

TILLEY

REGD.

Storm Lantern

Model X246A

USE AND MAINTENANCE

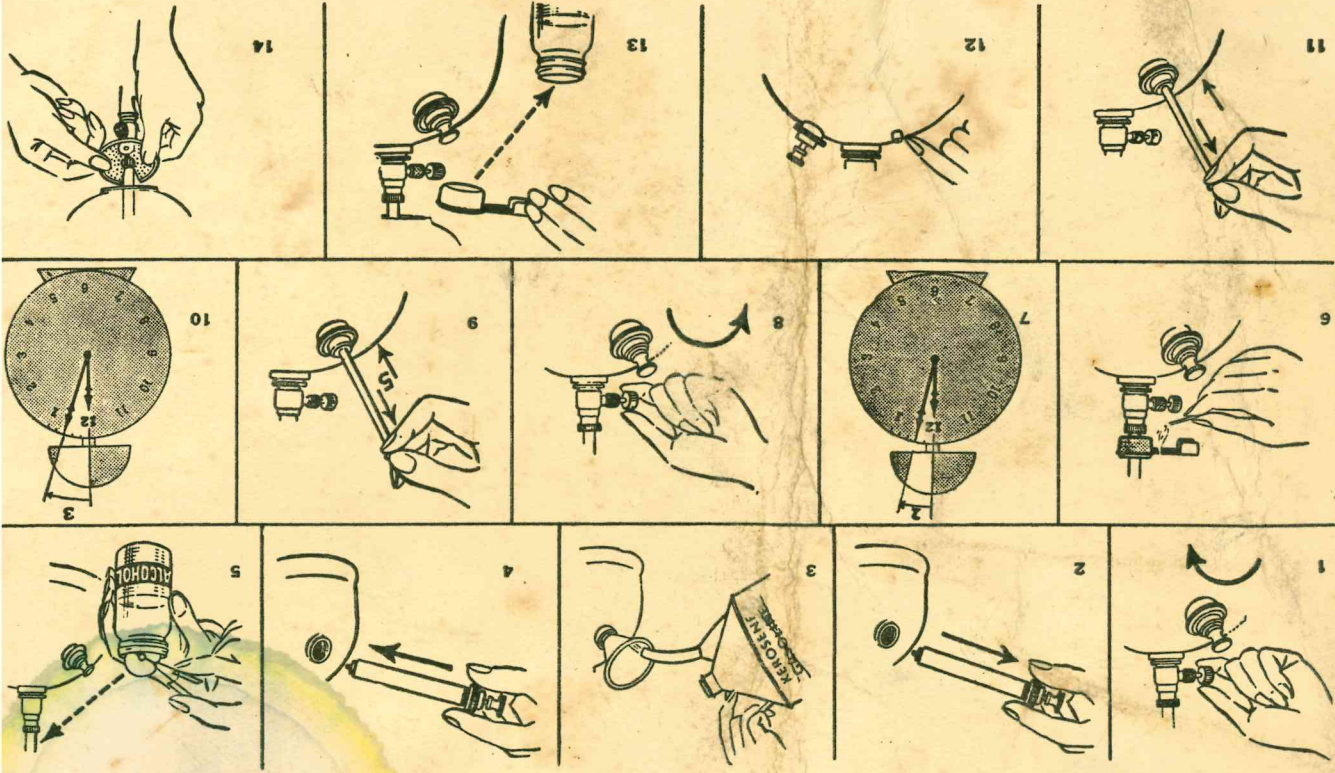
How it Works

Your Tilley Storm Lantern uses paraffin (sometimes known as kerosene) which is vapourised by spraying from a fine jet under pressure, and burned inside an incandescent mantle. The base of the Lantern acts as the fuel container, and the paraffin is forced from it through the vapourising tube by air pressure created in the container by a small hand pump. The control is an on/off knob at the base of the vapouriser. The Tilley Storm Lantern is economical in use, burning for about 8 hours on each pint of paraffin. It is light, easily carried by means of the handle, and having its greatest weight at the bottom will stand firmly on surfaces. It is robust in construction, entirely safe in use, and needs a minimum of maintenance.

- 1 No oil burning apparatus of any kind should be used in an unventilated room. An open fireplace or a slightly opened window, or the equivalent, is sufficient ventilation.
- 2 Never use petrol (gasoline) in your Tilley Storm Lantern . . . it can cause a serious accident. Paraffin and petrol tins should be clearly marked and stored well apart.

How to Light up

The lighting procedure is simple and need cause no trouble. The vapouriser is first heated by methylated spirits (alcohol), then vapour is fed into it at low pressure. It ignites on contact with the mantle, and as the burner heats up pressure can be increased. (The sequence of operations is over the page).



Made in England

MODEL X246 A

THE TILLEY LAMP COMPANY LIMITED
Brent Works · Colindale Avenue · London · N.W.9. Tel: Colindale 8111

Pump 2557 (cont.)

Replace Valve and Spring and tighten Valve Guide. Before refitting Plunger see that the rubber Washer 154 is clean and not twisted or broken.

To renew Washer 154, unscrew knurled brass Clamp 269, and remove the brass Cup Washer 270 which retains the rubber washer. Fit new Washer 154 and reassemble Pump, taking care not to pucker the Leather when refitting the Plunger.

When the Pump is correctly assembled, Guide 92 should be screwed as far as possible on to the Tube, leaving the Clamp free to screw backwards and forwards one turn.

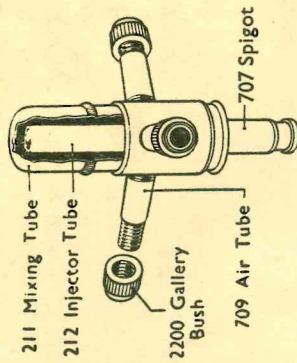
Burner 218

Unscrew the three air tube bushes and detach burner from hood. Clean the hood inside and out.

Clean the outside of the burner. Unscrew and remove Mixing Tube 211, the inside of the burner body is now exposed. Clean Injector Tube 212 and ensure that the small burner holes are not blocked. A Brush No. 180 can be supplied for this purpose.

If Spigot 707 is badly pitted, it should be renewed; unscrew to remove, tighten new one firmly into position. Screw Mixing Tube into place firmly.

Fit a genuine new Tilley Mantle 164.



Container (See complete Lamp illustration).

See that the Feed Tube is not blocked by pouring Paraffin (kerosene) into the Filter Case (where the Control Cock fits). If the Feed Tube is blocked insert a piece of wire and work up and down until the stoppage is cleared. Rinse out the Container with a little Paraffin (kerosene), empty as completely as possible.

Vapouriser 606

The Vapouriser will gradually become choked with carbon and require re-placing about every 500 burning hours. Use of clean Paraffin and the funnel will ensure that the life of the Vapouriser will be as long as possible.

It is important that the jets and internal cleaning wire are not interfered with, otherwise operation of the lamp will be affected.

Vapouriser 606 (5½" long, approx.)



Washer 153

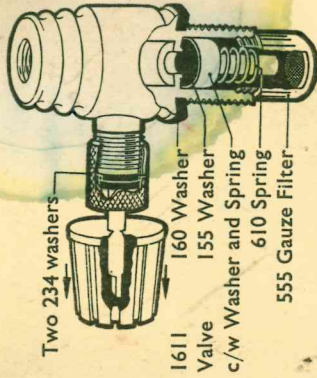
Cleaning Wire 607 (5½" long, approx.)



Control Cock 777

Unscrew Filter. Rinse in clean Paraffin (kerosene) to clean the gauze. If the gauze is broken or badly choked, replace Filter as soon as possible.

Inspect Valve Washer and see that it is clean. If badly worn or cut, turn it over or renew. Replace Valve and Spring, refit Filter, tightening firmly. If the Gland Nut is loose, lightly tighten with pliers, ensuring at the same time that the Control Knob Spindle is free to move.



Replacing Gland Nut Washers 234 in Control Cock 777

- 1 Remove black Control Knob by pulling it off; it is held by an internal spring.
- 2 Unscrew Gland Nut, remove old washers, fit two new washers Type 234 and replace Gland Nut by screwing up firmly.
- 3 Replace Control Knob by pushing it on to Spindle, taking care that the key in the Spindle slides into the slot in the knob.
- 4 Ensure that the Control Knob Spindle is free to move.

Re-assembly of Lamp

- 1 Screw Control Cock in Filter Case (finger tight).
- 2 Screw Vapouriser into Control Cock. Make sure that Washer 153 is in position; do not use more than one washer. Tighten firmly with the fingers. Do Not use pliers.
- 3 Clean the Glass Globe and place in position.
- 4 Arrange Mantle evenly, slide Burner carefully over Vapouriser, see that you do not damage the fine cleaning wire protruding from the top of the Vapouriser. Spring open the Handle, using both hands, and the Burner will then drop into place. Make sure that the Burner Hood is right down, with its edge overhanging the Globe framework.
- 5 Screw Pump into position. Lamp is now ready for operation.

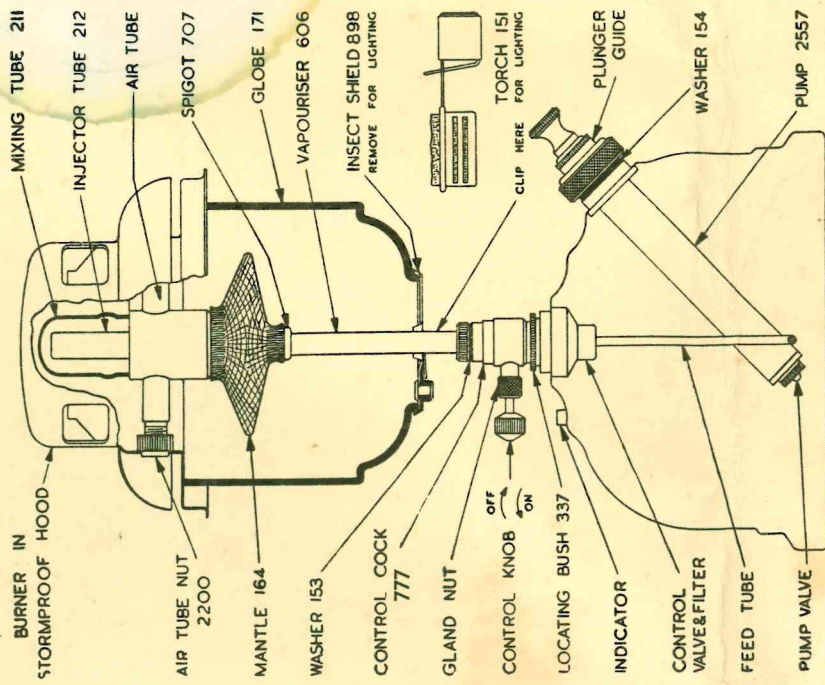
This is the sequence of operations

- 1 See that the Control Knob is turned off.
- 2 Check the amount of fuel in the container - it should be half filled. If necessary, remove the Pump and fill, using the Oil Funnel provided. Capacity is about $1\frac{1}{4}$ pints, enough for 12 hours of average burning. Replace Pump.
- 3 If filling is not necessary, release any pressure present by loosening the Pump, then tighten again.
- 4 Soak Torch Clip in methylated spirits (alcohol).
- 5 Clip it to the Vapouriser below the globe and set it alight.
- 6 The flame will burn for about two minutes, and will then burn down. As it does so, turn the Control Knob on, and give two or three gentle strokes on the Pump.
- 7 The mantle will light up with a low 'pop'.
- 8 After a few minutes pump firmly until the stud of the Pressure Indicator rises level with its outer rim. Do not overpump.
- 9 Remove Torch.

An insect shield is provided for hot climates, and should be fitted below the globe, after the lamp is alight.

To extinguish

Turn Control Knob off. Pressure need not be released until relighting.



Remember

- 1 No oil burning apparatus of any kind should be used in an unventilated room. An open fireplace or a slightly opened window, or the equivalent, is sufficient ventilation.
- 2 Never use petrol (gasoline) in your Tilley Storm Lantern . . . it can cause a serious accident. Paraffin and petrol tins should be clearly marked and stored well apart.

Possible Snags

Two things may go wrong when lighting, both with the same result; as the Control Knob is turned on, stage 6, a flame will rise from the mantle. The cause is either:

- A** Vapouriser not hot enough: you have turned the Control Knob on too soon.
- B** Too much fuel fed into the mantle: you have applied too much pressure too soon.

In either case, turn-off at the Control Knob, release pressure, and start again at stage 4. It takes very little experience to learn how to avoid these two mistakes.

Hints for Trouble-Free Running

Always bear the Safety Rules on pages 1 and 3 in mind.

Dirt in the paraffin can clog the fine vapourising jet. Use only clean paraffin (kerosene), and fill the container only with the funnel provided, which has a built-in gauze strainer.

Carbon formed by burning paraffin (kerosene) sometimes tends to clog the jet. Turn the Control Knob sharply on and off several times while the lamp is burning; the Vapourising Needle will clear the deposit.

A few strokes on the Pump will be necessary from time to time to restore pressure. If pressure is allowed to fall off too far, a light back may occur. It is easily recognised by the roaring noise. If it is allowed to continue, the mixing Tube may be damaged. Relight the lamp at **once** by turning the Control Knob off and on several times and restoring pressure by pumping. It should not be necessary to extinguish and relight.

If the mantle becomes damaged, replace it: flames passing through a hole in the mantle can damage the glass globe.

Routine Maintenance

Your Tilley Storm Lantern is made to give a long life of efficient service, even under difficult conditions, and very little maintenance will be found necessary. The following points should be checked from time to time:

- A** All joints should be hand tight; pliers or wrenches must not be used.
- B** Washers should be checked for wear (see 'overhaul' section).
- C** A worn Vapouriser may cause loss of light, and should be replaced. Check first, by operating the Control Knob, that the cause of the trouble is not an easily removed carbon deposit on the jet.

Complete Overhaul

The best person to overhaul your Tilley Storm Lantern is your Tilley dealer. We give instructions here in case it should ever be necessary for you to do it yourself. When ordering spare parts, always give the part name and part number shown in the illustrations. This will prevent mistakes.

Dismantling

- 1 Unscrew and remove the Pump.
- 2 Turn Control Knob to the 'on' position.
- 3 Remove Burner from the Vapouriser by lifting the Burner Hood sharply.
- 4 Remove Globe.
- 5 Unscrew and remove Vapouriser.
- 6 Empty all Paraffin (kerosene) from the Container.
- 7 Unscrew and remove Control Cock.

Inspection and Overhaul

Pump 2557

Unscrew Plunger Guide and remove Plunger from pump. Inspect Leather and ensure that it is soft and not puckered. If too hard apply a little lubricating oil. See that the Hexagon Nut is tight. Unscrew Valve Guide and inspect Valve Washer, see that it is clean; if badly worn or cut, turn it over or renew.

