

THE FLAMETHROWER.

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The idea of the flamethrower was first thought of in the late 1930's, following the use of a Hawk torch, which was first used in nurseries to burn off weed.

The torch was then tried at controlled burns to put a face on a burn, but was found to be slow and costly.

Another means of lighting, which was used in the Karri areas, was the blow lamp, which was quite successful for burning mill tops, but faded out after several burning accidents due to the neglect by the operator of the blow lamp.

Another step towards the flamethrower, was to squirt kerosene onto the fuel and light, this gave us results, but again was too slow and costly.

However, we now knew what was required, heat and fuel at the same time.

Several things were tried with the Hawk torch and finally with a pack spray, using several kinds of burners, until finally the cone shaped funnel was found satisfactory, using asbestos string to keep the flame going at the mouth of the cone.

These have been used successfully for many years and with a flame thrower working properly, fires can be lit from utilities and jeeps at speeds up to 30 m.p.h.

In recent years improved types of flamethrowers and P.T.O. pumps used on tractors are highly successful.

The tractor with P.T.O. flamethrower is one of the most versatile machines we have, these can be used in difficult terrain either boggy or steep, or along prepared walking lines.

The flamethrower has come into its own and if used in the proper manner, under the right conditions, it will greatly increase the area of burning at a much reduced cost per acre.

A. The advantages:

1. Puts an edge on all proposed burns - minimizes mopping up and patrolling.
2. If done at the right time and with the right wind, can burn large areas scorch free.

3. Two or three units can do the work of 50 men.
4. Cuts costs - more burnt - less patrolling.

B. Disadvantages:

1. Under too hot conditions - get bad scorching and get a lot of country alight with increasing temperatures.
2. Under too cold conditions - poor edge burns waste of time and spoils edge for another time.
3. Increases cost if not done properly.

C. Ways of doing it.

If we are going to carry out our programme of controlled burning say approx. 750,000 acres per annum, we have not sufficient manpower to carry it out without the aid of the flamethrower.

Early in the season every outfit should be used to full advantage, to cover as much ground as possible, before the weather gets too hot.

Where edges are not good enough - (because of being too thin or too dense) - These should be widened out by the use of drip torches under warmer conditions.

Care must be taken when using flame throwers on the spacing of the lighting.

On a cold day you may need an almost continuous line of fire, whereas on a warm day you may have to widen the spacing to suit the conditions.

This is where a good operator with a sound knowledge of his job can carry on, on his own.

However, where the operator is uncertain of his job, an officer or O/Seer should stay with him, until he is sufficiently trained.

All flamethrowers and P.T.O. units must be in good condition before the start of the season.

When to do it.

To successfully carry out controlled burning with the flame thrower the operator must have a good knowledge of the suitable weather conditions required, and the type of forest he intends to burn.

Burning with the flamethrower is usually carried out in early spring, say August, September, and October, unless it's an exceptional year, it is usually too hot after these months. If used in the autumn it must be late in the season and after heavy rain.

Burning with the wind - this is important. When a suitable day occurs, officers or O/Seers should select suitable burns, get the wind direction and possible changes.

Light only one side of the proposed burns using the wind, then wait for the right day and wind to burn the other side.

By lighting against the wind early in the season will only result in a patchy burn with no depth. Means more patrolling and the danger of the final burn escaping from the Compt.

#### Dont's.

Don't light if it is too hot - or if you are already committed - stop lighting and cut your losses.

Don't persist if it is too cold - you will only spoil the edge for another day.

Don't light against the wind - as above.