

भारत सरकार GOVERNMENT OF INDIA
रेल मंत्रालय MINISTRY OF RAILWAYS
रेलवे बोर्ड (Railway Board)

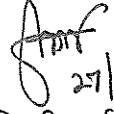
No.2017/M(C)/137/4

New Delhi, dated 27.11.2018

Principal Chief Mechanical Engineer,
Northern Railway,
New Delhi.

Sub: Maintenance Schedule for Train Sets.

The maintenance schedule as proposed by RDSO, copy enclosed, has been approved by Board for implementation. Since the first rake of Train Set, in which most of the systems are new, is under trials and commissioning, the approved maintenance schedules would require periodical review based on the experience gained during operation of the rake. Feedback with regard to the adequacy of the maintenance schedule or otherwise may be provided by Northern Railway on regular basis to RDSO and to Board so as to further optimise the schedules.


27/11/18

(डिम्पी गर्ग)

का.नि.यां.इं. (कोचिंग)
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Encl.: As above

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सत्यमेव जयते

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An ISO 9001:2000
 Organisation

SD.TS.Misc.Staff

Dated : 19-11-2018

EDME (Coaching).
 Railway Board,
 Rail Bhawan,
 New Delhi-110 001.

Sub: Maintenance schedules for train set coaches.

Following maintenance scheme is proposed for preventive maintenance schedules of train set coaches:

Schedule	Periodicity	Schedule Time
Daily	Every day	4 hrs
Trip	Every 3 days or 5000 kms whichever is earlier.	6 hrs
Monthly	30 days \pm 2 days	6 hrs
Quarterly	90 days \pm 3 days	8 hrs
9 monthly	270 days \pm 3 days	1 day
Shop schedule 1	18 months \pm 5 days	15 to 20 days
Shop schedule 2	36 months \pm 5 days	
Shop schedule 3	72 months \pm 5 days	

Inspection and maintenance activities to be carried out during daily and trip schedule are attached as annexure. Detailed list of activities to be performed during monthly maintenance schedule onwards will be prepared in co-ordination with ICF & OEMs and will be communicated separately.

(C. M. Rao)
 Exe. Director / Train Set

Copy to :

CME, Integral Coach Factory, Chennai-600 038.

Train 18 Schedule Maintenance

I. Daily Inspection

The Daily Inspection may be carried out in a shed or at an outstation when the unit is stabled overnight away from the shed. The train set has to be taken to the pit line for safety checks for at least four hours.

a. General Examination

1. Carry out detailed checks in regard to any unusual occurrence reported by Crew in the log book.
2. Check for Fault Data Log in the Vehicle Control Computer.
3. Check the controls, indications and alarm circuits for correct functioning.

b. Brakes

Before Train - 18 is issued for traffic from a shed after scheduled inspections, or unscheduled repairs; maintenance supervisor should test the air brakes of the complete train formation. The brakes should be tested from the driving cabs at both ends of the train formation.

1. Check inter-unit air hose couplings.
2. Check operation of automatic drain valve of main reservoirs. Drain all other reservoirs.
3. Test the horns at both ends.
4. Check for noticeable air leakages in compressed air system.

c. Under Gear

1. All fasteners for underslung equipment have to be checked for tightness, check for any loose hanging parts.
2. Check for the tightness of the mechanical semi-permanent couplers, check for the intactness of the inter-vehicular power couplers.
3. Check the temperatures of the Axle boxes and other underslung equipment by infrared Thermometer.
4. Ensure that the bolts of the centre pivot housing are intact. Ensure tightness of bolts of all the fasteners.
5. Visual examination for any crack on bogie frame / springs.
6. Visual examination of air spring assembly for any leakages.
7. Visually inspect all wheels, bogies and running gear for any abnormalities.

d. Passenger Amenities

1. Check look-out glasses and head code glasses. Clean look-out glasses.
2. Ensure that all inter coach gangways are intact.
3. Check all the windows are intact.
4. Check for all interior fittings like seats, paneling etc.
5. Brooming and wet mopping of interiors.
6. Check functioning of the vacuum toilets.
7. Ensure all light fittings are working.

e. Propulsion & Controls

1. Check the operations from both the driver's cab and working of cab occupation functionality.
2. Visually check the pantographs for any defect. Check the operation of all pantographs.
3. Check TCMS communication screens & TCMS communication to all sub-systems.
4. Test check passenger alarm system for operation from at least 2 coaches in a train.
5. Check Master Controller in each driving cab.
6. Test auxiliary compressor.
7. Test headlights, flasher lights and tail lights including emergency lights.
8. Visually inspect the auxiliaries for satisfactory starting and operation.

**II. Trip Inspection (Every 5000 Kms or 3 days Once Whichever is earlier)
– periodicity can be increased once further experience is gained**

Trip Schedule should be carried out in the homing shed for Train Set. The following are to be carried out in addition to daily inspection items.

a. General Examination

1. Check fire extinguishers, locking of HT compartment.

b. Brakes

1. Check the brake application on all wheels in EP through master controller and auto brake handle.
2. Check the proper functioning of compressors and measure the temperature using infra red thermometer.
3. Check compressor oil level.
4. Renew the worn-out brake blocks if necessary particular attention paid to differential rate of wear between motor coaches and trailer coaches.
5. Inspect brake callipers for properly functioning.

c. Under Gear

1. Visually Check mechanical semi-permanent couplers for cracks, deformation and damage.
2. Clean underframe equipment particularly at locations where fire is possible due to accumulation of oily matter; also clean filters, as required.
3. Check the control arm and safety strap are intact.
4. Visually check all Metal Bonded rubber items for any damage.
5. Check the Traction motor fixing arrangement on all Motor bogies. Check the safety catch for Traction Motors.
6. Check the wheels and brake disc for defects like flat tyre etc.
7. Check centre pivot.

d. Passenger Amenities

1. Check functioning of RMPU and effect of cooling in all coaches.
2. Check all doors and windows, door handles, foot-steps, window safety bars and hand rails
3. Clean driving cab window panes and swab clean cushions.

e. Propulsion & Controls

1. Check the operations of traction, braking on both the driver's cab.
2. Check for operations of all automatic doors and footsteps.
3. Check the operation of wipers.
4. Check for the operation of PIS/PAS system.
5. Check the working of infotainment system.
6. Check transformer oil level and top-up if required. Check transformer for oil leakages.
7. Check TM bearing oil level.
8. Battery: Clean vent holes of filler caps. Check for symptoms of overheating, if any.
9. Inspect pantographs for flash-marks, wear of strips and cleanliness of insulators. Lubricate articulation joints, bearing joints and pans.
10. Check oil level of auxiliary compressor (in TC Coach) and top up, if required.
11. Check operation of all contactors also the electrical cubicles of the coaches.
12. Check the roof for intactness of bolts of High Voltage cable and RMPU.

The details of work to be done during each schedule will require periodical review in the light of local conditions and operating experience. The details given are for guidance.