

ANNEX 6

MANUFACTORY REPAIR FLAT RATE FOR FORD TRANSIT 350 MODEL

| OPERATION | DESCRIPTION | TIME |
|---|--------------------|------|
| Engine assembly | | |
| Engine & transmission complete | Remove and Install | 6.9 |
| Engine & transmission complete - AC | Remove and Install | 7.3 |
| Full exchange engine | Remove and Install | 12.9 |
| Full exchange engine - AC | Remove and Install | 13.3 |
| Engine & transmission (out of vehicle) | Separate | 0.7 |
| Complete engine | Strip and Rebuild | 19.8 |
| Complete engine - AC | Strip and Rebuild | 20.2 |
| Cylinder block | Strip and Rebuild | 16.5 |
| Cylinder block - AC | Strip and Rebuild | 16.9 |
| Mounting - left (of engine bay) | Remove and Install | 0.9 |
| Mounting - right (of engine bay) | Remove and Install | 0.9 |
| Cylinder head | | |
| Compression test | Check | 4 |
| Camshaft/valve cover & gasket | Remove and Install | 1.6 |
| Cylinder head & gasket | Remove and Install | 10.5 |
| Cylinder head-transfer components | Strip and Rebuild | 11.7 |
| Valves (all) including lapping | Remove and Install | 12.9 |
| Valve stem oil seals (all) | Remove and Install | 3.4 |
| Camshaft & drive gear | | |
| Camshaft | Remove and Install | 6.2 |
| Camshafts (both/all) | Remove and Install | 6.3 |
| Camshaft drive belt/chain | Remove and Install | 4.1 |
| Camshaft drive belt/chain tensioner | Remove and Install | 3.1 |
| Camshaft chain cover & gasket | Remove and Install | 3 |
| Crankshaft & pistons | | |
| Crankshaft/all main bearings | Remove and Install | 12.9 |
| Crankshaft/all main bearings - AC | Remove and Install | 13.3 |
| Crankshaft front oil seal | Remove and Install | 0.8 |
| Crankshaft rear oil seal | Remove and Install | 4.3 |
| Crankshaft pulley | Remove and Install | 0.9 |
| Conrods & pistons (all) | Remove and Install | 16 |
| Conrods & pistons (all) - AC | Remove and Install | 16.4 |
| Lubrication | | |
| Engine oil & filter | Renew | 0.6 |
| Oil pressure | Check | 0.8 |
| Oil sump pan | Remove and Install | 1.3 |
| Oil cooler | Remove and Install | 0.8 |
| Auxiliary drive | | |
| Alternator drive/serpentine belt | Remove and Install | 0.5 |
| Alternator drive/serpentine belt tensioner | Remove and Install | 0.6 |
| PAS drive/serpentine belt | Remove and Install | 0.5 |
| Air filter. manifolds & plenum chamber | | |

| | | |
|--|--------------------|-----|
| Air filter assembly | Remove and Install | 0.4 |
| Air filter element | Remove and Install | 0.3 |
| Intake manifold | Remove and Install | 3.4 |
| Throttle controls | | |
| Throttle pedal | Remove and Install | 0.3 |
| Diesel injection system | | |
| Control ECU | Remove and Install | 0.4 |
| Manifold pressure (MAP) sensor | Remove and Install | 0.3 |
| Air flow/Mass sensor unit | Remove and Install | 0.3 |
| Coolant temperature sensor | Remove and Install | 0.3 |
| Camshaft position (CMP) sensor | Remove and Install | 0.4 |
| Injection system | Bleed | 0.3 |
| Injection pump | Remove and Install | 0.9 |
| Injectors (all) | Remove and Install | 1.2 |
| Injection pipes (all) | Remove and Install | 1 |
| Injection pipe (one) | Remove and Install | 0.7 |
| Fuel rail | Remove and Install | 1.3 |
| Pre-heat plugs (all) | Remove and Install | 3.6 |
| Fuel supply | | |
| Fuel pressure | Check | 0.3 |
| Fuel tank | Remove and Install | 1 |
| Fuel filter/sedimenter | Remove and Install | 0.4 |
| Fuel cut-off (inertia) switch | Remove and Install | 0.3 |
| Turbocharger | | |
| Turbocharger | Remove and Install | 1.4 |
| Radiator, fan & intercooler | | |
| Coolant/antifreeze | Drain and Refill | 0.7 |
| Pressure test system | Check | 0.2 |
| Cooling fan coupling | Remove and Install | 0.3 |
| Cooling fan | Remove and Install | 0.4 |
| Radiator | Remove and Install | 1.7 |
| Radiator - AC | Remove and Install | 1.8 |
| Thermostat | Remove and Install | 0.7 |
| Intercooler | Remove and Install | 0.6 |
| Pump & drive | | |
| Water pump | Remove and Install | 1.4 |
| Header tank & hoses | | |
| Header/expansion tank | Remove and Install | 0.5 |
| Radiator top hose | Remove and Install | 0.7 |
| Radiator bottom hose | Remove and Install | 0.7 |
| Header/expansion tank hose | Remove and Install | 0.5 |
| Manifold, pipes & silencers | | |
| Exhaust manifold | Remove and Install | 2.9 |
| Exhaust manifold gasket | Remove and Install | 2.9 |
| Pipe - rear/tail/silencer | Remove and Install | 0.5 |
| Complete exhaust system | Remove and Install | 0.7 |
| Catalytic converter | | |
| Catalytic converter | Remove and Install | 1.3 |
| Lambda sensor | Remove and Install | 0.4 |
| Exhaust gas recirculation valve | Remove and Install | 2.5 |

| | | |
|--|--------------------|-----|
| Diesel particulate filter | Remove and Install | 0.7 |
| Clutch pedal. linkage & hydraulics | | |
| Pedal return spring | Remove and Install | 0.4 |
| Master cylinder | Remove and Install | 0.6 |
| Slave cylinder | Remove and Install | 3.7 |
| Release bearing | Remove and Install | 3.7 |
| Clutch unit & flywheel | | |
| Clutch plate. cover & release bearing | Remove and Install | 3.8 |
| Flywheel | Remove and Install | 4.1 |
| Starter ring gear | Remove and Install | 4.4 |
| Gearbox unit & casing | | |
| Gearbox | Remove and Install | 3.6 |
| Gear control. linkage & selectors | | |
| Lever | Remove and Install | 0.6 |
| Propshaft. centre differential & transfer box | | |
| Propshaft - rear | Remove and Install | 0.7 |
| Front axle | | |
| Wheel bearing set | Remove and Install | 1.2 |
| Wheel bearing set (both) | Remove and Install | 2.1 |
| Hub assembly | Remove and Install | 1.2 |
| Hub assembly (both) | Remove and Install | 2.4 |
| Rear axle | | |
| Rear axle - complete | Remove and Install | 2.2 |
| Final drive pinion oil seal | Remove and Install | 0.8 |
| Halfshaft | Remove and Install | 0.6 |
| Halfshaft (both) | Remove and Install | 0.8 |
| Wheel bearing set | Remove and Install | 1.1 |
| Wheel bearing set (both) | Remove and Install | 1.9 |
| Hub assembly | Remove and Install | 1.4 |
| Hub assembly (both) | Remove and Install | 2.4 |
| Front suspension | | |
| Subframe/crossmember | Remove and Install | 1.9 |
| Strut assembly | Remove and Install | 1.1 |
| Strut assembly (both) | Remove and Install | 1.8 |
| Strut top mounting | Remove and Install | 1.1 |
| Strut top mounting (both) | Remove and Install | 1.8 |
| Road spring | Remove and Install | 1.1 |
| Road spring (both) | Remove and Install | 1.8 |
| Suspension lower arm | Remove and Install | 1.2 |
| Suspension lower arm (both) | Remove and Install | 1.5 |
| Suspension lower arm bushes | Remove and Install | 2 |
| Ball joint - lower | Remove and Install | 1.1 |
| Ball joint - lower (both) | Remove and Install | 1.5 |
| Anti-roll bar | Remove and Install | 0.7 |
| Anti-roll bar bushes (all) | Remove and Install | 0.5 |
| Anti-roll bar link - outer | Remove and Install | 0.4 |
| Anti-roll bar link - outer (both) | Remove and Install | 0.5 |
| Swivel hub/stub axle assembly | Remove and Install | 1 |
| Swivel hub/stub axle assembly (both) | Remove and Install | 1.7 |
| Rear suspension | | |

| | | |
|---|--------------------|-----|
| Road spring | Remove and Install | 0.8 |
| Road spring (both) | Remove and Install | 1.3 |
| Shock absorber | Remove and Install | 0.4 |
| Shock absorbers (pair) | Remove and Install | 0.6 |
| Anti-roll bar | Remove and Install | 0.7 |
| Anti-roll bar bushes (all) | Remove and Install | 0.6 |
| Anti-roll bar link - outer | Remove and Install | 0.4 |
| Anti-roll bar link - outer (both) | Remove and Install | 0.5 |
| Steering geometry | | |
| Geometry - front | Check | 0.9 |
| Geometry - rear | Check | 0.9 |
| Front wheel alignment (toe) | Check and Adjust | 0.6 |
| Steering mechanism | | |
| Steering rack/box | Remove and Install | 1.6 |
| Rack gaiter | Remove and Install | 1.2 |
| Track rod | Remove and Install | 1.8 |
| Track rod (both) | Remove and Install | 2 |
| Track rod end joint | Remove and Install | 1.1 |
| Track rod end joint (both) | Remove and Install | 1.2 |
| Steering column | | |
| Steering wheel | Remove and Install | 0.4 |
| Steering column | Remove and Install | 1.1 |
| Steering column joint | Remove and Install | 0.5 |
| Power assisted steering | | |
| Fluid reservoir | Remove and Install | 0.4 |
| High pressure hose | Remove and Install | 0.8 |
| Power steering fluid cooler | Remove and Install | 0.8 |
| Wheels | | |
| Wheel | Remove and Install | 0.3 |
| Wheels - (both) | Remove and Install | 0.4 |
| Wheels - (all) | Remove and Install | 0.6 |
| Braking system hydraulics | | |
| Hydraulic system | Bleed | 0.9 |
| Fluid reservoir (separate) | Remove and Install | 0.9 |
| Master cylinder | Remove and Install | 1 |
| Front brake caliper (one) | Remove and Install | 0.9 |
| Front brake caliper (both) | Remove and Install | 1.3 |
| Rear brake caliper (one) | Remove and Install | 0.9 |
| Rear brake caliper (both) | Remove and Install | 1.4 |
| Front brake hose (one) | Remove and Install | 0.7 |
| Rear brake hose (one) | Remove and Install | 0.7 |
| Pressure compensator/load valve (one) | Remove and Install | 1.1 |
| Pressure compensator/load valve (one) - ABS | Remove and Install | 0.8 |
| Footbrakes | | |
| Front brake pads (all) | Remove and Install | 0.6 |
| Front brake pads (all) - wheels removed | Remove and Install | 0.3 |
| Rear brake pads (all) | Remove and Install | 0.7 |
| Front brake disc (both) - including pads | Remove and Install | 1.8 |
| Rear brake disc (both) - including pads | Remove and Install | 2.7 |
| Brake pedal & servo | | |

| | | |
|--|--------------------|-----|
| Servo | Remove and Install | 1.4 |
| Vacuum hose to manifold | Remove and Install | 0.3 |
| ABS or ABS/ESP | | |
| ECU | Remove and Install | 0.4 |
| Wheel sensor - front (one) | Remove and Install | 0.4 |
| Wheel sensor - rear (one) | Remove and Install | 0.4 |
| Motor & pump | Remove and Install | 1.4 |
| Parking brake | | |
| Parking brake freeplay | Check and Adjust | 0.4 |
| Parking brake cable - primary/single | Remove and Install | 0.7 |
| Battery & cables | | |
| Battery | Check | 0.4 |
| Battery | Remove and Install | 0.3 |
| Cable to body earth | Remove and Install | 0.3 |
| Charging system | | |
| Charging system | Check | 0.3 |
| Alternator | Remove and Install | 0.7 |
| Starting system | | |
| Starter motor - pre-engaged | Remove and Install | 0.6 |
| Bulbs | | |
| Headlamp bulb | Remove and Install | 0.3 |
| Rear combination bulb (any) | Remove and Install | 0.3 |
| Front lamps | | |
| Headlamp alignment | Check and Adjust | 0.2 |
| Headlamp - one | Remove and Install | 0.5 |
| Headlamp - (both) | Remove and Install | 0.7 |
| Fog lamp - one | Remove and Install | 0.4 |
| Rear lamps | | |
| Rear combination lamp assembly | Remove and Install | 0.2 |
| Rear combination lamp printed circuit | Remove and Install | 0.2 |
| Number plate lamp - one | Remove and Install | 0.2 |
| High mounted brake lamp | Remove and Install | 0.3 |
| Interior lamps | | |
| Interior lamp - front | Remove and Install | 0.2 |
| Switches | | |
| Starter/ignition switch | Remove and Install | 0.3 |
| Direction indicator switch | Remove and Install | 0.3 |
| Main lighting switch | Remove and Install | 0.3 |
| Dip/main/flash switch | Remove and Install | 0.3 |
| Horn switch | Remove and Install | 0.4 |
| Wash/wipe switch | Remove and Install | 0.3 |
| Hazard warning lights switch | Remove and Install | 0.6 |
| Reversing lights switch | Remove and Install | 0.3 |
| Stop lamps switch | Remove and Install | 0.2 |
| Parking brake warning lamp switch | Remove and Install | 0.3 |
| Instruments | | |
| Instrument panel | Remove and Install | 0.5 |
| Cigarette lighter | Remove and Install | 0.6 |
| Transducers. sensors & transmitters | | |
| Horn | Remove and Install | 0.3 |

| | | |
|---|--------------------|-----|
| Oil pressure transmitter | Remove and Install | 0.3 |
| Fuel level sensor | Remove and Install | 1.1 |
| Motors | | |
| Front wiper motor | Remove and Install | 0.6 |
| Rear wiper motor | Remove and Install | 0.6 |
| Front washer motor | Remove and Install | 0.5 |
| Front window lift motor | Remove and Install | 0.9 |
| Headlamp levelling motor - one | Remove and Install | 0.3 |
| Control & audio units | | |
| CD player | Remove and Install | 0.3 |
| Roof aerial/antenna | Remove and Install | 0.9 |
| Roof aerial/antenna - cable | Remove and Install | 0.9 |
| Windscreen wipers/washers | | |
| Wiper arm | Remove and Install | 0.3 |
| Wiper linkage | Remove and Install | 0.6 |
| Washer jet - one | Remove and Install | 0.2 |
| Washer jet - (both) | Remove and Install | 0.2 |
| Washer reservoir | Remove and Install | 0.5 |
| Washer hose | Remove and Replace | 0.4 |
| Rear screen wipers/washers | | |
| Washer reservoir | Remove and Install | 0.5 |
| Heating & ventilation system | | |
| Heater unit - complete | Remove and Install | 3.7 |
| Heater unit - complete - AC | Remove and Install | 4.7 |
| Heater hose - from engine | Remove and Install | 0.8 |
| Heater hose - to engine | Remove and Install | 0.7 |
| Heater matrix | Remove and Install | 3.8 |
| Heater matrix - AC | Remove and Install | 4.8 |
| Heater blower motor | Remove and Install | 2.4 |
| Heater blower control module/resistor - front | Remove and Install | 0.5 |
| Cabin filter | Remove and Install | 0.2 |
| Air conditioning | | |
| System leak test | Check and Adjust | 0.4 |
| System evacuation/recharging | Check and Adjust | 0.8 |
| Receiver/drier | Remove and Install | 1.2 |
| Compressor to condenser line | Remove and Install | 1.3 |
| Condenser to evaporator line | Remove and Install | 1.8 |
| Compressor | Remove and Install | 1.6 |
| Compressor clutch | Remove and Install | 1.8 |
| Condenser | Remove and Install | 1.7 |
| Evaporator - front | Remove and Install | 4.8 |
| Switch - low/cycling pressure | Remove and Install | 0.3 |
| Front bumper/spoiler | | |
| Front bumper - complete | Remove and Install | 0.5 |
| Front bumper - complete - Fog lamps | Remove and Install | 0.6 |
| Windscreen | | |
| Windscreen | Remove and Replace | 2 |
| Front door | | |
| Door window | Remove and Install | 0.6 |
| Window winder mechanism | Remove and Install | 0.9 |

| | | |
|--|--------------------|-----|
| Window winder mechanism - electric | Remove and Install | 0.9 |
| Quarter light | Remove and Install | 0.5 |
| Lock barrel | Remove and Install | 0.5 |
| Door mirror - one | Remove and Install | 0.7 |
| Door mirror - electrically adjusted - one | Remove and Install | 0.7 |
| Mirror glass and support | Remove and Replace | 0.3 |
| Interior/Seats/Seatbelts | | |
| Ignition lock | Remove and Replace | 0.3 |
| Airbag - driver | Remove and Replace | 0.4 |
| Airbag - passenger | Remove and Replace | 0.9 |
| Airbag control module | Remove and Install | 0.3 |
| Airbag spiral cable/slip ring (clock spring) | Remove and Replace | 0.5 |
| Seat belt buckle - front | Remove and Install | 0.2 |
| Front seat belt and buckle - complete | Remove and Install | 0.5 |
| Rear seat belt - outer | Remove and Install | 0.5 |
| Seat belt buckle - rear outer | Remove and Install | 0.2 |
| Seat belt buckle - rear centre | Remove and Install | 0.2 |
| Rear seat belt and buckle - outer | Remove and Install | 0.5 |
| Rear seat belt and buckle - centre | Remove and Install | 0.5 |
| Rear bumper | | |
| Rear bumper - complete | Remove and Install | 0.5 |
| Rear bumper with parking aid | Remove and Install | 0.6 |
| Rear hatch/tailgate | | |
| Lock barrel | Remove and Replace | 0.4 |