

PERFORMANCE INDICES

The reliability of the Coaching Stock can be judged primarily from the following performance indices:-

1. Detachments
2. Punctuality loss cases
3. Accidents/Derailments

Detachments:

If any coach is separated from its rake for a particular train either during run or at terminal station due to any defect, it is termed as detachment.

Classification of detachments:

1. On the basis of Schedule:

(a) Planned:- Detachments to give attention for various schedules like POH, IOH, modification work etc.

(b) Unplanned:- Detachments caused by out of course or unscheduled repairs. These detachments should be our focused area for reduction.

2. On the basis of location:

(a) Enroute Detachment:- If any coach is removed from service due to any defect during run, it is called enroute detachment. It is most serious detachment in nature and can be equated with an accident causing undue harassment to the passengers.

(b) Terminal Detachment:- The coaches detached either at primary maintenance depot or at secondary maintenance depot come under this category.

3. On the basis of ownership:

- (a) **Primary detachments at PM terminal:** - The coaches detached at primary maintenance terminal come under this category.
- (b) **Primary detachments at secondary maintenance terminal:-** This include the coaches detached at other terminal or secondary maintenance terminal.
- (c) **Secondary detachment:-** The detachment of coaches maintained primarily at other ends.

Significance of detachment:

The unplanned detachments must be avoided at any cost due to the following reasons:-

- (i) Whenever a coach is detached during maintenance in washing line, shunting takes place resulting in a period of non-activity for 45 minutes to 2 Hrs. depending upon the number of coaches to be detached. This always results in shortening of scheduled maintenance time, which ultimately leads to poor quality.
- (ii) Wastage of scarce human resources as the staff remains idle during shunting activity.
- (iii) During shunting it has been observed that a number of components like couplers, hose pipe etc. got damaged. Side collision during shunting is a regular phenomenon in a congested place.
- (iv) A coach detachment also reflects the poor quality of maintenance during major schedules of workshops and sick line.
- (v) Rake integrity is lost, which results in a sense of non-ownership for the maintenance gang.

Steps to reduce detachments:

Following steps are required for reducing detachments:-

- (i) **Database management system:-** The database of all the detachments should be computerized. a separate code should be given for each cause of detachment for better failure analysis.

- (ii) Failure Reports:-** Failure report of each detachment should be made to pinpoint exact cause. It will help in taking concrete action in eradicating the problem.
- (iii) Rake Integrity:-** It will help in creating the sense of ownership among the depot as well as maintenance gang, resulting in better upkeep.
- (iv) Close Monitoring:-** The staff and supervisors must be instructed not to detach a coach for those reasons, which can be rectified in the washing line itself like replacement of DV and internal furnishing, DVs, pipe line etc.
- (v) Avoiding Cannibalization of Wheels:-** Cannibalization of wheels should be stopped from coaches going for POH or IOH. Wheel changing is the major cause of unplanned detachment and 80% of the detachment on its account are due to normal wear like deep flange and radius reduce etc. These can be reduced to a certain extent by avoiding wheel cannibalization through increased wheel pool, contract for faster movement of wheels to shop through road.
- (vi) Infrastructural Development:-** Proper washing lines with lighting arrangements and pathways to facilitate the changing of springs, V-belts, overhead tanks etc.
- (vii) On line Fitment:-** A separate gang should be nominated for making the coaches fit on washing line by changing springs, V-belts etc. Efforts should also be made to do these works at night also.
- (viii) Use of Modern Technology:-** Use of high pressure cleaners for trolley cleaning, portable welding sets, cordless drilling machines, hot air guns etc. at washing lines will also help in reducing the detachments.

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