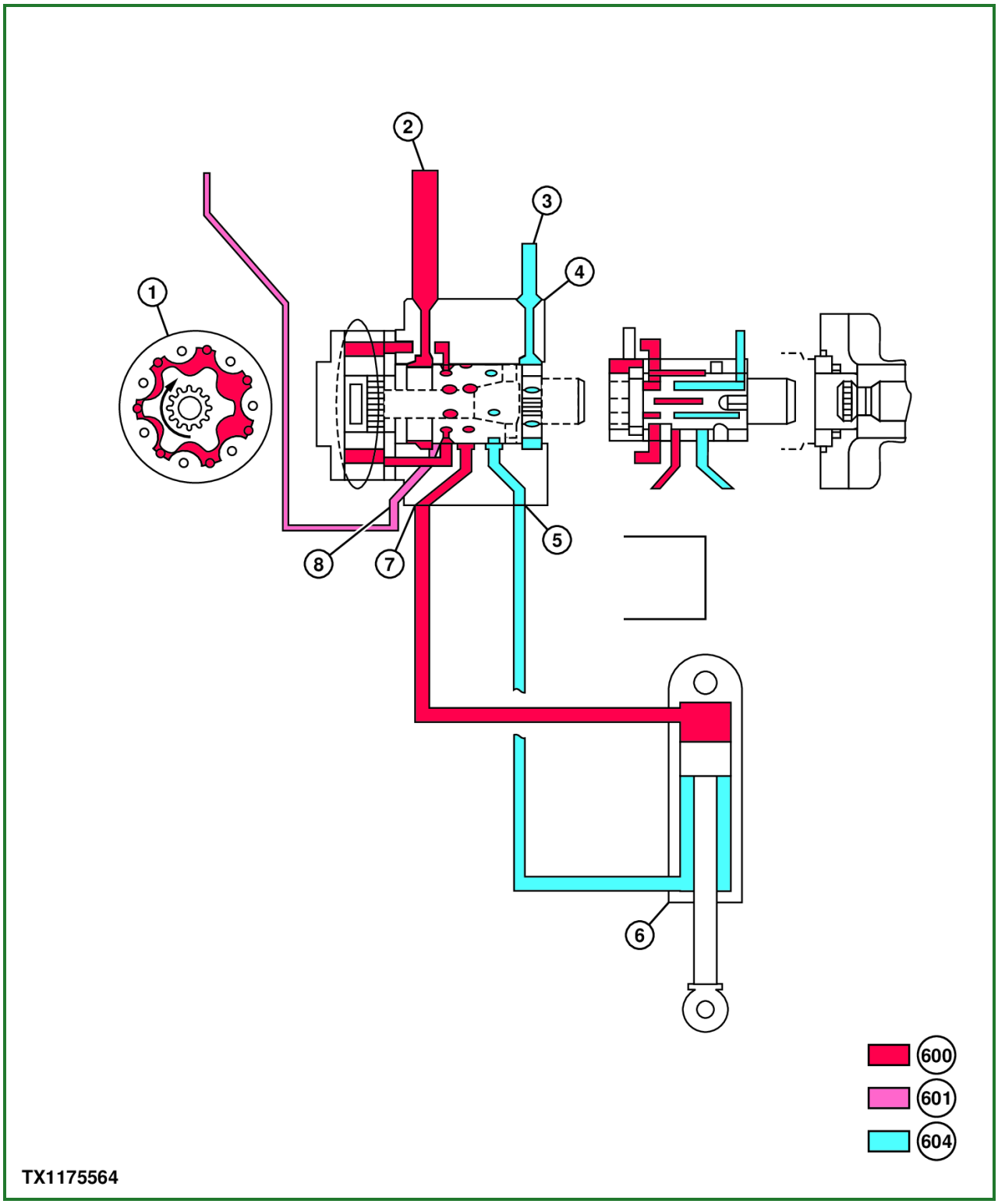
Orbital Steering Circuit Operation



TX1175564-UN: Steering Circuit—Right Turn

LEGEND:

1 - Gerotor

2 - Inlet Port

3 - Return Port

4 - Steering Valve

5 - Left Work Port

6 - Steering Cylinder

7 - Right Work Port

8 - Load Sense Port

600 - High-Pressure Oil

601 - Load Sense Oil

604 - Return Oil

The hydraulic pump draws oil from the reservoir and sends high-pressure oil (600) to the priority valve. High-pressure oil from the priority valve flows into the inlet port (2) of the orbital steering valve (4). The high-pressure oil flows through the sleeve and spool assembly to the gerotor (1) and load sense port (8). The oil from the gerotor flows back through the sleeve and spool, to the steering cylinder relief valve, and out through the right work port (7) to the steering cylinder (6). The load sense port supplies load sense oil (601) to the load sense section of the priority valve. Return oil (604) from the steering cylinder is routed back through the left work port (5) of the orbital steering valve. From there the return oil flows through the orbital steering valve where it is routed through the return port (3) to the return/suction filter of the reservoir. When steering is stopped, the load sense port is open to the return port. Load sense oil from the priority valve flows back through the orbital steering valve and out of the return port to the return/suction filter. This flow of oil is used as a cold oil warm-up circuit for the orbital steering valve. For additional information, see Orbital Steering Valve Operation (Group 9025-05), see Orbital Steering System Schematic , and see Orbital Steering System Component Location . (Group 9025-10.)

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