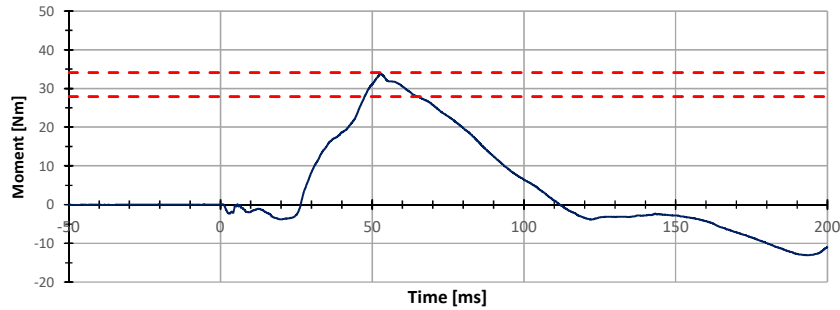


THOR 50th Neck Flexion Test

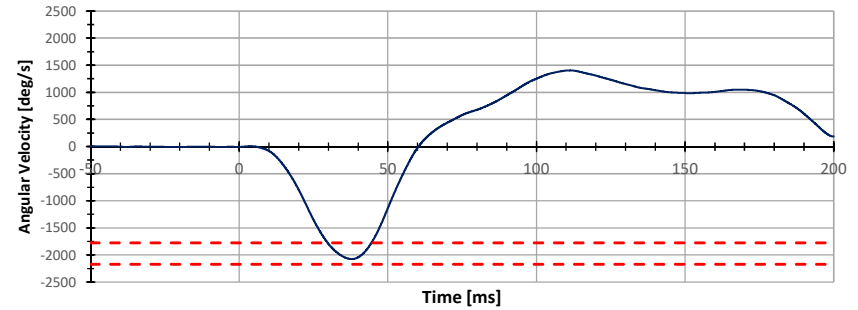
Test Parameter	min	Max	Unit	Result	Pass/Fail
Temperature	20.6	22.2	°C	21.1	Pass
Humidity	10	70	%	60.0	Pass
Impact Velocity	4.95	5.05	m/s	4.96	Pass
Peak Upper Neck My	27.9	34.1	Nm	33.8	Pass
Upper Neck Fz most positive value prior to 40ms	774	946	N	938	Pass
Peak Head Angular Velocity ω_y (relative to earth)	-2172	-1777	deg/s	-2075	Pass
Peak Head Rotation (relative to pendulum)	-71.0	-58.1	deg	-67.7	Pass

Test Parameter	min	Max	Unit	Result	Pass/Fail
Pendulum velocity at 8ms	1.57	1.92	m/s	1.79	Pass
Pendulum velocity at 16ms	3.13	3.82	m/s	3.47	Pass
Pendulum velocity at 24ms	4.42	5.41	m/s	4.77	Pass
(Monitor)					
Peak Upper Neck Fx	-1375	-1195	N	-1312	(Pass)

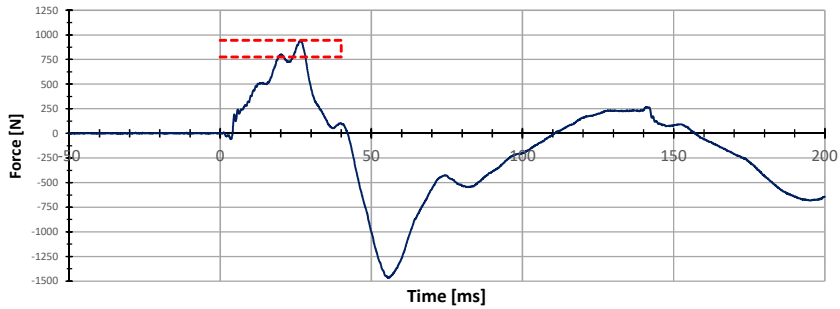
Upper Neck Moment Y-axis



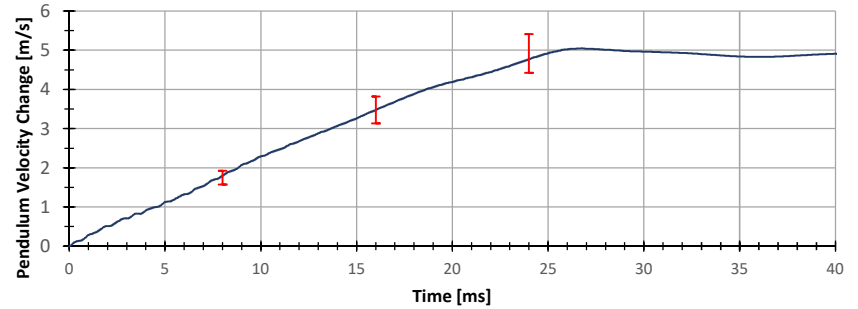
Head Angular Velocity



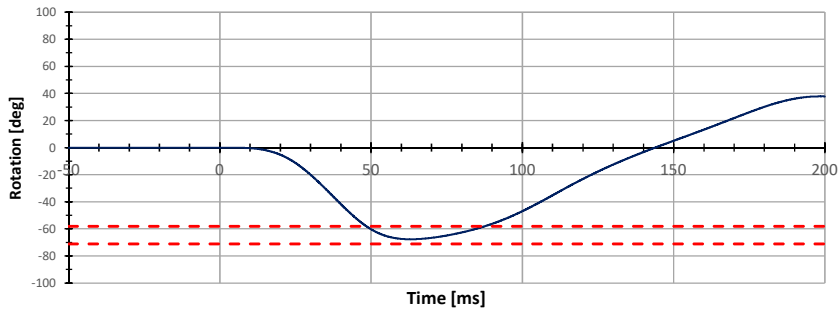
Upper Neck Force Z-axis



Pendulum Velocity Change



Head Rotation (relative to pendulum)



Monitor Forces

