

Sterling Cargo Workshop Manual

Full download: <http://manualplace.com/download/sterling-cargo-workshop-manual/>



CARGO WORKSHOP MANUAL

STI-448, S11 (9/08P)

Published by
Daimler Trucks North America LLC
4747 N. Channel Ave.
Portland, OR 97217
Printed in U.S.A.

Foreword

The purpose of this manual is to assist the service technician when the vehicle is serviced. Major drivetrain component service information is not included in this manual, but is located in each manufacturer's service manual.

Instructions and procedures are those recommended by vehicle manufacturer or the component manufacturer.

Maintenance schedules and additional service information are included in the *Cargo Maintenance Manual*.

IMPORTANT: Descriptions and specifications in this manual were in effect at the time of printing. The vehicle manufacturer reserves the right to discontinue models at any time, or change specifications and design without notice and without incurring obligation. Descriptions and specifications contained in this publication provide no warranty, expressed or implied, and are subject to revision and editions without notice.

Refer to www.Daimler-TrucksNorthAmerica.com, www.FreightlinerTrucks.com, and www.SterlingTrucks.com for more information, or contact Daimler Trucks North America LLC at the address below.

Environmental Concerns and Recommendations

Whenever you see instructions in this manual to discard materials, you should attempt to reclaim and recycle them. To preserve our environment, follow appropriate environmental rules and regulations when disposing of materials.

NOTICE: Parts Replacement Considerations

Do not replace suspension, axle, or steering parts (such as springs, wheels, hubs, and steering gears) with used parts. Used parts may have been subjected to collisions or improper use and have undetected structural damage.

© 1998–2008 Daimler Trucks North America LLC

All rights reserved. No part of this publication, in whole or in part, may be translated, reproduced, stored in a retrieval system, or transmitted in any form by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Daimler Trucks North America LLC. Daimler Trucks North America LLC is a Daimler company.

**Daimler Trucks North America LLC
Service Systems and Documentation (POC-SSD)
P.O. Box 3849
Portland, OR 97208-3849**

Descriptions of Service Publications

Daimler Trucks North America LLC distributes the following major service publications in paper and electronic (via ServicePro®) formats.

| | |
|---|--|
| Workshop/Service Manual | Workshop/service manuals contain service and repair information for all vehicle systems and components, except for major components such as engines, transmissions, and rear axles. Each workshop/service manual section is divided into subjects that can include general information, principles of operation, removal, disassembly, assembly, installation, and specifications. |
| Maintenance Manual | Maintenance manuals contain routine maintenance procedures and intervals for vehicle components and systems. They have information such as lubrication procedures and tables, fluid replacement procedures, fluid capacities, specifications, and procedures for adjustments and for checking the tightness of fasteners. Maintenance manuals do not contain detailed repair or service information. |
| Driver's/Operator's Manual | Driver's/operator's manuals contain information needed to enhance the driver's understanding of how to operate and care for the vehicle and its components. Each manual contains a chapter that covers pretrip and post-trip inspections, and daily, weekly, and monthly maintenance of vehicle components. Driver's/operator's manuals do not contain detailed repair or service information. |
| Service Bulletins | <p>Service bulletins provide the latest service tips, field repairs, product improvements, and related information. Some service bulletins are updates to information in the workshop/service manual. These bulletins take precedence over workshop/service manual information, until the latter is updated; at that time, the bulletin is usually canceled. The service bulletins manual is available only to dealers. When doing service work on a vehicle system or part, check for a valid service bulletin for the latest information on the subject.</p> <p>IMPORTANT: Before using a particular service bulletin, check the current service bulletin validity list to be sure the bulletin is valid.</p> |
| Parts Technical Bulletins | Parts technical bulletins provide information on parts. These bulletins contain lists of parts and BOMs needed to do replacement and upgrade procedures. |
| <p>Web-based repair, service, and parts documentation can be accessed using the following applications on the AccessFreightliner.com and AccessSterling.com websites.</p> | |
| ServicePro | ServicePro® provides Web-based access to the most up-to-date versions of the publications listed above. In addition, the Service Solutions feature provides diagnostic assistance with Symptoms Search, by connecting to a large knowledge base gathered from technicians and service personnel. Search results for both documents and service solutions can be narrowed by initially entering vehicle identification data. |
| PartsPro | PartsPro® is an electronic parts catalog system, showing the specified vehicle's build record. |
| EZWiring | EZWiring™ makes Freightliner, Sterling, Western Star, Thomas Built Buses, and Freightliner Custom Chassis Corporation products' wiring drawings and floating pin lists available online for viewing and printing. EZWiring can also be accessed from within PartsPro. |

Descriptions of Service Publications

Warranty-related service information available on the AccessFreightliner.com and AccessSterling.com websites includes the following documentation.

Recall Campaigns

Recall campaigns cover situations that involve service work or replacement of parts in connection with a recall notice. These campaigns pertain to matters of vehicle safety. All recall campaigns are distributed to dealers; customers receive notices that apply to their vehicles.

Field Service Campaigns

Field service campaigns are concerned with non-safety-related service work or replacement of parts. All field service campaigns are distributed to dealers; customers receive notices that apply to their vehicles.

Page Description

For an example of a *Cargo Workshop Manual* page, see [Fig. 1](#).

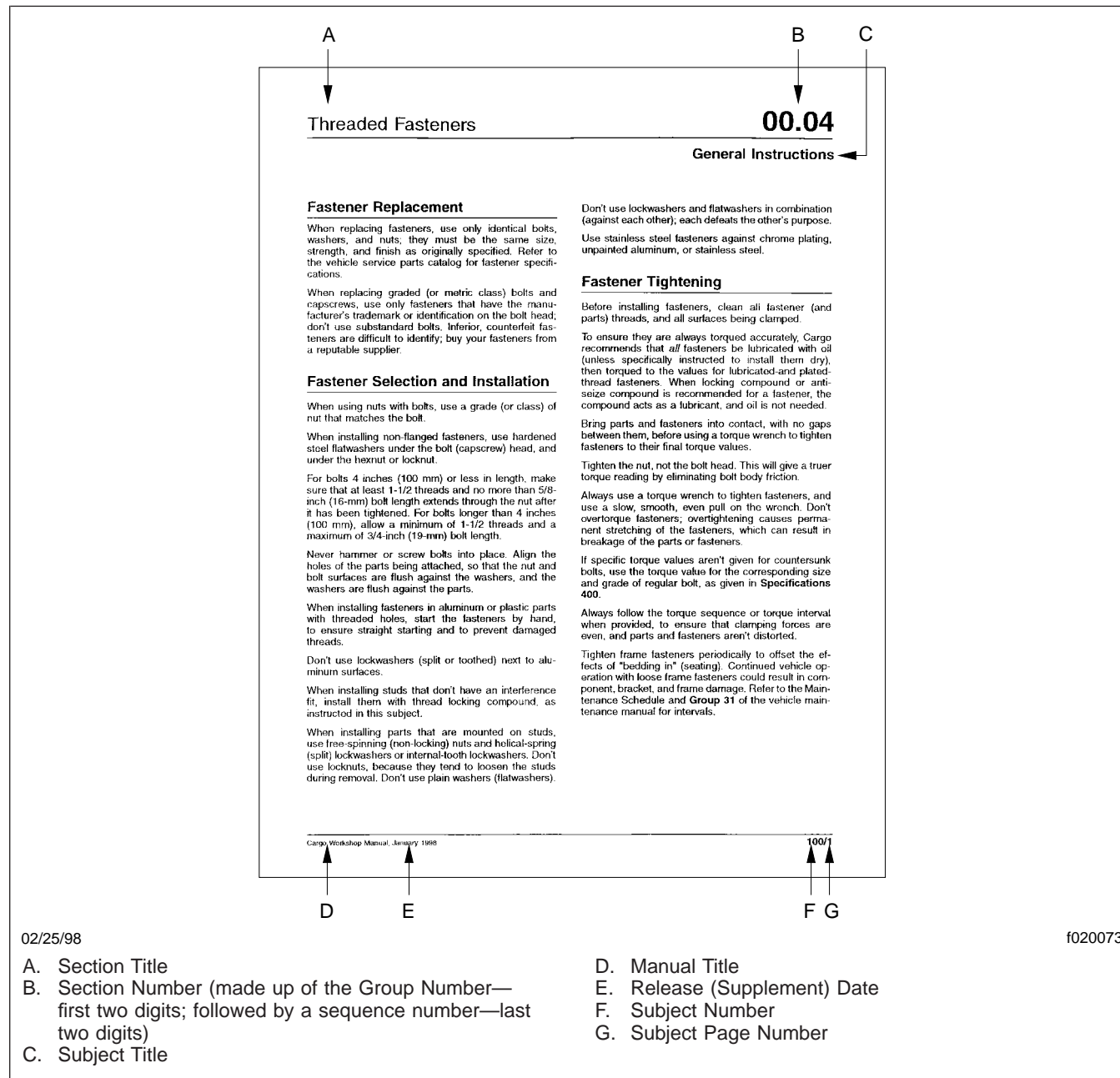


Fig. 1, Example of a Cargo Workshop Manual Page

| Group No. | Group Title |
|------------------|---------------------------------------|
| 00 | General Information |
| 01 | Engine |
| 09 | Air Intake |
| 13 | Air Compressor |
| 15 | Alternators and Starters |
| 20 | Engine Cooling/Radiator |
| 25 | Clutch |
| 26 | Transmission |
| 30 | Throttle Control |
| 31 | Frame and Frame Components |
| 32 | Suspension |
| 33 | Front Axle |
| 35 | Rear Axle |
| 40 | Wheels and Tires |
| 41 | Driveline |
| 42 | Brakes |
| 46 | Steering |
| 47 | Fuel |
| 49 | Exhaust |
| 54 | Electrical, Instruments, and Controls |
| 60 | Cab |
| 72 | Doors |
| 82 | Windshield Wipers and Washer |
| 83 | Heater and Air Conditioner |
| 91 | Seats and Restraint Systems |
| 98 | Paint |



CARGO WORKSHOP MANUAL

Foreword

The purpose of this manual is to assist the service technician when the vehicle is serviced. Major drivetrain component service information is not included in this manual, but is located in each manufacturer's service manual.

Instructions and procedures are those recommended by vehicle manufacturer or the component manufacturer.

Maintenance schedules and additional service information are included in the *Cargo Maintenance Manual*.

IMPORTANT: Descriptions and specifications in this manual were in effect at the time of printing. The vehicle manufacturer reserves the right to discontinue models at any time, or change specifications and design without notice and without incurring obligation. Descriptions and specifications contained in this publication provide no warranty, expressed or implied, and are subject to revision and editions without notice.

Refer to www.Daimler-TrucksNorthAmerica.com, www.FreightlinerTrucks.com, and www.SterlingTrucks.com for more information, or contact Daimler Trucks North America LLC at the address below.

Environmental Concerns and Recommendations

Whenever you see instructions in this manual to discard materials, you should attempt to reclaim and recycle them. To preserve our environment, follow appropriate environmental rules and regulations when disposing of materials.

NOTICE: Parts Replacement Considerations

Do not replace suspension, axle, or steering parts (such as springs, wheels, hubs, and steering gears) with used parts. Used parts may have been subjected to collisions or improper use and have undetected structural damage.

© 1998–2009 Daimler Trucks North America LLC

All rights reserved. No part of this publication, in whole or in part, may be translated, reproduced, stored in a retrieval system, or transmitted in any form by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Daimler Trucks North America LLC. Daimler Trucks North America LLC is a Daimler company.

**Daimler Trucks North America LLC
Service Systems and Documentation (POC-SSD)
P.O. Box 3849
Portland, OR 97208-3849**

Descriptions of Service Publications

Daimler Trucks North America LLC distributes the following major service publications in paper and electronic (via ServicePro®) formats.

| | |
|-----------------------------------|--|
| Workshop/Service Manual | Workshop/service manuals contain service and repair information for all vehicle systems and components, except for major components such as engines, transmissions, and rear axles. Each workshop/service manual section is divided into subjects that can include general information, principles of operation, removal, disassembly, assembly, installation, and specifications. |
| Maintenance Manual | Maintenance manuals contain routine maintenance procedures and intervals for vehicle components and systems. They have information such as lubrication procedures and tables, fluid replacement procedures, fluid capacities, specifications, and procedures for adjustments and for checking the tightness of fasteners. Maintenance manuals do not contain detailed repair or service information. |
| Driver's/Operator's Manual | Driver's/operator's manuals contain information needed to enhance the driver's understanding of how to operate and care for the vehicle and its components. Each manual contains a chapter that covers pretrip and post-trip inspections, and daily, weekly, and monthly maintenance of vehicle components. Driver's/operator's manuals do not contain detailed repair or service information. |
| Service Bulletins | <p>Service bulletins provide the latest service tips, field repairs, product improvements, and related information. Some service bulletins are updates to information in the workshop/service manual. These bulletins take precedence over workshop/service manual information, until the latter is updated; at that time, the bulletin is usually canceled. The service bulletins manual is available only to dealers. When doing service work on a vehicle system or part, check for a valid service bulletin for the latest information on the subject.</p> <p>IMPORTANT: Before using a particular service bulletin, check the current service bulletin validity list to be sure the bulletin is valid.</p> |
| Parts Technical Bulletins | Parts technical bulletins provide information on parts. These bulletins contain lists of parts and BOMs needed to do replacement and upgrade procedures. |

Web-based repair, service, and parts documentation can be accessed using the following applications on the AccessFreightliner.com and AccessSterling.com websites.

| | |
|-------------------|---|
| ServicePro | ServicePro® provides Web-based access to the most up-to-date versions of the publications listed above. In addition, the Service Solutions feature provides diagnostic assistance with Symptoms Search, by connecting to a large knowledge base gathered from technicians and service personnel. Search results for both documents and service solutions can be narrowed by initially entering vehicle identification data. |
| PartsPro | PartsPro® is an electronic parts catalog system, showing the specified vehicle's build record. |
| EZWiring | EZWiring™ makes Freightliner, Sterling, Western Star, Thomas Built Buses, and Freightliner Custom Chassis Corporation products' wiring drawings and floating pin lists available online for viewing and printing. EZWiring can also be accessed from within PartsPro. |

Descriptions of Service Publications

Warranty-related service information available on the AccessFreightliner.com and AccessSterling.com websites includes the following documentation.

Recall Campaigns

Recall campaigns cover situations that involve service work or replacement of parts in connection with a recall notice. These campaigns pertain to matters of vehicle safety. All recall campaigns are distributed to dealers; customers receive notices that apply to their vehicles.

Field Service Campaigns

Field service campaigns are concerned with non-safety-related service work or replacement of parts. All field service campaigns are distributed to dealers; customers receive notices that apply to their vehicles.

Page Description

For an example of a *Cargo Workshop Manual* page, see [Fig. 1](#).

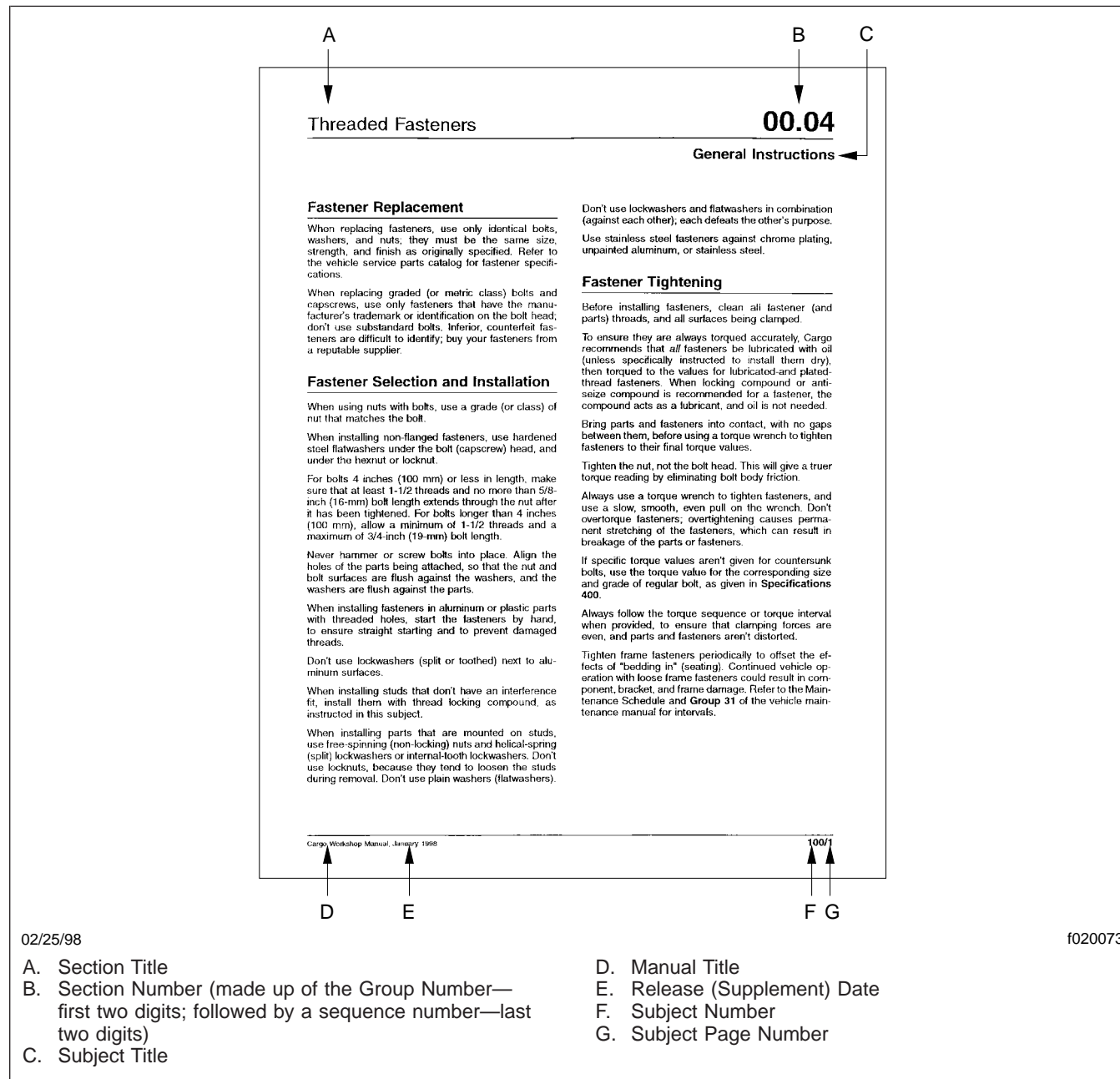


Fig. 1, Example of a Cargo Workshop Manual Page

| Group No. | Group Title |
|------------------|---------------------------------------|
| 00 | General Information |
| 01 | Engine |
| 09 | Air Intake |
| 13 | Air Compressor |
| 15 | Alternators and Starters |
| 20 | Engine Cooling/Radiator |
| 25 | Clutch |
| 26 | Transmission |
| 30 | Throttle Control |
| 31 | Frame and Frame Components |
| 32 | Suspension |
| 33 | Front Axle |
| 35 | Rear Axle |
| 40 | Wheels and Tires |
| 41 | Driveline |
| 42 | Brakes |
| 46 | Steering |
| 47 | Fuel |
| 49 | Exhaust |
| 54 | Electrical, Instruments, and Controls |
| 60 | Cab |
| 72 | Doors |
| 82 | Windshield Wipers and Washer |
| 83 | Heater and Air Conditioner |
| 91 | Seats and Restraint Systems |
| 98 | Paint |

Vehicle Receipt

Prior to signing for vehicle delivery from a transporter company, the dealer is responsible for checking for transporter-related shortages or damages, and noting these discrepancies on the transporter's delivery receipt.

The dealer is also responsible for ensuring that the vehicle was built according to the Truck Sales Order/ Invoice.

Refer to Section 3 of the Freightliner LLC *Warranty Manual* for details.

Vehicle Storage

There may be times when a vehicle is stored for long periods before customer delivery. To protect all vehicles from deterioration and weather, they must be properly maintained. Adequate protection and storage of new vehicles is the responsibility of the dealer.

Claims arising from loss and damage to improperly stored vehicles will not be reimbursed.

See Section 3 of the Freightliner LLC *Warranty Manual* for instructions on storage of new vehicles.

Pre-Delivery Information

All pre-delivery inspections and services must be performed at an authorized Freightliner LLC facility, assigned to fully qualified service personnel and recorded on the "New Vehicle Pre-Delivery Inspection" form.

Refer to Section 3 of the Freightliner LLC *Warranty Manual* for details.

It is recommended the pre-delivery inspection be performed within 30 days of vehicle receipt.

General Information

| U.S. Customary to Metric | | | Metric to U.S. Customary | | |
|----------------------------------|-------------|---------------------------------------|--------------------------|-------------|----------------------------------|
| When You Know | Multiply By | To Get | When You Know | Multiply By | To Get |
| Length | | | | | |
| inches (in) | 25.4 | millimeters (mm) | 0.03937 | | inches (in) |
| inches (in) | 2.54 | centimeters (cm) | 0.3937 | | inches (in) |
| feet (ft) | 0.3048 | meters (m) | 3.281 | | feet (ft) |
| yards (yd) | 0.9144 | meters (m) | 1.094 | | yards (yd) |
| miles (mi) | 1.609 | kilometers (km) | 0.6215 | | miles (mi) |
| Area | | | | | |
| square inches (in ²) | 645.16 | square millimeters (mm ²) | 0.00155 | | square inches (in ²) |
| square inches (in ²) | 6.452 | square centimeters (cm ²) | 0.15 | | square inches (in ²) |
| square feet (ft ²) | 0.0929 | square meters (m ²) | 10.764 | | square feet (ft ²) |
| Volume | | | | | |
| cubic inches (in ³) | 16387.0 | cubic millimeters (mm ³) | 0.000061 | | cubic inches (in ³) |
| cubic inches (in ³) | 16.387 | cubic centimeters (cm ³) | 0.06102 | | cubic inches (in ³) |
| cubic inches (in ³) | 0.01639 | liters (L) | 61.024 | | cubic inches (in ³) |
| fluid ounces (fl oz) | 29.54 | milliliters (mL) | 0.03381 | | fluid ounces (fl oz) |
| pints (pt) | 0.47318 | liters (L) | 2.1134 | | pints (pt) |
| quarts (qt) | 0.94635 | liters (L) | 1.0567 | | quarts (qt) |
| gallons (gal) | 3.7854 | liters (L) | 0.2642 | | gallons (gal) |
| cubic feet (ft ³) | 28.317 | liters (L) | 0.03531 | | cubic feet (ft ³) |
| cubic feet (ft ³) | 0.02832 | cubic meters (m ³) | 35.315 | | cubic feet (ft ³) |
| Weight/Force | | | | | |
| ounces (av) (oz) | 28.35 | grams (g) | 0.03527 | | ounces (av) (oz) |
| pounds (av) (lb) | 0.454 | kilograms (kg) | 2.205 | | pounds (av) (lb) |
| U.S. tons (t) | 907.18 | kilograms (kg) | 0.001102 | | U.S. tons (t) |
| U.S. tons (t) | 0.90718 | metric tons (t) | 1.1023 | | U.S. tons (t) |
| Torque/Work Force | | | | | |
| inch-pounds (lbf-in) | 11.298 | Newton-centimeters (N-cm) | 0.08851 | | inch-pounds (lbf-in) |
| foot-pounds (lbf-ft) | 1.3558 | Newton-meters (N-m) | 0.7376 | | foot-pounds (lbf-ft) |
| Pressure/Vacuum | | | | | |
| inches of mercury (inHg) | 3.37685 | kilo Pascals (kPa) | 0.29613 | | inches of mercury (inHg) |
| pounds per square inch (psi) | 6.895 | kilo Pascals (kPa) | 0.14503 | | pounds per square inch (psi) |

| When You Know | Subtract | Then Divide By | To Get | When You Know | Multiply By | Then Add | To Get |
|-------------------------|----------|----------------|----------------------|----------------------|-------------|----------|-------------------------|
| degrees Fahrenheit (°F) | 32 | 1.8 | degrees Celsius (°C) | degrees Celsius (°C) | 1.8 | 32 | degrees Fahrenheit (°F) |

VIN for Vehicles Built through April 30, 2000

IMPORTANT: For vehicles built May 1, 2000, or later, see **Subject 060** for the Sterling vehicle identification numbering system or **Subject 070** for the Freightliner system.

Federal Motor Vehicle Safety Standard 115 specifies that all vehicles sold in the U.S. be assigned a 17-character vehicle identification number (VIN). Using a combination of letters and numerals, the VIN defines the manufacturer, model, and major characteristics of the vehicle. See **Table 1** for the character positions of a typical Sterling VIN, 480ALEBDXWA345678.

On Sterling vehicles, the VIN can be found on the Vehicle Specification Decal (see the driver's manual for decal location) and stamped on the outside of the left-hand frame rail about 24 to 40 inches (60 to 100 cm) aft of the front axle centerline. On Sterling vehicles built before July 1998, the VIN is stamped on the frame rail near the front axle position.

On Freightliner vehicles, the VIN can be found on the Vehicle Specification Decal (see the driver's manual for decal location) and stamped into the left frame rail over the front axle about 2 inches (50 mm) from the top of the web, or on the top flange of the left frame rail at frame station 30.

NOTE: For Freightliner vehicles assembled and sold in Mexico, the VIN appears on a plate or

label attached to the driver's door. Also, a data card placed in the glove box shows the Mexican VIN as the "CHASSIS" number. The "CABIN" number is part of the Freightliner VIN, the last six digits of which are the Freightliner serial number.

IMPORTANT: A new VIN-code structure will be used for all vehicles built after April 30, 2000. Character positions 1 through 4 and 9 through 17 are nearly the same in both versions, but positions 5 through 8 have been assigned slightly different parameters. As a result, the build date of a vehicle must be determined before the VIN can be decoded.

For all vehicles, a check digit (9th character) is determined by assignment of weighted values to the other 16 characters. These weighted values are processed through a series of equations designed to check validity of the VIN and to detect VIN alteration.

NOTE: Always specify the VIN when ordering parts.

| Seventeen-Character Vehicle Identification Number (VIN) | | | | | | | | | | | | | | | | | | | |
|---|----------------------------------|---------|--------------------|--------------------------------------|---------|---------------------------|---------|--------------------------------|------------|------------------------------------|---|-------------|---|--------------------|---|----------------------|---|-------------------|--|
| Typical VIN | 4 | 8 | 0 | A | L | E | B | D | X | W | A | 3 | 4 | 5 | 6 | 7 | 8 | | |
| Character Position | 1, 2, 3 | 4 | 5 | 6, 7 | 8 | 9 | 10 | 11 | 12 thru 17 | | | | | | | | | | |
| Decoding Table * | Table 2 | Table 3 | Table 4 Table 5 | Table 6 | Table 7 | — | Table 8 | Table 9 | — | | | | | | | | | | |
| Code Description | Manufacturer, Make, Vehicle Type | | | Chassis, Front Axle Position, Brakes | | Vehicle Model Series, Cab | | Engine Model, Horsepower Range | | Gross Vehicle Weight Rating (GVWR) | | Check Digit | | Vehicle Model Year | | Plant of Manufacture | | Production Number | |

* For corresponding decoding information, see the applicable tables in this subject.

Table 1, Seventeen-Character Vehicle Identification Number (VIN)

VIN for Vehicles Built through April 30, 2000

| VIN Positions 1, 2, and 3 (Manufacturer, Make, Vehicle Type) | | | |
|--|---------------------------------|--------------|--------------------|
| Code | Vehicle Manufacturer | Vehicle Make | Vehicle Type |
| 1FU | Freightliner, U.S.A. | Freightliner | Truck-Tractor |
| 1FV | Freightliner, U.S.A. | Freightliner | Incomplete Vehicle |
| 2FU | Freightliner, Canada | Freightliner | Truck-Tractor |
| 2FV | Freightliner, Canada | Freightliner | Incomplete Vehicle |
| 2FW | Sterling, Canada-built | Sterling | Truck-Tractor |
| 2FZ | Sterling, Canada-built | Sterling | Incomplete Vehicle |
| 3FE | M-B, Mexico (before April 1996) | Freightliner | Truck-Tractor |
| 3FF | M-B, Mexico (before April 1996) | Freightliner | Incomplete Vehicle |
| 3AK | M-B, Mexico (after April 1996) | Freightliner | Truck-Tractor |
| 3AL | M-B, Mexico (after April 1996) | Freightliner | Incomplete Vehicle |
| 480 | Sterling, U.S.-built | Sterling | Truck-Tractor |
| 49H | Sterling, U.S.-built | Sterling | Incomplete Vehicle |
| AFV | M-B, South Africa | Freightliner | Truck |
| KFB | AIL, Israel | Freightliner | Truck |
| RSA | NAI, Saudi Arabia | Freightliner | Incomplete Vehicle |
| RSB | NAI, Saudi Arabia | Freightliner | Truck-Tractor |

Table 2, VIN Positions 1, 2, and 3 (Manufacturer, Make, Vehicle Type)

| VIN Position 4 (Chassis, Front Axle Position, Brakes) | | | |
|---|---------------------|---------------------|-----------|
| Code | Chassis | Front Axle Position | Brakes |
| A | 4 x 2 Truck | Forward | Hydraulic |
| B | 8 x 4 Truck-Tractor | Setback | Air |
| C | 6 x 6 Truck-Tractor | Setback | Air |
| D | 4 x 4 Truck | Setback | Hydraulic |
| E | 4 x 4 Truck | Setback | Air |
| F | 8 x 4 Truck | Forward | Air |
| G | 8 x 4 Truck-Tractor | Forward | Air |
| H | 4 x 2 Truck | Forward | Air |
| J | 10 x 4 Truck | All | Air |
| K | 4 x 2 Truck-Tractor | Forward | Air |
| L | 6 x 2 Truck | Forward | Air |
| M | 6 x 2 Truck-Tractor | Forward | Air |
| N | 6 x 4 Truck | Forward | Air |
| P | 6 x 4 Truck-Tractor | Forward | Air |
| R | 10 x 6 Truck | Forward | Air |

| VIN Position 4 (Chassis, Front Axle Position, Brakes) | | | |
|---|----------------------|---------------------|---------------|
| Code | Chassis | Front Axle Position | Brakes |
| S | 10 x 6 Truck-Tractor | Forward | Air |
| T | 6 x 6 Truck | Setback | Air |
| U | 8 x 6 Truck | All | Air |
| V | 8 x 6 Truck-Tractor | All | Air |
| W | 4 x 2 Truck-Tractor | Setback | Air |
| X | 6 x 4 Truck | Setback | Air |
| Y | 6 x 4 Truck-Tractor | Setback | Air |
| Z | 6 x 2 Truck | Setback | Air |
| 1 | 4 x 2 Truck | Forward | Air/Hydraulic |
| 2 | 4 x 4 Truck | Setback | Air |
| 3 | 4 x 2 Truck | Setback | Hydraulic |
| 4 | 8 x 4 Truck | Setback | Air |
| 5 | 6 x 2 Truck-Tractor | Setback | Air |
| 6 | 4 x 2 Truck | Setback | Air |
| 7 | Glider | Setback | Air |

VIN for Vehicles Built through April 30, 2000

| VIN Position 4 (Chassis, Front Axle Position, Brakes) | | | |
|---|-------------|---------------------|---------------|
| Code | Chassis | Front Axle Position | Brakes |
| 8 | Glider | Forward | Air |
| 9 | 4 x 2 Truck | Setback | Air/Hydraulic |
| 0 | Glider | Setback | Air |

Table 3, VIN Position 4 (Chassis, Front Axle Position, Brakes)

| Sterling VIN Position 5 (Vehicle Model Series, Cab) | |
|---|-----------------|
| Code | Sterling Models |
| A | L7500 series |
| B | L8500 series |
| C | L9501 |
| D | L8511 |
| E | L9500 series |
| F | L9522 |
| G | A9522 |
| H | A9500 series |
| J | A9513 |
| K | L9513 |

| Sterling VIN Position 5 (Vehicle Model Series, Cab) | |
|---|-----------------|
| Code | Sterling Models |
| L | L8501 |
| M | L8513 |
| N | L9511 |
| R | L7501 |
| S | ST9500 |
| W | SC8000 |
| 2 | SC6000 |
| 7 | SC7000 |

Table 4, Sterling VIN Position 5 (Vehicle Model Series, Cab)

| Freightliner VIN Position 5 (Model Series, Cab) | |
|---|-----------------------------|
| Code | Freightliner Models |
| W | FC80 Freightliner Cargo COE |
| 2 | FC60 Freightliner Cargo COE |
| 7 | FC70 Freightliner Cargo COE |

Table 5, Freightliner VIN Position 5 (Model Series, Cab)

| VIN Positions 6 and 7 (Engine Manufacturer, Model, Horsepower Range) | | | |
|--|---------------------|------------------------|----------|
| Code | Engine Manufacturer | Engine Model | HP Range |
| AY | Cummins | NTC / N14 | 207–251 |
| BD | Mercedes-Benz | MBE4000 | 353–407 |
| BE | Mercedes-Benz | MBE4000 | 408–495 |
| BX | Mercedes-Benz | MBE4000 | 288–352 |
| BY | Cummins | NTC / N14 | 254–310 |
| CX | Detroit Diesel | S-60, 11.1 L | 331–402 |
| CY | Cummins | N14 | 315–385 |
| DY | Cummins | NTC / N14 | 389–475 |
| DZ | Cummins | N14 | 476–580 |
| EB | Caterpillar | C10 / 3176J | 225–275 |
| EC | Caterpillar | C10 / 3176J | 276–335 |
| ED | Caterpillar | C10 / 3176 | 336–407 |
| F4 | Cummins | B5.9 (propane) | 185–224 |
| FA | Cummins | 6BT 5.9 (diesel) / ISB | 185–224 |

00.03

Vehicle Identification Numbering System

VIN for Vehicles Built through April 30, 2000

| VIN Positions 6 and 7 (Engine Manufacturer, Model, Horsepower Range) | | | |
|--|---------------------|----------------------------|----------|
| Code | Engine Manufacturer | Engine Model | HP Range |
| FB | Cummins | 6BT 5.9 (diesel) / ISB | 225–275 |
| FF | Cummins | 6BT 5.9/ ISB | 153–184 |
| FH | Cummins | 6BT 5.9–195G (natural gas) | 185–224 |
| FV | Cummins | 6BT 5.9–195G (natural gas) | 126–152 |
| GA | Mercedes-Benz | OM 366LA | 185–224 |
| GB | Mercedes-Benz | OM 366LA | 225–275 |
| GF | Mercedes-Benz | OM 366LA | 153–184 |
| HB | Detroit Diesel | S–50 | 225–275 |
| HC | Detroit Diesel | S–50 | 276–335 |
| HD | Detroit Diesel | S–50 | 336–407 |
| JA | Caterpillar | CFE / 3126 (diesel) | 185–224 |
| JB | Caterpillar | CFE / 3126 (diesel) | 225–275 |
| JC | Caterpillar | CFE / 3126 (diesel) | 276–335 |
| JF | Caterpillar | CFE / 3126 (diesel) | 153–184 |
| KY | Cummins | L10 | 225–275 |
| LA | Cummins | 6C 8.3 (diesel) / ISC | 185–224 |
| LB | Cummins | 6C 8.3 (diesel) / ISC | 225–275 |
| LC | Cummins | 6C 8.3 (diesel) / ISC | 276–335 |
| LD | Cummins | L10 | 336–407 |
| LE | Cummins | ISC | 336–407 |
| LL | Cummins | C 8.3 (natural gas) / ISC | 225–276 |
| LY | Cummins | L10 | 276–330 |
| MC | Cummins | M11 / ISM | 276–335 |
| MD | Cummins | M11 / ISM | 336–407 |
| ME | Cummins | M11 / ISM | 408–495 |
| MW | Cummins | ISM | 496–605 |
| NT | Cummins | 4B 3.9–130 hp (diesel) | 126–152 |
| PY | Detroit Diesel | S-60, 11.1 L | 275–330 |
| RY | Caterpillar | 3406 | 270–330 |
| SE | Detroit Diesel | S-60, 12.7 L | 408–495 |
| SM | Detroit Diesel | S-60, 12.7 L | 276–335 |
| SY | Caterpillar | 3406 | 333–407 |
| SZ | Detroit Diesel | S-60, 12.7 L | 496–605 |
| TD | Detroit Diesel | S-55 | 336–407 |
| TE | Detroit Diesel | S-55 | 408–495 |

Vehicle Identification Numbering System

00.03**VIN for Vehicles Built through April 30, 2000**

| VIN Positions 6 and 7 (Engine Manufacturer, Model, Horsepower Range) | | | |
|--|---------------------|-----------------------|----------|
| Code | Engine Manufacturer | Engine Model | HP Range |
| TJ | Dodge | Magnum V8 (gasoline) | 207–253 |
| TR | Dodge | Magnum V10 (gasoline) | 270–330 |
| TY | Caterpillar | 3408 | 383–467 |
| UY | Caterpillar | 3306 | 225–275 |
| VY | Caterpillar | 3406 | 225–269 |
| WC | Caterpillar | CFE/3126 | 276–335 |
| WD | Caterpillar | C12 / 3176L | 336–407 |
| WE | Caterpillar | C12 / 3176L | 408–495 |
| WY | Caterpillar | 3306 | 276–335 |
| XY | Caterpillar | 3406 | 408–495 |
| XZ | Caterpillar | 3406 | 496–605 |
| YY | Detroit Diesel | S-60, 11.1 L | 225–274 |
| ZY | Detroit Diesel | S-60, 12.7 L | 333–407 |
| 1B | Detroit Diesel | 6L–71 | 225–275 |
| 1C | Detroit Diesel | 6L–71 | 276–335 |
| 2W | Detroit Diesel | S-60, 14.0L | 496–605 |
| 3A | Mercedes-Benz | MB904 | 185–224 |
| 4Y | Detroit Diesel | 6V–92 | 239–287 |
| 5Y | Detroit Diesel | 6V–92 | 288–352 |
| 6A | Mercedes-Benz | MB906 | 185–224 |
| 6B | Mercedes-Benz | MB906 | 225–275 |
| 6C | Mercedes-Benz | MB906 | 276–335 |
| 6Y | Detroit Diesel | 8V–92 | 365–446 |
| 7D | Cummins | ISX Signature | 336–407 |
| 7E | Cummins | ISX Signature | 408–495 |
| 7W | Cummins | ISX Signature | 496–605 |
| 8Y | Detroit Diesel | 8V–92 | 302–364 |
| 9Y | Detroit Diesel | 8V–92 | 447–522 |
| 0Y | No Engine | — | — |

Table 6, VIN Positions 6 and 7 (Engine Manufacturer, Model, Horsepower Range)

| VIN Position 8 (Gross Vehicle Weight Rating) | | |
|--|----------------|----------------|
| Code | lb | kg |
| A | 26,001–33,000 | 11 794–14 968 |
| B | 33,001 or over | 14 969 or over |