

المواصفات الفنية الخاصة بالمنافسة العامة

رقم (2016/02) الخاصة بشراء وتوريد

عدد (8) معدات شق وحفر وتسوية

المؤسسة العامة للاتصالات السلكية واللاسلكية

الإدارة العامة للمشتريات والمخازن

إدارة المشتريات - قسم العقود والمناقصات

Republic of Yemen

Ministry of Telecommunications & Information Technology

Public Telecommunication Corporation

Technical Specifications for

HEAVY MACHINERY

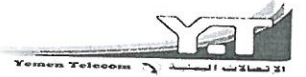
(Excavators, Loaders, Built-on Excavator on Truck – Backhoe Loader)

Date of issue: 2016

HEAVY MACHINERY (Excavators, Loaders, Built-on Excavator on Truck – Backhoe Loader)



P.T.C TECHNICAL SPECIFICATION



Crawler Excavator with Breaker Set, Heavy Duty

Name of Manufacturer		
Model		specify by tenderer
Country of origin		
Year of Manufacture		2016- 2017
Engine Power		150 - 160 hp
Engine type		6-Cylinders in line, Water cooled, 4 cycle Diesel, direct injection
Electrical system		24V
Operating Weight		21 ton ~23 ton
Air filter element		dry type with dual element
Fuel tank capacity		300 litre minimum
Hydraulic system	Type	Two variable displacement piston pumps
	Max. flow	200 - 300 L / min.
Relief valve setting		> 300 kgf/cm ²
Hydraulic tank capacity		160-200 LITER
Steering control		fully hydrostatic type
The Cab (Full options)		All-weather steel cab with all-around visibility
		Safety glass windows
		Rise-up type windshield wiper
		Sliding side window
		Lockable door
		Drink holder with hot & cool
		AM/FM radio and cassette with 2 speakers
		Accessory box & Ashtray
		Auto control air conditioner
		Evacuation hammer
		Cabin Lights
		Sun visor for cabin inside
		Tow outside rearview mirrors
		Inside mirror
Working lights		etc.
		1 on boom
		1 on RH
		2 ~ 3 on cab
Digging depth		1 on counterweight
Heavy Duty Bucket	width	60 ~ 70 cm
	capacity	0.4 m ³
Heavy duty hydraulic breaker		According to attached specification
Warranty		24 ~36 months / 2500 working hrs.
Excavator dimensions		To be given by tenderer
Manuals in English / Arabic language.		a) Shop manual/CD supplied.
		b) Parts catalogue/ CD supplied.
		c) Driver's handbook, warranty and service schedule supplied.

P.T.C TECHNICAL SPECIFICATION



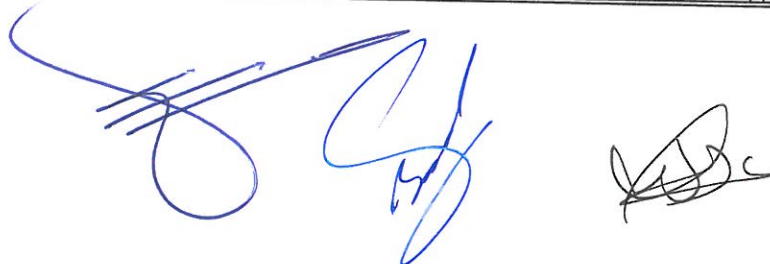
hydraulic breaker for carrier Weight (18 ~ 26) ton

		Specification
Importer Name		To be given by tenderer
Manufacturer company		To be given by tenderer
Model name		To be given by tenderer
Production year & Country of Origin		To be given by tenderer
Operating weight (Mount Cap+TOOL) , Kg.		1600 ~ 2000 Kg
Total height , mm		240cm ~250 cm
Impact Rate , bpm		400 ~ 800 bpm
Impact energy , joule		minimum , 4200 joule
operating pressure , bar		180 ~ 210 bar
Required Oil Flow Rate , L/min		130 ~ 160 L/min
Rod/Chisel	length,mm	1200 mm
	Dia.,mm	Ø 135 mm
Carrier Weight (ton)		18 ~ 26 ton

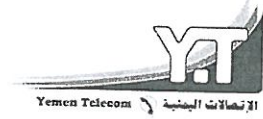
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Wheel Excavator with Breaker Set, Heavy Duty

Name of Manufacturer		
Model		specify by tenderer
Country of origin		
Year of Manufacture		2016- 2017
Engine Power		150 - 160 hp
Engine type		6-Cylinders in line, Water cooled, 4 cycle Diesel, direct injection
Electrical system		24V
Operating Weight		18 ton ~23 ton
Air filter element		dry type with dual element
Fuel tank capacity		250 - 300 litre
Hydraulic system	Type	Two variable displacement piston pumps
Max. flow		200 - 300 L / min.
Relief valve setting		> 300 kgf/cm ²
Hydraulic tank capacity		160-200 LITER
Brakes		Hydraulic
Steering control		fully hydrostatic type
Type transmission		Hydrostatic
Max. travel speed		To be given by tenderer
The Cab (Full options)		All-weather steel cab with all-around visibility
		Safety glass windows
		Rise-up type windshield wiper
		Sliding side window
		Lockable door
		Drink holder with hot & cool
		AM/FM radio and cassette with 2 speakers
		Accessory box & Ashtray
		Auto control air conditioner
		Evacuation hammer
		Cabin Lights
		Sun visor for cabin inside
		Tow outside rearview mirrors
Working lights		Inside mirror
		etc.
		1 on boom
		1 on RH
Digging depth		2 ~ 3 on cab
		1 on counterweight
Heavy Duty Bucket	width	5 ~ 7 m
	capacity	60 ~ 70 cm
Heavy duty hydraulic breaker		0.4 m ³
Tires size		According to attached specification
Front plate Dozer		1100x20 .8PR
Tow rear outriggers		By hydraulic
Travel speed		By hydraulic
Warranty		To be given by tenderer
Excavator dimensions		24 ~36 months / 2500 working hrs.
Manuals in English / Arabic language.		To be given by tenderer
		a) Shop manual/CD supplied.
		b) Parts catalogue/ CD supplied.
		c) Driver's handbook, warranty and service schedule supplied.



P.T.C TECHNICAL SPECIFICATION



hydraulic breaker for carrier Weight (18 ~ 26) ton

		Specification
Importer Name		To be given by tenderer
Manufacturer company		To be given by tenderer
Model name		To be given by tenderer
Production year & Country of Origin		To be given by tenderer
Operating weight (Mount Cap+TOOL) , Kg.		1600 ~ 2000 Kg
Total height , mm		240cm ~250 cm
Impact Rate , bpm		400 ~ 800 bpm
Impact energy , joule		minimum , 4200 joule
operating pressure , bar		180 ~ 210 bar
Required Oil Flow Rate , L/min		130 ~ 160 L/min
Rod/Chisel	length,mm	1200 mm
	Dia.,mm	Ø 135 mm
Carrier Weight (ton)		18 ~ 26 ton

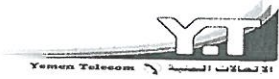
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P.T.C TECHNICAL SPECIFICATION

Built-on Excavator On Truck – Specifications



Name of Manufacturer	specify by tenderer
Model	
Country of origin	
Year of Manufacture	2016- 2017
Engine Power	200 ~ 220 hp
No. of Cylinders	6-Cylinders
Drive System	4x4
Electrical system	24V
Fuel	Dessil
Travel Speed	90 ~ 120 KPH
Fuel tank capacity	180 ~ 220 Ltr.
Brake system	Brake Air
Hydraulic system	Pump
Pump capacity	100 ~ 135L /min
Hydraulic tank capacity	100 ~ 170 LITER
Type	Double - acting piston type
Power steering	Hydraulic
Base frame:	suitable for mounting on prepared undercarriage welded construction, with longitudinal carriers and brackets for outriggers, tower welded on rear side, crossmember, and light-weight outer frame; rear panel, prepared for mounting of license plate and rear lights according to traffic regulations.
	Support plate transport tie-down holders with lock, aluminium plate, bolted to basic frame.
Equipment:	Turning frame, main boom, stick (auxiliary boom).
Slewing gear :	Powered by axial piston motor, planetary gear with hydraulically aerated brake, endless slewing gear with rotary oil connection and slip ring = 24 V.
	Slewing moment approx. 15kNm
	Slewing ring with external teeth.
Outriggers:	4-fold outrigger
	manually swivelling and extendable outriggers, fold-down outriggers operated by hydraulic cylinders with removable backing pads.
	Joystick control, mounted on vehicle side, (use and mounting location depending on type of machine), controlled from cabin and on side of machine
Hydraulic system:	
Pump:	Axial piston pump with variable displacement, load sensing, capacity approx. 120 l/min, with a pump speed of 1600 r/min, axial piston pump with fixed displacement, capacity approx. 40 l/min, with a pump speed of 1600 r/min.
Valves:	Control of outriggers by means of separate control block, control of built-on excavator via primary control block, mounted at slewing frame
Hydraulic tank:	Tank volume approx. 130 l, made from stainless steel, with high-quality return flow and aeration filter, oil level and temperature indicators, mounted on the side for optimum visibility, drainage valve with hose.

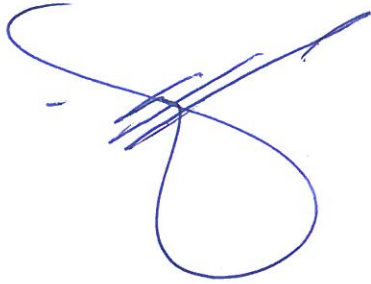
Built-on Excavator On Truck – Specifications



Control:	Joystick built into the arm rests of the comfort seat operating functions to ISO/Euro.
	Hydraulically controlled proportional pilot valve for the work attachment.
	Electrical directional valves for the outriggers.
	With control and switching elements for the following functions:
Info board:	<ul style="list-style-type: none"> • Control display – oil temperature incl. warning device. • Control display – load warning device. • Switch (on/off) for control. • Switch (on/off) for windscreen wipers. • Push-button for outside horn. • 2 push-buttons (up/down) for control of outriggers. • 2 push-buttons (on/off) for telescope of front outrigger. • 2 push-buttons (on/off) for engine start/stop. • Switch (on/off) for parking. • Switch (on/off) for work headlights.
	Sprung comfort seat, with multiple setting options.
	Control elements integrated in arm rests.
	Front window separated, with wiper for upper part.
	Upper front window part under cabin roof may be pushed up.
	Panoramic view owing to large windows.
	Roof window in front area.
	Large side door with locking device, with rear fastening.
	All glass components made from certified safety glass.
	Rear rooflight – hinged.
Accessories:	Work headlights for optimum view.
	Pluggable outrigger pads for outrigger boom (steel support).
	Ladder, extendable, in driving direction right.
	Mechanical slewing gear transport lock in cabin.
Painting:	Horn below cabin floor, with push-button in cabin.
	Basic frame & equipment: single-colour in RAL – 2011 – deep orange.
	Cabin: single-colour in RAL – 7035 – light grey.
	Hydraulic cylinders: single-colour in RAL – 9005 – black.
	Outriggers: single-colour in RAL – 9005 – black.
	Outriggers: single-colour in RAL – 9005 – black.
	Hydraulic tank: single-colour in RAL – 9005 – black.
	Pins: galvanized.

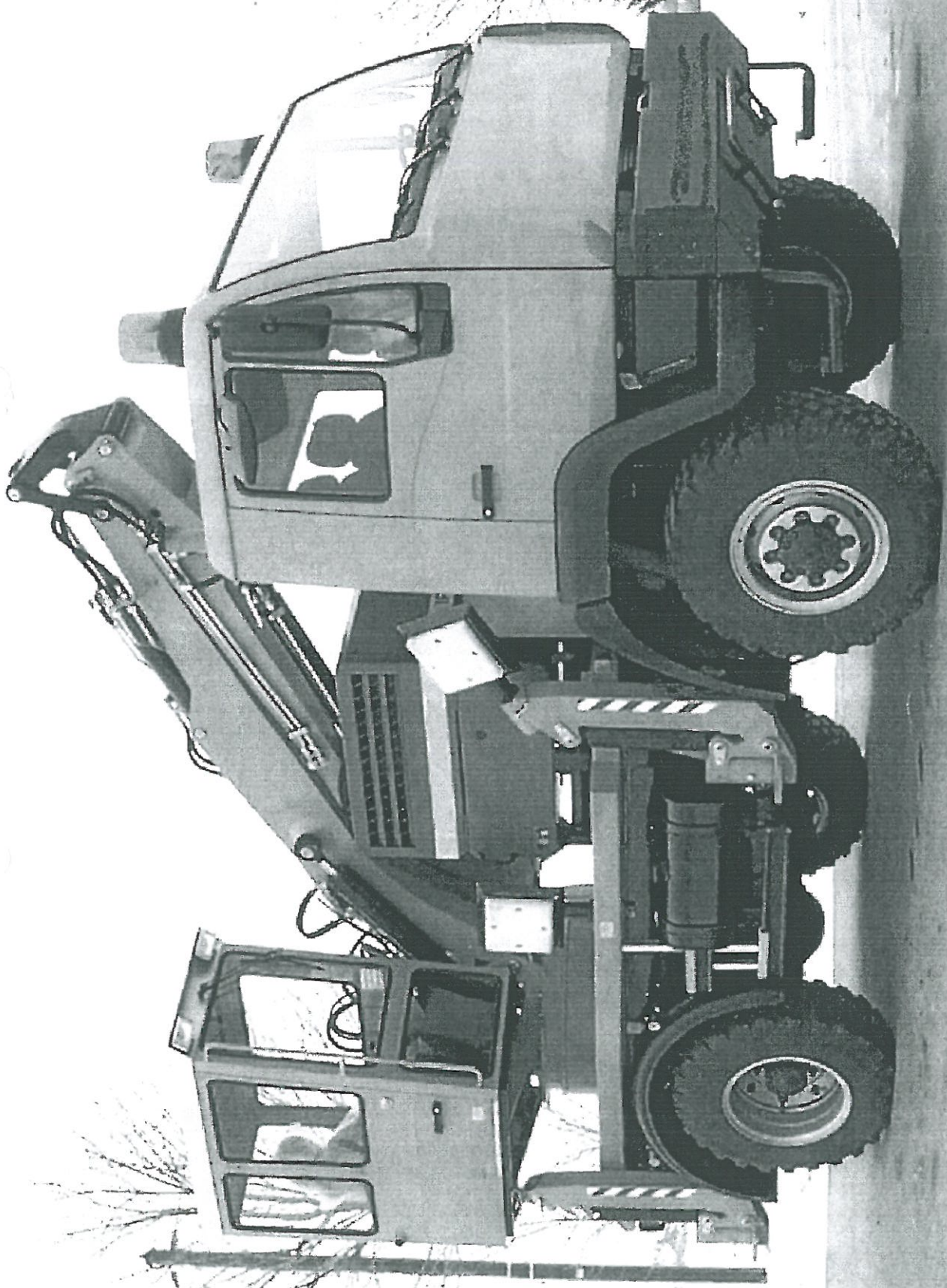
Built-on Excavator On Truck – Specifications

Built-on height:	From upper edge of vehicle framedepending on chassis. (without attachments)
Built-on width:	basic frame and outriggersapprox. 2,200 mm
Weight:	Basic frame and M215 built-on excavator approx. 3,100 kg (without optional equipment and attachments).
Reach:	Backhoe bucket approx. 6,500 mm
Digging depth:	Backhoe bucket approx. 3,800 mm
Loading height:	Backhoe bucket approx. 4,900 mm
Operating pressure	250 bar
Digging forces:	Stick crowd force to DIN 24086 approx. 1,800 daN Bucket curling force to DIN 24086 approx. 3,400 daN
Outrigger reach:	Outrigger reach front max. approx. 3,900 mm Outrigger reachrear max. approx. 3,900 mm
Driving output:	Minimum requirement approx. 45 KW
Dimensions:	To be given by tenderer
Truck	MAN or Mercedes or Volvo
	Full options





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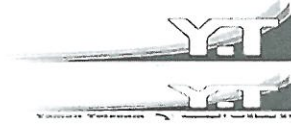
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Backhoe Loader – Specifications

Name of Manufacturer	To be specified by Tenderer
Model	
Country of origin	
Model	
Year of Manufacture	
Engine Power	80 - 110 hp
No. of Cylinders	4-Cylinders
Drive System	4x4
Electrical system	12V
Fuel	Diesel
Speed transmission	Power shift forward 35 - 45 km Reverse 40 - 50 km
Fuel tank capacity	130 - 150 Ltr.
Brake system	Hydraulic
Hydraulic pump type	Twin gear pump
Pump flow	140 - 150 L/min
Maximum pressure	20 - 220 bar
Hydraulic tank capacity	110 - 130 L
Maximum dump height at 40 degrees	2600 - 2700 mm
Backhoe swinging angle	180 degrees
Backhoe steering	Hydraulic
Maximum operating height	6600 - 6900 mm
Stabilizer leveling compensation angle	14 degrees
Payload	8000 - 8500 kg
Shop manual spare parts	To be given by tenderer
Accessories:	Bucket 60 cm




Training
التدريب



التدريب المحلي لعدد (5) مهندسين لمدة عشرة أيام فعلية على التالي:-

- تشغيل وفحص المعدات
- الصيانة الدورية للمعدات
- الصيانة الطارئة للمعدات
- إصلاح الأعطال

التدريب المحلي لعدد (8) سائقين لمدة عشرة أيام فعلية على التالي:-

- التدريب النظري على استخدام وقيادة وصيانة المعدات
- التدريب العملي على تشغيل وقيادة المعدات
- التدريب العملي على استخدام المعدة في المجال المخصص لها
- التدريب العملي والنظري على فهم وتحليل الأعطال والإنذارات للمعدة المخصصة سواء أثناء القيادة أو أثناء العمل