

MAINTENANCE EVALUATION CHECKLIST ESCALATORS AND MOVING WALKS

BUILDING: _____ **EQUIPMENT #:** _____

Manufacturer: _____ **Model:** _____

Evaluation Performed By: _____

INTRODUCTION:

This checklist will enable the user to make an objective appraisal of the condition of the equipment. Given the variety and complexity of the equipment, many of the questions may not apply.

When completing this form, rate each of the items using one of the three columns provided. Enter N/A in those columns that do not apply to the installation being evaluated.

NOTE: The following items correlate to the *NEII*® Maintenance Guidelines. The number in the "Paragraph" column corresponds with the "Paragraph" number in the Maintenance Guidelines. Cross references in the maintenance guidelines are reflected in the details column.

| | Details | Paragraph | Rating | | |
|---------------------|---|-----------|---------------|---------|---------------|
| | | | Above Average | Average | Below Average |
| LANDINGS | | | | | |
| 1 | Unusual noises or vibrations | 13.4.1 | | | |
| 2 | Step/pallet treads should not be broken | 13.6.2 | | | |
| 3 | Comb teeth condition, mesh with steps/pallet treads | 13.6.3 | | | |
| 4 | Step/pallet wear | 13.6.4 | | | |
| 5 | Landing plate, non-slip surface | 13.6.5 | | | |
| 6 | Balustrade and molding condition | 13.6.7 | | | |
| 7 | Handrail entry guards, condition | 13.6.11 | | | |
| 8 | Landings and steps adequately lighted | 13.6.13 | | | |
| 9 | Escalator/moving walk landing to building floor interface | 13.6.14 | | | |
| 10 | Wedge guards | 13.7.1.1 | | | |
| 11 | Anti-slide devices, high decks | 13.7.1.2 | | | |
| 12 | Deck barricades for low deck designs | 13.7.1.3 | | | |
| 13 | Caution signs at both landings | 13.7.1.4 | | | |
| 14 | Operating and safety devices to suit applicable codes. Where lacking, suitable recommendations made to owner | 13.7.2.1 | | | |
| 15 | Stop buttons operating correctly, identified, located and guarded to suit local codes | 13.7.2.2 | | | |
| 16 | Starting switch operation, located to permit operator to observe steps during starting, automatic starting prohibited | 13.7.2.3 | | | |
| 17 | All safety devices tested for operation | 13.7.2.4 | | | |
| RIDING | | | | | |
| 18 | Demarcation lighting | 13.6.6 | | | |
| 19 | Balustrade and molding condition | 13.6.7 | | | |
| 20 | Skirt panel condition | 13.6.8 | | | |
| 21 | Skirt panel, low friction material or friction reducing treatment | 13.6.9 | | | |
| 22 | Step/skirt performance index | 13.6.10 | | | |
| 23 | Handrail speed matches steps/pallet, handrail condition | 13.6.11 | | | |
| 24 | Step to skirt clearance | 13.6.13 | | | |
| 25 | Landings and steps adequately lighted | 13.6.14 | | | |
| INSIDE TRUSS | | | | | |
| 26 | Grounds and bonds in place | 3.2 | | | |
| 27 | Pits should be dry and clean | 13.2.1 | | | |
| 28 | Truss, tracks, steps, chains, handrails, handrail drives should be clean | 13.2.2 | | | |

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| | Details | Paragraph | Rating | | |
|----------------------|--|-----------|---------------|---------|---------------|
| | | | Above Average | Average | Below Average |
| 29 | Properly lubricated using specified lubricants | 13.3.1 | | | |
| 30 | Condition of lubricants | 13.3.2 | | | |
| 31 | Chain lubrication | 13.3.3 | | | |
| 32 | Machine and emergency brake | 13.3.4 | | | |
| 33 | Gear reduction units | 13.3.5 | | | |
| 34 | External gears, handrail drives and idler sheaves | 13.3.6 | | | |
| 35 | Step/pallet and chain wheels | 13.3.7 | | | |
| 36 | Chain slack should be kept to minimum | 13.5.6.1 | | | |
| 37 | Sprockets should be examined for worn teeth and bearings | 13.5.6.2 | | | |
| 38 | Belts should be examined for wear, cracks, and tension | 13.5.6.3 | | | |
| 39 | Track system, wear, uneven joints | 13.5.7.1 | | | |
| 40 | Examine step/pallet chains for wear, stretch | 13.5.8.1 | | | |
| 41 | Step/pallet chain wheel bearings and tires | 13.5.8.2 | | | |
| 42 | Condition of step/pallet wheels | 13.6.1 | | | |
| 43 | Condition of steps or pallets | 13.6.2 | | | |
| 44 | Applicable codes operating and safety devices | 13.7.2.1 | | | |
| 45 | Safety devices and switches operate properly | 13.7.2.4 | | | |
| MACHINE SPACE | | | | | |
| 46 | Grounds and bonds in place | 3.2 | | | |
| 47 | Pits dry and free from debris and excess lubricant | 13.2.1 | | | |
| 48 | Drive machine space | 13.2.3 | | | |
| 49 | Properly lubricated using specified lubricants | 13.3.1 | | | |
| 50 | Condition of lubricants | 13.3.2 | | | |
| 51 | Chain lubrication | 13.3.3 | | | |
| 52 | Machine and emergency brake | 13.3.4 | | | |
| 53 | Gear reduction units | 13.3.5 | | | |
| 54 | External gears, handrail drives and idler sheaves | 13.3.6 | | | |
| 55 | Step/pallet and chain wheels | 13.3.7 | | | |
| 56 | Reduction gears | 13.5.1 | | | |
| 57 | Condition and wear of reduction gears | 13.5.1.1 | | | |
| 58 | Reduction gear bearings, quiet and cool | 13.5.1.2 | | | |
| 59 | Reduction gear minimum leakage of shaft seals | 13.5.1.3 | | | |
| 60 | Reduction gear controlled leakage of gland pack | 13.5.1.4 | | | |
| 61 | Machine brake pulley and coupling shaft fits secure | 13.5.2.1 | | | |
| 62 | Machine brake flexible couplings, condition | 13.5.2.2 | | | |
| 63 | Pulley surface, smooth, minimum scoring | 13.5.2.3 | | | |
| 64 | Machine and emergency brake switches, properly adjusted | 13.5.3.1 | | | |
| 65 | Machine and emergency brake lining wear or condition | 13.5.3.2 | | | |
| 66 | Machine and emergency brake consistent lifting | 13.5.3.3 | | | |
| 67 | Brake torque properly adjusted | 13.5.3.4 | | | |
| 68 | Drive motor bearings run quiet & cool (refer to 11.5.1) | 13.5.4 | | | |
| 69 | Drive motor field coils tight (refer to 11.5.2) | 13.5.4 | | | |
| 70 | Drive motor electrical connections tight, no discoloration (refer to 11.5.3) | 13.5.4 | | | |
| 71 | Drive motor armature & rotor clearance (refer to 11.5.4) | 13.5.4 | | | |
| 72 | Drive motor commutator condition (refer to 11.5.5) | 13.5.4 | | | |
| 73 | Drive motor brushes move freely, condition (refer to 11.5.6) | 13.5.4 | | | |
| 74 | Drive motor minimum sparking (refer to 11.5.7) | 13.5.4 | | | |
| 75 | Drive motor insulation resistance check (refer to 11.5.8) | 13.5.4 | | | |

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| | | | Above Average | Average | Below Average |
| 76 | Insulation resistance check | 13.5.4 | | | |
| 77 | Sound isolation, pads in good condition (refer to 11.6.1) | 13.5.5 | | | |
| 78 | Kick angles and tie downs (refer to 11.6.2) | 13.5.5 | | | |
| 79 | Chain adjusted, examine for wear and stretch | 13.5.6.1 | | | |
| 80 | Sprocket wear, alignment, bearings | 13.5.6.2 | | | |
| 81 | Belts wear, cracks, tension, alignment | 13.5.6.3 | | | |
| 82 | Track system, wear, uneven joints, condition | 13.5.7.1 | | | |
| 83 | Examine step/pallet chains for wear, stretch | 13.5.8.1 | | | |
| 84 | Step/pallet chain wheel bearings and tires | 13.5.8.2 | | | |
| 85 | Upper and lower drives or tension carriages | 13.5.9 | | | |
| 86 | Upper & lower drives or tension carriage shaft fits, bearings, tooth wear | 13.5.9.1 | | | |
| 87 | Upper & lower drives free movement, adequate tension | 13.5.9.2 | | | |
| 88 | Applicable codes operating and safety devices | 13.7.2.1 | | | |
| 89 | Safety devices and switches operate properly | 13.7.2.4 | | | |
| 90 | Static motion control, safety requirement (refer to 10.2.2) | 13.8.1 | | | |
| 91 | Fuses proper rating and type (refer to 10.2.3) | 13.8.1 | | | |
| 92 | Switch gear (refer to 10.3) | 13.8.1 | | | |
| 93 | Worn or maladjusted contacts replaced or corrected (refer to 10.3.1) | 13.8.1 | | | |
| 94 | Shunts in good condition (refer to 10.3.2) | 13.8.1 | | | |
| 95 | No contacts blocked, residual guards and shading coils okay, pivots lubricated, kickoff springs in place, encapsulated relay condition (refer to 10.3.3) | 13.8.1 | | | |
| 96 | Overload relays tagged with test data. Dashpots (if used) free to operate, oil level satisfactory (refer to 10.3.4) | 13.8.1 | | | |
| 97 | Switches operate smoothly, quietly (refer to 10.3.5) | 13.8.1 | | | |
| 98 | Mechanical condition (refer to 10.5) | 13.8.1 | | | |
| 99 | Connections tight, no heating (refer to 10.5.1) | 13.8.1 | | | |
| 100 | Cleanliness (refer to 10.5.2) | 13.8.1 | | | |
| 101 | Resistors, grids, wiring and band condition (refer to 10.5.3) | 13.8.1 | | | |
| 102 | Resistors, capacitors, good condition, properly mounted (refer to 10.5.4) | 13.8.1 | | | |
| 103 | Wiring neat, bundled, terminals labeled (refer to 10.5.5) | 13.8.1 | | | |
| 104 | Wiring diagrams, current, condition (refer to 10.7.1) | 13.8.1 | | | |
| MISCELLANEOUS | | | | | |
| 105 | Scope (a) Written maintenance control plan (b) Trained personnel (c) Plan execution | 1.0 | | | |
| 106 | Managed maintenance system in place and being used | 3.4 | | | |
| 107 | Equipment records | 3.5 | | | |
| | Define contract responsibilities | 5.0 | | | |
| 108 | Code tests | 5.1 | | | |
| 109 | Test and callback records | 5.2 | | | |
| 110 | Environmental regulations compliance | 5.3 | | | |
| | Escalator and moving walks | 13.0 | | | |
| 111 | Storage cabinets and areas | 13.2.4 | | | |