

**CHAPTER 1**

**GENERAL INFORMATION**

**RESTRICTED**



## Chapter 1 GENERAL INFORMATION

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## Introduction

1. Data pertaining to fits, clearances, and repair tolerances, for parts susceptible to wear, are contained in Chapters 2 to 7 inclusive. Information is presented in schedule form and is supplemented by detailed illustrations of the assemblies concerned. Each wear point is correspondingly numbered in associated schedules and illustrations. Key illustrations are provided, where necessary, in the appropriate chapters.

## Dimensions and measurement

2. All dimensions are quoted in inches and decimals of an inch. A minus sign indicates an interference fit. Units must make their own arrangements to measure the parts accurately. ►

## Interpretation of the schedules

3. Each schedule is set as a key to its corresponding illustration and seven columns are used to present the details as follows:-

(1) *Item No.*, the first column, locates the parts in their appropriate assembly group.

(2) *Description*, the second column, identifies each part individually; when demanding replacement parts, refer to Volume 3, Part 1 of this publication for the respective Reference and/or Part Number.

(3) *Dimension - new*, the third column, shows the maximum and minimum sizes to which new parts are made; the difference between these dimensions is the manufacturing tolerance.

(4) *Permissible worn dimension*, the fourth column, shows the limiting dimension to which each part may be worn and still be used for a further period of service. In some cases the appropriate mating part must be specially selected so as not to exceed the permissible worn clearance. ►

(5) *Clearance - new*, the fifth column, shows the maximum and minimum clearances which can result from mating two new parts.

(6) *Permissible worn clearance*, the sixth column, shows the maximum clearance which can be permitted between two mating parts, that are assembled to undergo a further period of service.

(7) *Repair*, the seventh column, indicates the appropriate remedial action for each assembly.

## Spherical and ball bearing wear limits

4. Illustrations in the subsequent chapters show the locations of spherical and ball bearings and the associated schedules indicate the permissible worn clearances for such bearings. Wear at these points is not considered likely, however, unless caused by excessive vibration or the ingress of foreign matter. Additionally it may be found that complete seizure of a bearing has resulted from the ingress of foreign matter, despite the provision of protective dust shields wherever possible. In either case the affected joint must be dismantled and the bearing thoroughly cleaned and examined for diametric and/or axial slackness. If the bearing is worn beyond the limits stated, the remedial action indicated in the repair column must be taken. It should be noted that axial slackness limits, only, are quoted for spherical bearings, and ball bearings of the self-aligning type, because of the extreme difficulty entailed in accurate measurement of diametric slackness. Owing to the slow curvature of



the outer race there is little or no internal clearance on a new bearing and any slight increase, therefore, results in an inordinately high increase in axial slackness.

**Note...**

*Bearing wear limits, as shown for individual assemblies in the following chapters, must not be regarded as applicable throughout a complete system, if the cumulative effects produce an unacceptable measure of backlash.*

**Repair parts**

**Standard bushes**

5. All bushes likely to incur wear in service are available as spare parts. When

wear occurs only within the bore of a bush, a repair by replacement will normally be effective. In this case, after installation, ensure that the bore of the bush is finished within the limits shown in the Dimension — new column. If slackness between a bush and its housing develops — to the extent that a new bush might soon become slack — the parent component should, itself, be renewed, or modified to accommodate an oversize bush.

**Oversize bushes**

6. In addition to those bushes manufactured to drawing standards, and provisioned

as spare parts, a range of oversize bushes is available. Each of these bushes is manufactured to a size suiting the uppermost limit to which it is permissible to open out the hole in the parent component of the bush. As a general rule any oversize hole, in a parent component, should only be opened out to the minimum size necessary to preserve the diametric and concentricity limits of the assembly. Cross reference between the associated schedules and illustrations, in subsequent chapters, and Table 1 in this chapter, will enable the appropriate bush to be selected. The bush should then be ground to the required size and finally assembled.

**TABLE 1 Repair parts (oversize bushes)**

		Size			Location		
Part No. or Ref No. 26NA/	Identification	Standard O.D.	Oversize O.D.	Required interference	Chap.	Fig.	Item No.
	FUSELAGE						
18126	Bush, hinge beam lower	<u>0.62600</u> 0.62575	<u>0.68850</u> 0.68825	<u>-.00125</u> -.00025	2	2/1	2
11799	Bush, nose locking lever	<u>1.00100</u> 1.00075	<u>1.06350</u> 1.06325	<u>-.00125</u> -.00025	2	2/3	3
YB3-10-1488/0	Bush, nose locking handle	<u>1.00100</u> 1.00075	<u>1.06350</u> 1.06325	<u>-.00125</u> -.00025	2	2/3	14
11801	Bush, probe door hinge arm (rear)	<u>0.72100</u> 0.72075	<u>0.7835</u> 0.7832	<u>-.00125</u> -.00025	2	2/5	◀ 11 ▶



TABLE 1 (continued)

Part No. or Ref No. 26NA/	Identification	Size			Location		
		Standard O.D.	Oversize O.D.	Required interference	Chap.	Fig.	Item No.
YB3-15-1067/0	Bush, canopy release handle	<u>0.62600</u> 0.62575	<u>0.65725</u> 0.65700	<u>-.00125</u> -.00025	2	2/8	31
YB3-15-633/0	Bush, front sprocket bearing	<u>0.501</u> 0.500	<u>0.53225</u> 0.53125	<u>-.00125</u> -.000	2	2/11	1
YB3-15-656/0	Bush, jockey sprocket bearing	<u>0.688</u> 0.687	<u>0.71925</u> 0.71825	<u>-.00125</u> -.000	2	2/11	2
YB3-15-663/0	Bush, pinion shaft bearing	<u>0.68850</u> 0.68825	<u>0.71975</u> 0.71950	<u>-.00125</u> -.00025	2	2/11	21
18134	Bush, drag link spar lug (lower)	<u>1.6915</u> 1.6905	<u>1.7540</u> 1.7530	<u>-.00325</u> -.00225	2	2/20	2 & 6
◀ 18130	Bush, air brake attachment, bottom	0.87550 0.87525	0.9067 0.90645	-.00125 -.00025	2	2/20	3 ▶
YB3-17-665/0	Bush, petal strut (port and stbd)	<u>1.6890</u> 1.6885	<u>1.7515</u> 1.7510	<u>-.0017</u> -.0003	2	2/20	8
18137	Bush, drag link spar lug (upper)	<u>1.879</u> 1.878	<u>1.91025</u> 1.90925	<u>-.00425</u> -.00225	2	2/20	11
18132	Bush, drag link spar lug (lower)	<u>1.8775</u> 1.877	<u>1.9400</u> 1.9395	<u>-.00275</u> -.00125	2	2/20	14
18135	Bush, petal strut (fork end)	<u>2.3140</u> 2.3135	<u>2.3765</u> 2.3755	<u>-.0017</u> -.0003	2	2/20	24
YB3-17-667/0	Bush, petal strut (eye end)	<u>2.3140</u> 2.3135	<u>2.3765</u> 2.3755	<u>-.0017</u> -.0003	2	2/20	25
YB3-97-2588/0	Bush, 600 lb and 600 lb/950 lb bomb carrier	<u>0.5645</u> 0.5640	<u>0.6270</u> 0.6265	<u>-.00225</u> -.00100	2	2/21	1 & 3
YB3-97-261/0	Bush, 1000 lb bomb carrier	<u>0.62600</u> 0.62575	<u>0.65600</u> 0.65575	<u>-.00125</u> -.00025	2	2/22	1
YB3-97-244/0	Bush, trunnion, 1000 lb bomb carrier	<u>0.50100</u> 0.50075	<u>0.56300</u> 0.56275	<u>-.00075</u> -.00005	2	2/22	4
YB3-97-329/0	Bush, spigot, 1000 lb bomb carrier	<u>1.6890</u> 1.6885	<u>1.7515</u> 1.7510	<u>-.00175</u> -.00025	2	2/22	5



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TABLE 1 (continued)

Part No. or Ref No. 26NA/	Identification	Size			Location		
		Standard O.D.	Over-size O.D.	Required interference	Chap.	Fig.	Item No.
	MAIN PLANE						
11836	Bush, latch lever	$\frac{0.37550}{0.37475}$	$\frac{0.40670}{0.40595}$	$\frac{-.00075}{-.00000}$	3	3/2	1
11860	Bush, front spar hinge (forward)	$\frac{2.315}{2.314}$	$\frac{2.3775}{2.3765}$	$\frac{-.00375}{-.00025}$	3	3/3 3/9	1 1
11862	Bush, front spar hinge (centre rear)	$\frac{2.315}{2.314}$	$\frac{2.3775}{2.3765}$	$\frac{-.00375}{-.00025}$	3	3/3 3/9	1A 2
18138	Bush, hinge lug, front spar	$\frac{2.315}{2.314}$	$\frac{2.3775}{2.3765}$	$\frac{-.00425}{-.00025}$	3	3/3 3/9	2 4
18139	Bush, hinge lug, front spar	$\frac{2.315}{2.314}$	$\frac{2.3775}{2.3765}$	$\frac{-.00425}{-.00025}$	3	3/3 3/9	2A 3
11842	Bush, latch pin plug	$\frac{0.50050}{0.50025}$	$\frac{0.53175}{0.53150}$	$\frac{-.00075}{-.00000}$	3	3/3	3
11842	Bush, jack side plate	$\frac{0.50050}{0.50025}$	$\frac{0.53175}{0.53150}$	$\frac{-.001}{-.000}$	3	3/3	12
11856	Bush, latch pin guide (port) }	$\frac{2.4395}{2.4390}$	$\frac{2.5645}{2.5640}$	$\frac{-.00275}{-.00025}$	3	3/3	19
11858	Bush, latch pin guide (stbd) }						
11864	Bush, front spar lower	$\frac{2.44175}{2.44125}$	$\frac{2.56675}{2.56625}$	$\frac{-.0050}{-.0025}$	3	3/3 3/7	20 6
11874	Bush, front spar lug	$\frac{2.44175}{2.44125}$	$\frac{2.50425}{2.50375}$	$\frac{-.0050}{-.0025}$	3	3/3 3/7	20A 7
11846	Bush, trunnion block	$\frac{1.1265}{1.1260}$	$\frac{1.1890}{1.1885}$	$\frac{-.00175}{-.00025}$	3	3/5	5
15615	Bush, trunnion block	$\frac{1.1265}{1.1260}$	$\frac{1.1577}{1.1572}$	$\frac{-.00175}{-.00025}$	3	3/5	6

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TABLE 1 (continued)

Part No. or Ref No. 26NA/	Identification	Size			Location		
		Standard O.D.	Over O.D.	Required interference	Chap.	Fig.	Item No.
11850	Bush, rear spar lower (inner plane)	$\frac{1.3150}{1.3145}$	$\frac{1.3350}{1.3345}$	$\frac{-.003}{-.001}$	3	$\frac{3/5}{3/9}$	$\frac{13}{9}$
11868	Bush, rear spar lug (outer plane)	$\frac{1.31425}{1.31375}$	$\frac{1.33425}{1.33375}$	$\frac{-.00225}{-.00025}$	3	$\frac{3/5}{3/9}$	$\frac{13A}{8}$
11840	Bush, latch pin guide	$\frac{1.31375}{1.31325}$	$\frac{1.33375}{1.33325}$	$\frac{-.00175}{-.00000}$	3	3/5	14
19060 19061	Bush, latch pin guide (port) Bush, latch pin guide (stbd) }	$\frac{2.4395}{2.4390}$	$\frac{2.5645}{2.5640}$	$\frac{-.00275}{-.00025}$	3	3/7	11
18912	Bush, diaphragm, wing fold	$\frac{1.4390}{1.4385}$	$\frac{1.5015}{1.5010}$	$\frac{-.00175}{-.00025}$	3	3/8	6
11809	Bush, flap hinge bearing (outer)	$\frac{1.8765}{1.8760}$	$\frac{1.9702}{1.9697}$	$\frac{-.00175}{-.00025}$	3	3/10	1
11880	Bush, flap hinge bracket (inner)	$\frac{0.50050}{0.50025}$	$\frac{0.56300}{0.56275}$	$\frac{-.00075}{-.000}$	3	3/10	4
YB3-97-1769/0 YB3-97-1769/A0 }	Bush, bomb beam	$\frac{0.50050}{0.50025}$	$\frac{0.56350}{0.56325}$	$\frac{-.00075}{-.000}$	3	3/12	1 & 3
<b>ALIGHTING GEAR</b>							
11797	Bush, nose wheel mounting beam	$\frac{1.6890}{1.6885}$	$\frac{1.7515}{1.7510}$	$\frac{-.002}{-.000}$	5	5/2	5
11803	Bush, undercarriage down-lock	$\frac{2.49975}{2.49900}$	$\frac{2.62475}{2.62400}$	Transition fit	5	5/7	5
11805	Bush, undercarriage attachment (front)	$\frac{3.503}{3.502}$	$\frac{3.5655}{3.5645}$	$\frac{-.0025}{-.001}$	5	5/7	9



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TABLE 1 (continued)

Part No. or Ref No. 26NA/	Identification	Size			Location		
		Standard O.D.	Oversize O.D.	Required interference	Chap.	Fig.	Item No.
11813	Bush, door hinge arm (front and rear)	<u>0.3760</u> 0.3755	<u>0.40725</u> 0.40675	<u>-.00125</u> -.00025	5	5/7	12
11811	Bush, door hinge arm (centre)	<u>0.3760</u> 0.3755	<u>0.40725</u> 0.40675	<u>-.00125</u> -.00025	5	5/7	14
11807	Bush, undercarriage attachment (rear)	<u>3.503</u> 3.502	<u>3.5655</u> 3.5645	<u>-.0025</u> -.001	5	5/7	15
15607	Bush, undercarriage door latch (bodyside)	<u>0.50050</u> 0.49975	<u>0.53175</u> 0.53100	<u>-.00075</u> -.000	5	5/9	7
15605	Bush, undercarriage door latch (bulkhead)	<u>0.50050</u> 0.49975	<u>0.53175</u> 0.53100	<u>-.00075</u> -.000	5	5/9	7A
11832	Bush, camshaft lever	<u>0.50050</u> 0.50025	<u>0.56300</u> 0.56275	<u>-.0005</u> -.000	5	5/9	8
15611	Bush, channel (jack support member)	<u>1.00100</u> 1.00075	<u>1.03225</u> 1.03200	<u>-.00100</u> -.00025	5	5/9	10
15612	Bush, channel (latch support member)	<u>1.00100</u> 1.00075	<u>1.03225</u> 1.03200	<u>-.00100</u> -.00025	5	5/9	10A
11823	Bush, push-pull rod fork-end	<u>0.43800</u> 0.43775	<u>0.46925</u> 0.46900	<u>-.00075</u> -.000	5	5/10	1
11825	Bush, push-pull rod eye-end	<u>0.43800</u> 0.43775	<u>0.46925</u> 0.46900	<u>-.00075</u> -.000	5	5/10	2
15606	Bush, undercarriage door latch (outboard front)	<u>0.50050</u> 0.49975	<u>0.53175</u> 0.53100	<u>-.00075</u> -.000	5	5/10	6
15608	Bush, undercarriage door latch (outboard rear)	<u>0.50050</u> 0.49975	<u>0.53175</u> 0.53100	<u>-.00075</u> -.000	5	5/10	6A

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TABLE 1 (continued)

Part No. or Ref No. 26NA/	Identification	Size			Location		
		Standard O.D.	Oversize O.D.	Required interference	Chap.	Fig.	Item No.
15609	Bush, roller cam lever (lower)	<u>0.43800</u> 0.43775	<u>0.36925</u> 0.46900	<u>---00075</u> ---000	5	5/10	9
15610	Bush, roller cam lever (upper)	<u>0.43800</u> 0.43775	<u>0.46925</u> 0.46900	<u>---00075</u> ---000	5	5/10	9A
11827	Bush, push-pull rod fork-end	<u>0.43800</u> 0.43775	<u>0.46925</u> 0.46900	<u>---00075</u> ---000	5	5/10	10
<b>SYSTEMS</b>							
11900	Bush, control column fork-end	<u>0.37550</u> 0.37525	<u>0.43800</u> 0.43775	<u>---001</u> ---000	7	7/5	4
11896	Bush, control pedestal	<u>0.6260</u> 0.6258	<u>0.6885</u> 0.6883	<u>---0015</u> ---000	7	7/6	10
11898	Bush, aileron gearing mechanism	<u>0.37550</u> 0.37525	<u>0.43800</u> 0.43775	<u>---00075</u> ---00000	7	7/9	2
11892	Bush, tail plane control push-pull rod	<u>0.43800</u> 0.43775	<u>0.50050</u> 0.50025	<u>---00075</u> ---00000	7	7/13	5
11888	Bush, tail plane PCU attachment (port) }	<u>0.87600</u>	<u>0.93850</u>	<u>---00125</u>	7	7/14	5
11890	Bush, tail plane PCU attachment (stbd) }	<u>0.87575</u>	<u>0.93725</u>	<u>---00025</u>			
11886	Bush, control lever fulcrum	<u>0.43800</u> 0.43775	<u>0.50050</u> 0.50025	<u>---00075</u> ---00000	7	7/14	9
11892	Bush, tail plane control push-pull rod	<u>0.43800</u> 0.43775	<u>0.50050</u> 0.50025	<u>---00075</u> ---00000	7	7/14	12
11884	Bush, tail plane flap actuator attachment	<u>0.62600</u> 0.62575	<u>0.68850</u> 0.68825	<u>---00075</u> ---00025	7	7/15	9
11844	Bush, pylon mounting bracket (rear)	<u>1.4765</u> 1.4760	<u>1.5077</u> 1.5072	<u>---00175</u> ---00025	—	—	—