

# Mitchell 1 Estimating Guide Policy and Procedures

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## Labor Times

Labor time estimates are determined by Mitchell's editors with extensive mechanical backgrounds in the automotive industry. These times are based on field research, time studies and information supplied by vehicle manufacturers.

Mitchell 1's "Estimated Labor Times" are given in hours and tenths of an hour (6 minutes). The times apply only to standard equipment and production options provided by the vehicle manufacturer, and they generally reflect the needs of an average, trained auto technician using factory recommended tools and repair procedures. The "Estimated Labor Times" are to be used as a guide only, and the actual time taken can be expected to vary to meet individual repair shop and vehicle conditions, equipment used, etc.

Mitchell 1's goal is for completeness; however, there are some operations without labor times because they could not be verified in time for release. These labor times will appear as blank fields. In these isolated cases, an equitable time should be agreed upon by all parties and recorded on your estimate. This is referred to as an "on-site estimate."

## Operations

The following bulleted lists outline the operations that are both included and not included in the labor time estimates. You are encouraged to become familiar with these to be sure you have a thorough understanding of the Mitchell 1 approach to mechanical estimating.

### Included Operations

- Vehicle repair preparation
- Drain & refill necessary fluids
- Tighten bolts, fasteners, etc., to manufacturer's recommended torque specifications
- Normal cleaning of parts associated with the repair operation
- Personal needs of the technician while performing a repair operation
- Preventative measures
- Position, set-up, return tools and equipment
- Verification of repair

### Not Included Operations

- Writing estimate, booking the job, billing or any special courtesy services
- Training
- Reference time on unfamiliar operations
- Adverse weather conditions
- Disposal of hazardous materials (unless indicated)
- Diagnosis (unless indicated)

- Machine operations
- Resetting of any electrical components due to battery disconnection
- Resetting, reprogramming or initialization of Tire Pressure Warning System (unless indicated)
- Removal of locking lug nuts or wheel covers
- Time necessary to free up parts frozen by rust or corrosion
- Broken bolts, studs, etc.
- Rework parts to fit a particular year or model
- Excessive grease, tar and undercoating removal or any other materials that could interfere with operation
- Cleaning areas of the vehicle which may have been contaminated by failure of the component on which the operation is being performed

### **Factory Warranty Time**

For some labor items, displayed next to the Labor Time is the factory warranty time. The factory warranty time is the amount of time that the factory authorizes for performing this job under warranty. The Mitchell 1 labor time is usually higher than the factory warranty time. This is because the factory warranty time assumes you are servicing clean parts and using specialized OEM tools and training. The Mitchell labor time is based on independent labor audits in real-world conditions.

### **Overlapping Labor times**

When two or more operations are performed on a vehicle and have overlapping labor times, a reasonable deduction should be made from the total times given. It is impossible to give specific recommendations for all these situations (your judgment is the best guide for the job at hand), but we often provide reminders. For example, if you are replacing a tie rod and discover the vehicle needs a complete alignment, .4 hours should be deducted after totaling the individual times since both operations include adjusting the toe-in.

### **Additional Time**

“Additional Time” is that extra time needed to gain access to a part. Further additional time should be used to cover conditions such as:

- Broken Studs or Bolts
- Seized Bolts
- Rusted or Corroded Parts
- Undercoating Removal
- Steam Cleaning
- Check and Clean Used Parts
- Accessory Items not covered by text.

### **Combinations**

“Combinations” are additional labor times to be used to perform tasks which are directly related to the original operation and are conveniently done along with it. For example, while performing brake shoe replacement, you will need to replace a leaking wheel cylinder as well. The Combination Time gives you the time required to replace the wheel cylinder with the shoes already removed.

## **Skill Level Code**

The code letter next to the labor time in the SKILL column designates the suggested level of skill for that operation. The four levels of skill are defined as follows:

- **(A) Highly Skilled** - Requires the use of precision measuring tools and specialized test equipment. This skill level requires thorough knowledge of complicated systems and strong diagnostic capabilities.
- **(B) Skilled** - Requires the use of basic tools and simple measuring devices. Accurate diagnosis is required using special test equipment, and there must be a basic knowledge of complex systems.
- **(C) Semi-Skilled** - Requires the use of basic tools. Diagnosis is limited to a single possible cause of a problem, and there must be a basic knowledge of complex systems.
- **(D) Low-Skilled** - Repair consists of part replacement only, and the technician must be able to follow written and/or verbal instructions.

## **Definitions**

**D&A:** Disassemble and Assemble.

**R&I, REMOVE AND INSTALL:** Removal of a part or assembly from vehicle to facilitate overhaul or other work and reinstall the same part on vehicle. Includes any alignment necessary to reposition removed part of assembly.

**R&R, REMOVE AND REPLACE:** Removal of part or assembly from vehicle, transfer of any attached part to new part or assembly, re-install new part or assembly on vehicle. Includes any alignment necessary to reposition removed part or assembly. Add time as necessary if welded parts are transferred.

**O/H, O/HAUL, OVERHAUL:** Overhaul times include removal of assembly (R&I) from the vehicle, disassembly, cleaning and inspection, replacing necessary parts, reassembly, reinstalling and making any necessary adjustments.

## **Hourly Rate**

Labor rates vary throughout the country. Local or individual rates must be multiplied by labor hour totals created by the estimate.

## **Part Numbers**

Part numbers are included in the program to facilitate estimating. It is recommended that they not be used for parts ordering. It is also suggested that the year, make, model and VIN or model code information be given to dealership personnel for verification of application and most current pricing.

### **Part Prices**

This program reflects the latest pricing information available from the vehicle manufacturers at the time of production. The prices shown are MANUFACTURERS' SUGGESTED RETAIL PRICES. PRICES AND AVAILABILITY OF PARTS VARY FROM TIME TO TIME AND BY GEOGRAPHICAL AREA, AND ARE SUBJECT TO CHANGE WITHOUT NOTICE. Prices not available at the time of release are indicated by blank fields.