1.0. General.

As a military ammunition specialist in a surveillance position, you may be responsible for performing an inspection on trucks and containerized shipments before and after they are loaded. You will be required to verify and to correctly fill out all forms. Sea port operations are an important part of the munitions inspection job. It is an area in which both the military and civilian inspector must be proficient. Consideration must be given to receipt and shipment of munitions and other hazardous materials. Transportation regulations exist to help minimize the dangers to life and property incidental to transportation of all types of dangerous articles. Hundreds of tons of munitions and explosives are transported around the world daily, yet rarely does one hear of a disaster resulting from these shipments. Since you will be involved in the handling and transportation of dangerous material, you will need a working knowledge of the regulations governing these shipments.

2.0. Motor vehicle shipments.

2.1. Regulations.

Within the continental United States, strict adherence will be given to Department of Transportation (DOT) Motor Carrier Regulations and to AR 55-355. In addition, all local and state rules, regulations, and laws should be consulted and fully complied with, and the recommended routes through which shipments will pass should be followed in order to avoid bridges, tunnels, and congested areas. On request, local public safety authorities will usually provide escorts or grounds for movements of explosives and hazardous materials through their jurisdiction. If compliance with these regulations is impracticable, the matter will be referred through appropriate channels to Commander, Military Traffic Management Command (MTMC), ATTN: MTMC, Washington, DC 20315.

Command channels are utilized outside the continental United States (OCONUS). Shipments of military explosives and other dangerous articles by either military or commercial carriers are governed by AR 55-355 and host country requirements.

2.2. Commercial carrier.

Explosives and munitions may not be shipped by any commercial motor carrier, unless the carrier is shown on the “Motor Carriers Approved to Transport Munitions and Explosives, Classes A and B for the Department of Defense,” published by MTMC. Motor carriers not approved by the DOT but under a lease agreement of a carrier shown on the approved list may transport explosives in interstate commerce, provided applicable parts of DOT regulations and provisions of AR 55-355 are observed.

2.3. Government carrier.

When government-operated vehicles are used in transporting explosive material, the commander, shipping officer, or shipper (as appropriate) is responsible for ensuring that all applicable DOT and local regulations are observed.

2.4. DD Form 836.

When trucks are loaded and are ready for movement, drivers are furnished DD Form 836 (Special Instructions for Motor Vehicle Drivers). DD Form 836 describes the explosives on the trucks, fire hazards, methods to be used in fighting truck or cargo fires, the missile distance in case of explosion, the proper distance to maintain from other trucks, and any other information that will bring about safe delivery of the shipment to its destination. AR 55-355, page 81, paragraph 33-20, requires that DD Form 836 be properly executed and the driver be instructed to transfer the form to each subsequent driver and finally to the consignee at the destination.

When drivers are not English speaking, DD Form 836 will be locally required in the language native to them.

2.5. Shipments.

Off-post shipments in commercial motor vehicles, commercial containers, and military-owned demountable containers (MILVAN) will be in accordance with the United States Army Materiel Command (AMC) approved 19-48 series drawings. On-or off-post shipments in military or tactical vehicles will be accomplished in accordance with approved AMC 19-48 series drawings.

3.0. General safety.

3.1. Fire prevention.

Every precaution against fire must be observed. Trucks should be inspected daily before loading as to ascertain that electrical wiring, lights, brakes, fuel tanks, and lines are in good working order. Accumulations of oil, grease, and hydraulic and brake fluid from the underside of the footboards or body of the car will be cleaned thoroughly by vehicle drivers or other responsible unit personnel. Only small amounts of these substances that remain after wiping or amounts that have formed a bead around joints in hard-to-reach areas or around gaskets are allowed. Fluids must not be dripping from engines or other components. Leaking gasoline tanks or lines should be repaired immediately. Lighted cigarettes, cigars, pipes, or any other open ignition source must be kept away when gasoline tanks are being filled. The amount of waste in a truck should be kept to a minimum. Trash should not be permitted to accumulate in the tool box.

3.2. Fire extinguishers.

All trucks (government and commercial) destined for off-post shipment over public highways must be equipped with two Class 10-BC or equivalent rated portable fire extinguishers when DOT Classes A or B explosives are being transported. One must be C02 or dry chemical if chemical munitions are being transported. Two Class 5-BCs or two Class 4-BCs rated portable fire extinguishers may be used when DOT Class C explosives are being transported. Government motor vehicles involved in on-post shipments must be equipped with the same fire extinguisher as the off-post shipments. For transporting flammables or other dangerous materials, an extinguisher having a 10-BC rating or greater is required. For government vehicles transporting munitions/explosives on-post, one of the Class 10-BC extinguishers should be mounted outside the cab on the driver's side. All drivers and other employees handling munitions and explosives should be properly instructed in the best methods of using the fire extinguishers and in procedures for extinguishing gasoline or tire fires. Fire not involving munitions may be fought with fire fighting equipment on hand. If munitions or explosives are involved, evacuate immediately while giving the alarm.

3.3. Blocking/bracing.

The load shall be blocked, braced, stayed, or otherwise restrained in accordance with AMC 19-48 series drawings, where applicable. Except when in closed vans, the load should be covered with fire-resistant tarpaulins. Tarpaulins painted with a fire-retardant paint are acceptable. When it can be definitely established that the wooden munitions containers are covered with an approved fire-retardant paint, tarpaulins need not be used. Tarpaulins are not required when transporting sealed metal containers. When tarpaulins are used to cover munitions or explosives, they should be secured by means of rope or wire tie-downs. Under no condition will the tarpaulins be nailed to munitions containers.

3.4. Convoys.

When munitions and explosives are being transported in a convoy of trucks, it is advisable that they do not become widely separated. A safe distance (100 yards minimum) between each truck should be maintained to avoid danger of collision. If state or local regulations require greater distances, these regulations must be complied with. The convoy should be stopped once each hour during the trip, to visually inspect each truckload in a location not within or close to limits of cities, towns, or municipalities. Driving through congested areas should be avoided when possible. Trucks should maintain a moderate speed but must make a full stop at railroad crossings. Unauthorized persons will not be permitted to ride in trucks. If a truck catches fire, the other trucks will proceed to a safe distance, post guards at the distance specified on the DD Form 836, and stop all traffic. In case a truck breaks down and cannot be towed to its destination by another truck in the convoy, a two-man guard should be stationed at the disabled truck site. The nearest Army installation should be notified so that a truck can be dispatched at once with equipment and personnel to transfer the load to a replacement vehicle.

3.5. Munitions segregation.

Bulk explosive items such as shaped charges, cratering charges, TNT blocks, tetrytol, C-4, detonating cord, and time fuzes in original or approved packing may be packaged together and carried on the same vehicle.

Detonating agents that include initiating agents such as blasting caps, percussion primers, detonators, firing devices, and fuze igniters, in original or approved packing, must be packaged separately from items identified above. Fuzes that contain detonators and/or boosters fall into this group. This group of items cannot be packaged with the bulk items.

During convoy operations, the detonating agent group must be carried in a separate vehicle from the bulk items. For emergency conditions where there is only one vehicle available for transporting the items identified above, limited quantities of the detonating agents may be carried in a separate compartment but must be separated from the bulk items by the largest possible distances.

In order to allow for more realistic combat training on military installations, the normal load of munitions during combat operations is authorized to be transported in tactical vehicles. Movement routes must avoid troop and dependent housing areas, highways transiting the installation, and other heavily traveled routes. Maximum separation of noncompatible items in standard approved packaging must be made for items within the vehicle, and stringent safety precautions for protection from accidental initiation must be observed. After training and before returning to the ammunition supply point (ASP), munitions must be repackaged in accordance with acceptable NSN packaging information. Munitions must be transported from and returned to the ASP in a compatible state. Uploading and downloading will take place down range at a predesignated site.

3.6. Transporting artillery.

When artillery munitions are being transported in the field, all unpackaged or unboxed projectiles should be stowed parallel to the side of the truck, and properly shocked or otherwise secured to prevent rolling from one side of the truck to the other. If it is necessary to place more than one layer of projectiles in the truck, strips of planking should be placed over the first layer of projectiles to protect the rotating bands from becoming deformed through contact with other projectiles when the truck is in motion.

3.7. Damaged munitions.

No container of explosives or other dangerous articles may be accepted by a motor carrier if it is damaged or in a leaking condition. In the event containers are damaged in transit, packages may be repaired in accordance with the best and safest practices known, and at least 90 feet from other explosives or munitions.

3.8. Vehicle safety.

All tires must be in good condition with special attention made to the correct operating pressures. Fuel tank inlets and connections should be equipped with a device to relieve internal pressure and placed so that no overflow can spill on the exhaust.

The interior of the truck body must have all exposed ferrous metal covered with nonsparking material when transporting scrap explosives or bulk explosives in standard shipping or other containers. If the explosives transported consist of finished munitions prepared for shipment in accordance with DOT regulations, it will not be necessary to cover the ferrous metal. Open body vehicles must have strong sides (when required by approved munitions loading drawings) securely fastened so that explosives are safely retained. Open body vehicles may also be loaded without sides when authorized by approved munitions loading drawings for specific items. When a top is required, it should be of noncombustible or flameproof material. The interior of trucks must be free of bolts, nails, or other projections that may damage containers.

During loading or unloading of motor vehicles, the brakes must be set and, if the vehicle is on a grade, at least one wheel must be chocked. The wheels of trailers must be chocked at all times when separated from the tractor unless parking brakes are available and used.

No explosives or munitions may be loaded into or unloaded from a motor vehicle and/or trailer while the motor is running unless the motor is required to provide power to vehicle accessories, such as mechanical handling equipment utilized in the loading and unloading of the vehicle and/or trailer. The accessory must be an integral part of the vehicle, and the exhaust gases from the motor must be emitted at least 6 feet from, and directed away from, the point at which the loading operation is conducted. Warehouse trailers will have wheels chocked, whether attached or separated from the towing tractor, unless parking brakes are available and used.

Truck motors should not be started while a magazine door is open. When a motor vehicle approaches within 25 feet of the doors of a structure or magazine through which a shipment is to be moved, the doors must be kept closed until the motor has been switched off, unless the exhaust system is equipped with a spark-arresting device that meets requirements of MIL-A-27302A, or no exposed explosives are present. Exposed explosives exclude finished munitions and explosives packaged for shipment in accordance with DOT regulations.

Lighting equipment of vehicles should conform to standards prescribed by the DOT or the laws of the state within which the vehicle is operating.

3.9. Exposed explosives.

No exposed explosives will be transported in a motor vehicle. Explosives or munitions to be transported must be packaged in accordance with Army or DOT requirements or packed in closed containers designed to prevent spillage. Items that are not packaged (closed munitions), such as separate loading projectiles or bombs, may be transported if approved for shipment in

this condition. The items being handled must not be visibly contaminated with explosives or exudate.

3.10. Placards.

Motor vehicles carrying explosives, munitions, or other dangerous articles destined for shipment over public highways, whether on or off post, must display four placards; i.e., one on front, one on rear, and one on each side. When transporting more than one class of explosives or dangerous articles, either on one vehicle or on a towed semi-trailer or full trailer, no more than two kinds of signs, lettering, or placards need to be displayed. The placard displayed must be the one that designates the most dangerous article being transported. For shipments of munitions containing toxic gas, poisonous gas placards must be applied in addition to other required explosive or dangerous placards. Placards designating explosives classifications must be secured in the appropriate location, directly to the equipment transporting the explosive. If the transporting vehicle involved has mounting boards or brackets, the placards should be secured there also. Placards should never be nailed to munitions containers.

4.0. Inspection of vehicles.

Before loading, all motor vehicles used or to be used to transport Classes A or B munitions, explosives, poisons, or radioactive yellow III over public highways, will be inspected by shipping activities for compliance with safety regulations prescribed by transportation regulatory bodies and the Department of Defense. DD Form 626 (Motor Vehicle Inspection) prepared in accordance with the provisions of AR 55-355 will be used for inspection of commercial carrier vehicles. While DD Form 626 is designed for use in inspecting commercial carrier vehicles, compliance with similar inspection procedures is required for military-owned and operated vehicles before loading. Only vehicles having no unsatisfactory conditions will be accepted for loading. Vehicles will not be rejected, however, if deficiencies are corrected before loading. Government-owned motor vehicles used for transportation of hazardous materials must be inspected at frequent intervals to see that mechanical condition and safety appliances are in good working order and that oil and motor pans under engine are clean. Because of vehicle usage, this requirement is over and above the inspection requirements of TM 38-750. Daily inspection must be made to ensure that:

- Fire extinguishers are serviceable.
- Electrical wiring is in good condition and properly attached.
- Fuel tank and piping are secure and not leaking.
- Brakes, steering, and other equipment are in good condition.
- The exhaust system is not exposed to accumulations of grease, oil, gasoline, or other fuels, and has ample clearance from fuel lines and other combustible materials.

All incoming trucks containing explosives and munitions should be inspected at a designated location before delivery to the truck holding yard and magazine storage areas.

The inspection station should be as remote as possible from boundaries, hazardous locations, or populated areas. Whenever a truck or trailer is considered to be in a hazardous condition, it will be removed to a suspect site, where corrective measures will be instituted.

4.1. DD Form 626 (Motor Vehicle Inspection Report).

DD Form 626 (Figures 1 and 2) must be used by shipping and receiving activities to conduct inspections of motor carrier equipment used or to be used to transport shipments of Classes A or B munitions, explosives or poisons, or radioactive yellow III materials.

The shipping activity must prepare a DD Form 626 before a motor vehicle is used for transportation of material described above. The form must specify items to be inspected on empty vehicles prior to loading and prior to release of loaded vehicles (items 23-30). All spaces must be filled in. Additional pages may be used if necessary. Shipments will not be made if any Form 626 requirement checked as unsatisfactory is not corrected.

Note: DD Form 626 (Figures 1 and 2) and DD Form 836 (Figure 3) appear on pages 9 through 11, respectively.

The receiving activity must obtain the driver's copy of DD Form 626 and inspect all items marked with an asterisk (*) before a motor vehicle containing a shipment of material is accepted as delivered goods. The form specifies items marked with an asterisk (*) to be checked on incoming loaded vehicles.

Deficiencies, that are discovered during inspection and are corrected before loading or unloading of the vehicle will be entered in the "Remarks" column opposite the proper item. If the loaded vehicle is disapproved, the discrepancies will be reported to your supervisor.

After DD Form 626 has been properly filled, distribution is as follows**:**

- The original will be retained by the inspecting activity.
- For truckload shipments, one copy will be given to the vehicle driver at origin for delivery to the consignee.
- When a commercial vehicle is found deficient and is rejected for loading or unloading, or the driver of the vehicle is found to be unsatisfactory, one copy will be sent to each of the following:
    - Nearest DOT field office
    - Carrier home office.
    - MTMC area command in whose geographical area of responsibility the shipping activity is located.

  - The Commander, MTMC, ATTN: MT-SS, 5611 Columbia Pike, Falls Church, VA 22041-5050

- When deficiencies are discovered during the inspection of commercial vehicles but are corrected before loading or unloading, a copy will be sent only to the carrier home office and MTMC. Photographs that indicate deficiencies should be attached, if available, when making distribution.

4.2. DD Form 836 (Special Instructions for Motor Vehicle Drivers).

DD Form 836, Figure 3, will be used by TOs to provide emergency response instructions to drivers of all commercial and military vehicles transporting explosives or certain other hazardous material. Emergency response instructions tell a driver how to protect himself, the lading, the vehicle, and other life and property from such hazards as fire, accident, or vehicle breakdown.

The TO will supplement instructions contained in DD Form 836 with specific instructions applicable to the commodity being shipped. When this is not possible, specific instructions will be obtained from the Material Safety Data Sheet (or other technical data) developed by the shipper service element responsible for development of the item.

4.3. Shipping seal.

Enclosed vehicles containing freight shipments will be sealed by the shipper. The type of seals used (carrier or government) will be in accordance with regulations of the shipper service concerned. It will be understood that the carrier has the right of access to the equipment except when seals are applied for the purpose of denying access to the shipment while in transit for security or other reasons.

When carrier equipment is sealed, an indication of seal ownership, the seal numbers, and an indication as to whether the seal was applied by shipper or carrier will be entered in the appropriate spaces on the Government bill of lading (GBL).

MOTOR VEHICLE INSPECTION
(TRANSPORTING HAZARDOUS MATERIAL)

GBL. NO. N/A	ORIGIN	DESTINATION
NAME OF CARRIER	1-505th Arty Bn	
NAME OF DRIVER	CPL Walker	
DATE AND HOUR	1 May 85, 0800	
INSTALLATION/ACTIVITY	ASP 3, Ft. Knox, KY	
DRIVER'S STATE PERMIT NO.	USA 0748-84	
MEDICAL EXAMINER'S CERTIFICATE AND DATE	N/A	

VEHICLE

TYPE OF VEHICLE	TRUCK NUMBER	TRAILER(S) NUMBER	SLEEPER CAR
[X] TRUCK [ ] TRUCK AND FULL TRAILER	USA 1235467	N/A	[ ] YES [X] NO
[ ] TRACTOR AND DOUBLE TRAILERS	ORIGIN 1-505 Arty Bn	ORIGIN N/A	VALID LEASE
[ ] TRACTOR AND CLOSED SEMI-TRAILER	DESTINATION Range 7	DESTINATION N/A	[ ] YES [X] NO
[ ] TRACTOR AND FLAT-BED TRAILER			L.C.C. NUMBER N/A

NOTE: All of the following items shall be checked on empty equipment prior to loading. Items with an asterisk (*) shall be checked on incoming loadid equipment.

ITEM NO.	CHECK APPROPRIATE COLUMN *(See reverse side for explanatory notes)*	ORIGIN SAT	ORIGIN UNSAT	DESTINATION SAT	DESTINATION UNSAT	REMARKS *(Explain unsatisfactory item; use reverse side if necessary)*
1.	ENGINE, BODY, CAB AND CHASSIS CLEAN	X		X		correction of deficiencies
2.	STEERING MECHANISM	X		X		entered here
3.	HORN OPERATIVE	X		X		
4.	WINDSHIELD AND WIPERS	X		X		
5.	SPARE ELECTRIC FUSES AVAILABLE	X		X		
6.	REAR VIEW MIRRORS INSTALLED	X		X		
7.	HIGHWAY WARNING EQUIPMENT	X		X		
8.	FULL FIRE EXTINGUISHER INSTALLED	X		X		
9.	LIGHTS AND REFLECTORS OPERATIVE	X		X		
10.	EXHAUST SYSTEM	X		X		
11.	LIQUID PETROLEUM GAS POWERED VEHICLES	N/A		N/A		
12.	FUEL TANK, LINE AND INLET	X		X		
13.	COUPLING DEVICES - KINGPIN LOCK	N/A		N/A		
14.	ALL BRAKES OPERATIVE	X		X		
15.	LANDING GEAR ASSEMBLY OPERATIVE	N/A		N/A		
16.	SPRINGS AND ASSOCIATED PARTS	X		X		
17.	TIRES	X		X		
18.	CARGO SPACE	X		X		
19.	ELECTRIC WIRING	X		X		
20.	TAIL GATE AND DOORS SECURED	X		X		
21.	FIRE AND WATER RESISTANT TARPAULIN	X		X		
22.	ANY OTHER DEFECTS *(Specify)*	X		X		

[X] APPROVED [X] REFECTED *(If rejected give reasons on reverse under "Remarks". Equipment shall be approved if deficiencies are corrected prior to loading.)*

SIGNATURE *(of Inspector)* ORIGIN

SIGNATURE *(of Inspector)* DESTINATION

	ITEMS TO BE CHECKED PRIOR TO RELEASE OF LOADED VEHICLE	ORIGIN	DESTINATION
23.	MIXTURES OF MATERIAL PROHIBITED BY DOT RESS. ARE NOT LOADED ONTO THIS VEHICLE	X	X
24.	LOAD IS SECURED TO PREVENT MOVEMENT	X	X
25.	WEIGHT IS PROPERLY DISTRUBUTED AND VEHICLE IS NOT OVERWEIGHT	X	X
26.	SEAL(S) APPLIED TO CLOSED VEHICLE, FIRE AND WATER RESISTANT TARPAULIN APPLIED ON OPEN VEHICLE	X	X
27.	SPECIAL INSTRUCTIONS *(DD Form 836)* FURNISHED DRIVER	X	X
28.	COPY OF VEHICLE INSPECTIONI *(DD FORM 626) FURNISHED DRIVER*	X	X
29.	PROPER PLACARDS APPLIED	X	X
30.	SHIPMENT MADE UNDER DOT EXCEPTION 868	N/A	N/A

SIGNATURE *(of Inspector)* ORIGIN

SIGNATURE *(of Driver)* ORIGIN

SIGNATURE *(of Inspector)* DESTINATION

SIGNATURE *(of Driver)* DESTINATION

DD FORM 626
1 APR 78

Figure 1. DD Form 626 (Front)

EXPLANATORY NOTES

REFERENCES IN ITALICS BELOW ARE THE APPLICABLE PORTIONS OF THIS DOT MOTOR CARRIER SAFETY REGULATIONS *(M.C.S.R.)* AND THE CODE OF FEDERAL REGULATIONS *(C.F.R.);* DOD REQUIREMENTS ARE ESTABLISHED BY THE DEPARTMENT OF DEFENSE *(DOD)*

THE INSTRUCTOR MUST BE FAMILIAR WITH THE CITED PORTIONS OF THE SAFETY AND EXPLOSIVE REGULATIONS

MEDICAL EXAMINER'S CERTIFICATE MUST NOT BE OVER 24 MONTHS OLD. (M.C.S.R.)

Item 1. ENGINE, BODY, CAB AND CHASSIS CLEAN (e.g., no excessive oil or grease) - Inspect to see that engine and compartment are clean, check cab to see that no excessive grease is on cab and cab floor is free of debris; check under cab and chassis for excessive grease. (DOD Requirement)

Item 2. STEERING MECHANISM-Inspect to see that steering mechanism is in good condition in proper adjustment, correctly and securely mounted, and whether the steering gear case is leaking lubricant. Pay particular attention to the pitman arm and tie rod assembly to see that they are securely mounted and not bent out of normal shape. (DOD Requirement)

Item 3. HORN OPERATIVE-Inspect to see that horn is securely mounted and of sufficient volume to serve its purpose. (M.C.S.R.)

Item 4. WINDSHIELD AND WIPERS- Inspect to are that the windshields of the tractors are free from breaks, cracks or defects which would make operation of the vehicle unsafe, that the view of the driver is not obscured by stickers, that wipers operate properly, and that wiper blades are of proper kind and in good condition. Defroster operative whom conditions require it. (M.C.S.R.)

Item 5. SPARE ELECTRIC FUSES AVAILABLE-Check to see that at least one spare fuse for each kind and type of installed fuse is carried on vehicle as a spare, or it is equipped with an overload protective device (circuit breaker) (M.C.S.R.)

Item 6. REAR VIEW MIRRORS INSTALLED-Every truck and truck tractor shall have installed two rear vision mirrors, one at each side firmly attached and so located as to reflect to the driver a view of the highway to the rear along both sides of the vehicle Mirrors must not be cracked of dirty. (M.C.S.R.)

Item 7. HIGHWAY WARNING EQUIPMENT-This equipment must include either three red electric lanterns in operating condition and two red flags or three red emergency reflectors and two red flags with standards adequate to maintain them in an upright position, or three red emergency reflective triangles or three bidirectional emergency reflective triangles. Flame producing equipment to prohibited. (M.C.S.R.)

Item 8. FULL FIRE EXTINGUISHER INSTALLED-Inspect to see that one full fire extinguisher having an Underwriters' Laboratories rating of 10 B:C or more is securely mounted and readily accessible. (M.C.S.R)

Item 9. LIGHTS AND REFLECTORS OPERATIVE-(Head-Stop-Trail-First and Rear Clearance)-Inspect all lights and switches, including clearance lights and turn signals; make sure they are not obscured by dirt or grease or have broken line; high and low beam switch must be operative EMERGENCY flashers operating on front and rear of vehicle. (M.C.S.R.)

Item 10. EXHAUST SYSTEM-Inspect the exhaust system to see that no part is so located as would be likely to result in burning, charring, or damaging the electrical wiring, the fuel supply, or any combustible part of the vehicle. The exhaust system shall discharge to the atmosphere at a location to the rear of the cab or, if the exhaust projects above the cab, at a location near the rear of the cab. (M.C.S.R.)

Item 11. LIQUID PETROLEUM GAS POWERED VEHICLES-Inspect LPG burning system to insure compliance with DOT standards prescribed in 49 CFR 393.69 (M.C.S.R.)

Item 12. FUEL TANK, LINE, AND INLET-Inspect tanks and fuel lines to see that they are in completely serviceable condition, free from looks or evidence of leakage and surely mounted. Examine cape for defective gaskets or plugged vents. Inspect the filler necks to see that they are in completely serviceable conditions, security support.ed and not leaking at joints. (M.C.S.R.)

Item 13. COUPLING DEVICES-KINGPIN LOCK-Inspect without uncoupling to see that the fifth wheel rocker plate and bed are in good condition property assembled and mounted, and adequately lubricated. Kingpin lock must operate freely and properly, lock security and not show excessive wear. (M.C.S.R.)

Item 14. ALL BRAKES OP.ERATIVE- (Including hand brakes and air pressure warning devices) -Inspect for other grease leaks around drum flanges, pedal travel, air or vacuum line brake, moisture in tanks. compressor build up and governor cut off. Test for proper and adequate barked application. (M.C.S.R.)

Item 15. LANDING GEAR ASSEMBLY OPERATIVE- Landing gear assembly must be in good condition, correctly assembled, adequately lubricated, and property mounted.

Item 16. SPRINGS AND ASSOCIATED PARTS-Examine visually the springs, suspension hanger mechanisms, torsion bar assemblies and auxiliary parts such as U-belts, shackles center bolts and hangers, for breakage, improper adjustment, and , as appropriate lack of lubrication, Air suspensions should not be leaking. (DOD Requirement)

Item 17. TIRES-Examine all tires for cuts, bruises, breaks, and blisters. All tires with cuts or injuries extending into the cord body and those worn smooth in the center of the tread are not acceptable. Insure that stones are removed from between duals. Tires must be properly matched on dual-equipped tractors and trailers. (M.C.S.R.)

Item 18. CARGO SPACE-Inspect to see that cargo space is clean and in good condition to prevent damage to lading from exposed bolts, nuts, screws, nails, or other inwardly projecting parts. Check floor to make sure it is tight and free of holes. Floors shall. not be permeated with oil or gasoline. (C.F.R.)

Item 19. ELECTRIC WINING-Electric wining must be clean and properly secured, insulation must not be frayed or otherwise in poor condition. There must be no uninsulated ware or improper splices or connections. Wires and electric fixtures inside the body must be protected from the lading. (M.C.S.R.)

Item 20. TAILGATE AND DOORS ON CLOSED EQUIPMENT SECURED-Inspect to see that all hinges are tight in body. Check for broken latches and safety chains. Doors must close securely (M.C.S.R.)

Item 21. FIRE AND WATER RESISTANT TARPAULIN-If shipment is made on open equipment, check to make sure the lading is properly covered with a fire and water resistant tarpaulin. Explosive material packed in fire and water resistant containers and transported on flat-bed vehicles are not required to be covered with fire and water resistant tarpaulins (C.F.R.)

Item 22. ANY OTHER DEFECTS (Specify)-Self Explanatory.

Item 23. MIXTURES OR MATERIAL PROHIBITED BY DOT REGS. ARE NOT LOADED ONTO THIS Check carefully to prevent loading of incompatible explosives. (C.F.R.)
Item 24. LOAD IS SECURED TO PREVENT MOVEMENT-Self Explanatory.

Item 25. WEIGHT IS PROPERLY DISTRIBUTED AND VEHICLE IS NOT OVERLOADED-Lading shall be distributed in accordance with the approved load plan, when available, or when not available, a plan agreed upon by the shipper and the carrier. The weight of the load shall not exceed the capacity of the vehicle established by the carrier The gross axle weights and the gross vehicle weight shall not exceed the limits imposed by the states through which the vehicle is routed. The carrier shall inform the shipper of the state(s) law requirements. (DOD Requirement)

Items 26., 27., and 28-Self Explanatory.

Item 29. PROPER PLACARDS APPLIED-Four standard placards applicable to the load will be furnished the carrier and insure they are conspicuously displayed, one in front rear, and each side. (C.F.R.)

Item 30. SHIPMENT MADE UNDER DOT EXCEPTION 868-This item will be checked when a shipment is made under the provisions of DOT Exception 868. When checked, tit signifies that the shipment and that the driver is relieved from certifying to items 23., 24., and 25. (DOD Requirement)

REMARKS

Figure 2. DD Form 626 (Back)

SPECIAL INSTRUCTIONS FOR MOTOR VEHICLE DRIVERS	DATE 1 May 85

TO: *(carrier's Name and trailer Number)* 1-505th Arty Bn. Ft. Knox, Ky	FROM: (Installation Insturctions) ASP 3, Ft. Knox, Ky

BILL OF LADING NUBER N/A	THIS TRUCK IS LOADED WITH (Commodity description)
TYPE PLACARDS REQUIRED Explosives A	High Explosive Ammunition

IN CASE OF FIRE	IN CASE OF ACCIDENT
1. If any part of the vehicle outside of actual contents catches fire, take vehicle to a clear or uninhabited area, if practicable, and/or atatempt to put fire out immediately with hand estinguishers or other available means. If practicable, ask someone to notify the fire dep[artment. Call to the attentioni of fire or police persoonnel at the scene of the fire the information on this form. 2. Fires may be fought until the flames reach the cargo, at which time firemen and other personnel lshould be withdrawn to a safe distance, as noted in 5 and l below. 3. If in convoy, other trucks proceed to safe distance. 4. Water may be used on this cargo [X] Yes [ ] No *(See Other Specific Precautions or Instructioins below).* 5. Firemen should not approach closer than 1200 feet* from the fire when the fire has reached the cargo. *(See Other Specific precautions or Instructions below)* 6. Public should not approach closer than 2000 feet* from fire. 7. As soon as practical, notify the nearest military installation.	1. Set brake and block vehicle to prevent movement. 2. Post flags by day, and red electric lanterns or reflectors by night, warning traffic approaching from each direction. 3. Call for ambulanace, if necessary. 4. Notify nearest police. 5. Notify nearest military installation if cargo is damaged. ADDITIONAL NOTIFICATION REQUIRED *(By phone or wire as soon as possible)* **IN CASE OF BREAKDOWN** 1. Do not attempt to tow loaded vehicle. 2. Post flags by day and red electric lanterns by night, warning traffic from each direction.

GENERAL PRECAUTIONS

1. While operating over public roads, keep at least 300 feet from trucks loaded with explosives or other dangerous articles; a greater minimum distance must be maintained if required by state or municipal regulations. 2. Protect the public from the hazards of the cargo. 3. Do not allow smoking or use of matches or lighters in or near the behicle. 4. Obey all state and local traffic regulatioins. 5. Do not exceed speed limits.	6. Stop at all railroad crossings. 7. Use designated routes. Whenever possible, avoid congested residentioal or business area. 8. Do not permit unauthorized persons to ride on vehicles. 9. At other than carrier rest stops or interchange points, select safe parking space at stopping locations designated by the carrier. Vehicles carrying explosives should not group together at those stopping locations.

OTHER SPECIFIC PRECAUTIONS OR INSTURCTIONS

(The ammunition supply point vehicle inspector completes this form and gives it to the vehicle driver)

Principally a missile fragment hazard. Maintainn the minimum distances as indicated above and be prepared to fight incipient fires started by the explosion.

These instructioins must be transferred to each subsequent driver for turn-in at final destination. If more than 3 drivers are involved, the additional signatures should be make on an extra sheet and attached hereto.	SIGNATURE OF SHIPPER REPRESENTATIVE	SIGNATURE OF FIRST DRIVER
	SIGNATURE OF SECOND DRIVER	SIGNATURE OF THIRD DRIVER

** The distances shown are minimum; greater distances should be used whenever possible.*

DD FORM 1 MAY 71 836 REPLACES EDITON OF 1 JUN 66, WHICH MAY BE USED. ☆U. S. Government Printing Office: 1980-341-646/8082

Figure 3. DD Form 836

STUDENT CHECK 1

1. What are the two forms used for shipment of munitions? What is the purpose of each?

2. Blocking and bracing of munitions prior to shipment is in accordance with which series of drawings?

3. When shipping munitions by convoy, how often should visual inspections of the load be made?

4. What type of munitions must not be packaged with bulk explosive munitions during shipment?

5. Can damaged munitions be accepted by a carrier for shipment?

6. What items on DD Form 626 are inspected by the receiving activity?

7. Where on DD Form 836 are there instructions for using water to fight fires on a given cargo?

5.0. Inspect containerized shipments.

The MILVAN, used to carry munitions, is a fabricated steel container with a mechanical load bracing system that can be adjusted to meet most load requirements. Only those MILVANS with load bracing systems can be used to transport munitions. For a review of container components or terminology, refer to paragraph 4 of the supplementary reading.

Also for the purpose of recording inspection comments the MILVAN has six sides (front/rear/left/right/top/bottom); counting inside and outside, there are a total of twelve sides to be inspected. The end with the door is considered to be the rear; with the rear at six o'clock, towards nine o'clock is the road side, towards twelve is the front, and towards three is the curb side.

5.1. Preloading inspection/certification.

In this section of the lesson, you will learn the correct procedures for inspecting an empty MILVAN to ensure its acceptability as a container for the storage and shipment of munitions.

5.1.1. Inspection criteria.

Unless a local SOP designates a particular form, any suitable method may be used to record the results of your MILVAN inspection, even a DA Form 2404. MIL-HDBK 138 A contains suggested forms which are in Appendix A of the supplementary reading and will be used in this lesson.

The container inspection criteria will be met through a visual examination and, except where tolerances are provided, acceptance of the container will be based on the judgment of the inspector. Any unacceptable deficiencies disclosed by the examination must be corrected before the container may be used for shipment.

If the needed repair is made immediately, enter this information on your inspection form, and continue the inspection. If the necessary repair is postponed or takes considerable time, file your inspection report with surveillance for required action and proceed with your other duties.

Any defect which would render the MILVAN unsafe makes it unacceptable. An unsafe condition is one which presents the possibility of damage to or loss of the cargo or the equipment, or poses a physical hazard to personnel.

5.1.2. Inspection sequence.

MIL HDBK 138A, paragraph 6.4 recommends a logical sequence for most rapid, efficient inspection (See supplementary reading). This section will follow that sequence with a general explanation of the inspection procedure. The detailed inspection criteria is located in paragraph 5 of MIL HDBK 138A and is provided in the supplementary reading.

5.1.2.1. Markings on data plates.

Check for the appropriate markings and data plates, annotate the International Organization for Standardization (ISO) owner code serial number and the existing Convention for Safe Containers (CSC) re-inspection date on the inspection checklist.

5.1.2.2. Overall configuration.

Check for any distortion of the overall configuration great enough to preclude proper engagement of handling and lifting equipment, mounting and securing on chassis or vehicle, or insertion into the cell of a ship.

5.1.2.3. Door end or side.

Check for any distortion, holes, or tears. Any damage or improper repair which results in failure of the doors to make the MILVAN watertight is a cause for rejection.

- Weather seals must be intact to ensure that the load is properly protected.
- There must be no major damage to the rain gutter. Minor damage, such as that shown here, is acceptable.
- Door headers (above doors) and sills (below doors) must be inspected for any damage which would prevent proper door action or would weaken the structural strength of the MILVAN.

- One splice, but not more than one splice, in a door header is acceptable. A splice in a door sill is cause for rejection.

- Check the inner side of the doors for any damage that would interfere with their serviceability.

- Make sure that the document holder is not loose. If it is loose, this would not be sufficient cause for rejection of the MILVAN. Have the necessary repair made, and continue with the inspection.

Inspect the handles and the handle retainers for damage, distortion, or missing components which would interfere with their function.

- The hinges must be inspected for damage or breakage, and the doors must open and close freely.

- The locking bars and retainers must be in good condition.

Any defect that threatens the safety and serviceability of the MILVAN requires its rejection.

5.1.2.4. Exterior sides and ends.

Examine the container exterior on all remaining sides and ends for any defects on main structural components or unacceptable damage on wall panels.

5.1.2.5. Roof (Exterior).

Inspect the roof bows for any that are torn loose from the top side rails. Check them for cuts and breaks.

- Roof bows that are damaged, missing, or bowed are sufficient cause for rejecting the MILVAN.

- Inspect the interior of the roof panels for holes or severe dents.

- Remember, you are determining the safety and the strength of the MILVAN with this inspection. Be sure to inspect every part of the interior for weakness, damage, or any condition that would make the MILVAN unserviceable.

5.1.2.6. Understructure.

Position the container on inspection stands to enable safe viewing of the container understructure. Examine the corner fitting apertures, side and end rails, sill, cross members, and forklift tunnels for defects.

5.1.2.7. Interior.

Inspect the floor of the MILVAN. Examine it for any curvature. This would permit shifting of even well-braced cargo.

- Inspect for any breaks or holes in the flooring.
- Inspect for any splintering, warping, or rotting of the floor boards.
- Check for floor fasteners for any that are corroded, missing, sheared, or loose.
- Any condition that endangers the cargo, the shipment, or personnel is sufficient cause for rejection.
- Inspect the floor for stains. They could constitute a hazard and damage the shipment.
- Look for any separation of joints.
- The floor must be free of any debris, as this could also damage the cargo. This is an example of the sort of defect which can be reported to maintenance personnel for on the spot correction.

If you find that the floor of the MILVAN is acceptable, inspect the interior sides and front walls for any damage, breaks, holes, or punctures. Small dents are acceptable if the panels are not punctured and if the vertical support is not weakened.

- Check all visible portions of the corner fittings and top rails for damage and distortion. Inspect the mounting brackets for breaks and distortion.
- Check for cracked or missing welds. Any distortion of corner posts and any dent in top rails that exceeds 3/4 inch in depth, regardless of length, is cause for rejection.
    - Inspect all previous repairs and welds. They should be properly made and intact.
    - A poor, cracked, or missing weld will seriously weaken the structural strength of the MILVAN.

Closely inspect any frame members that are load bearers, both horizontal and vertical.

- Check them for distortion, breaks, and separation.
- Any dent in any support member that exceeds 3/4 inch in depth, regardless of length, is a cause for rejection.

Inspect the load bracing system. This system consists of 8 horizontal slotted rails, intermittently spaced and welded on each side wall, and 25 independent load bracing crossbeams which interlock into the side rail slots. The vertical slotted rails are welded to the sides of the end frame. This arrangement permits adjustment of the bracing to fit the loading requirements.

- Inspect the horizontal and the vertical rails for any damage to the slots that would prevent the crossbeams from locking in the slots. Then check the rails for distortion and for possible looseness. Check for faulty and/or cracked welds. Any of these defects is cause for rejection.

- Inspect the load bracing crossbeams to make sure that the locking mechanism is operable and that the beams are not bent, crushed, or bowed.

- Defective crossbeams must be repaired or replaced before the MILVAN can be accepted.

5.1.2.8. Light leak test.

Close the doors from the inside and check for the penetration of light from the exterior. If light penetrates, look for the source of entry. It may be a hole or crack and will indicate that the MILVAN is unserviceable.

5.1.3. Inspection certification.

If your inspection of the MILVAN shows that it is serviceable, fill out the MILVAN Certificate (Figure 4) and sign it. This certificate indicates that the MILVAN is ready for loading. Either a DD Form 2282 or MILVAN certificate will be filled out; the local SOP will give guidance as to what will be done upon completion of the inspection of a MILVAN.

STUDENT CHECK 2

1. What is the maximum amount of splices, a door header may have and still be serviceable?

2. How many horizontal slotted rails are contained within the MILVAN Restraint System (load bracing system)?

3. Why is a heavily oil-stained floor not acceptable when inspecting a MILVAN?

MILVAN CERTIFICATE No. 1

Location _____ DATE _____

I hereby certify that I have this day personally inspected U.S. MILVAN__ and found it to be in a serviceable condition, with no holes, decayed spots, or protruding objects which might damage packages of explosive: also that the floor and mechanical load bracing systems are in good condition.

Surveillance Inspector _____
Signature

MILVAN CERTIFICATE No. 2

Location _____ DATE _____

I hereby certify that I have this day personally inspected U. S. MILVAN__ and found it to be in a serviceable condition, with no holes, decayed spots, or protruding objects which might damage packages of explosive: also that the floor and mechanical load bracing systems are in good condition.

Surveillance Inspector _____
Signature

Figure 4

5.2. Loaded MILVAN inspection/certification.

In this portion of the lesson, you will learn the procedures for inspecting the loaded MILVAN.

5.2.1. Inspection sequence.

Your first step is to verify that the items loaded are those which are listed on the shipping documents. If the items are incorrect, notify the Shipping section of the ASP of the error. DO NOT continue with the inspection until the proper items are loaded.

If more than one type of munitions is included in the load, check the compatibility by mode of transportation. The tables for this compatibility check are found in CFR 49 in separate parts for air, sea, and land transportation requirements.

- For example, chemical munitions - WP cannot be shipped with explosive projectiles.

Inspect the load to ensure that it is properly braced to prevent shifting.

Check the distribution of the items in the MILVAN to ensure load equalization.

Next, the doors must be sealed. They may or may not be locked, but they must be sealed.

The placarding of the MILVAN must be checked for correctness, according to the requirements of CFR 49. Placards must be properly affixed to both sides and to the front and rear of the container as soon as it is loaded. Notify the Shipping section of the ASP if placarding is incorrect.

STUDENT CHECK 3

1. Which publication lists the compatibility tables for hazardous materials?

2. How many splices may a top side rail have before it would be cause for rejection of the MILVAN?

3. What indicates the next reinspection date of a container ?

LESSON 14C
STUDENT CHECK 1 SOLUTIONS

1. Answer: The two forms are:

   DD Form 626 - used to inspect motor carrier equipment and used to transport Classes A or B munitions.
   Reference: Paragraph 4.1.

   DD Form 836 - used to provide emergency response instructions to TOs and all drivers transporting munitions and hazardous materials.
   Reference: Paragraph 4.2.

2. Answer: Blocking and Bracing is in accordance with AMC 19-48 series drawings.
   Reference: Paragraph 3.3.

3. Answer: Visual inspections should be made once every hour at a location away from the general public.
   Reference: Paragraph 3.4.

4. Answer: Detonating agents, including initiating agents such as blasting caps, percussion primers, detonators, firing devices, and fuze igniters, must be packaged separately from bulk explosives.
   Reference: Paragraph 3.5.

5. Answer: No damaged munitions or containers may be accepted by carriers for shipment.
   Reference: Paragraph 3.7.

6. Answer: Items to be inspected by the receiving activity on DD Form 626 are those marked with an asterisk (*). The items include numbers 8, 11, 12, 14, 15, 17, 19-21, 24, and 26-30.
   Reference: Paragraph 4.1 and DD Form 626.

7. Answer: The instruction for fighting fires with water during munitions shipment are located in the “In Case of Fire” section, Item No. 4, with additional instructions, if any, located in the “Other Specific Precautions or Instructions” section.
   Reference: DD Form 836.

STUDENT CHECK 2 SOLUTIONS

1. Answer: One splice in the door header.
   Reference: Paragraph 5.1.2.3.

2. Answer: Eight horizontal slotted rails.
   Reference: Paragraph 4.2.1.7.

3. Answer: A heavily stained floor could damage the cargo.
   Reference: Paragraph 4.2.1.7.

STUDENT CHECK 3 SOLUTIONS

1. Answer: CFR 49.
   Reference: Paragraph 5.1.2.

2. Answer: Maximum of two splices.
   Reference: (Supplementary Reading) MIL-HDBK 138A, paragraph 5.2.8 e.

3. Answer: CSC Safety plate.
   Reference: Paragraph 5.1.2.1.

SUPPLEMENTAL READING 55B40C14

4. CONTAINER TERMINOLOGY

4.1 Primary Structural Components. See Figure 4.1.

4.1.1 Corner Fitting. Internationally standard fitting (casting) located at the eight corners of the container structure to provide means of handling, stacking and securing containers. Specifications are defined in ISO 1161.

4.1.2 Corner Post. Vertical structural member located at the four corners of the container and to which the corner fittings are joined.

4.1.3 Door Header. Lateral structural member situated over the door opening and joined to the corner fittings in the rear end frame.

4.1.4 Door Sill. Lateral structural member at the bottom of the door opening and joined to the corner fittings in the rear end frame.

4.1.5 Rear End Frame. The structural assembly at the rear (door end) of the container consisting of the door sill and header joined at the rear corner fittings to the rear corner posts to form the door opening.

4.1.6 Top End Rail. Lateral structural member situated at the top edge of the front end (opposite the door end) of the container and joined to the corner fittings.

4.1.7 Bottom End Rail. Lateral structural member situated at the bottom edge of the front end (opposite the door end) of the container and joined to the corner fittings.

4.1.8 Front End Frame. The structural assembly at the front end (opposite the door end) of the container consisting of top and bottom end rails joined at the front corner fittings to the front corner posts.

4.1.9 Top Side Rail. Longitudinal structural member situated at the top edge of each side of the container and joined to the corner fittings of the end frames.

4.1.10 Bottom Side Rail. Longitudinal structural member situated at the bottom edge of each side of the container and joined to the corner fittings to form a part of the understructure.

4.1.1 1 Cross Member. Lateral structural member attached to the bottom side rails that supports the flooring.

4.1.12 Understructure. An assembly consisting of bottom side and end rails, door sill (when applicable), cross members and forklift pockets.

4.1.13 Forklift Pocket. Reinforced tunnel (installed in pairs) situated transversely across the understructure and providing openings in the bottom side rails at ISO prescribed positions to enable either empty capacity or empty and loaded capacity container handling by forklift equipment.

4.1.14 Forklift Pocket Strap. The plate welded to the bottom of each forklift pocket opening.

4.1.15 Gooseneck Tunnel. Recess in the front portion of the understructure to accommodate transport by a gooseneck chassis. This feature is more common in forty foot and longer containers.

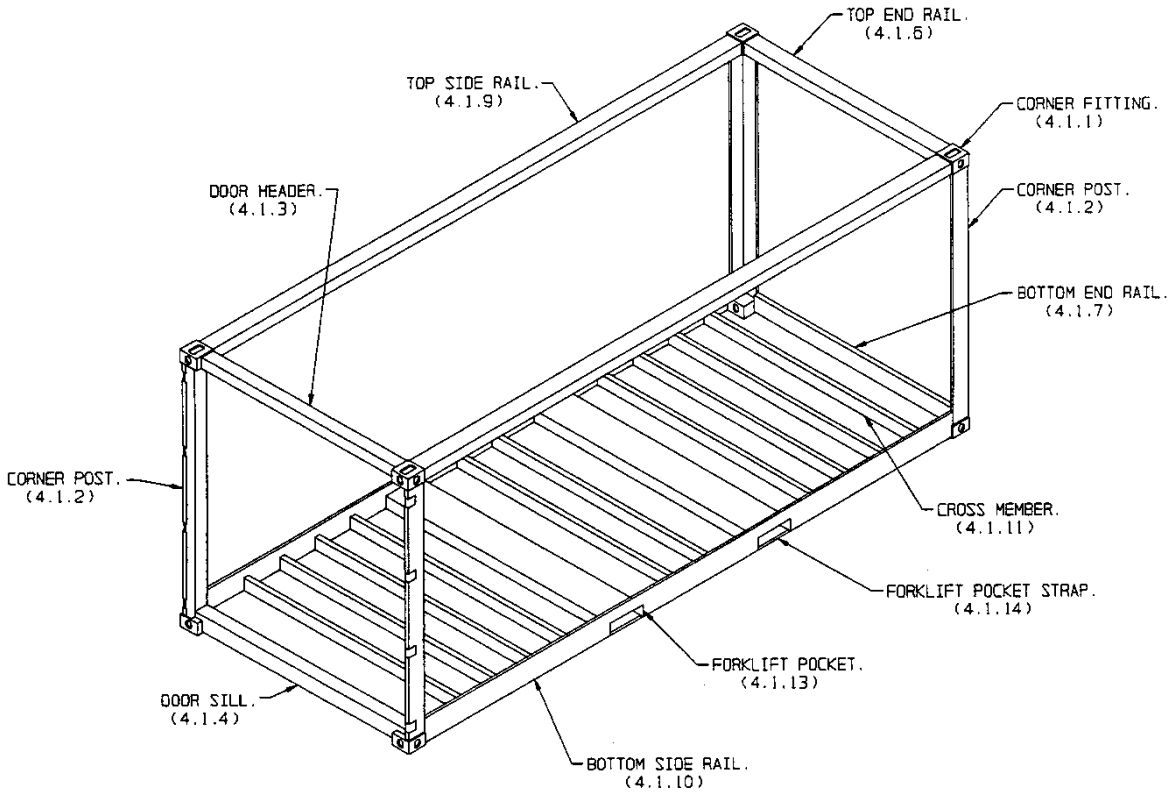


FIGURE 4.1 - PRIMARY STRUCTURAL COMPONENTS

4.2 Walls. Roof. and Floor. See Figures 4.2A, 4.2B, 4.2C and 4.2D.

4.2.1 Fiberglass Reinforced Plywood (FRP). A material constructed of laminates of fiberglass, polyester resins, and plywood. See Figure 4.2C.

4.2.2 Wall Panel. Corrugated sheet steel, a riveted aluminum sheet and wall post assembly, or FRP material that forms the side wall or end wall.

4.2.3 Wall Post. Interior or exterior intermediate vertical component to which sheet aluminum or steel is riveted or welded to form a wall panel.

4.2.4 Marking Panel. A panel of a corrugated steel side wall configured with a flat portion used for the display of markings.

4.2.5 Lining. Plywood or other like material attached to the interior side and end wall to protect the walls and/or cargo and facilitate loading operations.

4.2.6 **Lining** Shield. A relatively narrow strip of thin metal installed at the bottom of the interior walls to protect the lower portion of the lining from damage by materials handling equipment during loading or unloading operations.

4.2.7 Kick Plate. A common name for a lining shield installed on the lower portion of the interior front end wall.

4.2.8 Ventilator. A device permanently attached to the side or end wall panel that provides openings for the exchange of air (but not water) between the outside and the container interior.

4.2.9 Roof Panel. Corrugated or flat sheet steel, sheet aluminum, or FRP panel that forms the top closure of the container.

4.2.10 Roof Bow. Lateral structural member attached to the top side rails and supporting the underside of the roof panel or tarp. Not all container designs require roof bows.

4.2.11 Roof Reinforcement Plate. An additional metal plate on the exterior of the roof panel adjacent to the top corner fittings that provides protection of the roof panel or top rail components from misaligned handling equipment.

4.2.12 Tarp. Jargon for "**tarpaulin"** which is a waterproof and flexible fabric used for covering the top of an open-top container. This covering is referred to as a "Tilt" in some countries.

4.2.13 TIR Cable. Plastic sheathed wire rope that is designed in accordance with TIR customs convention (see paragraph 4.5.6) and is threaded through the welded loops on the top rails of an open-top container to secure the tarp.

4.2.14 Flooring. Material that is supported by the cross members and bottom rails to form a load bearing surface for the cargo. The flooring is usually constructed of laminated wood planks, plywood sheets, or other composition material and is screwed or bolted to the cross members. Some containers have welded steel flooring or a combination of steel and wood.

4.2.15 Joint Strip. A formed steel or aluminum strip (usually hat-shaped section) installed between joints of the plywood sheet flooring or joints of the plywood sheet lining to help integrate and support the edges of the plywood.

4.2.16 Threshold plate. Plate forward of the door sill to protect the entrance area of the container floor. This plate is commonly referred to as a crash plate.

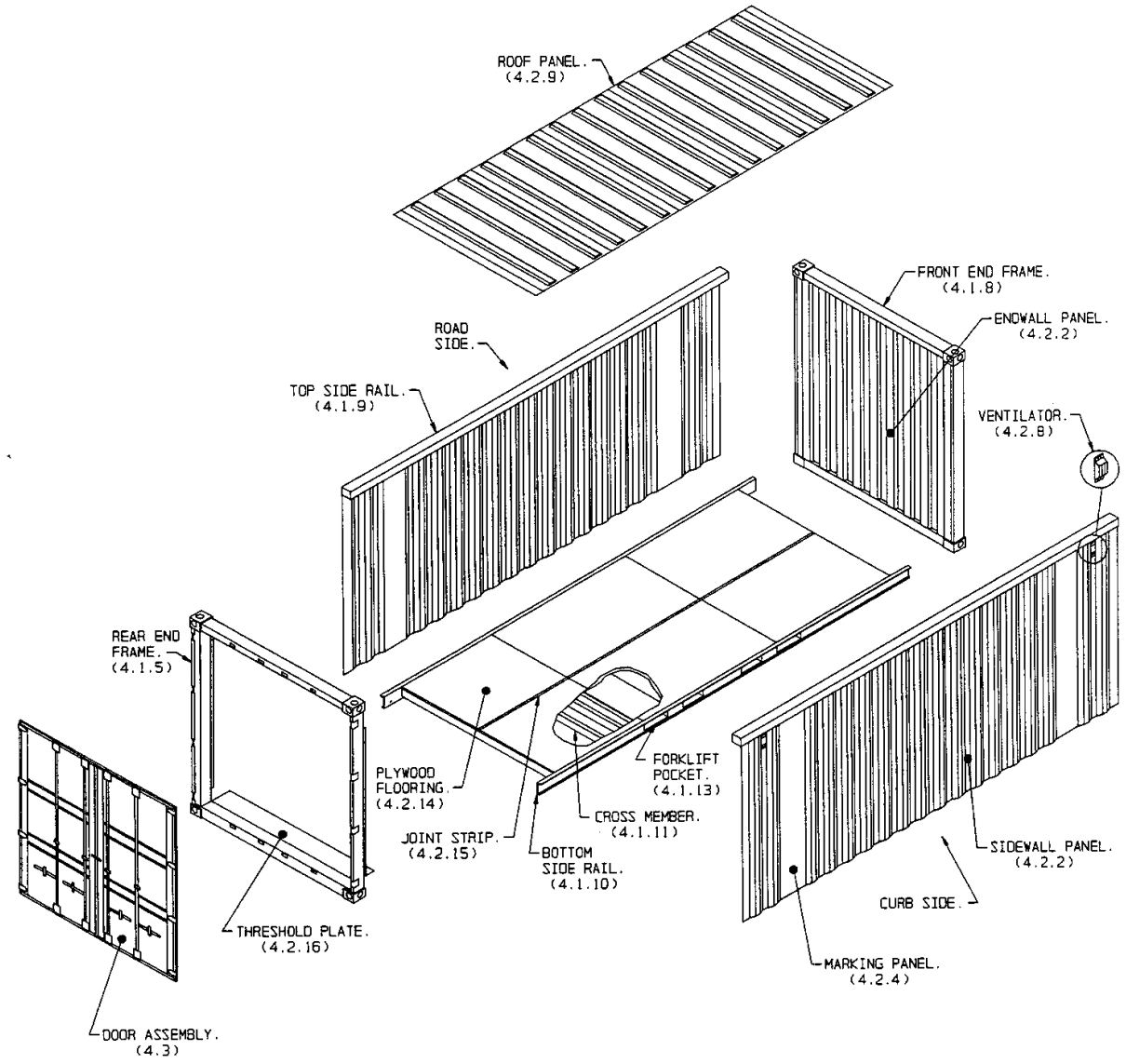


FIGURE 4.2A - TYPICAL STEEL CONTAINER (EXPLODED VIEW)

4.3 Door Assembly. See Figure 4.3.

4.3.1 Door Panel. Corrugated or flat sheet steel, plymetal (metal faced wood) material, aluminum sheet and post assembly, or FRP panel that forms either a portion or all of a door.

4.3.2 J-Bar. The portion of the exterior edge of the corner post structure in a doorway frame that encircles and supports the door hinges.

4.3.3 Hinge. Hardware comprised of a blade permanently joined to the door and a lug integral to the corner post structure. A series of hinges enables the door to rotate open or closed.

4.3.4 Hinge Pin. Hinge component that attaches the two components of the hinge and provides a line of rotation. A hinge pin may be surrounded with a bushing to reduce friction and resist corrosion.

4.3.5 Hinge Pin Weld. The weld affixed on the head of the hinge pin to prevent pilferage by removing the hinge pin and door without breaking the custom seal. This is a TIR (see paragraph 4.5.6) requirement.

4.3.6 Locking Bar. Vertical rod of the door assembly with cam locks fitted at each end. When rotated, it engages (locks) the cams into the cam retainers on the doorway frame.

4.3.7 Locking Bar Mounting Bracket. One of the brackets that holds the locking bars in place on the door assembly.

4.3.8 Cam. Fitting on each end of a locking bar that has offset protrusions. Through lever type action, it engages (locks) into a cam retainer to secure the door to the doorway frame.

4.3.9 Cam Retainer. Female component (retainer) located on the sill and header of the rear end frame or top and bottom side rails of a side opening container. It engages and retains the cam of a locking bar.

4.3.10 Door Locking Handle. Handle attached to the door locking bar that rotates the bar (rod) when opening or closing (locking) the container door.

4.3.11 Door Locking Handle Retainer. Pivoting hardware to hold the locking handle in the closed position and provide a means to place a lock and/or security seal on the door(s).

4.3.12 **Anti-rack** Hardware. Hardware attached to the doors and doorway frame to provide resistance against transverse twisting (racking) of the container. It consists of locking bars, locking bar mounting brackets, cams, cam retainers, locking handles, handle retainers and other support brackets.

4.3.13 Customs Catch. Rod or plate permanently affixed near middle of door to preclude one door opening without opening the other door. Customs catch is only required if door design does not provide a metal overlap as defined by the TIR convention (see paragraph 4.5.6).

4.3.14 Door Seal (Gasket). Flexible plastic, rubber or synthetic rubber attached to the door edges with a retaining strip and fasteners to provide a water proof seal between doors and between the doors and the door frame.

4.3.15 Rain Gutter. The structure attached to the door header on some containers to divert water away from the doorway frame.

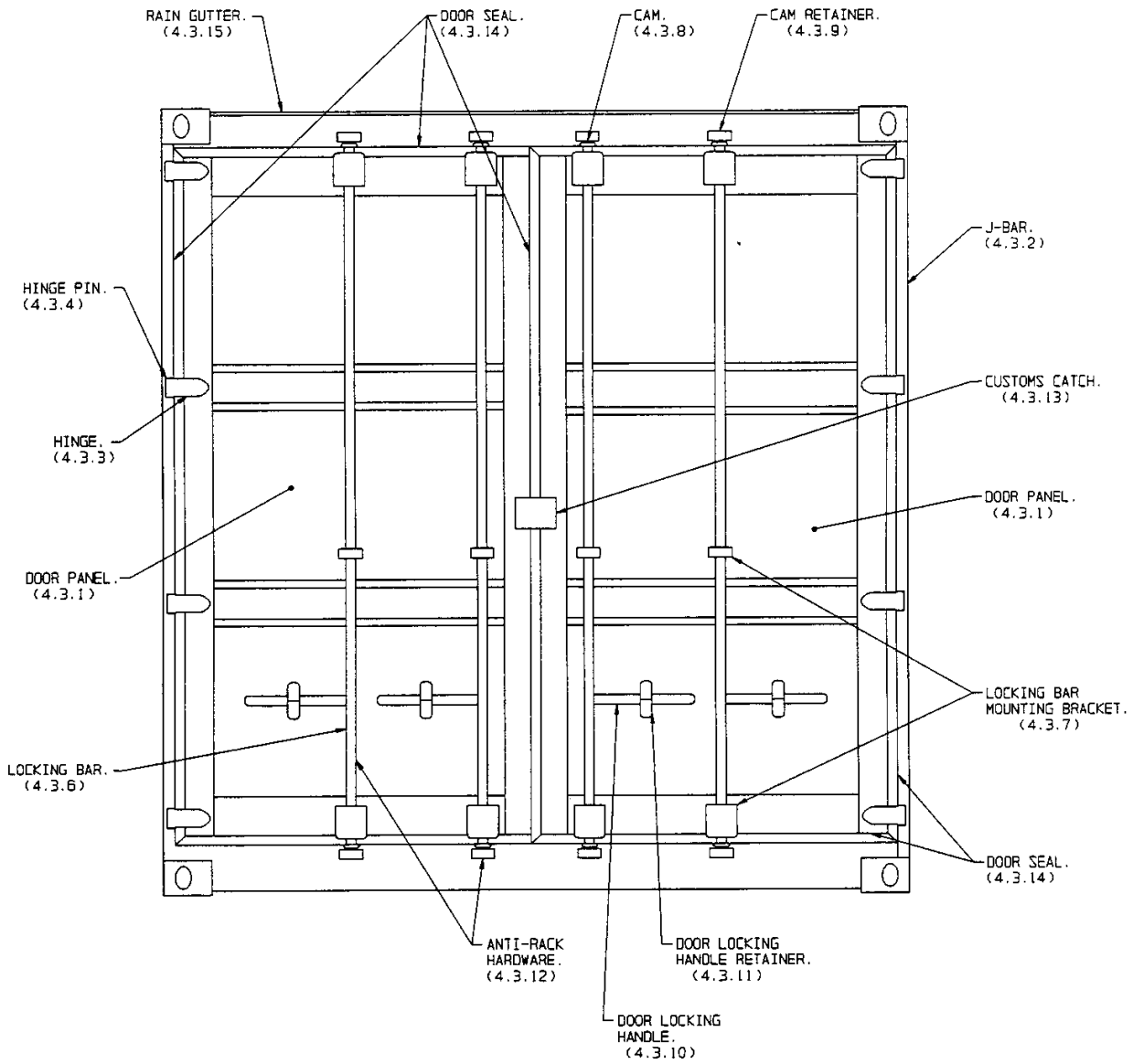


FIGURE 4.3 - TYPICAL REAR END DOOR ASSEMBLY

4.4 Special Terminology. See Figures 4.4A, 4.4B, 4.4C and 4.4D.

4.4.1 Intermodal. Specially designed to facilitate the carriage of goods by one or more modes of transport without requiring intermediate reloading and so equipped with ISO standard corner fittings to permit ready handling from one mode to the other.

4.4.2 MELVAN. A military-owned demountable container conforming to military specification **MIL-C-52661** for cargo containers. A MILVAN is an ISO standard 1496 series 1 intermodal freight container with nominal dimensions of 8 feet wide by 20 feet long. A MILVAN can be either a Type I **(8** feet high with plywood liner), Type II (8 feet high with mechanical restraint system), Type III (8-1/2 feet high with plywood liner), or Type IV (8-1/2 feet high with mechanical restraint system).

4.4.3 Cargo Restraint. Restraint fixtures or material that facilitate cargo securement within the container during handling and transport.

a. Mechanical Restraint System. A type of cargo restraint such as in a Type II or Type IV MILVAN that consists of eight slotted horizontal rails intermittently spaced and welded on each side wall of the container, a pair of slotted vertical rails welded to the door frame, and 25 independent shoring beam assemblies with end fittings that interlock into the slots of the rails.

b. **Dunnage.** Additional restraint materials installed around cargo to prevent shifting and/or damage of the cargo items during shipment.

C. Load Bearing Surface. A smooth rigid surface on the primary structure of the container capable of withstanding dynamic loads imposed by accelerated weight of cargo during container handling and transport.

d. Load Retainer. A device or fixture such as a structural angle welded to the door corner post that provides a strong load bearing surface for cargo restraint dunnage. A pair of these are typically used in an end-opening container that is not equipped with a mechanical restraint system.

e. Tiedown Provision **(Lashing** Bar or Ring). Provision or fitting for attachment of straps or other cargo restraint devices.

f. Stanchion. A rectangular provision (tube) on flatrack that acts as a stake pocket for a side blocking stake or dunnage assembly.

4.4.4 Tare Weight. Weight of the empty container including all associated fittings and hardware such as a mechanical restraint system.

4.4.5 Payload. Maximum allowable weight of the contents (cargo) of a container including any additional required load blocking materials (dunnage), not normally assigned or attached to a container.

4.4.6 Maximum Gross Weight. Total permitted gross loaded weight of a container including the tare weight plus the maximum allowable payload.

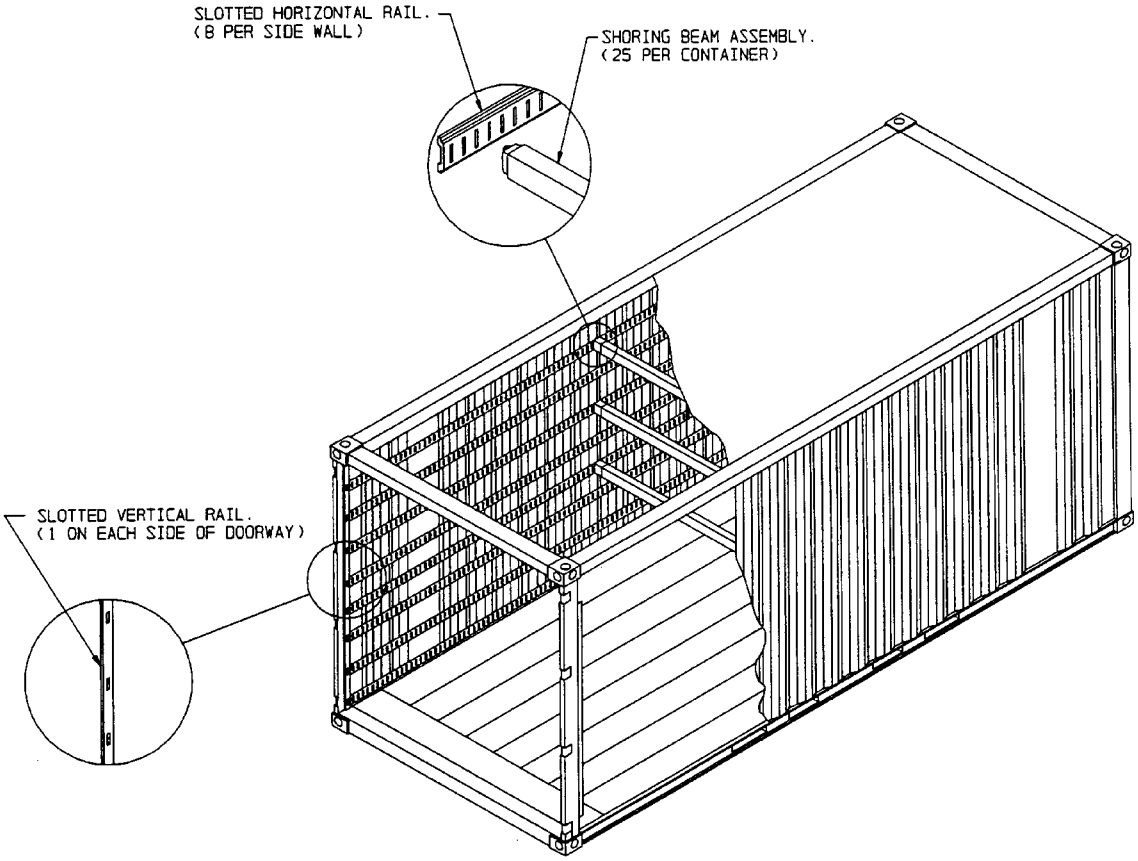


FIGURE 4.4A - MECHANICAL RESTRAINT SYSTEM FOR MILVAN

4.5 Conventions and Markings. See Figures 4.5A, 4.5B, 4.5C, 4.5D and 4.5E.

4.5.1 ISO (International Organization for Standardization). An international organization composed of various national organizations that prescribes standards. This organization is head-quartered in Geneva, Switzerland and includes many technical committees (TCs) such as ISO TC 104 for technical work involving intermodal freight containers.

4.5.2 ISO Markings. Numbers, letters, and symbols placed on a container in conformance to ISO standard 6346 to identify such items as container size, type, owner, registered serial number, tare weight, gross weight, and cubic capacity. Some **ISO** markings are mandatory and some are optional.

4.5.3 CSC (International Convention for Safe Containers). An international treaty that initially entered into force on 6 September 1977 requiring structural safety approval of all intermodal containers and periodic inspections of containers at specified intervals to ensure maintenance of safe condition. The CSC is administered by individual governments in accordance with the recommendations of the International Maritime Organization (IMO), a branch of the United Nations. United States implementation of CSC is mandated by CFR 49 parts 450 to 453.

4.5.4 CSC Safety Approval Plate. A durable data plate required by CSC and certified by an approved certification agency to indicate CSC approval. The "CSC Plate" may also indicate the next examination or re-inspection date. The required format of the CSC Plate is depicted in Figure 4.5D. The information on the plate must be inscribed in at least the English or French language.

4.5.5 ACEP (Approved Continuous Examination Program). An alternative to scheduling periodic examinations of containers. This program also complies with CSC requirements and although not used by DOD, is used by many commercial owners. An ACEP marking on the container indicates date that this method of examination was initially approved, not date of next required re-inspection.

4.5.6 TIR (Transport Internationale des Routiers). An international customs convention providing transport approval under regulation of customs authorities of different nations. TIR approval usually permits sealed containers to cross international borders without inspection.

4.5.7 TIR Markings or Plate. Markings or data plate identifying that container design has been certified to meet TIR requirements.

4.5.8 TCT (Timber Component Treatment). An immunization of exposed wooden components in compliance with Plant Quarantine requirements of the Australian Department of Health.

4.5.9 UIC (Union Internationale des Chemins de Fer). Organization primarily of European railroads that establishes standards for container transport on member railroads.

4.5.10 Manufacturer's Data Plate. A plate affixed to the container identifying manufacturer, date of manufacture, and other pertinent container design data.

4.5.11 Consolidated Data Plate. A single plate affixed to the container that consolidates all container data and approval information without violating individual data format requirements.

4.5.12 Placard Holder. Fixture used to display placards that identify hazardous material classification of ammunition cargo being shipped.

4.5.13 Magazine Stowage Type A. Type of ship stowage designation for certain hazardous materials as defined by the IMDG Code and CFR 49 part 176.130. This type of stowage is typically designated for bulk type powders or bulk type initiating explosives. A container meets requirements for “Magazine Stowage Type A” if its floor consists of tightly fitted wooden boards, plywood or equivalent non-metallic material and it has non-metallic wall lining.

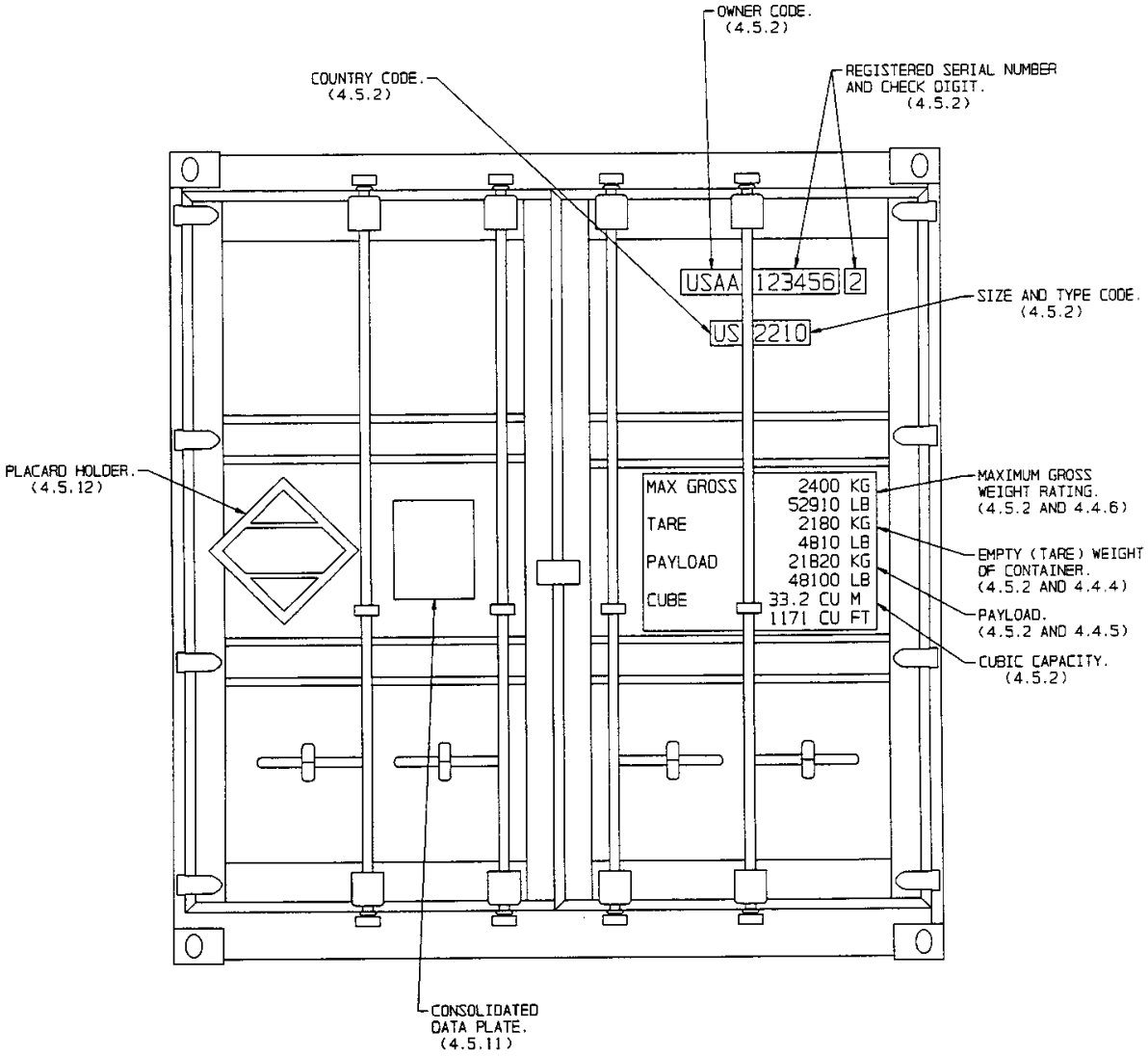
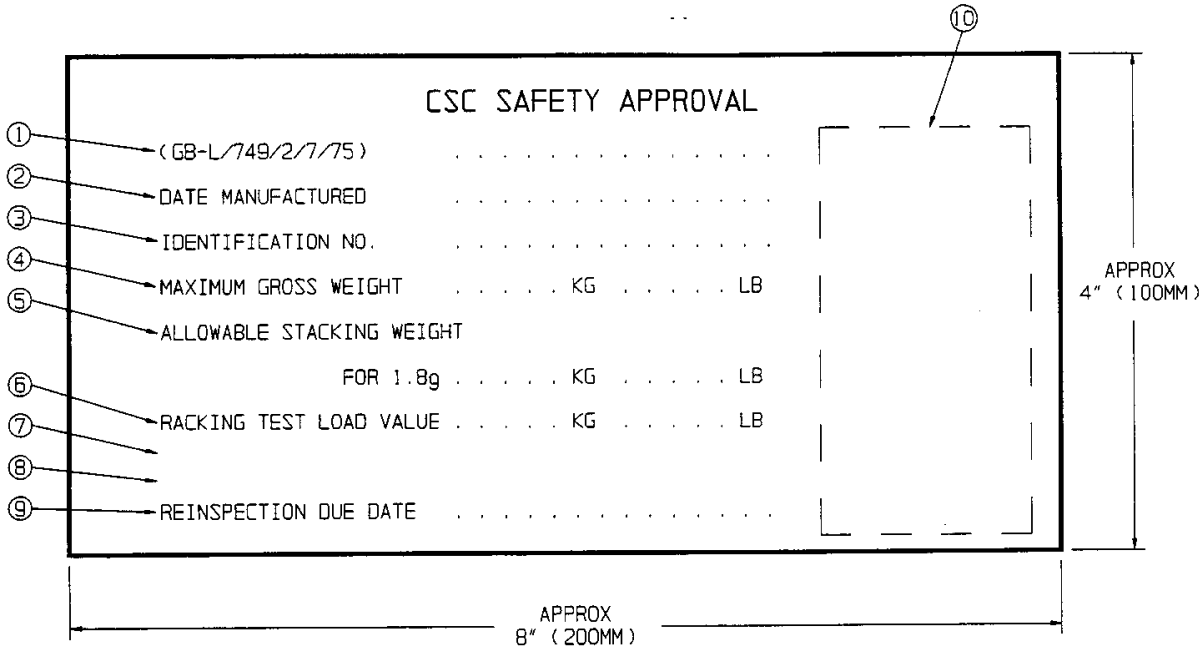


FIGURE 4.5A - TYPICAL DOOR MARKINGS



REQUIRED LINES OF INFORMATION:

1. Alphanumeric reference code similar to example shown above indicating Country of approval and reference number for approval.
2. Date (month and year) of manufacture.
3. Manufacturer's identification number or the ISO identification number (i.e., owner code, serial number and check digit) assigned to the container.
4. Maximum gross weight rating (kilograms and pounds).
5. Allowable stacking weight (kilograms and pounds) container can support when subjected to 1.8 times the force of gravity.
6. Transverse racking test load value (kilograms and pounds).
7. End wall strength expressed in kilograms and pounds or as fraction of the permissible payload (P). This is only required to be marked on the CSC plate if end walls are designed to withstand a load of less than or greater than 0.4P.
8. Side wall strength expressed in kilograms and pounds or as fraction of the permissible payload (P). This is only required to be marked on the CSC plate if side walls are designed to withstand a load of less than or greater than 0.6P.
9. First re-inspection due date (month and year) for new container or DD Form 2282 decal indicating subsequent re-inspection due date (month and year).
10. Alternate location on CSC plate for application of DD Form 2282 decal.

FIGURE 4.5D - FORMAT OF CSC PLATE

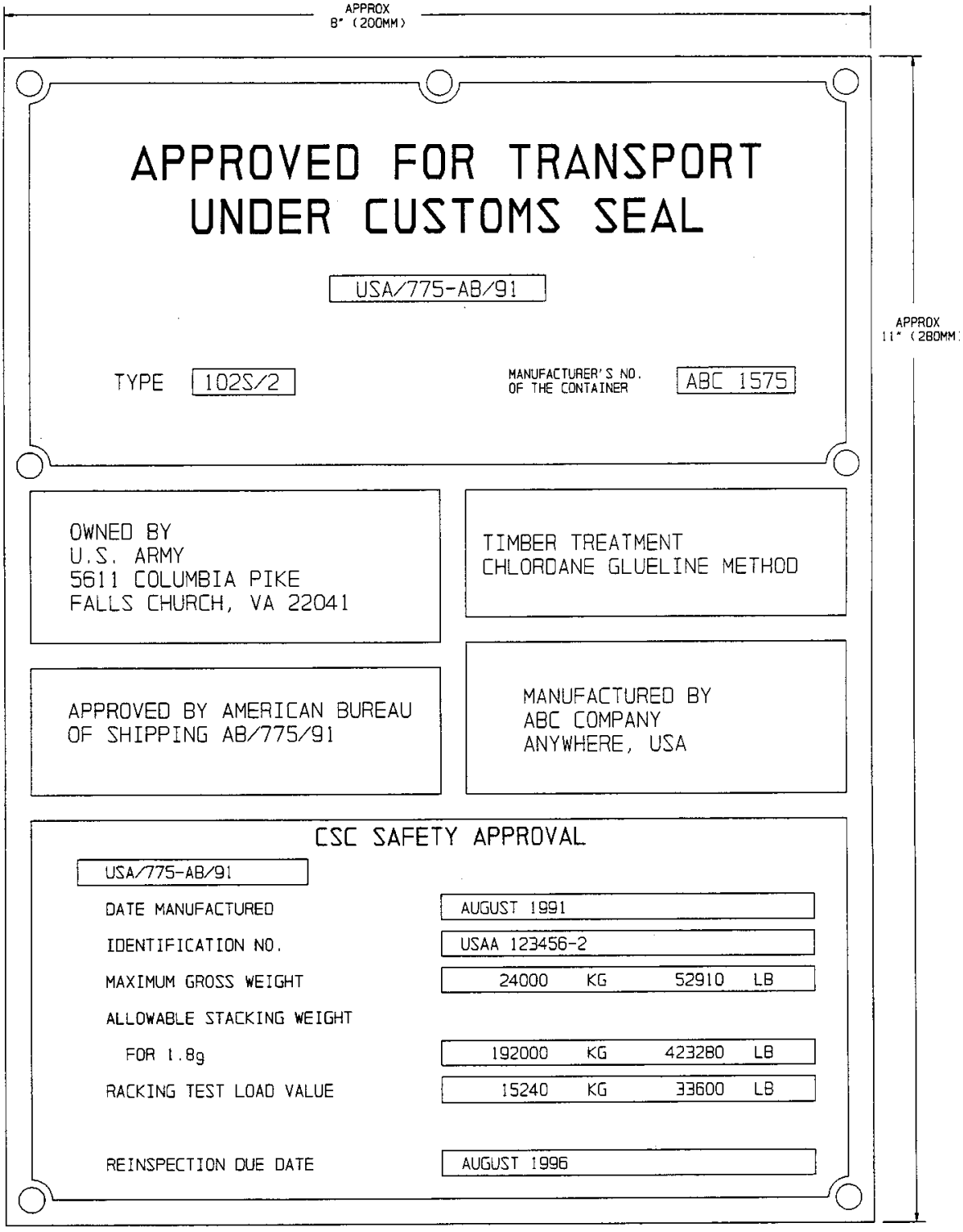


FIGURE 4.5E - TYPICAL CONSOLIDATED DATA PLATE

4.6 Damage and Repair. See Figures 4.6A, 4.6B, 4.6C and 4.6D.

4.6.1 Patch. Any repair of a wall, roof, or door panel that adds or replaces material without complete replacement of the **panel.** An acceptable patch is of permanent design, of similar material and configuration, and weather-proof. Patch is a generic repair term, which for purposes of this inspection criteria, is reserved exclusively for repairs on non-primary components such as wall, roof, or door panels.

4.6.2 Splice. Any repair of a primary (main) structural component (member) that replaces material without complete replacement of the member. Gussets, backup plates or other reinforcement (protector) plates are not to be construed as splices. Splice is a regulatory repair term, which for purposes of this inspection criteria, is reserved exclusively for repairs on components of the primary structure.

4.6.3 Gusset. Reinforcement plate, usually triangular in shape, welded between adjacent components to reinforce the structure and provide added resistance to handling damage.

4.6.4 Backup Plate. A reinforcement (doubler) plate installed on the backside of a structural component and not on the exterior of the component's profile. The backup plate serves to stiffen and strengthen the component.

4.6.5 Insert. A specific type of repair in which replacement material is fitted flush with the original component and only a partial profile of the component's cross section is replaced.

4.6.6 Section. A specific type of repair in which replacement material is fitted flush with the original component and the entire profile of the component's cross section is replaced.

4.6.7 Hole. A circular penetrating puncture thru any part of the container.

4.6.8 Pinhole. A small hole less than 1/8 inch (3mm) in diameter. A pinhole typically results from a tiny skip or porosity in a weld and usually is only detected during a light leak test.

4.6.9 Welder's Hammer. A hammer with a chisel shaped head used to tap on a welded joint and/or the surface of a structural component to ascertain the strength and integrity.

4.6.10 Corrosive Failure. Corrosive failure (galvanic or electrolytic) is determined when the corroded metal can be punctured by striking the area lightly with a welder's hammer.

4.6.11 Caulking. A sealant compound used to provide water tightness around patches in panels, around riveted seams, in holes of pop rivets, in joints between dissimilar metals, in gaps between floor board edges, and in gaps where the floor boards adjoin the interior container walls.

4.6.12 Undercoating. Bituminous material or other waterproof coating brushed or sprayed on the entire underside of the container floor to protect all the metal understructure against corrosion and to waterproof the wooden flooring.

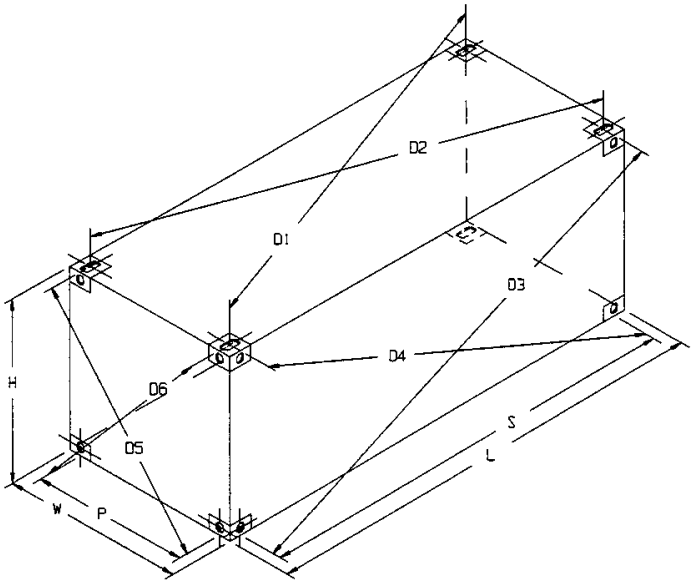
5. CONTAINER INSPECTION CRITERIA

5.1 General Requirements.

5.1.1 Regulatory Mandates. An intermodal freight container may not be offered for the carriage of any type of cargo through the marine environment unless the container is structurally serviceable as evidenced by a CSC Safety Approval Plate and verified by a detailed visual examination. The CSC Safety Approval Plate and the visual examination must conform to the mandates of CFR 49, parts 450, 451, 452, and 453. Furthermore, before a freight container is loaded with cargo, it must be free of any residue of previous cargo, its interior walls and floor must be free from protrusions, and it must also meet specific structural serviceability requirements as prescribed by the **IMDG** Code and mandated by CFR 49 part 176.172. If a container has any safety related deficiency or damage that could place any person in danger, it shall not be used.

5.1.2 Markings and Data Plates. A container must bear legible ISO markings conforming to ISO standard 6346. A container must also bear a legible CSC Safety Approval Plate or a Consolidated Data Plate marked in accordance with CSC format requirements. Mandatory ISO identification markings (i.e., owner code, serial number and check digit) must be located on each side and each end such as depicted in Figures 4.5A and 4.5B. Mandatory ISO operational markings (i.e., tare weight and maximum gross weight) must appear on at least one location such as on the door as depicted in Figure 4.5C. The CSC data may be in any conspicuous place as long as it is securely affixed to the container and it meets CSC format requirements as depicted in either Figure 4.5D or 4.5E. All maximum gross weight markings on the container must be consistent with the maximum gross weight on the CSC plate.

5.1.3 Configuration. Any distortion of the overall configuration great enough to preclude proper engagement of handling/lifting equipment, mounting and securing on chassis or vehicle, or insertion into the cell of a ship is unacceptable. No part of the container may protrude beyond the outside surfaces of the corner fittings. The external dimensions must be within the tolerances prescribed by ISO standard 668 as depicted in Figure 5.1.



EXTERNAL DIMENSIONS AND TOLERANCES IN MILLIMETERS AND FEET AND INCHES

NOMINAL LENGTH FT	L (EXTERNAL LENGTH)			S			K1 MAX.	
	MM	FT	IN	MM	FT	IN	FT	IN
40	12,192 +0 -10	40	0 +0 -3/8	11,985 +6 -6	39	3-7/8 +1/4 -1/4	19	3/4
30	9,125 +0 -10	29	11-1/4 +0 -3/8	8,918 +6 -6	29	3-1/8 +1/4 -1/4	16	5/8
20	6,058 +0 -6	19	10-1/2 +0 -1/4	5,853 +5 -5	19	2-7/16 +3/16 -3/16	13	1/2
10	2,991 +0 -5	9	9-3/4 +0 -3/16	2,787 +4 -4	9	1-23/32 +5/32 -5/32	10	3/8

	W (EXTERNAL WIDTH)			P			K2 MAX.	
	MM	FT	IN	MM	FT	IN	FT	IN
ALL LENGTHS	2,438 +0 -5	8	0 +0 -3/16	2,259 +4 -4	7	4-31/32 +5/32 -5/32	10	3/8

NOMINAL HEIGHT FT	H (OVERALL HEIGHT)		
	MM	FT	IN
8-1/2	2,591 +0 -5	8	6 +0 -3/16
8	2,438 +0 -5	8	0 +0 -3/16
5-2/3	1,727 +0 -5	5	8 +0 -3/16
4-1/4	1,295 +0 -5	4	3 +0 -3/16

S = LENGTH BETWEEN CENTERS OF CORNER FITTING APERTURES

P = WIDTH BETWEEN CENTERS OF CORNER FITTING APERTURES

D = DISTANCE BETWEEN CENTERS OF APERTURES OF DIAGONALLY OPPOSITE CORNER FITTINGS

K1 = DIFFERENCE BETWEEN D1 AND D2 OR D3 AND D4

K2 = DIFFERENCE BETWEEN D5 AND D6

FIGURE 5.1 - ISO DIMENSIONS AND TOLERANCES

5.2 Primary Structural Components. An intermodal container with any major defect in any component of its primary structure is unacceptable. For purposes of this criteria, primary (main) structural components (members) include: corner fittings, corner posts, door sill and header, top and bottom end rails, top and bottom side rails, floor cross members, and forklift pockets.

5.2.1 Major Defects. A major defect includes:

a. A dent or bend in any primary structural component that is greater than 3/4 inch (1**9mm)** in depth, regardless of length;

b. A crack, break, cut, tear, puncture, or corrosive failure in any primary structural component;

c. A missing, cracked, or broken weld at the juncture between any primary structural components;

d. A loose or missing fastener at the juncture between any primary structural components of an aluminum type container;

e. More than one splice or an improper splice (such as a lapped splice) in a top or bottom end rail or a door header;

f. More than two splices or an improper splice in any one top or bottom side rail;

g. More than two splices or an improper splice in any one floor cross member, including a cross member that forms a side of a forklift pocket;

h. Any splice in a door sill or corner post; or

1. Any damage or degradation within a component that could place any person in danger during subsequent handling, stacking, or transport of the intermodal container.

5.2.2 Acceptable Welding Patterns. Containers are originally deemed suitable for use if they have been given CSC certification by either American Bureau of Shipping, Germanischer Lloyd, Bureau Veritas, Registro Italiano Navale, Nippon Kaiji Kyokai, Lloyds Register of Industrial Services, Det Norske Veritas, Register of Shipping of the USSR, or Polish Register of Shipping, et al. These international agencies are highly reputable and bear the liability that the container is manufactured in accordance with ISO and CSC requirements. Welding patterns conforming to the original manufacturer's design are therefore acceptable. Only abnormal welding patterns due to damage and/or improper repair are cause for rejection. Typically, a juncture between primary structural members at a corner fitting is welded continuously on the exterior surface of the container. Rails and headers formed from tubular steel are typically welded all around the juncture (exterior and interior). There are various designs, however, that do not have a continuous weld on the interior surface. Since welding patterns may vary depending on design and manufacture, inspection should be directed at looking for broken junctures or welded repairs that are not consistent with other similar welds of that container.

5.2.3 Acceptable Splicing. For purposes of this criteria, a splice is any repair of a primary structural member that replaces material without complete replacement of the member. Areas repaired by straightening and bead welding are not to be construed as splices. Gussets, backup plates or other reinforcement (protector) plates are not to be construed as splices. An acceptable splice is a minimum of 6 inches (150mm) long and is a butt-welded insert. If a splice would end within 12 inches (300mm) of another weld, such as at the juncture with the corner fitting, it must be extended to that weld. An acceptable splice is flush fitting and restores the original size and cross-sectional profile of the repaired component. Backup plates installed on the backside of a splice are permissible if the backup plate extends a minimum of 6 inches (150mm) beyond each end of the splice.

5.2.4 Corner Fittings. See Figure 5.2.4. Corner fittings must not be distorted or cracked and must not have any worn, broken or gouged apertures that would prevent engagement or safe use of vehicle securement devices or container lifting devices. Corner fittings must not have any repairs.

5.2.5 Corner Posts. See Figure 5.2.5. A container is unacceptable if a corner post has any of the following major defects:

a. A dent or bend that is greater than 3/4 inch (19mm) in depth, regardless of length;

b. A crack, break, cut, tear, puncture, or corrosive failure;

C. A defective, cracked, or broken weld at the juncture with a corner fitting; or

d. Any splice. (The structural filler component between the corner post and side rail of certain container designs is not to be construed as a splice. It is part of the original manufacturing.)

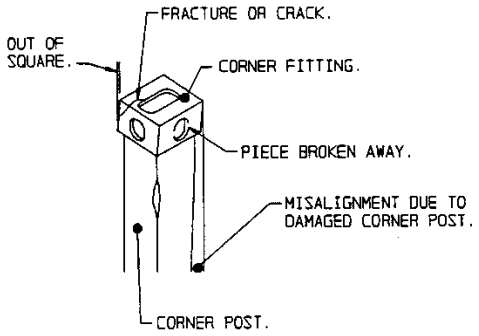


FIGURE 5.2.4 - CORNER FITTING

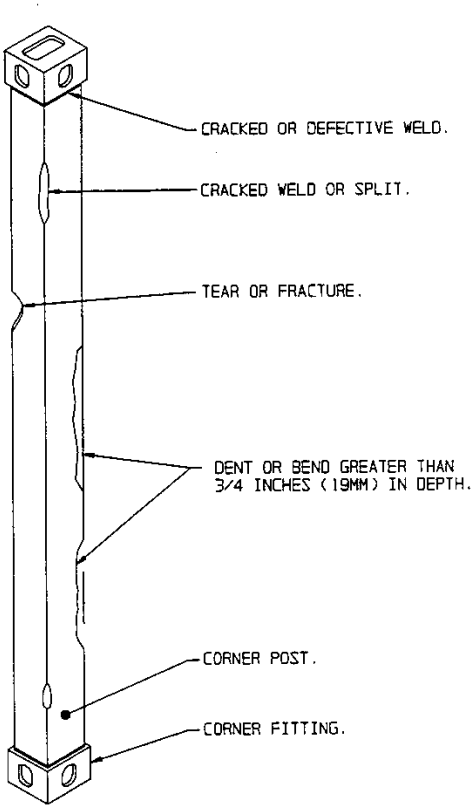


FIGURE 5.2.5 - CORNER POST

5.2.6 Rear End Frame. See Figures 5.2.6A and 5.2.6B. A container is unacceptable if a rear end frame has any of the following major defects:

a. A dent or bend in any primary structural component that is greater than 314 inch (19mm) in depth, regardless of length;

b. A crack, break, cut, tear, puncture, or corrosive failure in any primary structural component;

C. A missing, cracked, or broken weld at the juncture between any primary structural components;

d. A loose or missing fastener at the juncture between any primary structural components of an aluminum type end frame assembly;

e. More than one splice or an improper splice (such as a lapped splice) in a door header;

f. Any splice in a door sill;

g. Any dent or distortion in the rain gutter or a J-bar that restricts proper operation of door; or

h. Any repair that interferes with the proper operation of the door hardware or the door seal.

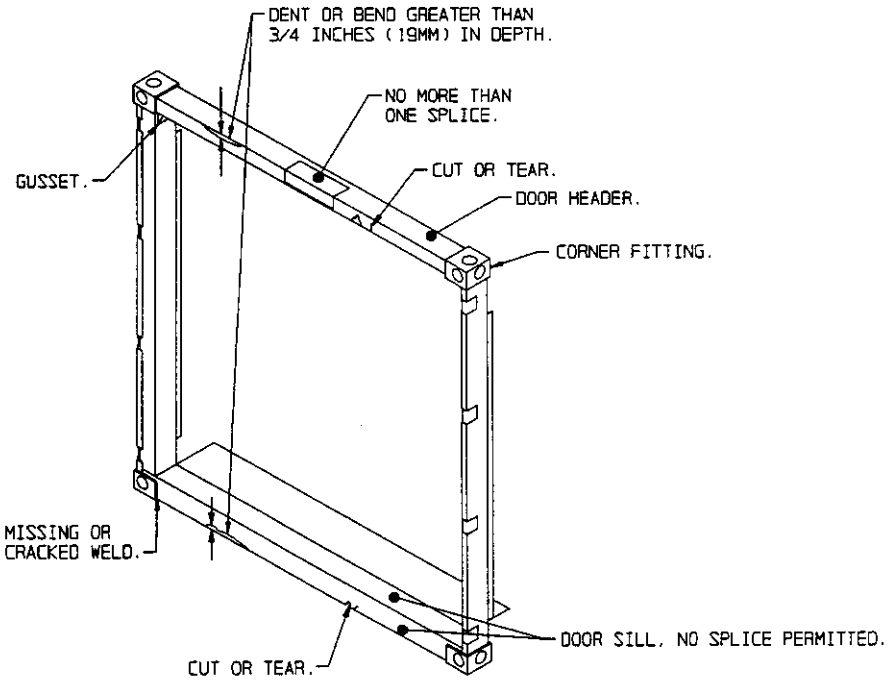
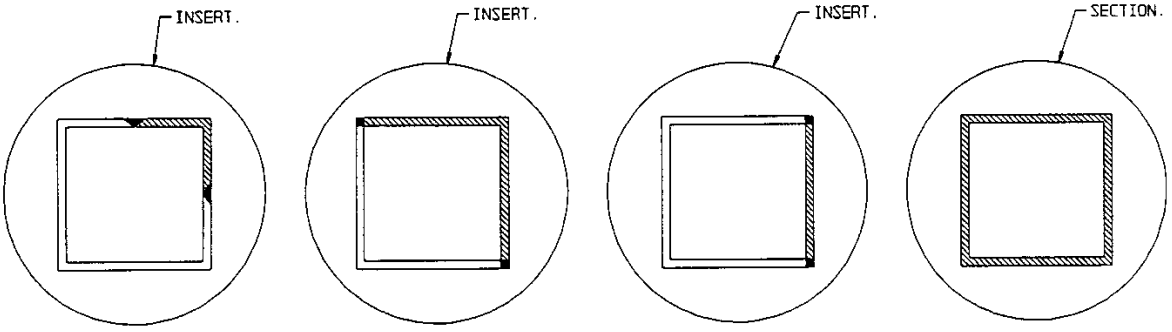
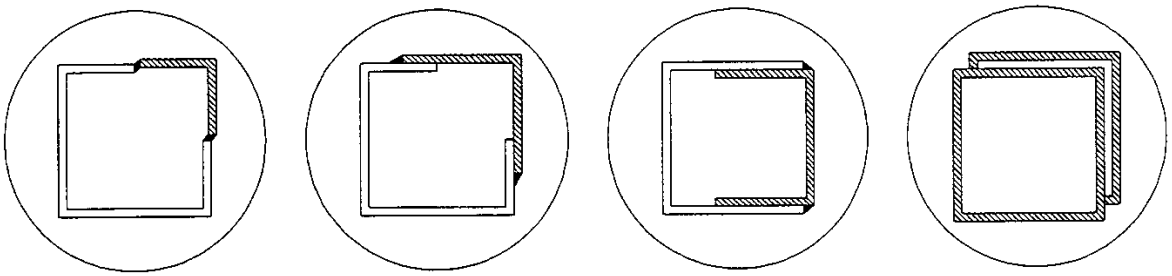


FIGURE 5.2.6A - REAR END FRAME



EXAMPLES OF ACCEPTABLE HEADER SPLICE



IMPROPER SPLICES - INSERTS NOT FLUSH WITH REMAINING RAIL

SECTION NOT IN LINE WITH RAIL

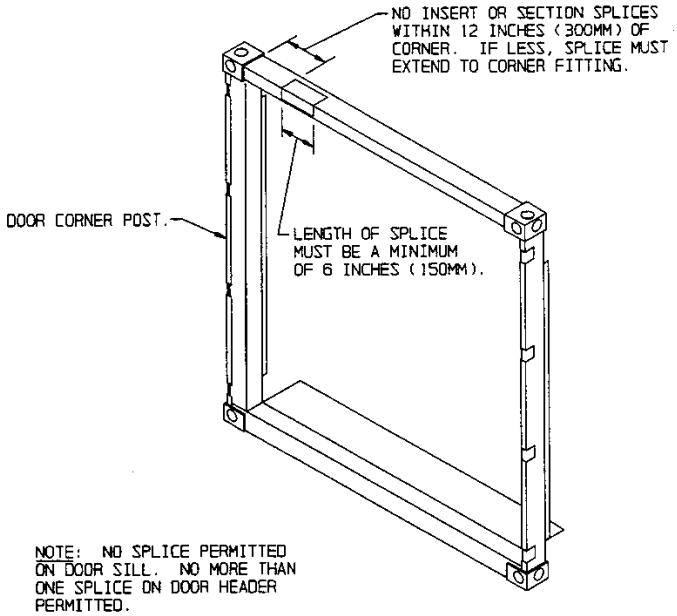


FIGURE 5.2.6B - SPLICE LIMITATIONS FOR DOOR HEADER

5.2.7 Front End Frame. See Figures 5.2.7A and 5.2.7B. A container is unacceptable if a front end frame has any of the following major defects:

a. A dent or bend in any primary structural component that is greater than 314 inch (19mm) in depth, regardless of length;

b. A crack, break, cut, tear, puncture, or corrosive failure in any primary structural component;

c. A missing, cracked, or broken weld at the juncture between any primary structural components;

d. A loose or missing fastener at the juncture between any primary structural components of an aluminum type end frame assembly; or

e. More than one splice or an improper splice (such as a lapped splice) in a top or bottom end rail.

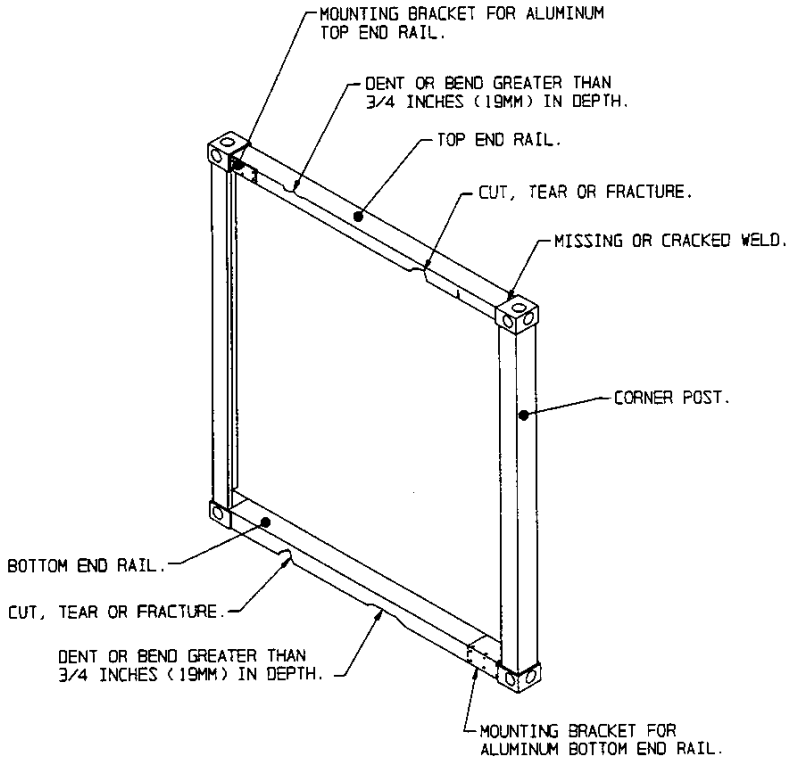
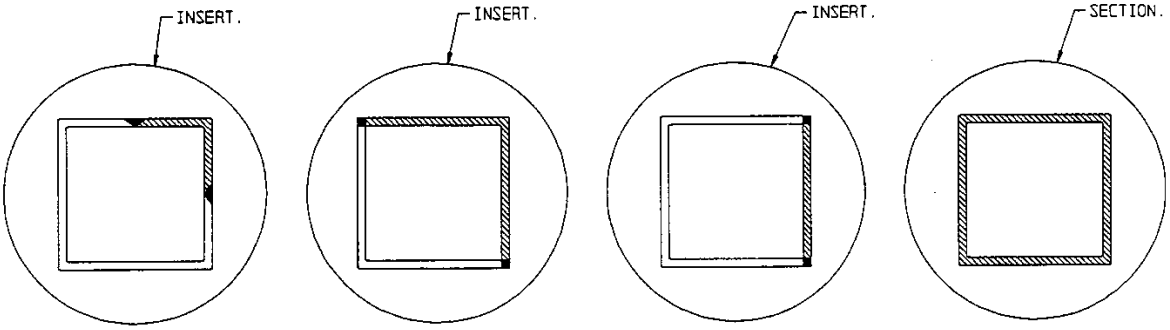
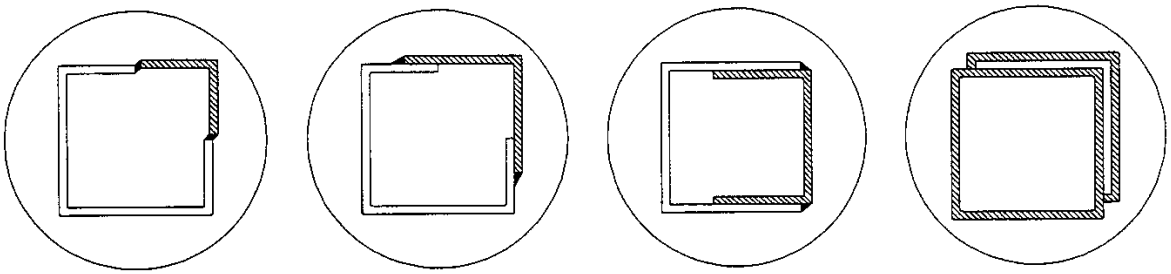


FIGURE 5.2.7A - FRONT END FRAME

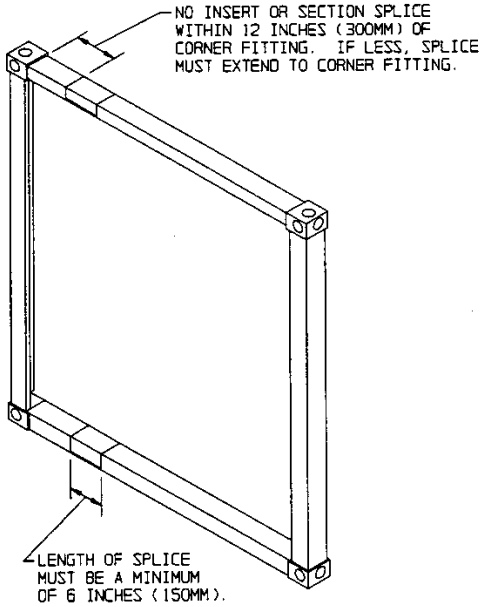


EXAMPLES OF ACCEPTABLE END RAIL SPLICE



IMPROPER SPLICES - INSERTS NOT FLUSH WITH REMAINING RAIL

SECTION NOT IN LINE WITH REMAINING RAIL



NOTE: NO MORE THAN ONE SPLICE PER END RAIL IS PERMITTED.

FIGURE 5.2.7B - SPLICE LIMITATIONS FOR END RAILS

5.2.8 Side Rails. See Figures 5.2.8A, 5.2.8B, 5.2.8C, 5.2.8D and **5.2.8E.** A container is unacceptable if any side rail has any of the following major defects:

a. A dent or bend that is greater than 3/4 inch (19mm) in depth, regardless of length;

b. A crack, break, cut, tear, puncture, or corrosive failure;

c. A missing, cracked, or broken weld at the juncture with other primary structural components;

d. A loose or missing fastener at the juncture between the side rail and the end frame of an aluminum type container assembly; or

e. More than two splices in any one top or bottom side rail. (For purposes of this criteria, the door header and door sill of a side-opening container are considered to be side rails. Splices on these components must not interfere with the proper operation of the side doors.)

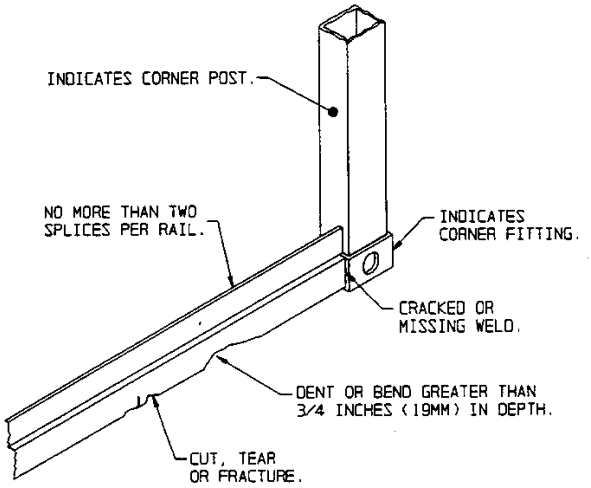


FIGURE 5.2.8A - STEEL SIDE RAIL

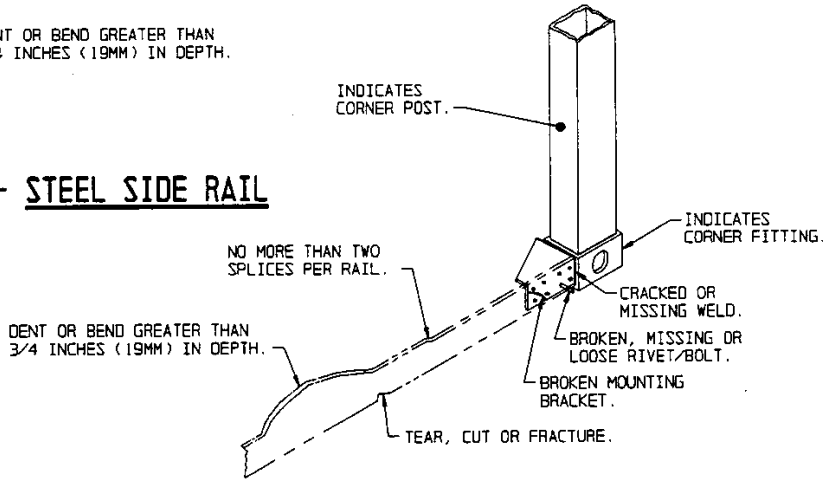


FIGURE 5.2.8B - ALUMINUM SIDE RAIL

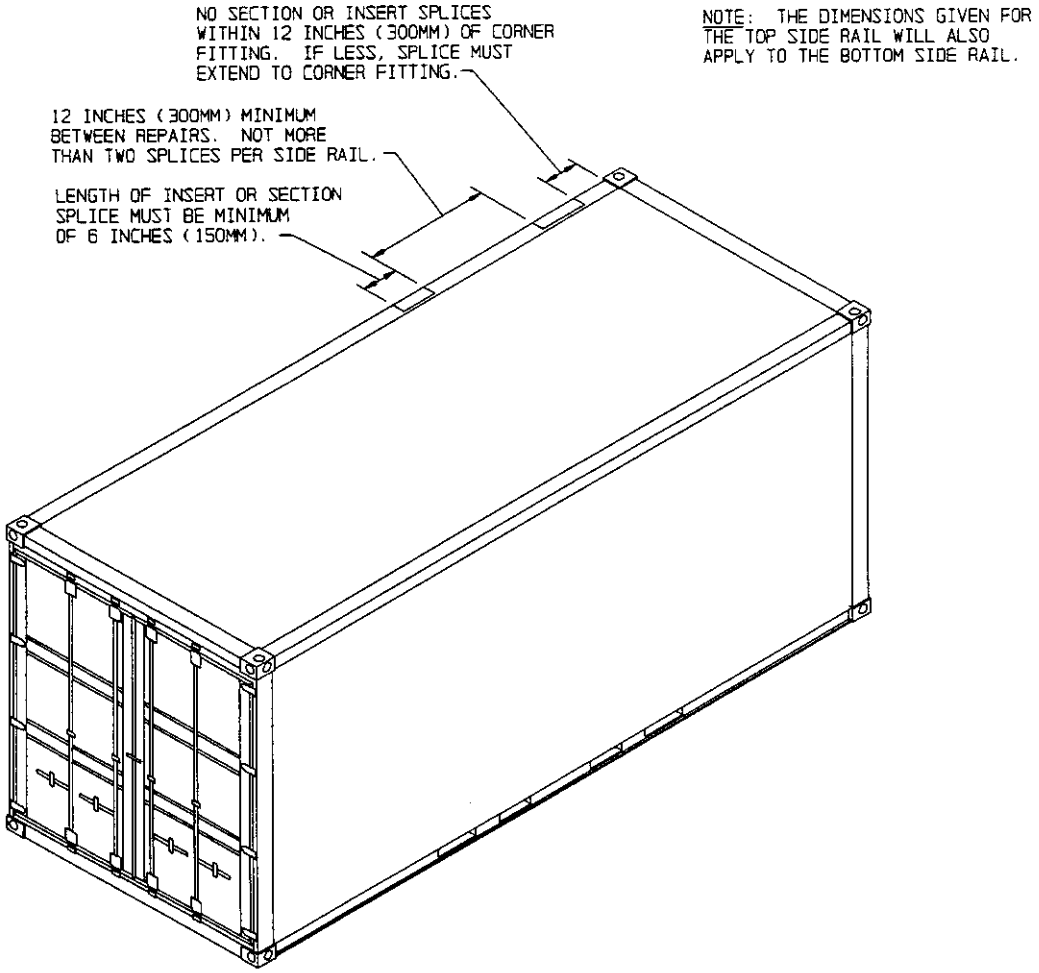


FIGURE 5.2.8C - SPLICE LIMITATIONS FOR SIDE RAILS

5.2.9 Floor Cross Members. See Figures **5.2.9A,** 5.2.9B, **5.2.9C** and 5.2.9D. Floor cross members, including gooseneck tunnel components, are considered to be a part of the primary structure and a container is unacceptable if any floor cross member has any of the following major defects:

a. A dent or bend that is greater than 3/4 inch (1**9mm)** in depth, regardless of length;

b. A crack, break, cut, tear, puncture, or corrosive failure;

c. A missing, cracked, or broken weld at the juncture with the bottom side rail;

d. A loose or missing fastener at the juncture with the bottom side rail of an aluminum type container;

e. More than two splices or an improper splice (such as a full profile section) in any one cross member; or

f. A separation between the top of a cross member and underside of the flooring that is greater than 318 inch (10mm) at point of attachment.

5.2.10 Cross Member Juncture with Side Rail. Welding patterns conforming to the original manufacturer's design are acceptable. Only abnormal welding patterns due to damage and/or improper repair are cause for rejection. Typically, the juncture between a cross member and a side rail is welded continuously on one side of the joint. Since welding patterns may vary depending on design and manufacture, inspection should be directed at looking for broken junctures or welded repairs that are not consistent with other similar welds of that container.

5.2.11 Acceptable Splicing on Cross Members. A maximum of two splices per floor cross member is permissible. An acceptable splice is a minimum of 6 inches (150mm) long and is a butt-welded insert. If a splice would end within 12 inches (300mm) of another weld, such as at the juncture with the bottom side rail, it must be extended to that weld. An acceptable splice restores the original size and cross-sectional profile of the cross member.

5.2.12 Cross Member Stiffeners. When many of the older military specification MILVANs were overhauled, the middle 17 cross members were strengthened with full length angle stiffeners. Subsequent cross member upgrades were also accomplished with a heavier (7 gauge) cross member replacement. Any combination of these repairs on the same MILVAN is acceptable provided other limitations are adhered to and at least the middle 17 cross members have been upgraded with either a stiffener or a 7 gauge cross member. Any number of full length angle stiffeners are also permissible on other types of containers. Each stiffener must extend the full length of the cross member, be fully welded to the bottom side rails on each end, and not protrude beneath the surface of the lower edge of the bottom side rails.

5.2.13 Gussets and End Rail Stiffeners. There are no specific dent or bend limitations for gussets and end rail stiffeners. Dents and bends not affecting the structural integrity of the container are permissible. A container is unacceptable if any weld is broken or a gusset or stiffener is removed, broken, cut, torn or punctured.

5.2.14 Structural Integrity of Understructure. Slightly oxidized (rusted), twisted, bent, dented, or bowed floor cross members are not a cause for rejection provided criteria of paragraph 5.2.9 is met, welds are not broken, and in the judgment of the inspector, the structural integrity of the container has not been reduced beyond safe limits. If the strength of the floor is in doubt, the dynamic floor weight test specified in Annex II of the International CSC should be conducted to ascertain that: the understructure will not deflect more than 1/4 inch (7mm) below the bottom surfaces of the bottom corner fittings; no component will be permanently deformed; and no component or weld will fail.

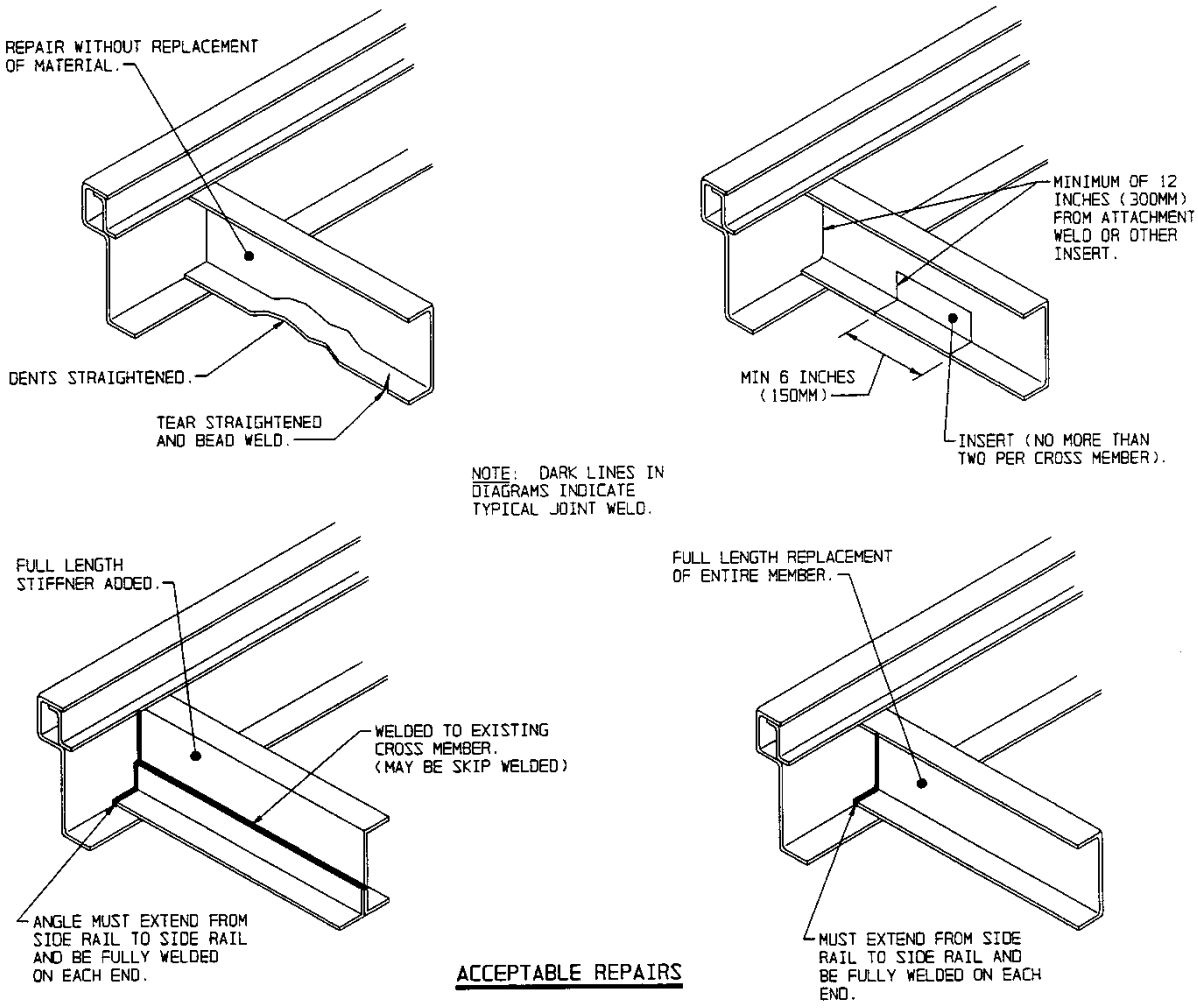
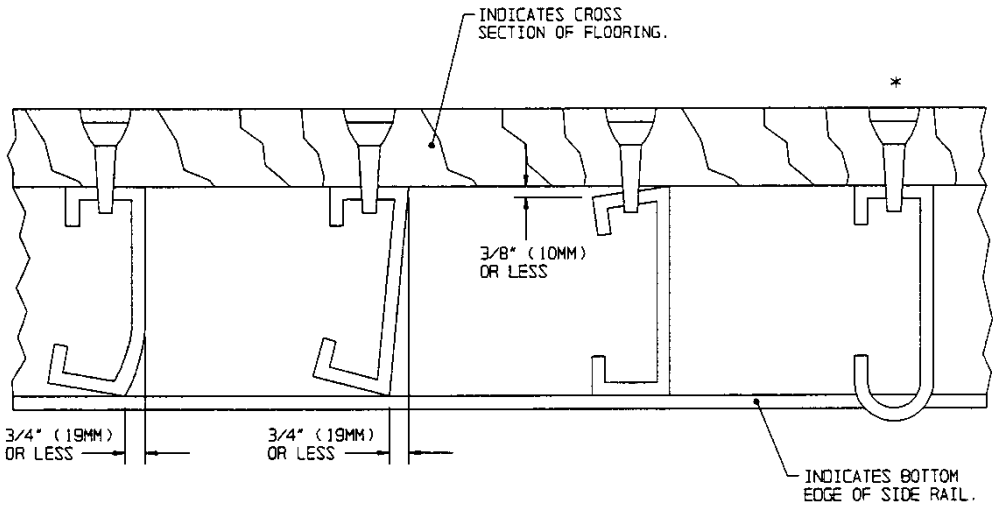
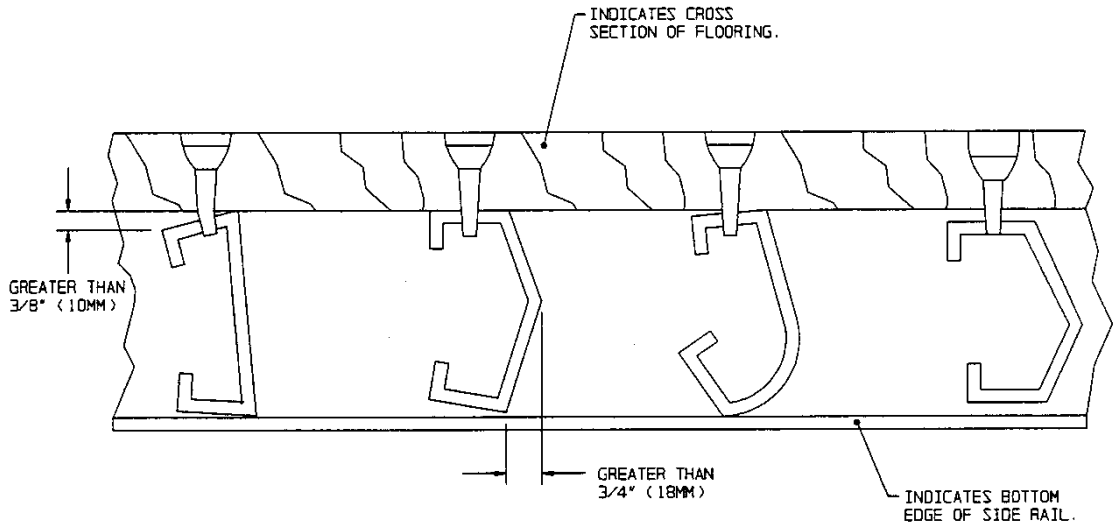


FIGURE 5.2.9A - CROSS MEMBER REPAIR LIMITATIONS



ACCEPTABLE CROSS MEMBERS

* NOTE: CRITERIA OF PARAGRAPH 5.2.9 MUST BE MET AND CROSS MEMBER MUST NOT PROTRUDE BENEATH THE BOTTOM SURFACES OF THE BOTTOM CORNER FITTINGS.



NOT ACCEPTABLE CROSS MEMBERS

FIGURE 5.2.9B - DENT AND BEND LIMITATIONS FOR CROSS MEMBERS

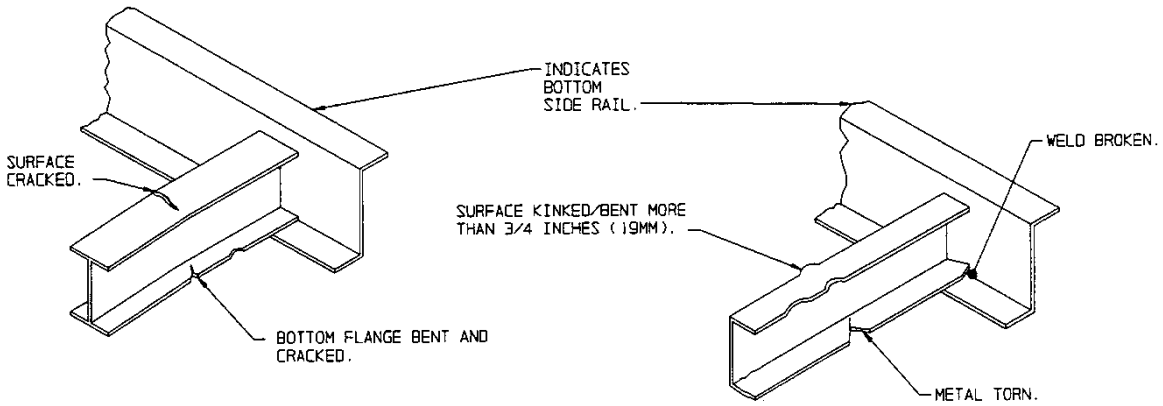


FIGURE 5.2.9C - UNACCEPTABLE CROSS MEMBER DAMAGE

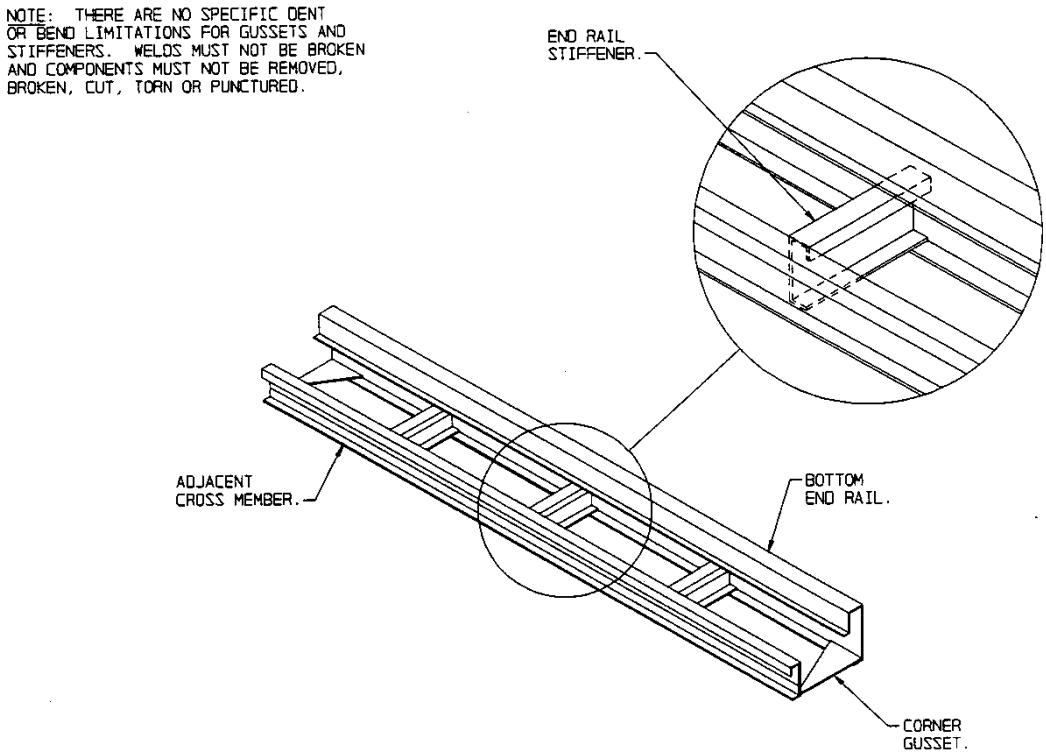


FIGURE 5.2.9D - BOTTOM END RAIL (MILVAN)

5.2.15 Forklift Pockets. See Figure 5.2.15. Forklift pockets are considered to be a part of the primary structure and a container is unacceptable if any forklift pocket has any of the following major defects:

a. A dent or bend in any component that is greater than 314 inch (19mm) in depth, regardless of length;

b. A crack, break, cut, tear, puncture, or corrosive failure;

c. A missing, cracked, or broken weld at the juncture with the bottom side rail;

d. A loose or missing fastener at the juncture with the bottom side rail of an aluminum type container;

e. More than two splices or an improper splice in any cross member forming the side of a forklift pocket;

f. Any splice in a forklift pocket strap;

g. A separation between top of forklift pocket (tunnel) and underside of the flooring that is greater than 318 inch (10mm) at point of attachment; or

h. Any damage or degradation (such as a broken strap) that would prevent safe handling by forklift equipment and could place any person in danger during subsequent handling, stacking, or transport of the intermodal container.

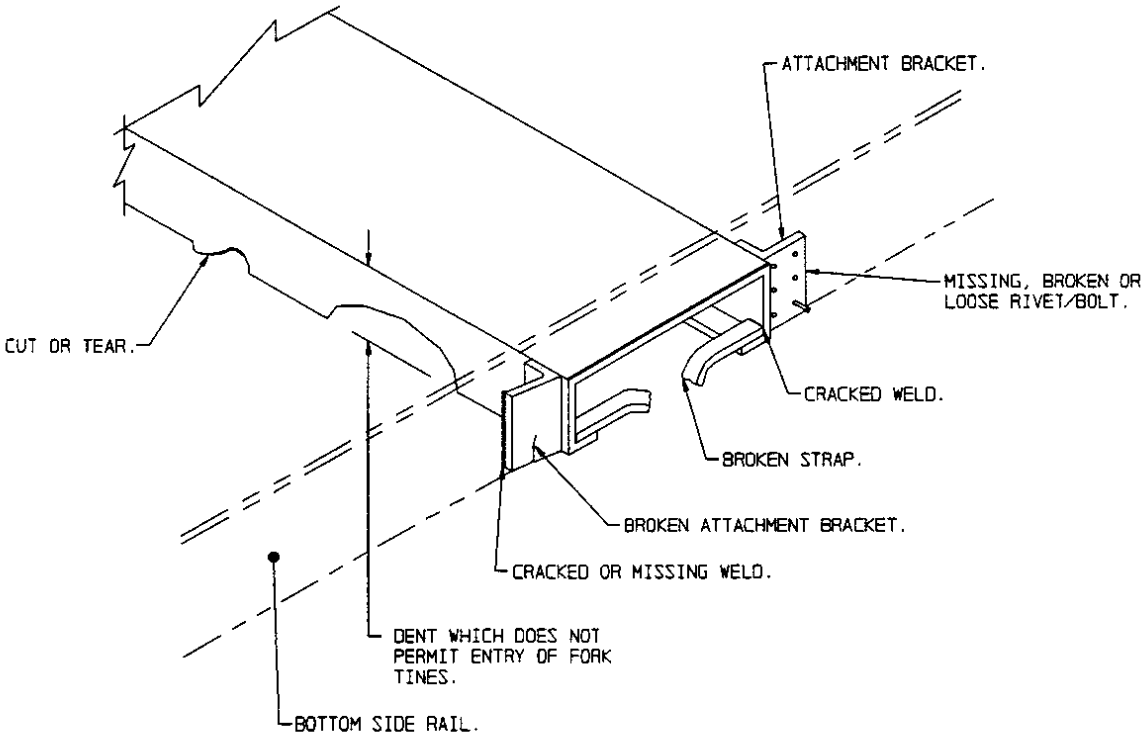


FIGURE 5.2.15 - EXAMPLES OF FORKLIFT POCKET DAMAGE

5.3 Non-Primary Components. For purposes of this criteria, non-primary components are all items such as wall, roof, and door panels or hardware that are not otherwise specifically identified as primary (main) structural components (members).

5.3.1 Serviceability of Panels. Normal wear including oxidation (rust), slight dents and scratches, and other damage that does not affect serviceability or the structural integrity of the container is permissible. Pinhole light leaks or porosity in seam welds between panels or in edge welds around perimeter of wall, roof, or door panels are permissible if caulked to prevent water seepage.

5.3.2 Acceptable Patching. See Figures 5.3.2, 5.3.4B and 5.3.7B. Repairs (patches) in wall, roof, or door panels are permissible and may either be an overlapping lap-welded type, an overlapping buck-riveted type, or inserted butt-welded type of repair. Lap-welded patches should overlap existing panel by at least 1/2 inch (13mm). Riveted patches should overlap existing panel by at least 2 inches (50mm). Butt-welded patches should be flush fitting. All repairs on corrugated sections must be neatly made, have a similar cross sectional profile, and not affect the structural integrity of the container. All repairs, regardless of size, must be of a permanent nature and must seal against the ingress of water. Rivets, or other special fasteners used for affixing patches to panels, should be of a closed or blind mandril design. If hollow core pop rivets are used, holes must be caulked to prevent water seepage. There is no limit on the number of patches on a wall, roof, or door panel provided the structural integrity of the container is not impaired. Patches must not overlap other patches.

5.3.3 Side and End Wall Panels. A container is unacceptable if a wall panel has any of the following deficiencies:

a. Any hole, tear, puncture, or corrosive failure in the panel, regardless of the material of construction;

b. Any broken weld at juncture with main structural rail or corner post;

c. Loose or missing fastener in aluminum or FRP panel that is separated by less than 48 inches (1220mm) in any direction from another loose or missing fastener;

d. Inward bulging of the panel that reduces cargo space by more than 1-1/2 inches (40mm) in any direction or that restricts cargo loading; or

e. Outward bulging of the panel that extends beyond the outside surfaces of the corner fittings.

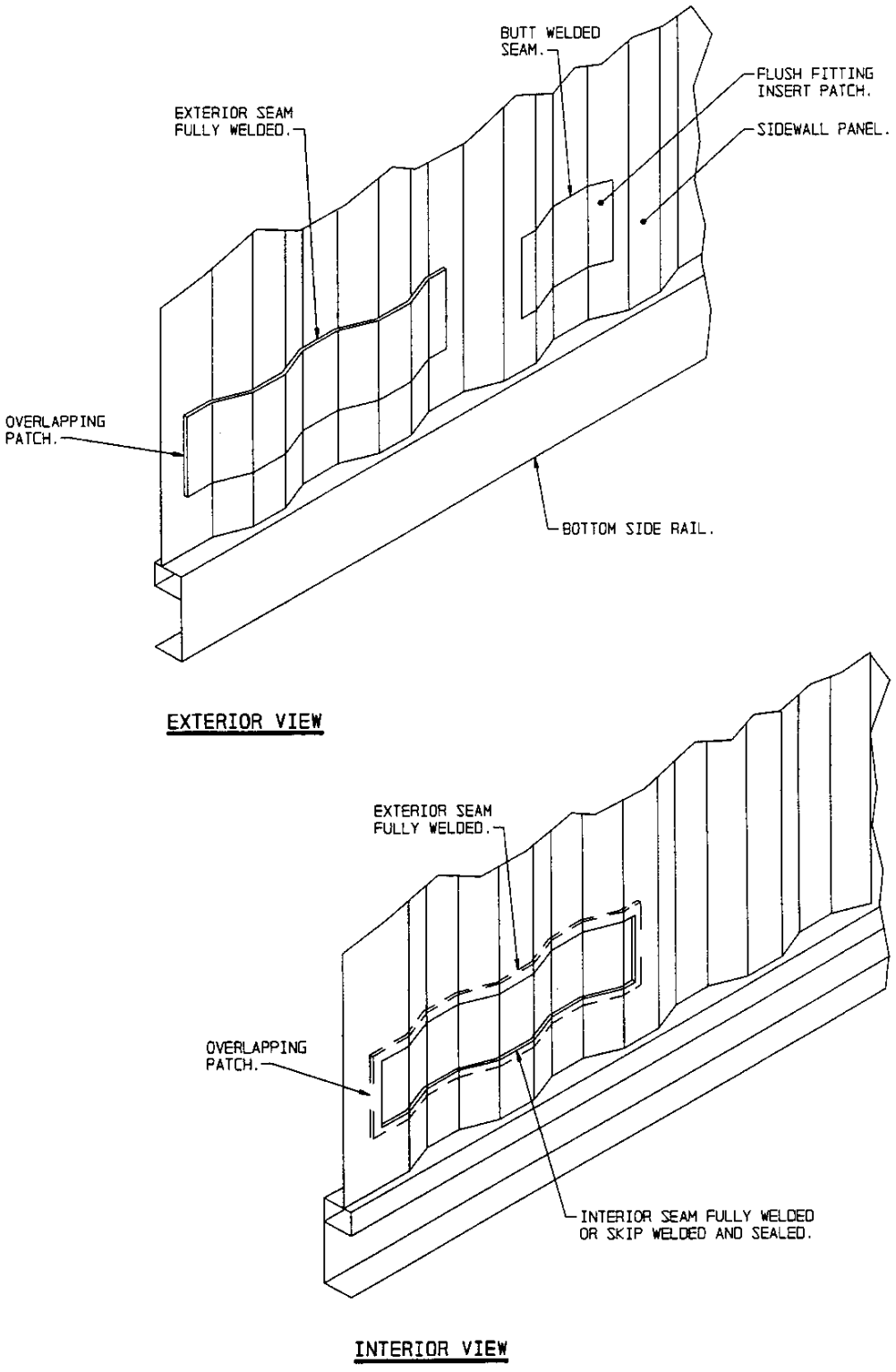


FIGURE 5.3.2 - ACCEPTABLE WALL PATCHES

5.3.4 Closed Roof Assembly. See Figures 5.3.4A and 5.3.4B. A container is unacceptable if a roof assembly has any of the following deficiencies:

a. Any hole, tear, puncture, or corrosive failure in a panel, regardless of the material of construction;

b. Any broken weld at juncture with main structural rail;

C. Loose or missing fastener in aluminum or FRP panel that is separated by less than 48 inches (1220mm) in any direction from another loose or missing fastener;

d. Inward bulging of a panel that reduces cargo space by more than 1-1/2 inches (40mm) or that restricts cargo loading;

e. Outward bulging of a panel that extends beyond the top surfaces of the top corner fittings; or

f. Any roof bow missing, cut, broken, or has a weld or bracket torn loose from the top side rail.

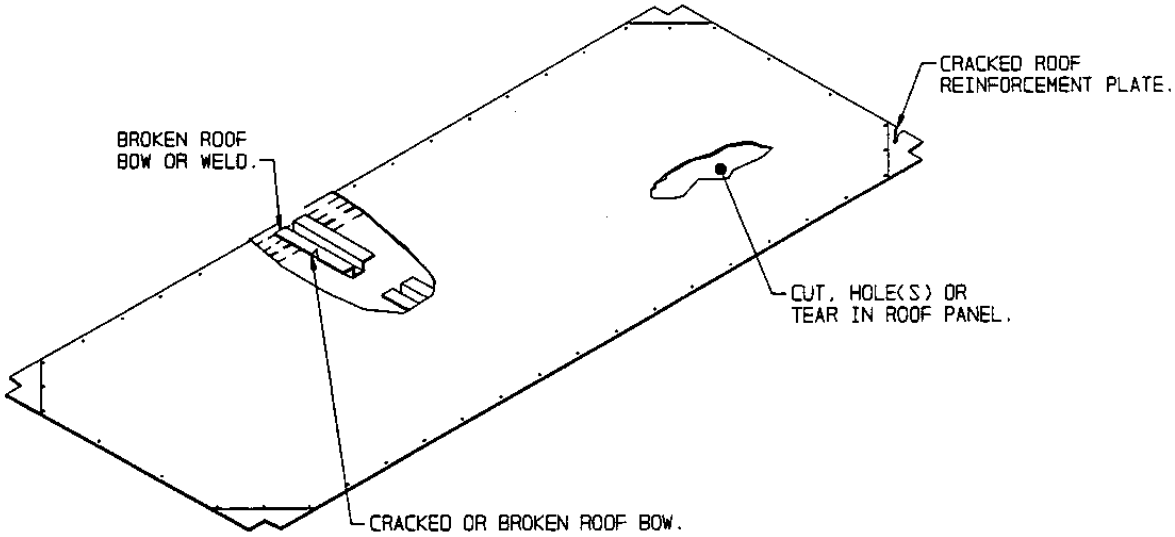
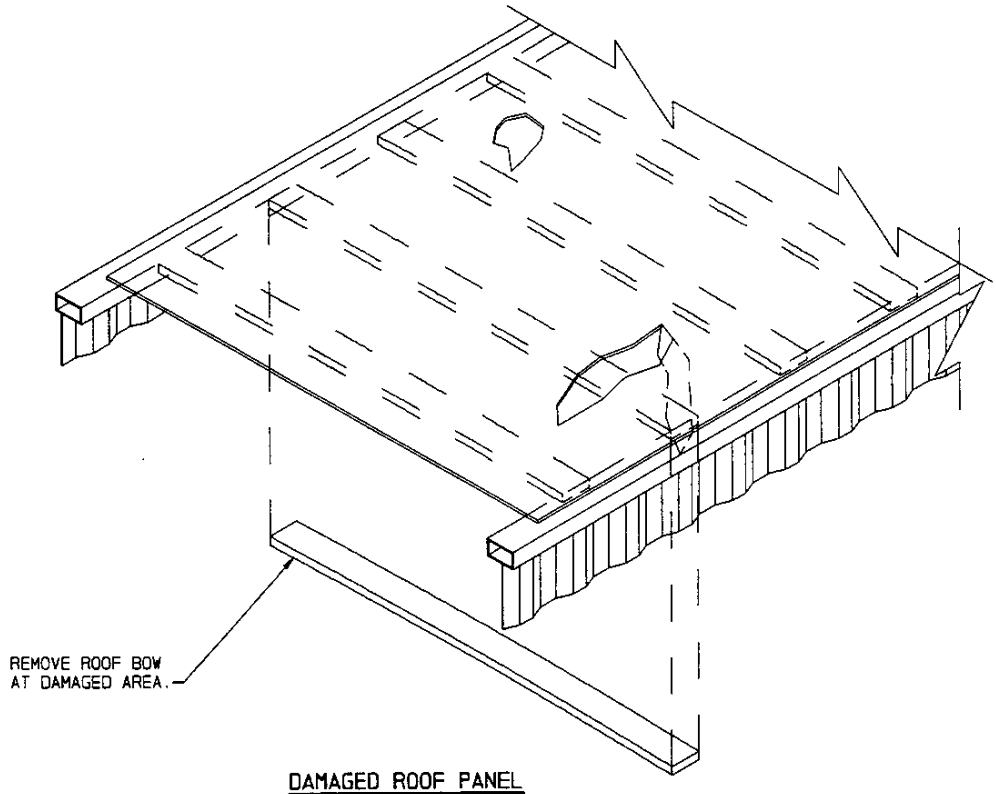
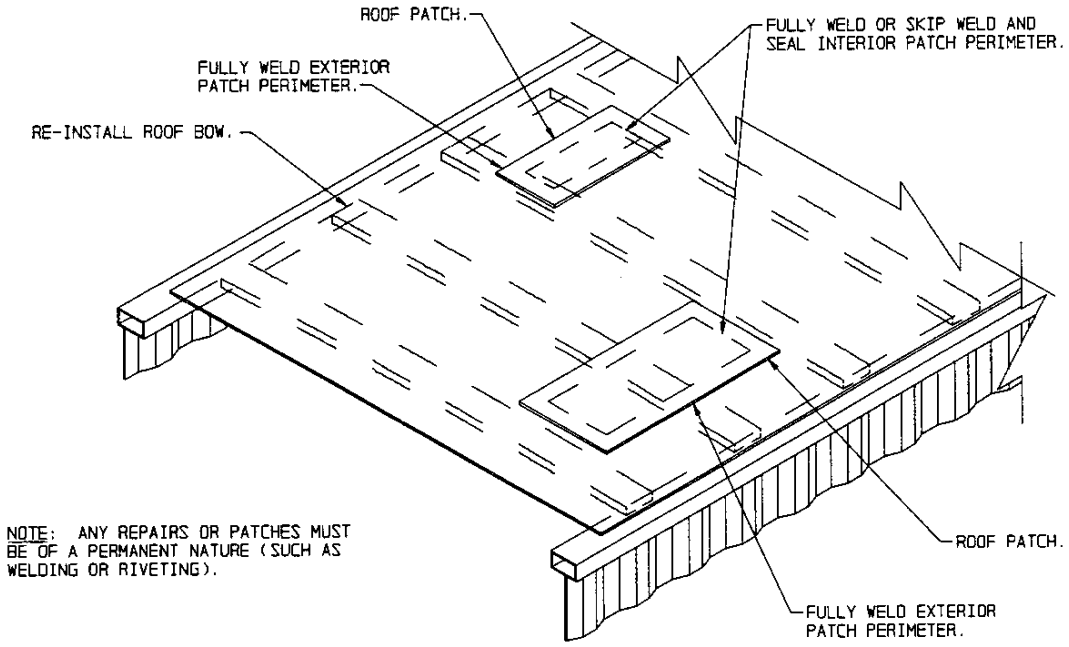


FIGURE 5.3.4A - ROOF ASSEMBLY DAMAGE



DAMAGED ROOF PANEL



PATCHED ROOF PANEL

FIGURE 5.3.4B - REPAIRED ROOF ASSEMBLY

5.3.5 Removable Cover (Tarp) Assembly. See Figure 5.3.5. If removable roof bows and tarp are used with an open top container, they must be inspected to ensure serviceability and weather-proof integrity when installed on the container. A container is unacceptable if any of the following deficiencies are evident:

a. A roof bow is missing or is damaged and cannot be installed properly;

b. Any hole or tear in the tarp;

C. Tarp does not prevent seepage of water;

d. Tarp cannot be affixed to the upper portion of the container with a TIR customs approved sealing technique;

e. Reinforced eyelets in perimeter of tarp not fitting (nesting) correctly over corresponding loops welded on the top rails;

f. Welded loops missing, broken, or deformed so TIR cable (plastic sheathed wire rope) cannot be threaded through all of them;

g. Wire rope core of the TIR cable broken; or

h. Terminal on the end of the TIR cable unusable or missing.

5.3.6 Serviceability of Cover (Tarp) Assembly. Neatly made repairs (patches) in the tarp are permissible provided they are of similar material and seal against the ingress of water. All repairs, regardless of size, must be of a permanent nature such as a heat-sealed vinyl patch. Patches must not overlap other patches. Cracked or missing sections of the plastic sheathing on the TIR cable are acceptable provided the wire rope core is not broken and the cable can be properly installed.

5.3.7 General Type Door Assembly. See Figures 5.3.7A, 5.3.7B, 5.3.7C, and 5.3.7D. A container is unacceptable if a door assembly has any of the following deficiencies:

a. Any hole, tear, puncture, or corrosive failure in a door panel, regardless of the material of construction;

b. Inward bulging of a door panel that reduces cargo space by more than 1-1/2 inches (40mm) or that restricts cargo loading;

C. Outward bulging of a door panel that causes any portion of the door assembly to extend beyond the outside surfaces of the corner fittings;

d. Any seized, twisted, broken, missing, or otherwise inoperative door hardware including hinges, hinge pins, locking bars, locking bar mounting brackets, cams, cam retainers, handles, and handle retainers;

e. Broken or defective weld on anti-rack hardware such as cam or cam retainer;

f. Less than two hinge assemblies per door, including bolts and hinge pins, welded or otherwise affixed in such a manner to preclude removal or dismantling of the door without leaving obvious traces;

g. Less than two tamper-evident fasteners on each of the top and bottom locking bar mounting brackets or handle retainer not of a tamper-evident design;

h. Customs catch broken, missing, or otherwise inoperative and is required because door design does not otherwise provide for a metal overlap; or

i. Door gasket missing, torn, or severely deformed.

5.3.8 Ramp Type Door. See Figure 5.3.8. The criteria described for general type door assembly (see paragraph 5.3.7) also applies to ramp type doors. All special hardware, including locking bolts, safety catches and chains; must not be seized, twisted, broken, missing, or otherwise inoperative. Any twist, dent, bend or other damage that restricts proper door operation is cause for rejection.

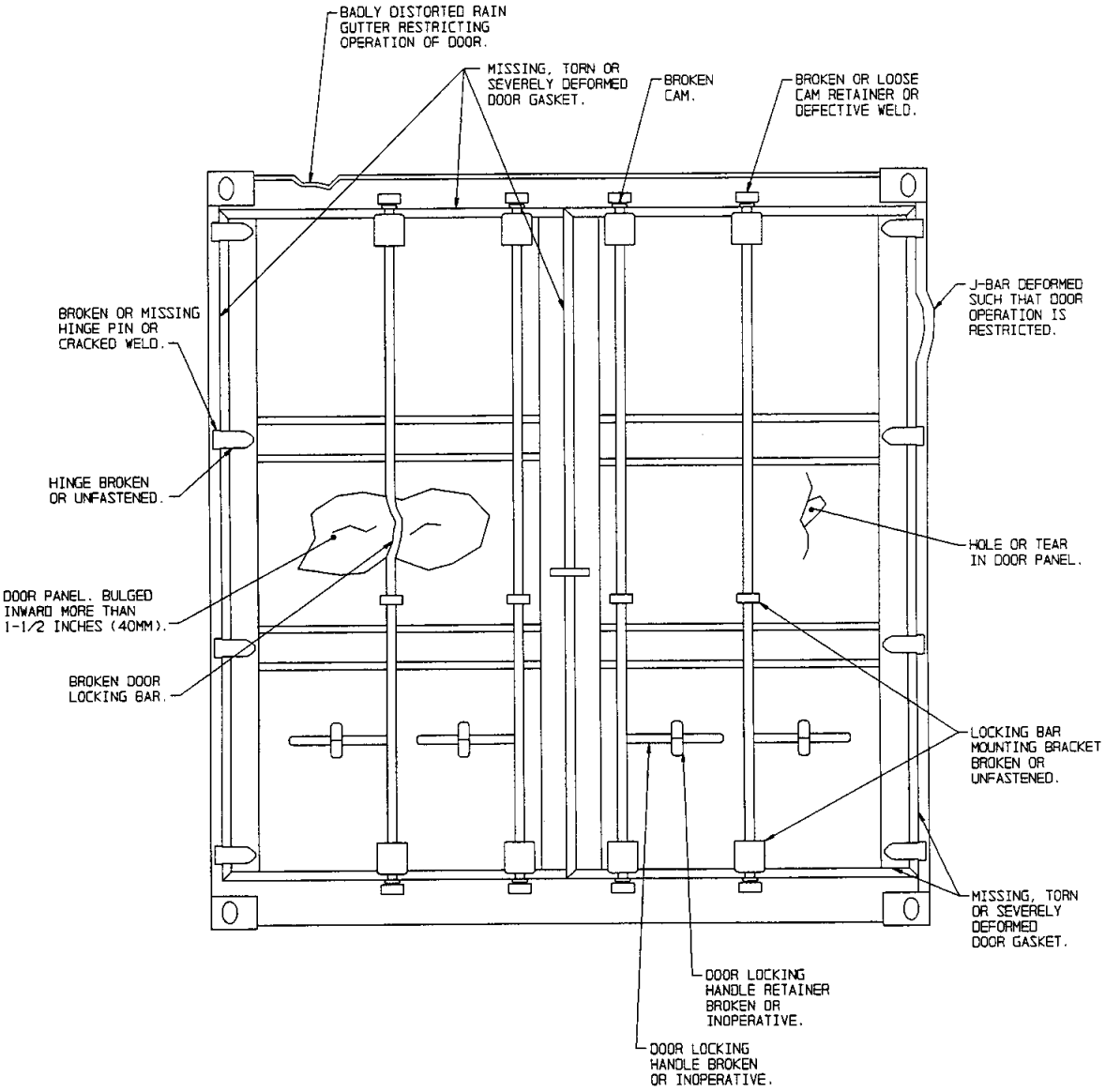


FIGURE 5.3.7A - REAR END DOOR ASSEMBLY DAMAGE

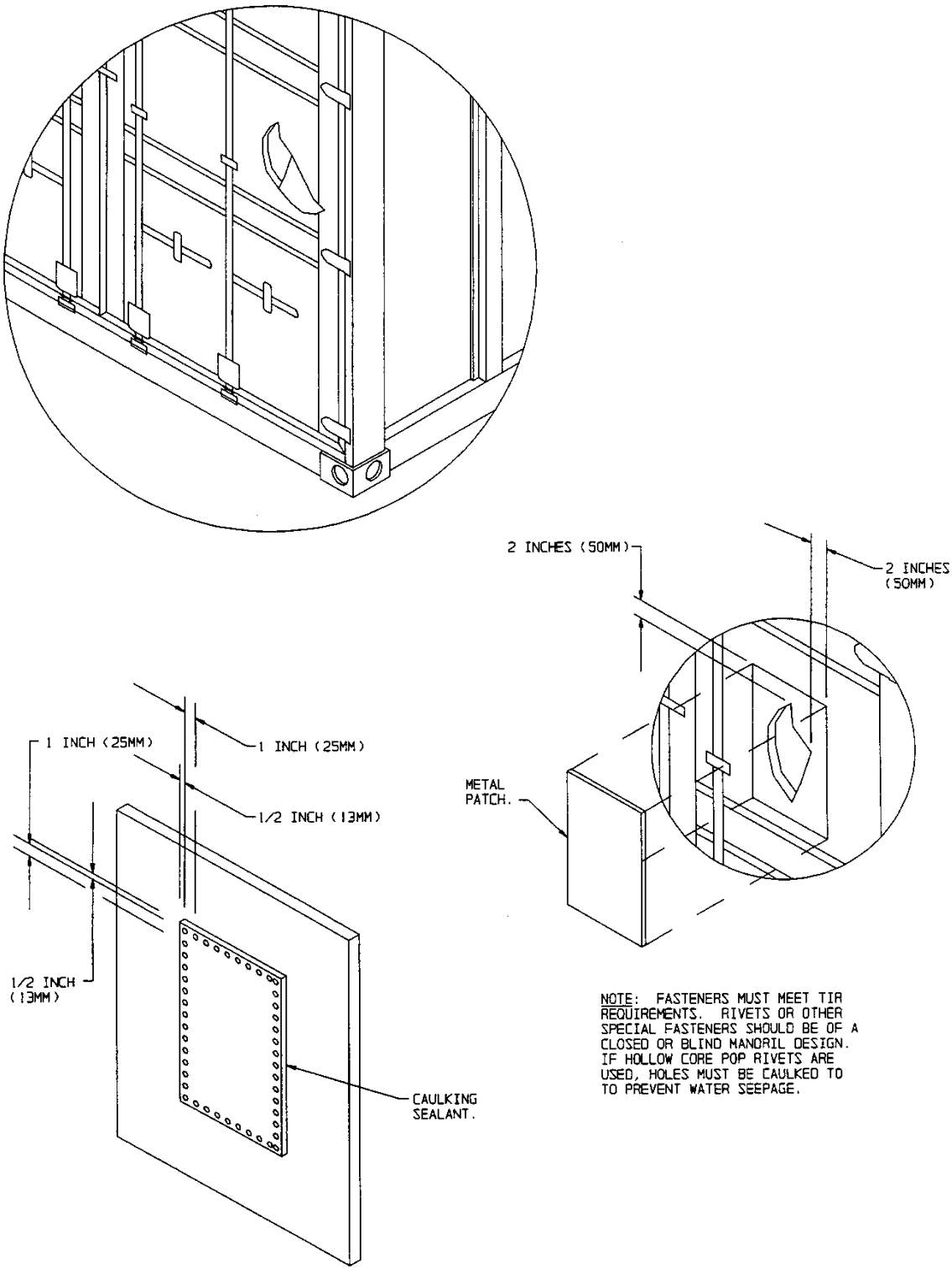


FIGURE 5.3.7B - PATCHED DOOR PANEL

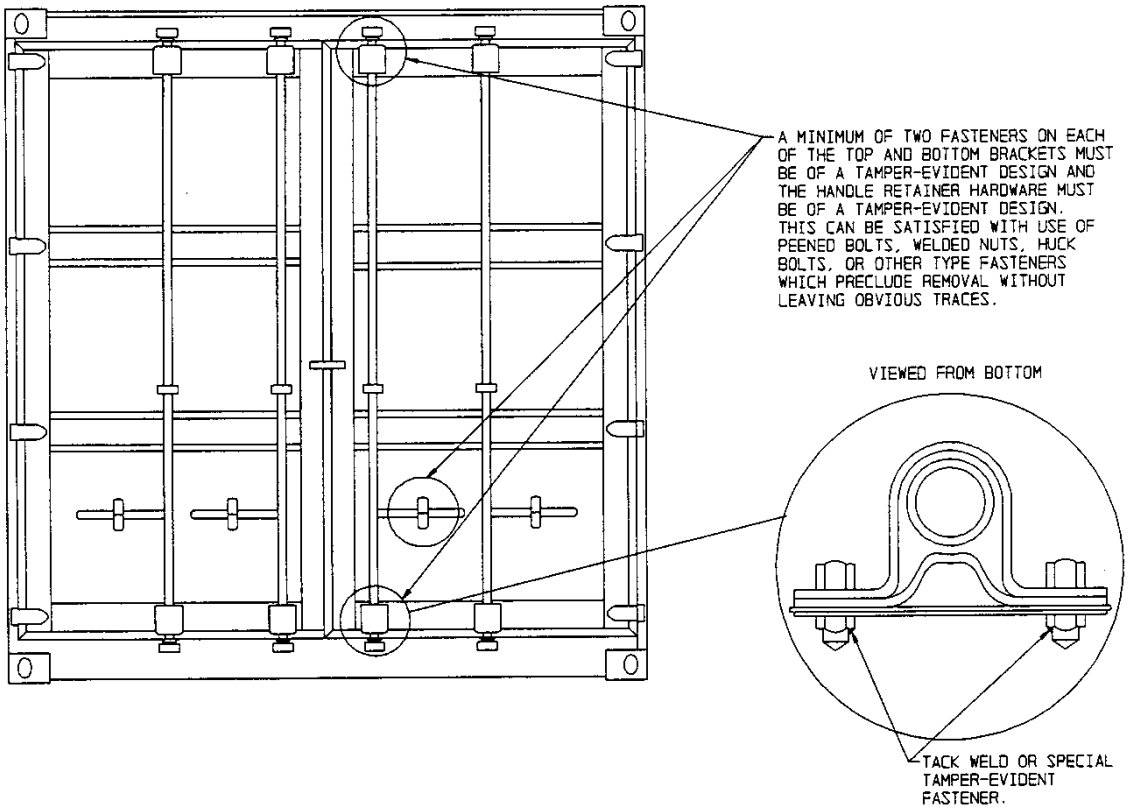


FIGURE 5.3.7C - TIR REQUIREMENTS FOR BRACKETS

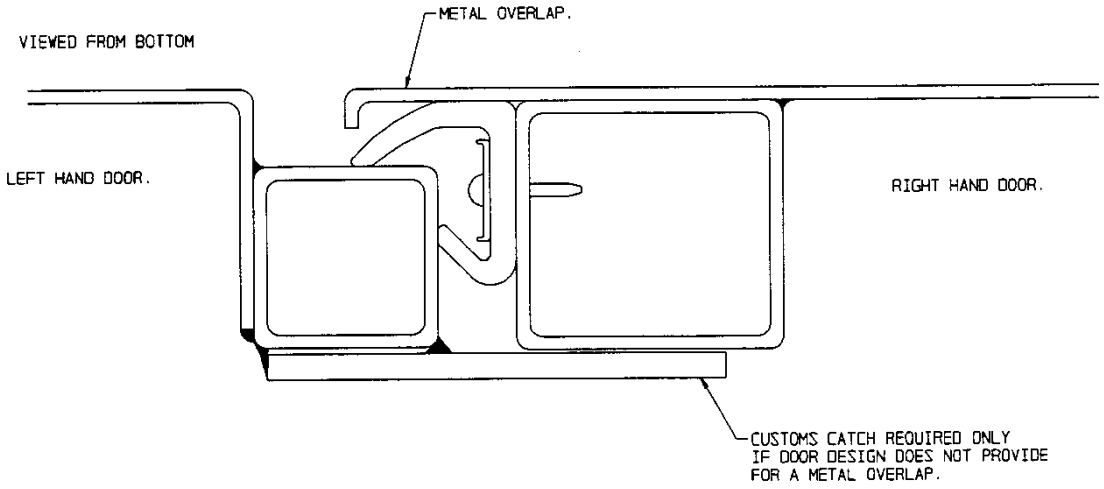
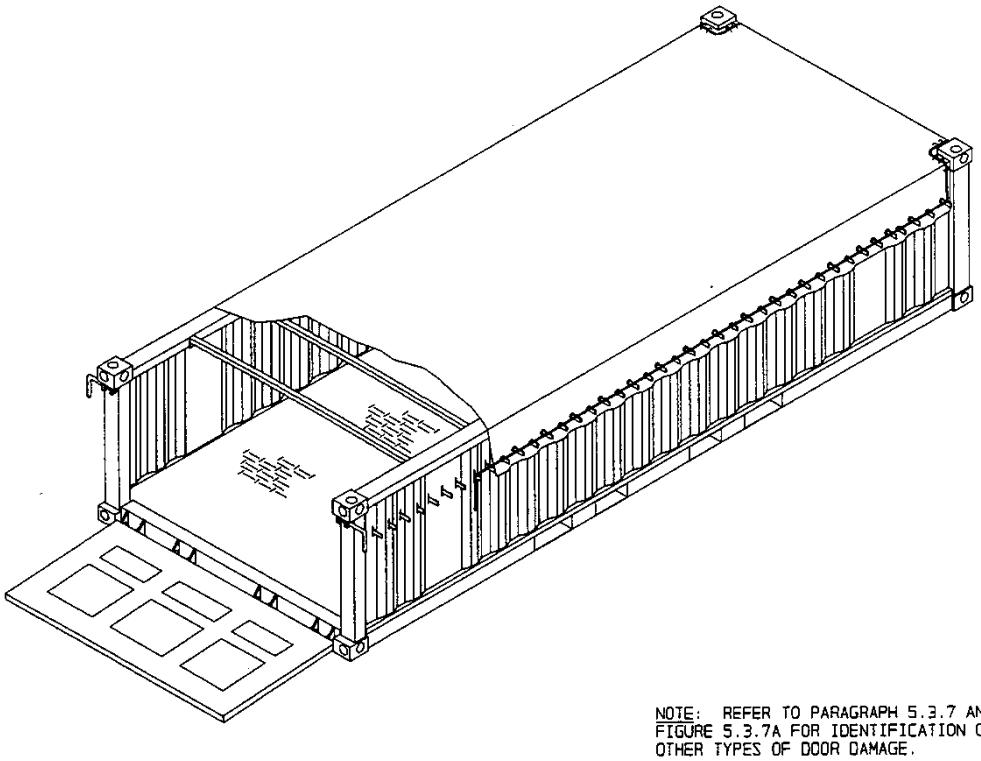


FIGURE 5.3.7D - CUSTOMS CATCH ON A STEEL DOOR



NOTE: REFER TO PARAGRAPH 5.3.7 AND FIGURE 5.3.7A FOR IDENTIFICATION OF OTHER TYPES OF DOOR DAMAGE.

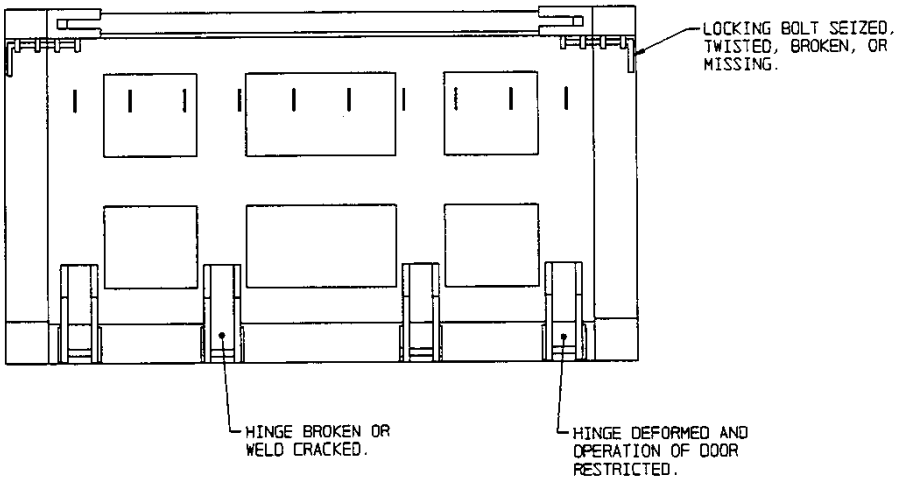


FIGURE 5.3.8 - RAMP TYPE DOOR DAMAGE

5.3.9 **Cargo** Restraint. See Figures **5.3.9A, 5.3.9B,** and 5.3.9C. The cargo restraint system or fixtures, when present and necessary for cargo securement, must be in working order. Containers without a cargo restraint system shall be configured so as to provide sufficient load bearing surfaces for safe support of dunnage materials.

a. Mechanical Restraint System. The mechanical restraint system such as in a MILVAN container must be in working order if required for cargo securement. Horizontal or vertical rails must not be bent or distorted, must not have cracked or suspect welds, and must not have crushed or gouged slots. Horizontal or vertical rails that have crushed or gouged slots are not cause for rejection of the container as long as the damaged slots are not required for securing the cargo and the structural integrity of the rail is not otherwise impaired. Shoring beam assemblies that are broken, bent, or have an inoperable locking mechanism on either end must be rejected for use.

b. Load Bearing Surfaces. Containers without a cargo restraint system shall be so configured as to provide sufficient load bearing surfaces for safe support of dunnage materials. Surfaces on the primary structure of the container such as the interior faces of the corner posts must be smooth and free of protrusions.

C. Load Retainers. Special load retainers such as a structural angle welded to each door corner post of an end-opening container must be inspected to ensure serviceability. A missing, cracked, or broken weld at the juncture between the load retainer and the container structure is unacceptable. A dent or bend in the retainer that is greater than 3/4 inch (1 9mm) in depth, regardless of length, is also unacceptable.

d. Tiedown Provisions (Lashing Bars or Rings). Provisions or fittings used for attachment of straps or other cargo restraint devices must be in working order. Tiedown provisions that are deformed or broken are not cause for rejection of the container as long as the damaged tiedown provisions are not required for securing the cargo and the structural integrity of the container is not otherwise impaired.

e. Stanchions. A missing, cracked, or broken weld at the juncture between a stanchion (stake pocket) and the flatrack structure is unacceptable. Severe deformation of a stanchion that would restrict installation of a stake is also cause for rejection.

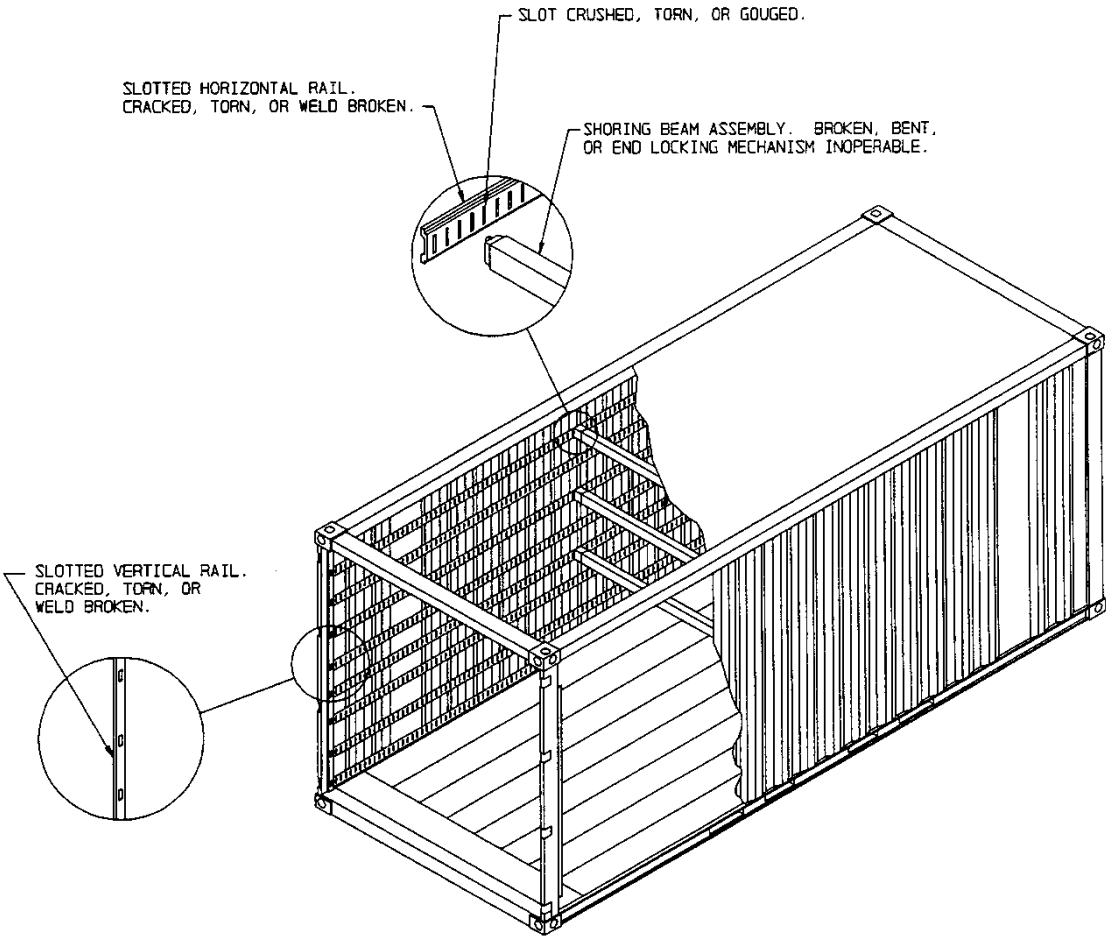


FIGURE 5.3.9A - MECHANICAL RESTRAINT SYSTEM DAMAGE

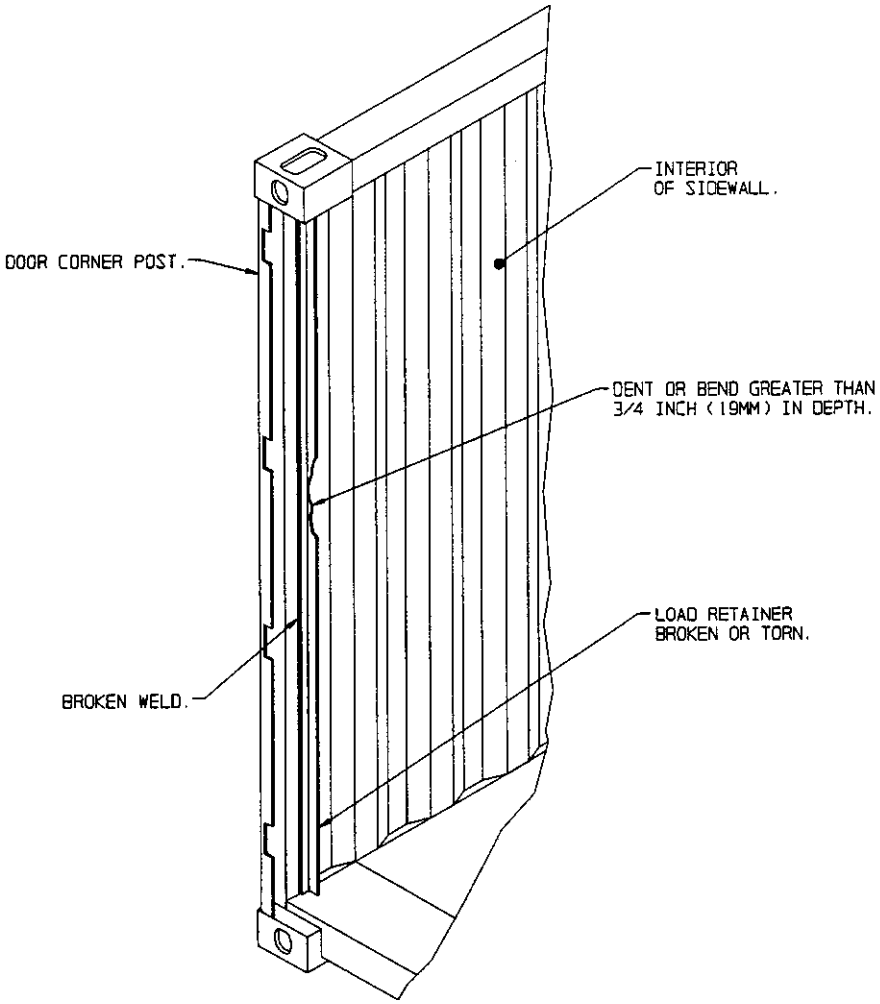


FIGURE 5.3.9B - LOAD RETAINER DAMAGE

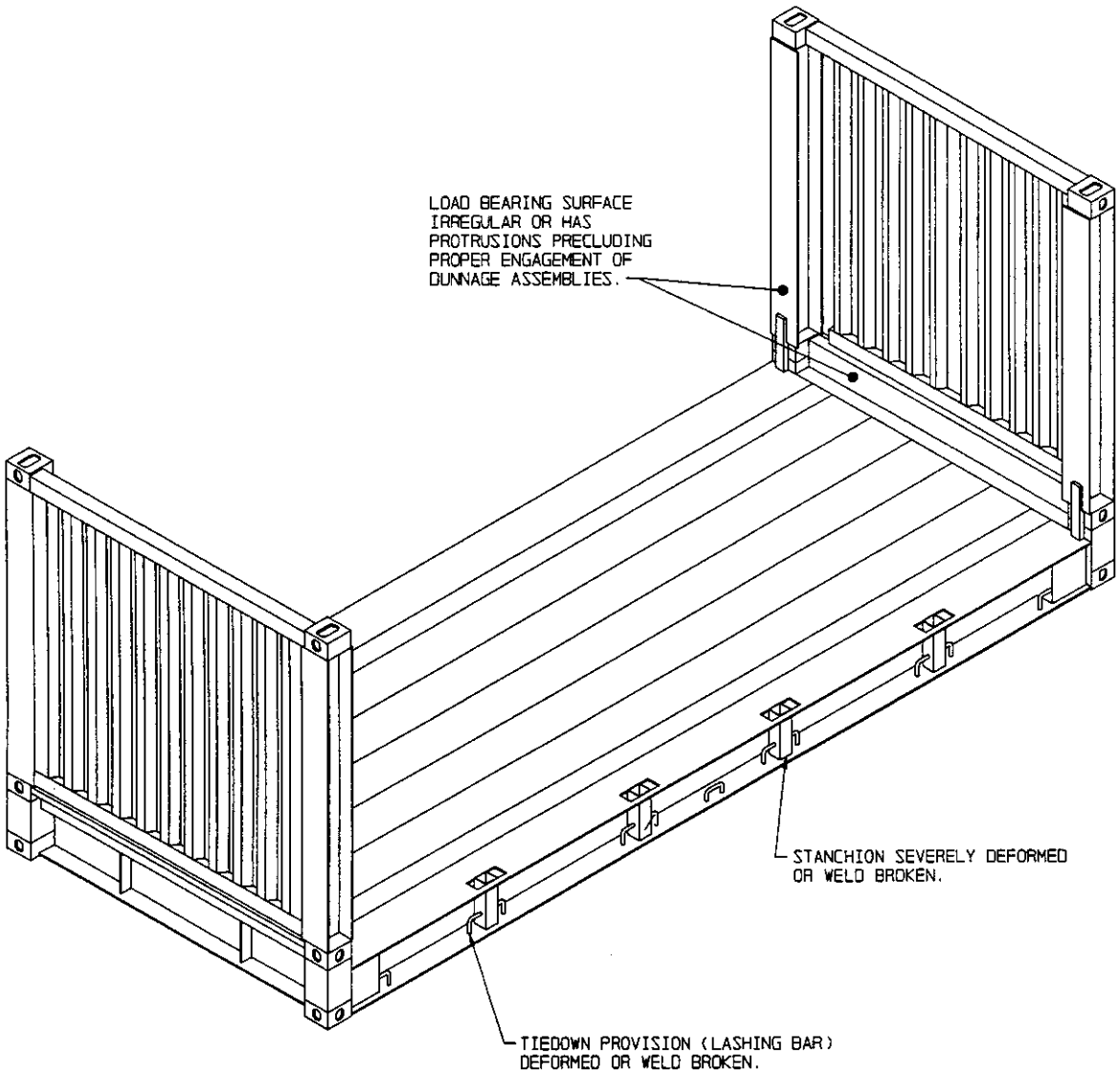


FIGURE 5.3.9C - DAMAGED FLATRACK RESTRAINT PROVISIONS

5.3.10 Flooring. See Figure 5.3.10. A container is unacceptable if the flooring has any of the following deficiencies:

a. Any protrusion above the top surface of the flooring;

b. Any floor fastener that is not flush or countersunk with the surface of the flooring;

C. Any loose or missing floor fastener;

d. Floor not free of debris or residue from a previous cargo;

e. Flooring soaked with hazardous or flammable fluid;

f. Floor contains rotted or broken board; or

g. Floor contains one or more cracked, splintered, warped, stained, or delaminated boards that impairs either the structural integrity of the container or the safe loading of cargo.

5.3.11 Acceptable Flooring Repairs. See Figure 5.3.11. Only one partial length repair board section per container length and no more than three partial length repair board sections through out the entire container floor are permissible. Partial length repair board sections must span at least four cross members and be a material of similar size and configuration as the rest of the flooring. Laterally adjacent repair board sections must not have joints on the same cross member. Both sides of each joint must be adequately supported by and securely fastened to the top surface of a cross member. If the top surface of the cross member, such as a “C” shaped type cross member, is too narrow a structural angle must be welded to it to provide an adequate support surface. The added angle must be sized to extend beyond the adjacent floor board on each side of the repair section joint.

5.3.12 Acceptable Floor Gaps. A container is unacceptable if there is any excessive gap around the perimeter of the flooring or between the floor boards. If a 1-inch wide by 1116-inch thick feeler gage can be easily inserted “vertically” through a gap to the underside of the container, the gap is considered excessive. Narrow gaps less than 1/2-inch wide, however, are permissible if sealed with caulking.

5.3.13 Structural Integrity of Floor Structure. If the strength of the floor is in doubt, the dynamic floor weight test specified in Annex II of the International CSC should be conducted to ascertain that: the understructure will not deflect more than 1/4-inch (7mm) below the bottom surfaces of the bottom corner fittings; no component will be permanently deformed; and no component or weld will fail.

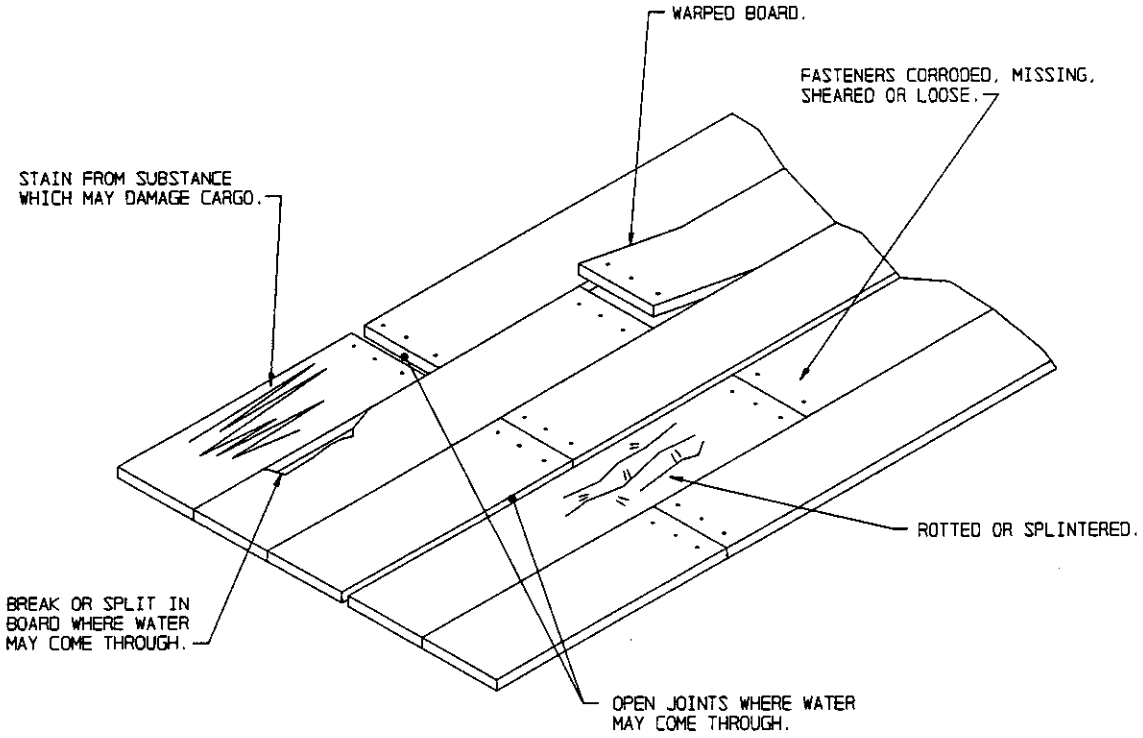
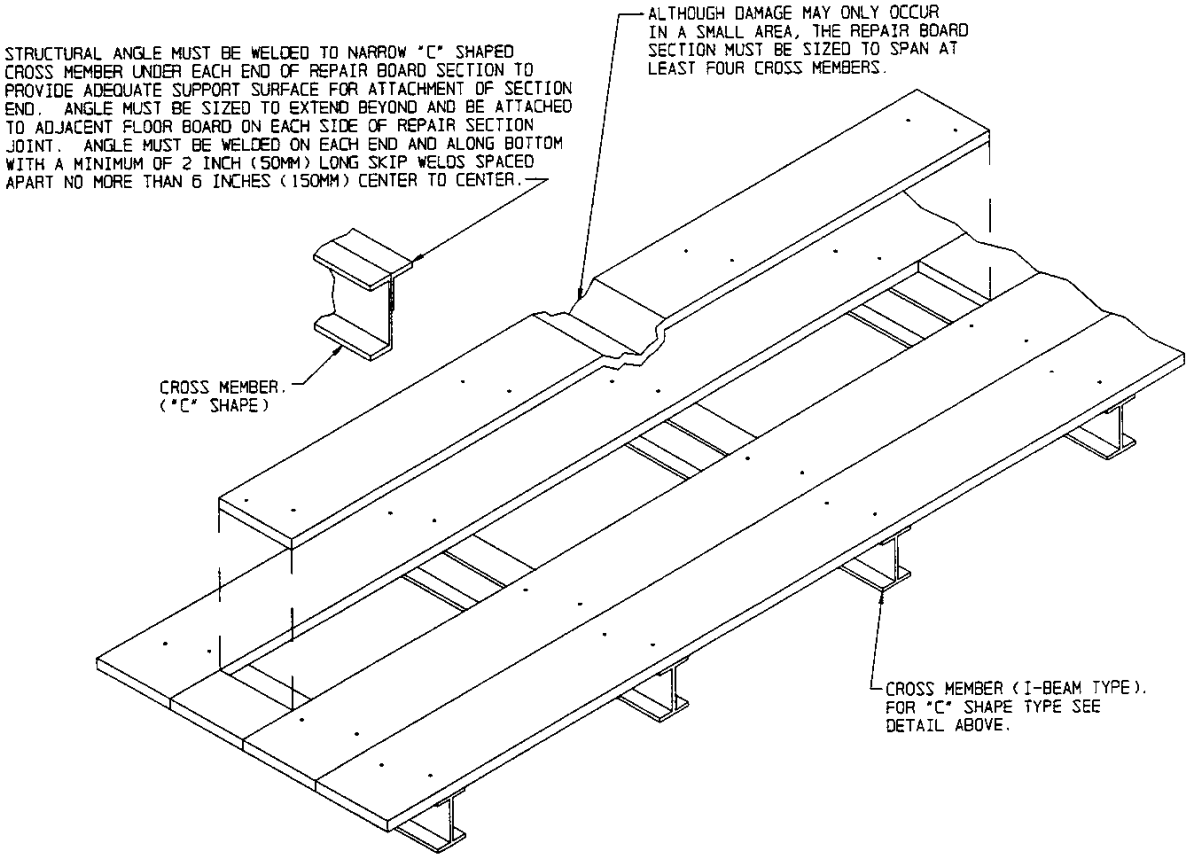
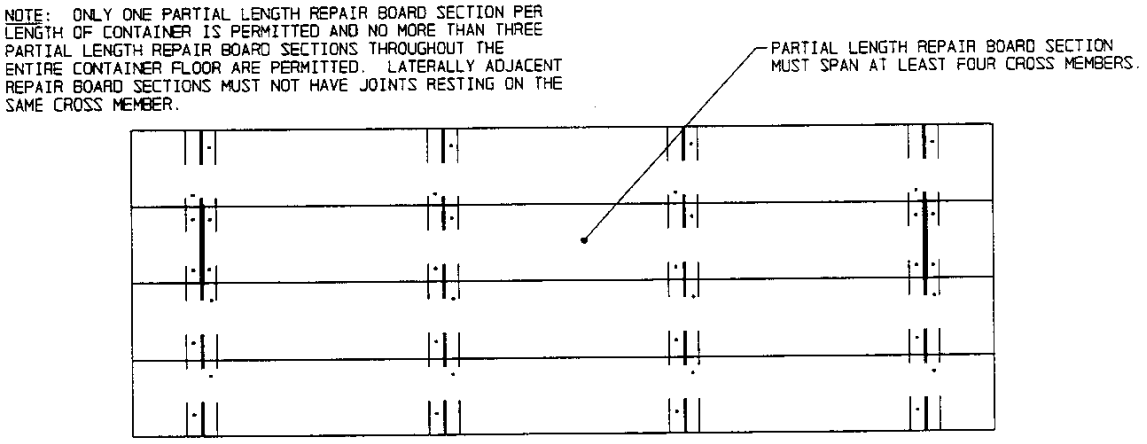


FIGURE 5.3.10 - FLOORING DAMAGE



REMOVAL OF DAMAGED BOARD



FINISHED REPAIR

FIGURE 5.3.11 - EXAMPLE OF FLOORING REPAIR

5.3.14 Miscellaneous Components. The following miscellaneous components affect the serviceability of a container as follows:

a. Threshold Plate. Presence of this plate is not mandatory. If present, the threshold plate must be safely fastened to the floor. Any plate damage that would impair the safe loading of cargo is cause for rejection.

b. Lining and Lining Shield. Presence of interior wall lining is not mandatory. If present, it must be safely fastened to the walls. Surface of wall lining must be free from protrusions or any other damage that would impair the safe loading of cargo. Normal wear including dents, abrasions, and small punctures that does not affect serviceability is permissible.

C. Ventilator. Presence of ventilator or ventilators is not mandatory. If present, each must be securely fastened to a wall panel. Diffused or reflective light passing through ventilator is permissible but ventilator should not permit ingress of water.

d. Placard Holder. Presence of placard holder or holders is not mandatory. If present, each must be securely fastened to a wall or door panel. If the container design permits, each holder should be positioned within a recessed area or on a marking panel to preclude the holder from being damaged during container handling and transport. Damage including dents, bends, or crumpling is permissible provided placards may be properly installed elsewhere on container and the damaged holder does not preclude proper handling and securement of the container onto a vehicle or into the cell of a ship.

e. POD Rivets. If hollow core pop rivets are used for affixing data plates, placard holders, ventilators, etc.; any open holes through center of such pop rivets must be caulked to prevent water seepage.

f. Door Holder (Tieback). Presence of door holder or holders is not mandatory. If present and damaged, the damaged holder must not preclude proper handling and securement of container onto a vehicle or into a ship's cell.

6. CONTAINER INSPECTION PROCEDURES

6.1 Prerequisites:

6.1.1 Container Type. The container type offered for service must be of suitable size, style, and configuration for its intended use. Container size and capacity must be acceptable for the shape and weight of commodity to be shipped. Container size and configuration must be compatible with handling and transportation equipment to be utilized. Style of container must meet approval of countries involved with shipment. Style of container must provide proper degree of security required for commodity to be shipped. Container must be configured with non-metallic lining if container is designated to transport explosives requiring "Magazine Stowage Type A"

6.1.2 Inspector Qualifications. The CSC re-inspection must be performed by certified personnel. DOD personnel may be certified by attending the AMMO-L-1 0 Intermodal Drv Carao Container CSC **Re-inspection** Course conducted by the U.S. Army Defense Ammunition Center and School, Savanna, IL 61074-9639. DOD inspectors must be re-certified every 48 months. Serviceability (pre-loading) inspection should be performed by fully qualified and competent personnel. Personnel are considered to be fully qualified if they have at one time received formal training and are experienced in the detection of container structural damage.

6.1.3 Owner Representative. Inspection of a commercially owned container must be conducted in the presence of a lessor/owner's representative when container custody is changing.

6.1.4 Judgment of Criteria. The container inspection criteria will be met through a visual examination and, except where tolerances are provided, acceptance of the container will be based on the judgment of the inspector. Any unacceptable deficiencies disclosed by the examination must be corrected before the container may be used for shipment.

6.2 Suggested Tools and Equipment:

6.2.1 Straight Edge. A wire, string, or other form of a straight edge is needed to determine whether any portion of the container (e.g., a panel or a rail) protrudes pass the outside surfaces of the corner fittings.

6.2.2 Measuring Tape (Ruler). A measuring tape (ruler) is required to check dimensional tolerances and container alignment.

6.2.3 Welder's Hammer. A welder's hammer (National Stock Number 5120-00-240-3096 or equivalent) is helpful in determining the strength of welds or metal structural components.

6.2.4 Ladder. A ladder or other safe means for accessing the top of the container is recommended.

6.2.5 Inspection Stands. Appendix B contains USADACS Drawing No. AC 200000210 depicting the assembly of a pair of container inspection stands. Inspection stands built in accordance to this (or equivalent) drawing provide a safe means for supporting the empty container to enable proper viewing of the container understructure. Note: DOD personnel should also refer to service specific safety guidelines about "Working Under a Suspended Load".

6.2.6 Flashlight. A flashlight improves visual acuity, especially during examination of the interior or the recesses of the understructure.

6.6.7 Chalk. Marking (circling) location of defects with chalk as they are discovered facilitates preparation of inspection report and helps maintenance personnel locate areas to be repaired.

6.6.8 Feeler Gauge. Excessive gaps in flooring may be determined by use of a 1-inch wide by 1/16-inch thick feeler gauge. Any suitable strip of metal may be used.

6.3 Documents:

6.3.1 Inspection Checklist. A Container Inspection Checklist should be used to ensure complete examination and to identify acceptance or reason(s) for rejection. Appendix A contains recommended checklists for the four types of containers described in this handbook (i.e. End-Opening, Side-Opening, Open-Top, and Flatrack). Checklist items not relevant to type of container being inspected (such as roof reinforcement plates when not present) should be marked "NA" for not applicable.

6.3.2 DD Form 2282 Decal. A CSC re-inspection due date (month and year) must be marked on the CSC plate. A DD Form 2282 Decal should be used for this purpose. When performing a CSC examination, the DOD inspector will apply a DD Form 2282 decal if the container is found to be acceptable. This decal is not required on a new container since the first re-inspection due date must be inscribed on the original CSC plate. The first CSC re-inspection due date assigned to a newly manufactured container provides a maximum interval of 5 years. Each subsequent CSC examination is only current for a maximum interval of 30 months. A CSC re-inspection should always be performed upon completion of maintenance and a new decal should then be applied to indicate a new due date at 30 months away. A container is unacceptable for loading with cargo if the DD Form 2282 decal indicates that CSC re-inspection is due within 60 days or less.

6.3.3 Inspection Report. Inspection of DOD owned containers or containers under the maintenance purview of the DOD must also be reported on the proper Service form such as DA Form 2404, "Equipment Inspection and Maintenance Worksheet". A copy of the inspection report must be completed and forwarded to the Container Control Office of the owning service. Inspection reports for containers in the Common User Fleet must be sent to the Joint Container Control Office (JCCO) at the following address: Commander, Military Traffic Management Command Eastern Area, ATTN: MTEOP-ITC, Bayonne, NJ 07002-5302. Note: Centralized control of this documentation is important since the law (CFR 49 part 452.3b) requires that the container inspection report must be made available to the U.S. Coast Guard upon their request.

6.4 Recommended Inspection Sequence. Inspection should be performed on the container while empty. Although any sequence of inspection is permissible, the sequence of inspection contained herein is recommended and coincides with the checklists provided in this handbook. A complete examination must be performed prior to acceptance. Even if cause for rejection is identified, a complete inspection of DOD owned containers or commercial containers under the maintenance purview of the DOD must be performed so a complete report of container condition can be provided in accordance with paragraph 6.3.3 above.

6.4.1 Markings and Data Plates. Check for appropriate markings and data plates. Annotate the ISO owner code serial number and the existing CSC re-inspection date on the Inspection Checklist.

6.4.2 Overall Configuration. Check for any distortion of the overall configuration great enough to preclude proper engagement of handling/lifting equipment, mounting and securing on chassis or vehicle, or insertion into the cell of a ship. If container alignment is in question, use a measuring tape to check dimensional tolerances in accordance with Figure 5.1. Using a suitable straight edge, check for any protrusions beyond the outside surfaces of the corner fittings.

6.4.3 Door End or Side. Examine the door end or side of the container. Check main structural components of door frame for defects. Check condition and operation of doors and door hardware.

6.4.4 Exterior Sides and Ends. Proceed to examine the container exterior on all remaining sides and ends for any defects on main structural components or unacceptable damage on wall panels.

6.4.5 Roof (Exterior). Obtain access to the roof and inspect the corner fitting apertures (openings), reinforcement plates, top side and end rails, door header, and roof panels for defects.

6.4.6 Understructure. Position the container on inspection stands to enable safe viewing of the container understructure. Examine the corner fitting apertures, side and end rails, sill, cross members, and forklift tunnels for defects.

6.4.7 Interior. Enter the container and check condition of walls, roof, and flooring. If present, also examine condition of cargo restraint system. In containers without integral mechanical restraint systems, ensure that the structural configuration provides sufficient load bearing surfaces for dunnage materials to be safely installed against.

6.4.8 Light Leak Test. Remain in container, have assistant close the door(s), and mark areas permitting direct (not diffused) light penetration. Re-open doors and re-examine the suspect areas from both the inside and the outside to determine their affect on the structural serviceability of the container. Keep in mind that neither CSC, IMDG Code, nor CFR 49 state that light leaks are cause for rejection. A light leak test only serves as a tool to help spot certain types of defects or deficiencies. Causes for light leaks, therefore, are categorized into the following five types for purposes of clarifying the structural serviceability of container:

a. A light leak through a weld joint between main structural members indicates possibility of defective weld juncture. Further inspection of joint must be conducted to ascertain if joint is adequate.

b. A light leak through a seam weld in a wall, roof, or door panel or around perimeter of such panels indicates skip or porosity in weld. This typically is a pinhole light leak and does not degrade the main structural integrity of the container. Caulking may be applied in many cases to preclude any water seepage. Caulking should, if possible, be performed as directed by the inspector as he/she sees fit. Note: The guidance of this sub-paragraph only refers to weld seams and perimeter welding and does not refer to holes or tears in wall, roof, or door panels which must be repaired by affixing additional material (patch) to the panel.

C. Light leaks around door gaskets indicate possibility of water seepage. If gasket is not damaged (torn, missing, or severely deformed), gasket is most likely providing same weathertight integrity as when container was manufactured. Inspector should be looking for damaged gaskets that no longer provide reasonable weather-proof integrity. A tiny light leak is not a cause for rejection.

d. Light leaks around floor boards indicate possibility of water seepage or entrance of sparks when transported on open frame conveyance. Only light leaks due to damaged boards or excessive gaps should be cause for rejection. Excessive gaps may be determined by use of a 1-inch wide by 1/16-inch thick feeler gauge. If the feeler gauge can be easily inserted "vertically" through the gap to the underside of the container, the gap is considered excessive. Caulking may be used to seal narrow gaps (i.e., less than 1/2-inch wide). wider gaps must be repaired by replacing deficient boards with new boards of similar style.

e. Diffused (reflective) light through or around components such as ventilators or lashing rings is not cause for rejection. Any indication of a steady ingress of water or lack of reasonable weather-proof integrity shall be the only cause for rejection.

END-OPENING CONTAINER INSPECTION CHECKLIST

DATE OF INSPECTION _____ ISO SERIAL NUMBER _____

INSPECTION LOCATION _____ CSC RE - INSPECTION DATE _____

COMPONENT OR ITEM	ACCEPT	REJECT	REMARKS (DEFICIENCIES)
1. MARKINGS & DATA PLATE			
ISO MARKINGS			
CSC SAFETY APPROVAL			
MANUFACTURER'S DATA			
TIR, TCT & UIC APPROVALS *			
2. OVERALL CONFIGURATION			
DIMENSIONS			
DISTORTION			
PROTRUSIONS			
3. DOOR END (REAR)			
CORNER FITTINGS (4 each)			
CORNER POSTS (2 each)			
DOOR HEADER			
DOOR SILL			
DOOR PANELS			
HINGES			
HINGE PIN WELDS *			
LOCKING BARS			
LOCKING BAR MOUNTING BRACKETS			
CAMS			
CAM RETAINERS			
LOCKING HANDLES			
LOCKING HANDLE RETAINERS			
CUSTOMS CATCH *			
DOOR SEALS (GASKETS)			
RAIN GUTTER *			
J - BARS *			
4. CURB SIDE EXTERIOR			
TOP SIDE RAIL			
BOTTOM SIDE RAIL			
FORKLIFT POCKETS *			
WALL PANELS			
WALL POSTS *			
5. FRONT END EXTERIOR			
CORNER FITTINGS (4 each)			
CORNER POSTS (2 each)			
TOP END RAIL			
BOTTOM END RAIL			
WALL PANELS			
WALL POSTS *			
6. ROAD SIDE EXTERIOR			
TOP SIDE RAIL			
BOTTOM SIDE RAIL			
FORKLIFT POCKETS *			
WALL PANELS			
WALL POSTS *			
7. ROOF EXTERIOR			
CORNER FITTINGS APERTURES			
TOP SIDE RAILS			
TOP END RAIL			
DOOR HEADER			
ROOF PANELS			
REINFORCEMENT PLATES *			
8. UNDERSTRUCTURE			
CORNER FITTING APERTURES			
CROSS MEMBERS			
FORKLIFT TUNNELS *			
SIDE RAILS			
END RAIL			
DOOR SILL			
9. INTERIOR			
FLOORING			
FLOOR FASTENERS			
THRESHOLD PLATE *			
ROOF PANELS			
ROOF BOWS *			
WALL PANELS			
LINING *			
MECHANICAL RESTRAINT SYSTEM *			
LOAD BEARING SURFACES *			

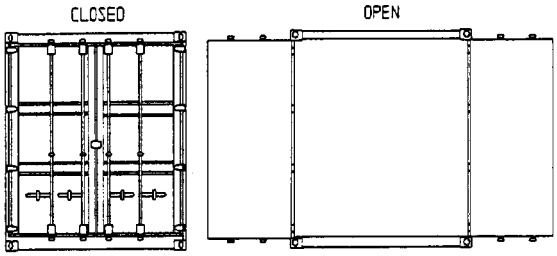
NOTE: AN ITEM WITH AN ASTERISK (*) MAY OR MAY NOT BE RELEVANT.
MARK "NA" IN THE REMARKS COLUMN FOR ITEMS WHICH ARE NOT APPLICABLE.

ACCEPTED _____ REJECTED ____ NEW CSC RE - INSPECTION DATE _____

INSPECTOR: (PRINT NAME) _____

(SIGNATURE) _____

(CIRCLE DEFECTS)



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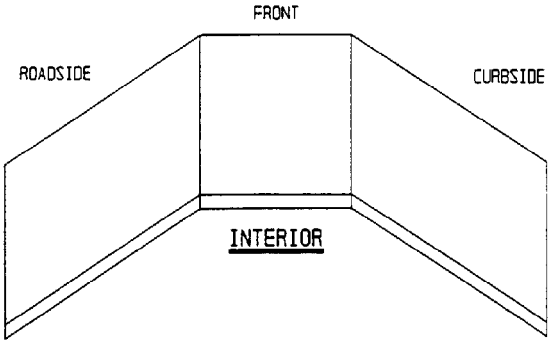
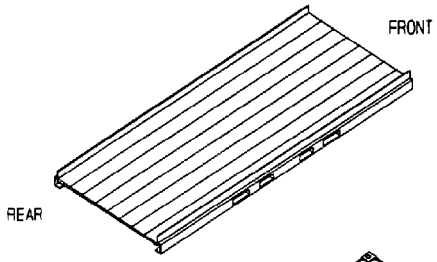
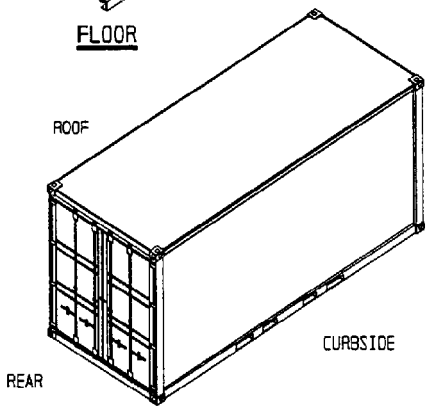
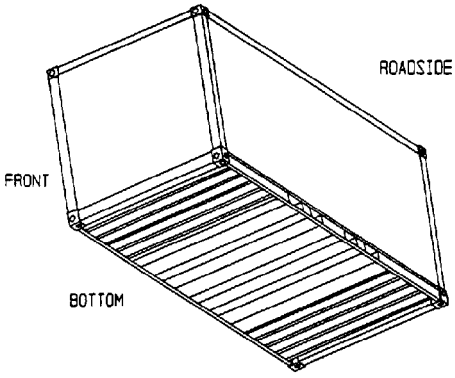




FLOOR





OPEN TOP CONTAINER INSPECTION CHECKLIST

DATE OF INSPECTION _____ ISO SERIAL NUMBER _____

INSPECTION LOCATION _____ CSC RE - INSPECTION DATE _____

COMPONENT OR ITEM	ACCEPT	REJECT	REMARKS (DEFICIENCIES)
1. MARKINGS & DATA PLATE			
ISO MARKINGS			
CSC SAFETY APPROVAL			
MANUFACTURER'S DATA			
TIR, TCT & UIC APPROVALS *			
2. OVERALL CONFIGURATION			
DIMENSIONS			
DISTORTION			
PROTRUSIONS			
3. DOOR END (REAR)			
CORNER FITTINGS (4 each)			
CORNER POSTS (2 each)			
HEADER AND HEADER PINS *			
DOOR SILL			
DOOR PANELS			
HINGES			
HINGE PIN WELDS *			
LOCKING BOLTS *			
SAFETY CHAINS *			
LOCKING BARS *			
LOCKING BAR MOUNTING BRACKETS*			
CAMS *			
CAM RETAINERS *			
LOCKING HANDLES			
LOCKING HANDLE RETAINERS			
DOOR SEALS (GASKETS)			
J - BARS *			
4. CURB SIDE EXTERIOR			
TOP SIDE RAIL			
BOTTOM SIDE RAIL			
FORKLIFT POCKETS *			
WALL PANELS			
5. FRONT END EXTERIOR			
CORNER FITTINGS (4 each)			
CORNER POSTS (2 each)			
TOP END RAIL			
BOTTOM END RAIL			
WALL PANELS			
6. ROAD SIDE EXTERIOR			
TOP SIDE RAIL			
BOTTOM SIDE RAIL			
FORKLIFT POCKETS *			
WALL PANELS			
7. ROOF EXTERIOR			
CORNER FITTINGS APERTURES			
ROOF BOWS			
TARP			
WELDED LOOPS			
TIR CABLE			
RAIN GUTTER *			
8. UNDERSTRUCTURE			
CORNER FITTING APERTURES			
CROSS MEMBERS			
FORKLIFT TUNNELS *			
FLOOR WELDS *			
SIDE RAILS			
END RAIL			
DOOR SILL			
9. INTERIOR			
FLOORING (WOOD OR METAL)			
FLOOR FASTENERS OR WELDS			
DOOR RAMP SURFACE *			
THRESHOLD PLATE *			
WALL PANELS			
LINING *			
MECHANICAL RESTRAINT SYSTEM *			
LOAD BEARING SURFACES *			

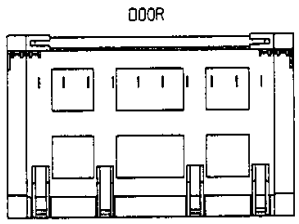
NOTE: AN ITEM WITH AN ASTERISK (*) MAY OR MAY NOT BE RELEVANT.
MARK "NA" IN THE REMARKS COLUMN FOR ITEMS WHICH ARE NOT APPLICABLE.

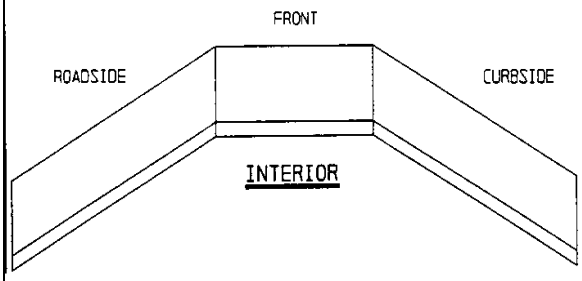
ACCEPTED _____ REJECTED ____ NEW CSC RE - INSPECTION DATE _____

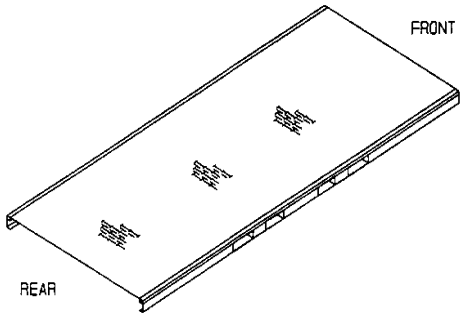
INSPECTOR: (PRINT NAME) _____

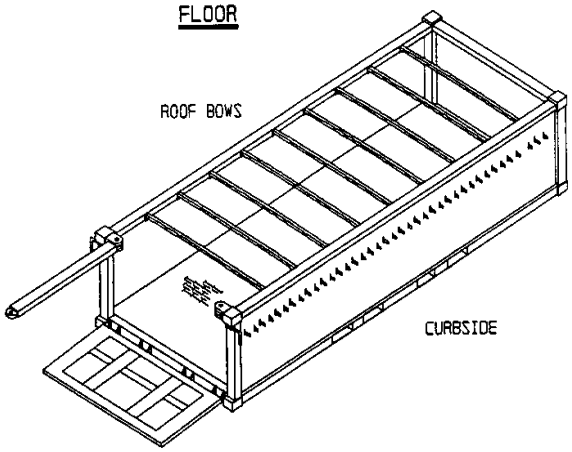
(SIGNATURE) _____

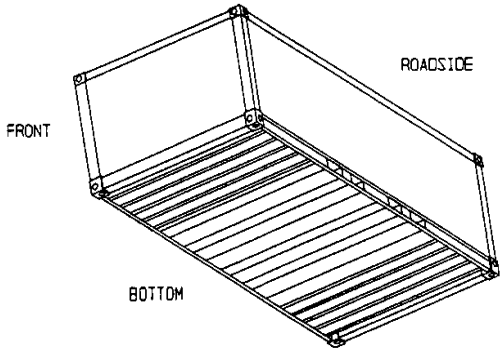
(CIRCLE DEFECTS)











SIDE-OPENING CONTAINER INSPECTION CHECKLIST

DATE OF INSPECTION _____ ISO SERIAL NUMBER _____

INSPECTION LOCATION _____ CSC RE - INSPECTION DATE _____

COMPONENT OR ITEM	ACCEPT	REJECT	REMARKS (DEFICIENCIES)
1. MARKINGS & DATA PLATE			
ISO MARKINGS			
CSC SAFETY APPROVAL			
MANUFACTURER'S DATA			
TIR, TCT & UIC APPROVALS *			
2. OVERALL CONFIGURATION			
DIMENSIONS			
DISTORTION			
PROTRUSIONS			
3. DOOR SIDE			
DOOR HEADER (TOP SIDE RAIL)			
DOOR SILL (BOTTOM SIDE RAIL)			
FORKLIFT POCKETS			
DOOR PANELS			
HINGES			
HINGE PIN WELDS *			
LOCKING BARS			
LOCKING BAR MOUNTING BRACKETS			
CAMS			
CAM RETAINERS			
LOCKING HANDLES			
LOCKING HANDLE RETAINERS			
CUSTOMS CATCH *			
DOOR SEALS (GASKETS)			
RAIN GUTTER *			
J - BARS *			
4. RIGHT END EXTERIOR			
CORNER FITTINGS (4 each)			
CORNER POSTS (2 each)			
TOP END RAIL			
BOTTOM END RAIL			
WALL PANELS			
WALL POSTS *			
5. BACK SIDE EXTERIOR			
TOP SIDE RAIL			
BOTTOM SIDE RAIL			
FORKLIFT POCKETS			
WALL PANELS			
WALL POSTS *			
6. LEFT END EXTERIOR			
CORNER FITTINGS (4 each)			
CORNER POSTS (2 each)			
TOP END RAIL			
BOTTOM END RAIL			
WALL PANELS			
WALL POSTS *			
7. ROOF EXTERIOR			
CORNER FITTINGS APERTURES			
TOP SIDE RAIL (BACK SIDE)			
TOP SIDE RAIL (DOOR HEADER)			
TOP END RAILS			
ROOF PANELS			
REINFORCEMENT PLATES *			
8. UNDERSTRUCTURE			
CORNER FITTING APERTURES			
CROSS MEMBERS			
FORKLIFT TUNNELS *			
BOTTOM SIDE RAILS (BACK SIDE)			
BOTTOM SIDE RAIL (DOOR SILL)			
BOTTOM END RAILS			
9. INTERIOR			
FLOORING			
FLOOR FASTENERS			
ROOF PANELS			
ROOF BOWS *			
WALL PANELS			
LINING *			
TIEDOWN PROVISIONS *			
LOAD BEARING SURFACES *			

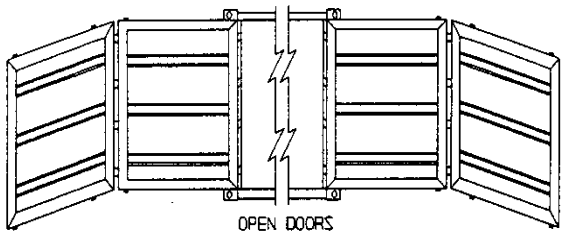
NOTE: AN ITEM WITH AN ASTERISK (*) MAY OR MAY NOT BE RELEVANT.
MARK "NA" IN THE REMARKS COLUMN FOR ITEMS WHICH ARE NOT APPLICABLE.

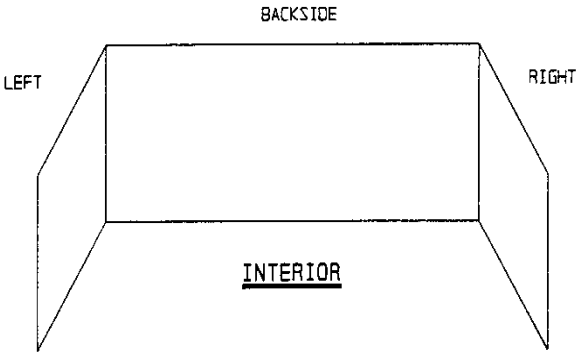
ACCEPTED _____ REJECTED ____ NEW CSC RE - INSPECTION DATE _____

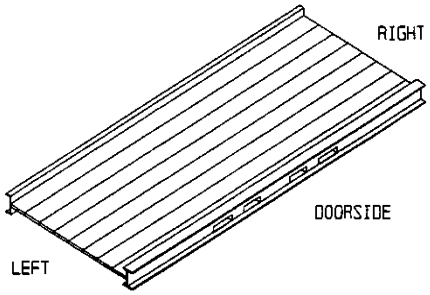
INSPECTOR: (PRINT NAME) _____

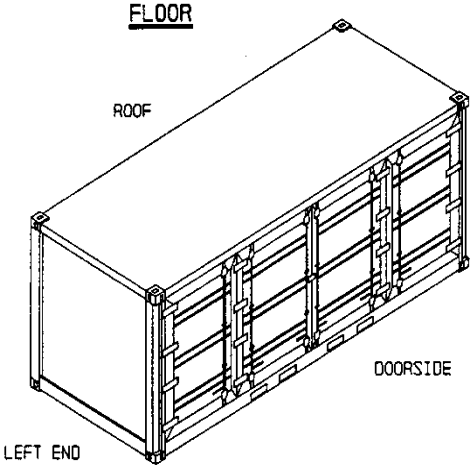
(SIGNATURE) _____

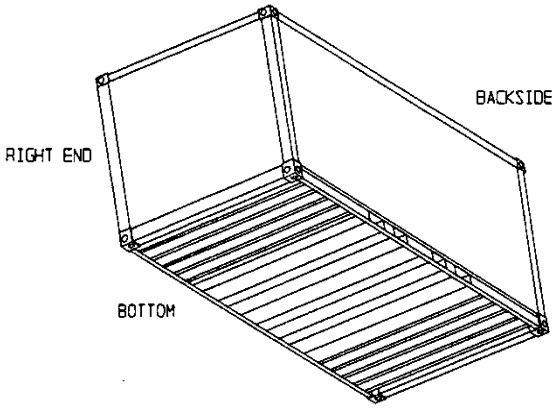
(CIRCLE DEFECTS)











FLATRACK CONTAINER INSPECTION CHECKLIST

DATE OF INSPECTION _____ ISO SERIAL NUMBER _____

INSPECTION LOCATION _____ CSC RE - INSPECTION DATE _____

COMPONENT OR ITEM	ACCEPT	REJECT	REMARKS (DEFICIENCIES)
1. MARKINGS & DATA PLATE			
ISO MARKINGS			
CSC SAFETY APPROVAL			
MANUFACTURER'S DATA			
TIR, TCT & UIC APPROVALS *			
2. OVERALL CONFIGURATION			
DIMENSIONS			
DISTORTION			
PROTRUSIONS			
3. END A			
CORNER FITTINGS (4 each)			
CORNER POSTS (2 each)			
TOP APERTURES			
TOP END RAIL			
BOTTOM END RAIL			
WALL PANELS			
WALL POSTS *			
LOCKING HARDWARE *			
4. SIDE A			
SIDE RAIL			
STANCHIONS			
TIEDOWN PROVISIONS			
FORKLIFT POCKETS *			
5. END B			
CORNER FITTINGS (4 each)			
CORNER POSTS (2 each)			
TOP APERTURES			
TOP END RAIL			
BOTTOM END RAIL			
WALL PANELS			
WALL POSTS *			
LOCKING HARDWARE *			
6. SIDE B			
SIDE RAIL			
STANCHIONS			
TIEDOWN PROVISIONS			
FORKLIFT POCKETS *			
7. UNDERSTRUCTURE			
CORNER FITTINGS APERTURES			
CROSS MEMBERS			
FORKLIFT TUNNELS *			
SIDE RAILS			
END RAILS			
8. CARGO AREA			
FLOORING			
FLOOR FASTENERS			
LOAD BEARING SURFACES			
STACKING CONES *			

NOTE: AN ITEM WITH AN ASTERISK (*) MAY OR MAY NOT BE RELEVANT.
MARK "NA" IN THE REMARKS COLUMN FOR ITEMS WHICH ARE NOT APPLICABLE.

ACCEPTED _____ REJECTED ____ NEW CSC RE - INSPECTION DATE _____

INSPECTOR: (PRINT NAME) _____

(SIGNATURE) _____

(CIRCLE DEFECTS)