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# SERVICE INSTRUCTION

DATE: March 21, 2019

Service Instruction No. 1415A  
(Supersedes Service Instruction No. 1415)  
Engineering Aspects are  
FAA Approved

SUBJECT: New Turbocharger Mounting Hardware

MODELS AFFECTED: TO-360-C and -F series engines

TIME OF COMPLIANCE: At owner's discretion or when part replacement is necessary.

REASON FOR REVISION: Revision A is being released to update the P/N of the strut assembly and various hardware P/N's along with reformatting of the service instruction.

**NOTICE:** Incomplete review of all the information in this document can cause errors. Read the entire Service Instruction to make sure you have a complete understanding of the requirements.

This Service Instruction identifies a new mount assembly P/N LW-18605, a new one-piece turbocharger bracket P/N LW-16757 and adjustable strut assembly P/N 07F23147 that are to be installed on TO-360-C and -F series engines.

The new bracket and strut arrangement will install at the same locations on the crankcase and accessory housing as the original mount system. Each individual bracket, strut, or mount assembly from this new system are compatible with the part or parts installed on the original mounting system. The new parts replace the superseded parts identified in Table 1.

The new bracket and strut are adapted for all engines identified in this Service Instruction. This new mounting arrangement gives a more stable mount and includes an adjustable strut for improved alignment of the mounting components. Installation instructions for the new parts also are included herein.

**Table 1  
Superseded Parts**

Superseded Parts		New Replacement Parts	
Part Name	Part Number	Part Name	Part Number
Compressor Inlet Mount Assembly	LW-13961	Compressor Inlet Mount Assembly	LW-18605
Turbocharger Bracket	LW-15770	Turbocharger Bracket	LW-16757
Strut Assembly	LW-18607	Strut Assembly	07F23147

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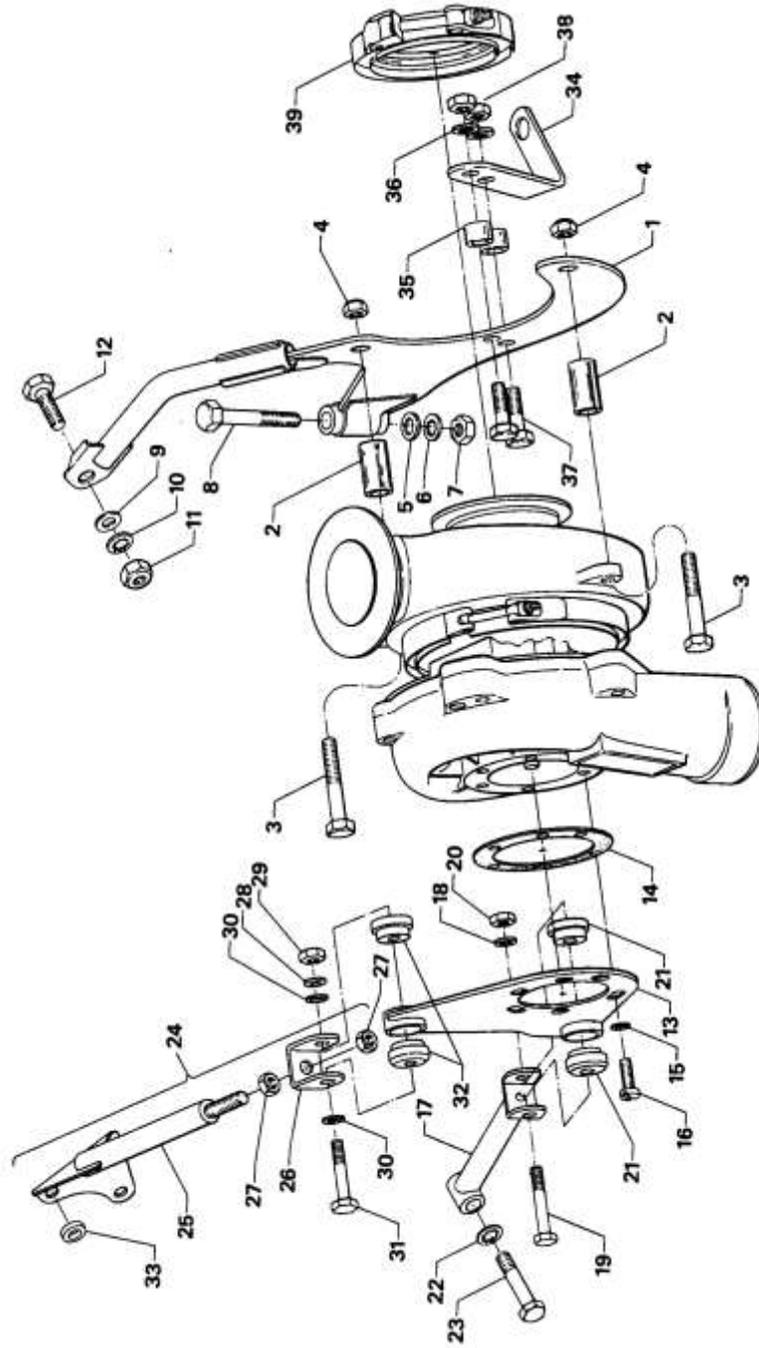
## **Installation Instructions**

All the components and attaching parts must be installed as shown in Figure 1.

Parts from the original mounting system that are to be used with the new mounting arrangement are in Table 2.

1. Remove and discard the mount assembly P/N LW-13961.
2. Install new mount assembly.
3. Install all mounting components.
4. Install all attaching parts.
5. Torque the mounting hardware as per the torque values in the latest revision of SSP-1776 Table of Limits.
6. Adjust the new strut assembly P/N 07F23147 to a no-load condition.
7. Safety the screws P/N STD-82 used to attach the mount assembly P/N LW-18605 and the gasket P/N LW-13476 to the compressor inlet of the turbocharger unit. The screws can be safety wired in sets of 3 or all 6 can be safety wired together.

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NOTE:  
See parts legend on next page.

Figure 1  
New Turbocharger Mounting Components and Related Parts

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LEGEND FOR FIGURE 1

FIG. REF. 1	PART NUMBER	DESCRIPTION	QTY PER ASSY	Where Used
1	*LW-16757	BRACKET, Turbo	1	
2	*LW-16760	SPOOL, turbo	2	Attach P/N LW-16757 bracket to turbo
3	*LW-31SS-2.50	BOLT, .3125-18 x 2.50 long	2	
4	*STD-2043	NUT, .3125-18, self-locking	2	
5	STD-8	WASHER, .250 plain	1	
6	STD-160	WASHER, .250 internal lock	1	
7	STD-1411	NUT, .250 -plain	1	
8	*LW-25-2.69	BOLT, .250-20 x 2.69 long	1	
9	STD-35	WASHER, .3125 plain	1	Attach P/N LW-16757 bracket to crankcase
10	STD-475	WASHER, .3125 internal lock	1	
11	STD-1410	NUT, .3125-18 plain	1	
12	LW-31-1.16	BOLT, .3125-18 x 1.16 long	1	
13	*LW-18605	MOUNT ASSEMBLY	1	
14	LW-13476	GASKET	1	
15	STD-28	WASHER, No. 10 plain	6	Attach P/N LW-18605 mount and P/N LW-13476 gasket to turbo
16	STD-82	SCREW, No. 10-24 x .50 long drilled	6	
17	LW-13957	STRUT, Turbocharger	1	
18	STD-160	WASHER, .250 internal lock	1	Attach P/N LW-13957to P/N LW-13476 or P/N LW-18605
19	LW-25-1.50	BOLT, .250-20 x 1.50 long	1	
20	STD-1411	NUT, .250 plain	1	
21	**LW-15692	BUSHING, Turbocharger mount	2	
22	STD-475	WASHER, .3125 internal lock	1	
23	LW-31-1.31	BOLT, .3125-18 x 1.31 long	1	Attach P/N LW-13957to sump
24	*07F23147	STRUT ASSEMBLY	1	
25	*07F23146	STRUT	1	These parts assemble to make P/N 07F23147
26	*LW-18603	SUPPORT	1	
27	*STD-596	NUT, .375-24 plain	2	
28	STD-160	WASHER, .250 internal lock	1	Attach P/N 07F23147 to P/N LW-13476 or P/N LW-18605
29	STD-1411	NUT, .250-20 plain	1	
30	*STD-2201	WASHER, .250 plain	2	
31	*LW-25-1.75	BOLT, .250-20 x 1.75 long	1	
32	**LW-15692	BUSHING, Turbo mount	2	
33	LW-15555	SPACER	1	See Service Bulletin No. 405
34	LW-13991	SUPPORT, Linkage control	1	
35	*LW-16759	SPACER, Support linkage control	2	Attach P/N LW-13991 support to P/N LW-16757 bracket
36	STD-160	WASHER, .250 internal lock	2	
37	*STD-811	SCREW, .250-28 x .63 long, hex hd.	2	
38	STD-9	NUT, .250 x 28 plain	2	
39	*LW-13464	CLAMP, 3-11/16 diameter	2	Attach exhaust system and tail pipe to turbocharger

\* These are new parts or parts not included in the original mounting system.

\*\* These parts are included with P/N LW-18605 Mount Assembly.

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**TABLE 2  
PARTS DATA**

Parts to Be Used with the New Mounting Arrangement

Part Number	Description	Where Used	Replaced By	Description	Fig. Ref.
LW-13956	Strut - Turbocharger	Attach P/N LW-15769 to sump flange	LW-16757	Bracket-Turbocharger	1
LW-13958	Strut - Turbocharger	Attach P/N LW-15769 to crankcase	LW-16757	Bracket-Turbocharger	1
LW-13959	Strut - Turbocharger	Attach P/N LW-13961 to vac pump	<b>07F23147</b>	Strut Assy.-Turbocharger	24
LW-15769	Mount Assembly - Bracket Turbo Outlet	Attach to exhaust flange of turbocharger	LW-16757	Bracket-Turbocharger	1
AN501-416-10	Screw - .250-28 x .63 long	Attach P/N LW-13991 to P/N LW-15769	STD-811	Screw- 2.50-28 x 1.13 long	37
STD-1838	Bolt - .3125-18 x .94 long	Attach P/N LW-14017 baffle to turbocharger	<b>LW-31SS-2.50</b>	Bolt- 3.125-18 x 2.50 Long Hex	3
STD-1885	Bolt - .250-20 x 1.64 long	Attach P/N LW-13956 to sump flange	<b>LW-25-2.69</b>	Bolt- .250-20 x 2.69 Long Hex	8
***LW-13961	Mount Assembly- Turbocharger Comp Inlet	Attach to intake flange of turbocharger	LW-18605	Mount Assy.- Turbocharger Comp Inlet	13

\*\*\* P/N LW-13961 is not adaptable to all engine installations, and availability of this mount assembly is being discontinued. Do not install a P/N LW-13961 mount assembly on any installation originally assembled with a P/N LW-18605 mount assembly.

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