



UNITED NATIONS

ESCAP

Economic and Social Commission for Asia and the Pacific

CSAM

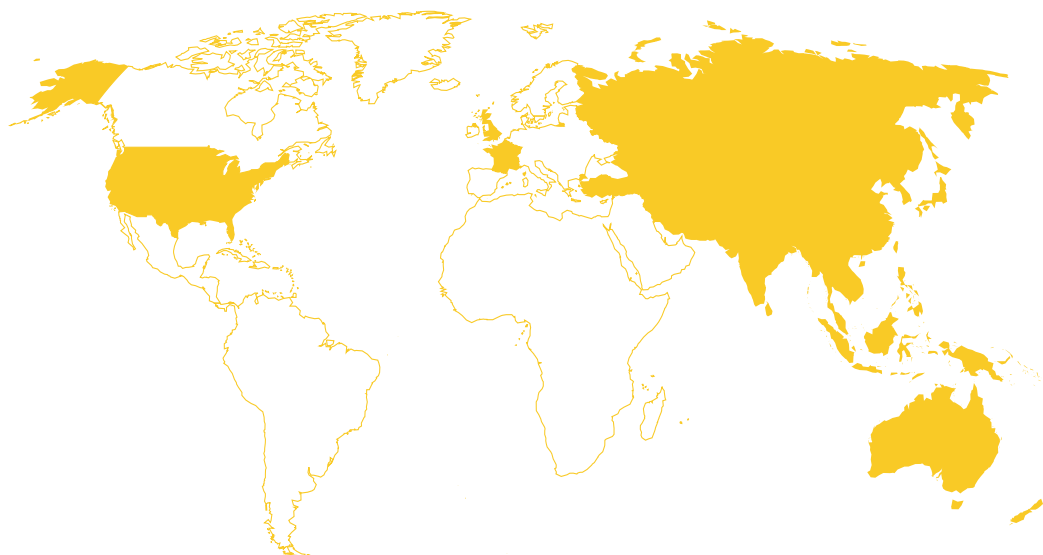
ANTAM TEST REPORT



The Centre for Sustainable Agricultural Mechanization (CSAM), is a regional institution of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), based in Beijing, China. CSAM started operations in 2004, building on the achievements of the Regional Network for Agricultural Machinery (RNAM) and the United Nations Asian and Pacific Centre for Agricultural Engineering and Machinery (UNAPCAEM). CSAM serves the 62 members and associate members of ESCAP.

The vision of CSAM is to achieve production gains, improved rural livelihood and poverty alleviation through sustainable agricultural mechanization for a more resilient, inclusive and sustainable Asia and the Pacific.

The Secretariat of the Asian and Pacific Network for Testing of Agricultural Machinery (ANTAM) is based at CSAM. CSAM is the executing agency of ANTAM. The ANTAM Secretariat assists and coordinates the operation of the network, and provides necessary logistical and administrative support.



The shaded areas of the map indicate ESCAP members and associate members

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ANTAM TEST REPORT



Approval Number:

Date of Approval:

Report on test in accordance with ANTAM Test Code *(Please insert number of the Code)*

PHOTO of the Machine

Make /model of machine

report number

Month of the test:Year:

Add Testing station logo

Testing station
-Name
-Address
-Contact

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Remarks

- This test report provides the results of the tests conducted in accordance with the ANTAM Test Code .
- This report is invalid without the official stamp of ANTAM.
- Any amendment to this document is not allowed.
- The data given in this report pertain to the particular machine submitted by the manufacturer/applicant for the test

ANTAM TEST REPORT

Product: Paddy Transplanter	Make	
	Model	
	Trade Mark	
ANTAM Test Code		
Type of Test	(Commercial/confidential)	
Authorized test center	Name	
	Address	
	Contact Details	
Manufacturer	Name	
	Address	
	Contact Details	
Test Location		
Period of Test	Month/Year	
Year of Manufacturing		
Serial number of Paddy Transplanter	Engine	
	Transplanter	
Date of Receipt		
Submitted by	Name	Contact No.
Received by	Name	Contact No.

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SELECTED CONVERSIONS

S. No	Units	Conversion Factor
1	Force	
	1 kgf	9.80665 N
		2.20462 lbf
2	Power	
	1 hp	1.01387 metric hp (ps)
		745.7 W
	1 ps	735.5 W
	1 kW	1.35962 ps
3	Pressure	
	1 psi	6.895 kPa
	1 kgf/cm ²	98.067 kPa = 735.56 mm of Hg
	1 bar	100 kPa = 10 N/cm ²
	1 mm of Hg	1.3332 m-bar

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1. Checking of Specifications

No	Description	Manufactures specification	Verification by the testing agency
1.0	General		
1.1	Name and address of the manufacturer(s)		
1.2	Name and address of the applicant		
1.3	Type (walk behind / riding)		
1.4	Make/brand		
1.5	Model		
1.6	Number of rows		
1.7	Serial number		
1.8	Year of manufacture		
1.9	Country of origin		
2.0	Engine		
2.1	Type (gasoline/diesel)		
2.2	Make/brand		
2.3	Model		
2.4	Country of Manufacture		
2.5	Serial number		
2.6	Number of cylinders and capacity		
2.7	Rated speed (rpm)		
2.8	Power at rated speed (kW)		
2.9	Maximum power (kW)		
2.10	Specific fuel consumption (g/kWh) @ maximum power		
2.11	Maximum torque (Nm)		
2.12	Fuel tank capacity (liter)		
2.13	Type of fuel filter		
2.14	Type of cooling system and coolant capacity		
2.15	Type of air cleaner		
2.16	Starting system Type Aids for cold starting Any other devices provided for easy starting		
2.17	Type of silencer		
3.0	Electrical system		
3.1	Voltage (Volts) Details of head lights (number and watt) Battery specification (Volts)		
3.2	Charging system (alternator/dynamo)		
4.0	Seedling rack		
4.1	Material		
4.2	Width(mm)		
4.3	Height (mm)		

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4.4	Mat feeding type (Manual or automatic)		
5.0	Planting arm and fork		
5.1	Type of planting arm (rotary or cranking)		
5.2	Number of arms		
5.3	Material of fork		
5.4	Length of fork (mm)		
5.5	Width of fork (mm)		
6.0	Floater		
6.1	Material		
6.2	Center floater (L x W x T) (mm)		
6.3	Outer floater (L x W x T) (mm)		
6.4	Number of floaters		
7.0	Wheel		
7.1	Material		
7.2	Width (mm)		
7.3	Diameter (mm)		
8.0	Handle / Steering Wheel		
8.1	Width/diameter (mm)		
8.2	Type of grip for prevention of slipping		
8.3	Material of grip		
9.0	Power transmission system		
9.1	Type		
9.2	Number of forward and reverse speeds		
9.3	Parking brake (Type)		
10.0	Operator's seat details		
10.1	Type		
10.2	Adjustable (yes or no) (Up-down; forward – backward)		
11.0	Overall dimension		
11.1	Length (mm)		
11.2	Height (mm)		
11.3	Width (mm)		
11.4	Ground clearance (mm)		
12.0	Weight		
12.1	Total mass (kg)		
13.0	Number of racks for spare seedling trays		
14.0	Technical literature		
14.1	Operator's manual		
14.2	Service Manual		
14.3	Parts catalogue		
14.4	Safety Precautions		
15.0	Horn (Front and rear)		

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2. Safety Requirements

Safety Protection (Yes – Y, No – N, Not Applicable – NA)

No	Requirement	Observation Y / N / NA	Remarks
1.	The exposed transmission parts, rotating parts should have protective cover		
2.	The position and the direction of the exhaust port shall avoid the operator and helpers who are supposed to stand on the machine.		
3.	The operator work floor should be flat and non-slip		
4.	The row marker should have locking mechanism.		
5.	The operation symbols should be pasted near the key controls		
6.	There should be a minimum gap of at least 25mm between the control levers		
7.	The pedal should have non-slip surface and easy to clean.		
8.	The positive pole of the battery should have the protective cover to prevent the short circuit.		
9.	Riding type transplanter should be equipped with footsteps on both sides.		
10.	All exposed sharp edges and corners must have smooth finish		
11.	Transplanter should be equipped with a front side (head lights) and a rear side light, which is optional		
12.	Dangerous moving parts must be indicated by safety signs and should be illustrated in the operating manual		
13.	Riding type transplanter should be equipped with a reverse horn		

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3. Test Results

3.1 Parking brake test

Transplanter Mass (kg)		
Slope (%):		
Observations	Transplanter parked Facing up slope	Transplanter parked Facing down slope
Whether rolling of braking wheels noticed	Yes/No	Yes/No
Efficacy of brakes	Yes/No	Yes/No

Remarks:

3.2 Noise test

No.		Travelling Speed (km/h)	Engine Speed (rpm)	Ear (Left/Right)	Sound Level (dB(A))
(1)	(2)	(3)	(4)		(7)
1					
2					
3					

Remarks:

3.3 Waterproof test

S. No.	Components	Ingress of Water	Oil leakage
1	Axle	Yes/No	
2	Clutch housing	Yes/No	
3	Planting assembly	Yes/No	
4	Hydraulic parts		

Remarks:

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4. Performance test

Test 01		
General Data	Date	
	Location	
Condition of Seedlings	Age of seedlings	
	Variety	
	Plant density (No. of plants per cm ²)	
	Leaf stage (No. of leaves)	
	Height of seedlings (mm)	
	Thickness of seedling mat (mm)	
	Soil type of seedling mat	
	Root length (mm)	
Condition of Field	Shape	
	Area (L x W), m ²	
	Soil Type	
	Soil surface hardness (Cone depth, mm) (Drop cone test)	
	Depth of hard pan (mm)	
	Depth of water during transplanting (mm)	
	Qualitative assessment (leveling, stubble)	
Performance of the Machine	Average operating speed (m/s)	
	Theoretical field capacity (ha/h)	
	Actual field capacity (ha/h)	
	Field efficiency (%)	
	Fuel Consumption (l/ha, g/ha)	
	Wheel Slippage (%)	
Planting quality	Distance between hills (mm)	
	Coefficient of Variation of distance between hills	
	Depth of planting (mm)	
	Coefficient of Variation of depth of planting	
	No of Seedlings per hill	
	Coefficient of Variation of seedlings per hill	
	Standing angle of planting	
	No. of hills per m ²	
	Percentage of Missing hills	
	Percentage of Floating hills	
	Percentage of Buried hills	
	Percentage of Damaged hills	
Effective working width (m)		

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Test 02		
General Data	Date	
	Location	
Condition of Seedlings	Age of seedlings	
	Variety	
	Plant density (No. of plants per cm ²)	
	Leaf stage (No. of leaves)	
	Height of seedlings (mm)	
	Thickness of seedling mat (mm)	
	Soil type of seedling mat	
	Root length (mm)	
Condition of Field	Shape	
	Area (L x W), m ²	
	Soil Type	
	Soil surface hardness (Cone depth, mm) (Drop cone test)	
	Depth of hard pan (mm)	
	Depth of water during transplanting (mm)	
	Qualitative assessment (leveling, stubble)	
Performance of the Machine	Average operating speed (m/s)	
	Theoretical field capacity (ha/h)	
	Actual field capacity (ha/h)	
	Field efficiency (%)	
	Fuel Consumption (l/ha ,g/ha)	
	Wheel Slippage (%)	
Planting quality	Distance between hills (mm)	
	Coefficient of Variation of distance between hills	
	Depth of planting (mm)	
	Coefficient of Variation of depth of planting	
	No of Seedlings per hill	
	Coefficient of Variation of seedlings per hill	
	Standing angle of planting	
	No. of hills per m ²	
	Percentage of Missing hills	
	Percentage of Floating hills	
	Percentage of Buried hills	
	Percentage of Damaged hills	
	Effective working width (m)	

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Test 03		
General Data	Date	
	Location	
Condition of Seedlings	Age of seedlings	
	Variety	
	Plant density (No. of plants per cm ²)	
	Leaf stage (No. of leaves)	
	Height of seedlings (mm)	
	Thickness of seedling mat (mm)	
	Soil type of seedling mat	
	Root length (mm)	
Condition of Field	Shape	
	Area (L x W), m ²	
	Soil Type	
	Soil surface hardness (Cone depth, mm) (Drop cone test)	
	Depth of hard pan (mm)	
	Depth of water during transplanting (mm)	
	Qualitative assessment (leveling, stubble)	
Performance of the Machine	Average operating speed (m/s)	
	Theoretical field capacity (ha/h)	
	Actual field capacity (ha/h)	
	Field efficiency (%)	
	Fuel Consumption (l/ha ,g/ha)	
	Wheel Slippage (%)	
Planting quality	Distance between hills (mm)	
	Coefficient of Variation of distance between hills	
	Depth of planting (mm)	
	Coefficient of Variation of depth of planting	
	No of Seedlings per hill	
	Coefficient of Variation of seedlings per hill	
	Standing angle of planting	
	No. of hills per m ²	
	Percentage of Missing hills	
	Percentage of Floating hills	
	Percentage of Buried hills	
	Percentage of Damaged hills	
	Effective working width (m)	

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5. Remarks and Suggestions

Signature of test engineer
Address:

Signature of Head of Testing Station
Address:

Date:
Official seal/stamp of the testing station



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