

TECHNICAL TIPS

- MARCH 1992 -



#29

TECHNICAL TIPS #29
APRIL 1992

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ALL MODELS

ACCESSORY CAMSHAFT SPECIFICATIONS

The Service Dept. receives many requests for specifications of various Harley-Davidson accessory camshafts. For the technicians convenience, we have collected those specs. and condensed them into one handy reference sheet. See Page 6 of this Tech Tips.

FX MODELS

FX HEADLIGHT UPDATE

If you have encountered a 1992 FXSTC or FXSTS that has failed a headlight bulb or a vehicle that fails bulbs repeatedly; please read on.

As you know from reading Service Bulletin # 1022, Harley recently began using an American made lens assembly. The old lens assembly used previously may be contributing to the failures mentioned above.

The bulb holder portion of the -81B lens assembly may loosen from the metal portion. Any perceptible looseness amplifies the normal vibrations and fails the filament. Whenever you are replacing a bulb in this type of lens assembly, check for such looseness and replace any affected assemblies you find with part number, 67698-81C, lens assembly. You'll notice that the old -81B headlight has a rubber ring behind it on FX models. DISCARD that ring when installing the new -81C assembly. It is NOT used with the later assembly.

Don't forget that only the original replacement bulb, part number, 67697-81 has dual filament supports. ANY other replacement bulb will have shorter lifespan.

XL MODELS

CHECK BALL/SPRING KIT

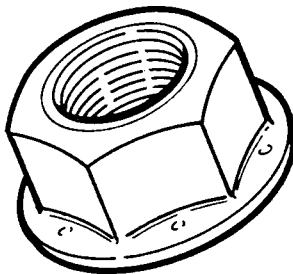
On 1992 Sportster models, the oil pump check ball configuration was changed. A post was added to positively locate the parting line of the check ball and keep it off the check ball's seat. This was to eliminate the potential for oil seepage past the ball and eventual "wet-sumping". The new parts are sold as a kit, pn 33116-86A. The kit includes:

check ball	26437-86A
spring	26436-90
oil filter, adapter fitting	33117-91

NEW MOTOR SPROCKET NUT

As of March 23, 1992 with crankcase number 2592 083 013, a new sprocket nut is being used in production. The new nut has a flange to increase the clamp load applied to the face of the sprocket.

The use of Loctite 262 and the nut torque of 150 - 165 ft. /lbs. remains unchanged. The nut part number is p.n. 7839. It retrofits to 1991 and 1992 Sportsters.



TOOL TALK

INDUCTIVE AMP PROBE- HD-39617

This tool is now available through Kent-Moore Tool. Used in conjunction with the FLUKE multimeter, HD-35500A, this combination provides for accurate and easy testing of current draws for electric starters, accessories, and total vehicles. Retail price is \$146.00.

TECH TIPS

MISCELLANEOUS

SERVICE DEPARTMENT PHONE LINES

Did you know that you can access the Technical Service Department's phonemail system- DIRECTLY; 24 HOURS A DAY !!?! All you need to know is the last name or the extension number of the person you would like to leave a message for. Dial (414) 935-4641 and follow the instructions provided. Our service dept. FAX machine is always available as well; Dial (414) 935-4319.

SIDECAR TIRE INFORMATION

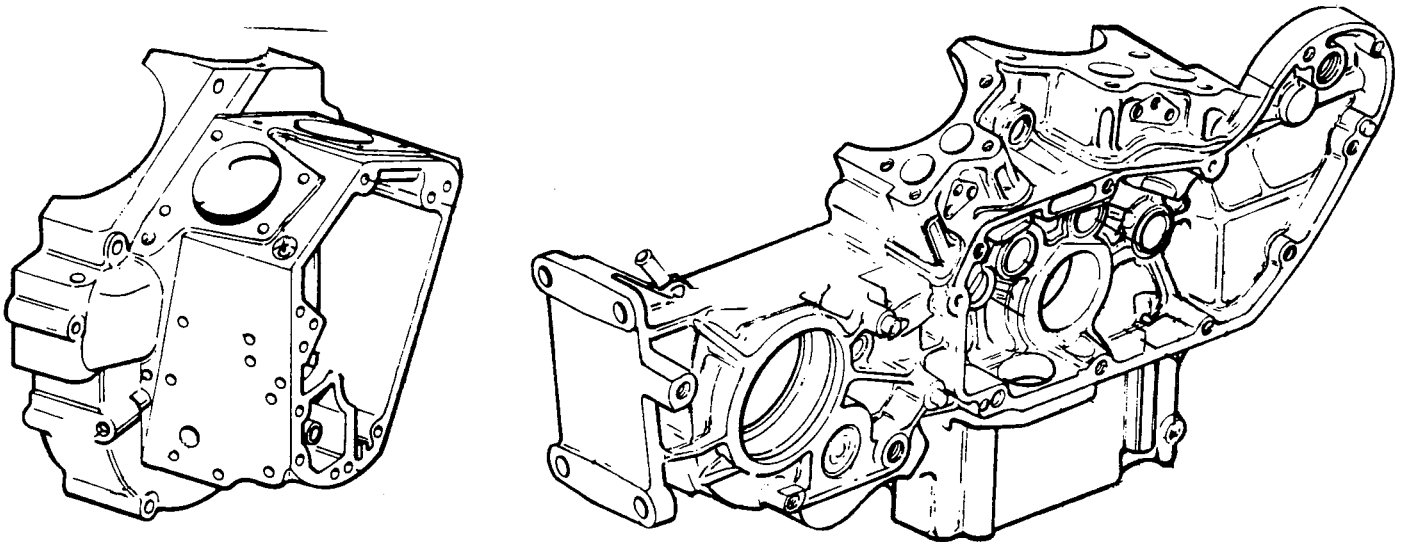
Examine sidecar equipped vehicles carefully during pre-delivery & set-up. Current production motorcycles have the sidecars fitted with Dunlop 402 tires. The tire should be mounted with the REAR rotation directional arrow pointed towards the FRONT of the motorcycle. Or, in other words, the same direction of rotation as the tire on the rear of the motorcycle.

LIMITED AVAILABILITY OF RIGHT SIDE CRANKCASE HALVES — 1340 & SPORTSTER (1991 & LATER) —

A limited number of used right side crankcase halves are available through Harley-Davidson Technical Service Department. These crankcase halves are useful for line reaming gearcase cover bushings. The use of an alternate crankcase half is an acceptable method of properly sizing bushings when total teardown of the engine and splitting of the crankcases is not taking place. Using an alternate crankcase will still provide correct alignment of the gearcase cover.

- Provides the dealership with a viable alternative to teardown when line reaming of gearcase bushings is necessary.
- Due to limited quantities, we must limit each dealership to one 1340 crankcase half and/or one Sportster crankcase half.

The cost for each crankcase half is \$25.00. Your parts account will be billed through normal parts channels. Use the order form on next page (Tech Tips #29, page 5).



USED RIGHT CRANKCASE HALF ORDER FORM

Supply the information requested and return to:

John Parker, Supervisor Dept. 621
Harley-Davidson Co. Inc.
3700 W. Juneau Ave.
Milwaukee, Wisconsin 53208

USED CRANKCASE HALF ORDER FORM	
DEALER NUMBER _____	
SPORTSTER (1991 & later) _____	BIG TWIN _____
Dealer Authorized Signature _____	

Screamin' Eagle Cam Specifications

Bolt-In 25487-87

Lift	Intake .480	Exhaust .480
Duration	Intake 244°	Exhaust 250° @ .053 Lift
Timing @ .053 Lift		
	IO 16° BTDC	IC 48° ABDC
	EO 51° BBDC	EC 19° ATDC

SE II 25490-87 (Hydraulic or Solid)

Lift	Intake .505	Exhaust .505
Duration	Intake 257°	Exhaust 267° @ .053 Lift
Timing @ .053 Lift		
	IO 27° BTDC	IC 50° ABDC
	EO 55° BBDC	EC 32° ATDC

Optimal Hydraulic 25493-89

Lift	Intake .530	Exhaust .530
Duration	Intake 250°	Exhaust 260°
Timing @ .053 Lift		
	IO 23° BTDC	IC 47° ABDC
	EO 56° BBDC	EC 24° ATDC

XL Bolt-In (4 & 5 Speed)

Lift	Intake .480	Exhaust .480
Duration	Intake 256°	Exhaust 256°
Timing @ .053 Lift		
	IO 28° BTDC	IC 48° ABDC
	EO 52° BBDC	EC 24° ATDC

Big XL Hydraulic (W/Spring Kit) (4 & 5 Speed)

Lift	Intake .517	Exhaust .517
Duration	Intake 254°	Exhaust 264°
Timing @ .053 Lift		
	IO 26° BTDC	IC 48° ABDC
	EO 56° BBDC	EC 28° ATDC



KENT-MOORE

TOOL-TALK

ESSENTIAL TOOL PACKAGE -- 1992

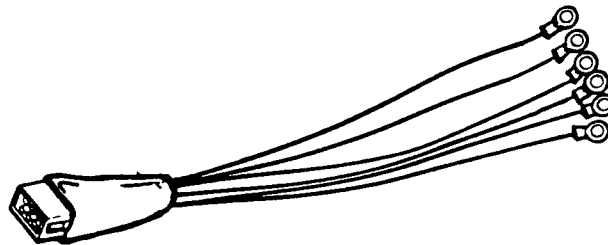
This year's Essential Tool Package will be coming to your dealership soon! The package for 1992 will be shipped to your dealership in August, immediately following the New Model Announcement Show.

SPECIALTY TOOL UPDATES

Things are changing so fast that it seems impossible to keep up. We wanted to update you on some of the recent changes and additions to the Specialty Service Tools offered by Kent-Moore Tool. These are changes that have occurred since the last printing of the tool catalog. By the way, the tool catalog is out for updating and reprinting and will be available soon.

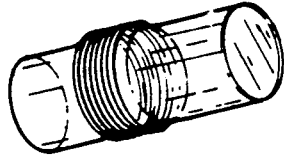
Cruise Control Test Adapter HD- 38625

This is a new tool which was released last year as an "available" tool. It allows you to test the cruise control servo motor. It is pictured in the 1991 Service Manuals but is not in the current tool catalog which was printed before the tool's release.



Timing View Plug
HD- 96295-65D

The timing plug has been modified to work on the latest 1340 and Sportster crankcases/ flywheels. It is now a double sided tool with one side for Big Twins and the other utilized on XL models.

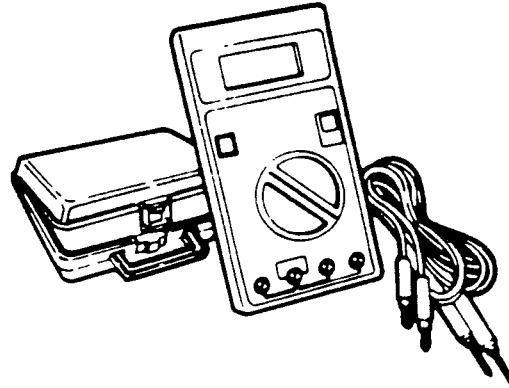


Connecting Rod Bushing Reamers
HD- 94800-26A

The expandable ream has been replaced with two solid reamers. One for 1340's and one for XL's.

FLUKE 23 Multimeter
HD- 35500B

The Fluke multimeters have been added to the product line replacing the previously offered Sanwa multimeter.



Piston Pin Bushing R & R Tool
HD- 95970-32C

A number of changes have been made to this tool to improve it's operation. The length of the forcing nut was increased to give greater thread engagement with the threaded rod. A bearing was added between the moving parts. A tube of extreme pressure lubricant was added to extend thread life.