

THIS IS THE VANNING PLAN, WHICH IS CONSIDERED SAFE NAVIGATION FOR STEEL COIL SHIPMENT.

- 1) The weight of coils should be distributed to 2 meters (longitudinal) x 2.4 meter (overall of width) by using dunnage (9 cm x 9cm x 240 cm).
- 2) 2 pcs of another dunnage (15 cm x 30 cm x 250 cm or 9cm x 9cm x 250cm x 6 pcs) should be arranged on the dunnage of mentioned in the item"1)"
- 3) The lashing wires should be bigger than 16 mm dia (NEW, not second hand).
- 4) The lashing wires should be tightened up through around the inside eye to out side of eye except arranging on the center.
- 5) The chocking to avoid the rolling should be arranged by using big size dunnage cut off the one corner.
- 6) Chocking by square lumber must be applied between coils and between coil and wall of FR to prevent longitudinal cargo shift. (This is not described in above plan. Pls see the attach photo.)





# 6 - 3 Chocking from End Panels









 Solid chocking composed by lumber as sufficient bracing should be installed in order to prevent sliding shipments during sea going. The chocking should be reached from end panels to shipments tightly.

# 6 - 4 Turnbuckles and Wire Clips



- Closed-Eye type of turnbuckle should be applied. Open hook type of turnbuckle is prohibited due to its insufficient strength.
- Turnbuckles should be fasten by thin wires for preventing from getting loose.
- Bull-Dog wire clips should be applied at least 3 pieces to make eye on wire's end.

### 6 - 5 Belts Lashing

Belts lashing can be accepted as substitute for lashing wires, subject to following points.

- Approved type and manufacturers :
  - "Cordlash CW-200" (Width: 40 mm) / Cordstrap BV (Agency in Japan: Yamamoto Shokai Co., Ltd.)
  - "Aslash AW-200" (Width: 40 mm) / Alphasystem Japan Co., Ltd.
  - "Everlash EW-200" (Width: 40 mm) / Shoko International Inc.
- 2) Certificate indicating results of break load test by third party must be submitted in advance, If belts lashing other than listed above are used.
- Approved and dedicated belt fastener must be used.
- 4) Re-used belts lashing are prohibited.
- Only genuine products of buckles by manufacturer of belts lashing can be accepted.
- 6) Steel bands are prohibited.
- 7) Waste clothes should be applied on the edges of shipments to prevent attrition or cutting on belts.
- 8) Knots on lashing rings of FR containers are prohibited.



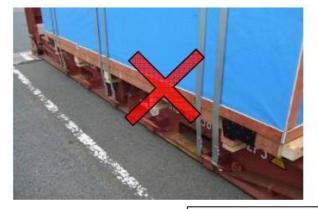














Knots on lashing rings are prohibited.

Steel bands are prohibited.

### Lashing wire를 사용할 경우

- 1)각 side에 16mm double lashing x 7 point (LASHING DOUBLE.DOC 참조) →화물에 따라 개수 변동됨
- 2)Under-deck Cell guide에 화물이 상하지 않도록 corner casting과 화물간 충분한 유격이 필요함
- 3)충분한 Lumber chocking 및 bracing이 필요함(화물과 양쪽 벽면 사이의 공간을 충분한 목재로 Bracing이 필요함, Chocking,PDF 참조)
- 4)Closed-Eye type의 Turnbuckle을 사용하여야 하며 철사를 묶어 헐거워 지는 것을 방지하여야 함.(Turnbuckles and Wire Clip.PDF 참조)
- 5)적어도 3개 이상의 Bull-dog wire 클립을 적용하여야 함. .(Turnbuckles and Wire Clip.PDF 참조)
- 6)모든 화물을 적입시 반드시 화물이 안정적으로 위치되어야 하며 무게중심이 맞아야 함.
- 7)불완전한 화물 적입 및 Shoring으로 인해 운송 중 안정성을 확보할 수 없을 시 재작업으로 인해 발생하는 비용은 화주의 책임임.
- 8)상기 Flatrack container에 선적되는 화물을 안정적으로 Shoring/Lashing/Bracing/Chocking하는 모든 책임은 화주의 책임임.

### Lashing belt를 사용할 경우

1)각 side에 7 points로 double lashing belt 사용하여야 함→화물에 따라 개수 변경됨

2)Lashing belt를 사용하실시 하기 3개 업체의 belt사용을 권장하며 그렇지 않고 제 3의 업체를 이용시에는 반드시 해당 제품에 대한 상세정보가 있는 인증서를 제시하셔야 합니다.

### Approved type and manufacturers for Lashing Belt:

- \* Cordlash CW-200 " (Width: 40 mm) / Cordstrap BV
- \* Aslash AW-200" (Width: 40 mm) / Alphasystem Japan Co., Ltd.
- \* Everlash EW-200 " ( Width : 40 mm ) / Shoko International

Inc.

\* Other than above 3 Approved Makers , pls provide 3rd Party

certificate indicating all Manufacturing details.

- 3)충분한 Lumber chocking 및 bracing이 필요함(화물과 양쪽 벽면 사이의 공간을 충분한 목재로 Bracing이 필요함, Chocking.PDF 참조)
- 4)모든 화물을 적입시 반드시 화물이 안정적으로 위치되어야 하며 무게중심이 맞아야 함.
- 5)불완전한 화물 적입 및 Shoring으로 인해 운송 중 안정성을 확보할 수 없을 시 재작업으로 인해 발생하는 비용은 화주의 책임임.
- 6)상기 Flatrack container에 선적되는 화물을 안정적으로 Shoring/Lashing/Bracing/Chocking하는 모든 책임은 화주의 책임임.