

2040 Afton Place Farmington, NM 87401

Office: 505.327.4945 | Direct: 307.675.5077 jmartindale@emittechnologies.com

Prepared For:

Mary Russell

Control of the control

WAGNER EQUIPMENT COMPANY

Expires: October 25, 2013

INFORMATION PROVIDED BY CATERPILLAR

Engine: G3406 TA

Horsepower: 276 RPM: 1800 Compression Ratio: 9.4

Exhaust Flow Rate: 1176 CFM
Exhaust Temperature: 1007 °F
Reference: DM5084-02
Fuel: Natural Gas

Annual Operating Hours: 8760

Uncontrolled Emissions

 g/bhp-hr

 NOx:
 14.85

 CO:
 14.80

 THC:
 1.86

 NMHC
 0.28

 NMNEHC:
 N/A

 HCHO:
 N/A

 O2:
 0.20 %

POST CATALYST EMISSIONS

g/bhp-hr

NOx: <1.00 CO: <1.00

CONTROL EQUIPMENT

Catalyst Housing

Model: EAS-1450-0505F-2S4E
Manufacturer: EMIT Technologies, Inc
Element Size: Round 14.5" x 3.5"
Housing Type: 2 Element Capacity
Catalyst Installation: Accessible Housing
Construction: 10 gauge Stainless Steel

Sample Ports: 6 (0.5" NPT)

Inlet Connections: 5" Flat Face Flange
Outlet Connections: 5" Flat Face Flange
Configuration: 5" Flat Face Flange
Side In / End Out

Silencer: Integrated
Silencer Grade: Critical
Insertion Loss: 25-30 dBA
Estimated Lead Time: 2 Weeks to Ship

Catalyst Element

Model: RE-1450-T

Catalyst Type: NSCR, Standard Precious Group Metals

Substrate Type: BRAZED

Manufacturer: EMIT Technologies, Inc

Element Quantity: 1

Element Size: Round 14.5" x 3.5"

Estimated Lead Time: In Stock



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Air Fuel Ratio Controller

Model: ENG-S-150-TA

Manufacturer: EMIT Technologies, Inc

Description: EDGE NG Air Fuel Ratio Controller

4-Wire Narrowband O2 Sensor

Digital Power Valve O2 Sensor Weldment

Wiring Harness

(2) Type K Thermocouple

Digital Power Valve

Size:

1.50" NPT

Estimated Lead Time: In Stock





PRICING

		Unit Price	Quantity	Extended Price	
EAS-1450-0505F-2S4E	Stainless Steel	\$1,910.00	1	\$1,910.00	
RE-1450-T		\$1,330.00	1	\$1,330.00	
ENG-S-150-TA		\$2,590.00	1	\$2,590.00	
14.5" MOUNTING BRACKET (WRAP AROUND)		\$150.00	1	\$150.00	
			TOTAL	\$5,980.00	



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WARRANTY

EMIT Technologies, Inc. warrants that the goods supplied will be free from defects in workmanship by EMIT Technologies, Inc. for a period of one (2) year from date of shipment. EMIT Technologies, Inc. will not be responsible for any defects which result from improper use, neglect, failure to properly maintain or which are attributable to defects, errors or omissions in any drawings, specifications, plans or descriptions, whether written or oral, supplied to EMIT Technologies, Inc. by Buyer.

Catalyst performance using an EMIT Air/Fuel ratio controller is dependent upon properly defined set-points, variable with engine and fuel gas composition. Air/fuel ratio controller performance is guaranteed, but not limited, to fuel gas with a HHV content of 1400 BTU/SCF.

Catalyst performance will be guaranteed for a period of 1 year from installation, or 8760 operating hours, whichever comes first. The catalyst shall be operated with an automatic air/fuel ratio controller. The performance guarantee shall not cover the effects of excessive ash masking due to operation at low load, improper engine maintenance, or inappropriate lubrication oil. The performance guarantee shall not cover the effects of continuous engine misfires (cylinder or ignition) exposing the catalyst to excessive exothermic reaction temperatures. In most cases, excluding thermal deactivation, catalyst performance is redeemable by means of proper washing (refer to EMIT Catalyst/Silencer Housing Manual for element wash information, or contact a local EMIT Sales representative).

The exhaust temperature operating range at the converter inlet is a minimum of 600°F for oxidation catalyst and 750 °F for NSCR catalyst, and a maximum of 1250°F.

If a properly functioning, high temperature shut down switch is not installed, thermal deactivation of catalyst at sustained temperatures above 1250°F is not covered. If excessive exposure to over oxygenation of NSCR catalyst occurs due to improperly functioning or non -existent Air/Fuel ratio control, then deactivation of catalyst is not warranted.

The catalyst conversion efficiencies (% reduction) will be guaranteed for engine loads of 50 to 100 percent. Standard Oxidation Catalyst conversion efficiencies (% reduction) will be guaranteed for fuel gas containing less than 1.5% mole fraction of non-methane, non-ethane hydrocarbons. Applications where fuel gas exceeds this level will require a Premium Oxidation Catalyst to maintain guaranteed VOC conversion efficiencies.

Engine lubrication oil shall contain less than 0.5 wt% Sulfated Ash with a maximum allowable specific oil consumption of 0.7 g/bhp-hr. The catalyst shall be limited to a maximum ash loading of 0.022 lb/ft3. Phosphorous and zinc additives are limited to 0.03 wt%. New or Reconstructed engines must operate for a minimum of 100 hours prior to catalyst installation, otherwise the warranty is void.

The catalyst must not be exposed to the following know poisoning agents, including: antimony, arsenic, chromium, copper, iron, lead, lithium, magnesium, mercury, nickel, phosphorous, potassium, silicon, sodium, sulfur, tin, and zinc. Total poison concentrations in the fuel gas must be limited to 0.25 ppm or less for catalyst to function properly.

Shipment - Promised shipping dates are approximate lead times from the point of manufacture and are not guaranteed. EMIT Technologies, Inc. will not be liable for any loss, damage or delay in manufacture or delivery resulting from any cause beyond its control including, but not limited to a period equal to the time lost by reason of that delay. All products will be crated as per best practice to prevent any damage during shipment. Unless otherwise specified, Buyer will pay for any special packing and shipping requirements. Acceptance of goods by common carrier constitutes delivery to Buyer. EMIT Technologies, Inc. shall not be responsible for goods damaged or lost in transit.

Terms: Credit is extended to purchaser for net 30 time period. If payment is not received in the net 30 timeframe, interest on the unpaid balance will accrue at a rate of 1.5% per month from the invoice date.

Order Cancellation Terms: Upon cancellation of an order once submittal of a Purchase Order has occurred, the customer will pay a 25% restocking fee for Catalyst Housings, Catalyst Elements, and Air/Fuel Ratio Controllers; 50% restocking fee for Cooler Top Solutions, Exhaust System Accessories, and other Custom Built Products; 100% of all associated shipping costs incurred by EMIT; 100% of all project expenses incurred by EMIT for Field Services.



