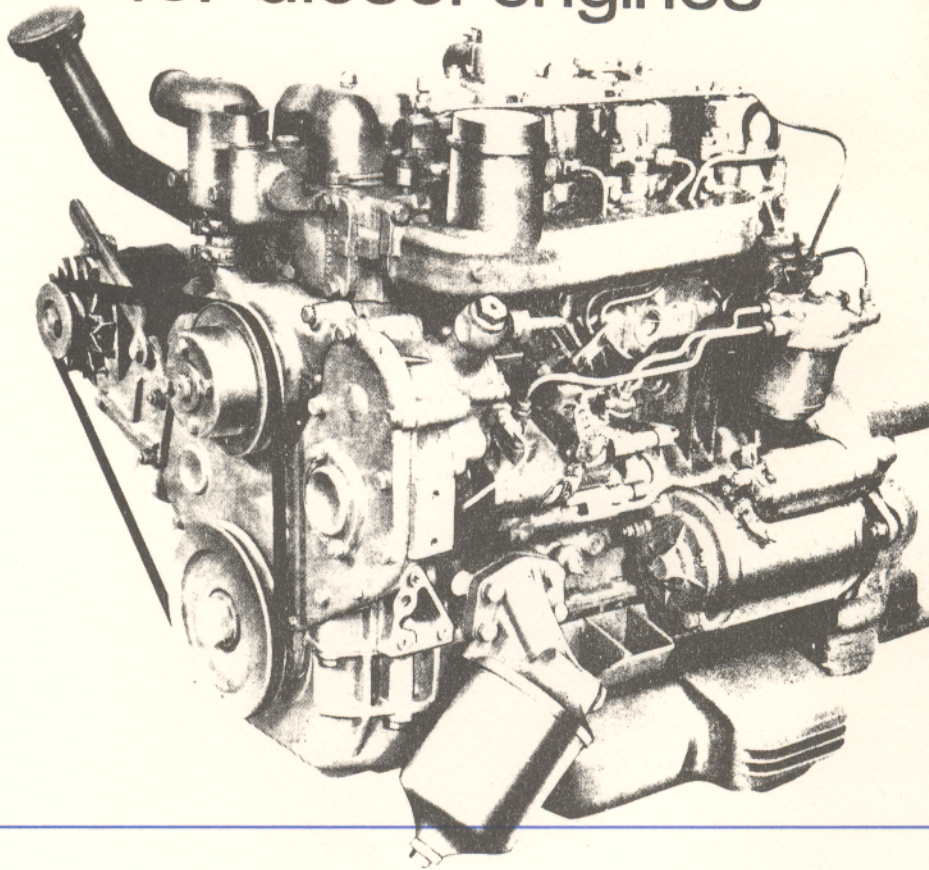




workshop manual for diesel engines



4.154

**workshop
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4.154
diesel engines**

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Perkins Engines, Inc.

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This publication is written for world-wide use. In territories where legal requirements govern 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.

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FOREWORD

This Workshop Manual has been compiled for use in conjunction with normal workshop practice. Mention of certain accepted practices therefore, have been omitted in order to avoid repetition. Where the removal, dismantling, assembly or refitting of a part is straightforward it is omitted from the text. Similarly, references to renewing joints, cleaning joint faces, cleaning before inspection and re-assembly and removal of burrs and scale have largely been omitted, it being understood that these procedures will be carried out where applicable. It follows that any open ports of high precision components, e.g. fuel injection equipment, exposed by dismantling, will be blanked off until re-assembled, to prevent the ingress of foreign matter. The difference between the minimum and maximum dimensions which are given in the Manufacturing Data and Dimensions for the relevant component parts quoted in each of the sections in this manual is known as "the manufacturing tolerance". This tolerance is necessary as an aid to manufacture and its numerical value is an expression of the accuracy of the desired quality of workmanship.

If when carrying out a major overhaul it is found that a bush and corresponding shaft have worn and that the majority of wear has taken place in the bush it may be necessary to renew the bush only, however, good workshop practice will ensure that consideration will be given as to the advisability of returning worn parts to service with an expectation of life that will involve labour costs at an early date.

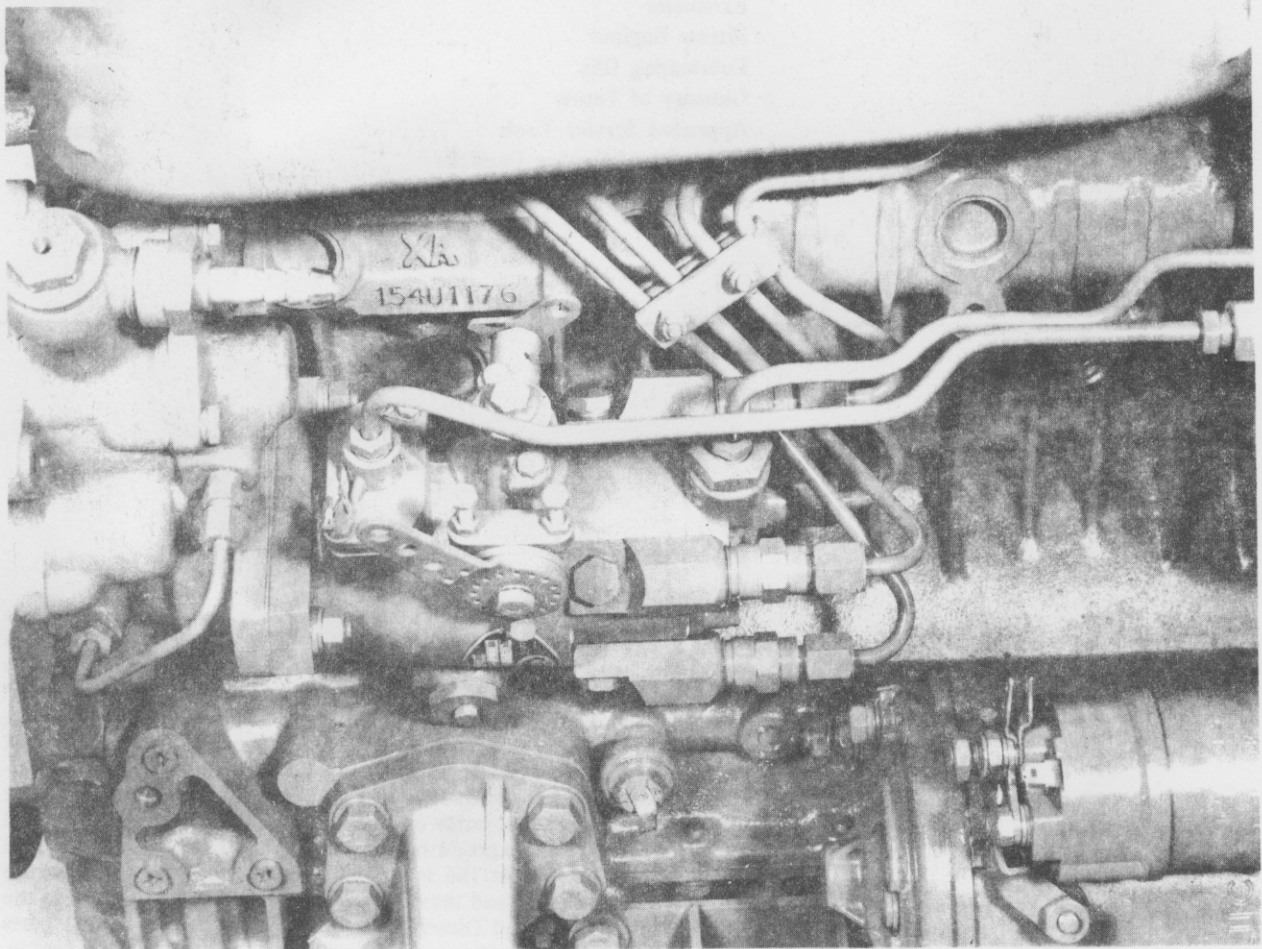
Throughout this manual, whenever the "left" or "right" hand side of the engine is referred to, it is that side as viewed from the rear or flywheel end of the engine.

Unified Threads and Engine Number Location

All THREADS used on the 4.154 engine excepting proprietary equipment are Unified Series and American Pipe Series.

The ENGINE NUMBER is located on the cylinder block immediately behind the fuel pump. This number should be quoted in full when seeking information or ordering parts. The engine number consists of both letters and figures, an example of which would be 154 U 251.

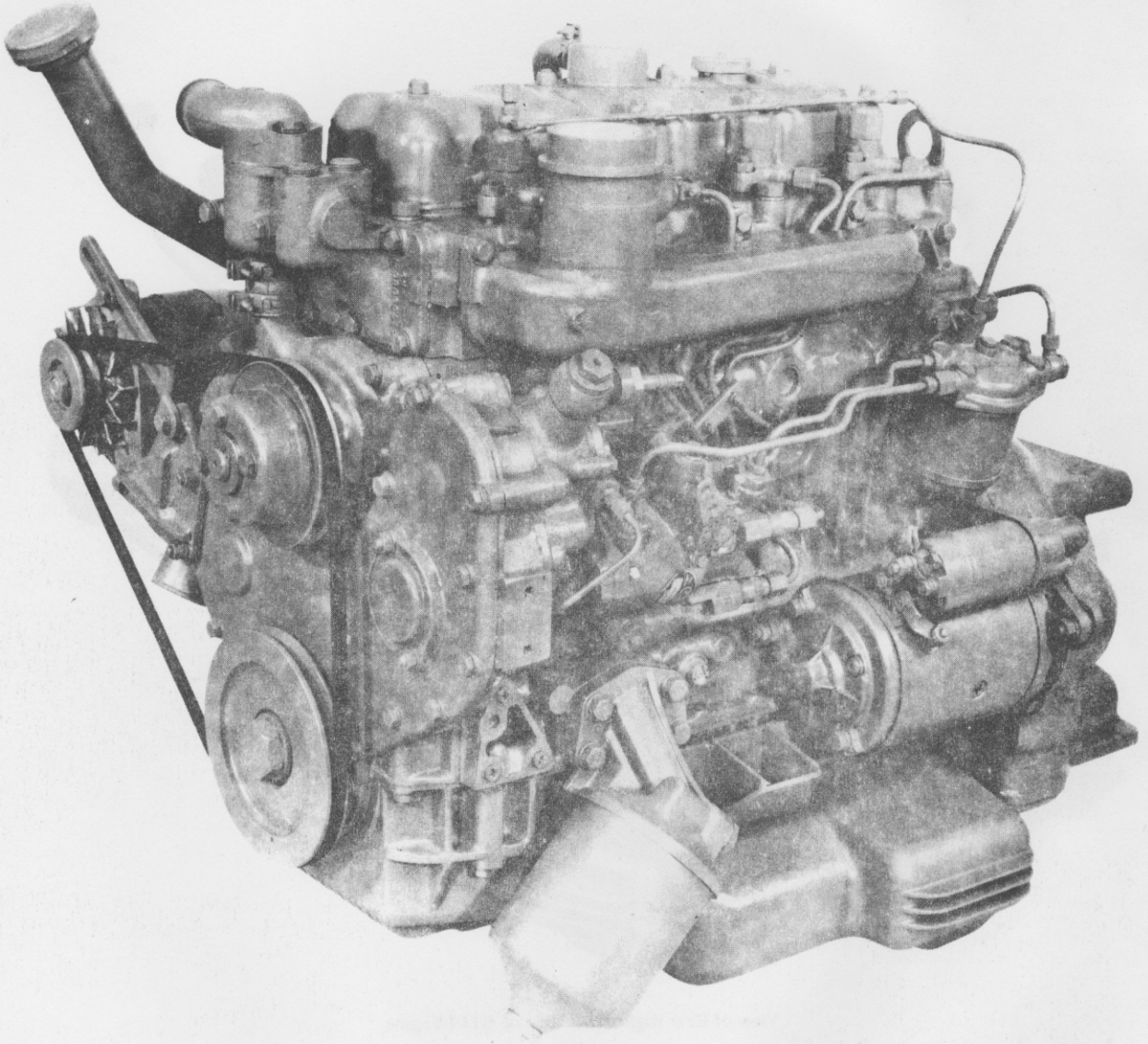
Another and later system of engine numbering will, where possible, be standardised on a pad near the fuel injection pump on the left hand side of the engine when viewed from the rear. A typical number for this system would be GA1387OU500256D.



Location of Engine Number

This manual is produced by the Service Publications Department of Perkins Engines Limited and every endeavour is made to ensure that the information contained herein is correct at the date of publication, but due to continuous development the manufacturers reserve the right to alter this specification without notice.

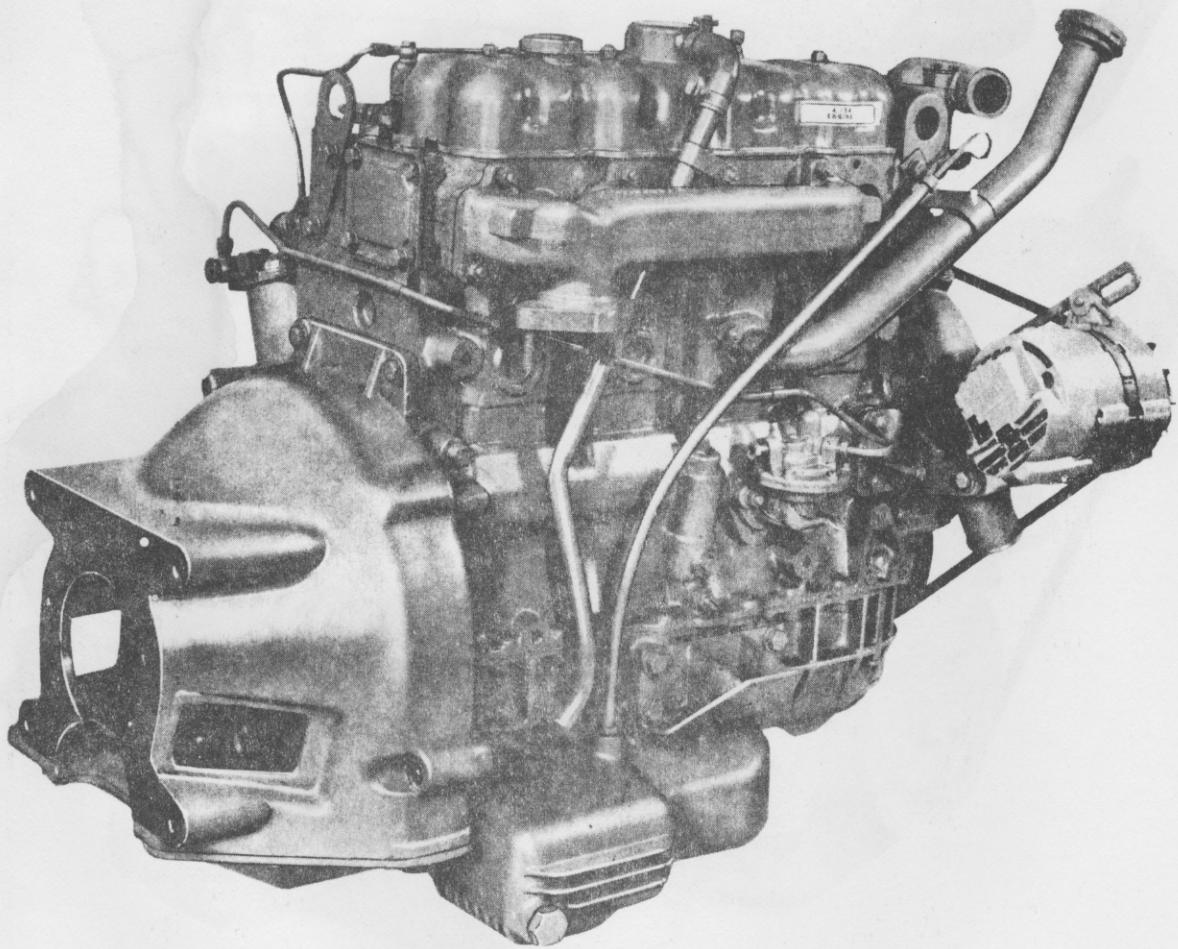
ENGINE VIEWS



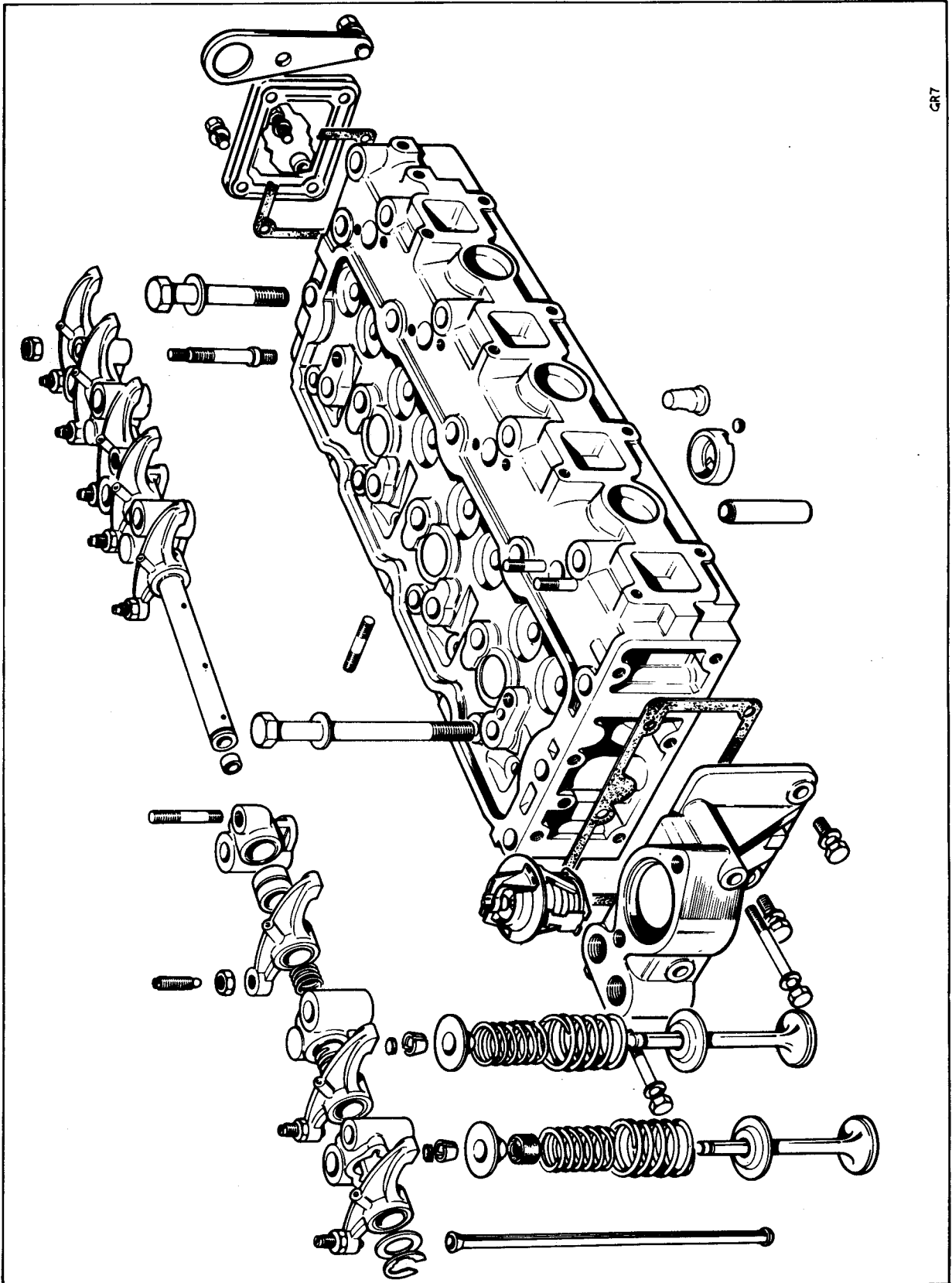
View of Front Left Hand Side of 4.154 Engine

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

ENGINE VIEWS

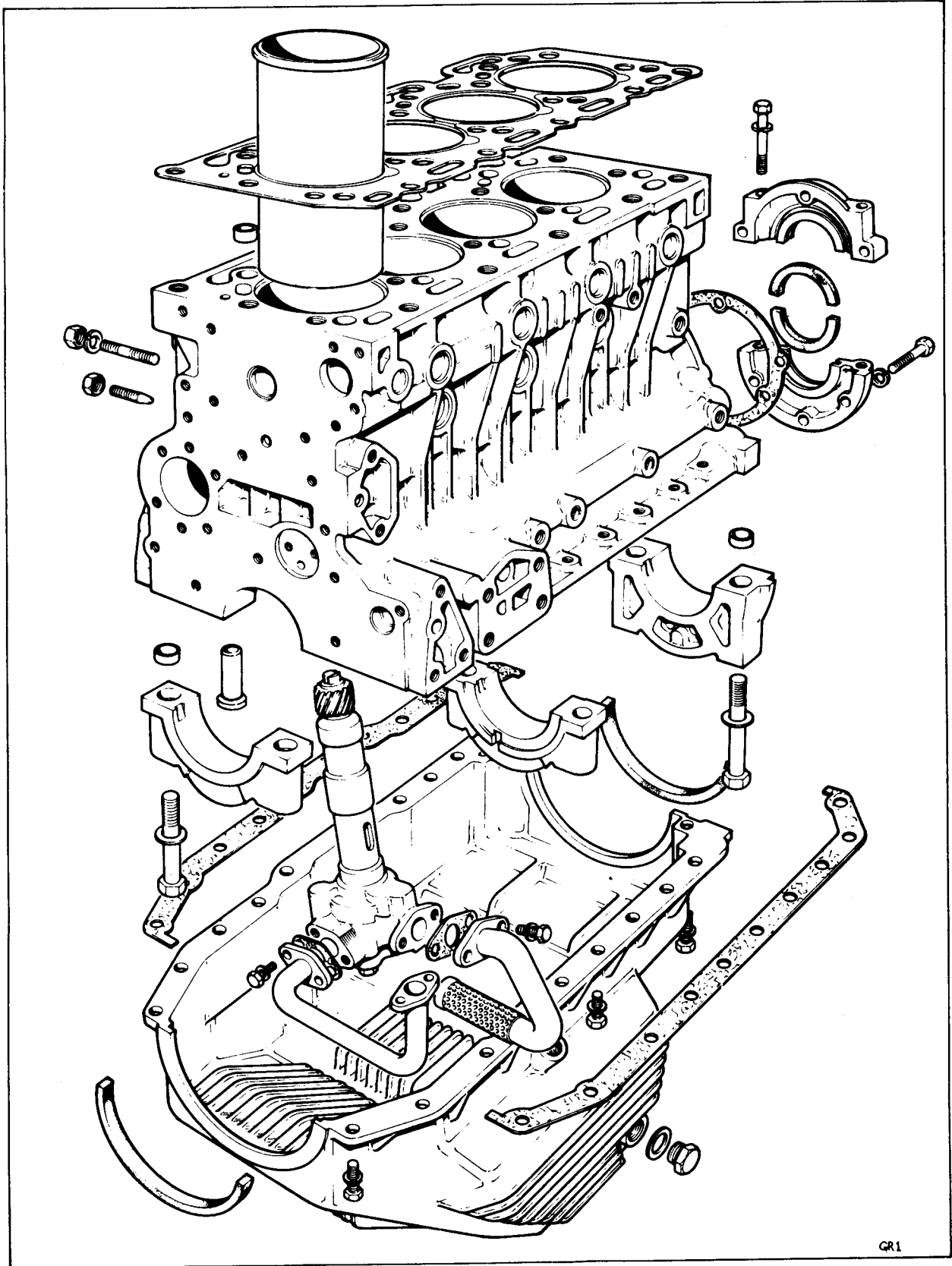


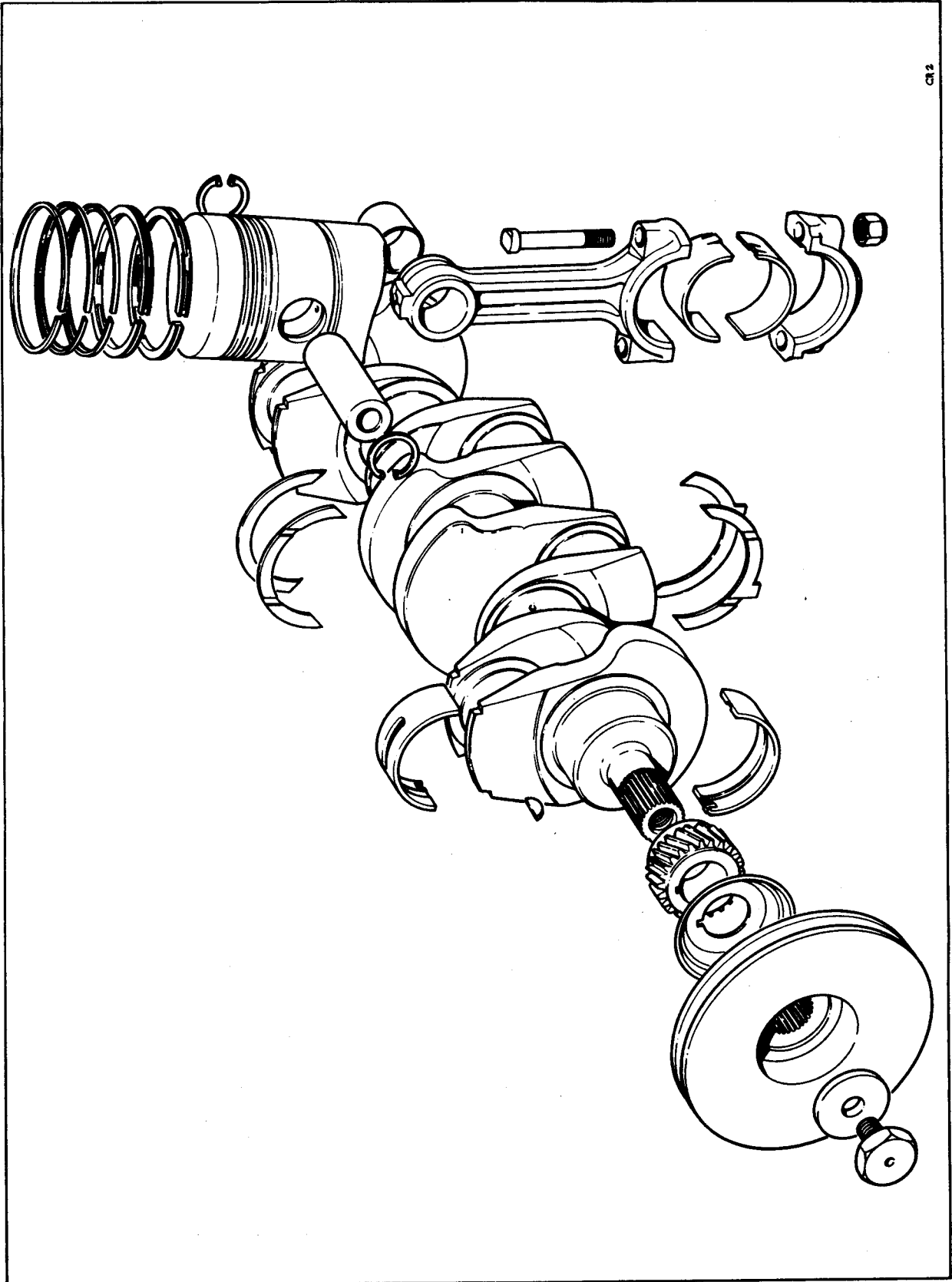
View of Rear Right Hand Side of 4.154 Engine



GRT

Exploded View of Cylinder Head Assembly





CR2

Exploded Views of Crankshaft, Connecting Rod and Piston Assemblies