

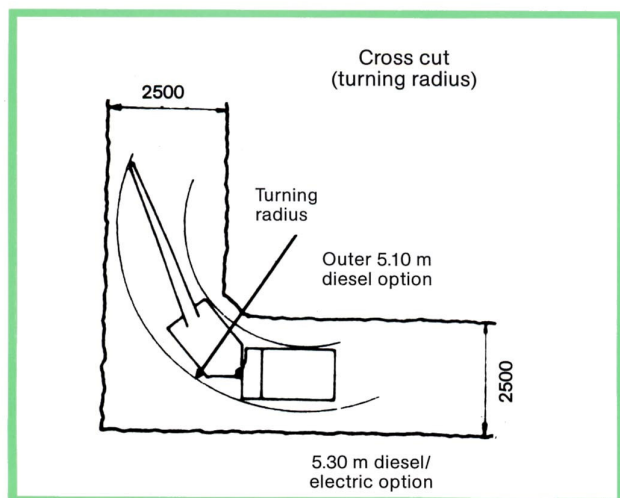
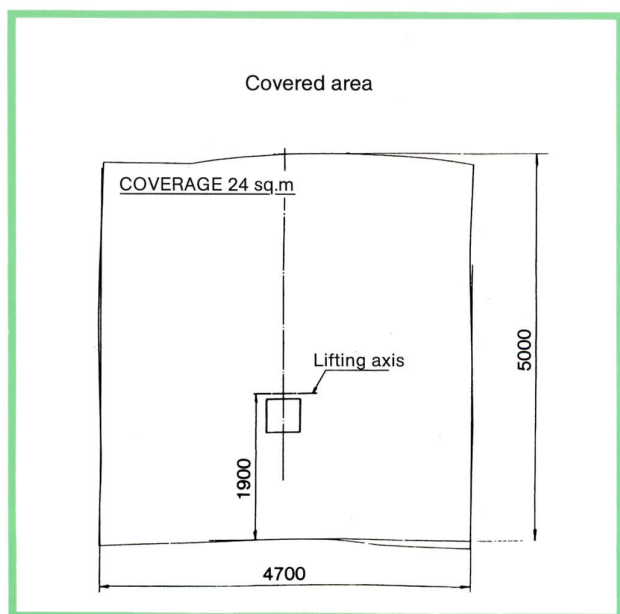
Mini Pantofore

High performance hydraulic drilling
in underground sections 8 to 24 m²...



Main drilling applications : development, roof bolting, blast holes either in drifts or cross cuts, easily and economically carried out with the MINI PANTOFORE in 8 to 24 M² tunnels.

- A mass produced small dimension MINI PANTOFORE performing like a "jumbo"
- A modern yet robust design : a long service life guarantee.
- Small size : easy access to any working area.
- Easily manœuvered whatever the ground condition (4 driving wheels with anti spin device, articulated chassis : fast travelling speed).
- Possible towing (spring brake release).
- Easy access to all the machine components (fast and simplified maintenance).
- Both diesel or diesel/electric machines available.
- A low tooling cost per drilled metre and high unequalled performances owing to the HC 40 drifter.
- Telescopic universal boom BUC 24 (covered area 24 m²) with parallel feed displacement.
- Drilling holes up to 89 mm dia.

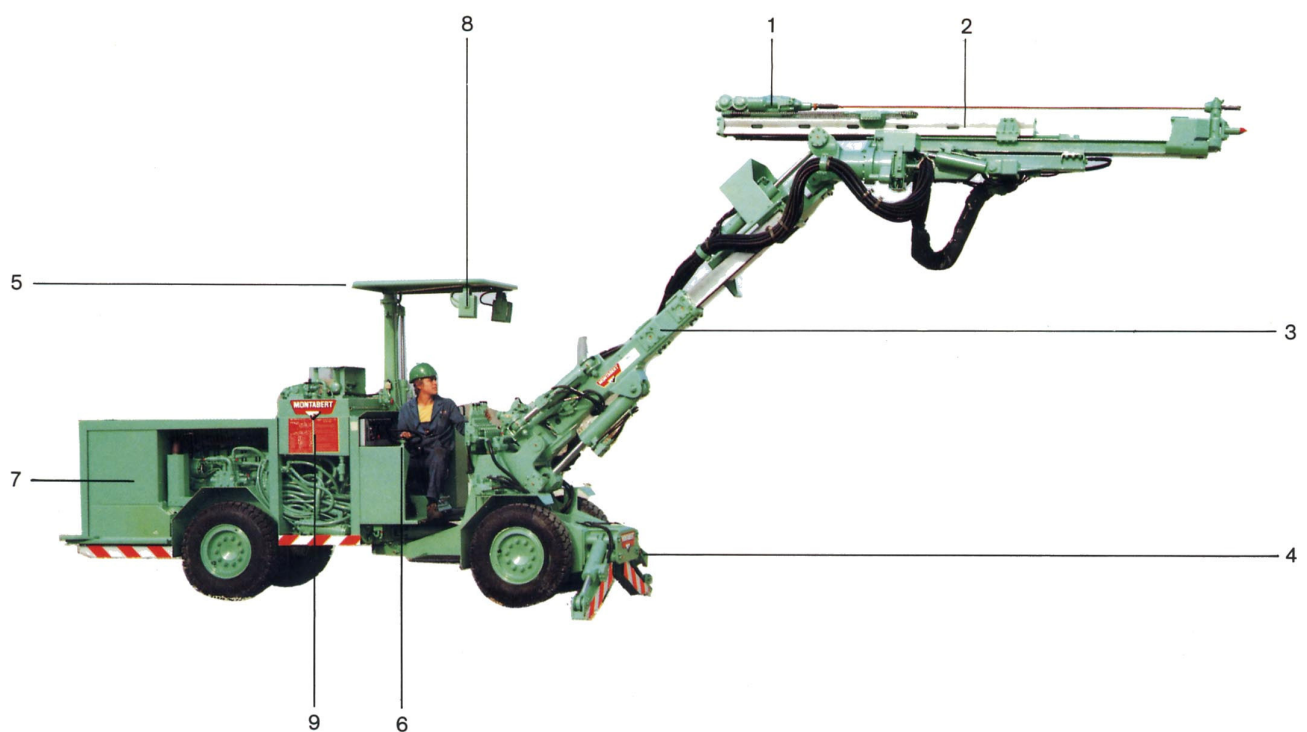
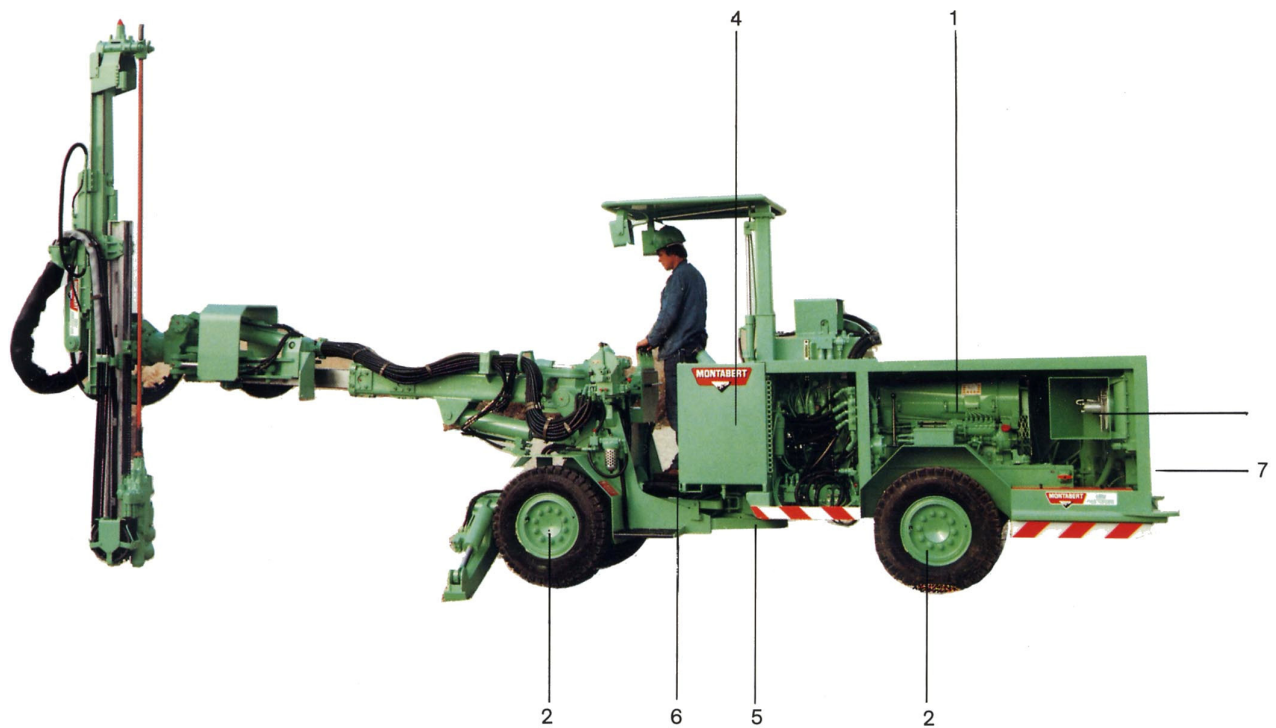


1. Diesel engine (60 kW/82 HP) or diesel/electric engine. (40 kW-55 HP / 45kW-60 HP) depending on selected option.
2. Hydrostatic transmission carrier with 4 driving wheels. Fail safe brake on each hydraulic motor. Series-parallel connection to prevent skidding.
3. Air/oil cooling (trammig).
4. Diesel oil tank.
5. Two articulated welded chassis, fully protected - no part, no mechanical component exposed to shocks during travelling.
6. The two chassis are articulated by means of a live ring and steering cylinder.
7. Option : exhaust fumes extractor evacuating into a vented gallery or directly into a vent pipe away from the machine working area.

1. HC 40 hydraulic drifter.
2. ACH feed (several lengths available) fixed or telescopic.
3. Universal telescopic boom BUC 24 (covered area 24 sq.m) with ACH and HC 40. Option : BUC 16 universal boom (covered area 16 sq.m) with ACH and HC 40 or ACT feed and HC 80.
4. Two front hydraulic stabilizers unfolding sideways. Wide base with good stability while drilling.
5. Protection roof (option) : high position during drilling, retracted during travelling.
6. Ergonomical control box : excellent visibility. For more safety, access to the control box is possible on either side of the machine. Floor at a low height.
7. Water scrubber.
8. Headlamps.
9. Hydraulic oil tank.

Le Mini-Pantofore :

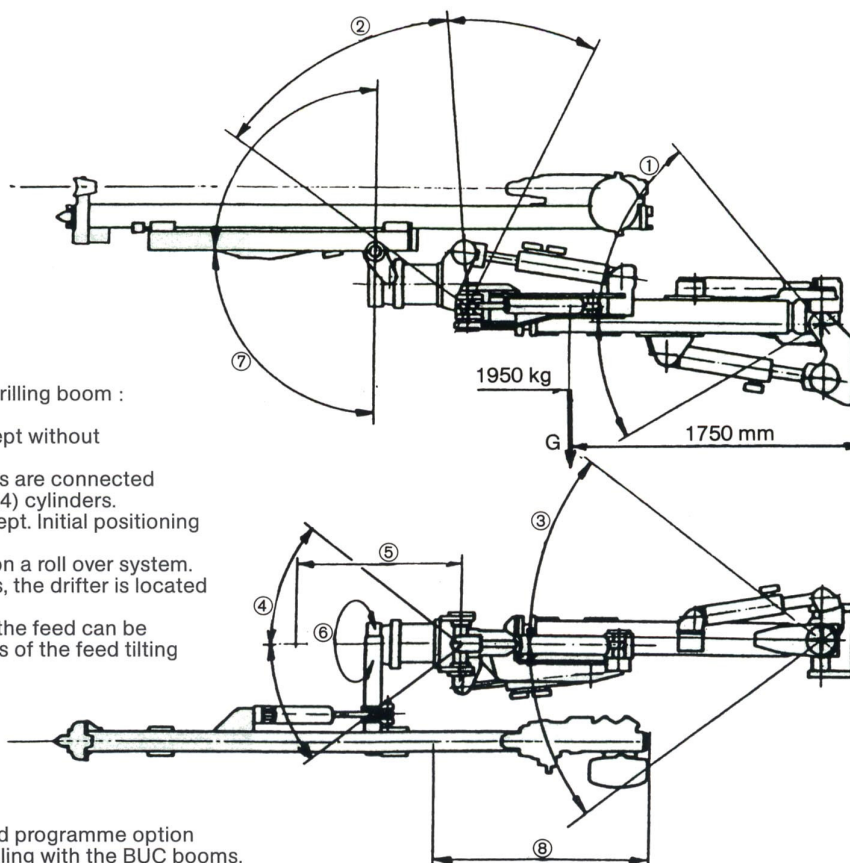
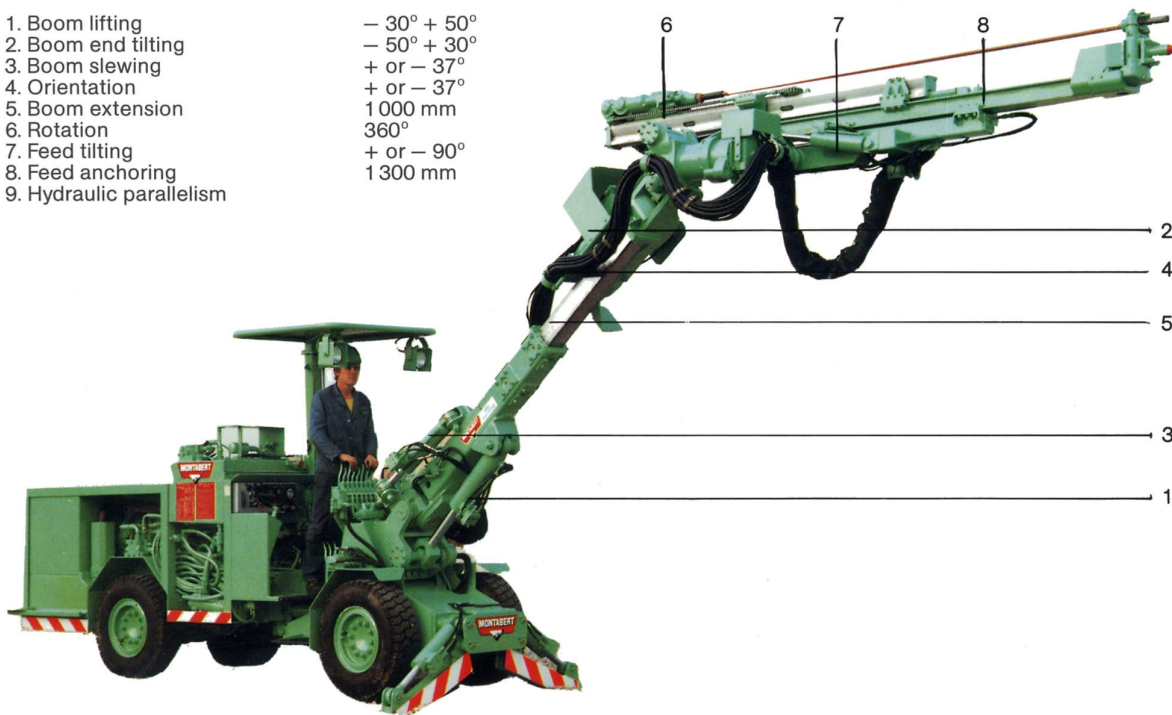
Designed and built to last. High production at the lowest cost.



The BUC 24 boom

BUC 24 boom movements

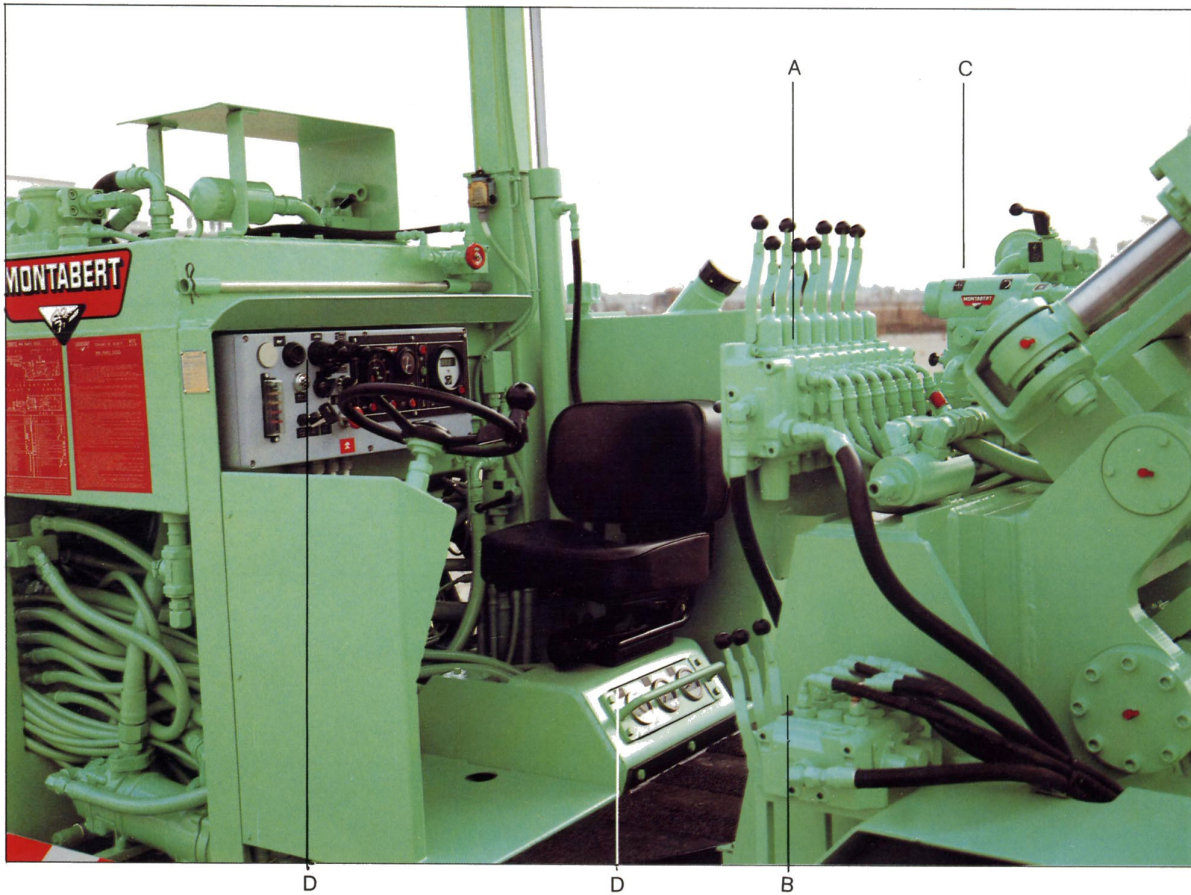
- | | |
|--------------------------|-------------|
| 1. Boom lifting | - 30° + 50° |
| 2. Boom end tilting | - 50° + 30° |
| 3. Boom slewing | + or - 37° |
| 4. Orientation | + or - 37° |
| 5. Boom extension | 1 000 mm |
| 6. Rotation | 360° |
| 7. Feed tilting | + or - 90° |
| 8. Feed anchoring | 1 300 mm |
| 9. Hydraulic parallelism | |



The BUC 24 boom is a universal drilling boom :
coverage 24 sq.m.
Feed paralleling is hydraulically kept without
the installation of a pilot cylinder.
Lifting (1) and slewing (3) cylinders are connected
to feed tilting (7) and orientation (4) cylinders.
Paralleling is thus automatically kept. Initial positioning
by alignment on reference marks.
Rotation at boom end by means on a roll over system.
To limit divergence of drilled holes, the drifter is located
on the face side (outside).
For cross cut or anchoring holes, the feed can be
positioned at right angle by means of the feed tilting
cylinder.

Computer option : a computerized programme option
is available to allow automatic drilling with the BUC booms.

**A well studied controls stand
to drill safely and comfortably**



- A. Boom and feed movement controls (2 x 2 distributors with grouped controls).
- B. Stabilizers and telescopic roof controls (optional).
- C. Drifter controls.
- D. Measuring and monitoring instruments.

MINI PANTOFORE ROOF BOLTING option

Directly derived from the standard model with common components.
With one feed and one drifter (or rotary drill) the roof bolting MINI PANTOFORE is used to drill holes, insert and screw all types of anchoring bolts.
5 bolts are stored in the magazine (1.80 m or 2.20 m bolts).
All operations fully mechanized.



| Mini Pantofore | | Diesel | Diesel/Electric |
|---|----------------|---|---|
| 1. General specifications | | | |
| Weight (approx) | kg | 7500 | 8500 |
| Length | mm | 8650 | 9250 |
| Width (tramming position) | mm | 1200 | 1200 |
| Height (tramming position) | mm | 2070 | 2070 |
| Height (drilling position, with roof) | mm | 2620 | 2620 |
| Height (without roof) | mm | 1800 | 1800 |
| Outer turning radius | mm | 5100 | 5300 |
| Inner turning radius | mm | 3500 | 3500 |
| Min. width (2 galleries perpendicular) | mm | 2500 | 2500 |
| Ground clearance | mm | 340 | 340 |
| Chassis articulation (directional angles) | | + or - 35° | + or - 35° |
| 2. Drilling equipment | | | |
| Universal boom | | BUC 24 | BUC 24 |
| Coverage | m ² | 24 | 24 |
| Feed automatic paralleling | | Hydraulic | Hydraulic |
| Number of movements (specs. see table page 4) | | 8 | 8 |
| Weight (without feed, nor drifter) | kg | 1200 | 1200 |
| Boom leaflet n° | | 8336 | 8336 |
| Hydraulic drifter | | HC 40 | HC 40 |
| Length (without shank) | mm | 840 | 840 |
| Weight (without shank) | kg | 80 | 80 |
| Operating pressure | bar | 130 | 130 |
| Hydraulic oil flow | l/mn | 105 | 105 |
| Strike frequency | b/min | 3700 | 3700 |
| Water flushing flow | l/mn | 15 | 15 |
| Air consumption (drifter pressurized at 2 bar) | l/mn | 300 | 300 |
| HC hydraulic drifters leaflet n° | | 6782 | 6782 |
| Hydraulic chain feed | | | |
| Drilled length with : | | | |
| ACH C 245 (rod 2.44 m) | mm | 2350 | 2350 |
| ACH n° 2 (rod 2.44 m) | mm | 1900 | 1900 |
| ACH n° 3 (rod 3.05 m) | mm | 2500 | 2500 |
| ACH n° 4 (rod 3.66 m) | mm | 3100 | 3100 |
| ACH n° 5 (rod 4.27 m) | mm | 3700 | 3700 |
| Telescopic ACH : folded in (rod) | mm | 1730 | 1730 |
| extended (rod) | mm | 2950 | 2950 |
| 3. Carrier | | | |
| Driving wheels | nb | 4 | 4 |
| Tyres | | 7.5 x 15 | 7.5 x 15 |
| Rear axle oscillation (200 mm obstacle) | | + or - 8° | + or - 8° |
| Tramming speed : | | | |
| Max. gradient | km/h | 37 at 54 % 0 at 1.75 | 24 at 54 % 0 at 1.8 |
| Max. gradient | km/h | 0 at 37 % 0 at 3.5 | 0 at 24 % 0 at 3.6 |
| Max. gradient | km/h | 0 at 24 % 0 at 7 | 0 at 13 % 0 at 6.5 |
| Non skid device | | yes | yes |
| 4. Drilling energy | | | |
| Engine | | Diesel | Electric |
| Power | kW/hp | 60/82 at 2300 rpm | 37/50 at 1500 rpm |
| 5. Travelling energy | | | |
| Engine | | drilling engine | Diesel 40 kW/55 HP at 2300 rpm |
| 6. Pumping group | | | |
| 2 adjustable flow pumps (2 x 52.5 l/min) | application | Drilling | Drilling |
| 1 variable flow pump (0 to 115 l/min) | application | Tramming | Tramming |
| 1 fixed flow pump (31 l/min) | application | Steering or water booster | — |
| 2 fixed flow pumps (27 l/min) (13 l/min) | application | — | Boom movements Steering and cable reel |
| 1 variable flow pump (pressure regulated) 0 to 46 l/min | application | — | Boom movements stabilizing cylinders feed |
| 1 variable flow pump (pressure regulated) 0 to 73 l/min | application | Boom movements stabilizing cylinders feed | — |
| 7. Tank capacity | | | |
| Hydraulic oil | l | 220 | 220 |
| Diesel oil | l | 150 | 50 |
| Water booster | l | 105 | 50 |
| Water scrubber | l | 25 | 30 |



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