



**INDUSTRIAL
ENGINES LTD**

IEL - HATZ - HDGS40 DIESEL GEN



14355 - 120 ave.
Edmonton, Alberta T5L2R8
Tel: (780) 484-6213
Fax: (780) 732-0400
Toll Free: (888) 887-0008

#121, 788 Caldew Street
Annacis Island
Delta, B.C. V3M 5S2
Tel: (604) 525-8529 Fax: (604) 525-0974
Toll Free: (877) 438-6560
B.C. Parts Direct: (604) 525-9153

IEL - NATURAL GAS GENERATOR - MODEL: FNG 20

POWER RATINGS

| Model Number | Voltage range | Phase | pf | Hz | Standby Power | | | Prime Power | | |
|----------------|---------------|-------|-----|----|---------------|-----|------|-------------|-----|------|
| | | | | | kW | kVA | Amps | kW | kVA | Amps |
| HDGS 40 | 120/240 | 1 | 1 | 60 | 30 | 37 | 100 | 32 | 40 | 100 |
| | 120/208 | 3 | 0.8 | 60 | 30 | 37 | 75 | 32 | 40 | 75 |
| | 277/480 | 3 | 0.8 | 60 | 30 | 37 | 35 | 32 | 40 | 35 |

ENGINE DATA

| | | DIESEL ENGINE | | | |
|-----------------------------------|--|----------------------|--|---------------------------|-----------------------|
| Basic Engine Data | | 4 CYLINDER 3.4 LITER | | Engine Electrical System | 12 VOLT |
| Manufacturer | | HATZ - MODEL: 4L41 | | Glow plugs | OPTIONAL |
| Naturally-aspirated | | YES | | Battery charge alternator | 14 V 42 AMP |
| Cylinders | | 4 | | Starter motor | 12 VOLT - 3.7 KW |
| Displacement Cu.in (Liters) | | 209 (3.4 LITER) | | Ground polarity | NEGATIVE GROUND |
| Bore inches (mm) | | 4.02 (102) | | Cooling System | AIR COOLED |
| Stroke inches (mm) | | 4.13 (105) | | Type of system | AIR COOLED |
| DIESEL SYSTEM | | DIRECT INJECTION | | Type of fan | AXIAL TYPE BLOWER FAN |
| Oil capacity - u.s. gals (liters) | | 5 (13.0) | | Fuel | DIESEL |
| Battery Capacity | | 12 VOLT - 143 AH. | | Combustion | COMPRESSION IGNITION |

Basic Alternator Data

| | | | |
|----------------------------------|------------------|-----------------------------|----------------------|
| ALTERNATOR | STAMFORD | Coupling arrangement | Close |
| Type | 4 - pole | Load capacity (standby) | 110% |
| Rotor insulation | Class "H" | Load capacity (prime) | 100% |
| Stator insulation | Class "H" | Excitation System | |
| Total harmonic factor | Less than 2% | Brushless | AVR |
| Telephone influence factor (TIF) | Less than 50 | Volts change 100% load step | Under 3%(% sec) |
| Alternator cooling | Self ventilating | Voltage regulation | 2% all loads to 100% |
| Bearings | Single | Temperature rise | 125°C |

HDGS40 Series Dimensions and Weights

| Standard Dimension | | | | | | | Shipping dimensions | | | | | |
|--------------------|-------|------------|------------|----|------------|----|---------------------|----|----------|----|------------|----|
| | Open | | Enclosed | | Attenuated | | Open | | Enclosed | | Attenuated | |
| | ins | cm | ins | cm | ins | cm | ins | cm | ins | cm | ins | cm |
| "H" height | 36 | | 36 | | | | | | | | | |
| "W" width | 29 | | 29 | | | | | | | | | |
| "L" length | 67 | | 67 | | | | | | | | | |
| Est. Weight | lb/kg | 1536 / 700 | 1536 / 700 | | 1536 / 700 | | | | | | | |

*** INCLUDES SKID DIMENSIONS

OPTIONAL ENGINE / GENERATOR CONTROL PANEL: DSE7110 Auto Start Panel with LCD

Standard DSE7110 Control Panel: This control comes complete as a manual or auto start control in a vibration isolated cabinet. When in "Auto" position a simple switch closure of any kind will signal the set to start. The controls provide safety shutdown protection for low oil pressure, high temperature, over/under speed and a over crank fault after three failed attempts to start. Using a push button you can easily scroll through the LCD showing the generator sets A/C voltage, amperage and hertz. The engine will be monitored for oil pressure, temperature, D/C battery volts, and engine hours run. It comes standard with five fully configurable inputs and three configurable outputs for either warnings or shutdowns.