### व्यावसायिक परीक्षण रिपोर्ट COMMERCIAL TEST REPORT



संख्या / No. : Imp.151/200 माह / Month: March, 2014



Shaktiman Round Baler SRB-60





MINISTRY OF AGRICULTURE कृषि एवं सहकारिता विभाग

DEPARTMENT OF AGRICULTURE AND COOPERATION

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#### 5. SPECIFICATION

#### 5.1.1 General:

Name and address of the applicant : M/s Tirth Agro Technology Pvt. Ltd.

N.H.- 27, Gondal Road

Nr. Hotel Krishna Park, Vavdi Rajkot- 360004, Gujrat, India

Name and address of manufacturer : M/s Tirth Agro Technology Pvt. Ltd.

At Bhunava, N.H.-27, Taluka-Gondal,

Dist.- Rajkot- 360311, Gujrat, India

Type : Mounted : Shaktiman

Model : Mini Round Baler (SRB-60)

Year of manufacture : 2012
Serial no. : 12K4907
Country of origin : India

Recommended tractor power, hp : 25hp(min.).

Recommended forward travelling speed : 2 to 8

of machine, kmph (apa) PTO speed for operation, rpm

Standard pto speed :  $540 \pm 10$ 

Working width of machine, m : 1.15 Observed bale size (max) (L×D), mm : 650 x 636

Observed avg. weight of bale, kg : 17 to 21.6

Crop recommended : Paddy straw, wheat straw, sugarcane trash or

any other similar material

### 5.1.2 Prime Mover used

**新** 

Type : Four wheeled, rear wheel drive general

purpose agricultural tractor

Make and Model : L&T John Deere, 5310 Collar Shift

Year of manufacture : Not specified : PY3029D112007 Chassis No. : 5310S006207

Max. pto power, kW/hp : 37.7/50.6

Rated engine speed for field operation: 2400

recommended by applicant, rpm (apa)

of hale inside the bate chamber and shear bolt in the drive for

100

- The fuel consumption was recorded as 1.39 to 1.82
- Number of bale output was recorded as 22 to 23 bales/h with bale weighing ranging from 17 to 22 kg

#### Quality of work 7.2

- Field efficiency and straw recovery was observed as 81% to 97% and 70% to 72%
- Straw output was recorded as 0.397 to 0.488 t/h with the bale density from 108 to  $113 \text{ kg/m}^3$
- No. of windings observed as 9 to 10.

# 8. EASE OF OPERATION & ADJUSTMENTS

No noticeable difficulty was observed during 25.4 hours of operation of the machine.

# 9. DEFECTS, BREAKDOWNS AND REPAIRS

During testing of the machine, after completion of 16.3 hours the PIC gear box cover got cracked. Further, with the permission of the competent authority, cover had been replaced by new one by applicant's representative.

## 10. LABOUR REQUIREMENTS

One skilled operator is required with the tractor to operate the machine.

# 11. WORKMENSHIP AND FINISHING

The metallic parts of the Baler are painted by good quality anticorrosive rust preventing paint. The welding are free from pits, burrs and other defects, well finished, smooth, free from sharp edge and satisfactory in all respect. The machine is handy in operation by the hydraulic system, attachment & detachment is easy, service & maintenance is troublefree.

# 12. COMMENTS AND RECOMMENDATIONS

- The specifications of machine hitch, do not conform to the IS:4468 (Part-1)-1997. Hence, it is recommended that machine should be provided with the hitch conforming to 12.1 relevant Indian Standards.
- Dimensions of PIC of implement, in full, do not conform to IS:4931-1995 and therefore, 12.2 it should be looked into for corrective action.
- Matching power should also be indicated on the labeling plate. 12.3
- Maneuverability of tractor with bale was found satisfactory and also the quality of work 12.4 was observed to be satisfactory.
- 12.4

A booklet, named operating manual and Parts catalogue was provided for reference during testing.

However, it is recommended to bring out the manuals also in Hindi and other vernacular languages as per IS: 8132-1999.

## 13. APPLICANT'S COMMENTS

No any comments have been received on our recommendations.

### **TESTING AUTHORITY**

SANJAY KUMAR AGRICULTURAL ENGINEER	6 amon
M. K. VISHWAKARMA DIRECTOR	ASSEM

Test conducted and report compiled by

: P.C. DIHINGIA ASSTT. AGRIL. ENGINEER

ANSHUL PANDEY
STA (INST.)