

COURSE MODULE

Course No. CE 52: Special Course for Gr. B Officers (Integrated)

Duration: 1Week

Effective Days:06

CM No.	Subjects Session wise Contents	Periods	Total Periods
52.1	Introduction		4
	Introduction to all machines and Structure of Track Machines Organization	2	
	Maintenance schedules of Machines and maintenance setup over Zonal and Indian Railways.TM Reports (RDSO) and Machine Manufacture's/OEM's Literature	2	
52.2	Operation of Machines and its main assemblies:		4
	Operation & Main Assemblies of 3X, CSM, Duomatic & Unimat and DGS.	2	
	Operation & Main Assemblies of BCM, SBCM & BRM,UTV,MDU and RBMV Operation & Main Assemblies of TLE , TRT & T-28.Operation and main Assemblies of RGM	2	
52.3	Electrical & Electronics: Track Machine Electronics	1	1
52.4	Hydraulics, Pneumatics & Mechanical: Hydraulic components & system, Pneumatic components & system, Power Transmission: Types, Mechanical & ZF Hydro- dynamic Gear Box and other related Assemblies.	1	1
52.5	I.C. Engine: Types, Main Systems of I.C. Engine & Troubleshooting.	1	1
52.6	Track Machines (Tamping) & Working Principles:		4
	Working Principles including Design Mode of Lining and Levelling by Tamping Machines	2	
	Hands on calculation of various datas to be fed for 3-point and 4-point lining and levelling using OEM'S manual.	2	
52.7	Advance Features in Tamping Machines		5
	Introduction to Automatic Guiding Computer(ALC), its Hardware & Win ALC Software	1	
	CMS,CWS,DRP & Laser	2	
	Hands-On on ALC software in measuring run mode (Unknown Track Geometry) and Known Track Geometry mode.	2	
52.8	IRTMM Provisions		4
	Duties of open line and track machine officials,	2	
	Rules for safe working of machines like competency certificate, group working of machines, working in ghat section and safety precautions at track machine work site and action in case of Break Down of M/c.	2	
52.9	Visit to CPOH & Track Machines Working Sites	8	8
52.10	Introduction& Valediction	2	2
	Total	34	34

Note: 1. Eligibility: Gr. B Officers of Integrated Course of IRICEN, Pune.

- 2. To bridge the gap between theory and practical, 1 visit to CPOH and 1 day visit to Track Machines Working Site shall be arranged for demonstration and proper understanding of machineworking.**
- 3. Practical demonstration in Model rooms shall be given along with theoretical sessions as and when required besides Practical sessions specifically earmarked for Model Rooms.**