

First Generation Ford Mustang **(1964½–1973) Workshop Manual**

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Detailed Step-by-Step Procedures

1. Introduction and Vehicle Overview

- History of First Generation Mustang
 - Model Variants (Coupe, Convertible, Fastback)
 - VIN Decoding and Identification Guide
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2. Safety Guidelines

- Proper Use of Safety Equipment (Gloves, Goggles, etc.)
 - Vehicle Lifting and Jacking Precautions
 - Safe Handling of Chemicals and Tools
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3. Workshop Tools Required

Hand Tools	Specialty Tools	Diagnostic & Measuring Tools
SAE Socket Set	Engine Hoist and Stand	Compression Gauge
SAE Wrenches	Torque Wrench	Timing Light
Screwdrivers Set	Transmission Jack	Multimeter
Pliers Set	Brake Bleeder Kit	Vacuum Gauge
Bodywork Hammers	Welding Equipment (MIG Welder)	Feeler Gauge
Paint Spray Guns	Panel Alignment Tools	Dial Indicator

4. Engine Maintenance and Overhaul

- Engine Removal and Installation
- Cylinder Head Inspection, Refurbishment, and Installation
- Camshaft, Lifter, and Timing Chain Replacement
- Piston Rings, Connecting Rods, and Bearings Replacement
- Torque Specifications for Engine Components

✓ 5. Transmission and Drivetrain

- Manual Transmission Servicing (Clutch, Throw-out Bearing)
 - Automatic Transmission Fluid Change and Adjustment
 - Driveshaft Removal, Universal Joint Replacement
 - Differential Inspection and Servicing
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✓ 6. Fuel System

- Fuel Tank Removal, Inspection, and Restoration
 - Fuel Line Replacement and Routing
 - Carburetor Cleaning, Rebuilding, and Adjustment
 - Fuel Pump Testing and Replacement
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✓ 7. Cooling System

- Radiator Inspection, Flushing, Repair, and Replacement
 - Thermostat Replacement Procedure
 - Water Pump Inspection and Replacement
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✓ 8. Exhaust System

- Exhaust Manifold Inspection and Gasket Replacement
 - Muffler and Exhaust Pipe Replacement
 - Exhaust Leak Troubleshooting
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✓ 9. Electrical System

- Battery Maintenance and Replacement
 - Alternator Testing and Servicing
 - Starter Motor Inspection and Replacement
 - Comprehensive Wiring Diagrams (Model-Specific)
 - Headlights, Brake Lights, and Interior Lighting Repair
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✓ 10. Braking System

- Disc Brake Pad and Rotor Replacement

- Drum Brake Shoe and Drum Servicing
 - Master Cylinder and Brake Line Replacement
 - Brake Fluid Bleeding Procedure
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✓ 11. Steering and Suspension

- Front and Rear Suspension Inspection and Replacement
 - Shock Absorber Replacement
 - Steering Gear Box Inspection and Adjustment
 - Wheel Alignment Procedures (Caster, Camber, Toe)
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✓ 12. Bodywork, Rust Repair, and Painting

- Rust Detection and Removal Techniques
 - Welding and Panel Replacement
 - Primer Application and Surface Preparation
 - Paint Application, Sanding, and Polishing
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✓ 13. Interior Restoration

- Seat Upholstery Removal and Installation
 - Carpet and Sound-deadening Material Replacement
 - Dashboard Restoration and Instrument Cluster Repair
 - Door Panels and Trim Restoration
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✓ 14. Routine Maintenance Schedule

Task	Interval
Engine Oil & Filter Change	Every 3,000 miles
Transmission Fluid Replacement	Every 15,000 miles
Cooling System Flush	Every 2 years
Brake Fluid Replacement	Every 2 years
Spark Plugs and Ignition Adjustment	Every 20,000 miles
Suspension Lubrication	Every 6 months

✔ 15. Troubleshooting Guide

Problem	Possible Causes	Solutions/Procedures
Engine Won't Start	Battery, Starter, Fuel, Spark	Check battery, fuel system, ignition system
Overheating	Radiator, Thermostat, Water Pump, Fan	Flush radiator, replace thermostat
Poor Braking	Worn Pads, Leaks, Air in Lines	Replace pads, bleed brakes
Electrical Malfunctions	Wiring Faults, Blown Fuses	Replace fuses, repair wiring

✔ 16. Torque Specifications & Capacities

Component	Torque (ft-lbs)	Fluid Capacities
Cylinder Head Bolts	65-70	Engine Oil: 5 quarts
Intake Manifold Bolts	20-25	Transmission Fluid: 3-4 quarts
Wheel Lug Nuts	75-85	Cooling System: 12-15 quarts

✔ 17. Resources and Parts Suppliers

- **CJ Pony Parts** (Mustang specialized parts supplier)
 - **National Parts Depot (NPD)** (OEM and reproduction parts)
 - **Summit Racing Equipment** (performance parts and accessories)
 - **Mustangs Unlimited** (classic Mustang restoration parts)
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✔ 18. Important Recommendations

- Maintain Detailed Records of Repairs and Maintenance
 - Consult Original Ford Factory Service Manuals
 - Join Mustang Enthusiast Clubs and Forums for Additional Support
 - Regularly Drive and Enjoy Your Mustang to Ensure Continuous Operation
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⚠ **Important:** This manual provides comprehensive guidance. For very specific details, such as exact year-model wiring diagrams, original Ford service manuals specific to your Mustang's year-model are highly recommended.

This detailed workshop manual ensures that you can fully restore, maintain, and enjoy your classic First Generation Mustang. If you need additional information or further details on any specific component, please let me know!