

Trailblazer® Series

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Gas, LP or Diesel Engine-Driven
Welder/Generator



Quick Specs

Industrial Applications

Fabrication
Structural Steel Work
Process Plant Piping
Sheet Metal
Maintenance
Repair

Processes (X-Ray Quality)

Stick (SMAW)
MIG (GMAW)
Flux Cored (FCAW)
AC*/DC TIG (GTAW)
Air Carbon Arc (CAC-A) Cutting
and Gouging (3/16 in carbons)
Air Plasma Cutting and Gouging
with optional Spectrum models

*AC standard with 301 models only

Output Range For DC Stick 40–300 A
For DC TIG 20–280 A
For AC TIG* 35–225 A
For MIG/FCAW 10–33 V, up to 325 A

Weld Output Rated at 104° F (40° C)

For DC Stick/TIG 280 A at 25 V, 100% Duty Cycle
For MIG/FCAW 300 A at 25 V, 100% Duty Cycle
For AC TIG* 200 A at 25 V, 60% Duty Cycle

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

10,000 Watts Peak—9500 Watts Continuous

Weight Gas/LP: 560 lb (254 kg) Diesel: 690 lb (313 kg)

The Power of Blue.®

The Professional Welder's Choice—designed with the professional in mind, the Trailblazer series has the best welding arc in their class!

Remote toolless oil drain extends past the base to reduce service time and chance of oil spillage.

Excellent air flow ensures consistent performance and prolongs engine and component life.

Patented **Advance Active Field Control Technology™** boasts a simple and reliable way of accurately controlling the generator's weld output.

Even better arc performance: Excellent starts in scratch start TIG. More CV output. Smooth E7018 and increased dig for E6010. More stable and smooth AC TIG. Clearly the best arc in its class!



Automatic Start at Idle™ (Diesel) idles engine immediately when started, extending engine life and reducing fuel consumption and noise.

Engine Save Start™ (Gas/LP) idles engine seconds after start, extending engine life and reducing fuel consumption and noise.

Automatic idle in all processes, including MIG/FCAW, to save fuel and reduce noise.

Standard 14-pin receptacle allows for simple connection for remote controls and wire feeders.

Industry-leading 10,000-watt peak power is independent of weld rheostat setting; 9500 watts are continuous.

Separate weld and power generators ensure no interaction between job site tools and the welding arc. Generator power is also independent of weld control settings.

Trailblazer Series

Trailblazer DC
Trailblazer 301 G (shown)
Trailblazer 301 D



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

MADE IN **USA**
APPLETON, WI **USA**



Miller Electric Mfg. Co.
An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

International Headquarters
Phone: 920-735-4505
USA FAX: 920-735-4134
Canadian FAX: 920-735-4169
International FAX: 920-735-4125

Web Site
www.MillerWelds.com



Specifications (Subject to change without notice.)



Welding Mode	Max. Open-Circuit Voltage	Amperage/Voltage Ranges	Weld Output Rated at 25 V (at 104°F/40°C)**	Single-Phase Generator Power Output Rated at 104°F/40°C	Dimensions	Weight***
CC/DC	80	20–300 A	280 A at 100% Duty Cycle	Peak: 10,000 watts (w/contactor off) Continuous: 9500 watts, 120/240 VAC, 84/42 A, 60 Hz	H: 33 in (838 mm) W: 18-3/4 in (476 mm) D: 45-1/2 in (1156 mm), 48 in (1219 mm) for diesel model	Gas/LP: 560 lb (254 kg) Diesel: 690 lb (313 kg)
CV/DC	50	10–33 V up to 325 A	300 A at 100% Duty Cycle			
CC/AC*	70	35–225 A	200 A at 60% Duty Cycle			

CSA approved. *AC standard with 301 models only. **Rated at sea level. Derate 5% when using LP gas. ***Net weight without fuel. Add 30 lb for shipping weight.

Engine Specifications

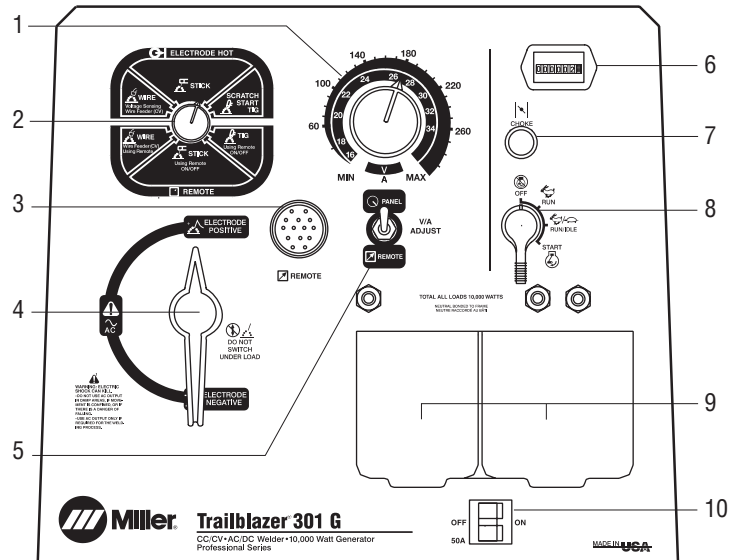
Engine Brand/Warranty	Horsepower (HP)	Type	Weld Speed	Idle Speed	Fuel Capacity	Oil Capacity	Low Oil Pressure Shutdown
Kohler: 3-year mfg.	20 HP at 3600 RPM	Twin-cylinder, 4-cycle overhead valve, industrial air-cooled, gasoline or LP	3600 RPM	2250 RPM	10 gal (38 L)	1.75 qt (1.7 L), 2 qt (1.9 L) with filter	Standard
Onan: 3-year mfg.	20.5 HP at 3600 RPM	Twin-cylinder, 4-cycle overhead valve, industrial air-cooled, gasoline	3600 RPM	2250 RPM	10 gal (38 L)	1.6 qt (1.5 L), 1.8 qt (1.75 L) with filter	Standard
Kubota: 2-year limited North American mfg.	19 HP at 3600 RPM	3-cylinder, industrial liquid-cooled, diesel	3600 RPM	2450 RPM	10 gal (38 L)	3.4 qt (3.2 L)	Low oil pressure, high coolant temperature

Control Panel

1. Amperage/Voltage Control
2. Process Select/Output (Contactor) Switch
3. Remote Control Receptacle
4. DC Polarity/AC Switch (301 models only)
5. Remote Amperage/Voltage Switch
6. Engine Hour Meter
7. Engine Choke Control (Gas models only)
8. Engine Control Switch (Diesel model includes glow plugs and speed lock switch)
9. 120/240 VAC Generator Power Receptacles* (optional 120 VAC GFCI receptacles available)
10. Generator Power Circuit Breaker

*For 240 V matching plug, order #119 172

Weatherproof Lexan® nameplate is super durable and resists cracking and fading. Color-coding is for ease of operation.

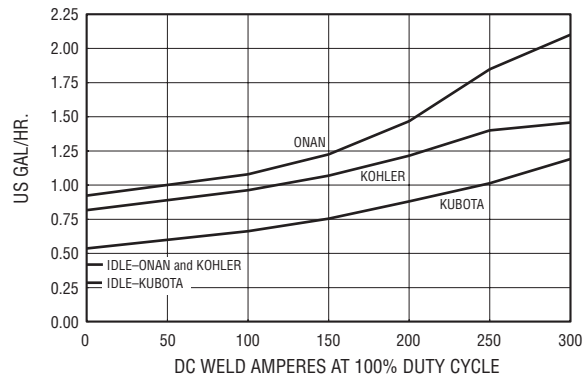


Performance Data

Fuel Consumption Data

- 10-gallon fuel capacity.
- On a typical job using 1/8-in 7018 electrodes (125 amps, 20% duty cycle) you can expect over 16 hours (Gas) or 20 hours (Diesel) of operation.
- Welding at 150 amps at 40% duty cycle, uses approximately 3/4 gallon (Gas) or 1/2 gallon (Diesel) per hour — over 13 hours (Gas) or 18 hours (Diesel) of operation.

FUEL CONSUMPTION CURVE



Performance Data (continued)

All Trailblazers have 2 generators — a 4-pole, 3-phase weld generator and a strong power generator.

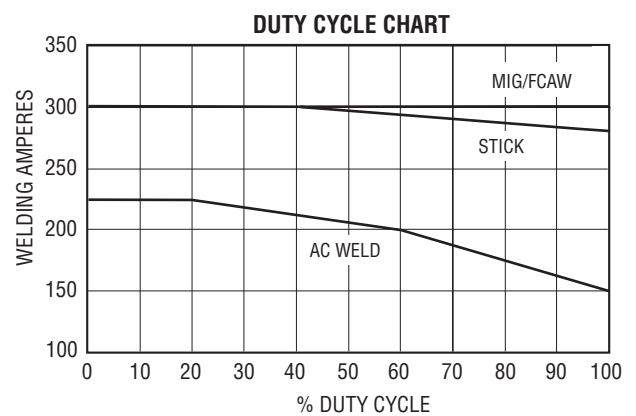
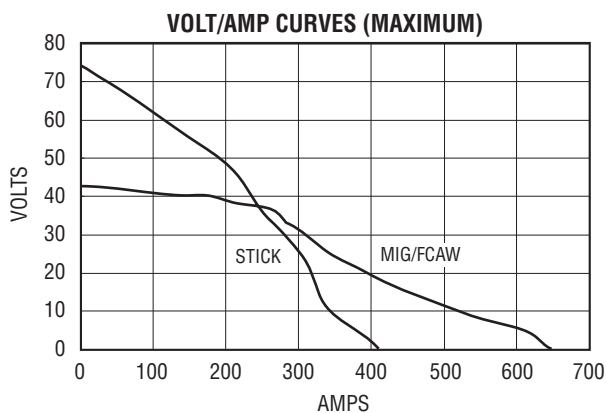
TRAILBLAZER ADVANTAGE: No interaction between grinders, power tools, etc. and the welding arc. Generator power is also independent of weld control settings.



Rotor

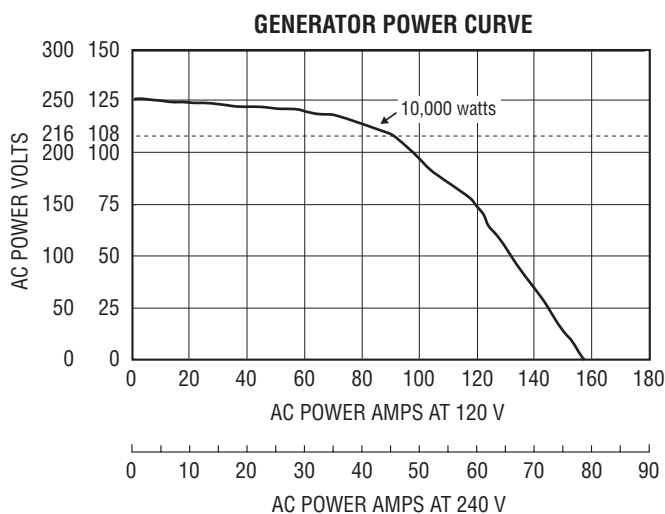


Stator



Power is in the Numbers

- Tested and rated at higher temperatures, 104° F (40° C), to ensure consistent operation in all climates.
- Patented generator control technology matches the generator's output to engine horsepower providing **maximum efficiency and more weld output.**
- The generator is designed to provide **strong power** while keeping the voltage above 108/216 volts. This increases tool/motor performance and tool/motor life.



SIMULTANEOUS WELDING AND POWER

Weld Current In Amperes	Total Power in Watts	120 V Receptacle Amperes	240 V Receptacle Amperes
300	1000	10	5
250	3500	31	15
200	5200	46	23
150	6700	60	30
100	8000	70	35
0	10,000	84	42

See Owner's Manual for additional information

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

Stainless Steel Case*

Stainless steel cover and side panels for added protection and appearance.

LP Gas*

Liquid withdrawal with vaporizer and regulator. Does not include tanks, brackets, or hose from tank to regulator.

GFCI Protection*

Ground Fault Circuit Interruptors are required on some construction sites. Kit contains two GFCI 120 VAC duplex receptacles. (240 VAC GFCI receptacle not required).



FA-7.5 Flame Arrestor Fuel Cap (Gasoline Red) #042 632 Field Lockable for added protection.

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.

Order the following from Miller Service Parts.



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

Engine Tune-Up Kits

#180 096 Field. Kohler CH20 OHV
#199 062 Field. Onan P220 OHV
#206 421 Field. Kubota D722
 Tune-up kits include engine filters and spark plugs.

Genuine Miller Accessories



Protective Covers

#195 136 (Gas models)
#195 124 (Diesel model)
 Heavy-duty, waterproof and mildew-resistant. Protects and maintains the finish of the welder.



Shown with optional LP Tank Mounting Bracket

No. 27 Hand Running Gear #043 014

Rugged, lightweight design provides maximum maneuverability. Comes with standard handle, two large 480/400 x 8 pneumatic tires, two 5 in rubber swivel casters, adjustable axle and easy-to-read instructions.



Shown with optional Cylinder Rack

No. 4B Running Gear #041 930

Two rear wheels with 480/400 x 8 pneumatic tires. Two 8 in (203 mm) solid rubber-tired front wheels and 30 in (762 mm) towing handle.

No. 27CR Cylinder Rack #043 040

Designed for use with No. 4B or No. 27RG. Consists of base tray with bottle bracket, and vertical support rack with safety chain.
Note: Cannot be used with LP Tank Mounting Bracket.

LP Tank Mounting Bracket #043 647

Includes brackets and clamps to mount tank (horizontally) and hose with fittings to converter. For 33 or 43 lb tanks only.

Remote Controls



RFCS-14HD Foot Control #194 744

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



RHC-14 Hand Control #129 340

Miniature hand control for remote current and contactor control. Dimensions: 4 x 4 x 3-1/4 in (102 x 102 x 82 mm). Includes 20 ft (6 m) cord and 14-pin plug.



RMLS-14 #129 337 14-pin plug Momentary- and maintained-contact rocker switch for contactor control. Push forward for maintained contact and back for momentary contact. Includes 20 ft (6 m) cord.

Genuine Miller Accessories (continued)



RCC-14 Remote Contactor and Current Control #151 086 14-pin plug Rotary-motion fingertip control fastens to TIG torch using two Velcro® straps. Includes 28 ft (8.5 m) control cord.

Extension Cords for 14-Pin Remote Controls

#122 973 25 ft (7.6 m)
#122 974 50 ft (15.2 m)
#122 975 75 ft (23 m)

MIG/Flux Cored Welding



SuitCase™ 8VS Wire Feeder #194 890
SuitCase™ 12VS Wire Feeder #194 941
Lightweight, portable, voltage-sensing wire feeders include secondary contactor and gas valve. Require drive roll kit. See Lit. Index No. M/6.4.



SuitCase™ 8RC Wire Feeder #194 938
SuitCase™ 12RC Wire Feeder #194 940
Lightweight, modular design and flexible enough to run a variety of wires up to 5/64 in diameter. Comes standard with remote voltage control. See Lit. Index No. M/6.5.

Flux Cored (FCAW)/MIG (GMAW) Guns
Miller produces a complete line of dependable MIG guns. See Lit. Index Nos. AY/16.0 and AY/17.0.



Spoolmatic® 30A Spool Gun #130 831
Air-cooled 200 amp, 1 lb spool gun for aluminum MIG. See Lit. Index No. M/1.5.

WC-24 Control #137 549
Use with Spoolmatic 30A.

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.

Stick (SMAW) Welding

Weld Leads
#173 851 2/0, 350 A, 100% duty cycle, 50 ft stinger, 50 ft work cable
#043 952 2/0, 300 A, 100% duty cycle, 100 ft stinger, 50 ft work cable

TIG (GTAW) Welding



HF-251 Series
#042 388 HF-251D-1, 115 VAC
High-frequency arc starter and stabilizer. See Accessory Lit. Index No. AY/5.0.



PC-300 #042 297
Pulser control for AC/DC TIG welding. Improves bead appearance with less operator effort.

Plasma Cutting



Spectrum® 375 CutMate™ #903 891
See Lit. Index No. PC/9.1.



Spectrum® 625 #907 058
See Lit. Index No. PC/9.5.



Spectrum 2050 #903 777-01-2
See Lit. Index No. PC/7.0.

Genuine Miller Accessories (continued)

Trailers and Hitches



HWY-1000 Trailer #195 013

A 1000 lb (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 in (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.

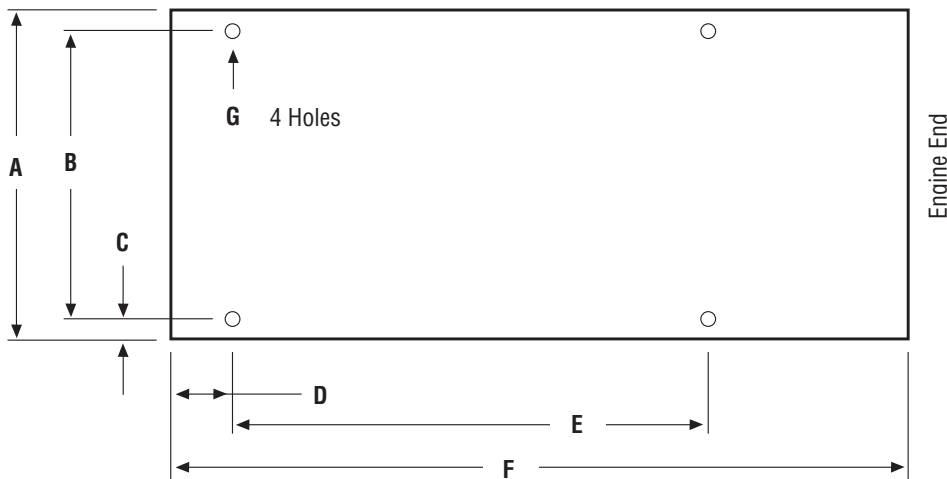
Lunette Eye 2-1/2 in (64 mm) #043 824

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)	1610 lb (730 kg)	1000 lb (454 kg)	18-1/2 in (470 mm)	6-1/2 in (165 mm)	50 in (1.27 m)	4.8-12	Length: 98 in (2.49 m) Width: 57-1/2 in (1.46 m)*	265 lb (120 kg)

*Width at outside of fenders.

Mounting Specifications



- A. 18 in (457 mm)
- B. 16-1/2 in (419 mm)
- C. 3/4 in (19 mm)
- D. 3-1/8 in (79 mm)
- E. 32-3/4 in (832 mm)
- F. 45-1/2 in (1156 mm) (Gas)
48 in (1219 mm) (Diesel)
- G. 13/32 in (10 mm) diameter

Height: 33-1/2 in (851 mm)

Width: 18-3/4 in (476 mm)

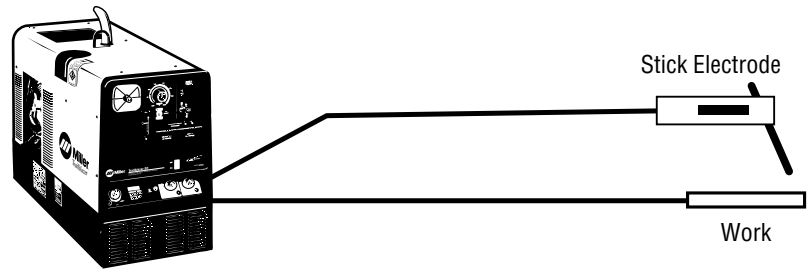
Depth: 46 in (1164 mm) (Gas)

48-1/2 in (1232 mm) (Diesel)

Typical Installations

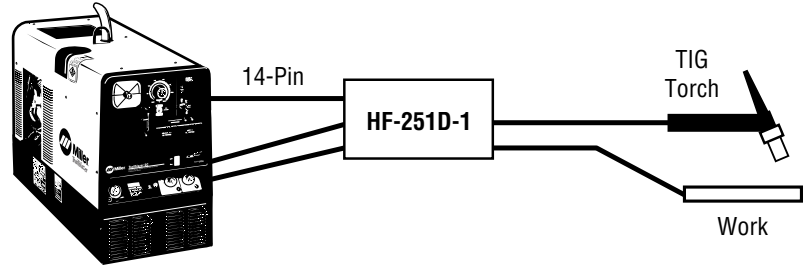


Stick (SMAW) Basic Equipment



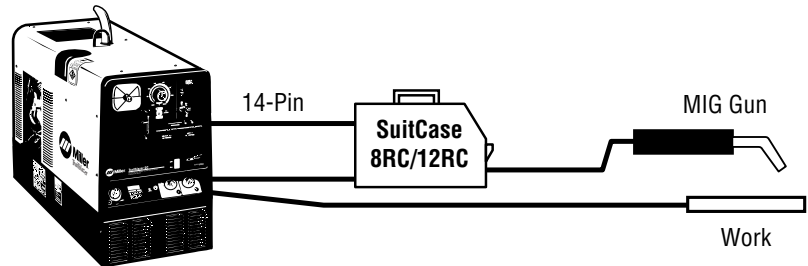
TIG (GTAW) Basic Equipment

HF-251D-1 #042 388



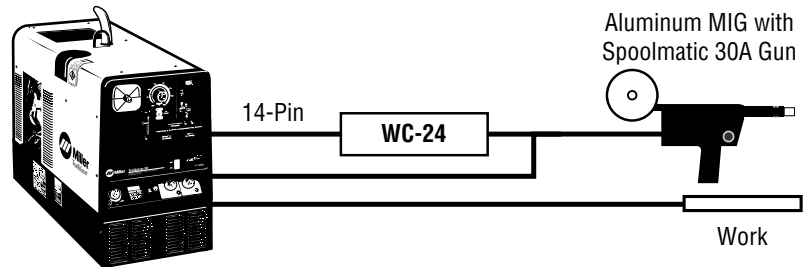
MIG (GMAW) Basic Equipment

SuitCase™ 8RC #194 938
SuitCase™ 12RC #194 940



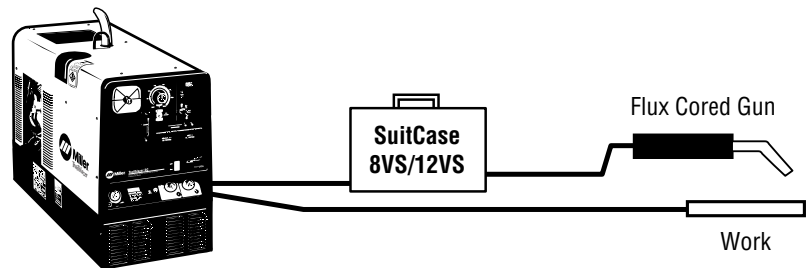
Aluminum MIG (GMAW) Basic Equipment

Spoolmatic® 30A #130 831
WC-24 #137 549



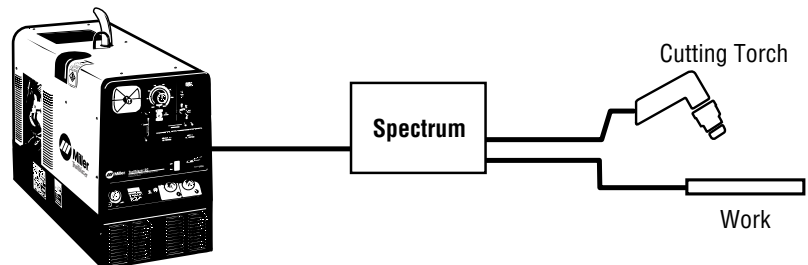
Flux-Cored (FC) Basic Equipment

SuitCase™ 8VS #194 890
SuitCase™ 12VS #194 941



Plasma Basic Equipment

Spectrum® 375 CutMate™ #903 891
Spectrum® 625 #907 058
Spectrum® 2050 #903 777-01-2



Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
Power Source				
Trailblazer® DC (Kohler)	#907 041 #907 041-01-2 #907 041-02-1 #907 041-02-2 #907 041-02-3	Base machine, CC/CV, DC 10,000 watts With GFCI Receptacles With LP Gas Conversion and GFCIs With Stainless Steel Case and GFCIs With Electric Fuel Pump for High Altitudes and GFCIs		
Trailblazer® 301 G (Kohler)	#907 042 #907 042-01-2 #907 042-01-5 #907 042-02-1 #907 042-02-2 #907 042-02-3	Base machine, CC/CV, AC/DC 10,000 watts With GFCI Receptacles With Dry Battery (International) With LP Gas Conversion and GFCIs With Stainless Steel Case and GFCIs With Electric Fuel Pump for High Altitudes and GFCIs		
Trailblazer® 301 G (Onan)	#907 044 #907 044-01-2 #907 044-02-1	Base machine, CC/CV, AC/DC 10,000 watts With GFCI Receptacles With Stainless Steel Case and GFCIs		
Trailblazer® 301 D (Kubota)	#907 067 #907 067-01-2 #907 067-01-3 #907 067-02-1	Base machine, CC/CV, AC/DC 10,000 watts With Dry Battery (International) With GFCI Receptacles With Stainless Steel Case and GFCIs		
Flame Arrestor Fuel Cap	#042 632	Field. Gas models only		
Spark Arrestor	#043 579	Field		
Full KVA Plug (Order from Miller Service Parts)	#119 172	Field		
Engine Tune-Up Kits (Order from Miller Service Parts)	#180 096 #199 062 #206 421	Field. For Kohler CH20 OHV Field. For Onan P220 OHV Field. For Kubota D722		
Accessories				
Protective Cover	#195 136 #195 124	Blue with logo. Gas models only Blue with logo. Diesel models only		
No. 27 Running Gear	#043 014			
No. 4B Running Gear	#041 930			
No. 27CR Cylinder Rack	#043 040	For use with No. 27 or 4B Running Gear		
LP Tank Mounting Bracket (Horiz.)	#043 647	Field. Cannot be used with Cylinder Rack		
Remote Controls				
RFCS-14HD	#194 744	Foot control		
RHC-14	#129 340	Hand control		
RMLS-14	#129 337	Momentary- and maintained-contact switch		
RCC-14	#151 086	Fingertip control		
Extension Cords		See page 5		
MIG/Flux Cored Accessories				
SuitCase™ 8VS/12VS	#194 890/#194 941	Includes contactor and gas valve. See Lit. Index No. M/6.4		
SuitCase™ 8RC/12RC	#194 938/#194 940	Includes remote voltage control. See Lit. Index No. M/6.5		
Flux Cored/MIG Guns		See Lit. Index Nos. AY/16.0 and AY/17.0		
Spoolmatic® 30A/WC-24 Control	#130 831/#137 549	See Lit. Index No. M/1.5		
XR™ Wire Feeder Control and Guns		See Lit. Index No. M/1.7		
Stick Accessories				
Weld Leads	#173 851 #043 952	2/0, 350 A, 100% duty cycle, 50 ft stinger, 50 ft work cable 2/0, 300 A, 100% duty cycle, 100 ft stinger, 50 ft work cable		
TIG Accessories				
HF-251D-1	#042 388	115 VAC. See Lit. Index No. AY/5.0		
PC-300	#042 297	See Lit. Index No. AY/5.0		
Plasma Accessories				
Spectrum® 375 Cutmate™	#903 891	115/230 V, 20 ft torch. See Lit. Index No. PC/9.1		
Spectrum® 625	#907 058	115 V, 20 ft torch. See Lit. Index No. PC/9.5		
Spectrum® 2050	#903 777-01-2	Auto-Line™, 25 ft torch. See Lit. Index No. PC/7.0		
Trailers and Hitches				
HWY-1000 Trailer	#195 013			
Cable Tree	#195 023			
Lunette Eye 2-1/2 in (64 mm)	#043 824			

Date:

Total Quoted Price:

Distributed by:

