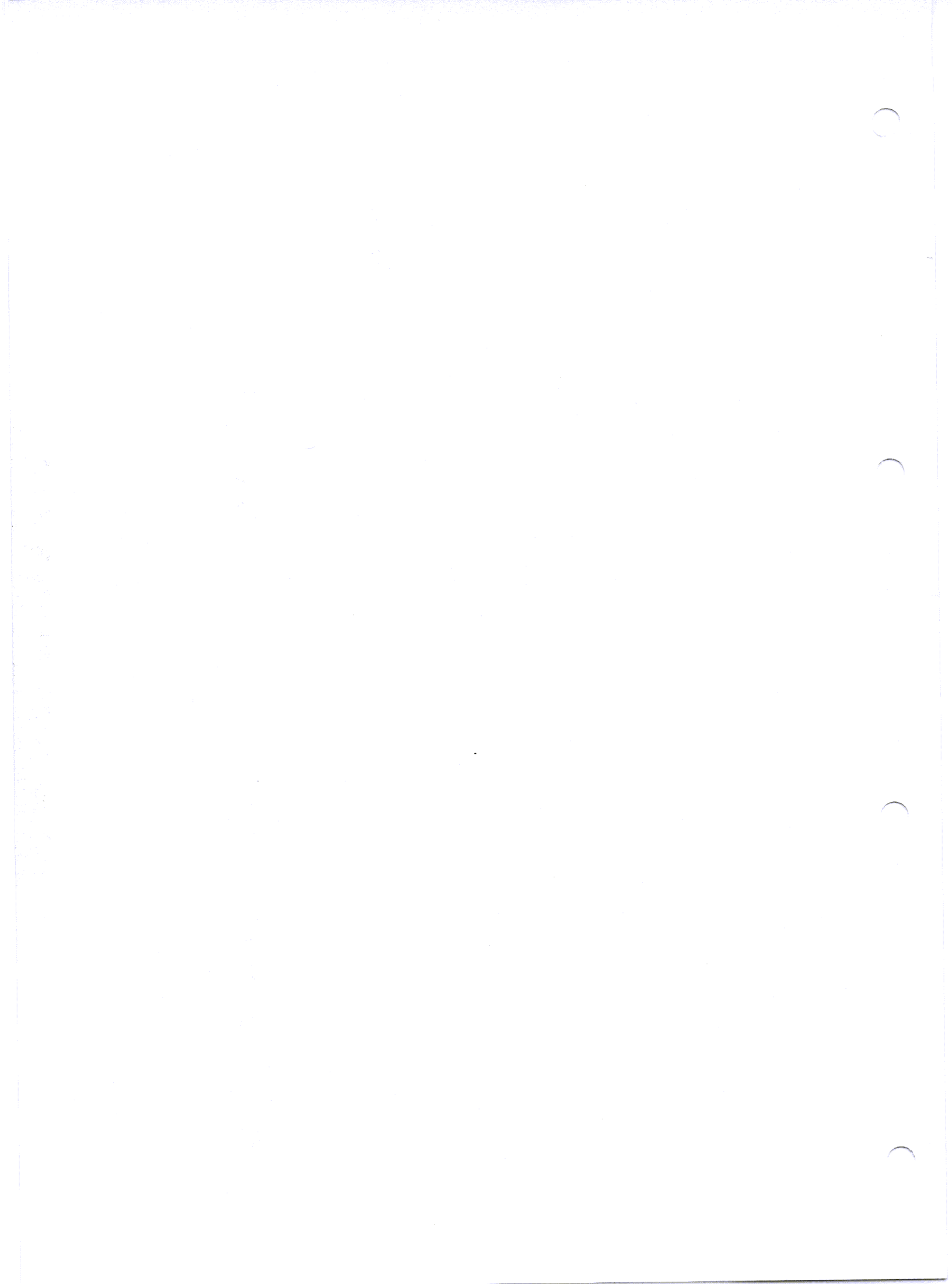


CHAPTER 3

OVERHAUL

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ROLLS-ROYCE AUTOMATIC GEARBOX

SUMMARY OF REPAIR DATA

The torque loadings given in this Summary apply to nuts and bolts assembled with gearbox oil on the threads and the bolt or nut faces.

Inspection and assembly check dimensions apply only to the methods described later in the Sections.

SECTION 1 — GEARBOX — TO REMOVE AND FIT

Torus cover drain plug	..	..	..	..	..	..	..	..	..	18 lb.ft. to 20 lb.ft.
Torus cover to flywheel	..	..	..	..	..	..	..	..	..	18 lb.ft. to 20 lb.ft.
Throttle lever to spindle	..	..	..	..	..	..	..	..	..	3 lb.ft. to 4 lb.ft.
Selector lever to shaft	..	..	..	..	..	..	..	..	..	8 lb.ft. to 10 lb.ft.

SECTION 2 — FLUID COUPLING

Mainshaft nut	..	..	..	..	..	..	..	..	..	50 lb.ft. to 55 lb.ft.
Bell housing to gearbox casing	..	..	..	..	..	..	..	..	..	60 lb.ft. to 65 lb.ft.
Relief valve retainer to torus hub	..	..	..	..	..	..	..	..	..	8 lb.ft. to 10 lb.ft.
Intermediate shaft end float	..	..	..	..	..	..	..	..	..	0.005 in. to 0.008 in.

SECTION 3 — SIDE COVER, SUMP AND FILTER

Side cover to gearbox casing	..	..	..	..	..	..	..	..	..	8 lb.ft. to 10 lb.ft.
Sump to gearbox casing	..	..	..	..	..	..	..	..	..	16 lb.ft. to 18 lb.ft.
Sump drain plug	..	..	..	..	..	..	..	..	..	40 lb.ft. to 45 lb.ft.

SECTION 4 — CONTROL VALVE UNIT

Control valve unit to gearbox casing	..	..	..	..	..	..	..	..	..	6 lb.ft. to 8 lb.ft.
Front body to inner valve body	..	..	..	..	..	..	..	..	..	3 lb.ft. to 4 lb.ft.
Outer body to inner valve body	..	..	..	..	..	..	..	..	..	3 lb.ft. to 4 lb.ft.
Overspeed valve body to inner valve body	..	..	..	..	..	..	..	..	..	3 lb.ft. to 4 lb.ft.
Front body cover plate to front valve body	..	..	..	..	..	..	..	..	..	3 lb.ft. to 4 lb.ft.
Compensator valve plate to outer valve body	..	..	..	..	..	..	..	..	..	3 lb.ft. to 4 lb.ft.
Selector plunger body to outer body	..	..	..	..	..	..	..	..	..	3 lb.ft. to 4 lb.ft.

SECTION 5 — PARKING BRAKE BRACKET

Parking brake bracket to gearbox casing	..	..	..	..	..	..	..	..	..	16 lb.ft. to 18 lb.ft.
Parking pawl support screw	..	..	..	..	..	..	..	..	..	25 lb.ft. to 28 lb.ft.

SECTION 6 — FRONT AND REAR SERVO UNITS

Front servo body to cylinder	..	..	..	..	..	..	..	..	..	8 lb.ft. to 10 lb.ft.
Front servo to gearbox casing	..	..	..	..	..	..	..	..	..	29 lb.ft. to 32 lb.ft.
Front servo screwed plug	..	..	..	..	..	..	..	..	..	6 lb.ft. to 7 lb.ft.
Front servo valve body to servo body	..	..	..	..	..	..	..	..	..	3 lb.ft. to 4 lb.ft.
Rear servo strap to body	..	..	..	..	..	..	..	..	..	16 lb.ft. to 18 lb.ft.
Rear servo to gearbox casing	..	..	..	..	..	..	..	..	..	29 lb.ft. to 32 lb.ft.
Band adjusting screw lock-nut	..	..	..	..	..	..	..	..	..	45 lb.ft. to 50 lb.ft.

ROLLS-ROYCE AUTOMATIC GEARBOX

SECTION 7—REAR PUMP AND GOVERNOR

Rear pump and governor to gearbox casing	16 lb.ft. to 18 lb.ft.
Rear pump cover to rear pump body	8 lb.ft. to 10 lb.ft.
Governor body to driving flange	8 lb.ft. to 10 lb.ft.
G2 valve retaining plate to governor body	3 lb.ft. to 4 lb.ft.
Governor tower run-out	0-005 in. max.
Governor drive flange run-out	0-001 in. max.
Governor sleeve oil sealing ring gap	0-001 in. to 0-006 in.
Pump drive-shaft end float	0-0005 in. to 0-0025 in.

SECTION 8—PRESSURE CONTROL VALVE

Pressure control valve to gearbox casing	45 lb.ft. to 50 lb.ft.
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SECTION 9—FRONT PUMP AND DRIVE-SHAFT

Body to cover	12 lb.ft. to 15 lb.ft.
Pump to gearbox casing	10 lb.ft. to 13 lb.ft.
Vanes diametrical clearance	0-0012 in. to 0-0042 in.
Vanes end clearance	0-0008 in. to 0-002 in.
Rotor end clearance	0-0008 in. to 0-002 in.
Slide end clearance	0-0008 in. to 0-002 in.
Cover sealing ring gap	0-005 in. to 0-010 in.
Bell housing to gearbox casing nip	0-003 in. to 0-013 in.

SECTION 10—RIDE CONTROL UNIT

Driving key end float	0-020 in. to 0-040 in.
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SECTION 11—SPEEDOMETER DRIVE

Drive-shaft end float	0-020 in. to 0-038 in.
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SECTION 13—REVERSE UNIT

Reverse housing to gearbox casing	29 lb.ft. to 32 lb.ft.
Coupling flange nut	150 lb.ft. to 180 lb.ft.
Drive-flange to rear drum	16 lb.ft. to 18 lb.ft.
Mainshaft end float	0-004 in. to 0-015 in.
Output shaft end nip	0-004 in. to 0-010 in.
Reverse planet carrier end float	0-004 in. to 0-015 in.

SECTION 14—DRUM ASSEMBLY

Centre bearing cap to gearbox casing	45 lb.ft. to 50 lb.ft.
Rear planet pinion annulus to rear drum	3 lb.ft. to 4 lb.ft.
Oil delivery sleeve sealing ring gap	0-003 in. to 0-009 in.
Front drum end float on intermediate shaft	0-002 in. to 0-004 in.

SECTION 15—GEARBOX CASING

Oil pressure check point plug	16 lb.ft. to 18 lb.ft.
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