel Consumption

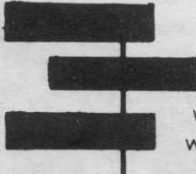
- Choke pulled out.
- Too rich carburetor adjustment.
- Fuel leakage from tank or lines.
- Incorrect ignition timing.
- Cracked or worn out spark plugs.
- Engine overloaded.
- Pilferage.

Excessive Oil Consumption

- Engine requires overhaul (excessive wear).
- External or internal oil leaks.
- Oil too light for conditions.
- Improper type of oil.
- Excessive oil pressure.
- Oil level too high in crankcase.
- Excessive crankcase pressure (clogged breather).

Lack of Compression

- Sticking, dirty, or warped valves.
- Improper valve adjustment.



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Engine requires overhaul (excessive wear).

Leaking head gasket.

Hissing or Backfiring

Spark plug fouled.

Water in fuel.

Incorrect fuel mixture.

Cylinder or manifold gasket leaking.

Engine not warmed up.

Stuck valves.

Improper ignition timing.

Moisture in ignition parts.

Engine Knocks

Improper fuel.

Out of oil.

Incorrect timing.

Engine overloaded or lugged.

Overheating (see under this heading).

Too lean fuel mixture.

Loose bearings or piston pins.

Broken piston rings or loose pistons.

Excess deposits in combustion chamber.

Low Oil Pressure

Out of oil.

Oil too light.

Excessive oil dilution.

Badly worn bearings.

Defective oil pump.

Clogged screens or lines.

Leaking oil line.

Oil relief valve defective.

Defective oil gauge.

Explosion in Exhaust Pipe

Defective ignition.

Exhaust valve hung open.

Exhaust valve warped.

Smoky Exhaust

1. Black Smoke

Fuel mixture too rich.

Choke pulled out.

Carburetor adjustment incorrect.

Carburetor float level too high.

Air cleaner clogged.

2. Blue Smoke

Excessive oil in combustion chamber.

Worn or stuck piston rings.

Worn valve stems and guides.

Oil pulled over from too full air cleaner cup.



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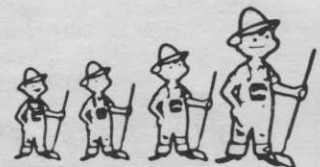


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