



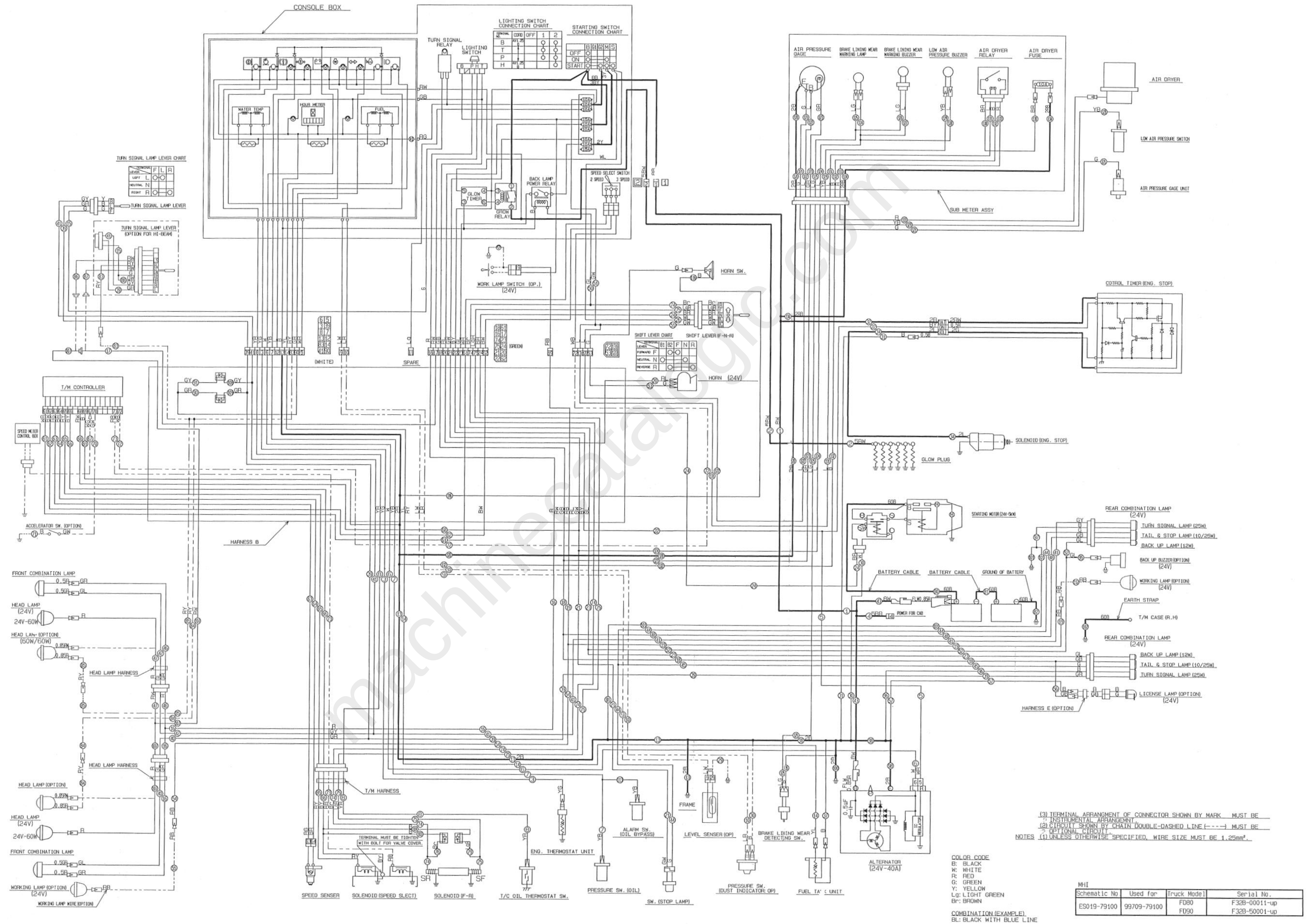
Service Manual

Chassis & Mast

FD80 F32B-00011-09999

FD90 F32B-50001-59999

Electrical System Schematic



- (b) When assembling the hub and drum assembly after replacing the parts, align the extension valve grooves in the brake drum and wheel hub.
- (c) Use liquid gasket on the mating surface of the oil deflector when installing the deflector.

Tightening torque for brake drum nuts	$359 \pm 36 \text{ N}\cdot\text{m}$ $(36.6 \pm 3.7 \text{ kgf}\cdot\text{m})$ $[265 \pm 27 \text{ lbf}\cdot\text{ft}]$
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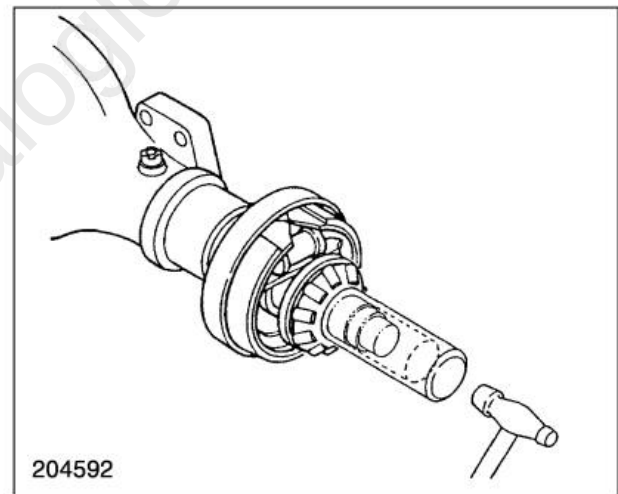
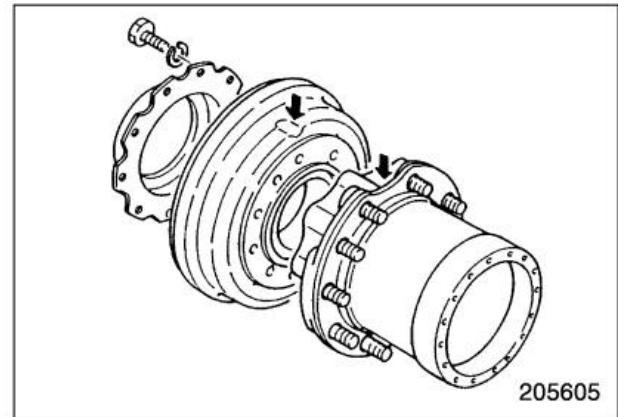
NOTE

Replace the oil seals of the front axle housing.

Suggestions for Assembly

1. Taper roller bearing (inner race) installation

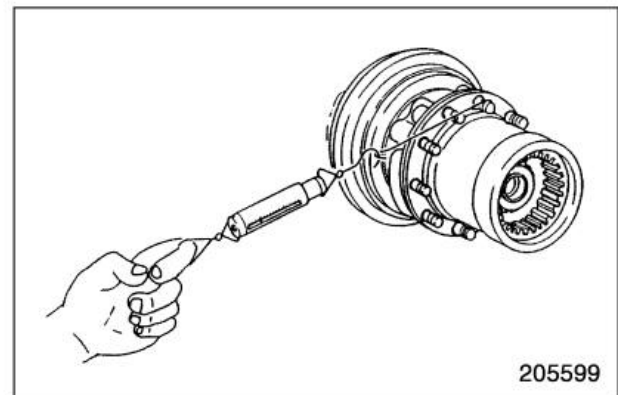
Using an installer, install the taper roller bearing inner race in position, along with the oil seal retainer.



2. Wheel hub bearing preload adjustment

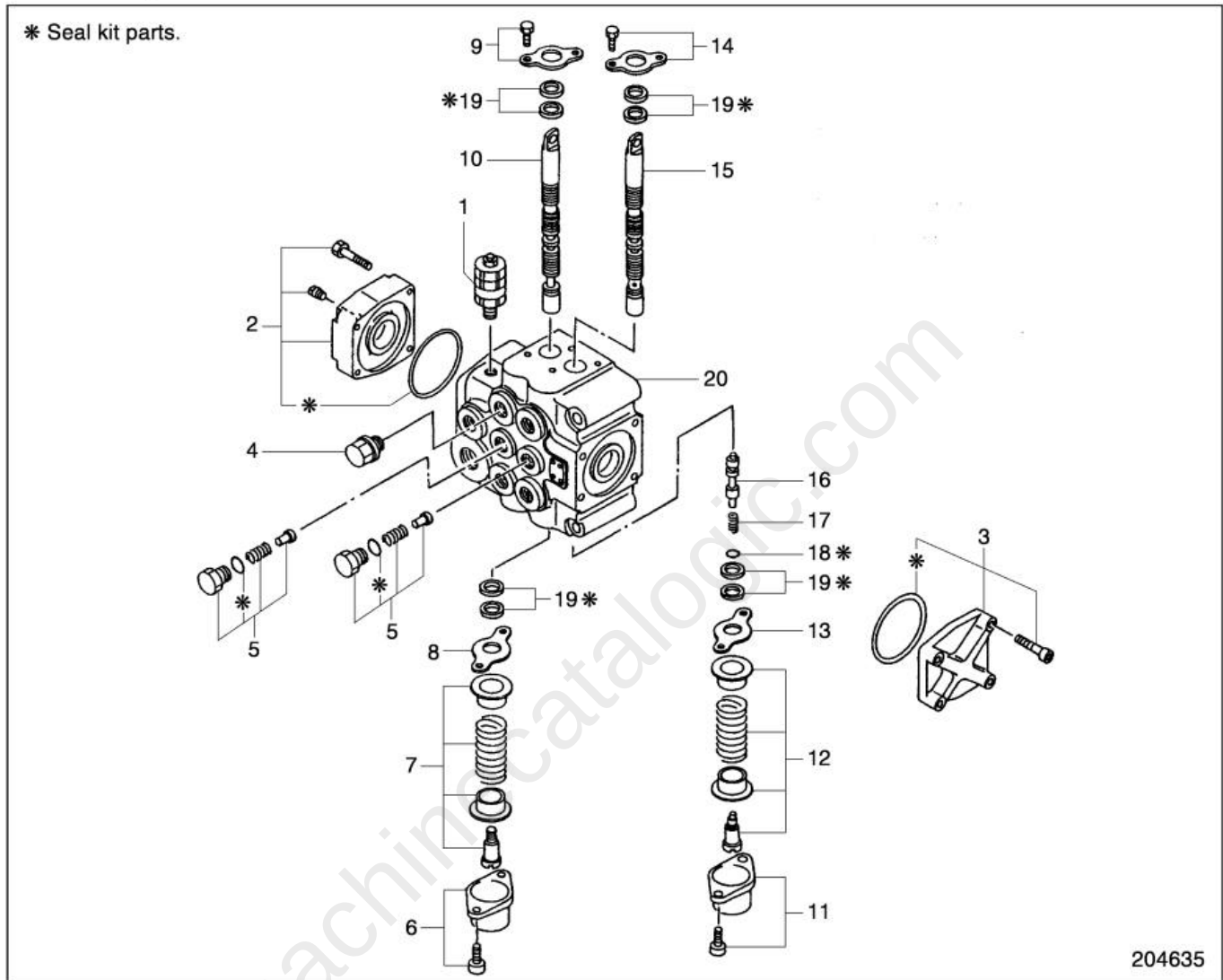
Hook a spring balancer to one of the hub bolts. Pull the scale in tangential direction and take a reading on the scale just when the hub begins to rotate. Adjust the preload by means of the nut that holds the ring gear. If the bearings have long been in service, it is advisable to aim at a value of preload in the lower half of the range.

Preload for wheel hub bearing (force applied in tangential direction)	$127 \text{ to } 167 \text{ N}$ $(13 \text{ to } 17 \text{ kgf})$ $[29 \text{ to } 38 \text{ lbf}]$
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Control Valve

Disassembly



Sequence

- | | |
|---------------------------------------|------------------------------------|
| 1. Main relief valve assembly | 11. Cap, Socket head bolts |
| 2. Cover A, Socket head bolts, O-ring | 12. Cap screw, Spring seat, Spring |
| 3. Cover B, Socket head bolts, O-ring | 13. Seal plate |
| 4. Plug assembly | 14. Wiper, Bolts |
| 5. Poppet, Spring, Plug, O-ring | 15. Tilt spool |
| 6. Cap, Socket head bolts | 16. Poppet |
| 7. Cap screw, Spring seat, Spring | 17. Spring |
| 8. Seal plate | 18. O-ring |
| 9. Wiper, Bolts | 19. Seals |
| 10. Lift spool | 20. Valve housing |

NOTE

Do not disassemble seals 19 from valve housing 20 unless they are faulty.

Inspection

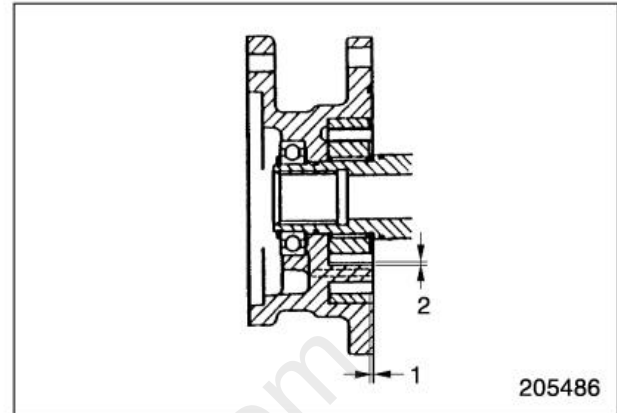
1. Oil pump

- (1) Put the internal gear and pump gear in the pump case, and measure top clearance 2.
- (2) Using a dial indicator, measure side clearance 1 between the gears and pump case.

A: Standard value B: Repair or service limit

Unit: mm (in.)

Side clearance 1	A	0.040 to 0.078 (0.00157 to 0.00307)
	B	0.09 (0.0035)
Top clearance 2	A	0.3 to 0.345 (0.0118 to 0.0136)
	B	0.35 (0.0138)



2. Stator shaft

- (1) Check the splines for wear or damage.
- (2) Check the oil passages for clogging.

3. Friction plates and mating plates

- (1) Check for sign of seizure, uneven contact, warpage or excessive wear.
- (2) Check the splines for wear or damage.

4. Clutch drums

- (1) Check the mating plate sliding surfaces for wear or damage.
- (2) Check the clutch piston sliding surfaces for wear or damage.

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