

**HUNTER AIRCRAFT SERVICING SCHEDULES**

**MK.57**  
*(H.S.A.5)*

**MAJOR SERVICING**

*Volume 5, Part 4*

**SECTION 4**

**ENGINE SERVICING**

**INSTRUMENTS SERVICING**



# HUNTER AIRCRAFT SERVICING SCHEDULES

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**MAJOR SERVICING**  
**SECTION 4 — ENGINE**  
**N.C.O.**

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Item No.	ITEM	OPERATION
1.	General.	(i) Read Lethal Warning Card, Safety Precautions and Servicing Notes of this Handbook. (ii) Examine the aircraft Servicing Documents for reports of any defects and for life expired components or components due for overhaul.
2.	Ejection seat(s) and hood (general safety)	Ensure that the seat(s) and hood firing unit cartridges <u>have been removed</u> by the Armament Tradesman.
<u>N.B.</u> No further servicing is to be commenced <u>until this safety condition has been carried out.</u>		
3.	Ground run (pre-servicing)	(i) Start and run the engine as detailed in Part 2, Section 5 of this Schedule. (ii) Carry out a pre-servicing ground test as detailed in Part 2, Section 5 of this Schedule and in the Ground Handling Notes (or relevant authorised instructions).
4.	Fuel system.	(i) Supervise examination for presence of water. (ii) Supervise refuelling as detailed in Part 2, Section 4 of this Schedule. (iii) In conjunction with Instruments (GEN) N.C.O. supervise defuelling as detailed in Part 2, Section 4 of this Schedule (for zeroing fuel gauges).

Item No.	ITEM	OPERATION
5.	Engine access doors and panels.	(i) Supervise removal and cleaning. (ii) Examine for damage. (iii) Examine fasteners for wear, damage and security.
<p><u>N.B.</u> In Item 6 care is to be taken to prevent AVPIN coming into contact with the skin. If this should happen the AVPIN is to be <u>washed off at once with soap and water</u>, and if any AVPIN should enter the eyes, ears, nose or mouth, the affected areas are to be washed out immediately <u>and the operator report for medical attention.</u></p>		
6.	Liquid fuel starter system (if fitted).	(i) Ensure electrical supply is 'OFF'. (ii) Supervise servicing of the installation. (iii) Upon completion of the relevant servicing carry out THREE false starts as follows:- 1. To prime pipelines. 2. To check for fuel leaks. 3. To collect and measure fuel exhausted. (This should not exceed 105 c/cs.) (iv) Supervise replenishment of the I.P.N. fuel tank.
7.	Turbo combustion starter system (if fitted)	(i) Ensure electrical supply is 'OFF'. (ii) Supervise removal of the cartridges from the breech and stowages. (iii) Supervise removal of the starter for Bay Servicing. (iv) Supervise fitment of new or serviced starter. (v) Supervise fitment of cartridges into breech and stowages.

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Item No.	ITEM	OPERATION
8.	Jet pipe.	<ul style="list-style-type: none"><li>(i) Supervise removal as detailed in the aircraft Vol.1, Sect.4, Chap.1.</li><li>(ii) Examine for damage or severe rippling of the inner skin.</li><li>(iii) Examine the inner skin for circumferential cracking, particularly at seam welds. (S.I./AVON/17, S.I./AVON/25 and S.I./AVON/38 refers).</li><li>(iv) Record the position and length of any crack which is insufficient to cause rejection.</li><li>(v) Upon completion of the relevant servicing, supervise the fitting of a serviced or replacement jet pipe as detailed in the aircraft Vol.1, Sect.4, Chap.1.</li></ul>
9.	Engine change unit.	<ul style="list-style-type: none"><li>(i) Supervise removal as detailed in Part 5, Section 1 of this Schedule.</li><li>(ii) If life expired, transport to Engine Bay for dismantling and packing as detailed in Part 6, Section 4 of this Schedule.</li><li>(iii) Upon completion of the relevant servicing, supervise the installation of a serviced E.C.U. as detailed in Part 5, Section 3 of this Schedule.</li></ul>

Item No.	ITEM	OPERATION
10.	(a) Hydraulic pump. ) (b) Generators. ) (c) Auxiliary gear box. ) (d) Gear box drives. ) (e) Engine coupling. )	(i) Supervise removal for Bay Servicing. (ii) Supervise fitment of new or serviced items.
11.	Fire extinguisher system.	With assistance of Engine Tradesman, blow through spray pipelines with compressed air ensuring that all spray holes are clear.
12.	(a) Throttle controls. ) (b) L.P. cock. ) (c) H.P. cock ) (as applicable)	Supervise servicing.
13.	Engine bay.	(i) Supervise cleaning. (ii) Supervise removal of all tools, rags and other Servicing materials before the E.C.U. installation.
<u>N.B.</u> Items 14 to 22 are applicable only when a new or overhauled E.C.U. is <u>NOT</u> being fitted.		
14.	Combustion chamber.	(i) Examine for signs of local overheating, indicated by discolouration of the air casing. (ii) Examine for signs of gas leak.

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Item No.	ITEM	OPERATION
15.	Intake guide vanes and compression blades.	(i) Clean.
		(ii) Using a strong light, examine for cracks or damage. Acceptance standards are defined in A.P.4481 C and G, Vol.1, Part 2, Sect.3, Chap.2, <u>and these standards must be strictly observed.</u>
		(iii) Check compressor seal for rubbing (S.I./AVON/9 refers).
16.	(a) Turbine blades. )	(i) Examine for cracks or damage.
	(b) Stator blades. )	(ii) Check turbine for seal rubbing (S.I./AVON/9 refers).
<u>N.B.</u> Item 17 is applicable only to <u>AVON 100 Series engines.</u>		
17.	Manifold drain.	(i) Select L.P. and H.P. cocks to 'OPEN'.
		(ii) Set L.P. fuel pump switch to 'ON' and run for two minutes. <u>NOTE:-</u> During this time a fuel flow of between 100 and 200 c/cs should be ejected from the drain.
		(iii) Set L.P. fuel pump switch to 'OFF'.

Item No.	ITEM	OPERATION
17.	Manifold drain (contd.)	(iv) If no fuel is ejected, repeat operations (i) to (iii) inclusive. If again no fuel is ejected carry out a dry engine run with ignition 'OFF' and again check for fuel flow. <u>NOTE:-</u> If no fuel is ejected, <u>no attempt to start the engine is to be made until the drain valve has been checked, cleaned and operations (i) to (iii) inclusive carried out satisfactorily.</u>
		(v) Close L.P. and H.P. cocks.
18.	Oil filter.	(i) Remove and examine for foreign matter or metal particles.
		(ii) Clean in filtered kerosine.
		(iii) Immerse in clean engine oil to required Specification.
		(iv) Refit, using new sealing ring under the cover plate.
19.	Fuel filter.	(i) Remove and examine for water or foreign matter.
		(ii) Fit new filter element.

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Item No.	ITEM	OPERATION
<u>N.B.</u>	Item 20 is applicable only to AVON 200 Series engines which <u>have NOT been subjected to AVON Repair Scheme 1235.</u>	
20.	Compressor, rear lower half casing.	<p>(i) Measure the maximum distance between the end faces of the F.C.O.C. outlet connection B.A.66954 and the R.T.C.U. inlet connection B.A.53873. Submit for rectification any engine where the measurement exceeds 0.962 in.</p> <p>(ii) Check, with feeler gauges, any clearance which exists between the rear upper and lower F.C.O.C. mounting pads and the face of the adjacent bosses on the compressor rear lower half casing.</p> <p>Any clearance is permissible at one mounting pad, provided that NIL clearance exists at the other pad.</p> <p>A maximum clearance of 0.010 in. is permissible at both rear mounting pads. Where clearance exists at both rear pads it must not exceed 0.010 in. on either one.</p> <p>Submit for rectification any engine which does not conform to the above. (S.I./AVON/27 refers).</p>

Item No.	ITEM	OPERATION
<u>N.B.</u>	Item 21 is applicable only to AVON 100 Series engines <u>without Mod. AVON 972 embodied.</u>	
21.	Exhaust unit.	Examine for fracture of securing studs (S.I./AVON/15 refers).
22.	High energy igniter plugs.	In conjunction with Electrical N.C.O. supervise functional checks of igniter plugs.
23.	Oil sump.	Supervise replenishment with oil to required Specification.
24.	Fuel filter de-icing system (if fitted)	Carry out pressure tests and functional checks as detailed in Part 2 Section, 5 of this Schedule.
25.	Fuel System	
	(a) Fuel flow proportioner. )	(i) Supervise removal for Bay Servicing.
	(b) Fuel cock actuators. )	(ii) Supervise fitment of new or serviced item.
	(c) Non-return valves SPE2191 (if fitted)	(i) Supervise removal from pipelines. (ii) Supervise testing as detailed in A.P.4737 Vol.1 & 6, Sect.3, Chap.4. (S.I./HUNTER/70 refers).
	(d) Pressure tests.	(iii) Supervise fitment of new or serviced valves. Test the control box and carry out a fuel system pressure tests as detailed in the aircraft Vol.1, Sect.4, Chap.2.
	(e) Fuelling.	(i) Supervise refuelling and defuelling as required by Instrument (GEN) N.C.O. (for zeroing fuel gauges). (ii) Supervise refuelling after zeroing.

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Item No.	ITEM	OPERATION
26.	Aircraft generally.	Supervise the removal from the aircraft of all tools, rags and other Servicing materials.
27.	Ground run (post servicing)	
	<u>N.B.</u> Operations (i) and (iii) are applicable only to aircraft <u>without Mods. 916 &amp; 917 embodied.</u>	
	(i)	Supervise fitting of test rig and pressure gauges for testing Hymatic reducing valves PS48/8 and PS48/12 as detailed in Part 2, Section 5 of this Schedule.
	(ii)	Start and run the engine as detailed in Part 2, Section 5 of this Schedule.
	(iii)	Check the Hymatic reducing valves PS48/8 and PS48/12 as detailed in Part 2, Section 5 of this Schedule (S.I./HUNTER/55 and S.I./HUNTER/60 refers).
	(iv)	Carry out a ground test as detailed in Part 2, Section 5 of this Schedule and in Ground Handling Notes (or relevant authorised instructions).
	(v)	In conjunction with relevant Trade N.C.O.s continue to run the engine as required for system checks.

Item No.	ITEM	OPERATION
27.	Ground run (post servicing)	(vi) Stop the engine, listen for any unusual noises during run down and ensure that fuel is ejected from the combustion chamber drain.
28.	Engine installation (post ground run)	(i) Supervise removal of all test equipment. (ii) Supervise removal of engine access panels and doors. (iii) Examine for fuel, oil or hydraulic fluid leaks. (iv) Supervise fitting of access panels and doors, ensuring flush fitting and correct locking.
29.	(a) Air intake blanks. ) (b) Jet pipe blank. )	Supervise fitting.
30.	Servicing Documents.	(i) Sign for E.C.U. change. (ii) Sign for completing the relevant Servicing.

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Item No.	ITEM	OPERATION
1.	General.	(i) Read Lethal Warning Card, Safety Precautions and Servicing Notes of this Handbook. (ii) Examine the aircraft Servicing Documents for reports of any defects and for life expired components or components due for overhaul.
2.	Ejection seat(s) and hood (general safety)	Ensure that the seat(s) and hood firing unit cartridges <u>have been removed</u> by the Armament Tradesman.
<u>N.B.</u> No further servicing is to be commenced <u>until this safety condition has been carried out.</u>		
3.	Ground run (pre-servicing)	Assist Engine N.C.O. during pre-servicing ground run.
4.	Fuel system	(i) Drain off a sample of fuel from each water drain. (ii) Examine for presence of water or foreign matter. If found, report to Engine N.C.O. (iii) Remove draining hose and replace sealing caps. (iv) Refuel and defuel as detailed in Part 2, Section 4 of this Schedule (for zeroing fuel gauges).

Item No.	ITEM	OPERATION
5.	Engine access doors and panels.	<ul style="list-style-type: none"> <li>(i) Remove and clean with Type A cleaning compound.</li> <li>(ii) Place on storage racks for examination by Engine N.C.O.</li> <li>(iii) Examine hinges for damage and security.</li> <li>(iv) Lubricate hinges with oil, OX-14.</li> </ul>
6.	Jet pipe.	<p>In conjunction with Airframe and Electrical Tradesmen:</p> <ul style="list-style-type: none"> <li>(i) Remove the jet pipe as detailed in the aircraft Vol. 1, Sect. 4, Chap. 1.</li> <li>(ii) Upon completion of the relevant servicing, fit new or serviced jet pipe as detailed in the aircraft Vol. 1, Sect. 4, Chap. 1.</li> </ul>
7.	Engine change unit.	<p>Supervised by Engine N.C.O.:</p> <ul style="list-style-type: none"> <li>(i) Remove as detailed in Part 5, Section 1 of this Schedule.</li> <li>(ii) Upon completion of the relevant Servicing, instal as detailed in Part 5, Section 3 of this Schedule.</li> </ul>
8.	Hydraulic pump.	<ul style="list-style-type: none"> <li>(i) Remove for Bay Servicing.</li> <li>(ii) Examine quill drive for wear and damage.</li> <li>(iii) Dip quill drive male serrations into oil OX-13 and fit 'wet' to gearbox.</li> <li>(iv) Lubricate quill drive female serrations with grease XG-275.</li> </ul>

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Item No.	ITEM		OPERATION
8.	Hydraulic pump (contd.)	(v)	Prime new or serviced pump with hydraulic fluid and fit to gearbox (S.I./HUNTER/30 refers).
9.	Generators.	(i)	Remove for Bay Servicing.
		(ii)	Apply oil OX-38 liberally to both ends of the quill drives and fit new or serviced generators.
<u>N.B.</u>	In Item 10 care is to be taken <u>when handling components using synthetic oil</u> as it has a detrimental effect on aircraft finish and on electrical leads, and is <u>injurious to the skin</u> . Before commencing servicing a prophylactic ointment is to be applied to the hands. Any oil spilt during servicing is to be wiped clean immediately.		
10.	Auxiliary gear box and drive.		
	(a) Auxiliary gear box.	) (i)	Remove for Bay Servicing.
	(b) Gear box drives.	) (ii)	Fit new or serviced items.
	(c) Engine coupling.	) (iii)	Replenish with oil to required Specification until:- <u>AVON 200 Series engines</u> Oil flows from the overflow drain <u>AVON 100 Series engines</u> The 'FULL' mark on the dipstick is reached.

Item No.	ITEM	OPERATION
10.	Auxiliary gear box and drive (contd.)	
	<u>N.B.</u> Operation (d) is applicable only to <u>AVON 200 Series engines.</u>	
	(d) Top mounting angle brackets.	(i) Examine for tightness the bolts attaching angle brackets, F.226691 and F.226692, to the mounting plate on the spigot at the top of the drive arm. (ii) Where any loose bolts are found, remove ALL bolts and check the holes for wear. (iii) Refit bolts, taking care to avoid overtightening. (S.I./HUNTER/56 refers).
11.	Liquid fuel starter system (if fitted)	
	(a) I.P.N. tank.	(i) Remove tank and check for internal corrosion as detailed in the aircraft Vol.1, Bk.1. (STI/HUNTER/339 refers). (ii) Refit tank as detailed in the aircraft Vol.1 Bk.1. (iii) Examine tank and connections for signs of leaks. (iv) Remove, clean and refit the filter. (v) Replenish the tank as necessary when instructed by Engine N.C.O.
	(b) Pipelines.	(i) Examine for damage and security. (ii) Examine for signs of fuel leaks. (iii) Examine all brazed nipple joints for signs of cracking at brazing and for fuel leaks, indicated by brown stains. (S.I./HUNTER/42 refers).
	(c) Pump and blower.	)
	(d) Solenoid valve.	)
	(e) Ignition switch.	)
	(f) H.P. switch unit.	)
		Examine for damage and security.

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Item No.	ITEM	OPERATION
11.	Liquid fuel starter system (if fitted) (contd.)	
	(g) Exhaust pipe.	(i) Remove from airframe. (ii) Check for cracks, particularly in the vicinity of the flange at Frame 27, using ARDROX detector. (iii) Check whether the flange is square to the pipe and whether distortion has taken place during previous engine removals. (iv) Fit a new pipe if any cracks, distortion or lack of squareness exist. (S.I./HUNTER/36 and S.I./HUNTER/67 refers).
	(h) Fairing drain.	Ensure the drain is clear, using if necessary, air pressure of 120 p.s.i. If glutinous deposit is found, report to Engine N.C.O.
	(j) Frame 27.	Examine area forward of Frame 27 for free fuel.
12.	Turbo combustion starter system (if fitted).	(i) Remove cartridges from the breech and stowages. (ii) Remove starter for Bay Servicing. (iii) Examine exhaust for damage. (iv) Fit new or serviced starter. (v) Fit cartridges into the breech and stowages.

Item No.	ITEM	OPERATION
13.	(a) Air intakes.	(i) Examine for damage.
	(b) Boundary bleeds.	(ii) Examine for loose or missing rivets (S.I./HUNTER/4 refers).
	(c) Starter fairings.	
	(d) Depression doors.	(i) Examine for damage and security. (ii) Examine for freedom of movement. (iii) Lubricate hinges with oil, OX-14.
14.	L.P. cock/H.P. cock controls (as applicable)	(i) Examine for damage, security and signs of fluid leaks. (ii) Examine for full and free movement. (iii) Check H.P. cock trigger (if applicable) for damage and wear. (iv) Lubricate with oil, OX-14.
15.	Throttle controls.	(i) Examine the throttle quadrant(s) for damage and security. (ii) Examine the control rods for damage or bowing. (iii) Examine the end fittings for wear and security. (iv) Examine cable conduit for damage. (v) Examine, by operation, the action of the throttle damper. (vi) Lubricate all pivot points with oil, OX-14.
<u>N.B.</u> Operation (vii) is applicable only to <u>AVON 100 Series engines.</u>		(vii) Check throttle controls and valves for serviceability and freedom of operation (S.I./AVON/10, S.I./AVON/12 and S.I./AVON/13 refers).

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Item No.	ITEM	OPERATION
<u>N.B.</u> Item 16 is applicable only to aircraft <u>without Mod.1073 embodied.</u>		
16.	Cabin conditioning system pipes C.201553/11 C.201553/12 B.201552 (SINGLE SEAT A/C) A.216968 (TWO SEAT A/C)	(i) Examine for signs of corrosion of the tungum piping, indicated by dark brown discolouration of the lagging.  (ii) In the event of any corrosion, renew ALL pipes and also the following pipes (S.I./HUNTER/76 refers). <u>SINGLE SEAT A/C</u> C.201553/5, C.201553/7, C.201553/9 <u>TWO SEAT A/C</u> A.220316, A.216978, A.216971 <u>CAMERA HEATING (if applicable)</u> B.233539/5, B.233539/6, B.233539/12, A.241951.
17.	Fire extinguisher system	
	(a) Bottle(s)	(i) Remove for cartridge testing. (ii) Ensure, by weighing, that new or serviced bottle(s) are full. <u>NOTE:</u> The 'full' weight is stamped on the head of each bottle. (iii) Fit new or serviced bottle(s).
	(b) Mounting brackets.	Examine for damage and security.
	(c) Pipelines and sprays.	(i) Examine for damage and security. (ii) Examine the packing in support clips for deterioration.

Item No.	ITEM	OPERATION
17.	Fire extinguisher system (contd.) (c) Pipelines and sprays (contd.)	(iii) Assist Engine N.C.O. to clear lines with compressed air.
18.	Fuel system. (as applicable)	
	(a) Fuel flow proportioner.	(i) Remove for Bay Servicing.
		(ii) Fit new or serviced item.
	(b) Fuel cock actuators.	In conjunction with Electrical Tradesman,
		(i) Remove for Bay Servicing.
		(ii) Fit new or serviced items.
	(c) Refuelling valves.	(i) Examine for damage and security.
		(ii) Examine for signs of fuel leaks.
	(d) Pipelines.	(i) Examine for signs of fuel leaks.
		(ii) Examine pressurizing pipes for damage and security.
	(e) Fuel recuperators.	With booster pumps ON (in turn) check that no fuel emerges from the main fuel vent pipe (S.I./HUNTER/29 refers).
	(f) Non return valves SPE2191 (if fitted)	(i) Remove the three non-return valves S.P.E.2191 from the pipelines.
		(ii) Test the valves as detailed in A.P.4737 Vol. 1, and 6, Sect.3, Chap.4. (S.I./HUNTER/70 refers).
		(iii) Fit new or serviced items.
	(g) Palmer air filter (Mod.917) (if fitted)	(i) Remove for Bay Servicing.
		(ii) Fit new or serviced item.

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18.	Fuel system (as applicable) (contd.)	
	(h) Gate valve.	(i) Examine for damage and security. (ii) Examine for signs of fuel leaks.
	(j) Fireproof box.	(i) Remove. (ii) Examine the pressure and suction relief valves for damage and security. (iii) Examine pipelines for damage and security. (iv) Ensure the drain pipe is clear. (v) Examine the vent pipe for damage and security. (vi) Refit the fireproof box.
	(k) Pressure tests.	Assist Engine N.C.O. to carry out pressure tests as detailed in the aircraft Vol.1, Sect.4, Chap.2.
19.	Fuel filter de-icing system (if fitted)	
	(a) Pump.	In conjunction with Electrical Tradesman, (i) Remove for Bay Servicing. (ii) Fit new or serviced item.
	(b) Tank.	(i) Examine for damage, security and signs of fuel leaks. (ii) Replenish as necessary.
	(c) Pipelines.	) Examine for damage, security and signs of fluid
	(d) Solenoid valve.	) leaks.

Item No.	ITEM	OPERATION
19.	Fuel filter de-icing system (if fitted) (contd.) (e) System.	Assist Engine N.C.O. to carry out pressure tests and functional checks as detailed in Part 2, Section 5 of this Schedule.
20.	Engine bay ducting and vents. (a) Air bleed ducts. ) (b) Compressor seal vent. ) (c) Generator cooling ducts. ) (d) Rear bearing cooling outlet pipes. ) (e) Auxiliary gear box vent. ) (f) Auxiliary gear box drive arm vent (if applicable) ) (g) Ventilation ducts. )	Examine for damage, security and freedom from obstruction.
21.	Engine bay drain pipes. (a) Turbine. ) (b) Oil cooler. ) (c) Fuel. ) (d) Auxiliary gear box. ) (e) Auxiliary gear box drive arm (if applicable) )	Examine for damage, security and freedom from obstruction.

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21.	Engine bay drain pipes (contd.)	
	(f) I.P.N. tank drain and vent ) (if applicable) )	Examine for damage, security and freedom from obstruction.
	(g) Starter. )	
	(h) Starter pump. )	
<u>N.B.</u>	Items 22 to 24 are applicable only when a new or overhauled E.C.U. is <u>NOT</u> being fitted.	
22.	Exhaust unit.	Examine for damage, cracks or severe rippling of the inner skin.
23.	(a) Engine casing. )	(i) Clean.
	(b) Components. )	(ii) Examine for damage and security.
	(c) Pipelines and connections. )	(iii) Examine for signs of fuel, oil or gas leaks.
24.	Engine mountings.	Examine for wear, damage and security.
25.	Engine bay.	(i) Clean thoroughly with dry rag. (ii) Remove all tools, rags and other Servicing materials before the E.C.U. installation.
26.	Oil sump.	Replenish as necessary with oil to the required Specification.

Item No.	ITEM	OPERATION
27.	Fuel system.	(i) Refuel and defuel as required by Instrument (GEN) N.C.O. (for zeroing fuel gauges). (ii) Refuel.
28.	Aircraft generally.	Remove from the aircraft all tools, rags and other Servicing materials.
29.	Ground run (post-servicing)	<u>N.B.</u> Operation (i) is applicable only to aircraft <u>without Mods. 916 and 917 embodied.</u> (i) Fit test rig and pressure gauges for testing Hymatic reducing valves as detailed in Part 2, Section 5 of this Schedule. (ii) Assist Engine N.C.O. during ground run.
30.	Engine installation (post ground run)	(i) Remove all test equipment. (ii) Remove access panels and doors. (iii) Examine for fuel, oil or hydraulic fluid leaks. (iv) Refit access panels and doors, ensuring flush fitting and correct locking.
31.	(a) Air intake blanks. ) (b) Jet pipe blank. )	Fit.
32.	Servicing Documents.	(i) Sign for E.C.U. change. (ii) Sign for completing the relevant Servicing.

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1.	General.	(i) Read Lethal Warning Card, Safety Precautions and Servicing Notes of this Handbook. (ii) Examine the aircraft Servicing Documents for reports of any defects and for life expired components or components due for overhaul.
2.	Ejection seat(s) and hood (general safety)	Ensure that the seat(s) and hood firing unit cartridges <u>have been removed</u> by the Armament Tradesman.
	<u>N.B.</u> No further servicing is to be commenced <u>until this safety condition has been carried out.</u>	
3.	Instrument panels.	(i) Supervise removal for Bay Servicing. (ii) Supervise refitting of serviced panels.
	<u>N.B.</u> Operation (iii) is applicable only to aircraft <u>without Mod. 502 embodied.</u>	
		(iii) Ensure pitot and static tubing is correctly positioned and free from kinking (S.I./HUNTER/22 refers).
4.	Fuel contents gauges.	In conjunction with Engine N.C.O. carry out zeroing check of the fuel contents gauges as detailed in the aircraft Vol.1, Sect.5, Chap.2.

Item No.	ITEM	OPERATION
5.	G.G.S. installation	
	(a) Control unit(s). )	
	(b) Relay amplifier(s) )	(i) Supervise removal for Bay Servicing.
	(c) Altitude unit(s) )	(ii) Supervise fitment of new or serviced items.
	(d) Sighting head(s) )	
	(e) Anti-topple unit(s) )	
	(f) Radar manual switch. )	
6.	Oxygen system.	
	(a) Regulator(s). )	
	(b) Reducing valve(s). )	(i) Supervise removal for Bay Servicing.
	(c) Contents gauge(s). )	(ii) Supervise fitment of new or serviced items.
	(d) Oxygen bottle(s). )	
	(e) Low pressure flexible hose(s). )	Supervise removal and fitment of new hose(s).
	(f) System. )	Carry out functional checks as detailed in Part 2, Section 5 of this Schedule.
7.	Cabin.	
	(a) Triple pressure gauge. )	
	(b) Emergency brake pressure gauge. )	
	(c) Anti-G pressure gauge. )	(i) Supervise removal for Bay Servicing.
	(d) Flaps emergency pressure gauge. )	(ii) Supervise fitment of new or serviced items.
	(e) Undercarriage emergency pressure gauge. )	
	(f) Accelerometer. )	
	(g) Cabin altimeter. )	
	(h) Altitude switch. )	

# HUNTER AIRCRAFT SERVICING SCHEDULES

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(H.S.A.5)

**MAJOR SERVICING**  
SECTION 4 -- INSTRUMENTS (GEN)  
N.C.O.

**VOLUME 5, PART 4**

Item No.	ITEM	OPERATION
8.	Fuel system pressure switches	
	(a) Tank pumps. )	(i) Supervise removal for Bay Servicing.
	(b) Rear tank line. )	(ii) Supervise fitment of new or serviced items.
	(c) Wing tank line. )	
	(d) Fuel delivery line. )	
9.	Hydraulic system pressure switches.	
	(a) System pressure. )	
	(b) Air brake system. )	(i) Supervise removal for Bay Servicing.
	(c) Ailerons. )	(ii) Supervise fitment of new or serviced items.
	(d) Elevator. )	
10.	Pressure controller.	(i) Supervise removal for Bay Servicing.
		(ii) Supervise fitment of new or serviced item.
		(iii) Carry out a leak test and contact assembly test as detailed in A.P.1275A, Vol.1.
11.	Exhaust gas thermometer.	
	(a) Thermo-couples. )	(i) Supervise removal for Bay Servicing.
		(ii) Supervise fitment of new or serviced items.
	(b) Thermometer.	Carry out calibration and functioning checks as detailed in the aircraft Vol.1, Sect.5, Chap.2. and A.P.1275A, Vol.1, Sect.17.

Item No.	ITEM	OPERATION
12.	Flying control position indicators - transmitters.	
	(a) Flaps. )	(i) Supervise removal for Bay Servicing.
	(b) Aileron trim. )	(ii) Supervise fitment of new or serviced items.
	(c) Tail plane. )	(iii) In conjunction with Airframe N.C.O. adjust the transmitters until the indicators read ZERO with the control surface in the NEUTRAL position.
	(d) Rudder trim. )	
13.	Pitot and static system.	(i) Supervise draining and drying by hot air blowing.
		(ii) Carry out a leak test as detailed in A.P. 1275B Vol.2.
14.	Autostabiliser system (if fitted)	
	(a) Servo unit and trim actuator. )	
	(b) Gyro unit. )	
	(c) Slave relay unit. )	(i) Supervise removal for Bay Servicing.
	(d) Amplifier. )	(ii) Supervise fitment of new or serviced items.
	(e) Monitor unit. )	
	(f) Phase advance unit. )	
	(g) System. )	Carry out a functional check as detailed in Part 2, Section 5 of this Schedule.
15.	Gyro gun sight(s).	In conjunction with Armament and Photographic N.C.O., harmonize as detailed in the relevant authorised instructions.

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**MAJOR SERVICING**  
SECTION 4 — INSTRUMENTS (GEN)  
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Item No.	ITEM	OPERATION
16.	G.G.S. installation.	(i) Carry out checks as detailed in A.P.1275E Vol.1, Sect.5, Chap.5. (ii) With Power 'ON', set indicator lamps dimmer switch to 'DAY'. (iii) Press indicator lamps test button and ensure that both indicator lamps on the sight head illuminate. (iv) With the test button depressed, set indicator lamps dimmer switch to 'NIGHT' and ensure both indicator lamps on the sight head dim. (v) Reset dimmer switch to 'DAY' and set power to 'OFF'.
17.	Cabin pressure control system.	Assist N.C.O. in cabin pressurisation test.
18.	Cabin conditioning.	(i) Carry out leak test and contact assembly test of pressure controller and combined valve unit as detailed in A.P.1275A Vol.1, Sect.20. (ii) In conjunction with Airframe N.C.O. during pressurization test, ensure the combined valve unit operates correctly.

Item No.	ITEM	OPERATION
19.	Position indicators.	In conjunction with Airframe N.C.O. during flying control functional tests, ensure the position indicators function correctly.
20.	Aircraft generally.	Supervise the removal from the aircraft of all tools, rags and other Servicing materials.
21.	Ground run.	In conjunction with Engine N.C.O. during ground run, ensure all engine and gyro instruments function correctly.
22.	Servicing Documents.	Sign for completing the relevant Servicing.

# HUNTER AIRCRAFT SERVICING SCHEDULES

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(H.S.A 5)

## MAJOR SERVICING SECTION 4 — INSTRUMENTS (GEN) TRADESMEN

VOLUME 5, PART 4

Item No.	ITEM	OPERATION
1.	General.	(i) Read Lethal Warning Card, Safety Precautions and Servicing Notes of this Handbook. (ii) Examine the aircraft Servicing Documents for reports of any defects and for life expired components or components due for overhaul.
2.	Ejection seat(s) and hood (general safety)	Ensure that the seat(s) and hood firing unit cartridges <u>have been removed</u> by the Armament Tradesman.
	<u>N.B.</u> No further servicing is to be commenced <u>until this safety condition has been carried out.</u>	
3.	-(a) Instrument panels.	(i) Remove for Bay Servicing. (ii) Upon completion of the relevant servicing fit serviced instrument panels.
	-(b) Anti-vibration mountings. )	(i) Examine for damage or deterioration.
	-(c) Instrument pipelines. )	(ii) Examine for correct routing and chafing on
	-(d) Pitot and static tubing. )	airframe structure.
4.	Fuel contents gauges.	Assist Instruments (GEN) N.C.O. to carry out zeroing check as detailed in the aircraft Vol. 1, Sect. 5, Chap. 2.

Item No.	ITEM	OPERATION
5.	G.G.S. installation.	
	-(a) Control unit(s) )	
	-(b) Relay amplifier(s) )	
	-(c) Altitude unit(s) ) (i)	Remove for Bay Servicing.
	-(d) Sighting head(s) ) (ii)	Fit new or serviced items.
	-(e) Anti-topple unit(s) )	
	-(f) Radar manual switch )	
6.	Oxygen system.	
	-(a) Regulator(s) ) (i)	Remove for Bay Servicing.
		(ii) Fit new or serviced regulators, using new rubber cuffs at the regulator outlet (S.I./INSTRUMENTS/20 refers).
	-(b) Reducing valve(s) ) (i)	Remove for Bay Servicing.
	-(c) Contents gauge(s) ) (ii)	Fit new or serviced items.
	-(d) Low pressure flexible hose(s).	Remove and fit new hose(s).
	-(e) Filter(s).	Remove, clean, dry thoroughly and refit.
	-(f) Line valve(s) ) (i)	Examine for damage and security.
	-(g) Charging valve. ) (ii)	Clean with degreasant compound.
	-(h) Pipelines. )	
	-(j) Oxygen bottle(s) ) (i)	Remove for Bay Servicing.
		(ii) Examine replacement bottle(s) for corrosion.
		(iii) Examine, on neck of bottle(s), stamped date of last reconditioning and testing. Date is not to exceed 2 years.
		(iv) Fit new or serviced bottle(s).

# HUNTER AIRCRAFT SERVICING SCHEDULES

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**MAJOR SERVICING**

**SECTION 4 — INSTRUMENTS (GEN)  
TRADESMEN**

**VOLUME 5, PART 4**

Item No.	ITEM	OPERATION
6.	Oxygen system (contd.) (k) System. <small>FOR C.</small>	<ul style="list-style-type: none"> <li>(i) Assist Instrument (GEN) N.C.O. to carry out functional checks as detailed in Part 2, Section 5 of this Schedule.</li> <li>(ii) Replenish the system to 'FULL'.</li> <li>(iii) Refit charging valve blanking cap and dust cover.</li> </ul>
7.	Cabin.	
	(a) Triple pressure gauge. ) ✓	
	(b) Emergency brake pressure gauge. )	
	(c) Anti-G pressure gauge. )	
	(d) Flaps emergency pressure gauge. ) → (i)	Remove for Bay Servicing. Fit new or serviced items.
	(e) Undercarriage emergency pressure gauge. ) → (ii)	
	(f) Accelerometer. )	
	(g) Cabin altimeter. )	
	(h) Altitude switch. )	

Item No.	ITEM	OPERATION
8.	Pressure head (Mk. 9 and 9A)	<ul style="list-style-type: none"> <li>(i) Examine the heating element, by feel, for correct functioning.</li> <li>(ii) Examine for mal-alignment with the extension tube. If mal-alignment exceeds <math>\frac{1}{4}</math> inch, the pressure head and extension tube are to be replaced. (S.I./INSTRUMENTS/11 refers).</li> <li>(iii) Examine for transverse cracks in the vicinity of the static slots. (S.I./INSTRUMENTS/19 refers).</li> <li>(iv) Ensure the pressure hole and static slots are free from obstruction.</li> <li>(v) Fit pressure head cover.</li> </ul>
9.	Fuel system pressure switches.	In conjunction with Engine Tradesman:-
	<ul style="list-style-type: none"> <li>-(a) Tank pumps. )</li> <li>-(b) Rear tank line. )</li> <li>-(c) Wing tank line. )</li> <li>-(d) Fuel delivery line. )</li> </ul>	<ul style="list-style-type: none"> <li>(i) Remove for Bay Servicing.</li> <li>(ii) Fit new or serviced items.</li> </ul>
10.	Hydraulic system pressure switches.	In conjunction with Airframe Tradesman:-
	<ul style="list-style-type: none"> <li>-(a) System pressure. )</li> <li>-(b) Air brake system. )</li> <li>-(c) Ailerons. )</li> <li>-(d) Elevator. )</li> </ul>	<ul style="list-style-type: none"> <li>(i) Remove for Bay Servicing.</li> <li>(ii) Fit new or serviced items.</li> </ul>
11.	Pressure controller.	<ul style="list-style-type: none"> <li>(i) Remove for Bay Servicing.</li> <li>(ii) Fit new or serviced item.</li> <li>(iii) Assist Instrument (GEN) N.C.O. to carry out leak and contact assembly test as detailed in A.P.1275A Vol.1.Sect.20.</li> </ul>

# HUNTER AIRCRAFT SERVICING SCHEDULES

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(H.S.A 5)

## MAJOR SERVICING SECTION 4 — INSTRUMENTS (GEN) TRADESMEN

VOLUME 5, PART 4

Item No.	ITEM	OPERATION
12.	Exhaust gas thermometer	
	(a) Thermo-couples.	(i) Re move for Bay Servicing. (ii) Fit new or serviced items ensuring they are connected and cleated correctly.
	(b) Extension leads.	Examine for damage or deterioration.
	(c) Thermometer.	Assist Instruments (GEN) N.C.O. to carry out calibration and functioning checks as detailed in the aircraft Vol.1, Sect.5, Chap.2 and A.P.1275A, Vol.1, Sect.17.
13.	Fuel contents system.	
	(a) Amplifiers.	(i) Clean.
	(b) Relay boxes.	(ii) Examine for damage and security. (iii) Examine electrical and co-axial cables for damage, deterioration or contamination by fuel, grease or oil.
	(c) Wing tanks.	In conjunction with Airframe Tradesmen, (i) Remove the leading edge panels. (ii) Examine co-axial cables for damage or deterioration.

Item No.	ITEM	OPERATION
14.	Flying controls, position indicator transmitters.	
	(a) Flaps. ) (b) Aileron trim. ) (c) Tail plane trim. ) (d) Rudder trim. )	In conjunction with Airframe Tradesman, (i) Remove for Bay Servicing. (ii) Fit new or serviced items. (iii) Lubricate linkage pivots with oil, OX-14.
15.	Pitot and static system.	
	(i) (ii) (iii) (iv) (v)	Open the drain traps to remove accumulated moisture. Blow through the system with clean, hot air. Close the drain traps and blank off all the pipelines. Examine the pitot and static pipes from the A.S.I. to the machmeter for chafing on the body of the Plessey plug to the camera recorder on the G.G.S. (S.I./HUNTER/74 refers). Assist Instruments (GEN) N.C.O. to carry out leak test as detailed in A.P.1275B, Vol.2.
16.	Autostabiliser system (if fitted)	
	(a) Servo unit and trim actuator. ) (b) Gyro unit. ) (c) Slave relay unit. ) (d) Amplifier. ) (e) Monitor unit. ) (f) Phase advance unit. )	(i) In conjunction with Airframe and Electrical Tradesmen, remove for Bay Servicing. (ii) Examine mounting brackets for damage and security. (iii) Examine spring clips for damage. (iv) Examine cables for damage and deterioration. (v) Fit new or serviced items.

# HUNTER AIRCRAFT SERVICING SCHEDULES

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## MAJOR SERVICING SECTION 4 — INSTRUMENTS (GEN) TRADESMEN

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Item No.	ITEM	OPERATION
16.	Autostabiliser system (if fitted) (contd.) (g) System.	Assist Instruments (GEN) N.C.O. to carry out a functional check as detailed in Part 2, Section 5 of this Schedule.
17.	<sup>ARM.</sup> Gyro gun sight(s)	Assist Armament N.C.O. to harmonize as detailed in the relevant authorised instructions.
18.	Cabin clock (if fitted)	(i) Wind up and set to correct time. (ii) Upon completion of servicing, check for accuracy of time-keeping.
19.	Aircraft generally.	Remove from the aircraft all tools, rags and other Servicing materials.
20.	Servicing Documents.	Sign for completing the relevant Servicing.

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Item  
No.

ITEM

OPERATION

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## HUNTER AIRCRAFT SERVICING SCHEDULES

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### MAJOR SERVICING SECTION 4 — INSTRUMENTS (NAV) N.C.O.

VOLUME 5, PART 4

Item No.	ITEM	OPERATION
1.	General.	(i) Read Lethal Warning Card, Safety Precautions and Servicing Notes of this Handbook. (ii) Examine the aircraft Servicing Documents for reports of any defects and for life expired components or components due for overhaul.
2.	Ejection seat(s) and hood (general safety)	Ensure that the seat(s) and hood firing unit cartridges have been removed by the Armament Tradesman.
<u>N.B.</u> No further servicing is to be commenced <u>until this safety condition has been carried out.</u>		
3.	Compass system (G4F or G4FT)	
	(a) Gyro unit(s) )	
	(b) Heading repeater(s) )	
	(c) Variation control panel(s) )	(i) Supervise removal for Bay Servicing.
	(d) Master unit. )	(ii) Supervise fitment of new or serviced items.
	(e) Amplifier(s) )	
	(f) Detector unit(s) )	
	(g) System. )	
		In conjunction with Electrical Tradesman, carry out functional checks as detailed in Part 2, Section 5 of this Schedule.
4.	Aircraft generally.	Supervise the removal from the aircraft of all tools, rags and other Servicing materials.

Item  
No.

ITEM

OPERATION

- | Item No. | ITEM                 | OPERATION   |
|----------|----------------------|---|
| 5.       | Compasses.           | Upon completion of the full aircraft servicing, carry out a compass swing.      |
| 6.       | Servicing Documents. | (i) Sign for compass swing.<br>(ii) Sign for completing the relevant Servicing. |

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# HUNTER AIRCRAFT SERVICING SCHEDULES

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## MAJOR SERVICING SECTION 4 — INSTRUMENTS (NAV) TRADESMEN

VOLUME 5, PART 4

Item No.	ITEM	OPERATION
1.	General.	(i) Read Lethal Warning Card, Safety Precautions and Servicing Notes of this Handbook. (ii) Examine the aircraft Servicing Documents for reports of any defects and for life expired components or components due for overhaul.
2.	Ejection seat(s) and hood (general safety)	Ensure that the seat(s) and hood firing unit cartridges <u>have been removed</u> by the Armament Tradesman.
<u>N.B.</u> No further servicing is to be commenced <u>until this safety condition has been carried out.</u>		
3.	Compass system (G4F or G4FT)	
	<del>(a)</del> Gyro unit(s). <sup>c/p</sup> )	
	<sup>Don't</sup> <del>(b)</del> Heading repeater(s) )	(i) Remove for Bay Servicing.
	<del>(c)</del> Variation control panel(s) )	(ii) Fit new or serviced items.
	<sup>Don't</sup> <del>(d)</del> Master unit. <sup>c/p</sup> )	
	<del>(e)</del> Amplifier(s) " )	
	<del>(f)</del> Cable harness.	Examine for damage and deterioration.
	<del>(g)</del> Plug and socket connections.	(i) Examine for damage. (ii) Examine for security after fitting components.
4.	<sup>r/p</sup> Compass detector unit(s)	(i) Remove for Bay Servicing. (ii) Fit new or serviced item(s).

Item No.	ITEM	OPERATION
4.	Compass detector unit(s) (contd.) <u>N.B.</u> Operation (iii) is applicable only to units <u>without Mod INSTRUMENTS B134 embodied.</u>	(iii) Examine the rivets holding the unit body to the mounting plate for pulling or looseness of the unit body. (S.I./INSTRUMENTS/13 refers).
5.	System.	Assist Instruments (NAV) N.C.O. to carry out functional checks as detailed in Part 2, Section 5 of this Schedule.
6.	E.2B compass.	(i) Examine for damage and security. (ii) Examine the compass card and datum line for legibility and flaking of the luminous compound. (iii) Examine liquid for bubbles and discolouration. (iv) Deflect compass card 10 degrees by use of a small magnet, and hold for 30 seconds. Remove the magnet and note the settling position. Repeat the deflection in the opposite direction and again note the settling position after removing the magnet. Maximum permissible difference between the two settling positions is 2 degrees.
7.	Aircraft generally.	(v) Examine compass lamp for illumination. Remove from the aircraft all tools, rags and other Servicing materials.
8.	Compasses.	Upon completion of the full aircraft servicing, assist Instruments (NAV) N.C.O. to carry out a compass swing.
9.	Servicing Documents.	Sign for completing the relevant Servicing.

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