Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

ACC 10000|120|3444 ME/13 DM

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Unclassified E.O. 12065 Section 3-402/NNDC NO. 785020

10000|120|3444 ME/13 Directives + Instructions EME-1's + E.M.E.-R's 9 MANUELS

Opened Feb. 6, 1946 - Closed Jan. 30, 1947

FEB 1946 JAN 1947

Declassified E.O. 12065 Section 3-402/NNDG NO. 785020

82

30 Jan. '47

F.M.E.'s, G, S & Embassies.

Subject :- Manual books for technical equipment.

3/3/47

1. It has been brought to notice that the U.S. is continually receiving requests from units which are contrary to the provisions of A.C.I. 1364 and 1364/43.

2. These normally take the form of requests for duplicate copies of A.C.I. 1364 or 3/10. Occasional demands are however still being received for A.C.I. 1364, the use of which was discontinued in 1944 - Vide A.C.I. 1364/4a para 2, last line.

3. Certain H.Q. Formations are amongst those listed as having made such requests. I would be glad therefore if you would bring the matter to the notice of all concerned to ensure that in future demands for documents are addressed to the proper quarter.

(J. Hall)
Director of Technical Intelligence

5877

Copy to :- Capt. Kimmel.

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81

Telephone:
Rome = 489081 Ext. 491

LAND FORCES SUB COMM. AC (MMIA) CMF
13/61/ME.
30 Jan. '47

Ministry of War.

Subject :- Publications.

Ref. your 66375/M4 dated 31 October '46.

Please find herewith 3 copies of Publication T.M.9-2800 Standard Military Motor Vehicles as requested.

for Major, General,
GOC, M.M.I.A.

FJ/ma

5876

FILE

13/80

Telephone:
Rome [illegible]89081 Ext. 491

LAND FORCES SUB COMM. AC (MMIA) CMF
13/80/MT
28 Jan. '47

B Composite
"P & SS" Unit
Padua
C.M.F.

Subject:- Publications Vehicles.

May copies of the u/m Maintenance Manuals & Drivers Handbooks, as quoted in Chilwell Publication N° 79/201 dated March 1945, be forwarded to this office please.

In the event of any publications not being available, publications for a similar type of vehicle will be acceptable in lieu.

Make & Type	Cat. Ref.	Page N°	Main. Manual	Page N°	Drivers Handbook.
Ariel M/C Solo. 350 CC.	14	7	101/A13C	8	100/A1-2B
BSA. M/C Solo 500 CC.	34	25	101/BC2A	24	100/BC2A
Matchless M/C Solo 350 CC.	31	73	101/MC2B	63	100/MC3B
Norton M/C Solo 500 CC.	37	86	101/NC3A	76	100/NC3A
Triumph M/C Solo 350 CC.	21	97	101/TC1B	87	100/TC1B
Austin.					
Ambulance 30 cwt 4 x 2	91	10	101/AN7A	11	100/AN8A
Car. 4 x 2 Utility	113	10	101/AN3A	11	100/AN7B
Lorry 3 Ton 4 x 4 M/T Portee & pdr.	87				

5575

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

C.M.F.

Subject:- Publications Vehicles.

May copies of the u/m Maintenance Manuals & Drivers Handbooks, as quoted in Chilwell Publication N° 79/201 dated March 1945, be forwarded to this office please.

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BSA. M/C Solo 500 CC.	34	25	101/B02A	24	100/B02A
Matchless M/C Solo 350 CC.	31	73	101/MC2B	63	100/MC38
Norton M/C Solo 500 CC.	37	86	101/N03A	76	100/N03A
Triumph M/C Solo 350 CC.	21	97	101/T01B	87	100/T01B
Austin.					
Ambulance 30 cwt 4 x 2	91	10	101/AN7A	11	100/AN8A
Car. 4 x 2 Utility	113	10	101/AN3A	11	100/AN7B
Lorry 3 Ton 4 x 4 A/T Portee 6 pdr.	87	10	101/AN5A	11	100/AN10A
Bedford					
Lorry 3 Ton. 4 x 2 G.S.	64	15	101/BD3A	15	100/BD7A
Truck 15 cwt. 4 x 2 G.S.	23	14	101/BD3A	14	100/BD6A
Tractor 4 x 4 Light A.A.	41	14	7/WL/PL5	15	101/BD4A
Chevrolet					
Lorry 30 cwt. 4 x 4 G.S.	8	26	33/31	25	33/31
Lorry 3 Ton 4 x 4 G.S.	16	26	33/31	25	33/31

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Make & Type	Cat. Ref.	Page No.	Main. Manual	Page No.	Drivers Handbook
Dodge					
Truck 15 cwt. 4 x 2 G.S.	10	36	2409/11/4	34	2409/11/2
Lorry 3 Ton 4 x 2 G.S.	6	36	2017/6/2	34	2017/6/2
Truck 15 cwt. 4 x 2 water tank	38	37	0428-D2	35	2989/38/4
Ford					
15 cwt. 4 x 2 G.S.	240	50	5743/240/2	40	5743/240/4
Truck 15 cwt. 4 x 2 G.S.	204	48	4350/204/2	44	100/FD5B
Lorry 30 cwt. 4 x 4 G.S.	99	44	101/FD2	40	100/FD2C
Lorry 3 ton 4 x 4 G.S.	210	48	8/34	44	8/34
Lorry 3 Ton 4 x 4 W/Shop	143	45	MB-F1	41	8/34
Car 5 cwt. 4 x 4 Blitz Buggy	116	45	TM10-1101	41	TM10-1101
Tractor 4 x 4 Light AA.	172	47	MB-F1	43	8/34
Tractor 4 x 4 F.A.	218	49	MB-F1	45	8/34
Industrial Tractor Fordson	184	47	1405/160/2	43	2785/184/2
G.M.C.					
Lorry 3 ton 4 x 4 G.S.	9	55	TM10-1215	48	TM10-1215
Humber.					
Car 6 str. 4 x 2 Staff Saloon	56	64	328/56/2	53	100/HR3A
Car 4 x 2 Lt Recce Mk I	20	61	159/20/2	52	100/HR3A
Leyland					
Lorry 3 ton 6 x 4 G.S.	18	66	23/69	57	23/69
Mack.					
6 x 6 Prime Mover Tractor 7½ ton	23	71	TM10-1679	61	TM10-1679
Morris Commercial					
Truck 15 cwt. 4 x 2 A/Tank	113	76	101/ML3	66	100/ML3A
Lorry 1 Ton 4 x 2 Gen Utility Body	245	79	4066/271/4	69	3/281
Lorry 30 cwt 6 x 4 B/Down	177	77	3/285	67	3/281
Tractor 4 x 4 F.A.	210	78	101/ML1B	68	100/ML1C
Willys			Ford		Ford
Car ¼ cwt. 4 x 4	1	101	TM9-803	90	TM9-803
Trailer 7½ Ton 6 whld. Light Recovery	-		1		-
Trailer 15 cwt. 2 whld G.S.	-		1		-
Trailer gas welding.	-		1		-

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Lorry 30 cwt. 4 x 4 G.S.	99	44	101/FD2	40	100/FD2O
Lorry 3 ton 4 x 4 G.S.	210	48	8/34	44	8/34
Lorry 3 Ton 4 x 4 w/shop	143	45	MB-F1	41	8/34
Car 5 cwt. 4 x 4 Blitz Buggy	116	45	TM10-1101	41	TM10-1101
Tractor 4 x 4 Light AA.	172	47	MB-F1	43	8/34
Tractor 4 x 4 F.A.	218	49	MB-F1	45	8/34
Industrial Tractor Fordson	184	47	1406/160/2	43	2765/184/2
G.M.C. Lorry 3 ton 4 x 4 G.S.	9	55	TM10-1215	48	TM10-1215
Humber. Car 6 str. 4 x 4 Staff Saloon	56	62	328/56/2	53	100/HR3A
Car 4 x 4 Lt Recce Mk 1	20	61	159/40/2	52	100/HR3A
Leyland Lorry 3 ton 6 x 4 G.S.	18	66	23/69	57	23/69
Mack. 6 x 6 Prime Mover Tractor 7½ ton	23	71	TM10-1679	61	TM10-1679
Morris Commercial Truck 15 cwt. 4 x 4 A/Tank	113	76	101/ML3	66	100/ML3A
Lorry 1 Ton 4 x 4 Gen Utility Body	445	79	4686/27/2	69	3/281
Lorry 30 cwt 6 x 4 B/Down	177	77	3/285	67	3/281
Tractor 4 x 4 F.A.	210	78	101/ML1B	68	100/ML1C
Willys Car 5 cwt. 4 x 4	1	101	Ford TM9-803	90	Ford TM9-803
Trailer 7½ ton 6 whld. Light Recovery	-		1		-
Trailer 15 cwt. 2 whld G.S.	-		1		-
Trailer gas welding.	-		1		-

Yours Very.

for LT. COL.
A.D.M.E.

FJ/ma

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Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

78

Telephone =
Rome 489081 Ext.491

LAND FORCES SUB-COMM. AC (MMIA) OMR

13/18/ME

Ministry of War.

26 Nov. '45.

Subject = Examination of Arty.

11

Ref. this office letter ME/13/77 dated 29 Oct. '45.

May we please have an early reply.

for Major General,
GOC. MMIA.

AM/cb

Rec'd 5873 Nov. '46

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

(77)

SUBJECT :- Examination of Artillery.

Land Forces Sub Comm. A.C.
M.I.A. ROME.
MA/13/77
29 Oct. '46.

(78)

TO :- Ministry of War.

Forwarded herewith are instructions on the procedure for examining British artillery, comprising:-

(a) List of gauges needed and a description thereof
(b) The limits of wear to be allowed
(c) The method of calculating "full charges"
(d) Description of common defects

It is pointed out that these instructions refers only to the barrel, jacket, and breech mechanism.

A distinction between the terms "inspection" and "examination" as applied to artillery and mortars is given in the notes attached to our MA/40/-/9 of 29 Oct. '46.

May we please have a copy of the instructions you issue?

Please acknowledge receipt.

(9 Encl)

AB

A. BLUNT, Lt. Col.
Assistant Director of Mechanical Engineering.
M.I.A.

AB/CH

Copy to :- L.M.A. & B.L.O. - you received a copy of these instructions by hand on 27 Oct.

5872
Encl.
29 Oct '46

ME/3

EXAMINATION AND CONDITIONING OF ORDNANCE

1. These notes describe in detail the technique to be followed when "examining" ordnance for determining wear and locating defects, and list the tools and gauges together with the relevant data needed for "examination".

TOOLS AND GAUGES.

2. The tools and gauges used in the examination of ordnance are given in detail for all natures of guns and howitzers in table "8". The following is a list of those most generally used. The suffix number refers to the paragraph of this regulation in which the description of the gauge will be found :-

Gauge, measuring, bore (3).
Mirror, examining, bore (4).
Gauge, plug, bore, low limit, for provisional condemnation (5).
Instrument, taking impressions of bore (8).
Gauge, testing seat of obturator (9).
Apparatus, testing clinometer plane with axis of bore (10).
Clinometer, inspector's (11).

GAUGE, MEASURING, BORE.

3. All "gauges, measuring, bore," are made and graduated in a similar manner, but differ in size to suit the various calibres of ordnance in the service. They are identified by numbers, and a complete list showing the maximum and minimum readings with each is given in Table 1.

No. of gauge	Zero in.	Maximum in.	Minimum in.
13	<.244	<.394	<.154
17	4.5	4.75	4.4
23	3.7	4.6	3.6
27	3.45	4.35	3.35
32	40 mm.	45 mm.	39 mm.
36	5.5	5.85	5.4
38	37 mm.	41 mm.	35 mm.
39	3.0	3.375	2.9

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found :-

Gauge, measuring, bore (3).
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No. of gauge	Zero in.	Maximum in.	Minimum in.
13	2.244	2.394	2.154
17	4.5	4.75	4.4
23	3.7	4.6	3.6
27	3.45	4.35	3.35
34	40 mm.	45 mm.	39 mm.
36	5.5	5.825	5.4
38	37 mm.	41 mm.	35 mm.
39	3.0	3.375	2.9

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Table 1 - Limits of bore measuring gauges.

(b) Each gauge consists of a steel plate frame provided on one side with a broad dovetailed recess in which works a sliding plate. One end of the plate is rounded to a slightly smaller radius than that of the minimum bore

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for which it is intended; the sliding plate, the opposite end of which is similarly rounded, projects from the other end. A clamping screw passing through a slot in the sliding plate is attached to the frame and, in conjunction with a spring washer, clamps the plate in any required position. A thumb piece is attached to the plate to enable it to be easily moved.

(c) The sliding plate is engraved on one side with a scale of inches divided into tenths (0.1 in.) and fiftieths (0.02 in.). A vernier is fitted to the side of the plate frame and has 20 divisions equal to 19 divisions of 0.02 in. on the scale. The difference, therefore, between one division on the vernier and one division on the scale is 1/20th of 0.02 in. thereby allowing measurements to be taken to thousandths of an inch (0.001 in.).

(d) Two connections are hinged to the rear face of the frame to which rods are screwed. These rods are generally of wood or duralumin, and are made in short lengths with metal screw connections, for convenience in taking measurements and for ease in packing and transport. The lower rod is graduated in inches. In taking measurement a steel straightedge or rule must be held at the distance on the graduated rod at which the measurement is to be taken.

(e) To steady the rods in measuring at a long distance from the muzzle, guide discs are supplied, and are clamped on the graduated rod at convenient intervals (one should be about 12 in. from the gauge). The disc has an elongated hole through which the plain rod can move freely.

(f) In order to take a measurement the gauge should be set to a slightly larger reading than the anticipated diameter, and the clamping screw screwed down so that the sliding plate can move only with difficulty. Push the plain rod at the upper end of the gauge fully forward and pass the gauge up the bore to the position at which the measurement is required. By pulling the plain rod evenly to the rear the sliding plate will be pushed in by its contact with the surface of the lands, and thus the diameter of the bore at the desired point can be read off on the vernier scale with the aid of

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0·02 in. on the scale. The difference, therefore, between one division on the vernier and one division on the scale is 1/20th of 0·02 in. thereby allowing measurements to be taken to thousandths of an inch (0·001 in.).

(d) Two connections are hinged to the rear face of the frame to which rods are screwed. These rods are generally of wood or duralumin, and are made in short lengths with metal screw connections, for convenience in taking measurements and for ease in packing and transport. The lower rod is graduated in inches. In taking measurement a steel straightedge or rule must be held at the distance on the graduated rod at which the measurement is to be taken.

(e) To steady the rods in measuring at a long distance from the muzzle, guide discs are supplied, and are clamped on the graduated rod at convenient intervals (one should be about 2 in. from the gauge). The disc has an elongated hole through which the plain rod can move freely.

(f) In order to take a measurement the gauge should be set to a slightly larger reading than the anticipated diameter, and the clamping screw screwed down so that the sliding plate can move only with difficulty. Push the plain rod at the upper end of the gauge fully forward and pass the gauge up the bore to the position at which the measurement is required. By pulling the plain rod evenly to the rear the sliding plate will be pushed in by its contact with the surface of the lands, and thus the diameter of the bore at the desired point can be read off on the vernier scale with the aid of a magnifying glass.

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PRECAUTIONS IN USING THE GAUGE.

(g) See that the spring washer is bearing evenly; if it does not do so, the plate may slip and low readings will be recorded.

(h) The gauge should be checked periodically. If its accuracy is suspected, it should be returned to the Ministry of War for any necessary adjustment.

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MIRROR , EXAMINING, BORE.

4. The "mirror examining, bore," consists of a brass cylinder with part of its frame removed to expose a mirror set at 45° to the axis of the bore. In front of the mirror, at the bottom of the cylinder, is fitted an electric lamp which illuminates the bore adjacent to the mirror. One end of the cylinder has a screwed socket, to take rods for pushing the cylinder up and down the bore, and is fitted with terminals for leads from a battery. The cylinder is placed in the bore and moved slowly along. An observer at the breech or muzzle facing the mirror is able to see the condition of the bore as reflected in the mirror

GAUGE, PLUG, BORE, LOW, LIMIT FOR PROVISIONAL CONDEMNATION.

5. This gauge is a plain steel cylinder, varying in length according to the nature of gun for which it is designed and of such a diameter as to ensure that, if it passes through the bore, the shell with which the gun or howitzer is equipped can safely be fired without chance of being obstructed by the surface of the bore. It has a handle at one end, with a hole for the attachement of a cord to pull the gauge through the bore.

GAUGE, PLUG, BORE, ACCEPTANCE AFTER LAPPING.

6. This is a similar gauge to the "gauge, plug, bore, low, limit for provisional condemnation," but is a larger diameter. If is for use after a gun has been lapped, to ascertain whether the lapping has been sufficient; the bore must be lapped until this gauge passes.

GAUGE, PLUG, RIFLING.

7. This gauge resembles the "gauge, plug, bore, low limit for provisional condemnation," except that it is provided with a number of projections round the exterior of the cylindrical portion, corresponding with the rifling grooves in the gun with which it is intended to be used. The depth of the projections is slightly less than the minimum depth of the grooves. The gauge is for use after the lands of a gun have been lapped. If this gauge will not pass after lapping, this indicates that the grooves are choked and need milling, and conversely, if it will pass, no milling is necessary.

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INSTRUMENT, TAKING IMPRESSIONS OF BORE.

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8. Each instrument consists of a base plate to the upper surface of which is fitted a spindle having a right-hand thread at one end and a left-hand thread at the other. Fitted to the spindle and base plate are two carrier nuts which are furnished with hinged levers, supporting a surface plate to which the bore (or chamber) plates are attached by fixing screws or bolts. To the head of the instrument is fitted a handle made in lengths suitable for the various guns; the pieces being secured together by couplings and

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locking nuts. Fitted to the interior of the handle is a rod, gearing with the spindle in such a manner that, when the rod is turned with a wrench, the carrier nuts are made to approach or recede, according to the direction in which the spindle is rotated, and thus raise or lower the surface plate through the medium of the hinged levers. A clamp is attached to the handle to enable the instrument to be turned to the desired position when in the bore (see para 14). For certain of the smaller natures of guns and howitzers wooden instruments are supplied for impression taking purposes. These are in two parts shaped to suit the diameter of the bore and provided with suitable wedges.

GAUGE, TESTING, SEAT OF OBTURATOR.

9. (a) This gauge consists of a steel disc, the contour and thickness of which practically represents a complete obturator.

(b) To gauge the seat of the obturator, remove the obturator from the breech screw and substitute the gauge; apply a very thin film of marking, composed of lamp black, or red lead, and oil, to the periphery of the gauge, and carefully close the breech; on opening the breech, the condition of the seat of obturator will be seen by the marks caused by contact with the gauge. If the marks show that the gauge is not bearing regularly over the seating the latter must be scraped where marked, and the above process repeated until the marking is regularly distributed round the seating.

(c) Where necessary the spare adjusting discs belonging to the gun will be placed behind the gauge on the breech screw to ensure contact between the gauge and the seat of the obturator.

APPARATUS, TESTING, CLINOMETER PLANE WITH AXIS OF BORE.

10. (a) The apparatus consists of the steel straight-edge, 4 ft. long with two steel sectors to suit the bore of the particular gun or howitzer with which it is intended to be used. The straight-edge is prepared on the underside with tapped holes in positions suitable for the sectors as indicated thereon. The sectors are shaped on the lower side to suit the bore of the gun and are prepared on the upper side with a recess for the reception of the straight-edge, which is secured thereto by means of fixing screws.

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18 in. apart, for guns and howitzers less than 4 in.
24 in. apart, for guns and howitzers 4 in. and less than 6 in.

(b) The apparatus is used to test the angle between the axis of the bore at the muzzle and the clinometer plane at the breech end of the piece. To ascertain this angle, the gun or howitzers is brought to an approximately horizontal position; the straight-edge with sectors is inserted in the muzzle and clinometer readings are taken both on the straight-edge and clinometer plane. The difference of

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these readings is the angle required. It is recorded as "down" or "up" in minutes according to whether the muzzle is inclined downwards or upwards in relation to the clinometer plane.

(c) In the case of guns having clinometer planes at both the breech and muzzle, the difference of the clinometer readings taken on these planes will be the angle to be recorded (see para 30).

CLINOMETER INSPECTOR'S.

11. (a) This consists of :-

Metal frame or body.
Main screw.
Drum.
Bubble arm.

The frame has two truly surfaced faces at right angles to each other. The sides of the frame are connected by a platform on which is engraved the reader for the drum. The drum consists of a sleeve, tube, nut and cap, and is fitted to the main screw which is rigidly attached to the frame of the clinometer. The brass sleeve of the drum is engraved with a spiral graduated scale reading from - 30' to + 25°. The bubble arm has a cased spirit bubble mounted on it.

(b) These clinometers are used in conjunction with the "apparatus, testing, clinometer plane with axis of bore", for taking readings of the breech and muzzle axis of a gun to ascertain the amount of droop of the muzzle.

NOTE :- A calibration table is issued with each clinometer giving index errors throughout the graduated scale.

(c) To keep the clinometer in efficient working order it is necessary to keep the working parts free from grit or dust as much as possible. On no account should the instrument be taken to pieces. To ascertain whether the clinometer is in adjustment :-

(i) Carefully clean the clinometer plane.
(ii) Turn the drum to zero.
(iii) Place the instrument on the clinometer plane, drum towards the breech, and elevate or depress the gun until the bubble is in the centre of its run.
(iv) Turn the clinometer end for end.
(v) Should the bubble not return to the centre, the instrument is out of adjustment.
(vi) As the amount of error will generally be

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Drum.
Bubble arm.

The frame has two truly surfaced faces at right angles to each other. The sides of the frame are connected by a platform on which is engraved the reader for the drum. The drum consists of a sleeve, tube, nut and cap, and is fitted to the main screw which is rigidly attached to the frame of the clinometer. The brass sleeve of the drum is engraved with a spiral graduated scale reading from - 30' to + 25°. The bubble arm has a cased spirit bubble mounted on it.

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(iii) Place the instrument on the clinometer plane, drum towards the breech, and elevate or depress the gun until the bubble is in the centre of its run.
(iv) Turn the clinometer end for end.
(v) Should the bubble not return to the centre, the instrument is out of adjustment.
(vi) As the amount of error will generally be small, it is advisable to add or subtract the error, as the case may be, rather than correct the adjustment.
(vii) To ascertain the error after complying with (iv) (drum towards muzzle), turn the drum until the bubble is again in the centre of its run; one-half of the reading on the drum is the index error; what is practically a new zero point on the scale is thus determined.

(viii) If the reading falls on the part graduated in black on the scale , add the index error when setting the clinometer for any required elevation; subtract the index error when taking a reading with the clinometer.

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(ix) If the reading falls in the portion graduated in red on the drum, subtract the index error when setting the clinometer for any required elevation add it when taking a reading.

(d) If it is required to adjust the clinometer to have no index error, set the drum to the ascertained index error and bring the bubble to the centre of its run by elevating or depressing the gun. Then, placing the drum at zero, manipulate the capstan headed nuts (using a tempered steel wire just fitting the holes in the nuts) until the bubble is in the centre. Reversing the instrument end for end should not alter the central position of the bubble; should it do so, proceed as before until there is no change.

METHOD OF EXAMINATION.

12. Before an examination is made the liner or barrel of a loose liner or loose barrel gun should be removed. The bore should be thoroughly cleaned by washing and brushing with fresh water; hot water should be used if available. If the bore is very dirty, it should be cleaned with kerosene burning oil. Soda must on no account be used.
A full examination consists of :-
Visual examination.
Taking impressions (when necessary).
Measuring.
Gauging, testing, etc.

VISUAL EXAMINATION.

13. After the bore has been cleaned it should be slightly oiled to facilitate the detection of cracks, etc. The "mirror, examining, bore," should disclose the existence of any cracks, abrasions, scoring, etc. The exterior should be searched for cracks, movements of parts, etc. In the case of loose liner or loose barrel guns, the inside of the jacket and the interrupted threads of the jacket, breech ring and/or breech bush should also be examined for cracks and rust. The stamping on the gun should be compared with the description shown on the Memorandum of Examination as regards Nature, Mark and Regd. No., and any differences reported to Ministry of War.

TAKING IMPRESSIONS.

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should not alter the central position of the bubble; reversing the instrument end for end should it do so, proceed as before until there is no change.

METHOD OF EXAMINATION.

12. Before an examination is made the liner or barrel of a loose liner or loose barrel gun should be removed. The bore should be thoroughly cleaned by washing and brushing with fresh water: hot water should be used if available. If the bore is very dirty, it should be cleaned with kerosene burning oil. Soda must on no account be used.
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TAKING IMPRESSIONS.

14. (a) Gutta-percha impressions should be taken where 5866 examination has disclosed a possible defect of the chamber (including the obturator seating of B.L. guns), and all round the bore, from the commencement of the rifling to as far up the bore as scoring may extend. Impressions should also be taken of any defect in the bore such as may have been caused by a premature explosion of shell, etc.

(b) If the "mirror, examining, bore," is not available, full length impressions of the chamber and bore must be taken, as otherwise defects such as cracks cannot be detected.

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(c) To prepare the gutta-percha for taking impressions, it should be placed in hot water and allowed to remain until sufficiently soft, care being taken to prevent the water from boiling, as this would render the gutta-percha useless for taking impressions. It should then be removed from the water and carefully kneaded to expel all air and water, and finally placed on the plate of the impression instrument in the form of a roll, covering about one-third of the plate circumferentially for the whole length. The surface of the gutta-percha must be quite smooth and free from bubbles, creases and specks.

(d) The instrument, after being carefully inserted in the bore, should be screwed up and allowed to remain for 10 to 20 minutes until the gutta-percha is sufficiently hard. If a little oil or grease be applied to the plate of the instrument, and if the bore be very slightly oiled, the impression can easily be detached from both without damage; a sharper impression, however, can be obtained if the bore is not oiled. Too much pressure must not be applied in screwing up the instrument: otherwise the impression will be too thin and, should be defect be deep, it will be found difficult to withdraw the impression.

MEASURING.

15. (a) The bores of guns should be measured horizontally and vertically with the "gauge, measuring, bore," described in para 3. It will be necessary to measure guns throughout only when a suitable "gauge, plug, bore," is not available, or for some special reason.

(b) When guns are measured throughout the bore the positions in the bore should be determined from the muzzle. The points of measurement should be at 1 in. from the commencement of the rifling, and at every 12 in. from that point in the case of guns not liable to steel choke. For guns liable to steel choke additional measurements should be taken at the steps on the inner "A" tube and at every inch for a distance of 12 in. on either side of the steps.

(c) It is very seldom that measurements are required to be taken of the chamber, but, when this is necessary, the distances should be determined in inches from the breech face.

(d) All measurements under (b) and (c) will be reported to

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should be screwed up and allowed to remain for 10 to 15 minutes until the gutta-percha is sufficiently hard. If a little oil or grease be applied to the plate of the instrument, and if the bore be very slightly oiled, the impression can easily be detached from both without damage; a sharper impression, however, can be obtained if the bore is not oiled. Too much pressure must not be applied in screwing up the instrument; otherwise the impression will be too thin and, should be defect be deep, it will be found difficult to withdraw the impression.

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(c) It is very seldom that measurements are required to be taken of the chamber, but, when this is necessary, the distances should be determined in inches from the breech face.

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(d) All measurements under (b) and (c) will be reported to The Ministry of War. In cases where the correct "gauge, plug, bore, for provisional condemnation" is available it will be stated whether the gauge passes or not.

(e) In the case of a premature or when specially called for by Ministry of War, measurements of ordnance having a range table M.V. of 2,300 F.S. and over, will be taken at 1 in. and at each succeeding inch up to three calibres from the commencement of rifling.

(f) At each complete examination of a gun, measurements should invariably be taken to ascertain the wear at 1 in. from

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the commencement of the rifling. These measurements should always be taken at the plain distance from the breech face given for each nature of gun in table 2. Should this distance vary in any particular gun, it will be indicated in the Memo. of Examination when the gun is issued to the service.

Nature	Length of rifling in inches (full depth)	1 in. from commencement of rifling		
		Inches from muzzle	Inches from breech face of gun	Inches from breech face of loose liner or barrel
B.L. 5·5 in., Mk. III .	135·32	134·32	37·48	32·08
B.L. 4·5 in., Mk. II . .	156·825	155·825	36·925	31·745
B.L. 4·5 in., Mks. I to I*	156·435	155·435	36·535	31·465
Q.F. 3·7 in., Mks. I, II and III	156·985	155·985	39·165	29·015
Q.F. 25 pr., Mk. I (3·450)	74·425	73·425	43·50	19·375
Q.F. 25 pr., Mk. II (3·450)	74·435	73·435	44·438	19·475
Q.F. 17 pr., Mk. I . . .	140·24	139·24	33·01	26·21
Q.F. 6 pr. 7 cwt., Mks. II and III (2·244) . .	78·18	77·18	43·77	19·02
Q.F. 6 pr. 7 cwt., Mks IV and V (2·244) . . .	94·18	93·18	43·15	18·4
Q.F. 40 mm., Mks.(a) I, I* and III (1·575)	76·08 (1932·6 mm.)	75·08 (1907·2 mm.)	19·4 (492·8 mm.)	13·5 (342·8 mm.)
Q.F. 37 mm., M. 5	63·3	63·3	15·05	--
Q.F. 37 mm., M. 6	68 45	67 45	15 05	--

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(a) These figures, which include the "lead in" of the rifling

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Nature	inches (full depth)	inches from muzzle	from breech face of gun	of loose liner or barrel
B.L. 5·5 in., Mk. III .	135·32	134·32	37·-8	34·08
B.L. 4·5 in., Mk. II . .	156·825	155·825	36·925	31·7-5
B.L. 4·5 in., Mks. I to I*	156·435	155·435	36·535	31·465
Q.F. 3·7 in., Mks. I, II and III	156·985	155·985	39·165	29·015
Q.F. 2-5 pr., Mk. I (3·450)	74·-25	73·-25	23·50	19·375
Q.F. 25 pr., Mk. II (3·450)	74·-35	73·-35	24·-38	19·475
Q.F. 17 pr., Mk. I . . .	140·24	139·24	33·01	26·21
Q.F. 6 pr. 7 cwt., Mks. II and III (2·244) . .	78·18	77·18	23·77	19·04
Q.F. 6 pr. 7 cwt., Mks IV and V (2·244) . . .	94·18	93·18	23·15	18·4
Q.F. 40 mm., Mks.(a) I, I* and III (1·575)	76·08 (1932·6 mm.)	75·08 (1907·2 mm.)	19·4 (492·8 mm.)	13·5 (342·8 mm.)
Q.F. 37 mm., M. 5	03·3	63·3	15·05	—
Q.F. 37 mm., M. 6	08 45	67 45	15 05	—

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(a) These figures, which include the "lead in" of the rifling, give the correct measuring point for Q.F. 40 mm. guns.

TABLE 2 - PLAN LENGTHS OF RIFLING

Note :- The plan diameter (in inches) of the bore, where it differs from that disclosed by the nomenclature of the ordnance, is inserted in brackets.

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GAUGING, FILLING, etc.

16. At all examinations the gauges provided for each particular nature of gun should be applied before sentence is passed, and the results stated in the report of examination. If the gun is fitted with its mechanism, the mechanism should be gauged and tested also and results recorded.

RECORDING DEFECTS.

17. (a) Bore. In order to note in returns the position of any flaw or defect, the bore is divided circumferentially (with reference to an observer facing the muzzle) into four parts, Up, Right, Down and Left; any spot may be more particularly indicated as lying "Right (or Left) of Up," "Right (or Left) of Down" as shown in the following diagram. For example, a crack in the bore might be reported as extending from 40 in., R. of U. to 57 in., L. of D.



Fig. 1 - Circumferential divisions of bore

Distances down the bore are in all cases recorded in inches from the muzzle, except wear at 1 in. from the commencement of the rifling, which is recorded from the breech face when this is the only measurement taken in the bore.

(b) Chamber. The position of any flaw or defect in the chamber of a gun is reported in a similar manner, but with reference to an observer facing the breech, the distance in this case being measured and recorded in inches from the breech face.

(c) Exterior. With regard to exterior defects over bore or chamber, a unit can be fixed with sufficient

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(with reference to an observer facing the muzzle) into four parts, Up, Right, Down and Left; any spot may be more particularly indicated as lying "Right (or Left) of Up," "Right (or Left) of Down" as shown in the following diagram. For example, a crack in the bore might be reported as extending from 25 in., R. of U. to 57 in., L. of D.



Fig. 1 - Circumferential divisions of bore

Distances down the bore are in all cases recorded in inches from the muzzle, except wear at 1 in. from the commencement of the rifling, which is recorded from the breech face when this is the only measurement taken in the bore.

(b) Chamber. The position of any flaw or defect in the chamber of a gun is reported in a similar manner, but with reference to an observer facing the breech, the distance in this case being measured and recorded in inches from the breech face.

(c) Exterior. With regard to exterior defects over bore or chamber, position is fixed with reference to an observer facing the muzzle end by means of the four cardinal and four intermediate points previously mentioned, and the distance is measured from the muzzle face. The exception to this rule is that any defects on the breech ring are described with reference to an observer facing the breech, the distance being measured from the breech face. When a defect extends to the jacket, this fact should be stated. When an impression is forwarded with a report, a label should be pasted on the back of the impression showing the following information:-

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(i) Name of battery.

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(ii) Nature, mark, factory, initials and registered number of the piece.
(iii) Number of equivalent full rounds fired.
(iv) Nature, extent and position of the defect.
(v) Date of taking the impression.
(vi) Direction of the muzzle, indicated by an arrow, thus ⟶ muzzle.

NATURE OF DEFECTS.

CLASSIFICATION

18. The defects which are likely to be found in the body of a gun or howitzer are classified under three distinct headings, viz:-

Original defects.
Fair wear defects.
Accidental defects.

The following list gives details of the defects which may occur under the above headings :-

(a) Original defects
Tool marks.
Specks or flaws in the steel.

(b) Fair wear defects
Erosion { Wear / Scoring.
Abrasion.
Flattening of lands.
Annular erosion.
Stripping of lands.
Choke due to steel contraction or copper deposit.
Expansion of bore or chamber.
Movement or stretching of tubes.
Cracking of inner tube, jacket or breech ring.
Openings between hoops or tubes; twisting of tubes.
Excessive droop.

(c) Accidental defects
Damage by explosion or break up the projectile in bore.
Injury by the projectile of sub-calibre gun or aiming rifle.
Damage by hostile fire.
Injury caused by obstruction in bore.
Split cartridge cases (A.F. guns).
Failure of obturator (B.L. guns).

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original defects.
Fair wear defects.
Accidental defects.

The following list gives details of the defects which may occur under the above headings :-

(a) Original defects
Tool marks.
Specks or flaws in the steel.

(b) Fair wear defects
Erosion { Gear / Scoring.
Abrasion.
Flattening of lands.
Annular erosion.
Stripping of lands.
Choke due to steel contraction or copper deposit.
Expansion of bore or chamber.
Movement or stretching of tubes.
Cracking of inner tube, jacket or breech ring.
Openings between hoops or tubes; twisting of tubes.
Excessive droop.

(c) Accidental defects
Damage by explosion or break up the projectile in bore.
Injury by the projectile of sub-calibre gun or aiming rifle.
Damage by hostile fire.
Injury caused by obstruction in bore.
Split cartridge cases (Q.F. guns).
Failure of obturator (B.L. guns).
Rust.

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TOOL MARKS

19. (a) Causes. Tool marks are caused in the manufacture or repair of ordnance by the breaking or blunting of the machining tool, obstruction of metal turnings or carelessness on the part of the machinist.

(b) Limits. No limits for development can be given. Each defect will be dealt with on its merits by the Ministry of War, on receipt of the particulars of examination.

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SPECK OR FLAWS IN THE STEEL.

20. (a) Causes. These marks are due to defects in the steel and are not caused by machining; often they are not visible until the final machining operation, or they may not develop until the ordnance is proved. If in the opinion of the inspecting officer they are not serious, the ordnance in which they appear is issued to the service.

(b) Appearance. The appearance of these defects differs; their extent number and position, however, are recorded by the Ministry of War.

(c) Limits. No limits for development can be given. Each defect will be dealt with on its merits by the Ministry of War on receipt of the particulars of examination.

EROSION.

21. "Erosion" is a general term applied to the action produced on the bore by the rush of gas of exceedingly high temperature generated by the burning of the propellent. It enlarges the bore at the breech end of the rifling and its action can be classified under two headings, viz.: "wear," and "scoring". The nature of these defects and the limits of their action are fully dealt with below. The enlargement of the bore thus produced results in a loss of muzzle velocity of the projectile. This is due to the projectile over-running and thereby increasing the capacity of the chamber. Inaccurate shooting may also result from erosion owing to the rifling becoming worn and undefined, and thus failing to engrave the driving band sufficiently to effect the required rotation of the projectile. It should be noted, however, that, if the rifling towards the muzzle remains unworn and in good condition, accurate shooting will probably be maintained.

Wear

(a) Cause. Wear, is primarily, the result of the action of propellent gas of very high temperature acting on the first few calibres of the bore from the commencement of the rifling. The nature of the steel of the rifled tube and its treatment during forging play an important part in its resistance to wear, but is of secondary importance. On the other hand, the nature and weight of the charge has a very close relation to the rate of wear, e.g., cordite, Mark I, burns at a higher temperature than cordite, M. D., and causes a more rapid [illegible] than with reduced

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Wear

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(b) Appearance. Wear appears as a smooth wearing away or enlargement of the rifling. Both lands and grooves are effected, but the action is greater on the lands than on the grooves. It begins in the first rounds fired from a gun, and is usually greater per round at first than subsequently. In the early stages of wear the lands become rounded at the edges, and the grooves appear less deep than in a new gun. As wear develops, the lands at the commencement of the rifling scarcely stand up above the grooves, and wear extends farther along the bore; when nearing the condemning limits, the lands often become obliterated and the surface of the bore becomes quite smooth for some two or three calibres at the breech end. After repeated firing, the bore of a gun at the commencement of the rifling and the front end of the chamber becomes covered with a fine network of surface cracks, thought to be due to the variations of temperature to which the bore is subjected causing irregular expansions. The maximum wear occurs at the commencement of the rifling, but is recorded at 1 in. from the commencement owing to the difficulty of taking measurement at the commencement itself. Guns do not wear uniformly, i.e., wear may be greater on the horizontal or on the vertical diameter. The wear of a gun is therefore always stated as the difference between half the sum of the horizontal and vertical diameters (i.e., the mean diameter) of the bore at 1 in. from the commencement of the rifling an the plan diameter of the bore at that point.

(c) Limits. The limits for wear are given in Table 4 and also in the Memorandum of Examination of each gun. At each examination a gun will be measured at the point for which a limit is laid down, and the measurements recorded on A.F. C 675 and in the Memorandum of Examination.

(d) Remedy. There is no remedy for wear. Replacement of the worn tube, liner or barrel is necessary when the limit has been reached.

SCORING

(e) Cause. Scoring is usually attributed to imperfect sealing of the bore by the driving band of the projectile when the gun is fired; this allows the propellant gas to escape between the projectile and the bore. Defects in the steel, or tool marks near the commencement of the

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gun at the commencement of the rifling
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(c) Limits. The limitd for wear are given in Table 4 and also in the Memorandum of Examination of each gun. At each examination a gun will be measured at the point for which a limit is laid down, and the measurements recorded on A.F. C 875 and in the Memorandum of Examination.

(d) Remedy. There is no remedy for wear. Replacement of the worn tube, liner or barrel is necessary when the limit has been reached.

SCORING

(e) Cause. Scoring is usually attributed to imperfect sealing of the bore by the driving band of the projectile when the gun is fired; this allows the propellant gas to escape between the projectile and the bore. Defects in the steel, or tool marks near the commencement of the rifling, may cause scoring to start, and a deepened groove may show earlier signs of scoring than undeepened grooves in the same gun, owing to the driving band offering less resistance to the gas pressure. The stream velocity of the propellent gas causes the reticulated cracks on the surface of the steel, produced by the heated gas, to develop into slight longitudinal streaks. These streaks from narrow channels through which the gas under great pressure eats into the steel between the projectile and the bore. Scoring, once it begins develops at an increasing rate, and in this respect differs from wear.

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Insufficient ramming of the projectile is probably an initial cause of scoring. High temperature propellants cause more scoring than those burning at lower temperatures and charges of small size cordite are liable to promote scoring sooner than those of large size, owin to the quicker combustion and more rapid development of the propellent gas.

(f) Appearance. The first indications of scoring are slight longitudinal streaks on the front end or slope of the chamber and in the grooves of the rifling. These streaks develop in depth and tend to form irregular gutterings and holes. The grooves of the rifling mainly become affected, development taking place on the non-driving edge of the land, extending gradually over the groove and then to the adjacent land. Scoring is very irregular in its action and may effect only a few grooves. It most frequently develops on the upper surface of the bore, i.e., at or in the vicinity of UP. It develops at varying rates in guns of the same nature. No two guns score exactly alike, and the deepest scoring may be at a different point in the same gun at two successive examinations. It develops always both longitudinally and in breadth, and in extreme cases may extend all round the bore for a depth of 4 to 6 calibres.

(g) Limits. The limit after which a gun which is scored should not be fired is calculated from the remaining thickness of the liner, barrel or tube at the point of deepest scoring; this limit must not be exceeded if the gun is to be safe and repair is not to be prejudiced. As wear occurs both before and also simultaneously with scoring, a limit cannot be fixed for scoring only, but wear at the point of deepest scoring has also to be taken into account. A limit is laid down, therefore, for each nature of gun; this limit consists of the maximum permissible sum of the depth of scoring and half the wear at the same point. In other words the difference between the plain gauge measurement and the plain diameter of the bore, at the deepest point of scoring, is halved and added to the depth of the scoring at this point; if the total so arrived at equals, or exceeds, the limit laid down, the gun will be provisionally condemned. To ascertain the depth of the scoring, an impression taken of the bore and the scoring, as shown on the impression, is measured at the deepest place. Pierce the impression with a stout needle through what is thought to be

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become affected, development taking place on the non-driving edge of the land, extending gradually over the groove and then to the adjacent land. Scoring is very irregular in its action and may effect only a few grooves. It most frequently develops on the upper surface of the bore, i.e., at or in the vicinity of UP. It develops at varying rates in guns of the same nature. No two guns score exactly alike, and the deepest scoring may be at a different point in the same gun at two successive examinations. It develops always both longitudinally and in breadth, and in extreme cases may extend all round the bore for a depth of 4 to 6 calibres.

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a limit for scoring plus half wear, as for example :-

Experience as to where scoring is likely to develop.
The thickness of the inner tube, barrel or liner in the probable area or zone of scoring.
The calculated amount that the inner tube can be reduced in thickness without unduly weakening the gun or prejudicing repair.

The limit is stated for each gun in its Memorandum of Examination, and a complete table of limits for all guns is given in Table 3.

(h) Remedy. There is no remedy for this scoring. Replacement of the tube, or the fitting of an inner tube are the only methods of repair. In the case of a loose liner or loose barrel gun the jacket, breech ring and/or breech bush should be fitted to a new liner or barrel.

ABRASION.

22. (a) Cause. Abrasion, or mechanical wear, is caused by the passage projectile through the bore. Some of the conditions which favour this action are :-

(i) Projectiles rotating untruly about their longer axes, whereby the shoulders at their front and rear bear heavily on the lands.
(ii) Soft carbon liner, barrel or "A" tube.
(iii) Insufficient ramming of projectiles, causing them to slip back at high elevations and find their own seating in the rifling when fired.
(iv) Steel choke at the steps of inner "A" tubes.

(b) Appearance. Abrasion takes various forms as follows :-

(i) At times abrasion takes the form of spiral wear, due to the untrue rotation of the projectile, and follows the twist of the rifling. Its presence is indicated by measurement of the bore and sometimes shows on impressions. In some guns enlargement of the bore due to this cause increases very considerably towards the muzzle and to such an extent that some of the lands may become entirely obliterated.
(ii) Abrasion caused by improper ramming of the projectiles shows in the form of longitudinal grazing, severe at the commencement of the rifling and extending in a lesser degree throughout the bore. 5858
Some natures of howitzers, after firing a very large

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Some natures of howitzers, after firing a very large number of rounds, show very few signs of gas action at the commencement of the rifling, but exhibit evidence of longitudinal grazing even when proper ramming is assured. The enlargement of the bore in this case is probably due mainly to abrasion by the projectiles.

(iii) Abrasion of a steel choke in the bore often appears as a bright circumferential ring.

(c) Limits. It is not usual for this defect to effect shooting in a gun before it reaches the limit for wear at 1 in. from the commencement of the rifling.

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(d) Remedy. Repair with a new tube. In the case of a loose liner or loose barrel gun, the jacket, breech ring and/or breech bush should be fitted to a new liner or barrel.

FLATTENING OF LANDS.

43. (a) Cause. Fair wear flattening is attributed to some of the causes that produce abrasion. (See para 31 for flattening by premature.) Imperfect centring of the projectile, when rammed, is thought to set up a hammering effect on the lands in its passage along the bore. Steel choke in a bore sometimes results in a local flattening of the lands, owing to the projectile forcing a passage over the obstruction.

(b) Appearance. Flattening is discernible by the lands of the rifling becoming wider and the adjoining grooves narrower than they were when the gun was new. It is generally associated with abrasion and contributes to the enlargement of the bore, but in a lesser degree than does abrasion.

(c) Limits. Excessive flattening is not usual, and it has not been necessary to fix any limits for this defect.

(d) Remedy. Repair with a new tube. In the case of a loose liner or loose barrel gun, the jacket, breech ring and/or breech bush should be fitted to a new liner or barrel.

ANNULAR EROSION.

44. (a) This defect is a form of gas erosion which is often found in the chambers of A.F. guns, immediately in front of the cartridge case.

(b) Appearance. It takes the form of a ring of enlargement all round the chamber. Considerable roughness is sometimes associated with it, either in front or in rear of the ring, showing signs of incipient scoring. Usually, with guns or howitzers using short cartridge cases, the roughness develops at the rear of the ring by the gas acting on the chamber under the front edge of the cartridge case.

(c) Limit. No limit exists for this defect, but when difficulty in extraction is experienced ordnance should be repaired or replaced as under

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the bore. Steel choke in a bore sometimes results in a local flattening of the lands, owing to the projectile forcing a passage over the obstruction.

(b) Appearance. Flattening is discernible by the lands of the rifling becoming wider and the adjoining grooves narrower than they were when the gun was new. It is generally associated with abrasion and contributes to the enlargement of the bore, but in a lesser degree than does abrasion.

(c) Limits. Excessive flattening is not usual, and it has not been necessary to fix any limits for this defect.

(d) Remedy. Repair with a new tube. In the case of a loose liner or loose barrel gun, the jacket, breech ring and/or breech bush should be fitted to a new liner or barrel.

ANNULAR EROSION.

24. (a) This defect is a form of gas erosion which is often found in the chambers of A.F. guns, immediately in front of the cartridge case.

(b) Appearance. It takes the form of a ring of enlargement all round the chamber. Considerable roughness is sometimes associated with it, either in front or in rear of the ring, showing signs of incipient scoring. Usually, with guns or howitzers using short cartridge cases, the roughness develops at the rear of the ring by the gas acting on the chamber under the front edge of the cartridge case.

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(c) Limit. No limit exists for this defect, but when difficulty in extraction is experienced ordnance should be repaired or replaced as under.

(d) Remedy. Repair by the electro- deposition of nickel (see para 34 (d). In the case of a loose liner or loose barrel gun, the jacket, breech ring and/or breech bush should be fitted to a new liner or barrel.

STRIPPING OF LANDS OF RIFLING.

25. (a) Cause. Stripping of lands is attributed to the absence of, or insufficient, radius on the bottom corners of the grooves of the rifling, which reduces the strength of the lands to stand up against the force required to

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rotate the projectile. Insufficient ramming, whereby projectiles slip back after loading and, on firing, come up against the rifling with more or less a blow, probably conduces to the cracking of the lands at the bottom corner of the driving edge at the commencement of the rifling, and to small portions of the lands breaking away at this point. Isolated instances have occurred of lands being torn off in guns, due to flaws in the steel or to the effects of a premature.

(b) Occurrence. Cracking of lands at the commencement of the rifling is generally to be seen in the bottom corners of the grooves. These cracks are not sharply defined and resemble a smooth streak of guttering on the side of each land. Stripping of the land soon follows the development of these gutterings and the latter may therefore be looked upon as the first signs of stripping. Stripping starts by small sections of the lands breaking away and is rapidly followed by more extensive stripping. Instances are known of projectiles becoming jammed in the bore owing to being wedged by pieces of stripped lands.

(c) Limits. Guns or howitzers, showing signs of stripping of lands, should be provisionally condemned and a special report of the defect should be forwarded to the Ministry of War, on A.F. G. 675 accompanied by gutta-percha impressions.

(d) Remedy. Care in loading to ensure that projectiles are properly rammed will reduce the possibility of the lands stripping. The liability of the lands to strip has been reduced by increasing the radius at the bottom of the grooves. In cases of provisional condemnation for stripping of lands repair by fitting a new "A" tube or inner "A" tube is necessary in built up ordnance. In the case of a loose liner or loose barrel gun, the jacket breech ring and/or breech bush should be fitted to a new liner or barrel.

EXPANSION OF BORE OF GUN.

6. (a) Cause. Expansion is due to the pressures in the bore being higher than that which a gun is built to withstand. If a gun is liable to expansion, it is usually detected at proof. The use of augmented charges other than those approved may cause expansion. The inner "A" tube or liner, if not properly supported, may even expand on firing

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the side of each land. Stripping of the land soon follows the development of these gutterings and the latter may therefore be looked upon as the first signs of stripping. Stripping starts by small sections of the lands breaking away and is rapidly followed by more extensive stripping. Instances are known of projectiles becoming jammed in the bore owing to being wedged by pieces of stripped lands.

(c) Limits. Guns or howitzers, showing signs of stripping of lands, should be provisionally condemned and a special report of the defect should be forwarded to the Ministry of War, on A.F. G. 875 accompanied by gutta-percha impressions.

(d) Remedy. Care in loading to ensure that projectiles are properly rammed will reduce the possibility of the lands stripping. The liability of the lands to strip has been reduced by increasing the radius at the bottom of the grooves. In cases of provisional condemnation for stripping of lands repair by fitting a new "A" tube or inner "A" tube is necessary in built up ordnance. In the case of a loose liner or loose barrel gun, the jacket breech ring and/or breech bush should be fitted to a new liner or barrel.

EXPANSION OF BORE OR CHAMBER.

26. (a) Cause. Expansion is due to the pressures in the bore being higher than that which a gun is built to withstand. If a gun is liable to expansion, it is usually detected at proof. The use of augmented charges other than those approved may cause expansion. The inner "A" tube or liner, if not properly supported, may even expand on firing approved service charges and this may occasionally happen after the issue of a gun.

(b) Appearance. Evidence of expansion is seen in the measurements of a bore. It can rarely be detected by visual examination, except in very pronounced cases of local expansion in the bore, when a dark ring is noticeable due to the projectile passing the expanded portion of the bore without coming into contact with it. An impression of the bore will reveal expansion only when the bore is bulged. Expansion from the above causes will be unaccompanied by flattening of lands.

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(c) Limits. The limits are laid down in Table 3. Expansion in the chamber of W.F. Guns may cause the case to set out on firing with consequent difficulty of extraction. When difficulty is experienced from this defect, a gun should be provisionally condemned.

(d) Remedy. There is none that can be carried out on service;
NOTE : Guns fitted with loose liners will be provisionally condemned before reaching the limits laid down if the liner becomes tight in the jacket. As soon as expansion is observed the breech ring will be removed and the liner tested for freedom in the jacket. This procedure will be carried out subsequently at frequent intervals and as soon as binding occurs the liner will be condemned. In the case of a liner which cannot be removed from its jacket due to expansion, action will be taken to replace the gun.

LONGITUDINAL MOVEMENT AND STRETCHING OF TUBES.

27. (a) Cause. The bodily forward movement of an inner "A" tube is due to it being insufficiently held by the outer tube, and to the shoulders, both at the rear and front, not being brought in contact during building. Imperfect building may also cause the inner "A" tube to carry forward the outer "A" tube with it. Forward stretching may be due also to the same reasons, as regards the forward shoulders and portion of the tube only, and to the natural tendency of the tube to move in a forward direction from the pull of the projectile in its passage along the bore. Rearward stretching is probably due to expansion and is possible only in guns designed with the breech bush not butting up against the rear face of the tubes.

(b) Appearance. A bodily forward movement of a tube will cause :-

(i) A gap in B.L. guns between the rear end of the tube and front face of breech bush, and in W.F. guns a recess on the rear face of the tubes in the breech opening.

(ii) Additional protrusion, at the muzzle of the inner "A" tube beyond the "A" tube.

(iii) Additional protrusion at the muzzle of the "A" tube beyond the "B" tube, jacket or muzzle stop ring.

Forward stretching will result only in (ii) and (iii). Rearward stretching may be visible on the rear face of the tubes in the breech opening. Rearward and forward

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LONGITUDINAL MOVEMENT AND STRETCHING OF TUBES.

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(b) Appearance. A bodily forward movement of a tube will cause :-

(i) A gap in B.L. guns between the rear end of the tube and front face of breech bush, and in Q.F. guns a recess on the rear face of the tubes in the breech opening.

(ii) Additional protrusion, at the muzzle of the inner "A" tube beyond the "A" tube.

(iii) Additional protrusion at the muzzle of the "A" tube beyond the "B" tube, jacket or muzzle stop rings.

Forward stretching will result only in (ii) and (iii). Rearward stretching may be visible on the rear face of the tubes in the breech opening. Rearward and forward movement of exterior tubes may be detected by the appearance of the paint at the joints.

(c) Limits. There are no definite limits for the movement or stretching of tubes, but the following should be noted:-

(i) Bodily forward movement of the inner "A" tube in B.L. guns may becomes serious, as it removes the obturator seating from the obturator and so

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may cause an escape of gas over the obturator owing to the latter not seating properly. Forward movement of the "A" tube in Q.F. guns may cause the cartridge case to be removed so far forward as to cause a misfire, or, if the gun fires, the cartridge, being insufficiently supported, may split. Otherwise forward movement and stretching are not serious, but may be regarded as indicating the possibility of the development of chokes or cracks in the bore of certain designs of guns.

(ii) All movements of tubes should be recorded at each examination of a gun, and suspected bodily forward movements should be specially reported to the Ministry of War.

(iii) The amount of space in the breech opening between the rear face of the inner "A" tube and the breech bush should be ascertained by the insertion of feeler gauges at "Up," "Down," "Left," and "Right."

(iv) In reporting the protrusion of the inner "A" tube the amount of protrusion of the outer "A" tube beyond the "A" tube, and of the "A" tube beyond the next tube outside it, and so on, should be recorded. It is advisable to illustrate these protrusion by a sketch, thus :-

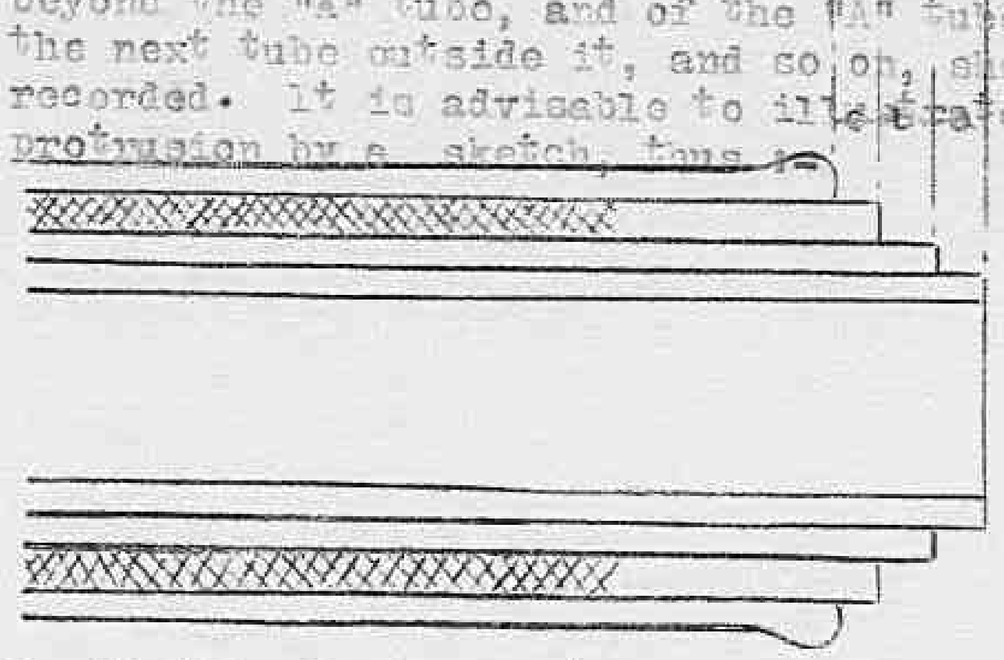


Fig. 2 - Sketch showing protrusion of tubes.

(d) Remedy. In B.L. guns the result of bodily forward movement of an inner tube may be temporarily remedied by the application of "discs, adjusting obturator," to the mechanism, until the obturator is found to seat correctly in the cone seating; but this remedy is limited to the number of discs it is possible for a mechanism to take. Forward movement may increase the space between the firing hole bush and the base of the cartridge in the gun. If the limit is exceeded, the gun should be provisionally condemned.

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(iii) The amount of space in the breech opening between the rear face of the inner "A" tube and the breech bush should be ascertained by the insertion of feeler gauges at "Up," "Down," "Left," and "Right."

(iv) In reporting the protrusion of the inner "A" tube the amount of protrusion of the inner "A" tube beyond the "A" tube, and of the "A" tube beyond the next tube outside it, and so on, should be recorded. It is advisable to illustrate these protrusion by a sketch, thus :-

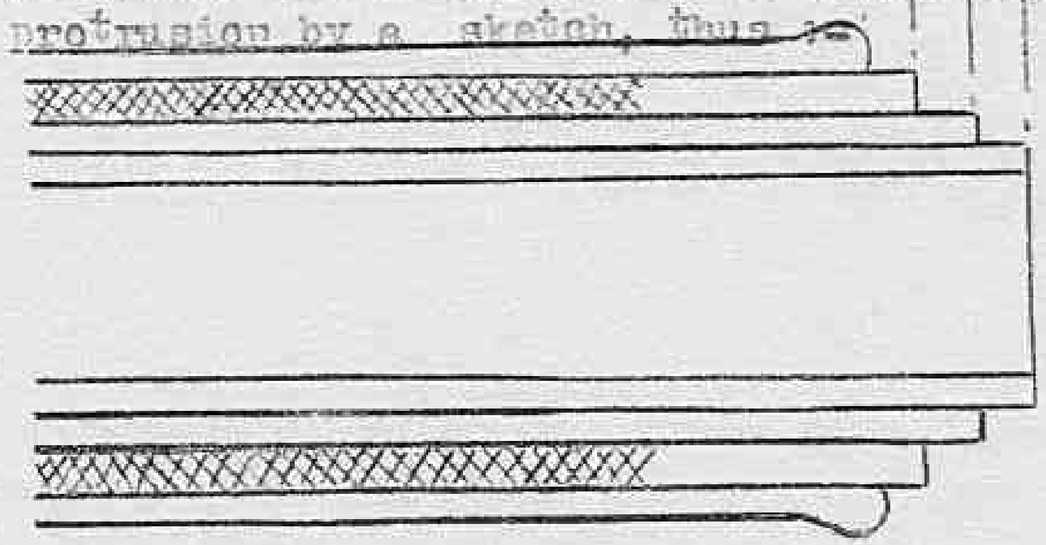


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CRACKING OF TUBES, Etc.

28. (a) Cause. Cracks in a tube, liner, barrel, jacket or breech ring are due to failure of the steel to withstand the compression or extension imposed on them, and, although

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they are usually the result of a severe premature (see para 3.), they occasionally occur in the normal life of a gun. Steel is always liable to develop a crack. The principal causes of cracking of gun tubes, liners or barrels have been due to :-

Development of internal flaws in the steel.
Stretching.
Expansion.
Tubes, etc, being too thin.
Want of sufficient support by outer tube or jacket.

(b) Appearance. Cracks may be either circumferential or longitudinal. The former usually occur in the vicinity of the steps and are attributed to stretching, and the latter, which usually follow the grooves of the rifling, are usually due to expansion. During examination for cracks the following points should be noted :-

(i) A small crack is very difficult to distinguish from a scratch, streak of scoring, or hair lines such as appear in nickel chrome steel, and may not be noticed at a visual examination of the bore. It will show on an impression; the gutta-percha being forced into the crack rises slightly above the surface and, when the impression is examined, shows as a fine jagged line with rounded edges.

(ii) A large crack in the bore is seen at a visual examination as a dark line.

(iii) A crack on the exterior of a gun may be detected by the cracking of the paint; if a gun is not painted, a small crack is difficult to see.

(iv) Cracks on the exterior are more likely to be found where any thrust takes place, such as in the rear of breech opening of jackets or breech rings with a sliding block mechanism, or on the hinge lugs of breech rings for swinging breech screws.

An impression should always be taken of a crack, and in cases of doubt it is advisable to take one or more additional impressions to see that the same defect is noticeable on all.

(c) Limit. A crack anywhere in the body of a gun entails provisional condemnation.

(d) Remedy. No remedy is possible on service.

OPENING BETWEEN HOOPS OR TUBES - TWISTING OF TUBES

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latter, which usually follow the grooves of the rifling, are usually due to expansion. During examination for cracks the following points should be noted :-

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(c) Limit. A crack anywhere in the body of a gun entails provisional condemnation.

(d) Remedy. No remedy is possible on service.

OPENINGS BETWEEN HOOPS OR TUBES - TWISTING OF TUBES 5853

-9. (a) Cause. In some guns of early manufacture hoops were shrunk on the tubes, over the chase. Stretching of the tubes occasionally caused openings to occur between the hoops. Modern guns are built without hoops, but openings between the tubes sometimes occur on the muzzle and breech faces, owing to slight imperfections in building. Twisting of the inner tube sometimes occurs from the same cause.

(b) Appearance. Openings between the hoops on the exterior of a gun can easily be seen and need no special description.

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Openings between the tubes on the muzzle and breech faces can be detected by feeler gauges. Twisting of the inner tube can be seen by the axis line on the muzzle face being out of line with the remainder of the axis lines. It will be always be clockwise owing to the driving force of the projectile on the right-hand twist of the rifling.

(c) Limit. There are no limits for these defects. They should always be fully reported to the Ministry of War on A.F. G. 875, when observed.

(d) Remedy. There is none.

DROOP.

30. (a) Cause. Excessive droop may be due to faults in original construction causing loss of girder strength, to misuse of a gun or to an accident.

(b) Appearance: Unless a gun is very much out of straightness, droop would not be noticeable at a visual examination, but it would be detected from the difference in clinometer readings taken on the clinometer planes at the muzzle and the breech, or by use of the "apparatus" referred to in para. 10.

(c) Limit. The amount of droop which will entail provisional condemnation cannot be definately stated. If accuracy of recoil is affected, the gun must be provisionally condemned. Clinometer planes on the breech and muzzle ends (where provided) of guns when issued to the service are adjusted to the axis of the bore at the breech and muzzle, respectively and no further adjustments should be carried out on service without reference to the Ministry of War. The angle between the axis of the bore at the muzzle and the clinometer plane at the breech will be taken at each examination, except for tank, anti-tank and A.A. guns, and will be recorded in the memorandum when found to differ by two or more minutes from that taken at the previous examination.

(d) Remedy. Guns can be straightened satisfactorily only in an Ordnance Factory.

EXPLOSION OR BREAK UP OF PROJECTILE IN BORE.

31. (a) Cause. The explosion or break up of a projectile in the bore may be due to

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DROOP.

30. (a) Causes. Excessive droop may be due to faults in original construction causing loss of girder strength, to misuse of a gun or to an accident.

(b) Appearance. Unless a gun is very much out of straightness, droop would not be noticeable at a visual examination, but it would be detected from the difference in clinometer readings taken on the clinometer planes at the muzzle and the breech, or by use of the "apparatus" referred to in para. 10.

(c) Limit. The amount of droop which will entail professional condemnation cannot be definately stated. If accuracy of recoil is affected, the gun must be provisionally condemned. Clinometer planes on the breech and muzzle ends (where provided) of guns when issued to the service are adjusted to the axis of the bore at the breech and muzzle, respectively and no further adjustments should be carried out on service without reference to the Ministry of War. The angle between the axis of the bore at the muzzle and the clinometer plane at the breech will be taken at each examination, except for tank, anti-tank and A.A. guns, and will be recorded in the memorandum when found to differ by two or more minutes from that taken at the previous examination.

(d) Remedy. Guns can be straightened satisfactorily only in an Ordnance Factory.

EXPLOSION OR BREAK UP OF PROJECTILE IN BORE.

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31. (a) Causes. The explosion or break up of a projectile in the bore may be due to :-

Failure of the projectile itself, or its fuze.
The presence of steel choke or local expansion of the bore.
To some loose obstruction in the bore such as debris or stones, a fragment of a driving band left by the previous round, a piece of stripped rifling, etc.

(b) Appearance. The extent of the damage to the bore of a gun from a premature or break up will vary according to the nature or violence of the explosion or extent of the break up. The following damage may be anticipated :-

Denting.
Grazing.
Flattening of lands and enlargement.

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Bulging.
Cracking.
Bursting.
Burring.

(c) Limit. The damage should be dealt with as laid down in this regulation for defects as found. Denting will be treated as for flattening, and grazing, if slight, will be governed by the limits for "scoring plus half wear".

NOTE : Before a gun is sentenced serviceable after a premature, care should be taken to ensure that all burrs have been removed.
Bulging, bursting or cracking entails, of course, provisional condemnation.

(d) Remedy. Liability to prematures may be reduced to a minimum by keeping the bore within limits, by keeping it clean and by careful visual searching for obstruction before firing.

DAMAGE TO EXTERIOR BY H.E.SHELL FIRE.

34. (a) Cause. Damage may be caused by a direct or ricochet hit, or by debris thrown up by an enemy shell bursting near the gun.

(b) Appearance. This differs in accordance with the nature and violence of the blow. A gun may be only pitted by fragments, but even these may be sufficient to prevent free recoil of the gun in the cradle of its carriage. In more serious cases the blow on the exterior may cause an indentation in the bore-a small mark on the exterior frequently has been observed to cause a serious contraction in the bore.

(c) Limit. Each case must be taken on its merits, but the gun must be examined to see that it will recoil correctly and the bore must be examined to see that there is no contraction.
A gun which has been badly hit is obviously unserviceable.

INJURY CAUSED BY OBSTRUCTION IN BORE.

35. (a) Cause. Obstruction in the bore may be more definitely stated as a non-inherent obstruction to the free passage of the projectile. Burrs, steel and copper choke, etc., have already been mentioned. Other obstruc-

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Bulging, bursting or cracking of the [illegible] provisional condemnation.

(d) Remedy. Liability to premature may be reduced to a minimum by keeping the bore within limits, by keeping it clean and by careful visual searching for obstruction before firing.

DAMAGE TO EXTERIOR BY HOSTILE FIRE.

32. (a) Cause. Damage may be caused by a direct or ricochet hit, or by debris thrown up by an enemy shell bursting near the gun.

(b) Appearance. This differs in accordance with the nature and violence of the blow. A gun may be only pitted by fragments, but even these may be sufficient to prevent free recoil of the gun in the cradle of its carriage. In more serious cases the blow on the exterior may cause an indentation in the bore-a small mark on the exterior frequently has been observed to cause a serious contraction in the bore.

(c) Limit. Each case must be taken on its merits, but the gun must be examined to see that it will recoil correctly and the bore must be examined to see that there is no contraction.
A gun which has been badly hit is obviously unserviceable.

INJURY CAUSED BY OBSTRUCTION IN BORE.

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33. (a) Cause. Obstruction in the bore may be more definitely stated as a non-inherent obstruction to the free passage of the projectile. Burrs, steel and copper choke, etc., have already been mentioned. Other obstructions may be :-

(i) An accumulation of sand immediately in front of the projectile in guns which may be kept loaded without muzzle covers.
(ii) A ring of grease and dirt immediately in front of the projectile left by the sponge head if a gun is cleaned when loaded.
(iii) Water or ice in the bore.
(iv) A muzzle tampeon (left inadvertently in
(v) A muzzle cover (position.

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(vi) Stones, etc.

(b) Appearance. Firing a gun with an obstruction in the bore may seriously expand the gun or cause the muzzle to be blown off.

(c) Limits. Damage should be dealt with on its merits (see previous paras.).

(d) To prevent damage. Thorough cleaning and care of the gun are necessary.

NOTE : Where the accumulation of sand in the bore is possible contingency and the tactical situation permits, the service breech and muzzle cover must be fitted. When it is necessary to keep guns loaded and ready for instant action, the bore will be protected by an improvised muzzle cover, of paper or light cotton fabric.

SPLIT CARTRIDGE CASES.

34. (a) Cause. A cartridge case may split from defects in the case, occuring independently or combined with a large chamber, excessive cartridge head space, or a defect in the chamber of the gun. A large or defective chamber of a gun does not give proper support to the case and so may allow it to split.
If the liner, barrel or "A" tube of the gun has moved forward, the case may set back on firing and, being improperly supported, may split.

(b) Appearance: If a case splits, the resulting gas escape may cause longitudinal scoring at the front end of the chamber, or circumferential scoring at the rear end of the chamber, depending on whether the case has split at its front end or near the flange at its base. The face of the breech screw or block may also be scored.

(c) Limit. If neither opening of the breech nor extraction of the cases is affected, a slight score is not important as succeeding cases cover the mark and further damage to the gun may not develop. If the scoring mark is bad and difficulty in operation of the breech or extraction of the cases is experienced, the gun should be provisionally condemned.

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possible contingency and the tactical situation permits, the service breech and muzzle cover must be fitted. When it is necessary to keep guns loaded and ready for instant action, the bore will be protected by an improvised muzzle cover, of paper or light cotton fabric.

SPLIT CARTRIDGE CASES.

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(d) Remedy. Repairs to eroded chambers of 4.7" guns and howitzers will be effected by electro-deposition of nickel, or, within 6 in. from rear of chamber by soldering with one of the following compositions :-

(i) Cadmium 80%, zinc 20%.
(ii) Tin 5%, lead 95%.
(iii) Silver 5·5%, lead 94·5%.
(iv) Silver 2·5%, copper 0·5%, lead 97·25%.
(v) White metal as used in the bearings of I.C.engines.

The use of copper or copper alloys will be discontinued. Guns which have previously been repaired by bushing when

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damaged by scoring at the rear end of the chamber sufficient to affect extraction, will be repaired where practicable by electro-deposition of nickel.

FAILURE OF OBTURATOR.

35. (a) Cause. An escape of gas between the obturator and its seating is due to incorrect seating of the pad. This may be due to hardness incorrect adjustment or misuse of the pad, to movement of the tube or to a flaw in the obturator seating.

(b) Appearance. The seating for the obturator becomes scored, and obturator and breech fittings become damaged, by gas escape.

(c) Limit. A gun with its obturator seating badly scored across must be provisionally condemned and an impression of the defect submitted to the Ministry of War.

(d) Remedy. If the scoring is slight, it is possible to rectify the seating by scraping and to make a good seating for the obturator by one or more adjusting discs. If the scoring is too deep to adjust by scraping, the damage can be repaired by filling with one of the solders detailed in para. 34 (d).

RUST.

36. (a) Cause. Exposure to damp or water, through want of preservation and neglect.

(b) Appearance. Roughening and pitting result from rusting. It is usually found in the grooves of the bore at "Down" or on the threads at the bottom of the breech opening.

(c) Limit. No limit can be stated; accuracy may be affected when the bore is badly pitted. Badly pitted guns should be "provisionally condemned for rust" and impressions submitted to the Ministry of War.

(d) Remedy. If guns are kept well oiled and properly preserved, they will not rust.

M.L. MORTARS AND SMOOTH BORE NATURES.

37. Before these are examined, they should be thoroughly cleaned in the same manner as for rifled guns. The defects likely to be found are few. They are not subject to erosion

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and obturator and breech fittings become damaged, by gas escape.

(c) Limit. A gun with its obturator seating badly scored across must be provisionally condemned and an impression of the defect submitted to the Ministry of War.

(d) Remedy. If the scoring is slight, it is possible to rectify the seating by scraping and to make a good seating for the obturator by one or more adjusting discs. If the scoring is too deep to adjust by scraping, the damage can be repaired by filling with one of the solders detailed in para. 34 (d).

RUST.

36. (a) Cause. Exposure to damp or water, through want of preservation and neglect.

(b) Appearance. Roughening and pitting result from rusting. It is usually found in the grooves of the bore at "Down" or on the threads at the bottom of the breech opening.

(c) Limit. No limit can be stated; accuracy may be affected when the bore is badly pitted. Badly pitted guns should be "provisionally condemned for rust" and impressions submitted to the Ministry of War.

(d) Remedy. If guns are kept well oiled and properly preserved, they will not rust.

M.L. MORTARS AND SMOOTH BORE NATURES.

37. Before these are examined, they should be thoroughly cleaned in the same manner as for rifled guns. The defects likely to be found are few. They are not subject to erosion by gas action to the same degree as rifled guns are. Limits for enlargement, however, have been published, after reaching which mortars and S.B. natures should be provisionally condemned (see Table 3.). The bores should be measured both horizontally and vertically at each full examination at the following distances :-

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Nature	Inches from muzzle
M.L. 2 in. mortars and bomb throwers.	4, 6, 12 and 18
M.L. 3 in. mortar.	4, 4, 43, 45, 40, 44, and 44
O.S.B. 3in. Mk. I	4, 19, 47, 34, 39, 40, 44, and 51.
S.B. 4.2 in. mortar, Mk. I	5, 15, 49, 40, 52, and 58

All measurements should be recorded on A.F. G 875A.

Owing to the comparative thinness of the barrel, mortars and S.B. natures are very liable to become bent, and it has been necessary to provide "gauges, testing straightness of bore". Three inch. mortars which will not accept this gauge up to 35 in. from the muzzle should be provisionally condemned. The position of all defects in the bore and on the exterior should be described in inches from the muzzle, in the same way as for rifled guns (see para 17).

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S.B. 4.2 in. Mortar, Mk. I	9, 13, 23, 40, 52, and 56

All measurements should be recorded on A.F. G 875 A.

Owing to the comparative thinness of the barrel, mortars and S.B. mortars are very liable to become bent, and it has been necessary to provide "gauges, testing straightness of bore". Three inch. mortars which will not accept this gauge up to 35 in. from the muzzle should be provisionally condemned. The position of all defects in the bore and on the exterior should be described in inches from the muzzle, in the same way as for rifled guns (see para 17).

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Table 3 - Table of probable life and wear, etc., of rifling of ordnance

Nature	Probable life of rifling in full rounds service H.E.	Condemning limit for mean wear at 1 in. from gas-cap commencement of rifling (q) Inches	Condemning limit for scoring at any point in the bore plus wear at the same point Inches	Condemning limit for local expansion of bore within 3 calibres from muzzle Inches	Condemning limit for expansion of chamber at rifling junction Inches
GUNS					
B.L. 5.5 in., Mk. III	7,000	0.25	0.72	0.055	0.0
Q.F. 3.7 in., Mks. I and III	730(v) 655(w)	.188(v) .168(w) (h)	0.40	0.037	0.0
Q.F. 3.7 in., Mk. II	730(v) 655(v)	.188(v) .168(w)	0.47	0.037	0.0
Q.F. 3.7 in., Mk.VI	225	0.25	-	-	-
Q.F. 25 pr., Mk. II (3.45 in.)	10,000	0.12	0.42 (z)	0.034	0.0
Q.F. 17 pr., Mks. I to V (3.00 in.)	350 (Provisional)	0.25	0.67	0.030	0.0
Q.F. 6 pr. 7 cwt., Mks., II, III, IV and V (2.24 in.)	500	0.10	0.35	0.022	0.0
Q.F. 47 mm. (2.24 in.) Q.F. 40 mm., Mks. I, I, III and IV (1.575 in.)	800	0.09 (2.286) mm.	0.14 (3.636) mm.	0.016 (0.406) mm.	0.0 (0.76 mm.

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...le 3 - Table of probable life and wear, etc., of rifling of ordnance

	Probable life of rifling in full rounds service H.E.	Condemning limit for mean wear at 1 in. from commencement of rifling (q) Inches	Condemning limit for wearing at any point in the bore plus wear at the same point Inches	Condemning limit for local expansion of bore within 3 calibres from muzzle Inches	Condemning limit for local expansion at remainder of rifled portion of bore Inches	Number of equivalent full rounds a gun may fire before requiring ream. (r) (c)
	7,000	0.25	0.72	0.055	0.067	350
	(730(v) (655(w)	.188(v) .168(w) (b)	0.40	0.037	0.053	80+
	(730(v) (655(v)	.188(v) .168(w)	0.47	0.037	0.053	80+
	225	0.25	-	-	-	-
	10,000	0.12	0.62 (z)	0.034	0.053	500
...m.)	350 (Provisional)	0.25	0.67	0.030	0.053	40(bb)
... IV)	500	0.10	0.35	0.022	0.027	50(bb)
...d IV)	800	0.09 (2.286) mm.	0.4 (0.636) mm.	0.016 (0.406) mm.	0.031 (0.787) mm.	200

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Table 5 - Table of probable life and wear, etc., of rifling of ordnance

Nature	Probable life of rifling in full rounds cordite M.D.	Condemning limit for mean wear at 1 in. from commencement of rifling (q)	Condemning limit for scoring at any point in the bore plus wear at the same point	Condemning limit for local expansion of bore within 3 calibres from muzzle	Condemning limit for local expansion of remainder rifled portion of
		Inches	Inches	Inches	Inches
GUNS B.F. 57 mm., M.3, M.5 and M.6 (1.456 in.)	1,000 approx.	0.09 (2.286) mm.	0.27 (6.858) mm.	0.014 (0.355) mm.	0.02 (6.85 mm.
MORTARS S.B. 4.2 in., Mks. I and II		4.220 dia. (p)			
M.L. 3 in., Mk. (3.206in.)		3.226 "			
M.L. 2 in., Mks. II to VIII (L.2.015 M.2.025)	4,000	2.045 "			
M.L. 2 in., bomb thrower, Mks. I* and IA*	4,000	2.045 "			

Notes (see table 5)

(c) When scoring begins in any gun or howitzer, the series for subsequent examinations will be half the nu particular nature.
(h) Up to 50 E.F.C. may be fired after these limits have been reached.
(p) These guns and mortars will be provisionally condemned when they reach this limit or diameter at any po horizontal or vertical. Scoring is not anticipated and, whenever observed, must be specially reported
(v) When using fuze No. 199.
(w) When using fuze No. 207 or 208.
(z) 0.37 inch from muzzle to 42.6 inches, 0.62 inch from 42.6 inches to chamber face.
(bb) During war, 6pr. 7 cwt. and 17 pr. guns will not be examined as a routine measure until the total E.F. and 200 (17 pr.). Subsequent examinations will be after each 50 E.F.C. (Note (c) above will not apply

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Table 3 - Table of probable life and wear, etc., of rifling of ordnance (continued)

Probable life of rifling in full rounds cordite M.D.	Condemning limit for mean wear at 1 in. from commencement of rifling (q)	Condemning limit for scoring at any point in the bore plus wear at the same point	Condemning limit for local expansion of bore within 5 calibres from muzzle	Condemning limit for local expansion of remainder of rifled portion of bore	Number of equivalent full rounds a gun may fire before requiring exam. (r) (c)
	Inches	Inches	Inches	Inches	
1,080 approx.	0.09 (2.286) mm.	0.27 (6.858) mm.	0.014 (0.355) mm.	0.027 (6.858) mm.	200
	4.220 dia. (p)				
	3.226 "				
4,000	2.045 "				
4,000	2.045 "				

Notes (see table 3)

...ny gun or howitzer, the series for subsequent examinations will be half the number quoted against each

...fired after these limits have been reached.

...will be provisionally condemned when they reach this limit or diameter at any point in the bore, either ... Scoring is not anticipated and, whenever observed, must be specially reported to the Ministry of War.

...or 208.

... 42.6 inches, 0.62 inch from 42.6 inches to chamber face.

...and 17 pr. guns will not be examined as a routine measure until the total E.F.C. fired is 340 (6 pr.) ...quent examinations will be after each 50 E.F.C. (Note (c) above will not apply.)

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NOTES (See Table 3)

(q) Mean, Wear is difference between half the sum of the vertical and horizontal diameters of the bore commencement of rifling and the plen diameter at that point.

(r) The actual total number of rounds between examinations must not exceed five times the number of equi

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NOTES (See Table 5) (Continued)

...nce between half the sum of the vertical and horizontal diameters of the bore at 1 inch from the ...ing and the plan diameter at that point.

...er of rounds between examinations must not exceed five times the number of equivalent full rounds.

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LIST OF TOOLS AND GAUGES FOR EXAMINATION OF ORDNANCE

Table 4 below shows the authorised tools and gauges required for the examination of ordnance.

Table 4-Tools and gauges required for the examination of ordnance.

(1) Nomenclature	(2) V.A.O.S. Section	(3) Item No.
Adapters, gauges, striker, eccentricity and testing blow of striker :-		
M.L. 2 in. mortar, Mk II	M.4	3
M.L. 2 in. mortar, Mk VII	M.4 (M.I.V.)	6
Apparatus, testing clinometer planes with axis of bore :-		
B.L. 5.5 in.	M.4	18
Q.F. 25 pr.	M.4	23
Straight-edges		28
Borers, vent, axial :-		
0.303 in Chamber No 2 Mk. I	O.	41
Bits, vent :-		
18 in.	M.3	48
Discs, guide, measuring rods		
No 20 (5.5 in. dia.)	M.4	68
Gauges, clearance, firing hole bush to cartridge :-		
No 33 (Q.F. 3.7 in. gun	M.4	88
No37 (Q.F. 25 pdr.)	M.4	92
No 38 (Q.F. 40 mm.)	M.4	93
No 45 (Q.F. 6 pr. 7 Cwt.)	M.4	98
No 49 (Q.F. 17 pr.)	M.4	100
No 55 (Q.F. 37 mm., M.5 and M.6)	M.4	107

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and testing slow of bullet :-		
B.L. 2 in. mortar, Mk II	M.4	3
B.L. 2 in. mortar, Mk VII	M.4 (M.I.V.)	6
Apparatus, testing clinometer planes with axis of bore :-		
B.L. 5.7 in.	M.4	18
Q.F. 25 pr.	M.4	23
Straight-edges		28
Borers, vent, axial :-		
0.303 in. chamber No 2 Mk. I	O.	41
Bits, vent :-		
18 in.	M.3	48
Discs, guide, measuring rods		
No 20 (5.5 in. dia.)	M.4	68
Gauges, clearance, firing hole bush to cartridge :-		
No 33 (Q.F. 3.7 in. gun	M.4	88
No37 (Q.F. 25 pdr.)	M.4	92
No 38 (Q.F. 40 mm.)	M.4	93
No 45 (Q.F. 6 pr. 7 Cwt.)	M.4	98
No 49 (Q.F. 17 pr.)	M.4	100
No 55 (Q.F. 37 mm., M.5 and M.6)	M.4	107
Gauges, depth, vent tube chamber :-		
No 17 (B.L. 6 in., Mk. XXIV)		116
Gauges, feeler	F.	119

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Table 4 (continued)

(1) Nomenclature				(2) V.A.O.S. Section	(3) Item No.
Gauge, measuring; bore :-					
Gauge No.	Zero in.	Max. in.	Min. in.		
13	2.244	2.394	2.154	M.4	141
23	3.7	4.6	3.6	M.4	144
27	3.45	3.95	3.35	M.4	145
34	40 mm.	45 mm.	39 mm.	M.4	149
36	5.5	5.845	5.4	M.4	151
38	37 mm.	41. mm.	35 mm.	M.4	153
39	3.0	3.375	2.9	M.4	154
Gauge, plug, bore, low limit, for provisional condemnation :-					
B.L. 5.5 in., Mk1(5.493 in.)				M.4	173
W.F. 3.7 in., how.				M.4	
W.F. 3.7 in., gun, Mk. I (3.690 in.)				M.4	182
W.F. 25 pr. (3.440 in.)				M.4	183
W.F. 18 pr. 12 cwt. and 17 pr.(2.950 in)				M.4	186
W.F. 6 pr. (2.240 in.)				M.4	187
W.F. 2 pr. and 40 mm.(1.968 in.)				M.4	189
W.F. 37 mm. M.5 and M.6 (1.453 in.)				M.4	191
Gauges, measuring, wearing of bore, 1 in. from O. of R. :-					
No. 1, Mk. I (For R.A. use).					203
Gauge, testing blow of striker :-					
Small				M.4	211
Fuse, percussion, S.A. cartridge				M.4	212
Plugs, thick				M.4	213
Plug, thin				M.4	214
Coppers				M.4	215
W.L. 2 in., Mks. IV to VII mortar, Mk1				M.4 (N.I.V.)	217
W.L. 2 in., Mks.II to II** mortar, Mk1				M.4 (N.I.V.)	218

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36	3.5	3.8-5	3.4	M.4	151
38	37 mm.	41. mm.	35 mm.	M.4	153
39	3.0	3.375	2.9	M.4	154
Gauges, plug, bore, low limit, for provisional condemnation :-					
B.L. 3.5 in., Mk.II(3.493 in.)				M.4	173
Q.F. 3.7 in., how.				M.4	
Q.F. 3.7 in., gun, Mk. I (3.690 in.)				M.4	182
Q.F. 25 pr. (3.440 in.)				M.4	183
Q.F. 14 pr. 14 cwt. and 17 pr.(3.900in)				M.4	186
Q.F. 6 pr. (2.240 in.)				M.4	187
Q.F. 2 pr. and 40 mm.(1.968 in.)				M.4	189
Q.F. 37 mm.,3.5 and 3.0 (1.453 in.)				M.4	191
Gauges, measuring, wearing of bore, 1 in. from C. of R. :-					
No. 1, Mk. I (For A.A. use).					203
Gauge , testing blow of striker :-					
Small				M.4	211
Tube, percussion, S.A. cartridge				M.4	212
Plugs, thick				M.4	213
Plug, thin				M.4	214
Coppers				M.4	215
M.L. 2 in., Mks. I to VII mortar, Mk.I				M.4 (N.I.V.)	217
M.L. 2 in., Mks.II to II++ mortar, Mk.I				M.4 (N.I.V.)	218
Gauges, plug, bore(for R.A. use) :-					
No. 2, Mk. I (3.690 in.)					228
Gauges, striker, eccentricity :-					
Small				M.4	241
Plugs (copper)				M.4	243

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Table 4 (continued)

(1) Nomenclature				(2) V.A.O.S. Section	(3) Item No.
Gauge No.	Max. in.	Min. in.	Gauge, striker, protrusion:- For equipments		
10	0.065	0.055	P.J and P.K locks	M.3	250
15	0.105	0.085	4.5 in. how.	N.1	255
16	0.11	0.09	4.5, 3.7 A.A.; 25 pr. 6 pr. 7 cwt.; 25 pr. 3.7 how.; 3 in. how. 12 pr. 12 cwt.; 6 pr. 10 cwt.	M.3	256
25	2.9 mm. (0.114)	2.5 mm. (0.098)	40 mm., all mks.	M.2	260
27	0.130	0.125	M.L. 2 in. mortars	M.1	261
38	0.11	0.09	17 pr.		269

(1) Nomenclature	(2) V.A.O.S. Section	(3) Item No.
Gauge, testing seat of obturator :- B.L. 5.5 in.	M.4	292
Gauges thickness, obturator, steep coned :- B.L. 5.5 in. and 4.5 in.	O.	314
Gauges, testing, straightness of bore :-		
M.L. 3 in. mortar, Mk. II	M.4	319
M.L. 2 in. mortar	M.4	320
Gauges, vent tube chamber :-		
0.303 in. S.A. cartridge (un-necked) Front end of taper, Mk. II	M.4 (N.I.V.)	333
Plug, Mk. II	M.4 (N.I.V.)	334
Rear end of taper, Mk. II	M.4 (N.I.V.)	335
Recess for head, Mk. II	M.4 (N.I.V.)	336
Instruments taking impression of bore :- No. 2	M.4	355

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			40 mm.	M.3	258
25	∠.9 mm. (0.114)	∠.5 mm. (0.098)	40 mm., all Mks.	M.2	260
27	0.136	0.125	M.L. ∠ in. mortars	M.1	261
38	0.11	0.09	17 pr.		∠69

(1) Nomenclature	(2) V.A.O.S. Section	(3) Item No.
Gauge, testing seat of obturator :-		
B.L. 5.5 in.	M.4	∠92
Gauges thickness, obturator, steep coned :-		
B.L. 5.5 in. and 4.5 in.	O.	314
Gauges, testing, straightness of bore :-		
M.L. 3 in. mortar, Mk. II	M.4	319
M.L. ∠ in. mortar	M.4	3∠0
Gauges, vent tube chamber :-		
0.303 in. S.A. cartridge (un-necked)		
Front end of taper, Mk. II	M.4 (N.I.V.)	333
Plug, Mk. II	M.4 (N.I.V.)	334
Rear end of taper, Mk. II	M.4 (N.I.V.)	335
Recess for head, Mk. II	M.4 (N.I.V.)	336
Instruments taking impression of bore :-		
No. ∠	M.4	355
No. 3	M.4	358
No. 6	M.4	361
Instrument taking impression, bore :- Blocks adjusting		
Chamber :-		
B.L. 5.5 in., Mk. III gun	M.4	392
Plates, bore :-		
B.L. 5.5 in.	M.4	∠∠1

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Table 4 (continued)

(1) Nomenclature	(2) V.A.O.S. Section	(3) Item No.
Instrument taking impression of bore :- Plates chamber :-		
B.L. 5.5 in., Mk. III	M.4	435
Micrometer, outside, 0 to 1 in.	F.	445
Mirror examining, bore :-		
4 in., to 5.0 in.	M.4	449
2.75 in., to 3.7 in.	M.4	450
Rimers, vent, axial :-		
0.303 in., chamber, No. 3, Mk. I	M.3	455
Stoves, heating, gutta-percha, No.1 or 2	M.4	456
Straight-edges :-		
18 in. by 1½ in.	M.4	460
Rods, measuring, bore :-		
100 in. by 0.6 in.		
Graduated	M.4	466
Plain	M.4	467
82 in. by 0.344 in.		
Graduated	M.4	468
Plain	M.4	469
100 in. by 0.344 in.		
Graduated	M.4	470
Plain	M.4	471
1907 mm. by 0.344 in.		
Graduated	M.4	472
Plain	M.4	473

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Mirror examining, bore :-		
4 in., to 5.0 in.	M.4	449
2.75 in., to 3.7 in.	M.4	450
Rimers, vent, axial :-		
0.303 in., chamber, No. 3, Mk. I	M.3	455
Stoves, heating, gutta-percha, No. 1 or 2	M.4	458
Straight-edges :-		
18 in. by $\frac{1}{2}$ in.	M.4	460
Rods, measuring, bore :-		
100 in. by 0.6 in.		
Graduated	M.4	466
Plain	M.4	467
84 in. by 0.344 in.		
Graduated	M.4	468
Plain	M.4	469
100 in. by 0.34 in.		
Graduated	M.4	470
Plain	M.4	471
1907 mm. by 0.344 in.		
Graduated	M.4	472
Plain	M.4	473

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Declassified E.O. 12065 Section 3-402/NNEC NO. 785020

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

SPECIAL INSTRUCTIONS FOR THE EXAMINATION OF NAVY A.A. ORDNANCE DURING WAR

Table 5 - Number of E.F.C. rounds guns may fire or the state of wear which may be reached

Nature	To be fully examined when the E.F.C. life or wear (as measured by unit gauges) reaches :-					
		(A)			(B)	
Q.F. 3.7 in., Mks. I to XII	E.F.C. rounds	250	480	500	580	660*
	Mean bore dia. at 1 in. C. of R.	3.764 in.	3.803 in.	3.828 in.	3.849 in.	3.870 in.*

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

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CIAL INSTRUCTIONS FOR THE EXAMINATION OF HEAVY A.A. ORDNANCE DURING WAR

of E.F.C. rounds guns may fire or the mode of wear which may be reached before examination

ly examined when the E.F.C. life or wear (as now used by unit guages) reaches :-

	(A)			(B)		Remarks
nds	250	480	500	580	660+	(i) Examinations under (A) will be reported on AFG 875.
e. of R.	3,764 in.	3,803 in.	3,828 in.	3,849 in.	3,870 in.+	(ii) Examinations under (B) will not be reported until the gun is sentenced "provisionally condemned". (iii) Figures marked thus + apply only when fuses 199 are in use.

Unclassified E.O. 12065 Section 3-402/NNDC NO. 785020

Table 6 - Table giving the quarter of life of ordnance

Nature	Mean wear at 1 inch from commencement of rifling			4th quarter	
	1st quarter	2nd quarter	3rd quarter	Wear greater than	Scoring greater than (see note
	Inches	Inches	Inches	Inches	Inches
GUNS					
B.L. 5.5 in., Mk. III	0-0.058	0.059-0.115	0.116-0.173	0.173	-
Q.F. 3.7 in., Mks. I to III	0-0.042	0.043-0.084	0.085-0.126	0.126	-
Q.F. 3.7 in., Mk. VI	0-0.062	0.063-0.125	0.126-0.187	0.188	-
Q.F. 25 pr., Mk. II	0-0.030	0.031-0.060	0.061-0.090	0.090	-
Q.F. 17 pr., Mks. I and II	0-0.062	0.063-0.125	0.126-0.187	0.188	-
Q.F. 6 pr., 7 cwt., Mks. II, III, IV and V	0-0.025	0.026-0.050	0.051-0.075	0.075	-
Q.F. 57 mm., M.1					
Q.F. 40 mm., Mks. I, I*, III and VI	0-0.023	0.024-0.045	0.046-0.067	0.067	-
Q.F. 37 mm., M.3, M.5, and M.6	0-0.023	0.024-0.045	0.046-0.067	0.067	-
S.B. 3 in., Mk. I	0-0.016	0.017-0.032	0.033-0.048	0.048	-
MORTARS					
S.B. 4.2 in., Mk. I	0-0.005	0.006-0.010	0.011-0.015	0.015	-
M.L. 3 in., Mk. II	0-0.005	0.006-0.010	0.011-0.015	0.015	-
M.L. 2 in., Mks. II* to VIII*	0-0.005	0.006-0.010	0.011-0.015	0.015	-
2 in. bomb thrower, Mk. I*, I** and II	0-0.005	0.006-0.010	0.011-0.015	0.015	-

NOTES (see Table 6)

(8) At any point in the bore, either horizontal or vertical.
(14) When using fuse No. 207 or 208.
(15) Refers to barrel with original dia. H.2.025 in.

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

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Table 6 - Table giving the quarter of life of ordnance

	Mean wear at 1 inch from commencement of rifling			4th quarter		Remarks
	1st quarter Inches	2nd quarter Inches	3rd quarter Inches	Wear greater than Inches	Scoring (*) greater than (see note 2) Inches	
	0-0.058	0.059-0.115	0.116-0.173	0.173	-	-
	0-0.042	0.043-0.084	0.085-0.126	0.126	-	see note (14)
	0-0.062	0.063-0.125	0.126-0.187	0.188	-	-
	0-0.030	0.031-0.060	0.061-0.090	0.090	-	-
	0-0.062	0.063-0.125	0.126-0.187	0.188	-	-
IV)	0-0.025	0.026-0.050	0.051-0.075	0.075	-	-
)						-
VI	0-0.022	0.023-0.045	0.046-0.067	0.067	-	-
	0-0.023	0.024-0.045	0.046-0.067	0.067	-	-
	0-0.016	0.017-0.032	0.033-0.048	0.048	-	see note (8)
						see note (b)
	0-0.005	0.006-0.010	0.011-0.015	0.015	-	see note (8)
	0-0.005	0.006-0.010	0.011-0.015	0.015	-	see note (15)
	0-0.005	0.006-0.010	0.011-0.015	0.015	-	see note (8)
and II	0-0.005	0.006-0.010	0.011-0.015	0.015	-	

NOTES (see Table 4)

more, either horizontal or vertical.

207 or 208.

original dia. M.2.025 in.

Table 7 - Value of charges expressed in terms of equivalent full charges.

Nature	Mark	E.F.C. value of various charges (see footnote)
GUNS		
B.L. 5.5 in.	III and III*	1 proof charge=2 E.F.C. 16 first charges cordite W=057= 1 E.F.C. 8 second charges cordite W.057= 1 E.F.C. 4 third charges cordite W.104 or W.A. 109=1 E.F.C. 1 fourth charge cordite W.104 or W.A. 109=1 E.F.C.
Q.F. 3.7 in.	I, II and III	1 proof charge=2 E.F.C. 1 full charge=1 E.F.C. 4 reduced charge practice charges =1 E.F.C. 16 burst short practice charges =1 E.F.C.
Q.F. 25 pr.	II	1 proof charge=2 E.F.C. 1 super-charge=4 E.F.C. 1 super-charge=cordite W.F. with N.G./S increment=5 E.F.C. (used with 20 lb. A.P. shot 1 super-charge cordite N.G.S. with N.G./S increment=3 E.F.C. 6 first charges=1 E.F.C. 4 second charges=1 E.F.C. 1 third charge=1 E.F.C.
Q.F. 17 pr.	I and II	1 proof charge = 2 E.F.C. 1 full charge N.H.=0.5 E.F.C. 1 full practice charge N.C.F. 0.5 E.F.C. 1 reduced charge N.H.=0.02E.F.C
Q.F. 6 pr. 7 cwt.	II, III, IV and V	1 proof charge=2 E.F.C. 1 L.V. charge=1 E.F.C. 1 H.V. charge N.H.=0.5 E.F.C. 10 reduced practice charges=1 E.F.C.
Q.F. 57 mm.	M.I	
Q.F. 37 mm.	M.3, M.5 and M.6	1 H.V. charge(M.V.2900fs) 2 E.F.C. (Firing APC. M5 or AP.

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		or W.M. 109=1 E.F.C.
Q.F. 3.7 in.	I, II and III	1 proof charge=2 E.F.C. 1 full charge=1 E.F.C. 4 reduced charge practice charges =1 E.F.C. 16 burst short practice charges =1 E.F.C.
Q.F. 25 pr.	II	1 proof charge=2 E.F.C. 1 super-charge=4 E.F.C. 1 super-charge=cordite W.M. used with W.M./S increment=5 E.F.C. with 20 lb. A.P. shot 1 super-charge cordite M.D.S. with W.M./S increment=3 E.F.C. 16 first charges=1 E.F.C. 4 second charges=1 E.F.C. 1 third charge=1 E.F.C.
Q.F. 17 pr.	I and II	1 proof charge = 2 E.F.C. 1 full charge N.H.=0.5 E.F.C. 1 full practice charge N.H.P. 0.5 E.F.C. 1 reduced charge N.H.=0.02E.F.C
Q.F. 6 pr. 7 cwt.	II, III, IV and V	1 proof charge=2 E.F.C. 5838 1 L.V. charge=1 E.F.C. 1 H.V. charge N.H.=0.5 E.F.C.
Q.F. 57 mm.	M.I	10 reduced practice charges=1 E.F.C.
Q.F. 37 mm.	M.3, M.5 and M.6	1 H.V. charge(M.V.=900fs) 2 E.F.C. Firing APC.M51 or AP. M. 74
Q.F. 40 mm.	I, I*III and IV	1 proof charge=2 E.F.C. 1 full charge =1 E.F.C.
MORTARS		
S.B. 4.2 in.	I and II	All charges fired classified as equal to 1 full charge.
M.L. 3 in.	II	
M.L. 2 in.	III to IV and VII	

./.

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

FOOTNOTE (see Table 7).

for all types of ordnance.

(1) Full charge cordite M.D., S.C., W. or W.M. or nitro-cellulose double base (F.N.H./D.B.)=1 E.F.C.

(2) Full charge cordite N.Q. or N.Q./S. powder and nitro-cellulose (N.C.F., N.H., F.N.H., and F.N.H./P.)=0.5 E.F.C. or ½ the value for corresponding charge of cordite M.D, S.C., W. and W.M.; except in the case of Q.F. 40 mm. Mks. I, I*, III and VI guns, when nitro-cellulose charges = 0.125 E.F.C.

(3) Full charge cordite N., N./P./S. or N./S. = 0.25 E.F.C. or 1/4 the value for corresponding charges of cordite M.D., S.C., W. and W.M.

(4) Each round fired with paper shot is to be assessed as 1 E.F.C. if the round is designed to produce a service length of recoil.

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(3) Full charge cordite [illegible] the value for corresponding charges of cordite M.D., S.C., N. and W.E.

(4) Each round fired with paper shot is to be assessed as 1 E.F.C. if the round is designed to produce a service length of recoil.

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Declassified E.O. 12065 Section 3-402/NNDQ No. 785020

Table 8 - Key to tools and gauges required for examination of particular ordnance

Ordnance	Tools and gauges required (The numbers quoted refer to col. 3 Table VII)
GUNS	
B.L. 5.5 in., Mk. III	~~18, 20, 41, 48, 66, 116, 119, 151, 123, 131, 213, 214, 215, 243, 252, 29, 314, 323, 324, 325, 330, 350, 359, 427, 435, 445, 449, 450, 456, 466, 466, and 467.~~
Q.F. 3.7 in., Mks. I, II and III	~~8a(a), 119, 144, 182, 203, 411, 414, 415, 428, 241, 243, 250, 350, 444, 450, 456, 460, 466, and 467.~~
Q.F. 25 pr., Mks. I and II	~~25, 28, 92, 119, 147, 183, 211, 213, 214, 215, 241, 243, 255 (x), 350, 355, 415, 450, 456, 466, 466 and 467.~~
Q.F. 17 pr., Mks. I and II	~~108, 119, 151, 183, 211, 213, 214, 215, 241, 243, 260, 445, 450, 456, 460, 466, and 467.~~
Q.F. 6 pr., 7 cwt., Mks. II III IV and V Q.F. 57 mm. M.1	~~98, 119, 141, 187, 211, 213, 214, 215, 241, 243, 250, 445, 450, 456, 466, 47, and 47.~~
Q.F. 40 mm. Mks. I, I+, III and VI.	~~33, 119, 149, 183, 211, 213, 214, 215, 241, 243, 260, 301, 445, 450, 460, 47, and 473.~~
Q.F. 37 mm. M. 3, M. 5 and M.6	~~107, 153, 191, 211, 213, 214, 215, 241, 243, 260, 445, 450, 460, 466, and 469.~~
MORTARS	
M.L. 3 in., mortar, Mk. II	~~15, 31a(a), 319, 469,(q), and 467(q).~~
M.L. 2 in., mortar, Mks. II+ and II++	~~3(a) 211, 213, 214, 215, 218, 61, 3-c(t).~~
M.L. 2 in., mortar, Mks. IV, VII VII VIIA VII++ VIII and VIII+	~~6(s), 211, 213, 214, 215, 217, 261, 3-c(t).~~

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Q.F. 3.7 in., Mks, I, II and III	~~3(e), 119, 14, 15, 203, 211, 214, 215, 225, 241, 243, 250, 350, 431, 450, 458, 460, 466, and 467.~~
Q.F. 25 pr., Mks. I and II	~~23, 28, 92, 119, 143, 183, 211, 213, 214, 215, 441, 443, 455 (x), 458, 35, 445, 450, 458, 460, 466 and 467.~~
Q.F. 17 pr., Mks. I and II	~~166, 119, 151, 183, 211, 213, 214, 215, 241, 443, 269, 445, 450, 458, 460, 466, and 467.~~
Q.F. 6 pr., 7 cwt., Mks. II III IV and V Q.F. 57 mm. M.1	~~96, 119, 14, 167, 211, 213, 214, 215, 241, 243, 250, 445, 450, 458, 460, 470, and 471.~~
Q.F. 40 mm. Mks. I, I*, III and VI.	~~3, 119, 143, 183, 211, 213, 214, 215, 241, 443, 250, 361, 445, 458, 460, 47 , and 473.~~
Q.F. 37 mm. M. 3, M. 5 and M.6	~~107, 153, 191, 211, 213, 214, 215, 241, 243, 250, 445, 458, 460, 466, and 469.~~
MORTARS	
M.L. 3 in., mortar, Mk. II	~~15, 31(s), 319, 469,(q), and 467(q).~~
M.L. 2 in., mortar, Mks. II* and II**	~~3(s) 211, 213, 214, 215, 218, 261, 3 0(t).~~
M.L. 2 in., mortar, Mks. IV, VII* VII VIIA VII** VIII and VIII*	~~6(s), 21, 213, 214, 215, 217, 261, 3 0(t),~~

NOTES.

(q) In lengths of 50 in. (one length required).
(s) Except striker eccentricity.
(x) Except Mk. II.
(z) Except Mk. VI.
(t) Also striker eccentricity.

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Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

ME/13

"A" VEHICLES

LUBRICATION CHART

Make and Type	Engine	Gearbox	Aux Gearbox	Transfer Box	Differential	Final Drive	Ste
Sherman Mk I & Sherman Mk II	SAE.50	SAE.50	-	SAE.50	SAE.50	SAE.50	
Sherman Mk III & Sherman Mk V	SAE.30	SAE.30	-	SAE.30	SAE.30	SAE.30	
Stuart	SAE.50	SAE.50	-	SAE.50	SAE.50	SAE.50	
Churchill Mks IV, VI & VII	SAE.30	C.600	-	-	-	C.600	
Valentine Mk III	SAE.30	SAE.30	-	SAE.30	-	GO.90	
Tractor High Speed 38-ton M.6	SAE.30	SAE.30 (a)	-	-	SAE.30	SAE.30	
Carriers :- 3-in Mortar No 1 Mk I, Tracked Towing No 2 Mk I, Universal No 1 Mk I star, Universal No 2 Mk II star	SAE.30	SAE.50	-	-	GO.90	-	
White Scout Car & Half Tracked	SAE.30	GO.90	-	GO.90	GO.90	-	

Rg 24/9/46

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

"A" VEHICLES

ME/13

96

LUBRICATION CHART

	Engine	Gearbox	Aux Gearbox	Transfer Box	Differential	Final Drive	Steering Box	Chassis
II	SAE.50	SAE.50	-	SAE.50	SAE.50	SAE.50	-	-
Mk V	SAE.30	SAE.30	-	SAE.30	SAE.30	SAE.30	-	-
	SAE.50	SAE.50	-	SAE.50	SAE.50	SAE.50	-	-
I	SAE.30	C.600	-	-	-	C.600	-	-
	SAE.30	SAE.30	-	SAE.30	-	GO.90	-	-
M.6	SAE.30	SAE.30 (a)	-	-	SAE.30	SAE.30	-	-
r hr	SAE.30	SAE.50	-	-	GO.90	-	GO.90	C.600
acked	SAE.30	GO.90	-	GO.90	GO.90	-	GO.90	C.600

Rg 24/9/46

Declassified E.O. 12065 Section 3-402/NNDG NO. 785020

Make and Type	Engine	Gearbox	Aux Gearbox	Transfer Box	Differential	Final Drive
Humber Light Recce	SAE.30	SAE.50	-	C.600	C.600	-
Humber Scout Car Mks I & II .. Humber Armoured Car Mk IV	SAE.30	SAE.50	-	C.600	G.0.90	-
Daimler Scout Car Mk II .. Daimler Armoured Car	(b) SAE.30	SAE.30	(c) SAE.30	SAE.30	(d) G.0.90	-
Ford Scout Car Mks II & III ..	SAE.30	SAE.50	-	G.0.90	G.0.90	-
Cars Med Armoured Staghound ..	SAE.30	SAE.30	SAE.30	G.0.90	G.0.90	-
G.M.C. Armoured Car & G.M.C. Recce	SAE.30	C.600	-	C.600	G.0.90	-
A.E.C. Armoured Car	SAE.30	G.0.90	G.0.90	-	G.0.90	-
Car Tracked Armoured (Snowmobile Armd Canadian Mk I)	SAE.30	(e) SAE.30	-	-	SAE.50	-
Light Cargo Carrier T.24	SAE.30	SAE.30	-	-	SAE.30	-

FOOTNOTES :-
(a) Torque convertor fill with Diesel.
(b) Check oil level after engine has been run
(c) Fluid flywheel.
(d) Bevel boxes
(e) Check oil level after engine has run for 5 mins.

OIL EQUIVALENTS :- SAE.30 =
SAE.50 =

SAE.90 Spec: VV-L-761 or Hypoid
or Universal Gear Lubricant =

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

	Engine	Gearbox	Aux Gearbox	Transfer Box	Differential	Final Drive	Steering Box	Chassis
..	SAE.30	SAE.50	-	C.600	C.600	-	C.600	C.600
..	SAE.30	SAE.50	-	C.600	G.0.90	-	G.0.90	C.600
..	(b) SAE.30	SAE.30	(c) SAE.30	SAE.30	(d) G.0.90	-	C.600	C.600
..	SAE.30	SAE.50	-	G.0.90	G.0.90	-	G.0.90	C.600
..	SAE.30	SAE.30	SAE.30	G.0.90	G.0.90	-	G.0.90	C.600
cce	SAE.30	C.600	-	C.600	G.0.90	-	G.0.90	C.600
..	SAE.30	G.0.90	G.0.90	-	G.0.90	-	G.0.90	C.600
I)	SAE.30	(e) SAE.30	-	-	SAE.50	-	-	C.600
..	SAE.30	SAE.30	-	-	SAE.30	-	-	C.600

vertor fill with Diesel.
level after engine has been run
heel.
s
level after engine has run for 5 mins.

OIL EQUIVALENTS :- SAE.30 = 30 HD = OE 50 HD
SAE.50 = 50 HD = OE 50 HD

SAE.90 Spec: VV-L-761 or Hypoid
or Universal Gear Lubricant = G.0.90 = HY 90.

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

LROF V MBHF NR 29 0 13

FROM 5 BLU 091000B 299

TO HQ MMIA ROME

BT

RECEIVED 9 - SEP 1946

Rome

/ME/2. UNCLASS. REF YOUR ME/13/68, YOUR ME/13/62 OF 5 AUG NOT RECEIVED . REQUEST FORWARD FURTHER COPY. REF YOUR ME/13/70 OF 23 AUG PLEASE AUPPLY 6 BINDERS

BT

SENT NR 29 AF AR TKS KK

CN IMI WA 23 AUG PLEASE SUPPLY IMI SUPPLY

RD KMH AR KKK

M.M.I.A. 6/09 SIGNALS

Rs 16/9/46

(74)

SUBJECT :- Regulations.

Land Forces Sub Comm. A.C.
M.M.I.A.
MM/13/74
/OSept. '46

TO :- Major CATALANO
CRE Legnano Inf. Division. 67

1. Your letter 007/1.0 of 1 August has been gratefully received and read together with the enclosures. I am sorry that you have had to wait so long for a reply, but I was out of Italy from the last days of July until ten days ago, and Major FRANKLIN wished to leave these for me to see.

I hope that the delay in reply has not inconvenced you too much.

2. I return one copy of "Attribuzioni del C.M.E." and the only comment I have to make is in para 2 (a) where I am not absolutely sure that I have, in the phrase "which support them", written something easy to translate into Italian.

The phrase "which support them" could be paraphrased as "which are in support of them", or "which are the next rearward echelon". I hope that your phrase "che vi fanno capo" represents this meaning.

5662

3. I have read through the "Compiti dell'Ispettorato Manutenzione (UMI)" and agree with your script, but I suggest you insert the title of the new book "Norme per l'Ispezione e la Manutenzione dell'Automotoveicolo" dated August 1940.

I have also read through "Sgombero degli Autoguasti dalle Divisioni su Stabilimenti di 3° e 4° Scaglione" and agree with it, except that I think you would be wise to delete in the title and the text all reference to "4° scaglione".

4. I hope these will be of assistance to you. If you have prepared any drafts of

"The operation of a 2nd. line workshop",
"The operation of a stores section attached to 2nd line workshop",
"Duties of OC. workshops",

I shall be very interested to see them.

5. I hope to see you again in the near future, and until then I wish you the best of luck.

Declassified E.O. 12065 Section 3-402/NNDC No. 785020

Major FRANKLIN wished to leave these for me to see.

I hope that the delay in reply has not incommoded you too much.

2. I return one copy of "Attribuzioni del C.M.S." and the only comment I have to make is in para 2 (a) where I am not absolutely sure that I have, in the phrase "which support them", written something easy to translate into Italian.

The phrase "which support them" could be paraphrased as "which are in support of them", or "which are the next rearward echelon". I hope that your phrase "che vi fanno capo" represents this meaning.

5882

3. I have read through the "Compiti dell'Ispettorato Manutenzione (UMI)" and agree with your script, but I suggest you insert the title of the new book "Norme per l'Ispezione e la Manutenzione dell'Automotoveicolo" dated August 1946.

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"The operation of a stores section attached to 2nd line workshop",
"Duties of OC. workshops",

I shall be very interested to see them.

5. I hope to see you again in the near future, and until then I wish you the best of luck.

AB

A. BLUNT. Lt. Col.
Assistant Director of Mechanical Engineering.
M.M.I.A.

File

Ry

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

(93)

SUBJECT :- E.M.E.R. Binders.

Land Forces Sub Comm. A.C.
(M.M.I.A.) R O M E.
ME/13/73

30 Aug 46

To :- E.M.E.; GHQ.

(59)

Reference your letter ME/3B/3501 dated 13 July 46.

1. May this office please be supplied with 55 Binders for War Office E.M.E.R's.

5 0 0 3.

A.E. HOUGHTON, Capt.
for Lt.Col.
Assistant Director of Mechanical Engineering.
M.M.I.A.

ABH/BG

Recpt
31 Aug.

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

REME 13 (72)

Subject:- E.M.E.R. Binders.

Headquarters
4 B. L. U.
B o l z a n o
Ref.: 4/ME/20-11

26 August 1946.

To:- AEME, HQ. M.M.I.A.,
R o m e

Reference your Signals ME/13-62 dated 9 August 46 and ME/13/68 dated 19 August 46.

Herewith copy of letter forwarded to you on the 16 Aug 46.

Capt.
S.O. REME 4 B.L.U.

Encls

RECEIVED 29 AUG 1946

5830

Regd. 30 August

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

Subject:- B.M.E.R. Binders.

Headquarters
4 B. L. U.
B o l z a n o
Ref.: 4/ME/20-115

16 August 1946.

To:- AMME, HQ. M.M.T.A.,
R o m e

Reference your Signal ME/13/62 dated 9 August 1946.

Request 15 Binders.

Capt.
S.C. ME 4 B.L.U.

5829

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

LROF V MBHF NR 41

FROM 5 BRITISH LIAISON UNIT CMF 241015B

TO HQ MMIA ROME

QSH BT

5/ME/2. UNCLASS

REPLY YOUR [redacted]/ME/13/70 AWAITING RETURN REME

CAPTAIN NOW ON PRIVLEAVE.

INFORM BERRIDGE ST PHOTOGRAPHS NOT YET AVAILABLE

BT

SENT NR 41 AF BB

RD NR 41 BA 1415 AR K

MMIA 2/26 SIGNALS

RECEIVED 26 AUG 1946 (DATE)

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LHCF V MTOE NR 20251
FROM HQ 7 BLN C/O 6 DLU 2011365
TO M.I.I.A. ROME (FOR ARMS)
DT

ERN/5/78 . PLT YOUR NR/15/65 DATED 19/6/46 .
ENGR BINDERS NOT NEGOTIATED BY THIS OFFICE .

DT
SENT 1D D1 K
RD ADJ 2183 AR KIGNDS

RECEIVED 22 AUG 1946
158

Rome 5607 13

SIGNALS
7/22
5827

Rec'd 22 Aug

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(10)

(12)

W.O.I.A.

23 1155 B.

5 S.I.U.

MS/13/70

UNCLASSIFIED

FOR AIG (x) INF INFO G 5/AE/2 OF 22 AUG (.) REPLY OF EIGHTH FOR WAR OFFICE DESK'S NOW AVAILABLE (.) PLEASE ADVISE THIS OFFICE OF NUMBER OF DESKS REQUIRED

See Folio 75

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ADMIRALTY

W.O.I.A.

Rhodesridge Camp

A.F. WOOLWICH S.E.18.

Registered.
23rd Aug.

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FROM SOVIET LIAISON UNIT CAI
TO MG MILA ROSE
SCA ET

5/AUG/2. UNCLASS.
REFERENCE YOUR NR 13/[illegible] OCT 1945/DE
REGRET NO TRACE OF YOUR NR 13/82 [illegible]/CE

5 AUG.

PLEASE FORWARD FURTHER COPY

LT

SENT NR 77 AT 1810

RD NR 77 AT 1910 J A R RDD

LROI U DBHE NR 77 PP

JMB RTHNS

6 1392 69

220545

RECEIVED 23 AUG 1946

66

7/23

SIGNALS

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68

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Regt.
19th August.

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1631

13

67

TRANSLATION

From: "Legnano"Inf.Div.HQ
To : MMIA

Ref: 007/IIO
Date: I/8/46

Subject: Regulations.

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See Folio 74

Ref. letter ME/I3/60 dated 25/7/46.

I. I have read with great interest your remarks in respect of "C.M.E. duties". I am very grateful since they have been most useful to me.

As you well know, we frequently meet serious difficulties in the translation of "technical terms" which often leads to misunderstandings.

I reply step by step to your remarks:

A - You suggest that I replace the words "repair service" with "ME service". Writing thus, it will always remain to clarify the meaning of the initial "ME". Even including in the translation "electro-mechanic engineer" the idea would not be made clear, I have thought therefore, to put "technical service and first aid repairs". I think by putting it in this manner the meaning of "ME" will be clear.

B - The same as for para "A".

C - I have substituted "that they are called upon to serve" with "they are headed by" as you proposed.

D - I have substituted the words "of mechanical transport" with "with all technical stores (vehicles - weapons - signal stores precision instruments, etc.)". it I consider to have, thus, made clear

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E - I have arranged to eliminate the words "and 4"

F - In a BULLETIN which will shortly be issued, (the last piece of work I do as "Coordinator" since - besides other things - I have not the transport and personnel available to continue this work) I gave the meaning of the abbreviations mostly in use including B.L.R. - Anyway, as you will note - I have arranged to indicate in brackets the English meaning of the initials and the corresponding translation in Italian.

G - I have arranged to eliminate the words "and 4"

H - Same as for para "A".

J - I have replaced the words " of the repairs" with "clearances".

K - I have arranged to eliminate the words "E 4".

L - The same as for para A.

Regd.
16 August.

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M)- I have arranged to add after the words "vehicles" the following: "and - in general - with technical stores on issue to divisional units".

I considered ~~th~~ it advisable to show the vehicles separately in order to bring greater attention to them since - as known - among technical stores - are included vehicles which leave much to be desired.

2. I take the liberty of sending you two copies of the above so that you may check the work and possibly send one of them back to me corrected if you think it advisable to make other alterations.

After which I will send a copy of it to the Ministry - if you wish - in the hope (which is not certain) that it will be issued.

3. I also forward you for examination cpies of the following instructions for which I would like your opinion:

a)- Duties of the Maintainance Inspectorate (U.M.I.)

b)- Clearing of u/s vehicles from Divisions to 3rd and 4th echelon establishments.

4. I thank you very much for having read and approved the "Instructions for the working of a light W/shop (LAD)".

The Ministry has an other copy of it, but I think that this small piece of work of mine will be left in the forgotten file.

Thus I will have the satisfaction of working for nothing.

sgd. Catalano
Maj.

DAK

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DUTIES OF THE C.M.E. (HEAD OF THE TECHNICAL SERVICE AND DIVISIONAL REPAIRS AND AID).

I. The C.M.E. is directly responsible to the Divisional Commander for the good working of the entire technical, repair and aid within the division and, technically, to his superior technical officers.

2. His duties are:
a)- To give technical advice and cooperate with divisional HQ in order to ensure that technical, repair and light aid services are ~~al~~located and utilised according to the tactical situation, to their capacity, to their estimated possibilities, and the road network in the area (for carrying out light aid and recovery service) for the location of units under command.
b)- Constant watch over technical stores on issue to units, both by means of inspections and any other action, so as to be able to:
(i) inform commander on the state of efficiency of all technical materials (vehicles - weapons - signal equipment and precision instruments, etc.) on issue to units in the division;
(ii) identify the inconveniences derived from the irrational employment and poor maintainance of technical stores, suggesting to units the way to avoid them;
(iii) ~~advantage for~~ ESTIMATE divisional requirements as far as 2nd and 3rd line repairs are concerned, arranging in advance - for the second line - repair programme and supply required for replacements. He will promptly inform divisional HQ concerning vehicles which are in need of replacement having been declared B.L.R. (Beyond Local Repair = it not being possible to effect repairs at that determined W/shop - since the repairs are not within their scope due to lack of labour, spare parts, etc.) informing ~~of~~ the same time his technical superior concerning both requests submitted and vehicles sent to rear establishments requiring 3rd line repairs;
(iv) identify as soon as possible any likely faults in materials which otherwise would be discovered too late.
c)- Directly commands the two 2nd line divisional workshops (mobile workshop and platoon workshop) and technically controls LADs and any other units or detachment belonging to the first line repair light aid technical service, so as to ensure an organised work plan in ~~xx~~ the whole Division. Said plan must comply as far as possible with instructions issued by the Ministry of War through the technical coordinator office.
d)- Coordinate the recovery of damaged vehicles and any other technical stores in divisional workshops which require repairs. Maintain continuous contact with his own technical superiors regarding the organising of vehicles which must be sent away for repair, so that the latter may promptly intervene (relieving him

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thus, from his responsibility) both strengthening divisional organisation and giving additional instructions for the sending of vehicles to 3rd line rear establishments.
e)- Look for, as far as means at his disposal permit, faults which possibly show themselves in stores, reporting them as soon as possible to Higher Technical Authority, accompanied by any concrete proposals in order to avoid them;
f)- Superintend in all technical, repair and light aid units in the division, including transfers, the promotions and duties of personnel within the limits laid down by Higher Authorities.
g)- Technical control of all stores and officers in charge of transport (M.T.O.) who - in turn - will be the technical advisers for commanders of respective units as far as maintainance and good preservation of vehicles and other stores are concerned. As far as the above is concerned the M.T.O. within his Unit has technical duties similar to those laid down for the C.M.E. to whom he technically comes under.

3. Generally the C.M.E. must do everything within his power to improve the technical standard of vehicles and - as a rule - technical materials on issue to units in the division, keeping himself constantly informed both regarding the state of efficiency and supplying technical advice on employment and maintainance, and - for the same purpose - arranging an efficient light aid, repair and spare parts supply service. His technical advice must always be at the disposal of his commander and must comply as far as possible with instructions given by his superior technical Officers.

4. He must collect and keep up to date any figures which will allow him at any moment, an exact and clear statement of the mechanical efficiency of all other technical material in the division for which he is directly responsible.

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TASKS OF THE MAINTAINANCE INSPECTORATE (UMI)

I. The Maintainance Inspectorate works under the Ministry of War and effects inspections to vehicles on issue to various units in accordance with programme laid down by the Ministry.

2. Purposes of the inspections:
a)- to assist units supplying them any advice for the practical and efficient maintainance of vehicles, according to the task system laid down in the publication edited by Ministry of War entitled "Inspection Maintainance and Care of Army Wheeled Vehicles".
b)- Issue all instructions to units regarding the rational employment of vehicles.
c)- Issue instructions dealing with tyre maintainance stressing the economy which is derived by carrying these out diligently.
d)- Report any obstacle which Units meet in the practical maintainance of their vehicles.

3. Repair Directorates and Divisional C.M.E.s will do everything in their power to assist the Inspectorates in carrying out their task.

4. Inspectorate Commander, is requested to send a report at the same time to:
a)- commander of the inspected unit (through divisional HQ or other Higher Authority);
b)- Divisional Commander or other Higher Authority;
c)- Ministry of War.

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SENDING OF DAMAGED VEHICLES FROM DIVISIONS TO 3rd AND 4th LINE ESTABLISHMENTS.

1. Vehicles and stores requiring 2nd line repairs will be sent to 3rd and 4th line establishments by Divisions should they not be able to effect the repairs within the division, for one of the following reasons:
a)- The quantity of work committed to divisional W/shop being greater than their working capacity;
b)- lack of spares or other stores, required for the execution of the repairs;
c)- personnel not sufficiently skilled;
d)- existence of other workshops better equipped to effect determined repairs.

2. Vehicles and stores which are to be sent, will be declared B.L.R. by an Officer appointed by the divisional mobile workshop or by the platoon workshop commander.

3. The Officer declaring material B.L.R. will make out and sign 4 copies of form G 1043 properly numbered, detailing the damage noted and reason for it being sent. Copies of the document will be thus distributed:
- one to the unit which has the material on charge, which will make use of it when submitting request for its replacement;
- one to C.M.E. to inform him of the number of B.L.R. to be sent and consequent necessary replacement;
- one for the workshop file;
- one to follow the damaged material.

4. Vehicles and stores will remain at the workshop and will not be returned to the unit until the C.M.E. decides.
No part of material declared B.L.R. will be given to Unit, except in order to effect exchange with the same number unserviceable after written authority from C.M.E. - The latter will confine without permission authority to strict essentials.
It is therefore, absolutely forbidden to replace parts of material declared B.L.R. by Units or LADs and will be reduced to minimum essentials by divisional workshops.

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5. For the striking off stores declared B.L.R. in book 547 or register, units will send the handing in vouchers which will be issued for this purpose by 3rd and 4th line workshops upon receipt of vehicles and stores.

COMANDO DIVISIONE DI FANTERIA "LEGNANO"
- Ufficio Automobilistico -

n.007/110 di prot.
Oggetto: Regolamentazione.-

Bergamo, 1° agosto 1946

AL SIG.TEN.COLONNELLO BLUNT
ADME = H.Q. LAND FORCES SUB COMMISSION (MMIA) = R O M A =

(Rif. ME/13/60 del 25 luglio 1946)

1.- Ho letto con molto interesse le Sue cortesi osservazioni relative alle "Attribuzioni del C.M.E." Le sono molto grato perchè mi sono state utilissime.-

Purtroppo, come Lei ben sa, si riscontrano frequentemente serie difficoltà nella traduzione dei "termini tecnici" la qual cosa conduce spesso ad involontari equivoci.

Rispondo punto per punto alle Sue osservazioni:

A - Lei mi suggerisce di sostituire le parole "servizio riparazioni" con "servizio ME"- Scrivendo così, resterebbe pur sempre da chiarire il significato della sigla "M.E." Anche inserendo la traduzione "ingegneria elettromeccanica" non verrebbe resa chiara la idea, ho pensato, perciò, di scrivere: "Servizio tecnico e delle riparazioni soccorsi". Credo che così scrivendo risulti precisato il significato di "M.E."-

B - Vale quanto detto al comma "A".-

C - Ho sostituito "che essi sono chiamati a servire" con: "vi fanno capo" come da Lei proposto.-

D - Ho sostituito le parole: "dei mezzi a trazione meccanica" con: " di tutti i materiali tecnici (veicoli - armi - mezzi di collegamento - strumenti di precisione ecc.)"
Ritengo di avere, così, meglio precisato il pensiero.

E - Ho provveduto ad eliminare le parole; "e 4"

F - Con un NOTIZIARIO di prossima diramazione (ultimo lavoro che faccio nella mia qualità di "Coordinatore" perchè - oltre tutto - non ho a disposizione mezzi e personale per attendere a quel lavoro) detto il significato delle abbrevazioni più in uso compreso B.L.R.- Comunque, come potrà rilevare - ho provveduto ad indicare tra parentesi il significato inglese della sigla e la corrispondente traduzione italiana.-

G - Ho provveduto ad eliminare le parole "e 4"

H - Vale quanto detto al comma A).-

J - Ho sostituito le parole: "delle riparazioni" con: "degli sgomberi".

K - Ho provveduto ad

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1.- Ho letto con molto interesse le Sue cortesi osservazioni relative alle "Attribuzioni del C.M.E." Le sono molto grato perchè mi sono state utilissime.-

Purtroppo, come Lei ben sa, si riscontrano frequentemente serie difficoltà nella traduzione dei "termini tecnici" la qual cosa conduce spesso ad involontari equivoci.

Rispondo punto per punto alle Sue osservazioni:

A - Lei mi suggerisce di sostituire le parole "servizio riparazioni" con "servizio ME"- Scrivendo così, resterebbe pur sempre da chiarire il significato della sigla "M.E." Anche inserendo la traduzione "ingegneria elettromeccanica" non verrebbe resa chiara la idea, ho pensato, perciò, di scrivere:"Servizio tecnico e delle riparazioni soccorsi". Credo che così scrivendo risulti precisato il significato di "M.E.".-

B - Vale quanto detto al comma "A".-

C - Ho sostituito "che essi sono chiamati a servire"con: "vi fanno capo" come da Lei proposto.-

D - Ho sostituito le parole: "dei mezzi a trazione meccanica" con: " di tutti i materiali tecnici (veicoli - armi - mezzi di collegamento - strumenti di precisione ecc.)"
Ritengo di avere, così, meglio precisato il pensiero.

E - Ho provveduto ad eliminare le parole; "e 4"

F - Con un NOTIZIARIO di prossima diramazione (ultimo lavoro che faccio nella mia qualità di "Coordinatore" perchè - oltre tutto - non ho a disposizione mezzi e personale per attendere a quel lavoro) detto il significato delle abbrevazioni più in uso compreso B.L.R.- Comunque, come potrà rilevare - ho provveduto ad indicare tra parentesi il significato inglese della sigla e la corrispondente traduzione italiana.-

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G - Ho provveduto ad eliminare le parole "e 4"

H - Vale quanto detto al comma A).-

J - Ho sostituito le parole:"delle riparazioni" con: "degli sgomberi".

K - Ho provveduto ad eliminare le parole "E 4^"

L - Vale quanto detto al comma A).-

M - Ho provveduto ad aggiungere dopo le parole: "degli automezzi" le seguenti: "e - in genere - dei materiali tecnici in distribuzione alle Unità della Divisione".

Ho ritenuto opportuno indicare a parte gli automezzi per richiamare ~~[illegible]~~ l'attenzione su di essi in quanto - come è noto - tra tutti i materiali tecnici - sono proprio gli

..//..

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autoveicoli che lasciano più a desiderare.

2.- Mi permetto inviarle due copie rifatte come sopra specificate in modo che Lei possa riesumere il lavoro ed eventualmente restituirmene una corretta se ritiene opportuno apportare altre modifiche.-

Dopo di che ne invierò copia al Ministero - se Lei lo desidera - nella lusinga (che non è certezza) che venga diramata.-

3.- Le trasmetto per l'esame anche le copie delle seguenti norme sulle quali mi attendo conoscere il suo pensiero:

a) Compiti dell'ispettorato manutenzione (U.M.I.)
b) Sgombero degli autoguasti dalle divisioni su stabilimenti di 3° e 4° scaglione.

4.- La ringrazio sentitamente per avere letto ed approvate le "Norme per il funzionamento di una officina leggera (LAD)". Il Ministero ne ha altra copia, ma penso che anche questo mio ~~ne~~ desto lavoro verrà lasciato nel dimenticatoio. Così avro la soddisfazione di aver lavorato per nulla.-

DIVISIONE FANTERIA "FRIULI" COMANDO

T.Col.CAPO UFF.AUTO INCARICATO M.G.
- Pietro Catalano -

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Allegato a N°. 007/110 del 1/8/46

ATTRIBUZIONI DEL C.M.E. (CAPO DEL SERVIZIO TECNICO E DELLE RIPARAZIONI E SOCCORSI DIVISIONALI) -

1.- IL C.M.E. è direttamente responsabile verso il Comandante della Divisione del buon funzionamento di tutto il servizio tecnico e delle riparazioni e soccorsi nell'ambito della Divisione e, tecnicamente, verso i suoi superiori tecnici.

2.- Le sue attribuzioni sono:

a) Consiglio tecnico e cooperazione col Comando Divisione per garantire che i servizi tecnici e delle riparazioni e soccorsi dislocati ed utilizzati in relazione alla situazione tattica, alle loro capacità, alle loro previste possibilità, alla rete stradale della zona (per l'attuazione del servizio soccorso e recupero), alla dislocazione dei reparti che vi fanno capo.

b) Costante vigilanza sui materiali tecnici in distribuzione ai reparti, sia a mezzo ispezioni sia attraverso altri provvedimenti, in modo da essere in grado di:

(i) informare il comandante sul grado di efficienza di tutti i materiali tecnici (veicoli - armi - mezzi di collegamento e strumenti di precisione ecc.) in distribuzione alle Unità della Divisione;

(ii) individuare gli inconvenienti derivanti dall'irrazionale impiego ed imperfetta manutenzione dei materiali tecnici, suggerendo ai reparti le modalità per ovviarli;

(iii) prevedere le necessità della Divisione per quanto interessa le riparazioni di 2° scaglione, nonchè quella di 3° scaglione, predisponendo - per il 2° scaglione - il programma per le riparazioni e l'afflusso dei complessivi necessari per le sostituzioni.- Dovrà informare tempestivamente il comando della Divisione in merito ai veicoli che necessitano di sostituzione perchè dichiarati B.L.R.4 (Beyond Local Repair = supera la possibilità di effettuare le riparazioni presso quella determinata officina- perchè i lavori richiesti superano la competenza per deficienza di capacità lavorative, per mancanza di ricambi ecc.), ragguagliando nel contempo i suoi superiori tecnici sia delle richieste di complessivi inoltrate sia degli sgomberi su stabilimenti arretrati dei materiali che richiedono riparazioni di 3ª linea;

(iv) individuare il più sollecitamente possibile i guasti incipienti dei materiali, che altrimenti verrebbero alla luce a totale inefficienza avvenuta e denunciata.-

c) Comando diretto delle due officine divisionali di 2° scaglione (officina mobile o plotone officina) e controllo tecnico dei LADs o altri reparti o distaccamenti del servizio tecnico e delle riparazioni e soccorso di 1° scaglione, in modo da assicurare un piano organico di lavoro in tutta la Divisione.- Detto piano deve ispirarsi alle disposizioni di massima diramate dal Ministero della Guerra a mezzo dell'ufficio tecnico coordinatore.-

d) Coordinare il ricovero degli automotoguasti e degli altri materiali 5915

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2.- Le sue attribuzioni sono:

a) Consiglio tecnico e cooperazione col Comando Divisione per garantire che i servizi tecnici e delle riparazioni e soccorsi dislocati ed utilizzati in relazione alla situazione tattica, alle loro capacità, alle loro previste possibilità, alla rete stradale della zona (per l'attuazione del servizio soccorso e recupero), alla dislocazione dei reparti che vi fanno capo.

b) Costante vigilanza sui materiali tecnici in distribuzione ai reparti, sia a mezzo ispezioni sia attraverso altri provvedimenti, in modo da essere in grado di:

(i) informare il comandante sul grado di efficienza di tutti i materiali tecnici (veicoli - armi - mezzi di collegamento e strumenti di precisione ecc.) in distribuzione alle Unità della Divisione;

(ii) individuare gli inconvenienti derivanti dall'irrazionale impiego ed imperfetta manutenzione dei materiali tecnici, suggerendo ai reparti le modalità per ovviarli;

(iii) prevedere le necessità della Divisione per quanto interessa le riparazioni di 2° scaglione, nonchè quella di 3° scaglione, predisponendo - per il 2° scaglione - il programma per le riparazioni e l'afflusso dei complessivi necessari per le sostituzioni.- Dovrà informare tempestivamente il comando della Divisione in merito ai veicoli che necessitano di sostituzione perchè dichiarati B.L.R.4 (Beyond Local Repair = supera la possibilità di effettuare le riparazioni presso quella determinata officina- perchè i lavori richiesti superano la competenza per deficienza di capacità lavorative, per mancanza di ricambi ecc.), ragguagliando nel contempo i suoi superiori tecnici sia delle richieste di complessivi inoltrate sia degli sgomberi su stabilimenti arretrati dei materiali che richiedono riparazioni di 3^ linea;

(iv) individuare il più sollecitamente possibile i guasti incipienti dei materiali, che altrimenti verrebbero alla luce a totale inefficienza avvenuta e denunciata.-

c) Comando diretto delle due officine divisionali di 2° scaglione (officina mobile o plotone officina) e controllo tecnico dei LADs o altri reparti o distaccamenti del servizio tecnico e delle riparazioni e soccorso di 1° scaglione, in modo da assicurare un piano organico di lavoro in tutta la Divisione.- Detto piano deve ispirarsi alle disposizioni di massima diramate dal Ministero della Guerra a mezzo dell'ufficio tecnico coordinatore.-

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d) Coordinare il ricovero degli automotoguasti e degli altri materiali tecnici abbisognevoli di riparazioni nelle officine divisionali.- Mantenere continuo contatto con i propri superiori tecnici in merito all'ordinamento degli sgomberi, in modo che questi possano intervenire tempestivamente (sollevandolo, così, dalle sue responsabilità) sia rinforzando l'organizzazione divisionale, sia dettando norme aggiuntive per lo sgombero sugli stabilimenti arretrati di 3° scaglione.

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e) Ricercare, per quanto lo consentano i mezzi a sua disposizione, i difetti che eventualmente si manifestassero nei materiali, segnalandoli sollecitamente alle Autorità tecniche Superiori, accompagnati da eventuali concrete proposte per ovviarli;

f) Sovraintendere su tutti i reparti tecnici e delle riparazioni soccorso esistenti nella divisione, inclusi i trasferimenti, le promozioni e le attribuzioni delle cariche al personale operaio, nei limiti fissati dalle Autorità Superiori.-

g) Controllo tecnico di tutto il materiale e sul servizio degli ufficiali addetti ai trasporti (M.T.O.) i quali - a loro volta - devono essere i consiglieri tecnici dei comandanti delle rispettive Unità per quanto interessa la manutenzione e buona conservazione degli automezzi e degli altri materiali.- Sotto tale riguardo lo M.T.O., nell'ambito della sua Unità ha attribuzioni tecniche analoghe a quelle previste per il CME dal quale dipende tecnicamente.

3.- In generale il CME deve fare quant'è in suo potere per migliorare le condizioni meccaniche degli automotomezzi e - in genere - dei materiali tecnici in distribuzione alle Unità della Divisione, sia mantenendosi costantemente informato sul loro grado di efficienza, sia fornendo consigli tecnici sull'impiego e manutenzione, sia - infine - predisponendo un efficace servizio di soccorso, riparazione e rifornimento ricambi.- Il suo consiglio tecnico deve essere sempre a disposizione del comandante e deve ispirarsi alle disposizioni di massima dettate dai suoi superiori tecnici.-

4.- Deve raccogliere e tenere aggiornati i dati che gli consentono di avere in qualsiasi momento, un quadro esatto e chiaro della efficienza meccanica e di tutti gli altri materiali tecnici della Divisione di cui è direttamente responsabile.

"^"^"^"^"^"^"^"^"^"^"^"^"^"^"^

DIVISIONE FANTERIA "LEGNANO" COMANDO

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g) Controllo tecnico di tutto il materiale e sul servizio degli Ufficiali addetti ai trasporti (M.T.O.) i quali - a loro volta - devono essere i consiglieri tecnici dei comandanti delle rispettive Unità per quanto interessa la manutenzione e buona conservazione degli automezzi e degli altri materiali.- Sotto tale riguardo lo M.T.O., nell'ambito della sua Unità ha attribuzioni tecniche analoghe a quelle previste per il CME dal quale dipende tecnicamente.

3.- In generale il CME deve fare quant'è in suo potere per migliorare le condizioni meccaniche degli automotomezzi e - in genere - dei materiali tecnici in distribuzione alle Unità della Divisione, sia mantenendosi costantemente informato sul loro grado di efficienza, sia fornendo consigli tecnici sull'impiego e manutenzione, sia - infine - predisponendo un efficace servizio di soccorso, riparazione e rifornimento ricambi.- Il suo consiglio tecnico deve essere sempre a disposizione del comandante e deve ispirarsi alle disposizioni di massima dettate dai suoi superiori tecnici.-

4.- Deve raccogliere e tenere aggiornati i dati che gli consentono di avere in qualsiasi momento, un quadro esatto e chiaro della efficienza meccanica e di tutti gli altri materiali tecnici della Divisione di cui è direttamente responsabile.

^"^"^"

allegato al f.004/110 del 1/8/46

COMPITI DELL'ISPETTORATO MANUTENZIONE (UMI)

1.- L'Ispettorato Manutenzione opera alla dipendenza del Ministero delle Guerre ed effettua ispezioni ai veicoli in distribuzione alle varie Unità secondo il prestabilito programma ministeriale.-

2.- Scopo delle ispezioni:

a)- assistere i reparti fornendo loro opportuni consigli per la pratica ed efficace manutenzione degli automotomezzi, secondo il sistema del compito previsto dalla pubblicazione edita dal Ministero della Guerra del titolo:"Ispezione, Manutenzione e Cura dei veicoli ruotati dell'Esercito".-

b)- Divulgare tra i reparti tutte le norme che interessano il razionale impiego dei veicoli.-

c)- Diffondere le norme che trattano la manutenzione delle somme facendo comprendere la economia che ne deriva nel praticarle diligentemente.-

d)- Segnalare tutto ciò che riesce di intralcio ai reparti nella pratica esecuzione della manutenzione dei loro veicoli.-

3.- I Direttori delle riparazioni o C.M.E. delle Divisioni assisteranno con ogni mezzo gli Ispettori nell'adempimento del loro compito.-

4.- Il Comandante dell'Ispettorato, per ciascun reparto controllato è tenuto ad inviare rapporto contemporaneamente al:

a)- Comandante del reparto ispezionato (tramite il Comando della Divisione o altra Autorità Superiore);

b)- Comandante della Divisione o altra Autorità Superiore;

c)- Ministero delle Guerra.-

DIVISIONE FANTERIA "LEGNANO" * COMANDO *

5813

Declassified E.O. 12065 Section 3-402/NNDC HQ. 785020

efficace manutenzione degli automotomezzi, secondo il sistema del compito previsto dalla pubblicazione edita dal Ministero della Guerra dal titolo:"Ispezione, Manutenzione e Cura dei veicoli motorizzati dell'Esercito".-

b)- Divulgare tra i reparti tutte le norme che interessano il razionale impiego dei veicoli.-

c)- Diffondere le norme che trattano la manutenzione delle gomme facendo comprendere la economia che ne deriva nel praticarle diligentemente.-

d)- Segnalare tutto ciò che riesce di intralcio ai reparti nella pratica esecuzione della manutenzione dei loro veicoli.-

3.- I Direttori delle riparazioni e C.M.E. delle Divisioni assisteranno con ogni mezzo gli Ispettori nell'adempimento del loro compito.-

4.- Il Comandante dell'Ispettorato, per ciascun reparto controllato è tenuto ad inviare rapporto contemporaneamente al:

a)- Comandante del reparto ispezionato (tramite il Comando della Divisione o altra Autorità Superiore);

b)- Comandante della Divisione o altra Autorità Superiore;

c)- Ministero della Guerra.-

DIVISIONE FANTERIA "LEGNANO" * COMANDO *

5813

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

b)

Allegato al f. 007/110 del 1/9/45

SGOMBERO DEGLI AUTOGUASTI DALLE DIVISIONI SU STABILIMENTI DI 3° e 4° SCAGLIONE.-

1.- Per gli automotomezzi e i materiali ancorchè abbisognevoli ri riparazioni di 2° scaglione, le Divisioni disporranno lo sgombero sugli stabilimenti di 3° e 4° scaglione ogni qualvolta non sono in grado di effettuare le riparazioni nell'interno delle Divisioni stesse, per una delle seguenti ragioni:

a)- La quantità del lavoro commesso alle officine divisionali risulta maggiore della loro capacità lavorativa;

b)- Mancanza di ricambi o altri materiali, necessari per la esecuzione delle riparazioni;

c)- Personale non sufficientemente idoneo;

d)- Esistenza di altre officine meglio attrezzate per effettuare determinate riparazioni.-

2.- Gli automezzi e i materiali che devono essere sgomberati, dovranno essere dichiarati B.L.R. da un ufficiale designato dall'officina mobile divisionale oppure dal comandante del plotone officina.-

3.- L'Ufficiale che dichiara B.L.R. i materiali compilerà e firmerà 4 copie del mod. G.1043 regolarmente numerate, dettagliando le avarie riscontrate ed il motivo dello sgombero. Le copie del documento dovranno essere così distribuite:

- una al reparto che ha in carico il materiale, il quale l'utilizzerà per porla a corredo della richiesta di sostituzione;
- una al CME per ragguagliarlo sul numero dei B.L.R. da sgomberare e le conseguenti necessarie sostituzioni;
- una per il carteggio dell'officina;

una segue il materiale avariato.-

4.- Gli automotomezzi e i materiali resteranno presso l'officina e non saranno restituiti al reparto finchè il CME non avrà deciso lo sgombero. Nessuna parte dei materiali dichiarati B.L.R. potrà essere data ai reparti, tranne che per effettuare il cambio con altrettanti fuori uso, previa autorizzazione scritta del CME. Quest'ultimo conterrà le autorizzazioni allo stretto indispensabile.-

Resta, perciò, tassativamente vietata la sostituzione d'iniziativa di parti dei materiali dichiarati B.L.R., dai reparti o dai LADs e sarà ridotta al minimo indispensabile presso le officine divisionali.-

5.- Per lo scarico dei materiali dichiarati B.L.R. dagli appositi quaderni 547 o registri analitici, i reparti si avvarranno dei buoni di versamento che all'uopo verranno rilasciati dalle officine di 3° e 4° scaglione a versamento avvenuto.-

Declassified E.O. 12065 Section 3-402/NNMG NO. 785020

b)- Mancanza di ricambi o altri materiali, necessari per la esecuzione delle riparazioni;

c)- Personale non sufficientemente idoneo;
d)- Esistenza di altre officine meglio attrezzate per effettuare determinate riparazioni.-

2.- Gli automezzi e i materiali che devono essere sgomberati, dovranno essere dichiarati B.L.R. da un ufficiale designato dall'officina mobile divisionale oppure dal comandante del plotone officina.-

3.- L'Ufficiale che dichiara B.L.R. i materiali compilerà e firmerà 4 copie del mod. G.1043 regolarmente numerate, dettagliando le avarie riscontrate ed il motivo dello sgombero. Le copie del documento dovranno essere così distribuite:

- una al reparto che ha in carico il materiale, il quale l'utilizzerà per porla a corredo della richiesta di sostituzione;

- una al CME per ragguagliarlo sul numero dei B.L.R. da sgomberare e le conseguenti necessarie sostituzioni;

- una per il carteggio dell'officina;

una segue il materiale avariato.-

4.- Gli automotomezzi e i materiali resteranno presso l'officina e non saranno restituiti al reparto finchè il CME non avrà deciso lo sgombero. Nessuna parte dei materiali dichiarati B.L.R. potrà essere data ai reparti, tranne che per effettuare il cambio con altrettanti fuori uso, previa autorizzazione scritta del CME. Quest'ultimo conterrà le autorizzazioni allo stretto indispensabile.-

Resta, perciò, tassativamente vietata la sostituzione d'iniziativa di parti dei materiali dichiarati B.L.R. dai reparti o dai LADs e sarà ridotta al minimo indispensabile presso le officine divisionali.-

5.- Per lo scarico dei materiali dichiarati B.L.R. dagli appositi quaderni 547 o registri analitici, i reparti si avvarranno dei buoni di versamento che all'uopo verranno rilasciati dalle officine di 3° e 4° scaglione a versamento avvenuto.-

DIVISIONE FANTERIA "LEGNANO" COMANDO

Declassified E.O. 12065 Section 3-402/NNDG NO. 785020

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

(60)

Rome.

SUBJECT: E.M.E.R. Binders.

12 BRITISH LIAISON UNIT
for the
ITALIAN CENTRAL MILITARY SCHOOLS
(Tel : ROME 489081 Ext: 545)

PS/14.

15 August 1946.

To : A.D.M.E.
H.Q.
Land Forces Sub Comm.
A.C. (M.M.I.A.).

RECEIVED 15 AUG 1946 DATE

(62)

Reference your ME/13/62 of 9 August '46.

A NIL return is submitted in respect of this Unit.

5611

Major R.E.M.E.
D.A.D.M.E.

RAW/mg

Rec'd. 15 August.

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

NOT HQ RMC

0 3 7 13 65

LRO V MEMY NR 120164

FROM 10 D L U 121530

TO ADMIN MMIA ROME

CD--- DT

S RENE . U/C . REF YOUR MZ/13/62 OF 9 AUG . SIX BINDERS REQUIRED THIS MC .

DT

SENT MC AD K TKU

RD NR 164 AND 172 AT 1630 GA K K

RECEIVED (DATE)

AG REFERENCE 0606

M.M.I.A. 8/13 SECTION

581 Rec'd 15 Aug.

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

LROS W MEAN STL 130306
FROM E M E 1 E L U 120330 E
W A R M - M I A
GSN GR -- DT
1/ EME/54 (.) U/C (.)
RLE YOUR SIGNAL AE/1?/32
W O ITEMS REQUIRED BY THIS OFFICE
DT

SENT SRL 130086 SGU 1150/13 D 1 (K)
RD KHW RD1200 AR KKKK

(32)

Reme 3968

T W E L V E BINDERS FOR

RECEIVED 14 AUG 1946
106 DATE

M.M.I.A.
1/14
SIGNED

(4)

Regd. 15 Aug

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

LROF V MEAV SRL 100025

FROM RENE 3 E L U MILAN 121115 E

TO AGME MMIA ROME

QSH GR -- ET

ME/MISC/42 (.) U/C (.)
YOUR REFERENCE ME/13/62 (.) THIS OFFICE CAN MAKE USE OF

12 BINDERS EMERS

BT 1200

SENT SRL 100025 SGW 1242/12 AR (K)

RD ABF 01237 ??????BBBBBBBBBB

Rene

62

RECEIVED 12 AUG 1946 (DATE)

3500

M.M.I.A. 63 SIGNALS

5&0 Regd. 18 Aug

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

67

A .B.I.A.
~~64~~ 63/ 64 /65 /66
1.3.4.5.6.10 and 14 B.L.U.
72
MAY/13/62

9 115 B

UNCLASSIFIED

FOR .=.M.E.S. (.) SUPPLY OF BINDERS FOR WAR OFFICE
D.M.I.R'S NOW AVAILABLE (.) PLEASE ADVISE THIS OFFICE
NUMBER OF BINDERS REQUIRED

See Folder 75

ROUTINE
B.E.=.S.
A.A.INSPECTOR GIPT

5307

Rec'd
10 Aug

(60)

SUBJECT :- Regulations.

Land Forces Sub Comm. A.C.
(M.E.I.A.) R O M E.
ME/13/60

25 July 46

Major CATALANO
CMB "Legnano" Inf. Division.

1. I return herewith your draft of "Attribuzioni del C.M.E.", and would like to make the following comments:-

A. Line 2 - Since Mechanical Engineers are not only a repair service, I suggest you substitute "Servizio ME" for "Servizio riparazioni".

B. Line 6 - I suggest you substitute "ME" for "Officine".

C. Line 9 - I suggest you substitute "which support them" for "che essi sono chiamati a servire".

D. Line 14 - I suggest you insert "artillery, small arms, and signal equipment".

E. Line 16 - I suggest you omit "4°".

F. Line 23 - I suggest the term "BLR" is explained, since the regulations will also be read by non-technical people.

G. Line 25 - I suggest you omit "e 4a".

H. Line 31 - I suggest you substitute "ME" for "di officina".

I. Line 37 - I think you mean "recovery" and not "riparazioni".

K. Line 41 - I suggest you omit "e 4a".

L. Line 46 - I suggest you substitute "ME" for "Officina".

M. Line 56 - I suggest you insert "artillery, small arms, and signal equipment".

These suggestions are rather numerous but I hope you will find them helpful. 5566

2. I have studied your "Norme per la Organizzazione e Funzionamento di una Officina Leggera (LAD)" dated "Giugno 1946" and I think it is very good, so I propose to return the copy I have.

3. I am sorry to have been so slow in returning these to you but I have been extremely busy.

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

1. I return herewith your draft of "Attribution del S.M.E.", and would like to make the following comments:-

A. Line 2 - Since Mechanical Engineers are not only a repair service, I suggest you substitute "Servizio ME" for "Servizio riparazioni".

B. Line 6 - I suggest you substitute "ME" for "Officina".

C. Line 9 - I suggest you substitute "which support them" for "che essi sono chiamati a servire".

D. Line 14 - I suggest you insert "artillery, small arms, and signal equipment".

E. Line 15 - I suggest you omit "4o".

F. Line 23 - I suggest the term "BLR" is explained, since the regulations will also be read by non-technical people.

G. Line 25 - I suggest you omit "e 4a".

H. Line 31 - I suggest you substitute "ME" for "di officina".

I. Line 37 - I think you mean "recovery" and not "riparazioni".

K. Line 41 - I suggest you omit "e 4a".

L. Line 46 - I suggest you substitute "ME" for "Officina".

M. Line 56 - I suggest you insert "artillery, small arms, and signal equipment".

5866

These suggestions are rather numerous but I hope you will find them helpful.

2. I have studied your "Norme per la Organizzazione e Funzionamento di una Officina Leggera (LAD)" dated "Giugno 1946" and I think it is very good, so I propose to ~~return~~ retain the copy I have.

3. I am sorry to have been so slow in returning these to you but I have been extremely busy.

A.BLUNT, Lt. Col.,
Assistant Director of Mechanical Engineering,
M.M.I.A.

AB/aw

Reg 25/7/46

Declassified E.O. 12065 Section 3-402/NNDG No. 785020

File

HE/B (60)

B O Z Z A

ATTRIBUZIONI DEL CME (CAPO SERVIZIO RIPARAZIONI) DIVISIONALE.

1. Il CME è direttamente responsabile verso il comandante della Divisione del buon funzionamento di tutto il servizio riparazione nell'interno della Divisione e, tecnicamente, verso i suoi superiori tecnici.

2. Le sue attribuzioni sono:

a) Consiglio e cooperazione del Comando Divisione per garantire che i reparti officina vengano dislocati ed utilizzati in relazione alla situazione tattica, alle loro capacità, alle loro previste possibilità, alla rete stradale della zona (per l'attuazione del servizio soccorso e recupero), alla dislocazione dei reparti che essi sono chiamati a servire.

b) Costante vigilanza sui materiali tecnici in distribuzione ai reparti, sia a mezzo ispezioni sia attraverso altri provvedimenti in modo da essere in grado di:

(i) informare il commandante sul grado di efficienza di tutti i materiali tecnici in distribuzione alle Unita della Divisione;

(ii) individuare gli inconvenienti derivanti dal modo che i reparti impiegano e custodiscono i loro materiali tecnici, suggerendo il modo per ovviarli;

(iii) prevedere le neccessità della Divisione per quanto interessa le riparazioni di 2° scaglione, nonchè quelle di 3° e 4° scaglione, predisponendo - per il 2° scaglione - il programma per leriparazioni e l'afflusso dei complessivi necessari per le sostituzioni. Dovrà informare il Comando della Divisione in merito ai veicoli che necessitano di sostituzione perchè dichiarati BLR, ragguagliando nel contempo i suoi superiori tecnici sia delle richieste di complessi inoltrate, sia degli sgomberi su stabilimenti arretrati dei materiali che richiedono riparazioni di 3 e 4 linea;

(iv) Individuare il più sollecitamente possibile i guasti incipienti nei materiali che altrimenti verrebbero alla luce solo al totale inefficienza avvenuta e denunciata.

c) Comando diretto delle due officine divisionali di 2° scaglione (officina mobile e plotone officina- e controllo tecnico dei LADs o altri reparti o distaccamenti di officine di 1° scaglione, in modo da assicurare un piano organico di lavoro in tutta la Divisione. Detto piano deve ispirarsi alle disposizioni di massima diramate dal Ministero della Guerra a mezzo dell'Ufficio Tecnico Coordinatore.

d) Coordinare il ricovero degli autoguasti e altri materia-

5.365

Declassified E.O. 12065 Section 3-402/NNDC No. 785020

zione del servizio soccorso e recupero), alla dislocazione dei reparti che essi sono chiamati a servire.

b) Costante vigilanza sui materiali tecnici in distribuzione ai reparti, sia a mezzo ispezioni sia attraverso altri provvedimenti in modo da essere in grado di:

(i) informare il commandante sul grado di efficienza di tutti i materiali tecnici in distribuzione alle Unita della Divisione;

(ii) individuare gli inconvenienti derivanti dal modo che i reparti impiegano e custodiscono i loro materiali tecnici, suggerendo il modo per ovviarli;

(iii) prevedere le neccessità della Divisione per quanto interessa le riparazioni di 2° scaglione, nonchè quelle di 3° e 4° scaglione, predisponendo - per il 2° scaglione - il programma per leriparazioni e l'afflusso dei complessivi necessari per le sostituzioni. Dovrà informare il Comando della Divisione in merito ai veicoli che necessitano di sostituzione perchè dichiarati BLR, ragguagliando nel contempo i suoi superiori tecnici sia delle richieste di complessi inoltrate, sia degli sgomberi su stabilimenti arretrati dei materiali che richiedono riparazioni di 3 e 4 linea;

(iv) Individuare il più sollecitamente possibile i guasti incipienti nei materiali che altrimenti verrebbero alla luce solo al totale inefficienza avvenuta e denunciata.

c) Comando diretto delle due officine divisionali di 2° scaglione (officina mobile e plotone officina- e controllo tecnico dei LADs o altri reparti o distaccamenti di officine di 1° scaglione, in modo da assicurare un piano organico di lavoro in tutta la Divisione. Detto piano deve ispirarsi alle disposizioni di massima diramate dal Ministero della Guerra a mezzo dell'Ufficio Tecnico Coordinatore.

d) Coordinare il ricovero degli autoguasti e altri materiali abbisognevoli di riparazione nelle officine divisionali. Mantenere continuo contatto con i propri superiori tecnici in merito all'ordinamento degli sgomberi in modo che questi possano intervenire tempestivamente (sollevandolo, così, dalle sue responsabilità) sia rinforzando l'organizzazione divisionale, sia dettando norme aggiuntive per lo sgombero sugli stabilimenti arretrati di 3 e 4 linea.-

e) Ricercare, per quanto lo consente i mezzi a sua disposizione, i difetti che eventualmente si manifestassero nei materiali, segnalandoli sollecitamente alle Autorità Tecniche Superiori accompagnati da eventuali concrete proposte per ovviarli;

Reg 25/7/46 2/.....

5,665

Declassified E.O. 12065 Section 3-402/NNDC No. 78020

f)-Soprintendere su tutti i reparti officina esistenti nella Divisione compresi i trasferimenti, le promozioni e le attribuzioni delle cariche al personale operaio, nei limiti fissati dalle autorità superiori.

g) Controllo tecnico su servizio degli ufficiali addetti ai trasporti (MTO) i quali - a loro volta - devono essere i consiglieri tecnici dei comandanti delle rispettive Unità per quanto interessa la manutenzione e buona conservazione degli automezzi e degli altri materiali. Sotto tale riguardo l'ufficiale M.T. - nell'ambito della sua attività di Reparto - ha le attribuzioni tecniche del CME.

3. In generale il CME deve fare quanto è in suo potere per migliorare le condizioni meccaniche dei materiali tecnici della sua unità sia mantenendosi costantemente informato sul loro grado di efficienza, sia fornendo consigli tecnici sull'impiego e manutenzione, sia - infine- predisponendo un efficace servizio di soccorso e riparazione. Il suo consiglio tecnico deve essere sempre a disposizione del Comandante e deve ispirarsi alle disposizioni di massima dettate dai suoi superiori tecnici.-

4. Deve raccogliere e tenere aggiornate le informazioni che gli consentono di avere, in qualsiasi momento, un quadro esatto e chiaro dell'efficienza meccanica della Divisione di cui è direttamente responsabile.

==========

5804

Declassified E.O. 12065 Section 3-402/NNDC No. 785020

13 (59)

Reme.

GENERAL HEADQUARTERS
CENTRAL MEDITERRANEAN FORCE
REME

Subject: E.M.E.R. Binders. FREEDOM 506

pee 13

ME/33/3501

To: List "F". 13 July '46.

1. A large supply of binders for War Office E.M.E.R.s is now available for distribution at this Directorate.

2. Will you please submit demands for these as soon as possible.

J.S. MITCHELL, Major,
DADME,
for Brigadier,
Director of Mechanical Engineering.

Copy to: H.Q., R.A.C.
Art. Branch
H.Q. Infantry
Engineer Branch
Signals Section
Ordnance.

It is requested that units under your command be advised of the availability of these.

3 RLU
1 RLU
10 RLU
12 RLU
6 RLU
4 RLU
5 RLU

RECEIVED 18 JUL 1946

5803

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

1. A large supply of binders for War Office E.M.E.P.s is now available for distribution at this Directorate.

2. Will you please submit demands for these as soon as possible.

J.B. MITCHELL, Major,
DADME,
for Brigadier,
Director of Mechanical Engineering.

Copy to: H.Q., R.A.C.
Art. Branch
H.Q. Infantry
Engineer Branch
Signals Section
Ordnance.

It is requested that units under your command be advised of the availability of these.

3 GLU
1 GLU
10 GLU
12 GLU
6 GLU
4 GLU
5 GLU

10 -
12 -
6 -
0 -
0 -
15
12.
55 -

RECEIVED 18 JUL 1946

5803

Regd.
19 July

Declassified E.O. 12065 Section 3-402/NNDG NO. 785020

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

Subject:- 'E.M.E.R.E.' Tech: Instructions

SC, REME.
7 British Liaison Unit
c/o 6 B.L.U.
Tele. 217 Area 119
Ref. EME/10/8
15 July 46

To:- A.D.M.E.
H.Q. Land Forces Sub-Com A.C.
M.I.A. Rome

Further to our letter EME/10/7 dated 12 July 46 herewith "Duties of Unit Maintenance Inspectorate" mentioned in Para.2 but not enclosed in our original letter.

P.H. Nelson SC. REME.

RECEIVED 17 JUL 1946

APPENDIX " A "

GUIDE FOR UNIT OFFICERS INSPECTING VEHICLE MAINTENANCE

(1) CAB

Examine inside of cab for cleanliness of windows, floors, seats, etc. See if everything is in order, no tools, bits of dirty waste, magazines, etc. lying around in cab. - Task 14.

Inspect A.B. 412 for :-

(a) - Officers' signature in appropriate places.
(b) - Oil changes.
(c) - Oil & Petrol receipts shown.
(d) - Accumulated mileage shown (if speedo u/s approx. mileage)

This casual inspection will give a good idea of the driver's character and habits. A good driver will keep his cab neat and clean.

(2) FRONT SPRINGS & SHOCK ABSORBERS

(a) Check for proper lubrication. (Clean fresh C.600 oil should show around spring shackle). (All chassis lubrication fittings should be clean and should always be wiped off before and after lubrication). See that shackle bolts, U bolts and spring clips are tight and that the springs have not shifted on their mountings. Springs break much more easily when the U bolts are allowed to become loose.- Task 13.

(b) Check front shock absorber linkage for lubrication.- Task 13.

(3) FRONT AXLE ASSEMBLY

(a) Check for oil leaks at wheels, steering ends and differentials. Steering and knuckle joints should be kept shiny, free from rust, dirt etc. - Task 12.

(b) Check front tyres for excessive wear, cuts, pressures etc. If badly cupped, check driver for improper use of four-wheeled drive or misalignment of steering. NOTE - Tyre damage due to improper use of four wheel drive is appalling. Four wheel drive should only be used when negotiating very bad terrain which cannot be traversed in two-wheel drive. On approaching bad conditions, engage the front wheels immediately. Do not under any circumstances use four-wheeled drive on hard grounds, roads or highways. No vehicle should be driven faster than 6 to 8 M.P.H. in four-wheeled drive except in an emergency. - Task 16.

(4) STEERING

(a) Check tie rods for bends and proper lubrication. A bent tie rod causes faulty steering and excessive tyre wear.

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(b) - Oil changes.
(c) - Oil & Petrol receipts shown.
(d) - Accumulated mileage shown (if speedo u/s approx. mileage)

This casual inspection will give a good idea of the driver's character and habits. A good driver will keep his cab neat and clean.

(2) FRONT SPRINGS & SHOCK ABSORBERS

(a) Check for proper lubrication. (Clean fresh C.600 oil should show around spring shackle). (All chassis lubrication fittings should be clean and should always be wiped off before and after lubrication). See that shackle bolts, U bolts and spring clips are tight and that the springs have not shifted on their mountings. Springs break much more easily when the U bolts are allowed to become loose.- Task 13.

(b) Check front shock absorber linkage for lubrication.- Task 13.

(3) FRONT AXLE ASSEMBLY

(a) Check for oil leaks at wheels, steering ends and differentials. Steering and knuckle joints should be kept shiny, free from rust, dirt etc. - Task 12.

(b) Check front tyres for excessive wear, cuts, pressures etc. If badly cupped, check driver for improper use of four-wheeled drive or misalignment of steering. NOTE - Tyre damage due to improper use of four wheel drive is appalling. Four wheel drive should only be used when negotiating very bad terrain which cannot be traversed in two-wheel drive. On approaching bad conditions, engage the front wheels immediately. Do not under any circumstances use four-wheeled drive on hard grounds, roads or highways. No vehicle should be driven faster than 6 to 8 M.P.H. in four-wheeled drive except in an emergency. - Task 16.

(4) STEERING

(a) Check tie rods for bends and proper lubrication. A bent tie rod causes faulty steering and excessive tyre wear.

(b) Have the driver move the steering wheel backwards and forwards. that the steering box is not loose where it fastens to the frame. Check tie connecting linkage for looseness and proper lubrication.

(c) Check flexible tubes leading to the front brakes for chafing and ensure that they are held clear of any metal contact, by the retaining springs. Task 8.

(5) ENGINE

(a) Check for general cleanliness of engine.

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

(b) Spark Plug wires and porcelain free of oiland dirt } Tasks
(c) All visible wiring connections tight and clean. } 6 &7

(d) Check oil bath air cleaner to see that oil is clean and at the proper level.(Very important under dusty conditions.Task 5.

(e)Check fan belt tension, The correct tension being 1" free movement midway between the pulleys,using the thumb and first finger. - Task 3 .

(f) Check cooling fluid level in radiator,all hose connections and radiator assembly for leaks.If this inspection is made during the winter months,check anti-freeze to determine if itis sufficiently strong to resist freezing.The strength varies according to the locality. - Task 3.

(g) Have driver start motor and check for any irregularities, such as knocks,uneven running,etc. - Task 1 & 4

(h) Check engine oil level -Task 2.

(i) Check last oil change in A.B. 412.- Task 2.

(j) Check joints and pipes for leaks. - Task 2.

(6) BRAKES.

(a) Check assembly for tightness.

(b) Checkfoot pedal for clearance.

(c) Check hand brakes for correct adjustment.

(d) Check Master Cylinder level. Task 15

(e) Check Master Cylinder for leaks.

(f) Check pipes and unions for leaks.

(g) Check shafts and linkage for lubrication.

(7) TRANSMISSION-CLUTCH-GEAR BOX-TRANSFER CASE-TRANSMISSION SHAFTS & JOINTS.

(a) Check clutch assembly and mounting for tightness.

(b) Check clutch pedal for movement.(1" travel)

(c) Check gear box and transfer case assembly and mounting for tightness.

(d) Check gear box and transfer case joints for leaks.

(e) Check Gear Box,transfer case bearings for leaks and wear.

(f) Check Gear Box,tranfer case oil levels. - Task 11.

(g) Check transmission shafts and joints for wear and lubrication.

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(g) Have driver start motor and check for any irregularities, such as knocks, uneven running, etc. - Task 1 & 4

(h) Check engine oil level -Task 2.

(i) Check last oil change in A.B. 412.- Task 2.

(j) Check joints and pipes for leaks. - Task 2.

(6) BRAKES.

(a) Check assembly for tightness.

(b) Checkfoot pedal for clearance.

(c) Check hand brakes for correct adjustment.

(d) Check Master Cylinder level. Task 15

(e) Check Master Cylinder for leaks.

(f) Check pipes and unions for leaks.

(g) Check shafts and linkage for lubrication.

(7) TRANSMISSION-CLUTCH-GEAR BOX-TRANSFER CASE-TRANSMISSION SHAFTS & JOINTS.

(a) Check clutch assembly and mounting for tightness.

(b) Check clutch pedal for movement.(1" travel)

(c) Check gear box and transfer case assembly and mounting for tightness.

(d) Check gear box and transfer case joints for leaks.

(e) Check Gear Box, transfer case bearings for leaks and wear.

(f) Check Gear Box, tranfer case oil levels. - Task 11.

5801

(g) Check transmission shafts and joints for wear and lubrication.

(h) Check nuts and bolts on universal couplings.

(i) Check universal joints for lubrication(less rubber mounted coupling)

(8) INSTRUMENTS, BATTERY etc.

(a) Check windshield wiper operation.-Task 14.

(b) Check fuel gauges, oilgauges, temperature gauge, ammeter or

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battery indicator gauge. - Task 10.

(c) Check horn operation.-Task 10.

(d) Stop motor,check all lights,directing the driver manipulate switches at your order.-Task 10.

(e) Check battery for general cleanliness,See that the terminals are clean and tight and smeared with vaseline or lanoline,or kept dry to prevent corrosion. Remove cell caps and check level of electroly (should be approx. ½ above plates.) Task 9.

(f) Check battery hold down clamp to see the battery is held secure in its mountings.-Task 9.

(9) REAR AXLES - REAR SPRINGS AND SHOCK ABSORBERS.

(a) Check rear springs for proper lubrication,also see that U bolts. shackles and spring clips are tight. - Task 13.

(b) Check rear shock absorber linkage for lubrication. -Task 13

(c) Check rear differential for leaks. - Task 12.

(d) Check rear tyres for cuts, and proper pressure.-Task 16

(10) MISCELLANEOUS. - These items to be checked at opportune moments during the inspection.

(a) Check tool compartment for neatness and condition of tools. (Task 14)

(b) Check general cleanliness of exterior of vehicle.

(c) Check tarpaulins for tears and superstructure for breaks. Task 16.

(d) Check underneath vehicle for leaks from fuel lines etc. (Task 12 & 4.)

(e) Check door catches, striker plates, dove tails hinges etc. for tightness,operating efficiency and lubrication. - Task 14.

5800

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

REME

(57)

REME Incr. 7 B.L.U.
c/o 6 B.L.U.

Telephone. 217 Area 119

Reference:- EME/10/7
Date:- 12 July 46.

Subject:- E.M.E.Rs. & Tech. Instructions.

To:- A.D.M.E.,
HQ Land Forces Sub-Comm. A.C.
ROME.

1. With reference to the draft E.M.E.Rs. issued to the Italian M. of W. by your office.

2. It is considered that the instructions on "Duties of Unit Maintenance Inspectorate" should be given more emphasis as Maintenance has always been the principal deciding factor between efficient and inefficient Italian Units.

3. We attach an extract from a "B" Veh. Inspectorate Directive issued by this Office whilst with the Legnano Div. and it is suggested that the inclusion of some of this extract would add emphasis to the close connection between Maintenance and Repair.

It would also be of considerable assistance to the Divisional Wksps. who are at present crippled by large repair loads that are entirely due to the low standard of Unit Maintenance.

4. We are also enclosing a copy of the 'Guide for Unit Officers Insp. Veh. Maintenance' which may be of use to your office.

RECEIVED 14 JUL 1946 9970

W. Nelson Captain.
SC. R.E.M.E.

Field.

1971

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

EXTRACT.

Foreword.

1. M.T. Inspection is vitally important part of M.T. Maintentnce. It aims at keeping continuosly the largest number of vehicles fit for work and reducing inefficiency to a minimum by the prevention of serious defects. It works hand in hand with the Wksps. Staff, without whose co-operation an inspection becomes nothing but an academic report. Its object is help, not interference and its results are:-

(a) Immediate rectification of minor defects.

(b) Prevention of serious defects.

(c) Reduction of the Divisional Repair Load and prevention of overloadingof the Divisional Repair System.

(d) An elimination of wastage of M.T. Spares.

2. The basis of M.T. Inspection - apart from the fundamental truth that "Cleanliness is next to efficiency" - is :-

(a) Each driver is the primary inspector of his vehicle and such inspections as he carries out are supplemented by periodical inspections by more skilled personnel.

(b) The less skilled inspector must be present at the inspection carried out by the more skilled inspector and so learn by observation or inquiry more about his work and receive training to fit him for his duties on promotion. At the same time the more skilled inspector receives equal benefit, for every man learns more from trying to teach others than he does from trying to teach himself.

3798

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

LRCF V HEBY UR Ø3Ø2Ø3
FROM 10 DEPT)LIAISON UNIT Ø51530
TO A D M E HQ M M L A ROME
3R - BT
2 RENR. U/C. 155
REF YOUR RE/13/55 DATED 2 JULY.
CONTACTD CAPT. BISHOP. COLLECTING TOUCH[illegible] INFORM
WHEN DESPATCHING
BT
W A WILL READ INFORM
W B CAPT. READ CONTACTED
SENT VIII AR K
RD FEIA 1547 BE

Spoke Capt Knight personally on telephone 9/4/46 - despatched to Rome on 11th in diplomatic pouch

RECEIVED 15 JUL. 1946
2592

M.M.I.A.
805797
SIGNALS

Rec'd July

4558

Roll B 156

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

0 0 File 55

R.M.I.A.

10 ZULU

MR/13/55

FOR ROSE (.) MAJOR MITCHELL OF CSS AIWINGS CAPT REDUP 750 MADE MOSPS HOLDS TO ROSES OF TECHNICAL TYPE FOR MEA. (.) PLEASE GUIDANCE HOLD AND INSTANCE BY SUBMARINE VESSELS TO THIS OFFICER (.) ACK

ROSEBUD
R.E.M.E.

A. HUNT LT.GEN.

E. C.

Regd 31st July

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

54

SUBJECT :- Death Index.

Land Forces Sub Comm. A.C.
(M.M.I.A.) R O M E.
MMI/13/54.

29 June 45

To :- Major CEALANO,
c/o 3 ELU.

1. Returned herewith with thanks is your copy of " Norme per il funzionamento del Servizio Soccorso e Rimpatrio ".

2. This has been read and although it could perhaps be shortened a little, it is probable necessary at first to give a full explanation of the duties of the persons concerned.

3. Some written comments have been made opposite pages 3, 6, and 14.

AB/ag

Lt. Col. A.D.M.I.

AB

File 5795

Regd. 2nd. July

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

(53)

TRANSLATION

From: "Legnano" Inf.Div. HQ Ref: 07/3467
To : AMMI-AMIA Date: 9/6/46

Subject: ~~MMR~~. -

1 - ~~RMMC~~ branch has not sent any ~~MMR~~ to me for quite some time because - as I was told - these are sent to M.of W. -

2 - The difficulty encountered for the translation of technical pamphlets is well known. Therefore, I think that it would be very useful that a copy be forwarded to me in order that it be translated and issued. It would be advisable that the ~~MMRs~~ concerning us, bear a special mark so that I may notice it. Hence my task would be easier, because I could set aside those which do not concern me and hence, avoid useless translations.

3 - I take this opportunity to point out that I am in urgent need of the following ~~MMRs~~: A 520/2 - A 520 and A 572 - A 890 - E 050 - I 900 of 1943. -

No

G.F.

sgd.. Catalano
Maj.

S/C Have we got these? ab
Sir/ one copy only of A520 A520/2 A572
BLCh 29/6

5794
June.

COMANDO DIVISIONE DI FANTERIA "LEGNANO"
- Ufficio Automobilistico -

^^^^^^^^^

Rome.

n.37/3484 di prot. Bergamo, 9 giugno 1946

Oggetto: EMTR

ARMY H.Q. ITALAND. FORCES SUB COMMISSION AC - (M.M.I.A.) = R o m a =

^^^^^^^^^^^^^^^^^

1.- Da tempo mi è stato sospeso lo invio da parte del ARMY BRANCH degli EMTR, perchè - a quanto mi è stato riferito - essi vengono trasmessi al Ministero della Guerra.

2.- E' nota la difficoltà che si incontra per la traduzione di pubblicazioni a carattere tecnico. Perciò penso che sarebbe molto utile che una copia di essi mi venisse trasmessa per la conseguente traduzione e diramazione.-
Sarebbe opportuno che gli EMTR, che interessano recassero un segno particolare allo scopo di richiamare su di essi la mia attenzione. Mi risulterebbe, così, facilitato il compito, evitandomi la traduzione di quelli che non mi interessano.-

3.- Con l'occasione segnalo che ho urgente bisogno dei seguenti EMTRs: A 820/2 - A 820 e A 872 - A 890 - E 890 - I 900 del 1943.

IL MAGGIORE CAPO UFFICIO AUTO
- Pietro Catalano -

DIVISIONE FANTERIA "LEGNANO" * COMANDO *

Translation
Priority 2.
Echocteridge Capt
22/6

TR...
1230
Date 22/6
22
1430

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

A.M.F. H.Q. LAND. FORCES SUB COMMISSION AC - (M.M.I.A.) = R o m a =

1.- Da tempo mi è stato sospeso lo invio da parte del REMF BRANCH degli MMTR, perchè - a quanto mi è stato riferito - essi vengono trasmessi al Ministero della Guerra.

2.- E' nota la difficoltà che si incontra per la traduzione di pubblicazioni a carattere tecnico. Perciò penso che sarebbe molto utile che una copia di essi mi venisse trasmessa per la conseguente traduzione e diramazione.-
Sarebbe opportuno che gli MMTR, che interessano recassero un segno particolare allo scopo di richiamare su di essi la mia attenzione. Mi risulterebbe, così, facilitato il compito, evitandomi la traduzione di quelli che non mi interessano.-

3.- Con l'occasione segnalo che ho urgente bisogno dei seguenti MMTRs: A 520/2 - A 520 e A 572 - A 890 - E 090 - I 900 del 1943.

IL MAGGIORE CAPO UFFICIO AUTO
- Pietro Catalano -

DIVISIONE FANTERIA "LEGNANO" * COMANDO *

Translation
Priority 2
Stekhouskridge Capt
22/6

TRANSMISSION
IN 1250 Date 22/6 5793
22
OUT 1430 25/6

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

'Phone:- GRAZ 83097-8-(95)

Subject:- Workshops Manuals.

Reme
Headquarters,
500 A.O.D.
HQ/1145
16 June, 46

(52)

A.D.H.E.
Land Forces Sub Comm, A.C.
(M.M.I.A.) Rome

Copy to:- O.O. 3 Sub Depot 500 A.O.D. (your 3 SD/P/15 of 4 June, 46 refers).

(9)

1. Reference your HQ/13 dated 21 Mar., 46 recently forwarded to this installation.

2. It is pointed out that this installation was not responsible for supply of Publications until 1 Apr., 46 and, in view of the time elapsed since the original despatch of your above quoted letter will you confirm that publications enumerated therein are still in fact required.

5792

RECEIVED 24 JUN 1946 DATE.
9.064

Lt. Col.
For Colonel.
Chief Ordnance Officer.

Rec'd. 24 June

77

B.3.B/MO.

Declassified E.O. 12065 Section 3-402/NNDG NO. 785020

(S1)

A D V I C E
~~XXXXXXXXXXXXXX~~ N O T E

15 GHQ/ 1557/160

Date / 12/6/1946

PUBLICATIONS

Reference your ME/13/38 dated 10/5/46

~~XXXXXXXXXXXXX

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

ME/13/39 10.5.46 NORMAL. ORD.TECH.PUBS. ISSUE 29.5.46 PUBS/1

3. SUB DEPOT 500 A.O.O.

AND

LAND FORCES SUB COM. A.C. (M.M.I.A.) ROME

AUTHY:- LETTER REF ME/13/38 DATED 10.5.46

PUBS.

DATA BOOKS

ENGINE OVERHAUL	79/54	1	—		
ENGINE BUILD-UP	81/49	1	1	—	PUBS/M/10060
~~UNIT REPLACEMENT AND REPAIR~~	~~ZB ORD.M5~~				
~~TIME GUIDE FOR WHEELED VEHICLES~~		→	EXTD TO PUBS		1 PKG

WT

TO FOLLOWS TO BE MAINTAINED FOR 10 WEEKS

2730

RF/

RECEIVED 11 JUN 1946

Rec 12/6/46

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

VOUCHER FOR STORES

ISSUED BY THE O.O.D.

Rome

(50)

46 NORMAL. ORD.TECH.PUBS. ISSUE 29.5.46 PUBS/IV/00600

3. SUB DEPOT 500 A.O.D.

AND

RCE3 SUB COM. A.C. (M.M.I.A.) ROME

ME/13/36 DATED 10.5.46

PUBS.

79/34	1	—	1	PUBS/IV/00600
81/49	1	1	—	
~~ZB ORD/MS~~				
~~NEW REPAIR~~		→	EXT TO 10 PUBS	1 PKGE
~~SLED VEHICLES~~				WT 1½ lbs

TO FOLLOWS TO BE MAINTAINED FOR 10 WEEKS

0073

RECEIVED 11 JUN 1946

8114

R & 12/6/46

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

ME/13/40 13.5.46 NORMAL ORD.TECH.PUBS. ISSUE 23.5.46 PUBS/IV

3. SUB DEPOT, 500 A.O.D.

AND

O.C. ADME. MMIA

AUTHY:- LETTER REF ME/13/40 DATED 13.5.46

PUBS.

SPARE PART LISTS STAGHOUND ARMD CAR CLASS I (M6)	2	
WORKSHOP MANUAL STAGHOUND ARMD CAR CLASS I (M6)	2	

4/B SUPPLEMENT STAGHOUND

TO FOLLOWS TO BE MAINTAINED FOR 10 WEEKS

RF/

RECEIVED 11 JUN 1946 9110

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

(49)

.5.46 NORMAL ORD.TECH.PUBS. ISSUE 23.5.46 PUBS/IV/00524

3. SUB DEPOT, 500 A.O.D.

AND

O.C. ADME. MMIA

REF ME/13/40 DATED 13.5.46

Rome.

PUBS.

PUBS/IV/00524

TS

CAR CLASS I (MG) 2

L

CAR CLASS I (MG) 2

1 PAGE

MENT SPARSHOUND

TO FOLLOWS TO BE MAINTAINED FOR 10 WEEKS

8273 WT. 11 Lds.
Regd. 11 June.

RECEIVED 11 JUN 1946 AHC

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

Accountant's No. & Date: 21/3/46 ME/13 | Normal or Special | Degree of Urgency | Issuing Depot: 10 PUBLICATIONS DEPOT C/O 15 G.H.Q. PUBLICATIONS DEPOT C.M.F. | Control No. and Date

Voucher to: AND | Address for Stores: LAND FORCES SUB-COMM. A.C. (M.M.I.A.) ROME

Authority: LETTER REF ME/13 DATED 21.3.46

No. of Sheets: Sheet No.:

Cat. or Part No.	Designation	Size and Fitting	Quantity Required	Rate
Section: PUBLICATIONS				
	INSTRUCTION BOOKS			
	TRAILERS 10 CWT 2 WHLD G.S.		6	
	" 15 " 2 " "		6	
	" 15 " 2 " WATER		6	
	" 7½ TON 6 " LT. RECOVERY		6	

RECEIVED 11 JUN 1946

F.P.O. R.A.O.C. 5 JUN 1946 1030 STORES

O. I/C PUBLICATION
No. 3 Sub Depot
500 A.C.D.
RF/

FOR YOUR INFORMATION

Approved

Wt. 24550/1658 25M 9/42 N.A. & Co. Ltd. 51-5424 Forms/G975/2

Army Form G975
(Pads of 200)

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Voucher to AND Address for Stores: LAND, FORCES, SUB COM, AC (M.M.I.A.) ROME. ✓

Authority: LETTER REF:- ME/13/38 DATED 10.5.46

No. of Sheets .....
Sheet No. .....

Cat. or Part No.	Section / Designation	Size and Fitting	Quantity Required	Rate	
	PUBLICATIONS. (38)				
TB,ORD,M3	UNIT REPLACEMENT AND REPAIR TIME GUIDE WHEELED VEHICLES.		1		
			Rome.		
					5787

O. i/c PROVISION
No. 3 Sub Depot
500 A.O.D.
DF/

For your attention

Ward Cpl

3/6/46

Paid Mus.

Approved

Wt. 24350/1668 25M 9/42 N.A. & Co. Ltd. 51-5424 Forms/G975/12

Army Form G975
(Pads of 200)

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

Reme
46

GENERAL HEADQUARTERS
CENTRAL MEDITERRANEAN FORCE
REME

FREEDOM 506
MF/34/4461.
23 May 46.

Subject:- E.M.E.R's.

To:-

DDME,	BTA	-	3
"	13 Corps	-	2
"	3 District	-	1
CEME,	760 Base Wksps	-	1
CREME,	78 Div	-	2
"	46 Div	-	2
"	56 Div	-	2
"	6 Armd Div	-	2
ADME,	MMLA	-	1
"	26 EDU.	-	1

RECEIVED 27 MAY 1946 7346

1. We have despatched to you to-day under separate cover sets of War Office EMERs, as complete as possible, for your information and distribution as necessary.

2. Your attention is drawn to previous instructions in that only those EMERs notified in the 'Monthly Index to EMERs Issued' are applicable in this Theatre.

5786

J.B. MITCHELL, Major,
DAME,
for Brigadier,
Director of Mechanical Engineering.

Ley
24 May

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

(13) (45)

SUBJECT :- Maintenance Handbooks.

ST/1001

23rd May 46

Land Forces Sub Comm. A.C. (MMIA)
ROME
Tel : Rome 489031 Ext. 526

To :- 11 B.L.U.

Further to this office letter to S.H.A.E. under above reference dated 11 April, copy of which was sent to you, this Branch has to-day been informed by the Ministry of War that further copies of the booklet " Inspection, Maintenance and Care of Army Vehicles (Wheeled) " are being printed and, as soon as available, will be distributed to 11 Territorial Command.

AIL/ag

Lt. Col. ADST.,
Land Forces Sub Comm. A.C. (M.M.I.A.)

INTERNAL :- REME.

5785

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

GENERAL HEADQUARTERS
CENTRAL MEDITERRANEAN FORCE
REME

FREEDOM 506

ME/3B/3880

21 May 46.

Subject:- Publications.

To:- ADME, Land Forces Sub Comm AC, (MMIA) Rome.

Reference conversation Franklyn - Mitchell.

1. Herewith as requested, please find 36 copies of the booklet "Inspection & Maintenance of Pneumatic Tyres".

5784

J.B. MITCHELL, Major,
DADME,
for Brigadier,
Director of Mechanical Engineering.

ENCL:

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

(43)

SUBJECT : REME Regts.

TO : DAD/REME
12 ELU

Land Forces Sub Comm.A.C.
(M.M.I.A.) R O M E
ME/13/43
21st May 1946

Reference your letter REME/ -- dated 19 April '46

1. Herewith one copy of all available EMERs appertaining to Staghound Armoured Cars Class I (M6).

2. Copies of Parts Lists and Wksp. Manual are on demand from 3 Sub. Depot. 500 A.O.D. and will be forwarded when available.

H Knockpudel Capt.
for LT. Col. ADME.

5783
22 May

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

(42) REME

GENERAL HEADQUARTERS
CENTRAL MEDITERRANEAN FORCE
REME

RECEIVED 708 5 21 MAY 1946

FREEDOM 506

ME/3A/4461

15 May 46.

Subject:- Staghound Armd Car.

To:- ADME, Land Forces Sub Comm A.C.
(MMIA) Rome.

Reference your ME/13/39 dated 13 May 46.

1. Enclosed herewith is one copy of all available DME War Office Modification Circulars, Technical Instructions and GHQ Local EMEIs, applicable to the Staghound Armoured Car.

2. It should be noted that this equipment is no longer operational in respect of the British Army in CMF, and no modifications are now being carried out on the vehicle in this theatre.

3. It is presumed that in the event of your intention to implement any of the modifications requiring special stores, you will make the necessary arrangements for provision through your Ordnance channels.

J.B. MITCHELL, Major,
DADME,
for Brigadier,
Director of Mechanical Engineering.

5782

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

Reme. (4)

GENERAL HEADQUARTERS
CENTRAL MEDITERRANEAN FORCES
REME

FREEDOM 506

Subject:- Technical Publications. ME/3B/3800

To:- CEME, 750 Base Workshops REME. 14 May 46.

1. It is felt that much of the technical data which will be available from your Workshops on disbandment, will be of use, either to this Directorate or, to other REME formations.

2. Will you therefore forward all data regarding workshop procedure, special tools, workshop drawings etc. to this Directorate, where it will be examined and distributed as necessary.

3. All 'B' vehicle manufacturers' Service Instruction Books, Maintenance Manuals and Parts Lists will be packed in cases and addressed to AEME Land Forces Sub Comm (MMIA) Rome, and this Directorate will be notified by telephone on completion, so that arrangements can be made for collection.

J.B. MITCHELL, Major,
AAEME,
for Brigadier,
Director of Mechanical Engineering.

RECEIVED 6897 16 MAY 1946

Copy to:- AEME, Land Forces Sub Comm
(MMIA) Rome.

5781

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

(40)

Subject:- Publications

Land Forces Sub Comm., A.C.,
(M.M.I.A.) ROME.

MF/13/40

13 May 1946

Ordnance Technical Publications,
c/o 3 Sub-Depot,
500 A.O.D.,
B.T.A.

1. Very arrangements please be made to supply this office with two copies of the parts list and two copies of the Workshop Manual for the Staghound Armoured Car Class 1 (M6).

Capt.,
For Lt.Col.,
A.D.M.E.,
M.M.I.A.

57cc

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

(39)

Subject:- E.M.E.R.s & F.M.E.I.s

Land Forces Sub. Comm., A.C.,
(M.M.I.A.) ROME.

ME/13/39

13 May 1946

D.M.E.,
G.H.Q.

May arrangements please be made to supply this office with all E.M.E.R.s and F.M.E.I.s appertaining to the Staghound Armoured Cars Class 1 (M6).

Lt. Col.,
A.D.M.E.,
M.M.I.A.

5713

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

(38)

Subject:- Publications

Land Forces Sub Comn. A.C.,
(M.M.I.A.) R O M E .

MM/13/38

10 May 1946

Ordnance Technical Publications,
c/o 3 Sub-Depot,
500 A.O.D.,
B.T.A.

1. Will you please forward the following publications:-

	Publication No.	Publication
(a)	79/54	Engine overhaul data book (56)
(b)	81/49	Engine Build-up data book (56)
(c)	TB.ORD.173	Unit replacement and repair time guide for wheeled vehicles (See 47)
(d)	Not Known	Repair of ME Sub-Assemblies and components by Civilian Contractors in UK

2. Will you also please forward any other data in your possession, for the "Repair and Replacement of Engines, and other Assemblies for 'A' and 'B' Vehicles".

H.C.R.

Lt. Col.,
A.D.M.E.,
M.M.I.A.

5778

Copy to:- D.M.E., G.H.Q.

See 1 dated 47
57

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

RECEIVED 1878 4 MAY 1946

RE: 1E. MMIA

KR
LRKB V EAV NR 32010
FROM E M E 1 B L U 020930B
TO A D M E H M M I A
GR -- BT
EME/36/38 U/C. REF YOUR SIGNAL ME 13/36.
IN FXX CONFIRMATIIO/// CONFIRMATION OF CAONVERSATION IN YOUR OFFICE
ON 12 APRIL . EMER'S ARE NOT REPEAT NOT BEING RECEIVED BY THIS OFFICE
FROM ANY SOURCE .
BT
SENT N 32010 AT 031759 LNS BBB K
RD 031759B FB B

N54/03

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

KMIA 29 1520 B

1 BLU

ME/13/36 UNCLASSIFIED

FOR REME (.) REFERENCE OUR SIGNAL ME/13/19 DATED 10 APRIL (.)

HASTEN REPLY (.)

ROUTINE

REME

Capt. MOCKRIDGE A.D.M.E.

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

RECEIVED 29 APR 1946
6003

Subject :- Admin Instructions.

10 British Liaison Unit
Torre del Greco.
Tel. Naples 55802
3 REME

26 Apr 46

7 British Liaison Unit
(for SC REME)
CMF

AIME, Land Forces Sub-Commission, AC.,
MAIA, ROME.

Ref your EME/84/3 dated 18 Apr 46 and your EME/31/13 dated 16 Apr 46.

1. The REME officer for this unit is at present on LIAP and I have not been informed that any instructions would be issued by a SC REME at BOLOGNA.

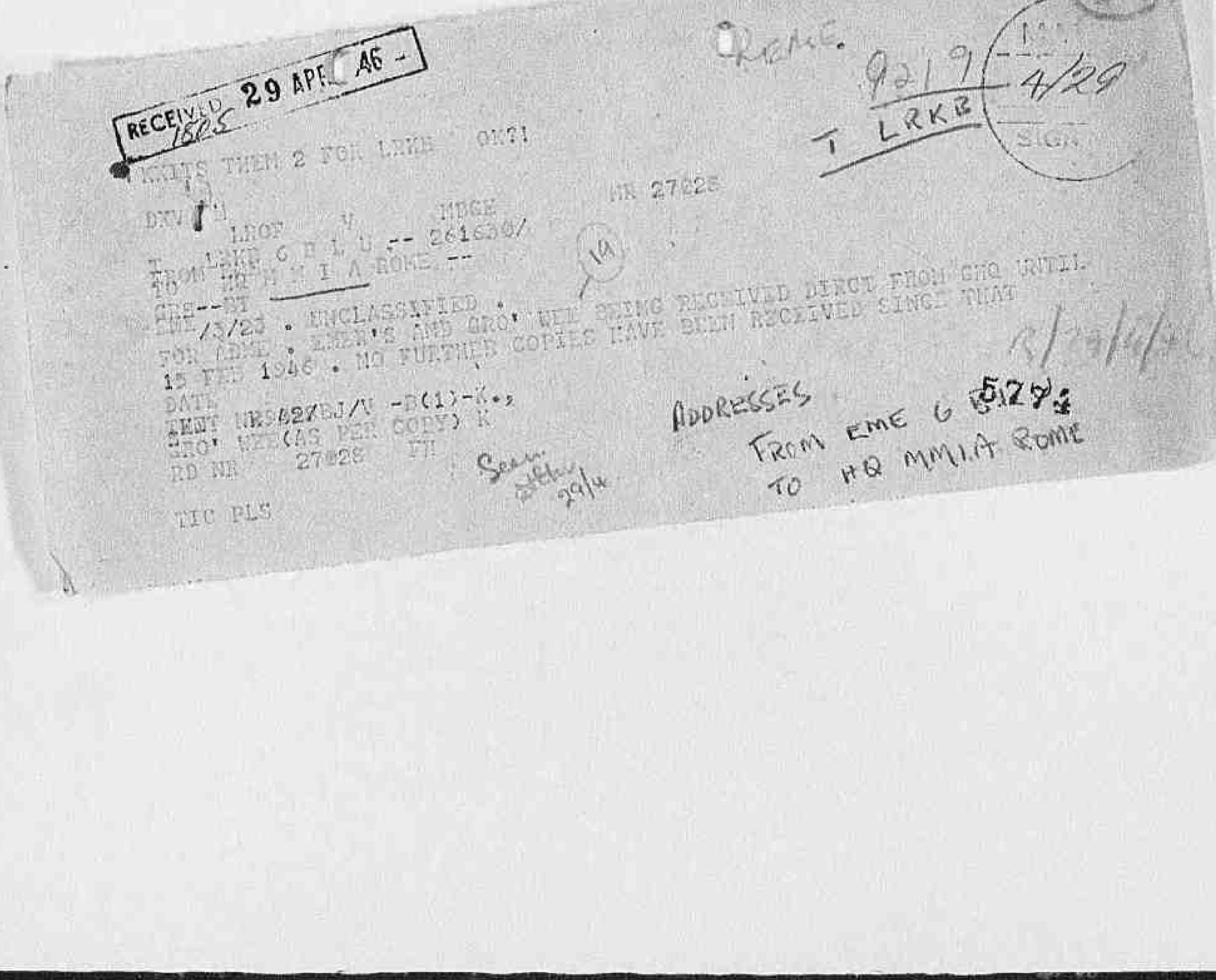
2. May I please be informed of your status in order that I may be able to appreciate the seriousness with which your requests should be treated.

Lt-Col.
GS.

HJOP/bb

5775

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020



RECEIVED 29 APR 46 1605

FROM EME 6

9217 4/29

I LRKB

ADDRESSES

FROM EME 6 5274

TO HQ MMIA Rome

KKHS THEN 2 FOR LRME QUICK

DTG 291605Z

FM LRDP WASH DC

TO LRKB C F I U -- 261630Z

FROM HQ M M I A ROME --

GRE--RT

LRME 13/23 . UNCLASSIFIED .

FOR LRME . LRKB'S AND GRO' WIL SEEING RECEIVED DIRCT FROM GHQ UNTIL

15 FEB 1946 . NO FURTHER COPIES HAVE BEEN RECEIVED SINCE THAT

DATE

SENT WR 27825 -B(1)-K.,

GRO' WIL (AS PER COPY) K

RD NR 27826 FH

TIC PLS

WR 27825

Seen Fletcher 29/4

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

33

GENERAL HEADQUARTERS
CENTRAL MEDITERRANEAN FORCE
REME.

Subject:- E.M.E.Is. ME/S/4451/L.

To:- Admn. 7.4.46.

MMIA.

Ref 14 17 1943

Reference your ME/13. dated 30.3.46.

1. Enclosed herewith please find copies of the ~~Chiefs~~/eM.Is requested by your a/q letter.

2. It is regretted that the following publications are temporarily out of stock but will be forwarded to you immediately they become available.

(14 0 2 C)

5773

H. GOLDING.
Capt,
AIA,
for Major-General,
Director of Mechanical Engineering.

Ref 7/4/46

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

RECEIVED 2 APR 1946

SUBJECT :- E.M.E. Regs.

12 BRITISH LIAISON UNIT
for the
ITALIAN CENTRAL MILITARY SCHOOLS
(Tel : ROME 66318/9)

Ref : REME/

19 April 1946.

To: A.D.M.E.,
Land Forces Sub Comm AC (MMIA).

1. May arrangements please be made to supply this office with all E.M.E.R's appertaining to Staghound Armoured Cars Class I (M6).

2. Also one copy of parts list and one copy of Workshop Manual for this vehicle.

Major REME,
D.A.D.M.E,
12 British Liaison Unit for the
Italian Central Military S chools

ATT/raw

Internal.

File.

5772

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

(31)

REME

Subject :- EMERs.

10 British Liaison Unit
Torre del Greco
Tel. Naples 55802
3 REME

15 Apr 46

Land Forces Sub-Commission, AC.,
MMIA, ROME

(19.)

Ref your ME/13/19 no EMERs are received from any other sources.

for Lt-Col.
GS.

MMD/bb

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

MKTA 19 B

6 ENY

ME/43/39 UNCLASSIFIED

REFERENCE OUR SIGNAL ME/13/19 DATED 10 APRIL (.) PLEASE PASS

ENDZY

EXPEDIANT

A.M. MOORHOUSE Capt.

5

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

RECEIVED 18 APR 1946
5303

(29)

REME.

SUBJECT :- E.M.E.R's.

12 BRITISH LIAISON UNIT
for the
ITALIAN CENTRAL MILITARY SCHOOLS
(Tel : ROME 66318/9)

Ref : XX

16 April 1946.

To: A.D.M.E.,
Land Forces Sub Comm AC (MMIA)

Reference your signal ME/13/19 dated 10 April 1946.

1. Only two EMER's have been received from G.H.Q., R.E.M.E.

2. These are Armament 520 ahd 522 in response to my letter PS/6 dated 21 March 1946. Otherwise your office is the only source.

Arthur G Yeaume.

Major REME,
D.A.D.M.E,
12 British Liaison Unit for the
Italian Central Military Schools

ATT/raw

Internal.

File.

5763

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

0 0 28

SUBJECT:- Publications.

Land Forces Sub Comm.A.C.,
(M.M.I.A.) R O M E
MS/13/28.
17 April 1946

D.A.D.M.E.,
12 B.L.U.

Reference conversation (Maj. TWINE - Capt. MOCKRIDGE) of today.

1. Herewith one copy of Publication "Army Tradesmen - Regulations and Trade Tests 1943" with amendments as received to date.

S/C R.E.M.E.
For Lt.Col.A.D.M.E.
HQ.,M.M.I.A.

B 57088

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

238

PACKING NOTE

15 GHQ/ 105

Date / 8/4/946

PUBLICATIONS

Reference your ME/3/4478 dated 25 March

Herewith PUBLICATIONS requested.

Publications not included are not available. Copies will be forwarded to you as soon as further supplies arrive. No further indent is necessary. Observations as made below should be noted.

5767

Capt., R.A.S.C.
OC 15 GHQ Publications Depot.
Printing Stationery Services.

C.M.F.

OBSERVATIONS

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

GENERAL HEADQUARTERS
CENTRAL MEDITERRANEAN FORCE
REME

Retyped ME/13 21

FREEDOM 522.

ME/3B/3816.

13 Apr 46.

Subject:- Technical Standards.

To:- ADME Land Forces Sub Command AC (MMLA) ROME.

Ref your ME/13 dated 5 April '46.

1. Two copies of all REME Inspectorate Inspection Standards are forwarded as requested.

2. You will be included in the distribution of any future lists which are issued. 5766

RECEIVED 16 APR 1946 5&24 CAIRO

J.B. MITCHELL, Major,
DADME,
for Brigadier,
Director of Mechanical Engineering.

Are there any 'Inspection' of E&M to April

ENC:

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

LROT V MEGE NR 1 41/942
QIM
FROM P E I E G P L U 131200
TO • HQ M H I A •
INFO A D HE /// A D M E MNIA •
GR--- DT

REF YOUR ME/13/19 • UNCLAS S •
REVEIVING EMERS FROM NO OTHER SOURCES •

BT 131200
SET HR Ø42 BM B2 K
RECD AT 1250A JS BE K

MMIA 4/13 SIGNAL

(19) L036

RECEIVED 15-APR 1946

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

24

[illegible]

[illegible]

[illegible]

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

MM.082.1.A

M 6/3

RECEIVED 12 APR 194- 1641

(2.3)

REME.

MMIA 7/12 SIGNALS

LINKLAV MEAV NR65
FROM REME BRANCH M//3 B L U 121030B
TO ADME MMIA ROME
QSK GR.1 9 BT

See 19

ME/MISC/20 • UNCLASS • EMERS COM SOMETIMES RECEIVED IN
REFERENCE YOUR ME/13/1 • QUADRUPLICATE SOMETIMES SINGLY • PRESUME QUADRUPLICATE COPIES
ARE FROM GHQ PUSS
BT 121030B
SENT 1212B AM E1 K

P 1210 ROMERO AR K

M 9/12 R 13-4

12/1,4

5763

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

N62/11

MMIA

Refs

22

LRKS V MEAV NR 112031 IMPORTANT
A/MEBW (NR.14)

FROM [illegible] 4 BLU 111600 B
TO ARMF A////LAND FORCES SUB COMM MMIA ROME
QSH GR 27 BT

4/11 (.) U/C (.) YOUR SIGNAL ME/13/190
OF 10 APRIL NOT UNE////UNS////UNDERSTOOD (.) IT
REFERS TO EMER'S AND NOT EMERGENCIES RECEIVING EMERS
REGULARLY WITHOUT COVERING LETTER OR ORIGINATORS ADDRESS

BT
THI 1825
SENT FJS 1950B (AR) TKS V M K
RD 111953 MEC AS

RECEIVED 16 34 12 APR 16 12

5762

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

21

SUBJECT: Publications.

Land Forces Sub Comm. A.C.,
(M.M.I.A.) R O M E
MR/13/21
12 April 1946

D.A.D.M.E., 12 B.L.U.

Reference recent conversation (Lt.Col. BLUNT - Maj. TWINE).

1. Herewith copy of A.F.V. publication "Vehicle Training Pamphlet - Staghound 1 (M5)" as requested.

5761

Lt. Col.
A.D.M.E.
M.M.I.A.

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

ME/13

SUBJECT :- Maintenance Handbooks.

SE/1001

11 Apr 46

Land Forces Sub Comd A.C. (MEIA)
RCME
Tel : Rhine 1/50031 Ext 526

20

TO : S.M.R.E., Enfield Automobile Engineers.

1. Further to our letter dated 5th April under the above reference, it has now been reported to us by HQ 11 AGD, that units under 11 Territorial Command are not carrying out the Daily Task system on vehicles.

2. The reason for this is stated to be because no copies of the handbook " Inspection, Maintenance and Care of Army Vehicles (wheeled) " are available in the Command.

3. Will you please expedite this matter.

Lt. Col. ADOS.,
Land Forces Sub Comd A.C. (M.E.I.A.).

Copy to :- 11 AGD.

Internal :- RCME.

R
12/4/46

5760

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

EMMIA 10 B

1, 3, 4, 6, 10, 12 BLU's

ME/13/19

UNCLASSIFIED

FOR REME(.) Advise immediately whether receiving EMER's from any source other than this office

IMPORTANT

REME

A.E. MOCKERIDGE Capt.

K
11/4/46

5759

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

(17)

RECEIVED 6 APR 1946 AMB

GENERAL HEADQUARTERS
CENTRAL MEDITERRANEAN FORCE
REME

Reserve MEHQ

REMEDOM 506
ME/3/4461
5 Apr 46

Subject: EMERs

To: ADME MMRA

Reference your ME/13 dated 30 Mar 46.

1. We are forwarding under separate cover two copies of GHQ Local E & ME Instructions, still applicable, covering the following series:

Wheeled Vehicles
Vehicles General
Instruments
Small Arms
Armament
Workshops
General
Telecommunications (Less Radar).

2. No further EMERs will be published in this theatre, as units will in future receive copies of relevant War Office Modification-Technical Circulars and EMERs (GRO 1376/45 refers).

3. It is confirmed that you are on our distribution lists for copies of these War Office publications, issues of which are notified monthly in GROs.

D.M. CAMPBELL. Lt.-Col.,
ADME,
for Brigadier,
Director of Mechanical Engineering.

5258

8/4/46

ME/13

(16)

SUBJECT: Technical Standards.

this enclosed with copy of Mytec 14.

Land Forces Sub Comm.A.C.,
(M.M.I.A.) R O M E.
ME/13
5 April 46

D.M.E.
G.H.Q.

May approval be given please for the issue to this office of REME Inspectorate Inspection Standards concerning the following:-

B vehicles
Engines (B vehs only - plus Staghound, Humber AC Mk.IV, and carriers.)
Armament
Small Arms
B veh assys.

The information contained therein would be most valuable in advising the Italian Army as to the standards to adopt when overhauling the above equipments. Details of their holdings were given in my ME/13 of 2 April and a copy is attached for easy reference.

If approval is granted, may two copies of each of the appropriate documents be supplied, please?

A Blunt
Lt.Col.

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

May approval be given please for the issue to this office of REME Inspectorate Inspection Standards concerning the following:-

B vehicles
Engines (B vehs only - plus Staghound, Humber AC Mk.IV, and carriers.)
Armament
Small Arms
B veh assys.

The information contained therein would be most valuable in advising the Italian Army as to the standards to adopt when overhauling the above equipments. Details of their holdings were given in my ME/13 of 2 April and a copy is attached for easy reference.

If approval is granted, may two copies of each of the appropriate documents be supplied, please?

AB/lv

AB 5757

Lt.Col.
A.D.M.E.
M.M.I.A.

Declassified E.O. 12065 Section 3-402/NNDC No. 785020

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

0

MC/0.

15

Subject :- [redacted]'s etc.

Land Forces Sub Comd, A.C.
(L.F.S.A.) ROME.
22/13
2 April.44.

[redacted]'s. [redacted] RAU's.

It has been ruled that [redacted]'s, [redacted]'s, modification circulars, etc will NOT be issued or sent to the Italian Army through B.L.O channels though there is no objection to vehicle maintenance manuals, catalogues, and workshop manuals being made available to them.

[redacted]'s etc will be "screened" at this office and extracts passed to the Ministry of War (copy to [redacted]'s) for distribution to the Italian units concerned.

[redacted]'s will continue to be distributed to [redacted]'s for the use of [redacted]'s there.

R.P. Blunt
Lt. Col.
A.D.M.T.
L.F.S.A.

AB/mm.

5756

SUBJECT :- Supply of EMER's.

Land Forces Sub Comm, A.C.
(M.M.I.A.) ROME.
ME/13
30 March.46.

D.M.E.
G.H.Q.

It is requested that issue be made to this office of EMER's, EMEI's, and Modification Circulars affecting the equiptments detailed on Appx.'A'. These eqpts are held by units of the Italian Army and this Missions function is seriously hampered by the lack of any of the above, other than those requested recently in detail.

It is not the intention to pass these documents to the Italian Army as they stand, but only to inform them of such of the contents as they should know. It is thought that the quantity of SECRET EMER's concerned will be small.

In addition it is requested that sets of EMER's of a general nature covering organisation of REME services, regulations regarding inspection of equiptment, duties of officers, workshop technique etc be supplied for the use of this office.

May two sets of the above together with binders please be supplied, and once this initial issue has been made may arrangements please be continued for supply in the future?

AB/cam.

Lt. Col.
A.D.M.E.
M.M.I.A.

Declassified E.O. 12065 Section 3-402/NNDC No. 785020

of EMER's, EMEI's, and Modification Circulars affecting the equiptments detailed on Appx. 'A'. These eqpts are held by units of the Italian Army and this Missions function is seriously hampered by the lack of any of the above, other than those requested recently in detail.

It is not the intention to pass these documents to the Italian Army as they stand, but only to inform them of such of the contents as they should know. It is thought that the quantity of SECRET EMER's concerned will be small.

In addition it is requested that sets of EMER's of a general nature covering organisation of REME services, regulations regarding inspection of equiptment, duties of officers, workshop technique etc be supplied for the use of this office.

May two sets of the above together with binders please be supplied, and once this initial issue has been made may arrangements please be continued for supply in the future?

AB/cam.

Lt. Col.
A.D.M.E.
M.M.I.A.

5755

Declassified E.O. 12065 Section 3-402/NNDC No. 785020

VEHICLES

Item	Makes	With Units
Type 'A'		
Tractors F.A.)	Morris Chevrolet Fordson	
L[illegible] .A.)	Bedford	331
Medium		
A Tk)	Morris	64
Scout Cars	Humber	9
Armoured Cars	Humber	18
Carriers Universal		532
Mortar		172
Lloyd		252
Load Carriers		
Trucks 15 cwt 4x2 GS	Bedford Ford Fordson Chevrolet	1406
4x4 GS	Dodge	36
Office	Morris	26
FFW	———	114
Lorry 3 ton 4x2 GS	Bedford Dodge Ford Austin	2378
4x4 GS	Bedford Chevrolet	849
Trailers Light	———	41
Heavy	———	114
Trucks 15 cwt WT	Morris Guy	297
Tractors Artic	———	34
Trailers Artic	———	31
Passenger Vehicles		
Car 4x2 Lt Utility or Jeeps	Austin Morris Standard	349
4x2 4 str)	Ford	102
4x4 4 str)	Humbers	
Car Lt Recce	Humber	46
Motorcycles	Norton BSA Matchless Triuphh Ariel	2005
Other Vehicles		
Trucks 15 cwt Water	Bedford	142
Comp	Morris	28
4x4 Armoured	White	30
Lorry 3 ton Machy Z	Leyland	11
4x4 B/down Lt	Chevrolet	24
6x4 " Med	Austin	20
6x4 " Hy	Scammell	21
4x4 Winch	A E C	20
Ambulances	Austin	135
Trailers Waters	———	93

5754

Declassified E.O. 12065 Section 3-402/NNDC No. 785020

	4x4 GS	Dodge	56
	Office	Morris	26
	FFW	——	114
Lorry 3 ton	4x2 GS	Bedford Dodge Ford Austin	2378
	4x4 GS	Bedford Chevrolet	849
Trailers	Light	——	41
	Heavy	——	114
Trucks 15 cwt	WT	Morris Guy	297
Tractors	Artic	——	34
Trailers	Artic	——	31

Passenger Vehicles

Car 4x2 Lt Utility or Jeeps		Austin Morris Standard	349
4x2 4 str)		Ford	102
4x4 4 str)		Humbers	
Car Lt Recce		Humber	46
Motorcycles		Norton BSA Matchless Triumph Ariel	2005

Other Vehicles

Trucks 15 cwt	Water	Bedford	142
	Comp	Morris	28
	4x4 Armoured	White	30
Lorry 3 ton	Machy Z	Leyland	11
	4x4 B/down Lt	Chevrolet	24
	6x4 " Med	Austin	20
	6x4 " Hy	Scammell	21
	4x4 Winch	A E C	20
Ambulances		Austin	135
Trailers	Waters	——	93

5754

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

Technical Equipments.

Designation.	Total held by Italian Units.
OQF 6 pr Mk.IV on Carr 6 pr Mk.I(UK)	197
OQF 17 pr Mk.I on Carr 17 pr Mk.I	47
OQF 25 pr Mk.II on Carr 25 pr Mk.I(UK)	172
" " (Cdn)	7
" " (Aust)	2
QF 57 mm M1 onCarr 57 mm M1	3
OQF 40 mm Mk.I (UK)	43
OQF 40 mm Mk.I (Cdn)	19
Gun 40 mm Mk.	5
Mountings 40 mm Mk.III (UK)	13
" " (Cdn)	19
" " (UK)	30
" " M2	5
Platforms 40 mm Mk.II (UK)	25
" " (Cdn)	19
" " Mk.III (UK)	18
40 mm Spare Barrels	67
Sights Correctional 40 mm Mk.V fitted to Std Eqpt	8

Item	
Pistols Rev & Auto	No.2 Mk.I, Ix or Ixx
	Smith & Wesson .38 in
	Webley Mk.IV .38 in
	.38 in others
	Cal .45 in Smith & Wesson
Rifles .303 i	No.1 Mks.III or IIIx
	No.4 All Mks (except Mk.I (T))
Snipers	.303 in No.3 Mk. Ix (T) or Aldis Sight
	.303 in No.4 Mk.I (T)
Carbines Machine	.45 in Thompson M 1928, A1
	.45 in Thompson M1
	M1, A1
Pistols Signal	No. 1 Mk.V
	No. 1 Mk.IIIx
	No. 1 Mk.IV
	No. 1 other Mks
Guns Machine Bren	.303 in Mk.I
	.303 in MK.II
Magazines Bren	30 rds
	100 "
Mountings Tripod Bren	.303 in Mk.I
	.303 in Mk.II
	Folding Pattern
Guns Machine Vickers	.303 in Mk.I using Mk VII Amn
CML 2" Mortars	Mk.II
	Mk.IIx
	Mk.IIxx
	Mk.IIxxx
	Mk.III
	Mk.VII
	Mk.VIIx
	Other Mks
CML 3" Mortar complete	(with barrel Mk.II)
	(with barrel Mk.IV)
Base Plates	No.5
Sights 3" Mortar	Mk.I
	Mk.II
Clinometers Mortar	Mk.II
	Mk.III
	Mk.IV
Projector Infantry A Tk (PIAT)	
Telescopes Signalling	
Dischargers Smoke Generator	4 in No.1 Mk.I
	4 in No.2 Mk.I
Compressors Air T.S.20 Truck Type	
Concrete Breakers No.1 (Globe CB75 Type)	
Hammer Drills No.1 (Holman 'SL9 Handril' Dry Drilling)	

Declassified E.O. 12065, Section 3-402/NNNC NO. 785020

Pistols Signal No. 1 Mk.V
No. 1 Mk.IIIx
No. 1 Mk.IV
No. 1 other Mks
Guns Machine Bren .303 in Mk.I
.303 in Mk.II
Magazines Bren 30 rds
100 "
Mountings Tripod Bren .303 in Mk.I
.303 in Mk.II
Folding Pattern
Guns Machine Vickers .303 in Mk.I using Mk VII Amn
CML 2" Mortars Mk.II
Mk.IIx
Mk.IIxx
Mk.IIxxx
Mk.III
Mk.VII
Mk.VIIx
Other Mks
CML 3" Mortar Complete (with barrel Mk.II)
(with barrel Mk.IV)
Base Plates No.5
Sights 3" Mortar Mk.I
Mk.II
Clinometers Mortar Mk.II
Mk.III
Mk.IV
Projector Infantry A Tk (PIAT)
Telescopes Signalling
Dischargers Smoke Generator 4 in No.1 Mk.I
4 in No.2 Mk.I
Compressors Air T.S.20 Truck Type
Concrete Breakers No.1 (Globe OB75 Type)
Hammer Drills No.1 (Holman 'BL9 Handril' Dry Drilling)
Picks, Light No.2(Hardypick 'CFF 374 Pattern ')
Pumps Flex Driven 1½ in
Saws Portable Petrol Driven No.1 (Danarm)
Detectors Mine (Polish) No.3
(Polish) No.3A
SCR 625E
SCR 625F
SCR 625(Others)

Trailers Arty No.27 UK

5752

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Item
Telescopes Sighting No.22C Mk.II
No.22C Mk.III
No.22D
No.29 Mk.I
No.41
No.51
Sights Dial Nos 7A, 7B and 7C
No.9
Clinometers Sight Mk.IV fitted to Arty Eqpts
Other Mks
Field Mk.VI
Rangefinders No.2 Mk.VII
No.2 Other Mks
Directors No.7B Mk.II
No.7B Other Mks
Apparatus Cable Laying No.2
No.3
Barrows Drum Mk.II
Cable Layers Mechanical No.1 Mk.I
No.1 Mk.Ixx
Fullerphones Mk.IV
Mk.IVx
Mk.V
Telephone Sets D Mk.V
D Mk.V (Cdn)
Telephones EE 8B (USA)
Telephones Loudspeaking No.2A
Loudspeakers for Telephones Loudspeaking
Wireless Sets No.C9 (Cdn)
No.18 Mk.II
No.18 Mk.III (Manpack)
No.18 Others
No.19
No.21
No.22
No.22 Power Supply Units No.4
No.38 Mk.IIx
No.38 Mk.III
Others
Receivers Broadcast Type A No.1
Type B No.3
Radio Sets No.48 (USA)
Reception Sets R 107
R 109

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Rangefinders No.2 Mk.VII
No.2 Other Mks
Directors No.7B Mk.II
No.7B Other Mks
Apparatus Cable Laying No.2
No.3
Barrows Drum Mk.II
Cable Layers Mechanical No.1 Mk.I
No.1 Mk.Ixx
Fullerphones Mk.IV
Mk.IVx
Mk.V
Telephone Sets D Mk.V
D Mk.V (Cdn)
Telephones EE 8B (USA)
Telephones Loudspeaking No.2A
Loudspeakers for Telephones Loudspeaking
Wireless Sets No.C9 (Cdn)
No.18 Mk.II
No.18 Mk.III (Manpack)
No.18 Others
No.19
No.21
No.22
No.22 Power Supply Units No.4
No.38 Mk.IIx
No.38 Mk.III
Others
Receivers Broadcast Type A No.1
Type B No.3
Radio Sets No.48 (USA)
Reception Sets R 107
R 109
Wavemeters Class B
Class D No.1 Mk.I
Class D No.1 Mk.II
Charging Sets 300 watt Pioneer BD 12/BDG(Briggs and Stratton)(USA)
1260 watt No.1
1260 watt No.3
1260 watt No.2 (Onan 123L)(USA)
4 KW Wisconsin
Generating Sets 4 KVA
Test Sets EE 65 (USA)

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Declassified E.O. 12065 Section 3-402/NNRC No. 78-0020

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

MS 113

RECEIVED 20 MAR
3502

GENERAL HEADQUARTERS
CENTRAL MEDITERRANEAN FORCE
MMLO

FREEDOM 522

MS/3/4478

Subject: Publications

To: OC 15 Gp Publications
RADC CMF

9 Mar 46

1. Will you please forward ... copy of "Army Tradesman", Regulations and Trade Tests 1943, to the following address:

Land Forces Sub Comm, AC,
(MMLA), Rome.

J.B. MITCHELL. Major,
DADME,
for Brigadier,
Director of Mechanical Engineering.

Copy to: ✓Land Forces Sub Comm, AC. (MMLA) Rome - Your MS/13 dated 16 Mar 46 refers

(1)

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

ME/13 [350] 28 MAR 1946 (12)

GENERAL HEADQUARTERS
CENTRAL MEDITERRANEAN FORCE
RE:E

FREEDOM 522

Subject: Publications — ME/3B/3800

To: Land Forces Sub Comm, AC (MMIA) Rome — 25 Mar 46

Reference your ME/13 dated 16 Mar 46.

1. Copies of the EMERs requested in your para 1 are forwarded herewith.

2. The publication requested in your para 2, is a Printing and Stationery Services supply, and arrangements have been made to forward a copy to you.

3. Copies of publications requested in para 3 are being forwarded to you by Ord Tech Publications Branch 557 BCD. Our ME/3B/3800 dated 21 Mar refers.

4. No literature has been compiled by this Directorate regarding the "Procedure of backloading MT assemblies and sub-assemblies". This is entirely an RAOC responsibility. Enclosed for your information however is a copy of the procedure adopted by REME Workshops, before handing over unserviceable assemblies to RAOC.

J.B. MITCHELL. Major,
DADME,
for Brigadier,
Director of Mechanical Engineering.

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Enc.

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

PERIODICALLY ADD FUEL TO "A" & "B" FUEL SYSTEMS AND ASSEMBLIES
[illegible] INCORPORATED IN ANY FOR SECURITY.

1. Oil will be drained

2. Plug all orifices with wooden stoppers, cover with 13# gas cans and tape up.

3. Coat all external surfaces liable to corrosion with grease (S.S. No. 2 or Gil. 3650).

4. Engine only

Remove sparking plugs, turn engine slowly and pour a small quantity of Oil SAE 50 into each plug hole.

Replace sparking plugs, or if this is not possible, well fitting wooden stoppers in the plug holes.

5. Place assembly in the correct packing case and secure in the correct manner so that there will be no possibility of movement.

6. If waterproofing material is available, the assembly should be covered with it and the packing case lid securely fastened.

7. The correct Part No. of the assembly should be stenciled on the crate.

8. Pass the crate to RAC for onward transmission to Base.

ELECTRICAL AND MECHANICAL
ENGINEERING REGULATIONS

VEHICLES GENERAL
O 766

TYRE INFLATION PRESSURES

GENERAL INFORMATION, ALSO PRESSURES FOR 'A' AND 'B' VEHICLE TYRES

GENERAL

1. Tyre inflation pressures have been revised and are shown in the following Tables. Tyre pressures, moulded on the side walls of tyres and given in vehicle instruction books and manuals, will be ignored. E.M.E. Technical Instructions B 400 and B 400/1 of 1943, E.M.E.R. Amt. A 131, Issue 3, dated 19 Apr. 1945 and E.M.E. Technical Instruction H 87 of 1944 are all hereby cancelled.

2. Care will be taken to identify the type of tyre fitted to vehicles, since tyres of R.E. construction usually operate at a lower pressure than normal pneumatics (cross-country, sand or standard tread pattern). For details of identification see A.C.I. 1353 of 1944. Only tyres of the same type will be fitted to any one axle or all driven axles.

3. The following E.M.E.Rs. should be read in conjunction withthis regulation for specialized types of vehicles or equipments:-

(a) Amt. A 131, Issue 4 for all types of Artillery equipments.
(b) Misc. T 026 for Cranes (mobile), electric trucks, Lister auto trucks, trolleys, barrows and fork lift trucks.
(c) Misc. P 026 for Royal Engineer plant and earth-moving machinery.

4. Authorized tyre pressures will be painted in white numerals, not exceeding 2 inches in height, on the edge of each mudwing or equivalent position above the centre of the wheels on all 'A' and 'B' vehicles or in the centre of the hub in the case of Artillery and R.E. equipment only.

5. It will be noted that one set of pressures only is now quoted for a size of tyre against each type of vehicle and this pressure will apply to all types of terrain. For severe cross-country work of extreme difficulty, the pressure in tyres on driving wheels may be reduced by one third, but in no case will the pressures be reduced below the following minima:-

(a)	Giant low pressure tyres (normal pneumatics)	Divided wheels 12.00, 13.50 and 15.00-20 — 20 lb./sq. in.
		Divided wheels, other sizes — 15 " " "
		Commercial flat-base wheels — 35 " " "
(b)	Giant high pressure tyres	35 " " "
(c)	Car type tyres	15 " " "
(d)	Runflat tyres	10 " " "
(e)	Sand tyres	15 " " "
(f)	Sand tyres (for loose sand work)	10 " " "

Any such adjustment will be corrected as soon as possible thereafter.

Exceptions: Amphibious vehicles which will be operated at special pressures given on the instruction plate of the vehicle.

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6. Attention is directed to the following instructions regarding tyre and wheel equipment:-

A.C.I. 1353 of 1944
A.C.I. 1354 of 1944
E.M.E.R. Vehicles General O 707 dated 16 Aug. 1945
" " " " O 707

Declassified E.O. 11065 Section 3-402/NNDC NO. 785020

[illegible] B 400 and B 400/1 of 1943, E.M.E.R. Armt. A 131, Issue 3, dated 19 Apr. 1945 and D.M.E. Technical Instruction H 87 of 1944 are all hereby cancelled.

2. Care will be taken to identify the type of tyre fitted to vehicles, since tyres of R.T. construction usually operate at a lower pressure than normal pneumatics (cross-country, sand or standard tread pattern). For details of identification see A.C.I. 1353 of 1944. Only tyres of the same type will be fitted to any one axle or all driven axles.

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(c) Misc. P 026 for Royal Engineer plant and earth-moving machinery.

4. Authorized tyre pressures will be painted in white numerals, not exceeding 2 inches in height, on the edge of each mudwing or equivalent position above the centre of the wheels on all 'A' and 'B' vehicles or in the centre of the hub in the case of Artillery and R.E. equipment only.

5. It will be noted that one set of pressures only is now quoted for a size of tyre against each type of vehicle and this pressure will apply to all types of terrain. For severe cross-country work of extreme difficulty, the pressure in tyres on driving wheels may be reduced by one third, but in no case will the pressures be reduced below the following minima:-

(a)	Giant low pressure tyres (normal pneumatics)	Divided wheels 12.00, 13.50 and 15.00-20	20 lb./sq. in.
		Divided wheels, other sizes	15 " " "
		Commercial flat-base wheels	35 " " "
(b)	Giant high pressure tyres		35 " " "
(c)	Car type tyres		15 " " "
(d)	Runflat tyres		10 " " "
(e)	Sand tyres		15 " " "
(f)	Sand tyres (for loose sand work)		10 " " "

Any such adjustment will be corrected as soon as possible thereafter.

Exceptions: Amphibious vehicles which will be operated at special pressures given on the instruction plate of the vehicle.

5747

6. Attention is directed to the following instructions regarding tyre and wheel equipment:-

A.C.I. 1353 of 1944
A.C.I. 1354 of 1944
E.M.E.R, Vehicles General O 707 dated 16 Aug. 1945
" " " O 723 dated 30 Jun. 1945
" " " O 783/2 dated 14 May 1945
" " " O 791 dated 11 Jun. 1945

Reclassified E.O. 12065 Section 3-402/NNDG No. 785020

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

7. The following abbreviations are used in all Tables:-

N.P. - normal pneumatic, standard or cross-country tread.
W.D. - special W.D. type tyres.
R.F. - Runflat.
R.F.E. - Runflat - no tube required.
Combat - American equivalent of Runflat.
A.D.V. - animal drawn vehicles.
E.M. - earth moving.
D. - dumper.
L.L. - low-loading.
T.T. - Truck type.
B. - barrow.
Rib. - ribbed type.
A.P.T./L - normal pneumatic - special lightweight.

Table 1 - Tyre inflation pressures for 'A' wheeled vehicles.

Vehicle	Tyre size	Tyre type	Tyre pressure (lb./sq. in.)	
			Front	Rear
Armoured cars				
A.E.C., Mk. I, 4 x 4 A.E.C., Mk. II, 4 x 4 A.E.C., Mk. III, 4 x 4	14.00/13.50-20	R.F. N.P.	28 40	42 58
Bearhound, (T.18.E.2) 8 x 8	14.00/13.50-20	R.F. N.P.	26 38	38 54
Coventry, Mk. I, 4 x 4 Coventry, Mk. II, 4 x 4	14.00/13.50-20	R.F. N.P.	32 44	36 50
Dainler, Mk. I, 4 x 4 Dainler, Mk. II, 4 x 4	11.00/10.50-20	R.F. N.P.	38 40	44 46
Deerhound, T.17, 6 x 6	12.00-20	Combat	80	80
Fox, I, 4 x 4	11.00/10.50-20	R.F.	38	44
Greyhound, (M.8), 6 x 6	9.00-20	N.P. N.P.	40 40	46 30
Guy, Mk. I, 4 x 4	11.00/10.50-20	R.F.	22	30
Humber, Mk. I, 4 x 4 Humber, Mk. II, 4 x 4 Humber, Mk. III, 4 x 4 Humber, Mk. IV, 4 x 4 Humber, A.A., Mk. I	11.00/10.50-20	R.F. N.P.	32 36	40 42
Staghound, (T.17.E.1) I, 4 x 4 Staghound, (T.17.E.1) III, 4 x 4 Staghound, A.A., (T.17.E.2), 4 x 4	14.00/13.50-20	Combat	70	80

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Table 1 (contd.)

Vehicle	Tyre size	Tyre type	Tyre pressure (lb./sq. in.) Front	Rear
A.C.Vs.				
A.B.C., Mk. I, 4 x 4	14.00/13.50-20	R.F.	26	38
		N.P.	40	52
A.B.C., Mk. II, 4 x 4	14.00/13.50-20	R.F.	16	36
		N.P.	28	50
A.E.C., Mk. I, 6 x 6				
Scout cars				
Daimler, I, 4 x 4	7.00-16	R.F.	24	32
		R.F.C.	Nil	Nil
Daimler, II, 4 x 4	9.25-16	R.F.20/1	28	36
Daimler, III, 4 x 4	9.00-16	R.F.	14	20
Ford, I, 4 x 4	9.25-16	R.F.20/1	14	26
Ford, II, 4 x 4		R.F.	16	25
Humber, I, 4 x 4				

NOTE: Care will be taken that R.F. tyres are replaced with R.F. and Combat with Combat. Only in an emergency should the original type of tyre equipment be deviated from.

Table 2 - Tyre inflation pressures for 'B' wheeled vehicles

Vehicle	Tyre size	Tyre type	Tyre pressure, road or C.C. (lb./sq. in.) Front	Rear
MOTOR CYCLES, SOLO AND COMBINATIONS				
Excelsior, 98 c.c., solo	2¼ x 12½	N.P.	30	34
Royal Enfield, 125 c.c., solo	2.50-19	"	16	26
James, 125 c.c., solo	2.75-19	"	16	28
Indian, 490 c.c., solo	3.50-18	"	22	24
	4.00-18	"	18	20
Indian, 740 c.c., solo	3.50-18	"	22	26
	4.00-18	"	18	20
Indian, 1,230 c.c., combination side-car	4.50-18	"	16	18
	4.50-18	"	-	18
Norton, 633 c.c., combination side-car	4.00-18	"	20	24
	4.00-18	"	-	24
All other makes: Solo	3.25-19	"	18	22

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Table 2 (contd.)

Vehicle	Tyre size	Tyre type	Tyre pressure, road or C.C. (lb./sq. in.)	
			Front	Rear
CARS, UTILITIES, LIGHT AND COMMAND RECCE.				
All makes and types (see below for exceptions)	4.00-17	N.P.	26	26
	4.25-17	"	24	24
	4.50-17	"	24	24
	5.00-16	"	20	22
	5.25-16	"	20	24
	5.50-16	"	22	26
	5.75-16	"	26	28
	6.00-16	"	26	30
	6.50-16	"	26	30
	7.00-16	"	22	30
	7.50-16	"	26	30
	9.00-13	"	22	22
	9.00-16	N.P. (car)	22	28
	9.00-16	" (truck)	26	34
	9.00-16	R.F.	16	22
	9.25-16	N.P.	26	34
	9.25-16	R.F.	22	26
Fordson Station Wagon	9.00-13	N.P.	22	30
Humber:				
Snipe	9.00-13	N.P.	22	26
Limousine protected	7.00-16	N.P.	32	36
Mk. II Lt. Recce., 4 x 4	9.25-16	"	32	36
		RF.20/1	26	30
5 cwt., 4 x 4 (formerly known as Jeep)	6.00-16	N.P.	30	30
Morris, Mk. I, Lt. Recce.	9.25-16	"	32	40
		RF.20/1	24	40
Standard:				
Lt. Armoured, Mks. III and V	9.00-13	N.P.	22	30
Lt. Armoured, Mks. I and II	6.00-16	"	36	36
ACQUIRED CARS				
All makes and types	4.00-17	N.P.	24	26
	4.50-17	"	26	28
	4.50-18	"	26	28
	4.75-17	"	26	28
	4.75-18	"	26	28
	5.00-16	"	26	28
	5.00-17	"	26	28
	5.00-18	"	26	28
	5.25-16	"	26	28
	5.25-17	"	28	30
	5.25-18	"	28	30

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Table 2 (contd.)

Vehicle	Tyre size	Tyre type	Tyre pressure, road or C.C. (lb./sq. in.)	
			Front	Rear
ACQUIRED CARS (contd.)				
All makes and types (contd.)	5.50-16	N.P.	26	28
	5.50-17	"	26	30
	5.50-18	"	28	30
	5.75-16	"	26	28
	6.00-16	"	26	30
	6.00-17	"	36	36
	6.25-16	"	28	30
	6.50-16	"	28	30
	7.00-16	"	30	30
	7.00-17	"	36	36
	7.50-16	"	30	30
AMBULANCES				
All makes, 4 x 2 and 4 x 4	5.25-18) 5.50-18)	"	28	36
	6.00-20 or 6.00-20/30x5)	"	36	36
	6.50-20 or 6.50-20/32x6)	"	36	36
	7.00-16	"	26	30
	7.00-20 or 7.00-20/32x6)	"	36	40
	7.00-20 or 7.00-20/32x6)	"	36	36
	7.50-16	"	26	30
	7.50-20 or 7.50-20/34x7)	"	36	40
	8.25-16	"	22	22
	9.00-16	"	26	34
	9.00-16	R.F.	16	20
	9.25-16	N.P.	28	32
	9.25-16	R.F.	20	26
	10.50-16	N.P.	28	28
	10.50-16	R.F.	20	20
	30 x 5	N.P.	50	50
	32 x 6	"	50	50
	34 x 7	"	50	50
	150-20	"	36	36
	160-20	"	36	36
	170-20	"	36	40
	170-20	"	36	36 T
AMPHIBIAN VEHICLES				
5 cwt., 4 x 4	6.00-16	"	30	57½5
2½ ton, 6 x 6, G.S. (formerly known as DUKW)	10.00/9.75-18	"	40	40
	11.00-18	"	40	40

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

Table 2 (contd.)

Vehicle	Tyre size	Tyre type	Tyre pressure, road or C.C. (lb./sq. in.)	
			Front	Rear
AMPHIBIAN VEHICLES (contd.)				
4 ton, 8 x 8, G.S. (formerly known as Terrapin, Mk. I)	13.00/12.75-24	D	18	18
TRUCKS AND VANS				
8 and 10 cwt.				
All makes, 4 x 2 and 4 x 4	7.50-16	N.P.	26	30
	9.00-13	N.P.	24	26
	9.25-16	"	28	32
	9.25-16	NF.20/1	20	26
15 cwt. and 1 ton				
All makes, 4 x 2 and 4 x 4 (see below for exceptions)	5.50-20	N.P.	30	40
	6.00-20	N.P.	36	36
	or 6.00-20/30x5	N.P.	36	36
	9.00-16	"	26	40
	9.00-16	R.F.	18	26
	10.50-16	N.P.	30	30
	10.50-16	R.F.	18	20
	11.00/10.50-20	R.F.	30	30
	30 x 5	N.P.	50	60
	32 x 6	"	64	64
	34 x 7	"	66	66
	150-20	"	36	36
Austin, 4 x 4, A.P.T., 15 cwt.	8.75-16	A.P.T./L	26	32
Chevrolet, 15 cwt., 4 x 2, G.S.	7.00-17	N.P.	30	40
Ford, W.O.T.3A, 1 ton, 4 x 2, G.S.	32 x 6	"	64	80
Armoured personnel, 15 cwt., 4 x 4 (White)	8.25-20	Combat	46	66
	9.00-20	"	46	66
	9.00-20	N.P.	36	60
	230-20	"	36	60
30 cwt.				
All makes, 4 x 2, 4 x 4 (see page 7 for exception)	7.50-20	N.P.	40	44 T
	or 7.50-20/34x7	N.P.	40	44 T
	8.25-20	"	36	36 T
	9.00-16	"	26	46
	9.00-16	R.F.	18	26
	9.00-20	N.P.	36	42
	10.50-16	N.P.	30	46
	10.50-16	R.F.	24	28
	11.00/10.50-20	N.P.	30	40
	11.00/10.50-20	R.F.	24	30
	30 x 5	N.P.	44	44 T
	32 x 6	"	66	66
	34 x 7	"	66	86
	34 x 7	"	66	66 T

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Table 2 (contd.)

Vehicle	Tyre size	Tyre type	Tyre pressure, road or C.C. (lb./sq. in.)	
			Front	Rear
TRUCKS AND VANS (contd.)				
30 cwt. (contd.)				
All makes, 4 x 2, 4 x 4 (contd.) (see below for exception)	36 x 8	N.P.	66	66
	9.00-20/36x8	"	66	66
	190-20	"	40	44 T
	210-20	"	36	36 T
	230-20	"	36	42
	270-20	"	30	40
	10.50-16	"	30	60
Bedford, O.X.A., 30 cwt., 4 x 2, armoured				
Trucks, 2½ and 3 ton and over, except tractors, transporters and semi-trailers				
All makes and types, 4 x 2, 4 x 4, 6 x 4 and 6 x 6. (see below and next two pages for exceptions)	7.00-20	N.P.	38	38
	or 7.00-20/32x6			
	7.50-20	"	46	36
	or 7.50-20/34x7	"	40	40
	8.25-20	"	26	30
	9.00-16	"	40	46
	9.00-20	"	50	36
	10.00/9.75-22	"	36	60
	10.50-16	"	36	56
	11.00/10.50-20	"	22	40
	11.00/10.50-20	R.F.	56	60
	11.00/10.50-22	N.P.	48	56
	11.00/10.50-24	N.P.	60	66
	12.00-20	"	40	50
	12.00/11.25-20	"	36	60
	14.00/13.50-20	"	70	80
	32 x 6	"	66	66
	34 x 7	"	70	66
	36 x 6	"	90	90
	36 x 8	"	90	90
	9.00-20/36x8	"	80	90
	38 x 8	"	80	90
	40 x 8	"	38	38
	170-20	"	46	36
	190-20	"	40	40
	210-20	"	46	46
	230-20	"	50	36
	250-22	"	36	56
	270-20	"	56	60
	270-22	"	36	60
	350-20	"	46	52
A.E.C., 6 x 6 2,500 gal. tanker	14.00/13.50-20	"	46	52
	350-20			

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Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

Table 2 (contd.)

Vehicle	Tyre size	Tyre type	Tyre pressure, road or C.C. (lb./sq. in.)	
			Front	Rear
TRUCKS AND VANS (contd.)				
Trucks 2½ and 3 ton and over, except tractors, transporters and semi-trailers (contd.)				
Exceptions (contd.)				
Albion, 4 x 2, KL147:				
X-ray body	11.00/10.50-20	N.P.	36	36
	270-20	"	36	36
G.S.	34 x 7	"	70	80
Austin, 4 x 2, K3, mobile cinema	10.50-16	"	36	46
Bedford, 4 x 4, ¼/Tk. portee, 6 pr.	11.00/10.50-20	"	48	60
	270-20	"	48	60
Bedford:				
4 x 2, fuel and water tank	11.00/10.50-20	"	36	36
	270-20	"	36	36
4 x 2, X-ray body	10.50-16	"	36	40
4 x 2, battery slave	10.50-16	"	36	40
Brockway, 4 x 2, 166S, petrol, 1,660 gal.	11.00/10.50-20	"	48	60
	270-20	"	48	60
Chevrolet, 6 x 4 3-ton G.S.	11.00/10.50-20	"	36	36
	270-20	"	36	36
Thornton, 6 x 4, 3 ton, G.S.	7.50-20 or 7.50-20/34x7	"	36	36
	190-20	"	36	36
Dodge, 4 x 2:				
T110L and T110S stake body and water	7.50-20 or 7.50-20/34x7	"	46	46
	190-20	"	46	46
WF32, G.S.	7.50-20 or 7.50-20/34x7	"	46	46
	190-20	"	46	46
Ford (USA) 4 x 2, cargo and stake	7.50-20 or 7.50-20/34x7	"	46	46
	190-20	"	46	46
G.M.C.:				
4 x 4, AFKX.352, tool and bench	7.50-20 or 7.50-20/34x7	"	46	46
	190-20	"	46	46

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Table 2 (contd.)

Vehicle	Tyre size	Tyre type	Tyre pressure, road or C.C. (lb./sq. in.)	
			Front	Rear
TRUCKS AND VANS (contd.)				
Trucks 2½ and 3 ton and over, except tractors, transporters and semi-trailers (contd.)				
Exceptions (contd.)				
G.L.C.: (contd.)				
4 x 4, AFKX.352, spare parts	7.50-20	N.P.	46	46
	or 7.50-20/34x7	"	46	46
	190-20			
6 x 4, AFW.354, G.S.	7.50-20	"	36	40
	or 7.50-20/34x7	"	36	40
	190-20			
Guy, 3 ton, 4 x 2, searchlight	34 x 7	"	80	80
International, half-track	9.00-20	Combat	70	-
	9.00-20	N.P.	46	-
	230-20	"	46	-
International, 4 x 2, KR10	36 x 8	"	70	84
	9.00-20/36x8			
Leyland:				
4 x 2, Lynx, G.S.	34 x 7	"	80	80
6 x 4, printing	9.00-20	"	46	46
	230-20	"	46	46
6 x 4, machinery R.E.	9.00-20	"	46	46
	230-20	"	46	46
6 x 4, photo-mechanical	9.00-20	"	46	44
	230-20	"	46	44
Mack, 6 x 6, No. 8D, 7½ ton	12.00/11.25-24	"	66	40
Thornycroft:				
3 ton, 4 x 2, tipping	9.00-20	"	36	36
	230-20	"	36	36
6 x 4, W.O.F., D.C. wireless	9.00-20	"	46	40
6 ton, 6 x 4, crane turntable	13.00/12.75-20	"	36	-
	14.00/13.50-20	"	-	36
	350-20	"	-	36
White, 4 x 2, 760	12.00/11.25-24	"	44	60
TRACTORS AND TRANSPORTERS				
A.E.C., 4 x 4, medium	14.00/13.50-20	"	28	56
		R.F.	20	36
	350-20	N.P.	28	50
Albion:				
6 x 4, medium	14.00/13.50-20	"	28	46
	350-20	"	28	46
6 x 6, F.A.	11.00/10.50-20	"	36	30
		R.F.	32	20
	270-20	N.P.	36	30

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Table 2 (contd.)

Vehicle	Tyre size	Tyre type	Tyre pressure, road or C.C. (lb./sq. in.)	
			Front	Rear
TRACTORS AND TRANSPORTERS (contd.)				
Austin, 4 x 4, A/Tk. portee	11.00/10.50-20	N.P.	48	50
		R.F.	32	34
	270-20	N.P.	48	50
Autocar, 4 x 4, U-7144-T, 4/5 ton	9.00-20	"	66	66
	230-20	"	66	66
Bedford:				
4 x 2, M.W.T. and M.W.G. tractor	9.00-16	"	26	40
4 x 2, M.W.T. and M.W.G., A/Tk. portee	9.00-16	R.F.	18	26
		N.P.	26	40
4 x 4, light A.A.		R.F.	18	26
	11.00/10.50-20	N.P.	36	46
		R.F.	24	32
Diamond T, 6 x 4, 980 and 981	270-20	N.P.	36	46
Ford:	12.00/11.25-20	"	52	52 T
4 x 2, light A.A. (F15)	9.00-16	"	26	40
		R.F.	18	26
	10.50-16	N.P.	36	46
4 x 4, F.A., C.O.11, QF C291 QF	11.00/10.50-20	R.F.	24	30
		N.P.	36	46
	270-20	R.F.	24	32
	10.50-16	N.P.	36	46
F.W.D., 4 x 4, medium	14.00/13.50-20	"	36	46
		R.F.	24	32
Guy, 4 x 4, F.A.	350-20	N.P.	30	52
	10.50-16	"	30	52
		R.F.	36	46
	11.00/10.50-20	N.P.	24	30
		R.F.	36	46
	270-20	N.P.	24	30
Mack:			36	46
6 x 4, heavy breakdown	11.00/10.50-24	"	54	56
	14.00/13.50-20	"	-	60
6 x 6, medium (NM5)	350-20	"	-	60
	10.00/9.75-22	"	56	30
6 x 6, medium (No. 8D)	250-22	"	56	30
	12.00/11.25-24	"	54	46
Morris:				
6 x 4, light A.A.	9.00-16	"	26	40
	9.00-16	R.F.	18	26
6 x 4, F/A		N.P.	26	40
	9.00-16	R.F.	18	26
4 x 4, A/Tk., 17 pr.	11.00/10.50-20	N.P.	36	36
		R.F.	24	32

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Table 2 (contd.)

Vehicle	Tyre size	Tyre type	Tyre pressure, road or C.C. (lb./sq. in.)	
			Front	Rear
TRACTORS AND TRANSPORTERS (contd.)				
Morris: (contd.)				
4 x 4, 4/Tk., 17 pr.(contd.)	270-20	N.P.	24	32
	10.50-16	"	36	44
		R.F.	24	30
4 x 4, F.A.	10.50-16	N.P.	36	46
		R.F.	20	36
Scammell, 6 x 4, heavy breakdown	14.00/13.50-20	N.P.	28	30
		R.F.	20	24
	350-20	N.P.	28	30
	15.00-20	"	28	30
Ward-la-France, 6 x 6, heavy breakdown	11.00/10.50-20	"	46	36
	270-20	"	46	36

Vehicle	Tyre size	Tyre type	Tyre pressure, road or C.C. (lb./sq. in.)		
			Front	Mid	Rear
TRANSPORTERS (RIGID AND SEMI-TRAILERS)					
Albion, 15 ton, 6 x 4 + 4 (CS24)	9.00-20/36x8 } 36 x 8	"	90	90	90
Diamond T, 40 ton, 6 x 4 (980/981)	12.00-20	"	52	52	52
" " " " 6 x 4 + 8	14.00/13.50-20	"	36	60	60
	350-20	"	36	60	60
Federal, 20 ton, 6 x 4 + 4 (604)	10.00/9.75-20	"	50	50	-
	250-20	"	50	50	-
	10.00-15	"	-	-	50
Mack:					
13 ton, 6 x 4 (NR4)	11.00/10.50-24	"	54	-	-
	14.00/13.50-20	"	-	60	60
	350-20	"	-	60	60
18 ton, 6 x 4 (EXBX)	11.00/10.50-22	W.D.	90	90	90
	11.00/10.50-24	"	100	90	90
Scammell:					
20 ton, 6 x 4 + 4, TR-MU-20	14.00-20	N.P.	28	-	-
	350-20	"	28	-	-
	15.00-20		-	60	60
20 ton, 6 x 4 + 8, recovery	11.00/10.50-20	"	36	-	52
	270-20	"	36	-	52
	15.00-20	"	-	44	44
30 ton, 6 x 4 + 8, recovery	14.00/13.50-20	"	36	-	60
	350-20	"	36	-	60
	15.00-20	"	-	48	-
White, 18 ton, 6 x 4 (920) recovery	11.00/10.50-22	W.D.	90	90	90
	11.00/10.50-24	"	100	90	90
White Ruxtell, 18 ton, 6 x 4, recovery	12.00/11.25-24	"	86	90	90

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Table 2 (contd.)

Vehicle	Tyre size	Tyre type	Tyre pressure, road or C.C. (lb./sq. in.)		
			Front	Mid	Rear
SEMI-TRAILERS, LOAD-CARRIERS					
Bedford:					
6 ton, 4 x 2 + 2	10.50-16	N.P.	36	60	60
	34 x 7	"	66	66	66
	32 x 6	"	70	80	84
6 ton, 4 x 4 + 2	11.00/10.50-20	"	36	42	46
	270-20	"	36	42	46
	10.50-16	"	36	54	54
Brockway, 10 ton, 4 x 2 + 2 (156E)	10.00/9.75-20	"	36	46	46
	250-20	"	36	46	46
E.R.F., 6 ton, 4 x 4 + 2	9.00-20/36x8 36 x 8	"	80	70	70
Ford, 6 ton, 4 x 2 + 2	11.00/10.50-20	"	36	54	60
	270-20	"	36	54	60
International, 10 ton, 4 x 2 + 2 (KR8)	9.00-20/36x8 36 x 8	"	70	86	86
Mack, 6 ton, 4 x 2 + 2 (LHT)	8.25-20	"	30	40	40
	210-20	"	30	40	40
	9.00-20	"	30	36	36
	230-20	"	30	36	36
	9.00-20/36x8 36 x 8	"	70	70	70
Scammell:					
6 ton, 3 x 2 + 2	8.25-10	"	50	-	-
	10.50-13		-	76	76
3 ton, 3 x 2 + 2	8.25-10	"	50	60	60
6 ton, 4 x 2 + 2, petrol 1,200 gal.	10.50-16	"	36	60	60
Studebaker, 7 ton, 6 x 4 + 2	7.50-20 (8-ply)	"	42	42	-
	7.50-20/34x7 7.50-20 (10-ply)	"	-	-	54
	34 x 7	"	66	66	73
TRAILERS, LOAD-CARRYING, WATER, PETROL, ETC.			All tyres		
All makes (see page 14 for exceptions)	3.25-19	"	26		
	4.75-16	"	24		
	5.00-16	"	30		
	5.25-16	"	28		
	5.50-16	"	28		
	5.50-20	"	24		
	5.75-16	"	28		
	6.00-16	"	30		

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Table 2 (contd.)

Vehicle	Tyre size	Tyre type	Tyre pressure, road or C.C. (lb./sq. in.) All tyres
TRAILER LOAD-CARRYING, WATER, PETROL, ETC. (contd.) All makes (contd.) (see page 14 for exceptions)	6.00-20/30x5 or 6.00-20 truck	N.P.	36
	6.50-17	"	36
	6.50-20 or 6.50-20/32x6 truck	"	36
	7.00-16	"	24
	7.00-20/32x6 or 7.00-20	"	30
	7.50-20/34x7 or 7.50-20	"	46
	8.25-10	"	60
	8.25-15	"	100
	9.00-13	"	30
	9.00-15	"	66
	9.00-16	"	36
	9.00-20	"	46
	9.25-16	"	40
	10.00/9.75-20	"	50
	10.00-15	"	70
	10.50-13	"	70
	10.50-16	"	60
	11.00/10.50-20	"	56
	12.00/11.25-20	"	66
	14.00/13.50-20	"	66
	14.00/13.50-20	Combat	80
	25 x 6	N.P.	90
	27 x 6	"	90
	32 x 5	"	70
	32 x 6 truck	"	66
	32 x 6	"	80
	36 x 6	"	80
	34 x 7	"	86
	29 x 8	"	100
	36 x 8	"	90
	9.00-20/36x8	"	90
	150-20	"	36
	150-20	"	36
	170-20	"	38
	190-20	"	46
	230-20	"	46

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Table 2 (contd.)

Vehicle	Tyre size	Tyre type	Tyre pressure, road or C.C. (lb./sq. in.)	
			All tyres	
TRAILERS, LOAD-CARRYING, WATER, PETROL, ETC. (contd.)				
All makes (contd.)				
(see below for exceptions)	250-20	N.P.	50	
	270-20	"	56	
	350-20	"	66	
			Front	Rear
Baker Perkins, 3 ton, 4-whld., oven, machinery, dough trough	9.00-16	"	46	46
Brockhouse, 5 ton, 4-whld., laundry, drying	10.50-13	"	66	40
TRAILERS, A.A., PROJECTORS, GENERATORS, LOCATORS (RADAR)				
All makes and types (see below and page 15 for exceptions)	4.00-16	"	28	28
	5.50-20	"	24	24
	6.00-16	"	30	30
	6.00-20 or 6.00-20/30x5	"	36	36
	7.00-16	"	30	30
	7.00-16	Ribbed implement	40	40
	9.00-13	N.P.	30	
	9.00-13	"		30
	9.00-16	"	36	
	9.00-16	"		36
	9.00-20	"	36	
	9.00-20	"		36
	10.50-13	"	66	66
	10.50-16	"	40	
	10.50-16	"		40
	11.00/10.50-10	"	40	
	14 x 3	"	66	
	16 x 4	"	90	
	32 x 6	"	66	66
	36 x 8	"	74	
	9.00-20/36x8	"	74	
	36 x 8	"		74
	9.00-20/36x8	"	74	74
	38 x 8	"	74	74
	150-20	"	36	36
	270-20	"	40	
Brockhouse, 5 ton, 4-whld., Radar, A.A. No. 1, Mk. 2 receiver	9.00-20	"	50	50
	230-20	"	50	50

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Table 2 (contd.)

Vehicle	Tyre size	Tyre type	Tyre pressure, road or C.C. (lb./sq. in.)	
			Front	Rear
TRAILERS, A.A., PROJECTORS, GENERATORS, LOCATORS (RADAR) (contd.) Exceptions (contd.)				
Dyson, 5 ton, 4-whld., Radar, A.A. No. 1, Mk. 2 transmitter	9.00-16	N.P.	56	56
Dyson, 5 ton, 4-whld., Radar A.A., No. 1, Mk. 2 receiver	9.00-16	"	36	56
Hands, 4-whld., Radar A.A. No. 1, Mk. 2 transmitter	9.00-20 230-20	" "	50 50	50 50
Canadian, 5 ton, 4-whld., Radar A.A. No. 4, Mk. 1	34 x 7 7.50-20/34x7	"	66	66
Canadian, 5 ton, 4-whld., Radar A.A. No. 3, Mk. 1	34 x 7 7.50-20/34x7	"	86	86
S.L. Ltd., 5 ton, 4-whld., Radar A.A. No. 1, Mk. 2 transmitter	10.50-16	"	40	50
Shelvoke and Drewry, 5 ton, 4-whld., Radar A.A. No. 1, Mk. 2 transmitter	9.00-20 230-20	" "	50 50	50 50
COACHES				
All makes, 32-seater	7.50-20 or 7.50-20/34x7	"	46	46 T
	7.50-24 or 7.50-24/38x7	"	46	46 T
	8.25-20 8.25-22 8.25-24	"	40	46 T
	9.00-20 9.00-22	"	46	46 T
	34 x 7 36 x 7 38 x 7	"	84	84 T
	190-20	"	46 57	46 T
	210-20 210-22	"	46	46 T

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Table 2 (contd.)

Vehicle	Tyre size	Tyre type	Tyre pressure, road or C.C. (lb./sq. in.)	
			Front	Rear
COACHES (contd.) All makes, 32-seater (contd.)	230-20 230-22	"	46	46 T
All makes, 26-seater	7.50-20 or 7.50-20/34x7	"	46	46 T
	32 x 6	"	80	80 T
	34 x 7	"	84	84 T
	190-20	"	46	46 T

END

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

MAINTENANCE OF ARTILLERY EQUIPMENTS

TYRE PRESSURES

These pages replace and cancel pages 1 to 4 of Issue 3. The whole of this regulation has been revised.

1. This regulation is to be read in conjunction with Veh. Gen. O 766. Tyre pressures for vehicles and other types of equipment are detailed in:-
   (a) Veh. Gen. O 766, for all 'A' and 'B' vehicles.
   (b) Misc. P 02b, for Cranes (Mobile), electric trucks, Lister auto trucks, trolleys, barrows and fork lift trucks.
   (c) Misc. P 02c, for Royal Engineer plant and earth-moving machinery.

2. The following abbreviations are used in Table 1 to describe the type of tyre:

   N.P. - Normal pneumatic
   R.F. - Runflat
   E.M. - Earth-moving

Table 1 - Tyre inflation pressures for artillery equipments

Equipment	Tyre size	Pressure lb./sq. in. N.P.	Pressure lb./sq. in. R.F.
Baseplate, mobile: 4.2 in. S.B. mortar, Mk. 1, serial A6L-51, unsprung	5.00-16	18	-
4.2 in. mortar ammunition trailer	5.00-16	18	-
Carriage, 2 pr., Mk. 1	5.50-16	28	-
" 2 pr., Mks. 2 and 2A	5.50-16	28	-
" 2 pr., Mks. 3 and 3A	7.00-16	28	-
" 6 pr., Mks. 1, 3 and C Mk. 1	8.25-10	46	20
	9.00-16	46	20
" 17 pr., Mks. 1 and 1W	6.00-16	20	(30 m.p.h. on (1st. class roads (15 m.p.h. on (2nd. class roads (10 m.p.h. on (other roads and (across country.
" 75 mm., how. M8	9.00-16	36	20
" 25 pr., Mks. 1 and 3	6.00-21	36	-
" 3.7 in. how., Mk. 4	14.00/13.50-20	50	36
" 4.5 in., Mks. 1 and 2	350-20	50	-
" 5.5 in., Mks. 1 and 2	14.00/13.50-20	46	-
	350-20	46	-
" 6 in. how., Mk. 1P	14.00/13.50-20	56	-
	350-20	56	-
" 6 in. how., Mk. 1PA	11.00/10.50-20	70	-
	270-20	70	-

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Table 1 (contd.)

Equipment	Tyre size	Pressure lb./sq. in. N.P.	Pressure lb./sq. in. R.F.
Carriage, 6 in. gun, Mks. 2 and 2AF " 7.2 in. how., Mk. 1	14 x 40	80	-
" 155 mm.	11.00/10.50-20 270-30	Limber 60 Carriage 36	- -
" 155 mm. gun/8 in. how., M1 (To mount Ordnance, 7.2 in. how., Mk. 6)	11.00/10.50-20 270-20	Limber 60 Carriage 36	-
Carriage, 8 in. gun, M2 and 240 mm. how., M1 Carriage transport wagon	14.00-24	-	Combat 80
Gun transport wagon or Carriage transport wagon	14.00-24	-	Combat 76
Gun transport wagon	18.00-24 E.M. 18.00-24 E.M.	26 28	- -
Trailer, artillery, No. 23, Mk. 1	6.00-21	36	-
" " No. 27, Mk. 1	9.00-16	36	20
" " No. 38, Mk. 1	9.00-16	36	-
Mounting, universal, 20 mm., No. 2, Mk. 1	7.00-16	14 to 16	-
Mounting, universal, 20 mm., Canadian manufacture	5.00-16	28 to 30 Hard roads 14 to 16 Rough ground and across country.	-
Platform, travelling, 20 mm., Mk. 1	7.00-16	22 front 30 rear	-
Mounting, 40 mm. A.A., Mk. 1 on platform, 40 mm. A.A. mtg., M1	6.00-20 6.00-20/30 x 5	34	-
"	7.00-20 700-20/32 x 6	28	-
"	150-20 170-20	34 28	- -

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Table 1 (contd.)

Equipment	Tyre size	Pressure lb./sq. in. N.F.	Pressure lb./sq. in. R.F.
Mounting, 40 mm. A.A., Mks. 3 or 4 on platform, 40 mm. A.A. mtg., Mk. 1	6.00-20 or 6.00-20/30 x 5	38	-
	7.00-20 or 7.00-20/32 x 6	30	-
	150-20	38	-
	170-20	30	-
Mounting, 40 mm. A.A., Mk. 3 or 4 on platform, 40 mm. A.A. mtg., Mk. 2, 3 or 4	9.00-13	26	-
Platform, 3.7 in. A.A. mtg., Mk. 1	12.00/11.25-20	Limber 76	-
		Carriage 80	-
Platform, 3.7 in. A.A. mtg., Mk. 2	12.00/11.25-20	Limber 60	-
		Carriage 66	-
Platform, 3.7 in. A.A. mtg., C Mk. 2	9.00-20 or 230-20	Limber 50	-
		Carriage 70	-
Carriage and limber, transporting, 3.7 in. and 4.5 in. A.A. equipment, Mk. 1	14.00/13.50-20	70	-
	550-20	70	-
Platform, 3 in. A.A. rocket projector, No. 4, Mk. 1	9.00-22	70	-
	230-22	70	-
F.T. Trailer No. 1, Mks. 1 and 1/1	14.00/13.50-20 or 350-20	-	On roads 44 Across country 30

Note:

(a) Care will be taken that R.F. tyres are replaced with R.F. and Combat with Combat. Only in an emergency should the original type of tyre equipment be deviated from.

(b) Except in the case of the No. 27 and No. 38 trailers, no reduction in tyre pressures will be made when crossing sandy or muddy terrain. When travelling over rough ground, the tyre pressures on No. 27 and No. 38 trailers may be reduced to 20 lb./sq. in.

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END

Declassified E.O. 12065 Section 3-402/NNDC No. 785020

ELECTRICAL AND MECHANICAL
ENGINEERING REGULATIONS

TYRE INFLATION PRESSURES

CRANES (MOBILE), ELECTRIC TRUCKS, LISTER AUTO TRUCKS, TROLLEYS, BARROWS AND FORK LIFT TRUCKS

1. This regulation is to be read in conjunction with Veh. Gen. O 766. Tyre pressures for other types of vehicles and equipments are detailed in:-
   (a) Veh. Gen. O 766, for all 'A' and 'B' vehicles.
   (b) Misc. P 026, for Royal Engineer plant and earth-moving machinery.
   (c) Armt. 131, Issue 4, for all types of Artillery equipments.

2. Tyre pressures for mobile cranes, electric trucks, Lister auto trucks, trolleys, barrows and fork lift trucks are given in Table 1.

Table 1

Vehicle	Tyre size	Tyre type	Tyre pressure (lb./sq. in.) All tyres
Cranes (mobile), electric trucks, Lister auto trucks, trolleys, barrows and fork lift trucks (all makes).	8 x 2	Industrial trolley	46
	10 x 2	" "	46
	10 x 3	" "	80
	12 x 2	" "	46
	14 x 3	" "	65
	16 x 2	" "	46
	16 x 3	" "	65
	16 x 4	" "	60
	16 x 4	" "	80
	20 x 3	(Extra heavy) Industrial trolley	60
	20 x 4	" "	60
	18 x 7	Low-loading	60
	23 x 5	" "	70
	25 x 6	" "	90
	29 x 8	" "	100
	10.50-13	" "	75
	7.50-15	10-ply	80
	7.50-20	10-ply	80
	or 7.50-20/34 x 7	12/14-ply	100
	8.25-15	10-ply	75
	8.25-18	12-ply	70
	9.00-15	10-ply	70
	9.00-16	12-ply	60
	10.00/9.75-20	12-ply	60
	10.00-24	14-ply	70
	10.00-24	12/14-ply	80
	11.00/10.50-20		

Issue 1, 1 Nov. 1945
Distribution - Class 1120. Code No. 2

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Table 1 (contd.)

Vehicle	Tyre size	Tyre type	Tyre pressure (lb./sq. in.) All tyres
Cranes (mobile), electric trucks, Lister auto trucks, trolleys, barrows and fork lift trucks (all makes). (contd.)	11.25-24 190-20 250-20 270-20 30 x 5 32 x 6 34 x 7 36 x 8	Tractor or dumper 10-ply 12-ply 12/14-ply Heavy-duty " " " " " "	40 80 60 80 70 80 85 90

Table 1 - Tyre pressures for mobile cranes, electric trucks, Lister auto trucks, trolleys, barrows and fork lift trucks

END

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

TYRE INFLATION PRESSURES

PLANT AND EARTH-MOVING MACHINERY OF R.E. ORIGIN

1. This regulation should be read in conjunction with E.M.E.R. Veh. Gen. O 766. Tyre pressures for other types of vehicle and equipment are detailed in:-
   (a) Veh. Gen. O 766, for all 'A' and 'B' vehicles.
   (b) Misc. T 026, for cranes (mobile), electric trucks, Lister auto trucks, trolleys, barrows and fork lift trucks.
   (c) Armt. A 131, Issue 4, for all types of Artillery equipment.

Earth-moving equipment

2. (a) Earth-moving equipment is generally fitted with special tyres, commonly known as "off-the-road tyres".
   (b) Off-the-road tyres are designed to meet a variety of conditions differing from those affecting tyres for road vehicles.
   (c) The important result of this variation in design is a tyre which operates at comparatively lower pressures and lower speeds than a normal road tyre.
   (d) The four most important factors governing the life of an off-the-road tyre are:-
      (i) Loading.
      (ii) Inflation.
      (iii) Surface conditions of haul roads and working sites.
      (iv) Correct tyre. Care will be taken that the size, type and ply construction of the replacement tyre is similar to that of the tyre removed. Tyres built for earth-moving equipment are stamped on the side wall with the ply construction.
   (e) Due to the difference in design stated in sub-para. (c), the effects of incorrect loading and inflation on the life of an off-the-road tyre are greater than similar effects on normal road tyres.

Loading

3. (a) Constant checking of tyre loads and corresponding adjustment of tyre pressures is essential to ensure:-
      (i) Maximum tyre life (under-inflation causes additional wear and premature failures in tyres).
      (ii) Maximum machine efficiency (over-inflation causes sinking in soft ground, thus reducing speed and output).
   (b) It will not be assumed that because a machine is rated for a given cubic capacity of material, the tyres fitted, even when inflated to the maximum recommended pressure, are capable of carrying a heaped load of any type of material. Weights per cubic yard of excavated material vary considerably. In some cases, it may be correct to carry maximum heaped loads with tyre pressures below the maximum recommended, and in others, it will be necessary to reduce the load below the maximum heaped capacity of the machine with the tyres inflated to the maximum inflated pressure.
   (c) One calculation of tyre pressures for each machine for each distinct type of material excavated will usually suffice unless a marked change in the moisture content of the material takes place.
   (d) Correct inflation pressure is arrived at by adding the dead (or machine) load on each tyre to the live (or material) load on each tyre and then selecting the appropriate pressure from the tables. On many machines the total for each tyre is the same; this is true where:-
      (i) All four tyres are of the same size.
      (ii) The centre of the live load is approximately an equal distance from

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front and rear axles.
Where this is not the case, then the proportion of the total load on an axle is directly proportional to the distance of the centre of the live load from the other axle, i.e., on a scraper, it is apparent from rough measurement that the centre of the live load is 6/10ths. of the way from the front axle towards the rear axle, therefore 6/10ths. of the machine weight + 6/10ths. of the load weight will be carried by the rear axle.

(e) Always add dead weight to live weight before calculating the weight on tyres.

Inflation

4. (a) Over-inflation causes damage to the tyre and also causes the tyre to dig into soft ground due to the narrowing of the tread in contact with the ground.

(b) Under-inflation causes extreme flexing of the tyre which, in turn, causes overheating and deterioration of the tyre.

(c) Pressures will be checked when tyres are cold and bleeding of air pressure during hours of working will not take place.

Use of Tables

5. The following abbreviations are used in Tables 1 to 4 to describe the type of tyre:-

N.P.	-	normal pneumatic
E.M.	-	earth-moving
A.D.V.	-	animal-drawn vehicle
D.	-	dumper
Rib.	-	ribbed type
L.L.	-	low-loading
T.T.	-	truck tyre
B.	-	barrow

6. (a) Tyre pressures will be fixed by the officer in charge of the equipment and the following tables are provided as a means to determine correct pressures:-

Table 1 - Load - Inflation table for off-the-road tyres, maximum speed, 10 m.p.h.
Table 2 - Load - Inflation table for off-the-road tyres, maximum speed, 25 m.p.h.
Table 3 - Tyre pressures for dumpers
Table 4 - Recommended pressures for graders, tractors and miscellaneous non-load-carrying plant
Table 5 - Table of weights per cu. yd. of excavated earth materials

(b) Tables 1 and 2 show the maximum loads for given pressures on specific tyres.
(c) Table 3 shows the range of pressures for specific models of dumper.
(d) Table 4 shows the recommended pressure for non-load-carrying plant; these pressures will not be varied.
(e) Table 5 gives the approximate weights per cu. yd. of various earth materials. This table can be used where site weighing facilities are not available, but it is always preferable to weigh a sample of the actual material excavated.
(f) Procedure
(i) Ascertain the dead load of the machine and heaped or struck capacity according to the loading properties of material being excavated.
(ii) Ascertain the live load by obtaining the weight per cu. yd. of material, from weighing or from Table 5, multiply by the capacity and add it to the dead load.
(iii) From the total load ascertain load on each tyre as described in para. 3(d).

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(iv) From Table 1, for scrapers, and Table 2, for other plant, opposite tyre size find the nearest load higher than the calculated tyre load, and at top of table read off the correct pressure.
(v) For dumpers, pressures are taken from Table 3.
(vi) For non-load-carrying machines, pressures are taken from Table 4.

Size	Ply	Type	Inflation pressure, lb./sq. in.								
			26	30	36	40	46	50	56	60	66
			Load per tyre in lb.								
30 x 5	8	N.P.	-	1550	1720	1830	1940	2050	2150	2250	
20.00 x 10½	16	E.M.					5600				
6.00-20	6/8	N.P.		1510	1660	1790	1920	2040			
6.50-20	8	N.P.		1820	1990	2150	2300	2450			
7.00-20	8	N.P.		2020	2200	2380	2550	2720			
7.50-20	8	N.P.		2270	2480	2680	2880	3060			
8.00-19	8	ADV	2460	2690	2910	3140	3360	3580			
8.25-18	10	N.P.		2480	2710	2930	3140	3340	3540		
8.25-20	10	N.P.		2670	2920	3150	3380	3590	3800		
9.00-20	10	N.P.		3170	3460	3750	4010	4270	4520		
10.00/9.75-20	12	N.P.		3570	3900	4220	4520	4810	5090		
11.00-12	8	E.M.		2240							
11.00/10.50-20	12	N.P.		3950	4320	4670	5000	5320	5630		
12.00-20	14	N.P.		4480	4900	5300	5670	6030	6400		
13.00/12.75-20	14	E.M.		5300	5780	6260	6740	7150			
14.00-20	10	D	5620	6270	6850						
14.00-20	14/16	E.M.	5620	6270	6850	7400	7920	8430	8940		
14.00-20	18	N.P.	5620	6270	6850	7400	7920	8430	8940	9380	
15.00-20	16	N.P.	6400	7120	7820	8400	9020	9580			
16.00-20	16	E.M.	7160	7980	8710	9420	10110				
16.00-24	18	E.M.	7930	8840	9660	10440	11200	11900			
18.00-24	16	E.M.	10310	11460	12550	13580					
21.00-24	16	E.M.	13170	14670							
21.00-28	20	E.M.	14320	15930	17420	18830					
21.00-28	24	E.M.	14320	15930	17420	18830	20200	21480			
24.00-32	24	E.M.	18250	20350	22200	24020	25800				
24.00-32	36	E.M.	18250	20350	22200	24020	25800	27400	29000	30500	32000
30.00-40	28	E.M.	32500	36200	39550						
30.00-40	34	E.M.	32500	36200	39550	42800	45800				
36.00-40	34	E.M.	45300	50500	55200						

Note: Underlining denotes the maximum load for plies indicated.

Table 1 - Off-the-road tyre inflation, maximum speed, 10 m.p.h.

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Size	Ply	Type	Inflation pressure, lb./sq. in.											
			26	30	36	40	46	50	56	60	66	70	76	80
			Load per tyre in lb.											
30 x 5	8	N.P.		1350	1470	1500	1690	1800	1900	2000				
20.00-10½	16	E.M.	Not suitable for speeds in excess of 10 m.p.h.											
6.00-20	6/8	N.P.		1370	1490	1610	1730	*1830						
6.50-20	8	N.P.		1630	1700	1920	2060	*2190						
7.00-20	8	N.P.		1810	1970	2130	2300	*2440						
7.50-20	8	N.P.		2040	2220	2400	2580	*2740						
8.00-19	8	A.D.V.		2270	2480	2680	2880	3060						
8.25-15	10	N.P.	2220	2430	2630	2820	2990	*3170						
8.25-20	10	N.P.		2390	2620	2820	3030	3220	*3400					
9.00-20	10	N.P.		2840	3100	3360	3590	3830	*4050					
10.00/9.75-20	12	N.P.		3200	3500	3780	4050	4310	4560	*4780				
11.00-12	8	E.M.	Not suitable for speeds in excess of 10 m.p.h.											
11.00/10.50-20	12	N.P.		3540	3870	4190	4480	4770	5050	*5300				
12.00-20	14	N.P.		4020	4390	4750	5080	5400	5740	*6030				
13.00/12.75-20	14	E.M.	4750	5190	5610	6020	6410	*6790						
14.00-20	10	D	5040	5620	6140									
14.00-20	14/16	E.M.	5040	5620	6140	6630	7100	7550	8000	8400	*8800			
14.00-20	18	N.P.	5040	5620	6140	6630	7100	7550	8000	8400	8800	9200	*9560	
15.00-20	16	N.P.	5720	6370	6960	7520	8050	8570						
16.00-20	16	E.M.	6390	7120	7770	8410	*9010							
16.00-24	16	E.M.	7070	7880	8610	9330	9980	10620	11250	*11820				
18.00-24	16	E.M.	9200	10230	11200	*12130								
21.00-24	16	E.M.	11770	*13110										
21.00-20	20	E.M.	12600	14200	15570	16830								
21.00-20	24	E.M.	12600	14260	15570	16830	18030	19170						
24.00-32	24	E.M.	16220	18080	19720	21400	*22900							
24.00-32	36	E.M.	16220	18000	19720	21400	22900	24350	25800	27100	*28400			
30.00-40	28	E.M.	28900	32200	*35150									
30.00-40	34	E.M.	28900	32200	35150	38050	40700							
36.00-40	34	E.M.	40500	45200	*49200									

Table 2 - Off-the-road tyre inflation, maximum speed, 25 m.p.h.

Notes: (i) Double underlining denotes the maximum recommended loads for the plies indicated. Sirgle underlining denotes the maximum loads for earth-moving vehicles in off-the-road service.
(ii) * Represents the maximum loads for vehicles in quarrying, mining, logging, excavating or equivalent service only, when used on improved or semi-improved roads.

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Table 3 - Tyre pressures for dumpers

Make and type	Tyre size and type		Pressures, lb./sq. in.			
	Front	Rear	Front			Rear
			Road	Average	Soft ground	
Aveling Barford, 3 cu.yd.	11.25-24 D	6.00-19 Rib	40	36	30	46
	12.00-24 D	6.00-19 Rib	40	36	30	46
Muirhill, 2 cu. yd.	11.25-24 D	6.00-19 Rib	30	26	20	46
	12.00-24 D	6.00-19 Rib	30	26	20	46
Muirhill (single-wheel) 3 cu. yd.	12.75-24 D	6.00-19 Rib	30	26	20	46
	13.00-24 D	6.00-19 Rib	30	26	20	46
Muirhill (twin-wheel) 3 cu. yd.	11.25-24T D	31 x 9 D	30	26	20	30
	12.00-24T D	31 x 9 D	30	26	20	30
Chaseside, 2 cu. yd.	11.25-24 D	6.00-19 Rib	30	26	20	46
	12.00-24 D	6.00-19 Rib	30	26	20	46
Chaseside, 2½ cu. yd.	11.25-24 D	6.50-20 N.P.	40	36	30	50
	12.00-24 D	6.50-20 N.P.	40	36	30	50
Chaseside, 3 cu. yd.	12.75-24 D	7.50-20 N.P.	30	28	24	36
	13.00-24 D	7.50-20 N.P.	30	28	24	36

Table 4 - Tyre pressures for graders, tractors and miscellaneous non-load-carrying plant

Make and type	Tyre size and type		Pressures, lb./sq. in.	
	Front	Rear	Front	Rear
Tractors				
Fordson, industrial	23 x 5 L.L.	36 x 6 N.P.	70	90
" land utility	6.00-19 Rib	11.25-24) Tractor	20	16
		or 11.25-28) 6-ply	20	16
Graders				
Caterpillar grader No. 12, motor	7.50-24 Rib 10-ply	12.75-24 D	86	28
Caterpillar grader No. 112, motor	7.00-24 Rib 10-ply	11.25-24 D	80	26
		or 13.50-20 D		30
Caterpillar grader No. 212, motor	6.50-20 N.P.	9.75-24 N.P.	66	26
		or 12.75-20 E.M.		28
Gallion 101D, motor grader	7.00-24 Rib 10-ply	12.75-24 D	50	50
	or 7.50-24 Rib 10-ply		40	
Austin Western, 99 motor grader	14.00-20 D	14.00-20 D	26	46
Le Tourneau, motor grader	13.50-24 E.M.	13.50-24 E.M.	60	60
Other makes	8.25-24 D		50	50

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Table 4 (contd.)

Make and type	Tyre size and type		Pressures, lb./sq. in.	
	Front	Rear	Front	Rear
Cranes				
Le Tourneau, mobile				
Type AD.2 }	13.50-20 N.P.		50	
AD.3 }	or 13.50-20, twin N.P.		30	
AD.4 }	18.00-24 E.M.		50	
M.20	or 21.00-24 E.M.		40	
Loading shovels				
Muirhill, ½ cu. yd.	31 x 9 D	11.25-24 D	26	40
" ½ cu. yd.	30 x 5 N.P.	36 x 6 T. N.P.	70	80
9-whld. wobbly wheel roller	11.00-12 E.M.	11.00-12 E.M.	26	26
P.B.S. laying machines, Mks. 1 and 2		10.50-16 N.P.		36
Air compressors, concrete mixers and miscellaneous equipment		4.75-16 N.P.		28
		6.25-16 "		30
		23 x 5 L.L.		76
		30 x 5 N.P.		70
		25 x 6 L.L.		90
		27 x 6 "		90
		32 x 6 T.T.		66
		32 x 6 N.P.		80
		36 x 6 "		80
		34 x 7 "		86
		(7.50-20		
		(7.50-20/34 x 7 N.P.		40
		29 x 5 (5.00-19) A.D.V.		46
		6.00-19 "		46
		7.00-19 "		46
		8.00-19 "		50
		32 x 5 "		76
		31 x 9 D		26
		16 x 4 B		60
		20 x 4 F		60

Table 5 - Approximate weights per cubic yard of earth materials

Material	Weight per cu. yd. in lb.
Sand and gravel	3,810
Graded gravel - wet	3,373
Graded gravel - dry	2,565
Gravelly sand	2,965-3,023
Sand - wet	3,135-3,780
Sand - dry	2,462-3,160

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Table 5 (contd.)

Material	Weight per cu. yd. in lb.
Clay - wet	2,970-3,200
Clay - dry	1,700-2,293
Earth - loam - dry	2,050-2,683
Earth - loam - semi-fluid or mud	2,700-2,860
Stone - crushed	2,700-3,000

Note: These weights can be affected considerably by the quantity of moisture in the material and the degree of compactness.

END

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ME/13

GENERAL HEADQUARTERS
CENTRAL MEDITERRANEAN FORCE
REME

FREEDOM 506

Subject: Publications

MR/3B/3800

To: Ordnance Technical Publications
c/o No. 2 Sub Depot 557 BOD CMF

21 Mar 46

1. Will you please forward the following publications to:

Land Forces Sub Comm, AC, (MMIA) Rome.

	Publication No.	Publication
a.	72/54	Engine Overhaul Data Book
b.	81/49	Engine Build-up Data Book
c.	TB.ORD.173	Unit replacement and repair time guide for wheeled vehicles
d.	Not known	Repair of MT Sub-Assemblies and Components by Civilian Contractors in UK.

2. Will you also please forward any other data in your possession, for the "Repair and Replacement of Engines, and other Assemblies for 'A' and 'B' Vehicles", to the a/m address.

J.B. MITCHELL. Major,
DADME,
for Brigadier,
Director of Mechanical Engineering.

Copy to: Land Forces Sub Comm, AC (MMIA)Rome + Your ME/13 dated 16 Mar 46 para 3 refers

22/3/46

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RECEIVED 21 MAR 1946
3275

Reme

(10)

CONFIDENTIAL.

GENERAL HEADQUARTERS
Central Mediterranean Force
REME

FREEDOM 762

Subject:- Allocation of Senior REME/IEME Posts in INDIA

MS/D1/1236/7

14. Mar 46

To:- DDMS HQ BEA
" " 13 Corps
" " 2 District
" " 3 District
" " LF (G)
GI REME Inspectorate (E)
CREME HQ 16 Base Wksps
" " 750 Base Wksps
" " 693 Base Mntg Wksps
CREME 6 Armd Div
AUREME MEDEA
ADREME 26 REME

Minute No. 24 of the 15th Meeting of the DDsME Conference held in War Office on 5 Feb 46 is repeated below as it is considered the information therein will be of interest to you.

W. Mitchell

H.V. GLENDINNING, Colonel,
DDME,
for Brigadier,
Director of Mechanical Engineering.

" There is a prevalent idea that the REME in India are apt to be cold-shouldered out of the better posts in that country, in favour of senior IEME Officers. DME stated that he had been in communication with DIE, India, on the subject and he was glad to give the following reassuring statement from the latter:-

5731

" The complaints are not justified since the REME hold the advantage at the moment except where the Brigs IEME Commands (equivalent to our DDsME) are concerned. I think you will agree that the Brigs Commands should have a full knowledge of the Indian Army, to say nothing of a knowledge of the country, its history, customs, etc. Until we have REME Officers available with this knowledge I don't consider it would be wise to allot these posts

Declassified E.O. 12065 Section 3-402/NNDC No. 785020

Top-

" " 13 Corps
" " 2 District
" " 3 District
" " DF (A)
CI REMF Inspectorate CI
CMME (A) 16 Base Wksps
" " 750 Base Wksps
" " 693 Base Mnfg & Sps
CMME 6 Armd Div
CMME MMFA
ADIM 26 EAI

Minute No. 24 of the 16th Meeting of the DDMME Conference held in War Office on 5 Feb 45 is repeated below as it is considered the information therein will be of interest to you.

H.V. GLENDINNING, Colonel,
DDME,
for Brigadier,
Director of Mechanical Engineering.

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5731

"The complaints are not justified since the REME hold the advantage at the moment except where the Brigs IEME Commands (equivalent to our DDsME) are concerned. I think you will agree that the Brigs Commds should have a full knowledge of the Indian Army, to say nothing of a knowledge of the country, its history, customs, etc. Until we have REME officers available with this knowledge I doubt whether it would be wise to allot these posts to the REME. However, with the expected increase in the establishment of Colonels (and the Brigs IEME will drop to Colonels soon) there will be vacancies for a greater number of senior REME Officers."

DME added that it had been agreed with India that if the DME was a REME Officer, the Deputy DME would be an IEME Officer and vice-versa. Similarly, it was proposed to have, for the next few years, a DDME (Org), IEME and a DDME (Tech), REME.

These conditions would hold during the period of rundown of the IEME which had already begun.

It is important that this should be known to silence any tendency towards jealousy between REME and IEME Officers. He was sure that, when the facts were known, there would be no misgivings.

Declassified E.O. 12065 Section 3-402/NNDG No. 785020

(9)

Subject :- Workshops Manuals.

SEE 52 48

Land Forces Sub Comm, A.C.
(M.M.I.A.) ROME
ME/13/9
21 March.46.

A.D.O.S. (P) Publications

D.D.O.S. L of C

C. M. F.

To help in the repair of Allied Vehicles, held in the Italian Army, at the O.A.R.E. Base Workshops at Bologna, it is requested that you forward Workshops Manuals for the vehicles listed below to

RAME, 6 BLU

BOLOGNA.

6 copies of each would be much appreciated.

Could you send copies of correspondence connected with this matter to this office, also a list of all the Manuals being despatched to BOLOGNA.

M/C's - Triumph, BSA, Norton, Ariel, Matchless.

Jeep - Willis & Ford.

Ford - all types 15 cwt GS.
" " 30 " "
" " 3 Ton ""
3 Ton 4 X 4 Stores
Tractor 4 X 4 F.A.
" 4 X 4Lt A.A.
3 Ton 4 X 4 Portee.

Fordson 15 cwt 4 X 2 G.S.
30 " 4 X 4 "
3 ton 4 X 4 "
15 cwt 4 X 2 Generater 9 Kw
30 " " Office
" " " W/Shop

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Declassified E.O. 12065 Section 3-402/NNDC No. 785020

C. M. F.

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" " 30 " ""
" " 3 Ton ""
3 Ton 4 X 4 Stores
Tractor 4 X 4 F.A.
" 4 X 4Lt A.A.
3 Ton 4 X 4 Portee.

Fordson 15 cwt 4 X 2 G.S.
30 " 4 X 4 "
3 ton 4 X 4 "
15 cwt 4 X 2 Generator 9 KW
30 " " Office
30 " " W/Shop
3 ton 4 X 2 W/Shop

Dodge. All types 15 cwt G.S.
" 30 " "
3 ton 4 X 2 G.S
3 " 6 X 4 B/D
15 cwt 4 X 2 Water carrier
3 Ton 4 X 2 Stores

Bedford 15 cwt 4 X 2 G.S
30 " 4 X 2 "
3 ton 4 X 2 and 4 X 4 G.S
Tractor 4 X 4 Lt A.A.
3 ton 4 X 2 Cipher Office

5780

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Bedford(cont)	3	ton 4 X 2 H/Workshops
	3	" 4 x 2 Water carrier
	15	cwt 4 x 2 " "
	30	" 4 x 2 Stores
	3	ton 4 x 2 "
Chevrolet	30	cwt 4 x 2 GS
	30	" 4 x 4 "
	3	ton 4 x 2 "
	3	" 4 x 4 "
	3	" 4 x 4 B/D
	3	" 6 x 4 "
	Tractor 4 x 4 F.A.	
	3	ton 4 x 4 W/Shops
	3	" 4 x 2 Office
Austin	3	ton 4 x 2 GS
	3	ton 6 x 4 B/D
	Ambulance 4 x 2	
	3	ton 4 x 2 Office
	3	ton 4 x 4 Portee
	3	" 4 x 2 Disinfection
	Tractor 4 x 4 A/Tk	
Morris	15	cwt 4 x 2 GS
	30	" 6 x 4 GS
	15	" 4 x 2 Compressor
	15	" 4 x 2 Radio No.19 Mk.III
	3	ton 4 x 4 Portee
	3	" 4 x 4 B/D
	30	cwt 6 x 4 B/D
	Tractor 4 x 4 A/Tk	
	"	4 x 4 F.A.
G.M.C.	30	cwt 4 x 4 GS
Commer	3	ton 4 x 2 GS
	3	" 4 x 2 W/Shops
Karrier	3	ton 4 x 4 GS
	3	" 4 x 4 Winch.
Albion	3	ton 4 x 4 GS
Mack	6	ton 6 x 6 GS
	6	" 6 x 4 Tractor Heavy B/D
AEC	Matador 4 x 4 GS	
Maudsley	6	ton 4 x 2 GS

57-9

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	3 ton 4 x 4 W/Shops
	3 " 4 x 2 Office
Austin	3 ton 4 x 2 GS
	3 ton 6 x 4 B/D
	Ambulance 4 x 2
	3 ton 4 x 2 Office
	3 ton 4 x 4 Portee
	3 " 4 x 2 Disinfection
	Tractor 4 x 4 A/Tk
Morris	15 cwt 4 x 2 GS
	30 " 6 x 4 GS
	15 " 4 x 2 Compressor
	15 " 4 x 2 Radio No.19 Mk.III
	3 ton 4 x 4 Portee
	3 " 4 x 4 B/D
	30 cwt 6 x 4 B/D
	Tractor 4 x 4 A/Tk
	" 4 x 4 F.A.
G.M.C.	30 cwt 4 x 4 GS
Commer	3 ton 4 x 2 GS
	3 " 4 x 2 W/Shops
Karrier	3 ton 4 x 4 GS
	3 " 4 x 4 Winch.
Albion	3 ton 4 x 4 GS
Mack	6 ton 6 x 6 GS
	6 " 6 x 4 Tractor Heavy B/D
AEC	Matador 4 x 4 GS
Maudsley	6 ton 4 x 2 GS
Lloyd	Bren Carrier
Leyland	3 ton 6 x 4 B/D
	3 " 4 x 2 W/Shops
GUY	Tractor 4 x 4 F/A
Trailers	10 cwt 2 wheeled GS
	15 " 2 " GS
	15 " 2 " Water
	7½ ton 6 " Light Recovery.

57-9

W.J.R.

Capt.REME
for A.D.M.E.
M.M.I.A.

Copy to S.C. REME at 6 BLU

Declassified E.O. 12065 Section 3-402/NNDG NO. 785020

Declassified E.O. 12065 Section 3-402/NNDG NO. 785020

(8)

RECEIVED 16 MAR 1946 (DATE) 3070

SUBJECT:- Publications.

10 PD/1206/7493.

Date 13 Mar 46.

Revised

MF/13

To :- A.D.M.E.,
Land Forces Sub-Commission A.C.,
M.M.I.A., ROME.

(6)

In reply to your ...MF/13..... dated 1.Mar.46. to Ord. Tech. Publications. All available handbooks have been despatched by APO to day. Instructions for Armourers Vols. I and II are not known to this Depot but a copy of Instructions for Armourers, 1931, returned by a disbanded unit has been enclosed with the hope that it may be of some assistance.

Lieut., R.A.S.C.
OC, No. 10 Publications Depot., R.A.S.C.

C. M. F.

R 16/3/46

5728

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

Subject :- 'Publications'.

Land Forces Sub Comm, A.C.
(M.M.I.A.) ROME
MS/13
16 March.46.

D.E.M.E, GHQ.

See (12) (11) (13) (7)

(1) Could you please forward to this office EMER's giving the correct tyre presures for various vehicles. It is believed that the following will cover this subject :-

EMER General O 766
EMER Armament A 131 issue 4
EMER Miscellaneous I 026
EMER Miscellaneous 2 026

(2) In addition could you please forward Army Tradesmen Regulations and trade tests 1943(N°10) 26/Regulations/2461(MT 5 (f))

and

(3) Instructions for the Repair and Replacement of Engines and other Assemblies for 'A' and 'B' Vehicles, and for the Repair of Sub-Assemblies and Components by Civilian Specialists at Home, 1943.

(4) Also any literature you may have on the Procedure of backloading MT assemblies and Sub-assemblies.

WSR/Fr

Re (1) Later forwarding Iss 4 Tradesmen Pamphlet/Pay (7).

See (13)

W.S. Rae

Capt, REME. 5727
for A.D.M.E.
M.M.I.).
(A.O.D.)
16/3/46

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

RECEIVED 12 MAR 1946 (DATE) 2899

Subject: PUBLICATIONS.

ORD.TEC .PUBLICATIONS
c/o 2 Sub Depot
557 A.C.D.
PHONE: 55185
Reference:- PDS/23124
Date:- 7-3-46

To:- A.D.M.E.
Land Forces Sub Comm. A.C.
(M.M.I.A.) ROME

ME/13
582

1. Reference your ME/13 dated 1 MAR. 46.

2. The items requested are the supply of No.10 Publications Depot, R.A.S.C., G.H.F. and your Demand has, therefore, been forwarded to that Office for action.

Received - see 5
Handbooks - see 3 6

Capt.
For C.O.C.

57:6

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

RECEIVED 9 MAR 1946 DA
2763

Reme

ME/13
482

GENERAL HEADQUARTERS
CENTRAL MEDITERRANEAN FORCE
REME

Subject:- E.M.E.Rs. ME/3/4451.

To:- O.C. Landforces Sub Comm, 7.3.46.
A.C. CM.M.I.A.) Reme.

Reference your ME/13 dated 1-3-46

1. Enclosed herewith please find copies of the EMERs/~~EMEFs~~ requested by your a/q letter.

2. It is regretted that the following publications are temporarily out of stock but will be forwarded to you immediately they become available.

H. Golding

H. GOLDING.
Capt,
AIA,
for Major-General,
Director of Mechanical Engineering.

57:5

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

Subject :- Armament EMER's.

(4)

Land Forces Sub Comm, A.C.
(M.M.I.A.) ROME
ME/13
March.46.

D.M.E.; GHQ.

(2)

To ascertain the exact nature of tests and gauges necessary for Artillery of Allied origin in the Italian Army, it is requested that you forward to this office EMER's (and EME I's if applicable) dealing with Examination and conditioning of Ordnance and to examination data appertaining to the guns and Mortars listed below.

40 m/m AA
25 Pounder
17 "
6 "
37 m/m gun
2" Mortar
3" "

Lt. Col.
A.D.M.E.
M.M.I.A.

WSR/fr

5724

R. 1/3/4

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

Subject :- Artillery Handbooks.

(3)

Land Forces Sub Comm, A.C.
(M.M.I.A.) ROME
MB/13
/ March.46.

To : ADOS (P) Publications
DDOS L of C.
C. M. F.

As this office is often called upon to give technical advice to the Italian Army on Allied Artillery and Small Arms held by them, it is requested that Handbooks be forewarded covering the following types of equipment.

40 m/m AA
25 Pounder
17 "
6 "
37 m/m gun
2" Mortar
3" "
.303 Rifle
.303 Bren gun
9 m/m Sten Machine Carbine
.300 Browning M.G.
Vickers M.G.
7.92 m/m BESA M.G.

In addition, could the following Publications also be forwarded please :-

Instructions to Armourers Vol I & II

AB 5723

Lt. Col.
A.D.M.S.
M.M.I.A.

AB/fj

SUBJECT: Technical Publications - Weapons and "A" Vehicles.

Land Forces Sub Comm.
A.C. (M.M.I.A.) ROME
ME/13
28 February 1946

B.G.S.

Reference conversation of 27 Feb. (Brig HOPE - Lt Col BLUNT).

The situation regarding issue to the Italian Army of technical publications is not very clear, and it is believed that only in the Infantry Divisions is any quantity of these publications to be found. It seems desirable that the various Schools of Instruction should be supplied with the type of publication shown in the attached list, but should an embargo exist on the Italian Army holding such information, it may only be possible for 12 B.L.U. to hold the publications, extracts there from being made available to the Italian instructors after translation.

Nomenclature of the publications may not be exact in all cases as reference copies are not held.

It is not expected that any difficulty will be experienced in obtaining technical data regarding inspection of equipments, and application is being made through RAME channels for the EMERs indicated on the list.

May approval please be obtained however for the issue to the School of Artillery of the necessary gauges and instruments for the examination of ordnance for the natures concerned.

A Blunt 5722

Lt Col.
A.D.A.G.

Declassified E.O. 12065 Section 3-402/NNDC No. 785020

Reference conversation of 27 Feb. (Brig HOPE - Lt Col BLUNT).

The situation regarding issue to the Italian Army of technical publications is not very clear, and it is believed that only in the Infantry Divisions is any quantity of these publications to be found. It seems desirable that the various Schools of Instruction should be supplied with the type of publication shown in the attached list, but should an embargo exist on the Italian Army holding such information, it may only be possible for 12 B.L.U. to hold the publications, extracts there from being made available to the Italian instructors after translation.

Nomenclature of the publications may not be exact in all cases as reference copies are not held.

It is not expected that any difficulty will be experienced in obtaining technical data regarding inspection of equipments, and application is being made through REME channels for the EMERs indicated on the list.

May approval please be obtained however for the issue to the School of Artillery of the necessary gauges and instruments for the examination of ordnance for the natures concerned.

A Blunt 5722

Lt Col.
A.D.M.E.
M.M.I.A.

Copy to: Col A/Q
G (Trg)

AB/lv

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

WEAPONS

Handbook of the Ordnance Q.F. 40 m/m AA
" " " " " 25 pr
" " " " " 17 pr
" " " " " 6 pr
" " " " " 37 m/m (M6)

Instructions for Armourers 2" mortar 7.92 BESA M.G.
" " " 3" mortar .303 rifle
" " " P I A T Sten machine carbine
" " " Bren LMG Thompson " "
" " " .303 Vickers MMG .38 pistol
" " " .300 Browning MG.

Instructional prints showing the construction of the above weapons.

'A' VEHICLES

Staghound AC.....(Crew Duty Cards (Vehicle Training Pamphlets

Humber AC MK IV.....(Crew Maintenance Inserts for AB 413 (Instruction Books

Carrier Universal.....(Crew Maintenance Inserts for AB 413
Carrier Mortar .....(Instruction Books

Carrier Tracked Towing.....(Crew Maintenance Inserts for AB 413 (Instruction Books

E.M.E.R.S. Examination and conditioning of ordnance 5721
Examination data for all natures of weapons concerned.

Declassified E.O. 12065 Section 3-402/NNDC No. 785020

"	"	"	3" mortar	.303 rifle
"	"	"	P I A T	Sten machine carbine
"	"	"	Bren LMG	Thompson " "
"	"	"	.303 Vickers MMG	.38 pistol
"	"	"	.300 Browning MG.	

Instructional prints showing the construction of the above weapons.

'A' VEHICLES

Staghound AC.....(Crew Duty Cards
(Vehicle Training Pamphlets

Humber AC MK IV.....(Crew Maintenance Inserts for AB 413
(Instruction Books

Carrier Universal.....(Crew Maintenance Inserts for AB 413
Carrier Mortar .....(Instruction Books

Carrier Tracked Towing.....(Crew Maintenance Inserts for AB 413
(Instruction Books

E.M.E.R.S. Examination and conditioning of ordnance 5721
Examination data for all natures of weapons concerned.

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Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

Declassified E.O. 12065 Section 3-402/NNDC NO. 785020

Subject : Translation of Attached Booklet.

(1)

Land Forces Sub Commission, A.C.
(M.M.I.A.) R O M E
MR/13
6 Feb 1946

Interpreters Section,
S.M.R.E.,
Ministry of War.

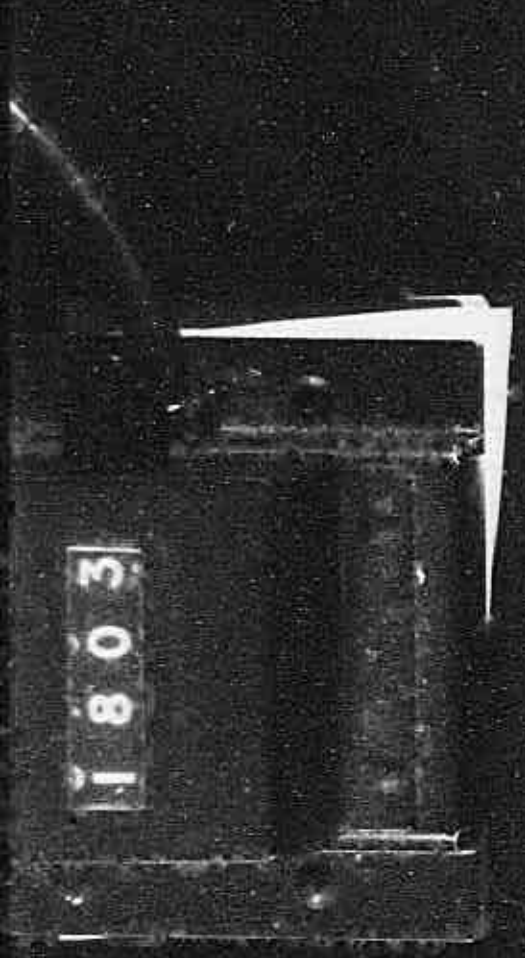
Could you please translate the attached booklet (Humber Armoured Car, Mark IV; Crew Maintenance).

It would be appreciated if this could be done as quickly as possible and returned to this office.

for Lt-Col.
A.D.M.E.
M.M.I.A.

AB/erc

6/2/46


80
3