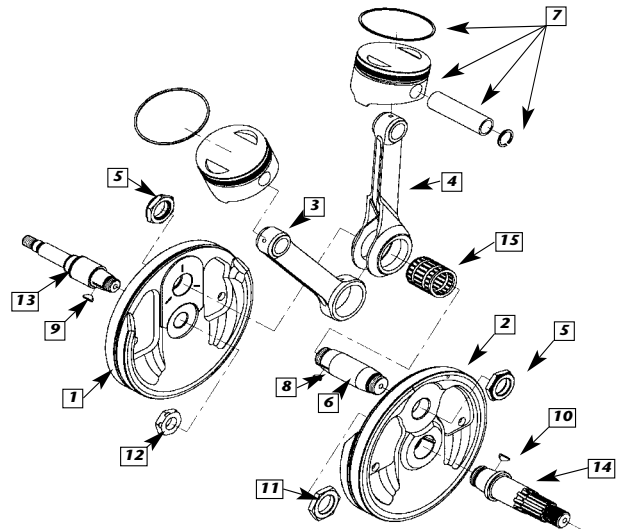




INSTRUCTION SHEET FOR JIMS® STROKER FLYWHEELS

PARTS LIST FOR CARBURETED MODELS

No.	Qty.	Description	Part No.
1	1	FLYWHEEL, PINION SIDE	See Pg.5
2	1	FLYWHEEL, SPROCKET SIDE	See Pg.5
3	1	ROD, MALE	See Pg.6
4	1	ROD, FEMALE	See Pg.6
5	1	CRANK PIN NUT (Pack of 2)	23969-83
6	1	CRANK PIN	23961-80A2
7	1	PISTON SET, RINGS, PINS, LOCKS	See Catalog
8	1	KEY, CRANK	2186
9	2	KEY, PINION	2187
10	1	KEY, SPROCKET	2489
11	1	NUT, SPROCKET	24017-80
12	1	NUT, PINION	24016-80
13	1	PINION SHAFT	2437
14	1	SPROCKET SHAFT	23909-80
15	1	ROLLERS WITH RETAINERS	3999
16	1	INSTRUCTION SHEET	1900-IS



Recommended Tools

JIMS Part No.	Description
No.1276	Wrist Pin Remover/ Installer
No.1047TP	Crank Assembly Removing Tool
No.1048	Hard Cap
No.39361-69	Motor Sprocket Seal Installer Tool
No.1710	Snap Ring Installer and Removal Tool
No.1133	Rachting Snap Ring Pliers
No.1746	Timken Bearing Simulator
No.97225-55	Sprocket Shaft Bearing Installation Tool
No.1709	Timken Bearing Remover Tool
No.1034	Sprocket Shaft Holder
No.1006T	Engine Stand
No.1236	Piston Ring Compressor Tool
No.1068	Tune-A-Cam for degreasing breather valve & crankshaft endplay

Charts and Specifications

JIMS® has provided you with detailed information listing the applications and specifications of each JIMS® Stroker kit applicable to this instruction sheet. Please refer to this information throughout your installation for critical component combinations and specifications. Do not attempt to install your Stroker kit without cross checking each component for compatibility.

Evolution Stroker Flywheel Assembly Kits

These kits are shipped with standard length sprocket and pinion shafts. These kits can be installed into 1984-1999 cases with standard pinion shaft races (24599-58B, 24599-58A, etc.). 24628-87 pinion bearings may also be used.

For 3 5/8" bore pistons, motor cases will have to be bored to install 3 5/8" cylinders.

For 1990-99 motors, use JIMS® pinion gear No. 24043-78, JIMS® oil pump drive gear No. 26349-84 (With JIMS® keys 2480), and JIMS® nut 24023-54.

EVO Stroker Kit Charts, Page 2 -->

CAUTION: WEAR SAFETY GLASSES. EXCESSIVE FORCE MAY DAMAGE PARTS! ,SEE JIMS® CATALOG FOR OVER 100 OTHER TOP QUALITY PROFESSIONAL TOOLS. THE LAST TOOLS YOU WILL EVER NEED TO BUY.

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INSTRUCTION SHEET FOR JIMS® STROKER FLYWHEELS

80" Evolution Stroker Kits

**Compression Ratio Approximate*

Part No.	Application	Stroke	Bore	Flywheel Dia.	Compression Ratio
No.1900B	Use on EVO 1984-1999	4 1/4"	3 1/2" STD	8 1/2"	*10:1
No.1900B5	Use on EVO 1984-1999	4 1/4"	3 1/2" +.005	8 1/2"	*10:1
No.1900B10	Use on EVO 1984-1999	4 1/4"	3 1/2" +.010	8 1/2"	*10:1

87" Evolution Stroker Kits

Part No.	Application	Stroke	Bore	Flywheel Dia.	Compression Ratio
No.1900C	Use on EVO 1984-1999	4 1/2"	3 1/2" STD	8 1/2"	*10:1
No.1900C5	Use on EVO 1984-1999	4 1/2"	3 1/2" +.005	8 1/2"	*10:1
No.1900C10	Use on EVO 1984-1999	4 1/2"	3 1/2" +.010	8 1/2"	*10:1

89" Evolution Stroker Kits

Part No.	Application	Stroke	Bore	Flywheel Dia.	Compression Ratio
No.1900A	Use on EVO 1984-1999	4 5/8"	3 1/2" STD	8 1/2"	*9.25:1
No.1900A5	Use on EVO 1984-1999	4 5/8"	3 1/2" +.005	8 1/2"	*9.25:1
No.1900A10	Use on EVO 1984-1999	4 5/8"	3 1/2" +.010	8 1/2"	*9.25:1

96" Evolution Stroker Kits

Part No.	Application	Stroke	Bore	Flywheel Dia.	Compression Ratio
No.1910A	Use on EVO 1984-1999	4 5/8"	3 5/8" STD	8 1/2"	*9.75:1
No.1910A5	Use on EVO 1984-1999	4 5/8"	3 5/8" +.005	8 1/2"	*9.75:1
No.1910A10	Use on EVO 1984-1999	4 5/8"	3 5/8" +.010	8 1/2"	*9.75:1

106" Evolution Stroker Kits

Part No.	Application	Stroke	Bore	Flywheel Dia.	Compression Ratio
No.1910E	Use on EVO 1984-1999	4 5/8"	3 13/16" STD	8 1/2"	*10:1
No.1910E5	Use on EVO 1984-1999	4 5/8"	3 13/16" +.005	8 1/2"	*10:1
No.1910E10	Use on EVO 1984-1999	4 5/8"	3 13/16" +.010	8 1/2"	*10:1

NOTE: THE ENGINE BUILDER STILL HAS THE RESPONSIBILITY OF CHECKING AND CONFIRMING ALL OPERATING CLEARANCES WHEN INSTALLING ANY JIMS® PARTS.

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INSTRUCTION SHEET FOR JIMS® STROKER FLYWHEELS

EVO FUEL INJECTED STROKER FLYWHEEL ASSEMBLY KITS

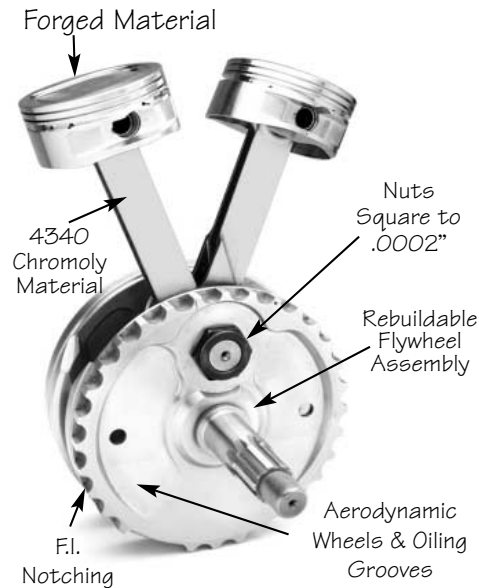
IMPORTANT NOTE!
 The stock electronic control module will need to be replaced with an upgraded programmable control module for EFI stroker flywheels. Refer to local dealer, or distributor.

Each assembly comes pre-assembled and pre-balanced at 60% with JIMS® precision pistons, JIMS® performance H-beam forged connection rods, forged flywheels (New!), JIMS® pinion and sprocket shafts, and JIMS® 2-hole crankpins.

These flywheels will install into a stock 1995-99 H.D. Evo EFI cases, with minor modification to the motor case.

To use the 3 5/8" piston flywheel kits, you will need to bore your motor case for the 3 5/8" cylinders.

For these flywheel assemblies, you will need to use JIMS® pinion gear No.24043-78 as a starting point for cam to gear fit also, use JIMS® pinion gear spacer No.24703-54B with oil pump drive gear No.26349-84.



87" Evolution Fuel Injected Stroker Kits *Compression Ratio Approximate

Part No.	Application	Stroke	Bore	Flywheel Dia.	Compression Ratio
No.1920	Use on EVO F.I. 1995-1999	4 1/2"	3 1/2" STD	8 1/2"	*10:1
No.1921	Use on EVO F.I. 1995-1999	4 1/2"	3 1/2" +.005	8 1/2"	*10:1
No.1922	Use on EVO F.I. 1995-1999	4 1/2"	3 1/2" +.010	8 1/2"	*10:1

89" Evolution Fuel Injected Stroker Kits

Part No.	Application	Stroke	Bore	Flywheel Dia.	Compression Ratio
No.1926	Use on EVO F.I. 1995-1999	4 5/8"	3 1/2" STD	8 1/2"	*9.25:1
No.1927	Use on EVO F.I. 1995-1999	4 5/8"	3 1/2" +.005	8 1/2"	*9.25:1
No.1928	Use on EVO F.I. 1995-1999	4 5/8"	3 1/2" +.010	8 1/2"	*9.25:1

96" Evolution Fuel Injected Stroker Kits

Part No.	Application	Stroke	Bore	Flywheel Dia.	Compression Ratio
No.1929	Use on EVO F.I. 1995-1999	4 5/8"	3 5/8" STD	8 1/2"	*9.75:1
No.1930	Use on EVO F.I. 1995-1999	4 5/8"	3 5/8" +.005	8 1/2"	*9.75:1
No.1931	Use on EVO F.I. 1995-1999	4 5/8"	3 5/8" +.010	8 1/2"	*9.75:1

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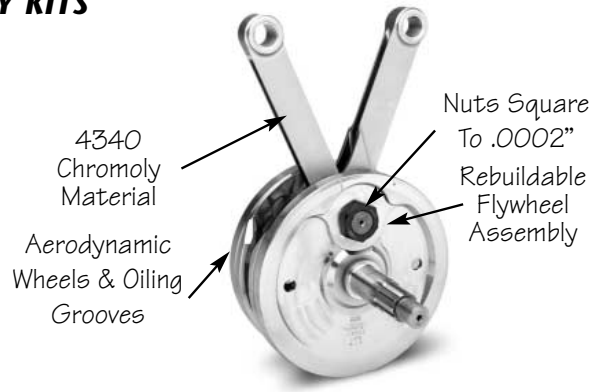


INSTRUCTION SHEET FOR JIMS® STROKER FLYWHEELS

SHOVELHEAD STROKER FLYWHEEL ASSEMBLY KITS

Build from 80" to 106" Shovelhead engine with JIMS® new flywheel Assemblies. Use on all Shovelhead engines from 1970 to 1984.

Each assembly comes pre-assembled and pre-balanced between 52%-60% depending on the weight of the piston installed, JIMS® performance H-beam forged connection rods, forged flywheels (New!), JIMS® pinion and sprocket shafts, and JIMS® 2-hole crankpins



Stroker Flywheel Assemblies Only

For Strokes longer than 4 1/4" the engine builder must supply the pistons for the stroke you will be building.

To maintain a balance factor of **60%** both pistons with rings, pins, and clips should weigh between **906** grams and **938** grams.

To maintain a balance factor of **56%** both pistons with rings, pins, and clips should weigh between **1021** grams and **1051** grams.

To maintain a balance factor of **52%** both pistons with rings, pins, and clips should weigh between **1136** grams and **1166** grams.

4 1/4" Big Twin Stroker Flywheel Assemblies (Without pistons)

Part No.	Application	Stroke	Bore	Flywheel Dia.	Compression Ratio
No.1913RLA	Use on Shovelhead 1970-84	4 1/4"	N/A	8 1/2"	N/A
	Use on EVO 1984-1999				

4 1/2" Big Twin Stroker Flywheel Assemblies (Without pistons)

Part No.	Application	Stroke	Bore	Flywheel Dia.	Compression Ratio
No.1915RLA	Use on Shovelhead 1970-84	4 1/2"	N/A	8 1/2"	N/A
	Use on EVO 1984-1999				

4 5/8" Big Twin Stroker Flywheel Assemblies (Without pistons)

Part No.	Application	Stroke	Bore	Flywheel Dia.	Compression Ratio
No.1900RLA	Use on Shovelhead 1970-84	4 5/8"	N/A	8 1/2"	N/A
	Use on EVO 1984-1999				

4 3/4" Big Twin Stroker Flywheel Assemblies (Without pistons)

Part No.	Application	Stroke	Bore	Flywheel Dia.	Compression Ratio
No.1917RLA	Use on Shovelhead 1970-84	4 3/4"	N/A	8 1/2"	N/A
	Use on EVO 1984-1999				

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INSTRUCTION SHEET FOR JIMS® STROKER FLYWHEELS



JIMS® FLYWHEELS
¹ 4 ¹/₄" , ¹ 4 ¹/₂" , ⁵ 4 ¹/₈" , ³ 4 ¹/₄" **STROKE**
8 ¹/₄" & 8 ¹/₂" DIAMETER

JIMS® is proud to introduce improved Big Twin flywheels. These flywheels are not just a copycat flywheel with a different stroke, but a flywheel redesigned and engineered for today's and future Harley-Davidson® Motorcycles.

JIMS® Big Twin flywheels are manufactured from the finest American 4140 forged steel blanks; ideal for precision machining and product integrity.

JIMS® flywheels feature a machined-in windage groove with angled counter-weights to divert oil. The oil that would normally adhere to the flywheel surface is now deflected into JIMS® windage groove and rolled outward to the scavenge port of any Big Twin case, making JIMS® flywheels the most aerodynamic on the market today.

JIMS® aerodynamic windage flywheel will reduce the amount of oil drag on the flywheel, returning some of the free horsepower to your engine. At the same time, JIMS® windage flywheel will remove the oil from the flywheels at a faster rate to aid in cooling the engine's internal parts.

Included in this breakthrough design is a deflection windage device (when used with JIMS® rods) to help lubricate and cool the bottom side of both pistons. To further help in rod strength and lubrication, we have designed three grooves around both crankpin thrust faces into the JIMS® flywheels. With grooves machined into the flywheel thrust faces, we have eliminated the four grooves that are ground into the rod itself. When grooves are ground into the rod itself, the rods become susceptible to cracking.

CNC® machining of JIMS® Flywheels allows us to control taper-to-taper and taper-to-outside diameter centerline to within .0003", making these flywheels the easiest to true, balance and build.

- No.1900RL - Use on 1958-99 Big Twin single cam motors. 4 5/8" Stroke x 8 1/2" O.D.
- No.1901RL - Use on 1958-99 Big Twin single cam motors. 4 5/8" Stroke x 8 1/4" O.D.
- No.1913RL - Use on 1958-99 Big Twin single cam motors. 4 1/4" Stroke x 8 1/2" O.D.
- No.1914RL - Use on 1958-99 Big Twin single cam motors. 4 1/4" Stroke x 8 1/4" O.D.
- No.1915RL - Use on 1958-99 Big Twin single cam motors. 4 1/2" Stroke x 8 1/2" O.D.
- No.1916RL - Use on 1958-99 Big Twin single cam motors. 4 1/2" Stroke x 8 1/4" O.D.
- No.1917RL - Use on 1958-99 Big Twin single cam motors. 4 3/4" Stroke x 8 1/2" O.D.
- No.1918RL - Use on 1958-99 Big Twin single cam motors. 4 3/4" Stroke x 8 1/4" O.D.

For example: On 1958 application, Use JIMS® pinion shaft No.24006-80/83 (Cam cover set up for end oiling), JIMS® crank pin No.23961-802 and sprocket shaft No. 24001-56/80.

Bore Stroke Inches	Bore Stroke Inches	Bore Stroke Inches
3 1/2.....4 1/480"	4 1/8.....4 1/8110"	4 3/8.....4 3/8132"
3 1/2.....4 1/287"	4 1/8.....4 1/4114"	4 3/8.....4 1/2135"
3 1/2.....4 5/889"	4 1/8.....4 3/8117"	4 1/2.....4127"
3 1/2.....4 3/492"	4 1/8.....4 1/2120"	4 1/2.....4 1/8131"
3 5/8.....4 1/488"	4 1/4.....4113"	4 1/2.....4 1/4135"
3 13/16.....4 1/4100"	4 1/4.....4 1/8117"	4 1/2.....4 3/8139"
44101"	4 1/4.....4 1/4120"	4 1/2.....4 1/2143"
44 1/8104"	4 1/4.....4 3/8124"	
44 1/4107"	4 1/4.....4 1/2128"	
44 3/8110"	4 3/8.....4120"	
44 1/2113"	4 3/8.....4 1/8124"	
4 1/8.....4107"	4 3/8.....4 1/4128"	

Cubic Inches?
Bore x Bore x
Stroke x .7854
x 2 = Cubic Inches

NOTE: THE ENGINE BUILDER STILL HAS THE RESPONSIBILITY OF CHECKING AND CONFIRMING ALL OPERATING CLEARANCES WHEN INSTALLING ANY JIMS® PARTS.

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INSTRUCTION SHEET FOR JIMS® STROKER FLYWHEELS

JIMS® CONNECTING RODS

PRODUCED FROM FORGED
4340 AEROSPACE QUALITY STEEL



Connecting rods at their finest. The JIMS® research and development team looked into all other rods on the market to see which areas needed improvement.

JIMS® connecting rods start out as forged aerospace quality 4340 Chromoly steel blanks, then the rods are CNC machined on the newest high tech mills available. Each rod is heat treated, magnafluxed, shot peened, and completely inspected with a hardness test for each rod. From there, each rod goes back into the CNC mill to bore the rod race bores to the wrist pin bushing bores to within .0003" of each other at a 32 bore finish for the best possible bushing and race adhesion. The wrist pin bushing oiling hole has been optimized for better lubrication of wrist pins, and an increase in the strength. JIMS® chooses "H-Beam" rods for stability and strength, for both drag racing and any street application, over the standard "I-beam" rods. Although we realize that "H-beam" rods are very difficult and time consuming to manufacture, JIMS® believe that it is well worth the extra effort. Each rod set has JIMS® rod races and wrist pin bushings installed and are fit to Harley-Davidson® factory specifications. JIMS® "H-beam" rods are available in several different lengths of centerline dimensions including: 7.440", 7.690" and 7.960."

- No. **4000** - Use on 1941-99 Big Twin O.H.V. (For use on pre-1973, use a qualified piston for 7.440" length rods) with a standard .792 wrist pin bushing.
- No. **4003** - Use on 1941-99 Big Twin single cam special application 7.440" length with .927" wrist pin bushing.
- No. **4004** - Use on 1941-99 Big Twin single cam special application 7.690" length with a .791 wrist pin bushing.
- No. **4005** - Use on 1941-99 Big Twin single cam special application 7.690" length with a .925" wrist pin bushing.
- No. **4006** - Use on 1941-99 Big Twin single cam special application 7.960" length with a .791" wrist pin bushing.
- No. **4007** - Use on 1941-99 Big Twin single cam special application 7.960" length with a .925" wrist pin bushing.
- No. **4008** - Use on 1941-99 Big Twin single cam special application 8.250 length with a .925 wrist pin bushing.

ROD ASSEMBLIES

Rods fit to H.D.® factory specification. Crank Pin No.23961-802, Crank Pin nuts No.23969-83, Crank Pin key No.2187, Crank Pin rollers with retainers No.3999.



- No. **4000A** - Use on Big Twin 1981-99 single cam that uses a .792" size wrist pin. (Note: Fits Aftermarket and S & S® motors.) 7.440" from center to center.
- No. **4000B** - Use on Big Twin 1981-99 single cam that uses a .927" size wrist pin. (Note: Fits Aftermarket and S & S® motors.) 7.440" from center to center.

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INSTRUCTION SHEET FOR JIMS® STROKER FLYWHEELS

WARNING:

(Note: Read all instructions before performing work)

Prior to installation of this kit please read and follow the procedures and safety precautions to reduce the risk of personal injury.

Refer to H-D® Service Manual for specifications and for removal and installation of the engine. Read instructions completely so you understand before performing any steps. Always disconnect battery cables to prevent injury. Your work place should be clean and well lit, wear safety glasses and protective clothing when working around power tools and compressed air. Be careful with chemicals when cleaning parts. Protect you skin from solvents and use only in a well ventilated area. Degreasers are flammable and are a fire hazard. Just use common sense, exercise good judgment. This kit is basically easy to install but does require some special tools.

Use authorized H-D® Service Manual for reference. If you are not sure about the procedures in these instructions, have a reputable H-D® repair shop perform those procedures for you.

Pre-Installation Information

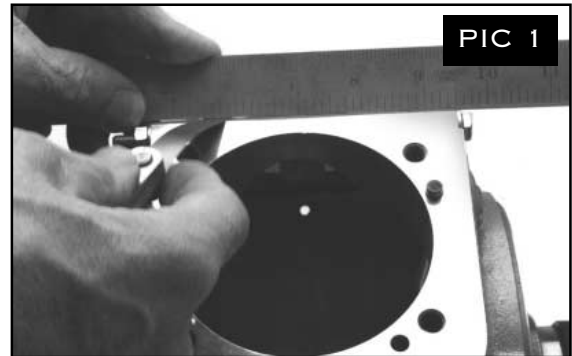
1. Follow instructions in H-D® Service Manual for removal of engine.
2. With engine removed from frame and sitting on the work bench, follow the disassembly instructions in the service manual to disassemble engine.
3. Clean all parts thoroughly, be sure to clean all gasket surfaces. Inspect all parts for visible damage. Measure all parts for wear using the service wear limit section in the H-D® Service Manual. Replace any worn or damaged parts with JIMS® engine parts or equivalent.

CAUTION: WEAR SAFETY GLASSES. EXCESSIVE FORCE MAY DAMAGE PARTS! SEE JIMS® CATALOG FOR OVER 100 OTHER TOP QUALITY PROFESSIONAL TOOLS. THE LAST TOOLS YOU WILL EVER NEED TO BUY.

Installation Instructions

1. CHECK CYLINDER STUDS AND DECK SURFACES

Clean cases and assemble without flywheels. Check cylinder base gasket surface. Use a straight edge across the deck. See picture 1. If any misalignment is present, the surface must be milled. Remove the cylinder studs and cover all areas where chips could get in. Take off just enough to clean up surface. Check all cylinder studs and stud threaded holes. If threads are damaged use JIMS® tool No. 1000A to repair. JIMS® suggests to use the latest cylinder studs available from Harley-Davidson® No.16837-95C. Follow instructions in H-D Service Manual for proper installation of studs.



2. PISTON CLEARANCE

The pistons in this kit need to be fitted to the cylinders using the specifications provided. See piston instructions included with your pistons.

3. CRANK PIN TO CRANKCASE CLEARANCE.

- a. The crank pin nut will probably hit the inside of the right side crankcase (cam side) at the machined portion above cam hole when stroke is 4 1/2" or longer. For this reason adequate clearance is necessary. JIMS® recommends checking all cases, regardless of stroke. See picture #3.



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INSTRUCTION SHEET FOR JIMS® STROKER FLYWHEELS

- b. Measure from the outside edge of pinion race to the edge of machined area to a distance of 2.300 or less. Remove just enough material to make clearance. **Note: 2.300 is adequate for strokes up to 5".**
- c. Mock up right flywheel in crankcase half with pinion shaft and crank pin installed with pinion bearing, washers etc. Before installing mock up, mark area to be clearanced with marker pin or layout fluid such as dykum blue.
- d. To clearance case, start by scribing an arc using dividers. Cover all areas where metal chips could get into before grinding. Metal removal can be done with a hand grinder, die grinder, etc. Keep checking clearance during the grinding procedure. Remember remove just enough material to make proper clearance. A minimum of .060 clearance is required.

4. CONNECTING ROD TO CASE CLEARANCE

To accurately judge the necessary rod to case clearancing JIMS® suggest mocking at least half the flywheel assembly into the left side case by using JIMS® No. 1745 Timken Bearing Simulator. If you are working with flywheel and rods that are not assembled, mock up the left side flywheel in to the case with the sprocket shaft, crank pin, bearings, and washers in place.

- a. With flywheel assembly simulated in left case, install pistons without rings and place both cylinders and pistons on left case with 2 nuts. (**Note: Some JIMS® piston sets are directional. Please align engraved arrow on piston deck to the intake valve unless expressed otherwise, but only after pistons have been fit to each cylinder.**) If using pistons other than JIMS®, consult piston manufacturer's installation instructions for proper alignment.
- B. Rotate flywheels slowly, first clockwise (see picture #4). With felt pen mark the point of contact that rod makes at case (note: if rod makes contact with cylinder spigot, first, mark point of contact of rod to spigot with felt pen). Grind and file cylinder for a minimum of $.100 \pm .025$ rod clearance.

Caution: When grinding and filing cylinder, you must maintain as smooth of a finish as possible without making sharp corners.

- C. Rotate flywheels counter clockwise (see pic #5). With felt pen mark the point of contact that rod makes at case. With

a straight edge mark a line from point of rod contact to the other point of rod contact. With your calipers set at .100 mark a line to the outside of the first line.

- D. This is the area you will be removing for rod clearance. Do the front rod clearance the same way. Caution: remove flywheel assembly and cover to keep out all chips and also mask off Timken bearing bore of left case.
 - E. After you have rechecked clearance of the left case and cylinder spigots, remove cylinders, pistons and flywheels from left case.
 - F. Mark and remove material from right case to match left case.
- Caution: Before you remove material from right case, mask off both sides of cam bearing and pinion race.**
- G. Recheck your clearance for right case by installing flywheels, both cylinders and pistons.

5. PISTON TO PISTON AND PISTON SKIRT TO



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INSTRUCTION SHEET FOR JIMS® STROKER FLYWHEELS

FLYWHEEL CLEARANCE

- With the flywheel assembly mocked up in left case only, install cylinders and pistons, (no rings on the pistons). Make sure they are installed properly. The beveled cut away on the cylinder base points towards the center of the engine. Securely install the cylinders with (2) nuts on each cylinder. Rotate flywheel assembly slowly until pistons make contact with each other (see pic #6).
- Disassemble and clearance these areas, making the clearance on the rear piston. A minimum of .100" clearance is required, remove only enough to make the clearance. After piston to piston clearance is performed rotate flywheel and check piston to flywheel clearance. Remove piston and clearance skirt .100" minimum is required. See picture #7.



6. PISTON DECK HEIGHT

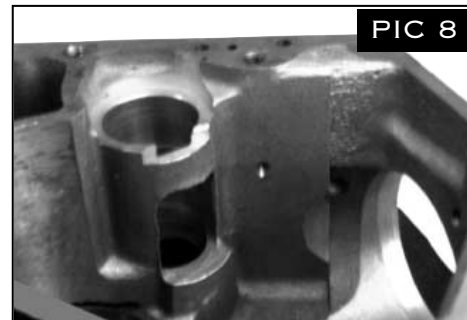
- With flywheel assembly mocked up in left case, install base gaskets, pistons (no rings or wrist pin clips), and cylinders. Secure to cylinders using short head bolts, tighten to slightly more than hand tight (2-3 ft./lbs).
- Rotate flywheel assembly so that the front piston is at its highest point of travel (TDC).
- Using a straight edge laying across the bore diameter, mea-

sure (using a feeler gauge) the distance from the piston top to the cylinder head gasket surface. (Note: If the piston is higher than the gasket surface, this is referred to as "Positive Deck Height", if the piston is below the head gasket surface, this is referred to as "Negative Deck Height") Note this measurement..

- Now measure the thickness of your head gasket using dial calipers or a micrometer, and subtract your deck height measurement from your head gasket thickness. You must have a minimum of .043" clearance between your piston top and the top of the head gasket when it is installed on the cylinder. If you have too little deck height (less than .043") you can adjust this by using a thicker base or head gasket. Remember optimal range for a performance orientated street motor is .043" to .060" of deck below the top of the head gasket.

7. BREATHER TIMING

JIMS® recommends checking the breather timing on all engines regardless of the stroke. Optimized breather timing will maximize performance. This procedure requires a degree wheel. Use JIMS® No. 1068 Degree Wheel Kit. When modifying the breather hole in the case, make sure the breather hole in the case is located in the same position as the hole in the breather. See picture #8.



Caution: Before doing any grinding, mask off and cover all areas to keep out foreign material.

Grind the case breather opening to the specifications below:

Opening - 0 degrees @ TDC ± 10 degrees with minimum being 10 degrees before top dead center and maximum being 10 degrees after top dead center

Closing - 65 degrees @ ABDC ± 10 degrees with minimum being 55 degrees after bottom dead center and with maximum being 75 degrees after bottom dead center

NOTE: THE ENGINE BUILDER STILL HAS THE RESPONSIBILITY OF CHECKING AND CONFIRMING ALL OPERATING CLEARANCES WHEN INSTALLING ANY JIMS® PARTS.

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INSTRUCTION SHEET FOR JIMS® STROKER FLYWHEELS

BREAK IN PROCEDURE

After final assembly, the engine must be broken in. Over revving or lugging the engine could cause damage to pistons and/or other engine components.

On the initial start up, excessive heat build up can occur. Do not over heat by revving engine or running at a fast idle too long.

To ensure proper head gasket seal upon first time engine start up, idle engine 1000-1500 R.P.M. until cylinder head temperature reaches about 250 degrees. Shut engine off and let cool. This procedure is necessary to properly seal top end components.

CAUTION: Improper initial engine start up may cause head gaskets to fail prematurely.

Because most engine damage could occur during the first 50 miles, keep the heat down by not exceeding 2800 R.P.M., but do not lug engine.

Continue to vary speed for the next 500 miles and do not exceed 3800 R.P.M.. For the balance of the first 1000 miles, avoid overheating engine. Do not lug engine or idle for long periods of time. No trailer towing, racing, etc.

Change oil and filter after the first 500 miles.

WARRANTY

All JIMS® parts are guaranteed to the original purchaser to be free of manufacturing defects in materials and workmanship for a period of 6 (six) months from the date of purchase. Merchandise that fails to conform to these conditions will be repaired or replaced at JIMS® option if the parts are returned to us by the purchaser within the 6 (six) month warranty period or within 10 (ten) days thereafter. In the event warranty service is required, the original purchaser must call or write JIMS® immediately with the problem. Some problems can be rectified by a telephone call and need no further course of action. A part suspected of being defective must not be replaced by a Dealer without prior authorization from JIMS®. If it is deemed necessary for JIMS® to make an evaluation to determine whether the part is defective, it must be packaged properly to prevent further damage and be returned prepaid to JIMS® with a copy of the original invoice of purchase and a detailed letter outlining the nature of the problem, how the part was used and the circumstances at the time of failure. If after an evaluation has been made by JIMS® and the part was found to be defective, repair, replacement or credit will be granted.

ADDITIONAL WARRANTY PROVISIONS

1. JIMS® shall have no obligation in the event a JIMS® part is modified by any other person or organization.
2. JIMS® shall have no obligation if a JIMS® part becomes defective in whole or in part as a result of improper installation, improper maintenance, improper use, abnormal operation, or any other misuse or mistreatment of the part.
3. JIMS® shall not be liable for any consequential or incidental damages resulting from the failure of a JIMS® part, the breach of any warranties, the failure to deliver, delay in delivery, delivery in nonconforming condition, or for any other breach of contract or duty between JIMS® and a customer.
4. JIMS® parts are designed exclusively for use in Harley-Davidson® motorcycles. JIMS® shall have no warranty or liability obligation if a JIMS® part is used in any other application.
5. Any parts which have been replaced for any reason become the property of JIMS®, and will not be returned under any circumstances.

NOTE: THE ENGINE BUILDER STILL HAS THE RESPONSIBILITY OF CHECKING AND CONFIRMING ALL OPERATING CLEARANCES WHEN INSTALLING ANY JIMS® PARTS.

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