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# #05-00-89-029C: General Motors Dealership Critical Equipment Requirements and Recommendations - (Jun 13, 2014)

**Subject: General Motors Dealership Critical Equipment Requirements and Recommendations**



**Models: 2015 and Prior GM Passenger Cars and Trucks**

**This bulletin has been revised to update the A/C Service Equipment and Service Department Computers information. Please discard Corporate Bulletin Number 05-00-89-029B.**

## Critical Equipment

As established in the Dealer Sales and Service Agreement, in addition to required essential service tools, the dealer agrees to provide such other tools and equipment as reasonably necessary to fulfill its responsibilities to properly diagnose and service General Motors vehicles. This bulletin is intended to provide General Motors dealerships with requirements and recommendations for service equipment that has been identified as critical equipment necessary to properly repair and maintain General Motors vehicles. The proper maintenance and/or replacement of existing equipment with General Motors approved equipment (available through GM Dealer Equipment) will ensure proper serviceability and contribute to improved customer satisfaction and dealer profitability.

## Equipment Maintenance

Regular maintenance and calibration is essential to assure the use of equipment results in high quality and satisfactory repairs. Most manufacturers recommend weekly or monthly cleaning and inspection of equipment with repair or replacement of worn or damaged parts as needed. Annual or semi-annual calibration of equipment is also recommended, depending on frequency of use. The manufacturer of your equipment will have specific recommendations and, in many cases, can provide inspection and calibration services.

## Brake Equipment

### **GM Equipment Requirements\***

- Capable of producing rotor surfaces with less than 0.051 mm (0.002 in) assembled runout.
- Capable of producing rotor surfaces with less than 0.025 mm (0.001 in) lateral runout (as measured on the lathe arbor – bench lathe).
- Capable of producing flat surfaces (no dishing).
- Capable of producing rotor surfaces with less than 0.0076 mm (0.0003 in) thickness variation.
- Use secondary non-directional surface finishing tools.
- Capable of producing surface finish of 40 Ra (Roughness Average) or less (after secondary finish operation).
- All adapters, vibration dampeners, hardware and cutting inserts in good condition.
- Measure and document brake rotor original and refinished thickness.
- Use Essential Cleaning tools J-42450A and J-41013 to clean rotor hat and hub surfaces before rotor machining.

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- Measure all brake drums prior to installation to ensure drum is not beyond maximum dimensions.
- Measure all brake rotors with a dial indicator and index that rotor on the hub to correct excessive lateral runout.
- Use the proper Brake-Align shims to correct lateral runout when necessary.
- Operators properly trained and ASE certified (U.S. only) in brake service.

\*Equipment meeting the requirements above supports procedures specified in the latest version of Service Bulletin Number 00-05-22-002 – Brake Service and Procedures. Essential tool CH-47661 – Pro-Cut PFM 9.2 Auto-Compensating On-Car brake lathe meets the requirements above and supports the latest versions of Service Bulletin Numbers 00-05-22-002 – Brake Service and Procedures and 03-05-23-005 – On-Car Brake Lathe for 2005-2013 Colorado and Canyon trucks.

### **GM Equipment Recommendations**

- Positive Rake tool holders and bits
- One pass finishing
- Single spindle speed, single feed rate

### **Tire Changers**

#### **GM Requirements**

- Current design with operator protection features.
- Side-mounted bead breaking to reduce stress on wheel and tire.
- Protective devices which prevent damage during mounting and dismounting operations.
- Regulated air pressure to protect user and wheel assembly.
- Approved lubricant to avoid wheel slip and damage to tire and wheel.
- Run Flat capable without damage to wheel or tire.
- Operators properly trained and ASE certified (U.S. only) in wheel service.

#### **GM Recommendations**

- No metal contact at any point to the wheel including clamping jaws.
- Operators properly trained (desired) and certified on current low aspect ratio tires and EMT designs (Run Flat).

### **Wheel Balancers**

#### **GM Requirements\***

- Unit must be a computerized model.
- Capable of static and dynamic wheel balance modes.
- User calibration functions.
- Cones and adapters in good working order to ensure wheel protection.
- Two-plane dynamic with accuracy to 0.1 ounce (2.83 g).
- Capable of balancing flangeless wheels, with adhesive weights.
- Operators properly trained and ASE certified (U.S. only) in wheel service.
- Printout capable

\*Equipment meeting the requirements above supports procedures specified in the latest version of Service Bulletin Number 00-03-10-007 – Shake/Vibration in Steering Wheel, Floor, Seat at Highway Speeds on Smooth Roads (Diagnose/Balance Tires/Wheels).

### **GM Recommendations**

- Additional weight storage trays
- Match mounting capability
- Capable of measuring free run out of assembly and optimizing results
- Capable of measuring force variation and optimizing results

### **Alignment Equipment**

#### **GM Requirements**

- Computerized four wheel alignment system.
- Computer capable of printing before and after alignment reports.
- Racking system must have jacking capability.
- Racking system must be capable of level to 1/16" (1.59 mm).
- Appropriate wheel stops and safety certification.
- Wheel clamps capable of attaching to 20" or larger wheels.
- Racking capable of accepting any GM Passenger car or Light Duty Truck.
- Computer capable of time and date stamp printout.
- Operator properly trained and ASE Certified (U.S. only) in alignment.

#### **GM Recommendations**

- Racking should have front and rear jacking capability.
- Build in turn plates and slip plates

### **A/C Service Equipment**

#### **R-134a - GE-48800 Cool Tech Refrigerant Recovery/Recharge Machine**

- For all General Motors vehicles with R-134a Refrigerant, A/C Refrigerant Recovery/Recharging Machine GE-48800 is available for service. GE-48800 is SAE J2788 compliant and meets GM requirements. SAE J2788 does not require GM Dealers to replace ACR2000 units. Refer to the latest version of Bulletin 08-01-38-001 for additional information.

#### **R-1234yf - GE-50300 Refrigerant Recovery/Recycle/Recharge Machine**

- For all General Motors vehicles with R-1234yf Refrigerant, A/C Refrigerant Recovery/Recycle/Recharging Machine GE-50300 is required for service. GE-50300 is SAE J2843 compliant and meets GM requirements. Refer to the latest version of Bulletin 12-01-37-001 for additional information.

### **Emission Packages**

#### **GM Requirements:**

- Meet state/provincial certification requirements
- Properly maintained

#### **GM Recommendations:**

- Wide wheelbase and weight limit to facilitate most vehicles
- Upgradeable to handle other grades of emissions tests (ASM, RG240, IG240, BAR1, etc.)
- High-speed, inertia and horsepower capabilities

- Maximum safety features such as locking wheel chocks, roll covers, and vehicle restraining systems
- Operator properly trained and ASE Certified (U.S. only) in emission service

### Service Department Computers

#### **GM Requirements:**

- One (1) laptop minimum for use with the GDS2 application
- One (1) laptop for every two (2) technicians
- One (1) Multiple Diagnostic Tool (MDI) for every Techline PC
- One (1) battery maintainer for every two (2) Multiple Diagnostic Interface (MDI) tools in use

To view a current United States (US) specification, go to [www.gmdesolutions.com](http://www.gmdesolutions.com). Select the tab titled: Techline IT Solutions and GMIT Standards. In Canada, refer to the GM Canada Dealer Infrastructure Guidelines in the Service Library of GlobalConnect.

#### **Business Grade PC Specifications**

PCs that are not business grade are considered "non-supported hardware." Unlike a home grade PC, a business or commercial PC is specifically configured for use in a **business network environment**. PCs in this class have components designed and supported for use in a network environment. Additionally, they have greater life cycle stability due to "designed-in" serviceability. Techline applications will not function properly on typical non-business grade hardware.

**Important:** Non Pentium processors such as Celeron®, Cyrix and AMD are NOT compatible with Techline software.

GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.



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