TECHNICAL TIPS

FOR YOUR SERVICE TECHNICIAN

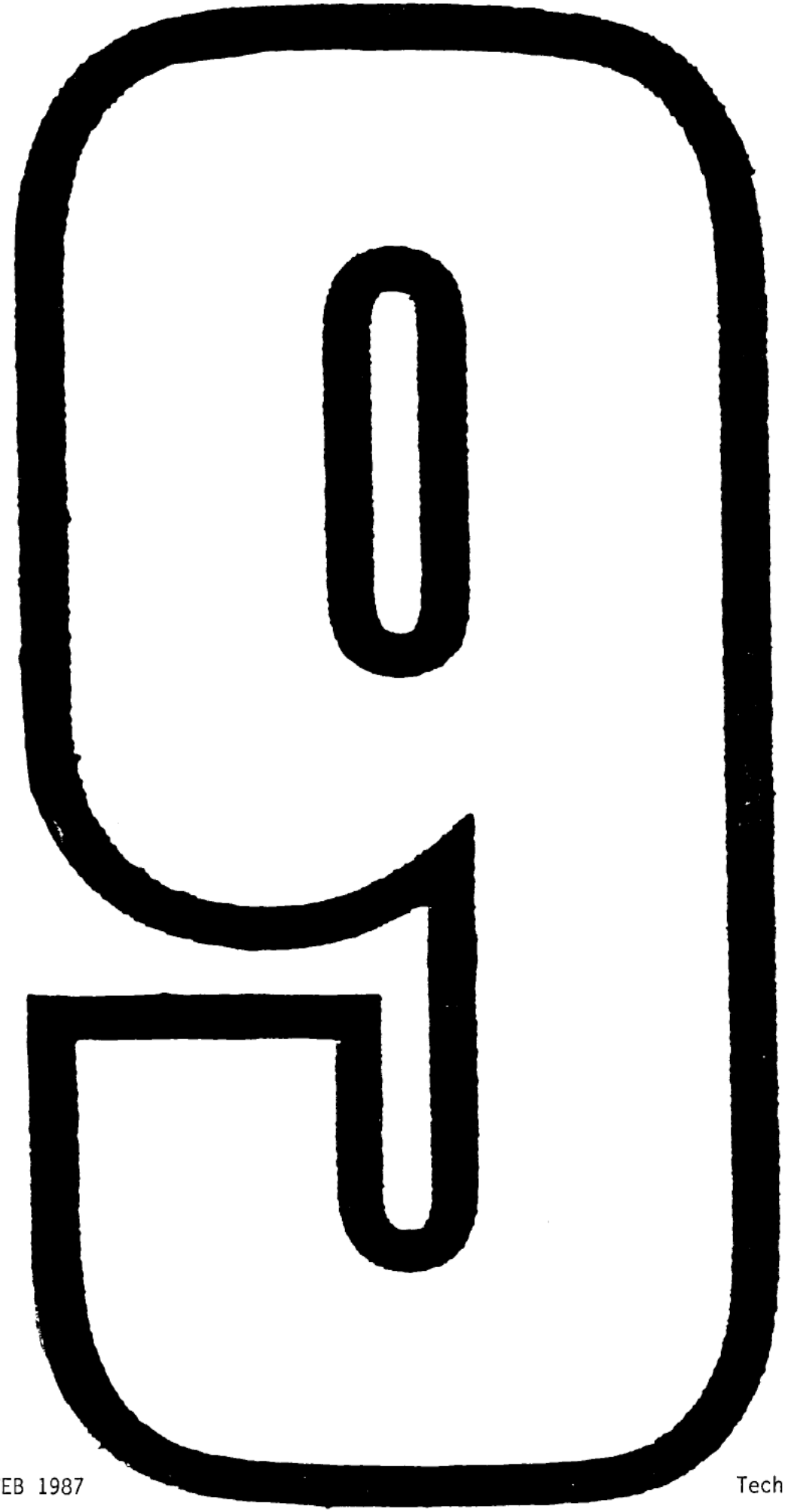
February 6, 1987

Friends:

It has come to our attention that although Tech Tips is informative and enjoyable to read, there is one minor flaw. No one knows how many Tech Tips have been written, so I have carefully hidden the number somewhere on the next page of this Tech Tips. In the future I will make sure that they are not only dated but numbered.

Editor:
Chris Dwyer

TECHNICAL TIPS



FEB 1987

Tech Tips 2

THEM'S THE BRAKES!!!

It's a simple system and there's just not a whole heck of a lot that can go wrong with it.

But sometimes after you've bled the system two or three hundred times with no success, your brain is as spongy as the brakes.

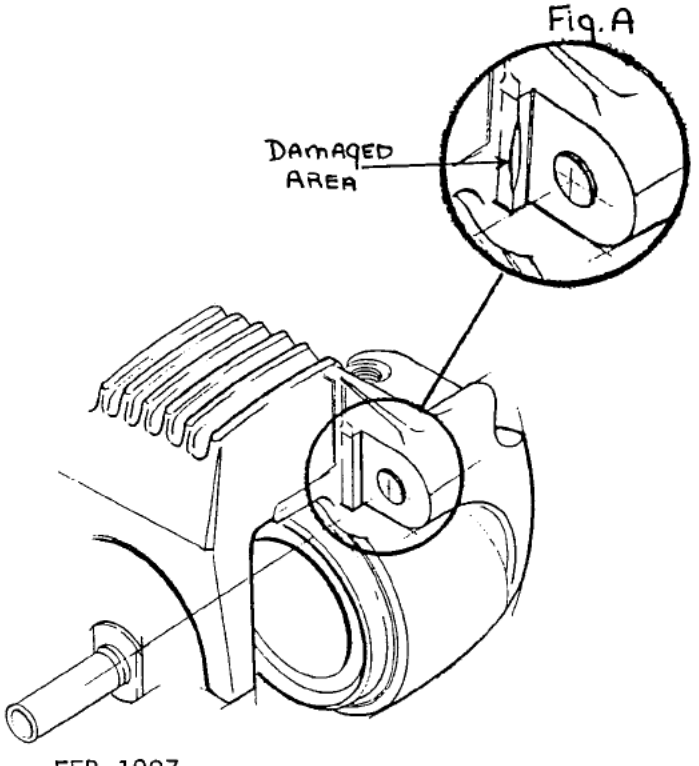
Let's understand why!

1) Air in the system - This is always No. 1.

2) The caliper's ability to compensate for brake pad wear - This compensation is accomplished by the piston moving out slightly in the bore of the caliper as the pad material wears due to normal use.

   If you find the lever or pedal travel to be excessive and you're sure that no air is in the line, try pumping the lever or pedal until firm pressure is established and hold in that position for a minute or two. This will allow the piston time to completely relocate itself in the bore of the caliper. This simple step will minimize the amount of lever movement required to activate the brake.

3) Rear brake caliper mounting pin misalignment - Refer to Figure 1.



The flat of the guide pin should shoulder against the flat provided on the caliper mounting boss. If the guide pin is allowed to turn, it may catch the edge of the flat depicted in Figure A. This would effectively cock the pin and minimize the caliper's ability to properly align to the disc. If this situation is allowed to continue, caliper mounting bracket distortion could occur.

There is no better way of catching this problem than putting your face down by the caliper and watching it work. You'll see excessive flex in the mount bracket or the disc.

3) (Continued)

During pad replacement always inspect the area shown in Figure A. If damaged or a burr is present, chase the burr off with a flat file.

YOUR CUSTOMER COMPLAINS, "I'VE GOT A HARD TIME GETTIN' MY SIZE TWELVES UNDER MY XL SHIFT LEVER."

Ya know if this guy's got big feet, there's a strong possibility that they're attached to a large, economy-size body. This fact can inspire you to take that extra step to make him happy - as he may re-arrange your personality!

Simply relocating the shift lever a few splines will cause interference with the foot peg mounting nut. Try the following modification:

1) Remove the foot peg mounting bracket.

2) Using two nuts, P/N 7844, doublenut the mounting bracket stud and run the stud into the case to provide clearance for the shift lever, reassemble replacing the chrome acorn nut with one of the P/N 7844 Nylok nuts. Torque on this nut is between 24 and 36 ft. lbs.

MECHANICS' NOTES

Are you looking for caliper mounting pin lube?

Dow Corning Moly 44 - call 1-800/432-3220 for distributor nearest you.

Cost is approximately $11.50 for 5.3 oz. tube.

No substitutes as it is approved by our Engineering Department.

Flywheel assemblies being shipped from Parts & Accessories for earlier XLs now feature the late-style rod bearings and 3-piece construction.

23900-75B	1977 - 1985 XL
23910-83	1983 - 1984 XR 1000

This tip comes from one of our dealers in Wyoming, Michigan, Kelley's Harley-Davidson:

> Using loctite in the area of the fairing requires caution. Fairing material and loctite are not compatible. Hairline cracks will appear in applied area.

Thank you, John

- LOST and FOUND -

Lost somewhere in the area of 35th and Juneau - Dog - three legs, blind in left eye, missing right ear, tail broken, recently castrated.....answers to the name Lucky!

The following page gives you a chart of electrical component amp draws to aid in diagnostic troubleshooting.

CURRENT DRAW - BASIC VEHICLE AT 14 VOLTS

HEADLIGHT	Each		Total
FLT (2) high 50W	3.57A	indicator .12A	7.26A
(2) low 35W	2.5A		5.0A
FLHT (1) high 60W	4.28A	indicator .12A	4.4A
(1) low 55W	3.93A		3.93A
Running light (2)	.59A		1.18A
Tail light (1)	.59A		.59A
Fender tips (2)	.27A		.54A
Tour-Pak (4)	.27A		1.08A
		Running light total	3.39A
Instr. panel lamps (4)	.12A		.48A
Gauge lamps (4)	.14A		.56A
		Instrument total	1.04
Ignition system	At low speed		2.50A
	At high speed		3.00A
Sound system	At low volume		1.20A
	At 3/4 volume		3.00A
	At full volume		3.50A
INTERMITTENT DRAW			
Stoplight (1)	2.1A		2.1A
Turn signal (2)	2.1A		2.1A
Passing lamps (2)	2.14A		4.28A
Horn	7.0A		7.0A
ACCESSORIES			
Rear light bar, single (10)	.27A		2.70A
Rear light bar, double (22)	.27A		5.94A
Decorative tail light (6)	.59A		3.54A
Cigarette lighter	6.00A		6.00A
Motorola radio caddy			
AM/FM/LED clock	.75A	maximum	.75A
AM/FM	.75A	maximum	.75A
AM/FM w/cassette	1.75A		1.75A
AM/FM	.75A		.75A
AM/FM w/CB	2.45A		2.45A