

# SERVICE MANUAL

**LS Series**  
**L3AL / L3BL**  
**Tier 3**  
Engine



## **SERVICE MANUAL**

**L3AL  
L3BL**

# Contents

---

## INTRODUCTION

Engine.....	10
[10.001] Engine and crankcase .....	10.1
[10.101] Cylinder heads .....	10.2
[10.102] Pan and covers .....	10.3
[10.103] Crankshaft and flywheel.....	10.4
[10.105] Connecting rods and pistons.....	10.5
[10.106] Valve drive and gears .....	10.6
[10.114] Pump drives .....	10.7
[10.218] Fuel injection system.....	10.8
[10.254] Intake and exhaust manifolds and muffler .....	10.9
[10.304] Engine lubrication system.....	10.10
[10.400] Engine cooling system .....	10.11
Electrical systems .....	55
[55.010] Fuel injection system.....	55.1
[55.012] Engine cooling system .....	55.2
[55.013] Engine oil system .....	55.3
[55.201] Engine starting system.....	55.4
[55.202] Cold start aid .....	55.5
[55.301] Alternator.....	55.6



## INTRODUCTION

# Contents

---

## INTRODUCTION

Foreword .....	3
Foreword - Important notice regarding equipment servicing .....	4
Safety rules .....	5
Safety rules - Ecology and the environment .....	6

It's a preview. You can download the full file by clicking the link below.

<https://shopservicemanual.com/>

Service Manuals from 2\$