

RESTRICTED

SCHEDULE MAINTENANCE WORK CARDS

TRADE : AIRFRAME

PT-60 AIRCRAFT

INSP FREQUENCY : 50, 100, 200 HRS

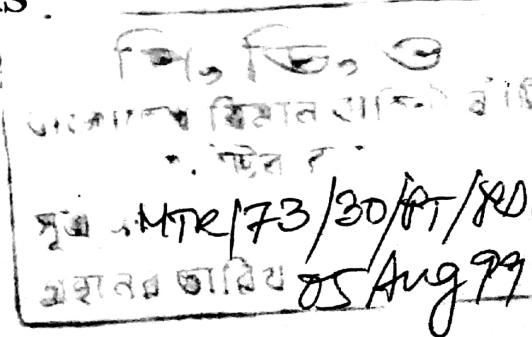
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RESTRICTED

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55-58



During every pre/thru/post flt insp and pd insp the pneumatic pipe lines is to be checked for any crack/scratch/cut mark etc.

Auth : Air HQ/6579-807/FS/Vol-01/E-43AB dt 23 Dec 08.

All concerned tech of PT-6 R&I, 11 Sqn BAF and 210 MU are to be briefed to check the items meticulously initially after 25 flg hrs and then every after 50 ± 5 flg hrs and nec entry is to be made in F-781 accordingly .(02 x Pipes, pt no H₂- 5500 -10/111 & H₂-7700-80/2 and 01x Thimble, pt no H₂-5500-02)

Auth: Air HQ/14773/Engg/ Vol-1/45A.
dt. 06 Apr 09

WORK CARD
PT-6 AC

50±5 HOURS PERIODIC INSPECTION-AIRFRAME

Ref : Maintenance Manual Vol—I, Chap—II, Section—I, Page No 26

Article No	Subject	Inspection details
103	Blowing of sediments of the compressed air bottle.	<p>(1) Bleed the compressed air in the main and emergency compressed air systems, then screw out the plugs of the compressed air bottles.</p> <p>(2) Blow-off the sediments in the main and emergency compressed air bottles with compressed air.</p> <p>(3) Remove the rust and dirt on the plugs of the air bottles and apply a coat of anti-rust oil on them. Then fit the plugs and charged the air bottles to check for air tightness.</p>

Article No	Subject	Inspection details
104	Air filter disassembly and inspection.	<p>(1) Removed the air filter</p> <p>(2) Disassemble and check the filter.</p> <ul style="list-style-type: none"> A. The copper gauge is free from rust and damage. B. The rubber seal is intact. <p>(3) Wash the felt-pad and dry it by air-ing. Clear the rust and dirt in the inner chamber of the casing and on the spring, and apply a coat of anti-rust oil.</p> <p>(4) Assemble the air-filter care -fully for correct location of the copper gauge and felt-ped. And check it for air-tightness by means of aircharging after assembling</p>
105	Oiling of retraction cylinders and unlocking cylinders of the landing gear and flap.	Replenish 5-10 grams of castor oil or No 8 aviation lubricating oil into each retraction cylinder through the nipples of the cylinder retraction and extension pipes and 3-5 grams of castor oil or No 8 aviation lubricating oil into each of the lock hook cylinder through its nipple.

Ref : Maintenance Manual Vol—I, Chap—II, Section—I, Page 27

Article No	Subject	Inspection details
106	Checking of joint face of the foldable stay rod of the landing gear.	<p>Remove the middle bolt of the foldable stay rod and check the joint face of the upper and lower stay rods for wear an acratch, if slight scratch occured grind at fine amry paper.</p> <p>Clean the joint faces by washing and apply No 2 low temperature grease on them.</p> <p>Fit the middle bolt of the foldable stay rod. Do not overtighten the nut during fitting (just screw the nut manually, the bolt is free from axiel clearance) So as to avoid affecting landing gear retraction and extension.</p>
107	Checking of clearance of the foldable stay rod.	When the landing gear lever is at "DOWN" position and pressure of the main compressed air system is 25—30 Kg/Cm ² , Using a feeler gauge, Measure the clearance of the joining of the upper and lower stay rods., which should be 0.05-0. 15mm. Aforce of 15-20 Kg should be applied at the joining

Article No	Subject	Inspection details
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of the upper and lower stay rods when measuring the clearance of the foldable stay rods of the main landing gears (Fig 3-1).

1. a should be kept at 5±3 mm.
2. a should be kept at 0.18 to 0.23mm.

Authy : Ref : J92BL004 dt January. 8,1992.

Air HQ. Authy : Air HQ/6579-509/FS dt 09 Jul 91.

- 108 Checking of landing gear and flap for normal retraction and extension. (1) Landing gear retraction and extension. The retraction and extention of the landing gear should be normal when it is operated by the landing gear lever on the front and rear cockpit with an air pressure of 20—50 Kg/Cm²
- A. When the landing gear is retracted in and locked, the red signal lights should come on and the indicator rods should go in (the exposed lenth of the indicator rods should be 7 -10mm for the nose gear and 2—3mm for the main gear). As the landing

Article No	Subject	Inspection details
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108

—do—

gear lever is set to 'NORMAL' from 'UP' position the landing gear should not fall down by itself and signal light is should not flash.

B. With the landing gear lowered down and locked, the gear lights should come on and the indicating rods come out.

C. The retraction and extension should be normal when the landing gear is operated by the landing gear lever in the rear cockpit regardless of the landing gear lever in the front cockpit at any position.

D. The left and right landing gears should operate simultaneously during retraction and extension test. A difference of 2 seconds between the extension of the nose gear and that of the main gear is permissible, and the total time of landing gear retraction should not be more than 10 seconds. The movement should be smooth and free from impulsing, stagnating impacting and abrading.

WORK CARD
PT—6 AC

50±5 HOURS PERIODIC INSPECTION-AIRFRAME

Ref : Maintenance Manual Vol—I, Chap—II, Section—I, Page—28

Article No	Subject	Inspection details
108	—do—	<p>CAUTION : The position of the landing gear lever in the front cockpit should be conformed with the actual condition of the landing gear prior to setting the landing gear cockpit to 'NEOTRAL' position from 'UP' or 'DOWN' position.</p> <p>(2) Emergency landing gear lowering. Retract the landing gear, select the cock of the main compressed air system off, then open the emergency cock and set the landing gear lever to 'NEUTRAL'. At this time, the landing gear should be at down lock position, the indicating rods come out and the gear lights come on. Immediately after the emergency lowering operate the flap lever and brake handle to check the emergency retraction and ex-</p>

Article No	Subject	Inspection details
108	—do—	<p>tension of the flap and the brake operation. Then check the tightness of the emergency compressed air system. After inspection close the emergency cock and bleed the air in the system by means of pressing the brake release button. Open the cock of the main compressed air system and retract the landing gear once or twice so as to ascertain that the bidirectional valve works normally.</p> <p><i>Note :—Back pressure should be applied for landing gear retraction and lowering on the ground.</i></p> <p>(3) Flap retraction and extension. Retract and extend the flap with flap lowers in the front and rear cockpit. When the flap is retracted in, the flap and wings are correctly aligned, and the indicator rod should go in and viceversa.</p> <p>(4) Check the unlocking pressure of the landing gear lock hook. Set the landing gear lever to "DOWN" and push the hook to lock, then gently open the cock of the main compressed air system, close the cock immediately at hearing unlocking sound.</p>
108	—do—	8

Article No	Subject	Inspection details
109	Checking of balancing weights of elevator and rudder for security.	<p>At this movement, the unlocking pressure should not be more than 8 Kg/Cm² for the main landing gear and not more than 10 Kg/Cm² for the nose gear.</p> <p>(5) Check the operation of the nose wheel centring device. Pull the nose wheel to the right and left limiting positions respectively, it should come back to "NEUTRAL" position by itself within 8 seconds without stagating.</p> <p>Check the balance weights of elevator and rudder for security and crack after removing the tail wing fairing.</p> <p><i>Note : If the balance weight has a clearance, usually it should not be eliminated by means of tapping the conical pin.</i></p>

Part No H2-5500-10/41, H2-5500-10/53, H2-5500-
10/89, H2-5500-10/91, H2-5500-10/119 and H2-5500-
10/19 in PT-6 ac ser no 4102 & 4103 when reqr basis
are to be check the items meticulously initially after 25
Flg hrs and every after 50 ± 5 Flg hrs.

Auth: 00.03.2600.026.64.002.12.038/8A dt 04 May 14

WORK CARD
PT-6 AC

50±5 HOURS PERIODIC INSPECTION
AIRFRAME

Auth : MTR/761/8/Cont/(Q Cont) dt 06 Aug 91.

Article No	Subject	Inspection details
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128	Measuring of braking pressure.	Disconnect the pipe on the brake disc and connect a pressure gauge between them neutralize the rudder and grip the brake handle in the front and rear cockpit respectively. When the brake rocker arm contacts with the stop pin, the braking pressure should be 8-9 Kg/Cm ² if the brake rocker arm contact with the stop pin or the brake pressure could not meet the requirement, adjust the brake cable or the stoppin.
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Note :—The brake pressure difference between the left and right wheels should not exceed 0.5 Kg/Cm².

Both the end of brake cable is to be checked for correctness/serviceability.
Auth : Air HQ/14766/Engg/N-4/E-74A dt 23 Jul 02

114

Cleaning and inspection
of canopy

- (4) Remove the movable canopy.
(2) Cleaning and checking.

A. The sliding rail of the roller should be free from serious abrasion.

B. The roller should rotate freely and ball race is free from damage and looseness.

C. Wash the roller and coat it with No 2 low-temperature grease.

(3) Install the canopy. Avoid damaging the roller in installation check the canopy for free movement after installation.

125(a) Checking of nose landing gear up lock actuator. Nose landing gear up lock actuator is to be checked for serviceability
Auth: Air HQ/6579-202/FS/Vol-1/E-35AB. dt 08 Jan 05.

Fuel filter is to be inspected in every after 50 hrs of OP.

Auth: AirHQ/14772/Engg/V-25/E-64A dt 23 Jul 07

WORK CARD
PT-6 AC

100 ± 10 HOURS PERIODIC INSPECTION—AIRFRAME

Ref : Maintenance Manual Vol—I, Chap—II, Section—I, Page No 26

Article No	Subject	Inspection details
103	Blowing of sediments of the compressed air bottle.	<p>(1) Bleed the compressed air in the main and emergency compressed air systems, then screw out the plugs of the compressed air bottles.</p> <p>(2) Blow-off the sediments in the main and emergency compressed air bottles with compressed air.</p> <p>(3) Remove the rust and dirt on the plugs of the air bottles and apply a coat of anti-rust oil on them. Then fit the plugs and charged the air bottles to check for air tightness.</p>
104	Air filter disassembly and inspection.	<p>(1) Removed the air filter.</p> <p>(2) Disassemble and check the filter.</p>

Article No	Subject	Inspection details
105	Oiling of retraction cylinders and unloc- king cylinders of the landing gear and flap.	<p>A. The copper gauge is free from rust and damage.</p> <p>B. The rubber seal is intact.</p> <p>(3) Wash the felt-pad and dry it by air-ing Clear the rust and dirt in the inner chamber of the casing and on the spring, and apply a coat of anti-rust oil.</p> <p>(4) Assemble the air-filter care fully for correct location of the copper gauge and felt-ped. And check it for air-tightness by means of aircharging after assembling.</p> <p>Replenish 5-10 grams of castor oil or No 8 aviation lubricating oil into each retraction cylinder through the nipples of the cylinder retraction and extension pipes and 3-5 grams of castor oil or No 8 aviation lubricating oil into each of the lock hook cylinder through its nipple.</p>

Ref : Maintenance Manual Vol—I, Chap—II, Section—I, Page 27.

Article No	Subject	Inspection details
106	Checking of joint face of the foldable stay rod of the landing gear	<p>Remove the middle bolt of the foldable stay rod and check the joint face of the upper and lower stay rods for wear an scratch, if slight scratch occured, grind at fine amry paper.</p> <p>Clean the joint faces by washing and apply No 2 low temperature grease on them.</p>
107	Checking of clearance of the foldable stay rod.	<p>Fitt the middle bolt of the foldable stay rod. Do not overtighten the nut during fitting (just screw the nut manually, the bolt is free from axle clearance) So as to avoid affecting landing gear retraction and extension.</p> <p>When the landing gear lever is at "DOWN" position and pressure of the main compressed air system is 25–30 Kg/Cm², Using affeeler gauge. Measure the clearance of the joining of the upper and lower stay rods, which should be 0.05 0. 15mm. Aforce of 15–20 Kg should be applied at the joining of the upper and lower stay rods when measuring the</p>

Article No	Subject	Inspection details
108	Checking of landing gear and flap for normal retraction and extension.	<p>clearance of the foldable stay rods of the main landing gears (Fig 3—1).</p> <ol style="list-style-type: none"> 1. a should be kept at 5+3mm. 2. b should be kept at 0.18 to 0.23mm <p>Authy : Ref : J92BL004 dt January 8, 1992 Air HQ Authy : Air HQ/6579-509/F S dt 09 Jul 91.</p> <p>(1) Landing gear retraction and extension. The retraction and extention of the landing gear should be normal when it is operated by the landing gear lever on the front and rear cockpit with an air pressure of 20-50 Kg/Cm².</p> <p>A. When the landing gear is retracted in and locked, the red signal lights should come on and the indicator rods should go in (the exposed lenth of the indicator rods should be 7--10mm for the nose gear and 2-3mm for the main gear). As the landing gear lever is</p>

Article No	Subject	Inspection details
108	—do—	<p>set to 'NORMAL' from 'UP' position, the landing gear should not fall down by itself and signal light is should not flash.</p> <p>B. With the landing gear lowered down and locked the gear lights should come on and the indicating rods come out.</p> <p>C. The retraction and extension should be normal when the landing gear is operated by the landing gear lever in the gear cockpit regardless of the landing gear lever in the front cockpit at any position.</p> <p>D. The left and right landing gears should operate simultaneously during retraction and extension test. A difference of 2 seconds between the extension of the nose gear and that of the main gear is permissible, and the total time of landing gear retraction should not be more than 10 seconds. The movement should be smooth and free from impulsive, stagnating, impacting and abrading.</p>

Article No	Subject	Inspection details
108	—do—	<p>CAUTION : The position of the landing gear lever in the front cockpit should be conformed with the actual condition of the landing gear prior to setting the landing gear cockpit to 'NEOTRAL' position from 'UP' or 'DOWN' position.</p> <p>(2) Emergency landing gear lowering. Retract the landing gear, select the cock of the main compressed air system off, then open the emergency cock and safe the landing gear lever to 'NEUTRAL'. At this time, the landing gear should be at down lock position, the indicating rods come out and the gear lights come on. Immediately after the emergency lowering operate the flap lever and brack handle to check the emergency retraction and extension of the flap and the brake operation. Then check the tightness of the emergency compressed air system.</p>
108	—do—	<p>After inspection, close the emergency cock and bleed the air in the system by means of pressing the brake release button. Open the cock of the</p>

Article No	Subject	Inspection Details
108	—do—	<p>main compressed air system and retract the landing gear once or twice so as certain that the bidirectional valve works normally.</p> <p><i>Note : —Back pressure should be applied for landing gear retraction and lowering on the ground.</i></p> <p>(3) Flap retraction and extension. Retract and extend the flap with flap lowers in the front and rear cockpit. When the flap is retracted in, the flap and wings are correctly aligned, and the indicator rod should go in and viceversa.</p> <p>(4) Check the unlocking pressure of the landing gear lockhook. Set the landing gear lever to "DOWN" and push the hook to lock, then gently open the cock of the main compressed air system, close the cock immediately at hearing unlocking sound. At this movement, the unlocking pressure should not be more than 8 Kg/Cm² for the main landing gear and not more than 10 Kg/Cm² for the nose gear.</p>

Article No	Subject	Inspection details
109	Checking of balancing weights of a elevator and rudder for security	<p>(5) Check the operation of the nose wheel centring device. Pull the nose wheel to the right and left limiting positions respectively it should come back to "NEUTRAL" position by itself within 8 seconds without stagnating.</p> <p>Check the balance weights of elevator and rudder for security and crack after removing the tail wing faining.</p> <p><i>Note : If the balance weight has a clearance, usually it should not be eliminated by means of tapping the conical pin.</i></p>

Ref : Maintenance Manual Vol—I, Chap—II, Section—I, Page 29

Article No	Subject	Inspection details
110	Disassembling and checking of non-return valve and pressure regulating valve in the compressed air system.	<p>(1) Remove the non-return valve and pressure regulating valve.</p> <p>(2) Disassemble the valve and check that :</p> <ul style="list-style-type: none">A. The valve rubber is free from damage and clearance.B. The spring is free from serious rust. <p>(3) Remove the rust and dirt in the inner chamber of the casing and on the spring then apply a coat of anti-rust oil.</p> <p>(4) Valve installation. Charge the valve with compressed air to check the valves for tightness and the pressure regulating valve for regulating operation after installation. Then adjust the regulating valve to keep the maximum air charging pressure within 45–50 Kg/Cm²</p>

Article No	Subject	Inspection details
111	Disassembling and inspection of directional valve of the landing gear and flap.	<p>(1) Remove the valve for disassembly during which care should be taken not to deform the casing by turning.</p> <p>(2) Check the parts :</p> <ul style="list-style-type: none"> A. The casing is free from damage and deformation and the horn free from crack and deformation. B. The rubber of the valve core is free from damage, cleavage, looseness and disengagement. <p>(3) Remove the rust and dirt in the inner chamber of the casing on the spring and apply a coat of anti-rust oil.</p> <p>A. A. Check the inlet valve for air tightness.</p> <p>Install the compressed air solenoid valve to a tester. There should be no air leaking at the inlet connector and exhaust hole at an air pressure of 45—50 Kg/Cm².</p>
112	Solenoid valve.	22

Article No	Subject	Inspection details
	B. Check the compressed air solenoid valve for operation	<p>With power on and at an air pressure of 10 , 50 Kg/Cm², the valve should be in normal operation and free from air leaking sound</p> <p><i>Note :</i> Power on check duration should not exceed minute each time.</p> <p>(6) Install the valve . Wire-lock the mechanical handle prior to connecting inlet and outlet pipes.</p>

Ref : Maintenance Manual Vo-I, Chap-II, Section-I, Page 30

Article No	Subject	Inspection details
113	Checking compressed air system for tightness.	Close the cock of the main compressed air system when the pressure in the system is within 45—50 Kg/Cm ² (the landing gear lever and flap lever are at "UP" or "DOWN" position). The pressure drop should not exceed 1 Kg/Cm ² within 10 minutes.
114	Cleaning and inspection of canopy.	<p>(1) Remove the movable canopy.</p> <p>(2) Cleaning and checking.</p> <p>A. The sliding rail of the roller should be free from serious abrasion.</p> <p>B. The roller should rotate freely and ball race is free from damage and looseness.</p> <p>C. Wash the roller and coat it with No 2 low-temperature grease.</p> <p>(3) Install the canopy . Avoid damaging the roller in installation check the canopy for free movement after installation.</p>

Article No	Subject	Inspection details
115	Cleaning and checking of fire wall gasoline filter.	<ul style="list-style-type: none"> (1) Remove the filter. (2) Clean the filter and check that :— <ul style="list-style-type: none"> A. The gauze is free from damage and unsoldining. B. The seal washin is free from damage and cleavage. C. Clean the filter by washing. (3) Installed the filter, operate hand pump to exhaust out the air from the pipe in installation and check air tightness after installation.
116	Checking of fixation of the wing and empennage.	<p>Remove the wing fairing band and tail fairing.</p> <p>Check wings, vertical and horizontal tail for security, the fixing lug and front sper of the horizontal stabilizer are free from crack. The fixation of gasoline pipes is reliable and the gasoline hose free from again and fuel see page.</p>

Article No	Subject	Inspection details
117	Changing of lubricating grease on the pulling rods, connectors of the tail control system trim tab control system and the aileron inspection access and that on the suspension connectors of the aileron.	Change the lubricating grease on the pulling rods and connectors of the tail control system, trim tab control system and to the aileron inspection access and that on the suspension connectors of the aileron.
118	Checking of gasoline tank and its fixation.	The tank should free from fuel see page and the two fixing belts of the tank should have a proper and same tightness crack on the fixing support and belt is not permissible and the felt pad should be intact.
122	<u>Disassembling and checking of retro</u>	(1) Remove the cylinders.
122(a)	Non destructive test (NDT) of piston rod of actuating cylinder.	Non destructive test (NDT) is to be carried out on piston rod of actuating cylinder (specially threaded portion) to find out any crack or discontinuity.

Auth: Air HQ/6579-103/FS/V-1/E-40AB dt 09 Oct 2001.

Article No	Subject	Inspection details
		(3) Install the cylinders. Care should be taken to avoid reverse installation of the micros switch pressing rod during the installation of the main landing gear. Retraction cylinder and after installing flap retraction cylinder measure the flap movement which should be 4—1.5°—1°
125(b)	Checking of Main L/G up lock actuator.	317— <u>±11mm</u> —7.5mm (Fig 3—7) Main L/G up lock actuator is to be checked for serviceability. Auth: Air HQ/6579-201/FS/Vol-1/E-29AB. dt 27 Dec 05.

Maintenance Manual Vol—I Chap—II Section—1 Page 33

Article No	Subject	Inspection details
126	Disassembling and checking of brake pressure regulator.	<ol style="list-style-type: none">(1) Remove the regulator.(2) Disassemble the regulator and check that.<ol style="list-style-type: none">A. The valve rod is free from bending and deformation.B. The air inlet valve, exhaust valve and rubber sleeve are free from damage and cleavage.(3) Remove the rust and dirt on the parts and coat the air inlet joint and spring with anti-rust oil.(4) Test the regulator after assembly. Check the brake pressure regulator for air tightness. There should be no air leakage at the air inlet pressure of the brake regulator is 45–50 Kg/Cm² and also no leakage at the outlet joint and bleed hole when the brake is 8–9 Kg/Cm² with the brake handle being held. Release the brake handle no residual air should be left in the regulator.

Article No	Subject	Inspection details
127	Disassembling and checking of brake pressure distributor.	<p>(1) Remove the distributor.</p> <p>(2) Disassemble the distributor and check that :</p> <ul style="list-style-type: none"> A. The valve rubber and rubber sleeve are free from damage and cleavage. B. The valve rod is free from bending and deformation. C. The air passage on the casing not blocked. <p>(3) Remove the rust and dirt on the parts and coat the inlet connector and spring with anti-rust oil.</p> <p>(4) Test the distributor after assembly.</p>
127	--do--	<p>A. Check the piston for flexibility. The piston should spring up automatically under the action off an air pressure of not more than 0.5 Kg/Cm² during, braking.</p>

Article No	Subject	Inspection details
		B. Check the distributor for operation then applying brake, operate the lever to left and right limiting positions quickly and respectively to check that the air pressure of not more than 0.5 Kg/Cm is permissible in the inner chambers when the lever is operated slowly.
		C. Check air tightness. There should be no air leakage at the inlet and out let connectors and piston air bleed hole when the brake pressure is in maximum.

Auth : MTR/761/8/Cont/(Q Cont) dt 06 Aug 91

Article No	Subject	Inspection details
128	Measuring of braking pressure.	<p>Disconnect the pipe on the brake disc and connect a pressure gauge between then neutralize the rudder and grasp the brake handles in the front and rear cockpit respectively. When the brake rocker arm contacts with the stop pin, the braking pressure should be 8-9 Kg/Cm², if the brake rocker arm contact with the stop pin or the brake pressure could not meet the requirement, adjust the brake cable or the stoppin.</p> <p><i>Note :-</i> The brake pressure difference between the left and right wheels should not exceed 0.5 Kg/Cm².</p>

WORK CARD
PT—6 AC

300±30 LANDING PERIODIC INSPECTION—AIRFRAME

Ref : Maintenance Manual Vol-1, Chap-II Section-I . Page No 35

Article No	Subject	Inspection details
135	Measuring of protrusion of the inner cylinder of the shock absorber strut.	When the inner cylinder of the strut is fully extended measure the distance from concave edge of the inner cylinder fixing nut to the flange of the inner cylinder. The protrusion of the inner cylinder should be 185 ±2mm for the main strut. Cause must be found out if. There is a change in the protrusion of the inner cylinder necessary disassemble and inspect the landing gear.

Visual ck of the nose wheel tube is to be carried out during
300±30 ldg insp.
Auth: 06.03.2600.014.10.001.13.091/72AB dt 09 Sep 13

Ref : Maintenance Manual Vol-I, Chap-II Section-I page No 36

Article No	Subject	Inspection details
136	Renew the lubricating grease of the wheel bearing.	<p>(1) Remove the wheel and take out the bearing.</p> <p>(2) Clean the bearing and check that :-</p> <p>A. The inner race and roller retainer are free from crack and deformation, and the rollers- are not coming out of the retainer.</p> <p>B. The bearing is in freedom of rotation and free from rust. Coat it with No 4 high temperature grease.</p> <p>(3) Install the bearing carefully and attention not to damage roller retainer by tapping.</p>
137	Checking of brake block and wheel hub.	<p>(1) Thickness check of the brake block select two thinner brake block to check their thickness which should not be less than 8 mm (Fig 3-5).</p> <p>(2) Hub check.</p>

NDT may be introduced for insp the conical ball brg of Ldg gear during 300+30 Ldg insp with the aval NDT facilities of the Base.
Auth: BOI/PT-6ac, Ser No-6104 dt 19 Feb 06

Article No	Subject	Inspection Details
138	Injecting of No 8 aviation lubricating oil into the brake cable sleeve.	<p>A. There should be no crack the hub.</p> <p>B. The brake drum should not be deformed and the fixing screws are not to lose.</p> <p>C. The left sealing ring should be intact and free from dislocation'.</p> <p>Inject No 8 aviation lubricating oil into the brake cable sleeve.</p>
139	Injecting of No 2 low temperature grease into all the grease nipples of the landing gear.	<p>Inject No 2 Low-temperature grease into all the grease nipples of the landing gear.</p> <p><i>Note : Article 136, 138 and 139 should be properly conducted ahead of schedule in the stage of major subject flight training for the landing are less.</i></p> <p>30</p>

WORK CARD
PT—6 AC

100±10 HOURS PERIODIC INSPECTION—AIRFRAME

Auth : Flight Order No B-20 Part-III Dt 30 Jun 85

Article No	Subject	Inspection details
	Conical pin of main landing gear.	During inspection, the conical pin is to be checked for fretting, corrosion crack or deformation. The pin is to be replaced on finding any of the above. if not it is to be fited after proper greasing.

WORK CARD
PT-6 AC

200 ± 10 HOURS PERIODIC INSPECTION
AIRFRAME

Ref : Maintenance Manual Vol—I, Chap—II, Section—I, Page No 26

Article No	Subject	Inspection details
103	Blowing of sediments of the compressed air bottle.	(1) Bleed the compressed air in the main and emergency compressed air systems, then screw out the plugs of the compressed air bottles. (2) Blow-off the sediments in the main and emergency compressed air bottles with compressed air. (3) Remove the rust and dirt on the plugs of the air bottles and apply a coat of anti-rust oil on them. Then fit the plugs and charged the air bottles to check for air tightness.
104	Air filter disassembly and inspection.	(1) Remove the air filter.

Article No	Subject	Inspection details
105	Oiling of retraction cylinders and unlocking cylinders of the landing gear and flap.	<p>(2) Disassemble and check the filter.</p> <p>A. The copper gauge is free from rust and damage.</p> <p>B. The rubber seal is intact.</p> <p>(3) Wash the felt-pad and dry it by air-ing. Clear the rust and dirt in the inner chamber of the casing and on the spring. and apply a coat of anti-rust oil.</p> <p>(4) Assemble the air-filter care-fully for correct location of the copper gauge and felt-ped And check it for air-tightness by means of aircharging after assembling.</p> <p>Replenish 5-10 grams of castor oil of No 8 aviation lubricating oil into each retraction cylinder through the nipples of the cylinder retraction and extension pipes and 3-5 grams of castor oil or No 8 aviation lub. icating oil into each of the lock hook cylinder through its nipple.</p>

Ref : Maintenance Manual Vol—1, Chap—11, Section—1 Page 97

Article No	Subject	Inspection details
106	Checking of joint face of the foldable stay rod of the landing gear.	<p>Remove the middle bolt of the foldable stay rod and check the joint face of the upper and lower stay rods for wear an scratch, if slight scratch occured grind at fine amry paper.</p> <p>Clean the joint faces by washing and apply No 2 low temperature grease on them.</p> <p>Fit the middle bolt of the foldable stay rod. Do not over tighten the nut during fitting (just screw the nut manually, the bolt is free from axiel clearance). So as to avoid affecting landing gear retraction and extension.</p>
107	Checking of clearance of the foldable stay rod.	<p>When the landing gear lever is at "DOWN" position and pressure of the main compressed air system is 25—30 Kg/Cm,² Using a feeler gauge,Measure the clearance of the joining of the upper and lower stay rods., which should be 0.05—0. 15mm. A force of 15—20 Kg should be applied at the joining of the upper and lower stay rods when measuring the clearance of the foldable stay rods of the main landing gears Fig-3—1).</p>

Article No	Subject	Inspection details
		<ol style="list-style-type: none"> 1. a should be kept at 5+3mm. 2. b should be kept at 0.18 to 0.23mm.
		<p>Authy : Ref : J92BL004 dt January 8 1992. Air HQ Authy : Air HQ/6579—509/F S dt 09 Jul 91.</p>
108	Checking of landing gear and flap for normal retraction and extension.	<p>(1) Landing gear retraction and extension, The retraction and extention of the landing gear should be normal when it is operated by the landing gear lever on the front and rear cockpit with an air pressure of 20—50 Kg/Cm².</p> <p>A. When the landing gear is retracted in and locked, the red signal lights should come on and the indicator rods should go in (the exposed length of the indicator rods should be 7-10mm for the nose gear and 2—3mm for the main gear). As the landing gear lever is set to 'NORMAL' from 'UP' position, the landing gear should not fall down by itself and signal light is should not flash</p>

Article No	Subject	Inspection details
108	—do—	<p>B. With the landing gear lowered down and locked, the gear lights should come on and the indicating rods come out.</p> <p>C. The retraction and extension should be normal when the landing gear is operated by the landing gear lever in the rear cockpit regardless of the landing gear lever in the front cockpit at any position.</p> <p>D. The left and right landing gears should operate simultaneously during retraction and extension test. A difference of 2 seconds between the extension of the nose gear and that of the main gear is permissible, and the total time of landing gear retraction should not be more than 10 seconds. The movement should be smooth and free from impulsive, stagnating, impacting and abrading.</p>

Ref : Maintenance Manual Vol—I, Chap—II, Section—I, Page—28

Article No	Subject	Inspection details
108	—do—	<p>CAUTION : The position of the landing gear lever in the front cockpit should be conformed with the actual condition of the landing gear prior to setting the landing gear cockpit to 'NEUTRAL' position from 'UP' or 'DOWN' position.</p>
		<p>(2) Emergency landing gear lowering. Retract the landing gear, select the cock of the main compressed air system off, then open the emergency cock and set the landing gear lever to 'NEUTRAL'. At this time, the landing gear should be at down lock position, the indicating rods come out and the gear lights, come on. Immediately after the emergency lowering operate the flap lever and brake handle to check the emergency retraction and extension of the flap and the brake operation. Then check the tightness of the emergency compressed air system.</p>

Article No	Subject	Inspection details
108	—do—	<p>After inspection, close the emergency cock and bleed the air in the system by means of pressing the brake release button. Open the cock of the main compressed air system and retract the landing gear once or twice so as to ascertain that the bidirectional valve works normally.</p> <p><i>Note :—Back pressure should be applied for landing gear retraction and lowering on the ground</i></p> <p>(3) Flap retraction and extension. Retract and extend the flap with flap lowers in the front and rear cockpit. When the flap is retracted in, the flap and wings are correctly aligned, and the indicator rod should go in and viceversa.</p>
108	—do—	<p>(4) Check the unlocking pressure of the landing gear lock hook. Set the landing gear lever to "DOWN" and push the hook to lock, then gently open the cock of the main compressed air system, close the cock immediately at hearing unlocking sound. At this movement, the unlocking pressure should not be more than 8 Kg/Cm² for the main landing gear and not more than 10 Kg/Cm² for the nose gear.</p>

Article No	Subject	Inspection details
109	Checking of balancing weights of elevator and rudder for security.	<p>(5) Check the operation of the nose wheel centring device. Pull the nose wheel to the right and left limiting positions respective it should come back to 'NEUTRAL' position by itself within 8 seconds without stagnating.</p> <p>Check the balance weights of elevator and rudder for security and crack after removing the tail wing fairing.</p>

Note : If the balance weight has a clearance, usually it should not be eliminated by means of tapping the conical pin.

Ref : Maintenance Manual Vol—I, Chap—II, Section—I, Page 29

Article No	Subject	Inspection details
110	Disassembling and checking of non-return valve and pressure regulating valve in the compressed air system	<p>(1) Remove the non-return valve and pressure regulating valve.</p> <p>(2) Disassemble the valve and check that :</p> <p style="margin-left: 20px;">A. The valve rubber is free from damage and clearage.</p> <p style="margin-left: 20px;">B. The spring is free from serious rust.</p> <p>(3) Remove the rust and dirt in the inner chamber of the casing and on the spring, then apply a coat of anti-rust oil.</p> <p>(4) Valve installation. Charge the valve with compressed air to check the valves for tightness and the pressure regulating valve for regulating operation after installation. Then adjust the regulating valve to keep the maximum air charging pressure within 45–50 Kg/Cm².</p>

Article No	Subject	Inspection details
111	Disassembling and inspection of bidirectional valve of the landing gear and flap.	<p>(1) Remove the valve for disassembly during which care should be taken not to deform the casing by turning.</p> <p>(2) Check the parts :</p> <ul style="list-style-type: none"> A. The casing is free from damage and deformation and the horn free from crack and deformation. B. The rubber of the valve core is free from damage, cleavage, looseness and disengagement. <p>(3) Remove the rust and dirt in the inner chamber of the casing on the spring and apply a coat of anti-rust oil.</p>
112	Solenoid valve.	<p>A. Check the inlet valve for air tightness</p> <p>Install the compressed air solenoid valve to a tester. There should be no air leaking at the inlet connector and exhaust hole at an air pressure of 45-50 Kg/Cm².</p>

Article No	Subject	Inspection details
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B. Check the compressed air solenoid valve for operation.

With power on and at an air pressure of 10-50 Kg/Cm², the valve should be in operation and free from air leaking normal sound.

Note : Power on check duration should not exceed 1 minute each time.

(6) Install the valve. Wire-lock the mechanical handle prior to connecting inlet and outlet pipes.

Ref : Maintenance Manual Vol-I, Chap-II, Section-I. Page 30

Article No	Subject	Inspection details
113	Checking compressed air system for tightness.	Close the cock of the main compressed air system when the pressure in the system is within 45—50 Kg/Cm ² (the landing gear lever and flap lower are at "UP" or "DOWN" position). The pressure drop should not exceed 1 Kg/Cm ² within 10 minutes.
114	Cleaning and inspection of canopy.	(1) Remove the movable canopy. (2) Cleaning and checking.
111 (A)	Inspection of Canopy	<p>(1) Check and ensure sufficient spring tension of the canopy locking bolt.</p> <p>(2) After installation of canopy with ac, check and ensure alignment of the sliding path of the bolt with holes are accurate.</p> <p>(3) After locking the canopy, check and ensure the gap between middle fixed and rear sliding canopy is nil.</p>

Auth: Air HQ/6579-104/FS/Vol-4/E-49AB dt 03 Sep 2001

Article No	Subject	Inspection details
115	Cleaning and checking of fire wall gasoline filter.	<p>(1) Remove the filter.</p> <p>(2) Clean the filter and check that : —</p> <ul style="list-style-type: none"> A. The gauze is free from damage and unsoldering. B. The seal washer is free from damage and cleavage. C. Clean the filter by washing. <p>(3) Installed the filter, operate hand pump to exhaust out the air from the pipe in installation and cheek air tightness after installation .</p>
116	Checking of fixing of the wing and empennage.	<p>Remove the wing fairing band and tail fairing.</p> <p>Check wings, vertical and horizontal tail for security, the fixing lug and front sper of the horizontal stabilizer are free from crack.. The fixation of gasoline pipes is reliable and the gasoline hose free from aging and fuel seepage.</p>

Article No	Subject	Inspection details
117	Changing of lubricating grease on the pulling rods, connectors of the tail control system trim tab control system and the aileron inspection access and that on the suspension connectors of the aileron.	Change the lubricating grease on the pulling rods and connectors of the tail control system, trim tab control system and to the aileron inspection access and that on the suspension connectors of the aileron.
118	Checking of gasoline tank and its fixation.	The tank should free from fuel seepage and the two fixing belts of the tank should have a proper and same tightness crack on the fixing support and belt is not permissible and the felt pad should be intact.
119	Checking of pendulum motion.	With the landing gear at "DOWN" position, measure, at the wheel shaft, the landing gear pendulum motion which should not exceed 3 mm for the nose gear to the left and right and 3 mm for the main gear forward and backward (Fig 3-2). One time ck of the level of Wg tanks is to be carried out in all the ac during next 200 hrs insp. Auth: Air HQ/6579-417/FS/Vol-1/E-38AB dt 13 Jul 10.

Ref : Maintenance Manual Vol-I, Chap-II, Section-I Page 31

Article No	Subject	Inspection details
120	Disassembling and checking of landing gear.	<ol style="list-style-type: none">(1) Remove the landing gear.(2) Disassembly and check are to be done by the repair unit (or repair factory).(3) Check the shock absorber strut. Check the fixing shaft of the shock absorber strut and places on the absorber strut in which cracks are likely to occur by means of magnetic inspection.(4) Check the shock absorber strut fork joint for eccentricity and the copper bush for looseness.(5) Install the landing gear. Clean all the moveable connectors and parts and coat them with No 2 low temperature grease before installation.
121	Disassembling and checking of brake disc.	<p><i>Note :</i> Remember the installing position of boltss bush & washers when removing the lower door.</p> <ol style="list-style-type: none">(1) Remove the brake blocks and place them in order according to the removal sequence.

Article No	Subject	Inspection details
122	Disassembling and checking of retraction cylinder of the landing gear and flap..	<p>(2) Carry out checking.</p> <p>A. Inflate the tube with a pressure of not more than 0.5 Kg/Cm² to check if for damage, aging and leakage.</p> <p>B. This brake disc fixing nuts are free from looseness.</p> <p>(3) Install the brake blocks in accordance with the removal sequence.</p> <p>(1) Remove the cylinders.</p> <p>(2) Disassembly and inspection are to be done by the repair unit (or repair factory).</p> <p>(3) Install the cylinders. Care should be taken to avoid reverse installation of the micros switch pressing rod during the installation of the main landing gear. Retraction cylinder and after installing flap retraction cylinder measure the flap movement which should be $4^\circ + 1.5^\circ$ — 1° or $317+11\text{mm}$ — 7.5mm (Fig 3-7)</p>
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Ref : Maintenance Manual Vol-I, Chap-II, Section-I. Page 31 & 32

Article No	Subject	Inspection details
123	Disassembling and checking of foldable stay rod.	<p>(1) Remove the foldable stay rod.</p> <p>(2) Check that the movable joints, spherical bearing and bronze bush are free from damage and the mounting seat free from crack.</p> <p>(3) Install the foldable stay rod. The movable joints should be cleaned and coated with No 2 low temperature grease before installation.</p>
Auth : Flight Order No -B-33 Section-B		<p><i>Note</i> : When that pressure in the main compressed air system is not less than 25 Kg/Cm², select the landing gear lever 'WHEN' using measuring instrument, measure the deviation between the junction of the upper and lower stay rods and the line of upper and lower fixing points the value is 5+2mm (Fig 2-3). A force of 15-2° Kg/must be applied at the junction in checking the main gear.</p> <p>Remove the eye bolt. Check for crack/bend deformation thoroughly.</p>

Article No	Subject	Inspection details
124	Disassembling and checking of shimmy damper.	<p>(1) Remove the shimmy damper.</p> <p>(2) Disassembly and check are to be done by the repair unit (or repair factory).</p> <p>(3) Install the shimmy damper. After installing the shimmy damper, pull and push the nose wheel left ward and right ward to check whether it can reach the limiting position, if not adjustment should be made.</p>
125	Disassembling and checking of lock hook mechanism and its Cylinder.	<p>(1) Remove the mechanism and its cylinder (the front lock hook support may not be removed).</p> <p>(2) Disassemble it and check that :</p> <ul style="list-style-type: none"> A. The lock hook support is free from crack and the spring free from deformation and fracture. B. The fixing pin should before from serious wear.

Article No	Subject	Inspection details
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C. The leather cup is free from damage and cleavage and its fixing snap ring for security.

(3) Remove the rust and dirt on the parts and coat the spring with antirust oil.

(4) Assemble the lock hook mechanism and its cylinder. A quantity of 3-5 grams of castor oil No 8 aviation oil should be filled in to the cylinder prior to assembly.

Ref : Maintenance Manual Vol—I, Chap—II, Section—I, Page 33

Article No	Subject	Inspection details
126	Disassembling and checking of brake pressure regulator.	<ol style="list-style-type: none">(1) Remove the regulator.(2) Disassemble the regulator and check that.<ol style="list-style-type: none">A. The valve rod is free from bending and deformationB. The air inlet valve, exhaust valve and rubber sleeve are free from damage and cleavage.(3) Remove the rust and dirt on the parts and coat the air inlet joint and spring with anti rust oil.(4) Test the regulator after assembly. Check the brake pressure regulator for air tightness. There should be no air leakage at the air inlet pressure of the brake regulator is 45–50 Kg/Cm² and also no leakage at the outlet joint and bleed hole when the brake is 8–9 Kg/Cm² with the brake handle being held. Release the brake handle no residual air should be left in the regulator.

Article No	Subject	Inspection details
127	Disassembling and checking of brake pressure distributor.	<p>(1) Remove the distributor.</p> <p>(2) Disassemble the distributor and check that :</p> <ul style="list-style-type: none"> A. The valve rubber and rubber sleeve are free from damage and cleavage. B. The valve rod is free from bending and deformation. C. The air passage on the casing not blocked. <p>(3) Remove the rust and dirt on the parts and coat the inlet connector and spring with anti-rust oil.</p> <p>(4) Test the distributor after assembly.</p>
127	—do—	<p>A. Check the piston for flexibility. The piston should spring up automatically under the action of an air pressure of not more than 0.5 Kg/Cm² during braking.</p> <p>B. Check the distributor for operation then applying brake, operate the lever to</p>

Article No	Subject	Inspection details
		<p>left and right limiting positions quickly and respectively recheck that the air pressure of not more than 0.5 Kg/Cm^2 is permissible in the inner chambers when the lever is operated slowly.</p> <p>C. Check air tightness. There should be no air leakage at the inlet and outlet connectors and piston air bleed hole when the brake pressure is in maximum.</p>
128	Measuring of braking pressure.	<p>Disconnect the pipe on the brake disc and connect a pressure gauge between then neutralize the rudder and grasp the brake handles in the front and rear cockpit respectively. When the brake rocker arm contacts with the stop pin, the braking pressure should be $8-9 \text{ Kg/Cm}^2$ if the brake rocker arm contact with the stop pin or the brake pressure could not meet the requirement, adjust the brake cable or the stoppin.</p> <p><i>Note :—The brake pressure difference between the left and right wheels should not exceed 0.5 Kg/Cm^2.</i></p>

Ref : Maintenance Manual Vol-I, Chap-II, Section-I. Page 33 & 34

Article No	Subject	Inspection details
129	Blowing of pipes of the compressed air system.	<p>Blow the pipes compressed air system through. Blow the following pipes with compressed air.</p> <p>The pipes for retraction and lowering of the handle gear and flap. the braking pipe and air inlet pipe of the compressed air solenoid valve. the air inlet pipe of the filter and two non-return valves on the right fire wall and the pipe connecting the pressure gauge of the main compressed air system.</p> <p>Caution : It is imperative to jackup the aircraft and make sure that the retraction pipe is really disconnected prior to blowing the landing gear retraction pipe through so as to prevent landing gear retraction by mistake.</p>
129(b)	Checking of rubberized hoses of pneumatic system..	<p>All rubberized hoses of pneumatic system check for condition.</p> <p>Auth: Air HQ/6579-810/FS/Vol-1/E-34AB dt 22 Apr 03.</p>

Ref : Maintenance Manual Vol—I, Chap—II, Section—2I. Page. 34

Article No	Subject	Inspection details
131	Disassembling and checking of tyre.	<p>(1) Remove the wheel.</p> <p>(2) Disassemble the wheel and check that :</p> <p> A. The tube should be free from damage, folding and again.</p> <p> B. The fixing nut of the charging connector is not loose.</p> <p> C. Cord ply exposure or fracture due to wear or cutting is not permissible on the tyre.</p> <p>(3) Assembly.</p> <p> A. Dust French chalk between the tyre and tube when assembling.</p> <p> B. After tyre assembly, charge the tyre with a little compressed air and let the wheel gump on the grand for several times in the circuler direction to prevent tube folding. Then performing air charging (2.3 Kg/Cm^2 for the nose wheel and 3.2 Kg/Cm^2</p>

Article No	Subject	Inspection details
131	Disassembling and checking of tyre.	<p>for main wheel) and paint red mark at the junction of the wheel rim and tyre.</p> <p>4. Installation : Do not over tighten the fixing nut during wheel installation. When the nut is tightened the wheel should be free from axial clearance and can rotate freely (i.e. it can rotate $1\frac{1}{2}$ turns close by initial force).</p> <p><i>Note :</i> Renew the lubricating grease of the wheel bearing if it is contaminated.</p>

Ref : Maintenance Manual Vol—I, Chap—II, Section—I, Page No 35

Article No	Subject	Inspection details
132	Injecting of lubricating oil in to the bronze thimbles of the throttle, pitch control and flap.	Inject the lubricating oil into the bronze thimbles of the throttle pitch control and flap.
133	Checking of frames and stringers of the rear fuselage.	Set in the fuselage to check the frames and stringers for crack and deformation and the rivets for looseness.
134	Renewing of lubricating grease in the control system.	Clean and of the movable joints, pulleys and bearing according to the points shown in Fig 3-4. Then coat than with No 2 low temperature grease.

Checking of deformation of brake wheel drums and checking of clearance of brake blocks is to be carried out in 200 ± 10 hrs pd insp of ac and 300 ± 30 ldg insp of ldg gear.
Auth: 06.03.2600.014.10.001.12.086/49AB dt 30 Dec 12

WORK CARD
PT—6 AC

300 ± 30 HOURS PERIODIC INSPECTION—AIRFRAME

Ref : Maintenance Manual Vol—I, Chap—II Section—I, Page No 35

Article No	Subject	Inspection details
135	Measuring of protrusion of the inner cylinder of the shock absorber strut.	When the inner cylinder of the strut is fully extended measure the distance from concave edge of the cylinder fixing nut to the flange of the inner cylinder. The protrusion of the inner cylinder should be 185 ± 2 mm for the main strut. Cause must be found out if there is a change in the protrusion of the inner cylinder necessary, disassemble and inspect the landing gear.

Ref : Maintenance Manual Vol—I, Chap—II Section—I Page No 36

Article No	Subject	Inspection details
136	Renew the lubricating grease of the wheel bearing.	<p>(1) Remove the wheel and take out the bearing. (2) Clean the bearing and check that :—</p> <p>A. The inner race and roller retainer are free from crack and deformation, and the rollers are not coming out of the retainer. B. The bearing is in freedom of rotation and free from rust. Coat it with No 4 high temperature grease.</p> <p>(3) Install the bearing carefully and attention not to damage roller retainer by tapping.</p>
137	Checking of brake block and wheel hub	<p>(1) Thickness check of the brake block. select two thinner brake blocks to check their thickness which should not be less than 8 mm (Fig 3—5.)</p> <p>(2) Hub check.</p>

Article No	Subject	Inspection details
138	Injecting of No 8 aviation lubricating oil into the brake cable sleeve.	<ul style="list-style-type: none"> A. There should be no crack the hub. B. The brake drum should not be deformed and the fixing screws are not losse. C. The felt sealing ring should be intact and free from dislocation.
139	Injecting of No 2 low temperature grease into all the grease nipples of the landing gear.	Inject No 2 Low-temperature grease into all the grease nipples of the landing gear.

Note : Article 136, 138 and 139 should be properly conducted ahead of schedule in the stage of major subject flight training for the landings are less.