

SERVICE MANUAL

LOADER
422ZX

EN - 9813/8400 - ISSUE 3 - 09/2018

This manual contains original instructions, verified by the manufacturer (or their authorized representative).

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Foreword

The Operator's Manual



You and others can be killed or seriously injured if you operate or maintain the machine without first studying the Operator's Manual. You must understand and follow the instructions in the Operator's Manual. If you do not understand anything, ask your employer or JCB dealer to explain it.

Do not operate the machine without an Operator's Manual, or if there is anything on the machine you do not understand.

Treat the Operator's Manual as part of the machine. Keep it clean and in good condition. Replace the Operator's Manual immediately if it is lost, damaged or becomes unreadable.

Contents

01 - Machine

03 - Attachments, Couplings and Load Handling

06 - Body and Framework

09 - Operator Station

12 - Heating, Ventilating and Air-Conditioning (HVAC)

15 - Engine

18 - Fuel and Exhaust System

21 - Cooling System

24 - Brake System

25 - Steering System

27 - Driveline

30 - Hydraulic System

33 - Electrical System

72 - Fasteners and Fixings

75 - Consumable Products

78 - After Sales

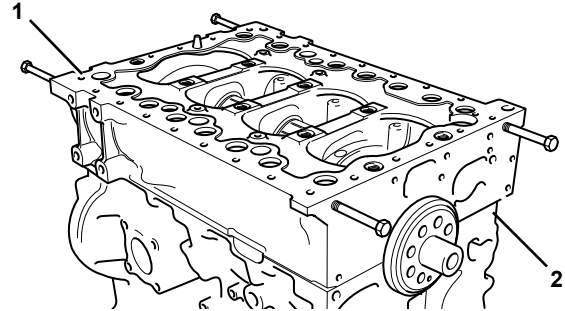
00 - General

[Introduction](#) 15-63
[Remove and Install](#) 15-64

Introduction

The bedplate acts as the main strength component of the engine. It maintains the correct alignment and supports the weight of the internal components.

Figure 124.



- 1 Bedplate
- 2 Crankcase

Remove and Install

Special Tools

Description	Part No.	Qty.
Template for Sealant Bedplate to Crankcase (4 Cyl)	892/12356	1
Torque Wrench (10-100Nm)	993/70111	1

Consumables

Description	Part No.	Size
Cleaner/Degreaser - General purpose solvent based parts cleaner	4104/1557	0.4 L

▲ CAUTION This component is heavy. It must only be removed or handled using a suitable lifting method and device.

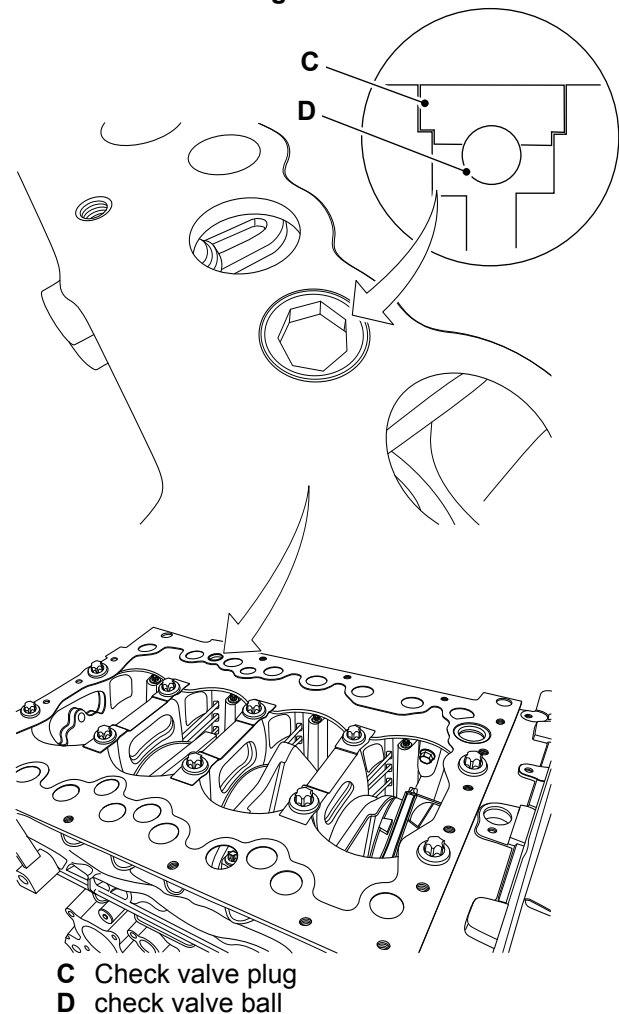
Before Removal

This procedure requires service parts. Make sure you have obtained the correct service parts before you start. Refer to Parts Catalogue.

1. Make sure that the engine is safe to work on. If the engine has been running, let it cool before you start the service work.
2. Remove the engine, refer to (PIL 15-00).
3. Remove the drive belt, refer to (PIL 15-18).
4. Remove the crankshaft pulley, refer to (PIL 15-12).
5. Remove the oil sump, refer to (PIL 15-45).
6. Disconnect and remove the fuel pipes from the injectors, refer to (PIL 18-96).
7. Remove the rocker cover, refer to (PIL 15-42).
8. Remove the fuel injectors, refer to (PIL 18-18).
9. Remove the rocker assembly including the push rods, refer to (PIL 15-42).
10. It is not necessary to remove the cylinder head assembly to remove the crankshaft. If however the cylinder head needs to be removed for other reasons (for piston and connecting rod removal for example) remove it now, refer to (PIL 15-06).
11. Remove the fuel injection pump, refer to (PIL 18-18).
12. Remove the starter motor, refer to (PIL 15-75).

13. Remove the high duty PTO (Power Take-Off) device (if installed).
14. Position the engine upside down in a suitable jig or fixture, supported at the front of the cylinder block.
15. Remove the flywheel, refer to (PIL 15-54).
16. Remove the flywheel housing, refer to (PIL 15-54).
17. Remove the fuel injection pump drive gear, refer to (PIL 15-51).
18. Remove the oil pump, refer to (PIL 15-60).
19. Remove the CCV (Crankcase Ventilation) check valve plug and ball.

Figure 125.



20. Remove the high duty PTO idler drive gear (if installed), refer to (PIL 15-51).

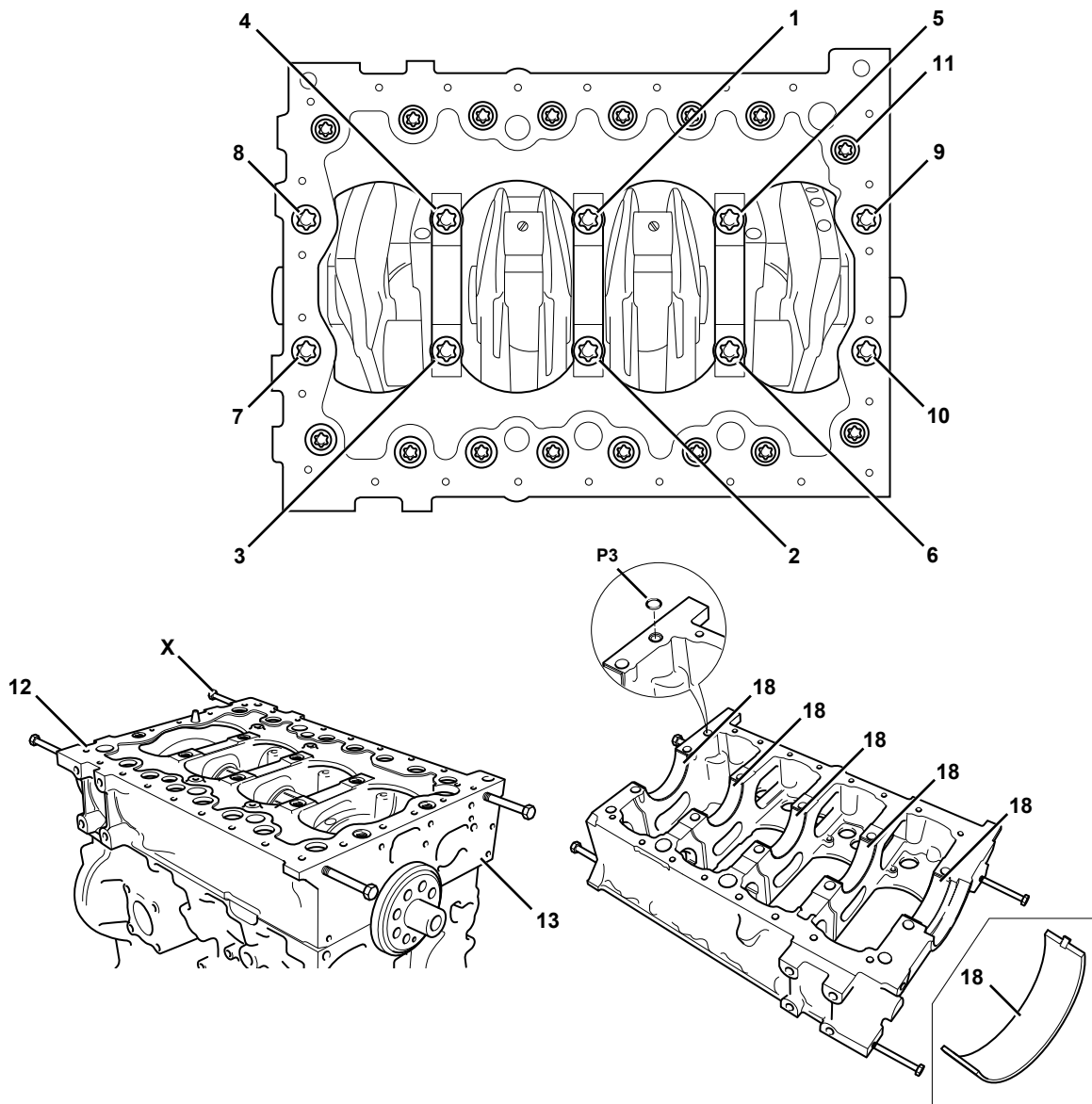
21. Remove the crankshaft drive gear, refer to (PIL 15-51).

23. Remove the rear timing case, refer to (PIL 15-51).

22. Remove the camshaft, refer to (PIL 15-15).

24. If the pistons and connecting rods have not been removed, undo and remove the main bearing caps, refer to (PIL 15-12).

Figure 126.



- 1-10** Main bearing bolts (x10)
- 12** Bedplate
- 18** Upper bearing shell (x5)
- T1** Lifting bolts (obtain locally)

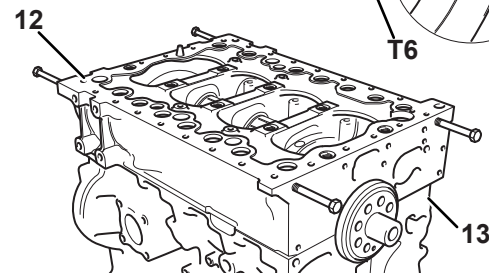
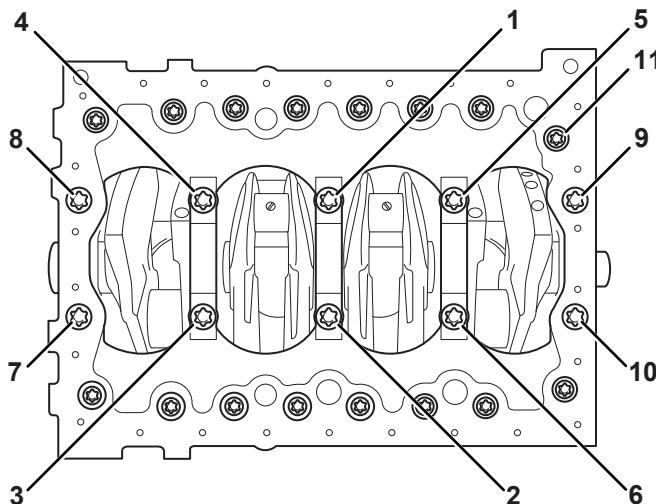
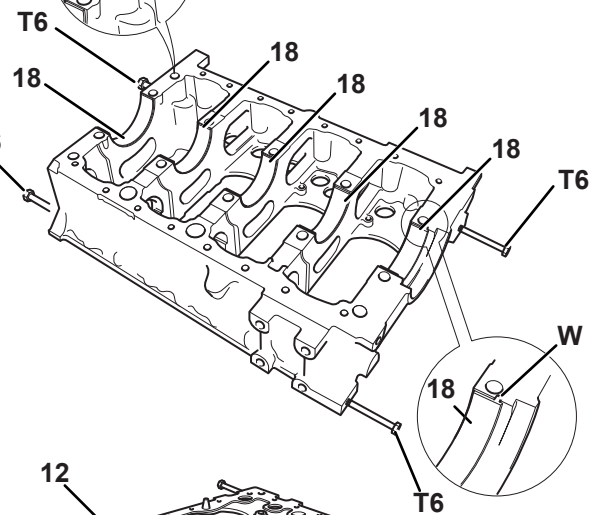
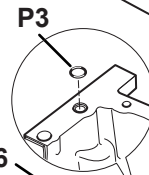
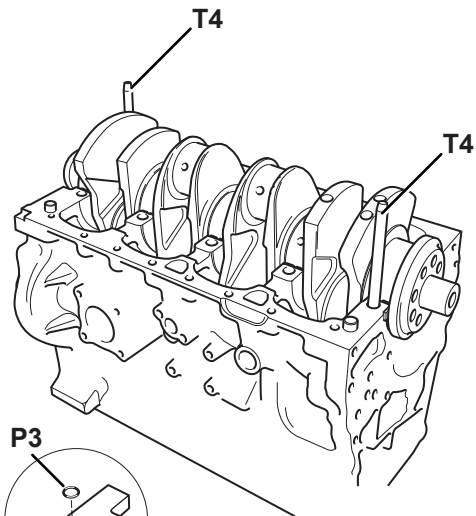
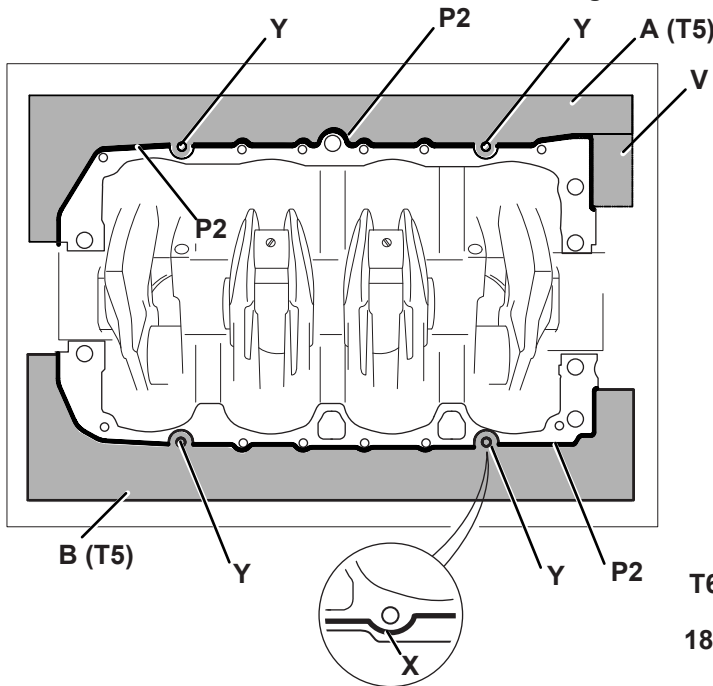
- 11** Bedplate peripheral bolts (x16)
- 13** Crankcase
- P3** O-ring (if installed)

Remove

1. Remove the bedplate peripheral bolts.
2. Progressively remove the main bearing bolts in reverse order starting at bolt 10. The bolts MUST NOT be re-used. Discard the bolts.
3. Install the four temporary lifting bolts. Carefully separate the bedplate from the crankcase. Use

suitable lifting equipment (if the bedplate is lifted manually, two people will be required). DO NOT use a lever to separate the bedplate.

4. Remove and discard the O-ring.
5. Carefully remove the upper bearing shells from the bedplate, remove the bedplate.

Figure 127.


- 1-10 Main bearing bolts
- 12 Bedplate
- 18 Lower bearing shells (x5)
- B Right side template

- 11 Bedplate peripheral bolts (x16)
- 13 Crankcase
- A Left side template
- T3 Angle Gauge (obtain locally)

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