Reach Stackers	Guarantees and Warranties	Tender Schedule: T2.2-35 g

The extent of guarantees and warranties in **excess of the standard 12 months** that can be offered by the Tenderer on electrical, mechanical and electronic plant and in **excess of 60 months** on the structure will play an important role in the evaluation of the tenders.

The Tenderer is required to indicate on the schedule what warrantee period is offered for each of the items listed for the Reach Stackers, as well as much detail as possible on the extent of the guarantee.

The Tenderer must also clearly indicate what technical support would be available from him after Completion of the Works. The Tenderer must also state the lead time (after request from Employer) for technical support that may be required on site during the first year of operations of the Reach Stackers.

The Tenderer is encouraged to offer any other value adding element related to guarantees, warrantees, and technical back-up, like preferential customer status that the Employer will be afforded, preferential pricing and/or delivery that would be applied for purchasing of spares by the Employer, etc.

Item	Guarantees and Warranties (months)	Description of Guarantee
Diesel Engine		
Transmission		
Hydraulic Components (Pumps, motors, cylinders, valve, …)		
Electrical / controls		
Structure		

Other Value Adding Elements

1.
2.
3.
4.

The scoring principle for guarantees and warranties on diesel motor, transmission and hydraulic components of the equipment will be as follows:

Score	Number of years for guarantees and warranties on diesel motor, transmission, and hydraulic components of the equipment
0%	For guarantee on components of the equipment < 12 months for Diesel motor, Transmission, Hydraulic components.
20%	For guarantee on components of the equipment > or = 12 months for Diesel motor, Transmission and Hydraulic components.
40%	For guarantee on at least 1 component of the equipment > or = 18 months and the remaining 2 > or = 12 months for Diesel motor, Transmission, Hydraulic components.
60%	For guarantee on at least 1 component of the equipment > or = 24 months and the remaining 2 > or = 12 months for Diesel motor, Transmission, Hydraulic components.
80%	For guarantee on at least 2 components of the equipment > or = 24 months and the remaining one > or = 12 months for Diesel motor, Transmission, Hydraulic components.
100%	For guarantee on components of the equipment > or = 24 months for Diesel motor, Transmission, Hydraulic components.

The scoring principle for guarantees and warranties on electrical / control components of the equipment will be as follows:

Score	Number of years for guarantees on electrical / control components of the equipment
0%	For guarantee on electrical / control components of the equipment < 6 months.
20%	For guarantee on electrical / control components of the equipment > or = 6 months but less than 8 months.
40%	For guarantee on electrical / control components of the equipment > or = 8 months but less than 10 months.
60%	For guarantee on electrical / control components of the equipment > or = 10 months but less than 12 months.
80%	For guarantee on electrical / control components of the equipment > or = 12 months but less than 24 months.
100%	For guarantee on electrical / control components of the equipment > or = 24 months.

The scoring principle for Guarantees and Warranties on the Structure will be as follows:

Score	Number of years for guarantees and warranties of the Structure

0%	For a guarantee on the structure < 4 years.
20%	For a guarantee on the structure > or = to 4 years but less than 5 years.
40%	For a guarantee on the structure > or = to 5 years but less than 6 years.
60%	For a guarantee on the structure > or = to 6 years but less than 7 years.
80%	For a guarantee on the structure > or = to 7 years but less than 8 years.
100%	For a guarantee on the structure > or = to 8 years.

Signed_____ Date_____

Name_____ Position_____

Tenderer_____

Reach Stackers	Compliance to EEAM-Q-008 Corrosion Protection	Tender Schedule: T2.2-35 h

Compliance of the corrosion protection to Employer's specification EEAM-Q-008 (guarantee of 10 years) is critical.

The Tenderer is required to indicate on the schedule what warrantee period is offered for each of the items listed for the Reach Stackers, as well as much detail as possible on the extent of the guarantee.

The Tenderer must also clearly indicate what technical support would be available from him after Completion of the Works. The Tenderer must also state the lead time (after request from Employer) for technical support that may be required on site during the first year of operations of the Reach Stackers.

The Tenderer is encouraged to offer any other value adding element related to guarantees, warrantees, and technical back-up, like preferential customer status that the Employer will be afforded, preferential pricing and/or delivery that would be applied for purchasing of spares by the Employer, etc.

Item	Guarantees and Warranties (months)	Description of Guarantee
Corrosion Protection compliance with EEAM-Q-008 Corrosion Protection Guarantee		

The scoring principle for guarantees and warranties on Corrosion Protection will be as follows:

Score	Number of years for guarantees and warranties (Corrosion Protection compliance with EEAM-Q-008 Corrosion Protection Guarantee)
0%	Corrosion Protection Guarantee < 6 years
20%	Corrosion Protection Guarantee > or = 6 years but less < 7 years
40%	Corrosion Protection Guarantee > or = 7 years but less < 8 years
60%	Corrosion Protection Guarantee > or = 8 years but less < 9 years
80%	Corrosion Protection Guarantee > or = 9 years but less < 10 years

100%	Corrosion Protection Guarantee > or = 10 years

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

Reach Stackers	Track Record	Tender Schedule: T2.2-35 i

Number of reach stackers with a lifting capacity of at least 40 ton, and a stacking capability of at least 5 high, delivered over the last 5 years.
Note, only the experience in the supply of Reach Stackers will be considered for evaluation purposes. Supply of units between 0 and 40 units, points are calculated pro-rata as follows: (Number of units supplied / 40) * 20

#	Name of Previous Customer	Contact Details	Make	No. of Units	Year
1.					
2.					
3.					
4.					
5.					

The scoring principle for a track record will be as follows:

Score	Number of Units Supplied (within 5 Years)
0	< 10 units score 0 points
20 %	> or = 10 and < 15 = 20%
40 %	> or = 15 and < 25 = 40%
60 %	> or = 25 and < 35 = 60%
80 %	> or = 35 and < 40 = 80%
100 %	> or = 40 units

Signed_____ Date_____

Name_____Position_____

Tenderer _____

Reach Stackers	Delivery Lead Time	Tender Schedule: T2.2-35 j

The Tenderer must submit a holistic Program me for the delivery of the first batch of 7 Reach Stackers to various terminals, showing the duration and location of each major related activity e.g. manufacture, assembly, testing of each complete Reach Stacker, cold commissioning, shipping, site erection, final testing, commissioning, training and endurance test.

The Programme must be in the form of a Gantt or Bar chart, clearly indicating key dates for progress measurements and/or payments due. Programme to clearly indicate staggered delivery (if applicable). Further to the Programme, the Tenderer must complete the required information below.
Lead time from contract award to commissioning & handover (including endurance testing) of first batch of Reach Stackers. (Point allocation to be pro-rata for staggered delivery.)

Name of the Terminal_____

Activity **Duration (months)**

1. Order placement to commissioning and handover of **first batch** of 7 Reach Stackers _____

The scoring principle for delivery lead time will be as follows:

Score	First Batch Delivery Lead Time
0	> 10 months
4	> 9 months & < or = 10 months
8	> 8 months & < or = 9 months
12	> 7 months & < or = 8 months
16	> 6 months & < or = 7 months
20	< or = 6 months

Signed_____Position_____

Name_____ Position_____

Tenderer _____

Reach Stackers	**Supplier's Preliminary Design**	**Tender Schedule: T2.2-35 k**

Tenderers are to list in this schedule all specifications applicable to the Reach Stackers (RS) offered.

Parameters for Reach Stackers	**Value / Detail**	**Comments**
Safe lifting capacity of RS (ton) at first row (1800 mm)		
Safe lifting capacity of RS (ton) at second row (3850 mm)		
Safe lifting capacity of RS (ton) at third row (6400 mm)		
Number of 9 ft 6" containers that can be stacked in first row (1800 mm)		
Number of 9 ft 6" containers that can be stacked in second row (3850 mm)		
Number of 9 ft 6" containers that can be stacked in third row (6400 mm)		
Side shift of the spreader to either side of the center line (mm)		
Diesel engine complies with "EUROMOT III" emission standards (Yes / No)		
Travel speed of the machine with rated load (km/hour)		
Lifting speed of the machine with 67 % of rated load (m / sec)		
Lifting speed of the machine with empty spreader (m / sec)		

Confirm a load moment device is fitted to prevent unstable operation (Yes/No)		
Parameter for Reach Stacker	**Value / Detail**	**Comments**
Capacity of fuel tank (liters)		
Confirmation that fuel tank capacity is sufficient for machine to operate for an eight-hour shift (Yes / No)		
Gross machine weight (ton)		
Width of machine, excluding spreader (m)		
Corrosion Protection: Number of Coats of Paint Minimum overall Paint Thickness		
Other "Value-add" systems; designs; innovations		
1.		
2.		
3.		
4.		
5.		

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

Reach Stackers	Fuel Tank Capacity	Tender Schedule: T2.2-35 l

The Tenderer is required to provide Fuel Tank Parameters

Item	Value / Detail	Comments
Capacity of fuel tank (liters)		
Confirmation that fuel tank capacity is sufficient for machine to operate for an eight-hour shift (Yes / No)		

The scoring principle for Fuel Tank Capacity is as follows.

Score	Compliance to EEAM-Q-008 Paint Thickness and number of coats
0%	For the machine operating a < 8 hours shift on one fuel tank
20%	For the machine operating a > or = 8 hours shift on one fuel tank
40%	For the machine operating a > or = 9 hours shift on one fuel tank
60%	For the machine operating a > or = 10 hours shift on one fuel tank
80%	For the machine operating a > or = 11 hours shift on one fuel tank
100%	For the machine operating a > or = 12 hours shift on one fuel tank

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

Reach Stackers	Compliance to EEAM-Q-008 Paint Thickness and number of coats	Tender Schedule: T2.2-35 m

The Tenderer is required comply to EEAM-Q-008 Paint Thickness and number of coats.

Item	Value / Detail	Comments
Paint thickness		
Number of Coats of Paint		
Minimum overall Paint Thickness		

The scoring principle for Corrosion Protection compliance with EEAM-Q-008 Paint Thickness is as follows.

Score	Compliance to EEAM-Q-008 Paint Thickness and number of coats
0%	Paint thickness < 200 microns or less than 3 coats paint
20%	Paint thickness > or = 200 but < 220 microns and at least 3 coats paint
40%	Paint thickness > or = 220 but < 250 microns and at least 3 coats paint
60%	Paint thickness > or = 250 but < 270 microns and at least 3 coats paint
80%	Paint thickness > or = 270 but < 300 microns and at least 3 coats paint
100%	Paint thickness > or = 300 microns and at least 3 coats paint

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

Reach Stackers	Compliance to Employer's Technical Specification	Tender Schedule: T2.2-35 n

Note that this schedule is cross-referenced and must be read in conjunction with the Technical Specification TPT_TS_RS rev6. Elements of this document not completed will be deemed as non-compliance to that particular clause. The Tenderer's sign-off at the bottom is deemed as confirmation that this document has been read in conjunction with the Technical Specification.

Technical Spec. Clause	Comply (Y/N)	Comment (mandatory if non-compliant) and reference to returnable schedule
1. Scope		
1		
2.1 Equipment Design Characteristics		
2.1.1		
2.2 Ergonomics		
2.2.1.1		
2.2.1.2		
2.2.1.3		
2.2.1.4		
2.2.1.5		
2.2.1.6		
2.2.1.7		
2.2.1.8		
2.2.1.9		
2.2.10		
2.2.1.11		
2.2.1.12		
2.2.1.13		
3. Technical / Technology Requirements		
3.1.1 Chassis		
3.1.1.1		
3.1.2 Engine		
3.1.2.1		

3.1.2.2		
3.1.2.3		
3.1.2.4		
3.1.2.5		
3.1.2.6		
3.1.2.7		
3.1.3 Transmission		
3.1.3.1		
3.1.3.2		
3.1.4 Drive Axle		
3.1.4.1		
3.1.4.2		
3.1.5 Rear Axle		
3.1.5.1		
3.1.5.2		
3.1.5.3		
3.1.5.4		
3.1.6 Road Wheels		
3.1.6.1		
3.1.6.2		
3.1.6.3		
3.1.6.4		
3.1.6.5		
3.1.7 Hydraulic System		
3.1.7.1		
3.1.7.2		
3.1.7.3		
3.1.7.4		
3.1.7.5		
3.1.8 Fuel Tank		
3.1.8.1		
3.1.8.2		
3.1.8.3		
3.1.8.4		
3.1.8.5		

3.1.8.6		
3.1.9 Electrical		
3.1.9.1		
3.1.9.2		
3.1.9.3		
3.1.9.4		
3.1.9.5		
3.1.9.6		
3.1.9.7		
3.1.9.8		
3.1.9.9		
3.1.9.10		
3.1.9.11		
3.1.9.12		
3.1.10 Boom		
3.1.10.1		
3.1.10.2		
3.1.10.3		
3.1.11 Instrumentation		
3.1.11.1		
3.1.11.2		
3.1.11.3		
3.1.11.4		
3.1.11.5		
3.1.12 Telescopic Spreader		
3.1.12.1		
3.1.12.2		
3.1.12.3		
3.1.12.4		
3.1.12.5		
3.1.12.6		
3.1.12.7		
3.1.12.8		
3.1.12.9		
3.1.12.10		

3.1.12.11		
3.1.12.12		
3.1.12.13		
3.1.13 Air Conditioning		
3.1.13.1		
3.1.13.2		
3.1.13.3		
3.1.13.4		
3.1.13.5		
3.1.13.6		
3.1.13.7		
3.1.14 Painting		
3.1.14.1		
3.1.14.2		
3.1.14.3		
3.1.14.4		
3.1.14.5		
3.1.14.6		
3.1.15 Signage and Markings		
3.1.15.1		
3.1.15.2		
3.1.15.3		
3.1.15.4		
3.1.15.5		
3.1.15.6		
4. Safety and Environment		
4.1 Safety Requirements		
4.1.1		
4.1.2		
4.1.3		
4.1.4		
4.1.5		
4.1.6		
4.1.7		
4.1.8		

4.2 Environmental Requirements		
4.2.1		
5. Maintenance		
5.1 Lubrication		
5.1.1		
5.1.2		
5.1.3		
5.2 Accessibility		
5.2.1		
6. General		
6.1		
6.2		
6.3		
6.4		
6.5		
6.6		
7. Referenced Specifications		
7.1 Standard Specifications		
7.2 Employer Specifications		

The scoring principle for Compliance to Employer's Technical Specification will be as follows:

Score	Calculation of points allocated as follows: (Number of clauses compliant - 93) /31 * 25 points
0	< 93 compliant clauses = 0 points
20	93 compliant clauses = 75 % compliant = 0 points
25	124 compliant clauses = 100 % compliant = 25 points

Signed _____ Name _____

Position _____ Date _____

Tenderer _____

Reach Stackers	Site Establishment Requirements	Tender Schedule: T.2.2-35 o

It is anticipated that the Reach Stackers will be delivered complete, but if some site assembly / erection is required, tenderers are to indicate their site establishment requirements, including the following:

- Erection site area required (m²).
- Site lay-down area required (m²).
- Estimated electricity usage per week including average usage and peak demand.
- Estimated water consumption per week including average usage and peak demand.
- Special requirements on site e.g. hard standing or concrete beams, access etc.

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

Diesel & Diesel Electric Machines	**Total Cost of Ownership**	**Tender Schedule:T2.2– 35p**

Note to Tenderer:

Tenderers are to complete this schedule with regards to the Total Cost of Ownership (TCO) of the diesel and diesel electric machines. This is to be in the form of a spread sheet with the information as set out below.

Servicing							
Servicing costs							
Service Type i.e. 1000hrs, 2000hrs,etc (A,B,C,D,E)							
Service intervals (Operating Hours)	100hr	500hr	1,000hr	2,000hr	3,000hr	4,000hr	Etc. repeated for life of straddle
Hours required for service at the different intervals							
Consumables for the different services (to be identified and priced)							
List each item							
Total for Consumables							
Fuel Consumption							
Average expected consumption assuming 70% max revs	l/hr						
Tyre Life Expectancy	Hours						
Mid-life refurbishment details							
(Assuming 4500 operating hours per year. Give details of hours when this will be performed)							
List each item							
Total for mid-life refurbishment							

Hours required for mid-life refurbishment							
Design life in hours for equipment	Hours						
Total							

Signed _____ Date _____

Name _____ Position _____

Tenderer

_____

RTG

T2.2-36 a: Compliance to Eligibility Criteria

Tenderers are to list in this schedule compliance to the below Eligibility Criteria of the Rubber Tyred Gantry Crane.

In as far as possible Tenderers are to provide brochures, specifications, etc. to substantiate their compliance to the eligibility criteria. The Tenderer's sign-off at the bottom of the returnable is deemed as confirmation that the Tenderer commits that they will comply to the listed eligibility criteria.

Description	**Comply** **Yes/No**
Tenderer is an original equipment manufacturer (OEM) of RTG cranes,. (Letter from OEM declaring they will be supplying TPT directly will be required.)	
Design Compliance to F.E.M.	
Compliance to EUROMOT II emissions standard as a minimum	
Hoist Speed with full load : Minimum 7 m/min	
Trolley Speed with full load : Min 25 m/min	
Hoisting capability of at least 40 ton	
Spreader horizontal travel distance of at least 18.4m	
Spreader vertical travel distance of at least 18m	
RTG Width: External dimensions not to exceed 27m	
RTG Width: Centre-line Wheel to center-line Wheel dimension to be in the range of 23.3m to 23.6m	
RTG Span: Pier 1: 1+6	

NCT: 1+7 CTCT: 1+6	
RTG Drive: Pier 1: 4x2 NCT: 4x4 CTCT: 4x4	
Maximum wheel load does not exceed 36 ton per wheel	
Minimum In-Service wind Speed of 90 km/hr.	
Compliance to clauses 4.1.2.1 to 4.1.2.21 of Technical Specification 'TPT_TS_RTG_Rev 10', i.e. all 21 of these clauses	
Corrosion Protection Guarantee on crane structure: > or = 10 years	
Walkway stringers, staircase stringers, support brackets, kick plates, handrails, knee rails and stanchions to be hot dip galvanised and painted. Stair treads and walkway grating to be hot dip galvanised.	
Number of paint coats including primer: Minimum of 3 coats	
The Rubber Tyred Gantry crane shall comply with the South African Occupational Health and Safety Act, Act 85 of 1993 as amended.	
The camera system must continually save to the recorder for the 7 day cycle.	
All access to be staircases and walkways, minimum 700 mm	

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

T2.2 36 b: Mandatory Critical Spares

Tenderers are to complete this returnable for the critical spares identified by Employer below, for the crane.

Item #	Description	Supplier	No Required	Cost per unit	Total Cost
1	Engine service kit: first service				
2	Anti-collision sensor				
3	Height indication sensor				
4	Proximity sensors				
5	Limit switch				
6	Hoist encoder				
7	Trolley encoder				
8	Gantry encoder				
9	Anti-sway encoder				
10	Side shift Motor				
11	Telescopic Motor				
12	Twistlock motor				
13	Alternator				
14	Starter				
15	Turbo				
16	Supply Fuses				
17	Engine belt				
18	Emergency brake				
19	Hoist brake				
20	Hoist controller				
21	Trolley controller				
22	Hoist drive				

23	Gantry drive				
24	Trolley drive				
25	PLC input cards				
26	PLC output cards				
27	Profibus connector				
28	Interface modules				
29	PLC Supply module				
30	PLC CPU				
31	Cam switch				
32	Can units				
33	Anemometer set				

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

Mandatory Critical Spares

T2.2-36 c: Recommended Maintenance Spares RTG

Note to Tenderer:

Tenderers are to complete this schedule with regards to recommended maintenance spares, not included in the 'Mandatory Critical Spares' list and 'Mandatory Maintenance Spares' list required for the first year of operation.

Tenderers to indicate those spares that will be available in South Africa (i.e. locally available) and provide a method statement detailing procedure/action plan on how stock will be made available in South Africa.

Prices for the spares to be valid for one year (12 months).

#	Description	Supplier	Locally Avail (Yes/No)	Delivery Lead Time	Price
1					
2					
3					
4					
5					
6					
7					
Etc.	Additional page/s to be added to supply comprehensive list				

Signed _____ Date _____

Name _____ Position _____

Tenderer

_____

All Equipment Categories	**Plant and Material Schedules**	Tender Schedule: T2.2-36 d

Note to Tenderers:

Tenderers are to list in this schedule all major mechanical (including brakes), hydraulic , air- conditioning, electrical and electronic components proposed to be incorporated in the equipment offered, as well as the speed control systems. These items are to be listed by type, rating and proposed make/supplier. A motivation for why this particular make/model of component is proposed must be submitted, taking into consideration the local support environment, previous experience with the local conditions.

Component and application	Type	Rating / size	Supplier / make / model	Motivation

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

Rubber Tyred Gantry Cranes (RTG)	**Origin of Parts / Components Making up Ship to Shore cranes**	Tender Schedule: T2.2-36 e

Tenderers are to indicate where the different parts and components for the RTG will be fabricated or sourced from for the RTG offered. Parts / components making up the entire Ship to Shore Crane are to be listed.

Part / Component	**Sub-Contractor / Supplier**	**Country**

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

Mandatory Returnable	Guarantees or Warranties	Tender Schedule: T2.2-36 f

The extent of guarantees and warranties of **24 months** that can be offered by the Tenderer on electrical, mechanical and electronic Plant will play an important role in the evaluation of the tenders, as well as an extended guarantee on the structure in excess of 20 years. Compliance of the corrosion protection to Employer's specification EEAM-Q-008 is critical.

The Tenderer is required to indicate on the schedule what warrantee period is offered for each of the items listed, as well as much detail as possible on the extent of the guarantee.

The Tenderer must also clearly indicate what technical support would be available from him after Completion of the Works. The Tenderer must also state the lead time (after request from Employer) for technical support that may be required on site during the first year of operations of the cranes.

The Tenderer is encouraged to offer any other value adding element related to guarantees, warrantees and technical back-up, like preferential customer status that the Employer will be afforded, preferential pricing and/or delivery that would be applied for purchasing of spares by the Employer, etc.

Item	Guarantees or Warranties (months)	Description of Guarantee
Corrosion Protection of the Structure (compliance to EEAM-Q-008)		
Structure		
Diesel Motor		
Generator		
Spreader		
Energy chain		
Electrical Drives		
Hoist Gearboxes		
Hoist Brakes		
PLC's		
Electrical Motors		
Wire Ropes		

The scoring of the Guarantees and Warranties for electrical, mechanical, and electronic plant will be as follows:

Score	Guarantees and Warranties (electrical, mechanical and electronic plant)
100%	For all of the following components having a guarantee of > or = 2 years, then 100 %: diesel motor, generator, spreader, energy chain, electrical drives, hoist gearboxes, hoist brakes, PLC's, electric motors and wire ropes
80%	For at least 6 of the following components having a guarantee of > or = 2 years, and the remaining 2 having a guarantee of at least > or = 1 year, then 80 %: diesel motor, generator, spreader, energy chain, electrical drives, hoist gearboxes, hoist brakes, PLC's, electric motors and wire ropes
60%	For at least 4 of the following components having a guarantee of > or = 2 years, and the remaining 4 having a guarantee of at least > or = 1 year, then 60 %: diesel motor, generator, spreader, energy chain, electrical drives, gearboxes, hoist brakes, PLC's & electric motors
40%	For all of the following components having a guarantee of at least > or = 1 year, then 40 %: diesel motor, generator, spreader, energy chain, electrical drives, hoist gearboxes, hoist brakes, PLC's & electric motors
20%	For at least 4 of the following components having a guarantee of > or = 1 year, and the remaining 4 having a guarantee of < 1 year, then 20 %: diesel motor, generator, spreader, energy chain, electrical drives, gearboxes, hoist brakes, PLC's & electric motors
0%	For the following components having a guarantee of < 1 year or less than prescribed above, then 0 %: diesel motor, generator, spreader, energy chain, electrical drives,hoist gearboxes, hoist brakes, PLC's & electric motors

The scoring of the Guarantees and Warranties on the structure will be as follows:

Score	**Guarantees and Warranties (Structure)**

100%	For a guarantee on the structure > or = to 20 years = 100 %
80%	For a guarantee on the structure > or = to 18 years but less than 20 years = 80% ≥ 5 years & < 10 years then 40 points
60%	For a guarantee on the structure > or = to 15 years but less than 18 years = 60 %
40%	For a guarantee on the structure > or = to 12 years but less than 15 years = 40 %
20%	For a guarantee on the structure > or = to 10 years but less than 12 years = 20 %
0%	For a guarantee on the structure < 10 years = 0 %

Details of Technical Support after completion:

1.
2.
3.
4.

Lead time for on-site Technical Support: _____ hours

Other Value Adding Elements

1.
2.
3.
4.

Signed _____ Date _____

Name _____ Position _____

Tenderer

_____

Rubber Tyred Gantry Cranes	**Site Establishment Requirements**	**Tender Schedule: T2.2-36 g**

Tenderers are to indicate their site establishment requirements for the supply of the Rubber Tyred Gantry Cranes , including the following:

- Erection site area required (m^2).
- Site lay-down area required (m^2) and preferred proximity to the erection site.
- Estimated electricity usage per month including average usage and peak demand.
- Estimated water consumption per month including average usage and peak demand.
- Special requirements on site e.g. hard standing or concrete beams, access etc.

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

Mandatory Returnable	**Compliance to Employer's Technical Specification**	**Tender Schedule: T2.2-36 h**

Note that this schedule is cross-referenced and must be read in conjunction with the Technical Specification TPT_TS_RTG rev 10. Elements of this document not completed will be deemed as non-compliance to that particular clause. The Tenderer's sign-off at the bottom is deemed as confirmation that this document has been read in conjunction with the Technical Specification.
In as far as possible Tenderers are to provide brochures, specifications, etc. to substantiate their compliance to the clauses in the Technical Specifications. The Tenderer's sign-off at the bottom of the returnable is deemed as confirmation that the Tenderer commits that they will comply to the clauses where they indicate compliance.

Note: Items greyed out will not be used in scoring the Compliance to Employer's Technical Specifications as they are already accounted for in the Technical Evaluation Scorecard.

Technical Spec. Clause	Comply (Y/N)	Comment (mandatory if non-compliant) and reference to returnable schedule
1. Scope		
1		
2. Operational Requirements		
2.1 Equipment Functionality		
2.1.1		
2.1.2		
2.1.3		
2.1.4		
2.1.5		
2.1.6		
2.1.7		
2.1.8		
2.1.9		
2.1.10		
2.1.11		
2.1.12		

2.1.13		
2.3 Ergonomics		
2.3.1 Operator's Cab		
2.3.1.1		
2.3.1.2		
2.3.1.3		
2.3.1.4		
2.3.1.5		
2.3.1.6		
2.3.1.7		
2.3.1.8		
2.3.1.9		
2.3.1.10		
2.3.1.11		
2.3.1.12		
2.3.1.13		
2.3.1.14		
2.3.1.15		
2.3.1.16		
2.3.1.17		
2.3.1.18		
2.3.1.19		
2.3.1.20		
2.3.1.21		
2.3.1.22		
2.3.1.23		
2.3.1.24		
2.3.1.25		
2.3.1.26		
2.3.1.27		
2.3.1.28		
2.3.1.29		
2.3.1.30		
2.3.1.31		
2.3.2 Operator's Controls		
2.3.2.1		
2.3.2.2		
2.3.2.3		

2.3.2.4		
2.3.2.5		
2.3.2.6		
2.3.2.7		
2.3.2.8		
2.3.2.9		
2.3.2.10		
2.3.2.11		
2.3.3 Operational Aids		
2.3.3.1		
2.3.3.2		
2.3.3.3		
2.3.3.4		
2.3.3.4.1		
2.3.3.4.2		
2.3.3.4.3		
2.3.3.4.4		
2.3.3.4.5		
2.3.3.5		
2.3.3.5.1		
2.3.3.5.2		
2.3.3.6		
2.3.3.7		
2.3.3.8		
2.4 Terminal Specific Requirements		
2.4.1		
3. Technical / Technology Requirements		
3.1 General Design Requirements		
3.1.1		
3.1.2		
3.1.3		
3.1.4		
3.1.5		
3.1.6		
3.1.7		
3.1.8		
3.1.9		
3.1.10		

3.1.11		
3.2 Gantry Structure and Travel Assemblies		
3.2.1		
3.2.2		
3.2.3		
3.2.4		
3.2.5		
3.2.6		
3.2.7		
3.2.8		
3.2.9		
3.2.10		
3.2.11		
3.2.12		
3.2.13		
3.2.14		
3.2.15		
3.2.16		
3.2.17		
3.2.18		
3.2.19		
3.2.20		
3.2.21		
3.2.22		
3.2.23		
3.3 Power Plant		
3.3.1		
3.3.2		
3.3.3		
3.3.4		
3.3.5		
3.3.6		
3.3.7		
3.3.8		
3.3.9		
3.3.10		
3.3.11.a		
3.3.11.b		

3.3.11.c		
3.3.11.d		
3.3.12.e		
3.3.12.f		
3.3.12.g		
3.3.12.h		
3.3.12.i		
3.3.12.j		
3.3.12.k		
3.3.12.l		
3.3.12.m		
3.3.12.n		
3.3.12.o		
3.3.13		
3.3.14		
3.3.15		
3.4 Cross Travel Trolley		
3.4.1		
3.4.2		
3.4.3		
3.4.4		
3.4.5		
3.4.6		
3.4.7		
3.4.8		
3.4.9		
3.4.10		
3.4.11		
3.4.12		
3.4.13		
3.4.14		
3.4.15		
3.4.16		
3.4.17		
3.4.18		
3.4.19		
3.4.20		
3.5 Hoisting		

3.5.1		
3.5.2		
3.5.3		
3.5.4		
3.6 Headblock		
3.6.1		
3.6.2		
3.6.3		
3.6.4		
3.6.5		
3.6.6		
3.6.7		
3.6.8		
3.7 Spreader		
3.7.1		
3.7.2		
3.7.3		
3.7.4		
3.7.5		
3.7.6		
3.8 Electrical House		
3.8.1		
3.8.2		
3.8.3		
3.8.4		
3.8.5		
3.8.6		
3.8.7		
3.9 Electrical Power Reticulation		
3.9.1		
3.9.1.1		
3.9.1.2		
3.9.1.3		
3.9.1.4		
3.9.2.a		
3.9.2.b		
3.9.2.c		

3.9.2.d		
3.9.2.e		
3.9.2.f		
3.9.3		
3.9.4		
3.9.5		
3.9.6		
3.9.7		
3.9.8		
3.9.9		
3.10 Main Drive Systems		
3.10.1		
3.10.2		
3.10.3		
3.10.4		
3.10.5		
3.10.5.1		
3.10.5.2		
3.10.6		
3.10.7		
3.10.8		
3.10.9		
3.10.10		
3.11 Gearboxes		
3.11.1		
3.11.2		
3.11.3		
3.11.4		
3.11.5		
3.12 Electrical Enclosures and Mounting Panels		
3.12.1		
3.12.2		
3.12.3		
3.12.4		
3.12.5		
3.12.6		
3.13 Stairs, Walkways, Platforms, Ladders and Anchor Points		
3.13.1		

3.13.2		
3.13.3		
3.13.4		
3.13.5		
3.13.6		
3.13.7		
3.13.8		
3.13.9		
3.13.10		
3.14 Lighting, Heating and Power Points		
3.14.1		
3.14.2		
3.14.3		
3.14.4		
3.14.5		
3.14.6		
3.14.6.1		
3.14.6.2.a		
3.14.6.2.b		
3.14.6.2.c		
3.14.6.2.d		
3.14.6.2.e		
3.14.6.3.f		
3.14.6.3.g		
3.14.6.3.h		
3.14.7		
3.14.18		
3.15 Local Crane Control System (LCCS)		
3.15.1		
3.15.2		
3.15.3		
3.15.3.1		
3.15.3.2		
3.15.3.3		
3.15.4		
3.15.5		
3.15.6		
3.15.7		

3.15.8.i		
3.15.8.j		
3.15.8.k		
3.15.8.l		
3.15.9.m		
3.15.9.n		
3.16 Computer Systems		
3.16.1		
3.16.1.1		
3.16.1.2		
3.16.1.3		
3.16.1.4		
3.16.1.5		
3.16.1.6		
3.16.1.7.o		
3.16.1.7.p		
3.16.1.7.q		
3.16.1.7.r		
3.16.1.7.s		
3.16.1.7.t		
3.16.1.7.u		
3.16.1.7.v		
3.16.1.7.w		
3.16.1.7.x		
3.16.2		
3.16.2.1		
3.16.2.2		
3.16.2.3		
3.16.2.4		
3.16.2.5		
3.16.2.6		
3.16.2.7		
3.16.3		
3.16.4		
3.16.5		
3.17 Corrosion Protection		
3.17.1		
3.17.2		

3.17.3		
3.17.4		
3.17.5		
3.17.6		
3.17.7		
3.17.8		
3.18 Signage and Marking		
3.18.1		
3.18.2		
3.18.3		
3.18.4		
3.18.5		
3.18.6		
3.18.7.y		
3.18.7.z		
3.18.7.aa		
3.18.7.bb		
3.18.7.cc		
3.18.7.dd		
3.18.7.ee		
3.18.7.ff		
3.18.8		
3.18.9		
3.18.10		
4. Crane Automation Functionality		
4.1 Safety Requirements		
4.1.1		
4.1.2.a		
4.1.2.b		
4.1.2.c		
4.1.2.d		
4.1.2.e		
4.1.2.f		
4.1.2.g		
4.1.2.1		
4.1.2.2		
4.1.2.3		
4.1.2.4		

4.1.2.5		
4.1.2.6		
4.1.2.7		
4.1.2.8		
4.1.2.9		
4.1.2.10		
4.1.2.11		
4.1.2.12		
4.1.2.13		
4.1.2.14		
4.1.2.15		
4.1.2.16		
4.1.2.17		
4.1.2.18		
4.1.2.19		
4.1.2.20		
4.1.2.21		
5. Safety and Environment		
5.1 Safety Requirements		
5.1.1		
5.1.2		
5.1.3		
5.1.4		
5.1.5		
5.1.6		
5.1.7		
5.1.8		
5.1.9.h		
5.1.9.i		
5.1.9.j		
5.1.9.k		
5.1.9.l		
5.1.9.m		
5.1.9.n		
5.1.9.o		
5.1.10		
5.1.11		
5.1.11.1		

5.1.11.1.1		
5.1.11.1.2		
5.1.11.1.3		
5.1.11.1.4		
5.1.11.1.5		
5.1.11.1.6		
5.1.11.1.7		
5.1.11.1.8		
5.1.11.2 Gantry		
5.1.11.2.1		
5.1.11.2.2		
5.1.11.2.3		
5.1.11.2.4		
5.1.11.3 Trolley		
5.1.11.3.1		
5.1.11.3.2		
5.1.11.3.3		
5.1.11.4 Spreader		
5.1.11.4.1		
5.1.11.4.2		
5.1.12		
5.1.13		
5.1.14.p		
5.1.14.q		
5.1.14.r		
5.1.14.s		
5.2 Fire Detection and Suppression		
5.2.1		
5.2.2		
5.2.2.1		
5.2.2.2		
5.2.2.3		
5.2.2.3.1		
5.2.2.3.2		
5.2.2.3.3		
5.2.2.3.4		
5.2.3		
5.2.3.1		

5.2.3.2		
5.2.3.3		
5.2.4		
5.2.5		
5.2.6		
5.2.7		
5.2.8		
5.3 Smoke Detection		
5.3.1		
5.4 Environmental Requirements		
5.4.1		
6. Maintenance		
6.1 Lubrication		
6.1.1		
6.1.2		
6.1.3		
6.2 Accessibility		
6.2.1		
7. General		
7.1		
7.2		
7.3		
7.4		
7.5		
7.6		
7.7		
8. Referenced Specifications		
8.1 Standard Specifications		
8.2 Employer Specifications		

The scoring of the Compliance to Employer's Technical Specification will be as follows:

Score	Compliance to Employer's Technical Specification
0	< 340 compliant clauses = 0 points
20	<360 but >=340 compliant clauses = 20 points

40	<380 but >=360 compliant clauses = 40 points
60	<400 but >=380compliant clauses = 60 points
80	<420 but >=400 compliant clauses = 80 points
100	≥420 compliant clauses = 100 % compliant

Signed _____ Date _____

Name _____ Position _____

Tenderer

_____

Mandatory Returnable	**Track Record**	**Tender Schedule: T2.2-36 i**

Tenderers are required to demonstrate OEM's, experience in the design and supply of **Diesel-Electric RTG's with a capacity of at least 40 ton under the spreader, over the last 5 years**, and to this end shall supply a sufficient detailed reference list with RTG'S details and contact details of existing customers. Tenderers shall also indicate their previous experience of their fabrication, erection and electrical Sub-Contractor(s) proposed for the fabrication and erection of the structure and the installation of the electrical/control system respectively.

#	Name of Previous Customer	Contact Details	Safe Working Load (SWL)	Maximum un-interrupted In-service Wind Speed (km/hr.)	No. of Units	Year
Diesel-Electric RTG's						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						

13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

Additional pages to be added as required to provide a comprehensive list.

The scoring of the Previous Experience will be as follows:

Score	Previous Experience
0	> 16 months & = 0 points
20	> 15 months & ≤ 16 months = 20 points
40	> 14 months & ≤ 15 months = 40 points
60	> 13 months & ≤ 14 months = 60 points
80	> 12 months & ≤ 13 months = 80 points
100	≤ 12 months = 100 points

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

RTG's	Fuel Tank Capacity	Tender Schedule: T2.2-36 j

The Tenderer is required to provide Fuel Tank Parameters

Item	Value / Detail	Comments
Capacity of fuel tank (liters)		
Confirmation that fuel tank capacity is sufficient for machine to operate for an eight-hour shift (Yes / No)		

The scoring principle for Fuel Tank Capacity is as follows.

Score	Required operating hours on a Single Fuel tank
0%	For the machine operating a < 8 hours shift on one fuel tank
20%	For the machine operating a > or = 8 hours shift on one fuel tank
40%	For the machine operating a > or = 9 hours shift on one fuel tank
60%	For the machine operating a > or = 10 hours shift on one fuel tank
80%	For the machine operating a > or = 11 hours shift on one fuel tank
100%	For the machine operating a > or = 12 hours shift on one fuel tank

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

Diesel & Diesel Electric Machines	**Total Cost of Ownership**	**Tender Schedule: T2.2-36 K**

Note to Tenderer:

Tenderers are to complete this schedule with regards to the Total Cost of Ownership (TCO) of the diesel and diesel electric machines. This is to be in the form of a spread sheet with the information as set out below.

Servicing							
Servicing costs							
Service Type i.e. 1000hrs, 2000hrs,etc (A,B,C,D,E)							
Service intervals (Operating Hours)	100hr	500hr	1,000hr	2,000hr	3,000hr	4,000hr	Etc. repeated for life of straddle
Hours required for service at the different intervals							
Consumables for the different services (to be identified and priced)							
List each item							
Total for Consumables							
Fuel Consumption							
Average expected consumption assuming 70% max revs	l/hr						
Tyre Life Expectancy	Hours						
Mid-life refurbishment details							
(Assuming 4500 operating hours per year. Give details of hours when this will be performed)							
List each item							
Total for mid-life refurbishment							

Hours required for mid-life refurbishment							
Design life in hours for equipment	Hours						
Total							

Signed _____ Date _____

Name _____ Position _____

Tenderer

_____

Mandatory Returnable	**Contractor's Preliminary Design (Single-Lift RTG)**	**Tender Schedule: T2.2-36 l**

Tenderers are to list in this schedule all principle design criteria and design standards applicable to the RTG's offered. Tenderers are to submit with this schedule a preliminary design of the RTG's demonstrating compliance with the Works Information. Sizes and profiles of main structural members shall be indicated on the drawings. Principal mechanism shall be listed separately, each accompanied by a drawing showing the conceptual arrangement and stating the ratings and capacities of the main components. The Tenderer must state for each mechanism the class of utilization, spectrum class and group classification on which the proposed design will be based and supply a full motivation if this differs from those specified.

The Tenderer must supply and attach all further Works Information he deems necessary to enable the Employer to fully understand and evaluate his offer. A full operational description of the equipment offered shall also be attached, clearly identifying all operational constraints and benefits of the particular design when compared to the alternative designs.

The layout of the operator cabin console shall also be submitted with this schedule.

Full details and drawings of anti-sway devices to enable operability of the RTG's at higher wind speeds shall be submitted.

Tenderers shall provide any details of "value-add" systems, designs or innovations that are incorporated into the design and manufacture of the RTG's.

Parameter for Single-Lift RTG	Value / Detail	Design Criteria and/or Applicable Standard	Comments
Classification of the structure (group classification, state of loading, class of utilization)			
Classification of the following mechanisms for single lift, twin lift and heavy lift (group classification, state of loading, class of utilization): • Hoisting • Trolley			

• Gantry long travel			
Trolley self-driven (Yes / No)			
Speeds of the following motions at wind speeds of **80 km/hr**: • Hoisting (no load) • Hoisting (Full load) • Trolley cross travel (no load) • Trolley cross travel (full load) • Gantry long travel			
Speeds of the following motions at wind speeds of **90 km/hr**: • Hoisting (no load) • Hoisting (Full load) • Trolley cross travel (no load) • Trolley cross travel (full load) • Gantry long travel			
Active anti-sway system fitted as per clause 2.1.9 of Technical Specification (TPT_TS_RTG_Rev10) (Yes / No)			
Details of anti-sway system			
Operations range for: • Trim • List • Skew			

Hoisting Capability (ton)			
Spreader Horizontal Travel Distance (m)			
Spreader Vertical Travel Distance (m)			
Length from bumper to bumper (m)			
RTG Dimensions & Clearances relative to DWG 6 + 1 RTG-DMS			
Total number of long travel wheels			
Total number of long travel wheels driven and braked			
Wheel spacing (m)			
Wheel diameter (m)			
Type of wheel			
Total mass of RTG (ton)			
Wheel loading (ton)			
Minimum in-service stability factor			
Maximum out-of-service stability factor without anchoring devices			
Method and details of storm tie-down anchoring/mooring (if applicable)			
Cabin Dust & Noise Mitigation			
Layout Drawing of Cabin			

Details; position and layout of access stairs and platforms			
Angle of main access stairways (degrees)			
Width of access stairs and platforms			
Details, position and layout of any ladders			
Details of emergency escape route from cabin			
Design and details of Energy Chain System			
Details of Shore Power Requirements			
Time period at which the RTG can be parked without being connected to Shore Power			
Anti-condensation heaters provided in all generators and main electric motors (Yes / No)			
Anti-truck lifting system provided (Yes/No), and details of system.			
Truck positioning system, to align container on truck with spreader, fitted (Yes/No), and details of system.			
Fuel consumption (litres/hour)			
Details of the CCTV System			
<u>Corrosion Protection:</u> Number of Coats of Paint Minimum overall Paint Thickness (microns)			

The scoring of the Hoist Speed and Trolley Speed with full load at wind speeds of 80km/hr will be as follows:

Score	**Speeds for Hoist and Trolley at wind speeds of 80km/hr**
0	Hoist Speed With no load hoisting speed is < 30 m/min = 0 points:
	Hoist Speed With full load hoisting speed is < 20 m/min = 0 points
	Trolley Speed with full load: < 60 m/min = 0 Points
20	Hoist Speed With no load hoisting speed is ≥ 30 but < 40 m/min then 20 points
	Hoist Speed With full load hoisting speed is ≥ 20 but < 25 m/min then 20 points
40	Hoist Speed With no load hoisting speed is ≥ 40m/min but < 50 m/min then 40 points
	Hoist Speed With full load hoisting speed is ≥ 25 m/min = 40 points
	Trolley Speed with full load: ≥ 60 but < 65 m/min then 40 points
60	Hoist Speed With no load hoisting speed is ≥ 50 m/min then 60 points
80	Trolley Speed with full load: ≥ 65 m/min but < 70 m/min, then 80 Points
100	Trolley Speed with full load: ≥ 80 m/min, then 100 Points

The scoring of the Hoist Speed and Trolley Speed with full load at wind speeds of 90 km/hr will be as follows:

Score	**Speeds for Hoist and Trolley at wind speeds of 90km/hr**
0	With no load hoisting speed is < 20 m/min = 0 points
	With full load hoisting speed < 10 m/min = 0 points
	Trolley Speed with full load: < 25 m/min = 0 Points
20	With full load hoisting speed ≥ 10 but < 15 m/min then 20 points
40	With no load hoisting speed is ≥ 20 but < 25 m/min then 40 points With full load hoisting speed is ≥ 15 m/min = 40 points
	Trolley Speed with full load: ≥ 25 but < 30 m/min then 40 points
60	With no load hoisting speed is ≥ 25 m/min then 60 points
80	Trolley Speed with full load: ≥ 30 but < 35 m/min then 80 points
100	Trolley Speed with full load: ≥ 35 m/min, then 100 Points

Signed _____ Date _____

Name _____ Position _____

Tenderer

_____

Mandatory Returnable	**Programme and Method Statements (Single-Lift RTG) / Lead Time**	**Tender Schedule: T2.2-36 m**

The Tenderer must submit a complete method statement for the delivery of the RTG's showing the duration and location of each major related activity e.g. assembly of modules and/or the complete RTG's, testing of each module and/or the complete RTG's, disassembly (if applicable), cold commissioning, shipping of parts, modules or complete RTG's, site erection stages (if applicable), final testing and commissioning.

The Tenderer must comprehensively identity all probable and unlikely risks to delivery schedule, and mitigating measures that could be put in place by tenderer to address unforeseen problems in availability of materials, labour, delivery of plant, shipping, etc. The programme must be in the form of a Gantt bar chart, clearly indicating key dates for progress measurements and/or payments due, and will identify all milestones during fabrication, erection, testing, commissioning and handover.

Please provide your proposed first programme as detailed in Clause 3.7 of the Works Information.

Activity	**Duration (months) for the first order of 14 RTG's**						
	RTG number						
	RTG 2	RTG 4	RTG 6	RTG 8	RTG 10	RTG 12	RTG 14
Contract Award to design approval							
Contract Award to Factory Acceptance Testing							
Contract Award to Bill of Lading							
Contract Award to Bill of Entry							
Contract Award to Completion of Erection, Testing and Commissioning							
Contract Award to Completion of Endurance Test and Handover							

The scoring of the Programme and Method Statement will be as follows:

Score	Programme and Method Statement
0	> 16 months & = 0 points
20	> 15 months & ≤ 16 months = 20 points
40	> 14 months & ≤ 15 months = 40 points
60	> 13 months & ≤ 14 months = 60 points
80	> 12 months & ≤ 13 months = 80 points
100	≤ 12 months = 100 points

Signed at _____ Date _____

Name _____ Position _____

Tenderer: _____

T2.2-36 n: Recommended Critical Spares RTG

Note to Tenderer:

Tenderers are to complete this schedule with regards to recommended critical spares required to support the equipment supplied for the first 5 years of operation, excluding the 'Mandatory Critical Spares' (T2.2-36b).

Tenderers to indicate those spares that will be available in South Africa (i.e. locally available) and provide a method statement detailing procedure/action plan on how stock will be made available in South Africa.

Prices to be fixed for a period of 12 months.

#	Description	Supplier	Locally Avail (Yes/No)	Delivery Lead Time	Price
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
Etc.	Additional page/s to be added to supply comprehensive list				

Signed _____ Date _____

Name _____ Position _____

Tenderer

_____