

LIST OF TOOLS AND EQUIPMENT FOR DIESEL MECHANIC (TT-1 & TT-2)				
St.Lis t No. TT1	St.List No. TT2	Item with specification	Total quantity Req.	
		Trainees Tool kit		
1	1	Steel rule 150 mm(graduated both English and metric) as per IS 1481	42	15 cm, L.C. 0.5 mm measure english and metric
2	2	Steel rule 300 mm(graduated both English and metric) as per IS 1481	42	30 cm, L.C. 0.5 mm measure english and metric
3	3	Steel measuring tape 10 meter in a case	42	Blade width 13mm., Tape thickness 0.5mm (approx)., unbeakable tape, shows mm, cm and inches.
4	4	Engineers Try Square 150 mm with knife edge as per IS 2013	42	Try Square 10 cm Blade stock cast iron, blade stainless steel, graduations are both in metric & inch.
5	5	Outside Caliper 15 cm spring type	42	Calipers outside 15 cm spring Hardened and tempered steel, spring joint type
6	6	Inside Caliper 15 cm Spring type	42	Caliper inside 15 cm Spring Hardened and tempered steel, spring joint type
7	7	Dividers 15 cm Spring type	42	Dividers 15 cm Spring Hardened and tempered steel, spring joint type
8	8	Safety glasses	42	Safety glasses SHATTER - Resistant - Plastic lenses stronger lenses and a stronger frame with additional shields
9	9	Scriber 15 cm	42	15 cm Forged carbon steel head Hardened and Tempered body straight and knurled
10	10	Knife double Blade Electrician	42	Knife double Blade Electrician 100 mm - folding type
11	11	Wire insulation Stripper for shinning conductors from 0.4mm to 4mm	42	Wire insulation Stripper for shinning conductors from 0.4mm to 4mm IS 5087-1969 length 150 mm
12	12	Electrician testing Pencil (Line / Neon tester)	42	Electrician testing Pencil (Line / Neon tester) IS 5579 - 1985 length 170 mm

				capacity - 500 volt
13	13	Electrician Screw Driver 250mm	42	Electrician Screw Driver 250mm Insulated blade, plastic handle - transparent length - 250 mm tip dimension 5 x 0.8 mm
14	14	Centre punch 10 cm.	42	Centre punch 100 mm.
15	15	Chisel cold flat 20 mm x 150 mm	42	Chisel cold flat 20 mm x 150 mm IS 402 - 1990 (octagonal chisel) fully forged induction hardened
16	16	Hammer ball peen 0.5 kg with handle	42	Hammer ball peen 0.5 kg with handle IS 841- 1983 drop forged from carbon steel, fully hardened and tempered (hammer weight excluding handle weight)
17	17	Screw driver 20cm.X 9mm. Blade	42	Screw driver 20cm.X 9mm. Blade stainless steel transparent green handle
18	18	Screw driver 30 cm. X 9 mm. Blade	42	Screw driver 30 cm. X 9 mm. Blade H .C.S transparent green handle
19	19	Spanner D.E. set of 12 pieces (6mm to 32mm) as per IS2028	42	Spanner D.E. set of 12 pieces (6mm to 32mm) Chrome vanadium steel ribbed type
20	20	Combination Pliers 20 cm.	42	Pliers combination 20 cm. Insulated with thick CA sleeve. IS 3650-1981 chrome vanadium steel. Hardened and tempered and flat serrated jaws for tip grip
21	21	Pliers side cutting 15 cm	42	Pliers side cutting 15 cm IS 4378-1990 chrome vanadium steel hardened and tempered joins and cutter hardened for longer life induction hardened
22	22	Pliers round nose 15 cm	42	Pliers round nose 15 cm IS 13765-1993 chrome vanadium steel hardened and tempered flat serrated joins for firm grip induction hardened
23	23	Pliers flat nose 15 cm	42	Pliers flat nose 15 cm chrome vanadium steel hardened and tempered flat serrated joins for firm grip induction hardened

24	24	Hand file 20 cm. Second cut flat	42	Hand file 20 cm. Second cut flat High carbon steel with handle (wood)
25	25	Hand file 20 cm. Second cut half-round	42	Hand file 20 cm. Second cut half-round High carbon steel with handle (wood)
26	26	Hand file 20 cm. smooth triangular	42	Hand file 20 cm. smooth triangular High carbon steel with handle (wood)
27	27	Hand file 30 cm. bastard	42	Hand file 30 cm. bastard High carbon steel with handle (wood)
28	28	Hand file 30 cm. round bastard	42	Hand file 300 mm. round bastard
29	29	Ring spanner set of 12 pieces(6mm to 32mm)	42	Ring spanner set of 12 pieces(6mm to 32mm)
30	30	Feeler gauge 20 blades(metric)	42	Feeler gauge 20 blades(metric)
31	31	File card or cleaner	42	File card or cleaner wooden type standard
32	32	Wire cutter and stripper	42	Wire cutter and stripper Auto eject, upto 16 mm ²
33	33	Allen key set of 12 pieces(2mm to 14 mm)	42	Allen key set of 12 pieces(2mm to 14 mm)
34	34	Steel tool box with lock and key (folding type) 400x200x150 mm	42	Steel tool box with lock and key (folding type) 400x200x150 mm Made of GI 22 SWG and paint coated
1	1	Outside micrometer 0 to 25 mm with least count 0.010mm as per IS 2967	4	Outside micrometer 0 to 25 mm with least count 0.010mm as per IS 2967
2	2	Outside micrometer 25 to 50 mm with least count 0.010mm as per IS 2967	4	Outside micrometer 25 to 50 mm with least count 0.010mm as per IS 2967
3	3	Outside micrometer 50 to 75 mm with least count 0.010mm as per IS 2967	4	Outside micrometer 50 to 75 mm with least count 0.010mm as per IS 2967
4	4	Outside micrometer 75 to 100 mm with least count 0.010mm as per IS 2967	4	Outside micrometer 75 to 100 mm with least count 0.010mm as per IS 2967
5	5	Inside micrometer 25 -50,50-75,75-100,100-125 ,125-150mm, with least count 0.01mm	4	Inside micrometer 25 -50,50-75,75-100,100-125 ,125-150mm, with least count 0.01mm
6	6	Depth micrometer 0-25mm with least count 0.010mm	4	Depth micrometer 0-25mm with least count 0.010mm
7	7	Thread Micrometer 0-25mm with least count 0.010mm	4	Thread Micrometer 0-25mm with least count 0.010mm

8	8	Adjustable micrometer spirit level to measure flatness, indication and taper with prismatic measuring base	3	Adjustable micrometer spirit level to measure flatness, indication and taper with prismatic measuring base
9	9	Vernier caliper 200mm inside and outside (graduated in inches and millimetres)	4	Vernier caliper 200mm inside and outside (graduated in inches and millimetres)
10	10	Digital vernier calliper outside 300mm least count 0.01mm	4	Digital vernier calliper outside 300mm least count 0.01mm
11	11	Vernier depth Gauge 0-150 mm	4	Vernier depth Gauge 0-150 mm
12	12	Vernier bevel protractor least count 5 minutes as per IS4239	4	Vernier bevel protractor least count 5 minutes as per IS4239
13	13	Telescope gauge	3	Telescope gauge
14	14	Dial test indicator plunger type (complete with clamping devices and stand)	8	Dial test indicator plunger type (complete with clamping devices and stand)
15	15	Universal Surface gauge	4	Universal Surface gauge with accessories standard size.
16	16	Cylinder bore gauge capacity 20 to 160 mm	4	Cylinder bore gauge capacity 20 to 160 mm
17	17	Compression testing gauge suitable for diesel engine.	4	Compression testing gauge suitable for diesel engine. 0 to 70 kg /cmsq. 0-7000 kPa.
18	18	Vacuum gauge to read 0 to 760 mm of Hg.	4	Vacuum gauge to read 0 to 760 mm of Hg.
19		Pressure gauge	2	Dia 63 mm, 0 to 500 PSIG
21	19	Granite Marking table 1000X630X150 mm with adjustable stand as per IS7327	2	Granite plate size 1000X630X150 mm IS7327 , stand size 1050x650x760mm, stand made of MS angle Iron 50x50x10 mm fitted with top four ends adjustable nut and bolt. 12 mm thick and 50 mm long. Rectangular head.
22	20	Granite surface plate ,Grade 0,630 x 630 x 100 mm with adjustable stand as per IS7327	2	Granite surface plate ,Grade 0,630 x 630 x 100 mm with adjustable stand as per IS7327
23	21	Steel rule 15 cm inch and metric	4	Steel rule 150 mm inch and metric
24	22	Steel rule 30 cm inch and metric	4	Steel rule 300 mm inch and metric
25	23	Steel measuring tape 10 meter in a case	4	Steel measuring tape 10 meter in a case
26	24	Try Square 10 cm Blade	4	Try Square 100mm Blade
27	25	Engineer's square 15 cm. Blade	4	Engineer's square 150 mm. Blade
28	26	Calipers outside 15 cm spring	4	Calipers outside 150 mm spring
29	27	Caliper inside 15 cm Spring	4	Caliper inside 150 mm Spring
30	28	Calipers 15 cm Hermaphrodite	4	Calipers 150 mm Hermaphrodite
31	29	Dividers 15 cm Spring	4	Dividers 150 mm Spring
32	30	Scriber 15 cm	4	Scriber 150 mm
33	31	Scriber with scribing block universal	4	Scriber with scribing block universal

34	32	Punch Letter 4mm	4	Punch Letter 4mm
35	33	Chisels cross cut 200 mm X 6mm	4	Chisels cross cut 200 mm X 6mm
36	34	Chisel 10 cm flat	4	Chisel 10 cm flat
37	35	Ball Peen Hammer 0.75 Kg	4	Ball Peen Hammer 0.75 Kg
38	36	Hammer copper 1 Kg with handle	4	Hammer copper 1 Kg with handle
39	37	Hammer Mallet	4	Hammer Mallet 1 kg.
40	38	Hammer Plastic	4	Hammer Plastic 400 gms.
41	39	Hammer ball peen 0.25 kg with handle	4	Hammer ball peen 0.25 kg with handle
42	40	Philips Screw Driver set of 5 pieces (100 mm to 300 mm)	4	Philips Screw Driver set of 5 pieces (100 mm to 300 mm)
43	41	Insulated Screw driver 30 cm x 9mm blade	4	Insulated Screw driver 30 cm x 9mm blade
44	42	Insulated Screw driver 20 cm x 9mm blade	4	Insulated Screw driver 20 cm x 9mm blade
45	43	Electric testing screw driver	4	Electric testing screw driver
46	44	Allen Key set of 12 pieces (2mm to 14mm)	4	Allen Key set of 12 pieces (2mm to 14mm)
47	45	Hand vice – 37 mm	4	Hand vice – 37 mm
48	46	Work bench 240 x 120 x 75 cm with 4 vices 15cm Jaw	2	Work bench 240 x 120 x 75 cm with 4 vices 15cm Jaw
49	47	Magnifying glass 75mm	4	Magnifying glass 75mm
50	48	‘V’ Block 75 x 38 mm pair with Clamps (hardened and ground)as per IS2949	4	‘V’ Block 75 x 38 mm pair with Clamps (hardened and ground)as per IS2949
51	49	Clamps C 100mm	4	Clamps C 100mm
52	50	Clamps C 150mm	4	Clamps C 150mm
53	51	Clamps C 200mm	4	Clamps C 200mm
54	52	Spanner, adjustable upto15cm.	4	Spanner, adjustable upto15cm.
55	53	Spanners socket with speed handle, T-bar, ratchet and universal upto 32 mm set of 28 pieces with box	4	Spanners socket with speed handle, T-bar, ratchet and universal upto 32 mm set of 28 pieces with box
56	54	Pipe wrench 350 mm	4	Pipe wrench 350 mm
57	55	Spanner T. flocks for screwing up and up-screwing inaccessible positions	4	Spanner T. flocks for screwing up and up-screwing inaccessible positions
58	56	Spanner Clyburn 15 cm	3	Spanner Clyburn 15 cm
59	57	Magneto spanner set with 8 spanners	2	Magneto spanner set with 8 spanners
60	58	Spirit level	3	Spirit level 2View 250, 05 metre Multi type (inclined, horizontal vertical) Aluminium body
61	59	Angle plate size 200x100x200mm	4	Angle plate size 200x100x200mm

62	60	Angle plate adjustable 250x150x175	2	Angle plate adjustable 250x150x175
63	61	combination Pliers 20 cm.	4	combination Pliers 20 cm.
64	62	Side cutting Pliers 15 cm	4	Side cutting Pliers 15 cm
65	63	Round nose Pliers 15 cm	4	Round nose Pliers 15 cm
66	64	Flat nose Pliers 15 cm	4	Flat nose Pliers 15 cm
67	65	Vice grip pliers	4	Vice grip pliers
68	66	Circlip pliers Expanding and contracting type 15cm and 20cm each	4	Circlip pliers Expanding and contracting type 15cm and 20cm each
69	67	Grip Wrench 200mm	4	Grip Wrench 200mm
70	68	Torque wrenches 5-35 Nm, 12-68 Nm & 50-225 Nm	2	Torque wrenches 5-35 Nm, 12-68 Nm & 50-225 Nm
71	69	Workshop plain goggles	37	Workshop plain goggles Clear unbreakable plastic(thickness5mm) - scratch proof 2" dia - standard type.
72	70	Air impact wrench	2	Air impact wrench Working torque 7 to 150 nm, single hammer clutch mechanism, international maximum torque - 170 Nm
73	71	Air ratchet	2	Air ratchet Speed 150 - 170 RPM, working torque 7 to 70 Nm, maximum torque 150 Nm - 180 Nm
74	72	Air chisel	2	Air chisel Piston dia - 28 to 32 mm Blows/minute - 1900 to 1950, piston stroke -76 mm to 85 mm new brands
75	73	Air blow gun	2	Air blow gun Copper body with jet operating lever and suitable hose/connector new & branded item
76	74	Car Jet washer	2	Car Jet washer
77	75	Pipe flaring tool	2	45° flares in soft copper, brass, aluminum and mild steel tubing. Hardened, smooth cone, single clamp screw for clamping and removal of tubing.
78	76	Pipe cutting tool	2	Fast, clean pipe cutting by hand, pipe size 3 - 50 mm
79	77	Universal puller for removing pulleys, bearings	2	Universal puller for removing pulleys, bearings with all accessories standard type.

80	78	Cleaning tray 45x30 cm.	8	Cleaning tray 45x30 cm. with 10 cm height made of MS Sheet.
81	79	Cleaning tray- Aluminium 45 x 30 cm	8	Cleaning tray- Aluminium 45 x 30 cm with 10 cm height.
82	80	Stud extractor set of 3	4	Stud extractor set of 3
83	81	Stud remover with socket handle	2	Stud remover with socket handle
85	82	Paraffin pressure Gun	4	Heavy duty steel head, Air bleeder valve & bulk loading facility, With rapid spin barrel thread for fast cartridge replacement, ider knurls for better gripping, Fixed/Flexible hose with coupler
86	83	Grease Gun	4	Heavy duty steel head, Air bleeder valve & bulk loading facility, With rapid spin barrel thread for fast cartridge replacement, ider knurls for better gripping, Fixed/Flexible hose with coupler , Model with 10,000 PSI pressure Size:445cc Finish:Chrome Plated, Powder Coated
87	84	Hacksaw frame adjustable 20-30 cm	4	Hacksaw frame adjustable 20-30 cm
88		Hacksaw blade (consumable)		Hacksaw blade (consumable)
89	85	Flat File 35 cm bastard	8	Flat File 35 cm bastard
90	86	Flat File 25 cm second cut	8	Flat File 25 cm second cut
91	87	File flat 20 cm bastard	8	File flat 20 cm bastard
92	88	Files assorted sizes and types including safe edge file (20 Nos)	4	Files assorted sizes and types including safe edge file (20 Nos)
93	89	Drill twist, metric straight shank 3 mm to 12 mm in step of 0.5 mm	2	Drill twist, metric straight shank 3 mm to 12 mm in step of 0.5 mm
94	90	Drill point angle gauge	2	Drill point angle gauge
95	91	Set of stock and dies - UNC, UNF and metric	4	Set of stock and dies - UNC, UNF and metric
96	92	Taps and wrenches - UNC, UNF and metric	4	Taps and wrenches - UNC, UNF and metric
97	94	Hand reamers adjustable 10.5 to 11.25 mm, 11.25 to 12.75 mm, 12.75 to 14.25 mm and 14.25 to 15.75 mm	4	Hand reamers adjustable 10.5 to 11.25 mm, 11.25 to 12.75 mm, 12.75 to 14.25 mm and 14.25 to 15.75 mm
	93	Taps and Dies complete sets (5 types)	1	Taps and Dies complete sets (5 types)
98	95	Lapping abrasives (consumable)		Lapping abrasives (consumable)
99	96	Oil can 0.5/0.25 liter capacity	4	Oil can 0.5/0.25 liter capacity
100	97	Oil Stone 15 cm x 5 cm x 2.5 cm	2	Oil Stone 15 cm x 5 cm x 2.5 cm

101		Different type gasket material (consumable)		Different type gasket material (consumable)
102		Different type of oil seal (consumable)		Different type of oil seal (consumable)
103		Sheet Metal Gauge	2	Sheet Metal Gauge
104	98	Feeler gauge 20 blades (metric)	4	Feeler gauge 20 blades (metric)
105	99	Straight edge gauge 2 ft.	2	Straight edge gauge 2 ft.
106	100	Straight edge gauge 4 ft.	2	Straight edge gauge 4 ft.
107	101	Thread pitch gauge metric, BSX, BSF, MC, MF & SAE	2	Thread pitch gauge metric, BSX, BSF, MC, MF & SAE
108	102	Ladle 150mm Dia	2	Ladle 150mm Dia standard type
109	103	Blow Lamp 1 litre	4	Blow Lamp 1 litre brass made with heavy duty let air release knob.
110	104	Crow bar 910 x25mm	4	Crow bar 910 x25mm, medium carbon steel, cylindrical
111	105	Voltmeter 50V/DC	6	Voltmeter 50V/DC
112	106	Ammeter 300A/ 60A DC with external shunt	6	Ammeter 300A/ 60A DC with external shunt
113	107	DC Ohmmeter 0 to 300 Ohms, mid scales at 20 Ohms	2	DC Ohmmeter 0 to 300 Ohms, mid scales at 20 Ohms
114	108	Electric Soldering Iron 230 V 60 watts, 230 V 25 watts	3	Electric Soldering Iron 230 V 60 watts, 230 V 25 watts
115	109	Copper bit soldering iron 0.25 Kg	7	Copper bit soldering iron 0.25 Kg
116	110	Thimbles of different sizes	4	Thimbles of different sizes
117	111	Wire Gauge (metric)	6	Wire Gauge (metric)
118	112	Hand operated crimping tool (i) for crimping up to 4mm and (ii) for crimping up to 10mm	3	Hand operated crimping tool (i) for crimping up to 4mm and (ii) for crimping up to 10mm
119	113	Hand rubber gloves tested for 5000 V	7	Hand rubber gloves tested for 5000 V
120		Holders, lamp teakwood boards, plug sockets, solders, flux wires and cables batteries round consumable blocks and other consumables as required	10	Holders, lamp teakwood boards, plug sockets, solders, flux wires and cables batteries round consumable blocks and other consumables as required
121	114	Digital Multimeter range of 0-500v AC/DC, 0-10A AC/DC, 3½ Digit(min),Diode test mode and continuity mode, accuracy ±0.01%	10	Digital Multimeter range of 0-500v AC/DC, 0-10A AC/DC, 3½ Digit(min),Diode test mode and continuity mode, accuracy ±0.01%
	115	Growler	1	Test Series and Interpol commutating for a DC motor.to determine phasing and polarity in multi winding armature. To test rotor in rotating frequency charger ,as well as in wound rotors.

				To test shorts between turns in taped coils.
122	116	Scientific Calculator	2	Scientific Calculator
123	117	Hydrometer	3	Hydrometer for checking the density of brine solution.
124	118	High rate discharge tester (cell tester)	2	High rate discharge tester (cell tester) 0-5V
	119	Spring Tension scale – 0-4.5 kg.	1	Spring Tension scale – 0-4.5 kg.
125	120	Spray Gun (Painting) 500ml	2	Spray Gun (Painting) 500ml
126		Scraper, half round 25 cm.	4	Scraper, half round 25 cm.
127		Scraper, triangular 25 cm.	4	Scraper, triangular 25 cm.
128		Scraper, bearing.	4	Scraper, bearing.
129		Tachometer (Counting type)	1	All types of Engine checked RPM dwell angle battery voltage and on off digital type.
130		Valve Timing Diagram Model	1	Valve Timing Diagram Model
131		Belt Tensioner gauge	1	Tensioning all automotive V-belts up to, and including, 7/8" top widths. Instructions packed with product. Scale reads in pounds and kilograms. Measures tension from 30 to 160 lbs., and 15 to 75 kg.
132		Cylinder block- CI Engine, Overhead camshaft & camshaft in block, air cooled	1	6 cylinder engine cylinder block half assembly 1. 4 cylinder 6 cylinder
133		Cylinder liner- Dry & wet liner, press fit & slide fit liner	1	6 cylinder (liner) 1. Dry 2. wet
134		Different type of piston model	1	3 cylinder 4 cylinder 6 Cylinder Dom type/ flat head convex type.
135		Crankshaft, camshaft, connecting rod – different type	1	3,4,6 Cylinder. Connecting rods & CAM Shaft With weight/Without weight (one each)
136		Cooling system components-with & without expansion tank including components	1	Radiator, Thermostat valve, Hose pipe, overflow pipe/ water pumps, expansion tank (1 each)(suitable for practical)
137		Different type of Engine Bearing model	1	3,4,6 Cylinder HSD Main Bearing, Bush Bearing,Taper roller Bearing, Ball bearing (1 set)
138		Radiator cut section-cross flow	1	Upper Tank Cut/lower section cut/Fins hose Pipe
139		Radiator cut section-down flow	1	Upper Tank Cut/lower section cut/Fins Cut.
140		Water pump for dismantling and assembling	2	Heavy vehicle water pump. In & Out side water path(Complete Pump)
141		Radiator pressure cap	2	Radiator pressure cap 0.9 kg pressure ISI

				Mark
142		Thermostat	2	Valve ThermostatHeavy Vehicle Mechanical type.
143		Temperature gauge 0-100 deg c	2	Guage Complete engine head to dashboard indicator meter
144		Cut section model of fuel filter	1	Cut section fuel filter for heavy vehicle (Primary & Secondary) vehicle With flexible pipes.
145		Oil pump for dismantling and assembling.	2	Oil pump for Assebling & dismantling Heavy Vehicle Van Type Rotary type gear.(1 each)
146		Portable oil monitoring Indicator	1	For Diesel engine All lubricants tester (Remote/wire type)
147		Turbocharger cut sectional view	1	Heavy vehicle Turbo Charger with variable terminology cut section complete.
148		Catalytic converter for diesel	1	For Euro-iv & V Engine.Universal Diesel Catalytic Converter; Round; 4 in. Inlet/Outlet; 4 in. Body12 in. Overall Length; 6 in.
149		Decarbonising Machine	1	For Diesel engine Specifications Dimensions : H1170xW635xD560mm (46"x25"x22") Weight (Approx) : 70 kg (155 lbs.with tank) Optimal operating range : irto49oC(50°to120°F) Power source : 50/60 Hz,220V Refrigerant type : R-134a Refrigerant tank(Capacity) : 12.3kg.forR-134A/ 13.6kg.forR-12 Recovery rate : 0.2 kg./min.(0.5 lbs./min.) Scale resolution : 0.01 kg (0.02 lbs.) Vac.Pumpfree air displacement : 100L/M(4cfm)approx Standard Accessories : R134a High side Hose (Red) : 1830 mm Low side Hose (Blue) :1830 mm Tank Hose (Green) : 760 mm Tank Hose (Green) : 760 mm Coupler Low Side : 1No Coupler High Side :1No. Adaptor Kit Refillable Refrigerant Tank : 1No.
150		Fuel feed pump	1	Heavy Engine fuel feed pump hand operated suitable for 6/8 cylinder engine Material: Cast Steel and Aluminium Engine Type: Diesel

				Inner Thread: M14*1.5MM Outlet Thread: M16*1.5
151		Fuel injection pump with pneumatic governor, with Maximum and minimum speed governor (Bosch-RQV), with variable speed flyweight governor (Bosch-RSV), VE pump / Distributor fuel rotary pump (DPC) pumps /Pressure Time (PT) pump along with special tools and accessories.	1	For Heavy Vehicle 6 and 8Cylinder Fuel injection pump with pneumatic governor, with Maximum and minimum speed governor (Bosch-RQV), with variable speed flyweight governor (Bosch-RSV), VE pump / Distributor fuel rotary pump (DPC) pumps /Pressure Time (PT) pump along with special tools and accessories.
152		Fuel injection pump dismantling tool kit /Universal Vice	1	For inline & Rotary Pumps (of high durability) 35 sets repair kit for fuel injection pumps With 3 universal vices.
153		Fuel injection pump (Diesel) inline	1	For heavy vehicle Engine 6 Cylinder to 8 cylinder pump.(with firing order 153624 for 6 cyl and 18436572 for 8 cyl)
155		Injector – Multi hole type, Pintle type	4	Multi hole type, Pintle typeFor 3 cylinder 4,,6 & 8 cylinder
156		Injector cleaning unit	1	Wire brush. All type nozzle Holder needle. Power supply: AC 220V 50/60Hz Total Input power: 250W Ultrasonic cleaner power: 100W; Simulated RPM range: 10 TO 9990rpm; step: 10rpm; Time range: 1Sec to 9999 sec. Pulse width: 0.5 to 25ms step 0.1 ms Fuel tank capacity: 4700ml
157		Injector testing set (Hand tester)	1	Hand operator. Suitable for all nozzle
158		CRDI cut section model	1	Cut section CRDI engine 1300-2500 cc(including common rail,fuel injectors4/6 ,high pressure fuel pump,presure regulating valve and all required sensors)
159		Common rail pressure tester	1	For CRDI BS-IV type Engine (Best Company)No. of cylinders : 6/8/12 Drive : AC Frequency / Electronic drive Main Motor : 15 HP / 20 HP (as per customer requirement). RPM : Variable from 0 – 5000 RPM Pressure Gauges : Digital and Analog.

				Fuel Supply Motor : 1.5 HP
160		Valve spring compressor universal.	1	Spring Compressor tester universal.8" adjustable valve Spring Compressor Jaw opening of 1-3/8" to 5-5/8" (35mm to 142mm) Throat clearance of 5-7/8" (150mm)
161		Tool, valve grinding, suction type.	6	Grinding sticks. Valve Grinding SEATS/ Big & Small.
162		Tool, valve grinding, screw in type.	1	For Diesel Engine head Operating screw Driver Complete set.
163		Valve seat cutting, tools complete with guides and pilot bar (All angles)	1	Complete with box All Tool in with all Assessories Complete Set .Cutter sizes. 20 piece cutter set. 20 piece cutter set. 1.3/8", 1.11/16" x 30dec double sided face
164		Valve grinding machine.	1	For all attachment with carbon
165		Engineers stethoscope	2	For best perform all components Internal Noise Testing Diesel Engine
166		Stone, carborandum 15 x 5 x 4 cm smooth and rough.	1	15x5x4 cm with grit holder Rough & Smooth Double side.
167		Cylinder gauge capacity 6 to 15 cm.	1	6 To 15 cm best ISI mark
168		Ring expander and remover.	2	Best Quality standarad size with all accessories .
169		Ring groove cleaner.	1	ISI mark
170		Glow plug tester	1	Standard Set Complete set .
171		Battery-12 volt /24 V	1	Exide12 Volts, 160 amp. Heavy duty
172		Piston ring compressor	2	ISI Mark with L Key
173		Valve key inserter	1	ISI mark for heavy HSD Engine all Hsd Engine.
174		Connecting rod alignment fixture	1	For all type Connecting rods alignment with checking instrument.
175		Chain Pulley Block-3 ton capacity	1	Load Capacity (with / without pulley) 3000KG TOWING CAPACITY LIFTING HEIGHT(WITH / WITH OUT PULLEY) Approx. 1.5mm, cable speed (with / without pulley) dim (base plate available gear type)
176		Lifting jack screw type 3 ton capacity	4	Min HT 130 max high 410 mm 632x242x160 net wt

1 TT1	3	Trolley type portable air compressor single cylinder with 45 liters capacity Air tank, along with accessories & with working pressure of 6.5 kg/sq cm	1	Trolley type portable air compressor single cylinder with 45 liters capacity Air tank, along with accessories & with working pressure of 6.5 kg/sq cm V-shape compressor penion type with 5hp single phase 8 bar suction capacity 200ltrs/ min resorvior 2000 ltr
2	4	Grinding machine (general purpose) D.E. pedestal with 300 mm dia wheels rough and smooth	2	DE PEDESTAL GRINDER (200MM) Double Ended Pedestal Grinder complete with steel fabricated pedestal body, double shaft in-built electric motor suitable for 400/440V, 3 Ph, 50 Hz alongwith on-off rotary switch, set of grinding wheel, wheel guard, eye shield and tool rest bracket which is adjustable both in horizontal and vertical. Wheel dia. : 200mm Wheel width : 25mm Wheel bore : 16mm Centre distance : 400mm Centre height : 910mm R.P.M : 2800 HP at Motor : 0.5 KW
3	5	Portable electric drilling Machine	2	Portable electric drilling Machine 12 mm capacity ISI make
4		Bench drilling Machine	1	11. BENCH TYPE DRILLING MACHINE Bench Type Drill Machine confg. To IS:2426 of 1985 with specifications and standard accessories as under : SPECIFICATIONS:- Drilling Capacity in Mild Steel : 13mm Max Distance from Spindle centre : 200mm + 5% Max Distance from Spindle Nose to Base : 600mm + 3% Max Distance from Spindle Nose to Table : 275mm + 5% Spindle M.T. : 2 No. of Spindle speed : 5 Range of Spindle speed in RPM : 275 to 2800 rpm + 2% Spindle Travels : 110mm + 5%

				<p>Round Table Working Surface : 250mm + 5%</p> <p>Power required in HP : 0.5 HP, 3-phase Electric Motor</p> <p>ACCESSORIES:</p> <p>1. 0.5 HP, 3-phase, AC Electric Motor, 400/440V , RPM 2800 + 2%</p> <p>2. Suitable starter of above motor</p> <p>3. One V Belt</p> <p>4. One drill drift</p> <p>5. Oil Cane (Pressure Type)</p> <p>6. One set of Allen keys (Set of 2 pcs)</p> <p>7. Set of spanner (Set of 3 pcs)</p> <p>8. Instruction Manual</p> <p>9. REVERSING SWITCH WITH FITTING</p> <p>10. Drill chuck size 13mm capacity with abour and key.</p> <p>11. Machine vice 4" size opening of jaw 100mm</p> <p>Note: Variation allowed in sizes + 5%.</p>
5	6	Spring tension tester	2	ISI mark suitable quality (for all type spring)
7		Diesel Engine – 2 stroke for Dismantling and assembling with swiveling stand	2	Diesel Engine – 2 stroke revolving type.Single cyclender with piston connecting rod crank shaft inlet port transfer port exhaust port with handle start 5. Engine Capacity 5 HP. With service manual.
8		Hydraulic jack HI-LIFT type -3 ton capacity,	1	Minimum height 130, maximum height 410 mm. Size 632x242x160 mm Net Weight. 19 Kg, capacity 3000kg
9		Arbor press hand operated 2 ton capacity	1	Mechanical Type hand operated with attachments.For all assembly applications Precision cut steel rams and pinions for accurate operation Tables and slotted table-plates should be flat and parallel to provide accurate support
10	12	Battery charger	2	1-8 Amp charging rate 12-48 volt capacity ISI marked Should have Digital ampere meter and volt meter indicators
	9	CNG conversion kit	1	CNG conversion Kit all Engine Complete Assesory ISI marked wit installation

				manual. Simple structure Long working life Complete variety and specification Shorter respon
	10	Car A.C unit	1	Suitable for passenger car, SUV, MUV, LCV and Heavy Duty truck applications, Special feature: Electrically Automatic climate control ,should Provide high degree of comfort and reliability.ISI marked or ISO approved.
	14	Spark plug cleaning and testing machine	1	ALL types Plug tester & cleaner ISI marked With Abresssive material. Type: Vacuum Cleaner Material: Steel AC Voltage Requirement (V): 220V phase: single AC Current (A): <15 Rated Power(KW): 4.5 Max. Gas Output(L/h): 1500 Max. Working Pressure (kg/cm2): 1.9 Max. Water Consumption (L/h): 1 applied for: all brands of gasoline car or diesel car
	15	Car A.C charger unit	1	With Vaccume section & charging & filling Copressor oil. ISI MarkType of refrigerant R134a, Service procedure Automatic / Manual Scan resolution 10 gms Filter system 2 filters for humidity and acidity Vacuum pump capacity 92 litres / minute capacity, 0.1 mbar vacuum Compressor 12 cc / 0.33 HP Recovery Max. 300 gm / min. in liquid phase Refrigerant bottle 12 kgs Power supply 230V, Single Phase, 50Hz Power 800W (approx)
	18	Anti theft device	1	Type: Gps Tracker ,Use: car anti theft tracking device ;Weight: 120g ; Network: GSM/GPRS ; Band: 850/900/1800/1900Mhz ; GPS Module: SIRF3 chip ; GPS Sensitivity: - 159 dBm ; GPS Accuracy: 5m ; Voltage of car power system: 12V - 24V – 48V ; Humidity: 5%--95% non-condensing
	19	Air bag simulator	1	Package:packaged by canvas case Voltage: 8-12V

				Certification: ISO/ISI, Applicable Models: LTV/HTV, Language: Multi-Language color: black, Display: 2.8 Color screen , 320 x 240 pixel display with contrast adjustment and with service manual, Upgrade: Internet, Operation Temperature: -20 °C -- 75 °C
	20	Single cylinder stationary diesel engine with stand	2	Fuel: Diesel , Stroke: 4 Stroke Cylinder: Single Cylinder Weight: 220 KG Certification: ISI, ISO, H.P: 3.5 TO 16 HP CYLINDER: ONE , COOLING: WATER OR AIR RPM: 1000-1800 VARIABLE SPEED LEVER, Engine Position: Outboard , Capacity: 3.1 - 4L and should be mounted on suitable vertical stand.
				PRINCIPAL, ITOT LALRU.