

Service Letter

Experimental

Number: L03-04 D
Replaces L03-04C

Date: 01/21/2006

Subject: Induction Kit Installation for Lightweight Sumps

Application:

| Item | Part Number | Description | Experimental Engine Application | | |
|------|---------------|--|---------------------------------|-----|-----|
| | | | 320 | 360 | 361 |
| 1 | SV70488 | Intake Tube – 320 Parallel Valve Engines | 4 | | |
| | SV70486 | Intake Tube – 360 Parallel Valve Engines | | 4 | |
| | SV70487 | Intake Tube – 361 Angle Valve Engines | | | 4 |
| 2 | SL69603 | Intake Hose | 4 | 4 | 4 |
| 3 | SL73346 | Intake Flange | 4 | 4 | 4 |
| 4 | SL71973 | Intake Flange Gasket | 4 | 4 | 4 |
| 5 | NAS1149F0463P | Flat Washer – 1/4 in | 8 | 8 | 8 |
| 6 | MS35333-40 | Lock Washer – 1/4 in | 8 | 8 | 8 |
| 7 | MS90725-10 | Bolt – 1/4-20UNC x 1-1/4 | 8 | 8 | 8 |
| 8 | MS35842-13 | Hose Clamp | 8 | 8 | 8 |

Compliance:

These Superior Induction System Kits are for EXPERIMENTAL AIRCRAFT USE ONLY with Superior's Lightweight Sump Assemblies. They are to be installed, operated and maintained in accordance with Superior Air Parts Service Letters, Service Bulletins and Operator's Manuals where appropriate. Failure to comply with these instructions may result in unsafe engine operation.

Installation:

1. Inspect Induction System Kit components for general condition, handling damage and sealing surface condition.
2. Assemble one (1) rubber hose (item 2) and two (2) hose clamps (item 8) to each of the intake tubes (item 1) of the Lightweight Sump Assembly. Note: The clearance between the intake tube for cylinder #3 and the sump oil drain boss is minimal. Pre-assembly of the hose clamps onto the rubber hose prior to assembly onto the intake tube will make the installation easier.
3. Pre-assemble one (1) intake flange (item 3) onto each intake tube (item 1) and insert into each of the rubber hoses (ref. step 2).

4. Using one (1) intake flange gasket (item 4), attach the intake flange to the cylinder head for each of the intake tubes using two (2) each 1/4-20 bolts (item 7), flat washers (item 5) and lock washers (item 6). Tighten bolts to 96-108 in-lb.
5. Tighten hose clamps to 45 in-lb.

Maintenance:

The Superior Induction System Kits require little routine maintenance. It is recommended that after the first five (5) hours of operation the bolts and hose clamps be checked for proper torque. If the torque does not meet the specifications above, tighten as required.

Reference Documents:

The following documents may provide additional information helpful to the completion of the work outlined in this service letter.

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| L03-06 | Lightweight Sump Installation Instructions |
| L05-07 | Engine Starting Instructions for Installations with Electronic Ignitions and Lightweight Sumps |