

EXPANDING KNOWLEDGE TO EXCEL BETTER

BUILT FOR IT.™

2017 CUSTOMER TRAINING SCHEDULE
TRAINING CENTER PT TRAKINDO UTAMA



www.trakindo.co.id
info@trakindo.co.id
Call Center 1500 228

Trakindo 

2017 CUSTOMER TRAINING SCHEDULE

No.	TRAINING TITLE	MONTH	DATE	REMARKS	LOCATION
1.	Applied Failure Analysis 1	April	3-7 April 2017	Regular	TC Cileungsi
2.	Applied Failure Analysis 1	May	15-19 May 2017	Regular	STC Balikpapan
3.	Applied Failure Analysis 1	July	10-14 July 2017	Regular	TC Cileungsi
4.	Applied Failure Analysis 1	July	24-28 July 2017	Regular	STC Balikpapan
5.	Applied Failure Analysis 1	September	4-8 September 2017	Regular	TC Cileungsi
6.	Applied Failure Analysis 1	September	25-29 September 2017	Regular	STC Balikpapan
7.	Applied Failure Analysis 1	November	13-17 November 2017	Regular	STC Balikpapan
8.	Applied Failure Analysis 1	November	27 Nov - 1 Dec 2017	Regular	TC Cileungsi
9.	Applied Failure Analysis 2	March	20-24 March 2017	Regular	TC Cileungsi
10.	Applied Failure Analysis 2	May	15-19 May 2017	Regular	TC Cileungsi
11.	Applied Failure Analysis 2	July	17-21 July 2017	Regular	TC Cileungsi
12.	Applied Failure Analysis 2	August	7-11 August 2017	Regular	TC Cileungsi
13.	Applied Failure Analysis 2	August	21-25 August 2017	Regular	STC Balikpapan
14.	Applied Failure Analysis 2	October	2-6 October 2017	Regular	TC Cileungsi
15.	Applied Failure Analysis 2	November	6-10 November 2017	Regular	TC Cileungsi
16.	Applied Failure Analysis 2	November	20-24 November 2017	Regular	STC Balikpapan
17.	Diesel Engine Electric Set Operation & Maintenance	March	6-10 March 2017	Regular	TC Cileungsi
18.	Diesel Engine Electric Set Operation & Maintenance	August	21-25 August 2017	Regular	TC Cileungsi
19.	Diesel Engine Electric Set Operation & Maintenance	September	11-15 September 2017	Regular	TC Cileungsi
20.	Diesel Engine Electric Set Operation & Maintenance	October	16-20 October 2017	Regular	TC Cileungsi
21.	Diesel Engine Maintenance	April	17-21 April 2017	Regular	TC Cileungsi
22.	Diesel Engine Maintenance	August	21-25 August 2017	Regular	STC Balikpapan
23.	Diesel Engine Maintenance	September	4-8 September 2017	Regular	TC Cileungsi
24.	ET Introduction	April	10-11 April 2017	Regular	TC Cileungsi
25.	ET Introduction	May	22-23 May 2017	Regular	TC Cileungsi
26.	Gas Engine Electric Set Operation & Maintenance	June	5-9 June 2017	Regular	TC Cileungsi
27.	Gas Engine Electric Set Operation & Maintenance	July	24-28 July 2017	Regular	TC Cileungsi
28.	Gas Engine Electric Set Operation & Maintenance	October	23-27 October 2016	Regular	TC Cileungsi
29.	Gas Engine Electric Set Operation & Maintenance	November	20-24 November 2017	Regular	TC Cileungsi
30.	Heavy Equipment Maintenance	March	13-17 March 2017	Regular	TC Cileungsi
31.	Heavy Equipment Maintenance	June	12-16 June 2017	Regular	TC Cileungsi
32.	Heavy Equipment Maintenance	August	16-20 October 2017	Regular	STC Balikpapan
33.	Heavy Equipment Maintenance Management	March	13-17 March 2017	Regular	STC Pekanbaru
34.	Heavy Equipment Maintenance Management	June	5-9 June 2017	Regular	TC Cileungsi
35.	Heavy Equipment Maintenance Management	August	28 August- 1 Sep 2017	Regular	TC Cileungsi
36.	Heavy Equipment Maintenance Management	September	25 - 29 September	Regular	STC Pekanbaru
37.	Heavy Equipment Maintenance Management	October	23-27 October 2017	Regular	TC Cileungsi
38.	Heavy Equipment Maintenance Management	November	27 Nov - 1 Dec 2017	Regular	TC Cileungsi
39.	320D HEX Product Training	February	13-17 February 2017	Regular	STC Pekanbaru
40.	320D HEX Product Training	August	21-25 August 2017	Regular	STC Pekanbaru
41.	320D HEX Product Training	December	04-08 December 2017	Regular	STC Pekanbaru

Subject:
DIESEL ENGINE MAINTENANCE

Target Audience:

Person who maintain Caterpillar Diesel Engine, 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
 - e. Starting System
 - f. Charging system
3. Safety Procedure
4. Maintenance Practices
5. Caterpillar Literature:
 - a. Using Operation & Maintenance Manual
 - b. Using Partsbook
6. Basic Engine Troubleshooting

2

Subject:
DIESEL ENGINE ELECTRIC SET OPERATION & MAINTENANCE

Target Audience:

Person who has an access to daily diesel electric set maintenance and operation activity, such as: generator set operator, foreman and supervisor

Topic:

1. Basic Diesel Engine
 - a. Principle of 4 - Stroke Diesel Engine
 - b. Diesel Engine Classification
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. Maintenance and Operating Practice
6. Single and Parallel Operating Procedure
7. Caterpillar Literature:
 - a. Using Operation & Maintenance Manual
 - b. Using Parts book



Subject:

TOPIC HEAVY EQUIPMENT MAINTENANCE TRAINING

Target Audience:

Person who has direct access to daily heavy equipment maintenance activity, such as: maintenance mechanic, maintenance foreman and maintenance supervisor.

Topic:

1. Caterpillar Product Line
 - a. Serial/Product Identification Plate
 - b. Caterpillar Machine
 - c. Caterpillar Engine
2. Basic Preventive Maintenance
 - a. Repair Before Failure Strategy
 - b. Preventive Maintenance
 - c. Safety
 - d. ISO Symbols
 - e. OMM - Maintenance Interval Schedule (MIS)
 - f. PM Hour Interval Schedule
 - g. Contamination Control
 - h. Schedule Oil Sampling
 - i. General Oil Tip
 - j. Parts Book
3. Diesel Engine Maintenance
4. Hydraulic Maintenance
5. Powertrain Preventive Maintenance
6. Machine Preventive Maintenance

Subject:

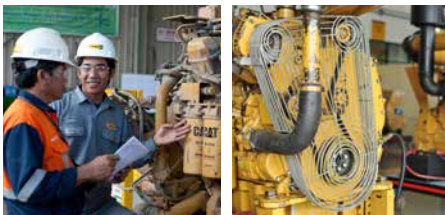
TOPIC HEAVY EQUIPMENT MAINTENANCE MANAGEMENT TRAINING

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



Subject:

GAS ENGINE ELECTRIC SET OPERATION & MAINTENANCE

Target Audience:

Person who has an access to daily gas engine maintenance and operating activity, such as: mechanic, 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. Magneto test
7. Basic Operation of Safety Device
8. CAT Generator Introduction
 - a. Generator Concept
 - b. Generator Main Components
 - c. Automatic Voltage Regulator
 - d. Electronic Modular Control Panel
9. Operation & Maintenance
 - a. Start Gas Engine G333.
 - b. Genset Single Operation.
 - c. Using Related CAT Service Literature



Subject:

BASIC MECHANIC FOR CUSTOMER

Target Audience:

Serviceman Trainee who will handle preventive maintenance job on Caterpillar machine.

Topic:

1. Contamination Control
2. Safety Procedure
3. Machine Identification
4. Jacking, Blocking and Lifting
5. Use Literature
6. Seal, Bearing and Gasket
7. Measuring tools
8. Fastener
9. Basic Engine
10. Practice PM on Machine
11. Basic Electric
12. Basic Power Train
13. Basic Hydraulic
14. Multi Media Class

Subject:
**ELECTRONIC TECHNICIAN
INTRODUCTION**

Target Audience:

Person who has responsible to utilize Electronic Technician Software, such as: mechanic, foreman and supervisor.

Topic:

1. Basic PC Operation
2. Getting Started With ET
3. Using ET Screen
4. Engine Diagnostic With ET
5. Printing and File Management

Subject:
**TOPIC 320D HYDRAULIC
EXCAVATOR PRODUCT TRAINING**

Target Audience:

Person who know the principles of machine system operation, simple diagnostic equipment and procedure for testing & adjusting and has an access to daily maintenance, operation and service activity on 320 HEX, such as: Mechanic/Technician, Electrician, Service Foreman

Topic:

1. Operator's Station
2. Monitoring System
3. Engine System
 - a. Air intake & Exhaust System
 - b. Fuel System
 - c. Cooling System
 - d. Lubrication System
4. Hydraulic System
 - a. Pilot System
 - b. Main Hydraulic Pump System
 - c. Main Control Valve System
 - d. Implement System
 - e. Swing System
 - f. Travel System
5. Practical on Machine



Subject:
APPLIED FAILURE ANALYSIS I
(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 Component (Engine Bearing, Crankshaft, Connecting Rod, Piston, Ring and Liner, Valves, Turbocharger, Threaded Fastener)

Subject:
APPLIED FAILURE ANALYSIS II
(POWER TRAIN & 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)



CUSTOMIZED TRAINING - SAMPLE 1

TOPIC 16 M MOTOR GRADER PRODUCT TRAINING

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

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

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.



Training Registration Form

www.trakindo.co.id
info@trakindo.co.id
Call Center 1500 228

Trakindo 

TRAINING REGISTRATION FORM

FAX / EMAIL

To:
PT Trakindo Utama - Cileungsi Training Center
Jl. Narogong Raya Km.19 Cileungsi
Bogor 16820

Fax : 021 823 3380
Phone : 021 823 3361
Email : wahid.abdurakhman@trakindo.co.id

Here with I would like to register:

Name (s) 1.	Use Accommodation* 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)
11.	Yes / No (circle one)
12.	Yes / No (circle one)

To attend the training

Training Title :
Date :
Venue : Pekanbaru / Cileungsi / Balikpapan (circle one)

Customer Information (Important)

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

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

.....
Name & Company Stamp

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



TERMS & CONDITION

1. The participants for each class session are 6 (minimum) and 12 (maximum).
2. Course Fees:
 - a. Conducted at PT. Trakindo Utama:
 - 1 Days Training Duration: IDR 2.900.000,- per participant per session
 - 2 Days Training Duration: IDR 3.800.000,- per participant per session
 - 3 Days Training Duration: IDR 4.700.000,- per participant per session
 - 5 Days Training Duration: IDR 6.500.000,- per participant per session
 - 20 Days Training Duration: IDR 26.000.000,- per participant per sessionThe prices above are including full colour handout, stationary, 2x coffee breaks, lunch and certificate of attendancy. The prices above are excluding transportation & accommodation of participant.
 - b. Conducted at Customer's Site (In House):
 - 1 Days Training Duration: IDR 1.900.000,- per participant per session
 - 2 Days Training Duration: IDR 2.800.000,- per participant per session
 - 3 Days Training Duration: IDR 3.700.000,- per participant per session
 - 5 Days Training Duration: IDR 5.500.000,- per participant per session
 - 20 Days Training Duration: IDR 22.000.000,- per participant per sessionThe prices above are including full colour handout, stationary and certificate of attendancy. The prices above are excluding transportation, accommodation and meal of Instructors during training.
3. Cileungsi Training Center has own dormitory with the amount of IDR 400.000,- per day per participant (shared room, including breakfast, dinner, laundry and cleaning service) for participant's accommodation
4. The prices above are excluding 10% VAT
5. Training Registration should be submitted at least 1 month before training commencement
6. Payment term 30 days after invoice is received
7. Payment should be made to:

PT TRAKINDO UTAMA

Bank Account (IDR) No. : 0 – 105472 – 048

Bank Account (USD) No. : 0 – 105472 – 528

BANK CITIBANK N.A – CITIBANK TOWER

Jl. Jendral Sudirman Kav. 54 – 55 Jakarta – Indonesia

or

PT TRAKINDO UTAMA

BANK MANDIRI

Jl. Cilandak KKO, Jakarta Selatan - INDONESIA

Bank Account (IDR) No.: 127-00010216-31

Contact Person:

Wahid Abdurrahman

Email : wahid.abdurakhman@trakindo.co.id

Phone : +62 21 8233361 Ext:110, Fax : +62 21 8233360

Customized Training

Customer request training that is not mentioned on this brochure can be customized as required, where subject, schedule, pre-requisite and location are subject to prior discussion.

SATELLITE TRAINING CENTER (PEKANBARU)

Jln. Soekarno Hatta No. 36
Labuh Baru Barat, Pekanbaru, Riau 28291
Phone: (62 - 761) 789 1149, 789 1150 - ext.3029
Fax: (62 - 761) 789 3151
Contact Person: Trinova
Email: trinova@trakindo.co.id
Phone: (62 - 761) 7891149, 7891150
Fax: (62 - 761) 7893151
Cell phone: +62 811 646 265

SATELLITE TRAINING CENTER (BALIKPAPAN)

Jl. Jend. Sudirman No. 848
Balikpapan 76114 - Kalimantan Timur
Phone: (62 - 542) 762 810
Fax: (62 - 542) 762 806
Contact Person: Agus Hermanto
Email: agus.hermanto@trakindo.co.id
Phone : (62 - 542) 762 810
Fax: (62 - 542) 762 806
Cell phone: +62 811 5933 256

CILEUNGI TRAINING CENTER

Jl. Raya Narogong Km 19 Cileungsi,
Bogor 16820
Phone: (62 - 21) 823 3361 (Hunting)
Fax: (62 - 21) 823 3360
Contact Person: Wahid Abdurakhman
Email: wahid.abdurakhman@trakindo.co.id
Phone : (62 - 21) 8233 361
Fax: (62 - 21) 8233 360
Cell phone: +62 811 804 0131

PT TRAKINDO UTAMA (Head Office)

Gedung TMT 1, 11-17th Floor
Jl. Cilandak KKO No.1
Jakarta 12560 - Indonesia
Phone : (62 - 21) 782 2373
Fax : (62 - 21) 782 2357, 782 2379
