

RTV Ladders

The Safe-Away[®] Raise To Vertical (RTV) ladders have been designed to improve safety for operator and maintenance staff when accessing large earthmoving equipment employed in the mining industry.

To reduce the possibility of physical damage to the ladders, the RTVs are retracted to a vertical position above the ground when the machine is operational. The 62° ladder offers easier access for maintenance personnel when accessing the vehicle while carrying tools.



Safety & Efficiency

The **Safe-Away® RTV Ladders** have been specifically designed to suit a wide range of equipment and provides:

- 62° ladders for access and egress while carrying tools and other items.
- Steps of regulation size.
- Fixed handrail system for three points of contact.
- A simple robust hydraulic actuator to raise the ladder to the vertical position above the ground when the machine is operational.
- Park Brake Interlock Kit providing additional protection by ensuring the ladder is raised automatically when the park brake is released.

Innovation

The **Safe-Away® 2009 Series Access Control System** manages all ladder operations.

It provides:

- Simple downloading of day to day logged data to a USB.
- Sequential reports on all events with time and date stamps:
 - Raising and lowering,
 - Fault indications.
- Operational history data logs.
- Diagnostics and error reporting accessed directly from the incab control digital display.

Access Control System Features

- Incab control panel with a digital touch pad display showing:
 - Access system status; UP, DOWN and IN MOTION.
 - Detailed fault indication with audible alarm and system event log.
 - 3,000 point event data log with download using a USB key connection to the side of the in cab control panel.
- View downloaded log files as summary and/or full log data in Microsoft® Excel using the supplied SLA to XLS file converter.



The **Safe-Away® 2009 Series Power Pack** is driven by the Access Control System. The hydraulic Power Pack may be mounted vertically, at a convenient location of your choosing, on the vehicle.

It includes:

- Harnesses and Leads.
- Battery Circuit Breaker Kit.



Log Index	Event Label	Event Code	Date
1	Ladder Down	254	01/09/2000 11:31:47 PM
2	System Voltage Below 18V	18	02/09/2000 12:15:21 AM
3	Ladder Up	255	02/09/2000 12:20:20 AM
4	Ladder Down	254	02/09/2000 01:38:05 AM
5	Ladder Up	255	02/09/2000 01:40:34 AM
6	Ladder Down	254	02/09/2000 04:38:29 AM
7	Ladder Up	255	02/09/2000 05:21:04 AM
8	Ladder Down	254	02/09/2000 06:37:10 AM
9	System Voltage Below 18V	18	02/09/2000 06:42:51 AM
10	Ladder Up	255	02/09/2000 07:19:39 AM
11	System Voltage < 18V During Movement	17	02/09/2000 07:19:46 AM
12	Ladder Down	254	02/09/2000 08:00:52 AM
13	System Voltage Below 18V	18	02/09/2000 08:01:40 AM
14	Ladder Up	255	02/09/2000 08:08:12 AM
15	Ladder Down	254	02/09/2000 08:22:30 AM
16	System Voltage Below 18V	18	02/09/2000 08:24:54 AM
17	System Voltage Below 18V	18	02/09/2000 12:24:06 PM

Designed to suit your fleet

There are 2 models of **Safe-Away® RTV Ladders** designed to suit OEM vehicles. Each of these RTV models may be varied to accommodate your requirements for specific mount points, platform handrails, infills, platforms, site and/or OEM colours, and Power Pack locations.

RTV-LSSE

Designed for use on:

- Cat 24M Series Graders
- Trucks
- Loaders
- Small Excavators
- Equipment up to 2400mm deck height

Compatible OEM models include:

773E	773F	775B	775D	775E
775F	777B	777C	777D	777F
777G	785B	785C	785D	789B
789C	789D	793B	793C	793D
793F	980H	988F	988G	988H
992C	992D	992G	992K	993K
824H	834B	834G	834H	854K
854G	385C	994		
WA800	WA900	WD900	PC1250	
EH4500	EH5500	EX1200	EX1900	
MT4400	Can be adapted for other equipment			



RTV-LNS

Designed for use on:

- Trucks

Compatible OEM models include:

797B 797F T282



This RTV-LNS 7 step is specifically designed for the Cat 797. The vertical Power Pack is mounted on the truck at first platform.

The main difference between these two models is that the RTV-LNS has a slightly larger actuator box with a lipped lid whereas the RTV-LSSE has a smaller actuator box with a flush screw down lid.

This RTV-LSSE 8 step with mount and infill specifically designed for the Komatsu PC1250.

Optional extras

1. Additional Raise and Lower Control Panel Kit



A remotely mounted control panel designed to enable the raise and lower operation from outside of the vehicle's cab, or at a position

accessible from ground level. Encased in a protective aluminium case.



2. Hydraulic Emergency Down Kit

A lever operated three-way ball valve and mounting bracket provides a fail

safe emergency down function.

3. Boarding Light and Audible Alarm Kits



The boarding light (left) and audible alarm (below) are activated by pressing the up or down directional switch. The light will stay on for an adjustable/preset period.



4. Inhibit Kit

A relay with connecting harness for customer only installation of machine inhibit functions independent of the standard Safe-Away® in-built ladder safety functions.

5. Reservoir Heater & Circuit Breaker

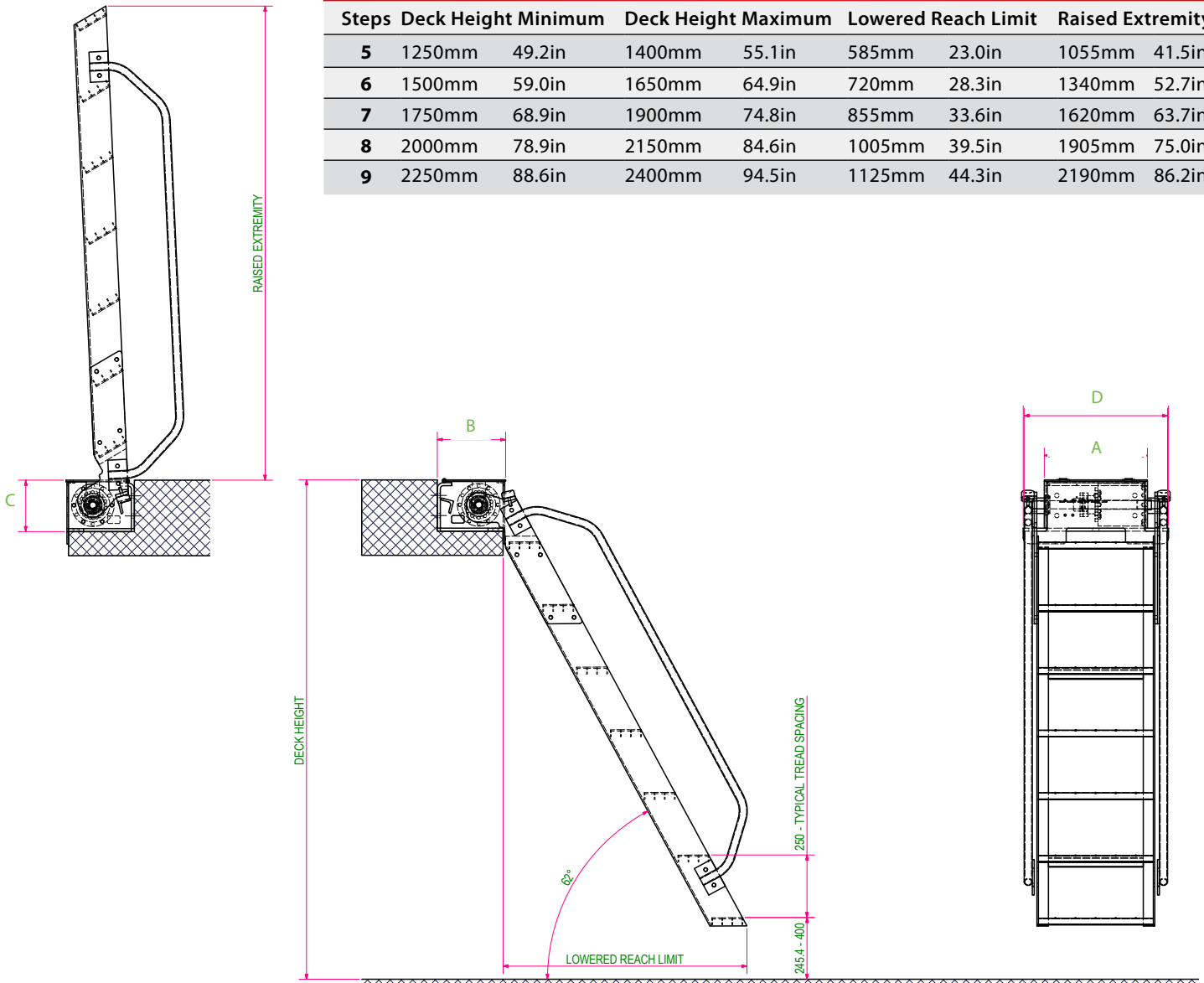
The Reservoir Heater ensures the viscosity of the oil is maintained to raise and lower the ladder in cold climates.



Specifications

This Safe-Away® Access System has been designed and manufactured to comply with the relevant sections of the following standards:-
SAE J185_200305 ISO 2867:2011 ANSI Z535.4-2007 ANSI A14.2-2007 AS 3868-1991

RTV Range Dimensions							
Steps	Deck Height	Minimum	Maximum	Lowered Reach Limit	Lowered Reach Limit	Raised Extremity	Raised Extremity
5	1250mm	49.2in	1400mm	55.1in	585mm	23.0in	1055mm 41.5in
6	1500mm	59.0in	1650mm	64.9in	720mm	28.3in	1340mm 52.7in
7	1750mm	68.9in	1900mm	74.8in	855mm	33.6in	1620mm 63.7in
8	2000mm	78.9in	2150mm	84.6in	1005mm	39.5in	1905mm 75.0in
9	2250mm	88.6in	2400mm	94.5in	1125mm	44.3in	2190mm 86.2in



Dimensions (approximately)			
A	Actuator Box Width	410mm	16.1in
B	Actuator Box Depth	272mm	10.7in
C	Actuator Box Height	206mm	8.1in
D	Ladder width	570mm	22.4in

HWSA00077 20052015