€skom

VEHICLE 3PECS.

Vehicle Job Description:	Required to carrying Goods,	equipment	and passengers up to a GVM of 70	000 kg on all types of road surfaces with up to 80% off road usage
T4A Dual wheel	Annexure A3			Eskom technical team to compleate
Vehicle Type Required	Light Truck 4X4 >4500<=70	Comply	Provide reason for Comply or n	Eskom technical evaluation comments
AIR CONDITIONER (Factory Warranty)	To be Standard			
RADIO/CD PRICE FITTED (IF NOT STD)	To be Standard			
Seat Belts: SABS APPROVED	To be Standard			
DRIVER AND PASSENGER SEATBELT REMIN	To be Standard			
ABS BRAKES	To be Standard			
POWER STEERING	To be Standard			
DAY RUN LIGHTS INSTALLED	To be Standard			
TWO EMMERGENCY TRIANGLES	To be Standard			
IMMOBILISER (Factory Warranty)	To be Standard			
ALARM (Factory Warranty)	To be Standard			
PTO (PRICE FITTED IF NOT STD)	To be Standard			
ENGINE PROTECTION DEVICE	To be Standard			
TRAILER BRAKE CONTROL	To be Standard			
AIR CHARGE LINE TO THE FRONT	To be Standard			
REVERSE ALARM/BEEPER	To be Standard			
FITTED TOWING/RECOVERY FACILITY ON				
VEHICLE CONFIGURATION	Light Truck 4X4 >4500<=7000KG G	VM (Duel who	el application)	
TRACTION:	4x4			
Diesel Powered (Normally aspirated or Turb	YES			
Power Rating - Kw	78 Kw			
Torque Rating - NM	251 Nm			
Permissible Front axle rating " Max."	2600 kg			
Permissible Rear axle rating " Max."	4300 kg			
D/T Rating "Min "	7000 kg			
Wheel base " Max."	3400 mm to 4000 mm			
Chassis to facilitate the fitting of 6Tm hydra	ų YES			
Fully synchromesh Gearbox	YES			
Power assisted Steering	YES			
Seat Belts: SABS approved	. YES			
Tyres (Size) 7.50R16-10 PR (up to 80% off	YES			
Number of gears, manual	YES			
Mud-flaps. Factory fitted	YES			
WARRANTY PERIOD: MONTHS/DISTANCE	Specify			
CARBON DIOXIDE (CO2) EMISSION g/km	Specify			
Acceptance / Acceptance				
Name of Evaluator		Signature		

١	Name of Verifier	Signature		
	Any proposed deviations from this	specification shall be listed below with reasons for the deviation(s	In addi	ion, evidence shall be provided that the proposed deviation will at le

Technical Evaluation Criter	100
Fully completed questionnaire in	50
Original Equipment manufacture	20
Proof of 12 (twelve) month warra	20
Proof of after sails service and r	10

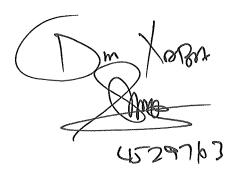


	Caroni	
	UNIT SPEC'S.	Manufacturer:
	UNIT SPECS.	Make and model of Aerl
		Country of manufacturing
In	For the 11 metre Non insulated aerial platform with a one single man bucket, the SWL load	
Functional specifications	per bucket shall comply with the single man bucket rating (136kg) Articulated with Top	' '
]		
	boom telescopic	
Special Technical Characteristics	All items of material or details of construction which are not specified herein, or which have not been	
!	commented on but which are normally furnished as part of a mobile unit shall be furnished by the	\
	Supplier If there is any doubt on the part of the Supplier as to what shall be furnished under this	
	specification, it shall be the Supplier's responsibility to inform Eskom and obtain clarification in writing, prior to submitting a quotation. Failure to do so shall in no way relieve the Supplier of the obligation to	
i	furnish a mobile unit as intended under the specification. All insulated MEWP's models not previously	
	acceptance tested will be tested on a prototype basis via the Aerial unit WG (as a once off) and a report	
	acceptance tested will be tested on a prototype basis via the Aerial thic vvo (as a once on) and a report	
	All MEWPs shall be equipped with the following	
Special safety devices	The manufacturer shall provide each unit with suitable and adequate outriggers. Such outriggers shall be	
Stabilisation of a mobile unit	capable of levelling the chassis at a slope of up to 5° Where outriggers are used the pads shall be	
į	constructed to allow swivelling to accommodate the ground level conditions. The bearing pad shall be a	Ĩ
	minimum of 200 mm x 200 mm or diameter of 230 mm	
0.0.0.0	Every MEWP shall have a device (e.g. tilt switch or spirit level) to indicate whether the inclination of the	
3 2 2 Chassis inclination	chassis is within the limits permitted by the manufacturer. This device shall be protected against damage	
	and accidental change of its setting. This device shall be clearly visible from each outrigger control. (Ref.	
	SANS 16368 2014 pg 24)	1
3 2 3 Stabilisation of buckets	This shall be ensured by either a mechanical or hydraulic system, to prevent overlurning. Where a	
3 2 3 Stabillaution of Businets	Inversable system is used, a locking valve shall be provided	
	The bucket till angle shall not exceed 5° from horizontal, when its rated load is successively applied at its	1
	front, back, right and left edges. On overcenter MEWPs this shall be ensured by a positive mechanical	
	levelling device	
	Note Where levelling is done by means of insulating rods, only solid or foam filled tubes shall be used	
	Hollow tubes shall not be accepted	
	The minimum breaking load of the chain shall be shown on a certificate (SANS 16368 2014 pg 36)	
Tensioning of chains	It shall be possible to re-tension chains (SANS 16368 2014 pg 36)	
Strength junction between chain and	The junction between the chain and the chain termination shall be able to resist at least 100% of the	
chain terminations	minimum breaking load of the chain (SANS 16368 2014 pg 36)	
Visual examination of chains and	Visual examination of chain terminations shall be possible preferably without the removal of the chains or	
terminations	major disassembly of structural components of the MEWP (SANS 16368 2014 pg 36)	
	Unintentional displacement of chain	
Unintentional displacement of chain	Means shall be provided to prevent unintentional displacement of the chain from the sprockets or pulleys,	
	even under slack conditions (SANS 16368 2014 pg 36)	L

Personnel safety attachments	An attachment point for the personnel safety strap(s) or lanyard(s) to the boom shall be provided. The	
oradinoration disconnicing	point at which the anchor point is provided will be on the main boom end (on metal portion) and will limit	
	the travel of any falling personnel	
	This attachment point shall be capable of withstanding the dynamic fall rating of the energy absorbing	
	leguinment linked to the Fall Arrest System and comply with SANS EN 16368 to be able to withstand a	
	static force of 16kN if intended for one person. There will be a minimum of one attachment point per	
	person	
	The attachment point should be marked with yellow paint. Should the aerial unit be an over centre type	
	upit then the attachment point will have to be accommodated on the metal securement section of the	
	bucket, so that there is minimal variation in the attachment distance to the secured worker as the main	
	hoom moves through it's trajectory	
Locking pins	Any locking pins shall be secured against unintentional disengagement (e.g. spring pin) and loss (e.g.	
zoomig Pine	chain) (SANS 16368 2014 pg 22)	
MEWP outrigger (stabiliser) indicator	Vehicle mounted MEWPs shall be equipped with an indicator visible from the travelling controls within the	
, ,	cab to indicate if all parts of the outrigger, the extending structure, the access ladders and the work	
	platform of the MEWP are in transport positions (SANS 16368 2014 pg 23)	
Controls and Control Panels	Two control panels shall be provided The upper control panel situated at the platform (or portable radio	
	control) and the lower control panel on the chassis or turret. The lower controls shall be readily accessible	
	and shall provide for over-riding the upper controls	
	An interlocking device shall be provided to prevent the operation of the MEWP before the mobile unit is	
	completely stabilised	
	In order to prevent unintentional actuation of the boom positioning controls at the platform, the use of an	
	unlocking or enabling device shall precede the use of the control itself, and shall be maintained	
	simultaneously during the use of controls The device shall return to the locked or disabled position when	
	the control is released by the operator. The double action should not be simultaneously possible from	
	external contact e.g. inadvertently pushing into to a pole. The device may be incorporated into each	
	control (PG 13 of ANSI A92 2-2001)	
	Where a jib is required, its controls shall also be mounted on the upper control panel	
	All control switches/levers shall automatically return to the neutral position when they are released	
	The control levers/switches shall be plainly identified as to their function and shall be protected from	
	inadvertent activation	
	Control devices shall be protected against activation other than that initiated by the operator, e.g. by a	
	separate control which must be continuously activated by the operator in order for any motion to take	
	place This excludes radio type controls, which shall have a separate emergency stop button which can	:
	be activated between operations to prohibit unintended movements	
	The precision of the upper controls shall be such that the operator can approach his work area slowly and	
	safely Coming from a distance of 1 m, the operator shall be able to position the bucket less than 50 mm	
	from the work area	
	Controls may be actuated hydraulically, by insulating rods, by using fibre optics, by a light beam or radio	
	Hydraulic hoses/fibre optic cables may run on the inside of the boom	
1	Where radio controls are used a circuit diagram of the radio shall accompany the vehicle	
	Where more than one aerial unit is utilised in close proximity with remote control devices, there shall be a	
·	safety mechanism built in which disallows control across the different vehicles. Functionality shall be	
	provided for to allow the simultaneous operation of the units (frequency hopping)	



	Emergency stop An additional control shall be provided at the platform and at the lower controls to effect an emergency stop of the powered upper control functions. These controls shall be permanently marked and shall not require continuous actuation for a stop condition. At the lower controls, the override control.	
	may be used as an emergency stop provided it is clearly identified as an "emergency stop"	
Control of outriggers	The hydraulic circuit shall be fitted with interlocking device that will prevent the operation of the outriggers while the work platform is raised from the rest position	
	The outrigger controls shall be located at ground level so that the operator can see the outrigger being operated	
	These controls shall also be protected against inadvertent activation and return to neutral when released	
Winch Control	by the operator If the MEWP is equipped with a material handling winch at the upper boom, it shall have both upper and	
	lower controls to operate the winch	
Auxiliary system	If the main source of power breaks down, all movement shall stop	
	An auxiliary system shall be provided for emergency operation of the MEWP. This system shall enable at least the rotation of the turret, lifting and lowering of the bucket.	
	The activation of the emergency system shall be possible from the lower control and the system's	
	operation shall be enabled at both control panels. The lower controls will override the upper control when operated simultaneously	
	Should the Upper control system be a mechanical lever type system, it shall be possible to activate the	
	emergency system from ground level	
	Where a PTO is utilised there should be an electric or mechanical interlock to disallow the PTO from	
	operating while the vehicle's gearbox is engaged (or hand-brake failsafe system / alarm) (in any gear)	
	PLC Cabinet 12V battery	
	Where a separate battery is utilised for the PLC and control this battery will have a charge function which allows for the battery to remain fully charged at all times	
	PLC control box shall have an IP rating of 66 (dust and moisture proof rating)	
Design Characteristics	Load Supporting Elements	
Design safety factors	The structural load supporting elements of the MEWP that support the platform, and which are made of a ductile material, shall have a design stress of not more than 50% of the minimum yield strength of the material. This shall be based on the combined rated load and mass of the support structure.	
	The structural load-supporting elements of the MEWP that support the platform, and which are made of a non-ductile material, shall have a design stress of not more than 20% of the minimum ultimate strength of the material. This shall be based on the combined rated load and mass of the support structure. This	
	factor includes all hinge pins The design shall be such that, in any circumstance the ductile boom shall fail before any hinge pins. The	
	same structural safety factors stated above shall also apply to the platform	
	The structural design and stability calculations shall take into account all aspects considered in SANS	
	16328 2014 (section 4), including structural masses and rated load, wind forces, manual forces, special loads and forces and calculations of overturning and stabilising moments	
	Safety switch systems acting as information giving components shall be designed to fail in safe mode	
Electric safety devices	Normally closed switches, if used, shall conform to IEC 60947-5-1	
Safety switch systems	Sensors or switches may be used under the following conditions	



	They are duplicated, or	
	Single sensors or switches may be used provided there is continuous monitoring of the plausibility of their signals	
	Switches shall be designed to be reliable in dusty and dirty environments (preference for mercury	
Damage to wiring	Wiring used as a signal-transmitting component shall be installed and protected in such a way as to avoid damage by external influences	
Hydraulic/pneumatic safety devices	Hydraulic/pneumatic parts of these devices/systems which act directly on full-flow valves of hydraulic/pneumatic systems need to be duplicated if a failure of one component can cause a failure of the system Pilot operated control valves in these services/systems shall be so designed and installed that they fail to safety (i.e. stop the corresponding movement) in the event of power failure	
	This requirement is fulfilled by either	
	A full-flow valve acting directly on the relevant part of a hydraulic/pneumatic circuit, or A valve which is positively mechanically operated, controlling a pilot-operated valve complying with 4 7 6	
	ın SANS16368 2014 pg 51 Mechanical safety devices	
	Components of mechanical safety devices such as rods, levers, wire-ropes and chains shall be designed to take at least twice the normal load imposed on them	
Access Steps	When the distance between the access level and the floor of the work platform in an access position exceeds 0.4m the MEWP shall be equipped with an access step	
	The steps or rungs shall be not more than 0,3 m apart and shall be spaced equally over the distance between the bottom step/rung and the floor of the work platform	
	The bottom step/rung shall be not more than 0,4m above the access level Each step or rung shall be at least 0,3 m wide, at least 25mm deep and shall be slip resistant	
	The front of the steps or rungs shall be a horizontal distance of at least 0,15m away from the supporting structure or any other components of the MEWP (SANS 16368 2007 pg 39)	
	Non Slip material shall be incorporated on steps	
Handholds or handrails	Handholds, handrails or similar adequate devices shall be provided for both hands while climbing or descending the access ladder to the work platform. They shall be arranged to avoid the use of controls and piping as handholds or footsteps. (SANS 16368 2014 pg 39)	
Mechanical Stops	The movements of work platform(s) relative to the extending structure shall be limited by mechanical stops. Hydraulic cylinders fulfil this requirement if designed for that purpose. (SANS 16368 2014 pg 41)	
Non-conductive Buckets and Liners	The platform may be a one-man, one and a half man or two-man bucket or alternatively two single-man buckets with one situated on each side of the boom	
	The bucket(s) shall be constructed of an integrally woven fibreglass structure consisting of either woven fibreglass cloth and/or woven roving materials. Such materials shall be utilized on the sides and the hottom of the bucket structure.	
	Bucket shall not be manufactured solely of chopped fibreglass strands and shall not be made from	
	One-man buckets shall be square in shape and shall comply with the following dimensions	
	The minimum bucket top inside dimensions shall be 560 mm x 560 mm minimum and 700 mm x 700 mm	
	The minimum bucket bottom inside dimensions shall be 500 mm x 500 mm	

[The minimum bucket depth shall be 1000 mm	
ľ	In a twin single man configuration, the SWL load per bucket shall comply with the single man bucket	
	rating (136kg)	
	The bottom dimensions shall correspond to the top dimensions	
	The bucket depth shall not be less than 1000 mm	
i	Where the intention is to utilise a bucket for insulating work, and the bucket is not "insulating" (constructed)	
1	of insulating material but does not pass the puncture test), A tested insulating liner shall be inserted in the	1
	husbat and the blocket marked accordingly "Insulated with liner inserted"	
	New yearleting work plotforms designed for use with insulating liners. Non-insulating work platforms shall	
	he assetuated from non-conductive materials. The work platform shall be identified as indi-insulating in it	1
	Lives and have an inculating liner and is a non-insulating blicket. Insulating liners for these work platforms. I	
	labelt be constructed from non-conductive materials and tested in accordance with IEC 61037 1331, 00 1	
	and 8.6.2. The liner shall be supported by the inside bottom surface of the work platform. These non-	
	insulating work platforms shall not have drain holes or access openings	
	i	
	The work platform shall be made of at least self-extinguishing materials, i.e. materials that will not sustain	
	I - theme offer the rapition course has been removed (See IFC 60/0/ 10) (est illetinous)	
Mounting concept	The MEWP shall be mounted on a self-contained modular type frame which can be transferred from one]
Modifiling condopt		
	The frame shall be mounted to the chassis of the carrying vehicle by clipping, bolting, or other acceptable	
	methods Only steel sill strips are acceptable Wood and other organic materials are not acceptable	
	1	
	Welding, cutting or modifying chassis frame rails and/or cross members between foremost and rearmost	
	learner bangara in not accentable	
	The frame shall be mounted in conformance to the recommendations of the chassis manufacturer for the	
	intended application	
	The supplier shall state the method of frame mounting that conforms to the above stated requirements	
	A frame mounting technique that will result in frame cracking shall not be acceptable	
	Where Eskom supplies the chassis/cab, the manufacturer shall ensure that the above-mentioned	
	requirements are met	
	The MEWP pedestal shall be mounted to the chassis by clipping, bolling or other acceptable methods	
	Wood or other organic materials are not acceptable	
	Paggings for the glow gear on the turret will have a high quality bearings	
	The front or rear overhang of the slowed MEWP in relationship with the carrier (including the front bumper	
	Lautengian) shall conform to the requirements of the SA Road Traffic Ordinance	
	Totally independent of the structural supportive capabilities of the chassis frame, the sub-frame shall be	
	Laterioturally canable of supporting all loads imposed by the MCVVP	
	The vehicle shall be fitted with tool compartments/boxes. Eskom will specify the dimensions of preferred	
	compartments Standard dimensioned compartments will be included on the unit and approved by Eskom	
	The tool boxes will be rubberised (lined) or carpeted on the interior to ensure there is no metal or moisture	
	transfer onto equipment	
	Bins must be fit for purpose and be able to act as walkways	<u> </u>

	I let the bright	<u> </u>
Performance	The maximum attainable height of the unit as measured from ground level to the bottom of the bucket	
	shall be stated (in metres)	
	The maximum attainable horizontal reach of the unit as measured from the centreline of rotation to the	
	outside of the bucket at 70% of the attainable height shall be stated. Tendering suppliers shall supply	
	and the conducting the working envelope	
	The upper boom travel of a non-over centre MEWP shall be constructed in such a manner that it shall	
	averaged 000 from the horizontal plane	
	The upper boom travel of an overcenter MEWP shall be constructed in such a manner that it can attain at	
	least 210° Fl 5° from the horizontal plane	
	Wilson the unit is in the stowed position, there shall be no possibility of boom Whip	
Boom Stowage	The boom rest shall be of adequate design so as to withstand stow loads from the unit and withstand	
	450kg applied to the cradle without deformation	
	Boom securing device MEWPs shall be equipped either with a device(s) to secure the boom(s) or shall	
	be designed to ensure that the boom(s) remain in the cradled position when in transport	
	Platform security Platforms shall be designed to withstand vibration and shock loading during travel	
	Platform security Platforms shair be designed to withstand vibration and shock locating during	
Rotation	Rotation shall be hydraulically driven	
	The Rotation capability of minimum 340 deg, with the dead band (if applicable) over the centre of the cab	
	wrt to the bucket	
	The rotation system shall be capable of rotating the maximum rated load capacity of the unit upward on a	
	5° incline with the bucket located at the maximum attainable horizontal distance away from the pedestal	
Maximum operating speeds	The maximum operating speeds of the extending structure of the MEWP shall be as follows	
Maximum operating species	December and lowering of the work platform 0.4 m/s	
	Slewing with work platform at maximum radius (horizontal speed at the outer edge of the work platform	
	0.7 m/o)	
	When measuring the speed and it is not uniform, the average speed over the complete movement shall	
	lan unod	
	The executing around of the unit should either allow dual speed for precise movement (Slow and fast	
	mode) closer to live work tasks or allow more precise movement without excess flexing of the boom on	
	releasing of the control	
İ	Note The speeds above apply to the movement of the work platform resulting from the operation of a	
	single control. Simultaneous operation of more than one control may give faster movements	
	Where a hydraulic tool circuit for tools is required, Eskom shall provide the specification of the tools to be	
Hydraulic tool circuit (Optional)	Where a hydraulic tool circuit for tools is required, tasking are provided	
1 .	used to ensure that correct flow, pressure, hoses and fittings are provided	
	Tool hoses shall only be pressurised when the circuit is in use	
	The position of the control valve and pressure/return outlets shall be specified	
Hydraulic System	An open or closed centre hydraulic system may be used for the MEWP and pilot operated check or	
,	counter balance valves for the outriggers. A safety system that will prevent the movement of the cylinder	
	when the loss of hydraulic power or a hydraulic line failure occurs shall be incorporated or included. For	
	this reason double action cylinders with appropriate safety valves are preferred	
	The unit shall have a primary power source which will be powered from the engine PTO	
	The emergency operating system power source shall either be battery operated	
	The emergency system shall be capable of raising an aerial platform with full rated load from stowed	
	position to maximum height. It shall also be equipped with an indicator or warning light	

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	When operating the emergency operating system a maximum of two hands shall be required to operate	
	the emergency system (i.e. one person shall be capable of operating the system comfortably)	
	New hydraulic oil for use across the insulating section of booms (upper or lower boom) shall have an	
	official diselectric rating associated with a minimum rating of 40 kV (ASTM D 877 value)	
	Hydraulic oil for use across the insulating section of booms shall meet or exceed the di-electric test	
	requirements as ner Test Manual 240-135661769	
	All hydraulic components whose failure could result in motion of the platform(s) shall have a minimum	
	bursting strength of at least four times the operating pressure for which the system is designed	
	The hydraulic oil reservoir shall be properly labelled next to the filler opening for the type of oil to be used	
	The hydraulic oil reservoir capacity shall satisfy the requirements of the pump	
	The bydraulic oil reservoir filler shall be of such design so as to prevent oil from splashing out of the	
	reservoir A gauge glass shall be fitted to the reservoir to indicate both minimum and maximum oil levels (when the boom is stowed)	
	The hydraulic oil reservoir filler shall be easily accessible and have a removable strainer	
	The hydraulic system shall be of such a hose size and design as to allow the operation of the hydraulic	
	tool system at the bucket without creating oil temperatures in excess of 52 °C after 15 min continuous	
	operation at an ambient outside air temperature of 29 °C	
	The hydraulic oil system shall also be fitted with:	
	a breather for moisture removal (typically vortex type which removes 99% of moisture) The care and	
	Imagetenance of this unit shall be specified in the aerial unit documentation	
	A high pressure in line, cartridge filter (with by-pass) for particle removal capable of providing 10 micron	
	absolute filtration. There shall be an indicator prior to the by pass activating	
	A filter fitted on return side (with by pass) capable of providing 10 micron nominal filtration	
	A drain plug provided on the reservoir	
	A Sample point shall be provide which allows insulating oil to be taken in line at a convenient position on	
	the boom shall be provided	
Vacuum Prevention Systems	All hydraulic fluid lines which are situated near or inside the insulating boom on the MEWP and where the	
	maximum height of the barometric column of hydraulic fluid (when all booms are extended) exceeds 11 m	
	shall be equipped with devices which prevent depressursation leading to a partial vacuum of hydraulic	
	fluid pressure below (a difference of) 20 kPa and liable to produce electrical breakdowns	
Corrosion specification	The requirements of the Eskom corrosion specification shall be considered and a specification for the	
	manufacturers corrosion process documented and shared with Eskom on tendering for Aerial units	
	Specific reference should be made to the following and covered in detail. This will be shared with the	
	relevant specialists within Eskom for acceptance and or recommendation	
	Surface preparation	
	Pre-weld primer prior to welding application	
	Strip Priming Edges & Weld Beads	
	Primer Application	
	Top Coat Application	
· '	Procedure for spot repairs	



Conductive platforms	Where a conductive platform is required, it shall conform to the following requirements	
	Conductive buckets may be made from steel or an alloy that will provide adequate mechanical strength	
	and is a good conductor	
	Conductive bucket sizes may differ from non-conductive buckets. The customer shall specify the	
	preferred size	
Particular Electrical Characteristics	Earthing	
	Mobile Unit	
	All mobile units shall be equipped with a fixed insulated copper lead of a cross sectional area of not less	
	Ithan 40mm2 and an earth spike that comply with SABS 1063 for earthing the mobile unit	
Equipotential Earth Footplate	Shall conform to Eskom earthing requirements for a footplate (240-69125290)	
-quipotestiai Eartis i ootpiato	A fixed insulated copper lead of a cross sectional area of not less than 40mm2 and an equipotential earth	
	footplate shall be provided for all mobile units that have fixed lower controls that are operated from	
	ground	
	The equipotential earth footplate shall be on the same side as the lower controls and shall be	
	manufactured from 6mm thick checkered aluminium plate. The footplate shall have a minimum size of	
	600mm X 600mm	
Bonding Equipment	Bonding Cable	
Bottoning Equipment	The cable used to bond the non-insulating bucket to the live equipment (bare-hand) shall have a cross	
	sectional area of not less than 40mm2 multi stranded flexible copper, or similar conductor on pedestal to	,
	withstand full fault current	
	Equipolential bonding	
	All articulated parts and rotating parts of the MEWP shall be electrically bonded, (for example, the	
	conductive brush on the bearing turntable, the jumper at the elbow)	
Discharge avoidance	Where required (Bare hand / Category A aerial units), electric discharge avoidance shall be achieved by	
Discharge avoluance	equipotential bonding of all conductive components at the platform end	
	Where an aerial unit is to be used as a category A unit (ANSI classification), the footplate inside the	
	bucket must be connected to the metal parts at the top of the boom with a 40mm ² cable. An additional	
	40mm² cable, twice the depth of the bucket, must also be installed, this will be used to bond the footplate	
	to the live apparatus to be worked on	
	Leakage current measuring system	
	The leakage current measuring system shall be installed on all insulating MEWPs that are rated above	
	A4W/ for testing and leakage current monitoring purposes	
	Dielectric measuring electrodes shall be installed in accordance with annex B and C. Copper or stainless	
	steel measuring hands of 25-50mm width shall be used	
	6mm stainless steel bolts shall be used for bonding the measuring bands to the current meter receptacle	
	lead	
	Shielded cable shall be used for current meter receptacle lead	
	Eskom representatives shall inspect measuring electrodes before final assembling of the boom	
	The hydraulic pipes on the inside of the boom, must be attached to a metal bulkhead (as per Annexure B)	
	and be connected to the co-axial cable receptacle	
T	All operators shall be trained in the care, use and maintenance of the mobile unit as per SANS	
Training	18878 2007 (as per OHS Act DMR, NCOP requirements)	

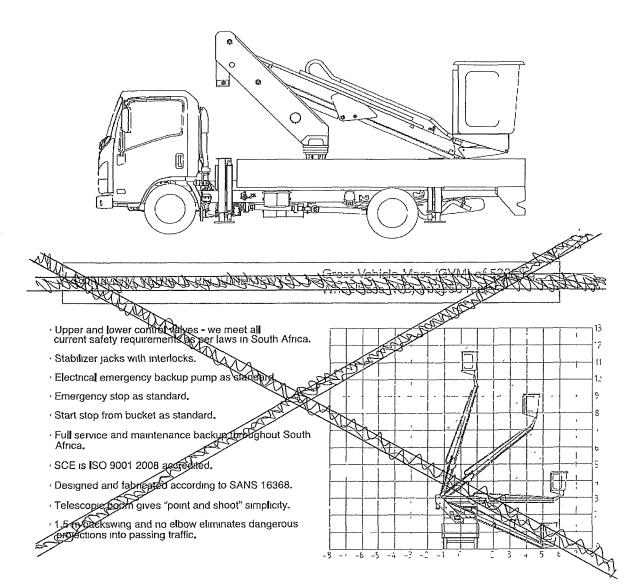
!	The supplier shall be responsible to ensure that at least two operators shall be instructed in the care, use	
	and maintenance of the mobile unit. Proof of such training Le certificates shall be provided including any	
	ancillary equipment like material handling lib	
	At least one instructor in each OU / Grid to be trained to further train other operators on familiarisation of	
	the unit	
	Fach Operating Unit / Grid shall have at least one person trained in the aerial unit acceptance check	
	sheet included in Annexures C and G for the purpose of accepting aerial units from manufacturers /	
	suppliers prior to delivery	
Warranty	The Supplier shall cover any warranty problems for parts and labour of all repairs made necessary due to	
· · · · · · · · · · · · · · · · · · ·	defective components and materials, poor workman-ship or faulty design	
	The Supplier's qualified repairman shall perform any warranty work incurred on Eskom job location unless	
	special shop facilities are a requisite to effect the repair	
	The supplier shall state the terms and conditions of the warranty in the bid proposal. Starting date of the	
	warranty shall be the date of acceptance of the completed equipment by Eskom	
	The insulated portion of the boom shall have a lifetime warranty (minimum 15 years)	
Testing	Testing shall comply to the requirements as per 240-135661769 MANUAL LIVE-WORK EQUIPMENT	
Testing	TESTING with reference to the acceptance tests for LW Aerial units	
Acceptance tests	Persons doing non-destructive tests shall conform to EST002	
/ teceptaries teats	Eskom representatives shall have access to the manufacturing/installation processes to establish	
	conformance with this specification. Eskom representatives will make final inspection, testing and	
	acceptance of the completed unit(s)	
1	Dielectric requirements	
l	The delivered mobile unit shall be dielectrically tested and certified accordingly	
	A copy of the manufacturer's dielectric test certification/report shall accompany the mobile unit at the time	
	of delivery	
Marking/Documentation	Each MEWP shall carry at least the following markings	
Marking	(a) Type	
Marking	b) Serial number	
ĺ	c) A specific model number assigned to the unit	
ì	d) Platform height,	
	e) Rated voltage,	
}	f) Capacity rating per bucket	
	g) Jib capacity rating (vertical and horizontal)	
	h) Total capacity rating (lib plus buckets)	
	i) Date of acceptance	
)) MEWPs system pressure	
	k) MEWP Manufacturing Company	
)	I) City, State, Country	
	m) Installed by	
Documentation	The manufacturer shall assign a specific model number to any class of unit accepted as part of an Eskom	
	tender – for aerial model, but with differences between different vehicle carriers listed	
1	Relevant reference documents for documentation include Eskom specification, SANS 16368 and SANS	
	18893 and IEC TS 61813	

	The instruction manuals must be split into an operating and maintenance section, with minimum reflection	
	of the following sections	
Contents	Operating instructions on safe use (Training information)	
	Transport, handling and storage	
	Commissioning information	
	Manufacturers recommended intervals between tests	
	Maintenance information to coincide with Eskom standards and DMR 18	
	A section to be included in the operator manual for the specific details of the scheduled maintenance	
	which takes place. This provides a reference on the vehicle of when the last scheduled maintenance took	
	place	
	Operator manual pages must be logically numbered with a table of contents section	
	Reference to the specific model shall be made in the applicable associated documentation	
	All aerial units shall be delivered with photo's and dimension drawings	
	The supplier shall furnish a layout sketch (drawings of a completed vehicle including tools compartments)	
	In duplicate prior to the awarding of a purchase order	l
	All labels provided shall be either etched or engraved plastic or substrate material, which is durable and	
	does not deface, fade or peel off	1
	At least one copy of the operating manual shall permanently accompany each mobile unit	
	Mechanical and hydraulic checklist and hydraulic circuit drawing shall be supplied	
	Manufacturer / supplier to specify maintenance requirement and schedules	
	Modifications to be covered by the OEM or written permission given when done by someone else A	
	section to be included for such modifications	
Quality Management	All tendering manufacturers / suppliers shall conform to the requirements of	
	240-105658000 SUPPLIER QUALITY MANAGEMENT SPECIFICATION	
	requirements in QMS extend to the manufacturers, suppliers, sub contractors, components and sub	
	components of the insulating MEWPs, as per 240-105658000 section 3	
	The approved agents of Aerial units shall be certified by the manufacturer or supplier Eskom will then	ì
	audit this prior to any Aerial units products being accepted as part of the technical evaluation	
	For any new or re-designed Aerial MEWP's, a prototype process shall be followed and only once the	
	technical evaluation of the unit has taken place and reported on, can products be considered acceptable	
	within the OU / Grid	
	For new units a test will be done at Gerotec including	
	Weigh bridge	
	Tilt angle test	İ
	Axle travel test	
	Off the road test	
	Acceptance lest	
Acceptance / Acceptance		
Name of Evaluator		Signature
Name of Venfier		Signature
Any proposed deviations from this	specification shall be listed below with reasons for the deviation(s). In addition, evidence shall be provided that the proposed	deviation will at least be m

Technical Evaluation Criteria 100

Fully completed questionnaire in Annexure A3 confirming the compliance and non-compliance to the	50
technical specification as well as prove (brochures) for verification of compliance	
Original Equipment manufacturer (OEM) or register dealer	20
Proof of 12 (twelve) month warranty certificate from the Original Equipment manufacturer (OEM)	20
Proof of after sails service and repairs (OEM Service Level Agreement)	10





The Xarbo

Requ	est for Truck mounted Aeri	al platform		
New Aerial	Platform	Existing Aerial Platform		
Requested Date				
Region		1		
CC Group				
Hew Aerral Platform				
Operation Type (Voltage Rating)				
Platform working hight				
Vehicle Type				
<u>Aerral Platform Tec</u>	hnical information needed			
Insulated live line senal p'atform				
Noninsulated dead the senal platform				
Voltage Raking (22kV/44kV/132kV etc)				
One-man/Two man bucket				
Control actuation, (Insulating rods/fibre optice	s/radio etc.)			
of the bucket (in metres)				
If hydrauto tool cucuit is required, specify the	too's that will be used	₽•		
Truck/Vehicle Specification				
Omensions of tool compartments/boxes (Drawing to be attached if poss-ble)				
Truck mounted crane Crane Capacity range				
Description of work application				
RECOMMENDATION				
Regional Fleet Manager				
Regional Fleet Officer				
Regional Fleet technical Officer	I			
Date				

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