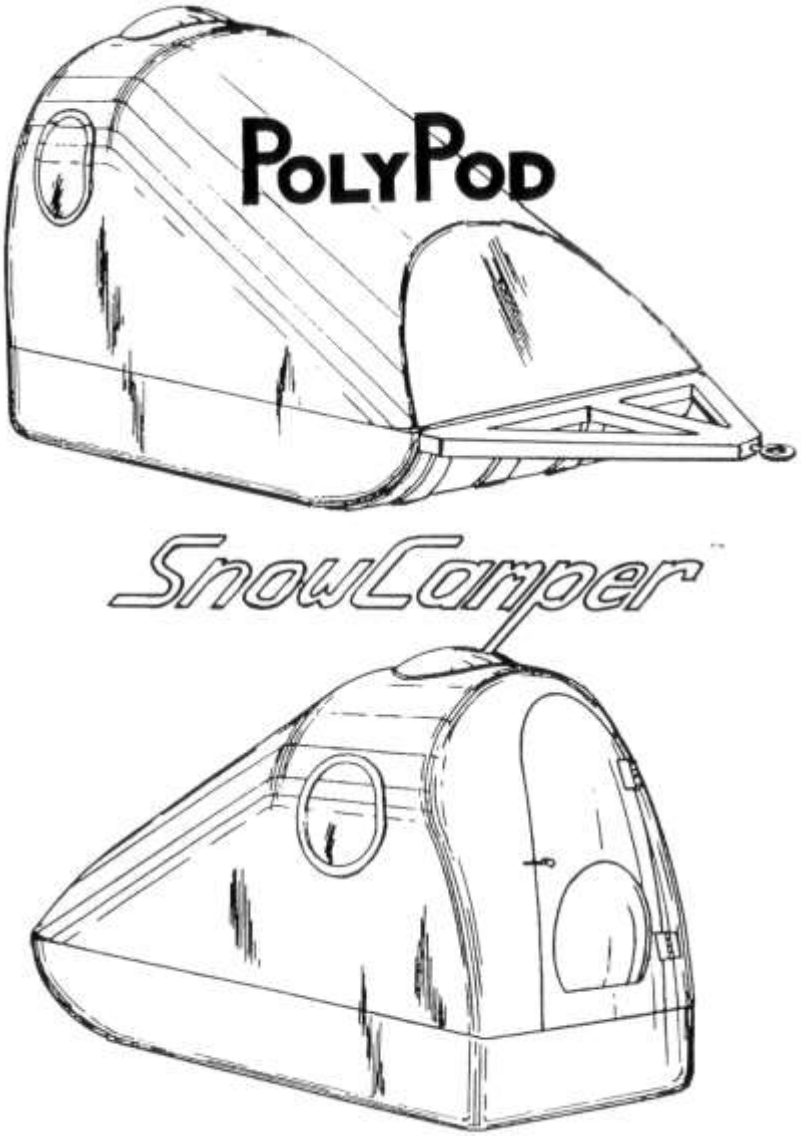

PolyPod
SnowCamper

POLYPOD SNOWCAMPER*™*
CANOPY COVERED SLEDGE

The PolyPod SnowCamper is manufactured by:

Penguin Composites Pty Ltd
808 South Road, Penguin
Tasmania, Australia 7316

Under licence from:

Icewall One
240 Watsons Road, Kettering
Tasmania, Australia 7155

Phone: +61 3 6267 4774
Email: anthea@icewall.com.au

www.icewall.com.au
www.tasmanianpolarnetwork.com.au

FEATURES

The PolyPod is an all-fibreglass sledge designed to be towed by small snowmobile or tractor. Weighing only 140 kg, this insulated pod-shaped sledge provides a versatile travelling unit for individual or two-man excursions to remote areas.

Unlike other sledges, the PolyPod features a wind and weatherproof canopy, which is spacious enough for two people to live in warmth and comfort. This insulated canopy also provides excellent protection for delicate instruments and photographic equipment from damage by blizzards, snowstorms and wet weather.

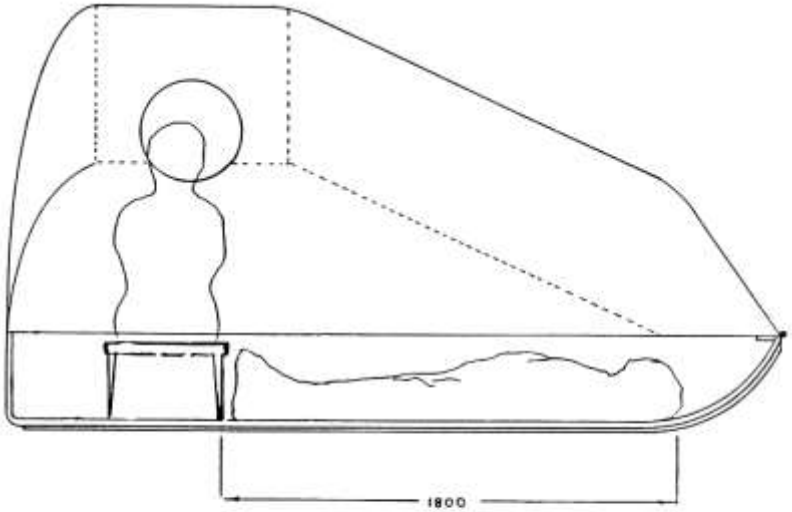
Tie-down lugs are attached to the PolyPod so that it can be anchored to the ground against strong winds. With the sudden onset of a blizzard during a traverse, the snowmobile and PolyPod may be turned into the wind to provide immediate shelter for up to six persons.

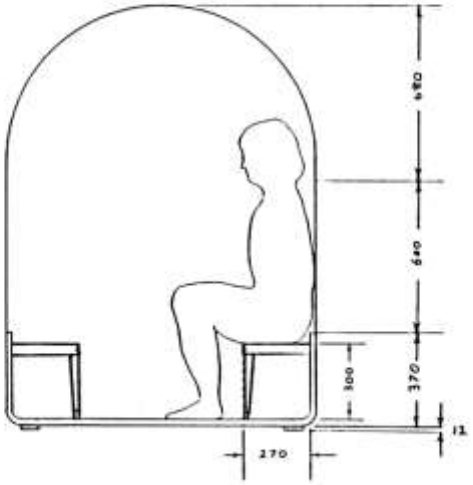
The sledge base is waterproof and the PolyPod is ideal for research on uncertain ice where, if the ice breaks up, the unit will stay afloat until help arrives.

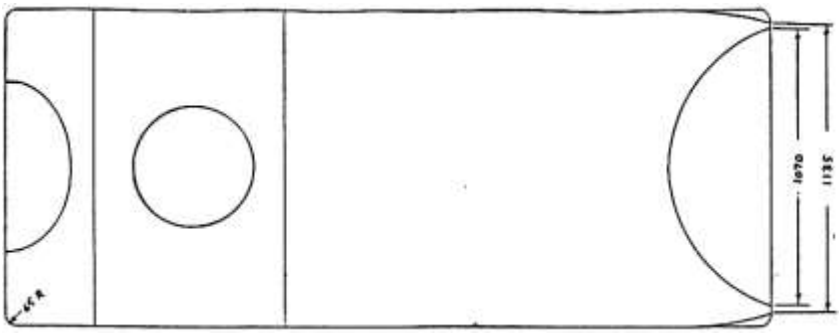
For lakeside camping, the PolyPod canopy may be removed and used as a rigid tent while the base, fitted with an outboard motor, doubles as a punt.

The fibreglass tow-bar incorporates carbon-fibre and Kevlar for strength and reliability under all conditions and the solid, reinforced front runners take the brunt of any pounding from high speed runs over ice or snow

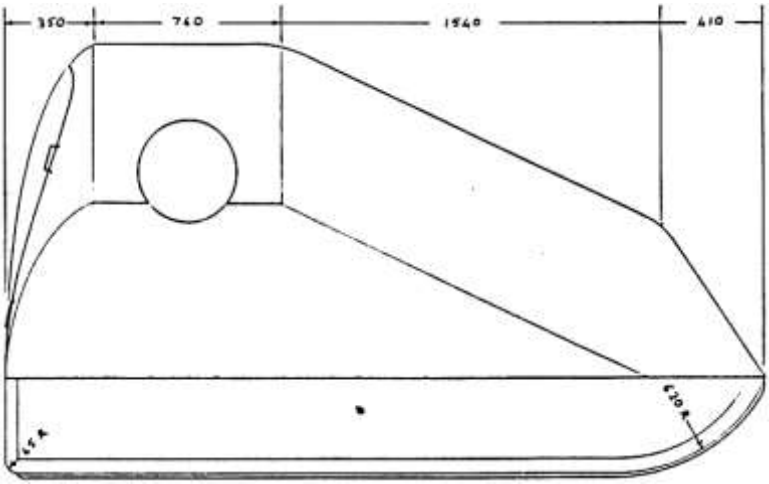
The PolyPod canopy-covered sledge can be fitted out to suit individual needs and is the only mobile unit suitable for expeditions, exploration, surveying or maintenance crews, or any extended travel over snow where safety and comfort are of prime importance.


1800


270
100
370
640
12



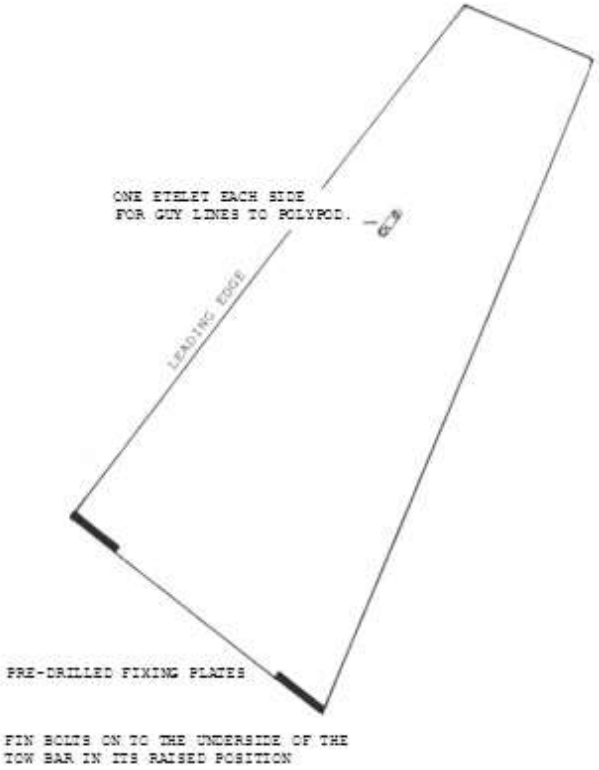
Plan view of sledge canopy



Side elevation – sledge top on sledge/punt base

TAIL FIN (OPTIONAL EXTRA)

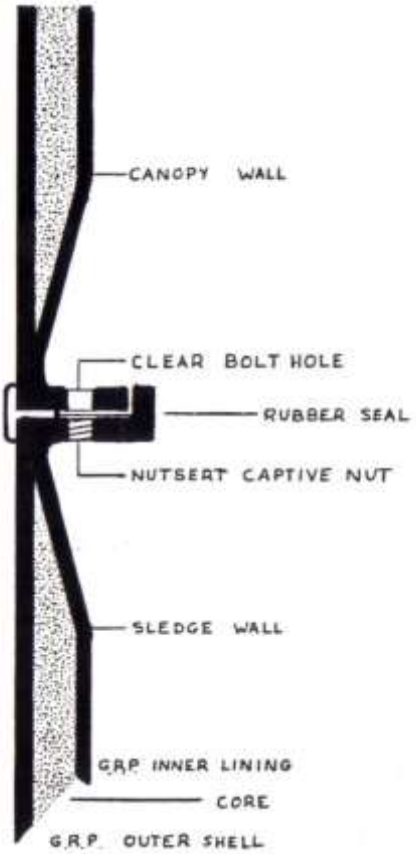
The Tail Fin is used to stabilise the PolyPod SnowCamper when flying the sledge by helicopter.



Cross section of fin.

JOINING THE CANOPY TO THE SLEDGE BASE

The rubber seal strip provides a waterproof join.



Captive Nuts are embedded into the fibreglass on the bottom flange and the bolts screw into these for easy assembly.

FEATURES (cont.)

The PolyPod SnowCamper sledge is constructed of an acrylic foam insulated sheet sandwiched between two layers of fibreglass. This gives the PolyPod its rigid form and easily cleaned surfaces inside and out.

The canopy of the sledge separates into four pieces for shipping and storage. These parts pack into the sledge base along with the tow bar and crated take only 3 cubic metres of space. When the canopy is correctly assembled and fitted to the sledge base, the whole unit forms a waterproof living shelter.

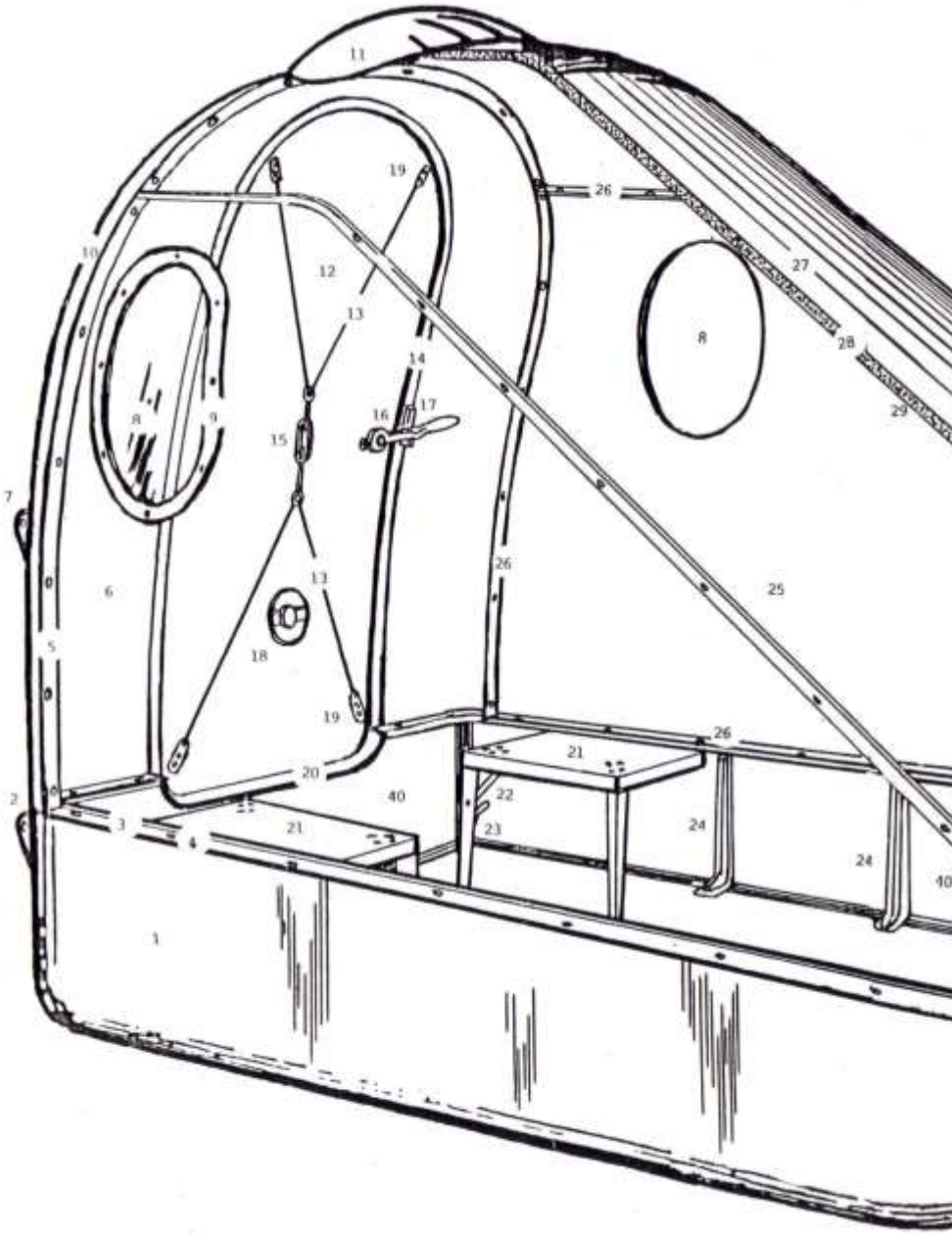
The two mushroom air vents, one in the door and one in the canopy top, are covered with snow deflection hoods to minimize blockages in heavy snow conditions.

Two double glazed polycarbonate windows each 400 mm diameter enable clear visibility of the outside terrain, and allow good natural light into the PolyPod.

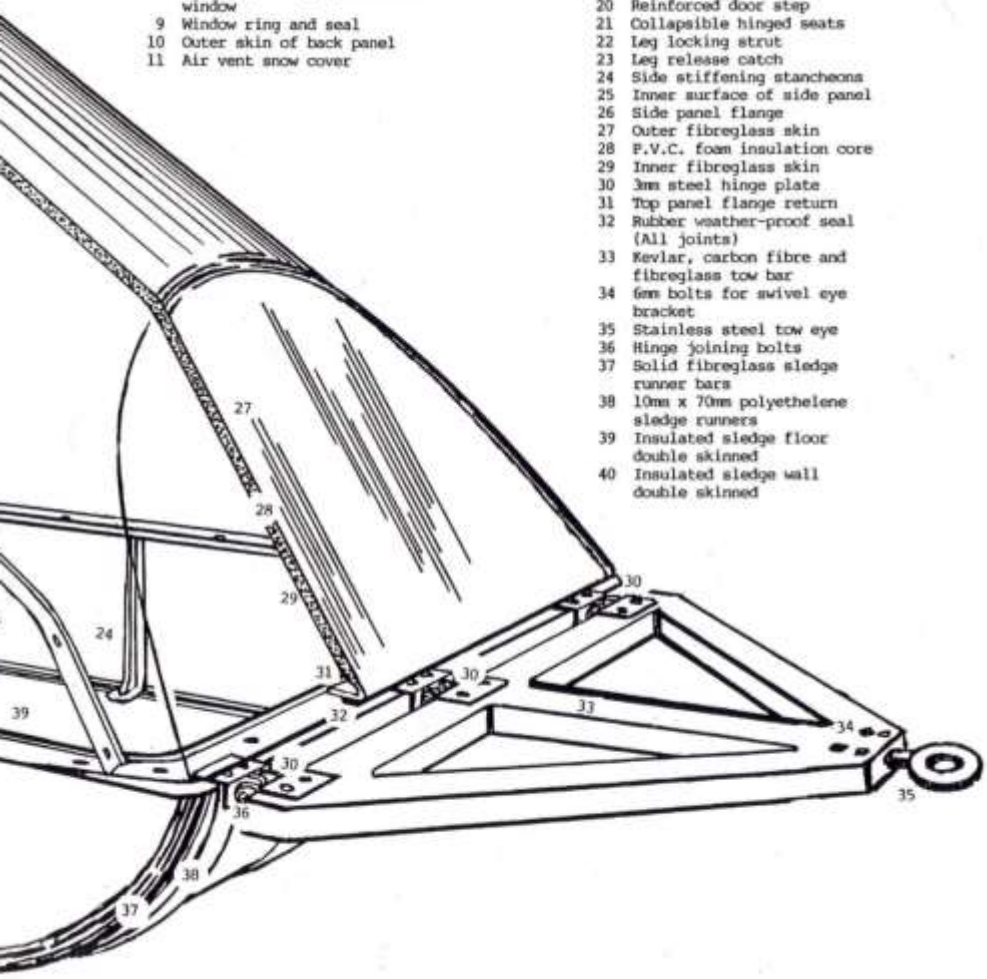
The sealed door at the rear of the sledge is wide enough to accept a standard rescue stretcher so that the PolyPod can be used to treat cases of hypothermia.

In situations where the PolyPod needs to be left a base camp site and is not attached to a tractor (snowmobile), the tow bar eye bolt is used as a third anchor point.

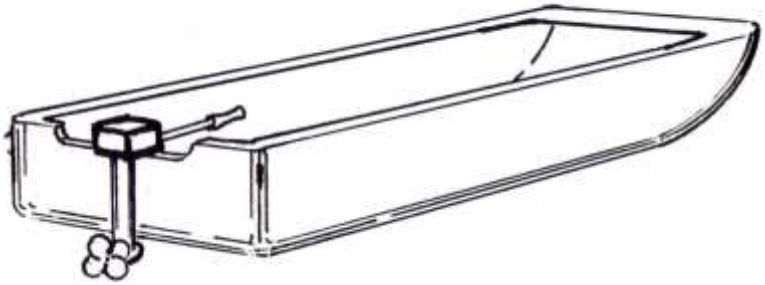
Polyethylene sledge runners are supplied fitted to each PolyPod sledge. These are easily replaced when worn by removing the existing runners and using them as templates for their replacements. Replacement runners may be from wood, steel, plastic or fibreglass.


11
19
26
10
12
27
13
8
28
14
16
17
15
29
8
9
7
26
6
13
25
5
18
19
26
21
20
40
22
2
3
21
23
24
24
40
1

1 Outside wall of sledge base
2 Helicopter lifting lug
3 Sledge base flange
4 Flange bolt hole
5 Back panel flange
6 Inner surface of back panel
7 Tie-down lug
8 Double glazed polycarbonate window
9 Window ring and seal
10 Outer skin of back panel
11 Air vent snow cover
12 Rear door
13 Door tensioning wire
14 Door flange and seal
15 Tensioning turnbuckle
16 Lever door handle
17 Door closing wedge and stop
18 4" mushroom air vent
19 Door tension anchor points
20 Reinforced door step
21 Collapsible hinged seats
22 Leg locking strut
23 Leg release catch
24 Side stiffening stancheons
25 Inner surface of side panel
26 Side panel flange
27 Outer fibreglass skin
28 P.V.C. foam insulation core
29 Inner fibreglass skin
30 3mm steel hinge plate
31 Top panel flange return
32 Rubber weather-proof seal (All joints)
33 Kevlar, carbon fibre and fibreglass tow bar
34 6mm bolts for swivel eye bracket
35 Stainless steel tow eye
36 Hinge joining bolts
37 Solid fibreglass sledge runner bars
38 10mm x 70mm polyethelene sledge runners
39 Insulated sledge floor double skinned
40 Insulated sledge wall double skinned



POLYPOD SLEDGE BASE WITH CANOPY REMOVED



To use the sledge base as a punt with an outboard motor, a plywood square should be clamped or screwed to each side of transom.

POLYPOD ASSEMBLY INSTRUCTIONS

After unpacking, the Door Panel should be fitted into place on the back of the sledge with four bolts tightened so the panel will stay upright, unsupported.

Next take one of the Window Panels and sit it in place on the side of the sledge. Insert two bolts loosely to support it against the Door Panel, and a further two bolts to hold it in position along the sledge side. Check that the lip of the seal rubber is lapped over the join and not trapped between the two panels.

Repeat this procedure with the second side. It is not important to put all the bolts in place until the entire canopy has been assembled.

When the back and sides are in place, lift the Top Panel above the head and walk in over the front of the sledge to sit the panel into place on the flanges of the sides. Insert two bolts into the Door Panel captive nuts and three bolts into each of the side flanges. Check that the rubber seal is not caught under the join.

At this stage all of the remaining bolts can be inserted in the comfort of the assembled PolyPod.

N.B. Fibreglass is slightly flexible and some aligning may be necessary when fitting some of the bolts.

When all of the bolts are in place the first ones to be tightened are those in the bottom corner where the side meets the back and the base. Next tighten all the bolts in both flanges of the side panels. Finally, tighten the bolts in the back corner of the Top Panel followed by the others.

The tow bar is fitted to the front lugs. (Some springing may be necessary to align the boltholes.)

POLYPOD ASSEMBLY INSTRUCTIONS

If the sledge needs to be used as a punt or open sledge, the canopy may be removed intact and used as a tent style of shelter. Used in this manner a small trench will need to be dug in the ground to allow the door to open. The handholds in each side of the canopy should be used to lift the canopy away from the base once the bolts have been removed.

To use the sledge base as a punt with an outboard motor, a plywood square should be clamped or screwed to each side of the transom to protect against crushing it. Make sure that the drain plug is securely in place.

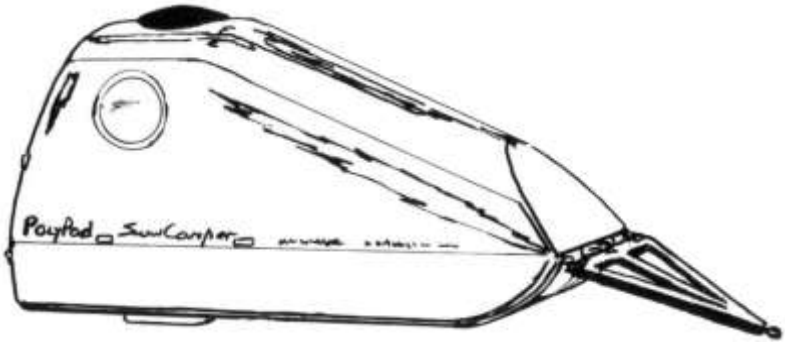
FLYING

For flying by helicopter the tow bar should be raised and the tail fin fitted to the underside of the bar. Four 5/16" bolts are provided for this. The tow bar should be tied in this upright position by a rope running from the lifting lugs though the eye of the tow bar.

The two lifting lines at the back of the PolyPod should be four metres long. Feed each line though the tie-down eyes and attach to the lifting lugs. The front lifting line should be only 3.1 metres long and attached to the tow bar eye.

Important: When sleeping inside the PolyPod, make sure that both air vents are open and that no gas or kerosene heaters are in use.

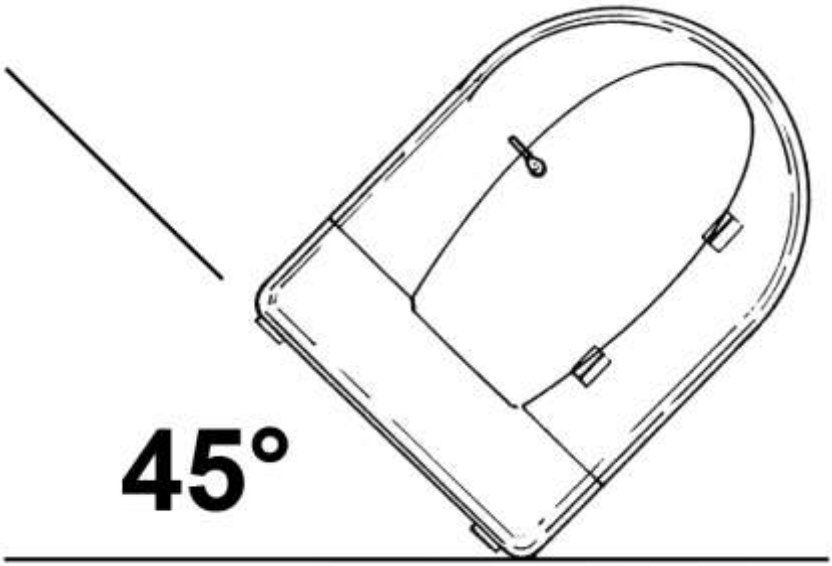
NON-SKID SHOES (OPTIONAL EXTRA)



The shoes bolt on to the sledge runners just behind the centre of gravity two-thirds back along the sledge base. This allows the tractor driver to remain in control at all times.

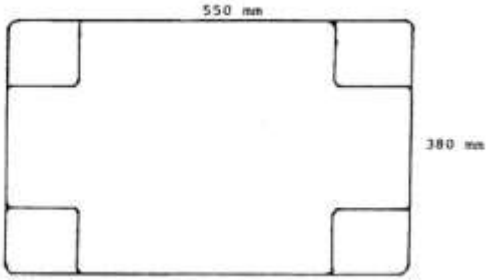
These sharp steel non-skid shoes are used to stop the PolyPod SnowCamper Sledge from side-slipping when traversing glacial slopes.

STABILITY RANGE



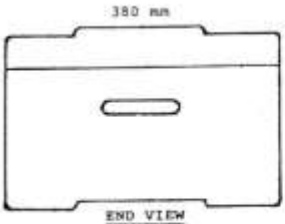
The PolyPod is stable to 45° from upright. With a captive load, this stability range increases.

SLEDGE BOXES

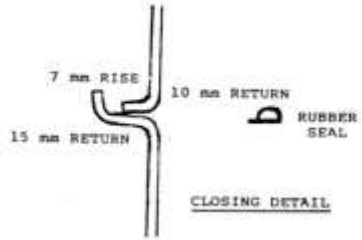


PLAN VIEW

FRONT VIEW



END VIEW



CLOSING DETAIL

SPECIFICATIONS

Sledge Length without Tow Bar	3060 mm
Tow Bar	980 mm
Sledge Width	1220 mm
Sledge Base Height	382 mm
Sledge Height with Canopy	1662 mm
Sledge Base Weight	70 kg
Canopy Weight	70 kg
Approx. Total Weight	140 kg
Double-glazed Polycarbonate Windows – Diam.	400 mm
Maximum Door Width	620 mm
Door Height	1210 mm
Maximum Load	500 kg
Maximum Tested Snow Speed	50 km/h
Maximum Tested Helicopter Flying Speed *	70 knots
Minimum Recommended Tow Vehicle Capacity	250 cc
Stability	Up to 47° from vertical
Packed Dimensions	3150 x 1220 x 670 mm

Door Furniture: Adjustable wedge type twin lever.
Door incorporates a 4-way tension adjustment for positive sealing in the field.
Seals: Rubber strip seals.
Insulation: 10 mm Expanded Polyvinyl Foam sandwiched between fibreglass walls.
Ventilation: 2 x 100 mm diameter mushroom type air vents.

* With Stabilizer.

Icewall One

240 Watsons Road, Kettering
Tasmania, Australia 7155

Phone: +61 3 6267 4774
Email: anthea@icewall.com.au