

TELEDYNE CONTINENTAL ® AIRCRAFT ENGINE

MANDATORY SERVICE BULLETIN

The Subject Matter Of This Service Bulletin Is Incorporated
In Whole Or In Part In An FAA Airworthiness Directive

CATEGORY 1

MSB 00-5

TECHNICAL PORTIONS
FAA APPROVED

SUBJECT: CRANKSHAFT MATERIAL INSPECTION

BACKGROUND: Teledyne Continental Motors (TCM) has identified the cause of 11 crankshaft fractures which have occurred in the connecting rod journals on straight drive engines manufactured in 1998 and 1999. The cause of the fractures has been identified as composition and processing deficiencies during several discrete periods of steel production and/or forming operations by suppliers. The fractures have occurred in new, rebuilt and field overhauled engines with operational times varying from 15 to 1257 hours. TCM is working closely with its suppliers to insure future production integrity.

TCM has developed an inspection process to identify and replace any other crankshafts potentially affected by this problem. This will be accomplished by means of a metallurgical inspection of two small core samples removed from the crankshaft propeller flange. Review of Teledyne Continental Motors manufacturing processes, nitride characteristics, and dimensional characteristics have not identified any other contributing causes.

PURPOSE: To provide instructions for the removal of crankshaft core samples for metallurgical evaluation.

WARNING

The inspection required by this service bulletin is intended to detect metallurgical anomalies which if present and left uncorrected can result in engine failure.

This inspection requires the removal of the aircraft spinner, propeller and spinner bulkhead to provide access to the crankshaft propeller flange. Two equally sized core samples will be taken from the propeller flange 180 degrees from each other using a customized tool provided by Teledyne Continental Motors. The removed core samples will be placed into a plastic, zip closure bag and identified by engine model, engine serial number and crankshaft serial number. These core samples must be returned to Teledyne Continental Motors for evaluation.

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		1 of 25 MSB00-5	
04	14	00						

COMPLIANCE: For affected engines or crankshafts this inspection must be performed within the next 10 hours of operation.

Uninstalled service spare crankshafts of the affected serial number range must be inspected prior to installation in any engine.

**ENGINES
and/or
CRANKSHAFTS**

AFFECTED: IO-360, TSIO-360, LTSIO-360, O-470, IO-470, TSIO-470, IO-520, TSIO-520, LTSIO-520, IO-550, TSIO-550 and TSIOL-550 series new and rebuilt direct drive engines assembled utilizing a crankshaft that was manufactured from April 1, 1998 through March 31, 2000. Affected engine serial numbers are specified below.

Any of the preceding series engines that have had a replacement crankshaft installed during field overhaul or repair. Affected replacement crankshaft serial numbers are specified below. Refer to the Crankshaft Serial Number Identification below for identification of affected crankshafts.

Note: If your engine has recently had a crankshaft installed that may have been manufactured from April 1, 1998, through March 31, 2000, the crankshaft serial number must be examined to determine if this inspection procedure applies.

Visit TCM's website at www.tcmlink.com to determine if your engine or crankshaft is affected by this service bulletin. If you do not have access to the TCM website, you may contact TCM service department at 1-888-200-7565.

For International customers who do not have access to the Internet and TCM's website, you may contact TCM's Service Department via one of the International toll free numbers listed below or by dialing our direct number 334-438-3411 extension 5100.

Country	Phone number
AUSTRALIA	1-800-1-25131
AVANTEL 1	001-888-200-7565
AVANTEL 2	001-888-200-7565
AVANTEL 3	001-888-200-7565
AVENTEL 4	001-888-200-7565
BAHAMAS	1-888-200-7565
BELGIUM	0800-76267
BRAZIL	00081-4-550-3603
CHINA	10-800-120-0160
COLOMBIA	980-9-154606
COSTA RICA	0800-012-0140
CTC	800-201653
DENMARK	8088-2299
DOM REPUBLIC	1-888-156-1483

Country	Phone number
FINLAND	0-800-1-119686
FRANCE	0800-913943
GERMANY	0800-1006086
GOLDEN	1-800-9203143
GREECE	00800-12-15191
HONG KONG	800-908385
HUNGARY	06-800-13665
INDONESIA	001-803-011-2525
IRELAND	1-800-552252
ITALY	800-874516
JAPAN	00531-1-27656
KOREA-TELE	00798-14-800-4256
LUXEMBOURG	8002-5015
MALAYSIA	1-800-80-3436

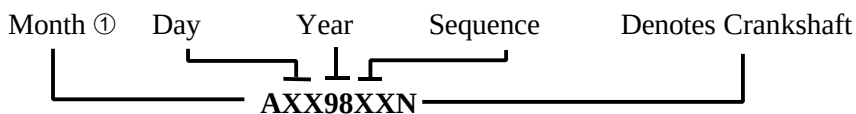
ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		2 of 25 MSB00-5	
04	14	00						

Country	Phone number
MEXICO 1	001-888-200-7565
MEXICO 2	001-888-200-7565
MEXICO 3	001-888-200-7565
MEXICO 4	001-888-200-7565
NETHERLAND	0800-0221015
NEW ZEALAND	0800-449606
NICARAGUA	011-800-2201302
PLDT PHILI	1-800-1-114-0749
PORTUGAL	800-8-12389

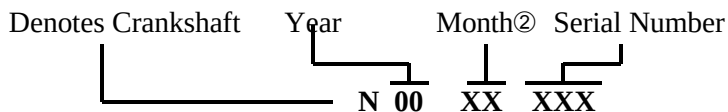
Country	Phone number
SINGAPORE	800-120-3346
SPAIN	900-951987
SWEDEN	020-79-0713
SWITZERLAND	0800-89-6791
TAIWAN	0080-13-9749
THAILAND	001-800-12-066-3179
TURKEY	00-800-151-0677
UNITED	08-000284583
URUGUAY	000-413-598-2436
VENEZUELA	8001-2411

CRANKSHAFT SERIAL NUMBER IDENTIFICATION

Each crankshaft is identified by a serial number steel stamped on the O.D. of the propeller flange that reflects its manufacturing date. Crankshafts produced prior to December 31, 1999 may be identified as follows:



Crankshafts produced beginning January 1, 2000 may be identified as follows:



① To determine month of manufacture use the following alpha code:

A= January	G= July
B= February	H= August
C= March	I= September
D= April	J = October
E= May	K= November
F= June	L= December

② To determine month of manufacturer use the following alpha code:

(X)- is a production alpha code for internal use.

A(X)= January	G(X)= July
B(X)= February	H(X)= August
C(X)= March	I(X) = September
D(X)= April	J(X) = October
E(X)= May	K(X) = November
F(X)= June	L(X) = December

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		3 of 25	
04	14	00					MSB00-5	

AFFECTED ENGINE MODELS
BY ENGINE SERIAL NUMBER AND CRANKSHAFT SERIAL NUMBER

ENGINE MODEL	ENGINE S/N	CRANKSHAFT S/N
I0-360-C	060688	J059805N
I0-360-D	063038	J029809N
	063039	J059804N
	063040	J059801N
I0-360-DB	351396	I259805N
	351399	K109817N
	808799	I249807N
	808801	K049817N
	808802	K109802N
I0-360-ES	357114	I259804N
	357115	I299804N
	357116	I249806N
I0-360-G	244612	J059808N
	244613	J029808N
I0-360-KB	288733	I249801N
	288734	I259808N
	288736	I259806N
	288739	K099801N
	288740	K109807N
LTSI0-360-EB	807514	I239802N
	807516	J019810N
	807517	J019814N
	807518	J019811N
	807519	J019816N
	807520	K059812N
	807522	J019815N
	807523	K079803N
	807524	K059808N
	807525	K069803N
LTSI0-360-KB	319386	K059815N
	319388	J019817N
	812054	I239804N
	812056	J019812N
	812057	J019808N
	812059	I259809N
	812062	K059814N
	812063	K069811N
	812064	K069805N
	812065	K069808N
	812066	K069810N

ENGINE MODEL	ENGINE S/N	CRANKSHAFT S/N
LTSI0-360-KB	812067	K069802N
LTSI0-360-RB	321735	J019813N
	321736	J019807N
	321739	I309802N
	321741	I259810N
	321742	J019809N
	321743	K069809N
	321744	K069806N
	321745	K079802N
	321746	K069807N
TSI0-360-AB	237617	K109805N
	237618	K109815N
TSI0-360-C	283560	J029805N
TSI0-360-CB	236251	K109812N
	236252	K109801N
TSI0-360-D	817251	J029810N
TSI0-360-EB	809232	I259803N
	809235	I249805N
	809238	K069813N
	809239	K109803N
	809240	K109814N
TSI0-360-FB	299712	I299803N
	299713	J019804N
	299714	I259807N
	299715	K049813N
	299716	K069816N
	299717	K109813N
	299718	K109810N
	299720	K109808N
	299720	K109808N
TSI0-360-KB	320381	K069812N
	320383	J019802N
	811323	K099808N
	811324	I259811N
	811325	K049818N
	811329	K099809N
	811330	K109816N
	811331	K099810N
	811332	K109811N
	811333	K109804N
	811334	K109806N

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		4 of 25	
04	14	00					MSB00-5	

AFFECTED ENGINE MODELS (CONTINUED)

ENGINE MODEL	ENGINE S/N	CRANKSHAFT S/N
TSIO-360-LB	247356	I259802N
	247357	K099802N
TSIO-360-LB	247358	K099811N
	247359	K099804N
TSIO-360-MB	279293	I249809N
	279294	K099807N
TSIO-360-MB	279295	K069815N
TSIO-360-RB	321483	I299802N
	321484	I249808N
	321485	I309805N
	321486	K049815N
	321487	K059802N
	321488	I299806N
	321489	K099803N
	321490	K099805N
	321491	K099806N
	321492	K109809N
	321791	K059804N
0-470-GCI	817751	H249809N
0-470-J	202210	H139808N
0-470-K	049506	B199910N
	049507	D129904N
	049508	D139901N
	049509	D129901N
0-470-L	069890	F049806N
	069894	H129807N
	069895	A279923N
	069896	H149805N
	069897	E199926N
	069900	A289907N
	069903	A289912N
	069904	B189912N
	069907	D139904N
0-470-R	069912	B189911N
	466733	B189909N
	811962	E199919N
	815762	F209804N
	815765	F209812N
	815771	F199803N
	815776	F239808N

ENGINE MODEL	ENGINE S/N	CRANKSHAFT S/N
0-470-R	815779	H139803N
	815781	H139814N
	815782	H139816N
	815783	H139807N
	815784	H139811N
	815785	H139804N
	815786	E199917N
	815787	H139812N
	815788	H129811N
	815793	D129911N
	815801	H139806N
	815802	H139805N
	815805	E199915N
	815834	L029811N
	815852	A279921N
	815858	A289910N
	815861	B199904N
	815863	B199907N
	815864	B199911N
	815866	C159917N
	815867	C179905N
	815868	C169906N
	815869	C169903N
	815873	C159911N
	815874	C169905N
	815875	C169907N
	815876	C169911N
	815877	D129903N
	815881	C159916N
	815882	C169908N
	815884	C169904N
	815886	E199923N
	815889	H139801N
	815936	F199804N
0-470-S	269469	F209810N
	269473	F199802N
	269478	H129810N
	269490	A279920N
	269491	A279922N
	269494	C169901N

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		5 of 25	
04	14	00					MSB00-5	

AFFECTED ENGINE MODELS (CONTINUED)

ENGINE MODEL	ENGINE S/N	CRANKSHAFT S/N
O-470-S	269496	B199906N
	819001	C169910N
	819006	F259917N
O-470-U	470759	A299901N
	813396	F049801N
	813413	H149801N
	813418	H149806N
	813420	H149802N
	813450	A289909N
	813458	A289902N
	813467	C159915N
	813472	D139903N
	813475	D129908N
	813478	D129907N
	813482	C159912N
	813486	E199921N
IO-470-C	295552	E079819N
	295553	F249811N
	295554	F259803N
	295558	C189903N
IO-470-D	105644	F179805N
IO-470-F	089920	F109815N
	089929	C159918N
	089930	E199909N
IO-470-K	092995	E059810N
	092997	F289908N
	092998	H249816N
IO-470-L	297803	E079807N
	297804	E079813N
	297807	E059811N
	297809	E079820N
	297810	E079815N
	297811	E079821N
	297812	E079810N
	297814	E069805N
	297815	E059807N
	297816	E059812N
	297817	E079816N
	297818	E079817N
	297823	F249806N

ENGINE MODEL	ENGINE S/N	CRANKSHAFT S/N
IO-470-L	297824	F249810N
	297825	F259802N
	297826	H259802N
	297827	H249813N
	297828	H259812N
	297830	H249810N
	297833	H249808N
	297835	H259806N
	297836	F249813N
	297837	H259816N
	297838	H259807N
	297841	H259815N
	297842	F249809N
	297843	F249807N
	297844	H259809N
	297845	H259813N
	297846	H249814N
	297857	L089804N
	297866	C189906N
	297868	C189902N
	297869	C189909N
	297873	C189904N
	297883	E079803N
	297884	E079808N
	297890	E079818N
	468607	E059808N
	468608	E079823N
	468611	E079812N
IO-470-N	096705	E079809N
	096707	E069804N
	096708	E069810N
	096710	E059809N
	096711	E069802N
	096712	F249815N
	096713	E079825N
	096714	E079814N
	096715	E069808N
	096716	F249808N
	096717	F249814N
	096718	F249816N

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		6 of 25	
04	14	00					MSB00-5	

AFFECTED ENGINE MODELS (CONTINUED)

ENGINE MODEL	ENGINE S/N	CRANKSHAFT S/N
IO-470-N	096720	H259814N
	096722	H259817N
	096734	C189901N
IO-470-S	109391	E019915N
IO-470-V/VO	171213	C159905N
	171214	D099907N
	171216	E019914N
	171217	E019917N
	171218	E039904N
	171219	E049917N
	171220	E049913N
	171225	E039910N
	171232	F109816N
IO-520-A	112834	F159811N
	112855	B179901N
	112856	D089909N
	112861	F109812N
	112867	E069905N
IO-520-A	112870	G149915N
IO-520-BA	814346	J109803N
	814347	J119802N
	814348	J119805N
	814353	J099802N
	814365	K259809N
	814370	K309806N
	814371	L019807N
	814373	L029805N
	814375	B109911N
	814376	A159908N
	814383	B099915N
	814384	B119918N
	814390	D069905N
	814410	L019810N
IO-520-BB	580064	B159903N
	580065	C089905N
	813904	I169814N
	813908	I169816N
	813921	K139803N
	813926	A159917N
	813927	A189904N

ENGINE MODEL	ENGINE S/N	CRANKSHAFT S/N
IO-520-BB	813934	B019910N
	813942	B029902N
	813943	C089901N
	813946	C109907N
	813954	C279901N
	813956	B129910N
	813959	D149902N
	813961	D149913N
	813963	D309904N
	813964	D149912N
	813965	D309902N
	820261	K129806N
IO-520-C	810997	D059908N
	816761	D059905N
	816764	J119808N
	816772	K309805N
	816773	K309807N
	816774	K259801N
	816786	K259811N
	816787	L029807N
	816788	L019801N
	816791	L029810N
	816797	A129904N
	816798	A129902N
	816801	B099913N
	816810	B119909N
	816812	B119915N
	816817	D069909N
	816819	D059912N
	816820	D019910N
	816824	D079904N
	816825	D059906N
	816834	J099806N
	816862	B099914N
IO-520-CB	299002	K149704N
	299077	K169812N
	299078	K169805N
	299090	K179811N
	299096	K169806N
	299099	A159916N

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		7 of 25	
04	14	00					MSB00-5	

AFFECTED ENGINE MODELS (CONTINUED)

ENGINE MODEL	ENGINE S/N	CRANKSHAFT S/N
IO-520-CB	299114	B049906N
	299117	B129908N
	299132	D079907N
	299134	D079909N
	299135	D079910N
	299138	D149903N
	299140	D149904N
IO-520-D	812981	F179811N
	812982	F099816N
	812983	F189805N
	812987	E059915N
	812997	F169801N
	816504	H039801N
	816512	H099809N
	816514	H119801N
	816517	H099802N
	816527	D109912N
	816535	H279818N
	816545	H129806N
	816550	G149908N
	816579	B169914N
	816580	B169906N
	816585	C119903N
	816591	D089905N
	816595	C159923N
	816598	C159901N
	816599	C159904N
	816600	C159902N
	816603	C159922N
	816608	D099904N
	816609	D099909N
	816612	D099908N
	816615	D269905N
	816621	E059902N
	816622	E019918N
	816623	E059906N
	816624	E049904N
	816625	E059904N
	816626	E059901N
	816630	E189921N

ENGINE MODEL	ENGINE S/N	CRANKSHAFT S/N
IO-520-D	816632	E189902N
	816638	F179808N
	816644	F179817N
	816651	D249906N
	816652	E039912N
	816679	G159902N
IO-520-E	215908	F269901N
	215926	C129917N
	215929	E199908N
IO-520-F	579250	F169813N
	579252	F109817N
	579258	B189904N
	579260	G149906N
	814814	D239809N
	814827	F049807N
	814837	F189801N
	814840	F169812N
	814843	F179803N
	814845	F179818N
	814846	E049907N
	814850	F059810N
	814851	E189926N
	814852	F109814N
	814854	F089809N
	814857	F119805N
	814859	F179816N
	814861	F169805N
	814865	E199911N
	814897	F109810N
	814907	H099821N
	814908	D109903N
	814921	E199910N
	814977	B169902N
	814978	B169915N
	814979	B169917N
	814980	B189905N
	814985	B179905N
	814986	B179907N
	814988	C119909N
	814990	C119913N

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		8 of 25	
04	14	00					MSB00-5	

AFFECTED ENGINE MODELS (CONTINUED)

ENGINE MODEL	ENGINE S/N	CRANKSHAFT S/N
IO-520-F	814991	C119907N
	814994	B189906N
	814995	C129904N
	814996	C119911N
	814998	C119905N
	814999	C129911N
	815000	C129912N
	818751	C139901N
	818752	C159920N
	818753	C159919N
	818768	D109911N
	818769	D109901N
	818770	D089917N
	818772	D099903N
	818774	D239912N
	818777	D239907N
	818781	D269917N
	818782	D249904N
	818783	E059905N
	818784	E039903N
	818785	E039917N
	818788	E049908N
	818794	E189920N
	818796	E189911N
	818797	E189905N
	818801	E199914N
	818802	E199913N
	818803	F169817N
	818804	E059910N
	818807	D109905N
	818816	D239905N
	818835	E059903N
IO-520-L	294911	F059807N
	294912	F169806N
	294913	E189917N
	294916	F109809N
	294917	E039905N
	294930	E189925N
	294938	E059913N
	294947	E189915N

ENGINE MODEL	ENGINE S/N	CRANKSHAFT S/N
IO-520-L	294974	C159903N
	294977	D089911N
	294979	D109906N
	294980	D089907N
	294982	D239908N
	294983	D269908N
	294985	E039901N
	294988	E059917N
	294989	E199904N
	294991	E199906N
	294996	D109907N
	295039	F119804N
	577234	F269913N
IO-520-M	811625	J099809N
	811635	B109912N
	811644	D019912N
	811645	D019906N
	811646	D019903N
	811650	D019907N
IO-520-MB	277688	K189801N
	277721	I229809N
	277726	K139801N
	277748	C279902N
	277753	D149907N
LTSIO-520-AE	246675	G159915N
	246680	G159918N
TSIO-520-AE	246177	G169904N
	246179	G169903N
TSIO-520-AF	245248	F169815N
TSIO-520-B	176762	L029808N
	176763	J099810N
	176765	A139906N
	176767	B119914N
	176795	K309801N
TSIO-520-BB	287616	K169801N
	287618	C089904N
	287619	C089903N
TSIO-520-C	178542	F179813N
	178560	B169911N
	178566	E039908N

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		9 of 25	
04	14	00					MSB00-5	

AFFECTED ENGINE MODELS (CONTINUED)

ENGINE MODEL	ENGINE S/N	CRANKSHAFT S/N
TSIO-520-CE	268586	C039919N
TSIO-520-E	183520	J109806N
	812601	J089809N
	812602	J109804N
	812603	I109810N
	812614	K309803N
	812617	K309808N
	812619	L029804N
	812621	K259813N
	812622	K259810N
	812623	K259807N
	812624	A139904N
	812625	A139901N
	812630	L029803N
	812631	A139903N
	812632	B099910N
	812635	D019905N
	812638	D019911N
TSIO-520-EB	815023	F169808N
	815035	C089906N
	815040	C269906N
	815042	D149915N
TSIO-520-G	216053	E039906N
TSIO-520-H	217409	F109808N
	217412	E189928N
	217420	B169904N
	217424	D109908N
	217426	E189918N
	217428	F269905N
	506894	F129806N
TSIO-520-J	218992	B099917N
TSIO-520-JB	237193	A159911N
TSIO-520-L	241973	A129901N
	241974	A129903N
TSIO-520-LB	815504	B049904N
TSIO-520-M	291964	F109803N
	291969	E199912N
	291981	F119806N
	532083	F049809N
	532085	H279804N

ENGINE MODEL	ENGINE S/N	CRANKSHAFT S/N
TSIO-520-M	532093	C119906N
	532095	E049910N
	818015	B169908N
	818016	B179906N
	818017	B179916N
	818018	B169905N
	818021	C139908N
	818022	D099905N
	818023	D089913N
	818024	D099906N
	818026	D269906N
	818027	C119902N
	818028	E019912N
	818030	E189910N
	818031	E189903N
	818041	E069901N
	818072	F179814N
TSIO-520-NB	813631	K139802N
	813635	A159918N
	813636	A159914N
	813638	B159911N
	813641	B159908N
	813644	C109914N
	813646	D079911N
	813647	D079908N
	813654	D299907N
	813685	C109912N
TSIO-520-P	278820	E059912N
	278823	F129803N
	278833	E039915N
	278834	E069904N
	278835	E189914N
	278836	E199907N
	278845	E039913N
TSIO-520-R	293969	E069906N
	293978	F049808N
	293979	F089805N
	293992	F179804N
	293993	F169816N

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		10 of 25	
04	14	00					MSB00-5	

AFFECTED ENGINE MODELS (CONTINUED)

ENGINE MODEL	ENGINE S/N	CRANKSHAFT S/N
TSIO-520-R	294052	B169907N
	294054	B189903N
	294055	C119901N
	294059	B169903N
	294063	E019919N
	294066	E059918N
	294068	E189922N
	294069	E189904N
	294070	E189924N
	294072	D099902N
	294073	D099911N
	294085	F269902N
	522703	E039918N
TSIO-520-T	239475	B189902N
	239476	C129910N
	239477	C129916N
	239484	D089908N
TSIO-520-UB	527425	I189807N
	527433	D149905N
	809354	A169905N
	809357	B159902N
TSIO-520-VB	816019	I189801N
	816038	K199804N
	816039	K149802N
	816047	K179805N
	816050	A169914N
	816055	A189901N
	816056	A169913N
	816057	B019915N
	816064	B159912N
	816065	B159904N
	816075	C279905N
	816079	C269909N
	816080	D149910N
	816081	D149906N
	816086	D149914N
TSIO-520-WB	274443	C279912N
IO-550-A	280493	J269804N
	280498	J239810N
	817001	J279805N

ENGINE MODEL	ENGINE S/N	CRANKSHAFT S/N
IO-550-B	297046	A169802N
	297062	A169805N
	297105	I229805N
	297108	I219802N
	297118	J259804N
	297119	J259805N
	297120	J269801N
	297121	J269812N
	297125	J279810N
	297128	J259812N
	297139	A199904N
	297140	A199906N
	297142	A209906N
	297149	B059901N
	297154	B039916N
	297157	B059908N
	297161	C249909N
	297165	C259902N
	297167	C299910N
	682997	A169804N
	684015	J259811N
	684016	J269808N
	684017	J269811N
	684026	B039913N
	684027	A199901N
	684029	A199903N
	684030	B039915N
	684032	B039907N
	684033	B039910N
	684043	C239917N
	684044	C259903N
	684045	C259904N
	684046	C259909N
	684048	C319910N
	684114	B059920N
	684121	C069905N
IO-550-C	684243	I229806N
	684259	J279804N
	684271	A189913N
	684276	B049910N

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		11 of 25	
04	14	00					MSB00-5	

AFFECTED ENGINE MODELS (CONTINUED)

ENGINE MODEL	ENGINE S/N	CRANKSHAFT S/N
IO-550-C	684277	B039906N
	684278	B049907N
	684279	B049908N
	684280	B089901N
	684281	B059918N
	684282	B059922N
	684283	B059917N
	684291	C239914N
	684295	C259910N
	684419	B089910N
	684535	C259907N
	684536	C259905N
	815292	I219804N
	815307	J239807N
	815311	J269803N
	815317	A189906N
	815321	B099904N
	815322	B059916N
	815323	A199908N
	815325	B089907N
	815328	C069909N
	815329	C069903N
	815330	B059903N
	815335	C259906N
	815339	B059910N
	815344	B059913N
IO-550-D	284299	D179916N
	284313	A309910N
	284314	A309903N
	284315	A309902N
	284316	B019904N
	284317	B019905N
	284318	A309906N
	284319	A309904N
	284324	D179915N
	284330	G169910N
IO-550-E	680020	A309901N
IO-550-F	283391	B019906N
	284848	D179907N
	284900	A309909N

ENGINE MODEL	ENGINE S/N	CRANKSHAFT S/N
IO-550-F	284901	A309908N
	284902	B019903N
	284905	B019901N
	284914	D179911N
	679523	D179908N
IO-550-G	679343	I229801N
	679368	J269807N
	679370	J269802N
	679379	A189907N
IO-550-G	679380	B039909N
	679384	B039911N
	679385	B059914N
	679386	B059902N
	679387	B089902N
	679388	B059921N
	679389	B059911N
	679390	B089909N
	679391	B059905N
	679393	I219805N
	679394	C069906N
	679396	C069907N
	679398	B089906N
	679403	C299907N
	679405	C319908N
	679439	C319901N
	808508	J269809N
IO-550-L	289148	D199908N
IO-550-N	683356	B089908N
	683359	C269902N
TSIO-550-C	802589	J259803N
	802591	I219803N
	814509	J279811N
	814512	B059907N
TSIO-550-E	803067	C319905N
	803071	B059915N
	803072	B089903N
	803073	B059906N
	803074	B059912N
	803075	B059904N
	803077	I219801N

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		12 of 25	
04	14	00					MSB00-5	

AFFECTED ENGINE MODELS (CONTINUED)

ENGINE MODEL	ENGINE S/N	CRANKSHAFT S/N
TSIO-550-E	803078	A189908N
	803081	A199907N
	803086	B049911N
	803088	B089905N
	803095	C249905N
TSIOL-550-A	809259	I219806N

AFFECTED CRANKSHAFTS BY CRANKSHAFT PART NUMBER AND SERIAL NUMBER

CRANKSHAFT PART NUMBER	CRANKSHAFT SERIAL NUMBER
646623	A309905N
646623	A309907N
646623	D179904N
649133	D089912N
649134	B119903N
649134	B179904N
649134	B179909N
649134	B179910N
649134	B179918N
649134	B189901N
649134	C129902N
649134	C129905N
649134	C129906N
649134	C129907N
649134	C129909N
649134	C129915N
649134	C139904N
649134	C139906N
649134	C139909N
649134	C139910N
649134	C139911N
649134	D089903N
649134	D089915N
649134	D099901N
649134	D099910N
649134	D109904N

CRANKSHAFT PART NUMBER	CRANKSHAFT SERIAL NUMBER
649134	D109909N
649134	D239901N
649134	D239902N
649134	D239903N
649134	D239904N
649134	D239906N
649134	D239909N
649134	D239910N
649134	D239911N
649134	D249910N
649134	D249915N
649134	D249916N
649134	D249918N
649134	D269901N
649134	D269903N
649134	D269904N
649134	D269907N
649134	D269910N
649134	D269911N
649134	D269912N
649134	D269913N
649134	D269914N
649134	D269915N
649134	D269916N
649134	D269918N
649134	E039902N

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		13 of 25	
04	14	00					MSB00-5	

AFFECTED CRANKSHAFTS (Continued)
BY CRANKSHAFT PART NUMBER AND SERIAL NUMBER

CRANKSHAFT PART NUMBER	CRANKSHAFT SERIAL NUMBER
649134	E039907N
649134	E039909N
649134	E039911N
649134	E039914N
649134	E049901N
649134	E049902N
649134	E049906N
649134	E059908N
649134	E059914N
649134	E059916N
649134	E059919N
649134	E059920N
649134	E189913N
649134	E189923N
649134	E199902N
649134	E199903N
649134	E199905N
649134	F099810N
649134	F109804N
649134	F109811N
649134	F109818N
649134	F119801N
649134	F119802N
649134	F119803N
649134	F119807N
649134	F119808N
649134	F119809N
649134	F119810N
649134	F119811N
649134	F119812N
649134	F129801N
649134	F129805N
649134	F129811N
649134	F159807N
649134	F159809N
649134	F169802N
649134	F169814N
649134	F179802N
649134	F179812N
649134	F179815N
649134	F189802N
649134	F189803N

CRANKSHAFT PART NUMBER	CRANKSHAFT SERIAL NUMBER
649134	F199801N
649134	F269912N
649134	G149909N
649134	G149910N
649134	G149911N
649134	G149912N
649134	G149913N
649134	G149916N
649134	G159901N
649134	G159905N
649134	G159906N
649134	H099818N
649134	H109803N
649134	H109804N
649135	F109813N
649138	B189910N
649138	B199902N
649138	B199905N
649138	C169902N
649138	D129912N
649138	D139900N
649138	E199924N
649138	H149803N
649138	H149804N
649141	B189907N
649141	B189908N
649141	B199901N
649141	B199909N
649141	C159907N
649141	C179906N
649141	D129905N
649141	E199918N
649141	E199920N
649141	E199922N
649141	F049805N
649141	F209801N
649141	F209802N
649141	F209803N
649141	H139809N
649141	H139810N
649141	H139815N
649144	G159917N

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		14 of 25	
04	14	00					MSB00-5	

AFFECTED CRANKSHAFTS (Continued)
BY CRANKSHAFT PART NUMBER AND SERIAL NUMBER

CRANKSHAFT PART NUMBER	CRANKSHAFT SERIAL NUMBER
649895	A139905N
649895	A159902N
649895	A159903N
649895	A159904N
649895	A159905N
649895	B099909N
649895	B099912N
649895	B099918N
649895	B109901N
649895	B109917N
649895	B109918N
649895	B109922N
649895	B119904N
649895	B119906N
649895	B119907N
649895	B119908N
649895	B119917N
649895	D019901N
649895	D019902N
649895	D019908N
649895	D019909N
649895	D059902N
649895	D059907N
649895	D059909N
649895	D069902N
649895	D069904N
649895	D069906N
649895	D079903N
649895	I109811N
649895	I119811N
649895	I119812N
649895	J089810N
649895	J099801N
649895	J099804N
649895	J099807N
649895	J099808N
649895	J099811N
649895	J099812N
649895	J099815N
649895	J119801N
649895	J119804N
649895	J319805N

CRANKSHAFT PART NUMBER	CRANKSHAFT SERIAL NUMBER
649895	K249801N
649895	K259803N
649895	K259805N
649895	K309802N
649895	L019803N
649895	L019805N
649895	L019806N
649895	L019809N
649895	L029801N
649895	L029802N
649895	L029806N
649895	L029809N
649895	L309808N
649896	A159901N
649896	B099908N
649896	B109905N
649896	B109914N
649896	D019904N
649896	D059901N
649896	D079902N
649896	J109802N
649896	J119803N
649896	K309804N
649896	K309809N
649896	K309810N
649896	L019802N
649898	A159912N
649898	A159915N
649898	A159919N
649898	A169904N
649898	A169915N
649898	A189903N
649898	B049901N
649898	B049903N
649898	C099901N
649898	C099902N
649898	C099904N
649898	C099905N
649898	C099906N
649898	C109901N
649898	C109903N
649898	C109904N

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		15 of 25	
04	14	00					MSB00-5	

AFFECTED CRANKSHAFTS (Continued)
BY CRANKSHAFT PART NUMBER AND SERIAL NUMBER

CRANKSHAFT PART NUMBER	CRANKSHAFT SERIAL NUMBER
649898	C109906N
649898	C109911N
649898	D149909N
649898	I139813N
649898	I169813N
649898	I169815N
649898	I189808N
649898	K149801N
649898	K149805N
649898	K169802N
649898	K169814N
649898	K179804N
649898	K189804N
649898	L189808N
649900	A189911N
649900	A199902N
649900	B059909N
649900	C259901N
649900	C269901N
649900	C269904N
649900	C319907N
649900	C319909N
649900	J239811N
649900	K229807N
652006	E079801N
652009	E079822N
652009	F259801N
652009	F259804N
652009	H259803N
652009	H259805N
652009	H259811N
652010	E069801N
652010	E069806N
652010	E069807N
652010	E069809N
652010	E079802N
652010	E079805N
652010	H249807N
652010	H249811N
652010	H249815N
652010	H249817N
652010	H249818N

CRANKSHAFT PART NUMBER	CRANKSHAFT SERIAL NUMBER
652010	H259801N
652010	H259804N
652010	H259808N
652010	H259818N
652011	B189914N
652011	C189907N
652011	C189908N
652011	E069803N
652011	E079804N
652011	E079806N
652011	E079811N
652011	E079824N
652011	H249812N
652039	F049803N
653129	I249803N
653129	I249804N
653129	I249810N
653129	I259801N
653129	I309803N
653129	I309804N
653129	J019801N
653129	J019803N
653129	J019805N
653129	K059803N
653129	K069804N
653129	K069814N
653136	I239801N
653136	I239803N
653136	I239805N
653136	I239806N
653136	I239807N
653136	I239808N
653136	I239810N
653136	I239811N
653136	K059809N
653136	K059811N
653136	K079804N
653136	K079810N
653137	J029802N
653137	J029803N
653137	J029804N
653139	J029807N

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		16 of 25	
04	14	00					MSB00-5	

AFFECTED CRANKSHAFTS (Continued)
BY CRANKSHAFT PART NUMBER AND SERIAL NUMBER

CRANKSHAFT PART NUMBER	CRANKSHAFT SERIAL NUMBER
653139	J059802N
653139	J059803N
653139	J059807N
653139	J059809N
653139	J059810N
653139	J059811N
653139	J059812N
653139	N00AA049
654432	A189909N
654432	A189912N
654432	C299906N
654432	I229804N

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		17 of 25	
04	14	00					MSB00-5	

A. GENERAL INFORMATION:

Teledyne Continental Motors will provide the following specialized tools and equipment required to perform the procedure detailed in this service bulletin:

MSB 00-5 Tool Kit Contents

1. 1 each-Crankshaft Boring Tool & Adapter
2. 1 each Instructional Video
3. 1 each-Positive Stop Depth Rod
4. 1 each .025 Feeler Gage
5. 1 each-End Mill
6. 2 each-Coring Bit (Rotobroach)
7. 1 each-De-burring Tool (1 spare blade)
8. 20 each-Core Sample Bags and Labels.
One crankshaft (2) core samples per bag.

The following supplies must be obtained locally.

1. Zinc Chromate Primer- non aerosol
2. Acid brushes or cotton swabs
3. LPS-1 Spray Lubricant- non-silicon/non-Teflon based.
4. Dye Check Kit
5. Dial Type Torque Wrench; 0-200 inch lbs.
6. Spark plug gaskets.
7. Propeller hub O-ring.

WARNING

Do not use silicon or Teflon based coolants or lubricants during any part of this procedure. Silicon and/or Teflon based products will affect the reliability of the dye check procedure.

B. PRE-CORING PROCEDURE:

Verify that engine model and serial number, or replacement crankshaft serial number, is listed as affected by this service bulletin.

Service spare crankshafts affected by this service bulletin which have not been installed in an engine must be inspected prior to being installed.

Affected engines installed in aircraft must be inspected within the next 10 hours of operation.

For engines installed in aircraft proceed as follows.

In accordance with the aircraft manufacturer's maintenance manual:

1. Remove engine cowlings to gain access to the upper spark plugs and propeller mounting hardware. Remove upper spark plug ignition leads and spark plugs.
2. Remove propeller spinner, spinner bulkhead and propeller. If the aircraft is equipped with propeller de-ice or anti-ice, follow the aircraft manufacturer's instructions for removal of this equipment, if required for propeller removal.
3. Using a clean shop towel, clean the propeller flange.
4. Record engine model and serial number, crankshaft serial number and total engine time on shop repair work order and on the labels provided by TCM.

C. MOUNTING TOOLING:

Before installing the crankshaft boring tool and crankshaft flange adapter, insure that the adapter face and counter bore are clean and free of any debris. Insure that the mounting studs are secure in the propeller flange adapter mounting plate.

1. Plug the crankshaft opening with a clean shop towel to prevent any debris from entering the crankshaft oil transfer area.
2. Using a piece of plastic, fabricate a protective cover for the engine and nacelle area. In the approximate center of the piece of plastic, cut a slit 6 inches long. Slip the crankshaft propeller flange through the slit, drape the upper part of the plastic over the top of the engine and drape

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		18 of 25	
04	14	00					MSB00-5	

the lower part in such a manner that the plastic protects the lower portion of the engine and the nacelle area.



FIGURE 1
PROTECTIVE PLASTIC COVER

3. Place a drip pan under the plastic to catch cooling/lubricating fluid and metal shavings.
4. On the propeller flange, identify, and using a red magic marker, mark the location from which the core samples will be taken. See Figure 2.
5. Locate the two crankshaft flange holes that will be used to mount the adapter and boring tool. See Figure 2.

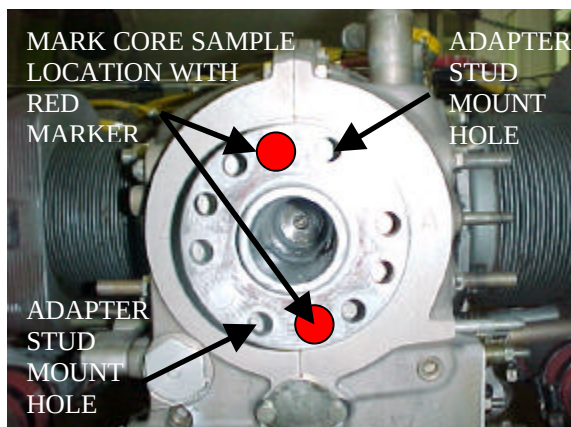


FIGURE 2
FLANGE CORE SAMPLE AREA MARKED

6. Rotate the crankshaft so that the crankshaft flange holes to be used to mount the adapter plate and boring tool (identified in step 4) are positioned so that, when installed, the adapter plate does not contact

any portion of the engine surrounding the propeller flange or the aircraft cowling.

7. Position the boring tool propeller flange adapter plate mounting studs to align with selected propeller flange holes and slide the adapter studs through the propeller flange holes. Secure the coring tool flange to the propeller flange with the two nuts provided with the tooling. Tighten nuts to 150 inch lbs.
8. The red mark made on the propeller flange must be visible through the boring tool adapter plate hole. If the red mark is not visible, remove the boring tool from the propeller flange and repeat the above steps 5,6 and 7.

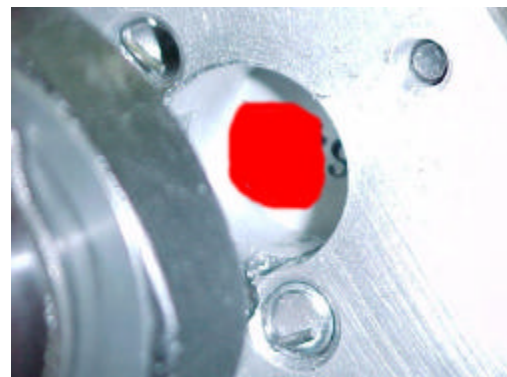


FIGURE 3
VERIFICATION OF CORING SAMPLE LOCATION & TOOL ALIGNMENT

D. REMOVAL OF NITRIDE LAYER:

Removal of the nitride layer from the forward face of the crankshaft flange will require spot facing an area .025 inches deep for each core sample. To remove the nitride layer proceed as follows:

1. With the boring tool and adapter plate correctly positioned and mounted, install the end mill provided with the tool kit into the boring chuck. Insure that the flats machined on the shank of the end mill align with the allen set screw in the chuck. Tighten the set screws with the allen

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		19 of 25 MSB00-5	
04	14	00						

wrench provided in the tool kit. See FIGURES 4 and 5.



FIGURE 4
END MILL FOR SPOT FACING
PROPELLER FLANGE FRONT FACE

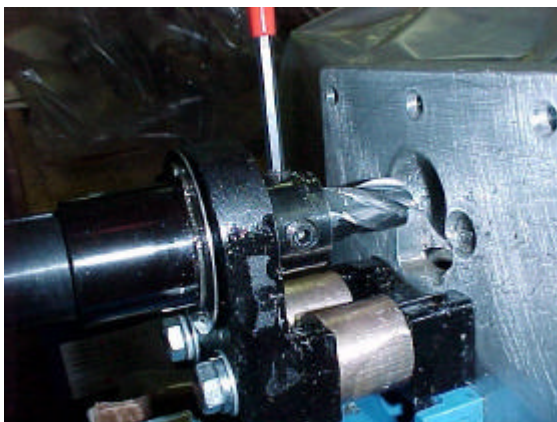


FIGURE 5
INSTALLING END MILL

2. Install a dial type inch pound torque wrench into the square drive on the side of the boring tool. Ensure that the range of motion is sufficient to allow the end mill to contact the work.
3. Install the positive stop rod provided into the holder mounted on the top of the boring tool motor.
4. Advance the end mill toward the front face of the crankshaft flange until the end mill contacts the flange.

5. To set the correct depth of the spot face, position a .025 feeler gage so that it is captured between the mounting adapter surface and the end on the positive stop rod as the rod is moved forward. Lock the positive stop rod in place using the thumb screw or set screw on top of the rod adapter. See Figure 6.

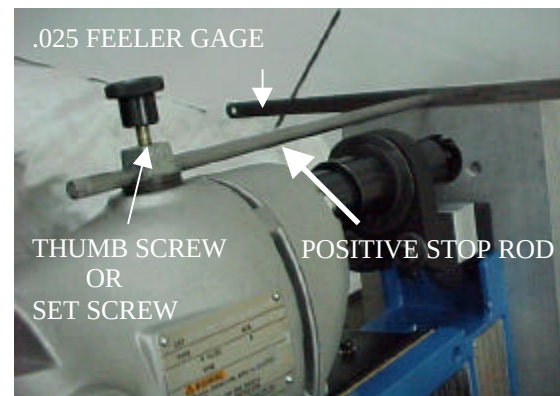


FIGURE 6
POSITIVE STOP ROD SET-UP FOR
.025 SPOT FACE

6. Back the end mill away from the front surface of the propeller flange and remove the feeler gage.

CAUTION

Eye protection must be worn during the machining processes. Steel shavings will be made during this procedure.

7. Turn the boring tool on using the switch provided on the tool.
8. Slowly advance the end mill toward the front face of the crankshaft flange by applying pressure to the handle of the dial type torque wrench.
9. Spray generous amounts of coolant/lubrication (LPS-1) onto the work and end mill during the spot facing operation.
10. Maintain a constant pressure on the torque wrench during the spot facing operation, but do not exceed 110 inch lbs. See Figure 7.

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		20 of 25 MSB00-5	
04	14	00						



FIGURE 7
USING TORQUE WRENCH TO MAINTAIN
CONSISTENT FEED RATE

11. Spot face the front face of the propeller flange until the positive stop rod contacts the adapter plate surface. Additionally, as the nitrided surface is penetrated an audible sound change will occur and the feed rate of the end mill will increase as the end mill cuts into the non-nitrided steel.
12. Back the end mill away from the propeller flange front face and turn OFF the boring tool.
13. Loosen the thumb screw or set screw securing the positive stop rod in place and sliding the rod aft remove it from the holder.
14. Remove the end mill from the boring tool chuck. Clean the machining debris from the boring tool and adapter flange.

E. PROPELLER FLANGE CORING SAMPLE PROCEDURE:

With the boring tool and adapter plate mounted to the propeller flange, proceed as follows:

1. Mount the coring rotobroach into the boring tool chuck. Ensure that the rotobroach is positioned so that a portion of the set screw flat protrudes from the end of the chuck. Secure the rotobroach by tightening the allen set screw in the chuck. See FIGURE 5 and 8.



FIGURE 8
ROTOBROACH CORING BIT

2. Ensure that the torque wrench has sufficient travel for the rotobroach to drill through the propeller flange.
3. Turn the boring tool on and advance the rotobroach toward the propeller flange by applying pressure to the handle of the torque wrench. Spray generous amounts of coolant/lubricant (LPS-1) onto the propeller flange and rotobroach as it contacts and bores into the propeller flange.
4. Apply consistent pressure of 100 to 110 inch lbs. to the torque wrench to control boring tool feed rate pressure during the initial stages of the coring operation. Apply generous amounts of coolant/lubricant (LPS-1) to the work surface and rotobroach throughout the machining operation. Occasionally back the rotobroach away from the work surface to clear the cutting flutes of machining debris. See Figure 9.

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		21 of 25 MSB00-5	
04	14	00						

5. As the rotobroach contacts the nitrided back wall of the propeller flange, the feed rate will decrease. It may be necessary to increase the feed rate pressure to 140 to 180 inch lbs. Do not apply more than 200 inch lbs. of force to the rotobroach. If the rotobroach stops cutting, install new rotobroach and continue coring operation.

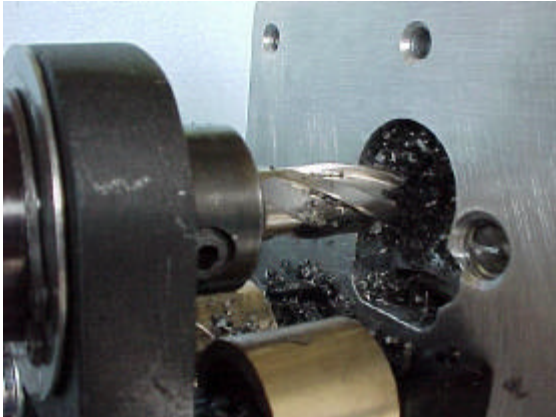


FIGURE 9

ROTOBROACH TAKING CORE SAMPLE

6. Once the rotobroach has cut through the back wall of the propeller flange, release the pressure on the torque wrench and pull the rotobroach out of the machined hole in the propeller flange and clear of the boring tool adapter plate.
7. Loosen the allen set screw and remove the rotobroach and propeller flange core sample from the boring tool chuck.
8. Remove the core sample from the rotobroach and place it in the self sealing plastic bag provided. See Figure 10.
9. Fill out the label on the front of the self-sealing plastic bag in its entirety.
10. Supporting the boring tool and propeller flange adapter plate loosen and remove the two nuts on the aft side of the propeller flange that secured the boring tool and adapter plate to the propeller flange.
11. Remove the boring tool and adapter plate from the propeller flange.



FIGURE 10

PROPELLER FLANGE CORE SAMPLES (One crankshaft set (2) per sample bag)

12. Clean the machining debris from the boring tool adapter plate and from the propeller flange.
13. Position the boring tool and adapter plate 180 degrees from its previous position to machine the second core sample.
14. Mount and seat the boring tool and adapter plate onto the propeller flange and secure in place by installing the two nuts onto the studs protruding from the back side of the propeller flange.
15. Ensure that the red mark identifying the desired machining area of the propeller flange is visible through the adapter plate boring hole. See FIGURE 3.
16. To obtain the second propeller flange core sample repeat PART D steps 1 through 14 and PART E steps 1 through 12.

F. CLEANING AND CHAMFERING CORE SAMPLE HOLES:

After removing the boring tool and adapter plate from the propeller flange, clean and chamfer the core sample hole as follows:

1. Ensure that the front and aft face of the propeller flange is clean and free of any machining debris.

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		22 of 25	
04	14	00					MSB00-5	

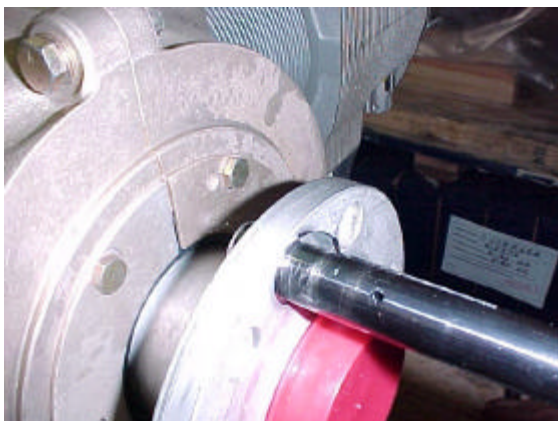


FIGURE 11
CHAMFERING CORE SAMPLE HOLE

NOTE: The chamfering tool has a spring loaded cutting blade. To chamfer the aft side of the core sample hole, apply enough pressure to the chamfering tool to cause the blade to retract sufficiently to allow the tool to pass through the core sample hole.

2. Using the chamfering tool provided in the tool kit, chamfer the core sample hole I.D. on the front and aft faces of the propeller flange. See Figure 11.
3. Apply a light even pressure to the tool during the chamfering process.



FIGURE 12
CORE SAMPLE HOLE
AFTER CHAMFERING

4. Using 180 crocus cloth or emery paper polish the core sample hole I.D.
5. Clean the core sample holes and propeller flange using a lint free shop towel dampened with Acetone.
6. Measure edge distance of core sample hole to propeller flange O.D. Minimum edge distance is .090 inches. If edge distance is less than .090 inches, contact TCM at 1-888-200-7565.



FIGURE 13
CORE SAMPLE HOLE MINIMUM
EDGE DISTANCE

7. Visually inspect core sample holes for sharp edges and burrs. Remove any sharp edges or burrs prior to proceeding. See Figure 12.

G. DYE CHECK OF CORE SAMPLE HOLES:

In accordance with ASTM E 1417 perform a complete Dye Check Inspection of the core sample holes and the adjacent front and aft flange surfaces ¼ inches around the holes.

1. Brush red visible dye check penetrant in the core sample holes and the surrounding area on the front and aft flange faces.
2. Allow penetrant to dwell for a minimum of 20 minutes.
3. Clean off residual penetrant with a clean lint free shop towel dampened with penetrant remover.

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		23 of 25 MSB00-5	
04	14	00						

4. Apply removable dye check developer by spraying a light, uniform coating to cover the core sample hole I.D. and the surrounding area.
5. Allow developer to dwell for 15 minutes.
6. Visually inspect affected area surrounding the core sample holes on the front and aft face of the propeller flange for crack indications. If no crack indications are noted, proceed to Part H.
7. If crack indications are noted, contact Teledyne Continental Motors Service Representative at 1-888-200-7565.

H. PAINTING CORE SAMPLE HOLES:

1. Clean all dye check residue from the core sample holes and surrounding area with penetrant remover or acetone.
2. Using an acid brush or cotton swab, apply zinc chromate primer to core sample holes and chamfered areas on the front and aft faces of propeller flange. Allow the primer to cure completely prior to installation of the propeller. See Figure 14.



FIGURE 14
CORE SAMPLE HOLE AFTER
APPLICATION OF ZINC CHROMATE
PRIMER

I. MAILING SAMPLE:

Ensure that the label on the plastic bag containing the core samples is completed in its entirety.

Place plastic core sample bag in an overnight envelope and mail to:

Teledyne Continental Motors

2039 Broad Street

Mobile, Alabama 36615

ATTN: MSB 00-5

J. RETURNING AIRCRAFT AND ENGINE TO SERVICE:

In accordance with the aircraft manufacturer's maintenance manual and Teledyne Continental Motors engine maintenance manual or overhaul manual perform the following:

1. Remove protective plastic covering from around the crankshaft propeller flange and engine.
2. Remove the shop towel or other protective device that was used to protect the interior of the crankshaft during the sample coring process.
3. Insure that propeller flange is clean and free of any debris that would interfere with correct seating and installation of the aircraft propeller.
4. In accordance with the aircraft manufacturer's maintenance manual install propeller, propeller spinner bulkhead and spinner. Torque attaching hardware to values specified in the aircraft manufacturer's maintenance manual.
5. Install upper sparkplugs using new gaskets and torque to 300 to 360 inch lbs.
6. Install ignition leads and torque "B" nuts to 110-120 inch lbs.
7. Install engine cowlings.

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		24 of 25 MSB00-5	
04	14	00						

8. Perform a complete engine ground run up in accordance with the aircraft manufacturer's maintenance manual.

Teledyne Continental Motors will notify the FBO via Internet e-mail, FAX or telephone upon completing the testing on the core samples. Evaluation of core samples should be completed in 24 to 48 hours after the samples are received by Teledyne Continental Motors.

Engines with crankshaft core samples meeting the acceptance criteria may be returned to service. Teledyne Continental Motors will provide a logbook attachment indicating the core samples from the specified engine are acceptable and that the engine may be returned to service.

Make an engine logbook entry stating compliance with TCM MSB 00-5.

Make an aircraft logbook entry referring to removal and installation of the propeller, propeller spinner and spinner bulkhead to facilitate compliance with TCM MSB 00-5.

K. WARRANTY

The labor and material required to comply with this service bulletin will be covered by Teledyne Continental Motors New, Rebuilt or Gold Medallion Warranty policy as applicable to the affected engine.

Labor hours approved to comply with this service bulletin will not exceed 3 ½ manhours per affected engine.

Reimbursement for compliance with the inspection specified in this service bulletin will be process using the "Crankshaft Material Inspection Reimbursement Form" on the last page of the service bulletin. To insure prompt process of you reimbursement, complete the form in its entirety.

Mail reimbursement form to:

Teledyne Continental Motors

2039 Broad Street

Mobile, Alabama 36615

ATTN: WARRANTY ADMINISTRATION

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		25 of 25 MSB00-5	
04	14	00						

TELEDYNE CONTINENTAL ® AIRCRAFT ENGINE

MANDATORY SERVICE BULLETIN

The Subject Matter Of This Service Bulletin Is Incorporated
In Whole Or In Part In An FAA Airworthiness Directive

CATEGORY 1

MSB 00-5D

TECHNICAL PORTIONS
FAA APPROVED

SUBJECT: CRANKSHAFT MATERIAL INSPECTION

PURPOSE FOR

REVISION "D" : Revision D of MSB 00-5 identifies engines and crankshafts **that have not complied** with previous issues of MSB 00-5. **See Section 1 for non-compliant engines and crankshafts.**

Additional suspect engine and crankshafts have been identified and added to Sections 1,2,3 and 4 of this MSB. Teledyne Continental Motors strongly recommends that you review these sections to determine if your engine or crankshaft or if an engine or crankshaft in your possession or under your care has been added to this MSB.

BACKGROUND: Teledyne Continental Motors (TCM) has identified the cause of 14 crankshaft fractures which have occurred in the connecting rod journals on straight drive engines manufactured in 1998 and 1999. The cause of the fractures has been identified as composition and processing deficiencies during several discrete periods of steel production and/or forming operations by suppliers. The fractures have occurred in new, rebuilt and field overhauled engines with operational times varying from 15 to 1257 hours. TCM has worked closely with its suppliers and added additional procedures to insure future production integrity.

TCM has developed an inspection process to identify and replace any other crankshafts potentially affected by this problem. This will be accomplished by means of a metallurgical inspection of two small core samples removed from the crankshaft propeller flange. Review of Teledyne Continental Motors manufacturing processes, nitride characteristics, and dimensional characteristics have not identified any other contributing causes.

This Mandatory Service Bulletin Revision is issued to specifically identify crankshafts that have not complied with previous revisions. It also includes additional affected crankshafts that have been determined to be suspect since the last revision.

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		1 of 60 MSB 00-5	D
04	14	00	10	17	01			

This Mandatory Service Bulletin has been divided into Sections.

Section 1 of this Bulletin lists specific crankshafts affected by this Mandatory Service Bulletin **that have not complied with the inspection requirements of this Mandatory Service Bulletin** or AD 2000-23-21. Affected crankshafts are listed as follows:

1. Crankshafts installed in Factory New or Rebuilt engines, by engine model, engine serial number, crankshaft serial number and heat code.
2. Crankshafts sold as service spares. First by crankshaft part number, serial number and heat code. Then by crankshaft serial number, heat code and part number.

Section 2 of this Bulletin lists all affected crankshafts installed in Factory New or Rebuilt engines by engine model, engine serial number, crankshaft serial number and heat code.

Section 3 of this Bulletin lists all affected crankshafts by crankshaft part number, crankshaft serial number and heat code.

Section 4 of this Bulletin lists all affected crankshafts by crankshaft serial number, crankshaft part number and heat code.

Section 5 of this service bulletin provides inspection procedures and warranty coverage.

PURPOSE: To provide instructions for the removal of crankshaft core samples for metallurgical evaluation.

WARNING

The inspection required by this service bulletin is intended to detect metallurgical anomalies which if present and left uncorrected can result in engine failure.

This inspection requires the removal of the aircraft spinner, propeller and spinner bulkhead to provide access to the crankshaft propeller flange. Two equally sized core samples will be taken from the propeller flange 180 degrees from each other using a customized tool provided by Teledyne Continental Motors. The removed core samples will be placed into a plastic, zip closure bag and identified by engine model, engine serial number and crankshaft serial number. These core samples must be returned to Teledyne Continental Motors for evaluation.

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		2 of 60	D
04	14	00	10	17	01		MSB 00-5	

COMPLIANCE: For affected engines or crankshafts this inspection must be performed within the next 10 hours of operation.

Uninstalled service spare crankshafts of the affected serial number range must be inspected prior to installation in any engine.

ENGINES

and/or

CRANKSHAFTS

AFFECTED: IO-360, TSIO-360, LTSIO-360, O-470, IO-470, TSIO-470, IO-520, TSIO-520, LTSIO-520, IO-550, TSIO-550 and TSIOL-550 series new and rebuilt direct drive engines assembled utilizing a crankshaft that was manufactured from April 1, 1998 through March 31, 2000. Affected engine serial numbers are specified below.

Any preceding series engines that have had a replacement crankshaft installed during field overhaul or repair. Affected replacement crankshaft serial numbers are specified below. Refer to the Crankshaft Serial Number Identification below for identification of affected crankshafts.

Note: If your engine has recently had a crankshaft installed that may have been manufactured from April 1, 1998, through March 31, 2000, the crankshaft serial number must be examined to determine if this inspection procedure applies.

TCM's website at www.tcmlink.com will provide our customers with real-time service information regarding MSB 00-5. Customers may determine if their engine or crankshaft is subject to the required inspection by completing the customer contact information and entering an engine or crankshaft serial number. If you do not have access to www.tcmlink.com, contact TCM service department at 1-888-200-7565.

For International customers who do not have access to the Internet and TCM's website, you may contact TCM's Service Department via one of the International toll free numbers listed below or by dialing our direct number 251-438-3411 extension 5100.

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		3 of 60 MSB 00-5	D
04	14	00	10	17	01			

CRANKSHAFT SERIAL NUMBER IDENTIFICATION

Each crankshaft is identified by a serial number steel stamped on the O.D. of the propeller flange that reflects its manufacturing date. Crankshafts produced prior to January 6, 2000 may be identified as follows:

Crankshafts produced beginning January 6, 2000 may be identified as follows:

① To determine month of manufacture use the following alpha code:

A= January	G= July
B= February	H= August
C= March	I= September
D= April	J= October
E= May	K= November
F= June	L= December

Month ①	Day	Year	Sequence	Denotes Crankshaft

Denotes Crankshaft	Year	Month②	Serial Number

② To determine month of manufacturer use the following alpha code:

(X)- is a production alpha code for internal use.

A(X)= January	G(X)= July
B(X)= February	H(X)= August
C(X)= March	I(X)= September
D(X)= April	J(X)= October
E(X)= May	K(X)= November
F(X)= June	L(X)= December

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		4 of 60 MSB 00-5	D
04	14	00	10	17	01			

SECTION 1

AFFECTED ENGINE MODELS NO RECORD OF COMPLIANCE WITH MSB00-5 OR AD 2000-23-21 LISTED BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

ENG. MODEL	SERIAL#	C/S - S/ N	H/C
0-470-M	54156	F239814N	KOL
0-470-R	815931	F139007N	KON
0-470-R	815852	A279921N	KPL
0-470-R	466730	F239802N	KOL
0-470-R	815834	L029811N	KPM
0-470-R	811987	D179812N	KOL
0-470-R	811988	D179807N	KOL
0-470-S	269464	F029803N	KOL
0-470-S	464588	J129904N	KRN
0-470-S	269482	I039810N	KOL
0-470-S	269465	H269905N	KRN
0-470-U	820007	H259930N	KRN
0-470-U	813382	D179816N	KOL
I0-360-D	63038	J029809N	KPC
I0-470-C	295555	H249812N	KOM
I0-470-D	105643	F099813N	KOL
I0-470-E	88766	H039807N	KOL
I0-470-L	297825	F259802N	KOM
I0-470-L	297882	E079802N	KOM
I0-470-N	96721	H259808N	KOM
I0-520-C	816776	J299801N	KOP
I0-520-D	816565	L059806N	KOL
I0-520-D	816665	G279919N	KRN
I0-520-D	816711	G269920N	KRN
I0-520-F	814848	F109806N	KOL
I0-520-F	579260	G149906N	KPL
I0-520-F	818767	D098803N	KPL

ENG. MODEL	SERIAL#	C/S - S/ N	H/C
I0-520-F	814857	F119805N	KON
I0-520-F	814818	D239808N	KOL
I0-520-F	814856	F129802N	KOL
I0-520-F	814836	F059804N	KOL
I0-520-F	814874	H049805N	KOL
I0-520-F	814987	C119912N	KPL
I0-520-F	814835	F099801N	KOL
I0-520-F	818824	F239915N	KRN
I0-520-F	814839	F169809N	KOL
I0-520-L	294915	F089801N	KOL
I0-520-L	295006	G299929N	KRN
I0-520-L	295003	G269903N	KRN
I0-550-B	684022	K239803N	KOP
I0-550-C	684254	J249807N	KOR
I0-550-C	815311	J269803N	KOM
I0-550-D	284284	D249814N	KOL
I0-550-D	284286	D249815N	KOL
I0-550-E	283384	D249813N	KOL
I0-550-E	283387	D259802N	KOL
I0-550-F	284851	D249810N	KOL
I0-550-F	284874	D279812N	KOL
I0-550-L	289136	G229809N	KOL
I0-550-L	289140	G229810N	KOL
I0-550-E	283404	A050009N	KRN
LTSI0-360-KB	812065	K069808N	KPC
TSI0-360-KB	811331	K099810N	KPC
TSI0-520-C	178571	I039903N	KRN

ISSUED			REVISED			PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR	5 of 60	D
04	14	00	10	17	01	MSB 00-5	



**NON-COMPLIANT AFFECTED ENGINE MODELS
NO RECORD OF COMPLIANCE WITH MSB00-5 OR AD 2000-23-21
LISTED BY ENGINE MODEL, ENGINE SERIAL NUMBER,
CRANKSHAFT SERIAL NUMBER AND HEAT CODE**

ENG. MODEL	SERIAL#	C/S - S/ N	H/C
TSI0520E	812635	D019905N	KPM
TSI0520H	217433	I099902N	KRP
TSI0520M	291962	F059803N	KOL
TSI0520M	532093	C119906N	KPL
TSI0520M	291955	D169807N	KOL
TSI0520M	291970	F189804N	KOL
TSI0520M	818033	F229904N	KRN
TSI0520M	818047	G239913N	KRN
TSI0520M	818062	G299912N	KRN
TSI0520M	818063	H259909N	KRN
TSI0520M	818073	I039919N	KRN
TSI0520M	818023	D089913N	KPL
TSI0520M	532092	D249901N	KPM
TSI0520M	818026	D269906N	KPM
TSI0520M	818028	E019912N	KPL
TSI0520M	532083	F049809N	KON
TSI0520M	532109	L029909N	KRN
TSI0520M	818075	I099906N	KRP
TSI0520M	532088	L109804N	KPK
TSI0520M	291967	F159801N	KOL
TSI0520NB	813621	I189808N	KOM
TSI0520R	522707	H209920N	KRN
TSI0520R	522702	A259912N	KPK
TSI0520R	522703	E039918N	KPM
TSI0520R	294096	G279913N	KRN
TSI0520R	293985	F059805N	KOL
TSI0520T	515440	F099815N	KOL
TSI0520T	515441	F159802N	KOL

ENG. MODEL	SERIAL#	C/S - S/ N	H/C
TSI0520VB	816046	K189807N	KOR
TSI0520VB	816080	D149910N	KPM
TSI0520VB	816081	D149906N	KPM
TSI0550E	803070	I179801N	KOR

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		6 of 60 MSB 00-5	D
04	14	00	10	17	01			

**NON-COMPLIANT AFFECTED SERVICE SPARE CRANKSHAFTS
BY PART NUMBER
NO RECORD OF COMPLIANCE WITH MSB00-5 OR AD 2000-51-19**

PART #	SERIAL #	H/C
646623	A309907N	KPL
646623	D179910N	KPK
646623	D179912N	KPK
646623	D249812N	KOL
646623	D279811N	KOL
646623	G169909N	KRN
646623	G229809N	KOL
646623	G239808N	KOL
646623	J049913N	KRP
649133	D239803N	KOL
649133	D239815N	KOL
649133	G269911N	KRN
649134	A229913N	KPK
649134	B179903N	KOL
649134	C129905N	KPL
649134	C149913N	KPL
649134	D089903N	KPL
649134	D099901N	KPL
649134	D209807N	KOL
649134	D209809N	KOL
649134	D209810N	KOL
649134	D209811N	KOL
649134	D229808N	KOL
649134	D229809N	KOL
649134	D229812N	KOL
649134	D229817N	KOL
649134	D229819N	KOL
649134	D229821N	KOL
649134	D229822N	KOL
649134	D239801N	KOL
649134	D239811N	KOL
649134	D239813N	KOL
649134	D239816N	KOL
649134	D239818N	KOL
649134	D239824N	KOL
649134	D239902N	KPL
649134	D249801N	KOL
649134	D249803N	KOL
649134	D249804N	KOL
649134	D249910N	KPM
649134	D249914N	KPM

PART #	SERIAL #	H/C
649134	E039907N	KPM
649134	E039911N	KPL
649134	F089811N	KOL
649134	F109804N	KON
649134	F109818N	KON
649134	F119803N	KON
649134	F119807N	KON
649134	F129804N	KOL
649134	F129807N	KOL
649134	F129808N	KOL
649134	F129812N	KOL
649134	F159805N	KOL
649134	F159812N	KOL
649134	F169814N	KON
649134	F179801N	KOL
649134	F179809N	KOL
649134	F179812N	KON
649134	F229919N	KRN
649134	F269911N	KPL
649134	G099930N	KRN
649134	G269902N	KRN
649134	G279907N	KRN
649134	G279915N	KRN
649134	G279916N	KRN
649134	G289901N	KRN
649134	G289902N	KRN
649134	G289919N	KRN
649134	G289925N	KRN
649134	G289926N	KRN
649134	G309919N	KRN
649134	H049810N	KOL
649134	H049814N	KOL
649134	H049816N	KOL
649134	H059804N	KOL
649134	H099819N	KOL
649134	H109804N	KON
649134	H119811N	KOL
649134	H239913N	KRN
649134	H239914N	KRN
649134	H249901N	KRN
649134	H249908N	KRN

PART #	SERIAL #	H/C
649134	H249915N	KRN
649134	H249923N	KRN
649134	H259910N	KRN
649134	H259918N	KRN
649134	H259919N	KRN
649134	H259920N	KRN
649134	I019801N	KOL
649134	I029804N	KOL
649134	I039917N	KRN
649134	I039920N	KRN
649134	I079903N	KRN
649134	I079921N	KRP
649134	I089915N	KRP
649134	I089916N	KRP
649134	J079912N	KRP
649134	J079914N	KRP
649134	J119901N	KRP
649134	L039903N	KRN
649134	L039907N	KRN
649134	L049803N	KPK
649134	L069806N	KOL
649134	L069808N	KOL
649134	L079802N	KOL
649134	L089903N	KRP
649134	N00AA189	KRP
649134	N00CA144	KRP
649135	H039802N	KOL
649138	A289913N	KPL
649138	D209804N	KOL
649138	F039818N	KOL
649138	H149804N	KON
649141	C159909N	KPK
649141	D179810N	KOL
649141	D189908N	KOL
649141	E199920N	KPL
649141	F049805N	KON
649141	F209802N	KON
649141	H139809N	KON
649141	H139815N	KON
649141	H259934N	KRN
649141	H269901N	KRN

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		7 of 60	D
04	14	00	10	17	01		MSB 00-5	

**NON-COMPLIANT AFFECTED SERVICE SPARE CRANKSHAFTS
BY PART NUMBER
NO RECORD OF COMPLIANCE WITH MSB00-5 OR AD 2000-23-21**

PART #	SERIAL #	H/C
649141	I029809N	KOL
649141	I039808N	KOL
649141	I039811N	KOL
649141	I039812N	KOL
649141	I099923N	KRN
649141	J119919N	KRP
649895	A249808N	KPM
649895	B119906N	KPM
649895	B119908N	KPM
649895	B119910N	KPM
649895	I119811N	KOM
649895	J089810N	KOM
649895	J099808N	KOM
649895	L019808N	KPH
649896	K309804N	KOM
649898	A139915N	KPM
649898	A159915N	KPM
649898	A169901N	KOR
649898	A209913N	KOR
649898	B019907N	KPH
649898	B019909N	KPH
649898	B039904N	KPH
649898	C099906N	KPM
649898	C269908N	KPH
649898	E019903N	KPH
649898	I169815N	KOM
649898	L189808N	KOM
649900	C059915N	KOR
649900	C069904N	KPH
649900	C269904N	KPM
649900	I219820N	KOP
649900	J039809N	KOR
649900	J249808N	KOR
649900	K229803N	KOR
649900	K229807N	KPM
652006	E079822N	KOM
652009	F259801N	KOM
652009	F259804N	KOM
652010	B209904N	KPH
652010	E079805N	KOM
652010	F259806N	KOM

PART #	SERIAL #	H/C
652010	H259818N	KOM
652010	K049919N	KPH
652010	K059911N	KPH
652010	L089813N	KPH
652011	B189914N	KPL
652011	E079806N	KOM
652011	J189905N	KPH
653129	I309803N	KPC
653136	I239808N	KPC
653136	I239809N	KPC
653136	K079810N	KPC
654432	A189912N	KPM
654432	C059909N	KOR
654432	I229804N	KOM

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		8 of 60 MSB 00-5	D
04	14	00	10	17	01			

**NON-COMPLIANT AFFECTED SERVICE SPARE CRANKSHAFTS
BY SERIAL NUMBER
NO RECORD OF COMPLIANCE WITH MSB00-5 OR AD 2000-51-19**

SERIAL #	H/C	PART #
A139915N	KPM	649898
A159915N	KPM	649898
A169901N	KOR	649898
A189912N	KPM	654432
A209913N	KOR	649898
A229913N	KPK	649134
A249808N	KPM	649895
A289913N	KPL	649138
A309907N	KPL	646623
B019907N	KPH	649898
B019909N	KPH	649898
B039904N	KPH	649898
B119906N	KPM	649895
B119908N	KPM	649895
B119910N	KPM	649895
B179903N	KOL	649134
B189914N	KPL	652011
B209904N	KPH	652010
C059909N	KOR	654432
C059915N	KOR	649900
C069904N	KPH	649900
C099906N	KPM	649898
C129905N	KPL	649134
C149913N	KPL	649134
C159909N	KPK	649141
C269904N	KPM	649900
C269908N	KPH	649898
D089903N	KPL	649134
D099901N	KPL	649134
D179810N	KOL	649141
D179910N	KPK	646623
D179912N	KPK	646623
D189908N	KOL	649141
D209804N	KOL	649138
D209807N	KOL	649134
D209809N	KOL	649134
D209810N	KOL	649134
D209811N	KOL	649134
D229808N	KOL	649134
D229809N	KOL	649134
D229812N	KOL	649134

SERIAL #	H/C	PART #
D229817N	KOL	649134
D229819N	KOL	649134
D229821N	KOL	649134
229822N	KOL	649134
D239801N	KOL	649134
D239803N	KOL	649133
D239811N	KOL	649134
D239813N	KOL	649134
D239815N	KOL	649133
D239816N	KOL	649134
D239818N	KOL	649134
D239824N	KOL	649134
D239902N	KPL	649134
D249801N	KOL	649134
D249803N	KOL	649134
D249804N	KOL	649134
D249812N	KOL	646623
D249910N	KPM	649134
D249914N	KPM	649134
D279811N	KOL	646623
E019903N	KPH	649898
E039907N	KPM	649134
E039911N	KPL	649134
E079805N	KOM	652010
E079806N	KOM	652011
E079822N	KOM	652006
E199920N	KPL	649141
F039818N	KOL	649138
F049805N	KON	649141
F089811N	KOL	649134
F109804N	KON	649134
F109818N	KON	649134
F119803N	KON	649134
F119807N	KON	649134
F129804N	KOL	649134
F129807N	KOL	649134
F129808N	KOL	649134
F129812N	KOL	649134
F159805N	KOL	649134
F159812N	KOL	649134
F169814N	KON	649134
F179801N	KOL	649134

SERIAL #	H/C	PART #
F179809N	KOL	649134
F179812N	KON	649134
F209802N	KON	649141
F229919N	KRN	649134
F259801N	KOM	652009
F259804N	KOM	652009
F259806N	KOM	652010
F269911N	KPL	649134
G099930N	KRN	649134
G169909N	KRN	646623
G229809N	KOL	646623
G239808N	KOL	646623
G269902N	KRN	649134
G269911N	KRN	649133
G279907N	KRN	649134
G279915N	KRN	649134
G279916N	KRN	649134
G289901N	KRN	649134
G289902N	KRN	649134
G289919N	KRN	649134
G289925N	KRN	649134
G289926N	KRN	649134
G309919N	KRN	649134
H039802N	KOL	649135
H049810N	KOL	649134
H049814N	KOL	649134
H049816N	KOL	649134
H059804N	KOL	649134
H099819N	KOL	649134
H109804N	KON	649134
H119811N	KOL	649134
H139809N	KON	649141
H139815N	KON	649141
H149804N	KON	649138
H239913N	KRN	649134
H239914N	KRN	649134
H249901N	KRN	649134
H249908N	KRN	649134
H249915N	KRN	649134
H249923N	KRN	649134
H259818N	KOM	652010

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		9 of 60 MSB 00-5	D
04	14	00	10	17	01			

**NON-COMPLIANT AFFECTED SERVICE SPARE CRANKSHAFTS
BY SERIAL NUMBER
NO RECORD OF COMPLIANCE WITH MSB00-5 OR AD 2000-23-21**

SERIAL #	H/C	PART #
H259910N	KRN	649134
H259918N	KRN	649134
H259919N	KRN	649134
H259920N	KRN	649134
H259934N	KRN	649141
H269901N	KRN	649141
I019801N	KOL	649134
I029804N	KOL	649134
I029809N	KOL	649141
I039808N	KOL	649141
I039811N	KOL	649141
I039812N	KOL	649141
I039917N	KRN	649134
I039920N	KRN	649134
I079903N	KRN	649134
I079921N	KRP	649134
I089915N	KRP	649134
I089916N	KRP	649134
I099923N	KRN	649141
I119811N	KOM	649895
I169815N	KOM	649898
I219820N	KOP	649900
I229804N	KOM	654432
I239808N	KPC	653136
I239809N	KPC	653136
I309803N	KPC	653129
J039809N	KOR	649900
J049913N	KRP	646623
J079912N	KRP	649134
J079914N	KRP	649134
J089810N	KOM	649895
J099808N	KOM	649895
J119901N	KRP	649134
J119919N	KRP	649141
J189905N	KPH	652011
J249808N	KOR	649900
K049919N	KPH	652010
K059911N	KPH	652010
K079810N	KPC	653136
K229803N	KOR	649900
K229807N	KPM	649900
K309804N	KOM	649896
L019808N	KPH	649895

SERIAL #	H/C	PART #
L039903N	KRN	649134
L039907N	KRN	649134
L049803N	KPK	649134
L069806N	KOL	649134
L069808N	KOL	649134
L079802N	KOL	649134
L089813N	KPH	652010
L089903N	KRP	649134
L189808N	KOM	649898
N00AA189	KRP	649134
N00CA144	KRP	649134

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		10 of 60 MSB 00-5	D
04	14	00	10	17	01			

SECTION 2

AFFECTED ENGINE MODELS

BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
O-470-G	817751	H249809N	KON
O-470-J	202210	H139808N	KON
	202213	G319918N	KRN
	202214	J139911N	KRP
O-470-K	49500	F039805N	KOL
	49501	F249801N	KON
	49502	I039804N	KOL
	49505	A299903N	KPK
	49506	B199910N	KPL
	49507	D129904N	KPL
	49508	D139901N	KPL
	49509	D129901N	KPL
	49511	H269903N	KRN
O-470-L	69885	D179813N	KOL
	69887	F029807N	KOL
	69888	H269904N	KRN
	69889	F249804N	KOL
	69890	F049806N	KON
	69893	I029807N	KOL
	69894	H129807N	KON
	69895	A279923N	KPL
	69896	H149805N	KON
	69897	E199926N	KPL
	69900	A289907N	KPL
	69902	A289903N	KPK
	69903	A289912N	KPL
	69904	B189912N	KPL
	69906	C169912N	KPL
	69907	D139904N	KPL
	69910	G319907N	KRN
	69911	G319915N	KRN
	69912	B189911N	KPL
	69914	J149901N	KRN
	69915	J149903N	KRP
	69916	J139921N	KRP

Engine Model	Eng. S/N	C/S S/N	H/C
O-470-L	69917	J139916N	KRP
	69920	K049903N	KRP
O-470-R	466730	F239802N	KOL
	466733	B189909N	KPL
	466734	D129905N	KPL
	466737	J139910N	KRP
	811967	F239812N	KOL
	811983	D179805N	KOL
	811984	D209806N	KOL
	811986	D179809N	KOL
	811987	D179812N	KOL
	811988	D179807N	KOL
	811990	F029805N	KOL
	811991	F029801N	KOL
	811992	F029804N	KOL
	811993	F039808N	KOL
	811994	F039803N	KOL
	812000	F049802N	KOL
	815752	F039802N	KOL
	815753	F029808N	KOL
	815754	F029810N	KOL
	815755	F029811N	KOL
	815756	F029809N	KOL
	815757	F249802N	KOL
	815758	F249805N	KOL
	815759	F039801N	KOL
	815760	F029802N	KOL
	815763	F209805N	KOL
	815764	F209806N	KOL
	815767	F209811N	KOL
	815772	F039810N	KOL
	815773	F239817N	KOL
	815774	F199806N	KOL
	815775	F209807N	KOL
	815778	F239803N	KOL
	815794	I019807N	KOL
	815807	I039806N	KOL
	815808	I029815N	KOL

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		11 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
O-470-R	815820	I039801N	KOL
	815825	F209809N	KOL
	815851	A289906N	KPK
	815852	A279921N	KPL
	815853	A289904N	KPK
	815855	A299911N	KPK
	815857	A299904N	KPK
	815858	A289910N	KPL
	815859	A289911N	KPK
	815860	L029813N	KPK
	815861	B199904N	KPL
	815862	B199908N	KPH
	815863	B199907N	KPL
	815864	B199911N	KPL
	815865	C159914N	KPK
	815866	C159917N	KPL
	815867	C179905N	KPL
	815868	C169906N	KPL
	815869	C169903N	KPL
	815871	C179903N	KPK
	815872	C179901N	KPK
	815873	C159911N	KPL
	815874	C169905N	KPL
	815875	C169907N	KPL
	815876	C169911N	KPL
	815877	D129903N	KPL
	815878	D129909N	KPL
	815880	D129910N	KPL
	815881	C159916N	KPL
	815882	C169908N	KPL
	815884	C169904N	KPL
	815886	E199923N	KPL
	815889	H139801N	KON
	815890	F249909N	KRN
	815892	C759909N	KPL
	815901	I039802N	KOL
	815909	G319911N	KRN
	815910	G319914N	KRN
	815911	G319913N	KRN
	815912	I109904N	KRP

Engine Model	Eng. S/N	C/S S/N	H/C
O-470-R	815913	G319909N	KRN
	815914	G319921N	KRN
	815915	G319903N	KRN
	815917	G319906N	KRN
	815919	H259928N	KRN
	815920	H259932N	KRN
	815921	H259929N	KRN
	815923	H269910N	KRN
	815924	H259937N	KRN
	815925	I099928N	KRP
	815926	I099920N	KRP
	815927	I109905N	KRP
	815928	I099918N	KRN
	815929	I099921N	KRP
	815930	I099924N	KRP
	815931	F139007N	KON
	815932	I099926N	KRP
	815933	I109911N	KRP
	815936	F199804N	KON
	815940	J139914N	KRP
	815943	J149907N	KRP
	815944	J139901N	KRP
	815946	J159903N	KRP
	815953	J139906N	KRN
	815954	J119911N	KRP
	815958	J159905N	KRP
	815959	J139908N	KRN
	815986	J139912N	KRP
	815990	N00CA182	KRP
	815992	N00CA197	KRP
	815993	N00CA177	KRP
O-470-S	269465	H269905N	KRN
	269415	D179803N	KOL
	269461	D179806N	KOL
	269462	D179801N	KOL
	269463	D179814N	KOL
	269464	F029803N	KOL
	269466	F039807N	KOL
	269467	F039806N	KOL

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		12 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
O-470-S	269468	F239816N	KOL
	269469	F209810N	KON
	269470	D209805N	KOL
	269471	E319807R	KPL
	269472	F239801N	KOL
	269473	F199802N	KON
	269474	F199805N	KOL
	269475	F239813N	KOL
	269476	F239806N	KOL
	269478	H129810N	KON
	269479	I029816N	KOL
	269480	I029808N	KOL
	269482	I039810N	KOL
	269487	L039803N	KPK
	269489	I039803N	KOL
	269490	A279920N	KPL
	269491	A279922N	KPL
	269494	C169901N	KPL
	269496	B199906N	KPL
	269497	C149904N	KPK
	269498	C149902N	KPK
	269499	C179904N	KPK
	464588	J129904N	KRN
	819001	C169910N	KPL
	819005	F259903N	KPM
	819006	F259917N	KPL
	819008	G319901N	KRN
	819009	G319904N	KRN
	819010	G319916N	KRN
	819011	G319902N	KRN
	819012	G319905N	KRN
	819013	H259935N	KRN
	819014	G319919N	KRN
	819015	H259933N	KRN
	819017	J149902N	KRP
	819018	J149911N	KRP
	819019	J119909N	KRP
	819021	J129915N	KRN
	819023	H269909N	KRN
	819026	J139904N	KRN
	819034	N00CA185	KRP

Engine Model	Eng. S/N	C/S S/N	H/C
O-470-U	470759	A299901N	KPL
	470763	J139905N	KRN
	470764	J139915N	KRP
	470765	J139923N	KRP
	470767	J139924N	KRP
	470769	K049916N	KRP
	470776	N00CA183	KRP
	470778	N00CA173	KRN
	813375	D179804N	KOL
	813377	D179811N	KOL
	813380	D169818N	KOL
	813381	D179802N	KOL
	813382	D179816N	KOL
	813390	D209803N	KOL
	813395	F029812N	KOL
	813396	F049801N	KON
	813398	F239804N	KOL
	813400	F239818N	KOL
	813401	F239815N	KOL
	813402	F239809N	KOL
	813405	F239811N	KOL
	813409	I029813N	KOL
	813413	H149801N	KON
	813415	H149803N	KON
	813418	H149806N	KON
	813420	H149802N	KON
	813427	L039806N	KPK
	813440	L039804N	KPK
	813442	L039810N	KPK
	813445	L039805N	KPK
	813450	A289909N	KPL
	813452	A299910N	KPK
	813453	A299902N	KPK
	813455	A299916N	KPK
	813458	A289902N	KPL
	813462	C149905N	KPK
	813463	C159906N	KPK
	813464	C159910N	KPK
	813467	C159915N	KPL
	813468	C159908N	KOL

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		13 of 60	D
04	14	00	10	18	01		MSB00-5	

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
O-470-U	813469	C159913N	KPK
	813472	D139903N	KPL
	813474	D139902N	KPL
	813475	D129908N	KPL
	813476	D129912N	KPL
	813478	D129907N	KPL
	813482	C159912N	KPL
	813486	E199921N	KPL
	813490	F239810N	KOL
	820006	H269906N	KRN
	820007	H259930N	KRN
	820010	H269907N	KRN
	820012	H259931N	KRN
	820013	H269902N	KRN
	820014	I109909N	KRN
	820016	H269908N	KRN
	820019	I099927N	KRP
	820023	I109910N	KRN
	820024	I109908N	KRN
	820030	J129902N	KRN
	820032	J129906N	KRN
	820033	J129911N	KRP
	820034	J139913N	KRP
	820035	J119908N	KRP
	820036	H259936N	KRN
	820037	J139919N	KRP
	820038	K049905N	KRP
	820053	J119912N	KRN
	820068	N00CA184	KRP
IO-360-C	060688	J059805N	KPC
IO-360-D	063038	J029809N	KPC
	063039	J059804N	KPC
	063040	J059801N	KPC
IO-360-DB	351396	I259805N	KPC
	351397	K049814N	KPC
	351399	K109817N	KPC
	808799	I249807N	KPC
	808801	K049817N	KPC
	808802	K109802N	KPC

Engine Model	Eng. S/N	C/S S/N	H/C
IO-360-ES	357114	I259804N	KPC
	357115	I299804N	KPC
	357116	I249806N	KPC
	357151	A219910N	KPK
IO-360-G	244612	J059808N	KPC
	244613	J029808N	KPC
IO-360-KB	288733	I249801N	KPC
	288734	I259808N	KPC
	288736	I259806N	KPC
	288739	K099801N	KPC
	288740	K109807N	KPC
IO-470-C	295552	E079819N	KOM
	295553	F249811N	KOM
	295554	F259803N	KOM
	295555	H249812N	KOM
	295556	L089802N	KPH
	295557	B199917N	KPH
	295558	C189903N	KOM
	295559	E079906N	KPH
	295560	H029903N	KPH
	295561	J189901N	KPH
	295562	J189902N	KPH
	295563	K059915N	KPH
	295564	J159911N	KPH
	295565	K059906N	KPH
	295566	K059909N	KPH
	295567	A030005N	KPH
	71122	H259805N	KON
IO-470-D	105642	D239810N	KOL
	105643	F099813N	KOL
	105644	F179805N	KON
	105645	F099806N	KOL
	105648	J079910N	KRP
	105649	J049918N	KRP
IO-470-E	088765	H039804N	KOL
	088766	H039807N	KOL
	088768	J089924N	KRP

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		14 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
IO-470-E	088770	K029911N	KRP
IO-470-F	89918	D239802N	KOL
	89920	F109815N	KON
	89929	C159918N	KPL
	89930	E199909N	KPL
	89934	G269915N	KRN
	89935	G279921N	KRN
	89936	I079901N	KRN
	89937	I099901N	KOR
IO-470-H	87344	F249812N	KOM
IO-470-K	092995	E059810N	KOM
	092997	F289908N	KPM
	092998	H249816N	KON
	092999	F289902N	KRN
	093000	L089809N	KPH
	818504	E079903N	KPH
	818505	H019902N	KPH
	818508	H019904N	KPH
	818510	J189903N	KPH
	818511	K059910N	KPH
	818512	L169908N	KPH
IO-470-L	297803	E079807N	KOM
	297804	E079813N	KOM
	297807	E059811N	KOM
	297809	E079820N	KOM
	297810	E079815N	KOM
	297811	E079821N	KOM
	297812	E079810N	KOM
	297813	E069908N	KPH
	297814	E069805N	KOM
	297815	E059807N	KOM
	297816	E059812N	KOM
	297817	E079816N	KOM
	297818	E079817N	KOM
	297819	E079904N	KPH
	297823	F249806N	KOM

Engine Model	Eng. S/N	C/S S/N	H/C
IO-470-L	297824	F249810N	KOM
	297825	F259802N	KOM
	297826	H259802N	KON
	297827	H249813N	KOM
	297828	H259812N	KOM
	297830	H249810N	KOM
	297833	H249808N	KOM
	297835	H259806N	KON
	297836	F249813N	KOM
	297837	H259816N	KOM
	297838	H259807N	KOM
	297839	H259804N	KOM
	297841	H259815N	KOM
	297842	F249809N	KOM
	297843	F249807N	KOM
	297844	H259809N	KOM
	297845	H259813N	KOM
	297846	H249814N	KOM
	297847	L089811N	KPH
	297848	L089822N	KPH
	297851	L089812N	KPH
	297852	L089815N	KPH
	297854	L089810N	KPH
	297856	L089805N	KPH
	297857	L089804N	KPM
	297861	B199916N	KPH
	297862	B209903N	KPH
	297863	B209902N	KPK
	297866	C189906N	KOM
	297868	C189902N	KOM
	297869	C189909N	KOM
	297870	C189905N	KPH
	297872	B209901N	KPH
	297873	C189904N	KOM
	297877	E079902N	KPH
	297878	E069911N	KPH
	297879	E079901N	KPH
	297880	E069909N	KPH
	297881	E079905N	KPH
	297882	E079802N	KOM

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		15 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
IO-470-L	297883	E079803N	KOM
	297884	E079808N	KOM
	297885	F289901N	KPH
	297886	F289915N	KPH
	297887	F289912N	KPH
	297888	F289914N	KPH
	297889	F289916N	KPH
	297890	E079818N	KOM
	297893	H029905N	KPH
	297894	H029906N	KPH
	297895	H019903N	KPH
	297896	H019905N	KPH
	297898	H029901N	KPH
	297900	H019906N	KPH
	297901	J189908N	KPH
	297903	F289903N	KPH
	297907	J189909N	KPH
	297908	J189906N	KPH
	297909	J189911N	KPH
	297910	J189907N	KPH
	297911	J189904N	KPH
	297912	J159910N	KPH
	297916	K049920N	KPH
	297917	K049922N	KPH
	297918	K059912N	KPH
	297919	K059905N	KPH
	297921	K059914N	KPH
	297922	K059908N	KPH
	297923	K049923N	KPH
	297924	K059916N	KPH
	297925	J159912N	KPH
	297927	K059901N	KPH
	297928	K059913N	KPH
	297929	K059917N	KPH
	297930	K049921N	KPH
	297931	L169912N	KPH
	297932	L169907N	KPH
	297933	L239901N	KPH
	297934	L239912N	KPH

Engine Model	Eng. S/N	C/S S/N	H/C
IO-470-L	297935	L239911N	KPH
	297936	A030007N	KPH
	297937	A030010N	KPH
	297938	A030006N	KPH
	297939	L239907N	KPH
	297940	A030008N	KPH
	297941	L239909N	KPH
	297942	L239908N	KPH
	297950	L239910N	KPH
	297953	A030011N	KPH
	468607	E059808N	KOM
	468608	E079823N	KOM
	468611	E079812N	KOM
	468613	L169910N	KPH
IO-470-N	96705	E079809N	KOM
	96707	E069804N	KOM
	96708	E069810N	KOM
	96710	E059809N	KOM
	96711	E069802N	KOM
	96712	F249815N	KOM
	96713	E079825N	KOM
	96714	E079814N	KOM
	96715	E069808N	KOM
	96716	F249808N	KOM
	96717	F249814N	KOM
	96718	F249816N	KOM
	96720	H259814N	KOM
	96721	H259808N	KOM
	96721	H259803N	KON
	96722	H259817N	KOM
	96724	L089807N	KPH
	96725	L089816N	KPH
	96726	L089806N	KPH
	96727	L089801N	KPH
	96728	B199914N	KPH
	96729	B199912N	KPH
	96730	B209905N	KPH
	96732	E069910N	KPH
	96734	C189901N	KOM

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		16 of 60	D
04	14	00	10	18	01		MSB00-5	

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
IO-470-N	96735	H019901N	KPH
	96736	J189910N	KPH
	96737	J159909N	KPH
	96738	J159907N	KPH
	96739	K059902N	KPH
	96741	L239902N	KPH
	96742	L239904N	KPH
	96743	A030003N	KPH
	96745	L239906N	KPH
	458174	K059904N	KPH
	458175	K059907N	KPH
IO-470-S	109389	C119908N	KPK
	109390	D089912N	KPL
	109391	E019915N	KPM
	109393	G289914N	KRN
	109394	G269912N	KRN
	109397	J089922N	KRP
	109398	K019913N	KRP
IO-470-V/VO	171198	F239907N	KRN
	171207	L089819N	KRP
	171213	C159905N	KPL
	171214	D099907N	KPL
	171216	E019914N	KPM
	171217	E019917N	KPM
	171218	E039904N	KPM
	171219	E049917N	KPM
	171220	E049913N	KPL
	171222	I089930N	KRP
	171225	E039910N	KPM
	171227	G289913N	KRN
	171228	I099905N	KRP
	171229	I079910N	KRP
	171231	J079911N	KRP
	171232	F109816N	KON
	171234	J079901N	KRP
	171235	K019922N	KRP
	171236	J089918N	KRP
	171237	K029907N	KRP
	171238	K019906N	KRN

Engine Model	Eng. S/N	C/S S/N	H/C
IO-470-V/VO	171239	K029904N	KRP
	171240	K019901N	KRN
	171242	K029910N	KRP
	171243	L089905N	KRP
	171247	K029909N	KRP
	171249	L079906N	KRN
IO-520-A	112831	F059815N	KOL
	112833	F159810N	KOL
	112834	F159811N	KON
	112836	H039812N	KOL
	112843	H079807N	KOL
	112847	I079930N	KRN
	112852	A229905N	KPK
	112855	B179901N	KPL
	112856	D089909N	KPL
	112859	H289802N	KOL
	112860	E189916N	KPH
	112861	F109812N	KON
	112867	E069905N	KPL
	112868	F239909N	KRN
	112870	G149915N	KPM
	112871	G299920N	KRN
	112872	H209921N	KRN
	112873	I079931N	KRP
	112876	J079915N	KRP
	112877	J069911N	KRP
	112882	L079910N	KRP
IO-520-BB	813908	I169816N	KOM
	580063	B019914N	KOR
	580064	B159903N	KPM
	580065	C089905N	KPM
	813903	K129808N	KOP
	813904	I169814N	KOM
	813912	K169807N	KOP
	813913	K169803N	KOP
	813914	K189810N	KOR
	813915	K179801N	KOR
	813918	K169809N	KOP
	813921	K139803N	KPM

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		17 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
IO-520-BB	813926	A159917N	KPM
	813927	A189904N	KPM
	813928	A159920N	KPM
	813929	A209907N	KOR
	813934	B019910N	KPL
	813938	A169910N	KOR
	813940	B019911N	KPL
	813942	B029902N	KPM
	813943	C089901N	KPM
	813944	B129907N	KPM
	813945	C109915N	KPM
	813946	C109907N	KPM
	813954	C279901N	KPM
	813955	C299901N	KPH
	813956	B129910N	KPM
	813959	D149902N	KPM
	813961	D149913N	KPM
	813963	D309904N	KPM
	813964	D149912N	KPM
	813965	D309902N	KPM
	813966	D299913N	KPH
	813968	E119911N	KPH
	820261	K129806N	KPM
IO-520-C	810995	G209802N	KOP
	810997	D059908N	KPM
	816761	D059905N	KPM
	816762	J089808N	KOR
	816764	J119808N	KOM
	816766	J099812N	KOM
	816768	J289801N	KOP
	816769	J289809N	KOP
	816772	K309805N	KPM
	816773	K309807N	KPM
	816774	K259801N	KPM
	816776	J299801N	KOP
	816783	J309810N	KOP
	816784	J299807N	KOP
	816786	K259811N	KPM
	816787	L029807N	KPM

Engine Model	Eng. S/N	C/S S/N	H/C
IO-520-C	816788	L019801N	KPM
	816789	K259804N	KPH
	816791	L029810N	KPM
	816792	K259802N	KPH
	816797	A129904N	KPM
	816798	A129902N	KOM
	816801	B099913N	KPM
	816802	B099907N	KPM
	816808	B109913N	KOR
	816809	B109906N	KPM
	816810	B119909N	KPM
	816811	B109921N	KPM
	816812	B119915N	KPM
	816815	D019902N	KPM
	816817	D069909N	KPM
	816818	D069908N	KPH
	816819	D059912N	KPM
	816820	D019910N	KPM
	816821	D069903N	KPH
	816824	D079904N	KPM
	816825	D059906N	KPM
	816826	D079901N	KPH
	816827	D079905N	KPH
	816834	J099806N	KOM
	816862	B099914N	KPM
	816898	L019924N	KPM
IO-520-CB	299011	A1721173	KPM
	299077	K169812N	KOM
	299078	K169805N	KOM
	299079	K169804N	KOP
	299086	K189809N	KOR
	299088	K129802N	KOP
	299090	K179811N	KOM
	299091	K179810N	KOR
	299092	K199802N	KOR
	299093	K189812N	KOR
	299094	K199806N	KOR
	299096	K169806N	KOM
	299097	K189803N	KOR

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		18 of 60	D
04	14	00	10	18	01		MSB00-5	

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
IO-520-CB	299099	A159916N	KPM
	299107	A169909N	KOR
	299108	A209909N	KOR
	299112	K189805N	KOR
	299114	B049906N	KPM
	299117	B129908N	KPM
	299124	B129906N	KPM
	299125	B019912N	KPL
	299126	C109909N	KPM
	299127	C269903N	KPH
	299129	C269910N	KPH
	299130	C269907N	KPH
	299131	C279907N	KPH
	299132	D079907N	KPM
	299134	D079909N	KPM
	299135	D079910N	KPM
	299138	D149903N	KPM
	299140	D149904N	KPM
	299143	E119913N	KPH
	299146	E119906N	KPH
	299158	E109910N	KPH
	299220	K139805N	KOP
	299241	G069910N	KPD
IO-520-D	575935	D089901N	KPK
	575939	I099914N	KRP
	575942	I079924N	KRP
	575943	J119907N	KRP
	575946	K019902N	KRP
	575947	K019905N	KRP
	575948	K029914N	KRP
	575950	L039908N	KRN
	812958	D209812N	KOL
	812968	F089807N	KOL
	812969	F049811N	KOL
	812973	F089804N	KOL
	812975	F099812N	KOL
	812976	F099809N	KOL
	812977	F099807N	KOL
	812979	F179806N	KON

Engine Model	Eng. S/N	C/S S/N	H/C
IO-520-D	812980	F179807N	KOL
	812981	F179811N	KON
	812982	F099816N	KON
	812983	F189805N	KON
	812987	E059915N	KPM
	812988	F099805N	KOL
	812989	F099811N	KOL
	812990	F099808N	KOL
	812993	F169807N	KOL
	812994	F099803N	KOL
	812996	F189802N	KON
	812996	I079915N	KRP
	812997	F169801N	KON
	816502	H039817N	KOL
	816503	H039810N	KOL
	816504	H039801N	KON
	816505	H039806N	KOL
	816506	H039808N	KOL
	816507	H049809N	KOL
	816508	H039809N	KOL
	816509	H039803N	KOL
	816512	H099809N	KON
	816513	H039815N	KOL
	816514	H119801N	KON
	816517	H099802N	KON
	816521	H049806N	KOL
	816522	H049811N	KOL
	816523	H049812N	KOL
	816527	D109912N	KPL
	816528	H279812N	KOM
	816529	H319816N	KOL
	816535	H279818N	KOM
	816537	H109802N	KOL
	816540	H319806N	KOL
	816543	H279814N	KOM
	816545	H129806N	KON
	816546	H289812N	KOL
	816550	G149908N	KPM
	816559	L039815N	KPK
	816560	L039813N	KPK

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		19 of 60	D
04	14	00	10	18	01		MSB00-5	

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
IO-520-D	816565	L059806N	KOL
	816569	L069807N	KOL
	816572	L109803N	KPK
	816579	B169914N	KPL
	816580	B169906N	KPL
	816582	B169916N	KPK
	816585	C119903N	KPL
	816589	C119910N	KPL
	816590	C119916N	KPK
	816591	D089905N	KPL
	816592	C119915N	KPK
	816593	C129908N	KPL
	816595	C159923N	KPL
	816598	C159901N	KPL
	816599	C159904N	KPL
	816600	C159902N	KPL
	816603	C159922N	KPL
	816607	D099910N	KPL
	816608	D099904N	KPL
	816609	D099909N	KPL
	816610	D089914N	KPK
	816611	D089916N	KPL
	816612	D099908N	KPL
	816613	D249913N	KPM
	816615	D269905N	KPL
	816617	D249907N	KPM
	816619	E019916N	KOL
	816621	E059902N	KPL
	816622	E019918N	KPL
	816623	E059906N	KPL
	816624	E049904N	KPL
	816625	E059904N	KPL
	816626	E059901N	KPL
	816630	E189921N	KPL
	816632	E189902N	KPL
	816636	D089915N	KPL
	816638	F179808N	KON
	816644	F179817N	KON
	816651	D249906N	KPM
	816652	E039912N	KPM
	816657	F269906N	KPL

Engine Model	Eng. S/N	C/S S/N	H/C
IO-520-D	816658	F269909N	KPL
	816661	G269918N	KRN
	816663	G289915N	KRN
	816665	G279919N	KRN
	816667	G299915N	KRN
	816671	H249919N	KRN
	816673	I089927N	KRP
	816675	I039901N	KRN
	816676	I039921N	KRN
	816679	G159902N	KPL
	816683	J049917N	KRP
	816686	J049932N	KRP
	816687	J069913N	KRP
	816688	J089906N	KRP
	816689	F239903N	KRN
	816698	L029911N	KRN
	816699	K109939N	KRP
	816700	L079903N	KRN
	816708	L069909N	KRN
	816710	L069903N	KPH
	816711	G269920N	KRN
IO-520-E	215908	F269901N	KPM
	215912	D209808N	KOL
	215924	A259909N	KPK
	215926	C129917N	KPL
	215929	E199908N	KPL
	215931	I079902N	KRP
	215932	J049920N	KRP
	215933	J049937N	KRP
	215934	J059904N	KRP
	556632	J119905N	KRP
IO-520-F	579251	F169810N	KOL
	579256	L069801N	KOL
	814775	E199901N	KOL
	814815	D229816N	KOL
	814816	D229805N	KOL
	814817	D239804N	KOL
	814818	D239808N	KOL
	814831	F059812N	KOL

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		20 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
IO-520-F	814832	F059816N	KOL
	814833	F099817N	KOL
	814847	F109805N	KOL
	814848	F109806N	KOL
	814853	F109807N	KOL
	814855	F059801N	KOL
	814856	F129802N	KOL
	814862	F169804N	KOL
	814867	F159808N	KOL
	814869	H039805N	KOL
	814872	H039816N	KOL
	814874	H049805N	KOL
	814878	H119804N	KOL
	814883	H039813N	KOL
	814886	H319807N	KOL
	814893	H119805N	KOL
	814894	H099811N	KOL
	814896	H319812N	KOL
	814898	H319814N	KOL
	814900	H049801N	KOL
	814920	H319809N	KOL
	818810	F089803N	KOL
	818815	I019803N	KOL
	818838	D239820N	KOL
	818840	I029801N	KOL
	818914	F129809N	KOL
	291253	E059920N	KPM
	579248	I089906N	KRN
	579250	F169813N	KON
	579252	F109817N	KON
	579257	L039818N	KPK
	579258	B189904N	KPL
	579259	C129914N	KPL
	579260	G149906N	KPL
	579261	G299917N	KRN
	579262	I089925N	KRP
	579263	J049936N	KRP
	579264	J059908N	KRP
	579265	K029905N	KRN
	579266	L029918N	KRN

Engine Model	Eng. S/N	C/S S/N	H/C
IO-520-F	579268	N00AA196	KRP
	579279	N00CA058	KRP
	814808	E059919N	KPM
	814814	D239809N	KON
	814827	F049807N	KON
	814830	F099814N	KON
	814837	F189801N	KON
	814838	F169818N	KON
	814840	F169812N	KON
	814843	F179803N	KON
	814845	F179818N	KON
	814846	E049907N	KPL
	814850	F059810N	KON
	814851	E189926N	KPL
	814852	F109814N	KON
	814854	F089809N	KON
	814857	F119805N	KON
	814859	F179816N	KON
	814861	F169805N	KON
	814865	E199911N	KPL
	814880	E049911N	KPH
	814897	F109810N	KON
	814907	H099821N	KON
	814908	D109903N	KPL
	814921	E199910N	KPL
	814952	L089817N	KPH
	814953	I039905N	KRN
	814965	A219909N	KPK
	814967	A219904N	KPK
	814968	A219915N	KPK
	814969	A219912N	KPK
	814974	A259911N	KPK
	814976	A259914N	KPK
	814977	B169902N	KPL
	814978	B169915N	KPL
	814979	B169917N	KPL
	814980	B189905N	KPL
	814981	B179908N	KPK
	814984	B179911N	KPL
	814985	B179905N	KPL

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		21 of 60	D
04	14	00	10	18	01		MSB00-5	

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
IO-520-F	814986	B179907N	KPL
	814987	C119912N	KPL
	814988	C119909N	KPL
	814990	C119913N	KPL
	814991	C119907N	KPL
	814994	B189906N	KPL
	814995	C129904N	KPL
	814996	C119911N	KPL
	814998	C119905N	KPL
	814999	C129911N	KPL
	815000	C129912N	KPL
	818751	C139901N	KPL
	818752	C159920N	KPL
	818753	C159919N	KPL
	818757	C139912N	KPK
	818767	D098803N	KPL
	818768	D109911N	KPL
	818769	D109901N	KPL
	818770	D089917N	KPL
	818771	D109902N	KPK
	818772	D099903N	KPL
	818774	D239912N	KPL
	818775	D249912N	KPM
	818777	D239907N	KPM
	818779	D269902N	KPM
	818781	D269917N	KPL
	818782	D249904N	KPM
	818783	E059905N	KPM
	818784	E039903N	KPM
	818785	E039917N	KPM
	818788	E049908N	KPL
	818791	E059907N	KPL
	818794	E189920N	KPL
	818795	E189909N	KPK
	818796	E189911N	KPM
	818797	E189905N	KPL
	818800	H279815N	KOM
	818801	E199914N	KPM
	818802	E199913N	KPL
	818803	F169817N	KON
	818804	E059910N	KPL

Engine Model	Eng. S/N	C/S S/N	H/C
IO-520-F	818807	D109905N	KPL
	818809	D109910N	KPK
	818816	D239905N	KPL
	818823	F239922N	KRN
	818824	F239915N	KRN
	818829	F249915N	KRN
	818831	F239908N	KRN
	818835	E059903N	KPM
	818847	G269913N	KRN
	818848	G269925N	KRN
	818849	G269921N	KRN
	818850	G269927N	KRN
	818853	G269910N	KRN
	818855	G269923N	KRN
	818856	G269904N	KRN
	818857	G289910N	KRN
	818858	G279923N	KRN
	818859	G289916N	KRN
	818860	G299927N	KRN
	818862	G279914N	KRN
	818864	G299921N	KRN
	818865	G299904N	KRN
	818866	G299919N	KRN
	818867	G299901N	KRN
	818868	G309912N	KRN
	818869	G309906N	KRN
	818870	G309914N	KRN
	818878	H249911N	KRN
	818880	I079904N	KRN
	818881	I039914N	KRN
	818882	I039912N	KRN
	818885	H259911N	KRN
	818887	I039913N	KRN
	818890	J089909N	KRP
	818892	I089926N	KRP
	818894	H249906N	KRN
	818901	J049915N	KRP
	818906	J049933N	KRP
	818907	J059927N	KRP
	818908	J049923N	KRP
	818909	J059902N	KRP

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		22 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
IO-520-F	818910	J079907N	KRP
	818915	J119904N	KRP
	818916	J089904N	KRP
	818929	K029918N	KRP
	818933	L029915N	KRN
	818935	L039904N	KRN
	818936	L029904N	KRN
	818939	L029917N	KRN
	818943	L079915N	KRP
	818948	L109906N	KRP
	818949	L109921N	KRP
	818979	N00CA107	KRP
	818986	N00CA146	KRP
	818995	N00CA354	KRP
IO-520-J	216537	I089905N	KRN
IO-520-K	224136	H099801N	KOL
	224140	B169913N	KPK
IO-520-L	294901	D229820N	KOL
	294902	D239805N	KOL
	294903	D239806N	KOL
	294905	F089806N	KOL
	294906	F059813N	KOL
	294907	F089812N	KOL
	294908	F099802N	KOL
	294909	F049812N	KOL
	294910	F059808N	KOL
	294911	F059807N	KON
	294912	F169806N	KON
	294913	E189917N	KPL
	294914	F159804N	KOL
	294915	F089801N	KOL
	294916	F109809N	KON
	294917	E039905N	KPM
	294919	F059814N	KOL
	294920	H039814N	KOL
	294925	H079809N	KOL
	294930	E189925N	KPL
	294938	E059913N	KPL

Engine Model	Eng. S/N	C/S S/N	H/C
IO-520-L	294941	H279817N	KOM
	294943	E189919N	KPL
	294947	E189915N	KPL
	294958	A219905N	KPK
	294959	A229911N	KPK
	294960	A219914N	KPK
	294962	A219913N	KPK
	294963	A259913N	KPK
	294965	A279901N	KPK
	294970	C129903N	KPK
	294971	C119918N	KPK
	294973	C139907N	KPL
	294974	C159903N	KPL
	294977	D089911N	KPL
	294979	D109906N	KPL
	294980	D089907N	KPL
	294982	D239908N	KPM
	294983	D269908N	KPM
	294985	E039901N	KPL
	294988	E059917N	KPM
	294989	E199904N	KPL
	294990	E189807N	KPK
	294991	E199906N	KPL
	294992	E189908N	KPK
	294993	F239923N	KRN
	294996	D109907N	KPL
	295001	L109801N	KPK
	295003	G269903N	KRN
	295005	G309905N	KRN
	295006	G299929N	KRN
	295007	G299914N	KRN
	295008	G299930N	KRN
	295012	G309910N	KRN
	295013	H239905N	KRN
	295014	H209909N	KRN
	295018	I099913N	KRP
	295019	I089923N	KRP
	295020	J079905N	KRP
	295021	J079902N	KRP
	295025	I079909N	KRN
	295027	I079922N	KRN

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		23 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
IO-520-L	295028	I079916N	KRN
	295029	I089924N	KRP
	295039	F119804N	KON
	295040	H099808N	KOL
	295045	L029908N	KRN
	295046	L029903N	KRP
	295049	L039905N	KRN
	295067	N00CA132	KRP
	577231	F119808N	KON
	577234	F269913N	KPL
	577236	I089903N	KRN
	577237	K029903N	KRP
IO-520-M	811623	J089806N	KOR
	811624	J089802N	KOR
	811625	J099809N	KOM
	811630	K259814N	KPH
	811632	A159907N	KPM
	811634	B109920N	KPM
	811635	B109912N	KPM
	811642	B109909N	KPM
	811644	D019912N	KPM
	811645	D019906N	KPM
	811646	D019903N	KPM
	811650	D019907N	KPM
	811652	D059910N	KPH
IO-520-MB	277688	K189801N	KOM
	277721	I229809N	KOM
	277725	K129809N	KOP
	277726	K139801N	KPM
	277727	K179802N	KOR
	277728	K199803N	KPM
	277730	K179807N	KOR
	277733	A169906N	KOR
	277738	B029903N	KPH
	277739	B129915N	KPM
	277747	E019902N	KPH
	277748	C279902N	KPM
	277752	D149908N	KPH

Engine Model	Eng. S/N	C/S S/N	H/C
IO-520-MB	277753	D149907N	KPM
	277781	K139802N	KPM
IO-550-A	280488	I189814N	KOR
	280490	I199805N	KOR
	280491	I219815N	KOR
	280493	J269804N	KOM
	280495	I199802N	KOR
	280497	J239802N	KOR
	280498	J239810N	KOM
	280499	J239803N	KOR
	280500	J239811N	KOM
	817001	J279805N	KOM
	817002	K209806N	KOP
	817005	J279806N	KOR
	817006	A209902N	KPM
IO-550-B	296625	K229809N	KPH
	297088	K229810N	KPH
	297102	I169810N	KOR
	297103	I189815N	KOR
	297104	I199804N	KOR
	297105	I229805N	KOM
	297106	I219821N	KOP
	297108	I219802N	KOM
	297114	I189813N	KOR
	297115	J249810N	KOR
	297116	I209802N	KOR
	297117	I189816N	KOR
	297118	J259804N	KOM
	297119	J259805N	KOM
	297120	J269801N	KOM
	297121	J269812N	KOM
	297122	K209807N	KPH
	297124	K219801N	KOP
	297125	J279810N	KOM
	297128	J259812N	KOM
	297129	K219803N	KOP
	297131	K229802N	KOR
	297133	K239808N	KOR

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		24 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
IO-550-B	297134	K209801N	KOR
	297136	K209802N	KOP
	297138	K199808N	KPH
	297139	A199904N	KOM
	297140	A199906N	KOM
	297141	A189910N	KOM
	297142	A209906N	KOM
	297144	A209904N	KOR
	297145	A209905N	KOR
	297149	B059901N	KPM
	297153	K209813N	KOP
	297154	B039916N	KPM
	297157	B059908N	KPM
	297161	C249909N	KPM
	297163	C299911N	KPM
	297164	C249901N	KPM
	297165	C259902N	KPM
	297166	C259908N	KPM
	297167	C299910N	KPM
	297168	D299901N	KPK
	297170	K239802N	KPH
	297172	K199807N	KOP
	297187	J239809N	KOM
	682997	A169804N	KPM
	684005	I169807N	KOR
	684006	I219812N	KOR
	684009	J249806N	KOR
	684010	J279807N	KOM
	684011	J279809N	KOM
	684015	J259811N	KOM
	684016	J269808N	KOM
	684017	J269811N	KOM
	684020	K239807N	KOR
	684021	K239805N	KOR
	684022	K239803N	KOP
	684023	K209810N	KPH
	684025	K199812N	KOR
	684026	B039913N	KPM
	684027	A199901N	KOM
	684029	A199903N	KOM
	684030	B039915N	KPM

Engine Model	Eng. S/N	C/S S/N	H/C
IO-550-B	684031	B039912N	KPH
	684032	B039907N	KPM
	684033	B039910N	KPM
	684034	B099901N	KPM
	684035	B099905N	KPM
	684036	B099903N	KPM
	684037	B099902N	KPM
	684038	C059907N	KOR
	684039	C059903N	KOR
	684040	C059905N	KOR
	684041	C069901N	KOR
	684042	C239916N	KPH
	684043	C239917N	KPM
	684044	C259903N	KPM
	684045	C259904N	KPM
	684046	C259909N	KPM
	684048	C319910N	KPM
	684050	C309901N	KPM
	684051	C309903N	KPM
	684052	D299906N	KPM
	684053	D299905N	KPM
	684058	E239901N	KRN
	684110	I179802N	KOR
	684113	K199811N	KOR
	684114	B059920N	KPM
	684115	C069911N	KOR
	684119	A319916N	KPM
	684121	C069905N	KPM
	684745	J279808N	KOM
IO-550-C	684239	I219823N	KOP
	684240	I219819N	KOP
	684243	I229806N	KOM
	684244	I219810N	KOR
	684247	I229807N	KOR
	684248	I219811N	KOR
	684249	I219809N	KOR
	684250	J249805N	KOR
	684252	J249811N	KOR
	684253	J269805N	KOM
	684254	J249807N	KOR

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		25 of 60	D
04	14	00	10	18	01		MSB00-5	

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
IO-550-C	684255	J249809N	KOR
	684256	J279803N	KOM
	684257	J279802N	KOM
	684258	J279801N	KOR
	684259	J279804N	KOM
	684261	K209815N	KOR
	684262	K229804N	KOR
	684263	K239809N	KOR
	684264	K209805N	KOP
	684266	K209811N	KOR
	684267	K199809N	KOR
	684268	K209808N	KOR
	684269	K209812N	KOR
	684270	A209901N	KOR
	684271	A189913N	KPM
	684273	A199905N	KOR
	684274	B039914N	KPM
	684276	B049910N	KPM
	684277	B039906N	KPM
	684278	B049907N	KPM
	684279	B049908N	KPM
	684280	B089901N	KPM
	684281	B059918N	KPM
	684282	B059922N	KPM
	684283	B059917N	KPM
	684284	C059910N	KOR
	684285	C059904N	KOR
	684287	C059906N	KOR
	684288	C239913N	KPH
	684290	C239915N	KPH
	684291	C239914N	KPM
	684292	C309904N	KPM
	684293	C299906N	KPM
	684294	C309905N	KPM
	684295	C259910N	KPM
	684296	D289903N	KPM
	684297	D289901N	KPH
	684298	D279904N	KPM
	684300	D279902N	KPM
	684301	D289904N	KPM
	684303	D299903N	KPH

Engine Model	Eng. S/N	C/S S/N	H/C
IO-550-C	684304	D299904N	KPM
	684368	I169812N	KOR
	684369	I179803N	KOR
	684370	I199801N	KOR
	684371	I179804N	KOR
	684419	B089910N	KPM
	684532	C069910N	KOR
	684533	C069908N	KOR
	684535	C259907N	KPM
	684536	C259905N	KPM
	684538	C319911N	KRP
	815291	I209804N	KOR
	815292	I219804N	KOM
	815293	J259801N	KOR
	815294	J259802N	KOR
	815298	I219813N	KOR
	815299	I219814N	KOP
	815301	I219818N	KOP
	815302	I219824N	KOP
	815304	I199806N	KOP
	815306	J239805N	KOR
	815307	J239807N	KOM
	815308	J239808N	KOR
	815309	J239806N	KOR
	815310	J239801N	KOR
	815311	J269803N	KOM
	815313	J279812N	KOR
	815314	K229801N	KOR
	815315	K209817N	KOR
	815316	K199810N	KPH
	815317	A189906N	KOM
	815319	K209818N	KOR
	815321	B099904N	KPM
	815322	B059916N	KPM
	815323	A199908N	KOM
	815325	B089907N	KPM
	815328	C069909N	KPM
	815329	C069903N	KPM
	815330	B059903N	KOM
	815333	C249902N	KPM
	815335	C259906N	KPM

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		26 of 60	D
04	14	00	10	18	01		MSB00-5	

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
IO-550-C	815339	B059910N	KPM
	815340	C299908N	KPM
	815342	C009904N	KPH
	815344	B059913N	KPM
	815346	D299902N	KPK
	815347	C319902N	KPM
	815378	F129905N	KRP
	815383	I169809N	KOR
IO-550-D	284283	D259804N	KOL
	284284	D249814N	KOL
	284286	D249815N	KOL
	284287	D259801N	KOL
	284289	D259803N	KOL
	284290	D279801N	KOL
	284293	H199918N	KRN
	284294	G229808N	KOL
	284295	G239812N	KOL
	284299	D179916N	KPL
	284313	A309910N	KPL
	284314	A309903N	KPL
	284315	A309902N	KPL
	284316	B019904N	KPL
	284317	B019905N	KPL
	284318	A309906N	KPL
	284319	A309904N	KPL
	284321	D179909N	KPK
	284322	D179903N	KPL
	284323	D199904N	KPL
	284324	D179915N	KPL
	284325	D189904N	KPK
	284327	H199908N	KRN
	284330	G169910N	KPM
	284331	G169911N	KPM
	284333	G239809N	KOL
	284335	J019903N	KRP
	284336	J019922N	KRP
	284337	H199911N	KRN
	284339	H199920N	KRN
	284340	J019913N	KRP
	284341	J019918N	KRP

Engine Model	Eng. S/N	C/S S/N	H/C
IO-550-D	284342	J019911N	KRP
	284349	J049904N	KRN
	284350	G169908N	KRN
	284351	J049912N	KRP
	284352	J019905N	KRN
	284355	K069906N	KRP
	284357	A050008N	KRN
	284359	A050011N	KRN
	284360	A050006N	KRN
	680020	A309901N	KPL
IO-550-E	283391	B019906N	KPL
	283382	D249808N	KOL
	283383	D249817N	KOL
	283384	D249813N	KOL
	283385	D249807N	KOL
	283386	D249816N	KOL
	283387	D259802N	KOL
	283389	D279806N	KOL
	283394	D179904N	KPL
	283395	D179902N	KPL
	283397	D249809N	KOL
	283398	D199905N	KPL
	283399	D189906N	KPK
	283400	D199901N	KPK
	283401	D179914N	KPK
	283403	A050003N	KRN
	283404	A080009N	KRN
	283405	N00CA227	KRP
	681045	A050002N	KRN
	681048	A050005N	KRN
IO-550-F	284851	D249810N	KOL
	284859	D279803N	KOL
	284861	D249818N	KOL
	284862	D279805N	KOL
	284863	D279804N	KOL
	284865	D279810N	KOL
	284869	D279809N	KOL
	284871	D259806N	KOL
	284872	D279808N	KOL

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		27 of 60	D
04	14	00	10	18	01		MSB00-5	

AFFECTED ENGINE MODELS

BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
IO-550-F	284873	D279807N	KOL
	284874	D279812N	KOL
	284875	D279802N	KOL
	284878	G239807N	KOL
	284916	D249811N	KOL
	284933	J019915N	KRP
	284935	J019914N	KRP
	284949	N00CA215	KRP
	679523	D179908N	KPL
	679531	J049914N	KRN
	679532	J049908N	KRP
	679533	A050007N	KRN
	913750	D199910N	KPL
IO-550-G	679336	E079909N	KPK
	289131	D259805N	KOL
	289136	G229809N	KOL
	289138	G229802N	KOL
	289140	G229810N	KOL
	289141	G229805N	KOL
	289147	G239804N	KOL
	679339	I169808N	KOR
	679343	I229801N	KOM
	679347	I209801N	KOR
	679348	J259810N	KOR
	679349	J259808N	KOR
	679352	I209803N	KOR
	679353	I229802N	KOR
	679363	I189817N	KOR
	679364	J259809N	KOR
	679366	C319906N	KPM
	679367	K219804N	KOR
	679368	J269807N	KOM
	679370	J269802N	KOM
	679371	J239804N	KOR
	679372	K209809N	KOR
	679373	K229806N	KOR
	679377	K229808N	KOP
	679378	K209814N	KOP
	679379	A189907N	KOM
	679380	B039909N	KOM

Engine Model	Eng. S/N	C/S S/N	H/C
IO-550-G	679381	K229805N	KOR
	679382	K209816N	KOR
	679383	A189911N	KOM
	679384	B039911N	KPM
	679385	B059914N	KPM
	679386	B059902N	KPM
	679387	B089902N	KPM
	679388	B059921N	KPM
	679389	B059911N	KPM
	679390	B089909N	KPM
	679391	B059905N	KPM
	679392	B089904N	KOR
	679393	I219805N	KOM
	679394	C069906N	KPM
	679395	C059902N	KOR
	679396	C069907N	KPM
	679397	C059913N	KOR
	679398	B089906N	KPM
	679399	C249906N	KPM
	679400	C2999909	KPH
	679401	C249903N	KPM
	679402	C249904N	KPM
	679403	C299907N	KPM
	679404	C309906N	KPH
	679405	C319908N	KPM
	679437	C249910N	KPM
	679438	C059914N	KOR
	679439	C319901N	KPM
	808508	J269809N	KOM
	808509	C309902N	KPM
IO-550-L	289130	D179901N	KPL
	289131	D259805N	KOL
	289136	G229809N	KOL
	289138	G229802N	KOL
	289140	G229810N	KOL
	289141	G229805N	KOL
	289147	G239804N	KOL
	289148	D199908N	KPL
	289149	D199909N	KPL

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		28 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
IO-550-L	289152	J019902N	KRP
	289153	J019907N	KRP
	289154	J049910N	KRP
	289155	J049911N	KRP
	289157	H199907N	KRN
	289160	A050001N	KRN
	289161	N00BA593	KRP
	289163	N00CA228	KRP
	289169	N00CA586	KRN
	678002	I119907N	KRN
IO-550-N	683354	J269810N	KOR
	683356	B089908N	KPM
	683357	C059911N	KOR
	683358	C059916N	KOR
	683359	C269902N	KPM
LTSIO-360-EB	807514	I239802N	KPC
	807516	J019810N	KPC
	807517	J019814N	KPC
	807518	J019811N	KPC
	807519	J019816N	KPC
	807520	K059812N	KPC
	807522	J019815N	KPC
	807523	K079803N	KPC
	807524	K059808N	KPC
	807525	K069803N	KPC
	807581	J029903N	KPC
LTSIO-360-KB	319386	K059815N	KPC
	319388	J019817N	KPC
	812054	I239804N	KPC
	812056	J019812N	KPC
	812057	J019808N	KPC
	812059	I259809N	KPC
	812062	K059814N	KPC
	812063	K069811N	KPC
	812064	K069805N	KPC
	812065	K069808N	KPC
	812066	K069810N	KPC
	812067	K069802N	KPC

Engine Model	Eng. S/N	C/S S/N	H/C
LTSIO-360-RB	321735	J019813N	KPC
	321736	J019807N	KPC
	321738	K059809N	KPC
	321739	I309802N	KPC
	321740	K059810N	KPC
	321741	I259810N	KPC
	321742	J019809N	KPC
	321743	K069809N	KPC
	321744	K069806N	KPC
	321745	K079802N	KPC
	321746	K069807N	KPC
LTSIO-520-AE	246675	G159915N	KPL
	246676	G159913N	KPL
	246679	G159909N	KPL
	246680	G159918N	KPL
	246684	G159914N	KPL
TSIO-360-AB	237617	K109805N	KPC
	237618	K109815N	KPC
TSIO-360-C	283560	J029805N	KPC
TSIO-360-CB	236251	K109812N	KPC
	236252	K109801N	KPC
TSIO-360-DB	817251	J029810N	KPC
TSIO360-EB	809232	I259803N	KPC
	809235	I249805N	KPC
	809238	K069813N	KPC
	809239	K109803N	KPC
	809240	K109814N	KPC
TSIO-360-FB	299712	I299803N	KPC
	299713	J019804N	KPC
	299714	I259807N	KPC
	299715	K049813N	KPC
	299716	K069816N	KPC
	299717	K109813N	KPC

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		29 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
TSIO-360-FB	299718	K109810N	KPC
	299720	K109808N	KPC
TSIO-360-KB	320381	K069812N	KPC
	320383	J019802N	KPC
	811323	K099808N	KPC
	811324	I259811N	KPC
	811325	K049818N	KPC
	811328	K059803N	KPC
	811329	K099809N	KPC
	811330	K109816N	KPC
	811331	K099810N	KPC
	811332	K109811N	KPC
	811333	K109804N	KPC
	811334	K109806N	KPC
TSIO-360-LB	247354	I249802N	KPC
	247356	I259802N	KPC
	247357	K099802N	KPC
	247358	K099811N	KPC
	247359	K099804N	KPC
TSIO-360-MB	279293	I249809N	KPC
	279294	K099807N	KPC
	279295	K069815N	KPC
TSIO-360-RB	321483	I299802N	KPC
	321484	I249808N	KPC
	321485	I309805N	KPC
	321486	K049815N	KPC
	321487	K059802N	KPC
	321488	I299806N	KPC
	321489	K099803N	KPC
	321490	K099805N	KPC
	321491	K099806N	KPC
	321492	K109809N	KPC
TSIO-360-SB	321791	K059804N	KPC
TSIO-520-AE	246177	G169904N	KPL
	246178	F1999203	KPL
	246179	G169903N	KPL

Engine Model	Eng. S/N	C/S S/N	H/C
TSIO-520-AF	245248	F169815N	KON
	245250	L109802N	KPK
TSIO-520-B	176762	L029808N	KPM
	176763	J099810N	KOM
	176765	A139906N	KPM
	176766	B119912N	KPM
	176767	B119914N	KPM
	176770	B109904N	KPM
	176775	D069906N	KPM
	176776	D059904N	KPH
	176795	K309801N	KOM
TSIO-520-BB	287621	D299911N	KPH
	287616	K169801N	KPM
	287619	C089903N	KPM
	287618	C089904N	KPM
	287622	D149911N	KPM
	287620	E119909N	KPH
TSIO-520-C	178539	L079909N	KRP
	178542	F179813N	KON
	178544	H079801N	KOL
	178560	B169911N	KPL
	178565	A039911N	KPL
	178566	E039908N	KPM
	178569	H129803N	KOL
	178571	I039903N	KRN
	178572	J079906N	KRP
	178573	J049916N	KRP
	178574	J059912N	KRP
	178575	J059910N	KRP
	178576	J089905N	KRP
TSIO-520-CE	268583	C039923N	KPL
	268585	C039920N	KPL
	268586	C039919N	KPL
	268590	L139901N	KRP
	530169	C039922N	KPL
	530172	L139902N	KRP
	530173	L139914N	KRP

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		30 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
TSIO-520-D	180110	J319803N	KOP
	180111	B109902N	KPM
TSIO-520-E	183520	J109806N	KOM
	812599	J089807N	KOR
	812601	J089809N	KOM
	812602	J109804N	KOM
	812603	I109810N	KOM
	812611	J319802N	KOP
	812612	J299808N	KOP
	812614	K309803N	KPM
	812615	K259806N	KPH
	812616	K259808N	KPH
	812617	K309808N	KOM
	812619	L029804N	KPM
	812620	K249805N	KPH
	812621	K259813N	KPM
	812622	K259810N	KPM
	812623	K259807N	KPM
	812624	A139904N	KPM
	812625	A139901N	KPM
	812630	L029803N	KPM
	812631	A139903N	KPM
	812632	B099910N	KPM
	812633	B119901N	KPM
	812634	B109915N	KPH
	812635	D019905N	KPM
	812638	D019911N	KPM
	812640	J289810N	KOP
TSIO-520-EB	815023	F169808N	KON
	815032	K179806N	KOR
	815035	C089906N	KPM
	815038	C279911N	KPH
	815040	C269906N	KPM
	815042	D149915N	KPM
	815043	E119918N	KPH
	815057	K129801N	KOP

Engine Model	Eng. S/N	C/S S/N	H/C
TSIO-520-G	216053	E039906N	KPM
TSIO-520-H	217409	F109808N	KON
	217412	E189928N	KPL
	217420	B169904N	KPL
	217423	C119904N	KPK
TSIO-520-J	217424	D109908N	KPL
	217426	E189918N	KPL
	217428	F269905N	KPL
	217429	F279902N	KRN
	217430	F279907N	KRN
	217432	G269926N	KRN
	217433	I089902N	KRN
	217438	L029906N	KRN
	506894	F129806N	KON
	506895	K019921N	KRP
	506896	H239901N	KRN
	218992	B099917N	KPM
TSIO-520-JB	237193	A159911N	KPM
	237194	C279906N	KPM
TSIO-520-L	241973	A129901N	KPM
	241974	A129903N	KPM
TSIO-520-LB	815504	B049904N	KPM
TSIO-520-M	291955	D169807N	KOL
	291960	F089810N	KOL
	291961	F089802N	KOL
	291962	F059803N	KOL
	291964	F109803N	KON
	291965	F109801N	KOL
	291967	F159801N	KOL
	291969	E199912N	KPL
	291978	I079932N	KRP
	291981	F119806N	KON

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		31 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
TSIO-520-M	291985	H279805N	KOM
	291986	H279808N	KOM
	532083	F049809N	KON
	532085	H279804N	KOM
	532088	L109804N	KPK
	532089	A219901N	KPK
	532091	D089906N	KPK
	532092	D249901N	KPM
	532093	C119906N	KPL
	532095	E049910N	KPM
	532096	E049903N	KPM
	532099	J049928N	KRP
	532100	J059906N	KRP
	532101	J069917N	KRP
	532102	J079903N	KRP
	532104	I039906N	KRN
	532105	K019917N	KRN
	532106	K029915N	KRP
	532107	K039905N	KRN
	532108	L029910N	KRN
	532109	L029909N	KRN
	532115	N00AA186	KRP
	532118	N00CA065	KRP
	532123	N00CA340	KRP
	818001	L069802N	KPK
	818007	A229901N	KPK
	818008	A219917N	KPK
	818010	A229906N	KPK
	818011	L099809N	KPK
	818015	B169908N	KPL
	818016	B179906N	KPL
	818017	B179916N	KPL
	818018	B169905N	KPL
	818020	C159921N	KPL
	818021	C139908N	KPL
	818022	D099905N	KPL
	818023	D089913N	KPL
	818024	D099906N	KPL
	818026	D269906N	KPM
	818027	C119902N	KPL

Engine Model	Eng. S/N	C/S S/N	H/C
TSIO-520-M	818028	E019912N	KPL
	818030	E189910N	KPL
	818031	E189903N	KPL
	818033	F229904N	KRN
	818041	E069901N	KPM
	818045	F279909N	KRN
	818047	G239913N	KRN
	818048	G299916N	KRN
	818049	G269917N	KRN
	818052	G299906N	KRN
	818053	G289908N	KRN
	818054	G299924N	KRN
	818055	G309901N	KRN
	818062	G299912N	KRN
	818063	H259909N	KRN
	818064	H249907N	KRN
	818067	G299918N	KRN
	818069	H259925N	KRN
	818071	G299911N	KRN
	818072	F179814N	KON
	818073	I039919N	KRN
	818074	I039909N	KRN
	818075	I099906N	KRP
	818079	I089922N	KRP
	818081	J079916N	KRP
	818084	J089907N	KRP
	818087	K019912N	KRP
	818098	L109903N	KRP
	818099	L029905N	KRN
	818107	L089906N	KRP
	818126	L099912N	KRP
	818144	N00CA135	KRP
TSIO-520-NB	813600	E269911N	KPL
	813621	I189808N	KOM
	813634	K179808N	KOR
	813635	A159918N	KPM
	813636	A159914N	KPM
	813637	B129913N	KPM
	813638	B159911N	KPM

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		32 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
TSIO-520-NB	813639	B159910N	KPM
	813640	B159909N	KPM
	813641	B159908N	KPM
	813644	C109914N	KPM
	813645	C279909N	KPH
	813646	D079911N	KPM
	813647	D079908N	KPM
	813652	C109913N	KPM
	813654	D299907N	KPM
	813655	D309901N	KPH
	813657	E119903N	KPH
	813660	E119910N	KPH
	813685	C109912N	KPM
TSIO-520-P	278814	F059811N	KOL
	278815	F089808N	KOL
	278820	E059912N	KPM
	278821	H129804N	KOL
	278823	F129803N	KON
	278828	L069805N	KOL
	278832	B169912N	KPL
	278833	E039915N	KPL
	278834	E069904N	KPM
	278835	E189914N	KPL
	278836	E199907N	KPL
	278840	D089910N	KOL
	278845	E039913N	KPM
	278848	G269908N	KRN
	278850	G269907N	KRN
	278851	G269928N	KRN
	278852	G299913N	KRN
	278854	H209922N	KRN
	278855	I039902N	KRN
	278856	I089920N	KRP
	278862	L079901N	KRN
	513921	H259906N	KRN
	513922	J049924N	KRP
TSIO-520-R	293969	E069906N	KPL
	293978	F049808N	KON

Engine Model	Eng. S/N	C/S S/N	H/C
TSIO-520-R	293979	F089805N	KON
	293985	F059805N	KOL
	293986	F189806N	KOL
	293988	F099810N	KON
	293992	F179804N	KON
	293993	F169816N	KON
	293994	F109802N	KOL
	293997	H049808N	KOL
	294007	H319813N	KOL
	294008	E019910N	KPM
	294014	H279816N	KOM
	294050	L079803N	KOL
	294051	B169909N	KPL
	294052	B169907N	KPL
	294054	B189903N	KPL
	294055	C119901N	KPL
	294059	B169903N	KPL
	294063	E019919N	KPL
	294066	E059918N	KPM
	294068	E189922N	KPL
	294069	E189904N	KPL
	294070	E189924N	KPL
	294072	D099902N	KPL
	294073	D099911N	KPL
	294074	F239911N	KRN
	294076	H279807N	KOM
	294079	F239910N	KRN
	294080	F239918N	KRN
	294081	F239924N	KRN
	294085	F269902N	KPM
	294092	G269919N	KRN
	294096	G279913N	KRN
	294098	G269906N	KRN
	294100	G309916N	KRN
	294101	G289911N	KRN
	294102	G279924N	KRN
	294104	G309908N	KRN
	294105	C309909N	KPL
	294106	H209907N	KRN
	294107	H209919N	KRP

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		33 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
	294108	H209927N	KRN
	294111	J059901N	KRP
	294112	I099908N	KRN
TSIO-520-R	294113	I099912N	KRP
	294114	I079908N	KRN
	294115	I079925N	KRP
	294116	I089910N	KRP
	294118	I079923N	KRP
	294119	J049919N	KRP
	294121	J049922N	KRP
	294122	J059921N	KRP
	294123	J089927N	KRP
	294124	J069918N	KRP
	294126	J089913N	KRP
	294128	J089916N	KRP
	294130	H259905N	KRN
	294134	L039901N	KRN
	294138	L029914N	KRN
	294140	L039902N	KRN
	294142	L069904N	KRN
	294144	L099918N	KRN
	294154	N00CA001	KRP
	294166	N00CA054	KRP
	294171	N00CA059	KRP
	522698	I039911N	KRN
	522702	A259912N	KPK
	522703	E039918N	KPM
	522706	J069909N	KRP
	522707	H209920N	KRN
	522709	J089910N	KRP
	522712	J049926N	KRP
	522720	N00CA006	KRP
TSIO-520-T	239465	I089918N	KRP
	239466	I039908N	KRN
	239467	H039811N	KOL
	239470	H269808N	KOL
	239474	A259910N	KPK
	239475	B189902N	KPL
	239476	C129910N	KPL
	239477	C129916N	KPL

Engine Model	Eng. S/N	C/S S/N	H/C
TSIO-520-T	239478	C139903N	KPH
	239484	D089908N	KPL
	239489	F269910N	KPL
	239490	G299928N	KRN
	239491	G239916N	KRN
	239493	J059926N	KRP
	239494	J089917N	KRN
	239497	L029916N	KRN
	239498	L109904N	KRP
	515440	F099815N	KOL
	515441	F159802N	KOL
	515442	H109806N	KOL
TSIO-520-UB	527425	I189807N	KOM
	527427	K169811N	KOR
	527428	A169908N	KOR
	527429	B019908N	KOR
	527430	B049905N	KOR
	527431	C089902N	KOR
	527432	C279908N	KPH
	527433	D149905N	KPM
	527434	D299916N	KOR
	527477	E109913N	KPH
	809347	K169813N	KOR
	809352	K179803N	KOR
	809354	A169905N	KPM
	809357	B159902N	KPM
	809358	E019907N	KPH
TSIO-520-VB	816019	I189801N	KOM
	816034	D299915N	KOR
	816036	K149804N	KOP
	816037	K189806N	KOR
	816038	K199804N	KPM
	816039	K149802N	KOM
	816041	K189808N	KOR
	816044	K189802N	KOR
	816046	K189807N	KOR
	816047	K179805N	KOM
	816050	A169914N	KPM
	816052	A169903N	KOR

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		34 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED ENGINE MODELS
BY ENGINE MODEL, ENGINE SERIAL NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Engine Model	Eng. S/N	C/S S/N	H/C
TSIO-520-VB	816053	A169902N	KOR
	816054	A169912N	KOR
	816055	A189901N	KPM
	816056	A169913N	KPM
	816057	B019915N	KPM
	816058	B039902N	KPH
	816061	A169907N	KOR
	816062	A209908N	KOR
	816063	B159901N	KPM
	816064	B159912N	KPM
	816065	B159904N	KPM
	816067	B159905N	KPM
	816068	B159906N	KPM
	816069	B029904N	KPH
	816070	C269905N	KPH
	816072	C279904N	KPH
	816073	C279910N	KPH
	816075	C279905N	KPM
	816079	C269909N	KPM
	816080	D149910N	KPM
	816081	D149906N	KPM
	816086	D149914N	KPM
	816087	D299910N	KPH
	816088	E019904N	KPH
	816089	E109909N	KPH
	816090	E119905N	KPH
	816092	E119904N	KPH
	816093	E119902N	KPH
TSIO-520-WB	274437	K129805N	KOP
	274438	K199805N	KOR
	274439	K169815N	KOR
	274443	C279912N	KPM
	274450	E119901N	KPH

Engine Model	Eng. S/N	C/S S/N	H/C
TSIO-550-C	802589	J259803N	KOM
	802590	K219805N	KOR
	802591	I219803N	KOM
	802592	C319904N	KPM
	814506	I169811N	KOR
	814507	J249802N	KOR
	814509	J279811N	KOM
	814512	B059907N	KPM
	814514	A209903N	KOR
TSIO-550-E	803059	A169803N	KPM
	803067	C319905N	KPM
	803070	I179801N	KOR
	803071	B059915N	KPM
	803072	B089903N	KPM
	803073	B059906N	KPM
	803074	B059912N	KPM
	803075	B059904N	KPM
	803077	I219801N	KOM
	803078	A189908N	KOM
	803079	J269806N	KOR
	803080	K219802N	KOP
	803081	A199907N	KOM
	803082	A199902N	KOM
	803086	B049911N	KPM
	803087	C069902N	KOR
	803088	B089905N	KPM
	803089	C059912N	KOR
	803090	C249907N	KPM
	803091	C249911N	KPM
	803093	C269901N	KPM
	803094	C259901N	KPM
	803095	C249905N	KPM
	803097	C259911N	KPH
TSIOL-550-A	809259	I219806N	KOM

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		35 of 60 MSB00-5	D
04	14	00	10	18	01			

SECTION 3
AFFECTED SERVICE SPARE CRANKSHAFTS
BY CRANKSHAFTPART NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Part #	Serial #	H/C
643687	N00CA586	KRN
643687	N00CA589	KRN
643687	N00CA590	KRN
643687	N00CA591	KRN
646623	A050002N	KRN
646623	A050009N	KRN
646623	A050011N	KRN
646623	A309905N	KPL
646623	A309907N	KPL
646623	D179905N	KPK
646623	D179910N	KPK
646623	D179912N	KPK
646623	D189905N	KPK
646623	D199903N	KPK
646623	D199906N	KPL
646623	D239802N	KOL
646623	D249812N	KOL
646623	D279811N	KOL
646623	G169908N	KRN
646623	G169909N	KRN
646623	G169913N	KRN
646623	G229809N	KOL
646623	G239807N	KOL
646623	G239808N	KOL
646623	H199907N	KRN
646623	H199908N	KRN
646623	H199909N	KRN
646623	H199910N	KRN
646623	H199911N	KRN
646623	H199912N	KRN
646623	H199913N	KRN
646623	H199915N	KRN
646623	H199917N	KRN
646623	H199918N	KRN
646623	H199919N	KRN
646623	H199920N	KRN
646623	J019905N	KRN
646623	J019908N	KRP

Part #	Serial #	H/C
646623	J019923N	KRP
646623	J019924N	KRN
646623	J049903N	KRN
646623	J049904N	KRN
646623	J049907N	KRP
646623	J049913N	KRP
646623	N00CA212	KRP
646623	N00CA218	KRP
646623	N00CA219	KRP
646623	N00CA225	KRP
646632	H199914N	KRN
649131	B179917N	KPK
649131	N00CA340	KRP
649131	N00CA342	KRP
649131	N00CA363	KRP
649133	D239803N	KOL
649133	D239815N	KOL
649133	G269911N	KRN
649133	K029912N	KRP
649133	L079904N	KRN
649134	A219916N	KPK
649134	A229902N	KPK
649134	A229903N	KPK
649134	A229913N	KPK
649134	A259908N	KPK
649134	A259916N	KPK
649134	A279902N	KPK
649134	A279903N	KPK
649134	B119903N	KPL
649134	B179902N	KPL
649134	B179903N	KOL
649134	B179904N	KPL
649134	B179909N	KPL
649134	B179910N	KPL
649134	B179913N	KPL
649134	B179913N	KOL
649134	B179914N	KPK
649134	B179918N	KPL

Part #	Serial #	H/C
649134	B189901N	KPL
649134	C119914N	KPK
649134	C119917N	KPK
649134	C129902N	KPL
649134	C129905N	KPL
649134	C129906N	KPL
649134	C129907N	KPL
649134	C129909N	KPL
649134	C129913N	KPK
649134	C129915N	KPL
649134	C139904N	KPL
649134	C139905N	KPK
649134	C139906N	KPL
649134	C139909N	KPL
649134	C139910N	KPL
649134	C139911N	KPL
649134	C149913N	KPL
649134	D089903N	KPL
649134	D099901N	KPL
649134	D109904N	KPL
649134	D109909N	KPL
649134	D209807N	KOL
649134	D209809N	KOL
649134	D209810N	KOL
649134	D209811N	KOL
649134	D229801N	KOL
649134	D229802N	KOL
649134	D229803N	KOL
649134	D229806N	KOL
649134	D229808N	KOL
649134	D229809N	KOL
649134	D229810N	KOL
649134	D229811N	KOL
649134	D229812N	KOL
649134	D229813N	KOL
649134	D229814N	KOL
649134	D229815N	KOL
649134	D229817N	KOL
649134	D229822N	KOL

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		36 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED SERVICE SPARE CRANKSHAFTS (continued)
BY CRANKSHAFTPART NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Part #	Serial #	H/C
649134	D229819N	KOL
649134	D229821N	KOL
649134	D239801N	KOL
649134	D239807N	KOL
649134	D239811N	KOL
649134	D239812N	KOL
649134	D239813N	KOL
649134	D239814N	KOL
649134	D239816N	KOL
649134	D239817N	KOL
649134	D239818N	KOL
649134	D239819N	KOL
649134	D239821N	KOL
649134	D239822N	KOL
649134	D239823N	KOL
649134	D239824N	KOL
649134	D239901N	KPL
649134	D239902N	KPL
649134	D239903N	KPL
649134	D239904N	KPM
649134	D239906N	KPL
649134	D239909N	KPM
649134	D239910N	KPL
649134	D239911N	KPL
649134	D249801N	KOL
649134	D249802N	KOL
649134	D249803N	KOL
649134	D249804N	KOL
649134	D249805N	KOL
649134	D249806N	KOL
649134	D249902N	KPM
649134	D249903N	KPL
649134	D249905N	KPM
649134	D249908N	KPM
649134	D249910N	KPM
649134	D249911N	KPM
649134	D249914N	KPM
649134	D249915N	KPL

Part #	Serial #	H/C
649134	D249916N	KPM
649134	D249917N	KPM
649134	D249918N	KPM
649134	D269901N	KPM
649134	D269903N	KPM
649134	D269904N	KPM
649134	D269907N	KPM
649134	D269909N	KPM
649134	D269910N	KPL
649134	D269911N	KPM
649134	D269912N	KPM
649134	D269913N	KPM
649134	D269914N	KPM
649134	D269915N	KPM
649134	D269916N	KPM
649134	D269918N	KPM
649134	E039907N	KPM
649134	E039909N	KPL
649134	E039911N	KPL
649134	E049901N	KPM
649134	E049902N	KPM
649134	E049906N	KPL
649134	E059908N	KPL
649134	E059914N	KPL
649134	E059916N	KPM
649134	E069902N	KPM
649134	E189913N	KPL
649134	E189923N	KPL
649134	E189927N	KPL
649134	E199902N	KPL
649134	E199903N	KPL
649134	E199905N	KPL
649134	F059802N	KOL
649134	F089811N	KOL
649134	F109804N	KON
649134	F109811N	KON
649134	F109818N	KON
649134	F119801N	KON

Part #	Serial #	H/C
649134	F119802N	KON
649134	F119803N	KON
649134	F119807N	KON
649134	F119809N	KON
649134	F119810N	KON
649134	F119811N	KON
649134	F119812N	KON
649134	F129801N	KON
649134	F129804N	KOL
649134	F129805N	KON
649134	F129807N	KOL
649134	F129808N	KOL
649134	F129810N	KOL
649134	F129811N	KON
649134	F129812N	KOL
649134	F159803N	KOL
649134	F159805N	KOL
649134	F159807N	KON
649134	F159809N	KON
649134	F159812N	KOL
649134	F169802N	KON
649134	F169803N	KOL
649134	F169814N	KON
649134	F179801N	KOL
649134	F179802N	KON
649134	F179809N	KOL
649134	F179812N	KON
649134	F179815N	KON
649134	F189803N	KON
649134	F199801N	KON
649134	F229919N	KRN
649134	F239807N	KOL
649134	F269911N	KPL
649134	F269912N	KPL
649134	F269915N	KPM
649134	F269916N	KPL
649134	G099930N	KRN

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		37 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED SERVICE SPARE CRANKSHAFTS (continued)
BY CRANKSHAFTPART NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Part #	Serial #	H/C
649134	G149910N	KPM
649134	G149909N	KPM
649134	G149911N	KPM
649134	G149912N	KPM
649134	G149913N	KPM
649134	G149916N	KPM
649134	G159901N	KPM
649134	G159905N	KPM
649134	G159906N	KPM
649134	G269902N	KRN
649134	G269905N	KRN
649134	G269924N	KRN
649134	G279902N	KRN
649134	G279903N	KRN
649134	G279904N	KRN
649134	G279906N	KRN
649134	G279907N	KRN
649134	G279908N	KRN
649134	G279910N	KRN
649134	G279911N	KRN
649134	G279915N	KRN
649134	G279916N	KRN
649134	G279917N	KRN
649134	G279918N	KRN
649134	G279922N	KRN
649134	G289901N	KRN
649134	G289902N	KRN
649134	G289905N	KRN
649134	G289906N	KRN
649134	G289907N	KRN
649134	G289909N	KRN
649134	G289912N	KRN
649134	G289917N	KRN
649134	G289918N	KRN
649134	G289919N	KRN
649134	G289920N	KRN
649134	G289921N	KRN

Part #	Serial #	H/C
649134	G289922N	KRN
649134	G289923N	KRN
649134	G289924N	KRN
649134	G289925N	KRN
649134	G289926N	KRN
649134	G289927N	KRN
649134	G289928N	KRN
649134	G289929N	KRN
649134	G289930N	KRN
649134	G299902N	KRN
649134	G299903N	KRN
649134	G299905N	KRN
649134	G299907N	KRN
649134	G299908N	KRN
649134	G299909N	KRN
649134	G299922N	KRN
649134	G299923N	KRN
649134	G299925N	KRN
649134	G299926N	KRN
649134	G309903N	KRN
649134	G309904N	KRN
649134	G309907N	KRN
649134	G309909N	KRN
649134	G309913N	KRN
649134	G309915N	KRN
649134	G309917N	KRN
649134	G309918N	KRN
649134	G309919N	KRN
649134	H049804N	KOL
649134	H049810N	KOL
649134	H049814N	KOL
649134	H049815N	KOL
649134	H049816N	KOL
649134	H059804N	KOL
649134	H059809N	KOL
649134	H069812N	KOL
649134	H098808N	KOL

Part #	Serial #	H/C
649134	H099818N	KON
649134	H099819N	KOL
649134	H109803N	KON
649134	H109804N	KON
649134	H119809N	KOL
649134	H119811N	KOL
649134	H209906N	KRN
649134	H209908N	KRP
649134	H209910N	KRP
649134	H209917N	KRP
649134	H209918N	KRN
649134	H209923N	KRN
649134	H209924N	KRN
649134	H209925N	KRN
649134	H209926N	KRN
649134	H239902N	KRN
649134	H239903N	KRN
649134	H239904N	KRN
649134	H239906N	KRP
649134	H239907N	KRN
649134	H239909N	KRN
649134	H239910N	KRN
649134	H239911N	KRN
649134	H239912N	KRN
649134	H239913N	KRN
649134	H239914N	KRN
649134	H239915N	KRN
649134	H239916N	KRP
649134	H239917N	KRN
649134	H249901N	KRN
649134	H249902N	KRN
649134	H249903N	KRN
649134	H249904N	KRN
649134	H249908N	KRN
649134	H249909N	KRN
649134	H249910N	KRN
649134	H249913N	KRN

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		38 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED SERVICE SPARE CRANKSHAFTS (continued)
BY CRANKSHAFTPART NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Part #	Serial #	H/C
649134	H249914N	KRN
649134	H249915N	KRN
649134	H249916N	KRN
649134	H249917N	KRN
649134	H249918N	KRN
649134	H249920N	KRN
649134	H249921N	KRN
649134	H249922N	KRN
649134	H249923N	KRN
649134	H259901N	KRN
649134	H259902N	KRN
649134	H259903N	KRN
649134	H259904N	KRN
649134	H259907N	KRN
649134	H259908N	KRN
649134	H259910N	KRN
649134	H259912N	KRN
649134	H259913N	KRN
649134	H259914N	KRN
649134	H259915N	KRN
649134	H259916N	KRN
649134	H259917N	KRN
649134	H259918N	KRN
649134	H259919N	KRN
649134	H259920N	KRN
649134	H259921N	KRN
649134	H259923N	KRN
649134	H259924N	KRN
649134	H259926N	KRN
649134	H289800N	KOL
649134	H289802N	KOL
649134	H319808N	KOL
649134	H319810N	KOL
649134	H319815N	KOL
649134	I019801N	KOL
649134	I019802N	KOL
649134	I019805N	KOL
649134	I029801N	KOL

Part #	Serial #	H/C
649134	I029804N	KOL
649134	I029805N	KOL
649134	I039904N	KRN
649134	I039907N	KRN
649134	I039910N	KRN
649134	I039916N	KRN
649134	I039917N	KRN
649134	I039918N	KRN
649134	I039920N	KRN
649134	I079903N	KRN
649134	I079905N	KRN
649134	I079907N	KRN
649134	I079912N	KRN
649134	I079913N	KRP
649134	I079914N	KRP
649134	I079917N	KRP
649134	I079919N	KRP
649134	I079920N	KRP
649134	I079921N	KRP
649134	I079926N	KRP
649134	I079928N	KRP
649134	I079929N	KRN
649134	I089901N	KRP
649134	I089904N	KRP
649134	I089907N	KRP
649134	I089908N	KRP
649134	I089909N	KRP
649134	I089911N	KRP
649134	I089912N	KRP
649134	I089913N	KRP
649134	I089914N	KRP
649134	I089915N	KRP
649134	I089916N	KRP
649134	I089917N	KRP
649134	I089919N	KRP
649134	I089921N	KRP
649134	I089928N	KRP
649134	I089929N	KRP

Part #	Serial #	H/C
649134	I099903N	KRP
649134	I099904N	KRP
649134	I099910N	KRP
649134	I099915N	KRN
649134	I099916N	KRP
649134	J059903N	KRP
649134	J059905N	KRP
649134	J059907N	KRP
649134	J059909N	KRP
649134	J059911N	KRP
649134	J059914N	KRP
649134	J059915N	KRP
649134	J059919N	KRP
649134	J059920N	KRP
649134	J059922N	KRP
649134	J059923N	KRP
649134	J059924N	KRP
649134	J069901N	KRP
649134	J069902N	KRP
649134	J069914N	KRP
649134	J069916N	KRP
649134	J079904N	KRP
649134	J079909N	KRP
649134	J079912N	KRP
649134	J079913N	KRP
649134	J079914N	KRP
649134	J079917N	KRP
649134	J089902N	KRP
649134	J089914N	KRN
649134	J089919N	KRP
649134	J089920N	KRP
649134	J089923N	KRP
649134	J089926N	KRP
649134	J119901N	KRP
649134	K019908N	KRN
649134	K019910N	KRP
649134	K019915N	KRP

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		39 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED SERVICE SPARE CRANKSHAFTS (continued)
BY CRANKSHAFTPART NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Part #	Serial #	H/C
649134	K019920N	KRN
649134	K019923N	KRP
649134	K029901N	KRP
649134	K029902N	KRP
649134	K029906N	KRN
649134	K039905N	KRN
649134	L029904N	KRN
649134	L029912N	KRN
649134	L029913N	KRN
649134	L039816N	KPK
649134	L039817N	KPK
649134	L039903N	KRN
649134	L039907N	KRN
649134	L039909N	KRN
649134	L049803N	KPK
649134	L059809N	KOL
649134	L069806N	KOL
649134	L069808N	KOL
649134	L079802N	KOL
649134	L079902N	KRN
649134	L079908N	KRP
649134	L079911N	KRN
649134	L089901N	KRP
649134	L089903N	KRP
649134	L099909N	KRP
649134	L099911N	KRP
649134	L099913N	KRP
649134	L099917N	KRP
649134	N00AA189	KRP
649134	N00AA190	KRP
649134	N00AA192	KRP
649134	N00AA193	KRP
649134	N00AA195	KRP
649134	N00CA093	KRP
649134	N00CA144	KRP
649134	N00CA324	KRP
649134	N00CA344	KRP

Part #	Serial #	H/C
649134	N00CA345	KRP
649134	N00CA352	KRP
649134	N00CA353	KRP
649134	N00CA354	KRP
649134	N00CA355	KRP
649134	N00CA358	KRP
649134	N00CA377	KRP
649134	N00CA381	KRP
649135	F109813N	KON
649135	G309902N	KRN
649135	G309911N	KRN
649135	H029908N	KRP
649135	H039802N	KOL
649135	K019901N	KRN
649135	K019906N	KRN
649135	L089902N	KRP
649138	A289905N	KPK
649138	A289913N	KPL
649138	B189910N	KPL
649138	B199905N	KPL
649138	C149901N	KPK
649138	C149903N	KPK
649138	C149906N	KPK
649138	C169902N	KPL
649138	D156818N	KOL
649138	D169818N	KOL
649138	D209804N	KOL
649138	E199924N	KPL
649138	F039818N	KOL
649138	F239805N	KOL
649138	H149804N	KON
649138	J119910N	KRP
649138	J119912N	KRN
649138	J129901N	KRN
649138	J129903N	KRP
649138	J149904N	KRP
649138	N00CA173	KRN

Part #	Serial #	H/C
649138	N00CA174	KRP
649138	N00CA203	KRP
649141	A299905N	KPK
649141	A299907N	KPK
649141	A299909N	KPK
649141	B189907N	KPL
649141	B189908N	KPL
649141	B199901N	KPL
649141	B199909N	KPL
649141	C159907N	KPL
649141	C159909N	KPK
649141	C179902N	KPK
649141	C179906N	KPL
649141	D179810N	KOL
649141	D189908N	KOL
649141	D209801N	KOL
649141	E199918N	KPL
649141	E199920N	KPL
649141	E199922N	KPL
649141	F029806N	KOL
649141	F049805N	KON
649141	F209801N	KON
649141	F209802N	KON
649141	F209803N	KON
649141	F209808N	KOL
649141	G319920N	KRN
649141	H139809N	KON
649141	H139810N	KON
649141	H139815N	KON
649141	H259927N	KRN
649141	H259934N	KRN
649141	H269901N	KRN
649141	H269909N	KRN
649141	H269911N	KOL
649141	I029809N	KOL
649141	I039808N	KOL
649141	I039809N	KOL

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		40 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED SERVICE SPARE CRANKSHAFTS (continued)
BY CRANKSHAFTPART NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Part #	Serial #	H/C
649141	I039811N	KOL
649141	I039812N	KOL
649141	I099923N	KRN
649141	I099925N	KRP
649141	I109907N	KRP
649141	J119919N	KRP
649141	J129908N	KRN
649141	J129916N	KRP
649141	J139902N	KRN
649141	J139909N	KRP
649141	J139920N	KRP
649141	J139922N	KRP
649141	K049904N	KRP
649141	K049912N	KRP
649141	K049915N	KRP
649141	L029815N	KPK
649141	L029816N	KPK
649141	L039807N	KPK
649141	L109812N	KPK
649141	N00CA199	KRN
649141	N209807N	KOL
649141	N249802N	KOL
649144	G159917N	KPM
649148	L139904N	KRP
649148	L139906N	KRP
649148	L139910N	KRP
649148	L139911N	KRP
649148	L139912N	KRP
649148	N00BA523	KRP
649895	A139902N	KPM
649895	A139905N	KPM
649895	A159902N	KOM
649895	A159903N	KPM
649895	A159904N	KOM
649895	A159905N	KPM
649895	A249808N	KPM
649895	B099906N	KPM
649895	B099909N	KPM
649895	B099912N	KPM

Part #	Serial #	H/C
649895	B099918N	KPM
649895	B109901N	KPM
649895	B109903N	KPM
649895	B109917N	KPM
649895	B109918N	KPM
649895	B109922N	KPM
649895	B119904N	KPM
649895	B119905N	KPM
649895	B119906N	KPM
649895	B119907N	KPM
649895	B119908N	KPM
649895	B119910N	KPM
649895	B119916N	KPH
649895	B119917N	KPM
649895	D019901N	KPM
649895	D019908N	KPM
649895	D019909N	KPM
649895	D059902N	KPM
649895	D059903N	KPH
649895	D059907N	KPM
649895	D059909N	KPM
649895	D059911N	KPH
649895	D069901N	KPH
649895	D069902N	KPM
649895	D069904N	KPM
649895	D079903N	KPM
649895	F189908N	KRP
649895	I109811N	KOM
649895	I119811N	KOM
649895	I119812N	KOM
649895	J089810N	KOM
649895	J099801N	KOM
649895	J099804N	KOM
649895	J099808N	KOM
649895	J099811N	KOM
649895	J099815N	KOM
649895	J099816N	KOR
649895	J119801N	KOM
649895	J119804N	KOM

Part #	Serial #	H/C
649895	J289802N	KOP
649895	J289803N	KOP
649895	J289806N	KOP
649895	J289808N	KOP
649895	J299809N	KOP
649895	J299813N	KOP
649895	J309803N	KOP
649895	J309807N	KOP
649895	J309808N	KOP
649895	J309809N	KOP
649895	J319801N	KOP
649895	J319804N	KOP
649895	J319805N	KOM
649895	K249801N	KPM
649895	K259803N	KPM
649895	K259805N	KPM
649895	K309802N	KPM
649895	L019803N	KPM
649895	L019805N	KPM
649895	L019806N	KPM
649895	L019808N	KPH
649895	L019809N	KPM
649895	L029801N	KPM
649895	L029802N	KOM
649895	L029806N	KPM
649895	L029809N	KPM
649896	A159901N	KOM
649896	B099908N	KPM
649896	B099911N	KPM
649896	B109905N	KPM
649896	B109908N	KPM
649896	B109910N	KPM
649896	B109914N	KPM
649896	B109916N	KPH
649896	D019904N	KPM
649896	D059901N	KPM
649896	D079902N	KPM
649896	G209816N	KOR
649896	J109802N	KOM

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		41 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED SERVICE SPARE CRANKSHAFTS (continued)
BY CRANKSHAFTPART NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Part #	Serial #	H/C
649896	J119803N	KOM
649896	J289804N	KOP
649896	J289805N	KOP
649896	K029801N	KOP
649896	K029803N	KOP
649896	K309804N	KOM
649896	K309809N	KOM
649896	L019802N	KPM
649898	A139915N	KPM
649898	A159912N	KPM
649898	A159913N	KPH
649898	A159915N	KPM
649898	A159919N	KPM
649898	A169901N	KOR
649898	A169904N	KPM
649898	A169911N	KOR
649898	A169915N	KPM
649898	A189903N	KPM
649898	A209910N	KOR
649898	A209912N	KOP
649898	A209913N	KOR
649898	A209914N	KOR
649898	B019907N	KPH
649898	B019909N	KPH
649898	B019913N	KOR
649898	B029901N	KPH
649898	B039901N	KPH
649898	B039903N	KPH
649898	B039904N	KPH
649898	B049901N	KPM
649898	B049903N	KPM
649898	B109907N	KPH
649898	B129901N	KPM
649898	B129902N	KPM
649898	B129903N	KPM
649898	B129904N	KPM
649898	B129905N	KPM
649898	B129909N	KPM
649898	B129911N	KPM

Part #	Serial #	H/C
649898	B129912N	KPM
649898	B129914N	KPM
649898	B129916N	KPM
649898	C099901N	KPM
649898	C099902N	KPM
649898	C099903N	KPH
649898	C099904N	KPM
649898	C099905N	KPM
649898	C099906N	KPM
649898	C109901N	KPM
649898	C109903N	KPM
649898	C109904N	KPM
649898	C109905N	KPM
649898	C109906N	KPM
649898	C109908N	KPM
649898	C109910N	KPM
649898	C109911N	KPM
649898	C109916N	KPH
649898	C109917N	KPM
649898	C269908N	KPH
649898	C299902N	KPH
649898	C299903N	KPH
649898	C299904N	KPH
649898	C299905N	KPH
649898	D149909N	KPM
649898	D299908N	KPM
649898	D299909N	KPM
649898	D299912N	KPH
649898	D299914N	KPH
649898	D309905N	KPM
649898	E019903N	KPH
649898	E019905N	KPH
649898	E109908N	KPH
649898	E119907N	KPH
649898	E119908N	KPH
649898	E119912N	KPH
649898	E119915N	KPH
649898	I139813N	KOM
649898	I169813N	KOM

Part #	Serial #	H/C
649898	I169815N	KOM
649898	K129803N	KOP
649898	K129807N	KOP
649898	K129810N	KOP
649898	K129811N	KOP
649898	K139804N	KOP
649898	K149801N	KOM
649898	K149803N	KOR
649898	K149805N	KOM
649898	K149806N	KOP
649898	K169802N	KPM
649898	K169808N	KOR
649898	K169810N	KOR
649898	K169814N	KOM
649898	K179804N	KOM
649898	K179809N	KOR
649898	K189804N	KOM
649898	K189811N	KOR
649898	K199801N	KOR
649898	L189808N	KOM
649900	B059909N	KPM
649900	C059915N	KOR
649900	C069904N	KPH
649900	C269904N	KPM
649900	C299909N	KPH
649900	C319903N	KPM
649900	C319907N	KPM
649900	C319909N	KPM
649900	D279901N	KPK
649900	D279905N	KPK
649900	D279906N	KPK
649900	I219816N	KOR
649900	I219820N	KOP
649900	J039809N	KOR
649900	J249808N	KOR
649900	K209803N	KOP
649900	K229803N	KOR
649900	K229807N	KPM
652004	N00CA556	KPH

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		42 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED SERVICE SPARE CRANKSHAFTS (continued)
BY CRANKSHAFTPART NUMBER, CRANKSHAFT SERIAL NUMBER AND HEAT CODE

Part #	Serial #	H/C
652004	N00CA560	KPH
652004	N00CA561	KPH
652004	N00CA565	KPH
652004	N00CA566	KPH
652004	N00CA567	KPH
652004	N00CA569	KPH
652004	N00CA574	KPH
652006	E079822N	KOM
652009	B199913N	KPH
652009	E079801N	KOM
652009	F259801N	KOM
652009	F259804N	KOM
652009	F289906N	KPH
652009	H259811N	KOM
652009	J159908N	KPH
652009	L169909N	KPH
652009	N00CA557	KPH
652009	N00CA559	KPH
652009	N00CA571	KPH
652009	N00CA576	KPH
652010	A030009N	KPH
652010	B199915N	KPH
652010	B209904N	KPH
652010	E069801N	KOM
652010	E069806N	KOM
652010	E069807N	KOM
652010	E069809N	KOM
652010	E079805N	KOM
652010	F259806N	KOM
652010	F289905N	KPH
652010	F289910N	KPH
652010	F289913N	KPH
652010	F289917N	KPH
652010	H029902N	KPH
652010	H029904N	KPH
652010	H249807N	KON
652010	H249815N	KON
652010	H249817N	KOM

Part #	Serial #	H/C
652010	H249818N	KOM
652010	H259801N	KOM
652010	H259818N	KOM
652010	K049918N	KPH
652010	K049919N	KPH
652010	K059903N	KPH
652010	K059911N	KPH
652010	L089803N	KPH
652010	L089813N	KPH
652010	N00CA562	KPH
652010	N00CA570	KPH
652011	A030002N	KPH
652011	A030004N	KPH
652011	B189914N	KPL
652011	B209906N	KPH
652011	C189907N	KPM
652011	C189908N	KOM
652011	E069803N	KOM
652011	E069907N	KPH
652011	E079804N	KOM
652011	E079806N	KOM
652011	E079811N	KOM
652011	E079824N	KOM
652011	F289904N	KPH
652011	F289907N	KPH
652011	J189905N	KPH
652011	L089808N	KPH
652011	L089814N	KPH
652011	L239903N	KPH
652011	L239905N	KPH
652011	N00CA575	KPH
652039	A299908N	KPK
652039	F049803N	KON
652039	F049804N	KOL
652039	I039804N	KOL
653129	I249803N	KPC
653129	I249804N	KPC
653129	I249810N	KPC

Part #	Serial #	H/C
653129	I259801N	KPC
653129	I309803N	KPC
653129	I309804N	KPC
653129	J019801N	KPC
653129	J019803N	KPC
653129	K069814N	KPC
653136	I239803N	KPC
653136	I239805N	KPC
653136	I239806N	KPC
653136	I239807N	KPC
653136	I239808N	KPC
653136	I239809N	KPC
653136	I239810N	KPC
653136	I239811N	KPC
653136	K059811N	KPC
653136	K079804N	KPC
653136	K079810N	KPC
653137	J029802N	KPC
653137	J029803N	KPC
653137	J029804N	KPC
653138	J259705N	KOR
653139	J029807N	KPC
653139	J059802N	KPC
653139	J059803N	KPC
653139	J059807N	KPC
653139	J059809N	KPC
653139	J059810N	KPC
653139	J059811N	KPC
653139	J059812N	KPC
653139	N00AA049	KPC
654432	A189909N	KPM
654432	A189912N	KPM
654432	C059909N	KOR
654432	I219808N	KOR
654432	I219817N	KOR
654432	I229804N	KOM
654432	K209804N	KOP
655382	I119907N	KRN

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR			
04	14	00	10	18	01		43 of 60 MSB00-5	D

SECTION 4
AFFECTED SERVICE SPARE CRANKSHAFTS
BY CRANKSHAFT SERIAL NUMBER, CRANKSHAFT PART NUMBER AND HEAT CODE

SERIAL #	PART #	H/C
A030002N	652011	KPH
A030004N	652011	KPH
A030009N	652010	KPH
A050002N	646623	KRN
A050009N	646623	KRN
A050011N	646623	KRN
A139902N	649895	KPM
A139905N	649895	KPM
A139915N	649898	KPM
A159901N	649896	KOM
A159902N	649895	KOM
A159903N	649895	KPM
A159904N	649895	KOM
A159905N	649895	KPM
A159912N	649898	KPM
A159913N	649898	KPH
A159915N	649898	KPM
A159919N	649898	KPM
A169901N	649898	KOR
A169904N	649898	KPM
A169911N	649898	KOR
A169915N	649898	KPM
A189903N	649898	KPM
A189909N	654432	KPM
A189912N	654432	KPM
A209910N	649898	KOR
A209912N	649898	KOP
A209913N	649898	KOR
A209914N	649898	KOR
A219916N	649134	KPK
A229902N	649134	KPK
A229903N	649134	KPK
A229913N	649134	KPK
A249808N	649895	KPM
A259908N	649134	KPK
A259916N	649134	KPK
A279902N	649134	KPK
A279903N	649134	KPK
A289905N	649138	KPK
A289913N	649138	KPL
A299905N	649141	KPK
A299907N	649141	KPK

SERIAL #	PART #	H/C
A299908N	652039	KPK
A299909N	649141	KPK
A309905N	646623	KPL
A309907N	646623	KPL
B019907N	649898	KPH
B019909N	649898	KPH
B019913N	649898	KOR
B029901N	649898	KPH
B039901N	649898	KPH
B039903N	649898	KPH
B039904N	649898	KPH
B049901N	649898	KPM
B049903N	649898	KPM
B059909N	649900	KPM
B099906N	649895	KPM
B099908N	649896	KPM
B099909N	649895	KPM
B099911N	649896	KPM
B099912N	649895	KPM
B099918N	649895	KPM
B109901N	649895	KPM
B109903N	649895	KPM
B109905N	649896	KPM
B109907N	649898	KPH
B109908N	649896	KPM
B109910N	649896	KPM
B109914N	649896	KPM
B109916N	649896	KPH
B109917N	649895	KPM
B109918N	649895	KPM
B109922N	649895	KPM
B119903N	649134	KPL
B119904N	649895	KPM
B119905N	649895	KPM
B119906N	649895	KPM
B119907N	649895	KPM
B119908N	649895	KPM
B119910N	649895	KPM
B119916N	649895	KPH
B119917N	649895	KPM
B129901N	649898	KPM
B129902N	649898	KPM

SERIAL #	PART #	H/C
B129903N	649898	KPM
B129904N	649898	KPM
B129905N	649898	KPM
B129909N	649898	KPM
B129911N	649898	KPM
B129912N	649898	KPM
B129914N	649898	KPM
B129916N	649898	KPM
B179902N	649134	KPL
B179903N	649134	KOL
B179904N	649134	KPL
B179909N	649134	KPL
B179910N	649134	KPL
B179913N	649134	KPL
B179913N	649134	KOL
B179914N	649134	KPK
B179917N	649131	KPK
B179918N	649134	KPL
B189901N	649134	KPL
B189907N	649141	KPL
B189908N	649141	KPL
B189910N	649138	KPL
B189914N	652011	KPL
B199901N	649141	KPL
B199905N	649138	KPL
B199909N	649141	KPL
B199913N	652009	KPH
B199915N	652010	KPH
B209904N	652010	KPH
B209906N	652011	KPH
C059909N	654432	KOR
C059915N	649900	KOR
C069904N	649900	KPH
C099901N	649898	KPM
C099902N	649898	KPM
C099903N	649898	KPH
C099904N	649898	KPM
C099905N	649898	KPM
C099906N	649898	KPM
C109901N	649898	KPM
C109903N	649898	KPM
C109904N	649898	KPM

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		44 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED SERVICE SPARE CRANKSHAFTS
BY CRANKSHAFT SERIAL NUMBER, CRANKSHAFT PART NUMBER AND HEAT CODE

SERIAL #	PART #	H/C
C109905N	649898	KPM
C109906N	649898	KPM
C109908N	649898	KPM
C109910N	649898	KPM
C109911N	649898	KPM
C109916N	649898	KPH
C109917N	649898	KPM
C119914N	649134	KPK
C119917N	649134	KPK
C129902N	649134	KPL
C129905N	649134	KPL
C129906N	649134	KPL
C129907N	649134	KPL
C129909N	649134	KPL
C129913N	649134	KPK
C129915N	649134	KPL
C139904N	649134	KPL
C139905N	649134	KPK
C139906N	649134	KPL
C139909N	649134	KPL
C139910N	649134	KPL
C139911N	649134	KPL
C149901N	649138	KPK
C149903N	649138	KPK
C149906N	649138	KPK
C149913N	649134	KPL
C159907N	649141	KPL
C159909N	649141	KPK
C169902N	649138	KPL
C179902N	649141	KPK
C179906N	649141	KPL
C189907N	652011	KPM
C189908N	652011	KOM
C269904N	649900	KPM
C269908N	649898	KPH
C299902N	649898	KPH
C299903N	649898	KPH
C299904N	649898	KPH
C299905N	649898	KPH
C299909N	649900	KPH
C319903N	649900	KPM

SERIAL #	PART #	H/C
C319907N	649900	KPM
C319909N	649900	KPM
D019901N	649895	KPM
D019904N	649896	KPM
D019908N	649895	KPM
D019909N	649895	KPM
D059901N	649896	KPM
D059902N	649895	KPM
D059903N	649895	KPH
D059907N	649895	KPM
D059909N	649895	KPM
D059911N	649895	KPH
D069901N	649895	KPH
D069902N	649895	KPM
D069904N	649895	KPM
D079902N	649896	KPM
D079903N	649895	KPM
D089903N	649134	KPL
D099901N	649134	KPL
D109904N	649134	KPL
D109909N	649134	KPL
D149909N	649898	KPM
D156818N	649138	KOL
D169818N	649138	KOL
D179810N	649141	KOL
D179905N	646623	KPK
D179910N	646623	KPK
D179912N	646623	KPK
D189905N	646623	KPK
D189908N	649141	KOL
D199903N	646623	KPK
D199906N	646623	KPL
D209801N	649141	KOL
D209804N	649138	KOL
D209807N	649134	KOL
D209809N	649134	KOL
D209810N	649134	KOL
D209811N	649134	KOL
D229801N	649134	KOL
D229802N	649134	KOL
D229803N	649134	KOL

SERIAL #	PART #	H/C
D229806N	649134	KOL
D229808N	649134	KOL
D229809N	649134	KOL
D229810N	649134	KOL
D229811N	649134	KOL
D229812N	649134	KOL
D229813N	649134	KOL
D229814N	649134	KOL
D229815N	649134	KOL
D229817N	649134	KOL
D229819N	649134	KOL
D229821N	649134	KOL
D229822N	649134	KOL
D239801N	649134	KOL
D239802N	646623	KOL
D239803N	649133	KOL
D239807N	649134	KOL
D239811N	649134	KOL
D239812N	649134	KOL
D239813N	649134	KOL
D239814N	649134	KOL
D239815N	649133	KOL
D239816N	649134	KOL
D239817N	649134	KOL
D239818N	649134	KOL
D239819N	649134	KOL
D239821N	649134	KOL
D239822N	649134	KOL
D239823N	649134	KOL
D239824N	649134	KOL
D239901N	649134	KPL
D239902N	649134	KPL
D239903N	649134	KPL
D239904N	649134	KPM
D239906N	649134	KPL
D239909N	649134	KPM
D239910N	649134	KPL
D239911N	649134	KPL
D249801N	649134	KOL
D249802N	649134	KOL
D249803N	649134	KOL

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		45 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED SERVICE SPARE CRANKSHAFTS
BY CRANKSHAFT SERIAL NUMBER, CRANKSHAFT PART NUMBER AND HEAT CODE

SERIAL #	PART #	H/C
D249804N	649134	KOL
D249805N	649134	KOL
D249806N	649134	KOL
D249812N	646623	KOL
D249902N	649134	KPM
D249903N	649134	KPL
D249905N	649134	KPM
D249908N	649134	KPM
D249910N	649134	KPM
D249911N	649134	KPM
D249914N	649134	KPM
D249915N	649134	KPL
D249916N	649134	KPM
D249917N	649134	KPM
D249918N	649134	KPM
D269901N	649134	KPM
D269903N	649134	KPM
D269904N	649134	KPM
D269907N	649134	KPM
D269909N	649134	KPM
D269910N	649134	KPL
D269911N	649134	KPM
D269912N	649134	KPM
D269913N	649134	KPM
D269914N	649134	KPM
D269915N	649134	KPM
D269916N	649134	KPM
D269918N	649134	KPM
D279811N	646623	KOL
D279901N	649900	KPK
D279905N	649900	KPK
D279906N	649900	KPK
D299908N	649898	KPM
D299909N	649898	KPM
D299912N	649898	KPH
D299914N	649898	KPH
D309905N	649898	KPM
E019903N	649898	KPH
E019905N	649898	KPH
E039907N	649134	KPM
E039909N	649134	KPL

SERIAL #	PART #	H/C
E039911N	649134	KPL
E049901N	649134	KPM
E049902N	649134	KPM
E049906N	649134	KPL
E059908N	649134	KPL
E059914N	649134	KPL
E059916N	649134	KPM
E069801N	652010	KOM
E069803N	652011	KOM
E069806N	652010	KOM
E069807N	652010	KOM
E069809N	652010	KOM
E069902N	649134	KPM
E069907N	652011	KPH
E079801N	652009	KOM
E079804N	652011	KOM
E079805N	652010	KOM
E079806N	652011	KOM
E079811N	652011	KOM
E079822N	652006	KOM
E079824N	652011	KOM
E109908N	649898	KPH
E119907N	649898	KPH
E119908N	649898	KPH
E119912N	649898	KPH
E119915N	649898	KPH
E189913N	649134	KPL
E189923N	649134	KPL
E189927N	649134	KPL
E199902N	649134	KPL
E199903N	649134	KPL
E199905N	649134	KPL
E199918N	649141	KPL
E199920N	649141	KPL
E199922N	649141	KPL
E199924N	649138	KPL
F029806N	649141	KOL
F039818N	649138	KOL
F049803N	652039	KON
F049804N	652039	KOL
F049805N	649141	KON

SERIAL #	PART #	H/C
F059802N	649134	KOL
F089811N	649134	KOL
F109804N	649134	KON
F109811N	649134	KON
F109813N	649135	KON
F109818N	649134	KON
F119801N	649134	KON
F119802N	649134	KON
F119803N	649134	KON
F119807N	649134	KON
F119809N	649134	KON
F119810N	649134	KON
F119811N	649134	KON
F119812N	649134	KON
F129801N	649134	KON
F129804N	649134	KOL
F129805N	649134	KON
F129807N	649134	KOL
F129808N	649134	KOL
F129810N	649134	KOL
F129811N	649134	KON
F129812N	649134	KOL
F159803N	649134	KOL
F159805N	649134	KOL
F159807N	649134	KON
F159809N	649134	KON
F159812N	649134	KOL
F169802N	649134	KON
F169803N	649134	KOL
F169814N	649134	KON
F179801N	649134	KOL
F179802N	649134	KON
F179809N	649134	KOL
F179812N	649134	KON
F179815N	649134	KON
F189803N	649134	KON
F189908N	649895	KRP
F199801N	649134	KON
F209801N	649141	KON
F209802N	649141	KON
F209803N	649141	KON

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		46 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED SERVICE SPARE CRANKSHAFTS
BY CRANKSHAFT SERIAL NUMBER, CRANKSHAFT PART NUMBER AND HEAT CODE

SERIAL #	PART #	H/C
F209808N	649141	KOL
F229919N	649134	KRN
F239805N	649138	KOL
F239807N	649134	KOL
F259801N	652009	KOM
F259804N	652009	KOM
F259806N	652010	KOM
F269911N	649134	KPL
F269912N	649134	KPL
F269915N	649134	KPM
F269916N	649134	KPL
F289904N	652011	KPH
F289905N	652010	KPH
F289906N	652009	KPH
F289907N	652011	KPH
F289910N	652010	KPH
F289913N	652010	KPH
F289917N	652010	KPH
G099930N	649134	KRN
G149909N	649134	KPM
G149910N	649134	KPM
G149911N	649134	KPM
G149912N	649134	KPM
G149913N	649134	KPM
G149916N	649134	KPM
G159901N	649134	KPM
G159905N	649134	KPM
G159906N	649134	KPM
G159917N	649144	KPM
G169908N	646623	KRN
G169909N	646623	KRN
G169913N	646623	KRN
G209816N	649896	KOR
G229809N	646623	KOL
G239807N	646623	KOL
G239808N	646623	KOL
G269902N	649134	KRN
G269905N	649134	KRN
G269911N	649133	KRN
G269924N	649134	KRN

SERIAL #	PART #	H/C
G279902N	649134	KRN
G279903N	649134	KRN
G279904N	649134	KRN
G279906N	649134	KRN
G279907N	649134	KRN
G279908N	649134	KRN
G279910N	649134	KRN
G279911N	649134	KRN
G279915N	649134	KRN
G279916N	649134	KRN
G279917N	649134	KRN
G279918N	649134	KRN
G279922N	649134	KRN
G289901N	649134	KRN
G289902N	649134	KRN
G289905N	649134	KRN
G289906N	649134	KRN
G289907N	649134	KRN
G289909N	649134	KRN
G289912N	649134	KRN
G289917N	649134	KRN
G289918N	649134	KRN
G289919N	649134	KRN
G289920N	649134	KRN
G289921N	649134	KRN
G289922N	649134	KRN
G289923N	649134	KRN
G289924N	649134	KRN
G289925N	649134	KRN
G289926N	649134	KRN
G289927N	649134	KRN
G289928N	649134	KRN
G289929N	649134	KRN
G289930N	649134	KRN
G299902N	649134	KRN
G299903N	649134	KRN
G299905N	649134	KRN
G299907N	649134	KRN
G299908N	649134	KRN
G299909N	649134	KRN

SERIAL #	PART #	H/C
G299922N	649134	KRN
G299923N	649134	KRN
G299925N	649134	KRN
G299926N	649134	KRN
G309902N	649135	KRN
G309903N	649134	KRN
G309904N	649134	KRN
G309907N	649134	KRN
G309909N	649134	KRN
G309911N	649135	KRN
G309913N	649134	KRN
G309915N	649134	KRN
G309917N	649134	KRN
G309918N	649134	KRN
G309919N	649134	KRN
G319920N	649141	KRN
H029902N	652010	KPH
H029904N	652010	KPH
H029908N	649135	KRP
H039802N	649135	KOL
H049804N	649134	KOL
H049810N	649134	KOL
H049814N	649134	KOL
H049815N	649134	KOL
H049816N	649134	KOL
H059804N	649134	KOL
H059809N	649134	KOL
H069812N	649134	KOL
H098808N	649134	KOL
H099818N	649134	KON
H099819N	649134	KOL
H109803N	649134	KON
H109804N	649134	KON
H119809N	649134	KOL
H119811N	649134	KOL
H139809N	649141	KON
H139810N	649141	KON
H139815N	649141	KON
H149804N	649138	KON
H199907N	646623	KRN

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		47 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED SERVICE SPARE CRANKSHAFTS
BY CRANKSHAFT SERIAL NUMBER, CRANKSHAFT PART NUMBER AND HEAT CODE

SERIAL #	PART #	H/C
H199908N	646623	KRN
H199909N	646623	KRN
H199910N	646623	KRN
H199911N	646623	KRN
H199912N	646623	KRN
H199913N	646623	KRN
H199914N	646632	KRN
H199915N	646623	KRN
H199917N	646623	KRN
H199918N	646623	KRN
H199919N	646623	KRN
H199920N	646623	KRN
H209906N	649134	KRN
H209908N	649134	KRP
H209910N	649134	KRP
H209917N	649134	KRP
H209918N	649134	KRN
H209923N	649134	KRN
H209924N	649134	KRN
H209925N	649134	KRN
H209926N	649134	KRN
H239902N	649134	KRN
H239903N	649134	KRN
H239904N	649134	KRN
H239906N	649134	KRP
H239907N	649134	KRN
H239909N	649134	KRN
H239910N	649134	KRN
H239911N	649134	KRN
H239912N	649134	KRN
H239913N	649134	KRN
H239914N	649134	KRN
H239915N	649134	KRN
H239916N	649134	KRP
H239917N	649134	KRN
H249807N	652010	KON
H249815N	652010	KON
H249817N	652010	KOM
H249818N	652010	KOM
H249901N	649134	KRN
H249902N	649134	KRN

SERIAL #	PART #	H/C
H249903N	649134	KRN
H249904N	649134	KRN
H249908N	649134	KRN
H249909N	649134	KRN
H249910N	649134	KRN
H249913N	649134	KRN
H249914N	649134	KRN
H249915N	649134	KRN
H249916N	649134	KRN
H249917N	649134	KRN
H249918N	649134	KRN
H249920N	649134	KRN
H249921N	649134	KRN
H249922N	649134	KRN
H249923N	649134	KRN
H259801N	652010	KOM
H259811N	652009	KOM
H259818N	652010	KOM
H259901N	649134	KRN
H259902N	649134	KRN
H259903N	649134	KRN
H259904N	649134	KRN
H259907N	649134	KRN
H259908N	649134	KRN
H259910N	649134	KRN
H259912N	649134	KRN
H259913N	649134	KRN
H259914N	649134	KRN
H259915N	649134	KRN
H259916N	649134	KRN
H259917N	649134	KRN
H259918N	649134	KRN
H259919N	649134	KRN
H259920N	649134	KRN
H259921N	649134	KRN
H259923N	649134	KRN
H259924N	649134	KRN
H259926N	649134	KRN
H259927N	649141	KRN
H259934N	649141	KRN
H269901N	649141	KRN

SERIAL #	PART #	H/C
H269909N	649141	KRN
H269911N	649141	KOL
H289800N	649134	KOL
H289802N	649134	KOL
H319808N	649134	KOL
H319810N	649134	KOL
H319815N	649134	KOL
I019801N	649134	KOL
I019802N	649134	KOL
I019805N	649134	KOL
I029801N	649134	KOL
I029804N	649134	KOL
I029805N	649134	KOL
I029809N	649141	KOL
I039804N	652039	KOL
I039808N	649141	KOL
I039809N	649141	KOL
I039811N	649141	KOL
I039812N	649141	KOL
I039904N	649134	KRN
I039907N	649134	KRN
I039910N	649134	KRN
I039916N	649134	KRN
I039917N	649134	KRN
I039918N	649134	KRN
I039920N	649134	KRN
I079903N	649134	KRN
I079905N	649134	KRN
I079907N	649134	KRN
I079912N	649134	KRN
I079913N	649134	KRP
I079914N	649134	KRP
I079917N	649134	KRP
I079919N	649134	KRP
I079920N	649134	KRP
I079921N	649134	KRP
I079926N	649134	KRP
I079928N	649134	KRP
I079929N	649134	KRN
I089901N	649134	KRP
I089904N	649134	KRP

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		48 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED SERVICE SPARE CRANKSHAFTS
BY CRANKSHAFT SERIAL NUMBER, CRANKSHAFT PART NUMBER AND HEAT CODE

SERIAL #	PART #	H/C
I089907N	649134	KRP
I089908N	649134	KRP
I089909N	649134	KRP
I089911N	649134	KRP
I089912N	649134	KRP
I089913N	649134	KRP
I089914N	649134	KRP
I089915N	649134	KRP
I089916N	649134	KRP
I089917N	649134	KRP
I089919N	649134	KRP
I089921N	649134	KRP
I089928N	649134	KRP
I089929N	649134	KRP
I099903N	649134	KRP
I099904N	649134	KRP
I099910N	649134	KRP
I099915N	649134	KRN
I099916N	649134	KRP
I099923N	649141	KRN
I099925N	649141	KRP
I109811N	649895	KOM
I109907N	649141	KRP
I119811N	649895	KOM
I119812N	649895	KOM
I119907N	655382	KRN
I139813N	649898	KOM
I169813N	649898	KOM
I169815N	649898	KOM
I219808N	654432	KOR
I219816N	649900	KOR
I219817N	654432	KOR
I219820N	649900	KOP
I229804N	654432	KOM
I239803N	653136	KPC
I239805N	653136	KPC
I239806N	653136	KPC
I239807N	653136	KPC
I239808N	653136	KPC
I239809N	653136	KPC
I239810N	653136	KPC

SERIAL #	PART #	H/C
I239811N	653136	KPC
I249803N	653129	KPC
I249804N	653129	KPC
I249810N	653129	KPC
I259801N	653129	KPC
I309803N	653129	KPC
I309804N	653129	KPC
J019801N	653129	KPC
J019803N	653129	KPC
J019905N	646623	KRN
J019908N	646623	KRP
J019923N	646623	KRP
J019924N	646623	KRN
J029802N	653137	KPC
J029803N	653137	KPC
J029804N	653137	KPC
J029807N	653139	KPC
J039809N	649900	KOR
J049903N	646623	KRN
J049904N	646623	KRN
J049907N	646623	KRP
J049913N	646623	KRP
J059802N	653139	KPC
J059803N	653139	KPC
J059807N	653139	KPC
J059809N	653139	KPC
J059810N	653139	KPC
J059811N	653139	KPC
J059812N	653139	KPC
J059903N	649134	KRP
J059905N	649134	KRP
J059907N	649134	KRP
J059909N	649134	KRP
J059911N	649134	KRP
J059914N	649134	KRP
J059915N	649134	KRP
J059919N	649134	KRP
J059920N	649134	KRP
J059922N	649134	KRP
J059923N	649134	KRP
J059924N	649134	KRP

SERIAL #	PART #	H/C
J069901N	649134	KRP
J069902N	649134	KRP
J069914N	649134	KRP
J069916N	649134	KRP
J079904N	649134	KRP
J079909N	649134	KRP
J079912N	649134	KRP
J079913N	649134	KRP
J079914N	649134	KRP
J079917N	649134	KRP
J089810N	649895	KOM
J089902N	649134	KRP
J089914N	649134	KRN
J089919N	649134	KRP
J089920N	649134	KRP
J089923N	649134	KRP
J089926N	649134	KRP
J099801N	649895	KOM
J099804N	649895	KOM
J099808N	649895	KOM
J099811N	649895	KOM
J099815N	649895	KOM
J099816N	649895	KOR
J109802N	649896	KOM
J119801N	649895	KOM
J119803N	649896	KOM
J119804N	649895	KOM
J119901N	649134	KRP
J119910N	649138	KRP
J119912N	649138	KRN
J119919N	649141	KRP
J129901N	649138	KRN
J129903N	649138	KRP
J129908N	649141	KRN
J129916N	649141	KRP
J139902N	649141	KRN
J139909N	649141	KRP
J139920N	649141	KRP
J139922N	649141	KRP
J149904N	649138	KRP
J159908N	652009	KPH

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		49 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED SERVICE SPARE CRANKSHAFTS
BY CRANKSHAFT SERIAL NUMBER, CRANKSHAFT PART NUMBER AND HEAT CODE

SERIAL #	PART #	H/C
J189905N	652011	KPH
J249808N	649900	KOR
J259705N	653138	KOR
J289802N	649895	KOP
J289803N	649895	KOP
J289804N	649896	KOP
J289805N	649896	KOP
J289806N	649895	KOP
J289808N	649895	KOP
J299809N	649895	KOP
J299813N	649895	KOP
J309803N	649895	KOP
J309807N	649895	KOP
J309808N	649895	KOP
J309809N	649895	KOP
J319801N	649895	KOP
J319804N	649895	KOP
J319805N	649895	KOM
K019901N	649135	KRN
K019906N	649135	KRN
K019908N	649134	KRN
K019910N	649134	KRP
K019915N	649134	KRP
K019920N	649134	KRN
K019923N	649134	KRP
K029801N	649896	KOP
K029803N	649896	KOP
K029901N	649134	KRP
K029902N	649134	KRP
K029906N	649134	KRN
K029912N	649133	KRP
K039905N	649134	KRN
K049904N	649141	KRP
K049912N	649141	KRP
K049915N	649141	KRP
K049918N	652010	KPH
K049919N	652010	KPH
K059811N	653136	KPC
K059903N	652010	KPH
K059911N	652010	KPH
K069814N	653129	KPC

SERIAL #	PART #	H/C
K079804N	653136	KPC
K079810N	653136	KPC
K129803N	649898	KOP
K129807N	649898	KOP
K129810N	649898	KOP
K129811N	649898	KOP
K139804N	649898	KOP
K149801N	649898	KOM
K149803N	649898	KOR
K149805N	649898	KOM
K149806N	649898	KOP
K169802N	649898	KPM
K169808N	649898	KOR
K169810N	649898	KOR
K169814N	649898	KOM
K179804N	649898	KOM
K179809N	649898	KOR
K189804N	649898	KOM
K189811N	649898	KOR
K199801N	649898	KOR
K209803N	649900	KOP
K209804N	654432	KOP
K229803N	649900	KOR
K229807N	649900	KPM
K249801N	649895	KPM
K259803N	649895	KPM
K259805N	649895	KPM
K309802N	649895	KPM
K309804N	649896	KOM
K309809N	649896	KOM
L019802N	649896	KPM
L019803N	649895	KPM
L019805N	649895	KPM
L019806N	649895	KPM
L019808N	649895	KPH
L019809N	649895	KPM
L029801N	649895	KPM
L029802N	649895	KOM
L029806N	649895	KPM
L029809N	649895	KPM
L029815N	649141	KPK

SERIAL #	PART #	H/C
L029816N	649141	KPK
L029904N	649134	KRN
L029912N	649134	KRN
L029913N	649134	KRN
L039807N	649141	KPK
L039816N	649134	KPK
L039817N	649134	KPK
L039903N	649134	KRN
L039907N	649134	KRN
L039909N	649134	KRN
L049803N	649134	KPK
L059809N	649134	KOL
L069806N	649134	KOL
L069808N	649134	KOL
L079802N	649134	KOL
L079902N	649134	KRN
L079904N	649133	KRN
L079908N	649134	KRP
L079911N	649134	KRN
L089803N	652010	KPH
L089808N	652011	KPH
L089813N	652010	KPH
L089814N	652011	KPH
L089901N	649134	KRP
L089902N	649135	KRP
L089903N	649134	KRP
L099909N	649134	KRP
L099911N	649134	KRP
L099913N	649134	KRP
L099917N	649134	KRP
L109812N	649141	KPK
L139904N	649148	KRP
L139906N	649148	KRP
L139910N	649148	KRP
L139911N	649148	KRP
L139912N	649148	KRP
L169909N	652009	KPH
L189808N	649898	KOM
L239903N	652011	KPH
L239905N	652011	KPH
N00AA049	653139	KPC

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		50 of 60 MSB00-5	D
04	14	00	10	18	01			

AFFECTED SERVICE SPARE CRANKSHAFTS
BY CRANKSHAFT SERIAL NUMBER, CRANKSHAFT PART NUMBER AND HEAT CODE

SERIAL #	PART #	H/C
N00AA189	649134	KRP
N00AA190	649134	KRP
N00AA192	649134	KRP
N00AA193	649134	KRP
N00AA195	649134	KRP
N00BA523	649148	KRP
N00CA093	649134	KRP
N00CA144	649134	KRP
N00CA173	649138	KRN
N00CA174	649138	KRP
N00CA199	649141	KRN
N00CA203	649138	KRP
N00CA212	646623	KRP
N00CA218	646623	KRP
N00CA219	646623	KRP
N00CA225	646623	KRP
N00CA324	649134	KRP
N00CA340	649131	KRP
N00CA342	649131	KRP
N00CA344	649134	KRP
N00CA345	649134	KRP
N00CA352	649134	KRP
N00CA353	649134	KRP
N00CA354	649134	KRP
N00CA355	649134	KRP
N00CA358	649134	KRP
N00CA363	649131	KRP
N00CA377	649134	KRP
N00CA381	649134	KRP
N00CA556	652004	KPH
N00CA557	652009	KPH
N00CA559	652009	KPH
N00CA560	652004	KPH
N00CA561	652004	KPH
N00CA562	652010	KPH
N00CA565	652004	KPH
N00CA566	652004	KPH
N00CA567	652004	KPH
N00CA569	652004	KPH

SERIAL #	PART #	H/C
N00CA570	652010	KPH
N00CA571	652009	KPH
N00CA574	652004	KPH
N00CA575	652011	KPH
N00CA576	652009	KPH
N00CA586	643687	KRN
N00CA589	643687	KRN
N00CA590	643687	KRN
N00CA591	643687	KRN
N209807N	649141	KOL
N249802N	649141	KOL
N00CA574	652004	KPH
N00CA575	652011	KPH
N00CA576	652009	KPH
N00CA586	643687	KRN
N00CA589	643687	KRN
N00CA590	643687	KRN
N00CA591	643687	KRN
N209807N	649141	KOL
N249802N	649141	KOL

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		51 of 60 MSB00-5	D
04	14	00	10	18	01			

SECTION 5

A. GENERAL INFORMATION:

Teledyne Continental Motors will provide the following specialized tools and equipment required to perform the procedure detailed in this service bulletin:

MSB 00-5 Tool Kit Contents

1. 1 each-Crankshaft Boring Tool & Adapter
2. 1 each Instructional Video
3. 1 each-Positive Stop Depth Rod
4. 1 each .025 Feeler Gage
5. 1 each-End Mill
6. 2 each-Coring Bit (Rotobroach)
7. 1 each-De-burring Tool (1 spare blade)
8. 20 each-Core Sample Bags and Labels. One crankshaft (2) core samples per bag.

The following supplies must be obtained locally.

1. Zinc Chromate Primer- non aerosol
2. Acid brushes or cotton swabs
3. LPS-1 Spray Lubricant- non-silicon/non-Teflon based.
4. Dye Check Kit
5. Dial Type Torque Wrench; 0-200 inch lbs.
6. Spark plug gaskets.
7. Propeller hub O-ring.

WARNING

Do not use silicon or Teflon based coolants or lubricants during any part of this procedure. Silicon and/or Teflon based products will affect the reliability of the dye check procedure.

B. PRE-CORING PROCEDURE:

Verify that engine model and serial number, or replacement crankshaft serial number, is listed as affected by this service bulletin.

Service spare crankshafts affected by this service bulletin which have not been installed in an engine must be inspected prior to being installed.

Affected engines installed in aircraft must be inspected within the next 10 hours of operation.

For engines installed in aircraft proceed as follows.

In accordance with the aircraft manufacturer's maintenance manual:

1. Remove engine cowl to gain access to the upper spark plugs and propeller mounting hardware. Remove upper spark plug ignition leads and spark plugs.
2. Remove propeller spinner, spinner bulkhead and propeller. If the aircraft is equipped with propeller de-ice or anti-ice, follow the aircraft manufacturer's instructions for removal of this equipment, if required for propeller removal.
3. Using a clean shop towel, clean the propeller flange.
4. Record engine model and serial number, crankshaft serial number and total engine time on shop repair work order and on the labels provided by TCM.

C. MOUNTING TOOLING:

Before installing the crankshaft boring tool and crankshaft flange adapter, insure that the adapter face and counter bore are clean and free of any debris. Insure that the mounting studs are secure in the propeller flange adapter mounting plate.

1. Plug the crankshaft opening with a clean shop towel to prevent any debris from entering the crankshaft oil transfer area.
2. Using a piece of plastic, fabricate a protective cover for the engine and nacelle area. In the approximate center of the piece of plastic, cut a slit 6 inches long. Slip the crankshaft propeller flange through the slit, drape the upper part of the plastic over the top of the engine and drape

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR			
04	14	00	10	18	01		52 of 60 MSB00-5	D

the lower part in such a manner that the plastic protects the lower portion of the engine and the nacelle area.



FIGURE 1
PROTECTIVE PLASTIC COVER

3. Place a drip pan under the plastic to catch cooling/lubricating fluid and metal shavings.
4. On the propeller flange, identify, and using a red magic marker, mark the location from which the core samples will be taken. See Figure 2.
5. Locate the two crankshaft flange holes that will be used to mount the adapter and boring tool. See Figure 2.

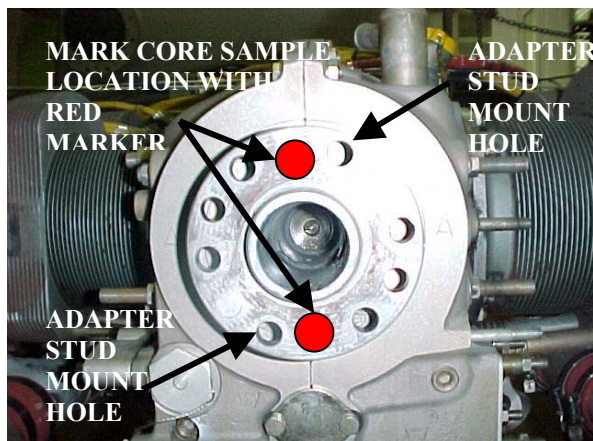


FIGURE 2
FLANGE CORE SAMPLE AREA MARKED

6. Rotate the crankshaft so that the crankshaft flange holes to be used to mount the adapter plate and boring tool (identified in step 4) are positioned so that, when installed, the adapter

plate does not contact any portion of the engine surrounding the propeller flange or the aircraft cowling.

7. Position the boring tool propeller flange adapter plate mounting studs to align with selected propeller flange holes and slide the adapter studs through the propeller flange holes. Secure the coring tool flange to the propeller flange with the two nuts provided with the tooling. Tighten nuts to 150 inch lbs.
8. The red mark made on the propeller flange must be visible through the boring tool adapter plate hole. If the red mark is not visible, remove the boring tool from the propeller flange and repeat the above steps 5,6 and 7.

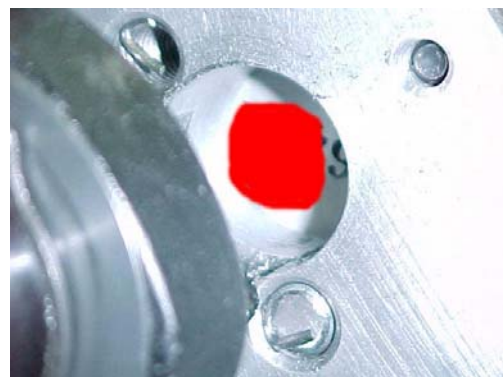


FIGURE 3
VERIFICATION OF CORING SAMPLE
LOCATION & TOOL ALIGNMENT

D. REMOVAL OF NITRIDE LAYER:

Removal of the nitride layer from the forward face of the crankshaft flange will require spot facing an area .025 inches deep for each core sample. To remove the nitride layer proceed as follows:

1. With the boring tool and adapter plate correctly positioned and mounted, install the end mill provided with the tool kit into the boring chuck. Insure that the flats machined on the shank of the end mill align with the allen set screw in the chuck. Tighten the set

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR			
04	14	00	10	18	01		53 of 60 MSB 00-5	D

screws with the allen wrench provided in the tool kit. See FIGURES 4 and 5.



FIGURE 4
END MILL FOR SPOT FACING PROPELLER
FLANGE FRONT FACE

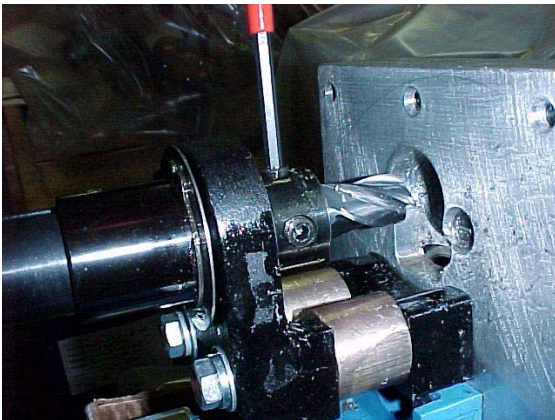


FIGURE 5
INSTALLING END MILL

2. Install a dial type inch pound torque wrench into the square drive on the side of the boring tool. Ensure that the range of motion is sufficient to allow the end mill to contact the work.
3. Install the positive stop rod provided into the holder mounted on the top of the boring tool motor.
4. Advance the end mill toward the front face of the crankshaft flange until the end mill contacts the flange.

5. To set the correct depth of the spot face, position a .025 feeler gage so that it is captured between the mounting adapter surface and the end on the positive stop rod as the rod is moved forward. Lock the positive stop rod in place using the thumb screw or set screw on top of the rod adapter. See Figure 6.

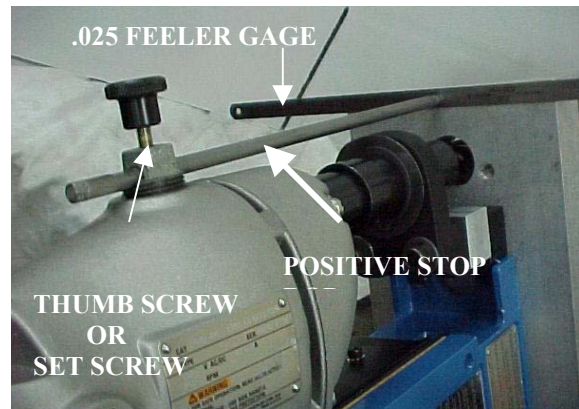


FIGURE 6
POSITIVE STOP ROD SET-UP FOR
.025 SPOT FACE

6. Back the end mill away from the front surface of the propeller flange and remove the feeler gage.

CAUTION

Eye protection must be worn during the machining processes. Steel shavings will be made during this procedure.

7. Turn the boring tool on using the switch provided on the tool.
8. Slowly advance the end mill toward the front face of the crankshaft flange by applying pressure to the handle of the dial type torque wrench.
9. **Spray generous amounts of coolant/lubrication (LPS-1) onto the work and end mill during the spot facing operation.**
10. Maintain a constant pressure on the torque wrench during the spot facing operation, but **do not exceed 110 inch lbs.** See Figure 7.

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		54 of 60 MSB 00-5	D
04	14	00	10	18	01			



FIGURE 7
USING TORQUE WRENCH TO MAINTAIN
CONSISTENT FEED RATE

11. Spot face the front face of the propeller flange until the positive stop rod contacts the adapter plate surface. Additionally, as the nitrided surface is penetrated an audible sound change will occur and the feed rate of the end mill will increase as the end mill cuts into the non-nitrided steel.
12. Back the end mill away from the propeller flange front face and turn OFF the boring tool.
13. Loosen the thumb screw or set screw securing the positive stop rod in place and sliding the rod aft remove it from the holder.
14. Remove the end mill from the boring tool chuck. Clean the machining debris from the boring tool and adapter flange.

E. PROPELLER FLANGE CORING SAMPLE PROCEDURE:

With the boring tool and adapter plate mounted to the propeller flange, proceed as follows:

1. Mount the coring rotobroach into the boring tool chuck. Ensure that the rotobroach is positioned so that a portion of the set screw flat protrudes from the end of the chuck. Secure the rotobroach by tightening the allen set screw in the chuck. See FIGURE 5 and 8.

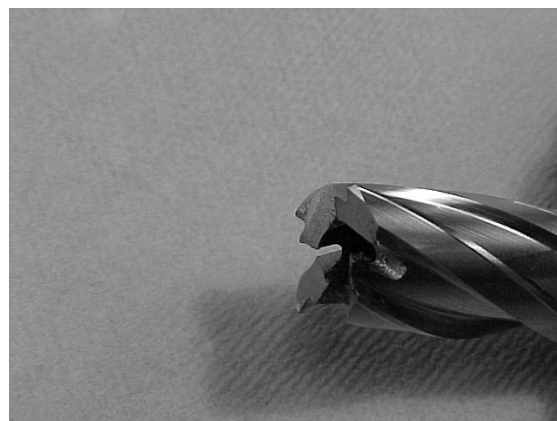


FIGURE 8
ROTOBROACH CORING BIT

2. Ensure that the torque wrench has sufficient travel for the rotobroach to drill through the propeller flange.
3. Turn the boring tool on and advance the rotobroach toward the propeller flange by applying pressure to the handle of the torque wrench. Spray generous amounts of coolant/lubricant (LPS-1) onto the propeller flange and rotobroach as it contacts and bores into the propeller flange.
4. Apply consistent pressure of 100 to 110 inch lbs. to the torque wrench to control boring tool feed rate pressure during the initial stages of the coring operation. **Apply generous amounts of coolant/lubricant (LPS-1) to the work surface and rotobroach throughout the machining operation.** Occasionally back the rotobroach away from the work surface to clear the cutting flutes of machining debris. See Figure 9.

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		55 of 60 MSB 00-5	D
04	14	00	10	18	01			

5. As the rotobroach contacts the nitrided back wall of the propeller flange, the feed rate will decrease. It may be necessary to increase the feed rate pressure to 140 to 180 inch lbs. **Do not apply more than 200 inch lbs. of force to the rotobroach. If the rotobroach stops cutting, install new rotobroach and continue coring operation.**

NOTE: Rotobroach will require replacement after coring 2 to 3 crankshafts. Tool life is dependent on maintaining the proper feed rate pressure and providing a continuous and generous flow of lubricant/coolant (LPS-1) during the coring operation.

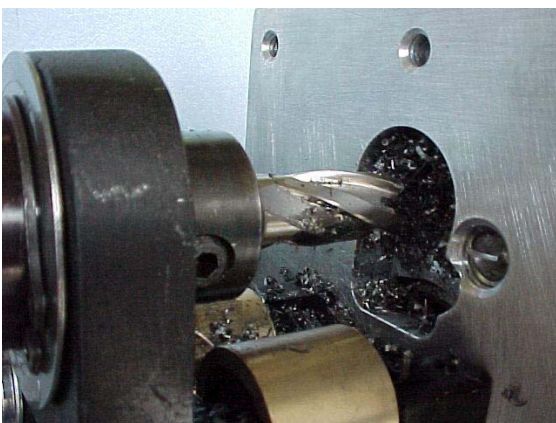


FIGURE 9
ROTOBROACH TAKING CORE SAMPLE

6. Once the rotobroach has cut through the back wall of the propeller flange, release the pressure on the torque wrench and pull the rotobroach out of the machined hole in the propeller flange and clear of the boring tool adapter plate.
7. Loosen the allen set screw and remove the rotobroach and propeller flange core sample from the boring tool chuck.
8. Remove the core sample from the rotobroach and place it in the self sealing plastic bag provided. See Figure 10.
9. Fill out the label on the front of the self-sealing plastic bag in its entirety.

10. Supporting the boring tool and propeller flange adapter plate loosen and remove the two nuts on the aft side of the propeller flange that secured the boring tool and adapter plate to the propeller flange.
11. Remove the boring tool and adapter plate from the propeller flange.



FIGURE 10
PROPELLER FLANGE CORE SAMPLES
(One crankshaft set (2) per sample bag)

12. Clean the machining debris from the boring tool adapter plate and from the propeller flange.
13. Position the boring tool and adapter plate 180 degrees from its previous position to machine the second core sample.
14. Mount and seat the boring tool and adapter plate onto the propeller flange and secure in place by installing the two nuts onto the studs protruding from the back side of the propeller flange.
15. Ensure that the red mark identifying the desired machining area of the propeller flange is visible through the adapter plate boring hole. See FIGURE 3.
16. To obtain the second propeller flange core sample repeat PART D steps 1 through 14 and PART E steps 1 through 12.

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		56 of 60 MSB 00-5	D
04	14	00	10	18	01			

F. CLEANING AND CHAMFERING CORE SAMPLE HOLES:

After removing the boring tool and adapter plate from the propeller flange, clean and chamfer the core sample hole as follows:

1. Ensure that the front and aft face of the propeller flange is clean and free of any machining debris.

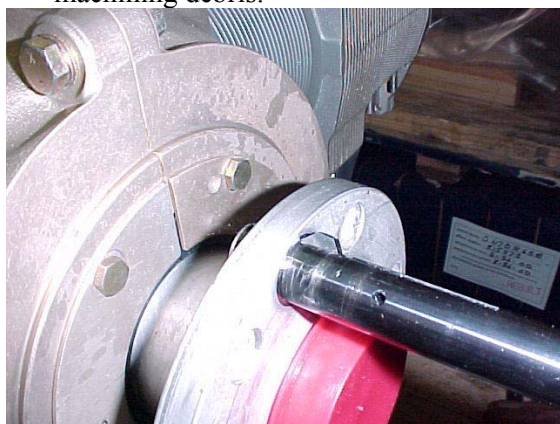


FIGURE 11

CHAMFERING CORE SAMPLE HOLE

NOTE: The chamfering tool has a spring loaded cutting blade. To chamfer the aft side of the core sample hole, apply enough pressure to the chamfering tool to cause the blade to retract sufficiently to allow the tool to pass through the core sample hole.

2. Using the chamfering tool provided in the tool kit, chamfer the core sample hole I.D. on the front and aft faces of the propeller flange. See Figure 11.
3. Apply a light even pressure to the tool during the chamfering process.



FIGURE 12
CORE SAMPLE HOLE
AFTER CHAMFERING

4. Using 180 crocus cloth or emery paper polish the core sample hole I.D.
5. Clean the core sample holes and propeller flange using a lint free shop towel dampened with Acetone.
6. Measure edge distance of core sample hole to propeller flange O.D. Minimum edge distance is .080 inches. If edge distance is less than .080 inches, contact TCM at 1-334-438-3411 for removal and replacement of crankshaft.



FIGURE 13
CORE SAMPLE HOLE MINIMUM
EDGE DISTANCE

7. Visually inspect core sample holes for sharp edges and burrs. Remove any sharp edges or burrs prior to proceeding. See Figure 12.

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR			
04	14	00	10	18	01		57 of 60 MSB 00-5	D

G. DYE CHECK OF CORE SAMPLE HOLES:

In accordance with ASTM E 1417 perform a complete Dye Check Inspection of the core sample holes and the adjacent front and aft flange surfaces ¼ inches around the holes.

1. Brush red visible dye check penetrant in the core sample holes and the surrounding area on the front and aft flange faces.
2. Brush red visible dye check penetrant in the core sample holes and the surrounding area on the front and aft flange faces.
3. Allow penetrant to dwell for a minimum of 20 minutes.
4. Clean off residual penetrant with a clean lint free shop towel dampened with penetrant remover.
5. Apply removable dye check developer by spraying a light, uniform coating to cover the core sample hole I.D. and the surrounding area.
6. Allow developer to dwell for 15 minutes.
7. Visually inspect affected area surrounding the core sample holes on the front and aft face of the propeller flange for crack indications. If no crack indications are noted, proceed to Part H.
8. If crack indications are noted, contact Teledyne Continental Motors Service Representative at 1-888-200-7565.

H. PAINTING CORE SAMPLE HOLES:

1. Clean all dye check residue from the core sample holes and surrounding area with penetrant remover or acetone.
2. Using an acid brush or cotton swab, apply zinc chromate primer to core sample holes and chamfered areas on the front and aft faces of propeller flange. Allow the primer

to cure completely prior to installation of the propeller. See Figure 14.

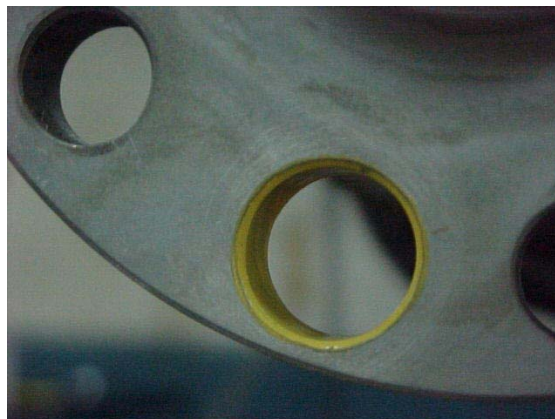


FIGURE 14
CORE SAMPLE HOLE AFTER
APPLICATION OF ZINC CHROMATE
PRIMER

I. MAILING SAMPLE:

Ensure that the label on the plastic bag containing the core samples is completed in its entirety.

Place plastic core sample bag in an overnight envelope and mail to:

Teledyne Continental Motors

2039 Broad Street

Mobile, Alabama 36615

ATTN: MSB 00-5

J. RETURNING AIRCRAFT AND ENGINE TO SERVICE:

In accordance with the aircraft manufacturer's maintenance manual and Teledyne Continental Motors engine maintenance manual or overhaul manual perform the following:

1. Remove protective plastic covering from around the crankshaft propeller flange and engine.
2. Remove the shop towel or other protective device that was used to protect the interior of

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR			
04	14	00	10	18	01		58 of 60 MSB 00-5	D

the crankshaft during the sample coring process.

3. Insure that propeller flange is clean and free of any debris that would interfere with correct seating and installation of the aircraft propeller.
4. In accordance with the aircraft manufacturer's maintenance manual install propeller, propeller spinner bulkhead and spinner. Torque attaching hardware to values specified in the aircraft manufacturer's maintenance manual.
5. Install upper sparkplugs using new gaskets and torque to 300 to 360 inch lbs.
6. Install ignition leads and torque "B" nuts to 110-120 inch lbs.
7. Install engine cowling.
8. Perform a complete engine ground run up in accordance with the aircraft manufacturer's maintenance manual.

Teledyne Continental Motors will notify the FBO via Internet e-mail, FAX or telephone upon completing the testing on the core samples. Evaluation of core samples should be completed in 24 to 48 hours after the samples are received by Teledyne Continental Motors.

Engines with crankshaft core samples meeting the acceptance criteria may be returned to service. Teledyne Continental Motors will provide a logbook attachment indicating the core samples from the specified engine are acceptable and that the engine may be returned to service.

Make an engine logbook entry stating compliance with TCM MSB 00-5.

Make an aircraft logbook entry referring to removal and installation of the propeller, propeller spinner and spinner bulkhead to facilitate compliance with TCM MSB 00-5.

K. WARRANTY

The labor and material required to comply with this service bulletin will be covered by Teledyne Continental Motors New, Rebuilt or Gold Medallion Warranty policy as applicable to the affected engine.

Labor hours approved to comply with this service bulletin will not exceed 3 ½ manhours per affected engine.

Reimbursement for compliance with the inspection specified in this service bulletin will be processed using the "Crankshaft Material Inspection Reimbursement Form" on the last page of the service bulletin. To ensure prompt processing of you reimbursement, complete the form in its entirety and attach a copy of the repair work order and customer invoice.

Mail reimbursement form to:

Teledyne Continental Motors

2039 Broad Street

Mobile, Alabama 36615

ATTN: WARRANTY ADMINISTRATION

If crankshaft replacement is required, the following labor allowances will apply:

1. Removing and reinstalling engine.

Non- turbocharged : 29 manhours

Tubrocharged: 36 manhours

If field replacement of the crankshaft is authorized by Teledyne Continental Motors, the following labor allowances will apply:

1. Engine disassembly to facilitate crankshaft replacement only and reassembly after replacement crankshaft installation:

Non-turbocharged: 35 manhours

Turbocharged: 37 manhours

NOTE: Claims submitted that include labor and material charges not related to crankshaft replacement will be denied and returned to the submitter. Do not separate pistons from

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR			
04	14	00	10	18	01		59 of 60 MSB 00-5	D

cylinders, Remove cylinder sufficiently to remove the piston pin only. If a varnish layer has formed on the piston pin between the piston pin bosses and the connecting rod bushing, lightly spray the effected area with carburetor cleaner to soften the varnish and aid in piston pin removal. Do not use tools that may damage the aluminum end plugs of the piston pin.

Engine test run after crankshaft replacement:

1. In an engine test cell: 16 man hours
2. In the aircraft: 4 man hours

ISSUED			REVISED			 CONTINENTAL MOTORS A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		60 of 60 MSB 00-5	D
04	14	00	10	18	01			



CONTINENTAL MOTORS

A Teledyne Technologies Company
P.O. BOX 90 MOBILE ALABAMA 36601 • 334-438-3411

CRANKSHAFT MATERIAL INSPECTION REIMBURSEMENT FORM

For Compliance of MSB 00-5

Attach a copy of the shop work order and invoice to this form.

DATE: _____

Complete the following information:

ENGINE MODEL: _____

ENGINE SERIAL NUMBER: _____

ENGINE TOTAL TIME: _____

CRANKSHAFT SERIAL NUMBER: _____

AIRCRAFT MODEL: _____ AIRCRAFT REG. NUMBER: _____

OWNER NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

COUNTRY: _____

PHONE: _____ FAX: _____

E-MAIL ADDRESS: _____

AMOUNT of Reimbursement Requested _____.

MAKE REIMBURSEMENT CHECK PAYABLE TO:

OWNER: _____ or FBO: _____

FBO NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

COUNTRY: _____

PHONE: _____ FAX: _____

E-MAIL ADDRESS: _____

MAIL COMPLETED FORM TO:

TELEDYNE CONTINENTAL MOTORS

P.O. BOX 90

MOBILE, AL 36601

ATTN: WARRANTY ADMINISTRATION

TCM USE ONLY

DATE: _____

APPROVED SIGNATURE: _____

AMOUNT: _____

ACCOUNTING VERIFICATION: _____

CHECK NUMBER: _____