



# 2011 General Motors Light Commercial Vehicle Body Application Guide

October 2010

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## How Do I Use This Guide?

This guide is designed for your convenience. Because you likely have a specific vocation in mind for a new vehicle, we've organized the guide to help you match your intended tasks to the vehicle. Whether you need a platform bed, stake bed, van body, dump bed – name the type – you can look up the body style you need, to see which GM vehicle fits the bill.

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## How Do I Buy a Commercial Vehicle?

Start by providing your Sales Consultant with detailed answers to these questions:

- What set of tasks do you have in mind for the vehicle?
- What kind of body (platform, stake, van, etc.) do you want on the vehicle?
- Do you know what length this specialty body needs to be? Did you have a previous vehicle used for this job? Was its capacity sufficient? Was it too long or too short? How would you improve on it now?
- What is the weight of the specialty body that you'll be using?
- Can you provide other specifications for your existing specialty body? Who is the manufacturer? What's the model number?
- Do you need a recommendation for a new, GM-approved specialty body supplier?
- What is the maximum payload weight that you'll be hauling?
- Will you add a rear liftgate, snow plow or other significant equipment that will affect payload capacity and weight distribution?
- If applicable, do you prefer a Regular Cab, Extended Cab or Crew Cab chassis?
- Will you choose a gas or diesel engine?
- Do you have a top-heavy application or severe duty application such as a dump, tanker, refuse packer or high-capacity crane?

*Answering these questions will put you and your Sales Consultant on the right track to selecting the GM vehicle that's a perfect fit for the job. If you don't understand a term, be sure to look it up in the Glossary of Truck Terms near the end of this guide.*

## About This Guide

General Motors reserves the right to discontinue or change at any time without notice any prices, colors, parts, materials, standard equipment, optional equipment, special equipment, specifications and/or body types and models. This material is not legally approved for use in any advertising. Copyright © 2010 by General Motors.

## An Important Note About Alterations and Warranties

Installations or alterations to the original equipment vehicle (or chassis) as distributed by General Motors are not covered by the General Motors New Vehicle Limited Warranty. The specialty body company, assembler, equipment installer, or upfitter is solely responsible for warranties on the body or equipment and any alterations (or any effect of the alterations) to any of the parts, components, systems, or assemblies installed by GM. General Motors is not responsible for the safety or quality of design features, materials, or workmanship of any alterations by such suppliers.

## Online Order Guide

This document makes frequent reference to the Online Order Guide. To access this guide:

- Go to [gmfleet.com](http://gmfleet.com) and click on the “TOOLS” menu item
- Select the “PRE-ORDER” menu item, then “Online Order Guide”
  - Select the model year, then “Cars/Light Trucks” or “Medium Duty Trucks”
  - Select the desired GM Division
  - Select the desired vehicle model

## Special Equipment Options (SEO)

Special equipment options and special paint are available on select models at an additional cost. Availability and required minimums for special paint, pricing and ordering instructions are available through your dealer, or you can contact our GM Fleet and Commercial Action Center for assistance. Telephone Monday–Friday, 8 a.m.–8 p.m. (EST), 1-800-FleetOp (1-800-353-3867) or use this email form:

<http://www.gmfleet.com/contactus/emailForm.jsp>

Examples of Special Equipment Options (may not apply to all models) include:

- Individual vinyl seats
- Rear seat delete
- Power windows, locks and mirrors
- Backup alarm
- Matching spare wheel and tire
- 12-volt power supply
- Outside mirror delete
- Spare tire delete

## Ship-Thru Codes

To save time, ship-thru codes can be specified at the time of order, to ship direct from the factory to a particular GM-approved body company for upfitting (eliminating an unnecessary shipment to the dealer).

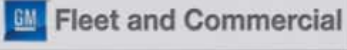
Sample codes are shown below:

|     |   |
|-----|---|
| VCB | Ship-thru code to Monroe Truck Equipment — Flint, MI    |
| VFW | Ship-thru code to NBC Truck Equipment — Roseville, MI   |
| VUD | Ship-thru code to Knapheide Truck Equipment — Flint, MI |
| VHR | Ship-thru code to Reading Equipment — Reading, MI       |
| VUI | Ship-thru code to Ft. Wayne Fleet — Ft. Wayne, IN       |

Ship-thru codes can be accessed through the Online Order Guide.

General Motors Special Vehicle Manufacturers provide a quality upfit product that will enhance GM chassis and van vehicles. SVMs are selected on the merit of their upfit/conversion, financial stability, and adherence to the governmental and trade association requirements.

Visit our online Special Vehicle Manufacturer Upfitter Locator at: [http://www.gmfleet.com/sitemap/svmlocator\\_landing.jsp](http://www.gmfleet.com/sitemap/svmlocator_landing.jsp)  
Search by state or service type to find the GM upfitter that's right for you.



- [SMALL BUSINESS](#)
- [FLEET](#)
- [GOVERNMENT](#)
- [TOOLS](#)

**LOCATE A DEALER**

Enter ZIP Code


[Advanced Search](#)

- [GM GLOBAL FLEET](#)
- [SERVICE / MAINTENANCE](#)
- [ADDITIONAL RESOURCES](#)
- [CONTACT US](#)

**E-MAIL UPDATES**

Get the latest incentives and product news from GM.

[View recent >>](#)




## Special Vehicle Manufacturer (SVM) Locator

**What is a Special Vehicle Manufacturer?**

General Motors Special Vehicle Manufacturers provide quality upfit products that enhance GM trucks and vans. SVMs are selected on the merit of their upfit/conversion, financial stability, and adherence to the governmental and trade association requirements.

**2011 Commercial Body Application Guide**

Are you a business owner or fleet manager? Need assistance in finding the right vehicle for your job?

 [Download our 2011 Commercial Body Application Guide.](#)

Here are two easy ways to find the GM upfitter that's right for you: You can search by state or by service type using the pull-down menus below.

**Begin your search by choosing from ONE of the drop-downs below:**

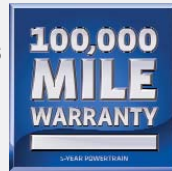
-- View By State--  or -- View By Service Type --

**Vehicle Showroom**

- 
- 
-

## Best Coverage in America

- 100,000-mile/5-year (whichever comes first) Powertrain Limited Warranty, Roadside Assistance and Courtesy Transportation. See dealer for details.
- Transferable to subsequent owner
- \$0 Deductible



## Fleet Focused Solutions

- Dedicated Fleet Sales, Service and Parts organization
- Experienced in assisting fleets with maximizing vehicle uptime and driver convenience
- Operating expense consultation
- Fleet Action Center 1-800-FleetOp (1-800-353-3867)

## Maintenance Savings

### Technology

- Oil Life Monitoring System (available on most models)
- Simplified maintenance
- Tire Pressure Monitoring System (available on select models - excludes spare tire)
- OnStar® Business Vehicle Manager (available on OnStar-equipped models). Visit [onstar.com](http://onstar.com) for details and system limitations



## GM Tools and Equipment

- Service Tools and Equipment
- Fleets may purchase tools and equipment available through GM's authorized source
- Visit [www.servicesolutions.spx.com](http://www.servicesolutions.spx.com) or call 1-866-621-2128



## World Class Training

- Web-based technical training
- Instructor-led classroom sessions provide hands-on technical training
- Visit [www.gmtraining.com](http://www.gmtraining.com) or [www.acdelcotechconnect.com](http://www.acdelcotechconnect.com)



## Service Reference and Diagnostics (SI 2000)

- Valuable service information necessary to successfully diagnose and complete vehicle repairs
- TechLink Bulletins, Service Manuals, Service Bulletins and Information
- Electronic Tech II Updates
- Multiple Diagnostic Interface (MDI)
- Visit [www.gmfleet.com](http://www.gmfleet.com)



## FOR FLEETS WITH IN-HOUSE MAINTENANCE AND REPAIR FACILITIES, GM HAS QUALITY PARTS FOR YOUR GM AND NON-GM VEHICLES

### GM Parts

- High quality GM Parts designed, manufactured, and tested to help keep your GM vehicle running at peak performance
- Your GM Goodwrench dealer has access to a full line of genuine GM Parts — Maintenance/Repair, Collision, Powertrain, and GM Accessories



### ACDelco Parts

- Meet GM's stringent quality standards
- Available for GM and non-GM vehicles
- ACDelco is a global leader in the automotive aftermarket and offers over 100,000 quality parts across 37 product lines



### ACDelco Key Fleet Program

- Offers fleets technical and related benefits to help increase efficiency and reduce downtime
- Product training and service seminars at no charge
  - Technical assistance hotline
  - Discounts on SPX tools, equipment, service and training manuals
  - Visit [www.acdelcotechconnect.com](http://www.acdelcotechconnect.com)



### Fleet Parts Purchase Program (FPPP)

- ACDelco program for fleets with multiple repair facilities
- Consolidated billing
  - Standardized fleet pricing
  - Product training and service seminars at no charge
  - Local delivery from ACDelco Warehouse Distributors
  - Visit [www.acdelcotechconnect.com](http://www.acdelcotechconnect.com)



### WIP (WISE Internet Parts)

- Online parts/ordering link to local ACDelco Warehouse Distributors
- Order history and saved order sheets
  - Labor, tech specs, and other optimal modules available
  - For additional information, call 1-800-825-5886, option 3



## UNMATCHED GM DEALER NETWORK

- Over 4,000 GM Goodwrench locations nationwide — the industry's largest OEM automotive service provider
- Goodwrench Multi-Point Vehicle Inspection
- Advanced diagnostic equipment and a link to GM engineers that supply daily service information
- GM-trained and ASE-certified technicians with over 2 million hours of training annually



- Genuine GM Parts, manufactured to meet the exact specifications of your GM vehicle
- One-stop shopping for all your service needs
- Go to [www.goodwrench.com](http://www.goodwrench.com) for a location near you

## Business Central

Chevrolet and GMC Business Central dealers across the country feature knowledgeable, professionally trained staff committed to helping businesses like yours identify the vehicles you need to operate your business effectively and efficiently. The right vehicles to get the job done, equipped the way you need them!

These dealers:

- Are committed to businesses like yours
- Have dedicated, knowledgeable, trained staff
- Have commercially oriented demonstrator vehicles
- Inventory work-ready business trucks, vans and utility vehicles available for prompt delivery
- Have access to Special Vehicle Manufacturers to help you get special upfits and equipment you need to get work done
- Have service facilities staffed and equipped to cater to business customers

For full information and locations, visit our websites at [chevybusinesscentral.com](http://chevybusinesscentral.com) or [gmbusinesscentral.com](http://gmbusinesscentral.com)



## Ally Commercial Services

At Ally, we have the knowledge and special programs to fit most business transactions that you, as a business customer, depend on to meet your day-to-day requirements. Please contact your local General Motors dealer to inquire about the various plans and programs we offer.

Ally offers a variety of options like:

- Ally Commercial SmartLease® – closed-end lease plan
- Ally ComTRAC® Lease – open-end lease plan
- Ally Municipal Lease-Purchase Plan
- Ally Commercial Line of Credit
- Ally Third-Party Guaranty

For more information on our plans and products, please visit our website at [www.ally.com/auto](http://www.ally.com/auto).



## Turn Your GM Vehicle into a Mobile Hot Spot

Chevrolet WiFi or GMC WiFi by Autonet Mobile provides 3G Internet access in and around your vehicle. Visit [autonetmobile.com](http://autonetmobile.com) for coverage map and details. Monthly rates apply. Available from your Chevrolet or GMC dealer as an accessory, this feature:

- Can turn every job site into an Internet hot spot with a 150-foot range around the vehicle. You can create and send emails, check building codes, transfer files and more
- Support the on-the-go needs of your shuttle customers by connecting multiple devices at once. They can connect with their iPads, smart phones or any other Wi-Fi enabled device to check email, flight schedules or get the latest news – all during the ride
- Can track your cargo fleet and real-time inventory levels. The open platform supports any business software you may use

Autonet Mobile provides secured high-speed broadband access. Some Business Choice customers may qualify for reimbursement for the system.

Available on select models. See your Chevrolet or GMC dealer for details.





**GM Business Choice** is a valuable offer designed specifically for business owners who use vehicles in the day-to-day operation of their business and not solely for transportation purposes. This offer is available with eligible Chevrolet and GMC vehicles and provides a variety of upfit or card option choices.

| UPFITS  |  | CARDS  |  |   |
|---|--|--|--|---|
| <br><br><b>ACCESSORIES</b><br><br><b>ACCESSORIES</b>    | <br><br><b>Upfit Cash</b>  | <br><b>Let's Build Something Together™</b><br><br><b>Gift Card</b> | <b>Business Card</b><br>                             | <b>Customer Rewards</b><br>                                 |
| OPTION A <sup>1</sup>                                   | OPTION B <sup>2</sup>  | OPTION C <sup>3</sup>  | OPTION D <sup>4</sup>                                | OPTION E <sup>5</sup>                                       |
| Van or truck upfit packages to meet your business needs | Flexible \$500 or \$1,000 upfit cash options for vans and trucks | \$500 Lowe's Gift Card with your eligible purchase or lease        | \$500 statement credit on the GM Business World Card | \$500 Customer Rewards with your eligible purchase or lease |

The GM Business Choice Program runs from October 1, 2010 through September 30, 2011. You must purchase or lease your vehicle during the program period and take delivery.

**2011 GM BUSINESS CHOICE PROGRAM REQUIREMENTS**

The 2011 GM Business Choice program runs from October 1, 2010 through September 30, 2011. To qualify for the GM Business Choice program, your vehicles must be part of the day-to-day operations of your business and not solely for transportation purposes. You must provide proof of your business. Visit [www.gmbusinesschoice.com](http://www.gmbusinesschoice.com) or see your Chevrolet or GMC dealer for complete program details. This program may not be compatible with other offers or incentive programs. Consult with your Chevrolet or GMC dealer for program compatibility and other restrictions. For complete program requirements, consult your Chevrolet or GMC dealer or [www.gmbusinesschoice.com](http://www.gmbusinesschoice.com).

1. Depending on package chosen from Chevrolet or GMC Accessories or Adrian Steel®. Please refer to the vehicle eligibility chart at [www.gmbusinesschoice.com](http://www.gmbusinesschoice.com) or see dealer for details.
2. Visit [www.gmbusinesschoice.com](http://www.gmbusinesschoice.com) for a complete list of eligible upfit equipment. General Motors reserves the right, via Program Headquarters, to make final decisions regarding eligibility of equipment.
3. The entire Lowe's gift card amount may be used for purchases only. No cash back is given on any unused amount. Lowe's and the Gable Mansard Design are registered trademarks and service marks of LF, LLC.

4. The 2011 GM Business Choice program runs from October 1, 2010 through September 30, 2011. Only GM BusinessCard World MasterCard® applicants not meeting credit requirements will receive a GM Business Choice MasterCard® Stored Value Card. Earnings may only be earned on transaction amounts up to a Card member's available credit line. Please see the GM Business Card World MasterCard® Program Rules that are applicable to your account. Earnings are administered by Chase. GM World MasterCard® for Business Cards are issued by Chase Bank USA, N.A. and may be serviced by its affiliates. Some services may be provided by MasterCard® or other providers. Certain restrictions and limitations may apply. Complete details will be provided upon establishing an account. MasterCard is a registered trademark of MasterCard International.
5. The 2011 GM Business Choice Program is available on eligible vehicle deliveries from October 1, 2010 through September 30, 2011. For important details regarding Option E, including rewards balance, log onto [www.gmbusinesschoicecustomerrewards.com](http://www.gmbusinesschoicecustomerrewards.com). Customer will receive \$500 rewards balance upon vehicle delivery and rewards will expire two (2) years after date of vehicle delivery. During the two (2) year term, the entire reward amount may be used only for service, labor, parts or GM Accessories and only at the dealership from which the customer purchased the vehicle. After two (2) years, the unredeemed balance will be issued to the customer in the form of a check. Please allow 6 weeks for delivery of check by mail.

# Van Body Application



Vehicles shown have been altered or upfitted with equipment supplied by independent suppliers. See the Owner Manual for information on alterations and warranties.

If cargo needs weather protection, a van body is the answer. It offers maximum versatility for meat, poultry, and flower wholesalers; newspapers; cities/counties; and, naturally, delivery and expediting companies.

See Powertrain Combinations chart for applicable engines, transmissions and 2WD/4WD/AWD availability.

| Model   | Cab or Equipment                           | WB/CA (inches)  | Drive Axle(s) | Body Length (feet) |   |   |   |    |      | GVWR (pounds)*         | Maximum Body and Payload (pounds)** without box |      |
|---|--|-----------------|---------------|--------------------|---|---|---|----|------|------------------------|---|------|
|   |  |                 |               | 6                  | 7 | 8 | 9 | 10 | 12   |                        |   |      |
| <b>Canyon/Colorado Silverado/Sierra 2500HD with ZW9 Pickup Box Delete</b> | Chassis Cab                                | 126/48.9        | 2WD/4WD       | ■                  | ■ | ■ |   |    |      | 5500                   | 2179 (2WD)/1982 (4WD)                           |      |
|   | Regular Cab                                | 133.7/56.0      | 2WD           |                    |   | ■ |   |    |      | 9300                   | 4141  |      |
|   |  |                 | 4WD           |                    |   | ■ |   |    | 9500 | 4048                   |   |      |
|   | Extended Cab                               | 158.2/55.6      | 2WD           |                    |   |   | ■ |    |      | 9500                   | 3833  |      |
|   |  |                 | 4WD           |                    |   |   | ■ |    |      | 9500                   | 3557  |      |
| Crew Cab  | 167.7/55.6                                 | 2WD             |               |                    |   | ■ |   |    | 9500 | 3812                   |   |      |
|   |  | 4WD             |               |                    |   | ■ |   |    | 9900 | 3817                   |   |      |
| <b>Silverado/Sierra 3500HD with ZW9 Pickup Box Delete</b>                 | Regular Cab                                | 133.7/56.0      | 2WD           |                    |   | ■ |   |    |      | 10400 SRW<br>12800 DRW | 5041 SRW<br>7168 DRW                            |      |
|   |  |                 | 4WD           |                    |   | ■ |   |    |      | 10700 SRW<br>12800 DRW | 5014 SRW<br>6841 DRW                            |      |
|   | Extended Cab                               | 158.2/55.6      | 2WD           |                    |   | ■ |   |    |      | 10700 SRW<br>13000 DRW | 4834SRW<br>6859 DRW                             |      |
|   |  |                 | 4WD           |                    |   | ■ |   |    |      | 11000 SRW<br>13000 DRW | 4857 SRW<br>6582 DRW                            |      |
|   | Crew Cab                                   | 167.7/55.6      | 2WD           |                    |   | ■ |   |    |      | 10700 SRW<br>13000 DRW | 4719 SRW<br>6744 DRW                            |      |
|   |  |                 | 4WD           |                    |   | ■ |   |    |      | 11000 SRW<br>13000 DRW | 4701SRW<br>6426 DRW                             |      |
|   | <b>Silverado/Sierra 3500HD Chassis Cab</b> | Regular Cab SWB | 137.5/59.8    | 2WD                |   |   | ■ | ■  |      |                        | 13200   | 7293 |
|   |  |                 |               | 4WD                |   |   | ■ | ■  |      |                        | 13200   | 6999 |
| Regular Cab LWB   |  | 162.0/84.3      | 2WD           |                    |   |   | ■ | ■  | ■    | 13200                  | 7205  |      |
|   |  |                 | 4WD           |                    |   |   | ■ | ■  | ■    | 13200                  | 6894  |      |
| Crew Cab  |  | 171.5/59.4      | 2WD           |                    |   | ■ | ■ |    |      | 13200                  | 6750  |      |
|   |  |                 | 4WD           |                    |   | ■ | ■ |    |      | 13200                  | 6434  |      |

\* When properly equipped; includes weight of vehicle, passengers, cargo and equipment.

\*\* When properly equipped; maximum payload capacity includes weight of driver, passengers, optional equipment and cargo.

| Model                      | Cab or Equipment        | WB/CA (inches) | Drive Axle(s) | Body Length (feet) |    |    |    |    |    | GVWR (pounds)* | Maximum Body and Payload (pounds)** |
|----------------------------|-------------------------|----------------|---------------|--------------------|----|----|----|----|----|----------------|-------------------------------------|
|                            |                         |                |               | 8                  | 10 | 12 | 14 | 16 | 18 |                |                                     |
| <b>Express/Savana 1500</b> | Standard Cargo Van Body | 135/NA         | 2WD           | ■                  |    |    |    |    |    | 7300           | 2329                                |
|                            |                         |                | AWD           | ■                  |    |    |    |    |    | 7300           | 2000                                |
| <b>Express/Savana 2500</b> | Standard Cargo Van Body | 135/NA         | 2WD           | ■                  |    |    |    |    |    | 8600           | 3222                                |
|                            |                         | 155/NA         | 2WD           |                    | ■  |    |    |    |    | 8600           | 2999                                |
| <b>Express/Savana 3500</b> | Standard Cargo Van Body | 135/NA         | 2WD           | ■                  |    |    |    |    |    | 9600           | 4187                                |
|                            |                         | 155/NA         | 2WD           |                    | ■  |    |    |    |    | 9600           | 3992                                |
| <b>Express/Savana 3500</b> | Cutaway                 | 139/80         | 2WD           |                    | ■  | ■  |    |    |    | 12300          | 7277                                |
|                            |                         | 159/100        | 2WD           |                    |    | ■  | ■  |    |    | 12300          | 7281                                |
|                            |                         | 177/118        | 2WD           |                    |    |    |    | ■  |    | 12300          | 7213                                |
| <b>Express/Savana 4500</b> | Cutaway                 | 159/100        | 2WD           |                    |    | ■  | ■  |    |    | 14200          | 9156 (Gas)/<br>8106 (Diesel)        |

\* When properly equipped; includes weight of vehicle, passengers, cargo and equipment.

\*\* When properly equipped; maximum payload capacity includes weight of driver, passengers, optional equipment and cargo.

# Platform/Stake Body Application

Carrying everything from livestock to lumber and scrap metal, platform/stake applications are among the most versatile of work trucks. Properly spec'd, they can meet the diverse needs of many different kinds of customers.

See Powertrain Combinations chart for applicable engines, transmissions and 2WD/4WD availability.



Vehicles shown have been altered or upfitted with equipment supplied by independent suppliers. See the Owner Manual for information on alterations and warranties.

| Model   | Cab or Equipment | WB/CA (inches) | Drive Axle(s) | Body Length (feet) |   |   |   |    |                        | GVWR (pounds)*       | Maximum Body and Payload (pounds)** without box |
|---|------------------|----------------|---------------|--------------------|---|---|---|----|------------------------|----------------------|---|
|   |                  |                |               | 6                  | 7 | 8 | 9 | 10 | 12                     |                      |   |
| <b>Canyon/Colorado</b>                                    | Chassis Cab      | 126/48.9       | 2WD/4WD       | ■                  | ■ | ■ |   |    |                        | 5500                 | 2179 (2WD)/1982 (4WD)                           |
| <b>Silverado/Sierra 2500HD with ZW9 Pickup Box Delete</b> | Regular Cab      | 133.7/56.0     | 2WD           |                    |   | ■ |   |    |                        | 9300                 | 4141  |
|   |                  |                | 4WD           |                    |   | ■ |   |    | 9500                   | 4048                 |   |
|   | Extended Cab     | 158.2/55.6     | 2WD           |                    |   | ■ |   |    | 9500                   | 3833                 |   |
|   |                  |                | 4WD           |                    |   | ■ |   |    | 9500                   | 3557                 |   |
|   | Crew Cab         | 167.7/55.6     | 2WD           |                    |   | ■ |   |    | 9500                   | 3812                 |   |
|   |                  |                | 4WD           |                    |   | ■ |   |    | 9900                   | 3817                 |   |
| <b>Silverado/Sierra 3500HD with ZW9 Pickup Box Delete</b> | Regular Cab      | 133.7/56.0     | 2WD           |                    |   | ■ |   |    | 10400 SRW<br>12800 DRW | 5041 SRW<br>7168 DRW |   |
|   |                  |                | 4WD           |                    |   | ■ |   |    | 10700 SRW<br>12800 DRW | 5014 SRW<br>6841 DRW |   |
|   | Extended Cab     | 158.2/55.6     | 2WD           |                    |   | ■ |   |    | 10700 SRW<br>13000 DRW | 4834SRW<br>6859 DRW  |   |
|   |                  |                | 4WD           |                    |   | ■ |   |    | 11000 SRW<br>13000 DRW | 4857 SRW<br>6582 DRW |   |
|   | Crew Cab         | 167.7/55.6     | 2WD           |                    |   | ■ |   |    | 10700 SRW<br>13000 DRW | 4719 SRW<br>6744 DRW |   |
|   |                  |                | 4WD           |                    |   | ■ |   |    | 11000 SRW<br>13000 DRW | 4701SRW<br>6426 DRW  |   |
| <b>Silverado/Sierra 3500HD Chassis Cab</b>                | Regular Cab SWB  | 137.5/59.8     | 2WD           |                    |   | ■ | ■ |    | 13200                  | 7293                 |   |
|   |                  |                | 4WD           |                    |   | ■ | ■ |    | 13200                  | 6999                 |   |
|   | Regular Cab LWB  | 162.0/84.3     | 2WD           |                    |   |   | ■ | ■  | ■                      | 13200                | 7205  |
|   |                  |                | 4WD           |                    |   |   | ■ | ■  | ■                      | 13200                | 6894  |
|   | Crew Cab         | 171.5/59.4     | 2WD           |                    |   | ■ | ■ |    |                        | 13200                | 6750  |
|   |                  |                | 4WD           |                    |   | ■ | ■ |    |                        | 13200                | 6434  |

\* When properly equipped; includes weight of vehicle, passengers, cargo and equipment.

\*\* When properly equipped; maximum payload capacity includes weight of driver, passengers, optional equipment and cargo.

# Dump Body Application



Vehicles shown have been altered or upfitted with equipment supplied by independent suppliers. See the Owner Manual for information on alterations and warranties.

Dump operations usually mean severe service — they need the fortitude for max-load performance both on- and off-road, and the ability to routinely absorb shock loads from loaders and bed dumps. Stability for high dump bed angles and load shift when offloading is also a mandatory personality trait. In addition to earthmoving, sand-and-gravel haulers and aggregate hauler vocations, other applications include dredgers, asphalt, masonry, mining, nurseries and much more.

See Powertrain Combinations chart for applicable engines, transmissions and 2WD/4WD availability.

| Model   | Cab or Equipment | WB/CA (inches) | Drive Axle(s) | Body Length (feet) |   |    |    |    |    | GVWR (pounds)*         | Maximum Body and Payload (pounds)** without box |
|---|------------------|----------------|---------------|--------------------|---|----|----|----|----|------------------------|---|
|   |                  |                |               | 8                  | 9 | 10 | 12 | 14 | 16 |                        |   |
| <b>Silverado/Sierra 3500HD with ZW9 Pickup Box Delete</b> | Regular Cab      | 133.7/56.0     | 2WD           | ■                  |   |    |    |    |    | 10400 SRW<br>12800 DRW | 5041 SRW<br>7168 DRW                            |
|   |                  |                | 4WD           | ■                  |   |    |    |    |    | 10700 SRW<br>12800 DRW | 5014 SRW<br>6841 DRW                            |
|   | Extended Cab     | 158.2/55.6     | 2WD           | ■                  |   |    |    |    |    | 10700 SRW<br>13000 DRW | 4834SRW<br>6859 DRW                             |
|   |                  |                | 4WD           | ■                  |   |    |    |    |    | 11000 SRW<br>13000 DRW | 4857 SRW<br>6582 DRW                            |
|   | Crew Cab         | 167.7/55.6     | 2WD           | ■                  |   |    |    |    |    | 10700 SRW<br>13000 DRW | 4719 SRW<br>6744 DRW                            |
|   |                  |                | 4WD           | ■                  |   |    |    |    |    | 11000 SRW<br>13000 DRW | 4701SRW<br>6426 DRW                             |
| <b>Silverado/Sierra 3500HD Chassis Cab</b>                | Regular Cab SWB  | 137.5/59.8     | 2WD           | ■                  | ■ |    |    |    |    | 13200                  | 7293  |
|   |                  |                | 4WD           | ■                  | ■ |    |    |    |    | 13200                  | 6999  |
|   | Regular Cab LWB  | 162.0/84.3     | 2WD           |                    | ■ | ■  | ■  |    |    | 13200                  | 7205  |
|   |                  |                | 4WD           |                    | ■ | ■  | ■  |    |    | 13200                  | 6894  |
|   | Crew Cab         | 171.5/59.4     | 2WD           | ■                  | ■ |    |    |    |    | 13200                  | 6750  |
|   |                  |                | 4WD           | ■                  | ■ |    |    |    |    | 13200                  | 6434  |

\* When properly equipped; includes weight of vehicle, passengers, cargo and equipment.

\*\* When properly equipped; maximum payload capacity includes weight of driver, passengers, optional equipment and cargo.

# Snow Plow/Spreader Application



Vehicles shown have been altered or upfitted with equipment supplied by independent suppliers. See the Owner Manual for information on alterations and warranties.

GM offers hardworking trucks for snow business, with Chevrolet and GMC trucks equipped with the available Snow Plow Prep Package. Our prep packages are carefully thought out to ensure that the loads imposed by heavy plows and salt/sand spreaders are manageable. But it doesn't stop there. Depending on the specific application, prep packages can include a mounting location for snow plow controls, high-output alternator, backup

emergency light power and forward lamp wiring harness, an instrument panel jumper wiring harness for an electric trailer brake controller, a high-flow front bumper, a high-capacity air filter and skid plates.

See Powertrain Chart for applicable engines and transmissions. Many powertrain combinations for snow plow prep are listed in the chart footnotes.

**NOTE: For use in a snow plow application, all models listed in the chart must be equipped with the optional Snow Plow Prep Package, available at additional cost.**

| Model   | Cab or Equipment          | WB/CA (inches) | Drive Axle(s) | Plow Width (feet) |   |   |    | Spreader/Hopper Length (feet) |   |           | GVWR (pounds)* | Maximum Payload (pounds)** w/Snow Plow Prep Package |
|---|---------------------------|----------------|---------------|-------------------|---|---|----|-------------------------------|---|-----------|----------------|---|
|   |                           |                |               | 7.5               | 8 | 9 | 10 | 7                             | 8 | 10        |                |   |
| <b>Silverado/Sierra 1500<sup>1</sup></b>  | Regular Cab/Standard Box  | 119/41.9       | 4WD           | ■                 |   |   |    | ■                             | ■ |           | 6400           | 1693  |
|   | Regular Cab/Long Box      | 133/55.9       | 4WD           | ■                 |   |   |    | ■                             | ■ |           | 6800           | 1815  |
| <b>Silverado/Sierra 2500HD<sup>2</sup></b><br>(ZW9 Pickup Box Delete available) | Regular Cab/Long Box      | 133.7/56.0     | 4WD           | ■                 | ■ |   |    | ■                             | ■ |           | 9500           | 3580  |
|   | Extended Cab/Standard Box | 144.2/41.6     | 4WD           |                   | ■ |   |    |                               |   |           | 9500           | 3222  |
|   | Extended Cab/Long Box     | 158.2/55.6     | 4WD           | ■                 | ■ |   |    | ■                             | ■ |           | 9500           | 3130  |
|   | Crew Cab/Standard Box     | 153.7/41.6     | 4WD           | ■                 |   |   |    |                               |   |           | 9500           | 3123  |
|   | Crew Cab/Long Box         | 167.7/55.6     | 4WD           | ■                 | ■ |   |    | ■                             | ■ |           | 9900           | 3375  |
| <b>Silverado/Sierra 3500HD<sup>3</sup></b><br>(ZW9 Pickup Box Delete available) | Regular Cab/Long Box      | 133.7/56.0     | 4WD           | ■                 | ■ |   |    | ■                             | ■ |           | 10700 SRW      | 4566 SRW  |
|   |                           |                |               |                   |   |   |    | ■                             | ■ |           | 12800 DRW      | 6308 DRW  |
|   | Extended Cab/Long Box     | 158.2/55.6     | 4WD           | ■                 | ■ |   |    | ■                             | ■ |           | 11000 SRW      | 4420 SRW  |
|   |                           |                |               |                   | ■ | ■ |    | ■                             | ■ |           | 13000 DRW      | 6055 DRW  |
|   | Crew Cab/Standard Box     | 153.7/41.6     | 4WD           | ■                 |   |   |    |                               |   |           | 10800 SRW      | 4227 SRW  |
|   | Crew Cab/Long Box         | 167.7/55.6     | 4WD           | ■                 | ■ |   |    | ■                             | ■ |           |                | 11000 SRW   |
|   |                           |                |               | ■                 | ■ |   | ■  | ■                             |   | 13000 DRW | 3321 DRW       |   |
| <b>Silverado/Sierra 3500HD Chassis Cab<sup>4</sup></b>                          | Regular Cab SWB           | 137.5/59.8     | 4WD           |                   | ■ | ■ |    | ■                             | ■ |           | 13200          | 6999  |
|   | Regular Cab LWB           | 162.0/84.3     | 4WD           |                   | ■ | ■ |    |                               | ■ | ■         | 13200          | 6894  |
|   | Crew Cab                  | 171.5/59.4     | 4WD           |                   | ■ | ■ |    | ■                             | ■ |           | 13200          | 6434  |

See footnotes on page 13.

## Snow Plow/Spreader – Special Notes:

- GM recommends that when a snow plow is mounted on a vehicle, only one passenger should accompany the driver. More passengers may result in exceeding Front Gross Axle Weight Ratings
- The loaded vehicle with all passengers, snow plows, spreaders and cargo must have a center of gravity within a specified area
- The use of rear ballast weight may be required to ensure allowable center of gravity
- See Body Builder Manual for details

\* With Snow Plow Prep Package; Snow Plow Prep Package for Silverado/Sierra 2500HD/3500HD is RPO VYU. When properly equipped; includes weight of vehicle, passengers, cargo and equipment.

\*\* When properly equipped; maximum payload capacity includes weight of driver, passengers, optional equipment and cargo. Payload calculations in chart do not include ZW9 Pickup Box Delete.

1. Includes 10-amp power for backup and roof emergency light, (KW1) 160-amp alternator, high-flow front bumper, forward lamp wiring harness, (TRW) provision for cab roof mounted lamp/beacon, instrument panel jumper wiring harness for electric trailer brake controller, (K47) high-capacity air cleaner, (KNP) auxiliary external transmission oil cooler and (NZZ) Skid Plate Package. Requires CK/TK10\*03 models. Not available with (LU3) Vortec 4.3L V6 MFI engine or (CJ2) dual-zone automatic air conditioning.
2. Includes 10-amp power for backup and roof emergency light, high-flow front bumper, forward lamp wiring harness, (TRW) provision for cab roof mounted lamp/beacon, instrument panel jumper wiring harness for electric trailer brake controller and (NZZ) Skid Plate Package. Requires 4WD models. Includes (KW1) 160-amp alternator with (L96) Vortec 6.0L V8 SFI engine. Includes (K76) dual 125-amp alternators with (LML/LGH) Duramax 6.6L Turbo Diesel V8 engine.
3. Includes 10-amp power for backup and roof emergency light, high-flow front bumper, forward lamp wiring harness, (TRW) provision for cab roof mounted lamp/beacon, instrument panel jumper wiring harness for electric trailer brake controller and (NZZ) Skid Plate Package. Requires 4WD models. Includes (KW1) 160-amp alternator with (L96) Vortec 6.0L V8 SFI engine. Includes (K76) dual 125-amp alternators with (LML/LGH) Duramax 6.6L Turbo Diesel V8 engine.
4. Includes 10-amp power for backup and roof emergency light, high-flow front bumper, forward lamp wiring harness, (TRW) provision for cab roof mounted lamp/beacon, instrument panel jumper wiring harness for electric trailer brake controller and (NZZ) Skid Plate Package. Requires 4WD models. Not available with (CF5) power sunroof or (UG1) Universal Home Remote. Includes (KW1) 160-amp alternator with (L96) Vortec 6.0L V8 SFI engine. Includes (K76) dual 125-amp alternators with (LGH) Duramax 6.6L Turbo Diesel V8 engine.



Compartment storage is the name of the game for Utility Bodies, where primary customers such as tradespeople and government agencies need maximum storage-space versatility. In addition to packing plenty of well-organized storage space, Utility Bodies are also well suited to take on additional duties with cherry-picker buckets, air compressors, cable reels, cranes, digger derricks and rescue equipment.

See Powertrain Combinations chart for applicable engines, transmissions and 2WD/4WD availability.

| Model   | Cab or Equipment | WB/CA (inches) | Drive Axle(s) | Body Length (feet) |   |   |   |    |    | GVWR (pounds)*         | Maximum Body and Payload (pounds)** without box |
|---|------------------|----------------|---------------|--------------------|---|---|---|----|----|------------------------|---|
|   |                  |                |               | 6                  | 7 | 8 | 9 | 10 | 11 |                        |   |
| <b>Canyon/Colorado</b>                                    | Chassis Cab      | 126/48.9       | 2WD/4WD       | ■                  | ■ | ■ |   |    |    | 5500                   | 2179 (2WD)/1982 (4WD)                           |
| <b>Silverado/Sierra 2500HD with ZW9 Pickup Box Delete</b> | Regular Cab      | 133.7/56.0     | 2WD           |                    |   | ■ |   |    |    | 9300                   | 4141  |
|   |                  |                | 4WD           |                    |   | ■ |   |    |    | 9500                   | 4048  |
|   | Extended Cab     | 158.2/55.6     | 2WD           |                    |   | ■ |   |    |    | 9500                   | 3833  |
|   |                  |                | 4WD           |                    |   | ■ |   |    |    | 9500                   | 3557  |
|   | Crew Cab         | 167.7/55.6     | 2WD           |                    |   | ■ |   |    |    | 9500                   | 3812  |
|   |                  |                | 4WD           |                    |   | ■ |   |    |    | 9900                   | 3817  |
| <b>Silverado/Sierra 3500HD with ZW9 Pickup Box Delete</b> | Regular Cab      | 133.7/56.0     | 2WD           |                    |   | ■ |   |    |    | 10400 SRW<br>12800 DRW | 5041 SRW<br>7168 DRW                            |
|   |                  |                | 4WD           |                    |   | ■ |   |    |    | 10700 SRW<br>12800 DRW | 5014 SRW<br>6841 DRW                            |
|   | Extended Cab     | 158.2/55.6     | 2WD           |                    |   | ■ |   |    |    | 10700 SRW<br>13000 DRW | 4834SRW<br>6859 DRW                             |
|   |                  |                | 4WD           |                    |   | ■ |   |    |    | 11000 SRW<br>13000 DRW | 4857 SRW<br>6582 DRW                            |
|   | Crew Cab         | 167.7/55.6     | 2WD           |                    |   | ■ |   |    |    | 10700 SRW<br>13000 DRW | 4719 SRW<br>6744 DRW                            |
|   |                  |                | 4WD           |                    |   | ■ |   |    |    | 11000 SRW<br>13000 DRW | 4701SRW<br>6426 DRW                             |
| <b>Silverado/Sierra 3500HD Chassis Cab</b>                | Regular Cab SWB  | 137.5/59.8     | 2WD           |                    |   | ■ | ■ |    |    | 13200                  | 7293  |
|   |                  |                | 4WD           |                    |   | ■ | ■ |    |    | 13200                  | 6999  |
|   | Regular Cab LWB  | 162.0/84.3     | 2WD           |                    |   |   | ■ | ■  | ■  | 13200                  | 7205  |
|   |                  |                | 4WD           |                    |   |   | ■ | ■  | ■  | 13200                  | 6894  |
|   | Crew Cab         | 171.5/59.4     | 2WD           |                    |   | ■ | ■ |    |    | 13200                  | 6750  |
|   |                  |                | 4WD           |                    |   | ■ | ■ |    |    | 13200                  | 6434  |

\* When properly equipped; includes weight of vehicle, passengers, cargo and equipment.

\*\* When properly equipped; maximum payload capacity includes weight of driver, passengers, optional equipment and cargo.

| Model                      | Cab or Equipment | WB/CA (inches) | Drive Axle(s) | Body Length (feet) |    |    |    |    |    | GVWR (pounds)* | Maximum Body and Payload (pounds)** |
|----------------------------|------------------|----------------|---------------|--------------------|----|----|----|----|----|----------------|-------------------------------------|
|                            |                  |                |               | 8                  | 10 | 12 | 14 | 16 | 18 |                |                                     |
| <b>Express/Savana 3500</b> | Cutaway          | 139/80         | 2WD           |                    | ■  | ■  |    |    |    | 12300          | 7277                                |
|                            |                  | 159/100        | 2WD           |                    |    | ■  | ■  |    |    | 12300          | 7281                                |
|                            |                  | 177/118        | 2WD           |                    |    |    |    | ■  |    | 12300          | 7213                                |
| <b>Express/Savana 4500</b> | Cutaway          | 159/100        | 2WD           |                    |    | ■  | ■  |    |    | 14200          | 9156 (Gas)/<br>7886 (Diesel)        |

\* When properly equipped; includes weight of vehicle, passengers, cargo and equipment.

\*\* When properly equipped; maximum payload capacity includes weight of driver, passengers, optional equipment and cargo.

# Catering Body Application



Catering applications can range from small-route Canyon/Colorado trucks through larger Express/Savana 4500 models — it's all a matter of the job at hand. The following applications are perfect for “Meals on Wheels” applications that visit factories, construction sites and festival events, as well as small caterers.

See Powertrain Combinations chart for applicable engines, transmissions and 2WD/4WD availability.

Vehicles shown have been altered or upfitted with equipment supplied by independent suppliers. See the Owner Manual for information on alterations and warranties.

| Model   | Cab or Equipment                           | WB/CA (inches)  | Drive Axle(s) | Body Length (feet) |   |   |   |    |                        | GVWR (pounds)*       | Maximum Body and Payload (lb.)** without box |
|---|--|-----------------|---------------|--------------------|---|---|---|----|------------------------|----------------------|--|
|   |  |                 |               | 6                  | 7 | 8 | 9 | 10 | 12                     |                      |  |
| <b>Canyon/Colorado</b>                                    | Chassis Cab                                | 126/48.9        | 2WD/4WD       | ■                  | ■ |   |   |    |                        | 5500                 | 2179 (2WD)/1982 (4WD)                        |
| <b>Silverado/Sierra 2500HD with ZW9 Pickup Box Delete</b> | Regular Cab                                | 133.7/56.0      | 2WD           |                    |   | ■ |   |    |                        | 9300                 | 4141   |
|   |  |                 | 4WD           |                    |   | ■ |   |    | 9500                   | 4048                 |  |
|   | Extended Cab                               | 158.2/55.6      | 2WD           |                    |   | ■ |   |    | 9500                   | 3833                 |  |
|   |  |                 | 4WD           |                    |   | ■ |   |    | 9500                   | 3557                 |  |
|   | Crew Cab                                   | 167.7/55.6      | 2WD           |                    |   | ■ |   |    | 9500                   | 3812                 |  |
|   |  |                 | 4WD           |                    |   | ■ |   |    | 9900                   | 3817                 |  |
| <b>Silverado/Sierra 3500HD with ZW9 Pickup Box Delete</b> | Regular Cab                                | 133.7/56.0      | 2WD           |                    |   | ■ |   |    | 10400 SRW<br>12800 DRW | 5041 SRW<br>7168 DRW |  |
|   |  |                 | 4WD           |                    |   | ■ |   |    | 10700 SRW<br>12800 DRW | 5014 SRW<br>6841 DRW |  |
|   | Extended Cab                               | 158.2/55.6      | 2WD           |                    |   | ■ |   |    | 10700 SRW<br>13000 DRW | 4834SRW<br>6859 DRW  |  |
|   |  |                 | 4WD           |                    |   | ■ |   |    | 11000 SRW<br>13000 DRW | 4857 SRW<br>6582 DRW |  |
|   | Crew Cab                                   | 167.7/55.6      | 2WD           |                    |   | ■ |   |    | 10700 SRW<br>13000 DRW | 4719 SRW<br>6744 DRW |  |
|   |  |                 | 4WD           |                    |   | ■ |   |    | 11000 SRW<br>13000 DRW | 4701SRW<br>6426 DRW  |  |
|   | <b>Silverado/Sierra 3500HD Chassis Cab</b> | Regular Cab SWB | 137.5/59.8    | 2WD                |   |   | ■ | ■  |                        | 13200                | 7293   |
|   |  |                 |               | 4WD                |   |   | ■ | ■  |                        | 13200                | 6999   |
| Regular Cab LWB   |  | 162.0/84.3      | 2WD           |                    |   |   | ■ | ■  | 13200                  | 7205                 |  |
|   |  |                 | 4WD           |                    |   |   | ■ | ■  | 13200                  | 6894                 |  |
| Crew Cab  |  | 171.5/59.4      | 2WD           |                    |   | ■ | ■ |    | 13200                  | 6750                 |  |
|   |  |                 | 4WD           |                    |   | ■ | ■ |    | 13200                  | 6434                 |  |

\* When properly equipped; includes weight of vehicle, passengers, cargo and equipment.

\*\* When properly equipped; maximum payload capacity includes weight of driver, passengers, optional equipment and cargo.

| Model                      | Cab or Equipment | WB/CA (inches) | Drive Axle(s) | Body Length (feet) |    |    |    |    |    | GVWR (pounds)* | Maximum Body and Payload (pounds)** |
|----------------------------|------------------|----------------|---------------|--------------------|----|----|----|----|----|----------------|-------------------------------------|
|                            |                  |                |               | 8                  | 10 | 12 | 14 | 16 | 18 |                |                                     |
| <b>Express/Savana 3500</b> | Cutaway          | 139/80         | 2WD           |                    | ■  | ■  |    |    |    | 12300          | 7277                                |
|                            |                  | 159/100        | 2WD           |                    |    | ■  | ■  |    |    | 12300          | 7281                                |
|                            |                  | 177/118        | 2WD           |                    |    |    |    | ■  |    | 12300          | 7213                                |
| <b>Express/Savana 4500</b> | Cutaway          | 159/100        | 2WD           |                    |    | ■  | ■  |    |    | 14200          | 9156 (Gas)/<br>7886 (Diesel)        |

\* When properly equipped; includes weight of vehicle, passengers, cargo and equipment.

\*\* When properly equipped; maximum payload capacity includes weight of driver, passengers, optional equipment and cargo.

# Wrecker Application

Vehicles shown have been altered or upfitted with equipment supplied by independent suppliers. See the Owner Manual for information on alterations and warranties.



Wrecker duty is one of the toughest jobs a truck can face. Severe frame loads, extended idling and less-than-ideal conditions for vehicle recovery underline the importance of careful vehicle and package selection. Cities, collision shops, cab companies and vehicle transport companies all rely on their GM Sales Consultant to properly specify their GM truck for optimum reliability and long-lasting service.

See Special Equipment Options for factory preparation vital to your application.

See Powertrain Combinations chart for applicable engines and transmissions.

## Wrecker Towing Capacity Guidelines

Wrecker towing capacity is affected by:

- Type of lift (single winch, twin-winch/ single-boom, single hydraulic extendable boom, underlift extendable boom, or roll-back carrier winch)
- Wrecker wheelbase
- Rear overhang
- Front axle weight

Compute the lift load limit of a specific wrecker by considering the weight remaining at the front axle. It should never be less than half its weight when not towing (or the front axle weight minus 3500 pounds, whichever is less).

This is the MINIMUM required to ensure proper steering.

## Towing & Recovery Vehicle Types:

### Hydraulic & Mechanical

Wrecker types come in two basic forms:

- 1) Recovery and tow vehicles
- 2) Transporter “roll back” type units

They have vastly different chassis component requirements and operational environments.

### Wrecker Capacities

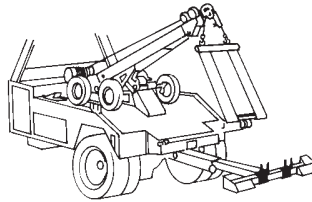
- Can be stated in a number of ways:
  - Lifting and towing capacity
  - Boom rating
  - Drum rating
  - Working line limits
  - Chassis GAWR limits
- Particular wrecker body design will have a “Basic Wrecker Rating” capacity stated in tons

### Wrecker Bodies

- Different configurations of booms, masts, cables and capacities can be mounted on a single wrecker body
- Bodies can be custom-made to accommodate:
  - 1) Non-standard wheelbase lengths
  - 2) Vertical exhaust systems and any other equipment located behind the cab
- Wrecker bodies are also made to fit the standard CA dimensions
- Wrecker bodies have wheel well openings that may require accommodation
- Bodies require careful attention to CA and axle width for compatibility
- Careful attention must be paid to any equipment mounted behind the cab

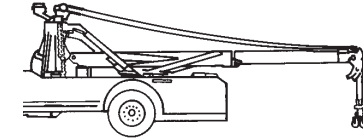
## Single Winch (Boom)

- Has a vertical mast located behind the cab
- A single boom extends out at an angle from the base of the mast to a point past the end of the body
- Cable is routed from the winch and service line drum, up to the mast and the end of the boom
- General service units have both recovery and towing capability
- This is the least complicated and least expensive unit
- Can also be found with underlift pickup units



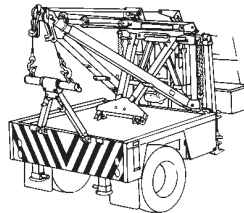
## Single Hydraulic Extendable Boom

- Uses a combination of a mast and single extendable boom
- Twin cables and drums are added for recovery versatility
- Ability of this unit to reach out over guard rails and other obstacles is important
- Boom is extended, lowered and raised by hydraulic power
- Capacity of the boom will vary with the length of the boom's extension and structural strength
- Combines hydraulic boom lift power with cable lift capability
- Requires higher hydraulic operating capabilities to run the boom extension and boom lift, and run cable drum winch
- Can also be outfitted with powered underlifts to permit towing



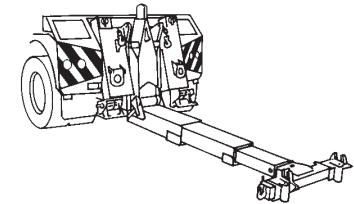
## Twin Winch (Single Boom)

- Mast is similar to the single boom
- Has two cables and two service line drums
- Cables can be split for side pulling and uprighting overturned vehicles with two attachment points
- Cables joined provide increased lifting capability
- Twin winch is more expensive than the single winch
- Added versatility of the twin winch design enables the wrecker to perform more difficult and varied recoveries



## Underlift

- Can either lift under its own power or rely on the main boom to lift the underlift and the vehicle
- Structure is mounted behind the wrecker body and extends out
- Units that employ the boom for lifting force receive added towing capacity
- Underlift extends out to facilitate towing of vehicles with large front overhangs



## Boom

| Model  | Cab or Equipment | WB/CA (inches) | Drive Axle(s) | GVWR (pounds)* | Maximum Body and Payload (pounds)** |
|--|------------------|----------------|---------------|----------------|-------------------------------------|
| <b>Silverado/Sierra<br/>3500HD Chassis Cab</b> | Regular Cab SWB  | 137.5/59.8     | 2WD           | 13200          | 7293                                |
|  | Regular Cab LWB  | 162.0/84.3     | 2WD           | 13200          | 7205                                |

\* When properly equipped; includes weight of vehicle, passengers, cargo and equipment.

\*\* When properly equipped; maximum payload capacity includes weight of driver, passengers, optional equipment and cargo.

# Ambulance Application



When lives are on the line, a robust equipment combination is key. GM provides YF2 Ambulance Packages for three separate vehicle lines: Silverado/Sierra 3500HD Chassis Cab; Express/Savana 3500 Cargo Van; and Express/Savana 3500 and 4500 Cutaway.

Contents of the Ambulance Package varies with the model.

See Powertrain Combinations chart for applicable engines and transmissions.

| Model  | Cab and Equipment                    | WB/CA (inches) | Drive Axle(s)/Rear Wheels | Body Length (feet) |    |    |    | Front GAWR (pounds)* | GVWR (pounds)* | Maximum Body and Payload (pounds)** |
|--|--------------------------------------|----------------|---------------------------|--------------------|----|----|----|----------------------|----------------|-------------------------------------|
|  |                                      |                |                           | 8                  | 10 | 12 | 14 |                      |                |                                     |
| <b>Silverado/Sierra 3500HD Chassis Cab<sup>1</sup></b> | Regular Cab LWB w/YF2 and LGH engine | 162.0/84.3     | 2WD/DRW                   |                    | ■  | ■  |    | 5600                 | 13200          | 6432                                |
|  |                                      |                | 4WD/DRW                   |                    | ■  | ■  |    | 5600                 | 13200          | 6117                                |
| <b>Express/Savana 3500</b>                             | Cargo Van – LWB w/YF2                | 155/NA         | 2WD/SRW                   |                    |    |    |    | 4600                 | 9900           | 3360                                |
|  | Cutaway w/YF2                        | 139/80         | 2WD/DRW                   | ■                  | ■  | ■  |    | 4600                 | 12300          | 6678                                |
|  |                                      | 159/100        | 2WD/DRW                   |                    |    | ■  | ■  | 4600                 | 12300          | 6537                                |
| <b>Express/Savana 4500</b>                             | Cutaway w/YF2                        | 159/100        | 2WD/DRW                   |                    |    | ■  | ■  | 4600                 | 14200          | 8116                                |

\* When properly equipped; includes weight of vehicle, passengers, cargo and equipment.

\*\* When properly equipped; maximum payload capacity includes weight of driver, passengers, optional equipment and cargo.

# Shuttle Application



Vehicles shown have been altered or upfitted with equipment supplied by independent suppliers. See the Owner Manual for information on alterations and warranties.

GM provides the Commercial Cutaway Express/Savana 3500 and 4500 Chassis to support shuttle applications. This provides shuttle bus manufacturers the newest and most capable platforms.

The Express/Savana Cutaway Chassis, with a choice of wheelbases and GVWRs, can be upfit with shuttle bodies from a variety of manufacturers for greater seating capacity than standard passenger vans.

See the Powertrain Combinations chart for applicable engines and transmissions.

| Model                      | Cab or Equipment                             | WB/CA (inches) | Drive Axle(s)/Rear Wheels | Body Length (feet) |    |    |    | Engine | GVWR (pounds)* | Max. Body and Payload (pounds)** |
|----------------------------|--|----------------|---------------------------|--------------------|----|----|----|--------|----------------|----------------------------------|
|                            |  |                |                           | 8                  | 10 | 12 | 14 |        |                |                                  |
| <b>Express/Savana 3500</b> | Commercial Cutaway w/ANC Shuttle Bus Package | 139/80         | 2WD/SRW                   | ■                  | ■  | ■  |    | L96    | 9900           | 5444                             |
|                            |  | 139/80         | 2WD/SRW                   | ■                  | ■  | ■  |    | LGH    | 9900           | 4754                             |
|                            |  | 139/80         | 2WD/DRW                   |                    |    |    | ■  | L96    | 10000          | 5129                             |
|                            |  | 139/80         | 2WD/DRW                   |                    |    |    | ■  | LGH    | 10000          | 4545                             |
|                            |  | 139/80         | 2WD/DRW                   |                    |    |    | ■  | L96    | 12300          | 7738                             |
|                            |  | 139/80         | 2WD/DRW                   |                    |    |    | ■  | LGH    | 12300          | 6838                             |
|                            |  | 159/100        | 2WD/DRW                   |                    |    |    | ■  | L96    | 10000          | 5169                             |
|                            |  | 159/100        | 2WD/DRW                   |                    |    |    | ■  | LGH    | 10000          | 4483                             |
|                            |  | 159/100        | 2WD/DRW                   |                    |    |    | ■  | L96    | 12300          | 7383                             |
|                            |  | 159/100        | 2WD/DRW                   |                    |    |    | ■  | LGH    | 12300          | 6697                             |
| <b>Express/Savana 4500</b> | Commercial Cutaway w/ANC Shuttle Bus Pkg     | 159/100        | 2WD/DRW                   |                    |    |    | ■  | L96    | 14200          | 9149                             |
|                            |  | 159/100        | 2WD/DRW                   |                    |    |    | ■  | LGH    | 14200          | 8277                             |

\* When properly equipped; includes weight of vehicle, passengers, cargo and equipment.

\*\* When properly equipped; maximum payload capacity includes weight of driver, passengers, optional equipment and cargo.

### Online Order Guide Trailering Specs

Consult the following chart to determine the suitability of a specific model for your towing needs. Hitch types must conform to the tongue weight and Gross Trailer Weight of your towing application. For full safety information, consult the Chevrolet or GMC Trailering Guide. Comprehensive trailering specifications by model are listed online at [gmfleet.com](http://gmfleet.com). To access the specs, select the “TOOLS” menu and click on “PRE-ORDER” and then “Online Order Guide” submenu item. Select a model year and choose “Cars/Light Trucks” from the menu. Once inside the Online Order Guide, select a model and click on the “Trailering Specs” menu item for that model.

Note: Maximum trailer ratings are calculated assuming a properly equipped base vehicle, plus driver. See the Chevrolet or GMC Trailering Guide for details.

### Trailering Classifications

| Classification                | Typical Examples  | Weight Range   | Typical Hitch Type                                 | Typical Hitch (Tongue) Weight  |   |
|-------------------------------|---|--|--|--|---|
| <b>Light-Duty (I)</b>         | Folding camping trailer, snowmobiles and Jet Ski trailers                           | Up to 2000 pound gross weight (trailer and cargo combined) | Weight-carrying hitch                              | 10%–15% of gross trailer weight (200-pound maximum)                                |   |
| <b>Medium-Duty (II)</b>       | Single-axle trailers up to 18 feet long, open utility trailers and small speedboats | 2001–3500 pound gross trailer weight                       | Weight-carrying hitch                              | 10%–15% of gross trailer weight (350-pound maximum)                                |   |
| <b>Heavy-Duty (III)</b>       | Dual- or single-axle trailers, larger boats and enclosed utility trailers           | 3501–5000 pound gross trailer weight                       | Weight-carrying hitch or weight-distributing hitch | 10%–15% of gross trailer weight (600-pound maximum)                                |   |
| <b>Extra Heavy-Duty (IV)</b>  | Two-horse, travel and fifth-wheel recreational trailers                             | 5001–10,000 pound gross trailer weight                     | Weight-distributing hitch or fifth-wheel hitch     | 10%–15% of gross trailer weight (1200-pound maximum)                               |   |
| <b>Maximum Heavy-Duty (V)</b> | Largest horse, travel and fifth-wheel recreational or commercial trailers           | 10,001 pound and above gross trailer weight                | Weight-distributing hitch or fifth-wheel hitch     | 10%–15% of gross trailer weight (1500-pound maximum for weight-distributing hitch) | 15%–25% of gross trailer weight (3500-pound maximum for fifth-wheel or gooseneck hitch) |

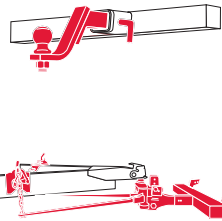
## Selecting the Right Hitch

Choosing the right hitch and making the proper electrical connections affects how your vehicle handles, corners and brakes, and allows you

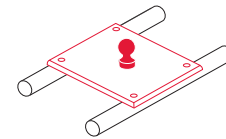
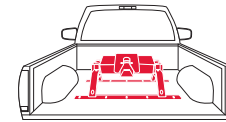
to alert other drivers of your intentions. Before selecting a hitch or trailering package, you should be familiar with the weight ratings specific to your vehicle.



**The Weight-Carrying (Deadweight) Hitch** consists of a hitch ball mounted to a step bumper or draw bar. It is the most common type of hitch used for trailering light and medium loads. Hitch balls are available in a range of sizes. Class I hitches use a 1-7/8-inch hitch ball, available as an accessory from GMSPO. Class II trailers use a dead-weight hitch and a 2-inch hitch ball. Class III hitches may be weight-carrying or weight-distributing, depending on application. Make sure that the hitch ball diameter matches the trailer coupler. Also check that the ball meets or exceeds the gross trailer weight requirements.



**The Weight-Distributing Hitch** is most often used for heavier trailering. This hitch type more evenly distributes the trailer load by using adjustable spring bars that pull upward on the hitch, to shift some of the hitch weight forward onto the tow vehicle's front axle, and rearward to the trailer's axles. Its effects are to improve steering sensitivity and feel, and to reduce trailer sway.



**Fifth-Wheel and Gooseneck Hitches** are specifically designed for heavy trailering with full-size pickup trucks like the Silverado and Sierra. These hitches are located in the bed of the truck and position the trailer's kingpin weight over or slightly in front of the truck's rear axle. Fifth-wheel and gooseneck hitches are most frequently used with travel trailers, horse trailers and other large trailers.

**The Wiring Harness** allows you to connect the electrical components of your trailer, such as signal and brake lights, to the trailering vehicle. Silverado and Sierra feature a 7-pin wiring harness to streamline hookup of trailer lighting and brakes and a bussed electrical center makes it easier to connect an electrical trailer brake controller.

**Trailer Brakes** are required above 2000-pound trailer weight on Silverado and Sierra. The most common trailer braking systems are surge brakes (found primarily on boat trailers) and electric brakes (often used on travel trailers, horse trailers and car haulers). Surge brakes are a self-contained hydraulic brake system on the trailer, activated during deceleration and while the trailer coupler pushes on the hitch ball.

An electric trailer brake system uses a brake control unit mounted inside the trailering vehicle; it operates by sensing the vehicle brakes and then applying the trailer brakes.

Optional **Trailering Packages** are available for a wide variety of models, and many include a trailer hitch platform.

## Trailering Terms

**Gross Axle Weight Rating (GAWR)** is the weight in pounds each axle is capable of supporting. The load on each axle must not exceed its GAWR. The GAWR for each vehicle is displayed on the driver's door or door-lock pillar label.

**Gross Combination Weight Rating (GCWR)** is the maximum possible weight (in pounds) of the vehicle and trailer combination, including the weight of the driver, passengers, fuel, optional equipment and gear in the vehicle and trailer.

**Gross Trailer Weight (GTW)** is the weight of a loaded trailer.

**Maximum Trailer Rating** is determined by subtracting vehicle weight from the GCWR. At the maximum trailer rating for a properly equipped vehicle, you should be able to accelerate and merge with traffic, climb typical interstate grades at highway speeds, have control on varying road surfaces and stop adequately within a reasonable distance.

**Gross Vehicle Weight Rating (GVWR)** is the maximum number of pounds a tow vehicle may weigh. Everything that contributes to the weight of the tow vehicle is calculated in this rating, including the weight of the vehicle, driver and all passengers, fuel, payload, trailer tongue weight, hitch weight and all optional equipment. The GVWR is displayed on the driver's door or door-lock pillar label of your vehicle.

**Tongue (or Hitch) Weight** is the total number of pounds of trailer weight pressing down on the trailer hitch. Keep in mind that the way a trailer is loaded affects the overall tongue weight and will also affect the handling of the tow vehicle when trailering.

## Canyon/Colorado

### Available Chassis Cab Models

- 2WD Chassis Cab (CS15603/TS15603)
- 4WD Chassis Cab (CT15603/TT15603)

### Engine

|     |   |
|-----|---|
| LLR | 3.7L DOHC, 5-cylinder SFI<br>242 horsepower, 242 lb.-ft. torque |
|-----|---|

| Model                                       | Engine         | Transmissions                   | Axle       | GVWR* (pounds) |
|---|----------------|---------------------------------|------------|----------------|
|   |                | 4-Speed Automatic with OD (M30) | 3.73 (GT4) | 5500 (C8S)     |
| CS15603/<br>TS15603/<br>CT15603/<br>TT15603 | 3.7L I-5 (LLR) | S                               | S          | S              |

S = Standard Equipment

\*When properly equipped; includes weight of vehicle, passengers, cargo and equipment.

## Silverado/Sierra 1500

### Available Models, offering optional Snow Plow Prep Package

- 4WD Regular Cab Standard Box (CK10703/TK10703)
- 4WD Regular Cab Long Box (CK10903/TK10903)

### Engines, offering optional Snow Plow Prep Package

|         |   |
|---------|---|
| L20     | Vortec 4.8L V8 SFI, FlexFuel <sup>2</sup><br>302 horsepower, 305 lb.-ft. torque   |
| LMG/LC9 | Vortec 5.3L V8 SFI, Active Fuel Management™, FlexFuel <sup>2</sup><br>315 horsepower, 335 lb.-ft. torque<br>With E85 — 326 horsepower, 348 lb.-ft. torque |

| Model               | Engine            | Transmissions                   |                            | Axles      |            |                |            | GVWR* (pounds) |               |
|---------------------|-------------------|---------------------------------|----------------------------|------------|------------|----------------|------------|----------------|---------------|
|                     |                   | 4-Speed Automatic with OD (M30) | 6-Speed Automatic HD (MYC) | 3.08 (GU4) | 3.23 (GU5) | 3.42 (GU6)     | 3.73 (GT4) | 6400 (C7H)     | 6800 (C5U)    |
| CK10*03/<br>TK10*03 | 4.8L V8 (L20)     | S                               | —                          | —          | S          | —              | A          | S<br>Std. Box  | A<br>Long Box |
| CK10*03/<br>TK10*03 | 5.3L V8 (LMG/LC9) | —                               | S                          | S          | —          | A <sup>1</sup> | —          | S<br>Std. Box  | A<br>Long Box |

S = Standard Equipment A = Available — = Not Available

1. Requires (K5L) heavy-duty cooling package.

2. E85 is 85% ethanol, 15% gasoline. Visit [gm.com/biofuels](http://gm.com/biofuels) to see if there is an E85 station near you.

\*When properly equipped; includes weight of vehicle, passengers, cargo and equipment.

## Silverado/Sierra 2500HD

### Available Models, with Pickup Box Delete (ZW9)

- 2WD Regular Cab (CC20903/TC20903)
- 2WD Extended Cab (CC20953/TC20953)
- 2WD Crew Cab (CC20943/TC20943)
- 4WD Regular Cab (CK20903/TK20903)
- 4WD Extended Cab (CK20953/TK20953)
- 4WD Crew Cab (CK20943/TK20943)

### Engines with Pickup Box Delete

|     |   |
|-----|---|
| L96 | Vortec 6.0L V8 SFI<br>322 horsepower, 380 lb.-ft. torque                                  |
| LGH | Duramax 6.6L Turbo Diesel V8; B20 Diesel compatible<br>335 horsepower, 685 lb.-ft. torque |

### Available Models, offering optional Snow Plow Prep Package (VYU)

- 4WD Regular Cab Long Box (CK20903/TK20903)
- 4WD Extended Cab Standard Box (CK20753/TK20753)
- 4WD Extended Cab Long Box (CK20953/TK20953)
- 4WD Crew Cab Standard Box (CK20743/TK20743)
- 4WD Crew Cab Long Box (CK20943/TK20943)

### Engines offering optional Snow Plow Prep Package

|     |  |
|-----|--|
| L96 | Vortec 6.0L V8 SFI<br>360 horsepower, 380 lb.-ft. torque (Fleetside)<br>322 horsepower, 380 lb.-ft. torque (pickup box delete) |
| LML | Duramax 6.6L Turbo Diesel V8; B20 Diesel compatible (Fleetside only)<br>397 horsepower, 765 lb.-ft. torque                     |
| LGH | Duramax 6.6L Turbo Diesel V8; B20 Diesel compatible (pickup box delete only)<br>335 horsepower, 685 lb.-ft. torque             |

S = Standard Equipment

A = Available

— = Not Available

\*When properly equipped; includes weight of vehicle, passengers, cargo and equipment.

1. Standard on \*C20903 only
2. Not available on \*K20943 or \*C20903
3. Standard on \*K20943 only
4. Available on \*C20903 only (UB7)
5. Standard on \*C20903 or \*K20903
6. Not available on \*C20903 or \*K20903

| Model                                      | Engine            | Transmissions              |                                      | Axles      |            | GVWR* (pounds) |                |                |                |
|--|-------------------|----------------------------|--------------------------------------|------------|------------|----------------|----------------|----------------|----------------|
|  |                   | 6-Speed Automatic HD (MYD) | Allison 1000 6-Speed Automatic (MW7) | 3.73 (GT4) | 4.10 (GT5) | 9300 (G4A)     | 9500 (GEH)     | 9900 (C4M)     | 10000 (C7A)    |
| CC20**3/<br>TC20**3<br>CK20**3/<br>TK20**3 | 6.0L V8 (L96)     | S                          | —                                    | S          | A          | S <sup>1</sup> | S <sup>2</sup> | A <sup>3</sup> | A <sup>4</sup> |
|  | 6.6L V8 (LML/LGH) | —                          | S                                    | S          | —          | —              | —              | S <sup>5</sup> | S <sup>6</sup> |

## Silverado/Sierra 3500HD

### Available Models, with Pickup Box Delete

- 2WD Regular Cab Long Box with Single Rear Wheel only (CC30903/TC30903)
- 2WD Extended Cab Long Box with Single or Dual Rear Wheel (CC30953/TC30953)
- 2WD Crew Cab Long Box with Single or Dual Rear Wheel (CC30943/TC30943)
- 4WD Regular Cab Long Box with Single or Dual Rear Wheel (CK30903/TK30903)
- 4WD Extended Cab Long Box with Single or Dual Rear Wheel (CK30953/TK30953)
- 4WD Crew Cab Long Box with Single or Dual Rear Wheel (CK30943/TK30943)

### Engines with Pickup Box Delete

|     |  |
|-----|--|
| L96 | Vortec 6.0L V8 SFI<br>322 horsepower, 380 lb.-ft. torque                                   |
| LGH | Duramax 6.6L Turbo Diesel V8; B-20 Diesel compatible<br>335 horsepower, 685 lb.-ft. torque |

### Available Models, with Snow Plow Prep Package

- 4WD Regular Cab Long Box (CK30903/TK30903)
- 4WD Extended Cab Long Box (CK30953/TK30953)
- 4WD Crew Cab Standard Box (CK30743/TK30743)
- 4WD Crew Cab Long Box (CK30943/TK30943)

### Engines with Snow Plow Prep Package

|     |  |
|-----|--|
| L96 | Vortec 6.0L V8 SFI<br>322 horsepower, 380 lb.-ft. torque   |
| LML | Duramax 6.6L Turbo Diesel V8; B-20 Diesel compatible<br>(Fleetside only)<br>397 horsepower, 765 lb.-ft. torque         |
| LGH | Duramax 6.6L Turbo Diesel V8; B-20 Diesel compatible<br>(pickup box delete only)<br>335 horsepower, 685 lb.-ft. torque |

## Silverado/Sierra 3500HD (continued)

| Model   | Engine        | Transmission               |                                 | Axles      |            | GWR* (pounds)  |                |                |                |                |
|---------|---------------|----------------------------|---------------------------------|------------|------------|----------------|----------------|----------------|----------------|----------------|
|         |               | 6-Speed Automatic HD (MYD) | Allison 6-Speed Automatic (MW7) | 3.73 (GT4) | 4.10 (GT5) | 10400 (JFI)    | 10700 (JFK)    | 11400 (C7W)    | 12800 (9F6)    | 13000 (C7J)    |
| CC30903 | 6.0L V8 (L96) | S                          | —                               | S          | A          | S <sup>2</sup> | —              | —              | S <sup>1</sup> | —              |
| CK30903 | 6.0L V8 (L96) | S                          | —                               | S          | A          | —              | S <sup>2</sup> | —              | S <sup>1</sup> | —              |
|         | 6.6L V8 (LGH) | —                          | A                               | S          | —          | —              | —              | A <sup>2</sup> | —              | A <sup>1</sup> |

| Model   | Engine           | Transmission               |                                 | Axles      |            | GWR* (pounds)  |                |                |                |                |
|---------|------------------|----------------------------|---------------------------------|------------|------------|----------------|----------------|----------------|----------------|----------------|
|         |                  | 6-Speed Automatic HD (MYD) | Allison 6-Speed Automatic (MW7) | 3.73 (GT4) | 4.10 (GT5) | 10700 (JFK)    | 11000 (C7E)    | 11200 (JFO)    | 11600 (C7V)    | 13000 (C7J)    |
| CC30953 | 6.0L V8 (L96)    | S                          | —                               | S          | A          | S <sup>2</sup> | —              | —              | —              | S              |
|         | 6.6 V8 (LML/LGH) | —                          | A                               | S          | —          | —              | —              | A <sup>2</sup> | —              | A <sup>1</sup> |
| CK30953 | 6.0L V8 (L96)    | S                          | —                               | S          | A          | —              | S <sup>2</sup> | —              | —              | S              |
|         | 6.6 V8 (LML/LGH) | —                          | A                               | S          | —          | —              | —              | —              | A <sup>1</sup> | A <sup>1</sup> |

| Model   | Engine        | Transmission               |                                 | Axles      |            | GWR* (pounds)  |                |                |                |
|---------|---------------|----------------------------|---------------------------------|------------|------------|----------------|----------------|----------------|----------------|
|         |               | 6-Speed Automatic HD (MYD) | Allison 6-Speed Automatic (MW7) | 3.73 (GT4) | 4.10 (GT5) | 10500 (C7G)    | 10800 (JFL)    | 11100 (JFN)    | 11500 (G1Y)    |
| CC30743 | 6.0L V8 (L96) | S                          | —                               | S          | A          | S <sup>2</sup> | —              | —              | —              |
|         | 6.6L V8 (LML) | —                          | A                               | S          | —          | —              | —              | A <sup>2</sup> | —              |
| CK30743 | 6.0L V8 (L96) | S                          | —                               | S          | A          | —              | S <sup>2</sup> | —              | —              |
|         | 6.6L V8 (LML) | —                          | A                               | S          | —          | —              | —              | —              | A <sup>2</sup> |

| Model   | Engine           | Transmission               |                                 | Axles      |            | GWR* (pounds)  |                |                |                |                |
|---------|------------------|----------------------------|---------------------------------|------------|------------|----------------|----------------|----------------|----------------|----------------|
|         |                  | 6-Speed Automatic HD (MYD) | Allison 6-Speed Automatic (MW7) | 3.73 (GT4) | 4.10 (GT5) | 10700 (JFK)    | 11000 (C7E)    | 11400 (C7W)    | 11600 (C7V)    | 13000 (C7J)    |
| CC30943 | 6.0L V8 (L96)    | S                          | —                               | S          | A          | S <sup>2</sup> | —              | —              | —              | S <sup>1</sup> |
|         | 6.6 V8 (LML/LGH) | —                          | A                               | S          | —          | —              | —              | A <sup>2</sup> | —              | A <sup>1</sup> |
| CK30943 | 6.0L V8 (L96)    | S                          | —                               | S          | A          | —              | S <sup>2</sup> | —              | —              | S <sup>1</sup> |
|         | 6.6 V8 (LML/LGH) | —                          | A                               | S          | —          | —              | —              | —              | A <sup>1</sup> | A <sup>1</sup> |

S = Standard Equipment  
A = Available  
— = Not Available

1. Requires dual rear wheels
2. Requires single rear wheel

\* When properly equipped; includes weight of vehicle, passengers, cargo and equipment.

## Silverado/Sierra 3500HD Chassis Cab

### Available Models

- 2WD Regular Cab SWB (CC31003/TC31003)
- 2WD Regular Cab LWB (CC31403/TC31403)
- 2WD Crew Cab (CC31043/TC31043)
- 4WD Regular Cab SWB (CK31003/TK31003)
- 4WD Regular Cab LWB (CK31403/TK31403)
- 4WD Crew Cab (CK31043/TK31043)

### Engines

|     |  |
|-----|--|
| L96 | Vortec 6.0L V8 SFI<br>322 horsepower, 380 lb.-ft. torque                                   |
| LGH | Duramax 6.6L Turbo Diesel V8; B-20 Diesel compatible<br>335 horsepower, 685 lb.-ft. torque |

## Silverado/Sierra 3500HD Chassis Cab with YF2 Ambulance Package

### Available Models

- 2WD Regular Cab LWB (CC31403/TC31403)
- 4WD Regular Cab LWB (CK31403/TK31403)

### Engines

|     |  |
|-----|--|
| L96 | Vortec 6.0L V8 SFI<br>322 horsepower, 380 lb.-ft. torque                                   |
| LMM | Duramax 6.6L Turbo Diesel V8; B-20 Diesel compatible<br>335 horsepower, 685 lb.-ft. torque |

| Model               | Engine         | Transmissions              |  | Axles      |            | GVWR* (pounds) |
|---------------------|----------------|----------------------------|--|------------|------------|----------------|
|                     |                | 6-Speed Automatic HD (MYD) | Allison 1000 6-Speed Automatic with OD (MW7) | 3.73 (GT4) | 4.10 (GT5) |                |
| CC31**3/<br>TC31**3 | 6.0L V8 (L96)  | S                          | —  | S          | A          | 13200 (C7W)    |
|                     | 6.6L V8 (LGH)  | —                          | A  | S          | —          | S              |
| CK31*03/<br>TK31*03 | 6.0 L V8 (LY6) | S                          | —  | S          | A          | S              |
|                     | 6.6L V8 (LMM)  | —                          | A  | S          | —          | S              |

S = Standard Equipment A = Available — = Not Available

\*When properly equipped; includes weight of vehicle, passengers, cargo and equipment.

## Express/Savana Cargo Vans

### Available Models

- 135-inch wheelbase G1500 Cargo Van (CG13405/TG13405)
- 135-inch wheelbase G1500 AWD Cargo Van (CH13405/TH13405)
- 135-inch wheelbase G2500 Cargo Van (CG23405/TG23405)
- 155-inch wheelbase G2500 Cargo Van (CG23705/TG23705)
- 135-inch wheelbase G3500 Cargo Van (CG33405/TG33405)
- 155-inch wheelbase G3500 Cargo Van (CG33705/TG33705)

### Engines

|     |  |
|-----|--|
| LU3 | Vortec 4.3L V6 MFI<br>195 horsepower, 260 lb.-ft. torque                                   |
| L20 | Vortec 4.8L V8 SFI; FlexFuel <sup>3</sup><br>280 horsepower, 296 lb.-ft. torque            |
| LMF | Vortec 5.3L V8 SFI; FlexFuel <sup>3</sup><br>310 horsepower, 334 lb.-ft. torque            |
| L96 | Vortec 6.0L V8 SFI; FlexFuel <sup>3</sup><br>323 horsepower, 373 lb.-ft. torque            |
| LGH | Duramax 6.6L Turbo Diesel V8; B-20 Diesel compatible<br>260 horsepower, 525 lb.-ft. torque |

| Model                                       | Engine                     | Transmissions           |                            | Axles      |            |                | GWR* (pounds) |            |            |                |
|---|----------------------------|-------------------------|----------------------------|------------|------------|----------------|---------------|------------|------------|----------------|
|   |                            | 4-Speed Automatic (M30) | 6-Speed Automatic HD (MYD) | 3.42 (GU6) | 3.54 (GHO) | 3.73 (GT4)     | 7300 (C6A)    | 8600 (C6P) | 9600 (C6Y) | 9900 (C4M)     |
| <b>1500</b>                                 |                            |                         |                            |            |            |                |               |            |            |                |
| CG13405/<br>TG13405/<br>CH13405/<br>TH13405 | 4.3L V6 (LU3) <sup>1</sup> | S                       | —                          | S          | —          | —              | S             | —          | —          | —              |
|   | 5.3L V8 (LMF)              | S                       | —                          | S          | —          | A <sup>1</sup> | S             | —          | —          | —              |
| <b>2500</b>                                 |                            |                         |                            |            |            |                |               |            |            |                |
| CG23405/<br>TG23405/<br>CG23705/<br>TG23705 | 4.8L V8 (L20)              | —                       | S                          | S          | —          | —              | —             | S          | —          | —              |
|   | 6.0L V8 (L96)              | —                       | S                          | S          | —          | —              | —             | S          | —          | —              |
|   | 6.6L V8 (LGH)              | —                       | S                          | —          | S          | —              | —             | S          | —          | —              |
| <b>3500</b>                                 |                            |                         |                            |            |            |                |               |            |            |                |
| CG33405/<br>TG33405/<br>CG33705/<br>TG33705 | 4.8L V8 (L20)              | —                       | S                          | S          | —          | —              | —             | —          | S          | —              |
|   | 6.0L V8 (L96)              | —                       | S                          | S          | —          | —              | —             | —          | S          | —              |
|   | 6.6L V8 (LGH)              | —                       | S                          | —          | S          | —              | —             | —          | S          | S <sup>2</sup> |

S = Standard Equipment A = Available — = Not Available

1. Not available with All-Wheel Drive (AWD).

2. Standard on G33705

3. E85 is 85% ethanol, 15% gasoline. Visit [gm.com/biofuels](http://gm.com/biofuels) to see if there is an E85 station near you.

\*When properly equipped; includes weight of vehicle, passengers, cargo and equipment.

## Express/Savana Passenger Vans

### Available Models

- 135-inch wheelbase 1500 Passenger Van (CG13406/TG13406)
- 135-inch wheelbase 1500 AWD Passenger Van (CH13406/TH13406)
- 135-inch wheelbase 2500 Passenger Van (CH23406/TG23406)
- 135-inch wheelbase 3500 Passenger Van (CG33406/TG33406)
- 155-inch wheelbase 3500 Passenger Van (CG33706/TG33706)

### Engines

|     |  |
|-----|--|
| L20 | Vortec 4.8L V8 SFI; FlexFuel<br>280 horsepower, 296 lb.-ft. torque                         |
| LMF | Vortec 5.3L V8 SFI; FlexFuel<br>310 horsepower, 334 lb.-ft. torque                         |
| L96 | Vortec 6.0L V8 SFI; FlexFuel<br>323 horsepower, 373 lb.-ft. torque                         |
| LGH | Duramax 6.6L Turbo Diesel V8; B-20 Diesel compatible<br>260 horsepower, 525 lb.-ft. torque |

| Model           | Engine        | Transmissions           |                        | Axles     |            |            | GVWR* (pounds) |            |            |                |
|-----------------|---------------|-------------------------|------------------------|-----------|------------|------------|----------------|------------|------------|----------------|
|                 |               | 4-Speed Automatic (M30) | 6-Speed Auto. HD (MYD) | 3.4 (GU6) | 3.54 (GH0) | 3.73 (GT4) | 7300 (C6A)     | 8600 (C6P) | 9600 (C6Y) | 9900 (C4M)     |
| 1500            |               |                         |                        |           |            |            |                |            |            |                |
| G/H13406        | 5.3L V8 (LMF) | S                       | —                      | S         | —          | A          | S              | —          | —          | —              |
| 2500            |               |                         |                        |           |            |            |                |            |            |                |
| CG23406/TH23406 | 4.8L V8 (L20) | —                       | S                      | S         | —          | —          | —              | S          | —          | —              |
|                 | 6.0L V8 (L96) | —                       | S                      | S         | —          | —          | —              | S          | —          | —              |
| 3500            |               |                         |                        |           |            |            |                |            |            |                |
| CG33406/TH33406 | 6.0L V8 (L96) | —                       | S                      | S         | —          | —          | —              | —          | S          | —              |
| CG33706/G33706  | 6.6L V8 (LGH) | —                       | S                      | —         | S          | —          | —              | —          | S          | S <sup>1</sup> |

S = Standard Equipment A = Available — = Not Available 1. Standard on G33706  
\*When properly equipped; includes weight of vehicle, passengers, cargo and equipment.

## Express/Savana Cutaway

### Available Models

- 139-inch wheelbase Cutaway Van (CG33503/TG33503)
- 159-inch wheelbase Cutaway Van (CG33803/TG33803)
- 4500 Series; 159-inch wheelbase Cutaway Van (CG33803/TG33803)
- 177-inch wheelbase Cutaway Van (CG33903/TG33903)

### Engine RPOs

|     |  |
|-----|--|
| L20 | Vortec 4.8L V8 SFI<br>280 horsepower, 296 lb.-ft. torque                                   |
| L96 | Vortec 6.0L V8 SFI<br>323 horsepower, 373 lb.-ft. torque                                   |
| LGH | Duramax 6.6L Turbo Diesel V8; B-20 Diesel compatible<br>260 horsepower, 373 lb.-ft. torque |

| Model           | Engine        | Transmission               | Axles      |            |            |                | GVWR* (pounds) |                |                |                |                |
|-----------------|---------------|----------------------------|------------|------------|------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                 |               | 6-Speed Automatic HD (MYD) | 3.42 (GU6) | 3.54 (GH0) | 3.73 (GT4) | 4.10 (GT5)     | 9900 (C4M)     | 10000 (C7A)    | 12300 (C7N)    | 13980 (C8V)    | 14200 (C71)    |
| CG33503/TG33503 | 4.8L V8 (L20) | S                          | S          | —          | A          | —              | S <sup>1</sup> | A <sup>2</sup> | —              | —              | —              |
|                 | 6.0L V8 (L96) | S                          | A          | —          | A          | —              | A              | A <sup>2</sup> | A <sup>2</sup> | —              | —              |
|                 | 6.6L V8 (LGH) | S                          | —          | A          | A          | —              | S <sup>1</sup> | A <sup>2</sup> | A <sup>2</sup> | —              | —              |
| CG33803/TG33803 | 4.8L V8 (L20) | S                          | —          | —          | S          | —              | —              | S <sup>2</sup> | —              | —              | —              |
|                 | 6.0L V8 (L96) | S                          | —          | —          | S          | S <sup>3</sup> | —              | S <sup>2</sup> | A <sup>2</sup> | —              | A <sup>3</sup> |
|                 | 6.6L V8 (LGH) | S                          | —          | —          | S          | —              | —              | S <sup>2</sup> | A <sup>2</sup> | A <sup>3</sup> | A <sup>3</sup> |
| CG33903/TG33903 | 6.0L V8 (L96) | S                          | —          | —          | S          | —              | —              | —              | S <sup>2</sup> | —              | —              |
|                 | 6.6L V8 (LGH) | S                          | —          | —          | S          | —              | —              | —              | S <sup>2</sup> | —              | —              |

\*When properly equipped; includes weight of vehicle, passengers, cargo and equipment.  
 1. Requires (R04) Single Rear Wheels. S = Standard Equipment  
 2. Requires (R05) Dual Rear Wheels. A = Available  
 3. Requires 4500 Vans. — = Not Available

Use the following approximate weights of materials to estimate payloads. Subtract 150 pounds per person from the payload and remember to reduce payload calculation by the weight of such add-ons as a snow plow, rear tailgate lift, and any tools or items carried in the cab.

## Approximate Weights of Materials

Most materials and commodities vary in weight, and containers vary in shape and size. Therefore, it is impossible to list anything but average weights per cubic foot or per unit of measurement, and the following weights should be used only for approximation purposes. When it is necessary to figure weights accurately for recommendation of truck or tractor-trailer equipment, exact weights and dimensions should be obtained from local sources. This is particularly true of fruits and vegetables, containers for which vary widely in type, size and shape.

### A. BUILDING SUPPLIES

(other than lumber and stone)

#### Pounds per Cubic Foot/Cubic Yard

|                         |          |
|-------------------------|----------|
| Asbestos                | 153/4130 |
| Asphalt brick           | 125/3375 |
| lumps                   | 85/2300  |
| paving                  | 100/2700 |
| Cinders                 | 50/1350  |
| Clay dry lumps          | 85/2300  |
| wet lumps               | 110/2970 |
| wet packed              | 135/3650 |
| fire                    | 125/3375 |
| Concrete cinder or slag | 120/3250 |
| gravel or stone         | 150/4050 |
| average wet mix         | 138/3730 |
| Crushed stone, average  | 100/2700 |
| Earth (loam) loose      | 76/2050  |
| shaken                  | 87/2350  |
| packed                  | 95/2565  |
| moist                   | 100/2700 |
| wet                     | 125/3375 |
| Gravel dry              | 95/2565  |
| wet                     | 125/3375 |
| Mortar lime             | 110/2970 |
| rubble-dry              | 138/3730 |
| rubble-wet              | 154/4160 |

|                           |               |
|---------------------------|---------------|
| Mulch                     | 19-30/500-800 |
| Pitch                     | 70/1900       |
| Plaster of Paris (gypsum) | 150/4050      |
| Quicklime solid           | 95/2550       |
| ground-loose              | 55/1485       |
| shaken                    | 75/2030       |
| Rock crushed, average     | 100/2700      |
| Sand fine-dry             | 110/2970      |
| fine-wet                  | 125/3375      |
| coarse-dry                | 95/2565       |
| coarse-wet                | 120/3240      |
| Tar                       | 65/1755       |
| Terra Cotta               | 110/2970      |
| Tile solid                | 115/3100      |
| construction              | 40/1080       |

#### Pounds per Thousand

|                                 |      |
|---------------------------------|------|
| Brick                           |      |
| Soft, 2-1/4 x 4 x 8-1/4         | 4320 |
| Common, 2-1/4 x 4 x 8-1/4       | 5400 |
| Hard, 2-1/4 x 4-1/4 x 8-1/2     | 6480 |
| Pressed, 2-3/8 x 4 x 8-3/8      | 7500 |
| Paving, 2-1/2 x 4 x 8-1/2       | 6750 |
| Paving block, 3-1/2 x 4 x 8-1/2 | 8750 |
| Fire, 2-1/2 x 4-1/2 x 9         | 7000 |

#### Pounds per

|                         |                 |
|-------------------------|-----------------|
| Cement, Portland        | 94 sack         |
| (4 sacks per barrel)    |                 |
| Cement block 8 x 8 x 16 | 42 each         |
| 8 x 12 x 16             | 58 each         |
| Cinder block 8 x 8 x 16 | 35 each         |
| 8 x 12 x 16             | 45 each         |
| Glass common window     | 162 cubic feet  |
| plate, 1/4 thick        | 3.3 square feet |
| Lime small barrel       | 210 barrel      |
| large barrel            | 320 barrel      |

### B. FARM AND DAIRY PRODUCTS

(except fruits and vegetables)

#### Pounds per

|                            |           |
|----------------------------|-----------|
| Alfalfa seed               | 60 bushel |
| Barley                     | 48 bushel |
| Bran                       | 20 bushel |
| Buckwheat                  | 49 bushel |
| Butter 15 diameter x 5-1/4 | 25 tub    |
| 15 diameter x 15           | 70 tub    |
| 10-1/4 x 8-3/4 x 10-1/2    |           |
| (30-pound bricks)          | 32 case   |
| 9 pound pail               | 10 each   |
| Calf, live (average)       | 150 head  |

|                                     |             |
|-------------------------------------|-------------|
| Cheese 15 diameter x 5-1/4          | 25 box      |
| 15 diameter x 7-1/2                 | 35 box      |
| 15 diameter x 15                    | 70 box      |
| Chickens Live-broilers (20 average) | 58 crate    |
| Live-fowl (12 average)              | 78 crate    |
| Standard crate, empty 24 x 35 x 13  |             |
|                                     | 18 each     |
| Clover seed                         | 60 bushel   |
| Corn ear                            | 35 bushel   |
| shelled                             | 56 bushel   |
| sweet corn (green)                  | 43 bushel   |
| Corn meal                           | 44 bushel   |
| Cotton Gin bale 30 x 48 x 54        | 515 each    |
| Standard bale 24 x 28 x 56          | 515 each    |
| Compressed bale 20 x 24 x 56        | 515 each    |
| Cotton seed                         | 32 bushel   |
| Cow live-feeder (average)           | 600 head    |
| live-butcher (average)              | 800 head    |
| live-heavy steer (average)          | 1100 head   |
| Eggs 30 dozen 12 x 12 x 26          | 55 crate    |
| Flax Seed                           | 56 bushel   |
| Flour                               | 19-1/8 head |
| 30 stave                            | 215 barrel  |
| Hay, baled 17 x 22 x 40             | 60 bale     |
| Hay, baled 14 x 16 x 43             | 85 bale     |

|  |                 |
|--|-----------------|
| Hemp seed                              | 44 bushel       |
| Hog, live (average)                    | 235 head        |
| Horse, live (average)                  | 1350 head       |
| Ice cream 2-1/2 gallon 9 diameter x 11 | 18 can          |
| 5 gallon 9 diameter x 21               | 35 can          |
| Lamb, live (average)                   | 80 head         |
| Malt barley                            | 28 bushel       |
| Malt rye                               | 32 bushel       |
| Malt brewer's grain                    | 40 bushel       |
| Millet                                 | 50 bushel       |
| Oats                                   | 32 bushel       |
| Popcorn ear                            | 35 bushel       |
| shelled                                | 56 bushel       |
| Rice, unhulled                         | 43 bushel       |
| Rye                                    | 56 bushel       |
| Sheep, live (average)                  | 138 each        |
| Shorts                                 | 20 bushel       |
| Soy beans                              | 60 bushel       |
| Straw, baled 17 x 22 x 40              | 45 bale         |
| Tallow                                 | 60 cubic feet   |
| Timothy seed                           | 45 bushel       |
| Vetch seed                             | 60 bushel       |
| Wheat, bulk                            | 60 bushel       |
| bag                                    | 90 1-1/2 bushel |
| Wool, pressed                          | 82 cubic feet   |

Cargo and load capacity limited by weight and distribution.

## C. FRUITS, VEGETABLES AND NUTS

(in bulk unless container is specified)

### Pounds per Bushel Container or Container (dimensions in inches)

|   |     |
|---|-----|
| Apples, fresh bushel  | 48  |
| Western, box 11-1/2 x 12 x 20   | 50  |
| New England, box 11-1/4 x 14-1/4 x 17-1/2                             | 56  |
| Standard barrel 17 hd. 28-1/2 stone                                   | 160 |
| Apricots, fresh bushel  | 48  |
| Western, box 5-1/2 x 12 x 20  | 23  |
| Artichokes, box 10 x 11-1/12 x 22                                     | 44  |
| Asparagus, crate, 11-1/2 high, 19-3/8 long, 9-3/4 wide top, 11 bottom |     |
| loose   | 38  |
| bunches   | 31  |
| Avocados  |     |
| box 5-3/4 x 11-1/4 x 17-1/2   | 16  |
| Bananas, carton 4-1/4 x 14-1/4 x 30                                   | 38  |
| Bananas, single stem bunch  | 55  |
| Beans, dry castor bushel  | 46  |
| Beans, dry white bushel   | 60  |
| Beans, dry lima bushel  | 56  |
| Beans, fresh lima bushel  | 39  |
| Beans, fresh string bushel  | 36  |
| (hamper) string 5-peck  | 45  |
| Beets (average) bushel  | 55  |
| Beets small crate 9-3/4 x 13-1/4 x 24                                 | 50  |
| Western crate 14 x 19 x 24-1/2  | 95  |
| Berries crate 24 pint. 9-3/4 x 9-3/4 x 20                             | 25  |
| Berries   |     |
| crate, 24-quart 11-3/4 x 11-3/4 x 24                                  | 48  |
| Berries   |     |
| crate, 32-quart 15-1/2 x 11-3/4 x 24                                  | 63  |
| Broccoli  |     |
| bushel crate 12-3/4 x 12-3/4 x 17                                     | 30  |
| Brussels sprouts  |     |
| crate 7-3/4 x 10-1/2 x 21-3/8   | 26  |
| Cabbage hamper 1-1/2 bushel   | 58  |
| Cabbage   |     |
| crate 12-3/4 x 18-1/2 x 19  | 60  |
| Cabbage Western   |     |
| crate 14 x 19 x 24-1/2  | 85  |

|  |     |
|--|-----|
| Cabbage                                  |     |
| barrel crate 12-3/4 x 18-3/4 x 37-3/8    | 110 |
| Cantaloupe,                              |     |
| crate pony 11-3/4 x 11-3/4 x 23-1/2      | 58  |
| standard 12-3/4 x 12-3/4 x 23-1/2        | 68  |
| jumbo 13-3/4 x 13-3/4 x 23-1/2           | 78  |
| pony flat 4-3/4 x 12-3/4 x 23-1/2        | 26  |
| standard flat 5-1/4 x 14-1/4 x 23-1/2    | 28  |
| jumbo flat 5-1/4 x 15-1/4 x 23-1/2       | 32  |
| Carrots topped bushel                    | 55  |
| Carrots with tops bushel                 | 40  |
| Carrots with tops                        |     |
| crate 11-3/4 x 14-1/8 x 24               | 60  |
| Cauliflower bushel                       | 30  |
| Cauliflower crate 9-3/8 x 19 x 24        | 50  |
| Celery                                   |     |
| standard crate 11-5/8 x 22 x 22-5/8      | 70  |
| Celery                                   |     |
| 1/2 crate 10-3/4 x 13 x 20-3/8           | 35  |
| Celery Northern                          |     |
| crate 16-1/2 x 21-1/4 x 22               | 85  |
| Cherries unstemmed bushel                | 56  |
| Cherries stemmed bushel                  | 64  |
| Cherries lug box 5-3/8 x 11-7/8 x 19-3/4 | 17  |
| Chestnuts bushel                         | 50  |
| Cranberries 1/4 barrel box               |     |
| 9-1/2 x 11 x 14                          | 28  |
| 1/2 barrel box 12-1/4 x 14-3/4 x 22      | 60  |
| Cucumbers bushel                         | 55  |
| crate 9-3/4 x 13-3/4 x 24                | 75  |
| case 5 x 13-1/4 x 19                     | 26  |
| Eggplant hamper bushel                   | 40  |
| Eggplant crate 14 x 11-3/4 x 24          | 54  |
| Endive basket bushel                     | 25  |
| Endive hamper 1-1/2 bushel               | 36  |
| Grapefruit Western                       |     |
| box 11-1/2 x 11-1/2 x 24                 | 68  |
| Grapefruit Southern                      |     |
| box 12-3/4 x 12-3/4 x 27                 | 90  |
| Grapes basket bushel                     | 48  |
| Grapes lug                               |     |
| box 5-3/8 x 16-3/8 x 17-1/2              | 30  |
| Grapes Western                           |     |
| keg 15-1/2 diameter x 14                 | 45  |
| Grapes basket 12 quarts                  | 18  |
| Greens bushel                            | 25  |

|                                    |     |
|------------------------------------|-----|
| Hickory nuts bushel                | 45  |
| Horseradish roots bushel           | 35  |
| Kale bushel                        | 25  |
| Lemons, Limes Western              |     |
| box 10 x 13 x 25                   | 80  |
| Lemons, Limes Southern             |     |
| box 12-3/4 x 12-3/4 x 27           | 90  |
| Lentils bushel                     | 60  |
| Lettuce hamper bushel              | 25  |
| Lettuce hamper 1-1/2 bushel        | 38  |
| Lettuce                            |     |
| basket 8-1/2 x 11-3/4 x 21-3/8     | 17  |
| Lettuce                            |     |
| crate 13-1/4 x 17-1/2 x 24-1/2     | 75  |
| Lettuce                            |     |
| 1/2 crate 9-1/2 x 13-1/2 x 24-1/2  | 40  |
| Okra hamper 1/2 bushel             | 18  |
| Okra hamper bushel                 | 34  |
| Onions Dry basket bushel           | 55  |
| Dry bag 17 x 32                    | 50  |
| Dry crate 20-1/2 x 11-1/2 x 24     | 58  |
| Green, with tops bushel            | 32  |
| Oranges Western                    |     |
| box 11-1/2 x 11-1/2 x 24           | 80  |
| Oranges Southern                   |     |
| box 12-3/4 x 12-3/4 x 27           | 90  |
| Oranges bushel                     |     |
| box 10-3/4 x 10-3/4 x 23-1/2       | 65  |
| Parsley bushel                     |     |
| crate 12-3/4 x 12-3/4 x 17         | 30  |
| Parsnips bushel                    | 50  |
| Peaches basket bushel              | 48  |
| Peaches basket 1/2 bushel          | 25  |
| Peaches crate 10-1/2 x 11-1/4 x 24 | 50  |
| Peaches Western                    |     |
| box 5-1/2 x 12-1/4 x 19-3/4        | 22  |
| Peanuts, unshelled bushel Bag 100  | 22  |
| Pears                              |     |
| basket bushel                      | 50  |
| Pears Western                      |     |
| box 9-5/8 x 12-1/8, 19-3/4         | 51  |
| Peas dry bushel                    | 60  |
| Peas fresh hamper bushel           | 35  |
| Peas fresh hamper 40 quarts        | 45  |
| Peas large bag                     | 100 |
| Pecans small bag                   | 50  |
| Peppers basket bushel              | 25  |
| Peppers crate 14-1/8 x 11-3/4 x 24 | 45  |

|  |     |
|--|-----|
| Pecans crate 11 x 12-1/2 x 36          | 85  |
| Plums basket bushel                    | 56  |
| Plums Western                          |     |
| box 5-5/8 x 16-3/8 x 17-1/2            | 25  |
| Potatoes sweet bushel                  | 55  |
| White or Irish bushel                  | 60  |
| bag 1-2/3 bushel                       | 102 |
| barrel                                 | 185 |
| Prunes box 5-5/8 x 16-3/8 x 17-1/2     | 25  |
| Quinces bushel                         | 50  |
| Radishes basket bushel                 | 34  |
| Radishes crate 9-3/8 x 13-3/4 x 24     | 40  |
| Rhubarb box 5-1/4 x 11-1/2 x 22        | 24  |
| Romaine crate 13-7/8 x 18-7/8 x 24-1/2 | 64  |
| Romaine crate 12-1/4 x 13 x 15-1/4     | 27  |
| Rutabagas bushel                       | 56  |
| Spinach bushel                         | 27  |
| Squash bushel                          | 46  |
| Sweet corn basket bushel               | 45  |
| Sweet corn crate 13 x 13 x 24          | 60  |
| Tomatoes basket bushel                 | 55  |
| Tomatoes lug box 7-1/4 x 14 x 17-1/2   | 35  |
| Tomatoes crate 10-1/2 x 11-1/4 x 24    | 48  |
| Tomatoes basket 8-1/2 x 8-3/4 x 20     | 18  |
| Turnips bushel                         | 54  |
| Walnuts bulk bushel                    | 50  |
| Walnuts bag                            | 100 |

|                    |          |
|--------------------|----------|
| Honey              | 90/12.0  |
| Kerosene           | 50/6.6   |
| Linseed oil        | 59/7.9   |
| Lubricating oil    | 52/7.0   |
| Maple syrup        | 82/11.0  |
| Milk, bulk         | 64/8.6   |
| Molasses           | 90/12.0  |
| Muriatic acid, 40% | 40/10.0  |
| Naphtha, petroleum | 42/5.6   |
| Nitric acid, 91%   | 94/12.5  |
| Olive oil          | 58/7.7   |
| Peanut oil         | 57/7.6   |
| Petroleum          | 56/7.5   |
| Sorghum syrup      | 86/11.5  |
| Soybean oil        | 58/7.7   |
| Sugar cane syrup   | 85/11.3  |
| Sulfuric acid, 87% | 112/15.0 |
| Turpentine         | 54/7.3   |
| Vinegar            | 64/8.5   |
| Water, fresh       | 63/8.4   |

### Size Pound per Container

|  |     |
|--|-----|
| Beer wood barrel 1/4 barrel                          | 105 |
| Beer steel barrel 1/4 barrel                         | 95  |
| Beer wood barrel 1/2 barrel                          | 205 |
| Beer steel barrel 1/2 barrel                         | 190 |
| Carton 24 12-oz. regular bottles                     |     |
| 17-1/4 x 11-1/2 x 9-7/8                              | 45  |
| steinie bottles                                      |     |
| 18-3/8 x 12-1/8 x 7-3/8                              | 40  |
| tin cans 16-1/4 x 11 x 5-1/8                         | 28  |
| Wood case 24 12-oz. regular bottles 21 x 13-1/2 x 10 | 53  |
| steinie bottles 22 x 13-3/4 x 7-1/2                  | 46  |

Note: Beer cases are of many types with variable sizes and weights. Cases shown are average for popular full depth type with partitions.

|  |     |
|--|-----|
| Milk 5-gallon can 10-1/4 diameter x 19 | 62  |
| 10-gallon can 13 diameter x 23         | 115 |
| crate 20 1/2-pint bottles              | 33  |
| crate 20-pint bottles                  | 54  |
| crate 12-quart bottles                 | 64  |

Note: Milk bottle crates vary widely in dimensions and weights. Those shown are average weights.

|  |     |
|--|-----|
| Molasses 50-gallon barrel 20 1/4 hd., 34 stave | 675 |
|--|-----|

## D. LIQUIDS

### Pounds per Cubic Foot/Gallon

|                     |         |
|---------------------|---------|
| Acetone             | 50/6.6  |
| Alcohol, commercial | 51/6.8  |
| Asphalt, hot oil    | 71/9.5  |
| Carbolic acid       | 60/8.0  |
| Castor oil          | 61/8.1  |
| Chloroform          | 95/12.7 |
| Coconut oil         | 58/7.8  |
| Corn oil            | 58/7.8  |
| Corn syrup          | 86/11.5 |
| Cotton seed oil     | 58/7.8  |
| Cream               | 64/8.5  |
| Creosote            | 69/9.2  |
| Crude oil           | 56/7.5  |
| Ether               | 46/6.2  |
| Fuel oil Diesel     | 52/7.0  |
| Fuel oil Furnace    | 56/7.5  |
| Gasoline            | 45/6.0  |
| Glycerin            | 79/10.5 |

Cargo and load capacity limited by weight and distribution.

# Payload Weights (continued)

|   |    |
|---|----|
| Soft drinks   |    |
| Half depth bottle box 24 6- to 8-ounce bottles 12-1/4 x 18-3/4 x 8-1/2    | 39 |
| Full depth bottle box 12 24- to 32-ounce bottles 13-3/8 x 18-1/2 x 12-1/4 | 60 |

## E. LUMBER Air Dried

Kiln-dried lumber averages 10% to 15% lighter, and green lumber 40% to 50% heavier, than air-dried.

### Pounds per Cubic Foot/1000 Board Feet

|                  |         |
|------------------|---------|
| Ash black or red | 40/3330 |
| Ash white        | 46/3830 |
| Bamboo           | 22/1830 |
| Basswood         | 30/2500 |
| Beech            | 30/2500 |
| Birch            | 48/4000 |
| Butternut        | 30/2500 |
| Cedar            | 30/2500 |
| Cherry           | 44/3670 |
| Chestnut         | 37/3080 |
| Cottonwood       | 37/3080 |
| Cypress          | 30/2500 |
| Elm soft         | 38/3170 |
| Elm rock         | 45/3750 |
| Fir Douglas      | 32/2670 |
| Fir Eastern      | 25/2080 |
| Gum              | 40/3330 |
| Hemlock          | 29/2420 |
| Hickory          | 54/4500 |
| Locust           | 42/3500 |
| Mahogany         | 42/3500 |
| Maple hard       | 44/3670 |
| Maple soft       | 34/2830 |
| Oak black        | 42/3500 |
| Oak red          | 42/3500 |
| Oak white        | 48/4080 |
| Pine long leaf   | 44/3670 |
| North Carolina   | 36/3000 |
| Oregon           | 32/2670 |
| Red              | 30/2500 |
| White            | 26/2170 |
| Yellow Northern  | 34/2830 |

|                     |         |         |
|---------------------|---------|---------|
| Southern short leaf | 45/3750 | 38/3170 |
| long leaf           | 44/3670 | 27/2250 |
| Poplar              | 27/2250 | 30/2500 |
| Redwood             | 30/2500 | 28/2330 |
| Spruce              | 28/2330 | 37/3080 |
| Sycamore            | 37/3080 | 43/3580 |
| Walnut              | 43/3580 | 31/2580 |
| Willow              | 31/2580 |         |

Lath Standard length 29 inches. Put up in bundles of 50. Average bundle: diameter 9 inches; weight 25 pounds. Shingles Bundle contains the equivalent of 250 shingles; measures 24 x 20 x 10; average weight 50 pounds.

## F. METALS, MINERALS, ORES, ROCK, STONE, COAL

### Pounds per Cubic Foot/Cubic Yard

|                         |           |
|-------------------------|-----------|
| Alabaster, gypseous     | 160/4320  |
| Aluminum, pure          | 165/4450  |
| Andesite stone          | 180/4850  |
| Antimony                | 420/11350 |
| Asbestos                | 153/4130  |
| Babbitt                 | 440/11900 |
| Barytes, mineral        | 280/7560  |
| Basalt rock             | 185/5000  |
| Bauxite                 | 160/4320  |
| Bluestone               | 120/3240  |
| Borax                   | 110/2970  |
| Brass cast              | 525/14175 |
| Brass rolled            | 534/14420 |
| Brass drawn             | 542/14635 |
| Bronze                  | 550/14850 |
| Chalk                   | 137/3700  |
| Charcoal oak            | 33/890    |
| Charcoal pine           | 23/620    |
| Coal, broken Anthracite | 60/1600   |
| Bituminous              | 45/1200   |
| Pocahontas              | 50/1350   |
| Cannel                  | 50/1350   |
| Coke                    | 27/730    |
| Copper cast             | 550/14850 |
| Copper rolled           | 560/15120 |

|                      |           |
|----------------------|-----------|
| Diabase              | 185/5000  |
| Dolomite             | 181/4890  |
| Emery                | 250/6750  |
| Feldspar             | 160/4320  |
| Flint                | 185/5000  |
| Gneiss – solid       | 160/4320  |
| Gneiss – crushed     | 95/2565   |
| Granite – solid      | 175/4725  |
| Granite – crushed    | 96/2590   |
| Graphite             | 170/4590  |
| Greenstone – solid   | 187/5050  |
| Greenstone – crushed | 107/2900  |
| Gypsum               | 150/4050  |
| Iron – cast          | 450/12150 |
| Iron – wrought       | 485/13100 |
| Hornblende           | 187/5050  |
| Lead – cast          | 710/19170 |
| Limestone – solid    | 166/4480  |
| Limestone – crushed  | 95/2565   |
| Magnesite            | 187/5050  |
| Manganese            | 475/12825 |
| Marble – solid       | 165/4455  |
| Marble – crushed     | 95/2565   |
| Marl                 | 140/3800  |
| Mercury              | 850/22950 |
| Mica                 | 185/5000  |
| Nickel               | 537/14500 |

Note: Most ores are 15% to 20% heavier than the rock that forms the bulk of the ore.

|                   |          |
|-------------------|----------|
| Peat              | 50/1350  |
| Phosphate rock    | 200/5400 |
| Porcelain         | 150/4050 |
| Porphyry          | 172/4645 |
| Pumice            | 40/1080  |
| Pyrites           | 315/8500 |
| Quartz            | 165/4455 |
| Rip rap stone     | 65/1750  |
| Salt rock, solid  | 136/3670 |
| very coarse       | 35/950   |
| coarse            | 45/1215  |
| fine              | 50/1350  |
| barrel, average   | 280      |
| Saltpeter         | 69/1860  |
| Sandstone solid   | 147/3970 |
| Sandstone crushed | 86/2325  |
| Shale solid       | 172/4645 |

|                        |           |
|------------------------|-----------|
| Shale crushed          | 92/2485   |
| Silica                 | 135/3650  |
| Slag solid             | 175/4750  |
| Slag crushed           | 75/2025   |
| Slag screenings        | 100/2700  |
| Slate                  | 175/4725  |
| Soapstone              | 169/4565  |
| Steel Cast             | 490/13250 |
| Steel rolled           | 495/13365 |
| Stone crushed, average | 100/2700  |
| Sulphur                | 125/3375  |
| Talc                   | 170/4600  |
| Tin                    | 460/12400 |
| Trap rock              | 187/5050  |
| Zinc                   | 440/11880 |

## G. MISCELLANEOUS

### Pounds per Cubic Foot/Cubic Yard

|                                 |               |
|---------------------------------|---------------|
| Ashes, cool (packed)            | 45/1215       |
| Bone                            | 115/3110      |
| Cork                            | 15/405        |
| Furniture (household goods)     | 6/160         |
| Garbage dry, paper wrapped      | 15-30/400-800 |
| wet                             | 50/1240       |
| Groceries miscellaneous assort. | 30/810        |
| Ice                             | 57/1540       |
| Paper solid, average            | 58/1565       |
| Rubber goods                    | 94/2540       |
| Snow, moist packed              | 50/1350       |

Cargo and load capacity limited by weight and distribution.

Add up the following weights to determine total Gross Vehicle Weight (GVW). Note that the weights listed in the following chart are approximate. Always consult the body manufacturer to obtain the exact weight for calculating a safe payload.

- Vehicle Curb Weight
- + Other accessory equipment weights (including snow plows, tailgate lifts, etc.)
- + Aftermarket body and equipment weights (always consult manufacturer whenever possible)
- + Passenger weight
- + Cargo Weight

---

**= Total Gross Vehicle Weight (GVW)**

Check this figure against the vehicle's Gross Vehicle Weight Rating and Gross Axle Weight Ratings. Never exceed them!

| Body Type | Length (feet)                             | Weight (pounds) |
|-----------|---|-----------------|
| Catering  | 6 (midsize pickup)                        | 800             |
|           | 8   | 1030-1150       |
|           | 10  | 1910            |
|           | 12  | 2190-2435       |
|           | 14  | 2695            |
| Dump      | 8 (3-yard dump with 18-inch side height)  | 1350            |
|           | 8 (4-yard dump with 24-inch side height)  | 1300            |
|           | 9 (4-yard dump with 22-inch side height)  | 1525            |
|           | 10 (4-yard dump with 20-inch side height) | 1675            |
|           | 8 (5-yard dump with 30-inch side height)  | 1450            |
|           | 9 (5-yard dump with 26-inch side height)  | 1600            |
|           | 10 (5-yard dump with 24-inch side height) | 1750            |
|           | 11 (5-yard dump with 22-inch side height) | 1875            |
|           | 12 (5-yard dump with 20-inch side height) | 2000            |

| Body Type | Length (feet) | Weight (pounds) |
|-----------|---------------|-----------------|
| Stake     | 8             | 1005            |
|           | 9             | 1130            |
|           | 10            | 1255            |
|           | 12            | 1380            |
|           | 14            | 1505            |
|           | 16            | 1630            |
|           | 18            | 1960            |
|           | 20            | 2135            |
|           | 22            | 2335            |
|           | 24            | 2510            |
| Van       | 26            | 2720            |
|           | 10            | 1795            |
|           | 12            | 2000            |
|           | 14            | 2210            |
|           | 16            | 2430            |
|           | 18            | 2635            |
|           | 20            | 2855            |
| Utility   | 22            | 3055            |
|           | 24            | 3260            |
|           | 26            | 3490            |
|           | 8             | 1055            |
| Utility   | 9             | 1195            |
|           | 11            | 1580            |

**AF:** Dimension between the center of the fifth wheel or the center of gravity of the body and rear axle. Maximum AF is longest dimension permissible to ensure against load damage to frame. AF dimensions are based on frame strength and do not consider adaptability of average trailer or bodies to the available space behind the cab.

**Air Resistance:** A measure of the drag or retarding effect due to the air turbulence produced by a vehicle in motion. Because it varies theoretically as the square of the speed, it affects the ability of the vehicle to reach top speed as well as the gradability at fast speeds.

**Allowable Body Payload:** Weight rating designated by the truck manufacturer for model types that are later equipped with some type of body (stripped chassis, chassis-cowl or chassis-cab models, for example). This is the combined allowance for total weight of body and payload together.

**Allowable Payload:** The maximum load weight, which may be carried without exceeding the truck manufacturer's designated maximum rating, or some component rating or legal limit (such as axle capacity or legal axle load limits).

**Auxiliary Springs:** Usually rear only, are for increased load stability or capacity without affecting light ride. Mounted to act only after regular springs are partially deflected.

**AW:** Axle width is the distance between the front wheels measured from the centerline of the front tires.

**Axle, Full-Floating:** The full-floating axle shafts have nothing to do but drive the wheels. The housing supports the entire rear weight through double opposed wheel bearings, which absorb all load and wheel stresses. Should axle shaft breakage occur, the truck can be towed since the wheel is supported by the wheel hub and bearings.

**Axle, Rear, Double Reduction:** A double reduction rear axle has a primary reduction through a hypoid or spiral bevel pinion and ring gear and a secondary reduction through a set of herringbone or helical gears. This rear axle is designed to maintain gear strength and give a more powerful driving force to the rear wheels without sacrificing road clearance and to provide higher numerical ratios than are possible with single reduction axles.

**Axle, Rear, Single Reduction:** This type rear axle has one driving pinion and one ring gear that turns the axle shaft. The driving torque at the rear wheels is increased or decreased according to the ratio of the teeth in the driving pinion to those in the ring gear.

**Axle, Semi-Floating:** The inner shaft is carried on an extension of the differential, the outer or wheel bearings being carried directly on the axle shaft. With this type, the axle shafts and wheel bearings not only support the total rear weight but must also transmit driving torque to the wheels and resist stresses due to skidding, turning corners, and tractive forces.

**BA:** Dimension from the front bumper to the centerline of the front axle.

**BBC:** Dimension from the front bumper to the back of the cab.

**BC (Body Clearance):** Distance between the back of the cab and the installed body to prevent cab-to-rear body contact due to flexing of chassis frame.

**Body:** The part of the vehicle designed to carry items related to the use of the vehicle rather than the operation of the unit. This does not normally include the cab except when the cab is an integral part of the body as in a school bus.

**Brake, Engine:** Brake device using engine compression pressure as a retarding medium.

**BW:** Outer track – measures the distance between the dual rear wheels from the outside of the outer wheels.

**CA:** The dimension from the back of the cab to the centerline of the rear axle. This dimension is important when determining the body application or fifth wheel mounting and weight distribution.

**Cab:** The part of the vehicle that encloses the driver and vehicle operating controls. The term “cab” may also include the front end, sheet metal housing, the engine, front fenders, etc.

**CE:** The dimension from the back of the cab to the rear of the standard frame. Used primarily to determine the size of the body that may be used.

**Center of Gravity:** Point where the weight of the truck and/or body and payload appears to be concentrated and, if suspended at that point, would balance front and rear.

**CGA (Center of Gravity to Axle):** The distance measured from the center of gravity of the body and payload to the center of the rear axle (mid-point between the axles for a tandem).

**Chassis:** May be used to represent: (1) Entire vehicle as produced by the factory when no body is included (cab, frame, powerplant, drive line, suspensions, axles, wheels, and tires); (2) Same as (1) except excluding cab and other sheet metal; or (3) Frame only with brackets, bumper, and other miscellaneous parts directly attached to the frame.

**Chassis Weight:** The actual weight of the fully equipped vehicle without body and driver. This weight includes all fluids (no driver or body).

**Compression Ratio:** The volume of the combustion chamber and cylinder when the piston is at the bottom of its stroke, divided by the volume of the combustion chamber when the piston is at the top of its stroke. Higher compression ratios tend to increase engine efficiency.

**Conventional Cab:** This is a cab design where the powerplant is located ahead or mostly ahead of the cowl. Term may be applied to basic cab structure only or may include front fenders, hood, grille, etc.

**Cowl:** The front part of an automotive cab or body, directly below the base of the windshield between the dash panel, is used to indicate the complete vehicle (less body).

**Crossmember:** Structural unit that connects side rails of the frame.

**Curb (Vehicle) Weight:** The weight of the truck (without load or driver), including fuel, coolant, oil, body and all items of standard and optional equipment.

**CWR (Cargo Weight Rating):** The value specified by the manufacturer as the cargo-carrying capacity, in pounds, of a vehicle, exclusive of the weight of the occupants. The actual cargo weight is also called the payload.

**Deflection Rate:** The deflection rate of a spring is the force required to compress or deflect the spring a distance of one inch. For torsion springs, this distance is measured at the end of the control arm attached to the springs.

**Design Weight:** This is the maximum to which a vehicle or component may be loaded without the danger of failure and/or premature wear taking place. It is a limit imposed by the manufacturer of that vehicle or component.

**Differential:** (A) Standard – gear assembly on the drive axle that permits the wheels to turn at different speeds. (B) No-Slip or Limited-Slip – gear assembly on the drive axle that will not permit one wheel to spin while the other is motionless, such as when a truck is stuck in snow or mud. Torque is transmitted to both wheels of the driving axle.

**Disc Brakes:** A brake assembly containing a disc, which rotates as the wheel turns. A caliper device grabs the disc to stop the wheel from rotating.

**Displacement:** Engine displacement is the volume displaced by a piston during one stroke multiplied by the number of pistons.  $(\text{bore}) \times (\text{bore}) \times (\text{stroke}) \times (\text{no. of pistons}) \times (.785)$

**Drum Brakes:** A brake assembly with brake shoes, which are pressed against a brake drum to stop the wheels from rotating.

**DRW:** Dual Rear Wheel

**Fifth Wheel:** Load supporting plate mounted to the frame of the vehicle. Pivot-mounted, it contains provision for accepting and holding the kingpin of a semi-trailer providing a flexible connection between the tractor and the trailer. Center of fifth wheel (where kingpin is held in position) should always be located ahead of the centerline of the tractor rear axle or axle group.

**Forward Control:** Vehicle with driver controls (pedals, steering wheel instruments) located as far forward as possible. Supplied with or without body, the controls are stationary-mounted as opposed to the special mountings of tilt cab models.

**Frame Cut-off:** Standard frame on most models extends behind the rear axle, far enough to support a body mounted on the vehicle. For special purpose bodies that may be unusually short for the wheelbase of the vehicle on which it is mounted, or in most tractor operations, this frame extension behind the rear axle may be shortened. The shortest allowable extension for each vehicle is referred to as “maximum frame cut-off.”

**Full Trailer:** A trailing load carrying a vehicle, which is entirely supported by its own suspension systems. The powered unit merely tows this type of trailer and does not directly support any of its weight. Sometimes referred to as a “pup” when towed behind a truck with a mounted body or behind a tractor/semi-trailer combination. Tractor/semi-trailer/full-trailer combinations are often referred to as “double” or “double bottoms.”

**GAWR (Gross Axle Weight Rating):** The value specified by the vehicle manufacturer as the load-carrying capacity of an axle system measured at the tire-ground interfaces.

**GCW (Gross Combination Weight):** Represents the actual weight of a vehicle at the ground with a trailer or trailers including vehicle, equipment, driver, passengers, fuel, and payload (everything that moves with the vehicle).

**Gear Ratio:** The number of revolutions a driving gear requires to turn a driven gear through one complete revolution. For a pair of gears, the ratio is found by dividing the number of teeth on the driven gear by the number of teeth on the driving gear.

**Geared Speed:** The theoretical vehicle speed based on engine rpm, transmission gear ratio, rear axle ratio, and tire size.

**Gradability:** Ability of a truck to negotiate a given grade at a specific GCW or GVW.

**GVW (Gross Vehicle Weight):** Actual weight of the entire vehicle including all equipment, fuel, body, payload, driver, etc. This is for the individual unit only, such as a truck or tractor.

**Helical Gears:** Gears with slanted teeth, usually used in transmissions. The teeth are positioned diagonally across the face of the gear for quieter operation and more gear tooth contact.

**Horsepower:** A measure of the amount of work that can be done by an engine in a certain amount of time. One horsepower is equal to 33,000 ft.-lb. of work per minute. The horsepower of an engine depends upon the torque and speed of the engine.

- **Brake Horsepower:** The actual horsepower delivered by the crankshaft and is measured by means of an electric dynamometer.

- **Gross:** The brake horsepower of an engine with optimum ignition setting (manual instead of automatic advance) and without allowing for the power absorbed by the engine's accessory units such as the fan, water pump, generator, and exhaust system.

- **SAE, Net:** The brake horsepower remaining at the flywheel of the engine to do useful work after the power required by the engine accessories (fan, water pump, generator, etc.) has been provided as measured in accordance with SAE standards.

- **Taxable:** The N.A.C.C. (National Automobile Chamber of Commerce) adopted an arbitrary formula for estimating horsepower to enable comparison of engines on a uniform basis. It assumes that engines deliver their rated power at a piston speed of 1000 feet per minute and that mechanical efficiency will average 75% Taxable Horsepower = (Diameter of Bore)  $2 \times$  Number of Cylinders / 2.5 = D2N / 2.5. Advancement in engine design since this formula was developed has rendered the formula obsolete as a basis of estimating true engine output. The formula is still used in some states for licensing purposes, however.

**Hotchkiss Drive:** Hotchkiss drive is a term applied to that type of chassis design where the rear springs are mounted at the forward end in a stationary bracket (not shackled as at the rear end) and all driving and braking forces are cushioned by the springs and transferred directly to the frame side members. Open-type universal joints and propeller shafts are used in this design.

**Hypoid Gears:** Hypoid gears and pinions have a tooth form that permits the drive pinion to mesh with the driven gear below the center of the driven gear.

**Landing Gear:** The two small wheels at the forward end of a semi-trailer used to support the trailer when it is detached from the tractor.

**Maximum Rolling Grade:** (Gradability) Greatest grade a vehicle is able to climb while under motion, or the number of foot rise the vehicle can attain continuously for each 100 feet of horizontal movement. Maximum rolling grade is calculated with the vehicle in motion with rated load and with gearshift settings to obtain greatest gear reduction.

**Maximum Speed:** Ability of a vehicle to attain speeds under full load conditions. This speed is calculated using level road conditions and with best concrete road surface. When the vehicle power is great enough to exceed geared MPH, the geared MPH becomes the maximum speed. Speeds are calculated in the best gear to obtain the highest speed (using a lower gear if necessary).

**Maximum Starting Grade:** (Gradability) Greatest grade a vehicle is able to start on from complete stop. Approximately 10% grade loss from the rolling gradability. (Starting Gradability (%) = Rolling Gradability (%) - 10%).

**Model Weight:** Weight of the vehicle with all items of standard equipment, 150 pounds per passenger in each designated seating position, and maximum capacity of fuel, oil and coolant.

**Nominal Truck Rating:** An arbitrary classification of truck capacity in tons, such as ½-ton, 1½-ton. Although this classification is still used, the correct rating of truck capacity is gross vehicle weight (GVW).

**OAL:** Overall length of chassis measured from the front bumper to the end of the frame.

**OH:** Overall height of chassis measured from the ground to the topmost point of the cab.

**Off-Highway:** Vehicle operation over private roads or asphalt or maintained crushed rock surface or similar material, variable grades. Not subject to legal weight and dimensional limitations.

**Off-Road:** Vehicle operation over private roads in areas with no maintained hard surface variable grades. Not subject to legal weight and dimensional limitations.

**On-Highway:** Vehicle operation over well-maintained major highways of excellent concrete or asphalt construction, level to rolling terrain with uniform grades. Subject to legal weight and dimensional limitations.

**On/Off-Highway:** Vehicle operation over secondary roads of good concrete or asphalt construction with partial operation on well-maintained crushed rock surface or similar material, variable grades. Subject to legal weight and dimensional limitations.

**Overdrive Transmission:** A transmission in which the high gear ratio is less than one to one. This permits the truck, under favorable conditions, to maintain a higher road speed with any given engine speed or a given road speed at a lower engine rpm. The primary use in trucks is for fuel economy on empty return trips.

**OW:** Overall width of chassis from the widest point of the cab.

**Payload:** Weight or commodity being hauled. This will include the packaging, pallets, banding, etc., but does not include the truck, truck body, etc.

**Pintle Hook:** Hook mounted on the truck or semi-trailer used to couple on a full-trailer.

**Planetary Drive:** Gear reduction system with sun gear transmitting reduction through planetary gears to main output shaft.

**Power Curve:** A graphic illustration of maximum output of power and torque at all operating speeds. These curves are established from data obtained by running a sample engine on an engine dynamometer. Net power figures are used in vehicle.

**Power Takeoff:** A device usually mounted on the side of the transmission or transfer case, or off the front of the crankshaft, used to transmit engine power to auxiliary equipment such as pumps, winches, etc.

**Powertrain:** A name applied to the group of components used to transmit engine power to the wheels. The powertrain includes clutch, transmission, universal joints, drive shafts, and rear-axle gears.

**PR (Ply Rating):** A measure of the strength of tires based on the strength of a single ply of designated construction. An 8-ply rating does not necessarily mean that 8 plies are used in building the tire, but simply that the tire has the strength of 8 standard plies.

**Ratio:** Proportion input revolutions to output revolutions of a unit (axle, transmission, steering gear, etc.). A two-to-one ratio (2:1) means that two complete revolutions must be made on the input shaft of the item to obtain one complete revolution of the output shaft. This is used primarily to multiply torque (turning force), which is the opposite of speed. To interpret a ratio in terms of torque, the expression becomes the proportion of the output to the input. Thus, a 2-to-1 ratio means that 2 units of force are available at output shaft for each unit of force applied to input shaft.

**RBM (Resisting Bending Moment):** (Frame section modulus) x (Frame yield strength). The resulting number is used when comparing the strength of two frames made of different materials.

**Reduction:** Used to indicate the slower output speed resulting from a ratio proportion (faster on reductions less than 1).

**Rim Pull:** The force available at the road surface contacting the driving wheels of the truck. It is determined by engine torque, transmission ratio, axle ratio, tire size, and frictional losses in the drive train. Rim pull is also known as Tractive Effort.

**Road Rolling Resistance:** A measure of the retarding effect of the road surface to forward movement of the vehicle and varies with the type and condition of the road.

**Rolling Radius (Loaded Radius):** Tire-rolling radius is the distance from the center of the wheel to the road. Static radius applies when the vehicle is at rest, rolling radius for a vehicle in motion. The latter dimension is usually slightly greater than the static radius and is the figure used in determining the tire revolutions per mile.

**Section Modulus:** A measure of the strength of frame side rails determined by the cross-section area and shape of the siderails.

**Semi-Trailers:** This is a trailering unit that is supported in the rear by its own suspension system and at the front by the towing vehicle. A separate suspension unit with towing provisions sometimes supports this type of unit, but while being used this way it becomes a full trailer. An exception is the utility-type trailer, house trailer, etc., which is towed by a ball coupling. This is referred to simply as a trailer and is not designed as a semi- or full trailer.

**Set Back or Forward Front Axle:** The front steering axle is normally as close to the front of the vehicle as the design and wheel and tire size permit on conventional and set forward axle (SFA) models. When the front axle is purposely located farther toward the rear it is referred to as being set back or (SBA). The centerline of the front axle to the front bumper is normally 26 to 33-1/4 inches on Conventional and SFA models and 51-3/4 inches for set back front axle models. The purpose of moving the axle rearward is to increase loads applied to the front axle and increase maneuverability. Standard-type front axle setting generally enables more economical cab construction and meets axle spread requirements of states using the Bridge Formula.

**Shipping Weight:** The weight of the basic truck including all standard equipment plus grease and oil wherever required. It does not include the weight of fuel or coolant.

**Slack Adjuster:** Adjustable brake lever on air brake assemblies.

**Spiral Bevel Gears:** Gears with spiral-shaped teeth used primarily to change the direction of transmitted power, such as from the propeller shaft to axle shafts.

**Spring Capacity At Pad:** The amount of sprung weight that will bend a leaf spring its maximum amount.

**Spring Deflection Rate:** The number of pounds necessary to deflect the spring one inch.

**Springs, Auxiliary Type:** Springs that do not come into operation until a predetermined load is placed on the chassis. They are designed to provide riding comfort whether the truck is empty or under partial load.

**Springs, Progressive Type:** Springs that automatically adjust to load or road conditions, ensuring a smooth, comfortable ride.

**Springs, Semi-Elliptical:** Springs basically consisting of one main leaf with eyes at each end for connection to spring shackles and brackets and a number of shorter leaves of uniformly decreasing length shaped in the form of an arc.

**SRW:** Single Rear Wheel.

**Stroke:** The distance traveled by a piston in a cylinder during 1/2 revolution of the crankshaft.

**Synchromesh Transmission:** A transmission with mechanisms for synchronizing the gear speeds so that the gears can be shifted without clashing, thus eliminating the need for double clutching.

**Tilt Cab:** Vehicle designed with the engine beneath the cab and having provisions for tilting the cab forward on a pivot near the front bumper to provide easy access to the engine.

**Tire Load Capacity:** The maximum recommended load that may be carried by the tires. Altering the size of the tires on a vehicle will have a direct bearing on the load that can be carried.

**TL (Trailer Length):** Front of body to bumper.

**Torque, Converter:** A torque converter is made up of a pump, a turbine, and a stator. It multiplies engine torque. When torque multiplication nears a one-to-one ratio, the converter acts as a fluid coupling between the engine and the transmission. At all other pump-turbine ratios, torque is automatically multiplied according to the load imposed on the vehicle, within the limits of the converter.

**Torque, Engine:** Engine torque is the amount of twisting effort exerted at the crankshaft by an engine. The unit of measure is a pound-foot, which represents a force of one pound acting at right angles at the end of an arm one foot long.

**Torque, Gross:** The maximum torque developed by an engine without allowing for the power absorbed by the engine's accessory units such as the fan, water pump, generator and exhaust system. Gross torque is used to determine gross horsepower.

**Torque, Net:** The torque available at the flywheel of the engine after the power required by the engine accessories (fan, water pump, generator, etc.) has been provided.

**Tractive Effort:** See Rim Pull.

**Tractor (Highway):** Vehicle designed for pulling loads greater than weight actually applied to the vehicle. Most heavy-duty trucks are designed for either tractor or truck service. Optional equipment is available to adapt each unit for the particular tractor or truck application for which it is to be used. GCW rating indicates total pulling capacity of a unit including its own weight when used as a tractor in a specified type of service. GVW rating also must not be exceeded.

**Trailer, Full:** A full trailer is a truck trailer constructed so that all its own weight and that of its load rests upon its own wheels (see Full Trailer).

**Trailer, Semi:** A trailer having axle (or axles) only at the rear; the front of the semi-trailer is supported by a tractor fifth wheel. A semi-trailer may be operated as a full trailer by using a converter dolly to support the front of the trailer.

**Transmission:** A transmission contains a number of gears that, when a connection is made between a specific set, provide a choice of ratio. Connection is made by sliding the teeth of one gear into mesh with another, or by engaging a tooth-type clutch, which has one part fastened to a gear already meshed to another, and the other part splined to a shaft. Synchronesh transmissions use gear speed synchronizers to ease engagement.

**Tread:** The distance between the centers of tires at the points where they contact the road surface. Duals are measured from the center of dual wheels.

**Truck:** Vehicle designed for carrying entire load; GVW rating indicates truck capacity. GCW will also apply if a trailer is to be pulled behind the truck. GVW and GCW ratings are maximum at the ground including vehicle, payload and all equipment. A load capacity chart for each model indicates basic equipment needed for each GVW and GCW.

**Turbocharger:** A rotary compressor that pressurizes engine intake air driven by the flow of exhaust gases. It raises the pressure in the combustion chamber to increase the power of the engine.

**Turning Radius:** Half the distance across the smallest circle in which a truck will turn. Can be measured from the centerline of the outside front tire or the outside of the front bumper.

**Universal Joint:** A particular coupling that permits a driving shaft to operate between two power train units that are not always in alignment with each other or subject to movement. For example, between a frame-mounted transmission and a spring-mounted rear axle, a universal joint will usually angle. When installed on a propeller shaft, it allows the shaft to rotate through an angle.

**Vacuum Assist (Power) Brakes:** Standard-type hydraulic brakes with a pressure assist cylinder having a vacuum chamber that, when atmospheric pressure is allowed to one side of the piston or diaphragm, drives a plunger in the hydraulic system, increasing the effect of pedal pressure.

**WB (Wheelbase):** The distance between the centerlines of the front and rear axles. For trucks with tandem rear axles, the centerline is midway between the two rear axles.

**Weight Distribution:** Portions of total weight of a vehicle that will be supported by each axle. Proper predetermination of the distribution of vehicle, equipment, and payload weight is one of the most important requirements in selecting a truck or tractor for a particular operation.

**Weight Sprung:** The weight of those things supported by the springs, such as frame, engine, body, payload, etc.

**Weight Unsprung:** The weight of components such as tires, wheels, and axles that are not supported by the springs.

**Yield Strength:** Yield strength is the maximum amount of stress in pounds per square inch to which material, for example, as in a frame, may be subjected through loading and return to its original shape upon removal of the stress; i.e., no deformation remains.



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