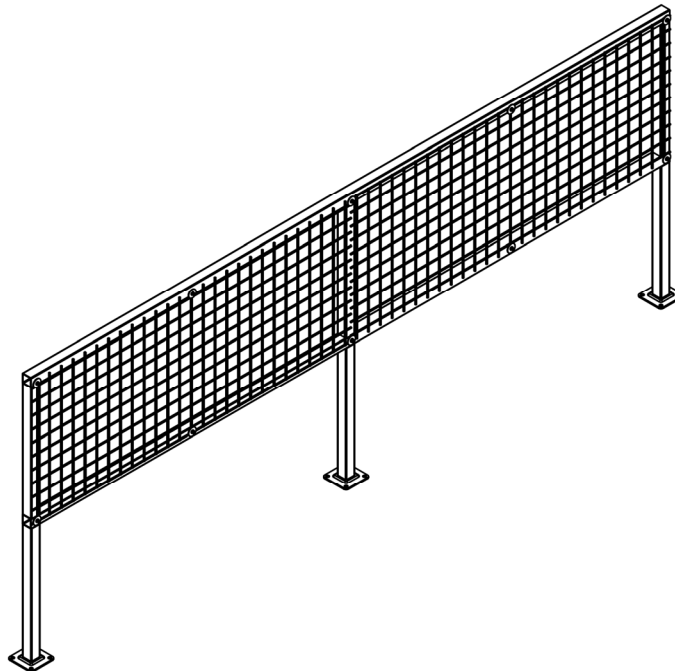




**VESTIL MANUFACTURING CORP.**

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 Fax: (260) 665-1339  
**www.vestilmfg.com** e-mail: [sales@vestil.com](mailto:sales@vestil.com)

**SQ-SERIES SQUARE HANDRAIL  
 INSTALLATION MANUAL**



**Receiving instructions:**

After delivery, IMMEDIATELY remove the packaging from the product in a manner that preserves the packaging and maintains the orientation of the product in the packaging; then inspect the product closely to determine whether it sustained damage during transport. **If damage is discovered during the inspection, immediately record a complete description of the damage on the bill of lading.** If the product is undamaged, discard the packaging.

**NOTES:**

- 1) Compliance with laws, regulations, codes, and non-voluntary standards enforced in the location where the product is *used* is exclusively the responsibility of the owner/end-user.
- 2) VESTIL is **not liable** for any injury or property damage that occurs as a consequence of failing to apply either: a) the instructions in this manual; or b) information provided on labels affixed to the product. Neither is Vestil responsible for *any* consequential damages sustained as a result of failing to exercise sound judgment while assembling, installing, using or maintaining this product.

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## SIGNAL WORDS

This manual uses SIGNAL WORDS to indicate the likelihood of personal injuries, as well as the probable seriousness of those injuries, if the product is misused in the ways described. Other signal words call attention to uses of the product likely cause property damage.

The signal words used appear below along with the meaning of each word:



Identifies a hazardous situation which, if not avoided, **WILL** result in **DEATH** or **SERIOUS INJURY**. Use of this signal word is limited to the most extreme situations.



Identifies a hazardous situation which, if not avoided, **COULD** result in **DEATH** or **SERIOUS INJURY**.



Indicates a hazardous situation which, if not avoided, **COULD** result in **MINOR** or **MODERATE** injury.



Identifies practices likely to result in product/property damage, such as operation that might damage the product.

Each person who assembles, installs, uses, or maintains this product should read the entire manual **and fully understand the directions in advance**. **If after reading the manual you do not understand an instruction, ask your supervisor or employer for clarification, because failure to adhere to the directions in this manual might result in serious personal injury.**

## Safe use recommendations:

Vestil diligently strives to identify foreseeable hazards associated with the use of its products. However, material handling is inherently dangerous and no manual can address every conceivable risk. The end-user ultimately is responsible for exercising sound judgment at all times.



Electrocution might result if any part of the product contacts electrified wires. Reduce the likelihood of electrocution by applying **common sense**:

- DO NOT *contact* electrified wires with any part of this device, your body, or clothing.
- DO NOT use or store the product where contact with electrified wires is likely.
- Always inspect the usage area before using the product & implement precautions that account for conditions.



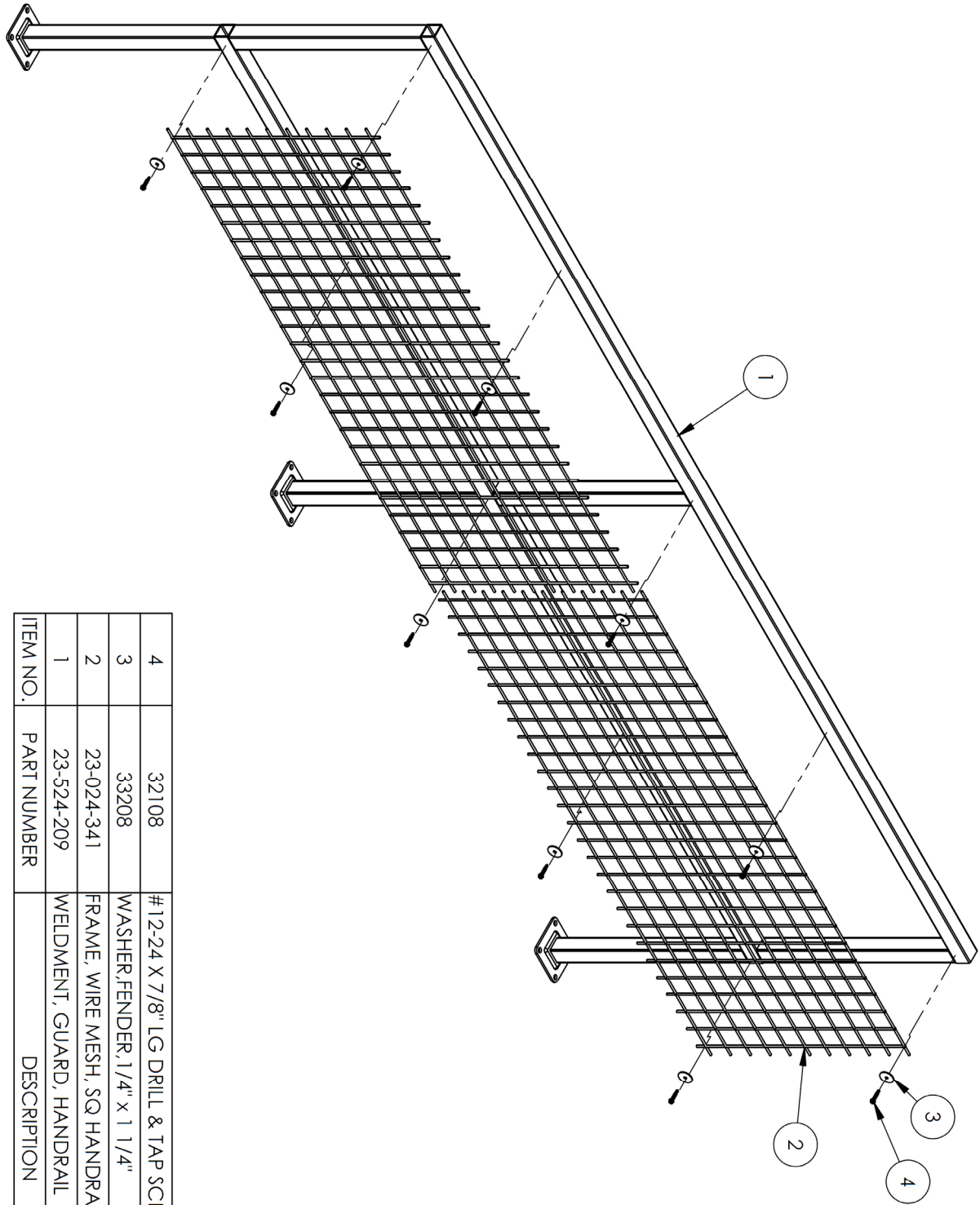
If this product is used improperly or carelessly, the operator and/or bystanders might sustain serious personal injuries or even be killed. To reduce the likelihood of injury:

- **Failure to read and understand the entire manual before assembling, installing, using or servicing the product is a misuse of the product.** Read the manual to refresh your understanding of proper use and maintenance procedures.
- DO NOT attempt to resolve any problem(s) with the product unless you are both authorized to do so and *certain* that it will be safe to use afterwards.
- DO NOT modify the product in any way UNLESS you first obtain written approval from Vestil. Unauthorized modifications automatically void the Limited Warranty and might make the product unsafe to use.
- DO NOT partially assemble or install this product. Complete the assembly and installation procedures diagrammed and explained in this manual BEFORE opening for use the area where the railing system is installed.
- DO NOT exceed the maximum rated load (see Label 287 on product).
- Inspect the product periodically and assess the fitness of the railing system. DO NOT use this product if the inspection reveals structural damage. Examples of structural damage include, but are not limited to, the following: 1) Cracked, broken or significantly deformed posts or cross-members; 2) cracked welds; 3) corrosion, severe wear, or other condition that affects the ability of the product to support weight; or 4) loose anchorages (to the ground). Replace each part that fails to pass an inspection and tighten all loose fasteners including anchor bolts, and DO NOT use the product until it is fully restored to normal condition.
- DO NOT use this device UNLESS all product labels (see "Label Placement Diagram") are readable and undamaged.



- Proper use, maintenance, and storage are essential for this product to function properly.
- Always use this product in accordance with the instructions in this manual.
  - The powder coating prevents the handrail system from rusting. Seal areas where the powder coating is damaged (e.g. chipped or scratched).

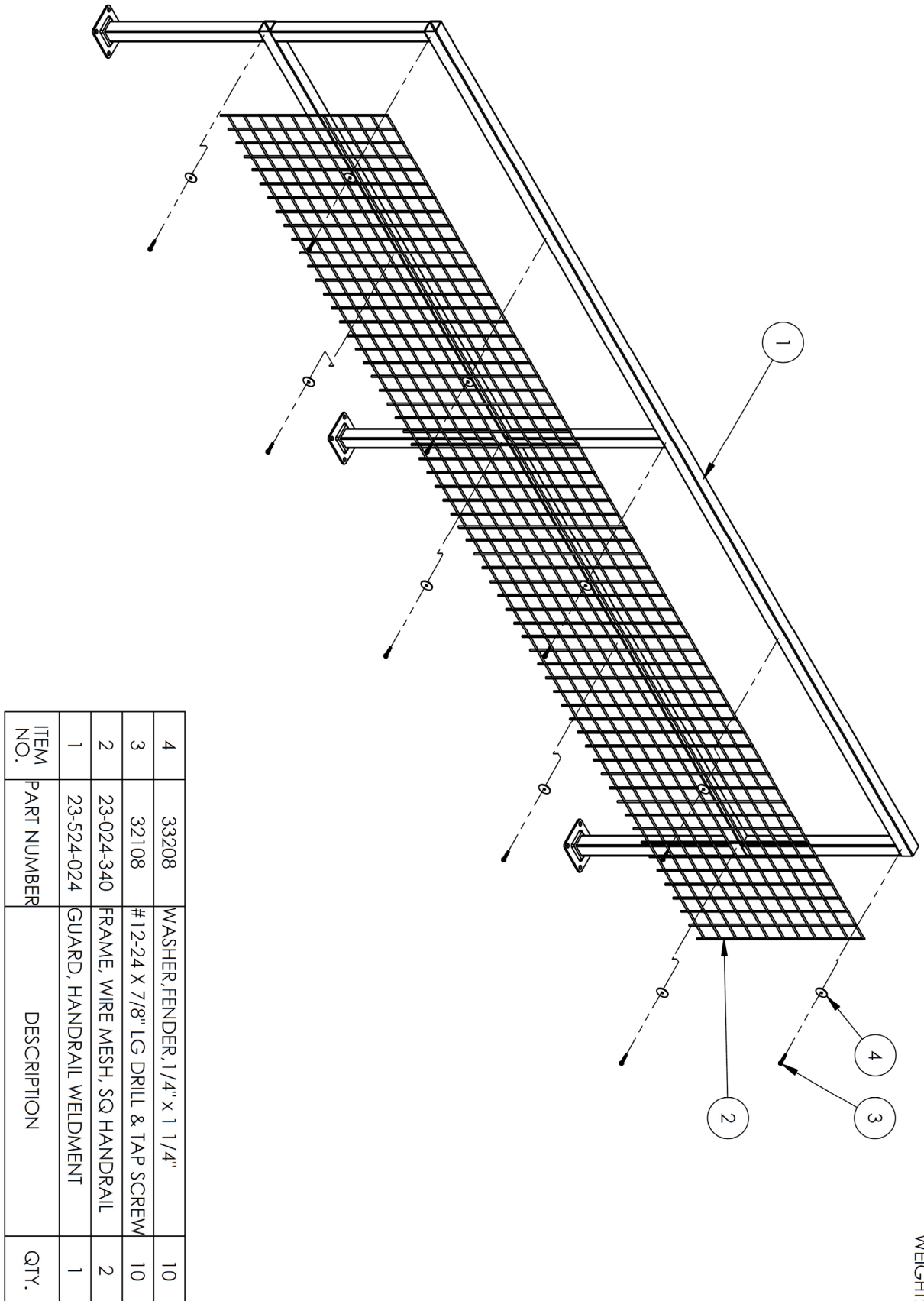
**FIG. 1: SQ-108-W/WM-108 Exploded Parts Diagram and Bill of Materials**



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
4	32108	#12-24 X 7/8" LG DRILL & TAP SCREW	10
3	33208	WASHER,FENDER,1/4" X 1 1/4"	10
2	23-024-341	FRAME, WIRE MESH, SQ HANDRAIL	2
1	23-524-209	WELDMENT, GUARD, HANDRAIL	1

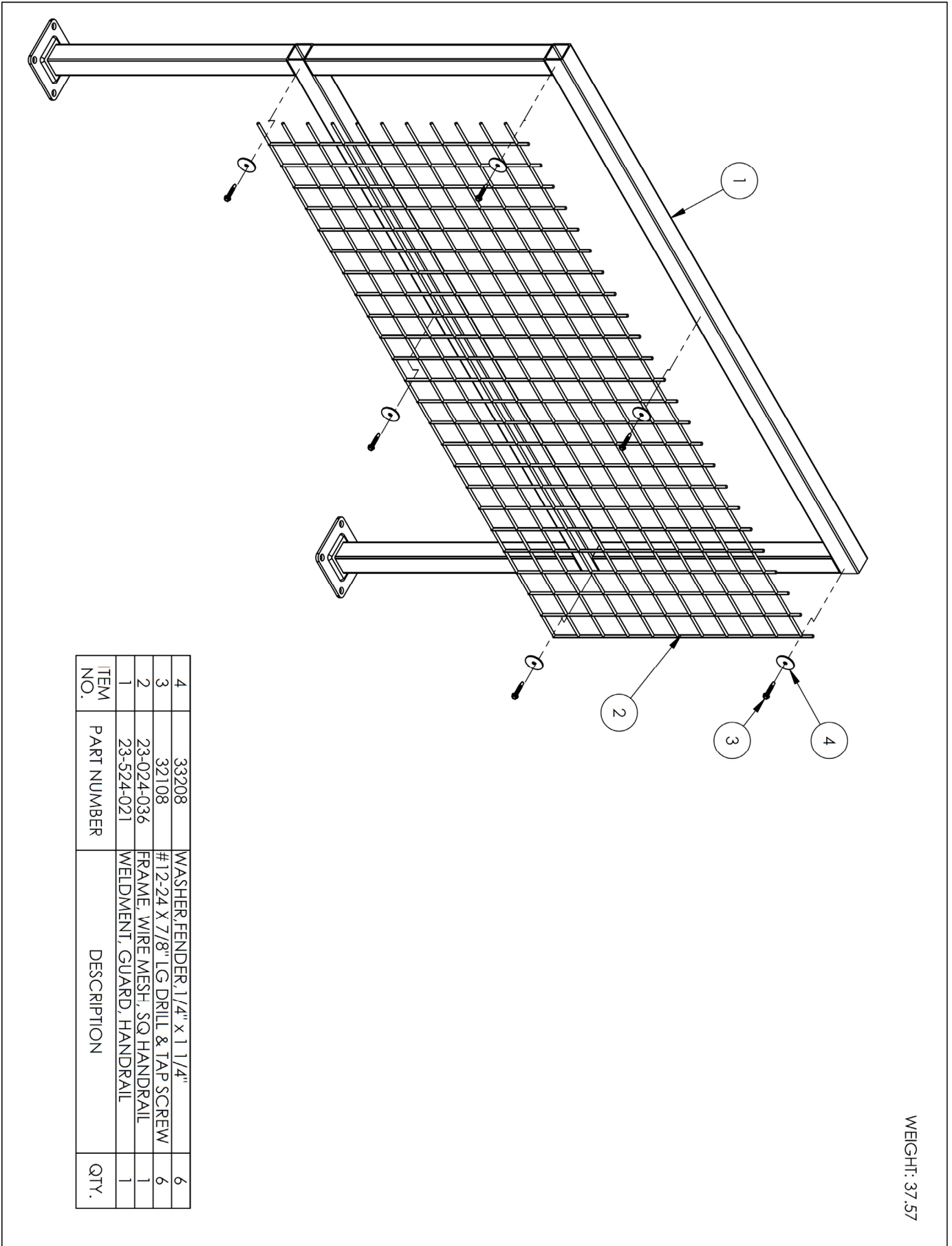
WEIGHT: 73.52

**FIG. 2: SQ-120-W/WM-120 Exploded Parts Diagram and Bill of Materials**

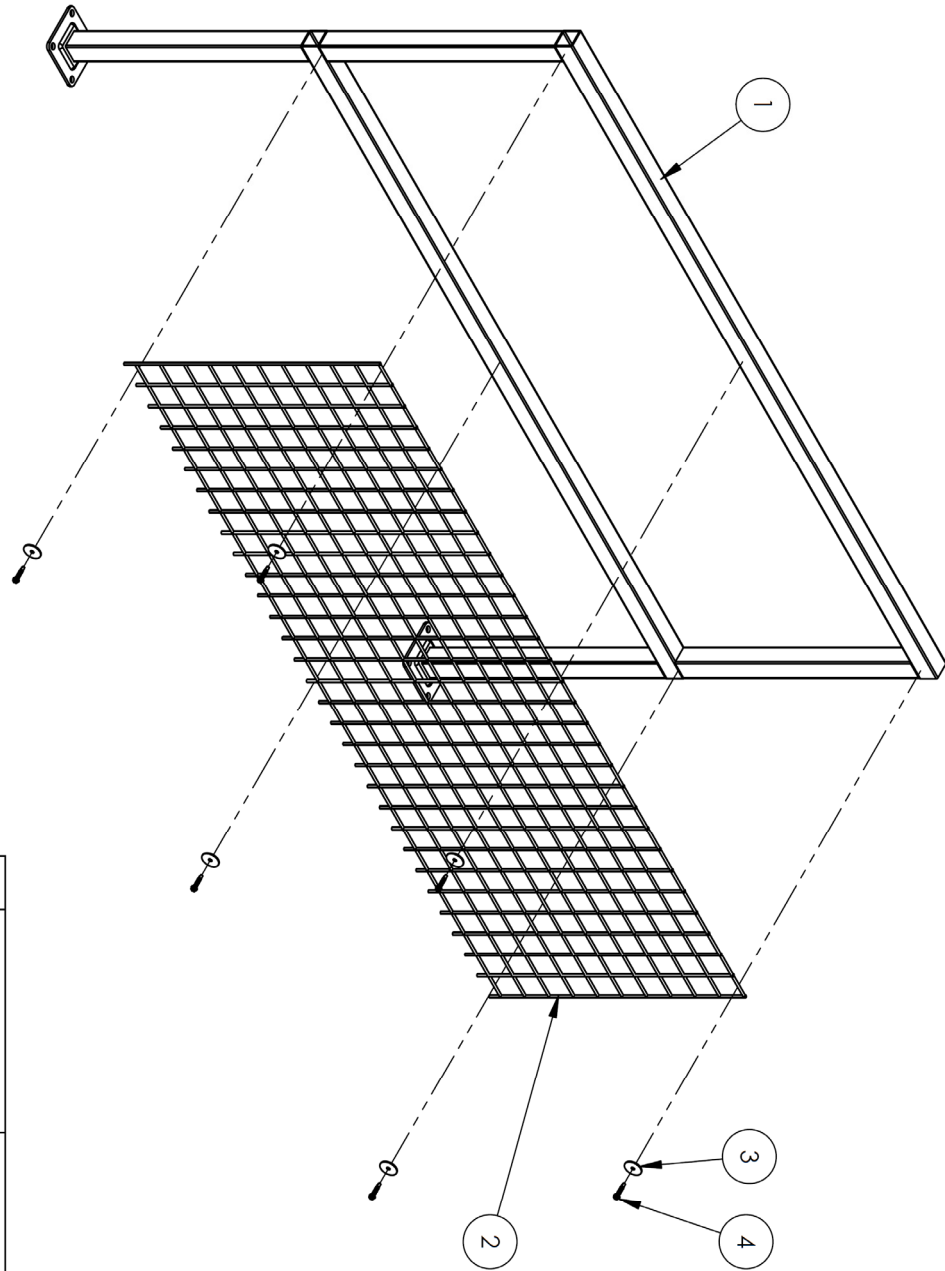


WEIGHT: 79.57

FIG. 3: SQ-48-W/WM-48 Exploded Parts Diagram and Bill of Materials



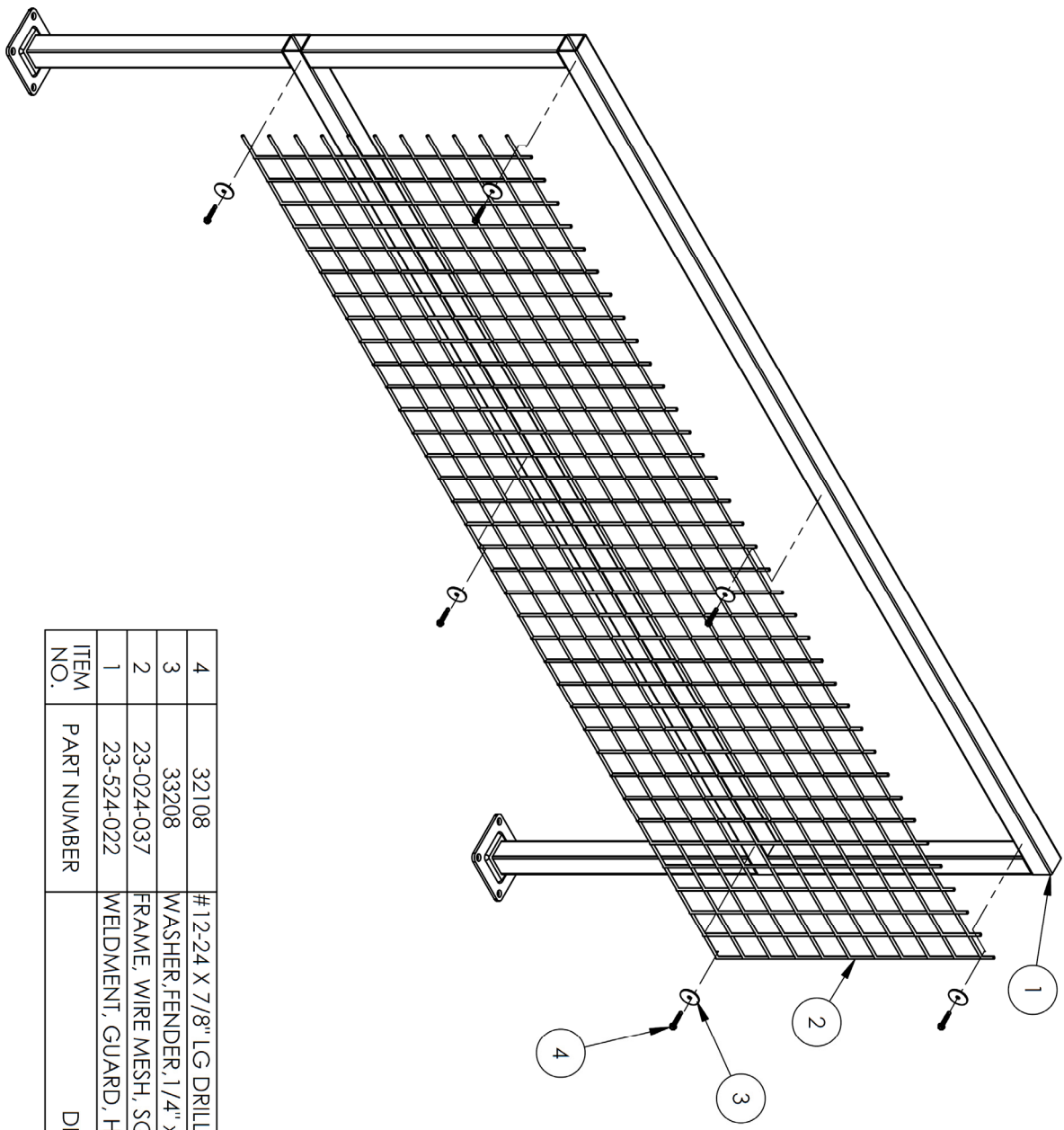
**FIG. 4: SQ-60-W/WM-60 Exploded Parts Diagram and Bill of Materials**



WEIGHT: 43.46

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
4	32108	#12-24 X 7/8" LG DRILL & TAP SCREW	6
3	33208	WASHER, FENDER, 1/4" x 1 1/4"	6
2	23-024-340	FRAME, WIRE MESH, SQ HANDRAIL	1
1	23-524-214	WEIDMENT, GUARD, HANDRAIL	1

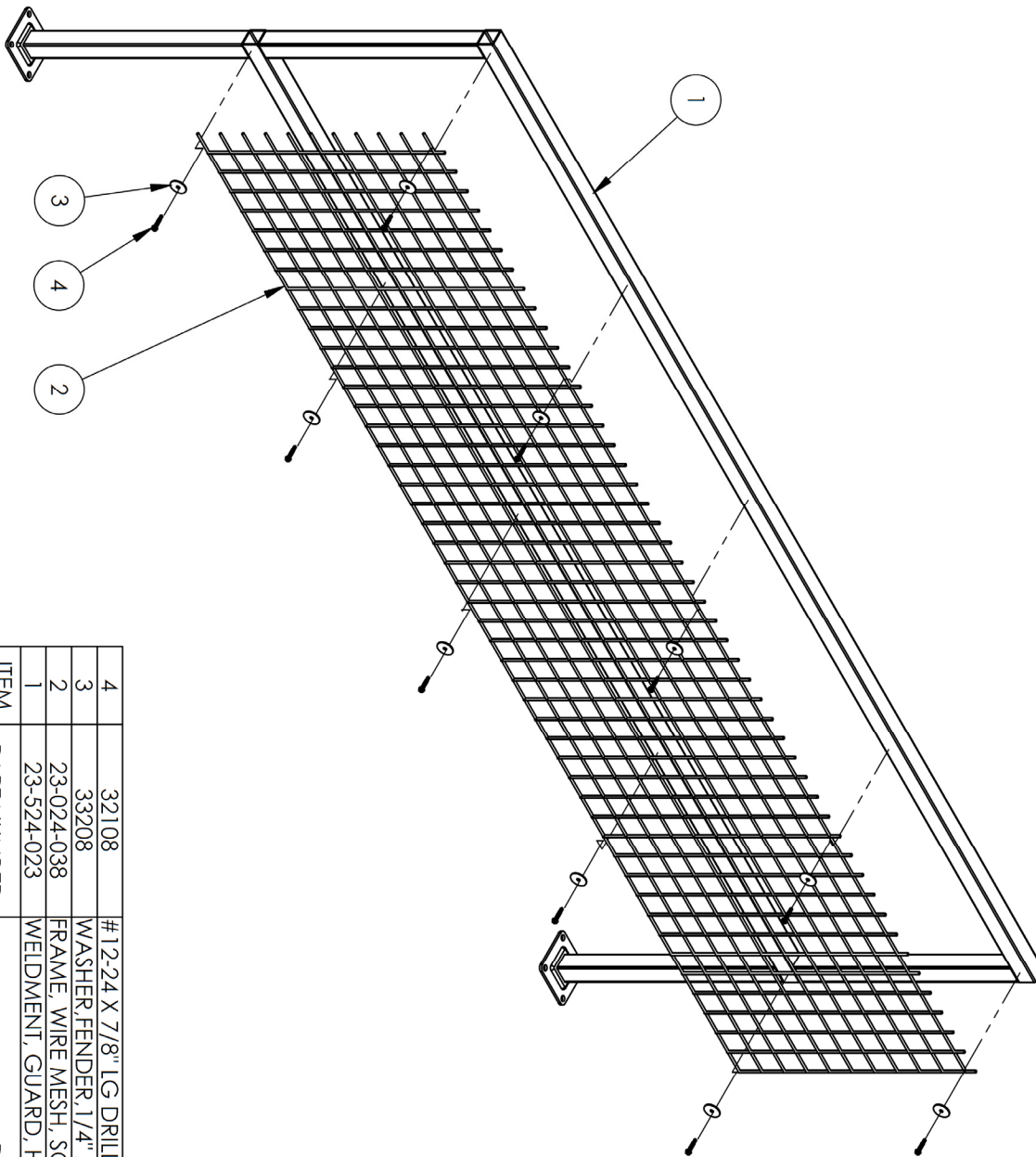
**FIG. 5: SQ-72-W/WM-72 Exploded Parts Diagram and Bill of Materials**



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
4	32108	#12-24 X 7/8" LG DRILL & TAP SCREW	6
3	33208	WASHER, FENDER, 1/4" x 1 1/4"	6
2	23-024-037	FRAME, WIRE MESH, SQ HANDRAIL	1
1	23-524-022	WELDMENT, GUARD, HANDRAIL	1

WEIGHT: 49.08

FIG. 6: SQ-96-W/WM-96 Exploded Parts Diagram and Bill of Materials

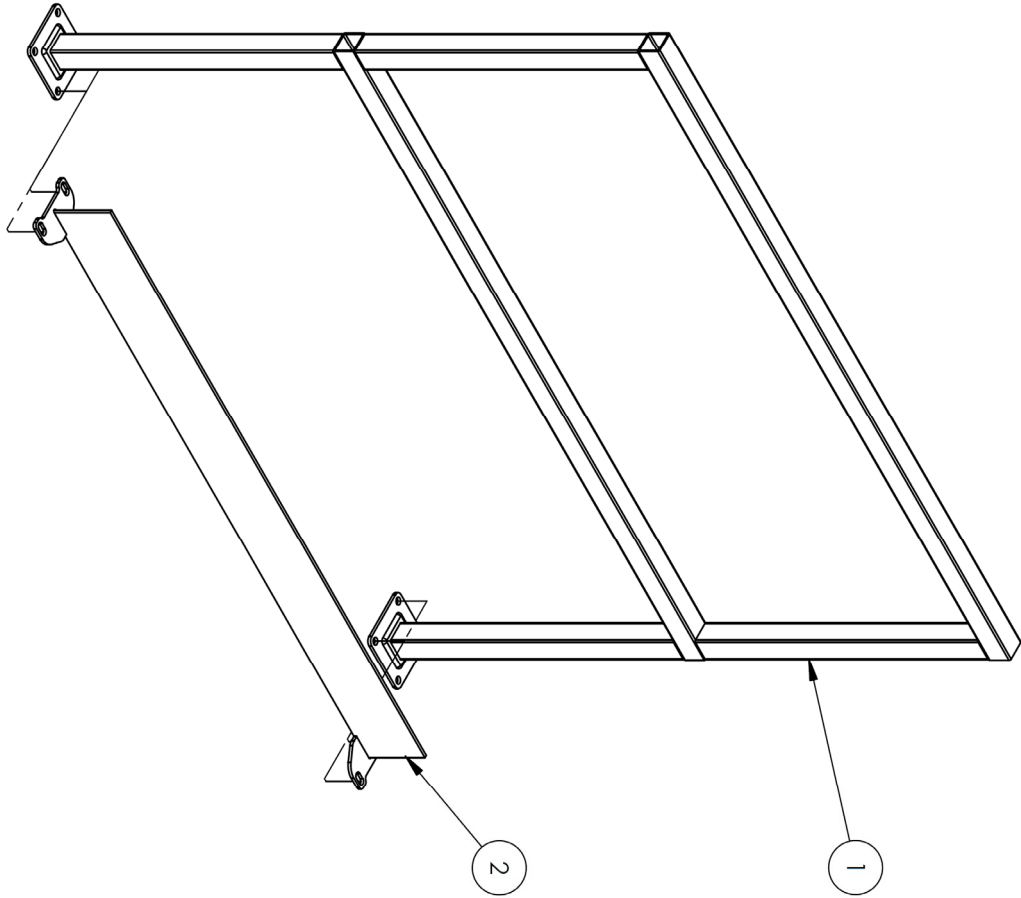


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
4	32108	#12-24 X 7/8" LG DRILL & TAP SCREW	10
3	33208	WASHER, FENDER, 1/4" x 1 1/4"	10
2	23-024-038	FRAME, WIRE MESH, SQ HANDRAIL	1
1	23-524-023	WEIDMENT, GUARD, HANDRAIL	1

WEIGHT: 60.76



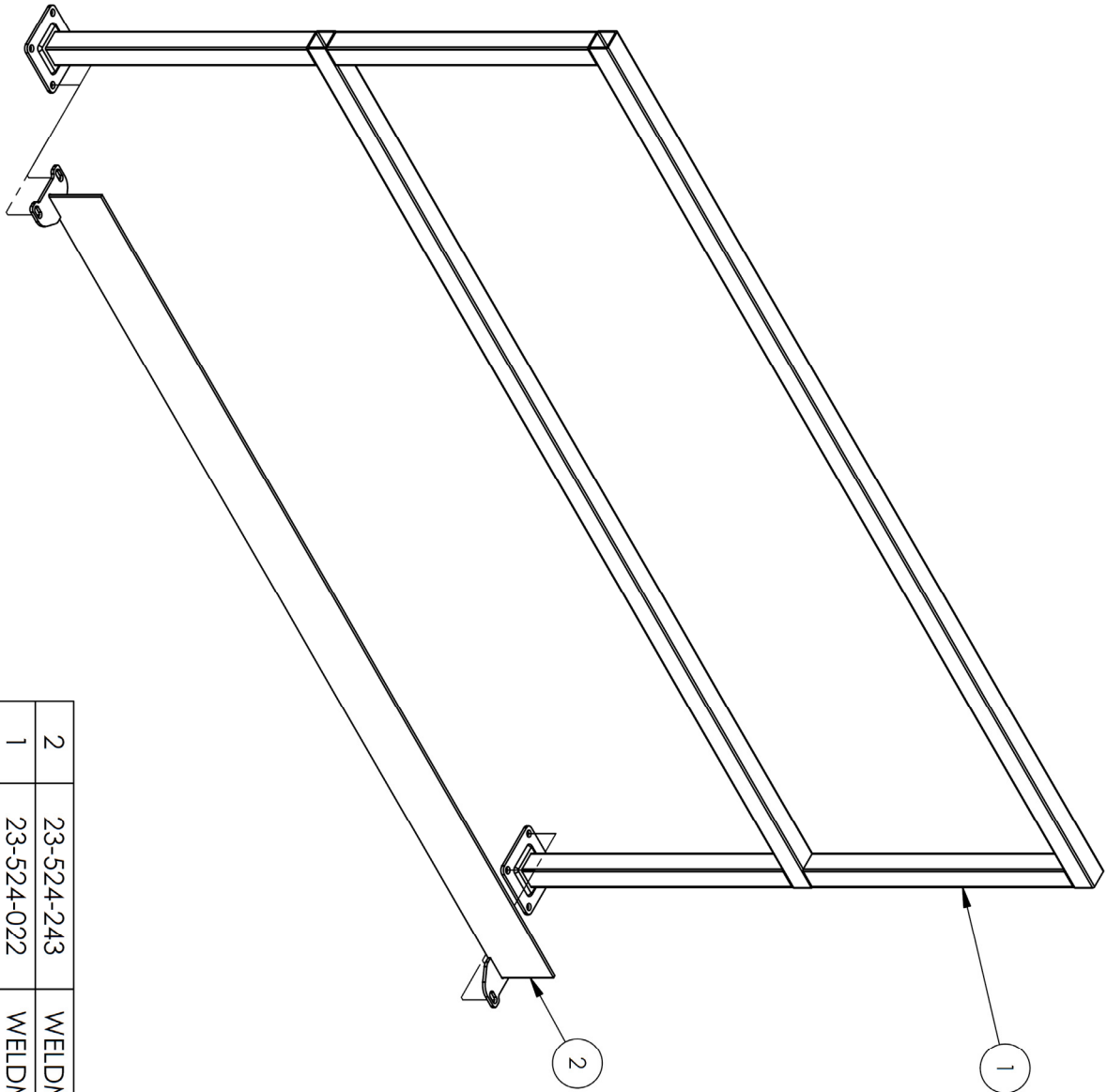
**FIG. 7:** SQ-48-TB Exploded Parts Diagram and Bill of Materials



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
2	23-524-241	WELDMENT, TOEBOARD	1
1	23-524-021	WELDMENT, GUARD, HANDRAIL	1

WEIGHT: 40.29

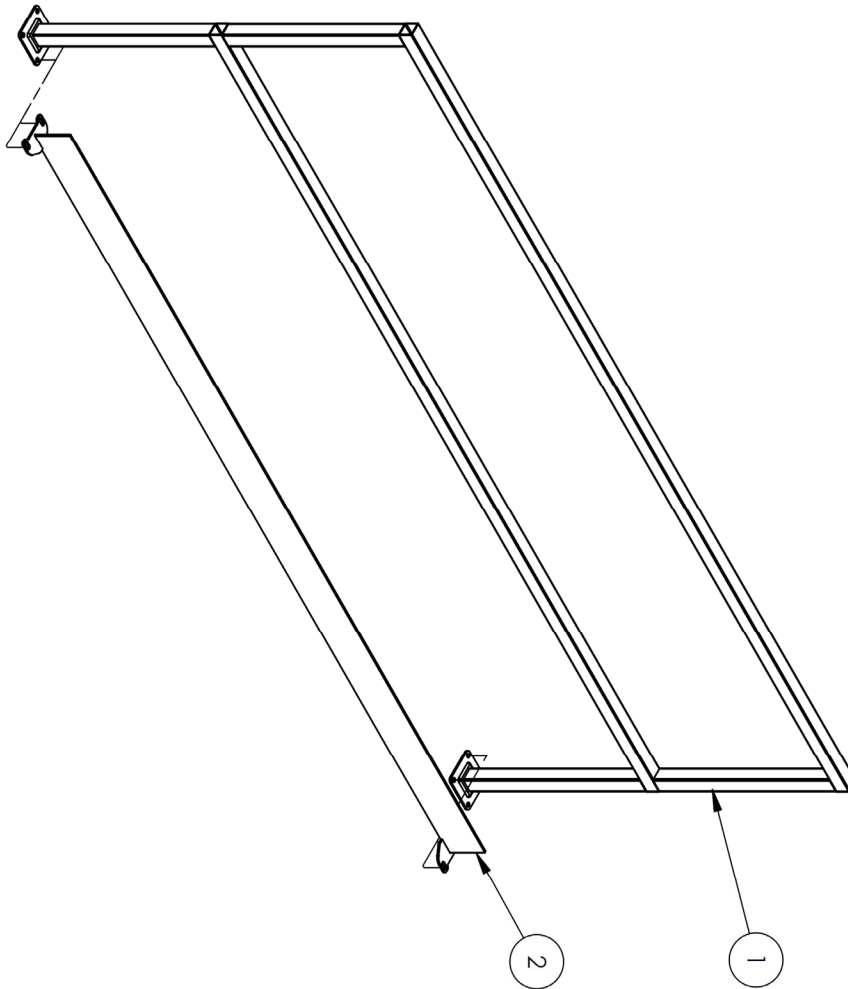
**FIG. 8:** SQ-72-TB Exploded Parts Diagram and Bill of Materials



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
2	23-524-243	WELDMENT, TOEBOARD	1
1	23-524-022	WELDMENT, GUARD, HANDRAIL	1

WEIGHT: 53.34

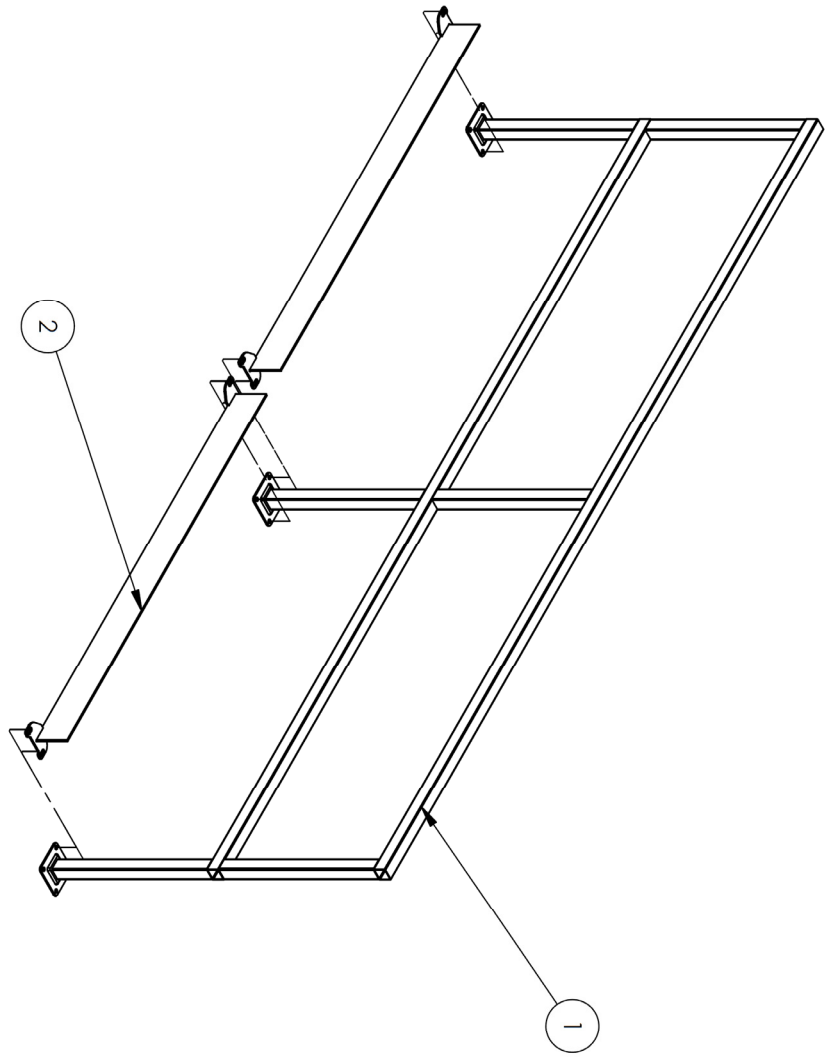
**FIG. 9: SQ-96-TB Exploded Parts Diagram and Bill of Materials**



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
2	23-524-245	WELDMENT, TOEBOARD	1
1	23-524-023	WELDMENT, GUARD, HANDRAIL	1

WEIGHT: 66.39

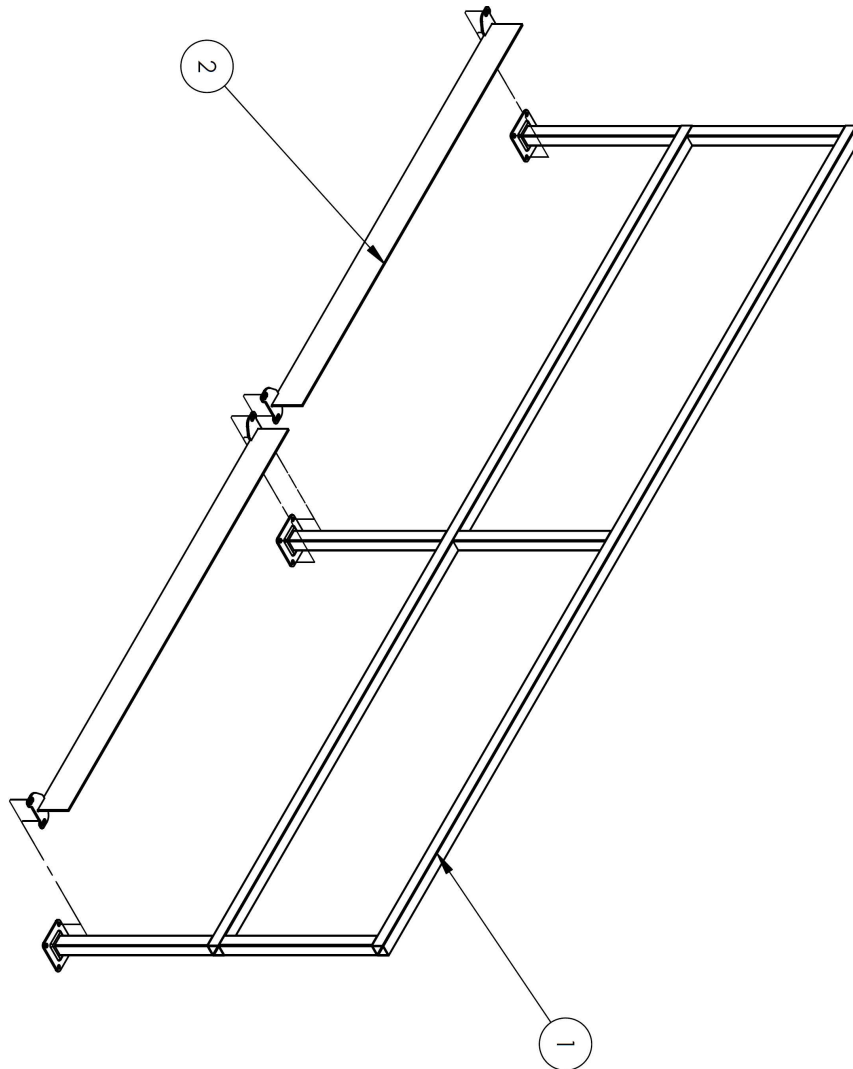
**FIG. 10:** SQ-108-TB Exploded Parts Diagram and Bill of Materials



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
2	23-524-246	WELDMENT, TOEBOARD	2
1	23-524-209	WELDMENT, GUARD, HANDRAIL	1

WEIGHT: 79.92

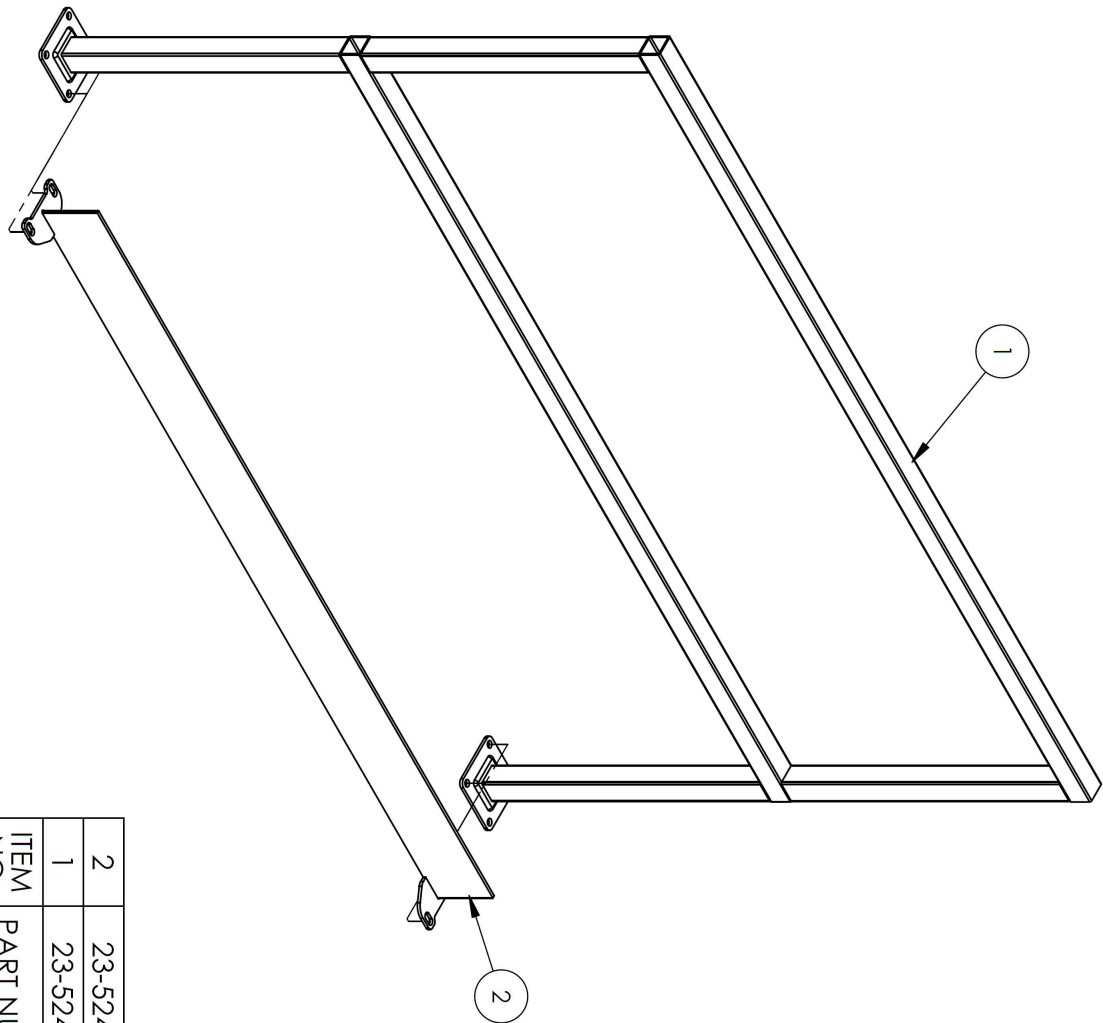
**FIG. 11: SQ-120-TB Exploded Parts Diagram and Bill of Materials**



2	23-524-247	WELDMNT, TOEBOARD	2
1	23-524-024	GUARD, HANDRAIL WELDMNT	1
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.

WEIGHT: 86.67

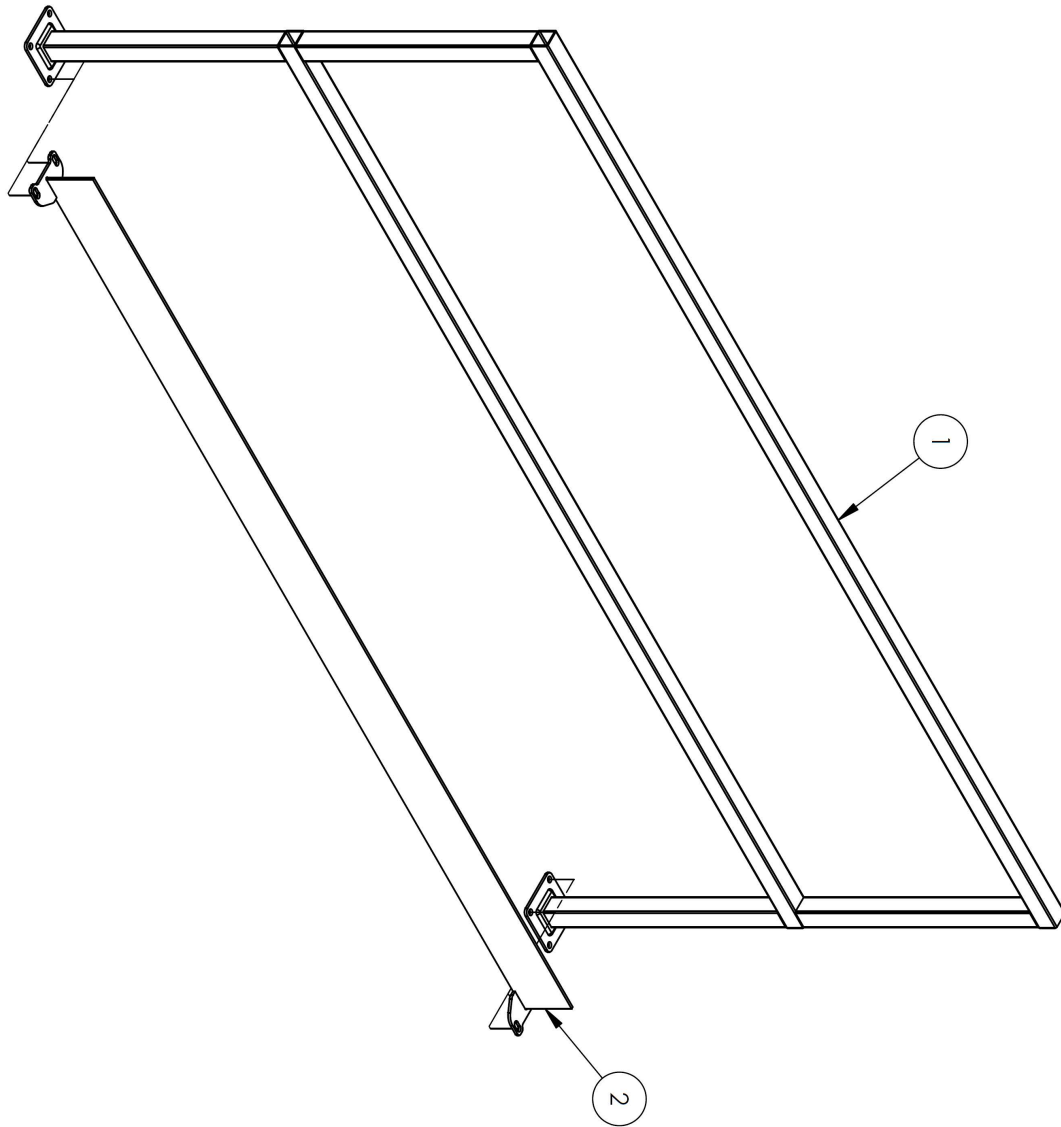
**FIG. 12: SQ-60-TB Exploded Parts Diagram and Bill of Materials**



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
2	23-524-242	WELDMENT, TOEBOARD	1
1	23-524-214	WELDMENT, GUARD, HANDRAIL	1

WEIGHT: 46.81

**FIG. 13: SQ-84-TB Exploded Parts Diagram and Bill of Materials**

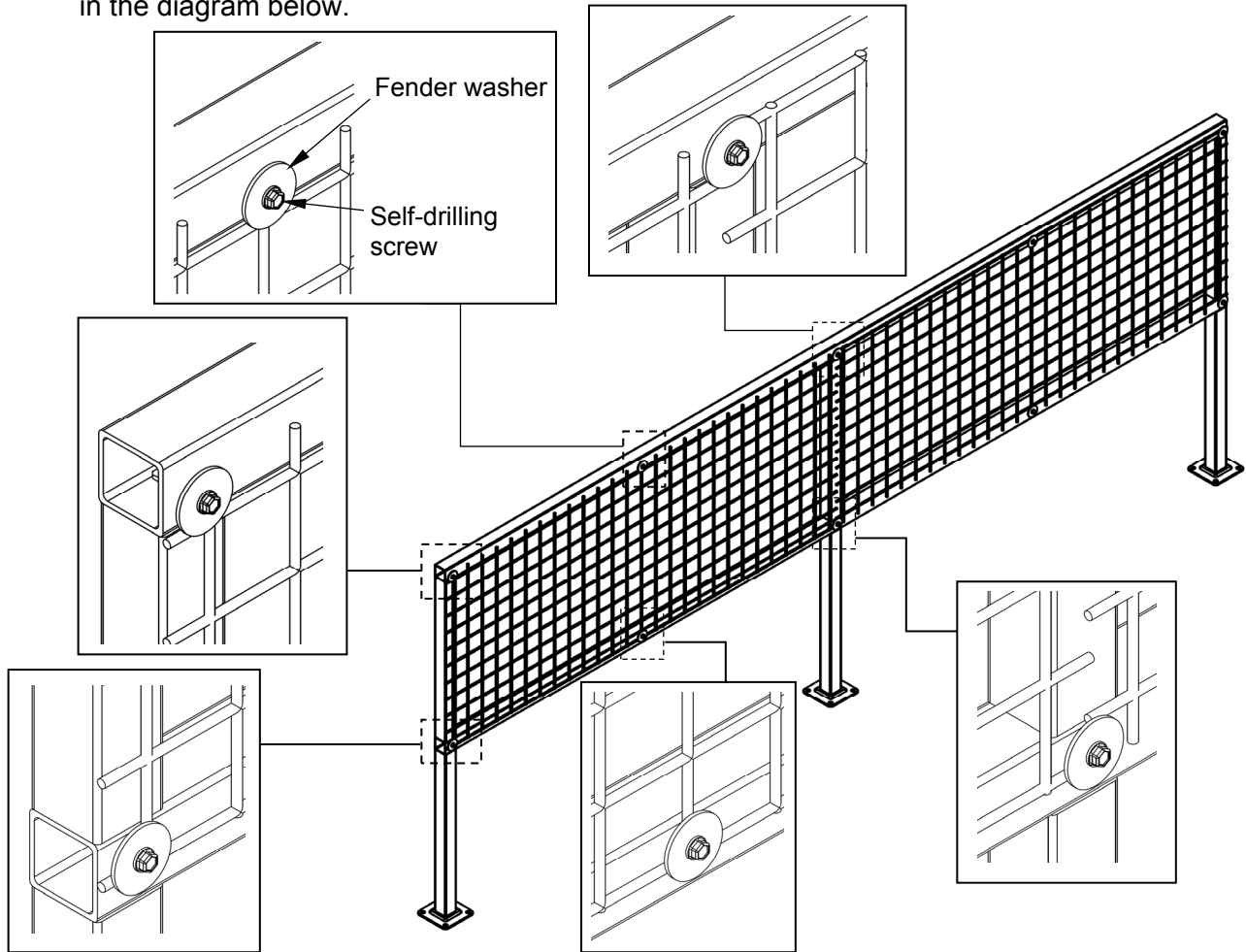


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
2	23-524-244	WELDMENT, TOEBOARD	1
1	23-524-215	WELDMENT, GUARD, HANDRAIL	1

WEIGHT: 59.87

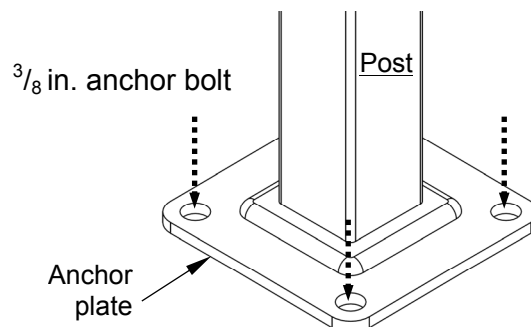
## Installation & Assembly

1. Determine the layout of the handrail segments and note which side will face outwards. Fasten the mesh fencing to the outside of the segments.
  - a) Position the mesh pieces appropriately to cover the open areas midrail of each handrail segment. Use clamps to temporarily hold the mesh in position.
  - b) The product is shipped with #12 x 1<sup>1</sup>/<sub>4</sub>" long self-drilling screws. Fine tune the position of the mesh, if necessary, to allow screws to be driven into the top rail and midrail at the upper, outer corners of squares in the mesh as shown below. Put a 1<sup>1</sup>/<sub>4</sub>" x 1<sup>1</sup>/<sub>4</sub>" fender washer on each screw before driving it into the railing. Each washer should overlap the mesh as shown in the diagram below.



2. Fasten the machine to the floor with anchor bolts.
 

At the base of each post is an anchor plate and there are 4 anchor bolt holes in each anchor plate. Your building engineer should evaluate the installation site and select 3/8 in. anchor bolts of a length appropriate for the location. If your handrail system includes toeguards, complete step 3 on the next page before bolting the handrail segments to the ground.

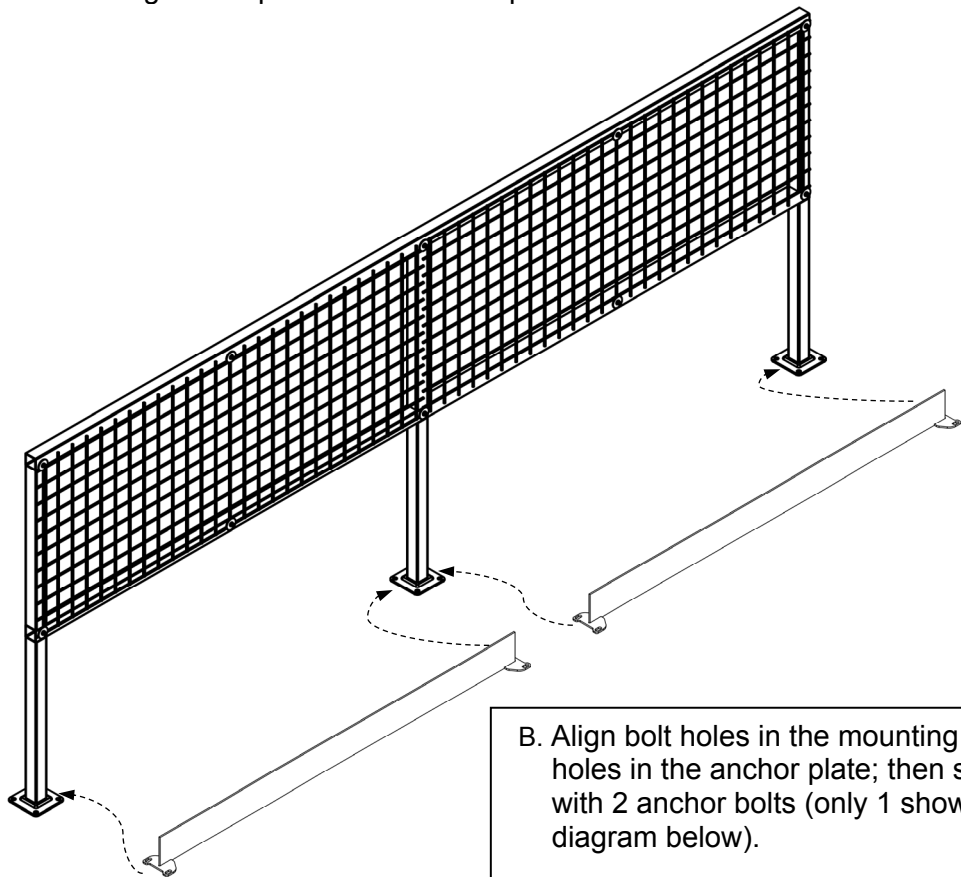




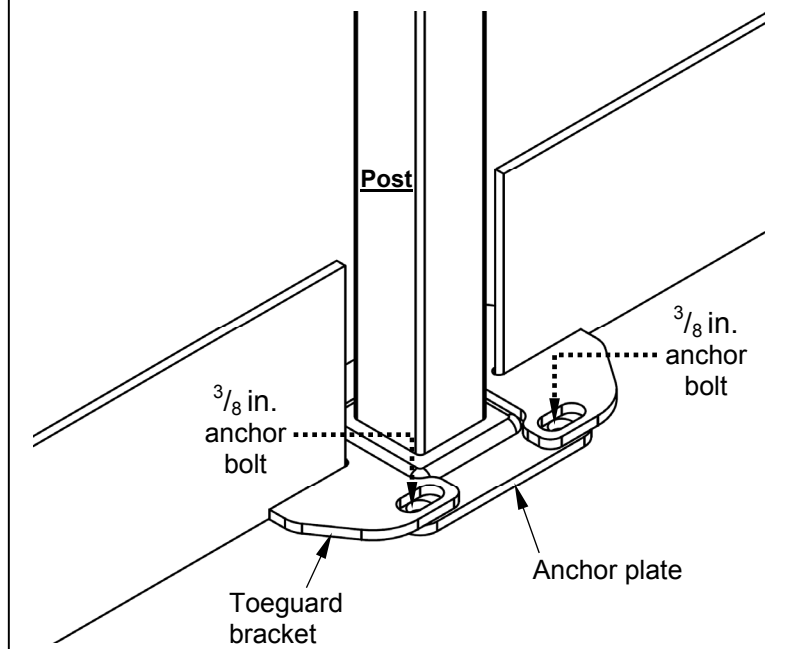
### Step 3: Install the toeguards

- A. Place a toeguard between adjacent posts so that each end rests on the anchor plates (of the posts); then
- B. Align the bolt holes in the (toeguard) mounting brackets with the bolt holes in the (post) anchor plates. Fasten the brackets and anchor plates to the ground with  $\frac{3}{8}$  in. anchor bolts of appropriate length as selected by your building engineer.

#### A. Set toeguard in place between two posts



- B. Align bolt holes in the mounting brackets with the bolt holes in the anchor plate; then secure each bracket with 2 anchor bolts (only 1 shown per bracket in diagram below).



### Labeling Diagram

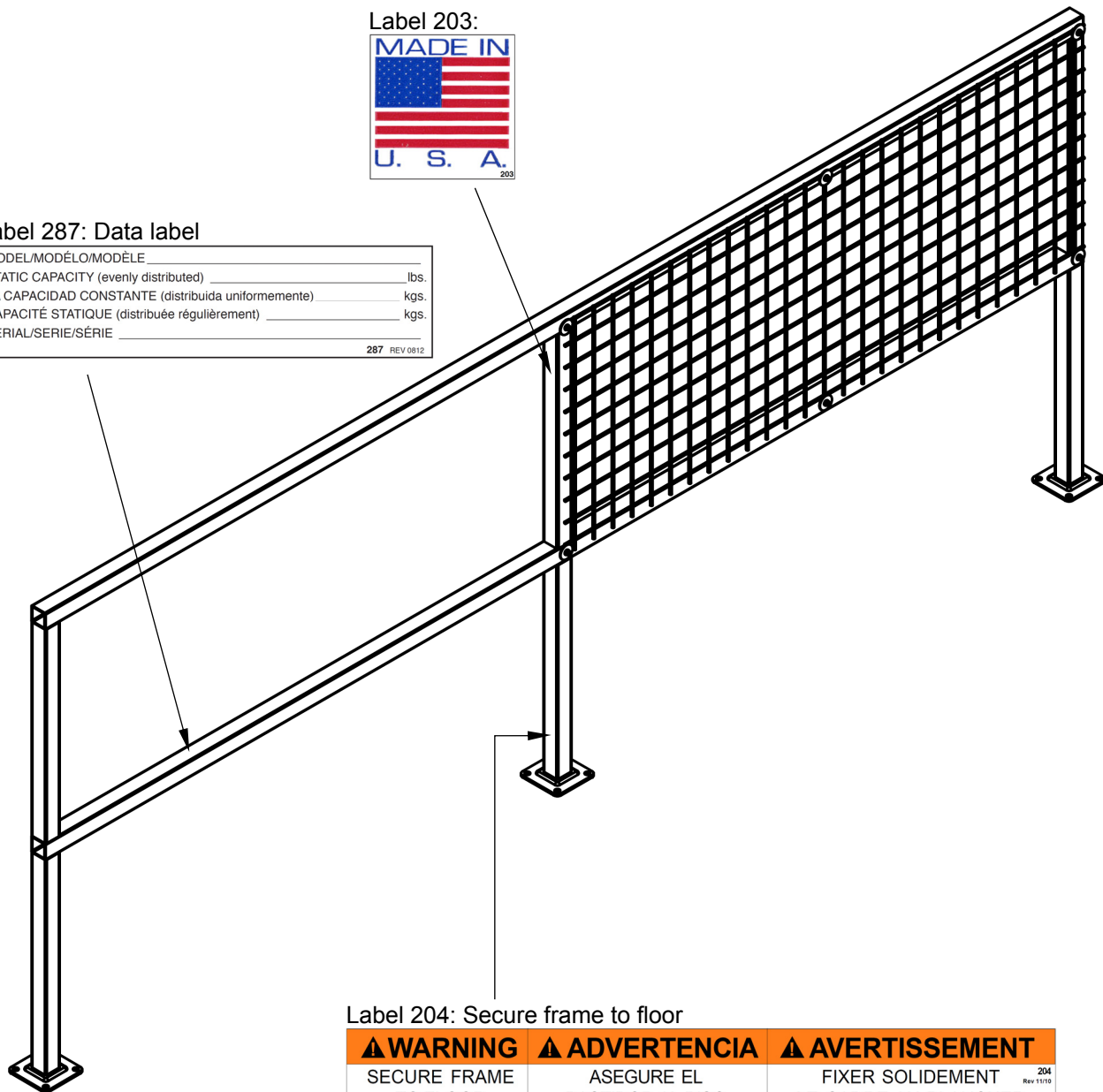
SQ-series handrails are labeled as shown below. Labels must remain undamaged and readable. Replace damaged labels.

Label 203:



Label 287: Data label

MODEL/MODÉLO/MODÈLE _____	
STATIC CAPACITY (evenly distributed) _____	lbs.
LA CAPACIDAD CONSTANTE (distribuida uniformemente) _____	kgs.
CAPACITÉ STATIQUE (distribuée régulièrement) _____	kgs.
SERIAL/SERIE/SÉRIE _____	
<small>287 REV 0812</small>	



Label 204: Secure frame to floor

<b>▲ WARNING</b>	<b>▲ ADVERTENCIA</b>	<b>▲ AVERTISSEMENT</b>
SECURE FRAME TO FLOOR	ASEGURE EL BASTIDOR AL PISO	FIXER SOLIDEMENT LE CADRE AU PLANCHER
		<small>204 REV 11110</small>

## LIMITED WARRANTY

Vestil Manufacturing Corporation (“Vestil”) warrants this product to be free of defects in material and workmanship during the warranty period. *Our warranty obligation is to provide a replacement for a defective original part if the part is covered by the warranty, after we receive a proper request from the warrantee (you) for warranty service.*

### Who may request service?

Only a warrantee may request service. *You are a warrantee if* you purchased the product from Vestil or from an authorized distributor AND Vestil has been fully paid.

### What is an “original part”?

An original part is a part used to make the product as shipped to the warrantee.

### What is a “proper request”?

A request for warranty service is proper if Vestil receives: 1) a photocopy of the Customer Invoice that displays the shipping date; AND 2) a written request for warranty service including your name and phone number. Send requests by any of the following methods:

Mail  
Vestil Manufacturing Corporation  
2999 North Wayne Street, PO Box 507  
Angola, IN 46703

Fax  
(260) 665-1339  
Phone  
(260) 665-7586

Email  
sales@vestil.com

In the written request, list the parts believed to be defective and include the address where replacements should be delivered.

### What is covered under the warranty?

After Vestil receives your request for warranty service, an authorized representative will contact you to determine whether your claim is covered by the warranty. Before providing warranty service, Vestil may require you to send the entire product, or just the defective part or parts, to its facility in Angola, IN. The warranty covers defects in the following *original* dynamic components: motors, hydraulic pumps, electronic controllers, switches and cylinders. It also covers defects in *original* parts that wear under normal usage conditions (“wearing parts”): bearings, hoses, wheels, seals, brushes, batteries, and the battery charger.

### How long is the warranty period?

The warranty period for original dynamic components is 15 days. For wearing parts, the warranty period is 15 days. The warranty periods begin on the date when Vestil ships the product to the warrantee. If the product was purchased from an authorized distributor, the periods begin when the distributor ships the product. Vestil may, at its sole discretion, extend the warranty periods for products shipped from authorized distributors by *up to* 30 days to account for shipping time.

### If a defective part is covered by the warranty, what will Vestil do to correct the problem?

Vestil will provide an appropriate replacement for any *covered* part. An authorized representative of Vestil will contact you to discuss your claim.

### What is not covered by the warranty?

1. Labor;
2. Freight;
3. Occurrence of any of the following, which automatically voids the warranty:
  - Product misuse;
  - Negligent operation or repair;
  - Corrosion or use in corrosive environments;
  - Inadequate or improper maintenance;
  - Damage sustained during shipping;
  - Collisions or other incidental contacts causing damage to the product;
  - Unauthorized modifications: DO NOT modify the product IN ANY WAY without first receiving written authorization from Vestil. Modification(s) might make the product unsafe to use or might cause excessive and/or abnormal wear.

### Do any other warranties apply to the product?

Vestil Manufacturing Corp. makes no other express warranties. All implied warranties are disclaimed to the extent allowed by law. Any implied warranty not disclaimed is limited in scope to the terms of this Limited Warranty.

