

Trailblazer® 325 Diesel

**Diesel Engine-Driven
Welder/AC Generator**



Quick Specs

Industrial Applications

Fabrication
Maintenance
Repair
Structural Steel Work
Pipe
Sheet Metal

Processes (X-Ray Quality)

Stick (SMAW)
MIG (GMAW)
Flux-Cored (FCAW)
DC TIG/Pulsed TIG (GTAW/GTAW-P)
Air Carbon Arc (CAC-A) Cutting and Gouging
Rated: 3/16-inch carbons,
Capable: 1/4-inch carbons
Air Plasma Cutting and Gouging with
optional Spectrum® models
Rated: 5/8-inch mild steel

Output Range

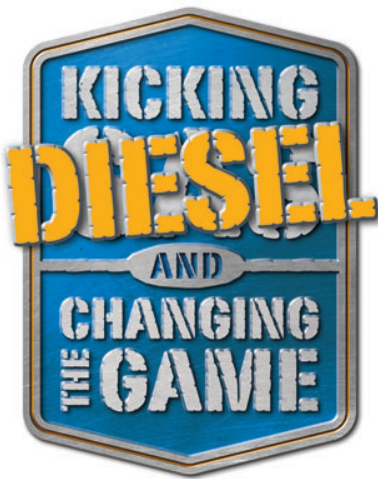
DC Stick 30–325 A
MIG/Flux-Cored 10–35 V
DC TIG/Pulsed TIG 10–325 A

Generator Power Output Rated at 104° F (40° C)

Peak: 12,000 W — Continuous: 10,500 W

Excel™ Power (Recommended option)

2400 W (120 V, 20 A) 60 Hz pure sine power at all speeds



Designed for the professional welder, our Trailblazer welder/generators deliver unbeatable arc performance in all weld processes, providing the smoothest, most stable arc in the industry. The independent welder and generator power system means no interaction between jobsite tools and the welding arc.

When you add optional engineered exclusives like Excel power, your new Trailblazer becomes more fuel-efficient, cost-effective and quieter than ever before.



Trailblazer 325 Diesel with Excel power shown.



Fewer refueling trips



Significant cost savings



Safer, more productive jobsite



Easier mobility and uses less truck space and payload



Welder/generator is warranted for 3 years, parts and labor.
Engine is warranted separately by the engine manufacturer.



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MillerWelds.com



Base Model New Technologies (Standard on all models.)

Smart-Cor™ Technology

Smart-Cor technology in our new Trailblazer® welder/generators includes a newly designed ten-degree skewed rotor and Wave Filter™ technology for a new level of clean generator power. The independent welder and generator power system means no interaction between jobsite tools and the welding arc.

Wave Filter technology and 10-degree skewed rotor. The electronics found in some jobsite tools, plastic fusion welders, bore welders and appliances — such as furnaces and air conditioners — are sensitive to “dirty” generator power, which is measured in terms of harmonic frequencies and crest factor.

The ten-degree skewed rotor creates cleaner generator power by eliminating slot harmonics. Slot harmonics make up a portion of the total harmonic frequencies in a generator, and by eliminating them, generator power is smoother power, not spiked power.

The Wave Filter technology has taken total harmonic frequencies to a new low, and has a nearly perfect crest factor — which means that Trailblazer welder/generators will deliver cleaner power in any situation and keep your jobsite tools running without interruption.

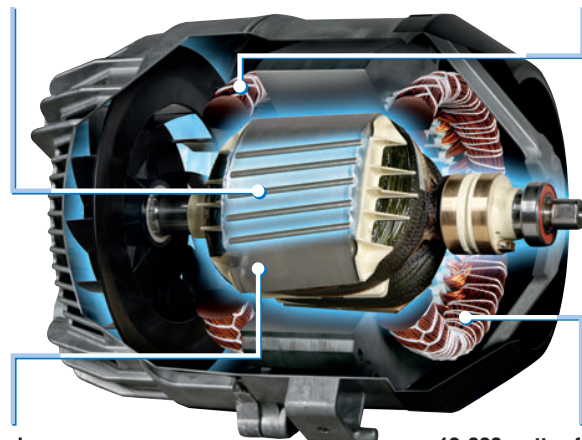
Auto-Speed™ Technology

Traditional high-speed welder/generators always run at maximum speed (3600 RPM) while you’re welding — regardless of whether you need that much power. And when you’re running harder than you need to be, your fuel efficiency drops dramatically.

Auto-Speed technology automatically adjusts the engine speed to match your actual weld load requirements. Need more power? The engine will automatically ramp up. Change processes to something requiring less power, and the Trailblazer will automatically slow the engine down. For example, under low loads — such as welding with a 1/8-inch stick electrode — the engine will run at idle speed (2400 RPM). By automatically varying the engine speed, you can significantly reduce fuel consumption — and cost.

Wave Filter technology

3-phase advanced hybrid welding power



Ten-degree skewed rotor

12,000 watts of clean generator power

Improved Arc Performance

We’ve engineered the new Trailblazer to provide high-quality welds across a variety of applications — knowing quality welds begin with a quality arc. That’s why we’ve significantly improved the performance for all welding processes and made it easy to fine-tune the arc to match your personal preferences and welding style.

- Three Stick modes for optimized arc performance — EXX18, EXX10 and Gouge
- Two Wire modes for simplified setup — Solid and Flux-Core
- Three TIG modes for optimized arc performance — Auto-Stop™, Auto-Crater™ and Pulse
- **NEW!** TIG Pulse mode available for out-of-position welding, thin metals and stainless steel where a lower amount of heat is desired while welding
- Infinite arc control available in the Stick and Solid Wire modes for easier fine tuning of tough-to-weld materials and out-of-position applications

Optional New Technology

Add Excel™ Power to Maximize your Trailblazer’s Performance



Excel Power

Improves generator performance by providing 120-volt, 60 hertz of pure sine wave generator power at idle speed and while welding. When connected to the Excel power receptacle, you get up to 2400 watts of the cleanest generator power available. Plus, you can run most jobsite tools — like grinders, chop saws, drills and lights — at idle speed, which provides:

- Exceptional fuel-efficiency
- Extended runtimes
- Quieter operation
- Longer engine life

Exceptional Fuel Efficiency

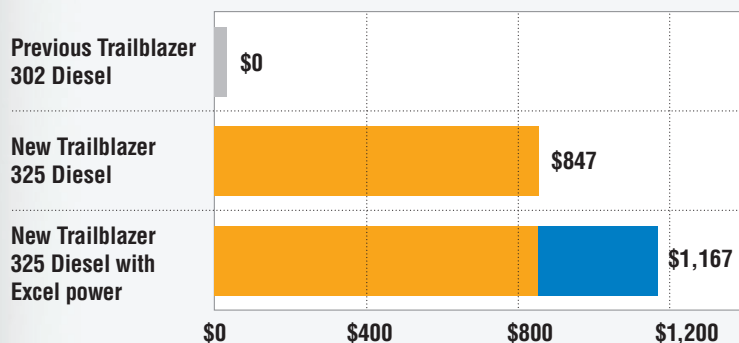
All new Trailblazers include innovative Auto-Speed technology, which enhances fuel-efficiency by regulating engine speed. By adding **optional** Excel power, you'll experience even more dramatic fuel savings and extended runtimes.



Excel™ Power (Recommended option)

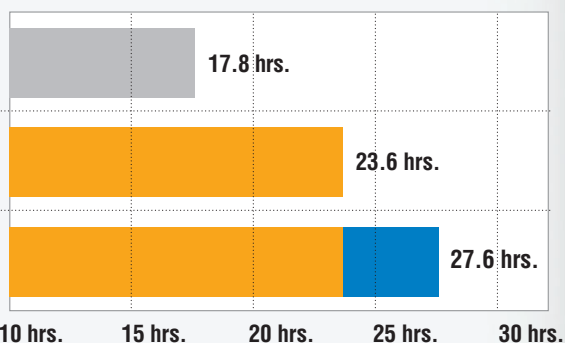
Traditional welder/generators run at 3600 RPM when generator loads are applied. But when you add Excel power to your Trailblazer, you can plug in most jobsite tools and the machine will continue at idle speed (2400 RPM) — allowing you to do the same job while burning less fuel. When combined with Auto-Speed technology, Excel power allows you to weld and run tools at idle speed.

Annual Fuel Savings*



Annual fuel savings with typical usage of 25 hours per week for 50 weeks at \$4 per gallon

Longest Runtimes*



Runtime hours per 12-gallon tank with typical usage

**Based on typical usage — 150 amps welding 40% of the time; 20 amps generator power 30% of the time; and idling without load 30% of the time.*

Significantly Less Noise

The new Trailblazer runs as low as 75 decibels — that's almost 5.5 fewer than previous models.* On a typical jobsite, it would take three new Trailblazers running simultaneously to equal the sound output of only one of the older model.



**Sound cannot be measured using a linear scale; therefore, the decibel (dB) unit is used. It is a logarithmic unit used to describe a ratio of power, sound pressure, voltage or intensity that gauges the sound output.*



Sound of 3 new Trailblazers

Sound of 1 previous Trailblazer

Specifications (Subject to change without notice.)

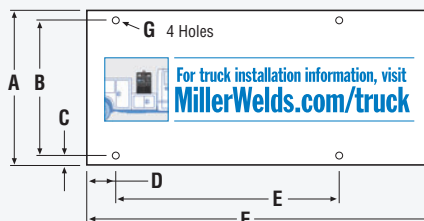


Smaller and Lighter Design

Thanks to Smart-Cor™ technology, the new Trailblazer welder/generator takes up less space on trucks and trailers—leaving more room on your truck for other equipment and tools. Plus, they're easier to move safely around jobsites—even with weld cables and running gear attached.



Mounting Specifications



- A. 20 in. (508 mm)
- B. 16.5 in. (419 mm)
- C. 1.75 in. (44 mm)
- D. 6.062 in. (154 mm)
- E. 32.75 in. (832 mm)
- F. 45.375 in. (1153 mm)
- G. .406 in. (10 mm) diameter

Welding Mode	Process	Amp/Volt Ranges	Rated Weld Output at 104° F (40° C)*	Single-Phase Generator Power	Sound Levels at 7 m (23 ft.)	Dimensions	Net Weight**
CC/DC	Stick/TIG	10–325 A	325 A at 33 V, 100% Duty Cycle	Peak: 12,000 watts Continuous: 10,500 watts	Weld: 150 A Load: 75 dB (100 Lwa), 325 A Load: 81.5 dB (106.5 Lwa) Generator Power: 12 kW Standard Power: 81.5 dB (106.5 Lwa), Excel Power (optional): 75 dB (100 Lwa)	H: 28 in. (711 mm) H: 34.375 in. (873 mm) (to top of exhaust) W: 20 in. (508 mm) D: 45.375 in. (1153 mm)	620 lb. (281 kg)
CV/DC	MIG/FCAW	10–35 V	325 A at 33 V, 100% Duty Cycle	Excel™ Power (optional): 2400 watts, 20 A at 120 V, 60 Hz pure generator power at idle speed and while welding			

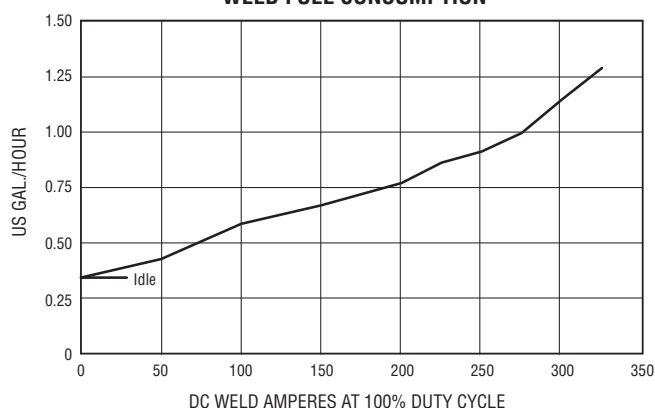
*Rated at sea level. **Net weight without fuel. Certified by Canadian Standards Association to both the Canadian and U.S. Standards.

Engine Specifications (Engines warranted separately by the engine manufacturer.)

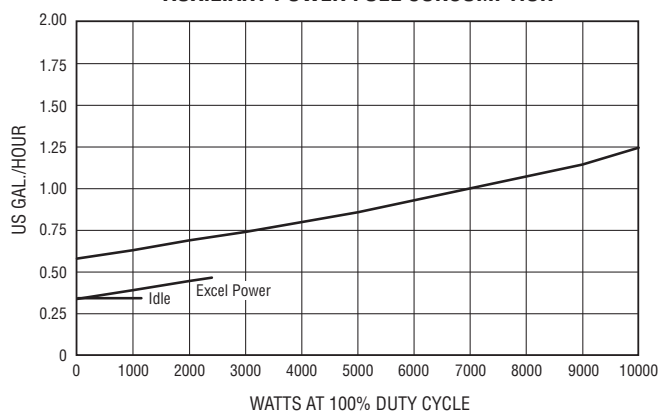
Engine Brand and Warranty	Horsepower (HP)	Type	Weld Speed	Idle Speed	Fuel Capacity	Oil Capacity	Standard Shutdowns
Kubota D902, 2-year limited North American warranty	24.8 HP at 3600 RPM	Three-cylinder, industrial liquid-cooled, diesel	Auto-Speed™ 2400, 2800, 3200 or 3600 RPM	2400 RPM	12 gal. (45 L)	3.9 qt. (3.7 L)	High Coolant Temperature/ Low Oil Pressure/Low Fuel

Performance Data

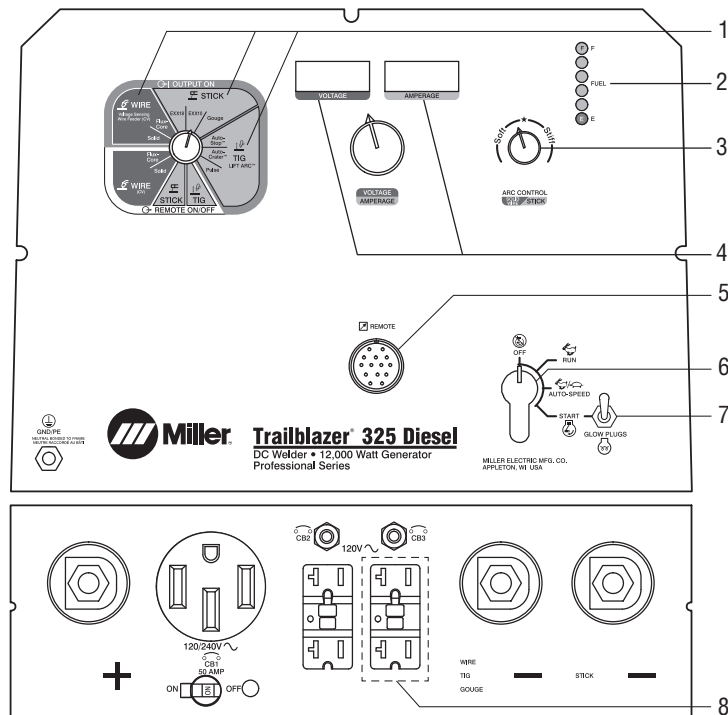
WELD FUEL CONSUMPTION



AUXILIARY POWER FUEL CONSUMPTION



Function and Benefit Guide



1. Weld process switch

Two Wire modes — Solid and Flux-Core

- Solid: Arc characteristics optimized for steel wires which most commonly use the short circuit transfer. Turn arc control (#3) to “soft” for stainless wires and to “stiff” for aluminum.
- Flux-Core: Arc characteristics optimized for wires commonly used in construction and hard facing applications.

Three Stick modes — EXX18, EXX10 and Gouge

- EXX18: Optimized for the majority of Stick welding applications.
- EXX10: Hot start and arc characteristics optimized for pipe applications.
- Gouge: Maximized output for Air Carbon Arc Cutting and Gouging.

Three Lift-Arc™ TIG modes — Auto-Stop™, Auto-Crater™, and Pulse

- Auto-Stop™: No Auto-Crater allows full control on pipe welds with short or long arc length. Auto Stop feature allows arc to be broken without loss of shielding gas.

Note: Auto-Stop prevents arc flare when the arc breaks.

- Auto-Crater™: Ideal for most DC TIG applications. Ramps down current at the end of the weld to “crater-out” applications under use of a remote control.
- Pulse: Ideal for out of position, thin metals, and stainless steels where a lower amount of heat is desired while welding.

Note for DC TIG Pulse: background amps = 25 percent of peak, peak time = 40 percent, at 100 PPS.

2. **Front panel fuel gauge** with six LEDs to indicate fuel level. The amber LED lights when fuel is low.

3. **Arc control** is active in the Stick and Solid Wire processes. It allows the operator to customize arc characteristics to match preference, electrode and joint design from a softer arc with more fluid puddle to a stiffer arc with an often more controllable puddle. The Star setting is optimized for most applications and pointing the control at soft or stiff is optimal for most of those arc preferences. Control is fully adjustable from 0 to 25 Soft or 0 to 25 Stiff.

4. Self-calibrating digital meters

- Preset and actual amperage/voltage
- Process settings
- Maintenance functions: hour meter, oil change interval, RPMs

5. **Standard 14-pin receptacle with Auto Remote Sense™** for simple connection of remote controls and wire feeders.

6. **Engine control:** Auto-Speed™ position adjusts engine to run at lower speeds depending on total power needed for welding.

7. **Glow Plugs** assist in cold weather starting.

8. **Optional Excel™ power (factory option, see page 8)** provides pure generator power at idle speed and while welding.

Note: If Trailblazer is ordered without Excel power option, unit is shipped with two standard duplex receptacles.

Genuine Miller® Options *Available as factory option. See ordering information on back page.

GFCI Receptacles* #300 975 Field
Kit contains two GFCI 120 VAC duplex receptacles.

Cold Weather Kit #301 115 Field
Includes block heater for improved starting, and a fuel heater for optimal filtration in cold temperatures.

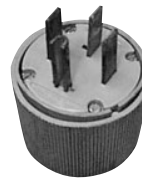
Spark Arrestor #043 579 Field
Mandatory when operating on California grasslands, brush or forest-covered land, and all National Forests. For other areas, check your state and local laws.



Female
Receptacle



Adapter Cord, Full KVA #300 517 Field
NEMA 14-50P to NEMA 6-50R. Adapts engine drive 120/240 V plug to common Millermatic® and Spectrum® 240 V plug.



Full KVA Plug Kit #119 172 Field
120/240 VAC, 50-amp plug (NEMA 14-50P) to fit full KVA receptacle.

Order the following from Miller Service Parts.

Diesel Engine Filter Kit #259 935 Field
Includes air filter, oil filter, fuel pre-filter and primary fuel filter.

Genuine Miller® Accessories



All-Purpose Running Gear #300 477
Includes two heavy-duty 15-inch Never Flat™ tires, two 8-inch rubber swivel casters and a heavy-duty handle. Recommended for all surfaces and applications, and is easy to move around the jobsite.



Protective Cage with Cable Holders #195 331

Rugged cage with cable holders protects your investment. Can be used with All-Purpose Running Gear, Gas Cylinder Mounting Assembly, or with trailer.

Note: Not for use with Protective Cover.



Gas Cylinder Mounting Assembly #195 330

Designed for use with Protective Cage, or by itself. Includes base tray with bottle bracket, vertical support rack and safety chain.

Note: Not recommended for use with Protective Cover.

Protective Cover



Protective Cover #301 099

Heavy-duty, water-resistant and mildew-resistant covers protect and maintain the finish of the welder.

Stick (SMAW) Welding

Weld Leads

#173 851 2/0, 350-amp, 100 percent duty cycle. 50-foot stinger and 50-foot work cable.

#043 952 2/0, 300-amp, 100 percent duty cycle. 100-foot stinger and 50-foot work cable.

Plasma Cutting



Spectrum 375 X-TREME and 625 X-TREME shown.

Spectrum® 375 X-TREME™ #907 529
See Lit. Index No. PC/9.2.

Spectrum® 625 X-TREME™ #907 579
See Lit. Index No. PC/9.6.

Spectrum® 875 #907 583
See Lit. Index No. PC/9.8.

The Spectrum 375 X-TREME and 625 X-TREME come complete with protective X-CASE™ (not shown).

Genuine Miller® Accessories (Continued)

Multiprocess Welding

Multimatic™ 200 #907 518

Portable, all-in-one multiprocess package weighs only 29 pounds (13.2 kg), and features excellent arc characteristics. Exclusive Multi-Voltage Plug (MVP™) provides flexibility to plug into 115- or 230-volt power. Take it anywhere you need to MIG, TIG or Stick weld. See Lit. Index No. DC/12.57.

MIG/Flux-Cored Welding



Millermatic 211 Auto-Set with MVP shown.

Millermatic® 140 Auto-Set™ #907 335

See Lit. Index No. DC/12.42

Millermatic® 180 Auto-Set™ #907 312

See Lit. Index No. DC/12.44

Millermatic® 211 Auto-Set™ with MVP™ #907 422

See Lit. Index No. DC/12.54

Millermatic® 212 Auto-Set™ #907 405

See Lit. Index No. DC/12.46

The Millermatic line of MIG welders are complete arc welding power source, wire feeder and gun packages designed for portability and ease of use.

Note: The Millermatic machines can be operated utilizing generator power.



SuitCase® X-TREME™ 8VS Wire Feeder #951 583

SuitCase® X-TREME™ 12VS Wire Feeder #951 543

Lightweight, voltage-sensing wire feeders include secondary contactor, MIG gun, gas valve and drive roll kit. See Lit. Index No. M/6.42.



SuitCase® 12RC Wire Feeder #951 189

Lightweight, modular design and flexible enough to run a variety of wires up to 5/64-inch diameter. Includes remote voltage control, MIG gun and drive roll kit. See Lit. Index No. M/6.5.



Spoolmatic® 30A Spool Gun #130 831

Air-cooled, 200-amp, 1-pound spool gun for aluminum MIG. See Lit. Index No. M/1.73. Requires WC-24 Control (#137 549).

XR™ Wire Feeders and Guns

Push-pull system designed to handle difficult-to-feed soft alloy wires such as aluminum. See Lit. Index No. M/1.7 – M/1.75

TIG (GTAW) Welding



Dynasty® 200 Series

For premium portable AC/DC TIG arc quality. See Lit. Index No. AD/4.8.

Remote Controls



Wireless Remote Hand Control #300 430

For remote current, voltage and contactor control. Receiver plugs directly into the 14-pin receptacle of Miller machine. 300-foot (91.4 m) operating range.



RHC-14 Hand Control #242 211 020

Miniature hand control for remote current and contactor control. Dimensions: 4 x 4 x 3.25 inches (102 x 102 x 82 mm). Includes 20-foot (6 m) cord and 14-pin plug.



RFCS-14 HD Foot Control #194 744

Heavy-duty foot current and contactor control. Includes 20-foot (6 m) cord and 14-pin plug.



RMLS-14 #129 337

Momentary- and maintained-contact rocker switch for contactor control. Push forward for maintained contact and back for momentary contact. Includes 20-foot (6 m) cord and 14-pin plug.



RCC-14 Remote Contactor and Current Control #151 086

Rotary-motion fingertip control fastens to TIG torch using two Velcro® straps. Includes 28-foot (8.5 m) control cord and 14-pin plug.

Extension Cords for 14-Pin Remote Controls

#242 208 025 25 ft. (7.6 m)

#242 208 050 50 ft. (15.2 m)

#242 208 080 80 ft. (24.4 m)

Trailers and Hitches (Note: Trailers are shipped unassembled.)



HWY-1000 Trailer #195 013

A 1000-pound (454 kg) capacity highway trailer with welded steel tubing frame, heavy-duty axle with roller bearing hubs and leaf-spring suspension. The HWY-1000 comes with jack stand, 2-inch (50 mm) ball hitch, fenders and lights.

Cable Tree #195 023

Provides an area to conveniently wrap weld cables and extension cords on the HWY-1000 trailer.



Dual Hitch #300 831

2-inch (50 mm) ball hitch and 3-inch (76 mm) lunette eye in one reversible assembly.

Trailer Specifications (Subject to change without notice.)

Model	Gross Axle Weight Rating	Gross Vehicle Weight Rating	Net Payload	Height of Bed	Road Clearance	Track (Center to center of tires)	Standard Tires (Standard rating or P-size rating)	Dimensions	Net Weight
HWY-1000	1500 lb. (680 kg)	1265 lb. (574 kg)	1000 lb. (454 kg)	18.5 in. (470 mm)	6.5 in. (165 mm)	50 in. (1270 mm)	4.8-12	Length: 98 in. (2489 mm) Width: 57.5 in. (1460 mm)*	265 lb. (120 kg)

* Width at outside of fenders.

Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
Trailblazer® 325 Diesel	#907 566-001	Base model with Kubota engine		
	#907 566	Kubota engine, with GFCI receptacles		
	#907 566-002	Kubota engine, with Excel™ power		
Field Options Options listed below can be added to the above packages. Installation is required.				
GFCI Receptacles	#300 975			
Cold Weather Kit	#301 115			
Spark Arrestor	#043 579			
Adapter Cord, Full KVA	#300 517			
Full KVA Plug	#119 172			
Diesel Engine Filter Kit	#259 935	Order from Miller Service Parts		
Accessories				
All-Purpose Running Gear	#300 477	With Never Flat™ tires		
Protective Cage with Cable Holders	#195 331	Not for use with Protective Cover		
Gas Cylinder Mounting Assembly	#195 330	Not recommended for use with Protective Cover		
Protective Cover	#301 099			
Stick Weld Leads		See page 6		
Spectrum® Plasma Cutters		See page 6		
Multimatic™ 200 Welder	#907 518	All-in-one MIG, TIG and Stick welding. See Lit. Index No. DC/12.57		
Millermatic® Series MIG Welders		See page 7		
SuitCase® X-TREME™ Wire Feeders		See page 7		
Spoolmatic® 30A Spool Gun	#130 831	Requires WC-24 Control. See Lit. Index No. M/1.73		
WC-24 Control	#137 549	See Lit. Index No. M/1.73		
XR™ Wire Feeder Control and Guns		See Lit. Index No. M/1.7, M/1.71, M/1.73, M/1.74 and M/1.75		
Dynasty® 200 Series TIG Welders		See Lit. Index No. AD/4.8		
Remote Controls and Cords		See page 7		
HWY-1000 Trailer	#195 013			
Cable Tree	#195 023			
Dual Hitch	#300 831			

Date:

Total Quoted Price:

Distributed by:

