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# ADMIRALTY FLEET ORDER

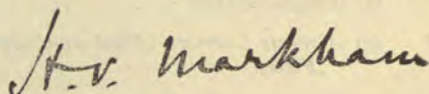
## BRISTOL AERO ENGINES—ESTABLISHMENT OF TOOLS

ADMIRALTY, S.W.1,

27th May, 1943.

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,



**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.*

NOTE:—The scale of distribution is shown in the Admiralty Fleet Order Volume, 1941, Instructions, paragraph 10.

Head of "P" Branch

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## 2461.—Bristol Aero Engines—Establishment of Tools

(N.S./A.M.R. 322/43.—27.5.1943.)

The issue of engine tool kits for maintenance and repair of Pegasus III, VI, 30, Mercury 30 and Taurus II and 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. Tools 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. Perseus XII and Mercury VIII tools will continue to be supplied as at present.

4. Accessory and salvage tools will be the subject of a further order.

5. The tools allowed will, broadly, limit the work which can be undertaken by these services to the following:—

- |   |  |
|---|--|
| (a) Squadrons ... ..                                    | Daily inspections.<br>Daily maintenance.<br>Minor inspections.<br>Valve servicing.   |
| (b) Catapult Ships ... ..                               | As for squadrons.  |
| (c) Aircraft Carriers ( <i>Fleet and Light Fleet</i> ). | Major inspections.<br>Minor repairs and replacements which involve minor stripping only.<br>Shock loading within the limits laid down in A.Ps. 1451D, 1491B and D, 1707A.<br>Changing of engines.<br>Top overhaul. |
| (d) Aircraft Carriers ( <i>Escort</i> ) ... ..          | As for (c) but on a reduced scale and excluding major inspections.   |
| (e) Aircraft Carriers ( <i>Merchant Aircraft</i> ).     | As for Air Stations, Classes "D" and "E", with the addition of changing engines.   |
| (f) Naval Air Stations (Classes "A", "B" and "C")       | Major inspections.<br>Minor repairs and replacements which involve minor stripping only.<br>Shock loading within the limits laid down in A.Ps. 1451D, 1491B and D, 1707A.<br>Changing of engines.<br>Top overhaul. |
| (g) Naval Air Stations (Classes "D" and "E").           | Daily maintenance.<br>Daily inspections.<br>Minor inspections.<br>Valve servicing.<br>Minor repairs by replacement with complete assemblies which do not involve removal of engine from air-frame.                 |
| (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.<br>(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).   |

6. 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.

7. To ensure economy, demands for tools are to be limited to immediate requirements.

8. 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.

Ref. No.	Part No.	Description	ENGINES			ALLOWANCES												Remarks
			Pegasus VI	Pegasus III and 30	Mercury 30	Squadrons per 6 I.E. Aircraft	Catapult Ships	Aircraft Carriers			Naval Air Stations			Repair Yards		Repair Ships		
								Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A		Class B	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
<b>SECTION 36R</b>																		
<i>Tools for Crankcase</i>																		
2162	FB.7781/2	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	FB.21712*	Protector, for connecting rods and crankcase.	x	x		9	6	36	27	9	54	45	27	27	90	63	54	
13073	FB.57255																	
63626	FB.65972			x		9	6					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	1	1	2	2	2	
13122	FB.35227	Remover, for crankcase circlips ...	x	x	x										3	2	2	
<i>Tools for Rear Cover</i>																		
5377	FB.22817	Spanner, box, for oil filter cap ...	x	x	x	2	1	2	2	5	4	4	4	6	5	4	2	
13063	FB.57273	Extractor, for inertia starter jaw ...	x	x	x		1	1	1	1	1	1	1		2	1	1	
10774	FB.35217	Extractor, for gun gear shaft bush ...	x	x	x										1	1	1	
18432	FB.40395	Fixture, pressing in for gun gear shaft bush.	x	x	x										1	1	1	
10821	FB.51437	Jig, reaming (use up stocks of FB.35198) for gun gear shaft bush.	x	x	x										1	1	1	
10838	FB.35197	Reamer, for gun gear shaft bush ...	x	x	x										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	
10814	FB.35624	Jig, reaming, for crankshaft tail piece bearing.	x	x											1	1	1	
10830	FB.35187	Reamer, for crankshaft tail piece bearing.	x	x											4	3	3	
29572	FB.51739	Jig, reaming, for crankshaft tail piece bearing.			x										1	1	1	
29590	FB.51737	Reamer, for crankshaft tail piece bearing.			x										4	3	3	
<i>Tools for Oil Sump</i>																		
54042	FB.63028	Spanner, box, 1/4-in. x 5/8-in. B.S.F., for oil sump nuts.	x	x	x	3	2	4	4	4	8	6	6	6	12	10	10	
53450	FB.66060	Spanner, box, 1-in. B.S.F., for breather tube connection.		x											3	2	2	
<i>Tools for Crankshaft</i>																		
18250	FB.41011/2	Bar, alignment, for crankshaft front and rear.	x	x	x										5	4	4	
10616	FB.35218	Disc, for timing engine... ..	x	x	x		1	1	1	1	1	1	1	1	2	2	2	
10650	FB.35176	Pointer, for timing engine ... ..	x	x	x		1	1	1	1	1	1	1	1	2	2	2	
18210	FB.39936	Expander, Maneton, for crankshaft, rear.	x	x	x										5	4	4	
13278	FB.34941	Extractor and insertor, for crankshaft oil sleeve.	x	x											2	1	1	
120023	FB.97300	Adaptor for extractor, for crankshaft inner races.			x										2	2	2	
10758	FB.29580*	Adaptor for extractor, for use on front end of crankshaft.	x	x	x		1	1	1	1	1	1	1	1	2	2	2	
120024	FB.90164																	
13206	FB.34942*		Adaptor for extractor, for use on rear end of crankshaft.	x	x	x										2	2	2
120020	FB.90163			x	x	x												
2186	FB.10245*	Tool, assembling and extracting, for cam sleeve.	x	x	x		1	1	1	1	1	1	1	1	2	2	2	
120019	FB.90165			x	x	x												
13218	FB.34939	Extractor, for inner races of front and rear crankshaft bearings.	x	x	x										2	2	2	
2191	FB.15010	Spanner, for extractor FB.10245 and FB.90165.	x	x	x		1	1	1	1	1	1	1	1	2	2	2	
10785	FB.45728	Fixture, assembly, for crankshaft, front and rear.	x	x	x										2	2	2	
18244	FB.39900	Jack, for insertion between crankwebs	x	x											1	1	1	
29394	FB.51163	Jack, for insertion between crankwebs			x										1	1	1	

(03400)

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Ref. No.	Part No.	Description	ENGINES			ALLOWANCES													Remarks
			Pegasus VI	Pegasus III and 30	Mercury 30	Squadrons per 6 I.E. Aircraft	Catapult Ships	Aircraft Carriers			Naval Air Stations				Repair Yards		Repair Ships		
								Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A	Class B			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
<i>Tools for Crankshaft—contd.</i>																			
20144	FB.97331	Piece, distance, for pressing front cover bearing on crankshaft and for use as a slave race.	x	x	x		1	1	1	1	1	1	1	1	2	2	2	FB.37329* can be modified to suit.	
10646	FB.35174	Pliers, for crankshaft oil sleeve circlip	x	x	x										4	3	3		
13124	FB.35228	Pliers, for bearing retaining rings and crankshaft rear retaining gear.	x	x	x										4	3	3		
13102	FB.34926	Spanner, for crankpin oil cap ...	x	x											4	3	3		
29418	FB.51167	Spanner, for crankpin oil cap ...			x										4	3	3		
15024	FB.37253	Spanner, for crankshaft plugs	x	x											4	3	3		
29420	FB.51165	Spanner, for crankshaft plugs			x										4	3	3		
18268	FB.39937	Spanner, for crankpin oil plug	x	x	x										4	3	3		
10858	FB.35188/2	Spanner, for crankshaft locknut (front)	x	x	x		1	1	1	1	1	1	1	1	3	3	2		
13104	FB.34930	Spanner for crankshaft rear half nut...	x	x											3	3	2		
29580	FB.53399	Micrometer, for checking stretch of crankshaft bolt.	x	x	x										2	2	1		
39979	FB.95863	Tool for assembling crankshaft		x	x										2	1	1		
29422	FB.53355	Spanner, for crankshaft bolt nut	x	x	x										2	1	1		
29442	FB.53356	Tube, extension, for spanner for crankshaft bolt nut.	x	x	x										2	1	1		
32078	FB.95069	Sleeve, screwed, for spanner for crankshaft locknut (front).			x		1				1	1	1	1	3	3	2	For use with FB.35188/2 on crankshafts incorporating shadow Mod. MS.113 or Bristol Mod. E.871.	

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29610	FB.51430	Extractor and Insertor, for crankshaft oil sleeve.			x										2	1	1	
64080	FB.57349	Extractor, for airscrew shaft bush ...	x	x	x										2	1	1	
10931	FB.55292	Insertor, for airscrew shaft bush ...	x	x											1	1	1	
32266	FB.95061	Insertor, for airscrew shaft bush ...			x										1	1	1	Existing stocks of FB.55292 can be used up on engines not incorporating shadow Mod. S.113 or Bristol Mod. E.871, or can be modified to make RB.95061 by replacing the screw.
32262	FB.95062	Adaptor for insertor for airscrew shaft bush.			x										1	1	1	Screw FB.95061-4 for use with RB.95061 on crankshafts incorporating shadow Mod. MS.113 or Bristol Mod. E.871.
5560	FB.14946	Jig, reaming, for insertor for airscrew shaft bush.	x	x	x										1	1	1	
29584	FB.51222	Reamer, for insertor for airscrew shaft bush.	x	x	x										3	2	2	
13213	FB.57265	Cutter, for facing and bedding maneton bolt nut face seating.	x	x	x										3	2	2	
13286	FB.57264	Holder for cutter, for facing and bedding maneton bolt nut face seating.	x	x	x										1	1	1	
13249	FB.57266	Nut, dummy, for facing and bedding maneton bolt nut face seating.	x	x	x										1	1	1	
40222	FB.95860	Extractor, for crankpin sleeve		x	x										1	1	1	
120317	{ FB.97377 FB.97254	Fixture, for assembling crankpin sleeve Guide, for assembling crankpin sleeve		x	x										1	1	1	Existing stocks of FB.95861 may be supplied in lieu of Pegasus 30 engines only.
120055	FB.97298	Gauge, blueing for crankpin shoulder		x	x										1	1	1	

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Ref. No.	Part No.	Description	ENGINES			ALLOWANCES													Remarks
			Pegasus VI	Pegasus III and 30	Mercury 30	Squadrons per 6 I.E. Aircraft	Catapult Ships	Aircraft Carriers			Naval Air Stations				Repair Yards		Repair Ships		
								Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A	Class B			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
<i>Tools for Crankshaft—contd.</i>																			
23208	FB.97257	Lap, hand, complete for crankpin diameter.		x	x										2	2	2		
23209	FB.97257/4	Lap (spare insert), for crankpin diameter		x	x										4	3	3		
23210	FB.97258	Lap, hand for crankpin shoulder ...		x	x										4	3	3		
<i>Tools for Connecting Rod</i>																			
13062	FB.34931	Drift, for artic rod pins ...	x	x											4	3	3		
29370	FB.51225	Drift, for artic rod pins ...			x										4	3	3		
10813	FB.57301	Jig, for drifting out artic rod pins ...	x	x	x										2	1	1		
10668	FB.33439	Spanner, box, for artic rod pin bolts ...	x	x											6	5	3		
29414	FB.51161	Spanner, box, for artic rod pin bolts ...			x										6	5	3		
13098	FB.34933	Spanner, box, for artic rod pin nuts ...	x	x	x										6	5	3		
18290	FB.40283	Tool, compressing for oil retainer springs	x	x	x										2	1	1		
<i>Tools for Piston</i>																			
54256	FB.10244	Clip for piston ring ...	x	x	x	1	1	3	2	2	4	3	3	2	5	4	3	Existing stocks of FB.26417 may be supplied in lieu.	
10644	FB.26487	Pliers, for removing gudgeon pin circlip	x	x		1	2	4	3	5	4	4	3	6	5	3	2		
29400	FB.51160	Pliers, for removing gudgeon pin circlip			x	1	2	4	3	5	4	4	3	6	6	5	3		
10709	FB.26474	Plug, for gudgeon pin when assembling gudgeon pin circlip.	x	x		1	1	3	2	2	4	3	3	2	5	4	3		
29939	FB.51169	Plug, for gudgeon pin when assembling gudgeon pin circlip.			x	1	1				4	3	3	2	5	4	3		
29941	FB.26475	Tube, inserting, for assembling gudgeon pin circlip.	x	x	x	1	1	3	2	2	4	3	3	2	5	4	3		

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(000489)

<i>Tools for Cylinders and Valves</i>																			
10547	FB.53235	Compressing tool for inlet valve ...	x	x	x	1	2	3	2	2	4	3	3	2	6	4	3		
10550	FB.53236	Compressing tool for exhaust valve ...	x	x	x	1	2	3	2	2	4	3	3	2	6	4	3		
32004	FB.57285	Pliers, for removing circlip ...			x	1	1	1	1	1	4	3	3	3	6	4	3		
13008	FB.59757	Spanner, for lug nut ...	x	x	x	2	2	4	3	2	4	3	3	3	6	4	3		
10544	FB.26416	Spanner, for lug nut ...	x	x	x	2	2	4	2	2	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	8		
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	2	3	2	2	4	3	3	2	6	4	3		
98100	FB.90119	Sunnen torque wrench, for cylinder nuts.	x	x	x	1	2	4	3	2	6	5	5	3	8	6	5		
98086	FB.90121	Ratchet adaptor, for cylinder nuts ...	x	x	x	1	2	4	3	2	6	5	5	3	8	6	5		
98090	FB.90130	Handle, for spanner for slackening nuts (use with FB.113323).	x	x	x	2	2	4	3	2	6	5	5	3	8	6	5		
23040	FB.45830	Indicator, for piston top dead centre	x	x		1	1	3	2	2	4	3	3	2	5	4	2		
18240	FB.40091	Indicator, for piston top dead centre			x	1	1	1	1	1	4	3	3	2	5	4	2		
98096	FB.90132	Spanner, for cylinder nut ...	x	x	x	2	2	4	4	2	6	5	5	3	10	8	6		
10680	FB.26411	Spanner, extended, for cylinder nut ...	x	x		2	2	4	4	2	6	5	5	3	10	8	6		
29428	FB.51170	Spanner, extended, for cylinder nut ...			x	2	2	4	4	2	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	6	12	10	10	8	12	12	10		
5523	FB.22440	Tool, for assembling exhaust valve circlip.	x	x		2	1	3	2	2	5	4	4	3	6	6	3		
8354	FB.21161	Tool for assembling inlet valve circlip	x	x		2	1	3	2	2	5	4	4	3	6	6	3		
10648	FB.21173	Tool for removing circlip from valves...	x	x		2	1	3	2	2	5	4	4	3	6	6	3		
29436	FB.53830/2	Compressor, for valve springs ...	x	x	x			3	3		4	3	3		6	4	3		
10686	FB.35179	Drift, for assembling cylinder headlug to rocker bracket.	x	x	x	1	1	3	2	2	4	3	3	2	6	4	3		
13230	FB.35225	Fixture for fitting and scruffing cylinder	x	x	x		1	3	2	1	9	6	6	2	12	9	6		
10786	FB.35226	Fixture for holding cylinder ...	x	x	x		1	3	2	1	9	6	6	2	12	9	6		
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		6	6	6		
5472	FB.48953	Cutter for truing valve ports ...	x	x				6	6		6	6	6		6	6	6		
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 bore.			x						3	2	2		4	4	3		

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Ref. No.	Part No.	Description	ENGINES			ALLOWANCES												Remarks
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								Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A	Class B		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
<i>Tools for Cylinders and Valves—contd.</i>																		
10799	FB.46242	Gauge, plug, for inlet valve guide bore	x					2	1		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	
—	FB.113323	Spanner for cylinder nuts ...	x	x	x	2	2	4	3	2	6	5	5	3	8	6	5	
13237	FB.51580	Gauge, socket angle, for exhaust valve guide seat.	x	x	x			2	1		3	2	2		4	3	2	
13239	FB.51581	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	
5769	FB.29721	Gauge, socket angle, for inlet valve guide seat.	x	x	x			2	1		3	2	2		4	3	2	
13231	FB.51577	Gauge, socket angle, for inlet valve guide seat.	x	x	x			2	1		3	2	2		4	3	2	
13233	FB.51578	Gauge, socket angle, for inlet valve guide seat.	x	x	x			2	1		3	2	2		4	3	2	
13235	FB.51579	Gauge, socket angle, for inlet valve guide seat.	x	x	x			2	1		3	2	2		4	3	2	
5910	FB.39728	Gauge, seat, for exhaust valve (91° angle)	x	x				2	1		3	2	2		4	3	2	
29823	FB.57366	Gauge, seat, for exhaust valve (91° angle)			x						3	2	2		4	3	2	
120307	FB.97397	Gauge, seat, for exhaust valve (91° angle)			x						3	2	2		4	3	2	For engines fitted with salvaged valves.
5912	FB.39729	Gauge, seat, for inlet valve (90° angle)	x	x				2	1		3	2	2		4	3	2	
29822	FB.57365	Gauge, seat, for inlet valve (90° angle)			x						3	2	2		4	3	2	

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5917	FB.46241	Gauge, for inlet valve seat dia. ...	x	x				2	1		3	2	2		4	3	2	
23237	FB.77600	Gauge, for exhaust valve seat dia. ...	x	x				2	1		3	2	2		4	3	2	
29820	FB.57363	Gauge, for inlet valve seat dia. ...			x						3	2	2		4	3	2	
29821	FB.57364	Gauge, for exhaust valve seat dia. ...			x						3	2	2		4	3	2	
120308	FB.97399	Gauge, for exhaust valve seat dia. ...			x						3	2	2		4	3	2	For engines fitted with salvaged valves.
5921	FB.44598*	Gauge, for lap (90° angle) ...	x	x				2	1		3	2	2		4	3	2	
23241	FB.77564								2	1		3	2	2		4	3	2
5919	FB.44599*	Gauge, for lap FB.44598 ...	x	x				2	1		3	2	2		4	3	2	
29569	FB.57370				x				2	1		3	2	2		4	3	2
120309	FB.97398	Gauge, for lap FB.44598 ...			x						3	2	2		4	3	2	For engines fitted with salvaged valves.
10811	FB.36477	Gauge, 18·025 mm., for spark plug adaptor.	x	x	x			2	1		3	2	2		4	3	2	
5481	FB.47327	Holder, for valve seat cutters ...	x	x				2	2		2	2	2		2	2	2	
2200	FB.13092	Holder, for valves when lapping ...	x	x		1	1	3	2	1	3	2	2	2	4	3	2	
29567	FB.57439	Holder, for valves when lapping ...			x	1	1	3	2		3	2	2	2	4	3	2	
10869	FB.46239	Insertor and extractor for inlet and exhaust valve guides.	x	x				2	2		3	2	2		4	3	2	
29607	FB.57371/2	Insertor and extractor for inlet and exhaust valve guides			x						3	2	2		4	3	2	
23043	FB.77563	Lap, for exhaust valve seat ...	x	x		1	2	6	4	2	6	4	4	4	8	6	4	
120022	FB.79944	Lap, for exhaust valve seat ...			x	1	2				6	4	4	4	8	6	4	
120310	FB.97394	Lap, for exhaust valve seat ...			x	1	2				6	4	4	4	8	6	4	For engines fitted with salvaged valves.
23253	FB.77561	Reamer, for exhaust valve guide bore	x	x				10	8		12	10	10		24	20	18	
44864	FB.65914	Reamer, for exhaust valve guide bore			x						12	10	10		24	20	18	
120311	FB.97393	Reamer, for exhaust valve guide bore			x						12	10	10		24	20	18	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	
44866	FB.65913	Reamer, for inlet valve guide bore ...			x						12	10	10		24	20	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 valve guide hole in cylinder head.	x	x	x			4	3		6	4	4		10	8	6	
10843	FB.49987	Reamer (.015 in. o/size) for inlet valve guide hole in cylinder head.	x	x	x			4	3		6	4	4		10	8	6	

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Ref. No.	Part No.	Description	ENGINES			ALLOWANCES													Remarks
			Pegasus VI	Pegasus III and 30	Mercury 30	Squadrons per 6 I.E. Aircraft	Catapult Ships	Aircraft Carriers			Naval Air Stations				Repair Yards		Repair Ships		
								Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A	Class B			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
<i>Tools for Cylinders and Valves—contd.</i>																			
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 inlet valve guide hole in cylinder head.	x	x	x			2	2		3	2	2		5	4	3		
10836	FB.35725	Reamer, (.005 in. o/size) for exhaust valve guide hole in cylinder head.	x	x	x			4	3		6	4	4		10	8	6		
13258	FB.35726	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 valve guide hole in cylinder head.	x	x	x			4	3		6	4	4		10	8	6		
10850	FB.49991	Reamer (.040-in. o/size) for exhaust valve guide hole in cylinder head.	x	x	x			2	2		3	2	2		5	4	3		
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		
10873	FB.54891	Tool, caulking for cylinder head valve seats.	x	x				2	1		2	1	1		4	3	2		
10877	FB.54892	Tool, caulking, for cylinder head valve seats.	x	x				2	1		2	1	1		4	3	2		
10929	FB.54893	Tool, caulking, for cylinder head valve seats.	x	x				2	1		2	1	1		4	3	2	Not required for serrated valve seats.	
10855	FB.52974	Spanner for testing tool for testing tightness of valve seat.	x	x				2	1		2	1	1		3	2	2		
10924	FB.51959	Tool for testing tightness of valve seat	x	x				2	1		2	1	1		3	2	2		
10925	FB.51960	Tool, for testing tightness of valve seat	x	x				2	1		2	1	1		3	2	2		
10926	FB.52973	Wrench, for testing tool for testing tightness of valve seat.	x	x				2	1		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	4	4	Not required for serrated valve seats.
5824	FB.46350	Shim (.005 in.), for centre, popping tool (inlet).	x	x				2	1		2	1	1		3	2	2	
5825	FB.46351	Shim (.010 in.), for centre, popping tool (inlet).	x	x				2	1		2	1	1		3	2	2	
5826	FB.46352	Shim (.020 in.), for centre, popping tool (inlet).	x	x				2	1		2	1	1		3	2	2	
5827	FB.46353	Shim (.005 in.) for centre, popping tool, (exhaust).	x	x				2	1		2	1	1		3	2	2	
5828	FB.46354	Shim (.010 in.), for centre, popping tool (exhaust).	x	x				2	1		2	1	1		3	2	2	
5829	FB.46355	Shim (.020 in.), for centre, popping tool (exhaust).	x	x				2	1		2	1	1		3	2	2	
5868	FB.40851/2	Tool, centre popping, for inlet valve seat.	x	x				2	1		2	1	1		3	2	2	
5867	FB.39822/2	Tool, centre popping, for exhaust valve seat.	x	x				2	1		2	1	1		3	2	2	
13207	FB.57277	Bush, pilot (.005 in. o/size) for reamer, for truing valve guide sockets (inlet)	x	x	x			3	2		9	6	6		12	9	6	
13208	FB.51559	Bush, pilot (.010 in. o/size) for reamer, for truing valve guide sockets (inlet)	x	x	x			3	2		9	6	6		12	9	6	
13209	FB.51560	Bush, pilot (.015 in. o/size) for reamer, for truing valve guide sockets (inlet)	x	x	x			3	2		9	6	6		12	9	6	
13210	FB.51561	Bush, pilot (.040 in. o/size) for reamer, for truing valve guide sockets (inlet).	x	x	x			2	1		6	4	4		8	6	4	
13211	FB.57278	Bush, pilot (.005 in. o/size) for reamer, for truing valve guide sockets (exhaust)	x	x	x			3	2		9	6	6		12	9	6	
13214	FB.51556	Bush, pilot (.010 in. o/size) for reamer, for truing valve guide sockets (exhaust)	x	x	x			3	2		9	6	6		12	9	6	
13215	FB.51557	Bush, pilot (.015 in. o/size) for reamer, for truing valve guide sockets (exhaust)	x	x	x			3	2		9	6	6		12	9	6	
13217	FB.51558	Bush, pilot (.040 in. o/size) for reamer, for truing valve guide sockets (exhaust)	x	x	x			2	1		6	4	4		8	6	4	
13264	FB.57276	Reamer for truing valve guide sockets	x	x	x			4	3		6	4	4		10	8	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		8	6	6	
13245	FB.51565	Gauge, plug (.005 in. o/size) for inlet valve guide hole in cylinder head.	x	x	x			3	2		4	3	3		6	5	4	

Ref. No.	Part No.	Description	ENGINE			ALLOWANCES												Remarks	
			Pegasus VI	Pegasus III and 30	Mercury 30	Squadrons per 6 I.E. Aircraft	Catapult Ships	Aircraft Carriers			Naval Air Stations				Repair Yards		Repair Ships		
								Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A	Class B			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
<i>Tools for Cylinders and Valves—contd.</i>																			
13247	FB.51566	Gauge, plug (.010 in. o/size) for inlet valve guide hole in cylinder head.	x	x	x			3	2		4	3	3		6	5	4		
13252	FB.51567	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		
13253	FB.51568	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 valve guide hole in cylinder head.	x	x	x			3	2		4	3	3		6	5	4		
13259	FB.51570	Gauge, plug (.010 in. o/size) for exhaust valve guide hole in cylinder head.	x	x	x			3	2		4	3	3		6	5	4		
13261	FB.51571	Gauge, plug (.015 in. o/size) for exhaust valve guide hole in cylinder head.	x	x	x			3	2		4	3	3		6	5	4		
13263	FB.51572	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		
<i>(a) Tools for Valve Seats</i>																			
5900	FB.38331/2*	Fixture, complete, for grinding valve seats.	x	x	x			1	1		2	1	1		3	2	1		
5911	FB.57330/2																		
5980	FB.41016		Belt, endless vee, for fixture for grinding valve seats.	x	x	x			2	2		4	2	2		6	3	2	
5904	FB.40908	Bracket, angle, for fixture for grinding valve seats.	x	x				1	1		2	1	1		3	2	1		
69398	FB.74624	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
5926	FB.40974	Motor, electric (230 volts single phase, 50 periods), for fixture for grinding valve seats.	x	x	x						2	1	1		3	2		
5936	FB.40910	Ring, packing, for fixture for grinding valve seats.	x	x				1	1		2	1	1		3	2	1	
<i>(b) Tools used with Grinding Fixture</i>																		
2132	FB.2319	Bar, tommy, 1/2-in. dia. x 6-in. long ...	x	x	x			3	3		6	3	3		10	6	3	
23239	FB.77601	Gauge, for final depth of 15° exhaust valve seat.	x	x				1	1		2	1	1		3	2	1	
29818	FB.57361	Gauge, for maximum re-grinding of inlet seat.			x						2	1	1		3	2	1	
29819	FB.57362	Gauge, for maximum re-grinding of exhaust seat.			x						2	1	1		3	2	1	
5946	FB.40195	Spanner, for drive spindle locknut ...	x	x	x			1	1		2	1	1		3	2	1	
5942	FB.40197	Spanner, for drive spindle ...	x	x	x			1	1		2	1	1		3	2	1	
<i>(c) Spindles and Equipment for Grinding Valve Seats</i>																		
5953	FB.57291	Spindle, complete, for grinding inlet valve seat.	x	x				4	3		6	4	4		10	8	6	
5939	FB.57291/1	Shaft, for grinding spindle ...	x	x				4	3		6	4	4		10	8	6	
29824	FB.57357	Spindle, complete, for grinding inlet valve seat.			x						6	4	4		10	8	6	
44916	FB.57357/1	Shaft, for grinding spindle ...			x						6	4	4		10	8	6	
23425	FB.77562/2	Spindle, complete, for grinding exhaust valve seat.	x	x				4	3		6	4	4		10	8	6	
23413	FB.77562/2/1	Shaft, for grinding spindle ...	x	x				4	3		6	4	4		10	8	6	
29825	FB.57358/2	Spindle, complete, for grinding exhaust valve seat.			x						6	4	4		10	8	6	
44918	FB.57358/2/1	Shaft, for grinding spindle ...			x						6	4	4		10	8	6	
8550	FB.41017	Bearing, ball ...	x	x	x			6	6		12	6	6		18	12	6	

Existing stocks of FB.77562 may be supplied in lieu. Existing stocks of FB.77562/1 may be supplied in lieu.



Ref. No.	Part No.	Description	ENGINES			ALLOWANCES													Remarks
			Pegasus VI	Pegasus III and 30	Mercury 30	Squadrons per 6 I.E. Aircraft	Catapult Ships	Aircraft Carriers			Naval Air Stations				Repair Yards		Repair Ships		
								Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A	Class B			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
<i>(c) Spindles and Equipment for Grinding Valve Seats—contd.</i>																			
5984	FB.41015	Drive, flexible ... ..	x	x	x			2	2		4	2	2		6	4	2	Existing stocks of FB.57290/18 may be supplied in lieu.	
5943	FB.57290/2/18	Shank, driving ... ..	x	x	x			1	1		2	1	1		3	2	1		
5948	FB.40198	Spanner, for grinding wheel securing nut.	x	x	x			2	2		4	2	2		6	4	2		
5944	FB.40199	Spanner, for ball race locknut ...	x	x	x			2	2		4	2	2		6	4	2		
5954	FB.40145	Wheel, grinding, for 45° inlet valve seat	x	x	x			12	10		20	15	15		50	30	25		
5958	FB.40146	Wheel, grinding, for 45° exhaust valve seat.	x	x	x			12	10		20	15	15		50	30	25		
5960	FB.40147	Wheel, grinding, for 30° inlet and exhaust race.	x	x	x			12	10		20	15	15		50	30	25		
5956	FB.40148	Wheel, grinding, for 15° exhaust face	x	x	x			12	10		20	15	15		50	30	25		
5962	FB.40149	Wheel, grinding, for 70° inlet throat ...	x	x	x			12	10		20	15	15		50	30	25		
120312	FB.97396	Spindle, complete, for grinding exhaust valve seat.			x						6	4	4		10	8	6		
120313	FB.97396/1	Shaft for spindle, for grinding exhaust valve seat.			x						6	4	4		10	8	6		
120314	FB.105152	Gauge, for maximum re-grinding of valve seats.			x						2	1	1		3	2	1		
<i>(d) Tools for Cylinder Union Adaptor</i>																			
5804	FB.41913	Plug, testing, for adaptor ... ..	x	x				1	1		1	1	1		1	1	1		
18722	FB.45238	Cutter (4 mm. o/size), for bedding face of adaptor.	x	x				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
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				1	1		1	1	1		1	1	1
<i>(e) Tools for Spark Plug Adaptor</i>																	
5796	FB.41614	Cutter, hand, for bedding face of spark plug adaptor.	x	x	x			2	2		2	2	2		3	2	2
18724	FB.52464	Gauge, bedding, for bedding face of spark plug adaptor.	x	x	x			1	1		1	1	1		1	1	1
<i>Tools for Rocker Mechanism</i>																	
5504	FB.19806	Spanner, for rocker adjusting screw ...	x	x	x	2	1	6	4	3	8	6	6	4	12	10	8
10632	FB.44447/2	Gauge, for angle of attack of rockers...	x	x		1	1	3	2	1	4	3	3	3	6	5	4
29384	FB.51435/2	Gauge, for angle of attack of rockers...	x	x		1	1	3	2	1	4	3	3	3	6	5	4
10666	FB.35180	Spanner, box, for rocker bracket bolt nut.	x	x	x	2	1	6	4	3	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
10696	FB.35177	Drift, for pressing ball races on exhaust rockers.	x	x				2	2		3	2	2		6	4	4
10660	FB.21706	Spanner, box, ¼-in. B.S.F., for tie rod nuts.	x	x	x	2	1	6	3	2	6	3	3	2	12	10	8
10690	FB.35617	Tool, for inserting and extracting inlet rockers and arms.	x	x				3	2		4	3	3		6	4	4
29432	FB.57341	Tool, for inserting inlet rockers ...			x						4	3	3		6	4	4
29434	FB.57343	Tool, for inserting inlet rocker arms ...			x						4	3	3		6	4	4
10624	FB.35178	Tool, for withdrawing cylinder headlug from bracket.	x	x		1	1	3	2	1	4	2	2	2	5	3	3
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
5512	FB.21157	Tool, alignment, for rocker bracket lugs	x	x	x	1	1	3	3	1	6	3	3	3	9	6	6
120434	FB.87066	Tool, for releasing push rod cover tube	x	x	x	1	1	2	1	1	2	1	1	1	3	2	2
29369	FB.57345	Drift, for pressing ball races in exhaust rockers.			x						3	2	2		6	4	4

For engines prior to amendment A.669 for Pegasus VI and XXX engines. Subsequent to amendment A.669.

Ref. No.	Part No.	Description	ENGINES			ALLOWANCES												Remarks
			Pegasus VI	Pegasus III and 30	Mercury 30	Squadrons per 6 I.E. Aircraft	Catapult Ships	Aircraft Carriers			Naval Air Stations			Repair Yards		Repair Ships		
								Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A		Class B	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
<i>Tools for Rocker Mechanism—contd.</i>																		
29371	FB.57342	Extractor, for inlet rockers and rocker arm.			x						3	2	2		4	3	3	
10871	FB.35211	Insertor and extractor, for rocker bracket bush.	x	x	x										3	2	1	
13080	FB.35186	Reamer, for rocker bracket bush ...	x	x	x										10	8	6	
10607	FB.34937	Cutter, external, for rocker bracket trunnion bush.	x	x	x										8	6	6	
10626	FB.35181/2	Extractor, for rocker bracket trunnion bush.	x	x	x										3	2	1	
10698	FB.35182	Tool, for pressing on rocket bracket trunnion bush.	x	x	x										3	2	1	
<i>Tools for Cam and Tappet Gear</i>																		
13216	FB.34938	Adaptor, for withdrawing cam gear and sleeve.	x	x	x										2	1	1	
10762	FB.35212	Drift, for removing push rod end ...	x	x	x				2	1					6	4	3	
5772	FB.33405*	Extractor and vice holder, for push rod, lower end.	x	x	x				2	1		3	2	2	4	3	2	
13065	FB.57256			x	x	x						3	2	2				
18216	FB.40396	Extractor, for "gits" oil seal... ..	x	x	x		1	1	1						3	2	2	
10806	FB.35193	Holder, for cam gear layshaft ...	x	x	x						1	1	1		3	2	2	
10654	FB.35175	Rod, for setting cam sleeve for timing engine.	x	x	x		1	1	1	1	1	1	1		6	4	4	
13084	FB.34929	Sleeve, for protecting crankshaft sleeve	x	x	x										2	1	1	
18294	FB.40397	Tool guide, for inserting tappet ...	x	x	x				2	2		2	2	2	6	4	4	
<i>Tools for Oil Pump</i>																		
5770	FB.21705	Bush, for lining up oil pump when assembling.	x	x											2	2	2	
32064	FB.52710	Bush, for lining up oil pump when assembling.			x										2	2	2	
10778	FB.35935	Extractor, for removing oil pump from rear cover.	x	x		1	1	1	1	1	1	1	1	1	2	2	2	
29554	FB.51456	Extractor, for removing oil pump from 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	
<i>Tools for Fuel Pump</i>																		
10521	FB.36776	Spanner, for relief valve adjusting screw	x	x	x	2	1	6	3	2	6	4	4	3	12	10	8	
10523	FB.36775	Spanner, for relief valve adjusting screw locknut.	x	x	x	2	1	6	3	2	6	4	4	3	12	10	8	
69134	FB.77546	Moulding tool, for gland packing ...			x	1	1	1			3	2	2	2	6	4	3	
<i>Tools for Airscrew Hub</i>																		
10538	FB.26399/3	Spanner, for hub retaining nut ...	x	x	x	1	1	3	2	1	4	3	3	2	6	5	4	
5372	FB.19604	Spanner, for airscrew hub nut ...	x	x	x	1	1	3	2	1	4	3	3	2	6	5	4	
5386	FB.20074	Support, for hub nut spanner ...	x	x	x	1	1	3	2	1	4	3	3	2	6	5	4	
5383	FB.42492	Spanner, for hub screwed sleeve ...	x	x	x	1	1	3	2	1	4	3	3	2	6	5	4	
3042	FB.42507	Sleeve, for propeller hub ...	x	x	x	1	1	3	2	1	4	3	3	2	6	5	4	
5391	FB.42493	Tool, for pressing home hub ...	x	x	x	1	1	3	2	1	4	3	3	2	6	5	4	
120318	FB.74690/2	Spanner, for airscrew sleeve ...	x	x	x	1	1	3	2	1	4	3	3	2	6	5	4	
<i>Tools for use with Ignition Fittings</i>																		
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	
<i>Tools for use with Supercharger</i>																		
10876	FB.35190/2	Drift, for spring drive centre ...	x	x	x		1	1	1		1	1	1		3	2	2	
10784	FB.35620	Extractor, for supercharger unit ...	x	x	x		1	1	1		1	1	1		3	2	2	
10782	FB.35619	Extractor, for spring drive centre ...	x	x	x		1	1	1		1	1	1		3	2	2	
10792	FB.20776/2	Fixture, for removing inter bearing support ring.	x	x	x										2	2	2	
23230	FB.45239	Fixture, for checking end wobble on impellor.	x	x	x										2	1	1	
10803	FB.35232	Blades } For checking impellor and Gauge } volute casing clearance. Gauge }	x	x	x										8	4	4	
10805	FB.35229/2			x	x	x									2	1	1	
	FB.35230/2			x	x	x									2	1	1	
10636	FB.23446	Holder, for inter. gear pinion ...	x	x											3	2	2	

Use with extractor for crankshaft inner races FB.90165 (or any stocks of FB.10245) and FB.15010.

Ref. No.	Part No.	Description	ENGINES			ALLOWANCES													Remarks
			Pegasus VI	Pegasus III and 30	Mercury 30	Squadrons per 6 I. E. Aircraft	Catapult Ships	Aircraft Carriers			Naval Air Stations			Repair Yards		Repair Ships			
								Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A		Class B		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
<i>Tools for use with Supercharger—contd.</i>																			
10860	FB.35219	Key, box, for spring drive securing nut	x	x	x		1	1	1		1	1	1		6	6	5		
8091	FB.14985	Key, box, for impellor gear ...	x	x											6	6	5		
8089	FB.14986	Key, box, for impellor shaft nut ...	x	x											6	6	5		
8395	FB.20779	Pincers, for assembling spring drive spring.	x	x	x										3	2	2		
10656	FB.36092	Sleeve, supporting, for removing impellor gear.	x	x											3	2	2		
10852	FB.35732	Sleeve, supporting, for impellor gear...	x	x											2	1	1		
15152	FB.37254	Spindle, for inter gear centre (for checking end float).	x	x											3	2	2		
8097	FB.20781	Spanner, for inter pinion nut ...	x	x											6	5	5		
10763	FB.41141	Drift, to assemble impellor to shaft ...	x	x											3	2	2		
10829	FB.41140	Plug to assemble impellor gear ...	x	x											3	2	2		
10657	FB.36091	Sleeve to assemble impellor and gear...	x	x											3	2	2		
29374	FB.51128	Extractor, for impellor gear ...			x										3	2	2		
32090	FB.52403	Holder, for intermediate gear pinion ...			x										3	2	2		
29598	FB.51226	Sleeve, supporting, for impellor gear ...			x										3	2	2		
29410	FB.51162	Spanner, holder } for retaining nuts			x										6	5	5		
29412	FB.51168	Spanner } on impellor gear			x										6	5	5		
32152	FB.52402	Spanner, for intermediate pinion nut ...			x										6	5	5		
32320	FB.57270	Spindle, for intermediate pinion bearing inner race.			x										3	2	2		
29596	FB.51221	Shim, for tool for checking end wobble on impellor.			x										6	4	4		
29546	FB.51432	Drift } for assembling impellor and			x										3	2	2		
29583	FB.57267	Plug } impellor gear.			x										3	2	2		

Common also to "Taurus".

Common also to "Taurus".

13234	FB.57323	Gauge, length (nominal)	x	x	x										2	2	1
13236	FB.57324	Gauge, length, .002-in. o/size.	x	x	x										2	2	1
13238	FB.57325	Gauge, length, .004-in. o/size.	x	x	x										2	2	1
13240	FB.57326	Gauge, length, .006-in. o/size.	x	x	x										2	2	1
13242	FB.57327	Gauge, length, .008-in. o/size.	x	x	x										2	2	1
13244	FB.57328	Gauge, bedding (minimum).	x	x	x										2	2	1
13246	FB.57329	Gauge, bedding (maximum).	x	x	x										2	2	1
13248	FB.57317	Jig, centralising	x	x	x										2	2	1
32315	FB.57321	Sleeve, for centralising jig.			x										2	2	1
15140	FB.57319	Sleeve, for centralising jig.	x	x											2	2	1
15107	FB.57346	Driver } for lapping clutch blocks in intermediate driving gear	x	x	x										2	2	2
13225	FB.57334	Fixture, lapping }	x	x	x										2	2	2
<i>Tools for use with Reduction Gear</i>																	
5410	FB.14965	Extractor, for reduction gear driving wheel.	x	x	x		1	1	1	1	2	2	2	1	3	2	2
25220	FB.40400	Extractor, for rear bevel wheel ...	x												3	2	2
29548	FB.51164	Extractor, for stationary gear and ball race.	x		x										3	2	2
15136	FB.38304	Fixture, for checking backlash on reduction gear.	x	x	x										1	1	1
25020	FB.40535	Gauge, assembly (from bevel gear to face of reduction gear casing).	x				2				2	2	2	2	3	3	3
25022	FB.40534	Gauge, assembly (from driving wheel to front cover face).	x				2				2	2	2	2	3	3	3
10878	FB.35623	Spanner, for reduction gear nut ...	x	x	x		1	1	1	1	2	2	2	1	3	2	2
10670	FB.35171	Spanner, for bevel pinion nut ...	x	x	x										3	2	2
10854	FB.35215	Spanner, for airscrew shaft thrust nut...	x	x	x		1	2	1	1	2	2	2	1	4	3	3
10856	FB.35625	Spanner, for airscrew shaft lock nut (rear).	x	x	x										3	2	2

Common also to "Taurus".

Ref. No.	Part No.	Description	ENGINES			ALLOWANCES													Remarks
			Pegasus VI	Pegasus III and 30	Mercury 30	Squadrons per 6 I.E. Aircraft	Catapult Ships	Aircraft Carriers				Naval Air Stations				Repair Yards		Repair Ships	
								Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A	Class B			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
5510	FB.19953	Stand, for reduction gear ...	x	x	x										2	2	1		
29612	FB.52477	Tool, for assembling stationary gear and bearing.	x		x										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	1	1	2	2	1		
13064	FB.35221	Gauge, assembly, from bevel gear to face of reduction gear casing.		x				2	2	1	2	2	2	2	3	3	3		
18220	FB.40537	Gauge, assembly (from driving wheel to front cover face).		x				2	2	1	2	2	2	2	3	3	3		
10772	FB.35216/2	Extractor, for rear bevel wheel ...		x											3	2	1		
10766	FB.35622	Extractor, for stationary gear and ball race.		x											3	2	1		
10872	FB.35621	Tool, for assembling stationary gear and bearing.		x											2	2	1		
63724	FB.65931	Extractor, for oil seal housing ...			x		1	1	1	1	2	2	2	1	2	2	2		
32076	FB.52771	Extractor, for rear bevel wheel ...			x										2	2	2		
29552	FB.51433/2	Extractor, for oil valve casing ...			x		1				1	1	1	1	2	2	2		
32080	FB.53826	Gauge, assembly (from bevel gear to face of reduction gear case).			x		2				2	2	2	2	3	3	3		
32082	FB.53824	Gauge, assembly (from driving wheel to face of crankcase front cover).			x		2				2	2	2	2	3	3	3		

10985	FB.53253	<i>Tools for Air Intake</i> Reamer, for bush ...	x	x	x										3	2	2	
10986	FB.53254	Reamer, for bush ...	x	x	x										3	2	2	
59020	FB.63054	<i>Tools for Priming System</i> Spanner, for union ...	x	x	x	2	1	6	3	2	6	4	4	3	12	10	8	
58598	FB.66015	<i>Tools for use with Generator Drive</i> Extractor, for generator driven bevel...	x	x	x		1	1	1	1	1	1	1	1	3	2	2	
18227	FB.41563	Holder, for generator drive shaft ...	x	x	x		1	1	1	1	1	1	1	1	3	2	2	
18229	FB.41565	Holder, for universal shaft end (long)...	x	x	x		1	1	1	1	1	1	1	1	3	2	2	
29609	FB.57262	Tool, inserting and extracting, for generator driven assembly.			x		1				1	1	1	1	3	2	2	
29588	FB.51224	Reamer, for universal coupling bush ...													4	3	3	
29424	FB.51438	<i>Tools for use with Induction Elbow</i> Spanner, for induction elbow and volute casing nuts.	x	x	x		1	3	2	1	3	2	2	1	6	5	4	
29576	FB.51227	<i>Tools for Auxiliary Drive</i> Fixture, reaming, for auxiliary drive shaft bush.			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	FB.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	x											2	1	1	
23028	FB.46004	<i>Tools for Oil and Petrol Pump Drive</i> Holder, for cross drive shaft ...	x	x	x										4	2	2	
18236	FB.39979	<i>Tools for Air Compressor Drive</i> Holder, for driving shaft ...	x	x											4	3	2	
18234	FB.39977	Holder, for driving shaft ...	x	x											4	3	2	
18230	FB.39976	Holder, for petrol pump coupling ...	x	x											4	3	2	
18226	FB.39975	Holder, for driven bevel ...	x	x	x										4	3	2	
18272	FB.39978	Spanner, for bearing retaining nut ...	x	x	x										8	6	4	
13268	FB.39982	Spanner, for 1/2-in. B.S.P. plug...	x	x	x										8	6	4	
44848	FB.65973	Holder, for driving shaft ...			x										4	2	2	

Ref. No.	Part No	Description	ENGINES			ALLOWANCES													Remarks
			Pegasus VI	Pegasus III and 30	Mercury 30	Squadrons per 6 I.E. Aircraft	Catapult Ships	Aircraft Carriers			Naval Air Stations				Repair Yards		Repair Ships		
								Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A	Class B			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
<i>Tools for Distributor Drive</i>																			
29750	FB.51220	Collar, for use with extractor for distributor drive shaft bush.			x										4	2	2		
18577	FB.36621	Extractor, for distributor drive shaft bush.	x	x	x										2	2	2		
10824	FB.35202	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	x										8	6	4		
<i>Tools for Magneto and Drive</i>																			
54036	FB.63029	Spanner, for magneto securing nuts ...	x	x	x	2	2	6	4	3	6	4	4	3	10	8	6		
10793	FB.43619/2	Fixture, reaming, for magneto spring drive centre bush.	x	x											1	1	1		
10847	FB.43620	Reamer, for magneto spring drive centre bush.	x	x											4	3	3	Required only for engines prior to Mod. E.1343.	
10787	FB.43621	Fixture, reaming, for magneto drive bevel bush.	x	x											1	1	1		
10845	FB.43622	Reamer, for magneto drive bevel bush	x	x											4	3	3		
10791	FB.46714	Fixture, spring, compressing, for magneto driving bevel.	x	x	x										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	FB.38410	Spanner, for magneto coupling jaws ...	x	x	x	1	1	1	1	1	1	1	1	1	2	2	2		
54440	FB.57315	Expander, to advance magneto when timing.	x	x	x	2	2	6	4	2	6	4	4	2	8	8	6	FB.40090* spring clip — alternative tool.	
54446	FB.57314	Spanner, to advance magneto when timing.	x	x	x	1	1	3	2	1	3	2	2	1	4	4	3		

<i>Tools for General Use</i>																		
10506	FB.26456	Bar, tommy ...	x	x	x	6	4	12	8	6	15	15	15	8	30	24	20	Common also to "Taurus".
8017	FB.19160	Gun, oil, enots ...	x	x	x	1	2	3	2	2	6	6	6	2	12	10	8	
10530	FB.26407	Spanner, box, 1/4-in. B.S.F. ...	x	x	x	6	4	12	8	6	15	15	15	8	30	24	20	Common also to "Taurus".
10532	FB.26583	Spanner, box, 3/8-in. B.S.F. ...	x	x	x	6	4	12	8	6	15	15	15	8	30	24	20	
10534	FB.26582	Spanner, box, 1/2-in. B.S.F. ...	x	x	x	3	2	6	4	3	10	10	10	4	20	15	12	
10528	FB.26459	Spanner, 3/8-in. x 11/16-in. B.S.F. ...	x	x	x	3	2	6	4	3	10	10	10	4	20	15	12	
10526	FB.26460	Spanner, 5/8-in. x 7/8-in. B.S.F. ...	x	x	x	3	2	6	4	3	10	10	10	4	20	15	12	
10524	FB.26461	Spanner, 3/4-in. x 7/8-in. B.S.F. ...	x	x	x	3	2	6	4	3	10	10	10	4	20	15	12	
10522	FB.26462	Spanner, 3/4-in. x 7/8-in. B.S.F. ...	x	x	x	6	4	12	8	6	15	15	15	8	30	24	18	
10520	FB.26463	Spanner, 5/8-in. x 1/2-in. B.S.F. ...	x	x	x	6	4	12	8	6	15	15	15	8	30	24	18	
10518	FB.26464	Spanner, 2 B.A. x 4 B.A. ...	x	x	x	6	4	12	8	6	15	15	15	8	30	24	18	
120287	FB.97332	Screw driver and guide, for Jubilee Clips.	x	x	x	6	4	12	8	6	15	15	15	8	30	24	18	
2156	FB.5427	Spanner, box, 2 B.A. x 1/2-in. B.S.F.	x	x	x	6	4	12	8	6	15	15	15	8	30	24	18	
5373	FB.20130/2	Spanner, box, 3/16-in. Whit. ...	x	x	x	3	2	6	4	3	10	10	10	4	20	15	12	
13090	FB.35234	Spanner, box, 4 B.A. ...			x	6	4				15	15	15	8	30	24	18	
<i>Tools for Use at Inspection of Suspected Shock-loaded Engines</i>																		
18547	FB.77616	Clamp, for use when testing airscrew shaft for cracks.	x	x	x										2	2	2	
18548	FB.77617	Clamp, for use when testing airscrew shaft for cracks.	x	x	x										2	2	2	
18549	FB.77618	Clamp, for use when testing airscrew shaft for cracks.	x	x	x										2	2	2	
18564	FB.77615	Gauge, for checking airscrew shaft splines.	x	x	x		1	2	1	1	2	1	1	1	2	2	2	
18625	FB.74797	Tool, extension, for test indicator ...	x	x	x		1	2	1	1	2	1	1	1	2	2	2	
18624	FB.74792	Tool, for test indicator ...	x	x	x		1	2	1	1	2	1	1	1	2	2	2	
18635	FB.74796	Tool, for test indicator ...	x	x	x		1	2	1	1	2	1	1	1	2	2	2	
18623	FB.74788	Tool, for use when checking oil transfer housing.	x	x	x		1	2	1	1	2	1	1	1	2	2	2	
18622	FB.74784	Tool, for use when checking front cover	x	x	x		1	2	1	1	2	1	1	1	2	2	2	

Ref. No.	Part No.	Description	ENGINES		ALLOWANCES											Remarks
			Taurus II	Taurus XII	Squadrons per 6 I.E. Aircraft	Aircraft Carriers			Naval Air Stations			Repair Yards		Repair Ships		
						Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A		Class B	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
<b>SECTION 36R.</b>																
<i>Tools for Use with Crankcase</i>																
72606	FB.65984	Protector for crankcase and connecting rods (14 per set).	x	x	14	56	42	14	56	56	56	42	84	84	70	
72844	FB.72530	Drift to assemble sleeve driving gear...	x	x									3	2	2	
72846	FB.72531	Drift to remove sleeve cranks ...	x	x									3	2	2	
72848	FB.66090	Drift to insert or remove sleeve crank bearing (front).	x	x									3	2	2	
72850	FB.66091	Drift to insert or remove sleeve crank bearing (rear).	x	x									3	2	2	
72852	FB.66076	Extractor for crankcase front section and front cover.	x	x		1	1	1	1	1	1	1	1	1	1	
72854	FB.72529	Extractor for sleeve driving gear ...	x	x									2	2	1	
72856	FB.66077	Fixture, inserting for layshafts ...	x	x									1	1	1	
72858	FB.66092	Pliers to remove sleeve crank bearing circlip.	x	x									3	2	2	
13124	FB.35228	Pliers for removing bearing retaining rings.	x	x									3	2	2	
72862	FB.66087	Spanner box, for crankcase bolt nut...	x	x	1	3	2	1	4	3	3	2	6	5	4	
72864	FB.66088	Spanner, tube, for layshaft retaining nut.	x	x									4	4	3	
53452	FB.71917	Tool for assembling sleeve crank (short)	x	x									2	2	1	
72870	FB.72528	Tool, for assembling sleeve crank (long)	x	x									2	2	1	
72873	FB.79993	Tool for tightening retaining nut on sleeve cranks group, comprising:—											3	2	2	
72874	FB.72532	Bracket, steady, for spanner ...	x	x									14	14	14	
72877	FB.79991	Holder, for sleeve crank ...	x	x									4	3	3	
72867	FB.79996	Spanner, for nut ...	x	x									4	3	3	
72867	FB.79992	Tool, for tightening sleeve crank lock-nut group, comprising:—											4	3	3	
72867	FB.79992	Bracket, steady, for spanner ...	x	x									4	3	3	
72867	FB.79992	Spanner, for nut ...	x	x									4	3	3	
<i>Tools for Use with Rear Cover</i>																
54036	FB.63029	Spanner, universal box, 5/8 in. B.S.F.	x	x	3	8	6	3	10	8	8	6	12	12	8	
53208	FB.65986	Extractor, for distance piece ...	x	x	1	2	2	1	3	2	2	2	3	3	2	
54450	FB.57389	Spanner, for union body and union nut (2 per set).	x	x	2	4	2	2	4	2	2	2	4	4	3	
120453	FB.105140	Spanner, tube, for auxiliary driveshaft nut.	x	x	1	4	3	1	4	3	3	2	6	5	4	
13090	FB.35234	Spanner, box, 4 B.A. (for tachometer casing nuts).	x	x	1	4	3	2	4	3	3	2	6	5	4	
120301	FB.105154/2	Spanner, for starter nuts ...	x	x	2	4	3	2	5	4	4	2	6	5	4	Also used for two retaining nuts at top of rear cover.
120161	FB.66075	Extractor, for starter jaw ...	x	x		1	1	1	1	1	1		2	2	1	
<i>Tools for pump drive bush:—</i>																
73404	FB.66070	Drift, for extracting ...	x	x									2	2	2	
54008	FB.57387/2	Fixture, assembly ...	x	x									1	1	1	
93043	FB.74644	Gauge, plug ...	x	x									1	1	1	
54009	FB.57298/2	Jig, reaming ...	x	x									1	1	1	
54012	FB.57299	Reamer ...	x	x									3	3	2	
<i>Tools for Auxiliary drive shaft bearing:—</i>																
73416	FB.66066	Gauge plug ...	x	x									1	1	1	
54028	FB.57385	Jig, reaming ...	x	x									3	3	2	
54028	FB.57385	Reamer ...	x	x									3	3	2	
<i>Tools, for magneto inter. lever bush:—</i>																
54030	FB.66025	Extractor ...	x	x									1	1	1	
120272	FB.95023	Gague, plug ...	x	x									1	1	1	
54034	FB.66072	Insertor ...	x	x									1	1	1	
73424	FB.66067	Jig, reaming ...	x	x									1	1	1	
54035	FB.57391	Reamer ...	x	x									3	3	2	

Ref. No.	Part No.	Description	ENGINES		ALLOWANCES											Remarks
			Taurus II	Taurus XII	Squadrons per 6 I.E. Aircraft	Aircraft Carriers			Naval Air Stations				Repair Yards		Repair Ships	
						Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A	Class B		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
<i>Tools for Use with Rear Cover—contd.</i>																
Tools, for driving shaft bush :—																
73428	FB.66073	Drift and stand for extracting ...	x	x									1	1	1	
73430	FB.66068	Fixture, inserting ...	x	x									1	1	1	
93074	FB.95024	Gauge, plug ...	x	x									1	1	1	
73432	FB.66063	Jig, reaming ...	x	x									1	1	1	
73434	FB.66064	Reamer (complete with arbor) ...	x	x									1	1	1	
88251	FB.66064/4	Reamer (spare) ...	x	x									3	3	2	
<i>Tools for Use with Front Cover</i>																
72880	FB.66096	Holder for pump drive shaft ...	x	x		1	1	1	1	1	1	1	2	2	1	
72882	FB.66094	Pliers for removing driven gear circlip	x	x		1	1	1	1	1	1	1	3	3	2	
<i>Tools for Use with Oil Sump</i>																
—	FB.105170	Spanner for oil sump nuts ...	x	x	2	6	4	2	6	6	6	4	8	8	6	
<i>Tools for Use with Crankshaft</i>																
72884	FB.71944	Drift for crankshaft gear ...	x	x									2	2	2	
72886	FB.71947	Drift for bearing inner race (rear) ...	x	x									2	2	2	
72898	FB.72501	Extractor and insertor for bearing inner race (front).	x										1	1	1	
88410	FB.80005	Extractor and insertor for bearing inner race (front).	x	x									2	2	2	Required for engines prior to Mod. E.804. Required for Taurus II, VI engines subsequent to Mod. E.804.
72896	FB.71946	Extractor for bearing inner race (rear)	x										1	1	1	Required for engines prior to Mod. E.754.

120285	FB.79966	Extractor for bearing inner race (rear)	x	x									2	2	2	Required for Taurus II, VI engines subsequent to Mod. E.754.
72894	FB.71945	Extractor for crankshaft gear ...	x	x									2	2	2	
72892	FB.71949	Extractor for reduction gear driving wheel.	x	x		1	1	1	1	1	1	1	2	2	2	
72900	FB.71939	Holder for reduction gear driving wheel	x	x		1	1	1	1	1	1	1	2	1	1	
72966	FB.72616	Insertor and extractor for centre bearing.	x	x									1	1	1	
72902	FB.71938	Key for oil jet ...	x										1	1	1	
		Spanner, box, for oil jet (use FB.26407 in general section).	x	x												Required for Taurus II, VI engines subsequent to Mod. E.720.
72912	FB.72511	Spanner for front bearing retaining nut	x	x		1	1	1	1	1	1	1	2	2	1	Required for early type Taurus XII, XVI engines fitted with nut F.B.S.191.
120119	FB.97346	Spanner for front bearing retaining nut		x		1	1	1	1	1	1	1	3	2	2	
72904	FB.72502	Spanner for bearing retaining nut ...	x	x									2	2	1	Required for early type Taurus XII, XVI engines fitted with nut F.B.S.187.
87980	FB.71911	Spanner for bearing retaining nut ...		x									3	2	2	
72908	FB.74778	Spanner for crankpin oil plug ...	x										1	1	1	Required for Taurus II, VI engines prior to Mod. E.736. Required for Taurus II, VI engines subsequent to Mod. E.736.
		Spanner for crankpin oil plug (use FB.79992 in crankcase section).	x	x												
72910	FB.72514	Spanner for crankshaft plug ...	x										1	1	1	
72906	FB.71948	Spanner for reduction gear driving wheel nut.	x	x		1	1	1	2	1	1	1	3	2	2	
72962	FB.72515	Tool for assembling bearing on reduction gear driving wheel.	x	x		1	1	1	1	1	1	1	2	2	1	
72964	FB.72516	Tool for dismantling bearing on reduction gear driving wheel.	x	x		2	1	1	2	1	1	1	2	2	2	
87893	FB.87063	Wrench for turning engine ...	x	x		1	1	1	1	1	1		2	2	2	

Ref. No.	Part No.	Description	ENGINES		ALLOWANCES											Remarks
			Taurus II	Taurus XII	Squadrons per 6 I.E. Aircraft	Aircraft Carriers			Naval Air Stations			Repair Yards		Repair Ships		
						Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A		Class B	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
		<i>Tools for Use with Crankshaft—contd.</i>														
72888	FB.72509	Disc, timing, for engine group, comprising :—														
72890	FB.66078	Pointer	x	x		1	1	1	1	1	1	1	2	2	2	
		Stand, for assembling crankshaft group, comprising :—														
72914	FB.71901	Bolts, lifting (4 per set)	x	x									Sets	Sets	Sets	
120082	FB.97230	Bracket, clamping, for connecting rods	x	x									3	3	3	
													2	2	2	
120083	FB.97231	Bracket, clamping, for connecting rods	x	x									2	2	2	
72916	FB.66100	Fixture	x										1	1	1	
88411	FB.84395	Fixture	x										1	1	1	
120084	FB.97229	Fixture		x									1	1	1	
72920	FB.71902	Ring, adaptor	x	x									1	1	1	
72924	FB.66098	Stand	x	x									1	1	1	
72926	FB.66097	Tackle, lifting	x	x									2	2	2	
		<i>Tools used in Conjunction with Stand for Assembling Crankshaft.</i>														
72928	FB.71931	Bar, alignment	x	x									2	2	1	
72930	FB.71932	Bar, alignment	x	x									2	2	1	

72932	FB.71933	Bar, alignment	x	x									2	2	1	
72938	FB.71919	Extractor for front and rear crankshafts	x	x									2	2	2	
72934	FB.71928	Expander, Maneton (front)	x										1	1	1	
74012	FB.97232	Expander, Maneton (front)		x									3	2	2	
72936	FB.71929	Expander, Maneton (rear)	x										1	1	1	
74016	FB.97233	Expander, Maneton (rear)		x									3	2	2	
72942	FB.71910	Gauge, length, for stretch of Maneton bolt.	x										1	1	1	
72944	FB.72508	Pilot, for crankshaft centre	x										1	1	1	
77996	FB.79934	Pilot, for crankshaft centre	x	x									1	1	1	
72946	FB.72555	Post, indicator, for crankshaft (front)	x										1	1	1	
72948	FB.72556	Post, indicator, for crankshaft (rear)	x										1	1	1	
72952	FB.71934/2	Spanner (complete), for crankshaft bolt (front).	x										1	1	1	
72953	FB.71934/2/6	Spanner (spare insert for above) group, comprising :—	x										1	1	1	
		Holder...		x									2	2	2	
74003	FB.97234	Holder...		x									2	2	2	
74004	FB.97235	Holder...		x									2	2	2	
74005	FB.97236	Spanner		x									2	2	2	
72954	FB.72507	Spanner (complete) for crankshaft bolt (rear).	x										1	1	1	
	FB.72507/6	Spanner (spare insert for above) Spanner for crankshaft bolt (rear) group, comprising :—	x										1	1	1	
		Holder...		x									2	2	2	
74013	FB.97237	Holder...		x									2	2	2	
74014	FB.97238	Spanner		x									2	2	2	
72950	FB.77566	Spanner for retaining bolt nut (2 per set).	x	x									4	4	2	
72956	FB.72513	Steady, for crankshaft centre	x	x									2	2	1	
72958	FB.72510	Steady, for assembling shaft	x	x									1	1	1	
		Tool for assembling bearing sleeve, group, comprising :—														
88201	FB.84396	Plate, locating	x	x									2	2	1	
72960	FB.71936	Tool, assembling	x	x									2	2	1	



Ref. No.	Part No.	Description	ENGINES		ALLOWANCES											Remarks	
			Taurus II	Taurus XII	Squadrons per 6 I.E. Aircraft	Aircraft Carriers			Naval Air Stations				Repair Yards		Repair Ships		
						Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A	Class B			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	
72940	FB.71935/2	<i>Tools for Use with Crankshaft—contd.</i> Tool for dismantling bearing sleeve ...	x	x										2	2	1	
73436	FB.72506	Tools for crankshaft bush :— Extractor ...	x	x		1	1	1	1	1	1	1	1	2	2	1	
73438	FB.72503	Fixture, reaming ...	x	x		1	1	1	1	1	1	1	1	2	2	2	
120277	FB.95027	Gauge, plug ...	x	x		1	1	1	1	1	1	1	1	1	1	1	
73440	FB.72504	Holder for reamer ...	x	x		1	1	1	1	1	1	1	1	3	2	2	
73442	FB.72669	Reamer ...	x	x		1	1	1	1	1	1	1	1	1	1	1	
73444	FB.72505	Tool, inserting ...	x	x		3	2	2	3	3	2	2	2	4	4	3	
		<i>Tools for Use with Connecting Rod</i>				1	1	1	1	1	1	1	1	1	1	1	
72968	FB.65999	Drift for inserting artic rod pin ...	x	x										3	2	2	
72970	FB.66000	Drift for extracting artic rod pin ...	x	x										3	2	2	
72972	FB.65932	Jig for drifting out artic rod pin ...	x	x										3	2	2	
		Pliers for removing artic rod pin circlip	x	x										2	1	1	
72976	FB.72522	Tool for assembling artic rod pin circlip.	x	x										4	3	3	
72978	FB.72521	Tool for compressing oil retainer springs.	x											1	1	1	
92774	FB.74621	Tool for compressing oil retainer springs.		x										2	2	1	
		<i>Tools for Use with Piston</i>															
72614	FB.65990	Clip for piston and cylinder head rings	x	x	1	3	2	2	4	3	3	2	5	4	3	3	
54260	FB.57411	Pliers for removing gudgeon pin circlip	x	x	1	4	3	2	5	4	4	3	5	4	3	3	
72618	FB.65992	Tool, inserting, for gudgeon pin circlip	x	x	1	3	2	2	4	3	3	2	5	4	3	3	

Use FB.66094 in front cover section.

		<i>Tools for Use with Cylinders and Sleeves</i>														
Ref. No.	Part No.	Description	Taurus II	Taurus XII	Squadrons per 6 I.E. Aircraft	Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A	Class B	Repair Ships	Remarks
72512	FB.69551	Spanner for exhaust snout nut ...	x	x	3	6	5	3	8	8	6	4	12	10	8	
54054	FB.46045/2	Spanner for sparking plug ...	x	x	6	12	8	6	12	12	12	8	15	15	12	
120457	FB.105191	Spanner for relief valve body ...	x	x	1	3	2	2	4	3	3	2	5	5	4	
53220	FB.65993	Hook for locking plate ...	x	x	1	6	4	3	6	6	6	3	10	8	6	
72622	FB.65994	Holder for cylinder sleeve (for use when tightening sleeve ball housing nuts).	x	x	1	2	2	2	3	2	2	2	6	6	4	
54258	FB.57296	Indicator, piston, top dead centre ...	x	x	1	2	1	1	2	2	1	1	3	3	2	
54272	FB.57409	Pilot for cylinder sleeve ...	x	x	2	6	4	4	12	10	10	6	18	18	12	
		Spanners for cylinder and cylinder head nuts, comprising :—														
98086	FB.90121	Adaptor, ratchet ...	x	x	1	4	3	2	6	5	5	3	8	6	5	
96088	FB.90125	Fixture, torque testing, for wrench	x	x	1	1	1	1	1	1	1	1	2	2	2	
98090	FB.90130	Handle for spanner (for slackening nuts).	x	x	2	4	3	2	6	5	5	3	8	6	5	
92450	FB.90120/2	Spanner for cylinder nuts (extended)	x	x	2	4	3	2	6	5	5	3	10	8	6	
98096	FB.90132	Spanner for cylinder nuts ...	x	x	2	4	4	2	6	5	5	3	10	8	6	
98098	FB.90124	Spanner for cylinder head nuts ...	x	x	2	4	3	2	6	5	5	3	10	8	6	
		Wrench, "Sunnen" tension ...	x	x	1	4	3	2	6	5	5	3	8	6	5	
53232	FB.57293	Spanner for induction belt bolts ...	x	x	2	4	3	2	6	5	5	3	10	8	6	
120150	FB.97252	Spanner, flexible ...	x	x	1	3	2	1	4	3	3	2	6	5	4	
54276	FB.46049	Spanner for sleeve ball housing nuts ...	x	x	1	4	3	2	5	4	4	2	8	8	6	
120290	FB.97333	Spanner for 2 B.A. nut in locking plate	x	x	2	4	3	2	6	5	5	3	10	8	6	
72638	FB.65987	Tool, assembly, for cylinder ...	x	x	1	3	2	2	4	4	3	2	5	4	4	
87832	FB.79940	Tool for assembling and removing cylinder head ring.	x	x	1	3	2	2	4	4	3	2	6	6	4	
72640	FB.72611	Tool, for removing sleeve contracting ring.	x	x	1	2	2	1	3	2	2	1	5	4	3	
53802	FB.72580	Gauge, 14 mm. thread, for spark plug adaptor.	x	x	1	2	2	1	2	2	2	1	4	3	2	
53804	FB.57424	Tap, 14 mm., for spark plug adaptor...	x	x	3	10	8	4	10	10	10	6	12	12	12	
		<i>Tools for Use with Magneto and Drive</i>														
10675	FB.38410	Spanner for magneto driving drum ...	x	x	1	1	1	1	1	1	1	1	2	2	2	
		Tool to advance magneto when timing group, comprising :—														
54440	FB.57315	Expander (2 per set) ...	x	x	2	6	4	2	6	4	4	2	8	8	6	
54446	FB.57314	Spanner ...	x	x	1	3	2	1	3	2	2	1	4	4	3	

Use only for running down nuts.

Ref. No.	Part No.	Description	ENGINES		ALLOWANCES											Remarks
			Taurus II	Taurus XII	Squadrons per 6 I.E. Aircraft	Aircraft Carriers				Naval Air Stations			Repair Yards		Repair Ships	
						Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A	Class B		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
		<i>Tools for Use with Magneto and Drive</i> —contd.														
72980	FB.72538/2	Holder, for sliding spindle ...	x	x									2	2	2	Existing stocks of F.B. 72538 may be supplied in lieu.
72982	FB.72537	Holder for magneto driving drum ...	x	x									2	2	2	
92777	FB.97227	Spanner for sliding spindle retaining nut.	x	x									3	3	2	
53236	FB.65988/2	Device, for timing magneto group, comprising :— Device timing ...	x	x	1	3	2	1	3	2	2	2	4	3	2	Existing stocks of F.B. 65988 can be modified to meet this requirement.
72644	FB.65996	Pointer ...	x	x	1	3	2	1	3	2	2	2	4	3	2	
53003	FB.92635/3	<i>Tools for Use with High Tension Wires</i> Spanner, for spark plug elbow ...	x	x	3	6	4	4	8	6	6	4	12	12	8	
		<i>Tools for Use with Oil Pump</i>														
10521	FB.36776	Key, adjusting, for relief valve ...	x	x	1	6	4	2	8	6	6	4	10	8	6	
10523	FB.36775	Spanner, for relief valve locknut ...	x	x	1	6	4	2	8	6	6	4	10	8	6	
72984	FB.72539	Extractor, for oil pump ...	x	x	1	2	1	1	3	2	2	1	3	2	2	
72986	FB.72540	Spanner, for pipe connection ...	x	x	1	3	2	1	4	3	3	2	5	4	3	

72988	FB.72543	<i>Tools for Use with Supercharger</i> Drift and stand, for assembling impellor and distance piece to impellor shaft.	x	x									2	2	2	
78042	FB.79939	Drift, for inserting oil tube in main driving shaft.	x	x									3	2	2	
78044	FB.77663	Extractor, for oil tube in main driving shaft.	x	x									2	2	2	
72990	FB.72544	Extractor, for intermediate pinion spindle.	x	x									2	2	2	
		Fixture, for checking end wobble on impellor group, comprising :—														
63879	FB.66080	Blocks (2 per set) ...	x	x									2	2	2	
63904	FB.66039	Fixture ...	x	x									1	1	1	
		Gauge, for checking clearance between impellor and volute casing group, comprising :—														
72996	FB.72541	Gauge ...	x	x									1	1	1	
	FB.72542	Gauge ...	x	x									1	1	1	
8395	FB.20779	Pincers, for assembling spring drive springs.	x	x									3	2	2	Common also to Pegasus and Mercury.
32004	FB.57285	Pliers, for oil tube circlip ...	x	x									3	2	2	
		Spanner, for front and rear impellor shaft nuts group, comprising :—														
72998	FB.72549	Holder, for shaft ...	x	x									2	2	2	
73000	FB.72548	Spanner, holder, for shaft ...	x	x									3	3	2	
29412	FB.51168	Spanner, for nut ...	x	x									6	5	5	Common also to Pegasus and Mercury.
73004	FB.72546	Spindle, for checking end float on inter gear assembly.	x	x									2	2	1	
		Fixture for lapping clutch blocks group, comprising :—														
73450	FB.66050	Adaptor ...	x	x									2	1	1	
73452	FB.66055	Driver ...	x	x									2	1	1	
54060	FB.66048	Fixture ...	x	x									2	1	1	
		<i>Tools for Use with Reduction Gear</i>														
72604	FB.65997	Wrench, for turning engine ...	x	x	1	3	2	1	4	3	3	2	5	4	3	
88409	FB.87073	Base for oil retainer cover for removing oil retainer.	x	x		1	1	1	1	1	1	1	2	2	2	
98160	FB.87074	Drift, for removing oil retainer ...	x	x		1	1	1	1	1	1	1	2	2	2	

Ref. No.	Part No.	Description	ENGINES		ALLOWANCES											Remarks	
			Taurus II	Taurus XII	Squadrons per 6 I.E. Aircraft	Aircraft Carriers			Naval Air Stations				Repair Yards		Repair Ships		
						Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A	Class B			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	
<i>Tools for Use with Reduction Gear—contd.</i>																	
72806	FB.72573	Drift, for airscrew shaft front bearing	x	x										2	2	2	
72804	FB.72571	Drift, for bevel gear thrust bearing ...	x	x										2	2	2	
72808	FB.72570	Drift, for bevel pinion thrust bearing...	x	x										2	2	2	
72812	FB.72559	Extractor, for bevel pinion thrust bearing.	x	x										2	2	2	
77864	FB.74798	Extractor, for oil seal housing ...	x	x										2	2	1	
72810	FB.72560	Extractor for rear bevel gear ...	x	x										2	2	2	
		Fixture, for checking backlash group, comprising :—															
72816	FB.72565	Bush, for adaptor ...	x	x										1	1	1	
72818	FB.72561	Fixture ...	x	x										1	1	1	
72820	FB.79942	Gauge, pressure, and adaptor ...	x	x										1	1	1	
72822	FB.72562	Ring, adaptor ...	x	x										1	1	1	
72824	FB.72572	Gauge, depth (face of reduction gear case to rear bevel gear).	x	x		1	1	1	1	1	1	1		2	2	2	
72826	FB.72575	Holder for stationary gear ...	x	x										1	1	1	
98184	FB.87075	Pilot, for assembling oil retainer cover	x	x		1	1	1	1	1	1	1		2	2	2	
		Pliers, for retaining ring ...	x	x										2	2	2	
120226	FB.97269	Ring, distance, for assembling stationary gear.	x	x										2	2	2	Use F.B.35228 in crank-case section.
10670	FB.35171	Spanner, for bevel pinion nut ...	x	x										3	2	2	Common also to Pegasus and Mercury.
72830	FB.72557	Spanner, for retaining nut ...	x	x										3	2	2	

72832	FB.72558	Spanner, for thrust nut ...	x	x										1	1	1	Required for engines prior to Mod. E.676. Required for engines subsequent to Mod. E.676.
98190	FB.79972	Spanner, for thrust nut ...	x	x										3	2	2	
63732	FB.71940	Stand, for reduction gear ...	x	x										2	1	1	
72836	FB.72576	Stand, for reduction gear ...	x	x										2	1	1	
72838	FB.72577	Tool for assembling front bearing, stationary gear and oil seal housing on airscrew shaft.	x	x										2	1	1	
		Tool for extracting airscrew shaft from front bearing and reduction gear case															
		Group comprising :—															
72840	FB.72569	Extractor ...	x	x										2	1	1	
72842	FB.72578	Pedestal for reduction gear case	x	x										2	1	1	
		Tool, for inserting oil retainer in oil retainer cover, Group comprising :—															
98208	FB.79973	Base ...	x	x		1	1	1	1	1	1	1		2	2	2	
98210	FB.79974	Drift ...	x	x		1	1	1	1	1	1	1		2	2	2	
88403	FB.79975	Ring, locating ...	x	x		1	1	1	1	1	1	1		2	2	2	
74017	FB.80088	Fixture for extracting bevel pinion bush	x	x										1	1	1	
		Fixture for inserting bevel pinion bush, Group, comprising :—															
74007	FB.80081	Adaptor ...	x	x										1	1	1	
88206	FB.80074	Base ...	x	x										1	1	1	
29708	FB.80082	Drift ...	x	x										2	2	2	
120014	FB.80085	Gauge, plug, for bevel pinion bush ...	x	x										1	1	1	
		Reaming jig, for bevel pinion bush, Group, comprising :—															
69352	FB.77550	Jig, reaming ...	x	x										1	1	1	
88214	FB.80023	Ring, clamping ...	x	x										1	1	1	
74002	FB.80019	Ring, locating ...	x	x										1	1	1	
69354	FB.65912	Reamer, expanding ...	x	x										3	2	2	
		<i>Tools for Use with Auxiliary Drive</i>															
73006	FB.72594	Drift and stand, for auxiliary drive shaft	x	x										1	1	1	
73008	FB.72597	Holder, for auxiliary drive shaft ...	x	x										2	1	1	
		Insertor and extractor for ball bearing and "Gits" oil seal, Group comprising :—															
73010	FB.74631	Bush ...	x	x		1	1	1	1	1	1	1		2	2	1	
	FB.72595	Insertor and extractor ...	x	x		1	1	1	1	1	1	1		2	2	1	

Ref. No.	Part No.	Description	ENGINES		ALLOWANCES											Remarks
			Taurus II	Taurus XII	Squadrons per 6 I.E. Aircraft	Aircraft Carriers			Naval Air Stations				Repair Yards		Repair Ships	
						Fleet and Light Fleet	Escort	Merchant Aircraft	Class A	Class B	Class C	Class D and E	Class A	Class B		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
<i>Tools for Use with Oil and Petrol Pump Drive</i>																
Tools for pump drive housing bush :—																
54078	FB.72671	Extractor ... ..	x	x									1	1	1	
73458	FB.72668	Fixture, inserting ... ..	x	x									1	1	1	
54082	FB.66028	Gauge, plug ... ..	x	x												
		Jig, reaming ... ..	x	x									1	1	1	Use F.B.74644 in rear cover section.
54084	FB.66029	Reamer ... ..	x	x									3	3	2	
Tools for Layshaft housing bush :—																
54088	FB.66035	Extractor ... ..	x	x									1	1	1	
54090	FB.66036	Fixture, inserting ... ..	x	x									1	1	1	
93114	FB.95025	Gauge, plug ... ..	x	x									1	1	1	
		Jig, reaming ... ..	x	x												Use FB.66063 in rear cover section.
73466	FB.66065	Reamer ... ..	x	x									3	3	2	
<i>Tools for Use with Accessory Gear Box</i>																
Tools for lining up gear box with drive on engine group, comprising :—																
53250	FB.74760	Adaptor (for drive on engine) ...	x	x	1	2	1	1	2	2	2	1	3	3	2	
53252	FB.65928	Fixture, alignment ... ..	x	x	1	2	1	1	2	2	2	1	3	3	2	
72656	FB.74762	Mounting, adaptor (engine substitute)	x	x	1	2	1	1	2	2	2		3	3	2	
53256	FB.74759	Spigot (for gear box) ... ..	x	x	1	2	1	1	2	2	2	1	3	3	2	

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<i>Tools for General Use</i>																
8017	FB.19160	Gun, oil, "Enots" ... ..	x	x	1	3	2	2	6	6	6	2	12	10	8	Common also to Pegasus and Mercury.
54050	FB.63076	Spanner, Universal box, 2 B.A. ...	x	x	6	12	8	6	15	15	15	8	30	24	20	Common also to Pegasus and Mercury.
10530	FB.26407	Spanner, box, 1/4 in. B.S.F. ...	x	x	6	12	8	6	15	15	15	8	30	24	20	
10518	FB.26464	Spanner, 2 B.A. x 4 B.A. ...	x	x	6	12	8	6	15	15	15	8	30	24	18	
10520	FB.26463	Spanner, 1/4 in. x 1/8 in. B.S.F. ...	x	x	6	12	8	6	15	15	15	8	30	24	18	
10522	FB.26462	Spanner, 1/8 in. x 3/8 in. B.S.F. ...	x	x	6	12	8	6	15	15	15	8	30	24	18	
10524	FB.26461	Spanner, 1/8 in. x 1/2 in. B.S.F. ...	x	x	3	6	4	3	10	10	10	4	20	15	12	
10526	FB.26460	Spanner, 1/8 in. x 1/2 in. B.S.F. ...	x	x	3	6	4	3	10	10	10	4	20	15	12	
10528	FB.26459	Spanner, 1/8 in. x 3/4 in. B.S.F. ...	x	x	3	6	4	3	10	10	10	4	20	15	12	
2156	FB.5427	Spanner, box, 2 B.A. x 1/4 in. B.S.F. ...	x	x	6	12	8	6	15	15	15	8	30	24	18	
120287	FB.97332	Screw driver, for Jubilee clips ...	x	x	6	12	8	6	15	15	15	8	30	24	18	
2132	FB.2319	Bar, tommy, 1/4 in. diameter ...	x	x	6	12	8	6	15	15	15	8	30	24	20	
10506	FB.26456	Bar, tommy, 1/2 in. diameter ...	x	x	6	12	8	6	15	15	15	8	30	24	20	
					Set	Sets	Sets	Set	Sets	Sets	Sets		Sets	Sets	Sets	
—	FB.88091	Pilot, for engine bearer bolt (4 per set)	x	x	1	4	3	1	4	4	4		6	6	5	Common also to Pegasus and Mercury.

