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AIRCRAFT MAINTENANCE MANUAL

# TEMPORARY REVISION 20-01

**FILING INSTRUCTIONS:** Print this Temporary Revision on double sided 8.5 X 11 inch yellow paper. Put this Temporary Revision facing page 7 of 20-00-00 (which is a permanent pageblock).

Record the incorporation of this Temporary Revision on the yellow **RECORD OF TEMPORARY REVISIONS** sheet at the front of the manual.

Keep this Temporary Revision until normal revision service incorporates the information into the DA20-C1 Aircraft Maintenance Manual.

**DESCRIPTION:** This Temporary Revision adds the special torque values for the horizontal stabilizer forward mount: upper and lower bracket attaching bolts (AN3). It also adds the special torque values for the elevator mass balance hardware.

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**STANDARD PRACTICES - AIRFRAME**

## C. DIN Specifications

Metric Thread	Torque (lbf-ft)	Torque (Nm)
M4	1.3	1.8
M5	2.7	3.6
M6	4.7	6.4
M8	11.8	16.0
M10	23.6	32.0
M12	44.4	60.0

Use the above torque values for all bolts/nuts/screws which meet the specifications unless they are in the list of special torque values below.

4. Special Torque Values

Part	Torque (lbf-ft)	Torque (Nm)
Propeller to extension bolts 7/16 in (Sensenich)	SEE SENSENICH W69EK7 MANUAL DOC#W69EK7-CF REV F OR LATER	
Propeller to extension bolts 3/8 in (Hoffman)	17 - 18.4	23 - 25
Propeller to extension bolts 3/8 in (Sensenich)	14.6 - 18.75	19.8 - 25.5
Propeller extension to engine flange bolts 1/2 in	56.75 - 59.7	77 - 81
Spark plugs	25 - 30	34 - 40.8
Bolts attaching the engine mount to the firewall	25 - 25.8	34 - 35
Bolts attaching the engine to the isolators	15 - 15.8	20.4 - 21.5
Main landing gear bolt, inner	0.16 ±0.02 in	Height of spring washers 4 ± 0.5 mm
Main landing gear bolts, outer	14.75	20.0

Part	Torque (lbf-ft)	Torque (Nm)
Brake back-plate bolts	6.25 - 6.7	8.5 - 9
Brake flexible hoses	3.3 - 5	4.5 - 6.8
B-Bolt nut in root rib	14.8	20.0
Safety belt attachment in center console	Loose fit, NO torque	
M10 bolt attaching generator to bottom mounting bracket	26.3	35.0
M8 bolts attaching generator to top mounting bracket and to engine	16.5	22.0
Engine	See Continental IO-240-B maintenance manual	
Exhaust clamp bolts	20 - 25 lbf-in or 0.12" minimum distance between ears	2.3 - 2.8 or 3 mm minimum distance between ears
Exhaust pipe to cylinder head nuts	16.7 - 17.5	22.6 - 23.7
Elevator Mass Balance Hardware <u>NOTE:</u> The bolts should be installed with Loctite 242.	4.2 - 5.8	5.6 - 7.9
Horizontal Stabilizer forward mount: upper and lower bracket attachment bolts (AN3) * Includes friction of self locking nut.	* 3.75 - 4.16	* 5.1 - 5.6

#### 5. Torque Measurement

For self-locking nuts, add the torque value of the locking device (friction or brake torque) to the value in the table. Read the friction value from the torque wrench before the nut seats.

Where a bolt is tightened from the bolt-head, add the value of the shaft friction (the friction of the bolt in the attached part) to the value in the table. Read the fiction value from the torque wrench before the bolt seats.

#### 6. Torque Conversion Graphs

Use graph 1 for conversion of torque values (Nm - lbf-ft) and use graph 2 for conversion of (Nm - lbf-in).

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