

3550.

Hunter F.Mk.1 & 2.

Drg. for
A.W., B
& G.

Std. 1000
Sheet 1.

PROTECTIVE TREATMENT FOR CLASS 1. AIRCRAFT.

9 10 At paragraph 'W' acid resisting paint B.S.X.19^W, altered to "acid resisting paint B.S.X.19 - white".

Reasons:- To avoid stocking more than one colour of this special paint.

Ref:- A.S. H. 200/17/P & A.S. H. 200/36.

Applies:- 126th A/C.

Note:- To be applied to other aircraft at production convenience.

'End of Amendment'.

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ALUMINIUM AND ALUMINIUM ALLOYS.

STAGE 1. This stage covers the basic treatment required for single parts before being joined to any other part.

GENERAL TREATMENT.

| Form of Material used. | Treatment | Remarks. |
|----------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Sheet } Strip } External skins } Sheet } Internal details } Strip } (general) | F + D + C or R | † Treatment 'N' may be used instead of 'D' only on aluminium coated L.A. sheet or strip. * To be inspected after 'D' and before 'C' or 'R'. |
| Bars } Castings } Forgings } Extrusions } | F + N + C or R | |
| Tubes, aluminium Piping, aluminium | F + D + C or R | |
| Tubes, aluminium alloy | F + D or N then C or R outside only | Where 'D' is impracticable due to shape or size, then treatment 'R' must be used. |

EXCEPTIONS.

| | | |
|----------------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------|
| Parts for spot welding | N + C or R | 'C' or 'R' immediately after welding. |
| Specific structural parts made from DTD. 610 sheet or strip. | F + D or N + C.2 | Where 'C.2' is specifically called for on drawings. |
| Internal details required for fuel, oil or drinking water tanks. | F + D | |
| Distance tubes. | | |
| Pipes for cabin heating, etc. | F + D | Specific drgs. will quote this treatment. |
| L.A. Castings with steel inserts. | C or R | |
| Machined fittings socketed or plugged. | F + D | |
| Machined parts involving fine limits. | F + D | |
| Sprockets | F + D + C or R | Teeth left unpainted. |
| High magnesium or copper content L.A. Castings, etc. | F + C | Specifications B.S.L. 5, L. 53, L. 8 or L. 11 & DTD. 264, 300, 428 or DTD. 598, DTD. 424. |
| Rivets, solid or tubular, L.A. or aluminium. Clips, washers, packings. | None | Standard colour identification as required by specification. |
| Aluminium jointing washers and laminated shims | None | Must be in soft condition for pipe system fitting joints. |
| Parts required for rubber bonding. | None | |
| Parts for ammunition boxes & pipe and fittings for flexible pipes. | F + D | |
| Structural details of ailerons, elevators and rudders. Inside surfaces of skins for ailerons, elevators & rudders | F + D + C.1 or F + D + H.1. | Applicable only to these parts on Fury, Sea Fury, Sea Hawk and Hunter production aircraft. |

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FERROUS PARTS.

STAGE 1. This stage covers the basic treatment required for single parts before being joined to any other part.

GENERAL TREATMENT - NON-STAINLESS STEELS.

| Form of material used. | | Treatment. | Remarks. |
|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------------------------|-------------------------------------------------------------------------------------------------|
| Sheet strip | Medium and low tensile | A.1 + B.1 + R or F + A.2 + B.1 + R | |
| | High Tensile | F + A.2 + B.1 + R or A.1 + B.1 + R. | 16 SWG or thicker. |
| Bars - any section. Machined parts *Stampings *Forgings. *Castings. | | F + B.1 + R | * To be inspected after B.1 and before 'R'. |
| Tubes | Medium and low tensile | A.1 + B.1 + R outside F + R inside. | |
| | High tensile | F + A.2 + B.1 + R outside F + R inside. | Tubes of T.2, T.57 & T.60 D.T.D.254, & D.T.D.408 Specs. must be plugged before treatment 'A.2'. |
| | Welded- unsuitable for immersion | U.1 outside F inside | |
| Pipes for fluid and air | | F + R outside F inside | e.g. hydraulic, oil, petrol or pneumatic. |
| Bolts, pipe end fittings for flex. pipes, nuts, screws, distance tubes, rivets, clips, washers, internal fittings of tanks, packings. | | F + B.1 | |

EXCEPTIONS.

| | | |
|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Structural details of ailerons, elevators and rudders. | A.1 + B.1 + C.1 or H.1 or F + A.2 + B.1 + C.1 or H.1 | Applicable only to these parts on Fury, Sea Fury, Sea Hawk & P.1067 production aircraft. |
| Machined fittings, socketed or plugged and parts involving fine limits. e.g. close tolerance bolts. | F + B.1 + H.3* | * Parts which require grinding are to be plated before grinding & H.3 applied to ground surfaces. |

EXCEPTIONS CONTINUED ON SHEET 4.

FERROUS PARTS.

STAGE 1. This stage covers the basic treatment required for single parts before being joined to any other part.

GENERAL TREATMENT - NON-STAINLESS STEELS.

| Form of material used. | | Treatment. | Remarks. |
|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|--------------------------------------------|------------------------------------------------------------------------------------------------|
| Sheet strip | Medium and low tensile | A.1 + B.1 + W or F + A.2 + B.1 + W | 16 SWG or thicker. |
| | High tensile | F. + A.2 + B.1 + W or A.1 + B.1 + W | |
| Bars - any section. Machined parts * Stampings * Forgings * Castings | | F + B.1 + W | * To be inspected after B.1 and all machining completed before applying 'W'. |
| Tubes | Medium and low tensile | A.1 + B.1 + C outside F + R inside. | Tubes of T.2, T.57 & T.60 D.T.D.254 & D.T.D.408 Specs. must be plugged before treatment 'A.2'. |
| | High tensile | F + A.2 + B.1 + C outside F + C inside. | |
| | welded-unsuitable for immersion. | U.1 outside. F inside. | |
| Pipes for fluid and air | | F + W outside F inside. | e.g. hydraulic, oil, petrol or pneumatic. |
| Bolts, pipe end fittings for flex. pipes, nuts, screws, distance tubes, rivets, clips, washers, internal fittings of tanks, packings. | | F + B.1. | |

TITLE:- Protective treatment for Class 1 aircraft.

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| DRAWN | CHECKED | APPROVED | ISSUE | 14 | 15 | | | SHEET 4 of 17 |
| R.H. Shaw 8.3.46 | | W.S.H. | Amend. or Mod. | A.S.H. 650/82 | A.S.H. 710/31 | | | STD. 1000 |
| | | | | A.S. SH.N. | A.S. SH.N. | | | |

FERROUS PARTS (CONT'D).

EXCEPTIONS.

| Form of material used. | Treatment | Remarks. |
|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Structural details of ailerons, elevators and rudders. | A.1 + B.1 + W or R or H.1 OR F + A.2 + B.1 + W or R or H.1. | Applicable only to parts on Sea Fury, Sea Hawk and Hunter production aircraft. |
| Machined fittings, socketed or plugged and parts involving fine limits, e.g. close tolerance bolts, shear bolts etc. | F + B.1 + H.3*. | * Parts which require grinding are to be plated before grinding & H.3 applied to ground surfaces. |
| Armour plate | C | Must not be de-scaled |
| Tinned steel | F + W | Tank internals - none. |
| Ammunition boxes Ammunition necks | U.1 or U.3 inside & outside | Treatment 'U.3' not for H.T.S. Material. |
| Ammunition chutes | H.2 inside C or W outside. | |
| Parts to be welded | None. | |
| Sprockets | F + B.1 + W | Teeth left unpainted. |
| Pipes for cabin heating etc. | U.1 outside ≠ | ≠ Specific drawings will quote this treatment. |
| Parts required for rubber bonding | None. | |
| Chains, ball, roller & needle roller bearings. | None. | † |
| Springs and Spring steel parts. | F + H.2 | All springs greater than 1/2" o/d except those working in oil. |
| | F + H.3 | All springs working in oil, also springs of 1/2" o/d & less. |
| Bearing surfaces and fittings | H.3 | |

TITLE:- Protective treatment for Class 1 aircraft.

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| R.H. Shaw 8.3.46. | | W.S.H. | Amendt. or Mod. | A.S.H. 650/82 A.S.SH.N. 596 | A.S.H. 710/31 A.S.SH.N. 596 | | | STD. 1000 |

STAINLESS STEELS.
General Treatment.

(FERROUS PARTS CONTINUED)

Sheet
Strip
Bars - any section
Tubes
Locking wire

None.

Where assembled parts are to receive colour finish to match adjacent structure then one coat of R+1 coat of C. to be applied to the detail parts.

TITLE:- Protective treatment for Class 1 aircraft.

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| R.E. Shaw 8.3.46 | | W.S.H. | Amendt. or Mod. | A.S.H. 840/71 A.S. SH.N. | A.S.H. 1290/96 | | | STD. 1000 |

NON-FERROUS PARTS. Brass, Copper, Tungum, Monel, Nickel or Copper Alloys, (Excluding Aluminium or Aluminium Alloys) etc.

STAGE 1. This stage covers the basic treatment required for single parts before being joined to any other part.

| Form of Material used. | Treatment. | Remarks. |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Sheet Strip Foil Bars - any section Tubes - not pipes Locking wire | F + B.1 + W None. | |
| Bolts Nuts Screws Rivets | F + B.1 | |
| Castings Stampings Forgings | A.1 + B.1 + W | To be inspected after 'B.1' and before 'W'. |
| Pipes for fluids or air | F then W outside only | Fuel, oil, water or hydraulic pipes. |
| EXCEPTIONS | | |
| Piping, oxygen. | None. | See S.I.S.2611 |
| Sheet } Pipes } for sweating, brazing, etc. Bearing surfaces Oil retaining bearings Laminated shims- (G.E.C. Balance weights(lead), (Heavy alloy) | None. | |
| Pipes for cabin heating, etc. | None \neq | \neq Specific drgs. will quote this treatment. |
| Pipe end fittings for flex. pipes. | None | i.e. Tube ends up to 12" long. |
| MAGNESIUM | | |
| * Sheet * Strip Bar Forgings Castings | E.1 | *Any traces of colloidal graphite remaining after forming operations to be removed by a Nitro-benzene bath prior to treatment. |

TITLE:- Protective treatment for aircraft.

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NON-FERROUS PARTS.

Continued:-

MISCELLANEOUS.

Cork jointing gaskets
Fibre
*Plastics

None

*Cut surfaces to receive one coat of J or C, except parts used inside ammunition boxes or feed necks.

WOOD

C then L
external only.

TITLE:-

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| R.H. Shaw 8.3.46 | | W.S.H. | Amendt. or Mod. | A.S.H. 530/74 A.S.S.H.N 531 | A.S.H. 710/31 A.S.S.H.N 596 | ASH. 1010/64 ASH.H. 750 | | STD.1000 |

DETAIL ASSEMBLIES

STAGE 2. This stage covers the treatment required when joining together more than one part to form a detail assembly.

NOTE:- The total number of coats of Primer required throughout Stages 1 to 3 is two, unless otherwise stated.

Details consisting of more than one part.

All individual contacting surfaces to receive one coat of 'P' and joined while wet.
The detail to be given a further coat of 'C' if considered desirable.
The second coat of 'C' may be omitted at this stage and applied at Stage 3.

Detail assemblies
Which include Clips, Washers, Packings and any parts made of stainless steel.

All individual contacting surfaces to receive one coat of 'P' and to be joined while wet. Followed by one coat of 'C' or, if desired, this coat of 'C' can be omitted at this stage and applied at Stage 3.

EXCEPTIONS.

TREATMENT.

Welded steel assemblies

A.1 + B.1 + W

Welded aluminium assemblies

F + D or N + C

Rubber bonded parts

C

Ammunition boxes

The individual contacting surfaces to receive one coat of 'P' and joined while wet. The coats of 'C' externally, no primer on inside surfaces.

Fabricated sheet steel parts.
(Unsuitable for cadmium plating due to danger of trapped electrolyte)

A.1 + U.1 + C

Sub-assemblies of ailerons, elevators and rudders.

Individual contacting surfaces to receive one coat of 'P' and joined while wet.
Primer 'C' must not be applied.
NOTE:- Applicable only to these parts on Sea Fury, Sea Hawk and Hunter production aircraft.

TITLE:- Protective Treatment for Class I Aircraft.

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| | | | | A.S.H.N. 596 | A.S.H.N. 596 | | | |

DETAIL ASSEMBLIES (CONT'D).

| | |
|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Flexible pipes, assemblies, contacting surfaces inside tanks. | None. |
| Close fitting parts with lubricating holes or grooves. | Mating surfaces, grooves or holes to be charged with the lubricant applicable to the assembly. |
| Copper, brass or Tungum pipes with brazed or silver soldered brass fittings. | F + W + Appropriate colour finish if called for on aircraft drawings outside only. |
| Other Pipes. | Appropriate colour finish if called for on aircraft drawings outside only. May be applied at Stage 3 if desired. |
| | |

TITLE:- Protective Treatment for Class I Aircraft.

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FINAL ASSEMBLIES.

STAGE 3. This stage covers the treatment required for components or assemblies consisting of single parts and/or detail assemblies.

NOTE: The total number of coats of Primer required throughout stages 1 to 3 is two unless otherwise stated.

General for all components or assemblies.

All individual contacting surfaces to receive one coat of 'P' and assembled while wet.

The component or assembly to be given the second coat of 'C' unless this has been applied at Stage 2, care being taken to ensure a good fillet of paint to seal all edges of multi-plate fittings and the like.

For special cases see Sheets 12, 13, 14.

EXCEPTIONS

TREATMENT.

Cork (except floats)

Two coats of 'J'

Plastics.

Surfaces cut or otherwise exposed after manufacture to receive one coat of 'J' or 'C', except parts used inside ammunition boxes or feed necks. No 'P' at joints - treatment none.

Jointing gaskets (Asbestos base type).
Jointing gaskets (Cork or rubber bonded cork type).

Approved jointing compound.
None.

Ailerons, elevators and rudders.

Individual contacting surfaces to receive one coat of 'P' and joined while wet. Primer 'C' must not be applied internally.
Note: Applicable only to these parts on Sea Fury, Sea Hawk and Hunter prodn. a/c.

Instrument panel assemblies.

No 'P' between instrument cases and panel.

TITLE:- Protective treatment for Class 1 aircraft.

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FINAL ASSEMBLIES (CONT'D.)

| | |
|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STAGE 3. | Special cases. |
| Cockpit and crew stations | All cockpit and crew stations to receive in addition to 'C' one coat of 'K' - see specific aircraft drawings. |
| Compartments for fuel tanks | All metal surfaces within the compartments must be painted. |
| Cowl panels etc. fixed and removable. | If not already covered by detail stage complete treatment is:- F + D or N*+C inside and outside. In addition 'L' is given to suit the finishing scheme of aircraft concerned. <u>NOTE:-</u> Anodic treatment to be done after forming and bending etc. * Treatment 'N' not applicable to Naval Aircraft. |
| External surfaces fabric covered. | 'O' in accordance with finishing scheme of aircraft concerned. |
| External surfaces metal covered. | 'L' in accordance with finishing scheme of aircraft concerned. |
| Holes for rivets. | All holes in structures whether drilled, punched or pressed countersunk to be painted over with either 'C' or 'P' and the rivets inserted and closed while the paint is wet wherever practicable. |
| Bolts and bolt holes except bolts required to be easily removed in service. | Depending on the diameter and location of holes, all bolt shanks or bolt holes are to be painted over with either 'C' or 'P' and assembled and tightened while the paint is still wet. |
| Accumulator stowages and area in vicinity liable to contamination from spillage or cracked battery. | In addition to the existing treatment, one coat of 'W' to be applied to acid accumulator stowages or alkaline accumulator stowages. See specific aircraft drawings. |
| Flexible pipes. | No treatment. |
| Gun and Ammunition packs or compartments where light reflectivity is a requirement. | In addition to the existing treatment one coat of 'W' to be given to the inside of the compartments. See specific aircraft drawings. |
| Tubular rivets | All tubular rivets must be painted after riveting, the bore cleaned and well coated with paint. |

TITLE:- Protective Treatment for Class I Aircraft.

| | | | | | | | | | |
|-----------|---------|----------|--------------------|------------------|------------------|--|--|--|-------------------|
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FINAL ASSEMBLIES (CONT'D).

| <u>STAGE 3.</u> | | Special cases. |
|---------------------------------------------------------------------------------------------------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tanks, fuel and oil, | | After anodising, three coats (total) of 'C' or 'R' outside, tanks which are covered with an approved bullet-proof covering are to be anodized but not painted. |
| Tanks, drinking water. | | After anodising 'Q' inside and two coats of 'C' or 'R' externally. |
| Welded structure, engine mountings, etc., e.g. those components unsuitable for cadmium plating owing to their large size. | | U.1 + C externally and wherever practicable. F + C inside. |
| Dashboards, labels, etc. | | A.1 (Fine, on face) + D or N + V. See specific aircraft drawings. |
| Fabric covered parts. | | C + one coat of dope resisting paint where fabric is in contact with part. |
| Insulation between pipes and clips. | | Varnished cloth strip B.S.S.419 or D.T.D.320 |
| Control cables with swaged and fittings, or spliced ends. | | H.3 |
| Control Cables with sweated end fittings. | | See Hawker Std. 1769 for lubrication. After sweating on end fittings with flux, D.T.D.81, ends to be washed in boiling water, well dried and immersed in hot oil. |
| Form of material used. | Treatment. | Remarks. |
| Covers and stowage bags, etc. | M.1 | Zinc naphthanate process. (Sections I and II, Para.8 of Specification). |
| Padding, lining felt, Balloon Cord, etc. | M.1 | As above, or Pentachlorophenyl Laurate process, (Sections I and II, Para.16 of Specification,) unless parts are encased in rubber or rubber solution. |

TITLE:- Protective treatment for aircraft.

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|-----------|---------|----------|---------|-------------------|--|--|--|----------|
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FINAL ASSEMBLIES (CONT'D).

| Form of material used. | Treatment | Remarks. |
|---------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Sun Blinds. | M.1 | Salicylanilide process (Sections I and II, Para. 14 of Specification), the wax being omitted, but outside of blind to be aluminium varnished. |
| Cotton and flax sewing threads. | M.1 | Chrome - copper process (Sections I and II, Para.12 of Specification. |

TITLE:- Protective treatment for aircraft.

| | | | | | | | |
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| R.E. Shaw 8/2/46 | | W.S.H. | Amendt. | A.S.H. | 10/10/46 | | |

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