# **Brail Fire Curtain Rigging System**

# Operation and Maintenance Manual



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H & H Specialties Inc. manufactures products for lifting stage curtains, scenery, lighting and other equipment typical to performing arts facilities. Our products are not intended to lift or transport people or animals.

The information contained herein is general in nature and not venue specific. All theaters have unique operational characteristics due to the unique designs of backstage areas. This manual is intended to provide a guide to safe operational practices and maintenance of the brail fire curtain rigging equipment manufactured by H & H Specialties Inc. It is the facility director's duty to implement a training program to ensure that the crew can operate the facility's brail fire curtain rigging system in a safe and efficient manner.

H & H Specialties Inc. shall not be held responsible for any damage that is caused by failure to follow the information contained within this manual.



Failure to follow the instructions contained in this instruction and operation manual may result in property damage, serious injury or death.

## Introduction

Rigging equipment is a background tool in the theatre. A brail fire curtain system operates so that it is not normally seen by the audience; however, the elements supported by the rigging are integral to the function of the safety of the theatre. If the rigging performs its function, you do not think about it. If the rigging does not perform its function properly, the results can be catastrophic.

Operators of the brail fire curtain rigging system shall be given appropriate training prior to operating any rigging system and shall always be supervised by qualified personnel. If you are operating a brail fire curtain rigging system you shall:

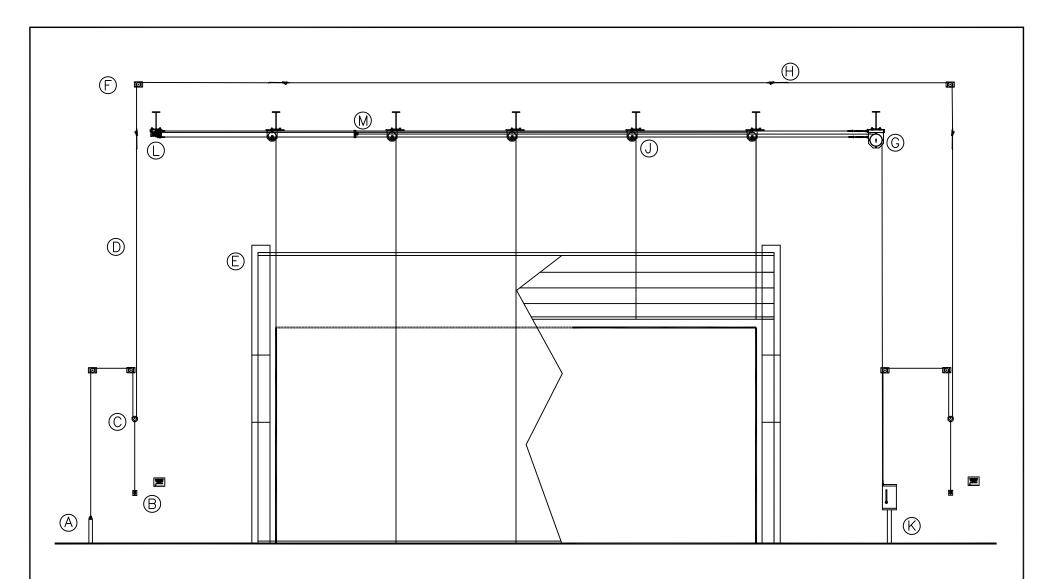
- Understand the various rigging systems that you are using.
- Learn the location of all components and system capacities.
- Understand how to use the brail fire curtain rigging system installed in your theatre.
- Make sure that you have been properly trained on the specific equipment you are expected to operate.
- Be aware of the current condition of the brail fire curtain rigging system and report anything that may affect safety or proper operation of the system to your supervisor immediately.
- Always keep the brail fire curtain rigging equipment in safe working order. Learn good work habits.
- Don't let distractions keep you from your job. Maintain your concentration during operation.

A brail fire curtain rigging system is a machine. It is a system of parts that together perform a task. Like any other machine, a brail fire curtain rigging system requires regular inspection and maintenance. General inspection and maintenance intervals are detailed in the appendix of this document. H & H Specialties also recommends that periodic inspections be performed by qualified outside rigging contractors to perform detailed surveys of your brail fire curtain rigging system to identify and correct any hazards noted.

# **Description of Brail Fire Curtain Rigging System**

The brail safety curtain system is designed to separate the audience area from the stage area in case of a fire emergency condition. The system is required by the local building code and must be kept operational and in good working order at all times. The brail safety curtain is a wire reinforced fiberglass type and is raised under normal conditions using a manual brail winch with hydraulic governor. Lowering the curtain is accomplished by manually releasing the ring from the ring & pin station located at each side of the proscenium. The curtain may also be lowered in an emergency mode by the separation of a fusible link in the release system. There are typically six fusible link devices located, two located each side of the proscenium and two above the proscenium.

Rigging systems are composed of basic components. The major components include the following items as indicated on the following drawing:



A - #675 ROUND WEIGHT & GUARD

B - #676 RING & PIN STATION - WITH SIGN

C - #674 4" FLOATING PULLEY

D - FIRE RELEASE LINE

E - SMOKE POCKET

F - #677 MULE BLOCK

G - #1230C25 LOFT BLOCK

H – #679 FUSIBLE LINK RELEASE

J - #830C25 LOFT BLOCK

K - #670 BRAIL WINCH

L - #8881C25 MULE BLOCK

M - #672 HORIZONTAL BRAIL CLEW

## **DEFINITIONS**

**Authorized Person:** A person approved or assigned by the employer to perform a specific type of duty or duties or to be at a specific location or locations at the job site.

**Batten:** A pipe, tube, or other structural shape that is used to support scenery, curtains, lighting and other elements in the theatre.

**Brail Fire Curtain:** A type of unframed fire safety curtain which folds horizontally in accordion fashion for storage.

**Brail Winch:** A manual machine incorporating a revolving drum with hand crank equipped with a hydraulic governor to control free-fall speed of lifting load when holding brake is released.

**Clew:** A device designed with multiple holes configured to connect several lift lines into a common haul line.

**Competent Person:** One who is capable of identifying existing or predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective action to eliminate them.

**Counterweight:** A weight used to balance the load on a line that is being raised, lowered, or held in position.

**Counterweight Arbor:** A weight carriage designed so that the amount of counterbalance can be varied proportional to the load imposed on the pipe batten. The purchase line ties off to the top and bottom of the arbor.

**Fleet Angle:** The angle between the centerline through a sheave and the centerline of the wire rope leading to a second sheave.

**Fusible Link:** Two metal pieces soldered together to form a fixed temperature rated device that will cause the two halves to separate when the design temperature is reached.

**Grid:** A grid is an open framework of steel located under the roof for the support of stage rigging equipment. The grid provides a position to access the rigging for inspection and maintenance. It is also an area for the placement of specialty rigging sets or spotline rigging required for specific theatrical productions.

**Head Block:** A multi-groove sheave assembly whose purpose is to gather all of the lift lines from the loft blocks and reeve them toward the counterweight arbor.

**Hydraulic Governor:** A hydraulic unit including pump and adjustable valve which allows the control of flow of hydraulic fluid through the device to provide resistance. This device is used in conjunction with a manual brail winch to control the descent of a free-falling fire safety curtain.

**Lift Lines:** 3/16" or 1/4", 7x19 galvanized specialty cord used to support the batten at intervals approximately eight feet on center. This spacing varies by venue dependent on the structural system of the building.

**Loft Block:** A single groove sheave assembly used in groups for the support of a pipe batten. Loft blocks are placed between the batten and head block.

**Mule Block:** A supplementary change of direction block located between the loft blocks and head blocks in a rigging system.

**Pipe Batten:** Typically a 1-1/2" standard pipe used for the attachment of curtains, scenery, lighting and other items. A batten may also be a truss configuration.

**Purchase (Operating) Line:** Typically a 3/4" diameter manila or synthetic rope that is reeved in an endless loop and tied off at the top and bottom of the counterweight arbor.

**Qualified Person:** A person who, by possession of a recognized degree, certificate or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter, the work, or the project.

**Shall:** Indicates a mandatory requirement.

**Should:** Indicates a recommendation or that which is advised but not required.

**Upright (Grid Mounted) Rigging System:** Upright counterweight rigging systems have a steel grid for the attachment of loft blocks and a separate raised head block beam assembly. From the position of the head block the lift lines array downward toward the loft blocks. On a fully rigged stage, accessibility across the grid becomes limited.

**Underhung (Roof Mounted) Rigging System:** Underhung counterweight rigging systems have the same structural members that support the roof also support the loft and head blocks. From the position of the head block the lift lines travel horizontally toward the loft blocks. For functionality, these systems should also have a grid for the attachment of spotline rigging and inspection and maintenance of the rigging system.

Wire Rope Clip: A device used for forming eye terminations on wire rope.

**Working Load Limit:** The maximum recommended capacity of a system or component during normal operating conditions.

#### **OPERATING INSTRUCTIONS**

The brail fire curtain rigging system shall be operated only by trained, qualified and authorized persons.

Operating personnel should be familiar with the system installed and the operation and suggested maintenance intervals of the system. To prevent potential damage to equipment and/or injury to personnel, the instructions below shall be understood and followed. If any doubt exists as to the correct operation or maintenance of this equipment, questions should be directed to the stage equipment contractor who installed the system or to a qualified stage rigging contractor.

Training, experience and common sense are integral parts of operating any theatrical rigging system. The rigging crew should be previously trained in the safe operation and maintenance of the brail fire curtain rigging system.

#### **GENERAL SUMMARY OF OPERATION**

- 1. Know your system. Become familiar with the look, feel, sound, and smell of the system and its components. Use all of your senses and become aware of your equipment and the surroundings.
- 2. Know the capacity of the system. Become familiar with the capabilities and limitations of all the components and the brail fire curtain system in general.
- 3. Use common sense during the operation of the system. A noisy or hard pulling set may indicate a problem. If something doesn't look or feel right, it probably isn't.
- 4. A designated spotter should be assigned to maintain visual contact with the brail fire curtain during its travel. This spotter is required to have complete control of the situation and must maintain that control at all times.
- 5. Follow appropriate and safe practices when operating the brail fire curtain system installed in the theatre. Don't become overconfident.
- 7. Keep the deck clear of all items prior to moving any rigging set.
- 9. Perform regularly scheduled inspection and maintenance procedures on the system. A brail fire curtain system is a machine and must be treated as such.

#### SAFETY CURTAIN SYSTEM

The safety curtain system is designed to separate the audience area from the stage area in case of a fire emergency condition. The system is required by the local building code and must be kept operational and in good working order at all times. The safety curtain is a wire reinforced fiberglass type and is raised under normal conditions using a manual brail winch with hydraulic governor. Lowering the curtain is accomplished by manually releasing the ring from the ring & pin station located at each side of the proscenium. The curtain may also be lowered in an emergency mode by the separation of a fusible link in the release system. There are six fusible link devices, two located each side of the proscenium and two above the proscenium. For specific information on the brail winch, refer to separate Maintenance and Operating Instructions provided with the unit.

#### RAISING THE CURTAIN

The brail fire curtain can only be raised using the manual brail winch. Use the following procedure for safe operation of the unit.

- 1. The brail winch is operated with a handle which keys onto the input shaft. The handle is conveniently stored inside the brail winch enclosure. Remove the sheet metal side plate to allow access to the handle. Remove the handle from its storage position and install on the input shaft of the brail winch. Use the supplied thumb screw to secure handle to input shaft. It is very important to make sure thumb screw is installed, otherwise handle may slip from input shaft causing injury to operator.
- 2. Once brail fire curtain has been raised to its raised or "up" position, set the caliper brake assembly. This is accomplished by raising the brake arm and holding it in position. Next, connect the brake arm to the safety curtain release line. The end weight places the line under tension, holding the brake arm in position, keeping the brail fire curtain in the raised position.
- 3. Make sure that there is tension in the brail fire curtain release line and that the brake is set. Make sure load is set prior to releasing handle. Remove handle once brake is set and store conveniently inside brail winch housing. If winch begins to free-wheel, *do not* attempt to grab handle. Personal injury may result.
- 4. When raising the safety curtain using the hydraulic brail winch, make sure that the area is cleared of people prior to operating the winch. Do not operate the winch when people may be within the path of the curtain.

#### LOWERING THE CURTAIN

The brail fire curtain may be lowered either manually or automatically by the separation of a fusible link device. Use the following procedure for the safe lowering of the curtain manually.

- 1. A ring and pin station is located each side of the proscenium, identified with a sign and arrow. Removing the ring off the pin at either location and releasing it from your hand will allow the curtain to descend, covering the proscenium opening.
- 2. During a fire, heat generated by that fire will cause a fusible link device interconnected into the safety curtain release line to separate, lowering the fire curtain. There are six devices installed in the release line system, of which, only one needs to separate to lower the safety curtain. These devices are single use and must be replaced if they separate. Replacement fusible links should be a part of the theatre's spare parts list.
- 3. The hydraulic governor installed on the brail winch adjusts the speed with which the brail fire curtain descends. The speed and time with which the curtain may take to descend is governed by the local building code and was inspected prior to the theatre opening. The speed adjustment was performed by the installation contractor to meet the required criteria. Under normal circumstances future adjustments should not be required. If adjustment is required, consult instructions included with brail winch. **WARNING!** Do not operate brail winch with valve fully closed, damage to the governor will result.

- 4. In order for the brail winch to work properly there should be a minimum of 200 pounds of weight on the curtain when it is in to lowered position. This weight is usually in the form of the batten in the bottom pocket.
- 5. To raise the curtain and set brail fire curtain release line system, please see instructions listed above.

# **GENERAL SAFETY RULES**

- 1. Equipment must be operated by trained and qualified personnel.
- 2. All tools carried by personnel in the stage area must be tethered at all times.
- 3. Never operate a brail fire curtain when stage personnel are under or near the batten to be flown.
- 4. Wear gloves when operating the system.
- 5. Most stage rigging accidents are caused as a result of human error. Keep a clear mind and think before acting. Overconfidence and complacency can cause accidents.

#### GENERAL OPERATION OF A THEATRICAL RIGGING SYSTEM

- 1. Know your system. Become familiar with the look, feel, sound, and smell of the system and its components. Use all of your senses and become aware of your equipment and the surroundings.
- 2. Know the capacity of the system. Become familiar with the capabilities and limitations of all components and the system in general.
- 3. Use common sense during the operation of the system. A noisy or hard pulling set may indicate a problem. If something doesn't look or feel right, it probably isn't.
- A designated spotter should be assigned to maintain visual contact with 4. any moving piece of scenery or batten. This spotter is required to have complete control of the situation and shall maintain that control at all times.
- 5. Follow appropriate and safe practices when operating any of the rigging systems installed in the theatre. Don't become overconfident.
- 6. Load and unload counterweight in a safe manner. Keep all counterweight arbors in a balanced condition at all times.
- 7. Keep the deck clear of all unnecessary items prior to moving a rigging set.
- 8. During load-in and load-out, warn all persons in the stage house prior to moving a batten or other rigging item.
- 9. Perform regularly scheduled inspection and maintenance procedures on the system. A rigging system is a machine and shall be treated as such.
- Before operating the fly system or any line set, make sure the arbor and 10. pipe batten and its load are in balance.
- Make absolutely sure that no personnel are under or near the pipe batten 11. that will be flown.
- Flyman shall announce the movement of batten by saying in a loud voice, 12. "Set No. xxx coming in. "Stage personnel in the area during set-up should acknowledge that they heard the flyman by saying "thank you, clear", or some other appropriate response to indicate that the batten may be flown.
- 13. If system binds, investigate the source of the binding. Immediately correct the problem.

14.



When removing equipment from a batten, **NEVER** A DANGER remove the load from a batten before removing the counterweights from the arbor.

Conversely, when loading a batten **NEVER** add counterweights to the arbor before attaching the load to the batten.

# **RUN-AWAY LINE SET**



Failure to follow the emergency procedure below may result in serious injury or death.

# **EMERGENCY PROCEDURE**

- Do Not Attempt To Stop The Run-Away Line Set.
- Shout A Warning To All Persons On The Stage.
- Exit Stage Or Take Cover. The Possibility Of Flying Counterweights And Objects Falling From The Grid Is Great.

#### MAINTENANCE AND INSPECTION OF RIGGING SYSTEMS

#### General

All rigging systems require periodic maintenance to keep them in good working order and to maximize their life expectancy. The information contained herein is suggested for normal operating conditions. It is the duty of the facility manager to schedule the maintenance intervals on regular intervals depending on how the equipment is used and the environment of the venue in which the equipment is installed.

# Inspection

High humidity, dust, extreme temperature changes, and frequency of use will affect the operation and life of a counterweight rigging system.

#### **Pipe Battens**

Battens are bent

Battens are level

Batten splice connections are correct. Fasteners if used are not deformed, missing, loose, or have components missing

#### Wire Rope

Broken strands in wire rope

Corrosion on wire rope

Kinked or deformed wire rope

Wire rope rubbing against equipment or building structure

Fleet angle exceeding 1.5 degrees

#### Wire Rope Terminations

Wire rope clips are drop forged and manufacturer is identifiable

Wire rope clips installed correctly

Wire rope thimbles provided

Manufacturer of turnbuckle or shackle is identifiable on product

Turnbuckle or shackle is deformed or bent

Turnbuckles are moused with wire to prevent unloosening

Manufacturer of batten clamp is identifiable on product with load rating

Welded chain used with grade mark identifiable

Swaged fittings are correctly made on wire rope

#### Loft Blocks

Clips are deformed or do not have sufficient engagement on structure

Fasteners are deformed, missing, loose, or have components missing

Housing is deformed or damaged

Sheave rubs against side plates

Sheave groove(s) is corrugated due to excessive loads

Grooving for wire rope and purchase lines is not correct

Bearings make noise during operation

#### **Head Blocks**

Clips are deformed or do not have sufficient engagement on structure Fasteners are deformed, missing, loose, or have components missing

Housing is deformed or damaged

Sheave rubs against side plates

Sheave grooves are corrugated due to excessive loads

Grooving for wire rope and purchase lines is not correct

Bearings make noise during operation

#### Mule Blocks

Clips are deformed or do not have sufficient engagement on structure

Fasteners are deformed, missing, loose, or have components missing

Housing is deformed or damaged

Sheave rubs against side plates

Sheave grooves are corrugated due to excessive loads

Grooving for wire rope and purchase lines is not correct

Bearings make noise during operation

#### **Counterweight Arbor (if used)**

Arbor top or bottom are made of cast components

Arbor rods are straight and not deformed or bent

Counterweights rest squarely on arbor bottom

Onstage ends of pipe weight painted for identification

Spreader plates are provided for 2'-0" on center spacing

Locking collars are installed with set screws tightened to prevent movement

Fasteners are deformed, missing, loose, or have components missing

Guides shows move freely on tee or jay guides

Backing plates are deformed or missing

### **Counterweight Arbor Guides (if used)**

Tee, angle or wire guides are deformed or have components missing

Tee, angle or wire guides are not plumb

Fasteners are deformed, missing, loose, or have components missing

Tee or angle guides are clean

Support braces are bent or deformed

#### **Brail Winch**

Hydraulic oil leaking from unit

Fasteners are deformed, missing, loose, or have components missing Brail winch does not lower fire curtain at a speed within code requirement

Covers or handle is missing

#### **Emergency Release System**

Release line, when activated, does not lower curtain

Fusible links separated

#### MAINTENANCE INSTRUCTIONS

Periodic, regularly scheduled maintenance inspections are necessary for any mechanical system. A brail fire curtain rigging system is a machine like an automobile or a clock. It has components that must be regularly inspected, adjusted, maintained, and replaced. In order to keep your system safe and in good working order, a regular inspection and maintenance program must be implemented.

The best way to maintain your brail fire curtain rigging system is by regular use. Each mechanical device should be cycled a minimum of once each month or per local code requirement. This will keep the grease properly distributed in the bearings and allow the inspector to regularly check for unusual noise or drag in the system. Plan a few minutes each week during a quiet period to operate each device. Listen for unusual noise and determine the source if it appears. Do not allow any item to be operated or used if there is any question as to its safety or integrity. Accidents and injuries can be the result. Most accidents are the result of lack of training, complacency, and overconfidence. Do not assume anything.

*Note:* Whenever your brail fire curtain rigging system receives any type of shock or impact load, all components in that set *must* be inspected thoroughly before that set is put back into use. The inspection shall be performed by a qualified person and any component replaced if it the integrity of the component is in question. At an absolute minimum, a shock load is equal to twice the static value. This value can be much greater depending on the mass of the object and velocity at impact. The inspection should be performed by trained personnel and any component replaced if its integrity is in question.

Follow the schedules outlined below as a minimum maintenance program. Once the house crew has had an opportunity to work with the system during the first year, additional procedures may be added or adjusted as is necessary. If you are not sure about the proper maintenance procedures, questions should be directed to the stage equipment contractor, or the equipment manufacturer, H & H Specialties Inc., South El Monte, CA 1-800-221-9995.

# **BRAIL FIRE CURTAIN SYSTEM**

# MAINTENANCE SCHEDULE: SAFETY CURTAIN, RIGGING

item	weekly	monthly	6 months	12 months	24 months	48 months
Operate curtain in emergency mode		Х				
Level batten					Х	
Inspect & tighten wire rope clips				Х		
Inspect fleet angles of cables				Х		
Inspect lift lines for rubbing against objects/structure				х		
Inspect & tighten all attachment bolts				Х		
Inspect wire rope lift lines				Х		
Inspect fittings (turnbuckles, shackles, etc.)				х		
Inspect loft blocks for wear & noise				х		
Inspect head block for wear & noise				х		
Inspect mule block for wear & noise				Х		
Inspect arbor (if used)				х		
Inspect arbor guides (if used)				х		
Inspect emergency release system		Х				
Inspect descent time for system when activated				Х		
Inspect curtain & guides				Х		
Inspect smoke pockets				Х		
Complete system inspection					Х	

The above maintenance schedule is suggested for normal operating conditions. Above average use or location in an environment of high humidity, dust, extreme temperature changes, etc. may require shorter intervals.

#### MAINTENANCE SCHEDULE: HYDRAULIC BRAIL WINCH

item	not req'd	weekly	6 months	12 months	24 months	48 months
Inspect brail winch for leaks				Х		
Check oil level in gear reducer				Х		
Change oil in gear reducer						
Check base attachment bolts to floor				Х		
Inspect winch drum roller chain drive				Х		
Inspect caliper brake & linkage				Х		
Check hydraulic oil level in reservoir				Х		
Inspect shaft keys for wear				Х		

The above maintenance schedule is suggested for normal operating conditions. Above average use or location in an environment of high humidity, dust, extreme temperature changes, etc. may require shorter intervals.

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# INSPECTION MEASURING, RECORDING, AND

## **SAFETY EQUIPMENT**

A thorough rigging inspection requires the proper equipment for measuring, recording, and safety of the personnel involved. The following list is not intended to be complete and there may be certain applications where not all items listed will be used in order to conduct the inspection.

#### I. MEASURING EQUIPMENT

- A. Micrometer or dial caliper
- B. Tape Measure
  - 1. 25 foot
  - 2. 100 foot
- C. Groove Gauge
- D. Torque Wrench
- E. Adjustable Wrench
- F. Binoculars

#### II. RECORDING EQUIPMENT

- A. Camera with Flash Attachment
- B. Tape Recorder
- C. Video Recorder
- D. Note Pads
- E. Inspection Forms
- F. Sample Bag
- G. Yellow Hazard Tags
- H. Adhesive Tape
- I. Cell Phone or (2) Two-Way Radios (Portable, Hand Held)

#### III. SAFETY EQUIPMENT

- A. Hard Hat
- B. Jumpsuit with Zippered Pockets
- C. Tethers for All Tools
- D. Flashlight
- E. Fall Protection Equipment
- F. Safety Glasses
- G. Gloves
- H. Hard Shoes

# OUTLINE for the

# TRAINING OF PERSONNEL IN THE INSPECTION OF ENTERTAINMENT RIGGING SYSTEMS

#### I. SUPPORT MATERIALS

- A. Codes, Standards, Ordinances
- B. Manufacturers/Vendors Catalogs of Equipment and Related Hardware
- C. Periodicals
- D. Manuals and Handbooks
- E. Measuring Devices
- F. Recording Devices
- G. Safety Devices

#### II. IDENTIFICATION OF HAZARDS

- A. Toxic Substances
- B. Attachments
- C. Electrical Apparatus
- D. Worn-out Equipment
- E. Damaged Equipment
- F. Misalignment of Equipment
- G. Non-functioning Equipment
- H. Improper Installation of Equipment
- I. Overstress of Equipment
- J. Misuse of Equipment
- K. Incorrect Product Selection
- L. Fire
- M. Lubrication
- N. Corrosion

#### III. THE INSPECTION PROCESS

- A. Determine Procedure
- B. Determine the Sequence of Inspection
- C. Identify Hazards
- D. Begin Systematic Inspection of Equipment

#### IV. METHODS OF DOCUMENTATION

- A. During Actual Inspection
  - 1. Tape Recorder
  - 2. Photographs
  - 3. Video Recorder
  - 4. Handwritten Notes
  - 5. Physical Examples
  - 6. Testing Lab Data
- B. Written Report
  - 1. Description of Procedure
  - 2. Results of Inspection

- a. Written Results
- b. Pictorial
- c. Spoken
- d. Test Data

## C. Recommendations

- 1. Code Requirements
- 2. Life threatening corrections that must be made before additional use by owner.
- 3. Corrections or adjustments to be made within a reasonable period of time.
- 4. Documentation of items that appear to be in proper working order.

# BRAIL FIRE CURTAIN RIGGING EQUIPMENT INSPECTION & REPAIR/MAINTENANCE RECORDS

The following forms will allow the facility manager to keep accurate records for the inspection, repair and maintenance of the Brail Fire Curtain and associated equipment within a facility. The first page is an inspection record that keeps track of all inspections in chronological order. The second page is a historical record of all repairs or maintenance procedures that have been performed on the brail fire curtain.

**INSPECTION RECORD:** This record keeps an accurate list of all inspections that have been performed on the brail fire curtain rigging equipment in a facility. As the list is filled out, a chronological history is kept of the inspections which are beneficial for future reference. In case of an accident or other occurrence with the rigging equipment, a history of the previous inspections and repairs/maintenance performed during the life of the system will be helpful.

If the brail fire curtain rigging system receives any type of shock or impact load, all components in that set shall be thoroughly inspected by a qualified person before the brail fire curtain system is put back into use.

At a minimum, a shock load is equal to twice the static value. This value can be much greater depending on the mass of the object and velocity at impact. The inspection should be performed by qualified personnel and any component replaced if the integrity of the component is in question.



Brail fire curtains are usually installed due to building code AWARNING requirements. If there is a potential problem with the brail fire curtain set, the facility manager shall have a qualified perform a thorough inspection immediately and correct any deficiencies.



Do not use the brail fire curtain set where there is a known or A DANGER potential problem. Damage to equipment or injury to personnel or performers may result. A qualified person shall perform a

thorough inspection immediately and correct any deficiencies.

**REPAIR AND MAINTENANCE RECORD:** This record keeps an accurate list of all of the procedures that have been performed on the brail fire curtain rigging system in a facility. These procedures include descent adjustment, leveling of batten, inspection of emergency release system, operation of fire curtain in emergency mode, etc.

**KEEPING RECORDS UP-TO-DATE:** Record keeping is a valuable asset to any facility. During the life of a facility there are always management and personnel changes. Accurate long term record keeping on your brail fire curtain rigging system will provide the history required so that any new personnel will know what has been done in the past and what should be done in the future.

Line Set Number: Function: Brail Fire Curtain	Set location from datum: Set capacity:					
Number of lift lines: Distance between lift lines: INSPECTION RECORD						
Date Description of Inspection By						

Line Set No Function: Brail Fi Qty. of lift lines:	re Curtain Set capacit	Set location from datum:  Set capacity:  Distance between lift lines:  NTENANCE RECORD			
Date	Date Description of Repair or Maintenance Performed				