# SERVICE MANUAL

## T3.50F / T3.55F / T3.65F / T3.75F

Tractor

Part number 47977155
English
February 2016

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| Fuel Injectors: | |
|---|---|
| BOSCH | 5090726<br>5090725 |
| Nozzle holder type | KBEL 83.535 |
| Nozzle type | 0432291494 |
| Number of nozzles | 6 |
| Diameter of nozzle orifices | **0.23 mm** |
| Pressure setting | **260 - 272 bar** |
| Fuel delivery lines – BOSCH pump | |
| Type | 4797506 (TT65)<br>5090730 (TT50, TT55, TT60) |
| Dimensions | **6 mm x 1.5 mm x 475 mm** |

| Fuel supply pump data | mm |
|---|---|
| Eccentricity of drive shaft | **3 mm** |
| Diameter of drive shaft at bushings | **31.975 - 32.000 mm** |
| Internal diameter of installed and reamed bushings | **32.050 - 32.075 mm** |
| Interference between bushings and seats | **0.063 - 0.140 mm** |
| Assembly clearance between shaft and bushings | **0.050 - 0.100 mm** |
| Thickness of internal washer | **1.45 - 1.50 mm** |
| Thickness of external washer | **2.93 - 3.00 mm** |

| Crankcase / cylinder block data | mm |
|---|---|
| Cylinder block | Cast-iron mono-block without cylinder liners, incorporating seatings for crankshaft bearings, camshaft and push rod / tappet assemblies |
| Internal diameter of cylinder liners | **104.000 - 104.024 mm** (1) |
| External diameter of cylinder liners | **107.020 - 107.050 mm** |
| Diameter of cylinder bores | **106.850 - 106.900 mm** |
| Interference fit between cylinder liners and bores | **0.120 - 0.200 mm** |
| Liner internal diameter over sizes | **0.4 - 0.8 mm** |
| Liner external diameter over sizes | **0.2 mm** |
| Maximum permissible liner ovality or taper due to wear (2) | **0.12 mm** |
| Diameter of main shell bearing seats | **84.200 - 84.230 mm** |
| Diameter of camshaft bearing seats: | |
| Front | **54.780 - 54.805 mm** |
| Middle | **54.280 - 54.305 mm** |
| Rear | **53.780 - 53.805 mm** |
| Diameter of standard tappet bores in crankcase | **15.000 - 15.018 mm** |
| Spare tappet over sizes | **0.1 mm – 0.2 mm – 0.3 mm** |

(1) Measured after press-fitting and reaming.
(2) Measure in the area swept by piston rings, both parallel and perpendicular to the crankshaft axis.

| Crankshaft and bearings data | mm |
|---|---|
| Crankshaft | Balanced with integral counterweights |
| Standard journal diameter | **79.791 - 79.810 mm** (1) |
| Journal under sizes | **0.254 mm – 0.508 mm – 0.762 mm – 1.016 mm** |
| Standard main bearing shell thickness | **2.168 - 2.178 mm** |
| Main bearing shell under sizes (internal diameter) | **0.254 mm – 0.508 mm – 0.762 mm – 1.016 mm** |
| Bearing shell to journal clearance | **0.034 - 0.103 mm** |
| Maximum permitted wear clearance | **0.180 mm** |
| Standard crankpin diameter | **63.725 - 63.744 mm** (1) |
| Crankpin under sizes | **0.254 mm – 0.508 mm – 0.762 mm – 1.016 mm** |
| Standard big-end bearing shell thickness | **1.805 - 1.815 mm** |
| Big-end bearing shell under sizes (internal diameter) | **0.254 mm – 0.508 mm – 0.762 mm – 1.016 mm** |
| Big-end bearing shell to crankpin clearance | **0.033 - 0.087 mm** |



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| Problem | Possible Cause | Correction |
|---|---|---|
| **Neutral phase of power steering unobtainable During manual control, operation is normal; when stopping manual control the steering wheel tends to move on its own, or remain stationary, but steering continues slowly in the direction that was initially selected (motoring), therefore steering must be continually corrected with the steering wheel** | Leaf springs, for sleeve return to neutral position, damaged or fatigued | Replace the leaf springs assembly |
| | Sleeve and rotating valve locked in delivery position because of the presence of foreign bodies | Eliminate foreign bodies and clean the filter |
| | Sleeve crushed on the rotating valve due to excessive pressure | Check the pressure relief valve calibration |
| **Vibrations on front wheels (shimmy)** | Air pockets in the hydraulic cylinder | Bleed the air and eliminate the causes of possible infiltration |
| | Wear on mechanical joints on steering rods | Renew the worn parts |
| | Cylinder safety or backflow valves held open by foreign bodies or damaged | Eliminate foreign bodies and clean filter or replace the control valve |
| **Difficulty in steering in general, or in one direction** | Insufficient pressure | The hydraulic pump and pressure relief valve check the calibration |
| | Excessive leakage inside the control valve | Renew the control valve |
| | Cylinder safety valve incorrectly calibrated or soiled with deposits that interfere with the seal of one of the two valves | Eliminate the foreign bodies and clean the filter or renew the control valve |



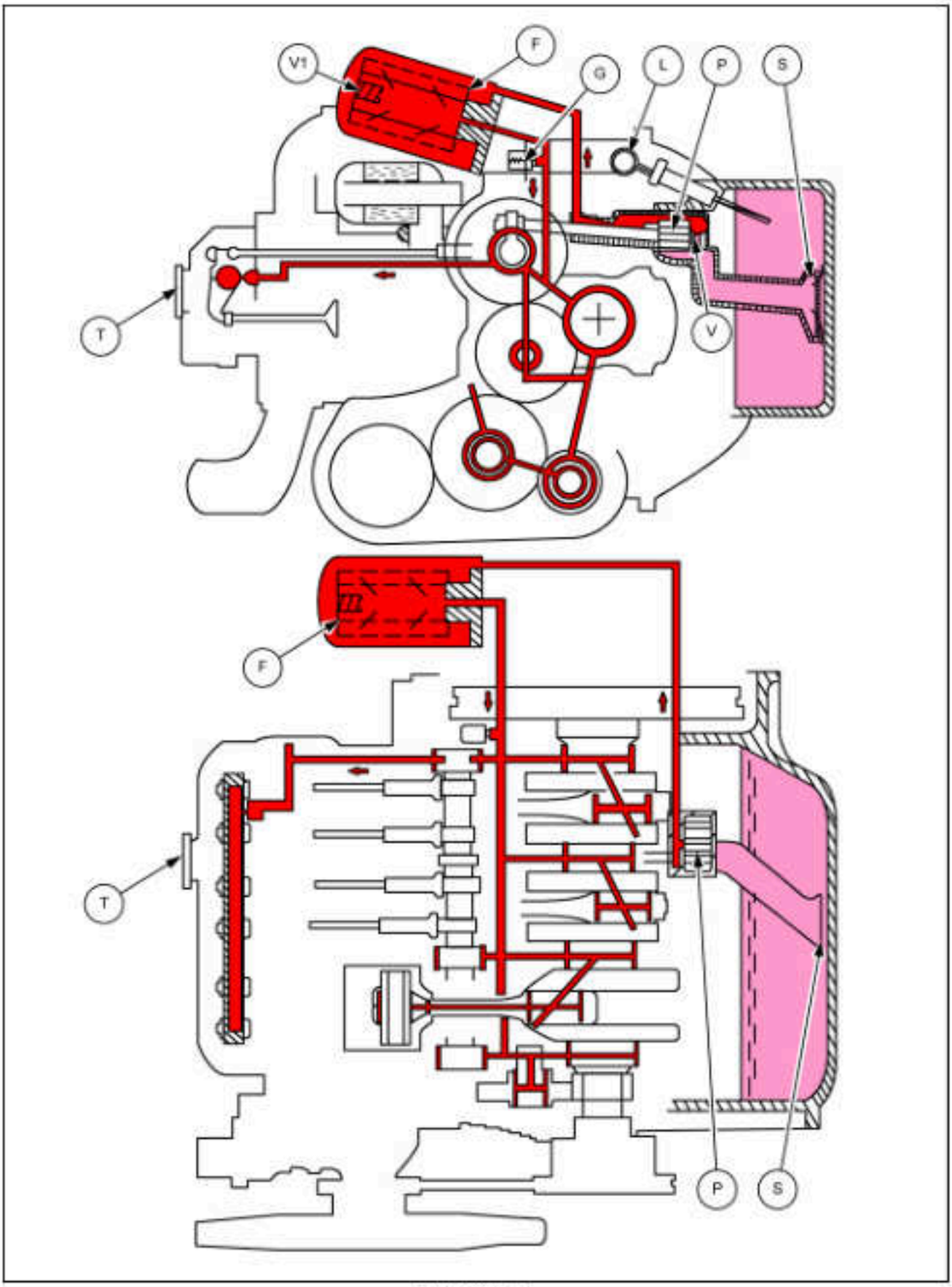
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# Wiring harnesses - Electrical schematic sheet 04 - Brake light circuit

| | |
|---|---|
| T3.F | WE |



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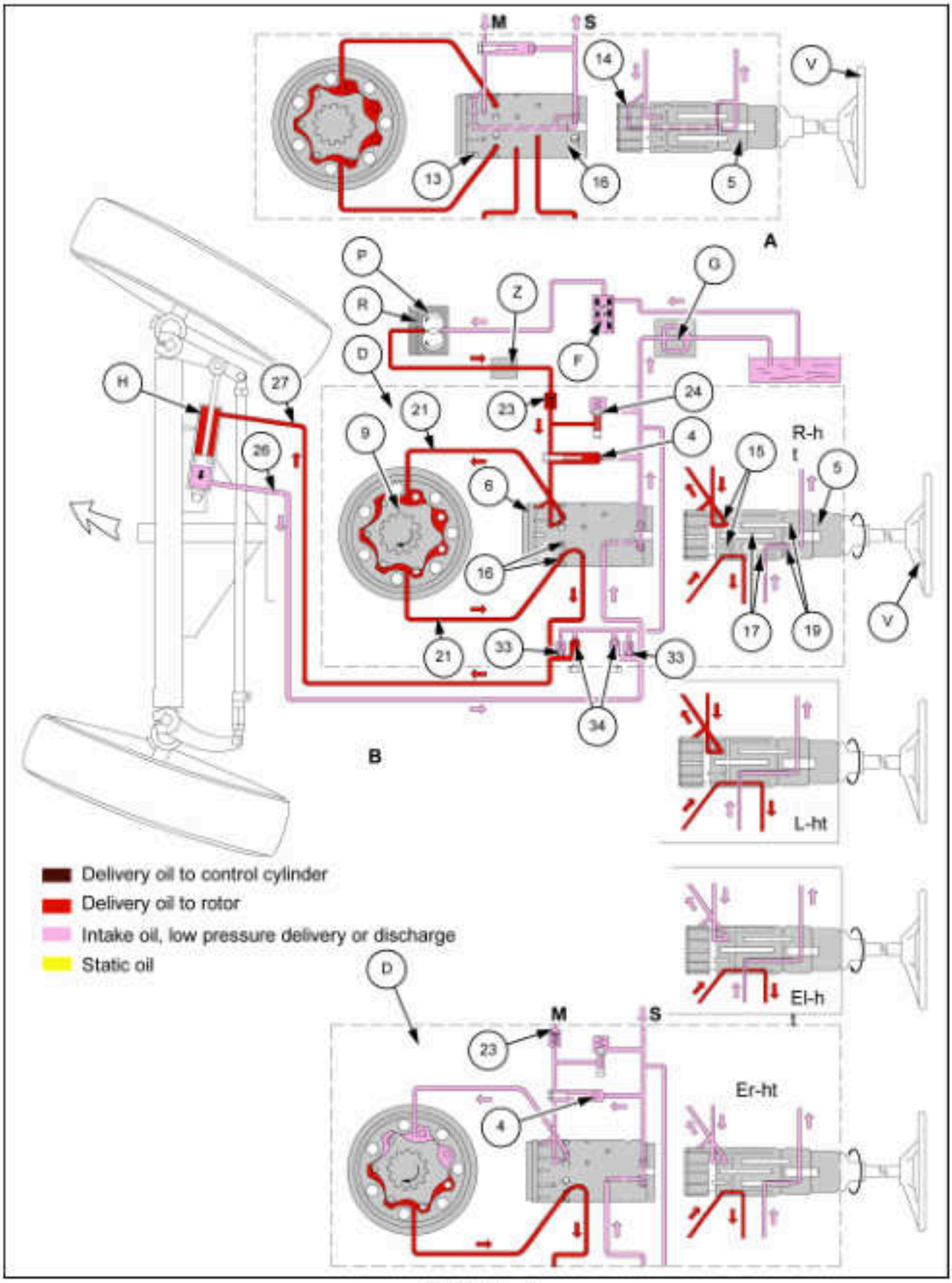

F. Filter
G. Switch for low engine oil pressure warning (on dashboard)
S. Screen filter on pick-up pipe
T. Oil filler cap



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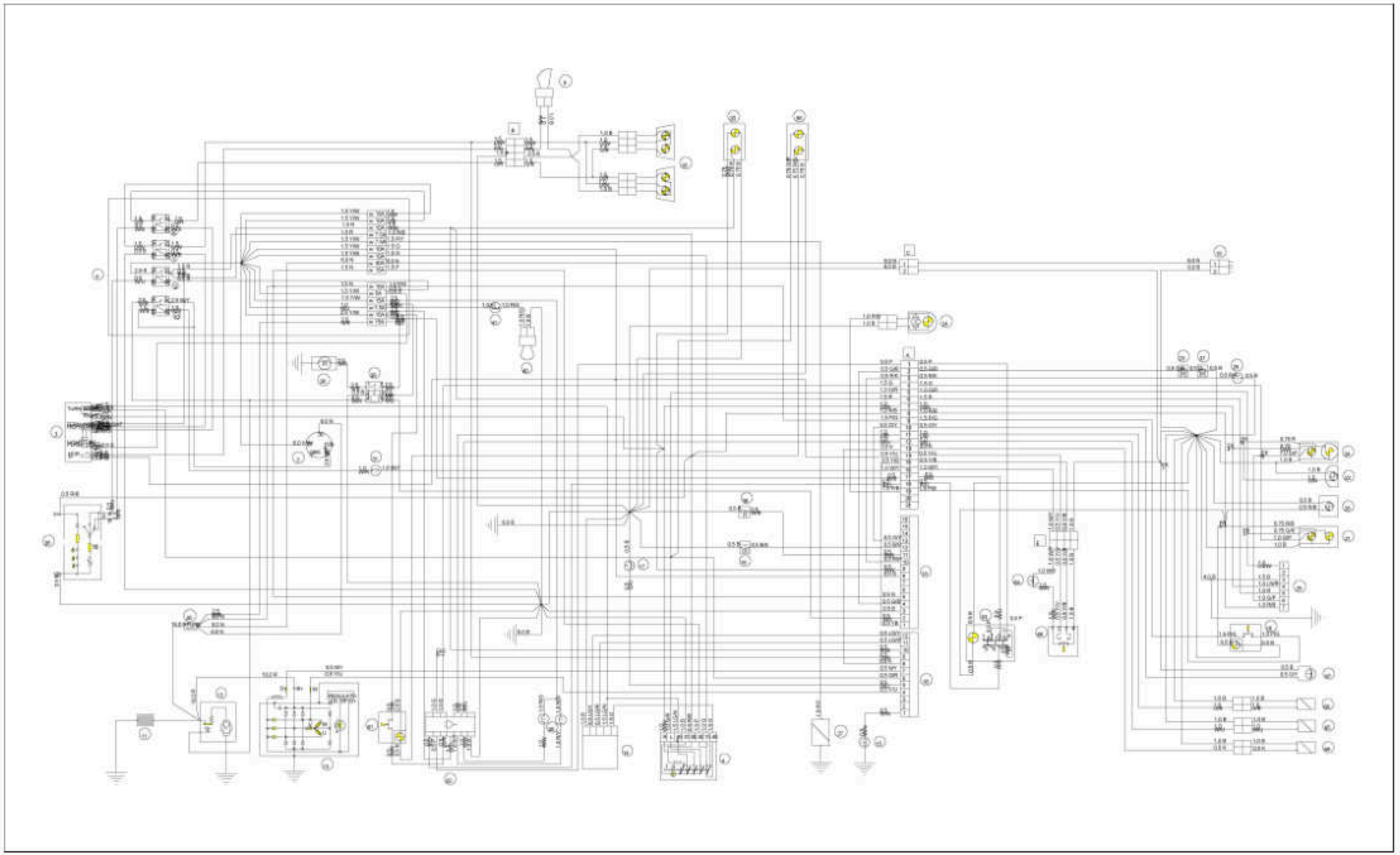
# Steering control - Detailed view

| T3.F | WE |
|---|---|






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