



## **SPECIALISED RESOURCE TRAINING**

Training for the Future

### **COURSE OUTLINE – CONVENTIONAL DTH HAMMER TRAINING**

**Prerequisites:** candidates to have a basic working knowledge of drill rigs and hammers.

**Purpose:** The main Purpose of this course is for candidates to acquire the skills to assemble and disassemble a Conventional DTH hammer and learn the fundamentals on Conventional DTH hammer design, use, care and assembly.

**Scope:** Candidates will learn the correct procedure for using, rebuilding, and diagnosing failures in Conventional DTH hammers and hammer components, and how to correct these to get the most out of these critical drill consumables.

#### **INTRODUCTION**

- How and why Conventional DTH Hammers work.
- Hammer dynamics, e.g., Piston weight and frequency and inertia.
- Airflow

#### **ITEM DESCRIPTION**

- Care and safety
- Basic Metallurgy
- Item description for each part of the hammer and what they do.
- Make up measurements
- Critical tolerance
- Striking faces and different materials.
- Hammer designs and their benefits.
- Shank design

#### **CARE AND MAINTENANCE**

- Lubrication
- Corrosion
- Storage and Handling

#### **DRILLING DO AND DON'TS**

This part of the course we delve into drilling practices and how they affect hammer life, by looking at the principles behind the different practices and the effect on the metallurgy and wear on components. This is based on evidence collected from the drill consumables and not by BRAND or colour preference.

- Measuring performance
- Breakages and fault diagnosis
- Drilling to suit the limitations of the drill string components and the geology.
- The effects poor drilling practices have on the rest of the rig.