



workshop manual for diesel engines

D4.203

4.203

4.192

workshop manual for 4.192, 4.203 & D4.203 diesel engines

U.S.A.

Perkins Engines, Inc.
P.O. Box 697
32500 Van Born Road
Wayne, Michigan 48184
Phone: (313) 595-9600

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CANADA

Perkins Engines Canada Limited
425 Horner Ave.
Toronto, Ontario M8W 4W3
Phone: (416) 593-3934

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This publication is written for world wide use. In territories where legal requirements govern engine smoke emission, noise, safety factors etc., then all instructions, data and dimensions given must be applied in such a way that, after servicing (preventive maintenance) or repairing an engine, it does not contravene the local regulations when in use.

PERKINS COMPANIES

AUSTRALIA

Perkins Engines Australia Pty. Ltd.,
P.O. Box 156, Dandenong, Victoria 3175, Australia.
Telephone: 792-0431. Telex: 30816. Cables: 'Perkoil' Melbourne.

BRAZIL

Motores Perkins S.A.
Caixa Postal 30.028, 01000 Sao Paulo, SP-Brazil.
Telephone: 448-1499. Telex: 0114013 e 0114292. Cables: 'Perkoil' Sao Paulo.

CANADA

Perkins Engines Canada Limited
425 Homer Ave.
Toronto, Ontario M8W 4W3
Phone: (416) 593-3934

FRANCE

Moteurs Perkins S.A.
55 Boulevard Ornano, Boite Postale 93, 93203 Saint-Denis, Cedex 1, France.
Telephone: 243-04:40. Telex: 620251 Saint-Denis. Cables: 'Perkoil' Paris.

GERMANY

Perkins Motoren G.m.b.H.
8752 Kleinostheim, Postfach 1180, Germany.
Telephone: 06027/8081. Telex: 4188869.

GREAT BRITAIN

Perkins Engines Limited
Peterborough, England PE1 5NA.
Telephone: Peterborough 67474. Telex: 32501. Cables: 'Perkoil' Peterborough.

ITALY

Motori Perkins S.p.A.
Via Gorizia 11, P.O. Box 12, 22070 Portichetto/Luisaga, (Como) Italy.
Telephone: (031) 927364. Telex: 380658.

JAPAN

Perkins Engines (North Pacific) Ltd.,
6th Floor, Reinansaka Building, 14-2 Akasaka 1-Chome, Minato-Ku, Tokyo 107, Japan.
Telephone: (03) 586-7377. Telex: 24292 Tokyo.

SOUTH AFRICA

Perkins Engines (Pty.) Ltd.,
P.O. Box 31285, 6th Floor, Noswal Hall, Braamfontein, 20017 Johannesburg, South Africa.
Telephone: Johannesburg 725-5715. Telex: 5430037. Cables: 'Perkoil'.

U.S.A.

Perkins Engines, Inc.
32500 Van Born Road
P.O. Box 697 • Wayne, Michigan 48184 • U.S.A.
Tel.: (313) 493-8500 • Telex: 23-4002
Perkins Engines Latin America Inc.,
2600 Douglas Road, Suite 600, Coral Gables, Florida 33134 U.S.A.
Telephone (305) 4484884. Telex: 515880. Cables: 'Perklac'.

ASSOCIATE COMPANIES & MANUFACTURING LICENSEES

ARGENTINA

Perkins Argentina S.A.I.C.
Bolívar 368, Buenos Aires, Argentina.
Telephone: 338231. Telex: 121162. Cables: 'Perkinsa'.

KOREA

Hyundai Motor Co. Ltd.,
Hyundai Building, 178 Sejong-Ro, Jongro-Ku, Seoul, Korea.
Telephone: 74-8311 & 75-6511. Telex: Hdmoco K2391.

MEXICO

Motores Perkins S.A.
Antiguo Camina San Lorenzo S/N., Apartado Postal 194, Toluca, Estado de Mexico.
Telephone: Toluca 4-4455. Telex: 00178493. Cables: 'Mopesa' Toluca.

PERU

Motores Diesel Andinos S.A.,
Antero Aspillaga No. 585, Apartado 111 79, Lima 14, Peru.
Telephone: 406882. Telex: 21076.

SINGAPORE

Perkins Engines Eastern Ltd.,
549 Upper Thomson Road, Singapore 20.
Telephone: 4524471/4521841. Telex: Perkoil R23360.

SPAIN

Motor Iberica S.A. (Division Zona 2).
Carretera del Aero-Club, Carabanchel Alto, Madrid, Spain.
Telephone: 203 52-40. 208 96-40. 208 98-40. Telex: 27324. Cables: 'Perki-e' Madrid.

URUGUAY

Perkins Rio de la Plata S.A.,
Av. Juan Carlos Gomez 1492, Montevideo, Uruguay.
Telephone: 290-726. Telex: 278. Cables: 'Perkins' Montevideo.

YUGOSLAVIA

Industrija Motora Rakovica.
Patrijarha Dimitrija 7-13,
Rakovica, Belgrade, Yugoslavia.
Telephone: 562-043/562-322/562-992. Telex: 11341 YU IMR.
Cables: 'Indmotor' Beograd.

In addition to the above, there are Perkins Distributors in the majority of countries throughout the world. For further details, apply to Perkins Engines Ltd., Peterborough or to one of the above companies.

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Unified Threads and Engine No. Location

All threads used on 4.192, 4.203 and D4.203 Engines, except on proprietary equipment are Unified Series, and American Pipe Series.

Unified threads are not interchangeable with B.S.F. and although B.S.W. have the same number of threads per inch as Unified Coarse Series, interchanging is not recommended, due to a difference in thread form.

The engine number is stamped on the cylinder block as shown in the illustrations. The number position and composition have been changed at various times as detailed below.

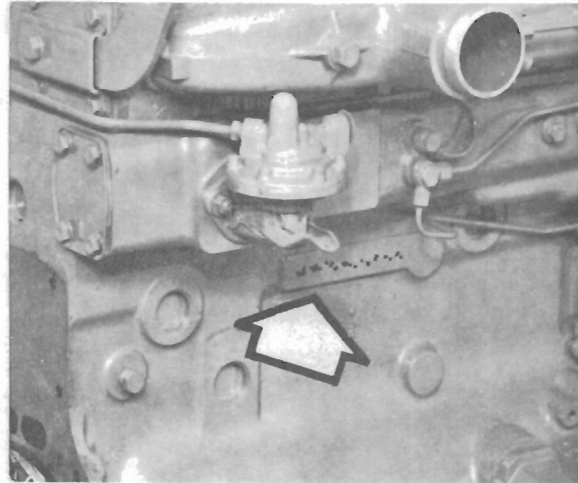
With early engines, the number was stamped on either side of the cylinder block — on the camshaft side near the fuel lift pump or on the fuel pump side near the final fuel filter. The number consisted of seven digits commencing with the letters 25 for 4.192 engines or 26 for 4.203 engines.

Later engine numbers were positioned as above, but a typical number is 203U2541.

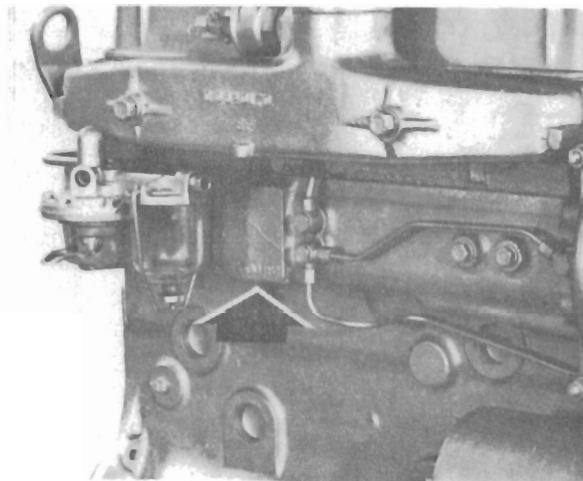
With current engines, the engine number is stamped on a pad on the centre of the camshaft side of the cylinder block and a typical number would be JE18279U510312D. For a very few applications, the engine number is stamped on the rear face of the cylinder block towards the top.

When requesting information or ordering parts, always quote all the letters and numbers in the same sequence as they are stamped on the block.

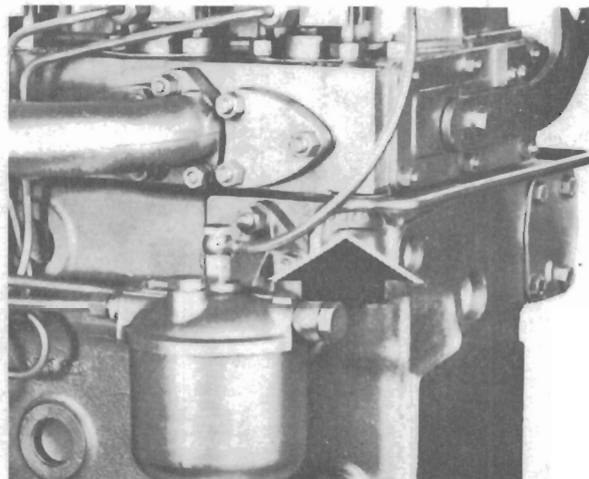
The illustrations below indicate where the engine number may be found for the first systems mentioned above.



Current Engine Number Location.



Engine No. Location on
Camshaft Side of Engine



Engine No. Location on
Fuel Pump Side of Engine.

FOREWORD

This manual is designed to be of assistance to all personnel concerned with the maintenance and overhaul of the Perkins Diesel Engine. It presents a complete and detailed description of the Engine, together with precise instructions on servicing and overhaul procedure also a schedule covering manufacturing data and dimensions which should be closely followed when overhauling any part of the Engine to the Manufacturers standards.

Unless specified otherwise, the information given applies to both 4.192, 4.203 and D4.203 engines. Where the information given differs for engines built for Massey Ferguson applications reference is made in the text.

Throughout this manual, whenever the "left" or "right" hand side of the engine is referred to, it is that side of the engine when viewed from the flywheel end.

Division of the manual into sections is intended to simplify the task of locating any specific information contained therein.

Page and illustration numbers are not accumulative, but start afresh with each section, preceded by the appropriate reference letter for that section, for example, Page C.2. and Figure C.3. are page and illustration numbers respectively, under Section C.

Effective maintenance can only be carried out if the personnel concerned are fully conversant with the various components of the engine. Before maintenance operations are commenced, therefore, this manual should be carefully studied, and it should at all time be kept where it will be needed in the workshop.

Certain operations described herein require the use of special Tools. These tools are manufactured and distributed by:—

Messrs. V. L. Churchill & Co. Ltd.

Full details are given in the appendix.

A School of Instruction is maintained at Peterborough, where the staff employed by Distributors and Operators of Perkins powered applications are given instructions on Diesel engine maintenance, with regard to the special characteristics of Perkins Engines.

In the event of difficulty, Distributors are recommended to communicate with one of the Companies given on Page 2.

Throughout this manual where it is considered necessary to use abbreviations, they are in accordance with those recommended by the British Standards Institute.

ENGINE PARTS

Wherever parts are ordered for Perkins Engines it is essential that the fullest information possible is given, always quote the engine number, type of application, and where possible the part number and description.

FOREWORD

This Publication is produced by the Service Publications Department of Perkins Engines Ltd., and every endeavour is made to ensure that the information contained in this Manual is correct at the date of publication but due to continuous developments, the manufacturers reserve the right to make alterations without notice.

USE ONLY GENUINE PERKINS PARTS

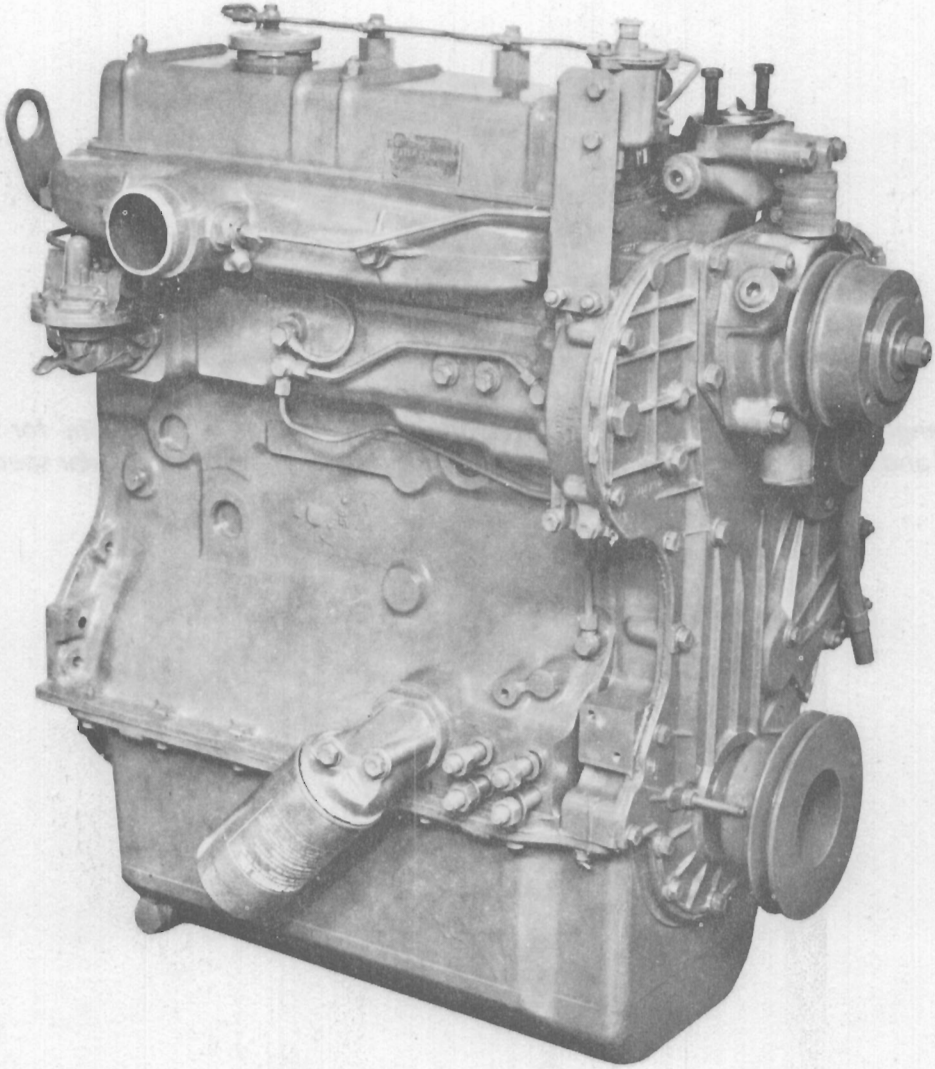
TO ENSURE YOU OBTAIN THE BEST RESULTS FROM YOUR ENGINE AND TO SAFEGUARD YOUR OWN GUARANTEE, FIT ONLY GENUINE PERKINS PARTS. THESE ARE READILY OBTAINABLE THROUGHOUT THE WORLD.

SECTION A

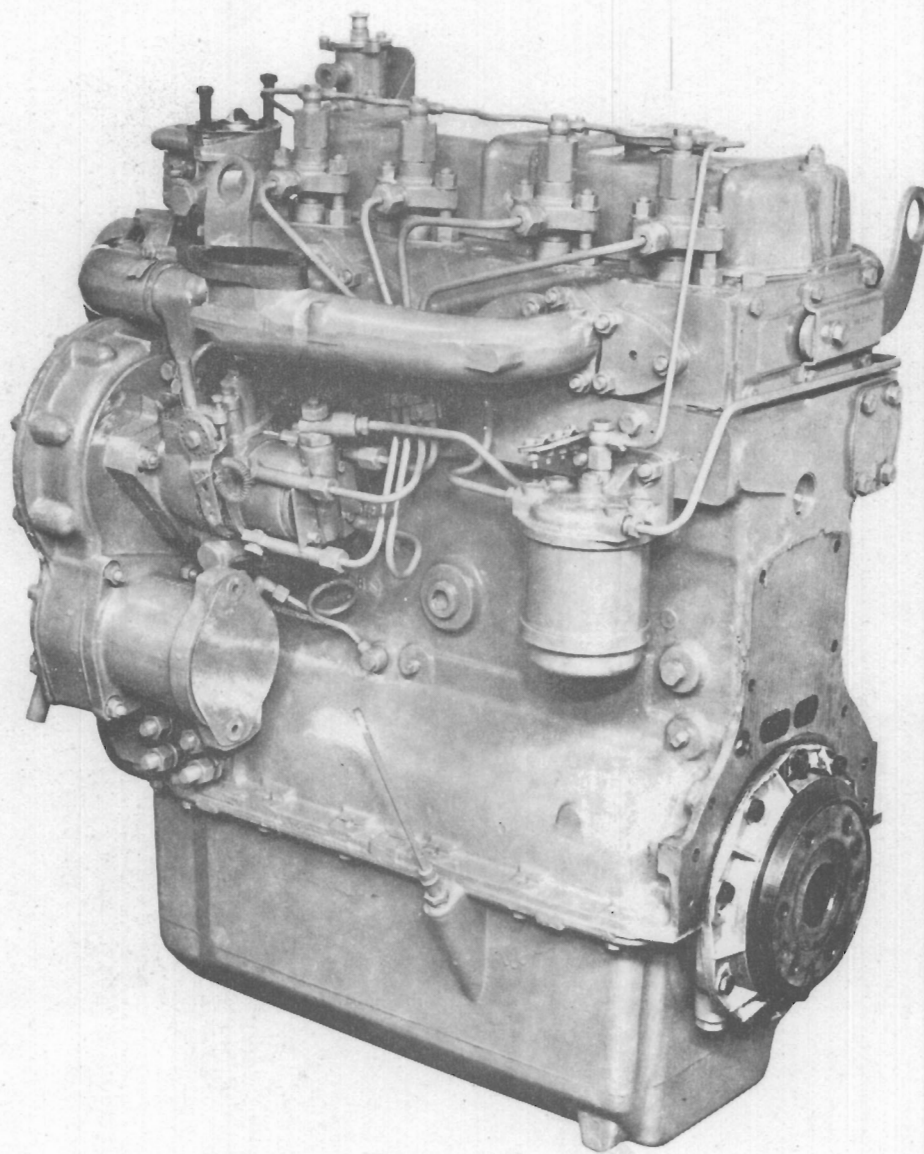
Engine Views

Perkins engines are built to individual requirements to suit the applications for which they are intended and the following engine views do not necessarily typify any particular specification.

SECTION A
Engine Views



View of Front Right Hand Side of Engine.



View of Rear Left Hand Side of Engine.