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## Information for Bobcat Skid Steer Loader

# **RISK ASSESSMENT**

M Series (including compact track loader)



#### **APPLICABILITY**

The following Risk Assessment information is applicable to the following M series models of Bobcat skid steer loader:

- \$70,\$100,\$450,\$510,\$530,\$550,\$570,\$590,\$595,\$630,\$650,\$740,\$750, \$770,\$850
- T110,T450,T550,T590,T595,T630,T650,T750,T770,T870
- A770

#### **RISK INFORMATION**

Consistent with the requirements of the Australian nationally harmonised Work Health and Safety Act 2011 and the Work Health and Safety Regulation 2011, an assessment of risk has been conducted by the manufacturer and used to produce the manuals and instructions which are supplied with a new machine.

You are directed to read and understand the Operations & Maintenance Manuals, as well as any other documentation provided, which show the risks presented by this machine.

#### RISK ASSESSMENT - Bobcat Skid Steer Loader

Subject: Bobcat M Series Skid Steer Loaders

	HAZARD	RISK	LEVEL	CONTROL
1	Overload Loader causing tip over	Strike injury	Med-High	Rating plate checked by Licensed Operator re: O&M Manual
2	Loader to large for required work	Property damage		Always size the project up before commencement of work
3	Loader to small for required work	Machine damage, operator frustration	Low	Always size the project up before commencement of work
4	Bystanders impacted by boom arm/bucket	Impact injury – serious	Med-High	Bystanders to be kept well clear at all times. Mirrors and beacon light fitted
5	Work to close to other machines – machine clashes	Strike injury to operator	Med-High	Ensure adequate clearance between equipment
6	Work on soft/unstable ground – tip over	Strike injury to operator	High	Ensure ground is prepared properly, stable and able to support Loader before commencement
7	"Climbing" the Loader and tip over	Strike injury to operator	Med-High	Do not "climb" steep or unstable inclines
8	Tip over due to travelling on gradients incorrectly	Tip over causing operator strike injury	Med-High	Follow proper procedures for travelling on slope re: O&M Manual
9	Tip over due to turn on gradients unsafely	Tip over causing operator strike injury	Med-High	Do not turn on an incline re: O&M Manual
10	Pull machine over	Strike injury to operator	Medium	Always setup on suitable ground, do not exceed the lift capacity of the Loader
11	Operator fall off when accessing cabin	Fall / strike injury	Medium	Always use 3 points of contact. Park machine square to accurately use access steps
12	Boom left in air – fall onto operator/bystander	Impact injury	Medium	Always lower attachment before parking machine
13	Bystander runover	Crush injury or death	High	Bystanders to be kept well clear at all time. Mirrors and beacon light fitted
14	Bystander / maintenance caught in closing cylinder	Hand crush injury	Medium	Keep well clear when machine in operation
15	Hose splits and sprays hot oil	Burns to operator	Low	Operator protected by cabin from spray. Never check for leaks with hands
16	Drop items being carried – onto bystander	Strike injury to bystander	Med-High	Bystanders to be kept well clear at all times. Mirrors and beacon light fitted

17	Drop items being carried – onto operator	Strike injury to operator	Medium	Cabin fitted with safety glass at front and sides. Do not lift over cabin
	cabin			, -
18	Lift / lower people in bucket – fall out	Fall injury	High	Never lift people – Loader not designed to lift / lower people
19	Noise – hearing damage	Permanent hearing damage	Low	Machine low noise, especially in cabin
20	Vibration	Vibration injury to operator	Low	Padded suspension seat fitted. Machine operated stationary. Controls pilot oil controlled
21	Fire occurs – operator has impeded egress	Burns to operator	Low	2 exits, one in different direction to engine compartment
22	Operating environment temperature very hot	Operator dehydration/fatigue	Low	Cabin can be fitted with air conditioning
23	Operating in dusty environment	Operator lung damage	Low	Fully enclosed cabin with filtered air conditioning
24	Exhaust pipes exposed	Burn leg	Med-High	Use caution around exhaust pipe. Some guarding provided by engine cover
25	Control system fails	Machine uncontrolled – strike injury to op	Low	Emergency stop switch fitted in cabin
26	Radiator fan spinning	Hand caught in radiator – tear injury	Low	Fan guarded
27	Object falls onto cabin	Operator impact injury	Medium	Cabin designed to ROPS standard
28	Unauthorised starting/operation of machine	Death to operator or bystander	Medium	Locks fitted, key started fitted, password start capable
29	Operator not qualified (Loader license)	Death to operator or bystander	Med-High	Operator must be licensed (LE license) and authorised to operate Loader
30	Poor work method / practices	Operator or bystander death	Medium	OHS Acts require all operators to be trained in correct practices
31	Untrained in operation and safe work procedures	Operator or bystander death or injury	High	All operators of this Loader require Loader license- otherwise breach of OHS Act
32	Build up of explosive gas when recharging batteries	Explosion – loss of life	High	Charging MUST ALWAYS be in a clear and well vented area to reduce the build up of Hydrogen gas
33	Build up of exhaust gases in restricted workspace operation		High	Loader not designed for restricted work spaces
34	Battery fluid reservoir leak	Corrosive – burns	Low	Conduct daily inspection re: O&M Manual. Stand machine down if batteries are leaking at all
35	Inadequate lighting causing impact with bystander	Bystander crush injury	Low	Work lights provided on all Loaders
36	Rain causing slippery operation conditions	Slip off loader when exiting	Low	Foot step has non-slip tread

37	Smoking whilst recharging / changing	Fire / explosion burns to	Medium	Do not recharge batteries whilst smoking or when near open flame or
	batteries	Operator		sparks
38	Slabbing of counterweight	Overload Loader, load loss, injure bystander	Low	Unauthorised modification of counterweight is not permitted
39	Cabin structure failure	Operator crush / strike injury	Medium	Workplace Hazard Analysis – Machine should be operated in such conditions
40	Petrochemicals used for lubrication	Poisoning of skin (maintenance staff)	Low	Materials Safety Data Sheets available
41	Non-spark proof design used in explosive zones	Operator and bystander death	Low	Machine is not designed for such purposes
42	Use Joystick incorrectly – load loss	Load loss – strike injury to bystander	Medium	Joystick ergonomically designed. Bystanders should not be close by when loading & unloading
43	Inadvertently use wrong function on joystick – load loss	Load loss – strike injury to bystander	Medium	Operator is required to be aware of the correct operation of the Loader
44	Inadvertently accelerate injury to bystander	Bystander crush injury	Medium	Pedal layout ergonomically designed, also spring return (ie remove foot)
45	Poor maintenance on Loader	Failure or structure – death	Med-High	Ensure correct maintenance is undertaken and recorded
46	Safety decals missing	Staff not aware of dangers – injury	Medium	Ensure maintenance staff replace any missing or unreadable safety decals
47	Impact high voltage service lines (above or below)	Electrocution	Med-High	Dial 1100 Before You Dig – always ensure adequate clearance in workplace
48	Maintenance stall open cylinder without bleeding pressure	Cylinder retract, oil spray, possible crush	Medium	Always use appropriate maintenance practices. Refer to Operator and Maintenance Manuals
49	Open radiator cap when hot	Burns	Med-High	Always use appropriate maintenance practices. Refer to Operator and Maintenance Manuals
50	Stand on engine hood	Slip and fall off Loader – fall injury	Med-High	Never stand on engine hood
51	Stand near bucket area	Impacted on lowering	Medium	Bystanders to be kept well clear at all times. Mirrors and beacon light fitted
52	Operate machine with guards missing	Tear injury	Medium	Never operate Loader with guard not in place
53	Operate machine when using mobile phone /MP3 etc	Impact bystander roll machine – impact injury	High	Never operate Loader while distracted
54	Demolition without additional safety guard	Breakoff comes through cabin front glass	Med-High	Protection kits available. Refer to Operator Manual
55	Under or overcut in operation	Machine falls or major impact on cabin – crush	Medium	NEVER under or overcut

### **Hierarchy of Control**

Risk scores listed as HIGH need action taken to minimise the risk

- 1. Elimination
- 2. Substitution
- 3. Isolation
- 4. Engineering Control
- 5. Administrative Control



