

Sun Tran Preventive Maintenance Plan Summary

Sun Tran operates and maintains 246 buses and 6 service trucks. Sun Tran is required to develop and maintain a fleet maintenance plan which outlines Sun Tran fleet maintenance program.

Sun Tran's maintenance functions are organized into one department combining the maintenance of buses with support activities such as parts and record management. The Sun Tran Maintenance Plan provides an overall approach to maintenance and specific guidelines for the maintenance department. The intent of the Plan is to document responsibilities to ensure that all Sun Tran owned vehicles are kept in good working order.

Sun Tran's preventive maintenance inspections and programs consist of regular maintenance performed at prescheduled cycles to ensure optimal performance, efficiency, safety and reliability of assigned equipment. As established by the Federal Transit Administration guidelines, the Preventive Maintenance Interval Evaluation Performance goal is that 90% of the buses inspected must have a result of On-Time. Preventive maintenance inspections need to be performed on each bus within 10% of a scheduled cycle of 6,000-mile intervals to be considered On-Time.

There are four types of Preventive Maintenance Inspections, A, B, C and D.

- A Inspections are performed every 6,000 miles,
- B inspections every 12,000 miles,
- C Inspections every 24,000 miles and
- D inspections every 72,000 miles.

Each inspection after the A inspection includes everything from the prior inspection(s) and additional inspection items. (Attached are the four inspection forms.) A sample D inspection checklist is provided on the next page. Sun Tran's preventive maintenance compliance has been at 100% for the last three year period.

In addition to the scheduled preventative maintenance inspections listed above Sun Tran performs transmission and engine overhauls. Transmission/Engine overhauls are reviewed and scheduled based on mileage, age, and performance, manufacturer's recommendations, and failure history and failure analysis. Air conditioning inspections are required annually and are performed every nine (9) months in compliance with manufacturer's specifications.

Fleet performance statistics are published monthly and provide fleet performance indicators and detail on fleet performance. Indicators include preventive maintenance inspection intervals, air conditions inspections required/completed, accident repairs completed interrupted trips chargeable to maintenance, miles, fuel, oil and transmission fluid consumption and statistics, maintenance details to include engine and transmissions rebuilt, brake overhauls, maintenance staffing overtime, fleet service data, and wheelchair lift failures. These statistics are tracked monthly and compared with prior reporting periods.

PM Checklist Items for Work Order Number ST-RMS2-2016-7684

PM Service(s): D



Work Order Number:	ST-RMS2-2016-7684	WO Status:	OPEN	Work Order Delay:	None
Equipment:	2005 GILL G20D TRANSIT BUS-GILLIG-2005-BIODSL-LOW FLOOR	License:	G457EL		
Task	Completed by Employee	SR	Comments		
PM/Inspection Services: D INSPECTION - INCLUDES A- B- C (EXCEPT FOR INSP STICKER)					
DI-001 - BUS PREPARATION					
DI-002 - NOTE LEAKS UNDER- IN- AROUND ENG COMPARTMENT-FUEL-OIL-WATER					
DI-003 - CLEAN RADIATOR CORE WITH COMPRESSED AIR-AVOID DAMAGE TO FINS					
DI-005 - STEAM CLEAN UNDERCARRIAGE AND COMPARTMENTS					
DI-006 - CLEAN BATTERY COMPARTMENT WITH SPRAY CLEANER AND WATER					
DI-007 - DRIVER`S AREA					
DI-008 - SEAT AND LAP BELT-CHECK OVERALL CONDITION-FUNCTIONAL					
DI-009 - STEERING WHEEL-2" MAX PLAY ADJUSTABLE/HORN OPERATIONAL					
DI-010 - BRAKE AND THROTTLE PEDALS-CHECK FOR SMOOTH TRAVEL					
DI-011 - START ENGINE-LISTEN FOR UNUSUAL ENGINE OR STARTER NOISES					
DI-014 - SIDE CONSOLE-CHECK CONDITION AND PROPER RESPONSE OF SWITCHES					
DI-015 - INSTRUMENT PANEL LIGHTS-INDICATORS-GAUGES/CONDITION-FUNCTION					
DI-018 - FOOT SWITCHES-CHECK CONDITION AND FUNCTIONS					
DI-019 - WINDSHIELD WIPERS-CHECK OPERATION AT ALL SPEEDS					
DI-020 - WINDSHIELD WASHER FLUID-CHECK FOR PROPER SPRAY					
DI-021 - CLIMATE CONTROLS-CHECK FOR HOT AND COLD AIR OUTPUT					
DI-022 - DRIVER`S HEATER/DEFROSTER-CHECK FOR HEATED AIR AND AIR FLOW					
DI-028 - EXIT DOOR-OVERRIDE AND DOORMASTER SWITCH FUNCTIONS-CHECK					
DI-029 - KNEEL AND DOOR MASTER SWITCH FUNCTIONS-CHECK-FULL KNEEL 3-4"					
DI-032 - WHEELCHAIR RAMP FUNCTIONS-FULLY OPERATIONAL					
DI-033 - DOOR MANUAL CONTROL VALVE-CHECK					

PM/Inspection Service D continues on next page...



PM Checklist Items for Work Order Number ST-RMS2-2016-7684

Work Order Number: ST-RMS2-2016-7684 **WO Status:** OPEN **Work Order Delay:** None
Equipment (R2535): 2005 GILL G20D TRANSIT BUS-GILLIG-2005-BIODSL-LOW FLOOR **License:** G457EL

Task	Completed by Employee	SR	Comments
PM/Inspection Services: D INSPECTION - INCLUDES A- B- C (EXCEPT FOR INSP STICKER)			
DI-034 - 2-WAY RADIO SYSTEM-CHECK CONDITION			
DI-035 - PA SYSTEM-OPERATE AND LISTEN FOR CLEAR SOUND			
DI-036 - DRIVER`S WINDOW-NO DAMAGE OR OBSTRUCTIONS TO VIEW			
DI-037 - EXTERNAL MIRRORS-ENSURE CLEAR UNOBSTRUCTED LINE OF SIGHT			
DI-040 - SUN VISOR-SOLAR BLIND-SECURED AND FUNCTIONAL-NO RIPS/TEARS			
DI-041 - FARE BOX-SECURED-CHECK FOR GENERAL CONDITION			
DI-044 - DESTINATION SIGNS-FUNCTIONAL AND CLEARLY LEGIBLE			
DI-045 - DRIVER`S BARRIER-SECURELY ANCHORED-NO DAMAGE			
DI-046 - EMERGENCY REFLECTORS- 3 EACH-SERVICEABLE			
DI-047 - FIRE EXTINGUISHER-SERVICEABLE-GAUGE IN THE GREEN			
DI-050 - HIGH-IDLE-CHECK FOR INCREASED RPMS			
DI-051 - AIR BRAKES-CHECK PRESSURE BUILD-UP/CUT-IN/CUT-OUT			
DI-052 - ENSURE LOW AIR LIGHT AND PARK BRAKE VALVE ACTIVATE PROPERLY			
DI-053 - TEST PARK BRAKE-ENGAGE AND TRY TO MOVE BUS FORWARD			
DI-056 - INTERIOR			
DI-057 - MIRRORS-SECURED-GLASS/ARMS/FRAMES NOT BROKEN OR LOOSE			
DI-058 - MIRRORS-CHECK MOUNT BRACKETS/SWIVEL JOINTS FOR TIGHTNESS			
DI-059 - MIRRORS-CHECK FOR CLOUDY OR DISCOLORED GLASS			
DI-060 - FLOOR AND COVERING-NO TRIPPING HAZARDS OR WORN AREAS			
DI-061 - EMERGENCY EXIT WINDOWS-UNOBSTRUCTED AND FUNCTIONAL			
DI-062 - EMERGENCY WINDOW CABLES - LUBE AS NEEDED			
DI-063 - WINDOWS-LOOK FOR BROKEN OR CRACKED WINDOWS			
DI-064 - SEATS/FRAMES/CUSHIONS-SECURED/SERVICEABLE-OVERALL CONDITION			
DI-067 - WHEELCHAIR LOCATIONS - 3 EACH - FULLY OPERATIONAL			

PM/Inspection Service D continues on next page...



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Task	Comments				
PM/Inspection Services: D INSPECTION - INCLUDES A- B- C (EXCEPT FOR INSP STICKER)					
DI-068 - PANELS AND CEILINGS-NO LOOSE OR PROTRUDING PARTS					
DI-069 - ROOF HATCHES-USABLE-CONDITION OF SEALS-LOOK FOR LEAKS					
DI-070 - A/C ACCESS PANEL-SECURELY IN PLACE-NO PROTRUSIONS					
DI-071 - CHANGE A/C FILTER					
DI-072 - LIGHT LENSES/COVERS/DOME-NOT LOOSE/MISSING/CRACKED-WORKING					
DI-073 - STEP WELLS-NO TRIPPING HAZARDS OR LOOSE HANDHOLDS					
DI-074 - STEP WELL LIGHTS - OPERATIONAL					
DI-075 - STOP REQUEST BUTTONS/CORDS-OPERATIONAL					
DI-076 - DOORS-CHECK CONDITION-NOT EASILY OPENED-SECURE ON TRACKS					
DI-078 - EXTERIOR					
DI-079 - TIRES-TREAD DEPTH MINIMUM 4/32 FRONT-2/32 REAR-CONDITION					
DI-080 - TIRES-ENSURE AXLE FLANGE NUTS ARE TIGHT					
DI-081 - WHEEL AREA-CHECK CONDITION OF FLAPS-WHEELWELLS-STATIC STRAPS					
DI-240 - HEADLIGHTS-CHECK AND ALIGN AS REQUIRED					
DI-082 - BICYCLE RACK-CHECK FOR PROPER FUNCTION-NOT LOOSE OR DAMAGED					
DI-083 - BUMPERS-SECURED-NOT MISALIGNED OR DAMAGED					
DI-084 - WINDSHIELD WIPER-SECURE-NOT LOOSE OR BENT-CHECK RUBBER					
DI-085 - MIRRORS-SECURED-NOT BROKEN/LOOSE-MOUNTING ARMS SECURE					
DI-086 - WINDOWS-GLASS NOT DAMAGED-RUBBER SEAL IN PLACE-CK FRAME					
DI-087 - PANELS/MOLDINGS-NOT TORN OR PROTRUDING-SECURE					
DI-088 - ACCESS DOORS-NOT LOOSE OR DAMAGED-CHECK FASTENERS					
DI-089 - LIGHTS/REFLECTORS-CHECK LENSES-ALL LIGHTS OPERATIONAL					
DI-090 - BACK UP ALARM AND LIGHTS OPERATIONAL					
DI-091 - LICENSE PLATE--LEGIBLE-SECURELY ATTACHED-LIGHTS OPERATIONAL					
DI-092 - FUEL DOOR INTERLOCK-CHECK-WILL NOT START-NOT RTS/1991 NEOPLA					

PM/Inspection Service D continues on next page...



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PM/Inspection Services: D INSPECTION - INCLUDES A- B- C (EXCEPT FOR INSP STICKER)			
DI-093 - DRIVE-AROUND			
DI-094 - STEERING FEEL-CHECK FOR PROPER RESPONSE TO STEERING INPUTS			
DI-095 - STEERING FEEL-LOOK FOR EXCESS SLACK OR LOOSE MOTION-POWER			
DI-096 - TRANS SHIFTING-LOOK FOR SMOOTH UPSHIFT AND DOWNSHIFT ACTION			
DI-097 - TRANS SHIFTING-CHECK REVERSE GEAR FOR PROPER OPERATION			
DI-098 - BRAKE PERFORMANCE-CHECK FOR STOPPING CAPABILITY			
DI-099 - BRAKE PERFORMANCE-SMOOTH STOPS-NO PULLING-PROPER RELEASE			
DI-100 - ENG OPERATIONS-CHECK TEMP-PRESSURE-ACCEL-NOISES-VIBRATIONS			
DI-101 - ODOMETER/SPEEDOMETER-FULLY OPERATIONAL-PROPER READOUTS			
DI-102 - EXHAUST COLOR-NOTICE IF WHITE-BLUE-BLACK			
DI-104 - ENGINE COMPARTMENT			
DI-248 - VISUALLY INSPECT INSIDE AC ENVELOPE-LOOSE-BKN-MISSING PARTS			
DI-249 - VISUALLY INSPECT FOR ANY LEAKS			
DI-250 - INSP MTR-SHAFTS-BRNGS-SQUIRREL CAGE FOR LOOSE-BKN-MSNG PRTS			
DI-251 - INSP MTR-SHAFTS-BRNGS-SQUIRREL CAGE FOR LOOSE-BKN-MSNG PRTS			
DI-252 - INSP FOR REFRIGERANT LEAKS AND WATER / COOLANT LEAKS			
DI-105 - COMPARTMENT LIGHTS-ENSURE LIGHTS WORK			
DI-106 - GAUGES-ENG/TRAN/WATER TEMP-OIL PRESSURE-FULLY FUNCTIONAL			
DI-241 - TAKE ENGINE OIL SAMPLE			
DI-246 - CHANGE OIL AND OIL FILTER-GILLIG-CJ4 (1300CJ4)			
DI-108 - OIL FILTER-USE FILTER WRNCH-GSKT FLUSH-SNUG ON MNTNG SURFACE			
DI-243 - CHANGE CARTRIDGE FOR HEPO FILTER			
DI-233 - POWER STEERING FILTER AND GASKET - CHANGE			

PM/Inspection Service D continues on next page...



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Task						
PM/Inspection Services:	D INSPECTION - INCLUDES A- B- C (EXCEPT FOR INSP STICKER)					
DI-236 - AIR DRYER-PURGE VALVE-REBUILD-REPLACE DESICCANT						
DI-237 - WATER FILTER-CHANGE-CHECK MATTING SURFACE FOR DIRT						
DI-282 - CHANGE FILTER-WATER-PURAGUARD						
DI-112 - CONNECTORS (ECM/ATEC/AMEREX) INSPECT IF WORN OR BROKEN						
DI-114 - RADIATOR-CHECK COOLANT-LEAKS-HOSES-PRESSURE TEST CLAMPS						
DI-116 - ENGINE FAN BELT-REPLACE AND/OR ADJUST AS REQUIRED						
DI-119 - BATTERY COMPARTMENT-CHECK BATTERIES-CABLES-POSTS-CLAMPS						
DI-120 - NOTE LEAKS UNDER BUS AND IN/AROUND ENGINE COMPARTMENT						
DI-121 - DOOR HINGES/LATCHES-CHECK FOR PROPER FUNCTION						
DI-122 - DOOR HINGES/LATCHES-ENSURE NO COMPONENTS OR PARTS MISSING						
DI-123 - DOOR HINGES/LATCHES-LUBRICATE LATCHES AS REQUIRED						
DI-124 - FIRE NOZZLE						
DI-125 - FUEL FILTERS-CHANGE AND LUBE NEW FILTER `S GASKETS						
DI-126 - TRANSMISSION - DRAIN						
DI-127 - FILL TRANSMISSION WITH TRANSMISSION OIL - TRAN SYND						
DI-128 - TRANSMISSION - CHANGE FILTER						
DI-129 - AIR FILTER-CHANGE-SECURED-CHECK HOSES-CLAMPS-INDICATOR						
DI-131 - ALTERNATOR-LOOK FOR BROKEN WIRES-OIL LEAKS AT MOUNT						
DI-132 - CHECK FOR CODES-RECORD CODES-DO NOT CLEAR						
DI-135 - UNDERCARRIAGE						
DI-136 - GENERAL CONDITION-LOOK FOR LOOSE BOLTS-NUTS/CK HOSES-LINES						
DI-137 - GENERAL CONDITION-CHECK CLEVIS PIN FOR COTTER PINS						
DI-138 - BRAKES-VISUAL CHECK-LINING/HIGH CAMS/CHAMBER LEAKS						

PM/Inspection Service D continues on next page...



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PM/Inspection Services: D INSPECTION - INCLUDES A- B- C (EXCEPT FOR INSP STICKER)			
DI-140 - SHOCK ABSORBERS/BUSHINGS-CHECK FOR EXCESSIVE PLAY-LEAKS			
DI-141 - GREASE CHASSIS			
DI-293 - INSPECT MAIN DRIVELINE			
DI-144 - EXHAUST SYSTEM - CHECK FOR LEAKS AND CRACKS			
DI-147 - STEERING SYSTEM-CHECK DRIVELINE/GEARBOX/ANGLE DRIVE			
DI-148 - DIFFERENTIAL-DRAIN-CK AND CLEAN VENT-CHECK FOR LEAKS-FILL			
DI-149 - AIR TANKS-DRAIN AND CHECK FOR CONTAMINANTS (WATER/OIL)			
DI-151 - FRONT WHEEL BEARINGS-IF LOOSE NOTE FOR REPAIR-DEFECT WO			
DI-153 - FUEL TANKS-CHECK OVERALL CONDITION			
DI-165 - RADIUS ROD BUSHINGS-CHECK FOR EXCESSIVE WEAR AND PLAY			
DI-167 - SUSPENSION-CHECK AIR BAGS-RIDE HEIGHT-STABILIZER LINKS			
DI-168 - PRE-RELEASE			
DI-169 - CHECK ENGINE AND TRANSMISSION OIL LEVELS			
DI-170 - ENSURE DEFECTS ANNOTATED ON PROPER DEFECT WORK ORDER			
DI-244 - FEDERAL ANNUAL INSPECTION DECAL-REPLACE IF CLOSE TO EXPIRING			
DI-173 - CLEAN POWER STEERING ELEMENT-REFILL AND CHECK FOR LEAKS			
DI-175 - AMEREX SYSTEM-TEST ALARMS-CHANGE FILTER-FIRE BOTTLES			
DI-176 - AMEREX SYSTEM-GAUGES IN GREEN-SAFETY PIN WIRE IN-FIRE NOZZLE			
DI-177 - AMEREX SYSTEM-RED CAPS IN PLACE WITH LOOP FACING DOWN			
DI-178 - BODY SHOP REFERRAL ITEMS			
DI-180 - WHEELCHAIR LIFT/RAMP INSPECTION			
DI-212 - HYDRAULIC FLUID LEAKS-CHECK ALL HOSES/FITTINGS/FLUID LEVEL			
DI-213 - HYDRAULIC HOSES/FITTINGS-TIGHTEN OR RPL-FILL WITH FLUID			

PM/Inspection Service D continues on next page...



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Task	SR	Comments	SR	Comments	SR
PM/Inspection Services: D INSPECTION - INCLUDES A- B- C (EXCEPT FOR INSP STICKER)					
DI-214 - SETSCREWS-CK FOR LOOSE/MISSING SETSCREWS-THESE LOCATIONS					
DI-215 - - DRIVESHAFT COUPLERS (2 X 4 EACH) - TIGHTEN/RPL AS NECESSA					
DI-216 - - SENSOR TARGET (1 EACH) - TIGHTEN/RPL AS NECESSARY					
DI-217 - - PILLOW BLOCKS (2 X 2 EACH) - TIGHTEN/RPL AS NECESSARY					
DI-218 - DRIVE ARM T-NUTS-CK FOR LOOSENESS-TIGHTEN AS NECESSARY					
DI-219 - USE SPANNER WRNCH-TIGHTEN T-NUTS BOLTING RAMP ARMS/HARDWARE					
DI-220 - T-NUTS-APPLY THREAD LOCKER (LOCTITE BLUE) AS NECESSARY					
DI-221 - RAMP INTERIOR-CK AREA BELOW FLOOR PLATE-REMOVE DIRT/DEBRIS					
DI-222 - NO-SLIP SURFACE-CK FOR DAMAGE-LOOSE/MISSING NON-SLIP MATERIAL					
DI-223 - DECALS-CK FOR ILLEGIBILITY OR DAMAGE-REPLACE AS NECESSARY					
DI-224 - WIRING HARNESSES-CK WIRING INSUL FOR HVY ABRASION-RPL IF REQ					
DI-225 - WIRING HARNESSES-CK CONN FOR LOOSENESS-RPL IF REQUIRED					
DI-226 - FASTENERS-CK ALL THREADED FASTENERS-TIGHTEN AS NECESSARY					
DI-227 - NO-SLIP SURFACE-CK EXCESSIVE WEAR/DAMAGE-RPL AS NECESSARY					
DI-228 - PILLOW BLOCKS-LIGHTLY GREASE-LUBRICATE THRU GREASE FITTING					
DI-229 - BUSHING/THRUST WSHR-CK FOR EXCESSIVE PLAY-RPL IF NECESSARY					
DI-230 - ENTER SERVICE REQUEST FOR MAJOR TUNE UP 45H-000					

