

FREIGHT
TRAIN
EXAMINATION

RAILWAY BOARD JOINT PROCEDURE ORDER OF FREIGHT TRAIN EXAMINATION OR GOODS TRAIN EXAMINATION:-

1. In most of the examination the wagons are intensively examined & repaired according to the infrastructure facilities available in that yard.
2. Intensive examination means the maximum repair should be carried out to the entire rake so the rake can move to the destination or up to the given kilometer given in the BPC without any enroute detachment.
3. This examination should be carried out in a stipulated time given in JPO such as
4. 40 man/hour for end to end rake,
5. 75 man/hour for closed circuit rakes with the standard intensive repair gange having two trained examiner +12 staff and welder.(if welding facility is existed in that yard).

6. During intensive examination the TXR after receiving the information from yard or ASM ON DUTY that the train is coming take up this position on both side of the line.
7. Short of the normalizing facility place on which the train is to be received.
8. This will enable them to watch the condition of the running gears and defects such as flat places on tyre, overheated axle boxes, broken springs, skidded wheels, brake gear etc.
9. As the train passes than when train coming to a halt the train examining staff shall protect the train at both the ends in the prescribed manner ; and after that axle boxes must be felt.

TYPE OF EXAMINATION

1. End to end examination of UIC/vaccum brake stock
2. End to end examination of air brake stock.
3. Close circuit rake examination
 - 7500 km or 35 Days
 - 6000 km or 30 Days
 - 4500 km or 20 Days
4. Post tipping examination
5. Premium rake examination
6. Terminating examination
7. Mini rake scheme [BCN,BCNAHS,BCXN]- Air Brake
8. Guard driver rake examination/post loading check

END TO END EXAMINATION OF UIC/VACCUM BRAKE STOCK

1. The rake should normally be intensively examined in empty condition except when back loading of the rake has to be done at unloading siding.
2. The TXR with staff will examine the rake from both sides simultaneously after such examination and repair in which defective wagons having rejectable defects mark, sick after that the air testing of the rake is done by the vacuum exhauster available.
3. During vacuum testing of should be ensured that the vacuum level in the engine side should be 46cm and 38 cm in the brake van
4. with 90% minimum brake power .
5. After completion of air test the fit memo of examine rake should be issued
6. on form no-390B which is a train advise form issued by ASM carry out the shunting operation of the fit rake

7. And detach the side wagon from the rake and attach the fit wagon mostly released from sick line or available in the yard.
8. After marshalling operation is completed.
9. The rake is again offered to TXR for issuing the BPC of the empty rake.
10. The TXR again check the attached wagon connect their hose pipe check the position of coupling and allow train engine to attach on the train.
11. The TXR will prepare a pink colour BPC of the empty rake.
12. The BPC should have no destination mentioned.
13. The guard first sign on the BPC and enclose the vaccum level is available on his engine on the BPC .

- 14 The TXR staff then reach to the engine and give BPC to the driver. The driver will sign on the BPC if the vacuum level is available as required i.e 46 cm in this engine.
- 15 If the vacuum level is below 46cm it should show some leakages in the train pipe joint which should be attended by the TXR Staff.
- 16 If there is no leakage in the system and still the 46cm vacuum level is not available in the engine that means the suction power of the engine is weak.
- 17 For that reason the engine should be tested on 8 mm hole test plate for blockage & efficiency test if the test plate applied on the engine if show 53cm of the vacuum level .
- 18 If the engine is not able to achieve 53 cm of vacuum level.
- 19 The engine should be attended by the engine maintenance staff from diesel/electric shed.
- 20 The empty rake should be dispatched from originating station must reach for the loading point within 4 days of the issued BPC including the day the issue of BPC .

- 21 When the rakes reach to the loading point it is loaded with commodities.
- 22 After loading the operating staff/commercial staff posted of the loaded train is clearly mentioned on the some BPC will than become valid up to such destination.
- 23 No driver should move the loaded train from the loading point unless the destination is clearly mentioned on the BPC.
- 24 BPC of the loaded train without destination will be considered as invalid.
- 25 After that the rake is dispatched from the loading point to the destination at the destination after unloading,
- 26 The rake must be examined. Once again in the empty condition and above cycle repeat in the absence of freight train examination facility at the unloading point,
- 27 The empty rake or back loaded rake must be examined at the first freight train examination point in the direction of movement will be permitted on driver & guard certificate for which the following instruction should be follows-

- The driver and guard will carry out GDR check of the empty rake or post loading check of the loaded rake. They will also ensure the continuity of vacuum before starting.
- The guard /driver will ensure that there are no loose missing fittings in the under gear such as brake block, safety brackets, draw gear fins, brake gear pins etc which may endanger safe running of the train . The driver and guard then prepare the memo jointly on a plane sheet and both will sign it on copy will be handed over to Station Master.
- When back loading is done at a station where freight train examination facility exist.
- The loaded rake should be examined at that station only and BPC issued . Running of train on guard and driver memo will be permitted only up to the first freight train examination point in the direction of train movement.

END TO END EXAMINATION OF AIR BRAKE STOCK

1. The end to end examination of air brake stock the condition shows on the vacuum brake stock examination is equally applicable.
2. To the air brake stock except the 4 days limit for reaching of the rake from destination to the loading point will apply to the air brake stock.
3. However, since these rake are likely to run for extended period at each loading cycle.
4. The examination should be thorough and intensive to take care of such long runs

EXAMINATION OF CLOSE CIRCUIT RAKE

1. The close circuit rake are running will all air brake stock. Three type of certification is done on these rakes, the cc rakes are normally allotted to a base station having facility of routine houling.
2. Three type of certification is done cc rake examination
3. a) 7500km or 35 days whichever is earlier
4. b) 6000km or 30 days whichever is earlier
5. c) These two types of rake are also called the close circuit premium rakes another certification is 4500km or 20 days whichever is earlier. The certification of 7500 km or 6000km are done by the A category goods depot of the I.R.
6. The cc rake examination the time given is 100 man/hr or 08 hours will be examining during day light.
7. The examination can be conducted during night is sufficient illumination is there; the separate type of examination and repair is given to different type of stock.

EXAMINATION OF CLOSE CIRCUIT BTPN RAKE

1. The intensive repair of BTPN rake will be carried out at the base depot as KRCA.
2. The intensive repair will be done in empty condition as far as possible the close circuit BTPN rake should be formed off ROH & POH wagon for better monitoring after intensive care at base depot .
3. The rake should have 100% brake power with adequate brake block thickness too last for the extended run of 4500km .
4. The special type yellow colour BPC will be issued valid for 4500kms.
5. The initial brake power of rake is 100%.
6. The km earned by the rake will be logged by BPC after each trip.
7. Apart from getting logged in FOIS.
8. The cumulating kilometre will also be indicated the movements of these rakes will be monitored by CTNL pl Baroda.
9. CTM petroleum BT assisted MBI POL WR Churchgate and we should also ensure that cc rake do not run overdue examination.

10. After examination and certification the rake will be loaded and sent to the destination at the unloading point.
11. No examination will be conducted by train examiner except-GDR check and continuity of brake will be done by guard and driver.
12. The BPC of the BTPN rake will be valid for movement on WR, CR, WCR, NCR, NWR & NR.
13. There will be no intermediate examination of BTPN rake.
14. It would be mandatory to maintain circuit and rake integrity of the wagon moving in close circuit.
15. If the rake integrity is disturbed the rake will be returned to a base depot for intensive repair and issue of fresh BPC.
16. Whenever loading is done on other than WR location. Following should be ensured failing which the BPC issued by W.R shall be deemed as invalid.
 - i. In coming /Out going examination including fitness for loading.
 - ii. Kilo-meter earned by the rake as on date of loading.
 - iii. Certification of no leakage in the rake after loading.

17. Close circuit BTPN rake incoming examination whenever these rakes touch a loading point on WR at KRCA, Gandhidham, hapa, MWG Mangolia, KWS.
18. The incoming examination should complete in 1 hrs after that rake should be send for loading. After loading these rakes will be given the outgoing examination the following work will be done.
19. Ensured completions/securing of brake gear Deficent and worn-out rakes and Brake continuity test.
20. Revalidation BPC minimum 90 % brake power must be ensured.
21. Detachment of wagon only in case safety is affected.
22. As for as possible the outgoing examination of cc rake will be done with locomotive attach with proper and adequate safety measures.
23. The safety of staff is not endangered effort will be mad to complete the out going examination in 1 hr or 30 min.
24. If any rakes moves outside the close circuit the rake should be treated to run on invalid BPC and rake should be returned to the base station i.e K.R.C.A for examination & re-certification.

BOXN-RAKE

1. NWR control circuit, new cotney junction is the baroda station for boxn rake.
2. These BOXN rake are mentioned in close circuit by the new cotney junction and issued BPC in empty condition.
3. Most of the BOXN Rake are utilised for loading of the coal iro ore, copper ore, boxide and lime stone etc.
4. Most of these rake are unloaded with the help of tripler.
5. The rakes loaded with coals are arriving from different part located on Gujarat coast line or coal pit located in bihar/Jharkhand areas.
6. These rakes are intensively examine at new cotney junction and send for loading.
7. These rakes are empty different thermal power station located NW and control section with the help of tripper.
8. The post tripling examination of each rake is done by the skelton c&w staff.
9. If more than 3 rake in 24 hour are being tripled at each location.
10. In this examination all the missing fitting are replenished are fitted 90 % brake power is ensured and after such examination the rake is again sent for loading if km is not adjusted otherwise rake sent back to the base station for re-examination and re-certification.

CLOSE CIRCUIT RAKE EXAMINATION OF BCN

1. In eastern central section, Ambala and Baroda yard are base station for close circuit BCN rake.
2. On arrival in empty condition the rake are examined and issued BPC by these base depot for close circuit operation.
3. After such certification the rake are utilised on selected circuit for multiple loading and unloading operation.
4. No intermediate examination will be conducted in between.
5. The rake will again re-examined will be conducted in between and the rake will again re-examined if km or days is adjusted.
6. After each loading and unloading cycle the empty rake will be checked guard and driver as per the inspection contain in J.P.O. In BCN rake are not felt on tripler so the intermediate examination are not required as per the JPO.

EXAMINATION OF PREMIUM RAKES

1. The following rakes shall be examined on premium end to end pattern.
2. BOXN, BOXNHS, BOXNHA, BCN, BCNA, BCNAHS, BOST, BTPN, BOBRN & BORR, the nominated depot mainly 'A' class depot or 'B' class depot. Which are likely to be upgraded in A class depot.
3. The premium end to end rakes will be intensively examined and issued BPC (Light Green Colour) which will be valid 12 days from the date of issue. The brake power of these rakes will be 95% and the total time for examination is 75 man hours.
4. These rakes are allowed multiple loading/Unloading after each loading/Unloading.
5. The rakes will be examined by Guard & driver before commencement of journey and observance will be recorded under relevant column of the BPC.
6. After the lapse of 12 days the rakes should be offered for next intensive examination at first nominated examination point in the direction of movement.
7. To avoid the examination in loaded conditions a grace period of 3 days can be permitted. However after the expiry of grace period i. e. after a laps of 15 days after date of issue of BPC. These rakes shall be offered for examination at the first TXR point in the direction of movement.
8. After examination rakes will be certify as premium rake.
9. Movement of these rakes will be monitored through FOIS by traffic deptt and mechanical deptt.

Difference between Safe to run and intensive examination:

<i>S.N.</i>	<i>Safe to run / Revalidation</i>	<i>Intensive</i>
<i>1</i>	<i>➤ Validity of BPC is given up to next TXR examination point and it is endorsed on the same BPC, No fresh BPC is issued.</i>	<i>➤ The rake is examined in empty condition intensively and fresh BPC is issued as per required Brake power % as 85% or 95% or 100 %in case of EE or PEE or CC respectively.</i>
<i>2</i>	<i>➤ Only safety "S" marks defects are examined and attended to.</i>	<i>➤ All reject able, chargeable and "S" marks defects are examined and repairs if required.</i>
<i>3</i>	<i>➤ This type of examination is being carried out for air brake stock only.</i>	<i>➤ All type of stock offered by traffic given intensive examination.</i>
<i>4</i>	<i>➤ C&W staff with a least facilities may examine the load for STR.</i>	<i>➤ All minimum infrastructural facilities as per CAMTECH are required to examine and repairs the fitting during examination.</i>
<i>5</i>	<i>➤ It may be carried out at any traffic line.</i>	<i>➤ It is done only on nominated yard as well as selected line where infrastructural facilities are available.</i>
<i>6</i>	<i>➤ 10 man hours are required to carry out safe to run.</i>	<i>➤ The man hours required as 40 for Vacuum brake stock EE, 56 for air brake EE and 100 man hours for CC rake, 75 per PEE.</i>

Difference between CC and premium rake examination:

S.N.	CC rake	Premium rake
1	➤ CC rake can only examine at base depot (A,B or C cat. Yard).	➤ Base depot is not nominated and can only be examined in "A" cat. Yard and nominated yard.
2	➤ 100 % brake power is ensured and BPC is issued on yellow color certificate.	➤ 95% brake power is ensured and BPC is issued on green color certificate.
3	➤ It is run on predefined (closed circuit) path only.	➤ It may be run over any route of Indian railway.
4	➤ 100 man hours is specified to attend CC examination of standard rake (58 BOXN+ 1 BVZC)	➤ Man hours are not decided. (Proposed 75 man hours)
5	➤ CC rake is preferred to form out of off POH/ROH wagons	➤ Stipulation of off POH/ROH wagons is not applied to premium rakes.
6	➤ Validity of BPC is 4500 km/20 days, 6000kms/30 days or 7500 km/35 days	➤ Validity of BPC is 12 days and a 3 days grace period is allowed for the rake in loaded.(kilometer is not decided)
7	➤ Items (reject table & chargeable) are specified to examine, repair & maintenance.	➤ Items (reject able & chargeable) are not specified for examination and its repair.(Only being examined on EE pattern)