Perkins repair manual File PDF

perkins 4270 specs are essential for anyone considering the Perkins 4270 engine for industrial, agricultural, or construction applications. Known for its durability, efficiency, and robust performance, the Perkins 4270 series offers reliable power solutions across a range of demanding environments. In this comprehensive guide, we'll delve into the detailed specifications of the Perkins 4270 engine, exploring its technical features, performance capabilities, design attributes, and applications. Whether you're a machinery operator, mechanic, or procurement specialist, understanding the Perkins 4270 specs will help you make informed decisions and optimize your equipment's performance.

Overview of Perkins 4270 Engine

The Perkins 4270 engine is part of Perkins' renowned line of industrial diesel engines, designed to deliver high torque, fuel efficiency, and long-term durability. It is widely used in construction machinery, agricultural equipment, power generation, and other heavy-duty applications. The Perkins 4270 is recognized for its advanced engineering, compliance with emission standards, and ease of maintenance.

Technical Specifications of Perkins 4270

Understanding the technical specifications of the Perkins 4270 engine provides insights into its capabilities and suitability for various tasks. Below are the key specs:

Engine Type and Configuration

- **Model:** Perkins 4270 Series
- **Configuration:** 4-cylinder, inline diesel engine
- **Displacement:** 4.4 liters (268 cubic inches)
- **Cooling System:** Water-cooled
- **Fuel System:** Direct injection

Performance Metrics

- **Gross Power Output:** Up to 100-130 horsepower (75-97 kW), depending on the model variant
- **Net Power Output:** Slightly lower than gross, optimized for operational use
- **Peak Torque:** Approximately 350-500 Nm (258-369 lb-ft)

- **Rated Speed:** Typically around 2200-2400 RPM

Fuel Efficiency and Emissions

- **Fuel Consumption:** Varies with load, approximately 0.25-0.30 liters per kWh
- **Emission Standards:** Complies with Tier 3/Stage IIIA standards; newer models meet Tier 4 Final/Stage IV with DOC/DPF after-treatment

Physical Dimensions and Weight

- **Length:** Approximately 1,250 mm (49 inches)
- **Width:** About 900 mm (35 inches)
- **Height:** Around 1,150 mm (45 inches)
- **Dry Weight:** Ranges from 650 to 800 kg (1,430 to 1,764 lbs), depending on configuration

Lubrication and Cooling

- **Lubrication System:** Splash and pressure lubrication with oil filter
- **Cooling System:** Water-cooled with radiator, thermostat, and coolant pump

Electrical and Accessories

- **Battery Voltage:** 12V or 24V systems available
- **Starter Motor:** Electric starter compatible with vehicle electrical systems
- **Alternator:** 70-100A, depending on model

Design and Construction Features

Understanding the design features of the Perkins 4270 engine highlights its robustness and ease of maintenance.

Engine Block and Cylinders

- High-strength cast iron block for durability
- Four-cylinder inline configuration for balanced performance
- Optimized cylinder head design for efficient combustion

Fuel System and Emissions Control

- Direct fuel injection system ensures precise fuel delivery
- Advanced turbocharging options available for higher power output
- Emission control devices such as DOC (Diesel Oxidation Catalyst) and DPF (Diesel Particulate Filter) in newer models

Cooling and Lubrication

- Efficient cooling system prevents overheating during intensive use
- Easy access to oil filters and coolant drain points simplifies maintenance

Control and Monitoring

- Built-in sensors for temperature, oil pressure, and RPM monitoring
- Compatibility with electronic control units (ECUs) for advanced diagnostics

Applications of the Perkins 4270

The versatility of the Perkins 4270 engine makes it suitable for various industrial sectors:

Construction Equipment

- Excavators
- Wheel loaders
- Backhoe loaders
- Graders and bulldozers

Agricultural Machinery

- Tractors
- Harvester machines
- Irrigation pumps

Power Generation

- Generator sets (gensets)
- Standby power systems

Industrial and Marine

- Industrial pumps and compressors
- Small marine vessels

Performance Benefits of Perkins 4270

Choosing a Perkins 4270 engine offers various advantages, including:

- **High Reliability:** Designed for continuous operation in tough environments
- **Fuel Efficiency:** Optimized combustion reduces fuel costs
- **Ease of Maintenance:** Accessible components and comprehensive service manuals
- **Compliance with Emission Regulations:** Meets modern environmental standards
- **Versatility:** Suitable for a wide range of machinery and applications

Comparison with Other Perkins Engines

While the Perkins 4270 stands out for its specific features, it's helpful to compare it with other models:

Perkins 4108 vs. Perkins 4270

- The 4108 is a smaller 3-cylinder engine, suitable for lighter applications.
- The 4270 offers higher power, torque, and better fuel efficiency for heavy-duty tasks.

Perkins 4293 Series

- Higher horsepower and advanced emission controls
- More complex design suited for larger machinery

Maintenance and Service Tips for Perkins 4270

Proper maintenance ensures the longevity and optimal performance of your Perkins 4270 engine. Key tips include:

- Regularly check and replace engine oil and oil filters
- Inspect coolant levels and radiator condition
- Change air filters periodically to prevent dust ingress
- Monitor fuel system components for leaks or clogging
- Perform scheduled inspections of belts, hoses, and electrical connections
- Use genuine Perkins parts for replacements

Conclusion: Why Choose Perkins 4270?

The Perkins 4270 specifications underscore its position as a reliable, efficient, and versatile engine suitable for demanding industrial applications. Its combination of robust construction, high performance, and compliance with emission standards makes it a preferred choice for machinery operators and builders worldwide. Whether you need a power source for construction equipment, agricultural machinery, or backup power generation, the Perkins 4270 engine delivers consistent and dependable performance.

Investing in a Perkins 4270 engine means investing in quality, durability, and peace of mind. With its detailed specifications and proven track record, the Perkins 4270 remains a top choice for professionals seeking powerful and efficient diesel engine solutions.

Keywords: Perkins 4270 specs, Perkins 4270 engine, Perkins 4270 performance, Perkins 4270 technical specifications, Perkins 4270 application, diesel engine Perkins 4270, Perkins engine comparison, Perkins 4270 maintenance

Perkins 4270 Specs: An In-Depth Look at the Powerhouse Engine

Perkins 4270 specs have garnered significant attention in the industrial and construction sectors, thanks to their renowned reliability, efficiency, and robust performance. As a critical component powering a wide range of machinery?from tractors and generators to construction equipment?the Perkins 4270 engine exemplifies Perkins' commitment to engineering excellence. This article provides a comprehensive exploration of the Perkins 4270 specifications, diving into its technical features, performance metrics, and applications, offering readers a detailed understanding of what makes this engine a preferred choice in the industry.

Overview of Perkins 4270 Engine

The Perkins 4270 series is part of the company's range of industrial diesel engines designed for durability and versatility. Known for their high torque output and fuel efficiency, these engines are engineered to withstand demanding operational environments. The Perkins 4270 specs are particularly appealing for heavy-duty applications where reliability and performance are non-negotiable.

The engine series is built on a modular design philosophy, allowing for ease of maintenance and customization to suit specific operational needs. Its design incorporates advanced combustion technology, robust construction materials, and modern emission control systems, making it compliant with various international standards.

Technical Specifications of Perkins 4270

Understanding the technical specifications of the Perkins 4270 engine provides insight into its capabilities and advantages. Below is a detailed breakdown of the key specs:

Engine Type and Configuration

- Engine Model: Perkins 4270
- Type: 4-cylinder, in-line, turbocharged diesel engine
- Displacement: Approximately 4.4 liters (270 cubic inches)
- Cooling System: Water-cooled (liquid cooling)
- Aspiration: Turbocharged with intercooler
- Combustion System: Direct injection

Power Output and Performance

- Gross Power: Ranges between 75 to 100 horsepower (depending on specific model and configuration)
- Net Power: Slightly lower than gross, optimized for efficiency
- Peak Torque: Around 250 Nm (approximate, varies by model)
- Rated RPM: Typically 2200-2500 RPM
- Power-to-Weight Ratio: High, ensuring efficient power delivery relative to engine size

Fuel System and Efficiency

- Fuel Consumption: Approximately 0.25 to 0.30 liters per kWh under typical load conditions
- Fuel System: Direct injection, electronically controlled in newer models for better fuel atomization
- Fuel Type: Diesel (DOE standard)

Emissions and Compliance

- Emission Standards: Meets Tier 3/Stage IIIA, with newer variants complying with Tier 4 Final/Stage IV standards
- Emission Control Devices: Incorporates Diesel Oxidation Catalyst (DOC), Selective Catalytic Reduction (SCR), and Diesel Particulate Filter (DPF) as applicable

Dimensions and Weight

- Overall Length: Approximately 1,200 mm
- Width: About 800 mm
- Height: Roughly 1,100 mm
- Dry Weight: Varies between 400 to 500 kg depending on configuration

Performance and Operational Features

The Perkins 4270 engine is designed to deliver consistent, reliable performance across various applications. Its turbocharged configuration ensures high power density, while the direct injection system optimizes fuel combustion for efficiency and reduced emissions.

Key operational features include:

- Robust Construction: Heavy-duty cast iron block and cylinder head resist wear and thermal stress.
- Advanced Lubrication: Ensures long engine life and minimizes maintenance needs.
- Electronic Control Modules: For precise fuel delivery, boost control, and diagnostics.
- Vibration and Noise Control: Incorporates dampers and sound-insulating components to reduce operational noise and vibration.

Applications of Perkins 4270

The versatility of the Perkins 4270 specs makes it suitable for a broad spectrum of industrial applications:

- Construction Equipment: Excavators, loaders, bulldozers, and cranes benefit from its high torque and durability.
- Agricultural Machinery: Tractors, harvesters, and other farm machinery rely on its efficiency and reliability.
- Power Generation: Used in generators for standby or continuous power supply, especially in remote locations.

- Marine and Industrial: Suitable for small boats, industrial pumps, and other machinery requiring compact but powerful engines.

Maintenance and Serviceability

Perkins engines are known for their ease of maintenance, and the 4270 series continues this tradition. The engine's modular design allows for quick access to key components such as filters, injectors, and the turbocharger. Regular oil changes, filter replacements, and timely diagnostics help in maintaining optimal performance.

Some notable features include:

- Extended Service Intervals: Up to 500 hours for oil changes with synthetic oils.
- Diagnostic Tools: Compatibility with Perkins' Electronic Service Tool (EST) for troubleshooting.
- Availability of Parts: Wide network of authorized service centers ensures availability of genuine parts.

Innovations in Perkins 4270

The Perkins 4270 series incorporates several technological innovations:

- Emission Control Technology: Ensures compliance with stringent global standards without sacrificing performance.
- Fuel Efficiency Enhancements: Electronic fuel injection and turbocharging optimize combustion.
- Durability Enhancements: Use of high-strength materials and thermal management systems extend engine life.

Comparing Perkins 4270 with Competitors

When evaluating the Perkins 4270 specs against similar engines, key differentiators include:

- Reliability: Perkins has a long-standing reputation for durable engines, and the 4270 is no exception.
- Efficiency: Competitive fuel consumption figures and advanced emission controls.
- Support Network: Extensive global service and parts availability.
- Cost of Ownership: Lower maintenance costs and longer service intervals contribute to reduced operational costs.

Future Outlook and Developments

Perkins continues to innovate within its engine lineup, with upcoming models likely to feature enhanced electronic controls, hybridization options, and further emission reductions. The Perkins 4270 engine is expected to evolve with these advancements, maintaining its relevance in an increasingly eco-conscious industry.

Conclusion

The *perkins 4270 specs* reveal an engine built for performance, efficiency, and longevity. Its combination of technical robustness and adaptability makes it a preferred choice across diverse industrial sectors. Whether powering construction machinery, agricultural equipment, or standby generators, the Perkins 4270 series stands out as a reliable workhorse capable of meeting the demanding needs of modern industry. As Perkins continues to innovate and refine its engine offerings, the 4270 series remains a testament to the company's engineering prowess and commitment to quality.

QuestionAnswer What are the main specifications of the Perkins 4270 engine? The Perkins 4270 engine features a 4.4-liter, four-cylinder diesel engine with a maximum power output of approximately 150 horsepower, designed for durability and efficiency in heavy-duty applications. What is the fuel capacity of the Perkins 4270 engine? The Perkins 4270 typically has a fuel tank capacity of around 120 liters (31.7 gallons), allowing for extended operation between refills. What are the dimensions and weight of the Perkins 4270? The engine measures approximately 1,200 mm in length, 800 mm in width, and 1,050 mm in height, with a weight of about 950 kilograms, making it suitable for various heavy machinery. What cooling system does the Perkins 4270 utilize? The Perkins 4270 is equipped with a water-cooled system featuring a radiator and thermostatic controls to maintain optimal operating temperatures. What are the typical applications of the Perkins 4270 engine? This engine is commonly used in construction machinery, agricultural equipment, generators, and industrial applications requiring reliable and efficient power. What are the emission standards compliance levels of the Perkins 4270? The Perkins 4270 meets Tier 3 emission standards, ensuring reduced environmental impact and compliance with international regulations. What is the oil capacity of the Perkins 4270 engine? The oil capacity is approximately 10 liters, with recommended oil grades specified in the service manual for optimal performance. What are the maintenance intervals for the Perkins 4270? Routine maintenance, including oil changes and filter replacements, is recommended every 250 hours of operation or as specified by Perkins for optimal longevity. Does the Perkins 4270 engine support electronic control systems? Yes, the Perkins 4270 can be equipped with electronic control modules for improved fuel efficiency and diagnostic capabilities. Where can I find detailed technical specifications for the Perkins 4270? Detailed specifications are available in the official Perkins engine manual or through authorized Perkins dealers and service centers.

Related keywords: Perkins 4270 engine, Perkins 4270 horsepower, Perkins 4270 dimensions, Perkins 4270 fuel consumption, Perkins 4270 maintenance, Perkins 4270 weight, Perkins 4270 performance, Perkins 4270 parts, Perkins 4270 manual, Perkins 4270 price

perkins parts catalogue 404d

Perkins parts catalogue 404d is an essential resource for anyone involved in the maintenance, repair, or refurbishment of Perkins engines, particularly the Perkins 404D series. This comprehensive catalogue provides detailed information on a wide range of parts, specifications, and compatibility details that are crucial for ensuring optimal engine performance and longevity. Whether you are a mechanic, a parts distributor, or a fleet manager, understanding how to utilize the Perkins parts catalogue 404d can significantly streamline your maintenance processes, reduce downtime, and ensure you are using genuine, high-quality components.

Understanding the Perkins 404D Engine Series

Before diving into the specifics of the parts catalogue, it?s important to grasp the basics of the Perkins 404D engine series. The Perkins 404D is a popular series of diesel engines known for their durability, fuel efficiency, and versatility. These engines are commonly used in various applications such as generators, construction equipment, agricultural machinery, and industrial vehicles.

Key Features of the Perkins 404D

- Power Output: Ranges typically from 20 to 50 horsepower depending on model variations.
- Engine Type: 4-cylinder, 4-stroke diesel engines.
- Cooling System: Water-cooled for efficient temperature regulation.
- Fuel System: Direct injection for better fuel economy and emissions control.
- Applications: Suitable for portable generators, pumps, mini excavators, and more.

Given its widespread use, having the correct parts and understanding their placement within the engine is vital for maintaining performance and extending the service life of the equipment.

What is the Perkins Parts Catalogue 404d?

The Perkins parts catalogue 404d is a detailed manual that lists all the available spare parts, components, and accessories designed specifically for the Perkins 404D engine series. It serves as a comprehensive guide to identify, select, and order genuine Perkins parts, ensuring compatibility

and quality.

Contents of the Perkins Parts Catalogue 404d

- Engine Block Components
- Fuel System Parts
- Lubrication System Components
- Cooling System Parts
- Electrical and ignition parts
- Filters and Seals
- Hardware and Fasteners
- Gaskets and Pistons
- Accessories and Consumables

This structured approach helps technicians quickly locate the parts they need, along with detailed specifications, part numbers, and compatibility information.

How to Use the Perkins Parts Catalogue 404d Effectively

Utilizing the parts catalogue efficiently can save time and prevent errors in ordering incorrect components. Here are some tips to maximize its utility:

Identify the Correct Part Number

- Start by gathering the engine serial number and model details.
- Use the index or the parts diagram to locate the part based on its name or function.
- Cross-reference the part number with the catalogue to confirm specifications and compatibility.

Understand the Parts Diagrams

- Refer to exploded views to understand how parts fit together.
- Use diagrams to identify the position and relation of components within the engine.
- This visual aid is especially helpful when replacing assemblies or troubleshooting issues.

Ordering Genuine Parts

- Always use the part number from the catalogue to ensure authenticity.

- Contact authorized Perkins distributors or dealers.
- Check for updated versions of the catalogue for the latest part numbers and revisions.

Benefits of Using Genuine Perkins Parts for 404d Engines

Choosing genuine Perkins parts as listed in the 404d catalogue offers numerous advantages:

Quality Assurance and Reliability

Genuine Perkins parts are manufactured to exact specifications, ensuring durability and optimal performance. They undergo rigorous testing to meet industry standards, reducing the risk of premature failure.

Compatibility and Fit

OEM parts guarantee perfect fit and function, which is critical for engine efficiency and longevity. Using non-genuine parts may lead to compatibility issues and potential damage.

Warranty and Support

Many genuine parts come with warranties and are supported by Perkins? customer service. This provides peace of mind and protection against manufacturing defects.

Cost-Effectiveness in the Long Run

Although genuine parts might be slightly more expensive upfront, their durability and performance often translate into lower maintenance costs over time.

Commonly Replaced Parts in the Perkins 404D Series

Understanding which parts are most frequently replaced can help in planning maintenance schedules and stocking essential components.

Top Replacement Parts

- Fuel Filters
- Oil Filters
- Air Filters
- Glow Plugs
- Pistons and Rings

- Gaskets and Seals
- Water Pump
- Alternators and Starter Motors

Regular replacement of these parts according to the manufacturer?s guidelines ensures smooth engine operation and reduces unexpected breakdowns.

Where to Find the Perkins Parts Catalogue 404d

The parts catalogue is available through multiple channels:

Official Perkins Website

- Downloadable PDF versions and online parts lookup tools.
- Access to the latest updates and revisions.

Authorized Perkins Distributors

- Physical copies and digital access.
- Expert advice and technical support.

Third-Party Suppliers and Parts Retailers

- Some may offer compatible or aftermarket parts, but caution is advised to ensure quality and compatibility.

Important Tips for Accessing the Catalogue

- Register with authorized dealers for access to detailed technical resources.
- Keep your engine serial number handy for quick identification.
- Ensure you are referencing the latest version of the catalogue for updated parts and specifications.

Maintaining and Extending the Life of Your Perkins 404D Engine

Proper maintenance, guided by the parts catalog, can significantly extend the lifespan of your engine.

Regular Inspection and Replacement

- Follow the maintenance schedule outlined in the engine manual.
- Replace filters, gaskets, and fluids proactively.

Using Quality Parts

- Always opt for genuine Perkins parts as specified in the catalogue.
- Avoid cheap substitutes that may compromise engine integrity.

Professional Servicing

- Engage qualified technicians familiar with Perkins engines.
- Utilize the parts catalogue to ensure accurate diagnostics and repairs.

Conclusion

The Perkins parts catalogue 404d is an indispensable tool for maintaining the performance, reliability, and longevity of Perkins 404D engines. By leveraging this resource, users can confidently identify the correct parts, ensure compatibility, and source genuine components that meet industry standards. Whether you are performing routine maintenance or undertaking major repairs, having an up-to-date and comprehensive parts catalogue simplifies the process and helps safeguard your investment. Emphasizing quality, compatibility, and proper maintenance, the Perkins parts catalogue 404d ultimately supports efficient engine operation and minimizes downtime, making it a vital asset for all Perkins engine users.

Perkins Parts Catalogue 404D: A Comprehensive Guide for Maintenance and Repair

Perkins parts catalogue 404d serves as an indispensable resource for owners, technicians, and service professionals working with Perkins engines, particularly the 404D series. Known for its durability and efficiency, the Perkins 404D engine is widely used across construction, agriculture, and industrial applications. Proper maintenance and timely repairs hinge on access to accurate, detailed parts information, making the catalogue a vital tool in ensuring optimal engine performance and longevity. This article explores the contents, structure, and practical uses of the Perkins parts catalogue 404d, providing a detailed overview for those engaged in engine maintenance and repair.

Understanding the Perkins 404D Engine Series

Before diving into the parts catalogue itself, it?s essential to understand the engine series it covers. The Perkins 404D is a popular, lightweight, four-cylinder diesel engine renowned for its reliability and fuel efficiency. It is commonly used in:

- Compact construction equipment
- Agricultural machinery
- Generators
- Marine applications

The engine?s modular design allows for easier maintenance and parts replacement, which underscores the importance of having a comprehensive parts catalogue.

The Purpose and Importance of the Perkins Parts Catalogue 404D

The Perkins parts catalogue 404d is more than just a listing of parts; it?s a detailed manual intended to:

- Facilitate accurate identification of engine components
- Enable precise ordering of replacement parts
- Assist technicians in troubleshooting and diagnostics
- Support maintenance planning and inventory management

In essence, the catalogue acts as a roadmap that guides users through the complex landscape of engine components, ensuring that repairs are accurate, efficient, and cost-effective.

Structure of the Perkins Parts Catalogue 404D

The parts catalogue is meticulously organized to streamline access to information. Its structure typically follows a logical hierarchy:

- Engine Identification and Serial Numbering

- Model Variants: The catalogue covers specific variants within the 404D series, such as 404D-22T, 404D-22TA, etc.
- Serial Number Ranges: Helps users determine the exact version of their engine for accurate parts matching.
- Application Data: Details about the engine?s intended use and compatibility.

- Sectional Breakdown of Components

The catalogue segments parts based on engine sections, making navigation straightforward:

- Engine Block and Cylinder Head
- Lubrication System
- Fuel System
- Cooling System
- Electrical System
- Starting and Charging Systems
- Exhaust System
- Accessories and Mountings

Each section contains detailed illustrations, part numbers, descriptions, and specifications.

- Illustrations and Diagrams

High-quality exploded views provide visual aid for identifying parts and understanding their assembly or replacement order. These diagrams are invaluable during disassembly and reassembly.

- Part Number Listings

Every part is assigned a unique number, often accompanied by cross-references to alternative or superseding parts. This ensures compatibility and helps locate obsolete or superseded components.

- Additional Information

- Specifications: Technical data such as dimensions, torque settings, and material details.
- Ordering Information: Instructions on how to order parts, including suppliers or authorized dealers.
- Maintenance Tips: Recommendations for part replacement intervals and troubleshooting.

How to Use the Perkins Parts Catalogue 404D Effectively

Maximizing the utility of the parts catalogue involves understanding its practical applications:

Accurate Parts Identification

- Cross-reference engine serial numbers and model variants.
- Use diagrams and part descriptions to confirm the correct component.
- Verify specifications before ordering, avoiding mismatched parts.

Troubleshooting and Diagnostics

- Use the catalogue?s illustrations to locate and inspect components suspected of failure.
- Cross-check with technical data to assess wear or damage.

Ordering and Inventory Management

- Leverage detailed part numbers for precise ordering.
- Maintain an inventory of common replacement parts based on maintenance schedules.

Maintenance and Repair Planning

- Follow recommended part replacement intervals.
- Use the catalogue to plan for major overhauls or component replacements.

Key Features and Benefits of the Perkins Parts Catalogue 404D

This catalogue offers several features designed to aid users:

- Comprehensive Coverage: All engine components, from major assemblies to small fittings.
- Clear Illustrations: Exploded diagrams for easy visual identification.
- Up-to-Date Part Numbers: Includes superseded and compatible parts.
- Technical Specifications: Ensures correct parts selection based on detailed data.
- User-Friendly Layout: Logical navigation with quick access to relevant sections.

The benefits of utilizing the catalogue include reduced downtime, minimized repair errors, and optimized engine performance.

Accessing the Perkins Parts Catalogue 404D

The catalogue is available through multiple channels:

- Official Perkins Website: Digital versions for registered users or authorized dealers.
- Authorized Distributors: Physical copies or downloadable PDFs.
- Third-Party Suppliers: Some aftermarket parts providers offer compatible parts lists and catalogues.

For best results, users should ensure they are consulting the latest edition, as part numbers and specifications may be updated periodically.

Practical Tips for Using the Parts Catalogue

- Always confirm engine serial numbers before ordering parts.
- Use exploded diagrams for complex assemblies to understand component relationships.
- Cross-reference part numbers with suppliers to verify compatibility.
- Keep a record of frequently ordered parts for quick reference.
- Regularly update your knowledge of new parts or revisions issued by Perkins.

The Future of Parts Catalogues and Digital Integration

As technology advances, digital versions of the Perkins parts catalogue 404D are becoming increasingly prevalent. These online platforms offer features such as:

- Search functions by part number or description
- Interactive 3D models
- Real-time stock availability
- Integration with diagnostic tools
- Mobile accessibility for on-field technicians

Transitioning to digital catalogues enhances efficiency, reduces errors, and allows for quicker response times during repairs.

Conclusion

Perkins parts catalogue 404d is an essential resource that underpins the maintenance, repair, and longevity of Perkins engines. Its detailed organization, comprehensive coverage, and user-friendly features make it a vital tool for technicians and engine owners alike. Proper utilization of this catalogue ensures accurate parts replacement, reduces downtime, and supports the continued

reliable operation of engines across various industries. As Perkins continues to innovate, embracing digital catalogues and integrated solutions will further empower users to maintain their engines efficiently and effectively.

In summary, whether you?re performing routine maintenance or troubleshooting complex issues, having access to the correct parts catalogue ? and understanding how to use it ? is crucial. The Perkins parts catalogue 404D not only simplifies the repair process but also extends the lifespan of your engine, securing your investment and ensuring operational success.

QuestionAnswer What is included in the Perkins Parts Catalogue 404D? The Perkins Parts Catalogue 404D includes detailed information on genuine parts, part numbers, diagrams, and maintenance procedures specific to the Perkins 404D engine model. How can I access the Perkins Parts Catalogue 404D online? You can access the Perkins Parts Catalogue 404D online through the official Perkins website or authorized dealer portals by registering for an account. Are there digital or printable versions of the Perkins Parts Catalogue 404D? Yes, digital PDF versions are available for download, and printed copies can be ordered through authorized Perkins distributors. How do I identify the correct part number for my Perkins 404D engine? Identify the correct part number by consulting the engine serial number, model details, and referencing the parts diagrams within the catalogue. Can I find troubleshooting tips in the Perkins Parts Catalogue 404D? While primarily a parts reference, the catalogue also includes some troubleshooting guidance related to maintenance and part replacements. Is the Perkins Parts Catalogue 404D suitable for repair and maintenance planning? Yes, it provides comprehensive parts information that is essential for repair, maintenance, and ordering correct components for the 404D engine. Are aftermarket parts compatible with the Perkins 404D as per the catalogue? The catalogue emphasizes genuine Perkins parts; compatibility of aftermarket parts should be verified separately, but genuine parts are recommended for optimal performance. How often is the Perkins Parts Catalogue 404D updated? The catalogue is updated periodically to include new parts, revisions, and technical information; always refer to the latest version for accurate data. Where can I get technical support for parts listed in the Perkins 404D catalogue? Technical support can be obtained through authorized Perkins dealers, customer service centers, or the official Perkins website.

Related keywords: Perkins 404D parts, Perkins engine parts, Perkins 404D maintenance, Perkins 404D engine components, Perkins parts catalog PDF, Perkins 404D repair parts, Perkins 404D spare parts, Perkins 404D engine manual, Perkins 404D parts list, Perkins 404D service manual

Read the full article online: PERKINS PARTS CATALOGUE 404D

Perkins diesel dane techniczne

perkins diesel dane techniczne

Perkins Diesel to renomowany producent silników wysokopr??nych, który od lat jest synonimem niezawodno?ci, wydajno?ci i innowacji. Je?li interesujesz si? technicznymi aspektami tych silników, szczególnie ich parametrami i specyfikacjami, to ten artyku? jest dla Ciebie. W tym tek?cie szczegó?owo omówimy najwa?niejsze dane techniczne silników Perkins Diesel, aby pomóc Ci lepiej zrozumie? ich funkcjonowanie, zastosowania i korzy?ci.

Podstawowe informacje o Perkins Diesel

Perkins Diesel to firma z d?ugoletni? tradycj?, specjalizuj?ca si? w produkcji silników wysokopr??nych dla ró?nych sektorów, od przemys?u budowlanego, przez rolnictwo, a? po transport. Silniki Perkins charakteryzuj? si? wysok? trwa?o?ci?, niskim zu?yciem paliwa oraz ?atwo?ci? serwisowania.

Firma oferuje szeroki zakres mocy i rozmiarów silników, co pozwala na ich zastosowanie w wielu urz?dzeniach i maszynach. Aby dobrze zrozumie? ich techniczne dane, warto przeanalizowa? g?ówne parametry, które wp?ywaj? na wydajno?? i funkcjonalno?? tych jednostek.

G?ówne parametry techniczne silników Perkins Diesel

Dane techniczne silników Perkins Diesel mo?na podzieli? na kilka kluczowych kategorii, takich jak moc, moment obrotowy, pojemno?? skokowa, zu?ycie paliwa, emisje, wymiar i waga. Poni?ej omówimy najwa?niejsze z nich.

Moc silnika

Moc jest jednym z najwa?niejszych parametrów, okre?la zdolno?? silnika do wykonywania pracy. W silnikach Perkins Diesel moc wyra?a si? w kilowatach (kW) lub koniach mechanicznych (KM).

- **Zakres mocy:** od oko?o 20 kW (27 KM) dla ma?ych silników do ponad 200 kW (270 KM) w du?ych jednostkach przemys?owych.
- **Typowe zastosowania:** silniki o mocy od 30 do 100 kW s? popularne w maszynach budowlanych, rolniczych i generacyjnych.
- **Wydajno??:** silniki Perkins s? zoptymalizowane pod k?tem wysokiej sprawno?ci przy minimalnym zu?yciu paliwa.

Moment obrotowy

Moment obrotowy, wyra?any w niutonometrach (Nm), odgrywa kluczow? rol? w ocenie zdolno?ci

silnika do nap?dzania maszyn.

- **Zakres:** od oko?o 100 Nm w mniejszych silnikach do ponad 1000 Nm w du?ych jednostkach.
- **Znaczenie:** wy?szy moment obrotowy zapewnia lepsz? si?? nap?dow? przy niskich obrotach, co jest istotne w maszynach pracuj?cych w ci??kich warunkach.

Pojemno?? skokowa

Pojemno?? skokowa silnika, wyra?ana w centymetrach sze?ciennych (cm^3), okre?la ilo?? powietrza i paliwa, które silnik jest w stanie przetworzy? w jednym cyklu pracy.

- **Typowe warto?ci:** od 1.5 do 8 litrów, w zale?no?ci od modelu.
- **Wp?yw na parametry:** wi?ksza pojemno?? zwykle przek?ada si? na wy?sz? moc i moment obrotowy, ale tak?e na wi?ksze zu?ycie paliwa.

Zu?ycie paliwa

Efektywno?? paliwowa jest kluczow? cech? silników Perkins Diesel.

- **?rednie zu?ycie:** od 0.2 do 0.4 litra na godzin? pracy w zale?no?ci od modelu i obci??enia.
- **Optymalizacja:** nowoczesne silniki Perkins wykorzystuj? technologie takie jak common rail czy turbospr??arki, co pozwala na redukcj? zu?ycia paliwa.

Emisje spalin

W zwi?zku z rosn?cymi wymogami ekologicznymi, silniki Perkins Diesel spe?niaj? aktualne normy emisji.

- **Normy:** Euro III, Euro IV, Euro V, a w niektórych modelach Euro VI.
- **Technologie redukcji emisji:** systemy SCR, DPF, EGR, które pomagaj? ograniczy? emisj? tlenków azotu (NOx), cz?stek sta?ych (PM) i innych szkodliwych substancji.

Budowa i konstrukcja silników Perkins Diesel

Kolejnym wa?nym aspektem s? szczegó?y konstrukcji, które wp?ywaj? na niezawodno?? i trwa?o?? silników.

Typy silników Perkins Diesel

Perkins oferuje ró?ne typy silników, dostosowane do specyficznych potrzeb.

- **Silniki rz?dowe:** najcz??ciej spotykane, z cylindrami ustawionymi w jednej linii, zapewniaj?ce dobr? równowag? i dost?p do serwisu.
- **Silniki V:** bardziej kompaktowe, stosowane w specjalistycznych maszynach.
- **Silniki z turbospr??ark?:** zwi?kszaj?ce moc i moment obrotowy przy jednoczesnym obni?eniu zu?ycia paliwa.

Materia?y i wyko?czenie

Wysoka jako?? materia?ów i precyzja wykonania to podstawowe cechy silników Perkins Diesel.

- **Bloki cylindrów:** odlewy z ?eliwa lub aluminium dla optymalnej wytrzyma?o?ci i lekko?ci.
- **G?owice cylindrów:** stalowe lub aluminiowe, zapewniaj?ce trwa?o?? i skuteczn? ch?odzenie.
- **Uk?ad ch?odzenia:** systemy wodne, powietrzne lub mieszane, zapewniaj?ce stabiln? prac? silnika w ró?nych warunkach.

Technologie i innowacje w Perkins Diesel

Perkins stale inwestuje w rozwój technologii, które poprawiaj? parametry techniczne i ekologi? ich silników.

Systemy kontroli i monitorowania

Nowoczesne silniki Perkins wyposa?one s? w systemy diagnostyczne, które pozwalaj? na bie??co monitorowa? stan silnika.

- Inteligentne sterowniki ECU
- Systemy diagnostyczne OBD (On-Board Diagnostics)
- Automatyczne zarz?dzanie paliwem i moc?

Redukcja emisji i zwi?kszona sprawno??

Technologie takie jak common rail, turbospr??arki z intercoolerem, systemy SCR i EGR pozwalaj? na osi?gni?cie wy?szej sprawno?ci i zgodno?ci z normami ?rodowiskowymi.

Zastosowania silników Perkins Diesel

Dzi?ki swoim parametrom technicznym, silniki Perkins znajduj? szerokie zastosowanie w ró?nych dziedzinach.

- **Maszyny budowlane:** koparki, ?adowarki, spycharki.
- **Sprz?t rolniczy:** ci?gniki, kombajny, pompy i systemy nawadniaj?ce.
- **Generatory pr?du:** zasilanie awaryjne i sta?e w miejscach odleg?ych od sieci energetycznej.
- **Transport i logistyka:** pojazdy ci??arowe, autobusy, maszyny portowe.

Podsumowanie

perkins diesel dane techniczne to zestaw informacji, które pozwalaj? na dok?adne poznanie mo?liwo?ci i parametrów tych silników. Od mocy i momentu obrotowego, przez konstrukcj?, po technologie redukcji emisji ? wszystkie te elementy decyduj? o ich niezawodno?ci i efektywno?ci. Perkins Diesel to marka, która od lat wyznacza standardy w bran?y silników wysokopr??nych, zapewniaj?c rozwi?zania dopasowane do potrzeb najbardziej wymagaj?cych u?ytkowników. Niezale?nie

Perkins Diesel Dane Techniczne: Kompleksowy Przewodnik po Parametrach i Specyfikacjach

Perkins Diesel to renomowana marka silników wysokopr??nych, ceniona na ca?ym ?wiecie za swoje niezawodne rozwi?zania, wysok? wydajno?? i trwa?o??. Je?li poszukujesz szczegó?owych informacji na temat perkins diesel dane techniczne, ten artyku? dostarczy Ci szczegó?owego obrazu parametrów, które definiuj? te silniki, ich zastosowania oraz ró?norodno?? modeli dost?pnych na rynku. Przedstawimy równie? szczegó?ow? analiz? kluczowych aspektów technicznych, takich jak moc, moment obrotowy, zu?ycie paliwa, emisje, systemy ch?odzenia i wiele innych.

Podstawowe informacje o markach Perkins Diesel

Perkins Diesel to brytyjska firma za?o?ona w 1932 roku, która od pocz?tku koncentrowa?a si? na produkcji silników wysokopr??nych do ró?nych zastosowa? ? od maszyn rolniczych, poprzez pojazdy komercyjne, a? po urz?dzenia przemys?owe. Firma zyska?a mi?dzynarodow? renom? dzi?ki swojej innowacyjno?ci, wysokiej jako?ci i szerokiemu portfolio produktów.

G?ówne kategorie silników Perkins Diesel

Perkins oferuje szeroki wybór silników, które mo?na podzieli? na kilka g?ównych kategorii:

Silniki o mocy od 1 do 10 kW

- Przeznaczone g?ównie do ma?ych maszyn, generatorów i urz?dze? przeno?nych.
- Charakteryzuj? si? kompaktow? budow? i niskim zu?yciem paliwa.

Silniki o mocy od 10 do 50 kW

- Popularne w sprz?cie budowlanym, ?odziach, agregatach pr?dotwórczych.
- Zazwyczaj maj? bardziej rozbudowane systemy ch?odzenia i uk?ady wydechowe.

Silniki powy?ej 50 kW

- Dedykowane du?ym maszynom, pojazdom ci??arowym, koparkom i du?ym generatorom.
- Wyposa?one w zaawansowane systemy emisji i zarz?dzania moc?.

Kluczowe parametry techniczne silników Perkins Diesel

Aby dobrze zrozumie? perkins diesel dane techniczne, konieczne jest szczegó?owe poznanie podstawowych parametrów, które opisuj? wydajno?? i funkcjonowanie silnika.

1. Moc silnika (kW i KM)

- Definicja: Ilo?? pracy, któr? silnik jest w stanie wygenerowa? w jednostce czasu.
- Typowe zakresy: od 1 kW (1.36 KM) w ma?ych silnikach do ponad 400 kW (544 KM) w du?ych jednostkach.
- Znaczenie: Wybór mocy zale?y od zastosowania ? od lekkich maszyn po ci??kie pojazdy i urz?dzenia przemys?owe.

2. Moment obrotowy (Nm)

- Definicja: Si?a obrotowa generowana przez silnik, wyra?ana w niutonometrach.
- Typowe warto?ci: od kilku do kilkuset Nm, w zale?no?ci od modelu.
- Znaczenie: Wysoki moment obrotowy jest kluczowy dla maszyn pracuj?cych w trudnych warunkach, np. w koparkach czy ci??kich maszynach budowlanych.

3. Obroty na minut? (RPM)

- Zazwyczaj zakres: od 1500 do 2500 RPM dla silników Perkins Diesel.
- Znaczenie: Optymalne obroty zapewniaj? równowag? mi?dzy wydajno?ci? a zu?yciem paliwa.

4. Zu?ycie paliwa

- Warto?ci: od 0.2 do 0.4 litra na godzin? przy mniejszych mocach, do 20 litrów na godzin? w du?ych silnikach.
- Parametry wa?ne dla u?ytkowników: ekonomia paliwowa, koszty eksploatacji.

5. Emisje spalin

- Normy: zgodne z Euro 3, Euro 4, Euro 5, Euro 6.
- Dzia?anie: Silniki Perkins Diesel s? projektowane tak, aby spe?nia? coraz bardziej rygorystyczne normy emisji, co jest kluczowe dla zrównowa?onego rozwoju i zgodno?ci z przepisami.

6. System ch?odzenia

- Typy: uk?ad ch?odzenia wodnego, powietrznego, lub hybrydowego.
- Znaczenie: Wydajny system ch?odzenia zapewnia stabiln? prac? silnika w ró?nych warunkach.

7. System zasilania i wtrysku paliwa

- Typy: wtrysk mechaniczny, elektroniczny (Common Rail).
- Korzy?ci: Elektroniczny wtrysk poprawia wydajno??, zmniejsza zu?ycie paliwa i emisj?.

Specyfikacje techniczne wybranych modeli Perkins Diesel

Poni?ej prezentujemy szczegó?owe dane techniczne popularnych modeli Perkins Diesel, aby zobrazowa? ró?norodno?? i mo?liwo?ci tej marki.

Perkins 404D-22T

- Moc: 22 KM (16,2 kW)
- Moment obrotowy: 70 Nm
- Obroty: 2200 RPM

- Pojemno?? silnika: 2,2 litra
- Typ wtrysku: mechaniczny
- Zu?ycie paliwa: oko?o 0,9 l/h
- Norma emisji: Euro 3
- Zastosowania: ma?e maszyny rolnicze, agregaty pr?dotwórcze

Perkins 1104D-44T

- Moc: 44 KM (32,4 kW)
- Moment obrotowy: 150 Nm
- Obroty: 2200 RPM
- Pojemno??: 2,2 litra
- Wtrysk: elektroniczny Common Rail
- Zu?ycie paliwa: 2,2 l/h
- Norma emisji: Euro 4
- Zastosowania: ?adowarki, koparki, maszyny budowlane

Perkins 1004T-40T

- Moc: 40 KM (29,4 kW)
- Moment obrotowy: 135 Nm
- Obroty: 2200 RPM
- Pojemno??: 1,7 litra
- System zasilania: wtrysk mechaniczny
- Norma emisji: Euro 3
- Zastosowania: urz?dzenia przemys?owe, agregaty

Zastosowania silników Perkins Diesel i ich specyficzne dane techniczne

Silniki Perkins Diesel s? u?ywane w ró?nych sektorach przemys?u, a ich dane techniczne s? dostosowane do wymaga? konkretnego zastosowania.

1. Maszyny budowlane

- Wymagania: wysoki moment obrotowy, niezawodno??, d?ugotrwa?a praca.
- Przyk?adowe modele: Perkins 804D-33T, Perkins 1004D-44T.

2. Rolnictwo

- Wymagania: niskie zu?ycie paliwa, stabilna praca, emisje zgodne z normami.
- Modele: Perkins 404D-22T, Perkins 403D-11T.

3. Generatorowe zestawy pr?dotwórcze

- Wymagania: stabilno?? mocy, niskie drgania, d?ugi czas pracy.
- Modele: Perkins 1104D-44T, Perkins 1103A-33T.

4. Pojazdy specjalistyczne i transportowe

- Wymagania: moc, niezawodno??, emisje.
- Modele: Perkins 2806D-E13TAG2, Perkins 2806A-E18TAG2.

Technologiczne innowacje w silnikach Perkins Diesel

Perkins Diesel nieustannie inwestuje w rozwój technologii, aby sprosta? rosn?cym wymaganiom rynku i normom ekologicznym.

1. Systemy elektronicznego sterowania

- Umo?liwiaj? optymalizacj? zu?ycia paliwa, emisji i mocy.
- Pozwalaj? na precyzyjne zarz?dzanie parametrami

QuestionAnswer Jakie s? g?ówne dane techniczne silnika Perkins Diesel Dane Techniczne? G?ówne dane techniczne silnika Perkins Diesel obejmuj? moc od 20 do 1000 KM, pojemno?? silnika od 1 do 20 litrów, liczb? cylindrów od 1 do 16, oraz spe?nianie norm emisji Euro. Szczegó?y zale?? od konkretnego modelu. Gdzie mo?na znale?? szczegó?owe dane techniczne silników Perkins Diesel? Szczegó?owe dane techniczne s? dost?pne w dokumentacji technicznej producenta, na oficjalnej stronie Perkins, oraz w katalogach dystrybutorów i serwisów technicznych. Jakie s? najpopularniejsze modele Perkins Diesel i ich dane techniczne? Do popularnych modeli nale?? Perkins 404D-22T, Perkins 1104D, Perkins 4006, które charakteryzuj? si? moc? od 20 do 150 KM, ró?nymi pojemno?ciami i liczb? cylindrów, dostosowanymi do ró?nych zastosowa?. Czy Perkins Diesel oferuje silniki spe?niaj?ce normy emisji Euro 6? Tak, Perkins Diesel produkuje silniki spe?niaj?ce normy Euro 6, zapewniaj?c niskie emisje i zgodno?? z obowi?zuj?cymi regulacjami ?rodowiskowymi. Jakie s? typowe wymiary i masa silników Perkins Diesel? Wymiary i masa silników

Perkins Diesel ró?ni? si? w zale?no?ci od modelu, ale typowo maj? d?ugo?? od 1 do 2,5 m, szeroko?? od 0,8 do 1,2 m, a masa od 200 do 3000 kg. Czy Perkins Diesel oferuje silniki do zastosowa? przemys?owych i rolniczych? Tak, Perkins Diesel produkuje silniki zarówno do zastosowa? przemys?owych, jak i rolniczych, dostosowane do ró?nych wymaga? mocy i wytrzyma?o?ci. Jakie s? dost?pne opcje ch?odzenia w silnikach Perkins Diesel? Silniki Perkins Diesel mog? by? wyposa?one w ch?odzenie wodne lub powietrzne, w zale?no?ci od modelu i zastosowania, zapewniaj?c optymalne warunki pracy. Czy informacje o danych technicznych Perkins Diesel mo?na uzyska? online? Tak, szczegó?owe dane techniczne mo?na znale?? na oficjalnej stronie Perkins, w katalogach online oraz u autoryzowanych dealerów i serwisów. Jakie s? zalety silników Perkins Diesel pod wzgl?dem trwa?o?ci i efektywno?ci? Silniki Perkins Diesel s? znane z wysokiej trwa?o?ci, niskiego zu?ycia paliwa, ?atwej obs?ugi i niezawodno?ci, co czyni je popularnym wyborem w ró?nych bran?ach. Czy Perkins Diesel oferuje serwis i wsparcie techniczne dla swoich silników? Tak, Perkins Diesel posiada rozbudowan? sie? serwisow? i wsparcie techniczne na ca?ym ?wiecie, zapewniaj?c? konserwacj?, cz??ci zamienne i pomoc techniczn?.

Related keywords: Perkins diesel, dane techniczne, specyfikacje silnika Perkins, parametry Perkins, informacje techniczne Perkins, dane techniczne silników diesla, Perkins engine specs, techniczne dane Perkins, instrukcja Perkins diesel, charakterystyka Perkins diesel

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