



AMTEC
Agricultural Machinery Testing and Evaluation Center
1977

ACR 003:2021 CHECKLIST AND REMINDERS FOR THE AMTEC TEST CONDITIONS AND REQUIREMENTS FOR WALKING-TYPE AGRICULTURAL TRACTOR (PULL TYPE)

■ Application for AMTEC Test

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

- AMTEC-OP-16 (Waiver for Machine Specifications)
- AMTEC-OP-18 (Data Privacy Consent Form)

■ Technical Specifications of the Machine

The test applicant shall submit any document/s indicating the specifications and other relevant information of the machine upon application for testing.

- Operator's manual with complete specifications as indicated in Annex B of PAES 111:2000
- 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 tractor 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 pull type walking-type agricultural tractor.

During laboratory performance test, the same tractor (including the engine) tested in the field shall be delivered to AMTEC. AMTEC shall handle and operate the machine during the laboratory testing proper.

■ Running-in of the Machine

A test run shall be conducted prior to the official test to check its condition and make necessary adjustments to the machine. During field performance test, 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 at least 500 m² to the edges and rectangular with sides in the ratio of 2:1 as much as possible;
- Shall be soaked for at least 24 hours for wetland/lowland field (For plowing operation, a 1 m wooden stick must penetrate the soil at a depth of 8-10cm); and
- Shall be plowed if secondary tillage is the intended operation.

■ Other Test Necessities

The following shall also be adequately supplied during the conduct of the field performance test:

- Fuel tank filled to full capacity;
- 4 L or sufficient amount of fuel for refilling before each test trial to its full capacity; and
- Tools for machine repair and adjustments.

■ Machine Setting

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

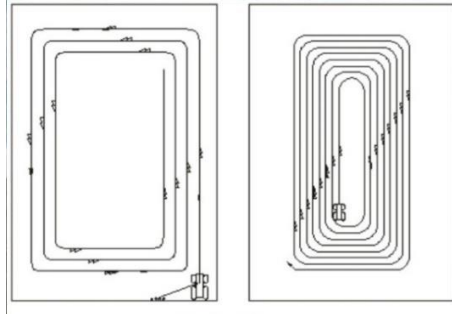
- Operating depth for plowing, mm: 100 ± 10



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■ Recommended Tilling Pattern

Circuitous pattern should be used during the field performance test operation.



■ Requirements

AMTEC shall conduct various tests and verification on different parameters of the machine including the following requirements as per PAES 109:2000:

■ Fabrication Requirements

Item	Requirement as per PAES 109:2000
General	<input type="checkbox"/> The tractor shall be generally made of steel bars and sheet metals
Chain and Sprocket Transmission System	<input type="checkbox"/> At least ISO chain number (cn) 10A-1 (ANSI cn 50) for the chain and sprocket system shall be used.
Handle Bar	<input type="checkbox"/> It shall be made of Black Iron (BI) pipe (schedule 40) with a minimum outside diameter of 25 mm.
Throttle Lever <input type="checkbox"/> Type (Vertical or horizontal): _____	<input type="checkbox"/> It shall be accessible to the operator's right-hand side.
Main Clutch Lever <input type="checkbox"/> Type (Vertical or horizontal): _____	<input type="checkbox"/> It shall be accessible to the operator's left-hand side. <input type="checkbox"/> For vertical lever, an over-center linkage shall lock the lever in forward engaged position. <input type="checkbox"/> For horizontal lever, a lock shall be provided to hold the lever in upward engaged position.
Others	<input type="checkbox"/> Belt guard or cover, mud guard, and rubber hand grip shall be provided for operator's safety. <input type="checkbox"/> Transmission belt adjustment mechanism shall be provided. <input type="checkbox"/> Mechanism for handle bar height adjustment shall be provided. <input type="checkbox"/> The hitch of the tractor shall be in accordance with PAES 107 specifications. <input type="checkbox"/> The hexagonal axle of the tractor shall be in accordance with PAES 108 specifications. <input type="checkbox"/> Agricultural rubber tires shall be used for transport of the tractor.

■ Standard Tools

Three (3) open wrenches, one (1) Philips screwdriver, one (1) flat screwdriver, one (1) adjustable wrench, and other basic tools shall be provided for the tractor. These tools shall be suitable to the necessary adjustment operations during maintenance and operation.



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■ Workmanship and Finish	
Item	Requirement as per PAES 109:2000
General	<input type="checkbox"/> The tractor shall be free from manufacturing defects that may be detrimental to its operation. <input type="checkbox"/> Any uncoated metallic surfaces shall be free from rust and shall be painted properly. <input type="checkbox"/> The tractor shall be free from sharp edges and surfaces that may injure the operator.
■ Performance Requirements	
Criteria	Requirement as per PAES 109:2000
Peak Transmission Efficiency, %, minimum	85
Noise Level, dB(A), minimum	<i>92 (Allowable noise level for 6 hours of continuous exposure based on Occupation Safety and Health Standards, Ministry of Labor, Philippines, 1983)</i>
Field Capacity, %	As per manufacturer's specification
Continuous Running	Shall have no breakdowns/malfunctions during the 5-hour test
■ Suspension and Termination of Test	
<p>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.</p> <p><input type="checkbox"/> AMTEC-OP-F24 (Waiver for Nonconformity to Test Requirements)</p> <p>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, the test shall be consequently terminated.</p>	
■ Other Assistance During Test	
<ol style="list-style-type: none"> 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. The applicant is requested to assist the AMTEC Staff in looking and/or making arrangements for hotel accommodation and food near the test site. The applicant shall provide drinking water to the AMTEC Staff during the testing activity. 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. 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. 	



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■ **Testing Fee**

1. The testing fee for walking-type agricultural tractor is PhP 19,500.
2. To proceed with the 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