



Provincial Scope Document

AIRCRAFT MAINTENANCE (Integrated) 2008

Contest Length: 7 hrs

Check in time: 8:30

Contest Start: 9:00

Purpose of the Challenge:

- To assess the contestants' skills and knowledge in performing basic aircraft maintenance procedures.

Skills & Knowledge to be Tested:

Throughout the contest, students will be evaluated in the following areas:

1. Sheet metal channel splice.
2. Magneto installation and timing.
3. Aircraft weight and balance report.

Contestants must demonstrate skills in the following areas:

Sheet metal channel splice.

- Fabricate sheet metal channel per drawings provided.
- Fabricate internal channel doubler
- Pattern fasteners using charts provided.
- Install fasteners using pneumatic riveting tools.

Magneto timing

- Check documents to obtain timing data.
- Check engine firing position.
- Install magneto and time to engine.
- Install spark plugs and wiring.

Aircraft weight and balance report.

- **Check documents to obtain weight and balance data.**
- **Obtain scale readings.**
- **Perform calculations.**
- **Prepare report.**
- **Prepare amendment.**
- **Amend equipment list.**

Equipment / Tools / Materials

Contestants to provide their own basic hand tools, CSA approved safety glasses, hearing protection, and safety footwear and calculator.

Supplied by organization:

- Turbine engine on stand, cutaway. (qty 1)
- Piston engine on stand c/w ignition system, propellers. (qty 2 identical, 0-320 or similar)
- Helicopter static display (qty 1)
- Workbenches c/w vices (qty 4)
- 20 gallon portable air compressor (qty 2)
- 20 foot air hose (qty 8)
- 4 outlet air pig (qty 2)
- 3x rivet gun (qty 8)
- Bucking bar two types (qty 16, 8 of each)
- #4 snap (qty 8)
- #3 snap (qty 8)
- Center punches (qty 8)
- Cleco Pliers (qty 8)
- Cleco 1/8", 3/32" (qty 200, 100 of each)
- Rivet MS 20470-AD4-3 (8 oz.)
- Rivet MS 20470-AD4-4 (8 oz.)
- Rivet MS 20470-AD4-5 (8 oz.)
- Rivet MS 20470-AD3-4 (8 oz.)
- 8" x 8" aluminum sheet stock 2024-T3 .032" (qty 36)
- Foot shear (qty 2)
- Sheet metal brake (qty 2)
- Fine single cut file (qty 8)
- Spring divider (qty 8)
- Vernier caliper (qty 8)
- Precision ruler (qty 8)
- Fine point marker (qty 8)
- Masking tape 1" (2 rolls)
- #40 Drill bits (qty 10)
- #30 Drill bits (qty 10)
- 1/8 Drill bits (qty 10)
- Countersink (qty 8)
- Air drill c/w key (qty 8)

- Toggle clamp (qty 32)
- Magneto timing light (qty 3)
- Timing hats (qty 3)
- Third hand (qty 4)
- Lockwire .041" (qty 1 lb.can)
- Torque Wrench 3/8 drive (qty 1, alternate 1/2" drive)
- 7/8" Deep socket 3/8 drive (qty 1, alternate 1/2" drive)
- Chairs (qty 12)

Clothing Requirements:

- Competitors are to be dressed in a clean and safe manner.
- No jewellery on hands or wrists.

Safety Requirements:

Safety awareness/requirements will be maintained at the minimum industry standards at all times. A contestant will not be allowed to compete without the safety equipment noted on this scope document.

Judging Criteria:

Point total = 1000 points

Sheetmetal module is worth 500 points.

Magneto timing is worth 250 points.

Weight & Balance Report is worth 250 points.

Technical Committee:

Richard Johnstone BC Technical Chair, National Committee
 Bob Rorison,
 Gary Mondoux

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Gold medal winners at the BC Skills Competition are eligible to compete at the Canadian Skills Competition May 25-28, 2008, 2008 in Calgary, Alberta.

Skills Canada BC reserves the right to update contest information. Please check the website for changes.