



Service Manual

TB45 Gasoline Engine

FOREWORD

This service manual covers the TB45 Gasoline Engine of Mitsubishi Forklift Trucks and gives detailed maintenance and repair information. The instructions are grouped by systems to serve the convenience of your ready reference.

Long productive life of your forklift trucks depends to a great extent on correct servicing the servicing consistent with what you will learn from this service manual. We hope you read the respective sections of this manual carefully and know all the components you will work on before attempting any work.

All descriptions, illustration, specifications, and serial numbers in this manual are effective as of the date printing of this manual. Mitsubishi reserves the right to change specifications or design without notice and without incurring obligation.

GROUP INDEX

GROUP INDEX	Items
EG ENGINE GENERAL	PRECAUTIONS FOR SAFETY AND QUALITY, HOW TO USE THIS MANUAL, TROUBLE DIAGNOSIS, ECM GENERAL SERVICE INFORMATION, PRECAUTIONS, PREPARATION, SERVICE DATA
ET ENGINE TUNE-UP	VALVE CLEARANCE, ENGINE DRIVE BELT, ENGINE OIL, COMPRESSION PRESSURE, SPARK PLUG
EM ENGINE MECHANICAL	INTAKE MANIFOLD, EXHAUST MANIFOLD, OIL PAN AND OIL STRAINER, ROCKER COVER, ROCKER ARM AND ROCKER SHAFT ASSEMBLY, CYLINDER HEAD, TIMING CHAIN, REMOVAL AND INSTALLATION OF ENGINE, CYLINDER BLOCK
LU ENGINE LUBRICATION	OIL PUMP
CO ENGINE COOLING SYSTEM	CHANGING ENGINE COOLANT, WATER PUMP, THERMOSTAT
EC ENGINE CONTROL	PRECAUTIONS, ENGINE CONTROL SYSTEM, BASIC INSPECTION, TROUBLE DIAGNOSIS, POWER SUPPLY AND GROUND SYSTEM, CRANKSHAFT POSITION SENSOR 1° (POS), CRANKSHAFT POSITION SENSOR 120° (REF) SIGNAL CIRCUIT, MASS AIR FLOW SENSOR SYSTEM, ENGINE COOLANT TEMPERATURE SENSOR SYSTEM, HEATED OXYGEN SENSOR SYSTEM, VEHICLE SPEED SENSOR SYSTEM, THROTTLE POSITION SENSOR SYSTEM, ACCELERATOR PEDAL POSITION SENSOR SYSTEM, INTAKE AIR TEMPERATURE SENSOR, PNP SWITCH SYSTEM, STOP LAMP SWITCH SYSTEM, ELECTRIC LOAD SWITCH SYSTEM, IGNITION SYSTEM, FUEL INJECTOR SYSTEM, FUEL PUMP SYSTEM, THROTTLE CONTROL MOTOR SYSTEM, ECM WARNING LAMP SYSTEM, HEATED OXYGEN SENSOR HEATER SYSTEM, LPG ASSISTANCE INJECTOR SYSTEM, PCV GAS RESTORATION DEVICE, FUEL CUT FUNCTION, REMOVAL AND INSTALLATION OF ECM COMPONENTS, SERVICE DATA AND SPECIFICATIONS (SDS)
FL ENGINE FUEL SYSTEM	DESCRIPTION, REMOVAL AND INSTALLATION OF FUEL INJECTOR (GASOLINE AND COMBINED USE), FUEL INJECTION TIMING, DEFINITION OF FUEL INJECTION PULSE WIDTH CODES, SYSTEM COMPONENTS, ELECTRONIC THROTTLE CONTROL ACTUATOR, FUEL INJECTION CONTROL, IGNITION TIMING CONTROL, IDEL SPEED CONTROL, FUEL PUMP DRIVE CONTROL (GASOLINE SPECIFICATION), O ₂ SENSOR HEATER CONTROL, FAIL-SAFE FUNCTION, SYSTEM COMPONENTS, LPG SYSTEM COMPONENTS
EL ENGINE ELECTRICAL SYSTEM	STARTING SYSTEM, CHARGING SYSTEM, ASSEMBLY OF HIGH-TENSION CABLE

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