

## **(I) TULAR LIMESTONE MINE**

Open cast non-conventional type of (fully mechanized) mining is being implemented in this area, which comprises of the following activities,

1. Removal of top soil by excavator and preparing the face for Surface miner operation.
2. The in situ limestone is mined by using Surface Miners.
3. Hauling of Surface miner product by using 35 T dumpers to the stock yard located in the mine itself. Stocked limestone is transported by 20 T Taurus tippers to the crusher.



**FACE WORKING CONDITIONS AND FACE MACHINERY**

### **Systematic development of the faces:**

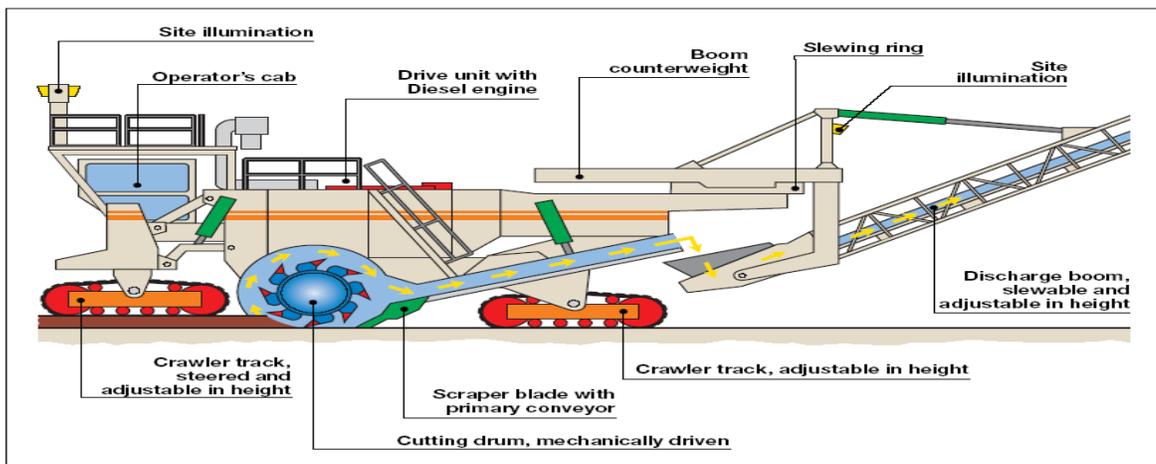
The faces are developed based on the plant requirement in systematic manner in every year with approved mine plan by IBM.

### **Face Machinery:**

### **Method of Working of Surface Miner (SM-2500):**



Surface Miner is a machine which cuts the insitu rock in thin vertical or horizontal slices without drilling and blasting, the output size being less than 150 mm. The principle of SM involves cutting the rocks, layer by layer and loading the cut materials into a dumper or conveyor system, which is entirely different from the concept of formation of benches and faces for extraction of mineral by conventional mining.



Principle design of a Wirtgen Surface Miner.

## **(II) ALATHIYUR LIMESTONE MINE**

Open cast non-conventional type of (fully mechanized) mining is being implemented in this area, which comprises of the following activities,

- Removal of top soil by excavator and preparing the face for Surface miner operation.
- The insitu limestone is mined by using Surface Miners(SM-2200)
- Hauling of Surface miner product by using 20 T Taurus tippers directly to the crusher.



## **FACE MACHINERY**

### **Method of Working of Surface Miner (SM-2200)**



Surface Miner is a machine which cuts the in-situ rock in thin vertical or horizontal slices without drilling and blasting, the output size being less than 150 mm

### **Advantages of Surface Miner**

- Selective Mining
- Eco-friendly Mining Machine.
- Total elimination of Drilling and Blasting.
- Cutting and loading in single pass.
- Has very effective inbuilt dust suppression system.
- Maximum recovery of limestone without affecting nearby villages.
- Better Quality control.
- Surface miner mills insitu limestone continuously and delivers -150 mm size particles.
- Better safety and supervision, Less manpower and easy management.