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ADMIRALTY FLEET ORDER

BRISTOL AERO ENGINES—ESTABLISHMENT OF TOOLS

ADMIRALTY, S.W.1, 21st September, 1944.

The following Order having been approved by My Lords Commissioners of the Admiralty is hereby promulgated for information and guidance and necessary action.

By Command of Their Lordships,

It.v. markham

Distribution Limited

To Commanders-in-Chief, Flag Officers, Senior Naval Officers, Captains and Commanding Officers of H.M. Ships and Vessels carrying Aircraft, Superintendents or Officers in Charge of H.M. Naval Establishments, and Admiralty Overseers concerned.

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4985.—Bristol Aero Engines—Establishment of Tools

(N.S. Air 8080/44.-21 Sep. 1944.)

The issue of engine tool kits for maintenance and repair of Pegasus VI, 30, Mercury 30 and Taurus XII engines fitted to naval aircraft has been discontinued. In future all tools are to be demanded as individual items and will be allowed to each service as detailed in the appendices to this order. Supply will be made to new services in accordance with these allowances.

- 2. All services concerned are to break down existing kits held into their component parts and to take the items on charge separately. Arrangements should then be made to adjust the range and quantities to conform to these allowances. Toois held surplus to allowances should be returned to the nearest R.N. store depot (at home) or storing yard (abroad) without delay in order that they may be re-issued to other services. In view of the great shortage of these tools Commanding Officers are to ensure that this order is complied with without delay.
 - 3. Accessory and salvage tools will be the subject of a further order.
- 4. The tools allowed will, broadly, limit the work which can be undertaken by these services to the following:—

(a) Squadrons Daily inspections.

Daily maintenance.

Minor inspections.

Valve servicing.

- (b) Catapult Ships As for squadrons.
- (c) Aircraft Carriers (Fleet and Light Fleet).

Major inspections.
Minor repairs and replacements which involve minor stripping only.
Shock loading within the limits laid down in A.Ps. 1451D, 1491B and D, 1707A.
Changing of engines.
Top overhaul.

- (d) Aircraft Carriers (Escort) ... As for (c) but on a reduced scale and excluding major inspections.
- (e) Aircraft Carriers (Merchant Air- As for Air Stations, Classes "D" and craft).

 "E".
- (f) Naval Air Stations (Classes "A", "B" and "C")

Major inspections.

Minor repairs and replacements which
involve minor stripping only.

Shock loading within the limits laid

down in A.Ps. 1451D, 1491B and D, 1707A.

Changing of engines. Top overhaul.

(g) Naval Air Stations (Classes " D " and " E").

Daily maintenance.
Daily inspections.
Minor inspections.
Valve servicing.

Minor repairs by replacement with complete assemblies which do not involve removal of engine from airframe.

(h) Repair Yards (Class "A") ... Complete overhauls and major repairs including salvage of parts to approved schemes.

- (i) Repair Yards (Class "B") ... (i) Those yards specialising in the complete overhaul of Bristol engines as for Repair Yards, Class "A", with a slight reduction of salvage work.
 - (ii) Those not specialising in Bristol overhaul as for Naval Air Station, Class "A".
- (j) H.M.S. "Unicorn" ... As for Repair Yards, Class "A", but on a limited scale.
- (k) Engine Repair Ships ... Those specialising in the complete overhaul of Bristol engines as for Repair Yard, Class "B" (i).
- 5. In general, work undertaken by the above-mentioned services is to come within limitations laid down in Air Publications 1451D, 1491B and D, 1707A and other approved reconditioning schedules.
- To ensure economy, demands for tools are to be limited to immediate requirements.
- 7. The allowances are in no instance to be exceeded, irrespective of whether one or more types of the engines named are installed in the aircraft allotted. Where tools are common, the quantities to be held are not to exceed the allowances shown in either appendix.

			איקר	GIN	DQ.						ALLO	WANG	CES						
Ref.	D W			NGIN.		aft	ips		ircra arrie				al Air			spair ards	00		
No.	Part No.	Description	Pegasus VI	Pegasus 30	Mercury 30	Squadrons per 6 I.E. Aircraft	Catapult Ships	Fleet and Light Fleet	Escert	Merchant	Class A	Class B		Class D and E	Class A	Class B	Repair Ships	Remarks	
(1)	(2)	(3) SECTION 36R	(4)	(5)	(6)	(7)	(8)		(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
2162	FB.7781/2	Tools for Crankcase Spanner, box, for crankcase nuts and propeller hub bolts.	x	x	x	2	1	2	2	3	5	4	4	4	6	5	4		
10640 13073	FB.21712* }	Protector, for connecting rods and crankcase.	x	x		9	2	36	27	2	54	45	27	27	90.	63	54		
63626	FB.65972	Protector, for connecting rods and crankcase.			X	9	2				54	45	27	27	81	54	45		
10769	FB.57280/2	Extractor, for crankcase front half and front cover.	X	X	X			1	1		1	1	1	1	2	2	2		
13122	FB.35227	Remover, for crankcase circlips	x	x	x										3	2	2		
5377	FB.22817	Tools for Rear Cover Spanner, box, for oil filter cap	x	x	x	2	1	2	2	1	4	4	4	4	5	4	2		
13063	FB.57273	Extractor, for inertia starter jaw	x	x	x			1	1		1	1	1		2	1	1		
10774 18432	FB.35217 FB.40395	Extractor, for gun gear shaft bush : Fixture, pressing in for gun gear shaft	X	x	X										1	1	1 1		
10821	FB.51437	bush. Jig, reaming (use up stocks of FB.35198) for gun gear shaft bush.	x	x	x				k ,						1	1	1		
10838	FB.35197	Reamer, for gun gear shaft bush	x	x	x	1									4	3	3		
18430	FB.40394	Fixture, pressing in, for cross drive bush	x	x	x										1	1	1		
10816	FB.35203	Jig, reaming, for pressing in, for cross drive bush.	x	x	x										1	1	1		
10832	FB.35204	Reamer, for cross drive bush	x	x	x										4	3	3		

6	10814	FB.35624	Jig, reaming, for crankshaft tail piece bearing.	x	X										1	1	1	1	
(68516)	10830	FB.35187	Reamer, for crankshaft tail piece	x	x											4	3	3	
	29572	FB.51739	bearing. Jig, reaming, for crankshaft tail piece			x										1	1	1	
	29590	FB.51737	bearing. Reamer, for crankshaft tail piece			x										4	3	3	
	29990	FD.51757	bearing.				100									*		"	
		9	m 1 1 07 m	+ 1															
	54042	FB.63028	Tools for Oil Sump Spanner, box, 1-in. × 5in. B.S.F., for	X	x	x	3	1	4	4	1	8	6	6	6	12	10	10	
	arren	Secretary Sec.	oil sump nuts.			-							-	2					
	53450	FB,66060	Spanner, box, 1-in. B.S.F., for breather tube connection.		X											3	2	2	
			tube connection.		-														
	10050	TID 41011/0	Tools for Crankshaft			1										5	4	4	
	18250	FB.41011/2	Bar, alignment, for crankshaft front and rear.	X	X	X										0	*	*	
	10616	FB.35218	Disc, for timing engine	x	x	x		1	1	1	1	1	1	1	1	2 2	2	2 2	
	10650	FB.35176	Pointer, for timing engine	X	X	X		1	1	1	1	1	1	1	1	2	2		
	18210	FB.39936	Expander, Maneton, for crankshaft,	X	x	X										5	4	4	
	10000	TTT 0 40 42	rear.		1											2	1	1	
	13278	FB.34941	Extractor and insertor, for crankshaft oil sleeve.	X	X									8		-	1		
	120023	FB.97300	Adaptor for extractor, for crankshaft			x										2	2	2	
			inner races.					1	1	100			-			0	0	0	
	10758	FB.29580* \	Adaptor for extractor, for use on front	X	X	X		1	1	1		1	Ţ	1	7	2	2	2	
	120024	FB.90164 5	end of crankshaft.					1 -								0	0	2	
	13206	FB.34942* \	Adaptor for extractor, for use on rear	X	X	X										2	2	2	
	120020	FB.90163	end of crankshaft.	X	X	X	1	1					-	1	17	2	2	2	
	2186	FB.10245*	Tool, assembling and extracting, for	X	X	X		1	4	1		1	1	1	1	1 4	2	-	
	120019	FB.90165	cam sleeve.			10										2	2	2	
	13218	FB.34939	Extractor, for inner races of front and	X	X	X	1									-	-	-	
	0101	MD 15010	rear crankshaft bearings.			x		T	1	1		1	1	1	1	2	2	2	
	2191	FB.15010	Spanner, for extractor FB.10245 and FB.90165.	X	X	A		1	1		1		1		1	1			
	10785	FB.45728	Fixture, assembly, for crankshaft, front	x	x	x	1			1						2	2	2	
	*****	7777 000000	and rear.									1				1	1	1	
	18244	FB.39900	Jack, for insertion between crankwebs	X	X	-										1	1	î	
is.	29394	FB.51163	Jack, for insertion between crankwebs	1	1	IX	1	-	_	1	1	1		1	-	1 .	1 1	1 1	

			E	GIN	ES	_		_			ALL	OWAN	CES					
Ref. No.	Part No.	Description	VI	30	03	s per craft	Ships	C	irera arrie	rs			l Air			pair rds	sd	Remarks
(1)			Pegasus V	Pegasus 3	Mercury 30	Squadrons per 6 I.E. Aircraft	Catapult Ships	Fleet and Light Fleet	Escort	Merchant	Class A	Class B	Class C	Class D and E	Class A	Class B	Repair Ships	Tomarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)			(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
20144	FB,97331	Tools for Crankshaft—contd. Piece, distance, for pressing front cover bearing on crankshaft and for use as a slave race.	x	x	x			1	ı		1	1	1	1	2	2	2	FB.37329* can b
10646	FB.35174 FB.35228	Pliers, for crankshaft oil sleeve circlip Pliers, for bearing retaining rings and	X	x	x										4	3	3	
13102	FB.34926 FB.51167	Spanner, for crankpin oil cap Spanner, for crankpin oil cap	x	x											4	3	3	
5024 9420 8268	FB.37253 FB.51165 FB.39937	Spanner, for crankshaft plugs Spanner, for crankshaft plugs Spanner for crankshaft plugs	x	X	x										4 4 4	3 3	3 3 3	
0858 3104	FB.35188/2 FB.34930	Spanner, for crankshaft locknut (front) Spanner for crankshaft rear half nut	X X	X	X			1	1		1	1	1	1	4 3	3 3	3 2	
9580	FB.53399	Micrometer, for checking stretch of crankshaft bolt.	X	x	x										3 2	3 2	2	
9979	FB.95863 FB.53355	Tool for assembling crankshaft.		x	x										36	1		
9442	FB.53356	Spanner, for crankshaft bolt nut Tube, extension, for spanner for crank- shaft bolt nut.	X	x x	X										2 2 2	1	î	
2078	FB.95069	Sleeve, screwed, for spanner for crank-			x		1				1	1	1	1	3	3	2	For was -tal non
		shaft locknut (front).															4	For use with 36R 10858 FB.35188/5 on crankshafts in corporating sha dow Mod. MS.113 or Bristol Mod E.871.

36R/	
32266 FB.95061 Insertor, for airserow shaft bush x 1 1 1 1 1 Existin 36R/	
used gines porat	stocks of 31 FB. can be o on en- ot incor- shadow 3.113 or
32262 FB.95062 Adaptor for insertor for airscrew shaft x 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Mod. or can be to make 66 RB, y replac- serew. 1.95061-4 with RB. n crank- ncorpora- dow Mod. or Bristol
5560 FB.14946 Jig, reaming, for insertor for airscrew x x x x 1 1 1 1 1 1 1 1 1 1	371.
29584 FB.51222 Shaft bush. Reamer, for insertor for airserew shaft x x x x 1 1 1 1 1 1 3 2 2	
13213 FB.57265 Cutter, for facing and bedding maneton x x x x bolt nut face seating.	
13286 FB.57264 Holder for cutter, for facing and bed-x x x x ding maneton bolt nut face seating.	
13249 FB.57266 Nut, dummy, for facing and bedding - x x x	
40222 FB.95860 Extractor, for crankpin sleeve x x	stocks of
120317 FB.97254 Guide, for assembling crankpin sleeve x x x x 1 1 1 1 36R/ Guide, for assembling crankpin sleeve x x x x 1 1 1 1 1 36R/ 9586 supp Pega	23 FB. may be in lieu of 30 en-
FB.97298 Gauge, blueing for crankpin shoulder x x gines	y. 490

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D.C			191	I	Eas	it.	90		irera arrie			Nava Stat	d Air			pair			
Ref. No.	Part No.	Description	Pegasus VI	Pegasus 30	Mercury 30	Squadrons per 6 I.E. Aircraft	Catapult Ships	Fleet and Light Fleet	Escort	rchant	Class A	Class B	Class	Class D	Class	Class	Repair Ships	Remarks	
713	(2)					1				-		-		and E			1	7100	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
23208	FB.97257	Tools for Crankshaft—contd. Lap, hand, complete for crankpin diameter.		x	x										2	2	2		
23209 23210	FB.97257/4 FB.97258	Lap (spare insert), for crankpin diameter Lap, hand for crankpin shoulder		x x	x x										4	3 3	3		
13062 29370	FB.34931 FB.51225	Tools for Connecting Rod Drift, for artic rod pins Drift, for artic rod pins	х	x	x										4 4	3 3	3 3		0
0813 0669 9414	FB.57301 FB.33439 FB.51161	Jig, for drifting out artic rod pins Spanner, box, for artic rod pin bolts Spanner, box, for artic rod pin bolts	x	x x	x										6 6	1 5 5	3 3		
13098 18290	FB.34933 FB.40283	Spanner, box, for artic rod pin nuts Tool, compressing for oil retainer springs	x	x	x										6 2	5	3		
54256	FB.10244	Tools for Piston Clip for piston ring	X	X	x	1	1	3	2	1	4	3	3	2	5	A	3	Existing stocks of FB.26417 may be	
10644	FB.26487 FB.51160	Pliers, for removing gudgeon pin circlip	x	x		1	1	4	3	1	5	4	4	3	6	5	3 3	supplied in lieu.	
29400 10709	FB.26474	Pliers, for removing gudgeon pin circlip Plug, for gudgeon pin when assembling	x	x	X	í	1	3	2	1	5	3	3	3 2	6 5	5 4	3		
29939	FB.51169	gudgeon pin circlip. Plug, for gudgeon pin when assembling			x	1	1				4	3	3	2	5	4	3		
29941	FB.26475	gudgeon pin circlip. Tube, inserting, for assembling gudgeon pin circlip.	x	x	x	1	1	3	2	1	4	3	3	2	5	4	3		

10545	TID FRANCE	Tools for Cylinders and Valves	. 1	_ [_	1	1	3	0	4	1	3	3	2	6	4	3		
10547	FB.53235	Compressing tool for inlet valve	x	X	X	1	1	3	2 2	1	4	3	3	2	6	4	3		
10550	FB.53236	Compressing tool for exhaust valve	X	x	X	100	-	3	2	1				2					
32004	FB.57285	Pliers, for removing circlip	-		X	1	1		0	7	4	3	3	3	6	4	3		
13008	FB.59757	Spanner, for lug nut	X	x	X	2	1	4	3	1	4	3	3	3	6				
10544	FB.26416	Spanner, for lug nut	X	X	X	2	1	4	2	1	4	3	3	3	6	4	3		
10560	FB.56095	Spanner, for 18 mm. spark plug (short)	X	X	X	6	3	6	6	4	10	8	8	6	12	10	8		
10564	FB.56096/2	Spanner, for 18 mm, spark plug (long)	X	X	X	6	3	6	6	4	10	8	8	6	12	10			
10551	FB.50951	Wrench, ratchet for spark plugs	X	X	X	6	3	6	6	4	10	8	8	6	12	10	8		
5387	FB.37103	Valve, holding tool for removing valve springs.	X	X	X	1	1	3	2	1	4	3	3	2	6	4	3		
23040	FB.45830	Indicator, for piston top dead centre	X	X		1	1	3	2	1	4	3	3	2	5	4	2		
18240	FB.40091	Indicator, for piston top dead centre	100		X	1	1			. 1	4	3	3	2	5	4	2		
98096	FB.90132	Spanner, for cylinder nut	x	Z	X	2 2	1	4	4	1	6	5	-5	3	10	8	6		
10680	FB,26411	Spanner, extended, for cylinder nut	X	X		2	1	4	4	1	6	5	5	3	10	8	6		
29428	FB.51170	Spanner, extended, for cylinder nut	X	X	x	2	1	5	-	53	6	5	5	3	10	8	6		
10662	FB.37494	Spanner, box, 2 B.A., for induction pipe nuts.	x	X	x	3	3	6	6	4	12	10	10	8	12	12	10		
5523	FB.22440	Tool, for assembling exhaust valve cir- elip.	х	х		2	1	3	2	1	5	4	4	3	6	6	3		
8354	FB.21161	Tool for assembling inlet valve circlip	x	x		2	1	3	2	1	5	4	4	3	6	6	3:		- 12
10648	FB.21173	Tool for removing circlip from valves	X	x		2 2	1	3	2	1	5	4	4	3	6	6	3		9
29436	FB.53830/2	Compressor, for valve springs	x	x	x	100		3	2 2 3		4	3	3	1	6	4	3		
10686	FB.35179	Drift, for assembling cylinder headlug to rocker bracket.	x	x	x	1	1	3	2	1	4	3	3	2	6	4	3		
13230	FB.35225	Fixture for fitting and scruffing cylinder	x	x	x			3	2		9	6	6	2	12	9	6		
10786	FB.35226	Fixture for holding cylinder	x	x	x			3	2 2		9	6	6	2	12	9	6	1	
5469	FB.48950	Cutter, for inlet and exhaust valve seats	X	x				6	6		6	6	6		6	6	6		
5470	FB,48951	Cutter, truing, for inlet and exhaust valve seats.	x	x				6	6		6	6	6		6	6	6		
5471	FB.48952	Cutter, flat facing for exhaust valve seat	x	x				6	6		6	6	6	18	6	6	6		
5472	FB.48953	Cutter for truing valve ports	x	X				6	6		6	6	6	1	6	6	6	1	
23213	FB.65983	Gauge, plug, for exhaust valve guide bore.	x	x		-	-	2	1		3	2	2		4	4	3		
44856	FB.65916	Gauge, plug, for exhaust valve guide			x						3	2	2		4	4	3		
44854	FB.65915	Gauge, plug, for inlet valve guide bore			x						3	2	2		4	4	3		
10800	FB.35208	Gauge, socket, angle for exhaust valve guide seat.	x	x	x			2	1		3	2	2		4	3	2		
13237	FB.51580	Gauge, socket angle, for exhaust valve guide seat.	x	x	x			2	1		3	2	2		4	3	2		POOR

			E	IGIN	ES	_				1	ALLO'	WANC	ES					
Ref.	Part No.	Description				per	Ships		irera arrie				al Air tions			pair ards	80	Remarks
No.			Pegasus VI	Pegasus 30	Mercury 30	Squadrons per 6 I.E. Aircraft	Catapult Si	Fleet and Light Fleet	Escort	Merchant	Class A	Class B	Class C	Class D and E	Class A	Class B	Repair Ships	AND
(1)	(2)	(3)	(4)	(5)	_	(7)	(8)		(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
13239	FB.51581	Tools for Cylinders and Valves—contd. Gauge, socket angle, for exhaust valve guide seat.	x	x	x			2	. 1		3	2	2		4	3	2	
13241	FB.51582	Gauge, socket angle, for exhaust valve guide seat.	x	x	x			2	1		3	2	2		4	3	2	
5789	FB.29721	Gauge, socket angle, for inlet valve	x	x	x			2	1		3	2	2		4	3	2	
13231	FB.51577	guide scat. Gauge, socket angle, for inlet valve	x	x	x			2	1		3	2	2		4	3	2	
13233	FB.51578	guide seat. Gauge, socket angle, for inlet valve	x	x	x			2	1		3	2	2		4	3	2	
13235	FB.51579	guide seat. Gauge, socket angle, for inlet valve	x	x	x			2	1		3	2	2		4	3	2	
5910 120307	FB.39728 FB.97397	guide seat. Gauge, seat, for exhaust valve (91° angle) Gauge, seat, for exhaust valve (91° angle)	x	x	x			2	1		3 2	2	2		4 2	3 2	2	For engines fitted with salvaged
5912 29822 5917 23237 20820	FB.39729 FB.57365 FB.46241 FB.77600 FB.57363	Gauge, seat, for inlet valve (90° angle) Gauge, seat, for inlet valve (90° angle) Gauge, for inlet valve seat dia. Gauge, for exhaust valve seat dia. Gauge, for inlet valve seat dia.	x x x	x	x			2 2 2	1 1 1		3 3 3	2 2 2 2	2 2 2 2		4 4 4 4	3 3 3 3	2 2 2 2	valves.
29821 120308	FB.57364 FB.97399	Gauge, for exhaust valve seat dia Gauge, for exhaust valve seat dia			x x						3 2	2 2 1	2 2 1		4 2	3 2	2 2 1	For engines fitted with salvaged valves.

23241	FB.77564	Gauge, for lap FB.77563	x	x				2	1		3	2	2		4	3	2	
5919	FB.44599*	Gauge, for lap FB.44598	-	-					-						1	3		
29569	FB.57370	Gauge, for lap FB.79944			X						3 2	2	2	1	2	2	2	For engines fitted
120309	FB.97398	Gauge, for lap FB.97394			x			- 1			2	1	1		2	2	1	with salvaged
10811	FB.36477	Gauge, 18.025 mm., for spark plug	x	x	x			2	1		3	2	2		4	3	2	valves.
5481	FB.47327	adaptor. Holder, for valve seat cutters	x	x				9	9		2	2	2		2	2	2	
2200	FB.13092	Holder, for valves when lapping	x	x		1	1	2 3	2 2	1	3	2 2 2	2 2 2	2	4	2 3	2 2 2	
29567	FB,57439	Holder, for valves when lapping	1	-	x	1	1		131		3	2		2 2	4	3		
10869	FB.46239	Insertor and extractor for inlet and ex-	X	x				2	2		3	2	2		4	3	2	
29607	FB.57371/2	haust valve guides. Insertor and extractor for inlet and exhaust valve guides			x						3	2	2		4	3	2	
5921	FB.44598*	Lap, for exhaust valve seat	x	X		3	1	0		4	6	4	4	4	8	6	4	
23033	FB.77563		*	7		-	5	0	.9	4					2	16		
120022 120310	FB.79944 FB.97394	Lap, for exhaust valve seat			X	1	1				6	4	4	4	8	6 3	2	For engines fitted
120310	P D.177309	Lap, for exhaust valve seat			x	1	1				3	2	2	2	4	3	2	with salvaged valves.
23253	FB.77561	Reamer, for exhaust valve guide bore	x	×				10	8		12	10	10		24	20	18	1001000
44864	FB.65914	Reamer, for exhaust valve guide bore			x			1.0	-		12	10	10		24	20 20	18	A
120311	FB.97393	Reamer, for exhaust valve guide bore			x				7		6	5	5		12	10	9	For engines fitted with salvaged valves.
13369	FB.90091	Reamer, for inlet valve guide bore	x	x				10	8		12	10	10		24	20	18	100.1001
44866	FB.65913	Reamer, for inlet valve guide bore		"	x			**			12	10	10		24	20 6	18	
13319	FB.90092	Gauge, plug, for inlet valve guide bore	x	x				3	2		6	4	4		8	6	4	
10839	FB.35733	Reamer (.005 in. o/size) for inlet valve guide hole in cylinder head.	X	X	X			4	3		6	4	4		10	8	6	
10841	FB.49986	Reamer (.010 in. o/size) for inlet varve	x	x	x			4	3		6	4	4		10	8	6	
10843	FB.49987	guide hole in cylinder head. Reamer (·015 in. o/size) for inlet valve	x	x	x			4	3		6	4	4		10	8	6	
10040	ED 40000	guide hole in cylinder head.													-		6	
10849	FB.49988	Reamer, (·040 in. o/size) for inlet valve guide hole in cylinder head.	X	X	X			2	2		3	2	2		5	4	3	
13254	FB.57377	Reamer (rougher, for .040 in. o/size) for	x	×	x.			2	2		3	2	2		5	4	3	
10836	FB.35725	inlet valve guide hole in cylinder head. Reamer, (.005 in. o/size) for exhaust	x	x	x			4	3		6	4	4		10	8	6	
2000	2 2011/07/20	valve guide hole in cylinder head.	4	A	A			2	0		o.	1	·		10		-	

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Ref.	Part No.	Description	_ I			per	Ships	Ca	rerat	8		Nava Stat	ions			pair	рз	Remarks	
2401			Pegasus VI	Pegasus 30	Meroury 30	Squadrons per 6 I.E. Aircraft	Catapult S	Fleet and Light Fleet	Escort	Merchant	Class A	Class B	Class C	Class D and E	Class A	Class B	Repair Ships	TV, IIIGIAO	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
13258	FB.35726	Tools for Cylinders and Valves—contd. Reamer, (·010 in o/size) for exhaust valve guide hole in cylinder head.	x	x	x			4	3		6	4	4		10	8	6		
13260	FB.35727	Reamer (.015-in. o/size) for exhaust	z	x	x			4	3		6	4	4		10	8	6		
10850	FB.49991	valve guide hole in cylinder head. Reamer (·040-in. o/size) for exhaust valve guide hole in cylinder head.	x	x	x			2	2		3	2	2		5	4	3		12
13255	FB.57376	Reamer (rougher for ·040-in. o/size) for exhaust valve guide hole in cylinder head.	x	x	x			2	2		3	2	2		5	4	3		2
10873	FB.54891	Tool, caulking for cylinder head valve seats.	x	x				2	1		2	1	1		4	3	2	3	
10877	FB.54892	Tool, caulking, for eylinder head valve scats.	x	x				2	1		2	1	1		4	3	2		
10929	FB.54893	Tool, caulking, for cylinder head valve scats.	x	x				2	1		2	1	1		4	3	2		
10855	FB.52974	Spanner for testing tool for testing tightness of valve seat.	x	x				2	1		2	1	1		3	2	2	Not required for	
10924	FB.51959	Tool for testing tightness of valve seat	x	x				2	1		9	1	1		3	6	10	serrated valve	
10925	FB.51960	Tool, for testing tightness of valve seat	X	X				2 2	1		2	î	T		3	2 2	2 2	seats.	
10926	FB.52973	Wrench, for testing tool for testing tightness of valve seat.	x	x				2	1		2 2 2	1	1		3	2	2		
5821	FB.46357	Gauge, for checking plungers on centre, popping tool.	x	X				1	1		1	1	1		1	1	1		
5822	FB.46358	Gauge, for checking plungers on centre, popping tool.	x	x				1	1		1	1	1		1	1	1.		
5823	FB.46356	Plunger, o/size for centre, popping tool	x	x				4	2		4	2	2		6	1	1		

5824	FB.46350	Shim (.005 in.), for centre, popping tool (inlet).	x	x				2	1	1	2	1	1	3	2	2	0
5825	FB.46351	Shim (.010 in.), for centre, popping tool	x	x				2	1		2	1	1	3	2	2	
5826	FB.46352	(inlet). Shim (·020 in.), for centre, popping tool	x,	x				2	1		2	1	1	3	2	2	
5827	FB.46353	(inlet). Shim (.005 in.) for centre, popping tool,	x	x				2	1		2	1	1	3	2	2	Not required for
5828	FB.46354	(exhaust). Shim (-010 in.), for centre, popping tool	x	x				2	1		2	1	1	 3	2	2	serrated valve seats.
5829	FB.46355	(exhaust). Shim (·020 in.), for centre, popping tool	x	x				2	1		2	1	1	3	2	2	
5868	FB.40851/2	(exhaust). Tool, centre popping, for inlet valve	x	x				2	1		2	1	1	3	2	2	
5867	FB.39822/2	seat. Tool, centre popping, for exhaust valve	x	x				2	1		2	1	1	3	2	2	
13207	FB.57277	seat. Bush, pilot (.005 in. o/size) for reamer,	x	x	x			3	2		9	6	6	12	9	6	
13208	FB.51559	for truing valve guide sockets (inlet) Bush, pilot (010 in, o/size) for reamer.	x	x	x			3	2		9	6	6	12	9	6	
13209	FB.51560	for truing valve guide sockets (inlet) Bush, pilot (*015 in. o/size) for reamer,	x	x	x			3	2		9	6	6	12	9	6	
13210	FB.51561	for truing valve guide sockets (inlet) Bush, pilot (·040 in. o/size) for reamer,	x	x	x			2	1		6	4	4	8	6	4	13
13211	FB.57278	for truing valve guide sockets (inlet). Bush, pilot (.005 in. o/size) for reamer,	x	x	x			3	2		9	6	6	12	9	6	
13214	FB.51556	for truing valve guide sockets (exhaust) Bush, pilot (.010 in. o/size) for reamer,	x	x	x			3	2		9	6	6	12	9	6	
13215	FB.51557	for truing valve guide sockets (exhaust) Bush, pilot (.015 in. o/size) for reamer,	x	x	x			3	2		9	6	6	12	9	6	
13217	FB.51558	for truing valve guide sockets (exhaust) Bush, pilot (.040 in. o/size) for reamer,	x	x	x			2	1		6	4	4	8	6	4	
13264	FB.57276	for truing valve guide sockets (exhaust) Reamer for truing valve guide sockets							3				3			6	
5818	FB.36472/2	Taps, 18 m/m (2nd and plug), for spark plug hole.	x	x	x	1	1	4	3		6	4	4	10 8	8	6	
13245	FB.51565	Gauge, plug (.005 in. o/size) for inlet	x	x	x			3	2		4	3	3	6	5	4	
13247	FB.51566	valve guide hole in cylinder head. Gauge, plug (010 in. o/size) for inlet	x	x	x			3	2		4	3	3	6	5	4	
13252	FB.51567	valve guide hole in cylinder head. Gauge, plug (·015 in. o/size) for inlet valve guide hole in cylinder head.	x	x	x			3	2		4	3	3	6	5	4	4985
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Ref	The state of	Donatation				per	Ships		irera arrie			Na va Stat			Re Ya	pair irds	88	Domesto	
No.	Part No.	Description	Pegasus VI	Pegasus 30	Mercury 30	Squadrons per 6 I.E. Airoraft	Catapult Sh	Fleet and Light Fleet	Escort	Merchant	Class A	Class B	Class C	Class D and E	Class A	Class B	Repair Ships	Remarks	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
13253	FB.51568	Tools for Cylinders and Valves—contd. Gauge, plug (.040 in. o/size) for inlet valve guide hole in cylinder head.	x	x	X			1	1		2	1	1		3	2	2		
13257	FB.51569	Gauge, plug (.005 in. o/size) for exhaust	x	x	x			3	2		4	3	3		6	5	4		
13259	FB.51570	valve guide hole in cylinder head. Gauge, plug (*010 in. o/size) for exhaust	x	x	x			3	2		4	3	3		6	5	4		
13261	FB.51571	valve guide hole in cylinder head. Gauge, plug (·015 in. o/size) for exhaust	x	x	X			3	2		4	3	3		6	5	4		Z.Y
13263	FB.51572	valve guide hole in cylinder head. Gauge, plug (+040 in. o/size) for exhaust valve guide hole in cylinder head.	x	x	x			1	1		2	1	1		3	2	2		
100044	ED HOLDS	(a) Tools for Valve Seats																	
120944 5900	FB.113495 FB.38331/2*	Fixture, complete, for grinding valve seats.	х	х	X			1	1		2	1	1		3	2	1		
5911 5980	FB.57330/2* FB.41016	Belt, endless vee, for fixture for grinding	x	x	x			2	2		4	2	2		6	3	2		
5904 120642	FB.40908*) FB.123803 (valve seats. Bracket, angle, for fixture for grinding valve seats.	x	x				1	1		2	1	1		3	2	1		
69398 120643	FB.74624* \ FB.123804 (Bracket, angle, for fixture for grinding valve seats.			X						2	1	1		3	2	1		
69404	FB.74625	Case, packing, for fixture for grinding valve seats.	x	x	x			1	1		2	1	1		3	2	1		
5982	FB.41014	Diamond, in holder, for fixture for grinding valve seats.	x	x	x			1	1		2	1	1		3	2	1		

5922	FB.40970	Motor, electric (220 volts D.C. 2-wire), for fixture for grinding valve seats.	X	X	x	1	1	1		10 5	1		1	1	1		
5926	FB.40974	Motor, electric (230 volts single phase, 50 periods), for fixture for grinding	х	х	x				2	1	1		3	2			
5936	FB.40910	valve seats. Ring, packing, for fixture for grinding valve seats.	x	x			1	1	2	1	1		3	2	1		
2132 23239	FB.2319 FB.77601	(b) Tools used with Grinding Fixture Bar, tommy, \(\frac{1}{2}\)-in. dia. x 6-in. long Gauge, for final depth of 15° exhaust	x	x	x		3	3	6 2	3	3		10	6 2	3		
29818	FB.57361	valve seat. Gauge, for maximum re-grinding of			x				2	1	1		3	2	1		
29819	FB.57362	inlet seat. Gauge, for maximum re-grinding of exhaust seat.			x				2	1	1		3	2	1		
5946 5942	FB.40195 FB.40197	Spanner, for drive spindle locknut Spanner, for drive spindle	x x	x	x		1	1	2 2	1	1		3	2 2	1		
5953	FB.57291	(c) Spindles and Equipment for Grinding Valve Seats Spindle, complete, for grinding inlet	x	x			4	3	6	4	4		10	8	6		CI
5939	FB.57291/1	valve seat. Shaft, for grinding spindle						3	6				10		6		9
29824	FB.57357	Spindle, complete, for grinding inlet valve seat.	х	X	x		*	3	6	4	4		10	8	6		
44916. 23425	FB.57357/1 FB.77562/2	Sheft, for grinding spindle Spindle, complete, for grinding exhaust valve seat.	x	x	x		4	3	6	4	4 4		10	8	6	Existing stocks of FB.77562 may be supplied in licu.	
23413	FB.77562/ 2/1	Shaft, for grinding spindle	x	x			4	3	6	4	4		10	8	6	Existing stocks of FB.77562/1 may be supplied in lieu.	
20825	FB.57358/2	Spindle, complete, for grinding exhaust			x				6	4	4		10	8	6		
44918	FB.57358/	valve seat. Shaft, for grinding spindle			x				6	4	4	1)	10	8	6		-01
8550	FB.41017	Bearing, ball , ,	x	x	x		6	6	12	6	6		18	12	6		4985

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Ref.	Part No.	Description	I			per raft	Ships		irera arrie				al Air tions			pair ards	bs	Remarks
140.			Pegasus VI	Pegasus 30	Mercury 30	Squadrons per 6 I.E. Aircraft	Catapult S	Fleet and Light Fleet	Escort	Merchant	Class A	Class B	Class C	Class D and E	Class A	Class B	Repair Ships	remarke
(1)	(2)	(3) (c) Spindles and Equipment for	(4)	(5)	(6)	(7)	(8)		(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
5984 5943	FB.41015 FB.57290/ 2/18	Grinding Valve Seats—contd. Drive, flexible	x	x	x			2	2		4 2	2	2		6 3	.2	2	Existing stocks of FB.57290/18 may be supplied in
5948	FB.40198	Spanner, for grinding wheel securing nut.	x	x	x			2	2		4	2	2		6	4	2	lieu.
5944 5954 5958	FB.40199 FB.40145 FB.46146	Spanner, for ball race locknut Wheel, grinding, for 45° inlet valve seat Wheel, grinding, for 45° exhaust valve seat.	x x x	x x x	x x			2 12 12	2 10 10		4 20 20	2 15 15	2 15 15		6 50 50	4 30 30	2 25 25	
5960	FB.40147	Wheel, grinding, for 30° inlet and exhaust race.	x	x	x			12	10		20	15	15		50	30	25	
5956 5962 120312	FB.40148 FB.40149 FB.97396	Wheel, grinding, for 15° exhaust face Wheel, grinding, for 70° inlet throat Spindle, complete, for grinding exhaust	x	x	x x x			12 12	10 10		20 20 3	15 15 2	15 15 2		50 50 5	30 30 4	25 25 3	1
120313	FB.97396/1	valve seat. Shaft for spindle, for grinding exhaust valve seat.			x						3	2	2		5	4	3	For engines fitted
120314	FB.105152	Gauge, for maximum re-grinding of valve seats.			x						1	1	1		2	2	1	with salvaged valves,
5804 18722	FB.41913 FB.45238	(d) Tools for Cylinder Union Adaptor Plug, testing, for adaptor Cutter (4 mm. o/size), for bedding face of adaptor.	x	x				1	1 1		1 1	1	1 1		1 1	1 1	1	

5800	FB.45237	Cutter (2 mm. o/size), for bedding face of adaptor.	x	x	1	- 1		1	1		1	1	1		1	1	11		
5808	FB.41912	Holder, for cutter	x	x				1	1		1	1	1		1	1	1		
18726	FB.52465	Gauge, bedding, for bedding face of adaptor.	x	x				î	î		î	1	ì		1	1	î		
5796	FB.41614	(e) Tools for Spark Plug Adaptor Cutter, hand, for bedding face of spark	x	x	x			2	2		2	2	2		3	2	2		
10704	ED 50464	plug adaptor.						1			~	-	-		0	-	-		
18724	FB.52464	Gauge, bedding, for bedding face of spark plug adaptor.	x	x	x			1	1		1	1	1		1	1	1		
	ED 10000	Tools for Rocker Mechanism																	
5504 10632	FB.19806 FB.44447/2	Spanner, for rocker adjusting screw Gauge, for angle of attack of rockers	x	x	x	2	1	6 3	4 2	1	8	6	6 3	4	12	10	8		
29384	FB.51435/2	Gauge, for angle of attack of rockers	A	X	x	1	1	0	2	Ţ	4	3	3	3 3	6	5 5	4		
10666	FB.35180	Spanner, box, for rocker bracket bolt	x	x	x	2	1	6	4	1	8	6	6	4	12	10	8		
10703	FB.56420	Tool, inserting and extracting, for rocker bracket bolt.	x	x	x	1	1	3	2	1	4	3	3	2	6	5	4		
10705	FB.35184/3	Tool, for pressing in and out rocker button bush.	x	x	x	1	1	3	2	1	4	3	3	.2	6	5	4		17
10696	FB.35177	Drift, for pressing ball races on exhaust	x	x				2	2		3	2	2		6	4	4		7
10660	FB.21706	Spanner, box, 4-in. B.S.F., for tie rod nuts.	x	x	x	2	1	6	3	1	6	3	3	2	12	10	8		
10690	FB.35617	Tool, for inserting and extracting inlet rockers and arms.	x	x				3	2		4	8	3		6	4	4		
29432	FB.57341	Tool, for inserting inlet rockers			x						4	3	3		6	1	4		
29434	FB.57343	Tool, for inserting inlet rocker arms			x					1	4	3	3		6	4			
10624	FB.35178	Tool, for withdrawing cylinder headlug from bracket.	х	x		1	1	3	2	1	4	2	2	2	5	3	3	For engines prior to amendment A.669 for Pegasus VI and 30 engines.	
120021	FB.97266	Tool, for withdrawing cylinder headlug from bracket.	x	x	x	1	1	3	2	1	4	2	2	2	5	3	3	Subsequent to	
5512	FB.21157	Tool, alignment, for rocker bracket lugs	x	-	x	1	1	2	3	1	R	9	9	9	0	0	0	amendment A.669.	
120434	FB.87066	Tool, for releasing push rod cover tube	x	x	X	1	1	3 2	1	1	6 2	3	3	3	9 3	6 2	6 2		
29369	FB.57345	Drift, for pressing ball races in exhaust rockers.			x						3	2	2		6	4	4		4985
-										1		1			1	1			55

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n.	80		Rep Ya			Nava Stat			Aircra Carrie		Ships	aft				Description	Part No.	Ref.
Remarks	Repair Ships	Class B	Class A	Class D and E	Class C	Class B	Class A	Merchant	Escort	Fleet and Light Fleet	Catapult Sh	Squadrons per 6 I.E. Airoraft	Mercury 30	Pegasus 30	Pegasus VI	The stription	74.00	No,
(19)	(18)	(17)	(16)	(15)	(14)	(13)	(12)	(11)	(10)			(7)	(6)	(5)	(4)	(3)	(2)	(1)
	3	3	4		2	2	3						x			Tools for Rocker Mechanism—contd. Extractor, for inlet rockers and rocker arm.	FB.57342	29371
	1	2	3		1	1	1		1	1			x	X	x	Inserter and extractor, for rocker	FB.35211	10871
	6	8	10 8		2 2	2 2	3 3		2 2	2 2			x	X	X X	bracket bush. Reamer, for rocker bracket bush Cutter, external, for rocker bracket frunnion bush.	FB,35186 FB,34937	13080 10607
	1	2	3		1	1	1		1	1			x	Z	X	Extractor, for rocker bracket trunnion	FB.35181/2	10626
	1	2	3		1	1	1		1	1			x	x	x	bush. Tool, for pressing on rocket bracket trunnion bush.	FB.35182	10698
se with extracto	1	1	2		1	1	1		1	1			x	x	X	Tools for Cam and Tappet Gear Adaptor, for withdrawing cam gear and sleeve.	FB.34938	13216
for crankshal inner race 36R/120019 FF 90165 (or an	3 2	4 3	6 4		2 2	2 2	3		1	2 2			X	X	X X	Drift, for removing push rod end Extractor and vice holder, for push rod, lower end.	FB.35212 FB.33405* FB.57256	0762 5772 13065
stocks of 36B	2	2 2	3		1	1	1		1	1			X	X	x	Extractor, for "gits" oil seal	FB.40396	18216
2186 FB.10243 and 36R/219	2 4	2 4	6		1	1	1		1	1			X	X	X	Holder, for cam gear layshaft Rod, for setting cam sleeve for timing	FB.35193 FB.35175	10806 10654
FB.15010.	1 4	1 4	2 6		1 2	1 2	1 2		1 2	1 2			X X	X X	x	engine. Sleeve, for protecting crankshaft sleeve Tool guide, for inserting tappet	FB.34929 FB.40397	13084 18294

32064	FB.52710	assembling.	x	X				1	1		1	1	1		2	2	2		
OPPO	13.02110	Bush, for lining up oil pump when			x						1	1	1		2	2	2		
10778	FB.35935	assembling. Extractor, for removing oil pump from	x	x		1	1	ī	1	i	1	1	1	-	2				
29554	FB 51456	rear cover,	-				,	-	1	*						2	2		
		rear cover.			X	1	1				1	1	1	1	2	2	2		
29372	FB.53437	Extractor, for oil sprayer valve			x	1	1				1	1	1	1	2	2	2		
	TITO DOMMA	Tools for Fuel Pump																	
10521	FB.36776 FB.36775	Spanner, for relief valve adjusting screw Spanner, for relief valve adjusting screw	X	X	X	2 2	1	6	3	1	6	4	4	3	12	10	8		
89134	FB 77546	locknut.		**		-			·										
00101	1 2.11010	stouting tool, for grand packing			X	1	1	1			3	2	2	2	6	4	3		
10538	FR 26300/3	Tools for Airscrew Hub												1					
5372	FB.19604	Spanner, for airscrew hub nut				1	1	3	2	3		3		2			4		
		Support, for hub nut spanner	X	X	x	1	i	3	2		4	3	3	2					19
			X	x	x	1	1	3	2		4	3	3	2	6	5	4		a
5383	FB.42492*	Spanner, for airscrew sleeve	X,	x	x	1	1	3	2		4	3	3	2	6	5	4		
		Tools for use with Ignition Fittings																	
10633	FB.51790/2	Guide, buffer, for H.T. cables	x	x	x	1	1	2	2	1	2	2	2	2	6	6	6		
10876	FR 35190/2	Tools for use with Supercharger		100															
10784	FB.35620	Extractor, for supercharger unit						1	1		1		1				2		
10782	FB.35619	Extractor, for spring drive centre						î	1		1	1				2	2 2		
10792	FB.20776/2	Fixture, for removing inter bearing	x	x	x								2		2	2	2		
23230	FB.45239	Fixture, for checking end wobble on	x	x	x										2	1	1		
10803	FB.35232	D1-3 3	v	v											0		,		
10805	FB.35229/2	Gauge For checking impellor and	X	X	X														
10696		Gauge	X	X	x										2	1	î		d.
10000	13,20440	Holder, for inter. gear pinion	Z	X											3	2	2		4985
2 11 6 1 1111 2 11	39134 .0538 .5372 .5386 .5391 .0318 .5383 .0633 .0633 .0876 .0782 .0792 .0792 .0803	10521 FB.36437 10521 FB.36776 FB.36775 10523 FB.36775 105134 FB.77546 10538 FB.26399/3 15372 FB.19604 15386 FB.20074 15391 FB.42493 16331 FB.74690/2 1633 FB.51790/2 10876 FB.35190/2 10876 FB.35619 10782 FB.35619 10792 FB.35619 10792 FB.35619 10792 FB.35230 10803 FB.35232 10805 FB.35232 10805 FB.35232/2 10805 FB.35230/2	Page 12 Page 13 Page 14 Page 14 Page 14 Page 14 Page 15 Page 14 Page 15 Page 16 Page	Page Page	Pear cover. Extractor, for oil sprayer valve	Page 20	Page Page	Page 20 Page	Page Page	Pear cover. Extractor, for oil sprayer valve	Page Page	Pear cover. Extractor, for oil sprayer valve	FB.53437 FB.53437 FB.53437 Extractor, for oil sprayer valve	PB.53437 FB.53437 Extractor, for oil sprayer valve	FB.53437 Extractor, for oil sprayer valve	FB.53437 FB.53437 Extractor, for oil sprayer valve	FB.53437 FB.53437 FB.53437 FB.53437 FB.35529 FB.35239 FD.3529 FD.3	FB.53437 Extractor, for oil sprayer valve	FB.53437 FB.53437 Extractor, for oil sprayer valve

			EN	IGIN	ES						ALL	WAN	CES						1985
Ref	Part No.	Description			-	aft	ips		ircra arrie			Nava				pair			
No.	rart No.	Description	Pegasus VI	Pegasus 30	Mercury 30	Squadrons per 6 I.E. Aircraft	Catapult Ships	Fleet and Light Fleet	Escort	Merchant	Class A	Class B	Class C	Class D and E	Class A	Class B	Repair Ships	Remarks	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	_	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	-
10860 8091 8089 8395 10656 10852 15152	FB.35219 FB.14985 FB.14986 FB.20779 FB.36092 FB.35732 FB.37254	Tools for use with Supercharger—contd. Key, box, for spring drive securing nut Key, box, for impellor gear Key, box, for impellor shaft nut Pincers, for assembling spring drive spring. Sleeve, supporting, for removing impel- lor gear. Sleeve, supporting, for impellor gear Spindle, for inter gear centre (for check- ing end float).	x x x x	x x x x x x x x	x			1	1		1	1	1		6 6 6 3 3 2 3	6 6 6 2 2 2	5 5 5 2 2 1 2	Common also "Taurus".	to 20
8097 10763 10829 10657 29374 32090 29598 29412 32152 32320 29596 29596	FB.20781 FB.41141 FB.41140 FB.36091 FB.51128 FB.51226 FB.51162 FB.51162 FB.51168 FB.52402 FB.57270 FB.51221 FB.51432 FB.57267	Spanner, for inter pinion nut Drift, to assemble impellor to shaft Plug to assemble impellor gear Sleeve to assemble impellor and gear Extractor, for impellor gear Holder, for intermediate gear pinion Sleeve, supporting, for impellor gear Spanner, holder for retaining nuts Spanner for intermediate pinion nut Spindle, for intermediate pinion bearing inner race. Shim, for tool for checking end wobble on impellor. Drift for assembling impellor and Plug impellor gear.	xxxx	xxxx	x x x x x x x x x x x x										6 3 3 3 3 6 6 6 6 3 6 6 6 3 3	5 2 2 2 2 2 2 2 5 5 5 5 2 4 2 2	52222225552	Common also	to

13234 13236	FB.57323 FB.57324	Gauge, length (nominal) Gauge, length, ·002-in.			x 3	1						2 2	2 2	1	1		
13238	FB.57325	o/size. Gauge, length, ·004-in.		x	x 2							2	2	1			
13240	FB.57326	o/size. Gauge, length, ·006-in.		x	x y							2	2	1			
13242	FB.57327	Gauge, length, ·008-in. For centric ising	and	x	x z							2	2	1			
13244	FB.57328	Gauge, bedding (mini- pawl fa	ces	x	x 3							2	2	1			
13246	FB.57329	Gauge, bedding (maxi- driv	ng	x	x x							2	2	1			
13248 32315	FB.57317 FB.57321	mum). gear Jig, centralising Sleeve, for centralising		x	x 3							2 2	2 2	1			
15140	FB.57319	jig. Sleeve, for centralising		x	x							2	2	1			
15107	FB.57346	jig. Driver for lapping cle	itch }	x	x x							2	2	2			
13225	FB.57334	Fixture, lapping blocks in interdiate driving	me-{	x	x x							2	2	2			100
5410	FB.14965	Tools for use with Reduction Ge Extractor, for reduction gear dr		x	x x	1	,	2	2	2	1	3	2	2			
25220 29548	FB,40400 FB,51164	wheel. Extractor, for rear bevel wheel Extractor, for stationary gear and		x x	3							3 3	2 2	2 2			
15136	FB.38304	race. Fixture, for checking backlash	on	x	x x							1	1	1			
25020	FB.40535	reduction gear. Gauge, assembly (from bevel geo	r to	x				2	2	2	2	3	3	3			
25022	FB.40534	face of reduction gear casing). Gauge, assembly (from driving who	el to	x				2	2	2	2	3	3	3			
10878 10670	FB.35623 FB.35171	front cover face). Spanner, for reduction gear nut Spanner, for bevel pinion nut			x x x x	1	1	2	2	2	1	3 3	2 2	2 2		to	
10854 10856	FB.35215 FB.35625	Spanner, for airscrew shaft thrust a Spanner, for airscrew shaft lock (rear).	ut nut		x x x	2	1	2	2	2	1	4 3	3 2	3 2	"Taurus",		O.T.
-									-					-	-	. 3	G

			EN	IGIN	ES						ALL	OWA	NCES						- 0
Ref.	Part No.	Description				oer aft	ips		irera arrie			Nava Stat	l Air ions			pair	200		
No.		Description	Pegasus VI	Pegasus 30	Mercury 30	Squadrons per 6 I.E. Aircraft	Catapult Ships	Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A	Class B	Repair Ships	Remarks	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
5510 29612	FB.19953 FB.52477	Stand, for reduction gear Tool, for assembling stationary gear and bearing.	x x	z	X										2 2	2 2	1		
25250	FB.45706	Wedges, centralising, for checking backlash.	x												12	12	12		
10810	FB.35206	Gauge, centralising, for reduction gear assembly.	x	X				1	1		1	1	1	1	2	2	1		1
13064	FB.35221	Gauge, assembly, from bevel gear to face of reduction gear casing.		x				2	2		2	2	2	2	3	3	3		
18220	FB.40537	Gauge, assembly (from driving wheel to front cover face).		X				2	2		2	2	2	2	3	3	3		
10772 10766	FB.35216/2 FB.35622	Extractor, for rear bevel wheel Extractor, for stationary gear and ball race.		x x											3 3	2 2	1		
10872	FB.35621	Tool, for assembling stationary gear and bearing,		X											2	2	1		
63724 32076 29552 32080 32082	FB.65931 FB.52771 FB.51433/2 FB.53826 FB.53824	Extractor, for oil seal housing Extractor, for rear bevel wheel Extractor, for oil valve casing Gauge, assembly (from bevel gear to face of reduction gear case). Gauge, assembly (from driving wheel			X X X X		1	1	1	1	1 2	1 2	2 1 2	1 1 2	2 2 2 3	21 21 21 23	21 21 21 23		
52552	1.00021	to face of crankcase front cover).			X						2	2	2	2	3	3	3		

10985 10986	FB.53253 FB.53254	Reamer, for bush	x x	x x	x x										3 3	2 2	2 2
59020	FB.63054	Tools for Priming System Spanner, for union	x	x	x	2	1	6	3	2	6	4	4	3	12	10	8
EDE00	1111 00018	Tools for use with Generator Drive															
58598 18227	FB.41563	Extractor, for generator driven bevel Holder, for generator drive shaft	X	X	X			1	1		1	1	1	1	3 3	2 2	2 2
18229	FB.41565	Holder, for universal shaft end (long)	X	X	X			î	1		1	1	1	1	3		2
29609	FB,57262	Tool, inserting and extracting, for	-		X						1	1.	1	1	3	2 2	2
29588	FB.51224	generator driven assembly. Reamer, for universal coupling bush													4	3	3
29424	FB.51438	Tools for use with Induction Elbow Spanner, for induction elbow and volute casing nuts.	x	x	x		ī	3	2	1	3	2	2	1	6	5	4
	Lizeros	Tools for Auxiliary Drive															
29576	FB.51227	Fixture, reaming, for auxiliary drive			X										2	1	1
29606	FB.51434	Insertor and extractor, for auxiliary drive shaft bush.			x										2	2	2
10840	FB.35199	Reamer, for auxiliary drive shaft bush	x	x	X										8	6	4
10822	I/B.35200	Fixture, reaming, for auxiliary drive shaft bush.	x	X											2	1	1
10875	FB.46325	Insertor and extractor, for auxiliary drive shaft bush.	x	х											2	1	1
23028	PTD 40004	Tools for Oil and Petrol Pump Drive															
23028	FB.46004	Holder, for cross drive shaft	X	X	X			1	1		1	1	1		4	2	2
10000	TID BOOM	Tools for Air Compressor Drive															
18236 18234	FB.39979 FB.39977	Holder, for driving shaft	X	X				1	1		1	1	1		4	3	2
18230	FB.39976	Holden for maked	X	X				1	1		1	1	1		4	3 3	2 2
18226	FB.39975		X	X	v			1	1		1	1	1		4	3	2
18272	FB.39978	Omenmon Con boundary and the contract of	X	X	X			1	1		1	1	1		8	6	4
13268	FB.39982	Spanner, for dearing retaining nut Spanner, for 2-in. B.S.P. plug	X	X	X			1	1		1	1	1		8	6	4
44848	FB.65973	Holder, for driving shaft	A	A	X			1	1		1	î	1		1	2	2

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Ref.	Part No	Delindada		1		aft	ips		irera arrie			Nava Stati				pair	50		
No.	Part No	Description	Pegasus VI	Pegasus 30	Mercury 30	Squadrons per 6 I.R. Aircraft	Catapult Ships	Fleet and Light Fleet	Escort	Merchant	Class A	Class B	Class C	Class D and E	Class A	Class B	Repair Ships	Remarks	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)			(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
29750	FB.51220	Tools for Distributor Drive Collar, for use with extractor for dis- tributor drive shaft bush.			x										4	2	2		
18577	FB.36621	Extractor, for distributor drive shaft	x	X	X										2	2	2		
10824	FB.35202 ·	bush. Fixture, reaming, for distributor drive shaft bush.	x	x	x										2	1	1		-
10842	FB.35201/2	Reamer, for distributor drive shaft bush	x	×	x										8	6	4		H
54036 10793	FB.63029 FB.43619/2	Tools for Magneto and Drive Spanner, for magneto securing nuts Fixture, reaming, for magneto spring drive centre bush.	x x	x x	x	2	2	6	4	2	6	4	4	3	10	8	6	1	
10847	FB.43620	Reamer, for magneto spring drive centre bush.	x	x											4	3	3	Required only for engines prior to	
10787	FB.43621	Fixture, reaming, for magneto drive bevel bush.	x	x											1	1	1	Mod. E.1343.	
10845	FB.43622	Reamer, for magneto drive bevel bush	x	x	1								1		4	3	3	J	
10791	FB.46714	Fixture, spring, compressing, for mag- neto driving bevel.	X	X	Z										2	2	2		
10615	FB.34936	Device, timing, for magneto	x	x	X	1	1	3	2	1	3	2	2	2	4	3	2		
10675 54440	FB.38410 FB.57315	Spanner, for magneto coupling jaws Expander, to advance magneto when	X	X	X	1 2	1 2	6	1	1 2	6	1	1 4	1	2 8	2 8	2 6	3 96D (10006 710	
04440	ED.07313	timing.	X	X	X	Z	2	0	4	2	0	4	4	2	8	8	0	36R/13006 FB. 40090* spring	
54446	FB.57314	Spanner, to advance magneto when timing.	x	x	x	1	1	3	2	1	3	2	2	1	4	4	3	clip — alternative tool.	

10506 8017 10530 10532 10534 10528 10526 10524 10522 10520 10518 120287 2156 5373 13090	FB.26486 FB.19160 FB.26407 FB.26583 FB.26582 FB.26459 FB.26460 FB.26461 FB.26462 FB.26463 FB.26464 FB.97332 FB.5427 FB.5427 FB.20130/2 FB.35234	Tools for General Use Bar, tommy Gun, oil, enots Spanner, box, ½ in. B.S.F. Spanner, box, ½ in. B.S.F. Spanner, ½-in. & ½-in. B.S.F. Spanner, ½-in. × ¼-in. B.S.F. Spanner, ½-in. × ¼-in. B.S.F. Spanner, ½-in. × ¼-in. B.S.F. Spanner, ½-in. × ½-in. B.S.F. Spanner, ½-in. × ½-in. B.S.F. Spanner, ½-in. × ½-in. B.S.F. Spanner, 2 B.A. × 4 B.A. Serew driver and guide, for Jubilee Clips. Spanner, box, 2 B.A. × ½-in. B.S.F. Spanner, box, 4 B.A. Spanner, box, 4 B.A.	x x x x x x x x x x x x x x x x x x x	x x x x x x x x x x x x x x x x x x x	x x x x x x x x x x x x x x x x x x x	6 6 6 3 3 3 6 6 6 6 6 6 6 6 6 6 6 6 6 6	4 2 4 4 2 2 2 4 4 4 4 4 2 4	12 3 12 12 6 6 6 6 12 12 12 12 12	8 22 8 8 4 4 4 8 8 8 8 8 4 4 4 8 8 8 8 8	4 1 4 2 2 2 2 4 4 4 4 3	15 6 15 15 10 10 10 10 15 15 15 15 15 15 15	15 6 15 15 10 10 10 10 15 15 15 15 15 15 15	15 6 15 15 10 10 10 10 15 15 15 15 15 15 15 15 15 15 15 15 10 10 10 10 10 10 10 10 10 10 10 10 10	828844448888888888888888888888888888888	30 12 30 30 20 20 20 20 30 30 30 30 30 30	24 10 24 24 15 15 15 24 24 24 24 24 24	20 8 20 20 12 12 12 12 18 18 18 18 18 18	Common also to "Taurus". Common also to "Taurus".	
18547 18548 18549 18625 18624 18635 18623	FB.77616 FB.77617 FB.77618 FB.74797 FB.74792 FB.74796 FB.74788 FB.74784	Tools for Use at Inspection of Suspected Shock-loaded Engines Clamp, for use when testing airscrew shaft for cracks. Clamp, for use when testing airscrew shaft for cracks. Clamp, for use when testing airscrew shaft for cracks. Tool, for cracks. Tool, extension, for test indicator Tool, for test indicator Tool, for test indicator Tool, for use when checking oil transfer housing. Tool, for use when checking front cover	x x x x x x x	x x x x x x	X X X X X X X		1 1 1 1 1	2 2 2 2 2 2	1 1 1 1	1 1 1 1	2 2 2 2 2	1 1 1 1 1	1 1 1 1 1	1 1 1 1	2 2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2		2.5
																			4985

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			ENGINE					ALL	OWA	NCES					
			ENGINE			ircra				al Air			pair		
Ref. No.	Part No.	Description		per graft		arrie			Sta	tions		Ya	rds	bs	Remarks
			Taurus XII	Squadrons 6 I.E. Aircr	Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A	Class B	Repair Ships	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
		SECTION 36R.													
72606	FB.65984	Tools for Use with Crankcase Protector for crankcase and connecting rods (14 per set).	x	14	56	42	4	56	56	56	42	84	84	70	
72844 72846	FB.72530 FB.72531	Drift to assemble sleeve driving gear	x									3	2	2	
72848	FB.66090	Drift to remove sleeve cranks Drift to insert or remove sleeve crank bearing (front).	x									3	2 2 2	2 2	
72850	FB.66091	Drift to insert or remove sleeve crank bearing (rear).	x								1	3	2	2	
72852	FB.66076	Extractor for crankcase front section and front cover.	x		1	1		1	1	1	1	1	1	1	
72854	FB.72529	Extractor for sleeve driving gear	x									2	2	1	
72856 72858	FB.66077 FB.66092	Fixture, inserting for layshafts Pliers to remove sleeve crank bearing circlip.	x x									1 3	2 1 2	1 2	
13124	FB.35228	Pliers for removing bearing retaining rings.	x									3	2	2	
72862 72864	FB.66087 FB.66088	Spanner box, for crankcase bolt nut Spanner, tube, for layshaft retaining nut.	x .	1	3	2	1	4	3	3	2	6 4	5 4	4 3	
53452 72870	FB.71917 FB.72528	Tool for assembling sleeve crank (short) Tool, for assembling sleeve crank (long)	x x									2 2	2 2	1	

73424 54035	FB.66067 FB.57391	Jig, reaming Reamer	x									3	1 3	1 2		4985
120272 54034	FB.95023 FB.66072	Gauge, plug Insertor	X									1	1 1	1		
54030	FB.66025	Tools, for magneto inter. lever bush — Extractor	X									1	1	1		
54028	FB.57385	Reamer	x									3	3	2		
73416	FB.66066	ing:— Gauge plug Jig, reaming	x x									1	i	1	Use 36R/93043 FB.74644.	
54012	FB.57299	Reamer Tools for Auxiliary drive shaft bear-	X									3	3	2		
54009	FB.57298/2	Jig, reaming	X									I	1 3	1 2		
54008 93043	FB.57387/2 FB.74644	Fixture, assembly Gauge, plug	X X									1	1	1		
73404	FB.66070	Tools, for pump drive bush :— Drift, for extracting	x									2	2	2		
120161	FB.66075	Extractor, for starter jaw	x		1	1	1	1	1	1		2	2	1	of rear cover.	7
120301	FB.105154/2	Spanner, for starter nuts	x	2	4	3	2	5	4	4	2	6	5	4	Also used for two re- taining nuts at top	27
13090	FB.35234	Spanner, box, 4 B.A. (for tachometer casing nuts).	X	1	4	3	2	4	3	3	2	6	5	4		
120453	FB.105140	Spanner, tube, for auxiliary driveshaft nut.	x	1	4	3	1	4	3	3	2	6	5	4		
54450	FB.57389	Spanner, for union body and union nut (2 per set).	X	2	4	2	2	4	2			4	4	3		
54036 53208	FB.63029 F.B.65986	Tools for Use with Rear Cover Spanner, universal box, $\frac{\pi}{6}$ in. B.S.F. Extractor, for distance piece	X X	3	8 2 4	6 2 2	3 1 2	10 3 4	8 2 2	8 2 2	6 2 2	12 3 4	12	8 2		
72867	FB.79996 FB.79992	Bracket, steady, for spanner Spanner, for nut	X X									4	3 3	3		
72877	FB.79991 —	Tool, for tightening sleeve crank lock- nut group, comprising :—										2				
72873 72874	FB.79993 FB.72532	Bracket, steady, for spanner Holder, for sleeve crank Spanner, for nut	X X X									3 14 4	2 14 3	2 14 3		
		Tool for tightening retaining nut on sleeve cranks group, comprising :—														

			ENGINE	-				ALI	OWA	NCES						
Ref.	Part No.	Description		per	(Airers Carrie				al Air			pair	10		
			Taurus XII	Squadrons 6 I.E. Aircr	Fleet and Light Fleet	Escort	Merchant	Class A	Class B	Class C	Class D and E	Class A	Class B	Repair Ships	Remarks	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	, ,	(16)	_
73428 73430 93074 73432 73434 88251 72880 72882	FB.66073 FB.66068 FB.95024 FB.66063 FB.66064 FB.66064/4 FB.66094	Tools for Use with Rear Cover—contd. Tools, for driving shaft bush:— Drift and stand for extracting Fixture, inserting Gauge, plug Jig, reaming Reamer (complete with arbor) Reamer (spare) Tools for Use with Front Cover Holder for pump drive shaft Pliers for removing driven gear circlip	x x x x x x		1 1	1 1		1 1	1 1	1	1 1	1 1 1 1 1 3	1 1 1 1 1 3 3	1 1 1 1 1 2 2 1 2		
120456	FB.105170	Tools for Use with Oil Sump Spanner for oil sump nuts	x	2	6	4	1	6	0	6	4	8	8	6		
72884 72886 88410	FB.71944 FB.71947 FB.80005	Tools for Use with Crankshaft Drift for crankshaft gear Drift for bearing inner race (rear) Extractor and insertor for bearing	x x x									2 2 2	2 2 2	2 2 2		
120285 72894 72892	FB.79966 FB.71945 FB.71949	inner race (front). Extractor for bearing inner race (rear) Extractor for crankshaft gear Extractor for reduction gear driving	x x x		1	1		1	1	1	1	2 2 2	2 2 2	2 2 2		
72900	FB.71939	wheel. Holder for reduction gear driving wheel	z		1	1		1	1	1	1	2	-	-		

72966	FB.72616	Insertor and extractor for centre bearing.	x	1 1	-	1	1	1		1 1	1	1	
		Spanner, box, for oil jet (use 36R/10530 FB.26407 in general section).	x										
72912	FB.72511	Spanner for front bearing retaining nut	x	1	1	1	1	1	1	2	2	1	Required for early type Taurus XII,
100110	TID oznie												XVI engines fitted with nut F.B.S.191.
72904	FB.97346 FB.72502	Spanner for front bearing retaining nut Spanner for bearing retaining nut	x	1	1	1	1	1	1	3 2	2 2	1	Required for early type Taurus XII,
87980	FB.71911	Summer for baseling with later and											XVI engines fitted with nut F.B.S.187.
0.1300	FB.71011	Spanner for bearing retaining nut Spanner for crankpin oil plug (use FB.79992 in crankcase section).	x							3	2	2	
72906	FB.71948	Spanner for reduction gear driving wheel nut.	x	1	1	2	1	1	1	3	2	2	
72962	FB.72515	Tool for assembling bearing on reduction gear driving wheel.	x	1	1	1	1	1	1	2	2	1	
72964	FB.72516	Tool for dismantling bearing on reduction gear driving wheel.	* x	2	1	2	1	1	1	2	2	2	
89893	FB.87063	Wrench for turning engine Disc, timing, for engine group, com-	x	1	1	1	1	1		2	2	2	
72888	FB.72509	prising:— Disc	x	1	1	1	1	1	1	2	2	2	
72890	FB.66078	Pointer Stand, for assembling crankshaft group,	x	1	1	1	1	1	1	2 2	2 2	2	
72914	FB.71901	comprising:— Bolts, lifting (4 per set)	x							Sets 3	Sets 3	Sets 3	
120082	FB.97230	Bracket, clamping, for connecting rods	x							2	2	2	Existing stocks of 36R/72918 FB.71907 may be supplied in
120083	FB.97231	Bracket, clamping, for connecting rods	x							2	2	2	lieu. Existing stocks of 36R/72922 FB.71905
120084	FB.97229	Fixture	x							1	1	1	may be supplied in lieu.
72920 72924	FB.71902 FB.66098	Ring, adaptor	X							1	1	1	
	FB.66097	Stand	X							2	1 2	1 2	

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			ENGINE					ALL	OWAN	CES						
			ENGINE			irera				l Air			pair			
Ref.	Part No.	Description		per		arrie	2		Star	ions		11	rds	Ships	Remarks	
2317.			Taurus XII	Squadrons 6 L.E. Aircr	Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A	Class B	Repair Sh		
(1)	(2)	(3)	(4)	(5)		(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
72928 72930 72932 72932 74016 77016 77096 74003 74004 74005	FB.71931 FB.71932 FB.71933 FB.71919 FB.97232 FB.97233 FB.79934 FB.97234 FB.97235 FB.97236	Tools used in Conjunction with Stand for Assembling Crankshaft. Bar, alignment Bar, alignment Extractor for front and rear crankshafts Expander, Maneton (front) Expander, Maneton (rear) Pilot, for crankshaft centre Spanner, for crankshaft bolt (front), group, comprising :— Holder Holder Spanner Spanner for crankshaft bolt (rear) group, comprising :—	x x x x x x x x x x x x x x x x x x x									22223331	2 2 2 2 2 1 2 2 2 2	1 1 1 2 2 2 1 2 2 2 1		
74013	FB.97238	Spanner	X									2 2	2 2	2		
72950	FB.77566	Spanner for retaining bolt nut (2 per set).	X									4	4	2		
72956	FB.72513	Steady, for crankshaft centre	x								1	2	2	1		
72958	FB.72510	Steady, for assembling shaft Tool for assembling bearing sleeve, group, comprising:—	X									1	1	1		
88201	FB.84396	Plate, locating	×									2	2	1		
72960	FB.71936	Tool, assembling	X			7						2	2	1		

						9	1		- 1			0. 1	0. 1	4		
72940	FB.71935/2	Tool for dismantling bearing sleeve Tools for crankshaft bush:	X	1						1		2	2	1		
73436	FB.72506	Extractor	X		1	1		1	1		1	2	2	2		
73438	FB.72503	Fixture, reaming	x		1	1		1	1		1	1	2 1	1		
120277	FB.95027	Gauge, plug	x		2	1	1	2	2		1	3	2	2		
73440	FB.72504	Holder for reamer	x		1	1	- 1	1	1		1	1	1	1		
73442	FB.72669	Reamer	x		3	2		3	3		2	4	4	3		
73444	FB.72505	Tool, inserting	x		1	1		1	1		t	1	1	1		
10222	2.0000	Tools for Use with Connecting Rod			-								1			
72968	FB.65999	Drift for inserting artic rod pin	x				- 0			9	3	3	2	2		
72970	FB,66000	Drift for extracting artic rod pin	x					4				3	2 2	2		
72972	FB.65932	Jig for drifting out artic rod pin	x									2	1	1		
12012	a destruction	Pliers for removing artic rod pin circlip	x								- 4	-			Use 36R/72882 FB.66094	
		a recto to temo tad draw to a par entemp	7		3) (in front cover section.	
72976	FB.72522	Tool for assembling artic rod pin	x									4	3	3		
12010	1 1011110000	circlip.														
92774	FB.74621	Tool for compressing oil retainer	x									2	2	1		
02113	23712081	springs.														
		Tools for Use with Piston			1 8											
72614	FB.65990	Clip for piston and cylinder head rings	x	1	3	2	1	4	3	3	2	5	4	3		
54260	FB.57411	Pliers for removing gudgeon pin circlip	x	1	4	3	1	5	4	4	3 2	6	5	3		44
72618	FB.65992	Tool, inserting, for gudgeon pin circlip	x	1	3	3 2	1	4	3	3	2	5	4	3		3
10010	4.0300002	Tools for Use with Cylinders and		0			91		1 6 3							-
		Sleeves														
72512	FB.69551	Spanner for exhaust snout nut	x	3	6	5	3	8	8	6	4	12	10	8		
54054	FB.46045/2	Spanner for sparking plug	X	6	12	8	3	12	12	12	8	15	15	12		
120457	FB.105191	Spanner for relief valve body	x	1	3	2	1	4	3	3	2	5	5	4		
53220	FB.65993	Hook for locking plate	x	1	6	4	1	6	6	6	3	10	8	6		
72622	FB.65994	Holder for cylinder sleeve (for use when	x	1	2	2	1	3	2	2	2	6	6	4		
	2210002	tightening sleeve ball housing nuts).						1								
54258	FB.57296	Indicator, piston, top dead centre	x	1	2	1	1	2	2	1	1	3	3	2		
54272	FB.57409	Pilot for cylinder sleeve	x	2	6	4	1	12	10	10	6	18	18	12		
0.441	2 25107 200	Spanners for cylinder and cylinder			100				1	1			1			
		head nuts, comprising :-	1													
98086	FB.90121	Adaptor, ratchet	x	1	4	3	1	6	5	5	3	8	6	5		
98090	FB.90130	Handle for spanner (for slackening	x	2	4	3	1	6	5.	5	3	8	-6	5		
00000	22100200	nuts).					- 11	131		1		100	150			
92450	FB.90120/2	Spanner for cylinder nuts (extended)	x	2	4	3	1	6	5	5	3	10	8	6		
98096	FB.90132	Spanner for cylinder nuts	x	2 2	4	4	.1	6	5	5	3	10	8	6	Use only for running down	
20000	2.35,00402	The state of the s					1			1		1			nuts.	4
98098	FB,90124	Spanner for cylinder head nuts	x	2	4	3	1	6	5	5	3	10	8	6		9
98100	FB.90119	Wrench, "Sunnen" tension	x	1	4	3	1	6	5	5	3	8	6	5		4985
20200		117-50-017			-	-	-	-	-	-	-		-	-	-	-

			ENGINE	1				ALL	OWAN	ICES						000
Ref.	Part No.	Description	MINGHIN	per		ircra arrie			Nava Stat				pair	38	Remarks	
No.	Tare No.	Description	Taurus XII	Squadrons per 6 I.E. Aircraft	Fleet and Light Fleet	Escort	Merchant	Class A	Class B	Class	Class D and E	Class A	Class B	Repair Ships	Remarka	
(1)	(2)	(3)	(4)	(5)		(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
53232 120150 54276	FB.57293 FB.97252 FB.46049	Tools for Use with Cylinders and Sleeves—contd. Spanner for induction belt bolts Spanner, flexible	x x x	2 1 1	4 3 4	3 2 3	2 1 1	6 4 5	5 3 4	5 3 4	3 2 2	10 6 8	8 5 8	6 4 6	36R/120647 FB.123831 together with 36W/ 130141 FB.113481 can be supplied in lieu.	20
120290	FB.97333	Spanner for 2 B.A. nut in locking plate	x	2	4	3	1	6	5	5	3	10	8	6	be suppried in neu.	
72638	FB.65987	Tool, assembly, for cylinder Tool for assembling and removing	X	1	3	3 2 2	1	4	4	3	2 2	5	4	4		
87832	FB.79940	cylinder head ring.	X	1	3	2	1	4	4	3	2	6	6	4		
72640	FB.72611	Tool, for removing sleeve contracting	X	1	2	2	1	3	2	2	1	5	4	3		
53802	FB.72580	ring.		1	2	2	1	2	2	2	1		3	2		
00002	FD.72080	Gauge, 14 mm. thread, for spark plug adaptor.	X.	1	2	2		2	2	2		4	.0	2		
53804	FB.57424	Tap, 14 mm., for spark plug adaptor	х	3	10.	8	2	10	10	10	6	12	12	12		
10675	FB,38410	Tools for Use with Magneto and Drive Spanner for magneto driving drum Tool to advance magneto when timing	x	1	1	1	1	1	1	1	1	2	2	23	*	
54440	FB.57315	group, comprising :— Expander (2 per set)	X	2	6	4	2	6	4	4	2	8	8	6		
54446	FB.57314	Spanner	X	1	3	4 2	1	3	2	2	1	4	4	3		

3.72537 3.65988/2 3.65996 3.92635/3 3.36776 3.36775 3.72539 3.72539	Holder for magneto driving drum Spanner for sliding spindle retaining nut. Device, for timing magneto group, comprising:— Device timing Pointer Tools for Use with High Tension Wires Spanner, for spark plug elbow Tools for Use with Oil Pump Key, adjusting, for relief valve Spanner, for relief valve locknut Extractor, for oil pump	x x x x x x x x x x x x x x x x x x x	1 3	3 6 6	2 2 4	1 2	3 3 8	2 2 6	2 2	2 2	2 3 4 4	3 3	2 2 2 8	Existing stocks of FB. 65988 can be modified to meet this require- ment.	
3.92635/3 3.92635/3 3.36776 3.36775 3.72539	nut. Device, for timing magneto group, comprising: Device timing Pointer Tools for Use with High Tension Wires Spanner, for spark plug elbow Tools for Use with Oil Pump Key, adjusting, for relief valve Spanner, for relief valve locknut Extractor, for oil pump	x x x	3	3 6 6	2 2 4	1 2	3	2	2	2	4	3	2	65988 can be modified to meet this require-	
3.92635/3 3.92635/3 3.36776 3.36775 3.72539	Pointer Tools for Use with High Tension Wires Spanner, for spark plug elbow Tools for Use with Oil Pump Key, adjusting, for relief valve Spanner, for relief valve locknut Extractor, for oil pump	x x x x	3	3 6 6	2	1 2	3	2	2	2	4	3	2	65988 can be modified to meet this require-	
3.92635/3 3.36776 3.36775 3.72539	Tools for Use with High Tension Wires Spanner, for spark plug elbow Tools for Use with Oil Pump Key, adjusting, for relief valve Spanner, for relief valve locknut Extractor, for oil pump	x x x	3	6	4	2									
3.36776 3.36775 3.72539	Spanner, for spark plug elbow Tools for Use with Oil Pump Key, adjusting, for relief valve Spanner, for relief valve locknut Extractor, for oil pump	x x	1 1	6		2	8	6							
3.36776 3.36775 3.72539	Spanner, for spark plug elbow Tools for Use with Oil Pump Key, adjusting, for relief valve Spanner, for relief valve locknut Extractor, for oil pump	x x	1 1	6		2	8	6	6	4	12	12	8		
3.36775 3.72539	Key, adjusting, for relief valve Spanner, for relief valve locknut Extractor, for oil pump	X	1		4								1		
3.72539	Spanner, for relief valve locknut Extractor, for oil pump	X	1			1	9	6	6		10	o.	0		
	Extractor, for oil pump	X		6	4	i	8	6	6	4	10 10	8 8	6		
	Spanner, for pipe connection	x	1	6 2 3	1 2	1	3 4	2 3	2 3	1 2	3 5	2 4	2 3		2
	Tools for Use with Supercharger														u
3.72543	Drift and stand, for assembling impellor	x									2	2	2		
3.79939	Drift, for inserting oil tube in main	x										. 0	0		
77000	driving shaft.										0.	2	2		
	shaft.	X	1				1 8				2	2	2		
3.72544	Extractor, for intermediate pinion	x									2	2	2		
	Fixture, for checking end wobble on		100												
3,66080	impellor group, comprising :-														
3.66039	Fixture	X									2	2	2		
	Gauge, for checking clearance between								8		*		*		
	comprising :-							4							
3.72541	Gauge	X									1	1	1		4985
3.4	77663 72544 66080 66039	driving shaft. Extractor, for oil tube in main driving shaft. Extractor, for intermediate pinion spindle. Fixture, for checking end wobble on impellor group, comprising: Blocks (2 per set)	72541 Gauge Drift, for inserting oil tube in main driving shaft. Extractor, for oil tube in main driving shaft. Extractor, for intermediate pinion spindle. Fixture, for checking end wobble on impellor group, comprising: Gauge, for checking clearance between impellor and volute casing group, comprising: Gauge	Drift, for inserting oil tube in main driving shaft.	Drift, for inserting oil tube in main driving shaft.	Drift, for inserting oil tube in main x driving shaft.	Drift, for inserting oil tube in main driving shaft. Extractor, for oil tube in main driving shaft. Extractor, for intermediate pinion spindle. Fixture, for checking end wobble on impellor group, comprising: Blocks (2 per set)	Drift, for inserting oil tube in main driving shaft. Extractor, for oil tube in main driving shaft. Extractor, for intermediate pinion spindle. Fixture, for checking end wobble on impellor group, comprising: Blocks (2 per set)	Drift, for inserting oil tube in main x driving shaft.	Drift, for inserting oil tube in main driving shaft. Extractor, for oil tube in main driving shaft. Extractor, for intermediate pinion spindle. Fixture, for checking end wobble on impellor group, comprising: Blocks (2 per set) x Fixture x Gauge, for checking clearance between impellor and volute casing group, comprising: Gauge x Gauge x Gauge x Gauge x	Oritt, for inserting oil tube in main driving shaft. Extractor, for oil tube in main driving shaft. Extractor, for intermediate pinion spindle. Fixture, for checking end wobble on impellor group, comprising: Blocks (2 per set) x Fixture x Gauge, for checking clearance between impellor and volute casing group, comprising: Gauge x Gauge x	79939 and distance piece to impellor shaft. Drift, for inserting oil tube in main driving shaft. Extractor, for oil tube in main driving shaft. Extractor, for intermediate pinion spindle. Extractor, for intermediate pinion spindle. Fixture, for checking end wobble on impellor group, comprising: Blocks (2 per set) x Fixture x Gauge, for checking clearance between impellor and volute casing group, comprising: Gauge x Gauge x	79939 and distance piece to impellor shaft. Drift, for inserting oil tube in main driving shaft. Extractor, for oil tube in main driving shaft. Extractor, for intermediate pinion spindle. Extractor, for intermediate pinion spindle. Fixture, for checking end wobble on impellor group, comprising: Blocks (2 per set) x Fixture x Gauge, for checking clearance between impellor and volute casing group, comprising: Gauge x Gauge x Gauge x Gauge x	79939 and distance piece to impellor shaft. Drift, for inserting oil tube in main driving shaft. Extractor, for oil tube in main driving x shaft. Extractor, for intermediate pinion x spindle. Extractor, for checking end wobble on impellor group, comprising: Blocks (2 per set) x 2 2 2 2 Fixture x 2 2 2 2 Gauge, for checking clearance between impellor and volute casing group, comprising: Gauge x 1 1 1 1 Gauge x 1 1 1 1	79939 And distance piece to impellor shaft. Drift, for inserting oil tube in main driving shaft. Extractor, for oil tube in main driving shaft. Extractor, for intermediate pinion spindle. Extractor, for intermediate pinion spindle. Fixture, for checking end wobble on impellor group, comprising: Blocks (2 per set) x Fixture x Gauge, for checking clearance between impellor and volute casing group, comprising: Gauge x Gauge x 1 1 1 1

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Ref. No.	200		ENGINE	er oft	~	ircra arrie				al Air		Re Ya	pair ards	Ships	Remarks
	Part No.	Description	Taurus XII	Squadrons per 6 I.E. Aircraft	Fleet and Light Fleet	Escort	Merchant	Class A	Class B	Class C	Class D and E	Class A	Class B	Repair Sh	Remarks
(1)	(2)	(3)	(4)	(5)			(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
8395	FB.20779	Tools for Use with Supercharger—contd. Pincers, for assembling spring drive	x ·									3	2	2	Common also to Pegasus and Mercury.
2004	FB.57285	springs. Pliers, for oil tube circlip Spanner, for front and rear impellor	x									3	2	2	and morouty:
2998	FB.72549	shaft nuts group, comprising:— Holder, for shaft	x		1 3							2	2	2	
3000	FB.72548	Spanner, holder, for shaft	x x			9						3 6	3 5	2 5	Common also to Pegasus
412	FB.51168	Spanner, for nut	X				1. 7							0	and Mercury.
3004	FB.72546	Spindle, for checking end float on inter gear assembly. Fixture for lapping clutch blocks group,	x									2	2	1	
3450	FB.66050	comprising:— Adaptor	x									2 2	1	1	
3452	FB.66055 F.B.66048	Driver	x x									2 2	1	1	
4060	F.D.000930											-	3		
2604	FB.65997	Tools for Use with Reduction Gear Wrench, for turning engine	x	1	3	2	1	4	3	3	2	5	4	3	N
8409	FB.87073	Base for oil retainer cover for removing	x		1	1	1	1	1	1	1	5 2	2	3 2	
8160	FB.87074	oil retainer. Drift, for removing oil retainer	x		1	1	1	1	1	1	1	2	2	2	
2808	FB.72573	Drift, for airserew shaft front bearing	X		1 7							2 2	2 2 2 2	2 2 2	
72804 72808	FB.72571 FB.72570	Drift, for bevel gear thrust bearing Drift, for bevel pinion thrust bearing	X X									2 2	2	2	

72812	FB.72559	Extractor, for bevel pinion thrust bear-	x	1.1	1	1	1	1	1	1	2	2	2		
77864	FB.74798	ing. Extractor, for oil seal housing	x	1		1				1	2	2	1		
72810	FB.72560	Extractor for rear bevel gear	x			1					2	2 2	2		
		Fixture, for checking backlash group,													
come !		comprising :-											1		
72816	FB.72565	Bush, for adaptor	Z								7	1	1		
72818 72820	FB.72561 FB.79942	Gauge, pressure, and adaptor	X								1	î	i		
72822	FB.72562	Ring, adaptor	x			1					î	î	î		
72824	FB.72572	Gauge, depth (face of reduction gear	X	1	1		1	1	1	1	2	2	2		
12021		case to rear bevel gear).													
72826	FB.72575	Holder for stationary gear	X					2	- 1	-	1	1 2	1		
98184	FB.87075	Pilot, for assembling oil retainer cover	X	1	1	1	1	1	1	1	2	2	2	Use 36R/13124 FB.35228	
		Pliers, for retaining ring	x											in crank-case section.	
120226	FB.97269	Ring, distance, for assembling stationary	x	1 1							2	2	2	AND DESIGNATE DESIGNATIONS	
120/220	2 25.0 7200	gear.	-												
10670	FB.35171	Spanner, for bevel pinion nut	x								3	2	2	Common also to Pegasus	
Donate!	600 000000							1			0	0	2	and Mercury.	
72830	FB.72557	Spanner, for retaining nut	X								3	2	1	Required for engines prior	CO
72832	FB.72558	Spanner, for thrust nut	x								1	-	1	to Mod. E.676.	01
98190	FB.79972	Spanner, for thrust nut	x								3	2	2	Required for engines sub-	
DOXEG	2 20110011	aparate and a second									1	19		sequent to Mod. E.676.	
63732	FB.71940	Stand, for reduction gear	x								2 2	1	1		
72836	FB.72576	Stand, for reduction gear	X								2	1	1		
72838	FB.72577	Tool for assembling front bearing,	x								2	1	1		
		stationary gear and oil seal housing on airscrew shaft.													
1		Tool for extracting airscrew shaft from													
		front bearing and reduction gear case									1				
		Group comprising :-	-									1	1		
72840	FB.72569	Extractor	X								2 2	1	1		
72842	FB.72578	Pedestal for reduction gear case	X								2	1	1		
		Tool, for inserting oil retainer in oil re- tainer cover, Group comprising:													
98208	FB.79973	Base	x	1	1	1	1	1	1	1	2	2	2		
98210	FB.79974	Drift	x	1	1	1	1	1	1	1	2 2 2	2 2 2 1	2 2 2		
88403	FB.79975	Ring, locating	x	1	1	1	1	1	1	1	2	2	2		4985
74017	FB.80088	Fixture for extracting bevel pinion bush	x								1	1	1		36

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Ref. No.			ENGINE					AL	LOWA	ANCES	3			,	-	688
	Part No.	No. Description		per raft		Airera Carrie				al Air		Re Y:	pair	ps	. Remarks	
	Part No.		Taurus XII	Squadrons 1 6 I.E. Aircr	Fleet and Light Fleet	Escort	Merchant	Class A	Class B	Class C	Class D and E	Class A	Class B	Repair Ships	avenuar na	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	-
74007 88206 29708 20014	FB.80081 FB.80074 FB.80082 FB.80085	Tools for Use with Reduction Gear— contd. Fixture for inserting bevel pinion bush, Group, comprising:— Adaptor Base	x x x x									1 1 2 1	1 1 2 1	1 1 2 1		8
88214 74002 69354	FB.80023 FB.80019 FB.65912	Ring, clamping	x x x									1 1 3	1 1 2	1 1 2		
73006 73008	FB.72594 FB.72597	Tools for Use with Auxiliary Drive Drift and stand, for auxiliary drive shaft Holder, for auxiliary drive shaft Insertor and extractor for ball bearing and "Gits" oil seal, Group comprising:—	x x		1	1		1	1	1		1 2	1	1		
73010	FB.74631 FB.72595	Bush Insertor and extractor	x		1	1	1	1 1	1	1	1	2 2	2 2	1		

	FB.88091	Pilot, for engine bearer bolt (4 per set)	x	Set 1	Sets	Sets		Sets	Sets 4	Sets		Sets 6	Sets	Sets 5	and Mercury.	9000
120287 2132 10506	FB.97332 FB.2319 FB.26456	Screw driver, for Jubilee clips Bar, tommy, 1 in. diameter Bar, tommy, 1 in. diameter	x x x	6 6	12 12 12	8 8 8	4 4 4	15 15 15	15 15 15	15 15 15	8 8	30 30 30	24 24 24	18 20 20	Common also to Pegasus	
10528 10528 2156	FB.26459 FB.5427	Spanner, $\frac{1}{2}$ in. \times $\frac{1}{2}$ in. B.S.F Spanner, $\frac{11}{2}$ in. \times $\frac{3}{2}$ in. B.S.F Spanner, box, 2 B.A. \times $\frac{1}{2}$ in. B.S.F.	x x	3 6	6 12	4 8	2 4	10 10 15	10 10 15	10	4 8	20 20 30	15 24	12 12 18	and mercury.	
10524 10526	FB.26461 FB.26460	Spanner, 7 in. X in. B.S.F	x	3 3	6 6	4	2 2	10	10 10	10	4	20 20	15 15	12 12	Common also to Pegasus and Mercury.	
10520 10522	FB.26463 FB.26462	Spanner, ¼ in. × ¾ in. B.S.F Spanner, ¼ in. × ¾ in. B.S.F	x x	6	12	8	4 4	15 15	15 15	15 15	8	30 30	24 24	18 18		
10518	FB.26464	Spanner, 2 B.A. × 4 B.A	x	6	12	8	4	15	15	15	8	30	24 24	18		
54050 10530	FB.63076 FB.26407	Spanner, Universal box, 2 B.A Spanner, box, ½ in. B.S.F	x	6	12 12	8 8	4 4	15 15	15 15	15 15	8	30 30	24 24	20 20	and mercury.	
8017	FB.19160	Gun, oil, "Enots"	x	1	3	2	1	6	6	6	2	12	10	8	Common also to Pegasus and Mercury.	
53256	FB.74759	Spigot (for gear box)	x	i	2	i	1	2	2	2 2	1	3	3	2		
53252 72656	FB.65928 FB.74762	Fixture, alignment Mounting, adaptor (engine substitute)	x x	1	2 2 2	1	1 1	2 2	2 2 2 2	2 2	1	3	3	2 2		3/
53250	FB.74760	Tools for Use with Accessory Gear Box Tools for lining up gear box with drive on engine group, comprising: Adaptor (for drive on engine)	x	1	2	1 1	1	2 2	2	2 2	1	3	3	2 2		**
73466	FB.66065	Reamer	x								, X	3	3	2	in rear cover section.	
33000	000110700	Jig, reaming	x									2			Use 36R/73432 FB.66063 in rear cover section.	
54090 93114	FB.66036 FB.95025	Fixture, inserting Gauge, plug	X X				1					1	1	1		
54088	FB.66035	Extractor	x									1	1	1		
54084	FB.66029	Reamer Tools for Layshaft housing bush :	x									3	3	2		
54082	FB.66028	Jig, reaming	x				- 1					1	1	1	Use 36R/93043 F.B.74644 in rear cover section.	
		Gauge, plug	x									2		3		
54078 73458	FB.72671 FB.72668	Extractor Fixture, inserting	x									1	1	1		
2000		Tools for pump drive housing bush :-						. 1		1						
		Tools for Use with Oil and Petrol Pump Drive			- 1		- 1							- 4		

