

COURSE MODULE Course No. CE 46: Special Course on Overhauling of Tamping Unit Duration: 1Week Effective Days:06			
CM No.	Subjects wise Contents	Periods	Total Periods
46.1	Electronics:		4
	Tamping UP/DN Circuit of DUO, MPT &Unimat.	2	
	Tamping UP/DN Circuit of WST, 09-CSM,09-3X.& 09-3X Dynamic	2	
46.2	Hydraulics:		4
	Tamping Circuit of DUO, MPT &Unimat	2	
	Tamping Circuit WST, 09-CSM ,09-3X & 09-3X Dynamic	2	
46.3	Overhauling of Tamping Unit:		24
	Assembly of Tamping Bank (Gear Case) - Cleaning of dent/burrs and holes, Size of Gear case bore, Fixing of Bearing NU2220 & 6220, Fixing of Oil seal, Tightening torque for bearing housing, Radial clearance of vibration shaft after fixing, Test run of vibration shaft.	2	
	Mating of vibration shaft and plate guard centre& their tolerance. Assembly of Tamping Arm (Pick Arm) - Size, tolerance & material composition of Top pin, Centre pin, Tool bore, Steel bushes, Squareness of bores.	2	
	Assembly of Squeezing Cylinder - I.D. of Squeezing cylinder, Assembly of Piston, Piston rod, Gland bush, Dia of Piston, Piston rod & their material composition, Tightening torque for cover plate bolts, Bearing bore & fitment of Bearings on squeezing cylinders.	2	
	Assembly of Vibration Shaft - Size of different steps & Bearings, Bearing clearance Installation of Inner races, Provision of spacers & distance pieces, Mounting of squeezing cylinder, fly wheels & Vibration motor.	2	
	Tightening torques of nuts & bolts, Dimensions and tolerances of different spares used, Material composition of different spares viz Vibration shaft, Tamping Arm, Flywheel, Seal etc, Test run Parameters.	2	
	Precautions during Overhauling & working of Tamping Unit and Troubleshooting. Maintenance Schedule, checks & maintenance steps.	2	
	Tamping Unit of 09-3X - Special features, parts, Counter weight, Precautions during Overhauling.	2	
	Tamping Unit of Unimat & Russian tamper VPR16 - Special features, Parts, Precautions during Overhauling.	2	
	Spares Management, Drawings, Specifications, Procurement, Inspection & Quality Control.	2	
	Visit to CPOH in the afternoon every alternate day for demo & Hands-on training.	6	
46.4	Introduction and Valediction	2	2
	Total	34	

Note: Eligibility: SSE/SE/JE and Technicians