

Cutters Edge[®]



BULLET[®] Chain
Technology



MULTI-CUT[®] Fire Rescue Saws

VENTILATION • FORCIBLE ENTRY • RESCUE

Cutters Edge®

MULTI-CUT Fire Rescue Saws

Cutters Edge MULTI-CUT® Fire Rescue Saws are designed and built specifically for the Fire Rescue Service to deliver 100% reliable high performance cutting in the extreme conditions of the fire rescue environment. All engines are EPA compliant, UL®, CE and ANSI certified.

Scrench Tool & Holder

Handy universal tool used for all adjustment and maintenance procedures.

Chain Brake

Inertia activated chain brake stops the chain in less than 1/20th of a second.

Full-Wrap Handle

Assures safe operation of saw in any position and acts as chain catch to protect operator.

Steel Alloy Guide Bar

Solid, one-piece body construction with milled groove, increased thickness of steel and chamfered rails for longer life and smoother operation of BULLET® Chain.

Guard Deflector

Directs airflow and deflects cutting residue around engine to create cooler running, peak performance and reduced maintenance.

Tool-Less Guard/Depth Gauge®

Covers the entire cutting chain to provide maximum operator protection and allows infinite depth of cut adjustments. Tool-less design allows fast and easy installation, removal and adjustments in seconds, even with gloves on.

Tool-Less Carburetor Compartment Entry

Allows fast and easy access to the spark plug and for inspection and maintenance of the carburetor.

Four Stage Filter System

(See Pg-2 Diagram#2)

One-Step Starting

Includes a momentary contact switch and combined choke throttle lock for one simple step to start the saw.

Fire Glove D-Handle

Momentary Contact Switch

Momentary On/Off switch always in "On" position for reliable starting and to eliminate possibility of flooding.

Two-Mass Anti-Vibration System

Isolates handles from saw vibration to reduce operator fatigue and increase safety.

Fuel Mix and Bar & Chain Oil Tanks

Large capacity tanks sized so saw will run out of fuel before running out of bar and chain oil to prevent possibility of running chain without proper lubrication.



The BULLET® Chain

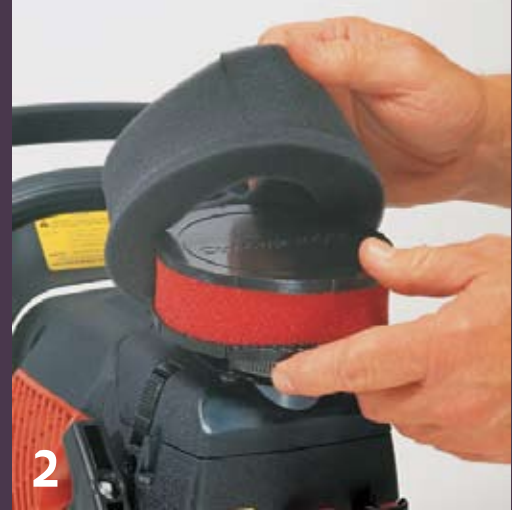
Cuts faster, lasts up to 20 times longer than standard chains and cuts a large variety of materials. It's the only chain designed specifically for ventilation, forcible entry and rescue operations.

Compression Release



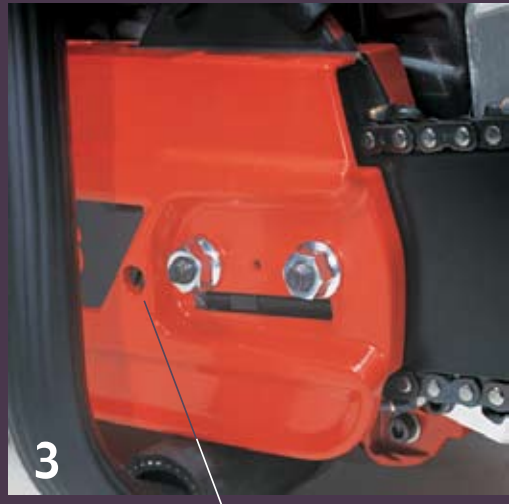
Reduces cylinder pressure for less starting resistance and easier starts.

Four Stage Filter System



Externally mounted air filtration system has 211.4 square inches of surface area, enabling Cutters Edge Fire Rescue Saws to run up to 12 times longer than conventional saws in hot, smoky fireground environments.

Chain Tension Adjustment



Side access adjustment screw makes chain adjustments fast and easy.

Cutters Edge[®]
MULTI-CUT Fire Rescue Saw



Cutters Edge Patented **BULLET**® Chain



The **BULLET Chain** is the first and only chain designed from the ground up specifically for fire department ventilation, forcible entry and rescue operations.

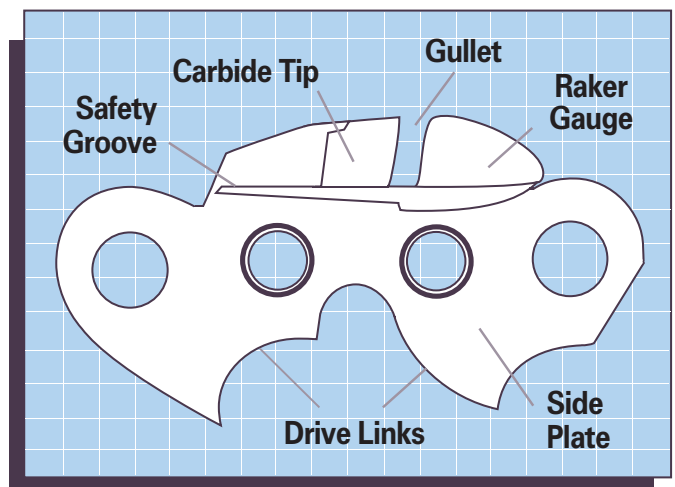
The **BULLET Chain's** patented cutter is a solid piece of metal without bends or ground-out areas that cause weak points. The carbide insert is formulated specifically for fire department use. The sintered carbide creates a larger cutting surface and has a unique sheeting capability that reduces carbide breakage while cutting.

The raker gauge is shaped like the nose of a bullet to protect the carbide insert from impact. The gullet is very narrow to prevent "hooking", which reduces impact to the carbide.

Rather than cutting and slicing like standard chains, the **BULLET Chain** actually files through materials. It's the safest chain made today, virtually eliminating kickback.

Certified test results, performed in accordance with ISO 9518 by SMP, The Swedish Test Institute, showed the **BULLET Chain** has 67% less rotational kickback energy than the standard chainsaw and is considered to have "Extremely Low Kickback."

Not only is it the safest chain, the **BULLET Chain** cuts a wider variety of materials than any other chain manufactured today.



High Strength Steel Guide Bar



Available in
12, 16 and 20-inch lengths

The Cutters Edge Guide Bar is made of a high strength steel alloy material with Induction Hardened Rails. A Sprocket Nose provides outstanding performance and long life in the toughest cutting conditions.

The Cutters Edge Tool-Less Guard Depth Gauge

The Cutters Edge Tool-Less Guard Depth/Gauge is designed to provide increased safety and efficiency in firefighting when using the MULTI-CUT® Fire Rescue Saw.

The Tool-Less design allows the operator to install, adjust or remove the Guard Depth/Gauge without tools, in seconds, even with gloves on.



Setting The Guard / Depth Gauge

In its fully extended position, the Guard/Depth Gauge completely covers the guide bar and cutting chain, protecting the operator from accidental contact with the chain.

The Guard/Depth Gauge prevents cutting any deeper than absolutely necessary. This feature prevents possible weakening of the roof structure and prevents exposure to hidden hazards.

With the Guard/Depth Gauge the operator can focus attention on cutting position, fire behavior and the surrounding environment for maximum safety.

Cutting Deeper Than The Guard/Depth Gauge Setting

Depth of cut can be increased without changing the setting by increasing the angle of the saw in relation to the roof surface. The standard 45° angle cut (Fig. 1) will cut to the depth indicated on the gauge setting. Increasing the saw angle to 90° (Fig. 2) will result in a depth of cut increase of up to .414 inch for every one inch indicated on the gauge scale.

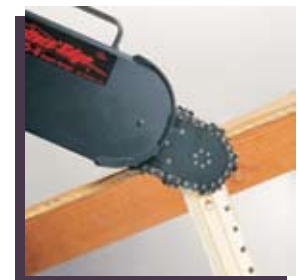


Fig. 1 - 45° Angle

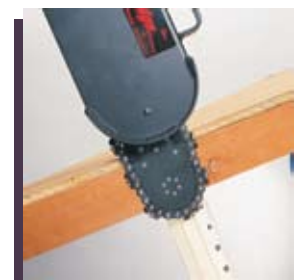


Fig. 2 - 90° Angle

Cutters Edge MULTI-CUT Fire Rescue Saw Specifications – Model # CE-2171-RS

ENGINE

TYPE:	Single-cylinder 2-cycle, with loop scavenging
DISPLACEMENT:	4.3 cu.in. (70.7cc)
BORE:	1.97 in. (50mm)
STROKE:	1.4 in (36mm)
COMPRESSION RATIO:	10.2:1
BEARINGS:	Heavy-duty deep-groove ball bearings on crankshaft, needle cage bearings on connecting rod, piston pin and clutch
CYLINDER/PISTON:	Closed ported, dual rings with four transfer ports
CYLINDER MATERIAL:	Nikasil
MAX ENGINE SPEED:	No load...13,500 RPM
HORSEPOWER:	5.67hp (DIN)

IGNITION SYSTEM

TYPE:	Electronic, one piece modular, CD
BRAND:	FHP
SPARK PLUG:	Champion CJ7Y or equivalent
GAP:	0.020 in. (0.5mm)

STARTING SYSTEM

ONE STEP STARTING SYSTEM WITH COMPRESSION RELEASE
Comprised of...
Momentary contact switch
Combined choke/throttle lock with Throttle safety guard

AIR FILTRATION

SYSTEM:	"RAM-AIR INDUCTION" - Metered Stack
TYPE:	4-stage external mount with oil tack barrier
SURFACE AREA:	211.4 sq.in. effective filtration surface area
MICRON RATING:	<1 Micron

FUEL & ENGINE LUBRICATION

GASOLINE OCTANE RATING:	Use 87 octane or higher
FUEL MIX RATIO:	With Cutters Edge Synthetic Oil.....100:1 If petroleum base 2-cycle oil used: ...50:1
FUEL TANK CAPACITY:	26.8 fl.oz. (0.77 liters)

CARBURETOR ISOLATION

TYPE:	Designed to eliminate Vapor-lock and Vibration Air gap isolation and Bakeolite insulation Pressurized carburetor compartment keeps out dirt
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DRIVE SYSTEM

TYPE:	Inboard, 3-shoe centrifugal clutch
STYLE:	Rim & Drum System Radially ported to keep rim free of tar & debris buildup... free floating to keep chain in perfect alignment with bar groove
SIZE:	404 x 8 TOOTH
CHAIN SPEED:	No load chain speed 121.6 FPS (feet per second)

GUIDE BAR

TYPE:	Solid one piece construction 11 Tooth Sprocketnose 20" and 16" slotted for Guard/Depth Gauge
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MATERIAL

STEEL ALLOY:	.234" Thick Bar Body
HIGH SPEED STEEL:	Sealed Sprocketnose
CUTTING LENGTHS:	20" 16" and 12"
SIZE:	404 Pitch .063 Gauge

CUTTING CHAIN

STYLE:	CUTTERS EDGE BULLET® CHAIN
TYPE:	Carbide Tipped with "Locking Key" and Solid Bullet Raker Gauge
DESIGN:	Patented Fire Rescue Design...U.S. Patent No. 5,056,395
SIZE:	.404"Pitch x .063" Gauge with .068 "Drive Links (coined to .063") Heavy Duty Tie Straps, Tempered Rivets and .068" Hubs CERTIFICATION: Meets or exceeds ANSI and OSHA standards Certified according to ISO 9518 Standards as "Extremely Low Kickback"

CUTTING CHAIN LUBRICATION SYSTEM

TYPE:	Fully automatic, adjustable
DRIVE SYSTEM:	Geared to Centrifugal Clutch
LUBRICANT:	Cutters Edge "High Tack" Bar & Chain Oil or High Quality Bar & Chain Oil
OIL TANK CAPACITY:	14.24 fl.oz. (0.42 liters)

HANDLES

TYPE:	Front/Top...Full Wrap (For ease of use with gloves, from either side of saw) Rubber coated for sure grip Rear...Flared base for hand guard. Full isolation anti-vibration
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VIBRATION LEVELS

*FRONT HANDLE m/s ² :	Idling 3.4 Racing 2.2
*REAR HANDLE m/s ² :	Idling 1.8 Racing 3.8 (*see Note 2)

SILENCING

MUFFLER:	Oversize, top ported, low restriction with fire screen
**NOISE LEVEL:	104dB(A) at maximum output (*see Note1)

GUARD/DEFLECTOR

TYPE:	Aluminum front mount to cover muffler and control air-flow for delivery of cleaner, cooler air to cylinder heat exchangers...(Keeps engine running cooler and reduces maintenance)
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CHAIN BRAKE

TYPE:	Inertia Activated
STYLE:	Free-Swinging Pendulum
BRAKING TIME:	<0.20 second

GUARD/DEPTH GAUGE (Optional)

FUNCTION:	(No tools needed for installation, adjustments or removal) Covers all the cutting chain, allows saw operator to set depth of cut to avoid cutting structural members
MATERIAL:	Anodized aluminum
TYPE:	D6 for 16" saw... D8 for 20" saw... 3 point mount, positive lock with depth of cut scale
DEPTH OF CUT:	D6 = 6" D8 = 8"

WEIGHTS

POWERHEAD ONLY:	15.25 lbs (Dry Weight)
CE-2171RS-12":	18 lbs
CE-2171RS-16":	18.5 lbs
CE-2171RS-20":	19.3 lbs
CE-2171RS/D6:	20.6 lbs
CE-2171RS/D8:	21.65 lbs

STANDARD ACCESSORIES

ACCESSORIES INCLUDED WITH ALL FIRE RESCUE SAWS -

"Scrench" holder and "Scrench" tool, complete tool kit including grease gun and packet of grease, complete manuals, filter oil, Cutters Edge 2-cycle oil mix, Cutters Edge bar & chain oil, bar scabbard (saws without D6 & D8 only)

**Note 1: Equivalent noise level is, according to ISO 7182 and ISO 9207, calculated as the time-weighted energy total for noise levels under various working conditions with the following time distribution: 1/3 idle, 1/3 full load, 1/3 full speed.

**Note 2: Equivalent vibration level is, according to ISO 7505, calculated as the time-weighted energy total for vibration levels under various working conditions with the following time distribution: idle, full speed.

Cutters Edge MULTI-CUT Fire Rescue Saw Specifications – Model # CE-2165-RS

ENGINE

TYPE: Single-cylinder 2-cycle, with loop scavenging
DISPLACEMENT: 4.0 cu.in. (65.1cc)
BORE: 1.89 in. (48mm)
STROKE: 1.4 in (36mm)
COMPRESSION RATIO: 9.4:1
BEARINGS: Heavy-duty deep-groove ball bearings on crankshaft, needle cage bearings on connecting rod, piston pin and clutch
CYLINDER/PISTON: Open ported single ring design
CYLINDER MATERIAL: Nikasil
MAX ENGINE SPEED: No load...12,500 RPM
HORSEPOWER: 5.06hp (DIN)

IGNITION SYSTEM

TYPE: Electronic, one piece modular, CD
BRAND: FHP
SPARK PLUG: Champion CJ7Y or equivalent
GAP: 0.020 in. (0.5mm)

STARTING SYSTEM

ONE STEP STARTING SYSTEM WITH COMPRESSION RELEASE
Comprised of...
Momentary contact switch
Combined choke/throttle lock with Throttle safety guard

AIR FILTRATION

SYSTEM: "RAM-AIR INDUCTION" - Metered Stack
TYPE: 4-stage external mount with oil tack barrier
SURFACE AREA: 211.4 sq.in. effective filtration surface area
MICRON RATING: <1 Micron

FUEL & ENGINE LUBRICATION

GASOLINE OCTANE RATING: Use 87 octane or higher
FUEL MIX RATIO: With Cutters Edge Synthetic Oil.....100:1
If petroleum base 2-cycle oil used: ...50:1
FUEL TANK CAPACITY: 26.8 fl.oz. (0.77 liters)

CARBURETOR ISOLATION

Designed to eliminate Vapor-lock and Vibration
TYPE: Air gap isolation and Bakeolite insulation
Pressurized carburetor compartment keeps out dirt

DRIVE SYSTEM

TYPE: Inboard, 3-shoe centrifugal clutch
STYLE: Rim & Drum System
Radially ported to keep rim free of tar & debris buildup... free floating to keep chain in perfect alignment with bar groove
SIZE: .404 x 7 TOOTH
CHAIN SPEED: No load chain speed 98.5 FPS (feet per second)

GUIDE BAR

TYPE: Solid one piece construction
11 Tooth Sprocketnose
20" and 16" slotted for Guard/Depth Gauge

MATERIAL

STEEL ALLOY: .234" Thick Bar Body
HIGH SPEED STEEL: Sealed Sprocketnose
CUTTING LENGTHS: 20" 16" and 12"
SIZE: 404 Pitch .063 Gauge

CUTTING CHAIN

STYLE: CUTTERS EDGE BULLET® CHAIN
TYPE: Carbide Tipped with "Locking Key" and Solid Bullet Raker Gauge
DESIGN: Patented Fire Rescue Design...U.S. Patent No. 5,056,395
SIZE: .404"Pitch x .063" Gauge
with .068 "Drive Links (coined to .063")
Heavy Duty Tie Straps, Tempered Rivets and .068" Hubs
CERTIFICATION: Meets or exceeds ANSI and OSHA standards
Certified according to ISO 9518 Standards as "Extremely Low Kickback"

CUTTING CHAIN LUBRICATION SYSTEM

TYPE: Fully automatic, adjustable
DRIVE SYSTEM: Geared to Centrifugal Clutch
LUBRICANT: Cutters Edge "High Tack" Bar & Chain Oil or High Quality Bar & Chain Oil
OIL TANK CAPACITY: 14.24 fl.oz. (0.42 liters)

HANDLES

TYPE: Front/Top...Full Wrap
(For ease of use with gloves, from either side of saw)
Rubber coated for sure grip
Rear...Flared base for hand guard. Full isolation anti-vibration

VIBRATION LEVELS

*FRONT HANDLE m/s2: Idling 3.4
Racing 2.2
*REAR HANDLE m/s2: Idling 1.8
Racing 3.8
(*see Note 2)

SILENCING

MUFFLER: Oversize, top ported, low restriction with fire screen
**NOISE LEVEL: 104dB(A) at maximum output
(*see Note1)

GUARD/DEFLECTOR

TYPE: Aluminum front mount to cover muffler and control air-flow for delivery of cleaner, cooler air to cylinder heat exchangers...(Keeps engine running cooler and reduces maintenance)

CHAIN BRAKE

TYPE: Inertia Activated
STYLE: Free-Swinging Pendulum
BRAKING TIME: <0.20 second

GUARD/DEPTH GAUGE (Optional)

(No tools needed for installation, adjustments or removal)
FUNCTION: Covers all the cutting chain, allows saw operator to set depth of cut to avoid cutting structural members
MATERIAL: Anodized aluminum
TYPE: D6 for 16" saw... D8 for 20" saw... 3 point mount, positive lock with depth of cut scale
DEPTH OF CUT: D6 = 6" D8 = 8"

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CE-2171RS-20": 19.3 lbs
CE-2171RS/D6: 20.6 lbs
CE-2171RS/D8: 21.65 lbs

STANDARD ACCESSORIES

ACCESSORIES INCLUDED WITH ALL FIRE RESCUE SAWS -

"Srench" holder and "Srench" tool, complete tool kit including grease gun and packet of grease, complete manuals, filter oil, Cutters Edge 2-cycle oil mix, Cutters Edge bar & chain oil, bar scabbard (saws without D6 & D8 only)

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**Note 2: Equivalent vibration level is, according to ISO 7505, calculated as the time-weighted energy total for vibration levels under various working conditions with the following time distribution: idle, full speed.

Cutters Edge®
FIRE RESCUE SAWS

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