



FORCE MOTORS, OX25 ORCHARD Mini TRACTOR



भारत सरकार

GOVERNMENT OF INDIA

कृषि मंत्रालय (कृषि एवं सहकारिता विभाग, मशीनीकरण एवं प्रोद्योगिकी प्रभाग)
Ministry of Agriculture (Deptt. of Agri. & Co-op, Mechanization & Technology Division)

केन्द्रीय कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान

CENTRAL FARM MACHINERY TRAINING & TESTING INSTITUTE

(An ISO : 9001-2008 Certified Institute)

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T-903/1418/2014

**FORCE MOTORS, OX25 ORCHARD Mini TRACTOR
- Commercial (Initial)**

Manufacturer	: M/s. Force Motors Ltd. Mumbai - Pune Road Akurdi, Pune- 411 035
Test requested by (applicant)	: By the manufacturer
Selected for test by	: Applicant
Place of running-in	: At applicant's works
Duration of said running-in (h):	
- Engine	: 33
- Transmission	: 33
METHOD OF SELECTION	: The tractor was submitted directly by the applicant for test. Hence method of selection is not known.

1 SPECIFICATIONS

1.1 Tractor:	
Make	: M/s. Force Motors Ltd.
Model	: OX 25 ORCHARD Mini
Type	: Four wheeled, rear wheel drive, unit construction, general purpose agricultural tractor.
Year of manufacture	: 2013
Chassis number	: T24000001A13
Serial number	: N.A
Country of Origin	: INDIA
1.2 Engine:	
Make	: M/s Force Motors Ltd.
Model	: TD 1950 F 27
Type	: Water cooled, four stroke, naturally aspirated, direct injection diesel engine.
Serial number	: D 10 023534
Year of manufacture	: 2013
Engine speed (Manufacturer's recommended production setting):	
- Maximum speed at no load, (rpm)	: 2400 to 2500
- Low idle speed, (rpm)	: 700 to 750
- Speed at max. torque, (rpm)	: 1300 to 1500
Rated speed, (rpm):	
- For PTO use	: For 540 PTO Rated engine RPM 1985 For 1000 PTO Rated engine RPM 1840
- For drawbar use	: 2200
1.3 Cylinder & Cylinder Head:	
Number	: Three
Disposition	: Inline, vertical
Bore/stroke, (mm)	: 90.9/100
Capacity as specified by the applicant, (cc)	: 1947
Compression ratio, (apa)	: 18.3 : 1 to 18.8 : 1
Type of cylinder head	: Monoblock
Type of cylinder liners	: Dry, Replaceable
Type of combustion chamber	: Direct combustion, open cavity on piston crown, Hemisth
Arrangement of valves	: Overhead, Inline



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Rated speed, (rpm):	
- For PTO use	: For 540 PTO Rated engine RPM 1985 For 1000 PTO Rated engine RPM 1840
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Arrangement of valves	: Overhead, Inline

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14.5 Front axle:

Any marked wear of king pins	: None	Against discard limit of 0.75 mm
Any marked wear of king pin bushes	: None	
Clearance between king pins and bushes, (mm)	: 0.079 to 0.099	Against discard limit of 0.75 mm
Condition of thrust bearings	: Normal	
Condition of bearings for stub axles	: Normal	
Condition of seals for stub axles and king pins	: Normal	
Clearance between centre pin and Bush, (mm)	: 0.144 to 0.148	Against discard limit of 0.75 mm

14.6 Steering system:

Visual condition of the components of complete steering assembly : Normal

14.7 Starter motor & Alternator:
 Presence of soil/oil in housing : None
 Condition of bearings and other components : Normal

15. ADJUSTMENTS, DEFECTS, BREAKDOWNS AND REPAIRS

Sl.No.	Adjustments/ Defects/ Breakdowns / Repairs	Tractor run hours
1.	The Tiers were worn out after the drawbar test and replaced by new one.	32.87

16. SUMMARY OF OBSERVATIONS, COMMENTS & RECOMMENDATIONS

16.1 Evaluative (mandatory) / Non-evaluation (Non-mandatory) parameter applicable for qualifying Minimum Performance criteria as per Clause-4 (Table-1) of IS: 12207-2008 for as under:

S. No.	Characteristic	Category (Evaluative/ Non Evaluative)	Requirements as per IS: 12207-2008	Values declared by the applicant (D)/ Requirement (R)	As observed	Whether meets the requirements (Yes/No.)
1	2	3	4	5	6	7
16.1.1	PTO Performance :					
a)	-Maximum power under 2 h test, (kW) (Natural ambient condition)	Evaluative	Declared value to be achieved with a tolerance of: - 5/ +10 % for PTO power >35 hp, -7.5/+10% for PTO power ≤ 35 hp	18.0 (D)	17.1	Yes
b)	Power at rated engine speed, (kW)	Non Evaluative	-do-	18.0 (D)	17.1	Yes
c)	Specific fuel consumption corresponding to maximum power, (g/kWh)	Non Evaluative	± 5%	260 (D)	265	Yes
d)	Maximum equivalent crankshaft torque, (Nm)	Non Evaluative	± 8%	100 (D)	86.7	No

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1	2	3	4	5	6	7
e)	Back-up torque, percent	Non Evaluative	7 percent, min.	20 (D)	14.5	Yes
f)	Maximum operating temperature (°C)					
	1) Engine oil	Non Evaluative	The declared value should not exceed the max. value specified by the oil company and the observed value under high ambient condition should not exceed the declaration.	130 (D)	104	Yes
	2) Coolant (water)	Evaluative	The declared value should not exceed the boiling temperature of coolant under the pressurized or otherwise and the observed value under high ambient condition should not exceed the declaration.	110 (D)	92	Yes
g)	Engine oil consumption, (g/kWh)	Evaluative	Not exceeding 1% of SFC at max. power under High ambient conditions	2.5 (D)	0.62	Yes
h)	Smoke level	Evaluative	Maximum light absorption coefficient of 3.25 per metre or equivalent BOSCH No. 5.2 or 75 Hatridge value (As per CMVR)	3.25 per meter (R)	0.61 per meter	Yes

16.1.2 Drawbar performance :

a)	Maximum drawbar pull with ballast corresponding to 15 percent wheel slip, (kN)	Non Evaluative	Minimum 65% of static mass with ballast	9.30 (D)	10.70	Yes
				9.341 (R)		
b)	Maximum drawbar pull without ballast corresponding to 15 percent wheel slip, (kN)	Evaluative	Minimum 65% of static mass of tractor without ballast	8.0 (D)	9.32	Yes
				8.86 (R)		
c)	Maximum drawbar power without ballast, (kW).	Evaluative	Min. 80% of PTO power as referred in 16.1.1(a) of PTO performance	14.4 (D)	14.4	Yes
				13.68 (R)		
d)	Maximum transmission oil temperature (°C)	Non Evaluative	The declared value should not exceed the maximum value specified by oil company	130 (D)	100	Yes

16.1.3 Power lift and hydraulic pump performance :

a)	Maximum lifting capacity throughout the range of lift, (kN):			9.80 (D)	10.21	Yes
	[Tolerance of minus 10%]					
	1) At hitch points	Non Evaluative		7.0 (D)	6.45	Yes
	2) With the standard frame	Evaluative	The lift capacity should at least be 18 kg/PTO hp. and it should be 16 kg/engine hp where the tractor is not provided with a PTO shaft	4.04 (R)		
b)	Maximum drop in the height of the point of application of the force after each 5 minutes interval for a total duration of 30 minute, (mm)	Non Evaluative	[Tolerance of plus 5 mm]	Nil (D)	NIL	Yes
				50 (R)		



1	2	3	4	5	6	7
16.1.4	Brake performance at 25 kmph:					
a)	Maximum stopping distance at a force, equal to or less than 600 N on brake pedal with road ballast, (m):					
1)	Cold brake	Evaluative	10	10 (R)	6.2	Yes
2)	Hot brake	Evaluative	10	10 (R)	6.5	Yes
b)	Maximum force exerted on the brake pedal to achieve a deceleration of 2.5 m/s ² (N)	Evaluative	600	600 (R)	230 to 235	Yes
c)	Whether parking brake is effective at a force of 600 N at foot pedal(s) or 400 N at hand lever	Evaluative	Yes / No	Yes (R)	Yes	Yes
16.1.5	Noise measurement :					
a)	Maximum ambient noise emitted by the tractor dB(A)	Evaluative	As per CMVR	88 (R)	84	Yes
b)	Maximum noise at operator's ear level dB(A)	Evaluative	As per CMVR	98 (R)	90	Yes
16.1.6	Amplitude of mechanical vibrations at :					
1)	Left foot rest	Non Evaluative	100 microns (max)	100 (R)	130	No
2)	Right foot rest			100 (R)	90	Yes
3)	Seat (with driver seated)			100 (R)	90	Yes
4)	Steering wheel			100 (R)	100	Yes
16.1.7	Haulage requirements :					
a)	Gross mass of the trailers, (tones):					
1)	Two wheel	Non Evaluative	--	2.0 (D)	2.0	Yes
b)	Distance travelled / liter of fuel consumption, (km/l):					
1)	Two wheel	Non Evaluative	--	N.A (D)	6.62 to 7.35	--
c)	Fuel consumption (ml/km/tonne):					
1)	Two wheel	Non Evaluative	--	N.A (D)	68.0 to 75.56	--
16.1.8	Wetland cultivation :					
	Sealing for the following assemblies:	Evaluative	The identified assemblies should essentially meet the requirement of IS: 11082. No water ingress in the identified assembly given in column-2. If tractor does not meet the requirements of wetland cultivation, it may be recommended for dry land operation only.	The manufacturer has recommended that the tractor is not suitable for wetland cultivation (Puddling operation).	Not recommended	--
1)	Clutch assembly	-do-				
2)	Brake housings	-do-				
3)	Front axle hubs	-do-				



1	2	3	4	5	6	7
16.1.9	Safety features :					
a)	Guards against moving and hot parts	Evaluative	As per CMVR	At present no requirements	Provided	Yes
b)	Lighting arrangement	Evaluative	As per CMVR	--	Provided	Yes
16.1.10	Labelling of tractors (Provision of labelling plate):					
1)	Make	Evaluative	Should conform to the requirements of CMVR along with declared value of PTO HP	--	Force Motors	Yes
2)	Model	Evaluative		--	OX 25	Yes
3)	Year of manufacture	Evaluative		--	ORCHARD Mini	Yes
4)	Engine number	Evaluative		--	2013	Yes
5)	Chassis number	Evaluative		--	D10023534	Yes
6)	Declaration of PTO power, (kW)	Evaluative		--	T24000001A13	Yes
16.1.11	Discard limit for:					
(a)	Cylinder bore diameter, (mm)	Evaluative	To be specified by the manufacturer	91.128	90.94	Yes
(b)	Clearance between piston & cylinder liner at skirt, (mm)	Evaluative		0.120	0.068 to 0.077	Yes
(c)	Ring end gap (mm):					
-	Top comp. ring.	Evaluative	--do--	1.50	0.35 to 0.40	Yes
-	2 nd comp. ring.			1.50	1.00 to 1.05	Yes
-	Oil ring.			1.50	0.40 to 0.45	Yes
(d)	Ring groove clearance (mm):					
-	Top comp. ring.	Evaluative	-do-	0.20	0.136 to 0.139	Yes
-	2 nd comp. ring.			0.15	0.079 to 0.085	Yes
-	Oil ring.			0.10	0.043 to 0.056	Yes
(e)	Clearance of main bearings (mm):					
-	Diametrical clearance	Evaluative	-do-	0.24	0.122 to 0.134	Yes
-	Crankshaft end float	Evaluative	--do--	0.50	0.14	Yes
(f)	Clearance of big end bearings, (mm):					
-	Diametrical	Evaluative	-do-	0.24	0.084 to 0.106	Yes
-	Axial	Evaluative	-do-	0.24	0.20	Yes
(g)	Clearance between king pin and bush, (mm)	Non Evaluative	-do-	0.75	0.079 to 0.099	Yes
(h)	Clearance between center pin and bush, (mm)	Non Evaluative	-do-	0.75	0.144 to 0.148	Yes



16.1.12 CATEGORY OF BREAKDOWNS / DEFECTS :					
Sl. No.	Characteristic	Category (Evaluative / Non Evaluative)	Requirements as per IS: 12207-2008	As observed	Whether meets the requirements (Yes/No.)
1.	Critical	Evaluative	No critical breakdown	None	Yes
2.	Major	Evaluative	Not more than two and neither of them should be repetitive in nature.	None	Yes
3.	Minor	Evaluative	Not more than five and frequency of each should not be more than two.	None	Yes
4.	Total breakdowns	Evaluative	In no case, the total number of breakdowns should exceed five, that is, (2 major + 3 minor) or 5 minor breakdowns.	None	Yes

16.2 Optional requirements as per Clause-4 (Table-2) of IS:12207-2008:				
S. No.	Characteristic	Requirements as per IS: 12207-2008	As observed	Whether meets the requirements (Yes/No.)
1	2	3	4	5
1	Maximum air cleaner oil pull over, (%)	0.25% (max.)	Dry air cleaner provided	Not applicable
2.	Seating requirements	Should meet the requirements of IS: 12343-1998	The rear track width of tractor is less than 1150 mm.	Not applicable
3.	Fitment of ROPS	With a provision for fitment of ROPS. If ROPS fitted it should meet the requirement of IS: 11821-1992.	Not provided	No
4.	Technical requirements for PTO shaft	Should meet the requirements of IS: 4931 -1995	Does not meet the requirement	No
5.	Dimensions of three point linkage	Should meet the requirements of IS: 4468 (Part-I)-1997	Does not meet the requirement	No
6.	Specifications of linkage drawbar	Should meet the requirements of IS: 12953-1990	Meets the requirement	Yes
	Specifications of swinging drawbar	Should meet the requirements of IS:12362 Part 3-1994.	Not provided	Not applicable
7.	Accessories	Trailer hitch, front tow hook, linkage draw bar may be provided.	Provided	Yes

- 16.3 Conformity with following IS:**
- i) Guide lines for declaration of power and specific fuel consumption and labeling of agricultural tractors (First revision) [IS 10273:1987 (Reaffirmed March 2009)]. : **Conforms**
 - ii) Agricultural tractors – Rear mounted power take-off - Types 1, 2 and 3(third revision)[IS: 4931-1995 (Reaffirmed in March 2009)]. : **Does not conform**
 - iii) Agricultural wheeled tractors - Rear mounted three-point linkage: Part 1 Categories 1, 2, 3 & 4 (fourth revision) [IS 4468(Part-I):1997/ISO 730-1:1994 (Reaffirmed in March 2009/ISO 730-1:1994)]. : **Conforms**

- iv) Drawbar for agricultural tractors – Link type [IS 12953:1990 (Reaffirmed in March 2007)]. : **Conforms**
- v) Agricultural tractors - Operator's seat technical requirement [IS 12343 -1998 (First revision) (reaffirmed in March 2009)]. : **Not applicable as the rear track width of tractor is less than 1150 mm.**
- vi) Guide for safety & comfort of operator of agricultural tractors: Part 1 General requirements (first revision) :[IS 12239 (PT-1)-1996 (Reaffirmed in March, 2007)]/ISO 4254-1:1989] : **Does not conform**
- vii) Tractors and machinery for agriculture and forestry – Technical means for ensuring safety Part 2: Tractors (first revision) (IS 12239 (PT-2) 1999). : **Does not conform**
- viii) Guide lines for location and operation of operator controls on agricultural tractors and machinery (first revision) (IS: 8133 - 1983) : **Conforms**
- ix) Tractors and machinery for agriculture and forestry, powered lawn and garden equipment – Symbols for operator controls and other displays [IS: 6283 (Part-1 & Part-2) -1998/ ISO 3767-2:1991]] : **Does not conform**
- x) Agricultural Tractor & Machinery Lighting device for travel on public roads (IS: 14683-1999) : **Conforms**

- 16.4 Salient Observations:**
- 16.4.1 Laboratory tests:**
- 16.4.1.1 PTO Performance:**
- i) The backup torque is **14.5 %**.
 - ii) The specific fuel consumption corresponding to maximum power was measured as **265 g/kWh** against the declared value of **260 g/kWh** which is within the tolerance limit of IS: 12207-1999.
 - iii) The maximum equivalent crankshaft torque was observed as **86.7 Nm** which is **13.3 %** less than the declaration of **100.0 Nm** and does not meet the requirements of IS:12207-2008. This should be looked into for necessary corrective action.
 - iv) The drop in maximum power in high ambient condition in compared to natural ambient condition was recorded as **8.2 %** which is considered on higher side .This should be looked into.
- 16.4.1.2 Drawbar Performance:**
During drawbar performance test ,the creeping of rear tyre over rim was observed as 05 mm & NIL mm in LHS & RHS tyre respectively, which is on higher side and calls for necessary corrective action
- 16.4.1.3 Hydraulic performance:**
The maximum lifting capacity at standard frame throughout the range of lift was observed as 6.45 kN and the moment about the rear axle was computed as 8.77 kN-m, which is considered on higher side as compared to the moment from front axle i.e. 9.2 kN-m. It is therefore, recommended that the lifting capacity of the hydraulic system may be reduced suitably or standard ballast mass at front axle may be provided to avoid front lifting of the tractor.



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16.1.12 CATEGORY OF BREAKDOWNS / DEFECTS :					
Sl. No.	Characteristic	Category (Evaluative / Non Evaluative)	Requirements as per IS: 12207-2008	As observed	Whether meets the requirements (Yes/No.)
1.	Critical	Evaluative	No critical breakdown	None	Yes
2.	Major	Evaluative	Not more than two and neither of them should be repetitive in nature.	None	Yes
3.	Minor	Evaluative	Not more than five and frequency of each should not be more than two.	None	Yes
4.	Total breakdowns	Evaluative	In no case, the total number of breakdowns should exceed five, that is, (2 major + 3 minor) or 5 minor breakdowns.	None	Yes

16.2 Optional requirements as per Clause-4 (Table-2) of IS:12207-2008:				
S. No.	Characteristic	Requirements as per IS: 12207-2008	As observed	Whether meets the requirements (Yes/No.)
1	2	3	4	5
1	Maximum air cleaner oil pull over, (%)	0.25% (max.)	Dry air cleaner provided	Not applicable
2.	Seating requirements	Should meet the requirements of IS: 12343-1998	The rear track width of tractor is less than 1150 mm.	Not applicable
3.	Fitment of ROPS	With a provision for fitment of ROPS.	Not provided	No
		If ROPS fitted it should meet the requirement of IS: 11821-1992.	Not provided	Not applicable
4.	Technical requirements for PTO shaft	Should meet the requirements of IS: 4931 -1995	Does not meet the requirement	No
5.	Dimensions of three point linkage	Should meet the requirements of IS: 4468 (Part-I)-1997	Does not meet the requirement	No
6.	Specifications of linkage drawbar	Should meet the requirements of IS: 12953-1990	Meets the requirement	Yes
	Specifications of swinging drawbar	Should meet the requirements of IS:12362 Part 3-1994.	Not provided	Not applicable
7.	Accessories	Trailer hitch, front tow hook, linkage draw bar may be provided.	Provided	Yes

- 16.3 Conformity with following IS:
- i) Guide lines for declaration of power and specific fuel consumption and labeling of agricultural tractors (First revision) [IS 10273:1987 (Reaffirmed March 2009)]. : Conforms
 - ii) Agricultural tractors – Rear mounted power take-off - Types 1, 2 and 3(third revision)[IS: 4931-1995 (Reaffirmed in March 2009)]. : Does not conform
 - iii) Agricultural wheeled tractors - Rear mounted three-point linkage: Part 1 Categories 1, 2, 3 & 4 (fourth revision) [IS 4468(Part-I):1997/ISO 730-1:1994 (Reaffirmed in March 2009/ISO 730-1:1994)]. : Conforms



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- iv) Drawbar for agricultural tractors – Link type [IS 12953:1990 (Reaffirmed in March 2007)]. : Conforms
- v) Agricultural tractors - Operator's seat technical requirement [IS 12343 –1998 (First revision) (reaffirmed in March 2009)]. : Not applicable as the rear track width of tractor is less than 1150 mm.
- vi) Guide for safety & comfort of operator of agricultural tractors: Part 1 General requirements (first revision) :[IS 12239 (PT-1)-1996 (Reaffirmed in March, 2007)]/ISO 4254-1:1989] : Does not conform
- vii) Tractors and machinery for agriculture and forestry – Technical means for ensuring safety Part 2: Tractors (first revision) (IS 12239 (PT-2) 1999). : Does not conform
- viii) Guide lines for location and operation of operator controls on agricultural tractors and machinery (first revision) (IS: 8133 – 1983) : Conforms
- ix) Tractors and machinery for agriculture and forestry, powered lawn and garden equipment – Symbols for operator controls and other displays [IS: 6283 (Part-1 & Part-2) –1998/ ISO 3767-2:1991]] : Does not conform
- x) Agricultural Tractor & Machinery Lighting device for travel on public roads (IS: 14683-1999) : Conforms

16.4 Salient Observations:

16.4.1 Laboratory tests:

16.4.1.1 PTO Performance:

- i) The backup torque is 14.5 %.
- ii) The specific fuel consumption corresponding to maximum power was measured as 265 g/kWh against the declared value of 260 g/kWh which is within the tolerance limit of IS: 12207-1999.
- iii) The maximum equivalent crankshaft torque was observed as 86.7 Nm which is 13.3 % less than the declaration of 100.0 Nm and does not meet the requirements of IS:12207-2008. This should be looked into for necessary corrective action.
- iv) The drop in maximum power in high ambient condition in compared to natural ambient condition was recorded as 8.2 % which is considered on higher side .This should be looked into.

16.4.1.2 Drawbar Performance:

During drawbar performance test ,the creeping of rear tyre over rim was observed as 05 mm & NIL mm in LHS & RHS tyre respectively, which is on higher side and calls for necessary corrective action

16.4.1.3 Hydraulic performance:

The maximum lifting capacity at standard frame throughout the range of lift was observed as 6.45 kN and the moment about the rear axle was computed as 8.77 kN-m, which is considered on higher side as compared to the moment from front axle i.e. 9.2 kN-m. It is therefore, recommended that the lifting capacity of the hydraulic system may be reduced suitably or standard ballast mass at front axle may be provided to avoid front lifting of the tractor.



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The amplitude of mechanical vibration on various assemblies marked as (*) in chapter-8 of this test report is on higher side, especially at the steering control wheel, foot rest & operator's seat. This calls for dampening down of vibrations to improve the comfort and service life of components.

16.4.1.5 Three point linkage :

i) Some of the parameters of three point linkage conforms to cat-I and some of them conforms to cat-II keeping in view the spirit of standardization necessary improvements may be incorporated.

16.4.1.6 Specifications of PTO Shaft:

The dimension "B?" of the power take off shaft does not meet the requirements of IS: 4931-1995 (Reaffirmed in 2009) and calls for necessary corrective action.

16.4.1.7 Symbol for operator's control and other displays :

- i) The turn signals (left-right), Oil lubricant type and frequency & grease lubricant frequency, Fuel level (1/4, 1/2, 3/4) and hand brake are not identified with the symbols as per 6283:(part I & II)-1998. This should be looked into for corrective action.
- ii) The color code for engine revolution gauge has not been provided as per 6283 :(part I & II)-1998. This should be looked into for necessary corrective action.

16.4.2 Field performance test:**16.4.2.1 Wetland cultivation (Puddling operation):**

The manufacturer has recommended that the tractor is not suitable for wetland cultivation (puddling operation). Hence, the wetland cultivation (puddling operation) was not conducted. **Therefore, the declaration of the fact that the tractor is not suitable for Wetland cultivation (Puddling operation) should be mentioned clearly and boldly in all the literature relevant to this tractor model.**

16.5 Maintenance/Service Problems:

Rear tyres were replaced by new after 32.87 working hours.

16.6 Recommendation with regard to safety on tractor:

The following requirements, inter alia, may be considered for incorporation on the tractor:

- i) Provision for spark arresting device in exhaust system
- ii) The working clearance around the external circuit lever of hydraulic system and mud guard should be provided as per relevant Indian Standard.
- iii) Provision of power take-off master shield.

16.7 Adequacy of Literature supplied with machine:

The following literature has been supplied by manufacturer for reference during the test.

- a) Operation & maintenance Owner's manual
- b) Spare part's catalogue
- c) Workshop manual

16.7.2 The revised literature supplied by the applicant was found adequate. However, these literatures may also be brought out in national as well as other regional languages.

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FORCE MOTORS, OX25 ORCHARD Mini TRACTOR
- Commercial (Initial)**17. Citizen charter**

Duration of Test	Test duration under citizen charter	Whether the report released within time frame given citizen charter	Remark, if any
10 Months	9 Months (April, 2013 to December, 2013)	Yes	None

TESTING AUTHORITY:

H.L. YADAV
SENIOR AGRICULTURAL ENGINEER

C.R. LOHI
DIRECTOR

Test Report compiled by **Pratyush Satya**, Senior Technical Assistant

18. APPLICANT'S COMMENTS

Para No.	Our Reference	Applicant's comments
18.1	1.14.1	We will ensure dimensional conformance in series production.
18.2	1.20.4 (ii), 16.3 (ii)	We will provide PTO master shield on PTO shaft in series production.
18.3	1.20.5 (ii)	The error in the working clearance around the tripping PTO lever & mud guard could be only manufacturing error and this will be taken care in series production.
18.4	16.2 (4)	We will ensure dimensional conformance in series production.
18.5	16.2 (5)	We have noted the point and care will be taken to establish the compliance.