

**HANDBOOK  
OPERATION, SERVICE AND REPAIR  
INSTRUCTIONS**

**WORK STAND ASSEMBLIES**

**MODEL NO.  
3110**

**STOCK NO.  
1730-540-5032**



**AIR LOGISTICS CORPORATION  
146 E. RAILROAD AVE.  
MONROVIA, CA. 91016  
626-256-1257**

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Rail Height . . . adjustable from 30 to 39 inches  
 Folded Dimensions . . . 84.00 x 54.30 x 7.50 inches  
 Weight . . . . . 262 pounds  
**MODEL 3110:**  
 Load Limit . . . . . 10,000 pounds  
 Rail Length . . . . . 152 inches  
 Rail Width (center to center) . . . . . 48 inches

Rail Height . . . fixed height adjustment at 30.00,  
 31.50, 33.00, 34.50, 36.00,  
 37.50 and 39.00 inches with  
 additional  $\pm 1.5$  inch screw  
 adjustment at foot.  
 Folded Dimensions . . . 204.00 x 55.00 x 10.00 inches  
 Weight . . . . . 480 pounds

## SECTION II OPERATION AND SERVICE

### 2-1. PREPARATION FOR USE.

2-2. Remove crate, if crated, and secure legs of Models 3100, 3100A and 3100B by swinging leg assemblies into position and securing brace and attaching hardware. Model 3110 is folded in pantograph fashion. Swing rails apart and secure the position with the clamps provided.

2-3. OPERATION. (See figures 2-1 and 2-2.)

### 2-4. FOLDING OPERATIONS. (See figure 2-1.)

2-5. Models 3100, 3100A and 3100B are folded by removing one end of braces (1) and folding the legs toward the center as illustrated in figure 2-1a.

2-6. Model 3110 is folded in pantograph fashion. When clamps (2) have been loosened and dropped clear of rails the work stand can be collapsed as illustrated in figure 2-1b.

### 2-7. HEIGHT ADJUSTMENT.

2-8. The height of all work stands covered in this handbook, except Model 3100 which is a fixed height, is adjustable by means of a screw type foot assembly or a telescoping leg assembly, or both.

### 2-9. POSITIONING OF OUTBOARD LEG ASSEMBLIES, MODEL 3110. (See figure 2-2.)

2-10. Leg assemblies are positioned as follows:

- a. Loosen clamps (1) and drop clear of rails (2).
- b. Remove nut (3) and bolt (4) and drop leg assembly free of rails.
- c. Install the leg assemblies at either of the two locations provided on rails and secure with nut (3), bolt (4) and clamps (1).

2-11. LOAD TRANSFER. (See figure 2-3.)

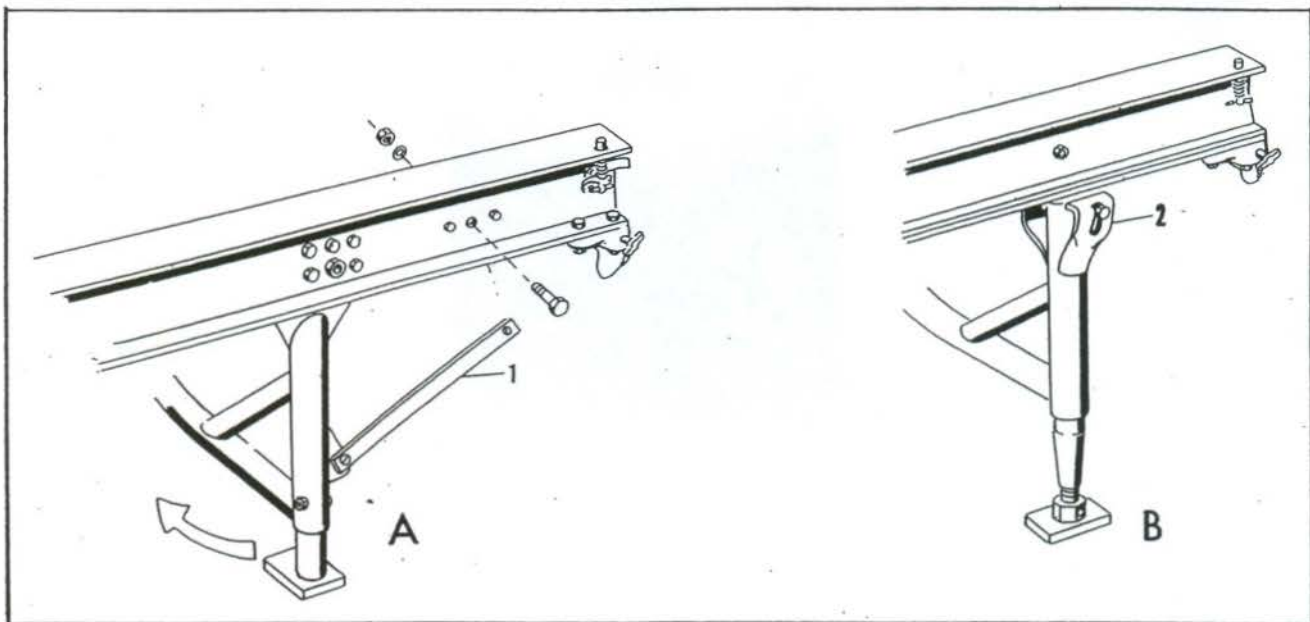


Figure 2-1. Folding Operations

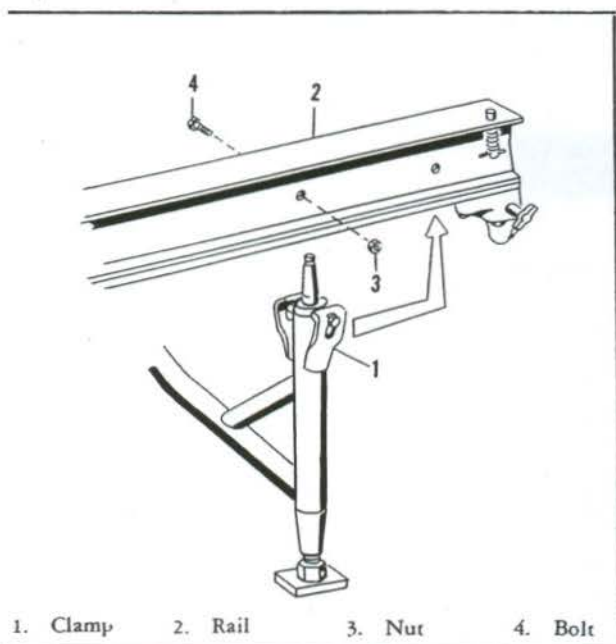


Figure 2-2. Positioning of Outboard Leg Assemblies, Model 3110

2-12. Coupling assemblies (1) are secured to coupling assemblies of associated equipment by means of quick release pins (2).

2-13. When transferring the load onto the Work Stand, adapter stops (3) must be pulled down to permit the load supporting roller adapters (4) to pass over.

2-14. PERIODIC LUBRICATION.

2-15. Lubricate all swivel joints and caster bearings with general purpose grease, Specification MIL-G-7118 as required.

### 2-16. PERIODIC INSPECTION.

2-17. Conduct quarterly inspection as follows:

- Check for proper adapter stop action.
- Model 3100B shall be inspected for proper castering action.
- Check for condition and tightness of all hardware.
- Check couplings for evidence of fracture.
- Inspect all welds for fracture.
- Inspect rails, leg assemblies and bracing for distortion.

2-18. TROUBLE SHOOTING. (See Table 1.)

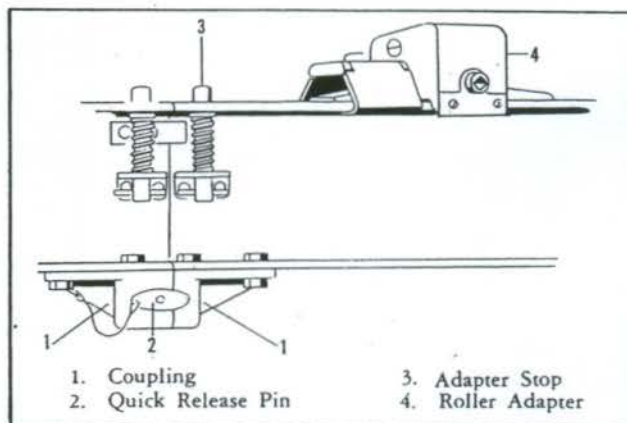


Figure 2-3. Load Transfer Operation

TABLE I. TROUBLE SHOOTING

TROUBLE	PROBABLE CAUSE	REMEDY
Improper adapter stop action	Broken stop pin spring burred or distorted stop pin	Replace stop pin spring Straighten or remove burrs
Improper castering (Model 3100B only)	Lack of lubrication of caster or swivel joint	Lubricate as necessary
	Obstruction in caster or swivel assembly	Remove obstruction
	Damaged caster	Replace caster
	Improper foot adjustment	Correct foot adjustment
Work Stand twisted or unstable	Distorted rails or leg assemblies	Straighten or replace with new
	Fractured welds	Repair welds
	Loose attaching hardware	Tighten attaching hardware



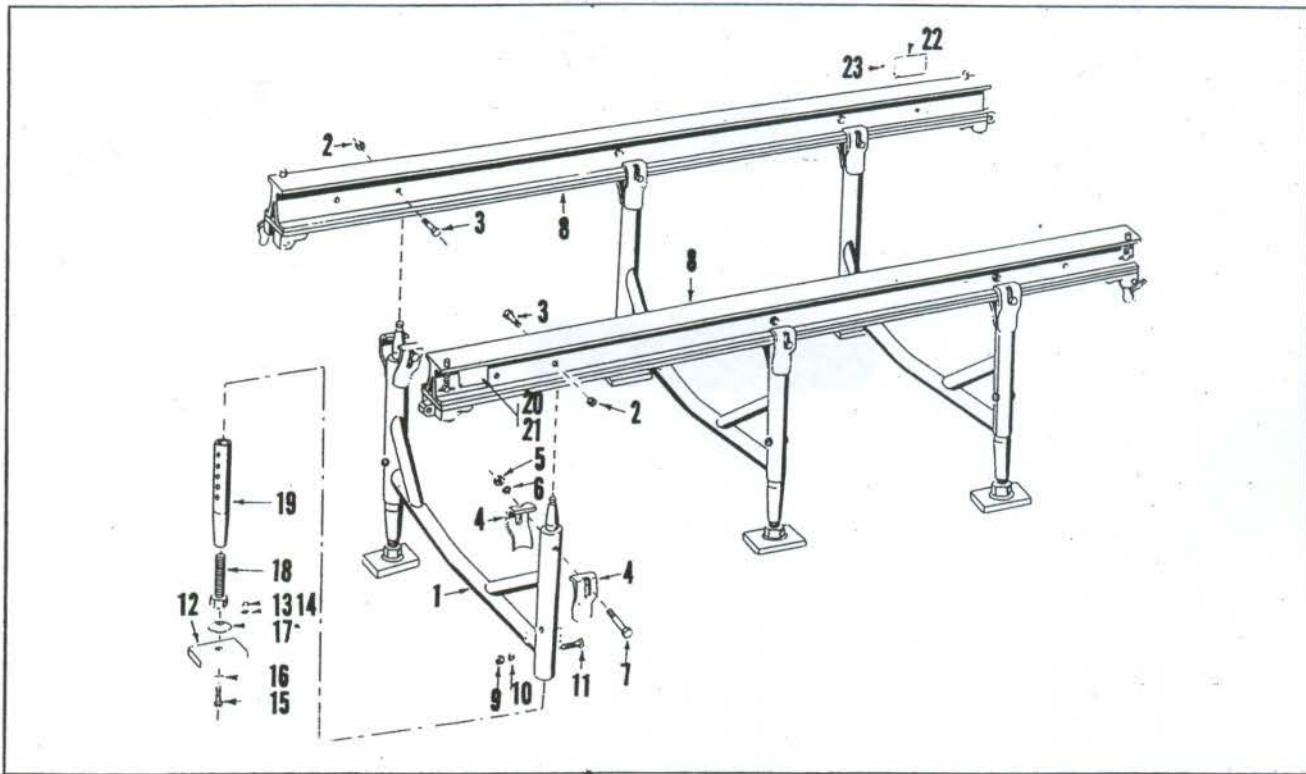


Figure 3. Work Stand Assembly, Model 3110

Section II  
Group Assembly Parts List

Index No. Fig. and	Part No.	Description	Units per Assy	Usable on Code
		1 2 3 4 5 6 7		
3-	105011	STAND ASSEMBLY, Work, Model 3110	Ref	G
- 1	105083	FRAME ASSEMBLY (ATTACHING PARTS)	3	
- 2	MS20364-428C	NUT	6	
- 3	AN4-16A	BOLT	6	
- 4	105102	CLAMP (ATTACHING PARTS)	12	
- 5	AN315-8	NUT	6	
- 6	AN960-816	WASHER	12	
- 7	105105	BOLT	6	
- 8	No Number 105791	RAIL ASSEMBLY (See figure 5) FOOT ASSEMBLY (ATTACHING PARTS)	2 6	
- 9	MS20364-1216C	NUT	6	
- 10	AN960-1216	WASHER	6	
- 11	AN32-46A	BOLT, Clevis	6	
- 12	105790	BASE, Foot (ATTACHING PARTS)	1	
- 13	1452-048	NUT, Barrel (72962)	1	
- 14	HS98477	RETAINER, Nut (61864)	1	
- 15	AN4-13A	BOLT	1	
- 16	AN960-516L	WASHER	1	
- 17	102227	BEARING	1	
- 18	102225	SCREW	1	
- 19	102203	LEG	1	
- 20	105103	NAMEPLATE (ATTACHING PARTS)	1	
- 21	AN535-0-4	SCREW, Drive	4	
- 22	105180	PLACARD (ATTACHING PARTS)	1	
- 23	AN535-0-4	SCREW, Drive	4	

Section II  
Group Assembly Parts List

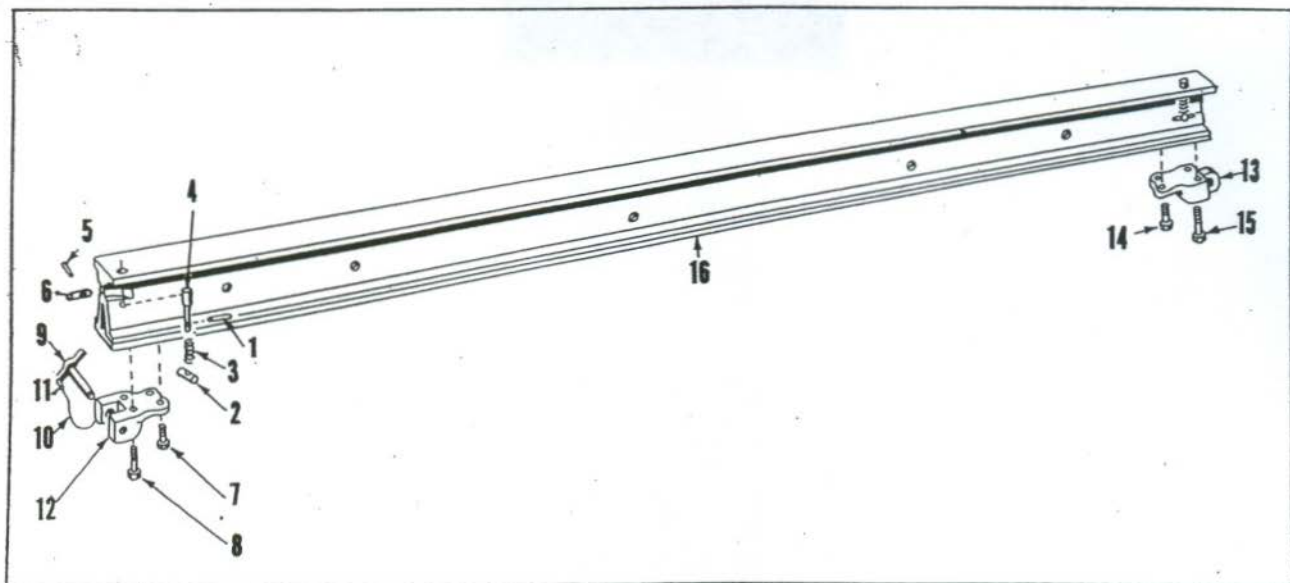


Figure 5. Rail Assembly, Model 3110

Fig. and Index No.	Part No.	Description	Units per Assy	Usable on Code
		1 2 3 4 5 6 7		
5-	No Number	RAIL ASSEMBLY (See figure 3-8 for next higher assy)	Ref	G
- 1	MS171596	ROLLPIN	2	
- 2	104359	PIN, Guide	2	
	111535	SPRING	2	
	104358	PIN, Adapter stop	2	
- 5	MS171657	ROLLPIN	1	
- 6	104360	PIN, Rail indexing	1	
	102334	COUPLING ASSEMBLY, Female (ATTACHING PARTS)	1	
- 7	AN6-7A	BOLT	2	
- 8	AN6-16A	BOLT	2	
- 9	BL-ST5-12-2.750	PIN, Quick release (97978) (ATTACHING PARTS)	1	
	S-102408-9	CABLE ASSEMBLY	1	
- 10	COMM	CABLE, 0.062 x 13.50 lg 7 x 7 flex stainless steel	1	
- 11	28-1-C	SLEEVE (76691)	2	
- 12	102313	COUPLING, Female	1	
- 13	102314	COUPLING, Male (ATTACHING PARTS)	1	
- 14	AN6-7A	BOLT	2	
- 15	AN6-16A	BOLT	2	
- 16	105084	RAIL ASSEMBLY	1	

## SECTION III

### REPAIR INSTRUCTIONS

#### 3-1. DISASSEMBLY. (See figures 3-1 through 3-7.)

3-2. Disassembly of the Work Stands is in the order of index numbers assigned to the illustrations applicable to the Work Stand being serviced.

#### CAUTION

When separating rails from leg assemblies do not allow rails or leg assemblies to drop as a sharp blow may result in distortion.

#### 3-3. INSPECTION, REPAIR AND REPLACEMENT OF PARTS. (See paragraph 2-16, Periodic Inspection and Table I, Trouble Shooting.)

3-4. Repair of Work Stand is as follows:

- a. Repair fractured welds.
- b. Bent components may be straightened, if straightening results in distortion and misalignment of rails, replace damaged parts with new.
- c. Minor thread damage may be repaired with a fine file. If thread repair results in a loose fit, replace damaged parts with new.
- d. Repair of caster assemblies is not practicable, if damaged replace with new.
- e. Replace all sheared, distorted or otherwise mutilated hardware.

#### 3-5. CLEANING.

3-6. Clean all parts in dry cleaning solvent, Federal

Specification P-S-661. Dry all parts thoroughly making certain all repaired areas are free of abrasive residue.

#### CAUTION

When using dry cleaning solvent, Federal Specification P-S-661, take care not to inhale fumes for prolonged periods.

#### 3-7. LUBRICATION.

3-8. Lubricate all hinge points, swivel joints and casters with general purpose grease, Specification MIL-G-7118 as required.

#### 3-9. REASSEMBLY. (See figures 3-1 through 3-7.)

3-10. Reassemble in the reverse order of index numbers assigned to the applicable exploded view illustration, paying particular attention to the following:

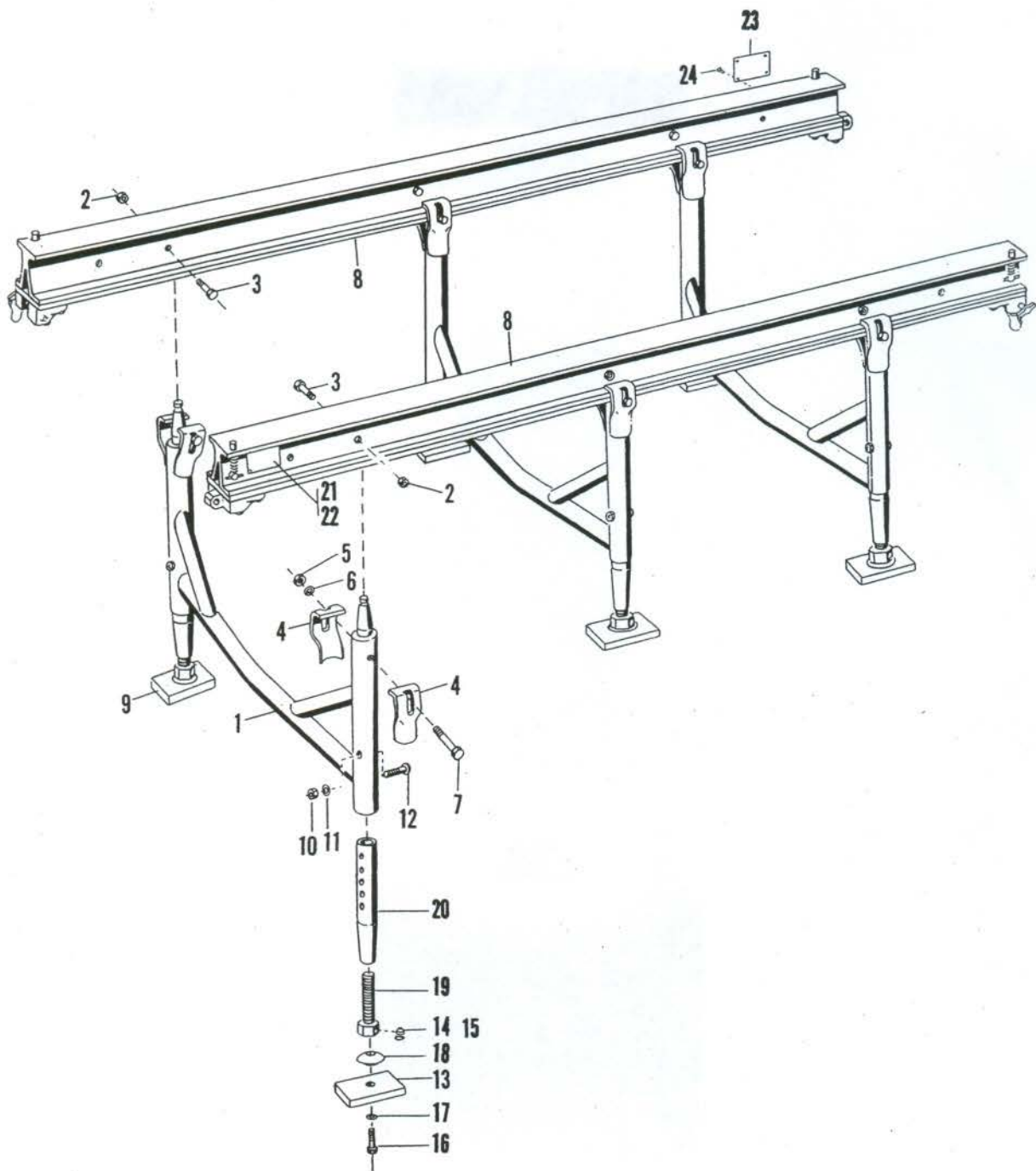
- a. Make certain coupling assemblies are properly located on rail ends as noted in disassembly.
- b. Make certain all attaching hardware is properly located and is secure.

#### 3-11. INSPECTION AFTER REASSEMBLY.

3-12. When Work Stands have been reassembled inspect as follows:

- a. Make certain adapter stop assemblies are operating properly.
- b. Check for proper castering action on Model 3100B.
- c. Make certain all attaching hardware is secure.





- 1. Frame Assembly
- 2. Nut
- 3. Bolt
- 4. Clamp
- 5. Nut
- 6. Washer

- 7. Bolt
- 8. Rail Assembly
- 9. Foot Assembly
- 10. Nut
- 11. Washer
- 12. Bolt

- 13. Base
- 14. Nut
- 15. Retainer
- 16. Bolt
- 17. Washer
- 18. Bearing

- 19. Screw
- 20. Leg
- 21. Nameplate
- 22. Screw
- 23. Placard
- 24. Screw

Figure 3-3. Work Stand Assembly, Model 3110