

Attachment D: SWC246 Boom Mower Certifications to be submitted.

SAFETY AND TESTING

Due to the severe mowing conditions, safety tests are a requirement for the operator's safety and highway traffic safety. All equipment must meet or exceed the following: ANSI S474/SAE J232 Industrial Rotary Mower: "Guidelines for operator and by-stander protection for industrial type rotary mowers whose use falls within the scope of this recommended practice".

- ARM TYPE MOWER: Must meet or exceed ASAE S474/SAE J232 when the mower head is positioned at ground level.
- GUARDING & SHIELDING ASAE S474/SAE J232 SECTION 4.1: Bidder to submit compliance report.
- LABELS – ASAE S474/SAE J232 SECTION 4.2: Bidder to submit compliance report.
- OPERATOR ZONE: PRESSURIZED COMPONENTS - ASAE S474/SAE J232 SECTION 4.3: Bidder to submit compliance report.
- FOOT PROBE TEST – ASAE S474/SAE J232 SECTION U.2: Bidder to submit compliance report to section 7.2.4 Test acceptability.
- BLADE IMPACT TESTS – ASAE S474/SAE J232 SECTION 7.3: Bidder must submit test protocol to section 7.3.4 test. Acceptability requirements impact test results to be documented to demonstrate acceptable criteria of
1) Dropping cutting head onto 2" diameter 1018-1020 steel, HR or CD test rod with contact as close as possible to blade carrier when mower operated at rated speed. 2) Dropping cutting head onto 2" diameter 1018-1020 steel, HR or CD test rod with contact .25 mm from end of blade when operated at rated speed.

- BLADE UNBALANCE TEST – ASAE S474/SAE J232 SECTION 7.4: Bidder to submit test protocol to section 7.4.4 test acceptability requirements, mower to be operated for two (2) minutes at rated speed with one (1) blade removed.
- STRUCTURAL INTEGRITY TEST – ASAE S474/SAE J232 SECTION 7.5: Bidder to submit protocol section 7.5.4 test acceptability requirements: Protocol to detail results or 12 rod hits through 8 equally spaced holes.
- THROWN OBJECT TEST – ASAE S474/SAE J232 SECTION 7.6: Bidder to submit protocol for scoring & test compliance to section 7.6.4 and 7.6.5 test acceptability. Bidder to submit documentation detailing compliance and/or test acceptability with the following standards:

- ANSI/ASAE 201.4 – Application of hydraulic remote-control cylinders
- ANSI/ASAE S350 – Safety alert symbol
- SAE J284 – Safety alert symbol
- ASAE EP363.1 – Technical publications
- ANSI/ASAE S493 – Guarding for agricultural equipment
- SAE J1065 – Pressure rating for hydraulic tube
- ANSI/ASAE S279.12 SECTION 305 – Reflective materials
- ANSI/ASAE S483 – Rotary mower blade difficulty test

ASTM E23 (FOR CUTTER BLADES) – Charpy v-notch impact test