Knowing Your Freightliner Custom Chassis
Seminar Presentation
Benefits of Ownership
Our Philosophy

- We are *Driven By You* - our customers
  - We listen to our customers and deliver on their expectations
  - We believe in being open, honest and doing the right thing for our customers
  - We are committed to only build products with superior reliability, durability, ride, handling and maneuverability
  - We stand behind our products
Benefits of Ownership
Our Family

• From Entry to Luxury
  – FRED chassis
    • Front Engine Diesel chassis
    • ISB engines
    • Diesel benefits of power, fuel economy and lower cost of ownership for the price of gas
  – XC chassis
    • The most demanded and versatile chassis in the diesel motorhome industry
    • ISB, ISC, ISL engines
  – Powerliner chassis
    • Heavy-duty diesel motorhome chassis for luxury applications
    • ISM and larger engines
Benefits of Ownership

Innovation

- FCCC motorhome chassis innovations:
  - Lowered rear engine position
  - Raised-, formed- and lowered-rail chassis frames
  - Modular chassis
  - Flat-floor front engine diesel
  - Independent front suspension
  - Industry best 60-degree wheel cut
  - Inboard air suspension
  - Steering bell crank
  - Push-to-connect fittings
Top 10 attributes customer desire in a diesel motorhome chassis:

1. Reliability of the chassis
2. Chassis warranty
3. Stable ride
4. Overall driving comfort
5. Confident handling
6. Reputation of the service network
7. Reputation of the chassis manufacturer
8. Durability of parts
9. Responsiveness of company to customers
10. Number of authorized service locations
• Reliability
  – Built-in quality audits in the manufacturing process
  – Every chassis (not random samples) undergoes a complete electrical, ABS brake and dynamometer test
  – Durability: we test a unit hundreds of thousands of miles before you drive your first
  – Established name since 1942, part of the global Daimler family with access to worldwide resources, technologies and support

• Drivability
  – Bell crank provides controlled steering response in all conditions
  – Unmatched wheel cut and maneuverability enable customers to experience places they thought they could never go
  – Large volume air suspensions matched with front and rear stabilizing beams provide a smooth ride and superior roll resistance
Benefits of Ownership
Industry-Leading Warranty

<table>
<thead>
<tr>
<th>Component</th>
<th>Coverage Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engine</strong></td>
<td>5 Years / 100,000 miles</td>
</tr>
<tr>
<td></td>
<td>5 Years / 200,000 miles</td>
</tr>
<tr>
<td></td>
<td>5 Years / Unlimited</td>
</tr>
<tr>
<td><strong>Caterpillar MBE 926</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Transmission</strong></td>
<td>5 Years / 200,000 miles</td>
</tr>
<tr>
<td><strong>Allison 2500 MH Series</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Allison 3000 MH Series</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Chassis</strong></td>
<td>3 Years / 50,000 miles</td>
</tr>
<tr>
<td><strong>Drive Train</strong></td>
<td>3 Years / 50,000 miles</td>
</tr>
<tr>
<td><strong>Suspension &amp; Frame Rails</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Crossmembers</strong></td>
<td>5 Years / 100,000 miles</td>
</tr>
<tr>
<td><strong>Transferable</strong></td>
<td><em>All of The Above</em></td>
</tr>
</tbody>
</table>

*FRED: 3 Years / 75,000 miles

All warranties are completely transferable
Benefits of Ownership
Industry-Leading Warranty

• FCCC offers the industry’s most comprehensive warranty coverage
  – A three-year, 50,000-mile limited warranty with towing and roadside assistance—and no deductible whatsoever.*
  – Completely transferable
  – You’re covered for two complete trips around the globe

*See Owner’s Warranty Information booklet for more details
Benefits of Ownership
Overview

- **Peace of Mind…All the Time**
  - Over **400 exclusive** Freightliner service locations, not a multi-brand repair shop like what’s currently used by many of our competitors. This includes an ever-increasing number of Oasis “RV friendly” dealers.

- **24-hour** breakdown/service factory support for you and our dealers 1-800-FTL-HELP (1-800-385-4357). General questions are appreciated between 8am-5pm EST.

- Multiple regional parts distribution centers for expediting critical part shipments to dealers, as well as parts and service support at major rallies.
Benefits of Ownership
Proven Reputation

Percentage = Market Share

| Year | Oliver | Spartan | RM/Monaco | Freightliner | Total
|------|--------|---------|-----------|-------------|------
| 2007 | 5.3%   | 10.9%   | 25.9%     | 51.9%       | 51.9%
| 2006 | 7.7%   | 15.0%   | 23.8%     | 54.0%       | 54.0%
| 2005 | 7.0%   | 16.6%   | 26.0%     | 50.3%       | 50.3%
| 2004 | 6.9%   | 11.7%   | 25.8%     | 65.8%       | 65.8%
| 2003 | 6.0%   | 12.9%   | 29.9%     | 50.4%       | 50.4%
| 2002 | 6%     | 15%     | 33%       | 46%         | 46%

Diesel Class A Motorhome Retail Sales

- Oliver
- Spartan
- RM/Monaco
- Freightliner

2007 Total Class A Sales: 29.271 units

Diesel: 15,237 = 52.06%
GAS: 14,034 = 48.04%

Source: Statistical Surveys

www.freightlinerc Chassis.com
Benefits of Ownership
Freightliner Chassis Owners Club (FCOC)

- Largest chapter of FMCA with over 4,000 members
- First year’s membership is FREE with purchase of a new motorhome on a Freightliner Custom Chassis
- Open to owners of motorhomes riding on John Deere, Oshkosh and FCCC chassis
- Two exclusive FCOC rallies each year
- Quarterly newsletter with club updates and news, as well as rally and technical information
- Dues are only $10 per year or $45 for 5 years
- Members receive a 5% discount on parts and labor at the Factory Service Center in Gaffney, SC
- Members receive a 10% discount on posted labor rates and back counter parts sales at participating Oasis dealerships
Benefits of Ownership
Freightliner Chassis Owners Club (FCOC)

- Sign up at rallies in the FCCC display or online at: www.freightlinerchassisownersclub.org

Get in the picture and join today!

Are you in this picture?

Are you enjoying the many benefits the FCOC has to offer?

Join today! Come visit the FCCC display after the seminar
Topics include:
Air brake system
Electrical system
Maintenance intervals
Weight distribution
Vehicle storage guidelines
Much much more!

Contact: Debbie Moore at 864-206-8267 or via Email at Deborah.L.Moore@Daimler.com

Or register on-line at:
www.freightlinerchassis.com
Click on “Motorhome”
Click on “Owner Info” tab to register
We are Driven By You - our customer!
• Contact Information
• Tire Care
• Weight Distribution
• Allison Transmission
• Air Brake System
• Pre-Trip Inspection
• Reference Material

Hold all questions until the end, please.
Peace of mind, all the time

1-800-FTL-HELP (800-385-4357)

24 HOURS A DAY
7 DAYS A WEEK
365 DAYS A YEAR

Visit our web site at www.freightlincherchassis.com
Benefits of Ownership
Service and Support

- FCCC offers nationwide coverage with more service locations than any other chassis manufacturer
- 400 service locations in the United States and Canada
- A growing number are Oasis Service Centers
Benefits of Ownership
Oasis Service Centers

- Oasis locations are specifically designed to cater to the needs of the RV customer
- Oasis Service Centers include features such as:
  - Dedicated RV customer lounge
  - Dedicated RV write-up service area
  - Diagnostic tools specially designed for RV service
  - Technicians specifically trained on RV service and repair
  - Special care when inside your RV
  - RV electrical hook-ups
Tire Care

The most important factor in maximizing the life of your tires is maintaining proper inflation pressure. An under-inflated tire will build up excessive heat that may go beyond the prescribed limits of endurance of the rubber and the radial cords. Over inflation will reduce the tire’s footprint on the road, reducing the traction, braking capacity and handling of your vehicle. An over-inflated tire will also cause a harsh ride, uneven tire wear and will be more susceptible to impact damage.

Keep in mind that the pressure rating on the side wall of your tire is the maximum pressure for that tire. This is not necessarily the correct pressure for the tires when installed on your vehicle. Maintaining the correct tire pressure for your vehicle’s loaded weight is extremely important and must be a part of regular vehicle maintenance.
To determine the correct air pressure for your tires, load your motorhome as you would normally travel, including water and fuel. Go to a truck scale, found at most truck stops, and weigh each wheel position independently, with driver and passenger or passengers in the vehicle as described in the Michelin Recreational Vehicle Tire Guide (MDL40660 Rev. 1/03) or Goodyear Recreational Tire and Care Guide (CT-04-001-04/04) to determine the correct air pressure for the weight on each wheel position. Then use the charts in the guide and adjust the pressure accordingly when the tires are cool or have not been driven for more than one mile.

Never reduce the air pressure in a hot tire.

Remember:
For control of your motorhome, it’s critical that the tire pressure be the same on both sides of the axle!

* For a copy of the Michelin Recreational Vehicle Tire Guide, call 1-800-847-3435
* For a copy of the Goodyear Recreational Tire and Care Guide, call 1-800-321-2136
Weight Distribution

The distribution of weight in your motorhome is a very important factor. Too much weight either on one side of the vehicle or too much weight in the rear compared to the front axle can adversely affect the handling characteristics of the vehicle and in some cases can result in overloading the tires or axle components. Care should be taken to assure that you maintain as much of an equal balance as possible when loading your equipment, food and other supplies into the vehicle.

The front to rear weight balance should be as close to equal percentages of each axle weight rating as possible (Example: Front GAWR = 10,410 lbs. / 80% = 8,328 lbs. Rear GAWR = 17,500 lbs. / 80% = 14,000 lbs.) This type of balance provides the best handling characteristics of the vehicle. Small percentage differences will not make a great deal of difference. A unit that is too light on the front axle and heavy on the rear axle can result in wandering and porpoising, or a continued bouncing of the front of the coach after hitting a bump in the road.

By knowing what your vehicle weighs, you can determine the best location for your belongings. Simply because you can fit everything in one compartment for easy access, does not mean that this is OK. Your house is now moving down the road, so the little things like location of heavy items becomes important from more than an accessibility standpoint.
Let’s Drive
Ride and Handling

- For normal driving and best fuel economy
  - Select “D” and “Mode On”
- For performance
  - Select “Mode Off”
  - For mountain driving, select lower gears to maintain 2000+ engine RPM
- For hill climbing on hot days
  - Keep RPMs high to cool engine
• 3000/4000 MH Allison Transmission Only
• Press up and down arrow keys simultaneously
• Wait for two-minute “countdown”
• Display indicates – OL (oil level)
  – “OL - OK” indicates good oil level
  – “OL - HI” followed by number indicates quarts over-filled
  – “OL - LO” followed by number indicates quarts under-filled
  – “OL – 70” means transmission is not up to operating temperature
The rear brakes on the Freightliner chassis are also used as the parking brakes. This gives you the holding power of two large drum brakes to keep your coach from rolling, even when fully loaded on a 20% grade.

A loss in air pressure will not result in an immediate loss of brakes. If a leak develops in the air system while driving (at approximately 60 to 65 PSI), you will be alerted by a light on the instrument panel and an audible alarm. As you apply the brakes, the air supply holding the brakes in the released position will gradually be depleted. When fully depleted (approximately 40 PSI to 45 PSI), the rear brakes will set. This gives you plenty of time to pull over to the side of the road.

**NOTE:** The rear brakes have dual chambers, one for the service brakes and one for the park brake. The service brakes are air applied and spring released. The park brake is spring applied and air released.

The brakes are equipped with automatic slack adjusters that eliminate the need to manually adjust your brakes. Each time you step on the brake pedal, if adjustment is needed, the adjusters take up the slack. That’s all there is to it.
Let’s Drive: Air System Locator

1. Air Compressor
2. Teflon Line (Supply)
3. Air Dryer
4. Air Lines
5. Air Tanks

6. Front Air Suspension
7. Rear Air Suspension
8. Front Leveling Valve(s)
9. Rear Leveling Valve(s)
10. Drain Lanyards
Color-Coded Air Lines

- Reduced downtime
- Ease of maintenance
- Reduced repair cost
Let's Drive
Air Dryer

- Removes moisture and oil from compressed air
- Spin-on desiccant cartridge to remove moisture
- Internal coalescing filter to remove oil

Change interval: 36 months
Let's Drive
Air Dryer

Multi-stage cleaning employs five stage cleaning to ensure dry system air.

Easy cartridge maintenance with slide-in and-out cartridge and 4-bolt mounting bracket.

Universal mounting bracket provides quick interchange of Pure Air Plus™, DRYest, AD Type and SS Type Air Dryers.

Integrated 3-bolt SAE mounting bracket allows for easy installation in OEM and existing applications.

Large integrated purge volume eliminates the need for an external purge tank

Integrated turbo protection reduces engine horsepower loss and improves fuel efficiency.

Built-in heater prevents moisture from freezing and damaging the air dryer.

Purge exhaust cover protects the heating element and directs the purge exhaust away from the air dryer.

Change every 36 months
**Air System**

**MYTH:** Air systems require little maintenance

**FACT:** FCCC provides automatic moisture ejectors this eliminates the need to drain tanks drain cables provided which allow tanks to be drained from above every 6 MONTHS
Freightliner chassis are equipped, as standard equipment, with a heated automatic moisture ejector system on the wet tank in addition to one built into the air dryer. This eliminates the need to climb under the coach to drain air and water from the tanks daily. You still must pull all three drain lanyards for 10 to 15 seconds every 6 months to drain moisture. A fine mist is normal due to condensation. If a large amount of moisture is present it should be completely drained and the air dryer serviced. Moisture in the braking system can cause brake system failure and is not covered by the manufacturer warranty.
This manifold is usually located somewhere toward the front of the coach i.e. firewall, front compartment. The location depends on the coach manufacturer.

(WARNING: Air tanks should be bled of all pressure any time you work on the air system)
GXL Wiring

- Flame retardant
- Heat resistant up to 135°C
- Color coded
- Circuit number coded
- Circuit description labeled
Let's Drive
Comfortable Ride

TRW Infinitely Adjustable
Tilt & Telescoping
Steering Column

Foot Pedal Control
Let's Drive
Comfortable Ride

FCCC  Outboard Air Spring

FCCC has **NONE!**  Competitor chassis has **48° OF BUMP STEER** through full suspension travel

www.freightlinercrashasis.com
- Provides a smooth steering response under all conditions
- Bell crank design/steering gear location virtually "ELIMINATES BUMP STEER"

Bell Crank

55° Wheel Cut
8-bag vs. 4-bag ride quality

**MYTH:** "8-spring suspension provides better ride quality and more air volume than Freightliner's 4 spring suspension."

**Freightliner Custom Chassis**
- 10.5" to 12.5" diameter air springs at 60 psi
- 13% - 25% more cubic inches of air volume
- 1/2" hose between ping tanks and air spring increases volume, allowing for lower operating pressure and provides 30% better ride

**Other Brand**
- 8" diameter air springs at 110 psi
- Lower total cubic inches of air volume
- 1/8" hose to leveling valve to exhaust air requires higher pressures, harsh ride
- No ping tanks
Caution: Do not use any of these supplemental braking systems on wet roads or in slippery conditions.
Please take some time, if you have not already done so, to read through the operator’s manual provided with your chassis. Familiarization with this book and your chassis is the best possible way to ensure that you can safely operate your vehicle and extend its useful life.

Prior to starting your vehicle each day, there are a few things that should be checked. Taking the time to follow these recommendations could mean the difference between having a wonderful vacation and spending your time on the side of the road or in the lobby of a repair shop.

- **Check the tires for proper inflation pressure and for damage. Don’t forget to check the inner duals. Refer to the air pressure charts in the beginning of this handout for proper inflation pressures.**

- **Look for fluid leaks under the motorhome. (The simple act of tightening a hose clamp could prevent a serious problem.)**
Check the coolant level in the reservoir and add a 50/50 mix of coolant and water if needed. This reservoir is located at the rear of your vehicle. Be careful not to confuse it with the hydraulic fluid reservoir though, they look very much alike.

• Check SCA (supplemental coolant additive) and freeze point every 6 months or 25,000 miles. Recharge as required.

**IF THE WATER TEMP IN YOUR ENGINE IS GREATER THAN 120 DEGREES, DO NOT REMOVE THE RADIATOR CAP!**

**YOU COULD BE SEVERLY BURNED !!!**

• Approximate COOLING SYSTEM CAPACITIES Does not include heater core or other auxiliary systems added by coach manufacturer.

  • Cummins ISB - Rear Radiator 36 Qt. or 9 Gallons.
  • Cummins ISC - Rear Radiator 42 Qt. or 10½ Gallons.
  • Cummins ISC & ISL - Side Radiator 42 Qt. or 10½ Gallons.
  • Cummins ISM – Side Radiator 50 Qt. or 12½ Gallons.
  • Caterpillar 3126, 3126B&E, C7 Rear Radiator 38 Qt. or 9½ Gallons.
  • Caterpillar 3126, 3126B&E, C7 Side Radiator 38 Qt. or 9½ Gallons.

**Note:** If you have trouble getting Alliance Brand Coolant ALAWS3 Detroit Diesel Brand Powercool 50/50 pre mixed is the same coolant. (Part # 23528203). Fleetcharge coolant is also the same and sold through some PEP BOYS, NAPA, and Tractor Supply under Fleetcharge FCA053.

You can contact Fleetcharge at 1-800-323-8755 for info on retailers.
• Check transmission fluid level and add fluid if needed

• Check engine oil level and add oil if needed

• Check the engine compartment for squirrels, cats, etc. They like the warmth of the engine compartment, but make a real mess if caught in the belts.

• Check the hydraulic fluid in the hydraulic reservoir and add fluid if needed.
Let's Drive
Pre-trip Inspection

- Check hydraulic fluid
- Refer to owner's manual

910 square inch rear radiator
1000 square inch or larger rear radiator
Side radiator
Let's Drive
Pre-trip Inspection

- Check fuel and water separator
- Refer to owner's manual or call 1-800-FTL-HELP

ISB  ISB 02  3126 / C7 MBE  ISC / ISL
Let’s Drive
Pre-trip Inspection

• Check air filter restriction indicator

Brand-new air cleaner
10” to 12” of vacuum

• Engine air cleaner element should be changed when the air inlet restriction indicator reaches 25 inches of vacuum or every two years, whichever occurs first.
Knowing your chassis
Ready To Go!

Please come visit the FCCC display here at the rally for:

- A first-hand look at “what’s new!”
- Detailed technical information
- Scheduling warranty service on your coach
- Parts and accessories sales
- Sign up for the Freightliner Chassis Owners Club
- Pick up motorhome chassis brochures and spec sheets
- Check out the all new “Country Corner!”
- Or just come by and say “Hi!”
Reference section

Overview

- Facts about Freightliner Custom Chassis Corp.
- Operation of the Information Center
- Maintenance information (schedules and parts)
- Important contact phone numbers
- Access to wiring diagrams/repair manuals
- Detailed driving tips
- Camp Freightliner enrollment information
- Chrysler vehicle discount program information
- Seminar evaluation/suggestion form
Knowing Your Chassis

- Thank You
- Please complete the survey in the back of the book. We greatly appreciate your response and your loyalty

Driven By You
Thank you!!
Daimler Trucks North America (DTNA), formerly Freightliner LLC, was founded in 1942 and purchased by Mercedes-Benz (later to become Daimler) in 1981.

Freightliner Custom Chassis Corporation (FCCC) was formed in 1995 after DTNA acquired the Chassis Division of Oshkosh Truck Corporation.

FCCC manufactures Class 4-8 chassis for motorhomes, walk-in vans, commercial buses and school buses.

- ISO 9001:2008 certified company with recertification achieved in 2002
- ISO 14001 certified in 2004
Reference Section
FCCC Manufacturing Facility

- Located in Gaffney, SC – approximately 55 miles southwest of Charlotte, NC
- 74-acre site
- 283,000 square feet
- 500 employees
- Three production lines
- Capacity to produce over 20,000 chassis per year
Detailed information regarding the operation of the Information Center can be found in your Owner’s Manual.
(1) When you turn the ignition switch on, the first screen will show:

- Freightliner Custom Chassis. It will show in the day screen and night screen.
- All of the Icons will flash on and off
- Information available
  - Trip Computer
  - Real Time Clock
  - Odometer and Trip Odometers
  - Engine and Chassis Parameters
  - Alarms and Warning Messages
  - Diagnostics
  - Pre-Trip Checklist

www.freightlinerchassis.com
(2) The second screen will show any warnings.

(3) The pre-trip check list will come on next. *(The user can check everything off by scrolling down on the joy stick or by left clicking to the next screen)*

(4) The next is the travel screen. *(The user can set eight viewable categories, three of which can be viewed while driving. By scrolling down the user can check 5 other screens. These can be set in any order the user wants)*

(5) Setup Screen. *(Scroll down to highlight one of the categories and right click and hold to right for five seconds)*

(6) Category Select List. *(Scroll down to the category desired and right click to the category you want on the travel screen then left click. Repeat process until you have the eight categories you want.)*

(7) To get to Setup, Maintenance, Diagnostics screen. *(Go into the travel screen and with nothing highlighted right click and hold for five seconds.)*

(8) Not only can the user set the time and date, they can also change items on the checklist or even add something new to the checklist.

Whenever the user wants to clear today, leg, trip mileage or fuel economy, all they have to do is highlight it, left click, and follow instructions on the screen to zero them out.
• **Trip Odometer & Odometer in Speedo**
  - A short press of Trip Reset (<3 sec) will toggle between Trip Mode & Odometer Mode
  - A long press of Trip Reset (>3 sec) while in Trip mode will reset the Trip Odometer
  - A long press of Trip Reset (>3 sec) while in Odometer Mode will toggle between Miles & Kilometers

• **Trip Odometer in Tach**

• **Odometer In Speedo**
  - A short press of Trip Reset (<3 sec) will reset the Trip Odometer
  - A long press of Trip Reset (>3 sec) will switch the displays between Miles & Kilometers

The letter “K” & “M” appear to the lower & upper left side of the Trip Odometer & Odometer indicating Kilometers or Miles on both systems

• (< 3 sec.) means less than 3 seconds
• (> 3 sec.) means more than 3 seconds
• A small triangle is displayed pointing to either the “K” or “M” telling you if its reading in Kilometers or Miles
• The Trip Reset switch may be located in different places on the dash depending on the Coach builder
One very important area of regular, scheduled maintenance, is the lubrication of various points on the chassis steering, braking and suspension systems. The above chart points out these locations. The lubrication intervals and lubricant specifications are listed in your owners manual and on the attached pages for your particular chassis. Lubrication does not have to be performed by an authorized service dealer, but the dates and mileage of lubrication and general service should be recorded for future reference.

<table>
<thead>
<tr>
<th>No.</th>
<th>Text Ref. No.</th>
<th>Components</th>
<th>Remarks</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>46-05</td>
<td>Steering Gear</td>
<td>One Grease Fitting</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>46-04</td>
<td>Steering Shaft</td>
<td>Three grease fittings; lubricate both universal joints and the slip joint spline</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>46-01</td>
<td>Drag Link &amp; Bell Crank</td>
<td>Two grease fittings per drag link; one on each end, and one on bell crank housing</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>33-01</td>
<td>Knuckle Pins</td>
<td>Two grease fittings; one on top and one on bottom of knuckle pin. Lubricate both sides of axle.</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>42-05</td>
<td>Automatic Slack Adjusters</td>
<td>One Grease Fitting; Lubricate both sides of front and rear axle</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>33-04</td>
<td>Grease Lubricated Wheel Bearings, Front Axle</td>
<td>Inspect, repack and adjust inner and outer bearings on both sides of front axle</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>42-04</td>
<td>Brake Camshaft Bracket</td>
<td>One grease fitting; Pump in grease until it appears at the slack adjuster end of the bracket. Lubricate both sides of the front and rear axles.</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>33-02</td>
<td>Tie Rod</td>
<td>One grease fitting; one on each end of tie rod</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>35-01</td>
<td>Rear Axle</td>
<td>Check fluid level; add fluid if low (35-02)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Change fluid when required (35-01)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>41-01</td>
<td>Driveshaft</td>
<td>Three grease fittings; lubricate both universal joints &amp; slip joint spline</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>26-02</td>
<td>Automatic Transmission</td>
<td>Change fluid when required (35-01)</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>Caterpillar Fan Drive Pulley</td>
<td>One grease fitting; on top of fan drive pulley on Engines built prior to 1/03/03</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Note: 3126E Serial # HEP15357 &amp; above, and all C7's, and all side radiator NO Grease fitting.</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>Pacbrake Exhaust brake</td>
<td>Lubricate the five points indicated</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>32-04</td>
<td>Neway Ind. Front Susp.</td>
<td>Two grease fittings; One on top &amp; bottom of knuckle post, lubricate both side of suspension</td>
<td>4</td>
</tr>
<tr>
<td>15</td>
<td>ZF Ind. Front Susp.</td>
<td>Four grease fittings; one on top and bottom steering knuckle, and one on top and bottom control arm. Lubricate both sides of suspension.</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>
**Oil and filter change.**

<table>
<thead>
<tr>
<th>Cat 3126 &amp; 3126B Ser # Prefix 1WM &amp; 7AS</th>
<th>19 Qt Pan 9,000 mi or 1 yr which ever occurs 1st.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cat 3126B &amp; E &amp; C7 Ser # Prefix 7AS, 8YL, 9SZ CKM</td>
<td>22 Qt Pan 11,000 mi or 1 yr which ever occurs 1st.</td>
</tr>
<tr>
<td>Cat C7 Ser # SAP02740 &amp; up Built after 3/14/05</td>
<td>19 Qt Pan 11,000 mi or 1 yr which ever occurs 1st.</td>
</tr>
<tr>
<td>B5.9L&amp;C8.3L</td>
<td>6,000 mi or 6 mo which ever occurs 1st.</td>
</tr>
<tr>
<td>ISB, ISC &amp; EPA07</td>
<td>15,000 mi or 1 yr which ever occurs 1st.</td>
</tr>
<tr>
<td>ISL &amp; EPA07</td>
<td>18,000 mi or 1 yr which ever occurs 1st.</td>
</tr>
<tr>
<td>Cum ISM</td>
<td>7,000 mi or 6 mo which ever occurs 1st.</td>
</tr>
<tr>
<td>MBE 900</td>
<td>15,000 mi or 1 yr which ever occurs 1st.</td>
</tr>
</tbody>
</table>

**Engine fuel filter change**

<table>
<thead>
<tr>
<th>Engine Oil Filter Change</th>
<th>Engine Fuel Filter Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cat 3126 &amp; 3126B Ser # Prefix 1WM &amp; 7AS</td>
<td>9,000 miles or 1 year which ever occurs first.</td>
</tr>
<tr>
<td>Cat 3126B &amp; E &amp; C7 Ser # Prefix 7AS, 8YL, 9SZ CKM</td>
<td>11,000 miles or 1 year which ever occurs first.</td>
</tr>
<tr>
<td>Cat C7 Ser # SAP02740 &amp; up Built after 3/14/05</td>
<td>11,000 miles or 1 year which ever occurs first.</td>
</tr>
<tr>
<td>B5.9L&amp;C8.3L</td>
<td>12,000 miles or 6 months which ever occurs first.</td>
</tr>
<tr>
<td>ISB, ISC &amp; EPA07</td>
<td>15,000 miles or 1 year which ever occurs first.</td>
</tr>
<tr>
<td>ISL &amp; EPA07</td>
<td>18,000 miles or 1 year which ever occurs first.</td>
</tr>
<tr>
<td>Cum ISM</td>
<td>7,000 miles or 6 months which ever occurs first.</td>
</tr>
<tr>
<td>MBE 900</td>
<td>15,000 miles or 1 year which ever occurs first.</td>
</tr>
</tbody>
</table>

**Recommended Fluid Types**

<table>
<thead>
<tr>
<th>Engine Oil</th>
<th>Transmission Fluid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caterpillar, Cummins &amp; MBE Engines</td>
<td>MT643, MD3060, 1000/2000 Series, 3000/4000MH</td>
</tr>
<tr>
<td>Outside air temperature between +5 F &amp; +122 F</td>
<td>Dexron III or TransSynd</td>
</tr>
<tr>
<td>SAE 15W-40 CI-4, CH-4, CG-4 or CF-4 Cum EPA07 CJ-4/SL</td>
<td>2000MH TransSynd</td>
</tr>
</tbody>
</table>

**Rear Axle Differential & Front Wheel, Oil Lubricated Wheel Bearings**

- SAE 80-90W Gear Lubricant
- Rear Radiator Dexron III
- Side Radiator 15W40 CI-4

**Front Axle Spindle Pins, Tie Rods, Drag Link, Intermediate Steering Shaft & Gear**

- Multi-Purpose Grease NLGI Grade 1 or 2

**Brake Caliper Slides (Hydraulic Brakes)**

- Aeroshell Grade 5 (ES-1246) Grease
- Pac Brake Synthetic Lube or Synco Super Lube
Reference Section
Important contact numbers / Websites

- Freightliner Custom Chassis Corporation
  - 1-800-FTL-HELP (800-385-4357)
    www.freightlinerchassis.com
    www.freightlinerchassissownersclub.org
    www.accessfreightliner.com (please have chassis VIN number)

- Caterpillar engines- 1-877-777-3126
- Cummins engines- 1-800-DIESELS (800-343-7357)
- Detroit Diesel engines- 1-800-445-1980
- Allison transmissions- 1-800-524-2303
- Michelin tires- 1-800-TIRE-HELP (800-847-3435)
- Goodyear tires- 1-800-321-2136

- Discount on Chrysler vehicles (enter code# D71290)
  www.chrysleraffiliates.com or 1-888-444-4321
To apply for a password

Go to new fleet user.

Fill out all information including chassis vin#

Submit information

In 10-14 days to you should receive a password

This will give you access to
Parts Pro
EZ Wiring
Literature

NOTE: If your password is not used within 90 days you will have to re-apply for a new password.
DRIVING TIPS WITH THE ALLISON MD3060 3000MH TRANSMISSION

When driving under normal road conditions, the DRIVE mode is recommended for optimum performance and fuel economy. The MODE switch should be set to ON for economy mode but MODE OFF should be used when climbing hills and when extra performance is needed. The display screen on the shift control pad will indicate the highest selected gear for the transmission. When mountainous or up-and-down terrain conditions occur, you should manually select a lower gear, preferably lower than 5th gear and turn OFF the MODE switch. This can be done at any road speed by pressing the down arrow repeatedly until the desired gear is indicated in the window of the shifter pad and then pressing the MODE button. When your road speed decreases to a safe point, the transmission will downshift at a higher RPM than normal. This will limit the use of overdrive while pulling hills, which can produce excessive heat build-up in the transmission, and it keeps the engine operating at peak horsepower and performance.

With the MT 643 and T-handle shifter, simply shift to a lower gear selection to keep the RPMs in the upper range. The transmission will not shift into a lower gear until it is safe for it to do so.

When ascending a grade, maintain engine speed to within 400-500 RPM of governed engine speed. Governed speed will be 2400-2500 RPM depending on your engine model. Road speed may decrease, but the engine will be at its peak in the power curve.

It is especially important to monitor your water temperature gauge when climbing hills. Keep in mind, it is not unusual for the temperature to rise, especially in hot weather. If the gauge reaches the red zone or if the temperature warning light on the gauge panel should come on, reduce your road speed and shift to the next lower gear and keep your tachometer within 500 RPM of engine governed speed. In many cases this will stabilize the water temperature. If the temperature gauge continues to rise, pull over to the side of the road and shift the transmission into neutral. Bring the engine RPM to 1,700-2,000 RPM until the temperature drops down into the normal range. This should occur in a relatively short period of time. If the temperature gauge does not begin to drop and stays in the red zone or continues to rise, shut down the engine and allow it to cool. After the engine is allowed to cool, check the fluid level in the reservoir and add a 50/50 coolant/water mixture if needed.

A good "rule of thumb" for descending grades is to never use a higher gear than was used to climb the same or similar grade. Try to keep the engine within 500 RPM of governed speed. This will give the best engine braking and reduce the need to use the service brakes. Select a gear that will keep you at a safe speed with minimal brake application. Never ride your brakes when descending a grade since excessive brake heat will build up and your brakes could fade leaving you with little or no stopping power.

If your vehicle is equipped with a exhaust brake, this will also aid in slowing your vehicle on a downhill grade. With the exhaust brake switch in the ON position, when your foot is released from the accelerator the transmission select number will change to "2". The exhaust brake will engage and the transmission will begin to downshift as soon as road and engine speed will safely allow. This will produce a slowing effect and will remain engaged until either the exhaust brake switch is turned off, the accelerator is depressed or the transmission shifts to second
Transmission Fluid Level Check

- 3000/4000 MH Allison Transmission Only
- Press up and down arrow keys simultaneously
- Wait for two minute “countdown”
- Display indicates – OL (oil level)
  - “OL - OK” indicates good oil level
  - “OL - HI” followed by number indicates quarts over-filled
  - “OL - LO” followed by number indicates quarts under-filled
  - “OL – 70” means transmission is not up to operating temperature

Transmission must be at operating temperature. Coach must be on level ground.
Topics include:

Air brake system
Electrical system
Maintenance intervals
Weight distribution
Vehicle storage guidelines
Much much more!

Contact: Debbie Moore at 864-206-8267 or via Email at Deborah.L.Moore@Daimler.com

Or register on-line at:
www.freightlinerchassis.com
Click on “Motorhome”
Click on “Owner Info” tab to register
Comments & Suggestions

Please provide your suggestions on other information that you would like to see covered during this seminar in the space below. When you have completed filling out this evaluation, please hand them in before you leave, or you mail them to:

Freightliner Custom Chassis Corporation
Attn: John Sereno
552 Hyatt Ct.,
Gaffney, SC 29341

1. Was the seminar informative? _________________________________

2. Was the seminar entertaining? _________________________________

3. Was the seminar too long or too short? ___________________________

Suggestions: ____________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
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