

# CyRide

Ames Transit Agency

## Vehicle Maintenance Plan



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## I. Organizational Structure

CyRide operations and maintenance is governed by the Ames Transit Agency. The Transit Agency is an administrative agency of the City of Ames, Iowa established pursuant to Chapter 392, Code of Iowa, 1979. The purpose of the agency is the establishment, acquisition, operation, management, control and governance of transit services in and for the City of Ames.

## II. Vehicle Maintenance Plan Objective

The objective of the CyRide Vehicle Maintenance Plan is to optimize the value of the funded dollar while protecting stakeholder investment. The primary goals of the plan are:

- Maintain vehicles in safe operating condition.
- Ensure each vehicle is operating at peak efficiency.
- Maximize vehicle life.
- Minimize vehicle service failures (road calls).
- Minimize loss of accessibility due to equipment failure.
- Meet or exceed manufacturers' maintenance requirements.
- Maintain vehicle exterior and interior appearance.
- Maintain a system of permanent vehicle maintenance records.
- Adhere to a strict preventive maintenance schedule.
- Administer an aggressive equipment warranty recovery program.

CyRide, along with the City of Ames, subscribes to a philosophy of continuous improvement. The Vehicle Maintenance Plan and the procedures detailed in it will be subject to constant review and improvement. The plan will also be updated as the mix of rolling stock equipment changes

### **III. Vehicle Inspection Procedures**

The preventive maintenance program at CyRide consists of daily inspections and mileage based inspections.

#### **Daily Inspections**

##### **A. Pre-Service Inspection (M-F)**

The general operating condition of each vehicle is checked before being placed in service through the following two procedures on weekdays:

**Morning Laneworker Inspection:** While charging bus air systems with the building's air supply, the morning laneworker visually inspects the tires and exterior condition of the bus. The floor around the bus is checked for fluid leaks. Problems are reported immediately to the lead mechanic for evaluation.

**Fleet Status Board:** The lead mechanic verifies vehicles are ready for service by checking this board in the dispatch office before pullout.

##### **B. Driver Pre-Trip Inspection**

Every day of the week, drivers perform a pre-trip inspection prior to the start of their shift. The first driver to pull the bus out of the garage for the day performs the pre-service cycling of the wheelchair lift. Problems are reported immediately to the dispatcher. If a problem may affect safety, service, accessibility or cause further component damage, the vehicle is removed from service.

##### **C. Maintenance Cards**

The reporting of mechanical problems to the maintenance staff from drivers and operations supervisors is accomplished through a Maintenance Card. All mechanical problems identified during the pre-trip inspection or driving shifts are recorded by the driver or dispatcher on a Maintenance Card. The Maintenance Card specifically identifies the bus, the problem, and the time identified. The Maintenance Card is forwarded to the either the lead mechanic or the senior mechanic on duty for repair coordination. Upon completion of repairs, a copy of the card with the repairs performed is returned to the driver. The head of maintenance reviews a sampling of the cards on a monthly basis.

##### **D. Service Lane Inspection**

Vehicles are serviced at the end of each day. During the servicing process, the following maintenance procedures are followed:

- Tires visually checked.
- Fuel tank filled.
- Interior swept and cleaned.
- Exterior washed as needed.
- Engine belts and general engine condition checked.
- Motor oil, transmission fluid, coolant checked.
- Exterior lights checked – bulbs replaced.
- Interior checked – seats, windows, lights, etc.

## **Preventive Maintenance Inspections**

CyRide has a diverse fleet of vehicles ranging from a 1968 model up to 2008 models. This diversity requires different approaches to maintenance scheduling. There are three main schedules.

1. Older vehicles that acquire less than 10,000 miles per year are scheduled by time based intervals. Some vehicles are based on 4 month with a yearly heavy inspection, and the remaining that are used very little are based on a 6 month interval with a yearly heavy inspection.

2. Large buses older than model year 1995 are scheduled on a 2,500 mile cycle. There are four levels of preventive maintenance, (A) 2,500 miles; (B) 5,000 miles; (C) 10,000 miles; and (D) 20,000 miles. The preventive maintenance schedule is A, B, A, C, A, B, A, D and then it repeats in that cycle.

3. Large buses newer than model year 1996 are scheduled on a 5,000 mile cycle. There are 3 levels of inspections, (A) 5,000 miles, (B) 10,000 miles, and (C) 20,000 miles.

The preventative maintenance schedule is A,B,A,C and continues repeating.

Additional Maintenance may be performed seasonally as needed such as; washing out radiators in fall, rinsing salt off W/C lifts and radiators in winter, and other seasonal factors.

For mini buses (Ford E series), the intervals are (A) 3,000 miles; (B) 6,000 miles; (C) 12,000 miles; and (D) 24,000 miles.

Preventive maintenance inspections are to be performed on time. CyRide defines an on-time inspection as being within (+/-)10 percent of schedule. A list of items inspected at the above intervals can be found on the inspection sheets in the appendix.

The mechanic assistant performing the inspection will repair minor defects at the end of the inspection. This includes minor Maintenance Card repairs deferred until inspection. Repairs that can't be completed in the allotted inspection time are reported to the lead mechanic or Maintenance Coordinator. Generally, any remaining repairs are assigned and completed by another mechanic. If parts are not available and the defect is not safety sensitive, the bus will be released for service and scheduled for repairs at a later date.

Brake and tire wear are recorded on a spreadsheet. Repairs are scheduled when wear reaches a predetermined level. CyRide's tire replacement policy follows DOT regulations. Steer tires are replaced at 4/32-tread depth and drive tires are replaced at 2/32-tread depth. Brake linings are replaced when linings reach a point between ¼ of their original usable thickness and the minimum thickness allowed by the lining manufacturer. Linings are also replaced when excessive noise is noted during brake application.

At least one inspection bus per day is reserved for an intense interior cleaning. Generally, the bus reserved for the special cleaning has been operating the greatest

length of time without the higher level of cleaning in relation to the other buses placed out of service for inspection.

#### **IV. Reactive Vehicle Maintenance**

All other vehicle maintenance is performed in response to detected problems. Reactive maintenance cannot be eliminated and is often a function of vehicle miles, fleet age, and preventive maintenance intervals. It is the intent of this maintenance program to minimize this type of maintenance – including road calls. Constantly reviewing and improving upon the existing Vehicle Maintenance Plan will accomplish this.

The reactive vehicle maintenance policy is as follows:

- All problems are to be reported, no matter how minor.
- The supervisor, dispatcher, lead mechanic or senior mechanic on duty / on call shall make an immediate determination whether the vehicle should be removed from service.
- Failures of accessibility equipment shall require prompt resolution. An alternate vehicle or immediate repair will be provided.
- The driver or dispatcher records all detected problems on a Maintenance Card.
- All repairs are documented on the Maintenance Card, mechanic's time card, and Collective Data maintenance software.

#### **V. Documentation and Evaluation of Vehicle Maintenance**

Documentation and evaluation of vehicle maintenance activities is the primary means by which the maintenance program can attain its goals. CyRide utilizes the following documentation in its maintenance program:

1. *Collective Data Maintenance Software:* Vehicle repair information is transferred from employee timecards to work orders on the Collective Data system. A log of repairs segregated by unit number can be retrieved from the program.
2. *Maintenance Card:* As outlined previously, this form is used to report any mechanical problems to the maintenance staff.
3. *Oil Analysis Report:* Oil sampling is done every 5,000 miles on large buses and every 6,000 miles on minibuses. The lead mechanic and/or the Maintenance Coordinator review these reports to determine if there are any problems with the engine.
4. *Parts Log:* A log of the parts used in repairing buses is kept in the parts room.
5. *Daily Commodities Usage:* Petrovend software records daily mileages along with fuel and fluids consumption. This data is also exported to the Collective Data Maintenance software to track fuel and fluid use.
6. *Road Call Log:* The Dispatch office keeps track of all Road Calls, it is also kept track of in Collective Data.
7. *Inspection Schedule:* The Maintenance Coordinator monitors and schedules preventive maintenance inspections via spreadsheet and Collective Data.

## **VII. Vehicle Accessibility Equipment**

In order to maintain service availability to persons with disabilities, the following procedures are followed:

1. Pre-trip cycling of wheelchair lifts and inspection of securement stations at bus pull out.
2. Vehicles experiencing equipment failures are removed from service and repaired as soon as possible.
3. Replacement of wheelchair lifts occurs when the unit cannot be repaired.
4. Equipment maintenance and inspection is incorporated into preventive maintenance inspection procedures.

# Appendix

**2,500 MILE INSPECTION**

Bus No. \_\_\_\_\_ Odometer Miles: \_\_\_\_\_ Date \_\_\_\_\_  
Previous Miles: \_\_\_\_\_  
Actual Miles: \_\_\_\_\_

Symbol Definition:  
/ O.K.  
X ADJUSTED  
O REPAIRS NEEDED

**PICK UP ALL MAINTENANCE CARDS**

**INTERIOR INSPECTION**

- \_\_\_ Check drivers' door, entrance & exit door & operation - when applicable
- \_\_\_ Check door sensitive edges & step treads - when applicable
- \_\_\_ Inspect drivers' foot box area. Clean if necessary
- \_\_\_ Visually inspect interior for damage, loose or missing equipment, cleanliness & overall appearance
- \_\_\_ Inspect Heater/ A/C filter. Change if necessary
- \_\_\_ Check wheelchair lift operation

**EXTERIOR INSPECTION**

- \_\_\_ Check all exterior lamp operation
- \_\_\_ Check fluid levels. Add if necessary
- \_\_\_ Engine Oil
- \_\_\_ Transmission Fluid
- \_\_\_ Coolant
- \_\_\_ Washer Fluid
- \_\_\_ Power Steering/Hydraulic Fluid
- \_\_\_ Brake Fluid (Mini-Buses)
- \_\_\_ Hub Oil Level - When applicable
- \_\_\_ Visually inspect engine compartment
- \_\_\_ Check & adjust tire pressure. Visually inspect tires for damage.
- \_\_\_ Check lug nuts for signs of looseness & tighten if needed
- \_\_\_ Visually inspect under chassis for loose & or damaged parts
- \_\_\_ Check brake adjustment & visually inspect brake components
- \_\_\_ Drain wet air tank on buses with air systems
- \_\_\_ Drain blower box catch tank - When applicable
- \_\_\_ Wash radiator, A/C condenser, battery box, engine compartment & wheelchair lift platform
- \_\_\_ Torque all lug nuts (450 ft lbs - 500 ft lbs)
- \_\_\_ Torque all lug nuts on Service Vehicles to mfg specs.
- \_\_\_ Check 1st Aid Kit & Accident Pkt - Restock drivers' cabinet

**FILL OUT & RETURN ALL MAINTENANCE CARDS W/INSPECTION SHEET**

**GILLIG & ORION INSPECTION**  
**5,000 10,000 20,000 40,000**

Bus No. \_\_\_\_\_ Odometer Miles: \_\_\_\_\_  
 \_\_\_\_\_ Previous Miles: \_\_\_\_\_  
 \_\_\_\_\_ Actual Miles: \_\_\_\_\_  
 \_\_\_\_\_ Last Oil Change: \_\_\_\_\_  
 \_\_\_\_\_ Miles on Sample: \_\_\_\_\_

Date \_\_\_\_\_

Definition:  
 / O.K.  
 X ADJUSTED  
 O REPAIRS NEEDED

\_\_\_ **UPDATE COMPUTER AND DBS**

\_\_\_ **PICKUP AND RETURN MAINTENANCE CARDS**


**DRIVERS' AREA**

- \_\_\_ FREE PLAY IN STEERING WHEEL
- \_\_\_ STEERING TILT MECHANISM
- \_\_\_ HORN OPERATION
- \_\_\_ DRIVERS' SEAT & SEAT BELT OPERATION
- \_\_\_ SERVICE BRAKE & ACCELERATOR PEDAL OPERATION
- \_\_\_ SPRING BRAKE OPERATION - CHECK CONTROL KNOB  
CONDITION & FOR EXCESSIVE AIR LEAKAGE
- \_\_\_ DOOR MASTER CONTROL & INTERLOCK OPERATION
- \_\_\_ REAR DOOR OVERRIDE SWITCH OPERATION
- \_\_\_ REARVIEW MIRRORS & CHECK FOR MIRROR TOOLS
- \_\_\_ ALL INSTRUMENT PANEL GAUGES - OPERATION &  
DIMMING
- \_\_\_ ILLUMINATOR LAMPS - OPERATION & DIMMING
- \_\_\_ AIR COMPRESSOR OPERATION : CUT-IN/OUT PRESSURES
- \_\_\_ INSTRUMENT PANEL INDICATOR & WARNING LAMP  
OPERATION
- \_\_\_ TRANS SELECTOR PAD & BUTTON OPERATION
- \_\_\_ MASTER SWITCH OPERATION
- \_\_\_ EMERGENCY ENGINE SHUTDOWN - WHEN APPLICABLE
- \_\_\_ HEADLIGHT & DIMMER SWITCH OP - CHECK AIM
- \_\_\_ WINDSHIELD WIPER/WASHER OPERATION
- \_\_\_ FOOT MOUNTED TURN SIGNAL SWITCH OPERATION
- \_\_\_ HAZARD/4-WAY SWITCH OPERATION
- \_\_\_ RADIO OPERATION & MTG
- \_\_\_ PA SYSTEM OPERATION & MTG
- \_\_\_ DRIVERS' SIDE WINDOW OPERATION
- \_\_\_ FRONT DESTINATION SIGN & LIGHT OPERATION
- \_\_\_ DRIVERS' HEATER/ A/C CONTROLS & FAN OPERATION
- \_\_\_ DRIVERS' BOOSTER FAN OPERATION - WHEN APPLICABLE
- \_\_\_ PASSENGER HEATER/ A/C CONTROLS & FAN OPERATION
- \_\_\_ AUXILIARY COOLANT HEATER OPERATION -IF APP
- \_\_\_ RUN A/C
- \_\_\_ FAREBOX MTG OPERATION & LAMP
- \_\_\_ DRIVERS' LAMP OPERATION
- \_\_\_ PASSENGER DOME LAMP OPERATION
- \_\_\_ INSPECT DRIVERS' FOOT BOX - CLEAN IF NECESSARY
- \_\_\_ CHECK 1ST AID KIT , ACCIDENT PKT, AND FIRE EXT - RESTOCK IF NEEDED

**PASSENGER AREA**

- \_\_\_ SEAT FRAMES & COVERINGS FOR DEFECTS
- \_\_\_ GENERAL INTERIOR CONDITION - PAINT, PANELS, ETC
- \_\_\_ ENTRANCE & EXIT DOOR OPERATION
- \_\_\_ DOOR AIR MOTORS FOR LEAKS, ETC.
- \_\_\_ LIMIT SWITCHES MOUNTING & OPERATION
- \_\_\_ BODE DOOR SPRINGS - WHEN APPLICABLE
- \_\_\_ EXIT DOOR STEP TREADLES & SENSITIVE EDGES
- \_\_\_ ENTRANCE / EXIT STEP WELLS FOR LOOSE COVERINGS  
& DEFECTS
- \_\_\_ LAMP OPERATION
- \_\_\_ "GREEN" LAMP OPERATION W/ EXIT DOORS AUTHORIZED
- \_\_\_ STANCHION & GRAB RAILS FOR DEFECTS
- \_\_\_ FLOOR COVERING FOR LOOSENESS & DEFECTS
- \_\_\_ PASSENGER CHIME & PULL CORDS
- \_\_\_ SIDE DESTINATION SIGN & LAMP OPERATION
- \_\_\_ WINDOWS, LATCHES & OPERATION
- \_\_\_ EMERGENCY EXIT OPERATION
- \_\_\_ REPLACE A/C EVAPORATOR FILTER
- \_\_\_ INSPECT HEATER FILTER -REPLACE IF NEEDED
- \_\_\_ CHECK HEATER CORES FOR LEAKAGE & MTG
- \_\_\_ CHECK A/C EVAPORATOR -CLEAN IF NECESSARY
- \_\_\_ CLEAN STEERING WHEEL AND DRIVERS DASH
- \_\_\_ MOP FLOOR DURING WINTER MONTHS
- \_\_\_ INSPECT SEATS FOR CLEANLINESS - CLEAN IF DIRTY
- \_\_\_ INSPECT INTERIOR FOR CLEANLINESS -CLEAN IF DIRTY
- WHEELCHAIR LIFT**----
- \_\_\_ PERFORM INSPECTION (ATTACH SHEET)
- \_\_\_ CHECK LIFT OPERATION
- \_\_\_ FOLDING SEAT OPERATION
- \_\_\_ CLEAN RELATED BELTS. CHECK RETRACTOR & LATCH  
OPERATION

### EXTERIOR INSPECTION

- GENERAL BODY & PAINT CONDITION
- EXTERIOR LIGHTS - CLEARANCE, SIDE, MARKER, STOP, ETC.
- BACK-UP ALARM OPERATION
- WHEEL & AXLE FLANGE NUTS
- WIPER ARMS & BLADES, ETC
- WASH RADIATOR, A/C CONDENSER, BATTERY BOX, ENGINE COMPARTMENT & W/C LIFT PLATFORM
- FRONT HUB OIL LEVEL
- DOOR & FENDER RUBBERS
- CHECK & SERVICE BATTERIES
- TORQUE ALL LUG NUTS (450 FT LBS - 500 FT LBS)

### UNDER CHASSIS INSPECTION

- VISUALLY INSPECT ALL UNDER CHASSIS COMPONENTS
- CHECK FOR LEAKS - AIR, COOLANT, OIL, FUEL, ETC.
- DRAGLINK & TIE RODS
- KING PINS FOR LOOSENESS
- SHOCK ABSORBERS - FRONT & REAR
- RADIUS RODS & BUSHINGS - FRONT & REAR
- STEERING SHAFT & U-JOINTS IF APPLICABLE
- STEERING GEAR
- CHECK & ADJ BRAKES - RECORD APPROX . BRAKE LINING THICKNESS
- BRAKE HOSES
- WHEEL SEALS FOR LEAKAGE
- WHEEL BEARING ADJUSTMENT
- VISUALLY CK. TIRES FOR WEAR & TREAD DEPTH
- RECORD DEPTH
- CHECK TIRE PRESSURE & ADJUST TO TIRE MFG. SPEC
- COMPLETE CHASSIS LUBRICATION
- EXHAUST SYSTEM - MUFFLER, EXHAUST PIPING & MTG
- INTERCOOLER & PLUMBING -PIPING, HOSES, CLAMP & MTG
- CHECK MUD FLAP MTG & CONDITION
- FUEL TANK MTG, DAMAGE & FOR LEAKAGE
- TRANS OUTPUT SHAFT SEAL FOR LEAKAGE
- DRIVE SHAFT & U-JOINTS FOR LOOSENESS
- DIFFERENTIAL LUBE LEVEL
- DIFFERENTIAL/PINION SEAL & HOUSING FOR LEAKS
- AIR COMPRESSOR INLET PIPING
- DRAIN & INSPECT AIR TANK
- TAKE ENGINE OIL SAMPLE

#### --IF APPLICABLE--

- SERVICE AIR CLEANER (5,000) (94,95,96,97 ORION V)
- CHANGE ALLISON TRANS SPIN-ON FILTERS
- DRAIN BLOWER BOX CATCH TANK & INSPECT VENT TUBE

#### 10,000 MILE INSPECTION

- REPLACE VOITH SPIN-ON FILTER IF APP
- REPLACE FUEL FILTER(S)
- REPLACE COOLANT FILTER
- SERVICE AIR CLEANER
- CHECK & SHAKE FIRE EXTINGUISHER
- CHANGE ENGINE OIL & FILTER\* 6V71 & 6V92 - 40 W OIL
- SERIES 50 & CUMMINS - 15 W 40 OIL
- REAR AXLE PLANETARY HUBS - DRAIN & REFILL (LOW FLOORS)

#### 20,000 MILE INSPECTION + 10K

- SERVICE TRANSMISSION -DRAIN & REFILL
- CHANGE TRANSMISSION FILTER
- SERVICE HYD SYSTEM - DRAIN & REFILL
- REPLACE SUCTION FILTERS (GILLIG)
- STEAM CLEAN ENGINE/TRANS
- HYDROMETER TEST BATTERIES

#### 40,000 MILE INSPECTION + 10K & 20K

- SERVICE DIFFERENTIAL - DRAIN & REFILL
- SERVICE HYD SYSTEM - DRAIN & REFILL--
- REPLACE SUCTION & PRESSURE FILTERS (ORION)

### ENGINE COMPARTMENT INSPECTION

- REAR RUN SWITCHES, GAUGES & COMPARTMENT LAMP OPERATION
- VISUALLY INSPECT FOR LEAKS - WATER, OIL, FUEL & AIR LINES
- AIR COMPRESSOR INLET & DISCHARGE LINES
- STARTER OPERATION & MTG
- HYDRAULIC FLUID PUMP FOR LEAKAGE
- BELT CONDITION & TIGHTNESS
- RADIATOR COOLING FAN, HUB, MOTOR & OPERATION
- RADIATOR & SURGE TANK MTG & FOR LEAKAGE
- RADIATOR FILL CAP & GASKET OPERATION & FOR LEAKAGE
- COOLANT HOSE CONDITION & CLAMP TIGHTNESS
- CHECK BELT TENSIONERS

#### -----CHECK FLUID LEVELS-----

- ENGINE OIL
- TRANSMISSION FLUID
- HYDRAULIC FLUID
- COOLANT

#### --IF APPLICABLE--

- ENGINE GOVERNOR COVER LINKAGES
- THROTTLE CYLINDER OPERATION WHEN APPLICABLE
- SHUTTER OPERATION

**FALL SERVICE INSPECTION**

Bus No. \_\_\_\_\_ Odometer Miles: \_\_\_\_\_ Date \_\_\_\_\_  
Previous Miles: \_\_\_\_\_  
Actual Miles: \_\_\_\_\_

Symbol Definition:  
/ O.K.  
X ADJUSTED  
O REPAIRS NEEDED

**PICK UP ALL MAINTENANCE CARDS**

**INTERIOR INSPECTION**

- \_\_\_ Check drivers' door, entrance & exit door & operation - when applicable
- \_\_\_ Check door sensitive edges & step treadles - when applicable
- \_\_\_ Inspect drivers' foot box area. Clean if necessary
- \_\_\_ Visually inspect interior for damage, loose or missing equipment, cleanliness & overall appearance
- \_\_\_ Dust seats, dash, floor. Mop floor if needed.
- \_\_\_ Check wheelchair lift operation

**EXTERIOR INSPECTION**

- \_\_\_ Check all exterior lamp operation
- \_\_\_ Check fluid levels. Add if necessary
- \_\_\_ Engine Oil
- \_\_\_ Transmission Fluid
- \_\_\_ Coolant
- \_\_\_ Washer Fluid
- \_\_\_ Power Steering/Hydraulic Fluid
- \_\_\_ Brake Fluid (Mini-Buses)
- \_\_\_ Hub Oil Level - When applicable
- \_\_\_ Visually inspect engine compartment
- \_\_\_ Check & adjust tire pressure. Visually inspect tires for damage.
- \_\_\_ Check lug nuts for signs of looseness & tighten if needed
- \_\_\_ Torque all Lug Nuts (450 Ft Lbs - 500 Ft Lbs)**
- \_\_\_ Visually inspect under chassis for loose & or damaged parts
- \_\_\_ Check brake adjustment & visually inspect brake components
- \_\_\_ Drain wet air tank on buses with air systems
- \_\_\_ Drain blower box catch tank - When applicable
- \_\_\_ Check battery voltage - Charge/Service as needed.
- \_\_\_ Check 1st Aid Kit & Accident Pkt - Restock drivers' cabinet

**FILL OUT & RETURN ALL MAINTENANCE CARDS W/INSPECTION SHEET**

**GM INSPECTION**  
5,000 10,000 20,000

Bus No. \_\_\_\_\_ Odometer Miles: \_\_\_\_\_  
 \_\_\_\_\_ Previous Miles: \_\_\_\_\_  
 \_\_\_\_\_ Actual Miles: \_\_\_\_\_  
 \_\_\_\_\_ Last Oil Change: \_\_\_\_\_  
 \_\_\_\_\_ Miles on this Oil Sample: \_\_\_\_\_

Date \_\_\_\_\_  
 Symbol Definition:  
 / O.K.  
 X ADJUSTED  
 O REPAIRS NEEDED

**PICK UP ALL MAINTENANCE CARDS & TEST DRIVE**


**INTERIOR INSPECTION**

**DRIVERS' AREA**

- FREE PLAY IN STEERING WHEEL
- HORN OPERATION
- DRIVERS' SEAT & SEAT BELT OPERATION
- SERVICE BRAKE & ACCELERATOR PEDAL OPERATION
- SPRING BRAKE OPERATION - CHECK CONTROL KNOB CONDITION & FOR EXCESSIVE AIR LEAKAGE
- HAND BRAKE OPERATION & ADJUSTMENT
- DOOR MASTER CONTROL & INTERLOCK OPERATION
- REAR DOOR OVERRIDE SWITCH OPERATION
- REARVIEW MIRRORS & CHECK FOR MIRROR TOOLS
- ALL INSTRUMENT PANEL GAUGES - OPERATION & DIMMING
- ILLUMINATOR LAMPS - OPERATION & DIMMING
- AIR COMPRESSOR OPERATION : CUT-IN & CUT-OUT PRESSURES
- INSTRUMENT PANEL INDICATOR & WARNING LAMP OPERATION
- TRANS GEAR SELECTOR SWITCH OPERATION - WHEN APPLICABLE
- TRANS GEAR SHIFT LEVER - WHEN APPLICABLE
- MASTER SWITCH OPERATION
- EMERGENCY ENGINE SHUTDOWN - WHEN APPLICABLE
- HEADLIGHT & DIMMER SWITCH OPERATION - CHECK HEADLIGHT AIM
- WINDSHIELD WIPER/WASHER OPERATION
- FOOT MOUNTED TURN SIGNAL SWITCH OPERATION
- HAZARD/4-WAY SWITCH OPERATION
- RADIO OPERATION & MTG
- PA SYSTEM OPERATION & MTG
- DRIVERS' SIDE WINDOW OPERATION
- FRONT DESTINATION SIGN & LIGHT OPERATION
- DRIVERS' HEATER CONTROLS & FAN OPERATION
- DRIVERS' BOOSTER FAN OPERATION - WHEN APPLICABLE
- PASSENGER HEATER CONTROLS & FAN OPERATION
- FAREBOX MTG OPERATION & LAMP
- DRIVERS' LAMP OPERATION
- PASSENGER DOME LAMP OPERATION
- INSPECT DRIVERS' FOOT BOX - CLEAN IF NECESSARY
- CHECK & SHAKE FIRE EXTINGUISHER (10,000)
- CHECK 1ST AID KIT & ACCIDENT PKT & RESTOCK DRIVER'S CABINET

**PASSENGER AREA**

- SEAT FRAMES & COVERINGS FOR DEFECTS
- GENERAL INTERIOR CONDITION - PAINT, PANELS, TRIM, ETC.
- ENTRANCE & EXIT DOOR OPERATION
- DOOR AIR MOTORS FOR LEAKS, ETC.
- LIMIT SWITCHES MOUNTING & OPERATION
- EXIT DOOR STEP TREADLES & SENSITIVE EDGES
- ENTRANCE / EXIT STEP WELLS FOR LOOSE COVERINGS & DEFECTS
- STEP WELL LAMP OPERATION
- "GREEN" LAMP OPERATION W/EXIT DOORS AUTHORIZED
- STANCHION & GRAB RAILS FOR DEFECTS
- FLOOR COVERING FOR LOOSENESS & DEFECTS
- PASSENGER CHIME & PULL CORDS
- SIDE DESTINATION SIGN & LAMP OPERATION
- WINDOWS, LATCHES & OPERATION
- EMERGENCY EXIT OPERATION
- INSPECT SEATS FOR CLEANLINESS - CLEAN IF NECESSARY
- CLEANLINESS - CLEAN IF NECESSARY
- INSPECT INTERIOR FOR CLEANLINESS - CLEAN IF NECESSARY
- CHECK CIRC PUMP OPERATION

**FILL OUT & RETURN ALL MAINTENANCE CARDS W/INSPECTION FORM**

## EXTERIOR INSPECTION

- GENERAL BODY & PAINT CONDITION
- EXTERIOR LIGHTS - CLEARANCE, SIDE, MARKER, STOP, ETC.
- BACK-UP ALARM OPERATION
- WHEEL & AXLE FLANGE NUTS
- TORQUE ALL LUG NUTS ( 450 FT LBS - 500 FT LBS.)
- WASH RADIATOR, A/C CONDENSER, BATTERY BOX, ENGINE COMPARTMENT
- WIPER ARMS & BLADES, ETC.
- DOOR & FENDER RUBBERS
- CHECK & SERVICE BATTERIES
- HYDROMETER TEST BATTERIES ( 20,000)**

## UNDER CHASSIS INSPECTION

- VISUALLY INSPECT ALL UNDER CHASSIS COMPONENTS
- CHECK FOR LEAKS - AIR, COOLANT, OIL, FUEL, ETC.
- DRAGLINK & TIE RODS
- KING PINS FOR LOOSENESS
- SHOCK ABSORBERS - FRONT & REAR
- RADIUS RODS & BUSHINGS - FRONT & REAR
- STEERING SHAFT & U-JOINTS IF APPLICABLE
- STEERING GEAR & LUBRICATE
- CHECK & ADJ BRAKES - RECORD APPROX . BRAKE LINING THICKNESS
- BRAKE HOSES
- WHEEL SEALS FOR LEAKAGE
- WHEEL BEARING ADJUSTMENT
- VISUALLY CK. TIRES FOR WEAR & TREAD DEPTH - RECORD DEPTH
- CHECK TIRE PRESSURE & ADJUST TO TIRE MFG. SPEC
- COMPLETE CHASSIS LUBRICATION
- INSPECT HEATER FILTER -CHANGE AS NEEDED
- CHECK HEATER CORES FOR LEAKAGE & MTG
- REPLACE COOLANT FILTER - WHEN APPLICABLE (10,000)
- MOTOR MOUNTS - FRONT & REAR
- EXHAUST SYSTEM - MUFFLER, EXHAUST PIPING & MTG
- CHECK MUD FLAP MTG & CONDITION
- FUEL TANK MTG, DAMAGE & FOR LEAKAGE
- TRANS OUTPUT SHAFT SEAL FOR LEAKAGE
- DRIVE SHAFT & U-JOINTS FOR LOOSENESS
- DIFFERENTIAL LUBE LEVEL
- DIFFERENTIAL/PINION SEAL & HOUSING FOR LEAKS
- HAND BRAKE LINKAGE & ADJUSTMENT
- AIR COMPRESSOR INLET PIPING
- DRAIN & INSPECT AIR TANK
- DRAIN BLOWER BOX CATCH TANK & INSPECT VENT TUBE
- CHANGE TRANS SPIN-ON FILTERS**
- CHANGE ENGINE OIL & FILTER\***
- CHANGE BYPASS OIL FILTER\***
- \* 6V71 & 8V92 - 15,000 MILE INTERVAL - 40 W OIL
- SAMPLE ENGINE OIL & FILTER
- SERVICE TRANSMISSION -DRAIN & REFILL (20,000)
- SERVICE POWER STEERING SYSTEM - DRAIN & REFILL
- REPLACE SUCTION FILTERS (20,000)
- STEAM CLEAN ENGINE/TRANS (20,000)
- SERVICE DIFFERENTIAL - DRAIN & REFILL (40,000)

## ENGINE COMPARTMENT INSPECTION

- REAR RUN SWITCHES, GAUGES & COMPARTMENT LAMP OPERATION
- VISUALLY INSPECT FOR LEAKS - WATER, OIL, FUEL & AIR LINES
- CHECK FLUID LEVELS
- ENGINE OIL
- TRANSMISSION FLUID
- COOLANT
- HYDRAULIC FLUID
- AIR COMPRESSOR INLET & DISCHARGE LINES
- STARTER OPERATION & MTG
- ALCOHOL EVAPORATOR BOTTLE & PLUMBING - FILL AS REQUIRED
- ALTERNATOR OPERATION & MTG
- ENGINE GOVERNOR COVER LINKAGES
- THROTTLE CYLINDER OPERATION WHEN APPLICABLE
- RADIATOR COOLING FAN, HUB, MOTOR & OPERATION
- RADIATOR & SURGE TANK MTG & FOR LEAKAGE
- RADIATOR FILL CAP & GASKET OPERATION & FOR LEAKAGE
- COOLANT HOSE CONDITION & CLAMP TIGHTNESS
- SHUTTER OPERATION
- HYDRAULIC FLUID PUMP FOR LEAKAGE
- SERVICE AIR CLEANER (10,000)**
- REPLACE FUEL FILTER(S) (10,000)**

5,000 10,000 20,000

Bus No. \_\_\_\_\_ Odometer Miles: \_\_\_\_\_ Date \_\_\_\_\_  
Previous Miles: \_\_\_\_\_  
Actual Miles: \_\_\_\_\_  
Last Oil Change: \_\_\_\_\_  
Miles on this Oil Sample: \_\_\_\_\_

Symbol Definition:  
/ O.K.  
X ADJUSTED  
O REPAIRS NEEDED

**PICK UP ALL MAINTENANCE CARDS & TEST DRIVE  
INTERIOR INSPECTION**


**DRIVERS' AREA**

- FREE PLAY IN STEERING WHEEL
- STEERING TILT MECHANISM
- HORN OPERATION
- DRIVERS' SEATBELT OPERATION
- BRAKE & ACCELERATOR OPERATION
- PARK BRAKE PEDAL OPERATION
- REAR VIEW MIRRORS & CHECK FOR MIRROR TOOLS
- ALL DASH GAUGES & ILLUMINATOR LAMPS - OPERATION & DIMMING
- INSTRUMENT PANEL INDICATOR LAMPS
- IGNITION SWITCH OPERATION
- SHIFT LEVER OPERATION
- OVERDRIVE BUTTON OPERATION
- HEADLAMP SWITCH - CHECK HEADLAMP AIM & DTRL OPERATION
- WINDSHIELD WIPER/WASHER OPERATION
- HAZARD/4-WAY SWITCH OPERATION
- RADIO OPERATION & MTG
- PA SYSTEM OPERATION & MTG
- DRIVERS' DOOR & WINDOW OPERATION
- FRONT DESTINATION SIGN & LIGHTS
- DRIVERS' HEATER/ A/C CONTROLS & FAN OPERATION
- PASSENGER HEATER/ A/C CONTROLS & FAN OPERATION
- RUN A/C
- CHECK FAREBOX MTG, OPERATION & LAMP
- DOME LAMP OPERATION - DRIVERS' & PASSENGER
- PASSENGER DOOR CONTROL SWITCH & OPERATION
- INSPECT DRIVERS' FOOT BOX - CLEAN IF NECESSARY
- CHECK & SHAKE FIRE EXTINGUISHER (10,000)
- CHECK 1ST AID KIT & ACCIDENT PKT - RESTOCK IF NECESSARY (10,000)

**PASSENGER AREA**

- CHECK SEAT FRAMES & COVERINGS FOR DEFECTS
- GENERAL INTERIOR CONDITION, PAINT, PANELS, TRIM, ETC.
- PASSENGER DOOR OPERATING MECHANISM & MOTOR
- STEP WELL FOR LOOSE COVERINGS & DEFECTS
- STANCHION & GRAB RAILS FOR DEFECTS
- PASSENGER CHIME & PULL CORDS
- SIDE DESTINATION SIGN & LIGHTS - WHEN APPLICABLE
- WINDOWS, LATCHES & OPERATION
- EMERGENCY EXITS
- FLOOR COVERINGS FOR LOOSENESS & DEFECTS
- DECALS
- INSPECT SEATS FOR CLEANLINESS - CLEAN IF NECESSARY
- CHECK FOR PASSENGER SEAT BELT EXTENSIONS: 3 - PASS/ 1 - W/C
- INSPECT INTERIOR FOR CLEANLINESS - CLEAN IF NECESSARY

**WHEELCHAIR LIFT**

- PERFORM INSPECTION (SEE ATTACHED INSPECTION FORM)
- CHECK OPERATION
- CHECK DOOR & LATCH OPERATION
- CHECK FLOOD LAMP OPERATION
- CLEAN SEATBELTS & CHECK SWITCH OPERATION

**FILL OUT & RETURN ALL MAINTENANCE CARDS W/INSPECTION SHEET**

## EXTERIOR INSPECTION

- GENERAL BODY & PAINT CONDITION
- WHEEL & AXLE FLANGE NUTS
- EXTERIOR LAMPS - MARKER, CLEARANCE, STOP/TAIL , ETC.
- BACK-UP ALARM & LAMP OPERATION
- WASH RADIATOR, A/C CONDENSER & BATTERY BOX**
- CHECK & SERVICE BATTERIES
- CLEAN & LUBE BATTERY TRAY SLIDES
- WIPER ARMS & BLADES
- DOOR & FENDER RUBBERS
- HYDROMETER TEST BATTERIES (20,000)**

## UNDER CHASSIS

- VISUALLY CHECK ALL UNDER CHASSIS COMPONENTS
- CHECK FOR LEAKS - COOLANT, OIL, ETC.
- DRAGLINK & TIE ROD ENDS
- SHOCKS - FRONT & REAR
- RADIUS RODS & BUSHINGS
- BALL JOINTS
- CHECK & ADJUST BRAKES - RECORD PAD THICKNESS
- BRAKE HOSES & LINES
- COMPLETE CHASSIS LUBRICATION
- CHECK WHEEL SEALS FOR LEAKS - FRONT & REAR
- CHECK WHEEL BEARING ADJUSTMENT - FRONT & REAR
- VISUALLY CHECK TIRES FOR WEAR & DAMAGE
- MEASURE & RECORD TIRE TREAD DEPTH
- TORQUE ALL LUG NUTS (126 FT LBS - 170 FT LBS - MINI BUSES)
- TORQUE ALL LUG NUTS (100 FT LBS - MINI VANS)
- TORQUE ALL LUG NUTS ON SERVICE VEHICLES TO MFG SPECS.
- PULL REAR BRAKE DRUMS (10,000)-
- INSPECT & RECORD LINING THICKNESS (10,000)**
- CHANGE IN-LINE TRANSMISSION FILTER (10,000)**
- CHECK & ADJUST TIRE PRESSURE TO TIRE MFG. SPECS.
- MOTOR & TRANSMISSION MOUNTS
- CHECK EXHAUST SYSTEM: HANGERS, PIPES & MUFFLER
- MUD FLAP MTG
- FUEL TANK MOUNTING - LEAKAGE OR DAMAGE
- TRANS OUTPUT SHAFT SEAL FOR LEAKAGE
- DRIVE SHAFT & U-JOINTS FOR LOOSENESS
- DIFFERENTIAL LUBE LEVEL
- DIFFERENTIAL/ PINION SEAL & HOUSING FOR LEAKS
- SAMPLE ENGINE OIL**
- CHANGE ENGINE OIL & FILTER**
- SERVICE DIFFERENTIAL - DRAIN & REFILL ( 20,000)
- SERVICE TRANS - DRAIN, CHANGE FILTER & REFILL (20,000)

## ENGINE COMPARTMENT

- CHECK FOR LEAKS - COOLANT, OIL, FUEL, ETC.
- CHECK ACCESSORY DRIVE BELT
- CHECK ACCESSORY DRIVE BELT TENSIONER & IDLER PULLEYS FOR ALIGNMENT & OPERATION
- CHECK ALT. MTG & OPERATION
- CHECK & SERVICE ENGINE AIR FILTER (10,000)
- CHANGE FUEL FILTER (10,000)
- CHECK FLUID LEVELS
- ENGINE OIL
- TRANSMISSION FLUID
- BRAKE FLUID
- COOLANT
- POWER STEERING FLUID
- WASHER SOLVENT
- SERVICE FUEL FILTERS (#938 & #939 & #949) (20,000)**

BRAUN LIFT INSPECTION - #938 & #939

BUS # : \_\_\_\_\_

MILEAGE#: \_\_\_\_\_

DATE: \_\_\_\_\_

2,500 MILE INSPECTION

- \_\_\_ Outboard roll stop hinge - light oil
- \_\_\_ Roll stop latch (pivot point) - light oil
- \_\_\_ Fold actuator points (red quick release pin & actuator whale mounting pin) - light oil
- \_\_\_ Bridge(striker) plate & clevis pins - light oil
- \_\_\_ Platform fold axles - light oil
- \_\_\_ Horseshoe pivots points (shoulder bolts) - light oil
- \_\_\_ Handrail pivot points (3 points per handrail) - light oil
- \_\_\_ Inspect lift for rattles - Adjust as needed
- \_\_\_ Bridge(striker) plate & pivots points - Anti-seize
- \_\_\_ Bridge(striker) plate & slots & bearings - Light grease
- \_\_\_ Inspect wahte for proper alignment with platform bearings - Adjust as necessary
- \_\_\_ Inspect whale slots for excessive wear or damage - Replace if needed
- \_\_\_ Inspect bridge(striker) plate slots for excessive wear or damage - replace if needed d& relubricate
- \_\_\_ Inspect cotter pins on: Whale pins (2), Bridge plate end, Clevis pins (2), Platform fold axles (2) & Roll stop latch (2) - Resecure, replace or correct as needed
- \_\_\_ Inspect hairpin cotters (2) on fold actuator - Replace if needed
- \_\_\_ Inspect roll stop for proper operation - Correct or replace defective parts &/or relubricate
- \_\_\_ Inspect roll stop latch for proper operation, positive securement & detachment or missing springs - Correct or replace defective parts &/ or relubricate
- \_\_\_ Inspect gas spring & mtg hardware - Tighten, replace or correct as needed
- \_\_\_ Inspect handrail(s) for proper operation - Replace defective parts & relubricate

\_\_\_ Hydraulic Fluid(Pump) - check level

**Note:** Fluid should be changed if there is visible contamination or discoloration. Inspect the hydraulic system (cylinder, hoses, fittings, seals, etc.) For leaks if fluid level is low. - Use Type A transmission fluid. **Check level with platform lowered & roll stop unfolded fully.** Fill to within 1/2" of the bottom of the 1 1/2" fill tube.

20,000 MILE INSPECTION

(INCLUDE 2,500 MILE INSPECTION WHEN DOING 20,000 MILE INSPECTION)

- \_\_\_ **Remove pump module cover(s) & inspect: Hydraulic hoses, fittings & connections for wear or leaks, Harness cables, wire, terminals & connections for securement or damage, Microswitch for securement & proper adjustment, Relay blocks/relays, circuit breaker & solenoid for securement or damage - Resecure, replace or correct as needed**
- \_\_\_ **Remove side chain & inspect chains, chain bolts, cylinder, clevis idler & hydraulic connections for wear, damage, leaks & misalignment - Realign, resecur, replace or correct as needed**
- \_\_\_ **Inspect cylinder mtg hardware & clevis lock nut - Tighten or replace if needed. NOTE: lock nut MUST be replaced if loosened or removed**
- \_\_\_ **Inspect chain bolt Nylock nuts, hex jam nuts & jam nut retainer plate for securement, wear, damage or misalignment - Tighten, correct or replace if needed**
- \_\_\_ **Remove top chain guard & inspect UHMW rollers, axles, mtg hardware & chains for wear, damage or misalignment - Realign or replace if needed**
- \_\_\_ **Inspect platform for: Roll stop chain securement, wear, damage or misalignment, Slide tube base UHMW idler securement, wear, damage or misalignment, Mounting/Securement (1/2" - 13 flanged lock nuts) - Realign, tighten replace &/or lubricate as need. NOTE: 1/2" - 13 flanged lock nuts MUST BE REPLACED IF LOOSENED OR REMOVED**
- \_\_\_ **Inspect power cable - Resecure, repair or replace**
- \_\_\_ **Make sure lift operates smoothly - Realign uprights, apply light grease to slide tubes or correct as needed**
- \_\_\_ **Mounting - Check to see that the lift is securely anchored to the vehicle & there are no loose bolts, broken welds or stress fractures**
- \_\_\_ **Decals - Replace if worn, missing or illegible**
- \_\_\_ **Padding - Replace if damaged, worn or missing**
- \_\_\_ **Whale pins - Horseshoe bushings - Anti-Seize - Note: Disassembly required for proper lubrication**

**BRAUN LIFT INSPECTION**  
(#949, #978, #979, #960, #961)

**DATE:**

**BUS #:** \_\_\_\_\_ **MILEAGE :**

General Appearance

\_\_ \_\_ Check general appearance of lift

Lift Mountings & Support Points

\_\_ \_\_ Ensure that all lift mountings & support points are in proper order & free from damage

\_\_ \_\_ Ensure that all mounting bolts are of appropriate grade & sufficiently tight

Main Lifting Pivots

\_\_ \_\_ Ensure all traveling frame pins are installed properly, free from damage & locked in position with proper fasteners

Platform and Platform Attachment Points

\_\_ \_\_ Ensure platform operates properly during lift "up/down" functions without obstructions

\_\_ \_\_ Ensure that all welds on traveling frame are in proper order

Inner Rollstop and Inner Rollstop Operation

\_\_ \_\_ Ensure that inner rollstop functions properly during "up/down" operations without obstructions

\_\_ \_\_ Ensure that inner rollstop deploys fully as the platform stops at the proper vehicle floor level

Platform Rollstop and Rollstop Operation

\_\_ \_\_ Ensure that rollstop operates properly on contact with the ground

\_\_ \_\_ Ensure that rollstop opens, closes and locks properly without obstruction

Handrail and Handrail Attachment

\_\_ \_\_ Ensure that all fasteners are present and properly tightened

Hydraulic Fluid Level

\_\_ \_\_ Ensure that the hydraulic fluid level is maintained at the required "**Full Level**"

Hydraulic Cylinders, Flow Control Valves and Hoses

\_\_ \_\_ Inspect the hydraulic hoses, valves and seals for leaks

\_\_ \_\_ Ensure that hydraulic hoses and lines are not damaged

Clean and Lubricate

\_\_ \_\_ Lubricate as per Manufactures' recommendations

Occupant Restraining Belt &

\_\_ \_\_ Check occupant restraining belt for proper operation & check condition of restraint belt -  
Replace belt if needed

## GILLIG LOW FLOOR - LIFT-U RAMP INSPECTION

DATE:

BUS#: \_\_\_\_\_

MILEAGE:

### General Appearance

- Inspect ramp platform surface, stow guides & wear strip for wear, damage &/ overload characteristics
- Inspect ramp pivoting lever arms, bearings & cam bolt heads for wear, damage &/ overload characteristics
- Inspect stow/deploy belt for wear, damage &/ overload characteristics
- Inspect manual release wire rope(s) for wear, damage &/ overload characteristics

### General Cleaning

- Ramp platform surface
- Ramp enclosure interior & closeout hinge

**NOTE: Avoid direct pressure washing of the limit switch, interlock switch, relay junction box & cable connections. Once water is forced into these components, corrosion or electrical short-circuiting may damage them. This damage may cause the ramp to malfunction.**

### General Rust Prevention

- Grind or brush affected area to remove existing rust
- Prime area with primer paint
- Finish paint area with high quality gloss black paint

**NOTE: Proper preventative maintenance requires that visible surface rust be addressed & corrected in a timely & appropriate manner. Failure to do so may cause irreversible damage to the ramp mechanism.**

STEP LIFT PREVENTATIVE MAINTENANCE

DATE :

5,000 MILE INSPECTION

BUS # : \_\_\_\_\_

20,000 MILE INSPECTION

- PASSENGER SENSOR
- TOP OF STEP TREAD - 14"

MILEAGE:

- INSPECT HANDRAILS
- STRUCTURAL INTEGRITY
- CRACKS IN TUBING

( INCLUDE 5,000 MILE INSPECTION WHEN DOING 20,000 MILE INSPECTION)

- INSPECT RAMP/BARRIER LINKAGE & CYLINDER
- STRUCTURAL INTEGRITY OF BARRIER
- BARRIER ANGLE
- PIVOT POINTS FOR DAMAGE OR WEAR
- STRUCTURAL INTEGRITY OF LINKAGE
- CYLINDER ATTACHMENT BOLTS
- HYDRAULIC HOSES/FITTINGS FOR LEAKS
- BARRIER LATCH PIN FOR DAMAGE
- SPRAY LUBE

- INSPECT RAMP/BARRIER LINKAGE & CYLINDER
- LUBRICATION (LUBE WITH ANTI-SEIZE COMPOUND)
- LINKAGE AND LINKAGE PINS

- INSPECT SUPPORT ARM
- STRUCTURAL INTEGRITY OF SUPPORT ARM
- MOUNTING BOLTS
- DOWEL PINS

- INSPECT LEAF CHAIN
- RUST & CORROSION
- ABSENCE OF COTTER PIN/KEEPERS
- PROPER ADJUSTMENT
- LUBRICATION (LUBE WITH P/N P515-0012)
- ADJUSTMENT NUTS SECURED

- INSPECT HINGES
- RUST/CORROSION
- BINDING
- DAMAGE
- STEP HEATER & WIRING

- INSPECT HYDRAULIC HOSE/ELECTRICAL CABLE BUNDLE
- PROPER ROUTING
- LEAKS
- CHAFING

- INSPECT ROLLER CHAIN
- RUST & CORROSION
- ABSENCE OF COTTER PINS/KEEPERS
- LUBRICATION (LUBE WITH P/N P515-0012)
- ADJUSTMENT NUTS SECURED

- INSPECT STEP ACTUATION CYLINDER
- CYLINDER PINS FOR FREE MOVEMENT
- HYDRAULIC HOSES/FITTINGS FOR LEAKS
- SET SCREW IN PIVOT PINS

- INSPECT CONTROL ENCLOSURE
- FITTINGS FOR LEAKS
- HARD LINES FOR LEAKS

- INSPECT BARRIER LATCH LIMIT SWITCH
- LOOSE LIMIT SWITCH ARM

- INSPECT STEP ACTUATION CYLINDER
- RUST & CORROSION

- INSPECT ULTRASONIC SENSING DEVICE(PASSENGER SENSOR)
- SENSING FACE

- INSPECT BARRIER LATCH LIMIT SWITCH
- SWITCH MUST ACTIVATE WHEN THE BARRIER IS IN THE BARRIER POSITION

- INSPECT PROXIMITY SWITCHES
- DAMAGE TO THE SENSOR END
- GAP BETWEEN SENSING END AND TARGETS (GAP .30 - .060)

- INSPECT HYDRAULIC FLUID
- CONTAMINATION

- INSPECT HYDRAULIC POWER SOURCE
- FLUID LEVEL AT FLOOR LEVEL

- INSPECT HYDRAULIC POWER SOURCE
- RELIEF VALVE PRESSURE (1250 PSI)
- CHANGE FILTER ELEMENT

- MANUAL OPERATION OF HYDRAULIC SYSTEM
- STOW & DEPLOY
- RAISE & LOWER
- RAMP/BARRIER UP & RAMP BARRIER DOWN

- INSPECT LIFT MOUNTING BOLTS
- REFER TO BUS MFG TORQUE SPECS

- INSPECT MAIN LIFT CYLINDER
- CYL SWIVEL BEARINGS MUST BE FREE OF RUST & CORROSION
- CYL SWIVEL BEARINGS MUST MOVE FREELY
- CYL PIN KEEPERS
- JAM NUT MUST BE TIGHT AGAINST THE CLEVIS

- INSPECT TOWER ASSEMBLY
- TOWERS ARE VERTICAL
- TOWERS ARE PERPENDICULAR TO THE ROADSIDE CLOSEOUT

- INSPECT EMERGENCY CYLINDER
- CYL SWIVEL BEARINGS MUST BE FREE OF RUST & CORROSION
- CYL SWIVEL BEARINGS MUST MOVE FREELY
- CYLINDER PIN KEEPERS
- JAM NUT MUST BE TIGHT AGAINST THE CLEVIS
- CHECK FLUID LEVEL WITH LIFT AT FLOOR LEVEL

- INSPECT SLIDE BEARING ON SLIDING PLATFORM ASSEMBLY
- WEAR & DAMAGE

- INSPECT BEARING STRIP ON VERTICAL FRAME ASSEMBLY
- WEAR & DAMAGE

- INSPECT FOR MANUAL OPERATING PROCEDURE DECAL
- CHECK BOTTOM CLOSE-OUT HINGE FOR FREE OPERATION
- INSPECT ALL FASTENERS FOR TORQUE

PLATFORM LIFT PREVENTATIVE MAINTENANCE

DATE :

5,000 MILE INSPECTION

BUS # : \_\_\_\_\_

20,000 MILE

INSPECTION

MILEAGE: \_\_\_\_\_

( INCLUDE 5,000 MILE INSPECTION WHEN DOING 20,000 MILE INSPECTION)

TEST SAFETY FEATURES

- \_\_\_ PRESSURE SENSITIVE MATS
- \_\_\_ PRESSURE SENSITIVE EDGES

INSPECT CURBSIDE BARRIER/LINKAGE & BARRIER

- \_\_\_ STRUCTURAL INTEGRITY OF BARRIER
- \_\_\_ BARRIER ANGLE
- \_\_\_ PIVOT POINTS FOR DAMAGE OR WEAR

- \_\_\_ LINKAGE SET SCREWS/JAM NUTS (20,000)
- \_\_\_ HYDRAULIC HOSES/FITTINGS FOR LEAKS
- \_\_\_ LUBRICATION (LUBE WITH ANTI-SEIZE COMPOUND):
- \_\_\_ SLIDE LINK & ROD GUIDE - LUBE
- \_\_\_ SHOULDER BOLT & LINKAGE PINS - LUBE (20,000)

INSPECT ROADSIDE BARRIER/LINKAGE/CYLINDER

- \_\_\_ STRUCTURAL INTEGRITY OF BARRIER
- \_\_\_ BARRIER ANGLE
- \_\_\_ PIVOT POINTS FOR DAMAGE OR WEAR
- \_\_\_ LINKAGE/CYLINDER JAM NUTS
- \_\_\_ HYDRAULIC HOSES/FITTINGS FOR LEAKS
- \_\_\_ CYL CLEVIS PINS - REMOVE, INSPECT & LUBE

INSPECT LIFT MASTER CHAINS & CONN LINKS

- \_\_\_ RUST & CORROSION
- \_\_\_ ABSENCE OF COTTER PIN/KEEPERS
- \_\_\_ PROPER ADJUSTMENT
- \_\_\_ LUBRICATION (LUBE WITH P/N P515-0005)

INSPECT SLAVE CHAINS AND CONN LINKS

- \_\_\_ RUST & CORROSION
- \_\_\_ ABSENCE OF COTTER PIN/KEEPERS
- \_\_\_ PROPER ADJUSTMENT
- \_\_\_ LUBRICATION (LUBE WITH P/N P515-0005)
- \_\_\_ JAM NUTS SECURED

INSPECT STOW & DEPLOY CHAINS & CONN LINKS

- \_\_\_ RUST & CORROSION
- \_\_\_ ABSENCE OF COTTER PIN/KEEPERS
- \_\_\_ PROPER ADJUSTMENT
- \_\_\_ LUBRICATION (LUBE WITH P/N P515-0005)
- \_\_\_ JAM NUTS SECURED

INSPECT STOW MOTOR CHAIN & CONN LINK

- \_\_\_ RUST & CORROSION
- \_\_\_ ABSENCE OF COTTER PIN/KEEPERS
- \_\_\_ PROPER ADJUSTMENT
- \_\_\_ LUBRICATION (LUBE WITH P/N P515-0005)
- \_\_\_ JAM NUTS SECURED

INSPECT HYDRAULIC HOSE/ELECTRICAL CABLE BUNDLE

- \_\_\_ PROPER ROUTING
- \_\_\_ LEAKS (HOSES)
- \_\_\_ CHAFING

INSPECT STOW MOTOR & STOW SHAFT

- \_\_\_ SPROCKET ALIGNMENT (20,000)
- \_\_\_ SET SCREW IN SPROCKETS (20,000)
- \_\_\_ HYDRAULIC HOSES/FITTINGS FOR LEAKS
- \_\_\_ SET SCREW IN BEARINGS (20,000)
- \_\_\_ SPROCKETS FOR WEAR & DAMAGE (20,000)

INSPECT PROXIMITY SWITCHES

- \_\_\_ DAMAGE TO THE SENSING END
- \_\_\_ GAP BETWEEN SENSING END & TARGETS (GAP .030 TO .060)

INSPECT STOW/DEPLOY LIMIT SWITCH

- \_\_\_ STOW SWITCH MUST ACTIVATE 1/2" BEFORE FULLY STOWED
- \_\_\_ DEPLOY SWITCH MUST ACTIVATE 1/2" BEFORE FULLY STOWED

- \_\_\_ LOOSE LIMIT SWITCH
- \_\_\_ CYLINDER ATTACHMENT BOLTS

INSPECT CHAIN LIMIT SWITCH (SLACK CHAIN)

- \_\_\_ ADJUSTMENT BETWEEN LIMIT SWITCH ARM & TRIP (20,000)
- \_\_\_ LOOSE LIMIT SWITCH ARM
- \_\_\_ FORWARD LIFT CYL MUST OPERATE FREELY UP & DOWN WHICH ALLOWS THE CHAIN SWITCH TO OPERATE PROPERLY
- \_\_\_ LIFT CYL CHAIN MUST BE FLEXIBLE WHICH ALLOWS THE CHAIN SWITCH TO OPERATE PROPERLY

INSPECT HYDRAULIC POWER SOURCE

- \_\_\_ FLUID LEVEL
- \_\_\_ FLUID PRESSURE (1150 - 1200 PSI) (20,000)
- \_\_\_ CHANGE FILTER ELEMENT (20,000)

INSPECT LIFT MOUNTING BOLTS

- \_\_\_ REFER TO BUS MFG TORQUE SPECS (20,000)

INSPECT CLUTCH BEARING

- \_\_\_ PROPER ADJUSTMENT
- \_\_\_ GALLING - TRANSFERRING OF BRASS CLUTCH BEARING PARTICLES TO TORQUE SHAFT COUPLING
- \_\_\_ LUBRICATION (MULTI-PURPOSE GREASE)

INSPECT TORQUE SHAFT COUPLING SET SCREWS (20,000)

- \_\_\_ INSPECT SLIDE CHANNEL BEARING BLOCKS (20,000)

MANUAL OPERATION OF HYDRAULIC SYSTEM

- \_\_\_ STOW & DEPLOY
- \_\_\_ RAISE & LOWER
- \_\_\_ ROADSIDE BARRIER UP & DOWN
- \_\_\_ CURBSIDE BARRIER UP & DOWN

INSPECT FOR MANUAL OPERATING PROCEDURE DECAL

INSPECT MAIN LIFT CYLINDERS, FORWARD/REAR

- \_\_\_ CYL CLEVIS PINS MUST BE FREE OF RUST & CORROSION & MUST MOVE FREELY
- \_\_\_ CYL CLEVIS PINS - REMOVE, INSPECT & LUBE (20,000)
- \_\_\_ CYL CLEVIS PIN KEEPERS
- \_\_\_ JAM NUTS MUST BE TIGHT AGAINST CYL ROD
- \_\_\_ MIN THREAD ENGAGEMENT OF 1" ON TURNBUCKLE BOLTS
- \_\_\_ SPEED OF LIFT IN CUSHION AREA
- \_\_\_ APPLY LUBRICANT TO CUSHION ADJUSTMENT SCREW CAVITIES

INSPECT STOW LATCH/CYLINDER

- \_\_\_ PROPER STOW LATCH ENGAGEMENT (20,000)
- \_\_\_ HYDRAULIC HOSE/FITTINGS FOR LEAKS
- \_\_\_ LUBRICATION ON STOW LATCH FACE (LUBE W/DOOR-EASE)

INSPECT ALL FASTENERS FOR TORQUE (20,000)

- \_\_\_ INSPECT PUSH-OFF SPRINGS
- (REPLACE SPRINGS EVERY 6 YEARS OR 8,000 CYCLES)