

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

1E10
Revision No. 25
Lycoming Engines
IO-360-A1A, -A1B, -A1B6, -A1B6D, -A1C, -A1D, -A1D6, -A1D6D, -A2A, -A2B, -A2C, -A3B6, -A3B6D, -A3D6D, -B1A, -B1B, -B1C, -B1D, -B1E, -B1F, -B1F6, -B1G6 -B2E, -B2F, -B2F6, -B4A, -C1A, -C1B, -C1C, -C1C6, -C1D6, -C1E6, -C1E6D, -C1F, -C1G6, -D1A, -E1A, -F1A, -J1AD, -J1A6D, -K2A, -L2A, -M1A, -M1B, -N1A L1O-360-C1E6, -M1A A1O-360-A1A, -A1B, -A2A, -A2B, -B1B, AE1O-360-A1A, -A1B, -A1B6, -A1E6, -A1C, -A1D, -A1E, -A2A, -A2B, -A2C, -B1B, -B1D, -B1F, -B1F6, -B1G6, -B2F, -B2F6, -B1H, -B4A, -H1A, -H1B H1O-360-A1A, -A1B, -B1A, -B1B, -C1A, -C1B, -D1A, -E1AD, -E1BD, -F1AD, -G1A LH1O-360-C1A, -C1B, -F1AD
February 25, 2016

TYPE CERTIFICATE DATA SHEET NO. 1E10

Engines of models described herein conforming with this data sheet (which is a part of Type Certificate No. 1E10) and other approved data on file with the Federal Aviation Administration, meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Civil Air Regulations/Federal Aviation Regulations provided they are installed, operated and maintained as prescribed by the approved manufacturer's manuals and other approved instructions.

Type certificate holder                      Lycoming Engines,  
An Operating Division of AVCO Corporation  
652 Oliver Street  
Williamsport, Pennsylvania 17701

Type Certificate Holder Record              Textron Lycoming transferred TC 1E10 to Lycoming Engines, An Operating Division of  
AVCO Corporation on December 17, 2003

<b>Model</b>	<b>IO-360-A1A, -A1B, -A1B6, -A1B6D, -A1C, -A1D, -A1D6, -A1D6D, -A2A, -A2B, -A2C, -A3B6-A3B6D, -A3D6D, -C1A, -C1B, -C1C, -C1C6, -C1D6, -C1E6, -C1E6D, -C1F, -C1G6, -D1A, -J1AD, -J1A6D, -K2A, L1O-360-C1E6</b> <b>A1O-360-A1A, -A2A, -A1B, -B1B</b> <b>AE1O-360-A1A, -A1B, -A1B6, -A1C, -A1E, -A1E6, -A1D, -A2A, -A2B, -A2C</b>	<b>IO-360-B1A, -B1B, -B1D, -B1E, -B1F, -B1F6, -B2E, -B2F, -B2F6, -B1G6, -B4A, -E1A, -F1A, -M1A+, -M1B+, -N1A</b> <b>L1O-360-M1A</b> <b>AE1O-360-B1B, -B1D, -B1F, -B2F, -B4A, -B1F6, -B2F6, -B1G6,</b>
Type Rating	4 HOA Direct Drive	--
Maximum continuous, hp., r.p.m. full throttle at:		
Sea level pressure altitude	200-2700-S.L.	180-2700-S.L.
Takeoff (5 min.) Hp., r.p.m. full throttle at:		
Sea level pressure altitude	200-2700-S.L.	180-2700-S.L.
Fuel		
Minimum grade aviation gasoline	100/100LL♦	100/100LL♦
Temperature	—	—
Pressure	NOTE 2	--
Injector and pump	NOTE 7	--
Pump drive	NOTE 3	--

"- -" indicates "same as preceding models"

"—" indicates "does not apply"

♦ For alternate fuel grades, see the latest revision of Lycoming Service Instruction 1070

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Model (cont'd)	IO-360-A1A, -A1B, -A1B6, -A1B6D, -A1C, -A1D, -A1D6, -A1D6D, -A2A, -A2B, -A2C, -A3B6, -A3B6D, -A3D6D, -C1A, -C1B, -C1C, -C1C6, -C1D6, -C1E6, -C1E6D, -C1F, -C1G6, -D1A, -J1AD, -J1A6D, -K2A LIO-360-C1E6 AIO-360-A1A, -A2A, -A1B, -B1B AEIO-360-A1A, -A1B, -A1B6, -A1C, -A1E, -A1E6, -A1D, -A2A, -A2B, -A2C	IO-360-B1A, -B1B, -B1D, -B1E, -B1F, -B1F6, -B2E, -B2F, -B2F6, -B1G6, -B4A, -E1A, -F1A, -M1A+, -M1B+, -N1A LIO-360-M1A AEIO-360-B1B, -B1D, -B1F, -B2F, -B4A, -B1F6, -B2F6, -B1G6,
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## Oil, Lubrication

(Lubricants should conform to the specification as listed or to subsequent revisions thereto)	Lycoming Spec. No. 301 and Service Instruction 1014	--
Temperature	NOTE 1	--
Pressure	NOTE 2	--
Sump capacity, qt.	8	--
(Except AIO series)	AIO series - Dry Sump	—
Usable oil qt, (Except AEIO series)	6	--
Engine Position	NOTE 14	--
Usable oil qt., (AEIO series)	4	--
Ignition, dual		
Magnetos	NOTE 7	--
Timing °BTC	25*	25
Spark plugs	NOTE 4	--
Bore and stroke, in.	5.125 x 4.375	--
Displacement, cu. in.	361	--
Compression Ratio	8.7:1	8.5:1
Turbocharger	NOTE 9	--
Weight (dry) lb.	NOTE 7	--
C.G. Location (dry with starter and generator installed)	NOTE 7	--
Propeller shaft, SAE No. AS-127	Flange, Type 2 Modified	--
Crankshaft Dampers and Balancers	NOTE 12	--
NOTES	1,2,3,4,5,7,8,9,10,11,12,16	1,2,3,4,5,7,10,11,12,16

"- -" indicates "same as preceding models"

"—" indicates "does not apply"

+ (L)IO-360-M1A and M1B have an alternate rating of 160 BHP at 2400RPM

\* All models except IO-360-A1B6D and -A3B6D have optional timing of 20°BTC

Model	IO-360-B1C	IO-360-L2A*
Type Rating	4 HOA Direct Drive	--
Maximum continuous, hp., r.p.m. full throttle at:		
Sea level pressure altitude	177-2700-S.L.	160-2400-S.L.
Takeoff (5 min.) Hp., r.p.m. full throttle at:		
Sea level pressure altitude	177-2700-S.L.	160-2400-S.L.
Fuel		
Minimum grade aviation gasoline	100/100LL♦	--
Temperature	—	—
Pressure	NOTE 2	--
Injector and pump	NOTE 7	--
Pump drive	NOTE 3	--
Oil, Lubrication		
(Lubricants should conform to the specification as listed or to subsequent revisions thereto)	Lycoming Spec. No. 301 and Service Instruction 1014	--
Temperature	NOTE 1	--
Pressure	NOTE 2	--
Sump capacity, qt.	8	--
(Except AIO series)	—	—
Usable oil qt, (Except AEIO series)	6	--
Engine Position	NOTE 14	--
Usable oil qt., (AEIO series)	—	—
Ignition, dual		
Magnetos	NOTE 7	--
Timing °BTC	25	--
Spark plugs	NOTE 4	--
Bore and stroke, in.	5.125 x 4.375	--
Displacement, cu. in.	361	--
Compression Ratio	8.5:1	--
Turbocharger	—	—
Weight (dry) lb.	NOTE 7	--
C.G. Location (dry with starter and generator installed)	NOTE 7	--
Propeller shaft, SAE No. AS-127	Flange, Type 2 Modified	--
Crankshaft Dampers and Balancers	NOTE 12	--
NOTES	1,2,3,4,5,7,10,11,16	--

"- -" indicates "same as preceding models"

"—" indicates "does not apply"

\* This engine has an alternate rating of 180 HP @ 2700 RPM

♦ For alternate fuel grades, see the latest revision of Lycoming Service Instruction 1070

Model	AEIO-360-H1A,-H1B,-B1H
Type Rating	4 HOA Direct Drive
Maximum continuous, hp., r.p.m. full throttle at:	
Sea level pressure altitude	180-2700-S.L.
Takeoff (5 min.) Hp., r.p.m. full throttle at:	
Sea level pressure altitude	180-2700-S.L.
Fuel	
Minimum grade aviation gasoline	100/100LL♦
Temperature	—
Pressure	NOTE 2
Injector and pump	NOTE 7
Pump drive	NOTE 3
Oil, Lubrication	
(Lubricants should conform to the specification as listed or to subsequent revisions thereto)	Lycoming Spec. No. 301 and Service Instruction 1014
Temperature	NOTE 1
Pressure	NOTE 2
Sump capacity, qt.	8
(Except AIO series)	—
Usable oil qt, (Except AEIO series)	6
Engine Position	NOTE 14
Usable oil qt., (AEIO series)	4
Ignition, dual	
Magnetos	NOTE 7
Timing °BTC	25
Spark plugs	NOTE 4
Bore and stroke, in.	5.125 x 4.375
Displacement, cu. in.	361
Compression Ratio	8.5:1
Turbocharger	—
Weight (dry) lb.	NOTE 7
C.G. Location (dry with starter and generator installed)	NOTE 7
Propeller shaft, SAE No. AS-127	Flanged, Type 2 Modified
Crankshaft Dampers and Balancers	None
NOTES	1,2,3,4,5,7,8,10,

"- -" indicates "same as preceding models"

"—" indicates "does not apply"

♦ For alternate fuel grades, see the latest revision of Lycoming Service Instruction 1070

Model	HIO-360-A1A,-A1B	HIO-360-B1A, -B1B	HIO-360-C1A, -C1B, LHIO-360-C1A, -C1B
Type - 4 HOA Direct Drive			--
Rating			
Maximum continuous, hp., r.p.m.			
full throttle at:			
Sea level pressure altitude	180-2900-S.L. to 3900	180-2900S.L.	205-2900-S.L.
Takeoff (5 min.) Hp., r.p.m.			
full throttle at:			
Sea level pressure altitude	180-2900-S.L. to 3900	180-2900-S.L.	205-2900-S.L.
Fuel			
Minimum grade aviation gasoline	100/100LL <sup>♦</sup>	--	--
Temperature	—	—	—
Pressure	NOTE 2	--	--
Injector and pump	NOTE 7	--	--
Pump drive	NOTE 3	--	--
Oil, Lubrication			
(Lubricants should conform to the specification as listed or to subsequent revisions thereto)	Lycoming Spec. No. 301 and Service Instruction 1014	--	--
Temperature	NOTE 1	--	--
Pressure	NOTE 2	--	--
Sump capacity, qt.	8	--	--
(Except AIO series)			
Usable oil qt.	6	--	--
Engine Position			
30° nose up or down	NOTE 14	--	--
Ignition, dual			
Magnetos	NOTE 7	--	--
Timing °BTC	25	--	--*
Spark plugs	NOTE 4	--	--
Compression			
Bore and stroke, in.	5.125 x 4.375	--	--
Displacement, cu. in.	361	--	--
Ratio	8.7:1	8.5:1	8.7:1
Turbocharger	—	—	—
Weight (dry) lb.	NOTE 7	--	--
C.G. Location (dry with starter and generator installed)	NOTE 7	--	--
Propeller shaft, SAE No. AS-127	Flange, Type 2 Modified	--	--
Crankshaft Dampers and Balancers	NOTE 12	--	--
NOTES	1,2,3,4,6,7,8,10,11,12,14	--	--

"- -" indicates "same as preceding models"

"—" indicates "does not apply"

\* These models have an optional timing of 20°BTC

♦ For alternate fuel grades, see the latest revision of Lycoming Service Instruction 1070

Model	HIO-360-D1A	HIO-360-E1AD**, E1BD**	HIO-360-F1AD LHIO-360- F1AD	HIO-360-G1A
Type - 4 HOA Direct Drive				
Rating				
Maximum continuous, hp., r.p.m.				
full throttle at:				
Sea level pressure altitude	190-3200-S.L.	190-2900-S.L.	190 3050	180-2700-S.L.
Takeoff (5 min.) Hp., r.p.m.				
full throttle at:				
Sea level pressure altitude	190-3200-S.L.	190-2900-S.L.	190-3050	180-2700-S.L.
Fuel				
Minimum grade aviation gasoline	100/100LL♦	--	--	91/96♦
Temperature	—	—	—	—
Pressure	NOTE 2	--	--	--
Injector and pump	NOTE 7	--	--	--
Pump drive	NOTE 3	--	--	--
Oil, Lubrication				
(Lubricants should conform to the specification as listed or to subsequent revisions thereto)	Lycoming Spec. No. 301 and Service Instruction 1014	--	--	--
Temperature	NOTE 1	--	--	--
Pressure	NOTE 2	--	--	--
Sump capacity, qt. (Except AIO series)	8	--	--	--
Usable oil qt.	6	--	--	4
Engine Position				
30° nose up or down	NOTE 14	--	--	--
Ignition, dual				
Magnetos	NOTE 7	--	--	--
Timing °BTC	20	--	--	--
Spark plugs	NOTE 4	--	--	--
Compression				
Bore and stroke, in.	5.125 x 4375	--	--	--
Displacement, cu. in.	361	--	--	--
Ratio	10.0:1	8.00:1	--	--
Turbocharger	—	NOTE 13	NOTE 15	—
Weight (dry) lb.	NOTE 7	--	--	--
C.G. Location (dry with starter and generator installed)	NOTE 7	--	--	--
Propeller shaft, SAE No. AS-127	Flange, Type 2 Modified	--	--	--
Crankshaft Dampers and Balancers	NOTE 12	--	--	--
NOTES	1,2,3,4,6,7,8,10,11,12,14	1,2,3,4,6,7,8,10,11,12,13	1,2,3,4,6,7,8,10,11,12,13,15	1,2,3,4,6,7,8,11,12

"- -" indicates "same as preceding models"

"—" indicates "does not apply"

\*\* See NOTE 13

♦ For alternate fuel grades, see the latest revision of Lycoming Service Instruction 1070

## Certification basis:

Regulations & Amendments

CAR 13 effective June 15, 1956, as amended by 13-1, 13-2, 13-3

Model	Date of Application	Date Type Certificate No. 1E10 Issued/Revised
IO 360-B1A	March 29, 1960	September 30, 1960
IO-360-B1B	October 11, 1961	April 13, 1962
IO-360-A1A	July 27, 1962	July 19, 1963
HIO-360-B1A, -B1B	July 19, 1963	July 25, 1963
HIO-360-A1A	November 1, 1963	November 8, 1963
IO-360-A2A	November 20, 1963	December 27, 1963
IO-360-C1A	December 19, 1963	January 2, 1964
IO-360-B1C	September 19, 1963	March 5, 1964
HIO-360-C1A	March 23, 1964	May 4, 1964
IO-360-B1D	July 8, 1964	August 12, 1964
IO-360-A1B, -A2B	November 16, 1965	November 24, 1965
HIO-360-C1B	February 11, 1966	March 28, 1966
IO-360-C1B	February 28, 1966	March 28, 1966
IO-360-B1E	March 18, 1966	March 31, 1966
IO 360-D1A	April 22, 1966	April 27, 1966
IO 360-C1C	December 14, 1966	February 20, 1967
IO-360-A1C, -A2C, -E1A	January 10, 1967	January 25, 1967
AIO-360-A1A	February 7, 1967	November 20, 1967
IO-360-B1F	August 11, 1967	August 22, 1967
AIO-360-A1B, -A2A, -A2B	November 13, 1967	November 20, 1967
IO-360-B2F	January 5, 1968	January 17, 1968
IO-360-F1A	January 23, 1968	February 2, 1968
AIO-360-B1B	March 18, 1968	March 26, 1968
IO-360-B2F	December 17, 1968	January 7, 1969
IO-360-B4A	March 13, 1969	March 20, 1969
HIO-360-D1A	May 29, 1969	January 16, 1970
LIO-360-C1E6	March 18, 1970	April 9, 1970
IO-360-A1D6	March 25, 1970	April 9, 1970
IO-360-A1B6	March 26, 1970	April 9, 1970
IO-360-C1D6	September 15, 1970	September 28, 1970
IO 360-A1D	January 10, 1972	January 14, 1972
IO-360-A1B6D	February 7, 1972	February 14, 1972
IO-360-C1F	September 19, 1972	October 4, 1972
IO-360-B1F6, -B2F6	September 12, 1973	September 21, 1973
AEIO-360-A1A, -A2A, -A1B, -A2B, -A1C, -A2C, -A1B6, -A1D	March 25, 1974	April 8, 1974
AEIO-360-B1B, -B1D, -B1F, -B2F, -B1F6, -B2F6, -B4A	April 5, 1974	April 19, 1974
AEIO-360-B1G6	August 13, 1974	August 22, 1974
AEIO-360-H1A	August 26, 1974	September 6, 1974
LHIO-360-C1A, -C1B	December 18, 1974	December 26, 1974
IO-360-C1E6D	July 25, 1975	August 4, 1974
HIO-360 E1AD	July 3, 1975	December 3, 1975
IO-360 C1C6	November 11, 1976	November 16, 1976
IO 360-A3B6D	July 14, 1977	July 18, 1977
AEIO-360-A1E	March 7, 1979	March 21, 1979
HIO-360-E1BD	May 29, 1979	June 6, 1979
HIO-360 F1AD	February 22, 1979	June 27, 1979
LHIO-360-F1AD	February 22, 1979	June 27, 1979
IO-360-J1AD	January 23, 1981	February 24, 1981
IO-360-J1A6D	May 11, 1981	May 21, 1981
IO-360-K2A	October 14, 1983	November 29, 1983
IO-360-A1D6D	June 7, 1984	June 26, 1984
IO-360-A3D6D	November 1, 1985	November 12, 1985

## Certification basis:

Regulations & Amendments CAR 13 effective June 15, 1956, as amended by 13-1, 13-2, 13-3

<u>Model</u>	<u>Date of Application</u>	<u>Date Type Certificate No. 1E10 Issued/Revised</u>
IO 360-A3B6	May 19, 1992	May 27, 1992
HIO-360-A1B	July 15, 1992	July 29, 1992
AEIO-360-A1E6	April 28, 1993	May 21, 1993
AEIO-360-H1B	September 11, 1995	November 7, 1995
IO-360-L2A	February 7, 1996	March 19, 1996
IO-360-B1G6	October 17, 1996	January 2, 1997
AEIO-360-B1H	May 16, 1997	October 20, 1998
IO-360-C1G6	October 31, 1997	April 27, 1998
IO-360-M1A	December 23, 1998	May 11, 1999
HIO-360-G1A	May 10, 2002	June 18, 2002
IO-360-M1B	January 31, 2002	July 30, 2002

Regulations & Amendments FAR 33 effective February 1, 1965 As Amended by 33-1 through 33-20

<u>Date of Application</u>	<u>Date Type Certificate No. 1E10 Issued/Revised</u>
LIO-360-M1A	July 31, 2008

Regulations & Amendments FAR 33 effective February 1, 1965 As Amended by 33-1 through 33-24 (except 33.8 per CAR 13.16(c))

<u>Date of Application</u>	<u>Date Type Certificate No. 1E10 Issued/Revised</u>
IO-360-N1A	August 7, 2014

Production basis: Production Certificate No. 3

NOTE 1. Maximum permissible temperatures:

<u>Cylinder Head</u> (Well Type Thermocouple)	<u>Cylinder Base</u>	<u>Oil Inlet</u>
500°F	325°F	245°F (Except HIO-360-D1A, 260°)

(See NOTE 10 for Exceptions)

NOTE 2. Pressure limits:

Fuel:

	<u>Inlet to Fuel Pump</u>			<u>Inlet to Injector</u>		
	<u>Maximum</u>	<u>Minimum</u>	<u>Maximum with Injector Idle Cutoff</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Minimum Idle</u>
IO-360-A, -C (except C1F);-J,-K AIO 360-A, -B; AEIO-360-A; LIO-360-C	35 p.s.i.	-2 p.s.i.	55 p.s.i.	—	—	—
IO-360-B (except B1A, -B1C); -D, -E, -L, -M, -N; LIO-360-M1A AEIO-360-B, -H; HIO-360 (all models except -E, -F), LHIO-360-C	35 p.s.i.	-2 p.s.i.	—	—	—	—
IO-360-B1A	—	—	—	2 p.s.i.	-2 p.s.i.	—
IO-360-B1C	—	—	—	45 p.s.i.	14 p.s.i.	—
IO-360-C1F, -F1A (See NOTE 9)	45 p.s.i.	-2 p.s.i.	55 p.s.i.	45 p.s.i.	14 p.s.i.	12 p.s.i.
HIO-360-E1AD, -E1BD, -F1AD LHIO-360-F1AD	55 p.s.i.	-2 p.s.i.	—	55 p.s.i.	27 p.s.i.	12 p.s.i.

Boost Pump Outlet Limits to Injector:	<u>Parallel Boosts</u>		<u>Series Boosts</u>	
	<u>Maximum</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Minimum</u>
Zero fuel flow	45 p.s.i.	—	35 p.s.i.	—
Maximum fuel flow	—	14 p.s.i.	—	14 p.s.i.
Oil:	<u>Maximum</u>	<u>Minimum</u>		
Normal	95 p.s.i.	55 p.s.i.		
Idle	—	25 p.s.i.		
Starting and warm-up	115 p.s.i.	—		

NOTE 3. The following accessory provisions are available:

IO-360-Series															
Accessory	B1C B1D	L2A	K2A A1A A1B A1C A2A A2B A2C	A1B6 A1D B1F6 C1D6 C1G6 M1B	A3B6D A1B6D	A1D6 B1G6 M1A N1A♦	B1A	B4A B2F	B2F6	B1B B1E B1F C1A C1B D1A E1A	Rotating Facing Drive Pad	Speed Ratio to Crankshaft	Maximum Torque (in.-lb). Continuous    Static		Maximum Overhang Moment (in.-lb)
Starter	*	*	*	*	*	*	**	*	*	*	CC	16.556:1	—	450	150
Starter	**	—	—	—	—	—	*	—	—	—	CC	13.556:1	—	450	150
Generator	*	—	**	—	—	—	*	*	—	*	C	1.910:1	60	120	175
Generator	**	—	*	—	—	—	**	**	—	**	C	2.500:1	60	120	175
Alternator	**	+	*	*	*	*	—	**	*	**	C	3.200:1	60	120	175
Vacuum Pump	*	*	*	*	*	*	*	*	*	*	CC	1.300:1	70	450	25
Tachometer	*	*	*	*	*	*	*	*	*	*	C	0.500:1	7	—	5
Fuel Pump	—	*	*	*	*	*	—	—	*	*	Plunger	0.500:1	—	—	10
Fuel Pump	*	—	—	—	—	—	—	—	—	—	CC	1.000:1	25	450	25
Fuel Pump	—	—	—	—	—	—	—	—	—	—	CC	1.000:1	125	450	25
Prop. Governor	*	—	*	*	—	—	*	—	—	*	C	0.866:1	125	1200	40
Prop. Governor	—	—	—	—	—	*	—	—	—	—	C	0.895:1	125	1200	40
Prop. Governor	—	—	—	—	*	—	—	—	—	—	C	0.850:1	125	1200	25
Hydraulic Pump	—	—	—	—	*	*	—	—	—	—	C	1.300:1	100	800	40
Hydraulic Pump	—	—	—	—	**	—	—	—	—	—	C	1.300:1	180	2200	150
Optional Dual Drive Mounting on Vacuum Pump Drive Pad															
(Vacuum Pump)	**	**	**	**	—	—	**	**	**	**	CC	1.300:1	70	450	6
(Hydraulic Pump)	**	**	**	**	—	—	**	**	**	**	CC	1.300:1	Total	Total	10
or															
(Vacuum Pump)	**	—	**	**	—	—	**	**	—	**	CC	1.300:1	70	450	6
(Prop. Governor)	**	—	**	**	—	—	**	**	—	**	CC	1.300:1	Total	Total	10

+ -L2A engines supplied with a 9.78” diameter Multi groove pulley driven at engine speed

“C” – Clockwise, “CC” – Counter-Clockwise, \*Standard, \*\* Optional

♦ -N1A engines do not have provisions for mechanical tachometer, vacuum pump or hydraulic pump.

Total – refers to total torque of dual drives

NOTE 3 (cont'd)

Accessory	IO-360 Series				AIO-360 Series	HIO-360 Series				LIO-360 Series	Rotating *** Facing Drive Pad	Speed Ratio to Crankshaft	Maximum Torque (in-Lb)		Maximum Overhang Moment (in.-Lb)
	C1F F1A	C1C6 C1C	C1E C1E6	B2F B2E	A1A A1B A2A A2B B1B	E1AD E1BD E1BD E1AD	B1A	B1B	D1A G1A	C1E6 M1A			Continuous	Static	
Starter	*	*	*	*	*	*	*	*	*	*	CC	16.556:1	—	450	150
Starter	—	—	—	—	—	—	—	—	—	—	CC	13.556:1	—	450	150
Generator	—	—	—	*	**	—	**	**	—	—	C	2.500:1	60	120	175
Alternator	*	*	*	**	*	*	—	—	*	*	C	3.200:1	60	120	175
Vacuum Pump	*	*	*	*	*	—	*	*	*	*	CC	1.300:1	70	450	25
Tachometer	*	*	*	*	*	*	*	*	*	*	C	0.500:1	7	50	5
Fuel Pump	—	*	*	*	—	—	*	—	*	*	Plunger	0.500:1	—	—	10
Fuel Pump	—	—	—	—	—	*	—	*	—	—	CC	1.000:1	25	450	25
Fuel Pump	*	—	—	—	—	—	—	—	—	—	CC	1.000:1	125	450	25
Prop. Governor	*	*	—	—	*	—	—	—	—	—	C	0.866:1	125	1200	40
Prop. Governor	—	—	*	—	—	—	—	—	—	*	C	0.895:1	125	1200	40
Prop. Governor	—	—	—	—	—	—	—	—	—	—	C	0.850:1	125	1200	25
Hydraulic Pump	—	—	*	—	—	—	—	—	—	*	C	1.300:1	100	800	40
Hydraulic Pump	—	—	**	—	—	—	—	—	—	—	C	1.300:1	180	2200	150
Optional Dual Drive Mounting on Vacuum Pump Drive Pad															
(Vacuum Pump)	**	**	—	**	**	—	**	**	**	—	CC	1.300:1	70	450	6
(Hydraulic Pump)	**	**	—	**	**	—	**	**	**	—	CC	1.300:1	Total	Total	10
or															
(Vacuum Pump)	—	**	—	—	—	—	—	—	—	—	CC	1.300:1	70	450	6
(Prop. Governor)	—	**	—	—	—	—	—	—	—	—	CC	1.300:1	Total	Total	10

“C” – Clockwise, “CC” – Counter-Clockwise

\*Standard, \*\* Optional, \*\*\* Except LIO Series, LIO Models have reverse rotation than that shown

Total – refers to total torque of dual drives

## NOTE 3 (cont'd)

AEIO-360 Series							HIO/ LHIO- 360 Series				
Accessory	A1A A2A A1B A2B A1C A2C A1B6 A1D	A1E A1E6 H1B B1H	B1B B1F B2F B1F6 B2F6 B1G6 H1A	B1D	B4A	C1A C1B	Rotation*** Facing Drive Pad	Speed Ratio to Crankshaft	Maximum Torque (in. Lb) Continuous    Static		Maximum Overhang Moment (in. -lb.)
Starter	*	*	*	*	*	*	CC	16.556:1	—	450	150
Starter	—	—	—	—	—	—	CC	13.556:1	—	450	150
Generator	—	—	—	—	—	**	C	1.910:1	60	120	175
Generator	—	—	—	—	—	**	C	2.500:1	60	120	175
Alternator	*	*	*	*	*	*	C	3.250:1	60	120	175
Vacuum Pump	*	*	*	*	*	*	CC	1.300:1	70	450	25
Tachometer	*	*	*	*	*	*	C	.550:1	7	50	5
Fuel Pump	*		*	—	*	*	Plunger	.500:1	—	—	10
Fuel Pump	—	—	—	*	—	—	CC	1.000:1	25	450	25
Fuel Pump	—	—	—	—	—	—	CC	1.000:1	125	450	25
Prop. Governor	*	—	*	*	—	—	C	.866:1	125	1200	40
Prop. Governor	—	*	—	—	—	—	C	.895:1	125	1200	40
Prop. Governor	—	—	—	—	—	—	C	.850:1	125	1200	25
Hydraulic Pump	—	*	—	—	—	—	C	1.300:1	100	800	40
Hydraulic Pump	—	—	—	—	—	—	C	1.300:1	180	2200	150
Optional Dual Drive Mounting on Vacuum Pump Drive Pad											
(Vacuum Pump)	**	—	**	**	**	**	CC	1.300:1	70	450	6
(Hydraulic Pump)	**	—	**	**	**	**	CC	1.300:1	Total	Total	10
or											
(Vacuum Pump)	**	—	**	**	**	**	CC	1.200:1	70	450	6
(Prop. Governor)	**	—	**	**	**	**	CC	1.300:1	Total	Total	10

“C” – Clockwise, “CC” – Counter-Clockwise

\*Standard; \*\* Optional, \*\*\* Except LIO Series, LIO Models have reverse rotation than that shown

Total – refers to total torque of dual drives

Accessory	IO-360 Series				Rotation Facing Drive Pad	Speed Ratio to Crankshaft	Maximum Torque (in. Lb)		Maximum Overhang Moment (in. -lb.)
	J1AD	J1A6D	A1D6D	A3D6D			Continuous	Static	
Starter	*	*	*	*	CC	16.556:1	—	450	150
Starter	—	—	—	—	CC	13.556:1	—	450	150
Generator	—	—	—	—	C	1.910:1	60	120	175
Generator	—	—	—	—	C	2.500:1	60	120	175
Alternator	*	*	*	*	C	3.250:1	60	120	175
Vacuum Pump	*	*	*	*	CC	1.300:1	70	450	25
Tachometer	*	*	*	*	C	.500:1	7	50	5
Fuel Pump	*	*	*	*	Plunger	.500:1	—	—	10
Fuel Pump	—	—	—	—	CC	1.000:1	25	450	25
Fuel Pump	—	—	—	—	CC	1.000:1	125	450	25
Prop. Governor	—	—	—	—	C	.866:1	125	1200	40
Prop. Governor	—	—	**	**	C	.895:1	125	1200	40
Prop. Governor	**	**	**	**	C	.850:1	125	1200	25
Hydraulic Pump	—	—	—	—	C	1.300:1	100	800	40
Hydraulic Pump	—	—	—	—	C	1.300:1	180	2200	150
Optional Dual Drive Mounting on Vacuum Pump Drive Pad									
(Vacuum Pump)	**	**	**	**	CC	1.300:1	70	450	6
(Hydraulic Pump)	**	**	**	**	CC	1.300:1	Total	Total	10
or									
(Vacuum Pump)	**	**	**	**	CC	1.300:1	70	450	6
(Prop. Governor)	**	**	**	**	CC	1.300:1	Total	Total	10

“C” – Clockwise, “CC” – Counter-Clockwise

\*Standard; \*\* Optional

Total – refers to total torque of dual drives

NOTE 4. Spark plugs approved for use on these engines are listed in the latest revision of Lycoming Service Instruction No. 1042.

NOTE 5. These engines incorporate provisions for absorbing propeller thrust in both tractor and pusher installations.

NOTE 6. These engines are approved for horizontal helicopter application and operation.

NOTE 7. The following tabulations show std. dry weight (less) (alternator and starter), C.G.'s, fuel injectors, fuel pumps and magnetos for these models.

Model	Weight	Center of Gravity		Fuel Injector ■	Fuel Pump	Ignition, TCM* #	Ignition, Dual Slick
		From Front Face of Prop Shaft Flange in.	Off Crankshaft Center Line, in.				
IO-360-A1A	293	14.24	.83 below .06 left	RSA-5AD1	AC Type	S4LN-200, S4LN-204	
IO-360-A1B	295	14.24	.83 below .06 left	RSA-5AD1	AC Type	S4LN-1227, S4LN-1209	
IO-360-A1B6	302	14.24	.83 below .06 left	RSA-5AD1	AC Type	S4LN-1227, S4LN-1209	
IO-360-A1B6D	299	14.23	.82 below .21 left	RSA-5AD1	AC Type	D4LN-3000	
IO-360-A1C	294	14.24	.83 below .06 left	RSA-5AD1	AC Type	S4LN-1208, S4LN-1209	
IO-360-A1D	294	14.24	.83 below .06 left	RSA-5AD1	AC Type	S4LN-21, S4LN-204	
IO-360-A1D6	304	14.24	.83 below .06 left	RSA-5AD1	AC Type	S4LN-1227, S4LN-1209	
IO-360-A1D6D -A3D6D	301	14.50	.32 below .01 left	RSA-5AD1	AC Type	D4LN-3000	
IO-360-A2A	203	14.24	.83 below .06 left	RSA-5AD1	AC Type	S4LN-200, S4LN-204	
IO-360-A2B	295	14.24	.83 below .06 left	RSA 5AD1	AC Type	S4LN-1227, S4LN-1209	
IO-360-A2C	294	14.24	.83 below .06 left	RSA-5AD1	AC Type	S4LN-1208, S4LN-1209	
IO-360-A3B6	302	14.24	.83 below .06 left	RSA-5AD1	AC Type	S4LN-1227, S4LN-1209	
IO-360-A3B6D	299	14.23	.82 below .21 left	RSA-5AD1	AC Type	D4LN-3000	
IO-360-B1A	267	14.19	1.34 below .05 left	Simmonds-530	See Injector	S4LN-200, S4LN-204	
IO-360-B1B	268	14.19	1.34 below .05 left	RSA-5AD1	AC Type	S4LN-200, S4LN-204	
IO-360-B1C	261	14.19	1.34 below .05 left	RSA 5AD1	(AND 20003 Type) (XIII-A Pump Drive)	S4LN-200, S4LN-204	
IO-360-B1D	266	14.19	1.34 below .05 left	RSA-5AD1	(AND 20003 Type) (XIII-A Pump Drive)	S4LN-200, S4LN-204	
IO-360-B1E	265	14.42	1.27 below .03 right	RSA-5AD1	AC Type	S4LN-1227, S4LN-1209	
IO-360-B1F	270	14.19	1.34 below .05 left	RSA-5AD1	AC Type	S4LN 1227, S4LN-1227	
IO-360-B1F6	277	14.19	1.34 below .05 left	RSA-5AD1	AC Type	S4LN-1227, S4LN-1227	
IO-360-B1G6	284	14.42	1.27 below .03 right	RSA-5AD1	AC Type	—	4371, 4370
IO-360-B2E	265	14.42	1.27 below .03 right	RSA-5AD1	AC Type	S4LN-1227, S4LN-1209	
IO-360-B2F	270	14.19	1.34 below .05 right	RSA-5AD1	AC Type	S4LN-1227, S4LN-1227	
IO-360-B2F6	277	14.19	1.34 below .05 left	RSA-5AD1	AC Type	S4LN-1227, S4LN-1227	
IO-360-B4A	276	14.19	1.34 below .05 left	RSA-5AD1	AC Type	S4LN-21, S4LN-20	
IO-360-C1A	288	14.66	.92 below .15 left	RSA-5AD1	AC Type	S4LN-200, S4LN-204	
IO-360-C1B	289	14.66	.92 below .15 left	RSA-5AD1	AC Type	S4LN-1208, S4LN-1209	
IO-360-C1C; -C1C6	291; 298	14.66	.92 below .15 left	RSA-5AD1	AC Type	S4LN-1227, S4LN-1209	
IO-360-C1D6	297	14.66	.92 below .15 left	RSA-5AD1	AC Type	S4LN-1227, S4LN-1209	
IO-360-C1E6	306	14.66	.92 below .15 left	RSA-5AD1	AC Type	S4LN-1227, S4LN-1209	
IO-360-C1E6D	303	14.64	.90 below .30 left	RSA-5AD1	AC Type	D4LN-3000	
IO-360-C1F	293	14.66	.97 below .15 left	RSA-5AD1	(Lear Siegler) (RG-17980-E)	S4LN-1227, S4LN-1209	
IO-360-C1G6	324	14.24	.83 below .06 left	RSA-5AD1	AC Type	—	4345 (2)
IO-360-D1A	293	14.66	.92 below .15 left	RSA-5AD1	AC Type	S4LN-1208, S4LN-1209	
IO-360-E1A	265	14.42	1.27 below .03 right	RSA-5AD1	AC Type	S4LN-1208, S4LN-1209	
IO-360-F1A	272	14.42	1.27 below .03 right	RSA-5AD1	(Lear Siegler) (RG-17980-E)	S4LN-1227, S4LN-1209	
IO-360-J1AD	305	14.23	.82 below .21 left	RSA-5AD1	AC Type	D4LN-3000	
IO-360-J1A6D	312	14.23	.82 below .21 left	RSA-5AD1	AC Type	D4LN-3000	
IO-360-K2A	293	14.52	.34 below .13 right	RSA-5AD1	AC Type	S4LN-21, S4LN-20	
IO-360-L2A	268	14.19	1.35 below, .05 left	RSA5AD1	AC Type	—	4371 (2)
IO-360-M1A	279	14.00	0.75 below, 0.00 on	RSA5AD1	AC Type	—	4347, 4370
IO-360-M1B	279	14.00	0.75 below, 0.00 on	RSA5AD1	AC Type	—	4371, 4370
IO-360-N1A	272	14.00	0.75 below, 0.00 on	RSA5AD1	AC Type	—	4347, 4370

\* For alternate magnetos see latest revision of Lycoming Service Instruction 1443

# Teledyne (TCM) formally Bendix

■ For alternate fuel injectors, see the latest revision of Service Instruction 1532.

<u>Center of Gravity</u>							<u>Ignition, Dual Slick</u>
<u>Model</u>	<u>Weight</u>	<u>From Front Face of Prop Shaft Flange</u> in.	<u>Off Crankshaft Center Line, in.</u>	<u>Fuel Injector</u> ■	<u>Fuel Pump</u>	<u>Ignition, TCM* #</u>	
HIO-360-A1A	283	14.66	.92 below .15 left	RSA-5AB1	AC Type	S4LN-200, S4LN-200	—
HIO-360-A1B	281	14.66	.92 below .15 left	RAS-5AD1	AC Type	S4LN-200, S4LN-204	—
HIO-360-B1A	261	14.42	1.27 below .03 right	RSA-5AB1	AC Type	S4LN-200, S4LN-200	—
HIO-360-B1B	261	14.42	1.27 below .03 right	RSA-5AB1	(AND 20003 Type)	S4LN-200, S4LN-200	—
HIO-360-C1A	291	14.83	.92 below .28 left	RSA-5AD1	(XIII-A Pump Drive) AC Type	S4LN-200, S4LN-204	—
HIO-360-C1B	292	14.83	.92 below .28 left	RSA-5AD1	AC Type	S4LN-1208, S4LN-1209	—
HIO-360-D1A	290	14.83	.92 below .28 left	RSA-7AA1	AC Type	S4LN-1208, S4LN-1208	—
HIO-360-E1AD	290	14.80	.90 below .43 left	RSA-5AB1	(Lear Siegler) (RG-17980-R)	D4LN-3000	—
HIO-360-E1BD	290	14.80	.90 below .43 left	RSA-5AB1	L/S RG-17980-R	D4LN-3200	—
HIO-360-F1AD	293	14.80	.90 below .43 left	RSA-5AB1	L/S RG-17980-R	D4LN-3200	—
HIO-360-G1A	262	14.04	.76 below .14 left	RSA-5AD1	AC Type		4347 4370
AIO-360-A1A	300	14.44	.75 below .13 right	RSA-5AD1	AC Type	S4LN-1208, S4LN-1209	—
AIO-360-A2A	300	14.44	.75 below .13 right	RSA-5AD1	AC Type	S4LN-1208, S4LN-1209	—
AIO-360-A1B	301	14.44	.75 below .13 right	RSA-5AD1	AC Type	S4LN-1227, S4LN-1209	—
AIO-360-A2B	301	14.44	.75 below .13 right	RSA-5AD1	AC Type	S4LN-1227, S4LN-1209	—
AIO-360-B1B	301	14.44	.75 below .13 right	RSA-5AD1	AC Type	S4LN-1227, S4LN-1209	—
LIO-360-C1E6	306	14.66	.92 below .15 left	RSA-5AD1	AC Type	S4RN-1227, S4RN-1209	—
LIO-360-M1A	279	14.00	0.75 below, 0.00 on	RSA-5AD1	AC Type	—	4348 4302
LHIO-360-C1A	290	14.83	.92 below .28 left	RSA-5AD1	AC Type	S4RN-200, S4RN-204	—
LHIO-360-C1B	291	14.83	.92 below .28 left	RSA-5AD1	AC Type	S4RN-1208, S4RN-1209	—
AEIO-360-A1A	298	14.24	.83 below .06 left	RSA-5AD1	AC Type	S4LN-200, S4LN-204	—
AEIO-360-A2A	298	14.24	.83 below .06 left	RSA-5AD1	AC Type	S4LN-200, S4LN-204	—
AEIO-360-A1B	300	14.24	.83 below .06 left	RSA-5AD1	AC Type	S4LN-1227, S4LN-1209	—
AEIO-360-A2B	300	14.24	.83 below .06 left	RSA-5AD1	AC Type	S4LN-1227, S4LN-1209	—
AEIO-360-A1C	299	14.24	.83 below .06 left	RSA-5AD1	AC Type	S4LN-1208, S4LN-1209	—
AEIO-360-A2C	299	14.24	.83 below .06 left	RSA-5AD1	AC Type	S4LN-1208, S4LN-1209	—
AEIO-360-A1B6	307	14.24	.83 below .06 left	RSA-5AD1	AC Type	S4LN-1227, S4LN-1209	—
AEIO-360-A1D	299	14.24	.83 below .06 left	RSA-5AD1	AC Type	S4LN-21, S4LN-204	—
AEIO-360-B1B	273	14.19	1.34 below .05 left	RSA-5AD1	AC Type	S4LN-200-S4LN-204	—
AEIO-360-B1D	271	14.19	1.34 below .05 left	RSA-5AD1	(XIII-A Pump Drive)	S4LN-200, S4LN-204	—

\* For alternate magnetos see latest revision of Lycoming Service Instruction 1443

# Teledyne (TCM) formally Bendix

■ For alternate fuel injectors, see the latest revision of Service Instruction 1532.

<u>Model</u>	<u>Weight</u>	<u>From Front Face of Prop Shaft Flange in.</u>	<u>Off Crankshaft Center Line, in.</u>	<u>Fuel Injector ■</u>	<u>Fuel Pump</u>	<u>Ignition, TCM* #</u>	<u>Ignition, Dual Slick</u>
AEIO-360-B1F	275	14.19	1.34 below .05 left	RSA-5AD1	AC Type	S4LN-1227, S4LN-1227	—
AEIO-360 B2F	275	14.19	1.34 below .05 left	RSA-5AD1	AC Type	S4LN-1227, S4LN-1227	—
AEIO-360-B4A	281	14.19	1.34 below .05 left	RSA-5AD1	AC Type	S4LN-21, S4LN-20	4251, 4250
AEIO-360-B1F6	282	14.19	1.34 below .05 left	RSA-5AD1	AC Type	S4LN-1227, S4LN-1227	4251, 4250
AEIO-360-B2F6	282	14.19	1.34 below .05 left	RSA-5AD1	AC Type	S4LN-1227, S4LN-1227	
AEIO-360-B1G6	277	14.19	1.34 below .05 left	RSA-5AD1	AC Type	—	4370, 4371
AEIO-360-B1H	273	14.19	1.34 below .05 left	RSA-5AD1	AC Type	—	4373, 4370
AEIO-360-H1A	270	14.19	1.34 below .05 left	RSA-5AD1	AC Type	—	4370, 4371
AEIO-360-H1B	273	14.19	1.34 below .05 left	RSA-5AD1	AC Type	—	4370, 4371
AEIO-360-A1E6	307	14.24	83 below .06 left	RSA-5AD1	AC Type	S4LN-21, S4LN-20/-21/-204	4372, 4370
AEIO-360-A1E	301	14.24	.83 below .06 left	RSA-5AD1	AC Type	S4LN-21, S4LN-20/-21/-204	4372, 4370
LHIO-360-F1AD	293	14.80	.90 below .43 left	RSA-5AB1	L/S RG-17980-S	D4LN-3200	

\* For alternate magnetos see latest revision of Lycoming Service Instruction 1443

# Teledyne (TCM) formally Bendix

■ For alternate fuel injectors, see the latest revision of Service Instruction 1532.

NOTE 8. The listed models incorporate the following additional similarities or differences:

<u>Model</u>	<u>Characteristics</u>
IO-360 A1A	Basic Model. Four cylinder air-cooled, horizontally opposed, direct drive, fuel injected, tuned induction engine having oil jets for internal piston cooling. Provisions for single action controllable pitch propeller.
IO-360-A1B	Same as IO-360-A1A but has impulse coupling magnetos.
IO-360-A1B6	Same as IO-360-A1B except has crankshaft equipped with one 6.3 order and one 8th order counterweights.
IO-360-A1B6D	Same as IO-360-A1B6 except has Bendix Series impulse coupling dual magnetos instead of two S-1200 Series magnetos.
IO-360-A1C	Same as IO-360-A1A except incorporates Bendix S-1200 series high altitude magnetos.
IO-360-A1D	Same as IO-360-A1B except has one S-20 series impulse coupling and one S-200 series magnetos instead of two S-1200 series magnetos.
IO-360-A1D6	Similar to IO-360-A1B except has propeller governor drive located on left front of crankcase instead of on accessory housing. Incorporates crankshaft equipped with one 6.3 order and one 8th order counterweights.
IO-360-A1D6D	Same as IO-360-A1D6 except has Bendix D4LN-3021 dual magneto.
IO-360-A2A	Same as IO-360-A1A except has crankshaft modified for a fixed pitch propeller.
IO-360-A2B	Same as IO-360-A2A except has impulse coupling magnetos.
IO-360-A2C	Same as IO-360-A2A except incorporates Bendix S-1200 series high altitude magnetos.
IO-360-A3B6D	Same as IO-360-A1B6D except has propeller locating bushings rotated 120° clockwise.
IO-360-A3B6	Same as IO-360-A1B6 except has propeller locating bushings rotated 120° clockwise.

## NOTE 8. (cont'd)

IO-360-A3D6D	Same as IO-360-A1D6D except propeller locating bushings rotated 120° clockwise.
IO-360-B1A	Similar to IO-360-A1A except has Simmonds Type 530 fuel injector. Does not have tuned induction.
IO-360-B1B	Similar to IO-360-B1A except has a RSA-5AD1 injector. Fuel pressure limit at inlet to diaphragm pump.
IO-360-B1C	Similar to HIO-360-B1B in external configuration except crankcase machined for No. 1 Dynafocal mounts.
IO 360-B1D	Same as IO-360-B1B except has an AN fuel pump drive. Fuel pressure to diaphragm pump does not apply.
IO-360-B1E	Similar to IO-360-B1B excepting oil sumps, induction manifolding and alternate magnetos.
IO-360-B1F	Same as IO-360-B1B except incorporates Bendix S 1200 series high altitude magnetos.
IO-360-B1F6	Same as IO-360-B1F except incorporates a crankshaft equipped with one 6.3 and one 8th order counterweights.
IO-360-B1G6	Similar to IO-360-B1E except front mounted governor, provisions for bed mounting and counterweighted crankshaft.
IO-360-B2E	Similar to IO-360-B1F but has no provisions for controllable pitch propeller.
IO-360-B2F	Similar to IO-360-B1F except has different front crankshaft oil plug, providing for fixed pitch propeller.
IO-360-B2F6	Same as IO-360-B2F except incorporates crankshaft equipped with one 6.3 and one 8th order counterweights.
IO-360-B4A	Similar to IO-360-B1B but has different magnetos and stiffer crankshaft with solid main bearing journals.
IO-360-C1A	Similar to IO-360-A1A except has a rear mounted injector.
IO-360-C1B	Similar to IO-360-C1A except incorporates Bendix 1200 series magnetos.
IO-360-C1C	Same as IO-360-C1B except has 14 degree fuel injector inlet adapter and an impulse coupling Bendix S4LN-1227 magneto.
IO-360-C1C6	Same as IO-360-C1C except has a crankshaft equipped with one 6.3 order and one 8th order counterweights.
IO-360-C1D6	Same as IO-360-C1B except has an impulse coupled magneto and a crankshaft equipped with one 6.3 order and one 8th order counterweights.
IO-360-C1E6	Similar to IO-360-C1C except equipped with different magnetos, has propeller governor drive located on left front of crankcase and incorporates a crankshaft equipped with one 6.3 order and one 8th order counterweight.
IO-360-C1E6D	Same as 360-C1E6 except has Bendix D4LN-2021 impulse coupling dual magneto.
IO-360-C1F	Same as IO-360-C1C except is equipped with an AN fuel pump and fuel pump drive.
IO-360-C1G6	Same as IO-360-C1D except has 2 Retard magnetos instead of impulse magnetos, an unmachined front governor pad and provision for front bed mounting.
IO-360-D1A	Similar to IO-360-C1B except has Dynafocal mounts.
IO-360-E1A	Same as IO-360-B1E except has a retard magneto instead of an impulse coupling type and has Type 2, eighteen degree Dynafocal mounting brackets instead of Type 1, thirty degree brackets.

## NOTE 8. (cont'd)

IO-360-F1A	Similar to IO-360-B1F but has modifications making it suitable for turbosupercharging. (See NOTE 9)
IO-360-J1AD	Similar to IO-360-A1B except equipped with Bendix D4LN-2021 magneto and has provisions for a rear type engine mounting.
IO-360-J1A6D	Same as IO-360-J1AD except crankshaft incorporates one 6.3 order and one 8th order counterweights.
IO-360-K2A	Same as IO-360 A2A except equipped with Bendix S4LN-21-20 magnetos and has provisions for straight conical mounts.
IO-360-L2A	Similar to IO-360-B2F except lower power rating
IO-360-M1A	Similar to IO-360-B1E except front inlet fuel injector, prop governor on front of crankcase and retard magneto
IO-360-M1B	Similar to IO-360-M1A except has a rear mounted propeller governor and impulse magneto.
IO-360-N1A	Similar to IO-360-M1A except hexagonal propeller flange, reduced weight cylinder assemblies, and without provisions for mechanical tachometer-drive, vacuum pump or hydraulic pump drives.
HIO-360-A1A	Similar to IO-360-A1A except has Bendix RSA-5AB1 fuel injector, Bendix S4LN-200 magnetos. No provisions for propeller governor drive.
HIO-360-A1B	Similar to HIO-360-A1A except conical mounts, no AMC unit on the fuel injector and 90° fuel injector mount
HIO-360-B1A	Similar to HIO-360-A1A except for compression ratio, fuel grade and does not have tuned induction.
HIO-360-B1B	Similar to HIO-360-B1A except has an AN fuel pump drive.
HIO-360-C1A	Similar to IO-360-A1A except has a rear mounted fuel injector.
HIO-360-C1B	Same as HIO-360-C1A except incorporates Bendix S-1200 series magnetos.
HIO-360-D1A	Similar to HIO-360-C1A except incorporates narrow crankpin crankshaft and different fuel injector.
HIO-360-E1AD	Similar to HIO-360-C1A except lower compression ratio piston, equipped with dual magneto and incorporates features suitable for turbocharging.
HIO-360-E1BD	Similar to HIO-360-E1AD except incorporates Bendix D4LN-2200 (retard breaker) dual magneto.
HIO-360-F1AD	Similar to HIO-360-E1AD except equipped with a large crankshaft, high crush thin wall bearings and a large base circle camshaft.
HIO-360-G1A	Similar to HO-360-C1A except equipped with PAC RSA-5AD1 fuel injection system
AIO-360-A1A	Similar to IO-360-A1A except permits operation in an inverted position. Differences include a front mounted propeller governor, two dry oil sumps, dual external oil scavenge pumps, an oil tank, three options of position for fuel injector mounting and provides for a constant speed propeller.
AIO-360-A1B	Similar to AIO-360-A1A except uses on impulse coupling magneto.

## NOTE 8. (cont'd)

AIO-360-A2A	Similar to AIO-360-A1A but uses a fixed pitch propeller.
AIO-360-A2B	Similar to AIO-360-A1A but uses one impulse coupling magneto and has a fixed pitch propeller.
AIO-360-B1B	Similar to AIO-360-A1B except has front mounted fuel injector.
LIO-360-C1E6	Same as IO-360-C1E6 except has counter-clockwise (reverse) rotation.
LIO-360-M1A	Same as IO-360-M1A except has counter-clockwise (reverse) rotation.
LHIO-360-C1A	Same as HIO-360-C1A except has counter-clockwise (reverse) rotation.
LHIO-360-C1B	Same as HIO-360-C1B except has counter-clockwise (reverse) rotation.
LHIO-360-F1AD	Same as HIO-360-F1AD except has counter-clockwise (reverse) rotation.
AEIO-360-A1A	Same as IO-360-A1A except equipped with an inverted oil system kit for aerobatic flight.
AEIO-360-A1B	Same as IO-360-A1B except equipped with an inverted oil system kit for aerobatic flight.
AEIO-360-A1B6	Same as IO-360-A1B6 except equipped with an inverted oil system kit for aerobatic flight.
AEIO-360-A1C	Same as IO-360-A1C except equipped with an inverted oil system kit for aerobatic flight.
AEIO-360-A1D	Same as IO-360-A1D except equipped with an inverted oil system kit for aerobatic flight.
AEIO-360-A1E	Same as AEIO-360-A1A except propeller governor drive on left front of crankcase and equipped with Bendix S4LN-21/-20 magnetos.
AEIO-360-A1E6	Same as AEIO-360-A1E except has crankshaft equipped with one 6.3 order and one 8th order counterweights
AEIO-360-A2A	Same as IO-360-A2A except equipped with an inverted oil system kit for aerobatic flight.
AEIO-360-A2B	Same as IO-360-A2B except equipped with an inverted oil system kit for aerobatic flight.
AEIO-360-A2C	Same as IO-360-A2C except equipped with an inverted oil system kit for aerobatic flight.
AEIO-360-B1B	Same as IO-360-B1B except equipped with an inverted oil system kit for aerobatic flight.
AEIO-360-B1D	Same as IO-360-B1D except equipped with an inverted oil system kit for aerobatic flight.
AEIO-360-B1F	Same as IO-360-B1F except equipped with an inverted oil system kit for aerobatic flight.
AEIO-360-B1F6	Same as IO-360-B1F6 except equipped with an inverted oil system kit for aerobatic flight.
AEIO-360-B1G6	Same as AEIO-360-B1F6 except equipped with Slick 4051 and 4050 magnetos.
AEIO-360-B2F	Same as IO-360-B2F except equipped with an inverted oil system kit for aerobatic flight.
AEIO-360-B2F6	Same as IO-360-B2F6 except equipped with an inverted oil system kit for aerobatic flight.
AEIO-360-B4A	Same as IO-360-B4A except equipped with an inverted oil system kit for aerobatic flight.
AEIO-360-B1H	Same as AEIO-360-H1B except has Dynafocal mounting.
AEIO-360-H1A	Similar to AEIO-360-B1G6 except not equipped with counterweights and has provision for commercial (straight) engine mount.
AEIO-360-H1B	Same as AEIO-360-H1A except propeller governor drive on left front of crankcase.

- NOTE 9. Engine models IO-360-C1F and F1A are eligible for turbocharging and under these conditions the following additional limits apply: Intake air manifold pressure max. 29 in. Hg. absolute, exhaust back pressure max. 32 in. Hg. absolute at inlet to turbosupercharger. Air inlet temperature to injector 240°F max.
- NOTE 10. Cylinder base temperature limits are not applicable to engine models which incorporate internal piston cooling oil jets.
- NOTE 11. Starters, generators, and alternators approved for use on these engines are listed in the latest revision of Lycoming Service Instructions No. 1154.
- NOTE 12. Engine models of this series incorporate no crankshaft dampers unless the third section of the model designation exhibits a numerical digit in its fourth position, i.e. IO-360-A1B6. The digit "6" in the fourth position, indicates the incorporation of one 6.3 order and one 8th order counterweights.
- NOTE 13. Engine models HIO-360-E1AD and LHIO-360-E1BD are eligible for turbosupercharging. When equipped with the Enstrom Helicopter Corporation turbocharger Kit Number SK-28-121000 or equivalent, these engines are capable of delivering 205 h.p. at 2000 r.p.m. at a manifold pressure of 36.5 in. Hg. absolute. Performance data are presented on Lycoming Curve No. 13309 and 13309-A. The exhaust pressure is limited to 41.5 in Hg. absolute when equipped with a turbocharger.
- NOTE 14. Maximum flight attitudes for the IO-360 Series are 30° nose up or down. For the AEIO-360-B and H series, the maximum flight attitudes are 30° nose up and 25° down. Maximum flight attitudes for AEIO-360-A series are 30° nose up and 8° nose down. A 20° nose down attitudes is allowed for the AEIO-360-A series when the oil strainer is fitted with a 3½ inch extension in accordance with Lycoming Service Bulletin No. 403.
- NOTE 15. Engine models HIO-360-F1AD and LHIO-360-F1AD are eligible for turbosupercharging. When equipped with modified Enstrom turbocharger Kit No. SK-28-121000, this engine is capable of delivering 225 h.p. at 3050 r.p.m. at a manifold pressure of 39 in. Hg. to a critical altitude of 12,000 feet (Reference Lycoming Curve No. 13360). The exhaust back pressure is limited to 43.0 in. Hg. absolute when equipped with a turbocharger.
- NOTE 16. All models equipped with one impulse coupling magneto may use two impulse coupling magnetos as optional equipment.

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