



Run Smart™

CENTURY CLASS



Maintenance Manual



Run Smart™

CENTURY CLASS TRUCKS MAINTENANCE MANUAL

**Models: Argosy® COE
C112 Conventional
C120 Conventional
CST120 Conventional
Coronado®**

Foreword

Scheduled maintenance provides a key element for the safe operation of your vehicle. A proper maintenance program also helps to minimize downtime and to safeguard warranties. This maintenance manual provides information necessary for years of safe, reliable, and cost-efficient vehicle operation.

IMPORTANT: The maintenance operations in this manual are **not all-inclusive**. Also refer to other component and body manufacturers' instructions for specific inspection and maintenance instructions.

Perform the operations in this maintenance manual at scheduled intervals. Perform the pretrip and post-trip inspections, and daily/weekly/monthly maintenance, as outlined in the vehicle driver's manual. Major components, such as engines, transmissions, and rear axles, are covered in their own maintenance and operation manuals, that are provided with the vehicle. Perform any maintenance operations listed at the intervals scheduled in those manuals. Your Freightliner Dealership has the qualified technicians and equipment to perform this maintenance for you. They can also set up a scheduled maintenance program tailored specifically to your needs. Optionally, they can assist you in learning how to perform these maintenance procedures.

IMPORTANT: Descriptions and specifications in this manual were in effect at the time of printing. Freightliner Trucks reserves the right to discontinue models and to change specifications or design at any time 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 and www.FreightlinerTrucks.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.

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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	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. IMPORTANT: Before using a particular service bulletin, check the current service bulletin validity list to be sure the bulletin is valid.
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 website.	
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 website 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 *Century Class Trucks Maintenance Manual*, see Fig. 1.

The diagram shows a page from a maintenance manual. At the top, the title 'Frame and Fifth Wheel' is centered. To its right is the group number '31'. Below the title is the section title '31-01 Fifth Wheel Inspection'. The page contains several paragraphs of text, including a warning, a note, and two columns of numbered steps. At the bottom of the page, the release date '11/20/95' is on the left and the page number '31/1' is on the right. Callouts A through E point to these specific elements: A points to the group number '31', B points to the title 'Frame and Fifth Wheel', C points to the section title '31-01 Fifth Wheel Inspection', D points to the release date '11/20/95', and E points to the page number '31/1'.

Frame and Fifth Wheel **31**

31-01 Fifth Wheel Inspection

WARNING: All fifth wheel maintenance, adjustment, and rebuilding must be done only by a qualified mechanic. Improper or incomplete procedures could result in a possible disengagement of the trailer from the tractor, which could result in personal injury or property damage.

Parts are under spring compression. Wear safety goggles while servicing the fifth wheel. Failure to do so can result in personal injury, due to parts ejecting with force.

FONTAINE

1. Disconnect the tractor from the trailer. For instructions, see the vehicle driver's manual.
2. Thoroughly steam-clean the fifth wheel.
3. Look for cracks in the fifth wheel assembly, mounting brackets, and mounting parts.
4. Check the jaw and stationary jaw for mushrooming, and check that the serrations at the jaw and wedge are in good condition.
5. Test the safety lock latch for free operation.

NOTE: The safety lock latch is located at the front of the fifth wheel on the top plate.

6. Visually check for loose nuts or bolts, see Fig. 1, on the fifth wheel and on the mounting. Set a torque wrench to the maximum torque value for the bolt being checked, and confirm that the torque is to specification. Do not loosen the bolt to check the torque value. Refer to Group 00 in this manual for bolt torque specifications.
7. Visually check all springs to see if they are securely fastened and not deformed.

WARNING: Do not disassemble the fifth wheel to inspect the springs. The springs are under extreme pressure and could cause serious injury.

8. Check wedge adjustment.
 - 8.1 Open the kingpin lock and vertically insert a two-inch diameter shaft.
 - 8.2 Release the lock by tripping the release latch at the bottom of the throat.
 - 8.3 Adjust the wedge stop at the end of the wedge to approximately 1/4-inch (6 mm) clearance by turning the wedge stop rod located on the right side of the top plate.
9. Replace cracked, worn, or damaged parts with new parts. Replace all loose mounting bolts with 5/8-11 SAE grade 8 bolts, grade C locknuts, and hardened washers. Do not re-use bolts, nuts, and washers on fifth wheel mountings.
10. After inspecting the fifth wheel, lubricate all moving parts with a chassis or multipurpose grease. Apply a generous coating of grease to the top plate to fill the grooves, or depressions, on the top plate.

HOLLAND

1. Disconnect the tractor from the trailer. For instructions, see the vehicle driver's manual.
2. Thoroughly steam-clean the fifth wheel.
3. Check for loose nuts or broken bolts on the fifth wheel assembly.
4. Inspect for cracks or wear on the mounting bolts.
5. Visually inspect for improper locking action and for cracks or wear on the jaw locking mechanism.
6. Check the depth of the grease grooves. If the depth of the grooves is 1/8 inch or less, replace the fifth wheel top plate. Refer to Group 31 in the vehicle workshop manual.
7. Check the condition of the X-pattern cast into the underside of the fifth wheel top plate. See Fig. 2. The fifth wheel top plate must be removed to check the X-pattern.
8. Remove the roll pins from the bushing pins. Remove the bushing pins from the slide mount. Use a hoist and lift the fifth wheel top plate off of the vehicle.
9. Turn the fifth wheel top plate over with the locks open. Check the condition of the X-pattern in the pockets. If the X-pattern is worn away, replace the fifth wheel top plate.
10. Inspect for fatigue or cracked welds.
11. Replace cracked, worn, or damaged parts with new parts. Replace all loose mounting bolts with 5/8-11 SAE grade 8 bolts, grade C locknuts, and

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A. Maintenance Operation Number consists of the Group Number followed by the Sequence Number
 B. Group Title
 C. Group Number
 D. Release Date
 E. Group Number/Page Number

Fig. 1, Example of a Century Class Trucks Maintenance Manual Page

Group No.	Group Title
00	General Information
01	Engine
09	Air Intake
15	Alternators and Starters
20	Engine Cooling/Radiator
25	Clutch
26	Transmission
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
60	Cab
72	Doors
83	Heater and Air Conditioner
88	Hood, Grille, and Cab Fenders

Title of Maintenance Operation (MOP)	MOP Number
Determining Scheduled Maintenance Intervals.	00-01
Initial Maintenance (IM) Operations.	00-05
Lubrication and Fluid Level Check	00-04
M1 Maintenance Interval Operations.	00-06
M2 Maintenance Interval Operations.	00-07
M3 Maintenance Interval Operations.	00-08
Maintenance Operation Sets Table	00-09
Metric/U.S. Customary Conversion Tables.	00-12
Noise Emission Controls Maintenance.	00-10
Service Schedule Table	00-02
Torque Specifications Tables.	00-13
Vehicle Maintenance Schedule Tables.	00-03
Verification of Inspections Log.	00-11

Determining Scheduled Maintenance Intervals: 00–01

Determining Scheduled Maintenance Intervals

Performing regular maintenance on your Freightliner will help ensure that your Freightliner delivers safe reliable service and optimum performance for years to come. Failure to follow a regular maintenance program can result in inefficient operation and unscheduled down time.

To determine the correct maintenance intervals for your vehicle you must first determine the type of service or conditions the vehicle will be operating in. Generally, most vehicles operate under conditions that fall within one of the four types of service described. Before placing your new vehicle in service, determine the type of service (Service Schedule I, II, III, or IV) that applies to the intended use of the vehicle. After determining the vehicle's type of service, refer to the service schedule table or the vehicle maintenance schedule table, to determine how often maintenance should be performed.

When the vehicle reaches the distance given for a maintenance interval, see the Maintenance Interval Operation Table for a list of the maintenance operations to be performed at that maintenance interval. Use the maintenance operation reference numbers to find detailed instructions in the manual on each operation.

Types of Service

Service Schedule I (severe service) applies to vehicles that annually travel less than 6000 miles (10 000 kilometers) *or* that operate under severe conditions. Examples of severe service, Schedule I usage include: operation on extremely poor roads or where there is heavy dust accumulation; constant exposure to extreme hot, cold, salt-air, or other extreme climates; frequent short-distance travel; construction-site operation; city operation (fire truck); or farm operation.

Service Schedule II (short-haul transport) applies to vehicles that annually travel less than 60,000 miles (100 000 kilometers) and operate under normal conditions. Examples of Schedule II usage are: operation primarily in cities and densely populated areas; local transport with infrequent freeway travel; or high percentage of stop-and-go travel.

Service Schedule III (long-haul transport) is for vehicles that annually travel *more than* 60,000 miles

(100 000 kilometers) with minimal city or stop-and-go operation. Examples of Schedule III usage are: regional delivery that is mostly freeway miles; interstate transport; or any road operation with high annual mileage.

Service Schedule IV (long haul transport for Optimized Vehicle Configuration) is for vehicles that annually travel **over** 60,000 miles (100 000 km) **and** meet the following qualifications:

- Meritor 15-1/2 inch dampened/ceramic Lite Pedal LTD clutch with sealed release bearing.
- Synthetic transmission fluid used in transmission.
- Meritor FF-961 or FF-981 front axle (12,000 lb. capacity) with synthetic lubricant.
- Front suspension with maintenance-free rubber bushings for 12,000 lb. capacity suspension.
- Meritor RPL series, or Spicer SPL series drive-line U-joints.
- Synthetic lubricant used in rear axle.
- Equipped with any Freightliner AirLiner suspension.
- Equipped with Meritor Q-Plus extended-lube cam brakes and automatic slack adjusters, front and rear.
- Standard brake system package including Bendix AD-9 air dryer—mounted on the right-hand frame rail, located directly behind the front bumper—with heater, and a Bendix air compressor.
- TRW TAS-65 power steering.

NOTE: Maintenance instructions in this manual are based on average vehicle use and normal operating conditions. Unusual vehicle operating conditions may require service at more frequent intervals.

Service Schedule Table: 00–02

Service Schedule	Maintenance Interval Operation	Maintenance Interval			
		Frequency	Miles	km	Hours
Schedule I* (Severe Service) vehicles that annually travel less than 6000 miles (10 000 km)	Initial Maintenance (IM)	first	1000	1600	50
	Maintenance 1 (M1)	every	1000	1600	50
	Maintenance 2 (M2)	every	5000	8000	500
	Maintenance 3 (M3)	every	15,000	24 000	1500
Schedule II† (Short-Haul Transport) vehicles that annually travel less than 60,000 miles (100 000 km)	Initial Maintenance (IM)	first	10,000	16 000	—
	Maintenance 1 (M1)	every	10,000	16 000	
	Maintenance 2 (M2)	every	50,000	80 000	
	Maintenance 3 (M3)	every	150,000	240 000	
Schedule III† (Long-Haul Transport) vehicles that annually travel over 60,000 miles (100 000 km)	Initial Maintenance (IM)	first	25,000	40 000	—
	Maintenance 1 (M1)	every	25,000	40 000	
	Maintenance 2 (M2)	every	100,000	161 000	
	Maintenance 3 (M3)	every	300,000	483 000	
Schedule IV† (Long-Haul Transport for Optimized Vehicle Configuration) vehicles that annually travel over 60,000 miles (100 000 km)	Initial Maintenance (IM)	first	25,000	40 000	—
	Maintenance 1 (M1)	every	25,000	40 000	
	Maintenance 2 (M2)	every	100,000	161 000	
	Maintenance 3 (M3)	every	300,000	483 000	

* For Schedule I (severe service) vehicles equipped with an hourmeter, use maintenance intervals based on hours of operation rather than distance traveled.

† Use Schedule I (severe service) maintenance intervals for vehicles that operate under severe conditions, such as extremely poor roads, heavy dust accumulation, extreme climate, frequent short distance travel, construction-site operation, city operation (garbage truck), or farm operation.

Table 1, Service Schedule