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Avro
CF105
71 Maint
12-3

UNCLASS

Classification cancelled / Changed to ~~CONFIDENTIAL~~

By authority of MAINTENANCE INSTRUCTIONS AVRS

Date 30 Sept 86

Signature AB Smith

Unit / Rank / Appointment AVRS 71/MAINT 12/3

ANALYZED

NRC - CISTI
J. H. PARKIN
BRANCH

JUN 8 1995

ANNEXE
J. H. PARKIN
CNRC - ICIST



SECURITY CLASSIFICATION - ~~CONFIDENTIAL~~

ANNEXED

Classification cancelled / Changed to UNCLASS

By authority of AVES

Date 30 Sept 96

Signature AR Bully

ARROW I

MAINTENANCE INSTRUCTIONS Unit / Rank / Appointment AVES

INSTRUMENTS - FUEL CONTENTS INDICATION

71/MAINT 12/3

11 Nov. 1957

Prepared: G. G. G. G.

For Maintenance and Reliability
Section

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For Equipment Design Dept.

Authorized: AR Bully

Project Designer

ENGINEERING DIVISION, AVRO AIRCRAFT LIMITED, MALTON, ONTARIO



CONFIDENTIAL

71/MAINT E2/3.

TABLE OF CONTENTS

| <u>Chapter</u> | <u>Para.</u> | <u>Subject</u> | <u>Page</u> |
|----------------|--------------|---|-------------|
| 1 | | DESCRIPTION | 1 |
| | 1.1 | General | 1 |
| | 1.2 | Operation | 1 |
| 2 | | GROUND SERVICING EQUIPMENT | 2 |
| | 2.1 | A-C Ground Power Unit | 2 |
| | 2.2 | Fuel Quantity Ground Test Unit | 2 |
| | 2.3 | Minneapolis-Honeywell-Variable Capacitor - HT 109 | 2 |
| | 2.4 | Indicator Calibration Test Link | 3 |
| 3 | | FUNCTION TESTS | 3 |
| | 3.1 | Primary Test | 3 |
| | 3.2 | Tank Capacitance Unit Test | 3 |
| | 3.3 | Indicator Calibration Test | 4 |

ILLUSTRATIONS

| | | |
|----------|---------------------------------|---|
| FIGURE 1 | Fuel Quantity Ground Test Unit | 7 |
| FIGURE 2 | Component Location Diagram | 8 |
| FIGURE 3 | Indicator Calibration Test Link | 9 |

COMPONENT DATA

| | | |
|--------|-------------|--|
| M.D.R. | 11-E4 | Panel Distribution |
| M.D.R. | 11-E3/9 | Switch - Fuel Capacitance Test |
| M.D.R. | 11-E11/71 | Indicator - Fuel Quantity - L.H. |
| M.D.R. | 11-E11/72 | Indicator - Fuel Quantity - R.H. |
| M.D.R. | 11-E115/120 | Tank Capacitance Unit #3 L and R.H. aft |
| M.D.R. | 11-E116/121 | Tank Capacitance Unit #3 L and R.H. centre |
| M.D.R. | 11-E117/122 | Tank Capacitance Unit #3 L and R.H. fwd |
| M.D.R. | 11-E131/136 | Tank Capacitance Unit #6 L and R.H. aft |
| M.D.R. | 11-E132/137 | Tank Capacitance Unit #6 L and R.H. centre |
| M.D.R. | 11-E133/138 | Tank Capacitance Unit #6 L and R.H. fwd |
| M.D.R. | 11-E212 | Tank Capacitance Unit #1 aft |
| M.D.R. | 11-E213 | Tank Capacitance Unit #1 fwd |
| M.D.R. | 11-E216 | Tank Capacitance Unit #2 aft |
| M.D.R. | 11-E217 | Tank Capacitance Unit #2 fwd |
| M.D.R. | 11-E221/225 | Tank Capacitance Unit #4 L and R.H. aft |
| M.D.R. | 11-E220/224 | Tank Capacitance Unit #4 L and R.H. fwd |
| M.D.R. | 11-E229/234 | Tank Capacitance Unit #5 L and R.H. fwd |
| M.D.R. | 11-E230/235 | Tank Capacitance Unit #5 L and R.H. aft |



CONFIDENTIAL

71/MAINT 12/3

Table of Contents (continued)

| <u>Chapter</u> | <u>Para.</u> | <u>Subject</u> | <u>Page</u> |
|----------------|--------------|--|-------------|
| M.D.R. | 11-E238/244 | Tank Capacitance Unit #7 L and R.H. inb'd | |
| M.D.R. | 11-E239/245 | Tank Capacitance Unit #7 L and R.H. centre fwd | |
| M.D.R. | 11-E240/246 | Tank Capacitance Unit #7 L and R.H. centre aft | |
| M.D.R. | 11-E241/247 | Tank Capacitance Unit #7 L and R.H. outb'd | |
| M.D.R. | 11-E250/256 | Tank Capacitance Unit #8 L and R.H. inb'd | |
| M.D.R. | 11-251/257 | Tank Capacitance Unit #8 L and R.H. centre | |
| M.D.R. | 11-252/258 | Tank Capacitance Unit #8 L and R.H. outb'd | |



CONFIDENTIAL

71/MAINT 12/3

1. DESCRIPTION

1.1 General

- 1.1.1 The fuel quantity indication system comprises two independent, but electrically identical, circuits, one for the R.H. and one for the L.H. fuel-sub-systems. Each circuit, consisting of a combined amplifier-indicator, eighteen tank capacitance units, and one combined tank unit and compensator (located in No. 5 tank aft) operates as a self-balancing capacitance bridge.
- 1.1.2 The system operation is based on the difference in the dielectric constants of air and fluid. The capacitance of the cylindrical tank capacitors varies with variations in fuel level and being parallel-connected, their capacitances are additive, thereby indicating the total fuel quantity in the tanks.
- 1.1.3 Contained within the indicator are a fixed value reference capacitor, a 400 c.p.s. 115 volt step-down transformer, a phase-sensitive amplifier, a two phase induction motor, and two manually variable adjustment potentiometers.
- 1.1.4 The compensator (Para 1.1.1) is parallel-connected to the reference capacitor and compensates for variations in fuel specific gravity and temperature.
- 1.1.5 A 28.5 V.D.C supply is fed into the indicator for energizing the transistor circuit section.

1.2 Operation

- 1.2.1 Any change in fuel level in the tanks will alter the total capacitance of the tank units, which in turn will unbalance the bridge circuit, thereby creating a potential difference across the centre tap of the bridge. The resultant current flow is amplified and fed to one phase of the two phase motor, (the remaining phase being fed direct from the 400 cps., 115 volt supply). Motor rotation then positions the indicator pointer to show total fuel quantity, by weight, in the L.H. or R.H. system of tanks and simultaneously drives the wiper arm of a potentiometer to re-balance the bridge.
- 1.2.2 The two potentiometers in the indicator (Para 1.1.3) are connected, one across each end portion of the transformer secondary winding, and are adjustable at the back of the indicator by means of two screws, one marked EMPTY and the other marked FULL. The wiper arm of the EMPTY adjustment potentiometer is connected to the tank units leg of the bridge, and that of the FULL adjustment



CONFIDENTIAL

71/MAINT 12/3

1.2.2 (continued)

potentiometer to the reference leg of the bridge.

1.2.3 A single-pole, double-throw switch, spring loaded to a centre-OFF position, is provided for a simple indicator operation check.

1.2.4 This switch is mounted on E3 electrics panel in the nose wheel well and is marked FUEL CAP. TEST LEFT-RIGHT. Selection of the switch to LEFT or RIGHT will ground the unbalanced or variable leg of the left or right fuel sub-system bridge circuit, causing the pointer to take up a position at the zero end of the scale. When the switch is released, the pointer will return to its original position.

1.2.5 Power for the system is derived from the Main D-C bus and the Primary A-C bus.

2. GROUND SERVICING EQUIPMENT

2.1 A-C Ground Power Unit.

2.2 Fuel Quantity Ground Test Unit

2.2.1 This unit consists of a fuel contents indicator, a power unit, a fuel tank rotary selector switch and the necessary circuitry required to indicate the amount of fuel contained in any selected fuel tank of the aircraft. The quantity is gauged by measuring the total capacitance of the tank units.

2.2.2 The amount of fuel measured will be indicated as a percentage of the total measurable capacity of the tank in pounds of fuel.

2.2.3 This unit will facilitate after flight tests with respect to the fuel management system.

2.3 Minneapolis-Honeywell Variable Capacitor - HT 109

2.3.1 This variable capacitance tester provides a substitute capacitance for adjusting and testing fuel quantity gauge systems and centre of gravity control systems and also permits adjusting and testing certain individual components of these systems.

2.3.2 The tester consists of a metal case which contains a 3-wire variable capacitor, capacitance multipliers and special cables. It has a range of 100 to 1100 micro-micro-farads without multipliers and 100 to 6100 micro-micro-farads with multipliers.



CONFIDENTIAL

71/MAINT 12/3

2.4 Indicator Calibration Test Link

- 2.4.1 This link is necessary to facilitate an indicator calibration check in conjunction with the HT 109 tester. It consists of two connectors and their inter-connecting wiring and two single wires connected into one connector, and fitted with Dage tee connectors at their free end. For test purposes the link connects in series with the fuel quantity indication circuit at E4 panel, and the two wires along with the tee connectors provide a means of connecting the HT 109 tester in parallel with the unscreened or negative side of the L & RH fuel quantity indication circuits.

3. FUNCTION TESTS

3.1 Primary Test

- 3.1.1 Connect the A-C ground power unit to the aircraft.
- 3.1.2 Ensure that the circuit breakers FUEL CAP. L AND R, located on E1 circuit breaker panel, are closed.
- 3.1.3 Switch on the A-C ground power unit and select the MASTER ELECTRICS switch to the ON position.
- 3.1.4 Select and hold the FUEL CAP. test switch, located on E3 panel to LEFT. The pointer on the left FUEL QUANTITY indicator should move toward the zero end of the scale. Release the test switch and ensure that the pointer returns to its original position.
- 3.1.5 Check the right FUEL QUANTITY indicator by proceeding as in Para 3.1.4, substituting "right" for "left".
- 3.1.6 Select the MASTER ELECTRICS switch to OFF.

3.2 Tank Capacitance Unit Test (to be carried out with a measurable quantity of fuel in each tank)

- 3.2.1 Disconnect electrical connectors E4/58, E1000/34, E1000/35 from panel E4 and connect to E4 the appropriate cables from the fuel contents ground test unit.
- 3.2.2 Ensure that the L. PRESS. RATIO current limiter, located on E20 aft current limiter panel, is serviceable.
- 3.2.3 Select the aircraft MASTER ELECTRICS switch to the ON position.
- 3.2.4 Select the fuel quantity ground test unit POWER switch to the ON position. The test unit pilot light should illuminate. When the tank selector switch is rotated to "



CONFIDENTIAL

71/MAINT 12/3

- 3.2.5 With the tank selector switch selected to #1 tank check that the test unit is functioning by pressing the unit TEST button and observing that the test unit indicator pointer moves toward zero. Release the button and the pointer should return to its original position.
- 3.2.6 Repeat the above test (para 3.2.5) selecting the tank selector switch to each of the remaining 13 selections in turn.
- 3.2.7 Select the MASTER ELECTRICS switch to OFF.
- 3.2.8 Have the aircraft completely defuelled.
- 3.2.9 Select the MASTER ELECTRICS switch to ON.
- 3.2.10 Select the test unit selector switch to each of the fourteen tank units in rotation and observe that a zero indication is shown for each tank.
- 3.2.11 Select the aircraft MASTER ELECTRICS switch to OFF, disconnect the test unit and re-connect the aircraft connectors to E4 panel (See Para 3.2.1).
- 3.2.12 Select the aircraft MASTER ELECTRICS switch to ON and observe that a zero reading is indicated on both the L.H. and R.H. FUEL QUANTITY indicators.
- 3.2.13 Select the aircraft MASTER ELECTRICS switch to OFF.
- 3.3 Indicator Calibration Test (To be carried out with fuel tanks empty)
 - 3.3.1 Set the EMPTY and FULL adjustment screws at the back of the FUEL QUANTITY L.H. and R.H. indicators to the approximate half-way position of their complete clockwise or anti-clockwise rotation, to ensure maximum empty and full adjustment potential.
 - 3.3.2 Ensure that the four circuit breakers L and R FUEL CAP., located on E1 circuit breaker panel, are set.
 - 3.3.3 Connect the A-C ground power unit to the aircraft and select the MASTER ELECTRICS switch to the ON position.
 - 3.3.4 By means of the EMPTY adjustment screw at the back of the indicator, adjust the pointer of the L.H. indicator to centre on the zero indication mark.
 - 3.3.5 Repeat Para. 3.3.4 for the R.H. indicator.
 - 3.3.6 Select the MASTER ELECTRICS switch to the OFF position.



CONFIDENTIAL

71/MAINT 12/3

- 3.3.7 Connect the HT 109 tester into the fuel capacitance circuit at E4 panel as follows:
 - 3.3.7.1 Disconnect connector E4/58 from connector E4/16 and between these two connectors, connect the Indicator Calibration Test Link.
 - 3.3.7.2 Disconnect cable E1000/35 and in its place connect the screened cable tee connector from the HT 109 tester.
 - 3.3.7.3 Connect cable E1000/35 to the empty socket of the HT 109 screened cable tee connector.
 - 3.3.7.4 Connect the unscreened connector from the HT 109, to the cable idented R.H. SYSTEM at the indicator calibration test link.
- 3.3.8 Select the MASTER ELECTRICS switch to ON.
- 3.3.9 Set the HT 109 capacitance to 495 micro-micro-farads.
- 3.3.10 By means of the FULL adjustment screw, set the R.H. indicator pointer to centre on the 11,600 lbs. indication mark.
- 3.3.11 Select the MASTER ELECTRICS switch to OFF.
- 3.3.12 Disconnect the HT 109 screened cable tee connector and re-connect cable E1000/35 to the tee connector at E4 panel.
- 3.3.13 Disconnect the HT 109 unscreened cable connector from the R.H. SYSTEM cable and connect it to the L.H. SYSTEM cable at the indicator calibration test link.
- 3.3.14 Disconnect cable E1000/34 and, in its place, connect the HT 109 screened cable tee connector.
- 3.3.15 Connect cable E1000/34 to the empty socket of the HT 109 screened cable tee connector.
- 3.3.16 Select the MASTER ELECTRICS switch to ON.
- 3.3.17 Repeat the procedures outlined in Paras 3.3.9 and 3.3.10. Reading L.H. indicator for RH indicator.
- 3.3.18 Select the MASTER ELECTRICS switch to OFF.
- 3.3.19 Disconnect the HT 109 tester and the indicator calibration test link from the aircraft.
- 3.3.20 Re-connect cable E1000/34 to its appropriate tee connector at E4 panel.



CONFIDENTIAL

71/MAINT 13/2

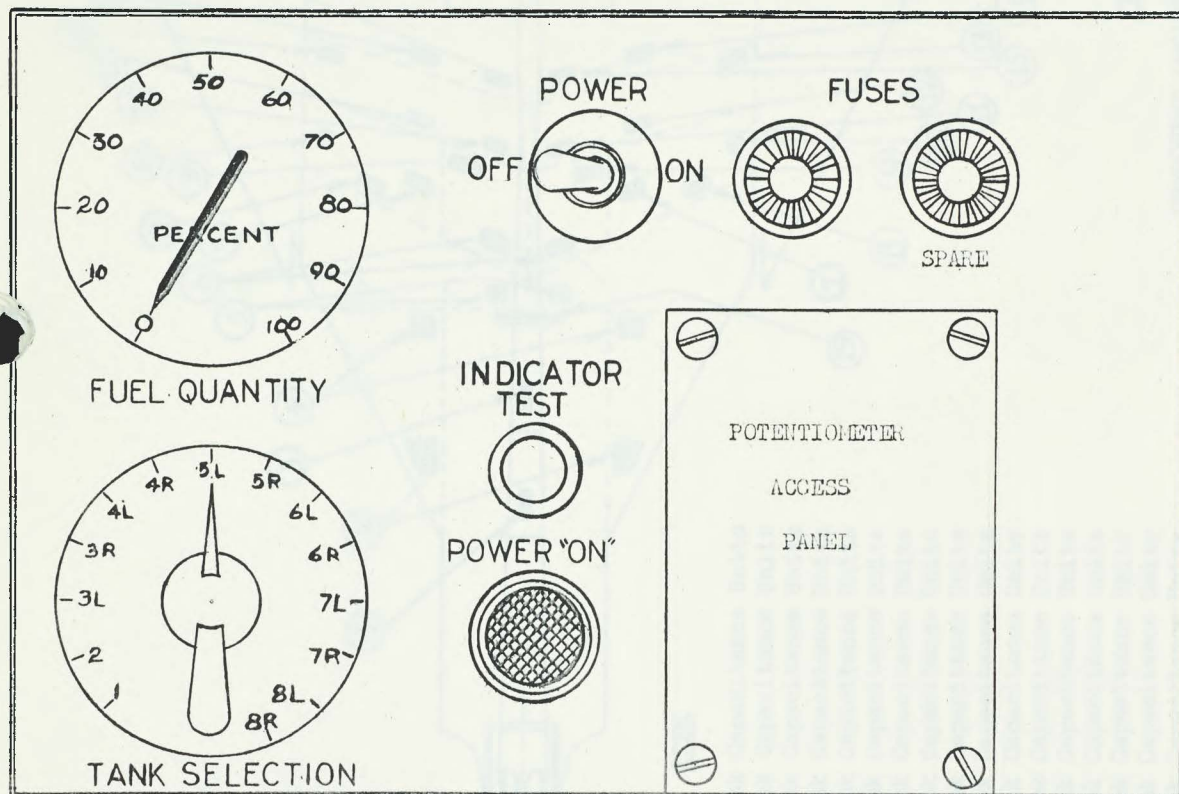
- 3.3.21 Re-connect connector E4/58 to connector E4/16 at E4 panel.
- 3.3.22 Select the MASTER ELECTRICS switch to ON. Observe that both the L.H. and R.H. indicator pointers are at the centre of the zero scale mark.
- 3.3.23 Select the MASTER ELECTRICS switch to OFF.





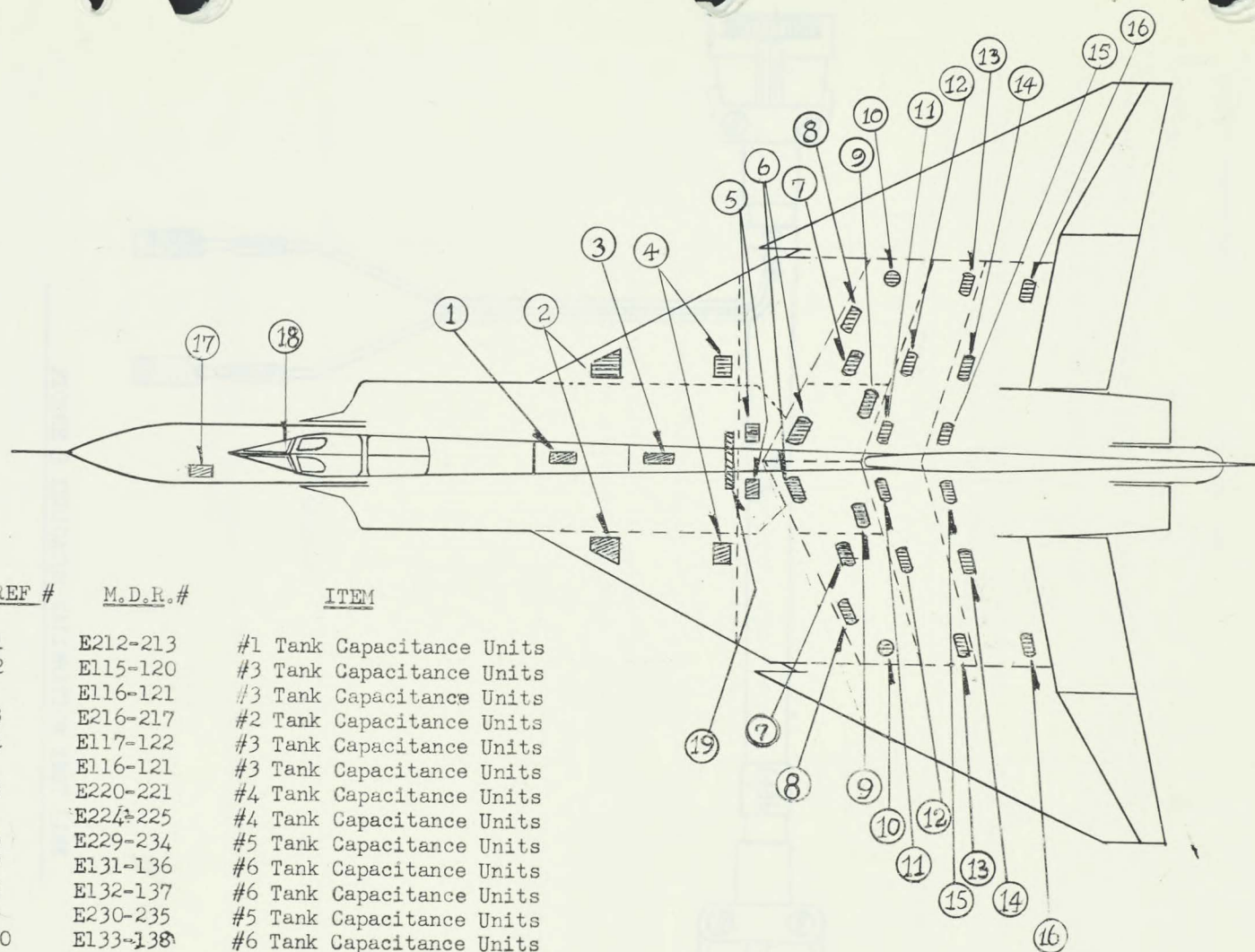
CONFIDENTIAL

71/MAINT 12/3



FUEL QUANTITY GROUND TEST UNIT

FIGURE 1



| REF # | M.D.R.# | ITEM |
|-------|-----------|------------------------------|
| 1 | E212-213 | #1 Tank Capacitance Units |
| 2 | E115-120 | #3 Tank Capacitance Units |
| | E116-121 | #3 Tank Capacitance Units |
| 3 | E216-217 | #2 Tank Capacitance Units |
| 4 | E117-122 | #3 Tank Capacitance Units |
| | E116-121 | #3 Tank Capacitance Units |
| 5 | E220-221 | #4 Tank Capacitance Units |
| | E224-225 | #4 Tank Capacitance Units |
| 6 | E229-234 | #5 Tank Capacitance Units |
| 7 | E131-136 | #6 Tank Capacitance Units |
| 8 | E132-137 | #6 Tank Capacitance Units |
| 9 | E230-235 | #5 Tank Capacitance Units |
| 10 | E133-138 | #6 Tank Capacitance Units |
| 11 | E238-244 | #7 Tank Capacitance Units |
| 12 | E239-245 | #7 Tank Capacitance Units |
| 13 | E240-246 | #7 Tank Capacitance Units |
| | E241-247 | #7 Tank Capacitance Units |
| 14 | E251-257 | #8 Tank Capacitance Units |
| 15 | E250-256 | #8 Tank Capacitance Units |
| 16 | E252-258 | #8 Tank Capacitance Units |
| 17 | E3/9 | Switch-Fuel Capacitance Test |
| 18 | E11/71-72 | Indicators Fuel Quantity |

FIGURE 2

COMPONENT LOCATION AND ACCESS DIAGRAM

19. 11-E4 Panel - Distribution

71/MAINT 12/3

CONFIDENTIAL

Page 8



CONFIDENTIAL

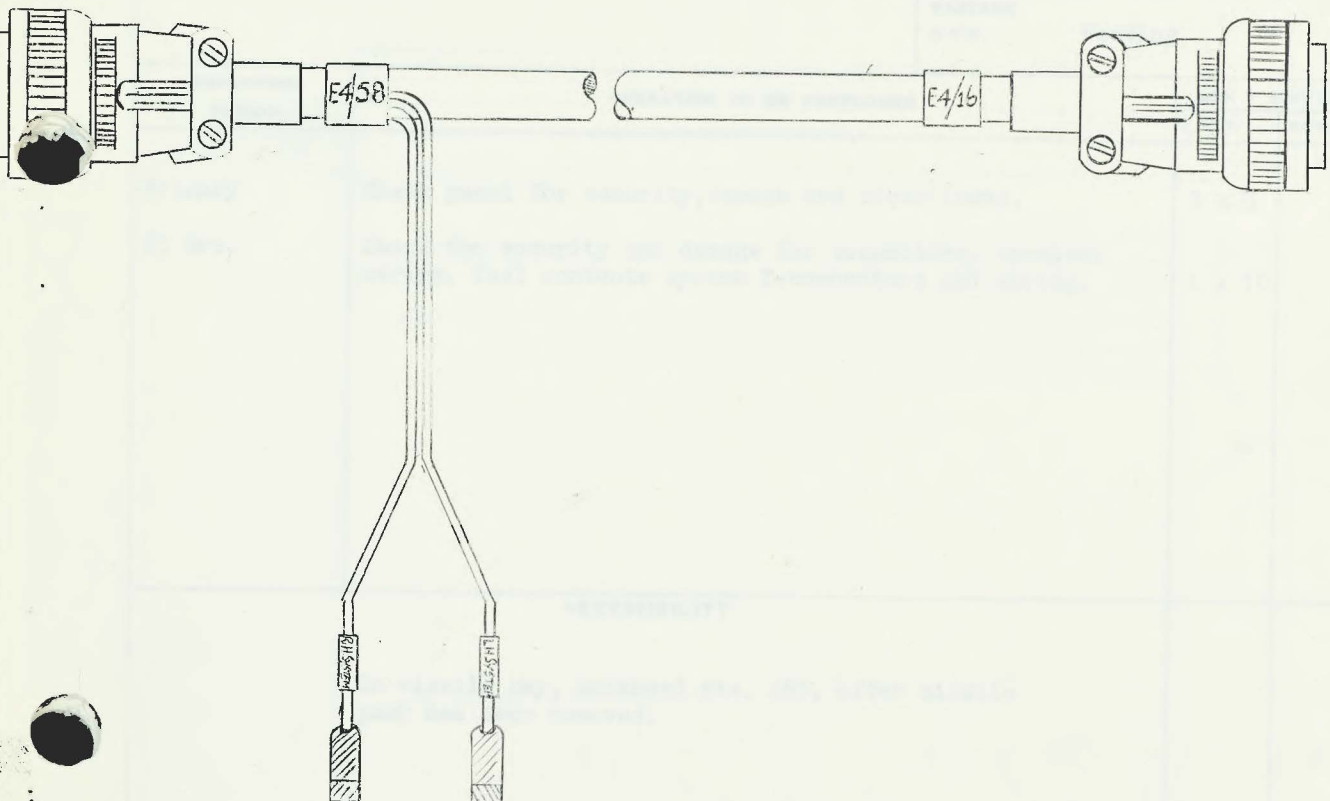


FIGURE 3 INDICATOR CALIBRATION TEST LINK

| MAINTENANCE DATA RECORD | | | | SYSTEM | REF. NO. |
|--|-------------|--|----------------|--|----------|
| AVRO AIRCRAFT LTD. | | Engineering Div. | | ELECTRICS | 11-E4 |
| DISTRIBUTION: STANDARD + S. Brown K. Knowlton | | A/C TYPE - Arrow 1 EFF. A/C - 25201 | | COMPONENT Panel - Distribution | |
| MANUFACTURER'S PART NO. N/A | | | | AVRO PART NO. | |
| MANUFACTURER'S NAME Avro Aircraft Limited | | | | 7-1154-13 | |
| AVROCAN SPEC. Nil | | E.O. NO. | | | |
| ENVELOPE SIZE 25.0" x 16.0" x 16.5" WEIGHT 25.0 LB. | | | | REF. DWGS. | |
| LOCATION Forward Face of Bulkhead Sta. 485 | | | | 7-1100-2 sht 20 7-1100-2 sht 21 7-1100-3 sht 7 | |
| FUNCTION A distribution point for wiring from wings, nose section, duct and engine bay, fuselage fuel tanks, E5 panel. | | | | REF. M.D.R. | |
| | | | | RELIABILITY | |
| | | | | OVERHAUL LIFE 1500 HRS. | |
| | | | | WASTAGE | |
| | | | | Q.T.R. Pending | |
| INSPECTION PERIOD | | OPERATION TO BE PERFORMED | | MEN X MINUTES | |
| | | | | EST. | ACTUAL |
| Primary | | Check panel for security, damage and cleanliness. | | 1 x 5 | |
| 25 Hrs. | | Check for security and damage for connectors, terminal strips, fuel contents system T-connectors and wiring. | | 1 x 10 | |
| ACCESSIBILITY | | | | | |
| In missile bay, bulkhead sta. 485, after missile pack has been removed. | | | | | |
| ISSUE | 1 | 2 | 3 | 4 | |
| DATE | Dec 15/55 | Mar. 8/56 | Jan 3/57 | 18 Nov. 57 | |
| COMPILED | C.E. Wright | D. Collingwood | D. Collingwood | K.P. Lowe | |
| CHECKED | G. Emmerson | G. Emmerson | W02 Wentworth | W02 Wentworth | |
| APPROVED | | | R.F. Reid | R.F. Reid | |

| LUBRICATION NIL | | | | |
|---|----------|-----------------------------|-----------|---------------|
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS |
| DETAILS: | | | | |
| GROUND SUPPORT EQUIPMENT | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | |
| NIL | | NIL | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | |
| NIL | | Small Maintenance Platform | | |
| INTERCHANGEABLE | X | REMOVAL INSTRUCTIONS | | MEN X MINUTES |
| REPLACEABLE | | | | EST. |
| 1. Remove 40 AN 3106 connectors. 2. Remove 10 AN 3102 connectors. 3. Unclip 4 12-way terminal strips. 4. Disconnect ground connection, connectors at brake valves. 5. Disconnect fuel contents wires from T-connectors. 6. Remove 16 mounting bolts. | | Remove and replace | | 1 x 60 |

| MAINTENANCE DATA RECORD | | | | SYSTEM ELECTRICS | | REF. NO. 11-E3/9 | |
|--|---------------|--|--|---|---------------|---------------------|--|
| AVRO AIRCRAFT LTD. Engineering Div. | | | | | | | |
| DISTRIBUTION: STANDARD + S. Brown K. Knowlton | | A/C TYPE - Arrow 1 EFF. A/C - 25201 | | COMPONENT Switch - Fuel Capacitance Test | | | |
| MANUFACTURER'S PART NO. 8812K13 MANUFACTURER'S NAME Cutler - Hammer AVROCAN SPEC. E.O. NO. | | | | AVRO PART NO. | | | |
| ENVELOPE SIZE 2 1/8" x 1 1/8" x 5/8" WEIGHT .08 LB. | | | | REF. DWGS. 7-1100-3 sht 7 7-1100-2 sht 11 7-4611-1 | | | |
| LOCATION E3 panel - Nose Wheel Well | | | | REF. M.D.R. 11-E3 | | | |
| FUNCTION To facilitate a quick check of the fuel quantity indicators. | | | | RELIABILITY OVERHAUL LIFE 1500 HRS. WASTAGE Q.T.R. | | | |
| INSPECTION PERIOD | | OPERATION TO BE PERFORMED | | | MEN X MINUTES | | |
| | | | | | EST. | ACTUAL | |
| Primary | | Check switch for security. | | | 1 x 1 | | |
| Electrics | | Function Check (See Maintenance Instructions Report 71/MAINT 12/3) | | | 1 x 2 | | |
| ACCESSIBILITY | | | | | | | |
| With panel E3 removed. | | | | | | | |
| ISSUE | 1 | | | | | | |
| DATE | 5 Nov..57 | | | | | | |
| COMPILED | K. Lowe | | | | | | |
| CHECKED | W02 Wentworth | | | | | | |
| APPROVED | R.F. Reid | | | | | | |

| LUBRICATION NIL | | | | |
|---|-------------------------------------|------------------------------|-----------|---------------|
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS |
| | | | | |
| DETAILS: | | | | |
| | | | | |
| GROUND SUPPORT EQUIPMENT | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | |
| NIL | | NIL | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | |
| A- C Ground Power Unit | | Maintenance Platform 4G/1596 | | |
| INTERCHANGEABLE | <input checked="" type="checkbox"/> | REMOVAL INSTRUCTIONS | | MEN X MINUTES |
| REPLACEABLE | | | | EST. |
| Disconnect 3 electrical connections. Remove switch securing nut and lockwashers. | | Remove and replace | | 1 x 4 |

| MAINTENANCE DATA RECORD | | | | SYSTEM | | REF. NO. | |
|---|----------------|--|------------|---|--|--------------------|--|
| AVRO AIRCRAFT LTD. Engineering Div. | | | | INSTRUMENTS | | 11-E11-71 12-13 | |
| DISTRIBUTION: STANDARD + S. Brown K. Knowlton | | A/C TYPE - Arrow 1 EFF. A/C - 25201 | | COMPONENT Indicator - Fuel Quantity L.H. | | | |
| MANUFACTURER'S PART NO. JG130A | | | | AVRO PART NO. | | | |
| MANUFACTURER'S NAME Minneapolis-Honeywell | | | | 7-1252-14 | | | |
| AVROCAN SPEC. E323 E.O. NO. | | | | | | | |
| ENVELOPE SIZE 6.0" x 2.0" Dia. | | WEIGHT LB. | | REF. DWGS. | | | |
| | | | | 7-1100-3 sht 7 7-1100-2 sht 3 7-1252-58 | | | |
| LOCATION E11 pilot's main instrument panel - front cockpit. | | | | REF. M.D.R. | | | |
| FUNCTION To indicate to the pilot the amount of fuel remaining in the L.H. system of tanks. | | | | E11/72 | | | |
| | | | | RELIABILITY | | | |
| | | | | OVERHAUL LIFE 500 (est) HRS. | | | |
| | | | | WASTAGE | | | |
| | | | | Q.T.R.Minn-Honeywell R-ED-871 | | | |
| INSPECTION PERIOD | | OPERATION TO BE PERFORMED | | MEN X MINUTES | | | |
| | | | | EST. | | ACTUAL | |
| Primary Electrics | | Function check (See Maintenance Instructions Report 71/MAINT 12/3) | | 1 x 2 | | | |
| 25 Hr. Electrics | | Calibration Check (See above Report) | | 1 x 15 | | | |
| ACCESSIBILITY | | | | | | | |
| Unobstructed. | | | | | | | |
| ISSUE | 1 | 2 | 3 | | | | |
| DATE | 14 May. 56 | 20 Mar. 57 | 5 Nov. 57 | | | | |
| COMPILED | D. Collingwood | D. Collingwood | K. Lowe | | | | |
| CHECKED | W02 Wentworth | Sgt McEgan | Sgt McEgan | | | | |
| APPROVED | G. Emmerson | R.F. Reid | R.F. Reid | | | | |

| LUBRICATION | | | | | |
|---|----------|-----------------------------|-----------|---------------|--------|
| NIL | | | | | |
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS | |
| | | | | | |
| DETAILS: | | | | | |
| | | | | | |
| GROUND SUPPORT EQUIPMENT | | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | | |
| NIL | | NIL | | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | | |
| A-C Ground Power Unit Minn. Honeywell Variable Capacitor - HT 109 | | Cockpit access stand | | | |
| INTERCHANGEABLE | X | REMOVAL INSTRUCTIONS | | MEN X MINUTES | |
| REPLACEABLE | | | | EST. | ACTUAL |
| Slack off instrument securing clamp screws. Withdraw indicator. Disconnect 1 connector. | | Remove and replace | | 1x 5 | |

| MAINTENANCE DATA RECORD | | | | SYSTEM INSTRUMENTS | REF. NO. 11-E11-72 12-13 |
|--|---|--|------------|--|--------------------------------|
| AVRO AIRCRAFT LTD. | | Engineering Div. | | | |
| DISTRIBUTION: STANDARD + S. Brown K. Knowlton | | A/C TYPE - Arrow 1 EFF. A/C - 25201 | | COMPONENT Indicator - Fuel Quantity - R.H. | |
| MANUFACTURER'S PART NO. JG130A MANUFACTURER'S NAME Minneapolis-Honeywell AVROCAN SPEC. E323 E.O. NO. | | | | AVRO PART NO. 7-1252-14 | |
| ENVELOPE SIZE 6.0" x 2.0" Dia. WEIGHT LB. | | | | REF. DWGS. 7-1100-3 sht 7 7-1100-2 sht 3 7-1252-58 | |
| LOCATION E11 pilots main instrument panel - front cockpit | | | | REF. M.D.R. E11/71 | |
| FUNCTION To indicate to the pilot the amount of fuel remaining in the R.H. system of tanks. | | | | RELIABILITY OVERHAUL LIFE 500 (est) HRS. WASTAGE Q.T.R. Minn-Honeywell R-ED-871 | |
| INSPECTION PERIOD | OPERATION TO BE PERFORMED | | | MEN X MINUTES | |
| | | | | EST. | ACTUAL |
| Primary Electrics | Function Check (See Maintenance Instructions Report 71/MAINT 12/3 | | | 1 x 2 | |
| 25 Hr. Electrics | Calibration check. (see above report) | | | 1 x 15 | |
| ACCESSIBILITY | | | | | |
| Unobstructed | | | | | |
| ISSUE | 1 | 2 | 3 | | |
| DATE | 14 May. 56 | 20 Mar. 57 | 5 Nov. 57 | | |
| COMPILED | D. Collingwood | D. Collingwood | K. Lowe | | |
| CHECKED | WO2 Wentworth | Sgt McEgan | Sgt McEgan | | |
| APPROVED | G. Emmerson | R.F. Reid | R.F. Reid | | |

| LUBRICATION NIL | | | | |
|---|----------|-----------------------------|-----------|---------------|
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS |
| DETAILS: | | | | |
| GROUND SUPPORT EQUIPMENT | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | |
| NIL | | NIL | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | |
| A- C Ground Power Unit Minn. Honeywell Variable Capacitor - HT 109 | | Cockpit access stand | | |
| INTERCHANGEABLE | X | REMOVAL INSTRUCTIONS | | MEN X MINUTES |
| REPLACEABLE | | | | EST. |
| Slack: off instrument securing clamp screws. Withdraw indicator Disconnect 1 connector. | | Remove and replace | | 1 x 5 |

| MAINTENANCE DATA RECORD | | | | SYSTEM FUEL SYSTEM | REF. NO. 16-42 11-E1120 |
|---|----------------|---|---------------|--|-------------------------------|
| AVRO AIRCRAFT LTD. | | Engineering Div. | | | |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | A/C TYPE - ARROW 1 EFF. A/C - 25201 | | COMPONENT Tank Unit Capacitance No.3 Tank - Fwd. | |
| MANUFACTURER'S PART NO. FG22CA-7 MANUFACTURER'S NAME Minneapolis-Honeywell AVROCAN SPEC. E-323 E.O. NO. | | | | AVRO PART NO. 7-1662-641 | |
| ENVELOPE SIZE 7.20" x 2.29" x 1.28" WEIGHT 0.22 LB. | | | | REF. DWGS. 7-1662-31 & 32 7-1662-933 & 934 | |
| LOCATION In No.3 fuel tank - forward - R/L Hand. | | | | | |
| FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system. | | | | REF. M.D.R. 11-E120 | |
| | | | | RELIABILITY | |
| | | | | OVERHAUL LIFE 1500 HRS. WASTAGE Q.T.R. Minn-Honeywell R-ED-871 | |
| INSPECTION PERIOD | | OPERATION TO BE PERFORMED | | MEN X MINUTES | |
| | | | | EST. | ACTUAL |
| Refuel Airframe | | Ensure that the cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard the aircraft during refueling. | | 1 x 1 | |
| 25 hrs. Electrics | | Carry out a calibration check of the fuel quantity gauging system in accordance with maintenance instructions Report No. 71/MAINT. 12/3 | | Pending | |
| Airframe & Electrics | | Inspect unit and electrical connector for security. | | 2 x 1 | |
| ACCESSIBILITY | | | | | |
| Remove forward access panel - No. 3 Tank - 45 Screws. | | | | | |
| Remove and Replace | | | | 1 x 15 | |
| ISSUE | 1 | 2 | 3 | | |
| DATE | May 3/56 | July 10/57 | 31 Oct. 57 | | |
| COMPILED | P.A. Bell Sgt. | P.A. Bell Sgt. | P.A. Bell Sgt | | |
| CHECKED | G. Emmerson | WO2 Wentworth | J. Brumfit | | |
| APPROVED | G. Emmerson | R.F. Reid | R.F. Reid | | |

LUBRICATION NIL

| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS |
|-------------|----------|---------------|-----------|--------|
| | | | | |

DETAILS:

GROUND SUPPORT EQUIPMENT

| SPECIAL TOOLS FOR AIRCRAFT USE | SPECIAL TOOLS FOR BENCH USE |
|--|---|
| NIL | NIL |
| GROUND TESTING EQUIPMENT | GROUND HANDLING EQUIPMENT |
| A.C. Ground Power Unit Refueler Capacitance Test Equipment Pressurized air supply - 85 psi max. | Cockpit Access Stand Maintenance Platforms 4G/1596 and 4G/2614 Mats. - Wing |

| INTERCHANGEABLE | | REMOVAL INSTRUCTIONS | MEN X MINUTES | |
|------------------|--|--|---------------|--------|
| REPLACEABLE | | | EST. | ACTUAL |
| <u>Airframe</u> | | 1. Defuel applicable A/C fuel system. | | |
| <u>Electrics</u> | | 1. Release tank unit from spring type mounting clips. | | |
| | | 2. Disconnect electrical connector. | | |
| | | NOTE: On installation of units, ensure that mounting clips are correctly seated on insulators. | | |
| | | Remove and Replace | 1 x 3 | |
| | | (Defuel Time not included) | | |

| MAINTENANCE DATA RECORD | | | | SYSTEM | REF. NO. |
|--|----------------|--|----------------|--|-----------------------|
| AVRO AIRCRAFT LTD. | | Engineering Div. | | Fuel System | 16-43 11-E116/E121 |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | A/C TYPE - ARROW 1 EFF. A/C - 25201 | | COMPONENT Tank unit- Capacitance No. 3 Tank-Centre | |
| MANUFACTURER'S PART NO. FG220A-8 | | | | AVRO PART NO. 7-1662-825 | |
| MANUFACTURER'S NAME MINNEAPOLIS-HONEYWELL | | | | | |
| AVROCAN SPEC. E323 E.O. NO. | | | | | |
| ENVELOPE SIZE 40.49" x 2.29" x 1.28" WEIGHT 0.55 LB. | | | | REF. DWGS. 7-1662-31 & 32 7-1662-927 & 928 | |
| LOCATION In No. 3 Tank-Centre- R & L hand | | | | | |
| FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system | | | | REF. M.D.R. 11-E121 | |
| | | | | RELIABILITY | |
| | | | | OVERHAUL LIFE 1500 HRS. | |
| | | | | WASTAGE | |
| | | | | Q.T.R. Minn=Honeywell R-ED-871 | |
| INSPECTION PERIOD | | OPERATION TO BE PERFORMED | | MEN X MINUTES | |
| | | | | EST. | ACTUAL |
| Refuel Airframe | | Ensure that the cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard the aircraft during refueling | | 1 x 1 | |
| 25 Hour Electrics | | Carry out a calibration check of the fuel quantity gauging system in accordance with maintenance instructions Report No. 71/MAINT 12/3 | | Pending | |
| Electrics & Airframe | | Inspect unit and electrical connector for security | | 2 x 1 | |
| ACCESSIBILITY | | | | | |
| Remove forward access panel- No. 3. Tank-45 screws | | | | 1 x 15 | |
| Remove and Replace | | | | | |
| Remove aft inboard access panel-No. 3 Tank-36 screws | | | | 1 x 12 | |
| Remove and Replace | | | | | |
| ISSUE | 1 | 2 | 3 | | |
| DATE | May 3/56 | July 4/57 | 31 Oct. 57 | | |
| COMPILED | P.A. Bell Sgt. | P.A. Bell Sgt. | P.A. Bell Sgt. | | |
| CHECKED | G. Emmerson | WO2 Wentworth | J. Brumfit | | |
| APPROVED | G.E | R.F. Reid | R.F. Reid | | |

| LUBRICATION NIL | | | | |
|---|----------|---|-----------|---------------|
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS |
| | | | | |
| DETAILS: | | | | |
| GROUND SUPPORT EQUIPMENT | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | |
| NIL | | NIL | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | |
| A.C. Ground Power Unit Refueler Capacitance Test Equipment Pressurized air supply-85 P.S.I. Max. | | Cockpit Access Stand Maintenance Platforms 4G/1596 and 4G/2614 Mats-Wing | | |
| INTERCHANGEABLE | X | REMOVAL INSTRUCTIONS | | MEN X MINUTES |
| REPLACEABLE | | | | EST. |
| AIRFRAME (1) Defuel applicable A/C fuel system | | Remove and Replace (Defueling time not included) | | 1 x 5 |
| ELECTRICS (1) Remove aft in'bo tank unit #7-1662-637-Ref. M.D.R. #16-44 | | | | |
| (2) Release tank unit #7-1662--825 from mounting clips | | | | |
| (3) Disconnect electrical connector | | | | |
| (4) Withdraw tank unit through aft. in'bd. access panel | | | | |
| NOTE on installation of unit ensure that mounting clips are correctly seated on insulators. | | | | |

| MAINTENANCE DATA RECORD | | | | SYSTEM | REF. NO. |
|---|---|--|----------------|--|--------------------|
| AVRO AIRCRAFT LTD. | | Engineering Div. | | FUEL SYSTEM | 16-44 11-E117/L |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | A/C TYPE - Arrow 1 EFF. A/C - 25201 | | COMPONENT Tank Unit Capacitance No. 3 Tank Aft. E122 | |
| MANUFACTURER'S PART NO. FG220A-9 | | | | AVRO PART NO. | |
| MANUFACTURER'S NAME Minneapolis-Honeywell | | | | 7-1662-637 | |
| AVROCAN SPEC. E-323 E.O. NO. | | | | REF. DWGS. 7-1662-31 & 32 7-1662-931 & 932 | |
| ENVELOPE SIZE 13.97" x 2.29" x 1.28" WEIGHT 0.29 (est) LB. | | | | REF. M.D.R. | |
| LOCATION In No. 3 tank - aft. R & L hand. | | | | 11-E122 | |
| FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system. | | | | RELIABILITY | |
| | | | | OVERHAUL LIFE 1500 HRS. WASTAGE Q.T.R. Minn-Honeywell R-ED-871 | |
| INSPECTION PERIOD | OPERATION TO BE PERFORMED | | | MEN X MINUTES | |
| | | | | EST. | ACTUAL |
| Refuel Airframe | Ensure that the cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard during refueling. | | | 1 x 1 | |
| 25 hr. Electrics | Carry out calibration check of the fuel quantity gauging system in accordance with maintenance instructions Report No. 7/MAINT 12/3 | | | Pending | |
| Electrics & Airframe | Inspect unit and electrical connector for security. | | | 2 X 1 | |
| ACCESSIBILITY | | | | | |
| Remove aft inboard access panel - 36 screws. | | | | | |
| Remove and Replace | | | | 1 x 12 | |
| ISSUE | 1 | 2 | 3 | | |
| DATE | May 3/56 | July 10/57 | 31 Oct. 57 | | |
| COMPILED | P.A. Bell Sgt. | P.A. Bell Sgt. | P.A. Bell Sgt. | | |
| CHECKED | G. Emmerson | J. Brumfit | J. Brumfit | | |
| APPROVED | G. Emmerson | R.F. Reid | R.F. Reid | | |

| LUBRICATION NIL | | | | |
|--|---|---|-----------|------------------|
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS |
| | | | | |
| DETAILS: | | | | |
| | | | | |
| GROUND SUPPORT EQUIPMENT | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | |
| NL | | NIL | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | |
| A.C. Ground Power Unit Refueler Capacitance Test Equipment Pressurized Air Supply 85 psi max. | | Cockpit Access Stand Maintenance Platform 4G/1596 and 4G/2614 Mats - "ing | | |
| INTERCHANGEABLE | X | REMOVAL INSTRUCTIONS | | MEN X MINUTES |
| REPLACEABLE | | | | EST. ACTUAL |
| Airframe Electrics | 1. Defuel applicable A/C fuel system. 2. Release tank unit from spring type mounting clips. 3. Disconnect electrical connector. <u>NOTE:</u> On installation of unit, ensure that mounting clips are correctly seated on insulators. <div style="text-align: right;">Remove and Replace</div> <div style="text-align: center;">(Defueling time not included)</div> | | 1 x 3 | |

| MAINTENANCE DATA RECORD | | | | SYSTEM | REF. NO. |
|---|--|--|----------------|---|-------------------|
| AVRO AIRCRAFT LTD. | | Engineering Div. | | FUEL SYSTEM | 16-49 11-E131/ |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | A/C TYPE - Arrow 1 EFF. A/C - 25201 | | COMPONENT Tank Unit E136 Capacitance No.6 Tank - Inboard | |
| MANUFACTURER'S PART NO. FG220A-14 MANUFACTURER'S NAME Minneapolis-Honeywell AVROCAN SPEC. E-323 E.O. NO. ENVELOPE SIZE 11.55" x 2.29" x 1.28" WEIGHT 0.20 LB. LOCATION In No.6 tank - inboard - L & R hand FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system. | | | | AVRO PART NO. 7-1662-817 REF. DWGS. 7-1662-25 & 26 7-1662-911 & 912 7-1100-1 REF. M.D.R. 11-E136 RELIABILITY OVERHAUL LIFE 1500 HRS. WASTAGE Q.T.R. Minn-Honeywell R-ED-871 | |
| INSPECTION PERIOD | OPERATION TO BE PERFORMED | | | MEN X MINUTES | |
| | | | | EST. | ACTUAL |
| Refuel Airframe | Ensure that the cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard the aircraft during refueling. | | | 1 x 1 | |
| 25 hour Electrics | Carry out a calibration check of the fuel quantity gauging system in accordance with maintenance instructions report No. 71/MAINT 12/3 | | | Pending | |
| Airframe & Electrics | Inspect unit and electrical connector for security. | | | 2 x 1 | |
| ACCESSIBILITY | | | | | |
| Remove inboard access panel - No.6 tank - 29 screws. Remove and Replace | | | | 1 x 10 | |
| ISSUE | 1 | 2 | 3 | | |
| DATE | May 31/56 | July 16/57 | 31 Oct. 57 | | |
| COMPILED | P.A. Bell Sgt. | P.A. Bell Sgt. | P.A. Bell Sgt. | | |
| CHECKED | G. Emmerson | J. Brumfit | J. Brumfit | | |
| APPROVED | G. Emmerson | R.F. Reid | R.F. Reid | | |

| LUBRICATION | | | | |
|---|----------|--|-----------|---------------|
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS |
| DETAILS: | | | | |
| GROUND SUPPORT EQUIPMENT | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | |
| NIL | | NIL | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | |
| A-C Ground Power Unit Refueler Capacitance Test Equipment Pressurized Air Supply 85 psi max. | | Cockpit Access Stand Maintenance Platform 4G/1596 and 4G/2614 Mats - Wing | | |
| INTERCHANGEABLE | X | REMOVAL INSTRUCTIONS | | MEN X MINUTES |
| REPLACEABLE | | | | EST. |
| <u>Airframe</u> 1. Defuel applicable A/C fuel system. <u>Electrics</u> 1. Release tank unit from spring type mounting clips. 2. Disconnect electrical connector. <u>NOTE:</u> On installation of unit, ensure that mounting clips are correctly seated on insulators. Remove and Replace (Defueling time not included) | | | | 1 x 4 |

| MAINTENANCE DATA RECORD | | | | SYSTEM | REF. NO. |
|---|--|--|---------------|---|--------------------|
| AVRO AIRCRAFT LTD. | | Engineering Div. | | FUEL SYSTEM | 16-50 11-El32 / |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | A/C TYPE - Arrow 1 EFF. A/C - 25201 | | COMPONENT Tank Unit - Capacitance No. 6 Tank - Centre El37 | |
| MANUFACTURER'S PART NO. FG220A-15 MANUFACTURER'S NAME Minneapolis - Honeywell AVROCAN SPEC. E323 E.O. NO. ENVELOPE SIZE 11.01" x 2.29" x 1.28" WEIGHT 0.20 LB. LOCATION In No. 6 tank centre L & R Hand FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system. | | | | AVRO PART NO. 7-1662-815 REF. DWGS. 7-1662-25 & 26 7-1662-925&926 7-1100-1 REF. M.D.R. 11-El37 RELIABILITY OVERHAUL LIFE 1500 HRS. WASTAGE Q.T.R. Minn-Honeywell R-ED-871 | |
| INSPECTION PERIOD | OPERATION TO BE PERFORMED | | | MEN X MINUTES | |
| | | | | EST. | ACTUAL |
| Refuel Airframe | Ensure that the cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard the aircraft during refueling | | | 1 x 1 | |
| 25 Hour Electrics | Carry out a calibration check of the fuel quantity gauging system in accordance with Maintenance Instructions Report 71/MAINT 12/3 | | | Pending | |
| Airframe & Electrics | Inspect unit and electrical connector for security | | | 2 x 1 | |
| ACCESSIBILITY | | | | | |
| Remove centre access panel No. 6 tank - 29 screws Remove and Replace | | | | 1 x 10 | |
| ISSUE | 1 | 2 | 3 | | |
| DATE | May 3/56 | 17 July 57 | 31 Oct. 57 | | |
| COMPILED | P.A. Bell Sgt | P.A. Bell Sgt | P.A. Bell Sgt | | |
| CHECKED | G. Emmerson | J. Brumfit | J. Brumfit | | |
| APPROVED | G. Emmerson | H.F. Reid | R.F. Reid | | |

| LUBRICATION NIL | | | | |
|---|----------|---|-----------|---------------|
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS |
| | | | | |
| DETAILS: | | | | |
| GROUND SUPPORT EQUIPMENT | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | |
| NIL | | NIL | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | |
| Refueler A-C Ground Power Unit Capacitance Test equipment pressurized air supply-85 P.S.I. Max. | | Cockpit Access stand Maintenance Platform 4G/1596 and 4G/2614 Mats-wing | | |
| INTERCHANGEABLE | X | REMOVAL INSTRUCTIONS | | MEN X MINUTES |
| REPLACEABLE | | | | EST. |
| Airframe (1) Defuel applicable A/C Fuel System Electrics (1) release tank unit from spring type mounting clips. (2) Disconnect electrical connector. <u>NOTE</u> on installation of unit, ensure that mounting clips are correctly seated on insulators Remove and Replace (Defueling time not included) | | | | 1 x 4 |

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| MAINTENANCE DATA RECORD | | | | SYSTEM | | REF. NO. | |
|--|---------------|--|----------------|---|--|-------------------|--|
| AVRO AIRCRAFT LTD. | | Engineering Div. | | FUEL SYSTEM | | 16-51 11-E133/ | |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | A/C TYPE - Arrow 1 EFF. A/C - 25201 | | COMPONENT Tank Unit - E-138 Capacitance No 6 Tank outboard | | | |
| MANUFACTURER'S PART NO. FG 220A-16 MANUFACTURER'S NAME Minneapolis - Honeywell AVROCAN SPEC. E323 E.O. NO. ENVELOPE SIZE 9.13" x 2.29" x 1.28" WEIGHT 0.19 LB. LOCATION In No. 6 tank - outboard - L & R hand FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system | | | | AVRO PART NO. 7-1662-813 REF. DWGS. 7-1662-25 & 26 7-1662-913 & 914 7-1100-1 REF. M.D.R. 11-E138 RELIABILITY OVERHAUL LIFE 1500 HRS. WASTAGE Q.T.R. Minn-Honeywell R-ED-871 | | | |
| INSPECTION PERIOD | | OPERATION TO BE PERFORMED | | MEN X MINUTES | | | |
| | | | | EST. | | ACTUAL | |
| Refuel Airframe | | Ensure that the cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard the aircraft during refueling | | 1 x 1 | | | |
| 25 Hour Electrics | | Carry out a calibration check of the fuel quantity gauging system in accordance with maintenance instructions report 71/MAINT 12/3 | | Pending | | | |
| Airframe & Electrics | | Inspect unit and electrical connector for security | | 2 x 1 | | | |
| ACCESSIBILITY | | | | | | | |
| Remove outboard access panel - No. 6 Tank - 50 screws | | | | 1 x 17 | | | |
| ISSUE | 1 | 2 | 3 | | | | |
| DATE | May 3/56 | 17 July 57 | 31 Oct. 57 | | | | |
| COMPILED | P.A. Bell Sgt | P.A. Bell Sgt | P. A. Bell Sgt | | | | |
| CHECKED | G. Emmerson | J. Brumfit | J. Brumfit | | | | |
| APPROVED | G. Emmerson | R.F. Reid | R.F. Reid | | | | |

| LUBRICATION NIL | | | | |
|---|----------|---|-----------|---------------|
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS |
| | | | | |
| DETAILS: | | | | |
| GROUND SUPPORT EQUIPMENT | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | |
| NIL | | NIL | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | |
| Refueler A-C Ground Power Unit Capacitance Test Equipment Pressurized Air Supply -85 P.S.I. Max. | | Cockpit Access Stand Maintenance Platform 4G/1596 Mats - Wing 4G/2614 | | |
| INTERCHANGEABLE | X | REMOVAL INSTRUCTIONS | | MEN X MINUTES |
| REPLACEABLE | | | | EST. |
| Airframe (1) Defuel applicable A/C Fuel System Electrics (1) Release Tank Unit from spring type mounting clips (2) Disconnect Electrical Connector <u>NOTE</u> on installation of unit, ensure that mounting clips are correctly seated on insulators Remove and Replace (Defueling time not included) | | 1 x 4 | | |

| MAINTENANCE DATA RECORD | | | | SYSTEM | | REF. NO. | |
|---|---------------|---|--|--|--|------------------|--|
| AVRO AIRCRAFT LTD. | | | | FUEL SYSTEM | | 16-38 11-E212 | |
| Engineering Div. | | | | | | | |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | A/C TYPE - Arrow 1 EFF. A/C - 25201 | | COMPONENT Tank Unit - Capacitance No. 1 Tank (Forward) | | | |
| MANUFACTURER'S PART NO. FG220A-28 | | | | AVRO PART NO. | | | |
| MANUFACTURER'S NAME Minneapolis-Honeywell | | | | 7-1654-139 | | | |
| AVROCAN SPEC. E323 E.O. NO. | | | | | | | |
| ENVELOPE SIZE 37.35" x 2.29" x 1.28" WEIGHT .50 LB. | | | | REF. DWGS. 7-1654-197 7-1654-1 7-1100-3 shts 6 & 7 | | | |
| LOCATION In No. 1 Fuselage tank - forward | | | | | | | |
| FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system. | | | | REF. M.D.R. | | | |
| | | | | RELIABILITY | | | |
| | | | | OVERHAUL LIFE 1500 HRS. | | | |
| | | | | WASTAGE | | | |
| | | | | Q.T.R. Minn. H ¹ well R-ED-871 | | | |
| INSPECTION PERIOD | | OPERATION TO BE PERFORMED | | MEN X MINUTES | | | |
| | | | | EST. | | ACTUAL | |
| Refuel Airframe | | Ensure that the cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard the aircraft during refueling | | 1 x 1 | | | |
| 25 Hrs. Electrics | | Carry out a calibration check of the fuel quantity gauging system in accordance with Maintenance Instructions Report No. 71/Maint 12/3) | | Pending | | | |
| Airframe and Electrics | | Inspect unit and electrical connector for security | | 2 x 1 | | | |
| ACCESSIBILITY | | | | | | | |
| Through No.1 Tank Access Panel | | | | | | | |
| Remove Dorsal Fairing - 6 latches | | | | | | | |
| Remove and Replace | | | | 1 x 2 | | | |
| Remove Tank Access Panel - 36 bolts. | | | | | | | |
| Remove and Replace | | | | 1 x 12 | | | |
| ISSUE | 1 | 2 | | | | | |
| DATE | May 1/56 | 17 Sept 57 | | | | | |
| COMPILED | P.A. Bell Sgt | P.A. Bell Sgt | | | | | |
| CHECKED | G. Emmerson | J. Brumfit | | | | | |
| APPROVED | G. Emmerson | R.F. Reid | | | | | |

| LUBRICATION NIL | | | | |
|---|----------|--|-----------|------------------|
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS |
| | | | | |
| DETAILS: | | | | |
| | | | | |
| GROUND SUPPORT EQUIPMENT | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | |
| NIL | | NIL | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | |
| A-C Ground Power Unit Refueler Capacitance Test Equipment Pressurized Air Supply - 85 P.S.I. Max | | Cockpit Access Stand Maintenance Platforms 4G/1596 and 4G/2614 Mats - Wing. Tank Protective Mat | | |
| INTERCHANGEABLE | XX | REMOVAL INSTRUCTIONS | | MEN X MINUTES |
| REPLACEABLE | | | | EST. ACTUAL |
| Airframe 1 Defuel R.H. a/c Fuel System 2 Ventilate Tank to remove fuel vapours. 3 Remove structural tie bar No. 9 4 Instal tank protective mat. 5 Remove structural tie bars No.3 and No.5 6 Remove lockwire from capacitor clamps and release tank unit. Electrics 1 Disconnect Electrical connector, and remove tank unit from tank <u>NOTE</u> On installation of Unit, ensure that clamps are correctly seated on instulators <div style="text-align: right;">Remove and Replace</div> (Defueling and Ventilating time not included) | | <div style="text-align: center;">1 x 25</div> | | |

| MAINTENANCE DATA RECORD | | | | SYSTEM | REF. NO. |
|---|---------------|--|--|--|------------------|
| AVRO AIRCRAFT LTD. | | Engineering Div. | | FUEL SYSTEM | 16-39 11-E213 |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | A/C TYPE - Arrow 1 EFF. A/C - 25201 | | COMPONENT Tank Unit - Capacitance No. 1 Tank (Aft) | |
| MANUFACTURER'S PART NO. FG220A-29 | | | | AVRO PART NO. | |
| MANUFACTURER'S NAME Minneapolis-Honeywell | | | | 7-1654-141 | |
| AVROCAN SPEC. E323 E.O. NO. | | | | | |
| ENVELOPE SIZE 40.2" x 2.29" x 1.28" WEIGHT .53 LB. | | | | REF. DWGS. 7-1654-197 7-1654-1 7-1100-3 shts 6 & 7 | |
| LOCATION In No. 1 fuselage tank - aft | | | | | |
| FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system. | | | | REF. M.D.R. | |
| | | | | RELIABILITY | |
| | | | | OVERHAUL LIFE 1500 HRS. | |
| | | | | WASTAGE | |
| | | | | Q.T.R. Minn. H ^o well - R-ED-871 | |
| INSPECTION PERIOD | | OPERATION TO BE PERFORMED | | MEN X MINUTES | |
| | | | | EST. | ACTUAL |
| Refuel Airframe | | Ensure that the cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard the aircraft during refueling. | | 1 x 1 | |
| 25 Hours Electrics | | Carry out a calibration check of the fuel quantity gauging system in accordance with maintenance instructions report 71/Maint 12/3 | | Pending | |
| Airframe and Electrics | | Inspect unit and electrical connector for security. | | 2 x 1 | |
| | | ACCESSIBILITY | | | |
| | | Through No. 1 Tank Access Panel Remove Dorsal Fairing - 6 latches Remove and Replace | | 1 x 2 | |
| | | Remove Tank Access Panel - 36 bolts Remove and Replace | | 1 x 12 | |
| ISSUE | 1 | 2 | | | |
| DATE | May 1/56 | 17 Sept 57 | | | |
| COMPILED | P.A. Bell Sgt | P.A. Bell Sgt | | | |
| CHECKED | G. Emmerson | J. Brumfit | | | |
| APPROVED | G. Emmerson | R.F. Reid | | | |

| LUBRICATION | | | | | |
|---|----------|--|-----------|---------------|--------|
| NIL | | | | | |
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS | |
| | | | | | |
| DETAILS: | | | | | |
| | | | | | |
| GROUND SUPPORT EQUIPMENT | | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | | |
| NIL | | NIL | | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | | |
| A-C Ground Power Unit Refueler Capacitance Test Equipment Pressurized Air Supply - 85 P.S.I. Max | | Cockpit Access Stand Maintenance Platform 4G/1596 and 4G/2614 Mats - Wing Tank Protective Mats. | | | |
| INTERCHANGEABLE | XX | REMOVAL INSTRUCTIONS | | MEN X MINUTES | |
| REPLACEABLE | | | | EST. | ACTUAL |
| Airframe | (1) | Defuel R.H. a/c Fuel System | | 1 x 15 | |
| | (2) | Ventilate tank to remove fuel vapours | | | |
| | (3) | Remove structural tie bar No. 9 | | | |
| | (4) | Instal tank protective mat. | | | |
| | (5) | Remove lockwire from capacitor clamps and release tank unit. | | | |
| Electrics | (1) | Disconnect electrical lead and remove tank unit from tank | | | |
| NOTE - On installation of unit ensure that clamps are correctly seated on insulators. | | | | | |
| Remove and Replace | | | | | |
| (Defueling and Ventilating time not included) | | | | | |

| MAINTENANCE DATA RECORD | | | | SYSTEM | | REF. NO. | |
|---|---------------|--|--|--|--|----------|--|
| AVRO AIRCRAFT LTD. | | | | FUEL SYSTEM | | 16-40 | |
| Engineering Div. | | | | | | 11-E216 | |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | A/C TYPE - Arrow 1 EFF. A/C - 25201 | | COMPONENT Tank Unit - Capacitance No. 2 Tank (Forward) | | | |
| MANUFACTURER'S PART NO. FG220A-30 | | | | AVRO PART NO. | | | |
| MANUFACTURER'S NAME Minneapolis-Honeywell | | | | 7-1654-137 | | | |
| AVROCAN SPEC. E323 E.O. NO. | | | | | | | |
| ENVELOPE SIZE 38.03" x 2.29" x 1.28" WEIGHT .50 LB. | | | | REF. DWGS. 7-1654-198 7-1654-1 7-1100-1 | | | |
| LOCATION In No. 2 Fuselage Tank - Forward | | | | | | | |
| FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system. | | | | REF. M.D.R. | | | |
| | | | | RELIABILITY | | | |
| | | | | OVERHAUL LIFE 1500 HRS. | | | |
| | | | | WASTAGE | | | |
| | | | | Q.T.R. Minn. H ^W ell - R-ED-871 | | | |
| INSPECTION PERIOD | | OPERATION TO BE PERFORMED | | MEN X MINUTES | | | |
| | | | | EST. | | ACTUAL | |
| Refuel Airframe | | Ensure that the cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard the aircraft during refueling. | | 1 x 1 | | | |
| 25 Hours Electrics | | Carry out a calibration check of the fuel quantity gauging system in accordance with maintenance instructions report No. 71/Maint 12/3 | | Pending | | | |
| Airframe and Electrics | | Inspect unit and electrical connector for security | | 2 x 1 | | | |
| ACCESSIBILITY | | | | | | | |
| Through No. 2 Tank Access Panel | | | | | | | |
| Remove Dorsal Fairing - 6 latches Remove and Replace | | | | 1 x 2 | | | |
| Remove Tank Access Panel -36 bolts Remove and Replace | | | | 1 x 12 | | | |
| ISSUE | 1 | 2 | | | | | |
| DATE | May 1/56 | 17 Sept 57 | | | | | |
| COMPILED | P.A. Bell Sgt | P.A. Bell Sgt | | | | | |
| CHECKED | G. Emmerson | J. Brumfit | | | | | |
| APPROVED | G. Emmerson | R.F. Reid | | | | | |

| LUBRICATION NIL | | | | | |
|---|---|---|-----------|---------------|--------|
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS | |
| DETAILS: | | | | | |
| GROUND SUPPORT EQUIPMENT | | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | | |
| NIL | | NIL | | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | | |
| A-C Ground Power Unit Refueler Capacitance Test Equipment Pressurized Air Supply - 85 P.S.I. Max | | Cockpit Access Stand Maintenance Platform 4G/1596 and 4G/2614 Mats - Wing Tank Protective Mats | | | |
| INTERCHANGEABLE | X | REMOVAL INSTRUCTIONS | | MEN X MINUTES | |
| REPLACEABLE | | | | EST. | ACTUAL |
| Airframe | (1) Defuel L.H. a/c Fuel System (2) Ventilate tank to remove fuel vapours (3) Remove fuselage tie bars No. 15 and No.17 (4) Instal tank protective mat (5) Remove lockwire from capacitor clamps and release tank unit. | | | | |
| Electrics | (1) Disconnect electrical connector and remove tank unit. <u>NOTE</u> - On installation of unit, ensure that clamps are correctly seated on insulators Remove and Replace | | | 1 x 20 | |
| (Defueling and Ventilating time not included) | | | | | |

| MAINTENANCE DATA RECORD | | | | SYSTEM | | REF. NO. | |
|---|---------------|--|--|--|--------|--|--|
| AVRO AIRCRAFT LTD. | | | | Engineering Div. | | FUEL SYSTEM | |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | | | A/C TYPE - Arrow 1 EFF. A/C - 25201 | | COMPONENT Tank Unit Capacitance No. 2 Tank (Aft) | |
| MANUFACTURER'S PART NO. FG220A-31 | | | | AVRO PART NO. | | | |
| MANUFACTURER'S NAME Minneapolis-Honeywell | | | | 7-1654-138 | | | |
| AVROCAN SPEC. E323 E.O. NO. | | | | | | | |
| ENVELOPE SIZE 40.68" x 2.29" x 1.28" WEIGHT .53 LB. | | | | REF. DWGS. 7-1654-198 7-1654-1 7-1100-1 | | | |
| LOCATION In No. 2 Fuselage Tank - Aft | | | | | | | |
| FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system | | | | REF. M.D.R. | | | |
| | | | | RELIABILITY | | | |
| | | | | OVERHAUL LIFE 1500 HRS. | | | |
| | | | | WASTAGE | | | |
| | | | | Q.T.R. Minn. H ^o well - R-ED-871 | | | |
| INSPECTION PERIOD | | OPERATION TO BE PERFORMED | | MEN X MINUTES | | | |
| | | | | EST. | ACTUAL | | |
| Refuel Airframe | | Ensure that the cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard the aircraft during refueling | | 1 x 1 | | | |
| 25 Hours Electrics | | Carry out a calibration check of the fuel quantity gauging system in accordance with Maintenance Instructions Report No. 71/Maint 12/3 | | Pending | | | |
| Airframe and Electrics | | Inspect unit and electrical connector for security. | | 2 x 1 | | | |
| ACCESSIBILITY | | | | | | | |
| Through No. 2 Tank Access Panel. Remove Dorsal Fairing - 6 latches. Remove and Replace | | | | 1 x 2 | | | |
| Remove Tank access panel - 36 bolts. Remove and Replace | | | | 1 x 12 | | | |
| ISSUE | 1 | 2 | | | | | |
| DATE | 1 May 56 | 17 Sept 57 | | | | | |
| COMPILED | P.A. Bell Sgt | P.A. Bell Sgt | | | | | |
| CHECKED | G. Emmerson | J. Brumfit | | | | | |
| APPROVED | G. Emmerson | R.F. Reid | | | | | |

| LUBRICATION NIL | | | | |
|---|--|--|-----------|---------------|
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS |
| DETAILS: | | | | |
| GROUND SUPPORT EQUIPMENT | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | |
| NIL | | NIL | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | |
| A-C Ground Power Unit Refueler Capacitance Test Equipment Pressurized Air Supply - 85 P.S.I. Max | | Cockpit Access Stand Maintenance Platform 4G/1596 and 4G/2614 Mats - Wing Tank Protective Mats. | | |
| INTERCHANGEABLE | XXX | REMOVAL INSTRUCTIONS | | MEN X MINUTES |
| REPLACEABLE | | | | EST. |
| Airframe | (1) Defuel L.H. a/c Fuel System (2) Ventilate Tank to remove fuel vapours (3) Remove fuselage tie bar No. 17 (4) Instal tank protective mat (5) Remove fuselage tie bars No. 19 and No. 21 (6) Remove lockwire from capacitor clamp and release tank unit | | 1 x 30 | |
| Electrics | (1) Disconnect electrical connector and remove tank unit. NOTE - On installation of unit, ensure that clamps are correctly seated on insulators Remove and Replace | | | |
| (Defueling and Ventilating time not included) | | | | |

| MAINTENANCE DATA RECORD | | | | SYSTEM | REF. NO. |
|---|--|--|---------------|---|-----------------------|
| AVRO AIRCRAFT LTD. | | Engineering Div. | | Fuel System | 16-46 11-E221/E225 |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | A/C TYPE - ARROW 1 EFF. A/C - 25201 | | COMPONENT Tank Unit- Capacitance No. 4 tank-outboard | |
| MANUFACTURER'S PART NO. FG220A-11 MANUFACTURER'S NAME MINNEAPOLIS-HONEYWELL AVROCAN SPEC. E323 E.O. NO. | | | | AVRO PART NO. 7-1662-803 | |
| ENVELOPE SIZE 16.90" x 2.29" x 1.28" WEIGHT 0.31(EST) LB. LOCATION In No. 4 tank. Centre aft- L & R. hand FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system | | | | REF. DWGS. 7-1662-417 & 418 7-1662-937 & 938 7-1100-1 | |
| | | | | REF. M.D.R. E-225 | |
| | | | | RELIABILITY OVERHAUL LIFE 1500 HRS. WASTAGE Q.T.R. Minn-Honeywell R-ED-871 | |
| INSPECTION PERIOD | OPERATION TO BE PERFORMED | | | MEN X MINUTES | |
| | | | | EST. | ACTUAL |
| Refuel Airframe | Ensure that the cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard the aircraft during refueling | | | 1 x 1 | |
| 25 Hour Electrics | Carry out a calibration check of the fuel quantity gauging system in accordance with maintenance instructions Report No. 71/MAINT 12/3 | | | Pending | |
| Electrics & Airframe | Inspect unit & electrical connector for security | | | 2 x 1 | |
| ACCESSIBILITY Remove inboard access panel-No. 4 tank-38 screws Remove and Replace | | | | 1 x 12 | |
| ISSUE | 1 | 2 | 3 | | |
| DATE | May 1/56 | July 5/57 | 31 Oct. 57 | | |
| COMPILED | P.A. Bell Sgt. | P.A. Bell Sgt. | P.A. Bell SGT | | |
| CHECKED | G. Emmerson | J. Brumfit | J. Brumfit | | |
| APPROVED | G.E | R.F. Reid | R.F. Reid | | |

| LUBRICATION | | | | |
|---|----------|---|-----------|---------------|
| NIL | | | | |
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS |
| | | | | |
| DETAILS: | | | | |
| GROUND SUPPORT EQUIPMENT | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | |
| NIL | | NIL | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | |
| A.C. Ground Power Unit Refueler Capacitance Test Equipment Pressurized Air Supply-85 P.S.I. Max. | | Cockpit access stand Maintenance Platforms 4G/1596 and 4G/2614 Mats-Wing | | |
| INTERCHANGEABLE | X | REMOVAL INSTRUCTIONS | | MEN X MINUTES |
| REPLACEABLE | | | | EST. |
| AIRFRAME (1) Defuel applicable A/C fuel system | | Remove and Replace (Defueling time not included) | | 1 x 4 |
| ELECTRICS (1) Release unit from spring type mounting clips (2) Disconnect electrical connector | | | | |
| NOTE on installation of unit, ensure that mounting clips are correctly seated on insulators. | | | | |

| MAINTENANCE DATA RECORD | | | | SYSTEM | REF NO. |
|--|--|--|---------------|---|-----------------------|
| AVRO AIRCRAFT LTD. | | Engineering Div. | | Fuel System | 16-45 11-E220/E224 |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | A/C TYPE - ARROW 1 EFF. A/C - 25201 | | COMPONENT Tank unit- Capacitance No. 4 Tank-inboard | |
| MANUFACTURER'S PART NO. FG220A-10 | | | | AVRO PART NO. 7-1662-805 | |
| MANUFACTURER'S NAME MINNEAPOLIS-HONEYWELL | | | | | |
| AVROCAN SPEC. E323 E.O. NO. | | | | | |
| ENVELOPE SIZE 18.13" x 2.29" x 1.28" WEIGHT 0.33 (EST) LB. | | | | REF. DWGS. 7-1662-417 & 418 7-1662-935 & 936 7-1100-1 | |
| LOCATION In No. 4 tank-inboard-R & L. hand | | | | | |
| FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system | | | | REF. M.D.R. E224 | |
| | | | | RELIABILITY OVERHAUL LIFE 1500 HRS. WASTAGE Q.T.R. Minn-Honeywell R-ED-871 | |
| INSPECTION PERIOD | OPERATION TO BE PERFORMED | | | MEN X MINUTES | |
| | | | | EST. | ACTUAL |
| Refuel Airframe | Ensure that the cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard the aircraft during refueling | | | 1 x 1 | |
| 25 Hour Electrics | Carry out a calibration check of the fuel quantity gauging system in accordance with maintenance instructions report No. 71 MAINT 12/3 | | | | |
| Electrics & Airframe | Inspect unit and electrical connector for security | | | 2 x 1 | |
| ACCESSIBILITY | | | | | |
| Remove inboard access panel-No.4 tank - 38 screws | | | | | |
| Remove and Replace | | | | 1 x 12 | |
| ISSUE | 1 | 2 | 3 | | |
| DATE | May 1/56 | July 5/57 | 31 Oct. 57 | | |
| COMPILED | P.A. Bell Sgt. | P.A. Bell Sgt. | P.A. Bell Sgt | | |
| CHECKED | G. Emmerson | J. Brumfit | J. Brumfit | | |
| APPROVED | G.E. | R.F. Reid | R.F. Reid | | |

| LUBRICATION NIL | | | | |
|--|----------|---|-----------|---------------|
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS |
| | | | | |
| DETAILS: | | | | |
| GROUND SUPPORT EQUIPMENT | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | |
| NIL | | NIL | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | |
| A.C. Ground Power Unit Refueler Capacitance test equipment Pressurized air supply-85 P.S.I. Max | | Cockpit Access stand Maintenance Platforms 4G/1596 and 4G/2614 Mats-Wing | | |
| INTERCHANGEABLE | X | REMOVAL INSTRUCTIONS | | MEN X MINUTES |
| REPLACEABLE | | | | EST. |
| <u>AIRFRAME</u> (1) Defuel applicable A/C fuel system <u>ELECTRICS</u> (1) Release tank unit from spring type mounting clips (2) Disconnect electrical connector <u>NOTE</u> on installation of tank unit, ensure that mounting clips are correctly seated on insulators, Remove and Replace (Defueling time not included) | | 1 x 4 | | |

| MAINTENANCE DATA RECORD | | | | SYSTEM | REF. NO. |
|---|---|---|---------------|--|-----------------------|
| AVRO AIRCRAFT LTD. Engineering Div. | | | | Fuel System | 16-47 11-E229/E234 |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | A/C TYPE - ARROW '1 EFF. A/C - 25201 | | COMPONENT Tank unit capacitance No. 5 tank-inboard. | |
| MANUFACTURER'S PART NO. FG220A-12 MANUFACTURER'S NAME Minneapolis-Honeywell AVROCAN SPEC. E323 E.O. NO. | | | | AVRO PART NO. 7-1662-811 | |
| ENVELOPE SIZE 13.74" x 2.29" x 1.28 WEIGHT .23 LB. LOCATION In No. 5 Tank-inboard-L & R Hand | | | | REF. DWGS. 7-1662-917 & 918 7-1662-191 & 192 7-1100-1 | |
| FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system. | | | | REF. M.D.R. 11-E234 | |
| | | | | RELIABILITY | |
| | | | | OVERHAUL LIFE 1500 HRS. WASTAGE Q.T.R. Minn-Honeywell R-ED-871 | |
| INSPECTION PERIOD | OPERATION TO BE PERFORMED | | | MEN X MINUTES | |
| | | | | EST. | ACTUAL |
| Refuel Airframe | Ensure that the cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard the aircraft during refueling | | | 1 x 1 | |
| 25 Hour Electrics | Carry out a calibration check of the fuel quantity gauging system in accordance with maintenance instructions report 71/Maint. 12/3 | | | Pending | |
| Airframe & Electrics | Inspect unit & electrical connector for security | | | 2 x 1 | |
| ACCESSIBILITY | | | | | |
| Remove Dorsal Fairing - 6 Latches Remove and Replace | | | | 1 x 2 | |
| Remove forward access panel-No.5 tank-20 screws and 9 bolts Remove and Replace | | | | 1 x 10 | |
| ISSUE | 1 | 2 | 3 | | |
| DATE | May 3/56 | July 11/57 | 31 Oct. 57 | | |
| COMPILED | P.A. Bell SGT. | P.A. Bell SGT. | P.A. Bell Sgt | | |
| CHECKED | G. Emmerson | J. Brumfit | J. Brumfit | | |
| APPROVED | G.E | R.F. Reid | R.F. Reid | | |

| LUBRICATION NIL | | | | |
|--|----------|---|-----------|---------------|
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS |
| | | | | |
| DETAILS: | | | | |
| GROUND SUPPORT EQUIPMENT | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | |
| NIL | | NIL | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | |
| A-C Ground Power Unit Refueler Capacitance Test Equipment Pressurized Air Supply-85 P.S.I. Max. | | Cockpit access stand Maintenance Platform-4G/1596 and 4G/2614 Mats-Wing. | | |
| INTERCHANGEABLE | X | REMOVAL INSTRUCTIONS | | MEN X MINUTES |
| REPLACEABLE | | | | EST. |
| Airframe (1) Defuel applicable A/C fuel system | | Remove and Replace (Defueling time not included) | | 1 x 5 |
| Electrics (1) Release Tank unit from spring type mounting Clips (2) Disconnect electrical connector | | | | |
| NOTE - on installation of unit ensure that mounting clips are correctly seated on insulators. | | | | |

| MAINTENANCE DATA RECORD | | | | SYSTEM | REF. NO. |
|---|---------------|--|---------------|--|-------------------|
| AVRO AIRCRAFT LTD. | | Engineering Div. | | FUEL SYSTEM | 16-48 11-E230/ |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | A/C TYPE - Arrow 1 EFF. A/C - 25201 | | COMPONENT Tank Unit - E235 Capacitance and compensator No. 5 Tank - Outboard | |
| MANUFACTURER'S PART NO. FG 250A-3 MANUFACTURER'S NAME Minneapolis - Honeywell AVROCAN SPEC. E323 E.O. NO. ENVELOPE SIZE 12.50" x 2.62" x 1.94" WEIGHT .28 (est) LB. LOCATION In No. 5 Tank - outboard - R & L hand FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system. This unit incorporates a compensator which serves as a reference condenser to introduce fuel deviation correction into the fuel quantity determination. | | | | AVRO PART NO. 7-1662-807 REF. DWGS. 7-1662-915 & 916 7-1662-265 & 266 7-1100-1 REF. M.D.R. 11-E235 RELIABILITY OVERHAUL LIFE 1500 HRS. WASTAGE Q.T.R. Minn-Honeywell R-ED-871 | |
| INSPECTION PERIOD | | OPERATION TO BE PERFORMED | | MEN X MINUTES | |
| | | | | EST. | ACTUAL |
| Refuel | | Ensure that the cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard the aircraft during refueling. | | 1 x 1 | |
| 25 Hour Electrics | | Carry out a calibration check of the fuel quantity gauging system in accordance with Maintenance Instructions report 71/MAINT 12/3 | | Pending | |
| Airframe & Electrics | | Inspect unit and electrical connector for security | | 2 x 1 | |
| ACCESSIBILITY | | | | | |
| Remove outboard access panel - No. 5 tank - 29 screws Remove and replace | | | | 1 x 10 | |
| ISSUE | 1 | 2 | 3 | | |
| DATE | May 3/56 | 17 July 57 | 31 Oct. 57 | | |
| COMPILED | P.A. Bell Sgt | P.A. Bell Sgt | P.A. Bell Sgt | | |
| CHECKED | G. Emmerson | J. Brumfit | J. Brumfit | | |
| APPROVED | G. Emmerson | R.F. Reid | R.F. Reid | | |

| LUBRICATION NIL | | | | |
|---|----------|--|-----------|---------------|
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS |
| | | | | |
| DETAILS: | | | | |
| GROUND SUPPORT EQUIPMENT | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | |
| NIL | | NIL | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | |
| Refueler A-C Ground Power Unit Capacitance Test Equipment Pressurized Air Supply-85 P.S.I. Max | | Cockpit access stand Maintenance Platforms 4G/1596 and 4G/2614 Mats-Wing | | |
| INTERCHANGEABLE | X | REMOVAL INSTRUCTIONS | | MEN X MINUTES |
| REPLACEABLE | | | | EST. |
| Airframe (1) Defuel applicable A/C fuel system | | Remove and Replace (Defueling time not included) | | 1 x 3 |
| Electrics (1) Release tank unit and compensator from spring type mounting clips | | | | |
| (2) Disconnect electrical connector | | | | |
| <u>NOTE</u> on installation of unit ensure that mounting clips are correctly seated on insulators | | | | |

| MAINTENANCE DATA RECORD | | | | SYSTEM | REF. NO. |
|--|-------------|---|---------------|--|-----------------------|
| AVRO AIRCRAFT LTD. | | Engineering Div. | | FUEL SYSTEM | 16-52 11-E238/E244 |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | A/C TYPE - ARROW 1 EFF. A/C - 25201 | | COMPONENT Tank Unit Capacitance No. 7 Tank - Inboard | |
| MANUFACTURER'S PART NO. FG220A-17 | | | | AVRO PART NO. | |
| MANUFACTURER'S NAME Minneapolis-Honeywell | | | | 7-1662-611 | |
| AVROCAN SPEC. E-323 E.O. NO. | | | | | |
| ENVELOPE SIZE 24.42" x 2.29" x 1.28" WEIGHT 0.39 (est) LB. | | | | REF. DWGS. 7-1662-23 & 24 7-1662-905 & 906 7-1100-1 | |
| LOCATION In No. 7 tank - inboard - R & L hand. | | | | | |
| FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system. | | | | REF. M.D.R. 11-E244 | |
| | | | | RELIABILITY | |
| | | | | OVERHAUL LIFE 1500 HRS. | |
| | | | | WASTAGE | |
| | | | | Q.T.R. Minn-Honeywell R-ED-871 | |
| INSPECTION PERIOD | | OPERATION TO BE PERFORMED | | MEN X MINUTES | |
| | | | | EST. | ACTUAL |
| Refuel Airframe | | Ensure that the cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard the aircraft during refueling. | | 1 x 1 | |
| 25 hour Electrics | | Carry out a calibration check of the fuel quantity gauging system in accordance with maintenance instructions report No. 71/MAINT 12/3. | | Pending | |
| Airframe and Electrics | | Inspect unit and electrical connector for security. | | 2 x 1 | |
| ACCESSIBILITY | | | | | |
| Remove dorsal fairing - 6 latches. | | Remove and Replace | | 1 x 2 | |
| Remove inboard access panel - No. 7 tank - 23 screws - 6 bolts. | | Remove and Replace | | 1 x 10 | |
| ISSUE | 1 | 2 | 3 | | |
| DATE | May 3/56 | August 1/57 | 31 Oct. 57 | | |
| COMPILED | Sgt. Bell | Sgt. Bell | P.A. Bell Sgt | | |
| CHECKED | G. Emmerson | J. Brumfit | J. Brumfit | | |
| APPROVED | G. Emmerson | R.F. Reid | R.F. Reid | | |

| LUBRICATION NIL | | | | |
|--|----------|--|-----------|---------------|
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS |
| DETAILS: | | | | |
| GROUND SUPPORT EQUIPMENT | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | |
| NIL | | NIL | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | |
| A-C Ground Power Unit, Refueler Capacitance Test Equipment Pressurized Air Supply - 85 psi max. | | Cockpit Access Stand Maintenance Platform 4G/1596 and 4G/2614 Mats - Wing | | |
| INTERCHANGEABLE | X | REMOVAL INSTRUCTIONS | | MEN X MINUTES |
| REPLACEABLE | | | | EST. |
| <u>Airframe</u> 1. Defuel applicable A/C fuel system. <u>Electrics</u> 1. Release tank unit from spring type mounting clips. 2. Disconnect electrical connector. NOTE: On installation of unit, ensure that mounting clips are correctly seated on insulators. Remove and Replace (Defueling time not included) | | 1 x 5 | | |

| MAINTENANCE DATA RECORD | | | | SYSTEM | REF. NO. |
|---|---------------|--|----------------|--|-------------------|
| AVRO AIRCRAFT LTD. | | | | FUEL SYSTEM | 16-53 11-E239/ |
| Engineering Div. | | | | | |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | A/C TYPE - Arrow 1 EFF. A/C - 25206 | | COMPONENT E245 Tank Unit - Capacitance No. 7 Tank - Centre Forward | |
| MANUFACTURER'S PART NO. FG 220A-18 | | | | AVRO PART NO. | |
| MANUFACTURER'S NAME Minneapolis - Honeywell | | | | 7-1662-827 | |
| AVROCAN SPEC. E323 E.O. NO. | | | | | |
| ENVELOPE SIZE 9.7" x 2.29" x 1.28" WEIGHT 0.19 (est) lb. | | | | REF. DWGS. 7-1662-23 & 24 7-1662- 903 & 904 7-1100-1 | |
| LOCATION In No. 7 tank - centre forward - L & R hand | | | | | |
| FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system. | | | | REF. M.D.R. 11-E245 | |
| | | | | RELIABILITY | |
| | | | | OVERHAUL LIFE 1500 HRS. | |
| | | | | WASTAGE | |
| | | | | Q.T.R. Minn-Honeywell R-ED-871 | |
| INSPECTION PERIOD | | OPERATION TO BE PERFORMED | | MEN X MINUTES | |
| | | | | EST. | ACTUAL |
| Refuel Airframe | | Ensure that cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard the aircraft during refueling. | | 1 x 1 | |
| 25 Hours Electrics | | Carry out a calibration check of the fuel quantity gauging system in accordance with Maintenance Instructions Report No. 71/MAINT 12/3 | | Pending | |
| Airframe & Electrics | | Inspect unit and electrical connector for security | | 2 x 1 | |
| ACCESSIBILITY | | | | | |
| Remove centre access panel - No. 7 Tank - 29 screws | | | | | |
| Remove and replace | | | | 1 x 10 | |
| ISSUE | 1 | 2 | 3 | | |
| DATE | May 3/56 | 29 July 57 | 31 Oct. 57 | | |
| COMPILED | P.A. Bell Sgt | P.A. Bell Sgt | P. A. Bell Sgt | | |
| CHECKED | G. Emmerson | J. Brumfit | J. Brumfit | | |
| APPROVED | G. Emmerson | R.F. Reid | R.F. Reid | | |

| LUBRICATION NIL | | | | |
|--|----------|--|-----------|---------------|
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS |
| | | | | |
| DETAILS: | | | | |
| GROUND SUPPORT EQUIPMENT | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | |
| NIL | | NIL | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | |
| A-C Ground Power Unit Refueler Capacitance Test Equipment Pressurized Air Supply - 85 p.s.i. Max | | Cockpit access Stand Maintenance Platform 4G/1596 and 4G/2614 MATS - Wing | | |
| INTERCHANGEABLE | X | REMOVAL INSTRUCTIONS | | MEN X MINUTES |
| REPLACEABLE | | | | EST. |
| Airframe (1) Defuel applicable A/C fuel system Electrics (1) Release tank unit from spring type mounting clips (2) Disconnect electrical connector. NOTE On installation of unit, ensure that mounting clips are correctly seated on insulators. Remove and replace (Defueling time not included) | | | | 1 x 4 |

| MAINTENANCE DATA RECORD | | | | SYSTEM | REF. NO. |
|---|---------------|--|---------------|---|-----------------------|
| AVRO AIRCRAFT LTD. | | Engineering Div. | | FUEL SYSTEM | 16-54 11-E240/E246 |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | A/C TYPE - Arrow 1 EFF. A/C - 25201 | | COMPONENT Tank Unit - Capacitance No. 7 Tank - Centre Aft | |
| MANUFACTURER'S PART NO. FG 220A-19 | | | | AVRO PART NO. | |
| MANUFACTURER'S NAME Minneapolis - Honeywell | | | | 7-1662-605 | |
| AVROCAN SPEC. E323 E.O. NO. | | | | | |
| ENVELOPE SIZE 23.50" x 2.29" x 1.28" WEIGHT 0.34 LB. | | | | REF. DWGS. 7-1662-23 & 24 7-1662-903 & 904 7-1100-1 | |
| LOCATION In No. 7 Tank - Centre aft - R & L hand | | | | | |
| FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system. | | | | REF. M.D.R. 11-E246 | |
| | | | | RELIABILITY | |
| | | | | OVERHAUL LIFE 1500 HRS. | |
| | | | | WASTAGE | |
| | | | | Q.T.R. Minn-Honeywell R-ED-871 | |
| INSPECTION PERIOD | | OPERATION TO BE PERFORMED | | MEN X MINUTES | |
| | | | | EST. | ACTUAL |
| Refuel Airframe | | Ensure that the cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard the aircraft during refueling. | | 1 x 1 | |
| 25 Hour Electrics | | Carry out a calibration check of the fuel quantity gauging system in accordance with Maintenance Instructions Report No. 71/MAINT 12/3 | | Pending | |
| Airframe & Electrics | | Inspect unit and electrical connector for security | | 2 x 1 | |
| ACCESSIBILITY | | | | | |
| Remove centre access panel - No. 7 Tank - 29 screws | | | | | |
| Remove and replace | | | | 1 x 10 | |
| ISSUE | 1 | 2 | 3 | | |
| DATE | May 3/56 | 30 July 57 | 31 Oct. 57 | | |
| COMPILED | P.A. Bell Sgt | P.A. Bell Sgt | P.A. Bell Sgt | | |
| CHECKED | G. Emmerson | J. Brumfit | J. Brumfit | | |
| APPROVED | G. Emmerson | R.F. Reid | R.F. Reid | | |

| LUBRICATION NIL | | | | | |
|---|----------|--|-----------|---------------|--------|
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS | |
| | | | | | |
| DETAILS: | | | | | |
| GROUND SUPPORT EQUIPMENT | | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | | |
| NIL | | NIL | | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | | |
| A- C Ground Power Unit Refueler Capacitance Test Equipment Pressurized Air supply -85 p.s.i. Max | | Cockpit access stand Maintenance Platform 4G/1596 and 4G/2614 MATS - Wing | | | |
| INTERCHANGEABLE | X | REMOVAL INSTRUCTIONS | | MEN X MINUTES | |
| REPLACEABLE | | | | EST. | ACTUAL |
| Airframe (1) Defuel applicable A/C fuel system. Electrics (1) Release tank unit from spring type mounting clips (2) Disconnect electric connector NOTE: On installation of unit ensure that mounting clips are correctly seated on insulators. Remove and replace (Defueling time not included) | | | | 1 x 5 | |

| MAINTENANCE DATA RECORD | | | | SYSTEM FUEL SYSTEM | REF. NO. 16-55 11-E241/E247 |
|--|----------------|---|---------------|--|-----------------------------------|
| AVRO AIRCRAFT LTD. | | Engineering Div. | | | |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | A/C TYPE - ARROW 1 EFF. A/C - 25201 | | COMPONENT Tank unit - Capacitance - No. 7 tank - outboard. | |
| MANUFACTURER'S PART NO. FG220A-20 | | | | AVRO PART NO. | |
| MANUFACTURER'S NAME MINNEAPOLIS-HONEYWELL | | | | 7-1662-607 | |
| AVROCAN SPEC. E 323 E.O. NO. | | | | | |
| ENVELOPE SIZE 8.28" x 2.29" x 1.28" WEIGHT 0.19 (est) LB. | | | | REF. DWGS. 7-1662-23 & 24 7-1662-907 & 908 7-1100-1 | |
| LOCATION In No. 7 tank-outboard - R & L Hand | | | | | |
| FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system | | | | REF. M.D.R. 11-E247 | |
| | | | | RELIABILITY | |
| | | | | OVERHAUL LIFE 1500 HRS. | |
| | | | | WASTAGE | |
| | | | | Q.T.R. Minn-Honeywell -R-ED-871 | |
| INSPECTION PERIOD | | OPERATION TO BE PERFORMED | | MEN X MINUTES | |
| | | | | EST. | ACTUAL |
| Refuel Airframe | | Ensure that the cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard the aircraft during refueling | | 1 x 1 | |
| 25 Hour Electrics | | Carry out a calibration check of the fuel quantity Gauging system in accordance with maintenance instructions report No. 71/Maint. 12/3 | | Pending | |
| Airframe & Electrics | | Inspect unit and electrical connector for security | | 2 x 1 | |
| ACCESSIBILITY | | | | | |
| Remove outboard access panel - No. 7 tank - 29 screws | | | | | |
| Remove and Replace | | | | 1 x 10 | |
| ISSUE | 1 | 2 | 3 | | |
| DATE | May 3/56 | July 30/57 | 31 Oct. 57 | | |
| COMPILED | P.A. Bell Sgt. | P.A. Bell Sgt. | P.A. Bell Sgt | | |
| CHECKED | G. Emmerson | J. Brumfit | J. Brumfit | | |
| APPROVED | G. E. | R.F. Reid | R.F. Reid | | |

| 1. GROUND SUPPORT EQUIPMENT | | | | |
|--|-------------|---|-----------|---------------|
| APPLICATION | MATERIAL | QUANTITY | FREQUENCY | AGENCY |
| | | | | |
| DETAILS: | | | | |
| | | | | |
| GROUND SUPPORT EQUIPMENT | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | |
| NIL | | NIL | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | |
| A-C Ground Power Unit Refueler Capacitance Test Equipment Pressurized Air Supply - 85 P.S.I. Max. | | Cockpit Access Stand Maintenance Platform 4G/1596 and 4G/2614 Mats - Wing | | |
| INTERCHANGEABLE | REPLACEABLE | REMOVAL INSTRUCTIONS | | MAN X MINUTES |
| | X | | | EST. ACTUAL |
| | | Airframe (1) Defuel applicable A/C fuel system Electrics (1) Release tank unit from spring type mounting clips (2) Disconnect electrical connector <u>NOTE</u> on installation of unit, ensure that mounting clips are correctly seated on insulators Remove and Replace (Defueling time not included) | | 1 x 6 |

| MAINTENANCE DATA RECORD | | | | SYSTEM | REF. NO. |
|--|--|--|--|--|-------------------|
| AVRO AIRCRAFT LTD. Engineering Div. | | | | FUEL SYSTEM | 16-56 11-E250- |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | A/C TYPE - Arrow 1 EFF. A/C - 25201 | | COMPONENT 256 Tank Unit - Capacitance No. 8 Tank -Inboard | |
| MANUFACTURER'S PART NO. FG220A-21 MANUFACTURER'S NAME Minneapolis Honeywell AVROCAN SPEC. E323 E.O. NO. ENVELOPE SIZE 20.65" x 2.29" x 1.28" WEIGHT .31 LB. LOCATION In No. 8 tank - inboard - R & L hand FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system. | | | | AVRO PART NO. 7-1662-821 | |
| | | | | REF. DWGS. 7-1662-21/2 7-1662-923/4 7-1100-2-SH.29 7-1100-3-SH. 6 & 7 | |
| | | | | REF. M.D.R. | |
| | | | | RELIABILITY OVERHAUL LIFE 1500 HRS. WASTAGE Q.T.R. Minn. Honeywell R-ED-871 | |
| INSPECTION PERIOD | OPERATION TO BE PERFORMED | | | MEN X MINUTES | |
| | | | | EST. | ACTUAL |
| Refuel Airframe | Ensure that the cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard the aircraft during refuelling. | | | 1 x 1 | |
| 25 Hour Electrics | Carry out a calibration check of the fuel quantity Gauging system in accordance with Maintenance Instructions Report 71/MAINT 12/3 | | | Pending | |
| Airframe & Electrics | Inspect unit and electrical connector for security | | | 2 x 1 | |
| ACCESSIBILITY | | | | | |
| Remove inboard access panel - No. 8 Tank - 29 screws | | | | | |
| Remove and replace | | | | 1 x 10 | |
| ISSUE | 1 | 2 | | | |
| DATE | May. 3/56 | 5 Nov. 57 | | | |
| COMPILED | P. A. Bell Sgt | P.A. Bell Sgt | | | |
| CHECKED | G. Emmerson | J. Brumfit | | | |
| APPROVED | G. E mmerson | R.F. Reid | | | |

| LUBRICATION | | | | | NIL | |
|---|----------|----------------------|--|--------|---------------|--------|
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS | | |
| DETAILS: | | | | | | |
| GROUND SUPPORT EQUIPMENT | | | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | | SPECIAL TOOLS FOR BENCH USE | | | |
| NIL | | | NIL | | | |
| GROUND TESTING EQUIPMENT | | | GROUND HANDLING EQUIPMENT | | | |
| A-C Ground Power Unit Refueler Capacitance Test Equipment Pressurized Air supply - 85 p.s.i. Max. | | | Cockpit access stand Maintenance Platform 4G/1596 and 4G/2614 Mats - Wing | | | |
| INTERCHANGEABLE | X | REMOVAL INSTRUCTIONS | | | MEN X MINUTES | |
| REPLACEABLE | | | | | EST. | ACTUAL |
| Airframe 1. De-fuel applicable A/C fuel system. Electrics 1. Release tank unit from spring type mounting clips. 2. Disconnect electrical connector. <u>NOTE:</u> On installation of unit ensure that mounting clips are correctly seated on insulators. Remove and replace (Defueling time not included) | | | | | 1 x 8 | |

| MAINTENANCE DATA RECORD | | | | SYSTEM | REF. NO. |
|--|--|--|--|---|----------------------|
| AVRO AIRCRAFT LTD. | | Engineering Div. | | FUEL SYSTEM | 16-57 11-E251-257 |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | A/C TYPE - Arrow 1 EFF. A/C - 25201 | | COMPONENT Tank unit - Capacitance No. 8 Tank centre | |
| MANUFACTURER'S PART NO. FGL20K-13 | | | | AVRO PART NO. | |
| MANUFACTURER'S NAME Minneapolis-Honeywell | | | | 7-1662-985 | |
| AVROCAN SPEC. E323 E.O. NO. | | | | | |
| ENVELOPE SIZE 6.76" x 2.29" x 1.28" WEIGHT 24(est) LB. | | | | REF. DWGS. 7-1662-21 & 22 7-1662- 921 & 922 7-1100-2-SH 29 7-1100-3-SH 6 & 7 | |
| LOCATION In no. 8 tank centre - R & L Hand | | | | REF. M.D.R. | |
| FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system. | | | | RELIABILITY OVERHAUL LIFE 1500 HRS. WASTAGE Q.T.R. Minn.-Honeywell R-ED-871 | |
| INSPECTION PERIOD | OPERATION TO BE PERFORMED | | | MEN X MINUTES | |
| | | | | EST. | ACTUAL |
| Refuel Airframe | Ensure that the cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard the aircraft during refuelling. | | | 1 x 1 | |
| 25 Hour Electrics | Carry out a calibration check of the fuel quantity gauging system in accordance with Maintenance Instructions Report 71/MAINT 12/3 | | | Pending | |
| Airframe & Electrics | Inspect unit and electrical connector for security | | | 2 x 1 | |
| ACCESSIBILITY Remove centre access panel - No. 8 Tank - 29 screws. | | | | | |
| Remove and replace | | | | 1 x 10 | |
| ISSUE | 1 | 2 | | | |
| DATE | May 3/56 | 5 Nov. 57 | | | |
| COMPILED | P.A. Bell Sgt | P.A. Bell Sgt | | | |
| CHECKED | G. Emmerson | J. Brumfit | | | |
| APPROVED | G. Emmerson | R.F. Reid | | | |

| LUBRICATION | | | | | NIL | |
|---|----------|----------------------|--|--------|---------------|--------|
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS | | |
| DETAILS: | | | | | | |
| GROUND SUPPORT EQUIPMENT | | | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | | SPECIAL TOOLS FOR BENCH USE | | | |
| NIL | | | NIL | | | |
| GROUND TESTING EQUIPMENT | | | GROUND HANDLING EQUIPMENT | | | |
| A-C Ground Power Unit Refueler Capacitance Test Equipment Pressurized Air Supply - 85 p.s.i. Max. | | | Cockpit access stand Maintenance Platform 4G/1596 and 4G/2614 Mats - Wing | | | |
| INTERCHANGEABLE | X | REMOVAL INSTRUCTIONS | | | MEN X MINUTES | |
| REPLACEABLE | | | | | EST. | ACTUAL |
| Airframe 1. Defuel applicable A/ C fuel system. Electrics 1. Release tank unit from spring type mounting clips. 2. Disconnect electrical connector. <u>NOTE:</u> On installation of unit, ensure that mounting clips are correctly seated on insulators. Remove and replace (Defuelling time not included) | | | | | 1 x 6 | |

| MAINTENANCE DATA RECORD | | | | SYSTEM FUEL SYSTEM | | REF. NO. 16-58 11-E252-258 | |
|--|---------------|--|--|---|--|----------------------------------|--|
| AVRO AIRCRAFT LTD. | | Engineering Div. | | | | | |
| DISTRIBUTION: STANDARD + A. Cornish S. Brown | | A/C TYPE - Arrow 1 EFF. A/C - 25201 | | COMPONENT Tank Unit - Capacitance No. 8 Tank - Outboard | | | |
| MANUFACTURER'S PART NO. FG 220A-23 | | | | AVRO PART NO. 7-1662-635 | | | |
| MANUFACTURER'S NAME Minneapolis-Honeywell | | | | | | | |
| AVROCAN SPEC. E323 E.O. NO. | | | | | | | |
| ENVELOPE SIZE 7.29" x 2.29" x 1.28" WEIGHT .17 LB. | | | | REF. DWGS. 7-1662-21 & 22 7-1662-901 & 902 7-1100-2 - SH-29 7-1100-3 -SH 6& 7 | | | |
| LOCATION In No. 8 tank - Outboard - L & R hand | | | | | | | |
| FUNCTION To provide fuel tank contents measurement for the aircraft fuel quantity gauging system. | | | | REF. M.D.R. | | | |
| | | | | RELIABILITY OVERHAUL LIFE 1500 HRS. WASTAGE Q.T.R.Minn. Honeywell R-ED-871 | | | |
| INSPECTION PERIOD | | OPERATION TO BE PERFORMED | | MEN X MINUTES | | | |
| | | | | EST. | | ACTUAL | |
| Refuel Airframe | | Ensure that cockpit fuel quantity gauges indicate accurately the amount of fuel taken aboard the aircraft during refuelling. | | 1 x 1 | | | |
| 25 Hours Electrics | | Carry out a calibration check of the fuel quantity gauging system in accordance with Maintenance Instructions Report 71/MAINT 12/3 | | Pending | | | |
| Airframe & Electrics | | Inspect unit and electrical connector for security | | 2 x 1 | | | |
| ACCESSIBILITY Remove outboard access panel - No. 8 tank - 29 screws Remove and replace | | | | 1 x 10 | | | |
| ISSUE | 1 | 2 | | | | | |
| DATE | May 3/56 | 5 Nov..57 | | | | | |
| COMPILED | P.A. Bell Sgt | P.A. Bell Sgt | | | | | |
| CHECKED | G. Emmerson | J. Brumfit | | | | | |
| APPROVED | G. Emmerson | R.F. Reid | | | | | |

| LUBRICATION NIL | | | | |
|---|----------|--|-----------|---------------|
| APPLICATION | MATERIAL | SPECIFICATION | FREQUENCY | ACCESS |
| | | | | |
| DETAILS: | | | | |
| GROUND SUPPORT EQUIPMENT | | | | |
| SPECIAL TOOLS FOR AIRCRAFT USE | | SPECIAL TOOLS FOR BENCH USE | | |
| NIL | | NIL | | |
| GROUND TESTING EQUIPMENT | | GROUND HANDLING EQUIPMENT | | |
| A-C Ground Power Unit Refueler Capacitance Test Equipment Pressurized Air Supply - 85 p.s.i. Max | | Cockpit access stand Maintenance Platform 4G/1596 and 4G/2614 Mats - Wing | | |
| INTERCHANGEABLE | X | REMOVAL INSTRUCTIONS | | MEN X MINUTES |
| REPLACEABLE | | | | EST. |
| Airframe - 1. Defuel applicable A/C fuel system. | | Remove and replace (Defuelling time not included) | | 1 x 10 |
| Electrics 1. Release tank unit from spring type mounting clips. 2. Disconnect electrical connector. | | | | |
| <u>NOTE:</u> On installation of unit, ensure that mounting clips are correctly seated on insulators. | | | | |