

2023 EXPANDING KNOWLEDGE TO EXCEL BETTER

Customer Training Schedule Training Center PT Trakindo Utama



ADVANCING YOU FORWARD >>>®

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Trakindo 

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Pelanggan setia Trakindo,

Semoga kita semua tetap dalam keadaan sehat.

Brosur Customer Training Schedule 2023 ini kami persiapkan untuk memudahkan Anda dalam menyusun pelatihan yang dapat disesuaikan dengan kebutuhan Anda dan tim.

Anda dapat menentukan pelatihan yang akan diikuti dari daftar modul yang sudah kami persiapkan. Selain itu materi pelatihan tentunya juga dapat menyesuaikan dengan permintaan khusus (customized). Learning Consultant kami dengan senang hati akan berdiskusi dengan Anda untuk pelatihan yang dibutuhkan. Brosur ini juga dilengkapi dengan informasi mengenai harga pelatihan sehingga memudahkan dalam penentuan rencana dan biaya pelatihan yang akan diikuti.

Brosur Customer Training Schedule ini bersifat dinamis, sehingga akan diperbarui secara berkala. Untuk mengetahui info terkini, brosur ini juga dimuat dalam bentuk soft file yang dapat diakses melalui link berikut:

<https://www.trakindo.co.id/en/training/customer-training>.

Semoga brosur Customer Training Schedule 2023 dapat menjadi bagian yang penting dalam upaya mewujudkan keberhasilan dalam hal pengembangan karyawan serta ikut membantu kemajuan bangsa Indonesia.

Salam hangat,

PT Trakindo Utama

Yudi Adrian

Learning & Development Manager

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APPLIED FAILURE ANALYSIS I (ENGINE COMPONENTS)

Objective:

This course provides an in-depth study and hands-on activity to have underpinning knowledge to perform failure analysis procedure to engine component.

Target Audience:

Person who has responsibility to analyze engine Components Failure, such as: Technical (Machine, Engine), electrician (Machine Electrical, Generator Set), Service Analyst, Service Foreman, Customer Service Analyst.

Topic:

1. Introduction to Failure Analysis.
2. Failure Analyst Management.
3. Metallurgy.
4. Principle of Fractures.
5. Principle of Wear.
6. Visual Examination.
7. Application of Basic Principle to Engine Components (Engine Bearing, Crankshaft, Connecting Rod, Piston, Ring and Liner, Valves, Turbocharger, Threaded Fastener).

APPLIED FAILURE ANALYSIS II (POWER TRAIN & HYDRAULIC COMPONENTS)

Objective:

This course provides an in-depth study and hands-on activity to have underpinning knowledge to perform failure analysis procedure to powertrain and hydraulic component.

Target Audience:

Person who has responsibility to analyze Power Train & Hydraulic Components Failure such as: Technical (Machine), Service Analyst, Service Foreman, Customer Service Analyst.

Topic:

1. Introduction to Failure Analysis
2. Failure Analysis Management
3. Metallurgy
4. Principle of Fractures
5. Principle of Wear
6. Visual Examination
7. Application of Basic Principle to Power Train & Hydraulic Component (Gear Failure Analysis, Anti Friction Bearing, Hydraulic Pump and Motor, Shaft Failure Analysis)

DIESEL ENGINE ELECTRIC SET OPERATION & MAINTENANCE

Objective:

This course provides an in-depth study and hands- on activity in operating, maintaining and simply troubleshooting Caterpillar Diesel Generator Set.

Target Audience:

Person who maintain Caterpillar Diesel Generator Set, such as: maintenance mechanic, generator set operator, foreman and supervisor.

Topic:

1. Basic Diesel Engine.
 - a. Principle of 4 - Stroke Diesel Engine
 - b. Diesel Engine Classification
 - c. Caterpillar Engine Product Line
 - d. Diesel Engine Component
2. Diesel Engine System.
 - a. Fuel System & Governor
 - b. Air Induction & Exhaust System
 - c. Lubrication System
 - d. Cooling System
3. Basic Power Generation.
 - a. CAT® Generator Principle
 - b. Main components of Generator
 - c. Excitation Concept
 - d. Automatic Voltage Regulator
 - e. Electronic Modular Control Panel
4. Safety Procedure.
5. Single and Parallel Operating Procedure
6. Maintenance and Operating Practices
7. Caterpillar Literature:
 - a. Using Operation & Maintenance Manual
 - b. Using Parts book
8. Basic Diesel Genset Troubleshooting.

GAS ENGINE ELECTRIC SET OPERATION & MAINTENANCE

Objective:

This course provides an in-depth study and hands-on activity in operating, maintaining and simply troubleshooting Caterpillar Gas Generator Set.

Target Audience:

Person who maintain Caterpillar Gas Generator Set, such as: maintenance mechanic, generator set operator, foreman and supervisor.

Topic:

1. CAT Gas Engine Classification.
2. Operating Principles & Terminology of CAT gas engine.
3. Fuel Gas Properties Consideration Related with Application in The Gas Engine.
 - a. Calculating LHV
 - b. Calculating HHV
 - c. Using Methane Number Software
4. Major Components & Operation Air Intake & Exhaust System.
 - a. Regulator Adjustment
 - b. Wastegate Adjustment
5. Major Components & Operation Fuel System.
 - a. Using Fuel Usage Guide
 - b. Carburetor Adjustment
 - c. Using Emission Tester
6. Major Components & Operation Ignition System.
 - a. Ignition Timing Adjustment
 - b. Magnet test
7. Basic Operation of Safety Device.
8. CAT Generator Introduction.
 - a. Generator Concept
 - b. Generator Main Components
 - c. Excitation Concept
 - d. Automatic Voltage Regulator
 - e. Electronic Modular Control Panel
9. Operation & Maintenance
 - a. Start-up Gas Engine G333
 - b. Genset Single Operation
 - c. Using Related CAT Service Literature
10. Basic Gas Genset Troubleshooting.

HEAVY EQUIPMENT MAINTENANCE

Objective:

This course provides an in-depth study and hands-on activity in maintaining and repairing (basic) Caterpillar Heavy Equipment, including how to use Operation & Maintenance Manual and Parts Book and introducing basic troubleshooting procedure

Target Audience:

People who has direct access to daily heavy equipment maintenance activity

TOPIC:

1. Literature and resource identification.
2. Caterpillar Product Line.
3. Basic Engine Component.
4. Engine System.
5. Basic Hydraulic System.
6. Hydraulic System Operation.
7. Power Train Hydraulic System.
8. Power Train Electronic System.
9. Monitoring System.
10. Using Operation & Maintenance Manual and Parts Book.
11. Basic Troubleshooting.

HEAVY EQUIPMENT MAINTENANCE MANAGEMENT

Objective:

This course provides an identifies the competency required to understand maintenance management concept & able to perform maintenance planning & scheduling on Caterpillar Heavy Equipment.

Target Audience:

Person who has authority to design, manage, supervise or evaluate maintenance aspect of heavy equipment, such as: maintenance planner, maintenance supervisor and maintenance manager.

Topic:

1. Heavy Equipment Management.
 - a. Basic Concept & Implementation
 - b. The 5 Stages of Equipment Management
 - c. 8 Element of Equipment Management
2. Heavy Equipment Maintenance Management.
 - a. Preventive Maintenance
 - b. Contamination Control
 - c. SOS Service
 - d. Condition Monitoring
 - e. Training
 - f. Scheduling
 - g. Repair Management
 - h. Recording
3. Evaluating Maintenance Effectiveness.
 - a. Mechanical Availability (MA)
 - b. Mean Time Between Shutdown (MTBS)
 - c. Mean Time To Repair (MTTR)
4. Case Study:
Maintenance Planning & Scheduling.

CUSTOMIZED TRAINING - SAMPLE 1

16 M MOTOR GRADER PRODUCT TRAINING

Objective:

This course provides an in-depth study and hands-on activity to identify component, explain system operation and able to perform testing & adjusting on engine, hydraulic, electronic control & monitoring system at Caterpillar 16M Motor Grader.

Target Audience:

Person who has an access for maintaining, operating and servicing of Caterpillar 16M Motor Grader, such as: mechanic and technician.

Topic:

1. Operator's Station.
2. Messenger.
3. C13 ACERT™ Engine.
 - a. Air intake & Exhaust System
 - b. Fuel System
 - c. Cooling System
 - d. Lubrication System
4. Power Train.
 - a. Transmission/Chassis Electrical System
 - b. Power Train Hydraulic System
5. Implement And Steering System.
 - a. Implement Electrical System
 - b. Implement Hydraulic System
6. Brake And Fan System.
 - a. Service Brake System
 - b. Parking Brake System
 - c. Fan System
7. Practical on Machine.

CUSTOMIZED TRAINING - SAMPLE 2

C32 ACERT MARINE ELECTRONIC ENGINE

Objective:

This course provides an in-depth study and hands-on activity to have underpinning knowledge system operation, service task and diagnostic procedures on C32 Caterpillar Marine Diesel Engine.

Target Audience:

Person who has an access for maintaining, operating and servicing of Caterpillar C32 ACERT Marine Engine, such as: mechanic, chief engineer, port engineer and technical advisor.

Topic:

1. Identify major engine components.
2. Explain diesel engine four stroke concept.
3. Explain fuel system, air intake & exhaust system, lubrication system and cooling system.
4. Explain basic concept of electronic engine.
5. Explain Electronic Unit Injector (EUI) Fuel System.
6. Explain diagnostic tools needed and diagnostic procedure on Caterpillar electronic engine.
7. Perform diagnostic and calibration test on Caterpillar electronic engine

CUSTOMIZED TRAINING - SAMPLE 3

GAS ENGINE ADVANCE

Objective:

This course provides an in-depth study and hands-on activity to have the underpinning knowledge required to perform service and repair on electronic gas engine in term of doing service and perform testing and adjusting

Target Audience:

Person who has an access for maintaining, operating and servicing of Caterpillar Gas Engine, such as: mechanic and technician.

Topic:

1. Explain system operation & technical consideration of electronic gas engines
2. Explain factors affect to HP in the gas engine.
3. Explain E.I.S system operation, diagnostic, harness wire identification, electrical connection description identification, electronic system logic diagram, and E.I.S component identification and location.
4. Explain ADEM 3 system operation, diagnostic, electronic system troubleshooting, and component identification and location.
5. Explain procedure using DDT or ET for accessing E.I.S and ADEM 3 module due to access and parameters programming.
6. Identify Caterpillar literature required to find performance data
7. Perform using DDT or ET for accessing E.I.S and ADEM 3 module due to access and parameters programming.
8. Perform programming E.I.S and ADEM 3 parameters.
9. Perform Interpreting electronic code due to solve the problem.
10. Perform electronic system functional test.
11. Perform accessing Caterpillar literatures to find performance data.
12. Perform witness test and performance analyzing data

2023 CUSTOMER TRAINING SCHEDULE

NO.	TRAINING TITTLE	MONTH	DATE	REMARKS	LOCATION	ORGANIZER	METHOD
1	Heavy Equipment Maintenance Management	March	06-10 March 2023	Regular	STC Banjarmasin	STC Banjarmasin	Inclass
2	Applied Failure Analysis 1	March	06 - 10 March 2023	Regular (Batch 1)	STC Balikpapan	STC Balikpapan	Inclass
3	Applied Failure Analysis 1	September	11 - 15 September 2023	Regular (Batch 2)	TC Cileungsi	TC Cileungsi	Inclass
4	Applied Failure Analysis 1	November	13 - 17 November 2023	Regular (Batch 3)	TC Cileungsi	TC Cileungsi	Inclass
5	Heavy Equipment Maintenance	May	01 - 05 May 2023	Regular	STC Banjarmasin	STC Banjarmasin	inclass
6	Applied Failure Analysis 2	May	8 - 12 May 2023	Regular (Batch 1)	TC Cileungsi	TC Cileungsi	Inclass
7	Applied Failure Analysis 2	July	10 - 14 July 2023	Regular (Batch 2)	STC Balikpapan	STC Balikpapan	Inclass
8	Applied Failure Analysis 2	August	7 - 11 August 2023	Regular (Batch 3)	TC Cileungsi	TC Cileungsi	Inclass
9	Gas Engine Electric Set Operation & Maintenance	July	10 - 14 July 2023	Regular (Batch 1)	TC Cileungsi	TC Cileungsi	Inclass
10	Gas Engine Electric Set Operation & Maintenance	October	16 - 20 October 2023	Regular (Batch 2)	TC Cileungsi	TC Cileungsi	Inclass
11	Diesel Engine Electric Set Operation & Maintenance	September	18 - 22 September 2023	Regular (Batch 1)	TC Cileungsi	TC Cileungsi	Inclass
12	Diesel Engine Electric Set Operation & Maintenance	October	23 - 27 October 2023	Regular (Batch 2)	TC Cileungsi	TC Cileungsi	Inclass

NOTE

- In-class training method is the implementation of face-to-face training at PT Trakindo Utama Training Centre and will be applied if possible.
- Virtual training method conducted using internet connection. Each training participant should provide desktop/laptop equipped with Microsoft Teams program.
- Customized Customer Training request that is not mentioned on this brochure can be customized as required, subject, location, schedule, pre-requisite are subject to prior discussion.
- Minimum participants applied.



TRAINING **REGISTRATION FORM**

To:
PT Trakindo Utama - Cileungsi Training Center
Jl. Narogong Raya Km.19 Cileungsi
Bogor 16820
Fax: 021 823 3360
Phone: 021 823 3361
Email: nanang.kurniawan@trakindo.co.id

Here with I would like to register:	Use Accommodation*
Name (s) 1.	Yes / No (circle one)
2.	Yes / No (circle one)
3.	Yes / No (circle one)
4.	Yes / No (circle one)
5.	Yes / No (circle one)
6.	Yes / No (circle one)
7.	Yes / No (circle one)
8.	Yes / No (circle one)
9.	Yes / No (circle one)
10.	Yes / No (circle one)

To attend the training
Training Title :
Date :
Venue : Cileungsi / Balikpapan / Banjarmasin (circle one)

Customer Information (Important)

Please send the invoice to (must be with accurate data)

Company	:
Name	:
Address	:
Accounting Contact	:
Phone	:
Email	:

*) Accommodation will be provided (if available) when training conducted at Cileungsi Training Center

Name & Company Stamp

TERMS & CONDITION

1. The participants for each class session are 4 (minimum) and 10 (maximum).
2. Course Fees:
 - a. Conducted at PT. Trakindo Utama:
 - 1 Days Training Duration: IDR 3.900.000,- per participant per session
 - 2 Days Training Duration: IDR 4.800.000,- per participant per session
 - 3 Days Training Duration: IDR 5.700.000,- per participant per session
 - 4 Days Training Duration: IDR 6.600.000,- per participant per session
 - 5 Days Training Duration: IDR 7.500.000,- per participant per session
 - 20 Days Training Duration: IDR 30.000.000,- per participant per session

The prices above are including full color handout, stationary, 2x coffee breaks, lunch and certificate of attendance. The prices above are excluding transportation & accommodation of participant.
 - b. Conducted at Customer's Site (In House):
 - 1 Days Training Duration: IDR 3.000.000,- per participant per session
 - 2 Days Training Duration: IDR 3.900.000,- per participant per session
 - 3 Days Training Duration: IDR 4.800.000,- per participant per session
 - 4 Days Training Duration: IDR 5.700.000,- per participant per session
 - 5 Days Training Duration: IDR 6.600.000,- per participant per session
 - 20 Days Training Duration: IDR 26.400.000,- per participant per session

The prices above are including full color handout, stationary and certificate of attendance. The prices above are excluding transportation, accommodation and meal of Instructors during training.
 - c. Conducted with virtual training method (online)
 - 1 Days Training Duration: IDR 1.950.000,- per participant per session
 - 2 Days Training Duration: IDR 2.400.000,- per participant per session
 - 3 Days Training Duration: IDR 2.850.000,- per participant per session
 - 4 Days Training Duration: IDR 3.300.000,- per participant per session
 - 5 Days Training Duration: IDR 3.750.000,- per participant per session

The prices above are including full color handout, stationary and certificate of attendance.
3. Dormitory Cileungsi Training Center IDR 450.000,- per day per participant (shared room, meals, laundry, cleaning service).
4. Training Registration should be submitted at Least 1 month before training commencement
5. Payment term 14 days after invoice is received
6. Payment should be made to :

PT TRAKINDO UTAMA BANK MANDIRI
Jl. Cilandak KKO, Jakarta Selatan - INDONESIA
Bank Account (IDR) No.: 127-00010216-31

Contact Person:
Nanang Kurniawan
Email : nanang.kurniawan@trakindo.co.id
Phone : +62 21 8233361 Ext: 3675
Fax : +62 21 8233360

SATELLITE TRAINING CENTER BANJARMASIN

Jln. A. Yani KM 16.4

Kec. Gambut, Kab. Banjar, Kalimantan Selatan 70235

Contact person : Bambang Murdianto

Email : bambang.murdianto@trakindo.co.id

Cell Phone : 081254023222

Phone : (62 - 511) 674 7991

Fax: (62 - 511) 674 7990

SATELLITE TRAINING CENTER BALIKPAPAN

Jl. Jend. Sudirman No. 848

Balikpapan 76114 - Kalimantan Timur

Contact Person : Yenni Yohanes

Email : yenni.yohanes@trakindo.co.id

Cell Phone: 0811596953

Phone : (62 - 542) 762 810

Fax: (62 - 542) 762 806

TRAINING CENTER CILEUNGI

Jl. Raya Narogong Km 19 Cileungsi, Bogor 16820

Contact Person: Nanang Kurniawan

Email: nanang.kurniawan@trakindo.co.id

Phone : (62 - 21) 8233 361

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