

**ZENAIR LTD**

**STANDARD MANUFACTURING PROCEDURE : AILERON ADJUSTMENT**

**NO: A116-54**

**PART 1**

**BEFORE INSTALLING THE WINGS ONTO THE FUSELAGE**

SEE D.C.S.

**FULLY UNDERSTAND THIS FORM AND ALL OTHER  
INSTRUCTIONS BEFORE STARTING THE JOB**

**1. Setting of Bellcranks**

(A) THE BELLCRANKS ARE TO BE SET THEIR NEUTRAL POSITION, IN THE CENTER OF THE "U" CHANNEL, RIVETED TO THE RIBS.

**2. Pre-Setting Aileron Neutral Position SEE 640-A-7**

(A) AFTER MOUNTING THE AILERONS ON THE WINGS, SET THE AILERONS IN THE NEUTRAL POSITION (TRAILING EDGE OF AILERON IS DOWN ABOUT 10mm FROM TRAILING EDGE OF WING) BY ADJUSTING THE AILERON PUSH ROD. AILERONS ARE SET +/- 15 DEGREES UP/DOWN FROM THE TRAILING EDGE.

(B) TIGHTEN THE PUSH ROD LOCK NUTS.

THE AILERON DEFLECTIONS ARE NOW SET. DEFLECTIONS WILL HAVE TO BE CHECKED ONCE THE WINGS HAVE BEEN INSTALLED TO THE FUSELAGE AND CONTROL CABLES INSTALLED.

WORK DONE BY: \_\_\_\_\_ DATE: \_\_\_\_\_

I HAVE INSPECTED THIS WORK AND FOUND IT TO BE SATISFACTORY.

QUALITY CONTROL: \_\_\_\_\_ DATE: \_\_\_\_\_

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**STANDARD MANUFACTURING PROCEDURE : AILERON ADJUSTMENT**

**NO: A116-54 PART 2**

**AILERON ADJUSTMENT AFTER WING INSTALLATION**

**SEE D.C.S.**

*FULLY UNDERSTAND THIS FORM AND ALL OTHER  
INSTRUCTIONS BEFORE STARTING THE JOB*

**4. Installation of Aileron Control Cables**

- (A) LOCK THE YOKES IN THEIR NEUTRAL POSITION.
- (B) INSTALL ALL AILERON CABLES AND ADJUST THEM UNTIL THE SLACK IS REMOVED FROM THE SYSTEM (15-20 LB. TENSION MAX.) *THE BELLCRANKS MUST STILL BE IN THEIR NEUTRAL POSITION.*
- (C) SYSTEMATICALLY ADJUST THE CABLES UNTIL YOU HAVE THE PROPER TENSION.

**5. Verification of Adjustment Setting**

- (A) REMOVE THE YOKE LOCK AND TURN THE YOKE THROUGH THE FULL TRAVEL, LEFT AND RIGHT. WHEN THE AILERON MEET THEIR STOPS, THEY MUST HIT BOTH SIMULTANEOUSLY IN EITHER DIRECTION.
- (B) AFTER CONTACTING THE AILERON STOP THE YOKES MAY TRAVEL AN ADDITIONAL 0-10°.
- (C) CONFIRM THE AILERON DEFLECTIONS +/-15
- (D) SMALL ADJUSTMENTS OF THE CABLES MAY BE MADE AT THIS TIME TO “TUNE THE SYSTEM” PROVIDING IT IS DONE SYSTEMATICALLY AND THE RESULTS MEET THE FOLLOWING CRITERIA.
  - 1. YOKES ARE IN NEUTRAL POSITION WHEN BOTH AILERONS ARE NEUTRAL.
  - 2. WHEN LEFT AILERON IS FULL UP, RIGHT IS FULL DOWN AND BOTH ARE ON THEIR RESPECTIVE STOPS, (BELLCRANKS TOUCHING THE “U” CHANNELS AND VICE VERSA.
  - 3. CABLE TENSION IS WITHIN TOLERANCE.

WORK DONE BY: \_\_\_\_\_ DATE: \_\_\_\_\_

I HAVE INSPECTED THIS WORK AND FOUND IT TO BE SATISFACTORY.

QUALITY CONTROL: \_\_\_\_\_ DATE: \_\_\_\_\_