



Environment Friendly

4-Stroke Engine Series



Reliable & Environment Friendly Makita 4-Stroke Engine Series

What is Makita 4-Stroke Engine?

Makita newly designed 4-Stroke Engines offer the following advantages compared with equivalent size of 2-Stroke Engines:

- 1. High Performance, Compact and Light Weight Design
- 2. Clean Exhaust Emissions
- 3. Low Running Cost
- 4. Easy Maintenance
- 5. Low Noise

1. High Performance, Compact and Light Weight Design

Makita 4-Stroke Engine delivers high torque and horsepower.

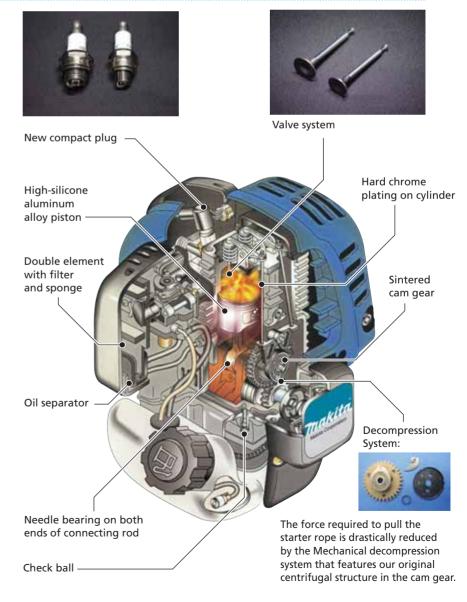
Max. Torque and horsepower of Makita 4-Stroke Engine are almost the same as those of an equivalent 2-Stroke engine as shown below in the chart.

Compared with the conventional 4-Stroke Engines, Makita 4-Stroke Engine produces approximately 20 to 30 % more power thanks to its high combustion efficiency and new developments such as compact spark plug.

Additionally, by employing a unique lubrication system, it has obtained the smallest in class exterior physical dimensions among the 4-Stroke Engines available in the market today. And it is also lightest in class in weight by using magnesium alloy diecast for Clutch case, etc.

	25mL Class	
	24.5ml 4-Stroke Engine	24.5ml 2-Stroke Engine
Max Power (kW-rpm)	0.81 / 7000	0.88 / 7000

	35mL Class	
	33.5ml 4-Stroke Engine	30.5ml 2-Stroke Engine
Max Power (kW-rpm)	1.18 / 7000	1.18 / 7000

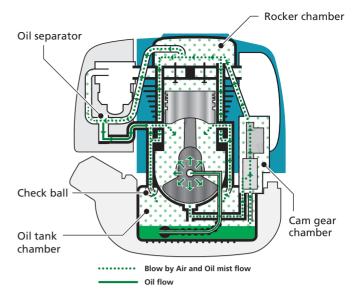


Patented Unique Lubrication System enables to use 4-Stroke Engine in Semi Multi-position.

Employing this system enables to use 24.5mL and 33.5mL Brushcutters on any slope such as ditch slopes, river banks or mountain woods.

The natural pressure changes in the crankcase caused by the piston movement in the cylinder are harnessed to pump the oil throughout the engine.

Oil is pumped from a reservoir in he base of the engine through a network of one-way valves for reliable lubrication and long service life without the need to keep the engine level.



2. Clean Exhaust Emissions

Compared with an equivalent 2-Stroke Engine, exhaust emission is drastically reduced to comply with strict regulations in the world, including CARB Tier 3 (California, USA), EPA Phase 2 (USA) and EU Stage 2 (Europe).

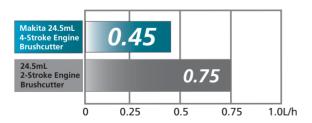
As shown in the table to right, the exhaust emission level of Makita 4-Stroke Engine easily clears the standard level of the regulations.

	24.5mL	33.5mL	75.6mL
Certification/ Standard level of Emission Gas: HC+Nox (g/kw·hr)	24.5mL < 50mL CARB/ EPA/ EU "50"	33.5mL < 50mL CARB/ EPA/ EU "50"	75.6mL ≥ 50mL CARB/ EPA/ EU "72"
Certificated level of Makita 4-Stroke engine: HC+Nox (g/kw·hr)	27	21	13
Certificated level of an equivalent 2-Stroke engine: HC+Nox (g/kw·hr)	224 (24.5mL)	201 (30.5mL)	204 (48.6mL)

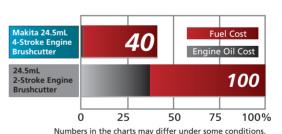
3. Low Running Cost

From our comparison test between Makita 24.5mL 4-Stroke Petrol Brushcutter and an equivalent 2-Stroke Petrol Brushcutter, the superiority of Makita 4-Stroke Engine over 2-Stroke Engine in its class has been proved both in fuel consumption and total cost as shown in the charts below.

Fuel Consumption 40% better



Total Cost 60% better (200H of Operation)



4. Easy Maintenance

Makita 4-Stroke Engine uses unleaded gasoline. Operator can, therefore, skip the following preparation and maintenance required when using 2-stroke or 4-mix engine that runs on gas/oil mixture:

/// Mixing gasoline and oil before operation

/// Removing fuel from tank after operation, then sweeping dust from oil filling port

5. Low Noise

Low noise level allows to operate without disturbing others even in quiet places such as parks or residential areas.

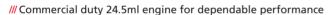




Compact and Lightweight type for Easy Handling

for a wide range of applications including grass cut, weed removal, undergrowth clearance

The world lightest weight commercial, 4 stroke brush cutter & String Trimmer



- /// Lightweight for easy maneuverability
- **///** Quiet operational noise level
- /// Meets all environmental standards.
- /// Carburetor: Diaphragm type; Ignition system: Solid state ignition
- /// Features "Rapid Start" that allows to pull the starter rope with less force for extra-easy startup. (For Model: EBH251U/ EBH251L)



EM4250 24.5ml





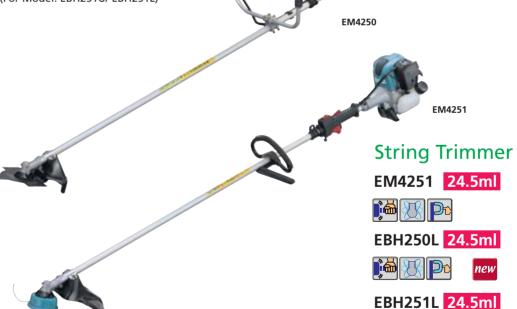


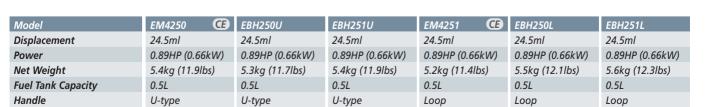












Star Blade

Net weight: without blade, band and fuel

Nylon Head Items of standard equipment and specifications may differ by country or area.





Star Blade

Star Blade



Nylon Head





Standard Cutting Tool

Nylon Head

Professional-User type for Superior Maneuverability

for heavy-duty applications in forestry and construction site area, etc.

33.5ml 4 stroke brushcutter series for real professionals

- /// Commercial duty 33.5cc engine for dependable performance
- /// Meets all environmental standards.
- **///** Carburetor: Diaphragm type, Ignition system: Solid state ignition.

Brushcutter

EBH340U 33.5ml









String Trimmer EM4341 33.5ml









Model	EBH340U	EM4340 CE	EM4341 CE
Displacement	33.5ml	33.5ml	33.5ml
Power	1.4HP (1.07kW)	1.4HP (1.07kW)	1.4HP (1.07kW)
Net Weight	7.5kg (16.5lbs)	6.9kg (15.2lbs)	6.9kg (15.2lbs)
Fuel Tank Capacity	0.65L	0.65L	0.65L
Handle	Bike	Bike	J-type
Standard Cutting Tool	T.C.T Saw Blade (option)	Star Blade	Nylon Head

Net weight: without blade, band and fuel

Items of standard equipment and specifications may differ by country or area.

metal blade.

Low Vibration & Off-set Bike Handle type for Longer Operation with Less Fatigue

Brushcutter

EM4340L 33.5ml







Vibration Level:

2.5m/s at Directive of A (8)

Model	EM4340L	Œ
Displacement	33.5ml	
Power	1.4HP (1.07kW)	
Net Weight	7.6kg (16.8lbs)	
Fuel Tank Capacity	0.65L	
Handle	Bike	
Standard Cutting Tool	Star Blade	

Net weight: without blade, band and fuel ltems of standard equipment and specifications may differ by country or area.

Anti-Vibration Shaft and Adjustable Off-Set Bike Handle absorb the vibration of engine, allowing comfortable operation even in long continuous operation

EM4340L has been certificated as compliant with the requirements of EU Physical Agent Directive (on Vibration) through the Operational Hand-Arm Vibration Test carried out by HSE Solutions authorized as an independent test body in UK; the vibration level is well below the daily exposure action value of 2.5m/s2 A(8) that permits 8 hours use a day, proving that EM4340L is one of the most user-friendly in the world.









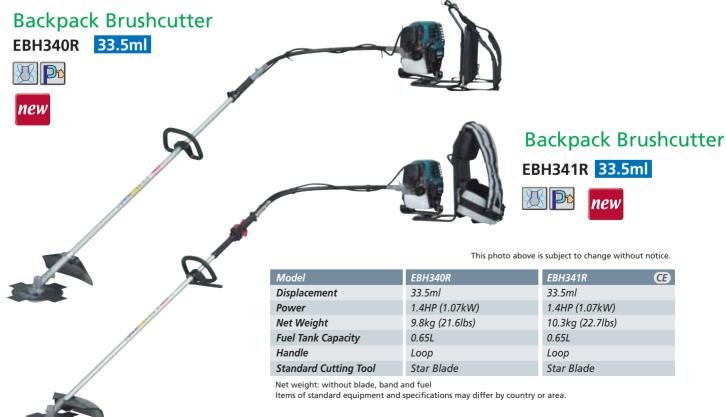


Backpack type for a Long, Continuous Operation with Less Fatigue

for working on slopes undulating ground, etc.

33.5ml 4 stroke new backpack brushcutter series for real professionals

- /// Commercial duty 33.5cc engine for dependable performance
- /// Meets all environmental standards.
- **///** Carburetor: Diaphragm type; Ignition system: Solid state ignition
- **///** The flexible shaft between engine and shaft allowing for efficient work on slopes, undulating ground or in narrow space.





Petrol-Powered Backpack Blower

Petrol Blower

BBX7600 75.6ml



- /// Compared with 2-stroke model, BBX7600 can save running cost up to approx.60% but still its performance (Air volume) is approx.50% better. 80 minutes of continuous operation on a full fuel tank is the longest in its class while 80.4dB noise level at operator ear position is the lowest.
- /// Comfortable backpack and adjustable Joystick handle for easy handling and reduced operator fatigue
- /// Dust guard and large capacity Air filter for longer engine life
- /// Easy maintenance with easy access spark plug, oil filling port and drain plug

Model	BBX7600	CE
Displacement	75.6ml	
Net Weight	10.2kg (22.5lbs)	
Max. Air Volume	14.1m³/min	
Max. Air Speed	87.0m/s	
Fuel Tank Capacity	1.9L	
Operation Hours	80min	

Dust Guard prevents ingress of foreign matters such as leaves or insects.

Net weight: without fuel and tube Items of standard equipment and specifications may differ by country or area.



Backpack Wide harness straps give operator more comfort during operation.



Air Cleaner /// Large capacity air filter located on the top of the blower assures maximum engine protection.

/// Large volume 1560cm² paper element



"Sliding" Plug Cover **///** Allows easy access to spark plug. **///** Designed not to be removed from its position for protection against loss



Joy-stick Handle

/// Located just on the blower pipe for better pipe control

/// The handle position can be adjusted forward and backward up to 100mm to suit user size.

/// Throttle control lever with lock-on button for long continuous operation



Oil Filling Port

/// Large opening port for easy oil inspection and oil change

/// Max. 220ml. Min. 70ml



Max.level Min.level

Oil Drain Plug for easy oil change







Petrol-Powered Handheld Blower

Petrol Blower

BHX2500 24.5ml



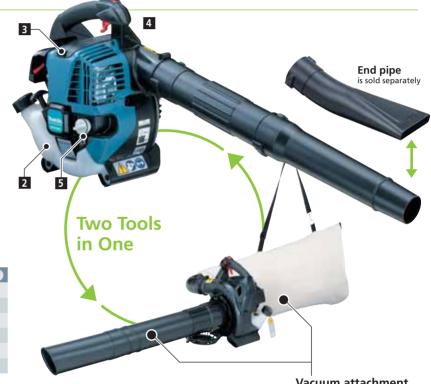
/// Impeller is directly assembled to flywheel for a compact overall width 15mm shorter than Model RBL250, while more air volume is delivered by the impeller with a diameter 3mm larger than that of Model RBL250

/// Easy-to-grip handle with cruise control lever and thumb rest for more comfort and less hand fatigue even in long continuous operation

/// Easy maintenance with easy access spark plug and oil filling port

Model	BHX2500 CE
Displacement	24.5ml
Net Weight	4.4kg (9.8lbs)
Max. Air Volume	8.91m³/min
Max. Air Speed	64.6m/s
Fuel Tank Capacity	0.52L
Operation Hours	60min

Net weight: without fuel and tube Items of standard equipment and specifications may differ by country or area.



Vacuum attachment (available as an option)



Compact and Lightweight Design /// With an overall length of

"With an overall length of only 368mm, but weighs only 4.4kg. (without Blower pipe) "Easy to carry and to handle with one hand



Fuel Tank Ergonomically Contoured

#For use as an auxiliary handle in vacuum operation



"Sliding" Plug Cover /// Allows easy access to spark plug.

/// Designed not to be removed from its position for protection against loss



Ergonomic Handle with Cruise control lever and Thumb rest

Ergonomic rubberized handle provides more control and less operator fatigue.

/// Cruise control lever for constant air volume in continuous operation /// Thumb rest for more comfort and less hand fatigue in long continuous operation



Oil Filling Port

/// Large opening port for easy oil inspection and oil change





High Pressure Water Pump Ideal for Irrigation and Washing

Water Pump

- /// Meets all environmental standards.
- /// Carburetor: Diaphragm type; Ignition system: Solid state ignition
- /// Provides high pressure water (4.5kgf/cm². 64psi)

for effective irrigation and washing.

Model	EPH1000 / EPH1000X CE
Displacement	33.5ml
Net Weight	7.5kg (16.6lbs)
Fuel Tank Capacity	0.65L
Suction & Delivery Diameters	25.4mm(1")
Max. Delivery Volume	130L/min (34gal/min)
Total Head	45m (148ft/ 64psi)

Net weight: without fuel

Items of standard equipment and specifications may differ by country or area.

EPH1000 33.5ml

Standard equipment: Suction hose (3m · 11ft), Strainer, Hose couplings, Hose bands



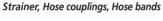




EPH1000X 33.5ml

Standard equipment: Suction hose (3m · 11ft), Delivery hose (8m · 27ft),

2-Mode selectable nozzle (Jet Stream & Spray)









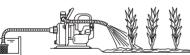


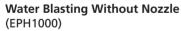


Jet Stream Mode

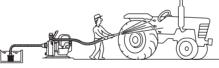








For irrigation of gardens or farm fields

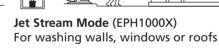


Spray Mode (EPH1000X)

For washing cars, garden tools or farm equipment

















Lightweight and Quiet, still High Efficiency Backpack Sprayer

Sprayer

EVH2000

24.5ml

Suitable for orchards, parks, gardens, and anywhere spraying is required

Wide 2-head nozzle

Strainer



/// High water pressure (25kgf/cm2, 14.7psi) is obtained using a plunger pump.

/// Suitable for orchard, parks, garden and anywhere spraying is required

/// Meets all environmental standards.

/// Carburetor: Diaphragm type; Ignition system: Solid state ignition

Features "Rapid Start" that allows to pull the starter rope with less force for extra-easy startup.

Model	EVH2000	E
Displacement	24.5ml	
Net Weight	9.1kg (20.1lbs)	
Fuel Tank Capacity	0.5L	
Max. Pressure	2.50Mpa (25kgf/cm²)	
Chemical liquid tank	20L	

Net weight: without fuel Items of standard equipment and specifications may differ by country or area.











Four-step adjustable

water pressure

Large 20L chemical tank for long spraying work



Brushcutter Accessories

Triple Blade for Grass

Star Blade for Grass



Part No. B-01884

Nylon Cutting Head & Nylon Cord For grass, light weeds

Part No. B-01909

Eddy Blade For Pasture, Scrub



Part No. B-01943 (80 teeth) B-01921 (24 teeth)

Saw Blade

for Woods, Bamboo Grass

T.C.T Saw Blade*

for Woods, Bamboo Grass

Not available in some countries due to local regulations



Part No. A-48321 (230mm 36 teeth) A-48337 (255mm 40 teeth)



Part No. B-80070

Bump & feed type Part No. B-60143 (BF4L) Part No. A-89121 (4L)



Super auto type Part No. B-01959 (1XL)



Ultra auto type Part No. B-02945 (4XL) Part No. A-81658 (6L)



Nylon cord Part No. B-01971 (2.4mmx5m) Part No. B-07375 (3.0mmx4m)

Protector Assembly

for Star blade, Eddy blade and Nylon cord Part No. 6258047002

for Nylon cord Part No. 6218008003



Shoulder Strap Assembly



Part No. 6207003002

Blower Accessories

Pipe for Model : BHX2500











Water Pump Accessories

Hose set (Delivery hoses (8m·27ft) and 2-Mode selectable nozzle set)

for Model: EPH1000, EPH1000X*
*Standard equipment

Part No. B-10671



Makita Corporation