# **MOUNTAIN MOBILITY** Buncombe County's Community Transportation Program



# PASSENGER, VEHICLE AND SYSTEM SAFETY PROGRAM PLAN



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Section 5 - Vehicle Maintenance Plan

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# **VEHICLE MAINTENANCE PLAN**

A transit system must always retain records that indicate that vehicles have been properly inspected and maintained. All vehicle records shall be maintained for the life of the vehicle and retained for an additional three years. The County and/or CTAB reserves the right to inspect vehicles, equipment, and records associated with vehicles and equipment at any time in order to ensure proper maintenance and safe operating conditions.

#### A. Vehicle Maintenance

*Mountain Mobility* shall maintain all vehicles at a minimum in accordance with standards and schedules established by the vehicle manufacturer, including both preventive maintenance and corrective maintenance programs, and/or in accordance with the state's preventive maintenance guidelines at a minimum (available upon request). Where duplicate standards exist, *Mountain Mobility* shall be required to maintain vehicles in accordance with the stricter standards. *Mountain Mobility* shall use its best efforts to schedule maintenance at times that do not interfere with normal passenger service.

### **Daily Inspections**

Daily inspections shall include, but not be limited to, (a) physical damage report; (b) exterior checks (wipers, mirrors, tires, lights, cleanliness, etc.); (c) interior checks (seat belts, accessibility and securement equipment, emergency and safety equipment (i.e. web cutters, blood borne pathogens kit, etc.), horn, lights, heating/air conditioning, brakes, cleanliness, vehicle registration and inspection, etc.); and (d) engine checks (oil, battery, radiator, wiper wash, belts, hoses, etc.). For passenger comfort, the heating and air-conditioning units on all vehicles must be kept in proper working order. Vehicles failing the daily inspection will not be used in service until the reason for failure is corrected. All practices, materials supplies, and equipment shall comply with the Federal Occupational Safety and Health Act, as well as any applicable federal, state and/or local safety or environmental codes. The inspection categories detailed above are listed on all required daily vehicle inspection forms.

Every driver must complete a pre-vehicle inspection prior to operating any vehicle and a post vehicle inspection prior to concluding their shift, or at anytime they have finished driving that vehicle for the day. All safety defects and body damage must be noted. Failure to do so may hold that employee responsible for any accident related damage. Periodic inspections will be made at random times requesting either one or all vehicle inspection sheets. Failure to comply with this requirement will result in the suspension or termination of the employees involved. Anytime an accident happens or a collision between the vehicle and any other object occurs, a vehicle inspection must be completed by the Fleet Manager and verified by a contracted vehicle repair facility.

All Daily Inspection Sheets (i.e. Post-trip Sheet, Pre-trip Sheet, etc.) conducted by Transit Drivers must be completed fully, signed, and submitted to the Fleet Manager at the end of their assigned shift. The Fleet Manager will review the submitted Inspection Sheets the following day to guarantee detected vehicle problems go unnoticed and are repaired immediately. If a vehicle problem is documented within a Daily Inspection Sheet the Fleet Manager will take that particular vehicle out of service until it can be repaired. Repairs will be scheduled within 48 hours of the problem being detected. If the repairs cannot occur within 48 hours of detection due to unforeseen delays the Fleet Manager will document on the Daily Inspection Sheet the reasoning for postponement.

The Fleet Manager will document on the Daily Inspection Sheet the date and time of when a problem is detected, reviewed by Fleet Management, as well as when it was repaired. Daily Inspection Sheets portraying vehicle problems and their repairs will be filed along with the appropriate vehicle repair invoices within the individual vehicle maintenance records located in the Fleet Manager's Office. All other Daily Inspections Sheets will be maintained in the individual vehicle maintenance records located in the Fleet Manager's Office, but will be stored in a file labeled "Regular DVI's". All Daily Inspection Sheets will be maintained throughout the life of the vehicle. After vehicles have met their useful life and have been disposed, their Daily Inspection Sheets will be stored for an additional three (3) years.

### **Vehicle Preventive Maintenance**

Vehicle preventive maintenance is a term used to describe the performance of regularly scheduled maintenance procedures to a vehicle to reduce the possibility of malfunctions. Mountain Mobility will maintain all vehicles and wheelchair lifts in the best possible operational conditions. This will be accomplished by adhering to and/or exceeding the vehicle manufacturer's recommended minimum maintenance requirements which is reflected in the following section of this plan.

All Vehicle Preventive Maintenance records are maintained in each individual vehicle maintenance file located in the Fleet Manager's Office. This information includes but is not limited to Inspection Sheet-Preventive Maintenance Guide and Checklist; Preventive Maintenance and Inspection Sheet; Preventive Maintenance Inspection Report; Wheelchair Lift Preventive Maintenance Schedule; Emergency Equipment on Vehicles and Usage information; and Preventive Maintenance vehicle repair records.

The following vehicle preventive maintenance schedule section details the minimum maintenance standards set forth by the appropriate vehicle manufacturers for each model and year contained within Mountain Mobility's fleet. As fleet vehicles meet their useful life and are replaced the preventive maintenance schedule will be updated by removing outdated information and adding current vehicle manufacturer preventive maintenance recommendations.

# Vehicle Preventive Maintenance Schedule

#### 2008-2011 Model Years

# **Time Specific**

#### Monthly

- Check function of all interior and exterior lights.
- Check tires for wear and proper air pressure, including spare.
- Check engine oil fluid level
- Check windshield washer fluid

#### 6 Months

- Check lap/shoulder belts and seat latches for wear and proper operation.
- Check that externally mounted spare tire is properly stowed (tight).
- Check power steering fluid level.
- Check washer spray, wiper operation, and clean all wiper blades (replace blades as necessary).
- Check parking brake for proper operation.
- Check and lubricate all hinges, latches, door check straps (see dealer) and outside locks.
- Check and lubricate upper and lower sliding door tracks, if equipped.
- Check and lubricate door rubber weather-strips.
- Check and clean body and door drain holes.
- Check safety warning lamps (brake, ABS, air bag, safety belts) for operation.
- Check engine cooling system level and strength.
- Check battery connections and clean if necessary.
- Check clutch fluid level, if equipped.

# **Mileage Specific**

- 5,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints.
- 10,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints.
- 15,000 Change engine oil and replace oil filter. Replace cabin air filter, if equipped. Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect engine cooling

system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect automatic transmission fluid level (if equipped with an under hood dipstick). Inspect and lubricate 4X4 front axle shaft U-joints. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multipoint inspection (recommended).

- 20,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints.
- 25,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints.
- 30,000 Change engine oil and replace oil filter. Change automatic transmission fluid on all vehicles equipped with the TorqShift transmission. Consult your dealer for particular requirements. Replace cabin air filter, if equipped. Replace climate-controlled seat filter (if equipped). Replace engine air filter. Replace wheel bearing grease and grease seals on 4X2 front wheel bearings (if nonsealed bearings). Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect exhaust system and heat shields. Inspect and lubricate 4X4 front axle shaft U-joints. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multipoint inspection (recommended). Change transmission fluid and filter.
- 35,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints.
- 40,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints.
- 45,000 Change engine oil and replace oil filter. Replace cabin air filter, if equipped. Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and

U-joints (lubricate if equipped with Zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect automatic transmission fluid level (if equipped with an under hood dipstick). Inspect and lubricate 4X4 front axle shaft U-joints. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multipoint inspection (recommended).

- 50,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints.
- 55,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints.
- 60,000 Change engine oil and replace oil filter. Change automatic transmission fluid on all vehicles equipped with the TorqShift transmission. Consult your dealer for particular requirements. Replace cabin air filter, if equipped. Replace climate-controlled seat filter (if equipped). Replace engine air filter. Replace wheel bearing grease and grease seals on 4X2 front wheel bearings (if nonsealed bearings). Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect exhaust system and heat shields. Inspect and lubricate 4X4 front axle shaft U-joints. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multipoint inspection (recommended). Change transmission fluid and filter.
- 65,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints.
- 70,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints.

- 75,000 Change engine oil and replace oil filter. Replace cabin air filter, if equipped. Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect exhaust system and heat shields. Inspect automatic transmission fluid level (if equipped with an under hood dipstick). Inspect and lubricate 4X4 front axle shaft U-joints. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended).
- 80,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints.
- 85,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints.
- 90,000 Change engine oil and replace oil filter. Change automatic transmission fluid on all vehicles equipped with the TorqShift transmission. Consult your dealer for particular requirements. Replace cabin air filter, if equipped. Replace climate-controlled seat filter (if equipped). Replace engine air filter. Replace wheel bearing grease and grease seals on 4X2 front wheel bearings (if non-sealed bearings). Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect exhaust system and heat shields. Inspect and lubricate 4X4 front axle shaft U-joints. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multipoint inspection (recommended). Change transmission fluid and filter.
- 95,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints.
- 100,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints.

- 105,000 Change engine oil and replace oil filter. Change manual transmission fluid. Replace cabin air filter, if equipped. Replace PCV valve on all light trucks less than 6,000 lbs. Gross Vehicle Weight (GVW) (except 3V engines). Change rear axle fluid only on vehicles equipped with DANA axles. Change Motorcraft Premium Gold Engine Coolant. Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect exhaust system and heat shields. Inspect automatic transmission fluid level (if equipped with an under hood dipstick). Inspect and lubricate 4X4 front axle shaft U-joints. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended).
- 110,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints.
- 115,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints.
- 120,000 Change engine oil and replace oil filter. Change automatic transmission fluid on all vehicles equipped with the TorqShift transmission. Consult your dealer for particular requirements. Replace cabin air filter, if equipped. Replace climate-controlled seat filter (if equipped). Replace engine air filter. Replace wheel bearing grease and grease seals on 4X2 front wheel bearings (if nonsealed bearings). Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect exhaust system and heat shields. Inspect and lubricate 4X4 front axle shaft U-joints. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multipoint inspection (recommended). Change transmission fluid and filter.
- 125,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints.

- 130,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints.
- 135,000 Change engine oil and replace oil filter. Replace cabin air filter, if equipped. Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect exhaust system and heat shields. Inspect automatic transmission fluid level (if equipped with an under hood dipstick). Inspect and lubricate 4X4 front axle shaft U-joints. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended).
- 140,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints.
- 145,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints.
- Change engine oil and replace oil filter. Change Motorcraft Premium Gold 150,000 Engine Coolant. Replace cabin air filter, if equipped. Replace climatecontrolled seat filter (if equipped). Replace engine air filter. Replace fuel filter. Change automatic transmission fluid and filter (filter not required on 6F35) (except vehicles equipped with the TorgShift transmission). Change manual transmission fluid. Change rear axle fluid on all rear wheel drive (RWD) vehicles. Change transfer case fluid. Change front differential fluid (4X4 only). Replace wheel bearings (if non-sealed bearings). Replace accessory drive belt(s) if not replace in the last 100,000 miles. Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect exhaust system and heat shields. Inspect PCV value for flow (3V engines). Inspect and lubricate 4X4 front axle shaft U-joints. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended).

#### <u>2010 Model Year Dual-Fuel (CNG) Vehicles</u> And 2008 Model Year Dual-Fuel (Propane) Vehicles

# Time Specific

Monthly

- Check function of all interior and exterior lights.
- Check tires for wear and proper air pressure, including spare.
- Check engine oil fluid level
- Check windshield washer fluid

# 6 Months

- Check lap/shoulder belts and seat latches for wear and proper operation.
- Check that externally mounted spare tire is properly stowed (tight).
- Check power steering fluid level.
- Check washer spray, wiper operation, and clean all wiper blades (replace blades as necessary).
- Check parking brake for proper operation.
- Check and lubricate all hinges, latches, door check straps (see dealer) and outside locks.
- Check and lubricate upper and lower sliding door tracks, if equipped.
- Check and lubricate door rubber weather-strips.
- Check and clean body and door drain holes.
- Check safety warning lamps (brake, ABS, air bag, safety belts) for operation.
- Check engine cooling system level and strength.
- Check battery connections and clean if necessary.
- Check clutch fluid level, if equipped.

# **Mileage Specific**

- 7,500 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended).
- 15,000 Change engine oil and replace oil filter. Replace cabin air filter, if equipped. Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect automatic transmission fluid level (if equipped with an under hood dipstick). Inspect and lubricate 4X4 front axle shaft U-joints. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multipoint inspection (recommended).
- 22,500 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for

abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended).

- 30,000 Change engine oil and replace oil filter. Inspect automatic transmission fluid level (if equipped with an under hood dipstick). Consult your dealer for particular requirements. Replace cabin air filter, if equipped. Replace climate-controlled seat filter (if equipped). Replace engine air filter. Replace fuel filter. Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect exhaust system and heat shields. Inspect and lubricate 4X4 front axle shaft U-joints. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Change transmission fluid and filter.
- 37,500 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended).
- 45,000 Change engine oil and replace oil filter. Replace cabin air filter, if equipped. Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect automatic transmission fluid level (if equipped with an under hood dipstick). Inspect and lubricate 4X4 front axle shaft U-joints. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multipoint inspection (recommended).
- 52,500 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended).
- 60,000 Change engine oil and replace oil filter. Change automatic transmission fluid on all vehicles equipped with the TorqShift transmission. Consult your dealer for particular requirements. Replace cabin air filter, if equipped. Replace climate-controlled seat filter (if equipped). Replace engine air filter. Replace wheel bearing grease and grease seals on 4X2 front wheel bearings (if nonsealed bearings). Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect exhaust system and heat shields. Inspect and lubricate 4X4 front axle shaft U-joints. Rotate tires,

inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multipoint inspection (recommended).

- 67,500 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended).
- 75,000 Change engine oil and replace oil filter. Replace cabin air filter, if equipped. Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect exhaust system and heat shields. Inspect automatic transmission fluid level (if equipped with an under hood dipstick). Inspect and lubricate 4X4 front axle shaft U-joints. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended).
- 82,500 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended).
- Change engine oil and replace oil filter. Inspect automatic transmission fluid 90,000 • level (if equipped with an under hood dipstick). Consult your dealer for particular requirements. Replace cabin air filter, if equipped. Replace climate-controlled seat filter (if equipped). Replace engine air filter. Replace fuel filter. Replace spark plugs. Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect exhaust system and heat shields. Inspect accessory drive belts. Inspect and lubricate 4X4 front axle shaft U-joints. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Change transmission fluid and filter.
- 97,500 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended).
- 105,000 Change engine oil and replace oil filter. Change manual transmission fluid. Replace cabin air filter, if equipped. Replace PCV valve on all light trucks less than 6,000 lbs. Gross Vehicle Weight (GVW) (except 3V engines). Change rear axle fluid only on vehicles equipped with DANA axles. Change

Motorcraft Premium Gold Engine Coolant. Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect exhaust system and heat shields. Inspect automatic transmission fluid level (if equipped with an under hood dipstick). Inspect and lubricate 4X4 front axle shaft U-joints. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended).

- 112,500 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended).
- 120,000 Change engine oil and replace oil filter. Replace cabin air filter, if equipped. Replace climate-controlled seat filter (if equipped). Replace engine air filter. Replace fuel filter. Replace PCV valve on all light trucks under 6,000 lbs. Gross Vehicle Weight (GVW) (except 3V engines). Change automatic transmission fluid on all vehicles equipped with the TorgShift transmission. Consult your dealer for particular requirements. Replace wheel bearing grease and grease seals on 4X2 front wheel bearings (if non-sealed bearings). Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect exhaust system and heat shields. Inspect accessory drive belts. Inspect automatic transmission fluid level (if equipped with an under hood dipstick). Inspect and lubricate 4X4 front axle shaft U-joints. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multipoint inspection (recommended).
- 127,500 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended).
- 135,000 Change engine oil and replace oil filter. Replace cabin air filter, if equipped. Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect exhaust system and heat shields. Inspect automatic transmission fluid level (if equipped with an under hood dipstick). Inspect and lubricate 4X4 front axle shaft U-joints. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended).

- 142,500 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended).
- Change engine oil and replace oil filter. Change Motorcraft Premium Gold 150,000 Engine Coolant. Replace cabin air filter, if equipped. Replace climatecontrolled seat filter (if equipped). Replace engine air filter. Replace fuel filter. Change automatic transmission fluid and filter (filter not required on 6F35) (except vehicles equipped with the TorgShift transmission). Change manual transmission fluid. Change rear axle fluid on all rear wheel drive (RWD) vehicles. Change transfer case fluid. Change front differential fluid (4X4 only). Replace wheel bearings (if non-sealed bearings). Replace accessory drive belt(s) if not replace in the last 100,000 miles. Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect exhaust system and heat shields. Inspect PCV value for flow (3V engines). Inspect and lubricate 4X4 front axle shaft U-joints. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended).

# 2006-2009 6.0 Diesel Cutaways

# **Time Specific**

# Monthly

- Check function of all interior and exterior lights.
- Check tires for wear and proper air pressure, including spare.
- Check engine oil fluid level
- Check windshield washer fluid

#### 6 Months

- Check lap/shoulder belts and seat latches for wear and proper operation.
- Check that externally mounted spare tire is properly stowed (tight).
- Check power steering fluid level.
- Check washer spray, wiper operation, and clean all wiper blades (replace blades as necessary).
- Check parking brake for proper operation.
- Check and lubricate all hinges, latches, door check straps (see dealer) and outside locks.
- Check and lubricate upper and lower sliding door tracks, if equipped.
- Check and lubricate door rubber weather-strips.
- Check and clean body and door drain holes.
- Check safety warning lamps (brake, ABS, air bag, safety belts) for operation.
- Check engine cooling system level and strength.

- Check battery connections and clean if necessary.
- Check clutch fluid level, if equipped.

# Specific by Hours in Operation

- 200 Rotate tires, inspect tires for wear and measure tread depth and inspect wheels for end play and noise. Inspect air filter restriction gauge, replace filter as required. Perform multi-point inspection (recommended). Check u-bolts on driveshaft tighten if necessary.
- 400 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints. Replace engine-and frame-mounted fuel filters. Inspect air filter restriction gauge, replace filter as required. Inspect exhaust system and heat shields. Check u-bolts on driveshaft tighten if necessary.
- 800 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints. Replace engine-and frame-mounted fuel filters. Inspect air filter restriction gauge, replace filter as required. Inspect exhaust system and heat shields. Check u-bolts on driveshaft tighten if necessary.
- 1200 Change engine oil and replace oil filter. Replace cabin air filter, if equipped. Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and Ujoints (lubricate if equipped with zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Replace automatic transmission fluid and filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect air filter restriction gauge, replace filter as required. Replace engine-and frame-mounted fuel filters. Inspect engine and fuel, cooling systems and hoses. Inspect exhaust system and heat shields. . Check u-bolts on driveshaft tighten if necessary.
- 1600 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints with zerk fittings. Inspect air filter restriction gauge, replace filter as required. Replace engine-and frame-mounted fuel filters. Inspect engine and fuel, cooling systems and hoses. Inspect exhaust system and heat shields. Check u-bolts on driveshaft tighten if necessary.
- 2000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal

noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Change rear axle fluid (DANA axels only). Inspect air filter restriction gauge, replace filter as required. Replace engine-and frame-mounted fuel filters. Inspect engine, fuel and cooling systems and hoses. Inspect exhaust system and heat shields. Check u-bolts on driveshaft tighten if necessary. Consult your dealer for particular requirements. Replace cabin air filter, if equipped. Replace climate-controlled seat filter (if equipped Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect exhaust system and heat shields. Rotate tires, inspect tires for wear and measure tread depth. Perform multi-point inspection (recommended).

- 2400 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints. ). Inspect air filter restriction gauge, replace filter as required. Replace engine-and frame-mounted fuel filters. Inspect exhaust system and heat shields. Check u-bolts on driveshaft tighten if necessary. Replace automatic transmission fluid and filter. Inspect engine, fuel and cooling systems and hoses. ). Replace wheel bearing grease and grease seals on 4X2 front wheel bearings (if non-sealed bearings).
- 2,800 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints. ). Inspect air filter restriction gauge, replace filter as required. Replace engine-and frame-mounted fuel filters. Inspect exhaust system and heat shields.
- 3200 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints. Inspect air filter restriction gauge, replace filter as required. Replace engine-and frame-mounted fuel filters. Inspect exhaust system and heat shields. Check u-bolts on driveshaft tighten if necessary. Inspect engine and fuel, cooling systems and hoses. Check u-bolts on driveshaft tighten if necessary.
- 3600 Change engine oil and replace oil filter. Replace cabin air filter, if equipped. Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and Ujoints (lubricate if equipped with Zerk fittings). Inspect engine cooling system and hoses. Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped).Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection

(recommended). Inspect air filter restriction gauge, replace filter as required. Replace engine-and frame-mounted fuel filters. Inspect exhaust system and heat shields. Check u-bolts on driveshaft tighten if necessary. . Inspect engine, fuel and cooling systems and hoses. Change automatic transmission fluid and filter.

- 4,000 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints. Inspect air filter restriction gauge, replace filter as required. Replace engine-and frame-mounted fuel filters. Inspect exhaust system and heat shields. Check u-bolts on driveshaft tighten if necessary. Inspect engine and fuel, cooling systems and hoses. Inspect accessory drive belt. Change engine coolant use premium gold coolant. Change rear axle fluid (DANA axles only).
- 4,400 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints. Inspect air filter restriction gauge, replace filter as required. Replace engine-and frame-mounted fuel filters. Inspect exhaust system and heat shields. Check u-bolts on driveshaft tighten if necessary. Inspect engine, fuel and cooling systems and hoses.
- 4,800 Change engine oil and replace oil filter. Change automatic transmission fluid and filter Consult your dealer for particular requirements. Replace cabin air filter, if equipped. Replace climate-controlled seat filter (if equipped) Replace wheel bearing grease and grease seals on 4X2 front wheel bearings (if non-sealed bearings). Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and Ujoints (lubricate if equipped with Zerk fittings). Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect air filter restriction gauge, replace filter as required. Replace engine-and frame-mounted fuel filters. Inspect exhaust system and heat shields. Check u-bolts on driveshaft tighten if necessary. Inspect engine, fuel and cooling systems and hoses.
- 5,200 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints. Inspect air filter restriction gauge, replace filter as required. Replace engine-and frame-mounted fuel filters. Inspect exhaust system and heat shields. Check u-bolts on driveshaft tighten if necessary. Inspect engine, fuel and cooling systems and hoses.
- 5,600 Change engine oil and replace oil filter. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal

noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect and lubricate all non-sealed steering linkage, ball joints, suspension joints, half and drive shafts and u-joints. Inspect air filter restriction gauge, replace filter as required. Replace engine-and frame-mounted fuel filters. Inspect exhaust system and heat shields. Check u-bolts on driveshaft tighten if necessary. Inspect engine, fuel and cooling systems and hoses.

 6,000 Change engine oil and replace oil filter. Replace cabin air filter, if equipped. Inspect steering linkage, ball joints, suspension tie rod ends, driveshaft, and U-joints (lubricate if equipped with Zerk fittings). Inspect brake pads/shoes/rotors/drums, brake lines & hoses, and parking brake system. Inspect half shaft boots (if equipped). Inspect exhaust system and heat shields. Rotate tires, inspect tires for wear and measure tread depth. Inspect wheels and related components for abnormal noise, wear, looseness, or drag. Perform multi-point inspection (recommended). Inspect air filter restriction gauge, replace filter as required. Replace engine-and frame-mounted fuel filters. Check u-bolts on driveshaft tighten if necessary. Inspect engine, fuel and cooling systems and hoses. Replace accessory drive belt if not replaced in the last 100,000 mile. Replace wheel bearings and grease seals on 4X2 front wheel bearings (if non-sealed bearings). Change automatic transmission fluid and filter consult your dealer for particular requirements. Change rear axle fluid (DANA axles only).

#### B. Wheelchair Lift Preventive Maintenance

Mountain Mobility will perform wheelchair lift maintenance at scheduled intervals in accordance to the number of cycles recommended by the manufacturer. Mountain Mobility will also immediately repair any improperly operating or unsafe situations involving wheelchair lifts if/when necessary.

All wheelchair lift preventive maintenance records are maintained in each individual vehicle maintenance file located in the Fleet Manager's Office. This information includes but is not limited to: Wheelchair Lift Inspection Sheet-Preventive Maintenance Guide and Checklist; Wheelchair Lift Preventive Maintenance and Inspection Sheet; Preventive Maintenance Inspection Report; Wheelchair Lift Preventive Maintenance Schedule; and Preventive Maintenance wheelchair lift repair records.

The following wheelchair lift preventive maintenance schedule section details the required maintenance standards set forth by the appropriate wheelchair lift manufacturers for each model and year contained within Mountain Mobility's fleet. As fleet vehicles meet their useful life and are replaced, the wheelchair lift preventive maintenance schedule will be updated by removing outdated information and adding current wheelchair lift manufacturer preventive maintenance recommendations.

#### Wheelchair Lift Preventive Maintenance Schedule

All listed inspection, lubrication, and maintenance procedures will be repeated at "750 cycle" intervals following the "4500 Cycles" maintenance. These intervals are a general

guideline for scheduling maintenance procedures and will vary according to lift use and conditions. Lifts exposed to severe conditions (weather, environment, contamination, heavy usage, etc.) may require inspection and maintenance procedures to be performed more often than specified.

# 2007 Braun Millennium Models

## Maintenance after 750 Cycles

- Outer barrier hinge pivot points (2): Apply Light Oil See Lubrication Diagram
- Outer barrier latch (pivot/slide points): Apply Light Oil See Lubrication Diagram
- Outer barrier latch lever pivot points: Apply Light Oil See Lubrication Diagram
- Lift-Tite latches (tower pivot points 2): Apply Light Oil See Lubrication Diagram
- Lift-Tite latch gas (dampening) spring pivot points (2 springs 4 points): Apply Light Oil See Lubrication Diagram
- Inspect Lift-Tite latches and gas springs for wear or damage (bent, deformed or misaligned) positive securement (lock nuts/external snap rings) and proper operation. Resecure, replace damaged parts or otherwise correct as needed. Note: Apply light grease to Lift-Tite latch tower pivot point if replacing latch.
- Inspect outer barrier for proper operation, correct or replace damaged parts
- Inspect outer barrier latch for proper operation, positive securement, and detached or missing spring, correct or replace damaged parts and/or relubricate See Lubrication Diagram
- Inspect lift for wear, damage, or any abnormal condition, correct as needed
- Inspect lift for rattles, correct as needed

# Maintenance after 1500 Cycles

- Perform all procedures listed in previous section.
- Platform pivot pin bearings (2): Apply Light Oil See Lubrication Diagram
- Platform fold axles: Apply Light Oil See Lubrication Diagram
- Inner roll stop (IB) lever bearings (2): Apply Light Oil See Lubrication Diagram
- Inner roll stop (IB) lever slot (2): Apply Light Oil See Lubrication Diagram
- Rotating pivot slide arm pivot pins (2): Apply Light Oil See Lubrication Diagram
- Parallel arm pivot bearings (16): Apply Light Oil See Lubrication Diagram
- Handrail pivot bearings (4): Apply Light Oil See Lubrication Diagram
- Hydraulic cylinder bushings (8): Apply Light Oil See Lubrication Diagram
- Inspect Lift-Tite latch rollers for wear of damage, positive securement and proper operation (2). Correct, replace defective parts and/or lubricate
- Inspect inner roll stop (IB) for: Wear or damage; Proper operation. Roll stop should just rest on top surface of the base plate; Positive securement (both ends). Resecure, replace or correct as needed. See platform Angle instructions and Microswitch Adjustment Instructions.
- Inspect handrail components for wear or damage, and for proper operation. Replace defective parts.

- Inspect microswitches for securement and proper adjustment. Resecure, replace or adjust as needed. See Microswitch Adjustment Instructions
- Make lift operates smoothly. Realign towers and vertical arms. Lubricate or correct as needed.
- Inspect Internal snap rings: Handrail pivot pins (2 per pin), Platform slide/rotate pivot pins (2 per pin); Platform fold axles (1 per axle); Inner roll stop (IB) lever bracket pins (1 per pin); Lift-Tite latch gas (dampening) spring (2 per spring). Resecure or replace if needed.
- Inspect platform fold axles and bearings for wear or damage and positive securement. Replace defective parts and resecure as needed. Apply light oil.
- Remove pump module cover and inspect: Hydraulic hoses, fittings and connections for wear or leaks; Harness cables, wires, terminals and connections for securement or damage; Relays, fuses, power switch and lights for securement or damage. Resecure, replace or correct as needed.

# Maintenance after 4500 Cycles

- Inspect cotter pins on platform pivot pin (2). Resecure, replace or correct as needed
- Hydraulic Fluid (Pump) Check level. Note: Fluid should be changed if there is visible contamination. Inspect the hydraulic system (cylinder, hoses, fittings, seals, etc.) for leaks if fluid level is low. Use Dextron III hydraulic fluid. Check fluid level with platform lowered fully and roll stop unloaded fully. Fill to within <sup>1</sup>/<sub>2</sub>" of the bottom of the 1 <sup>1</sup>/<sub>2</sub>" fill tube (neck).
- Inspect cylinders, fittings and hydraulics connections for wear, damage or leaks. Tighten, repair or replace if needed.
- Inspect outer barrier cylinder hose assembly (hose, fasteners, connections, etc.) for wear, damage or leakage. Tighten, repair or replace if needed.
- Inspect parallel arms, bushings and pivot pins for visible wear or damage: Replace is needed.
- Inspect parallel arm pivot pin mounting bolts (8): Tighten or replace if needed.
- Inspect platform pivot pins, bushings and vertical arms for wear, damage and positive securement: Replace damaged parts and resecure as needed. Apply light grease during reassembly procedures.
- Inspect inner/outer fold arms, saddle, saddle support and associated pivot pins and bearings for visible wear or damage: Replace if needed.
- Inspect gas springs (cylinders) for wear or damage, proper operation and positive securement (IB): Tighten, replace or correct as needed.
- Inspect saddle bearing (UHMW 2): Apply Door-Ease or replace if needed. See Lubrication Diagram.
- Inspect rotating pivot slide arm UHMW slide bearings (buttons): Apply Door-Ease or replace if needed. See Lubrication Diagram.
- Inspect vertical arm plastic covers. Resecure or replace if needed
- Inspect power cable. Resecure, repair or replace if needed.
- Mounting: Check to see that the lift is securely anchored to the vehicle and there are no loose bolts, broken welds, or stress fractures.
- Decals and Antiskid: Replace decals if worn, missing or illegible. Replace antiskid if worn or missing.

# **Consecutive 750 Cycle Intervals**

• Repeat all previously listed inspection, lubrication and maintenance procedures at 750 cycle intervals.

#### 2008 and 2009 Braun Millennium And 2010 Braun Century Models

When servicing the lift at the recommended intervals clean the components and the surrounding area before applying lubricants. LPS2 General Purpose Penetrating Oil is recommended where light oil is referenced. Use of improper lubricants can attract dirt or other contaminants which could result in wear or damage to the components. Platform components exposed to contaminants when lowered to the ground may require extra attention.

# Maintenance after 750 Cycles

- Outer barrier pivot points (2): Apply Light Oil See Lubrication Diagram
- Outer barrier latch pivot points: Apply Light Oil See Lubrication Diagram
- Outer barrier latch slot: Apply Light Grease to both sides of slot See Lubrication Diagram
- Outer barrier lever bearings (2): Apply Light Oil See Lubrication Diagram
- Lift-Tite latches (tower pivot points 2): Apply Light Oil See Lubrication Diagram
- Lift-Tite latch gas (dampening) spring pivot points (2 springs 4 points): Apply Light Oil See Lubrication Diagram
- Inspect Lift-Tite latches and gas springs for wear or damage (bent, deformed or misaligned) positive securement (lock nuts/external snap rings) and proper operation. Resecure, replace damaged parts or otherwise correct as needed. Note: Apply light grease to Lift-Tite latch tower pivot point if replacing latch.
- Inspect outer barrier for proper operation, correct or replace damaged parts
- Inspect outer barrier latch for proper operation, positive securement, and detached or missing spring. Correct or replace damaged parts and/or relubricate See Lubrication Diagram
- Adjust fold pressure and outer barrier fold pressure. See Platfold Fold Pressure Adjustment and Outer Barrier Fold Pressure Adjustment

# Maintenance after 1500 Cycles

- Inspect outer fold arm pins (2), axles (2) and bearings (8) for wear or damage and positive securement. Replace damaged parts and resecure as needed. Apply light oil.
- Remove pump module cover and inspect: Hydraulic hoses, fittings and connections for wear or leaks; Harness cables, wires, terminals and connections for securement or damage; Relays, fuses, power switch and lights for securement or damage. Resecure, replace or correct as needed.

# Maintenance after 4500 Cycles

- Perform all procedures listed in previous section.
- Inspect cotter pins on platform pivot pin (2). Resecure, replace or correct as needed
- Hydraulic Fluid (Pump) Check level. Note: Fluid should be changed if there is visible contamination. Inspect the hydraulic system (cylinder, hoses, fittings, seals, etc.) for leaks if fluid level is low. Use Braun 32840-QT (Exxon Univis HVI 26) hydraulic fluid (do not mix with Dextron III or other hydraulic fluids). Check fluid level with platform lowered fully and roll stop unloaded fully. Fill to within <sup>1</sup>/<sub>2</sub>" of the bottom of the 1 <sup>1</sup>/<sub>2</sub>" fill tube (neck).
- Inspect cylinders, fittings and hydraulics connections for wear, damage or leaks. Tighten, repair or replace if needed.
- Inspect outer barrier cylinder hose assembly (hose, fasteners, connections, etc.) for wear, damage or leakage. Tighten, repair or replace if needed.
- Inspect parallel arms, bearings and pivot pins for visible wear or damage. Replace if needed.
- Inspect parallel arm pivot pin mounting bolts (8). Tighten or replace if needed.
- Inspect platform pivot pins, bearings and vertical arms for wear, damage and positive securement. Replace damaged parts and resecure as needed. Apply light grease during reassembly procedures.
- Inspect inner/outer fold arms, saddle, saddle support and associated pivot pins and bearings for visible wear or damage. Replace if needed.
- Inspect gas springs (cylinders 4) for wear or damage, proper operation and positive securement. Tighten, replace or correct as needed.
- Inspect saddle bearing (UHMW 2). Apply Door-Ease or replace if needed. See Lubrication Diagram.
- Inspect vertical arm plastic covers. Resecure or replace if needed
- Inspect power cable. Resecure, repair or replace if needed.
- Mounting: Check to see that the lift is securely anchored to the vehicle and there are no loose bolts, broken welds, or stress fractures.
- Decals and Antiskid: Replace decals if worn, missing or illegible. Replace antiskid if worn or missing.

# **Consecutive 750 Cycle Intervals**

• Repeat all previously listed inspection, lubrication and maintenance procedures at 750 cycle intervals.

# C. Vehicle and Wheelchair Lift Maintenance Record Keeping

All vehicle and wheelchair maintenance records will be compiled and maintained throughout the life of the vehicle. After vehicles have met their useful life and have been disposed their maintenance records will then be stored for an additional three (3) years.

*Mountain Mobility* shall maintain a comprehensive maintenance record, including a complete record of warranty or recall repairs performed on each vehicle. All maintenance information will be retained in an individual vehicle file. The Fleet Manager will establish arrangements for warranty service at the appropriate vehicle dealership.

All maintenance records (e.g. documents showing vehicle identity, maintenance and inspection dates, mileage, accident reports, preventive maintenance and vehicle service records, wheelchair lift repairs, etc.) shall be kept up to date and maintained in the Fleet Manager's Office.

# **D.** Communication Equipment

The **Transit Trainer**, **Fleet Manager**, **or Operations Manager** shall train drivers and dispatchers on proper use and maintenance of communications equipment provided by the County for use on County-owned vehicles. Communications equipment shall include but are not limited to Mobile Data Terminals, Advanced Vehicle Locators, the radio base station and power supply, mobile radios (two channels plus Med-9), microphones, and antennas. Inventory, as well as service of the communications equipment, shall be maintained by the Fleet Manager. The County shall be responsible for costs associated with annual lease of repeater airtime, the purchase and installation of additional communication equipment for County-owned expansion vehicles, all charges associated with maintenance of all communications equipment, for the transfer of communication equipment from vehicles being replaced, and for the replacement of communications equipment that is lost or stolen. The Operations Manager shall seek and obtain directives from the County's Director of Emergency Management Services on the proper use of the Med 9 radio channel for emergencies. Professional tact and passenger confidentiality shall be maintained while utilizing communications equipment.

*Mountain Mobility* employees shall properly clean, utilize and maintain all communication equipment used in performing services. An inventory of County-owned equipment shall be maintained by *Mountain Mobility*, and the Fleet Manager shall be responsible for maintaining the inventory of communication equipment and shall replace any lost or stolen items.

# E. Safety Equipment

The Fleet Manager shall be responsible for ensuring all safety equipment is properly maintained. If it is reported that emergency equipment is damaged or missing from a vehicle that vehicle will be removed from service until the damaged or missing item can be repaired or replaced.

Mountain Mobility Operations employees shall be responsible for ensuring all safety equipment is properly maintained and available on a daily or shift-by-shift basis.

Emergency equipment includes:

- A properly charged fire extinguisher
- Warning devices such as cones, triangles, and flares
- A first aid kit: Must be kept unexpired
- Extra fuses
- A flashlight with fresh batteries
- Blood Borne Pathogens Kits: Must be kept unexpired

To ensure a safe atmosphere while operating a Mountain Mobility vehicle in an official capacity Operations employees are required to perform the following:

- Check assigned vehicles emergency equipment to ensure it is in the right location and in working order.
- Look around inside the assigned vehicle to make sure it is clean. Clear out trash, debris, or loose items.
- > Check any special accessibility equipment if the assigned vehicle is equipped.
- Examine wheelchair tie downs for sign of damage or excessive wear. Make sure tie downs can be properly secured to the floor.
- Check all wheelchair lifts and ramps by operating them through one complete cycle. Make sure the lift is functioning properly. If the lift is not functioning properly report the issue to the Fleet manager immediately.
- > Make sure all doors and emergency exits are functional and unobstructed.