

Addendum I:

Sea Hurricane IIB & IIC, Hurricane IIB & 11C  
(with arrester hook)

ADDENDUM I

SEA HURMCANE IIB AND IIC  
AND  
HURRICANE IIB AND IIC  
(with arrester hook)

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**ADDENDUM I-HOOKED HURRICANE AND SEA HURRICANE**

Note: - In general, information is given only when it differs from or is additional to that for the normal Hurricane of corresponding mark.

**GENERAL**

1. Hurricane, with arrester hook.-The Mk. II variants of the hooked Hurricane are the Mk. IIB and IIC. These carry the same armament as their corresponding normal Hurricane marks, from which they differ mainly in the provision of deck arrester gear and a position indicator for the arrester hook; normal R.A.F. radio equipment is installed.
2. Sea Hurricane.-The main differences between the Sea Hurricane IIB and IIC and their corresponding hooked Hurricane marks are that Sea Hurricanes are fitted with radio equipment of the type used in the Fleet Air Arm, and are provided with stowage for a signal pistol and cartridges.
3. The information in this addendum is applicable to both the hooked Hurricane and the Sea Hurricane except where the contrary is specifically stated.

**PILOT'S CONTROLS AND EQUIPMENT**

General

4. The controls and equipment for the pilot are described in Section I of publication.

**CONSTRUCTION AND OPERATION OF ARRESTER GEAR**

General

5. The arrester gear consists, basically, of a hook, a V-strut, snap mechanism and a damper.
6. To provide additional local strength for the arrester gear, new side struts L-M 1 and a cross strut M 1-M 1 are provided. The arrester hook is carried on the V-strut (see fig. 1), which is pivoted at joints M 1, and attached to a damper which acts as a buffer for the hook at the end of its travel, and also checks the rebound of the hook when it hits the deck. The rebound is not fully damped out and when the hook picks up the cable, the arrester gear returns to its original position and is secured by the snap gear; if the cable should not be picked up, the hook is rejected by the snap gear and falls again to the limit of its travel.
7. When the arrester hook is in the "up" position, the V-strut fits into recesses provided in the rear underfairing A (see fig. 1), gaps at the forward end being covered by two small fairing panels. The snap gear is mounted on two brackets secured to cross strut Q-Q and to the handling bar tube D, which is below this strut. The release cable for the control in the cockpit runs along the port side of the fuselage and divides into two just forward of the release gear. An indicator lamp in the cockpit shows a green light when the arrester gear is in the "down" position.

**Arrester hook**

8. The hook (see fig. 2) is of the 10,500 lb. fixed wide-nose type. It consists, basically, of two steel side plates B, to which two catch plates A are riveted, and a steel nose J is bolted. The nose is provided with slots F and X for two operating levers H which pivot about a bolt G passing through the side plates and the nose of the hook. The operating levers are pinned at the top to a sliding stop E which slides in grooves in the side plates, the forward portion of the stop protruding above the side plates. Normally, the sliding stop is kept in the rear position by a spring D retained in a spring housing C, and the lower parts of the operating levers are then clear of the slots K; in this condition the hook cannot be inserted into the snap gear as the sliding stop catches against a stop plate (see para. 9), as shown in detail in fig. 2. When the arrester cable is caught up in the hook it forces the bottom of the levers back into the slots K, causing the top of the levers to move forward. This pushes the sliding stop forward so that it will clear the stop plate and allow the catch plates 'A to engage in the snap gear.

**SnapGear**

9. The snap gear (see fig. 3) is mounted below two vertical combined channel and saddle assemblies J which are bolted to cross strut Q-Q, registered by four studs H to the ground handling strut below Q-Q, and connected to each other by 4 stainless steel stop plate K (see para. 8). At the bottom of each channel assembly are bolted two extension plates A. Each of these carries at the top a release pawl G, operated by the cable F from the cockpit control, and at the bottom, below the channels, a trigger plate M pivoting on a spigot bolt L. A pin E at the top of the trigger plate fits behind an arm D of the release pawl. When the cable is pulled by the cockpit control the release pawls pivot about their attachments, causing the arms to move outwards, taking the pins E with them, and thus withdrawing the lips of the trigger plates sufficiently to allow the arrester hook to drop, as shown at the bottom of fig. 3. The release pawls and the trigger plates are returned to their original positions by the ac the springs B and C so that the arrester hook can be snapped home (see para.6).

**Arrester hook damper**

10. The arrester hook damper (see fig. 4) is riveted at the top to a short length of tube which is connected to a pivot point on a bracket attached to fuselage joint L; at the bottom, it is bolted to the port member of the arrester hook V-strut (see fig. 1).
11. The damper consists of a plunger rod A sliding in a cylinder E which is divided into two portions. The upper end contains three rubber buffer rings M which are engaged by a stop D secured to the top of the plunger rod and take the weight of the arrester hook when it has fallen; the lower end, which contains a piston H also attached to the plunger rod, is filled with 1/3rd pint of antifreezing fluid (specification D.T.D.44D) through the hole opened by removing the upper of the two plugs C. The piston is fitted with a clack valve R and a spring-loaded valve G. When the arrester hook falls, the plunger rod and the piston pulled down and fluid -flows freely to the top of the piston round the clack valve R. On striking the deck excessive rebound of the hook is checked by the fluid trapped in the cylinder, which can only escape back to the bottom of the piston through holes J and the spring-loaded valve G.

## MAINTENANCE

### Fitting arrester hook in up position

12. To secure the arrester hook in the snap gear as a ground operation, lift the arrester hook V-strut nearly into position and then depress by the hand projecting levers in the nose of the hook (see para. 8) while the hook is raised the last few inches into the snap gear. If this is not done, the hook can not be received by the snap gear, and therefore will not remain up.

### Adjustment of snap gear control cable

13. Just forward of the point where the control cable divides a turn-buckle, access to which may be obtained by removing the rear under-fairing panel (see para. 18). The turnbuckle should be adjusted to take up any slack in the cable, but not so tightly as to cause the trigger plates in the snap gear to be withdrawn or the hook will not be securely held. The correct adjustment may be found by checking that the T-grip in the cockpit is just home on its support tube, and that when the T-grip is pulled up, the trigger plates on the snap gear just clear the catch plates on the hook.

### Lubrication

14. The bearings of all moving parts of the arrester gear and snap mechanism, and the control cable, are lubricated with anti-freezing oil (D. T.D.417A). The mixture of one part grease to two parts paraffin (D. T. D. 539), or of one part oil to one part paraffin, must not be used as a lubricant on any part of the Hooked or Sea Hurricane, the aileron differential gearbox included.

### Damper

15. Topping up. - The oil cylinder of the damper should be kept filled with Intavia utility oil or anti-freezing oil to specification D.T. D.44D. This should be inserted through the upper of the two plugs C shown in fig. 4.
16. Dismantling.- To dismantle the damper-, proceed as follows (see fig.4)
  - (i) Unscrew the locknut N which locks the top half of the Ahe centre bearing sleeve L.
  - (ii) Unscrew the top half of the cylinder.
  - (iii) Remove the split-pin from the top stop and unscrew the disc D.
  - (iv) Remove the rubber buffer rings M and spacing washers.If it is required to fit new rubber buffer rings, this can be done without dismantling. Should damage have occurred in the lower portion of the proceed as follows:-
  - (v) Remove the drain plugs C and drain the fluid from the cylinder in to a clean receptacle.
  - (vi) Remove the grubscrew K from the centre bearing sleeve L.
  - (vii) Unscrew the centre bearing sleeve and remove it from the plunger rod A, when the packing gland O and clamp P may be removed by unscrewing the set screws securing them to the sleeve.
  - (viii) Remove the grubscrew B from the bottom bearing cap F.
  - (ix) Unscrew the cap and remove it complete with the plunger rod assembly.
  - (x) Remove the fork end and lock nut from the plunger rod A and a O off the bottom bearing cap F.

- (xi) Remove the packing gland and clamp ring from the bottom bearing cap F, after taking out the screws attaching them to the cap

The plunger rod can be dismantled further but, as the limits on the valve are very critical, the complete rod assembly should be replaced if any part is damaged.

- 17. Re-assembling. - When re-assembling the damper, it is essential that the centre lines of the plugs O are not offset from each other by more than 0.17 in. To ensure that this is so, extra jointing washers may be used at the centre bearing sleeve L. If damage to the damper has necessitated removal of the clack valve R, the damper must be subjected to two tests on re-assembly. The first is a mechanical test which should be carried out as shown in fig. 4; the second test is to impose a hydraulic pressure of 100 psi and watch for leaks.

#### REMOVAL AND ASSEMBLY OPERATIONS

##### Rear underfairing panel

- 18. Before starting to remove the rear underfairing panel (A in fig. 1) which is of wood and fabric construction, it is necessary first to release the arrester gear by operating the cockpit release handle, and to lower the hook by hand; if the aircraft is standing on a muddy or sandy surface a block of wood or a metal sheet should be provided for the hook to rest on, to prevent grit and dirt from fouling the mechanism. When the arrester gear has been released, the six fasteners which hold the fairing in place should be unscrewed, the fairing being supported while this is done. after which the fairing may be gently eased off backwards.

##### Damper

- 19. To remove the damper proceed as follows : -
  - (i) Remove the rear underfairing panel.
  - (ii) Detach the bottom of the damper from the port side of the arrester hook V-strut by removing the 5/16 in. dia. bolt (C in fig. 1), with nut, split pin and distance tube, which secures the fork end on the damper rod to the attachment lug bolted to the V-strut.
  - (iii) Remove the 5/16 in, dia. bolt (B in fig. 1), with nut and washer, attaching the plug end at the top of the damper to joint L.

##### V-strut

- 20. Removal. - The arrester gear V-strut can only be detached when the rear underfairing panel and the 5/16 in. bolt securing the damper to the strut have been removed. It is then only necessary to take out the eyebolt E with its castle nut and split pin, which attaches the V-strut to joint M 1 at each side of the fuselage; the rivets attaching the bush F to the side plate should not be removed.
- 21. Assembly. - When the V-strut has been re-assembled, it is essential to check that the sliding stop on the hook clears the stop plate by at least 0.1 in. when in the forward position, and that the indicator lamp operates when the strut is down.

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## ELECTRICAL INSTALLATIONS

### Arrester hook indicator lamp

22. A wiring diagram for the arrester hook indicator lamp is given in fig. 5. The supply for the lamp is taken from a terminal block on the electrical panel and the lamp is operated by a micro-switch mounted on side strut L-M 1.

## LOADING AND C.G. DATA

### Introduction

23. For the determination of the C.G. position the aircraft is considered standing with the thrust line (or rigging datum line) horizontal and the undercarriage down.

24. The distance of the C.G. aft of the C.G. datum point, which is called the moment arm of the C.G., is given by the expression

(Tare wt. x tare C.G. moment arm) ± (Wts. of loads x respective moment arms)  
Tare weight + total weight of loads

$$= \frac{\text{Tare moment } \pm \text{ load moments}}{\text{total weight}}$$

25. The moment arm (in inches) is positive when the load considered lies aft of a vertical line through the C.G. datum point and is negative when the load considered lies forward of a vertical line through the C.G. datum point. The weight (in pounds) is in all cases positive.

### Datum point

26. The datum point is the centre of the engine starting handle shaft and is marked on the port side of the aircraft. The position of this point is based on the assumption that the centre-line of the bracket supporting the starting shaft is 6 in. from the centre-line of joint "X" measured along strut "XZ" (see Loading Diagram, fig. 6).

27. When determining the aircraft C.G. position by weighing, any variation in the position of the C.G. datum point from the nominal should be noted and the necessary correction made. For example, if the dimension referred to above differs from the nominal by 5.5 in. (i.e. actual measurement gives 5.5 or 6.5 in.) this correction should be made to the calculated dimension of the C.G. aft of the C.G. datum point, the correction being added if the centre-line of the bracket is aft of its nominal position.

### C.G. travel limits

28. Approved limits of C.G. travel are 56 in. to 60.4 in. aft of the C.G. datum point, measured parallel to the thrust line. The C.G. position must be kept within the specified range, even with the fuel consumed and with ammunition expended. For example, if the loaded aircraft has a C.G. position 56 in. aft of the C.G. datum point at the commencement of flight, then in a short time the consumption of the fuel load will move the C.G. position beyond the approved forward limit.



**Examples on the determination of the C.G. position**

29. To determine the C.G. position for an aircraft with any particular load (see para. 24) the total moment for that loading, as shown on the loading diagram is divided by the corresponding total weight. The resultant quotient distance of the C.G. behind the C.G. datum point.

30. Normal loading. -

	weight (lb.)	moment (lb./in.)
Mk. IIC aircraft (see fig, 6) .....	7,891	475,831
	475,831	
C.G. moment arm = $\frac{\quad}{7,891}$ =		60.3 in. aft of datum.

31. With full fuel consumed and ammunition expended. -

	weight (lb.)	moment (lb./in.)
Mk, IIC aircraft .....	7,891	475,831
Deduct main fuel .....	-497	35,386
Deduct ammunition .....	-226	15,549
	<hr/>	<hr/>
Total .....	7,168	424,896
C.G. moment arm = $\frac{424,896}{7,168}$ =		59.2 in. aft of datum.

32. Embodiment of modifications. - Assume modifications Nos. 388, 400, 411 and 441 have been incorporated and refer to para. 34 for the respective weight and moment values.

	weight (lb.)	moment (lb./in.)
Mk. IIC aircraft at tare weight .....	5,847	328,601
Mod. No. 388 .....	+1.43	111
Mod. No. 400 .....	+21.75	941
Mod. No. 411 .....	+ 4.5	608
Mod. No. 441 .....	- 2.5	-163
	<hr/>	<hr/>
Total .....	5,872.18	330,098

The above totals represent the new tare condition of the aircraft after the embodiment of the modifications. To this condition the desired operational load should be added, including all or part of the change in load affected by the modifications introduced.

	weight (lb.)	moment (lb./in.)
Aircraft at modified tare weight .....	5,872.18	330,098
Total removable load for Mk. IIC aircraft as on Loading Diagram .....	2044.00	147,230
Mod. No. 411 .....	+2.50	+326
Mod. No. 411 existing removable equipment moved .....	*	+39
	<hr/>	<hr/>
Total .....	7,918.68	477,693

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For new all-up weight:

$$\text{C.G. moment arm} = \frac{477,693}{7,918.68} = 60.3 \text{ in. aft of datum.}$$

**Modifications included**

33. The tare weight and loading shown on the loading diagram include the following modifications.-

- (i) Mk. 11B aircraft - Modification Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71, 72, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 88, 92, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 116, 117, 118, 119, 120, 123, 124, 125, 126, 127, 128, 129, 130, 131, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 161, 152, 153, 154, 155, 156, 157, 158, 159, 160, 163, 164, 165, 167, 170, 172, 173, 174, 176, 177, 178, 179, 180, 181, 182, 183, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 197, 198, 199, 201, 202, 204, 206, 207, 208, 209, 210, 214, 215, 216, 217, 218, 220, 222, 223, 224, 225, 227, 228, 229, 231, 233, 234, 235, 236, 237, 239, 241, 242, 243, 244, 245, 246, 249, 252, 253, 254, 255, 257, 258, 259, 265, 267, 268, 271, 273, 278, 279, 280, 282, 286, 288, 289, 292, 293, 296, 297, 298, 301, 302, 303, 304, 305, 308, 309, 310, 311, 312, 314, 316, 318, 319, 322, 323, 327, 328, 329, 331, 332, 333, 336, 339, 342, 351, 352, 362, 364, 367, 368, 370, 376, 378, 381, 384, 393, 394, 401, 411, 412, 413, 414, 415, 431, 432.
- (ii) Mk. IIC aircraft. - Modification Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71, 72, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 88, 92, 94, 95, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 116, 117, 118, 119, 120, 123, 124, 125, 126, 127, 128, 129, 130, 131, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 151, 153, 154, 155, 156, 157, 158, 159, 160, 163, 165, 167, 170, 172, 173, 174, 176, 177, 178, 179, 180, 181, 182, 183, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, IP7, 198, 199, 201, 202, 204, 206, 207, 208, 209, 210, 214, 215, 216, 217, 218, 220, 222, 223, 224, 225, 227, 228, 229, 231, 232, 233, 234, 235, 236, 237, 239, 241, 242, 243, 244, 245, 246, 249, 252, 253, 254, 255, 257, 258, 259, 265, 267, 268, 271, 273, 275, 278, 279, 280, 282, 288, 289, 292, 293, 297, 298, 301, 302, 303, 305, 308, 309, 310, 311, 312, 314, 317, 318, 319, 322, 323, 325, 327, 328, 329, 331, 332, 333, 336, 340, 342, 351, 352, 355, 362, 363, 364, 367, 368, 370, 376, 378, 381, 384, 393, 394, 401, 411, 412, 413, 414, 415, 431, 432.

**Changes of weight and moment due to modifications**

34. Any modifications that are incorporated on the aircraft but are not shown on the appropriate list in para. 33, are additional to those included on the Loading Diagram and must be allowed for when calculating the total weight and C.G. position (see para. 32); the following table gives changes of weight and moment due to such additional modifications.

Mod. No.	Description	Tare weight		Removable load	
		Weight (lb.)	Moment (lb./in.)	Weight (lb.)	Moment (lb./in.)
70	Hydraulic pressure gauge introduced	+ 1.0	72	—	—
91	Desert equipment (removable) introduced	—	—	+ 56.8	8,570
230	Air intake cover modified	—	—	+ 0.25	18
251	Engine couplings at header tank improved	+ 0.13	3	—	—
262	Tropical cooling introduced	- 0.02	- 2	—	—
263	Cockpit air conditioning introduced	+17.0	1,275	—	—
264	Air cleaner for air intake introduced	+28.92	347	—	—
272	Oil tank immersion heater introduced	+11	319	—	—
306	45 gall. drop tanks—removable (Mk. IIB)	—	—	+ 751.0	46,800
307	45 gall. drop tanks—removable (Mk. IIC)	—	—	+ 751.0	46,800
341	2-500 lb. bombs introduced	—	—	+1048.0	59,500
346	Air cleaner, rear portion strengthened	+ 0.41	11	—	—
359	2-250 lb. bombs, removable parts in wings (Mk. IIB)	—	—	+ 542.63	30,950
361	2-250 lb. bombs, removable parts in wings (Mk. IIC)	—	—	+ 540.63	30,850
369	Rear view mirror, type "B" introduced	+ 0.25	20	—	—
372	Power failure warning light introduced	+ 0.53	40	—	—
373	New material for walkways introduced	- 1.0	- 80	—	—
374	Spring-loaded relief valve on header tank	- 0.67	- 18	—	—
383	(i) S.B.C. removable parts	—	—	+ 737.75	41,000
	(ii) S.C.I. removable parts	—	—	+ 655.75	38,300
386	S.B.C. and S.C.I. provision on 500 lb. carriers	—	—	+ 0.27	11
388	Self-sealing fuel pipes introduced	+ 1.43	111	—	—
400	U/c wheel type A.148213 as an alternative to A.H.10019	+21.75	+941	—	—
407	Guard for rear oxygen cylinder introduced	+ 0.25	+ 24	—	—
408	(i) Downward ident. light, three-colour introduced	+ 2.5	+348	—	—
	(ii) Existing equipment moved	*	- 25	—	—

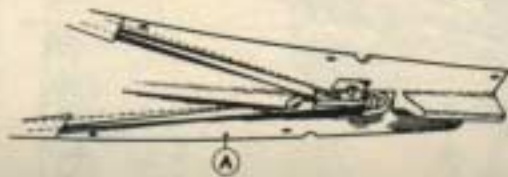
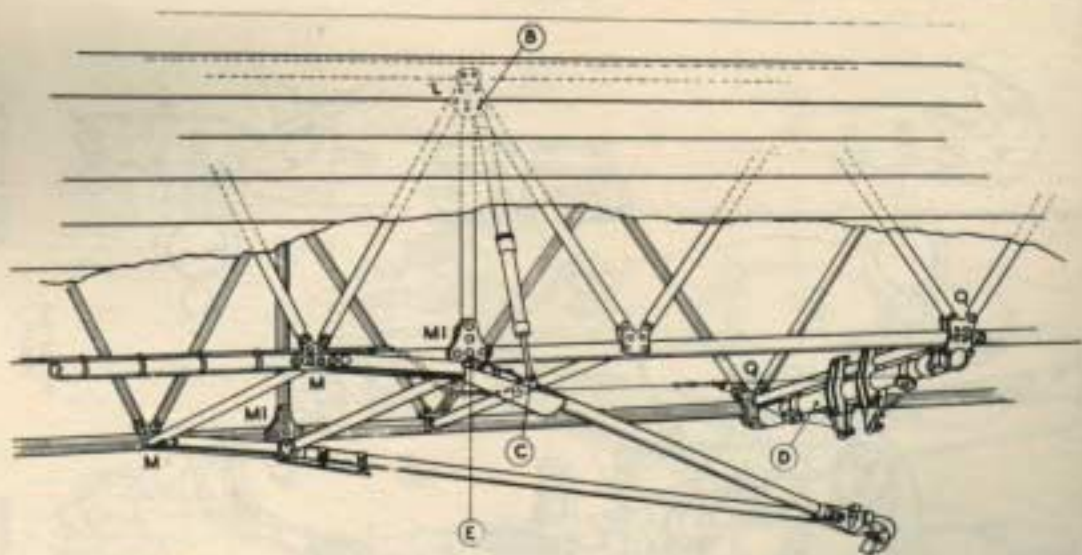
\* A weight figure is not given here because the moving of existing equipment involves no change in weight.

Mod. No.	Description	Tare weight		Removable load	
		Weight (lb.)	Moment (lb./in.)	Weight (lb.)	Moment (lb./in.)
411	Provision for R.3067 type 90 aerial	+ 4.5	+ 608	+ 2.5	+ 328 + 39
412	T.R.1196A, removable parts introduced	- 0.75	- 81	- 44	- 5016
416	R.10A installation introduced	+ 0.5	+ 51	—	—
417	(i) R.10A installation introduced	—	—	+ 4.0	+ 456
	(ii) Existing equipment moved	—	—	•	+ 109
418	Incendiary bomb stowage introduced	+ 0.5	+ 72	—	—
419	Throttle lever of improved type introduced	+ 0.5	+ 59	—	—
421	Conversion from Rotol to D.H. C/S propeller	+ 25.0	- 865	—	—
433	R.P.M. indicator drive, shortened type introduced	- 0.25	- 7	—	—
441	Sun screen for gun sight deleted	- 2.5	- 163	—	—

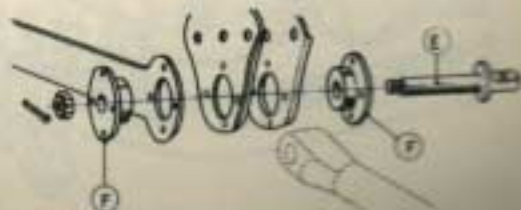
\* A weight figure is not given here because the moving of existing equipment involves no change in weight

The following modifications have been omitted from the previous table, because their effect on weight and C.G. position is negligible:—

Nos.—291, 326, 338, 344, 347, 371, 382, 424, 430, 438.



VIEW OF UNDERSURFACE



ASSEMBLY OF V-STRUT AT M1

FIG. 1

ARRESTER GEAR INSTALLATION

FIG. 1

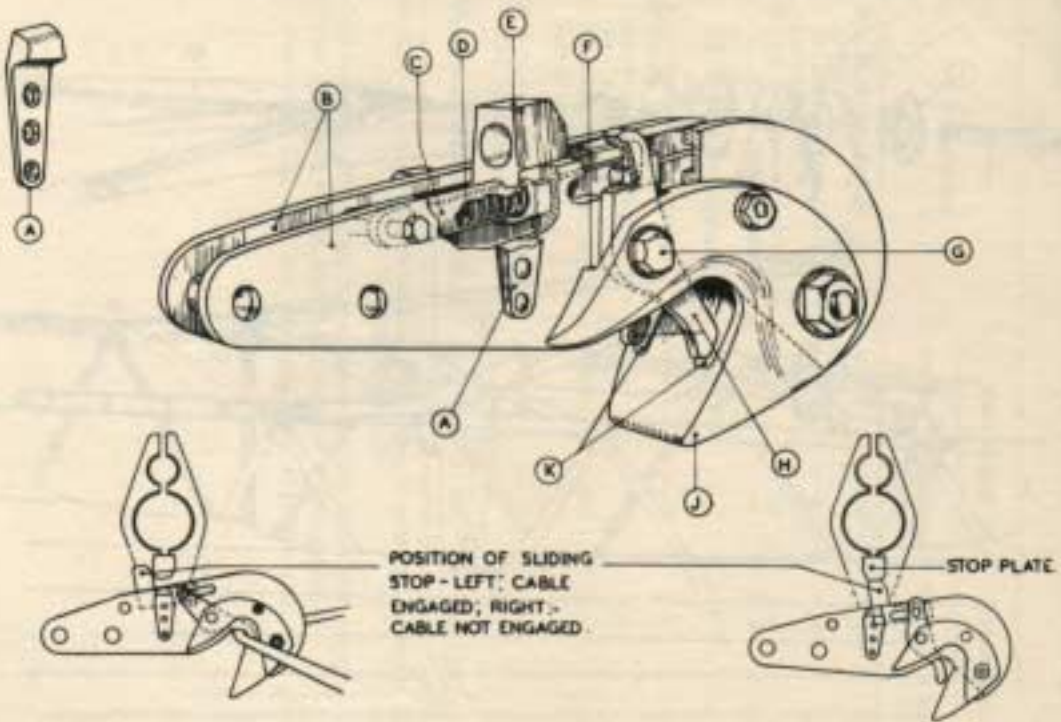
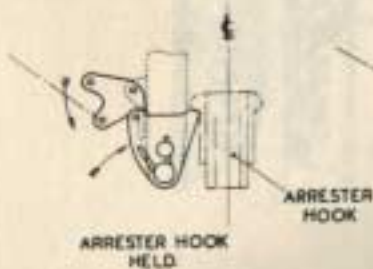
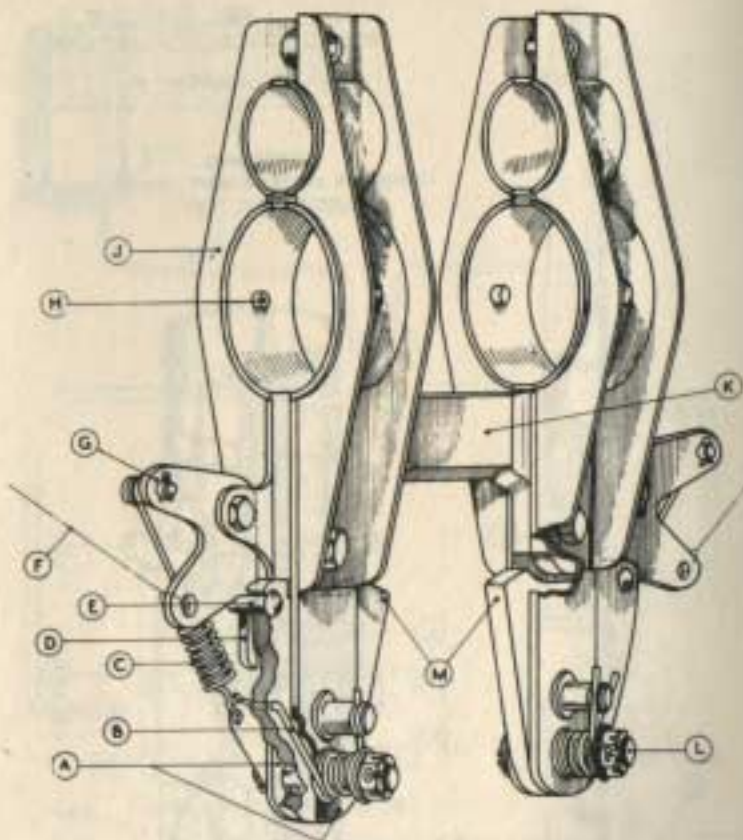


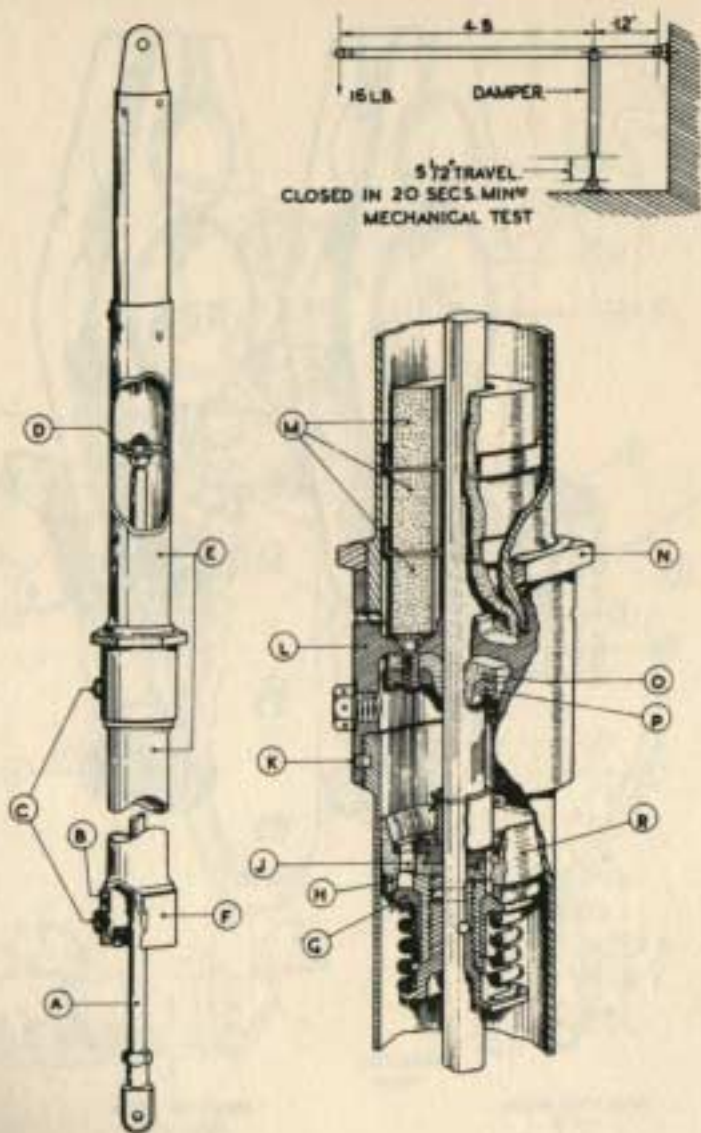
FIG. 2

ARRESTER HOOK

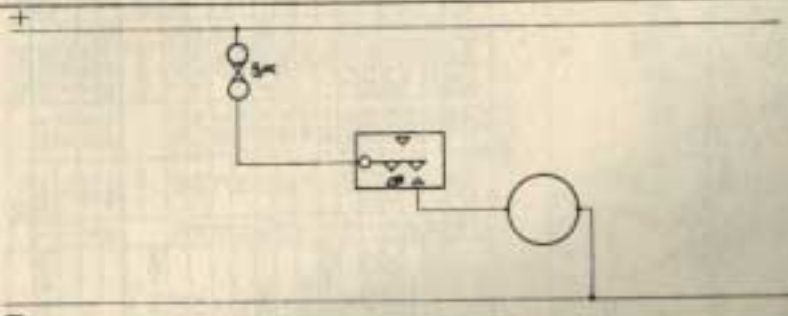
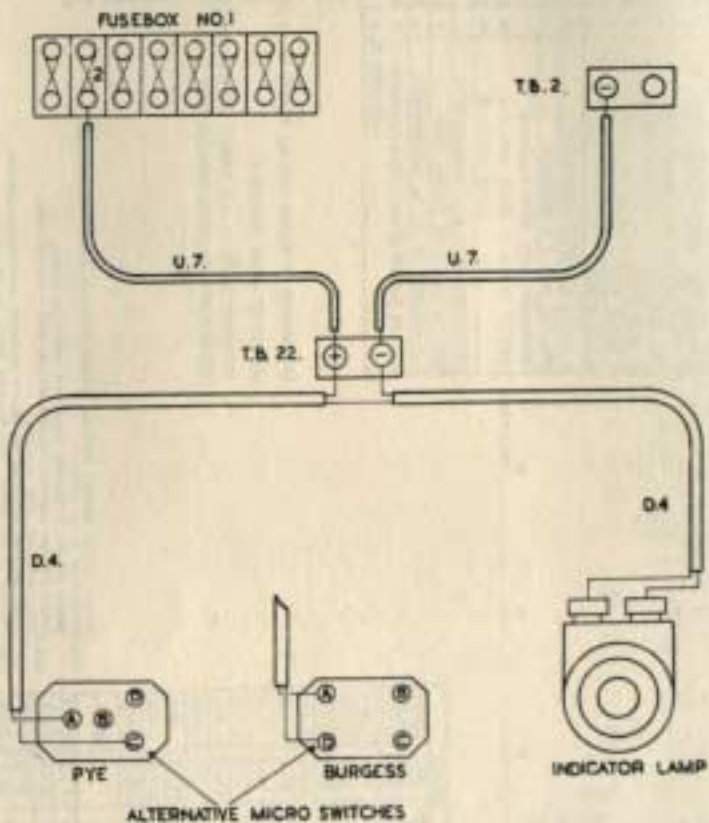
FIG. 2









FIG.  
5ARRESTER HOOK POSITION  
INDICATOR LAMP CIRCUITFIG.  
5

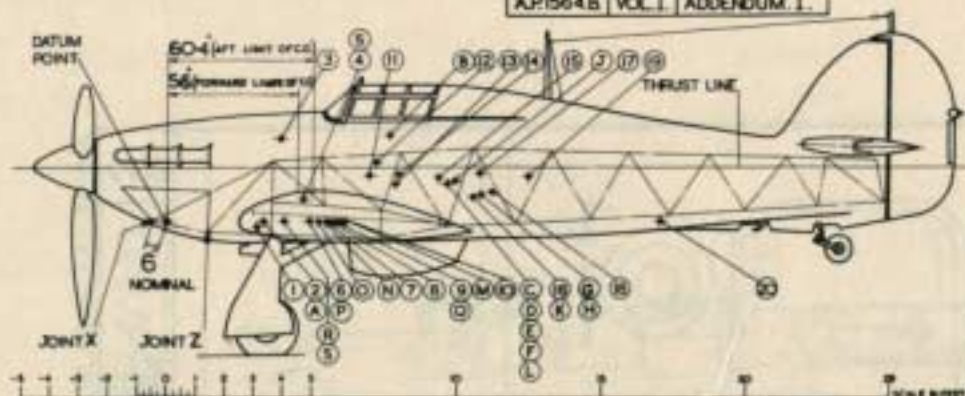


TABLE I.

REMOVABLE ITEMS OF MILITARY LOAD	MR. I. B.				MR. I. C.			
	ITEM	WEIGHT (L.B.)	ARM (IN)	MOMENT (L.B. FT.)	ITEM	WEIGHT (L.B.)	ARM (IN)	MOMENT (L.B. FT.)
PILOT & PARACHUTE	12	200	85-5	17,100	12	200	85-5	17,100
PERSONAL DRYGHT	14	15	94-2	1,413	14	15	94-2	1,413
GUNS & ACCESSORIES	8	334	67-3	22,478	8	468	58-8	27,518
AMMUNITION & BOXES	7	343	65-6	22,504	9	330	68-6	22,704
HYDROTECHNICS	19	19	148-6	2,823	19	19	148-6	2,823
SIGHTS & MISCELLANEOUS	11	21	84-6	1,777	11	21	84-6	1,777
CAMERA UNIT, G.45	2	7	39-9	279	2	7	39-9	279
OXYGEN	13	32	93-6	2,995	13	32	93-6	2,995
ARRISSTER GEAR	20	23	216-0	4,968	20	23	216-0	4,968
RADIO TR. 1143	15	94	112-0	10,528	15	94	112-0	10,528
RADIO A.1271	18	4	133-8	535	18	4	133-8	535
RADIO R.1147 A	16	23	127-8	2,939	16	23	127-8	2,939
RADIO R.310B	17	28	129-0	3,612	17	28	129-0	3,612
TOTAL REMOVABLE ITEMS OF MILITARY LOAD		1,443		93,948		1,264		99,191
FUEL MAIN	10	497	71-2	35,386	10	497	71-2	35,386
FUEL RESERVE	3	202	47-8	9,656	3	202	47-8	9,656
OIL	1	81	37-0	2,997	1	81	37-0	2,997
AIRCRAFT DRY WEIGHT	5	5856	56-8	330,248	4	5,847	56-2	328,601
TOTALS		7,579		492,239		7,891		475,831

SEE NOTE 1

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• • 3

SEE NOTE 4

TABLE II.

REMOVABLE ITEMS OF MILITARY LOAD NOT LISTED OR DETAILED IN TABLE I.	ITEM	WEIGHT (L.B.)	ARM (IN)	MOMENT (L.B. FT.)
CAMERA UNIT G.42B	A	7-25	40-0	290
SIGNAL PISTOL & 6 CARTRIDGES	B	5-0	92-0	460
TR 1133 SET. (CONTRACTOR PTL EXCLUDED - MAIL)	C	71-0	115-5	8,201
TR 1143 SET. (CONTRACTOR PTL EXCLUDED - MAIL)	D	84-0	115-5	9,703
R 1304 SET	E	50-5	115-5	5,833
TR 1196 SET	F	38-0	115-5	4,389
R 310B SET	G	24-0	131-0	3,144
R 3002 SET	H	25-75	131-0	3,373
R 1147 A SET	J	19-0	119-8	2,278
R 1147 A SET REPOSITIONED	K	19-0	127-8	2,429
BALLAST BOX & 3 WEIGHTS	L	85-0	115-5	9,768
BROWNING GUN WITH RELEASE & SAFETY UNITS:- GUNS NRS1 - 4	M	24-0	49-0	1,656
GUNS NRS5 - 6	N	24-0	64-5	1,548
100 ROUNDS OF 0.303" AMMUNITION	O	6-83	67-0	454
120 " " GUN WITH FIRING UNIT	P	15-4	58-75	9,780
100 ROUNDS OF 20 " " AMMUNITION	Q	82-5	68-8	4,309
MARTIN BAKER BLAST TUBES GUNS NRS1 - 4	R	22-2	48-0	1,067
GUNS NRS - 6	S	8-4	50-0	420

MAXIMUM ALL UP WEIGHT FOR ALL FORMS OF FLYING - 85,000 LB.

LENGTH OF MEAN CHORD 77.

APPROVED LIMITS OF C.G. TRAVEL ARE 56" TO 60-4" AFT OF DATUM POINT MEASURED PARALLEL WITH THRUST LINE.

NOTE 1: ITEM 8 INCLUDES BROWNING GUNS, FIRE &amp; SAFETY UNITS, REAR SEAT RELEASE UNITS, BALLAST BOX, CASE &amp; LOW CHUTE.

NOTE 2: ITEM 9 INCLUDES 100 ROUNDS, FIRING UNIT, CASE &amp; LOW CHUTE.

NOTE 3: ITEM 9 INCLUDES AMMUNITION, MAGAZINES, FEED NECK &amp; FEED MECHANISM.

NOTE 4: ITEM 7 INCLUDES ITEM 9 AND 800.

NOTE 5: ITEM 1 INCLUDES REFLECTOR SUN SHIELD &amp; FILAMENTAL NAVIGATIONAL COMPASS.

NOTE 6: CONTROLS, LANDING GEAR, FUELING EYES, COVERS FOR AIR INTAKE,

ENGINE, ENGINE &amp; HOOD, DOWNRA &amp; FOOT AXES.

NOTE 7: ITEM 10 &amp; 11 GALLS BY 20 LBS GALL, ITEM 12 BY 10 LBS GALL.

NOTE 8: ITEM 13 &amp; 14 GALLS BY 10 LBS GALL.