



**INSPECTION CHECK LIST
FOR
BALLAST REGULATING MACHINE
(PBR-400R)**

REPORT NO. TM-156

FEBRUARY--2011

Name of Inspecting Officer:

Designation :

Date of Inspection :

Machine No. :

Base Station :

Items To Be Checked

Sl. No.	Item	Description	Condition
1.	Oil/Coolant Levels		
i)	Hydraulic oil in tank	HLP-68 or equivalent	Ok / Less
ii)	Diesel tank	HSD	Ok / Less
iii)	Axle gear box	SAE-90 or equivalent	Ok / Less
iv)	Engine lube oil	API CF4 15W40 or equivalent	Ok / Less
v)	Water/ Coolant level in radiator	Coolant	Ok / Less
vi)	Pump drive gear box	(HLP-68) or equivalent	Ok / Less

Note- Oil level may in principal be checked only when vehicle stands on level track.
(without superelevation and gradient)

Sl. No.	Item	Agent	Condition
2.	Lubrication (As per maintenance schedules)		
2.1	SHOULDER PLOUGH		
i)	Cylinder pin	Grease	Done / Not done
ii)	Plough arm pin	Grease	Done / Not done
iii)	Plough guide	Grease	Done / Not done
2.2	FRONT PLOUGH		
i)	Plough guide	Grease	Done / Not done
2.3	BRUSH ASSEMBLY		
i)	Guide columns	Grease	Done / Not done
ii)	Height adjusting screw	Grease	Done / Not done
iii)	Lifting cylinder pin	oiling	Done / Not done
2.4	Torque arm pivot	Grease	Done/Not done
2.5	Brake linkages	Grease	Done/Not done
2.6	All the pivot joints	Grease	Done/Not done
2.7	Hand brake gear	Grease	Done/Not done
2.8	Axle gear box flange cover	Grease	Done/Not done

S.No.	Item	Condition
3.	ENGINE: (As per maintenance schedule)	
	Engine Model & No:	Engine hours:
i)	Starting problem	Yes / No
ii)	Condition of smoke	White/black/normal/grey
iii)	Maximum engine temperature after two hours working	°C
iv)	Leakage in head gasket	No/ Yes (Head no.)
v)	Electrolyte level in batteries	Ok / To be recouped
vi)	Specific gravity of electrolyte (Approx.1260)	Ok / Less
vii)	V-Belt tension	Ok / To be attended
viii)	Condition of Engine Hoses	Ok / To be replaced
ix)	RPM of the Engine	As per rating / To be adjusted
x)	Battery charging circuit	Working/Not working
xi)	Whether working gauges are in order:	
	a) RPM	Yes / No
	b) Oil pressure	Yes / No
	c) Temperature	Yes / No
	d) Battery charging	Yes / No
xii)	Engine oil pressure at	
	a) Idle speed :	1.5 kg/sq. cm
	b) On load after 2 hrs. working:	4.0 kg/sq.cm
xiii)	Any abnormal sound from engine	Yes/No
xiv)	Engine safety circuit	Working / Not working
xv)	Last change of air cleaner done on	Dated
		Engine hrs
xvi)	Last change of engine oil done on	Dated
		Engine hrs
xvii)	Last change of engine oil filters done on	Dated
		Engine hrs
xviii)	Last change of diesel filters done on	Dated
		Engine hrs
xix)	Last charging / change of batteries done on	Dated
		Engine hrs

S.No.	Item	Condition
xx)	Last change/overhauling of	
	a) Self starter done on	Dated. Engine hrs
	b) Alternator done on	Dated. Engine hrs
xxi)	Last over-hauling of the Engine done on	Dated Engine hrs
xxii)	Last calibration of fuel injection pump done on	Dated Engine hrs
xxiii)	Last calibration of fuel injectors done on	Dated. Engine hrs
4.	GENERAL OBSERVATION:	
i)	Locking devices	Working / Not working
ii)	Function of signaling equipment (electrical horn, Pn. Horn, lighting, Hooter)	Ok/ To be attended
iii)	Condition and clearance of brake shoes	Ok/ To be attended
iv)	Functioning of emergency brake (If provided)	Ok/ To be attended
v)	Functioning of parking brake	Ok/ To be attended
vi)	Cooling system of hydraulic circuit	Working / Not working
vii)	Functioning of axle engage/disengage cylinder guide rod.	Ok/ To be attended
viii)	Tightness of sweeping elements	Ok/ To be attended
ix)	Any rubbing in hydraulic hoses	No/ Yes (Location)
x)	System pressure for rated settings	Ok / To be adjusted
xi)	Leakage of oil from hydraulic circuit	No/ To be attended
xii)	General condition of hoses	Ok / To be attended
xiii)	All electrical lights	Working / Not working
xiv)	Oil leakage in gear boxes	Yes / No
xv)	Tightness of engine mounting bolts	Ok / To be tightened
xvi)	Condition of shock absorber	Ok / To be attended
xvii)	Working of emergency back up pump	Working / Not working
xviii)	Competency certificate of operators	Current / Expired
xix)	Spares availability on the machine (as per Annexure-I)	Sufficient/Deficient
xx)	Availability of the safety item (as per Annexure-II)	OK/To be recouped
xxi)	Log books & Schedule registers are filled properly	Yes/No
xxii)	Condition of machine working tools (spanner set etc.)	Satisfactory / To be replaced
xxiii)	General cleanliness of the machine	Ok / To be cleaned

S.No.	Item	Condition
5.	DURING BLOCK WORKING:	
i)	Location of working	KM/TP
ii)	Post ballast profile	Satisfactory/Not satisfactory
iii)	Duration of block	
iv)	Output of work	
v)	Machine protection is being done by PWI/machine	Yes/No
6.	STAFF:	
i)	Strength of staff as per correction slip no.9 to IRTMM March 2000	Full / Deficient
ii)	Group performance	Excellent / V. good / Good
iii)	Cost awareness amongst staff	/ Average
iv)	Safety awareness amongst staff	Yes / No
v)	Staff due for medical	Yes / No
vi)	General condition of the machine	Excellent / Very good/ Good
vii)	Pending maintenance schedules & reasons	
7.	Availability of staff amenities as per Para 8.4.5 and annexure 8.2 of IRTMM	Complete/Deficient
8.	General observation of camping coach	OK/To be maintained
9.	Condition of machine stabling siding	OK/ To be cleaned
10.	Condition of rest house at stabling station	OK/To be attended
11.	Date of return of camping coach for POH	
12.	Any other remarks by Inspecting Officer	

Signature of Inspecting Officer

LIST OF SPARES

S. No.	Description	Quantity
1.	Fuel filter	2 Nos.
2.	Lube Oil Filter	1 No.
3.	Air cleaner element outer	1 No.
4.	Air cleaner element inner	1 No.
5.	Injector pipe inlet	1 No.
6.	Injector pipe outlet	1 No.
7.	Injector copper washer	12 Nos.
8.	Injector fuel feed connection pipe	6 Nos.
9.	Return filter 10 Micron (Hyd.)	2 Nos.
10.	Broom element	10 Nos.
11.	Brake shoe	4 Nos.
12.	Hydraulic pressure pipe off sizes	5 mtrs each
13.	End connections off sizes	02 nos each
14.	V-belt for engine	1 set
15.	Seal set for hydraulic cylinders	1 set each
16.	Self starter	1 No.
17.	Engine oil Cummins Valvoline 15W40	50 lit.
18.	Gear oil SHELL Servo 80W90 or equivalent	40 lit.
19.	Hydraulic oil SHELL TELLUS 68	200 lit.
20.	Lubricating grease SHELL ALVANIA GREASE RL2	20 kg.
21.	Coolant for radiator	10 lit.

List of Safety Equipments

S. No.	Description	Quantity
1.	Detonators	01 box
2.	H.S. flag red	02 nos.
3.	H.S. flag green	01 nos.
4.	Banner flag	02 nos.
5.	H.S. Tri colour lamps	02 nos.
6.	Chain & Pad lock	01 set
7.	Terfor (2 t capacity)	01 no.
8.	25 t jack with traverser	02 no.
9.	Petromax	01 no.
10.	Wooden blocks off sizes	08 nos.
11.	Skids	04 nos.
12.	Walkie Talkie Set	01 no
13.	Switch clamp	02 nos.
14.	G&SR book	01 no.
15.	Track machine Manual	01 no.
16.	Fire extinguisher	01 no.
17.	Remote controlled hooter	01 no.
18.	Flasher lights	02 nos.
19.	First Aid Kit	01 no
20.	Safety Helmet	10 nos
21.	Leather safety boots and shoes	10 nos
22.	Leather and cotton gloves	10 nos
23.	High visibility warning clothes	10 nos

Note:

- i) Inspecting official should wear the safety items 21 to 24 while doing the inspection.
- ii) All the working units should be properly locked and a tag should be attached to the unit showing the name of person who has locked the unit.

ACKNOWLEDGEMENT

Following officers and staff have made their valuable contribution in finalization of Inspection Check List for BRM (PBR-400R). This report will supersede the report no.TM-147 (Provisional) for BRM (PBR-400R).

RAILWAY.

S/SRI

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|----|--------------|---------------|
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RDSO

S/SRI

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