

HANDBOOK

**OPERATION, SERVICE AND REPAIR
INSTRUCTIONS**

WITH

ILLUSTRATED PARTS BREAKDOWN

WORK STAND ASSEMBLY

MODEL 3100B



AIR LOGISTICS CORPORATION

**146 E. RAILROAD AVE - MONROVIA - CALIFORNIA -
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INSTRUCTION

1.1 GENERAL.

1-2 This handbook is the basic handbook of Operation, Service and Repair Instructions with Parts Breakdown covering Engine Repair Stand Assembly, Model 3100B, manufactured by AIR LOGISTICS Corporation, 146 E. Railroad Ave., Monrovia, California.

1.3 PURPOSE.

1.4 The purpose of the Model 3100B Engine Repair Stand Assembly is to support aircraft engine during overhaul and repair. This engine repair stand is used in conjunction with other of the Air Logistics matched rail system.

1.5 DESCRIPTION. (See figure 1-1)

1.6 GENERAL DESCRIPTION.

1.7 The Model 3100B Repair Stand consists of two rail assemblies (1) supported by two adjustable caster leg assemblies (2).

1.8 DETAILED DESCRIPTION.

(See figure 1-1)

1-9 RAIL ASSEMBLIES

1-10 The rail assemblies incorporate coupling assemblies (3 and 4). The coupling assemblies provide a means of coupling the Engine Repair Stand to other units of the Air Logistics matched rail system. Adapter stop assemblies (5) are a spring lock device which prevents the load from passing beyond the rail end.

1-11 LEG ASSEMBLIES.

1-12. Leg assemblies (2) support the rails and incorporate caster foot assemblies (6) to facilitate movement of the Repair Stand in any direction.

LEADING PARTICULARS

Load Limits.....	2200 pounds
Rail Length.....	84 inches
Rail Width (center to center).....	48 inches
Rail Height.....	30.5 to 39.5 inches
Weight	248 pounds

2-11. TROUBLE SHOOTING. (See Table I.)

TABLE I. TROUBLE SHOOTING		
TROUBLE	PROBABLE CAUSE	REMEDY
Improper adapter stop action	Stop pin burred or distorted	Remove burrs or straighten the stop pin
	Broken stop pin spring	Replace stop pin spring
Improper castering	Lack of lubrication of caster or swivel joint	Lubricate as necessary
Repair Stand twisted or unstable	Bent rails or leg assemblies	Straighten or replace with new
	Fractured welds	Weld fractured area
	Loose attaching hardware	Tighten attaching hardware

SECTION III REPAIR INSTRUCTIONS

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

3-2. Disassemble the work stand in the order of index numbers assigned to the exploded view illustration.

3-3. INSPECTION, REPAIR AND REPLACEMENT OF PARTS. (See Para. 2-9, Periodic Inspection and Table I, Trouble Shooting.

3-4. Repair of the Engine Repair Stand is limited to the following:

a. Fractured welds may be re-welded.

b. Bent components may be straightened. If straightening results in distortion and misalignment of rails with other Air Logistics matched rail units, replace damaged part 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 assembly is not practicable. If damaged, replace with new.

3-5. CLEANING.

3-6. Clean all parts with dry cleaning solvent and make certain repaired parts are free of abrasive residue before lubrication or reassembly.

3-7. LUBRICATION.

3-8. Lubricate caster bearings and swivel joint with general purpose grease as required.

3-9. REASSEMBLY. (See figure 3-1.)

3-10. Reassemble in the reverse order of index numbers assigned to the exploded view illustration.

3-11. INSPECTION AFTER REASSEMBLY.

3-12. When Repair Stand has been reassembled inspect as follows:

a. Make certain adapter stop assemblies are operating properly.

b. Check for proper castering action.

c. Make certain all attaching hardware is secure.

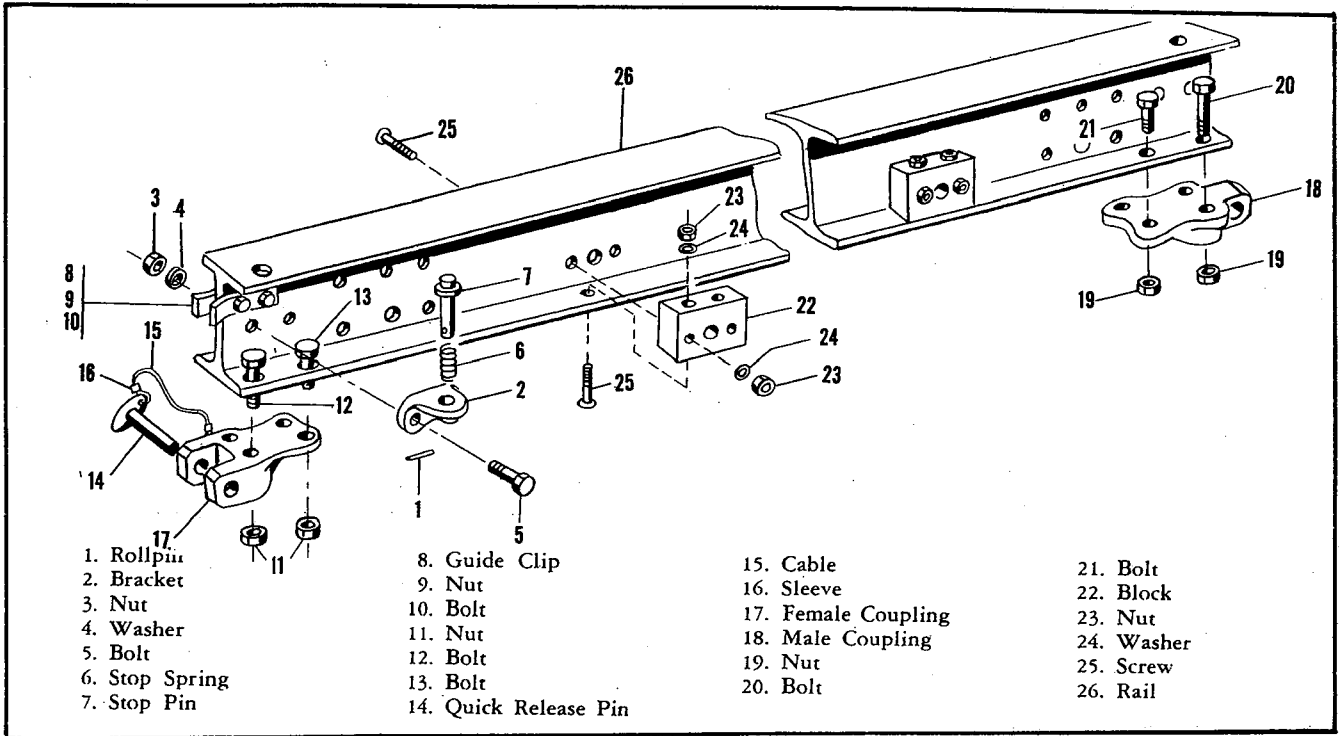


Figure 3-2. Engine Repair Stand Rail Assembly

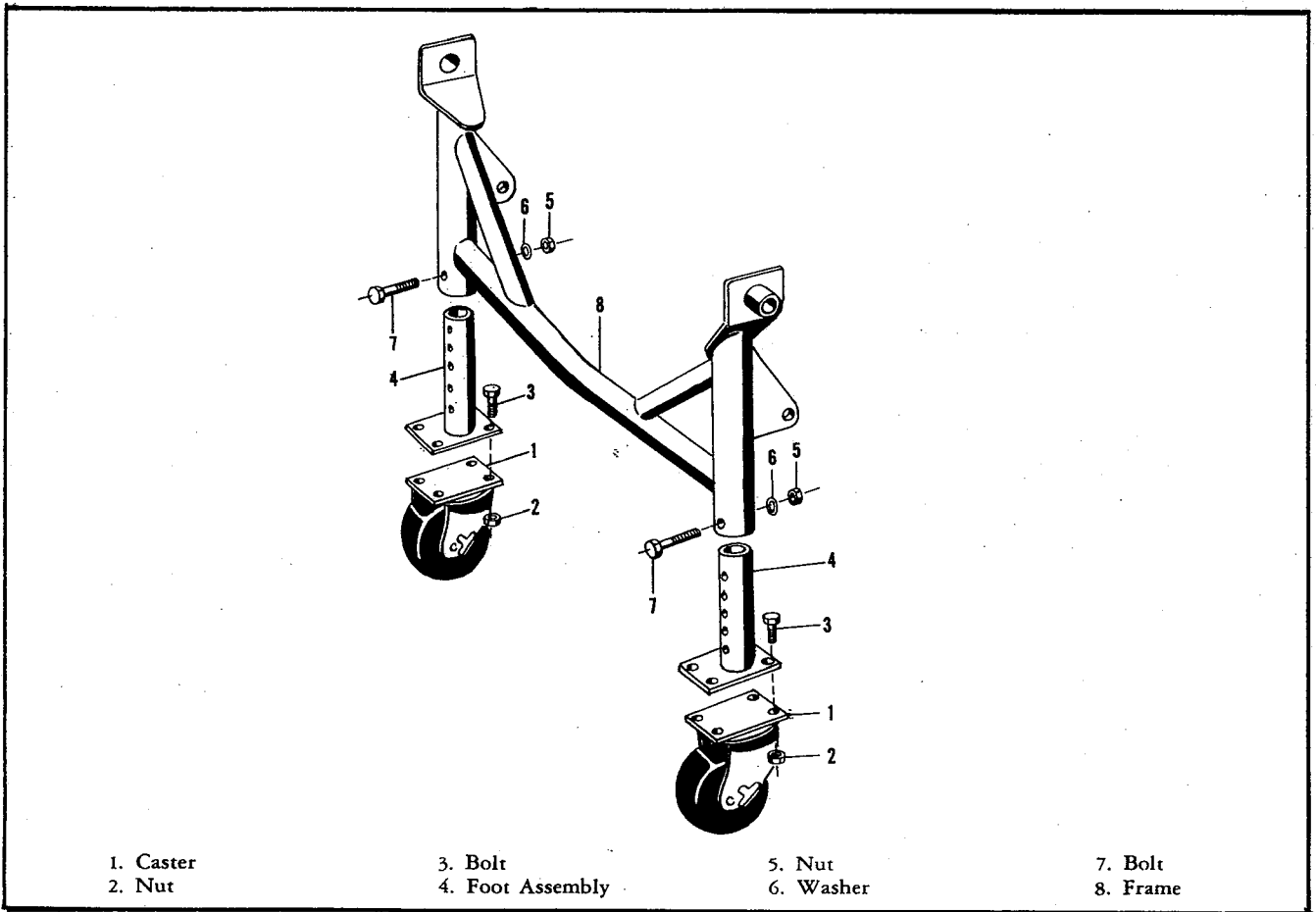


Figure 3-3. Engine Repair Stand Leg Assembly,

**INSTRUCTION
ILLUSTRATED PARTS BREAKDOWN**



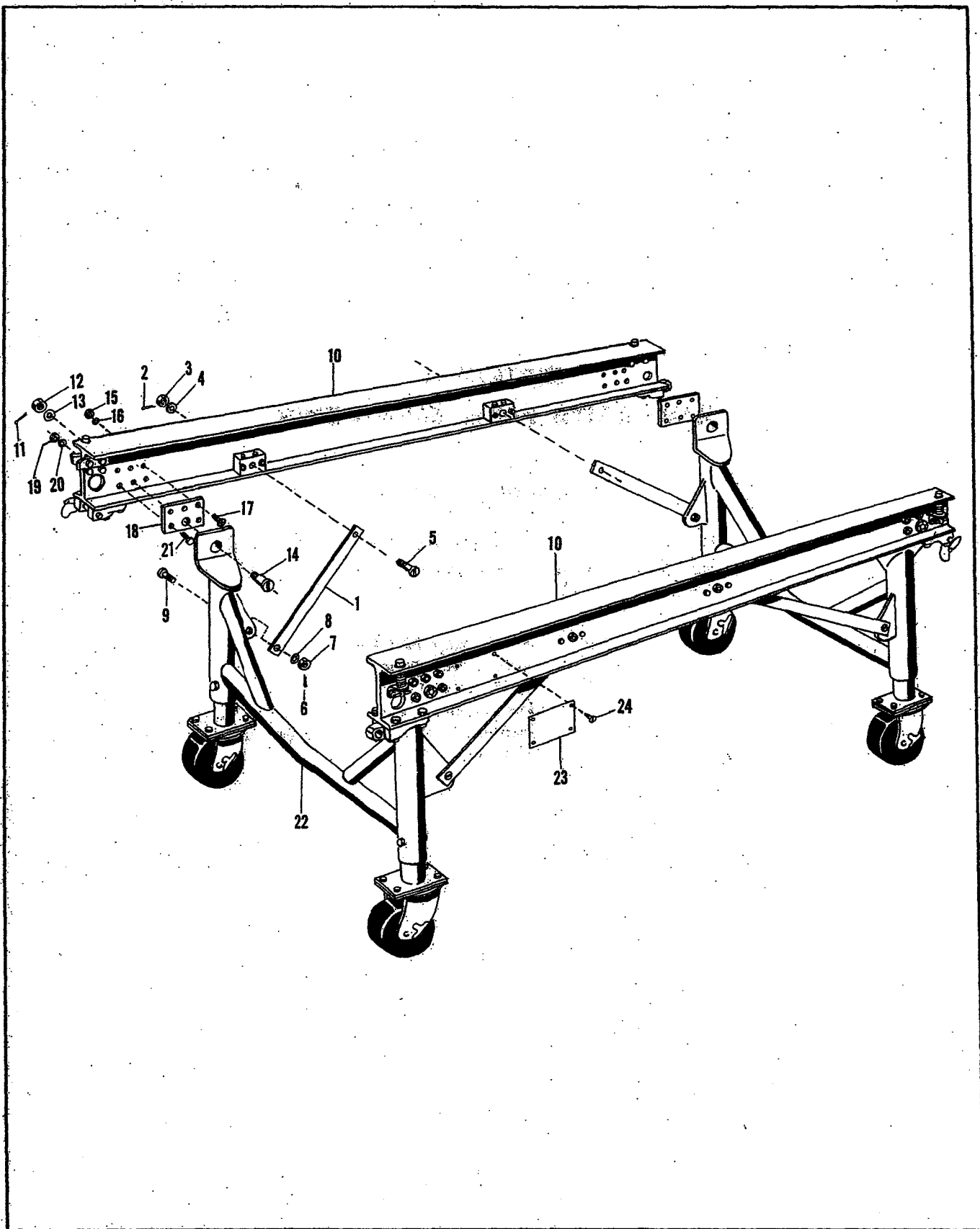


Figure 4-1. Model 3100B
Engine Repair Stand Assembly, Part No. 102915

Fig. & Index No.	Part Number	DESCRIPTION	1 2 3 4 5 6 7							Units Per Assy	Usable On Code
1-	102915	STAND ASSEMBLY, Engine Repair, Model 3100B (Serial Nos. 1 through 46)								Ref	A
	102915	STAND ASSEMBLY, Engine Repair, Model 3100B (Serial Nos. 47 and subsequent)								Ref	B
- 1	104299	BRACE (ATTACHING PARTS)								4	
- 2	AN381-4-18	PIN, Cotter								4	
- 3	AN320-9	NUT								4	
- 4	AN960-916L	WASHER								4	
- 5	102548	SCREW								4	
- 6	AN381-4-18	PIN, Cotter								4	
- 7	AN320-10	NUT								4	
- 8	AN960-1016L	WASHER								12	
- 9	AN30-24	BOLT								4	
- 10	102914	RAIL ASSEMBLY (See figure 2) (ATTACHING PARTS)								2	
- 11	AN381-4-24	PIN, Cotter								4	
- 12	AN320-16	NUT								4	
- 13	AN960-1616L	WASHER								4	
- 14	102541	SHAFT								4	
- 15	AN365-820C	NUT								12	
- 16	AN960-816	WASHER								12	
- 17	AN509-816R21	SCREW								12	
- 18	102543	PAD (ATTACHING PARTS)								4	
- 19	AN365-820C	NUT								8	
- 20	AN960-816	WASHER								16	
- 21	AN8-12A	BOLT								8	
- 22	104288	LEG ASSEMBLY (See figure 3.)								2	
- 23	105089	NAMEPLATE (ATTACHING PARTS)								1	
- 24	AN535-0-4	SCREW, Drive								4	

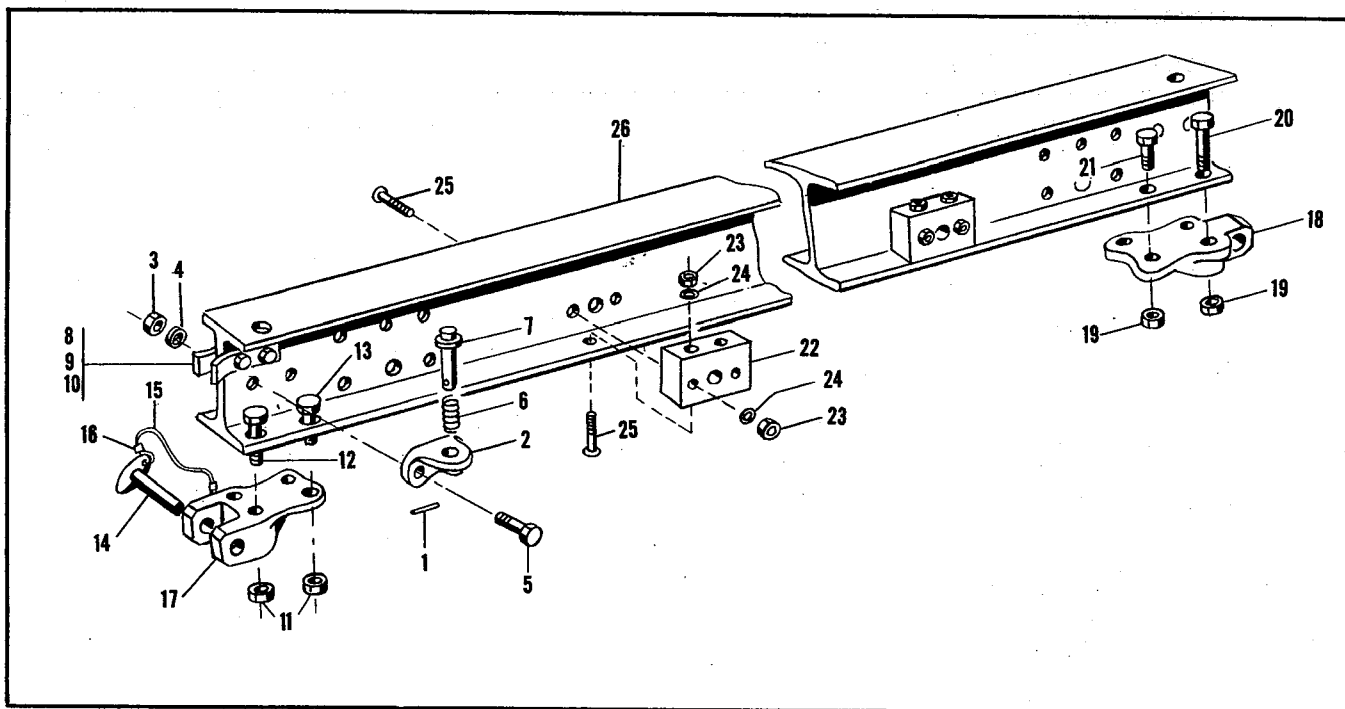


Figure 4-2. Engine Repair Stand Rail Assembly, Part No. 102914

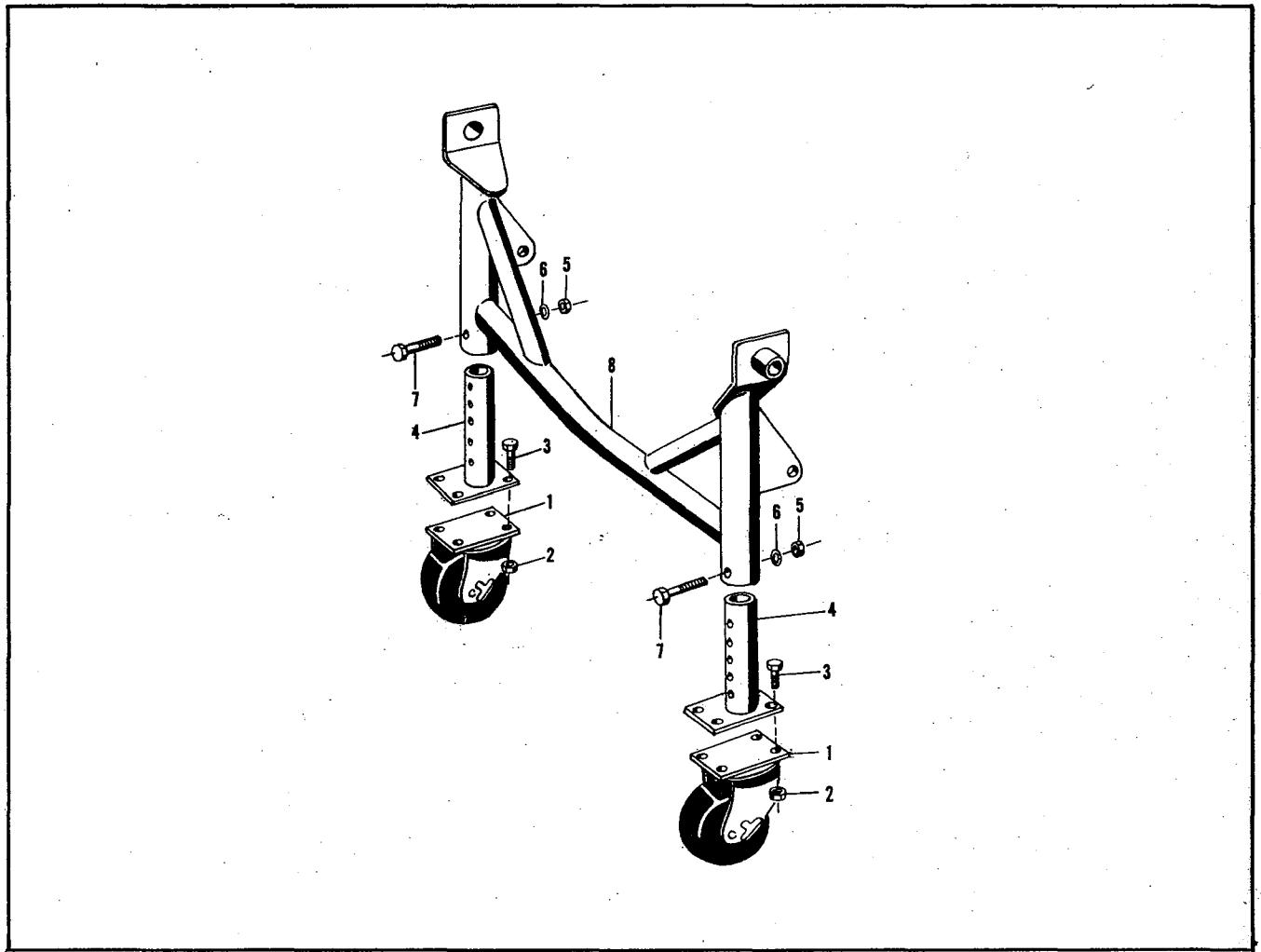


Figure 4-3. Engine Repair Stand Leg Assembly, Part No. 104288

Fig. & Index No.	Part Number	DESCRIPTION							Units Per Assy	Usable On Code
		1	2	3	4	5	6	7		
3-	104288	LEG ASSEMBLY, Engine Repair Stand							Ref	
- 1	BH6998-2SL	. . . . . CASTER, Swivel (Bassick Co., Bridgeport, Conn.)							2	A
	M-931-6PL4	. . . . . CASTER, Swivel (Faultless Corp., Evansville, Ind.)							2	B
		(ATTACHING PARTS)								
- 2	AN365-624C	. . . . . NUT							8	
- 3	AN6-10A	. . . . . BOLT							8	
		○								
- 4	104292	. . . . . FOOT ASSEMBLY							2	A
	105630	. . . . . FOOT							2	B
		(ATTACHING PARTS)								
- 5	AN365-820C	. . . . . NUT							2	
- 6	AN960-816	. . . . . WASHER							2	
- 7	AN8-30A	. . . . . BOLT							2	
		○								
- 8	104388-9	. . . . . FRAME ASSEMBLY							1	