

APPENDIX 9

MANUFACTORY REPAIR FLATE RATE FOR TOYOTA COASTER MODEL

OPERATION	DESCRIPTION	TIME
Engine assembly		
Engine & transmission complete	Remove and Install	12.5
Engine & transmission complete - PAS+AC	Remove and Install	12.9
Short exchange engine - PAS+AC	Remove and Install	20.9
Complete engine - PAS+AC	Strip and Rebuild	33.7
Cylinder block - PAS+AC	Strip and Rebuild	23.7
Mounting - front (of engine bay)	Remove and Install	0.5
Cylinder head		
Camshaft/valve cover & gasket	Remove and Install	0.8
Cylinder head gasket - PAS+AT	Remove and Install	11.6
Cylinder head - transfer components - PAS+AC	Strip and Rebuild	16.1
Valves (all) including lapping - PAS+AC	Remove and Install	18.9
Valve stem oil seals (all) - PAS+AC	Remove and Install	9.5
Camshaft & drive gear		
Camshaft - PAS+AT	Remove and Install	14.8
Crankshaft & pistons		
Crankshaft/all main bearings - PAS+AC	Remove and Install	22.1
Crankshaft front oil seal	Remove and Install	2
Crankshaft rear oil seal - AT	Remove and Install	4.4
Crankshaft pulley - AC	Remove and Install	1.8
Big end bearings - PAS+AT	Remove and Install	18.5
Conrods & pistons (all) - PAS+AT	Remove and Install	18.6
Piston & liner sets (all) - PAS+AT	Remove and Install	20
Lubrication		
Engine oil	Renew	0.5
Oil filter	Remove and Install	0.8
Oil sump pan	Remove and Install	2.8
Oil pump - PAS+AT	Remove and Install	15.3
Oil cooler	Remove and Install	6
Crankcase ventilation valve	Remove and Install	0.3
Auxiliary drive		
Auxiliary drive belt	Check and Adjust	0.6
Auxiliary drive belt	Remove and Install	0.8
Air filter, manifolds & plenum chamber		
Air filter assembly	Remove and Install	0.7
Air filter element	Remove and Install	0.2
Intake manifold	Remove and Install	1.4
Diesel injection system		
Fuel filter	Remove and Install	0.8
Injection pump	Remove and Install	1.7
Injection timing (static)	Check and Adjust	0.6
Injectors (all)	Remove and Install	2.3
Pre-heat plugs (all)	Remove and Install	1.1

Injection pipe (one)	Remove and Install	0.9
Throttle body	Remove and Install	1.1
Fuel supply		
Fuel tank	Remove and Install	1.4
Turbocharger		
Turbocharger	Remove and Install	5.8
Radiator, fan & intercooler		
Coolant/antifreeze	Drain and Refill	0.9
Cooling fan coupling	Remove and Install	1.8
Cooling fan	Remove and Install	1.8
Radiator - AC	Remove and Install	2.7
Thermostat	Remove and Install	1.2
Pump & drive		
Water pump - AC	Remove and Install	2.2
Header tank & hoses		
Header/expansion tank	Remove and Install	0.3
Radiator top hose	Remove and Install	1.1
Radiator bottom hose	Remove and Install	1
Header/expansion tank hose	Remove and Install	0.3
By-pass hose	Remove and Install	0.9
Manifold, pipes & silencers		
Exhaust manifold	Remove and Install	5.3
Exhaust manifold gasket	Remove and Install	5.4
Pipe - front/downpipe	Remove and Install	0.6
Pipe - middle/silencer	Remove and Install	0.7
Pipe - rear/tail/silencer	Remove and Install	0.4
Catalytic converter	Remove and Install	0.8
Clutch pedal, linkage & hydraulics		
Release system	Check and Adjust	0.2
Pedal - LHD	Remove and Install	0.7
Hydraulic release system	Bleed	0.5
Master cylinder - LHD	Remove and Install	2.2
Slave cylinder	Remove and Install	0.7
Release bearing	Remove and Install	3.1
Clutch unit & flywheel		
Clutch plate, cover & release bearing	Remove and Install	3
Flywheel	Remove and Install	3.1
Spigot bearing	Remove and Install	2.9
Gearbox unit & casing		
Gearbox	Remove and Install	2.8
Gearbox	Strip and Rebuild	8
Gearbox mounting (rear)	Remove and Install	0.5
Gearbox oil - renew	Drain and Refill	0.4
Gear control, linkage & selectors		
Gear linkage	Remove and Install	1.5
Lever	Remove and Install	0.5
Gears, bearings & seals		
Speedometer driven gear	Remove and Install	0.6
Input shaft oil seal	Remove and Install	2.9
Propshaft, centre differential & transfer box		

Propshaft - front/single	Remove and Install	1.1
Propshaft - complete	Remove and Install	1.1
Propshaft coupling/flange	Remove and Install	1.1
Propshaft universal joint	Remove and Install	1.4
Propshaft centre bearing	Remove and Install	1.4
Front axle		
Wheel bearing set	Remove and Install	1.6
Wheel bearing set (both)	Remove and Install	2.4
Hub assembly	Remove and Install	1.9
Hub assembly (both)	Remove and Install	2.9
Rear axle		
Rear axle - complete	Remove and Install	4.1
Final drive	Remove and Install	1.3
Final drive	Drain and Refill	0.4
Halfshaft	Remove and Install	0.5
Halfshaft (both)	Remove and Install	0.7
Front suspension		
Shock absorber	Remove and Install	1.5
Shock absorbers (pair)	Remove and Install	2.3
Suspension upper arm	Remove and Install	3
Suspension lower arm	Remove and Install	2.3
Ball joint - upper	Remove and Install	1.5
Swivel hub/stub axle assembly	Remove and Install	2.5
Rear suspension		
Road spring	Remove and Install	1.1
Road spring (both)	Remove and Install	1.7
Shock absorber	Remove and Install	0.4
Shock absorbers (pair)	Remove and Install	0.5
Spring shackles (front)	Remove and Install	0.5
Steering geometry		
Geometry - complete vehicle	Check	1.2
Front wheel alignment (toe)	Check and Adjust	0.7
Rear wheel alignment (toe)	Check and Adjust	0.7
Camber - front	Check and Adjust	1.4
Camber - rear	Check and Adjust	1.4
Castor - front	Check and Adjust	1.4
Steering mechanism		
Steering rack/box	Remove and Install	1.6
Idler arm	Remove and Install	0.9
Track rod	Remove and Install	1.1
Track rod end joint	Remove and Install	1.1
Steering damper	Remove and Install	0.6
Steering column		
Steering wheel	Remove and Install	0.4
Steering column	Remove and Install	1.1
Steering column - adjustable column	Remove and Install	1
Steering column shroud	Remove and Install	0.5
Power assisted steering		
Pump	Remove and Install	0.9
High pressure hose	Remove and Install	1.1

Braking system hydraulics		
Hydraulic system	Bleed	1.1
Fluid reservoir (separate)	Remove and Install	0.5
Master cylinder LHD	Remove and Install	1
Rear wheel cylinder (one)	Remove and Install	1.8
Rear wheel cylinder (both)	Remove and Install	2.9
Front brake caliper (one)	Remove and Install	1.1
Front brake caliper (both)	Remove and Install	1.5
Rear brake caliper (one)	Remove and Install	1.1
Rear brake caliper (both)	Remove and Install	1.5
Front brake hose (one)	Remove and Install	0.6
Rear brake hose (one)	Remove and Install	0.6
Pressure compensator/load valve (one)	Remove and Install	1.4
Footbrakes		
Front brake pads (all)	Remove and Install	0.8
Rear brakes shoes (all)	Remove and Install	1.7
Front brake disc (both)	Remove and Install	1.4
Front brake disc (both) - including pads	Remove and Install	0.9
Rear brake drum (both)	Remove and Install	1.5
Rear backplate (one)	Remove and Install	1.2
Brake pedal & servo		
Pedal - LHD	Remove and Install	1.5
Servo - LHD	Remove and Install	2.8
Vacuum hose to manifold	Remove and Install	0.3
Vacuum pump - diesel	Remove and Install	0.4
ABS or ABS/ESP		
ECU	Remove and Install	0.7
Wheel sensor - front (one)	Remove and Install	0.7
Wheel sensor - front (both)	Remove and Install	1.1
Wheel sensor - rear (one)	Remove and Install	0.7
Wheel sensor - rear (both)	Remove and Install	0.9
Motor & pump - LHD	Remove and Install	2
Parking brake		
Parking brake freeplay	Check and Adjust	0.3
Parking brake lever	Remove and Install	0.5
Parking brake cable - primary/single	Remove and Install	0.8
Parking brake pads/shoes (all)	Remove and Install	1.4
Parking brake discs/drums (both)	Remove and Install	0.9
Battery & cables		
Battery	Remove and Install	0.3
Cable to starter/solenoid	Remove and Install	0.6
Cable to body earth	Remove and Install	0.7
Charging system		
Alternator - AC	Remove and Install	1.4
Voltage regulator	Remove and Install	0.7
Starting system		
Starter motor - pre-engaged	Remove and Install	0.6
Bulbs & LEDs		
Headlamp bulb	Remove and Install	0.3
Rear combination bulb (any)	Remove and Install	0.3

Front lamps		
Headlamp alignment	Check and Adjust	0.3
Headlamp - one	Remove and Install	0.6
Fog lamp - one	Remove and Install	0.6
Direction indicator lamp - one	Remove and Install	0.2
Direction indicator lamp lens	Remove and Install	0.2
Side repeater lamp - one	Remove and Install	0.2
Side repeater lamp lens	Remove and Install	0.2
Rear lamps		
Rear combination lamp assembly	Remove and Install	0.4
Number plate lamp - one	Remove and Install	0.4
High mounted brake lamp	Remove and Install	0.3
Interior lamps		
Interior lamp - front	Remove and Install	0.2
Interior lamp - rear	Remove and Install	0.2
Switches		
Starter/ignition switch	Remove and Install	0.3
Direction indicator switch	Remove and Install	0.5
Dip/main/flash switch	Remove and Install	0.6
Horn switch	Remove and Install	0.2
Wash/wipe switch	Remove and Install	0.6
Hazard warning lights switch	Remove and Install	0.2
Inhibitor switch	Remove and Install	0.7
Reversing lights switch	Remove and Install	0.2
Stop lamps switch	Remove and Install	0.3
Parking brake warning lamp switch	Remove and Install	0.3
Front door lamp switch	Remove and Install	0.2
Instruments		
Instrument panel	Remove and Install	0.4
Instrument panel printed circuit	Remove and Install	0.5
Tachometer	Remove and Install	0.5
Fuel gauge (separate)	Remove and Install	0.7
Coolant temperature gauge (separate)	Remove and Install	0.6
Clock	Remove and Install	0.2
Cigarette lighter	Remove and Install	0.4
Transducers, sensors & transmitters		
Horn	Remove and Install	0.2
Horn (both)	Remove and Install	0.2
Oil temperature transmitter	Remove and Install	0.3
Coolant temperature sensor	Remove and Install	0.6
Fuel level sensor	Remove and Install	0.7
Fusebox & Relays		
Headlamps relay	Remove and Install	0.2
Indicator relay/flasher unit	Remove and Install	0.2
Intermittent wiper relay	Remove and Install	0.2
Horn relay	Remove and Install	0.2
Motors		
Front wiper motor	Remove and Install	0.9
Rear wiper motor	Remove and Install	0.5
Front washer motor	Remove and Install	0.3

Rear washer motor	Remove and Install	0.3
Control & audio units		
Radio/cassette unit	Remove and Install	0.4
Roof aerial/antenna	Remove and Install	0.5
Windscreen wipers/washers		
Wiper arm	Remove and Install	0.3
Wiper linkage	Remove and Install	3
Washer jet - one	Remove and Install	0.3
Washer jet - (both)	Remove and Install	0.3
Washer reservoir	Remove and Install	0.3
Washer hose	Remove and Install	0.3
Rear screen wipers/washers		
Wiper arm	Remove and Install	0.2
Washer jet	Remove and Install	0.2
Heating & ventilation system		
Heater unit - complete	Remove and Install	3.6
Heater hose - from engine	Remove and Install	0.9
Heater hose - to engine	Remove and Install	0.9
Heater matrix - LHD	Remove and Install	3.7
Heater blower motor	Remove and Install	0.6
Heater blower control module/resistor - front	Remove and Install	0.3
Air conditioning		
System evacuation/recharging	Check and Adjust	1
Receiver/drier	Remove and Install	1.3
Compressor	Remove and Install	1.4
Compressor clutch	Remove and Install	1.4
Expansion valve - front	Remove and Install	2.9
Condenser	Remove and Install	1.3
Evaporator - front	Remove and Install	2.9
Evaporator blower motor	Remove and Install	2