



Australian Government
Department of Industry,
Innovation and Science

National Measurement Institute

Certificate of Approval NMI 6/9C/304

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

This is to certify that an approval for use for trade has been granted in respect of the instruments herein described.

Kelba Model KPS3000 Weighing Instrument

submitted by Kelba (Australia) Pty Ltd
7 Leonard Street
Hornsby NSW 2077

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use for trade only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

This approval has been granted with reference to document NMI R 76, *Non-automatic weighing instruments, Parts 1 and 2*, dated July 2004.

This approval becomes subject to review on **1/8/21**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 to 6 approved – certificate issued	20/07/09
1	Pattern & variants 1 to 6 reviewed & amended (test procedure) – certificate issued	27/04/17

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/9C/304' and only by persons authorised by the submitter.

It is the submitter's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the National Measurement Institute (NMI) and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with document NMI P 106.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificates No S1/0/A or No S1/0B.

The pattern as approved herein or with substitute NMI-approved load cells and/or indicators, and in other capacities, or with different platform sizes, shall comply with General Certificate No 6B/0.

Note: New instruments manufactured under this approval shall only use load cells and/or indicators with current Supplementary Certificates of Approval.

Signed by a person authorised by the Chief Metrologist to exercise their powers under Regulation 60 of the *National Measurement Regulations 1999*.



Dr A Rawlinson

TECHNICAL SCHEDULE No 6/9C/304

1. Description of Pattern **approved on 20/07/09**

A Kelba model KPS3000 self-indicating non-automatic class III weighing instrument (Figures 1 and 2) of 3000 kg maximum capacity and approved for use with up to 3000 verification scale intervals.

1.1 Basework

The model KPS3000 basework (Figures 1 and 2) has four load cells directly bolted to the load receptor which has nominal dimensions of 1200 × 1200 mm. The feet of the instrument are attached to the load cells. Alternative basework designs are shown in Figure 2. If approach ramps are provided then care shall be taken to ensure that these do not interfere with the platform.

1.2 Load Cells

Four Kelba model KL1000 C3 load cells of 1000 kg maximum capacity are used, and mounted as shown in Figure 1b. The load cells are also described in the documentation of approval NMI S155B.

1.3 Indicator

A Rinstrum model R320 digital indicator is used which is also described in the documentation of approval NMI S420.

1.4 Levelling

Where instruments are liable to be tilted (i.e. they are not installed in a permanently fixed location) they are provided with adjustable feet and a level indicator.

1.5 Descriptive Markings and Notices

Instruments are marked with the following data, together in one location, in the form shown at right:

Manufacturer's mark, or name written in full	Kelba
Indication of accuracy class	III
Maximum capacity	Max kg #1
Minimum capacity	Min kg #1
Verification scale interval	e = kg #1
Serial number of the instrument
Pattern approval number for the instrument	NMI 6/9C/304
Pattern approval number for other components #2

#1 These markings shall also be shown near the display of the result if they are not already located there.

#2 May be located separately from the other markings.

1.6 Sealing Method

Provision is made for the calibration adjustments in the indicator to be sealed as described in the approval documentation for the indicator used.

1.7 Verification Provision

Provision is made for the application of a verification mark.

2. Description of Variant 1 approved on 20/07/09

The instrument in various capacities as listed below, provided that instruments comply with General Certificate of Approval No 6B/0:

- from 100 kg up to 1499 kg; and
- from 1500 kg up to 14 999 kg.

3. Description of Variant 2 approved on 20/07/09

The model KLP3000 (Figure 3a) which is similar to the model KPS3000, but has narrow cross-section cross-members.

4. Description of Variant 3 approved on 20/07/09

The model KPS3000-LP (Figure 3b) which is similar to the model KPS3000, except that it has an alternative low-profile load receptor.

5. Description of Variant 4 approved on 20/07/09

The model KPS3000-SUS (Figure 4) which is similar to the model KPS3000, but the instruments have a load receptor suspended from a frame by fixed links. There are alternative arrangements depending on the load cell location.

6. Description of Variant 5 approved on 20/07/09

The model KPS3000-HOP (Figure 5a) which is similar to the model KPS3000, but the instruments have the load receptor in the form of a hopper suspended from the base frame. The model KPS3000-BAG (Figure 5b) is similar to the model KPS3000, except that the load receptor is in the form of a bag suspended from the base frame.

7. Description of Variant 6 approved on 20/07/09

The model KPS3000-WB (Figure 6) which is an alternative construction of the model KPS3000 having pairs of load cells mounted in 'channels' which are mounted under each end of the load receptor. The maximum capacity for the two channels is from 500 kg to 5000 kg.

- Notes:
1. This variant does not have provision for leveling so shall be installed in a fixed location.
 2. Channels shall not be verified individually.
 3. Channels shall not be verified without a load receptor i.e. instruments shall only be verified/certified as complete instruments.

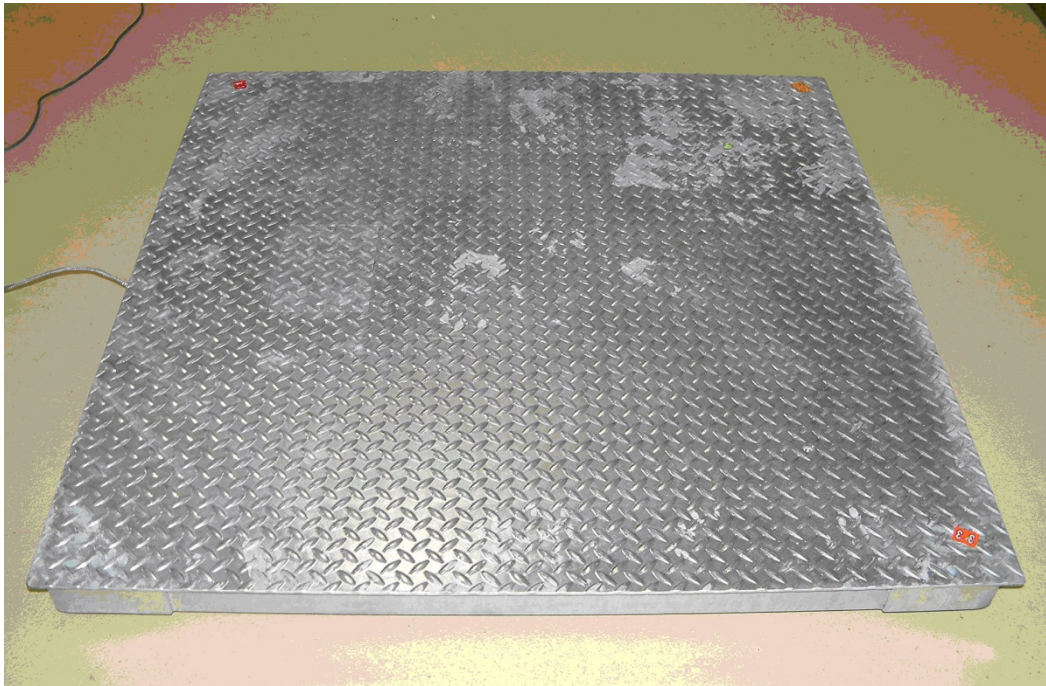
TEST PROCEDURE

Instruments shall be tested in accordance with any relevant tests specified in the National Instrument Test Procedures.

Maximum Permissible Errors

The maximum permissible errors are specified in Schedule 1 of the *National Trade Measurement Regulations 2009*.

FIGURE 6/9C/304 – 1



(a) Model KPS3000 Basework



(b) Mounting for Kelba Model KL1000 C3 Load Cell

FIGURE 6/9C/304 – 2

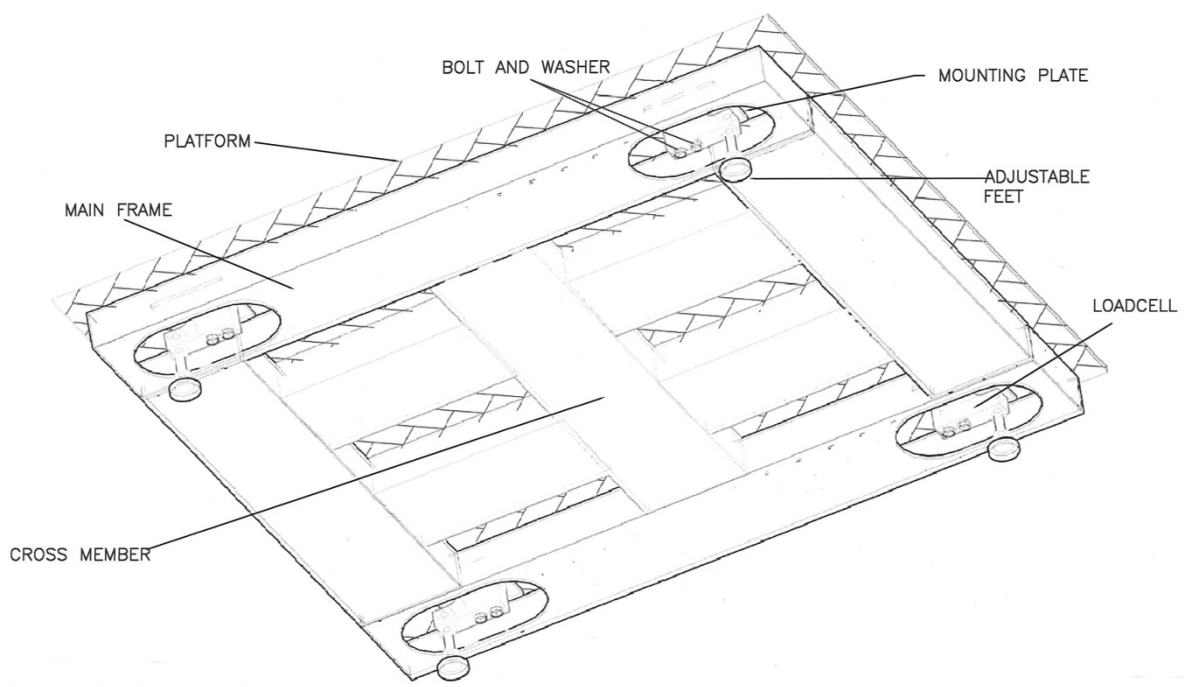
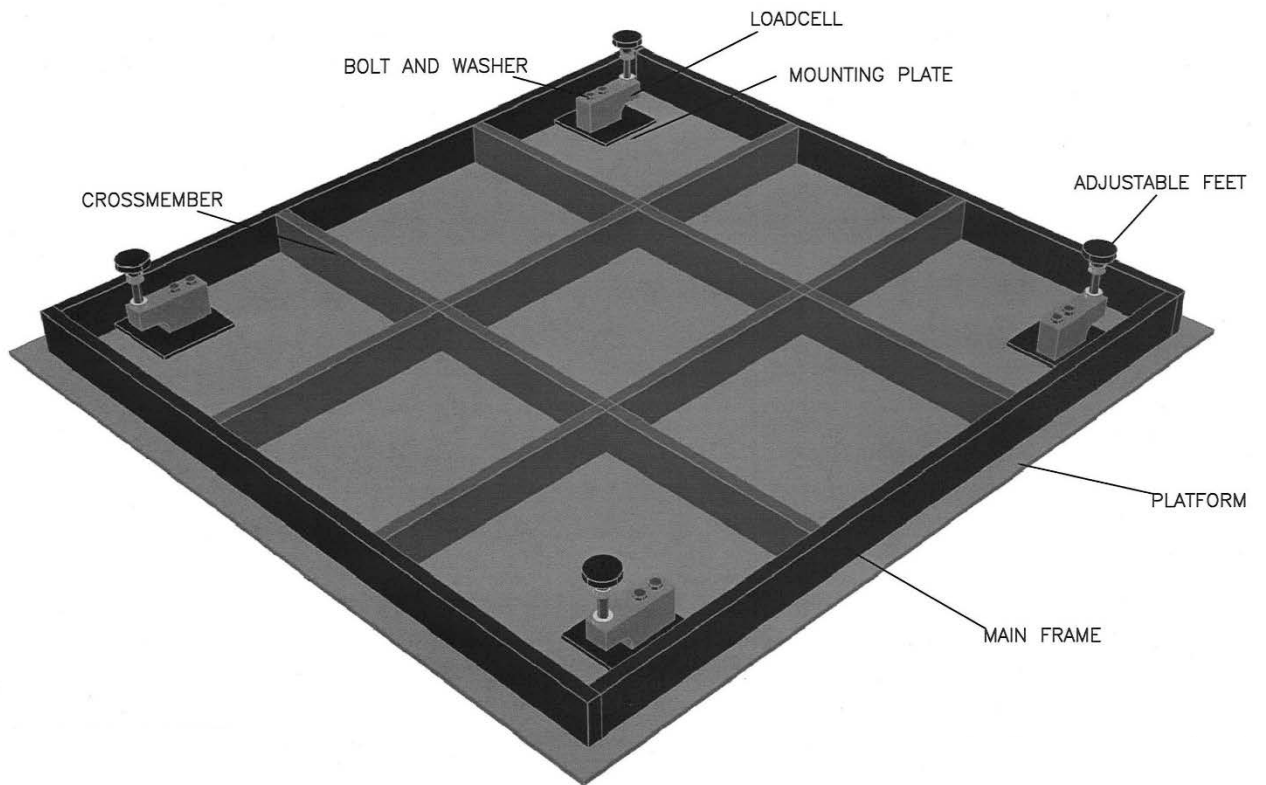
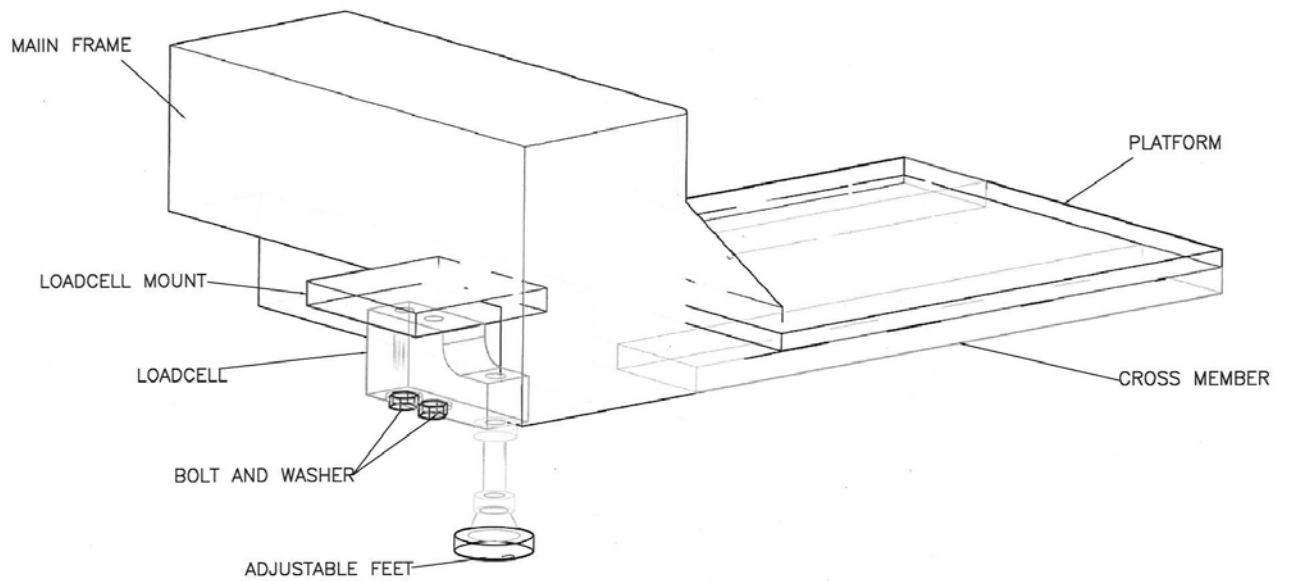


FIGURE 6/9C/304 – 3

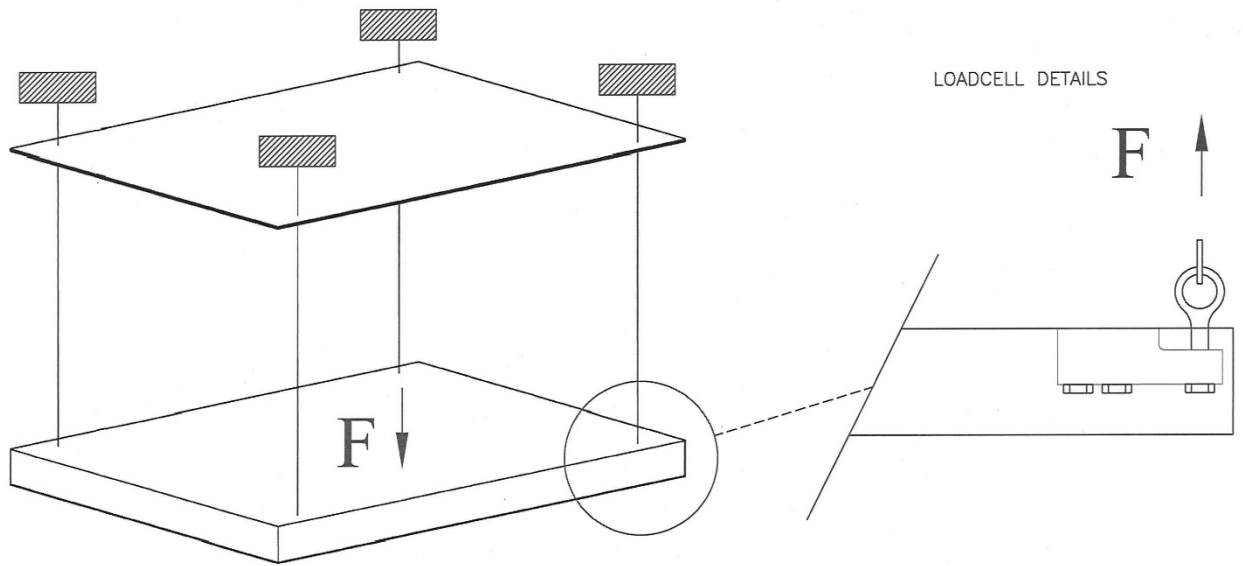


(a) Model KLP3000 Basework (Variant 2)

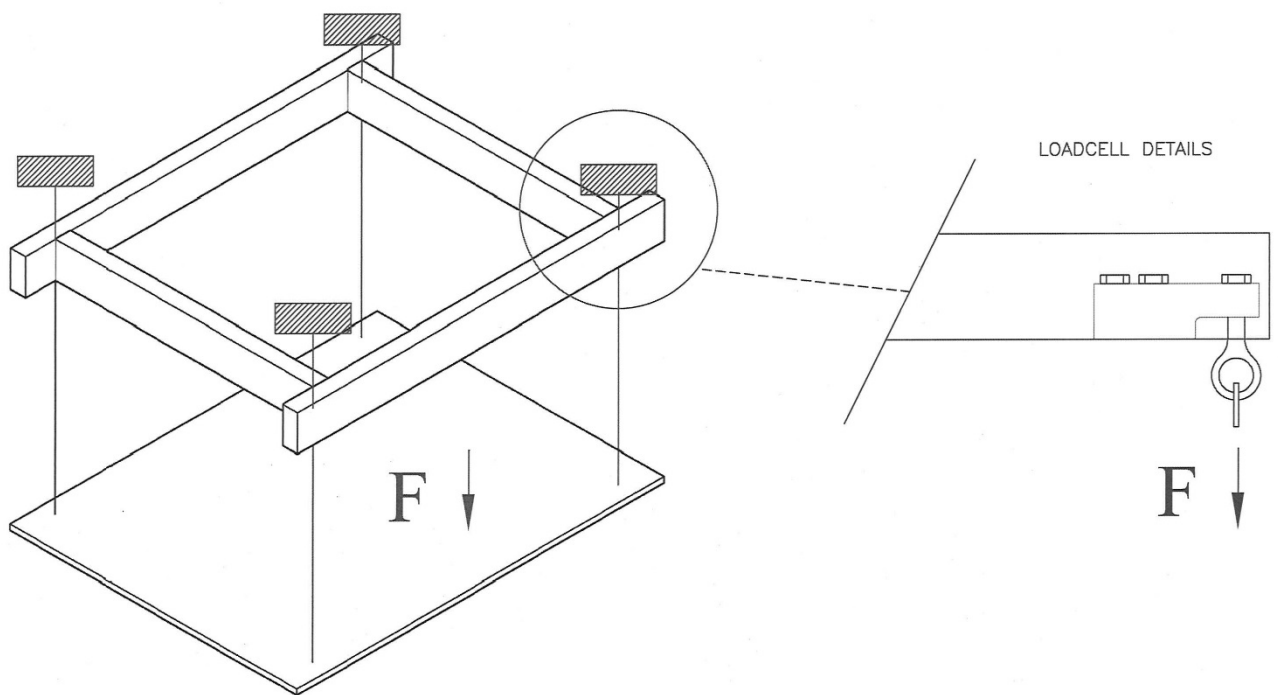


(b) Model KPS3000-LP (Variant 3) – showing one corner of platform

FIGURE 6/9C/304 – 4

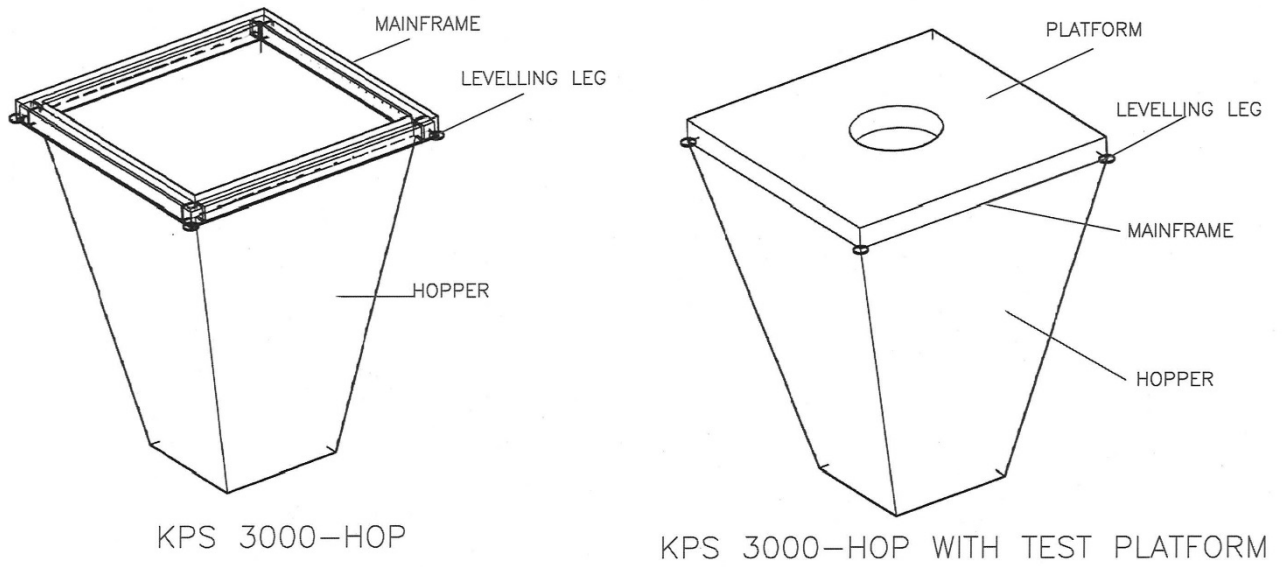


(a) Model KPS3000-SUS (Variant 4) – load cell mounted on platform

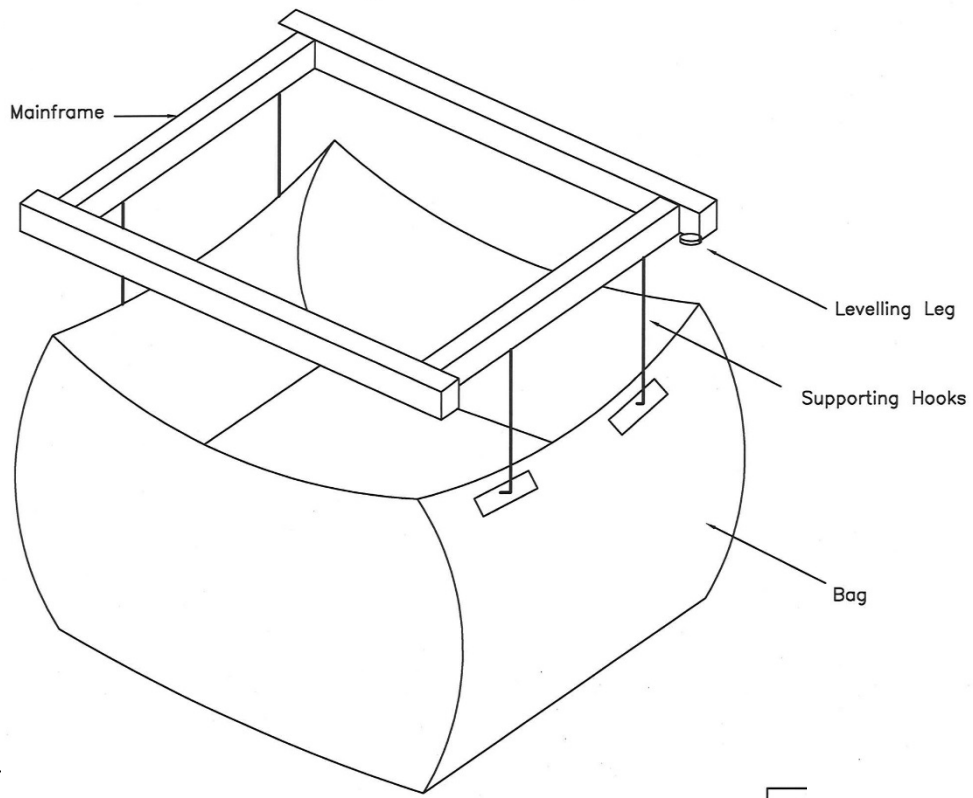


(b) Model KPS3000-SUS (Variant 4) – load cell mounted on frame
from which platform is suspended

FIGURE 6/9C/304 – 5



(a) Model KPS3000-HOP (Variant 5)

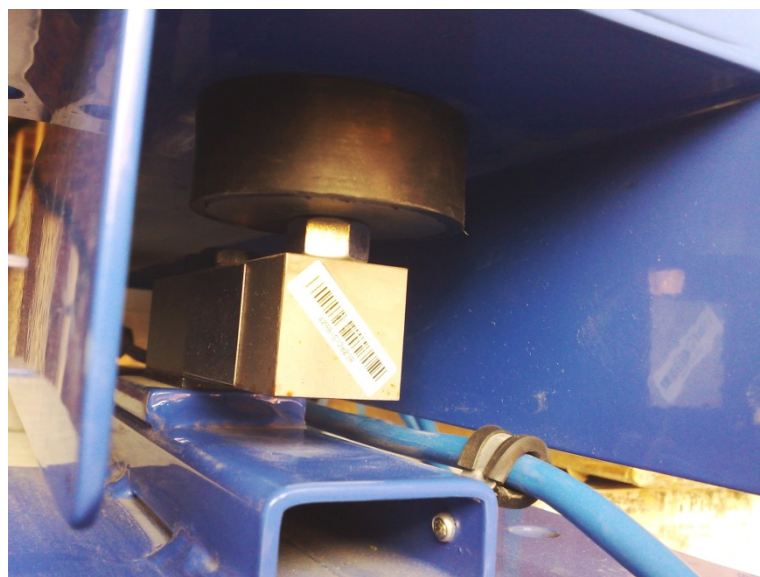


(b) Model KPS3000-BAG (Variant 5)

FIGURE 6/9C/304 – 6



(a) Model KPS3000-WB (Variant 6) – without load receptor



(b) Detail of load cell mounting in KPS3000-WB (Variant 6)

~ End of Document ~