CASE

PROFESSIONAL PARTNER

SERVICE MANUAL

4JG1 ISUZU ENGINE

9-93710 NA

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TABLE OF CONTENTS

SECTION	DESCRIPTION
1	General Information
2	Maintenance
3	Disassembly
4	Inspection and repair
5	Reassembly
6	Lubricating system
7	Cooling system
8	Fuel system
10	Troubleshooting
11	Special tools
12	Repair standards

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SECTION 1

GENERAL INFORMATION

TABLE OF CONTENTS

ITEM	PAGE
General repair instructions	1-2
Notes on the format of this manual	1-2
Main data and specifications	1-6
Tightening torque specifications	1-7
Major component mounting nuts and bolts	1-9
Identification	1-16

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SECTION 2

MAINTENANCE

TABLE OF CONTENTS

ITEM	PAGE
Fuel system	2-2
Cooling system	2-3
Valve clearance adjustment	2-4
Injection timing	2-5
Compression pressure measurement	2-7
Engine repair kit	2-8

Note: Maintenance intervals such as fuel or oil filter changes should be referred to in the Operator's Manual.

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MAIN DATA AND SPECIFICATIONS

Item	4JG1
Oil pump type	Trochoid
Delivery volume	17.5 lit/min (4.61 US/min - 3.85 UKgal/min)
Pump speed	1000
Delivery pressure	4.0 kg/cm^2 (57 psi/392.0 kPa)
Oil temperature	47°C - 53°C (116.6°F - 127.4°F)
Engine oil	SAE 30
Oil filter type	Full flow with cartridge paper element
Relief valve opening pressure	4.3 - 4.7 kg/cm^2 (61 - 67 psi/420 - 460 kPa)
Safety valve opening pressure	0.8 - 1.2 kg/cm^2 (11 - 17 psi/79 - 118 kPa)
Oil cooler type (if so equipped)	Water-cooled
Safety valve opening pressure	2.3 - 2.7 kg/cm^2 (33 - 38 psi/225 - 265 kPa)

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ABNORMAL ENGINE NOISE

1. ENGINE KNOCKING

CHECK POINT		TROUBLE CAUSE		REMEDY
Check to see that the engine has been thoroughly warmed up before beginning the troubleshooting procedure				
Fuel	NG	Fuel unsuitable	NG	Replace the fuel
OK				
Fuel injection timing	NG	Fuel injection timing incorrectly adjusted	NG	Adjust the fuel injection timing
OK				
Injection nozzle	NG	Incorrect injection nozzle starting pressure and spray condition	NG	Adjust or replace the injection nozzle
OK				
Compression pressure	NG	Blown out head gasket Broken piston ring	NG	Replace the head gasket or the piston ring

2. GAS LEAKAGE NOISE

CHECK POINT		TROUBLE CAUSE		REMEDY
Exhaust pipes	NG	Loosely connected exhaust pipes Broken exhaust pipes	NG	Tighten the exhaust pipe connections Replace the exhaust pipes
OK				
Injection nozzles and/or glow plugs	NG	Loose injection nozzles and/or glow plugs	NG	Replace the washers Tighten the injection nozzles and/or the glow plugs
Exhaust manifold	NG	Loosely connected exhaust manifold and/or glow plugs	NG	Tighten the exhaust manifold connections
OK				
Cylinder head gasket	NG	Damaged cylinder head gasket	NG	Replace the cylinder head gasket

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