

North Eastern Railway

Gorakhpur

Office of the GM (Engrg.)

Dated: .08.2023

No. W/26/0/Ballast Policy/Pt-II/4A

JOINT PROCEDURE ORDER FOR UNLOADING OF BALLAST DMT

Ref:-JPO No. T/106/1/C&W/2013 dated 7.7.2017

Sub: Joint Engineering, Mechanical and traffic Procedure Order for loading /unloading and transportation of ballast DMT.

Scope and applicability: Ballast DMTs consisting of BOBYN type hopper wagons having side door controlled mechanically.

Objective :- There have been few cases of derailment of hopper wagons on NER in the past. To avoid the recurrence of such incidents, following action must be ensured:

1. Duties of Guard/Loco Pilot/ SSE (P Way)

- i. The Guard shall observe the instruction contained in G&SR for working of material/ballast train, when ballast train performs unloading works.
- ii. Respective SE/JE/P.Way supervising the unloading shall be responsible for efficient functioning of the unloading mechanism of ballast train.
- iii. The Sectional P.Way Engineer, not below JE/P.Way shall be responsible for:
 - a. Supervising safe unloading of ballast.
 - b. Placement of unloaded ballast in safe position, so that ballast does not infringe the standard Dimensions.
- iv. The loco pilot of ballast train shall be vigilant and follow the instructions of P.Way Engineer available in loco driving cab, who shall be on constant look out for signals from sectional P.Way Engineers /Guard while unloading of ballast and follow the signals given from rear of the train or otherwise.
- v. G & SR provision of NER S.R. 4.62 should be followed by all concerned.

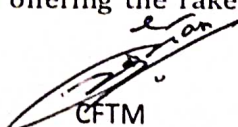
2. Examination of the rake before sending to depot for loading:

Responsibility of maintaining the rake lies with the mechanical department. Nominated maintenance depot officer incharge at GD should arrange to ensure the following before issuing BPC of the DMT:

- i. Unloading gears of these hoppers are to be maintained properly, which will ensure proper unloading of wagons during traffic block. All the unloading gears should be lubricated before issuing BPC, so as to ensure proper opening and closing of doors of hopper wagons at the time of unloading.
- ii. Unloading gears of wagons must be checked at the time of examination at GD yard before giving fitness to BOBYN wagons for loading of ballast.
- iii. Necessary fittings for maintaining rakes shall be stocked by maintenance depot GD.
- iv. 90% brake power should be ensured while issuing BPC for 15 days, by nominated examination depot GD and may be extended for next 15 days from any of the proposed stations BSBS, ASH & LKU after safe to run examination.
- v. The engineering representative PWI shall take over the rake at maintenance depot GD and examine that all unloading gears are in working order to avoid any problem at loading point. PWI will then be responsible for fittings till the rake is in his charge. When the rake is sent for examination at GD after expiry of BPC, list of missing fittings will be prepared jointly by PWI and SSE/JE C&W w.r.t. previous joint note drawn at the time of taking over.
- vi. The PWI shall be responsible for hopper fittings while the rake is in his charge. Engg department will be responsible for offering the rake for regular examination before expiry of BPC

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5. **Action to be taken during unloading of Ballast DMT by SSE/IE(P.Way) supervisor unloading.**

- i. DMT should be moved smoothly at appropriate speed (8-10 KMPH) while unloading ballast. Also DMT shall move only in one direction and no pushing back should be done.
- ii. Unloading of ballast to be done preferably in falling gradient, wherever gradient is steeper than 1:100.
- iii. Protection of the ballast train as per G&SR 15.09 and IRPWM-2020, Para 806(I) must be ensured.
- iv. While ballast train is working, it should be ensured that all the doors are opened slowly to avoid sudden discharge and ballast is spread uniformly. On curves, inner side door should be adjusted so that the required quantity of unloading is ensured on both sides.
- v. While unloading ballast from hoppers, care should be taken in Point and Xing zones, so that check rails and gap between tongue rail and stock rail are clear.
- vi. DMT should not be stopped while unloading is in process. If the ballast train has stopped during unloading, it should be ensured that the ballast is clear off the top table of rail and flange way before movement of the train.
- vii. Bond wire should be kept clear off ballast. These should not be embedded in ballast. OHE Mast should be clear off ballast so that it can be checked whether bonding of mast with rail is intact or not.
- viii. If for any reason one side chute is not opened, opposite chute should also be closed so that uneven unloading is avoided.
- ix. Due to poor visibility at the time of unloading it become difficult to exchange signal between driver and guard/PWI, Walkie-Talkie sets should be made available to the driver and guard/PWI for proper and safe working of DMT. Sufficient nos. of P.Way staff should be provided to passing signal between driver and Gaurd/PWI.

6. **Action to be taken after unloading of Ballast DMT by SSE/IE(P.Way) supervisor unloading.**

- i. After unloading the ballast, it must be physically ensured that no uneven unloading of ballast exists. In case of uneven unloading in rake is noticed and the same cannot be attended to in the block, the DMT must be taken to nearest station with speed restriction as considered necessary ensuring that speed is not more than 10 KMPH while negotiating curves and T/out.
- ii. Para 216 of IRPWM -2020 should be followed during unloading of ballast along the line.
- iii. SEJs should be cleared off from stone ballast after unloading.
- iv. Ensure clearance of ballast properly to avoid jamming of signal rods, gears and lock bars after unloading.
- v. Ensure that unloaded ballast from train should be kept clear off moving dimensions. If required, suitable SR may be imposed.
- vi. PWI Incharge will ensure before leaving the site that no stone is left in advertently between the stock rails, tongue rail, check rail & nose of crossing.
- vii. Ballast which has fallen between the running rail and check rail on curves or LCs should be cleared invariably before cancellation of block.
- viii. While giving the memo to ASM for clearing the block of unloading of ballast, it must be ensured by SSE/IE (P. Way) supervising the work that there is no infringement to moving dimensions.
- ix. Despite all precautions it is likely that some ballast may hit the foot board of the train resulting in rising of dust etc. It is therefore recommended that a speed restriction of 45 KMPH be imposed for the first train which passes over the portion where the ballast had been unloaded. Caution order shall indicate the location where the ballast had been unloaded and also that the temporary engineering indicator board are displayed at site.
- x. PWM/Mate with gang shall remain at site until next two trains have passed. In order to ensure complete unloading of ballast, the hopper doors must be in working order after unloading of ballast hoppers (BOBYN rakes), SSE/IE (P.Way) Supervising unloading must also invariably record the unloading details in the following tabular form in a register.

Nos. of hoppers unloaded			
Fully emptied	Partly unloaded	Fully unloaded	Total.

This joint circular does not in any way amend the stipulations of IRCA and G & SR

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- vii No ROH/POH marking should be done during safe to run examination for validity extension of 15 days at BSBS,ASH & LKU .Marking of only unsafe wagons should be done at these points.

3. Pre-loading of ballast at depot

- SSE(P.Way)/Work incharge of Ballast Depot must ensure that oiling and greasing of all door opening assemblies of BOBYN rakes at Ballast Depot has been completed before loading in every trip and must keep a proper record in the form of a log book. The sectional ADEN and Sr. DEN during their inspection at Ballast Depot should see the log book and ensure that the same is properly maintained.
- Wagons with defective doors should not be permitted for loading and prominent marking "Not to be loaded" be done. This wagon should be attended during next examination at maintenance depot GD and repaired.
- SSE (P.Way)/Work incharge of Ballast /Depot will maintain a log book on the following performa in which deficiencies observed during checking of rake should be entered.

Date of Checking	Deficiencies Observed			BOBYN Nos. in which Oiling and Greasing done and doors handles have free movement	Any other remark of the Inspecting officials	Signature of the Inspecting officials.
	BOBYN Nos. in which doors are badly jammed and could not be opened	BOBYN Nos. in which Gap observed even in closed position of doors.	BOBYN Nos. in which doors opening assembly is very tight and is not working smoothly and doors opened with a lot of extra effort.			
1	2	3	4	5	6	7

- Before entering into block section, opening of doors should be checked and if all of the doors of any BOBYN are not opening properly, unloading should not be done from wagon and C&W staff should be booked on the next day to attend the same in the ballast depot.
- A joint note will be prepared between PWI & SSE/JE of examination depot GD regarding the list of deficiencies when rake goes for issuing BPC.

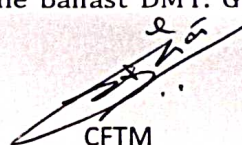
4. Action to be taken prior departure of Ballast DMT from depot:

- Unloading should not be done from sunset to sunrise and in thick foggy tempestuous weather impairing visibility.
- The ballast train should be accompanied by a qualified Engineering Official- In- Charge not below the rank of JE(P.Way), with valid competency Certificate. He should be well conversant with the rules & regulations pertaining to the working of BT. The Official-in-charge should have the details of exact location at which the ballast has to be unloaded, duly approved by SSE/P.Way or ADEN. Proper planning for unloading ballast hoppers TP wise should be done by PWI in advance and clear signal should be shown to drivers to stop to at exact required location.
- 02 SSE/JE should always be available during unloading of ballast DMT's. One SSE/JE should remain at site after completion of unloading and clear the track from heaps of ballast.
- Approx.20 labours are available in Ballast DMT.
- Ballast DMT must be accompanied by a railway blacksmith for handling jammed gears of doors flaps if any.
- Ballast train should not be taken in to section for unloading if any hopper is having uneven load. The unevenly loaded wagon should be adjusted before taking in to the section.
- Ensure that the safety equipments and first aid boxes are available with supervisor are in good working order and in updated condition.
- Brake van must be attached to the ballast DMT. Guard must work from his brake van, when the DMT is worked.

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