The Multipurpose Percussion and Diamond Drill (MPDD) was designed to provide clients with a unit that can complete a site's Production Drilling requirements as a regular Simba 157, then with a shift changeover it can be used to drill diamond core for grade control. It was designed for the small scale mines in mind. Mines that don’t have enough production drilling to fully utilise a rig and yet where good grade control is essential. It was envisaged to be utilized by small thin vein gold mines.

The rig was designed to drill grade control holes 30 to 50m, with a single driller. Whilst the current rig does drill up to 120m holes when required, it was designed to drill short diamond drill holes repetitively down a drive. Everything has been fitted to the carrier, even an on-board water storage system. The idea was to ensure that shifting between holes down a drive would be no harder than shifting the rig down a drive to drill a top hammer hole. In this way a sole driller could easily and economically shift the rig.

The LM45 diamond drill was fitted to a Simba H157, which is an Atlas Copco DC4 carrier. All of the top hammer control system has been left in place and the diamond drill control system has been fitted in parallel. The Top hammer rail was removed and replaced with a diamond drill rail that was fitted with stingers to enable easy set up. The Diamond drill control panel is supported by an arm secured onto the boom, allowing the control panel to be carried by the boom as the rig is trammed between holes. This arm is easily removed when the rig is converted back to a top hammer rig.

When this rig is configured as a Diamond rig it has the capability of a LM45 and when it is converted back to a Top Hammer rig it has the capability of a Simba H157.

**Specifications**

- Weight: 7,650kg
- Length: 7.0m
- Width: 1.22m
- Height: 1.93m
- Diesel Hydraulic trarming 3 cylinder Deutz motor max trarming speed 8km/h
- Carrier: 4 wheel drive articulated steering.
  - Hydraulic oil immersed disk brakes on both axels.
  - Two circuit system
  - Parking / Emergency brakes
- Electric hydraulic operation 1000v
- 4 extendable outrigger jacks
- Power to run solenoids
- 25L AFFF fire suppression system
- 4.5 kg Dry Chemical fire extinguisher
- Certified ROPS canopy
SIMBA 157 MULTIPURPOSE PERCUSSION AND DIAMOND DRILL (MPDD)