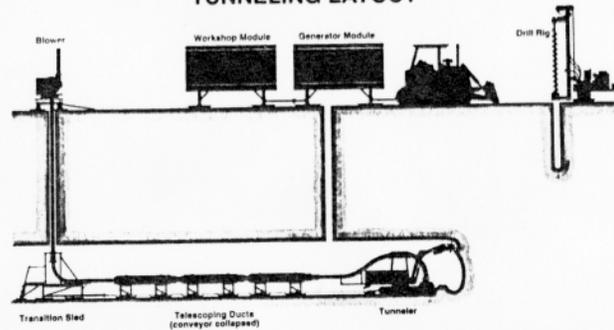


SOUTH POLE TUNNELING SYSTEM

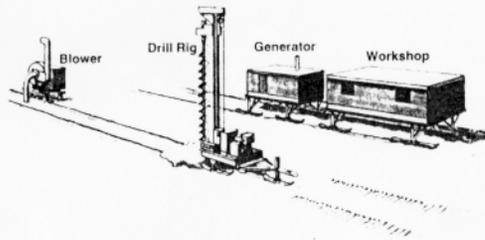
TUNNELING SYSTEM

The tunnel floor will be 25-30 ft below the snow surface. Vertical access holes will be drilled at 50-ft intervals along the tunnel route for electrical lines and blower ducting. A series of telescoping ducts placed behind the tunneler will allow continuous operation between access holes. Escape hatch holes will be drilled at 300-ft intervals.

TUNNELING LAYOUT



SURFACE EQUIPMENT

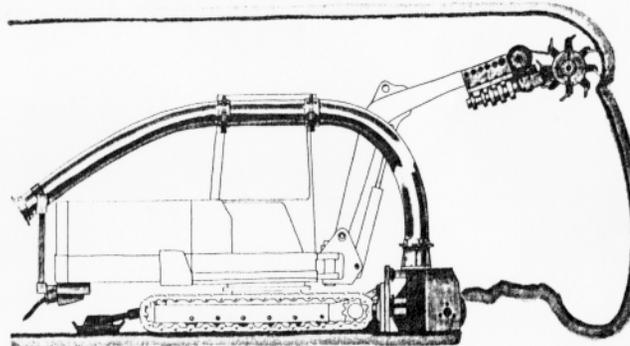


ELECTRICAL GENERATOR: 205-kW diesel generator powers all equipment

DRILL RIG: Transportable drill makes 12-in.-diam. access holes and 36-in.-diam. escape-hatch holes

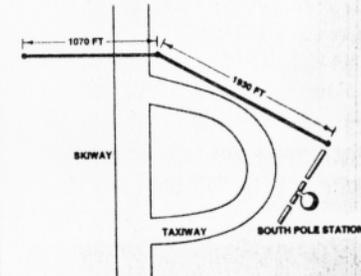
BLOWER: 40-hp centrifugal fan conveys up to 35 tons of snow per hour

TUNNELER



The tunneler is diesel-powered for autonomous surface operation and electric-powered for tunneling. The tunneler is designed to operate at -60°F and to advance the tunnel at 10 ft/hr.

TUNNEL ROUTE



A 6-ft-wide \times 10-ft-high tunnel will provide a safe personnel passageway between the main South Pole Station and science facilities about a mile away.