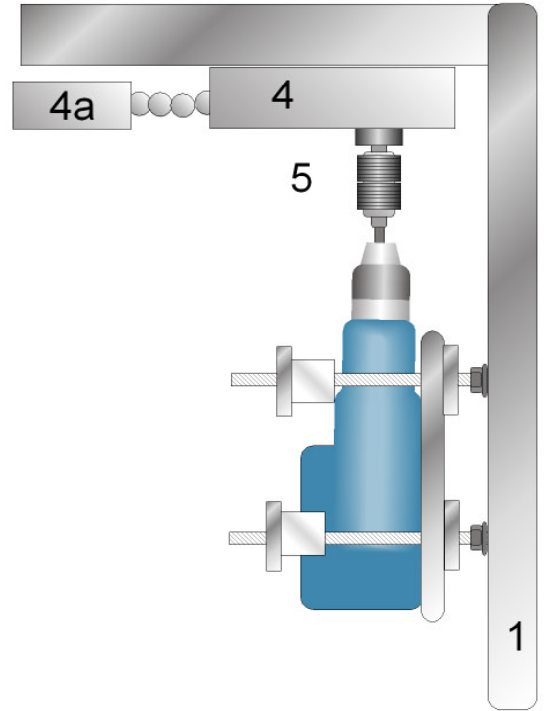
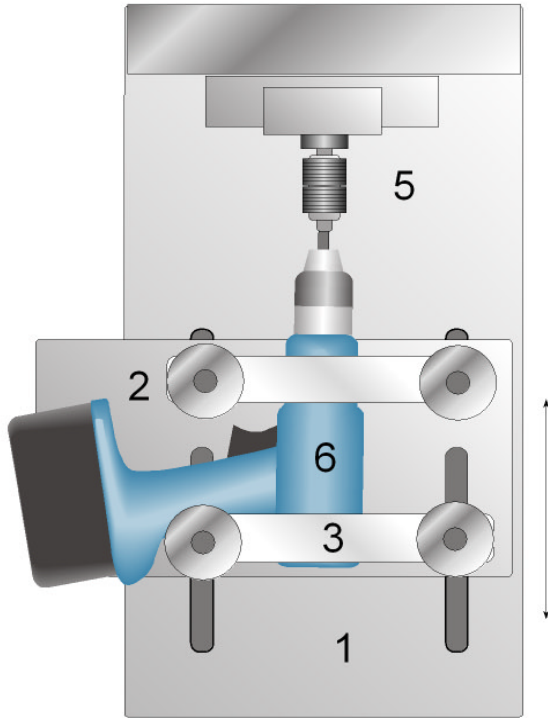


Drill
stall torque fixture (lay out)



1 Base Plate

2 Drill Plate

3 Hold-down bars

6 Drill under test

4 Transducer

4a Transducer Read-out

5 Joint rate simulator