Lifting Plan for Forklift

A lifting plan for forklift operations is a critical document that outlines the procedures, safety precautions, and responsibilities involved in safely moving heavy or awkward loads. This comprehensive guide will delve into every aspect of creating and implementing an effective forklift lifting plan, covering everything from pre-operational checks and load assessment to communication protocols and emergency procedures. Understanding and adhering to a well-structured lifting plan is paramount for preventing accidents, protecting personnel and equipment, and ensuring efficient material handling. We will explore the essential components of a lifting plan, the legal and regulatory requirements that mandate their use, and best practices for its development and ongoing review.

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What is a Forklift Lifting Plan?

A lifting plan for forklift operations is a detailed, written document that systematically describes how a specific lifting task will be performed safely and efficiently. It serves as a roadmap, guiding operators, supervisors, and other personnel involved in the process. The plan considers the specific load, the forklift equipment, the operating environment, and the personnel involved. Its primary purpose is to identify potential hazards associated with the lift and to implement control measures to mitigate those risks. A robust lifting plan goes beyond a simple checklist; it is a proactive approach to risk management in material handling. Implementing a comprehensive lifting plan for forklift tasks is not just a best practice; it is often a legal requirement in many jurisdictions.

Why is a Forklift Lifting Plan Essential?

The importance of a forklift lifting plan cannot be overstated. It is a cornerstone of workplace safety in environments where material handling is prevalent. Firstly, it significantly reduces the likelihood of accidents, such as dropped loads, tip-overs, and collisions, which can lead to severe injuries or fatalities. Secondly, a well-defined plan helps prevent damage to goods, equipment, and the workplace infrastructure. Thirdly, it ensures compliance with health and safety regulations, avoiding potential fines and legal repercussions. By systematically addressing potential risks, a lifting plan fosters a culture of safety and operational excellence. It promotes clear communication and defined responsibilities, ensuring everyone understands their role in a successful and safe lift.

Key Components of an Effective Forklift Lifting Plan

An effective lifting plan for forklift operations is a multifaceted document that typically includes several critical sections. These sections ensure that all relevant aspects of the lifting task are considered and documented. Without these fundamental elements, a lifting plan would be incomplete and less effective in preventing accidents and ensuring smooth operations. Each component plays a vital role in the overall safety and efficiency of the forklift operation.

Pre-Operational Checks and Load Assessment

Before any lifting operation commences, thorough pre-operational checks of the forklift equipment are mandatory. This includes inspecting the tires, brakes, steering, hydraulic systems, forks, mast, and safety devices. Simultaneously, a detailed assessment of the load itself is crucial. This involves determining the load's weight, dimensions, center of gravity, and whether it is stable or requires special handling. Understanding the load's characteristics is fundamental to selecting the correct forklift and attachment, as well as planning the lifting strategy. Identifying any potential hazards associated with the load, such as sharp edges, protruding parts, or susceptibility to damage, is also part of this assessment phase.

Equipment and Operator Readiness

Beyond the physical checks of the forklift, the plan must confirm the readiness of both the equipment and the operator. This includes verifying that the forklift is rated for the intended load and has all necessary certifications and maintenance records up-to-date. For the operator, the plan should confirm their competency, including valid licensing, experience with the specific type of forklift, and knowledge of the site and the lifting procedures. Any required personal protective equipment (PPE) for the operator, such as safety shoes, gloves, and high-visibility vests, should also be stipulated. Ensuring the operator is not fatigued or under the influence of any substance that could impair their judgment is paramount for safe operation.

Load Characteristics and Stability

A deep understanding of the load's characteristics is central to a successful lifting plan. This involves calculating the load's weight accurately and comparing it against the forklift's lifting capacity, considering the load center. If the weight is unknown, conservative estimates or professional weighing methods should be employed. The shape and dimensions of the load are also important, as they can affect maneuverability and visibility. For loads that are unusually shaped, unstable, or fragile, the plan must detail specific handling techniques, such as the use of specialized attachments or securing methods. Load stability is paramount; an unstable load can shift during lifting or transport, leading to accidents. Therefore, the plan should specify how to ensure the load remains secure and balanced throughout the operation.

Environmental Factors and Site Assessment

The operating environment presents a unique set of challenges that must be addressed in the lifting plan. This includes assessing the ground conditions for stability, unevenness, or the presence of obstacles. The width of aisles, height of doorways, and ceiling clearances are critical for determining the forklift's path and maneuverability. Lighting conditions, weather (if operating outdoors), and the presence of other personnel or vehicles in the vicinity must also be considered. The plan should map out a clear and unobstructed route for the forklift, identifying any potential pinch points or blind corners. If working at height or in hazardous areas, specific safety protocols and equipment, like barricades or spotters, should be incorporated into the plan.

Communication and Supervision

Clear and effective communication is vital during any lifting operation. The lifting plan should define the communication methods to be used between the forklift operator, supervisors, and any ground personnel. This might include hand signals, two-way radios, or verbal instructions. A designated supervisor should oversee the entire lifting operation, ensuring that the plan is followed meticulously and that all safety protocols are adhered to. The supervisor's role is to monitor the lift, make real-time adjustments if necessary, and intervene if any unsafe practices are observed. Defining who is responsible for authorizing the lift and who has the authority to stop the operation in case of an emergency is also a crucial aspect of the communication strategy.

Roles and Responsibilities

A comprehensive lifting plan clearly delineates the roles and responsibilities of every individual involved in the lifting operation. This ensures accountability and prevents confusion. Typically, this includes:

- **Forklift Operator:** Responsible for operating the forklift safely, performing pre-operation checks, understanding the load, and following the lifting plan.
- **Supervisor:** Responsible for developing, approving, and overseeing the lifting plan, ensuring adherence to safety procedures, and making decisions during the operation.
- **Slinger/Banksman (if applicable):** Responsible for attaching and detaching loads, directing the operator using signals, and ensuring the load is properly secured.
- **Load Handler:** Responsible for preparing the load for lifting and ensuring it is stable and correctly positioned.
- **Safety Officer:** May be involved in reviewing and approving the plan, conducting inspections, and ensuring compliance with regulations.

Clearly defining these roles ensures that each person knows exactly what is expected of them, contributing to a more organized and safer operation.

Emergency Procedures

Despite meticulous planning, unexpected situations can arise. Therefore, the lifting plan must include detailed emergency procedures. This should cover scenarios such as:

- Forklift tip-over
- Dropped load
- Mechanical failure

- Injury to personnel
- Fire

The plan should specify the immediate actions to be taken, including evacuation procedures, communication protocols for summoning emergency services, and designated assembly points. It should also outline who is responsible for first aid and how to secure the area to prevent further hazards. Regular drills and familiarization with these procedures are essential for all personnel involved.

Training and Competency

The effectiveness of any lifting plan is heavily dependent on the training and competency of the individuals executing it. The plan should specify the required training for forklift operators, supervisors, and any other personnel involved. This includes formal certification for operators, practical training on specific equipment, and ongoing refresher courses. Competency assessment is crucial to ensure that individuals not only possess the knowledge but can also apply it effectively in real-world scenarios. The lifting plan itself should be a part of the training, ensuring that all personnel understand its contents, their specific roles within it, and the associated safety protocols. This ensures a consistent and knowledgeable approach to all lifting tasks.

Review and Updates of the Lifting Plan

A lifting plan is not a static document; it requires regular review and updates. The plan should be reviewed after any incident or near-miss, or when there are changes in equipment, procedures, or the operating environment. Periodic reviews, for example, annually or bi-annually, are also recommended to ensure its continued relevance and effectiveness. Feedback from operators and supervisors should be actively sought and incorporated into the review process. Updating the plan ensures that it remains current with best practices, regulatory changes, and lessons learned from operational experience. This proactive approach to review and revision is fundamental to maintaining a high standard of safety in forklift operations.

Frequently Asked Questions

What are the key components of a comprehensive forklift lifting plan?

A comprehensive forklift lifting plan should include hazard identification and risk assessment, specifying the load (weight, dimensions, center of gravity), selecting the appropriate forklift (capacity, attachment), defining the lifting procedure (pre-lift checks, engagement, lifting, lowering, travel), communication protocols, training requirements, and emergency procedures.

How do I determine the correct forklift capacity for a specific lift?

Forklift capacity is determined by its rated load capacity, which is usually indicated on a data plate. It's crucial to consider the load's weight, the distance of the load's center of gravity from the mast (load center), and any attachments used. The effective capacity decreases as the load center moves further out.

What are the critical pre-lift checks for a forklift lifting operation?

Before any lift, pre-lift checks must include inspecting the forklift for any damage or malfunctions (brakes, tires, hydraulic systems, mast, forks, safety devices), verifying fluid levels, checking the load for stability and securing any loose components, and ensuring the travel path is clear of obstructions and personnel.

How should the forklift's forks be positioned and engaged with the load for a safe lift?

Forks should be inserted fully under the load, ensuring they are spread to match the pallet or load width. The mast should be tilted back slightly to cradle the load against the carriage. Ensure the load is centered on the forks to maintain balance and prevent slippage.

What are the best practices for traveling with a lifted load?

When traveling with a lifted load, it should be kept as low as possible (4-6 inches off the ground) to maintain stability and visibility. Travel at a safe, controlled speed, avoiding sudden starts, stops, or turns. Always look in the direction of travel, and use a spotter if visibility is impaired.

What is the importance of communication during forklift lifting operations?

Clear and concise communication is vital. This includes confirming the lift is understood, signaling intentions (lifting, lowering, moving), and alerting others to potential hazards. Hand signals, radios, or verbal communication can be used, depending on the environment and personnel involved.

How do attachments affect forklift capacity and lifting plans?

Attachments like side shifters, fork positioners, or clamps alter the forklift's center of gravity and can reduce its effective lifting capacity. The lifting plan must account for the added weight of the attachment and its impact on the load center, potentially requiring a forklift with a higher original capacity.

What safety considerations are paramount for lifting unstable or unusually shaped loads?

Unstable or unusually shaped loads require extra caution. Secure the load with strapping, shrink wrap, or other appropriate means. Use specialized attachments if necessary. Ensure the load is well-balanced, and consider using dunnage to create a stable base. A spotter is highly recommended for these lifts.

How often should forklift lifting plans be reviewed and updated?

Lifting plans should be reviewed and updated regularly, at least annually, or whenever there are changes to the work environment, the types of loads being handled, the forklifts in use, or after any incidents or near misses. This ensures the plan remains relevant and effective.

Additional Resources

Here are 9 book titles related to forklift lifting plans, with short descriptions:

1. *Forklift Operations and Safe Lifting Practices*
This comprehensive guide delves into the fundamental principles of operating forklifts safely and efficiently. It covers essential topics such as pre-operation checks, load capacity awareness, and proper maneuvering techniques. The book also dedicates significant sections to developing and implementing effective lifting plans, ensuring loads are secured and transported without incident.

2. *The Art of the Lift Plan: Forklift Load Management*
This book focuses on the strategic and meticulous process of creating detailed lifting plans specifically for forklift operations. It explores how to assess load characteristics, understand weight distribution, and select the appropriate forklift for the task. Readers will learn to anticipate potential hazards and design plans that prioritize stability and operator safety.

3. *Understanding Forklift Dynamics for Secure Lifts*
This technical resource explores the physics and engineering principles that govern forklift behavior during lifting operations. It examines factors like center of gravity, load moment, and overturning forces. The book uses this knowledge to inform the creation of robust lifting plans, emphasizing how to maintain balance and control even with challenging loads.

4. *Hazard Identification and Risk Mitigation in Forklift Lifting*
This publication provides a systematic approach to identifying potential hazards associated with forklift lifting and developing effective mitigation strategies. It covers common risks such as unstable loads, environmental factors, and operator error. The book offers practical guidance on incorporating these risk assessments directly into the lifting plan development process.

5. *Creating Effective Forklift Lifting Procedures: A Step-by-Step Guide*
This user-friendly manual breaks down the creation of forklift lifting plans into manageable, actionable steps. It guides readers through each stage, from initial planning and equipment selection to execution and post-lift checks. The book emphasizes clarity and conciseness in lifting procedures, making them easy for operators to understand and follow.

6. *Load Stability and Securement for Forklift Transport*
This book concentrates on the critical aspects of ensuring load stability and securement when using forklifts. It covers various methods of dunnage, bracing, and wrapping to prevent shifting during transport. The content is essential for developing lifting plans that account for the integrity and safety of the transported goods.

7. *Forklift Safety Regulations and Compliance for Lifting Operations*
This book serves as a crucial resource for understanding the legal and regulatory framework surrounding forklift operations and lifting. It outlines relevant safety standards and compliance requirements that must be considered when developing lifting plans. The publication helps ensure that all procedures meet or exceed industry best practices and legal obligations.

8. *Advanced Forklift Lifting Techniques and Planning Scenarios*
Designed for experienced operators and supervisors, this book explores more complex lifting scenarios and advanced planning methodologies. It tackles challenges such as working in confined spaces, lifting irregularly shaped loads, and multi-forklift operations. The content provides strategies for adapting lifting plans to dynamic and demanding work environments.

9. *The Visual Guide to Forklift Lifting Plans and Signage*
This visually rich book uses diagrams, illustrations, and real-world examples to explain the development and communication of forklift lifting plans. It highlights the importance of clear signage and communication protocols on the warehouse floor. The book demonstrates how visual aids can enhance understanding and adherence to lifting plans, reducing the potential for errors.

Lifting Plan For Forklift

Lifting Plan for Forklift: A Comprehensive Guide to Safe and Efficient Operation

Ebook Title: The Forklift Lifting Plan: A Safety and Efficiency Manual

Outline:

Introduction: The importance of a comprehensive lifting plan and its impact on safety, efficiency, and legal compliance.
Chapter 1: Assessing the Load: Identifying load characteristics (weight, dimensions, center of gravity), using load charts, and understanding load stability.
Chapter 2: Choosing the Right Forklift: Selecting the appropriate forklift based on load capacity, mast type, and operating environment.
Chapter 3: Pre-Lift Checklist: A detailed step-by-step checklist for pre-operational checks, including forklift inspection, load securing, and environmental assessment.
Chapter 4: Safe Lifting Techniques: Proper lifting procedures, maneuvering techniques, and strategies for avoiding hazards.
Chapter 5: Post-Lift Procedures: Securing the load, returning the forklift to its designated area, and conducting post-operational checks.
Chapter 6: Addressing Potential Hazards: Identifying and mitigating potential hazards such as uneven surfaces, overhead obstructions, and blind spots.
Chapter 7: Legal Compliance and Documentation: Understanding relevant safety regulations, maintaining accurate records, and the importance of training.
Conclusion: Recap of key takeaways, emphasizing the importance of consistent application of the lifting plan for long-term safety and efficiency.

The Forklift Lifting Plan: A Safety and Efficiency Manual

Introduction: The Foundation of Safe Forklift Operation

A well-defined lifting plan is the cornerstone of safe and efficient forklift operation. It's not merely a suggestion; it's a critical safety document that minimizes the risk of accidents, protects workers, and ensures smooth workflow. Failing to implement a robust lifting plan can lead to serious consequences, including injuries, equipment damage, property loss, and legal repercussions. This manual provides a comprehensive guide to creating and implementing a lifting plan tailored to your specific workplace environment. It outlines the essential steps, from assessing the load to completing post-lift procedures, ensuring compliance with all relevant safety regulations. The focus throughout is on proactive risk mitigation and the establishment of consistent, safe practices. This proactive approach to forklift operation is not just beneficial for safety, but also enhances overall efficiency by minimizing downtime and disruptions caused by accidents or equipment malfunction.

Chapter 1: Assessing the Load – Understanding the Weight and Balance

Before even considering lifting a load, a thorough assessment is paramount. This involves identifying several key characteristics:

Weight: Accurately determining the weight of the load is crucial. Use calibrated scales or refer to the manufacturer's specifications. Overloading a forklift can lead to instability and tip-overs.
Dimensions: Knowing the load's length, width, and height is essential for selecting the appropriate forklift and maneuvering it safely. Oversized loads may require specialized equipment or alternative lifting methods.

Center of Gravity: The center of gravity (CG) is the point where the weight of the load is evenly distributed. An improperly balanced load, with a high or offset CG, significantly increases the risk of tipping. Understanding the CG and its impact on stability is crucial for safe lifting.
Load Charts: Every forklift has a load capacity chart specifying the maximum weight it can lift at different mast heights. Always consult the load chart before attempting a lift, ensuring the load's weight and dimensions are within the safe operating parameters. Incorrect load charts can lead to severe accidents.
Load Stability: Consider factors influencing load stability, such as the load's shape, how it's secured, and the condition of the ground. Uneven loads or inadequate securing can lead to shifting during transport, resulting in instability and potential accidents. Utilizing load stabilizers and ensuring correct load distribution is crucial here.

Chapter 2: Choosing the Right Forklift – Matching the Task to the Machine

Selecting the correct forklift is critical for ensuring safe and efficient operation. Consider these factors:

Load Capacity: The forklift's rated capacity must exceed the weight of the load. Never exceed the manufacturer's specified load capacity.
Mast Type: Different mast types (e.g., simplex, duplex, triplex) provide varying lift heights. Choose a mast with sufficient lift height to clear any obstacles.
Operating Environment: The forklift's suitability for the operating environment (e.g., indoor/outdoor, rough terrain, confined spaces) must be considered. Selecting the wrong forklift for the environment can lead to damage or accidents.
Fork Length: Ensure the fork length is appropriate for the load's dimensions to prevent instability and damage.
Tire Type: The type of tires (e.g., pneumatic, cushion) should be matched to the operating surface.

Chapter 3: Pre-Lift Checklist – Preparing for a Safe Lift

A thorough pre-lift checklist is crucial to mitigate risks:

Forklift Inspection: Check the forklift's overall condition, including tires, brakes, lights, horn, and hydraulic systems. Ensure all safety devices (e.g., seatbelts, backup alarms) are functioning correctly.
Load Securing: Properly secure the load to prevent shifting or falling during transport. Use appropriate straps, chains, or other securing devices according to load characteristics.
Environmental Assessment: Inspect the area for potential hazards, including uneven surfaces, obstacles, pedestrians, and overhead obstructions. Clear the area of any obstructions before attempting a lift.
Travel Route Planning: Plan the travel route, ensuring it's clear and free from obstacles. Avoid sharp turns and sudden braking.
Communication: Communicate with other workers in the area to ensure everyone is aware of the forklift's movements.

Chapter 4: Safe Lifting Techniques – Mastering the Art of Controlled Movement

Proper lifting techniques are essential for preventing accidents:

Approach the Load: Approach the load slowly and carefully, ensuring the forks are properly positioned.
Engage the Load: Slowly engage the load, ensuring it's evenly distributed on the forks.
Lift the Load: Lift the load smoothly and gradually, avoiding sudden movements.
Maneuvering: Maneuver the forklift smoothly and carefully, avoiding sharp turns or sudden braking. Maintain a slow speed, especially when turning.
Setting Down the Load: Lower the load slowly and carefully, ensuring it's placed in the designated area. Avoid dropping the load.

Chapter 5: Post-Lift Procedures – Completing the Cycle Safely

Post-lift procedures are just as critical as pre-lift checks:

Securing the Load: Ensure the load remains secure after it's been placed.
Returning the Forklift: Return the forklift to its designated area, following established procedures.
Post-Operational Check: Conduct a brief post-operational check, noting any potential issues for maintenance.
Documentation: Record the lift, including date, time, load details, and any incidents.

Chapter 6: Addressing Potential Hazards – Proactive Risk Mitigation

Identify and mitigate potential hazards proactively:

Uneven Surfaces: Avoid lifting loads on uneven surfaces. Use level ground or implement appropriate leveling techniques.
Overhead Obstructions: Be mindful of overhead obstructions, such as low-hanging beams or pipes.
Blind Spots: Be aware of blind spots and use mirrors or spotters when necessary.
Pedestrian Traffic: Avoid areas with high pedestrian traffic. Use caution and communicate with pedestrians.
Environmental Conditions: Be aware of environmental conditions such as rain, snow, or ice, which can affect traction and visibility.

Chapter 7: Legal Compliance and Documentation – Meeting Regulatory Requirements

Understanding and complying with relevant safety regulations is vital:

OSHA Regulations (or equivalent): Familiarize yourself with OSHA (Occupational Safety and Health Administration) regulations or your country's equivalent for forklift operation.
Record Keeping: Maintain accurate records of all lifts, inspections, and training.
Training: Ensure all forklift operators receive adequate training and certification.

Conclusion: A Culture of Safety and Efficiency

Implementing a comprehensive lifting plan is not just a matter of compliance; it's a commitment to a culture of safety and efficiency. By consistently following the guidelines outlined in this manual, you can significantly reduce the risk of accidents, protect your workers, and optimize your operations. Remember, a proactive approach to safety pays dividends in the long run, both in terms of accident

prevention and overall productivity.

FAQs

1. What is the most common cause of forklift accidents? Operator error, including improper lifting techniques and inadequate training.
2. How often should a forklift undergo inspection? Regular inspections should be conducted daily before operation, and more thorough inspections should be performed at scheduled intervals, as per manufacturer guidelines and regulations.
3. What are the legal consequences of not having a lifting plan? Failure to implement a suitable lifting plan can result in fines, legal action, and reputational damage.
4. How can I ensure my load is properly secured? Utilize appropriate securing devices (straps, chains) and ensure they're correctly fastened, distributing the load evenly and securely.
5. What should I do if I encounter a hazard during a lift? Stop the lift immediately, assess the hazard, and take appropriate measures to mitigate the risk before proceeding.
6. What type of training is required for forklift operators? Formal training covering safe operating procedures, load handling, and hazard awareness is essential. Certification is often required.
7. How can I improve the efficiency of my forklift operations? Optimizing workflows, implementing proper maintenance schedules, and providing thorough operator training can significantly enhance efficiency.
8. What is the role of a spotter during forklift operations? Spotters assist the operator by providing guidance and warning them of potential hazards, particularly in areas with limited visibility.
9. Where can I find resources to help create a customized lifting plan for my workplace? Consult your local OSHA office (or equivalent), safety professionals, and forklift manufacturers.

Related Articles:

1. Forklift Safety Training Programs: A review of different training programs available and their effectiveness.
2. Choosing the Right Forklift for Your Application: A detailed guide to selecting the appropriate forklift based on various needs.
3. Forklift Maintenance and Preventative Measures: Essential maintenance procedures to ensure safe and efficient operation.
4. Understanding Forklift Load Capacity Charts: A detailed explanation of how to interpret and utilize load capacity charts.
5. Common Forklift Accidents and How to Avoid Them: A review of common accidents and strategies to prevent them.
6. The Importance of Regular Forklift Inspections: Highlighting the benefits of regular inspections and their role in safety.
7. Forklift Safety Regulations and Compliance: A guide to understanding and adhering to relevant safety regulations.
8. Improving Forklift Efficiency in Warehousing: Strategies to enhance forklift efficiency in warehouse environments.
9. Advanced Forklift Maneuvering Techniques: A guide to advanced techniques for efficient and safe load handling.

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prevention. * A must-have standard reference for chemical and process engineering safety professionals * The most complete collection of information on the theory, practice, design elements, equipment and laws that pertain to process safety * Only single work to provide everything; principles, practice, codes, standards, data and references needed by those practicing in the field

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within industry. Each chapter sets out a clear, practical approach to identifying and managing risks, thereby enabling a robust and successful health and safety management system to be established in any workplace. The book is written for non-safety professionals such as managers and directors who want to discharge and manage their health and safety responsibilities in their workplace without the need to engage a consultant. It will also appeal to the safety professional by providing an authoritative guide to current best practice together with the practicalities of managing health and safety risks.

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safety, health, and associated fields who are preparing for credentialing examinations in safety and health.

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in utility systems have been observed by the author or discovered in the literature research that was part of the production effort for this volume.

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new ergonomic guidelines, new requirements in the Steel Erection standard, and new additions to signs, signals, and barricades requirements. Written in plain English, this comprehensive handbook provides you with the legal background, practical advice, and ready-to-use written compliance programs you need to ensure your sites meet workplace safety requirements, protect workers, and comply with the standards. Each Chapter provides a description of the requirements of the standard, and a sample written compliance program, checklists, and the appropriate citations from the 29 CFRs. The latest changes in enforcement and inspection policy are also detailed, and a list of OSHA's most frequently cited construction standards is given.

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planning and executing the complete structural removal of a building - this book is the most comprehensive guide available today.

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