

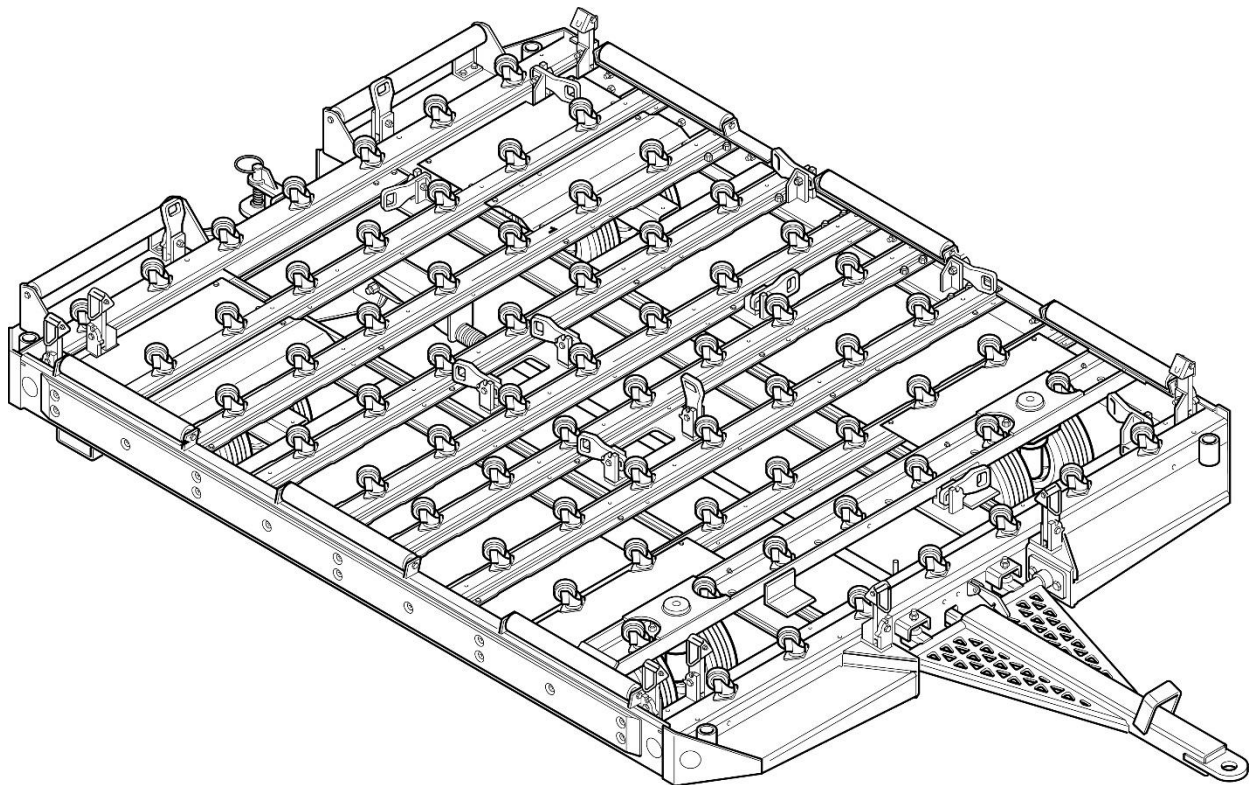
PCT600OC

UNIVERSAL PALLET

CONTAINER DOLLY

USER, MAINTENANCE AND

PARTS MANUAL



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CONTACT DETAILS.

If you require technical assistance with this product that is not covered within this manual, then help can be requested from Avro GSE using the contact details given below, or from our distribution partners.




		
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LIST OF ABBREVIATIONS

C	Centigrade	mm	millimetres
Deg	degree (temperature)	mph	miles per hour
F	Fahrenheit	Nm	Newton Metre
ft/lbs	foot-pounds force	P/N	Part Number
kg	kilograms	PPE	Personal Protective Equipment
IATA	International Air Transport Association	SAE	Society of Automotive Engineers (specification)
in.	Inches	SWL	Safe Working Load
kph	kilometres per hour	ULD	Unit Load Device
lbs	pounds		

SAFETY

Observe the following safety precautions.

LETHAL DANGER – CARGO USE ONLY



The Cargo Dolly is designed to move cargo pallets and Unit Load Device (ULD) Containers, only. Do not overload the Cargo Dolly. Make sure that ULD Containers are correctly positioned on the Cargo Dolly and secured with the spring-loaded pallet stops. Refer to the list of approved ULD Containers on page 7, and the loading diagrams (Figures 2 to 6).

DO NOT use the Cargo Dolly to transport people or other items. It is unsafe to do so, and lethal injury may result.

LETHAL DANGER – DO NOT USE ON PUBLIC ROADS



The Cargo Dolly is designed for use in airports. It is NOT suitable, or legal, for use on public roads. Attempting to use the Cargo Dolly on a public road may result in a lethal accident.

DO NOT misuse or fool around with, or on, a Cargo Dolly. Lethal injury may result.

WARNING – MAXIMUM SPEED



Do not exceed the maximum speed of 13 kph (8 mph) recommended by the IATA for Cargo Dollies with un-sprung wheels. It unsafe to exceed the recommended speed.

WARNING – SIZE AND WEIGHT OF CARGO DOLLY



The Cargo Dolly weighs 1089.5 kg. When lifting the Cargo Dolly, always use suitable lifting equipment (e.g. a crane with lifting slings or chains, or a forklift truck) with a Safe Working Load (SWL) rated above the weight of the equipment to be lifted.

The Cargo Dolly must always be towed or moved using a suitable vehicle.

WARNING – HEAVY ITEMS



The weight of all components exceeding 1 kg (2.2 lbs) is given in the Parts Breakdown List. Always use correct manual handling techniques. For items positioned below mid-lower leg height, safe lifting capacity is 10 kg (5 kg if not close to your feet) for an able-bodied man and 7kg (3 kg if not close to your feet) for an able-bodied woman.

WARNING – LUBRICANTS



Do not eat, drink or smoke when applying lubricant. Do not allow the lubricant to come into contact with your eyes, mouth or nose. Wear Personal Protective Equipment (PPE), for example suitable gloves, eye shields, and overalls. If lubricant is ingested, or comes into contact with your eyes, seek medical assistance immediately.

Lubricant is a slip hazard. Always clean up any spillages, or excess lubricant.

PRECAUTION – PERSONAL PROTECTIVE EQUIPMENT



When using, unpacking, moving, lifting, servicing, repairing, or transporting the Cargo Dolly, always wear suitable Personal Protective Equipment (PPE) to prevent crushing of hands, feet, or other body parts. For example, wear protective footwear, safety glasses, hard hat, protective gloves, and high-visibility clothing.

When preparing the Cargo Dolly for transport by air, road, or rail, make sure it is securely packed. Safeguard the Cargo Dolly against movement or break-away during transport by securely strapping it in place.

If stacking the Cargo Dolly for storage, secure it in position by strapping it in place.

PRECAUTION - READ THIS MANUAL



Read this manual before operating, cleaning, repairing, or servicing this equipment.

DESCRIPTION

The function of the PCT600OC Universal Pallet Container Dolly (Cargo Dolly) is to transport aircraft compatible cargo pallets within the confines of airports. The Cargo Dolly is NOT suitable for use on public roads. The Cargo Dolly is designed to be towed by a Baggage Tractor, and multiple Cargo Dolly's can be linked together, up to the towing limit of the Baggage Tractor and the regulations of the relevant airport/transport authorities.

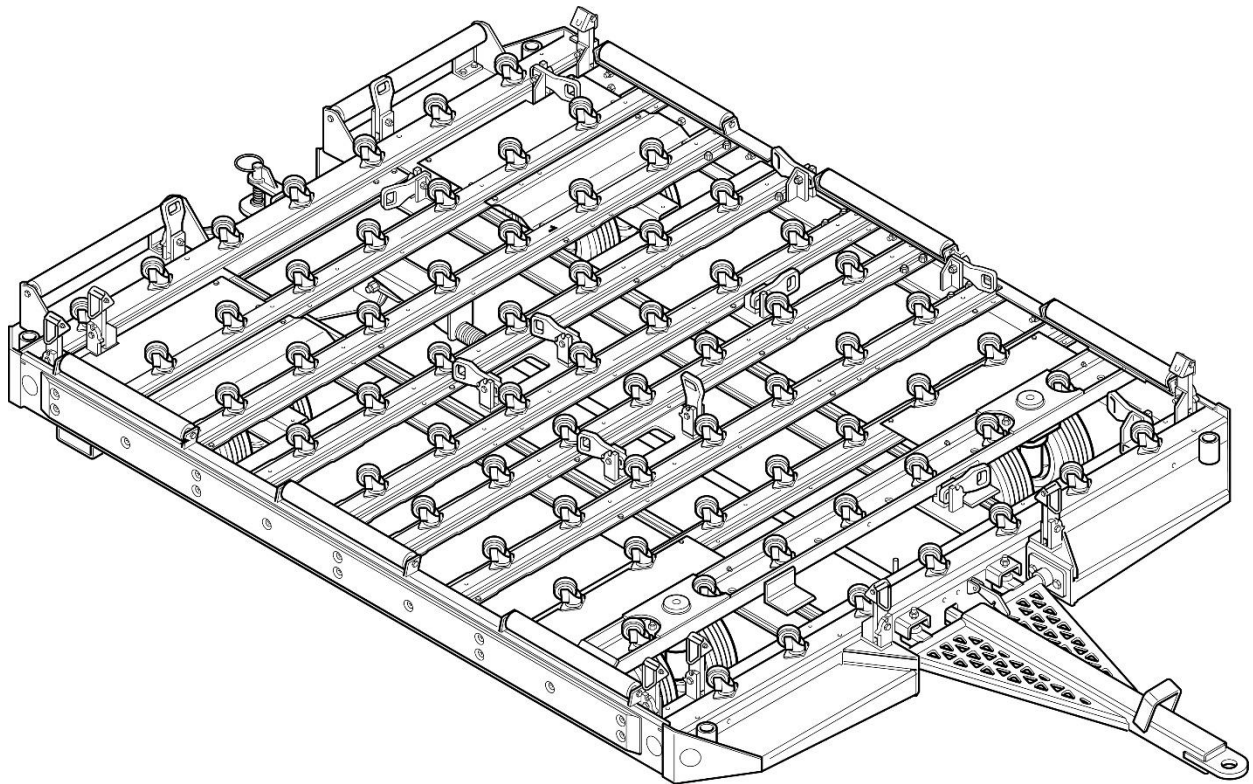


Figure 1 – Cargo Dolly

The Cargo Dolly can carry the following combinations of Unit Load Device (ULD) containers:

- One LD2 ULD.
- Two LD2 ULD.
- Four LD2 ULD.
- One LD3 ULD.
- Two LD3 ULD.
- One LD7 ULD.
- One LB8 ULD.
- Two LD8 ULD.

PCT6000C Cargo Dolly

The Cargo Dolly can carry both 88 in. x 125 in. and 96 in. x 125 in. pallets.

The Cargo Dolly comprises a steel frame assembly to which the other parts are attached. The Cargo Dolly incorporates 70 enclosed castors, and eight rollers, to enable easy positioning of the cargo. Spring-loaded tip-up pallet stops secure the cargo in position. The two front dual wheels are mounted on swivel castors, whereas the two sets of dual rear wheels are fixed. The tires are solid rubber.

The Cargo Dolly has a tow bar activated braking system, which applies the brake to the rear wheels when the tow bar is raised. A spring-loaded E-Type hitch at the rear allows multiple units to be linked together.

Cargo Dollies can be stacked for shipping and storage.

SPECIFICATION

The specification of the Cargo Dolly is given in the following Table.

Table 1 Cargo Dolly specification

Cargo Dolly	Value	Units	Notes
Dimensions			
Length (towing position)	4661 183 1/2	mm in.	
Length (tow bar raised)	3514 138 5/16	mm in.	
Width	2592 102 1/16	mm in.	
Height	521 20 1/2	mm in.	
Weight	1089.5 2401.9	kg lbs	
Maximum permitted load	7000 15432	kg lbs	
Operating temperature range	-50 to +70 -58 to 158	deg C deg F	Ambient temperature
Storage temperature range	-50 to +70 -58 to 158	deg C deg F	Ambient temperature
Humidity range	0 to 100	%	Relative humidity
Maximum towing speed	13 8	kph mph	Max. speed recommended by the IATA for a Cargo Dolly with un-sprung wheels. (AHM 427, ULD Transportation, refers)

CARGO DOLLY LOADING DIAGRAMS

Figure 2 through Figure 6 show how to position LD2, LD3, LD7, and LD8 ULD Containers on the Cargo Dolly. Note the positions of the spring-loaded pallet stops which secure the ULD Containers in place.

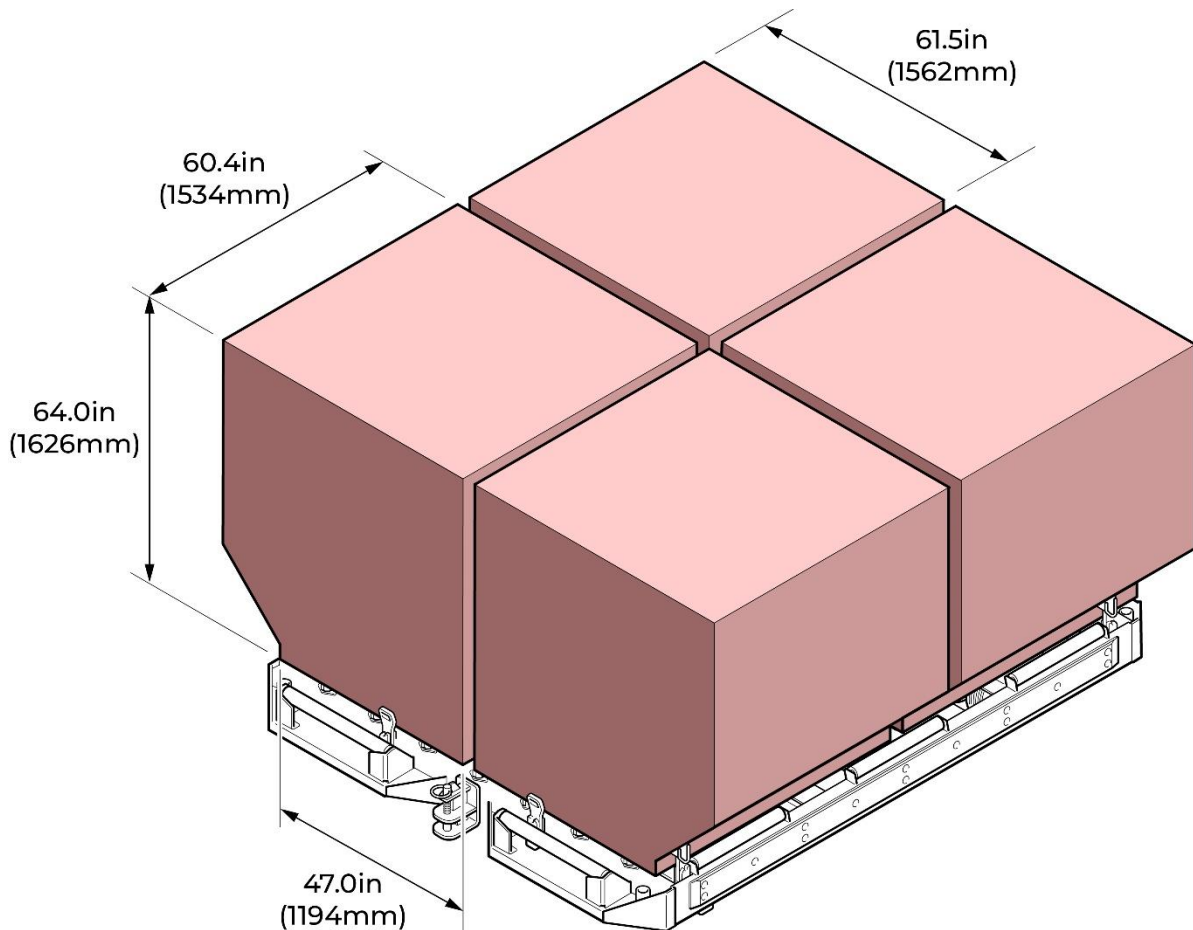


Figure 2 – Four LD2 Containers on Cargo Dolly

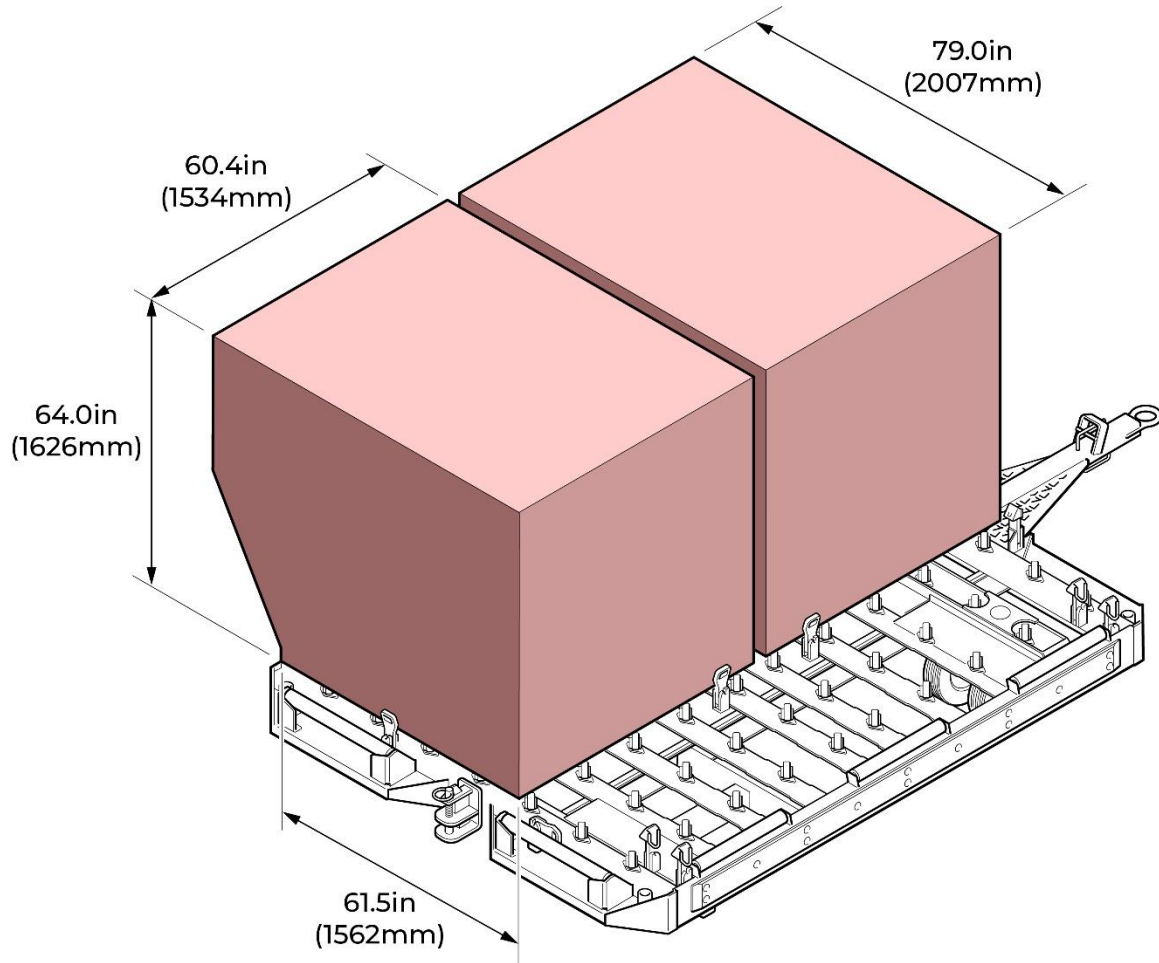


Figure 3 – Two LD3 Containers on Cargo Dolly

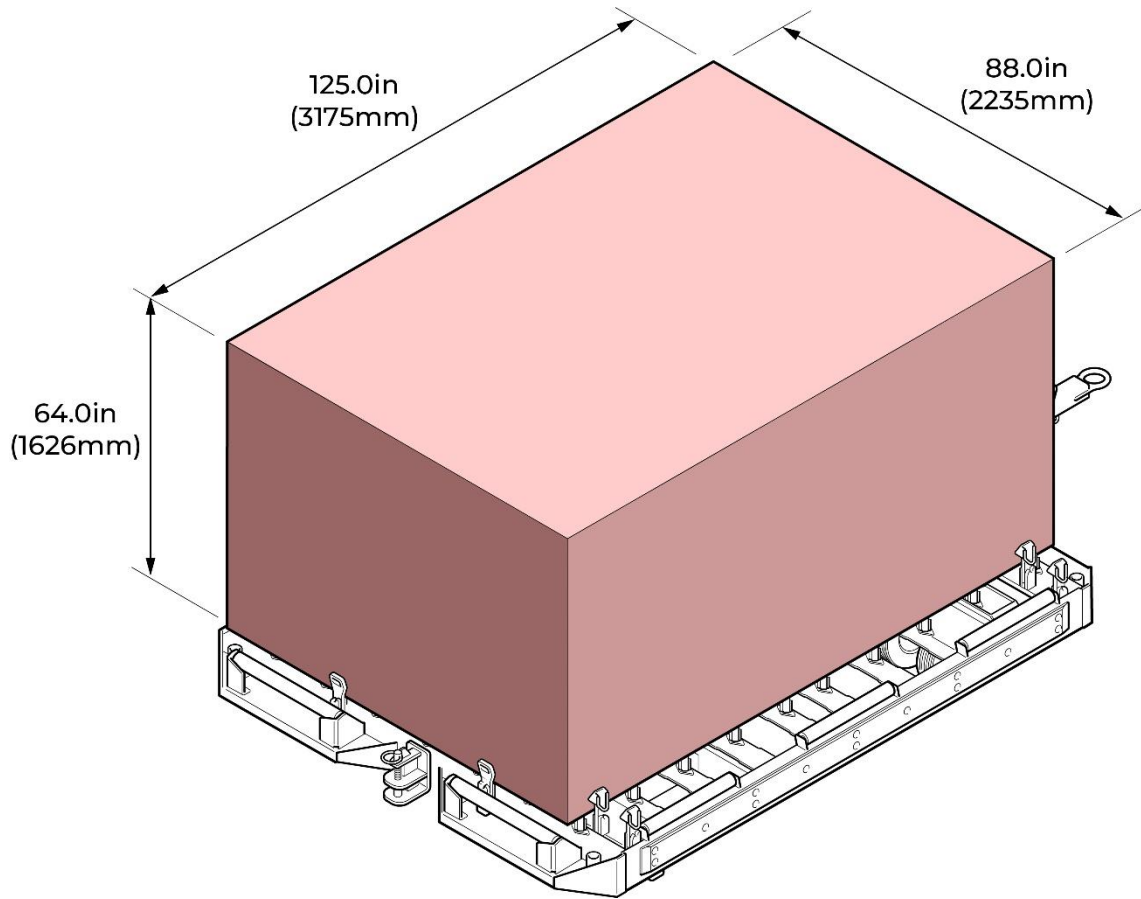


Figure 4 – LD7 Container on Cargo Dolly

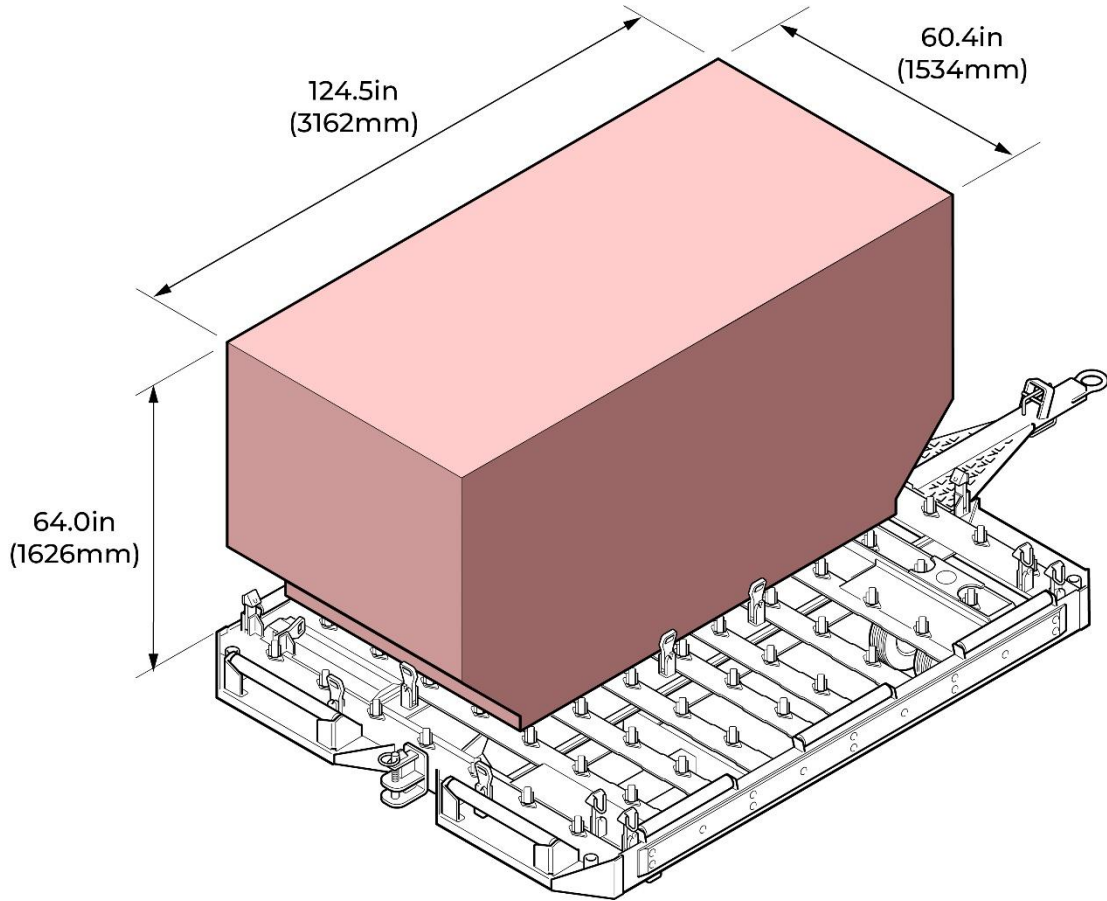


Figure 5 – A single LD8 Container on Cargo Dolly

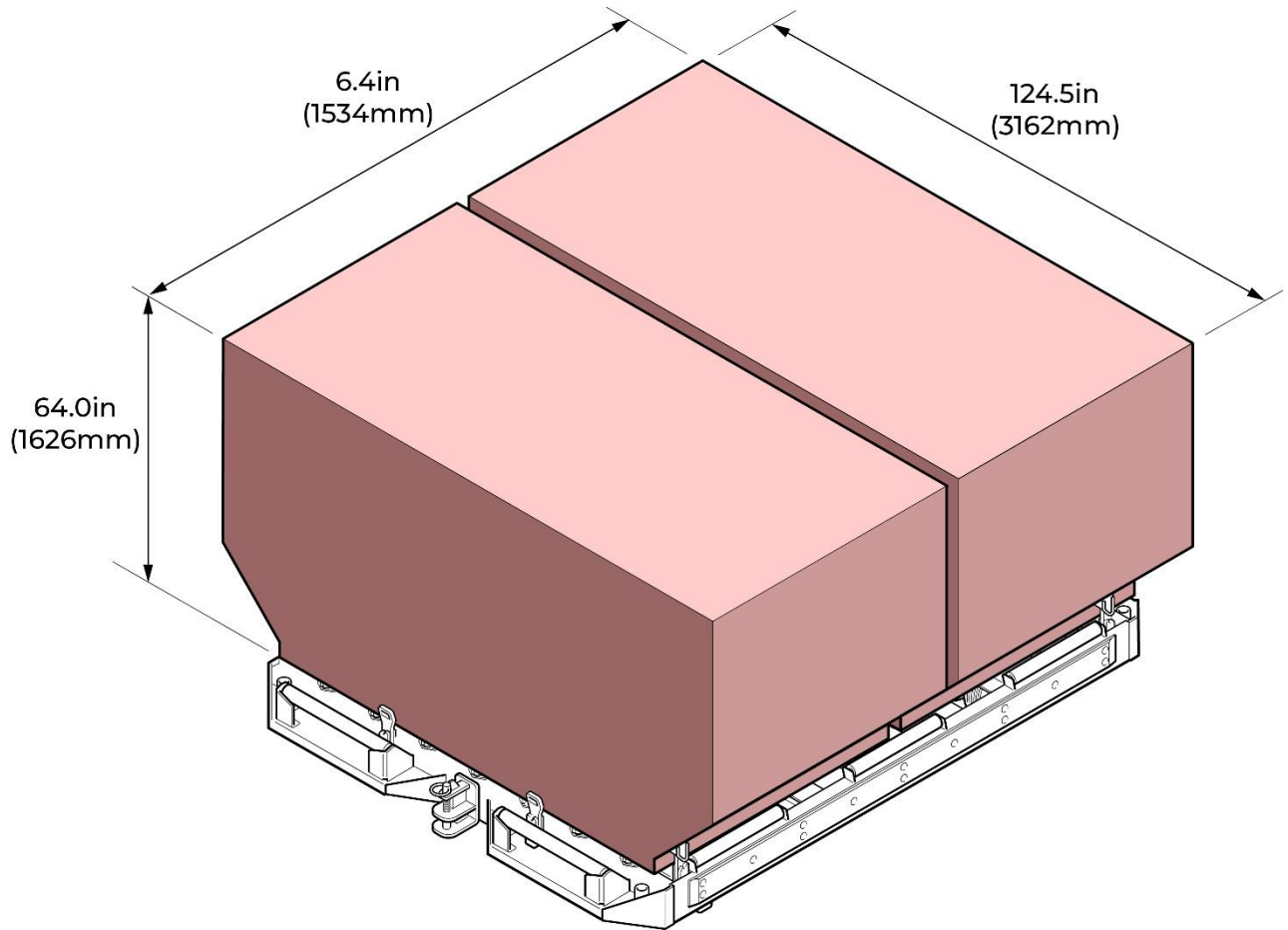


Figure 6 – Two LD8 Containers on Cargo Dolly



TROUBLESHOOTING AND FAILURE DIAGNOSIS

Troubleshooting and failure diagnosis of the Cargo Dolly is limited to performing the visual inspection procedure described in the Scheduled Maintenance table.

SCHEDULED MAINTENANCE

Scheduled maintenance is limited to the activities specified in the Table below. The maintenance intervals given are approximate, assume heavy use of the Cargo Dolly, and may be varied by ±10% without adverse effects. Every Cargo Dolly should be inspected and serviced based on its own requirements, for example variation in the hours of use and the environment in which it is used.

When fitting fasteners, DO NOT apply thread-locking adhesive. The wheel nuts have a minimum torque setting, specified in the Table below, to which they must be tightened using a Torque Wrench. For all other fasteners, it is sufficient to tighten them hand-tool tight: - there is no requirement to use a Torque Wrench or apply a specific torque.

	Task	Monthly	6 Monthly
1	Cleaning		
a.	Use water and degreaser, or a domestic detergent and water solution. Do not use industrial cleaning agents, or caustic agents, or aircraft de-icing and cleaning agents. Use of a spray washer is permitted.	X	X
2	Visual and Mechanical Inspection		
	Examine the Cargo Dolly for the following. During the inspection tighten any fasteners that are loose.		
a.	Main Frame undamaged. Minor damage or corrosion is acceptable. Damage to the Main Frame that affects the operation of the Cargo Dolly requires the replacement of the Cargo Dolly.	X	X
b.	Check the Swivel Castors. Replace any that are damaged or missing.	X	X
c.	Check the Rollers. Replace any that are damaged or missing.	X	X
d.	Check that the e-hitch is undamaged, secure, and functions correctly. Replace if required.	X	X
e.	Check Tow Bar is undamaged, secure, and functions correctly. Replace Tow Bar and/or Tow Bar Mounting Assembly, if required.	X	X
f.	Check that the Towbar Adjustable Stops are present and undamaged. Replace if missing or damaged.	X	X
g.	Check that all Hood Spring Stops and Handle Stops are present, secure, undamaged and function correctly. Replace any that are missing or unserviceable.	X	X
h.	Check Qty. four Wheel Axel Assemblies and Qty. two Front Swivel Axle Assemblies for wear, damage, security of attachment, trapped debris, and	X	X

	Task	Monthly	6 Monthly
	wheel rotation. Remove debris. Check Front Swivel Axle Assemblies for swivel function. Replace any that are badly worn, damaged or not fully functional.		
i.	On all wheels, check that the wheel nuts are present. Make sure that all wheel nuts are tightened to a MINIMUM torque of 156 Nm (115 ft/lbs).	X	X
j.	Check Brake Line Linkage and associated threaded rods, spring, threaded yoke, and fasteners, are all present, secure, serviceable, and function correctly. Replace any that are missing or unserviceable.	X	X
k.	Check Brake Bar is present, undamaged, secure, and functioning. Check associated Brake Shoes are present and not so worn that brake function is degraded. Replace if missing or unserviceable item.	X	X
l.	Check side bumpers are present and secure. Replace if required.	X	X
m.	Check red and yellow reflective stickers are present. Replace if required.	X	X
3	Lubrication Use a heavy-duty, marine grade, agricultural grade, or military grade, bearing grease suitable for long term use outside in severe environments. For example: Pews & Edelmann LubriMatic type 11404 Marine Trailer Wheel Bearing and Corrosion Control Grease. Or an equivalent. For example: MIL-PRF-10924 (NATO Code No G-403) Grease Automotive and Artillery.		
a.	Lubricate the Qty. four Wheel Axel Assemblies.		X
b.	Lubricate the Qty. two Front Swivel Axle Assemblies.		X

REPAIR

Repair of the Cargo Dolly is by direct replacement of the faulty or damaged component. The Exploded Parts View illustrations show all the components and how the Cargo Dolly is dismantled and re-assembled. All the components are listed in the Parts Breakdown List and the numbers on the Exploded Parts View illustrations are keyed to the Parts Breakdown List.

Replacement parts should be sourced from Avro GSE. The use of major components not obtained from Avro GSE will invalidate the Warranty.

NOTE

It is expected that replacement fasteners may be sourced locally. If sourcing fasteners locally, make sure that the replacement fasteners are the same type and grade of material, and have the same protective coating, as the original. The Parts Breakdown List specifies the required material and finish.

The Main Frame Assembly is not available as a spare. Any significant damage to the Main Frame Assembly will almost certainly be part of catastrophic damage to the Cargo Dolly. Also, the time and effort required to strip down the Cargo Dolly, replace the Main Frame Assembly, and then rebuild, is such that significant damage to the Main Frame Assembly renders the Cargo Dolly “Beyond Economic Repair”.

EXPLODED PARTS VIEW

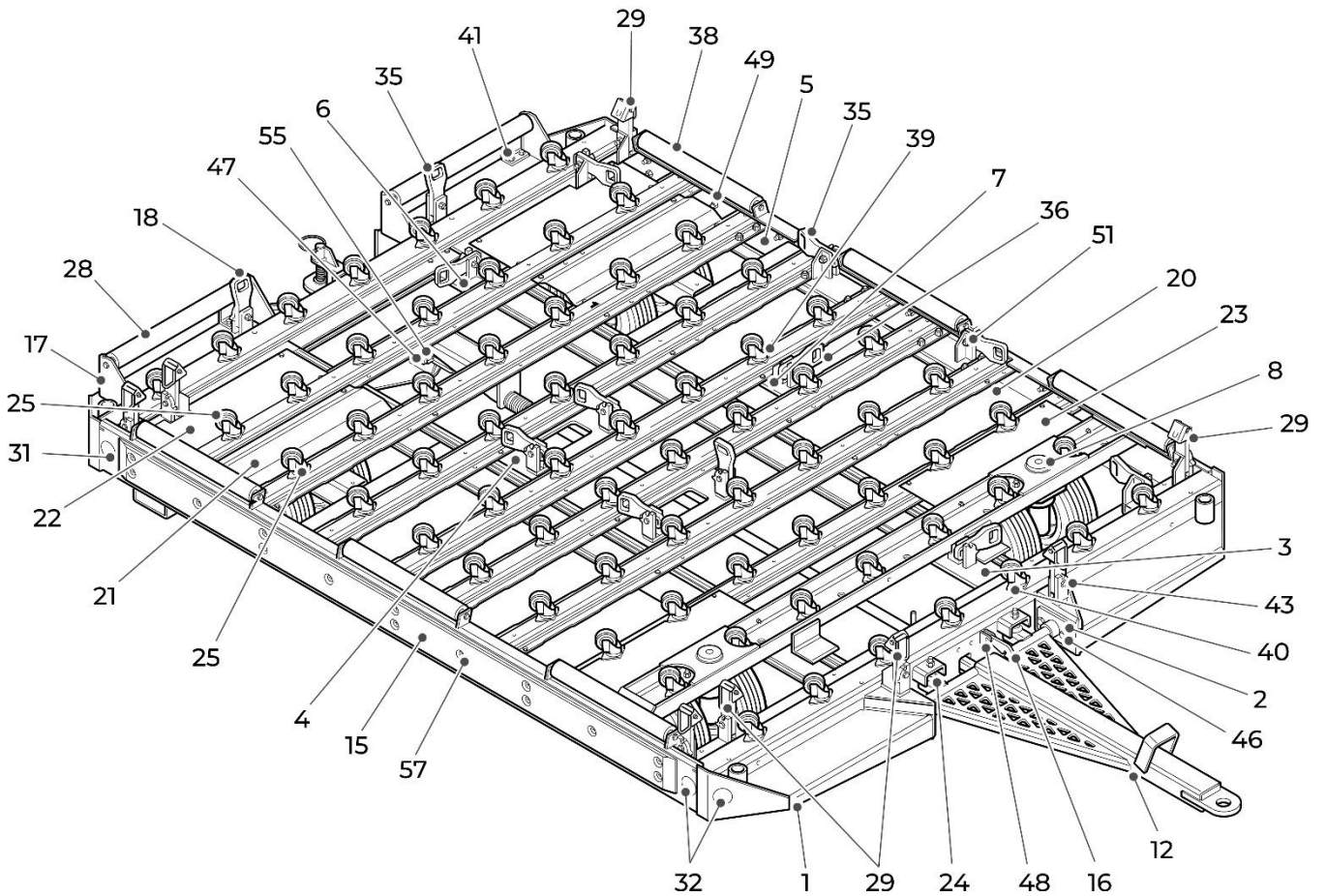


Figure 7 - Exploded Parts View (from above)

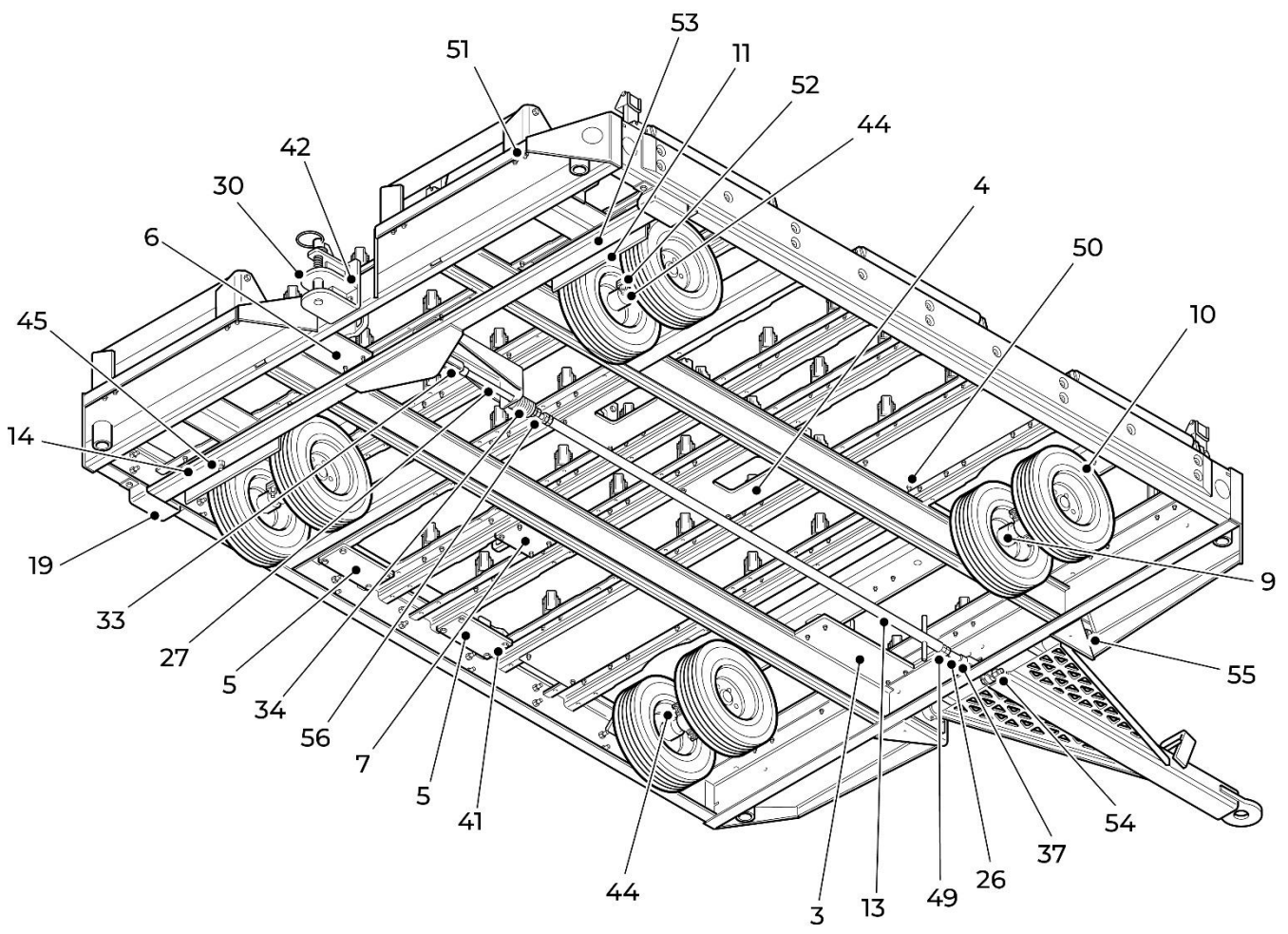


Figure 8 – Exploded Parts View (from below)



PARTS BREAKDOWN LIST

NOTE

Weights are only given in the table below for items that have a weight of 1 kg or more.

Item	Part No.	Description	Qty	Weight per item (kg)
1	PRNP00404	Main Frame Assembly	1	654.0
2	PRNP00026	Tow Bar Mounting Assembly	2	2.0
3	PRNP00023	Front LD8 Stop Support	1	9.0
4	PRNP00021	LD1,2,3 Stop Support	2	11.0
5	PRNP00018	Hood Stop Support	2	4.0
6	PRNP00022	LD8 Stop Support	1	5.0
7	PRNP00020	Middle Stop Support	1	3.0
8	PRNP00007	Front Swivel Axle Assembly	2	10.0
9	PRNP00024	Wheel Axle Assembly	4	35.0
10	PRNP00003	Solid Tire with Rim	8	11.4
11	PRNP00005	Brake Shoe Assembly	2	4.0
12	PRNP00008	Tow Bar	1	34.8
13	PRNP00006	Brake Line Linkage	1	5.1
14	PRNP00033	Brake Bar Assembly	1	28.0
15		Side Bumper	2	7.1
16	PRNP00004	Towbar Latch	1	-
17		Right Rear Roller Bracket	2	3.1
18		Left Rear Roller Bracket	2	3.1
19		Brake Bar Bracket	2	1.0
20		Front Splash Guard	2	-
21		Rear Over Wheel Splash Guard	2	-
22		Rear Splash Guard	2	-
23		Front Over Wheel Splash Guard	2	-
24	PRNP00035	Towbar Adjustable Stop	2	-
25	PRNP00002	Swivel Castor	70	-
26	PRNP00029	Left-Hand Threaded Rod	1	-
27	PRNP00034	Threaded Rod	1	1.2
28	PRNP00016	Roller - Rear	2	4.5
29	PRNP00018	Hood Spring Stop	8	2.0

Item	Part No.	Description	Qty	Weight per item (kg)
30	PRNP00036	e-Hitch	1	11.0
31	PRNP00031	Reflective Sticker, Red, plastic, 3" Dia.	4	-
32	PRNP00030	Reflective Sticker, Yellow, plastic, 3" Dia.	4	-
33	PRNP00028	Forged Yoke, 3/4", Right-Hand Thread	1	3.4
34	PRNP00015	Brake Line Spring	1	1.3
35	PRNP00019	Bent Handle Stop	12	1.4
36	PRNP00020	Straight Handle Stop	1	1.4
37	PRNP00027	Forged Yoke, 3/4", Left-Hand Thread	1	3.4
38	PRNP00017	Roller - Side	6	3.1
39		Hex Bolt - 5/16-18 X 1" - Zinc Plated, SAE Grade 8	176	-
40		Hex Bolt - 5/16-18 X 2-3/4" - Zinc Plated, SAE Grade 8	4	-
41		Hex Bolt - 1/2-13 X 1-1/2" - Zinc Plated, SAE Grade 8	24	-
42		Hex Bolt - 1/2-13 X 2-1/2" - Zinc Plated, SAE Grade 8	4	-
43		Hex Bolt - 1/2-13 X 2-3/4" - Zinc Plated, SAE Grade 8	21	-
44		Hex Bolt - 9/16-12 X 2" - Zinc Plated, SAE Grade 8	24	-
45		Hex Bolt - 5/8-11 X 3" - Zinc Plated, SAE Grade 8	2	-
46		Hex Bolt - 3/4-10 X 2" - Zinc Plated, SAE Grade 8	4	-
47		Hex Bolt - 3/4-10 X 3" - Zinc Plated, SAE Grade 8	2	-
48		Hex Bolt - 5/16-18 X 1-1/2" - Zinc Plated, SAE Grade 8	9	-
49		Hex Nut - 3/4-10 - Zinc Plated, SAE Grade 8	4	-
50		Nut, NYLOCK, Self-Locking - 5/16-18 - Zinc Plated, SAE Grade 8	189	-
51		Nut, NYLOCK, Self-Locking - 1/2-13 - Zinc Plated, SAE Grade 8	85	-
52		NUT, NYLOCK, Self-Locking - 9/16-12 - Zinc Plated, SAE Grade 8	24	-
53		Nut, NYLOCK, Self-Locking - 5/8-11 - Zinc Plated, SAE Grade 8	2	-
54		Nut, NYLOCK, Self-Locking - 3/4-10 - Zinc Plated, SAE Grade 8	1	-
55		Nut, NYLOCK, Self-Locking - 3/4-10 - Zinc Plated, SAE Grade 8	5	-
56		Washer, Flat, Wide - 3/4" - Zinc Plated, Carbon Steel	2	-
57		Socket Head Cap Screw 0.5 - 13x2x2-HX-N	36	-

WARRANTY

All Avro GSE products are covered by our Warranty Policy. If you require a copy of our Warranty Policy, please contact us using the contact details given on page 2 of this manual.

DISPOSAL

The Cargo Dolly contains no electrical components. A Cargo Dolly that is damaged beyond economic repair, or worn out, should be recycled at a metal recycling facility.