

MAINTENANCE ECK LIST

Pump does not operate properly.

1. Be sure Check Valve has been opened by turning two turns to the left on the Pump Plunger, and that you are holding your thumb over the vent hole in the end of the Pump Plunger.
2. Remove Pump Plunger and work lubricating oil into Leather, or replace if Leather is worn.
3. The Check Ball may be stuck. Remove Check Valve and clean.

Replace Valve if Check Ball does not work freely after cleaning.

Will not hold air when Pump Plunger is in OFF position.

Check for worn out threads on Air Stem and Check Valve, which prevents positive shut-off. Replace if necessary.

Leaks around Filler Cap.

Check for damage or worn Filler Cap Gasket. Replace if necessary.

Leaks at Valve Stem.

Tighten Pack Nut one or more turns, being careful not to tighten to where excessive friction is created in Valve operation. If leak continues, replace Packing.

Leak at Pack Nut on Tip Cleaner Assembly.

Tighten Pack Nut a few turns avoiding excessive friction in Operating Tip Cleaner. If leak continues, replace Packing.

Tip Cleaner Lever will not turn.

The Eccentric Block which operates the Tip Cleaner may be stuck by accumulation of gum or anti-knock compounds. Remove and Clean. If excessive wear is indicated, replace.

Needle does not clean tip.

1. Needle may be bent or broken off. Replace.
2. Eccentric Block and mechanism is worn. Replace.
3. Needle loose in Eccentric Block. Tighten.

Burner will not light.

1. Check fuel supply. Add fuel if very low or out.
2. Pressure in tank is down. Pump to add air.
3. Vaporizer tip clogged. Revolve Tip Cleaner several times, leaving Cleaning Lever in down position.
4. Vaporizer clogged. Clean or replace.

5. Remove Vaporizer and eck Valve for Clogging. Remove and clean if necessary. Replace if this is indicated.

Burner produces red, lazy flame.

1. Tank pressure low. Pump to add air.
2. Vaporizer Needle bent, and tip partially clogged. Replace Needle, rotate several times to clean tip.
3. Vaporizer almost clogged with gum. Clean or replace.

NUMERICAL LIST OF SPARE PARTS AVAILABLE FOR MAINTENANCE OF COLEMAN MILITARY UNITS.

| PART NO. | DESCRIPTION |
|----------|---|
| 104-136 | Gasket, Filler Plug |
| 118B620 | Packing, Valve Stem |
| 216-509 | Leather, Pump |
| 216-538 | Valve, Check, Assembly |
| 520-210 | Nut |
| 520-2181 | Gas Tip |
| *520-249 | Knob, Valve |
| 520-299 | Vaporizer |
| *520-354 | Rod, Cleaner, Assembly |
| 520-375 | Burner Head & Plate Ass'y. |
| 520-451 | Screw, Knob, Valve |
| 520-651 | Stem, Valve & Ring |
| 520-950 | Wrench Assembly |
| 523-140 | Plug, Filler |
| *523-159 | Tank |
| *523-406 | Leg, Frame |
| *523-477 | Top, Frame Assembly |
| *523-480 | Windbreak Assembly, Left |
| *523-481 | Windbreak Assembly, Right |
| *523-486 | Bracket, Frame & Direction Plate Assembly |
| *523-519 | Plunger, Pump, Assembly |
| *523-538 | Pan Assembly |
| *523-545 | Cover Assembly |
| 523-6571 | Valve & Generator |
| *523A522 | Stem, Air, Assembly |
| *523C473 | Holder, Spare Parts, Ass'y. |
| *523A955 | Spare Parts Package |

*Furnished on contract only.

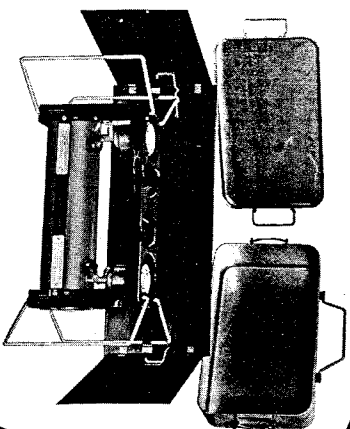
Made in United States of America

THE COLEMAN COMPANY, INC.

General Office and Factory: Wichita, Kansas, 67201 U.S.A.

1950A024 5-64 P.I. Litho in U. S. A.

MODEL **523**



**TWO-BURNER
GASOLINE
STOVE**

**OPERATING
INSTRUCTIONS**

The Coleman Company, Inc.
WICHITA, KANSAS 67201

CC IAN MILITARY BURNERS are especially designed and carefully constructed to give dependable service under rugged conditions. It is necessary that they be properly operated and intelligently maintained to give you the best satisfaction. The instructions in this folder will help you to accomplish this object.

OPERATING INSTRUCTIONS

To fill tank, close fuel valve firmly by turning valve wheel to the right. Fill tank with fresh, clean gasoline. Unleaded gasoline will give longer vaporizer life and more efficient operation. Leaded gasoline may be used if adequate ventilation is provided to dissipate the lead fumes produced. Replace filler cap and tighten firmly with the fingers.

TO PUMP AIR PRESSURE INTO TANK

Generator, Valve and Filler Cap must be closed. Turn pump plunger handle two complete turns to the left. Place thumb over small hole in handle and pump 35 to 50 full strokes of air into the tank. Then turn pump plunger handle to the right and tighten firmly. Additional pressure should be added later while burners are generating.

TO LIGHT EACH BURNER

Clean gas tip and vaporizer by rotating the Cleaner Needle Lever, located above the valve, several times. Leave the lever in the down position, open Fuel Control Valve a quarter turn to the left and after a few seconds apply lighted match at top of Burner Head. In extremely low temperatures allow Burner Head to become moist with gasoline before applying lighted match. Five to ten minutes are required for complete generation. Under some conditions, flame may blow itself out. Just relight. Flame will soon settle down to a steady blue. Add air, as needed, to keep pressure up during generation. After flame burns steady for two or three minutes, open fuel control valve as far as possible.

TO SHUT OFF BURNER

Close fuel control valves by turning to the right.

Note: Any open burner should never be used in a confined space without ventilation, especially when leaded gasoline is used as fuel.

SERVICE AND MAINTENANCE

FOUNT AND PUMP ASSEMBLY

Empty Tank frequently and rinse with fresh gasoline to remove any accumulation of water or dirt.

Filter Cap Gas should be replaced if it has evidence of being cracked or worn. A few drops of lubricating oil worked into the Pump Leather will maintain peak efficiency.

If Check Valve, in the bottom of Pump, sticks, remove and clean, or replace if necessary. Replace Air Stem and Check Valve if threads will not hold when pump is turned to the OFF position.

FUEL VALVE

Valve Stem Packing will usually shrink slightly in service, requiring the Pack Nut to be tightened to prevent a gas leak. Do not tighten so firmly that the Valve Stem is difficult to turn. Replace Packing when leak can no longer be stopped by tightening Valve Pack Nut.

TIP CLEANER ASSEMBLY

Revolving the Tip Cleaner Lever pushes the Tip Cleaning Needle in and out of the tip. If the needle becomes bent or broken, replace it. It may be necessary to tighten the Pack Nut at the tip cleaning lever to prevent leaks. Replace Packing if leak cannot be stopped by tightening Pack Nut.

VAPORIZER ASSEMBLY

When gasoline is burned in this stove, it is changed from a liquid to a dry vapor by being heated. A slight residue of a gummy deposit results from this heating. If the gasoline is motor fuel, which also contains lead additives, the amount of residue is greatly increased by the lead which is precipitated. Obviously, the effective life of the Vaporizer is effected by the cleanness and freshness of the gasoline, and by the amount of lead additives.

When Burners are kept in continuous operation from fifteen to twenty hours daily, using fuel having a heavy gum content and high percentage of lead, it will be necessary to clean or replace Vaporizers every two to five days. (The average burning time before replacement will probably be between 50 and 100 hours, depending on the amount of gum and lead in the fuel.) If Burners are used only a few hours daily, Vaporizers will require cleaning or replacement only at intervals of a month to six weeks. A weak or inefficient flame is usually an indication that the Vaporizer Tube is clogged, and requires either cleaning or replacement.

TO REMOVE VAPORIZER

Remove Burner Head by unscrewing to the left. Take Jamb Nut off at the base of the Vaporizer,

holding Valve Body so that it will not be loosened in the Tank. Lift Vaporizer Tube straight up with care to avoid damage to the Needle Assembly. Unscrew Needle Lock Nut.

TO CLEAN VAPORIZER

Remove Filler Screen and scrape all carbon from inside Vaporizer, taking care not to force anything through Gas Tip hole, as this would increase the size of the opening. Clean or replace Filler Screen. (Old Screen may be cleaned and reused if care is taken in unrolling and rerolling. Screen must be rolled tightly around Cleaner Rod before being put back into Vaporizer to insure proper lighting.)

Care must be taken not to damage the Needle when re-assembling Vaporizer. (Before re-installing the Vaporizer, check operation of the Fuel Valve by opening one-fourth turn. If gasoline sprays freely, proceed with re-assembling Vaporizer. If clogging is indicated, the Valve should be removed and cleaned, or replaced with a new one.)

TO REPLACE VAPORIZER

Turn Tip Cleaner Lever up to loosen Lock Nut at base of Cleaner Rod, then unscrew to the left. The new Cleaner Rod and Needle (which comes with the new Vaporizer) can now be put in and adjusted to the proper length. Be sure and lock in place after adjustment is made by using the Lock Nut. When the Tip Cleaner Lever is turned up, the needle should come through the Gas Tip Orifice about 1/32", but should not extend above the top of the Gas Tip. Do not try to service a bent or otherwise damaged needle. Discard it.

BURNER HEAD

Vaporization of the gas is completed when the gas stream strikes the Burner Plate in the center of the Burner Head. When using leaded fuel, particles of anti-knock compounds are deposited on the underside of the Burner Plate. To maintain operating efficiency, this residue must be cleaned frequently, every 15 to 20 hours when using heavy lead concentrations in the fuel, or every few days.

TO CLEAN BURNER PLATES

Unscrew and remove the Burner Head. Insert a sharp stick or wire through the hole in the bottom of the Burner Head to clean or scrape carbon accumulation off the underside of the Burner Plate. Replace and tighten firmly on the Vaporizer.