

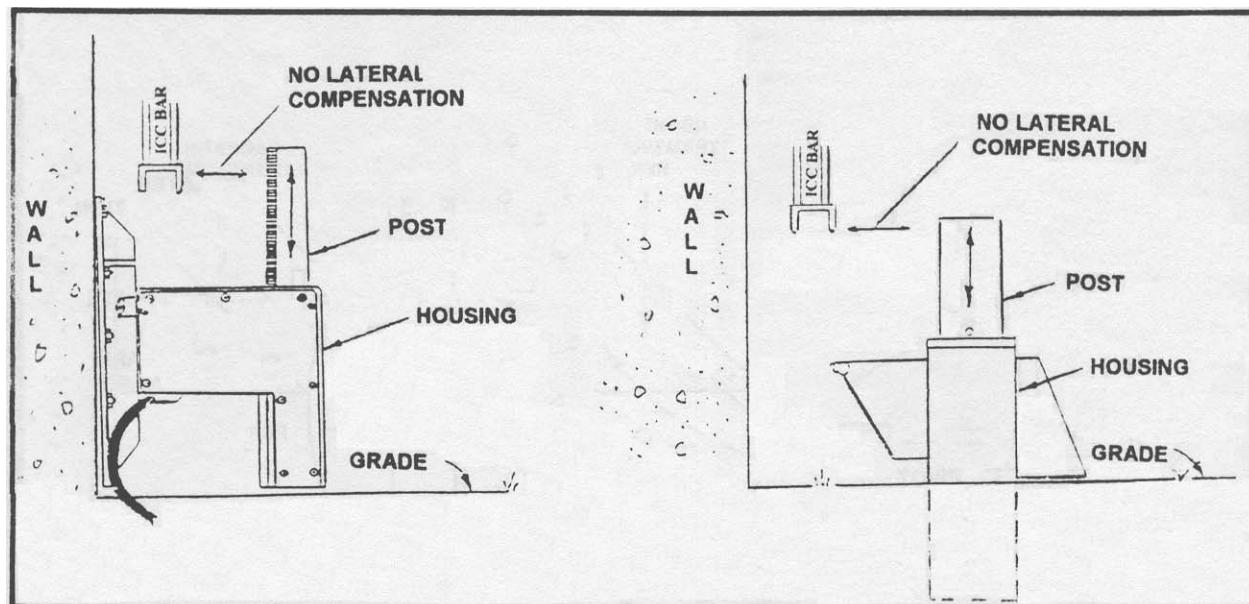
## The Facts About Vehicle Restraints

Vehicle Restraints are not a new concept. The first vehicle restraint patent applying to equipment similar to today's new breed of trailer restraints was actually issued in 1899.

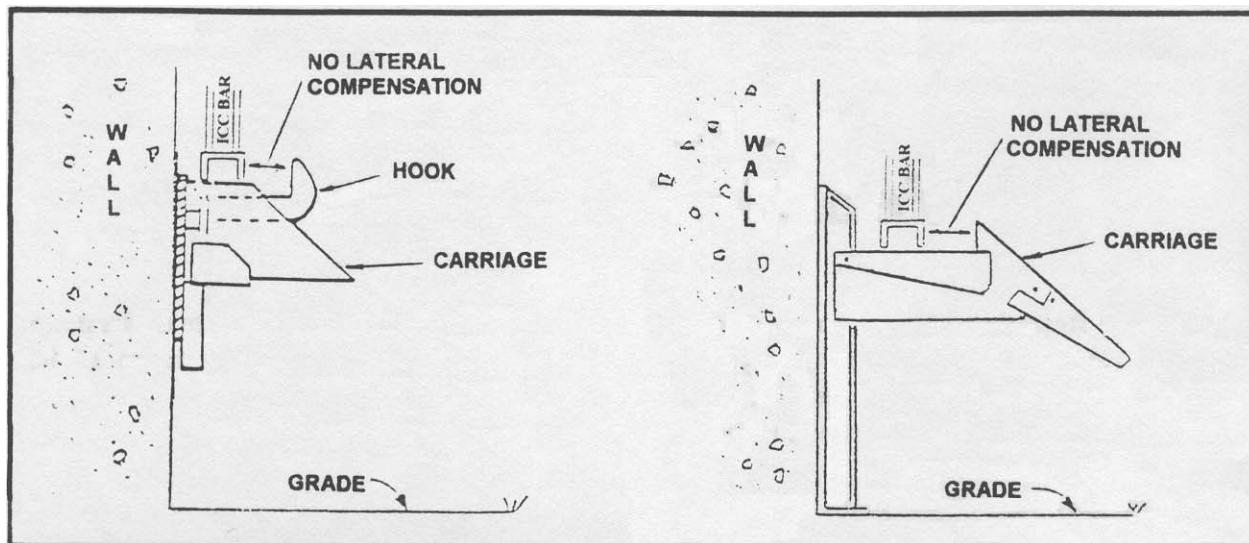
In the past half dozen years, a variety of vehicle restraints have been introduced. Their intent is to enhance safety during truck loading. Caution, these devices may offer no immediate safety, only a subjected indication of safety by use of visual indicator advising the restraint is "up" for loading and "down" for docking maneuvers.

The purchaser would do well to understand a product's operation and the value of its design. Review these simple facts.

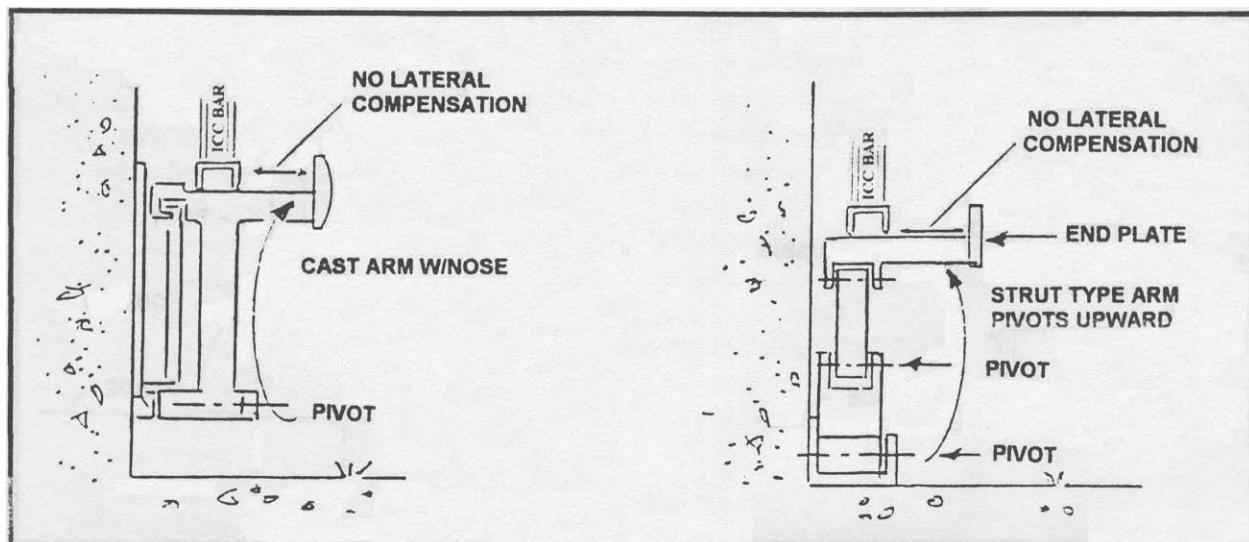
**POST TYPE DEVICES** are gear driven, cable operated or manually positioned. These have a restraint bar which moves straight up or down. They do not compensate for dimensional differences in the ICC bar placement with respect to the front to rear location.



**HOOK TYPE DEVICES** are clutch driven, air operated or manually positioned. Most move straight up and down. Some pivot but have no holding strength and will settle out to a horizontal position. Those too, do not offer immediate restraint although a light system advises the hook unit is "up" for loading and "down" for docking maneuvers.



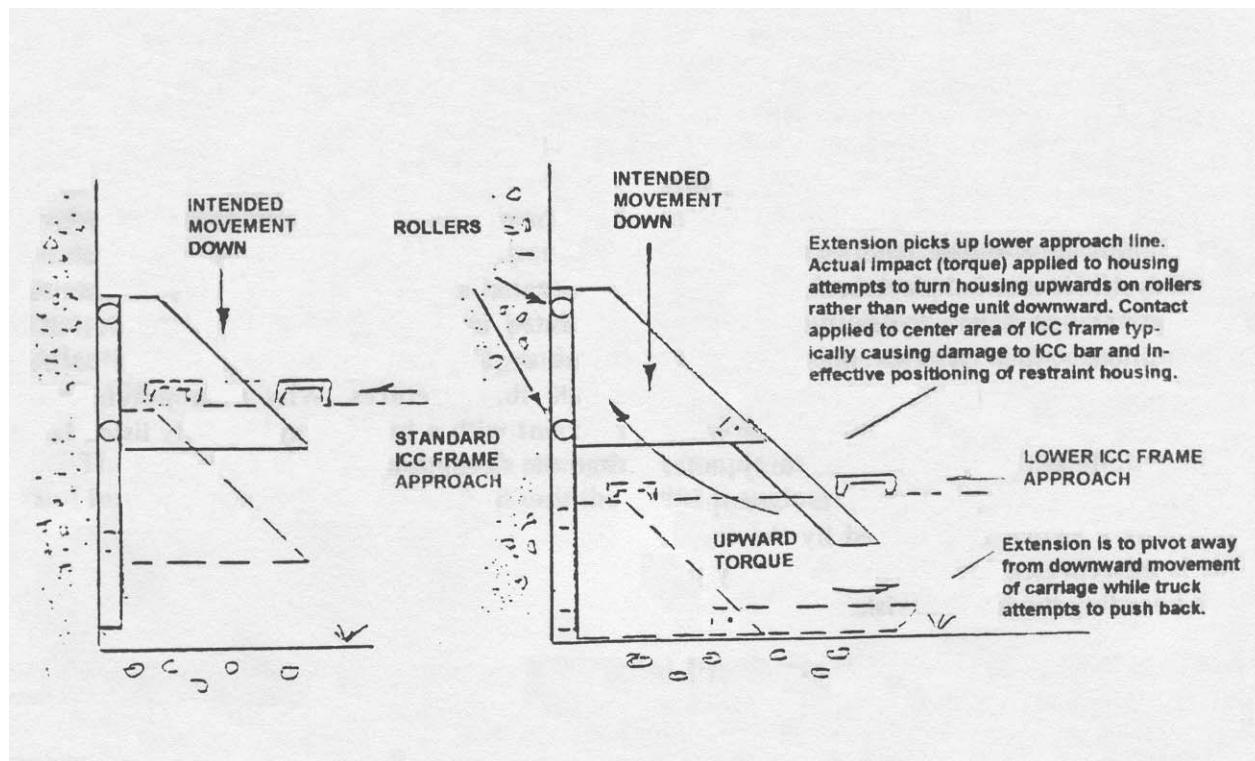
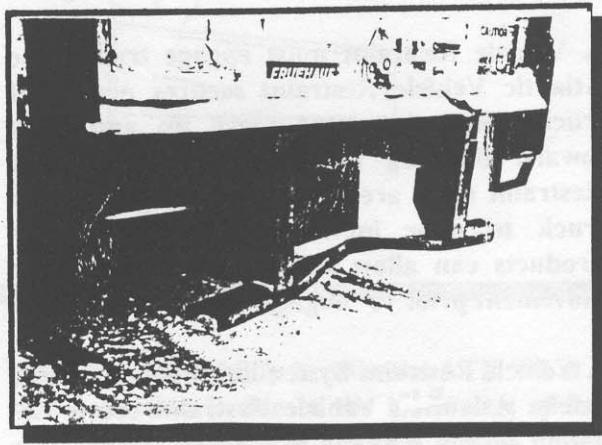
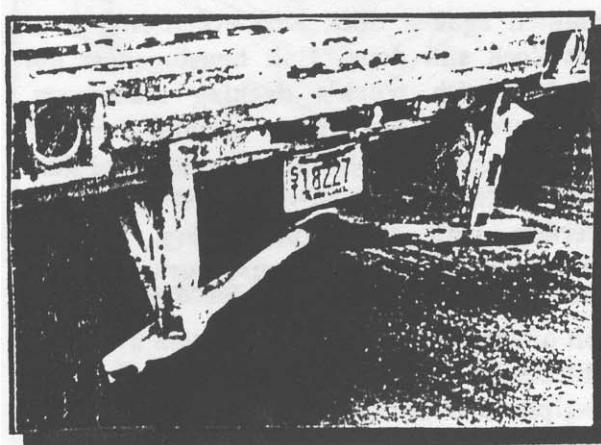
**PROJECTED HUB DEVICES** have recently joined the other vehicle restraint offerings. Manually operated or motor driven, these units move upward from a down position following the face of the wall and bump under the ICC frame. One company has a track-guided arm, while the arm of another company is not guided. A nose cap at the end of horizontal arm is the barrier to arrest truck movement. Without a housing to enclose the stored unit and offering less than optimum performance, these units are the least costly to produce.



PLEASE NOTE: Diagrams are representative of products being marketed at the time of this printing. They are not scaled drawings and are not intended to duplicate other manufacturers' equipment. Drawings do provide accurate descriptions of product concepts and application.

### WHY DOCK LOCKS CAUSE TRUCK DAMAGE:

Some vehicle restraints are wall mounted. These are referred to as impact devices, as the incoming truck must hit the housing and drive it downward for positioning under the ICC frame. Requiring routine maintenance to assure free movement, history shows a lack of attention can cause unfavorable resistance for those units to operate as designed. Additionally, lower ICC frames have caused a design change to provide an extension to the housing. This extension pivots, supposedly to allow low ICC frames to ride over the carriage. An engineering review to this design intent shows several mechanical flaws to the concept, which may result in truck damage rather than restraint housing placement.



Recognizing these deficiencies, Atlantic has designed a vehicle restraint unit, which overcomes the physical weakness and operational shortcomings of other devices.

### **DESIGN CONSIDERATIONS:**

A Vehicle Restraint must be strong. Atlantic's Vehicle Restraint is the Industry's strongest, with 60,000 pounds of breakaway power. Some may offer less than 20,000 pounds of strength.

A Vehicle Restraint must engage truck. The Atlantic Vehicle Restraint secures nearly all trucks. Restraint arms move up and back, toward building to firmly trap ICC bar. Restraint arms are held in place tight against truck to offer immediate restraint. Other products can allow up to 10" of free truck movement prior to "engagement" with device.

A Vehicle Restraint System must communicate safety. Atlantic's Vehicle Restraint communication system tells the user when the truck is secured. Others tell the user when the hook or bar is up.

A Vehicle Restraint should be reliable. The Atlantic Vehicle Restraint is powered by a unique hydraulic system. No gears, cables, chains or clutches. No maintenance. Other systems advise service every 30-90 days.

- Simple push-button control for lock or unlock cycle. No manual placement.
- Restraint arms are hydraulically held in any position. Other systems may be mechanically locked in only one position.
- Atlantic's control system signals when safety is offered. Other systems may offer switching to indicate a truck is "trapped" when only a switch is triggered by the truck. This is misrepresenting "safety" and may put those boarding the truck at risk.

### **Other unique features of the Atlantic design:**

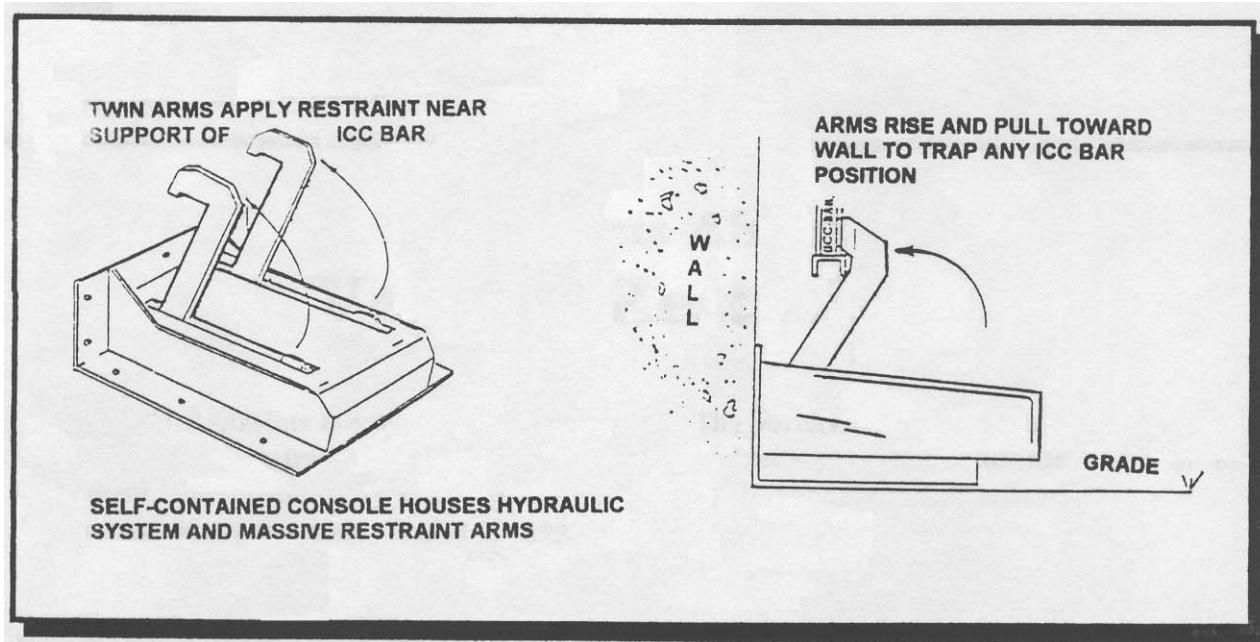
Twin arm design spreads load to outboard area of ICC bar adjacent to frame uprights and gussets. This is the strongest area of ICC bar for added safety. Other designs offer one hook or post to address the center area of an ICC bar. Many ICC bars are bent in this area making attachment difficult.

Unit is a console, designed to be ground mounted against dock face. Anchoring is to both dock and drive. Unit housing does not interfere with truck's docking maneuvers. Other products are wall or ground mounted only. These do not offer the advantage of dual plane anchoring. Wall mounted units can interfere with truck positioning, can be damaged by truck or can cause truck damage.

Unit offers most rugged construction available. All components are steel. Housing is heavy steel plate. Dual restraint arms are 1" thick, each. Atlantic's restraint is designed for long-term use. Other products include plastic components, sheet metal and parts designed to break away to protect restraint. *A safety product should be designed to protect the user, not itself.*

ICC frame construction has been upgraded over the past 10 years to provide more effective safety when attached by Vehicle Restraints. Once rated at 25,000 lbs., today's ICC frames are rated up to 45,000 lbs. Tomorrow's ICC frame regulations are being promoted to be 50,000 lb. structures. Why then purchase a restraint with a breakaway capacity listed less than the strength of today's trucks?

## ATLANTIC IS BETTER BY DESIGN



The Atlantic ATR-902 is the Industry's most effective vehicle restraint. It is designed for many years of repeat use at busy loading docks and is suited for heavy snow areas and high traffic docks. This unit needs no regular maintenance, however, it is not a product which can be suitably proceed to compete with lesser quality of lesser effective vehicle restraints. Atlantic believes the ATR-902 is the most reasonably priced of competitive vehicle restraints. Some units are seriously over priced from our evaluation of construction, performance, safety and value. However, to remain competitive with other market products, Atlantic introduced the ATR-702 and the ATR-700 models.

The ATR-702 offers the same high strength and functional merits as our premium unit, the ATR-902. Our ability to offer the ATR-702 at a cost reduction is due to the lower cost of ATR-702's operating system. This unit incorporates the same console housing as the ATR-902 but is operated via a gear motor drive in lieu of the more expensive hydraulic system. The ATR-700 is also operated by the gear motor drive, but does not have a full housing and is rated at 50,000 lbs. breakaway strength. Both the ATR-702 and the ATR-700 maintain arm contact with each truck thru tension offered by an adjustable torsion spring, and should be lubricated seasonally. All units are touch button controlled and are operated via industrial motor control circuits.

While the ATR-702 and ATR-700 units are examples of engineering efficiency, the ATR-902 is engineering excellence by Atlantic.