



**ESCORTS LIMITED, FARMTRAC 60 SMPS TRACTOR**



भारत सरकार  
कृषि मंत्रालय  
(कृषि एवं सहकारिता विभाग)

GOVERNMENT OF INDIA  
MINISTRY OF AGRICULTURE  
(DEPARTMENT OF AGRICULTURE & CO-OPERATION)

केन्द्रीय कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान  
ट्रैक्टर नगर, बुदनी (म.प्र.) ४६६ ४४५

CENTRAL FARM MACHINERY TRAINING & TESTING INSTITUTE  
TRACTOR NAGAR, BUDNI (M.P.) - 466 445

E-mail : [fmti-mp@nic.in](mailto:fmti-mp@nic.in)

Web site : [cfmtti.dacnet.nic.in](http://cfmtti.dacnet.nic.in)

Telephone : 07564-234729

Fax : 07564-234743



**Manufacturer** : M/s. Escorts Limited  
 Plot No 2 & 3, Sector 13  
 Faridabad-121007, Haryana

**Test requested by** : M/s. Escorts Limited,  
 15/5, Mathura Road  
 Faridabad -121007, Haryana

**Place of running-in** : At Applicant's works

**Duration of said running-in, (h):**

- Engine : 20

- Transmission : 30

**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** : Escorts Limited

**Model** : Farmtrac – 60 SMPS

**Variants, If any \*** :

S No.	Variant model	Variant Features
1.	FARMTARC 60 SM	Mechanical Steering, 14.9 x 28 rear tyre.
2.	FARMTRAC 60 AMPS	13.6 x 28 rear tyre, Dry disc Brake.
3.	FARMTRAC 6050	Single Clutch, oil immersed Brake, New styling.
4.	FARMTRAC 6050 E1	With improved PTO power, New styling, side shift gear.
5.	FARMTRAC 60 VM	Dry disc brake, Single Clutch, 13.6x 28 rear tire.
6.	FARMTRAC 60 EPI SMPS	Dual Clutch, Epicyclic Reduction, Power steering, 14.9 x 28 rear tire, oil immersed Brake.
7.	FARMTRAC 60 EPI	With modified muffler & Spark arrester with change in backpressure & Exhaust routing.
8.	FARMTRAC 6050 4WD	With 4WD, 14.9 x28 rear tyre size, Oil immersed Brakes, Power steering, New styling.
9.	FARMTRAC 6050 EPI 4WD	With Epicyclic Back end & 4WD, New Styling
10.	FARMTRAC 6050 IM	With dry disc brake, single clutch, Mechanical steering, without Hydraulic lift.

\*The variant models are declared by the manufacturer during the testing and yet to be tested at this Institute.

**Type** : Four wheeled, rear-wheel driven, general purpose, agricultural tractor.

**Year of manufacture** : 2011

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- Chassis number : T-2206179
- Country of origin : India
- 1.2 Engine:**
  - Make : Escorts Limited
  - Model : AF 3.344F-3A
  - Type : Four stroke, naturally aspirated, water cooled, direct injection, diesel engine.
  - Serial number : E - 2209353
- 1.2.1 Engine speed(Manufacturer's recommended production setting), (rpm):**
  - Maximum speed at no load : 2150 to 2250
  - Low idle speed : 600 to 700
  - Speed at maximum torque : 1000 to 1200
- Rated speed, (rpm):**
  - For PTO use : 1850
  - For drawbar use : 1850
- 1.3 Cylinder & Cylinder Head:**
  - Number : Three
  - Disposition : Vertical, Inline
  - Bore/stroke, (mm) : 111.76/117
  - Capacity as specified by the applicant, (cc) : 3440
  - Compression ratio : 18.0 ± 5% : 1
  - Type of cylinder head : Monoblock
  - Type of cylinder liners : Dry, non replaceable
  - Type of combustion chamber : Direct injection, open chamber on piston crown.
  - Arrangement of valves : Overhead, inline
  - Valve clearance (cold):**
    - Inlet valve (mm) : 0.40
    - Exhaust valve (mm) : 0.60
- 1.4 Fuel System:**
  - Type of fuel feed system : Gravity and force feed
- 1.4.1 Fuel tank:**
  - Capacity. (l) : 59.0
  - Location : Above clutch housing
  - Provision for draining of sediments/ water : Not provided, however a water separator is provided
  - Material of fuel tank : M.S. sheet
- 1.4.2 Water Separator:**
  - Make : Dhiman
  - Type : Inverted funnel gravity separation.
  - Location : In between fuel tank & fuel feed pump
  - Capacity (l) : 0.45

**15.6 Steering system:**

Visual condition of the components of : Normal  
complete steering assembly

**15.7 Starter motor & Alternator:**

Presence of soil/oil in housing : None  
Condition of bearings and other : Normal  
components

**16. ADJUSTMENTS, DEFECTS, BREAKDOWNS AND REPAIRS**

Sl. No.	Adjustments/Defects/Breakdowns and Repairs	Tractor run hours
1	Frequent disengaging of PTO drive engaging lever was observed. The problem was due to wrong labelling of notations/sticker for the lever resulting in wrong engagement of position of the PTO engaging lever.	75.4
2	The applicant requested for labelling of correct sticker for PTO engaging lever for proper guidance to the operator. A sticker indicating ground PTO drive/ neutral position/ direct PTO drive for the PTO engaging lever was labelled on transmission housing.	81.8

**17. SUMMARY OF OBSERVATIONS, COMMENTS & RECOMMENDATIONS**

17.1 Evaluative (mandatory) / Non-evaluative (Non-mandatory) parameter applicable for qualifying Minimum Performance criteria as per Clause-4 (Table-1) of IS: 12207-2008 for acceptance of the tractor for the purpose of subsidies/NABARD financing are summarized as under:

Sl. 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
17.1.1	<b>PTO Performance :</b>					
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 >35hp. -7.5/+10% for PTO power ≤ 35 hp	32.3 (D)	31.6	Yes
b)	Power at rated engine speed, (kW)	Non Evaluative	-do-	32.3 (D)	31.6	Yes
c)	Specific fuel consumption corresponding to maximum power, (g/kWh)	Non Evaluative	± 5%	265 (D)	256	Yes
d)	Maximum equivalent crankshaft torque, (Nm)	Non Evaluative	± 8%	205.9 (D)	192.5	Yes
e)	Back-up torque, percent	Non Evaluative	10 percent, min.	7.0 (D)/ 10% (R)	17.8	Yes



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1	2	3	4	5	6	7	
f)	<b>Maximum operating temperature, (°C)</b>						
	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)	118	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)	96	Yes
g)	Engine oil consumption, (g/kWh)		Evaluative	Not exceeding 1% of SFC at max. power under High ambient conditions	2.64 (R)	0.33	Yes
h)	Smoke level		Evaluative	<b>Maximum light absorption coefficient of 3.25 per metre or equivalent BOSCH No. 5.2 or 75 Hatridge value (As per CMVR)</b>	3.25 per metre (R)	0.40	Yes
<b>17.1.2 Drawbar performance :</b>							
a)	Maximum drawbar pull with ballast corresponding to 15 percent wheel slip, (kN)		Non Evaluative	Minimum 65% of static mass with ballast	17.77 (R) 17.33 (D)	21.72	Yes
b)	Max. drawbar pull without ballast corresponding to 15 percent wheel slip, (kN)		Evaluative	Minimum 65% of static mass of tractor without ballast	13.39 (R) 12.93 (D)	16.70	Yes
c)	Maximum drawbar power without ballast, (kW)		Evaluative	Min. 80% of PTO power as referred in 16.1.1 (a) of PTO performance	25.3 (R) 25.8 (D)	27.2	Yes
d)	Maximum transmission oil temperature (°C)		Non Evaluative	The declared value should not exceed the maximum value specified by oil company	125 (D)	102	Yes
<b>17.1.3 Power lift and hydraulic pump performance :</b>							
a)	Maximum lifting capacity throughout the range of lift, (kN):						
	1)	At hitch points	Non Evaluative	[Tolerance of minus 10%]	14.70 (D)	13.40	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	7.58 (R) (Minimum) 7.85 (D)	10.98	Yes

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1 b)
17.1.4 a)
b)
c)
17.1.5 a)
b)
17.1.6
17.1.7 a)
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1	2	3	4	5	6	7
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 Minutes. (mm)	Non Evaluative	[Tolerance of plus 5 mm]	50 (R)	12	Yes
<b>17.1.4 Brake performance at 25 kmph:</b>						
a)	Maximum stopping distance at a force, equal to or less than 600 N on brake pedal with unballasted. (m):					
1)	Cold brake	Evaluative	10	10 (R)	5.10	Yes
2)	Hot brake	Evaluative	10	10 (R)	6.50	Yes
b)	Maximum force exerted on the brake pedal to achieve a deceleration of 2.5 m/s <sup>2</sup> (N)	Evaluative	600	600 (R)	235 to 290	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
<b>17.1.5 Noise measurement :</b>						
a)	Maximum ambient noise emitted by the tractor dB(A)	Evaluative	As per CMVR	88 (R)	82	Yes
b)	Maximum noise at operator's ear level dB(A)	Evaluative	As per CMVR	98 (R)	94	Yes
<b>17.1.6 Amplitude of mechanical vibrations at :</b>						
1)	Left foot rest	Non Evaluative	100 microns (max)	100 (R)	40	Yes
2)	Right foot rest				60	Yes
3)	Seat (with driver seated)				60	Yes
4)	Steering Wheel				90	Yes
<b>17.1.7 Haulage requirements :</b>						
a)	Gross mass of the trailers. (tones):					
1)	Two wheel	Non Evaluative	--	5.0 (D)	5.0	Yes
2)	Four wheel		--	6.0 (D)	6.0	Yes



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1	2	3	4	5	6	7
<b>b)</b>	Distance travelled / litre of fuel consumption, (km/l):					
	1) Two wheel	Non	--	5.0 to 6.5 (D)	6.36 to 6.75	Yes
	2) Four wheel	Evaluative		5.0 to 6.5 (D)	5.96 to 6.02	Yes
<b>c)</b>	Fuel consumption (ml/km/tonne):					
	1) Two wheel	Non	--	30 to 35 (D)	29.6 to 31.4	Yes
	2) Four wheel	Evaluative	--	30 to 35 (D)	27.7 to 28.0	Yes
<b>17.1.8</b>	<b>Wetland cultivation :</b>					
	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.	There should be no ingress of water and/or mud	No ingress of mud and / or water was observed	Yes
	1) Clutch assembly	-do-				
	2) Brake housings	-do-				
	3) Front axle hubs	-do-				
<b>17.1.9</b>	<b>Safety features :</b>					
<b>a)</b>	Guards against moving and hot parts	Evaluative	As per CMVR	At present no requirements	provided	Yes
<b>b)</b>	Lighting arrangement	Evaluative	As per CMVR	--	Provided	Yes
<b>17.1.10</b>	<b>Labelling of tractors (Provision of labelling plate):</b>					
	1) Make	Evaluative	Should conform to the requirements of CMVR along-with declared value of PTO HP	--	Escorts limited	Yes
	2) Model	Evaluative		--	Farmtrac 60 SMPS	Yes
	3) Year of manufacture	Evaluative		--	11E10B ( 2011, May 10 <sup>th</sup> B-Shift)	Yes
	4) Engine number	Evaluative		--	E-2209353	Yes
	5) Chassis number	Evaluative		--	T-2206179	Yes
	6) Declaration of PTO power, (kW)	Evaluative		--	32.3 (43.9)	Yes
<b>17.1.11</b>	<b>Discard limit for:</b>					
<b>(a)</b>	Cylinder bore diameter, (mm)	Evaluative	To be specified by the manufacturer	112.071 for 1 <sup>st</sup> grading & 112.123 for 5 <sup>th</sup> grading	111.76 to 111.79	Yes
<b>(b)</b>	Clearance between piston & cylinder liner at skirt, (mm)	Non Evaluative		0.465 (D)	0.152 to 0.163	Yes

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<b>1</b>
<b>(c)</b>
<b>(d)</b>
<b>(e)</b>
<b>(f)</b>
<b>(g)</b>
<b>(h)</b>
<b>17.1.12</b>
S. No.
1.
2.
3.
4.
<b>17.2</b>
S. No.
1
2.
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1	2	3	4	5	6	7	
<b>(c)</b>	<b>Ring end gap (mm):</b>						
	-	Top comp. ring.	Evaluative	-do-	2.00	0.40 to 0.60	Yes
	-	2 <sup>nd</sup> comp. ring.		-do-	2.00	0.60	Yes
-	Oil ring.	-do-		2.00	0.55 to 0.65	Yes	
<b>(d)</b>	<b>Ring groove clearance (mm):</b>						
	-	Top comp. ring.	Evaluative	-do-	0.20	0.114 to 0.115	--
	-	2 <sup>nd</sup> comp. ring.		-do-	0.20	0.113 to 0.116	Yes
-	Oil ring.	-do-		0.30	0.074 to 0.078	Yes	
<b>(e)</b>	<b>Clearance of main bearings (mm):</b>						
	-	Diametrical clearance	Evaluative	To be specified by the manufacturer	0.40	0.164 to 0.189	Yes
-	Crankshaft end float	Evaluative	0.575		0.30	Yes	
<b>(f)</b>	<b>Clearance of big end bearings, (mm):</b>						
	-	Diametrical	Evaluative	-do-	0.80	0.085 to 0.103	Yes
-	Axial	Evaluative	-do-	0.90	0.40 to 42	Yes	
<b>(g)</b>	Clearance between king pin and bush, (mm)		Non Evaluative	-do-	0.40	0.13 to 0.26	Yes
<b>(h)</b>	Clearance between centre pin and bush, (mm)		Non Evaluative	-do-	0.40	0.15 to 0.22	Yes

17.1.12 CATEGORY OF BREAKDOWNS / DEFECTS :					
S. No.	Category of breakdowns	Category (Evaluative / Non Evaluative)	Requirements as per IS: 12207-2008	As observed	Whether meets the requirements (Yes/No.)
1.	Critical	Evaluative	No critical breakdown	<b>None</b>	Yes
2.	Major	Evaluative	Not more than two and neither of them should be repetitive in nature	<b>None</b>	Yes
3.	Minor	Evaluative	Not more than five and frequency of each should not be more than two.	<b>None</b>	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.	<b>None</b>	Yes

17.2 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 oil pull over, (%)	0.25% (max.)	0.08	Yes
2.	Seating requirements	Should meet the requirements of IS: 12343-1998	Does not meet the requirements	<b>No</b>
3.	Fitment of ROPS	With a provision for fitment of ROPS.	Not provided	<b>No</b>
		If ROPS fitted it should meet the requirement of IS: 11821-1992	ROPS not fitted	Not applicable





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1	2	3	4	5
4.	Technical requirements for PTO shaft	Should meet the requirements of IS: 4931 -1995	Does not meet the requirements	<b>No</b>
5.	Dimensions of three point linkage	Should meet the requirements of IS: 4468 (Part-I)-1997	Does not meets the requirements	<b>No</b>
6.	Specifications of linkage drawbar	Should meet the requirements of IS: 12953-1990.	Meets the requirements	Yes
	Specification of swinging drawbar	Should meet the requirements of IS: 12362 Part 3-1994.	Not provided	--
7.	Accessories	Trailer hitch, front tow hook, linkage drawbar may be provided.	Provided	Yes

**17.3 Conformity with following IS:**

- |       |  |                    |                    |
|-------|--|--------------------|--------------------|
| i)    | Guidelines for declaration of power and specific fuel consumption and labeling of agricultural tractors (First revision) [IS 10273:1987 (Reaffirmed in March, 2009)]   | : Conforms         | 17.4.1.2           |
| 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 | 17.4.1.3           |
| iii)  | Agricultural wheeled tractors - Rear mounted three-point linkage: Part 1 Categories 1, 2, 3 & 4 (fourth revision) [IS 4468 (Part-I):1997 (Reaffirmed in March, 2007)/ISO 730-1:1994]   | : Does not conform | 17.4.1.4           |
| 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)]  | : Does not conform | 17.4.2<br>17.4.2.1 |
| vi)   | Guide for safety & comfort of operator of agricultural tractors: Part 1 General requirements (first revision) : [IS 12239 (PT-1)-1996 (Reaffirmed in March, 2009)/ISO 4254-1:1989]   | : Does not conform | 17.4.2.2           |
| vii)  | Tractors and machinery for agriculture and forestry – Technical means for ensuring safety Part 2: Tractors (first revision) IS 12239 (PT-2)-1999 (Reaffirmed in March, 2009)]  | : Does not conform |                    |
| viii) | 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) –2006 & 2007(Reaffirmed in March, 2009)/ ISO 3767-2:1991]] | : Conforms         | 17.5<br>17.6       |
| ix)   | Guide lines for location and operation of operator controls on agricultural tractors and machinery (first revision) (IS: 8133 – 1983) (Reaffirmed in March, 2009)]   | : Does not conform |                    |

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17.4

17.4.1

17.4.1.1

17.4.1.2

17.4.1.3

17.4.1.4

17.4.2

17.4.2.1

17.4.2.2

17.5

17.6

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**17.4 Salient Observations:****17.4.1 Laboratory tests:****17.4.1.1 PTO Performance:**

- i) The backup torque is. **17.8%**.
- ii) The specific fuel **consumption** corresponding to maximum power was measured as **256 g/kWh** against the **declaration of 265 g/kWh**, which is within the tolerance limit of IS: 12207-2008.
- iii) The range of **ground PTO speed** is provided in the range of 226 to 673 rpm corresponding to **rated engine speed** in different gears. This feature of tractor may be looked into for **improvement for economical farm operation**.

**17.4.1.2 Mechanical Vibration:**

The amplitude of **mechanical vibration** on various assemblies marked as (\*) in Chapter-9 of this test **report is on higher side**. This calls for dampening down of vibrations to improve the **operational comfort and service life of components**.

**17.4.1.3 Three point linkage:**

Lateral distance from lower hitch point to center line of tractor does not meet the requirements of IS-4468-(Part I)-1997. This should be looked into

**17.4.1.4 Specifications of Power Take-off Shaft:**

Dimension "AΦ" (Refer Fig.2) of PTO shaft does not meet the requirement of IS:4931:1995, this should be looked into for compliance.

**17.4.2 Field performance test:****17.4.2.1 Dryland Operation:**

Frequent disengaging of PTO drive engaging lever was observed. The problem was due to wrong labelling of notations/sticker for the lever. This should be looked in to at production level.

**17.4.2.2 Wet land cultivation (Puddling operation):**

No ingress of mud/or water was observed during wetland cultivation. Hence the tractor meets the requirements for wet land cultivation (Puddling operation) as per IS: 11082-1984 and found suitable for wetland cultivation.

**17.5 Maintenance / Service Problems:**

No noticeable **maintenance/ service problem** was observed during the test.

**17.6 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 draft control lever and pto engaging lever may be provided as per IS: 12239 (Part-2) – 1999.
- iii) Fuel shut-off knob should remain in "STOP" position without application of sustainable manual effort.
- iv) Vertical retainness is not provided on both sides of clutch and brake pedals.



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17.7

**Adequacy of Literature supplied with machine:**

The following literature has been supplied with the tractor

- i) Operator's Manual (Draft copy)
- ii) Tractor's part's catalogue
- iii) Service Manual –The initial settings & discard limits for cylinder bore as mentioned in the specification sheet is not specified in Tractor repair manual . This may be mentioned for the guidance of the users.

17.7.1 The literatures should also be brought out in national as well as other regional languages for the guidance of users and service personnel.

**TESTING AUTHORITY:**

R.K.NEMA  
AGRICULTURAL ENGINEER

J. J. R. NARWARE  
SENIOR AGRICULTURAL ENGINEER

V.N. KALE  
DIRECTOR

**18.0 APPLICANT'S COMMENTS**

Para No.	Our Reference	Applicant's comments
18.1	1.13.2 (III), 1.14.1,1.14.2, 1.20.1,1.20.3,1.20.4,1.20.5, 17.2(2)(3),17.3(ii)(iii)(v)(vi) (vii),( ix), 17.6	These aspects are further being looked into & will try to eliminate these deviations soon wherever necessary.
18.2	17.4.1.3, 17.4.1.4, 17.4.2.1	These being studied & corrective action would be taken in near future.
18.3	17.4.1.2	We would be looking into possibility to reduce noise & vibration levels further.

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**ANNEXURE – I****TRACTOR RUN HOURS DURING TEST**

<b>A.</b>	<b>LABORATORY AND TRACK TESTS:</b>	<b>HOURS</b>
1.	Running-in	--
2.	PTO performance test	13.56
3.	Power lift and hydraulic pump performance test	3.23
4.	Drawbar performance test	12.39
5.	Turning ability	0.18
6.	Location of centre of gravity	0.10
7.	Operator's field of vision	0.15
8.	Brake test	2.0
9.	Noise measurement	1.83
10.	Mechanical vibration test	0.50
11.	Nominal speed test	1.13
<b>B.</b>	<b>FIELD TEST:</b>	
1.	Disc ploughing	25.25
2.	Rotavation	10.30
<b>C.</b>	<b>HAULAGE TEST:</b>	10.89
<b>D.</b>	Miscellaneous test and other run hours including idle run, transportation, trials and preparation for test	8.61
	<b>TOTAL:</b>	<b>90.12</b>

**ANNEXURE- II****BRIEF SPECIFICATION OF IMPLEMENTS USED DURING FIELD TEST**

S. No	Item	Disc Plough	Rotavator
1	2	3	4
1.	<b>Make</b>	<b>Field king</b>	Maschio Itali
2.	Type	Mounted	Mounted
3.	No. of Disc/blades	<b>Three</b>	<b>42. in 8 flanges</b>
4.	Type of Disc/blades	<b>Plain concave</b>	<b>Hatchet</b>
5.	Size of bottoms/blades, (mm)	<b>640</b>	<b>245 x 75 x 6</b>
6.	Spacing of bottoms/flanges, (mm)	<b>580</b>	<b>245</b>
7.	Lower hitch point span, (mm)	750	735
8.	Mast height, (mm)	<b>550</b>	<b>470 &amp; 610</b>



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1	2	3	4
9.	<b>Overall dimensions, (mm):</b>		
	- Length	2490	1020
	- Width	1070	1985
	- Height	1215	1045
10.	Gross mass, (kg)	345	440

**ANNEXURE-III****BRIEF SPECIFICATION OF FULL CAGE WHEEL**

Sr. No.	Items	Specification
1	Type	Full cage wheel
2	Outer dia. (mm)	1250
3	Width (mm)	1010
4	No. & Type of Lugs	32, straight lugs made up of M.S. angle section welded to angle iron frame
5	Size of angle section, (mm)	40x40x6
6	Length of lug, (mm)	500
7	Spacing of lug, (mm)	180
8	Weight of each cage wheel (kg)	170