





PROCUREMENT LIST OF BASIC TOOLS AND EQUIPMENT FOR PTCs






PROVINCE: Savannakhet Technical and Vocational College







RELEVANT PROGRAMS/COURSES: Automotive and Industrial Mechanic Equipment




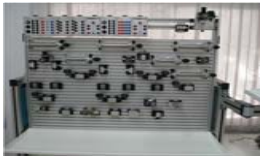

ວຽງຈັນ, ວັນທີ 05/01/2018






SUGGESTED SCHEDULE OF DELIVERY: December 2018







ITEM NO.	ITEM DESCRIPTION	TECHNICAL SPECIFICATION	SUGGESTED BRAND	ILLUSTRATION/ PICTORIAL SPECIFICATION	U/M	QTY.
A.	MECHANICAL TRADE: GENERAL MACHINING					
1	CNC Lathe Turning Machine	Approximate dimension: (L x W x H) 1850 x 1750 x 1750 mm, Power: 3.7/5.5 Kw, Approx. swing dimension: 300mm, Power: 380/440 volts 3 phase, complete with accessories, maintenance/operation manuals and Training provisions.	A Haizen, model x36-3 or any Japan or taiwan made		unit	1
2	Laptop	15.4 inch., i7, 512 GB SSD, 16GB RAM	Any brand		unit	2
3	Horizontal Milling Machine	Approximate Power: 7.5Kw., 380 volts AC/ 3 phase, Approximate table size: 320 mm x 1325 mm, complete with accessories, maintenance/operation manuals and training provisions.	Japan or Taiwan brand		unit	1
4	Slotting Machine	Power: 3 Kw., 380 volts-3phase, slotting length: 300mm, Maximum cutting Force 7500N, Table diameter approx. 630mm (rotary type), complete with accessories, maintenance/operation manual and training provisions.	Japan or Taiwan brand		unit	1







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5	Vertical Milling Machine	High Precision NC controlled, Power: 7.5 Kw, 380volts/3phase, spinddle speed 30-1500 rpm, Approximate Table dimension: 320mm x 1325, complete with accessories, maintenance /operation manual and training provisions.	Any brand		unit	1
6	Lathe turning machine	Motor Power: 1.5 kw., center height: 160mm, Max. machinable dia.: 320mm, Bench width: 181mm, Spindle speed: 65-1800 T/min., spindle bore: 40mm dia	Any brand		unit	1
7	Pipe Threading Machine	Universal quick opening die head, with 1 set 1/2 to 3/4 univeral alloy dies, 1 gal capacity threading oil/coolant.	Ridgid brand, model 1224		unit	1
8	Bending Machine	Three driving roller type, bends angle iron, flange, square tube pipe and flat steel, hydraulic operated, automatic, complete with different types of rollers, accessories, maintenance/operating manual and training provided.	Any brand		unit	1
9	Wrought Iron Embossing Machine	Max work capability: approx. 10mm x 60mm for flat bar, motor operated, motor power: 5.5Kw, voltage 380 volts/60 Hz. 3phase, complete with rollers, accessories, maintenance/operation manual and training provisions.	Any brand		unit	1








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10	Plate Bending Machine	Motorized, working Length: 2050mm, max thickness: 4mm, min. bending diameter: 230mm, width: 2800mm, motor power: 2.2Kw, 230 volts / 60Hz. Single phase, complete with accessories and operation/maintenance manual.	Any brand		unit	1
11	Sheet Metal Cutting Machine	Motor operated, Cutting thickness: 3-4mm: cutting width: 1600 mm (4ft), Motor Power: 3Kw., 230 volts AC/60Hz., complete with accessories, maintenance and operation manual.	Any brand		unit	1
12	Press brake Bending Machine	Length of working table 2000 mm, Ram Stroke 100mm, Ram adjustment: 80mm, Hydraulic drive, motorized adjusting device, complete with accessories a, maintenance/operation manual.	Any brand		unit	1
B.	MCHANICAL TRADE: Automotive Practice					
13	4 cyl. Diesel Engine Trainer/Model	Desel engine cutaway trainer, using late model 4 cylinder, commonrail fuel system, turbo charged immission system, electric motor operated for simulation	Toyota/Hyundai		unit	1
14	4 cyl. Gasoline Engine Trainer/Model)	Gasoline engine cutaway trainer, using late model 4 cylinder, EFI, electric motor operated for simulation	Toyota/Hyundai		unit	1
15	2 stroke Engine Trainer/Model	Motorcycle 2 stroke engine trainer/model, injection type fuel system, manually operation by hand rotary lever	Honda/Yamaha		unit	1







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16	Rear wheel drive trainer/simulator)	Transmission trainer/model showing internal gear parts, with stand and can be rotated to show operation. For gasoline engine from 1.5 to 1.8Liters Displacement	Toyota		unit	1
17	Front wheel drive trainer/simulator)	Live Transmission unit, for 4 cy;iner engine, 1.5 to 1.8 L displacement	Toyota		unit	2
18	Automotive rear drive trainer/model	complete with 4 cyl gasoline engine, automatic transmission, 4 wheel Differential drive, complete with wheels , cooling system and fuel injection	Toyota		unit	1
19	Basic Electro-Pneumatic trainer/simulator	Electro-Pneumatic Trainer/Simulator, complete set with aluminum profile, compressor, power supply unit, connecting electrical cables (red,blue and black), with training manual and workbook.	Festo brand		unit	1
20	Autonotive Electronic Ignition system Trainer/Simulator	Features:Demonstrates operation of 4 cylinder electronic ignition system, Use actual automotive components Inc;uding: Hall effect crankshaft osition sensor, Magnetic Generator type Crankshaft Position sensor, ignition control moduel, spark plugs, speed variable 0-2500 rpm	Toyota		unit	1







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21	Engine model/Trainer set	Autpmotive Electronic Fuel ignition trainer/model, Actual Electronic Fuel Injection complete with prime components: Test point panels for ECU inputs, Electric fuel pump with pressure gauge, variable speed drive with tachometer, different sensors and actuators, and system control devices.	Toyota Gasoliine engine		unit	1
22	Diesel Engine Commonrail trainer/Simulator	Automotive diesel engine control system training board/simulator, fully functional engine control system with diesel common rail direct injection designed to demonstrate the work of high pressure pumps and injectors, diagnostic measurements with oscilloscope and multitester and control unit diagnostics,	Toyota Diesel Engine		unit	1
23	Vehicle lighting system trainer/simulator	Feature: A unit through which students are able to learn theory and operation functions of headlight systematically and effectively. Complete set with connecting leads and manuals/workbooks.	Toyota brand		unit	1
24	Disc and drum brake lathe machine	Rotor Diameter: 7-18" (180 -457mm, Drum Diameter: 6-28 " (152-711mm), Motor power: 0.75KW, 230 volts AC/60Hz. 1Phase, complete with accessories.	Any brand		unit	1
25	Diesel Engine Compression Tester	Specifications: Pressure gauge with rubber protection Pressure gauge Diameter: 75mm Test pressure : max 21 bar / 300 psi 4 Adapters : M10x1.0mm M12x1.25mm M14x1.25mm M18X1.5mm Hose Overall length: 43 inch.	Any brand		set	2







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26	Oil Tank for refill gear of diesel engine	Transmission oil pump, manual operated	Any brand		unit	2
27	Automotive Brake bleeder machine,	Air supply: 70-110 psi (5-8 bar), complete w/ anti-kink hoses and bleeder hose connector, reservoir, capacity: 10 Liters, vacuum capacity: 500mm Hg	Any brand		unit	1
28	Nitrogen inflator	For inflating tires, nitrogen concentration; 95%, tank capacity: 47 liters, max, nitrogen pressure: 8 bar (115 psi), power supply: 230 v / 60Hz.	Any brand		unit	1
29	Valve spring compressor	width: 15 cm., Length: 28cm., steel,	Any brand		unit	4
30	Motorcycle engine (Injection) 125cc	125 cc, Auto start Auto transmission, 4-Stroke, SOHC - 2 Valve, Liquid Cooled, Combi Brake (CBS)	Honda		unit	3
31	Motorbike trainer/model	Motorcycle 4 stroke engine, with complete set of components simulation, complete with lead wires (jacks) and training manual/workbook	Preferably Honda		set	3



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32	Basic hydraulic simulator/trainer set	Hydraulic pump power: 230 v AC / 60 Hz., complete with instructor's manual, student and assessment guides.	Any brand		unit	1
33	Motorcycle engine (Injection)110 CC	100/110 cc, Engine: 4-stroke DOHC, Air cooled, combined quick start and kick start, carburetor type	Honda		unit	3
34	Kubota Engine	Diesel Fuel, 4 stroke, 1 cylinder, water cooled, hand start, 9.5 Hp	Kubota, TR 140		unit	2
35	Yanmar engine	Diesel Fuel, 4 stroke, 1 cylinder, water cooled, hand start, 8,5 HP	Yanmar 140-L TF-		unit	2
36	Hand Tractor	Engine driven, 4-speed transmission, Large cage wheel, iron wheels	Kubota		unit	3
37	Pumping Engine 8 HP	Air cooled 4-stroke OHV engine, displacement: 118 cu. M., 8 Hp, Mechanical type governor	Honda		unit	2

ITEM NO.	ITEM DESCRIPTION	TECHNICAL SPECIFICATION	SUGGESTED BRAND	ILLUSTRATION/ PICTORIAL SPECIFICATION	U/M	QTY.
38	Pumping Engine 5.5 HP	Air cooled 4-stroke OHV engine, displacement: 118 cu. M., 5.5Hp, Mechanical type governor	Honda		unit	2
39	Gasoline Engine Trainer/Simulator	Electronic Fuel Ingection, 4 cylinder, complete with accessories, and workbooks	Toyota		unit	1
40	Diesel engine trainer/simulator	Diesel engine trainer/simulator, commonrail fuel system, 4 cylinder complete wth accessories and workbook	Toyota		unit	1
41	Diesel engine trainer/simulator	Diesel engine trainer/simulator, commonrail fuel system, 4 cylinder complete wth accessories and workbook	Hyundai		unit	1
42	Gasoline Engine Trainer/Simulator	Electronic Fuel Injection, 4 cylinder, complete with accessories, and workbooks	Hyundai		unit	1
43	Farm Tractor	4 cylinder engine, 4 wheel drive, Power: 62 Hp, complete with implements and accessories.	Kubota Model: M6040		unit	1
44	LCD Projector	For conference room, 230 volts AC, resolution: 1280 x 800, connection: VGA/HDMI, zoom lens: 1.3 : 1	Sony		unit	2

ITEM NO.	ITEM DESCRIPTION	TECHNICAL SPECIFICATION	SUGGESTED BRAND	ILLUSTRATION/ PICTORIAL SPECIFICATION	U/M	QTY.
45	Paint Spraying Equipment	Air operated, Gravity feed, cup capacity: 400 cc, air inlet 1/4", nozzle: 1.2mm or 1.5mm	Any brand		unit	6
C.	Mechanical Trade: Tools					
46	Universal Motorcycle Fault Diagnostic Scanner (Motorcycle Scan Tool)	Power 8 watts, 12 volts, compatible with all asian motorcycle brands, complete with connector cables and accessories.	Any brand		set	2
47	Digital vernier caliper	Hardened steel, readings .01mm (.005"), range 0-150mm (6"),	Mitutoyo		pc.	5
48	Dial vernier caliper	.02 mm accuracy reading, 150mm long, Hardened stainless steel, dial read out, four way measurement: internal, external, depth and step,	Mitutoyo		pc	5
49	Dial vernier caliper	.02 mm accuracy reading, 300 mm long, Hardened stainless steel, dial read out, four way measurement: internal, external, depth and step,	Mitutoyo		pc	5
50	External micrometer	Dual read out, 0-25mm range, digital (metric and English), enameled frame, .001mm (.0005") accuracy, ball end cap,	Mitutoyo		pc	3

ITEM NO.	ITEM DESCRIPTION	TECHNICAL SPECIFICATION	SUGGESTED BRAND	ILLUSTRATION/ PICTORIAL SPECIFICATION	U/M	QTY.
51	External micrometer	dual read out, 25-50 mm range, analog (metric and english), enameled frame, .001mm (.0005") accuracy, ball end cap,	Mitutoyo		pc	3
52	External micrometer	Dual read out, 50-75mm range, analog (metric and English), enameled frame, .01mm accuracy, ball end cap	Mitutoyo		pc	3
53	External micrometer	Dual read out, 75-100 mm range, analog (metric and English), enameled frame, .01mm accuracy, ball end cap	Mitutoyo		pc	3
54	Vernier Height gauge	0-300mm range. .02mm graduation, with scriber and sturdy base, with fine adjustment using knob, made from hardened steel with protective wooden case	Mitutoyo		unit	2
55	Dial indicator set	Metric, .01mm accuracy, complete set with: 0-25mm dial test indicator with plunger, 0-1.5mm dial test indicator with stylus, magnetic stand, and accessories	Mitutoyo		set	2
56	Screw pitch gauge	Metric, folding leaves, individually stamped with accurately formed thread profiles, Range: 0.4 to 7mm	any brand		sset	6

ITEM NO.	ITEM DESCRIPTION	TECHNICAL SPECIFICATION	SUGGESTED BRAND	ILLUSTRATION/ PICTORIAL SPECIFICATION	U/M	QTY.
57	Precision square edge	100mm long, solid steel stock with hardened, tempered, and finely polished blades, with beveled edge, fineness accuracy: 0.016mm/0.0064".	any brand		pc	6
58	Universal bevel protractor	calibrated to 360 deg., with magnifying glass, with 300 mm plain rule and accute angle attachment,	any brand		set	3
59	Tap and die set	Carbon steel material, complete with die set and plug taps, screw pitch gauge and 1" O.D die holder and guide.	any brand		set	2
60	Pneumatic wrench	15 pc. Set, 1/2" drive , ultimate torque; 250 lb-ft. maximum, operating air pressure: 90 psi (6.2 bar), hose size: 1/4" BSP.	any brand		set	2
61	Pneumatic wrench	15 pc. Set, 3/4" drive , ultimate torque; 800 lb-ft. maximum, operating air pressure: 90 psi (6.2 bar), hose size: 1/4" BSP.	any brand		set	2
62	Bushing Installer and Removal Kit	Allows removal and iinstallation of suspension bushings, Range OD 44 mm / ID 34 mm to OD 90 mm / ID 80 mm, complete with acme thread spindles, 10 mm, 12 mm, 14 mm & 16 mm featuring ball bearing thrust washers to insure smooth operation.	any brand		sets	2

ITEM NO.	ITEM DESCRIPTION	TECHNICAL SPECIFICATION	SUGGESTED BRAND	ILLUSTRATION/ PICTORIAL SPECIFICATION	U/M	QTY.
63	Pitman Arm Puller & Ball Joint Separator, Tie Rod Front End Service Tool Kit	Front end service tools in one carrying case, designed to easily remove Pitman arms, tie rods, and ball joints, forged construction with great strength and durability, made of heat-treated alloy steel.	any brand		sets	2
64	Bearing Puller & Fly Wheel Separator Tool Kit	5 Ton Capacity, with 2 inches and 3 inches bearing separators, Drop forged and heat treated, complete with hex push-puller leg, puller cross bar with blow mold case for storage.	any brand		sets	2

END OF LIST

SSTVET Director:

Director:

International Expert:

National Expert:

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