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Operational Considerations:

- Assess the condition of the pallet and associated equipment (incl. bolts, rubber, pins, vibration dampeners, weather cover, straps etc.) before each use.
- Discard equipment with visible signs of damage and replace with an equivalent.
- Structural aspects, such as welds, should be inspected visually before each use and by NDT periodically according to the End Users preservation requirements.
- Do not use the pallet if structural damage is observed. Consult Daywalk for repair advice.
- Bolts used to secure the motor/gearbox to the Transporta are recommended by Daywalk to be single use only.



This Guide

- Covers the Daywalk Transporta pallet (SKU 13-PCTR/5000/23200/16.5T/CLSB) with a single item weighing up to 16,500kg secured to it and transported by road in Australia
- Is a loader and driver guide to the certification E01954-LRC1 which satisfies the loading requirements of the Performance Standard contained in Schedule 7 of the Heavy Vehicle (Mass, Dimension and Loading) National Regulation 2021

Key Elements

- **C** Equipment must be in good working order
- **Damaged pallets should be inspected by a competent person to confirm their structural capacity before use**
- Place rubber with minimum coefficient of friction of 0.6 and minimum load capacity of 6.0 N/mm² between the item and the pallet
- Rubber must have capacity to withstand load without failing (i.e. crushing, tearing or disintegrating etc.)
- Rubber should be inspected prior to use of the pallet. If noticeable wear and tear is present, rubber should be removed and replaced
- X No low friction surfaces (i.e. steel on steel)
- Position the item such that the Centre of Gravity [CoG] is located between the tyne pockets and centrally across the width of the pallet
- Minimum item foot size is 4 off 150 x 150mm
- Secure the item to the pallet with a minimum of 4 Grade 8.8 bolts, torqued per the requirements specified in Table 1
- Ensure correct size and specification plate washers are used along with restraint bolts

Table 1: Required Bolt Torque for Items up to 16,500kg

Bolt Diameter	Number of Bolts			
	4	6	8	
30mm	340 Nm	230 Nm	170 Nm	
36mm	410 Nm	275 Nm	205 Nm	
42mm	480 Nm	320 Nm	240 Nm	
48mm	545 Nm	365 Nm	275 Nm	
56mm	635 Nm	425 Nm	320 Nm	
64mm	730 Nm	485 Nm	365 Nm	
72mm	820 Nm	545 Nm	410 Nm	
80mm	910 Nm	605 Nm	455 Nm	



Daywalk Transporta Pallet



Rubber between item and pallet



Central CoG Position





Key Elements con.

- Ensure base lugs lashing capacity of 2000kg is not exceeded during transport
- Ensure elevated lugs lashing capacity of 2000kg is not exceeded during transport
- Yellow lugs must only be used to remove weather cover frame and not as general lifting point.
- Ensure weather cover ratchets do not exceed 100kg of pre-tension per lug
- The maximum load capacity of the pallet is also dependent on the stability of the item refer to Tables 2 & 3



Daywalk Transporta Pallet



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Load Capacity - Load Stability

- The maximum load capacity of the pallet is also dependent on the stability of the item in the forwards and sideways directions (i.e. the base width, base length and centre of gravity height)
- **Tables 2 and 3 specify the maximum pallet capacity based on load stability** in the forwards and sideways directions respectively
- \checkmark The pallets capacity is the lesser value obtained from the two tables
- **M** Items may topple forwards if they have a narrow base length



The maximum forwards toppling load capacity for items with a centre of gravity within 10% of the base length from the mid point is shown in Table 2

Base Length	Centre of Gravity Height (mm)				
	400 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400
1800mm	16500kg	16500kg	16500kg	8845kg	5305kg
1801 - 2000mm	16500kg	16500kg	16500kg	14745kg	7370kg
2001 - 2200mm	16500kg	16500kg	16500kg	16500kg	10810kg
2201 - 2400mm	16500kg	16500kg	16500kg	16500kg	16500kg
2401 - 2500mm	16500kg	16500kg	16500kg	16500kg	16500kg

Table 2: CoG Limitations - Forwards Toppling



M Items may topple sideways if they have a narrow base width



The maximum sideways toppling load capacity for items with a centre of gravity within 10% of the base width from the mid point is shown in Table 3

Table 3: CoG Limitations - Sideways Toppling

Base Width	Centre of Gravity Height (mm)				
	400 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400
700mm	16500kg	6880kg	3750kg	2580kg	1965kg
701 - 900mm	16500kg	16500kg	7580kg	4420kg	3120kg
901 - 1100mm	16500kg	16500kg	16500kg	8110kg	4990kg
1101 - 13 00mm	16500kg	16500kg	16500kg	16500kg	8520kg
1301 - 1500mm	16500kg	16500kg	16500kg	16500kg	16500kg

 Key Assumptions: 1. Contact points remain in contact with the pallet at all times 2. Static coefficient of friction between rubber and item and rubber and pallet is min. 0.6 3. Performance standard forces: 0.8g forwards, 0.5g rearwards and sideways and 0.2g vertical. 	 Restraint is applied to the pallet only, no additional load is placed on the item (i.e. lashings do not pass over item) Accelerations from mobile plant do not exceed the performance standard forces Item weight is evenly distributed between all feet Bolt torque calculated based on nut factor of 0.28
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Load Restraint

- Place rubber (with min. coefficient of friction of 0.6 and min. load capacity of 6.0 N/ mm²) or rough sawn timber (with min. coefficient of friction of 0.4) between the pallet and the deck
- Load the pallet centrally across the truck
- Secure the pallet to the truck with chains in the arrangements shown (chains are to be mirrored on opposing side)
- Use chains only. Chains must be min. 8mm, compliant to AS4344 and pre-tensioned to 1000kg.f
- All lashing components must have a minimum Lashing Capacity (LC) of 2000kg.f
- Maximum allowable total weight (Pallet TARE + Item) is 19,100kg for the restraint systems shown

