BenchPro
(Test Report)

BIFMA INTERNATIONAL

General-Porpuse Office Chairs – Test
American National Standart for Office Furniture

CHAIR TEST NAME: 14. ARM STRENGTH TEST-HORIZONTAL-STATIC

CHAIR: WNT3-V

START DATE: 09-02-2013

END DATE: 09-04-2013

Chair tests:

___ Backrest Stregth Test – Static (Type I)

___ Backrest Stregth Test – Static (Type II, III)

___ Base Test – Static

___ Drop Test – Dynamic

___ Swivel Test – Cyclic

___ Tilt Mechanism Test – Cyclic

__ Seating Durability Test – Cyclic

___ Stability tests

___ Arm Stregth Test – Vertical – Static

_X__ Arm Stregth Test – Horizontal – Static

___ Backrest Durability Test – Cyclic (Type I)

___ Backrest Durability Test – Cyclic (Type II, III)

___ Caster/Chair Base Durability Test - Cyclic

___ Leg Straght Test – Front and Side Application

___ Footrest Durability Test – Vertical - Cyclic

___ Arm Durability Test - Cyclic

___ Out Stop Test for chairs with Manually Adjustable Seat Depth

___ Tablet Arm Static Load Test

___ Tablet Arm Load Ease Test Cyclic

Type chair:

____X_____ Type I - Tilting Chair

_____X___ Type II – Fixed seat angle, tilting backrest

_____ Type III – Fixed seat angle, fixed backrest

Apllicability:

This test apply to all chairs with arms.

Purpose of the test:

The purpose of the test is to evaluate the ability of chair arm to withstand stresses caused by applying outward forces to the arm(s).

Test Setup

a) The chair shall be placed on a test platform and restrained from horizontal movement and tipping. The restraints shall not restrict the chair arm movement.
b) If adjustable features are available, all adjustments shall be set at normal use conditions.
c) A loading device or strap, not greater than 25 mm (1 in.) in horizontal width, shall be attached to arm so that the load is initially applied horizontally to the armrest structure at the apparent weakest point. For armrest that pivot in the horizontal plane, apply the load at the pivot point..
d) If applying the load with a cable and pulley system, the cable must initially be a minimum of 750 mm (30 in.) length from the attachment point to the pulley .

Test Procedures:

Functional Load

a) A force of 445 N (100 lbf.) shall be applied for one (1) minute in the outward direction .
b) Remove the force.

Proof Load

a) A force of 667 N (150 lbf.) shall be applied for one (1) minute in the outward direction.
b) Remove the force.

Acceptance Level

Functional Load

A functional load applied once shall cause no loss of serviceability

Proof Load

A proof load applied once shall cause no sudden and major change in the structural integrity of the unit. Loss of serviceability is acceptable.

Conclusion

After applying the functional load (force of 100 lb), the arm rest didn't loss serviceability or damage.

And after applying the proof load (force of 150 lb) the screws arms on a arm rest suffered a slight looseness, but not loss serviceability.

TEST	PASS
VIDEO	DONE
PHOTO	DONE