PLANT HAZARD & RISK ASSESSMENT FOR TELEHANDLER

PCBU DETAILS: **Name:** AWD Equipment Sales Pty Ltd		***Report Number:***	RA20221101001
ABN: 46083230200		***Make:***	Dieci
Address:		***Model***	Icarus 40.17
25 Garner Place, Ingleburn NSW 2565		***Serial Number***	XLL1793834
Phone: 133293		***Assessment Purpose:***	Sale
Contact:		***Date of Last Review:***	02.11.2022

Plant Hazard and Risk Assessment Worksheet for Telehandlers

This risk assessment should be used in conjunction with the operator's manual for the equipment being used.
The purpose of this risk assessment is to identify the risks associated with this item of plant and identify the risk control measures that are in place on the plant.
No professional judgment has been made on the effectiveness of these control measures by AWD Equipment Sales PTY LTD.
Operator Daily safety checks as outlined in the "Telehandler Safety Check & Routine Maintenance logbook" are to be carried out prior to commencement of work.

-NO PASSENGERS AT ANY TIME -

Created By:	Kris Fowdar	*Position held:*	VIC Service Manager	*Signature:*	
Assessor:	Mark Davis	*Position held:*	VIC State Manager	*Signature:*	
WHS Legislation/ACT:	*Work Health & Safety ACT 2011* *Work Health & Safety Regulation 2017* *Safe Work Australia (2011) Code of Practice Managing the Work Environment and Facilities*		*Code or Standards Applicable to the Assessment:*	*AS 2359.12 – 1996 Powered Industrial Trucks Hazardous Areas* *AS 2359.2 – 2013 Powered industrial trucks – Operations* *AS2359.6 -2013* *AS 2359.14 – 2005* *Code of Practice for Moving Plant* *Safe Work Australia (2011) code of Practice* *Safe Clearances AS4024.1801, AS1802,AS1803/AS4204.1601* *AS/NZS 1891.1 2007 Industrial fall arrest systems and devices.* *Confined Space code of Practice December 2011*	

PLANT ACTIVITY TEST

Activity		Areas of Plant Accessed	Activity Performed By	Frequency of Activity	Isolation required (Yes or No)	SWMS or Document Reference	Comments
A.	**Delivery and set up of plant on site**						
	Transport Driver	All	Driver	AR	Yes	YES	Isolation required if left unattended
B.	**Operation (including Inspection, Pre-start checks, Storage)**						
	Operator	All	Operator	D	No	Yes	Prior to start of each shift
C.	**Service, Maintenance and Repairs (Including Cleaning)***						
	Qualified Service Personnel	All	Technician	3 Monthly	Yes	Yes	3 Monthly or as required /requested
D.	**Decommissioning / Removal from site**						
	Transport Driver	All	Driver	AR	Yes	Yes	Isolation required if left unattended
	Operator	All	Operator	AR	Yes	Yes	Isolation required if left unattended

*include any maintenance and servicing activities that will be carried out on site

Frequency of Activity Codes					
D	Daily	W	Weekly	2W	Fortnightly
M	Monthly	AR	As Required	S	Required at start-up/ Commissioning only

PLANT RISK ASSESSMENT

ASSESSING THE RISK

STEP 1: Consider what might happen when a hazard is encountered (consequences), and how likely it is that an exposure to the risk(s) from the hazard will occur (likelihood).
STEP 2: Use the appropriate Risk Level Calculator to determine the Risk Level to person who may be exposed to the hazards.
STEP 3: Determine the most effective control measures. (Consult the hierarchy of risk control measures when carrying out this step

RISK LEVEL CALCULATION

Use Risk Calculator 1

How severely could it hurt someone? or How severely could it damage the environment?		A. Very Likely Could happen anytime	B. Likely Could happen in some cases	C. Unlikely Could happen but very rare	D. Very Unlikely Could happen but probably never will
Death or Permanent Environmental Damage	1	Extreme 1	Extreme 2	High 4	High 7
Permanent Long Term Injury or Very severe Environmental Damage	2	Extreme 3	High 5	High 8	Moderate 11
Lost Time Injury or Major Environmental Damage	3	High 6	High 9	Moderate 12	Moderate 15
Professional Medical Treament or High Risk Environmental Damage	4	High 10	Moderate 13	Moderate 16	Low 18
First Aid, or Minor Environmental Damage	5	Moderate 14	Moderate 17	Low 19	Low 20

PLANT RISK ASSESSMENT CHECKLISTS – LEGEND

Column	Details
Column 2	Indicate whether the risk or safety concern listed in Column 1 does or does not apply to the plant.
Column 3	Provide details of where the hazard exists on the plant.
Column 4	Indicate the "lifecycle" when exposure to risk will occur: C = commissioning; D = delivery; O = operation; M = servicing and maintenance; R = removal from site.
Column 5	Record preliminary consequence, likelihood and risk level with present risk controls (if any) in place from Risk Calculator 1.
Column 6	Determine and record the relevant plant (engineering) controls
Column 7	Determine and record the relevant operator (administrative) controls
Column 8	Record residual consequence, likelihood and risk rating from Risk Calculator 1 after controls identified in Columns 6 and 7 have been applied.
Column 9	Determine if residual risk level is acceptable taking into account risk evaluation criteria and ALARP principles.
Column 10	Provide reference to corrective action number that corresponds with an appropriate corrective action to be applied to the plant (provide details in the "additional information/corrective actions" table at end of document).

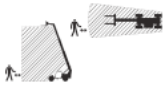
HIERARCHY OF RISK CONTROLS

Preference	Control	Description
1. **(best – preferred control)**	**ELIMINATION**	**Eliminate** the risk – remove the hazard that is causing the risk completely. Only if it is not reasonably practical to eliminate the risk, minimise it by (in descending order)
2.	**SUBSTITUTION**	Substitute the hazard giving rise to the risk with something giving rise to a lesser risk
3.	**ISOLATION**	Isolate the hazard from any person who may be exposed to it (e.g. barriers etc)
4.	**ENGINEERING CONTROLS**	Implement engineering controls (e.g. guards, speed controls, etc) to reduce risk
5.	**ADMINISTRATION CONTROLS**	Develop procedures to minimise exposure to a hazard (e.g. limit exposure times, post warning signs)
6.	**PERSONAL PROTECTION**	Use protective clothing and equipment (PPE) to limit harmful effects on workers from a hazard

PLANT HAZARD & RISK ASSESSMENT FOR TELEHANDLER

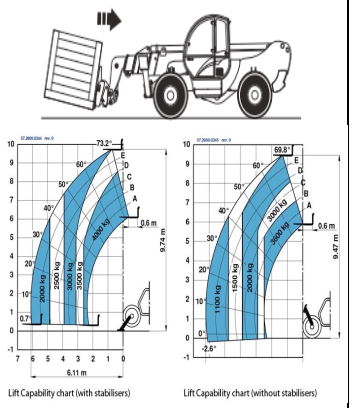
1	***Crushing, being drawn into, entanglement shearing, friction or impact.***									
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10
Reference	Risk or Safety concern	Potential hazard Y / N	Location & nature of hazard	Lifecycle (C,D,O, M,R)	Preliminary risk	Plant (engineering) controls	Operator/ Procedural controls	Residual risk	Risk level acceptable Y / N	Corrective action reference
1.1	Nip points / pinch points	Y	Plant entry door, Engine covers	O,M	M13	Guarding. Gate Return Springs. Gas struts.	Safety Decals. Operators Manual.	L19	Y	4,5
1.2	In-running rollers / Gear sets	N	-	-	-	-	-	-	-	-
1.3	Crushing due to parts of plant closing or collapsing	Y	Telescopic Boom section, outriggers if fitted	O,M	H8	Guarding. Gas struts.	**Safety Decals. Operators Manual. Keep hands and limbs free from boom area/s including outriggers if fitted at all times.**	L19	Y	4,5

1.4	Trapping between plant and materials or fixed structures No riders.	Y	Between all parts of plant and structure / materials whilst in use	C,D,M,O, R	H5	Barricading. Use of truck winch for loading and unloading. Use of spotters. Traffic Control	Loading & Unloading of plant to be done in designated area/s only. SWMS / JSA and or Risk Assessment to be carried out including / identifying job task at hand prior to commencing work. Never operate outside of the Telehandler Cabin. Clear demarcated exclusion zones to be set up around active working areas of the Telehandler Do NOT lower the boom/load/carriage unless the area below is clear of personnel & obstructions. Never exit the plant before ensuring the plant is parked correctly i.e. Engine is switched off. Gear selector in neutral, park brake applied, ignition keys removed. Ensure cabin screens are clean so as an unobstructed line of sight through the cabin is kept at all times.. Also consider the use of high impact/visibility fencing, signage, spotters or traffic control management if deemed necessary via a JSA/SWMS or Risk Assessment.	L18	Y	3,4,5

1.5	Being trapped beneath the plant or materials and fixed structures Crush Hazard Crush Hazard Support boom when performing maintenance.  No people under load.	Y	When lowering the boom/load/carriage. When lowering outriggers (If Equipped)	O,M	H9	Barricading. Use of spotters. Traffic Control	A SWMS/JSA and/or a Risk Assessment is to be carried out including / identifying job task at hand and note related dangers prior to commencing work by the operator. Never operate outside of the Telehandler guard rails Clearly demarcated exclusion zones to be set up around active working areas of the Telehandler. Safety Decals. Avoid congested work areas. Remain within the platform at all times whilst operating the EWP. Do NOT lower the platform unless the area below is clear of personnel & obstructions. Ensure work platform floor is clear of debris so a clear line of site through the platform floor is kept at all times. Also consider the use of high impact/visibility fencing, signage, spotters or traffic control management if deemed necessary via a JSA/SWMS or Risk Assessment.	L18	Y	3,4,5

1.6	Body or body parts caught between moving components	Y	Engine area of plant. Engine fan. Electrical Motors	M	M16	Shrouds. Covers Engine start isolation ie: Battery isolator E Stop Ignition Key Removed	Only licensed & approved technicians are to carry out repairs as per OEM recommendations. Technicians are to be inducted into AAH SWMS “Repair & Maintenance of a Telehandler” prior to commencing any work. Safety decals. Ensure safe clearances are maintained as per AS4024:1801, 1802, 1803, AS4024:1601.	L18	Y	3,4,5
1.7	Entanglement of body parts, hair, clothing, jewellery, tools, cleaning brushes, rags, etc, in moving parts	Y	Engine area of plant. Engine fan.	M	M16	Shrouds. Covers Engine start isolation ie: Battery isolator E Stop Ignition Key Removed	Only licensed & approved technicians are to carry out repairs as per OEM recommendations. Technicians are to be inducted into AAH SWMS “Repair & Maintenance of a Telehandler” prior to commencing any work. Safety decals. Avoid wearing loose fitting clothing. Never remove guards or shrouding at any time.	L18	Y	3,4,5

1.8	Contact with moving parts during testing, operation, maintenance, etc.	Y	Engine area of plant. Engine fan. Electrical Motors	M	M16	Shrouds. Covers Engine start isolation ie: Battery isolator E Stop Ignition Key	Only licensed & approved technicians are to carry out repairs as per OEM recommendations. Technicians are to be inducted into AAH SWMS "Repair & Maintenance of a Telehandler" prior to commencing any work. Safety decals. Plant to be isolated by ways such as Estops, Battery isolator (if equipped), Removal of ignition key, DANGER tags prior to commencement of repairs & maintenance. Except for maintenance purposes, do not remove safety devices, shields, protection cases, etc. Should their removal be necessary, stop the engine, remove them with the greatest care and always remember to refit them before starting the engine and using the machine again.	L20	Y	3,4,5
1.9	Friction due to contact with moving parts, surfaces or materials	N	-	-	-	-	-	-	-	-
1.10	Cutting due to sharp tools, components or work materials	N	-	-	-	-	-	-	-	-
1.11	Accumulation of energy inside machinery (liquid/gas under pressure, vacuum, elastic energy) Note: Energy listed in Section 5)	Y	Various areas of plant. All hydraulic hoses, All hydraulic cylinders. All hydraulic valve assemblies. Accumulators	O,M	M16	Shrouds, covers. Mechanical relief valves	Operator NOT to carry out any repairs. Only suitable licensed and approved technicians are to carry out repairs as per OEM recommendations. Technicians are to be inducted into AAH SWMS "Repair and Maintenance of a Telehandler" prior to commencing any work.	L20	Y	3,4,5

2	**Movement of Plant**									
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10
Refer ence	Risk or Safety concern	Potential hazard Y / N	Location & nature of hazard	Lifecycle (C,D,O, M,R)	Preliminary risk	Plant (engineering) controls	Operator/ Procedural controls	Residual risk	Risk level acceptable Y / N	Corrective action reference
2.1	Plant Stability – tipping, roll over 	Y	Plant onsite, Uneven work area. Loading/unloading of plant all locations. Traversing across terrain that exceeds allowable limits. Use of Outriggers.	D,O,M,R	H5	Plant outriggers, Pothole guard. Limit Switches Tilt cone	A separate SWMS/JSA or Risk Assessment of the work environment is to be completed prior to use of equipment by the operator – this should include ground condition and surrounding arears where the Telehandler may traverse or be used. Plant may NOT be traversed or operated on uneven terrain, unstable surfaces or angles that exceed the OEM recommendations. Occupants, equipment and materials must NOT exceed maximum SWL recommendations. All loads are to be evenly distributed Do NOT raise the boom/load/carriage unless the machine is on a firm compacted level surface. Do Ensure the outriggers are deployed on firm/compacted ground and the combined weight of the plant, persons and materials do not exceed the floor point loading recommended by the OEM. Know the weight of the load prior to lifting it. Position the load on the tynes correctly keeping the load mass as close to the load carriage as possible. Ensure tyres are in good working order with no	M11	Y	3,4,5

							defects that may affect stability including tyre pressures as stated by the OEM. The load shall be transported as low to the ground as practical. Do not use any controls for re-positioning the load when traveling. Come to a gradual and complete stop before attempting to re-position the load. Always ensure reference is made to the applicable plant load chart when lifting or using OEM approved attachments. Ensure all attachments used are in an operable condition, free of damage with a supporting, legible OEM serial plate attached. Operator must not exceed gradeability of equipment both up & down hill. Do NOT modify the plant or attachments in any way without authorization from AAH.			
2.2	Operator protection in event of roll over (ROPS) or plant tipping over	Y	Plant cabin	D,O,M,R	H9	ROPS	Plant ROPS are to be compliant with ISO3471:2008. No modification to the ROPS system is allowed external to manufacture's specifications.	M16	Y	3,4,5

2.3	Falling from or being thrown from plant No riders.	Y	Ejection or falling from platform stowed or raised.	D,O,M,R	H7	Seat belts. Self latching entry door. Seat brake switch	No Passengers. Do NOT sit, stand or climb on the fork tynes, carriage or load whilst the plant is being operated. Ensure seat belt is worn at all times whilst plant is in operation. Ensure plant door is securely latched closed before operating plant. If the Telehandler does become unstable and starts to tip over, do not attempt to jump out of the cab. Doing so may result in death or serious injury. Instead, hold on firmly and lean away from the point of impact, keeping your body inside the cab. Always travel at a speed appropriate for the site conditions.	L18	Y	4,5,6
2.4	Inability to slow down, stop or immobilise plant or restrict certain plant movements	N	-	-	-	-	-	-	-	-

2.5	Collision with persons, traffic or objects 	Y	Plant Surrounding structures. Traffic. Pedestrian Traffic	D,O,M,R	H5	Barricading Flashing lights Strobe lights Indicators Reverse Camera	A separate SWMS / JSA or Risk Assessment of the work environment is to be completed prior to use of equipment by the operator with consideration taken into account from material such as the – Codes of Practice Traffic Management in the Workplace. Be aware of limited sight distance and blind spots when driving or operating. Be aware of extended boom conditions when moving plant. Check work area for overhead obstructions and other possible hazards. Also consider the use of high impact/visibility fencing, signage, spotters or traffic control management if deemed necessary via a JSA/SWMS or Risk Assessment. Clearly demarcated exclusion zones to be set up around active working areas of the Telehandler. Always carry out pre start checks to ensure all plant warning devices are operable. Always travel at a speed appropriate for the site conditions.	L19	Y	3,4,5
2.6		Y	Plant Over speed Overloading Failure to Stop	D,O,M,R	H9	Outriggers. Stabilizers. Park Brake Keys Joysticks Deadman	When transporting the plant always load/unload as per guidelines listed in the EWPA “Load restraint Guide”. Always assess the site ground conditions prior to using the Telehandler. Do NOT raise the	L18	Y	3,4,5

	Uncontrolled or unexpected movement of plant, components or materials (e.g., slewing, luffing, lifting, driving etc)						boom/carriage/load unless the machine is on a firm, level surface. Never “tie off” the plant to any structure. Always travel at a speed appropriate for the site conditions. Operator Daily safety checks as outlined in the “Telehandler Safety Check & Routine Maintenance Logbook" are to be carried out prior to commencement of work. Refrain from wearing loose clothing that can snag on controls. Employ correct lockout procedures prior to exiting or leaving the machine unattended Eg: Estops, Battery isolator (if equipped), Removal of ignition key, Park brake applied, load grounded, DANGER tags if applicable etc.. Do not use any controls for re-positioning the load when traveling. Come to a gradual and complete stop before attempting to re-position the load. Ensure load is positioned correctly and contained prior to and throughout plant use. Refer Appendix 1.9.			

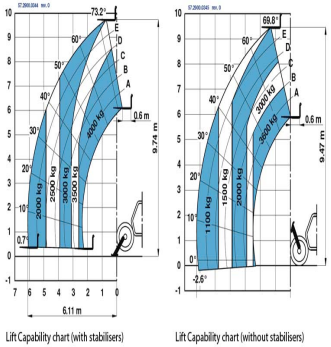
2.7	Parts of the plant collapsing	N	-	-	-	-	-	-	-	-
2.8	Inability to restrict plant or prevent plant moving into hazardous areas (as required for specific tasks)	N	-	-	-	-	-	-	-	-
2.9	Unauthorised access to or operation of plant (or specific components)	Y	Plant controls	O,M	H9	Battery Isolator. E Stop. Ignition Key. Control panel covers.	Always ensure that the Telehandler has its E stops depressed, the ignition key removed, park brake applied, load grounded and battery isolator (if fitted) turned to the "OFF" position when not in use. Lock all cabin entry doors. Store telehandler in an area as safe as	L19	Y	3,4,5
2.10	Remote activation or automatic start up of plant or components	N	-	-	-	-	-	-	-	-

2.11	Damage to surfaces, etc, caused by plant movement or operations	Y	Site Surfaces	D,O,M,R	M17	Preservation mats.	A separate SWMS / JSA or Risk Assessment of the work environment is to be completed prior to use of equipment by the operator Consideration for use of machinery with non-marking tires on finished surfaces should be taken into account. Preservation mats should be used in situations where grounding surfaces require protection. They are NOT to be used as supporting structures for equipment.	L20	Y	3,4

3	**Being struck by falling objects/ejected materials**									
Refer ence	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10
	Risk or Safety concern	Potential hazard Y / N	Location & nature of hazard	Lifecycle (C,D,O, M,R)	Preliminary risk	Plant (engineering) controls	Operator/ Procedural controls	Residual risk	Risk level acceptable Y / N	Corrective action reference
3.1	Falling Objects Falling Object Hazard	Y	Load carriage	O	H9	Guard rails, Toe Guards, Self latching Gate	Always carry loads close to the ground with the telescopic boom fully retracted. When driving at higher speeds or on public roads, select front wheel steering mode. (If applicable) Other steering modes (If applicable) may make high speed driving more difficult. Always operate within the design limitations of the specific Telehandler. Do not override the Telehandler load management system. Operate at a speed appropriate to the ground conditions. Operator must not exceed gradeability of equipment both up & down hill. Ensure that the Telehandler is level before raising load. Always ensure load is situated correctly on tynes close to the load guard before beginning to lift or traverse. Ensure cabin screens are clean so as an unobstructed	L19	Y	3,4,5

							line of site through the cabin is kept at all times.			
3.2	Failure of plant or components with loss of contents and/or load	Y	Plant cabin	O	H4	FOPS	Plant FOPS are to be compliant with ISO3449 No modification to the FOPS system is allowed external to manufacturer's specifications.	H8	Y	4,5,6

3.3	Projectiles/erected work, pieces or items	Y	Platform of Plant	O	H9	Load guard, securing load	Always carry loads close to the ground with the telescopic boom fully retracted. When driving at higher speeds or on public roads, select front wheel steering mode. (If applicable) Other steering modes (If applicable) may make high speed driving more difficult. Always operate within the design limitations of the specific Telehandler. Do not override the Telehandler load management system. Operate at a speed appropriate to the ground conditions. Operator must not exceed gradeability of equipment both up & down hill. Ensure that the Telehandler is level before raising load. Always ensure load is situated correctly on tynes close to the load guard before beginning to lift or traverse.	L19	Y	3,4,5
3.4	The plant, parts of plant or work pieces disintegrating	N	-	-	-	-	-	-	-	-

4	**Hazardous events (other)**									
Refer ence	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10
	Risk or Safety concern	Potential hazard Y / N	Location & nature of hazard	Lifecycle (C,D,O, M,R)	Preliminary risk	Plant (engineering) controls	Operator/ Procedural controls	Residual risk	Risk level acceptable Y / N	Corrective action reference
4.1	Overloading of plant or components 	Y	Tynes, Carriage, cylinders, boom sections	O	H9	Hydraulic relief valves, Load management system	A separate SWMS / JSA or Risk Assessment of the work environment is to be completed prior to use of equipment by the operator detailing job specific tasks that may adversely contribute to overloading of the plant. Occupant, equipment & materials must NOT exceed maximum SWL of the plant. All Loads are to be evenly distributed across the tynes/carriage at ALL times. Know the weight of the load prior to lifting it. Position the load on the tynes correctly keeping the load mass as close to the load carriage as possible. Always ensure reference is made to the applicable plant load chart when lifting or using OEM approved attachments. Ensure all attachments used are in an operable condition, free of damage with a supporting, legible OEM serial plate attached. Never disable such things as “Load Management Systems”.	L20	Y	3,4,5

4.2	Inadequate mechanical strength of parts	N	-	-	-	-	-	-	-	-
4.3	Failure of loading controls	N	-	-	-	-	-	-	-	-
4.4	Inadequate design / selection of pulleys, drums, chains, ropes, etc.	N	-	-	-	-	-	-	-	-
4.5	Abnormal conditions of assembly, testing, use, maintenance	N	-	-	-	-	-	-	-	-
4.6	Exposure to hazardous materials/chemicals	Y	Engine area of plant. oils, grease, coolants, solvents, etc. and/or biological agents	O,M	M17	Lockable engine covers All fluid contained within compartments.	Warning Decals: Only licenced and approved technicians are to carry out repairs as per OEM recommendations & schedules. Technicians are to be inducted into AAH SWMS "Repair & Maintenance of an EWP" prior to commencing any work. Refer 1.4, 1.6, 1.7 & 1.8.	L20	Y	3,4,5

5	**Systems under pressure (hydro, pneumatic, compressed air)**									
Refer ence	Column 1 Risk or Safety concern	Column 2 Potential hazard Y / N	Column 3 Location & nature of hazard	Column 4 Lifecycle (C,D,O, M,R)	Column 5 Preliminary risk	Column 6 Plant (engineering) controls	Column 7 Operator/ Procedural controls	Column 8 Residual risk	Column 9 Risk level acceptable Y / N	Column 10 Corrective action reference
5.1	Fluids under pressure: Low to moderate pressures (up to 4,000 psi or 27.6 mPa) Skin injection hazard	Y	Various areas of plant. All hydraulic hoses. All hydraulic cylinders. All hydraulic valve assemblies	D,O,M,R	M16	Shrouds. Ducting. Covers. Mechanical relief valves	Operator NOT to carry out any repairs. Only correctly licensed & approved technicians are to carry out repairs as per OEM recommendations. Technicians are to be inducted into AAH SWMS "Repair & Maintenance of an Telehandler" prior to commencing any work. Except for maintenance purposes, do not remove safety devices, shields, protection cases, etc. Should their removal be necessary, stop the engine, remove them with the greatest care and always remember to refit them before starting the engine and using the machine again. Safety decals Refer Appendix 1.6	L19	Y	3,4,5

5.2	Fluids under pressure: High to very high pressures (over 4,000 psi or 27.6 mPa)	Y	Various areas of plant. All hydraulic hoses. All hydraulic cylinders. All hydraulic valve assemblies	D,O,M,R	M16	Shrouds. Ducting. Covers. Mechanical relief valves	Operator NOT to carry out any repairs. Only correctly licensed & approved technicians are to carry out repairs as per OEM recommendations. Technicians are to be inducted into AAH SWMS "Repair & Maintenance of an Telehandler" prior to commencing any work. Except for maintenance purposes, do not remove safety devices, shields, protection cases, etc. Should their removal be necessary, stop the engine, remove them with the greatest care and always remember to refit them before starting the engine and using the machine again. Safety decals Refer Appendix 1.6	L19	Y	3,4,5
5.3	Gas or air under hazardous pressures (i.e., store in pressure vessels or pressurized by system)	Y	Tyres	D,O,M,R	H9	Valves	Ensure a tyre of the correct load rating is fitted at all times. Check rim, hub and tyre condition as part of any pre start checks as outlined in the Telehandler "Safety check and Routine Maintenance Logbook". Never overinflate a tyre.	M17	Y	4,5

5.4	Striking due to damage or failure of high pressure hoses / couplings / tyres	N	-	-	-	-	-	-	-	-
5.5	Energy stored in springs or items under tension	N	-	-	-	-	-	-	-	-
5.6	Residual energy / pressure in system	Y	Various areas of plant. All hydraulic hoses. All hydraulic cylinders. All hydraulic valve assemblies	D,O,M.R	M16	Shrouds, covers, mechanical relief valves	Operator NOT to carry out any repairs. Only correctly licensed & approved technicians are to carry out repairs as per OEM recommendations. Technicians are to be inducted into AAH SWMS "Repair & Maintenance of an Telehandler" prior to commencing any work. Obey Safety decals	L20	Y	3,4,5

6	**Electrical**									
Refer ence	Column 1 Risk or Safety concern	Column 2 Potential hazard Y / N	Column 3 Location & nature of hazard	Column 4 Lifecycle (C,D,O, M,R)	Column 5 Preliminary risk	Column 6 Plant (engineering) controls	Column 7 Operator/ Procedural controls	Column 8 Residual risk	Column 9 Risk level acceptable Y / N	Column 10 Corrective action reference
6.1	Contact with or proximity to plant electrical circuits or parts at Extra Low Voltage (under 50V AC or 120V DC)	Y	Plant Batteries up to 14volts. Alternator and associated circuits up to 14 volts	M	M16	Lockable access covers. Sheathing. Conduit, fuses and battery isolator	Operator NOT to carry out any repairs. Only correctly licensed & approved technicians are to carry out repairs as per OEM recommendations. Technicians are to be inducted into AAH SWMS "Repair & Maintenance of an Telehandler" prior to commencing any work. Safety decals. When checking battery electrolyte levels correct PPE should be worn at all times including – Acid proof gloves, full face protection etc. Refer Appendix 1.4 for information regarding Wet Lead Acid Batteries.	L19	Y	4,5,6
6.2	Contact with or proximity to plant electrical circuits or parts at LOW or HIGH voltages (50-1000V AC or 120-1500V DC)	N	-	-	-	-	-	-	-	-

6.3	Contact with or working in close proximity to “live” electrical conductors (i.e., LV, or HV power transmission lines, etc) Electrocution Hazard	Y	Plant Surrounding Structures.	D,O,M,R	E2	Barricades Insulators	A separate SWMS/JSA or Risk Assessment of the work environment is to be completed prior to use of equipment by the operator specifically detailing work near power lines. Reference the Codes of Practice (Work Near Overhead Power lines 2006) Section 4.4.2 for alternate ways of reducing or eliminating the risk. Refer section 5.8 of AS 2550.10-005 to establish safe working distances, no go zones and use of spotters. Consult local authorities before commencement of work near power lines. Look up and live throughout. Dial before you dig. Refer appendix 1.3 for Approach Distances.	H4	Y	3,4
6.4	Overloading of circuits (i.e., electrical / electronic systems including control circuits)	N	-	-	-	-	-	-	-	-
6.5	Energy sources – identification and isolation of systems	N	-	-	-	-	-	-	-	-

6.6	Contact with or working in proximity to “live” electrical conductors or control devices Electrocution Hazard Maintain required clearance.	Y	Plant Surrounding Structures.	D,O,M,R	E2	Barricades Insulators	A separate SWMS/JSA or Risk Assessment of the work environment is to be completed prior to use of equipment by the operator specifically detailing work near power lines. Reference the Codes of Practice (Work Near Overhead Power lines 2006) ways of reducing or eliminating the risk. Refer section 5.8 of AS 2550.10-005 to establish safe working distances, no go zones and use of spotters. Consult local authorities before commencement of work near power lines. Look up and live throughout Dial before you dig. Refer appendix 1.3 for Approach Distances.	H4	Y	3,4

6.7	Residual / stored energy in electrical systems (i.e., batteries, capacitors, UPS, emergency systems) Explosion hazard	Y	Plant Batteries. Battery Charger Unit	M	M16	Lockable access covers	Operator NOT to carry out any repairs. Only correctly licensed & approved technicians are to carry out repairs as per OEM recommendations. Technicians are to be inducted into AAH SWMS "Repair & Maintenance of an Telehandler" prior to commencing any work. Technicians are to be inducted into AAH SWMS "Inspecting & Changing batteries in Telehandler's" prior to commencing any work. Safety decals. When checking battery electrolyte levels correct PPE should be worn at all times including – Acid proof gloves, full face protection, etc. Inspections should always be carried out in a well ventilated are free of naked flames and sparks. Refer Appendix 1.4 for MSDS information regarding	L19	Y	4,5,6
6.8	Electrical systems intrinsically safe where plant applications involve hazardous atmospheres	N	-	-	-	-	-	-	-	

7	**Fire/explosion**

Refer ence	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10
	Risk or Safety concern	Potential hazard Y / N	Location & nature of hazard	Lifecycle (C,D,O, M,R)	Preliminary risk	Plant (engineering) controls	Operator/ Procedural controls	Residual risk	Risk level acceptable Y / N	Corrective action reference
7.1	Components susceptible to high temperatures, overheating or unsafe thermal loading	N	-	-	-	-	-	-	-	-
7.2	Ignition sources – plant design (i.e., flame, sparks, heating elements)	N	-	-	-	-	-	-	-	-
7.3	Ignition sources – process and/or plant operation (e.g., ejected work pieces, electrical discharge, sparks)	N	-	-	-	-	-	-	-	-
7.4	Flammable or explosive Atmosphere No smoking	Y	Plant fuel tank and or fuel lines. Plant engine. Fuelling Containers	O,M	H8	Fuel tank vents. Line guarding.	Telehandler to be fuelled in accordance with site regulations. A separate JSA/SWMS or Risk Assessment is suggested for this process. Plant to be turned off and isolated prior to fuelling. Exhaust and/or component temperature should be taken into account before fuelling and the appropriate time given for components to cool if required. Fuel only from authorized containers or means such as a fuel bowser. Fuel in a well ventilated area. A MDS should be on hand in relation to product being handled. Do NOT smoke during	M11	Y	4,5,6

							fuelling process. Ensure means of spill containment are on hand for any spills. Always wear the appropriate PPE whilst fuelling plant such as gloves, eyewear, face mask. AAH staff to complete tasks as per SWMS "Fuelling Plant & Equipment Using Fuel Cans, Mounted Tanks & Bowsers". Refer Appendix 1.8 for details.			
7.5	Over-pressurisation, catastrophic failure within pressurized system	N	-	-	-	-	-	-	-	-
7.6	Interference with remote detonation equipment	N	-	-	-	-	-	-	-	-

8	**Slips, trips and falls**									
Refer ence	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10
	Risk or Safety concern	Potential hazard Y / N	Location & nature of hazard	Lifecycle (C,D,O, M,R)	Preliminary risk	Plant (engineering) controls	Operator/ Procedural controls	Residual risk	Risk level acceptable Y / N	Corrective action reference
8.1	Working / access surfaces on plant uneven, slippery or obstructed	Y	Plant cabin, cabin floor, access steps	D,O,M,R	M13	Non slip surface on platform and entry to plant. Entry/Exit Handrails.	Ensure access and work areas of plant are kept clean and tidy and free of debris at all times whilst in use. Try to as far as reasonably practicable remove foreign material such as mud or oil from footwear prior to entering the Telehandler. Maintain good footing and use access handles whilst entering / exiting the Telehandler. Always maintain a minimum of three points of contact at all times whilst accessing or using the plant. Ensure cabin floor is free of debris that may come in contact or obstruct plant operational controls such as accelerator or brake pedals	L18	Y	4,5,6

8.2	Falls from designated access (ladders, stairs, walkways) on the plant	Y	Cabin access steps	D,O,M,R	M13	Non-slip surface on entry to plant.	Ensure access and work areas of plant are kept clean and tidy and free of debris at all times whilst in use. Try to as far as reasonably practicable remove foreign material such as mud or oil from footwear prior to entering the Telehandler. Maintain good footing and use access handles whilst entering / exiting the Telehandler. Do NOT enter or exit the Telehandler in any other manner than that designated by the OEM. Operator to ensure correct footwear is worn at all times such as rubber soled steel cap boots. Safety Decals. Always maintain a minimum of three points of contact at all times whilst in accessing or using the Telehandler.	L18	Y	4,5,6
8.3	Falls from elevated areas on plant (fall height under 2m) due to size, location, lack of fall protection, unprotected holes, openings, penetrations or gaps)	N	-	-	-	-	-	-	-	-
8.4	Falls from elevated areas on plant (fall height over 2m) due to size, location, lack of fall protection, unprotected holes, openings, penetrations or gaps)	N	-	-	-	-	-	-	-	-

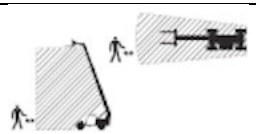
8.5	Falls due to collapse of supporting structure (e.g., mobile crane boom, batch plant, tower crane)	N	-	-	-	-	-	-	-	-

9	**Atmospheric conditions/contaminants**									
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10
Refer ence	Risk or Safety concern	Potential hazard Y / N	Location & nature of hazard	Lifecycle (C,D,O, M,R)	Preliminary risk	Plant (engineering) controls	Operator/ Procedural controls	Residual risk	Risk level acceptable Y / N	Corrective action reference
9.1	Atmospheric contaminants associated with plant operation (exhaust emissions, gases, thermal fumes, etc)	Y	Plant engine exhaust	D,O,M,R	M17	Exhaust system mufflers. Catalytic convertors. Enclosures	Telehandler is to be operated in a well-ventilated area at all times. A separate SWMS/JSA or Risk Assessment of the work environment is to be completed prior to use of equipment by the operator specifically detailing work environment conditions that may require the use of confined space procedures. Reference should be made to “Confined Spaces Code of Practice December 2011” Note 3.1. Regular monitoring of air quality should be taken into consideration. Substitute plant and or equipment should be taken into consideration where quality of air is NOT to be compromised. PPE such as breathing apparatuses may be a consideration in review to a separate SWMS or JSA.	L20	Y	1,2,3,4,5,6
9.2	Atmospheric contaminants created through work/material (dusts, fibres)	N	-	-	-	-	-	-	-	-

9.3	Contaminants / toxic materials produced	Y	Plant engine exhaust	D,O,M,R	M17	Exhaust system mufflers. Catalytic convertors. Enclosures	Telehandler is to be operated in a well-ventilated area at all times. A separate SWMS/JSA or Risk Assessment of the work environment is to be completed prior to use of equipment by the operator specifically detailing work environment conditions that may require the use of confined space procedures. Reference should be made to "Confined Spaces Code of Practice December 2011" Note 3.1. Regular monitoring of air quality should be taken into consideration. Substitute plant and or equipment should be taken into consideration where quality of air is NOT to be compromised. PPE such as breathing apparatuses may be a consideration in review to a separate SWMS or JSA.	L20	Y	1,2,3,4,5,6
9.4	Confined spaces associated with the plant	N	-	-	-	-	-	-	-	-
9.5	Unsafe oxygen levels	Y	Plant engine exhaust Charging of plant batteries	D,O,M,R	M12	Exhaust system mufflers. Catalytic	Telehandler is to be operated in a well-ventilated area at all times. A separate SWMS/JSA or Risk Assessment of the work	L20	Y	1,2,3,4,5,6

						convertors. Enclosures	environment is to be completed prior to use of equipment by the operator specifically detailing work environment conditions that may require the use of confined space procedures. Reference should be made to “Confined Spaces Code of Practice December 2011” Note 3.1. Regular monitoring of air quality should be taken into consideration. Substitute plant and or equipment should be taken into consideration where quality of air is NOT to be compromised. PPE such as breathing apparatuses may be a consideration in review to a separate SWMS or JSA.			

10	**Working environment/ergonomics (e.g. visibility, noise, vibration, manual handling)**									
Refer ence	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10
	Risk or Safety concern	Potential hazard Y / N	Location & nature of hazard	Lifecycle (C,D,O, M,R)	Preliminary risk	Plant (engineering) controls	Operator/ Procedural controls	Residual risk	Risk level acceptable Y / N	Corrective action reference
10.1	Lighting conditions (e.g., illumination, glare, etc)	Y	Plant working area.	O,M	M17	Light stands. Platform lighting. Auxiliary lighting sources	Lighting levels should be monitored via use of a lux meter to ensure that adequate lighting is provided throughout the use of the Telehandler at all times. External light stands, Auxiliary lighting should be available at all times during the use of the Telehandler. Operator should stop work if they feel lighting conditions are NOT sufficient. In situations of extensive illumination or glare appropriate PPE should be considered such as tinted safety glasses, wide brim hats and implemented via a toolbox talk. Reference to Table 1 appendix 1.1 should be made if a SWMS identifies lighting concerns.	L20	Y	3,4,5,6
10.2	Restricted visibility or work area (e.g., operating position/layout, generation of dust, etc)	Y	Plant Platform	O	M17	Barricading. Use of spotters. Traffic Management	A separate SWMS / JSA or Risk Assessment of the work environment is to be completed prior to use of equipment by the operator specifically detailing work environment conditions that	L20	Y	3,4,5

							may adversely affect the use of the Telehandler. Be aware of limited sight distance and blind spots when driving or operating. Check work area for overhead obstructions and other possible hazards. Always barricade work areas when working in public or high traffic zones. Also consider the use of fencing, signage and spotters or traffic control management. Clearly demarcated exclusion zones to be set up around active working areas of the Telehandler. Ensure cabin screens are clean so as an unobstructed line of site through the cabin is kept at all times.			
10.3	Injury due to poorly designed, located or faulty seating.	N	-	-	-	-	-	-	-	-
10.4	User error through poor design of controls (e.g., human factor principles, replacement, marking of or functioning of controls)	N	-	-	-	-	-	-	-	-
10.5	Manual handling risks due to heavy or awkward loads, repetitive lifting, sudden jerky movements, etc)	N	-	-	-	-	-	-	-	-
10.6	Repetitive activity, forceful exertions, static or awkward posture	N	-	-	-	-	-	-	-	-

10.7	Noise levels exceeding recommended exposure levels (Leq 85 dB(A) (8h))	N	-	-	-	-	-	-	-	-
10.8	Vibration (e.g., personal exposure, impact on structures, etc)	N	-	-	-	-	-	-	-	-
10.9	Introduction of moisture, water, or contaminants to work areas or systems	N	-	-	-	-	-	-	-	-
10.10	Radiation – non ionising (e.g. RF, microwave, infrared, laser etc)	N	-	-	-	-	-	-	-	-
10.11	Radiation – ionising (i.e., UV, Xray, Gamma etc)	N	-	-	-	-	-	-	-	-

11	**Temperature extremes**									
Refer ence	Column 1 Risk or Safety concern	Column 2 Potential hazard Y / N	Column 3 Location & nature of hazard	Column 4 Lifecycle (C,D,O, M,R)	Column 5 Preliminary risk	Column 6 Plant (engineering) controls	Column 7 Operator/ Procedural controls	Column 8 Residual risk	Column 9 Risk level acceptable Y / N	Column 10 Corrective action reference
11.1	Open flame, steam, heated air	N	-	-	-	-	-	-	-	-
11.2	Exposure to high or low temperature extremes (thermal comfort)	N	-	-	-	-	-	-	-	-
11.3	Contact with hot or cold plant components or materials Allow system to cool.	Y	Plant engine. Plant exhaust.	D,O,M,R	M16	Guarding. Engine Covers	Operator NOT to carry out any repairs. Only correctly licensed & approved technicians are to carry out repairs as per OEM recommendations. Technicians are to be inducted into AAH SWMS "Repair & Maintenance of an Telehandler" prior to commencing any work. Allow sufficient time for any componentry to cool before carrying out maintenance, repairs or inspections. All exhaust shields and guards are to remain in place during operation of the Telehandler. Use correct PPE if required to carry out maintenance, repairs or inspections – this may include heatproof gloves and protective glasses and obey safety decals	L20	Y	3,4,5,6

12	Transport/movement of plant									
Refer ence	Column 1 Risk or Safety concern	Column 2 Potential hazard Y / N	Column 3 Location & nature of hazard	Column 4 Lifecycle (C,D,O, M,R)	Column 5 Preliminary risk	Column 6 Plant (engineering) controls	Column 7 Operator/ Procedural controls	Column 8 Residual risk	Column 9 Risk level acceptable Y / N	Column 10 Corrective action reference
12.1	Loading / unloading of plant	Y	Transport	D,R	H9	Tie down points, Truck Winch	A separate SWMS / JSA or Risk Assessment should be completed prior to movement of plant via transport. Transport driver to hold EWPA "T" ticket. Loading & Unloading of plant to be done in designated area/s only. Exclusion area to be set up around loading / unloading zone. Avoid congested work areas	L19	Y	3,4,5
12.2	Stability and security of plant and components during transport	Y	Transport	D,R	H9	Tie down points, truck winch	separate SWMS / JSA or Risk Assessment should be completed prior to movement of plant via transport. Transport driver to hold EWPA "T" ticket. Plant should be secured by means outlaid by the OEM. Plant should be switched off	L19	Y	3,4,5
12.3	Factors affecting road movement of plant (license, escort, permits etc)	Y	Plant	C,D,O,M,R	H5	Plant registration	Ensure all road rules are obeyed if using plant on public roads. Ensure such things as conditional registration are implemented for use of plant on public roads. Operator to meet all RMS requirements.	M12	Y	2,5

13	Operator Licensing									
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10

Refer ence	Risk or Safety concern	Potential hazard Y / N	Location & nature of hazard	Lifecycle (C,D,O, M,R)	Preliminary risk	Plant (engineering) controls	Operator/ Procedural controls	Residual risk	Risk level acceptable Y / N	Corrective action reference
13.1	Non ticketed operator	Y	Maintenance, transport and operation of Plant	C,D,O,M,R	H5	Operators manual. Decals	Ticketed operator to read and understand operating manual prior to use. A VOC may also be required as a site-specific regulation. Site-specific regulations regarding licencing should be taken into consideration before operating the Telehandler. Refer Appendix 1.10 for Telehandler Association Licencing Chart. .	L19	Y	1,2,3,5
13.2	Fitting/changing over attachments	Y	Incorrectly fitted attachments, unsecured attachments, incorrect attachment for machine.	O	H9	Load management system, Load charts, operators manual	Always ensure reference is made to the applicable plant load chart when lifting or using OEM approved attachments. Ensure all attachments used are in an operable condition, free of damage with a supporting, legible OEM serial plate attached. Never use an attachment on a Telehandler that does not have a supporting load chart that references the attachment and plant. Never disable the LMS. Always ensure reference is made to the applicable plant load chart when lifting or using OEM approved attachments.	M17	Y	4,5,6

							DO NOT operate the machine in the “override” position with attachments fitted. Never use an attachment for a purpose for which it is not designed. Always refer to the operators manual for correct procedure for fitting/changing over attachments.			

ADDITIONAL INFORMATION/CORRECTIVE ACTIONS

Reference	Additional Information/Details of corrective actions

Most effective control measures

Control Measures	Examples
Elimination	Redesigning a job to remove unsafe work practice
Substitution	Substituting a heavy piece of equipment for a lighter piece of equipment
Isolation	Using electronic swipe cards to restrict access to work areas
Engineering Means	Installing ramps to provide safer access to buildings
Administrative Means	Provide training on the use of equipment or work practices
Personal Protective Equipment	Providing gloves etc to prevent exposure to hot or cold surfaces

Least effective control measures

Noise Report

Equipment Type:	**Serial/Assett No:**
Make:	**Model:** Icarus 40.17
Test by(Print)	**Date:**
Signature:	
Sound Level Meter Used:	
Manufacturers specified noise level:	**dBA:**
Background Level:	**dBA:**
Results - Operators Station	
High Idle dBA:	Low Idle dBA:
Comments:	

Results - Bystander Position

Front	**dBA:**	
Rear	**dBA:**	
Left	**dBA:**	
Right	**dBA:**	

At 7 metres from side of Equipment- Equipment operating (High Idle)

Comments:

Lighting Report

Test by(Print)	**Date:**
Signature:	
Lux Meter Used:	
Results:	
At Controls	**LUX**
At Emergency Controls	**LUX**
In Front/Over Task	**LUX**
Left Side Task	**LUX**
Right Side Task	**LUX**
Comments:	

Results - Surroundings

Clearly Seen By Others?	**Yes**	☐	**NO**	☐
Decrease Lighting in Walkways?	**YES**	☐	**NO**	☐
Decrease Lighting to other workstations?	**Yes**	☐	**No**	☐

Comments:

This Hazard & Risk Assessment has been developed through consultation with our employees, manufacturers and other third-party information and has been read and understood and signed by all employees undertaking the works:		
Print Names	**Signatures**	**Dates**