

CHAPTER 4

✓ WHEEL & BRAKE SYSTEM ASSEMBLY

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✓ CHAPTER 4

WHEEL & BRAKE SYSTEM ASSEMBLY

Section 1

Brake Handle Assembly

Figure BS-1

ALL PARTS AND HARDWARE WILL BE IN BRAKE OPTION KIT BAG

1. **Figure BS-1** **ATTACHING BRAKE CHANNEL TO CAGE RAIL**
To attach the brake pivot channel (2) to the cage center rail, begin by inserting bolt (3) through bottom hole of the brake pivot channel and into the cage rail. Add a washer (5) and secure with a locknut (6).

2. **Figure BS-1** **ATTACHING BRAKE HANDLE TO PIVOT CHANNEL**
 - a) To attach the brake handle (1) to the brake pivot channel (2), begin by placing brake handle in pivot channel as shown in Figure BS-1. Place washer (5) on bolt (4) and insert through the handle / channel assembly. Add a second washer (5) and secure with locknut (6).

 - b) To attach the brake cables (8) to the handle, begin by sliding washer (5) on bolt (7). Noting direction in Figure BS-1, insert bolt / washer through the first brake cable (8). Add a second washer (5), and an aluminum spacer (9). Slide the bolt through the brake handle. Finish with a second aluminum spacer (9), washer (5), the second brake cable (8), a third washer (5), and secure with a locknut (6).

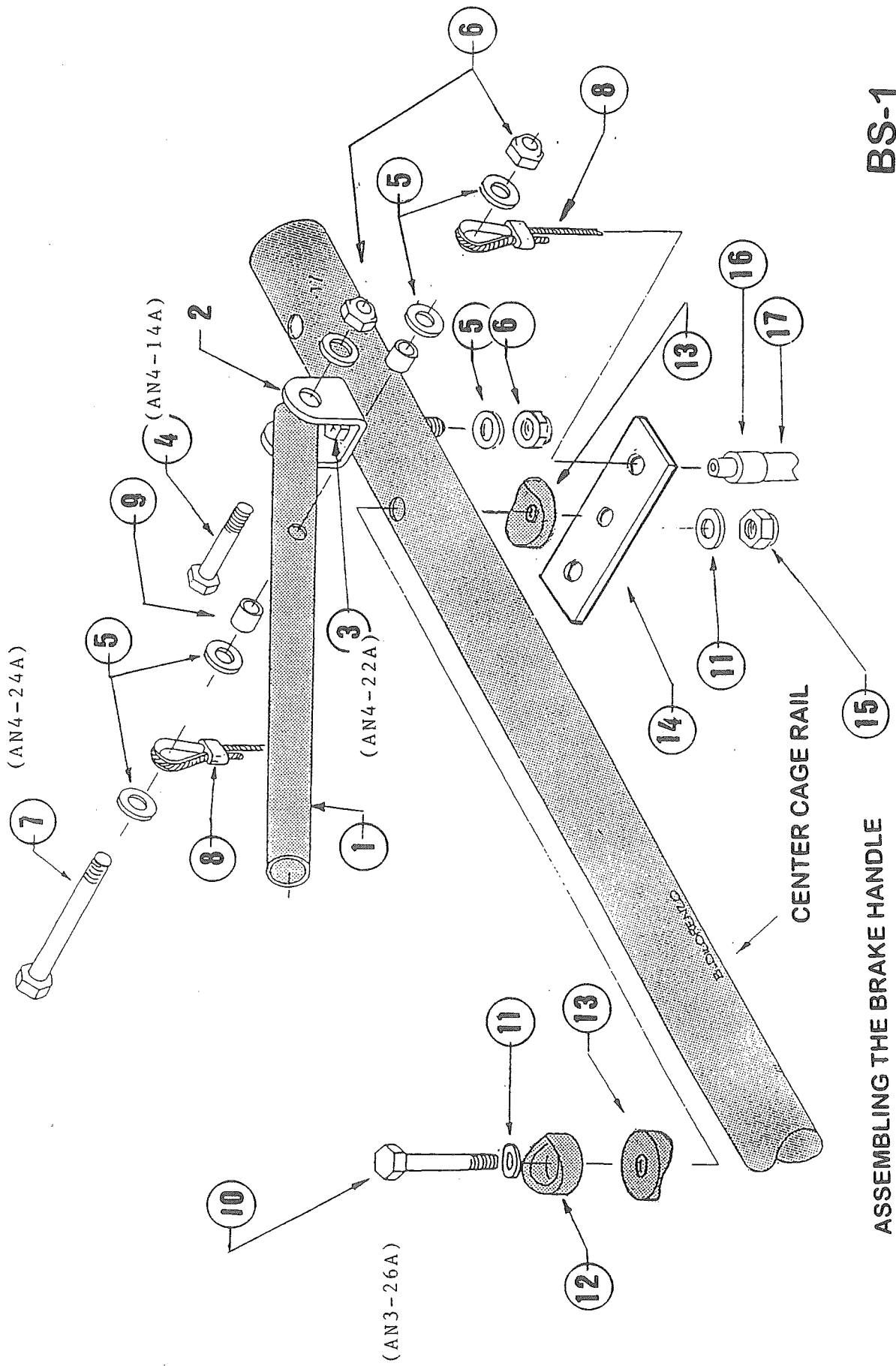
3. **Figure BS-1** **ATTACHING MOUNTING BRACKET TO RAIL**
 - a) To attach the mounting bracket (14) to the rail, begin with a bolt (10). Slide on washer (11), plastic saddle (12), and small plastic saddle (13), positioned as shown in Figure BS-1. Insert through the hole on top of rail, located just forward of pivot channel. Slide on a second small plastic saddle (13), positioned as shown, and slip through the center hole of the mounting bracket (14). Complete the attachment with washer (11) and secured locknut (15). Slide the two brake cables through the two outside holes of the mounting bracket.

 - b) Complete the assembly by sliding the stepped cable fittings (16), positioned as shown, onto each brake cable and up to the mounting bracket. Finish by sliding the brake cable housings (17) on to each brake cable and up to the stepped cable fittings.

✓ Chapter 4 SECTION 1 BRAKE HANDLE ASSEMBLY

Section 1
Brake Handle Parts List
Figure BS-1

INDEX#	PART #	QTY	DESCRIPTION
1.	BS-161	1	BRAKE HANDLE
2.	BS-171	1	BRAKE PIVOT CHANNEL
3.	AN4-22A	1	1/4" BOLT
4.	AN4-14A	1	1/4" BOLT
5.	AN960-416	7	1/4" WASHER
6.	AN365-428	2	1/4" LOCKNUT
7.	AN4-24A	1	1/4" BOLT
8.	BS-193	2	BRAKE CABLE
9.	C-235-3	2	1/4" X 1/4" ALUMINUM SPACER
10.	AN3-26A	1	3/16" BOLT
11.	AN960-10	2	3/16" WASHER
12.	SO4-94	1	PLASTIC SADDLE
13.	SO1-44	2	PLASTIC SADDLE SMALL
14.	BS-143	1	CABLE MOUNT BRACKET
15.	AN365-1032	1	3/16" LOCKNUT
16.	BS-295	2	STEPPED CABLE FITTING
17.	BS-193-1	2	BRAKE CABLE HOUSING



ASSEMBLING THE BRAKE HANDLE

✓ **Chapter 4** SECTION 2 WHEEL AND BRAKE ASSEMBLY

Section 2
Wheel and Brake Assembly
Figure BS-2

NOTE: THE ASSEMBLED NOSE WHEEL IS TO BE ATTACHED TO THE FRONT FORK RODS AS EXPLAINED IN CHAPTER 3 / SECTION 2 / NG-1 / STEP 2

1. Figure BS-2 ASSEMBLING THE WHEELS
 - a) To assemble the two 13" x 6" wheels, lay out the rubber tires / tubes (1) on a flat surface. Carefully insert the inner tubes into the tires. Place inner and outer half of the rim into the tire, making certain not to pinch the tube.
 - b) Place the first brake drum (2) on the inner rim of the first tire / tube (1), lining up the three mounting bolt holes. Insert three bolts (3) through the drum and rim halves. Thread nuts (4) on to the bolts but leave them slightly loose. **BE CERTAIN NOT TO PINCH THE INNER TUBE DURING TIGHTENING.** Slide the assembled wheel onto the landing gear axle with the brake drum facing out / backwards (this allows access to the nut and bolt head). Finish tightening the wheel bolts. This procedure aligns the wheel halves and bearings. Repeat this procedure for the second main gear tire. Assemble the nose wheel (1) in the same fashion, but without a brake drum.
2. Figure BS-2 ASSEMBLING THE BRAKE SYSTEM
 - a) To assemble the brake system, begin with the right side. Fit the first brake unit (8) to the previously mounted right side landing gear assembly (see Chapter 3 / Section 1 Figure LG-2), noting direction as shown in Figure BS-2. Place washers (6) on two bolts (5), and insert each bolt through the holes in the brake unit (8) and the holes in the landing gear assembly. Add a second set of washers (6) and secure with locknuts (7). Repeat this procedure on the left side.
 - b) Attach the main wheels with large locknut (13). Be certain that there is "some play" - the drum and wheel will spin "semi-freely". The bearings should not be pre-loaded. The brakes usually will have to 'wear in'. Sometimes the drum will have a high point that may rub on the brake mounting plate. This area should be marked and filed down to get even clearance to the brake mounting plate. In some instances several 5/8" washers are needed on the inside to space the wheel and brake drum out from the brake housing.
 - c) To complete the brake assembly, begin with the right side and thread a jam nut (9) down on to a barrel adjuster (10). Insert an un-stepped cable fitting (11), into barrel adjuster / jam nut. Insert through the mounting bracket on the brake unit (8). Attach with second jam nut. Insert the wire swivel (12) through the brake arm, as shown. Insert the brake cable through the hole in the same wire swivel and tighten swivel screw. Repeat this procedure on the left side.

✓ Chapter 4 SECTION 2 WHEEL AND BRAKE ASSEMBLY

Section 2
Wheel Parts List
Figure BS-2

INDEX#	PART #	QTY	DESCRIPTION
1.	AZUSA	2	TIRE / TUBE 13-400 X 6"
2.	AZUSA	2	BRAKE DRUM
3.	AZUSA	9	5/16" RIM BOLT
4.	AZUSA	9	5/16" LOCKNUT COURSE
5.	AN3-5A	4	3/16" BOLT
6.	AN960-10	4	3/16" WASHER
7.	AN365-1032	4	3/16" LOCKNUT
8.	BS-66	2	BRAKE UNIT
9.	AN316-4R	4	1/4" JAM NUT
10.	BS-189	2	BARREL ADJUSTER
11.	CS-293	2	UNSTEPPED CABLE FITTING
12.	PS-148	2	WIRE SWIVEL
13.	5/8"LNT	2	5/8" LOCKNUT

NOSE WHEEL ASSY.

COARSE THREAD AZUSA
LOCKNUTS

