

OPERATIONAL NOTES FOR THE **TILLEY** REGD.

Refrigerant Leak Detector and Blow Torch

MODEL LD2

MARK 2

USE ONLY METHYLATED SPIRIT or METHANOL

WARNING

Methyl chloride is inflammable, and the lighted lamp should not, therefore, be taken into any confined space until it is known that methyl chloride vapour has not accumulated there. If, for example, a refrigerating plant is located in the forepeak of a ship, and a leak is suspected, a sample of the general atmosphere in the forepeak should be tested before the forepeak is entered. The sample may be taken in a bellows, or even a car or cycle pump that is in good order, and fed to the sampling tube of the lamp, of course, being left right outside the suspected compartment during this preliminary trial. If this test shows any colouration of flame, the compartment should be ventilated until a similar test shows no colouration; only then may the lamp be taken inside.



This super-sensitive lamp will indicate with extreme accuracy the exact location of an escape of Methyl Chloride, any of the Freon group of refrigerants, Methylene Chloride, etc. It is not suitable for detecting SO_2 , NH_3 , CO_2 , etc.

DO NOT USE PARAFFIN OR PETROL

Manufactured by

THE TILLEY LAMP COMPANY LTD.
DUNMURRY, BELFAST, NORTHERN IRELAND.

UNDER LICENCE FROM PRESSED STEEL CO. LTD. (PRESTCOLD REFRIGERATION)

Covered by British Patent No. 577703 and World Patents



TILLEY

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With Compliments

THE TILLEY LAMP COMPANY LIMITED

Dunmurry, Belfast, Northern Ireland. Telephone: Dunmurry 2564

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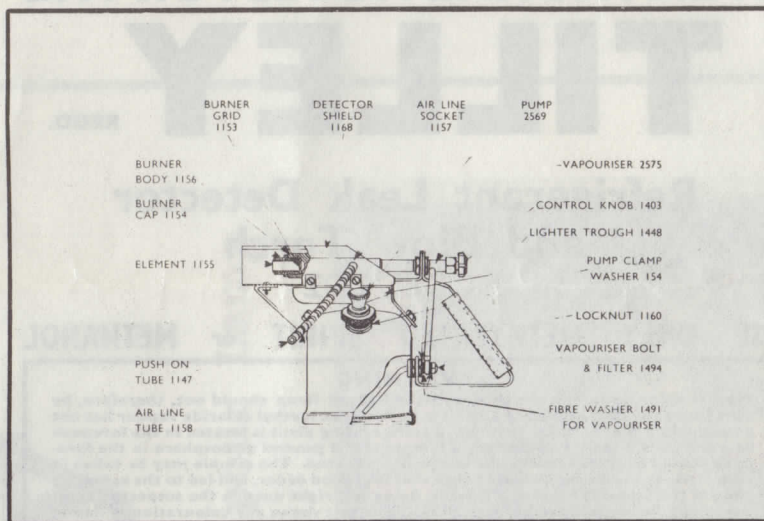
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PREPARATION

1. You will require a bottle about 1 pint capacity which will fit the cork on the Methylated Filler provided. Pour about $\frac{3}{4}$ pint of Methylated Spirit into the bottle.

FILLING AND LIGHTING

1. Turn the Control Knob "OFF" lightly until it stops; *do not force*. See arrow on Control Knob for correct direction.
2. Grip the Pump Clamp, unscrew and remove the Pump.
3. **FILLING WITH FUEL:** Insert spout of Methylated Filler into the Container Collar as far as it will go; allow the Brass Cap of the Filler to rest on the mouth of the Collar. Fill the Container with $\frac{1}{2}$ pint of spirit; when bubbles cease rising in the bottle the Container is full.
4. Replace the Pump and tighten the Clamp with fingers; do not leave the Pump loose.
5. Release the Pump Knob (unscrew) and pump about 4 strokes of air into the Container; *no more at this stage*.
6. **PRE-HEATING:** Charge the "Methylated Spirit Well" at the top of the Container with spirit; take care not to overflow.
7. Apply a light to the Methylated Spirit in the Well.
8. After 2 to 2½ minutes pre-heating, the flame will run along the wick beneath the Burner and burn at the Burner orifice.
9. Turn the Control Knob "ON" about 2 complete turns until the Burner lights inside. If Methylated flame on the wick has burned out, light the Burner with a match.
10. Allow the Burner to warm up, 3 to 5 minutes.

11. Turn the Control Knob fully "ON" lightly to its stop.
12. You may now increase the pressure by pumping until the flame is about 3 inches long. Always screw the Pump Knob down to lock in position after pumping, this will prevent the Pump Plunger rising while you are using the Lamp.
13. The Leak Detector is now ready for use; uncoil the Detector Tube from its stowage position. Note how this Tube is stowed so that you may replace it later.
14. Adjust the flame, using the Control Knob until maximum colour change is obtained when a leak is detected. The size of the leak will, of course, determine this amount of colour change in the flame.
15. It is a feature of this Lamp that it may also be used for soldering small joints. To do this, turn the Control Knob fully "ON" and pump until you have 3 to 4 inches of flame. If the flame lights forward and burns at the Burner orifice, it is a sign that you have overpumped. To correct this, turn the flame down with the Control Knob until the flame returns to the Burner Grid.
When using the Lamp for soldering, the Detector Tube should be stowed by coiling it around the Lamp Container and inserting the end in the Handle grip.
16. To extinguish the Lamp, turn the Control Knob fully "OFF" lightly to its stop, *do not force*. Release pressure by unscrewing the Pump before storing the Lamp. Re-tighten the Pump.
17. To clear a blocked jet, turn the Control Knob fully "OFF" then "ON" again, once or twice if necessary. Re-light or pre-heat again as required.

MAINTENANCE AND FAULTS

1. Rinse the Container out occasionally with clean spirit.
2. If the flame shows a *permanent* green tinge it may be that the Element requires cleaning. Unscrew the Air Line Tube and remove the Burner. Unscrew the Burner Cap, using the Spanner provided; the Copper Element and the Burner Grid may now be removed from the Burner. Clean the Copper Element inside and out to remove scale. A Standard Brush 180 may be used, but it may be necessary to use a wire brush. Take the opportunity to clean the Burner Grid with a piece of emery cloth. Replace the Burner Grid, place the Element in position and screw the Burner Cap home firmly. Replace Burner on Vapouriser. Refit Air Line Socket and Tube.
3. If the flame of the Burner is poor or spluttery you should first of all remove the Vapouriser Feed Bolt at the base of the Handle and clean the Filter which is in the end of the Bolt. Take this opportunity also to refill with fresh spirit—water in the spirit will give a spluttery flame.

4. Do not tamper with the Vapouriser mechanism or jet ; if you think the Vapouriser is faulty, a complete new Vapouriser should be fitted.
5. **AIR LINE BLOCKAGE.** In the course of time, the Air Line may become choked with dust, sucked in by the vacuum cleaner effect ; in view of this, inspect the tube occasionally and clean it, removing any dust or pieces of Kapok which may be lodged there.

SPARE PARTS

PUMP

- | | |
|---------------------|-----------------------|
| 2569 Pump Complete. | 612 Valve Guide. |
| 120 Leather. | 611 Valve with Washer |
| 121 Hexagon Nut. | and Spring. |
| 269 Pump Clamp. | 155 Valve Washer. |
| | 610 Valve Spring. |
| | 1474 Plunger Guide |
| 154 Clamp Washer. | only. |

ACCESSORIES

- 2577 Methylated Filler complete.
- 1435 Cork only for above.
- 1460 Spanner.

VAPOURISER

- 2575 Vapouriser complete with Control Knob and Fuel Feed Pipe.
- 1494 Vapouriser Bolt and Filter.
- 1491 Washer for above (2 per Vapouriser).
- 1160 Vapouriser Lock Nut (2 per Vapouriser).

BURNER

- | | |
|-----------------------------|-----------------------|
| 1156 Burner Body. | 1154 Burner Cap. |
| 1153 Burner Grid. | 1157 Air Line Socket. |
| 1155 Copper Burner Element. | 1158 Air Line Tube. |

Pump 2569



Pump Plunger 2579

