Australian Standard®

EARTH-MOVING MACHINERY—HUMAN DIMENSIONS

Part 3—SEAT INDEX POINT

(ISO Title: Earth-moving machinery and tractors and machinery for agriculture and forestry—Seat index point)

This Australian Standard was prepared by Committee ME/63, Earthmoving Equipment. It was approved on behalf of the Council of the Standards Association of Australia on 3 March 1988 and published on 17 June 1988.

The following interests are represented on Committee ME/63:

Australian Mining Industry Council
Bureau of Steel Manufacturers of Australia
Construction Equipment Importers and Manufacturers of Australia
Department of Administrative Services
Department of Conservation, Forests and Lands, Vic.
Department of Defence
Department of Forestry, Qld.
Department of Industrial Relations and Employment, N.S.W.
Department of Labour, Vic.
Department of Mines, Qld.
Earth-movers and Road Contractors Association of Australia
Forestry Commission of New South Wales
Local Government Engineers Association of New South Wales
Metal Trades Industry Association of Australia
National Association of Australian State Road Authorities
Rural Water Commission, Vic.
Safety Institute of Australia
Telecom Australia
Tractor and Machinery Association of Australia
Water Board, Sydney

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FOREWORD

1. This Australian Standard corresponds with ISO 5353—1978, *Earth-moving machinery and tractors and machinery for agriculture and forestry—Seat index point.* The Standard includes Amendment 1 (published 1981-05-15) to Clauses 2, 6, 8 and A.4(k) and Amendment 2 (published 1984-11-01) to the title and Clause 2. These amendments are indicated by a rule in the margin.
2. Introduction to and complete listing of the SAA series of earth-moving machinery Standards (AS 2951 to AS 2958) is available on request.
3. For the purpose of this Australian Standard the words 'International Standard' should be replaced by 'Australian Standard'.

Earth-moving machinery—Human dimensions
Part 3—Seat index point

1 SCOPE

This International Standard specifies a method and a device for use in establishing the position of the seat index point for any kind of padded seat.

2 FIELD OF APPLICATION

This International Standard is applicable to seats designed for operators of earth-moving machinery, and tractors and machinery for agriculture and forestry.

The seat index point (SIP) as established and defined by this International Standard can be considered, for operator work place design purposes, to be equivalent to the intersection on the vertical plane through the seat centreline of the theoretical pivot axis between a human torso and thighs when determined in accordance with the annex, this intersection being referred to as the H-point.

NOTE—It has been found that the difference between the SIP and the above-mentioned torso/thighs intersection (H-point) is no greater than ± 10 mm measured along the *x'* and *z'* axes (see annex).

The SIP can be determined on a seat by itself or located in its operating environment on the machine. It can therefore be specified directly by the seat manufacturer.

3 DEFINITION

seat index point (SIP): The point in the central vertical longitudinal plane of the SIP device shown in figure 1 when installed in the operator seat as specified in clauses 5 and 7.

The SIP is fixed with respect to the machine and does not move with the seat through its range of adjustment and/or oscillation.

4 DEVICE FOR DETERMINATION OF SEAT INDEX POINT

The device for determining the SIP shall comply with figure 1. The mass of the device shall be 6 ± 1 kg. The bottom surface of the device shall be smooth and polished.

5 ADJUSTMENT OF THE SEAT WHEN DETERMINING THE SEAT INDEX POINT

Where the relevant adjustments are a part of the seat and its suspension, the seat shall be adjusted as follows before determining the seat index point:

a) All fore, aft, vertical, and angular adjustments shall be placed in their centre position. When no centre position is possible, the nearest adjustment above or rearward of centre shall be used.

b) Adjustable suspension systems shall be set so that the suspension system is at the mid-point of its oscillation range with the weighted device in place. The suspension may be mechanically blocked in this position while determining the seat index point.

c) Non-adjustable suspensions shall be blocked in the vertical position attained with the weighted device in place.

d) If the above adjustments are in conflict with the manufacturer's clearly stated instructions, then the manufacturer's instructions shall be followed to obtain the recommended adjustment for a 75 kg operator.

NOTE — A 75 kg operator approximates to the 65 kg weighted device on the seat

e) If a measurement at another position of adjustment is specifically required be virtue of a standard or regulation, this shall be carried out in addition to the measurements made under the conditions stipulated above.