

505 Pro-forma for measurement of Locomotive (Diesel & Electric):

Pro-forma to be filled in case of accident/derailment when loco is involved in accident.

(Information to be furnished by the Mechanical / Electric department):

505.1. Basic information:

- (a) Date of accident :
- (b) Train number :
- (c) Loco Class :
- (d) Loco Number :
- (e) Locomotive manufacturing year and place :
- (f) Base shed of Loco :
- (g) Date & Place of last POH :
- (h) Kilometres earned after last POH :
- (i) Date & Place of last major inspection :
- (j) Date & Place of last schedule inspection :
- (k) Whether any schedules are overdue? :

505.2. Give brief particulars of the safety items not provided or provided but missing/not working:

Whether locomotive is provided with:

Safety fittings	Provided/ working	Provided/ Not working	Not provided
Head light			
Speedometer			
Speed recorder			
Flasher light			
Horn			
Brake system			
VCD			

To be jointly signed by		
Supervisor (C&W/Loco)	Supervisor (Traffic)	Supervisor (P.Way)

505.3. Check and record the observations as follows:

- (a) Position of control handles, cut-out cocks etc. after the accident.
- (b) Functioning of brake synchronizing valve - whether working or not.
- (c) Position of brake blocks after the accident - whether applied or not.
- (d) Condition of cattle guard.
- (e) Any sign of seizure of roller bearing in axle box including condition of its components.

- (f) Condition of Pivot and Side Bearer arrangement of bogie including obstruction to Bogie rotation.
- (g) Condition of Fiction Damper components/Hydraulic Dampers.
- (h) Condition of Traction Rod/Guide Rod including its connection.
- (i) Condition of Traction Link including its connection.
- (j) Condition of Lateral Stop components between Bogie and Loco body under frame.
- (k) Any other observation in respect to mechanical defect of the Locomotive, which might have any bearing on safe running of Loco.

Note: 1. Defective or broken material should be sent to CMT for testing, if necessary.

2. Measurements of items e-j shall be done as per site condition.

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Supervisor (C&W/Loco)	Supervisor (Traffic)	Supervisor (P.Way)

505.4. Proforma for measurement of wheels for all classes of locomotives with wheel gauge (04 locations applicable for Bo-Bo Locos)

S. No.	Description	Observed value (in mm)		Remarks
1.	Particulars of axle (ID No.)	1.		
		2.		
		3.		
		4.		
		5.		
		6.		
2.	Diameter of wheel at tread		LH RH	
		1.		
		2.		
		3.		
		4.		
		5.		
3.	Wheel thickness flange		LH RH	
		1		
		2		
		3		
		4		
		5		
4.	Wheel Root wear		LH RH	
		1		
		2		
		3		
		4		
		5		
		6		

505.4 Proforma for measurement of wheels for all classes of locomotives with wheel gauge (04 locations applicable for Bo-Bo Locos) (Continued..)

S. No.	Description	Observed value (in mm)			Remarks
5.	Tread wear		LH	RH	Tread wear should be measured from tread at 63.5 mm from wheel gauge face (from the back face of flange) in BG and 57 mm from wheel gauge face (from the back face of flange) in MG.
		1			
		2			
		3			
		4			
		5			
		6			
6.	UST of axle: Give the date of last UST test done		LH	RH	Information is relevant in case of axle breakage.
		1			
		2			
		3			
		4			
		5			
		6			
7.	<u>Wheel gauge</u> For checking wheel gauge, three measurements at equal spacing on the inner periphery of the two wheels on the same axle is to be recorded. Check for bent axle if any.	1			All measurements shall be taken on a level tangent un-canted track. Information is relevant in case of wheel disc shifting /bent axle only. For safety, similar limits as applicable for track gauge are relevant for wheel gauge also.
		2			
		3			
		4			
		5			
		6			

- Note: 1. Wheel number one is the outer end axle of truck under the short hood and wheel count increases towards the Long hood on diesel loco, whereas for Electric loco, wheel number one is the outer end axle under cab – 1 (cab – 1 is that side of the loco which has the compressors and cab – 2 is that side of the loco which has the ARNO converter) and wheel count increases towards the cab –2
2. The measurements of wheels are to be done using wheel gauges to RDSO drawing No. SKDL-3592 for all BG locomotives except WAP5 Locos. For WAP5 locos RDSO's drawing No. SKDL 4446 and SKDL 4447 may be followed.
3. All measurements are to be taken on a level, uncanted track at the nearest yard.
4. Service limits given in the Maintenance Manual are for good maintenance practice and these are not safety limits. However, the measured values shall be compared with the service limits and degradation in values shall be discussed while finalising the findings.

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505.5 Pro-forma for measurement of Electric and Diesel Locomotives after Accident (Locomotives, which are not mentioned in this Pro forma, may be measured in similar manner)

S. No.	Description		Observed value (in mm)	Remarks
1	Buffer/coupler height Measurement of parameters such as buffer length etc may also be done to check possibility of buffer entanglement.			1 All measurements shall be taken on a level tangent un-canted track. 2 This measurements is required to be taken only in case of trailing stock is with buffers.
2	Lateral clearances	End Axles (1,3,4&6)		
		Middle Axle (2&5)		
3	Lateral clearances	End Axles (1,2,3&4)		Applicable for Bo-Bo locomotives only.
4	Longitudinal clearances between axle box and bogie pedestal liner – (for all axles)			Except WDP3A, WDG4, WDP4, WDP4B, WAP5, WAP7, WAG9 locomotives.
5	Longitudinal clearances between axle box and bogie pedestal liner – (for middle axles)			Applicable for WDP3A Locomotives only.
6	Height of Rail Guard from rail level.			
7	Condition of suspension Spring i.e., normal or broken afresh or old fracture or deformities occurred after derailment due to sudden impact.			
8	Deflected height of coil spring after re-railing on level, uncanted track.			
9	Condition of Rubber/ Elastomeric Spring Assembly at the Secondary stage.			

Note : Measurement of items 8 & 9 on will be done as per site condition.

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