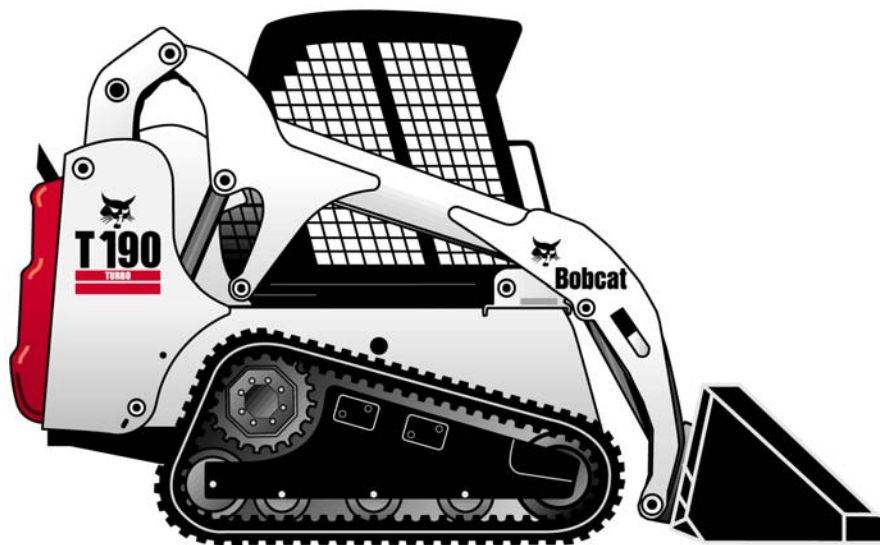


RISK ASSESSMENT

For

Bobcat Compact Track Loader

**Models 864G, T110, T140, T190, T200,
T250, T300 & T320**



Bobcat
Australia

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APPLICABILITY

The following Risk Assessment document is applicable to the following models of Bobcat Compact Track Loaders:

864G
T110
T140
T190
T200
T250
T300
T320

STANDARDS REFERENCED

The following Standards, Acts and Regulations were referenced in the preparation of this Risk Assessment.

- NOHSC: 1010 (1994) - National Standard for Plant
- OHS Act 2000
- OHS Regulation 2001
- AS2359.6 (1995) – Powered Industrial Trucks – Safety Code
- AS4360 (2004) – Risk Management
- ISO/WD 3691-1 (1999) – Industrial Trucks – Safety Requirements and Verification
- EN1459 (1999) – Safety of Industrial Trucks

Subject: Hazard Identification and Control

Hazard Identification	Risk Assessment	Control of Risk
<p><i>a Suitability for the particular task</i> The Bobcat Compact Track Loader (CTL) is a compact loader suited for a wide variety of tasks, earth moving, construction and associated tasks in rough terrain. The Compact Track, compact design is well suited for operation in confined workplaces where manoeuvrability is important. The CTL tasks are varied and many approved attachments are available for particular tasks. The varying work sites and ability to work in rough terrain, can present many hazards including roll over and danger of falling objects</p>	<p>Risks are low due to safety features designed into the loader, and when operated correctly by a trained and certified driver. Risk can be high, causing both injury and death to operator, if the loader is operated contrary to the safety instructions provided, careful assessment of the workplace has not been carried out and unapproved attachments are used. Serious risk to bystanders is possible when the loader is working in congested areas</p>	<p>The loader is equipped with a cabin, which conforms to International Standards for roll-over and falling object protection for the operator. A seat belt, restraining seat bar and rear cab emergency exit is provided. A plastic Operator’s Handbook is fastened within the operator cabin, containing brief, essential instructions and warnings for safe operation. The Operator Handbook refers to the need to read, and understand the detailed instructions and warnings within the Operation and Maintenance Manual, which is provided on delivery of the CTL. Instructions warn the operator to keep bystanders and pedestrians well clear of the work area and to operate in a responsible manner</p>
<p><i>b Actual and intended use in the work place;</i> The Bobcat Compact Track Loader is a compact multipurpose machine, with the capability of being configured for a variety of different tasks via the application of an appropriate approved attachment. Generally, a combination [four in one] bucket is used in conjunction with the loader for use in excavation and materials handling. Refer to ‘a’ above, and ‘q’</p>	<p>Refer to ‘a’ above, and ‘q’.</p>	<p>Refer to ‘a’ above, and ‘q’.</p>
<p><i>c Environmental condition and terrain in which the loader is used</i> Darkness causing poor visibility, sloping ground, wet and soft or muddy surface can lead to roll over.</p>	<p>Refer to ‘a’ above</p>	<p>Refer to ‘a’ above. Loader is equipped with front and rear work lights; cabin provides good visibility in poor light conditions and is equipped with a reversing alarm. Operator Handbook and Manual</p>

<p>Work areas containing explosive gases, flammable materials, poor ventilation, underground cables or pipes, prohibited work areas, and overhead electrical wires are to be avoided</p>		<p>provide instruction on how to work on sloping ground. Only the Bobcat approved tires, are to be used, and are suitable for most environmental conditions Handbook and Manual provide instruction on dangerous work areas. An exhaust spark arrester is fitted.</p>
<p><i>d Foreseeable abnormal situations, misuse and fluctuation of operating conditions.</i> Varying degrees of above can cause accidents.</p>	<p>Very high risk, possibly leading to injury or death to operator and others.</p>	<p>Refer to ‘a’ above. It is essential that the operator be trained, be certified, experienced in the operation of the loader and fully understand the instructions in the Operators Manual, before attempting abnormal or difficult tasks</p>
<p><i>e Potential for injury due to entanglement, crushing, trapping, cutting, stabbing, puncturing shearing, abrasion, tearing and stretching.</i> The above hazards are present if the loader is operated or worked on, contrary to instructions within the Operators Manual, or in an unsafe manner, such as placing feet, legs, or arms outside of the loader when working. Hazards are present in the changing of attachments and care must be taken in entering and leaving the loader L</p>	<p>Very low risk when operated correctly, and operator keeps hands and feet on control levers and pedals when working loader. Very high risk, potential of serious injury, possibly death if used contrary to instructions, particularly from crushing if operator attempts to exit or enter loader with the engine running or the bucket raised, or attempts maintenance in this position without connecting the lift arm support device, or not following instructions in Operators Manual such as those relating to closing the rear door</p>	<p>Operation and maintenance must be carried out only in accordance with the Operation and Maintenance Manual, which contains many warnings and instruction on how to avoid most hazards. Warning and instruction decals of a pictorial design are fitted to the loader</p>
<p><i>f Generation of hazardous conditions, due to pressurized content, electricity, noise, radiation friction, vibration, fire, explosion, temperature moisture, vapour, gases, dust, ice, hot or cold parts.</i> Hazards are present with regard to most of the above. Failure of the electrical system can cause the loader to suddenly apply the brakes and stop.</p>	<p>The risk level is very low when instruction within the Operation and Maintenance Manual is followed</p>	<p>Instruction is provided for operation and preventative maintenance including hazards regarding pressurized fuel, hydraulic oil and hot radiator water, noise, electricity, fire, explosion, temperature, exhaust gases, dust and hot parts together with warnings and warning decals. An exhaust spark arrester is fitted. The seat belt should always be fitted snugly to minimize the unlikely effect of sudden braking</p>

		due to electrical failure, and the more constant effect of general operation. Refer to handbook and manual.
<p>g Failure of the loader resulting in the loss of load, unintended ejection of work pieces, explosion fragmentation or collapse of parts.</p> <p>The above are not considered a hazard</p>	Low	Operator handbook and Manual warn driver to carry load close to the ground while travelling, to be alert.
<p>h Capability of the loader to lift and move people, equipment and materials and suitability of secondary back-up systems to support the load.</p> <p>The loader is primarily design to move materials, possibly some equipment. Secondary back-up system is not available. It is most dangerous to lift and move people</p>	Safe to move materials. High danger to cause injury or death when lifting or moving people	Control is through education and instruction. Refer to Manual and decals on loader
<p>i Control systems, including guarding and communication systems.</p> <p>No apparent hazards</p>	No risk	-----
<p>J Potential for falling objects and the plant to roll over</p> <p>The danger of the above is present</p>	High Risk with improper operation Very low risk when operated correctly.	Refer to 'a' above Drivers cab structure meets Loader International Standards
<p>k Suitability of materials for the plant</p> <p>No apparent hazards, provided proper inspection and maintenance instructions are followed</p>	Low risk	Refer to Operation and Maintenance Manual, & inspections for any cracked welds, damaged components and worn pins etc.
<p>l Suitability of all accessories</p> <p>There are many accessories approved for use with the 753 loader. Hazards can exist or not, dependant on how they are used</p>	Can vary from possibility of high risk causing injury or death to almost nil, dependant on whether used incorrectly or according to the respective Operator Manual	Control is made by guarding where possible, decals fixed to the accessory, and Operators Manual, which contain instruction on proper use of the approved attachment or accessory, with appropriate warnings.
<p>m Ergonomic needs relating to installation and use.</p> <p>The cabin is necessarily of a compact design and could be unsuitable for unusually tall,</p>	Risk is low for those operators of normal physique, health and strength. Disabilities may be aggravated due to unavoidable jolting when	Manuals provided advise operator to check seating position is comfortable with respect to controls and to ensure that all safety instructions are understood

<p>short, overweight operators. Hazards exist if the operator is suffering from drugs, alcohol, in poor health, has disabilities or is not alert. Cabin seating and controls are well suited for those who have reasonable strength and fitness.</p>	<p>working in rough ground conditions.</p>	<p>and followed.</p>
<p>n Carrying out the work without the loader No hazard provided the substitute equipment is safe etc for the task.</p>	<p>Low risk provided the replacement equipment is safe and operated safely</p>	<p>Instructions for safe operation of the alternate equipment must be studied and operated correctly.</p>
<p>o Location in the workplace and the impact on workplace design and layout. No hazards exist provided item 'c' is noted. Care must be taken to remove bystanders and other mobile equipment from the immediate workplace,</p>	<p>Risk is low when conditions as 'c' are not present</p>	<p>Refer to control as in 'c' above Manuals warn operator to keep bystanders etc clear.</p>
<p>p Suitability and stability of the plant and supports. Hazards exist in very poor workplaces, especially if ground surface is soft or severely sloping</p>	<p>Risk can be high if work site is slopping dangerously, travelling too fast, and instructions in Manual are not followed,</p>	<p>Loader meets International stability Standards and the approved tires are suitable for the normal working loads and operating surfaces.</p>
<p>q Presence of persons and other plant in the vicinity Collisions with persons and plant is possible</p>	<p>Risk is low when operator is reasonably alert.</p>	<p>Reversing beeper is fitted. Rotating beacon is an option. Instructions spell out need for operator to be alert and not to operate loader and attachments near bystanders especially when inexperienced or learning. A horn is also available as an option. Design of cabin provides good visibility.</p>
<p>r Potential for inadvertent movement or operation of the plant Hazards do not exist when the instructions are followed. Combination [four in one] bucket can open inadvertently if the trigger is accidentally operated, dumping the load.</p>	<p>No risk when instructions are followed.</p>	<p>Instructions in the manuals advise on correct gripping of control lever. Instructions also cover requirements of operator before leaving the cabin of the loader.</p>
<p>s Systems of work associated with the plant. Not aware of hazards</p>	<p>-----</p>	<p>Understanding and conforming to manual instruction is required by the operator.</p>
<p>t Access and egress.</p>	<p>No low risk when instructions are</p>	<p>Instructions in Handbook and</p>

<p>No hazards when instructions are followed.</p> <p>Hazard exist due to slipping or falling if care is not used, and instructions are not follow when entering or leaving cabin</p>	<p>followed</p>	<p>Manual also include photo and decal. Loader is fitted with grab handles on each side of cabin, bucket or attachment step and safety treads on top of the loader lift arms and frame. Warning not to jump.</p> <p>Appropriate safety boots should be worn.</p>
<p><i>u Competency of operators</i></p> <p>Hazards are extreme if the operator is not certified, has not been trained in the use of the loader, are not fit, or are under the influence of alcohol or drugs.</p>	<p>Risk is low if the operator has been trained and is certified, however the operator must be fit, have studied the manuals and have some familiarization with the loader.</p>	<p>Certified operators require the additional instructions, which are comprehensively covered in the Operator’s Handbook and Operation and Maintenance Manual.</p> <p>Operators are warned that they need to be fit, not have any disabilities that may adversely affect their competent working of the loader or be aggravated by the movement of the loader especially when operating in construction or rough conditions.</p> <p>Operator must be familiar with the rated load of the loader, the capacity of buckets being used, and the weight of the material being handled.</p> <p>Refer to ‘m’.</p>