

CHAPTER 53

FUSELAGE

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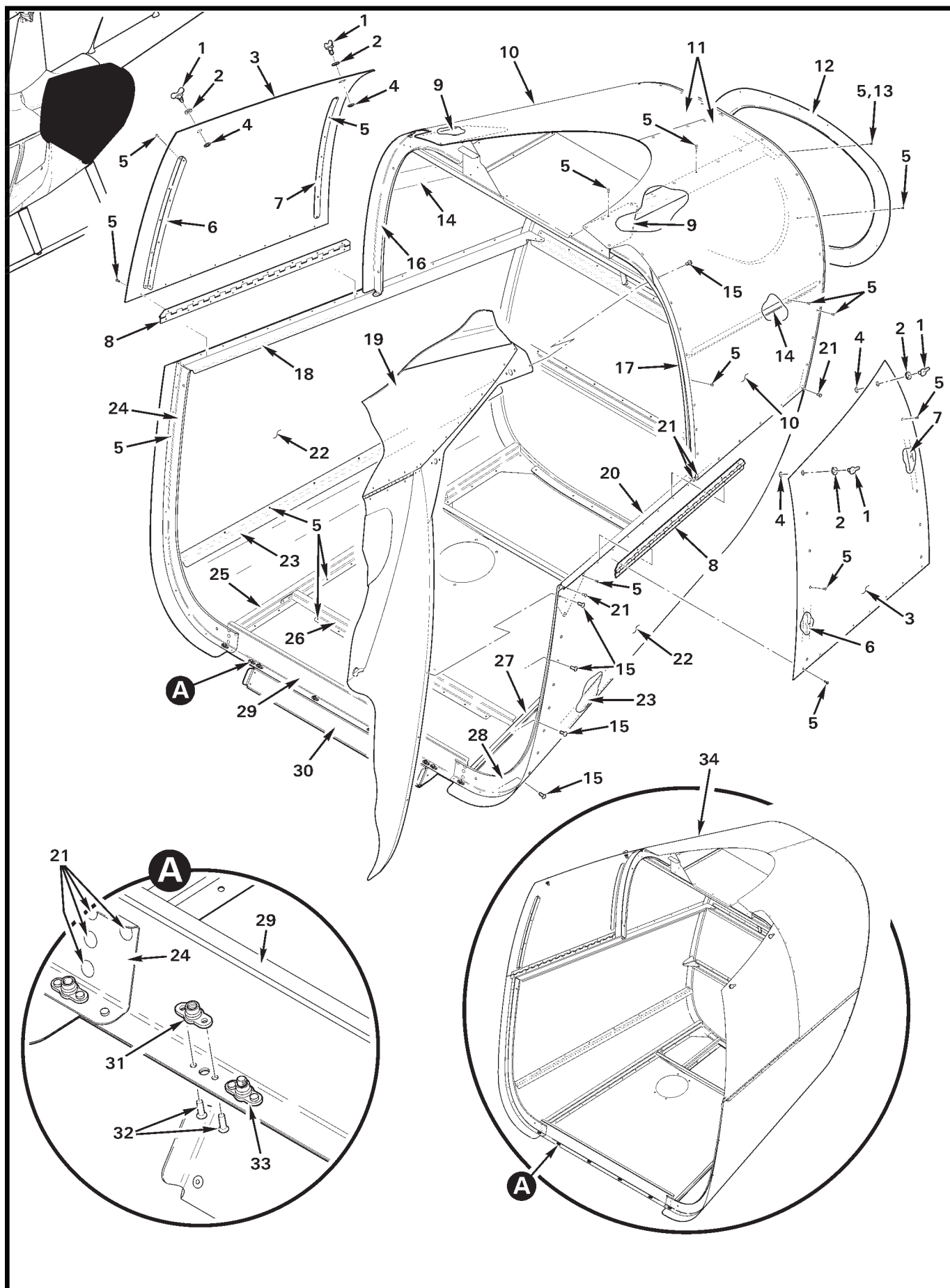


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		ENGINE COWLING INSTALLATION		
53-1-1	85-12-140-16	Stud	X	4
2	85-46-101-39	Washer	X	4
3	G040-5	Door (RH and LH)	X	2
4	85-34-201-20	Retaining Ring	X	4
5	MS20470AD3	Rivet	X	A/R
6	G304-1	Stiffener (RH and LH door)	X	2
7	G928-3	Stiffener (RH and LH door)	X	2
8	G925-4	Hinge	X	2
9	G309-7	Doubler (RH and LH)	X	2
10	G040-7	Engine Cowling Assembly – Aft (w/AC; includes items 5 thru 9, 11, 14, 16 thru 18, 20 thru 29, and 30 thru 33)	X	1
11	G040-4	Skin (RH and LH)	X	2
12	G039-2	Ring (blank; drill-to-fit after exhaust pipe replacement)	X	1
13	MS20604R3W1	Rivet (may be used instead of item 5 for [4] upper rivets)	X	4
14	G307-9	Stiffener (RH and LH)	X	2
15	MS27039C0806	Screw	X	10
16	G306-2	Stiffener (RH)	X	1
17	G306-1	Stiffener (LH)	X	1
18	G307-4	Stiffener (RH)	X	1
19	G004	Fuselage Assembly – Aft (Ref)		
20	G307-3	Stiffener (LH)	X	1
21	MS20470AD4	Rivet	X	38
22	G040-3	Skin (RH and LH)	X	2
23	G307-10	Stiffener (RH and LH)	X	2
24	G305-2	Stiffener (RH)	X	1
25	G307-4	Stiffener (RH)	X	1
26	G312-1	Stiffener	X	1
27	G307-3	Stiffener (LH)	X	1
28	G305-1	Stiffener (LH)	X	1
29	G308-1	Stiffener	X	1
30	G311-10	Scoop (Ref)		
31	MS21069L08	Nutplate	X	6
32	NAS1097AD3	Rivet	X	A/R
33	MS21069L08	Nutplate (Ref, installed on item 10 only)	X	2
34	G040-1	Engine Cowling Assembly – Aft (w/o AC; includes items 5 thru 9, 11, 14, 16 thru 18, 20 thru 29, 31, and 32)	X	1
NOTES				

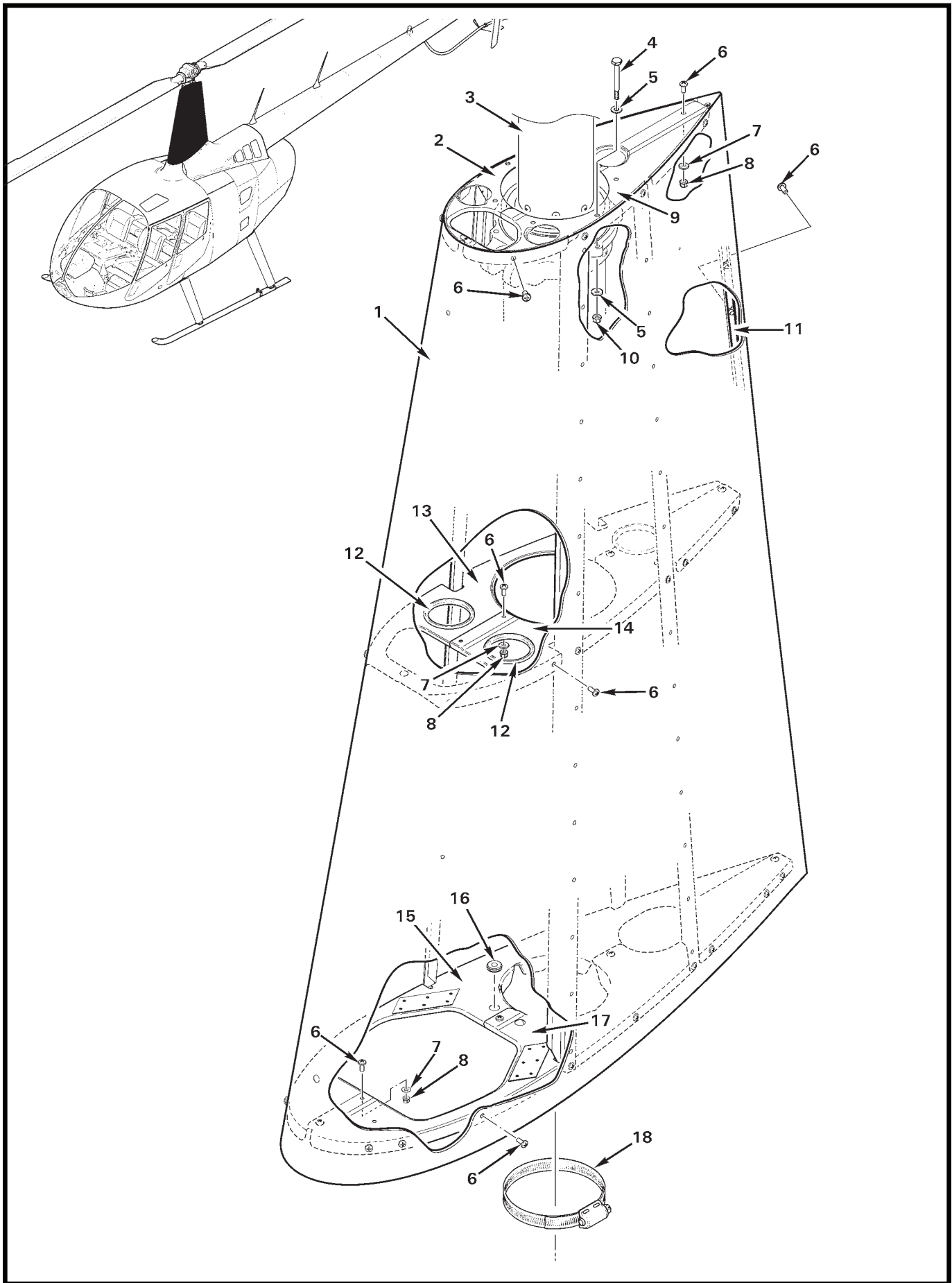


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
MAST FAIRING ASSEMBLY				
53-3-1	F261-1	Mast Fairing Assembly (Incl items 2, 6 thru 9, and 11 thru 18)	X	1
2	F261-18	Rib-Upper (RH)	X	1
	C261-6	Rib-Upper (RH; earlier aircraft)	O	1
3	F006	Main Rotor Gearbox Assembly (Ref)		
4	NAS6603	Bolt (Ref, see Figure 63-7)		
5	NAS1149F0332P	Washer	X	12
6	MS27039C0806	Screw	X	60
7	NAS1149FN816P	Washer	X	12
8	MS21042L08	Nut	X	12
9	F261-17	Rib – Upper (LH)	X	1
	C261-5	Rib – Upper (LH; earlier aircraft)	O	1
10	MS21042L3	Nut	X	6
11	A738-39	Gang Channel	X	1
12	NAS557-28A	Grommet	X	3
13	F261-16	Rib – Middle (RH)	X	1
14	F261-15	Rib – Middle (LH)	X	1
15	F261-14	Rib – Lower (RH)	X	1
16	MS35489-6	Grommet	X	1
17	F261-13	Rib – Lower (LH)	X	1
18	B277-064	Clamp (around mast tube)	X	1
NOTES				

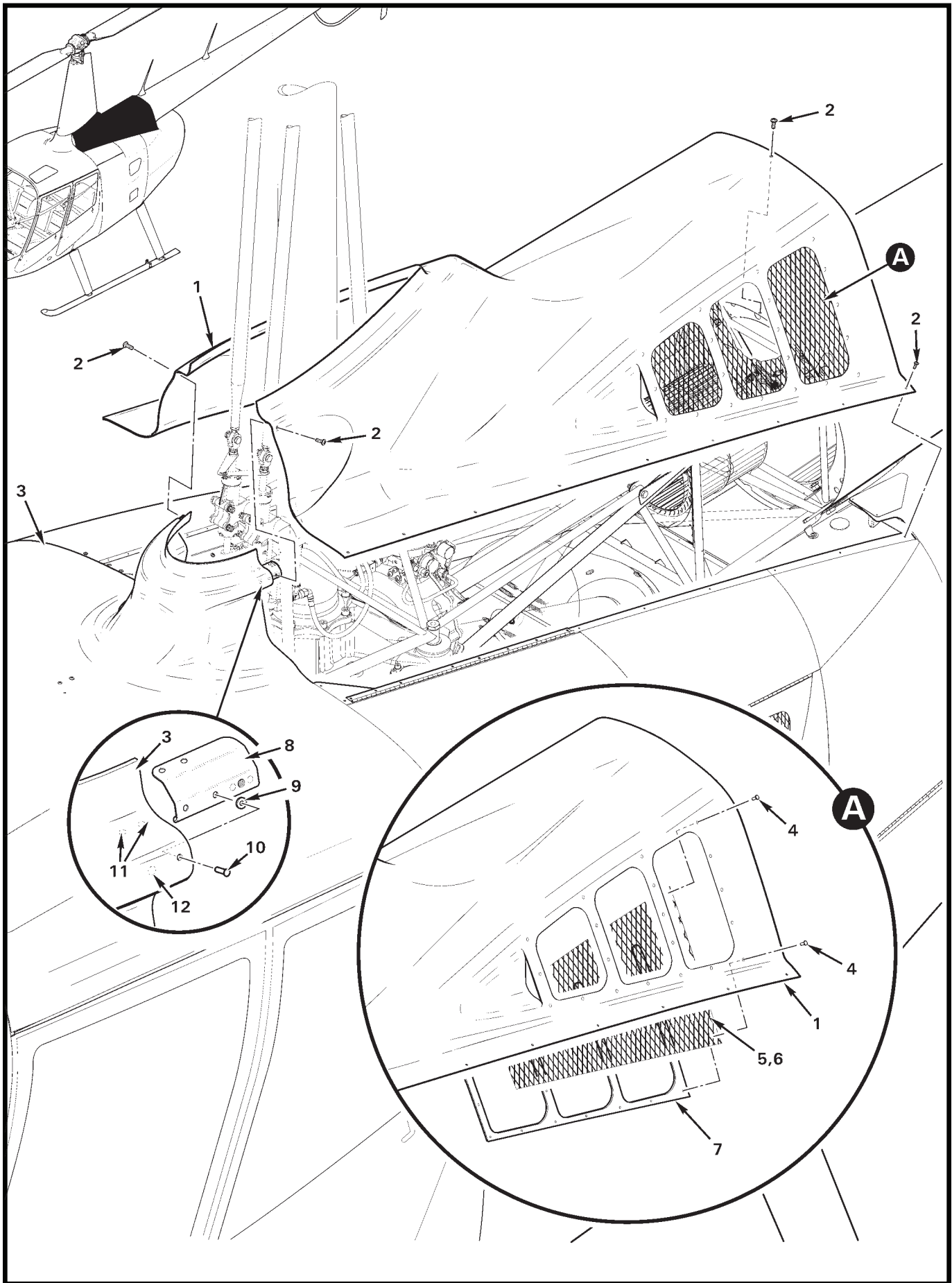


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		TAILCONE COWLING INSTALLATION		
53-5-1	F706-1	Cowling	X	1
2	MS27039C0806	Screw	X	22
3	F015	Cabin Assembly (Ref)		
4	NAS9301B-4-04	Rivet	X	40
5	G911-3	Screen (LH)	X	1
6	G911-4	Screen (RH, not shown)	X	1
7	G911-2	Retainer	X	2
8	G921-9	Bracket Assembly (Ref; LH)		
	G921-10	Bracket Assembly (Ref; RH)		
9	NAS620-5	Washer	X	2
10	MS20426AD4	Rivet (aft location)	X	2
11	MS20470AD4	Rivet (Ref)		
12	MS20426AD4	Rivet (Ref; forward location)		
NOTES				

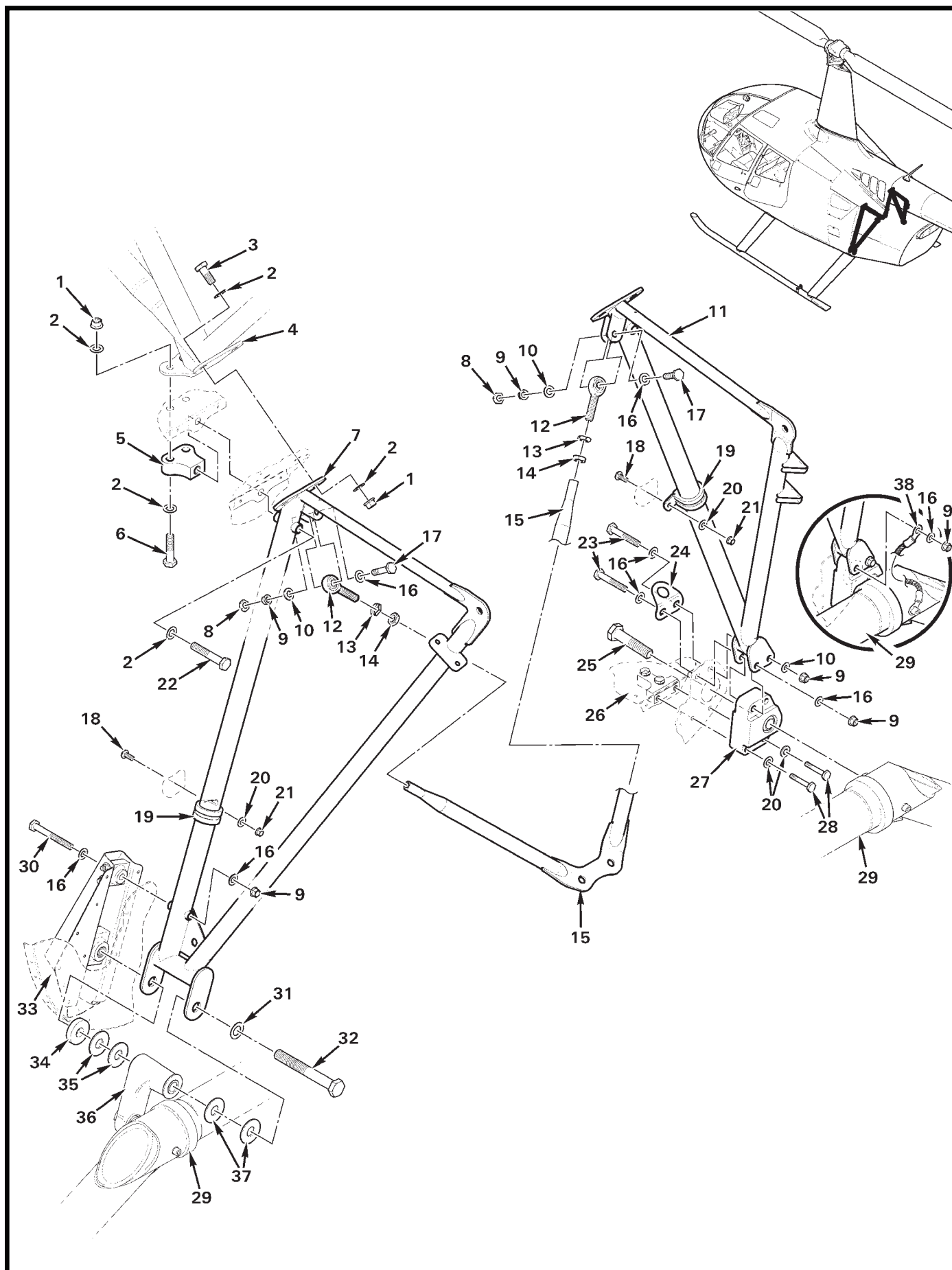


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		LOWER FRAME ASSEMBLIES		
53-7-1	D210-5	Nut	X	4
2	NAS1149F0532P	Washer	X	18
3	NAS6605-5	Bolt	X	2
4	F020-1	Frame Weldment (upper frame assy.; Ref, see Figure 53-13)		
5	F574-10	Block Assembly	X	2
6	NAS6605-14	Bolt	X	2
7	F046-1	Frame Weldment (LH, lower frame assembly)	X	1
8	B330-13	Palnut	X	2
9	D210-4	Nut	X	4
10	NAS1149F0463P	Washer	X	2
11	F046-2	Frame Weldment (RH, lower frame assembly)	X	1
12	F101-4	Rod End (elastomeric)	X	2
	A101-4	Rod End (obsolete, see R66 SB-23)	O	2
13	B330-16	Palnut	X	2
14	AN316-5R	Nut	X	2
15	F174-1	Support Weldment	X	1
16	NAS1149F0432P	Washer	X	4
17	NAS6604-10	Bolt	X	2
18	MS27039C1-07	Screw	X	2
19	MS21919WDG14	Clamp	X	2
20	NAS1149F0332P	Washer	X	4
21	D210-3	Nut	X	2
22	NAS6605-22	Bolt	X	2
23	NAS6604-18	Bolt	X	1
24	G914-5	Tab	X	1
25	NAS6607P20	Bolt (Ref, see Figure 32-1)		
26	G024-1	Floor Assembly (Ref)		
27	F574-1	Support Assembly	X	1
28	NAS6603-13	Bolt	X	2
29	F014-2	Landing Gear Assembly (Ref, see Figure 32-1)		
30	NAS6604-28	Bolt	X	1
31	NAS1149F0732P	Washer	X	1
32	NAS6607P44	Bolt	X	1
33	G004-1	Fuselage Assembly (Ref)		
34	C141-6	Washer	X	1
NOTES				
Continues				

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		LOWER FRAME ASSEMBLIES (Cont'd)		
53-7-35	C141-5	Washer	X	2
36	C276-3	Shackle Assembly (Ref, see Figure 32-1)		
37	A214-10	Washer	X	2
38	A936-3	Wire Assembly (Ref; see Figure 32-1. Earlier R66s.)		
NOTES				

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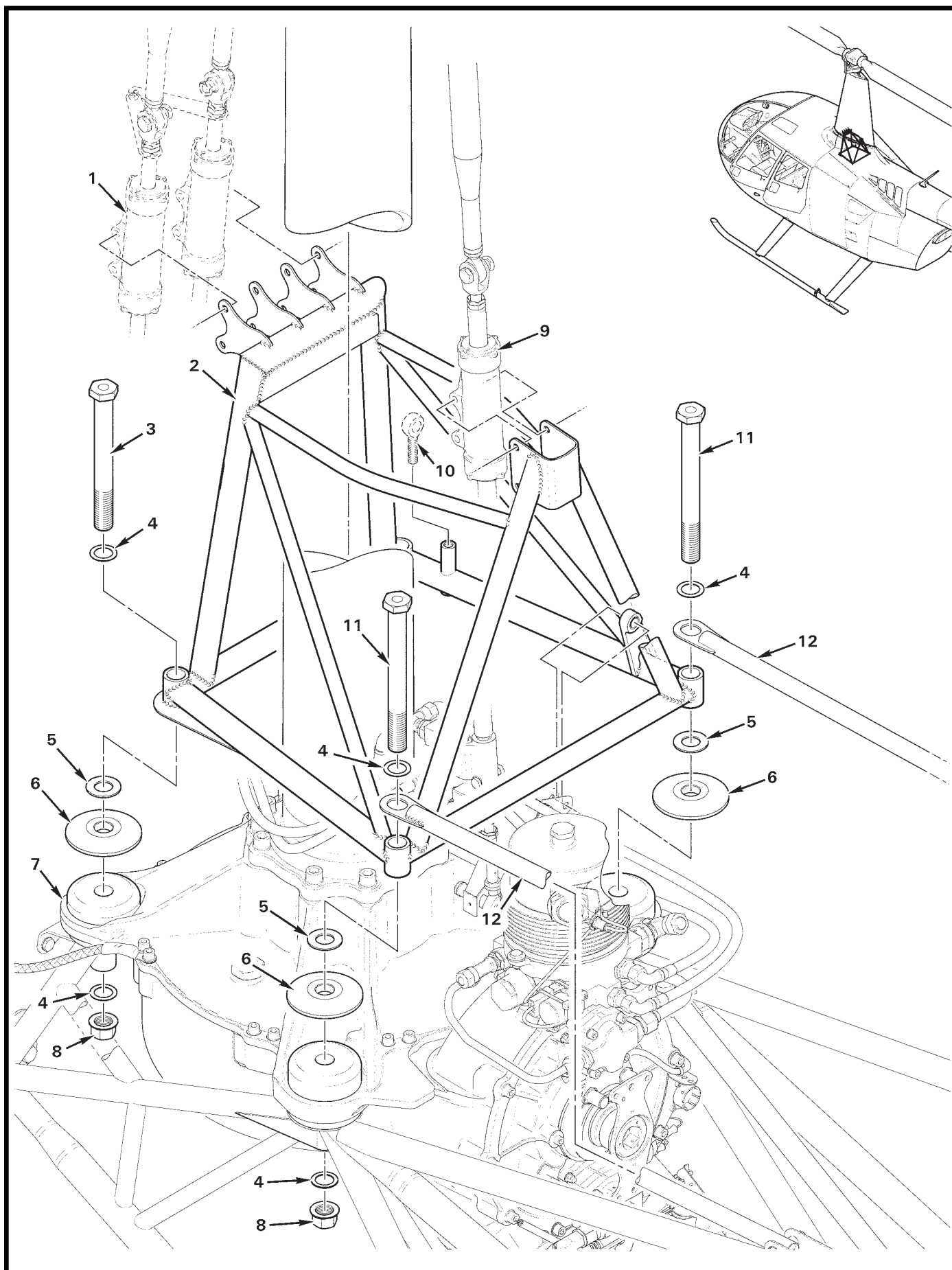


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		HYDRAULIC SERVO SUPPORT FRAME ASSEMBLY		
53-11-1	D212-5	Forward Servo (Ref; see Figure 29-7)		
2	G201-1	Frame Weldment	X	1
3	F650-1	Bolt	X	2
4	A141-21	Washer	X	8
5	NAS1149F1063P	Washer	X	4
6	A267-1	Washer	X	4
7	F006-1	Main Rotor Gearbox Assembly (Ref, see Figure 63-3)		
8	D210-10	Nut (Install with A257-9 on bolt threads.)	X	4
9	D212-6	Aft Servo (Ref, see Figure 29-11, and 67-25)		
10	B163-2	Rod End (Ref, see Figure 67-25)		
11	F650-2	Bolt	X	2
12	F235-13	Strut Assembly (Ref, see Figure 53-13A)		
NOTES				

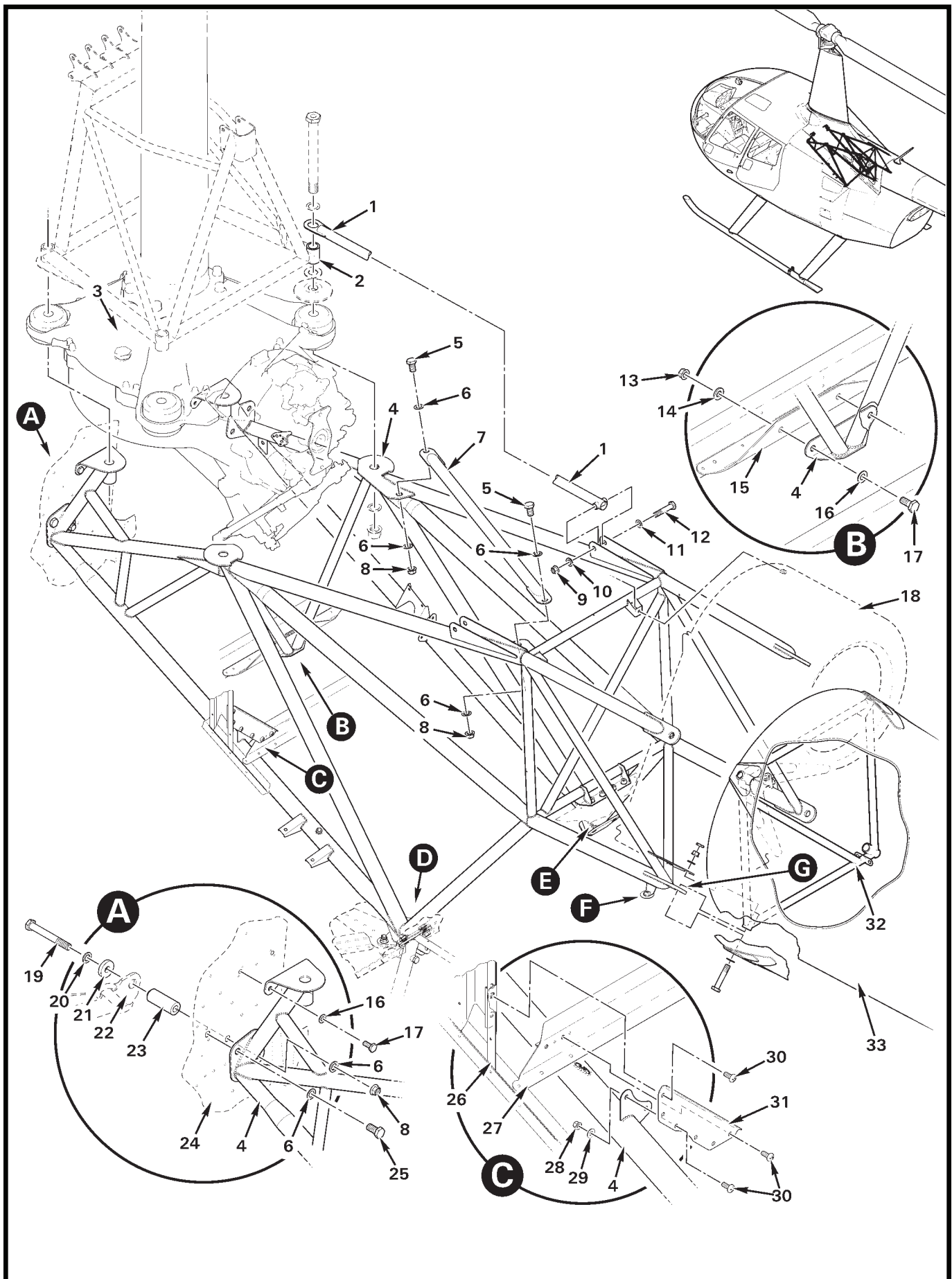
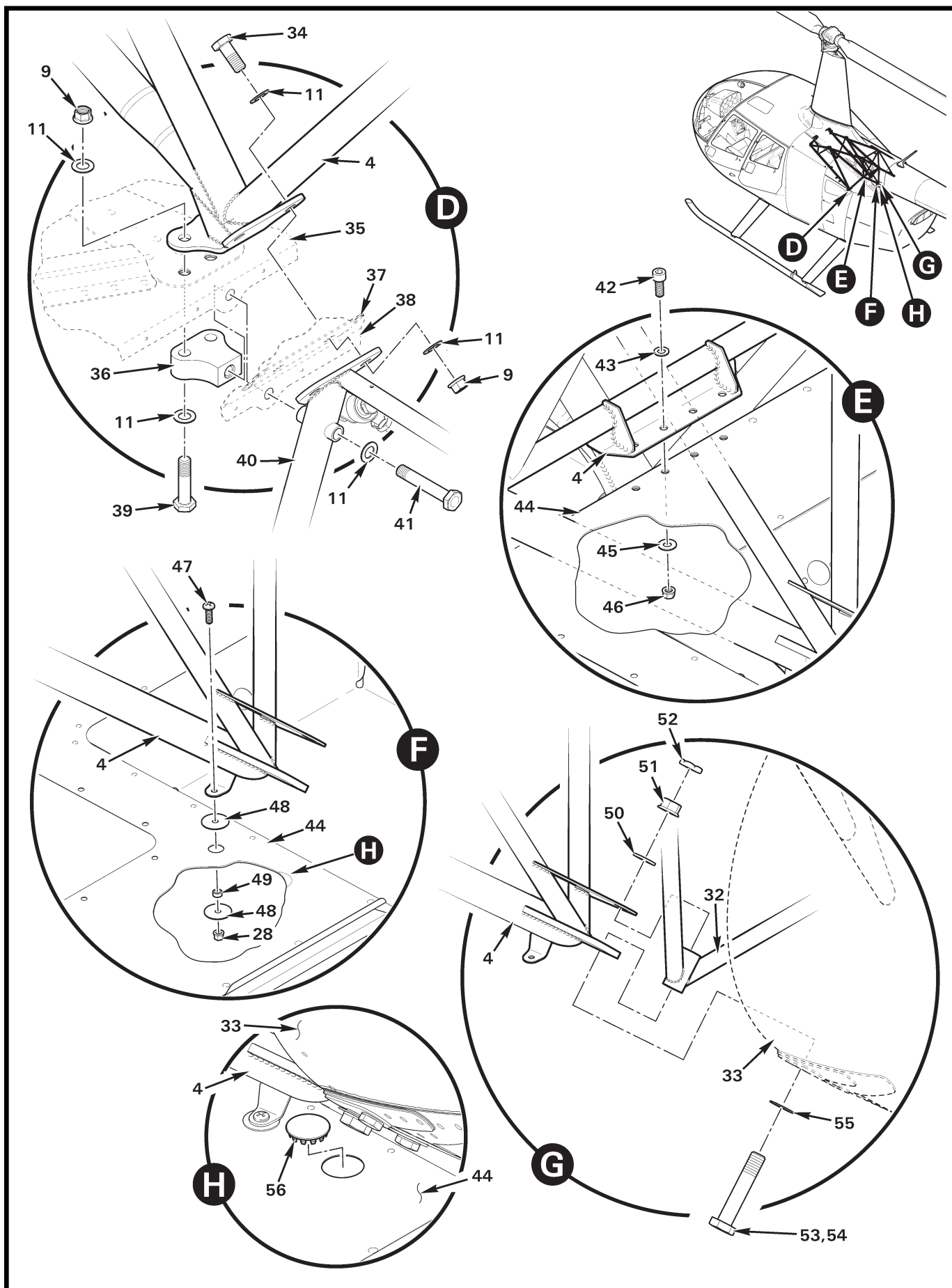


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		UPPER FRAME ASSEMBLY		
53-13-1	F235-13	Strut Assembly	X	2
2	G201-1	Frame Weldment (hydraulic support; Ref)		
3	F006-1	Main Rotor Gearbox Assembly (Ref; see Figure 63-3)		
4	F020-1	Frame Weldment (upper frame assembly)	X	1
5	NAS6606-1	Bolt	X	2
6	NAS1149F0632P	Washer	X	8
7	F252-1	Strut	X	1
8	MS21042L6	Nut	X	3
9	MS21042L5	Nut	X	2
10	NAS1149F0563P	Washer	X	10
11	NAS1149F0532P	Washer	X	22
12	NAS6605-17	Bolt	X	2
13	MS21042L4	Nut	X	2
14	NAS1149F0463P	Washer	X	2
15	G258-2	Bracket	X	1
16	NAS1149F0432P	Washer	X	6
17	NAS6604-3	Bolt	X	6
18	F236-1	Scroll Assembly (Ref)		
19	NAS6606-36	Bolt	X	1
20	NAS1149F0663P	Washer	X	1
21	C141-16	Washer	X	1
22	505281-1	Guide (seat belt, Ref)		
23	F374-7	Spacer	X	1
24	F560-1	Cabin Bulkhead Assembly (LH, Ref)		
25	NAS6606-3	Bolt	X	3
26	F231-1	Stiffener (Ref)		
27	F231-7	Stiffener (Ref)		
28	MS21042L08	Nut	X	6
29	NAS1149FN816P	Washer	X	4
30	MS27039C0806	Screw	X	12
31	F231-8	Brace	X	2
32	F237-1	Frame Weldment (see Figure 53-13B)	X	1
33	C023-21	Tailcone Assembly (Ref)		
34	NAS6605-5	Bolt	X	4
35	G023-1	Ceiling Assembly – Baggage Compartment (Ref)		
NOTES				
Continues				

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
UPPER FRAME ASSEMBLY (Cont'd)				
53-13-36	F574-10	Block Assembly	X	2
37	F384-1	Doubler (Ref)		
38	F234-1	Firewall (Ref)		
39	NAS6605-14	Bolt	X	4
40	F046-1	Frame Weldment – Lower Frame (LH, Ref)		
41	NAS6605-22	Bolt	X	2
42	NAS1351-3-8P	Screw	X	4
43	NAS620-10L	Washer	X	4
44	G234-1	Firewall (Ref)		
45	NAS1149F0332P	Washer	X	4
46	MS21042L3	Nut	X	4
47	MS27039C0808	Screw	X	2
48	C141-22	Washer	X	4
49	C130-33	Spacer	X	2
50	C141-4	Washer	X	4
51	D210-7	Nut	X	4
52	B330-21	Palnut	X	4
53	NAS6607-25	Bolt (this location only)	X	1
54	NAS6607-24	Bolt	X	3
55	NAS1149F0732P	Washer	X	4
56	B209-9	Plug (RH side not shown)	X	2
NOTES				



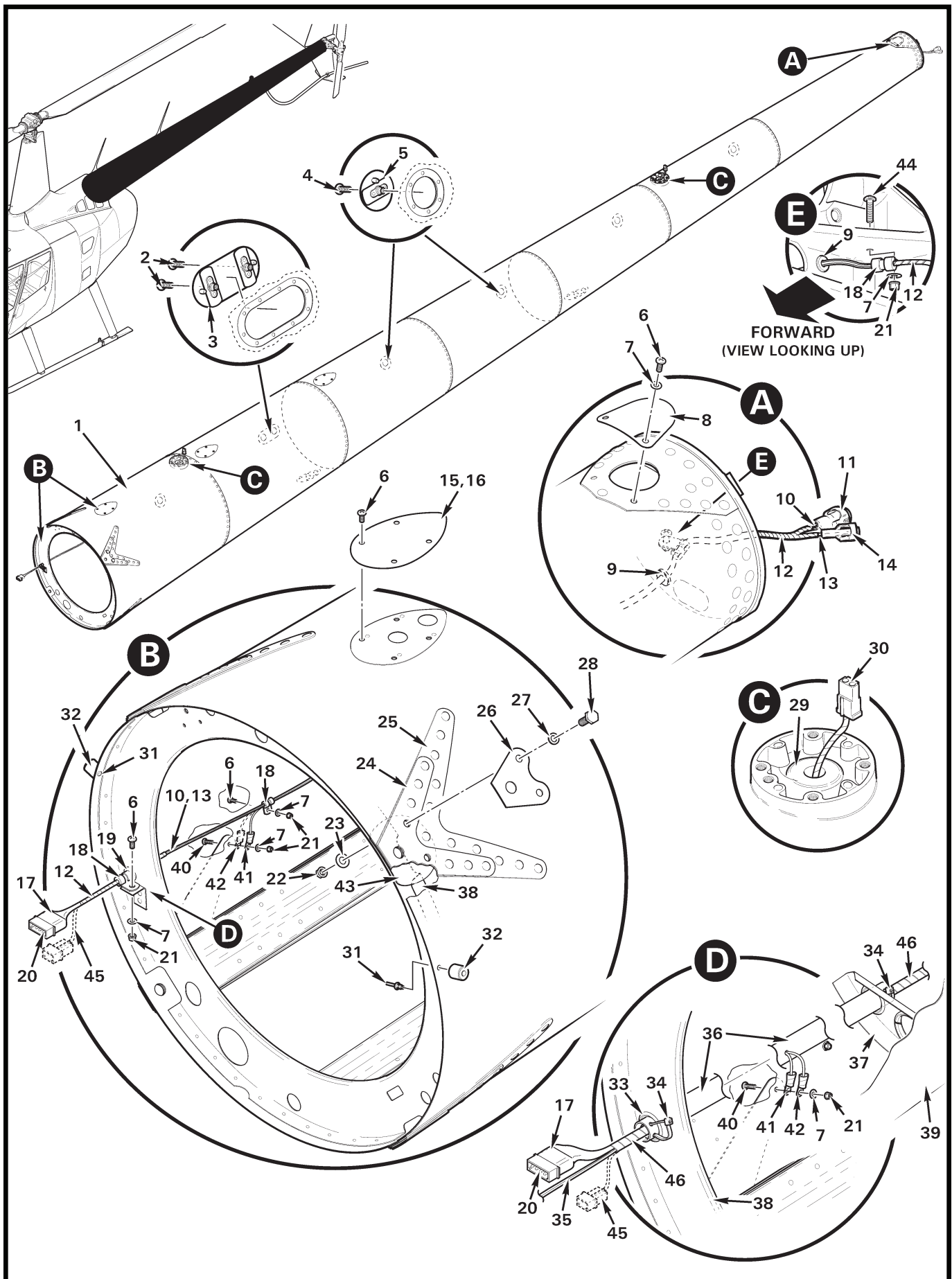


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		TAILCONE ASSEMBLY		
53-17-1	C023-21	Tailcone Assembly – Three Antenna (Incl items 3, 5 thru 14, 17 thru 32, 43 and 44)	X	1
	C023-24	Tailcone Assembly – E.N.G (includes items 3, 5 thru 14, 17 thru 36, 43, 44 and 46; see Figure 92-9)	X	1
	C023-34	Tailcone Assembly – Five Antenna (Not all provisions shown. Includes items 3, 5 thru 14, and 17 thru 32.)	X	1
	C023-35	Tailcone Assembly – Three Antenna and Nav Antenna (Not all provisions shown. Includes items 3, 5 thru 14, and 17 thru 32.)	X	1
2	MS27039C0807	Screw	X	2
3	A231-10	Plug Assembly (Incl item 2)	X	5
4	MS27039C0807	Screw	X	1
5	A231-1	Plug Assembly (Incl item 4)	X	1
6	MS27039C0806	Screw	X	9
7	NAS1149FN816P	Washer	X	7
8	A558-2	Cover – Inspection (transparent)	X	1
9	MS35489-33	Grommet	X	1
10	-5	Wire (Ref)		
	-503	Wire (Ref)		
11	B264-13	Plug (wires to tail rotor gearbox chip detector)	X	1
	B263-2	Socket	X	2
12	B161-2	Spirap	X	A/R
13	-109	Wire (Ref, power)		
14	B264-11	Plug (wires to tail light)	X	1
	B264-1	Socket	X	1
15	B322-2	Cover (for use when antenna not installed; install using item 16)	X	1
16	B270-13	Sealant	X	A/R
17	B158-8	Heat Shrink (around housing and wires)	X	A/R
18	MS21919WDG2	Clamp	X	3
19	B401-4	Grommet	X	1
20	B263-16	Housing (wires to tail light and tail rotor chip detector)	X	1
	B263-1	Pin	X	6
21	MS21042L08	Nut	X	A/R
22	D210-4	Nut	X	8
23	A141-11	Washer	X	8
NOTES				
Continues				

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
TAILCONE ASSEMBLY (Cont'd)				
53-17-24	D078-2	Doubler (Ref)		
25	D078-3	Doubler (Ref)		
26	D078-1	Doubler	X	4
27	NAS1149F0432P	Washer	X	8
28	NAS6604-4	Bolt	X	8
29	MS35489-15	Grommet	X	1
30	B263-13	Housing	X	1
	B263-2	Socket	X	2
31	NAS9301B-4-02	Rivet	X	2
32	F288-2	Bumper	X	2
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	1
41	B260-3	Terminal (Ref)		
42	B260-9	Terminal (Ref)		
43	F288-3	Doubler	X	1
44	MS27039C0808	Screw	X	1
45	-2854	Wire – Fwd Strobe Option (Ref)		
46	B161-4	Spirap (E.N.G.)		
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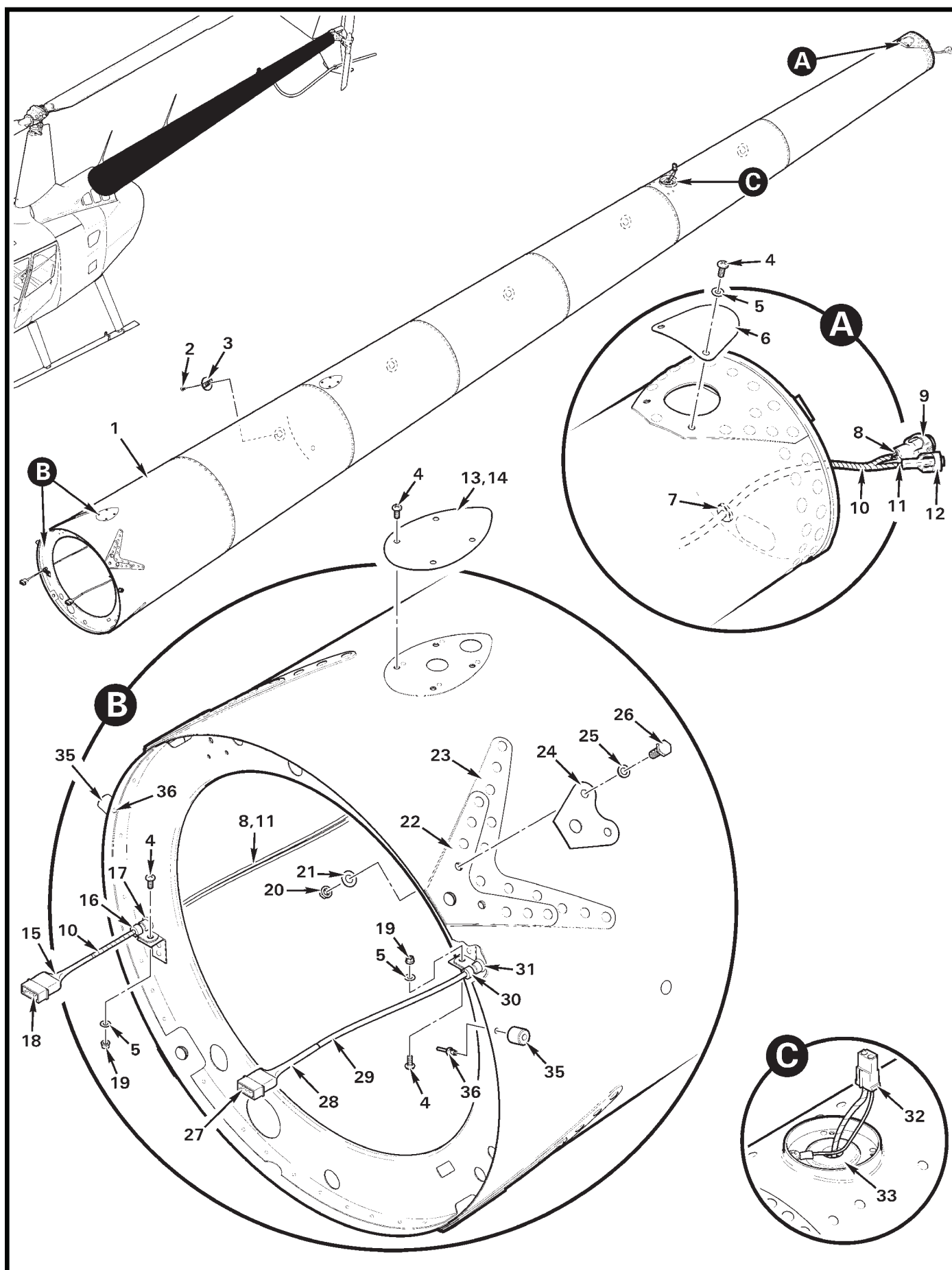


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
TAILCONE ASSEMBLY*				
53-21-1	C023-21	Tailcone Assembly (Provision for two antennas as shown. Includes items 3 thru 12, and 15 thru 36.)	X	1
2	MS27039C0807	Screw	X	1
3	A231-1	Plug Assembly (Incl item 2)	X	5
4	MS27039C0806	Screw	X	8
5	NAS1149FN816P	Washer	X	4
6	A558-2	Cover – Inspection (transparent)	X	1
7	MS35489-33	Grommet	X	1
8	-5	Wire (Ref)		
	-503	Wire (Ref)		
9	B264-13	Plug (wires to tail rotor gearbox chip detector)	X	1
	B263-2	Socket	X	2
10	B161-2	Spirap	X	A/R
11	-109	Wire (Ref)		
12	B264-11	Plug (wire to tail light)	X	1
	B264-1	Socket	X	1
13	B322-2	Cover (for use when antenna not installed; install using item 14)	X	1
14	B270-13	Sealant	X	A/R
15	B158-8	Heat Shrink (around housing and wires)	X	A/R
16	MS21919WDG2	Clamp	X	1
17	MS35489-4	Grommet	X	1
18	B263-14	Housing (wires to tail light and tail rotor chip detector)	X	1
	B263-1	Pin	X	2
	B263-3	Pin	X	1
19	MS21042L08	Nut	X	A/R
20	MS21042L4	Nut	X	8
21	A141-11	Washer	X	8
22	D078-2	Doubler (Ref)		
23	D078-3	Doubler (Ref)		
24	D078-1	Doubler	X	4
25	NAS1149F0432P	Washer	X	8
26	NAS6604-4	Bolt	X	8
27	B263-14	Housing (wires to strobe light)	X	1
	B263-3	Pin	X	3
NOTES * Earlier aircraft. Continues				

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		TAILCONE ASSEMBLY (Cont'd)		
53-21-28	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	MS35489-1	Grommet (install using item 34)	X	1
32	B263-13	Housing	X	1
	B263-2	Socket	X	2
33	MS35489-15	Grommet	X	1
34	B270-8qt	Adhesive	X	A/R
35	F288-2	Bumper	X	2
36	NAS9301B-4-02	Rivet	X	2
NOTES				

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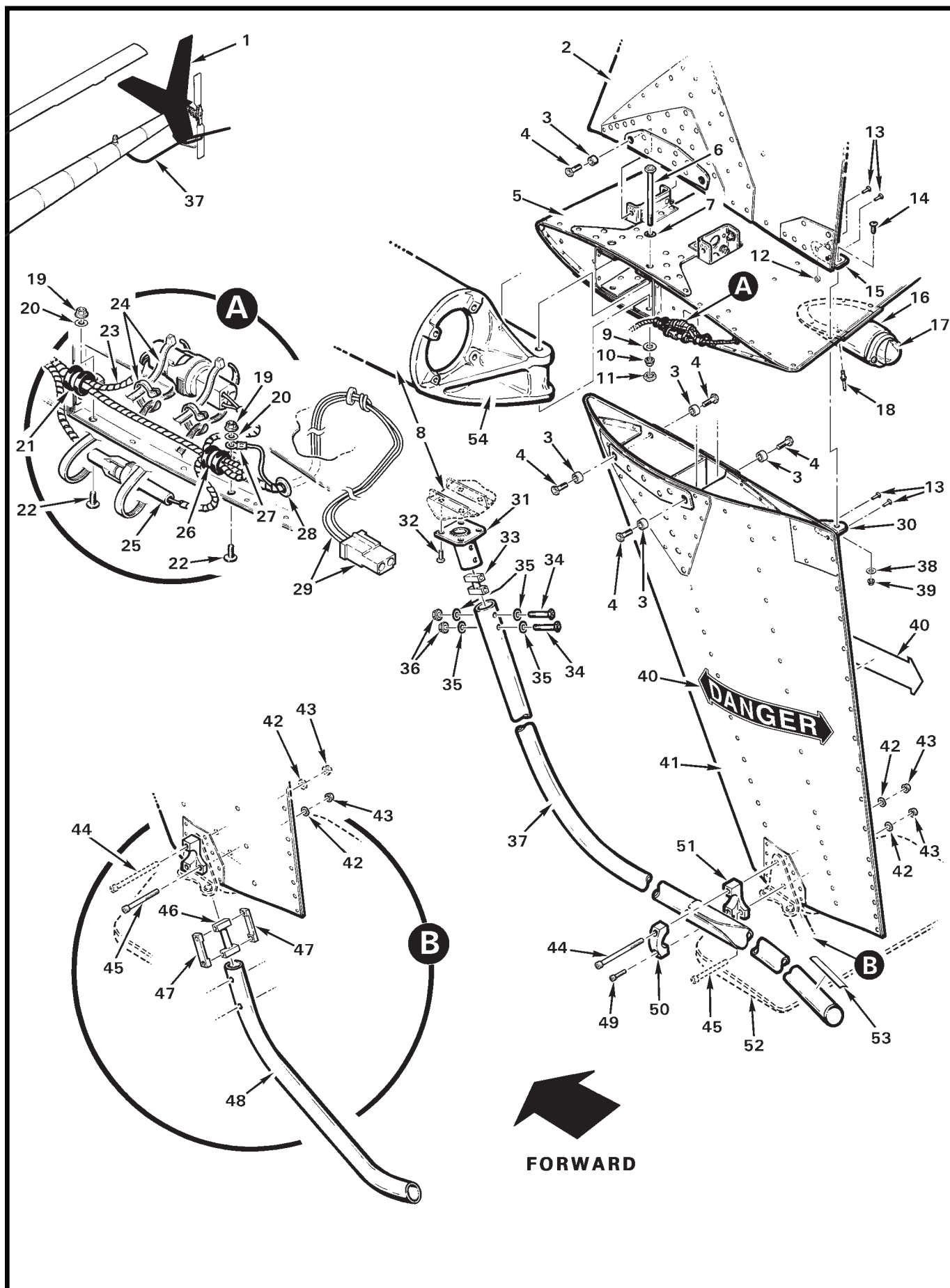


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		EMPENNAGE ASSEMBLY		
53-25-1	C004-2	Empennage Assembly (Incl items 2 thru 5, 12, 14, 15, 30, 38, 39, and 41)	X	1
2	C042-1	Stabilizer – Upper Vertical (does not include item 15)	X	1
3	C130-9	Spacer	X	8
4	NAS6604-6	Bolt	X	8
5	C044-1	Stabilizer – Horizontal (Incl items 19, 20, 22, and 29)	X	1
	C044-2	Stabilizer – Horizontal (float ship; includes items 19, 20, 22, and 29. See Figure 53-29)	X	1
6	NAS6606-47	Bolt	X	2
7	NAS1149F0632P	Washer	X	2
8	C023	Tailcone Assembly (Ref)		
9	NAS1149F0663P	Washer	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	C529-1	Mount Assembly – Tail Light	X	1
17	01-0771554-01 *	Light Assembly – Tail Light (Ref; see Figure 33-3)		
18	NAS9301B-4-02	Rivet (or NAS1919B04S02)	X	5
19	MS21042L08	Nut	X	2
20	NAS1149FN816P	Washer	X	2
21	MS21919WDG3	Clamp	X	1
22	MS27039C0806	Screw	X	2
23	B161-2	Spirap	X	A/R
24	MS3367-5-9	Ty-Rap	X	4
25	B263-10	Housing	X	1
	B264-1	Pin	X	1
26	MS21919WDG4	Clamp	X	1
27	B260-3	Terminal	X	1
28	MS35489-4	Grommet	X	1
29	D049-3	Wire Harness Assembly – Tail Light (Includes item 27, B264-1 pin, [2] B263-2 sockets, B263-13 housing, plastic washer, and wires; assembled.)	X	1
30	C554-1	Clip – Lower Vertical Stabilizer	X	1
NOTES * Whelen part no. Continues				

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
EMPENNAGE ASSEMBLY (Cont'd)				
53-25-31	D082-1	Tube – Tail Rotor Guard Mount	X	1
32	MS27039C1-07	Screw	X	4
33	D081-1	Spacer	X	1
34	NAS6603-16	Bolt	X	2
35	NAS1149F0332P	Washer	X	4
36	MS21042L3	Nut	X	2
37	D079-1	Tail Rotor Guard (Revision V and subsequent only. Includes item 53.)	X	1
38	NAS1149FN616P	Washer	X	1
39	MS21042L06	Nut	X	1
40	C654-2	Decal – “Danger”	X	2
41	C043-1	Stabilizer – Lower Vertical (does not include item 37)	X	1
42	NAS1149F0432P	Washer	X	2
43	MS21042L4	Nut	X	2
44	NAS1351-4-53P	Screw	X	1
45	NAS1351-4-38P	Screw	X	1
46	C470-3	Spacer	X	1
47	C470-2	Block	X	2
48	C470-1	Tail Skid	X	1
49	NAS1352-3-14P	Screw	X	1
50	D081-2	Block – Cap	X	1
51	D081-4	Block Assembly	X	1
52	C050-2	Stabilizer Assembly (Ref, see Figure 53-29)		
53	C654-18	Decal – “No Hand Hold”	X	1
54	C148-5	Bulkhead (Ref)		
NOTES				

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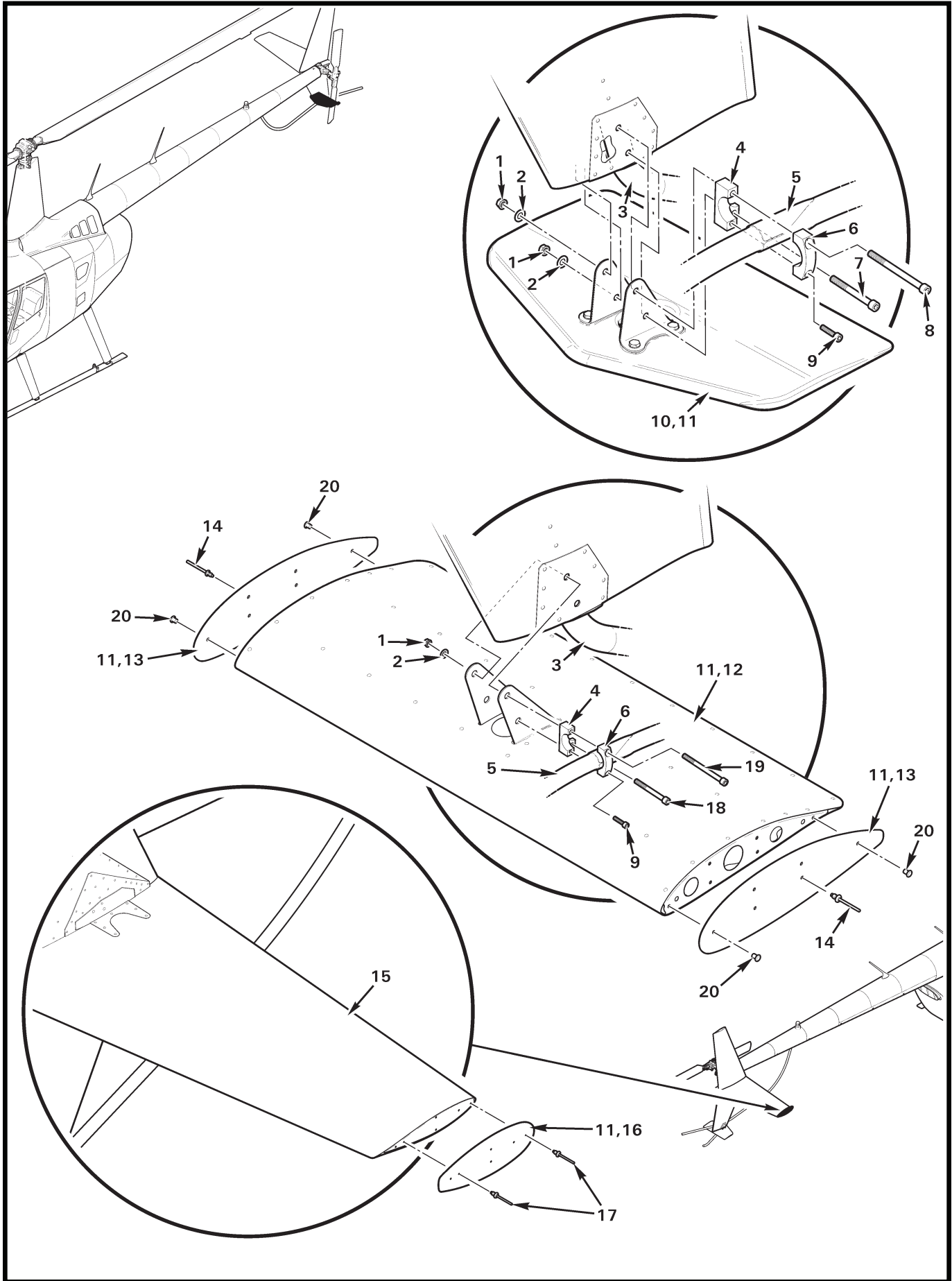


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		STABILIZER INSTALLATION		
53-29-1	D210-4	Nut	X	2
2	NAS1149F0432P	Washer	X	2
3	C470-1	Tail Skid (Ref, see Figure 53-25)		
4	D081-4	Block Assembly	X	1
5	D079-1	Tail Rotor Guard (Ref)		
6	D081-2	Block – Cap	X	1
7	NAS1351-4-38P	Screw	X	1
8	NAS1351-4-53P	Screw	X	1
9	NAS1352-3-14P	Screw	X	1
10	C050-2	Stabilizer Assembly	X	1
11	B270-1	Sealant (applied around stabilizer bracket edges, between brackets and C716 doubler; 2-oz tube)	X	A/R
12	G950-2	Stabilizer Assembly – Pop-out Floats (includes items 11, 13 and 14)	X	1
	G950-1	Stabilizer Assembly – Pop-out Floats (earlier ships, includes items 11, 13 and 14)	O	1
13	G952-3	Plate	X	2
14	NAS9302B-4-02	Rivet	X	8
15	C044-2	Horizontal Stabilizer – Pop-out Floats (Incl items 11, 16, and 17; see Figure 53-25 for installation)	X	1
16	D298-1	Plate	X	1
17	NAS9302B-4-02	Rivet	X	6
18	NAS1351-4-56P	Screw	X	1
19	NAS1351-4-40P	Screw	X	1
20	MS20426AD4	Rivet	X	4
NOTES				

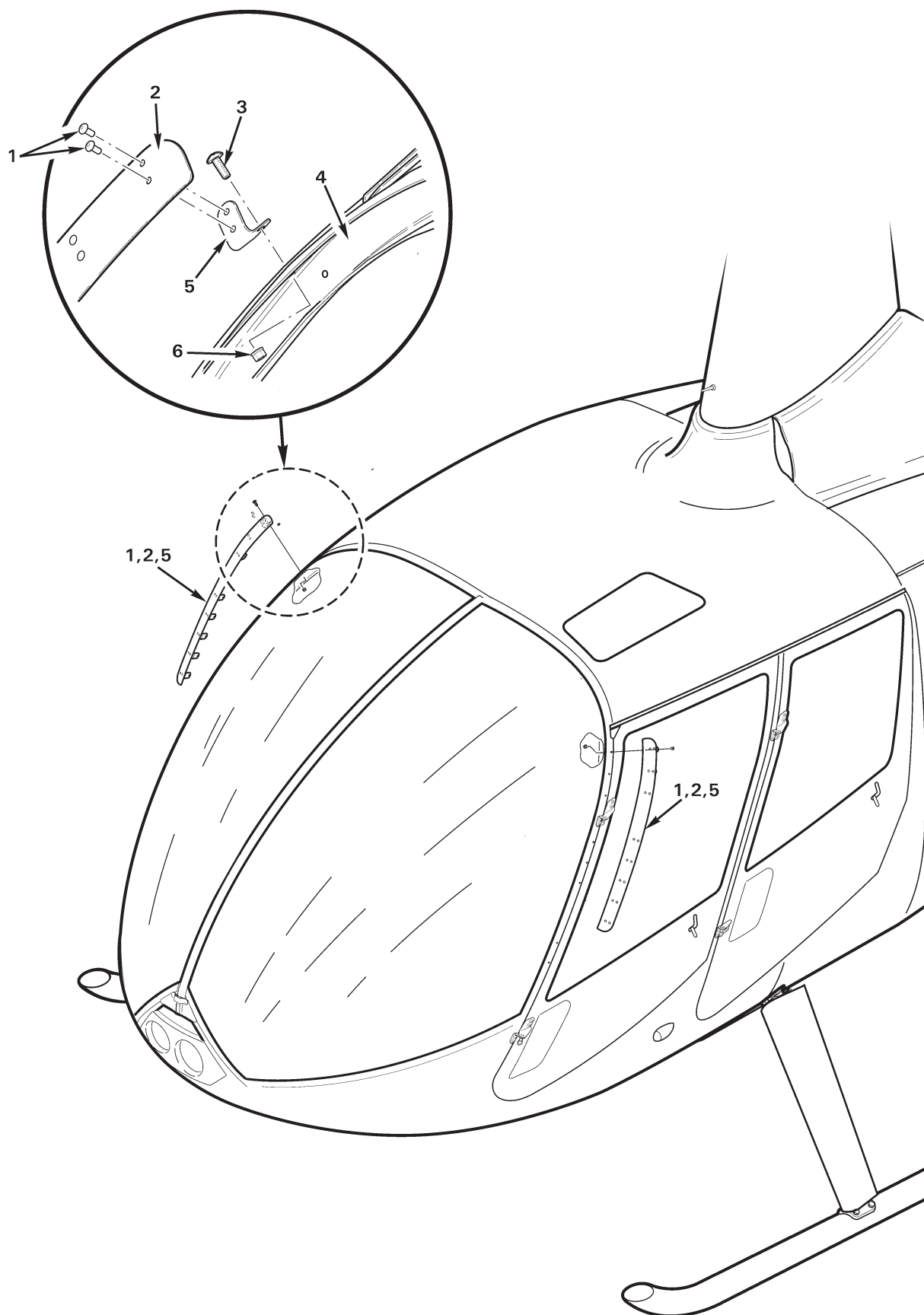


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
WIND DEFLECTOR INSTALLATION				
53-31-1	MS20470AD4	Rivet	X	32
2	B228-1	Deflector (LH or RH)	X	2
3	AN526C832R8	Screw	X	16
4	—	Door Jamb (Ref)		
5	B228-2	Angle	X	16
6	MS21042L08	Nut	X	16
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