

TECHNICAL SPECIFICATION OF TOWING TRACTOR (CAPACITY: 40 TON)

1. **Name of the Equipment.** Towing Tractor.
2. **Purpose.** The towing tractor will be used for towing BN aircraft (Domier 228 NG, AW 109E and AW 109SP Helicopter).
3. **Quantity.** 01 (One).
4. **Capacity.** 40 Ton.
5. **Manufacturer, Principal Supplier & Local Supplier.** Names and full address are to be mentioned in the following table.

Ser	Description	Remarks
a.	Brand/Manufacturer	To be mentioned
b.	Principal Supplier	To be mentioned
c.	Local Supplier	To be mentioned

6. **Year of the Manufacture.** 2026.
7. **Country of Origin (Including all components).** USA, UK, Switzerland, Norway, EU Countries and Japan.
8. **Manufacturing Country (Including all components).** Same as the Country of Origin.
9. **Certificate/Document of Authentication.** Following certificate(s)/ document(s) must be provided with the offer/quotation:

- a. One certificate/document by the manufacturer in favour of the Local agent (in case of manufacturer is the principal Supplier).
- b. Two certificates/documents, one by the manufacturer to Principal Supplier and another by the Principal Supplier to Local agent (in case of Principal Supplier is not the manufacturer/distributor).
- c. Three certificates/documents, first one by the manufacturer to authorized distributor/agent, second one by authorized distributor/agent to Principal Supplier and third one by Principal Supplier to Local agent (in case of principal supplier supplies the item from manufacturer's authorized distributor/agent).

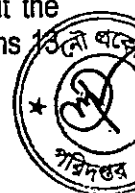
10. **Standard.** The Towing Tractor is to be designed and constructed according to international standards. The standard to which the quoted Towing Tractor complies is to be specified in detail (ISO/CE or any other equivalent global standard).

11. **Ambient Operating Conditions.**

a.	Air temperature	+05°C to +45°C
b.	Relative humidity	Up to 95% (non-condensing)
c.	Location	Close to the sea

12. **Scope of Supply.** The scope of supply is to include the followings:

- a. 01 x Towing Tractor with all items/accessories necessary for immediate operation without the requirement of any other items (attachments, features, spare parts, consumables) (as per paragraphs 13 to 15).



- b. Spare parts (as per paragraph 16).
- c. Tools (as per paragraph 17).
- d. Optional items (as per paragraph 18).
- e. Test, trial and Acceptance (as per paragraph 19).
- f. Training (as per paragraph 20).
- g. Documents (User Manual, Parts Identification List, Maintenance Manual, Spare Parts Catalogue, Drawings in English etc. as applicable) and certificates (as per paragraphs 22 and 23).
- h. Warranty and guarantee (as per paragraphs 24 and 25).

13. Technical Specification.

a.	Type	Diesel Driven Towing Tractor
b.	Model	To be mentioned
c.	Maker/ Brand	To be mentioned
d.	Capacity to pull	Minimum 40 ton (dry concrete road)
e.	Capacity to push	Minimum 14 ton (in dry concrete road)
f.	Operator type	Driver and one passenger seat
g.	Operator's Room	The room is to be designed to ensure operator's comfort and high productivity throughout long hours of operation. Operator compartment is to be provided with visibility forward, backward and overhead and rear windscreen. Cab is to be closed type with two doors.
h.	Drawbar pull	2500-2700 daN (min)
j.	Type of aircraft to be towed	AW 109E, AW109SP Helicopter and Dornier 228 NG, Maritime Patrol Aircraft
k.	Steering system	Hydraulic power steering
l.	Clutch	Safe operation will be achieved with automatic transmission and it will be equipped with torque converter for smooth clutching
m.	Type of drive	Left hand drive (LHD)
n.	Grade ability	Suitable Grade ability for driving on the slopes
p.	Travel Speed.	
	(1) With load	5-15 km/hr, depends on load and road condition
	(2) Without load	Not less than 25 km/hr
q.	Tires.	
	(1) Type	Pneumatic
	(2) Number (front and rear)	02 front and 02 rear.
	(3) Size (front and rear)	LT 185R14 and charge from comparison
r.	Engine.	
	(1) Type	Diesel engine 4 cylinder in line, water cooled turbo charged
	(2) Model	To be mentioned
	(3) Maker/ Brand	To be mentioned
	(4) Country of origin and manufacture	To be mentioned
	(5) Maximum power	40-50 kW/2500-2800 rpm



	(6) Continuous power	Variable with speed
	(7) Fuel	Diesel
	(8) Fuel tank capacity	70-100 ltrs
	(9) Cooling system	Water cooled
	(10) Displacement (cc)	2000~4000 cc
	(11) Lub oil	Commercial and equivalent grade (if any) should be easily available in local market of Bangladesh. Grade to be mentioned (Existing grade EMA DHD-1 multi grade and APICH-4 multi grade).
	(12) Starting system	Engine is to be started by battery. The engine is to be fitted with self-starter and dynamo for battery charging. Required number of batteries with appropriate capacity (Volt and Ah) is to be provided.
s.	Transmission. Automatic power shift with torque converter and oil cooler.	
	(1) Type / Model	To be mentioned.
	(2) Type of gear shifting	Automatic transmission with shifter.
	(3) Number of gears fwd/rev	2~3 Forward and Reverse 1. To be mentioned.
t.	Brake System.	
	(1) Main brake	Dual circuit, front and rear dry discs brake on all wheels. Dual callipers on each rear wheel
	(2) Parking brake	Mechanically actuated
u.	Chassis.	
	(1) Height	1496 mm maximum without cab and 2050 mm maximum with cab
	(2) Construction/ Material	Arc-welded steel plate with rear heavy cast iron body
v.	Instrument panel	
	(1) Gauges	Fuel level, LO level, engine coolant temperature, hour meter etc.
	(2) Indicators	Parking brake, low brake fluid warning, low battery charge, pre-heat indicator, low pressure warning, high coolant temperature warning, low coolant level warning, low fuel warning, All standard vehicle controls and lightings.
w.	Painting	Towing tractor is to be signal yellow colour (RAL 1003)
x.	Electric system	12VDC, negative ground
y.	Overall Dimension	
	(1) Length	Maximum 2840 mm without hitch. To be mentioned
	(2) Width	Maximum 1440 mm. To be mentioned
	(3) Ground clearance	Maximum 130 mm. To be mentioned
	(4) Turning radius (outside)	Maximum 3450 mm. To be mentioned.
z.	Overall weight	3000-4000 kg without cab (approx.)

14. **Fittings/Attachment.** All necessary fittings/attachment including the following are to be provided with the aircraft towing tractor:

a.	All standard vehicle controls and lighting front and rear tow hitch and amber flashing beacon. Canopy light for night operation
b.	Ammeter, engine oil pressure, engine water temperature, transmission oil pressure & temperature, air pressure gauge, fuel gauge and tachohour meter
c.	Back up alarm, low air pressure and parking brake 'On' alarm
d.	Reverse buzzer for back gear



e.	Universal E-type hitch at rear and a 1-level hitch at front. Rear hitch low pin control from driver seat
f.	Rear towing arrangement and front pushing arrangement
g.	Front glass wiper, front windscreen with wiper/ washer
h.	Easy engine view/inspection arrangement and dashboard engine gauges
j.	Rear view glasses/ rear windscreen with wiper
k.	Driving horn
l.	Tow bar
m.	Battery (specification to be mentioned in the offer)
n.	Flashing strobe lights/ amber flashing beacon
p.	Fuel level gauge with warning light for indicating low level
q.	Heavy duty front steering axle
r.	Heavy duty, 1-level front tow hitch
s.	Spare wheel: 01 (one) front and 01 (one) rear spare wheel set (tire and rim)

15. **Standard Accessories and Attachment.** Standard accessories must include all items and accessories essential for operating the Towing Tractor, whether mentioned in the specification or not. The price of standard accessories is to be included in the FOB value. However, an itemised list of standard accessories is to be provided.

16. **Spare Parts.** A recommended list of spare parts required for the Towing Tractor for 05 years running is to be provided with the quotation indicating itemised price. BN shall have option to choose from the list of spares partially or completely. However, these prices will not be included for financial evaluation of offer. The spares must include but limited to following:

Ser	Description	Qty
a.	Rear brake hose	06
b.	Strainer of hydraulic oil	02
c.	Switch of light and turning lamp	12
d.	Switch of brake lamp	12
e.	Air filter cartridge	02
f.	Front pin of front leaf- spring	02
g.	Front brake hose	06
h.	Switch, indicator, beacon	02
j.	Inner oil seal	12
k.	Oil seal	02
l.	Oil filter QSF 2.8	04
m.	Relay power 12V	02
n.	Breaker, Blade, 10A	02
p.	Breaker, Blade, 15A	02
q.	Breaker, Blade, 20A	02
r.	Bulb, 12V indicator	12
s.	Indicator< amber, 187lm	02
t.	60 A flat fuse	24
u.	Fuel filter engine	04

17. **Tools.** 1 (one) set of standard tools for maintenance of the Towing Tractor is to be provided. The price of standard accessories is to be included in the FOB value. However, an itemised price list of standard tools is to be provided with the offer for reference value only.

18. **Optional Items.** A list of optional items (if any) for the Towing Tractor is to be mentioned, indicating the itemised price. Only the prices of selected items by BN will be added to the total price while evaluating the comparative prices of the suppliers.



19. **Test, trial and Acceptance.** Test and trial for the Towing Tractor will be carried out by the buyer in presence of the supplier's representative. After satisfactory test and trial, an acceptance certificate will be signed jointly by the supplier's representative and the representative of buyer.
20. **Training.** A 05 (Five) days on-site training plan has to be offered for 04 (Four) operators covering component level repair and maintenance training of the Towing Tractor. The cost of airfare, accommodation, food and other expenses for the training engineer/ engineers are to be borne by the manufacturer/ supplier.
21. **Safety Rules/ Features.** The safety rules to which the Towing Tractor conform are to be clearly specified. The towing tractor should have but not limited to the followings safety/ features:
- Transmission forward/ reverse gear shift safety interlock.
 - Automatic transmission is to be featured to provide safe operation.
 - Engine low oil pressure and high coolant temperature safety shutdown.
 - Engine coolant low level warning.
 - E-type rear tow hitch with hitch release mechanism from driver seat.
22. **Documents.** 02 (two) sets of following documents (in English) are to be supplied with the towing tractor (free of cost):
- Instruction Manual.** It should contain the following:
 - Detailed particulars and specifications of the Towing Tractor and its components -
 - Operation and safety instruction.
 - Maintenance instructions including maintenance schedule for the tow tractor and its accessories
 - Workshop level repair manual
 - Parts catalogue and parts identification list with internationally recognized Part No
 - Quality Assurance Certificate
 - Guarantee Certificate for supply of spare parts
 - Declaration of Warranty certificate
23. **Quality Assurance Certificate.** Quality assurance certificate in respect of the associated equipment in regards to its manufacturing and performance is to be provided at the time of delivery of the items.
24. **Warranty.** The principal/manufacture will give a warranty for trouble-free operation for at least one year from the date of acceptance by the buyer. During the warranty period, if the Towing Tractor remains non-operational due to any action pending by the supplier, the warranty will be extended for the same period. The warranty covers all parts and labour (including the cost of the service engineer) throughout the warranty period.
25. **Guarantee.** The manufacturer will guarantee to supply the spare parts for at least 5 (five) years at a reasonable price. The annual increase in the price of spares should not be more than 5% of the price list provided with the quotation.
26. **Shipment.** The following information is to be provided (if applicable):
- The supplier will arrange shipment of all items by any sea/ airport in Bangladesh.
 - All items are to be delivered in sea/air-worthy packaging to ensure safe transportation by sea/ air.
 - All packages are to have packing notes showing their contents in detail and all packages shall be marked with the name and address of the consignee and gross weight.



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d. The supplier will arrange transportation of all supplied items from sea/ airport to the NSD Chattogram.

e. **Port of Shipment.** Any port of manufacturing country.

27. **Delivery.**

a. The items are to be delivered within **09 (Nine)** months from the date of signing the contract to the following consignee:

The Commanding Officer, Naval Stores Depot Chattogram, New Mooring Chattogram, Bangladesh

b. **Place of Delivery.** NSD Chattogram. On completion of CINS inspection, Supplier will arrange transportation of item to COMNAV, Ctg at his own cost and risk.

28. **Validity of Offer.** The offer should remain valid till **30 June 2027** from the date of tender opening.

29. **Currency.** Foreign Currency.

30. **Terms of Payment.** L/C for the full purchase amount will be opened in favour of the principal supplier under the following payment terms:

a. 80% of the total LC value will be paid on delivery of the items described under the scope of supply and on production of necessary shipping documents.

b. The remaining 20% of the LC value will be paid upon producing an 'Acceptance Certificate' after satisfactory test and trial jointly carried out by the buyer's and supplier's representatives.

31. **Condition for Acceptance of Quotation.** Quotation has to have supporting documents (booklets, leaflet, catalogue, brochure etc) having detailed particulars of the offered towing tractor. If detailed information regarding specifications, maker's books and catalogue about the same model of the towing tractor quoted, spare parts, accessories, scope of supply, etc are not provided, the quotation will not be accepted.

32. **Compliance.** A compliance statement fulfilling all the requirement of the tender is to be submitted for evaluation of the quotations. Stating mere 'Yes' or 'No' will not suffice and detailed description/ information as required is to be given. An incomplete compliance statement may attribute to cancellation of the offer. If any clause of this specification does not commensurate with offered towing tractor, the deviation has to be spelt out clearly.