

REPLACEMENT PARTS LIST - CONTRACT W535-AC-8131

<u>Part No.</u>	<u>Part Name and Description</u>	<u>No. Units</u>	<u>Unit Price</u>	<u>Total</u>
503686	<b>Crankcase Assembly</b> Cracks appeared in the diaphragm after five hours of endurance running as described in detail in E.S.M.R. No. B-57-285-57 dated February 13, 1937. This crankcase was replaced complete including all the detail parts as called for on Air Corps Parts List pages 43886 to 43888 as ordered on Contract W535-AC-9639, P.O. 37-3435. Replaced with new assembly.	1		Government property
500621 500622	<b>Bearing - crankshaft right and left Intermediate and rear</b> In order to prevent assembly error, the dowels were moved in the new crankcase, thus necessitating a new set of bearings. Due to a "Sit-Down Strike" at the Bohn Aluminum Co., these bearings were ordered from Federal Mogul Company to be made of Cadmium silver. This was done to avoid delay and required new tools and fixtures. New bearings.	5 pair	41.34	206.70
500674 500675	<b>Bearing, crankshaft, right and left front</b> See explanation above under part number 500621 and 500622. New bearings	1 pair	41.34	41.34
500672 500673	<b>Bearing, crankshaft right and left thrust</b> See explanation above under part number 500621 and 500622. New bearings	1 pair	70.62	70.62
500671	<b>Liner, crankcase accessory drive bracket pilot.</b> The pilot on the accessory drive bracket had been galling on the old crankcase and the new one was provided with a steel liner to prevent this. One new liner.	1	18.36	18.36
500569	<b>Shaft, crankshaft reduction gear drive.</b> To decrease the torsional vibration in the crankshaft a damper was installed as shown on assembly drawing 500579. This necessitated a new quill shaft. Replaced from stock on hand as part of Spare Parts Contract W535-AC-9060.	1		Government property
503508	<b>Housing - reduction gear rear</b> The installation of the vibration damper necessitated a new reduction gear housing having a larger bearing for the reduction gear idler. This was replaced from stock on hand as part of Spare Parts Contract W535-AC-9060.	1		Government property

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<u>Part No.</u>	<u>Part Name and Description</u>	<u>No.of Units</u>	<u>Unit Price</u>	<u>Total</u>
500570	Pinion - reduction gear The vibration damper necessitated a change in design of the above gear. This was taken from the Spare Parts Stock on hand as part of Contract W535-AC-9060.	1		Government property
503558	Gear - reduction gear large idler As the reduction gears come in sets, lapped together, the addition of a new pinion for the vibration damper required a new idler gear which was taken from stock on hand as part of Spare Parts Contract W535-AC-9060.	1		Government property
503559	Gear - reduction gear small idler As the reduction gears come in sets lapped together, the addition of a new pinion for the vibration damper required a new small idler which was on hand as part of Spare Parts contract W535-AC-9060.	1		Government property
503559	Gear - reduction gear small idler Re-machined to latest change to provide for re-inforcing plugs as shown on assy drawing number 500610. Re-machine present part.	1	23.75	23.75
503570	Gear - propeller shaft As the reduction gears come in sets lapped together, the addition of a new pinion for the vibration damper required a new propeller shaft gear, which was on hand as part of Spare Parts Contract W535-AC-9060.	1		Government property.
500573	Gear - accessory drive shaft drive. The vibration damper necessitated a change in design of the above gear. This was taken from the Spare Parts stock on hand as part of Contract W535-AC-9060.	1		Government property.
500609	Re-inforcing plug, small reduction gear idler Previous running disclosed the necessity of the addition of re-inforcing plugs on reduction gear small idler (Progress report dated 10-31-36 Page 2). New part as per blue print 500609 and assembly drawing 500610.	2	15.66	31.32

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<u>Part No.</u>	<u>Part Name and Description</u>	<u>No.of Units</u>	<u>Unit Price</u>	<u>Total</u>
501024	Bolt - 3/8-24 x 1-1/32 drilled special The assembly of the new reduction gear large idler part number 503558 to the new reduction gear small idler part number 503559 required new bolts.	8	3.21	25.68
503566	Shaft - propeller The original propeller shaft had a slight crack at the outer edge of the gear flange. It was replaced with a new part from Spare Parts stock on hand as part of Contract W535-AC-9060.	1	Government property	
500611	Bolt - 3/8-24 x 1-1/32 drilled special concentric head. The assembly of the new propeller shaft gear part number 503570 to the propeller shaft 503566 required new bolts.	8	3.21	25.68
503571	Plug - propeller shaft oil A new plug was assembled in the new propeller shaft, taken from Spare Parts stock on hand as part of Contract W535- AC-9060.	1	Government property	
503603	Bearing - propeller shaft inner A new inner bearing was assembled in the new propeller shaft. Taken from Spare Parts stock on hand as part of Contract W535-AC-9060.	1	Government property	
500574	Nut - 3-1/8-16 x 3/8 spanner Vibration damper, new part.	1	18.36	18.36
500575	Disc - inner friction Vibration damper, new part	1	8.05	8.05
500576	Disc - internal spline friction Vibration damper, new part	6	7.15	42.90
500577	Disc - external spline friction Vibration damper, new part.	6	5.85	35.10
500578	Disc - outer friction Vibration damper, new part	1	7.45	7.45
500582	Spring - vibration damper Vibration damper, new part.	12	.55	6.60

REPLACEMENT PARTS LIST - CONTRACT W635-AC-8131

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<u>Part No.</u>	<u>Part Name and Description</u>	<u>No.of Units</u>	<u>Unit Price</u>	<u>Total</u>
500681	Bolt assembly - vibration damper Vibration damper, new parts	1	35.69	35.69
500586	Disc - external spline friction In order to check the wear on various materials, the above discs were made of No. 67 bronze to replace part number 500577 made of No. 77 bronze. Vibration damper new parts.	6	5.85	35.10
500583	Disc - external spline friction In order to check the wear on various materials, the above discs were made of woven asbestos clutch lining replacing part number 500577 made from No. 77 bronze. Vibration damper, new parts	4	5.85	23.40
500663	Flange - manifold intake pipe. The original flanges continued to leak around the flange joint and a new design was made giving more flexibility, to prevent the breaking of the intake pipes, and to provide a more satisfactory seal at the flange. New design parts.	12	5.15	61.80
500664	Nut - intake gland packing The new intake manifold flange required a new packing nut. New design parts.	12	5.60	67.20
500665	Packing - intake pipe gland The new intake manifold flange required a new type of rubber packing. New design parts.	12.	<u>.40</u>	<u>4.80</u>

Total of Replacement Parts List dated 4-15-37 ..... \$789.90

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RECAPITULATION

Replacement parts previously reported .....\$8,611.95  
Total of Replacement Parts List dated 4-15-37 ..... 789.90

Total Replacement Parts listed to date 4-15-37 .....\$9,401.85

Spare Parts Contract W535-AC-8131  
P.O. 37-1091 Invoiced 9-16-36 .....\$3,372.11

Spare Parts Contract W535-AC-9573  
P.O. 37-3057 Invoiced 1-9-37 ..... 2,457.13

Spare Parts Contract W535-AC-9785  
P.O. 37-4358 Invoiced 4-8-37 ..... 2,776.95

Total Replacement Parts Invoiced to date 4-15-37 ..... 8,606.19

Total Government liability to date, 4-15-37, over and above the amount specified in article 17, as provided for in paragraph #3d, Item 3 of article 15, subject contract ..... \$ 795.66

Air Corps Inspector's Certificate

I certify that the articles listed on pages one through four of this report dated 4-15-37 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.

  
\_\_\_\_\_  
Inspector's Signature

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

5-10-37  
Date