OPERATING CONDITIONS

Operating in Extreme Environments

Isoloader's equipment is designed to operate in extreme conditions, from the heat and dust of a mining camp in the Australian outback to the cold of central Europe.



Isoloader's Transporter Straddle Carrier is used by L-3 Corporation in their RDSC solution for scanning containers for nuclear weapons. It meets the US Dept. of Energy's requirements for operating in extreme conditions. Isoloader's straddle carriers and rubber tyred gantries are designed to handle extreme environmental, including dust, heat and cold.

We meet these challenges with a 3-step program:

- Consumables: we supply each machine from our factory with a first fill of consumables, such as oils and coolants that are correct for your conditions. We will specify if fuel additives are required. Note that fuel and water additives may need to be changed according to the season.
- 2. Operating procedures: we detail the necessary operating, storage and recommissioning procedures, including machine start-up procedures.
- 3. Factory configuration: each machine is factory configured to suit the nature of use and the site conditions. Where necessary we will recommend the appropriate factory-fitted environment option kit.

At Isoloader we work with you to assess your application and the configuration and procedures necessary to operate in your specific conditions. The information on the following page is indicative of the requirements and options specific to different environmental conditions. All temperature limits stated are nominal and are for guidance only. Please consult with Isoloader for exact recommendations.

Allowable high wind conditions depend on the type of machine. Options such as 4-wheel drive for handling rough terrain including limited snow are available for most machine types.

SERVICE AND INNOVATION

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Typical requirements and options for varying environmental conditions

	Operation				Storage			
	Between 55°C and 0°C	Between 0°C and - 10°C	Between -10°C and - 20°C	Between -20°C and - 40°C	Between 55°C and 0°C	Between 0°C and - 10°C	Between -10°C and - 20°C	Between -20°C and - 40°C
Consumables								
Diesel fuel additivies to prevent fuel gelling and clouding			/	/			/	1
Correct glycol content in coolant						1	√	1
Procedures								
Warmup protocol on startup (typically 10 minutes to circulate hydraulic fluid prior to normal operation). ¹						/	/	
Factory configuration								
Electrical heating elements for engine block, radiator and hydraulic oil tank (powered by auxiliary/mains)						opt.	opt.	✓
Electric pump to circulate hydraulic fluid (powered by auxiliary/mains).						opt.	opt.	1
Electrical heating elements for cab (powered by auxiliary/mains) ²								1
Insulated cab cover								opt.
Electical heating elements for electrical cabinets.				/				
Demister and defogger for enclosed operator cabs				/				
Higher rated insulation in the operator cab				1				
Cab floor heater utilizing heat from the engine		opt.	opt.	opt.				
Low temperature hydraulic seals				/				

Legend: \checkmark indicates recommended, opt indicates optional, greyed indicates not applicable

Notes

- 1. Warm-up sequence can be shortened if electric pumps and heating elements are used.
- $2. \ Cabs\ containing\ non-hardened\ LCD\ screens\ should\ be\ heated\ during\ extended\ periods\ of\ storage\ below\ -20^{\circ}C$

Isoloader is a leading manufacturer of container and heavy load handling solutions for operations handling between 100 and 100,000 loads per year. We offer a free logistics service to assist in your planning. Call us – we can help.