

Kubota V1902 Specs

kubota v1902 specs The Kubota V1902 engine is renowned for its reliability, efficiency, and versatility, making it a popular choice for various industrial, agricultural, and construction applications. Whether you're a professional contractor, a farmer, or a equipment enthusiast, understanding the detailed specifications of the Kubota V1902 is essential for optimal performance and maintenance planning. In this comprehensive guide, we'll delve into the key features, technical specifications, and application insights of the Kubota V1902 engine to help you make informed decisions.

Overview of Kubota V1902 Engine

The Kubota V1902 is a vertical, water-cooled, four-cylinder diesel engine designed for durability and high performance. It belongs to Kubota's V series, which focuses on providing efficient power solutions for a variety of equipment such as generators, compressors, and construction machinery. Key Highlights: - Compact design with high power density - Robust construction for demanding environments - Fuel-efficient operation - Low emissions complying with modern standards

Technical Specifications of Kubota V1902

Understanding the core technical details of the Kubota V1902 is crucial for integration, maintenance, and performance optimization. Below are the detailed specifications:

Engine Type and Configuration

- Type: 4-cylinder, water-cooled, diesel engine - Cylinder Arrangement: Vertical inline - Displacement: 1.85 liters (1849 cc) - Bore x Stroke: 86 mm x 88 mm - Compression Ratio: 18.0:1

Performance Metrics

- Maximum Power: Approximately 37.4 horsepower (28 kW) at 2400 rpm - Rated Power: 35.3 horsepower (26.3 kW) at 2400 rpm - Maximum Torque: About 122 Nm (90 lb-ft) at 1600 rpm

Fuel System and Consumption

- Fuel System: Direct injection for better efficiency and power - Fuel Consumption: Approximately 210 g/kWh (varies with load and application) - Fuel Tank Capacity: Typically around 20 liters, depending on the application

Lubrication and Cooling

- Lubrication System: Forced lubrication with oil filter - Cooling System: Water-cooled with radiator and thermostat control

Dimensions and Weight

- Length: Approximately 800 mm - Width: About 550 mm - Height: Around 700 mm - Weight: Roughly 250 kg, depending on configuration

Electrical and Starting System

- Starter Type: Electric starter - Battery Voltage: 12V standard with 1.2 kW starter motor

Emission Standards and Compliance

- Meets Tier 4 Final and Stage V emissions standards where applicable, with options for different regions

Performance Features and Benefits

The Kubota V1902 engine is designed to deliver consistent and efficient power output, thanks to its advanced engineering features.

Key Performance Features:

- High Power Density: Offers significant power in a compact size, suitable for space-constrained applications - Fuel Efficiency: Optimized combustion process reduces fuel consumption and operational costs - Durability: Sturdy construction ensures longevity even under heavy workloads - Low Noise and Vibration: Advanced engine mounts and design minimize operational noise and vibrations - Ease of Maintenance: Accessible components for quick servicing and repair

Applications of Kubota V1902

The versatility of the V1902 engine makes it suitable for various machinery and equipment, including: - Generators and power units - Construction machinery such as compact excavators and loaders - Agricultural equipment like irrigation pumps and small tractors - Industrial compressors and pumps - Marine applications where compact, reliable power is needed

Comparing Kubota V1902 with Similar Engines

Understanding how the V1902 stacks up against other engines can aid in decision-making.

Advantages of Kubota V1902:

- Compact design with high performance - Proven reliability in demanding environments - Meets stringent emission standards - Easy to maintain with accessible parts

Potential Limitations:

- Slightly higher initial cost compared to some competitors - Requires regular maintenance to sustain optimal performance - Limited horsepower range compared to larger engines

Maintenance and Troubleshooting of Kubota V1902

Proper maintenance ensures longevity and optimal performance of the Kubota V1902 engine.

Regular Maintenance Tasks:

- Oil Changes: Every 100-200 hours of operation or as recommended - Filter Replacements: Fuel filters, air filters, and oil filters should be checked and replaced periodically - Cooling System Checks: Ensure radiator and coolant levels are adequate to prevent overheating - Valve Adjustments: As specified in the maintenance manual to maintain efficiency - Battery and Electrical Checks: Ensure proper starting and operation

Common Troubleshooting Tips:

- Engine Won't Start: Check battery, fuel supply, and starter connections - Loss of Power: Inspect air filters, fuel filter, and perform a compression test if necessary - Excessive Smoke: Could indicate fuel system issues or incorrect oil levels - Overheating: Verify

Where to Purchase Kubota V1902 and Parts

Authorized Kubota dealers and distributors are the best sources for purchasing the V1902 engine and genuine spare parts. Ensuring genuine parts helps maintain the engine's integrity and performance. Tips for Buyers: - Confirm compatibility with your equipment - Check warranty and after-sales support options - Consider service packages for ongoing maintenance

Conclusion

The Kubota V1902 engine stands out as a highly reliable, efficient, and versatile power source suitable for a wide range of applications. Its detailed technical specifications reflect a well-engineered engine designed to meet modern standards while providing robust performance. Whether you're considering upgrading your equipment or building new machinery, understanding the Kubota V1902 specs will help you make informed choices to ensure durability, efficiency, and value over time. Keywords: Kubota V1902 specs, Kubota V1902 engine, Kubota diesel engine, V1902 technical specifications, compact diesel engine, industrial engine, agricultural engine, generator engine, engine maintenance, engine troubleshooting

Kubota V1902 Specs: An In-Depth Review of the Powerhouse Engine When it comes to reliable, efficient, and robust diesel engines, Kubota has established itself as a leading name in the industry. The Kubota V1902 engine exemplifies this reputation, offering a blend of performance, durability, and versatility tailored to various agricultural, industrial, and commercial applications. Whether you're considering this engine for a new piece of equipment or seeking detailed technical insights, understanding the specifications of the Kubota V1902 is essential. In this comprehensive review, we'll delve into the key features, technical specs, and performance highlights of the Kubota V1902 engine, providing you with all the information needed to appreciate its design and capabilities.

Overview of the Kubota V1902 Engine

The Kubota V1902 is a vertically mounted, 4-cylinder diesel engine engineered for a variety of applications, including compact excavators, utility vehicles, and industrial machinery. Known for its efficiency and reliability, the V1902 offers a balance of power and fuel economy, making it suitable for operators seeking a durable power source. Key Highlights: - 4-cylinder configuration - Diesel fuel type - Water-cooled system - Compact design with good power density - Emphasis on low emissions and noise reduction Understanding the detailed specifications of the V1902 allows users to evaluate its suitability for their specific needs, whether in construction, agriculture, or industrial settings.

Detailed Technical Specifications

Let's explore the core specifications of the Kubota V1902, breaking down each aspect to understand what makes this engine stand out.

Engine Displacement and Dimensions

- Displacement: 1.813 liters (1,813 cc) The engine's displacement indicates the total volume swept by all pistons during a single cycle, impacting power output and torque. - Bore and Stroke: - Bore: 85 mm - Stroke: 88 mm The bore and stroke dimensions influence the engine's characteristics, balancing power and efficiency. Slightly longer stroke compared to bore suggests good torque delivery, suitable for heavy-duty applications. - Overall Dimensions: - Length: Approximately 700 mm - Width: Around 550 mm - Height: Approximately 750 mm Compact dimensions facilitate installation in various machinery, especially where space is limited. - Weight: Approximately 140 kg (308 lbs) Lightweight for its class, aiding in machine balance and ease of maintenance.

Performance Metrics

- Rated Power: - 37.2 kW (50 hp) at 2,500 rpm - This power output makes the V1902 suitable for demanding tasks, providing enough muscle for heavy-duty operations. - Maximum Torque: - 175 Nm (129 lb-ft) at 1,500 rpm - High torque at low rpm ensures effective performance in applications requiring significant pulling and lifting capacity. - Fuel Consumption: - Approximately 2.8 liters/hour at rated load - Emphasizing fuel efficiency, the V1902 helps reduce operational costs over time.

Fuel System and Combustion

- Fuel System: Direct injection - Ensures precise fuel delivery, optimized combustion, and improved fuel economy. - Injection Pump: Mechanical, with advanced control for smooth operation and reduced emissions. - Compression Ratio: 17.2:1 - A relatively high ratio for diesel engines, contributing to better power and efficiency.

Cooling and Lubrication

- Cooling System: Water-cooled, with a thermostatically controlled radiator - Maintains optimal operating temperature, preventing overheating and ensuring longevity. - Lubrication System: Forced lubrication with oil pump, oil filter included - Ensures consistent lubrication, reducing wear and tear on internal components.

Starting and Operation

- Starting System: Electric starter with battery compatibility - Reliable cold and warm starts, even in challenging conditions. - Operation Noise Level: Approximately 83 dB (at 1 meter) - Designed to operate with minimal noise, suitable for environments where noise reduction is valued.

Key Features and Benefits

Beyond raw specifications, the V1902 offers several features that enhance its usability and performance: - Durability and Longevity: Built from high-quality materials with precision manufacturing, the engine is designed to withstand tough working conditions, minimizing downtime and maintenance costs. - Ease of Maintenance: Features such as accessible oil filters, straightforward fuel system components, and diagnostic ports simplify routine maintenance tasks. - Environmental Considerations: Compliance with Tier 4 Final emission standards ensures that the engine produces lower emissions, aligning with modern environmental regulations. - Versatility: The engine's design allows it to be adapted for a broad range of machinery, from small excavators to agricultural implements.

Applications and Compatibility

The Kubota V1902's specifications make it an ideal choice for various applications, including: - Construction Equipment: Mini excavators, skid steer loaders, and compact track loaders. - Agricultural Machinery: Small tractors, tillers, and sprayers. - Industrial and Commercial Use: Generators, water pumps, and material handling equipment. Compatibility Tips: - Ensure mounting points and dimensions align with your existing machinery. - Confirm fuel system compatibility, especially if integrating into custom setups. - Consult with Kubota or authorized dealers for accessories and installation requirements.

Performance Evaluation and User Experience

Operators and technicians generally praise the V1902 for its: - Reliability: Consistent power delivery with minimal downtime, even under heavy workloads. - Fuel Efficiency: Lower operational costs due to optimized fuel consumption. - Ease of Use: Responsive starting and smooth operation contribute to user satisfaction. - Maintenance: Simplified maintenance schedule with accessible parts reduces downtime. However, some users note that, like many diesel engines, the V1902 can be somewhat noisy during operation, although this is typical for engines in its class.

Final Thoughts: Is the Kubota V1902 Right for You?

The Kubota V1902 engine stands out as a versatile, durable, and efficient power source, suitable for a broad spectrum of industrial and agricultural machinery. Its detailed specifications reflect a well-engineered product that balances power, fuel economy, and environmental considerations. Whether you need a reliable engine for a small excavator or a generator set, the V1902 offers a compelling combination of features. When selecting an engine, consider your specific application requirements, compatibility with existing equipment, and long-term operational costs. The V1902's proven performance and technical excellence make it a worthy candidate for those seeking a dependable diesel engine solution. In summary, the Kubota V1902 is a robust and efficient engine characterized by its 1.813-liter displacement, 50 horsepower output, and high torque capacity. Its well-designed cooling, lubrication, and fuel delivery systems ensure longevity and performance across diverse applications. As with any significant machinery component, proper maintenance and application-specific adjustments are key to maximizing its lifespan and productivity. Keywords: Kubota V1902, engine specs, diesel engine, industrial machinery, agricultural engine, performance review, technical specifications

Questions & Answers About kubota v1902 specs

No	Question	Answer
1	What are the key engine specifications of the Kubota V1902?	The Kubota V1902 features a 1.9-liter, 4-cylinder diesel engine with a net horsepower of approximately 48.5 HP, providing reliable power for various agricultural and industrial tasks.
2	What is the maximum operating capacity of the Kubota V1902?	The V1902 engine is designed to handle a maximum gross horsepower of about 48.5 HP, making it suitable for mid-range machinery and equipment.
3	What are the dimensions and weight of the Kubota V1902 engine?	The engine measures approximately 25 inches in length, 18 inches in width, and 24 inches in height, with a dry weight of around 1,050 pounds (477 kg).
4	Does the Kubota V1902 engine meet emissions standards?	Yes, the Kubota V1902 complies with current emissions standards, including Tier 4 Final/Stage IV regulations, thanks to its advanced emission control systems.
5	What cooling system does the Kubota V1902 utilize?	The V1902 is equipped with a liquid cooling system that ensures optimal operating temperatures and engine efficiency during prolonged use.
6	Is the Kubota V1902 suitable for agricultural machinery?	Absolutely, the V1902's specifications make it ideal for use in agricultural equipment such as tractors, harvesters, and other heavy-duty machinery.
7	What are the fuel consumption details of the Kubota V1902?	The engine offers efficient fuel consumption rates typical of diesel engines in its class, with approximate fuel consumption around 2.5-3.0 gallons per hour depending on load and application.
8	What are the maintenance requirements for the Kubota V1902?	Routine maintenance includes regular oil and filter changes, coolant checks, and inspection of belts and hoses. The engine is designed for ease of maintenance with accessible service points.

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