

व्यावसायिक परीक्षण रिपोर्ट (वैरिएंट)

संख्या/No. : T-1688/2219/2022

COMMERCIAL TEST REPORT (Variant)

माह/Month : November, 2022

Application Reference No. 28/2022-23/32

(यह परीक्षण रिपोर्ट 30/11/2027 तक वैध है/THIS TEST REPORT IS VALID UPTO 30/11/2027)



INTERNATIONAL TRACTORS LIMITED, DI-35 RX CM PLUS S1 TRACTOR



भारत सरकार

कृषि एवं किसान कल्याण मंत्रालय
(कृषि एवं किसान कल्याण विभाग)

GOVERNMENT OF INDIA

MINISTRY OF AGRICULTURE AND FARMERS WELFARE
(DEPARTMENT OF AGRICULTURE & FARMERS WELFARE)

केन्द्रीय कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान

ट्रैक्टर नगर, बुदनी (म.प्र.) 466 445

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TRACTOR NAGAR, BUDNI (M.P.) - 466 445

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| T-1688/2219/2022 | INTERNATIONAL TRACTORS LIMITED, DI-35 RX CM PLUS S1 TRACTOR – COMMERCIAL (VARIANT) |
| | THIS TEST REPORT IS VALID UPTO: 30/11/2027 |

1. BACKGROUND

- i) The **INTERNATIONAL TRACTORS LIMITED, SONALIKA INTERNATIONAL DI-35 RX CM PLUS** tractor had undergone “Initial Commercial Test” at this Institute vide Test Report No.T-991/1515/2015 (released in November, 2015).
- ii) Administrative Extension of **INTERNATIONAL TRACTORS LIMITED, SONALIKA INTERNATIONAL DI-35 RX CM PLUS** was released vide Test Report No. T-1399/1926/2020 (March, 2020).
- iii) Subsequently, first Batch Test Report of base model i.e. **INTERNATIONAL TRACTORS LIMITED, SONALIKA INTERNATIONAL DI – 35 RX CM PLUS** tractor was released vide Test Report No. T-1623/2154/2022 (February, 2022).
- iv) 1st Technical Extension Report released vide Report No. T-1646/2177/2022 during May, 2022.
- v) On 20.10.2022, when the tractor viz. **INTERNATIONAL TRACTORS LIMITED, SONALIKA INTERNATIONAL DI – 35 RX CM PLUS** tractor submitted for Batch Test & Technical Extension, was still in the Institute’s campus only, the applicant came to apply for variant test, **SONALIKA INTERNATIONAL DI – 35 RX CM PLUS S1** tractor as the variant of **SONALIKA INTERNATIONAL DI – 35 RX CM PLUS** tractor. The applicant was allowed for conversion from dry disc brakes to oil immersed brakes on the same tractor lying in the campus of Institute. **There is, therefore, no need to conduct those tests as are required for conformity of sample as being the same as tested earlier.** However, for complete information on performance of this tractor, above mentioned Test Reports are necessary adjuncts to this report.
- vi) After examination of the documents, only following tests were required to be conducted as laid down in IS: 12207-2019.
 1. Specification checking of variant feature i.e. Oil immersed brake
 2. Brake performance test

2. SPEIFICATIONS CHECKING OF VARIANT FEATURE

| S.No. | Parameter | | Base Model | Variant Model | Remarks |
|-------|-----------------------------|---|---|--|----------------|
| 1 | 2 | | 3 | 4 | 5 |
| 2.1.1 | Tractor: | | | | |
| | Make | : | International Tractors Limited | International Tractors Limited | No Change |
| | Model | : | Sonalika International DI-35 RX CM PLUS | DI-35 RX CM PLUS S1 | Changed |
| | Type | : | Rear Wheel Drive, Standard Agricultural Tractor | Rear Wheel Drive Standard Agricultural Tractor | No Change |
| | Month & Year of manufacture | : | 06 / 2021 | 06 / 2021 | No Change |
| | Chassis number | : | HYASR1073681S3 | HYASR1073681S3 | No Change |
| | Country of Origin | : | India | India | No Change |

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6. SUMMARY OF OBSERVATIONS, COMMENTS & RECOMMENDATIONS

6.1 On the basis of tests conducted the performance results have been summarized as evaluative (mandatory) and non-evaluation (not-mandatory) parameter applicable for qualifying Minimum Performance Criteria as per Clause-4 (Table-1) of IS: 12207-2019 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: 12207-2019 | Values declared by the applicant/ requirement | | As observed | | Whether variant model meets the requirements (Yes/No.) | | |
|--------------|--|---------------------------------------|------------------------------------|--|---------------------|--------------------|--------------------------------|--|--|-----|
| | | | | Base model | Variant Model | Base model | Variant model | | | |
| 1 | 2 | 3 | 4 | 5 a | 5 b | 6 a | 6 b | 7 | | |
| 6.1. | 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) | 8.29 | Yes | | |
| | 2) | Hot brake | Evaluative | 10 | | 10 (R) | 9.00 | Yes | | |
| b) | Maximum force exerted on the brake pedal to achieve a deceleration of 2.5 m/s ² (N) | | | Evaluative | 600 | 600 (R) Maximum | 370 to 464 | 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 | Yes | Yes | | |
| 6.1.2 | Labelling of tractors (Provision of labelling plate): | | | | | | | | | |
| | 1) | Make | Evaluative | Should conform to the requirements of CMVR along with maximum PTO Power in kW and year of manufacture in numerical form. <table border="1" style="margin: 5px 0;"><tr><td>MM</td><td>YY</td></tr></table> Digit 01 – 12 in box No.1 for MM will represent the months and next two digits in box No.2 for YY will represent the year of Manufacturing. | MM | YY | International Tractors Limited | | | Yes |
| MM | YY | | | | | | | | | |
| | 2) | Model | Evaluative | | DI-35 RX CM PLUS S1 | | | Yes | | |
| | 3) | Month & Year of manufacture | Evaluative | | 06 / 21 | | | Yes | | |
| | 4) | Engine number | Evaluative | | 3100FL14F1067824F3 | | | Yes | | |
| | 5) | Chassis number | Evaluative | | HYASR1073681S3 | | | Yes | | |
| | 6) | Declaration of PTO power, (kW) | Evaluative | | 24.6 | | | Yes | | |
| | 7) | Specific fuel consumption, (g/kWh) | Evaluative | 265 | | | Yes | | | |
| 6.1.3 | Literature (Submission to test agency): | | | | | | | | | |
| (a) | Operator manual | Evaluative | Provided/Not Provided | Provided | Provided | Provided | Yes | | | |
| (b) | Parts Catalogue | Evaluative | Provided/Not Provided | Provided | Provided | Provided | Yes | | | |
| (c) | Workshop/Service manual | Evaluative | Provided/Not Provided | Provided | Provided | Provided | Yes | | | |

| 6.2 CATEGORY OF BREAKDOWNS / DEFECTS: | | | | | |
|---------------------------------------|------------------------|--|--|-------------|--|
| Sl. No. | Category of breakdowns | Category (Evaluative / Non Evaluative) | Requirements as per IS: 12207-2019 | 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 three 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 |

6.3 Adequacy of Literature supplied with machine:

6.3.1 The following literature was supplied with test sample for reference during the test.



- a) Operator Instruction book of "International Tractors Limited, DI-35 RX CM PLUS S1" Tractor model.
- b) Workshop Service manual (Part-I & II) of "International Tractors Limited, DI-35 RX CM PLUS S1" Tractor model.
- c) Parts book of "International Tractors Limited, DI-35 RX CM PLUS S1" Tractor model.

6.3.2 The operator manual, parts catalogue & workshop service manual may be brought out for the guidance of users and service personnel as per IS:8132-1999 incorporating, inter alia, the following:

- i) Safe hitch height of trailer
- ii) Coolant water ratio

The results of the tests carried out on variant model "International Tractors Limited, DI-35 RX CM PLUS S1" tractor have been compared with those on base model "International Tractors Limited, Sonalika International DI-35 RX CM PLUS" tractor tested vide test report No. T-1623/2154/2022 (February, 2022) & found within the limit as specified in Indian Standard 12207-2019.

TESTING AUTHORITY:

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| C.V. CHIMOTE TEST ENGINEER |  |
| P. K. PANDEY DIRECTOR |  |

Draft test report compiled by: **Partha Lodh**, Senior Technical Assistant

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7. APPLICANT'S COMMENTS

| Para No. | Our reference | Applicant comments |
|----------|---------------|--|
| 7.1 | -- | Our comments on your valuable observations are Nil |

ANNEXURE-I

TRACTOR RUN HOURS DURING TEST

| A. | LABORATORY AND TRACK TESTS | HOURS |
|--------------|--|------------|
| 1. | Brake performance test | 1.8 |
| B. | Miscellaneous test and other run hours, including idle run transportation, trial and preparation for test. | -- |
| Total | | 1.8 |