

	Unit Cost	Units	Extended	Actual	Brit-Atlant	Lucky8
<b>Short Block</b>						
Resleeve Block	\$1,650.00	1	\$1,650.00	\$1,580.00		
Block Packaing Box	\$2.00	1	\$2.00	\$2.00		
4x8x1/4" Plywood Sheet	\$8.00	1	\$8.00	\$8.00		
Crankshaft Polish	\$50.00	1	\$50.00	\$35.00		
Crankshaft Main Bearings	\$50.00	1	\$50.00	\$42.50		\$42.50
Crankshaft Main Bolts	\$109.00	1	\$109.00	\$0.00		
Side Bolt Washer (19 mm Dowty)	\$2.50	9	\$22.50	\$22.50	\$22.50	
Side Bolt Washer (16 mm Dowty)	\$5.50	2	\$11.00	\$11.00	\$11.00	
Crankshaft Seal, Front	\$15.00	1	\$15.00	\$33.00		\$33.00
Crankshaft Seal, Rear	\$15.00	1	\$15.00	\$23.00		\$23.00
Crankshaft Seal, Side Crucifix	\$2.00	2	\$4.00	\$12.00		\$12.00
Crankshaft Woodruff Key	\$14.00	2	\$28.00	\$28.00	\$28.00	
Torque Plate Bolts	\$3.00	2	\$6.00	\$6.00	\$6.00	
Crankshaft2Flywheel Bolts	\$3.00	1	\$3.00	\$3.00	\$3.00	
Connecting Rod Machining	\$10.00	8	\$80.00	\$80.00		
Connecting Rod Bearings	\$50.00	1	\$50.00	\$42.50		\$42.50
Connecting Rod Bolts	\$4.95	16	\$79.20	\$79.20	\$79.20	
Piston Ring Set	\$10.00	9	\$90.00	\$90.00		\$90.00
Oil Pan Gasket	\$25.00	1	\$25.00	\$0.00		\$0.00
Oil Pan Grommet	\$11.00	1	\$11.00	\$11.00	\$11.00	
<b>Front Cover</b>						
Front Cover Gasket	\$10.00	1	\$10.00	\$0.00		\$0.00
Oil Pump Gear	\$120.00	1	\$120.00	\$119.00		\$119.00
Oil Pickup O-Ring	\$2.00	1	\$2.00	\$0.00		\$0.00
Camshaft Sprocket	\$34.00	1	\$34.00	\$34.00		\$20.00
Camshaft Sprocket Bolt	\$6.00	1	\$6.00	\$6.00	\$6.00	
Camshaft End Cap	\$5.00	1	\$5.00	\$5.00		
Crankshaft Sprocket	\$33.00	1	\$33.00	\$10.00		\$10.00
Timing Chain	\$55.00	1	\$55.00	\$20.00		\$20.00
Water Pump	\$50.00	1	\$50.00	\$0.00		
Water Pump Thermostat	\$48.00	1	\$48.00	\$48.00	\$48.00	
Water Pump Gasket	\$10.00	1	\$10.00	\$0.00		\$0.00
<b>Top End</b>						
Camshaft Polish	\$25.00	1	\$25.00	\$0.00		
Camshaft Thrust Plate	\$11.00	1	\$11.00	\$11.00		\$11.00

Valve Steam Seals	\$3.00	20	\$60.00	\$0.00	\$0.00
Head Gasket	\$102.00	1	\$102.00	\$102.00	\$102.00
Head Gasket Bolt	\$4.00	20	\$80.00	\$0.00	\$0.00
Valve Cover Gasket	\$10.00	2	\$20.00	\$0.00	\$0.00
Exhaust Gasket	\$5.00	4	\$20.00	\$0.00	\$0.00
Injector O-Rings	\$2.00	8	\$16.00	\$0.00	\$0.00
Intake Valley Gasket	\$20.00	1	\$20.00	\$0.00	\$10.00
Intake Plenum Gasket	\$10.00	1	\$10.00	\$10.00	\$10.00
Exhaust Gasket - Engine2Manifold	\$10.00	4	\$40.00	\$0.00	\$0.00
Exhaust Gasket - Manifold2DownPipe	\$8.00	2	\$16.00	\$16.00	\$16.00
Exhaust Stud - Manifold2DownPipe	\$4.00	3	\$12.00	\$12.00	\$12.00
Exhaust Nut - Manifold2DownPipe	\$4.00	3	\$12.00	\$12.00	\$12.00
Re-Deck Heads	\$35.00	2	\$70.00	\$70.00	
<b>Other</b>					
Repair Alternator Bracket	\$35.00	1	\$35.00	\$40.00	
Serpentine Belt	\$30.00	1	\$30.00	\$0.00	
Loctite 222 (pink)	\$12.00	1	\$12.00	\$12.00	
Hylomar PL32 Medium	26	1	\$26.00	\$26.00	
Shell Retinax LX grease	15	1	\$15.00	\$15.00	
GM Engine Oil Supplement (EOS)	\$25.00	1	\$25.00	\$25.00	
Redline Assembly Lube	\$10.00	1	\$10.00	\$8.00	
Moroso Ceramic Block Seal	\$20.00	1	\$20.00	\$20.00	
Chemdip	\$18.00	1	\$18.00	\$18.00	

Plastigauge	\$2.00	2	\$4.00	\$4.00		
Other	\$0.00	0	\$0.00	\$0.00		
<b>Subtotal - Parts</b>			<b>\$3,260.70</b>	<b>\$2,751.70</b>	<b>\$254.70</b>	<b>\$545.00</b>
<b>Tools</b>						
Ring Compressor	\$15.00	1	\$15.00	\$15.00		
Ring Expander	\$5.00	1	\$5.00	\$5.00		
Harmonic Balancer Installer	\$15.00	1	\$15.00	\$15.00		
Oil Pressure Gauge	\$25.00	1	\$25.00	\$25.00		
Other	\$0.00	0	\$0.00	\$0.00		
<b>Subtotal - Tools</b>			<b>\$60.00</b>	<b>\$60.00</b>		
<b>Total</b>			<b>\$3,320.70</b>	<b>\$2,811.70</b>		

eBay Notes

Q&E Anaheim, \$1,500, \$40 shipping ea. way UPS (75 pounds with packaging)

From Home Depot

From Home Depot; used to reinforce the bottom and sides of the box used to ship the block to CA

Austin Machine Shop

STC4299

ARP 157-5401/5001

<http://www.roverparts.com/Parts/ERR3330G>

<http://www.roverparts.com/Parts/ERR3331G>

incl. in oil pump kit, but under advice of Q&E, used a Land Rover Original part; set with Shell Retinax LX grease

<http://www.roverparts.com/Parts/ERR2640G>; under advice of Q&E, used a Land Rover Original part

<http://www.roverparts.com/Parts/LUN000010>; under advice of Q&E, used a Land Rover Original part

spares; didn't need them

spares; didn't need them

spare; didn't need

Austin Machine Shop

STC1426

RLParts, British Atlantic

STC1427; 8 + 1 spare

included in oil pump gear kit

<http://www.roverparts.com/Parts/ERR7229G>

B-A Kit includes gear, front seal, oil pan/front cover/water pump gaskets, pickup o-ring; Loctite222 required

B-A Kit includes gear, front seal, oil pan/front cover/water pump gaskets, pickup o-ring; Loctite222 required

B-A Kit includes gear, front seal, oil pan/front cover/water pump gaskets, pickup o-ring; Loctite222 required

\$129.97

From Land Rover Dealer; Didn't realize that Q&E didn't realize Q&E didn't install one until we put the cam in

\$0.00

\$0.00

\$0.00

hot climate 182 degree to replace 195 degree version

B-A Kit includes gear, front seal, oil pan/front cover/water pump gaskets, pickup o-ring; Loctite222 required

\$0.00

Austin Machine Shop

<http://www.roverparts.com/Parts/ERR2609G>

Kit incl valve cover, head, exhaust, intake gaskets, head bolts, valve stem seals, various other gaskets

Kit incl valve cover, head, exhaust, intake gaskets, head bolts, valve stem seals, various other gaskets

Kit incl valve cover, head, exhaust, intake gaskets, head bolts, valve stem seals, various other gaskets

Kit incl valve cover, head, exhaust, intake gaskets, head bolts, valve stem seals, various other gaskets

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Kit incl valve cover, head, exhaust, intake gaskets, head bolts, valve stem seals, various other gaskets

#### Austin Machine Shop

\$40.00 rather than repair original, bought a used replacement on eBay  
Used old one (fingers crossed)

Specified for oil pump gear retainer, used a few other places on the engine; also used on the screws holding the rocker cover baffles on (what a stupid design -- those are just waiting to fall into the engine) eBay; aircraft grade (Rolls Royce no less!), specified for gasket sealing (especially for the rear crank crucifix seals); not sure if permatex would have been OK, but followed the shop guide to the

\$26.00 letter

new service Shell Gadus S3 V220C;

<http://www.southernlubricants.co.uk/aqadmin/media/uploads/50ec13a5c9e00/New%20Grades%20upgrade.pdf>; not sure if any grease

\$15.00 would have been OK, but followed the shop guide to the letter

for lubrication during assembly and break-in; from Jegs  
for break-in; from Jegs

From Jegs; Insurance policy to fill any microcracks remaining in the block; did after engine was installed and running but before we put in any antifreeze; followed instructions to the letter

Walmart; for cleaning carbon and varnish off small engine parts, including especially the pistons, rods, main bearing caps, valves and valve springs and collets, etc.

for confirming that bearings surfaces were all still within allowed clearances after all the machining; most clearances were are the midpoint of the tolerance ranges specified in the shop manual

**\$169.97**

Harbor Freight

Harbor Freight

Bought a 3' rod of 5/8"(?) fine thread and a couple of nuts to pull the balancer on rather than risk using the crankshaft pulling bolt, which may not have enough "bite" and could strip. Crankshaft pulley slid on easily, so never used this "tool"

Harbor Freight; wanted to assure pressure at first crank (got 55psi right away at startup)