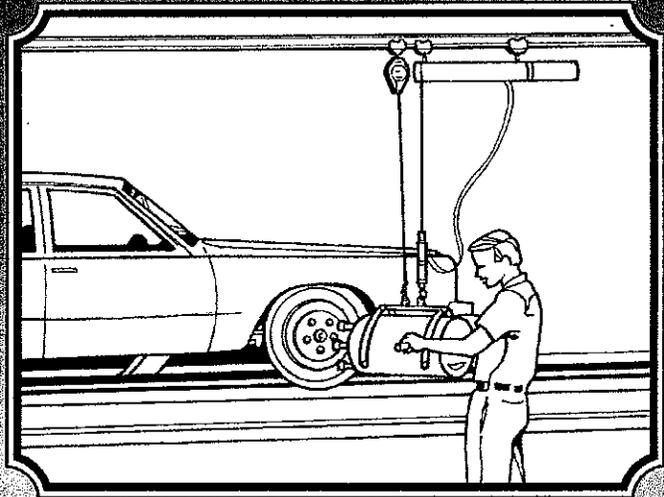




DROP-STOP® LOAD ARRESTERS

USER MANUAL



TMI TRI-MOTION
INDUSTRIES, INC.
LEADERS IN AIR BALANCING HOISTS

TMI-A 4-05

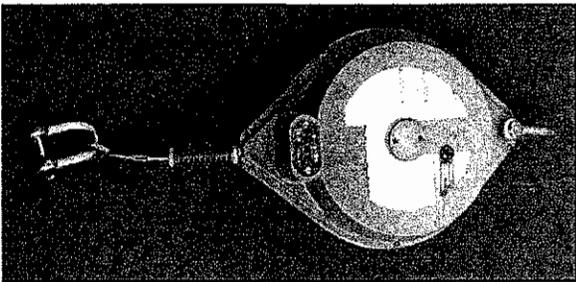
IMPORTANT NOTICE

It is mandatory that this manual is read and fully understood before using or training others to use any equipment supplied by Tri-Motion Industries, Inc. - *It may save your life!*

The following instructions are given as guidance to both management and users in relation to the use of Drop-Stop® load arresters. It is important that these instructions are read and fully understood.

These products have been designed and developed to reduce the risk of injury or death occurring as a result of a load dropping. However, incorrect use could lead to serious or fatal injury.

It is managements responsibility to ensure that these instructions are read and followed by their workers.



LOAD ARREST EQUIPMENT

FUNCTIONS

Drop-Stop® load arresters avoid the violent arrest associated with belts and conventional lanyards.

The arrest is extremely smooth and cushioned. When a fall is arrested the load imposed on the object is 5KN (1125 lbs.) or less.

All Drop-Stop® load arrester blocks, and material load arresters are automatic, thus leaving the user's hands free.

Drop-Stop® load arresters operate on the inertia principle. When a fall occurs and the cable accelerates to 4.9 feet per second, the braking mechanism will engage to decelerate the load before any excessive momentum builds up and cushion its stop within 3 feet.

Normal movement will not activate the braking mechanism of the load arrester. During normal movement the slightly tensioned retractable galvanized or stainless steel cable extends and retracts freely with the load's movement.

INSPECTION

Before use, inspect the entire load arrester for any sign of damage, wear or malfunction.

1. Test the locking action by steadily and sharply jerking on the cable. Maintain in the locked position and release the tension to check that the cable retracts slowly through your hand.
2. Put on a pair of gloves, then pull out the entire length of cable to inspect for any defects as the cable slowly retracts through your hands.

MAINTENANCE

In the interest of safety, these load arresters, like any mechanical device, require periodic maintenance to continue to provide safe performance.

- The user should visually inspect the load arrester each time prior to use to determine wear, deterioration or damage.
- On a date basis, within three months, the unit should be examined and its condition logged in a **RECORD BOOK** by an assigned person from your safety department.
- It is recommended that the unit be removed from service on an annual basis and returned for a check-up and re-certification. (**CONSULT FACTORY**).

MEDIUM DROP-STOP®

MODEL NUMBER:	D23-300		D33-300		D40-300		D50-300		D100-300
LENGTH (FEET):	23		33		40		50		100

Note: All Drop-Stop® Load Arresters are made with 3/16" (5mm) galvanized steel cable. For stainless steel cable use "S" in part # (ex: D23-300S)

FEATURES

- Friction disc pad braking system.
- Self contained retractable steel cable, slightly tensioned on a spring loaded rope drum, ensuring a slack free cable which allows freedom of movement.
- A positive warning device indicating the serviceability of the unit.
- The casing is cast of high strength aluminum for light weight. It is prominently chromated and plastic coated to maintain a clean and distinctive appearance.

APPLICATIONS

Drop-Stops® are used as a back-up device to the Bal-Trol®. The device senses a fall when connected objects fall and speeds exceed the lock on rate.

INSTALLATION

Select a suitable fixed overhead anchorage point with connection anchor (hook, lanyard, etc.) capable of withstanding a minimum static load of 22KN (5000 lbs)

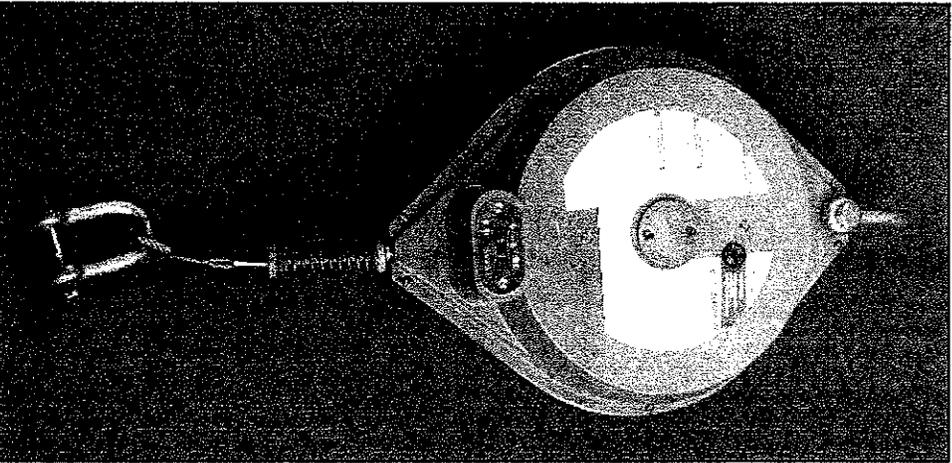
1. Ensure freedom of movement beneath the anchorage.
 2. Ensure that the safe working area is within 30 degrees of the vertical line.
 3. Ensure that there is 2 meters (6'6") clearance for free fall of the load beneath the working position and there is a safe distance from electrical power lines, hazards and obstructions.
- After connecting the load arrester to a safe anchorage point, attach swivel safety snap hook at the end of the cable to the load.

WARNING

- Never use as a restraint or positioning device.
- Never work above the load arrester anchorage point.
- Never connect more than one load to a single load arrester at one time.
- Avoid the possibility of the cable passing over sharp edges which could shear the cable during a fall.
- Guard against the danger of the pendulum effect (side swing) fall by limiting your horizontal travel to 30 degrees from the vertical line of the overhead anchorage position.
- Follow the contents of this manual and the load arrester labels for proper use to avoid an accident from occurring with possible fatal injuries from not reading and understanding their application and correct installation.
- Avoid letting the cable become slack.
- Use only where it is positive that the cable will be free of obstructions to activate the brake mechanism at a speed of 4.9 feet per second should a fall occur from the structure.
- Avoid leaving the load arrester installed for long periods in the environments where corrosion, dust particles, paint, oil etc. will adversely affect its performance until serviced.
- Service may only be performed by trained Authorized Service Technicians. Failure to do so will void all warranties.
- Never leave the cable extended and tied-off for long periods of time to ensure longer life of each component and the spring tension on the cable.
- Never let the cable retract uncontrollably. It could cause the cable to overlay on the rope drum and require factory service.
- Avoid lacerating your hands from the cable by always wearing gloves when retracting the cable during inspection checks.
- Return unit for servicing annually and when the indicator warns you that there has been a fall. Call factory for Return Authorization Number (R.A.#).

LARGE DROP-STOP®

1100 LB. CAPACITY	
MODEL NUMBER: D23-1100	D50-1100
LENGTH (FEET): 23	50
3300 LB. CAPACITY	
MODEL NUMBER: D23-3300	D33-3300
LENGTH (FEET): 23	33



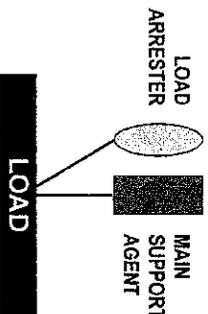
OPERATION

1. The Drop-Stop® cable should run directly to the load and should not pass over any other cable.
2. The Drop-Stop® cable should not become slack. The anchor point must be above the Drop-Stop®. The anchor point should be of such construction that it can withstand a shock load of 5900 KG (13,000 pounds).
3. Allow 0.6 to 0.9 meters (2-3 feet) distance below the load for the Drop-Stop® to arrest the load.

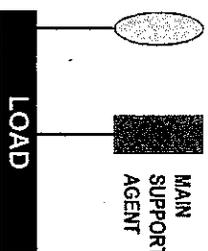
INSTALLATION

The Drop-Stop® should be placed as near as possible to the main supporting agent so as to reduce swing in the event of a failure of the main supporting agent.

The Drop-Stop® cable should run parallel to the rope of the main supporting agent. Anchor points for mounting should be determined by in-house plant engineers.

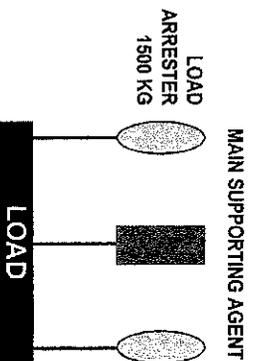


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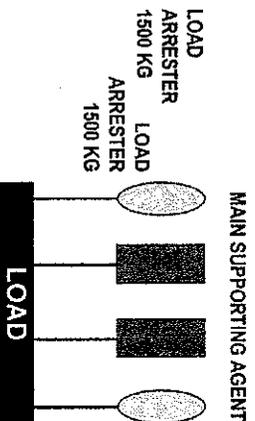


INCORRECT

If a load is centrally supported then multiple Drop-Stops® of a maximum working load may be used.



CORRECT



CORRECT