

The Assist. Chief Inspector (3)
A.I.D.
The Erection Foreman.
Process Staging
Progress (Mr. Mansbridge)
Contracts (Mr. Taylor)
Copies:-
The Chief Inspector
The Inspector i/c A.I.D.
Contracts (Mr. Reeves).

*in Hayward
of Feb*

PD.14/637/5753/FG.

18th September, 1961.

S.I/HUNTER/72. & CD

This Instruction, as quoted below, is being applied as follows:-

Dunsfold.

Mk. 7 aircraft - X.L.564
Mk. 8 aircraft - X.L.604. Cat. 4 Repair aircraft.
Mk. 9 aircraft - X.G.296; X.G.298 and subsequent aircraft plus
X.E.622 Cat 4 Repair aircraft.

Parts required:-

Checking Gauges A.249091-2 (Ref: Mod. H.1021).

- (A) S.I/Hunter/72. & CD CLASS B.
(Cancelling S.I/Hunter/37)
Undercarriage Adjustments. Verification.
- (B) Hunter Mk.1, 2, 4, 5, 6, 7, 8, 9 and 10 aircraft.
- (C) Cases have been reported of malfunctioning of the undercarriage and of some "settling" of undercarriage adjustments after initial setting. Additionally some of the adjustments have been revised.
- (D) 1. Within 7 days of receipt of this Instruction and at each subsequent Primary Star Servicing proceed as follows:-

*work
will
do*

NOTE:-

The technique given below is to be observed when:-

- (1) Fitting a new replacement undercarriage or changing any component associated with undercarriage adjustments.
- (2) As a "settling" check at the first Primary Servicing after bringing an aircraft into use, or at the first Primary Servicing after changing Components as at Note (1) above.
- (a) Test each Micro Switch in the undercarriage circuit individually for correct functioning and serviceability, as follows:-
- (1) Fit ground locks to main leg jacks, and jack the main wheels and nose wheel clear of the ground.
- (2) Select undercarriage 'UP' and operate hand pump to break undercarriage locks.

(Cont'd...)

S.I/Hunter/72.

- (D) 1. (a) (3). Check the red warning light is illuminated when any wheel is not locked down and throttle less than one third open.
- (4) Operate 'D' door sequence valve and use hand pump to retract port and starboard 'D' doors.
 - (5) Mechanically trip main leg up locks so that the Micro Switches are broken.
 - (6) Check the main wheel lights do not operate.
 - (7) Operate each of the three up lock micro switches for each leg in turn. Check that each produces a red light.
 - (8) Close both nose wheel door locks and note that the nose wheel red light is still on.
 - (9) Manually operate the nose wheel leg 'UP' micro switch and check that the light goes out.
 - (10) Keeping the nose wheel leg 'UP' switch depressed, open each nose wheel door lock in turn, keeping the other closed, and note that the red light comes on.
 - (11) Select undercarriage down and pump to lock down all doors and legs. Check for green lights for each wheel.
 - (12) Check nose and main undercarriage locks for freedom of operation in accordance with A.P.4347, Vol.1., Sect.3., Chap.5.
- (b) Check the adjustment of the nose wheel door locks in accordance with A.P.4347, Vol.1., Sect.3., Chap.5. Check the adjustment of the nose wheel front door micro switches and where necessary, adjust as follows:-
- (1) Post Mod.251 aircraft.
 With aircraft jacked, wheels clear of ground and ground locks fitted to the main undercarriage (A.P.4347, Vol.1., Sect.2., Chap.4) use hand pump to break the undercarriage down locks. Close both nose wheel door locks and adjust each lock micro switch in turn with a feeler gauge of 0.027 inch between switch and lever so that the red light comes on when the nose wheel leg 'UP' micro switch is depressed and the other lock closed. Check with a 0.023 inch gauge inserted, that there is no light.
 - (2) Pre Mod.251 aircraft.
 Check that a gap of 0.040 inch exists between lever and switch.
- NOTE:- Embodiment of Mod.251 or fitment of Pye Micro Switch Type 401S (5CW/5982), as soon as possible is recommended.
- (c) Check the backlash in the main wheel door lock operating mechanism. Where it is found that backlash, as felt at the rear lever of the

(Cont'd...)

S. I/Hunter/72.

- (D) 1.(c) universal shaft when the lever at the upper end of the wheel door jack is hard against the top stop, exceeds 0.15 inch (X) the universal shaft is to be rejected. Where the existing shaft is acceptable or where a new shaft has been fitted, proceed with the following:-

(X) Refer A.P.4347 Series Vol.1., Sect.3., Chap.5., Fig.5 for backlash check.

- (d) Fully retract the wheel door by depressing the plunger of the sequence valve in the roof of the wheel well and operating the hand-pump with undercarriage 'UP' selected.
- (e) Check that there is a gap of at least 0.005 inch between the underside of the wheel door spigots and the hooks of the wheel door locks.

NOTE:

Adjustment is by shims under the spigot, as shown in AP.4347 Vol.1., Sect.3., Chap.5. Any combination of the shims, not exceeding 4 in number may be used to achieve the adjustment.

<u>Part No.</u>	<u>Ref: No.</u>	<u>Thickness.</u>	<u>Spigot.</u>
F.187535	26FX/495	22.G.L.A.	Rear
F.187536	26FX/496	22.G.L.A.	Front
F.206293	26FX/7824	Taper	Rear
F.206294	26FX/7882	Taper	Front
F.211330	26FX/8396	0.005 inch	Front
F.211331	26FX/8397	0.010 inch	
F.211332	26FX/8398	0.015 inch	
F.211333	26FX/8399	0.005 inch	Rear
F.211334	26FX/8400	0.010 inch	
F.211335	26FX/8401	0.015 inch	

NOTE:

It has been noted that the detent plunger and housing which should have been removed under Mod.314 is still fitted to some aircraft. Where present this is to be removed before proceeding with the rest of this Instruction.

- (f) Referring to the attached sketch adjust the wheel door locks in accordance with the instructions.
- (g) Check the adjustment of the main wheel leg fairing lock in accordance with A.P.4347, Vol.1., Sect.3., Chap.5.
- (h) With the undercarriage pumped right down, fit ground locks to the main and nose undercarriage and use hand pump to break the 'DOWN' locks.
- (i) With spring balance attached as shown in sketch check the adjustment of the micro switches at the leg fairing and wheel door locks and, where necessary, adjust so that with the lock closed and a feeler gauge of 0.035 inch between lever and switch the appropriate red light comes on and that with a gauge of 0.030 inch inserted there is NO light. When all adjustments are complete carry out functional checks of the wheel doors, checking indicator lights.

(Cont'd...)

(D) 1 (i).

NOTE:-

During adjustment, the other two locks for the relevant leg must be closed.

(j) Pump the wheel door right down using full hydraulic hand-pump pressure to ensure that the internal locks of the undercarriage jacks, which may have disengaged when raising the wheel door, have re-engaged, and the wheel door jacks lever returns to the top position.

(k) Remove safety locks, carry out full undercarriage retraction tests with hydraulic power rig coupled up.

1. Check with undercarriage and wheel door fully retracted that minimum gaps of 0.05 inch to 0.100 inch exist between the leg fairing flap, the leg fairing and the wheel fairing. Where necessary the fairings must be re-adjusted to obtain this condition.

(m) Check for minimum clearance between wheel fairing and wheel door as shown on Fig. 3A., Chap. 5., Section 3., in AP.4347 Series:-

(1) With door closed.

(2) At intermediate stages of door opening.

NOTE:-

It is essential that 0.17 inch minimum width of the wheel fairing makes contact with the landing block of the wheel door when fully retracted. This can be checked by plasticine on the door. If the minimum is not obtained, re-adjustment of the fairing consistent with achieving the requirements of para. (1) above or fitting new landing blocks will be necessary.

(E) Record on appropriate form and enter in Supplementary Servicing Record Sheet of the Servicing Schedule.

(F) Nil

(G) The new gauges are introduced by Mod.1021. AP.4347 Series, Volume 1 will be amended to include the revised adjustments.

J. G. Quell.

p.p. A.W. SHARPE.

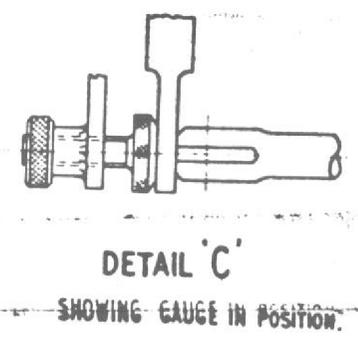
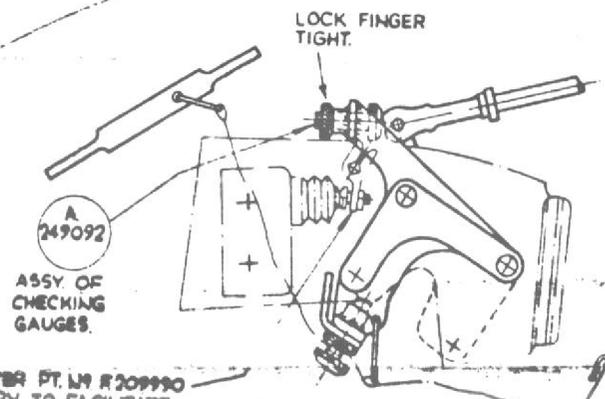
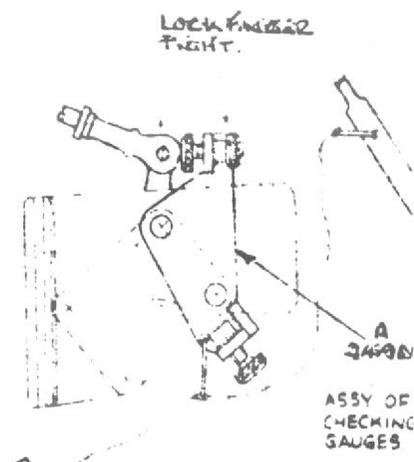
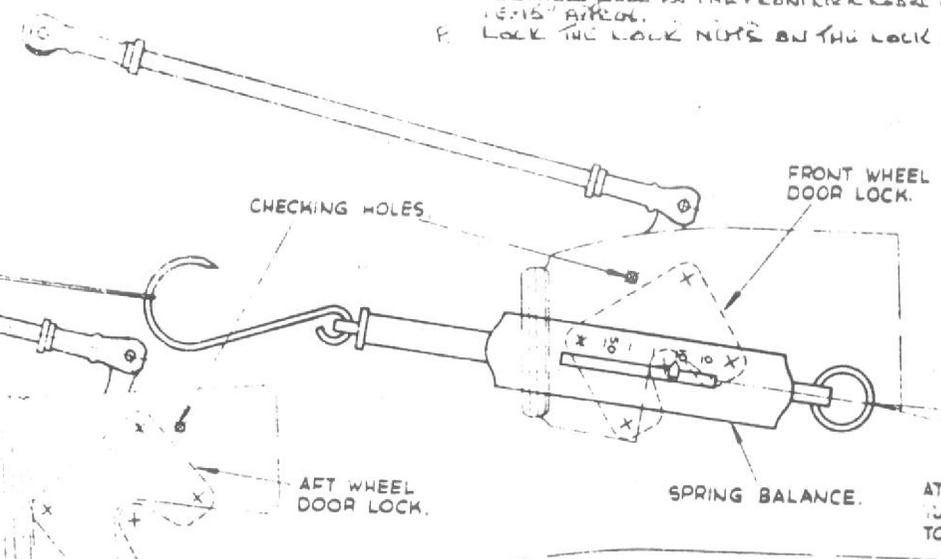
"On aircraft where S.T.I./Hunter/263 has been satisfied, check that there is a gap of at least 0.015 inch between the underside of the wheel door spigots and the hooks of the wheel door locks.

On aircraft prior to satisfaction of S.T.I./Hunter/263, the clearance must still be a minimum of 0.005 inch".

- LOCK HOOD TO ENSURE THAT THE RELEASED POSITION IS OBTAINED. THE TAPPET WILL NOW BE IN CONTACT WITH LOCK OPERATING LEVER AT THE "JUST RELEASED" POSITION.
- 5 GENTLY LEVER FAIRING DOOR LOCK BODY UPWARDS UNTIL AT UPPER END IS IN CONTACT WITH STOP AT POINT 'X'.
 - 5 CHECK LOCK LEVER TRAVEL BY INSERTING THE 'GO' GAUGE TAPPET ON GAUGE AND FORM END AS SHOWN AT DETAIL 'C'.
 - 7 CHECK THAT 'NO GO' PORTION OF GAUGE WILL NOT INSERT IN PARA 6.
 - IN BOTH THE ABOVE OPERATIONS ENSURE THAT THE TAPPET NOT TURNED WHILST ATTEMPTING TO INSERT THE GAUGES.
 - 8 REPEAT OPERATIONS 2 TO 7 FOR FRONT LOCK USING CHE GAUGE AS SHOWN IN DETAIL 'B'.
 - 9 REMOVE SPRING BALANCE.

- LOCK HOOD TO ENSURE THAT THE RELEASED POSITION IS OBTAINED. THE TAPPET WILL NOW BE IN CONTACT WITH LOCK OPERATING LEVER AT THE "JUST RELEASED" POSITION.
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 - 9 REMOVE SPRING BALANCE.

POINT 'Y'



REMOVE LEVER PT. IN R20990 IF NECESSARY, TO FACILITATE ASSEMBLY OF CHECKING GAUGES.

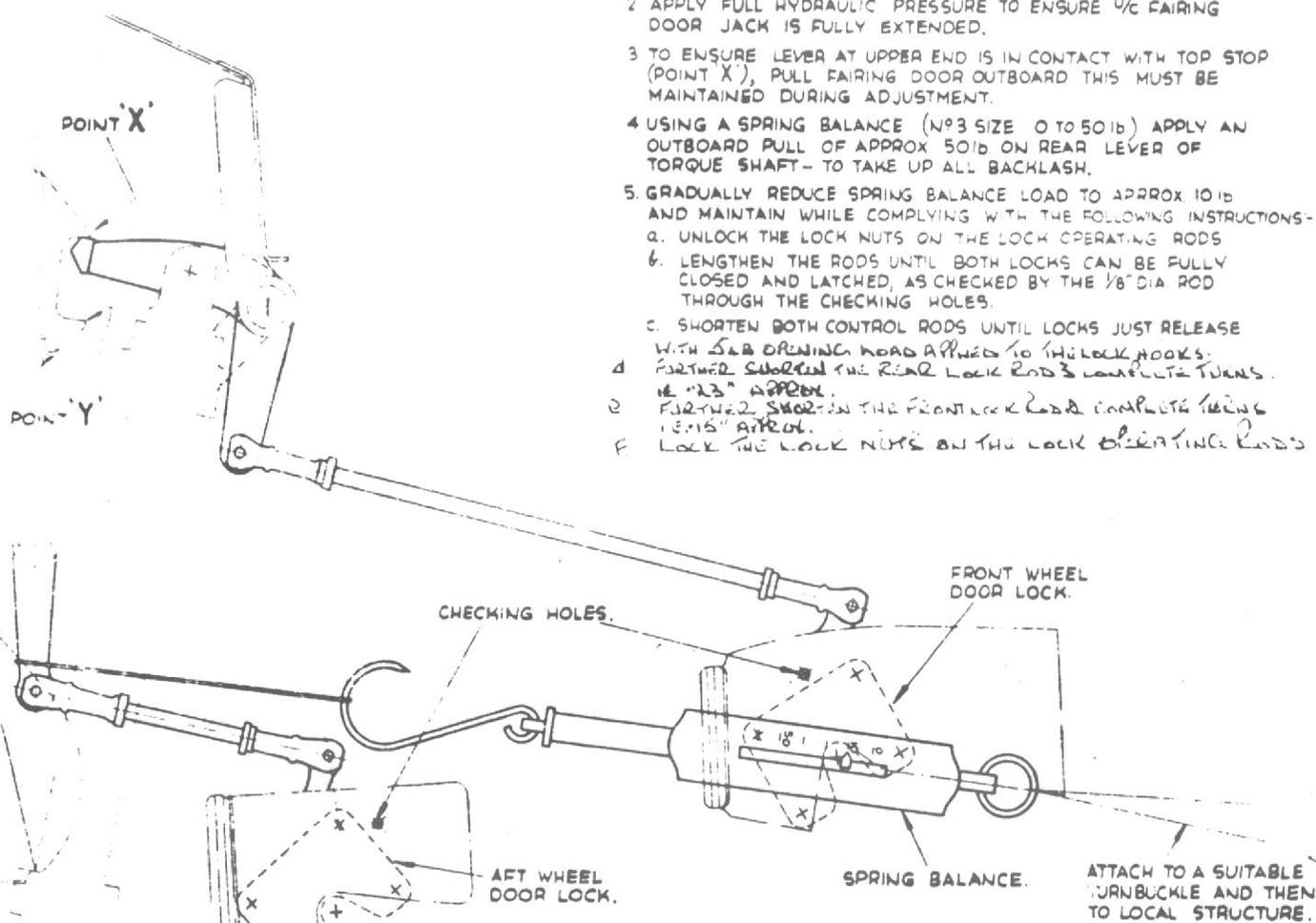
DETAIL B
VIEW LOOKING ON FRONT LOCK.
(LOCK JUST RELEASED.)

MAIN UNDERCARRIAGE
LOCK ADJUSTMENT - REVISED.

S.I./HUNTER/72.

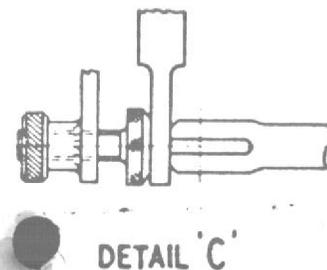
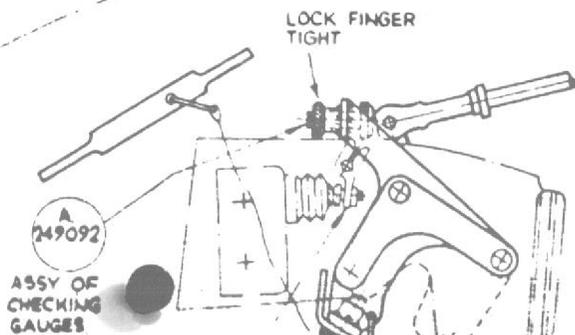
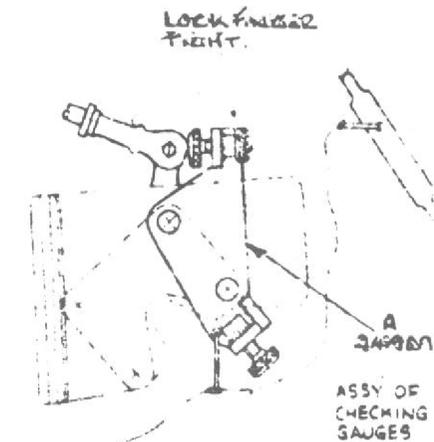
LOCK ADJUSTMENT:-

1. FIT THE UNDERCARRIAGE SAFETY LOCKS, JACK AND WITH WHEELS CLEAR OF THE GROUND.
2. APPLY FULL HYDRAULIC PRESSURE TO ENSURE 1/4 FAIRING DOOR JACK IS FULLY EXTENDED.
3. TO ENSURE LEVER AT UPPER END IS IN CONTACT WITH TOP STOP (POINT X'), PULL FAIRING DOOR OUTBOARD THIS MUST BE MAINTAINED DURING ADJUSTMENT.
4. USING A SPRING BALANCE (NO 3 SIZE 0 TO 50 LB) APPLY AN OUTBOARD PULL OF APPROX 50 LB ON REAR LEVER OF TORQUE SHAFT- TO TAKE UP ALL BACKLASH.
5. GRADUALLY REDUCE SPRING BALANCE LOAD TO APPROX 10 LB AND MAINTAIN WHILE COMPLYING WITH THE FOLLOWING INSTRUCTIONS-
 - a. UNLOCK THE LOCK NUTS ON THE LOCK OPERATING RODS
 - b. LENGTHEN THE RODS UNTIL BOTH LOCKS CAN BE FULLY CLOSED AND LATCHED, AS CHECKED BY THE 1/8" DIA ROD THROUGH THE CHECKING HOLES.
 - c. SHORTEN BOTH CONTROL RODS UNTIL LOCKS JUST RELEASE WITH 5 LB OPENING LOAD APPLIED TO THE LOCK HOOKS.
 - d. FURTHER SHORTEN THE REAR LOCK ROD 3 COMPLETE TURNS. IE 1/8" APPROX.
 - e. FURTHER SHORTEN THE FRONT LOCK ROD COMPLETE TURNS IE 1/8" APPROX.
 - f. LOCK THE LOCK NUTS ON THE LOCK OPERATING RODS



LOCK SETTING CHECK (WITH SPRING BALANCE STILL ATTACHED)

1. DISSIPATE HYDRAULIC PRESSURE IN FAIRING DOOR JACK BY OPENING A CONVENIENT CIRCUIT AND LEAVE DOOR OPEN. (LEVER AT UPPER END OF JACK WILL BE IN CONTACT WITH LOWER STOP AT POINT Y' IN THIS CONDITION)
2. CLOSE REAR DOOR LOCK.
3. FIT CHECKING GAUGE TO REAR LOCK AS SHOWN AT DETAIL 'A' AFTER FIRST SCREWING THE TAPPET RIGHT IN.
4. GENTLY LEVER FAIRING DOOR JACK BODY UPWARDS UNTIL REAR LOCK 'JUST RELEASES', FOLLOWING UP THE LOCK LEVER WITH TAPPET BUT NOT ALLOWING THE TAPPET TO PUSH THE LEVER AN OPENING LOAD OF APPROX 5 LB SHOULD BE APPLIED TO THE LOCK HOOK TO ENSURE THAT THE RELEASED POSITION HAS OBTAINED. THE TAPPET WILL NOW BE IN CONTACT WITH THE LOCK OPERATING LEVER AT THE 'JUST RELEASED' POSITION.
5. GENTLY LEVER FAIRING DOOR JACK BODY UPWARDS UNTIL LEVER AT UPPER END IS IN CONTACT WITH STOP AT POINT 'X'.
6. CHECK LOCK LEVER TRAVEL BY INSERTING THE 'GO' GAUGE BE TAPPET ON GAUGE AND FORK END AS SHOWN AT DETAIL 'C'.
7. CHECK THAT 'NO GO' PORTION OF GAUGE WILL NOT INSERT AS IN PARA 6. IN BOTH THE ABOVE OPERATIONS ENSURE THAT THE TAPPET IS NOT TURNED WHILST ATTEMPTING TO INSERT THE GAUGES.
8. REPEAT OPERATIONS 2 TO 7 FOR FRONT LOCK USING CHECKING GAUGE AS SHOWN IN DETAIL 'B'.
9. REMOVE SPRING BALANCE.





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