



Edition: 3.0 Date: (06/24)

**Instruction Manual** 

# **SWIVEL CRANE - Truck or Ute** TCS-907

Order Code: (A354)



MACHINE	SWIVEL CRANE - TRUCK/UTE
MODEL NO.	TCS-907
SERIAL NO.	
DATE OF MANF.	

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### NOTE:

In order to see the type and model of the machine, please see the specification plate. Usually found on the back of the machine. See example (Fig.1)



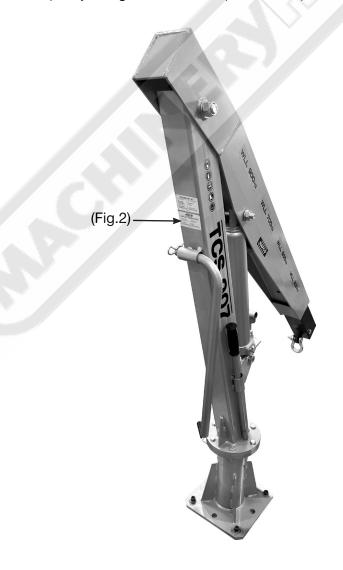
(Fig.1)



These cranes accept a wide variety of engines and transmissions and can also be used to lift machines or other heavy items. This TCS-907 swivel crane has an 8-tonne long stroke lifting ram with a double acting pump. The jib extends to four different positions with the desired lifting capacity of 300kg, 500kg, 700kg or 900kg and secured by a single locking pin. The swivel base provides 360° continuous manual rotation and includes a locking lever.

Max. Load Capacity	.900kg
Lifting Capacity Position 1	.900kg
Lifting Capacity Position 2	.700kg
Lifting Capacity Position 3	.500kg
Lifting Capacity Position 4	.300kg
Max. Lift Height Position 1	.1880mm
Max. Lift Height Position 4	.2150mm
Nett Weight	.88kg

(Full load capacity rating is also on the specification plate on the engine stand (Fig. 2)





# **A WARNING**

**DO NOT** use this machine unless you have been instructed in its safe use and operation and have read and understood this manual. It is the responsibility of the owner to make sure all personnel read this manual prior to using the device. It is also the responsibility of the device owner to keep this manual intact and in a convenient location for all to see and read. If the manual or product labels are lost or not legible, they need to be replaced before operating.

### THE NATURE OF HAZARDOUS SITUATIONS WARNING!

The use of portable automotive lifting and support device is subject to certain hazards that cannot be prevented by mechanical means, but only by the exercise of intelligence, care, and common sense. It is therefore essential to have owners and personnel involved in the use and operation of the equipment who are careful, competent, trained, and qualified in the safe the operation of the equipment and its proper use. Examples of hazards are dropping, tipping or slipping of loads caused primarily by improperly securing loads, overloading, off-centered loads, use on other than hard level surfaces, and using equipment for a purpose for which it was not designed.

### METHODS TO AVOID HAZARDOUS SITUATIONS WARNING!

- Read, study, understand and follow all instructions before operating this device.
- User and bystanders must wear eye protection that meets the Australian and New Zealand standards.
- Inspect the swivel crane before each use. Do not use if damaged, altered, modified, in poor condition, or has loose or missing hardware or components. Take corrective action before using the swivel crane.
- Do not overload. Overloading could cause damage to the swivel crane.
- Never use this crane on a hill or incline as this could result in the crane tipping over.
- Always lock the jib in position before lifting a load.
- The nuts and bolts supplied with the crane are all high strength and should not be substituted for inferior types.
- Before each use ensure that all the nuts and bolts are correctly fitted and tight.
- Never exceed the safe working loads indicated on the jib.
- Only attachments and/or adapters supplied by the manufacturer should be used.
- Do not use the crane to dolly or transport engine.
- Do not crawl under load or place any part of your body under load at any time.
- Always use proper lifting points & mounting points and approved lifting slings and chains.

### CONSEQUENCES OF NOT AVOIDING HAZARDOUS SITUATIONS WARNING!

Failure to read this manual completely and thoroughly, failure to understand its OPERATING INSTRUCTIONS, SAFETY WARNINGS, MAINTENANCE INSTRUCTIONS and comply with them, could cause accidents resulting in serious or fatal personal injury and/or property damage.



### **ENVIRONMENT PROTECTION**

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.



### **SETUP INSTRUCTIONS**



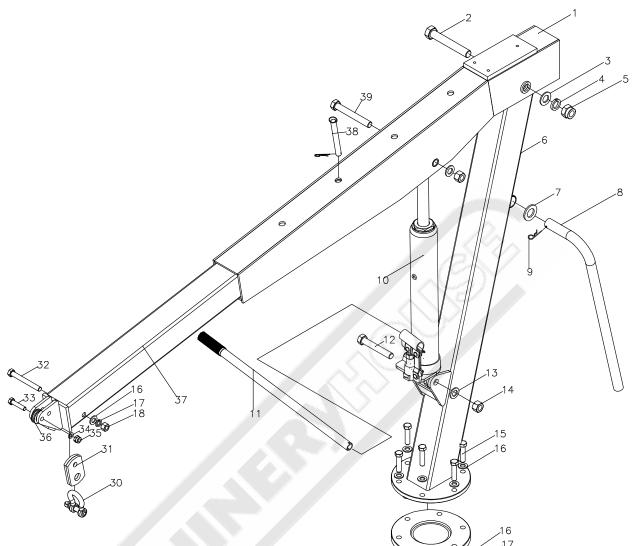
This safety warning is used for the SETUP INSTRUCTIONS section of this manual to alert you to potential personal injury hazards. Obey all instructions to avoid possible injury or death.

- Do not exceed the maximum swivel cranes load rating.
- Load must be directly under the swivel crane before lifting. Only use approved lifting chains & slings. Before lifting any load, always apply the handbrake and use wheel chocks to prevent vehicle from rolling. Keep as much of your body as possible out from underneath the load when using the swivel crane. Prevent pinching by releasing pressure in the ram leaving boom all the way down when not in use.

### PREVENTATIVE MAINTENANCE

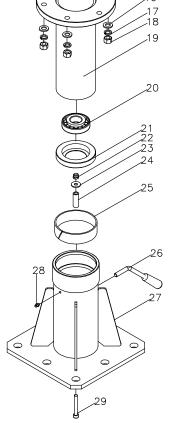
- 1. Always store the swivel crane in a well protected area where it will not be exposed to inclement weather, corrosive vapors, abrasive dust, or any other harmful elements. The swivel crane must be cleaned of water, snow, sand, grit, oil, grease or other foreign matter before using.
- 2. Lubricate the swivel base with a general purpose grease.
- 3. Every swivel crane owner is responsible for keeping the swivel crane label clean and readable. Use a mild soap solution to wash the external surfaces of the stand.
- 4. Inspect the crane before each use. Do not use the crane if any component is cracked, broken or bent. Do not use the crane if it has loose or missing hardware or components, or is modified in any way. Take corrective action before using the crane again.





Part No.	Description	Qty
1	Boom	1
2	Bolt M20x130mm	1
3	Washer 20mm	1
4	Spring Washer 20mm	1
5	Nut M20	1
6	Main Post	1
7	Washer 25mm	1
8	Handle	1
9	R-Pin	2
10	Jack	1
11	Jack Handle	1
12	Bolt M16x100mm	1
13	Washer 16mm	2
14	Nut M16	2
15	Bolt M12x50mm	6
16	Washer 12mm	14
17	Spring Washer 12mm	7
18	Nut M12	7
19	Turntable	1
20	Bearing	1

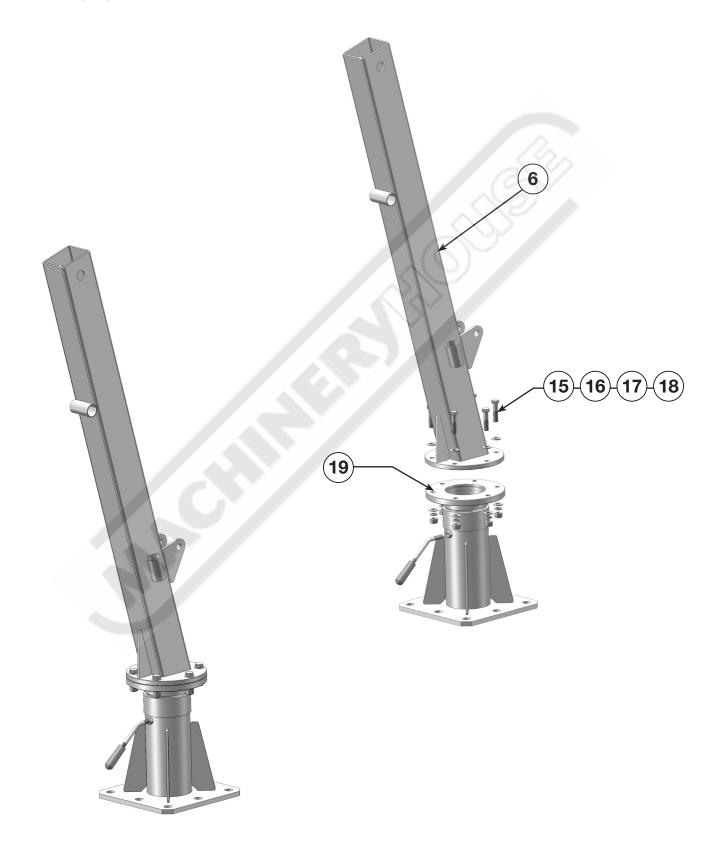
Part No.	Description	Qty
21	Bearing Seat	1
22	Lock Nut M8	1
23	Washer 8mm	1
24	Bushing	1
25	Guiding Ring	1
26	Locking Bolt	1
27	Base	1
28	Oil Bolt	1
29	Screw M8x60mm	1
30	Bow Shaped Shackle	1
31	Connection Board	2
32	Bolt M12x100mm	1
33	Bolt M10	2
34	Washer 10mm	2
35	Nut M10	2
36	Roller	1
37	Boom Extension	1
38	Pin	1
39	Bolt M16x120mm	1





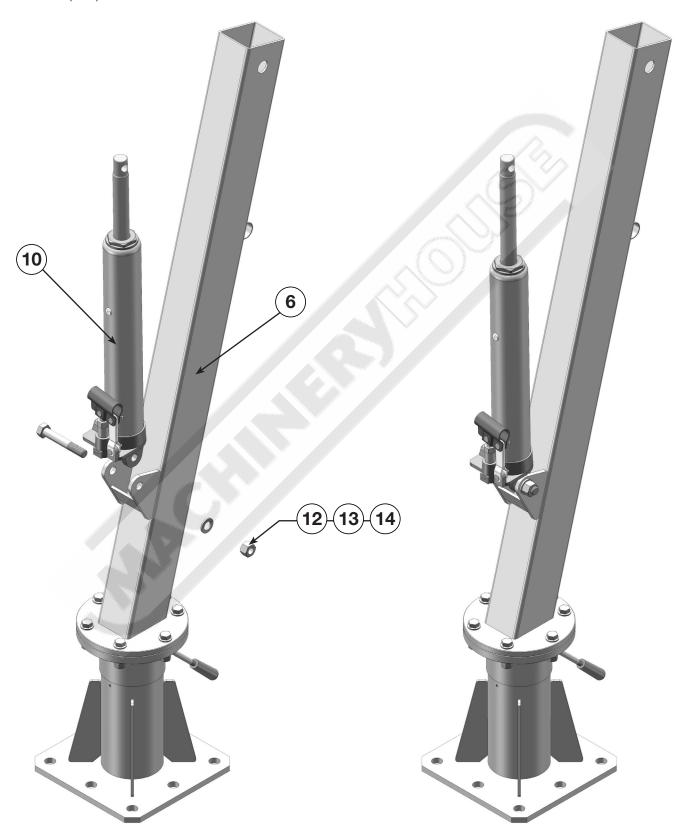
6.0

Bolt the Main Post (6) to the Turntable (19) using Bolts M12x50mm (#15), Washers (#16), Spring Washers (#17) and Nuts M12 (#18) as shown.





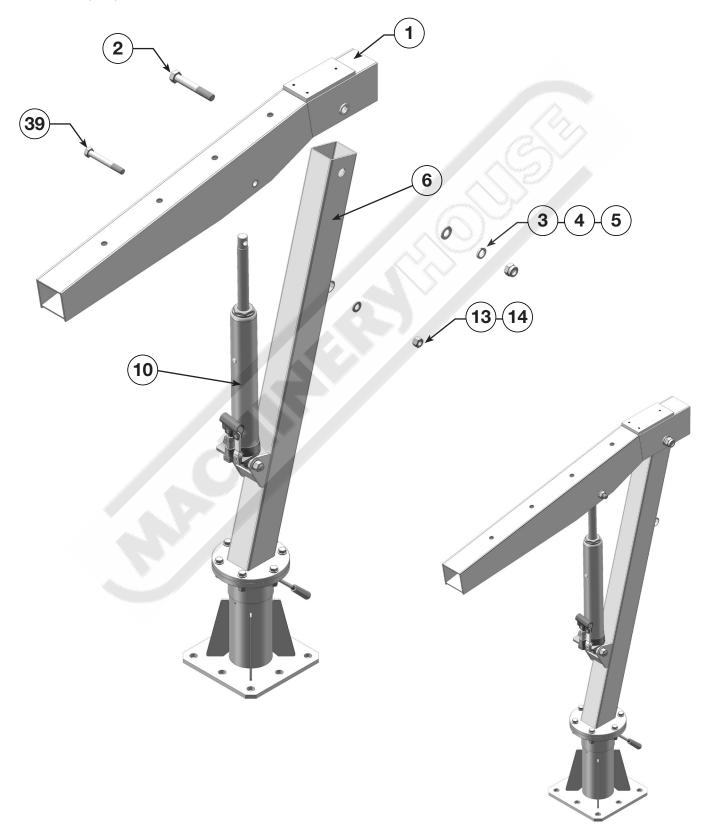
**6.1**Attach Jack (#10) to mounting bracket on Main Post (#6) using a Bolt M16x100mm (#12), Washer 16mm (#13) and Nut M16 (#14) as shown.





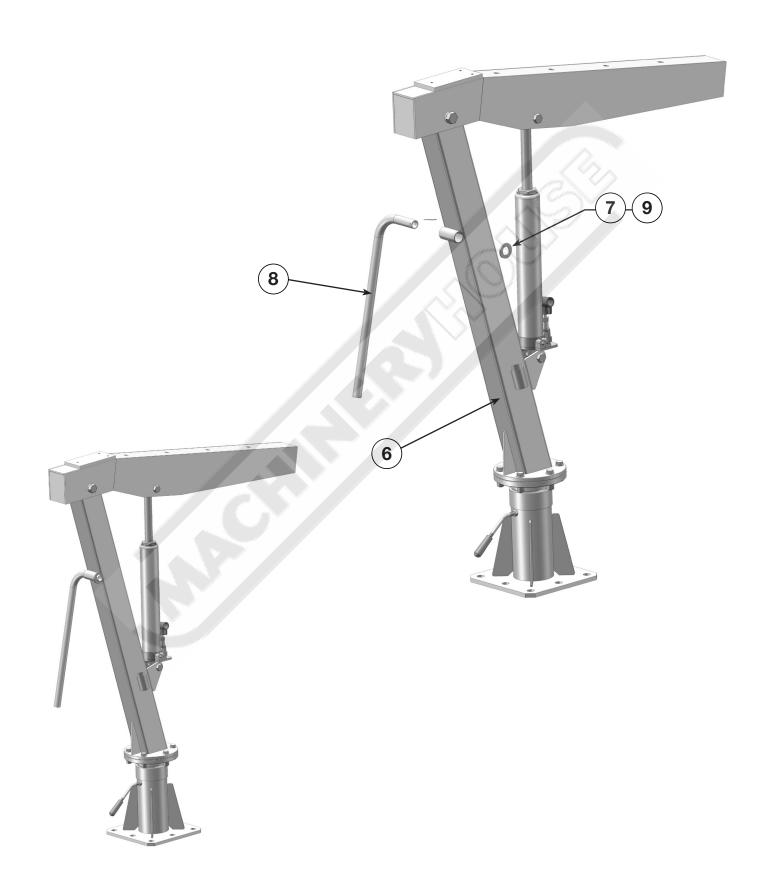
### 6.2

Attach the Boom (#1) to the Main Post (#6) and slide a Bolt M12x130mm (#2) through the locating holes and secure with a Washer (#3), Sping Washer (#4) and Nut M12 (#5) as shown. Then Attached the Boom (#1) to the Jack (#10) via the locating holes as shown with a Bolt M16x120mm (#39) and secure with a Washer 16mm (#13) and Nut M16 (#14).





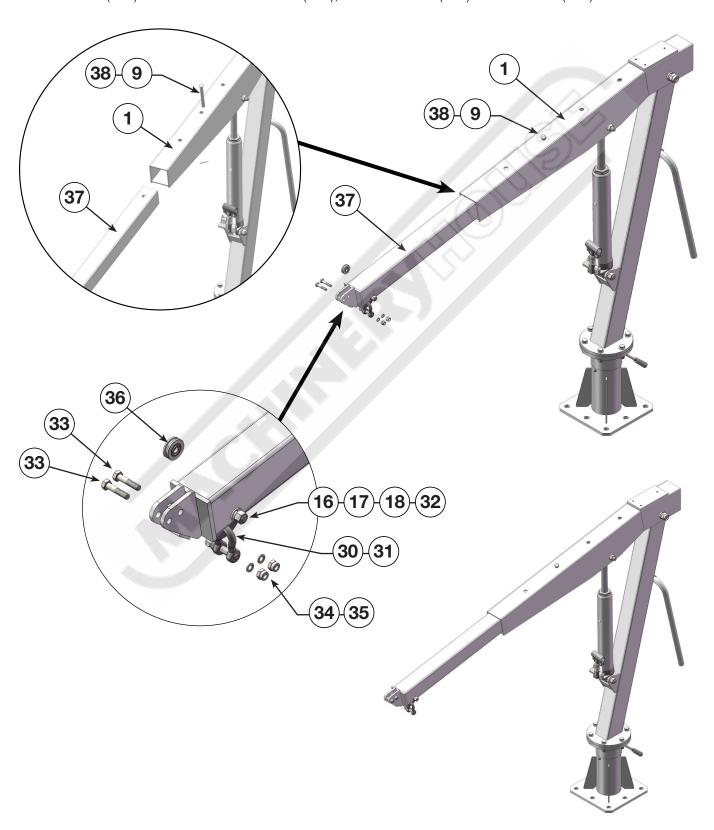
**6.3** Attach the Handle (#8) to the Main Post (#6) and secure with a Washer 25mm (#7) and R-Pin (#9) as shown.





### 6.4

Slide Boom Extension (#37) into Boom (#1) to the desirerd lifting position, while aligning the holes, insert the Pin (#38) and secure with R-Pin (#9) as shown. Attach the Connection Board (#31) to end of the Boom Extension (#37) with the Bolt M12x100mm (#32), Washer 12mm (#16), Spring Washer 12mm (#17) and Nut 12mm (#18). The attach the Bow Shaped Shackle (#30). Install the Roller (#36) using Bolt M10 (#33), Washer 10mm (#34) and Nut M10 (#35). Then attached Bolt M10 (#33), Washer 10mm (#34) and Nut M10 (#35) as shown below.





6.5
Insert the Jack Handle (#11) into pump housing of the Jack (#6) as shown ready for use.





# **General Machinery Safety Instructions**

### Machinery House

requires you to read this entire Manual before using this machine.

- Read the entire Manual before starting machinery. Machinery may cause serious injury if not correctly used.
- Always use correct hearing protection when operating machinery. Machinery noise may cause permanent hearing damage.
- Machinery must never be used when tired, or under the influence of drugs or alcohol. When running machinery you must be alert at all times.
- **4. Wear correct Clothing.** At all times remove all loose clothing, necklaces, rings, jewelry, etc. Long hair must be contained in a hair net. Non-slip protective footwear must be worn.
- 5. Always wear correct respirators around fumes or dust when operating machinery. Machinery fumes & dust can cause serious respiratory illness. Dust extractors must be used where applicable.
- **6. Always wear correct safety glasses.** When machining you must use the correct eye protection to prevent injuring your eyes.
- 7. Keep work clean and make sure you have good lighting. Cluttered and dark shadows may cause accidents.
- 8. Personnel must be properly trained or well supervised when operating machinery. Make sure you have clear and safe understanding of the machine you are operating.
- Keep children and visitors away. Make sure children and visitors are at a safe distance for you work area
- **10. Keep your workshop childproof.** Use padlocks, Turn off master power switches and remove start switch keys.
- Never leave machine unattended. Turn power off and wait till machine has come to a complete stop before leaving the machine unattended.
- **12. Make a safe working environment.** Do not use machine in a damp, wet area, or where flammable or noxious fumes may exist.
- Disconnect main power before service machine. Make sure power switch is in the off position before re-connecting.

- **14.** Use correct amperage extension cords.

  Undersized extension cords overheat and lose power. Replace extension cords if they become damaged.
- 15. Keep machine well maintained. Keep blades sharp and clean for best and safest performance. Follow instructions when lubricating and changing accessories.
- 16. Keep machine well guarded. Make sure guards on machine are in place and are all working correctly.
- **17. Do not overreach.** Keep proper footing and balance at all times.
- **18. Secure workpiece.** Use clamps or a vice to hold the workpiece where practical. Keeping the workpiece secure will free up your hand to operate the machine and will protect hand from injury.
- 19. Check machine over before operating. Check machine for damaged parts, loose bolts, Keys and wrenches left on machine and any other conditions that may effect the machines operation. Repair and replace damaged parts.
- **20. Use recommended accessories.** Refer to instruction manual or ask correct service officer when using accessories. The use of improper accessories may cause the risk of injury.
- **21. Do not force machinery.** Work at the speed and capacity at which the machine or accessory was designed.
- **22. Use correct lifting practice.** Always use the correct lifting methods when using machinery. Incorrect lifting methods can cause serious injury.
- **23. Lock mobile bases.** Make sure any mobile bases are locked before using machine.
- 24. Allergic reactions. Certain metal shavings and cutting fluids may cause an ellergic reaction in people and animals, especially when cutting as the fumes can be inhaled. Make sure you know what type of metal and cutting fluid you will be exposed to and how to avoid contamination.
- **25. Call for help.** If at any time you experience difficulties, stop the machine and call you nearest branch service department for help.





# **Swivel Crane - Truck or Ute Safety Instructions**

Machinery House requires you to read this entire Manual before using this machine.

- Maintenance. Check oil levels and fill to correct oil levels if necessary.
- 2. Loading Requirements. Check service manual to locate safe lifting support locations & verify that the item weight to be lifted, does not exceed the maximum Swivel Crane load rating. Only connect lifting hooks, chains or straps at points that can safely support the load and prevent unpredictable load swing or shift.
- 3. Swivel Crane Condition. The Swivel Crane must be maintained for a proper working condition. Never operate a Swivel Crane that has low oil levels, damaged or worn parts. Scheduled routine maintenance should performed on a scheduled basis. Check frame, welds, pins, chain & hook for cracks or damage. Replace if necessary.
- **4. Crushing Hazard.** Never place any part of your body in the lifting mechanism. Serious injury can occur. Never allow anyone to work under a load supported by swivel crane. Always ensure load is either supported on Truck / Ute deck or on the ground. Minimise time for load to be lowered, never leave load suspended in air.
- 5. Work area hazards. Keep the area around the Truck / Ute & Swivel Crane to be clean from oil, tools & objects. Pay attention to other persons in the area and know what is going on around the area to prevent unintended accidents. Do not use hoist in damp or wet conditions. Do not expose to rain.
- **6. Warning Labels.** Take note of any warning labels on the machine and do not remove them.
- 7. Assembly of Base to Vehicle or Floor. Determine where the crane will be installed into the vehicle or floor & securely fasten to the bed or the tray of your vehicle or garage floor. Caution: Contact your vehicle manufacture for mounting requirements.
- **8. Safe Surface Use.** Ensure is mounted & used on level surfaces capable of sustaining the load being lifted. Avoid using the Swivel Crane on inclines that will cause a loss of control.

- 9. Pre-Operation Safety Checks. Never lift an object when the vehicle is in motion. Always make sure vehicle is in park, the engine is off, parking brake set and wheels are chocked before using. Do not overload beyond its rated capacity marked on the side of the boom for the corresponding boom position.
- 10. Safe Operation. Rotate crane boom into position over the load to be lifted keeping boom to a minimum height. Using Ram pump handle to close off pressure release valve by twisting clockwise. Attach lifting chains or slings to hook making sure the device is securely attached to the load and is suitably rated to hold the weight. Place pump handle into the pump actuator and slowly pump until the crane begins to support the load being lifted. Double check the load being lifted is firmly supported by the crane, chain, sling or levelling device. Pump the pump handle to raise the working load to the desired height.

Using the rotation handle slowly swing the load to the desired lowering location. Using Pump Hand slowly open pressure release valve on pump by slowly twisting anti-clockwise until load begins to lower (Do not loosen anymore than 2 full rotations). Excessive speed or jerky motion can cause the load to slip leading to property damage or personal injury.

Note: Never leave the load suspended for long periods of time, as soon as practicable the load should be lowered.

- **11. Other Hazards.** Never allow children to play on this Swivel Crane, and never carry passengers!
- **12. Pinching.** Prevent pinching by releasing pressure in the ram leaving boom all the way down when not in use.
- **15. Call for help.** If at any time you experience difficulties, stop and call you nearest branch service department for help.



# PLANT SAFETY PROGRAM

# **NEW MACHINERY HAZARD IDENTIFICATION, ASSESSMENT & CONTROL**

# **Swivel Crane - Truck or Ute**

This program is based upon the Safe Work Australia, Code of Practice - Managing Risks of Plant in the Workplace (WHSA 2011 No10) Developed in Co-operation Between A.W.I.S.A and Australia Chamber of Manufactures

LOW	SLIPPING, TRIPPING, & FALLING	٦
MEDIUM	SHEARING	D
nign	CROSTING	0
Assessment	Identification	. No.
Hazard	Hazard	Item
	Assessm HIGH HIGH NEDIU	JNG.



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Authorised and signed by:
Safety officer:
Manager:

Revised Date: 19th October 2018



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