DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

E5CE Revision 25

CONTINENTAL

IO-520-A, -B, -BA,
-BB, -C, -CB,
-D, -E, -F, -J,
-K, -L, -M,
-MB, -N, -NB

L/IO-520-P

September 29, 1995

TYPE CERTIFICATE DATA SHEET NO. E5CE

Engines of models described herein conforming with this data sheet (which is part of type certificate No. E5CE) 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 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

Teledyne Continental Motors P. O. Box 90

Mobile, Alabama 36601

diameter circle

<u>Model</u>	<u>IO-520-A, -J</u>	<u>IO-520-B, -BA, -BB</u>	<u>IO-520-C, -M, CB, -MB</u>
Туре	6НОА		
Rating, ICAO or ARDC			
standard atmosphere			
Max. continuous hp.,	285-2700		
r.p.m. full throttle			
at sea level pressure altitude			
Takeoff hp., 5 min.,	285-2700		
r.p.m. full throttle			
at sea level pressure altitude			
Fuel (minimum grade aviation)	100LL, 100 per		
	ASTM D910 or		
	B95/130CIS		
Lubricating oil	TCM Spec. MHS #24		
Bore and Stroke, in.	5.25 x 4.00		
Displacement, cu. in.	520		
Compression ratio	8.5:1		
Weight (dry), lb.	431	423	417-C
C.G. location (basic engine)			413-M
Fwd. of rear face	11.29	12.42	11.70-C
acc. case, in.			12.20-M
Below crankshaft	.54	1.22	.50-C
Centerline, in.			.54-M
Beside crankshaft	.24	.12	.12-C
centerline toward			.26-M
1-3-5 side, in.			
Propeller Shaft	ARP-502, Type I		
	flange 4-7/8 in. O.D. with		
	six ½ in. bolt holes in 4 in.		

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Model	<u>IO-520-A, -J</u>	<u>IO-520-B, -BA, -BB</u>	<u>IO-520-C, -M, CB, -MB</u>
Fuel injection	TCM Injector 639172A3	TCM Injector	TCM Injector C 639177A2
		B, BA 639176A3	CB639177A
		BB 639176A	M 641057A4
			MB 641057A
Ignition, dual	(See NOTE 9)		
Timing, °BTC	22		
Spark plugs	(See NOTE 10)		
Oil Sump Capacity, qt.	12; 7 unusable at 20° noseup	•	
	and 6 usable at 10° nosedown attitudes for -A	and 14° nosedown attitudes	and 7 usable at 15° nosedown attitudes for
	10; 7.8 usable at 20° noseup	nosedown attitudes	-C, -CB
	and 6.7 usable at 10°		12; 6.1 usable at 26° noseup
	nosedown attitudes for -J.		and 6.1 at 13.5° nosedown
	nosedown attitudes for -3.		for M, MB
Applicable NOTES	1 2 2 4 5 6 7 9 0 10	1 2 2 4 5 6 8 0 10 12	IOI WI, WIB
Applicable NOTES	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	1, 2, 3, 4, 5, 6, 8, 9, 10, 12, 13	

Model	<u>IO-520-D, -F, -K, -L</u>	IO-520-E	IO-520-N, -NB
Type	6HOA		<u>10 32011, 11B</u>
Rating, ICAO or ARDC	011071		
standard atmosphere			
Max. continuous hp.,	285-2700		
r.p.m. full throttle	200 2700		
at sea level pressure altitude			
Takeoff hp., 5 min.,	300-2850		
r.p.m. full throttle			
at sea level pressure altitude			
Fuel (minimum grade aviation)	100LL, 100 per		
,	ASTM D910 or		
	B95/130CIS		
Lubricating oil	TCM Spec. MHS #24		
Bore and Stroke, in.	5.25 x 4.00		
Displacement, cu. in.	520		
Compression ratio	8.5:1		
Weight (dry), lb.	428-K	429	478
C.G. location (basic engine)	429-D, -F, -L		
Fwd. of rear face	11.29		12.48
acc. case, in.			
Below crankshaft	.54		.82
Centerline, in.			
Beside crankshaft	.24		.31
centerline toward			
1-3-5 side, in.			
Propeller Shaft	ARP-502, Type I flange 4-		
	$7/8$ in. O.D. with six $\frac{1}{2}$ in.		
	bolt holes in 4 in. diameter		
·	circle	m.c	
Fuel injection	TCM Injector	TCM Injector	Woodward
	D 640103A6	639186A2	8050-001
	F 639172A3		
	K 639172A4		
T 12	L 639172A2		
Ignition, dual	(See NOTE 9)		
Timing, °BTC	22 (S NOTE 10)		
Spark plugs	(See NOTE 10)		

12; 7 usable at 10° noseup 12; 8 usable at 15° noseup 21; 10 usable at 18° noseup 21; 10	Model	<u>IO-520-D</u> , -F, -K, -L	IO-520-E	<u>IO-520-N, -NB</u>
Applicable Notes	Oil Sump Capacity, qt.	12; 7 usable at 20° noseup	12; 8 usable at 15° noseup	12; 10 usable at 18°noseup
Applicable Notes			vnand 5° nosedown attitudes	and 14° nosedown attitudes
10; 7.8 usable at 20° noseup and 6.7 usable at 10° noseup and 6.7 usable at 10° nosedown for -L				
Applicable Notes 1.2, 3, 4, 5, 6, 7, 8, 9, 10 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13 Model				
Applicable Notes)	
Applicable Notes 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13 Model				
Model L/IO-520-P	Applicable Notes			1 2 3 4 5 6 8 9 10 11
Model L/IO-520-P Type 6HOA Rating, ICAO or ARDC standard atmosphere Max. continuous hp, RPM. FT at sea level pressure altitude Takeoff, 5 min., hp, RPM. FT at sea level pressure altitude 250 - 2500 250 - 2500 Fuel (min. grade aviation) . 100LL, 100 per ASTM D910 or B95/130 CIS Lubricating oil TCM Spec. MHS #24 Bore and Stroke, in. 5.250 X 4.00 Displacement, cu. in. 520 Compression ratio 8.5:1 Weight (dry), lb. 400.6 C. G. location (basic engine) Fwd. of rear face acc. case, in. Below crankshaft centerline, in. Beside crankshaft centerline toward 1-3-5 side, in. 41 Beside crankshaft centerline toward 1-3-5 side, in. 21 Propeller shaft ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)	ripplicable roles	1, 2, 3, 4, 3, 6, 7, 6, 2, 10		
Type 6HOA Rating, ICAO or ARDC standard atmosphere Max. continuous hp, RPM, FT at sea level pressure altitude Takeoff, 5 min., hp, RPM, FT at sea level pressure altitude 250 - 2500 Fuel (min. grade aviation) . 100LL, 100 per ASTM D910 or B95/130 CIS Lubricating oil TCM Spec. MHS #24 Bore and Stroke, in. 5.250 X 4.00 Displacement, cu. in. 520 Compression ratio 8.5:1 Weight (dry), lb. 400.6 C. G. location (basic engine) Fwd. of rear face acc. case, in. 11.89 Below crankshaft centerline, in. Beside crankshaft centerline toward 1-3-5 side, in21 Propeller shaft ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)				, -
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Rating, ICAO or ARDC standard atmosphere Max. continuous hp, RPM, FT at sea level pressure altitude Takeoff, 5 min., hp, RPM, FT at sea level pressure altitude 250 - 2500 Fuel (min. grade aviation) . 100LL, 100 per ASTM D910 or B95/130 CIS Lubricating oil TCM Spec. MHS #24 Bore and Stroke, in. 5.250 X 4.00 Displacement, cu. in. 520 Compression ratio 8.5:1 Weight (dry), lb. 400.6 C. G. location (basic engine) Fwd. of rear face acc. case, in. Below crankshaft centerline, in. Beside crankshaft centerline toward 1-3-5 side, in. 2.1 Propeller shaft ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)				
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standard atmosphere Max. continuous hp, RPM, FT at sea level pressure altitude Takeoff, 5 min., hp, RPM, FT at sea level pressure altitude Televel (min. grade aviation) . 100LL, 100 per ASTM D910 or B95/130 CIS Lubricating oil TCM Spec. MHS #24 Bore and Stroke, in. 5.250 X 4.00 Displacement, cu. in. 520 Compression ratio 8.5:1 Weight (dry), lb. 400.6 C. G. location (basic engine) Fwd. of rear face acc. case, in. Below crankshaft centerline, in. Beside crankshaft centerline toward 1-3-5 side, in. 2.1 Propeller shaft ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)	Pating ICAO or APDC			
Max. continuous hp, RPM, FT at sea level pressure altitude Takeoff, 5 min., hp, RPM, FT at sea level pressure altitude 250 - 2500 Fuel (min. grade aviation) . 100LL, 100 per ASTM D910 or B95/130 CIS Lubricating oil TCM Spec. MHS #24 Bore and Stroke, in. 5.250 X 4.00 Displacement, cu. in. 520 Compression ratio 8.5:1 Weight (dry), lb. 400.6 C. G. location (basic engine) Fwd. of rear face acc. case, in. 11.89 Below crankshaft centerline toward 1-3-5 side, in. 21 Propeller shaft ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)				
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Fuel (min. grade aviation) . 100LL, 100 per ASTM D910 or B95/130 CIS Lubricating oil TCM Spec. MHS #24 Bore and Stroke, in. 5.250 X 4.00 Displacement, cu. in. 520 Compression ratio 8.5:1 Weight (dry), lb. 400.6 C. G. location (basic engine) Fwd. of rear face acc. case, in. Below crankshaft centerline, in. 41 Beside crankshaft centerline toward 1-3-5 side, in. 21 Propeller shaft ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)				
Lubricating oil TCM Spec. MHS #24 Bore and Stroke, in. 5.250 X 4.00 Displacement, cu. in. 520 Compression ratio 8.5:1 Weight (dry), lb. 400.6 C. G. location (basic engine) Fwd. of rear face acc. case, in. 11.89 Below crankshaft centerline, in. Beside crankshaft centerline toward 1-3-5 side, in21 Propeller shaft ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)	FT at sea level pressure altitude	250 - 2500		
Lubricating oil TCM Spec. MHS #24 Bore and Stroke, in. 5.250 X 4.00 Displacement, cu. in. 520 Compression ratio 8.5:1 Weight (dry), lb. 400.6 C. G. location (basic engine) Fwd. of rear face acc. case, in. 11.89 Below crankshaft centerline, in. Beside crankshaft centerline toward 1-3-5 side, in21 Propeller shaft ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)	5 1/ · · · · · · · · · ·	10011 100 10771	D010 D05/120 GIG	
Bore and Stroke, in. 5.250 X 4.00 Displacement, cu. in. 520 Compression ratio 8.5:1 Weight (dry), lb. 400.6 C. G. location (basic engine) Fwd. of rear face acc. case, in. Below crankshaft centerline, in. Beside crankshaft centerline toward 1-3-5 side, in. 11.89 ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)	Fuel (min. grade aviation) .	100LL, 100 per ASTM	D910 or B95/130 CIS	
Bore and Stroke, in. 5.250 X 4.00 Displacement, cu. in. 520 Compression ratio 8.5:1 Weight (dry), lb. 400.6 C. G. location (basic engine) Fwd. of rear face acc. case, in. Below crankshaft centerline, in. Beside crankshaft centerline toward 1-3-5 side, in. 11.89 ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)	Lubricating oil	TCM Spec. MHS #24		
Displacement, cu. in. 520 Compression ratio 8.5:1 Weight (dry), lb. 400.6 C. G. location (basic engine) Fwd. of rear face acc. case, in. Below crankshaft centerline, in. Beside crankshaft centerline toward 1-3-5 side, in. 11.89 ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)	Zuomeumg on	rem spectuals "2"		
Compression ratio 8.5:1 Weight (dry), lb. 400.6 C. G. location (basic engine) Fwd. of rear face acc. case, in. Below crankshaft centerline, in. Beside crankshaft centerline toward 1-3-5 side, in. Propeller shaft ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)	Bore and Stroke, in.	5.250 X 4.00		
Compression ratio 8.5:1 Weight (dry), lb. 400.6 C. G. location (basic engine) Fwd. of rear face acc. case, in. Below crankshaft centerline, in. Beside crankshaft centerline toward 1-3-5 side, in. Propeller shaft ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)				
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Weight (dry), lb. C. G. location (basic engine) Fwd. of rear face acc. case, in. Below crankshaft centerline, in. Beside crankshaft centerline toward 1-3-5 side, in. Propeller shaft ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)	Compression ratio	8.5:1		
C. G. location (basic engine) Fwd. of rear face acc. case, in. Below crankshaft centerline, in. Beside crankshaft centerline toward 1-3-5 side, in. Propeller shaft ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)		0.0.1		
Fwd. of rear face acc. case, in. Below crankshaft centerline, in. Beside crankshaft centerline toward 1-3-5 side, in. Propeller shaft ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)	Weight (dry), lb.	400.6		
Fwd. of rear face acc. case, in. Below crankshaft centerline, in. Beside crankshaft centerline toward 1-3-5 side, in. Propeller shaft ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)				
Below crankshaft centerline, in. Beside crankshaft centerline toward 1-3-5 side, in. ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)		11.00		
Beside crankshaft centerline toward 1-3-5 side, in. .21 Propeller shaft ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)				
toward 1-3-5 side, in. 21 Propeller shaft ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)		.41		
Propeller shaft ARP-502 Modified, flange 4.875 in. OD with six 0.5 in. bolt holes in 4.000 in. diameter circle Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, $^{\circ}$ BTC 22 $^{\circ}$ (\pm 1 $^{\circ}$)		.21		
fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)	,			
Fuel injection TCM continuous flow Ignition See NOTE 9 Timing, °BTC 22° (± 1°)	Propeller shaft		e 4.875 in. OD with six 0.5 in	n. bolt holes in 4.000 in.
Ignition See NOTE 9 Timing, °BTC 22° (± 1°)		diameter circle		
Ignition See NOTE 9 Timing, °BTC 22° (± 1°)	Eval injection	TCM continuous flow		
Timing, °BTC 22° (± 1°)	ruel injection	TCM continuous now		
Timing, °BTC 22° (± 1°)	Ignition	See NOTE 9		
Spark plugs See NOTE 10	Timing, °BTC	22° (<u>+</u> 1°)		
Spark piugs See NO1E 10	G 1 1	G NOTE 10		
	Spark plugs	See NOTE 10		
Oil sump capacity, qt. 8; 4 usable at 30° nose up and 20° nose down	Oil sump capacity, qt.	8; 4 usable at 30° nose up ar	nd 20° nose down	

"---" indicates "same as previous model"
"___" indicates "does not apply"

1 thru 6, 9, 10

Applicable NOTES

13-5. Type Certificate No. E5CE issued May 28, 1963, for IO-520-A; IO-520-B added October 21, 1963; IO-520-C added January 8, 1964; IO-520-D added August 30, 1965; IO-520-E added November 12, 1965; IO-520-F added May 27, 1966; IO-520-J added October 22, 1968; IO-520-L added May 29, 1969; IO 520-K added July 24, 1969; IO-520-BA added February 26, 1971; IO-520-M added May 13, 1974. IO-520-N added April 26, 1977. IO-520 BB, -CB, -MB, -NB added May 4, 1978. Application for Type Certificate dated May 13, 1963.

Part 33, Federal Aviation Regulations, through Amendment 33-12, L/IO-520-P added July 7, 1995.

Production Basis

Production Certificate No. 508

NOTE 1.	Maximum permissible temperature: Cylinder head bayonet thermocouple Cylinder barrel Oil inlet	460° F. 310° F. 240° F.	_P Same N/A Same	
NOTE 2.	Fuel pressure limits: Inlet to injection pump, min minus 2 max plus 10 Outlet to vapor return line - plus 3.5	p.s.i.g.	-N, -NB -3 p.s.i.g. + 6.0 p.s.i.g. +3 p.s.i.g. (max.) fuel return	-P -2.0 psig + 6.0 psig +3.5 psig (max) fuel return
NOTE 3.	Oil pressure limits: 2-4-6 side - Normal Idle Maximum (cold oil)	30-60 p.s.i.a. 10 p.s.i.a. min. 100 p.s.i.a.		

NOTE 4.	The following accessor	m, driva or mountin	g provisions are available:	
NOTE 4.	The following accessor	ry arive or mounting	g provisions are available:	

Original	Direction	Speed Ratio	Max. Torque	(inlb.)	Maximum Overhang
Accessory	of Rotation*	to Crankshaft	Continuous	Static	Moment (inlb.)
Tachometer					
AND 20005 -C, -E, -M, -CB, -MB	Optional	.5:1	7	50	25
AS-54 -A, -B, -BA, -D	Optional	.5:1	7	50	25
-F, -J, -K, -L, -N, -BB, -NB					
** Propeller governor	C	1:1	29	825	50
# ***Optional (2) Left	C	1.5:1	100	800	40
and right side					
Generator: Belt Driven					
-A, -D, -E, -F, -J, -K, -L, -P	CC	2.0:1	125	800	100
Gear Driven					
-B, -BA, -C, -M, -N, -BB,	CC	3:1	150	800	150
-CB,-MB, -NB					
Oil Cooler					65
Starter: -A, -D, -E, -F, -J, -K, -L, -P	CC	32:1	200	400	60
-B, -BA, -C, -M, -N, -BB, -CB,	CC	48:1	200	400	60
-MB, -NB					

^{*}C Clockwise viewing drive pad; CC - Counterclockwise

NOTE 5. Models IO-520-A, -B, -C, -D, -E, -F, -J, -K, -L, -M & -N incorporate crankshaft with one 4th and one 5th and two 6th order dampers. Model IO-520-BA, -N has a crankshaft with one 4th and three 6th order dampers. Models IO-520-BB, -CB, -MB, -NB have crankshaft with one 4th, one 5th and two 6th order dampers. Models IO-520-P and LIO-520-P have crankshaft with one 5th and one 6th order damper.

^{**} Modified AND 20010 pad.

^{***} Modified AND 20000 pads. One drive eligible at 160 in.-lb. continuous torque load if other does not exceed 100 in.-lb. continuous. (IO-520-D, L/IO-520-P with TCM P/N 641478 magneto drive gear installed; one drive eligible at 180 in.-lb. continuous torque load provided other does not exceed 80 in.-lb. continuous load).

[#] Maximum static torque for IO-520-D, 1100 in.-lb.

NOTE 6. Model IO-520-B is similar to IO-520-A except for oil sump, crankcase and accessory case design, incorporation of an integral oil filter, and relocation of generator drive, fuel injection pump, oil cooler mounting pad and air throttle body.

Model IO-520-BA is identical to Model IO-520-B except for crankshaft damper configuration.

See TCM Service Bulletin M71-3 for conversion instructions.

Model IO-520-C is similar to IO-520-B except oil sump and air throttle location is similar to IO-520-A and four focalized mounting legs are provided on the accessory case rather than horizontal bed legs located on the fore and aft ends of the crankcase.

Model IO-520-D is similar to IO-520-A except for rating, throttle body location and induction system.

Model IO-520-E is similar to IO-520-D except for inclination of throttle body and balance tube charges.

Model IO-520-F is similar to IO-520-A except for rating and balance tube size.

Model IO-520-J is identical to IO-520A except for oil sump shape and oil pickup.

Model IO-520-K is similar to IO-520A except for takeoff rating, oil sump and balance tube.

Model IO-520-L is similar to IO-520-F except incorporates IO-520-J oil sump.

Model IO-520-M is similar to IO-520-C except mount brackets, sump, oil cooler and intake manifold riser.

Model IO-520-N is similar to IO-520-BA except power control system.

Model IO-520-BB is similar to the IO-520-B except for modified crankshaft.

Model IO-520-CB is similar to the IO-520-B except for modified crankshaft.

Model IO-520-MB is similar to the IO-520-B except for modified crankshaft.

Model IO-520-NB is similar to the IO-520-B except for modified crankshaft.

Model IO-520-P is similar to the TSIO-520-AE except no turbocharger.

Model LIO-520-P is similar to the LTSIO-520-AE except no turbocharger.

NOTE 7. Models IO-520-A, -D, -E, -F, -J, -K, and -L are eligible for installation with full flow oil filter installation incorporates bypass valve which opens at 12 to 16 p.s.i.g.

Oil filter housing is eligible for direct mounting oil filter equipment having a maximum weight of six pounds and overhang moment of 25 in.-lb. Models L/IO-520-P have oil filter as integral part of oil pump.

NOTE 8. These models of engines are eligible for installation of Automatic Priming Starting System, Equipment No. 6159.

NOTE 9. The following magnetos equipped with an appropriate harness are eligible on these engines at the indicated weight change:

	Wt. Change
One each TCM/Bendix S6RN-201 and S6RN-205	None
One each TCM/Bendix S6RN-1201 and S6RN-1205	+ 1 lb.
Two TCM/Bendix S6RN-25	+1 lb.
Two Slick Electro Model 662 or 680	+2 lb.
Two TCM/Bendix S6RN-1225	+1 lb.
Two Slick Electro Model 6210	-3 lb.

NOTE 10. The following spark plugs are approved for use on these engines:

AC 271, 273, 281, 281IR, 283, 283IR, 291, 293

Auto Lite PL350, SL350

Champion RHB32E, RHB32N, RHB32P, RHB32W, RHB33E, RHB36P, RHB36W

Red Seal LJ360

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NOTE 11. Those engines which are designated with a suffix letter "B" (i.e., IO-520-BB) are interchangeable with those engines of the same model letter without the suffix letter (i.e., IO-520-B). Those engines which are designated without the suffix letter (i.e., IO-520-B) are non-interchangeable with those engines which are designated with the suffix letter "B" (i.e., IO-520-BB).

- NOTE 12. Teledyne Crittenden alternator P/N 642056 and drive coupling P/N 642362 are eligible for use with applicable engine models. Alternator compatibility with aircraft must be accomplished by installer.
- NOTE 13. Teledyne Crittenden alternator P/N 642055 and drive coupling P/N 64362 are eligible for use with applicable engine models. Alternator compatibility with aircraft must be accomplished by installer.

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