

Off Highway

Vehicle Scale

Model AG 12570144-S

Installation Guide

&

Owner's Manual

Off Highway Vehicle Scale

Model AG 12570144-S

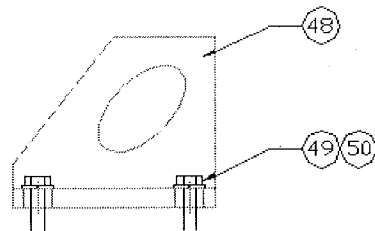
Installation and Maintenance Manual

Installation

Each weigh bridge section is made of three panels. One center panel and two outrigger panels. Each bridge section is identified No. 1, 2 or 3. Each outside panel is identified as A or B. These identification numbers are on the center panels and the outrigger panels. The outrigger panels must be installed to each side of the center panels prior to installing the scale on the foundation.

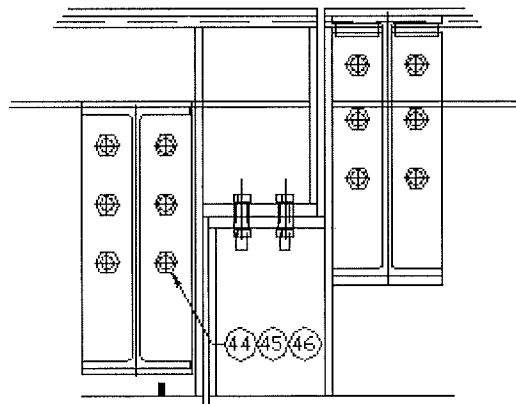
Please refer to drawing no. D-139211 sh.1 of 2.

- 1) Using the lifting brackets (item 48), position one end of the center panel on blocks (section 1).
- 2) Using the lifting brackets, position the outrigger panel 1A to the outside of the center panel.



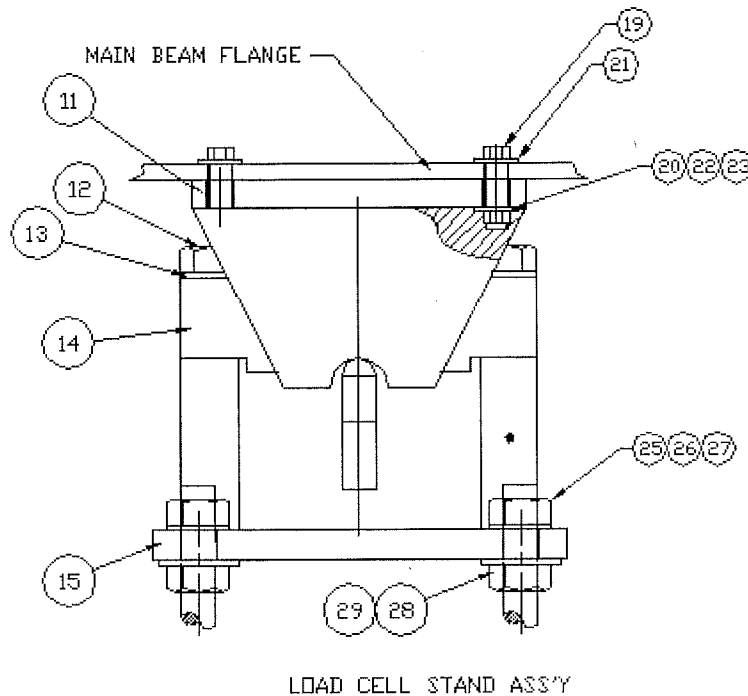
LIFTING BRACKET

- 3) Bolt the outrigger panel to the center panel using the nuts, bolts and washers (item 44, 45 and 46) and lock them in place.

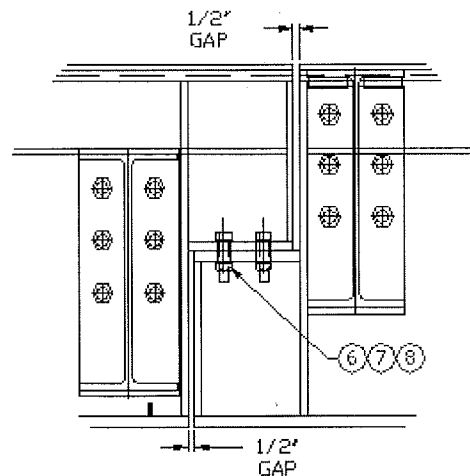


- 4) Repeat steps 2 and 3 for the outrigger panel 1B.
- 5) Repeat steps 1 to 4 at the other end of the bridge section.
- 6) Repeat steps 1 to 4 with the center bridge section.

- 7) Install the leveling nuts and plate washers (item 28 & 29) on the anchor bolts.

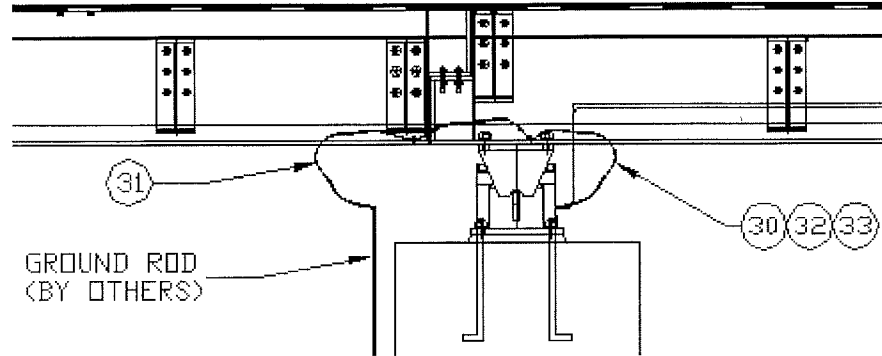


- 8) Install the load cell stands (item 15).
 9) Using leveling nuts, adjust the stands to the proper elevation and ensure they are level.
 10) Install the load cells (item 14) and links (item 16). Use bolts and washers (item 12 & 13) to secure the load cell on to the stand.
 11) Position the chair (item 11) on the link.
 12) Lower the bridge section 1 on to the chairs and bolt the chairs to the main I-beam using the bolt, plate washer, washer, lock washer and nut (item 19, 21, 23, 20 & 22).
 13) Lower the bridge section 3 on to the other chairs as per step 12. The distance between the two bridges must be at 20'-11".
 14) Lower the section 2 on to the section 1 and 3 and line them up. Lock them in place using the bolt, lock washer and nut (item 6, 7 and 8).

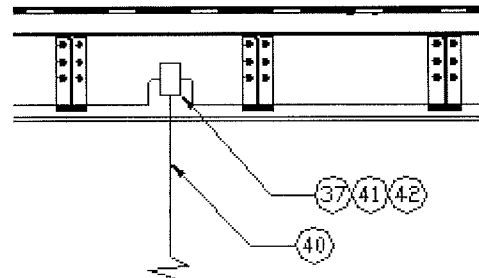
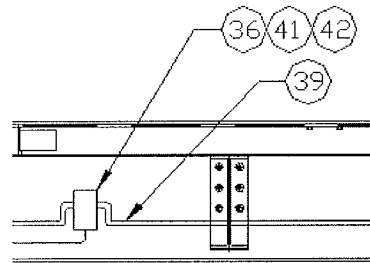


- 15) Verify the link alignment. They must be plumb and centered inside the chair. If not reposition the chair or the stand or both until they are plumb. Then lock the chair and the stands in place.

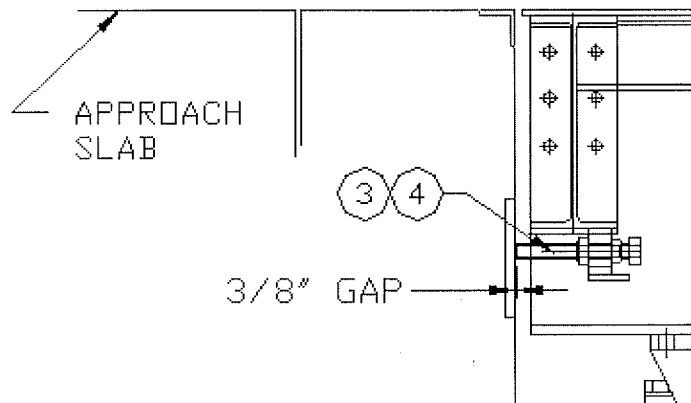
- 16) Install the ground straps to bypass each load cell with the 24" ground strap (item 30) using nuts and washers (items 32 & 33). Connect the scale to the ground rod with the 48" ground strap (item 31).



- 17) Make sure that none of the load cells are connected.
 *18) The scale is now ready to proceed with the welding of the deck plate as per Detail E.
 19) Make sure that the ground of the welding machine is well connected to the center panel of the section you are welding on.
 20) Make sure that the outrigger plate is properly sitting on the main beam; if not, apply a load on the plate and tack weld first.
 *21) Weld the top plate as per Detail F.
 22) Once all the welding is completed connect the load cells to the junction box (item 36, 41 and 42), the junction boxes to the summing box (item 37, 41 and 42) using the cable item 39. Connect the summing box to the instrument using the home run cable (item 40).



- 23) Once the scale is in place, adjust the bumper bolts (item 3 and 4) allowing 3/8" clearance between the bolt and the bumper plate.



* *It is strongly recommended, If at all possible, to perform all the welding work while the scale sections are on blocks.*

Maintenance

- This model of scale requires very little maintenance.
- At the time of installation, apply grease at the friction points, the load cell to the link, the link to the chair and on the bumper bolts.
- After a period of approximately 6 to 12 weeks, verify bolts on chair, stand, load cells, outriggers and the bumper bolt adjustment.
- During normal operation, the scale should be verified for adequate greasing and insure the bolts are all tight.
- The pit should be kept as dry as possible. Any accumulation of water or mud will cause premature rusting of the steel and other components.
- Periodic verification of the weighing accuracy and calibration should be performed. The frequency of these verifications and calibrations (if needed) will vary according to the traffic on the scale. For proper advise, see your local Weigh-Tronix representative.

ITEM	QTY	DESCRIPTION	PART NO.	WT	LOOSE	BOX 1	BOX 2	BOX 3	BOX 4
LEVELLING HARDWARE									
27	32	1"Ø LOCK WASHER		3					
28	32	WASHER PLATE 3' x 3/8' x 3'	14195-0048	13					
29	32	1-8 HX HALF NUT LEVELLING		6					
ELECTRICAL									
30	10	24' GROUND STRAP	1C00739	3					
31	1	48' GROUND STRAP	1C01635	1					
32	20	3/8-16 HX HD NUT							
33	20	3/8"Ø FLAT WASHER							
34									
35									
36	2	JUNCTION BOX 4 W/BAR	50063-0025	6					
37	1	SUMMING BOX	50064-0016	3					
38									
39	2	LOAD CELL CABLE-25 FT.	50061-0092						
40	1	CABLE TO INSTRUMENT-50 FT.	50061-0118						
41	12	10-32 HX S/S NUT							
42	12	Ø3/16" LOCK WASHER							
43									
44	216	3/4-10 x 2 1/2" HX HD BOLT		93					
45	216	3/4-10 HX NUT		33					
46	216	Ø3/4" LOCK WASHER		14					
47									
48	4	LIFTING BRACKET	A-138688						
49	8	1-8 x 2 1/2" HX HD BOLT							
50	8	Ø1" LOCK WASHER							

TOTAL WT : 57,974

BILL OF MATERIALS									
ITEM	QTY	DESCRIPTION	PART NO.	WT	LOOSE	BOX 1	BOX 2	BOX 3	BOX 4
1	2	END WEIGH BRIDGE	D-139311-01	38,172					
2	1	CENTER WEIGH BRIDGE	D-139311-02	16,330					
3	4	BUMPER BOLT	A-138904	40					
4	4	1 1/4-7 HX NUT		2					
5	BRIDGE TO BRIDGE								
6	8	1-8 x 3 1/2" S/S HX HD BOLT		8					
7	8	1-8 S/S HX NUT		7					
8	8	1"Ø S/S LOCK WASHER		1					
9									
10	LOAD CELL STAND ASS'Y (B-139303)								
11	8	GIRDER CHAIR	B-136938	1568					
12	16	1 1/2-6 x 4 1/2" HX HD BOLT		24					
13	16	1 1/2"Ø LOCK WASHER		3					
14	8	125k LOAD CELL	1C01639	320					
15	8	STAND	B-139131	1056					
16	8	LINK	B-136940	176					
17									
18	CHAIR TO BRIDGE								
19	32	1-8 x 3 1/2" HX HD BOLT		32					
20	32	1"Ø LOCK WASHER		3					
21	32	PLATE WASHER 3' x 3/8' x 3'	14195-0048	13					
22	32	1-8 HX NUT		8					
23	32	Ø1" FLAT WASHER		6					
24	STAND TO ANCHOR								
25	32	1-8 HX NUT		17					
26	32	WASHER PLATE 3' x 3/8' x 3'	14195-0048	13					

WEIGH-TRONIX

217 BRUNSWICK BLVD. POINTE CLAIRE
QUEBEC CANADA H9R 4R7

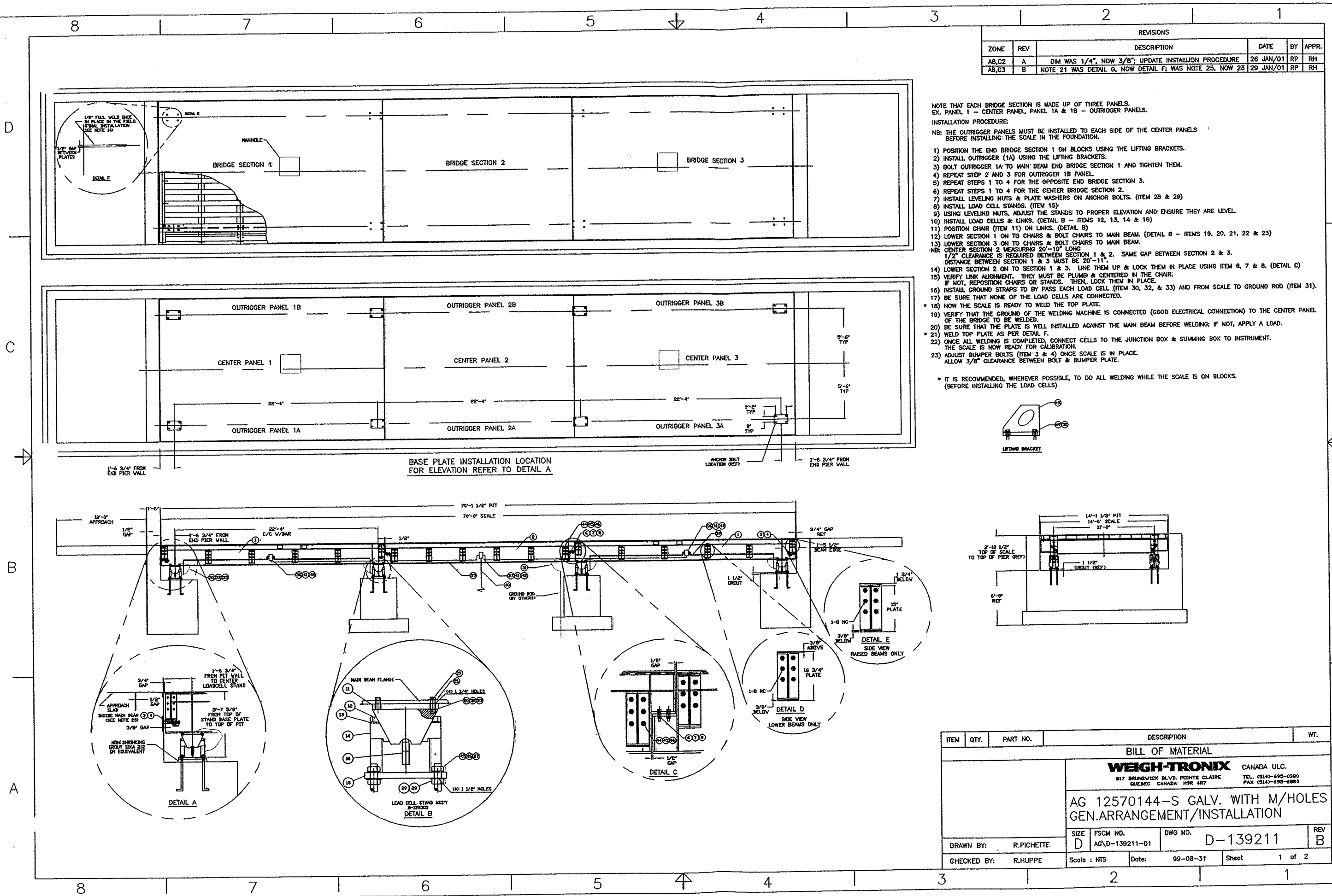
CANADA ULC.

TEL. (514)-695-0380
FAX (514)-695-6820

AG 12570144-S GALVANIZED
PARTS LIST-JOB NO. 24-8322

SIZE B	DRAWN BY: R.P. APPR. BY: R.H.	DWG NO. B-139211	REV B
Scale : NTS	DATE: 00-12-05	Sheet: 1a OF 2	

REV	DATE	DESCRIPTION	BY	APPR
B	01-01-08	ITEM 48 WAS A-138852, NOW A-138688	RP	RH
A	01-01-05	CHG QTY ON ITEMS 32, 33, 44, 45 & 46; ADJUST WT.	RP	RH
REVISIONS				



REVISIONS					
ZONE	REV	DESCRIPTION	DATE	BY	APPR.
AB,C2	A	DIM WAS 1/4", NOW 3/8"; UPDATE INSTALLATION PROCEDURE	26 JAN/01	RP	RH
AB,C3	B	NOTE 21 WAS DETAIL G, NOW DETAIL F; WAS NOTE 25, NOW 23	29 JAN/01	RP	RH

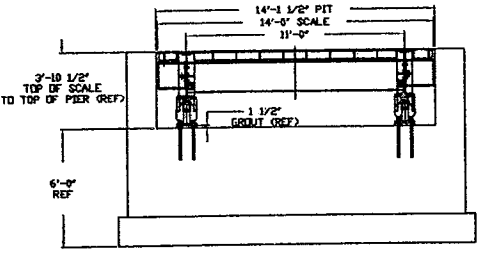
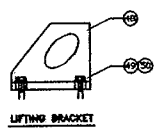
NOTE THAT EACH BRIDGE SECTION IS MADE UP OF THREE PANELS.
EX. PANEL 1 - CENTER PANEL, PANEL 1A & 1B - OUTRIGGER PANELS.

INSTALLATION PROCEDURE:

NB: THE OUTRIGGER PANELS MUST BE INSTALLED TO EACH SIDE OF THE CENTER PANELS BEFORE INSTALLING THE SCALE IN THE FOUNDATION.

- 1) POSITION THE END BRIDGE SECTION 1 ON BLOCKS USING THE LIFTING BRACKETS.
- 2) INSTALL OUTRIGGER (1A) USING THE LIFTING BRACKETS.
- 3) BOLT OUTRIGGER 1A TO MAIN BEAM END BRIDGE SECTION 1 AND TIGHTEN THEM.
- 4) REPEAT STEP 2 AND 3 FOR OUTRIGGER 1B PANEL.
- 5) REPEAT STEPS 1 TO 4 FOR THE OPPOSITE END BRIDGE SECTION 3.
- 6) REPEAT STEPS 1 TO 4 FOR THE CENTER BRIDGE SECTION 2.
- 7) INSTALL LEVELING NUTS & PLATE WASHERS ON ANCHOR BOLTS. (ITEM 28 & 29)
- 8) INSTALL LOAD CELL STANDS. (ITEM 15)
- 9) USING LEVELING NUTS, ADJUST THE STANDS TO PROPER ELEVATION AND ENSURE THEY ARE LEVEL.
- 10) INSTALL LOAD CELLS & LINKS. (DETAIL B - ITEMS 12, 13, 14 & 16)
- 11) POSITION CHAIR (ITEM 11) ON LINKS. (DETAIL B)
- 12) LOWER SECTION 1 ON TO CHAIRS & BOLT CHAIRS TO MAIN BEAM. (DETAIL B - ITEMS 19, 20, 21, 22 & 23)
- 13) LOWER SECTION 3 ON TO CHAIRS & BOLT CHAIRS TO MAIN BEAM.
- 14) LOWER SECTION 2 ON TO SECTIONS 1 & 3. LINE THEM UP & LOCK THEM IN PLACE USING ITEM 6, 7 & 8. (DETAIL C)
- 15) VERIFY LINK ALIGNMENT. THEY MUST BE PLUMB & CENTERED IN THE CHAIR. IF NOT, REPOSITION CHAIRS OR STANDS. THEN, LOCK THEM IN PLACE.
- 16) INSTALL GROUND STRAPS TO BY PASS EACH LOAD CELL (ITEM 30, 32, & 33) AND FROM SCALE TO GROUND ROD (ITEM 31).
- 17) BE SURE THAT NONE OF THE LOAD CELLS ARE CONNECTED.
- 18) NOW THE SCALE IS READY TO WELD THE TOP PLATE.
- 19) VERIFY THAT THE GROUND OF THE WELDING MACHINE IS CONNECTED (GOOD ELECTRICAL CONNECTION) TO THE CENTER PANEL OF THE BRIDGE TO BE WELDED.
- 20) BE SURE THAT THE PLATE IS WELL INSTALLED AGAINST THE MAIN BEAM BEFORE WELDING; IF NOT, APPLY A LOAD.
- 21) WELD TOP PLATE AS PER DETAIL F.
- 22) ONCE ALL WELDING IS COMPLETED, CONNECT CELLS TO THE JUNCTION BOX & SUMMING BOX TO INSTRUMENT. THE SCALE IS NOW READY FOR CALIBRATION.
- 23) ADJUST BUMPER BOLTS (ITEM 3 & 4) ONCE SCALE IS IN PLACE. ALLOW 3/8" CLEARANCE BETWEEN BOLT & BUMPER PLATE.

* IT IS RECOMMENDED, WHENEVER POSSIBLE, TO DO ALL WELDING WHILE THE SCALE IS ON BLOCKS. (BEFORE INSTALLING THE LOAD CELLS)



ITEM	QTY.	PART NO.	DESCRIPTION	WT.
BILL OF MATERIAL				
WEIGH-TRONIX CANADA ULC. 817 BRUNSWICK BLVD. POINTE CLAIRE TEL: (514) 695-0980 QUEBEC CANADA H9R 4R7 FAX: (514) 695-0983				
AG 12570144-S GALV. WITH M/HOLES GEN.ARRANGEMENT/INSTALLATION				
DRAWN BY: R.PICHETTE		SIZE D	FSCM NO. AG/D-139211-01	DWG NO. D-139211
CHECKED BY: R.HUPPE		Scale: NTS	Date: 99-08-31	Sheet 1 of 2