

LORNEX MINING CORPORATION LTD.MINE MAINTENANCE

1. MINE MAINTENANCE SHOP:

The mine maintenance shop and mine warehouse facility are located in close proximity to the principal pit access roads and to the ore crushing complex. The facilities are housed in a totally enclosed heated structure providing approximately 54,000 square feet of space divided as follows:

- a) Warehouse - 7,000 square feet handling parts and supplies peculiar to the mining operation. This area is serviced by a 5 ton capacity overhead crane.
- b) Electrical Shop - 2,000 square feet used for the overhaul of portable switch houses and lighting plants and routine armature repairs etc. Serviced by 5 ton capacity overhead crane.
- c) Component Shop - 1,700 square feet where minor components rebuild is carried out and mobile welders and compressors are serviced.
- d) Gas Shop - 2,000 square feet divided into three bays used for preventive maintenance and repair of light duty vehicles. One bay is outfitted with a hydraulic hoist. This area and the machine shop are serviced by the same 5 ton crane as the electrical shop.
- e) Machine Shop - 1,000 square feet containing machine tools including a 24" lathe, 12" lathe, 2¼" pedestal drill, 1" drill, cut-off bandsaw and a threading machine.
- f) Main Shop - 39,000 square feet. (SEE ATTACHED PLAN). This area consists of four bays (A, B, C, D) each 36 feet by 50 feet; four bays (E, F, G, H) each 36 feet by 70 feet; nine bays (1 to 9 inclusive) each 30 feet by 50 feet; one bay (10) 50 feet by 60 feet; and an engine and wheel motor storage area 50 feet by 90 feet.

Bays A to D and 1 to 7 are serviced by a 30 ton and a 5 ton overhead crane. Bays E to H are serviced by a 50 ton overhead crane and bays 8 to 10 are serviced by a 30 ton crane.

The bays have been generally allocated for the following purposes:

- I Bays A & B - General welding and fabrication
 - II Bay C - Shovel bucket repairs, shovel component rebuilds, general usage by shovel mechanics.
 - III Bays D, 1 & 2- General truck repairs for either 120 ton or 3200B trucks as required.
 - IV Bays 3, 4 & 8- General truck repairs 120 ton only.
 - V Bays G & H - General truck repairs 3200B only.
 - VI Bay 5 - Support equipment repair.
 - VII Bay 6 - Support equipment preventive maintenance.
 - VIII Bay 7 - Preventive maintenance trucks.
 - IX Bays E & F - Tire change outs on the haulage trucks and large support equipment. Bay F was designed to facilitate a shovel with a pit in the floor and an extra large door. This would only be used in an emergency situation. Bay E is presently being equipped with a 20 foot high x 20 foot long Jib crane (5 Ton Cap.) with electric hoist for lifting haulage truck tires on and off the bead breaker machine.
- g) General - Areas have been allocated for a tool crib, lunch room, lubricant storage, bottled gas storage and a battery room.
- h) Shop offices are located on the second floor of the building overlooking the main bays. They provide space for maintenance supervision as well as the planning and clerical staff.
- i) The steam cleaning bay is housed in a separate building. This bay is 80 feet long by 50 feet wide. A small annex to this building provides a bay 30 feet long by 23 feet wide to house a water truck during the colder months.

2. SECTION ORGANIZATION:

Mine Maintenance is headed by the Mine Maintenance superintendent assisted by the Maintenance planning engineer. There are three main subdivisions, each headed by a planning foreman and a general foreman. These are:

- a) Shovels, Drills and Welding

- b) Trucks and Support Equipment
- c) Electrical

These main areas are then further subdivided to allow one supervisor for every 10 to 15 men. The general organization is shown on the attached chart.

3. PREVENTIVE MAINTENANCE:

- a) Haulage Trucks and Support Equipment - Daily checks on the equipment are provided from:

Operators
Lubrication Servicemen
Field Mechanics and Electricians

These checks result in feedback to the planning section, where a running list of observations and required repairs is compiled. Every 250 hours, the equipment is scheduled to be washed and brought into the shop for P.M. service.

Servicemen perform the P.M. according to pre-printed check sheets showing the type of service and allowing space for the listing of faults found during the inspection.

Upon completion of the routine P.M. service, the truck or other piece of equipment is moved to a different bay in order not to interfere with the next scheduled P.M. The equipment remains at the shop until the other necessary repair work noted on the work sheet is completed.

- b) Shovels and Drills - The planned interval on this equipment is an 8 to 16 hour P.M. maintenance each week. It has been found in practice that planned component replacement, breakdowns, and scheduled overhauls require one shovel or drill down at all times. Therefore, the shovel maintenance crew is organized to have one group of mechanics and welders available to concentrate on the major repair or overhaul, and the remaining men divided to work on the P.M. schedule and to perform the minor, running repairs on a 24 hour basis.
- c) Lubrication - Trained lubrication servicemen visit each shovel daily, to check the operation of the automatic grease system, ensure that the reservoir levels are topped up, and repair or replace all broken or pinched lines. Operators and foremen spot check and follow-up to be certain that all points are being adequately lubricated.

Mobile equipment in the field also receive daily attention. A

specialy equipped field service truck makes the circuit of the entire operation, topping up lubricant levels and greasing each unit as required.

MHS/bp

Mine Maintenance Superintendent

Planning Engineer

MECHANICAL

ELECTRICAL

Planning Foreman
Shovels, Drills
Welding

Planning Foreman
Trucks
Support Equip.

Planning Clerks (3)

Planning Foreman
Electrical

General Foreman
Shovels, Drills
Welding

General Foreman
Trucks
Support Equip.

General Foreman
Electrical

Field Maintenance Foremen (4)

Welding Foreman

Mobile Equipment Foreman (4)

Electrical Foreman (3)

Routine Maintenance and Repair, Component Rebuild, Major Overhaul

Fabrication, Truck Box Rebuild, Bucket & Blade Rebuild, Routine Repairs

Tire Foreman

Shovels
Drills
Lighting Plants
Pit Pumping

Haulage Trucks
Support Equip.
Shop

Pit Buildings
Powerline, Sub-Stations, Skid Breakers, Trailing Cables, Radio Repair, Yard Lighting

Component Rebuild & Overhaul Foreman

Routine Maintenance & Repair

Specialized & Auxilliary Maintenance & Repair

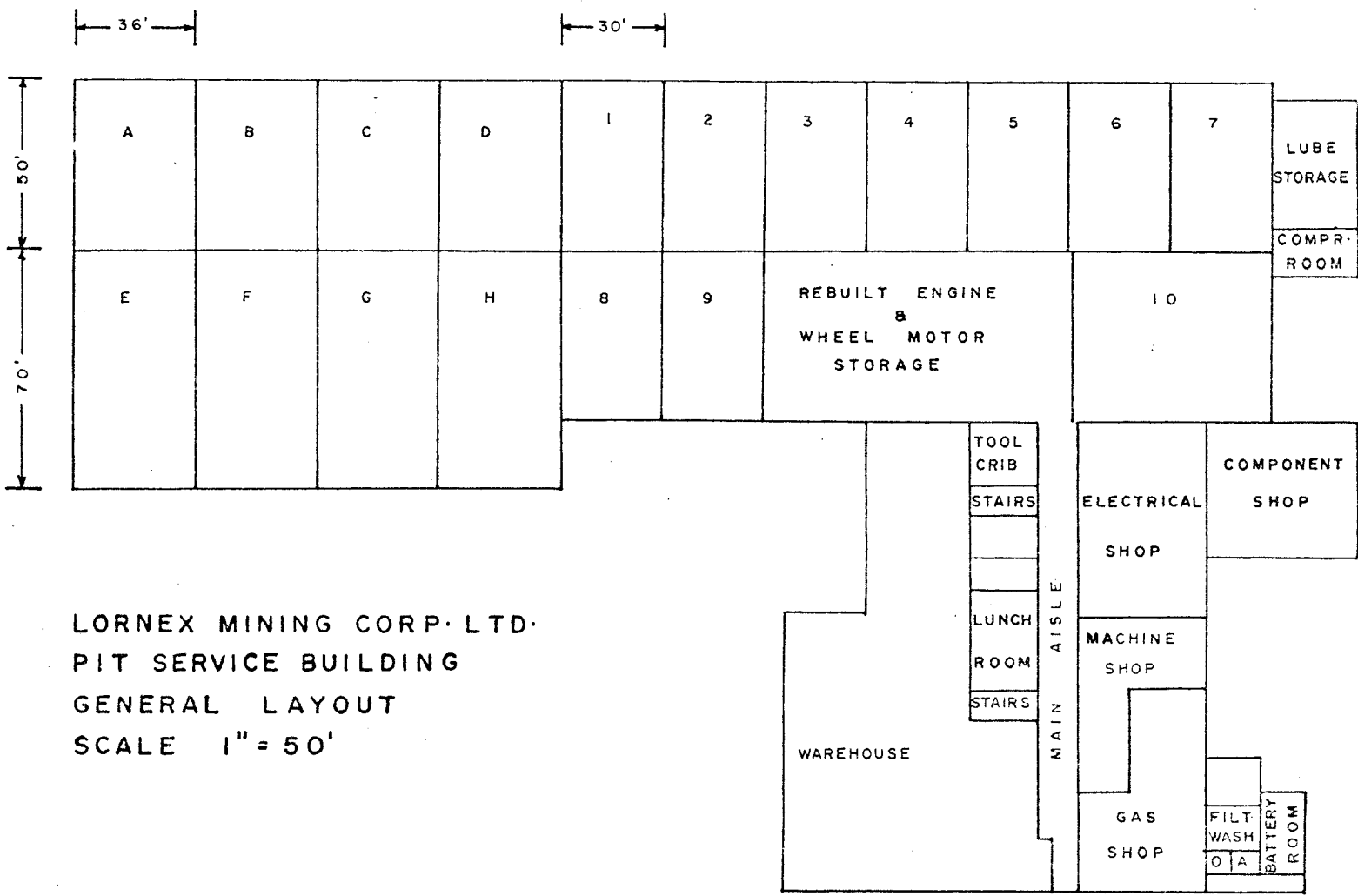
Tire Replacement & Repair

Frame Change

Component

Steam Bay

Machinist
Painter
Janitors
Etc.



LORNEX MINING CORP. LTD.
 PIT SERVICE BUILDING
 GENERAL LAYOUT
 SCALE 1" = 50'