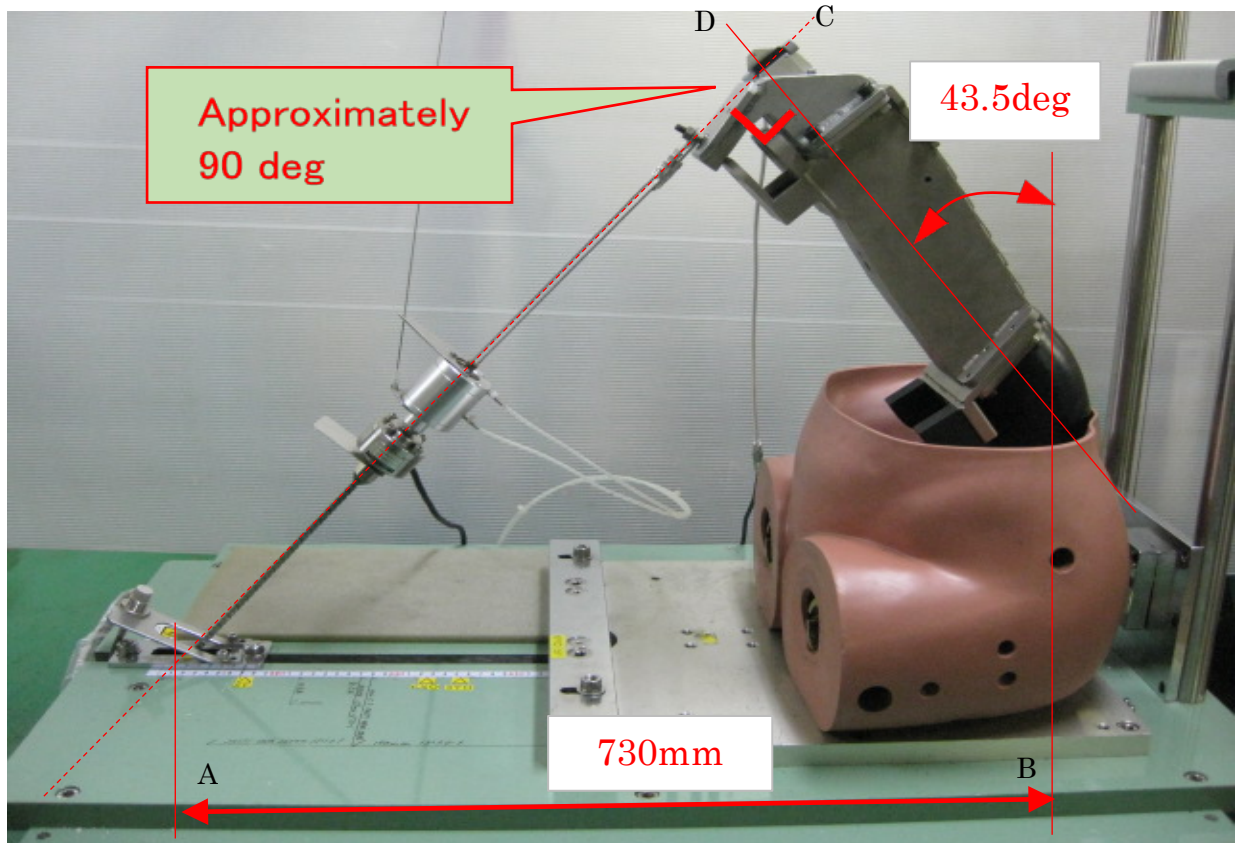


Technical Information to SAE in April 2015

JATI has been produced Hybrid-III 50th Lumbar Spine with following Tested & Certificated to Worldwide users since our presentation at ISO/TC22?SC12/WG5 2012 Kyoto.

The following is the submitted report to SAE standard works/
Comments and reference about test procedure and result;
J3075 Lumbar Flexion Test Procedure for the Hybrid III 50th Male Dummy

Picture A: Lumbar Spine Flexion test with Pelvis (since Oct. 2012)



center, but it is correct point from straight view)

Test start from an initial angle at 13.5deg

10deg. bent as total 23.5 deg

20deg bent as total 33.5 deg

30deg bent as total 53.5 deg

Recommended pulling point on a table from a vertical line of tightening point of Lumbar spine to a bottom table. Center of Lumbar Spine and Pulling cable should be approximately 90 deg as above pic.A.

The Pulling point is at 730mm (75mm more from 5F pulling point) as above pic.A.

LUMBAR SPINE SINGLE TEST RESULTS;

Purpose;

JASTI has been tested and certificated as single Lumbar Spine Flexion test.

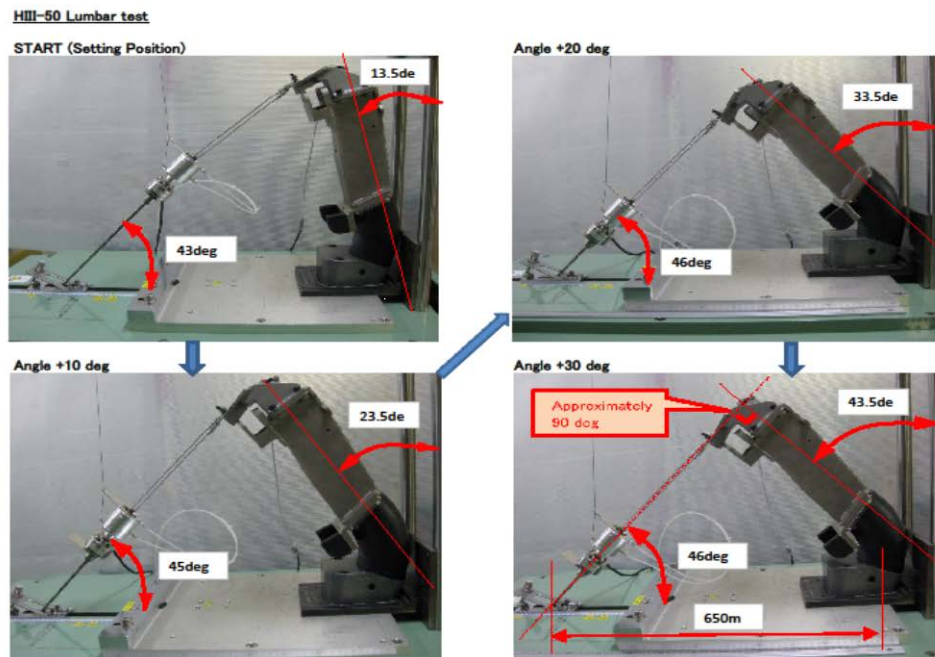
Test as following pictures 1-4.

Picture 1 ; Initial set up position (Natural forward bending angle as 13.5 deg.)

Picture 2; 10 deg. bent ($13.5+10=23.5$ deg)

Picture 3; 20 deg. bent ($13.5+20=33.5$ deg)

Picture 4; 30 deg. bent ($13.5+30=43.5$ deg)



Picture 1-4 New Test Method as a lumbar Spine test.

Pulling Speed: The same speed as other Torso Flexion test.

Tested Lumbar Spine: last 23

Tested s by Shore A 80 +/- 1

Recommended corridor;(Refer attached Picture and data

Initial set up angle: 0 deg.

10deg (reading angle as 23.5deg) ; 86-106N

20deg (reading angle as 33.5deg) ;150-179N

30deg (reading angle as 43.5deg) ;239-286N

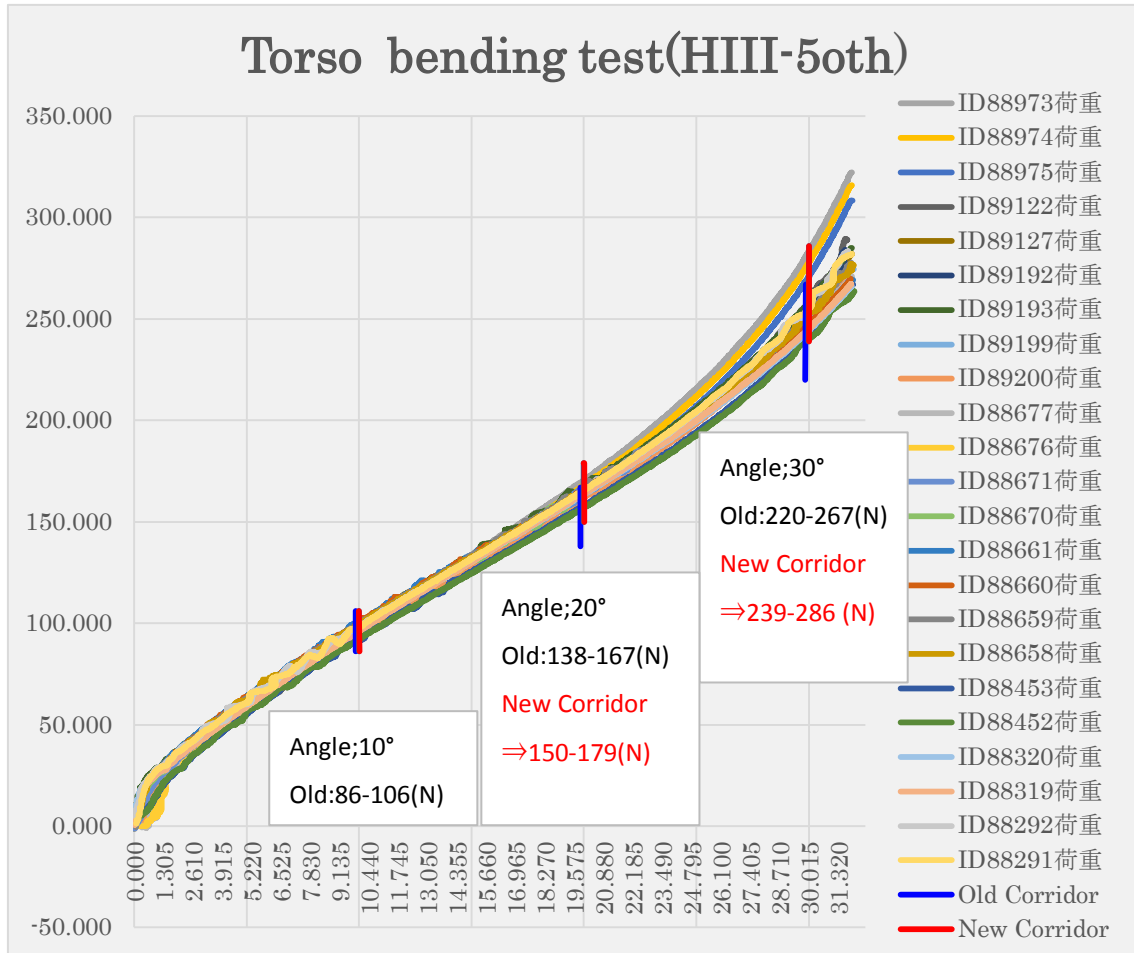


Fig. 1 Old and New corridor as Lumbar Spine Flexion test.

*Remarks; (reported at 31/May/2012 ISO/TC22/SC12/WG5 31/5/2012 at Kyoto)

We used to tested as a pulling point at Neck Pin.

-Standard Production request; Shore A 75-85

-Lumbar Spine production corridor; Shore A 80+/-2

+10deg; 86-106N

+20deg; 138N-167N

+30deg; 220+267N

We have changed new Lumbar Spine Flexion test method in Oct 2012 from Neck pin as point as reported in ISO WG Kyoto to the new pulling point

Picture B; Old pulling point at Neck pin side point.

