

**Northern Railway**

Headquarters Office,  
Baroda House,  
New Delhi

Dated 28.05.2025

No. 45-RS/13 /Train Operation (e-24499)

**Divisional Railway Manager,  
Northern Railway,  
JAT, FZR, UMB, DLI, MB & LKO.**

**Sub: Additional Precautions during Light Engine working.**

There has been a SPAD case in UMB division on 13.05.2025 by the crew of Light engine who passed the Gate signal in Red position and hit a road vehicle. Therefore, divisions should counsel the crew to follow under mentioned precautions additionally while working light engine:

1. Locomotive brake application through SA-9 and A-9 should be checked before working a light engine. Light engine should not be worked by Crew/permitted by TLC in case brake application is not 100%.
2. To ensure the effectiveness of loco brakes, loco should not move on opening throttle with full application of the loco brakes with SA-9:
  - Conventional loco : Up to 650 A
  - Three phase locos : WAP-5 – 100KN  
: WAP-7 & WAG-9 - 150KN  
: WAG-12B - 157KN
3. Loco brake (SA-9) should be used to control the speed of Light engine to stop well before the Red signal comfortably. On passing a signal at **Yellow**, crew should not apply A-9/RG/Dynamic brake.
4. Crew should control the speed of light engine strictly on the line of **LOADED FREIGHT TRAINS** while passing a signal at "Yellow".
5. Crew should work the Light engine as per speed defined by the divisions in different sections, if any.
6. In gradient sections, crew should be more attentive and functioning of RG/dynamic brake/Hand brake should be ensured while taking over charge of loco.
7. Crew should be categorically counsel on the exceptional aspects mentioned below:
  - i) Brake application in different class locomotives through synchronization is not uniform. Detail of same is enclosed herewith.
  - ii) Application of loco brake through synchronization does not take place if PVEF pedal switch is pressed by LP.
  - iii) RG/Dynamic brake gets disconnected on application of loco brakes with SA-9 or A-9.

  
(Naveen Kumar Agarwal)  
CEE/Operations

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### Loco Brake Application

Traction	Type of Loco	SA-9 application BC Pressure	A-9 application BC Pressure	Remark
Electric	WAP-1	3.0 kg/cm <sup>2</sup>	1.8 kg/cm <sup>2</sup>	
	WAP-4	3.0 kg/cm <sup>2</sup>	1.8 kg/cm <sup>2</sup>	
	WAG-5	3.0 kg/cm <sup>2</sup>	1.8 kg/cm <sup>2</sup>	
	WAG-7	3.0 kg/cm <sup>2</sup>	1.8 kg/cm <sup>2</sup>	
	WAP-7	3.5 kg/cm <sup>2</sup>	2.5 kg/cm <sup>2</sup>	
	WAG-9	3.5 kg/cm <sup>2</sup>	2.5 kg/cm <sup>2</sup>	
	WAG-9H	3.5 kg/cm <sup>2</sup>	2.5 kg/cm <sup>2</sup>	
	WAG-12	3.8 kg/cm <sup>2</sup>	3.8 kg/cm <sup>2</sup>	If speed is <10 Kmph, BC pressure through A-9 will be 3.8 Kg/ cm <sup>2</sup> .  If speed is >10 Kmph, SA-9 will not be applied through A-9 but RG will apply.
	WAP-5	5.0 kg/cm <sup>2</sup>	5.0 kg/cm <sup>2</sup>	Disc brake
Diesel	WDM-2	3.5 kg/cm <sup>2</sup>	1.8 kg/cm <sup>2</sup>	
	WDM-3A	3.5 kg/cm <sup>2</sup>	1.8 kg/cm <sup>2</sup>	
	WDP-1	3.5 kg/cm <sup>2</sup>	1.8 kg/cm <sup>2</sup>	
	WDP-3A	3.5 kg/cm <sup>2</sup>	1.8 kg/cm <sup>2</sup>	
	WDP-4B	5.1 kg/cm <sup>2</sup>	1.8 kg/cm <sup>2</sup>	
	WDP-4D	5.1 kg/cm <sup>2</sup>	1.8 kg/cm <sup>2</sup>	
	WDG-3A	3.5 kg/cm <sup>2</sup>	1.8 kg/cm <sup>2</sup>	
	WDG-4	5.1 kg/cm <sup>2</sup>	1.8 kg/cm <sup>2</sup>	
	WDG-4B	5.1 kg/cm <sup>2</sup>	1.8 kg/cm <sup>2</sup>	
	WDG-4D	5.1 kg/cm <sup>2</sup>	1.8 kg/cm <sup>2</sup>	
	WDG-4G	5.2 kg/cm <sup>2</sup>	1.8 kg/cm <sup>2</sup>	
	WDG-6G	5.2 kg/cm <sup>2</sup>	1.8 kg/cm <sup>2</sup>	