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**GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS**

**INSPECTION CHECK LIST  
FOR  
UTILITY TRACK VEHICLE  
(PHOOLTAS MAKE)**



**REPORT NO. -- TM- 127**

**(PROVISIONAL)**

05249

**FEBRUARY -2009**

**RESEARCH DESIGNS & STANDARDS ORGANISATION  
LUCKNOW- 226 011**

Name & Designation of Inspecting  
Officer

Date of Inspection

Machine No.

Work Station

Working hours on date:

### ITEMS TO BE CHECKED

No.	Item	Description	Condition
1.	<b>Oil/Water levels</b>		
i)	Hydraulic oil	Servo System – 68 or equivalent	Ok / Less
ii)	Nose oil	HSD	Ok / Less
iii)	Wale drive gear boxes	EP –90 or equivalent	Ok / Less
iv)	Radiator	Water with coolant	Ok / Less
v)	Engine lube oil	API CF4 15W40 or equivalent	Ok / Less
vi)	Transmission gear box	Transmission oil C4 SAE-30 or equivalent	Ok / Less
vii)	Roller bearing box	AP-3 or equivalent	OK/To be done
viii)	Vacuum pump	API CF4 15W40 or equivalent	Ok / Less
ix)	Internal engine of vacuum pump	API CF4 15W40 or equivalent	Ok / Less
x)	Vacuum filter	API CF4 15W40 or equivalent	Ok / Less

Note: Item no. viii, ix and x will only be applicable for mobile crane type UTV.

### 2. Lubrication

(As per maintenance  
schedules)

i)	Swinging system and its bushing	Grease	Done /Not done
ii)	Sliding pads and booms	Grease	Done /Not done
iii)	Roller pin	Grease	Done /Not done
iv)	Wale slide control	Grease	Done /Not done
v)	Radiator fan shaft	Grease	Done /Not done
vi)	Radiator pump assembly	Grease	Done /Not done
vii)	Wale gear box flange cover	Grease	Done /Not done
viii)	Crabon shaft	Grease	Done /Not done
ix)	Wale torque support	Grease	Done /Not done
x)	Wale extension ram	Grease	Done /Not done

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S. No.	I t e m s	Prevailing Conditions
3.	<b>Engine:</b>	
	<b>Engine Model &amp; Sl. No.:</b>	<b>Engine hours:</b>
i)	Starting problem	Yes / No
ii)	Condition of smoke	White/Black/Normal
iii)	Max engine temperature (approx. after 2 hours working)	°C
iv)	Leakage from engine cylinder head	No/ Yes (Head no.)
v)	Electrolyte level, specific gravity (min.1.24) & condition of terminal.	Ok / To be attended
vi)	Compressor working	Satisfactory/To be attended
vii)	Belt tension	Ok / To be tightened
viii)	Water leakage from radiator circuit	Ok / Leaking
ix)	RPM of the Engine	Actual
x)	Engine oil pressure	Actual
a)	At idle	1.5 kg/sq. cm
b)	At rated speed	2.5 kg/ sq. cm
xi)	Last change of Air Cleaner	Dated
xii)	Last change of engine oil	Engine hrs. Dated
xiii)	Last change of engine oil filters	Engine hrs. Dated
xiv)	Last change of diesel filters	Engine hrs. Dated
xv)	Last change of batteries	Engine hrs. Dated
xvi)	Last over-hauling of the Engine	Engine hrs. Dated
xvii)	Last calibration of fuel injection pump	Engine hrs. Dated
xviii)	Last calibration of Injectors	Engine hrs. Dated
xix)	Whether working gauges are in order	
a)	R.P.M.	Yes/No
b)	Engine oil pressure	Yes/No
c)	Engine temperature	Yes/No
d)	Battery charging Ammeter	Yes/No
e)	Voltmeter	Yes/No
f)	Hyd. Oil pressure	Yes/No
g)	Hyd. Oil temperature	Yes/No
xx)	Engine safety circuit	Working /To be attended

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S. No.	Items	Prevailing Conditions
<b>4.</b>	<b>Hydraulic System</b>	
i)	Hydraulic system operating pressure	Approx 130 bar
ii)	Safety valve pressure setting	Approx 170 bar
iii)	Conditions of hoses	OK/To be attended
iv)	Condition of D.C valves	OK/ Leaking (Location)
v)	Leakage in hydraulic system	No/To be attended
vi)	Pressure setting of relief valve	OK/To be adjusted
<b>5.</b>	<b>Power Transmission</b>	
i)	Oil leakage in Gear boxes	Yes/No
ii)	Tightness of engine mounting Bolts	Ok/ To be tighten
iii)	Condition of shock absorber.	OK/ To be attended
iv)	Any jerk in gear boxes (check play in torque support pin)	No/Yes (Location)
<b>6.</b>	<b>Electrical</b>	
i)	Battery Charging System	Working /To be attended
ii)	All lights	Working /To be attended
iii)	Electrical Horns	Working /To be attended
iv)	Functioning of machine safety circuit	Working /To be attended
<b>7.</b>	<b>General</b>	
i)	Safety items as per annexure -I.	Available/To be recouped
ii)	Locking arrangement of crane	OK/To be attended
iii)	Working of air oiler	OK/To be attended
iv)	Leakage in Pneumatic circuit.	No/Yes (location)
v)	Working of water separator	OK/To be attended
vi)	Braking system	Satisfactory/ To be attended
vii)	Condition of brake shoe	Satisfactory/To be changed
viii)	Clearance between brake shoe and wheel (max.3-5mm)	O.K/ To be adjusted
ix)	All log books filled properly	Yes/No
x)	Condition of machine working tools (Spanner set etc)	Satisfactory/ To be replaced
xi)	Hydraulic oil temperature after 2 hrs. working	°C
xii)	Condition of Oil Coolers	O.K./To be Cleaned
xiii)	Working of bogie and wheel support cylinders	O.K/ To be attended
xiv)	Emergency back up system	Functioning/ To be attended

S. No.	Items	Prevailing Conditions
8.	<b>During Block Working</b>	
i)	Location of block working	KM/TP
ii)	Duration of block	Hrs./Min.
iii)	Work done	
9.	<b>Staff</b>	
i)	Strength of staff	Full / Deficient
ii)	Group Performance	Excellent / V. Good / Good / Average
iii)	Cost awareness	Excellent / V. Good / Good / Average
iv)	Safety awareness	Excellent / V. Good / Good / Average
v)	Staff due for Medical/ Competency	
10.	General condition of the machine.	Excellent / Very good / Good / Average
11	Breakdown (Permissible unit 3 days)	Within limit/Beyond limit
12.	Pending Maintenance Schedule and reasons.	
13.	Availability of spares (As per annexure -II )	Complete/Deficient
14.	Availability of staff amenities as per para 8.4.5 and annexure 8.2 of IRTMM	Complete/Deficient
15.	General observation of camping coach	O.K/ To be maintained
16.	Condition of machine stabling siding	Clean/To be cleaned
17.	Condition of rest house at stabling station	O.K/ To be attended
18	Date of return of camping coach for POH	
19.	Any other remarks by Inspecting Officer:	

Signature of Inspecting Officer

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## List of Safety Equipments

S. No.	Description	Quantity
1.	Detonators	1 box
2.	H.S. flag red	2 nos.
3.	H.S. flag green	1 nos.
4.	H.S. Tri colour lamps	2 nos.
5.	Chain & Pad lock	1 set
6.	25 t jack with traverser	2 nos.
7.	Fire extinguisher (Foam type)	1 no.
8.	Remote controlled hooter	1 no.
9.	Flasher light	02 nos.
10.	Petromax	1 no.
11.	Wooden blocks off sizes	8 nos.
12.	Banner flag	2 nos.
13.	Portable Control Phone	1 no
14.	First Aid Box	1 no
15.	Skids	4 nos.
16.	Walkie Talkie Set	1 no
17.	Switch clamp	2 nos.
18.	G&SR book	1 no.
19.	Track machine Manual	1 no.

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## SPARE PARTS TO BE KEPT IN MACHINE'S STORE

S. No.	Description of Items	Part No.	Qty.
1.	Filter element	4p33	1No.
2.	Hook	3p5	1 No.
3.	Hex bolts	3p6	2 Nos.
4.	Retainer lock plate	3p7	2 Nos.
5.	Slotted nut	3p8	2 Nos.
6.	Split pin	3p9	2 Nos.
7.	Straight fitting ½"XM18	8p1	2 Nos.
8.	" " " "	8p4	1 No.
9.	" " " "	8p7	2 Nos.
10.	" " " "	8p9	2 Nos.
11.	" " " "	8p10	1 No.
12.	" " " "	8p19	1 No.
13.	" " " "	8p21	1 No.
14.	" " " "	8p22	2 Nos.

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## ACKNOWLEDGEMENT

Following officers and staff have made their valuable contribution in finalization of Inspection Check List of Phooltas make Utility Track Vehicle.

### RAILWAY.

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|----------|----------------|--------------|
| 1. S/SRI | O.P.Jha        | JE-I/TMC/NER |
| 2. " "   | S.K.Srivastava | JE-I/TMC/NR  |
| 3. " "   | Ranjeet Kumar  | JE-I/TMC/NR  |

### RDSO

- |          |                |        |
|----------|----------------|--------|
| 1. S/SRI | H.C. Pandey    | DD/TM  |
| 2. " "   | M.N.Siddiqui,  | SE/TM  |
| 3. " "   | A.N.Srivastava | SRE/TM |
| 4. " "   | Prem Kumar     | SRE/TM |



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