

# 1917 - Subpart D - Specialized Terminals



# 1917 - Subpart D

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- 1917.70 – General
- 1917.71 - Terminals handling intermodal containers or roll-on roll-off operations
- 1917.73 - Terminal facilities handling menhaden and similar species of fish



# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(a)

- **Intermodal container marked with:**
  - Weight of empty container in pounds
  - Maximum cargo weight container can carry in pounds
  - Sum of container and cargo weight in pounds





MAX.GROSS

30,480 KGS

67,200 LBS



TARE

3,860 KGS

8,510 LBS



PAYLOAD

26,620 KGS

58,690 LBS



CUB. CAP.

76.2 CUM

2,690 CU.FT

# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71

- **Note:** The Convention for Safe Containers 1972 (CSC) documents construction, inspection standards and required markings

The image shows a container plate with the following markings and labels:

- APPROVED FOR TRANSPORT UNDER CUSTOMS SEAL**
- R O K / 038 — KR / 88** (Custom Seal Approval Number)
- TYPE: HSM - 4126 - R**
- MANUFACTURER'S NUMBER: HSMF** (Manufacturer's Number)
- ZIM ISRAEL NAVIGATION CO., LTD.**
- P.O. BOX 1723, HAIFA 31000, ISRAEL.**
- TIMBER COMPONENT TREATMENT** (Timber Component Treatment Australia Requirements)
- IM / JB**
- MANUFACTURED BY: HYOSUNG METALS** (Manufacturer)
- Owner**
- CSC SAFETY APPROVAL**
- USA/AB- JB** (CSC Number)
- DATE MANUFACTURED: 1992**
- IDENTIFICATION NO.: ZCSU 246982-5**
- MAXIMUM GROSS WEIGHT: 30,480KG / 67,200lbs** (Container's Number (Prefix and Number))
- ALLOWABLE STACKING WEIGHT FOR 1.8G: 182,880KG / 403,180lbs**
- RACKING TEST LOAD VALUE: 15,240KG / 33,600lbs**
- ACEP IL-01** (Max. Gross Weight)

# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(b)

- Persons in charge of movement and lifting of containers
  - Know if containers are empty or loaded







TANCREDO  
TONSSBERG

BDMRG

# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(b)(1)

- Methods of container identification:
  - Cargo plans
  - Manifests
  - Markings on container





# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(b)(2)

- Loaded containers:
  - Gross weight plainly marked and visible, **or**
  - Paperwork on hand showing container serial number and actual gross weight



# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(b)(3)

- Outbound (export) containers weighed before hoisting
  - Can be done at terminal or elsewhere once loading is completed







# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(b)(5)

- Open type vehicle carrying containers excepted from paragraphs (b)(3) and (b)(4)



# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(b)(5)

- Containers built specifically and used solely for compressed gasses are excepted from paragraphs (b)(3) and (b)(4)



# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(b)(6)(i)

- Closed dry van containers carrying vehicles exempted from paragraph (b)(4):
  - Carries only completely assembled vehicles.
  - Marked on the outside.
  - Vehicle was loaded at the marine terminal.





TAKE  
PAYLOAD  
CUB. CAP.

WARNING—MAY CONTAIN  
EXPLOSIVE MIXTURES WITH  
AIR—KEEP IGNITION SOURCES  
AWAY WHEN OPENING

**AUTOMOBILE**

# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(c)

- Containers not hoisted if actual gross weight exceeds weight marked as required in paragraph (a)(2)



# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(c)

- Containers not hoisted if actual gross weight exceeds capacity of crane or other hoisting device





# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(d)(1)

- Marked or designated areas
  - Required for employee passage
  - Unless transportation is provided



# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(d)(2)

- Employees directed to stay clear of suspended containers













MAX  
CARGO  
CUBIC  
CAP.

26.780 KGS  
59.040 LBS  
67.8 CM<sup>3</sup>  
2.394 CU. FT.

MAERSK

108

XI



# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(e)

- High visibility vests required
  - Working in vicinity of container handling equipment
  - In terminal traffic lanes















# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(f)

- Containers handled using lifting fittings or other arrangements suitable for purpose set forth in paragraphs (f)(1) through (f)(4)
- Damaged containers may require special means of handling















# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(f)(1)(i)

- Less than vertical lift on containers:
  - ISO closed box container.
  - Condition of box is sound.
  - Speed of hoisting and lowering is moderated.
  - Lift angle is at 80 to 90 degrees.
  - Distance between beam and load is 8 feet, 2.4 inches.
  - Length of spreader beam is at least:
    - » 16.3 feet for a 20-foot container
    - » 36.4 feet for a 40-foot container



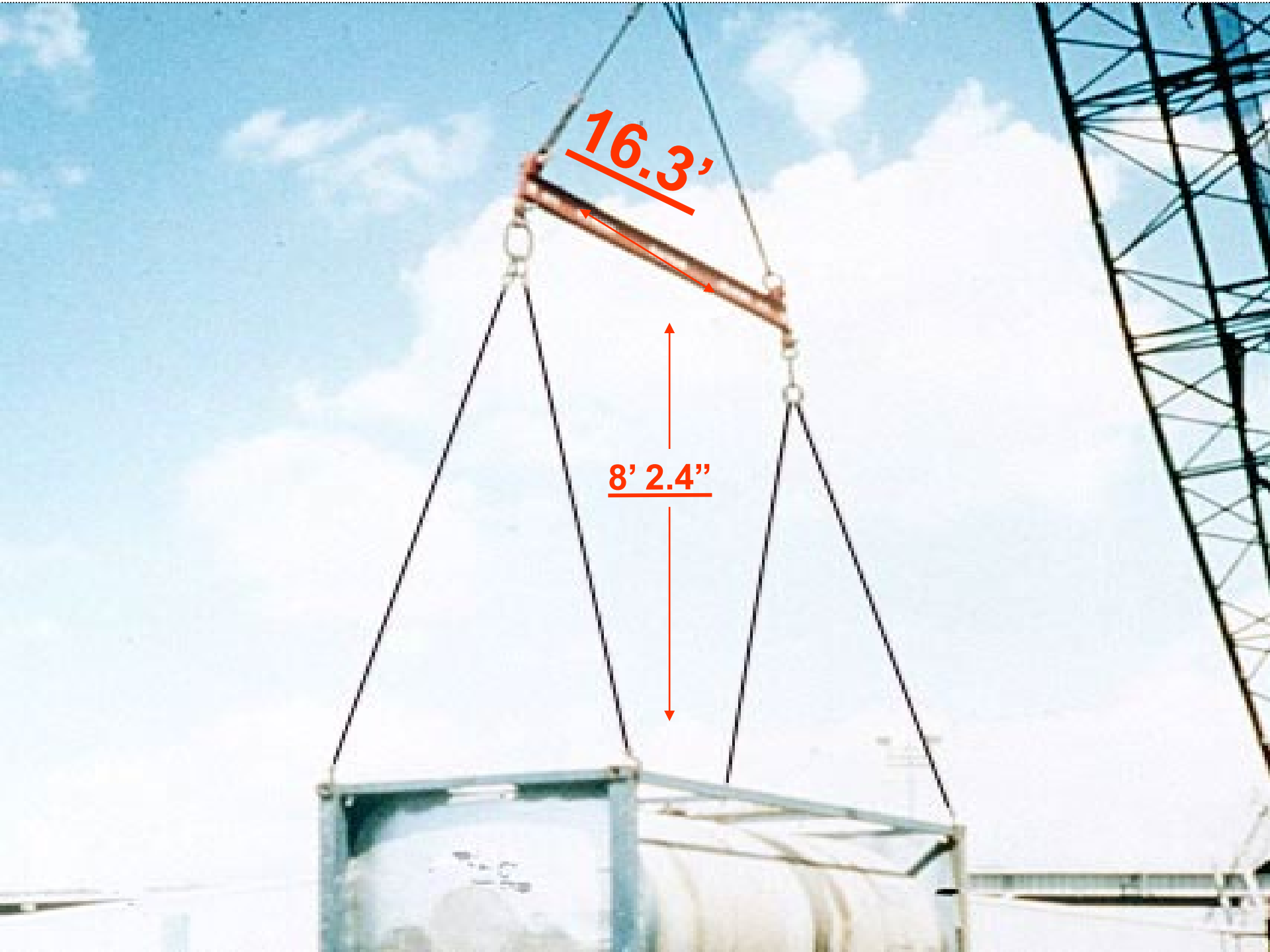






80-90°















H&H-OZ



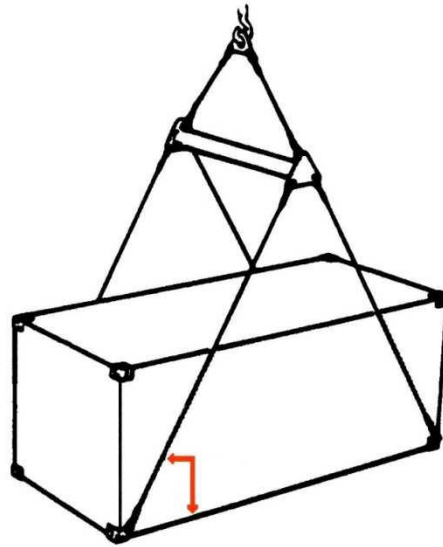


# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(f)(1)(ii)

- Hoisting from bottom fittings:
  - Hoisting connections must bear on fittings only - make no other contact with container
  - The angle of the four bridles:
    - » Not less than 30 degrees to the horizontal for a 40' container
    - » Not less than 37 degrees for a 30' container
    - » Not less than 45 degrees for a 20' container





# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(f)(1)(iii)

- Lifting containers by:
  - Forklift trucks,
  - Grappling arms from above, **or**
  - From one side;
    - » Done only if container is designed for this type of handling





# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(f)(1)(iv)

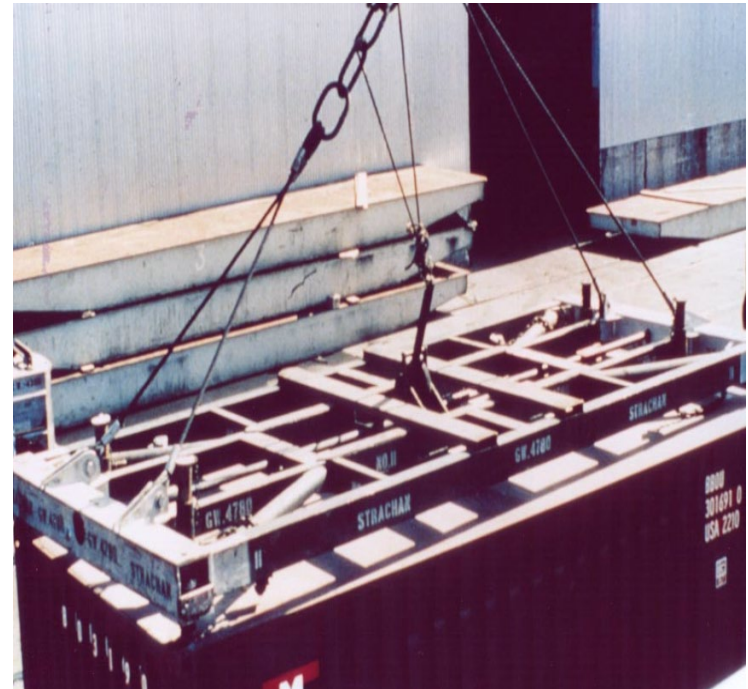
- Other means of hoisting
  - If containers and hoisting means are designed for such use



# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(f)(2)(i)

- Manual operated spreader bar w/lanyards
  - Precautions taken to prevent accidental release of load





**GENSTAR**

A GE Capital Company

Genstar  
Container  
Corporation

San Francisco  
California,  
U.S.A.

CEU  
US

604046 0

4332

MAX.GR.  
TARE  
NET  
CU.CAP.

32800	KG
72310	LB
3050	KG
8490	LB
28950	KG
63820	LB
59.1	CU.M
2.087	CU.FT



# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(f)(2)(ii)

- Container spreader twistlock systems
  - Designed with interlocks
  - Prevent suspended load from accidental released



# Vertical Tandem Lift









# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(f)(3)

- Flat bed trucks or container chassis used to move intermodal containers equipped with:
  - Pins
  - Flanges
  - Other means to prevent container from shifting







# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(f)(4)

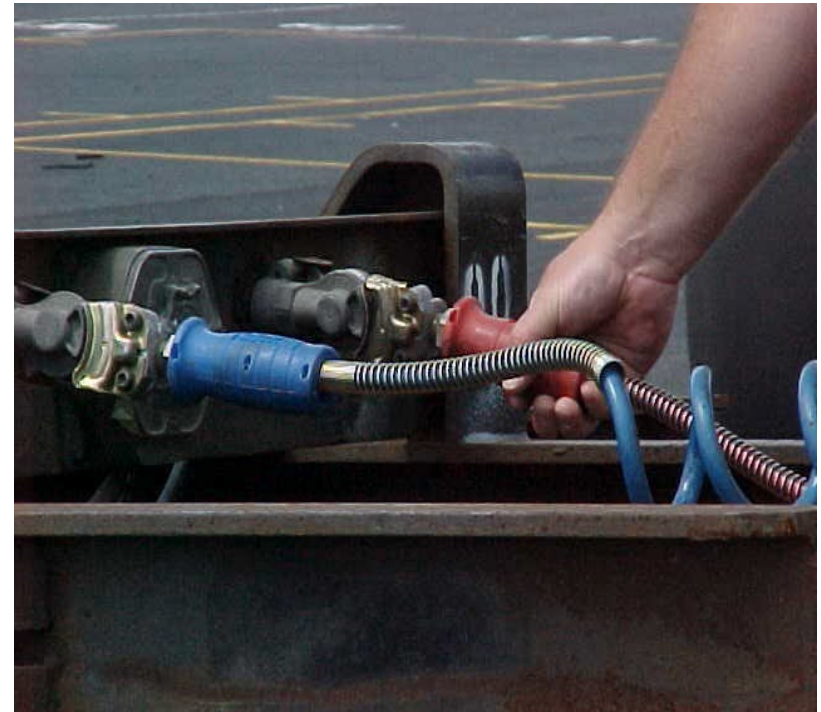
- After 7/27/1998 - flat bed, low boy trailers (mafis) and other similar equipment
  - Marked with capacities



# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(f)(5)

- Tractor have all brake lines connected
  - When pulling trailers equipped with air brakes



# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(g)(1)

- Containers inspected for defects in structural members or fittings before handling





# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(g)(2)

- Containers found to be unsafe
  - Identified, removed from service and repaired

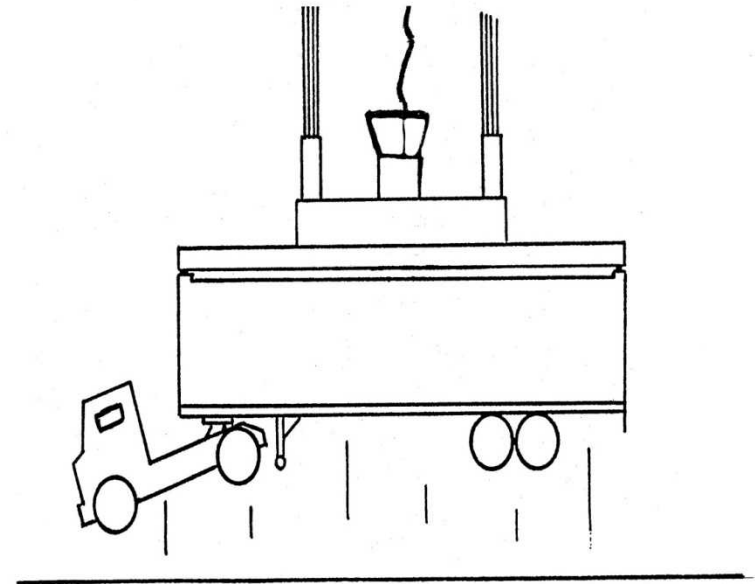




# Terminals Handling Intermodal Containers or Ro/Ro Operations

1917.71(h)

- Containers not hoisted unless all engaged chassis twist locks are released







MGW  
TARE  
NET  
CU. CAP.

10 000 KG
22 000 LBS
1 700 KG
3 700 LBS
10 700 KG
23 600 LBS
17 700 KG
39 000 LBS

0352

MOLA 531972

MOL 40-45

EMERGENCY STOP

MOL

# Terminal Facilities Handling Menhaden and Similar Species of Fish

1917.73

- Menhaden are small fish processed into fertilizer and other products
- Menhaden give off hydrogen sulfide, a toxic gas



# Terminal Facilities Handling Menhaden and Similar Species of Fish

1917.73(a)(1)

- Bailwater tanks opened or ventilated
  - Drained each day and left open to air









# Terminal Facilities Handling Menhaden and Similar Species of Fish

1917.73(a)(2)-(3)

- Before employees enter tank
  - Tested for hydrogen sulfide and oxygen deficiency
  - Hydrogen sulfide exceeds 20 ppm
  - Less than 19.5% oxygen
- Tests conducted by designated person







**CAUTION H<sub>2</sub>S MAY BE  
PRESENT  
DO NOT ENTER THIS AREA  
WITHOUT APPROVED H<sub>2</sub>S  
DETECTION EQUIPMENT**



# Terminal Facilities Handling Menhaden and Similar Species of Fish

1917.73(c)

- At least 4 units of respiratory protective equipment available for emergency
- Employees entering tank in emergency
  - Wear a lifeline and safety harness
- At least two employees, similarly equipped
  - Stationed outside of tank for observation and rescue



# Terminal Facilities Handling Menhaden and Similar Species of Fish

1917.73(d)-(e)

- Management personnel trained and knowledgeable
  - Hazards of hydrogen sulfide and oxygen deficiency
- Supervisors trained in appropriate PPE and rescue procedures
- Supervise discharging of bailwater from vessels





# Thank You For Attending!

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## Final Questions?

**1-800-NC-LABOR**

(1-800-625-2267)

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