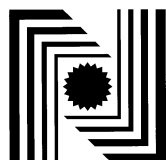
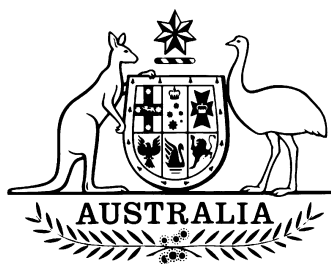


6/10B/58
16 September 2002



National Standards Commission

12 Lyonpark Road, North Ryde NSW

Cancellation

Certificate of Approval

No 6/10B/58

Issued under Regulation 60
of the
National Measurement Regulations 1999

This is to certify that the approval for use for trade granted in respect of the

McGrath Industries Model WD70EL-300 Weighing Instrument

submitted by McGrath Industries Limited
5-9 Cartwright Road
Glen Eden Auckland 7
NEW ZEALAND

has been cancelled in respect of new instruments as from 1 October 2002.

Signed by a person authorised under Regulation 60
of the National Measurement Regulations 1999 to
exercise the powers and functions of the Commission
under this Regulation.



National Standards Commission

12 Lyonpark Road, North Ryde NSW

Certificate of Approval

No 6/10B/58

Issued under Regulation 63
of the
National Measurement Regulations 1999

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

McGrath Industries Model WD70EL-300 Weighing Instrument

submitted by McGrath Industries Limited
5-9 Cartwright Road
Glen Eden, Auckland 7
NEW ZEALAND.

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.

CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 December 2001, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NSC No 6/10B/58 and only by persons authorised by the submittor.

It is the submittor's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the Commission 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 the Commission's Document 106.

The Commission reserves the right to examine any instrument or component of an instrument purporting to comply with this approval.

The pattern as approved herein or with substitute load cells and/or indicator and in other capacities, shall comply with General Certificate No 6B/0.

DESCRIPTIVE ADVICE

Pattern: approved 8 November 1996

- A McGrath Industries model WD70EL-300 weighing instrument of 7 000 kg maximum capacity.

Technical Schedule No 6/10B/58 describes the pattern.

Variant: approved 9 May 2000

1. A model 20FT LW weighing instrument of 14 000 kg maximum capacity.

Technical Schedule No 6/10B/58 Variation No 1 describes variant 1.

FILING ADVICE

Certificate of Approval No 6/10B/58 dated 14 November 1997 is superseded by this Certificate, and may be destroyed. The documentation for this approval now comprises:

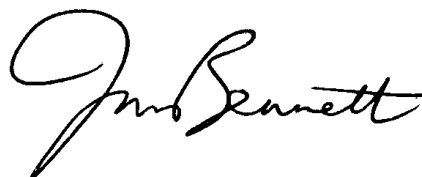
Certificate of Approval No 6/10B/58 dated 16 May 2000

Technical Schedule No 6/10B/58 dated 14 November 1997 (incl. Test Procedure)

Technical Schedule No 6/10B/58 Variation No 1 dated 16 May 2000

Figures 1 to 3 dated 14 November 1997

Figures 4 and 5 dated 16 May 2000



TECHNICAL SCHEDULE No 6/10B/58

Pattern: McGrath Industries Model WD70EL-300 Weighing Instrument

Submittor: McGrath Industries Limited
5-9 Cartwright Road
Glen Eden, Auckland 7
NEW ZEALAND.

1. Description of Pattern

A McGrath Industries model WD70EL-300 weighing instrument of 7 000 kg maximum capacity with a verification scale interval of 5 kg (Figure 1).

1.1 Basework

The WD70EL-300 basework (Figure 1) is fully supported on four load cells. The load receptor is fitted with a roller deck and may be raised and lowered by means of two scissor-action hydraulic lifting mechanisms.

NOTE: The load receptor (deck) shall be in the lowered position when mass readings are taken.

The load receptor deck has maximum nominal dimensions of 2.6 x 3.5 m.

1.2 Load Cells

Four GEC Avery model 8708 load cells of 3 000 kg maximum capacity are used and are mounted as shown in Figure 2.

1.3 Indicator

A GEC Avery model L115 digital indicator (Figure 3) is used.

Zero is automatically corrected to within ± 0.25 e whenever power is applied and whenever the instrument comes to rest within 0.5e of zero.

The initial zero-setting device has a nominal range of not more than 20% of the maximum capacity of the instrument.

The indicator may be fitted with output sockets for the connection of auxiliary and/or peripheral devices.

A display check is initiated whenever power is applied or when the test button is pressed.

1.4 Verification/Certification Provision


Provision is made for the application of a verification/certification mark.

1.5 Sealing Provision

Provision is made for the calibration adjustments in the indicator to be sealed.

1.6 Markings

(a) Instruments carry the following markings, in the form shown at right:

Manufacturer's mark, or name written in full	
Indication of accuracy class	
Maximum capacity	Max kg *
Minimum capacity	Min kg *
Verification scale interval	e = kg *
Serial number of the instrument	
Serial number of the indicator (#)	
Serial numbers of the load cells (#)	
Pattern approval mark for the instrument	NSC No 6/10B/58

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

Alternatively, these may be marked adjacent to the verification mark.

(b) In addition, instruments shall be marked with the following, in a place clearly visible to the user:

"The deck shall be in the lowered position when a mass reading is taken", or similar wording.

TEST PROCEDURE

Instruments should be tested in accordance with any relevant tests specified in the Inspector's Handbook.

Maximum Permissible Errors at Verification/Certification

The maximum permissible errors for increasing and decreasing loads on initial verification/certification for loads, m , expressed in verification scale intervals, e , are:

- $\pm 0.5 e$ for loads $0 \leq m \leq 500$; and
- $\pm 1.0 e$ for loads $500 < m \leq 2\,000$.

TECHNICAL SCHEDULE No 6/10B/58

VARIATION No 1

Pattern: McGrath Industries Model WD70EL-300 Weighing Instrument.

Submittor: McGrath Industries Limited
5-9 Cartwright Road
Glen Eden, Auckland 7
NEW ZEALAND.

1. Description of Variant 1

A McGrath Industries model 20FT LW weighing instrument of 14 000 kg maximum capacity with a verification scale interval of 10 kg (Figure 4) intended for the weighing of aircraft cargo containers.

1.1 Basework

The 20FT LW basework (Figure 4) is fully supported on four load cells. The load receptor is fitted with a roller deck and may be raised up to 0.5 m above ground level and lowered up to 1.5 m below ground level by means of a lifting mechanism consisting of a single hydraulic ram and a system of wire cables and pulleys.

NOTE: The load receptor (deck) shall be stationary and above ground level when mass readings are taken.

The load receptor deck has maximum nominal dimensions of 2.5 x 6.6 m.

1.2 Load Cells

Four Avery Berkel model 8708 load cells of 7 000 kg maximum capacity are used and are mounted as shown in Figure 5.

Note: At the time that the instrument examined by the Commission (located at BOC Cargo Service, Tullamarine VIC) was installed, the load cells were approved under NSC approval No S176A. Subsequently this approval has expired in respect of new instruments. Load cells covered by this approval shall not be used for new installations, however alternative Commission-approved load cells may be used in accordance with NSC General Certificate No 6B/0.

1.3 Indicator

A GEC Avery model L115 digital indicator (Figure 3) as described for the pattern is used.

1.4 Markings

In addition to the markings specified in part (a) of clause **1.6 Markings** in Technical Schedule No 6/10B/58, instruments shall be marked with the following, in a place clearly visible to the user:

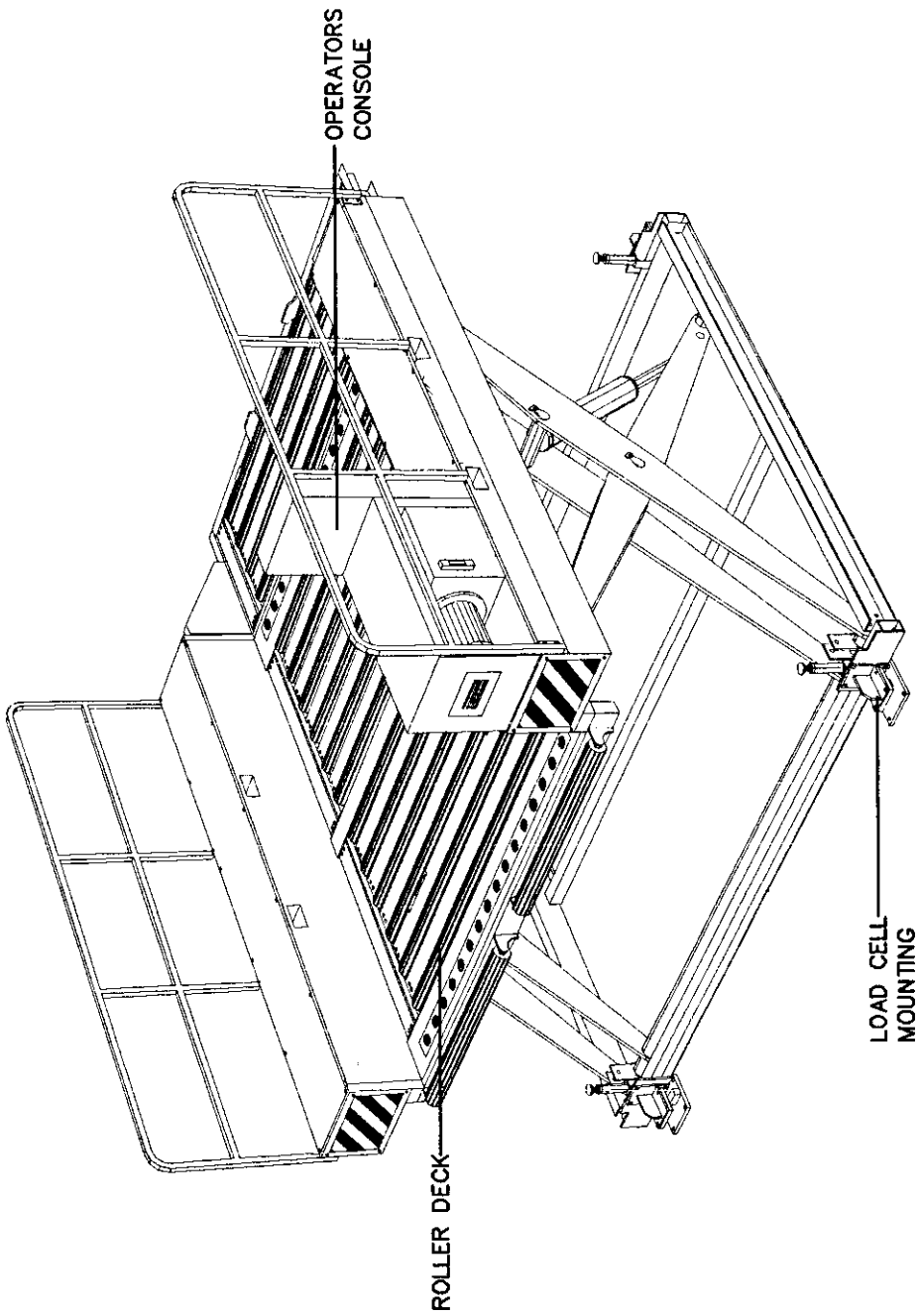
“The load receptor (deck) shall be stationary and above ground level when a mass reading is taken”, or similar wording.

TEST PROCEDURE

Instruments purporting to comply with Variant 1 should be tested in accordance with any relevant tests specified in the Inspector's Handbook, except that the eccentricity test shall be conducted using a load of 1/10 maximum capacity.

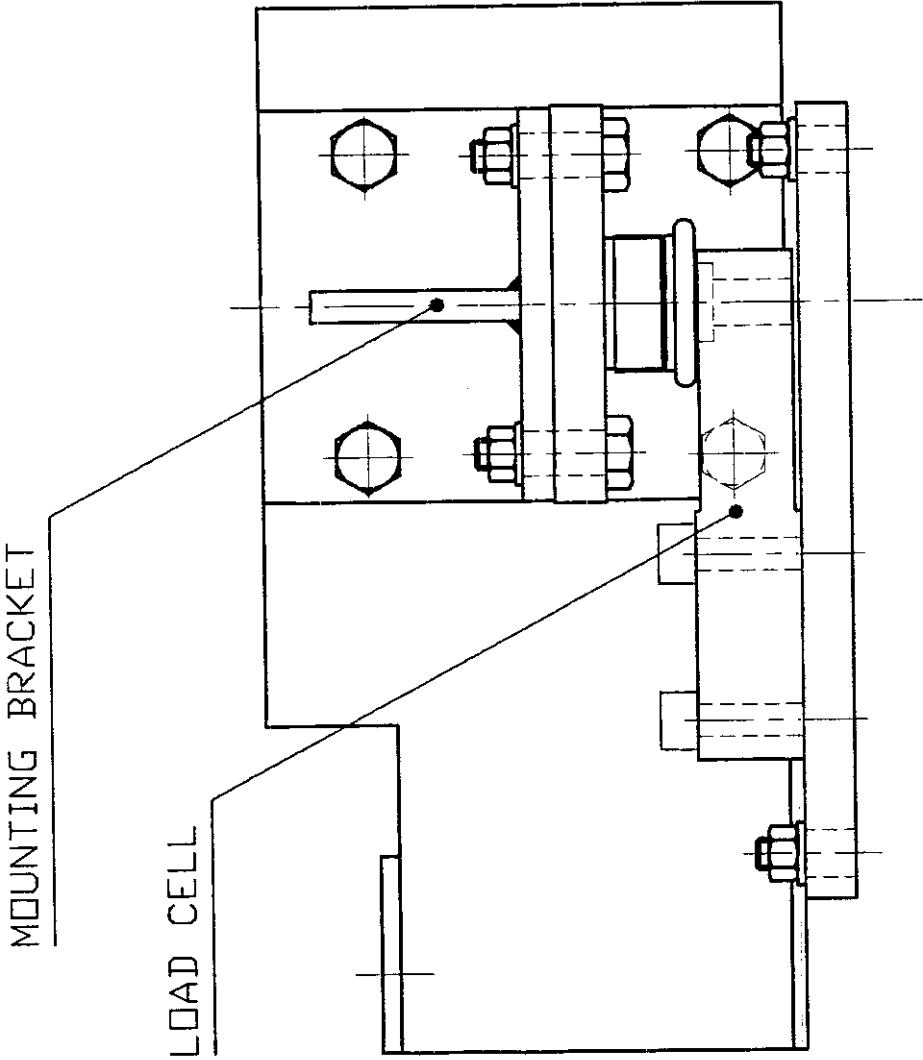
Note: With the intended use being for the weighing of aircraft cargo containers, there is limited potential for excessive off-centre loading, therefore the load of 1/10 maximum capacity should be used for the eccentricity test.

FIGURE 6/10B/58 - 1



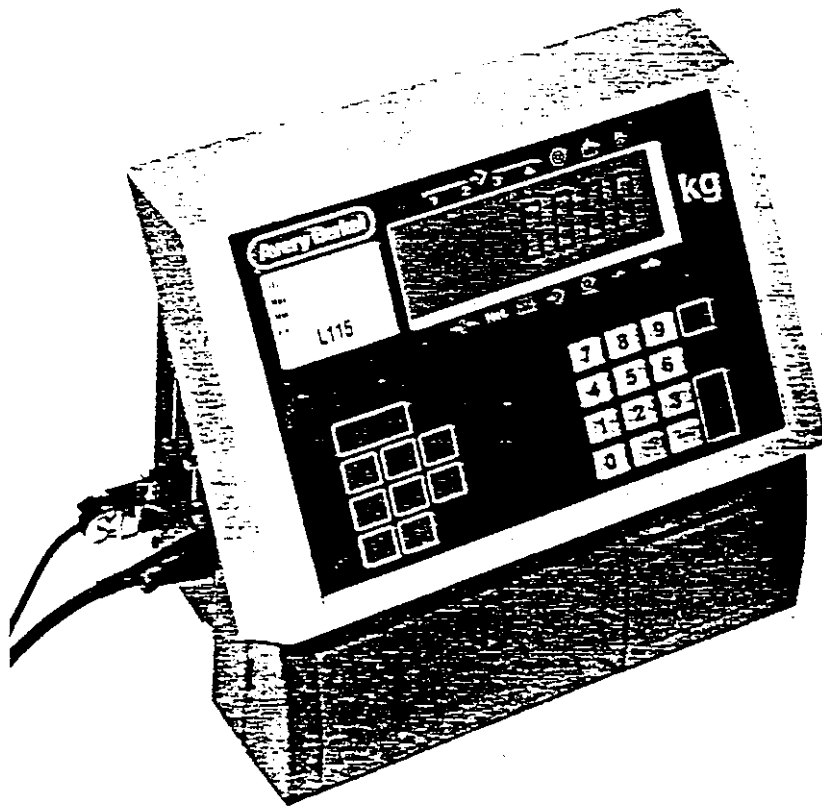
McGrath Industries Model WD70EL-300 Weighing Instrument

FIGURE 6/10B/58 - 2



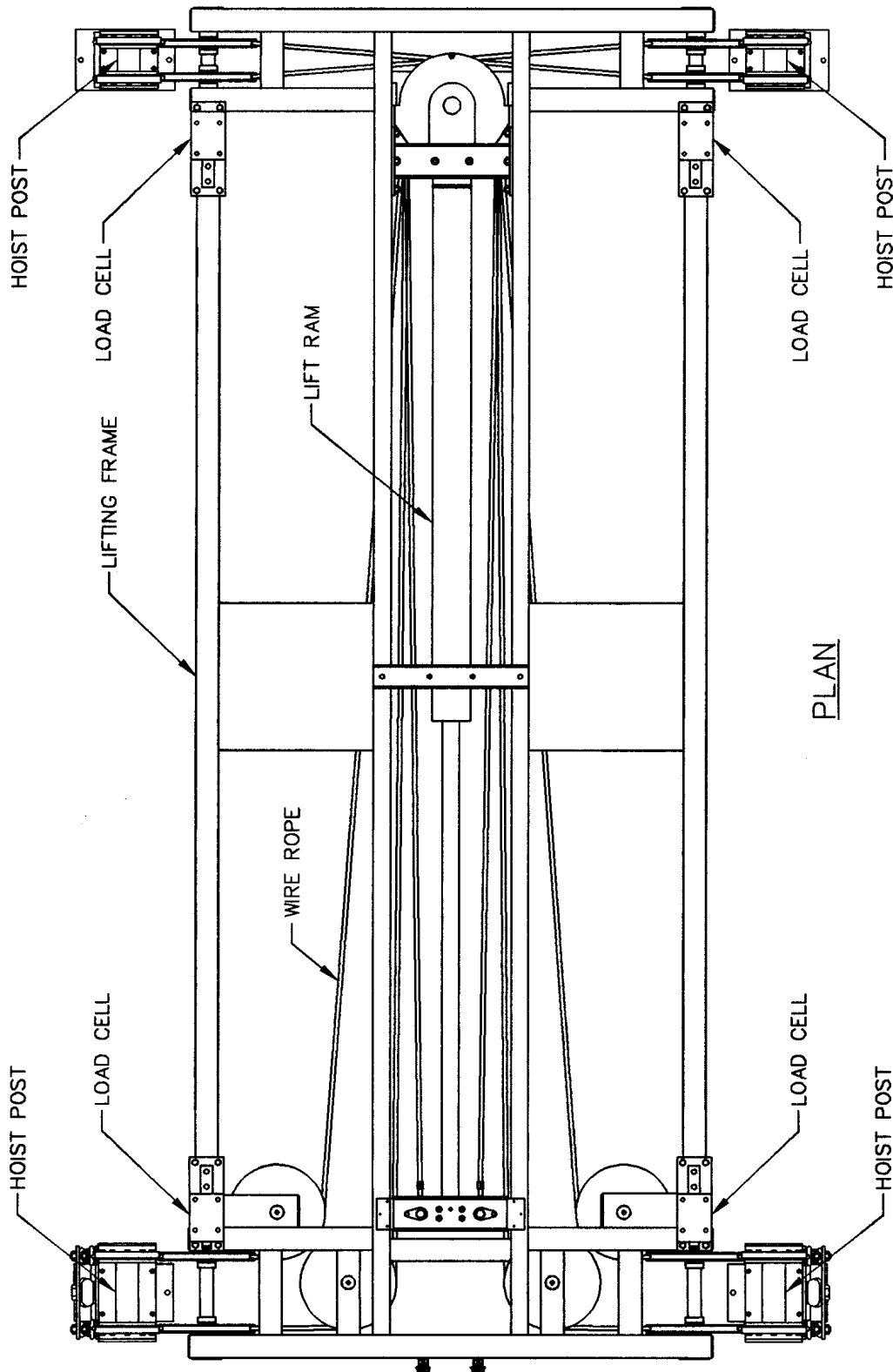
Load Cell Mounting

FIGURE 6/10B/58 - 3



GEC Avery Model L115 Digital Indicator

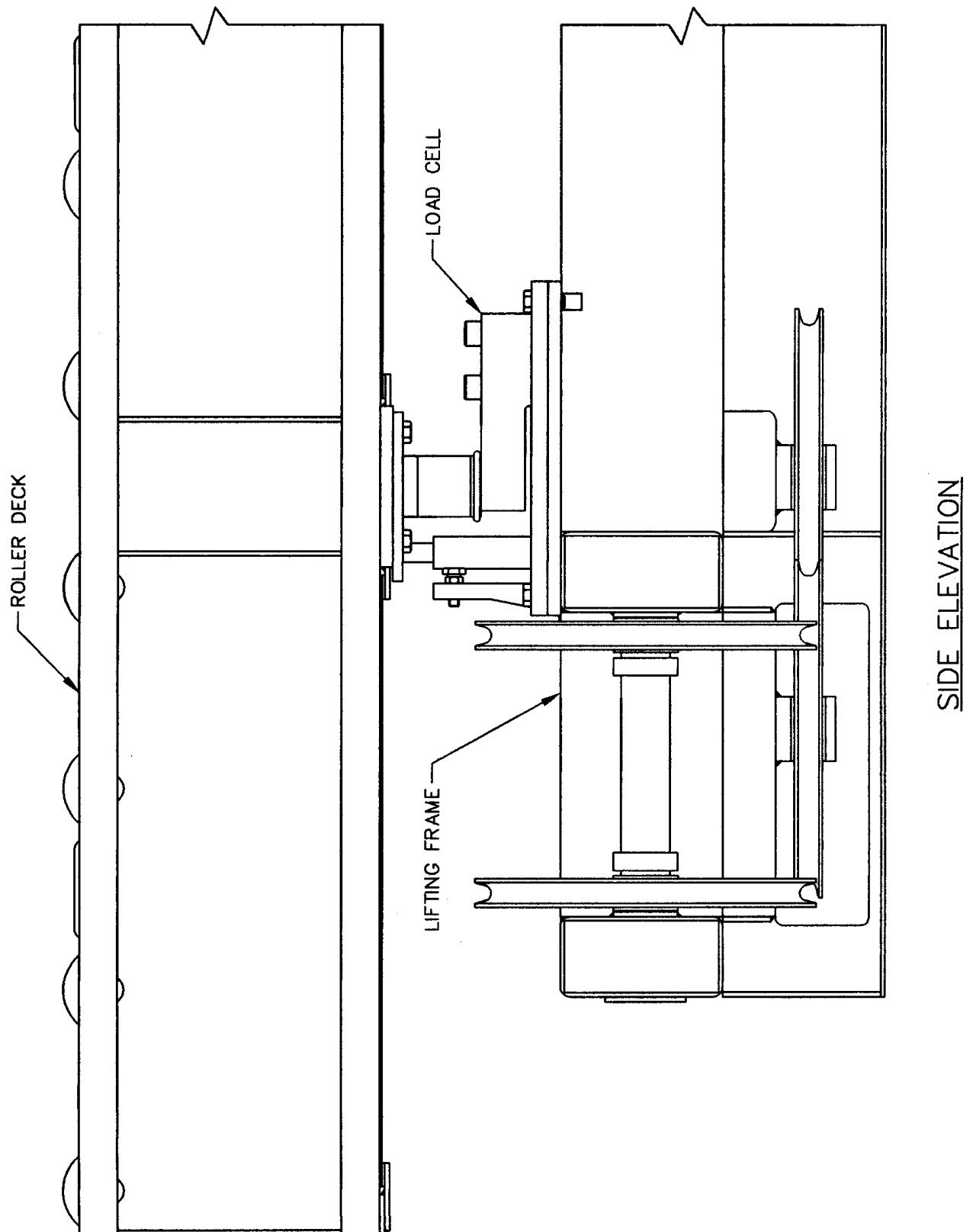
FIGURE 6/10B/58 - 4



McGrath Industries Model 20FT LW Weighing Instrument

6/10B/58
16 May 2000

FIGURE 6/10B/58 - 5



Load Cell Mounting - Model 20FT LW