

PROJECTS IN PROGRESS

| S. No. | Title of theProject | Cost (inRs.) | Remarks |
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| 1. | Procurement of 30ton USTM. | 1.51 Crore | New USTM will be used for fatigue testing of the indigenously developed springsfor their design validation and quality performance test at a fix interval regularly with increased test frequency. |
| 2. | Procurement of High inertia and high speed brake dynamometer. | 27.0 Crore | High speed and high inertia brake dynamometer for development of improved brake materials. |
| 3. | Procurement of measuring wheel calibration test rig in testing directorate. | 3.4 Crore | To ensure accuracy of working of measuring wheel in the measurement of forces at rail-wheel contact point. |
| 4. | Replacement of 01 staff coach by high speed coaches (LHB shell with FIAT bogie) | 2.92 Crore | For field trials of various kinds of high speed rolling stocks. |
| 5 | Augmentation of rolling stock design evaluation and testing capability at RDSO consisting of procurement of measuring wheel and modeling software. | 47.2 Cr. | Procurement of IMWs of different rolling stock is included for Measurement of forces on rolling stock wheel flange. Design and development of higher axle load freight stock would also require extensive modelling and simulation facilities before prototypes could be developed and deployed in field for on-track trials. |
| 6 | Rehabilitation of Instronmake Fatigue Testing system in FTL. | 4.13 Cr. | This system was installed for fatigue testing of various bogie frame and rolling stock components such as brake beam, elastomeric pads, helical springs, side bearer pads, shock absorbers, AT weld rail joints, FRP sleepers, bridge stringers etc. After rigorous utilization of the system up to 20 years, it has completed its Codal Life of 15 years. It is required the rehabilitation of that fatigue testing machine. |
| 7 | Upgradation of ABL from ICF to LHB Coaches. | 4.24 Cr. | Upgrade the testing facilities of Air Brake Lab from ICF coaches to LHB Coaches. |
| 8 | Consultancy for training & development for UIC-518 standards for coaching stock. | 5.87 Cr. | Various trials of rolling stock for assessment of their riding behavior, safety and other characteristics will be completely switchover to UIC-518/EN-14363 International Standard. |
| 9. | Procurement of 01 no. DAQ system with accessories. | 73.97 Lac | Data acquisition system for various field trials. |
| 10. | Procurement of 02 no. DAQ system with connectors. | 93.0 Lac | |
| 11. | Procurement of Android/windows based Portable digital data acquisition and recording system. | 10.45 Lac | Specially used for TM run and COCR trials. System is attributed with storing, displaying and on-line analysis of data.. |
| 12. | Procurement of strain measurement DAQ system. | 98.16 Lac | Used for Stress measurement i.e. Squeeze load tests and in instrumented measuring wheel. |

TURNKEY PROJECTS COMPLETED IN THE LAST TEN YEARS

| S. No. | Title of the Project | Cost (in thousands) | Remarks |
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| 1. | Civil engineering work in central workshop and industrial flooring in central workshop, FTL, BDL & ABL of testing directorate. | 4364 | For ergonomic working, dust free environment and improved general upkeep of Labs and their aesthetic look. |
| 2. | Procurement of portable sound measurement system. | 3700 | Used for measurement of noise in rolling stocks. |
| 3. | Procurement of Sensors. | 6106 | Sensors for various field trials conducted by Testing Directorate. |
| 4. | Distributor valve test rig of Air Brake Lab. | 1366 | Fully automatic computerized test rig used for distributor valve. With this test rig all parameters given in the RDSO test specification is being done. |
| 5. | Procurement of thermo wave camera. | 2182 | Dynamic thermal imaging of wheel has become possible during dynamometer testing of CBB and wheels. |
| 6. | Procurement of PC based DAQ System. | 3018 | This system has replaced the old obsolete design DAQ system of field units and has helped in reducing the data analysis time. |
| 7. | Procurement of smoke density gas photometric system. | 1143 | Equipment is helping in smoke detection during the dynamometer testing and in developing the smokeless CBB's for rolling stocks. |
| 8. | Procurement of Test rig for Electro Pneumatic Brake System in Air Brake Laboratory of RDSO. | 27500 | Facility is being used to test the different parameters of EP assisted Brake System of Coaches. |
| 9. | Augmentation of testing facility in Air Brake Lab. Of RDSO:- 1) Test rig for air dryers. 2) Test rig for vigilance control device. 3) Test rig for air compressor for locomotive. | 7672 | Being used for Performance parameters of Compressor / Expressor, Air Dryers, Vigilance Control Device as per their design parameters in the Air Brake Lab. |
| 10. | Procurement of 500 tonnes universal spring/structure fatigue testing system. | 207400 | Accelerated fatigue testing of bogies and bolster of high Axle load wagons are being carried out as per AAR specification. |
| 11. | Procurement of 1000 mm dia. Measuring wheel. | 39900 | For accurate and reliable measurement of parameters at rail-wheel interaction point which leads to better appreciation of safety, better and realistic appreciation of rail wheel level interaction forces. |
| 12. | Modernisation of testing infrastructure for field units of Testing Directorate. 1) Compact light weight DAQ system with integrated sound acquisition hardware. 2) 32 channel modular mini telemetry system. | 52400 18200 | Light weight state of the art equipment used for field trials. Also measures curvature on track recorded during field trial with other parameters. |

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| | 3) SAS analytic server. 4) Gyroscope & DAQ system. | 2986 7250 | |
| 13. | Procurement of laser based displacement system. | 2327 | Contactless deflection measurement has been started during the load deflection and fatigue testing of testing specimens in the Fatigue Lab without any human interface. |
| 14. | Provision of battery charging facility for RDSO's coaches in berthing complex. | 945 | For charging RDSO's coach batteries in berthing complex of RDSO. |
| 15. | Modernisation of DV test rig. | 900 | Used for Endurance test of Distributor Valves automatically without any human interface. |
| 16. | Procurement of a jib crane of 03 ton capacity. | 665 | Used to load and unload measuring wheels on its calibration test rig. |
| 17. | Procurement of hydraulic jack system for stress investigation. | 6500 | Used for squeeze testing of coaches and wagons at manufacturers premises. |
| 18. | Procurement of PC based DAQ for stress investigation test. | 7292 | For online recording of stress during different tests by field units. |
| 19. | Replacement of over aged DG set. | 1890 | Efficiency of DG set fitted in the Oscillograph cars are restored. |
| 20. | Procurement of remote, unmanned data logging facility for field trials. | 9475 | Stop & start of data recording in whole test train are controlled from Oscillograph car itself during field trials. |