

## PISTON RING INSTALLATION

### Triumph TR8, Rover SD1, Rover V8 & Land Rover Discovery 1

Part Number: **STC1427KP**

1. Remove ridge at top of ring travel before pistons are removed from block. Failure to remove ridge will result in damage of second ring land. If cylinders are excessively tapered or out-of-round they should be reconditioned.
2. Clean the pistons thoroughly and remove all carbon from ring grooves so that rings and expanders have proper clearance. Remove carbon from oil drain holes.
3. Check for worn top grooves. If side clearance is greater than .005" for passenger's cars or .005" for trucks the groove should be regrooved to accommodate top groove spacer and regular width compressing ring.
4. Check piston rim end clearance. Check in cylinder near bottom of ring travel. Ring end clearance should be approximately .003" to .004" per inch of cylinder diameter.
5. Preparing cylinders:  
In honing the cylinders, a 220 and 280 grit is acceptable. Always wash with water and soap solution to make sure that all grit from honing is removed from cylinder walls. This is most important.
6. Piston skirts. If piston skirt clearance is excessive, resize by knurling. Resize to fit cylinders at smallest diameter below ring travel.

#### QUALITY PARTS AND ACCESSORIES



Triumph House, Sleaford Road, Bracebridge Heath, Lincoln LN4 2NA, England

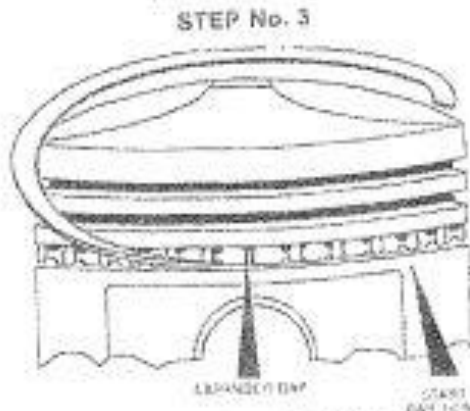
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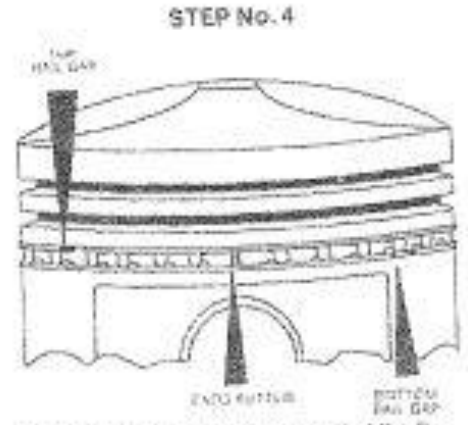
**PREVENT OIL PUMPING**  
See these two colors.

Install Expander-Spacer in cleaned oil ring groove with gap directly above wrist pin hole. Ends of Expander-Spacer to be butted with two different colors visible.



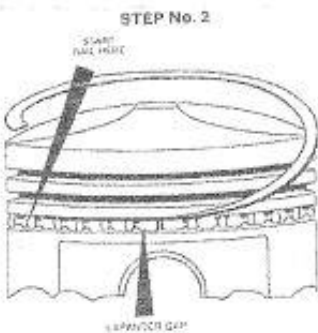
**STEP No. 3**

Install the remaining Steel Rail below the Expander-Spacer. The gap of the Steel Rail should be 1 to 2" to the right of the Expander-Spacer gap.



**STEP No. 4**

**CHECK ASSEMBLY!!!** Make sure that the Expander-Spacer ends have not overlapped and are still in the butted position with two different colors visible.



**STEP No. 2**

Install Steel Rail on top side of Expander. Making sure Expander-Spacer ends are not overlapped. (Two different colors should be visible at Expander gap.) The gap of Steel Rail should be 1 to 2" to left of Expander-Spacer gap.

**Be Sure to Check Piston Groove Depths Before Installing Rings on Piston**

**FOR PISTONS HAVING RING PLACEMENT RING**

Install Expander-Spacer with gap 90° from placement pin with an Expander flange over the pin. Make sure Expander ends are butted.  
Install top rail, then bottom rail. Seat ends of rails at placement pin and work over Expander gap first. When installation is complete and correct the rail gaps will be in alignment with the placement pin and two different colors will be visible at the Expander gap.

This set of PISTON RINGS is engineered for pistons having original factory groove depth specifications. (Some replacement pistons have SHALLOW ring groove depths and these shallow grooves may not take this full-depth set.) CHECK GROOVE DEPTHS CAREFULLY - IT PAYS. TOP MOLY RING MUST NOT BE FILED.

**CAUTION**  
Final check of oil rings after rails are installed: BE SURE TWO DIFFERENT COLORS ARE VISIBLE AFTER RING ARE INSTALLED ON PISTON BEFORE APPLYING RING COMPRESSOR. This indicates expander gap ends are not overlapped. Also, rail gaps must be positioned properly.

The following table shows several examples of the ordinary piston ring set. For some particular models, the piston rings in parenthesis ( ) are not needed.

1st Comp. Ring	2nd Comp. Ring	3rd Comp. Ring	1st Oil Ring	2nd Oil Ring	REMARKS
					SQUARE RINGS INSTALL WITH EITHER SIDE UP
					ANY MARKS <b>MUST</b> GO UP
					ALWAYS INSTALL THE LOWER GROOVE RING UP

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## OIL RING GROOVE

## OIL RING ANILLO DE CONTROL DE ACEITE SEGMENTS RACLEURS D'HUILE

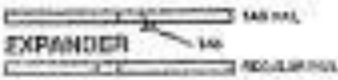


PLACE SPACER IN GROOVE. SPIRAL STEEL RAIL INTO GROOVE ABOVE SPACER. SPIRAL REMAINING RAIL INTO GROOVE BELOW SPACER.

LOCATE RAIL GAPS APPROXIMATELY 1" TO RIGHT AND LEFT OF SPACER ENDS. IF INNER-SPRING IS INCLUDED, INSTALL IN GROOVE FIRST.

COLOQUE EL ESPACIADOR EN LA RANURA. CON UN MOVIMIENTO ESPIRAL, INSTALE UNA DE LAS LAMINA O RIELES ARRIBA DEL ESPACIADOR. DE LA MISMA MANERA INSTALE LA LAMINA RESTANTE ABAJO DEL ESPACIADOR. SITUÉ LOS EXTREMOS DE LAS LAMINAS A 1" (UNA PULGADA) APROXIMADAMENTE HACIA LA IZQUIERDA Y DERECHA DE LOS EXTREMOS DEL SEPARADOR RESPECTIVAMENTE. DE CONTAR EL ANILLO CON UN RESORSE ESPIRAL, ESTE DEBE INSTALARSE PRIMERO EN LA RANURA. SEGMENTS RACLEURS:

TROISIEME GORGE: PLACER L'EXPANDEUR ACIER DANS LA GORGE. METTRE L'UN DES RAILS AUDESSUS DE L'EXPANDEUR ET LE SECOND EN DESSOUS. LES EXTREMITES DES RAILS SERONT LOCALISEES A LA DROITE ET A LA GAUCHE DES EXTREMITES DE L'EXPANDEUR. SI UN RESSORT INTERIEUR EST COMPRIS DANS LE JEU. INSTALLER LE RESSORT DANS LA GORGE EN PREMIER LIEU.



### SETS CONTAINING RAIL WITH TAB

ONE REGULAR RAIL AND ONE TAB RAIL PER CYLINDER. TAB RAIL CAN BE INSTALLED ABOVE OR BELOW EXPANDER WITH TAB POINTING TOWARD EXPANDER. IF INSTALLED IN HORIZONTALLY OPPOSED ENGINE RAIL GAPS SHOULD BE INSTALLED AS SHOWN AT NIGHT.

### TOP OF ENGINE



From 8740

YMA&S No. 4288.127

496173

Inst.#3

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