

REPLACEMENT PARTS LIST - CONTRACT W535-AC-8131

Progress Report Date	Part No.	Part Name and Description	No. of Units	Unit Price	Total
7-31-36	503785	Pin - piston ring. Pin became loose in piston, replaced with new part fitted tighter in piston.	2	1.14	2.28
7-31-36	501052	Bushing 1-1/2 I.D. x 1-11/16 O.D. x 1-3/8. Bushing was scored possibly due to dirt. This bushing had been replaced before and the trouble is definitely due to dirt which may be coming from the by-pass around the Cuno. Replaced with new bushing with a groove added.	1	9.24	9.24
7-31-36	501048	Bushing 7/8 I.D. x 1-3/32 O.D. x 1-1/16. Bushing was scored possibly due to dirt. Replaced with new bushing with added groove.	1	8.53	8.53
7-31-36	501054	Pin 5/16 dia. x 17/32 long. Main bearing dowel pin was not extending far enough from case, replaced with one 1/16 longer	1	.48	.48
7-31-36	503569	Filter assembly (Cuno). Bypass valve was definitely closed with brass plug to eliminate any chance of dirty oil by-passing the cleaner.	1	3.47	3.47
7-31-36	501006	Key - 1/8 x 3/16 x 5/8. Magneto idler shaft key loosened up in gear. Replaced with tighter fitting key of same material	1	1.53	1.53
7-31-36	Tool #47	Nose press. Fixture made to press the propeller shaft from the front thrust bearing in dis-assembly.	1	No Charge	

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7-31-36	500549	Gear - camshaft drive inner. This gear replaced gear, part number 503655 which was made from SAE 2512 steel case hardened. It had become pitted and was getting worse under continued running. This may have been partly due to improper tooth contact as one set (there are two in the engine) seemed to be much worse than the other and it showed bearing on only about three quarters of the tooth. However as this gear takes considerable punishment, it was deemed advisable to replace with the same design made from nitralloy "G" steel which while difficult to manufacture, allows the maximum tooth loading. Only one set was changed at this time as the other set was not worn enough to warrant replacement.	1	183.10	183.10
7-31-36	500550	Gear - camshaft drive idler bevel. This gear made from nitralloy "G" steel replaced gear number 503549 made from SAE 2512. See explanation for part number 500549.	1	92.89	92.89
7-31-36	503648	Roller - valve rocker. Used on cylinder number 3 L picked up on O.D. Replaced with new part, no change	1	2.30	2.30
7-31-36	501024	Bolt 3/8-24 x 1-1/32 drilled special. Used on propeller shaft to reduction gear. One broken at head and three others cracked at head, caused by chamfer in shaft being too small which cut into the radius at the head of the bolt. All bolts were replaced new after chamfer on shaft had been repaired.	8	3.21	25.68

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7-31-36	503566	Shaft propeller. Chamfer for bolt 501024 enlarged in c'bore	1	5.40	5.40
7-31-36	503787	Spark plug. All spark plugs were fouled and as they had been in continuous use since the engine was first assembled they were all replaced with B.G. #157 plugs.	24	1.54	36.96
7-31-36	501006	Key 1/8 x 3/16 x 5/8. This key which was replaced before the previous run, again loosened up. Replaced with new key made to fit tight on the shaft	1	1.53	1.53
7-31-36	503632	Cylinder assembly. Number 6L cylinder was very slightly scored all the way around. This was hand lapped to a smooth surface.	1	No Charge	
7-31-36	503721	Spring. Valve spring was broken at the third coil. This is the first failure of a spring and from its appearance it had been fluttering. Replaced with spring of same design, no change.	1	.31	.31
7-31-36	503807	Gasket - manifold intake pipe In shutting down the engine a backfire occurred which blew out several of the above gaskets. All were replaced new, no change.	12	No Charge	
7-31-36	503803	Gasket - cylinder intake pipe flange. In shutting down the engine a backfire occurred which blew out several of the above gaskets. All were replaced new, no change.	12	No Charge.	

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Progress Report Date	Part No.	Part Name and Description	No. of Units	Unit Price	Total
7-31-36	503785	Pin - piston ring. Pin became loose in piston 6L second ring, replaced with new part fitting tighter in piston.	1	1.14	1.14
7-31-36	503784	Ring - piston compression. The original rings were worn slightly as they had over 100 hours running and had been subjected to water in the oil. All were replaced with the same design (American Hammered Company) except for a 45° angle cut at the gap	36	.26	9.36
7-31-36	500553	Ring - piston bevel scraper. All rings were slightly worn and were replaced with new set	12	.72	8.64
Total of Replacement Parts List dated 7-31-36					\$ 392.84

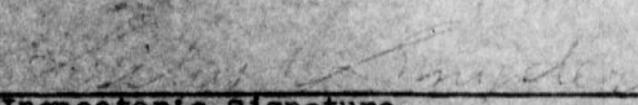
RECAPITULATION

Total of Replacement Parts List dated 6-15-36.....	\$1,668.73
Total of Replacement Parts List dated 6-30-36.....	1,703.38
Total of Replacement Parts List dated 7-15-36.....	0.000.00
Total of Replacement Parts List dated 7-31-36.....	<u>392.84</u>
Total Government liability to date, 7-31-36; over and above the amount specified in Article 17, as provided for in paragraph #3d, Item 3 of Article 15, subject contract.....	
	\$3,764.95

AIR CORPS INSPECTOR'S CERTIFICATE

I certify that the articles listed on pages one to four inclusive of this report dated 7-31-36 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.



Inspector's Signature

Procurement Inspector
U. S. Army Air Corps

Title and Rank

8-8-36
Date