

Training Solutions



The core
of drilling
innovation



Drillmec Training Center

Drillmec is a global leader in the design, manufacture and distribution of drilling and workover rigs for onshore and offshore applications as well as a wide range of drilling equipment.

Our core principles are safety, environment and innovation. Our worldwide reputation for reliability reflects our extensive engineering development, timely deliveries and excellent after-sale service.

Training is essential to innovation.

This is the principle for Drillmec Training Center, a training school which is open both to our customers and staff.

The Drillmec Training Centre offers many types of training programmes which are tailored to cover the job requirements of all the personnel involved.

They are:

- Classroom training
- Well Control training
- Simulator training
- Video training
- Computer Based Training (CBT)
- Field training

Participants will be divided into three workgroups according to their competence and work sector. They are:

- Operations, which includes Tool Pushers, Drillers and Assistant Drillers.
- Mechanic Maintenance, which includes Mechanics and Hydraulics Technicians.
- Electric Maintenance, which includes Electricians and Software Engineers.

TRAINING WORKGROUPS



Tool Pushers
Drillers & Assistant Drillers
Rig Supervisors



Mechanics
Hydraulic Technicians



Electricians
Software Engineers

CLASSROOM TRAINING



GENERAL TRAINING

MOBILE RIGS

CONVENTIONAL RIGS

HYDRAULIC RIGS (HH SERIES)

DRILLING EQUIPMENT

WELL CONTROL TRAINING



IWCF DRILLING TRAINING

IADC DRILLING TRAINING

SIMULATOR TRAINING



CONVENTIONAL RIG SIMULATOR

HYDRAULIC RIG (HH) SIMULATOR

PORTABLE SIMULATOR

VIDEO TRAINING



CUSTOMIZABLE VIDEO TRAINING

CBT - COMPUTER BASED TRAINING



MOBILE RIGS

CONVENTIONAL RIGS

HYDRAULIC RIGS (HH SERIES)

ON FIELD TRAINING



MOBILE RIGS

CONVENTIONAL RIGS

HYDRAULIC RIGS (HH SERIES)



Course Specifications

GENERAL TRAININGS

I01 - Drilling Technologies & Rigs

I02 - Basic Hydraulic Training

MOBILE RIGS

I03 - MR 4000 - MR 5000

I04 - MR 6000 - MR 8000

CONVENTIONAL RIGS

I05 - 1500 HP - 2000 HP - 3000 HP

HH SERIES

I06 - HH 75 - HH 102

I07 - HH 220 - HH 300 - HH 375

HSE

I08 - Health, Safety, Environmental

DRILLING EQUIPMENT

I09 - Conventional Rig Specific Electric

I10 - Top Drives

I11 - Drawworks

I12 - Mud Pumps

I13 - Power Tongs

Deepening Classroom Training



The purpose of this phase is to provide a deep and full knowledge of the rig operations, power systems and controls systems. The training will be performed with the last teaching technologies and materials, to provide theoretical and technical understanding. This phase is realized by means of textbooks integrated with audio-video contents. All the personnel involved in the operations should attend the deepening classroom training that will have different development for the three workgroups:

• Operations:

The training will be focused on controls, interfaces, operative sequences and safety systems applied to the different working configurations. Moreover it will be based on the operative processes of rig-up, rig-down and skidding. Will be put focus on the steps and logic to realize these sequences.

• Mechanic Maintenance & Electric Maintenance:

The training will give a deep knowledge of the hydraulic, pneumatic and electric systems of the rig.

- The first phase consists in a common session that have to provide a full basic overview of all the systems. It includes a structured hydraulic training that provides easier understanding of the working logics.

- In the second phase the maintenance team will be divided into different working groups depending on the specific competences. Each team will be guided in the analysis of power and controls systems diagrams to be able to approach troubleshooting.

- The third phase will cover the rig maintenance aspects, discussing the preventive, ordinary and extraordinary schedules and interventions.





Well Control Training

The Drillmec Centre for Drilling and Well Control delivers training and industry support of the highest standard and is committed to achieving this by:

- Performing at all times in a professional and ethical manner in all aspects of students;
- Ensuring the technical competency of any and all trainers/assessors and invigilators used in the delivery of our training services;
- Ensuring that participants have ample opportunity to achieve a successful outcome as a result of the training/assessments;
- Ensuring that all assessments/examinations and simulations are provided in a fair, valid, reliable and flexible manner;
- Being mindful and respectful of all participants sex, experience and religious/ethnic backgrounds and treating them equally.

Course duration is five days and operates under IADC and IWCF guidelines on instructional content, length of study for various topics, test construction, class size and simulator/test well exercises. The course program will be conducted in accordance with the examination and practical assessment requirements for individual competency based training, testing and certification as established by the IWCF. The course objective of well control technology transfer and certification standards are based on a detailed analysis of well control knowledge and practical skills that Drillers, Supervisors and Managers require in order to perform their duties. This course incorporates the use of a DRILLSIM (drilling/workover) well control simulator therefore providing personnel with modelling of operational realities.



Course Specifications

- W01** - IADC Wellsharp Introductory Well Control
- W02** - IWCF Well Control Level 2 (Introductory)
- W03** - IADC Wellsharp Drilling Fundamental & Drilling Supervisors
- W04** - IWCF Well Control Level 3 - Driller & Level 4 - Supervisor



Simulation-Based Training



The purpose of this phase is to allow personnel involved in the operations to become acquainted with the rig controls, functions and operational sequences. The Drillmec training centre is equipped with land rig and HH series rig simulation facilities.

Hydraulic Rig (HH Series) Simulator Training

The course includes the use of a simulator which replicates the command console of the HH 300 systems produced from 2007 to 2013. The simulator is equipped with a DOME projection system which reproduces the operational components of the probe level and the pipe handling system in 3D. During training it will be possible to simulate the start-up of the system, of the single components and, with the use of the Human Machine Interface of the pipe handler, it is possible to go over the operational sequences of teaching, bin to bin, trip-in and trip-out sequences.

Conventional Rig Simulator Training

The course is held using a simulator equipped with state-of-the-art Drillmec Cyber Chair installed since 2015 on all Drillmec conventional and hydraulic rigs. The hardware is composed of 3 joysticks with 4-touch-screen interfaces with which the driller can control the entire rig. The simulator is equipped with a projection system which realistically reproduces, in 3D display, the operational components of the probe level. It will be possible to simulate the start-up of the system and of each component installed and carry out their calibration, in order to go back over the operational sequence using the hardware commands and the Human Machine Interfaces. All kinds of land rig software can be uploaded into the simulator. To immerse the trainer in an almost realistic scenario, the simulator is designed to exactly reproduce the movements as if in working reality.

Portable Simulator Training

Drillmec Rigs Portable Simulator is designed to train both operational and electrical/software maintenance teams. It is designed with a cyber control panel, reproducing exactly the rig's one, associated to four HMI control screens and one or more TV monitor for visualization. The simulator reproduces exactly the operative sequences of tripping and drilling, simulating rig controls, devices operations, HMI supervision and well response. The simulator reproduces the generators and services startup and shutdown sequences, as well as complete HMI subsystems analysis and parameters setup. All the electrical and software sequences simulates the relative starting conditions and interlocks. It's possible to create failures related to the absence of those conditions, to be able to focus on reasons and corrective actions.



Course Specifications

HYDRAULIC RIGS SIMULATOR
S01 - HH Series Simulator

CONVENTIONAL RIGS SIMULATOR
S02 - Conventional Rig Simulator

PORTABLE SIMULATOR
S03 - Portable Simulator

Video Training



The purpose of this Training is to teach the personnel involved without instructors or any other training supports on all the functionalities of the rig or all drilling equipments, such as, installation procedures, technical features and documentation, general components functionality, maintenance operations, rig's controls and troubleshooting. The courses can have different durations and time to be prepared, depending on the equipment treated or what the customer wants see in the Video. This Training support can be sent to customer site directly with a link, where the people can download it. We can divide this kind of course in:

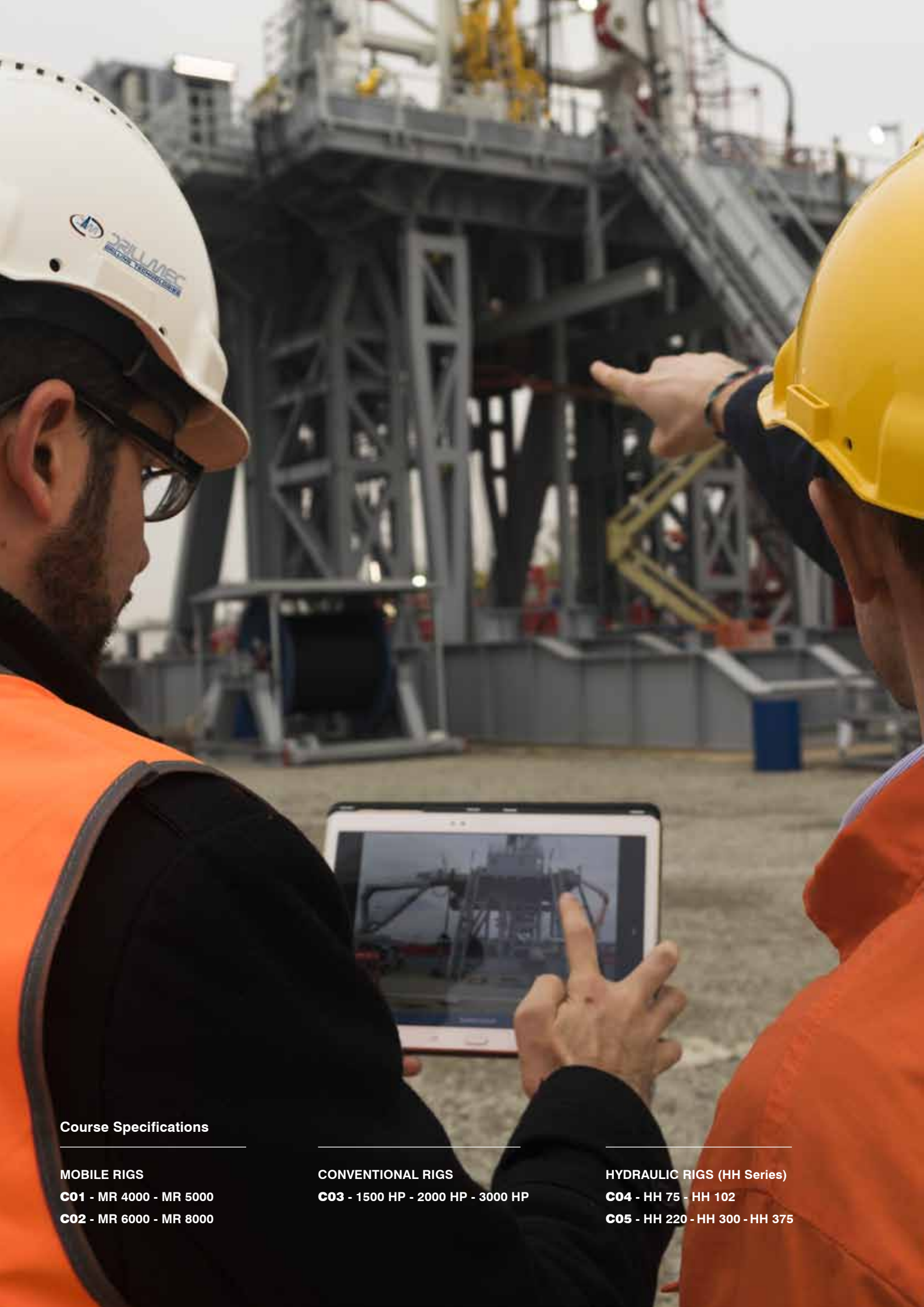
- **Rigs:**

This kind of training video will be focused on the rig's general description, the main operative and maintenance sequences and the safety procedures applied to the different types of drilling and workover rigs.

- **Rig Devices:**

This kind of training video will give a deep knowledge of single rig device. The first phase consist in a general description with all the working logics. The second phase cover all the operative, safety and troubleshooting procedure to be apply.





CBT - Computer Based Training



This course is based on CBT technology and includes the use of a multimedia platform on tablets. Its aim is to provide in-depth knowledge on Drillmec systems (MR-HH-Land rig). The course uses PDF technical documents, video-animation and 3D content. If the course is held at Drillmec SPA (Italy), in addition to the multimedia component on CBT, training meetings can also be organized with specialist personnel, so as to gain practical experience on the single components. The CBT course employs a hierarchical structure to assess the level of learning achieved by personnel. The System includes a test at the end of each learning unit which, upon a positive result, gives access to the next topic. Each student will be provided with a user name and password in order to be able to verify, through a software manager, their progress in learning and to provide the client with final feedback on each participant.

The levels of training available will be:

• **Introduction:**

The purpose of this phase is to give a general overview of the system. The scope of work and the main features of the rig will be outlined, all the components will be described and their operating principle analysed.

• **Function:**

The purpose of this phase is to describe in-depth the function of each component and its troubleshooting. This will be achieved using the support of multimedia contents such as 3D models, pictures and videos of the real rig.

• **Operational sequences:**

The purpose of this phase is to apply the knowledge obtained in the previous phases to analyse the working sequences of the rig. This will be done using the support of multimedia contents like 3D models, pictures and videos of the real rig. The sequences that will be studied are trip-in and trip-out and drilling in all working configurations. It is also possible to simulate the movements and functions of all the rig equipment by means of animated 3D scenes.

Course Specifications

MOBILE RIGS
C01 - MR 4000 - MR 5000
C02 - MR 6000 - MR 8000

CONVENTIONAL RIGS
C03 - 1500 HP - 2000 HP - 3000 HP

HYDRAULIC RIGS (HH Series)
C04 - HH 75 - HH 102
C05 - HH 220 - HH 300 - HH 375



In addition to the course fee, there will be an initial course preparation fee for each course. The Courses are specifically prepared - and designed for the rig specific equipment the customer has purchased. Several animations are pre-made, especially in regards to our main equipment. Due to high developing costs of this kind of material, we split the costs between several customers using the same material. As a result, we are able to offer high quality courses to our customers at a lower price. There are usually 5 - 6 different people involved in the preparation of each rig specific course (i.e. Instructors, service personnel, 3D animators).

On-Field Training



Upon completion of the theoretical courses, Drillmec can provide the customer with direct on-site assistance.

Field training has been proven to remarkably increase operator productivity and substantially reduce rig downtime while increasing safety awareness.

Our technical personnel will track the phases which range from the spud in and the initial operational phases.

The technicians will work alongside the operating staff to guarantee correct usage of the rig without putting the safety of inexperienced personnel at risk.

Assistance is provided to all personnel on site such as drillers, assistant drillers, mechanical technicians and electricians.

This type of training guarantees optimization of performances in the well start-up phase and allows drilling teams to complete their training.



DRILLING TECHNOLOGIES & RIGS



INTRODUCTION

5 days

The Drilling Technologies & Rigs course is designed for both staff involved in the oil and gas industry and those without any direct experience. The course provides a general overview of the principles and techniques of drilling and on the various kinds of systems used. If carried out at Drillmec SPA (Italy) it is possible to organize visits to the rig-up yard to integrate theory and practice.

COURSE TOPICS

1. DRILLING PARAMETERS
2. DRILLING ACTIVITIES
3. DRILLING AND AUXILIARY EQUIPMENTS
4. RIG-UP SYSTEM
5. DRAWWORKS (WOB)
6. ROTATION SYSTEM (RPM)
7. MUD SYSTEM (SPM)
8. TYPES OF RIG
9. CONVENTIONAL RIGS
10. MOBILE RIGS
11. HYDRAULIC DRILLING RIGS



DURATION

5 DAYS

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER
LANGUAGE UPON CLIENT' REQUEST *

LOCATION

GARIGA DI PODENZANO (PC) - ITALY
OR ANY COSTUMER'S SITE

AUDIENCE

OPERATIVE CREW / ENGINEERS
SALES AGENTS / MANAGERS

PRECONDITIONS

NO EXPERIENCE IN OIL & GAS SECTOR
NEEDED

LEARNING OBJECTIVES

TO ACQUIRE THE MAIN CONCEPTS
ON DRILLING
TO LEARN THE VARIOUS CONSTRUCTION
PHASES FOR A TYPICAL WELL
TO UNDERSTAND THE OPERATION OF
COMPONENTS USED IN DRILLING
TO LEARN ABOUT THE VARIOUS MODELS
OF DRILLING SYSTEMS
TO LEARN THE OPERATION OF
THE DIFFERENT TYPES OF SYSTEMS

NOTES

* TRANSLATION COSTS NOT INCLUDED

BASIC HYDRAULIC TRAINING



COURSE TOPICS

3 days

1. BASIC PRINCIPLES
2. FILTRATION
3. COOLING
4. PIPES AND CONNECTIONS
5. DISTRIBUTED PRESSURE DROPS
6. CONTROLS
7. SIMBOLOGY
8. VALVES
9. MOTORS AND PUMPS
10. CILINDERS

PRACTICAL COURSE TOPICS (ONLY AVAILABLE IN DRILLMEC ITALY)

1. EXPLANATION OF THE HYDRAULIC DIAGRAM WITH PRACTICAL
RESPONSE ON THE CIRCUIT
2. VARIABLE DISPLACEMENT PUMP FIRST START CALIBRATION
3. PRESSURE CONTROL VALVE SETTING
4. FLOW REGULATOR SETTING
5. DEMONSTRATION OF HOW THE ACTUATORS WORK, UNDER LOAD
6. HYDRAULIC DISTRIBUTORS ANALYSIS.
7. HYDRAULIC FILTERS ANALYSIS
8. GASKETS REPLACEMENT AND REPAIR KIT
9. ANALYSIS OF THE COOLING SYSTEM FUNCTIONING



DURATION

3 DAYS

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER
LANGUAGE UPON CLIENT' REQUEST *

LOCATION

GARIGA DI PODENZANO (PC) - ITALY
OR ANY COSTUMER'S SITE

AUDIENCE

DRILLING CREW
ENGINEERS
HYDRAULICS TECHNICIANS
MECHANICS

PRECONDITIONS

-

LEARNING OBJECTIVES

TO LEARN THE BASICS OF HYDRAULICS
TO ACQUIRE USEFUL ADVICE FOR
MAINTAINING A HYDRAULIC CIRCUIT
TO LEARN THE TECHNICAL SYMBOLS AND
CONCEPTS REGARDING VALVES, PUMPS
AND MOTORS
TO LEARN TO READ A HYDRAULIC DIAGRAM
TO WORK ON A REAL HYDRAULIC CONTROL
UNIT

NOTES

* TRANSLATION COSTS NOT INCLUDED

MOBILE RIGS - MR 4000 / MR 5000



COMMON GENERAL TRAINING 3 days

1. POWER SYSTEM

- General Description
 - Power Pack
 - Transmission
 - Air Unit
2. RIG

- General Description
 - Substructure
 - Mast
 - Trailer
 - Drill floor
 - Top Drive
 - Rotary Table
 - Drawworks
 - Hydraulic Catheads
3. MUD SYSTEM

- Power Tong
 - Drilling equipment
 - Driller cabin
 - Safety devices
 - Mud Pumps
 - Mud Tanks
 - Mud Equipments
 - Mud Lines

SPECIFIC TRAINING COURSES

DRILLER CABIN TRAINING 2 days

-
1. Control panel
 2. Operative sequences description
 3. Drilling HMI

HYDRAULIC TRAINING 2 days

-
1. Basic principles
 2. Pipes and connections
 3. Simbology
 4. Valves
 5. Motors, pumps and actuators
 6. Hydraulic scheme analysis

ELECTRIC TRAINING 2 days

-
1. Power distribution
 2. PLC system
 3. MCC (Motor Control Center)
 4. Electric diagrams analysis
 5. Ordinary maintenance
 6. Electric system troubleshooting

DURATION

5 DAYS (3 GENERAL + 2 SPECIFIC)

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER LANGUAGE UPON CLIENT' REQUEST *

LOCATION

GARIGA DI PODENZANO (PC) - ITALY OR ANY COSTUMER'S SITE

AUDIENCE

DRILLERS / ASSISTANT DRILLERS
MECHANICS / HYDRAULIC TECHNICIANS
ELETRICIANS / SOFTWARES ENGINEERS
RIG SUPERVISORS / TOOL PUSHERS

PRECONDITIONS

DRILLING OR MAINTENANCE EXPERIENCE
PREFERED BUT NOT ESSENTIAL

LEARNING OBJECTIVES

TO DEVELOP A TECHNICAL AND WORKING
KNOWLEDGE OF THE SYSTEM

TO LEARN THE ROUTINE AND NON-ROUTINE
MAINTENANCE OF THE VARIOUS
COMPONENTS

TO DEFINE SAFETY AND EMERGENCY
SYSTEMS

TO LEARN THE OPERATIONAL
SEQUENCES OF SYSTEM CONTROL

TO ACQUIRE KNOWLEDGE FOR
TROUBLESHOOTING THE SYSTEM

NOTES

* TRANSLATION COSTS NOT INCLUDED

COMMON GENERAL TRAINING 3 days

1. POWER SYSTEM

- General Description
 - Power Pack
 - Transmission
 - Air Unit
2. RIG

- General Description
 - Substructure
 - Mast
 - Trailer
 - Drill floor
 - Top Drive
 - Rotary Table
 - Drawworks
 - Hydraulic Catheads
3. MUD SYSTEM

- Power Tong
 - Drilling equipment
 - Driller cabin
 - Safety devices
 - Mud Pumps
 - Mud Tanks
 - Mud Equipments
 - Mud Lines

SPECIFIC TRAINING COURSES

DRILLER CABIN TRAINING 2 days

-
1. Control panel
 2. Operative sequences description
 3. Drilling HMI

HYDRAULIC TRAINING 2 days

-
1. Basic principles
 2. Pipes and connections
 3. Simbology
 4. Valves
 5. Motors, pumps and actuators
 6. Hydraulic scheme analysis

ELECTRIC TRAINING 2 days

-
1. Power distribution
 2. PLC system
 3. MCC (Motor Control Center)
 4. Electric diagrams analysis
 5. Ordinary maintenance
 6. Electric system troubleshooting

DURATION

5 DAYS (3 GENERAL + 2 SPECIFIC)

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER LANGUAGE UPON CLIENT' REQUEST *

LOCATION

GARIGA DI PODENZANO (PC) - ITALY OR ANY COSTUMER'S SITE

AUDIENCE

DRILLERS / ASSISTANT DRILLERS
MECHANICS / HYDRAULIC TECHNICIANS
ELETRICIANS / SOFTWARES ENGINEERS
RIG SUPERVISORS / TOOL PUSHERS

PRECONDITIONS

DRILLING OR MAINTENANCE EXPERIENCE
PREFERED BUT NOT ESSENTIAL

LEARNING OBJECTIVES

TO DEVELOP A TECHNICAL AND WORKING
KNOWLEDGE OF THE SYSTEM

TO LEARN THE ROUTINE AND NON-ROUTINE
MAINTENANCE OF THE VARIOUS
COMPONENTS

TO DEFINE SAFETY AND EMERGENCY
SYSTEMS

TO LEARN THE OPERATIONAL
SEQUENCES OF SYSTEM CONTROL

TO ACQUIRE KNOWLEDGE FOR
TROUBLESHOOTING THE SYSTEM

NOTES

* TRANSLATION COSTS NOT INCLUDED

CONVENTIONAL RIGS - 1500 HP / 2000 HP / 3000 HP

1-05

COMMON GENERAL TRAINING

5 days

1. POWER SYSTEM

- General description
 - Main generator set
 - Emergency generator
 - VFD (Variable Frequency Drive)
 - MCC (Motor Control Center)
 - Air Unit
2. RIG

- General Description
 - Substructure
 - Mast
 - Drill floor
 - Top Drive
 - Rotary Table
 - Drawwork
3. MUD SYSTEM

- Hydraulic Catheads
 - PCT 130 (Power Compact Tong)
 - Drilling Equipment
 - Rig's HPU
 - Driller Cabin
 - Safety Devices
 - Mud Pumps
 - Mud Tanks
 - Mud Equipments
 - Mud Lines

SPECIFIC TRAINING COURSES

DRILLER CABIN TRAINING

3 days

- 

1. Control's lay out

2. Human machine interfaces

3. Operative sequences

HYDRAULIC TRAINING

3 days

- 

1. Basic principles

2. Pipes and connections

3. Simbology

4. Valves

5. Motors, pumps and actuators

6. Hydraulic scheme analysis

ELECTRIC TRAINING

3 days

- 

1. Single line diagram

2. Generator set

3. Power control room

4. Driller cabin

5. Data network

6. Electric diagrams analysis

DURATION

8 DAYS (5 GENERAL + 3 SPECIFIC)

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER LANGUAGE UPON CLIENT' REQUEST *

LOCATION

GARIGA DI PODENZANO (PC) - ITALY OR ANY COSTUMER'S SITE

AUDIENCE

DRILLERS / ASSISTANT DRILLERS
MECHANICS / HYDRAULIC TECHNICIANS
ELETRICIANS / SOFTWARES ENGINEERS
RIG SUPERVISORS / TOOL PUSHERS

PRECONDITIONS

DRILLING OR MAINTENANCE EXPERIENCE
PREFERED BUT NOT ESSENTIAL

LEARNING OBJECTIVES

TO DEVELOP A TECHNICAL AND WORKING
KNOWLEDGE OF THE SYSTEM
TO UNDERSTAND THE ROUTINE AND
NON-ROUTINE MAINTENANCE PROCESSES
TO UNDERSTAND THE OPERATIONAL
SEQUENCES OF INDIVIDUAL COMPONENTS
TO REVIEW SOFTWARE LOGIC
TO DEFINE SAFETY AND EMERGENCY
SYSTEMS
TO UNDERSTAND THE WIRING AND
HYDRAULIC DIAGRAMS

NOTES

* TRANSLATION COSTS NOT INCLUDED

HYDRAULIC RIGS (HH) - HH 75 / HH 102

1-06

COMMON GENERAL TRAINING

3 days

1. POWER PACK

- General Description
 - Main Generator
 - Hydraulic Power Unit
 - Air Unit
2. RIG

- General Description
 - Base Substructure
 - Trailer
 - Drill floor
 - Mast
 - HTD (Hydraulic Top Drive)
 - Torque Wrench
 - Casing Device
 - Rotary Table
3. PIPE HANDLING SYSTEM

- Power Tong
 - Drilling Equipment
 - Dog House
 - Safety Devices
 - General Description
 - Vertical Bins
 - Crane
 - Safety Devices
4. MUD SYSTEM

- Mud Pumps
 - Mud Tanks
 - Mud Equipments
 - Mud Lines

SPECIFIC TRAINING COURSES

DRILLER CABIN TRAINING

2 days

- 

1. Hardware Controls

2. HMI (Human Machine Interfaces)

3. Operative Sequences

HYDRAULIC TRAINING

2 days

- 

1. Basic Principles

2. Pipes and Connections

3. Symbology

4. Valves

5. Motors, Pumps and actuators

6. Hydraulic Schemes Analysis

7. Hydraulic System Troubleshooting

ELECTRIC TRAINING

2 days

- 

1. Electric System General Description

2. Power Distribution

3. PLC System

4. Data Acquisition System

5. Electric Diagrams Analysis

6. Electric System Troubleshooting

DURATION

5 DAYS (3 GENERAL + 2 SPECIFIC)

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER LANGUAGE UPON CLIENT' REQUEST *

LOCATION

GARIGA DI PODENZANO (PC) - ITALY OR ANY COSTUMER'S SITE

AUDIENCE

DRILLERS / ASSISTANT DRILLERS
MECHANICS / HYDRAULIC TECHNICIANS
ELETRICIANS / SOFTWARES ENGINEERS
RIG SUPERVISORS

PRECONDITIONS

DRILLING OR MAINTENANCE EXPERIENCE
PREFERED BUT NOT ESSENTIAL

LEARNING OBJECTIVES

TO DEVELOP A TECHNICAL AND WORKING
KNOWLEDGE OF THE SYSTEM
TO UNDERSTAND THE ROUTINE AND
NON-ROUTINE MAINTENANCE PROCESSES
TO TROUBLESHHOT AND CALIBRATE THE
HYDRAULIC COMPONENTS OF THE SYSTEM
TO REVIEW SOFTWARE LOGIC
TO DEFINE SAFETY AND EMERGENCY
SYSTEMS
TO ANALYZE THE HYDRAULIC AND WIRING
DIAGRAMS OF THE SYSTEM

NOTES

* TRANSLATION COSTS NOT INCLUDED

HYDRAULIC RIGS (HH) - HH 220 / HH 300 / HH 375



COMMON GENERAL TRAINING 5 days

1. POWER SYSTEM

 - General description
 - Main generator set
 - Emergency generator
 - VFD (Variable Frequency Drive)
 - MCC (Motor Control Center)
 - Air Unit
2. HYDRAULIC POWER UNIT

 - General Description
 - Main Equipments
 - Safety Devices
3. RIG

 - General Description
 - Base Substructure
 - Trailer
 - Drill floor
 - Mast
 - HTD (Hydraulic Top Drive)
4. PIPE HANDLING SYSTEM

 - Torque Wrench
 - Casing Device
 - Rotary Table
 - Power Tong
 - Drilling Equipment
 - Dog House
 - Safety Devices
5. MUD SYSTEM

 - General Description
 - Vertical Bins
 - Pipe Handler
 - Safety Devices
 - Mud Pumps
 - Mud Tanks
 - Mud Equipments
 - Mud Lines

SPECIFIC TRAINING COURSES

DRILLER CABIN TRAINING 3 days

- 
1. Hardware Controls

2. HMI (Human Machine Interfaces)

3. Operative Sequences

HYDRAULIC TRAINING 3 days

- 
1. Basic Principles

2. Pipes and Connections

3. Symbology

4. Valves

5. Motors, Pumps and actuators

6. Hydraulic Schemes Analysis

ELECTRIC TRAINING 3 days

- 
1. Single Line Diagram

2. Generator Set

3. Power Control Room

4. Driller Cabin

5. Data Network

6. Electric Diagrams Analysis

DURATION

8 DAYS (5 GENERAL + 3 SPECIFIC)

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER LANGUAGE UPON CLIENT' REQUEST *

LOCATION

GARIGA DI PODENZANO (PC) - ITALY OR ANY COSTUMER'S SITE

AUDIENCE

DRILLERS / ASSISTANT DRILLERS
MECHANICS / HYDRAULIC TECHNICIANS
ELETRICIANS / SOFTWARES ENGINEERS
RIG SUPERVISORS

PRECONDITIONS

DRILLING OR MAINTENANCE EXPERIENCE
PREFERED BUT NOT ESSENTIAL

LEARNING OBJECTIVES

TO DEVELOP A TECHNICAL AND WORKING
KNOWLEDGE OF THE SYSTEM

TO UNDERSTAND THE ROUTINE AND
NON-ROUTINE MAINTENANCE PROCESSES

TO TROUBLESHOOT AND CALIBRATE THE
HYDRAULIC COMPONENTS OF THE SYSTEM

TO DEFINE SAFETY AND EMERGENCY
SYSTEMS

TO ANALYZE THE HYDRAULIC AND WIRING
DIAGRAMS OF THE SYSTEM

TO REVIEW SOFTWARE LOGICS OF RIG
AND PIPE HANDLER SYSTEM

NOTES

* TRANSLATION COSTS NOT INCLUDED

COURSE TOPICS 2 days

1. GENERAL

 - Personal protection equipment (PPE)
 - Work at height
 - Fire extinguisher positioning on all types of Drilling rigs
2. SAFETY

 - Positioning of lifting equipment and anchor points during Rigs assembling and disassembly operations
 - Rig-up and Rig-down procedure and safety check list for all types of Drilling Rigs
 - Areas and elements of risk during drilling operations such as: mechanical risk, pressurized elements risk, electric and explosion risk (ATEX)
 - Logics and Safety systems installed on Drilling Rigs such as: emergency push buttons, anti-collision systems
 - Isolation procedures (Tag out) of rig's utilities during maintenance phases
3. HEALTH

 - Introduction to H2S gas



DURATION

2 DAYS

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER LANGUAGE UPON CLIENT' REQUEST *

LOCATION

GARIGA DI PODENZANO (PC) - ITALY OR ANY COSTUMER'S SITE

AUDIENCE

DRILLERS / ASSISTANT DRILLERS
MECHANICS / HYDRAULIC TECHNICIANS
ELECTRICIANS / SOFTWARE ENGINEERS
TOOLPUSHERS / RIG SUPERINTENDENT
HSE TECHNICIAN / SUPERVISOR

PRECONDITIONS

DRILLING OR MAINTENANCE EXPERIENCE
PREFERED BUT NOT ESSENTIAL

LEARNING OBJECTIVES

TO ANALYZE RISKS RELATED TO PRODUCTS
AND EQUIPMENT

TO ENSURE HIGH-LEVEL HSE STANDARDS
DURING OPERATIONS

TO LEARN THE RIG'S SAFETY SYSTEMS AND
USING CORRECTLY THE SAFETY EQUIPMENT

TO PREPARE A MIGRATION PLANT IN CASE
OF DANGERS

TO INTRODUCE THE PARTICIPANTS TO H2S
GAS

NOTES

* TRANSLATION COSTS NOT INCLUDED

CONVENTIONAL RIG -SPECIFIC ELECTRIC TRAINING



SPECIFIC ELECTRIC TRAINING 19 days

1. GENERATOR SET CONTROL
 - Function and operation basic of power management (WOODWARD)
 - Function and operation of EasyGen (WOODWARD)
 - Trouble shooting of various issues on Generators(CATERPILLAR)
 - Tips on Preventive Maintenance(CATERPILLAR)
 - Details on power limit function and load sharing function (DRILLMEC)
2. VFD SYSTEM
 - Details and program rectifiers unit (DRILLMEC)
 - High Power Braking Unit function, operation, trouble shoot, programming (ABB)
 - ABB drives basic principles, details of each component and programming (ABB)
 - Master followers function of ABB drives, resize ABB drives (ABB)
 - Download/Upload of ABB drives parameters (ABB)
 - Details of interconnect diagrams of drives interconnections (ABB)
3. TOP DRIVE
 - Type of Top Drive (DRILLMEC)
 - Details of all functions of top drive (DRILLMEC)
 - Details various interlocks in the top drives (DRILLMEC)
 - Anti-collision system (DRILLMEC)
 - Type of electrical components used on top drive (DRILLMEC)
4. DRAWWORKS
 - Details of interconnect diagrams (DRILLMEC)
 - Various interlock with related to Anti-Collision-System (DRILLMEC)
 - Function of Brake Control System (DRILLMEC)
 - Preventive maintenance (DRILLMEC)
5. CONTROL SYSTEM
 - Details of control system used on the rig (DRILLMEC)
 - Details of Profibus, Fiber Optics, Ethernet networking (DRILLMEC)
 - Procedures on changing, the network components (DRILLMEC)
 - Trouble shooting (DRILLMEC)
 - Type of PLC used and program (DRILLMEC)
6. INSTRUMENTATION SYSTEM
 - Type of instrumentation used on the rig (DRILLMEC)
 - Touch screen and computer navigation, system configuration (DRILLMEC)
 - Sensor (setup and connections) (DRILLMEC)
 - Trouble shooting (DRILLMEC)

DURATION

19 DAYS

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER LANGUAGE UPON CLIENT' REQUEST *

LOCATION

GARIGA DI PODENZANO (PC) - ITALY
ABB TRAINING CENTER GENOVA - ITALY
CATERPILLAR TRAINING CENTER
VERCELLI - ITALY

AUDIENCE

ELETRICIANS / SOFTWARES ENGINEERS

PRECONDITIONS

DRILLING OR MAINTENANCE EXPERIENCE
PREFERED BUT NOT ESSENTIAL

LEARNING OBJECTIVES

TO PROVIDE IN-DEPTH KNOWLEDGE
ON THE OPERATING PRINCIPLES OF
ELECTRICAL DEVICES PRESENT
ON THE SYSTEM

TO TRAIN TECHNICAL PERSONNEL
ON THE PRINCIPLES AND PROCEDURES
FOR OPERATION AND MAINTENANCE
ACTIVITIES

TO PROVIDE PERSONNEL WITH THE
INFORMATION TO CONFIGURE THE
CONTROLS USING THE DEDICATED
SOFTWARE

NOTES

* TRANSLATION COSTS NOT INCLUDED

THE SPECIFIC COURSES ATTENDED
IN ABB, WOODWARD, CATERPILLAR
FACILITIES, WILL PROVIDE TO THE
TRAINEE A SPECIFIC CERTIFICATE

HYDRAULIC & ELECTRIC TOP DRIVES



COURSE TOPICS 5 days

1. DESCRIPTION OF MAIN COMPONENTS
 - Electric/Hydraulic Motors
 - Gearbox
 - Rotating double hook
 - Brake system
 - Link tilt system
 - IBOP actuator
 - Counterbalance system
 - Auxiliary Equipments
2. HYDRAULIC POWER UNIT
3. INSTALLATION PROCEDURE

SPECIFIC HYDRAULIC TRAINING

1. BASIC PRINCIPLES
2. PIPES AND CONNECTIONS
3. SIMBOLOGY
4. VALVES
5. MOTORS, PUMPS AND ACTUATORS

TOP DRIVE'S CONTROL TRAINING

1. CONTROL PANEL
2. OPERATIVE SEQUENCES DESCRIPTION
3. TOP DRIVE HMI

TOP DRIVE MAINTENANCE & TROUBLESHOOTING

1. HYDRAULIC SCHEME ANALYSIS
2. PNEUMATIC SCHEME ANALYSIS
3. ELECTRIC SCHEME ANALYSIS
4. PREVENTIVE MAINTENANCE
5. TROUBLESHOOTING
6. MAINTENANCE PROGRAM
7. MAINTENANCE TABLE

DURATION

5 DAYS

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER LANGUAGE UPON CLIENT' REQUEST *

LOCATION

GARIGA DI PODENZANO (PC) - ITALY
OR ANY COSTUMER'S SITE

AUDIENCE

DRILLERS / ASSISTANT DRILLERS
MECHANICS / HYDRAULIC TECHNICIANS
ELETRICIANS / SOFTWARES ENGINEERS

PRECONDITIONS

DRILLING OR MAINTENANCE EXPERIENCE
PREFERED BUT NOT ESSENTIAL

LEARNING OBJECTIVES

TO SEE DIFFERENCES BETWEEN THE
DIFFERENT MODELS

TO UNDERSTAND THE PROCEDURES/
SEQUENCES/PROCESSES REQUIRED TO
OPERATE ON THE SYSTEM

TO LEARN THE PURPOSE OF THE
EQUIPMENT PRESENT ON THE SYSTEM
AND IDENTIFY THE VARIOUS COMPONENTS

TO UNDERSTAND THE OPERATIONAL
FUNCTIONING OF THE SYSTEM

TO LEARN THE METHODS TO
TROUBLESHOOT AND IDENTIFY
THE PREVENTIVE MAINTENANCE
TO BE CARRIED OUT

NOTES

* TRANSLATION COSTS NOT INCLUDED

DRAWWORKS



COURSE TOPICS

3 days

- 1. GENERAL DESCRIPTION
- 2. MAIN COMPONENTS DESCRIPTION
- 3. PERFORMANCES
- 4. ELECTRIC MOTORS
- 5. GEAR BOX
- 6. COMPOUND
- 7. MAIN DRUM
- 8. DRAWWORK'S HPU
- 9. BREAKING SYSTEM
- 10. LUBRICATING SYSTEM
- 11. ANTI-COLLISION SYSTEM
- 12. COOLING SYSTEM
- 13. AUTO-DRILLER
- 14. SAFETY DEVICES

DRAWWORK'S CONTROL TRAINING

- 1. DRAWWORK'S CONTROL PANEL
- 2. DRAWWORK'S HMI

DRAWWORK MAINTENANCE & TROUBLESHOOTING

- 1. HYDRAULIC SCHEME ANALYSIS
- 2. ELECTRIC SCHEME ANALYSIS
- 3. PREVENTIVE MAINTENANCE
- 4. TROUBLESHOOTING
- 5. MAINTENANCE PROGRAM
- 6. MAINTENANCE TABLE



DURATION

3 DAYS

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER LANGUAGE UPON CLIENT' REQUEST *

LOCATION

GARIGA DI PODENZANO (PC) - ITALY OR ANY COSTUMER'S SITE

AUDIENCE

DRILLERS / ASSISTANT DRILLERS
MECHANICS / HYDRAULIC TECHNICIANS
ELETRICIANS / SOFTWARES ENGINEERS

PRECONDITIONS

DRILLING OR MAINTENANCE EXPERIENCE
PREFERED BUT NOT ESSENTIAL

LEARNING OBJECTIVES

TO LEARN ABOUT THE POSITIONING OF
PRINCIPAL COMPONENTS AND THEIR
FUNCTIONS

TO LEARN HOW THE BRAKING SYSTEM
FUNCTIONS

TO SEE AND LEARN ABOUT THE
PRINCIPAL FUNCTIONS MANAGED BY HMI

TO LEARN TROUBLESHOOTING
TECHNIQUES

TO LEARN ABOUT PREVENTIVE
MAINTENANCE

NOTES

* TRANSLATION COSTS NOT INCLUDED

MUD PUMPS - 7TS600/9T1000/12T1600/14T2200



COURSE TOPICS

3 days

- 1. GENERAL DESCRIPTION
- 2. MAIN COMPONENTS TERMINOLOGY
- 3. MAIN COMPONENTS DESCRIPTIONS
- 4. POWER-END FEATURES
- 5. FLUID-END FEATURES
- 6. SERVICE JIB CRANE
- 7. TRANSMISSION
- 8. ELECTRIC MOTORS OR DIESEL ENGINE (DEPENDING ON THE MUD PUMPS ARRANGEMENT)
- 9. P-QUIP SYSTEM
- 10. VALVES – PISTONS – LINERS
- 11. COOLING SYSTEM
- 12. LUBRICATING SYSTEM
- 13. AUXILIARY EQUIPMENTS
- 14. SAFETY DEVICES

MUD PUMP'S CONTROL TRAINING

- 1. MUD PUMP'S CONTROL PANEL
- 2. MUDPUMP'S HMI

MUD PUMP MAINTENANCE & TROUBLESHOOTING

- 1. HYDRAULIC SCHEME ANALYSIS
- 2. P-QUIP SYSTEM DEMONSTRATION
- 3. ELECTRIC SCHEME ANALYSIS
- 4. PREVENTIVE MAINTENANCE
- 5. TROUBLESHOOTING
- 6. MAINTENANCE PROGRAM
- 7. MAINTENANCE TABLE



DURATION

3 DAYS

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER LANGUAGE UPON CLIENT' REQUEST *

LOCATION

GARIGA DI PODENZANO (PC) - ITALY OR ANY COSTUMER'S SITE

AUDIENCE

DRILLERS / ASSISTANT DRILLERS
MECHANICS / HYDRAULIC TECHNICIANS
ELETRICIANS / SOFTWARES ENGINEERS

PRECONDITIONS

DRILLING OR MAINTENANCE EXPERIENCE
PREFERED BUT NOT ESSENTIAL

LEARNING OBJECTIVES

TO SEE VARIOUS MUD PUMPS AND KNOW
THE DIFFERENCES

TO LEARN THE OPERATION OF THE
SYSTEM THROUGH VIEWING WIRING,
HYDRAULIC, CONTROL SYSTEM DIAGRAMS

TO UNDERSTAND HOW TO MANAGE AND
DISPLAY THE INFORMATION ON THE PUMP
THROUGH HMI

TO LEARN THE TECHNIQUES TO REPLACE
LINERS AND VALVES

TO IDENTIFY THE BASIC TECHNIQUES
TO TROUBLE-SHOOT OPERATIONAL AND
MAINTENANCE ISSUES

NOTES

* TRANSLATION COSTS NOT INCLUDED

POWER TONG - PCT 130



COURSE TOPICS 1 days

- 1. GENERAL DESCRIPTION
- 2. MAIN COMPONENTS TERMINOLOGY
- 3. MAIN COMPONENTS DESCRIPTION
- 4. INSTALLATION PROCEDURE
- 5. OPERATIVE SEQUENCES DESCRIPTION
- 6. SAFETY DEVICES
- 7. HYDRAULIC SCHEMES ANALYSIS
- 8. ELECTRIC SCHEMES ANALYSIS

PRACTICAL TRAINING

- 1. USE OF POWER TONG WITH A REAL REMOTE CONTROL PANEL (IF AVAILABLE)
- 2. USE OF POWER TONG FROM A REAL DRILLER CABIN (IF AVAILABLE)

IF THE PREVIOUS OPTIONS ARE NOT AVAILABLE IT IS POSSIBLE TO OPERATE AND SET THE POWER TONG (PCT 130) BY MEANS A SIMULATOR.



DURATION

1 DAYS

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER LANGUAGE UPON CLIENT' REQUEST *

LOCATION

GARIGA DI PODENZANO (PC) - ITALY OR ANY COSTUMER'S SITE

AUDIENCE

DRILLERS / ASSISTANT DRILLERS
MECHANICS / HYDRAULIC TECHNICIANS
ELETRICIANS / SOFTWARES ENGINEERS

PRECONDITIONS

DRILLING OR MAINTENANCE EXPERIENCE
PREFERED BUT NOT ESSENTIAL

LEARNING OBJECTIVES

- TO LEARN THE BASIC OPERATING FUNCTIONS
- TO READ THE WIRING AND HYDRAULIC DIAGRAMS
- TO LEARN MANAGEMENT PROCEDURES THROUGH USE OF HMI
- TO LEARN THE TECHNIQUES FOR TROUBLESHOOTING AND PROCEDURES FOR ROUTINE MAINTENANCE

NOTES

* TRANSLATION COSTS NOT INCLUDED

IADC WELLSHARP INTRODUCTORY WELL CONTROL



COURSE TOPICS 5 days IADC

- 1. INTRODUCTION TO THE DRILLING RIG AND ITS EQUIPMENT (HOISTING, ROTATING, CIRCULATING AND BLOW OUT PREVENTION (BOP) SYSTEMS)
- 2. CONTROLLING THE WELL
- 3. KICKS - WHAT IS A KICK, WHAT CAUSES A KICK?
- 4. FLUIDS AND PRESSURES
- 5. HOW TO COMPLETE A TRIP SHEET
- 6. THE TRIP TANK SYSTEM
- 7. BASIC TRIPPING CALCULATIONS
- 8. SHUT-IN METHODS (DRILLING AND TRIPPING)

THIS COURSE MUST BE DONE TO ATTEND THE LEVEL 3 AND LEVEL 4 WELL CONTROL COURSES.



DURATION

5 DAYS

LANGUAGES

ENGLISH, ITALIAN, FRENCH, SPANISH

LOCATION

GARIGA DI PODENZANO (PC) - ITALY OR ANY COSTUMER'S SITE *

AUDIENCE

SENIOR OPERATIONAL AND ENGINEERING PERSONNEL INVOLVED IN DRILLING / WORKOVER OPERATIONS, OIMS, DRILLING SUPERINTENDENTS, DRILLING ENGINEERS, DRILLING SUPERVISORS, TOOL-PUSHERS, DRILLERS OR WHO REQUIRE IADC WELL CONTROL ACCREDITATION

PRECONDITIONS

NO DRILLING EXPERIENCE REQUIRED BUT PREFERED

LEARNING OBJECTIVES

- THE KNOWLEDGE AND PRACTICAL SKILLS NECESSARY TO APPLY SAFE WELL CONTROL PRACTICES IN SURFACE AND SUBSEA INSTALLATIONS
- UNDERSTAND A BLOW-OUT IMPACT
- UNDERSTAND ALL THE EQUIPMENTS USED TO PUT THE WELL IN SAFETY
- HAVE THE POSSIBILITY TO ATTEND LEVEL 3 AND LEVEL 4 WELL CONTROL COURSES
- PASS THE FINAL EXAM TO ACHIEVE THE IADC CERTIFICATE

NOTES

* FOR ANY INFORMATION CONTACT
WELLCONTROL@DRILLMEC.COM

IWCF WELL CONTROL LEVEL 2 - INTRODUCTORY



COURSE TOPICS

5 days



1. INTRODUCTION TO THE DRILLING RIG AND ITS EQUIPMENT (HOISTING, ROTATING, CIRCULATING AND BLOW OUT PREVENTION (BOP) SYSTEMS)
2. CONTROLLING THE WELL
3. KICKS WHAT IS A KICK, WHAT CAUSES A KICK?
4. FLUIDS AND PRESSURES
5. HOW TO COMPLETE A TRIP SHEET
6. THE TRIP TANK SYSTEM
7. BASIC TRIPPING CALCULATIONS
8. SHUT-IN METHODS (DRILLING AND TRIPPING)

THIS COURSE MUST BE DONE TO ATTEND THE LEVEL 3 AND LEVEL 4 WELL CONTROL COURSES.



DURATION

5 DAYS

LANGUAGES

ENGLISH, ITALIAN, FRENCH, SPANISH

LOCATION

GARIGA DI PODENZANO (PC) - ITALY
OR ANY COSTUMER'S SITE *

AUDIENCE

SENIOR OPERATIONAL AND ENGINEERING PERSONNEL INVOLVED IN DRILLING / WORKOVER OPERATIONS, OIMS, DRILLING ENGINEERS, DRILLING SUPERVISORS, TOOLPUSHERS, DRILLERS OR WHO REQUIRE IWCF WELL CONTROL ACCREDITATION

PRECONDITIONS

NO DRILLING EXPERIENCE REQUIRED BUT PREFERED

LEARNING OBJECTIVES

THE KNOWLEDGE AND PRACTICAL SKILLS NECESSARY TO APPLY SAFE WELL CONTROL PRACTICES IN SURFACE AND SUBSEA INSTALLATIONS
UNDERSTAND A BLOW-OUT IMPACT
UNDERSTAND ALL THE EQUIPMENTS USED TO PUT THE WELL IN SAFETY
HAVE THE POSSIBILITY TO ATTEND LEVEL 3 AND LEVEL 4 WELL CONTROL COURSES
PASS THE FINAL EXAM TO ACHIEVE THE IWCF CERTIFICATE

NOTES

* FOR ANY INFORMATION CONTACT
WELLCONTROL@DRILLMEC.COM

IADC WELLSHARP DRILLING FUNDAMENTAL & DRILLING SUPERVISORS



COURSE TOPICS

5 days



1. WELL CONTROL MANAGEMENT
2. UNDERSTANDING FLUIDS AND PRESSURE
3. PRIMARY WELL CONTROL
4. DYNAMIC WELLBORE PRESSURES
5. BLOWOUT PREVENTION AND WELL CONTROL EQUIPMENT
6. GAS MIGRATION
7. SUBSEA CONTROL SYSTEMS
8. KICK WARNING SIGNS
9. SHALLOW GAS KICKS
10. SHUT-IN PROCEDURES
11. WELL CONTROL METHODS
12. DEVIATED HORIZONTAL WELL CONTROL
13. HANDLING ON-BOTTOM KICKS
14. LONG REACH AND HORIZONTAL KICK HANDLING
15. STRIPPING OPERATIONS
16. HANDLING KICKS WHILE OUT OF THE HOLE
17. PROBLEMS DURING WELL CONTROL
18. SIMULATOR EXERCISES AND ASSESSMENT



COURSE TYPE

SURFACED AND COMBINED

DURATION

5 DAYS

LANGUAGES

ENGLISH, ITALIAN, FRENCH, SPANISH

LOCATION

GARIGA DI PODENZANO (PC) - ITALY
OR ANY COSTUMER'S SITE *

AUDIENCE

SENIOR OPERATIONAL AND ENGINEERING PERSONNEL INVOLVED IN DRILLING / WORKOVER OPERATIONS, OIMS, DRILLING SUPERINTENDENTS, DRILLING ENGINEERS, DRILLING SUPERVISORS, TOOLPUSHERS, DRILLERS OR WHO REQUIRE IADC WELL CONTROL ACCREDITATION

PRECONDITIONS

WELL CONTROL LEVEL 2 (INTRODUCTORY) OR PREVIOUS WELL CONTROL COURSES (LEVEL 3-4)

LEARNING OBJECTIVES

UNDERSTAND THE ORIGIN OF A KICK AND WELL CONTROL OPERATIONS
UNDERSTAND HOW REACT IN CASE OF ACCIDENTS
APPLY THE THEORETIC METHODS ON THE SIMULATOR
THE KNOWLEDGE TO PUT THE WELL IN SAFETY CONDITIONS
PASS THE FINAL EXAM TO ACHIEVE THE IADC CERTIFICATE

NOTES

* FOR ANY INFORMATION CONTACT
WELLCONTROL@DRILLMEC.COM

IWCF WELL CONTROL LEVEL 3 - DRILLER & LEVEL 4 - SUPERVISORS

W-04



COURSE TOPICS

5 days



1. WELL CONTROL MANAGEMENT
2. UNDERSTANDING FLUIDS AND PRESSURE
3. PRIMARY WELL CONTROL
4. DYNAMIC WELLBORE PRESSURES
5. BLOWOUT PREVENTION AND WELL CONTROL EQUIPMENT
- 6 .GAS MIGRATION
7. SUBSEA CONTROL SYSTEMS
8. KICK WARNING SIGNS
9. SHALLOW GAS KICKS
10. SHUT-IN PROCEDURES
11. WELL CONTROL METHODS
12. DEVIATED HORIZONTAL WELL CONTROL
13. HANDLING ON-BOTTOM KICKS
14. LONG REACH AND HORIZONTAL KICK HANDLING
15. STRIPPING OPERATIONS
16. HANDLING KICKS WHILE OUT OF THE HOLE
17. PROBLEMS DURING WELL CONTROL
18. SIMULATOR EXERCISES AND ASSESSMENT



COURSE TYPE

SURFACED AND COMBINED

DURATION

5 DAYS

LANGUAGES

ENGLISH, ITALIAN, FRENCH, SPANISH

LOCATION

GARIGA DI PODENZANO (PC) - ITALY
OR ANY COSTUMER'S SITE *

AUDIENCE

SENIOR OPERATIONAL AND ENGINEERING
PERSONNEL INVOLVED IN DRILLING /
WORKOVER OPERATIONS, OIMS, DRILLING
ENGINEERS, DRILLING SUPERVISORS,
TOOLPUSHERS, DRILLERS OR WHO
REQUIRE IWCF WELL CONTROL
ACCREDITATION

PRECONDITIONS

WELL CONTROL LEVEL 2 (INTRODUCTORY) OR
PREVIOUS WELL CONTROL COURSES (LEVEL 3-4)

LEARNING OBJECTIVES

UNDERSTAND THE ORIGIN OF A KICK AND
WELL CONTROL OPERATIONS

UNDERSTAND HOW REACT IN CASE OF
ACCIDENTS

APPLY THE THEORETIC METHODS ON THE
SIMULATOR

THE KNOWLEDGE TO PUT THE WELL IN
SAFETY CONDITIONS

PASS THE FINAL EXAM TO ACHIEVE THE
IWCF CERTIFICATE

NOTES

* FOR ANY INFORMATION CONTACT
WELLCONTROL@DRILLMEC.COM

HYDRAULIC RIG (HH SERIES) SIMULATOR

101



COURSE TOPICS

7 days

1. HARDWARE AND SOFTWARE CONTROL EXPLANATION
 - Control's lay-out description
 - Control's functioning explanation
 - Explanation of HMI's pages contents
 - Navigate around all the HMI pages
 - Setting of main parameters on HMI
2. RIG START-UP
 - Check list before start-up
 - Start-up procedure
 - Alarms reset procedure
3. TRIPPING OPERATIONS
 - Taking pipe from mouse hole
 - Pipes connection exercises (Trip in/out)
 - Use of power tong/torque wrench
 - Use of top drive
4. DRILLING OPERATIONS
 - Practice on components used in drilling
 - HMI explanation
 - Use of auto-driller
 - Anti-collision settings
 - Setting drilling parameters
 - Troubleshooting
5. PIPE HANDLING SYSTEM
 - HMI and controls explanation
 - Operative sequences
 - Use of pipe handling system in auto, remote or manual mode
 - Bin Teaching
6. CASING OPERATIONS
 - Use and setting of casing make-up device
 - Handling casing
7. RIG SHUT-DOWN
 - Shut-down procedure

DURATION

7 DAYS

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER
LANGUAGE UPON CLIENT' REQUEST *

LOCATION

GARIGA DI PODENZANO (PC) - ITALY

AUDIENCE

DRILLERS / ASSISTANT DRILLERS
RIG SUPERVISORS / TOOLPUSHERS

PRECONDITIONS

DRILLING AND MAINTENANCE
EXPERIENCE PREFERED

LEARNING OBJECTIVES

TO KNOWLEDGE OF INSTRUMENTATION
OF DRILLER CONTROL CABIN, CONTROLS
AND HMI (HUMANE MACHINE INTERFACES)

TO REVISION OF OPERATIVE SEQUENCES

TO UNDERSTAND THE PROCEDURE TO
START-UP RIG AFTER BLACK-OUT

TO DETECTION OF ALARMS AND WARNING
ON THE SYSTEM

TO REVISION OF SAFETY AND
ANTI-COLLISION SYSTEMS

TO PRACTICE ON MAKING CONNECTIONS,
TRIP-IN AND TRIP-OUT OPERATIONS AND
RUNNING CASING

NOTES

* TRANSLATION COSTS NOT INCLUDED

CONVENTIONAL RIG SIMULATOR



COURSE TOPICS

7 days

- 1. HARDWARE AND SOFTWARE CONTROL EXPLANATIONS
 - Control's lay-out description
 - Control's functioning explanation
 - Explanation of HMI's pages contents
 - Navigate around all the HMI pages
 - Setting of main parameters on HMI
- 2. RIG START-UP
 - Check list before start-up
 - Start-up procedure
 - Alarm reset procedure
- 3. TRIPPING (SINGLE JOIN OR TRIPLE STAND) OPERATIONS
 - Taking pipe from mouse hole
 - Taking stand of pipe from racking board
 - Pipes connection exercises (Trip in/out)
 - Use of power tong
- 4. DRILLING OPERATIONS
 - Use of auto driller
 - Anti-collision calibration
 - Setting of drilling parameters
 - Use of top drive
 - Troubleshooting
- 5. SETTING OF RIG'S DEVICES INSTALLED
 - Setting from HMI the main working parameters
- 6. RIG SHUT-DOWN
 - Shut-down procedure

DURATION

7 DAYS

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER LANGUAGE UPON CLIENT' REQUEST *

LOCATION

GARIGA DI PODENZANO (PC) - ITALY

AUDIENCE

DRILLERS / ASSISTANT DRILLERS
RIG SUPERVISORS / TOOLPUSHERS

PRECONDITIONS

DRILLING AND MAINTENANCE
EXPERIENCE PREFERED

LEARNING OBJECTIVES

TO KNOWLEDGE OF INSTRUMENTATION OF DRILLER CONTROL CABIN, CONTROLS AND HMI (HUMANE MACHINE INTERFACES)
TO REVISION OF OPERATIVE SEQUENCES
TO UNDERSTAND THE PROCEDURE TO START-UP RIG AFTER BLACK-OUT
TO DETECTION OF ALARMS AND WARNING ON THE SYSTEM
TO REVISION OF SAFETY AND ANTI-COLLISION SYSTEMS
TO PRACTICE ON MAKING CONNECTIONS, TRIP-IN AND TRIP-OUT OPERATIONS

NOTES

* TRANSLATION COSTS NOT INCLUDED

PORTABLE SIMULATOR



COURSE TOPICS

7 days

- 1. HARDWARE AND SOFTWARE CONTROL EXPLANATION
 - Control's lay-out description
 - Control's functioning explanation
 - Explanation of HMI's pages contents
 - Navigate around all the HMI pages
 - Setting of main parameters on HMI
- 2. RIG START-UP
 - Check list before start-up
 - Start-up procedure
 - Alarms reset procedure
- 3. TRIPPING OPERATIONS
 - Taking pipe from mouse hole
 - Catching stand of pipe from racking board
 - Pipes connection exercises (Trip in/out)
 - Use of top drive
- 4. DRILLING OPERATIONS
 - Use of auto-driller
 - Anti-collision calibrations
 - Setting drilling parameters
 - Use of top drive
 - Problems detecting
- 5. SETTINGS OF RIG'S DEVICES INSTALLED
 - Settings from HMI the main working parameters
- 6. RIG SHUT-DOWN
 - Shut-down procedure

DURATION

7 DAYS

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER LANGUAGE UPON CLIENT' REQUEST *

LOCATION

ANY COSTUMER'S SITE

AUDIENCE

DRILLERS / ASSISTANT DRILLERS
RIG SUPERVISORS / TOOLPUSHERS

PRECONDITIONS

DRILLING AND MAINTENANCE
EXPERIENCE PREFERED

LEARNING OBJECTIVES

TO KNOWLEDGE OF INSTRUMENTATION OF DRILLER CONTROL CABIN, CONTROLS AND HMI (HUMANE MACHINE INTERFACES)
TO REVISION OF OPERATIVE SEQUENCES
TO UNDERSTAND THE PROCEDURE TO START-UP RIG AFTER BLACK-OUT
TO DETECTION OF ALARMS AND WARNING ON THE SYSTEM
TO REVISION OF SAFETY AND ANTI-COLLISION SYSTEMS
TO PRACTICE ON MAKING CONNECTIONS, TRIP-IN AND TRIP-OUT OPERATIONS AND RUNNING CASING

NOTES

* TRANSLATION COSTS NOT INCLUDED

CUSTOMIZABLE VIDEO TRAINING



RIG TRAINING VIDEO TOPICS

- 1. GENERAL DESCRIPTION
- 2. POWER DISTRIBUTION
- 3. MAIN COMPONENT DESCRIPTION
- 4. POSITIONING, INSTALLATION AND RIG-UP SEQUENCES
- 5. SAFETY DEVICE
- 6. MAIN MECHANICAL/ELECTRICAL/HYDRAULIC MAINTENANCE
- 7. OPERATIVES SEQUENCES (ROTATION,HOISTING...)

RIG DEVICES TRAINING VIDEO TOPICS

- 1. GENERAL DESCRIPTION
- 2. POWER DISTRIBUTION
- 3. MAIN COMPONENT DESCRIPTION
- 4. LUBRICATION SYSTEM
- 5. GREASING SYSTEM
- 6. COOLING SYSTEM
- 7. TROUBLESHOOTING
- 8. OPERATIVE SEQUENCES
- 9. SAFETY SYSTEM



DURATION

CUSTOMIZABLE

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER LANGUAGE UPON CLIENT'S REQUEST

LOCATION

ANY COSTUMER'S SITE

AUDIENCE

OPERATIVE CREW / ENGINEERS
SALES AGENTS / MANAGERS

PRECONDITIONS

DRILLING OR MAINTENANCE EXPERIENCE
PREFERED BUT NOT ESSENTIAL

LEARNING OBJECTIVES

TO DEVELOP THE WORKING KNOWLEDGE OF THE SYSTEM IN A SHORT TIME
TO ANALYZE THE MAIN COMPONENTS PRINCIPLE OF FUNCTIONING
TO UNDERSTAND THE MAIN RIG'S WORKING SEQUENCES
TO HAVE THE POSSIBILITY TO REVIEW THE TRAINING COURSE EVERY TIME
TO PERFORM THE TRAINING SESSION DIRECTLY ON WORK SITE

NOTES

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MOBILE RIGS CBT - MR 4000 / MR 5000



COMMON GENERAL TRAINING

3 days

1. POWER SYSTEM

 - General Description
 - Power Pack
 - Transmission
 - Air Unit
2. RIG

 - General Description
 - Substructure
 - Mast
 - Trailer
 - Drill floor
 - Top Drive
 - Rotary Table
 - Drawworks
 - Hydraulic Catheads
3. MUD SYSTEM

 - Power Tong
 - Drilling equipment
 - Driller cabin
 - Safety devices
 - Mud Pumps
 - Mud Tanks
 - Mud Equipments
 - Mud Lines

SPECIFIC TRAINING COURSES

DRILLER CABIN TRAINING

2 days



- 1. Control panel layout
- 2. Operative sequences description
- 3. Drilling HMI (Human Machine Interface)

HYDRAULIC TRAINING

2 days



- 1. Basic principles
- 2. Pipes and connections
- 3. Simbology
- 4. Valves
- 5. Motors, pumps and actuators
- 6. Hydraulic scheme analysis

ELECTRIC TRAINING

2 days



- 1. Power distribution
- 2. PLC system
- 3. MCC (Motor Control Center)
- 4. Electric diagrams analysis
- 5. Electric system troubleshooting
- 6. Ordinary maintenance

DURATION

5 DAYS (3 GENERAL + 2 SPECIFIC)

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER LANGUAGE UPON CLIENT' REQUEST *

LOCATION

GARIGA DI PODENZANO (PC) - ITALY
OR ANY COSTUMER'S SITE **

AUDIENCE

DRILLERS / ASSISTANT DRILLERS
MECHANICS / HYDRAULIC TECHNICIANS
ELETRICIANS / SOFTWARES ENGINEERS
RIG SUPERVISORS

PRECONDITIONS

DRILLING OR MAINTENANCE EXPERIENCE
PREFERED BUT NOT ESSENTIAL

LEARNING OBJECTIVES

TO DEVELOP A TECHNICAL AND WORKING KNOWLEDGE OF THE SYSTEM
TO LEARN THE ROUTINE AND NON-ROUTINE MAINTENANCE OF THE VARIOUS COMPONENTS
TO DEFINE SAFETY AND EMERGENCY SYSTEMS
TO LEARN THE OPERATIONAL SEQUENCES OF SYSTEM CONTROL
TO ACQUIRE KNOWLEDGE FOR TROUBLESHOOTING THE SYSTEM

NOTES

* TRANSLATION COSTS NOT INCLUDED
** THE CBT TRAINING WILL BE DELIVERED ON SITE WITH AN INSTRUCTOR

MOBILE RIGS CBT - MR 6000 / MR 8000



COMMON GENERAL TRAINING 3 days

1. POWER SYSTEM

- General Description
 - Power Pack
 - Transmission
 - Air Unit
2. RIG

- General Description
 - Substructure
 - Mast
 - Trailer
 - Drill floor
 - Top Drive
 - Rotary Table
 - Drawworks
 - Hydraulic Catheads
3. MUD SYSTEM

- Power Tong
 - Drilling equipment
 - Driller cabin
 - Safety devices
 - Mud Pumps
 - Mud Tanks
 - Mud Equipments
 - Mud Lines

SPECIFIC TRAINING COURSES

DRILLER CABIN TRAINING 2 days

-
1. Control panel layout

2. Operative sequences description

3. Drilling HMI (Human Machine Interface)

HYDRAULIC TRAINING 2 days

-
1. Basic principles

2. Pipes and connections

3. Simbology

4. Valves

5. Motors, pumps and actuators

6. Hydraulic scheme analysis

ELECTRIC TRAINING 2 days

-
1. Power distribution

2. PLC system

3. MCC (Motor Control Center)

4. Electric diagrams analysis

5. Electric system troubleshooting

6. Ordinary maintenance

DURATION

5 DAYS (3 GENERAL + 2 SPECIFIC)

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER LANGUAGE UPON CLIENT' REQUEST *

LOCATION

GARIGA DI PODENZANO (PC) - ITALY OR ANY COSTUMER'S SITE **

AUDIENCE

DRILLERS / ASSISTANT DRILLERS
MECHANICS / HYDRAULIC TECHNICIANS
ELETRICIANS / SOFTWARES ENGINEERS
RIG SUPERVISORS

PRECONDITIONS

DRILLING OR MAINTENANCE EXPERIENCE
PREFERED BUT NOT ESSENTIAL

LEARNING OBJECTIVES

TO DEVELOP A TECHNICAL AND WORKING
KNOWLEDGE OF THE SYSTEM

TO LEARN THE ROUTINE AND
NON-ROUTINE MAINTENANCE
OF THE VARIOUS COMPONENTS

TO DEFINE SAFETY AND EMERGENCY
SYSTEMS

TO LEARN THE OPERATIONAL
SEQUENCES OF SYSTEM CONTROL

TO ACQUIRE KNOWLEDGE FOR
TROUBLESHOOTING THE SYSTEM

NOTES

* TRANSLATION COSTS NOT INCLUDED
** THE CBT TRAINING WILL BE DELIVERED
ON SITE WITH AN INSTRUCTOR

CONVENTIONAL RIGS CBT - 1500 HP/2000 HP/3000 HP



COMMON GENERAL TRAINING 3 days

1. POWER SYSTEM

- General description
 - Main generator set
 - Emergency generator
 - VFD (Variable Frequency Drive)
 - MCC (Motor Control Center)
 - Air Unit
2. RIG

- General Description
 - Substructure
 - Mast
 - Drill floor
 - Top Drive
 - Rotary Table
 - Drawwork
3. MUD SYSTEM

- Hydraulic Catheads
 - PCT 130 (Power Compact Tong)
 - Drilling Equipment
 - Rig's HPU
 - Driller Cabin
 - Safety Devices
 - Mud Pumps
 - Mud Tanks
 - Mud Equipments
 - Mud Lines

SPECIFIC TRAINING COURSES

DRILLER CABIN TRAINING 2 days

-
1. Control panel layout

2. Operative sequences description

3. Drilling HMI (Human Machine Interface)

HYDRAULIC TRAINING 2 days

-
1. Basic principles

2. Pipes and connections

3. Simbology

4. Valves

5. Motors, pumps and actuators

6. Hydraulic scheme analysis

ELECTRIC TRAINING 2 days

-
1. Single line diagram

2. Generator set

3. PCR (Power Control Room)

4. Driller cabin

5. Data network

6. Electric diagrams analysis

DURATION

5 DAYS (3 GENERAL + 2 SPECIFIC)

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER LANGUAGE UPON CLIENT' REQUEST *

LOCATION

GARIGA DI PODENZANO (PC) - ITALY OR ANY COSTUMER'S SITE **

AUDIENCE

DRILLERS / ASSISTANT DRILLERS
MECHANICS / HYDRAULIC TECHNICIANS
ELETRICIANS / SOFTWARES ENGINEERS
RIG SUPERVISORS

PRECONDITIONS

DRILLING OR MAINTENANCE EXPERIENCE
PREFERED BUT NOT ESSENTIAL

LEARNING OBJECTIVES

TO DEVELOP A TECHNICAL AND WORKING
KNOWLEDGE OF THE SYSTEM

TO UNDERSTAND THE ROUTINE AND
NON-ROUTINE MAINTENANCE

TO UNDERSTAND THE OPERATIONAL
SEQUENCE OF INDIVIDUAL COMPONENTS

TO REVIEW SOFTWRE LOGIC

TO DEFINE SAFETY AND EMERGENCY
SYSTEMS

TO UNDERSTAND THE WIRING AND
HYDRAULIC DIAGRAMS

NOTES

* TRANSLATION COSTS NOT INCLUDED
** THE CBT TRAINING WILL BE DELIVERED
ON SITE WITH AN INSTRUCTOR

HYDRAULIC RIGS CBT - HH 75 / HH 102



COMMON GENERAL TRAINING 3 days

1. POWER PACK

- General Description
 - Main Generator
 - Hydraulic Power Unit
 - Air Unit
2. RIG

- General Description
 - Base Substructure
 - Trailer
 - Drill floor
 - Mast
 - HTD (Hydraulic Top Drive)
 - Torque Wrench
 - Casing Device
 - Rotary Table
3. PIPE HANDLING SYSTEM

- Power Tong
 - Drilling Equipment
 - Dog House
 - Safety Devices
4. MUD SYSTEM

- Mud Pumps
 - Mud Tanks
 - Mud Equipments
 - Mud Lines

SPECIFIC TRAINING COURSES

DRILLER CABIN TRAINING 2 days

-
- Control panel layout
 - Operative sequences description
 - Drilling HMI (Human Machine Interface)

HYDRAULIC TRAINING 2 days

-
- Basic principles
 - Pipes and connections
 - Simbology
 - Valves
 - Motors, pumps and actuators
 - Hydraulic scheme analysis

ELECTRIC TRAINING 2 days

-
- General description
 - Power didtribution
 - PLC System
 - Data Acquisition System
 - Electric diagrams analysis
 - Electric System Troubleshooting

DURATION

5 DAYS (3 GENERAL + 2 SPECIFIC)

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER LANGUAGE UPON CLIENT' REQUEST *

LOCATION

GARIGA DI PODENZANO (PC) - ITALY OR ANY COSTUMER'S SITE **

AUDIENCE

DRILLERS / ASSISTANT DRILLERS
MECHANICS / HYDRAULIC TECHNICIANS
ELETRICIANS / SOFTWARES ENGINEERS
RIG SUPERVISORS

PRECONDITIONS

DRILLING OR MAINTENANCE EXPERIENCE
PREFERED BUT NOT ESSENTIAL

LEARNING OBJECTIVES

TO DEVELOP A TECHNICAL AND WORKING
KNOWLEDGE OF THE SYSTEM
TO ANALYSE THE ROUTINE AND
NON-ROUTINE MAINTENANCE PROCESSES
TO TROUBLESHOOT AND CALIBRATE THE
HYDRAULIC COMPONENTS OF THE SYSTEM
TO DEFINE SAFETY AND EMERGENCY
SYSTEMS
TO ANALYSE THE WIRING AND HYDRAULIC
DIAGRAMS
TO REVIEW SOFTWARE LOGIC

NOTES

* TRANSLATION COSTS NOT INCLUDED
** THE CBT TRAINING WILL BE DELIVERED
ON SITE WITH AN INSTRUCTOR

HYDRAULIC RIGS CBT - HH 220 / HH 300 / HH 375



COMMON GENERAL TRAINING 3 days

1. POWER SYSTEM

- General description
 - Main generator set
 - Emergency generator
 - VFD (Variable Frequency Drive)
 - MCC (Motor Control Center)
 - Air Unit
2. HYDRAULIC POWER UNIT

- General Description
 - Main Equipments
 - Safety Devices
3. RIG

- General Description
 - Base Substructure
 - Trailer
 - Drill floor
 - Mast
 - HTD (Hydraulic Top Drive)
4. PIPE HANDLING SYSTEM

- Torque Wrench
 - Casing Device
 - Rotary Table
 - Power Tong
 - Drilling Equipment
 - Dog House
 - Safety Devices
5. MUD SYSTEM

- Mud Pumps
 - Mud Tanks
 - Mud Equipments
 - Mud Lines

SPECIFIC TRAINING COURSES

DRILLER CABIN TRAINING 2 days

-
- Control panel layout
 - Operative sequences description
 - Drilling HMI (Human Machine Interface)

HYDRAULIC TRAINING 2 days

-
- Basic principles
 - Pipes and connections
 - Simbology
 - Valves
 - Motors, pumps and actuators
 - Hydraulic scheme analysis
 - Hydraulic system troubleshooting

ELECTRIC TRAINING 2 days

-
- Single line diagram
 - Generator set
 - PCR (Power Control Room)
 - Driller cabin
 - Data network
 - Electric diagrams analysis

DURATION

5 DAYS (3 GENERAL + 2 SPECIFIC)

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER LANGUAGE UPON CLIENT' REQUEST *

LOCATION

GARIGA DI PODENZANO (PC) - ITALY OR ANY COSTUMER'S SITE **

AUDIENCE

DRILLERS / ASSISTANT DRILLERS
MECHANICS / HYDRAULIC TECHNICIANS
ELETRICIANS / SOFTWARES ENGINEERS
RIG SUPERVISORS

PRECONDITIONS

DRILLING OR MAINTENANCE EXPERIENCE
PREFERED BUT NOT ESSENTIAL

LEARNING OBJECTIVES

TO DEVELOP A TECHNICAL AND WORKING
KNOWLEDGE OF THE SYSTEM
TO ANALYSE THE ROUTINE AND
NON-ROUTINE MAINTENANCE PROCESSES
TO TROUBLESHOOT AND CALIBRATE THE
HYDRAULIC COMPONENTS OF THE SYSTEM
TO DEFINE SAFETY AND EMERGENCY
SYSTEMS
TO ANALYSE THE WIRING AND HYDRAULIC
DIAGRAMS
TO REVIEW SOFTWARE LOGIC AND PIPE
HANDLING SYSTEM

NOTES

* TRANSLATION COSTS NOT INCLUDED
** THE CBT TRAINING WILL BE DELIVERED
ON SITE WITH AN INSTRUCTOR

ON-SITE TRAINING



COURSE TOPICS

15 days

1. PRACTICE ON POWER TONG FROM DRILLER CABIN OR REMOTE

- POWER TONG POSITIONING
- PIPES SPINNING OPERATION
- PIPES MAKE-UP OPERATION
- PIPES BREAK-OUT OPERATION
- HPU SWITCHING ON/OFF PROCEDURE

2. PRACTICE ON TOP DRIVE

- USE OF LINKS
- ROTATION
- IBOP
- MAKE CONNECTIONS WITH PIPES
- MAIN HPU SWITCHING ON/OFF PROCEDURE

3. PRACTICE ON DRAWWORK

- SETTING ANTI-COLLISION
- SETTING AUTO DRILLER
- DRAWWORK MOVEMENT RESPONSE
- BRAKES AND LUBRICATION HPU SWITCHING ON/OFF PROCEDURE

4. PRACTICE ON HYDRAULIC CATHEADS

- HYDRAULIC CATHEAD PULLING OPERATION
- HYDRAULIC CATHEADS FORCE SETTINGS ON HMI
- MAIN HPU SWITCHING ON/OFF PROCEDURE

5. PRACTICE ON HMI (HUMANE MACHINE INTERFACES)

- SYSTEM LAY-OUT DESCRIPTION
- MAIN PAGES DESCRIPTION
- MAIN PARAMETERS SETTINGS

6. MAINTENANCE AND TROUBLESHOOTING

- HYDRAULIC, PNEUMATIC AND ELECTRIC SCHEMES ANALYSIS
- EQUIPMENT'S MAINTENANCE DESCRIPTION
- PROBLEM SOLVING
- DAILY MAINTENANCE CHECK LIST

DURATION

15 DAYS

LANGUAGES

ENGLISH, ITALIAN OR ANY OTHER LANGUAGE UPON CLIENT' REQUEST *

LOCATION

COSTUMER'S SITE

AUDIENCE

DRILLERS / ASSISTANT DRILLERS
MECHANICS / HYDRAULICS
ELETRICIANS / SOFTWARES ENGINEERS
RIG SUPERVISORS

PRECONDITIONS

DRILLING OR MAINTENANCE
EXPERIENCE PREFERED

LEARNING OBJECTIVES

TO PROVIDE A PRACTICAL SIDE TO THE THEORETICAL COURSE

TO ASSIST DRILLING CREW IN THE INITIAL DRILLING PHASES

TO WORK ALONGSIDE PERSONNEL TO KNOW THE FUNCTIONS AND COMPONENTS OF THE DRILLER CABIN

TO EXPERIENCE PRACTICALLY IN ROUTINE MAINTENANCE

TO INTERPRETATE HYDRAULIC AND WIRING DIAGRAMS WITH RELEVANT PRACTICAL EXPERIENCE

TO REDUCE DOWNTIME CONNECTED WITH LIMITED KNOWLEDGE OF THE SYSTEM

NOTES

* TRANSLATION COSTS NOT INCLUDED

Quality System



Policy

Drillmec has always viewed continuous improvement of company processes and complete satisfaction of customer's needs as essential factors for standing out on the highly complex, competitive oil and gas market.
Drillmec's Quality System and HSE System are essential tools for achieving its business goals.

In accordance with its general aims and strategies for growth, Management promotes:

- The central role of the customer
- Full involvement of all personnel to ensure complete awareness of the significance and importance of their work and how they can contribute to achieving quality goals, environment, health and safety protection
- Continuous improvement of the quality of products and services, especially through a strong drive toward technological innovation
- Continuous improvement of process performance
- Safeguarding of the environment and protection of workers' health and safety. Such commitment is widespread not only to our workers, but even to our subcontractors and suppliers.

Certifications

Drillmec SpA quality management systems is certified by API (American Petroleum Institute), DNV-GL (DNV Business Assurance) and can work under Norsok, ABS,DNV-GL Maritime and RMRS regulations, if required by the client. Drillmec products are also compliant with Technical Regulations of the Custom Union, (Russia, Bielorrussia, Kazakhstan) EAC certified.

Drillmec INC is certified by API 4F-0058.
Drillmec India is certified API 4F-0341, API 8C-0273, API Q1-1977 and ISO 2087.
OJSC Seismotekhnika (Drillmec Belarus) is certified API 4F-0361, API Q1-2203 and ISO-2301.

API Product Licenses Numbers	API/ISO/OHSAS Certification
API 4F-0062	API Q1-0527
API 6A-0492	ISO 9001:2008
API 7-1-0305	ISO 14001:2004
API 7K-0045	OHSAS 18001:2007
API 8C-0041	
API 16A-0112	



APIQR® Registration no. 0076



COMPANY WITH
MANAGEMENT SYSTEM
CERTIFIED BY DNV GL
= ISO 9001 =
= ISO 14001 =
= OHSAS 18001 =



*Drillmec Training Center
offers a wide range of courses
to help you get the best and
safest performance from your
drilling equipment.*

Notes

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Notes

[illegible]

Training Courses		Rig Type or Topic	Duration	Location	Languages	Audience	Preconditions
	I-01	DRILLING TECHNOLOGIES & RIGS	5 days	DRILLMEC Training Center Italy	ENG ITA	  	No experience in Oil&Gas needed
	I-01*			Customer's Site			
	I-02	BASIC HYDRAULIC TRAINING	3 days	DRILLMEC Training Center Italy	ENG ITA	  	No experience in Oil&Gas needed
	I-02*			Customer's Site			
	I-03	MR 4000 / MR 5000	5 days	DRILLMEC Training Center Italy	ENG ITA	  	Experience preferred but not essential
	I-03*			Customer's Site			
	I-04	MR 6000 / MR 8000	5 days	DRILLMEC Training Center Italy	ENG ITA	  	Experience preferred but not essential
	I-04*			Customer's Site			
	I-05	1500 HP / 2000 HP / 3000 HP	8 days	DRILLMEC Training Center Italy	ENG ITA	  	Experience preferred but not essential
	I-05*			Customer's Site			
	I-06	HH 75 / HH 102	5 days	DRILLMEC Training Center Italy	ENG ITA	  	Experience preferred but not essential
	I-06*			Customer's Site			
	I-07	HH 220 / HH 300 / HH 375	8 days	DRILLMEC Training Center Italy	ENG ITA	  	Experience preferred but not essential
	I-07*			Customer's Site			
	I-08	HSE	2 days	DRILLMEC Training Center Italy	ENG ITA	  	Experience preferred but not essential
	I-08*			Customer's Site			
	I-09	CONVENTIONAL RIG SPECIFIC ELECTRIC TRAINING	19 days	DRILLMEC Training Center Gariga di Podenzano ABB Training Genova Caterpillar Training VC	ENG ITA	  	Experience preferred but not essential
	I-10	HYDRAULIC AND ELECTRIC TOP DRIVE	5 days	DRILLMEC Training Center Italy	ENG ITA	  	Experience preferred but not essential
	I-10*			Customer's Site			
	I-11	DRAWWORKS	3 days	DRILLMEC Training Center Italy	ENG ITA	  	Experience preferred but not essential
	I-11*			Customer's Site			
	I-12	MUD PUMPS	3 days	DRILLMEC Training Center Italy	ENG ITA	  	Experience preferred but not essential
	I-12*			Customer's Site			
	I-13	POWER TONG	1 days	DRILLMEC Training Center Italy	ENG ITA	  	Experience preferred but not essential
	I-13*			Customer's Site			

Training Courses		Rig Type or Topic	Duration	Location	Languages	Audience	Preconditions
	W-01	IADC WELLSHARP INTRODUCTORY WELL CONTROL	5 days	DRILLMEC Training Center Italy	ENG - ITA FRE - SPA	  	Experience not required but preferred
	W-01*			Customer's Site			
	W-02	IWCF WELL CONTROL LEVEL 2 INTRODUCTORY	5 days	DRILLMEC Training Center Italy	ENG - ITA FRE - SPA	  	Experience not required but preferred
	W-02*			Customer's Site			
	W-03	IADC WELLSHARP DRILLING FUNDAMENTAL & DRILLING SUPERVISORS	5 days	DRILLMEC Training Center Italy	ENG - ITA FRE - SPA	  	Well control Level 2 (introductory) Or Previous well control courses (level 3-4)
	W-03*			Customer's Site			
	W-04	IWCF WELL CONTROL LEVEL 3 DRILLER & LEVEL 4 SUPERVISORS	5 days	DRILLMEC Training Center Italy	ENG - ITA FRE - SPA	  	Well control Level 2 (introductory) Or Previous well control courses (level 3-4)
	W-04*			Customer's Site			
	S-01	HH SERIES SIMULATOR	7 days	DRILLMEC Training Center Italy	ENG ITA	  	Experience preferred
	S-02	CONVENTIONAL RIG SIMULATOR	7 days	DRILLMEC Training Center Italy	ITA ENG	  	Experience preferred
	S-03	PORTABLE SIMULATOR	7 days	Customer's Site	ENG ITA	  	Experience preferred
	V-01	FULLY CUSTOMIZABLE VIDEO TRAINING	-	Any Customer's Site	UPON CLIENT'S REQUEST	  	-
	C-01	MR 4000 / MR 5000	5 days	DRILLMEC Training Center Italy	ENG ITA	  	Experience preferred but not essential
	C-01*			Customer's Site			
	C-02	MR 6000 / MR 8000	5 days	DRILLMEC Training Center Italy	ENG ITA	  	Experience preferred but not essential
	C-02*			Customer's Site			
	C-03	1500 HP / 2000 HP / 3000 HP	5 days	DRILLMEC Training Center Italy	ENG ITA	  	Experience preferred but not essential
	C-03*			Customer's Site			
	C-04	HH 75 / HH 102	5 days	DRILLMEC Training Center Italy	ENG ITA	  	Experience preferred but not essential
	C-04*			Customer's Site			
	C-05	HH 220 / HH 300 / HH375	5 days	DRILLMEC Training Center Italy	ENG ITA	  	Experience preferred but not essential
	C-05*			Customer's Site			
	O-01	ON-SITE TRAINING	15 days	Customer's Site	ENG ITA	  	Experience preferred

For further information...

If you would like further information about our company, products or services, please don't hesitate to get in touch with us. You can do this in a number of ways...

- Website

www.drillmec.com

- Email

info@drillmec.com
training@drillmec.com

- Addresses

12, via I° Maggio
29027 Gariga di Podenzano (PC) - Italy

- For general information please call

Italy +39 0523 354200

BRANCHES



DRILLMEC SPA - ITALY

DRILLMEC INC. - U.S.A.

DRILLMEC MEXICO - MEXICO

DRILLMEC COLOMBIA - COLOMBIA

DRILLMEC BRAZIL - BRAZIL

DRILLMEC ARGENTINA - ARGENTINA

000 DRILLMEC R - RUSSIA

SEISMOTEKHNKA - BELARUS

I.D.T. - U.A.E.

DRILLMEC IRAQ - IRAQ

DRILLMEC INDIA - INDIA

DRILLMEC SINGAPORE - SINGAPORE