

Bobcat 250 Diesel

Issued September 2005 • Index No. ED/4.34

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

Quick Specs

Industrial Applications

Maintenance
Repair
Farm/Ranch Applications
Fabrication
Structural Steel Work
Use as a Stand-Alone Generator

Processes

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

Output Range

DC Stick 40–250 A
DC TIG 40–250 A
AC TIG/Stick 40–250 A
FCAW/MIG 17–28 V

Generator Power Output Rated at 104° F (40° C)
10,000 Watts Peak, 9500 Watts Continuous

**Accu-Rated™ – Not Inflated
Generator Power**

The Power of Blue.®

Toughest Welders...

CASE CLOSED

Reliable Bobcat engine-driven welding generators are the industry standard for quality and value. Multiprocess weld output, strong generator power, and most important — rated #1 in reliability, make the Bobcat the welding industry's most popular choice. **Bulletproof inside and out.**

Fully enclosed case provides reduced sound levels, fully protected engine, and utilizes the same hole-mounting pattern as past models.

Removable service doors provide easy access for engine maintenance.

Increased fuel capacity to 12 gallons means many hours of run time before refueling.

Ten-degree skewed-rotor design boasts better generator performance.

Accu-Rated™ 10,000 watts of usable peak power cranks out enough power for most applications: job site, farm/ranch, or home. 9500 watts of continuous power.



For truck installation information, visit MillerWelds.com/truck



New! Meter maintenance displays.

- Hour meter function
- Oil change interval
- Low oil pressure shutdown
- High coolant temperature shutdown
- Low fuel shutdown — diesel engine shuts down before system runs out of fuel, making restarts easy.

Front panel fuel and sight gauges provide convenient fuel level indication.

Exclusive! Super-tough Protective Armor with covers has high-impact resistance in all temperatures and is chemical-resistant. Other applications include: automotive bumpers, tractor hoods and panels, lawn mower decks, large structural parts, etc.

Output stud and receptacle covers required by OSHA and CSA for job site safety.

The addition of the Bobcat's Tri-Cor™ Technology provides improved Stick arc performance with 7018 electrodes.

TRUE BLUE
3 YR. WARRANTY

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.)



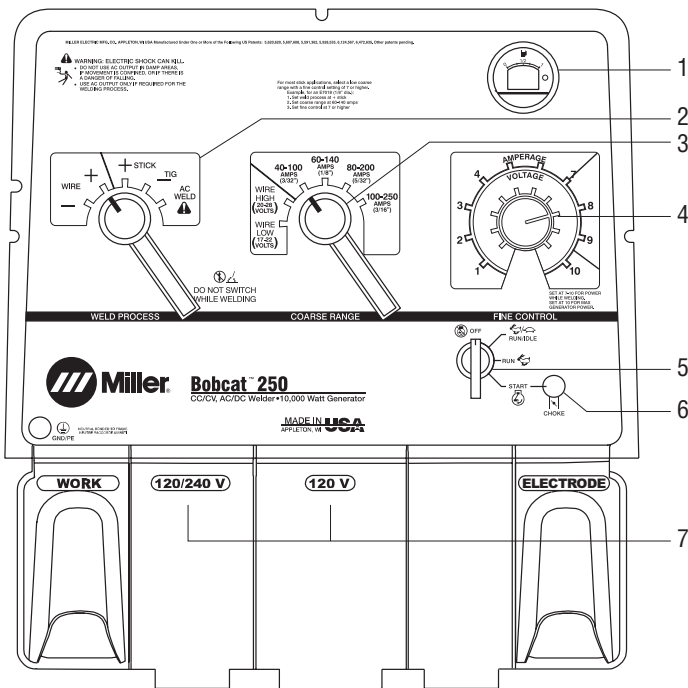
Welding Mode	Process	Amp/Volt Ranges	Weld Output Rated (at 104°F/40°C)*	Single-Phase Generator Power	Sound Levels at Rated Output, 7 m (23 ft)	Dimensions (height is to top of exhaust)	Net Weight**
CV/DC	MIG/FCAW	17–28 V	250 A at 28 V, 100% Duty Cycle 275 A at 25 V, 60% Duty Cycle	Peak: 10,000 watts Continuous: 9500 watts 120/240 VAC, 84/42 A, 60 Hz	80.5 dB (105.5 Lwa)	H: 34-1/4 in (870 mm) W: 20 in (508 mm) D: 52 in (1321 mm)	700 lb (318 kg)
CC/DC	Stick/TIG	40–250 A	250 A at 25 V, 100% Duty Cycle				
CC/AC	TIG/Stick	40–250 A	250 A at 25 V, 100% Duty Cycle				

Certified to both Canadian and U.S. Standards for welding equipment available. See ordering information on back. *Rated at sea level. **Net weight without fuel.

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

Engine Brand/Warranty	Horsepower (HP)	Type	Weld Speed	Idle Speed	Fuel Capacity	Oil Capacity	Standard Shutdowns
Kubota: 2-year limited North American mfg.	19 HP at 3600 RPM	3-cylinder, industrial liquid-cooled diesel	3600 RPM	2450 RPM	12 gal (45 L)	3.4 qt (3.2 L)	Low Oil Pressure, High Coolant Temperature and Low Fuel

Function Guide



- Maintenance Displays** provide engine hours and oil change interval information and high coolant temperature, low oil pressure and low fuel shutdowns.
- Weld Process Selector Switch** makes choosing between Stick, Wire and TIG processes easy. Switch also automatically changes polarity with process selection to make sure the machine is set up properly to weld with little effort or knowledge.
- Coarse Range Control** has four Stick/TIG and two Wire ranges available for output control. Stick/TIG ranges are designed to electrode diameters (3/32, 1/8, 5/32 and 3/16 in) making these models **very easy to set**.
- Fine Adjust Control** makes it easy to fine tune amperage within a coarse range. Set control above 7 for best power while welding and to 10 for generator-only use.
- Engine Control Switch** is used to start the engine and then select between Auto Idle and High Speed Lock. Switch can be locked in idle for low-speed starting.
- Glow Plugs** assist in cold weather starting.
- 120 VAC and 240 VAC Covered Receptacles with Circuit Breakers** meet/exceed OSHA/CSA requirements for job site safety (optional 120 VAC GFCI receptacles available).
Note: For matching plug, order #119 172.

Rated #1 in Reliability

The Bobcat Competitive Advantage

Make deadlines, not excuses.

- 68% of service technicians, managers and owners, recommend the Bobcat over the competition.



Technician Recommendations

- 98% of current owners are “satisfied to very satisfied” with the Bobcat.*

**Based on an independent survey of thousands of Bobcat owners.*

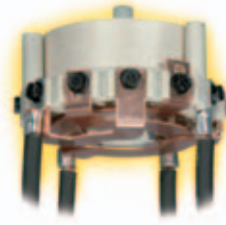


104°

All ratings are tested at 104° F (40° C) to maintain tough work schedules, even in hot weather.



Patented **self-cooling stator barrel** design directs airflow for maximum cooling and allows the Bobcat to perform at 100% duty cycle even in 104° F (40° C) heat!



Large 3–4 gauge leads are lugged to **heavy-duty range switches** for field-proven durability. Dust cover protects switches from dirt and grit. Compare to light-duty switches with smaller 6–10 gauge leads on competitive machines.

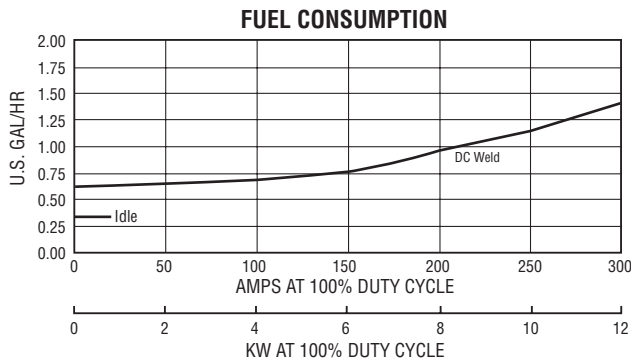
Bulletproof technology eliminates use of complicated circuit boards.

The Bobcat Generator Power Advantage



Accu-Rated™ – Not Inflated Generator Power

Miller's Accu-Rated™ 10,000 watts of *usable* peak power is delivered for a minimum of 30 seconds. Accu-Rated means peak power is usable for maximum generator loads such as plasma cutting, Millermetics and motor starting. Accu-Rated peak power beats the competition's very short-duration peak or surge power. Use your peak power, it's more than a number.



FUEL CONSUMPTION DATA

- 12-gallon fuel capacity.
- On a typical job using 1/8-in 7018 electrodes (125 A, 20% duty cycle) expect about 24 hrs of operation.
- Welding at 150 A, 40% duty cycle uses approximately 1/2 gallon per hour — about 20 hrs of operation.
- Under a continuous load of 4000 watts of generator power, the Bobcat would run for about 17 hrs of operation.

TYPICAL EQUIPMENT POWER USAGE

Bobcats will easily start and run the following equipment:

Equipment	Starting Watts	Running Watts
Barn Cleaner (5 HP)	11,600	3000
Silo Unloader (5 HP)	12,200	4300
Portable Conveyor (1/2 HP)	3400	1000
Milker (5 HP)	10,500	2800
Hand Drill (1/2 inch)	600	600
Circular Saw (8-1/4 inch)	1400	1400
Air Compressor (1-1/2 HP)	8200	2200
Flood Lights (Vapor)	1250	1000
Refrigerator/Freezer	2200	700
Sump Pump	1300	800
Millermatic® 210 MIG Welder (30–210, 230 V)	6500	6500
Spectrum® 625 (30 A, 230 V, 1/2 in cut)	6900	6900

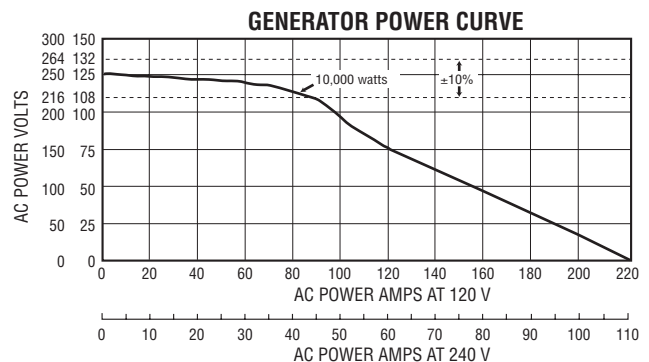
To select a generator that has enough power output in watts, add the watts for the items you want to simultaneously run. Tools and appliances with induction motors may require 3–7 times the listed wattage when starting. All data listed is approximate — check your tool/appliance for specific wattage requirements.

SIMULTANEOUS WELDING AND POWER

Weld Current in Amperes	Total Power in Watts	120 V Full kVA Receptacle Amperes	240 V Full kVA Receptacle Amperes
0	10,000	84*	42*
90	8000	66*	33
125	5200	43*	21
180	3500	29*	14
250	2200	18	9

For example, if you're welding at 125 amps you also have 5200 watts available for powering lights or tools (either 43 amps from the 120 volt full kVA receptacle or 21 amps from the 240 volt full kVA receptacle).

*50 A, 120/240 VAC receptacle. See Owner's Manual for additional information.



Tools and motors are designed to operate within 10% of 120/240 VAC. The Bobcat's power generator provides strong power while keeping the voltage within 10% of 120/240 VAC. **This increases tool/motor performance and life.**

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

GFCI Protection* #195 496 Field
Ground Fault Circuit Interruptors are required on some construction sites. Kit contains two GFCI 120 VAC duplex receptacles. (240 VAC GFCI receptacle not required).

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 Kit #206 421 Field. Kubota D722
Tune-up kit includes engine filters.

TIG Adapter with Extension #195 350 Field
Extension with Power Cable Adapter 45V11. Required for scratch start TIG welding with Bobcats.

Genuine Miller Accessories



Protective Cover #195 334
Heavy-duty, water-resistant and mildew-resistant cover protects and maintains the finish of the welder. Not for use with Protective Cage or Running Gear.



All-Terrain Running Gear #195 326
Two heavy-duty 15 in and two 10 in pneumatic tires with innertubes and a rugged handle provide maximum maneuverability. Not for use with Gas Cylinder Mounting Assembly.



Protective Cage with Cable Holders #300 052
Rugged cage with cable holders protects your investment. Can be used with Running Gear and Trailer.



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.

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

Plasma Cutting



Spectrum® 375 #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)

MIG/Flux Cored Welding



SuitCase™ 8VS Wire Feeder #194 890
SuitCase™ X-TREME™ 12VS
Wire Feeder #195 500

Lightweight, portable, voltage-sensing wire feeders include secondary contactor and gas valve. Require drive roll kit. See Lit. Index Nos. M/6.4 and M/6.41.



Spoolmate™ 3545 Spool Gun #195 015
 Rated 150 amps at 60% duty cycle. Extend the weld process range by adding an economical, portable system for aluminum and small wire. Includes 20 ft (6 m) cable assembly. See Lit. Index No. M/1.5. SGA 100C required for hookup.

SGA 100C Control #043 857
 SGA with contactor required to connect Spoolmate 3545 to CV engine drive. Includes 10 ft (3 m) 115 VAC power cable and plug, 6 ft (1.8 m) interconnecting cable, and 5 ft (1.5 m) gas hose.



Spoolmatic® 30A Spool Gun #130 831
 Rated 200 amps at 100% duty cycle. Air-cooled, 1-lb spool gun for aluminum MIG. Includes 30 ft (9.1 m) cable assembly. See Lit. Index No. M/1.5. WC-115A required for hookup.

WC-115A Control #137 546-01-1
 With contactor. Use with Spoolmatic 30A.



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

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

Millermatic® 135 #907 019
 See Lit. Index No. DC/12.43

Millermatic® 175 #907 020
 See Lit. Index No. DC/12.44

Millermatic® 210 #907 046
 See Lit. Index No. DC/12.46

Millermatic® DVI #907 252
 See Lit. Index No. DC/12.52

TIG (GTAW) Welding



Dynasty® 200 Series
 For premium portable AC/DC TIG arc quality. See Lit. Index No. AD/4.8.



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

Secondary Contactor #041 969 Field Required to use HF-251D-1.

Trailers and Hitches

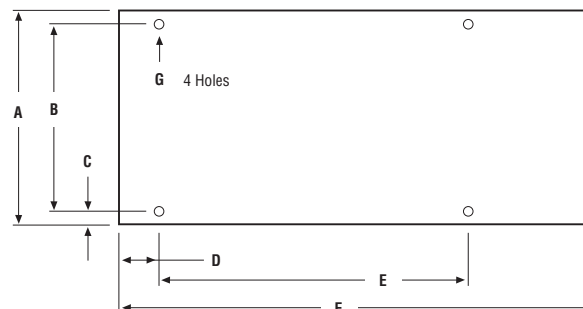


HWY-1000 Trailer #195 013
 A 1000 lb (454 kg) capacity highway trailer with welded steel tubing frame, heavy-duty axle with roller bearing hubs and leaf-spring suspension. The HWY-1000 comes with jack stand, 2 in (50 mm) ball hitch, fenders and lights.

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

Mounting Specifications



- A. 20 in (508 mm)
- B. 16-1/2 in (419 mm)
- C. 1-3/4 in (44 mm)
- D. 6-1/16 in (154 mm)
- E. 32-3/4 in (832 mm)
- F. 52 in (1321 mm)
- G. 13/32 in (10 mm) diameter

Height: (to top of exhaust)
 34-1/4 in (870 mm)

Width: 20 in (508 mm)

Depth: 52-1/2 in (1334 mm)

Typical Installations for Bobcat 250



IMPROVED! Stick (SMAW) Basic Equipment

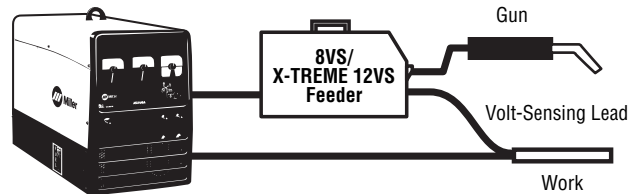
- Four-position range switch provides fine amperage control for typical electrode diameters (3/32, 1/8, 5/32 and 3/16 in).
- AC weld output for good arc quality with iron powder electrodes without fighting magnetic arc blow.
- Strong auxiliary power while welding — for example, if you are welding at 250 amps the Bobcat delivers 2200 watts of power to run tools, lights etc.



IMPROVED! Flux-Cored (FCAW) Basic Equipment

SuitCase™ 8VS #194 890
 SuitCase™ X-TREME™ 12VS #195 500

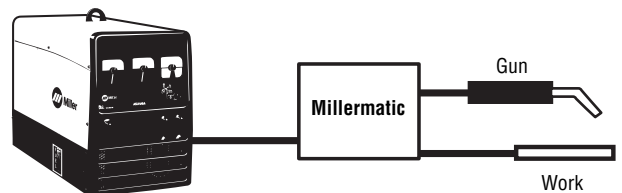
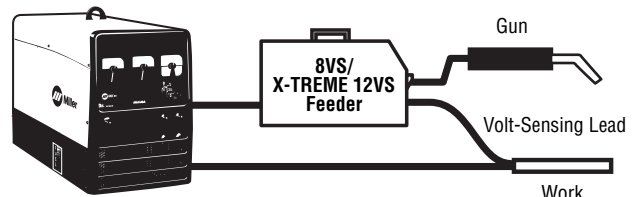
- 275 amps at 25 volts, 60% duty cycle (250 amps at 28 volts, 100% duty cycle). Strong output allows higher travel speeds and deposition rates than competitive machines.
- High voltage output ratings (28 volts at 250 amps) help to compensate for voltage drop across long weld cables.



MIG (GMAW) Basic Equipment

SuitCase™ 8VS #194 890
 SuitCase™ X-TREME™ 12VS #195 500
 Millermatic® 135 #907 019
 Millermatic® 175 #907 020
 Millermatic® 210 #907 046
 Millermatic® DVI™ #907 252

- Use .035 in solid wire with 75/25 argon mixed gas for welding down to 16 gauge steel.
- Use .045 solid wire with a minimum of 80% argon gas for spray transfer on 1/8 in and thicker material (flat and horizontal position).
- Millermatic machines utilize generator power.

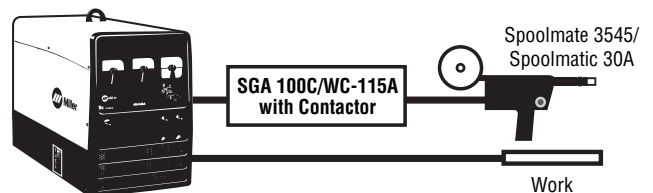


Aluminum MIG (GMAW) Basic Equipment

Spoolmate™ 3545 #195 015
 SGA 100C #043 857

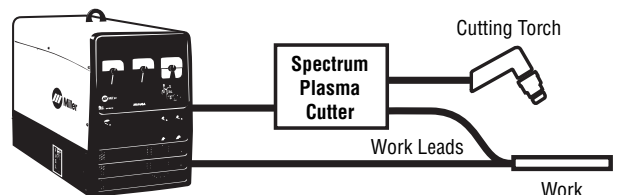
Spoolmatic® 30A #130 831
 WC-115A Control #137 546-01-1

- Excellent results from 1/8–1/2 in thick fillet welds.



Plasma Basic Equipment

- Spectrum® machines utilize generator power.
- Quality cuts with an optional Spectrum® plasma cutter.
- Replace heavy oxy-fuel cylinders with a lightweight, fast and versatile Spectrum® plasma cutter.
- Most plasma units require a separate air source.

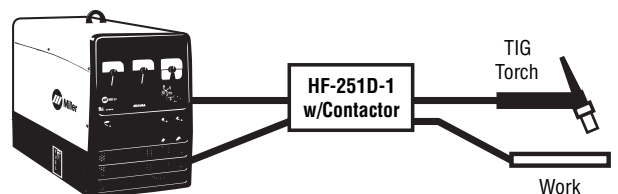


TIG (GTAW) Basic Equipment

TIG Adapter w/Extension #195 350
 • Required for Scratch Start TIG welding

Dynasty® 200 Series
 HF251D-1 #042 388
 Secondary Contactor #041 969
 RMLS-14 Switch #129 337

- Excellent DC TIG capabilities
- Non-critical AC TIG welding (no remote amperage control available on the Bobcat)



Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
Bobcat 250 Diesel (19 HP Kubota)	#907 213	Base machine, CC/CV, AC/DC 10,000 watts		
	#907 213-01-1	With GFCI Receptacles		
	#907 213-01-2	With Dry Battery (International)		
	#907 213-02-1	With Battery Charger and GFCI Receptacles		
	#907 213-01-3	With No Battery (International)		
Spark Arrestor	#043 579	Field		
Full KVA Plug	#119 172	Field. (Order from Miller Service Parts)		
Engine Tune-Up Kits	#206 421	Field. For Kubota D722. (Order from Miller Service Parts)		
TIG Adapter with Extension	#195 350	Field. Required for Scratch Start TIG welding with Bobcats (Order from Miller Service Parts)		
Accessories				
Protective Cover	#195 334	Blue w/logo. Cannot be used with Protective Cage or Running Gear		
Protective Cage with Cable Holders	#300 052			
All-Terrain Running Gear	#195 326	Cannot be used with Gas Cylinder Mounting Assembly		
Gas Cylinder Mounting Assembly	#195 330			
Stick Welding Leads		See page 5		
Spectrum® Plasma Cutters		See page 5		
SuitCase™ Portable Wire Feeders		See page 6		
Spoolmate™ 3545 Spool Gun	#195 015	Requires SGA 100C Control. See Lit. Index No. M/1.5		
SGA 100C Control	#043 857	See Lit. Index No. M/1.5		
Spoolmatic® 30A Spool Gun	#130 831	Requires WC-115A Control. See Lit. Index No. M/1.5		
WC-115A Control	#137 546-01-1	See Lit. Index No. M/1.5		
Millermatic® Series MIG Welders		See page 6		
Dynasty® 200 Series TIG Welders		See Lit. Index No. AD/4.8		
HF-251D-1	#042 388	115 VAC. Requires Secondary Contactor		
Secondary Contactor	#041 969			
HWY-1000 Trailer	#195 013			
Cable Tree	#195 023			
Lunette Eye 2-1/2 in (64 mm)	#043 824			

Date:

Total Quoted Price:



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