

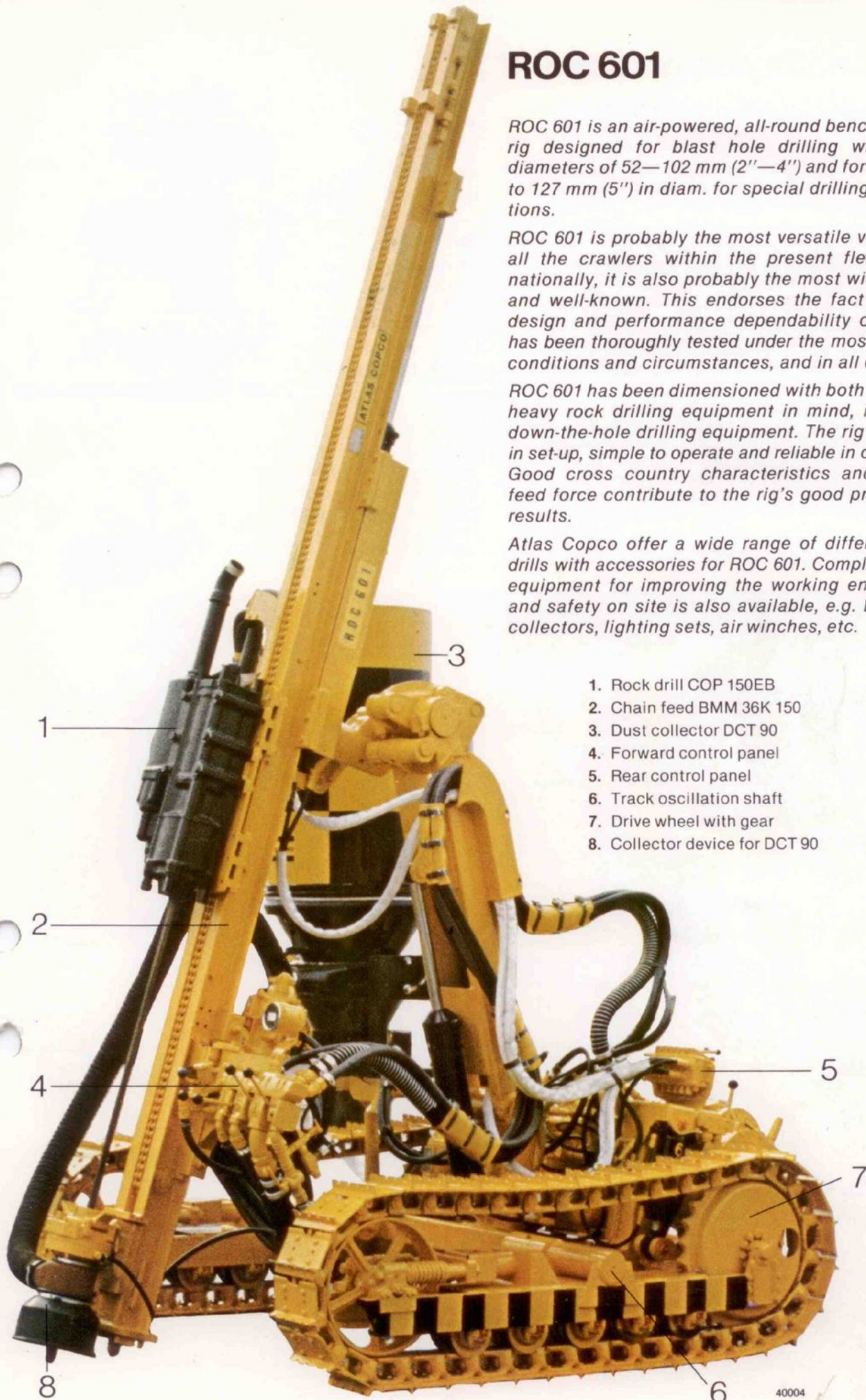
## ROC 601

ROC 601 is an air-powered, all-round bench drilling rig designed for blast hole drilling with hole-diameters of 52—102 mm (2"—4") and for holes up to 127 mm (5") in diam. for special drilling applications.

ROC 601 is probably the most versatile version of all the crawlers within the present fleet. Internationally, it is also probably the most widely sold and well-known. This endorses the fact that the design and performance dependability of the rig has been thoroughly tested under the most variable conditions and circumstances, and in all climates.

ROC 601 has been dimensioned with both light and heavy rock drilling equipment in mind, including down-the-hole drilling equipment. The rig is stable in set-up, simple to operate and reliable in operation. Good cross country characteristics and a high feed force contribute to the rig's good production results.

Atlas Copco offer a wide range of different rock drills with accessories for ROC 601. Complementary equipment for improving the working environment and safety on site is also available, e.g. DCT dust collectors, lighting sets, air winches, etc.





# Wide selection of rock drills to choose from

Atlas Copco offer a selection of four different, separately rotated rock drills for ROC 601, plus a down-the-hole drill.

The choice of equipment available also includes sturdily constructed feeds for variable length drill steels, drill steel supports, cradles and other equipment which may be required.

## COP 150EB

is a separately rotated bencher rock drill with a very high rate of penetration, superior in comparison to other air-powered rock drills. This rock drill, suitable for drilling holes 64—102 mm (2½"—4") in diameter, is silenced and has low air consumption in relation to the high penetration rate.

## COP 131EB

is a separately rotated, all-round rock drill designed for holes 52—102 mm (2"—4") in diameter. This rock drill, also silenced, has a high penetration rate.

## BBE 57

is a separately rotated bencher intended for holes 64—127 mm (2½"—5") in diameter and designed for drilling in rock formations with demands on high torque. This rock drill also offers a good penetration rate. A silencer is available as optional.

## BBE 53

In principle this rock drill is identical to the BBE 57 version, but is equipped with double rotation motors. This rock drill is intended for rock drilling applications where exceptional demands are placed on torque.

## COP 42, Down-the-hole rock drill

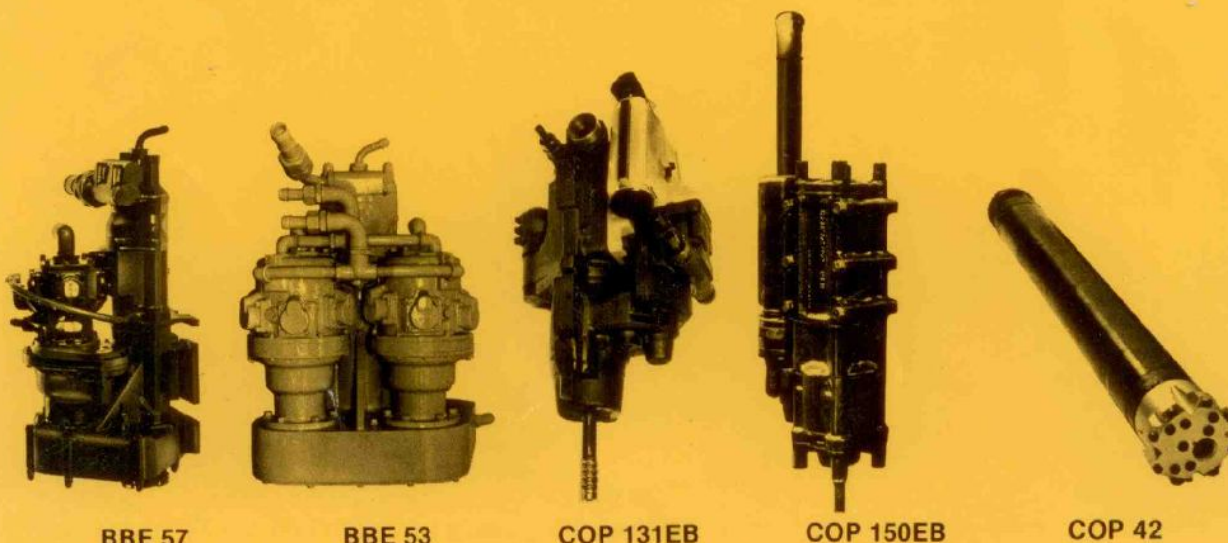
Used in blasthole drilling with holes 105—115 mm (4 1/8"—4 1/2") in diameter, or for special drilling applications with hole diameters up to 140 mm (5 1/2"). COP 42 is simple to operate, robust, extremely dependable in performance and offers a lengthy service life.

For long-term down-the-hole drilling or for drilling at high working pressures, any of the following rigs, specially designed for down-the-hole drilling by Atlas Copco are recommended: ROC 604, ROC 606 or ROC 304.

### Data, rock drills

	COP 150EB	COP 131EB	BBE 57—01	BBE 53	COP 42 DTH rock drill
Length, mm (in)	940 (37)	700 (27.5)	900 (35.5)	855 (33.5)	960 (37.8)
Piston diam. mm (in)	150 (5.9)	130 (5.1)	120 (4.7)	120 (4.7)	76 (3.0)
Stroke, mm (in)	65 (2.6)	65 (2.6)	66 (2.6)	65 (2.6)	100 (3.9)
Impact rate*, blows/min.	2150	2500	2000	2200	1150
Rotation speed*, rpm	110	95	60—150	70	20—40 <sup>1)</sup>
Torque*, Nm (kp; ft. lb)	450 (45; 325)	196 (20; 145)	785 (80; 579)	1180 (120; 878)	686 (70; 506)
Penetration rate (in hard granite)*, cm/min. (in/min.)					
with 51 mm drill bit	—	118 (46.5)	82 (32.5)	72 (28.5)	13 cm/min with 105 mm (4 1/8") drill bit
with 64 mm drill bit	100 (39.4)	—	—	—	
with 89 mm drill bit	51 (20.1)	—	—	—	
Air consumption, total, with normal flushing, l/s (cfm)	330 (700)	310 (653)	270 (565)	300 (635)	56 (119)
Weight, kg (lb)	262 (578)	179 (395)	170 (375)	250 (550)	35 (78 <sup>2)</sup> )

\* At a working pressure of 6 bar (87 psi) <sup>1)</sup> Atlas Copco's rotation motor BBR 4 <sup>2)</sup> Without drill bit

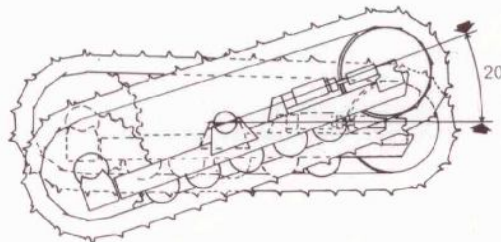




## Rapid, safe moves with minimal effort

ROC 601 is capable of negotiating even rugged terrain, primarily through the rig's powerful traction motors, wide track width and low point of gravity. Automatic, hydraulic track oscillation produces smooth and steady travel across uneven ground. When setting-up for drilling, the tracks can be individually adjusted and locked in position to obtain maximum stability.

Automatic disc brakes lock in position when the traction control is moved to neutral or in the event of a sudden drop in air pressure to the traction motors for some reason or other, thus providing optimal safety both during travel and drilling.



*Track oscillation result in the track frames becoming individually compensated in the vertical plane by as much as 20° in relation to each other. Thus, both tracks always have good contact with the surface being travelled over, ensuring good grip and smooth travel.*

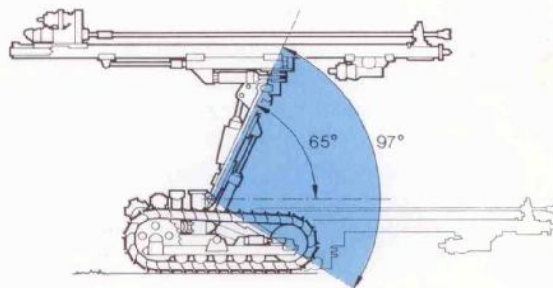




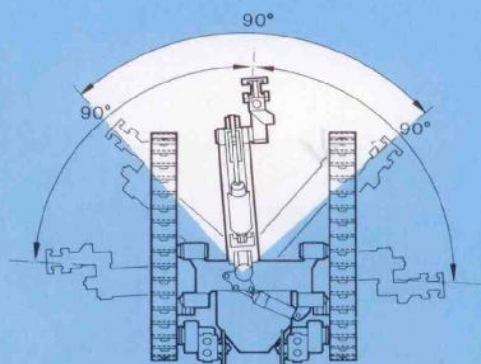
# Stable boom system can be set-positioned at will

ROC 601 has an all-hydraulic, sturdily constructed boom system, specifically dimensioned for modern, separately rotated benchers. Rapid, precise boom movements result in short setting-up times and excellent precision during drilling. The feed can be dumped from the transport to the working position without the need for reconnection.

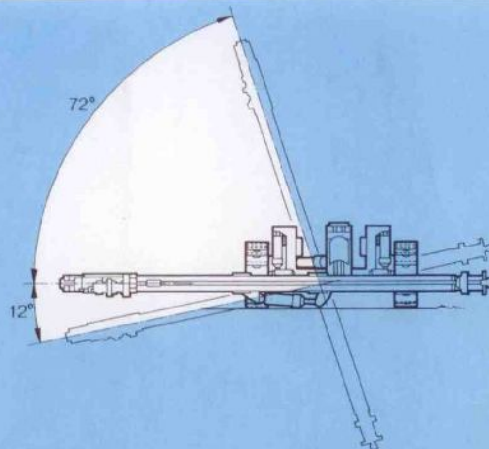
To make the stocking of spare parts easier, most of the hydraulic cylinders on the rig are of the same type and dimension.



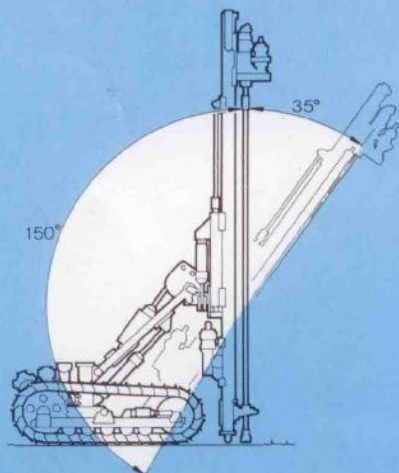
The boom can be swung vertically to a max. angle of 97°. Drilling forwards directed, horizontal holes can be carried out from 450 mm (18") up to 3100 mm (122") over the set-up level.



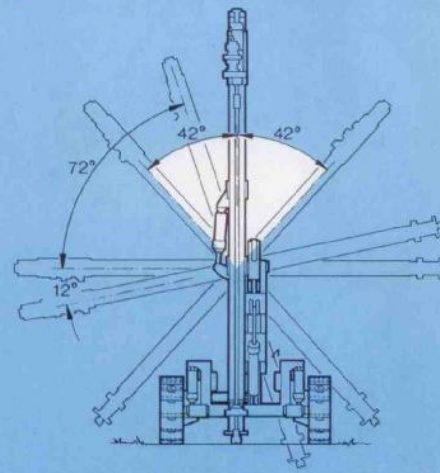
The boom can be swung horizontally to a max. angle of 90°. Through simple reconnection of the boom swing cylinder this 90° sector can either be aligned straight ahead or to the left or right hand side of the rig.



Following reconnection of the feed swing cylinder it is possible to align the feed straight across the crawler tracks, offering a total torsional angle in the vertical of 84°.



The max. dumping angle of the feed is 185°, of which 35° is past the vertical plane. ROC 601 has a feed extension of 1300 mm (51 in).



The feed can be turned 84° in a lateral direction. The torsional angle can be aligned vertically or extended even further laterally through simple reconnection of the feed swing cylinder.



# Optional equipment

## DCT dust collectors

The well-known Atlas Copco DCT type dust collectors eliminate more than 99% of the injurious stone drill dust. DCT dust collectors fulfill all demands and stipulations concerning dust separation during rock drilling. The version used on ROC 601 is DCT 90, intended for a max. flushing air pressure of the rock drill, of 6 bar (87 psi). Stone dust is separated in two stages; via a coarse strainer and secondary filters and collected in plastic sacks. Alternatively (optional), the equipment can be fitted with a counter-weight hatch for disposal of the dust directly onto the ground.

DCT 90 is driven by a compressed air ejector and works with a partial vacuum throughout the entire system. Stone dust cannot therefore leak out in the event of damage to the equipment.

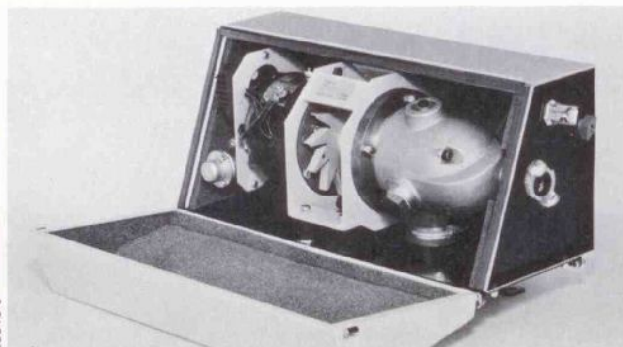
## ODEX for drilling through overburden

Atlas Copco's and Sandvik's ODEX method is used for drilling through overburden, and allows the hole to be cased while drilling is in progress. When solid rock is reached the eccentric reamer of the ODEX bit is swung in, the drilling equipment is pulled up through the casing tubes, and drilling can then continue with ordinary bits.

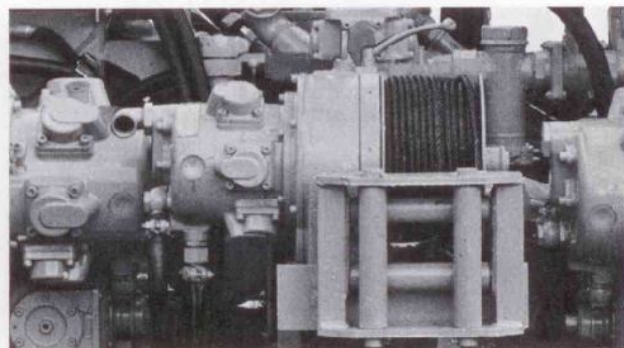
Conversion of ROC 601—00 for ODEX-drilling requires complementary equipment as listed on page 8.

## Additional optional equipment

- Remote controls
- Air winch
- Silencer for rock drill BBE 57
- Anti-freeze equipment
- Air-powered generator lighting unit GEN 900 (900 W) etc.



Air powered generator unit GEN 900



Air winch



ODEX 76 on crawler drill ROC 601—00



DCT 90 dust collector