

# PROVIDING BETTER POWER

# **ROUGHNECK DIESEL: 100KW**

The Roughneck generator was designed with rugged simplicity in mind. Three phase, open skid or enclosed packages designed for emergency applications but built to run for extended power outage periods of time on prime rated liquid cooled engine platforms.





#### Durable Industrial Engine

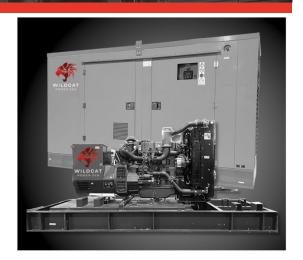
•Planned for emergency applications but built for industrial applications, the Roughneck's power plant is a premier industrial fixed speed (1,800 RPM) engine built to provide strong, reliable power without sacrificing engine longevity.

# **Quality Clean Power**

 Voltage regulation ensures that electronics are safely powered with less 2.5% total harmonic distortion (THD) at no load.

# **NFPA-110**

Wildcat designed the Roughneck to exceed NFPA-110, Level 2
 Emergency Power Supply Systems (EPSS) by providing prime power (PP) to meet EPSS Class 168 Type 10.



#### **Digital Controls**

 Designed for single genset applications, the Roughneck's digital controls monitor the genset's voltage, current, power, frequency, engine speed, oil pressure and coolant temperature on a back-lit LCD display for ease of use.

#### **Industrial Class Alternator**

•Protected with Class H insulation and standard 40°C nominal rating, the Roughneck's standard 12-wire winding and 2/3 pitch meet all key international standards and regulations including UL 1446.

### Easy to Service

 Preventative maintenance and in-field repairs are made easier with our simplified engineering and non-proprietary parts.

#### **GENERATOR SET RATING**

Model	Voltage	Power Factor	Phase	Hertz	Circuit Breaker Amps	kW / kVA	BMEP (Bar)	BSFC (g/hp*hr)	Emission Compliance	Controller
Roughneck Diesel 75KW RO0100D3A*XE	120/240	1.0	1	60	350A	75 / 75	18.0	158	Tier 3	DeepSea
Roughneck Diesel 100KW RO0100D3B*XE	208/120	0.8	3	60	350A	100 / 125	18.0	158	Tier 3	DeepSea
Roughneck Diesel 100KW RO0100D3C*XE	240 / 120	0.8	3	60	300A	100 / 125	18.0	158	Tier 3	DeepSea
Roughneck Diesel 100KW RO0100D3D*XE	480 / 277	0.8	3	60	150A	100 / 125	18.0	158	Tier 3	DeepSea



# **ENGINE SPECIFICATIONS**

Engine			
Manufacturer	KOEL		
Туре	4K1080TA1 Powertrain 4 Cycle, Turbo Charged & Charge Air Cooled		
Speed (RPM)	1800		
Cylinder Arrangement	Inline 4		
Displacement (L / cc)	4.3L / 4330cc		
Bore & Stroke (in / mm)	4.015" x 4.921" / 102 x 125		
Compression Ratio	15.5:1		
Governor Type	Isochronous / Electronic		
Frequency Regulation Steady State	+/-0.25%		
Frequency Regulation No-loadto Full-load	Isochronous, Constant Speed		
Air FilterType	Dry		
Limited Warranty	3 Years, 5,000 Hours		
Lubrication System			
Туре	Full Pressure		
Oil Capacity (g/ L)	4.75 / 18		
Oil Filter (Quantity / Type)	1/Spin-On		
CoolingSystem			
Radiator Type	Aluminum		
Radiator Air Flow (m3/Hr)	18,000		
Sound Rating at 7 Meters, Lov	west Side		
NoLoad	72 dB(A)		
Engine Crankcase Vent System	n		

# STANDARD CONTROLLER



Engine Crankcase Vent System

#### WILDCAT POWER GEN DeepSea Controller

•User-friendly control panel for troubleshooting

 Conveniently monitors diagnostic conditions, displays system fault codes and sets weekly exercise cycle

Closed Crankcase Vent

Easy-to-read alpha-numeric scrolling display

•Single & 3 Phase generator applications

ULrecognized

Electrical System	
Starting Arrangement	12V Electric
Battery Quantity	1
Battery Voltage (VDC)	12
Battery CCA (A)	900
Battery Charging Alternator	
Ground (Negative/Positive)	Negative
Voltage (VDC)	12
Amperage (A)	32
Starter Motor Voltage (VDC)	12
ExhaustSystem	
Exhaust Manifold Type	Dry
Exhaust Flow at Rated Load (Kg/Hr)	710
Exhaust Temperature at Rated Load (F/C)	1256 / 680
Maximum Allowable Back Pressure (kPa G)	4.9 ± 1
FuelSystem	
Fuel Type	Ultra-Low Sulfur Diesel
Fuel Injection Pump	Mechanical Fuel Inline Pump
Fuel Filter	1.0 liter Single bowl

#### **Fuel Consumption**

Optional Fuel Tank Capacity: 200 Gallons – 24 Hour Run Time

100% Load	7.90 GAL / HR
75% Load	5.90 GAL / HR
50% Load	4.09 GAL / HR

Spin-on

# **Engine Output Deratings**

Rated Temperature (°F/°C)	77 / 25		
Rated Altitude	328 ft (100 m) Above Sea Level		
Temperature Derate	1.5% for Each 10°F (5.6°C) Above Rated Temperature		
Altitude Derate	2.5% for Each 1000 ft (305 m) Above Rated Altitude		



	Roughneck 75KW Single Phase Tier 3	Roughneck 100KW 3-Phase Tier 3	Roughneck 100KW 3-Phase Tier 3	Roughneck 100KW 3-Phase Tier 3
Model	RO0100D3A*XE	RO0100D3B*XE	RO0100D3C*XE	RO0100D3D*XE
Alternator Model	UC1274D	U C 1 2 7 4 D	UCI274D	UCI274D
Manufacturer	Stamford	Stamford	Stamford	Stamford
Туре	Brushless, 12-Lead	Brushless, 12-Lead	Brushless, 12-Lead	Brushless, 12-Lead
Frequency (Hz)	60	60	60	60
Phase	1	3	3	3
Winding Configuration	Double Delta	Parallel Star	Series Delta	Series Star
Exciter Type	Self Exciter	Self Exciter	Self Exciter	Self Exciter
Number of Poles	4	4	4	4
Voltage Regulator	MX341	MX341	MX341	MX341
Insulation Rating	Class H	Class H	Class H	Class H
Designed Temperature Rise Limit	125 °C	125 °C	125 °C	125 °C
Bearing (Quantity / Type)	1/Sealed	1/Sealed	1/Sealed	1/Sealed
Coupling	Flexible Disk	Flexible Disk	Flexible Disk	Flexible Disk
Amortisseur Windings	Full	Full	Full	Full
Voltage Regulation, NL to FL	+/- 1.0%	+/- 1.0%	+/-1.0%	+/-1.0%
One Step Load Acceptance	100% ofRating	100% ofRating	100% ofRating	100% ofRating
Total Harmonic Distortion (THD), NL to FL	<5%	< 5%	< 5%	< 5%

 $<sup>^{\</sup>bullet}\text{Complete}$  winding protection for non-harsh environment with relative humidity  $\leq 95\%$  . IP23 Protection

# Weight & Dimensions

Assembled Weight (lbs/kg) 4700 LBS / 2132 KG

Overall Dimensions (in) 138.78" L x 45.52" W x 84.89" H 3525mm L x 1156mm W x 2156mm H

 ${\tt Need\ help?Visit}\ \textbf{wildcatpowergen.com}$ 

Complete the web form and a local dealer will contact you to answer questions on our generators and accessories.

Never Lose Power Again With Wildcat Power Gen

620-500-5111

Manufactured according to the following standards: ISO 3046, ISO 8528-1, ISO 8528-3, ISO 8528-5, IEC 60034-1, BS 5000-3