



17/11/80

Legal Metrology/Métrieologie légale

**NOTICE OF APPROVAL  
AVIS D'APPROBATION**

S.WA- 3022

Ottawa, December 5, 1980

GSE INC. - PLATFORM SCALES SERIES 4400

Manufacturer: GSE, Inc.,  
23640 Research Drive,  
Farmington Hills, Michigan  
U.S.A. 48024

Type of Device: Platform weight sensor.

<u>Model No.</u>	<u>Size</u>	<u>Capacity</u>	<u>Load Cell Type</u>
4430	12"x12"	20LB or 10KG	Bending beam type (aluminum)
4432	12"x12"	50LB or 20KG	
4434	12"x12"	100LB or 50KG	
4442	12"x18"	50LB or 20KG	
4444	12"x18"	100LB or 50KG	
4446	12"x18"	200LB or 80KG	
4450	24"x24"	200LB or 80KG	
4452	24"x24"	500LB or 200KG	
4454	24"x24"	1000LB or 400KG	

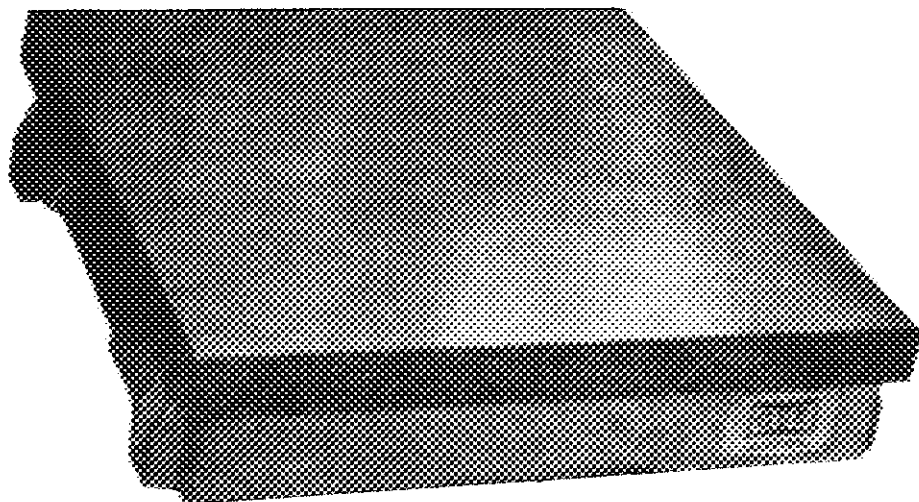
Approved Accessories: a vertical column for mounting of an indicator.

Application: Industrial

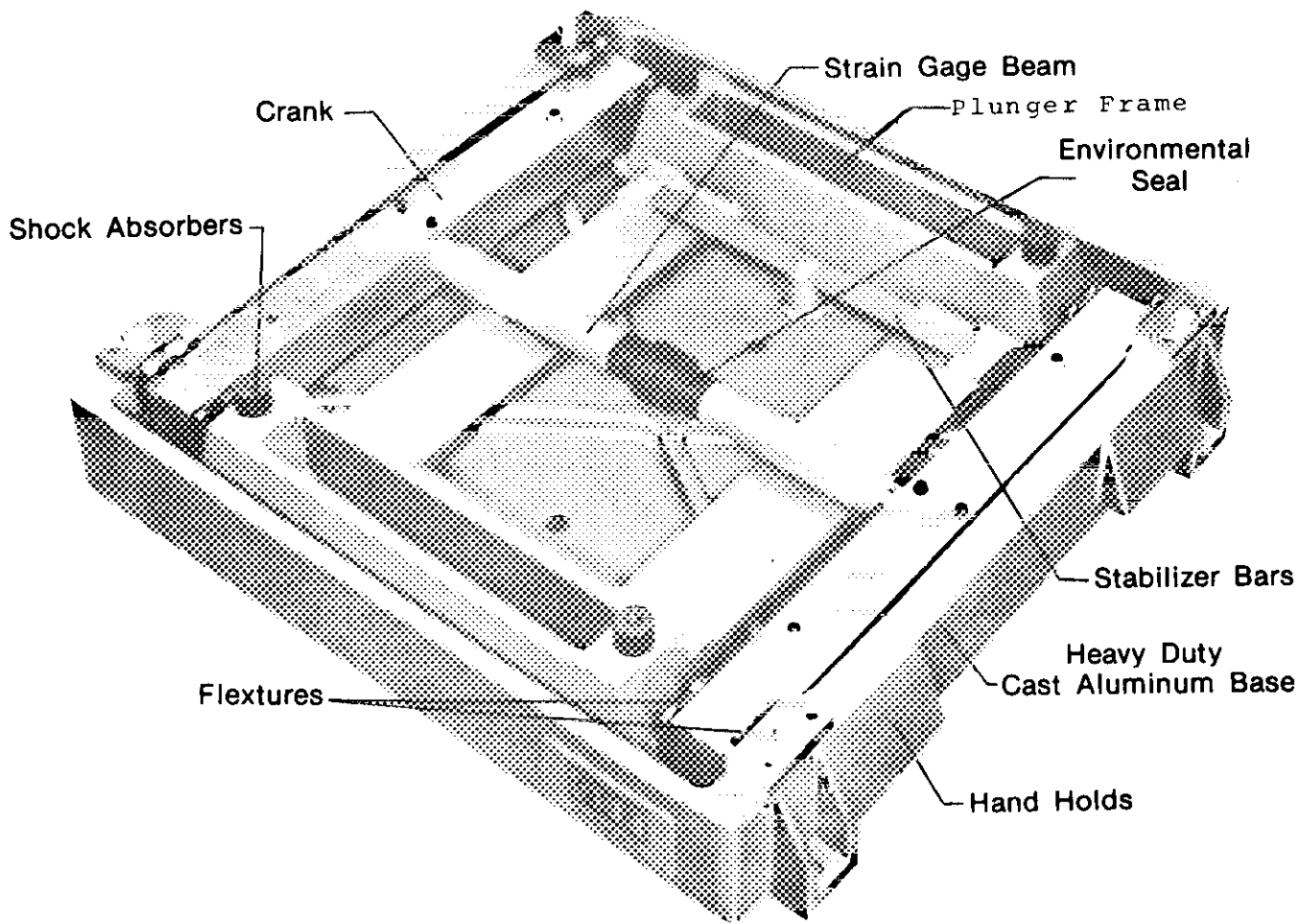
Device Description: These weight platforms are all constructed with a heavy duty cast aluminum base, all are fitted with stainless steel platters which sit on a heavy aluminum loading plate.

The applied load is transmitted from the load plate through the (shock absorbers on the model 4450) or (the load plungers on the 4430 and 4440 series) to the plunger frame through the flexures to the cranks which are flexure mounted to the base, this creates a turning moment on the cranks, this is sensed by the strain gage beam which interconnects the cranks.

The strain gage beam has been cut away at midlength to a rectangular shape and it is here that the strain gages, temperature and zero resistors are mounted, they are covered with a neoprene bellows and sealed with silicone cement. The strain gages change their resistance in proportion to the load applied, this change in resistance is converted from an analog signal to a digital weight reading.



TYPICAL GSE 4400 SERIES PLATFORM



EXPLODED VIEW

FIGURE 1

Description (Cont'd):

Excessive movement is prevented by the use of two stabilizing bars that are mounted between the base and the plunger frame.

Overload protection is provided on the 4430 and 4440 series platforms by the load plungers. A spring is fitted around the plunger which sits in the plunger frame. The plunger is held by a roll pin inserted through the frame and a slot in the plunger, this pre-loads the spring so that when the applied load exceeds the pre-load the plunger is depressed and bottoms on the base frame.

The 4440 and 4450 series of platforms are not fitted with a level indicator or levelling feet. They are to be bolted to a flat surface when installed.

The 4430 series platform is fitted with a levelling bullseye and lockable levelling feet.

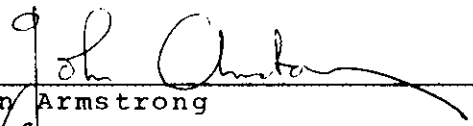
NOTE: A long form of approval will not be issued.

Special Conditions:

- A) There are no adjustments on these platforms that require sealing.
- B) Weighing systems that incorporate these platforms shall be marked as required by CWM 76-3 para. 6.

APPROVAL is granted under the Weights and Measures Act, S.C. 1970-71-72, chapter 36, and the Weights and Measures Regulations C.R.C.c., 1605 for use in Canada under the general conditions of the said Regulations, and under any special conditions listed above.

*4. 11/11/80*  
Reference No.: G6922-G532

  
\_\_\_\_\_  
John Armstrong  
Chief  
Weights and Measures Division  
Legal Metrology Branch