Underwriting Report: Otis Worldwide Corporation

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1. Executive Summary

Otis Worldwide Corporation presents as a global leader in the vertical transportation industry, boasting a comprehensive portfolio of elevator, escalator, and moving walkway solutions, coupled with extensive installation, maintenance, and modernization services. The company's established global presence, robust revenue figures, and significant workforce underscore its operational scale.

However, a review of recent merger and acquisition activity, ongoing legal proceedings, and historical loss run data reveals several key areas requiring diligent underwriting attention. While Otis demonstrates a strong commitment to safety and quality through documented programs, the frequency and severity of elevator malfunction-related claims, alongside ongoing litigation, highlight potential areas of elevated risk.

This report aims to provide a thorough analysis of Otis's operations, past performance, and identified exposures to inform a comprehensive underwriting decision.

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2. Company Overview

- **Company Name:** Otis Worldwide Corporation
- **Primary Business:** Global manufacturer, installer, and servicer of elevators, escalators, and moving walkways.

- **Founded:** 1853
- **Headquarters:** Farmington, Connecticut, USA
- **Global Presence:** Operates in over 200 countries and territories, with 26 engineering centers and 11 test towers.
- **Revenue (FY2024):**
    - Net Sales: Approximately $14.3 billion (ranging from $14.0B to $14.3B across sources).
    - New Equipment Sales: $8 billion
    - Service (Maintenance & Repair): $6 billion
- **Employees:** Approximately 69,000 to 72,000 globally, including 40,000-44,000 field professionals, 10,000 engineers, 10,000 manufacturing personnel, and 9,000 sales and administrative staff.
- **Products/Services:**
    - **Equipment:** Passenger and freight elevators, escalators, moving walkways.
    - **Services:** Installation, maintenance, repair, modernization solutions, remote elevator monitoring (REM) systems, dispatching. (Note: "Millwright and machine rigging contracting" is an anomaly identified in Google search that requires further clarification as it's not consistent with other sources.)
- **Industries Served:** Commercial buildings, residential complexes, transportation hubs, infrastructure projects.
- **Customer Base:** Building owners, facility managers, real estate developers, general contractors, housing associations, government agencies.
- **Property Details:** Corporate offices (10,000-50,000 sq ft) and large-scale manufacturing facilities (200,000+ sq ft) globally.
- **Equipment Used:** Service vehicles (40,000+ vans), heavy lifting equipment (cranes, forklifts, hoists), power tools.

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3. Mergers and Acquisitions (M&A) Activity

Otis has a history of strategic acquisitions to expand its market reach and service capabilities. Recent notable acquisitions include:

- **Jardine Schindler Group (September 10, 2024):** Acquisition of elevator and escalator services in Asia-Pacific markets. This significantly expands Otis's footprint in a high-growth region.
- **Eight Urban Elevator Locations Across the U.S. (April 21, 2025):** Expansion of U.S. operations, with some locations retaining Urban Elevator branding, suggesting a strategic integration approach.
- **Zardoya Otis, S.A. (April 7, 2022):** Completion of acquisition of remaining 49.9% stake for €1.6 billion, leading to delisting from Spanish stock exchanges. This consolidates control over a key European market.
- **Bay State Elevator (August 17, 2020) & Melco Elevadores do Brasil (November 22, 2017):** Acquisitions whose price and stake were not disclosed. These likely contributed to regional market share.
- **Evans Lifts (1997):** Acquisition in the UK following bankruptcy, highlighting a historical pattern of acquiring distressed or strategic assets.

Underwriting Implications of M&A:

- **Integration Risk:** Recent large-scale acquisitions (Jardine Schindler, Urban Elevator) pose integration challenges related to operational consistency, safety protocols, and cultural alignment.
- **Geographic Expansion:** While expanding market share, each acquisition introduces new regulatory environments and local liabilities, requiring robust due diligence on acquired entities' historical operations and legal exposures.
- **Due Diligence of Acquired Entities:** The report notes "No specific lawsuits for the listed acquired companies were found in the provided search results." This is an information gap. A thorough review of past legal and loss history for all acquired entities is crucial to identify undisclosed liabilities.

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4. Legal and Regulatory Landscape (Lawsuits)

Otis Worldwide Corporation is subject to various legal proceedings, primarily related to product liability, general negligence, and employment practices.

Directly Associated with Otis Worldwide Corporation:

- **EEOC v. Otis Worldwide Corporation (2023):** Ongoing lawsuit alleging ADA violation and retaliation concerning an assistant mechanic with ASD/ADHD. This highlights potential employment practices liability (EPL) exposure and the importance of HR policies and accommodations.
- **Darnis v. Raytheon Technologies Corporation (2021):** Active litigation regarding alleged breach of obligations for equitable adjustments to stock-based compensation post-spin-off from United Technologies Corporation. This points to D&O and potentially ERISA liability.
- **Robert Khodadadian v. Otis Elevator Co. (2015):** Lawsuit regarding a fatal electrocution of a worker. This underscores the critical nature of occupational safety, training, and the inherent hazards in the industry. The outcome is not specified.
- **English v. Otis Elevator Co. (2019):** Negligence and strict liability claims for hand injury from an elevator. Outcome: Motion to amend denied, but negligence claim against Otis allowed to proceed. This exemplifies common product liability and general liability exposures related to elevator operation.
- **Otis Elevator Co. v. Northwood Associates (1991):** Negligence and products liability claims against Otis. Outcome: Sanctions order declared Otis liable. This highlights the historical nature of product liability claims and the potential for adverse rulings.
- **Drazen v. Otis Elevator Company (1963):** Negligence claims following an escalator accident. Outcome: Court found no liability against Otis as the building owner had knowledge of the condition. While an older case, it provides insight into the allocation of liability in elevator/escalator incidents.
- **Cotting v. Otis Elevator Co. (Unknown Year):** Contract dispute regarding defective moving stairways. Outcome: Demurrer sustained, no liability conceded. Illustrates potential contractual liability.

- **Otis v. Zurich (2021):** Lawsuit seeking declaration of losses and expenses due to COVID-19 related to physical loss/damage. This reveals potential business interruption and property insurance coverage disputes.
- **Nowicki v. Otis Elevator Company (2024):** Lawsuit for injuries from a precipitous elevator drop. Outcome: Contribution claim against hospital allowed to proceed. This is a very recent and concerning incident, suggesting potential issues with elevator maintenance or product integrity.
- **United States v. Otis Elevator Co. (Unknown Year):** Relates to unlawful restraints and monopolies. Indicates historical anti-trust exposure.
- **Bond v. Otis Elevator Company (1965):** Lawsuit for injuries from an elevator freefall. Outcome not specified. Another historical case highlighting the severity of elevator malfunctions.

Lawsuits Indirectly Associated with Otis Worldwide Corporation (Acquired Companies):

- No specific lawsuits for the listed acquired companies were found in the provided search results. This is a significant data gap and requires further investigation.

Underwriting Implications of Lawsuits:

- **Product Liability & General Liability (PL/GL) Exposure:** A recurring theme of elevator and escalator malfunctions (fatal electrocution, freefall, sudden stops, hand injuries, child's hand caught) indicates a high and persistent PL/GL exposure. The "elevator freefall" and "Nowicki v. Otis Elevator Company" (2024) are particularly concerning due to severity and recency.
- **Workers' Compensation (WC) Exposure:** The Khodadadian lawsuit (fatal electrocution) highlights severe WC exposure, emphasizing the need for robust safety protocols for field technicians.
- **Employment Practices Liability (EPL) Exposure:** The EEOC lawsuit points to the importance of HR policies and ADA compliance.
- **Director & Officer (D&O) Exposure:** The Darnis lawsuit suggests D&O liability related to corporate restructuring and shareholder claims.

- **Historical Pattern:** The presence of lawsuits spanning several decades (1963-2024) indicates a long-standing exposure to litigation in the vertical transportation industry.
- **Unspecified Outcomes:** Several lawsuit outcomes are not specified, requiring further investigation to assess their impact on Otis's financial and reputational standing.

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5. Nature of Operations and Risk Controls

Otis's operations are inherently high-risk due to the nature of installing, maintaining, and repairing complex machinery that transports people.

Key Operational Details and Associated Risks:

- **Global Reach (200+ countries):**
    - **Risk:** Exposure to diverse legal, regulatory, and building code environments (International Building Codes - EXP400). Increased complexity in managing safety standards and quality control across varied jurisdictions. **Remote Site Exposures (EXP108)** for widespread field professionals.
- **Installation of New Equipment (EXP991, EXP173):**
    - **Risk:** Significant property damage, bodily injury, and contractual liability. Use of heavy lifting equipment and power tools. Potential for damage to client property.
    - **Control:** Comprehensive safety program, Field Standard Practices for high-risk activities.
    - **Information Gap:** Percentage of subcontracted installation work, and vetting process for subcontractors.
- **Maintenance and Repair Services (EXP992):**
    - **Risk:** Ongoing public liability, product liability (if replacement parts are defective), and workers' compensation for technicians. High frequency of interaction with operational equipment.
    - **Control:** Field Training Center of Excellence for mechanics, incident reporting and investigation.

    - **Information Gap:** Documented maintenance schedules for each unit, specific procedures for emergency repairs.
- **Modernization Services (EXP996):**
    - **Risk:** Similar to new installations, with added complexity of working with existing structures and potential code compliance issues during upgrades. Disruption to existing building operations.
    - **Control:** Training on modernized equipment (implied).
    - **Information Gap:** Planning and execution strategies to minimize disruption, permit and inspection procedures.
- **Manufacturing of Components and Final Products (EXP993):**
    - **Risk:** Product liability for design defects, manufacturing defects, and failure to warn.
    - **Control:** 26 engineering centers and 11 test towers suggest rigorous testing. Existence of a Product Recall Program.
    - **Information Gap:** Specific quality control processes, rigorous testing protocols for components, provision of adequate warnings and instructions with components.
- **Safety Devices (EXP990):**
    - **Risk:** Malfunction of safety devices can lead to severe accidents and fatalities.
    - **Control:** Emphasis on strong safety culture, Cardinal Rules, WWJSSS, employee safety days, Fatality Prevention Audits.
    - **Information Gap:** Certification of safety devices by reputable organizations, regular inspection and maintenance schedules.
- **Work at Height / Elevation - Elevator and Escalator Shafts (EXP994):**
    - **Risk:** High potential for severe fall-related injuries or fatalities for field technicians.
    - **Control:** Mandatory fall protection training, Field Standard Practices for high-risk work, Personal Safety Bag with PPE.
    - **Information Gap:** Specific procedures for securing work areas and restricting access.
- **Cybersecurity for Elevator Control Systems (EXP995):**

    - **Risk:** As Otis develops "digital connectivity and smart building solutions," cyber risks from hacking or system breaches could lead to operational disruptions, safety hazards, and data breaches.
    - **Control:** No explicit cybersecurity controls mentioned in the provided overview.
    - **Information Gap:** Crucial information regarding network isolation, firewalls, intrusion detection, password policies, access controls, and prompt software updates/patching is entirely missing. This is a critical area for further inquiry.
- **Product Liability - Discontinuation:** Otis stopped selling private residence elevators in the U.S. and Canada in 2012. This is positive as it limits future exposure for a product line that led to recall.
- **Product Recall Program:** An acceptable Product Recall Program is in place. A 2020 recall of private residence elevators due to entrapment hazard indicates the program's activation. This is a critical control.

Overall Safety Procedures and Training (General):

Otis demonstrates a strong commitment to safety, evidenced by:

- Comprehensive safety program with hazard identification, risk assessment, and incident prevention.
- Mandatory safety training, regular safety meetings and audits.
- Incident reporting and investigation.
- Employee Safety Handbook.
- Contractor Safety Requirements Protocol.

Underwriting Implications of Operations & Controls:

- **Strength:** Otis has well-defined safety programs and training protocols that appear to address many of the inherent risks of their operations. The existence of a Product Recall Program is a positive.
- **Weakness/Gaps:** Significant information gaps exist regarding the detailed implementation of safety controls, particularly concerning:
    - Subcontractor management and vetting.

    - Specific maintenance schedules and emergency procedures.
    - Cybersecurity measures for control systems.
    - Detailed quality control processes for manufactured components.
- **Critical Need:** Obtaining detailed responses to all "Information Gap" points is paramount for a comprehensive risk assessment.

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6. Loss Run Analysis (2020-2023)

The provided loss run data covers claims from 2020 to 2023, with some older valuation dates. The total incurred amount is **$7,183,850**, with **$5,364,500** in open claims, indicating significant ongoing exposure.

Summary of Key Loss Patterns:

- **Elevator Malfunctions (44.4% of claims, 5 large losses):** This is the most prevalent and concerning loss driver. Incidents include:
    - Elevator malfunction, sudden stop (2021) - $160,000 GL
    - Elevator freefall, multiple injuries (2022) - $1,050,000 Umbrella (CRITICAL LOSS)
    - Elevator malfunction, faulty control system (2021) - $160,000 PL
    - Elevator malfunction, abrupt stop (2021) - $165,000 GL
    - Elevator malfunction, multiple injuries (2023) - $1,100,000 Umbrella (CRITICAL LOSS)
    - Elevator malfunction, sudden drop (2022) - $165,000 PL
    - **Trend:** Consistent frequency with high severity. The two Umbrella claims related to freefall and multiple injuries are particularly alarming and require in-depth root cause analysis.
- **Workers Compensation - Strains/Overexertion (22.2% of claims, 1 large loss):**
    - Back injury, lifting parts (2022) - $65,000 WC
    - Hand injury, amputation (2022) - $27,500 WC
    - **Trend:** Suggests potential issues with ergonomic practices, lifting procedures, or inadequate equipment for field technicians.

- **Property Damage (Fire/Water) (16.7% of claims, 2 large losses):**
    - Fire damage to warehouse (2020) - $550,000 Property
    - Water damage, faulty installation (2023) - $55,000 GL
    - **Trend:** The recent 2023 water damage claim linked to faulty installation is concerning and could point to installation quality issues.
- **Escalator Incidents (11.1% of claims):**
    - Child's hand caught in escalator (2022) - $7,000 GL
    - **Trend:** While less frequent, the nature of these incidents, particularly involving children, highlights the need for stringent safety features and maintenance.
- **Automobile Accidents (11.1% of claims, 1 large loss):**
    - Accident transporting elevator (2020) - $82,500 Auto
    - **Trend:** Infrequent but with potential for high severity due to the transport of heavy equipment.

Claims Reporting Analysis:

- **Data Quality:** All provided claims have a "reported_date."
- **Reporting Lag:** The mock data indicates a 1-day reporting lag for all claims, which is highly unrealistic for real-world scenarios and prevents meaningful analysis of reporting efficiency.
- **Valuation Dates:** Several claims have valuation dates prior to 12/1/2022. **Updated loss runs are critical** to assess the true current incurred value and potential for future development, especially for the large open Umbrella claims.

Underwriting Implications of Loss Run:

- **Significant PL/GL Exposure:** The volume and severity of elevator malfunction claims represent the primary driver of loss for Otis. This will significantly impact premium calculations for these lines.
- **High WC Frequency:** While not as severe as PL/GL, the frequency of WC claims related to strains and lifting suggests a need for targeted safety interventions for field staff.

- **Potential Quality Control Issues:** The "faulty installation" and "faulty control system" claims point to potential quality control and installation practice concerns that warrant deeper investigation.
- **Need for Updated Data:** The current loss run is insufficient for a complete underwriting decision due to outdated valuation dates for open claims. Updated data is a non-negotiable requirement.
- **Root Cause Analysis:** A critical need for Otis to provide detailed root cause analyses for all large losses, particularly the two "elevator freefall" incidents and the "Nowicki v. Otis Elevator Company" (2024) claim.

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7. Open Questions and Information Gaps

To adequately underwrite Otis Worldwide Corporation, the following information is critical:

Missing Information/Documentation:

- **Root Cause Analysis:** Detailed root cause analysis reports for all major losses, especially the two "elevator freefall" incidents, the "Nowicki v. Otis Elevator Company" (2024) claim, and other high-severity elevator malfunctions.
- **Updated Loss Runs:** Consolidated loss runs valued as of a very recent date (e.g., within the last month) for all claims. This is essential to understand the current financial exposure of open claims.
- **Subcontractor Management:**
    - Specific percentage of installation and maintenance work subcontracted.
    - Detailed vetting process for subcontractors (experience, safety records, insurance verification).
    - Contractual indemnity agreements with subcontractors.
- **Cybersecurity Protocols (CRITICAL):**
    - Are elevator control systems isolated from public networks?
    - Detailed information on firewall, intrusion detection, and other network security measures.

    - Policies on strong passwords, access controls, and multi-factor authentication for system administrators.
    - Frequency and procedures for software updates and patch management for control systems.
- **Quality Control & Testing:**
    - Detailed manufacturing quality control procedures for all components and final products.
    - Specific testing protocols (e.g., destructive testing, life cycle testing) for elevator and escalator components.
    - Documentation of certifications by reputable organizations for safety devices.
- **Maintenance Schedules:**
    - Documentation of the documented maintenance schedule for each elevator and escalator unit under service contracts.
    - Detailed procedures for handling emergency repairs and reporting incidents.
- **Safety Procedures - Work at Height:**
    - Detailed procedures for securing work areas and restricting access during work in elevator/escalator shafts.
- **Acquired Entities' Loss History:** Full loss runs and legal histories for all companies acquired by Otis, particularly Jardine Schindler Group and Urban Elevator locations.
- **Employee Tenure:** Employee tenure for all Workers' Compensation claims to identify potential correlation with experience levels.
- **Driver Training & Vehicle Maintenance:** Information on driver training programs and vehicle maintenance protocols for Otis's fleet of service vehicles.
- **Product Lifecycle/Quality:** No information found on the lifecycle of products or further details on quality beyond the recall program. This should be clarified.

Clarifications Needed:

- Confirmation that all incidents occurred at client locations or company facilities.
- Details of Otis's safety programs and training procedures specifically related to identified loss trends (e.g., overexertion prevention, specific elevator malfunction training).

- Details of the "elevator freefall" incident, including the number of claimants and severity of injuries beyond the incurred amount.
- Explanation for the "Millwright and machine rigging contracting" service identified by Google, if it is indeed a core service.

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8. Risk Assessment Summary

Based on the available information, Otis Worldwide Corporation presents a **Moderate to High-Risk Profile** for underwriting, with significant opportunities for mitigation through robust risk management.

Strengths:

- Global market leader with diversified revenue streams (new equipment vs. service).
- Established and long-standing presence in the industry.
- Comprehensive general safety program with documented procedures, training, and audits.
- Existing Product Recall Program.
- Emphasis on field professional training.

Weaknesses / Key Concerns:

- **High and Persistent Product Liability / General Liability Exposure:** The frequency and severity of elevator malfunction claims (especially "freefall" incidents) are a major concern. This suggests potential systemic issues with product design, manufacturing, installation, or ongoing maintenance.
- **Significant Open Claims:** The high value of open claims necessitates careful scrutiny and updated valuation.
- **Information Gaps:** Crucial information regarding subcontractor management, detailed quality control, cybersecurity protocols, and root cause analyses for major losses is currently unavailable.

- **Workers' Compensation Frequency:** The number of WC claims for strains/overexertion indicates a need for enhanced ergonomic practices or lifting aids.
- **M&A Integration Risk:** Recent large acquisitions introduce integration complexities and potential for undisclosed liabilities from acquired entities.

Proposed Underwriting Actions:

1. **Mandatory Information Request:** Immediately request all "Open Questions and Information Gaps" outlined in Section 7, particularly updated loss runs and root cause analyses for critical claims.
2. **Product Liability Deep Dive:**
    - Require detailed explanations for the recurring elevator malfunctions, including specific component failures, design flaws, or maintenance deficiencies identified.
    - Review Otis's testing procedures for all critical safety components (e.g., brakes, governors, interlocks, door sensors).
    - Confirm compliance with relevant local and international elevator safety codes and standards.
3. **General Liability / Installation Practices Review:**
    - Assess the "Contractor Safety Requirements Protocol" and the vetting process for subcontractors in detail.
    - Evaluate the extent of Otis's ongoing supervision and quality control over subcontracted work.
4. **Cybersecurity Assessment:** Conduct a thorough review of Otis's cybersecurity posture, especially for their elevator control systems. This may require a dedicated cybersecurity questionnaire or a technical meeting.
5. **Workers' Compensation Risk Mitigation:**
    - Request details on ergonomic training and equipment provided to field technicians to prevent strains and overexertion.
    - Review the specific circumstances and training protocols related to the fatal electrocution and hand amputation claims.

6. **M&A Due Diligence:** Obtain and review loss runs and legal histories for all acquired entities (Jardine Schindler Group, Urban Elevator, Bay State Elevator, Melco Elevadores do Brasil) to uncover any undisclosed liabilities.
7. **Pricing:** Given the high severity of recent claims, consider higher deductibles and/or significant premium adjustments for GL and Umbrella lines. WC pricing should also reflect the frequency of smaller claims.

Recommendation:

- **Hold Decision:** Based on the significant information gaps and the high-severity losses, a definitive underwriting decision cannot be made at this time.
- **Proceed to Further Investigation:** Proceed with the detailed information requests outlined above. A follow-up report will be necessary once all required information is received and analyzed.