

CHAPTER 53

FUSELAGE

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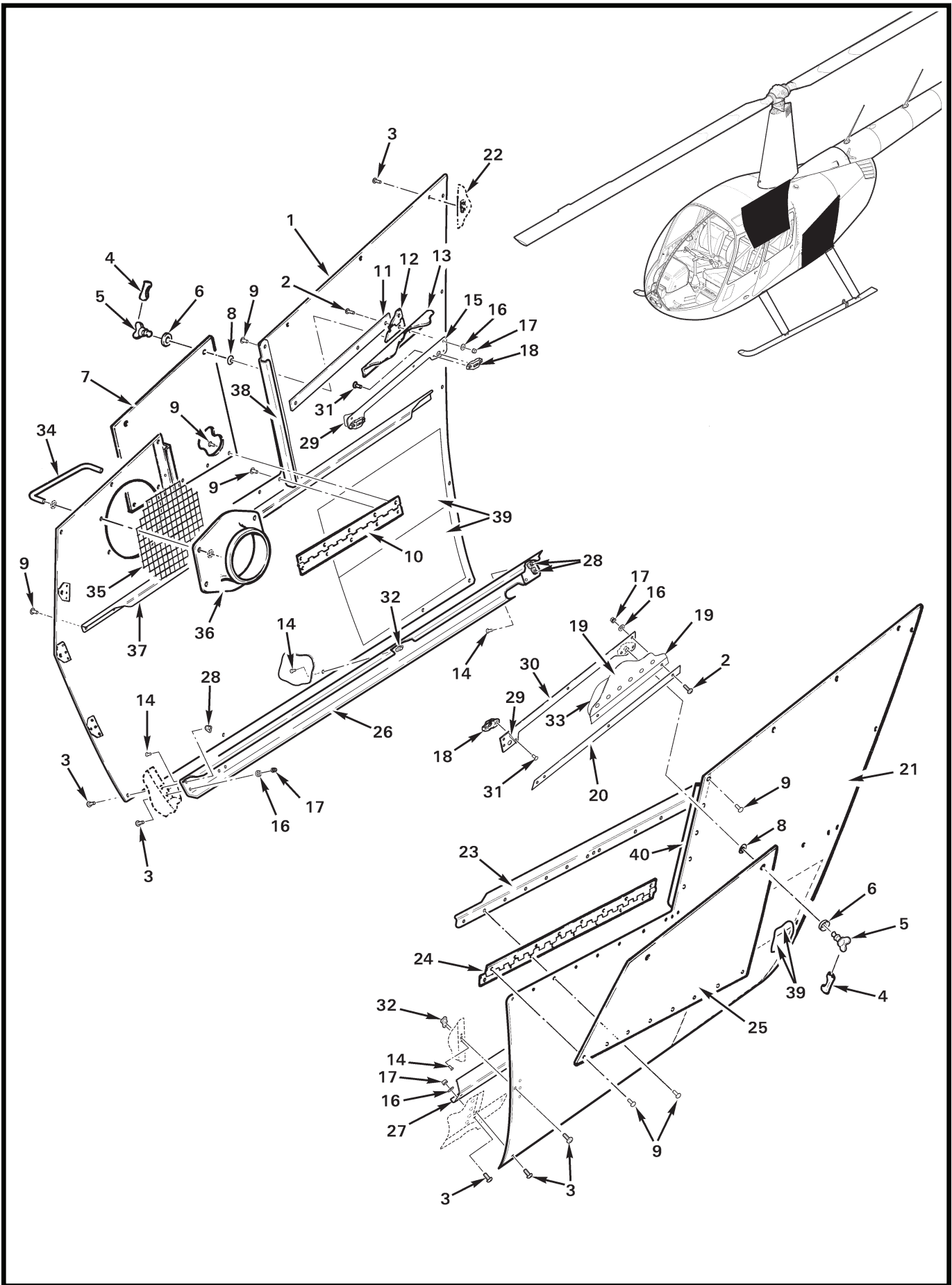


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		SIDE COWLING ASSEMBLIES		
53-1-1	C378-3.CS*	Cowling Assembly (RH, includes items 7, 9 [28], and 10. C378-3* supersedes C378-1. To replace C378-1, also order items 34 thru 36.)	X	1
	C378-1**	Cowling Assembly (RH; no longer available)	O	1
2	MS27039C0807	Screw ([3] for RH, [4] for LH)	X	7
3	MS27039C0806	Screw ([22] for RH, [21] for LH)	X	43
4	A901-1	Cover (clear plastic)	X	2
5	85-12-140-16	Stud	X	4
6	85-46-101-39	Washer	X	4
7	C364-7	Door	X	1
8	85-34-201-20	Retaining Ring	X	4
9	MS20470AD3	Rivet	X	7
10	C364-3	Hinge	X	1
11	C364-6	Strip (RH)	X	1
12	D315-4	Hinge (Ref, see Figure 53-15)		
13	D021-1	Firewall Assembly, Horizontal (Ref)		
14	MS20426AD3	Rivet	X	40
15	C364-4	Receptacle Assembly (RH, includes items 18 and 31)	X	1
16	NAS1149FN816P	Washer	X	11
17	MS21042L08	Nut ([3] on RH, [4] on LH)	X	11
18	85-35-295-15	Receptacle (install using item 31)	X	2
19	C010	Main Fuel Tank Assembly (Ref, see Figure 28-1)		
20	C380-7	Strip (LH)	X	1
21	C377-1.CS	Cowling Assembly (LH, includes items 9 [28], 23 thru 25, 38, and 39. Comes painted white.)	X	1
22	D040	Aft Cowling Assembly (Ref)		
23	C380-3	Stiffener	X	1
24	C380-6	Hinge	X	1
25	C380-5	Door	X	1
26	C387-2	Channel Assembly (RH, includes items 14 [4] and 28 [2])	X	1
27	C387-1	Channel Assembly (LH, includes items 14 [4] and 28 [2])	X	1
28	MS21086L08	Nutplate (install using item 14)	X	2
29	A701-3	Tape (0.5 in. wide polyethylene)	X	A/R
30	C380-1	Receptacle Assembly (LH, includes items 18 and 31)	X	1
31	NAS1097AD4	Rivet	X	4
32	MS21069L08	Nutplate (install using item 14)	X	18
NOTES * Ship S/N 1301 and subsequent, 10001 and subsequent. Comes painted white. Additional charges for color matching. ** Ship S/N 0001 thru 1300 only. Continues				

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		SIDE COWLING ASSEMBLIES (Cont'd)		
53-1-33	C234-1	Firewall (Ref, LH fwd horizontal)		
34	A580-3	Guard (large inlet, Ref)		
35	A640-4*	Screen (Ref)		
36	C579-3*	Inlet (large hole, Ref)		
37	C364-8	Stiffener	X	1
38	C364-2	Stiffener	X	1
39	A701-2	Tape – Aluminum (6-inch width)	X	A/R
40	C380-4	Stiffener	X	1
NOTES * O-540 equipped ships only. See Figure 71-17.				

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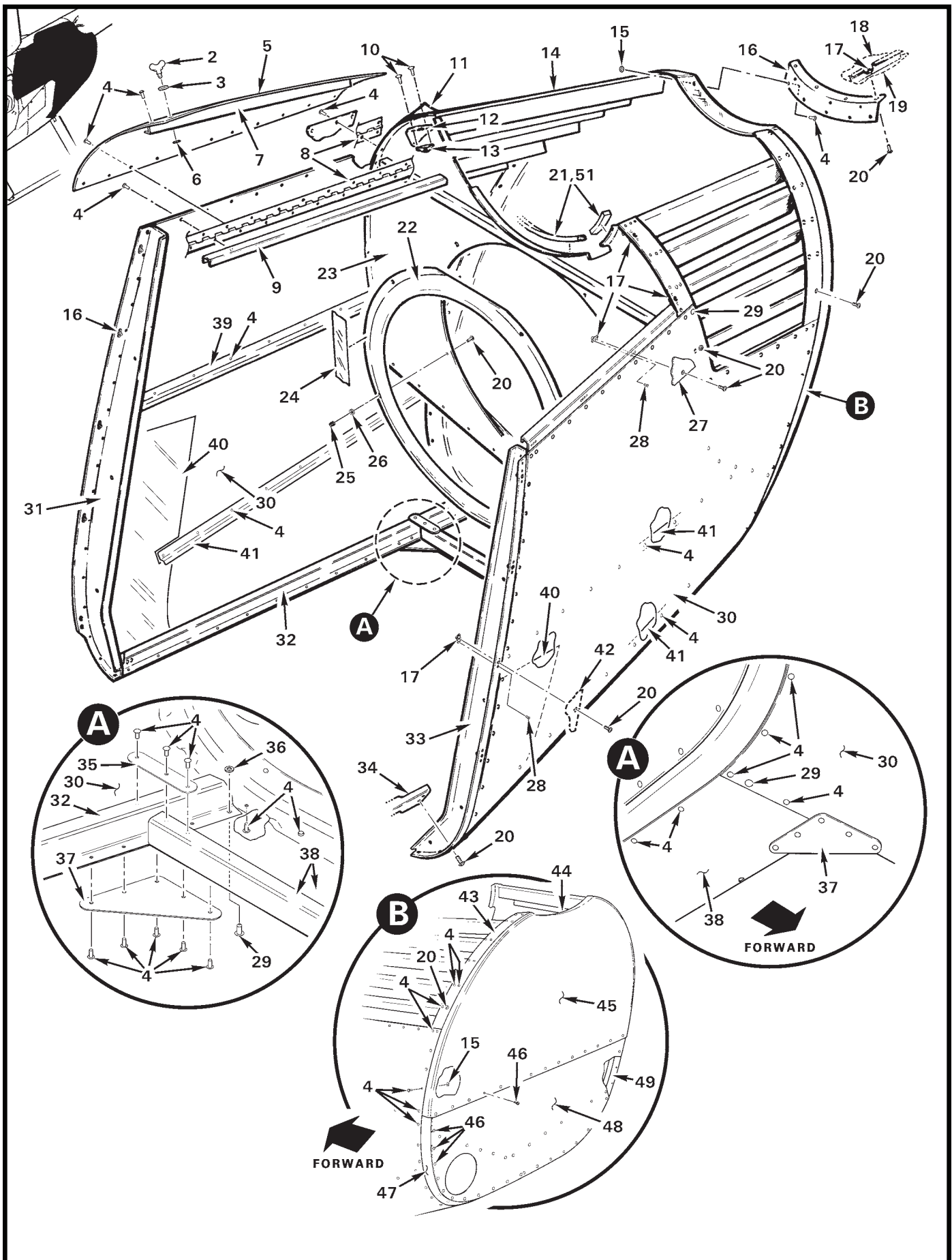


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		AFT COWLING ASSEMBLY		
53-5-1	D040-1	Cowling Assembly – Aft (Incl items 5, 7 thru 10, 12, 13, 15, 20, 21, 39, 40, 41, 43, and 44.)	X	1
2	85-12-140-16	Stud	X	2
3	85-46-101-39	Washer	X	2
4	MS20470AD3	Rivet	X	205
5	D040-7	Door	X	1
6	85-34-201-20	Retaining Ring	X	2
7	D308-6	Stiffener	X	1
8	D308-5	Hinge	X	1
9	D311-8	Stiffener	X	1
10	MS20426AD4	Rivet	X	2
11	A701-3	Tape (0.5 in. wide polyethylene)	X	A/R
12	D308-8	Plate	X	1
13	85-35-295-15	Receptacle	X	1
14	D307	Slat Installation (Ref, see Figure 53-9)		
15	NAS1149FN232P	Washer	X	19
16	D300-1	Support	X	1
	D300-2	Support (undrilled upper flange, use when installing new item 1 with a previously drilled tailcone)	X	A/R
17	MS21069L08	Nutplate (install using item 28)	X	13
18	D083-2	Stiffener (Ref)	O	1
19	C023	Tailcone Assembly (Ref, includes items 17 and 18)		
20	MS27039C0806	Screw	X	2
21	A226-4	Seal (self-adhesive)	X	A/R
22	D306-3	Ring	X	1
23	D306-2	Bulkhead	X	1
24	A701-1	Foil Tape (one-inch width; around ring)	X	A/R
25	MS21042L08	Nut	X	4
26	NAS1149FN816P	Washer	X	4
27	C706-3	Panel (Ref, see Figure 53-13)		
28	MS20426AD3	Rivet	X	44
29	MS20470AD4	Rivet	X	4
30	D040-3	Skin (RH and LH)	X	2
31	D305-2	Frame (RH)	X	1
32	D311-2	Stiffener (RH and LH [not shown])	X	2
NOTES				
Continues				

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		AFT COWLING ASSEMBLY (Cont'd)		
53-5-33	D305-1	Frame (LH)	X	1
34	C387-1	C387-1 Channel Assembly (LH, Ref; see Figure 53-1)		
35	D311-4	Tab (RH and LH [not shown])	X	2
36	NAS620-5	Washer	X	2
37	D311-3	Gusset (RH and LH [not shown])	X	2
38	D311-1	Panel	X	1
39	D308-3	Stiffener (RH only)	X	1
40	A701-2	Foil Tape (six-inch width)	X	A/R
41	D308-3	Stiffener (LH [2] and RH [1])	X	3
42	C377-1	Cowling Assembly (Ref, see Figure 53-1)		
43	D308-1	Strip (LH and RH)	X	2
44	D038-1	Cover Assembly – Aft Cowling (Incl items 45 thru 50)	X	1
45	D038-2	Cover (fiberglass)	X	1
46	MS20470AD3	Rivet	X	36
47	D038-3*	Flange (LH)	X	1
48	D038-5*	Panel (aluminum)	X	1
49	D038-4*	Flange (RH)	X	1
50	B270-1	Sealant	X	A/R
51	B270-8qt	Adhesive	X	A/R
NOTES * Install using item 50 to seal edges.				

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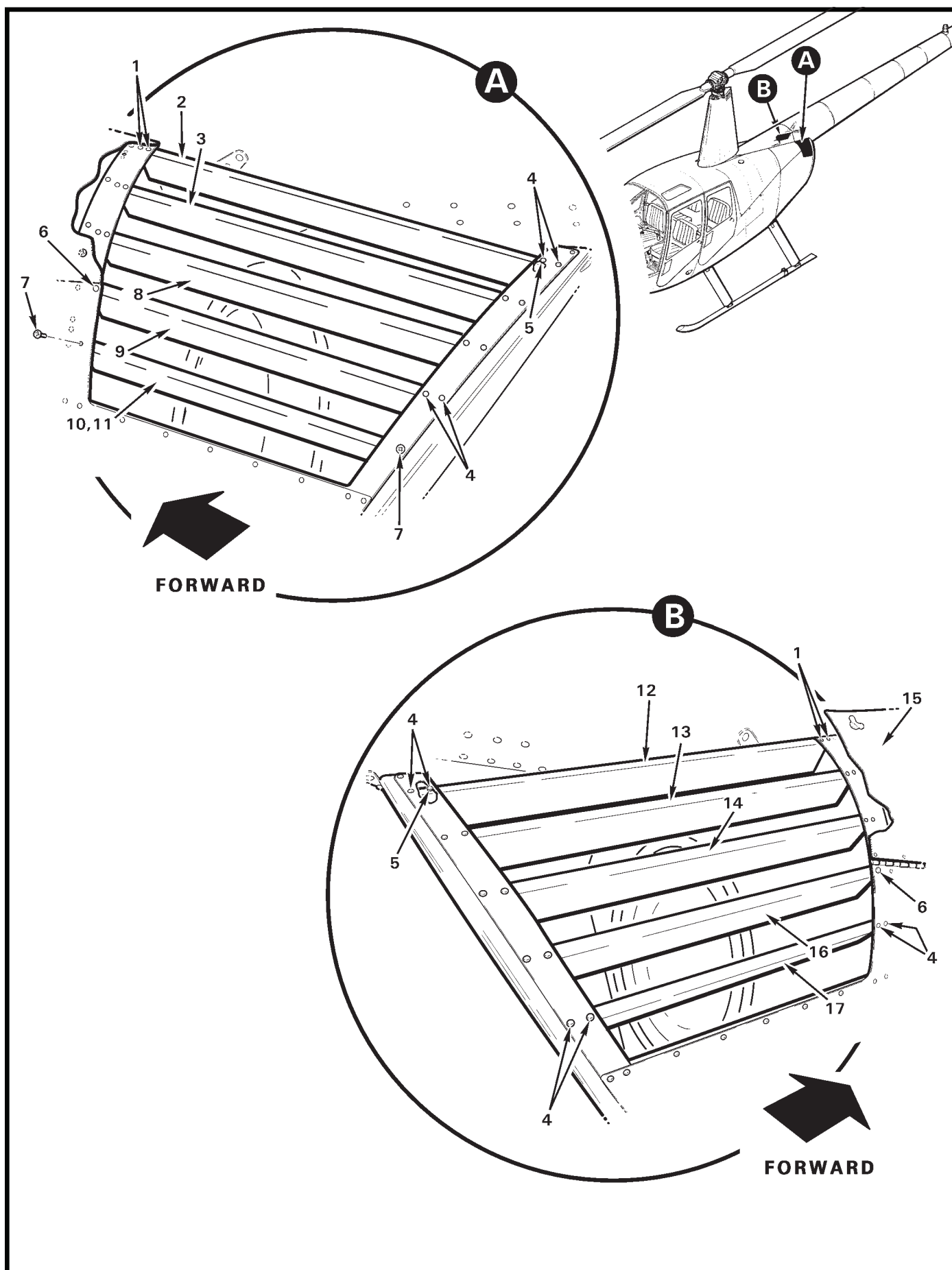


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		AFT COWLING ASSEMBLY – SLATS INSTALLATION		
53-9-1	MS20426AD3	Rivet	X	A/R
2	D307-1	Slat (LH)	X	1
3	D307-3	Slat (LH)	X	1
4	MS20470AD3	Rivet	X	20
5	NAS1149FN232P	Washer	X	A/R
6	MS20470AD4	Rivet	X	2
7	MS27039C0806	Screw	X	2
8	D307-5	Slat (LH)	X	1
9	D307-7	Slat Assembly (LH)	X	1
10	D307-11	Slat Assembly (LH; includes item 11)	X	1
11	MS21071L08K	Nutplate (not shown; install using item 1)	X	2
12	D307-2	Slat (RH)	X	1
13	D307-4	Slat (RH)	X	1
14	D307-6	Slat (RH)	X	1
15	D040-7	Door (Ref)		
16	D307-8	Slat (RH)	X	1
17	D307-10	Slat (RH)	X	1
NOTES				

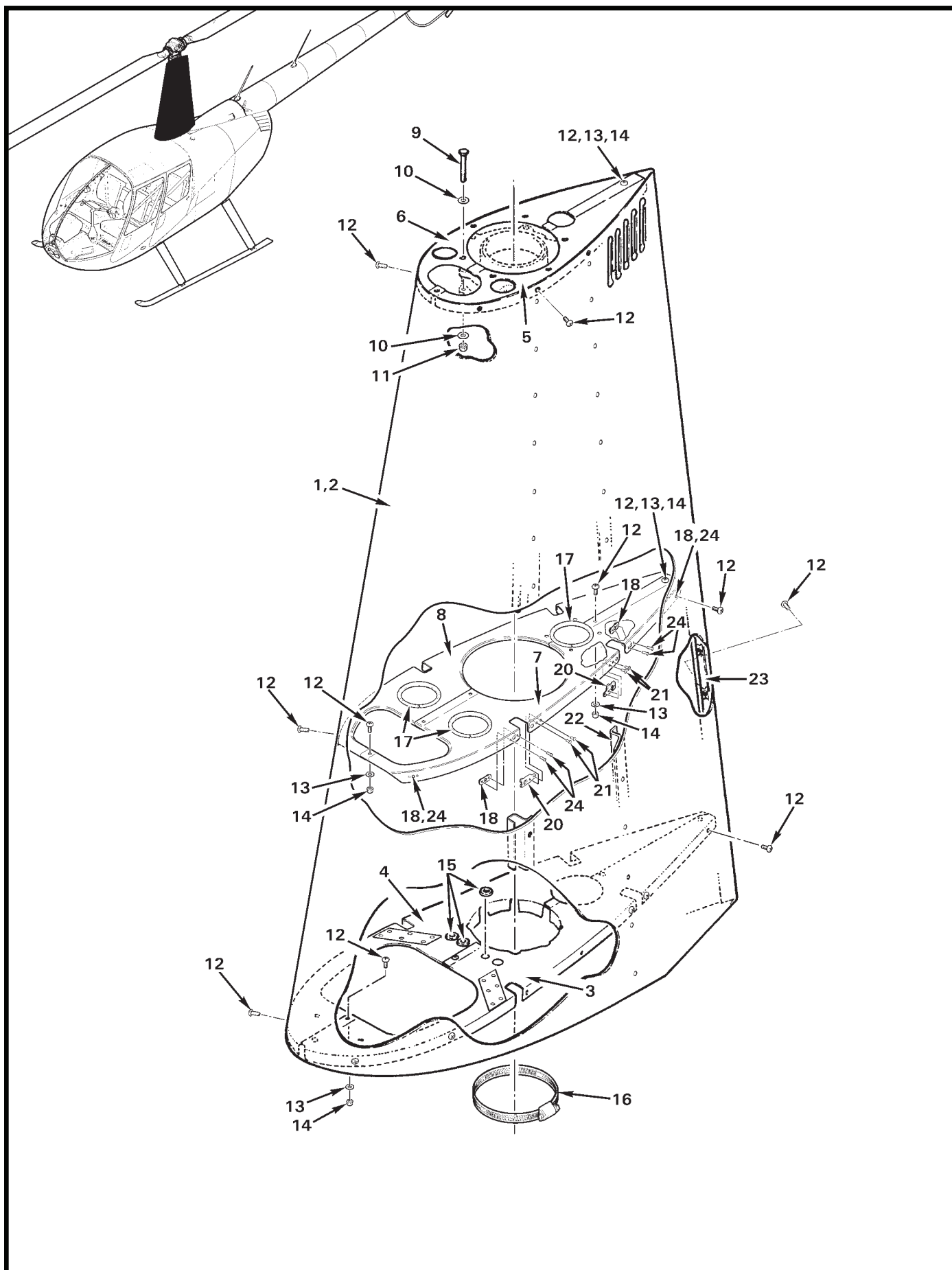


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		MAST FAIRING ASSEMBLY		
53-11-1	C261-11.CS*	Mast Fairing Assembly – Large Mast (for use with C006-7 MRGB)	X	1
	C261-1.CS*	Mast Fairing Assembly – Small Mast (Incl items 2 thru 8, and 12 thru 23; for use with C006-3, or C006-5 MRGB)	X	1
2	C261-12	Skin Assembly (Incl 19, 22, 23, and MS20605R3W2 rivet) . . .	O	1
3	C261-13	Rib Assembly – Lower (LH, small mast)	X	1
	C261-19	Rib Assembly – Lower (LH, large mast)	X	1
4	C261-14	Rib Assembly – Lower (RH, small mast)	X	1
	C261-20	Rib Assembly – Lower (RH, large mast)	X	1
5	C261-15	Rib – Upper (LH)	X	1
6	C261-16	Rib – Upper (RH)	X	1
7	C261-17	Rib – Middle (LH)	X	1
8	C261-18	Rib – Middle (RH)	X	1
9	NAS6603-24	Bolt	X	4
	NAS6603-40	Bolt	X	2
10	NAS1149F0332P	Washer	X	12
11	D210-3	Nut	X	6
12	MS27039C0806	Screw	X	54
13	NAS1149FN816P	Washer	X	10
14	MS21042L08	Nut	X	10
15	MS35489-6	Grommet	X	3
16	B277-064	Clamp (small mast)	X	1
	B277-072	Clamp (large mast)	X	1
17	NAS557-28A	Grommet	X	3
18	MS21075L08E	Nutplate	X	26
19	C395-3	Stiffener (forward)	X	2
20	MS21061L08K	Nutplate	X	12
21	MS20426AD3	Rivets	X	68
22	C395-4	Stiffener (aft)	X	2
23	A738-16	Gang Channel	X	1
24	NAS1097AD3	Rivet	X	A/R
NOTES * Comes painted white. Additional charges for color matching.				

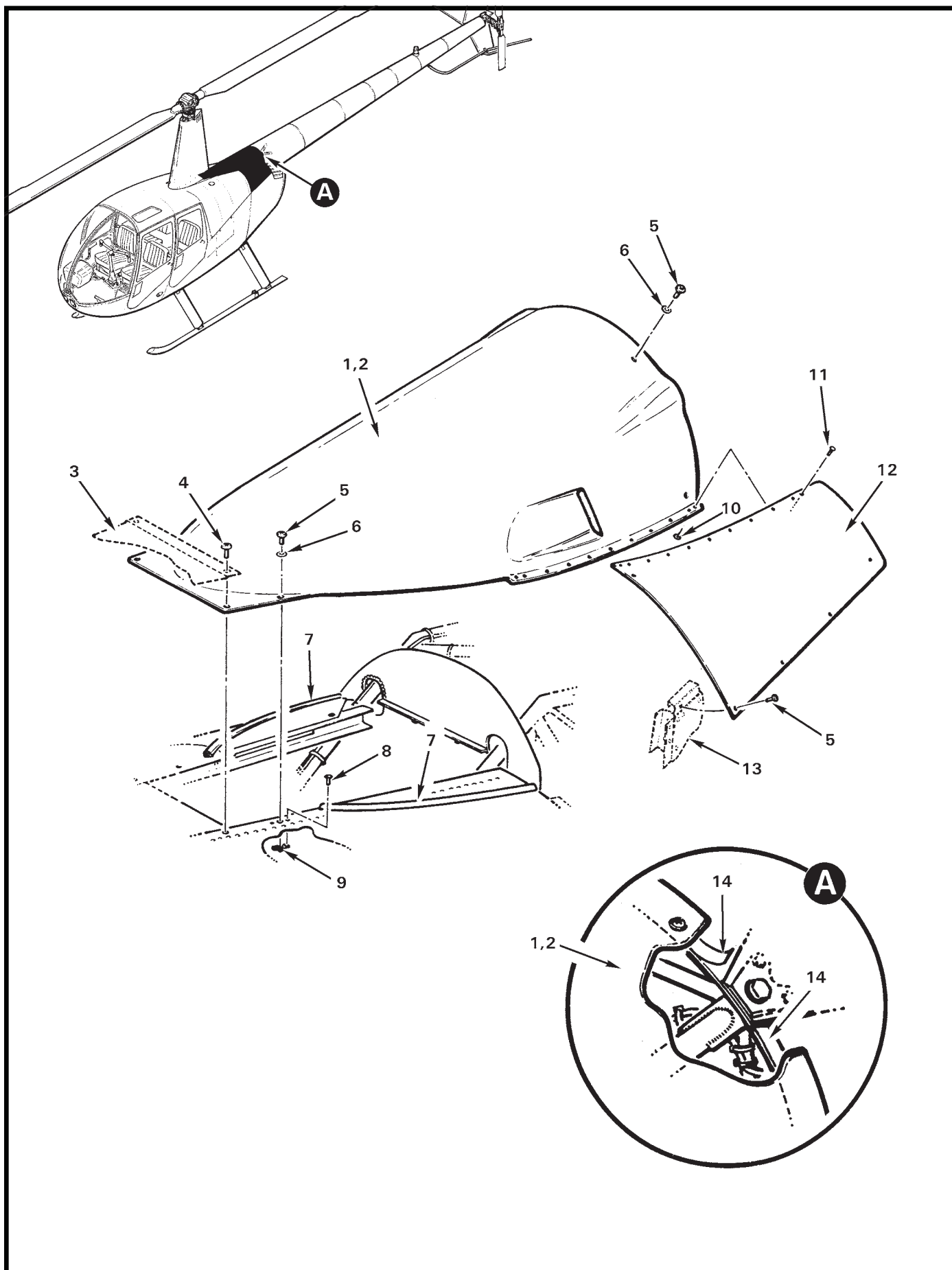


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		TAILCONE COWLING ASSEMBLY		
53-13-1	C706-1 *	Tailcone Cowling Assembly (Incl items 2, and 10 thru 12)	O	1
2	C706-2	Cowling	X	1
3	C347-6	Panel (Ref, see Figure 53-15)		
4	MS27039C0807	Screw	X	2
5	MS27039C0806	Screw	X	12
6	NAS1149FN816P	Washer	X	6
7	A226-13	Seal (LH and RH, 20 in. per side, self-adhesive)	X	A/R
8	MS20426AD3	Rivet	X	4
9	MS21069L08	Nutplate	X	2
10	NAS1149FN232P	Washer	X	9
11	MS20470AD3-4	Rivet	X	9
12	C706-3	Panel	X	1
13	D040-1	Aft Cowling Assembly (Ref, see Figure 53-5)		
14	A701-3	Tape (0.5-inch wide polyethylene)	X	A/R
NOTES * To replace order items 2, 12, [11] 10, and [11] 11. Comes painted white. Additional charges for paint matching.				

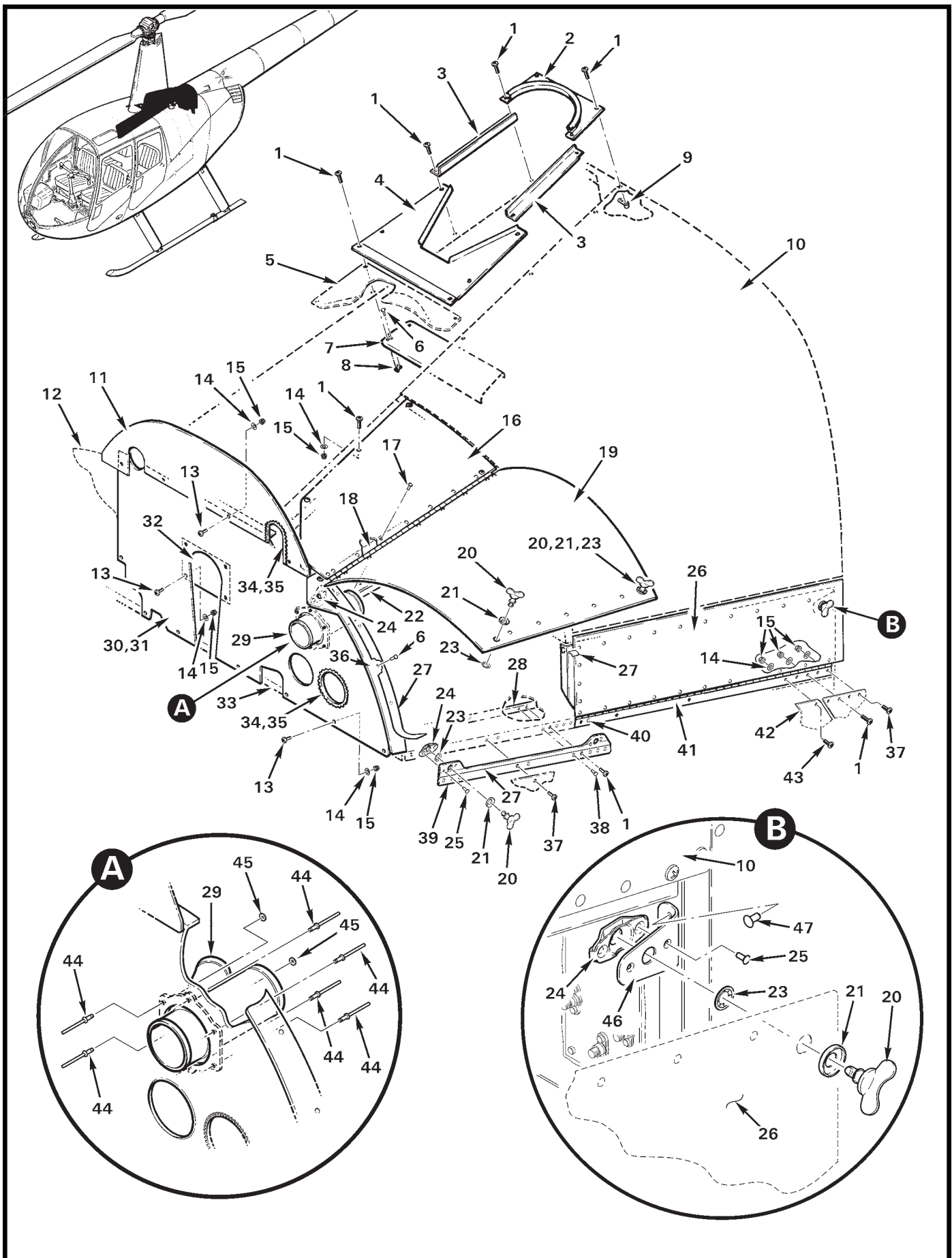


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		MAIN GEARBOX COMPARTMENT ACCESS DOORS AND COWLING		
53-15-1	MS27039C0807	Screw	X	17
2	C347-1	Channel Assembly	X	1
3	C347-5	Angle (LH and RH)	X	2
4	C347-6	Panel	X	1
5	C706-1	Tailcone Cowling Assembly (Ref, see Figure 53-13)		
6	MS20426AD3	Rivet	X	10
7	D202-1	Channel	X	1
8	MS21086L08	Nutplate (install using item 6)	X	4
9	MS21071L08	Nutplate (install using item 6)	X	1
10	D043-3	Fuel Tank – Aux (Ref, see Figure 28-5)		
11	C723-2	Bulkhead Assembly (Incl item 34)	X	1
12	C028	Fuel Tank – Main (Ref, see Figure 28-1)		
13	MS27039C0805	Screw	X	16
14	NAS1149FN832P	Washer	X	22
15	MS21042L08	Nut	X	22
16	D042-3	Panel	X	1
17	MS20470AD3	Rivet	X	27
18	D315-3	Hinge	X	1
19	D042-5*	Door Assembly (Includes D042-2 door, D315-1 angle [not shown], and items 16, 18, and 22.)	X	1
20	85-12-140-16	Stud	X	3
21	85-46-101-39	Washer	X	3
22	D315-2	Channel	X	1
23	85-34-201-20	Retaining Ring	X	3
24	85-35-295-15	Receptacle (install using item 25)	X	3
25	NAS1097AD4	Rivet	X	6
26	D042-4*	Door Assembly	X	1
27	A701-3	Tape (0.5 in. wide polyethylene)	X	A/R
28	A738-11	Gang Channel (RH)	X	1
	A738-23	Gang Channel (LH, not shown)	X	1
29	C371-1	Splitter – Air Duct	X	1
30	C723-1	Bulkhead Assembly (Incl items 24, 29, 31, 34 thru 36, 44, and 45)	X	1
31	C723-3	Bulkhead – Lower	O	1
32	C723-6	Cover	X	1

NOTES * Comes painted white. Additional charges for color matching.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		MAIN GEARBOX COMPARTMENT ACCESS DOORS AND COWLING (Cont'd)		
53-15-33	C234-2	Firewall – Horizontal (Ref)		
34	MS21266-1N	Grommet (install using item 35)	X	A/R
35	B270-8qt	Adhesive (1-quart can)	X	A/R
36	C723-5	Strip	O	1
37	MS27039C0806	Screw (Ref, see Figure 53-1)		
38	MS20427M3	Rivet (use to install item 39; [13] req'd RH, [4] req'd LH)	X	A/R
39	C379-1	Receptacle Assembly (RH, includes items 24 and 25)	X	1
	C380-1	Receptacle Assembly (LH not shown, includes items 24 & 25) . .	X	1
40	MS20427M3	Rivet ([1] at this location)	X	1
41	D315-4	Hinge	X	1
42	C378*	Cowling Assembly (Ref; RH shown)		
43	MS20739C0806*	Screw (Ref)		
44	MS20604R3W3	Rivet (supersedes NAS9301B-4-02)	X	6
45	NAS1149FN232P	Washer (supersedes NAS620-5)	X	2
46	C379-2	Receptacle Assembly (includes angle and items 24 and 25) . .	X	1
47	MS204470AD4	Rivet	X	2
NOTES * See Figure 53-1.				

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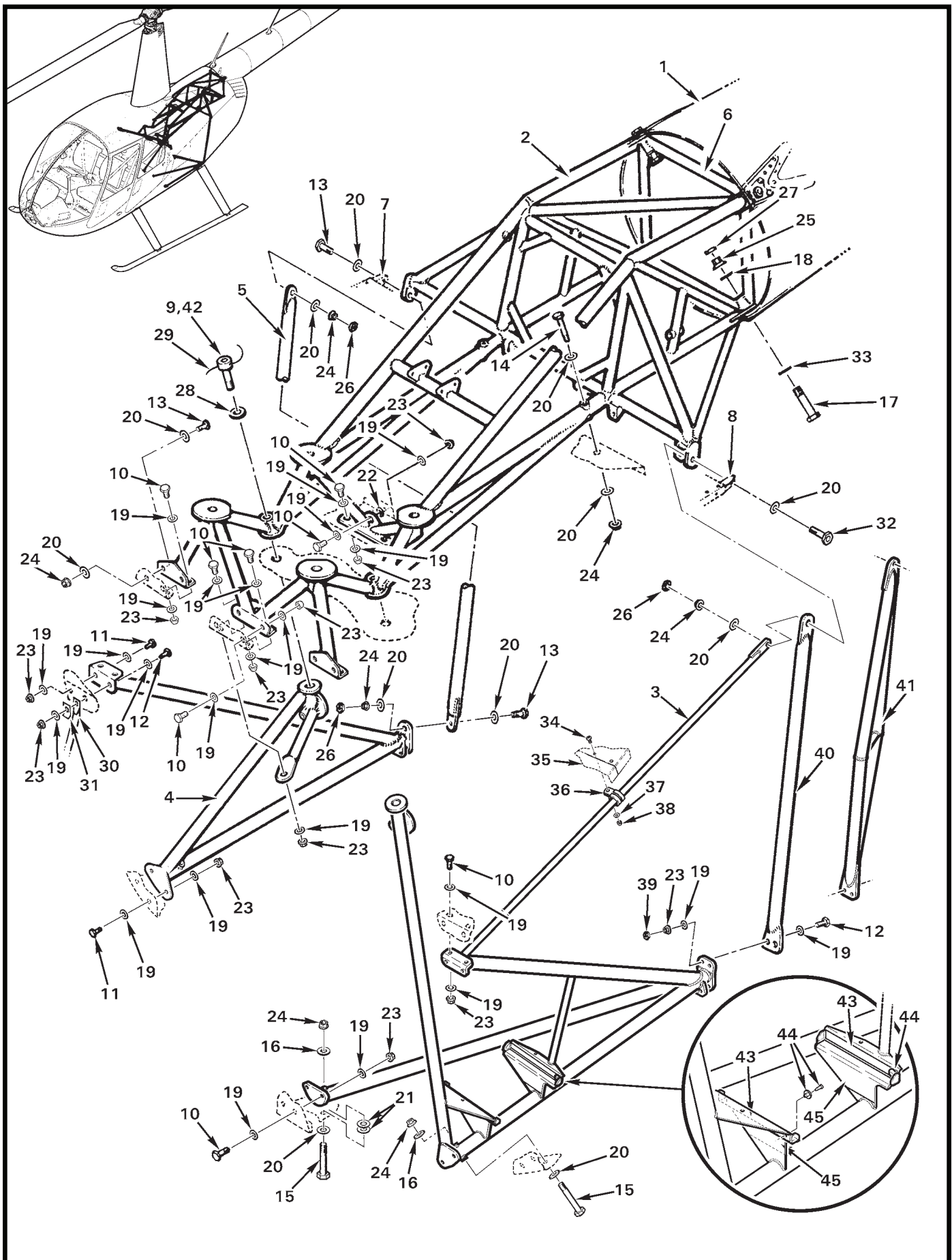


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		FRAME ASSEMBLIES		
53-19-1	C023	Tailcone Assembly (Ref)		
2	C020-1	Upper Frame Assembly	X	1
	C020-2	Upper Frame Assembly (Ref, not shown. Includes provision for tie-downs.)	X	1
3	C046-23	Lower Frame Assembly – LH (R44 Raven I [28 V], R44 Raven II. See Figure 53-23 for earlier R44s.)	X	1
4	C046-2	Lower Frame Assembly – RH	X	1
5	D046-3	Strut Weldment – RH	X	1
6	C237-1	Frame Assembly – Tailcone Attachment	X	1
7	C384-6	Angle – RH	X	1
8	C384-7	Angle – LH	X	1
9	C722-2	Bolt (install using item 42)	X	2
10	NAS6604-2	Bolt	X	17
11	NAS6604-3	Bolt	X	6
12	NAS6604-4	Bolt	X	4
13	NAS6605-4	Bolt	X	6
14	NAS6605-21	Bolt	X	2
15	NAS6605-24	Bolt	X	3
16	NAS1149F0563P	Washer	X	2
17	NAS6607-24	Bolt	X	4
18	C141-4	Washer	X	4
19	NAS1149F0432P	Washer	X	54
20	NAS1149F0532P	Washer	X	24
21	NAS1149F0532P	Washer (or NAS1149F0563P, 2 maximum)	X	A/R
22	NAS1149F0432P	Washer (or NAS1149F0463P, 2 maximum)	X	A/R
23	D210-4	Nut	X	27
24	D210-5	Nut	X	12
25	D210-7	Nut	X	4
26	B330-16	Palnut	X	3
27	B330-21	Palnut	X	4
28	MS21299C10K	Washer	X	2
29	MS20995C32	0.032 in. dia. Safety Wire	X	A/R
30	C381-1	Strap Assembly (Ref; see Figure 25-5)		
31	C632-1	Angle (Ref; see Figure 25-5)	X	2
32	NAS6605-6	Bolt	X	1
NOTES				
Continues				

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
FRAME ASSEMBLIES (Cont'd)				
53-19-33	NAS1149F0732P	Washer	X	4
34	MS27039C0806	Screw	X	1
35	C234	Firewall – Horizontal (Ref)		
36	NAS1715C8SW	Clamp	X	1
37	NAS1149FN816P	Washer	X	1
38	MS21042L08	Nut	X	1
39	B330-13	Palnut	X	2
40	D046-2	Strut Weldment (LH, O-540 engine)	X	1
41	D046-1	Strut Weldment (LH, IO-540 engine)	X	1
42	A257-9	Anti-seize	X	A/R
43	A701-3	Tape (0.5 in. wide polyethylene)	X	A/R
44	PPR-4850B	Push Rivet	X	2
45	A701-5	Tape (2 in. wide polyethylene)	X	A/R
NOTES				

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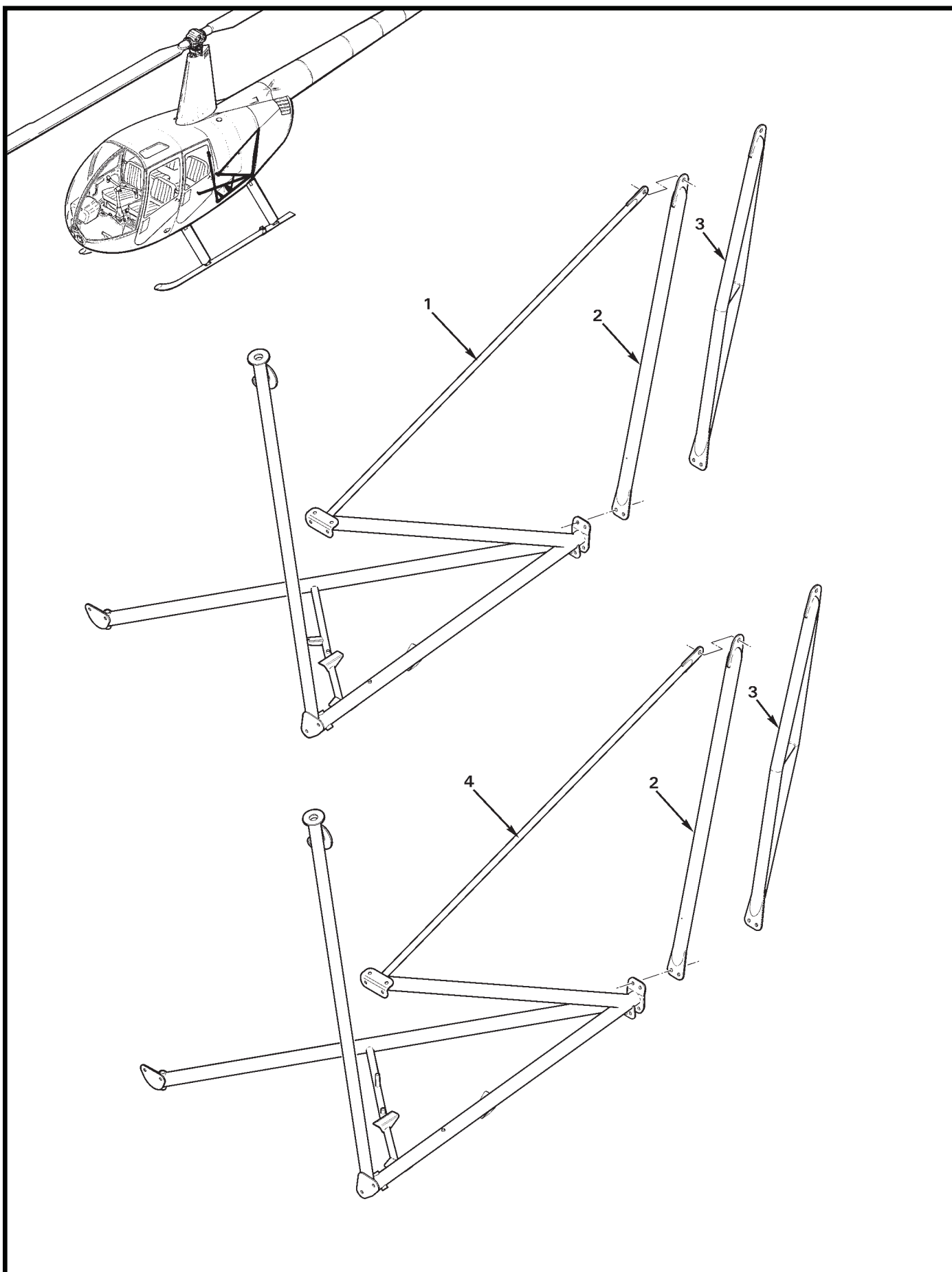


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
53-23-1		FRAME ASSEMBLIES		
	C046-21	Lower Frame Assembly – LH (14V R44s, and Earlier non-A/C R44 IIs. Supersedes item 4. Has provision for 7.80 in. length battery box.)	X	1
	2 D046-2	Strut Weldment (LH, ship S/N 0001 thru 9999)	X	1
	3 D046-1	Strut Weldment (LH, ship S/N 10001 and subsequent)	X	1
	4 C046-19	Lower Frame Assembly – LH (No longer available; has provisions for 10.05-in. length battery box. Earlier R44 IIs require C046-23 [see Figure 53-19] frame assembly if A/C is installed.)	O	1
NOTES				

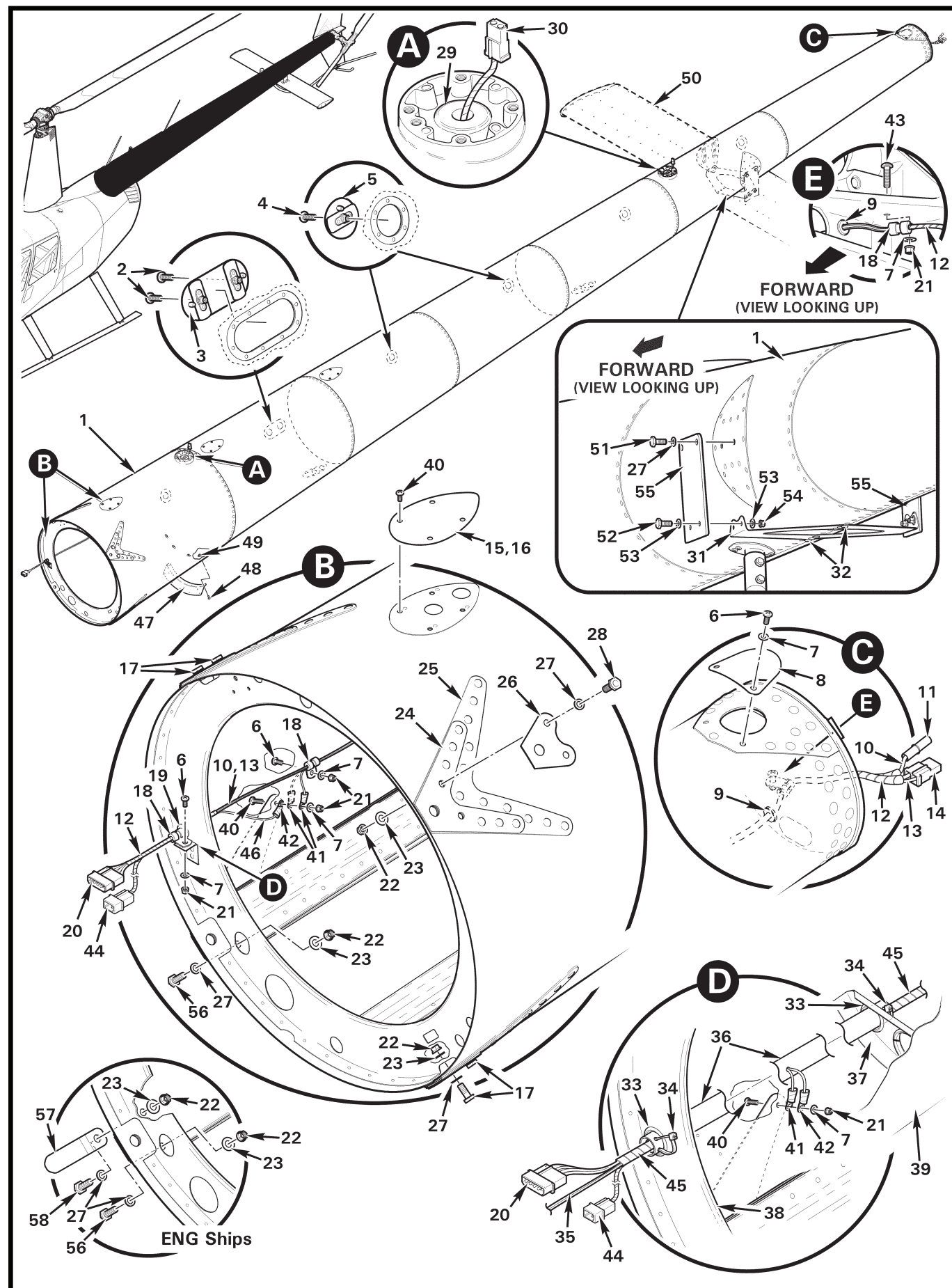


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
53-25-1	TAILCONE ASSEMBLY (LED STROBE)			
	C023-1	Tailcone Assembly (Provision for two antennas as shown. Includes items 3, 5 thru 14, 17 thru 32, 43, and 44. Also order items 51, 52, or 53 as required.)	X	1
	C023-4	Tailcone Assembly (For ENG helicopter. Provision for four antennas. Includes Battery box installation. See also Figures 96-29 and 96-31. Includes items 3, 5 thru 8, 10 thru 17, 19 thru 36, 43, 44, and 46; not shown. Also order items 51, 52, or 53 as required.)	X	1
	C023-14	Tailcone Assembly (Provision for four antennas plus NAV antennas. Includes items 3, 5 thru 14, and 17 thru 32; not shown. Also order items 51, 52, or 53 as required.)	X	1
	C023-15	Tailcone Assembly (Provision for two antennas plus NAV antennas. Includes items 3, 5 thru 14, and 17 thru 32; not shown. Also order items 51, 52, or 53 as required.)	X	1
	2 MS27039C0807	Screw	X	2
	3 A231-10	Plug Assembly (Incl item 2 [2])	X	1
	4 MS27039C0807	Screw	X	5
	5 A231-1	Plug Assembly (Incl item 4 [1])	X	5
	6 MS27039C0806	Screw	X	2
	7 NAS1149FN816P	Washer	X	7
	8 A558-2	Cover – Tailcone	X	1
	9 MS35489-33	Grommet	X	1
	10 -109	Wire (Ref, tail light power)		
	11 B263-11	Housing (wires to tail light)	X	1
	B263-2	Socket	X	1
	12 B161-2	Spirap	X	A/R
	13 -5	Wire (Ref, TRGB chip detector warning light)		
	-503	Wire (Ref, TRGB chip detector warning light test switch)		
	14 B263-13	Housing (wires to tail rotor gearbox chip detector)	X	1
	B263-2	Socket	X	2
	15 B322-2	Cover (install using item 16 when antenna is not installed) . . .	X	A/R
	16 B270-13	Sealant	X	A/R
	17 NAS6604-4	Bolt	X	4
	18 MS21919WDG2	Clamp	X	3
	19 B401-4	Grommet	X	1
	20 B263-16	Housing	X	1
	B263-1	Pin	X	4
NOTES				
				Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		TAILCONE ASSEMBLY (LED STROBE; Cont'd)		
53-25-21	MS21042L08	Nut	X	A/R
22	D210-4	Nut	X	14
23	A141-11	Washer	X	14
24	D078-2	Doubler (Ref)		
25	D078-3	Doubler (Ref)		
26	D078-1	Doubler	X	4
27	NAS1149F0432P	Washer	X	18
28	NAS6604-3	Bolt	X	2
29	MS35489-15	Grommet	X	1
30	B263-13	Housing	X	1
	B263-2	Socket	X	2
31	F955-1*	Bracket (Revision AW and subsequent, AV and prior with item 62 installed)	X	1
32	MS20470AD5	Rivet	X	6
33	NAS557-10A	Grommet (for tailcone camera installation only)	X	8
34	MS3367-5-9	Ty-Rap	X	2
35	C023-757	Cable (Ref)		
	C023-2815	Wire (Ref)		
36	D686-1	Conduit	X	1
37	D080-1	Bulkhead Assembly (Ref)		
38	D070-1	Bulkhead Assembly (Ref)		
39	C023-12	Skin (Ref)		
40	MS27039C0807	Screw	X	8
41	B260-3	Terminal (Ref, see Figure 33-1)		
42	B260-9	Terminal (Ref, see Figure 33-1)		
43	MS27039C0808	Screw	X	1
44	B263-12	Housing	X	1
	B263-3	Pin (-2388 power; additional -2854 ground wire, optional fwd strobe)	X	A/R
45	B161-4	Spirap (E.N.G. ships)	X	A/R
46	-2854	Wire	X	1
47	D300-1	Support (Ref, see Figure 53-5)		
	D300-2	Support (Ref, see Figure 53-5)		
48	MS27039C0806	Screw (Ref, see Figure 53-5)		
49	MS21069L08	Nutplate (Ref, see Figure 53-5)		
NOTES * Item 1 with F955-1 bracket may not be installed on R44 I helicopters if C169-1 exhaust muffler assembly (smaller, 6-in. dia. shroud assembly) is installed. (C169-35 exhaust muffler assembly, or C169-36 muffler sub-assembly may be installed per Figure 71-21).				
				Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		TAILCONE ASSEMBLY (LED STROBE; Cont'd)		
53-25-50	F050-2	Horizontal Stabilizer Assembly (Ref, see Figure 53-45)		
51	NAS6604-3	Bolt	X	4
52	NAS6603-2	Bolt	X	4
53	NAS1149F0332P	Washer	X	8
54	D210-3	Nut	X	4
55	MT023-2	Support – Stabilizer Bracket (install when stabilizer is removed, using existing hardware)	X	2
56	NAS6604-5	Bolt	X	2
57	D399-3	Tab (install using item 58, for ENG helicopter)	X	1
58	NAS6604-6	Bolt	X	1

59	KI-204-1 & -2	R44-series KI-204-1 [14-volt], KI-204-2 [28-volt] R44-series Airframe Provisions for Single LED-Strobe Tailcone Kit Instructions (Kit removes A708 strobe power supply and provides wiring for current production LED strobe-equipped-only tailcones. R44-series helicopters may also require secondary ground wire; see KI-251 for affected serial numbers.)	X	A/R
60	KI-276	R44-series and R66 B264-XX Connector Upgrade Kit Instructions (Replaces obsoleted B264-XX connectors with B263-XX connectors on C049-1 tail rotor gearbox chip detector harness assembly. C023 tailcone aft wire harness, and tail light wire on C044 horizontal stabilizer harness.)	X	A/R
61	KI-277-1	C023 Tailcone with GMU 44 Magnetometer Installation Kit Instructions (Transfers existing GMU 44 Magnetometer and F951-2 harness assembly optionally installed on R44 S/N 1068 & prior, R44 II S/N 14473 & prior, and Cadet S/N 30077 & prior, to C023 tailcone revision AV. See Figure 97-9.)	X	A/R
62	KI-285-2	R44-series Horizontal Stabilizer Retrofit Kit Instructions (Replaces C044-1 horizontal stabilizer with F044-1 vertical stabilizers mount assembly, and installs F050-2 horizontal symmetrical stabilizer assembly. Kit is not approved for R44 I helicopters fitted with C169-1 exhaust muffler assembly which has a shroud diameter of 6.0 inches.)	X	A/R
NOTES				

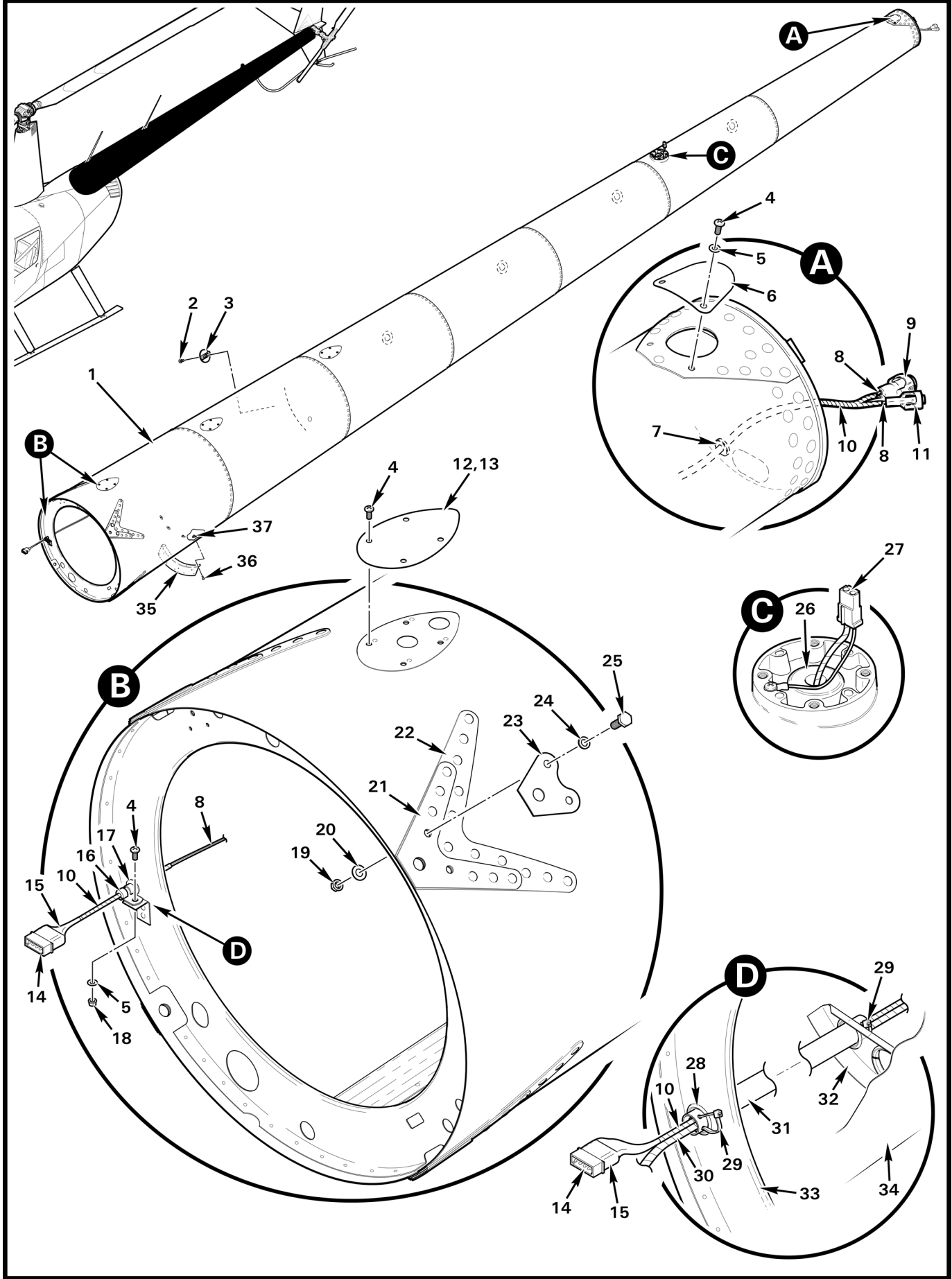


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
53-29-1	TAILCONE ASSEMBLY (LED STROBE)*			
	C023-1	Tailcone Assembly (Provision for two antennas as shown. Includes items 3 thru 11, and 14 thru 27.)	X	1
	C023-4	Tailcone Assembly (For ENG helicopter. Provision for four antennas. Includes tailcone battery box installation**. Includes items 3 thru 11, 14, 15, 19 thru 27, and 32 thru 35; not shown.)	X	1
	C023-14	Tailcone Assembly (Provision for four antennas plus NAV antennas. Includes items 3 thru 11, and 14 thru 27; not shown.)	X	1
	C023-15	Tailcone Assembly (Provision for two antennas plus NAV antennas. Includes items 3 thru 11, and 14 thru 27; not shown.)	X	1
	2 MS27039C0807	Screw	X	1
	3 A231-1	Plug Assembly (Incl item 2)	X	5
	4 MS27039C0806	Screw	X	7
	5 NAS1149FN816P	Washer	X	3
	6 A558-2	Cover – Inspection (transparent)	X	1
	7 MS35489-33	Grommet	X	1
	8 B274-22	Wire (no. 5, 109, and 503)	X	A/R
	9 B264-13	Plug (to tail rotor gearbox chip detector)	X	1
	B263-2	Socket	X	2
	10 B161-2	Spirap	X	A/R
	11 B264-11	Plug (to tail light)	X	1
	B264-4	Socket	X	1
	12 B322-2	Cover (for use when antenna not installed; install using item 13)	X	1
	13 B270-1	Sealant	X	A/R
	14 B263-16	Housing (to tail light and tail rotor gearbox chip detector)	X	1
	B263-1	Pin	X	4
	15 B158-8	Heat Shrink (around housing and wires)	X	A/R
	16 MS21919WDG2	Clamp	X	1
	17 B401-4	Grommet	X	1
	18 MS21042L08	Nut	X	8
	19 MS21042L4	Nut	X	8
	20 A141-11	Washer	X	8
	21 D078-2	Doubler (Ref)		
	22 D078-3	Doubler (Ref)		
NOTES * If not previously accomplished, earlier ships require KI-204 Airframe Provisions for Single LED-Strobe Tailcone Kit Installation if an LED-equipped tailcone is to be installed. ** See also Figures 96-29 and 96-31. Continues				

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		TAILCONE ASSEMBLY (LED STROBE) (Cont'd)		
53-29-23	D078-1	Doubler	X	4
24	NAS1149F0432P	Washer	X	8
25	NAS6604-4	Bolt	X	8
26	MS35489-15	Grommet (standard)	X	1
	MS35489-11	Grommet (forward strobe location option; not shown)	X	1
27	B263-13	Housing	X	1
	B263-2	Socket	X	2
28	NAS557-10A	Grommet (for ENG ships only)	X	8
29	MS3367-5-9	Ty-Rap	X	2
30	D572	Cable Assembly (Ref)		
31	D686-1	Conduit	X	1
32	D080-1	Bulkhead Assembly (Ref)		
33	D070-1	Bulkhead Assembly (Ref)		
34	C023-12	Skin (Ref)		
35	D300	Support (Ref, See Figure 53-5)		
36	MS27039C0806	Screw (Ref)		
37	MS21069L08	Nutplate (Ref)		
NOTES				

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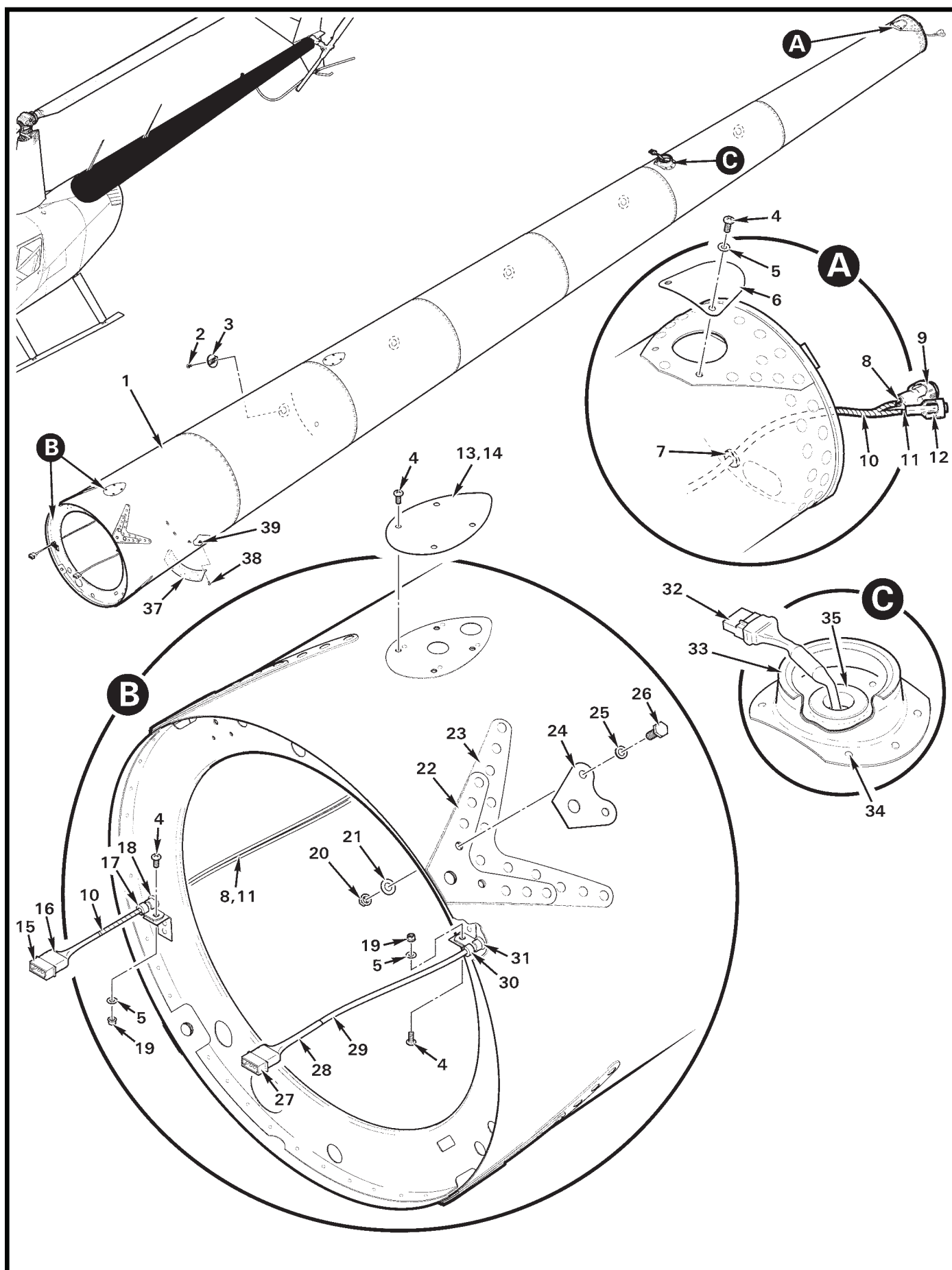


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
53-33-1	TAILCONE ASSEMBLY			
	C023-1	Tailcone Assembly (Provision for two antennas as shown. Includes items 3 thru 12, and 15 thru 34.)	X	1
	C023-2	Tailcone Assembly (tailcone battery box, no longer available) . .	O	1
	C023-3	Tailcone Assembly (For Police helicopter. Provision for four antennas. Includes tailcone battery box installation*. Includes items 3 thru 12, and 15 thru 34; not shown.)	X	1
	C023-4	Tailcone Assembly (For ENG helicopter. Provision for four antennas. Includes tailcone battery box installation*. Includes items 3 thru 12, and 15 thru 34; not shown.)	X	1
	C023-14	Tailcone Assembly (Provision for four antennas plus NAV antennas. Includes items 3 thru 12, and 15 thru 34; not shown.)	X	1
	C023-15	Tailcone Assembly (Provision for two antennas plus NAV antennas. Includes items 3 thru 12, and 15 thru 34; not shown.)	X	1
	2 MS27039C0807	Screw	X	1
	3 A231-1	Plug Assembly (Incl item 2)	X	5
	4 MS27039C0806	Screw	X	8
	5 NAS1149FN816P	Washer	X	4
	6 A558-2	Cover – Inspection (transparent)	X	1
	7 MS35489-33	Grommet (install using item 34)	X	1
	MS35489-35	Grommet (ENG ships; install using item 34)	X	1
	8 B274-22	Wire (no. 5 and 503)	X	A/R
	9 B264-13	Plug (to tail rotor gearbox chip detector)	X	1
	B263-2	Socket	X	2
	10 B161-2	Spirap	X	A/R
	11 B274-16	Wire (no. 109)	X	A/R
	12 B264-11	Plug (to tail light)	X	1
	B264-4	Socket	X	1
	13 B322-2	Cover (for use when antenna not installed; install using item 14)	X	1
	14 B270-4	Sealant	X	A/R
	15 B263-14	Housing (to tail light and tail rotor chip detector)	X	1
	B263-1	Pin	X	2
	B263-3	Pin	X	1
	16 B158-8	Heat Shrink (around housing and wires)	X	A/R
	17 MS21919WDG2	Clamp	X	1
NOTES * See also Figure 96-29. Continues				

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		TAILCONE ASSEMBLY (Cont'd)		
53-33-18	MS35489-33	Grommet (install using item 36)	X	1
19	MS21042L08	Nut	X	A/R
20	MS21042L4	Nut	X	8
21	A141-11	Washer	X	8
22	D078-2	Doubler (Ref)	O	4
23	D078-3	Doubler (Ref)	O	4
24	D078-1	Doubler	X	4
25	NAS1149F0432P	Washer	X	8
26	NAS6604-4	Bolt	X	8
27	B263-14	Housing (to strobe light)	X	1
	B263-3	Pin	X	3
28	B158-6	Heat Shrink (around wires)	X	A/R
	B158-8	Heat Shrink (around housing and cable)	X	A/R
29	B274-450	Cable (wire no. 1454 [red], 1455 [black], 1456 [clear])	X	A/R
30	MS21919WDG4	Clamp	X	1
31	MS35489-35	Grommet	X	1
32	B263-15	Housing	X	1
	B263-4	Socket	X	3
33	C528-2	Mount (strobe light)	X	1
34	NAS9301B-4-02	Rivet	X	6
35	MS35489-18	Grommet	X	1
36	B270-8qt	Adhesive	X	A/R
37	D300	Support (Ref, see Figure 53-5)		
38	MS27039C0806	Screw (Ref)		
39	MS21069L08	Nutplate (Ref)		
NOTES				

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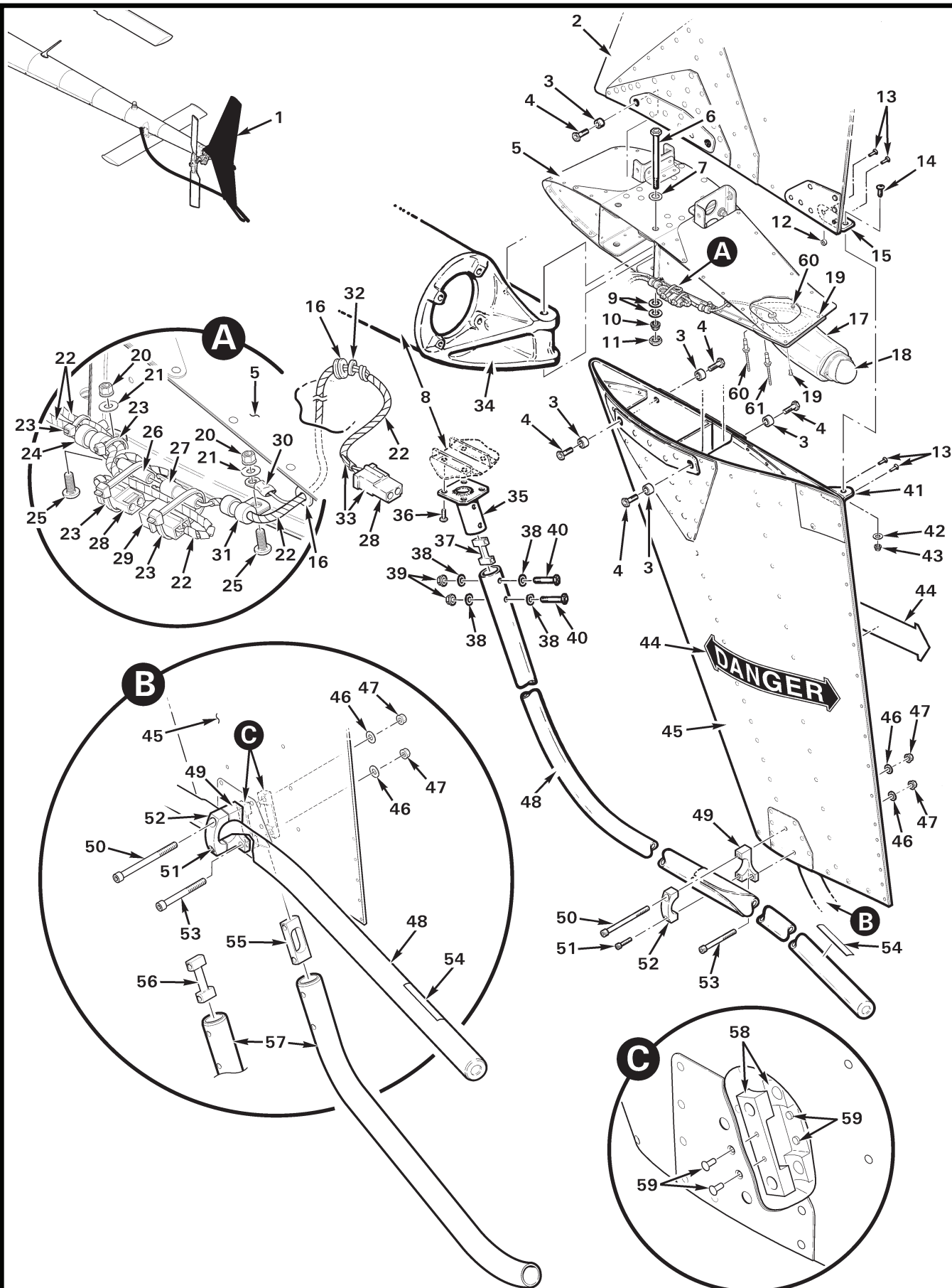


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		F004-2 EMPENNAGE ASSEMBLY		
53-37-1	F004-2*	Empennage Assembly (Incl items 2 thru 5, 12 thru 15, 41 thru 43, and 45)	X	1
2	C042-1	Stabilizer – Upper Vertical (does not include items 12, 13, and 15)	X	1
3	C130-9	Spacer	X	8
4	NAS6604-6	Bolt	X	8
5	F044-1*	Mount Assembly – Vertical Stabilizers (Incl items 17, 19, 33, 60, and 61)	X	1
8	NAS6606-47	Bolt (or NAS6606-48)	X	2
7	NAS1149F0632P	Washer	X	2
8	C023-1, -4, -14, & -15	Tailcone Assembly (Ref, see Figure 53-25)		
9	NAS1149F0663P	Washer (Under nut, as required to meet torque requirements per R44 MM § 23-30.)	X	A/R
10	D210-6	Nut	X	2
11	B330-19	Palnut	X	2
12	A130-14	Spacer	X	1
13	MS20470AD4	Rivet	X	4
14	MS35206-228	Screw	X	1
15	C554-2	Clip – Upper (Vertical Stabilizer)	X	1
16	MS35489-4	Grommet	X	2
17	C529-1	Mount Assembly – Tail Light	X	1
18	01-0771554-01**	Light Assembly – Tail Light (Ref, see Figure 33-7)		
19	MS20470AD3	Rivet	X	2
20	MS21042L08	Nut	X	2
21	NAS1149FN816P	Washer	X	2
22	B161-2	Spirap	X	A/R
23	MS3367-5-0	Ty-Rap	X	A/R
24	MS21919WDG3	Clamp	X	1
25	MS27039C0806	Screw	X	2
26	B263-11	Housing	X	1
	B263-2	Socket	X	1
27	B263-10	Housing	X	1
	B263-1	Pin	X	1
28	B263-13	Housing	X	2
	B263-2	Socket	X	4

NOTES * May only be installed if F955-1 or -6 bracket is installed on tailcone, see Figure 53-25.

** Whelen part number.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
F004-2 EMPENNAGE ASSEMBLY (Cont'd)				
53-37-29	B263-12	Housing	X	1
	B263-1	Pin	X	2
30	B260-3	Terminal	X	1
31	MS21919WDG2	Clamp	X	1
32	90295A075	Washer	X	1
33	D049-8	Wire Harness Assembly – Tail Light (includes items 16, 22, 27, 28 [1], 30, 32, and wires; assembled)	X	1
34	C148	Bulkhead Assembly (Ref)		
35	D082-1	Tube Assembly – Tail Rotor Guard Mount (lightly coat mating surface to item 48 with wet primer)		
36	MS27039C1-07	Screw	X	4
37	D081-1	Spacer (lightly coat mating surface to item 35 with wet primer prior to installation)	X	1
38	NAS1149F0332P	Washer	X	4
39	D210-3	Nut	X	2
40	NAS6603-16	Bolt (install using wet primer on shank)	X	2
41	C554-1	Clip – Lower (Vertical Stabilizer)	X	1
42	NAS1149FN616P	Washer	X	1
43	MS21042L06	Nut	X	1
44	C654-2	Decal – "DANGER"	X	2
45	C043-1	Stabilizer – Lower Vertical (includes items 58 and 59; does not include items 13, 41, 44, and 57)	X	1
46	NAS1149F0432P	Washer	X	2
47	D210-4	Nut	X	2
48	D079-1	Tail Rotor Guard Assembly (Includes item 54; does not include items 35 and 37. Lightly coat inside top of guard with wet primer prior to installing item 35. Seal around seam with primer after installation.)	X	1
49	D081-4	Block Assembly	X	1
50	NAS1351-4-51P	Screw	X	1
51	NAS1352-3-14P	Screw	X	1
52	D081-2	Block – Cap	X	1
53	NAS1351-4-36P	Screw	X	1
54	C654-18	Decal – "NO HAND HOLD"	X	1
55	C470-3	Spacer	X	1
56	C470-3	Spacer (Ref; revision I and prior no longer available)		
57	C470-1	Tail Skid	X	1
NOTES				
Continues				

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		F004-2 EMPENNAGE ASSEMBLY (Cont'd)		
53-37-58	C470-2	Block	X	2
59	MS20426AD3	Rivet	X	4
60	NAS9301B-4-01	Rivet (or NAS9301B-4-02)	X	2
61	NAS9301B-4-02	Rivet (or NAS9301B-4-03)	X	1
NOTES				

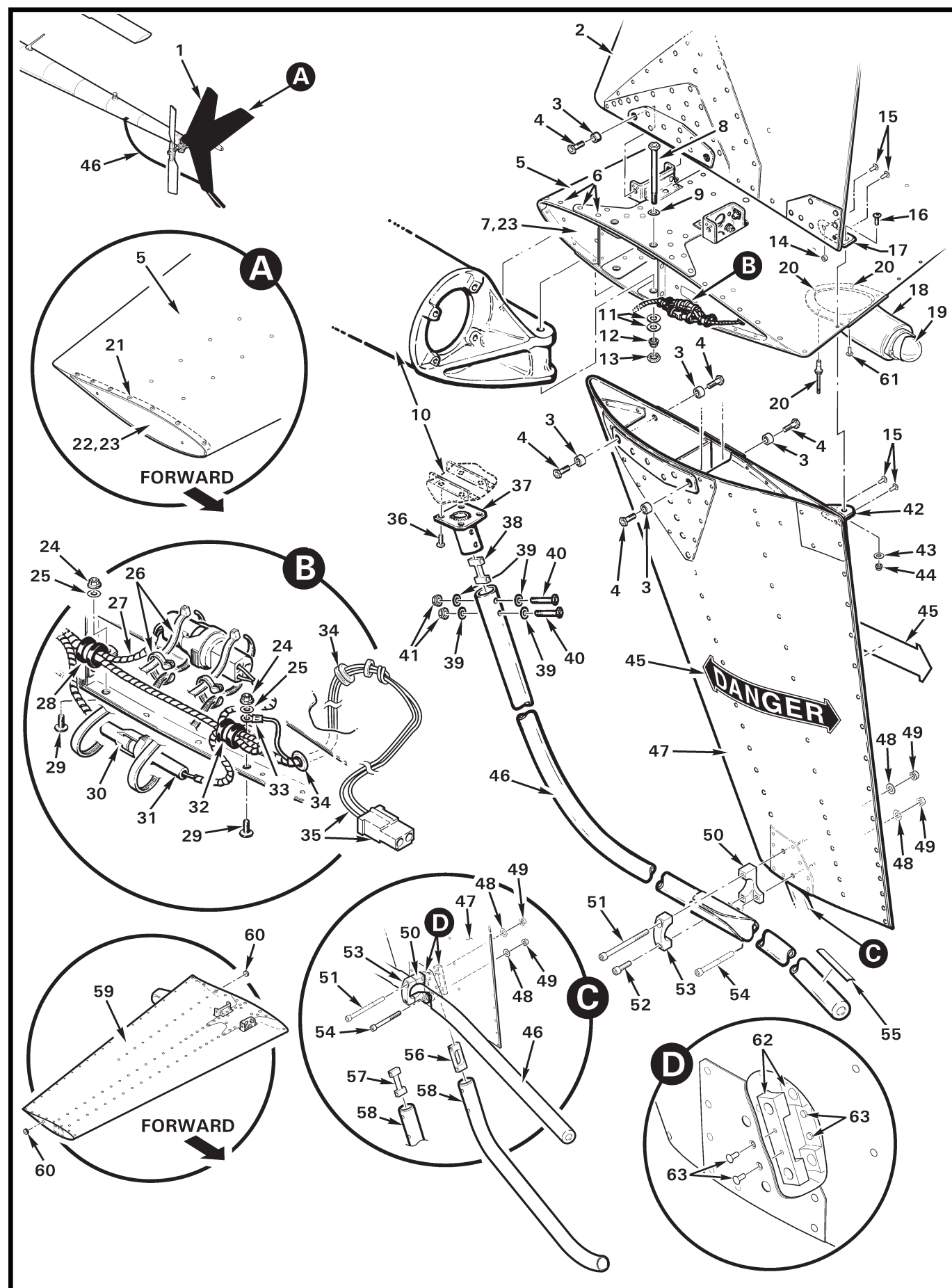


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		C004-2 EMPENNAGE ASSEMBLY		
53-41-1	C004-2*	Empennage Assembly (Includes items 2 thru 5, 14 thru 17, 23, 42 thru 44, and 47, does not include item 45. Also order item 64 as required.)	X	1
2	C042-1	Stabilizer – Upper Vertical (does not include items 14, 15, and 17)	X	1
3	C130-9	Spacer	X	8
4	NAS6604-6	Bolt	X	8
5	C044-1*	Stabilizer – Horizontal (Incl items 6, 7, 18, 20 thru 23, and 35)	X	1
6	MS20470AD3	Rivet	X	10
7	D292-2	Rib (inboard; seal around joint using item 23)	X	1
8	NAS6606-47	Bolt (or NAS6606-48)	X	2
9	NAS1149F0632P	Washer	X	2
10	C023	Tailcone Assembly (Ref)		
11	NAS1149F0663P	Washer (Under nut, as required to meet torque requirements per R44 MM § 23-30.)	X	A/R
12	D210-6	Nut	X	2
13	B330-19	Palnut	X	2
14	A130-14	Spacer	X	1
15	MS20470AD4	Rivet	X	4
16	MS35206-228	Screw	X	1
17	C554-2	Clip – Upper Vertical Stabilizer	X	1
18	C529-1	Mount Assembly – Tail Light	X	1
19	01-0771554-01**	Light Assembly – Tail Light (Ref, see Figure 33-7)		
20	NAS9301B-4-02	Rivet (or NAS1919B04S02)	X	3
21	NAS9301B-4-01	Rivet (or NAS1919B04S01)	X	14
22	D292-3	Rib (outboard; seal around joint using item 23)	X	1
23	B270-1	Sealant	X	1
24	MS21042L08	Nut	X	2
25	NAS1149FN816P	Washer	X	2
26	MS3367-5-9	Ty-Rap	X	4
27	B161-2	Spirap	X	A/R
28	MS21919WDG3	Clamp	X	1
29	MS27039C0806	Screw	X	2
30	B264-11	Housing	X	1
	B264-2	Socket	X	1

NOTES * May not be installed if F955-1 or -6 bracket is installed on tailcone, see Figure 53-25.

** Whelen part number.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		C004-2 EMPENNAGE ASSEMBLY (Cont'd)		
53-41-31	B264-10	Housing	X	1
	B264-1	Pin	X	1
32	MS21919WDG2	Clamp	X	1
33	B260-3	Terminal	X	1
34	MS35489-4	Grommet	X	2
35	D049-3	Wire Harness Assembly – Tail Light (Includes items 27, 30, 34, B264-1 pin, [2] B264-2 sockets, B264-13 housing, 90295A075 plastic washer, and wires; assembled. Replaced by D049-8, see Figure 53-37.)	X	1
36	MS27039C1-07	Screw	X	4
37	D082-1	Tube Assembly – Tail Rotor Guard Mount (lightly coat mating surface to item 46 with wet primer)	X	1
38	D081-1	Spacer (lightly coat with wet primer prior to installation)	X	2
39	NAS1149F0332P	Washer	X	4
40	NAS6603-16	Bolt (install using wet primer)	X	2
41	D210-3	Nut	X	2
42	C554-1	Clip – Lower Vertical Stabilizer	X	1
43	NAS1149FN616P	Washer	X	1
44	MS21042L06	Nut	X	1
45	C654-2	Decal – “Danger”	X	2
46	D079-1	Tail Rotor Guard (Includes item 55. Lightly coat inside top of guard with primer before installing item 37. Seal around seam with primer after installation.)	X	1
47	C043-1	Stabilizer – Lower Vertical (includes items 23, 62, and 63; does not include items 42, 45, and 58)	X	1
48	NAS1149F0432P	Washer	X	2
49	D210-4	Nut	X	2
50	D081-4	Block Assembly	X	1
51	NAS1351-4-51P	Screw	X	1
52	NAS1352-3-14P	Screw	X	1
53	D081-2	Block – Cap	X	1
54	NAS1351-4-36P	Screw	X	1
55	C654-18	Decal – “No Hand Hold”	X	1
56	C470-3	Spacer	X	1
57	C470-3	Spacer (Ref, revision I and prior no longer available)		
58	C470-1	Tail Skid	X	1
59	D097-11 *	Stabilizer – Horizontal (Incl items 5 and 60)	X	1
NOTES * ENG ships only. Continues				

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		C004-2 EMPENNAGE ASSEMBLY (Cont'd)		
53-41-60	MS35489-9*	Grommet	X	2
61	MS20426AD3	Rivet	X	2
62	C470-2	Block	X	2
63	MS20470AD4	Rivet	X	4
		* * *		
64	KI-276	R44-series and R66 B264-XX Connector Upgrade Kit Instructions (Replaces obsoleted B264-XX connectors with B263-XX connectors on C049-1 tail rotor gearbox chip detector harness assembly. C023 tailcone aft wire harness, and tail light wire on C044 horizontal stabilizer harness.)	X	A/R
NOTES * ENG ships only.				

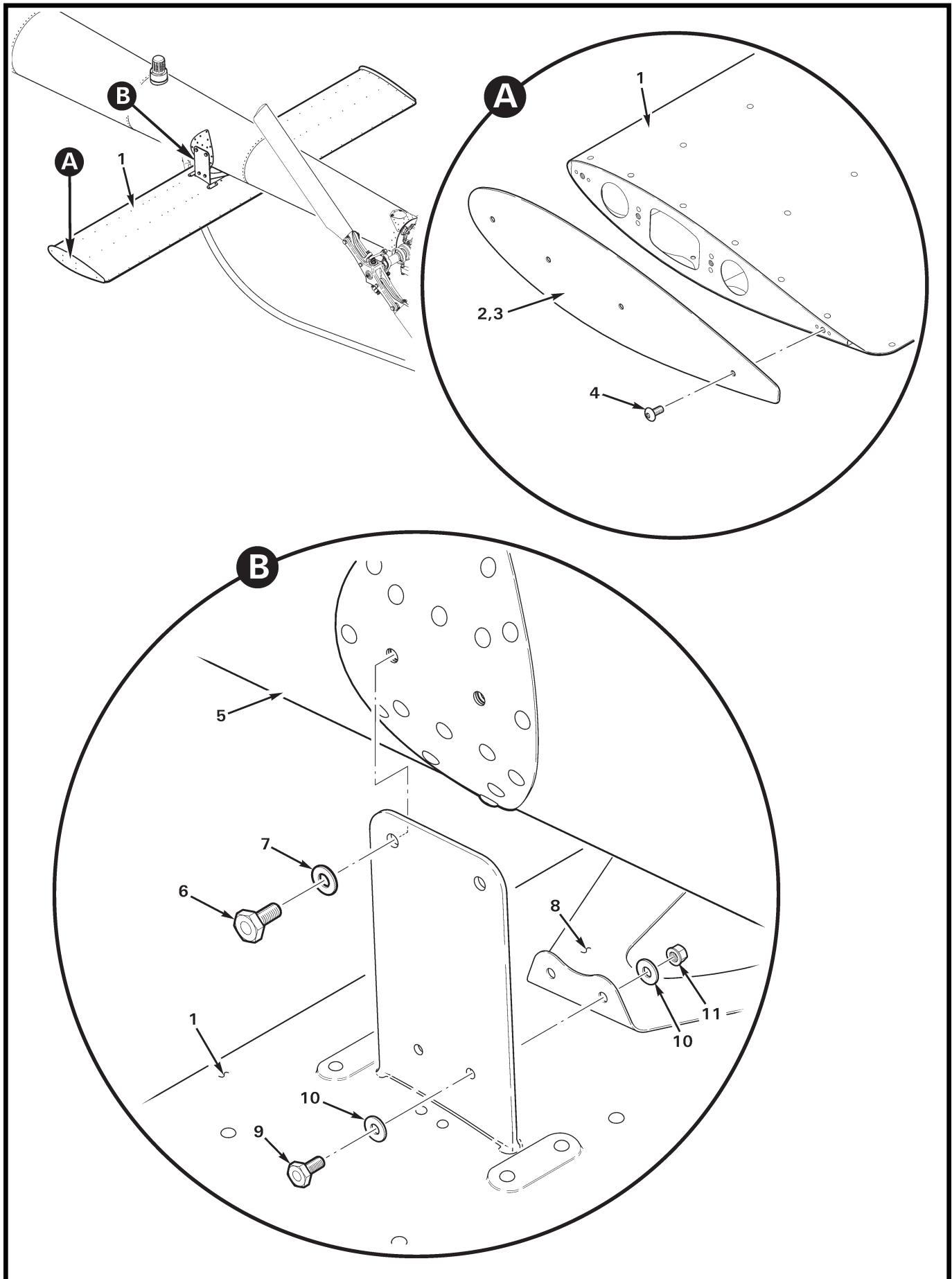


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		F050-2 HORIZONTAL STABILIZER INSTALLATION		
53-45-1	F050-2	Horizontal Stabilizer Assembly (Incl items 2 thru 4)	X	1
2	F952-3	Plate (seal all around plate in joint, where plate attaches to stabilizer using item 3)	X	2
3	B270-1	Sealant	X	A/R
4	B526-66	Screw (do not substitute)	X	8
5	C023-1, -2, -4, -14, & -15 *	Tailcone Assembly (Ref)		
6	NAS6604-3 *	Bolt (Ref)		
7	NAS1149F0432P *	Washer (Ref)		
8	F955-1 *	Bracket (Ref)		
9	NAS6603-2 *	Bolt (Ref)		
10	NAS1149F0332P *	Washer (Ref)		
11	D210-3 *	Nut (Ref)		
12	A651-1	Data Plate (not shown)	O	1
NOTES * See Figure 53-25.				

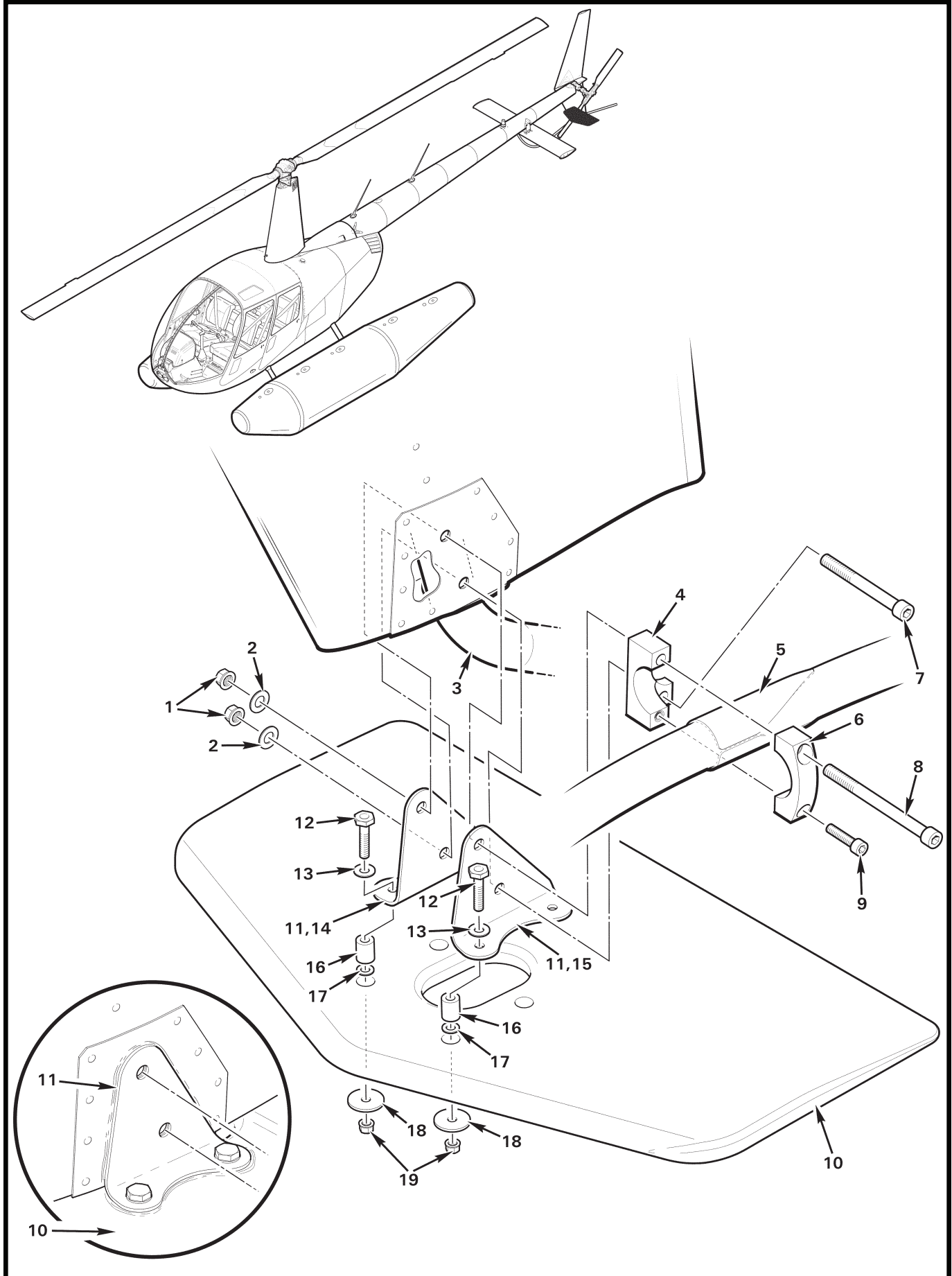


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		C050-2 FLOAT STABILIZER INSTALLATION		
53-47-1	D210-4	Nut	X	2
2	NAS1149F0432P	Washer	X	2
3	C470-1	Tail Skid (Ref, see Figure 53-37)		
4	D081-4	Block Assembly	X	1
5	D079-1	Tail Rotor Guard (Ref, see Figure 53-37)		
6	D081-2	Block – Cap	X	1
7	NAS1351-4-38P	Screw	X	1
8	NAS1351-4-53P	Screw	X	1
9	NAS1352-3-14P	Screw	X	1
10	C050-2	Stabilizer Assembly (Incl items 11 thru 16, 18, and 19)	X	1
11	B270-1	Sealant (2-oz tube)	X	A/R
12	NAS6603-9	Bolt (one exposed thread minimum permissible)	X	4
13	NAS1149F0332P	Washer	X	4
14	C971-4	Bracket (RH, seal around edges using item 11)	X	1
15	C971-3	Bracket (LH, seal around edges using item 11)	X	1
16	A130-35	Spacer	X	4
17	NAS620-10L *	Washer	X	A/R
18	A141-18	Washer (seal around edges using item 11)	X	4
19	MS21042L3	Nut	X	4
NOTES * Install one under item 18, (4) places if stabilizer is more than 0.015-inch thicker than spacer length.				

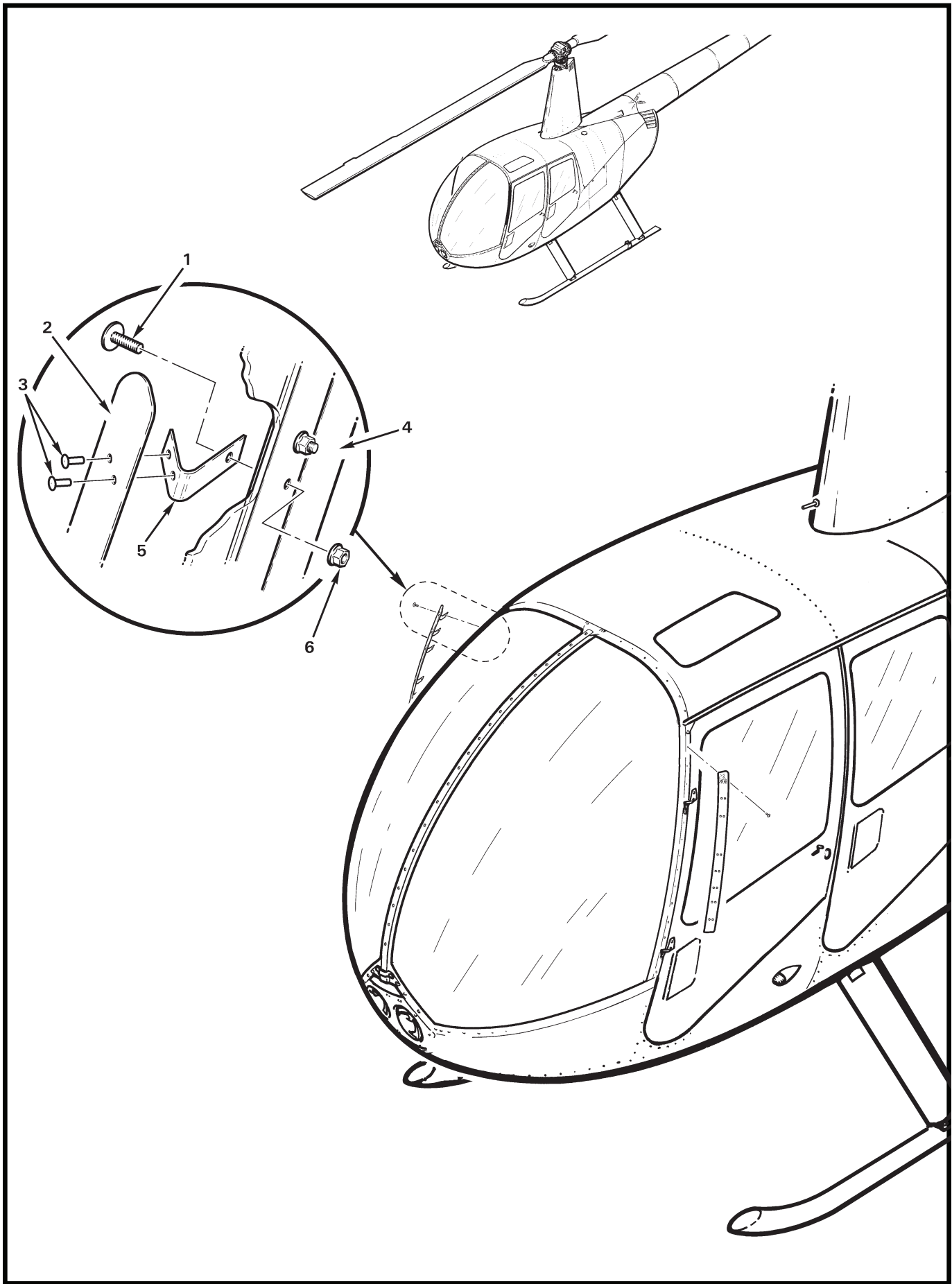


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
53-49-1		WIND DEFLECTOR INSTALLATION		
	AN526C832R8	Screw	X	16
	2 B228-1	Deflector (LH or RH)	X	2
	3 MS20470AD4	Rivet	X	32
	4 —	Door Jamb (Ref)		
	5 B228-2	Angle	X	16
	6 MS21042L08	Nut	X	16
NOTES				

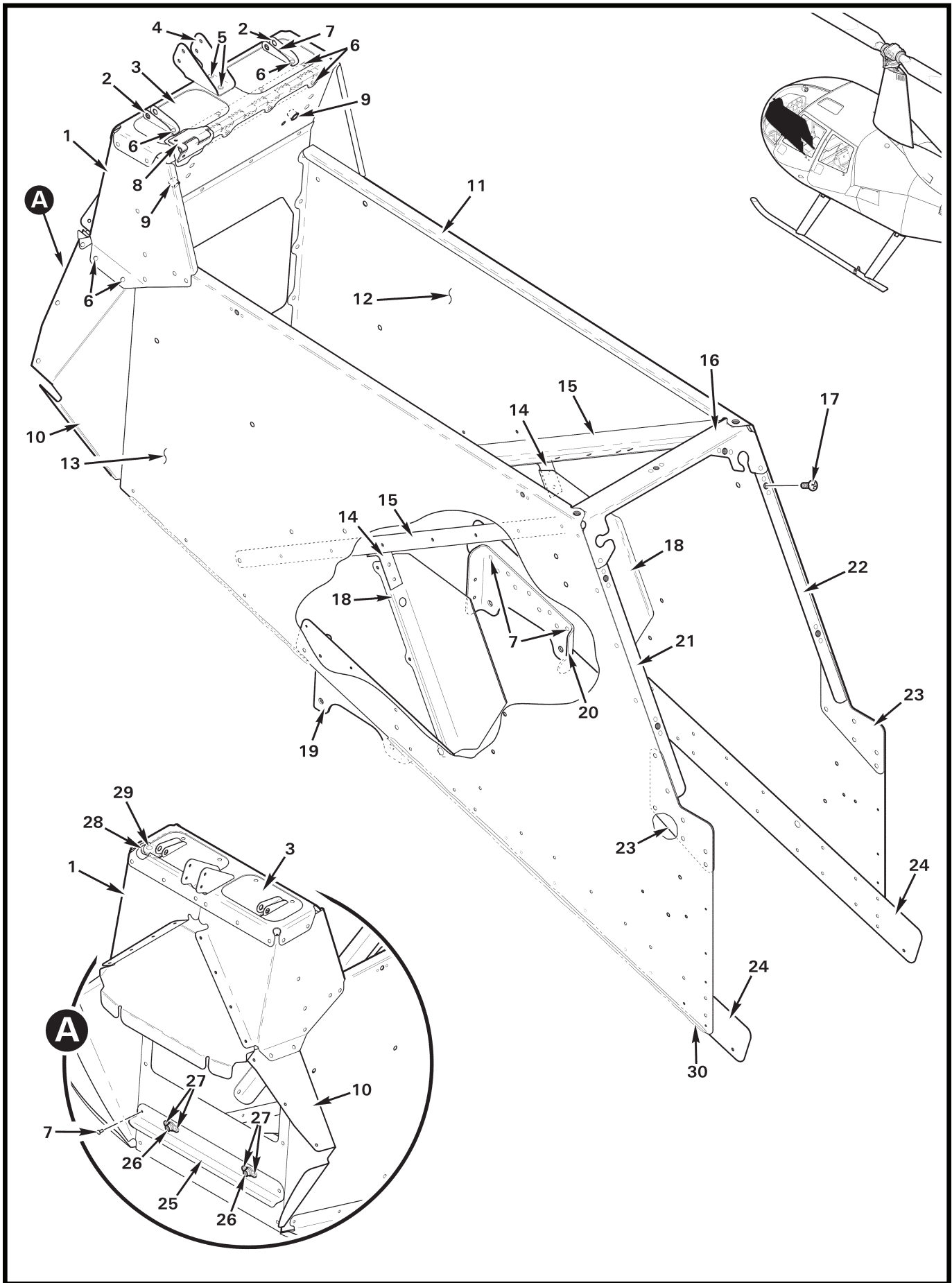


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		LOWER CONSOLE ASSEMBLY		
53-51-1	C062-1	Vent Box Assembly (Incl items 2, 3, and 6 thru 9)	X	1
2	A523-4	Channel	X	2
3	C358-4	Flap	X	1
4	C358-2	Support	X	1
5	MS20426AD4	Rivet	X	3
6	MS20470AD3	Rivet	X	A/R
7	MS20470AD4	Rivet	X	A/R
8	A523-3	Hinge	X	1
9	A130-36	Spacer (install using MS20470AD5 rivet)	X	2
10	C361-1	Panel	X	1
11	C033-1	Lower Console Assembly (Incl items 1, 4, 5, 10, and 12 thru 25)	X	1
12	C359-2	Panel (RH)	X	1
13	C359-1	Panel (LH)	X	1
14	A737-1	Clip	X	2
15	C365-1	Angle	X	2
16	C368-1	Support Assembly (includes MS21069L08 nutplates)	X	1
17	MS27039C0806	Screw	X	5
18	A371-3	Stiffener	X	2
19	A359-1	Support (LH)	X	1
20	A359-2	Support (RH)	X	1
21	C365-5	Angle Assembly (LH, includes MS21075L08E nutplates)	X	1
22	C365-6	Angle Assembly (RH, includes MS21075L08E nutplates) . . .	X	1
23	C365-3	Doubler	X	2
24	C365-4	Doubler	X	2
25	C360-4	Stiffener Assembly (Includes items 26 and 27. Install using item 7 [2].)	X	1
26	MS21069L3	Nutplate	X	2
27	NAS1097AD3	Rivet	X	4
28	C358-7	Weight (install using item 29)	X	1
29	MS20426AD4	Rivet	X	1
30	B270-1	Sealant (for use on Clipper)	X	A/R
NOTES				

Intentionally Blank