

## APPENDIX 8

### MANUFACTORY REPAIR FLATE RATE FOR MERCEDES G WAGON 320 MODEL

OPERATION	DESCRIPTION	TIME
<b>Engine assembly</b>		
Engine & transmission complete	Remove and Install	11.5
<b>Cylinder head</b>		
Camshaft/valve cover & gasket - left	Remove and Install	3.8
Camshaft/valve cover & gasket - right	Remove and Install	3.3
Camshaft/valve cover & gasket (both)	Remove and Install	6.4
<b>Camshaft &amp; drive gear</b>		
Camshaft drive belt/chain	Remove and Install	5.1
<b>Lubrication</b>		
Engine oil & filter	Renew	0.4
Oil sump pan - upper	Remove and Install	8.8
Oil sump pan - lower	Remove and Install	2.8
<b>Throttle controls</b>		
Throttle pedal - LHD	Remove and Install	0.3
<b>Diesel injection system</b>		
Control ECU	Remove and Install	1.2
Injectors (all)	Remove and Install	2.8
Pre-heat plugs (all)	Remove and Install	1.4
<b>Fuel supply</b>		
Tank breather	Remove and Install	1
<b>Turbocharger</b>		
Turbocharger	Remove and Install	2.7
<b>Radiator, fan &amp; intercooler</b>		
Coolant/antifreeze	Drain and refill	0.7
Pressure test system	Check	0.3
Radiator	Remove and Install	5.5
Intercooler	Remove and Install	5.7
<b>Header tank &amp; hoses</b>		
Header/expansion tank	Remove and Install	0.8
<b>Exhaust system</b>		
Lambda sensor	Remove and Install	0.8
<b>Torque converter &amp; driveplate</b>		
Converter	Remove and Install	5.8
Converter housing & gasket	Remove and Install	7.1
<b>Automatic transmission, housing &amp; fluid system</b>		
Transmission unit	Remove and Install	5.8
Oil cooler	Remove and Install	1.3
Oil pan & gasket	Remove and Install	1.8
<b>Control, governor &amp; valves</b>		
Control ECU	Remove and Install	2.1
Valve block	Remove and Install	2.1

<b>Propshaft, centre differential &amp; transfer box</b>		
Propshaft - front/single	Remove and Install	2.4
Propshaft - rear	Remove and Install	2.2
Transfer box	Remove and Install	3.9
<b>Front axle</b>		
Front axle - complete	Remove and Install	5.9
Final drive pinion oil seal	Remove and Install	2.2
Halfshaft	Remove and Install	5.5
<b>Rear axle</b>		
Rear axle - complete	Remove and Install	6.4
Final drive pinion oil seal	Remove and Install	2.6
Driveshaft - left	Remove and Install	1.6
Driveshaft - right	Remove and Install	1.6
Driveshaft (both)	Remove and Install	2.7
<b>Front suspension</b>		
Road spring (both)	Remove and Install	4.6
Shock absorbers (pair)	Remove and Install	1.8
Radius arm	Remove and Install	1.9
Radius arm (both)	Remove and Install	2.4
Anti-roll bar	Remove and Install	1.6
Anti-roll bar bushes (all)	Remove and Install	1.3
<b>Rear suspension</b>		
Road spring (both)	Remove and Install	2.6
Shock absorbers (pair)	Remove and Install	1.1
Trailing/semi-trailing arm	Remove and Install	1
Trailing/semi-trailing arm (both)	Remove and Install	1.4
Panhard rod	Remove and Install	0.6
<b>Steering geometry</b>		
Geometry - complete vehicle	Check	1.3
Geometry - complete vehicle	Check and Adjust	1.6
Front wheel alignment (toe)	Check and Adjust	0.7
<b>Steering mechanism</b>		
Steering rack/box	Remove and Install	8.2
Drag link assembly	Remove and Install	0.4
Track rod	Remove and Install	0.4
Track rod end joint	Remove and Install	0.4
<b>Steering column</b>		
Steering wheel	Remove and Install	0.3
Steering column lock	Remove and Install	0.9
Steering column	Remove and Install	4.7
<b>Power assisted steering</b>		
Pump	Remove and Install	3.1
<b>Wheels</b>		
Wheel	Remove and Install	0.4
Wheels - (both)	Remove and Install	0.5
Wheels - (all)	Remove and Install	0.8
<b>Braking system hydraulics</b>		
Hydraulic system	Bleed	1

Fluid reservoir (separate)	Remove and Install	0.3
Master cylinder LHD	Remove and Install	1.5
Rear wheel cylinder (both)	Remove and Install	2
Front brake caliper (both)	Remove and Install	2.2
Front brake hose (one)	Remove and Install	1.1
Front brake hose (both)	Remove and Install	1.4
Pressure compensator/load valve (one)	Remove and Install	1.9
<b>Footbrakes</b>		
Front brake pads (all)	Remove and Install	0.8
Front brake pads (all) - wheels removed	Remove and Install	0.3
Rear brakes shoes (all)	Remove and Install	2
Front brake disc (both)	Remove and Install	2
<b>Brake pedal &amp; servo</b>		
Servo - LHD	Remove and Install	1.4
Servo non-return valve	Remove and Install	1.3
<b>ABS or ABS/ESP</b>		
ECU	Remove and Install	0.8
Wheel sensor - front (one)	Remove and Install	0.7
Wheel sensor - front (both)	Remove and Install	1.3
Wheel sensor - rear (one)	Remove and Install	0.5
Wheel sensor - rear (both)	Remove and Install	0.9
<b>Parking brake</b>		
Parking brake freeplay	Check and Adjust	0.3
Parking brake lever	Remove and Install	2.5
Parking brake cable - secondary	Remove and Install	1.9
Parking brake cables - (both) equal length	Remove and Install	3
Parking brake pads/shoes (all)	Remove and Install	2
<b>Battery</b>		
Battery	Check	0.3
<b>Charging system</b>		
Alternator	Remove and Install	1.8
Voltage regulator	Remove and Install	1.9
<b>Starting system</b>		
Starter motor - pre-engaged	Remove and Install	1.9
Starter motor solenoid	Remove and Install	2
<b>Bulbs &amp; LEDs</b>		
Bulb - unspecified (one)	Remove and Install	0.2
Headlamp bulb	Remove and Install	0.7
Rear combination bulb (any)	Remove and Install	0.2
Instrument panel warning lamp (any)	Remove and Install	0.2
<b>Front lamps</b>		
Gas discharge headlamps	Check and Adjust	0.7
Gas discharge headlamp - one	Remove and Install	0.9
Gas discharge headlamp - (both)	Remove and Install	1.2
Fog lamp - one	Remove and Install	0.8
Direction indicator lamp - one	Remove and Install	0.5
<b>Rear lamps</b>		
Rear combination lamp assembly	Remove and Install	0.3

Number plate lamp - one	Remove and Install	0.3
<b>Interior lamps</b>		
Interior lamp - front	Remove and Install	0.2
Interior lamp - rear	Remove and Install	0.2
<b>Switches</b>		
Starter/ignition switch	Remove and Install	1
Direction indicator switch	Remove and Install	1.4
Main lighting switch	Remove and Install	0.5
Dip/main/flash switch	Remove and Install	1.4
Wash/wipe switch	Remove and Install	1.4
Hazard warning lights switch	Remove and Install	1.4
Stop lamps switch	Remove and Install	0.4
<b>Instruments</b>		
Instrument panel	Remove and Install	0.5
<b>Transducers, sensors &amp; transmitters</b>		
Fuel level sensor	Remove and Install	0.8
<b>Fusebox &amp; Relays</b>		
ABS relay	Remove and Install	0.2
ABS pump relay	Remove and Install	0.2
<b>Air conditioning</b>		
System evacuation/recharging	Check and Adjust	1
Air conditioning control panel	Remove and Install	0.7
<b>Front door</b>		
Door mirror - one	Remove and Install	1.1
Door mirror - (both)	Remove and Install	1.3
<b>Interior/Seats/Seatbelts</b>		
Airbag - driver	Remove and Install	0.6
Airbag control module	Remove and Install	1.9
Front seat belt	Remove and Install	1.1
Seat belt buckle - rear outer	Remove and Install	0.4
Seat belt buckle - rear centre	Remove and Install	0.2
<b>Back door</b>		
Lock barrel	Remove and Install	1.1