



## 320XPC Blasthole Drill – Operator Training

### Course Duration

Two (8) hour days (16 hours) with a minimum of eight (8) hours operating the drill (Additional one day (8) hours for non-English speaking customers allowing time for translation).

### Target Audience

This training is targeted for blast hole drill operators of P&H/Komatsu 320XPC Blasthole drill.

### Description

The course introduced all levels of drillers to the safe and productive operation of P&H/Komatsu 320XPC Blasthole drill. It focuses on critical knowledge and skills required to operate the P&H/Komatsu 320XPC Blasthole drill.

### Prerequisites

Operators should have a basic knowledge of blast hole drills.

### Course Location

Field

### Course Objectives

Upon completion of this course the student will be able to:

- Identify and use controls in the cab
- Identify and have general knowledge of all critical components
- Propel the drill in a safe manner
- Add and subtract drill pipe, change a bit
- Position drill on a pattern and pattern approach
- Identify and recognize potential risks and hazards and what to do
- Start up and Shut down the drill
- Conduct pre-operation inspections
- Operate the drill in a safe and productive manner

### Main Concepts

- Review of relevant P&H/Komatsu reference material
- Blasthole drill motions and major components
- Cab controls
- Propelling and Tracks systems
- Collaring the hole
- Bit and pipe handling
- Drill rig set up, start up, and shut down
- Hazzard recognition and best management practices

## Course Introduction

- Instructor and participants introduction
- Course objectives
- General, on site safety
- Knowledge evaluation

## Source Information

- Operators Manual

## Drill Overview

- Blasthole drill orientation
- Major systems overview

## Safety Controls

- E-stops
- Fire Suppression (if applicable)
- Rig limits and warnings
- LOTOTO (Lock out tryout tag out)

## Pre-Operations

- Work area inspection
- Walk around
- Fluid and hardware checks
- Cable set up

## Drill Set-up

- Leveling the drill
- Raising and lowering Mast
- Propelling/positioning the drill
- Bit and steel checks

## Controls in the cab

- Describe every function (PODS), joystick (UDC) Console controls (non UDC) and GUI Display

## Drilling

- Proper hole Collaring techniques.
- What to do if the steel is stuck and how to resolve.
- Proper air, water, rotation and down feed settings and how to adjust them.
- Finishing the hole and pulling the steel.
- Positioning the drill bit on the target using GPS and other means.
- Adding and subtracting drill pipe and Racking pipe in carousel
- Proper knowledge and use of cab controls
- Bit changes
- Propelling hole to hole, pattern to pattern, and on haul roads.
- Auto Drill
- Cable Reel and Cable Management
- GUI panel and system navigation
- Best Management Practices for Blast hole drills and operators

## Course Evaluation and Wrap

- Post –assessment
- Course evaluation