

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #101

Health Care Facility (Hospice)

LOCATION:

Jacksonville, Florida

PRIME MOVER and PROCESS:

Cummins KTA-19 diesel
engine-driven generator

SERVICE:

Stand-by

GENERATOR RATING:

350kW

ENGINE SPEED and GENERATOR FREQUENCY:

1800RPM/60Hz

GTI BI-FUEL® KIT:

Series II-A16

INSTALLATION DATE:

October, 2004



altronic


HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #102

Waste Water Treatment Facility

LOCATION:

Fayetteville, Arkansas

PRIME MOVER and PROCESS:

Caterpillar 3516B diesel
engine-driven generator

SERVICE:

Peak shaving

GENERATOR RATING:

2000kW

ENGINE SPEED and GENERATOR FREQUENCY:

1800RPM/60Hz

GTI BI-FUEL® KIT:

Series IV-B27

INSTALLATION DATE:

June, 2005



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #103

Waste Water Treatment Facility

LOCATION:

Atlanta, Georgia

PRIME MOVER and PROCESS:

Caterpillar 3516B diesel
engine-driven generator

SERVICE:

Stand-by

GENERATOR RATING:

2000kW

ENGINE SPEED and GENERATOR FREQUENCY:

1800RPM/60Hz

GTI BI-FUEL® KIT:

Series IV-B27

INSTALLATION DATE:

April, 2005



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #104

Financial Institution

LOCATION:

Fort Walton Beach, Florida

PRIME MOVER and PROCESS:

Caterpillar 3412 diesel
engine-driven
generator

SERVICE:

Stand-by

GENERATOR RATING:

500kW

ENGINE SPEED and GENERATOR FREQUENCY:

1800RPM/60Hz

GTI BI-FUEL® KIT:

Series II-A16

INSTALLATION DATE:

June, 2005



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #105

Correctional Facility (Prison)

LOCATION:

Miami, Florida

PRIME MOVER and PROCESS:

Cummins KTA-38 diesel
engine-driven
generators

SERVICE:

Stand-by

GENERATOR RATING:

750kW (2250kW total)

ENGINE SPEED and GENERATOR FREQUENCY:

1800RPM/60Hz

GTI BI-FUEL® KIT:

Series III-C26
(three engines)

INSTALLATION DATE:

June, 2005



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #106

Health Care Facility (Hospital)

LOCATION:

Fort Myers, Florida

PRIME MOVER and PROCESS:

Caterpillar 3516B
diesel engine-driven
generators (2)

SERVICE:

Stand-by

GENERATOR RATING:

2200kW (4400kW total)

ENGINE SPEED and GENERATOR FREQUENCY:

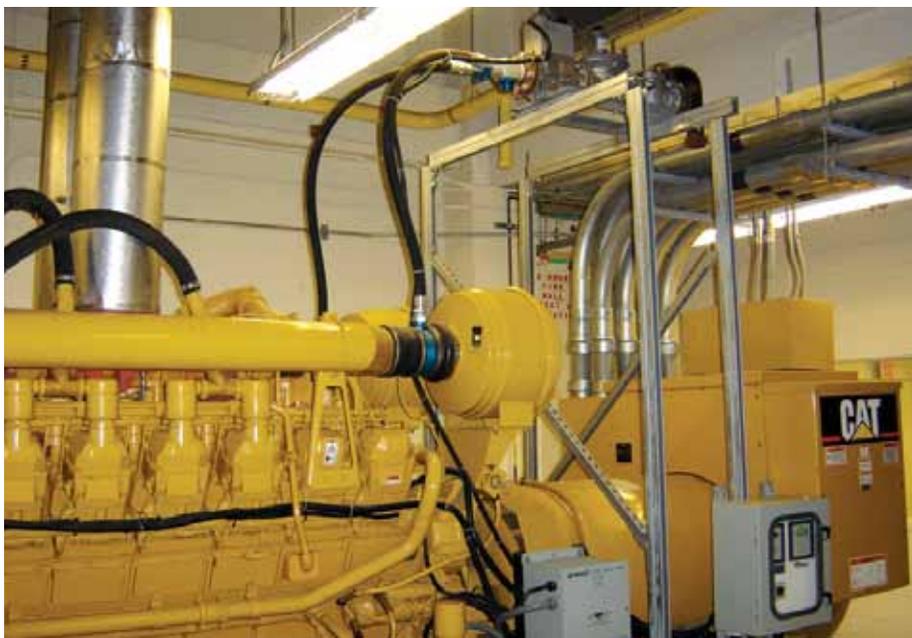
1800RPM/60Hz

GTI BI-FUEL® KIT:

Series IV-B27

INSTALLATION DATE:

March, 2004



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #107

Manufacturing Facility (Telecommunications)

LOCATION:

Sunrise, Florida

PRIME MOVER and PROCESS:

Detroit Diesel 12V149
diesel engine-driven
generator

SERVICE:

Stand-by

GENERATOR RATING:

800kW

ENGINE SPEED and GENERATOR FREQUENCY:

1800RPM/60Hz

GTI BI-FUEL® KIT:

Series III-B26

INSTALLATION DATE:

March, 2004



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #108

Oil & Gas: Offshore Production Facility

LOCATION:

Indian Ocean
Off the Coast of India

PRIME MOVER and PROCESS:

Caterpillar 3508B
diesel engine-driven
generators (4)

SERVICE:

Prime Power

GENERATOR RATING:

1000kW (4000kW total)

ENGINE SPEED and GENERATOR FREQUENCY:

1500RPM/50Hz

GTI BI-FUEL® KIT:

Series III-B26
(4 engines)

INSTALLATION DATE:

June, 2005



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #109

High-Rise Office/Retail Complex

LOCATION:

Toronto, Ontario Canada

PRIME MOVER and PROCESS:

Caterpillar D349 diesel
engine-driven generator

SERVICE:

Stand-by

GENERATOR RATING:

800kW

ENGINE SPEED and GENERATOR FREQUENCY:

1800RPM/60Hz

GTI BI-FUEL® KIT:

Series III-C26

INSTALLATION DATE:

March, 2005



altronic


HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #110

Office/Retail Complex

LOCATION:

Toronto, Ontario Canada

PRIME MOVER and PROCESS:

Caterpillar 3512B diesel
engine-driven generator

SERVICE:

Stand-by

GENERATOR RATING:

1500kW

ENGINE SPEED and GENERATOR FREQUENCY:

1800RPM/60Hz

GTI BI-FUEL® KIT:

Series IV-B27

INSTALLATION DATE:

March, 2005



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #111

Manufacturing Facility

LOCATION:

Torreon, Mexico

PRIME MOVER and PROCESS:

Cummins QST30
diesel engine-driven
generators (2)

SERVICE:

Peak Shaving

GENERATOR RATING:

800kW (1600kW total)

ENGINE SPEED and GENERATOR FREQUENCY:

1800RPM/60Hz

GTI BI-FUEL® KIT:

Series III-C26

INSTALLATION DATE:

March, 2005



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #112

Oil & Gas: On-Shore Production Facility

LOCATION:

Rifle, Colorado

PRIME MOVER and PROCESS:

Caterpillar 3516B diesel
engine-driven generator

SERVICE:

Prime Power

GENERATOR RATING:

1400kW

ENGINE SPEED and GENERATOR FREQUENCY:

1800RPM/60Hz

GTI BI-FUEL® KIT:

Series IV-B27

INSTALLATION DATE:

March, 2004



altronic


HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #113

Distribution Facility (Aircraft Parts)

LOCATION:

Miami, Florida

PRIME MOVER and PROCESS:

Mitsubishi S16R-PTA
diesel engine-driven
generator

SERVICE:

Stand-by/Load Control

GENERATOR RATING:

1600kW

ENGINE SPEED and GENERATOR FREQUENCY:

1800RPM/60Hz

GTI BI-FUEL® KIT:

Series IV-B26

INSTALLATION DATE:

June, 2003



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #114

Hotel

LOCATION:

Plantation, Florida

**PRIME MOVER and
PROCESS:**

Mitsubishi S6R-PTA
diesel engine-driven
generator

SERVICE:

Stand-by

GENERATOR RATING:

500kW

**ENGINE SPEED and
GENERATOR FREQUENCY:**

1800RPM/60Hz

GTI BI-FUEL® KIT:

Series II-A26

INSTALLATION DATE:

May, 2002



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #115

Utility Peaking Facility

LOCATION:

Moses Lake, Washington

PRIME MOVER and PROCESS:

Mitsubishi S12RS16R
diesel engine-driven
generators

SERVICE:

Peak Shaving

GENERATOR RATING:

60MW

ENGINE SPEED and GENERATOR FREQUENCY:

1800RPM/60Hz

GTI BI-FUEL® KIT:

Series IV (30 units)

INSTALLATION DATE:

January, 2002



altronic


HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #116

Office Complex

LOCATION:

Chatham, Ontario, Canada

PRIME MOVER and PROCESS:

Detroit Diesel
MTU 16V4000

SERVICE:

Standby

GENERATOR RATING:

2000kW (2MW)

ENGINE SPEED and GENERATOR FREQUENCY:

1800RPM/60Hz

GTI BI-FUEL® KIT:

Series IV-B46

INSTALLATION DATE:

November, 2005



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #117

Oil & Gas: On-Shore Under-Balanced Drilling Facility

LOCATION:

Sharjah
The United Arab Emirates

PRIME MOVER and PROCESS:

Cummins QSK-19
diesel engine-driven
compressors (4)

SERVICE:

Natural Gas Compression

GTI BI-FUEL® KIT:

Series IIA-16
(4 units total)

INSTALLATION DATE:

November, 2004



altronic


HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #118

Manufacturing Facility (Chemicals)

LOCATION:

Nandesari,
Vadodara, India

PRIME MOVER and PROCESS:

Cummins KTA-3067-G
diesel engine-driven
generator

SERVICE:

Prime Power

GENERATOR RATING:

800kW

ENGINE SPEED and GENERATOR FREQUENCY:

1500RPM/50Hz

GTI BI-FUEL® KIT:

Series III-D26

INSTALLATION DATE:

June, 2005



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #119

Manufacturing Facility (Textiles)

LOCATION:

Ankleshwar,
Gujarat, India

PRIME MOVER and PROCESS:

Cummins KTA-19-G4
diesel engine

SERVICE:

Prime Power

GENERATOR RATING:

350kW

ENGINE SPEED AND GENERATOR FREQUENCY:

1500RPM/50Hz

GTI BI-FUEL® KIT:

Series IIA-15

INSTALLATION DATE:

March, 2005



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #120

Manufacturing Facility (Ceramic Tile)

LOCATION:

Bahadurgarh,
Haryana, India

PRIME MOVER and PROCESS:

Caterpillar 3515 TA
diesel engine-driven
generator

SERVICE:

Stand-by

GENERATOR RATING:

1200kW

ENGINE SPEED AND GENERATOR FREQUENCY:

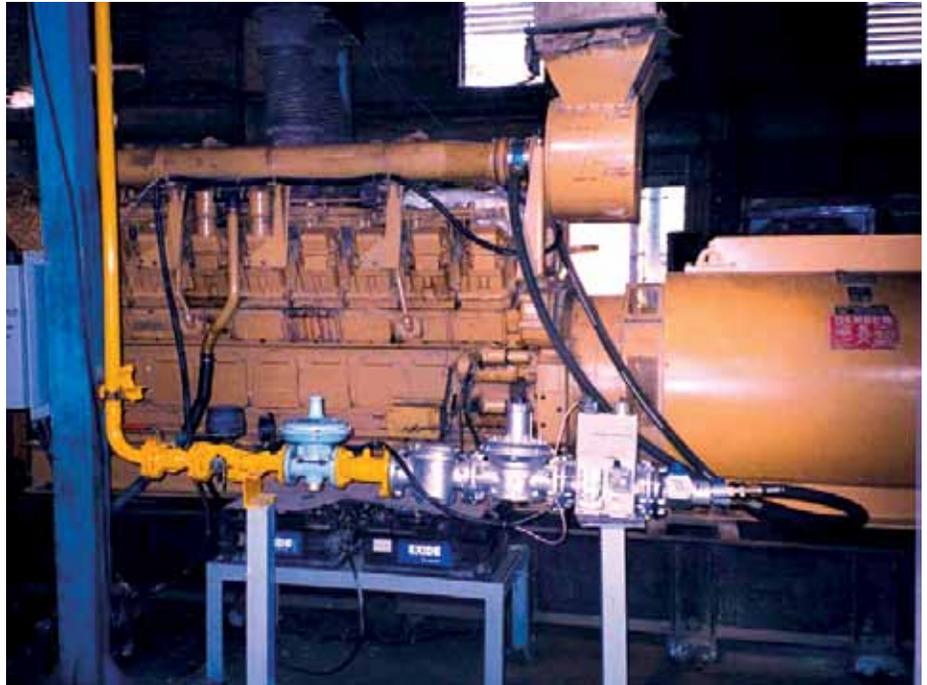
1500RPM/50Hz

GTI BI-FUEL® KIT:

Series IV-B27

INSTALLATION DATE:

June, 2005



altronic


HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #121

Oil & Gas: On-Shore Production Facility

LOCATION:

Russia, "Krapiva Site",
Western Siberia

PRIME MOVER and PROCESS:

Cummins KTA50-G3
diesel engine-driven
generators (9)

SERVICE:

Prime Power

GENERATOR RATING:

800kW
(7000kW total)

ENGINE SPEED and GENERATOR FREQUENCY:

1500RPM/50Hz

GTI BI-FUEL® KIT:

Series III-C26
(9 engines)

INSTALLATION DATE:

August, 2004 (7)
June, 2005 (2)



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #122

Oil & Gas: Onshore Production Facility

LOCATION:

Tiquino, Ecuador

PRIME MOVER and PROCESS:

Caterpillar D-3512 and
D-3512B diesel engine-
driven generators

SERVICE:

Prime Power

GENERATOR RATING:

1085/1470kW

ENGINE SPEED and GENERATOR FREQUENCY:

1500RPM/50Hz

GTI BI-FUEL® KIT:

Series IV-C26
(2 engines)

INSTALLATION DATE:

January, 2006



altronic


HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #123

Oil & Gas: Xinjiang Project

LOCATION:

Xinjiang, China

PRIME MOVER and PROCESS:

Caterpillar 3512A diesel
engine-drive generator

SERVICE:

Prime Power

GENERATOR RATING:

980kW

ENGINE SPEED and GENERATOR FREQUENCY:

1500RPM/50Hz

GTI BI-FUEL® KIT:

Series III-C26

INSTALLATION DATE:

October, 2009



altronic


HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #124

NASA Stennis Space Center

LOCATION:

Hancock County, MS

ENGINE:

(2) CAT C-18

KW RATING:

500kw Generators

GAS SUBSTITUTION:

55%

GTI BI-FUEL® KIT:

Series II-B26



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #125

Oil & Gas: Yiwu Zhonggao Project

LOCATION:

Yiwu, China

PRIME MOVER and PROCESS:

MTU12V2000 (2 sets)

SERVICE:

Prime Power

GENERATOR RATING:

580kW

ENGINE SPEED and GENERATOR FREQUENCY:

1500RPM/50Hz

GTI BI-FUEL® KIT:

Series III-C26

INSTALLATION DATE:

January, 2010



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #126

City of Wichita Water Department

LOCATION:

Wichita, Kansas

ENGINE/GENERATOR:

(4) CAT 3516C diesel engine-driven generators

SERVICE:

Standby Generator

GAS SUBSTITUTION:

55% (AVG)

GTI BI-FUEL® KIT:

Series IV-B27

DISTRIBUTOR/DEALER:

Foley Equipment Company

To extend the run time of their generators during emergencies, the City of Wichita had GTI Bi-Fuel® systems installed on four Cat 3516C generators. The average gas substitution was 55% and NO was reduced by 55% at 78% engine load. A spokesman for the facility stated that a new project may take place in 2012, and added, "We are happy with the gas substitution rate and the engine performance."



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #127

Commercial

LOCATION:

Calgary, Alberta, Canada

ENGINE:

John Deere 6090H
Tech-Plus (VGT)

KW RATING:

250kW

GAS SUBSTITUTION:

65% @ 30-75% load

GTI BI-FUEL® KIT:

Series I-A15

COMMISSIONED:

February, 2009



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #128

Oil & Gas: EnCana – Chinook Drilling

LOCATION:

Fort Nelson,
British Columbia,
Canada

ENGINE:

John Deere 6068H

SPEED/FREQUENCY:

1800rpm @ 60Hz

PROCESS:

Diesel engine-driven
generator

RATING:

168kW

INSTALLED:

January, 2009

GTI BI-FUEL® KIT:

Series I-A15



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #129

David Reynolds

LOCATION:

Colly Blue, NSW,
Australia

APPLICATION:

Crop Farming

ENGINE:

Cummins M11-C;
down-hole well pump

ENGINE POWER:

300hp

GAS SUBSTITUTION:

70%

GTI BI-FUEL® KIT:

Series I-A15



altronic


HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #130

Residential

LOCATION:

Orem, Utah

ENGINE:

CAT 3456

RATING:

500kW

GAS SUBSTITUTION:

65%

GTI BI-FUEL® KIT:

Series II-A16



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #131

Pertamina AOT Oil & Gas

LOCATION:

Prabumulih, Barat
(Sumsel), Indonesia

ENGINE/GENERATOR:

CAT 3406TA
diesel engine-driven
generator

SERVICE:

Prime Power

RATING:

300kVA

ENGINE SPEED AND GENERATOR FREQUENCY:

1500RPM/50Hz

GTI BI-FUEL® KIT:

Series I-A16

DISTRIBUTOR/DEALER:

PT. Sigma Kreasi
Instrument (PT. SKIns)

INSTALLATION DATE:

December, 2006



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #132

Pertamina Oil & Gas

LOCATION:

Pertamina, Ogan 25
(Sumsel), Indonesia

ENGINE/GENERATOR:

CAT 3412TA
diesel engine-driven
generator

SERVICE:

Prime Power

RATING:

380kVA

ENGINE SPEED AND GENERATOR FREQUENCY:

1500RPM/50Hz

GTI BI-FUEL® KIT:

Series I-A16

DISTRIBUTOR/DEALER:

PT. Sigma Kreasi
Instrument (PT. SKIns)

INSTALLATION DATE:

April, 2008



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #133

Mega Mall Retail Complex

LOCATION:

Pluit-Jakarta Utara,
Indonesia

ENGINE/GENERATOR:

Mitsubishi S16R
diesel engine-driven
generator

SERVICE:

Peak Shaving

RATING:

1530kVA

ENGINE SPEED AND GENERATOR FREQUENCY:

1500RPM/50Hz

GTI BI-FUEL® KIT:

Series IV-B47A

DISTRIBUTOR/DEALER:

PT. Sigma Kreasi
Instrument (PT. SKIns)

INSTALLATION DATE:

May, 2007



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #134

PT. Yamaha Motor Indonesia Mfg.

LOCATION:

Pulogadung, Indonesia

ENGINE/GENERATOR:

Cummins KTA38-G5
diesel engine-driven
generator

SERVICE:

Prime Power

RATING:

1000kVA

ENGINE SPEED AND GENERATOR FREQUENCY:

1500RPM/50Hz

GTI BI-FUEL® KIT:

Series III-B26

DISTRIBUTOR/DEALER:

PT. Sigma Kreasi
Instrument (PT. SKIns)

INSTALLATION DATE:

May, 2008



altronic


HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #135

PT. Pelita Enamelware Industry

LOCATION:

Cikande, Indonesia

ENGINE/GENERATOR:

Mercedes OM444LA
diesel engine-driven
generator

SERVICE:

Prime Power

RATING:

500kVA

ENGINE SPEED AND GENERATOR FREQUENCY:

1500RPM/50Hz

GTI BI-FUEL® KIT:

Series III-B26

DISTRIBUTOR/DEALER:

PT. Sigma Kreasi
Instrument (PT. SKIns)

INSTALLATION DATE:

September, 2008



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #136

Pearl Oil

LOCATION:

Mengopoh, Jambi,
Indonesia

ENGINE/GENERATOR:

Cummins GSK23-G3
diesel engine-driven
generator

SERVICE:

Prime Power

RATING:

875kVA

**ENGINE SPEED AND
GENERATOR FREQUENCY:**

1500RPM/50Hz

GTI BI-FUEL® KIT:

Series III-C26

DISTRIBUTOR/DEALER:

PT. Sigma Kreasi
Instrument (PT. SKIns)

INSTALLATION DATE:

January, 2006



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #137

CNPC - International Aktobe Petroleum

LOCATION:

Munai She,
Aktobe, Kazakhstan

ENGINE/GENERATOR:

Volvo Penta
(TAD 1241 GE)

SERVICE:

Standby Power

Being one of the largest oil and gas companies in Kazakhstan, CNPC-International Aktobe Petroleum feels an obligation to invest in programs that preserve the environment.

Ongoing gas utilization programs are an example. Rather than flaring the associated gas, CNPC has built multiple gas-plants.

For several decades, gas has been transported to Aktobe City and distributed to households for cooking.

Part of Aktobe city is a small village called "Munai She" which means "Oil Man" in Kazakh. Chinese employees of CNPC-International live in this village. To cope with power outages, the village has its own emergency power station including an emergency genset driven by a Volvo Penta engine, packaged by Genpower.

Because the cost of natural gas is significantly less than diesel fuel, CNPC decided to install an Altronic GTI Bi-Fuel® kit, which allows the engine



to run on normal 100% diesel if gas is unavailable. When switched 'on' the GTI kit substitutes up to 70% of the diesel depending on the methane number (knock index) of the natural gas. Even a low substitution rate results in significant savings. And, as a bonus, it saves the environment because natural gas emissions are significantly cleaner than diesel fuel emissions.

Pictured are the gas-mixer installed just after the air filter, the vibration sensor installed in the engine block, the temperature sensor installed in the exhaust and the manifold air temperature and pressure sensor installed in the air inlet manifold.

The sensors are connected to the control module. The control module monitors all sensor readings and gives an alarm if they exceed alarm thresholds. In that case the unit will automatically switch back to 100% diesel operation.

CNPC is very happy with the result. Not only because of the rapid payback time of this investment, but also because it illustrates that they are serious about caring for the environment.



altronic

HOERBIGER
GTI Bi-Fuel® - A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #138

Zenergy

LOCATION:

Mandaree, North Dakota

ENGINE/GENERATOR:

CAT QX230 C9 diesel engine-driven generator

SERVICE:

Prime Power

GAS SUBSTITUTION:

60% (AVG)

GTI BI-FUEL® KIT:

Series DN-50

DISTRIBUTOR/DEALER:

ECO - Alternative Fuel Systems



(Left to right)
Jeff Anderson (ECO Alternative Fuels Systems)
Jim Fehlauer (Zenergy)
Sam Osborne (Arrow Pipeline LLC)

In North Dakota, the demand for electricity to operate new oil well drilling sites is overwhelming. The number of new wells averages 160 per month and in most cases the wait for electric service is 8 to 12 months. ECO/AFS has outfitted several rental generators with Bi-Fuel® systems. These generators are operating on 60% well gas and 40% diesel.

Jim Fehlauer, Field Superintendent for Zenergy, had this to say about the GTI Bi-Fuel® system, "Thanks to Industrial Equipment Sales and Service and ECO/AFS for providing Zenergy with quality equipment and

quality service. This combination has allowed Zenergy to get our wells on line and producing while we wait for electricity. We had seven GTI Bi-Fuel® generators running 24/7 for 8 months with zero down time...which really helps our bottom line."

Zenergy noted the following:

- 60% savings on diesel costs
- Environmentally friendly—lower emissions (NOx, SO, Opacity, NMHC) very important considering current and future environmental regulations.
- No typical black smoke.
- Zero downtime after 6000 hours
- Bi-Fuel® system runs smooth and clean—better than straight diesel.



Fehlauer concluded, "Though we have not needed it, we appreciate the flexibility of using both fuels. If well gas is interrupted the engine switches to straight diesel without a hitch. This helps us to avoid costly down time."

"I highly recommend the GTI Bi-Fuel® system. Zenergy is currently running twelve units, and I will not use anything else."

altronic


HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #139

China National Petroleum Corporation (CNPC)

LOCATION:

Xinjiang, China

ENGINE/GENERATOR:

Cat 3512B

SERVICE:

Drilling rig

GTI BI-FUEL® KIT:

GTI III-C26

SUBSTITUTION RATE:

60%

DISTRIBUTOR/DEALER:

CDSS

China Diesel Support
Services Ltd

INSTALLATION DATE:

June , 2010



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #140

Shin Kong Building A12

LOCATION:

Le Meridien Hotel
Taipei, Taiwan

ENGINE/GENERATOR:

Mitsubishi S16R-Y1PTAA2-1
KOHLER 2000REOZM

SERVICE:

Emergency standby generator

RATED POWER:

2000 kW

SPEED AND FREQUENCY:

1800RPM/60Hz

GTI BI-FUEL® KIT:

Series IV-D47

SUBSTITUTION RATE:

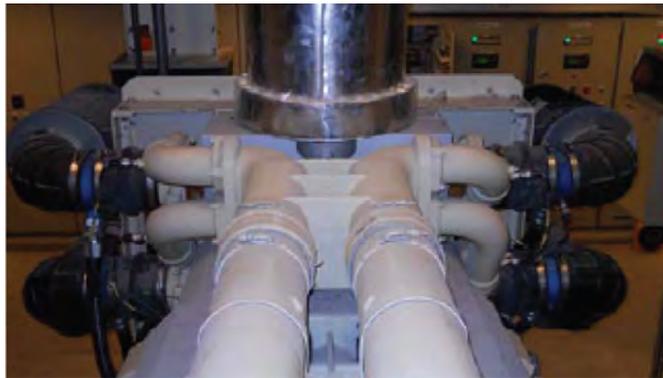
60%

DISTRIBUTOR/DEALER:

AM-POWER Machine
International Enterprise Co., Ltd.
Taiwan

INSTALLATION DATE:

October, 2010



altronic

安葆電能
POWER SOLUTIONS UNLIMITED

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #141

Gas Company - Energy Center

LOCATION:

Taipei Gas Corporation
Taipei, Taiwan

ENGINE/GENERATOR:

Detroit Diesel 16V92T

SERVICE:

Emergency standby generator

RATED POWER:

750 kW

SPEED AND FREQUENCY:

1800RPM/60Hz

GTI BI-FUEL® KIT:

Series III-C26

SUBSTITUTION RATE:

50%

DISTRIBUTOR/DEALER:

AM-POWER Machine
International Enterprise Co., Ltd.
Taiwan

INSTALLATION DATE:

January, 2008



altronic

安葆電能
POWER SOLUTIONS UNLIMITED

HOERBIGER
GTI Bi-Fuel® - A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #142

Peak Shaving/Standby/Demo with Bi-Fuel on Propane

LOCATION:

Escobedo, Nuevo León,
México

ENGINE/GENERATOR:

CAT 3306

SERVICE:

Peak Shaving/Standby/Demo

RATED POWER:

250 kW

SPEED AND FREQUENCY:

1800 RPM

GTI BI-FUEL® KIT:

5015-1A

SUBSTITUTION RATE:

35%

DISTRIBUTOR/DEALER:

PHAR, S.A. de C.V.

INSTALLATION DATE:

April 22, 2014



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #143

Drilling, Continuous

LOCATION:

Pennsylvania

ENGINE/GENERATOR:

CAT 3512

SERVICE:

Drilling, Continuous

RATED POWER:

1000 kW

SPEED AND FREQUENCY:

1800 RPM

GTI BI-FUEL® KIT:

GTI+

SUBSTITUTION RATE:

60%

DISTRIBUTOR/DEALER:

Pennsylvania Power Corp.

INSTALLATION DATE:

April, 2013



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #144

Drilling Rig (Mechanical) with Bi-Fuel on CNG

LOCATION:

Saskatchewan Province
Canada

ENGINE/GENERATOR:

MTU 12V2000

SERVICE:

Drill Rig Power Generation

RATED POWER:

1000 HP

SPEED AND FREQUENCY:

1800 RPM

GTI BI-FUEL® KIT:

6526-2C

SUBSTITUTION RATE:

60%

DISTRIBUTOR/DEALER:

Gas Drive Global

INSTALLATION DATE:

November, 2011



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #145

Shopping Mall

LOCATION:

Maceio, Brazil

ENGINE/GENERATOR:

Scania DC12-53A

SERVICE:

Shopping Mall Peak Shaving
Generation

RATED POWER:

440 Kw

SPEED AND FREQUENCY:

1800 RPM/60 Hz

GTI BI-FUEL® KIT:

6514-1A

SUBSTITUTION RATE:

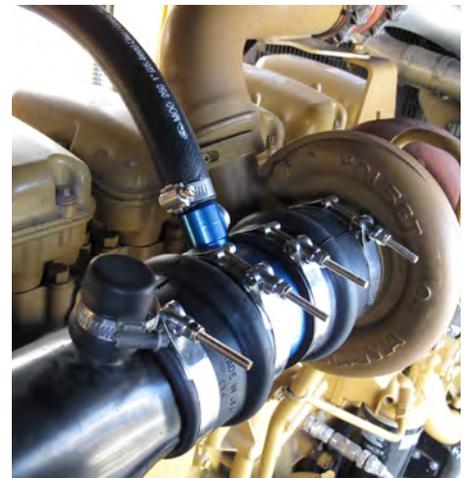
70%

DISTRIBUTOR/DEALER:

Analise & Tecnica

INSTALLATION DATE:

July, 2012



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #146

Drilling Rig, Continuous

LOCATION:

Pinedale, Wyoming

ENGINE/GENERATOR:

CAT 3512 C

SERVICE:

Drilling Rig, Continuous

RATED POWER:

1200 kW

GTI BI-FUEL® KIT:

GTI+

SUBSTITUTION RATE:

58%

AVERAGE SAVINGS:

1200 Gals. Diesel per Day

GAS TYPE:

Wellhead

DISTRIBUTOR/DEALER:

ECO - Alternative Fuel Systems

INSTALLATION DATE:

February, 2014



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #147

Generator System

LOCATION:

Macy's Department Store
West 34th Street
New York, New York

ENGINE/GENERATOR:

MTU 12V 1600 G80S

SERVICE:

Standby Power Service

RATED POWER:

896 HP

SPEED and FREQUENCY:

1800 RPM

GTI BI-FUEL® KIT:

6528-2C

SUBSTITUTION RATE:

TBD

DISTRIBUTOR/DEALER:

AMPS
Advanced Manufacturing &
Power Systems, Inc.

INSTALLATION DATE:

March, 2014
(unit not commissioned)



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #148

Critical Data Center

LOCATION:

West Chester, PA

ENGINE/GENERATOR:

Cummins QSK60G6

SERVICE:

Emergency Standby

RATED POWER:

1750Kw x 4

SPEED and FREQUENCY:

1800RPM - 60Hz

GTI BI-FUEL® KIT:

DN80 Series

SUBSTITUTION RATE:

55%

DISTRIBUTOR/DEALER:

Pennsylvania Power Corporation

INSTALLATION DATE:

January 23, 2015



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #149

Critical Data Center

LOCATION:

West Chester, PA

ENGINE/GENERATOR:

Cummins QSK60G6

SERVICE:

Emergency Standby

RATED POWER:

1750Kw x 2

2000Kw x 2

SPEED and FREQUENCY:

1800RPM - 60Hz

GTI BI-FUEL® KIT:

DN80 Series

SUBSTITUTION RATE:

55%

DISTRIBUTOR/DEALER:

Pennsylvania Power Corporation

INSTALLATION DATE:

July, 2015



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #150

Water Treatment Facility (Propane) – US Army Base

LOCATION:

Fort Irwin, CA

ENGINE/GENERATOR:

MTU 16V4000

SERVICE:

Standby

RATED POWER:

2.25 MW

SPEED and FREQUENCY:

1800RPM / 60Hz

GTI BI-FUEL® KIT:

80 Series

SUBSTITUTION RATE:

40% – Propane

DISTRIBUTOR/DEALER:

Diesel2Gas / Bay City Electric

INSTALLATION DATE:

Commissioned August, 2015



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #151

Southern California Rock Crusher with CNG

LOCATION:

Southern California

ENGINE/GENERATOR:

Parallel Perkins 2206
400kW each

SERVICE:

Mobile Prime Power

RATED POWER:

800kW total

SPEED and FREQUENCY:

1800RPM / 60Hz

GTI BI-FUEL® KIT:

DN65 with GPN2015 panel
CARB Compliant
Nett Technologies, Inc. DOC

DISTRIBUTOR/DEALER:

Diesel 2 Gas Solutions
Generator Services

INSTALLATION DATE:

July, 2013



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

GTI BI-FUEL® SYSTEM PROJECT OVERVIEW #152

Utility Power Plant – Peak Shaving (Paralleled)

LOCATION:

Waverly, Iowa

ENGINE/GENERATOR:

3516B Caterpillar (4)

SERVICE:

Peak Shaving

RATED POWER:

2MW

SPEED and FREQUENCY:

1800RPM

GTI BI-FUEL® KIT:

DN80

SUBSTITUTION RATE:

58%

DISTRIBUTOR/DEALER:

ECO/AFS

INSTALLATION DATE:

October, 2014



altronic

HOERBIGER
GTI Bi-Fuel® – A Product
of the HOERBIGER GROUP

OMV Tunisia – Plant Generators

LOCATION:

OMV Tunisia-Anaguid FIELD

ENGINE/GENERATOR:

C18

SERVICE:

Plant Generators

RATED POWER:

715kW

SPEED and FREQUENCY:

1450RPM@50Hz

GTI BI-FUEL® KIT:

Series 50

SUBSTITUTION RATE:

55% Gas, 45% Gasoil

DISTRIBUTOR/DEALER:

Smartech Solutions

INSTALLATION DATE:

01/05/2018

