

FOR KSS-307070, KSS-307575 AND KSS-308080 KITS  
SPORTSMAN SERIES ROCKER ARM INSTRUCTIONS FOR GM  
LS1 AND LS6 WITH "HYDRAULIC-ROLLER" CAMSHAFT

GM LS1 AND LS6



SPORTSMAN SERIES KIT

THE **JESEL SPORTSMAN SERIES** ROCKER ARM KIT FOR THE **LS1/LS6** ENGINE IS A DIRECT BOLT ON AND REQUIRES NO HEAD MACHINING. THE KIT IS **NONADJUSTABLE** AND IS DESIGNED TO WORK WITH THE FACTORY LENGTH PUSHRODS PROVIDED NO OTHER MODIFICATIONS HAVE BEEN MADE. IF THE HEADS ARE MILLED OR THE CAMSHAFT HAS BEEN UPGRADED, A DIFFERENT LENGTH PUSHROD FROM STOCK WILL BE NEEDED. **AVAILABLE RATIOS ARE 1.70, 1.75 AND 1.80.**

STEP 1



WITH THE FACTORY ROCKERS REMOVED YOU CAN BEGIN WITH THE **JESEL** INSTALL. BEFORE INSTALLING THE TWO ROCKER STANDS MAKE SURE ALL OF THE THREADS IN THE HEADS ARE CLEAN AND ARE IN GOOD CONDITION. THE ROCKERS CAN BE INSTALLED WITH THE ENGINE ASSEMBLED AND IN THE VEHICLE.

STEP 2



BOLT STAND TO HEAD MAKING SURE THE **JESEL LOGO AND PART NUMBER** IS FACING THE VALVE SPRINGS. THE **1" STAND BOLTS** GET TORQUED TO **22 TO 24 LBS-FT** AND SHOULD BE INSTALLED WITH OIL ON THE THREADS. IF A BOLT PROTRUDES THROUGH THE INTAKE PORT, SUPPLEMENT OIL ON THE THREADS WITH RTV SEALER TO PREVENT VACUUM LEAKS FROM POSSIBLY OCCURRING.

STEP 3



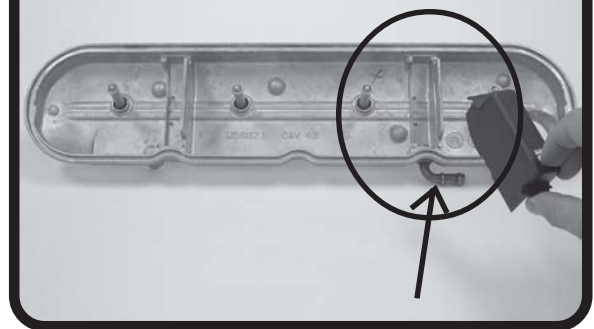
LUBRICATE PUSHROD TIPS AND INSTALL ROCKERS AND SHAFTS ON STANDS MAKING SURE THE CAM'S ON ITS BASE CIRCLE (THE LOBES ARE NOT OPENING THE VALVES). NEVER INSTALL OR REMOVE THE ROCKERS AND SHAFTS WHEN SPRING PRESSURE IS PRESENT OR SHAFT DAMAGE MAY OCCUR. TORQUE **CENTER 3/8" SHAFT BOLTS TO 45 TO 48 LBS-FT** AND THE **OUTER 5/16" SHAFT BOLTS TO 26-28 LBS-FT** WITH OIL.

STEP 4



DEPENDING ON THE THICKNESS OF THE MATERIAL AROUND THE VALVE COVER RAIL ON THE HEAD, A SLIGHT AMOUNT OF MACHINING MAY BE NECESSARY IN ORDER FOR THE ROCKER ARMS TO CLEAR THE HEADS. THIS CAN BE DONE VERY EASILY WITH A DIE GRINDER. IF THIS STEP IS NEEDED AND THE HEADS ARE ON THE ENGINE, TAKE CARE NOT TO ALLOW FILINGS TO ENTER THE ENGINE WHEN GRINDING.

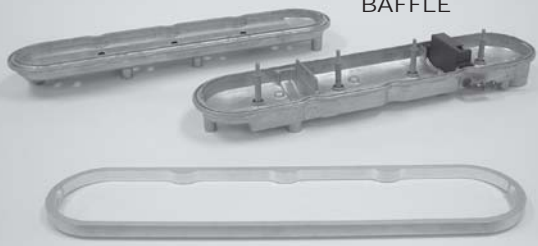
STEP 5



(VALVE COVER MODIFICATION)

THE OEM BAFFLES WILL NEED TO BE MACHINED IN ORDER TO FIT OVER THE **JESSEL** ROCKER STANDS. WHEN REMOVING THE BAFFLE, IT IS A GOOD IDEA TO INSTALL AN EXTERNAL BREATHER ON THE STEEL TUBE (SEE ARROW) SO ENGINE OIL DOES NOT WORK ITS WAY OUT OF THE VALVE COVER.

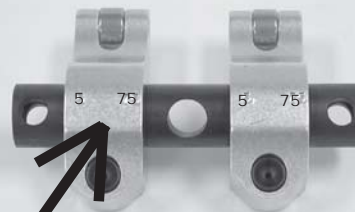
PLASTIC BAFFLE



AFTERMARKET LS1 AND LS6 VALVE COVER SPACERS

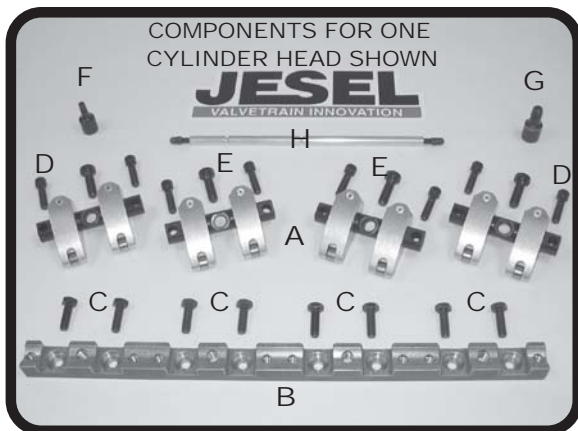
IF MACHINING THE OIL BAFFLE IS NOT AN OPTION, THERE ARE A SELECT FEW SUPPLIERS CURRENTLY OFFERING VALVE COVER SPACERS, WHICH RAISE THE COVERS. DEPENDING ON THE YEAR OF THE VALVE COVERS, A SLIGHT AMOUNT OF CLEARANCING MAY STILL BE NECESSARY. ANOTHER OPTION IS TALLER AFTERMARKET VALVE COVERS, WHICH ARE AVAILABLE FROM VARIOUS SOURCES.

ROCKER ARM RATIO CODES



75=1.75 RATIO ROCKER

THE **LS1 AND LS6 SPORTSMAN SERIES** ROCKER KITS ARE AVAILABLE IN **1.70, 1.75 AND 1.80 RATIOS** AND THESE CODES ARE ENGRAVED INTO THE BOTTOM OF THE ROCKER BODIES FOR EASY IDENTIFICATION. EXAMPLE: IF YOUR ROCKER HAS A **75** ON IT, THE RATIO OF THAT ROCKER IS **1.75**.



## KIT CONTENTS:

- A) 8-PRA-SS30\*\*\*\***ROCKER ARMS  
\*\*\*\*INDICATES ROCKER RATIOS  
SPECIFY RATIOS WHEN ORDERING
- B) 2-STN-SS2030** LS1/LS6 STANDS
- C) 17-BLT-21898** 1" STAND BOLTS\*
- D) 17-BLT-21750** 5/16 X 1 1/4" SHAFT BOLTS\*
- E) 9-BLT-21872** 3/8 X 1 1/4" SHAFT BOLTS\*
- F) 1-TOL-19210** T45 TORX SOCKET
- G) 1-TOL-19221** T50 TORX SOCKET
- H) 1-TOL-29450** 4 pc. PUSHROD LENGTH CHECKER

\*=ONE EXTRA BOLT PROVIDED

## TORQUE SPECS:

- 5/16"** SHAFT BOLTS=**26-28** LBS-FT.
- 3/8"** SHAFT BOLTS=**45-48** LBS-FT.
- 1"** STAND BOLTS=**22-24** LBS-FT.

NOTE: ALL TORQUE SPECS ARE WITH ENGINE OIL ON THE THREADS.

## VALVE ADJUSTMENT:

(FOR HYDRAULIC-ROLLER CAMS ONLY)

THE **LS1 AND LS6 SPORTSMAN SERIES** ROCKER KITS DO NOT HAVE AN ADJUSTABLE PUSHROD CUP. THEY ARE DESIGNED FOR USE ON A STOCK ENGINE WITH A FACTORY HYDRAULIC-ROLLER CAMSHAFT. IF THE CAM HAS BEEN UPGRADED OR THE HEADS HAVE BEEN MILLED THE ONLY WAY TO ACHIEVE THE PROPER GEOMETRY IS WITH DIFFERENT LENGTH PUSHRODS. **JESEL** INCLUDES A PUSHROD LENGTH CHECKER WITH THE ROCKER KIT TO AID WITH THIS MEASUREMENT AND STOCKS A HOST OF DIFFERENT PUSHROD LENGTHS AND TYPES FOR ALL ENGINE MAKES.

## ROCKER SERVICE PARTS:

- SFT-SS0003** ROCKER SHAFT
- BRG-20610** SHAFT BEARING

LS1 AND LS6 SPORTSMAN SERIES ROCKER ARMS "DO NOT" HAVE AN ADJUSTABLE PUSHROD CUP.

## WARNING-DO NOT:

- LOOSEN SHAFT BOLTS UNDER SPRING LOADS-
- RUN WITH ROUGH OR DAMAGED PUSHROD TIPS-
- ALLOW PUSHRODS TO RUB AGAINST HEAD SURFACE-
- DEGREASE ROCKERS AND RUN WITHOUT LUBE-
- MODIFY ADJUSTER COUNTERBORE-

# NEW PRODUCTS FROM JESEL FOR GM LS1 AND LS6 ENGINES



(BLOCK MACHINING REQUIRED)

**JESEL'S LS1 AND LS6** BELT DRIVE SYSTEM IS DESIGNED TO BE THE MOST ACCURATE AND DURABLE CAMSHAFT DRIVE SYSTEM AVAILABLE AND IS BEING USED BY THE COUNTRY'S TOP CORVETTE AND F-BODY ROAD RACE TEAMS WITH TERRIFIC RESULTS. A **PATENTED HIGH TORQUE DRIVE REINFORCED BELT** OPERATES WITHOUT LUBRICATION AND SPINS WITH **LESS FRICTION** THAN CHAINS OR GEAR DRIVE SYSTEMS. ADDITIONALLY, THE RUBBER BELT WILL **ABSORB DESTRUCTIVE HARMONICS**, WHICH CAN SPELL DISASTER ON RACING ENGINES. SOME OF THE **JESEL** SPECIAL FEATURES INCLUDE **EXTERNAL AND ACCURATE CAM TIMING ADJUSTMENTS**, A **BILLET ALUMINUM UPPER PULLEY** WITH A HIGH TORQUE DRIVE TOOTH CONFIGURATION, AN ALLOY STEEL CRANK PULLEY AND **GRADE 8 ALLEN AND TORX HARDWARE**. NOTE: AN EXTERNAL OIL PUMP SYSTEM MUST BE USED WITH THIS KIT BECAUSE IT ELIMINATES THE FACTORY PUMP.



**JESEL'S LS1 AND LS6** SOLID-ROLLER LIFTERS HAVE GONE THE DISTANCE WITH VICTORIES AT THE 24 HOURS OF LE MANS, THE ROLEX 24 HOURS AT DAYTONA AND SEBRING 12 HOUR ENDURANCE RACES. SOME UNIQUE FEATURES ARE **CENTERED OR OFFSET PUSHROD LOCATIONS**, **.842" OR .937" BODY DIAMETERS**, **HARDCOATED ALUMINUM PISTONS**, LONGER LIFTER BODIES FOR SMALL BASE-CIRCLE CAMS AND **RESTRICTED OIL HOLES**, WHICH LIMIT OIL TO THE TOP OF THE ENGINE. THEY INCORPORATE THE **OEM LIFTER RETAINER** AND CAN BE USED WITH **JESEL'S BRONZE ROLLER LIFTER BUSHINGS**, WHICH ARE MADE OUT OF **A45 BRONZE** AND ARE AVAILABLE FOR **.842" AND .937" LIFTER DIAMETERS**. THERE IS ALSO A CHOICE OF WHEEL DIAMETERS AVAILABLE. THE **.842" LIFTER** IS AVAILABLE WITH A **.760" WHEEL** AND THE **.937" LIFTER** IS AVAILABLE WITH EITHER A **.785" OR .850" WHEEL**.

**JESEL**  
VALVETRAIN INNOVATION

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