



AMTEC
Agricultural Machinery Testing and Evaluation Center
1977

ACR 022:2023 CHECKLIST AND REMINDERS FOR THE AMTEC TEST CONDITIONS AND REQUIREMENTS FOR FURROWER

■ Application for AMTEC Test

The test applicant shall submit AMTEC-OP-F01 (Agricultural Machinery Test Application Form) together with the following requirements:

- AMTEC-OP-F16 (Waiver for Machine Specifications)
- AMTEC-OP-F18 (Data Privacy Consent Form)

■ Technical Specifications of the Machine

The test applicant shall submit any document/s indicating the specifications of the machine upon application for testing. In case the said document/s are not available, the applicant shall fill out the Machine Specifications Sheet provided by AMTEC upon request.

- Operator's manual with complete specifications as indicated in Annex B of PAES 135:2004
- Brochure
- Machine specifications sheet (shall be filled out upon request and receipt of copy from AMTEC in case the manual or brochure is not available)

■ Preparation and Operation of the Machine

During field performance test, the furrower shall be ready for operation. The officially designated representative and/or operator of the test applicant shall operate, demonstrate, adjust, repair, and decide on matters related to the operation of the machine. The operator shall be skilled in operating a furrower.

■ Running-in of the Machine

A test run shall be conducted prior the official test as to check its condition and make necessary adjustments to the machine according to the recommendation of the test applicant and/or manufacturer. No other adjustments shall be permitted while the official test is on-going.

■ Test Plot

The test applicant shall prepare at least three (3) test plots. Each test plot shall:

- Be rectangular with sides in the ratio of 2:1 as much as possible;
- Be at least 1000 m² for four-wheel tractor-drawn;
- Have headlands of at least 3 m in length or depending on tractor size; and
- Be a dry field which was previously plowed once and harrowed at least twice.

■ Other Test Necessities

The following shall also be adequately supplied during the conduct of testing:

- Four-wheel tractor compatible with the furrower in accordance with the manufacturer's specification of required power;
- Fuel tank filled to full capacity;
- 3 L or sufficient fuel for refilling after each test trial; and
- Tools for machine repair and adjustments.

■ Machine Setting

The furrower shall be tested at the manufacturer's and the following recommended setting during plowing operation:

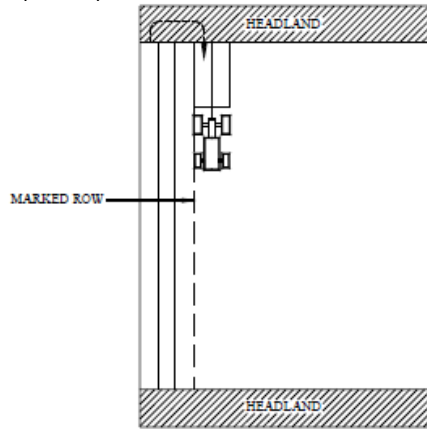
- Traveling speed range, kph: 7-8
- Gear shift setting: _____
- Depth of furrow, mm: _____
- Operating width, mm: _____



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■ Recommended Tilling Pattern

The non-working time should be minimized as much as possible using the headland pattern. A marked row (illustrated in the figure) shall be located at a point equidistant to furrow units spacing. This will guide the operator during turning for the subsequent passes.



■ Requirements

AMTEC shall conduct various tests and verification on different performance parameters of the machine including the following requirements as per PAES 134:2004:

■ Materials of Construction

Criteria	Requirement as per PAES 134:2004
Moldboard, Standard, and Toolbar	<input type="checkbox"/> They shall be manufactured using cast iron and/or mild steel.
Share	<input type="checkbox"/> It shall be manufactured using carbon steel with at least 80% carbon content (AISI 1080) or alloy steel with at least 0.0005% boron content.

■ Performance Requirements

Criteria	Requirement as per PAES 134:2004
Depth of cut, mm, maximum	As specified by the manufacturer
Width of cut, mm, maximum	As specified by the manufacturer

■ Other Requirements

Criteria	Requirement as per PAES 134:2004
General	<input type="checkbox"/> The furrower shall be easy to hitch to and unhitch from the tractor as well as adjust the spacing between rows.
Hitch	<input type="checkbox"/> It shall be compatible with the three-point linkage of the four-wheel tractor as specified in PAES 118.

■ Workmanship and Finish

- The furrower shall be free from manufacturing defects such as sharp edges and surfaces that may be detrimental to the operator.
- Except for furrower bottoms, other uncoated metallic surfaces shall be free from rust and shall be painted properly.

■ Standard Tools

Basic tools shall be provided for the furrower. These tools shall be suitable to the necessary adjustment operations during maintenance and operation.



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■ Suspension and Termination of Test

If the test plot does not conform with the recommended quantity and characteristics, AMTEC shall not proceed with the test. Should the test applicant request the conduct of the test despite the non-conformity to the test requirements identified by AMTEC, the applicant shall sign the AMTEC Waiver for Nonconformity to Test Requirements.

AMTEC-OP-F24 (Waiver for Nonconformity to Test Requirements)

If the machine stops due to breakdown or malfunction during the test run affecting the machine's performance, the test may be suspended. If the machine cannot continue the operation or becomes non-functional during the test, the test shall be consequently terminated.

■ Other Assistance During Test

1. For field and laboratory tests outside the AMTEC premises, the applicant shall shoulder the transportation expenses (i.e. fuel, toll fees, vehicle rental, plane fare, sea fare, etc.) of the AMTEC Staff assigned for the testing activity.
2. The applicant is requested to assist the AMTEC Staff in looking and/or making arrangements for hotel accommodation and food near the test site.
3. The applicant shall provide drinking water to the AMTEC Staff during the testing activity.
4. The applicant shall provide any form of shed or sunshade (e.g. tent, umbrella, etc.) for the test equipment, samples (if applicable) and AMTEC Staff during the testing activity in the field.
5. The applicant is requested to assist the AMTEC Staff in finding any means to access a safe and convenient restroom near the test site during the testing activity.

■ Testing Fee

1. The testing fee for furrower is Php 7,000.
2. To proceed through AMTEC test, the test applicant shall settle at least 50 % of the testing fee which is non-refundable but transferrable.
3. In cases of additional testing during the field, the test applicant shall immediately pass the required documents and settle at least 50% of the testing fee within 5 working days after the testing proper.
 Additional testing, number of machines: _____
4. Payment/s shall be directed to the following:
 Through UPLB Cashier's Office (8AM to 12PM): AMTEC Trust Fund Code No. 8271632-40A2040101000
 Through Landbank (8:30AM to 3PM): UPLB Trust Fund Account No. 1892100507 or UPLB FI Account No. 1892-1003-29

■ Other Reminders

1. All manufacturers, fabricators, assemblers, and importers (MFAI) shall secure a Certificate of Conformity (CC) from the Bureau of Agricultural and Fisheries Engineering (BAFE) which guarantees that their agricultural and fisheries machinery conforms with PNS/BAFS PABES or other relevant standards identified by BAFE. More information about the application for CC can be found at <http://bafe.da.gov.ph/index.php/certificate-of-conformity-of-manufacturers-fabricators-assemblers-distributors-dealers-importers-and-exporters/>.
2. All MFAI shall employ an Agricultural and Biosystems Engineer (ABE), as mandated by RA 10915 (ABE Law), who shall facilitate all activities and concerns pertinent to AMTEC testing and BAFE requirements. Do you currently have an ABE in your roster of employees? Yes No