Annexure A - Specification/Scope of Work

1. Scope

This specification is for a diesel engine driven reach stacker with hydraulically actuated lifting that will be utilised for the handling of ISO standard 20 and 40 foot containers, as well as damaged and out of gauge containers.

The reach stackers shall be suitable for stacking, rail / stack-yard transfer of containers, in a container / break bulk terminal configured for various types of operations.

The reach stacker shall be supplied complete and fully assembled in all respects, including standard equipment supplied by the manufacturer and shall comply with the South African Occupational Health and Safety Act, Act 85 of 1993/as amended or equivalent international standard for mobile lifting equipment such as ISO, DIN, etc.

The reach stacker shall be able to negotiate speed bumps and full oscillation of the rear axle is required to allow for working on uneven surfaces.

2. Operational Requirements

2.1 Equipment Design and Characteristics

2.1.1 In terms of stacking capability, the reach stacker must be capable of stacking single lift with a minimum stacking height of 5 high, 9 ft 6" containers (first 2 rows and 4 high in the 3rd row). The reach stacker shall be capable of the following minimum load at respective reaches:

SWL = 45 000 kg @ 1st reach, i.e. 2000 mm from front of front tyre
SWL = 35 000 kg @ 2nd reach, i.e. 3850 mm from front of front tyre
SWL = 19 000 kg @ 3rd reach, i.e. 6400 mm from front of front tyre.

2.2 Ergonomics

2.2.1 Operator's Cab

2.2.1.1 A fully enclosed, centre mounted cab with a sky view window, which is ergonomically designed, well insulated and weatherproof, providing maximum drivers visibility and comfort is required.

2.2.1.2 The boom and attachments shall be operated from a multi-function joystick.

2.2.1.3 The operators cab shall be air-conditioned.

3. Technical Requirements

3.1 Engine

3.1.1 Engines shall be robust, four stroke diesel, liquid cooled and have sufficient power for the duty required.

3.1.2 The air cleaning system (cyclone or similar) shall be designed to prevent the ingress of dust into the engine.

3.1.3 The exhaust outlet must be of the 'goose neck' type to prevent the ingress of water under any operational or non-operational conditions.

3.1.4 The exhaust pipe and outlet manifold must be protected by a heat shield.

3.1.5 An engine management and cut-out system shall be fitted to protect the engine from overheating, low oil pressure, over revving and other abnormal conditions.

3.2 Fuel Tank

3.2.1 The tank capacity must allow for enough fuel for an eight-hour shift, with a minimum tank capacity of 500L.

3.3 Telescopic Spreader

3.3.1 The spreader must have a lifting capacity of at least 45 000kg under the twist locks.

3.3.2 The spreader must be fitted with an integral hydraulic side shift of 800mm to either side of the centre line.

3.3.3 The spreader shall have a minimum rotation of +180º /-95 º for full rotational ability of containers.

3.3.4 The spreader must be fitted with hydraulically operated floating ISO twist locks at each of the four corners and suitable indicators must be fitted to indicate whether the twist locks are in the locked position. These indicators must be clearly visible from the cab.

3.3.5 Test certificates must be supplied with the spreader, including test certificates for each of the twist locks.

4. Safety and Environment

4.1 Safety Requirements

4.1.1 The reach stacker shall comply with the South African Occupational Health and Safety Act, Act 85 of 1993/as amended. This includes ensuring that the reach stacker, as well as all 4x twist locks, are load tested and test certificates provided. Supplier is responsible to ensure the load testing is valid at all times and arranges for re-certification timeously.

4.1.2 Emergency stop button must be available in the operators' cabin which allows for the disengagement of all motions when activated.

4.1.3 The reach stacker must be designed to operate in excessively dusty terminals and also be able to withstand uneven terrain. A dual stage air filter must be used. An indication on the operators' dash must be indicated when air flow restricted, indicating blocked air filter. Warning must be given when reduced air flow and the reach stacker must shut off when air flow is critically low. Air filter must have a dust reservoir which empties by vibration as the unit operates.

4.1.4 Contractor to ensure that equipment is undergoes scheduled maintenance as per the OEM required intervals, at a cost included under the monthly payments. Scheduled maintenance must comply to the timeframes specified in paragraph and any deviations will incur penalties.

5. Tyres

5.1. Supplier is responsible for the regular monitoring of the tyres condition and pressures. Worn tyres must be replaced before reaching a minimum of 5% of the lifespan so as to prevent blow-outs. Replacement costs due to regular wear will be covered by the supplier.

5. Contractor Requirements

5.1. Contractor must ensure that the equipment is available for operations and downtime is minimised.

5.2. List of Technicians home base/workshop and distances to travel to the respective Transnet Depot must be provided.

5.3. Unscheduled maintenance can be requested at anytime and therefore the supplier needs to ensure that a 24-hour fault logging system is available. Breakdowns must be attended to as per the specified periods:

5.3.1. Within two (2) hours if the Transnet Depot is within fifty (50) km radius of the technicians workshop.

5.3.2. Additional thirty (30) minutes for every additional fifty (50) km away from technicians workshop.

5.4. Failure to attend to breakdowns as per the above specified periods will incur penalties as specified in the below penalty formula:

$x = y / 720 * z$

where:

x = Penalty amount

y = Monthly lease amount

z = Number of hours after the specified unscheduled maintenance periods.

5.5. All unscheduled maintenance and scheduled maintenance must be completed within eight (8) hours, commencing from the time that that the service provider was informed of the breakdown. Failure to comply with the eight (8) hours specified period will incur penalties as per the penalty formula.

5.6. Penalty formula will also be used in the below cases:

5.6.1. Quotation for repairs not received within twenty (24) hours of breakdown logged.

5.6.2. Equipment not in compliance to regulations/laws.

5.7. If the event that unscheduled, scheduled maintenance or accident repairs cannot be completed within twenty-four (24) hours, Short term rental (STR) equipment must be made available within forty-eight (48). Failure will result in penalties being incurred.

5.8. By signing this specification we indicate that we do comply 100% to the specification, without any deviations.

Bidder Signature: _____

Date: _____

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