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26/G.S.Publications/644

CAMOUFLAGE

MILITARY TRAINING PAMPHLET No. 46

Part 4A: Painting of Mechanical Transport

1941

*Prepared under the direction of
The Chief of the Imperial General Staff.*

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MILITARY TRAINING PAMPHLET

No. 46

PART 4A. PAINTING OF MECHANICAL TRANSPORT, 1941.

1. Problems and basic principles

Paint does not disguise or conceal a vehicle, but is of great assistance in merging it with the background at a distance, and in giving a broken effect at close range.

The characteristic features of a vehicle are :—

- i. The upturned light-reflecting surfaces.
- ii. The shadows contained or cast by forms on the vehicle.
- iii. The large vertical planes.

These can be rendered less obvious by the use of paint.

The following drawings and diagrams show the problems, and how they can be overcome as far as possible by the use of paint. Figs. 1, 2, 3, 4, 5, 6.

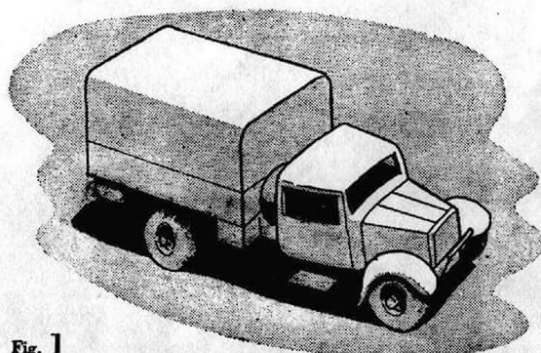


Fig. 1

A vehicle painted in one colour is shown under natural lighting conditions.

Normally upturned surfaces reflect more light than do vertical surfaces and so they appear light when seen from above. Wheel boxes, wings, and cab interior are in shadow, and so appear dark.

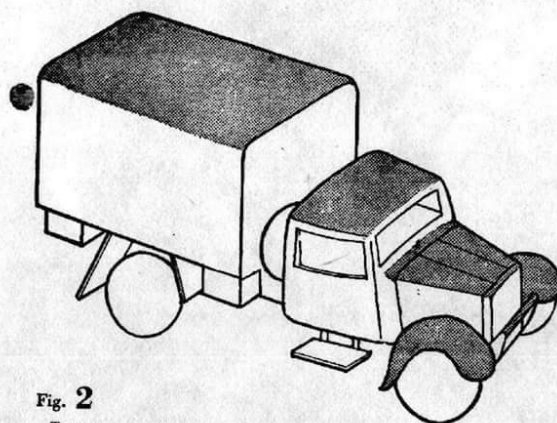


Fig. 2

To counteract light reflection, all upturned surfaces must be painted dark.

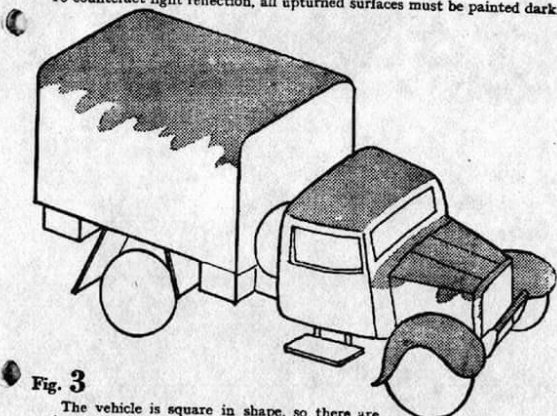


Fig. 3

The vehicle is square in shape, so there are always lines of demarcation where the roof joins the sides, i.e., between light and shade. Even when the top is darkened with paint, these will remain. When the roof joins the side at a right angle nothing can be done with paint to correct this, but when the roof is rounded or bevelled to the side the join between the two tones should be "ragged off".

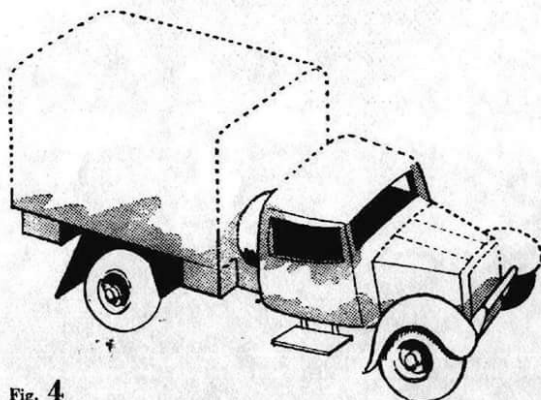


Fig. 4

Shadows beneath overhanging portions of the vehicle cannot be painted out, but they can be absorbed and distorted to some extent by extending a dark unevenly edged pattern on to the vertical sides of the vehicle. As cab openings appear dark from the air they should be included in this pattern.

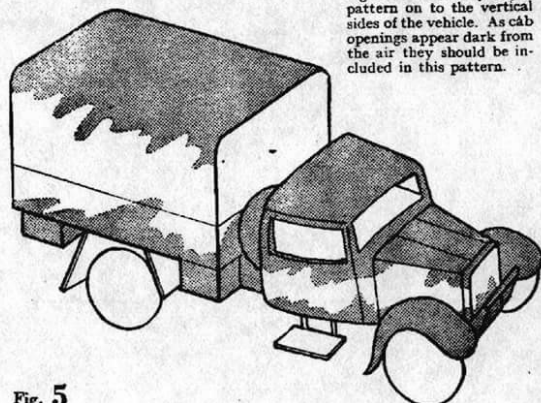


Fig. 5

Having darkened the upturned surfaces and absorbed and extended the shadows, an unevenly edged band or pattern of lighter tone, running in an approximately horizontal direction, is left on the vertical sides of the vehicle.

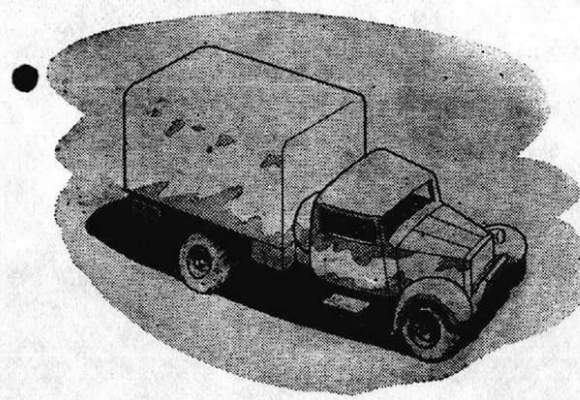


Fig. 6

This shows how a vehicle painted on the lines of diagrams Nos. 2, 3, 4, and 5 would appear under natural lighting conditions, and how paint can help to overcome the problems of shine and shadow shown in Drawing No. 1.

2. Patterns

The basic principles laid down apply to the painting of every vehicle.

For convenience, two colours only are generally used. For England and Northern Europe the light colour may be Khaki Green No. 3 or Standard Camouflage Colour No. 2.

The dark paint should be Standard Camouflage Colour No. 1A.

In some countries the problem is altered, though the basic principles remain the same. The shine from upturned surfaces will be no lighter than light desert country, therefore these surfaces will require darkening to a much lesser degree, or possibly not at all. Depending on the tone of the roof, the light-toned pattern on the vertical sides must be made lighter. A very light paint will often be required.

Repetition of one pattern on a collection of vehicles should be avoided. The following diagrams, which maintain the basic principles of vehicle painting are a guide. Three types of pattern are suggested in Figs. 7, 8 and 9.

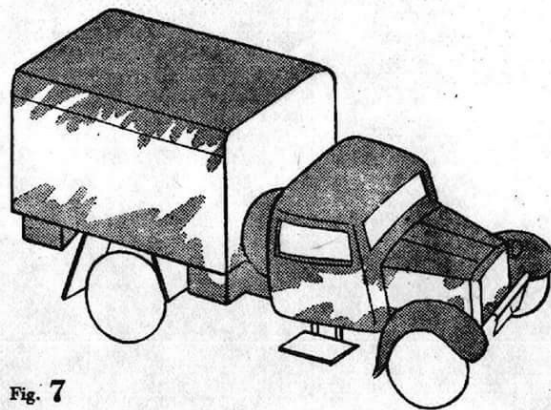


Fig. 7

FOLIAGE PATTERN

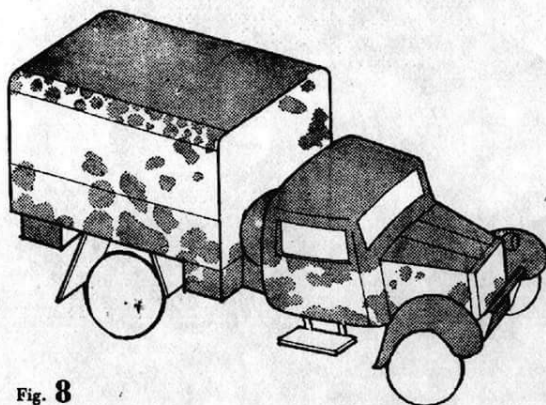
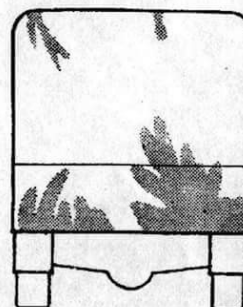


Fig. 8

DAPPLED PATTERN

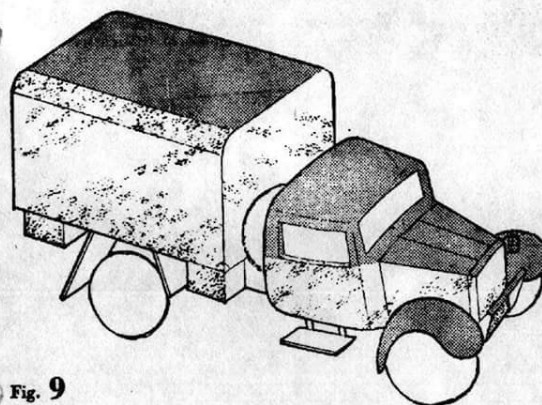
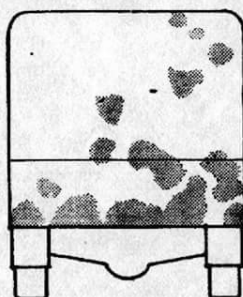
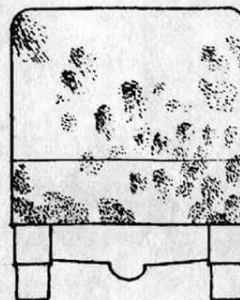


Fig. 9

DRY BRUSH PATTERN



3. Adaptation of one pattern to different types of vehicles

Suggestions as to how one pattern, Fig. 7, the "foliage" type can be adapted and applied to vehicles of different types, are made in Figs. 10, 11, 12 and 13.

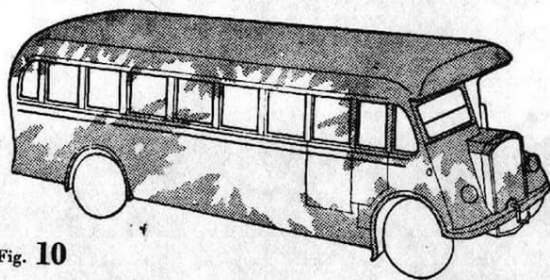


Fig. 10

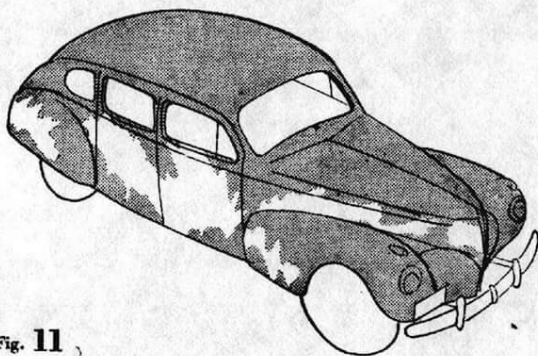


Fig. 11

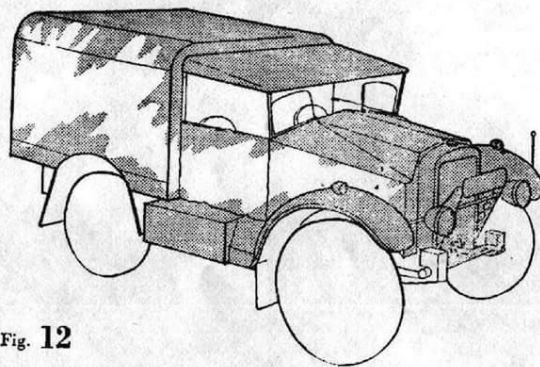


Fig. 12

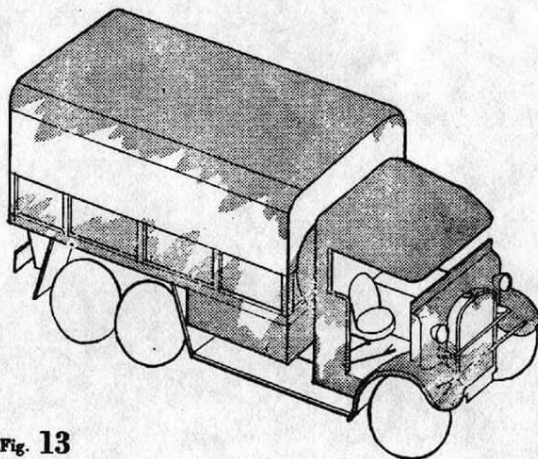
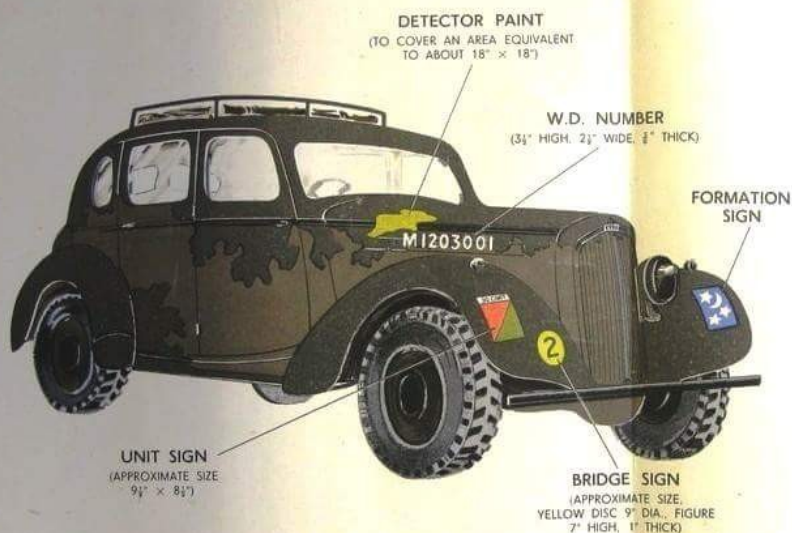


Fig. 13

SUPPLEMENT "A" TO VEHICLE MARKING NOTIFIED IN A.C.15, 20TH OCTOBER 1943



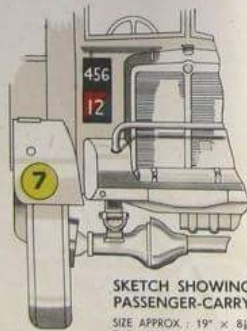
TYPICAL LAYOUT OF STANDARD SIGNS ON W.D. VEHICLES.

REFERENCES:
Current Vehicle Marking Pamphlet. Military Training Pamphlet, No. 46, Part 4A.
Camouflage Chart No. 15. Gas Training, 1942, para. 13, sub-para. 3.
Bridge Load Classification of Vehicles other than "A" Vehicles, 1942.

The following additional signs are also authorized in special circumstances, as described in the Vehicle Marking Pamphlet.

| | | |
|-------------------------|--------------------|-----------------------|
| TACTICAL SIGN | BOMB DISPOSAL SIGN | LEFT-HAND DRIVE SIGNS |
| COMMANDERS & STAFF SIGN | HQ. GUARD SIGN | EMERGENCY SIGN |
| TRAFFIC CONTROL SIGN | CONVOY SIGN | TYRE PRESSURES |

SUPPLEMENT "B" TO VEHICLE MARKING
NOTIFIED IN A.C. (S. 20) 1st OCTOBER 1943



SKETCH SHOWING UNIT SIGN ON
PASSENGER-CARRYING BEDFORD Q.L.

SIZE APPROX. 19" x 8 1/2"
THE UPPER HALF IS PAINTED BLACK, AND THE SERIAL No.
OF THE EMBOSSED UNIT DISPLAYED IN WHITE CHALK.



SPECIMEN BRIDGE SIGN ON
VEHICLE TOWING TRAILER

TYPICAL LAYOUT OF STANDARD SIGNS
ON W.D. VEHICLES.

REFERENCES:

Current Vehicle Marking Pamphlet Military Training Pamphlet No. 46, Part 4A.
Camouflage Chart No. 15 Gas Training, 1942, para. 13, sub-para. 3.
Bridge Load Classification of Vehicles other than "A" Vehicles, 1942.

The following additional signs are also authorized in special circumstances, as described in the Vehicle Marking Pamphlet.

| | | |
|-------------------------|-------------------|-----------------------|
| TACTICAL SIGN | BOMB CYSICAL SIGN | LEFT-HAND DRIVE SIGNS |
| COMMANDERS & STAFF SIGN | HOME GUARD SIGN | EMERGENCY SIGN |
| TRAFFIC CONTROL SIGN | CONVOY SIGN | TYRE PRESSURES |