

REPLACEMENT PARTS LIST - CONTRACT W535-AC-8131

<u>Part No.</u>	<u>Part Name and Description</u>	<u>No. of Units</u>	<u>Unit Price</u>	<u>Total</u>
503686	<p>Crankcase assembly Several cracks appeared on the main bearing pads. This failure was undoubtedly due to fatigue as the crankcase had been subjected to 20 hours running at 3000 RPM. A new crankcase has been ordered with strengthened webs and two ribs running from the under side of the bearing pads to the crankcase deck. The future change in design is described in conference report dated December 19, 1936 Serial No. E-57-285-52. This replacement crankcase was on hand as part of contract W535-AC-6090 and included all the detail parts as called for on Air Corps Parts List pages 43886 to 43888. Replaced with new complete assembly.</p>	1		Government Property
501013	<p>Bushing 1-1/4 I.D. x 1-15/32 O.D. x 1-3/8 Shouldered. This bushing was scratched a little and was replaced with a new type having a 3/16" annular groove on the inside and no groove on the O.D. This type of grooving has proven satisfactory elsewhere in the engine and should provide better cooling of the bearing. Replaced with new part.</p>	1	10.26	10.26
503508	<p>Housing - reduction gear rear In order to eliminate any possibility of mis-alignment the housing was bored in assembly with the crankcase for bushing number 501013. Re-work present housing.</p>	1	22.44	22.44
503610	Bearing - connecting rod and cap.			
503611	<p>The lead bronze has been pounded out near the parting line on the outside that forms the bearing for the blade rod. This condition has been evident for some time and has constantly been getting worse. As at this point there is very little load on the bearing it is believed that the above condition is a function of the pinch and fit of the bearing. This surface had been slightly relieved some time ago but the bearing continued to get worse. The inside of the bearings was in good condition and the ones with the 360°</p>			

REPLACEMENT PARTS LIST - CONTRACT W635-AC-8131

<u>Part No.</u>	<u>Part Name and Description</u>	<u>No. of Units</u>	<u>Unit Price</u>	<u>Total</u>
503610 503611 (cont)	annular groove were definitely in better condition. Four of the worst bearings were replaced with new ones and a careful check of the pinch made. Replaced bearings on rods 1, 2, 3, and 5.	4 pr.	33.16	132.64
503632	Cylinder assembly Cylinder No. 3R was slightly scored this was refinished by hand lapping.	1	No Charge	
500584	Coolant outlet The standard coolant outlet elbows part number 503723 were replaced with a special part providing thermocouple connections in order that the temperature of the coolant outlet from each cylinder might be measured. Testing equipment.	12	No Charge	
503784	Piston Ring - Compression The compression rings on piston 3R were scored and were replaced with a new set of the same type.. No Charge	3	.26	.78
503842	Piston ring - 3/32 Bevel Oil Scraper In order to further cut down the oil consumption a set of new oil rings was installed. This set-up consists of two 3/32 American Hammered specially manufactured rings having a small groove and twelve scallops on the sides with the upper corners beveled and rounded off.	24	.52	12.48
503785	Pin - Piston Ring Pins in the top groove of piston 6L and the second groove of piston 3R were loosened. Replaced with new part fitting tighter in piston.	2	1.14	<u>2.28</u>
Total of Replacement Parts List dated 12-16-36				\$180.88

RECAPITULATION

Replacement parts previously reported	\$5,829.24
Total of Replacement Parts List dated 12-15-36	<u>180.88</u>
Total Replacement Parts listed to Date 12-15-36	\$6,010.12
Spare Parts Contract W535-AC-8188 P.O. 37-1091 Invoiced 9-16-36	<u>3,372.11</u>
Total Government liability to date, 12-15-36, over and above the amount specified in Article 17, as provided for in paragraph #3d, Item 3 of Article 15, subject contract	
	\$2,638.01

AIR CORPS INSPECTOR'S CERTIFICATE

I certify that the articles listed on pages one and two of this report dated 12-15-36 were inspected and accepted by me in the quantities stated, and that they conform to the contract requirements for articles and parts used in the subject engine, and that the above replacement articles and parts were necessary for the continued operation of the subject engine.

Silas C. Snyder
 Inspector's Signature

12-31-36
 Date

Procurement Inspector
 U. S. Army Air Corps
 Title and Rank