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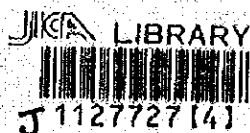
SARAWAK, MALAYSIA

KUCHING PORT AUTHORITY

KUCHING PORT EXPANSION PROJECT

**CONTRACT DOCUMENT
VOLUME 4**

**CONDITIONS OF TENDERING,
TENDER, TENDER GUARANTEE,
PERFORMANCE BOND, AGREEMENT,
CONDITIONS OF CONTRACT
and
SPECIFICATION
for
CARGO HANDLING EQUIPMENT**



JAPAN PORT CONSULTANTS, LTD.
Consulting Engineers and Architects
Tokyo

June 1970

SARAWAK, MALAYSIA
KUCHING PORT AUTHORITY
KUCHING PORT EXPANSION PROJECT

CONTRACT DOCUMENT

VOLUME 4

THE MANUFACTURE, COMPLETION AND DELIVERY OF
CARGO HANDLING EQUIPMENT

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CONDITIONS OF TENDERING

Tenderer

1. Any trading firm may participate in the tendering, provided that a power of attorney is submitted with the Tender showing that the Tenderer has been authorised by the manufacturers to make the tender.

Tenderer may
propose
modifications

2. The Tenderer is at liberty to add any details and conditions that he may deem desirable, and in the event of his doing so must annex the added matter to the Specification or General Conditions returned by him, but such additional details and conditions will not be binding on the Purchaser unless they are approved by him and incorporated in the Contract.

Non-disclosure
of confidential
information

3. Where in special circumstances the Tenderer deems it advisable to provide for the non-disclosure of drawings and information of a confidential nature furnished with his Tender, he should include in the Tender or covering letter a stipulation to this effect. If the Tender embodying such a stipulation is accepted the stipulation shall be incorporated in any subsequent formal agreement.

Doubt or
ambiguity

4. If the Tenderer has any doubt or ambiguity as to the meaning of any portion of the General Conditions or of the Specification or of this Conditions of Tendering, he shall, when submitting his Tender, set out in his covering letter the interpretation upon which he relied.

Tender

5. All the three sets of the Tender Documents supplied, enclosed in a plain sealed cover bearing the words "Tender for Cargo Handling Equipment for the Kuching Port Expansion Project" and not bearing any name or mark indicating the sender, shall, subject to modifications mentioned above, be returned intact

with the Tender Form and Schedules completed and signed, addressed to the Chairman, Kuching Port Authority, Kuching, Sarawak, Malaysia and must be received by him on or before 12.00 noon East Malaysia time on 197, and if sent by post they shall be registered and posted so as to be received by the Chairman not later than the same date and time. Tenders by cable will not be considered.

6. The Purchaser does not bind himself to accept the lowest or any Tender, nor will he be responsible for, or pay for, expenses or losses which may be incurred by any Tenderer in the preparation and submission of his Tender.

7. Tenderers shall be permitted to submit Tenders for all the equipment or an item or a group of items, as long as they are submitted on the formal Tender Documents provided. Tenders which are not submitted on the formal Tender Documents provided will not be considered.

Technical Literature

8. The Tenderer shall complete the Schedule of Technical Data as set out in Appendix 'B' attached to the Tender Form.

He shall submit together with his Tender four copies each of the following technical literature issued by manufacturers, giving full technical data of the equipment offered:- Driver's Operation Manual, Instruction Book of Engine, Complete List of Spare Parts, Lubrication Chart, Electrical Wiring Diagrams and List of Standard Tools supplied with the equipment.

Guaranteed Supply of Spares

9. The Tenderer shall state that all the equipment offered are represented by established agents in Malaysia or Singapore who guarantee to carry adequate

stocks of spares at all times and undertake repairs to the equipment, if necessary. Such guarantees of the agents shall be submitted with the Tender. A comprehensive retail price list (three copies) of spare parts for each type of equipment offered shall also be supplied, indicating the price discounts, if any, allowable to the Purchaser.

Language

10. Tenders not accompanied with all the information and literature specified in paragraphs 8 and 9 will not be considered. All such documents required to be submitted with the Tender shall be in the English Language.

Tender Price

11. The Tender Price shall be stated in Malaysian Dollars and on the basis of C.I.F. Kuching. The Tenderer's attention is particularly drawn to the following:-

- a) that the Tender Price must include all costs associated with labour including the cost of any incentives necessary to retain sufficient labour on the factories to meet the requirements of the programme submitted with the Tender;
- b) that the Tender Price must include all the costs and charges incurred in connection with the independent inspection required by the Purchaser;
- c) that the Tender Price must include all charges for handling and landing at Kuching Port, Sarawak, Malaysia, but not the customs import duties and import surtaxes; and
- d) that the Tender Price must include all increases in the cost of labour, transport, plant, materials and other things.

The submission of a Tender shall be deemed to be an undertaking that the Tender Price includes the

above cost and charges.

The Purchasers shall undertake to pay any Customs import duties that may be payable in Sarawak.

Foreign currency requirement

12. All rates and prices and monetary statements in this Contract shall be calculated in Malaysian Dollars, and all the payments due under this Contract will be made in Malaysian Dollars, unless otherwise indicated by the Tenderer as follows:

The Tenderer shall submit with his Tender a schedule of all payments he will require to be made in currencies other than Malaysian Dollars. The schedule shall include the names of the currencies, items to be covered by such payments, amounts and dates of payments and all other relevant information.

Programme

13. The Tenderer shall submit with his Tender a detailed programme showing the method and order of procedure in which he proposes to carry out the manufacture and delivery of the equipment, and shall also furnish particulars in writing of the factory or factories, machinery, material or things which he intends to use for the manufacture of the equipment. The said programme shall clearly indicate by a chart the order and time-table in which the equipment are to be manufactured and delivered. Four copies of the manufacturers' brochure and product catalogue in English shall be attached to this programme.

Tender guarantee, etc.

14. The sum of Malaysian Dollars ONE THOUSAND only (M\$1,000/-) deposited in either of the following forms by the Tenderers will be required upon the issue of the Tender Documents:-

(i) A bank receipt for the cash deposit to the credit of the Kuching Port Authority made at a licensed bank operating in Malaysia and approved by the Kuching Port Authority.

(ii) A written guarantee in a Form as set out on

(iv)

page xxxiii from a licensed bank operating in Malaysia.

The tender guarantee will be refunded to him within one month from the date of award of the Tender, if all copies of the Tender Documents have been returned by the Tender, but the deposit may be forfeited if the Tender has not been made in good faith.

In the case of the successful Tenderer the deposit or the bank guarantee will be retained by the Kuching Port Authority until an Agreement has been duly signed and the Performance Bond referred to in the Contract Documents has been duly executed.

Treatment of documents

15. The Tenderer (whether he submits a Tender or not) shall treat the details of the Tender Documents as private and confidential.

Withdrawing Tender

16. The Tender may be withdrawn by the Tenderer by despatch of a written request or by telegraph so as to be received by the Chairman, Kuching Port Authority before 12.00 noon East Malaysia time on the closing date.

Validity of Tender

17. The Tender shall remain valid for ninety (90) days beginning at 12.00 noon East Malaysia time on the same day of the closing date and no Tenderer may withdraw his Tender within that period.

TENDER

(Notes:- The Appendix forms part of the Tender.
Tenderers are required to fill up all the blank
spaces in this Tender Form and Appendix.)

The Chairman,
Kuching Port Authority,
Kuching, Sarawak,
Malaysia.

Sir,

Manufacture, Completion and Delivery of Cargo Handling Equipment

Having examined the Conditions of Contract, Specification and the Conditions of Tendering for the manufacture, completion and delivery of the above-named equipment, we, the undersigned, offer to manufacture, complete and deliver the said equipment in conformity with the said Conditions of Contract, Specification and the Conditions of Tendering for the sum of Malaysian Dollars
..... (M\$) or such other sum as may be ascertained in accordance with the said Conditions of Contract.

2. We undertake if our Tender is accepted to manufacture, complete and deliver within months from the date of acceptance of Tender or within such extended time as by the Conditions of Contract provided.

3. Under Clause 14 of the Conditions of Tendering, we attach herewith a receipt from the Bank, approved by you, for the sum of Malaysian Dollars ONE THOUSAND ONLY (M\$1,000/-) in respect of the cash deposit made to your credit/ we submit herewith a Tender Guarantee executed by the Bank, approved by you, in the sum of Malaysian Dollars ONE THOUSAND (M\$1,000/-) being the amount of earnest money required in accordance with the Conditions of the Tendering for the manufacture, completion and delivery of the equipment aforesaid.

4. If our Tender is accepted we will further obtain the guarantee of an Insurance Company or Bank or alternatively provide two good and

sufficient sureties (to be approved in either case by you) to be jointly and severally bound with us in a sum of 10 per cent of the above tendered sum for the due performance of the Contract under the terms of a Performance Bond to be approved by you.

5. We agree to abide by this Tender for a period of ninety (90) days beginning at 12.00 noon East Malaysia time on the same day of the closing date fixed by you and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

6. Unless and until a formal Agreement is prepared and executed this Tender, together with your written acceptance thereof, shall constitute a binding Contract between us.

7. We understand that you are not bound to accept the lowest or any tender you may receive.

APPENDIX 'A'

SCHEDULE OF PRICES

All tender prices shall be quoted in strict accordance with the Clause 11 of the Conditions of Tendering and in Malaysian Dollars only.

1.	New forklift truck, diesel driven, 6,000 lbs. at 24 inches load centre, all as per Specification A.	14 Nos. M\$
2.	New forklift truck, diesel driven, 6 tons at 24 inches load centre, all as per Specification B.	2 Nos. M\$
3.	New towing tractor, diesel driven, 3,750 lbs. drawbar pull, all as per Specification C.	8 Nos. M\$
4.	New towing tractor, diesel driven, 7,700 lbs. drawbar pull, all as per Specification D.	4 Nos. M\$
5.	New trailer, loading capacity 3 tons, all as per Specification E and General Specification.	36 Nos. M\$
6.	New trailer, loading capacity 6 tons, length adjustable to 40 ft., all as per Specification E and General Specification.	6 Nos. M\$
7.	New trailer, loading capacity 6 tons, all as per Specification E and General Specification.	4 Nos. M\$
8.	New trailer, loading capacity 15 tons, all as per Specification E and General Specification.	2 Nos. M\$
9.	New trailer, loading capacity 30 tons, all as per Specification E and General Specification.	1 Nos. M\$
10.	New truck crane, lifting capacity 30 tons, all as per Specification F.	1 Nos. M\$

Delivery Period

Delivery of the equipment in good working order to the Purchaser at Kuching Port, Sarawak, Malaysia will commence with an initial units withinmonths from the date of acceptance of the Tender, and delivery of the balance of units required will be scheduled as follows:-

- (a) more units within months from the date of acceptance of the Tender.
- (b) more units within months from the date of acceptance of the Tender.
- (c) more units within months from the date of acceptance of the Tender.
- (d) more units within months from the date of acceptance of the Tender.

Payment

Currency in which payment against each certificate (issued under Clause 23) is to be made per cent in Malaysian Dollars.

Schedule for Foreign Currency Requirement

Country	Currency Unit	Items and Tender Price covered by such Payment	Amount expressed in per cent of (c)	Place and Approx. Date of Payment
(a)	(b)	(c)	(d)	(e)
1. U.S.A.	US\$			
2. U.K.	£			
3. Japan	¥			
4. W.Germany	DM			
5.				
6.				
7.				

TOTAL OF FOREIGN CURRENCY REQUIREMENT = per cent of Tender Sum.

- Note:- a) Foreign currency requirement will be paid to the Contractor at the exchange rate of Malaysian Dollar in term of the par value of the currency as declared by the International Monetary Fund at the time of payment.
- b) At present, the par value of one Malaysian Dollar (M\$1.00) equal to U.S. Dollar 0.32667 (US\$0.32667).

Date this day of, 1970.

Signature in the capacity of
..... duly authorised to sign
tenders for and on behalf of.....

Address:

Witness:

Address:

.....

Occupation:

APPENDIX 'B'

SCHEDULE OF TECHNICAL DATA

1. Forklift Trucks

No.	Questions	Answers to be completed by Tenderer	
		(Item 1) 6,000 lbs.	(Item 2) 6 tons.
1.	Name of supplier. Name of manufacturer. Name and/or model No.		
2.	Country of origin.		
3.	<u>Lift of Forks</u> a. Maximum lift height. b. Safe working load at 24" load centre. c. Free lift. d. Lifting speed at full load.	.....ft .....ins. .....lbs. .....ins. .....f.p.m.	.....ft .....ins. .....lbs. .....ins. .....f.p.m.
4.	Gradeability on paved surface (loaded). % %

5.	Drawbar pull (Unloaded).	.....lbs.	.....lbs.
6.	<u>Dimensions</u> a. Overall length. b. Overall width. c. Overall height. d. Wheelbase. e. Steering axle track. f. Driving axle track. g. Ground clearance. h. Minimum turning radius (outer). i. Length of fork. j. Section of fork. k. Maximum fork spacing. l. Forward tilt of mast. m. Backward tilt of mast.	.....ft .....ins. .....ft .....ins. .....ft .....ins. .....ft .....ins. .....ft .....ins. .....ft .....ins. .....ft .....ins. .....ft .....ins. .....ft .....ins. .....ins. x .....ins. .....ft .....ins. .....ins. x .....ins. .....ft .....ins. .....degrees. .....degrees.	.....ft .....ins. .....ft .....ins. .....ft .....ins. .....ft .....ins. .....ft .....ins. .....ft .....ins. .....ft .....ins. .....ft .....ins. .....ft .....ins. .....ins. x .....ins. .....ft .....ins. .....ins. x .....ins. .....ft .....ins. .....degrees. .....degrees.

7.	<u>Weight</u> a. Total weight of vehicle. b. Weight on steering axle. c. Weight on driving axle.	.....lbs. .....lbs/wheel .....lbs/wheel	.....lbs. .....lbs/wheel .....lbs/wheel
8.	<u>Engine</u> a. Make. b. Model No. c. Number of cylinders. d. Displacement. e. Stroke & bore of cylinder. f. B.H.P. g. R.P.M. h. Maximum torque. i. Fuel consumption. (Fully laden) j. Fuel tank capacity.	.....C.C. ins. x ins.dia. .....b.h.p. .....r.p.m. .....lbs.ft.@.....rpm .....m.p.g. .....Imp.gallons.	.....C.C. ins. x ins.dia. .....b.h.p. .....r.p.m. .....lbs.ft.@.....rpm .....m.p.g. .....Imp.gallons.

9.	<u>Transmissions</u> a. Type. b. Speed.	1st .....m.p.h. 2nd .....m.p.h. 3rd .....m.p.h. 4th .....m.p.h. Reverse .....m.p.h.	1st .....m.p.h. 2nd .....m.p.h. 3rd .....m.p.h. 4th .....m.p.h. Reverse .....m.p.h.
10.	<u>Clutch</u> a. Type- b. Size of disc.	.....ins.	.....ins.
11.	<u>Tyres</u> a. Type of steering wheel. b. Size and ply of steering wheel. (W. x I.D. x ply) c. Tread pattern of steering wheel.	.....x.....x.....ply	.....x.....x.....ply

11.	<p>d. Max. total load carrying capacity of steering wheel. e. Type of driving wheel. f. Size and ply of driving wheel (W. x I.D. x ply) g. Tread pattern of driving wheel. h. Max. total load carrying capacity of driving wheel.</p>	<p>.....lbs. x.....x.....ply lbs.</p>
12.	<p><u>Brake</u> a. Type of brake applied on lift of forks. b. Type of brake applied on wheels. c. Type of brake applied on parking & emergency.</p>	
13.	<p><u>Electrical System</u> a. Voltage. b. D.C. or A.C.</p>	<p>.....V. V.</p>

13.	c. Battery capacity.	.....AH.	.....AH.
14.	Proposed modifications (Specify, if any)		

2. Towing Tractor

No.	Questions	Answers to be completed by tenderer.	
		(Item 3) 3,750 lbs.	(Item 4) 7,700 lbs.
1.	Name of supplier. Name of manufacturer. Name and/or model No.		
2.	Country of origin.		
3.	<u>Performance</u> a. Max. drawbar pull. b. Max. travelling speed. c. Min. turning radius (outer). d. Gradeability.	.....lbs. .....m.p.h. .....ft.....ins. .....%	.....lbs. .....m.p.h. .....ft.....ins.%
4.	<u>Dimensions</u> a. Overall length. b. Overall width. c. Overall height.	.....ft.....ins. .....ft.....ins. .....ft.....ins.	.....ft.....ins. .....ft.....ins. .....ft.....ins.

4.	<p>d. Wheelbase.</p> <p>e. Steering axle track.</p> <p>f. Driving axle track.</p> <p>g. Ground clearance.</p> <p>h. Ground clearance of couplers.</p>	<p>.....ft.....ins.</p> <p>.....ft.....ins.</p> <p>.....ft.....ins.</p> <p>.....ins.&.....ins.</p>	<p>.....ft.....ins.</p> <p>.....ft.....ins.</p> <p>.....ft.....ins.</p> <p>.....ins.&.....ins.</p>
5.	<p><u>Weight</u></p> <p>a. Total vehicle weight.</p> <p>b. Weight on steering axle.</p> <p>c. Weight on driving axle.</p>	<p>.....lbs.</p> <p>.....lbs/wheel</p> <p>.....lbs/wheel</p>	<p>.....lbs.</p> <p>.....lbs/wheel</p> <p>.....lbs/wheel</p>
6.	<p><u>Engine</u></p> <p>a. Type.</p> <p>b. Model No.</p> <p>c. Number of cylinders.</p> <p>d. Displacement.</p> <p>e. Stroke & bore of cylinder.</p>	<p>.....ins. x ins.dia.</p> <p>.....C.C.</p>	<p>.....ins. x ins.dia.</p> <p>.....C.C.</p>

6.	f. B.H.P. g. R.P.M. h. Max. torque. i. Fuel consumption (Fully laden) j. Fuel tank capacity.	.....b.h.p. .....r.p.m. .....lbs.ft.@.....rpm .....m.p.g. .....Imp.gallons	.....b.h.p. .....r.p.m. .....lbs.ft.@.....rpm .....m.p.g. .....Imp.gallons
7.	<u>Transmissions</u> a. Type. b. Speed.	1st .....m.p.h. 2nd .....m.p.h. 3rd .....m.p.h. 4th .....m.p.h. Reverse .....m.p.h.	1st .....m.p.h. 2nd .....m.p.h. 3rd .....m.p.h. 4th .....m.p.h. Reverse .....m.p.h.
8.	<u>Clutch</u> a. Type. b. Size of Disc.	.....ins.	.....ins.

9.	<u>Tyres</u> a. Type of steering wheel. b. Size and ply of steering wheel. c. Tread pattern of steering wheel. d. Max. total load carrying capacity of steering wheel. e. Type of driving wheel. f. Size and ply of driving wheel. (W. x I.D. x ply) g. Tread patter of driving wheel. h. Max. total load carrying capacity of driving wheel.	.....lbs. .....lbs. .....ins. x ...ins. x ...ply .....lbs.	.....lbs. .....ins. x ...ins. x ...ply .....lbs.
10.	<u>Brake</u> a. Type of brake applied on wheels. b. Type of brakes applied on parking & emergency.		

<p>11.</p>	<p><u>Electrical System</u></p> <p>a. Voltage.</p> <p>b. D.C. or A.C.</p> <p>c. Battery capacity.</p>	<p>.....V.</p> <p>.....AH.</p>	<p>.....V.</p> <p>.....AH.</p>
<p>12.</p>	<p><u>Proposed modification</u> (Specify, if any)</p>		

3. Trailers

No.	Questions	Answers to be completed by Tender				
		(Item 5) 3 tons	(Item 6) 6 tons, long	(Item 7) 6 tons	(Item 8) 15 tons	(Item 9) 30 tons
1.	Name of supplier. Name of manufacturer. Name and/or model No.					
2.	Country of origin.					
3.	Loading capacity.	tons.	tons.	tons.	tons.	tons.
4.	<u>Dimensions</u>					
	a. Overall length.	ft. ins.	ft. ins.	ft. ins.	ft. ins.	ft. ins.
	b. Overall width.	ft. ins.	ft. ins.	ft. ins.	ft. ins.	ft. ins.
	c. Overall height.	ft. ins.	ft. ins.	ft. ins.	ft. ins.	ft. ins.
	d. Wheel distance of turning axle.	ft. ins.	ft. ins.	ft. ins.	ft. ins.	ft. ins.
	e. Wheel distance of fixed axle.	ft. ins.	ft. ins.	ft. ins.	ft. ins.	ft. ins.

4.	f. Wheelbase. g. Ground clearance. h. Height of rear coupler. i. Min. turning radius(outer).	ft. ins. ins. ins.	ft. ins. ins. ins.	ft. ins. ins. ins.	ft. ins. ins. ins.	ft. ins. ins. ins.
5.	<u>Weight</u> a. Total weight of vehicle. b. Weight on wheels on turning axle. d. Weight on wheels on fixed axle.	lbs. lbs/wheel lbs/wheel	lbs. lbs/wheel lbs/wheel	lbs. lbs/wheel lbs/wheel	lbs. lbs/wheel lbs/wheel	lbs. lbs/wheel lbs/wheel
6.	Type of turning mechanism.					
7.	<u>Tyres</u> a. Type. b. Size and Ply. (W. x I.D. x ply)					

7.	c. Tread pattern. d. Total number of wheels. (Attach sketch) e. Carrying capacity.					
8.	<u>Brake</u> a. Type.					
9.	<u>Proposed modification</u> (Specify, if any)					

4. Truck Crane (Lifting capacity - 30 tons)

No.	Questions	Answers to be completed by Tenderer																																												
1.	Name of supplier. Name of manufacturer. Name and/or model No.																																													
2.	Country of origin.																																													
3.	<u>Performance</u> a. Lifting capacity with main boom of 30 ft. based on 78% or less tipping load. b. Gradeability. c. Min. turning radius (outer) (Carrier). d. Speed of lifting rope.	<table border="0"> <thead> <tr> <th colspan="2"></th> <th colspan="2" style="text-align: center;"><u>Outriggers</u></th> </tr> <tr> <th colspan="2"></th> <th style="text-align: center;"><u>Without</u></th> <th style="text-align: center;"><u>With</u></th> </tr> </thead> <tbody> <tr> <td>Working radius</td> <td>12 ft.</td> <td>.....</td> <td>..... lbs.</td> </tr> <tr> <td></td> <td>15 ft.</td> <td>.....</td> <td>..... lbs.</td> </tr> <tr> <td></td> <td>20 ft.</td> <td>.....</td> <td>..... lbs.</td> </tr> <tr> <td></td> <td>25 ft.</td> <td>.....</td> <td>..... lbs.</td> </tr> <tr> <td></td> <td>30 ft.</td> <td>.....</td> <td>..... lbs.</td> </tr> <tr> <td></td> <td></td> <td>.....</td> <td>..... %</td> </tr> <tr> <td></td> <td></td> <td>.....ft</td> <td>..... ins.</td> </tr> <tr> <td>Min.</td> <td></td> <td>.....</td> <td>.....f.p.m.</td> </tr> <tr> <td>Max.</td> <td></td> <td>.....</td> <td>.....f.p.m.</td> </tr> </tbody> </table>			<u>Outriggers</u>				<u>Without</u>	<u>With</u>	Working radius	12 ft. lbs.		15 ft. lbs.		20 ft. lbs.		25 ft. lbs.		30 ft. lbs.		 %		ft ins.	Min.	f.p.m.	Max.	f.p.m.
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Min.	f.p.m.																																											
Max.	f.p.m.																																											

3.	e. No. or wire rope. f. Type and dia. of wire rope.	ins. dia. x
4.	<u>Dimensions</u> a. Overall length when running. b. Overall width when running. c. Overall height when running. d. Overall length when working. e. Overall width when working. f. Wheelbase. g. Wheel distance of steering axle. h. Wheel distance of driving axle. i. Ground clearance. j. Type of wheel drive. k. Length of main boom.ft.ins.ft.ins.ft.ins.ft.ins.ft.ins.ft.ins.ft.ins.ft.ins.ft.ins.ft.ins.ft.ins.
5.	<u>Weight</u> a. Total weight of vehicle.	.....lbs.

5.	b. Weight on steering wheel. c. Weight on driving wheel.	.....lbs/wheel .....lbs/wheel
6.	<u>Engine, Carrier</u> a. Make. b. Model No. c. Number of cylinders. d. Displacement. e. Stroke and bore of cylinder. f. B.H.P. g. R.P.M. h. Maximum torque. i. Fuel consumption. j. Fuel tank capacity.	.....ins. x .....ins. dia. .....b.h.p. .....r.p.m. .....lbs.ft. @r.p.m. .....m.p.g. .....Imp.gallons.
7.	<u>Transmissions, Carrier</u> a. Type. b. Speed.	1st .....m.p.h.

7.		2nd .....m.p.h. 3rd .....m.p.h. 4th .....m.p.h. 5th .....m.p.h. Reverse .....m.p.h.
8.	<u>Clutch, Carrier</u> a. Type. b. Size of disc.	.....ins.
9.	<u>Tyres</u> a. Type of steering wheel. b. Size and ply of steering wheel. c. Tread pattern of steering wheel. d. Type of driving wheel. e. Size and ply of driving wheel. f. Tread pattern of driving wheel.	

10.	<u>Outrigger</u> a. Type. b. Set system.	
11.	<u>Engine for Lifting</u> a. Make. b. Model No. c. Number of cylinders. d. Stroke & bore of cylinder. e. Displacement. f. B.H.P. g. R.P.M. h. Maximum torque. i. Fuel consumption. j. Fuel tank capacity.	.....ins. x .....ins.dia. .....C.C. .....b.h.p. .....r.p.m. .....lbs.ft.@.....r.p.m. .....gallons/h.p./hr. .....Impl.gallons.
12.	<u>Clutch for Lifting</u> a. Type.	

12.	b. Size of disc.	.....lbs.
13.	<u>Transmissions for Lifting</u> a. Type. b. Reduction ratio.	1st 2nd 3rd
14.	<u>Turning Mechanism</u> a. Type of clutch. b. Type of brake. c. Type of locking device. d. Turning speed. e. Turning radius.	
15.	<u>Boom Hoist</u> a. Type of clutch. b. Type of brake.	

15.	c. Line speed.	Min. ....f.p.m. Max. ....f.p.m.
16.	<u>Main Drum</u> a. Main drum diameter & number. b. Type of clutch. c. Type of brake.	.....ft. ....ins. dia. x
17.	<u>Brake, Carrier</u> a. Type. b. Type of brake applied on parking & emergency.	
18.	<u>Steering System</u> a. Type.	
19.	<u>Lifting Boom</u> a. Structural type. b. Method of connection.	

<p>20.</p>	<p><u>Electrical System</u></p> <p>a. Voltage.</p> <p>b. D.C. or A.C.</p> <p>c. Battery capacity.</p>	<p>.....V.</p> <p>.....A.H.</p>
<p>21.</p>	<p><u>Proposed modification</u> (Specify, if any)</p>	

The Chairman,
Kuching Port Authority,
Kuching, Sarawak,
Malaysia.

Sir,

TENDER GUARANTEE

As requested by the Tenderer Mr./Messrs.
.....
of
we hereby guarantee that the sum of Malaysian Dollars ONE THOUSAND ONLY
(M\$1,000/-) being the amount of earnest money required to be deposited
to the credit of the Kuching Port Authority, Kuching, Sarawak, (herein-
after called the Authority) in accordance with the Conditions of
Tendering for THE MANUFACTURE, COMPLETION AND DELIVERY OF CARGO HANDL-
ING EQUIPMENT FOR THE KUCHING PORT EXPANSION PROJECT, shall become pay-
able by us immediately on receipt of notice in writing given to us by
the Authority or its authorised representative.

This guarantee is effective from the date of the Tender
Documents submitted by the Tenderer, namely
..... 1970, and is to remain in force until
after a notice in writing to discontinue the same is given by the Author-
ity or its authorised representative or until the Tenderer is notified
in writing that his Tender is unsuccessful.

The Common Seal of
..... Limited
was hereto affixed in the presence of:-

.....
.....
Address:
.....
Date:

or

SIGNED SEALED AND DELIVERED BY THE
said
.....
in the presence of:-

SARAWAK, MALAYSIA

MANUFACTURE, COMPLETION AND DELIVERY OF CARGO HANDLING EQUIPMENT
FOR THE KUCHING PORT EXPANSION PROJECT

FORM OF AGREEMENT

THIS AGREEMENT is made the day of
..... 197... BETWEEN
..... (hereinafter
called "the Contractor") of the one part and Kuching Port Authority,
Kuching, Sarawak, Malaysia (hereinafter called "the Purchaser") of
the other part.

WHEREAS the Purchaser desires to have provided certain Plant
mentioned, enumerated, or referred to in certain General Conditions,
Specification, schedules, drawings, plan and schedule of prices, the
Contractor's Tender and covering letter (if any), and the acceptance
of the Tender all of which are deemed to form part of this Contract as
though separately set out herein and are included in the expression
"Contract" whenever herein used;

AND WHEREAS the Purchaser has accepted the Tender of the
Contractor for the provision of the said Plant for the sum of
..... (hereinafter called
"the Contract Price") upon the terms and subject to the Conditions
hereinafter mentioned;

NOW THIS AGREEMENT WITNESSETH and it is hereby agreed and de-
clared as follows:-

1. In consideration of the payment to be made to the Contractor
by the Purchaser as hereinafter mentioned the Contractor hereby cove-
nants with the Purchaser that the Contractor shall and will duly pro-
vide the said Plant and shall do and perform all other acts and things
in the Contract mentioned or described or which are to be implied
therefrom or may be reasonably necessary for the provision of the said
Plant within and at the times and in the manner and subject to the
terms conditions and stipulations mentioned in the Contract.
2. In consideration of the due provision of the Plant as
aforesaid the Purchaser hereby covenants with the Contractor that he,

the Purchaser, will pay to the Contractor the Contract Price or such other sum as may become payable to the Contractor under the provisions of the Contract, such payments to be made at such time and in such manner as is provided by the Contract.

IN WITNESS whereof the parties hereto have caused their respective Common Seals to be hereunto affixed (or have hereunto set their respective hands and seals) the day and year first above written.

SIGNED-SEALED AND DELIVERED BY THE
said (The Contractor)

in the presence of:-

SIGNED SEALED AND DELIVERED BY THE
said
..... (The Purchaser)

in the presence of:-

PERFORMANCE BOND

THIS AGREEMENT is made the day of
between
of
..... (hereinafter called
the Guarantor) of the one part and the Kuching Port Authority (herein-
after called the Principal) of the other part.

WHEREAS

(a) This Agreement is supplemental to a contract (hereinafter
called the Contract) dated and made between
.....
(hereinafter called the Contractor) of the one part and the Principal
of the other part whereby the Contractor agreed and undertook to
.....
..... for the sum of M\$

(b) The Guarantor has agreed to guarantee the due performance
of the Contract in manner hereinafter appearing.

NOW the Guarantor hereby agrees with the Principal as follows:-

1. If the Contractor shall in any respect fail to execute the
Contract or commit any breach of his obligations thereunder then the
Guarantor will indemnify the Principal the sum of Malaysian Dollars
.....
..... (M\$.....).
2. The Guarantor shall not be discharged or released from his
guarantee by any arrangement between the Contractor and the Principal
with or without the consent of the Guarantor or by any alteration in
the obligations undertaken by the Contract or by any forbearance
whether as to payment time performance or otherwise.

Given under our respective hands and seals the date first mentioned above.

The Common Seal of
..... (Guarantor)
was hereunder affixed in the presence of:-

or

SIGNED SEALED AND DELIVERED BY THE
said
.....
in the presence of:-

The Common Seal of
..... (Principal)
was hereunder affixed in the presence of:-

or

SIGNED SEALED AND DELIVERED BY THE
said
.....
in the presence of:-

CONDITIONS OF CONTRACT

PART I - GENERAL CONDITIONS

The General Conditions of Contract to be read in conjunction with the Specification referred to in this Contract shall be the Model Form of General Conditions of Contract including Form of Agreement for use in connection with Export Contracts Delivery F.O.B. or C.I.F. (Electrical and Mechanical) B.1, 1956 Edition, as has been jointly recommended by the Institution of Mechanical Engineers, the Institution of Electrical Engineers and the Association of Consulting Engineers, London, and as modified or added to by the Conditions of Particular Application which shall be read and construed with the General Conditions as if they were incorporated therewith. Insofar as any of the said Conditions of Particular Application may conflict with any of the General Conditions, the Conditions of Particular Application shall always prevail.

CONDITIONS OF CONTRACT

PART II - CONDITIONS OF PARTICULAR APPLICATION

The following are the Conditions amplifying, modifying or adding to Part I - General Conditions of Contract.

Definition of Terms

Clause 1

The following definitions shall be substituted for corresponding definitions in Part I of the General Conditions of Contract, or added thereto.

The "Purchaser" means the Kuching Port Authority of Kuching, Sarawak, Malaysia, and includes the Purchaser's authorised representatives successors and permitted assigns.

The "Engineer" means the engineer appointed from time to time by the Purchaser and notified in writing to the Contractor to act as Engineer for the purposes of the Contract.

Contractor to inform himself fully

Clause 2

Delete the words "drawings, and plans." and insert the word "and" before "schedules".

Drawings

Clause 4

Delete the first sentence in Subclause (i) and substitute the following:-

(i) The Contractor shall submit to the Engineer for approval within the times to be agreed such drawings, catalogues, samples, patterns, and models as the Engineer may reasonably require, provided that the Contractor shall not be under any obligation to supply copies of shop drawings.

Insert the word "catalogues" in the second sentence after the word "drawings".

Delete the third and fourth sentences in Subclause

(i) and substitute the following:-

All drawings which require to be approved by the Engineer shall be provided in seven copies by the Contractor and shall be signed by both parties. Six of the copies so signed shall be retained by the Purchaser and the seventh copy by the Contractor.

Patent Rights,
etc.

Clause 7

Delete the words "United Kingdom or, where the country in which the Plant is to be used is specified in the Contract, in that country" in Subclause (i) and substitute the word "Sarawak".

Delivery

Clause 9

Delete the entire Clause 9 and substitute the following:-

(a) The Contractor shall ship the Plant on board a vessel for conveyance to Kuching Port, Kuching, Sarawak, Malaysia and deliver the Plant to the Purchaser at Kuching Port not later than

(b) The Plant so shipped shall be packed or protected for conveyance to the aforesaid destination so as to prevent damage or deterioration under normal transport conditions.

(c) The Contractor shall tender to the Purchaser as soon as is reasonably possible after shipment the bill of lading, insurance policy, invoice and interim certificate relating to the Plant shipped as aforesaid.

Delayed Plant

Clause 10

Delete the words "if not time is specified, within a reasonable time" in line four of Clause 10.

Contractor's
Default

Clause 12

Delete the words "a reasonable time" in lines five and six and substitute the words "30 days".

Inspection,
Testing and
Rejection

Clause 14

Add the following as Subclause (vi):-

(vi) (a) On delivery to Kuching the Engineer shall further be entitled to inspect, examine and test the Plant. If after such inspection, examination or test any Plant or part thereof is found to be defective or not to be in accordance with the Contract he may reject it and if the Contractor fails to make replacement promptly the Purchaser shall be entitled to replace the rejected Plant or part from other sources, and all costs and expenses incurred thereby shall be reimbursed by the Contractor.

(b) The Contractor shall promptly, upon request, remove at his own expense the rejected Plant or part and if he fails to do so within 15 days after rejection, the Purchaser may effect such removal at the cost of the Contractor.

Delay in
Completion

Clause 18

Delete the words "or if no time be fixed, within a reasonable time" in lines two and three.

Delete the words "and the Purchaser shall have suffered any loss from such failure" in lines three and four.

Interim and
Final
Certificates

Clause 20

Delete the words "14 days' notice" in Subclause (iii) and substitute the words "30 days' notice".

Delete the words "14 days" in Subcluse (vii) and substitute the words "30 days".

Provisional
Sum

Clause 21

Delete the entire Clause 21.

Terms of
Payment

Clause 23

Delete the entire Subclause (i):

Re-number Subclauses (ii) and (iii) as Subclauses (i) and (ii) respectively.

Delete the words "of Subclause (ii)" in paragraph (a) of the re-numbered Subclause (i).

Statutory and
other
Regulations

Clause 24

Delete the words "the United Kingdom or elsewhere" and substitute the word "Malaysia".

Arbitration

Clause 25

In Subclause (i), substitute full stop for comma after the word "upon" in line four, and substitute for the words "or failing such agreement, to some person appointed on the application of either of the parties to the Contract by the President for the time being of the Institution named in the Appendix," the words "The Agreement shall be deemed to be a submission to arbitration within the written law relating to arbitration for the time being in force in the State of Sarawak;"

Construction
of Contract

Clause 26

Delete the entire Clause and substitute the following:-

The Contract shall be governed by and construed according to the laws for the time being in force in Sarawak.

Variation in
Costs

Supplementary Clause

Delete the entire Supplementary Clause.

APPENDIX

Clause 18. (Delay in Completion)

Five percent of tender prices of respective items in Appendix 'A' to the Tender per week or part thereof.

SPECIFICATIONS

GENERAL

1. Purpose of Specification

This Specification is intended to ensure that the Purchaser, the Kuching Port Authority, is supplied with the latest type and design of cargo handling equipment.

2. Material

All materials and parts comprising the units of equipment shall be new and unused, of current manufactures, and free from all defects and imperfections affecting quality standard and performance.

3. Workmanship

Workmanship shall be of the highest standard in conformity with modern practice.

4. Guarantee Period

The guarantee period for the cargo handling equipment shall be 18 months from the date of delivery at Kuching. During this period the contractor shall be responsible for, and shall make good promptly, any damage and/or breakdown caused by any fault in the design and/or construction in accordance with the Contract.

5. Painting

Colours and markings shall be designated by the Purchaser.

6. Tools

The equipment to be purchased under the Contract shall be supplied with standard tools as recommended by the Contractor.

7. Spare Parts

The Contractor shall undertake to guarantee adequate stock of spares.

8. Literature

For each unit of equipment four complete sets of instruction and technical manuals including parts catalogues and price list shall be supplied. All these copies shall be prepared in the English language.

9. Condition of Delivery Site

The cargo handling equipment mentioned in this Specification will be used in Kuching, Sarawak, Malaysia.

At Kuching, the highest temperature is approximately 93°F., the lowest approximately 77°F. humidity from 60 to 98%, and annual rainfall approximately 157 inches. All the cargo handling equipment shall be of tropical specification.

SPECIFICATION: A

DESCRIPTION: Forklift Truck, diesel driven, 6,000 lbs. at 24 inches load centre.

UNIT REQUIRED: Fourteen (14).

1. PERFORMANCE AND DIMENSIONAL REQUIREMENTS

(1) Maximum lift height	-	168" or more
(2) Free lift	-	15" "
(3) Length of forks	-	42" "
(4) Cross section of forks	-	5.5"x2" "
(5) Maximum fork spacing (centre to centre)	-	35" "
(6) Forward tilt	-	3° "
(7) Backward tilt	-	10° "
(8) Lifting speed (loaded)	-	45 F.P.M. "
(9) Maximum travelling speed	-	11 M.P.H. "
(10) Turning radius (outer)	-	103" or less
(11) Gradability (Gradient) (loaded)	-	20% or more
(12) Drawbar pull (unloaded)	-	2300 lbs "
(13) Wheelbase	-	70" or less
(14) Track (front)	-	46" "
(15) Track (rear)	-	45" "
(16) Road clearance	-	9" "
(17) Overall height	-	116" "

2. ENGINE

- (1) Diesel engine, 4-cylinder, water-cooled.
- (2) B.H.P. -- 50 H.P. or more.
- (3) Electric starting - Switch/push button starter.

3. POWER TRANSMISSION SYSTEM

Transmission shall be of a fully automatic torque convertor. An "inching" control shall be fitted.

4. WHEELS

They shall be provided with heavy pneumatic tyres.

5. BRAKE SYSTEM

Hydraulically operated, self adjusting brakes shall be provided: in addition, a hand operated parking brake shall be fitted.

6. DRIVER'S SEAT

An upholstered seat shall be provided for the driver. The seat shall be adjustable.

A roof to protect the driver from the rain or direct rays of the sun shall be provided.

7. CONTROL DEVICE

The main control lever shall be mounted on the side of the steering column, and the hoist and tilt levers adjacent to the driver's seat.

8. ELECTRICAL EQUIPMENT

Electrical system shall be on 12V. D.C. or 24V. D.C.

SPECIFICATION: B

DESCRIPTION: Forklift Truck, Diesel driven, 6 tons at 24 inches load centre.

UNIT REQUIRED: Two (2)

1. PERFORMANCE AND DIMENSIONAL REQUIREMENTS

(1) Maximum lift height	-	168" or more
(2) Free lift	-	12" "
(3) Length of forks	-	48" "
(4) Cross section of forks	-	6.3"x2.8" "
(5) Maximum fork spacing (centre to centre)	-	56" "
(6) Forward tilt	-	30° "
(7) Backward tilt	-	10° "
(8) Lifting speed (loaded)	-	30 F.P.M. "
(9) Maximum travelling speed	-	13 M.P.H. "
(10) Turning radius (outer)	-	146" or less
(11) Gradability (Gradient) (loaded)	-	20% or more
(12) Drawbar pull (unloaded)	-	5800 lbs "
(13) Wheelbase	-	90" or less
(14) Track (front)	-	62" "
(15) Track (rear)	-	60" "
(16) Road clearance	-	10" "
(17) Overall height	-	135" "

2. ENGINE

- (1) Diesel engine, 4-cylinder, water-cooling.
- (2) B.H.P. - 58 H.P. or more.
- (3) Electric starting - Switch/push button starter.

3. POWER TRANSMISSION SYSTEM

Transmission shall be by a torque converter.

4. WHEELS

Pneumatic tyres shall be fitted.

5. BRAKE SYSTEM

Hydraulically operated, self-adjusting brakes shall be provided; in addition, a hand operated parking brake shall be fitted.

6. DRIVER'S SEAT

An upholstered seat shall be provided for the driver. The seat shall be adjustable. A roof to protect the driver from the rain or direct rays of the sun shall be provided.

7. CONTROL DEVICE

The main control lever shall be mounted on the side of the steering column and the hoist and tilt levers, adjacent to the driver's seat.

8. ELECTRICAL EQUIPMENT

Electrical system shall be on 12V. D.C. or 24V. D.C.

SPECIFICATION: C

DESCRIPTION: Towing Tractor, Diesel driven, 3,750 lbs. drawbar pull.

UNIT REQUIRED: Eight (8)

1. PERFORMANCE AND DIMENSIONAL REQUIREMENTS

- | | | | |
|--|---|-----------|---------|
| (1) Maximum drawbar pull | - | 3750 lbs. | or more |
| (2) Travelling speed | - | 15 M.P.H. | " |
| (3) Turning radius (outer) | - | 132" | or less |
| (4) Gradability (Gradient)
(loaded) | - | 20° | or more |
| (5) Wheelbase | - | 64" | or less |
| (6) Track (front) | - | 45" | " |
| (7) Track (rear) | - | 43" | " |
| (8) Road clearance | - | 8" | " |
| (9) Overall height | - | 62" | " |
| (10) Ground clearance of couplers | - | 18" & 24" | |

2. ENGINE

- (1) Diesel engine, 4-cylinder, water-cooled.
- (2) B.H.P. - 39 H.P. or more.
- (3) Electrical starting - Switch/push button starter.

3. POWER TRANSMISSION SYSTEM

Transmission system shall be of hydraulic coupling and dry single plate clutch.

4. WHEELS

Pneumatic tyres shall be fitted.

5. BRAKE SYSTEM

Foot-brake shall be hydraulic operated independently and hand operated parking brake compensated on rear wheels.

6. DRIVER'S SEAT

An upholstered seat shall be provided for the driver. The seat shall be adjustable.

A roof to protect the driver from the rain or direct rays of the sun shall be provided.

7. CONTROL DEVICE

Control lever shall be mounted by the side of the steering column.

8. ELECTRICAL EQUIPMENT

- (1) Electrical system shall be on 12V. D.C. or 24V. D.C.
- (2) Battery shall be of heavy duty capacity.

SPECIFICATION: D.

DESCRIPTION: Towing tractor, diesel driven, 7,700 lbs. drawbar pull.

UNIT REQUIRED: Four (4)

1. PERFORMANCE AND DIMENSIONAL REQUIREMENTS

- | | | |
|---|---|-------------------|
| (1) Maximum drawbar pull | - | 7700 lbs. or more |
| (2) Travelling speed | - | 15 M.P.H. " |
| (3) Turning radius (outer) | - | 189" or less |
| (4) Gradability (Gradient)
(forward 1st) | - | 20° or more |
| (5) Wheelbase | - | 68" or less |
| (6) Track (front) | - | 56" " |
| (7) Track (rear) | - | 60" " |
| (8) Road clearance | - | 8" " |
| (9) Overall height | - | 68" " |
| (10) Ground clearance of couplers | - | 18" & 24" |

2. ENGINE

- (1) Diesel engine, water-cooled.
- (2) B.H.P. - 60 H.P. or more.
- (3) Electrical starting. Switch/push button starter.

3. POWER TRANSMISSION SYSTEM

Transmission system shall be of hydraulic coupling and dry single plate type clutch.

4. WHEELS

Pneumatic tyres shall be fitted.

5. BRAKE SYSTEM

Foot-brake shall be hydraulic operated independently and hand operated parking brake compensated on rear wheels.

One tractor to be fitted with vacuum brake for towing a 30 ton trailer fitted with vacuum brake.

6. DRIVER'S SEAT

An upholstered seat shall be provided for the driver. The seat shall be adjustable.

A roof to protect the driver from the rain or direct rays of the sun shall be provided.

7. CONTROL DEVICE

Control lever of floor shift type shall be located by the side of the steering column.

8. ELECTRICAL EQUIPMENT

- (1) Electrical system shall be on 12V D.C. or 24V D.C.
- (2) Battery shall be of heavy duty capacity.

SPECIFICATION: E (TRAILERS)

I. SPECIFICATIONS

- 1) Loading capacity: 3.0 tons
 - (a) Dimensions: L120" x W48" or more x H24" or less
 - (b) Tyre to be used: 4 each. Pneumatic tyre
 - (c) Turning mechanism: Turntable on front wheel
 - (d) Units required: Thirty-six (36)

- 2) Loading capacity: 6.0 tons
 - (a) Dimensions: L adjustable to 40' x W7' x H33" or more
 - (b) Tyre to be used: 4 each. Pneumatic tyre
 - (c) Turning mechanism: Turntable on front wheel
 - (d) Units required: Six (6)

- 3) Loading capacity: 6.0 tons
 - (a) Dimensions: L14' x W6' or more x H24" or less
 - (b) Tyre to be used: 4 each. Double cushion tyre
 - (c) Turning mechanism: Turntable on front wheel
 - (d) Units required: Four (4)

- 4) Loading capacity: 15.0 tons
 - (a) Dimensions: L18' x W8' or more x H24" or less
 - (b) Tyre to be used: 6 each. Double cushion tyre
 - (c) Turning mechanism: Turntable on front wheel
 - (d) Units required: Two (2)

- 5) Loading capacity: 30.0 tons (Low loader)
 - (a) Dimensions of deck: L20' x W8' or more x H30" or less
 - (b) Tyre to be used: As recommended by manufacturers
 - (c) Turning mechanism: Turntable on front wheel, with rolling device
 - (d) Brake: Vacuum brake fitted
 - (e) Units required: One (1)

2. GENERAL SPECIFICATION

1) Design:

The trailers shall be designed for carrying cargo within the port complex being coupled to towing tractors, and all the principal frame members shall be composed of steel.

2) Steering Mechanism:

Turntable assemblies with completely sealed taper roller bearings having adequate bearing loads shall be built in the front wheels, by which perfect trucking shall be made possible. The turntables with the completely sealed taper roller bearings shall be designed to be failure proof when loaded with cargo. All the movable parts shall be sealed in housings stuffed with grease, and the housings shall have inlets for refilling grease. For 3.0-ton and 6.0 ton trailers, steel ball bearings shall be used instead of taper roller bearings.

3) Frame Structures

The main frames shall be composed of steel channels. In order to strengthen the main frames, all the contact points of the main frames shall be welded with steel holders. No such holders are necessary for 3.0-ton and 6.0-ton trailers. The floors shall be covered with checker steel plates.

4. Lubrication

All the movable parts such as turntables, hubs, pins, and revolving arm pins shall be provided with proper inlets to facilitate lubrication.

5. Drawbar

In order to minimise shocks by traction, load coil springs shall be equipped inside of couplers. However, this is not necessary for 3.0-ton trailers.

6. Rear couplers

At the rear of every trailer, one unit of rigid steel coupler shall be equipped to enable the coupling and traction of the trailer.

7. Cushin tyre

The make shall be of puncture-free type and of such structure as not to be affected by prolonged bearing of designed load and by high temperature.

SPECIFICATION: F

DESCRIPTION: Truck Crane, lifting capacity - 30 tons.

UNIT REQUIRED: One (1)

1. GENERAL

- (1) The mobile crane shall be mounted on truck carrier with four axles, driven with two diesel engines for traction and crane work respectively.
- (2) The lifting capacity shall be 30 tons or more in overside and overback at 12 feet or more working radius with main boom length of 30 feet or more based on 78% or less of tipping load.
- (3) Swing of turntable must be capable of 360 degree turning in either direction.
- (4) Working weight of complete machine with main boom shall be 66,000 lbs. or more.
- (5) Outriggers shall be hydraulically controlled from carrier cab by remote control system.
- (6) When travelling on the road, the floats of outriggers shall be capable of being retracted or folded back into the carbody.
- (7) The four outriggers shall be capable of being set up independently either individually, in pairs, or in fours simultaneously. They shall be capable without difficulty of being set up on uneven ground as well.
- (8) The main boom shall be built with high tension steel pipes or steel angles.
- (9) The joints of the main boom shall be pin-connected.

(10) The upper machine shall be connected with the carrier by the swing circle ball-bearings.

(11) The raising and lowering of the high gantry shall be by remote control from the operator's cab.

(12) Three speeds for working crane, and four speeds forward and one speed reverse for travelling shall be equipped.

II. LIFTING CAPACITY

The lifting capacity with outriggers in over-side and over-back shall be not less than the following figures:

<u>Working Radius - ft.</u> <u>(Based on 78% or less</u> <u>tipping load)</u>	<u>Lifting Load - lbs.</u> <u>(with main boom of</u> <u>30 ft. or more)</u>
12	66,000 (30 tons)
15	53,000 (24 tons)
20	39,500 (18 tons)
25	29,500 (13.5 tons)
30	22,500 (10 tons)

III. SPEED

(1) The speed of hoisting rope shall be between 80 ft./min. (minimum) and 270 ft./min. (maximum).

(2) The swing speed shall be not less than 4.5 R.P.M.

(3) The maximum travelling speed shall be 25 M.P.H. or more.

IV. UPPER MACHINE

(1) Power Unit

- (a) Shall be water cooled non supercharged heavy duty diesel engine.
- (b) Engine shall be started directly by a 24V. electric starter.
- (c) Engine accessories shall include:
 - Air cleaner.
 - Fuel and oil filter.
 - Fuel gauge.
 - Temperature gauge.
 - Oil pressure gauge.
 - Starter and ignition switch.
 - Ammeter.
 - Voltage regulator.
 - Foot pedal and hand control combined throttle.

(2) Swing Device

As recommended by the Contractor.

(3) Boom Hoist Assembly

- (a) Clutch shall be equipped with internal expanding shoe or band with power reducing mechanism, and automatic brake provided for raising and lowering boom.
- (b) The boom hoist rope speed shall be 30 ft./min. (minimum) to 100 ft./min. (maximum).

(4) Main Operation Drum

Main operation drums shall be two in number.

(5) Safety Devices

The following devices shall be provided:

- Over-hoist alarm, boom back stopper,
- boom angle indicator and automatic
- boom hoist limiting device.

(6) Operator's cab

There shall be a tropicalised cab for operator and machinery, and a fan shall be provided.

V. TRUCK CARRIER (LOWER MACHINE)

(1) Shall be 8 x 4 wheel drive with a wheelbase of 15 feet or more.

(2) Power Unit

(a) Shall be water-cooled non supercharged heavy duty diesel engine.

(b) Engine shall be started directly by a 24V. electric starter.

(c) Engine accessories shall include:

- Air cleaner.
- Oil filter.
- Starter and ignition switch.
- Dynamo.
- Voltage regulator.
- Muffler.
- Fan.
- Air compressor.

(3) Transmission

Shall be not less than 4 speeds forward and 1 speed reverse.

(4) Main clutch

Shall be dry single disc type.

(5) Brake

(a) Service brake shall be air assist hydraulic type with booster or air control type.

(b) Parking brake shall be mechanical type.

(6) Steering Device

Shall be hydraulic power steering.

(7) Minimum Turning Radius (outer)

Shall be 40 feet or less.

(8) Cab

All thin or shape steel assembled with bolt, with safety glass throughout and a fan to be provided.

VI. PRINCIPAL DIMENSIONS

- (1) The overall length of the machine in travel position shall be 50 feet or less.
- (2) The width of the carrier in travel position shall be 9 feet 3 inches or less.

VII. LIFTING EQUIPMENT

- (1) The crane shall be supplied with all necessary equipment for lifting operation through its whole working radius and boom length of 40 feet or more.
- (2) Main boom consisting of 2 pieces to be 30 feet or more.
- (3) One piece of hook block not less than 30 tons of lifting capacity shall be equipped.
- (4) Counterweight, two expansion booms with length of 10 feet each and a 10 ft. fly jib shall be provided.

SARAWAK, MALAYSIA
KUCHING PORT AUTHORITY
KUCHING PORT EXPANSION PROJECT

List of Abbreviation used in this Document

A.H.	-	Ampere hour(s)
B.H.P.	-	Brake Horsepower
c.c.	-	cubic centimeter(s)
C.I.F.	-	Cost, Insurance and Freight
dia.	-	diameter
circ.	-	circum
D.C.	-	direct current
etc.	-	et cetera
F	-	Fahrenheit
F.O.B.	-	Free on board
F.P.M.	-	feet per minute
ft.	-	foot(feet)
H.	-	height
H.P.	-	horsepower
I.D.	-	inside diameter
Imp.	-	imperial
in(s).	-	inch(es)
KPA	-	Kuching Port Authority
L.	-	length
lbs.	-	pound(s)
L/C	-	letter of credit
Max(max).	-	maximum
M\$.	-	Malaysian Dollars
Min(min).	-	minute
m.p.g.	-	miles per gallon
MPH(M.P.H. or m.p.h.)	-	mile per hour
No(s).	-	Number(s)
PR	-	Pneumatic Rubber
R.P.M.(r.p.m.)	-	rotation per minute
V	-	voltage

w. - width
o - degree
% - per cent

