

VANGUARD®

HEAVY DUTY MEETS LIGHT WEIGHT



Briggs & Stratton provides Vanguard® BIG BLOCK™ engine performance for the Negri sub 750 kg C17LT road-trailer wood chipper

Italian manufacturer Negri capitalises on the strengths of Briggs & Stratton's most powerful Vanguard engine in developing its highly mobile, lightweight wood chipper trailer. The established producer of professional wood chippers and shredders, supplies equipment for arboriculture, municipal maintenance and contractor applications. Known for its focus on high-output, compact machine design, the company

develops equipment that prioritises performance, efficiency and mobility in demanding working environments.

Building on this approach, Negri developed the C17LT, a disc-style wood chipper powered by Briggs & Stratton's Vanguard 40 HP horizontal shaft engine. Designed to process branches up to 170 mm in diameter, the machine delivers the output expected from much larger equipment while remaining within a sub-750 kg light-trailer classification.

The Challenge

Three key engineering challenges shaped the development. The first was achieving the required power-to-weight ratio, which called for an engine capable of delivering sustained torque and maintaining rotor speed under continuous load without adding unnecessary weight.



The second was meeting the expectations of professional arborists, municipal fleets, and rental operators, where downtime has a direct commercial impact. This meant selecting an engine partner that could provide not only reliable performance, but also a global service and parts network capable of supporting rapid maintenance and repair wherever the machine is deployed.

Finally, as the C17LT is positioned as one of the most capable chippers in its weight class, Negri needed an engine with proven real-world performance that would validate the machine’s capabilities in demanding commercial applications.

The Solution

To meet these requirements, Negri selected the Vanguard 29,9 kW EFI/ETC V-Twin BIG BLOCK engine. Developed for demanding commercial applications, Vanguard is Briggs & Stratton’s dedicated commercial power brand, offering

power solutions designed around the needs of professional equipment manufacturers and operators. Featuring 993cc displacement, the chosen Vanguard BIG BLOCK engine produces commercial-grade torque across the working RPM range, allowing the Negri wood chipper disc to maintain consistent rotor speed when processing both dense hardwood and fibrous material.

Featuring Electronic Fuel Injection (EFI) and Electronic Throttle Control (ETC), the engine provides precise fuel delivery and responsive load management, ensuring smooth power delivery under changing operating conditions. The C17LT achieves a rated throughput of approximately 7,5 tonnes per hour, positioning it among the highest-performing machines in the lightweight trailer category. The EFI/ETC system optimises combustion under varying operating conditions, supporting efficient fuel consumption. Under specified load and RPM conditions, fuel consumption is rated at approximately only 5,5 litres per hour.

The engine’s compact dimensions and weight also enabled the Negri C17LT to achieve its tight packaging requirements while maintaining its sub-750 kg classification. As the C17LT is designed for professionals who need to move quickly between work sites, maintaining a compact and lightweight design was essential. The machine’s trailer configuration allows municipal crews and contractors to transport the chipper behind a vehicle on public roads, while still providing the heavy duty performance required once on site. Furthermore the engine is backed by a three-year global warranty for added commercial confidence.

Alongside the engine integration, the C17LT incorporates Negri’s proprietary OBS (On Board System), a fully digitised touchscreen interface that supports maintenance scheduling, diagnostics, and operator guidance. Combined with the CANbus capable Vanguard engine, it provides an integrated power and control system designed for professional use.



**VANGUARD
V-TWIN EFI/ETC ENGINE**
29,9 GROSS KW¹ / 40,0 GROSS HP¹

ENGINE TYPE	V-Twin, 4-stroke, air cooled, OHV (Overhead Valve)
MODEL NUMBER	61G2
GROSS POWER ¹ @ 3 600 RPM	29,9 kW 40,0 HP
DISPLACEMENT	993 cc
CYLINDER	Cast iron sleeve
OIL CAPACITY	2,3 l
DRY WEIGHT	56,7 kg
DIMENSIONS	379 × 496 × 725 mm (L×W×H)
FEATURES	Electronic Fuel Injection (EFI), Electronic Throttle Control (ETC), oil filter, cyclonic air cleaner, full pressure lubrication, oil cooler, oil pressure switch, CANJ1939 communications, OEM selectable speed
OPTIONAL	Flywheel stub shaft, tach/hour meter with check engine light, alternators (20, 20-50 amp), high and mid mounted mufflers, flat panel air cleaner

¹ Power levels are stated gross kilowatts per SAE J1940 as rated by Briggs & Stratton.

² See operator’s manual or dealer for complete warranty details.

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THE INTEGRATION OF THE VANGUARD 40HP ENGINE ALLOWS US TO DELIVER GENUINE HEAVY-DUTY PERFORMANCE WITHIN A HIGHLY MOBILE, LIGHTWEIGHT MACHINE.

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Francesco Negri
Managing Director, Negri

Engineering through partnership

The relationship between Negri and Briggs & Stratton extended beyond engine selection. The two companies worked closely throughout the development process, gathering real-world operational data under actual chipping conditions, including thermal performance, load response, and engine stress. This collaborative validation resulted in formal application certification, ensuring the engine was optimised for the specific demands of the C17LT.

Daniele Mauri, Sales Executive Southern Europe at Briggs & Stratton said: “When developing equipment for professional users, engine selection is about far more than horsepower alone. Manufacturers need a solution that delivers consistent performance under demanding workloads while supporting efficiency, reliability and lower operating costs throughout the machine’s working life. For the C17LT, the Vanguard 40 HP V-Twin BIG BLOCK engine, with EFI and ETC technology, provides a practical alternative to diesel-powered solutions, reducing fuel consumption, lowering emissions and helping to minimise total cost of ownership, while delivering the performance required for demanding commercial applications.”



The partnership also provides access to Briggs & Stratton’s Vanguard global service network, giving customers access to qualified technical support, training and original spare parts wherever the machine operates. For professional contractors and rental fleets, this helps minimise downtime and maximise machine availability.

The C17LT demonstrates how Briggs & Stratton’s Vanguard engine technology can support OEM manufacturers in delivering high-performance equipment that balances power, mobility and long-term reliability for professional users.

Francesco Negri, Managing Director at Negri, explains: “The integration of the Vanguard 40HP engine allows us to deliver genuine heavy-duty performance within a highly mobile, lightweight machine. The combination of an exceptional power-to-weight ratio and access to the global Briggs & Stratton support network ensures that rental operators receive a durable and highly efficient asset.”

LEARN MORE

about how our passion for power can benefit your equipment and your customers.



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ABOUT BRIGGS & STRATTON | VANGUARD

Briggs & Stratton, headquartered in Milwaukee, Wisconsin, provides innovative products and diverse power solutions to help people get work done. Briggs & Stratton is the world's largest producer of engines for lawn and garden, turf care and job site power equipment and is a leading designer, manufacturer and marketer of lithium-ion batteries, standby generators and energy storage systems through its Briggs & Stratton®, Vanguard®, Ferris®, Simplicity®, Snapper®, Billy Goat® and Branco® brands. Briggs & Stratton products are designed, manufactured, marketed and serviced in over 100 countries on six continents.

Vanguard® helps professionals to get their work done by applying power to their unique commercial applications. For nearly 40 years, Vanguard has partnered with customers to conquer challenges and develop innovative products. As Vanguard doesn't simply provide components, it supports customers in applying commercial lithium-ion and petrol power throughout the entire integration process, from development to serial production to after sales and training support. **www.vanguardpower.com**

ABOUT NEGRI

Founded in 1991, Negri S.r.l. is an Italian family-owned manufacturer of shredders, chippers, scarifiers, and leaf vacuums, serving private users, professionals, rental companies, and municipalities. Innovation drives the company, which holds exclusive patents on its shredding technologies and backs its products with state-of-the-art production and internationally recognized certifications, making it one of Europe's leading manufacturers. Negri's mission is to deliver cutting-edge solutions that set the standard for performance in the tree-care and garden sectors, building machines trusted by demanding professionals who accept no compromise on quality and durability. **www.negri-bio.com**

VANGUARD®

BRIGGS & STRATTON

Milwaukee, WI 53201-0702 USA
(414) 259-5333

Wolleraustrasse 41
8807 Freienbach, Switzerland

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WWW.VANGUARDPOWER.COM