

**Fed Std 307AO**

**July 1, 2010**

**Superseding  
Fed Std 307AN  
July 1, 2009**

**FEDERAL STANDARD**

**TRUCKS: LIGHT, COMMERCIAL, 4X2 and 4X4  
4,000 lbs to 19,999 lbs GVWR**

## **1. SCOPE AND CLASSIFICATION**

### **1.1 SCOPE**

This document covers commercially available, 2011 or newer model year, two and four wheel driven, light trucks of less than 20,000 lb GVWR and associated optional equipment. Types include pickup trucks, sport utility vehicles, and passenger, cargo, and delivery vans. Also included are chassis and cab, and trucks equipped with vocational bodies.

### **1.2 PURPOSE**

The purpose of this document is to achieve a practical degree of standardization within the Federal Government's automotive fleet and to simplify competitive procurement of vehicles. This Standard establishes various types and sizes of trucks, and general equipment requirements.

### **1.3 COVERAGE**

This Federal Standard covers only those vehicles generally acquired competitively by the Federal Government and does not include all the varieties of the commodity indicated by the title. Additional requirements and deviations for special purpose vehicles may be submitted in accordance with Sections 6.3 and 6.4. Approved modifications will be included in the solicitations for offers, contract, or amendments. All vehicle procurements must comply with the Federal Management Regulations (FMR) and the Federal Acquisition Regulations (FAR). The vehicles covered by this standard are listed by standard item numbers. The item descriptions, minimums, options and manufacturer data can be viewed online in AutoChoice & on the FAS website.

### **1.4 CLASSIFICATION**

The vehicle's characteristics, components, equipment, and options shall be based upon the chassis manufacturer's make and model offered, NTEA weight classes and data that is required by the U.S. Environmental Protection Agency (EPA), Department of Energy (DOE), and other applicable regulatory agencies.

The data shall be verifiable in the vehicle's and body/equipment manufacturer's publications.

### **1.5 FUEL ECONOMY**

Agencies are encouraged to use fuel mileage ratings as a factor in the selection of their vehicles. Miles per gallon ratings for all vehicles of less than 8,500 lb GVWR are available in AutoChoice under the OTHER FEATURES tab or on the EPA website at [www.fueleconomy.gov](http://www.fueleconomy.gov).

## **2. APPLICABLE DOCUMENTS**

### **2.1 APPLICABLE REFERENCES**

When published references are stated they shall be of the issue in effect on the date of the solicitation for offers or request for proposals. Military Handbooks:

- MIL-HDBK-1223 – Non-tactical Wheeled Vehicles Treatment, Painting, Identification Marking, and Data Plate Standards.

#### **2.1.1 ORDER OF PRECEDENCE**

In the event of a conflict between this standard and an applicable reference, this standard shall take precedence.

## 2.2 ABBREVIATIONS AND DEFINITIONS

<b><i>The following are the abbreviations and their meanings, as they appear in this standard:</i></b>	
ABS .....	Antilock Braking System
ALT.....	Alternate/Alternative
AREQ.....	Additional Requirements
AMP.....	Ampere
AUTO .....	Automatic
AWD .....	All Wheel Drive
AWDC .....	All Wheel Drive Conversion
BAT .....	Battery
CA .....	Cab to Axle Dimension
CCA.....	Cold Cranking Amps
CVT.....	Continuously Variable Transmission
FMVSS.....	Federal Motor Vehicle Safety Standard(s)
FMR.....	Federal Management Regulation(s)
FWD .....	Front Wheel Drive
GAWR .....	Gross Axle Weight Rating
GCWR.....	Gross Combined Weight Rating
GVWR .....	Gross Vehicle Weight Rating
HD .....	Heavy Duty
HDA .....	Heaviest Duty Available
HEV .....	Hybrid Electric Vehicle
HP.....	Horsepower
HWY .....	Highway
MAN.....	Manual
MAX.....	Maximum
MFR.....	Manufacturer(s)
MIN .....	Minimum
MPG .....	Miles Per Gallon
MPH.....	Miles Per Hour
OEM .....	Original Equipment Manufacturer('s)
PASS .....	Passengers
PTO .....	Power Take Off
RWD .....	Rear Wheel Drive
SAE .....	Society of Automotive Engineers
WB.....	Wheel Base Dimension
4X2 .....	Two Wheel Drive
4X4 .....	Four Wheel Drive

## 3. REQUIREMENTS

### 3.1 DESIGN

These requirements apply to all OEM furnished complete or incomplete vehicles and vocational body trucks. The section on vocational body trucks has additional requirements that pertain to vocational body trucks only.

#### 3.1.1 VEHICLES

The vehicles and the related equipment furnished under this document shall be the vehicle manufacturer's current production. The vehicle(s) offered shall be as shown under the Federal Standard "Item Number." Vehicle(s) shall be complete with all the necessary operating components and accessories customarily furnished to the general public, whether stipulated herein or not, together with such modifications and accessories as may be necessary or are specified herein to enable the vehicle to function reliably and efficiently in sustained operation.

#### 3.1.2 VEHICLE EQUIPMENT AND ACCESSORIES

The vehicle, components, assemblies, and accessories to be delivered under the contract shall be standard or optional commercial products that meet or exceed the requirements specified. They shall comply with all Federal Motor Vehicle Safety Standards (FMVSS), EPA regulations, and state and local regulations applicable to the specified vehicle on the date of manufacture. In addition, the vehicle(s) shall be furnished with the equipment, systems, and accessories as specified by the option codes. Option codes are defined in the text of the standard, or are self-explanatory, as generally used in the automotive industry. All components and optional items shall be as represented in the manufacturer's current model year technical data. Technical data shall be limited to specifications and technical material identical to

that furnished to the authorized company representatives for selection of vehicle models and components. When a specified component or accessory is available in the chassis manufacturer's sales/engineering data, the vehicle shall be so equipped with the OEM item. The OEM component parts of the vehicle need not be the products of the same manufacturer. Optional and standard equipment ordered shall be installed, serviced, and ready for use.

### **3.1.3 RECOVERED MATERIALS/REGULATORY REQUIREMENTS**

In accordance with section 23.403 of the Federal Acquisition Regulations (FAR), the Government's policy is to acquire items composed of the highest percentage of recovered materials practical, consistent with maintaining a satisfactory level of competition without adversely affecting performance requirements or exposing suppliers' employees to undue hazards from the recovered materials. The term "recovered materials" means materials that have been collected or recovered from solid waste and reprocessed to become a source of raw materials, as opposed to virgin raw materials. None of the above shall be interpreted to mean that the use of used or rebuilt products is allowed under this document. The use of re-refined oil shall not be prohibited. This does not prohibit chassis manufacturers from using performance criteria for acceptable oil. Any re-refined oil product shall meet the performance criteria of the vehicle and component manufacturers.

## **3.2 VEHICLE, COMPONENTS, AND SYSTEMS**

### **3.2.1 CURB WEIGHT**

The curb weight of the vehicle is defined as the weight of the complete vehicle without payload. Curb weight shall include the chassis, cab and body, all permanently attached devices, equipment, and a full complement of fuel, lubricants, and coolants.

### **3.2.2 PAYLOAD CAPACITY**

The payload specified for each Item Number is defined as the minimum net weight for occupants and body/cargo carrying capacity, with the minimum equipment as specified. It does not include optional equipment that may be ordered. The ordering agency is responsible for loading the vehicle so that the front axle weight, rear axle weight and GVWR are not exceeded. Occupant weight shall be calculated at 150 lb each. The payload shall be evenly distributed in accordance with the vehicle design and intended use.

**NOTE: PAYLOAD IS REDUCED BY THE WEIGHT OF EACH ADDED OPTION!!!**

### **3.2.3 GROSS VEHICLE WEIGHT RATING (GVWR)**

The gross vehicle weight rating is the maximum, fully loaded weight of a vehicle. The minimum GVWR of a vehicle furnished shall comply with payload shown for each Item Number, and shall be at least the sum of the curb weight and the payload capacity specified. Manufacturers shall provide a rating label showing the actual GVWR of the vehicle furnished. The chassis manufacturer's maximum GVWR, shown on the certification label, shall not be increased.

### **3.2.4 WHEELBASE**

Unless specified or required by the CA dimension, the wheelbase shall be the chassis manufacturer's shortest for the type and model specified.

### **3.2.5 SPEED AND GRADEABILITY**

The vehicle shall maintain a speed of 65 mph on a smooth, hard-surfaced, and level road. From a standing start the vehicle shall ascend a 20 percent grade. The vehicle shall perform as stated when equipped with all specified options and loaded to the GVWR, and the air conditioner compressor is engaged. These requirements are in addition to the minimum engine size and transmission type shown.

### **3.2.6 EMISSION CONTROL SYSTEM.**

Vehicles destined for all states shall comply with Environmental Protection Agency (EPA) Regulations

governing Control of Air Pollution from New Motor Vehicles and New Motor Vehicle Engines in effect on the date of manufacture and with state requirements for which the vehicles are destined.

The vehicle and engine shall conform to 40 CFR Subchapter C-Part 86 - "Control of Emissions from New and In-use Highway Vehicles and Engines", as evidenced by an EPA certificate of compliance. Vehicles shall also comply with all pollution control requirements for the state of final destination. Certificates of compliance shall be made available upon request.

### **3.2.7 FUEL SYSTEM**

The fuel system shall conform to all applicable FMVSS, FMCSR and EPA requirements. The fuel tank(s) shall be protected by a metal shield when available from the OEM, or be located in an area which will be free from hazards of off-road operation. (Example: tanks located between frame rails or more than 15 in ground clearance.) The fuel fill pipe shall be protected against deformation by body or component installation. A fuel gauge shall be provided which accurately indicates total remaining fuel.

### **3.2.8 COOLING SYSTEM**

A coolant overflow recovery tank and compensating system shall be furnished. The cooling system shall be protected with an OEM solution of extended life antifreeze/coolant. The antifreeze/coolant shall comply with ASTM standard D3306 or D6210 (diesel engines) as required. The cooling system shall be filled with a 50% concentration of glycol-base antifreeze coolant. The supplier shall provide the OEM maximum size cooling system for the engine provided.

### **3.2.9 BRAKE SYSTEM**

All vehicles furnished shall be equipped with the OEM power assisted, self-adjusting, front and rear wheels, antilock braking system (ABS).

## **3.3 DRIVETRAIN**

### **3.3.1 ENGINE**

The engine furnished shall have the minimum horsepower and torque specified. When specified that the vehicle(s) will be exported, the engine shall also comply with 3.8.6, Overseas Vehicle Requirements.

### **3.3.2 TRANSMISSION**

#### **3.3.2.1 CODE "T2" AUTOMATIC TRANSMISSION**

The OEM standard production automatic transmission shall be provided.

##### **3.3.2.1.1 AUTOMATIC TRANSMISSION FLUID COOLER**

The OEM standard automatic transmission fluid cooler shall be provided.

##### **3.3.2.2 MANUAL TRANSMISSION**

When specified by code T5 or T6, a manual transmission shall be provided. The number in the code represents the number of forward transmission gears.

###### **3.3.2.2.1 CLUTCH**

Vehicles equipped with a manual transmission shall be furnished with the OEM heaviest duty available clutch assembly offered for the model furnished.

### **3.3.3 TRANSFER CASE**

The transfer case shall be of the type that will provide a part-time (selective) four-wheel drive system. When available from the OEM protective skid plates or shields shall be provided on all 4X4 vehicles and when specified (code SP), or when ground clearance is 15 in or less.

### **3.3.4 DRIVE HUBS, FRONT WHEELS**

The OEM heaviest duty available 4X4 full time or front wheel locking system engaged from the cab shall be furnished.

Vehicles with a GVWR of 14,000 or less shall have automatic locking hubs.  
Vehicles with a GVWR of 14,001 or more shall have manual locking hubs.

### **3.3.5 DIFFERENTIAL TYPE/RATIO**

The differential type/ratio information furnished under the “**Drive Axle**” heading in AutoChoice & the Federal Vehicle Standards applies to the basic vehicle as described for each standard item. Optional engines, transmissions, etc that are selected may result in a change to the type/ratio information furnished for the basic vehicle.

## **3.4 SUSPENSION SYSTEM**

### **3.4.1 SUSPENSION**

The vehicle shall be equipped with a suspension system (axles, springs, wheels and tires) having a rated capacity equal to or in excess of the GVWR. All vehicles shall be furnished with OEM heaviest duty available springs, shock absorbers, and stabilizer device(s).

### **3.4.2 SPRING STOPS**

The spring and/or axle stops furnished shall prevent the axle and other suspension components from striking any part of the chassis or body.

### **3.4.3 WHEELS, TIRES, and TIRE TREADS**

Tires with All Season (AS) tread shall be furnished as a minimum. The wheel and tire size shall be furnished as specified by each OEM. Wheels and tires, shall be of the identical size, type, brand, and load range. All tires shall have radial construction.

The tires furnished will be of the passenger car or light truck type depending on the GVWR of the vehicle.

Tires designed for severe snow use, per the ASTM F-1805 snow traction test, are not covered by this standard.

### **TIRE TYPES**

Passenger (P) vehicle tires are graded according to the Department of Transportation’s Uniform Tire Quality Grading (UTQG) System. They are graded by tread wear, traction and temperature. Passenger vehicle tires include only one load range, the Standard Load Rating. As noted above, OEMs may provide passenger vehicle tires as standard equipment.

Light Truck (LT) tires are rated in three load ranges; C, D, and E with E being the highest load rating. These tires are rated for maximum loads for both single and dual configurations at specific temperatures and pressures. Light truck tires are typically more durable as compared to passenger vehicle tires when furnished on the same type of vehicle. As noted above, OEMs may provide light truck type tires as standard equipment. On select lower GVWR full size pickups, light truck tires may be offered as an option.

### **TIRE TREADS**

The All Season (AS) tread is best suited for on-road use. All season tires are intended to be used year round in wet, dry and moderate snow conditions and other conditions found on-road. The all season

tread pattern is less aggressive than the all terrain tread, resulting in longer life, improved ride comfort and reduced tire noise when used on-road as compared to the all terrain tread. In some cases the OEMs may not offer the AS tread as standard equipment.

The All Terrain (AT) tread is suitable for both on-road and off-road use. This tread is available on Passenger (P) vehicle and Light Truck (LT) tires. The All Terrain (AT) tread is intended to perform well under a variety of conditions found off-road while still providing acceptable on-road performance. This tread pattern is more aggressive and may improve traction off-road, but will result in shorter tire life, decreased ride comfort and increased tire noise on-road. The All Terrain (AT) tread is offered as an option on many vehicles. The OEMs may provide All Terrain (AT) tread as standard equipment.

NOTE: For the purposes of this standard and vehicle ordering, the reference and use of the terms on-road/off-road (O/O, OO) and all terrain (AT, A/T) are the same.

A Tire Pressure Monitoring System shall be provided on all single rear wheeled vehicles with a GVWR of 10,000 pounds or less.

#### **3.4.3.1 SPARE TIRES**

When available from the OEM as standard equipment or as an option, a full size spare assembly (a tire mounted on a wheel) shall be furnished as a part of the basic (minimum) vehicle. The full size spare tire shall be of the identical load range and rolling design characteristics as the tires furnished on the steering axle. In some cases the full size spare tire may not match identically in tread pattern or tire dimensions.

If a full size spare assembly is not offered by the OEM, a space saver type spare assembly shall be furnished if offered by the OEM as standard or an option.

If the OEM does not offer a full size or space saver type spare assembly, no spare assembly shall be furnished.

When spare tire assemblies are mounted inside of passenger vans and sport utility vehicles, a cover shall be furnished for the spare tire.

NOTE: Spare tire assemblies for vehicles with tire pressure monitoring systems may not have monitoring devices if the OEM does not offer them.

### **3.5 ELECTRICAL**

#### **3.5.1 ALTERNATOR AND BATTERY**

When additional electrical power consuming equipment is furnished, the chassis manufacturer shall provide a generating system capable of supplying the total continuous electrical load at normal engine idle for the equipment furnished with the completed vehicle. Intermittent loads such as winches, lift gates, and dump hoists are not included as continuous electrical load. The supplier shall furnish the vehicle with OEM component(s) available for the model (item) having ratings of not less than as specified. Batteries furnished shall be of the maintenance-free type.

### **3.6 CAB/BODY, EQUIPMENT AND ACCESSORIES**

#### **3.6.1 CAB AND CAB/BODY**

Cabs shall be of the conventional type. The cab, or the cab/body, shall be equipped with, but not limited to, the following:

- a. front doors with crank-operated windows
- b. rear doors and cargo doors, as applicable, with checks or door stops



- c. all latches, with exception of lift gates and end gates, operable from the inside and outside
- d. Driver's side door equipped with external key lock
- e. two sets of keys
- f. upholstery and floor covering, as indicated, of the chassis manufacturer's standard color shades or mixtures compatible with exterior color
- g. seating capacity as stated with the first row being a full width adjustable bench seat is required unless otherwise stated
- h. tinted glass on all windows, where available from the OEM
- i. chassis manufacturer's standard insulation and sound deadening materials
- j. provisions for mounting front and rear license plates
- k. license plate brackets shall be furnished when available from the OEM.
- l. glove (dispatch) compartment.

### **3.6.2 CONTROLS AND OPERATING MECHANISMS**

Controls and operating mechanisms shall be located for left-hand drive. Equipment controls shall be complete and conveniently located for the driver. Lever controls for specified equipment shall be designed and located to permit easy entrance and of the driver's compartment. Instruments and controls shall be identified as to their function and installed in a manner to facilitate removal and servicing.

### **3.6.3 ACCESSORIES, CAB/BODY**

The accessories, convenience items, and devices furnished for each vehicle shall include, but not be limited to:

- a. electric power point
- b. gauges
- c. dome light(s)
- d. fresh air type heater with dual defroster
- e. A/C
- f. dual sun visors
- g. armrests
- h. dual windshield wipers/washer
- i. signal lights
- j. inside rear view mirror (not required on dump trucks, cargo vans and multistop vans)
- k. dual outside rear view mirrors
- l. electric horn
- m. keyed door locks (where available)
- n. outside clearance reflectors when required
- o. tire/wheel changing tools and jack when furnished as standard equipment by the OEM.
- p. Hub caps when furnished as standard equipment by the OEM.
- q. Daytime Running Lights
- r. OEM AM/FM radio w/integrated CD player

### **3.6.4 PAINT, FINISH, OR COLOR**

The civilian agencies' vehicle(s) exterior will be selected from the manufacturer's standard colors offered in AutoChoice. Where available under contract, military agencies' vehicle(s) exterior color may be in accordance with MIL-HDBK-1223. The interior finish shall be manufacturer's standard compatible color with the exterior.

### **3.6.5 MIRRORS, OUTSIDE**

Dual OEM outside rearview mirrors shall be provided, one on each side of the vehicle. Only rearview mirrors with a foldaway feature shall be provided. When low mount mirrors are specified, low-mounted or sail-mounted style mirrors with minimum 36 sq in each shall be provided.



### **3.7 VEHICLE OPTION CODES**

The following Option Code detailed requirements are offered for selected options. All other option codes are defined in AutoChoice & the Federal Vehicle Standards.

Option codes apply only as indicated in AutoChoice & the Federal Vehicle Standards.

Not all option codes apply to all vehicles.

**NOTE: SELECTING SOME OPTIONS MAY RESULT IN THE MINIMUM REQUIREMENTS FOR A STANDARD ITEM NOT BEING COMPLIED WITH!!**

#### **3.7.1. CODE "DALT" DUAL ALTERNATORS**

When code DALT is specified, the vehicle shall be equipped with the chassis manufacturer's dual alternator system.

#### **3.7.2 CODE "AC" AIR CONDITIONING AND CODE "AC2" - AUXILIARY REAR AIR CONDITIONING**

When code AC is specified, the vehicle shall be equipped with the chassis manufacturer's standard dehumidifying/all weather air conditioner. The air conditioning system shall include, but shall not be limited to increased engine cooling capacity, alternator and battery capacities, and insulation (headliner, firewalls, and side panels) as available for the model furnished.

When code AC2 is specified, the OEM auxiliary rear compartment air conditioning system, shall be furnished.

#### **3.7.3 CODE "AH" AUXILIARY PASSENGER COMPARTMENT HEATER**

When code AH is specified, in addition to the standard in-cab heater, the OEM auxiliary heater shall be furnished for the passenger compartment.

#### **3.7.4 CODE "AP" ADJUSTABLE PEDALS**

When code AP is specified, adjustable pedals shall be furnished.

#### **3.7.5 CODES "LT", "AT", AND "TT"**

Section 3.4.3 describes tire types and treads in more detail.

##### **Tire Types**

When code LT is specified, the corresponding type tires, of the minimum size specified shall be provided.

Code LT - Light Truck Tires

##### **Tread Types**

When code AT or TT is specified, the corresponding tire tread, of the minimum size specified shall be provided.

Code AT - All Terrain tread

Code TT- Traction Tread Rear Only

Option Code TT changes the rear tires only to an All Terrain (AT) tread. When furnished, the spare tire will have an All Season (AS) tread.

### **3.7.6 CODE "ATC" AUTOMATIC TRACTION CONTROL**

When ATC is specified, an OEM automatic traction control system, functioning through the vehicle brake and/or engine systems, shall be furnished.

### **3.7.7 CODE "AWD" OEM ALL WHEEL DRIVE**

When code AWD is specified, the OEM all wheel drive system with a single speed transfer case shall be furnished as a minimum.

### **3.7.8 CODE "BF" BENCH FRONT SEAT**

When code BF is specified, a front solid bench seat shall be furnished.

### **3.7.9 CODE "BL" BED LINER**

When code BL is specified, an OEM protective cargo bed liner shall be furnished.

### **3.7.10 CODE "BUA" BACKUP ALARM**

When code BUA is specified, an OEM backup alarm conforming to SAE J994 shall be furnished which provides an audible warning only when the ignition switch is "on" and the vehicle transmission control is in reverse.

### **3.7.11 CODES "CA1, CA3, CA4, CA5, CA6, AND CA8" CAB TO AXLE LENGTH**

When specified;

- code CA1 requires a cab to axle length of 108 in
- code CA3 requires a cab to axle length of 138 in
- code CA4 requires a cab to axle length of 120 in
- code CA5 requires a cab to axle length of 126 in
- code CA6 requires a cab to axle length of 60 in
- code CA8 requires a cab to axle length of 84 in
- code CA56 requires a cab to axle length of 56 in

### **3.7.12 CODE "HEAN" HYBRID ENERGY AUDIO & NAVIGATION SYSTEM**

When code HEAN is specified, the following shall be furnished:

1. Hybrid Energy Flow Graphic
2. Fuel Economy Display
3. AM/FM Audio Radio with 6 CDDJ under passenger seat & 4 speakers
4. Navigation capability (Full map, turn by turn, voice direction, point of interest)
5. Single CD for regional U.S. coverage

### **3.7.13 CODE "CBE" CARGO BED EXTENDER**

When code CBE is specified, the OEM cargo bed extender shall be provided.

### **3.7.14 CODE "DBS" REAR BENCH SEAT DELETE**

When Option DBS is specified, the rear bench seat shall be deleted from the extended cab pickup.

### **3.7.15 CODE "SURC" REAR CARGO STORAGE UNIT**

When Code SURC is specified, a black, floor mounted, 6" deep storage unit, for loose cargo items, extending the width of the cab in the area behind the front seats, shall be furnished in regular cab pickups.

### **3.7.16 CODE "CM" CARPETED FLOOR COVERING**

When code CM is specified, carpeted floor covering and carpeted floor mats shall be provided in all seating areas at a minimum.

### **3.7.18 CODE "CNS" CONSIGNEE DELIVERY**

When consignee (direct) delivery code CNS, is specified, the contractor shall deliver the vehicle to the consignee delivery address designated on the motor vehicle delivery order.

Per FSS 290 (Apr 1984) entitled: Delivery Hours-"Where prices are quoted and accepted on a destination basis, delivery shall be performed between the hours of 8:00am and 4:30 PM, Monday through Fridays, holidays excluded," all vehicles shall be delivered to the consignee Monday through Friday between the hours of 8:00 AM and 4:30 PM, excluding Federal Holidays.

The consignee is responsible for:

1. The predelivery inspection and servicing normally provided by the dealer during the standard dealer delivery process.
2. Notifying the contractor of the delayed delivery date and the in-transit mileage accumulation if applicable.
3. In the presence of the delivering driver, immediately inspecting the vehicle for damage, abuse, loss or theft that may have occurred during transit. Any such findings should be accurately described on the delivery receipt the driver presents for signature. If the vehicle(s) are covered with snow, ice or dirt so as to prevent a complete inspection at the time of delivery, this is to be noted on the delivery receipt. The driver is required to acknowledge any notification on the delivery receipt by signature.
4. Notifying the contractor of any damages or shortages found within 24 hours.
5. Obtaining local safety and emission testing that may be required.

Items normally installed by the dealer as part of the predelivery servicing shall be shipped in the vehicle. The consignee will be responsible for installing these items.

The fuel tank(s) shall be filled with a minimum of 3 gal of fuel.

The vehicle(s) must be accepted wheels on ground.

### **3.7.20 CODE "CU" CLOTH UPHOLSTERY**

When code CU is specified, the OEM standard cloth interior upholstery shall be provided.

### **3.7.21 CODE "D3" SPECIAL TRACTION**

When code D3 is specified, the vehicle shall be provided with a positive-traction, automatic locking differential.

### **3.7.22 CODE "D7" TOWING/MOUNTAIN RATIO**

When code D7 is specified, it shall indicate that the vehicle will be used for trailering (towing), or operating in mountainous terrain. The vehicle shall be furnished with the OEM higher than standard numerical axle ratio that is compatible with the required equipment and options selected.

### **3.7.23 CODE "DA" DELETE AIR CONDITIONING**

When code DA is specified, the vehicle supplier shall furnish the vehicle without air-conditioning

components.

### **3.7.24 CODE LHFM FRONT MANUAL LOCKING HUBS**

When code LHFM is specified, the OEM front manual locking hubs shall be furnished in lieu of the automatic hubs.

### **3.7.25 RESERVED**

### **3.7.26 CODE "DTG" DARK TINTED GLASS**

When code DTG is specified, OEM dark tinted glass on all windows behind the front seat shall be furnished.

### **3.7.27 CODES "E1, E2, E3, E4, AND E5" ENGINES**

When code E1 is specified, the OEM applicable four cylinder engine shall be provided.

When code E2 is specified, the OEM applicable five/six cylinder engine shall be provided.

When code E3 is specified, OEM applicable V8 engine shall be furnished.

When code E4 is specified, an OEM 8 cylinder engine with additional power as specified shall be provided.

When code E5 is specified, the OEM extra power V8 or 10 cylinder engine as specified shall be provided.

### **3.7.28 CODE "EH" ENGINE BLOCK HEATER**

Ordering Note: When Code "YD" is specified, "EH" shall be furnished.

When code EH is specified, the OEM engine highest wattage block heater(s) shall be furnished.

### **3.7.29 CODE "EOP" Extreme Off Road Capability**

When code EOP is specified, it shall provide the following modifications specially engineered for extreme off road capabilities.

1. Electronically locking front and rear differentials, 4.56 axle ratio.
2. GVWR rating of 8510 lbs.
3. 17 x 8.0 polished, forged aluminum wheels with LT285/70R17D all terrain tires.
4. Electronically disconnecting front stabilizer bar.
5. Front electric winch.
6. 160 amp alternator & 750 CCA battery.
7. Increased front & rear springs rates.
8. Increased ride height (35 mm front & 25 mm rear).
9. Long-travel, mono tube shock absorbers.
10. Fuel tank, transfer case, and steering damper skid plates.
12. Black grained front & rear fender flares, upper fascia, and body side molding.
13. Trailer tow group (RH4) with front tow hooks
14. Clearance lamps
15. Fording capability of 30 inches."

### **3.7.30 CODE "FTH" FRONT TOW HOOKS**

When code FTH is specified, the chassis manufacturer's front recovery hooks shall be frame mounted on the front of the vehicle. The chassis manufacturer's front recovery hooks shall be provided on all 4X4 vehicles.

### **3.7.31 CODE "E85" ETHANOL FLEXIBLE FUEL**

When code E85 is specified, the engine shall be capable of normal operation on gasoline fuel containing up to 85 percent ethanol.

### **3.7.32 CODE "L6" SHORT BED PICKUP BODY**

When code L6 is specified, the truck body furnished shall have an overall interior length of 6 to 6.7 ft.

### **3.7.33 CODE "LD" LEFT DOOR**

When code LD is specified, a left side, swing out, 60/40 passenger/cargo door shall be furnished.

### **3.7.34 CODE "RX2" ROOF WIRING, WITHOUT HOLE**

When code RX2 is specified, a circuit containing a minimum of two 10-gage wires shall be furnished to the forward center of the roof area. The headliner shall be removable in this area for easy access. No hole shall be made in the roof.

### **3.7.35 CODE "OEMC" OEM CONSOLE**

When code OEMC is specified, the OEM console shall be installed in between the driver's and front passenger's seats.

### **3.7.36 CODE "LR" LUGGAGE RACK**

When code LR is specified, an OEM, roof mounted luggage rack shall be provided.

### **3.7.37 CODE "MBG" FRONT BRUSH GUARD**

When code MBG is specified, the vehicle shall be equipped with a radiator and headlamp brush guard.

### **3.7.38 CODE "TC" OEM THROTTLE CONTROL**

When code TC is specified, the vehicle shall be furnished with a throttle control that increases the engine-idling RPMs to a set working-RPM level and maintains this level regardless of work load. It can only be used when the vehicle is stationary, the parking brake is engaged and the gear selector level is in position "P".

NOTE: The throttle control will automatically switch off when the parking brake is released, the vehicle is in motion or the control unit detects a malfunction. The throttle control will also automatically switch off when you depress the brake pedal. In this case it will automatically switch on again as soon as you release the brake pedal.

### **3.7.39 CODE "CTB" OEM TRAILER BRAKE CONTROLLER**

When code CTB is specified, the vehicle shall be furnished with an integrated electronic device that controls electrical power to trailer braking system and provides ideally matched braking force between tow vehicle and trailer.

### **3.7.40 CODE "CTBP" OEM TRAILER BRAKE CONTROLLER PRE-WIRING**

When code CTBP is specified, the vehicle shall be furnished with a 4 way brake wiring connector or access to brake wiring located under the instrument panel. This connector or wiring access shall contain the following circuits:

- Battery Ground
- Battery Positive
- Stop Lamp Switch
- Electric Brake Feed

### **3.7.41 CODE "MF" FLOOR MATS**

When code MF is specified, floor mats shall be provided.

### **3.7.42 CODE "MAV" 24VDC INVERTER SYSTEM**

When option MAV is specified, rear bumper & dash mounted 24V NATO connectors shall be furnished.

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**3.7.43 CODE "MIL" MILITARY MARKINGS AND DATA PLATES**

When code MIL is specified and available under contract, the following shall be furnished:

1. Data Plate. A data plate only shall be furnished. No other exterior military markings shall be furnished.

At a minimum, the Data Plate shall be as follows:

NOMENCLATURE	_____
MAKE AND MODEL	_____
CHASSIS SERIAL NUMBER (VIN)	_____
VEHICLE CURB WEIGHT:	_____ LBS
PAYLOAD, MAXIMUM:	_____ LBS
GROSS VEHICLE WEIGHT RATING, MAX.	_____ LBS
GROSS COMBINATION WEIGHT RATING, MAX.	_____ LBS
DATE OF DELIVERY:	_____ MONTH _____ YEAR
WARRANTY:	_____ MO. _____ MILES
CONTRACT NUMBER	_____
RPN NUMBER	_____
<b>US PROPERTY</b>	

2. A DD FORM 250 (MATERIAL INSPECTION AND RECEIVING REPORT) shall be furnished in lieu of a GSA form 308.

**3.7.44 "TES" ENGINE SHUT DOWN TIMER**

When code TES is specified, an engine shut down timer shall be furnished. The timer shall be used in combination with a diesel engine and an automatic transmission. The engine shall shut down automatically after a 5 minute idle period when the transmission is in the neutral position and the parking brake is set.

**3.7.45 RESERVED****3.7.46 CODE "OS" ONSTAR SYSTEM**

When code OS is specified, OnStar system hardware and a subscription for three years from the date of delivery shall be provided. Option is available only in the 48 contiguous states. Remote system services shall include automatic notification of airbag deployment, stolen vehicle tracking, emergency services, roadside assistance, door unlock, horn and lights, and vehicle diagnosis.

**3.7.47 CODE "PSM & PSME" PARTS AND SERVICE MANUALS**

When PSM or PSME is specified, the contractor shall furnish all parts lists and service publications for the vehicle and all equipment furnished.

When PSM is specified, the publications furnished shall be printed documents.

When PSME is specified, the publications shall be electronic (CD or web-based)



NOTE: The publications will be shipped separately from the vehicle. The publications will be shipped to the consignee mailing address as shown on the MVDO.

### **3.7.48 CODE "PT" POWER TAKEOFF OPENING**

When code PT is specified, the designated transmission or transfer case shall be provided with a usable PTO opening.

### **3.7.49 CODE "PWL" POWER WINDOWS AND LOCKS**

When code PWL is specified, the OEM power windows and power locks option shall be provided.

### **3.7.50 CODE "NAX" NARROW TRACK REAR AXLE**

When code NAX is specified, the chassis manufacturer's narrow track rear axle shall be furnished providing a nominal overall rear axle width of 84 inches.

### **3.7.51 CODE "SRO" OEM REVERSE OBSTACLE SENSOR**

When code SRO is specified, the vehicle shall be furnished with a sensor system that is installed on the bumper of the vehicle and detects the proximity of objects and transmits an audible signal to the driver. A switch may be provided that allows the driver to turn this device on/off.

### **3.7.52 CODE "RB" RUNNING BOARD**

When code RB is specified, OEM running boards shall be furnished.

### **3.7.53 CODE "RD" REAR ELECTRIC DEFROSTER**

When code RD is specified, the OEM rear window electric defogger/defroster shall be furnished.

### **3.7.54 RESERVED**

### **3.7.55 CODE "RF" RUBBER FLOOR COVERING**

When code RF is specified, a rubber or vinyl floor cover shall be provided.

### **3.7.56 CODES "RH3 AND RH4" OEM TRAILER TOWING PROVISIONS**

The trailer towing provisions furnished by the OEM's are rated according to the SAE J684 standard. This standard also defines the weight classifications for trailering. The classifications are as follows:

- **Class 3** All types of trailers with a trailer GVWR of over 3500 lb and not to exceed 5000 lb GVWR.
- **Class 4** All types of trailers with a trailer GVWR of over 5000 lb and not to exceed 10000 lb GVWR.

The codes RH3 & RH4 correspond directly to the trailer classes. As an example, for a class 3 trailer, you need to order RH3 towing provisions.

All OEM towing provisions include:

- A trailer lighting package
- The OEM's standard electrical connector
- Performance based on weight distributing capacity for RH3 & RH4

The ordering agency will be responsible for obtaining the proper hitch ball, ball mounting device and the associated equipment (such as weight distributing devices) required to tow the trailer and its load.

It is imperative that agencies follow the OEM's towing guidelines to select the appropriate type of vehicle

to perform their trailer towing operations.

### **3.7.57 CODE "RKE" REMOTE KEYLESS ENTRY**

When code RKE is specified, the OEM optional remote keyless entry system shall be furnished.

### **3.7.58 CODE "RL" REAR LINING, CARGO VAN**

When code RL is specified, the rear compartment shall be lined with the OEM van-wagon panels.

### **3.7.59 CODE "RM" EXTRA WIDE MIRRORS**

When code RM is specified, OEM dual swing away/adjustable combination (flat and convex) style mirrors, shall be furnished. This mirror system shall provide an adequate view to the rear with a body that is 96 inches wide as a minimum. For consignee (Option Code CNS) delivery, large style mirrors may be shipped dismantled within the vehicle.

### **3.7.60 CODE "RS" RECLINING BUCKET/CAPTAIN'S CHAIRS**

When code RS is specified, reclining bucket/captain's chairs shall be furnished.

### **3.7.61 CODE "S5" FIVE PASSENGER SEATING**

When code S5 is specified, 5 passenger seating shall be furnished and the rear AC/heat unit may be deleted.

### **3.7.62 CODES "S6, S7, S8, S9, AND S12" PASSENGER SEATING**

When code S6, S7, S8, S9, or S12 is specified, seating for 6, 7, 8, 9, or 12, respectively, passengers shall be provided. Provisions for ease of ingress and egress to the rear seating positions shall be provided. Center and rear seats shall be of the removable or foldaway type.

### **3.7.63 DEACTIVATE DAYTIME RUNNING LIGHTS**

When code DDRL is specified, the daytime running lights (DRL) will be:

1. Permanently deactivated; or
2. Temporarily deactivated by the operator as described below.

Ordering Notes: LAW ENFORCEMENT USE ONLY.

Daytime running lights (DRLs) are an economical and effective safety feature. When available from the OEM, Code DRL is a minimum requirement on all vehicles furnished under this standard. DRLs are especially effective in preventing daytime head-on and front-corner collisions by increasing vehicle conspicuity and making it easier to detect approaching vehicles from a distance.

By selecting this option the Ordering agency / Operator is exercising Governmental Privilege to exempt vehicles used for law enforcement activities from this GSA minimum requirement because the deactivation of DRLs (and corresponding reduction in vehicle conspicuity) is critical to the agency's mission.

These vehicles will have the DRLs permanently deactivated

- All DCX vehicles
- All Ford vehicles
- GM police use vehicles

These vehicles will have the DRLs temporarily deactivated for one complete ignition cycle when the deactivation is initiated by the vehicle operator.

- Non police use GM vehicles

**3.7.64 CODE "SCC" VAN INDIVIDUAL SEATING**

When code SCC is specified, individual high back seats shall be provided in the first and second row (minimum capacity remains at seven passengers).

**3.7.65 CODE "SE" SLIDING TYPE SIDE DOOR**

When code SE is specified, the OEM sliding type side door shall be furnished.

**3.7.66 CODE "DPS" POWER SLIDING DOOR**

When code DPS is specified, the OEM POWER sliding type side door shall be furnished.

**3.7.67 CODE "SF" SPLIT FRONT BENCH SEAT**

When code SF is specified, a split front bench seat shall be furnished.

**3.7.68 CODE "SK" METRIC ODOMETER**

When code SK is specified, the odometer shall show cumulative distance in kilometers.

**3.7.69 CODE "SP" SKID PLATES**

When code SP is specified, protective plates, or shields, shall be provided. The OEM skid plate(s) shall provide protection for at least the transfer case. The skid plates shall be demountable for service of the components they protect. Sufficient openings shall be provided to enable draining of transmission and servicing the underside of the engine.

**3.7.70 CODE "SZ" SNOW PLOW PREP PACKAGE**

When code SZ is specified, the vehicle requires the OEM snowplow preparation package or OEM recommended snowplow preparation equipment if an option is not available. This shall include option "D3", the positive-traction automatic locking differential that the OEM offers.

**3.7.71 CODE "OPW" OPAQUE GLASS**

When code OPW is specified, the OEM's opaque glass and/or panels shall be furnished behind pillar B.

**3.7.72 CODE "SRG" SLIDING REAR WINDOW**

When code SRG is specified, the OEM sliding rear glass window shall be furnished.

**3.7.73 CODE "CR" CRUISE CONTROL**

When code CR is specified, the chassis manufacturer's cruise control shall be furnished.

**3.7.74 CODE "TCH" HARD TONNEAU COVER**

When code TCH is specified, an OEM lockable, weather resistant, hard tonneau pickup bed cover shall be furnished.

**3.7.75 CODES "T5", AND "T6", FIVE, AND SIX SPEED MANUAL TRANSMISSION**

When code T5, or T6 is specified, a five, or six speed manual transmission, respectively, shall be furnished. The transmission shall be furnished with a PTO opening(s) in accordance with SAE J704, unless an exception is noted under the code.

**3.7.76 CODE "TD" DELETE SPARE TIRE ASSEMBLY**

When code TD is specified, the spare tire assembly shall not be furnished.

**3.7.77 CODE "EHM" ENGINE HOUR METER**

When code EHM is specified, an engine hour meter shall be provided. The meter shall have a totalizing mechanism of not less than 9,999 hours for the chassis engine to register accurately the number of hours of operating time. The meter shall be of rugged construction to ensure continuous trouble-free performance under severe operating conditions. The meter shall be mounted on the cab instrument

panel or in the engine compartment in a readable location.

**3.7.78 CODE “WR” INCREASED GVWR**

When code WR is specified, the GVWR shall be increased by the OEM to the maximum level available.

**3.7.79 CODE “AVSC” AUTOMATIC VEHICLE STABILITY CONTROL**

When code AVSC is specified, the OEM’s integrated vehicle stability enhancement system shall be furnished. AVSC will help the driver control the vehicle on a variety of road surfaces, in inclement weather, and in avoidance maneuvers.

**3.7.80 CODE “VU” VINYL INTERIOR**

When Code VU is specified, chassis manufacturer’s optional vinyl interior shall be furnished.

**3.7.81 CODE “VUR” VINYL REAR SEAT**

When Code VUR is specified, a vinyl rear seat shall be furnished.

**3.7.82 CODE “VDD” VARIABLE DISPLACEMENT ON DEMAND**

When Code VDD is specified, the chassis manufacturer’s system that deactivates cylinders for improved fuel economy and automatically reactivates cylinders for performance shall be furnished.

**3.7.83 CODE “WD” SIDE CARGO DOOR WINDOWS**

When code WD is specified, window(s) shall be furnished in the curb side cargo door(s).

**3.7.84 CODE “WY” WINDOWS, ALL SIDES**

When code WY is specified, OEM windows shall be provided on all sides of the vehicle.

**3.7.85 CODE “XL” EXTRA LONG BODY**

When code XL is specified, the OEM extra long body shall be furnished.

**3.7.86 CODE “XS” SHORT BODY VAN**

When code XS is specified, the OEM shortest body shall be furnished.

**3.7.87 CODE “RKS” REMOTE KEYLESS START**

When code RKS is specified, the OEM optional remote keyless start system shall be furnished.

**3.7.88 CODE “YD” DIESEL ENGINE**

When code YD is specified, OEM maximum power diesel engine available for the specified application shall be furnished.

Option “EH” and all other cold weather operation equipment that the OEM offers shall be furnished.

Diesel engines require the use of ultra low sulfur diesel fuel.

Diesel engines may also require the use of selective catalytic reduction (SCR) emissions technology which requires the use of urea, known in North America as “diesel exhaust fluid” (DEF).

**3.7.89 CODE “HEV” HYBRID ELECTRIC VEHICLE**

When code HEV is specified, the OEM’s approved hybrid electric propulsion system shall be provided.

**3.7.90 CODE “DRB” DELETE RUNNING BOARDS**

When code DRB is specified, the OEM’s standard running boards shall be deleted.

### **3.7.91 CODE "OLS" OIL LIFE SYSTEM**

When code OLS is specified, the vehicle shall be furnished with a system that will visually indicate that an engine oil change is necessary. The system requires manual reset every time oil is changed.

### **3.7.92 CODE "WB" WHEEL BASE**

When specified;

code WB38 requires a nominal wheel base length of 138 in,  
code WB59 requires a nominal wheel base length of 158 in,  
code WB66 requires a nominal wheel base length of 166 in,  
code WB76 requires a nominal wheel base length of 176 in,  
code WB83 requires a nominal wheel base length of 183 in,  
code WB95 requires a nominal wheel base length of 195 in.

### **3.7.93 CODE "BTPP" BRUSH TRUCK PREP PACKAGE**

When code BTPP is specified, the following 4 items shall be furnished:

1. GSA option code APP (Ambulance Prep Package)
2. GSA option code SP (Skid plate when available from the OEM)
3. GSA option code PT (Power take off opening)
4. Traction tires on the rear & 2 traction tires on the front (Not recommended for over the road applications; could incur irregular front tire wear and/or NVH)

### **3.7.94 CODE "PSMA" PARTS AND SERVICE MANUALS, 2 SETS, SHIP TO WR ALC/LEET**

When code PSMA is specified, 2 sets of parts & service manuals shall be sent to Warner Robins Air Force Base as detailed in the vehicle vendor's contract. Each set of manuals shall contain a DD250.

### **3.7.95 CODE "1611" OEM EXPORT DOCUMENT FEE**

When code 1611 is specified, A GSA Form 1611 shall be completed and submitted by the contractor per the instructions on the form.

## **3V. REQUIREMENTS, ADDITIONAL (PERTAINING TO VOCATIONAL BODY TRUCKS ONLY)**

### **3V.1 CAB-TO-AXLE (CA) AND WHEEL BASE (WB) DIMENSIONS**

For vocational body vehicles the dimension provided shall accommodate an excess of 50 percent of the outside body length forward of the rear axle centerline

### **3V.2 SUSPENSION**

The chassis shall not be modified above chassis manufacturer's maximum GAWR as shown on the certification label.

### **3V.3 WHEELS AND TIRES**

The tire assembly shall be mounted in a bulkhead or side wall carrier, or in a spare tire compartment. On a chassis and cab the spare assembly may be shipped strapped to the frame if a carrier is not available.

### **3V.4 ELECTRICAL SYSTEM**

The electrical systems, equipment, and components furnished on the specified bodies, devices, and equipment shall comply with all the applicable SAE recommended standards and practices. All van cab and body wiring, except for the engine compartment, shall be concealed behind paneling, headliners, or protected in flexible conduit, except for terminal ends. Passage through bulkheads/structural members shall be protected with grommets or equivalent. Exposed fuse boxes shall be provided with a non-conductive cover. All added wiring, for bodies, shall have SXL or GXL insulation and be mounted in a minimum 300°F rated wire loom. Wiring shall be routed to avoid movement and high temperature components, and positively secured every 18 in maximum with clamps and/or clips. Plastic ties may be used to form wiring bundles, but shall not be used to secure wiring bundles to the vehicle. Wiring shall not be secured to brake lines and/or fuel lines.

#### **3V.4.1 LIGHTING**

The tail lights, stop lights, backup lights and rear turn signals shall be located to avoid obstruction by the rear doors when the doors are in fully opened position. On utility bodies, recessed lights and their electrical connections shall be provided, with guarding to prevent interior damage from shifting loads/cargo. Lights and reflectors shall not be mounted on vertical surface of rub rails, or mounted on vehicle bumpers, or in any manner to increase vehicle width. Rear lights, with the exception of license plate lights, shall be installed flush with, or forward of, the rear of the body. Two backup lights shall be furnished.

#### **3V.4.2 RADIO INTERFERENCE SUPPRESSION**

Non-OEM electrical equipment and devices used and installed on these vehicles shall be suppressed to the limitations of SAE J551.

#### **3.V.4.3 INTERIOR TRIM**

All interior pillars shall be covered in trim

### **3V.5 TRUCK BODY DESIGN**

Each truck body furnished shall be designed and mounted to fit the vehicle chassis specified, shall provide the proper weight distribution for steering and balance, and present a satisfactory appearance. Body widths shall be a maximum of 96 inches and not less than the overall width of the rear tires, or more than 2 in greater than the overall width of the rear tires per side. Bodies designed with wheel openings shall have the vehicle's wheels centered within the wheel opening  $\pm 2$  in longitudinally and  $\pm 0.5$  in laterally. Wheel housing envelopes shall be of a size to provide snow chain clearance as determined by SAE J1232. Materials used in the fabrication of bodies, if not specifically described, shall be not less in



quality and strength than those materials normally used by body manufacturer. Wherever dissimilar metals are used they shall be insulated against corrosion.

### **3V.5.1 BODY MOUNTING**

Bodies, other than OEM standard production bodies, shall have at least three (3) Grade 5, 16 mm (5/8 inch bolts), or equivalent, to attach each body bracket to the frame/chassis, mounted so as to minimize any lateral or longitudinal movement of the body relative to the frame. The body shall be mounted in accordance with the body and chassis manufacturer's recommendations. Body mounting crashworthiness shall not be compromised from that mandated by FMVSS crash test requirements. Body mounting and installation of fuel filler pipe and vent shall be in accordance with chassis and body manufacturer's recommended procedures to retain the certifications for all applicable FMVSS. Reinforcement or filler blocks shall be used where mounting device(s) may deform frame flanges. Mounting devices shall be locked units which will minimize loosening, but which may be tightened if necessary. Modular bodies shall not be welded to the frame at any point, and be interchangeable with other chassis of the manufacturer's having a similar cab to axle (CA) dimension. The fuel tank filler pipe shall be installed and vented in a manner to permit refueling at normal fuel pump delivery rates without regurgitation of fuel. The installed body shall not be in contact with any part of the exhaust system. Rear impact guards (underride protection) and rear end protection shall be furnished conforming to FMCSR 393.86 where necessary and shall be painted black

### **3V.5.2 POWER TAKE OFF**

When a PTO unit is provided on a vehicle, a caution plate or decal reading, "Do not operate vehicle at highway speeds with PTO engaged," shall be installed in the cab, readily visible to the driver. Controls to operate the power takeoff shall be located in the truck cab accessible to the seated driver. The PTO unit shall have a rated capacity to operate the provided equipment.

### **3V.5.3 PREPARATION FOR PAINTING**

The furnished bodies and the associated finished equipment surfaces, concealed or exposed, except polished metal parts, shall be cleaned, treated, and coated with a firm primer and preservative with rust inhibiting properties in accordance with MIL-HDBK-1223 or equal.

### **3V.5.4 PAINT, FINISH, AND COLOR**

Vocational bodies shall be painted in acrylic composition urethane or polyurethane paint that is the "closest color match possible to the cab" as determined by the matching techniques utilized by the automotive paint manufacturer or equal. For acrylic composition urethane or polyurethane paint, the final stage manufacturer's painted components shall have a paint film not less than 1.8 mils. thick and a minimum total thickness of 2.6 mils., including primers. After application of the final film of paint, the surfaces shall be smooth and uniform and shall be virtually free from grit, seeds, orange peel, fish eyes, streaks, running, sagging, wrinkles, pin holes, craters and nonuniformity of specified color. Auxiliary or fiberglass hard tops may be furnished in manufacturer's standard color. Pintles, towing devices, winches, exterior mounted equipment and bumpers may be manufacturer's standard finish or color.

### **3V.6 ADDITIONAL VEHICLE OPTION CODES**

The following Additional Option Codes are offered for selected vocational body vehicle applications **ONLY**. Detailed requirements for these codes follow this Index. Not all option codes apply to all vehicles. The Code only applies if listed in the Optional Equipment section of AutoChoice & the Federal Vehicle Standards.

**NOTE: SELECTING SOME OPTIONS MAY RESULT IN THE MINIMUM REQUIREMENTS FOR A STANDARD ITEM NOT BEING COMPLIED WITH!!**

#### **3V.6.1 CODE "AHV" AUXILIARY CARGO COMPARTMENT HEATER**

When code AHV is specified, in addition to the standard in-cab heater, an auxiliary heater with two speed or variable speed blower shall be furnished for the cargo compartment. Rated air flow shall be not less



than 185 cu ft per minute and heater rated output shall be not less than 17,500 BTU at 150°F water over air differential. The heater controls shall be located convenient to the driver.

### **3V.6.2 CODE "AL" ALUMINUM BODY**

When code AL is specified, the utility service body shall be constructed of aluminum. The body shall be constructed with strength equal to steel. The body shall generally conform to the dimensional, layout, performance, and design specified, with the exception of basic body material used to accomplish the objectives (e.g. safety tread steel plate floor or equal, etc.).

1. The floor shall be a minimum of 0.125 in 5086-H34 and include reinforcement for rigidity
2. The bulkhead shall be a minimum of 0.080 in 5052-H32 aluminum and include reinforcement for rigidity
3. Tailgates shall be double paneled construction from a minimum 0.080 in material or single panel 0.090, reinforced for rigidity
4. Cabinet doors shall be double panel construction from a minimum 0.063 in, 5052 H32 material
5. The strength of finished aluminum cabinets shall be at least equal to that of steel construction

### **3V.6.3 CODE "AWDC" FOUR WHEEL DRIVE (4X4) CONVERSION (Non-OEM-Dealers Only)**

When code AWDC is specified, an OEM pass through four wheel drive conversion shall be furnished. The conversion (4X4) shall be a professionally engineered conversion from a two wheel drive (4X2) to a four wheel drive (4X4) meeting or exceeding all applicable requirements herein. All workmanship, welding, mechanical fit, grade and quality of components and materials used in conversion(s) shall be equal to or greater than the chassis manufacturer's production of other vehicles in the same weight class that are available as factory assembled 4X4 units. Conversion components shall not interfere with other body, chassis, or mechanical parts through the complete range of suspension and wheel angle travel and allow proper alignment of axles. The tracking and wheelbase of the front/rear axles shall be identical on both sides of the vehicle.

When available, the chassis manufacturer's original equipment components for 4X4 units shall be furnished, including but not limited to: spring hangers, shackles, drive axle, integral transmission/transfer case, universal joints, steering linkage, stabilizer bars, radius and torque rods, transfer case shift linkage, brake calipers, pads, rotors, shock absorbers, and springs.

The chassis manufacturer's guidelines/requirements for 4X4 conversions shall be followed.

1. The conversion shall, at a minimum, maintain the payload as required for the Standard Item number furnished.
2. The furnished axle ratings, as a minimum, shall provide the original or greater GAWR and the original GVWR.
3. The design of the 4X4 conversion shall not raise the vehicle's center of gravity over that of the original vehicle, and chassis height shall not be raised more than 5 in.
4. The transfer case selector shall have a readily visible shift diagram and a position indicator.
5. A yellow, dash mounted 4 wheel drive warning light shall be provided in close proximity to permanent warning decal or metal plate advising conditions under which 4 wheel drive shall not be used.
6. A dash mounted metal plate or permanent decal indicating the proper procedure for engaging and disengaging the 4 wheel drive shall be provided.
7. The ratio of the front drive axle shall be identical +/- 1% of that furnished in the rear axle.

8. The front drive axle hubs, if integral to axle being installed, shall be manually engaged.
9. Each vehicle's rear axle shall be furnished with chassis manufacturer's special traction differential (option code D3) when available.
10. Contractor shall furnish FMVSS re-certification of the complete fuel system should the original fuel system be modified in any manner.
11. The 4X4 converter shall furnish a completed applicable FMVSS certification label as required for an Alterer, Intermediate, or Final Stage manufacturer.
12. In addition to the required OEM manuals, the vehicle shall be provided with operation, maintenance, and 4X4 system specifications information.

The 4X4 converter shall provide to the purchaser a full parts and labor warranty covering all added 4X4 parts and materials, including workmanship and design. The warranty shall also cover all OEM components affected or modified by the conversion process. This warranty shall be at least equivalent, in mileage and time, to the chassis manufacturer's original warranty, including any extended warranties required or furnished.

#### **3V.6.4 CODE "BBM" BULKHEAD, UTILITY SERVICE BODY**

When code BBM is specified, the body manufacturer's steel cab guard shall be provided at the front bulkhead, and when an aluminum body is furnished the cab guard shall be aluminum. On fiberglass bodies, the cab guard shall be steel or aluminum. The guard shall be at least the width of the load space and the height of the cab and include openings for rear visibility.

#### **3V.6.5 CODE "BBS" BULKHEAD, STAKE BODY**

When code BBS is specified, an all steel, solid front bulkhead with a screen opening behind the cab window shall be provided in lieu of the front end rack.

#### **3V.6.6 CODE "BC" DUMP BODY COVER**

When code BC is specified, a permanently mounted, retractable, mechanical cargo cover of vinyl-coated nylon material shall be furnished.

#### **3V.6.7 CODE "BDF" DIAMOND TREAD STEEL FLOOR**

When code BDF is specified, a diamond tread steel plate floor, 1/8 in. thick min, shall be furnished.

#### **3V.6.8 CODE "BDS" DUMP STAKE BODY**

When code BDS is specified, a NTEA class B conversion hoist shall be provided for 8 and 9 ft bodies, and a NTEA class C for 12 and 14 ft bodies. The vehicle shall be equipped with a hoist having a minimum lifting capacity rating of 6,000 lb in accordance with the National Truck Equipment Association Hoist Classification chart. The system shall be provided with a relief valve to protect against overloading of the hoisting mechanism at 125% of rated capacity. Hoist shall lift the body to a minimum angle of 45 degrees; controls shall be located in the cab. Hydraulic lines and hoses shall be secured in a protected position, and shall not hang below the chassis frame. Dumping stake bodies shall incorporate structural steel channel long sills. Wiring harness for the body shall have overload protection and be enclosed in conduit or plastic loom, except at terminal ends, and shall be secured by hangers to the underbody on not more than 18 in centers. The front rack section shall be capable of withstanding a horizontal static load equal to one-half the payload capacity of the load space without permanent distortion of the rack section or its mounting.

#### **3V.6.9 CODE "BH" INTERIOR BULKHEAD**

When code BH is specified, an interior bulkhead shall be constructed of not less than 17 gauge steel with a rigid center section door and side panels, which shall be located between the driver and cargo areas. The door shall have openings in the upper and lower halves separated by a solid area. The openings

shall be open mesh covered or perforated type with diamond-shaped or round holes contained within the open area and shall have an outside perimeter of not less than 17 in high for standard vans or 15 in high by 15 in wide for compact vans, with the solid separation between openings of not less than 3.5 in. The upper edge of the upper opening shall be 1 to 5 in from the top of the bulkhead. The openings shall be hinged to swing into the cargo area. Bulkhead shall be secured to the body interior with easily removable, corrosion resistant fasteners. Provision shall be made on cargo side of bulkhead for relocation of spare tire assembly to left or right side panel(s) or under frame.

### **3V.6.10 CODE "BLP" LOW PROFILE MAINTENANCE BODY**

When code BLP is specified, a low profile utility maintenance body shall be supplied. The minimum cabinet height (front and rear) shall be reduced to 35 in and minimum load space height shall be reduced to 19 in.

### **3V.6.11 CODE "BPC" BODY PAINT COLOR**

When code BPC is specified, the body color shall be a ordering agency specified color other than the standard white.

### **3V.6.12 CODE "BR" TRANSLUCENT ROOF**

When code BR is specified, the roof panel over the cargo section of Vocational Bodies shall be translucent white, fiberglass reinforced, polyester material, min. (0.060") thick.

### **3V.6.13 CODE "BRH" STAKE RACKS, 40 IN**

When code BRH is specified, the rack sections shall be minimum 40 in high.

### **3V.6.14 CODE "BRT" INTERIOR ROPE TIES**

When code BRT is specified, the body side lining (panels) shall be furnished with tie rings for cargo securing. The tie rings shall be recessed and shall be located on each vertical post, and 30 in above the floor line plus or minus 2 in. Tie rings are not required on the bulkhead.

### **3V.6.15 CODE "BSF" SMOOTH STEEL FLOOR**

When code BSF is specified, a smooth steel plate 1/8 in thick shall be provided for the stake platform floor.

### **3V.6.16 CODE "BUAV" BACK UP ALARM**

When code BUAV is specified, a backup alarm conforming to SAE J994 shall be furnished by the vocational body contractor which provides an audible warning only when the ignition switch is "on" and the vehicle transmission control is in reverse.

### **3V.6.17 CODES "BXX" BODY LENGTH**

These codes describe the length of truck bodies:

- Code B08 requires a 8 ft body length
- Code B09 requires a 9 ft body length
- Code B10 requires a 10 ft body length
- Code B11 requires a 11 ft body length
- Code B12 requires a 12 ft body length
- Code B14 requires a 14 ft body length
- Code B16 requires a 16 ft body length
- Code B18 requires a 18 ft body length
- Code B20 requires a 20 ft body length
- Code B22 requires a 22 ft body length
- Code B24 requires a 24 ft body length

### **3V.6.18 CODE "CRT" CARGO RESTRAINING TRACK**

When code CRT is specified, one cargo restraining track shall be installed on each interior side wall at the manufacturer's standard height, unless a specific height is specified. One cross bar and hardware for insertion into the tracks shall be furnished per set of tracks.

### **3V.6.19 CODE "DDS" DROP SIDE DUMP BODY**

When code DDS is specified, the supplier shall furnish the dump body with left and right (single or double) drop side style body.

### **3V.6.20 CODE "DPA and DPB" INTERIOR PARTITIONS**

When code DPA or DPB is specified; a steel, FRP, or aluminum bulkhead with a sliding-type entry door and fixed side panels shall be furnished between the driver's area and the cargo space. The door shall slide on the front side of the partition, and be furnished with a securing device. On cutaway cab vehicles the door shall slide to the curb side. The partition shall be capable of withstanding a horizontal static load equal to payload capacity of the vehicle without permanent distortion. When code DPA is specified, a screen type interior partition with door shall be installed. When code DPB is specified, a solid type partition with door shall be installed. The location of the partition shall allow for full seat travel with the seat back at a 23-degree angle from the vertical. Partition door shall be operable from both sides, with provisions for locking from the front. When the partition is installed, the load space may be reduced. When a recess in the partition is used to accommodate the back of the reclined seat it shall also provide additional clearance for the driver's and passenger's head. The recess width shall be at least as wide as the seat. The recess height shall come to within 1.5 in of the cab/body mounting flange.

### **3V.6.21 CODE "DPW" PARTITION DOOR WINDOW**

When code DPW is specified, a bulkhead door with a framed clear plastic 0.125 in thick upper half shall be provided.

### **3V.6.22 CODE "DVAL" DELIVERY VAN BODY, ALUMINUM SIDES**

When code DVAL is specified, the body sides shall be made of aluminum in lieu of FRP. The aluminum body sides shall be a minimum 0.040 in. As a minimum, vertical posts shall be aluminum or galvaneel on 24 in centers for bodies less than 16 feet in length. Bodies 16 feet and over shall have the vertical posts on 16 in centers. All body seams shall be sealed and weatherproofed. Rub rails permanently attached to the body exterior shall be positioned to ensure proper body protection.

### **3V.6.23 CODE "DVC" ROLLUP REAR DOORS**

When code DVC is specified, a full width, roll-up, overhead rear door shall be provided. The door shall be of the sectional type, having not less than five sections and a minimum of 72 in wide if dual wheel body style, and a minimum 66 in if single wheel body. The door sections shall incorporate joints of the tapered tongue and groove or shiplap type. The door shall be (3/4 in) marine plywood construction. Door section corrosion-resistant hinges shall be mounted on the inside of the door, one at each end of each section joint. The door track shall be manufacturer's standard corrosion-resistant type equipped with a positive stop at the end of the track. Door rollers, counter-balance units, and cables of corrosion-resistant construction shall be provided. The door shall be weather tight. A heavy-duty, corrosion-resistant slam or cam-operated lever-type lock shall be provided with provisions for key or padlock locking. An interior release shall be furnished. One heavy-duty, corrosion-resistant grab handle, closed type, shall be provided on the inside bottom of the door. One nylon, double loop pull-down strap not less than .15 in wide and 12 in length shall be provided outside the door and located adjacent to the door lock. When roll-up rear door is furnished, loadspace may be reduced to accommodate clearance required for rear door hardware.

### **3V.6.24 CODE "DVD" DUAL REAR DOORS**

When code DVD is specified, two side-hinged, full width rear doors both with inner stops shall be provided. Rear doors shall have door operating handles inside and outside. Rear doors shall be provided with door checks to hold doors in full open position. In addition to the door operating handles,

grab handles to assist in closing the doors shall be provided on inside of rear doors.

### **3V.6.25 CODE “DVE” AND CODE “DVE1” EXTRA HEIGHT - INTERIOR**

When code DVE is specified, a load space height of a 78 in nominal shall be furnished. When code DVE1 is specified, a load height space of 84 in nominal shall be furnished.

### **3V.6.26 CODE “DVF” WOOD FLOOR**

When code DVF is specified, a wood floor, a minimum of 0.75 in, shall be furnished.

### **3V.6.27 CODE “FRP” FIBERGLASS DELIVERY VAN BODY**

The body side walls and bulkhead shall be constructed using fiberglass-reinforced panels. These fiberglass-reinforced panels shall have a minimum core thickness as specified.

### **3V.6.28 CODE “DVG” DRIVER'S FAN**

When code DVG is specified, a driver's fan shall be provided that furnishes a minimum of 250 CFM. The fan shall have a protective grill that covers the fan blades. There shall be a speed control rheostat on the fan.

### **3V.6.29 CODE “LSM” MASTER LOCKING SYSTEM**

When code LSM is specified, a master lock for both sides of the body that allows the operator to lock all compartments on each side of the body with a single padlock shall be furnished.

### **3V.6.30 CODE “FLFL” FLAT CARGO FLOOR**

When code FLFL is specified, a flat cargo floor shall be furnished.

### **3V.6.31 CODES “HTG”, “HTGR”, and “HTGU” - HYDRAULIC LIFT GATE, RAIL TYPE LIFT GATE, and FOLD UNDER TAIL GATE**

Note: Vehicle payload will be reduced by the installation of a lift gate assembly

A rear bumper may be required to comply with FMVSS regulations.

When code **HTG** is specified, the vehicle shall be equipped with a power elevating and easy opening/closing manual folding type tailgate lift. The tailgate platform shall be non-skid, full width of body interior less 2 in, and shall have a depth of not less than 25 in, exclusive of ramp. The top of the rear edge shall come to within 0.50 in of the ground. The tailgate shall fold vertically against the rear of the vehicle for traveling and shall have a continuous toe clearance between rear edge of the floor and the tailgate platform, latches to hold the tailgate at floor level, if available, and devices to prevent movement due to road shock. When the tailgate is in line with the floor of the vehicle, the distance between rear edge of the floor and the tailgate shall be not more than 1 in.

When code **HTGR** is specified, the vehicle shall be equipped with a power rail type elevating and easy opening/closing manual folding type tailgate lift. The tailgate platform shall be non-skid, full width of body interior less 2 in, and shall have a depth of not less than 25 in, exclusive of ramp. The top of the rear edge shall come to within 0.50 in of the ground. The tailgate shall fold vertically against the rear of the vehicle for traveling and shall have a continuous toe clearance between rear edge of the floor and the tailgate platform, latches to hold the tailgate at floor level, if available, and devices to prevent movement due to road shock. When the tailgate is in line with the floor of the vehicle, the distance between rear edge of the floor and the tailgate shall be not more than 1 in.

When code **HTGU** is specified, the vehicle shall be equipped with a power type fold under tailgate. The tailgate shall be easy opening/closing and manually fold under the vehicle for travel and manually unfold for use. The tailgate platform width shall be not less than 84 in. and shall have a depth of not less than



32 in exclusive of the ramp. The ramp shall taper down to ground level to facilitate loading with a wheeled handcart. Platform loading area shall be of nonskid sheet steel. The tailgate shall have devices for holding the platform in stowed position for vehicle travel.

Unless otherwise specified, the lift gate shall be hydraulic type with a rated lift capacity of not less than 800 lb when furnished on vehicles with single rear wheels. Lift gate capacity shall be not less than 1,000 lb on vehicles with dual rear wheels.

Hoisting operations shall be accomplished hydraulically, powered from the truck's PTO or electrical system. Controls for operation of the lift shall be mounted outside of the body. Opening of the platform shall be power assisted. Closing of the platform shall be manual, or power assisted when code HTP is specified. The vehicle's spare tire assembly may be mounted on a secured carrier in the load space. When the tailgate lift is supplied on a stake body truck, the two removable rack sections across the rear of the truck bed will be required.

### **3V.6.32 CODE "J560" SEVEN CONDUCTOR ELECTRICAL CONNECTOR**

When code J560 is specified, a 7 conductor electrical connector receptacle, meeting SAE J560 requirements, shall be furnished.

### **3V.6.33 CODE "BDF4" FLOORING-BED-RECYCLED MATERIAL**

When option code BDF4 is specified, recycled tire and plastic plank boards, Rumber Materials Inc. or equal, shall be furnished. Plank boards shall be a minimum of 1½ in. tongue and groove secured to bed frame with minimum ¼ in. stainless steel self tapping countersunk screws. The installation procedures and plank width shall be in accordance with the manufacturer's recommendation

### **3V.6.34 CODES "MEW" ELECTRIC WINCH**

When code MEW is specified, an electrically driven commercially available, non-hoisting, front mount, self-recovery winch assembly with fairlead shall be provided. The winch shall permit not less than a 23-degree angle of approach, unless the vehicle is also equipped with a snowplow mount, and suitable for assisting the vehicle in negotiating difficult terrain. The winch shall be supplied with the manufacturer's standard length and diameter of galvanized aircraft or equal wire rope with minimum breaking strength exceeding the maximum single line pull rating of the winch and minimum requirements for single line pull rating, length, and diameter shown below. Winch assemblies shall include the winch manufacturer's recommended standard mount(s) providing for transfer of winching forces to the vehicle frame and shall place the winch as close to vehicle frame as practical. Acceptable mounts will include grill/brush guard type, heavy-duty bumper type, or behind the bumper type. Wire rope shall include replaceable clevis hook. Inside the cab winch controls shall be provided for hydraulically driven winches. Minimum 10 ft remote controls removable for security and storage and permitting in-cab operation of the winch shall be provided. Winches shall have forward and reverse drum drive and free spooling. The vehicle shall be furnished with the OEM heaviest duty capacity optional battery and alternator for model truck specified.

#### **Winch Application**

<b>Vehicle (pounds)</b>	<b>GVWR</b>	<b>Single Line Pull Rating (min pounds)</b>	<b>Length Wire Rope (min feet)</b>
Under 8600		8000	80
8601 / 10,000		9500	100
10,001 & over		12,000	100

**3V.6.35 CODE “MHP” PIPE AND CONDUIT HOLDER**

When code MHP is specified, the overhead ladder racks shall include a minimum 10 ft pipe and conduit holder. The pipe and conduit holder shall be a minimum of 6 in diameter with and have end closures. This unit may be shipped separate from the vehicle.

**3V.6.36 CODE “MPS” SNOW PLOW, REVERSIBLE**

Ordering Note: The Code SZ is furnished with this option and should not be additionally specified by the ordering agency.

When code MPS is specified, a snowplow with an electro-hydraulic or mechanical-hydraulic raising and angling mechanism and auxiliary lights shall be installed on the vehicle. The snowplow, when fully angled, shall equal the widest part of the truck excluding mirrors and hubcaps. It shall be frame mounted with quick disconnect locking fasteners and shall be capable of angling at least 30° to each side. Hydraulic lines shall be the quick disconnecting type. The weight of the total snowplow assembly shall not cause the chassis manufacturer's front axle rating to be exceeded. The plow shall be shipped in the load space and lights shall be shipped within the cab when possible. Brackets and connections shall be installed on all vehicles to enable ready installation of the lights and snowplow at the destination. Snowplow and lights shall be installed on the first vehicle to ensure proper operation, and they may be removed for shipment after Government inspection. Height of moldboard shall be a minimum of 27 in on vehicles over 8500 GVWR.

**3V.6.37 CODE “MRS, MRR, MRB, MRC” VACUUM-MAGNETIC MOUNT STROBE TYPE WARNING LIGHT**

An encapsulated 360° strobe warning beacon with a polycarbonate base and vacuum-magnetic mount shall be furnished that meets the following requirements:

1. The strobe beacon shall meet SAE J1318, Class 1 (amber) and Class 2 in other safety colors and shall be certified by AMECA. The strobe beacon shall be manufactured in the USA.
2. The strobe beacon shall feature solid-state circuitry, polarity protection and no moving parts
3. The strobe beacon shall have a minimum output rating of 16 Joules and shall not draw more than 2.1 amps at 12 VDC
4. The strobe beacon shall allow operation without degradation of intensity or flash rate between 10-16 VDC.
5. The strobe beacon shall feature an LED diagnostic indicator, which communicates the operational condition of the self-contained power supply electronics at all times by emulating the flash pattern (i.e. if the LED is *not* flashing, the power supply is *not* operational)
6. The strobe beacon shall feature a heavy-duty polycarbonate base assembly that contains all electronics.
7. The strobe beacon power supply electronics shall be completely encapsulated within the base, with no parts such as screws, fasteners, circuit boards, or electronic components being exposed to where moisture could cause corrosion with an electrically inert material for moisture, vibration and dust resistance, as well as heat sink purposes.
8. The strobe beacon shall have a published operating temperature range with a minimum of -31°F and a maximum of 149°F
9. The cord shall be a minimum of 8 feet in length and terminate in a standard automotive “power point” type connector
10. The polycarbonate domes shall be available in:
  - Code MRS (amber)
  - Code MRR (red)
  - Code MRB (blue)
  - Code MRC (clear)
11. The flash tube shall not be obstructed in any way and shall be easily replaceable without using any mechanical hardware.



12. The strobe beacon shall be warranted by the manufacturer to the user to be free from defects of material or workmanship for a period of 36 months from the date of manufacture.
13. The flash tube shall be warranted by the manufacturer to the user to be free from defects of material or workmanship for a period of 12 months from the date of manufacture.

The light may be shipped within the vehicle or may be shipped separately to the consignee mailing address.

### **3V.6.38 CODE "MSC" INCREASED ELECTRICAL PACKAGE**

When code "MSC" is specified, chassis manufacturer supplied equipment meeting the following requirements shall be furnished: chassis manufacturer's highest capacity engine block heater; largest alternator; largest CCA single battery for gasoline-powered units or largest CCA dual batteries for diesel-powered units.

### **3V.6.39 CODE "ORM" OFF ROAD BODY MOUNTING**

When code ORM is specified for a utility body an off-road mounting system shall be provided that will allow flexing of the truck frame independent of the utility body.

### **3V.6.40 CODE "PCI" COMPARTMENT INTERIOR PAINT**

When code PCI is specified, all cabinet and door interiors shall be completely prepared, primed, and finished painted with the same finish paint as the exterior of the body.

### **3V.6.41 CODE "NAX" NARROW TRACK REAR AXLE**

When this option is ordered with a vocational body truck, the overall width of the vocational body will be reduced by approximately 6 inches.

### **3V.6.42 CODE "RBV" RUNNING BOARD**

When code RBV is specified, OEM running boards (Code RB) or vocational body contractor running boards shall be furnished. The vocational body contractor running boards shall be securely mounted to the frame of the vehicle to prevent flexing when used by vehicle occupants during entry and exit.

### **3V.6.43 CODES "RH3V AND RH4V" VOCATIONAL BODY CONTRACTOR TRAILER TOWING PROVISIONS**

The trailer towing provisions furnished by the VBC's are rated according to the SAE J684 standard. This standard also defines the weight classifications for trailering. The classifications are as follows:

- **Class 3** All types of trailers with a trailer GVWR of over 3500 lb and not to exceed 5000 lb GVWR.
- **Class 4** All types of trailers with a trailer GVWR of over 5000 lb and not to exceed 10000 lb GVWR.

The codes RH3V & RH4V correspond directly to the trailer classes. As an example, for a class 3 trailer, you need to order RH3V towing provisions.

All VBC towing provisions include:

- A trailer lighting package
- A four conductor connector that complies with SAE Std J1239
- Performance based on weight distributing capacity

The ordering agency will be responsible for obtaining the proper hitch ball, ball mounting device and the associated equipment (such as weight distributing devices) required to tow the trailer and its load.

It is imperative that agencies follow the OEM's towing guidelines to select the appropriate type of vehicle to perform their trailer towing operations.

**3V.6.44 CODE “CMS” CROSSVIEW MIRROR SYSTEM**

When code CMS is specified, a crossview mirror system shall be furnished to allow the viewing of the bumper area by looking into the mirror system.

**3V.6.45 CODE “UFT” TOP OPENING COMPARTMENTS**

When code UFT is specified, a body with added top opening compartments shall be provided. Top opening lids shall be full length and nominal width of the compartment tops and supported by gas springs, minimum one at each end of door lid. Top opening compartment shall be provided with a minimum of 15 adjustable dividers per side. The maximum body height in may be increased by up to 1.5 in.

**3V.6.46 CODE “UOR” AND CODE “USM” OVERHEAD RACKS WITH LADDER CLAMPS AND SIDE LADDER RACK FOR SUPERSTRUCTURE BODY**

When code UOR is specified, removable overhead racks with adjustable brackets for transportation only of ladder(s) shall be provided. When code USM is specified, side mounted ladder racks shall be provided. Code USM requires code USS or USS2. All ladder racks shall be equipped with adjustable chain or spring hold down devices.

**3V.6.47 CODE “UPR” PIPE RACKS**

When code UPR is specified, a pipe rack mounted on top of the curbside cabinet shall be furnished. The front of the rack shall permit the pipes to clear the cab door. The rack shall be equipped with adjustable chain or spring hold down devices.

**3V.6.48 CODE “URH” ROPE HOOKS**

When code URH is specified, a minimum of four rope hooks, in lieu of adjustable shelves, shall be furnished inside a vertical cabinet.

**3V.6.49 CODE “USS” AND “USS2” SUPERSTRUCTURE BODY AND SUPERSTRUCTURE BODY WITH EXTRA INTERIOR LOADSPACE HEIGHT**

USS and USS2 are not available on single rear wheel chassis.

When code USS or USS2 is specified, the utility body shall have a center load space; cabinets on each side of the body, with doors opening from the outside; equipment racks above the cabinets, with openings to the inside of the body; a fixed weather tight roof (superstructure) over the load space; and double doors at the rear. As a minimum, the body shall conform to following dimensions:

<b>Load space</b>	
Width (exclusive of wheel wells)	50 inches 46 inches w/ NAX
Height USS (inside clear)	60 inches
Height USS2 (inside clear)	70 inches
<b>Cabinet space</b>	
Height	39 inches
Depth	20 inches
<b>Racks over cabinets</b>	
Height USS	36 inches
Height USS2	47 Inches
Depth	12 inches
<b>Clear Door opening at rear</b>	
Height	55 inches

Width	48 Inches
	44 inches w/ NAX

A bulkhead fixed safety glass window shall be provided and aligned with the rear cab window.

Double rear doors hinged at the sides shall be provided and shall completely enclose the body interior. The doors shall be equipped with safety glass windows in the upper section, door locks with cylinder locks, and retainers for keeping the doors in open position. The doors shall be equipped with seals to prevent the entry of dust and water.

The center load space shall be prepared and prime coated only. The prime coat shall be light in color.

### **3V.6.50 CODE "UTC" SPARE TIRE CARRIER IN LOAD SPACE**

When code UTC is specified, a vertically mounted tire assembly on a carrier shall be furnished located in the front end of the load space behind the cab. When a load space roof prevents vertical mounting, the tire assembly may be secured horizontally in the load space.

### **3V.6.51 CODE "UTR" TELESCOPING ROOF**

When code UTR is specified, a telescoping roof and end gate enclosure shall be furnished. The telescoping roof shall be provided with automatic catches that lock the roof in full open and full closed positions. The roof shall be constructed to ensure proper roof drainage. The end gate or door enclosure shall have side opening style doors, or two part folding, or single type that can be swung up without interference, and laid on the roof. A single handle, with key lock, that operates two latches, one on each side, shall be furnished on the end gate enclosure.

The load area shall be finish painted the same color as the body exterior in accordance with section **3V.5.4 PAINT, FINISH, OR COLOR.**

### **3V.6.52 CODE "UVB" VICE BRACKET AND PIPE REST**

When code UVB is specified, a removable pipe vise bracket and pipe rest shall be furnished on the right side cabinets at rear. The vise plate shall be horizontal, attached to a sliding bar and locked in place by a vertical pin.

### **3V.6.53 CODE "VR and VRS" ROOF VENTILATORS**

When code VR is specified, two roof type, ventilators shall be furnished having controls for opening and closing on the inside of the van body. Roof vents shall be on center at the front and rear of cargo box.

When code VRS is specified a static ventilator shall be furnished having controls for opening and closing on the inside of the van body. The vent shall be at the upper rear of cargo box on the roof or body side wall.

### **3V.6.54 CODE "USST" TAPERED SUPERSTRUCTURE BODY**

When code USST is specified, the utility body shall have a center load space; cabinets on each side of the body, with doors opening from the outside; equipment racks above the cabinets, with openings to the inside of the body; a fixed weather tight tapered high roof (superstructure) over the load space; and double doors at the rear with a static roof vent located adjacent to the front bulkhead. As a minimum, the body shall conform to following dimensions:

Load space

Width (exclusive of wheel wells) 50 inches  
46 inches w/ NAX  
Height USS (inside clear) 60 inches

#### Cabinet space

Height 39 inches  
Depth 20 inches  
Racks over cabinets  
Height USS 36 inches

Depth 20 inches at the bottom  
Depth 13 inches at the top.

Clear Door opening at rear

Height 57 inches  
Width 52 Inches

A bulkhead fixed safety glass window shall be provided and aligned with the rear cab window.

#### **3V.6.55 CODE "ULCL AND ULCR" LONG HORIZONTAL COMPARTMENT**

A horizontal compartment that runs from behind the front vertical cabinet to the rear of the body and one vertical cabinet located to the rear of the wheel housing and below the horizontal compartment shall be supplied. When code ULCL is specified, the horizontal compartment shall be located on the left (street) side of the body. When code ULCR is specified, the horizontal compartment shall be located on the right (curb) side of the body.

#### **3V.6.56 CODE "SOC" STORAGE OVER CAB**

When code SOC is specified, the body shall be extended over the cab by a minimum of 36" to provide additional storage.

#### **3V.6.57 CODE "RCA" CARGO RAILS**

When code RCA is specified, the manufacturer's standard hard wood cargo rail shall be furnished on each side of the delivery van body.

#### **3V.6.58 CODE "DOM" 2 CEILING DOME LIGHTS**

When code DOM is specified, a minimum of 2 ceiling mounted cargo dome lights shall be furnished. The lights shall be controlled by a switch in the cab.

#### **3V.6.59 CODE "IR4" INSULATION, CARGO BODY**

When code IR4 is specified, the side walls of the delivery van body shall be insulated to a minimum of R4 before the lining is installed.

#### **3V.6.60 CODE "ILF" INTERIOR LINING**

When code ILF is specified, side lining shall be 3/16 in minimum exterior grade plywood. The interior body sides shall be smooth or ribbed with no other protrusions except fasteners and corner posts. When steel/aluminum materials are used in combination, these dissimilar metals shall be provided with galvanic insulation at all points of contact. These side liners are to cover side walls from floor to roof rail, with no exposed wiring or struts. All wall liners shall be smoothly fitted with no separation or protrusion between liners. The fasteners shall project no more than 7/64 in into the interior and shall be blended and smooth. Side lining panels furnished shall be securely fastened and completely line the body without gaps

between panels. All interior panels shall be removable to facilitate body repair. Each plywood side lining panel shall be free of defects, sanded smooth and flush with adjacent panels.

### **3V.6.61 CODE "ILH" PARTIAL INTERIOR LINING**

When code ILH is specified, the lining required by ILF shall be reduced to 48 inches high.

### **3V.6.62 CODE "DSR" ROLL UP SIDE DOOR**

When code DSR is specified, the delivery van body shall have the manufacturer's standard roll up curbside door installed. An interior release shall be furnished. The door shall be a nominal width of 40 inches.

### **3V.6.63 CODE "DSH" HINGED SIDE DOOR**

When code DSH is specified, the delivery van body shall have the manufacturer's standard hinged curbside door installed. The door shall be a nominal width of 40 inches.

### **3V.6.64 CODE "SSD" SIDE DOOR STEPS**

When code SSD is specified, the delivery van body shall have the manufacturer's standard recessed steps for a curbside door installed. The steps shall have a minimum tread depth of 6 inches.

### **3V.6.65 CODE "LEDV" BODY EXTERIOR DOT LIGHTING, LED**

When code LEDV is specified, the exterior DOT lighting furnished, other than the backup lamp(s), shall be LED. The lighting system shall include sealed wiring harness with return ground wiring. LED lights shall be installed with tamper resistant hardware.

The sealed wiring harness shall have a lifetime warranty. The LED lights shall have a 5 year warranty as a minimum.

### **3V.6.66 CODE "HSC" CENTRAL HYDRAULIC SYSTEM**

When specified, an expandable hydraulic system (min 3 port) shall be furnished. The ordering agency must specify which accessories shall be powered by the system. The system shall be constructed as follows:

#### **A. Drive systems.**

Hydraulic pumps shall be driven by one of the following:

1. Engine or transmission mounted PTO. Pumps shall be flange mounted to the PTO. Belt drives of any type are not acceptable and shall not be used. Drive shafts from the PTO to the pump are not acceptable.
2. Electric motor driven. (Authorized for hydraulic tailgates only.) Pumps shall be flange mounted to the electric motor.
3. Engine crankshaft front PTO driven. Only OEM integral frame extensions and OEM approved and furnished chassis for front PTO shall be used.
4. Pump support brackets shall be installed from the transmission to support the pump(s) if the combined weight of the pump(s), hoses, and fittings exceed 40 lbs., or if the combined length of the PTO and pump(s) exceeds 18 inches measured from the center-line of the PTO to the end of the pump(s).
5. PTO's shall be rated at a minimum of 150% of the maximum horsepower requirement of the hydraulic system. The minimum PTO horsepower rating shall be calculated by the following formula:

$$\frac{PV \times 1.50}{1714 \times .85} = \text{Minimum PTO HP Rating}$$

Where **P** = max working pressure in PSI  
and **V** = max flow in GPM

6. PTO's shall be compatible with and certified for use by power shift PTO's engaged by an electric-over-hydraulic actuator. Overspeed engagement protection shall be furnished with power shift PTO's. Power shift PTO's installed on automatic or manual shift transmissions shall disengage when the pre-set engine RPM is reached.
  7. The torque or horsepower required of the hydraulic drive PTO shall not exceed the maximum torque or horsepower rating of the PTO opening on the transmission or PTO drive pad on the engine or engine crankshaft.
  8. All PTO's shall be installed within the backlash recommendations of the PTO manufacturer.
- B. Hydraulic system hoses, fittings, pressures, and flow rates.
1. Hydraulic hoses shall be rubber covered double wire braid reinforced and comply with SAE 100R2, type A or AT, or 100R9, type A or AT, of SAE J517. The working pressure of the hose shall exceed the pressure setting of the relief valve. Hoses shall be sized such that the maximum velocity of hydraulic fluid in the hose does not exceed the following:
    - a. Fluid velocity in suction lines shall not exceed 4 ft./sec.
    - b. Fluid velocity in discharge lines shall not exceed 25 ft./sec.
  2. All hoses shall be installed in accordance with the requirements and recommendations of SAE J1273
  3. System working pressures shall not exceed 3500 PSI.
  4. Hydraulically actuated implements, such as snowplows, which are deployed while the vehicle is moving, shall be furnished with mechanical stops that prevent hydraulic shock if the implement strikes an obstruction while roading.
  5. Hydraulic hose fittings shall comply with the requirements of SAE J516 for permanently attached (crimped) fittings with JIC 37° flare. Field replaceable type fittings are not acceptable. Forged steel hydraulic adapters shall be used. Cast steel fittings are not acceptable.
- C. Pressure protection:  
All hydraulic systems shall be furnished with either a spring or pilot actuated pressure relief valve. The relief valve shall be used for overpressure protection only and shall not be used for any flow control purpose. In no case shall a relief valve be set at a pressure higher than the lowest working pressure rated component (hose, coupler, adapter, cylinder, etc.) in the system.
- D. Flow control valves.  
Flow control valves shall be of a type (such as open-center valves) that assures that hydraulic fluid is never deadheaded and forced to flow over the relief valve. Flow control valves may be stacked to control multiple devices, either in parallel or in series. Series designed systems shall not exceed the maximum working pressure of any component in the series.
- E. Fluid filtration.  
A return line hydraulic filter shall be furnished having a minimum efficiency rating of 99% down to 10-micron size particles and meet or exceed the filtration requirements of the pump, motor, or driven device manufacturer. The filter shall be furnished with a pressure differential type service gauge or service indicator.
- F. Hydraulic system cooling.  
Hydraulic systems shall be designed to operate in ambient temperatures ranging from -20 deg F to +120 deg F. The hydraulic system shall be designed such that the maximum hydraulic oil temperature does not exceed 200 deg. F. For continuously driven devices, such as spreaders and other motor driven applications, auxiliary cooling, such as air-to-oil coolers or water-to-oil coolers,



shall be furnished if required to meet the maximum oil temperature requirement. The government reserves the right to request and be furnished test documents showing maximum stabilized temperatures of hydraulic systems.

G. Hydraulic reservoirs.

A stainless steel, aluminum (6061-T6 or 5086-H32 construction only), or other non-corroding type hydraulic reservoir shall be furnished and sized such that the reservoir working volume is a minimum of 150% of the maximum hydraulic flow rate. The reservoir shall be furnished with the following:

1. The reservoir shall be furnished with a baffle separating the suction from the return flow.
2. The reservoir shall be furnished with minimum  $\frac{3}{4}$  in. air filtration type breather or combination breather cap with not greater than 10 micron air born particle rating.
3. The reservoir shall be furnished with a sump and valve for draining water from the bottom of the tank and for draining oil.
4. The reservoir shall be furnished with a metal enclosed and protected sight glass for observing oil level.
5. The reservoir shall be furnished with a maximum 300 mesh (50 micron) fill strainer.
6. The reservoir shall incorporate a return tube that discharges return oil below the surface of the reservoir oil.

H. Oil pressure and temperature gauges.

An oil pressure gauge shall be installed at the operator's control station on central hydraulic systems. Hydraulic oil: Hydraulic oils shall meet the minimum requirements of the hydraulic pump or other critical component manufacturer(s). Water based hydraulic fluids shall not be used. A nameplate shall be affixed near the fill cap on the reservoir indicating the type of oil to be used.

I. Installation and workmanship.

The hydraulic system shall be comply with the following requirements:

1. All tapered threaded fittings shall be installed using an anti-seize thread sealing compound. Teflon tape is not acceptable.
2. Hoses shall be routed for easy tracing of hoses and shall be protected with grommets when passing through bulkheads. Hoses shall be protected from abrasion when routed over or through bare metal edges.
3. Hydraulic hoses shall be supported with metal hose clamps that provide protection for the hose from the metal portion of the clamp. Hoses shall not be allowed to droop or to be entangled with other hoses or lines. The clamps shall be spaced not more than 18 in. apart.
4. Overhanging weight of fittings, hoses, valves, or piping shall be supported from the reservoir to eliminate flexing of sidewalls.
5. All hoses shall be routed and installed in accordance with the requirements and recommendations of SAE J1273. Special attention to routing and installation shall be given to avoid to the following:
  - A. Tensile loads on the hose
  - B. Side loads
  - C. Flattening
  - D. Kinking
  - E. Thread damage
  - F. Damage to sealing surfaces
  - G. Abrasion
  - H. Twisting
  - I. Exceeding minimum hose bend radius

J. Operational Test

The hydraulic system and hydraulically driven components shall be operated and checked for leaks and proper operation. The operational test shall include the maximum requirements (height, extension, speed, etc.) of the driven devices under no-load conditions. No leakage is permitted beyond a class "1"



leak in accordance with SAE J1176-External Leakage Classifications for Hydraulic Systems.

### **3V.6.67 CODE "HTH" Hidden Tamper-proof Hinges**

Heavy duty hidden door hinges with overlapping door construction. Resist forcible entry, hinge provides protection against corrosion, does not require frequent lubrication or maintenance. The hinge is not exposed to the weather, provides ease of door replacement.

### **3V.6.68 CODE "TLR" LOADING RAMPS**

When code TLR is specified, a hide-away low mount aluminum loading ramp shall be furnished. The ramp shall be stored in the rail pocket area. The ramp shall have the following:

- Non-Skid Surface
- 900 lb minimum capacity
- Nominal length of 2 feet shorter than body length
- Designed for 1 person operation

### **3V.6.69 CODE "BDK" DOCK BUMPER**

When code BDK is specified, dock bumpers shall be furnished for liftgate protection.

### **3V.6.70 CODE "DBTP" STORAGE/TOWING BODY**

When code DBTP is specified, the standard utility body shall be deleted and the following shall be furnished:

A Knapheide Westerner Storage/Towing body less flip-top storage lids, model 6108GD54J, or equal. The body shall be furnished with the following options:

1. 1 divider shelf for each vertical compartment (total of 4)
2. Rubber shelf liners
3. Overlap doors w/stainless steel rotary latches
4. Mud and stone guard
5. Interior compartment lighting and wiring harness (total of 4 lights)
6. Light guards
7. Wire harness adapter
8. Spare tire carrier
9. Straight galva-Grip bumper without ball hitch recess
10. Tailboard Channels and 6" high removable tailboard
11. Aluminum fuel fill cup

In addition to the options listed above, the body shall be furnished with a forward bulkhead only and without the sunscreen. The top of the forward bulkhead shall be flush with the top of the shelf compartments. All latches shall be keyed the same and three sets of keys shall be furnished with the vehicle. The body shall be installed in accordance with the body manufacturer's installation instructions and recommendations.

A Reese Model 20K adjustable height fifth wheel hitch, part number 30033 or equal, installed. Reese lube plate part number 74295 shall be furnished with the fifth wheel. The centerline of the king pin lock on fifth wheel hitch shall be mounted 2 in. forward of the centerline of the rear axle and centered transversely on the platform. The hitch shall be installed so that all towing forces, including the vertical king pin load, are transferred directly to the truck frame. No towing forces from the fifth wheel hitch are to be imparted to the towing body.

A Class IV ball hitch for towing trailers up to 10,000 lbs gross trailer weight. The ball hitch assembly shall be mounted directly to the truck frame, assuring that all trailer towing forces are imparted to the frame of the truck, and shall not be attached to the towing body bumper. Provisions shall be furnished on each side of the ball hitch for attaching safety chains to the bumper. Each safety chain provision shall be

capable of withstanding a chain pull of 10,000 lbs.

All stop, turn, tail, back-up, clearance, hazard, and marker lights shall be Truck-Lite, or equal, LED light fixtures for body-mounted lights. Body harness wiring shall utilize only molded or machine made splices. Truck-Lite NYK-77 or equal anti-corrosive shall be applied to lamp-plug interfaces.

A trailer towing package shall be furnished.

### **3V.6.71 CODE "TPCP" STORAGE/TOWING BODY CAB PROTECTOR**

When code TPCP is specified, a cab protector with louvered window/sunscreen, 2 built-in work lights, 2 tie-downs shall be furnished on the storage/towing body. The cab protector shall be of a height that covers the cab of the truck.

### **3V.6.72 CODE "IBOX" SUPPLY STORAGE COMPARTMENT**

When code IBOX is specified, a supply storage compartment "I Box" shall be frame mounted behind the truck cab. The overall width shall be approximately 24" wide. When mounted, the storage compartment shall nominally match the cab height and width. Upper sides to be tapered, conforming to cab shape. Compartment to have 2 doors per side, 2 fixed shelves, and 4 swivel material hooks.

NOTE: The IBOX option requires that the CA be increased by 24 inches or that the vocational body be decreased by 24 inches in length.

### **3V.6.73 CODE "FGM" MOLDED FIBERGLASS BODY**

When code FGM is specified, a one piece fiberglass body shall be furnished. The exterior skin shall be a minimum of 0.135" thick. The body shell shall have a surface without rivets or seams. The body shall be designed to follow the factory chassis body lines to give the appearance of single piece construction. The body shall have 600 cubic feet of capacity.

## **3.8 STANDARD AND ADDITIONAL REQUIREMENTS**

### **3.8.1 MARKINGS, DATA PLATES, AND INFORMATION**

Caution, instructional, and informational plates/decals/labels shall be conspicuously installed for all equipment requiring such notices. Each vehicle shall be provided with a copy of all applicable warranty documents in the cab compartment.

### **3.8.2 OPERATOR'S, SERVICING, AND PARTS MANUALS**

The contractor shall furnish with the vehicle at least one copy of all warranty information and handbooks for:

- The vehicle
- Any special equipment furnished with, or as a part of the vehicle

The handbooks shall include as a minimum:

- Vehicle operator's manual
- Vehicle maintenance handbook
- Special equipment handbook

### **3.8.3 PREDELIVERY INSPECTION AND SERVICING**

Prior to the acceptance of the vehicle(s), the contractor, at their plant and at the chassis manufacturer's authorized dealership of the same make, shall perform final predelivery inspection. This inspection shall include the predelivery servicing, lubricating, adjustments, appearance cleaning, and everything necessary to make ready to use and operate the vehicle and the furnished contracted equipment. The

predelivery servicing shall be performed in accordance with the equipment and chassis manufacturer's prescribed form. Servicing shall comply with the ambient temperatures and conditions applicable with the route of transport and the consignee's ultimate destination and area of operation. All vehicle cooling systems shall be protected per 3.2.9. Dealer or installer shall not affix any decals, plates, logos, or other dealer or installer identification to the vehicle.

### 3.8.4 DELIVERY

The vehicle shall be processed for shipment from the manufacturer's plant to the initial receiving activity, in accordance with the manufacturer's standard commercial practice.

The method of delivery shall be as follows:

1. Vehicles furnished directly by the OEM's with a GVWR of 14,000 lbs or less shall be delivered to the dealer wheels-off-ground per 3.8.4.1.
2. Vehicles furnished by the OEM's with a GVWR over 14,000 lbs and all vehicles furnished the vocational body contractors shall be delivered to the dealer via their standard commercial practice. (This may include wheels-on-ground transportation)

The warranty begins when the Government accepts the vehicle from the contractor FOB point of delivery destination

### 3.8.5 GSA FORM 1398

The Vocational Body Contractors shall affix one copy of GSA Form 1398, GSA Purchased Vehicle, fully completed, to the right or left front door lock face or door post after the pre-delivery inspection is made at the manufacturer's plant. All marks on windows and other labels (except the Morony label and labels cautioning against drained transmission, crankcase, and rear axle) shall be removed. Copies of GSA Form 1398 are available from the Contracting Officer.

NOTE TO OFFEROR: Data shown in the solicitation schedule of items may be utilized to satisfy the requirements for the following to be shown on GSA Form 1398:

- (1) Receiving Agency—Examples are: State, USIA, Forest Service, and GSA.
- (2) Purchase Order No.—Use the five-digit "case" or "file" number (often referred to as the RPN number)

GSA PURCHASED VEHICLE	
RECEIVING AGENCY	
CONTRACT NO. GS-OOP	FOB
PURCHASE ORDER NO.	
MFG. SERIAL NO.	
DATE OF DELIVERY	MONTH   YEAR
WARRANTY	MONTHS   MILES
INSPECTED BY	DATE
NOTE TO CONTRACTOR	
Insert all data above and apply this label to the right or left front door lock face or door post after final inspection is made. Remove all labels and marks from windows and windshield except the labels cautioning against drained oil in transmission, crank case and rear axle.	
GSA FORM 1398 (REV. 4-74)	

### 3.8.6 DEALER DELIVERY

Dealer delivery is standard. The contractor shall have the final predelivery inspection and servicing performed at an authorized dealer of the same make nearest to the destination. Following predelivery servicing, the dealer shall notify the consignee on the delivery order that the vehicle is ready for pick up.

Note: It is the consignee's responsibility to furnish license plate(s) for the vehicle. The vehicle cannot be removed from the dealer under its own power with out license plates.

### **3.8.7 RESERVED**

### **3.8.8 IDENTIFICATION OF VEHICLES**

The Contractor must show the applicable GSA Purchase Order number on the carrier's freight bill or other document used in the delivery of vehicles awarded f.o.b. destination under this solicitation. This information is essential to the consignee for identification purposes. Vehicles will not be accepted by the Government without this identifying number.

### **3.8.9 WORKMANSHIP**

- A. Vehicles shall be free from defects that may impair their serviceability or detract from appearance.
- B. All bodies, systems, equipment, and interfaces with the chassis shall be done in accordance with the OEM Body Builders Book.
- C. Defective components shall not be furnished. Parts, equipment, and assemblies that have been repaired or modified to overcome deficiencies shall not be furnished without the approval of the purchaser. Component parts and units shall be manufactured to definite standard dimensions with proper fits, clearances, and uniformity. General appearance of the vehicle shall not show any evidence of poor workmanship.
- D. The following shall be reason for rejection:
  1. Rough, sharp, or unfinished edges, burrs, seams, corners, and joints.
  2. Painted surfaces that are not smooth and uniform and virtually free from Grit, seeds, orange peel, fish eyes, streaks, running, sagging, wrinkles, pin holes, craters in paint, failure to meet minimum thickness requirements and non-uniformity of specified color.
  3. Body panels or components that are uneven, unsealed, or contain cracks and dents.
  4. Misalignment of body fasteners, glass, viewing panels, light housings, other items with large or uneven gaps, spacing, etc., such as door, body panels, and hinged panels.
  5. Improperly fabricated and routed wiring or harness.
  6. Improperly supported or secured hoses, wires, wiring harnesses, mechanical controls, etc.
  7. Interference of chassis components, body parts, doors, etc.
  8. Leaks of any gas, vacuum, or fluid lines (air conditioning, coolant, oil, etc.).
  9. Noise, panel vibrations, etc.
  10. Inappropriate or incorrect use of hardware, fasteners, components, or methods of construction.
  11. Incomplete or improper welding, riveting, or bolting.
  12. Lack of uniformity and symmetry where applicable.

### **3.8.10 STATEMENT OF ORIGIN OR BILL OF SALE**

The manufacturer's Statement of Origin and Bill of Sale showing the applicable purchase order number for each vehicle procured shall be provided. The document shall be forwarded to the Consignee Mailing Address shown on the MVDO prior to shipping the vehicle.

The consignee is responsible for obtaining the vehicle title.

### **3.8.11 OVERSEAS VEHICLE REQUIREMENTS**

Export vehicle(s) shall conform to applicable FMVSS of U.S.A. Vehicles shall be supplied with OEM export configuration.

The speedometer shall indicate speeds in both miles and kilometers and the odometer shall show cumulative distance in either kilometers or miles.

### **3.8.12 CODES “WAR” & “WARV” WARRANTY COVERAGE**

The contractor shall provide WAR, the OEM commercial whole vehicle (bumper-to-bumper) warranty. This coverage shall be for at least three (3) years from date of acceptance or thirty-six thousand (36,000) miles, exclusive of accumulated drive away mileage, whichever occurs first. Refer to the chassis manufacturer’s warranty for precise terms and conditions.

The vocational body contractor shall provide WARV, the manufacturer’s warranty for the body and equipment provided in addition to the OEM vehicle. The warranty shall cover parts failure or malfunction due to design, construction or installation errors, defective workmanship, and missing or incorrect parts for a minimum of twelve (12) months or twelve thousand (12,000) miles of operation, exclusive of any accumulated drive away mileage, whichever occurs first. For foreign use vehicles, the period shall be fifteen (15) months.

Note: The warranty begins when the Government accepts the vehicle at its destination.

### **3.8.13 CORROSION COVERAGE**

The contractor shall provide the chassis manufacturer’s commercial corrosion warranty coverage. This coverage shall be for at least 5 years/100,000 miles. This coverage applies only to domestic use vehicles.

### **3.8.14 EMISSION CONTROL SYSTEM**

The contractor shall provide the OEM emission control system warranty, which shall be in conformance with applicable regulations of the U.S. Environmental Protection Agency.

### **3.8.15 DOMESTIC USE**

When vehicles are used within the fifty States of the United States, the District of Columbia, Puerto Rico, American Samoa, Guam, The Republic of Palau, the Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, the Republic of the Marshall Islands , and the Virgin Islands, the warranty shall include the furnishing, without cost to the Government (FOB contractors nearest dealer or branch to vehicle’s location or station), of new parts and assemblies to replace any that failed or malfunctioned within the warranty period. In addition, when the Government elects to have the work performed at the contractor’s plant, branch, dealership, or with the contractor’s approval to:

1. have the vehicle corrected by a government garage facility
2. have the vehicle corrected by a commercial garage facility

The cost of the labor involved in the replacement of the failed or malfunctioned parts or assemblies shall be borne by the contractor.

### **3.8.16 FOREIGN USE**

When vehicles are used outside the fifty States of the United States, the District of Columbia, Puerto Rico, American Samoa, Guam, The Republic of Palau, the Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, the Republic of the Marshall Islands , and the Virgin Islands, the warranty shall include the furnishing of new parts or assemblies to replace any returned to the contractor by the Government which failed or malfunctioned within the warranty period. The replacement parts or assemblies shall be delivered by the contractor to the port of embarkation in the United States designated by the Government. The contractor shall not be required to bear the cost of the labor involved in correcting defects in vehicles operated in foreign countries.

### **3.8.17 WARRANTY EXTENSIONS**

If the contractor receives from any supplier or subcontractor additional warranty coverage on the whole or any component of the vehicle, in the form of time and/or mileage including any pro rata arrangements, or the contractor generally extends to their commercial customers a greater or extended warranty coverage, including anti-corrosion, power train, or emission, the Government shall receive corresponding warranty benefits.

### **3.8.18 UPFIT VEHICLE WARRANTY**

The contractor is fully responsible for the comprehensive bumper to bumper warranty of the completed vocational body vehicle including, but not limited to, the chassis, drive-train, fuel system, the vocational body, and all modifications.

## **4. QUALITY ASSURANCE PROVISIONS**

Vocational body truck contractors shall only use final stage manufacturers that hold MVP status as defined by the National Truck Equipment Association (NTEA).

### **4.1 RESPONSIBILITY FOR INSPECTION**

The contractor is responsible for the performance of all inspection requirements specified herein. The contractor may use their own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections deemed necessary to ensure that supplies and services conform to prescribed requirements.

### **4.2 CLASSIFICATION OF INSPECTIONS**

The solicitation and/or contract will specify the inspection(s) required for each vehicle. The inspections are classified as follows:

- (a) Source inspection
- (b) Destination examination
- (c) First production vehicle inspection

### **4.3 SOURCE INSPECTION**

When specified in the contract or motor vehicle delivery order, vehicles shall be visually inspected upon completion, and by examination of documentation and data books, by the Government, prior to shipment from manufacturer's factory or assembly plant to determine compliance with the contract requirements.

### **4.4 DESTINATION EXAMINATION**

When specified in the contract or motor vehicle delivery order, the contracted vehicle(s) shall be examined at its destination. The vehicle(s) shall be visually examined to determine compliance to the contract requirements and include the operational check. Vehicle failures, defects, and/or shortcomings may be accepted subject to correction by the contractor/manufacturer at those points or by dealer.

### **4.5 OPERATIONAL CHECK**

Operational checks shall cover all controls, systems, and devices, doors, windows, accessories, and road testing of the completed vehicle. Vehicle shall be driven at various speeds, brakes tested for dependability, checked for rattles, squeaks, and compliance to section 3 requirements.

### **4.6 FIRST PRODUCTION VEHICLE INSPECTION**

When specified in the contract or motor vehicle delivery order, the first production vehicle produced under contract shall be inspected by the contractor at their plant under the direction and in the presence of Government representatives. The purpose of the inspection shall be to determine vehicle conformity with the contract. Acceptance of the first production vehicle shall not constitute a waiver by the Government of its rights under the provisions of the contract. Failure of the first production vehicle to meet the



requirements of the contract shall be cause for the Government to refuse acceptance of the vehicle until corrective action has been taken.

#### **4.7 VEHICLE WEIGHT**

The first production vehicle shall be weighed to determine curb weight and the distribution of the curb weight on the front and rear axles. The imposed loading on the front and rear axles will be computed using the curb weight, the occupants at 150 lbs each, and the remaining payload, uniformly distributed over the vehicle load area, to determine if the GVWR is adequate. Calculated imposed loads on the front and rear axles will be utilized to ascertain that the GAWR is adequate.

#### **4.8 ROAD TEST**

The first production vehicle will be examined and road tested (less payload) by the contractor to ensure that the vehicle will operate in accordance with the contract requirements. The Government reserves the right to perform inspection requirements on the first production vehicle with payload where such inspections are deemed necessary to ensure the vehicle will operate in accordance with the contract requirements.

#### **4.9 TRUCK BODIES, TREATMENT, AND PAINTING**

The certification regarding the body cleaning, treatment, and painting as required by MIL-HDBK-1223 shall be presented to the Government representative of the procuring activity for examination and approval.

#### **4.10 GOVERNMENT VERIFICATION**

Quality assurance operations performed by the contractor will be subject to Government verification at unscheduled intervals. Verification will consist of observation of the operations to determine that practices, methods, and procedures of the contractor's inspection are being properly applied. Failure of the contractor to promptly correct product deficiencies discovered shall be cause for suspension of acceptance until correction has been made or until conformance of product to specification criteria has been demonstrated.

#### **4.11 PRODUCT CONFORMANCE**

The products provided shall meet the salient characteristics of this standard; conform to the producer's own drawings, specifications, standards, and quality assurance practices; and be the same product offered for sale in the commercial market. The Government reserves the right to require proof of such conformance.

### **5. PACKAGING**

#### **5.1 PREPARATION**

The vehicle shall be packaged for mobile delivery in accordance with the supplier's standard commercial practice, ensuring carrier acceptance and safe delivery to destination in compliance with regulations applicable to the mode of transportation. The fuel tank(s) shall be filled to at least the quarter full mark on the fuel gauge.

### **6. NOTES**

#### **6.1 ORDERING DATA**

Purchaser should select the required vehicle(s) and options from the Federal Vehicle Standard. Use the AutoChoice web site at: [www.gsa.gov/automotive](http://www.gsa.gov/automotive). AutoChoice is GSA on-line vehicle ordering system. Inspection acceptance and shipment shall be in accordance with section 4 and 5.

The following codes are used to identify the availability of options in the Federal Vehicle Standard:

- a) S= Standard
- b) SA= Stand Alone
- c) PKG= Package (includes, requires or excludes other options)
- d) N/A= Not Available

## **6.2 PRECAUTIONS AND OBSERVATIONS**

Due to the variety of light truck models this standard must cover, the purchasers are cautioned that the options offered herein are subject to manufacturer's changes or availability. Customizing these standard vehicles with special requirements will seriously limit the number of offerers and suppliers. Most special requirement items are not offered as assembly line or factory options. Therefore, if special features or non-standard equipment is desired, procurement locally of such items after the vehicle is contracted for or received is often more advantageous. Reference the manufacturer's data books and brochures before ordering vehicle(s) with special requirements.

## **6.3 PROCEDURE TO IDENTIFY VEHICLES AND OPTIONS**

The payload/passenger requirements determine the model and GVWR of vehicle desired. They are available in the Federal Vehicle Standard and AutoChoice & the Federal Vehicle Standards at: [www.gsa.gov/automotive](http://www.gsa.gov/automotive).

## **6.4 DEVIATION FROM FEDERAL STAND NO. 307**

Systems or equipment not identified in the Federal Vehicle Standards identified as special requirements should be identified as special requirements. Contact the appropriate Contract Specialist to determine availability. All non-standard/special equipment is reviewed by GSA Engineering to determine the appropriate application.

The ordering agency head or their designee shall determine which vehicle requires specific additional systems or equipment considering the following:

- a) Climate conditions prevailing in the area of operation.
- b) Effect on vehicle operational capabilities.
- c) Special terrain requirements
- d) Availability of maintenance and service facilities.
- e) Fuel availability and cost.
- f) Delivery delays of completed vehicle, due to customizing specified.

## **6.5 ENERGY POLICY REQUIREMENTS**

The fleet fuel economy average of light trucks acquired by an Executive Agency must meet or exceed the average fuel economy standard for the appropriate model year, under Executive Order 12375, dated August 4, 1982. See 41 CFR 102-34.

## **6.6 NOTIFICATION**

Federal Vehicle Standard No. 307 includes light, two wheel drive (4X2) and four wheel drive (4X4) trucks. Automobiles and station wagons appear in Federal Vehicle Standard No. 122. Federal Vehicle Standard 794 covers medium trucks. Federal Standard 807 covers heavy trucks.

## **6.7 WARRANTY EXCEPTIONS**

The following items are considered normal maintenance and repair for which the contractor need not assume liability for reimbursing the Government regardless of the vehicle age or mileage:

- a) Abuse, negligence, or unapproved alteration of original parts.
- b) Damage from accidents.
- c) Brake and standard clutch adjustments.

- d) Headlamp adjustments.
- e) Wheel alignment or tire balancing.
- f) Tires and batteries (if warranted by their manufacturers).
- g) Miscellaneous incurred expenses such as fuel, towing, telephone, travel, lodging, or loss of personal property.
- h) Damage such as atmospheric pollution

## 6.8 TRAILER TOWING

Trailer towing presents many major concerns relating to equipment reliability, safety and ultimately liability. Because of this fact, it is imperative that agencies follow the OEM's towing guidelines to select the appropriate type of vehicle to perform their trailer towing operations.

Listed below are some facts about towing that agencies engaged in towing operations should be familiar with:

### Brake requirements:

Electric brake systems are highly recommended on all sizes of trailers. The towing vehicle chassis manufacturers may require operational brake systems for all trailers having a gross weight of 1,000 lbs. or more.

The use of surge brakes may not permit the use of some equalizing and weight distributing devices.

### Total Weight:

The combined weight of the trailer and the load on board the trailer should never exceed the trailer manufacturer's rating of the trailer.

The total combined weight of the towing vehicle, load on board towing vehicle, trailer and load on board trailer should never exceed the towing vehicle chassis manufacturer's GCWR for the towing vehicle.

Tv = weight of loaded towing vehicle.

Tr = weight of loaded trailer.

GCW = combined weight of loaded towing vehicle and loaded trailer.

Tv + Tr Must **NOT** exceed the GCW

GCW may be referred to as GCWR

### Trailer Tongue Weight:

Tongue weight should be between 10 - 15% of gross trailer weight.

## 6.9 OEM Towing Guidelines

The following are links to the OEM web sights:

### DCX:

<http://www.fleet.chrysler.com>

### Ford:

<http://www.fleet.ford.com>

### GM:

<http://www.gmfleet.com>

Be sure to follow the information specified in the chassis manufacturer's ratings and recommendations. Never overload any part of your towing system. Individual state and local government requirements must be adhered to and in cases where the above information conflicts with local laws, local laws take precedence.

Draft 22 March 2010

## **6.10 RECALL NOTICES**

### **About the NHTSA Office of Defects Investigation (ODI)**

The Office of Defects Investigation (ODI) is an office within the National Highway Traffic Safety Administration (NHTSA). ODI conducts defect investigations and administers safety recalls to support the NHTSA's mission to improve safety on our Nation's highways. NHTSA is authorized to order manufacturers to recall and repair vehicles or items of motor vehicle equipment when ODI investigations indicate that they contain serious safety defects in their design, construction, or performance. ODI also monitors the adequacy of manufacturers' recall campaigns. Before initiating an investigation, ODI carefully reviews the body of consumer complaints and other available data to determine whether a defect trend may exist.

To subscribe to NHTSA's Recall Notification E-mail System, use the following link:

<http://www-odi.nhtsa.dot.gov/subscriptions/index.cfm>

### **6.11 CHANGES AND NOTICES**

Requests for changes or additions to the Federal Vehicle Standard, along with rationale, should be sent to the:

General Services Administration  
Center for Automotive Acquisition, Engineering & Commodity Management Division  
Suite 1000  
2200 Crystal Drive  
Arlington, VA 22202

for appropriate action. The requesting agency will be informed of the action taken.

### **CIVIL COORDINATION & PREPARING ACTIVITY:**

GSA-FAS-QMDAA