

DLP CLAUSES (Annexure-1)

1. Defect Liability period shall start from start of revenue service of last trainset + 24 months.
2. The supplier shall remedy, at no extra cost to BEML, the defect or failure (fair wear and tear excluded) after any part of the work until the end of defect Liability Period.
3. The supplier shall be responsible for any defect attributable to defective design, material or workmanship during warranty period. The supplier will not be liable for damages caused BEML or any other third parties did not follow the written operation and maintenance instructions or did not use the metro trains in accordance with the technical documents.
4. The warranty of the sub-system for which outstanding works are to be completed by the supplier shall start only after completion of all outstanding works.
5. "Defects Liability Period" shall mean the defects liability period stated in the PO calculated from the date of taking over of whole of the scope of supplies and not any sub-section or part thereof. Provided that, if any part of the scope of supplies or sub-systems or component of that part has been replaced, renewed or repaired, the "Defects Liability Period" in respect of that part or sub-system or components of that part shall start from the date of such replacement, renewal or repair has been completed to the satisfaction of BEML.
6. The supplier shall ensure implementation of all improvements/corrective actions against all technical issues reported (during Design, Manufacturing, Installation, Commissioning, Interface Testing, Operation & Maintenance etc.) in earlier projects/supplies of their sub-system and submit the compliance documents during design stage. The supplier shall certify the implementation of such engineering change proposals, before despatch of items.
7. The supplier shall attend & close all snags, defects, deficiencies, punch points with respective suppliers' sub-system reported by BEML/ BMRCL in various stages of the project (at BEML Factory & BMRCL Depot) promptly before ROD (revenue operation date) of Trains. The list of unattended pending issues (which does not affect the operation of train) along with action plan & timeline to attend/close the same shall be submitted by the supplier.
8. The supplier shall be required to investigate any design issues, interface issues, field failures (conveyed through NCRs, BMRCL Inspection Notes, Minutes of meetings etc.) of supplied sub-system in detail & submit investigation report along with corrective action report to BEML in a time bound manner for obtaining BMRCL's approval. Based on BMRCL's approval, the supplier shall be required to implement the corrective action (viz. Hardware modification), without any additional cost, in all Trains during entire DLP.
9. The supplier shall not convey their recommendations on replacement of items/anything related with DLP process directly to BMRCL without prior information to/consent of BEML.
10. If the supplier recommends any spares/consumables/other items besides the items quoted to BEML during the PO/Design finalization stage, then the supplier should supply these items free of cost for entire DLP of all trains.

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11. The supplier shall provide Training of their sub-system to BEML T&C personnel for familiarization of their sub-system in terms of testing, commissioning & comprehensive maintenance.
12. Submission of detailed hardware modification fleet replacement proposal based on detailed investigation to address the recurrence of the fault/improving the reliability of sub-system towards closure of BMRCL Inspection Notes/MoM Points/Open Technical Issue/Punch points/Epidemic Failures etc.
13. Implementation of hardware modification/fleet replacement of component/complete unit/complete sub-system in all Trains as well as in supplied Spares. Monitoring of sub-system/Train's performance after implementation of hardware modification/fleet replacement.
14. Submission of OEM Maintenance Manuals, Maintenance Work Instructions, Maintenance Schedule [Specifying the frequency of various inspections/service checks synchronized with Master Maintenance Schedule of Train (As Per RAMs documents viz. Daily, 72 Hrs., A, B1, B4, B8, C1, C2, C3, C4 service checks, C5 Midlife refurbishment etc.), detailed scope of work during such inspections/service checks including facilities & manpower requirement, Down-time of Train etc.] of supplied sub-system. Finally, the frequency of various inspections/service checks shall be followed as per approved Train level "Operation & Maintenance Manual" and "Master Maintenance Schedule".
15. Handling obsolescence issues of supplied sub-system's component/sub-assembly / assembly /maintenance terminals/tools/special tools/ spares/consumables or any item related with supplied sub-system during Life cycle of the supplied sub-system.
16. Failures of 6-Car Train sets caused by the failures of the individual equipment/ subsystems or any other defects shall only be treated as warranty failures. BEML decisions in this regard shall be final.
17. The final acceptance will not cancel the particular conditions specified in the contract, such as hidden defects, reliability requirements, life span, etc.

After sale services:

1. During this period, the supplier will undertake the necessary repair works due to failure at his own risk and expense including spare parts and labour.
2. All the equipment and material necessary for testing, defects and repair in connection with warranty obligations will be provided by the supplier bearing all the connected expenses.
3. Spare parts for faulty components replaced shall be provided by the supplier and are not included in the stock of spare parts that will be provided for the regular maintenance purpose. In the other case a specific agreement between the BEML and the supplier shall be set up.

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4. "After sale" service organisation set up by the supplier during all the warranty period including any extension shall be described in term of permanent resident staff, with requisite qualification and experience. During the warranty period, the supplier shall be responsible free of charge for the detection and repair of defects and components replacements where the metro train does not conform to the Functional specification and performance requirements. Normal wears and tears are excluded from these defects.
5. The repair and or replacement of failed components and equipment and installation of repaired/replaced components/equipment shall be undertaken by the supplier free of charge at Site.
6. The supplier shall bear custom duty, freight charges and all other expenses involved in collection of defective components and equipment from the Site, and transportation to the manufacturer's works in India or abroad and its return to Site after repairs. Further, should any design modification be required to any component or equipment as a consequence of failure analysis, the minimum period of warranty i.e. 24 months shall recommence from the date when the modified part is commissioned into service and modification shall be carried out free of charge. In all such cases, warranty will be applicable on complete sub-assembly; even when only component has been modified/replaced/repared due to design change.
7. All replacement and repairs under the warranty shall be carried out by the supplier promptly and to the complete satisfaction of BEML/BMRCL on notification of the defect by the BEML so that no car is unfit for revenue service for more than 48 hours, which shall exclude time taken for withdrawal/ induction of trains from/to revenue services. In case any train remains out of revenue operation beyond specified duration above due to reasons attributable to supplier, BEML may at his sole discretion impose a penalty on the supplier, commensurate with the revenue and opportunity loss to the BEML/BMRCL. Decision of BEML/BMRCL shall be final and binding.
8. BEML will notify the supplier in writing of any defect together with a brief description thereof. Upon receipt of such notice, the supplier shall within a reasonable period of time and at his own costs remedy this defect. If within reasonable time, the supplier fails to full fill his obligations after a reasonable number of trials for repair (at least three trials), the BEML may fix by written notice a reasonable final time for completion of the supplier's obligations. In case the supplier fails to fulfil his obligations within such final time, BEML may himself undertake the necessary repairs works employ a third party to do so, always at the risk and expense of the Supplier.

Specific warranty in case of Serial or Hidden defects:

1. The aim of this chapter is to define specific warranty requirements for serial and hidden defects including modifications, parts and labour. Serial or Hidden defects will be covered by a specific warranty period over the general warranty period as defined above.

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2. Serial or Hidden defect is defined as an identical failure on a part or components which occurs on at least 15 % of total identical part and components with the same function of the rolling stock fleet during the General Warranty period. The occurrence of serial defects is calculated with the personal computer-based Failure Reporting and Corrective Action (FRACAS) System in charge to demonstrate compliance with specified train and equipment reliability as required in Chapter 19 clause no 19.2.6 (iv) of the (Employer' s Requirements) - Technical Specification.
3. In the case of Serial or Hidden defects, the supplier shall investigate all the concerned parts and present a technical solution or modification including spare parts modification or replacement for all the metro train fleet including the metro trains no more covered by the General Warranty period. The Serial or Hidden defects shall be repaired by the supplier free of charge (modification, material and labour).
4. In the case of Serial or Hidden defect, a period of specific warranty of 24 months shall recommence from the date when the modified part is commissioned into service (including spare parts) and modification carried. In all such cases, specific warranty will be applicable on complete sub-assembly, even when only one component has been modified/replaced/repared due to design change.
5. "The warranty period of unit exchange, mandatory and overhauling spares, special tools, testing and diagnostic equipment, special jigs, fixtures and gauges, or any other item / equipment delivered shall be either 24 months from the date of acceptance or up to expiry of the defect liability period of trains, whichever is later. "
6. Supplier shall position the DLP spares at BMRCL depots in three months advance of the train receipt at the depots.
7. The DLP spares shall be proposed by the supplier based on MDBCF & LCC of each assembly/sub-assembly item (The minimum qty. shall be one number per depot) and upon approval of the same from BEML & BMRCL, the same shall be positioned at Depot at least Three months before delivery of First Train-set. The spares shall be jointly reviewed/audited quarterly and qty/item shall be increased based on the failure pattern of items and recoupment lead time.
8. The list of DLP spares will be reviewed on the actual MDBCF/Failure pattern of the items and the quantity/items shall be increased on the actual failure of the system.
9. The supplier shall agree that if any identical defect or deficiency occurs on more than 10% (ten per cent) of the equipment or parts of the Train sets in any rolling period of 36 (thirty six) months commencing from the second year of Supply, such defect or deficiency shall be deemed to be an epidemic defect (the "Epidemic Defect") and the supplier shall promptly take corrective actions for such Epidemic Defect under an epidemic defect warranty to be maintained by the supplier for the Maintenance Period (the "Epidemic Defect Warranty").
10. The supplier shall Pick up of the faulty items from BMRCL Depot, sending (if required) to their Factory/OEM for investigation, repair, testing etc. & return to BMRCL Depot along with final testing/quality clearance documents, in a time bound manner.
11. During entire DLP, the supplier shall be required to demonstrate the FRACAS, RAMS, LCC of their supplied sub-system. In case, the supplier is not able to achieve the desired targets (as approved

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during design stage of the sub-system), the supplier shall take all required actions to improve the FRACAS, RAMS, LCC and provide warranty support till the targets are demonstrated by the supplier. Also, all open technical issues shall be attended /closed by the supplier before closure of DLP. Any penalty imposed or payment deductions made by BMRCL will have been borne by the supplier and deductible from the payments due to the supplier.

12. Any penalty imposed or payment deductions made by BMRCL during entire DLP, for the reason attributable to the Supplier, on account of De-boarding, Trip delays, Trip Cancellation, Non-availability of Trains for service due to supplier's sub-system failures, improper workmanship, non-availability of required spares of supplier's sub-system or for any other reason whatsoever, such amount shall have be borne by the supplier and deductible from the payments due to the supplier.