

MAIN SKI – AXLE POSITIONING AND ASSEMBLY

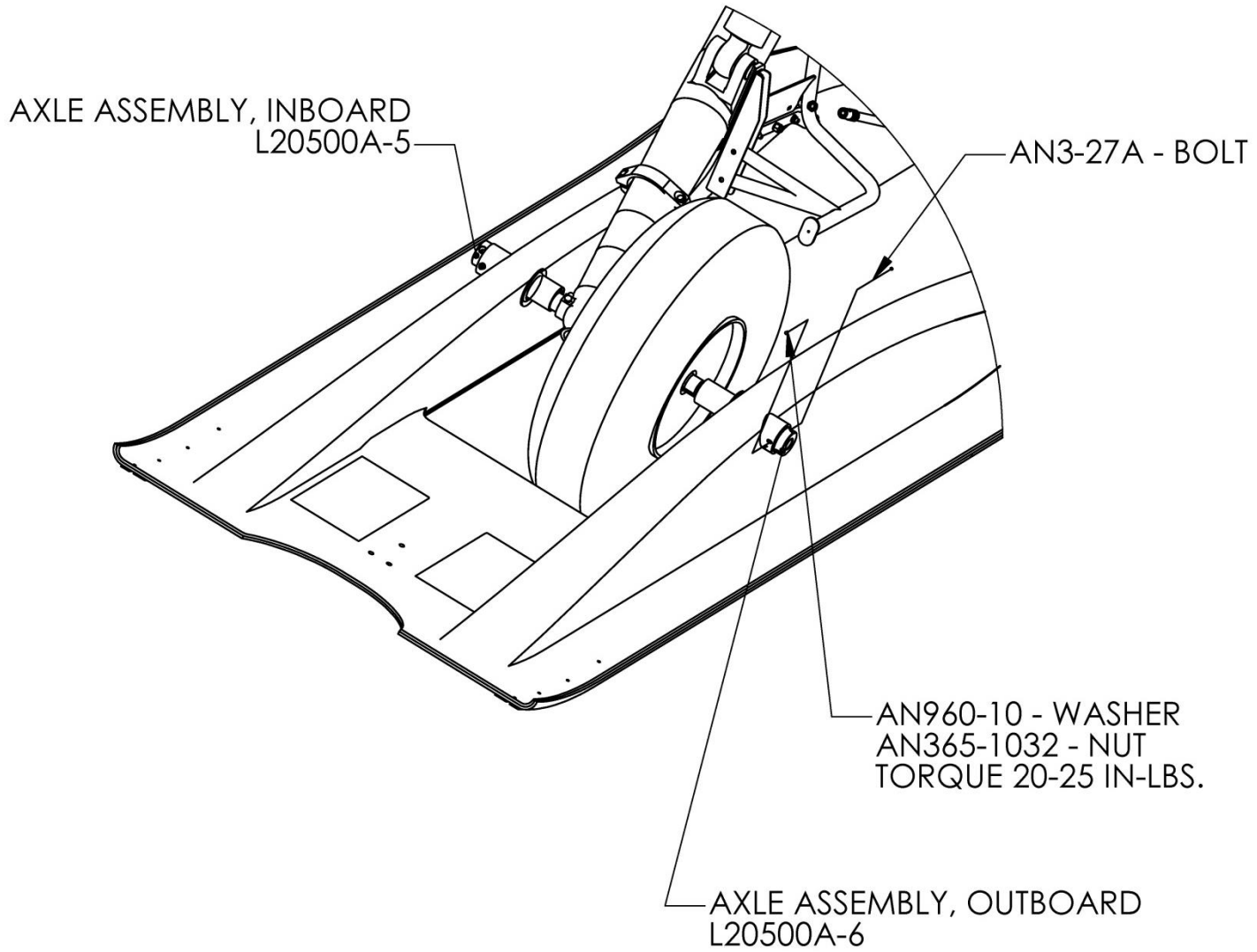


Figure 5.2

MAIN SKI – SPRING CYLINDER POSITIONING AND ASSEMBLY

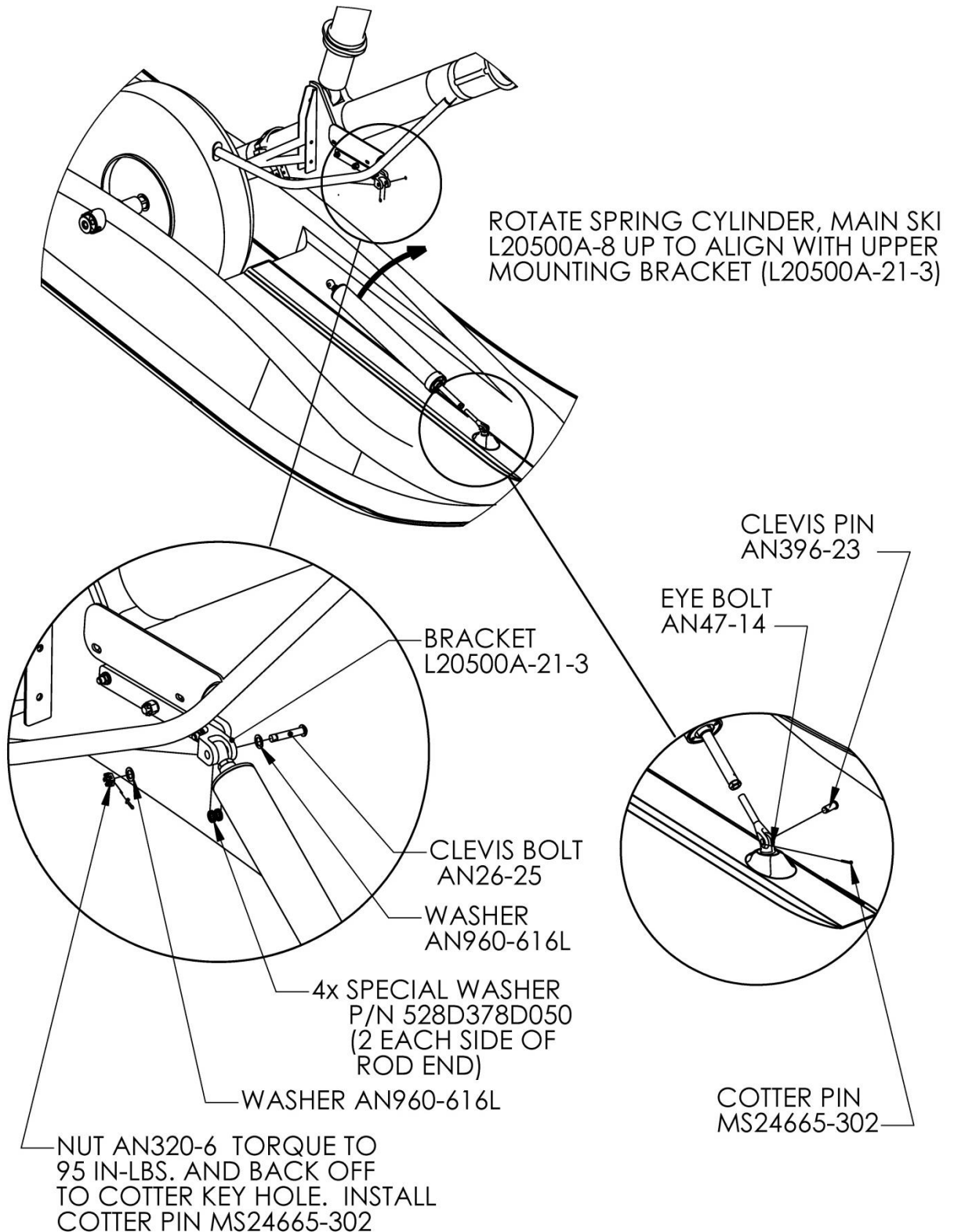


Figure 5.3

MAIN SKI – CHECK CABLE ASSEMBLY

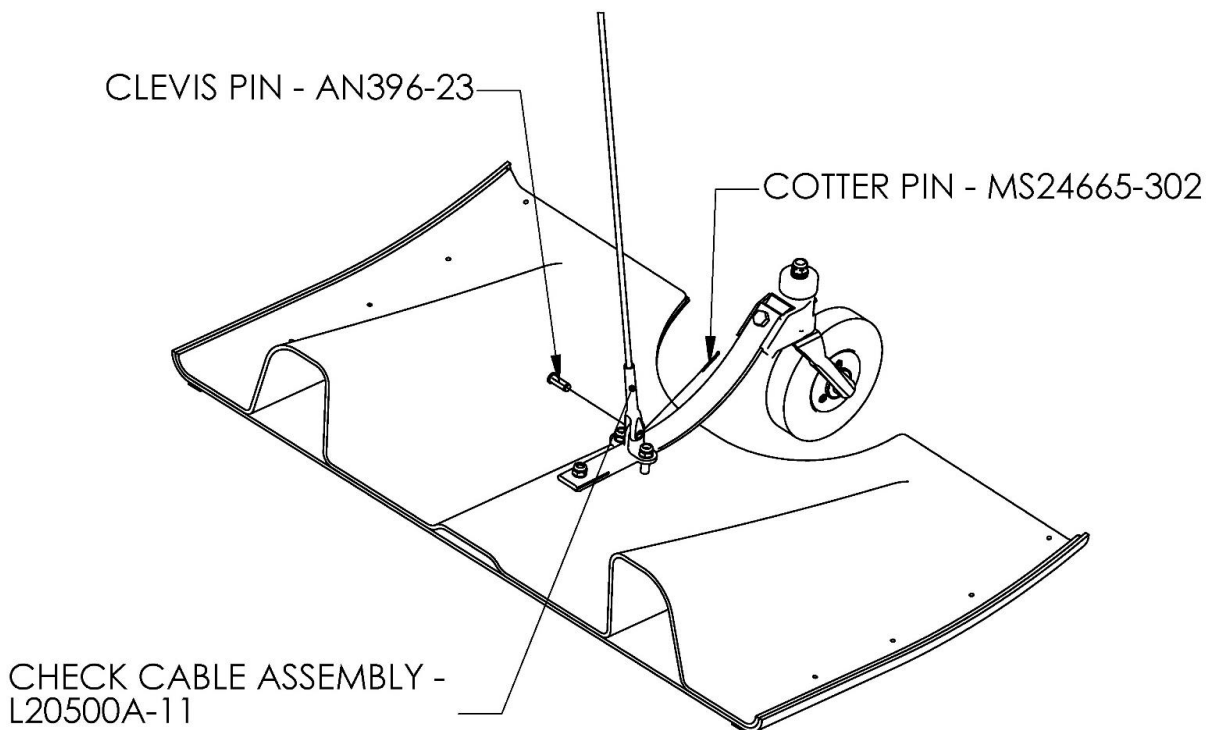


Figure 5.4

MAIN SKI – SAFETY CABLE ASSEMBLY

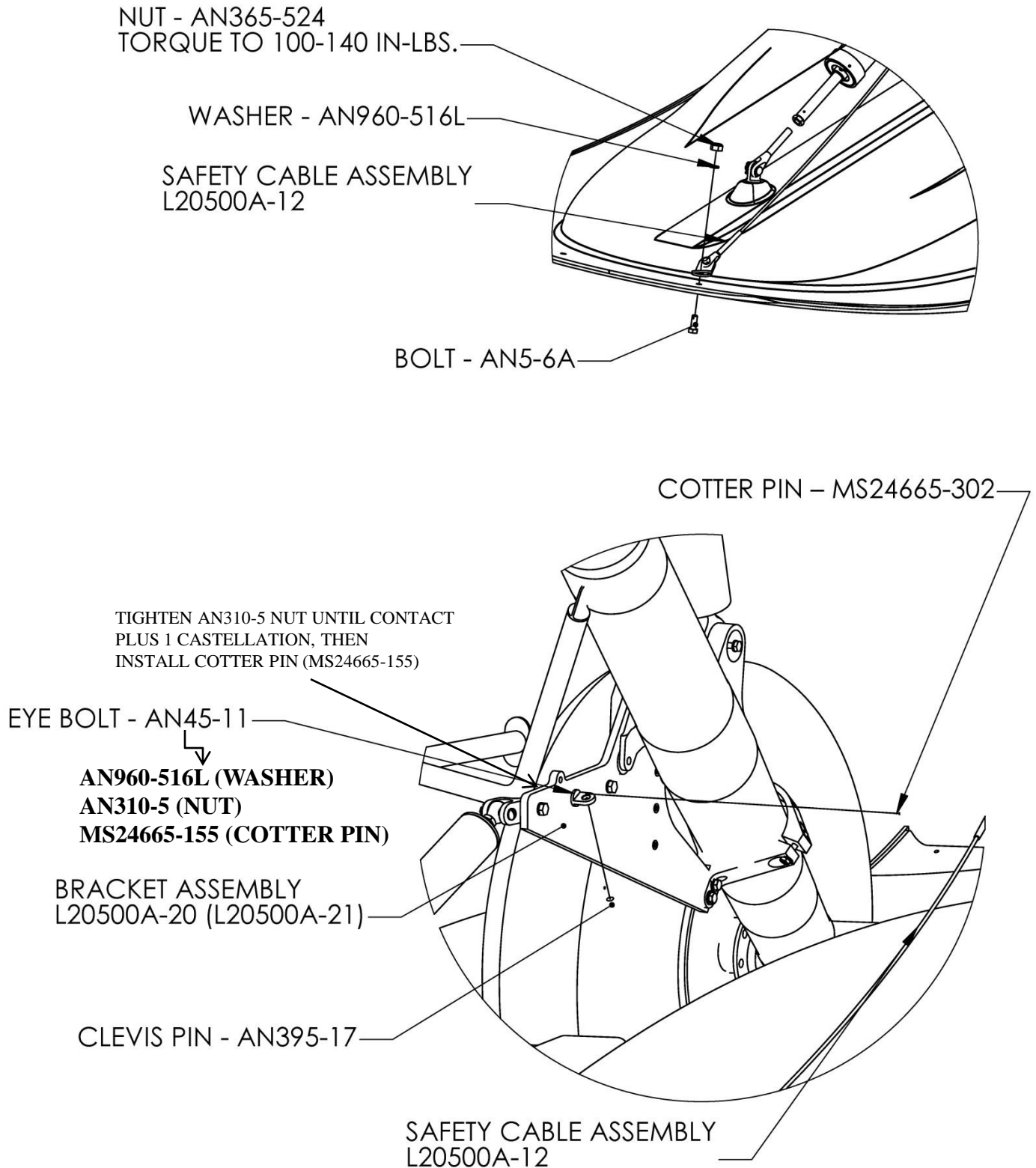


Figure 5.5

PYLON CHECK CABLE BRACKET INSTALL

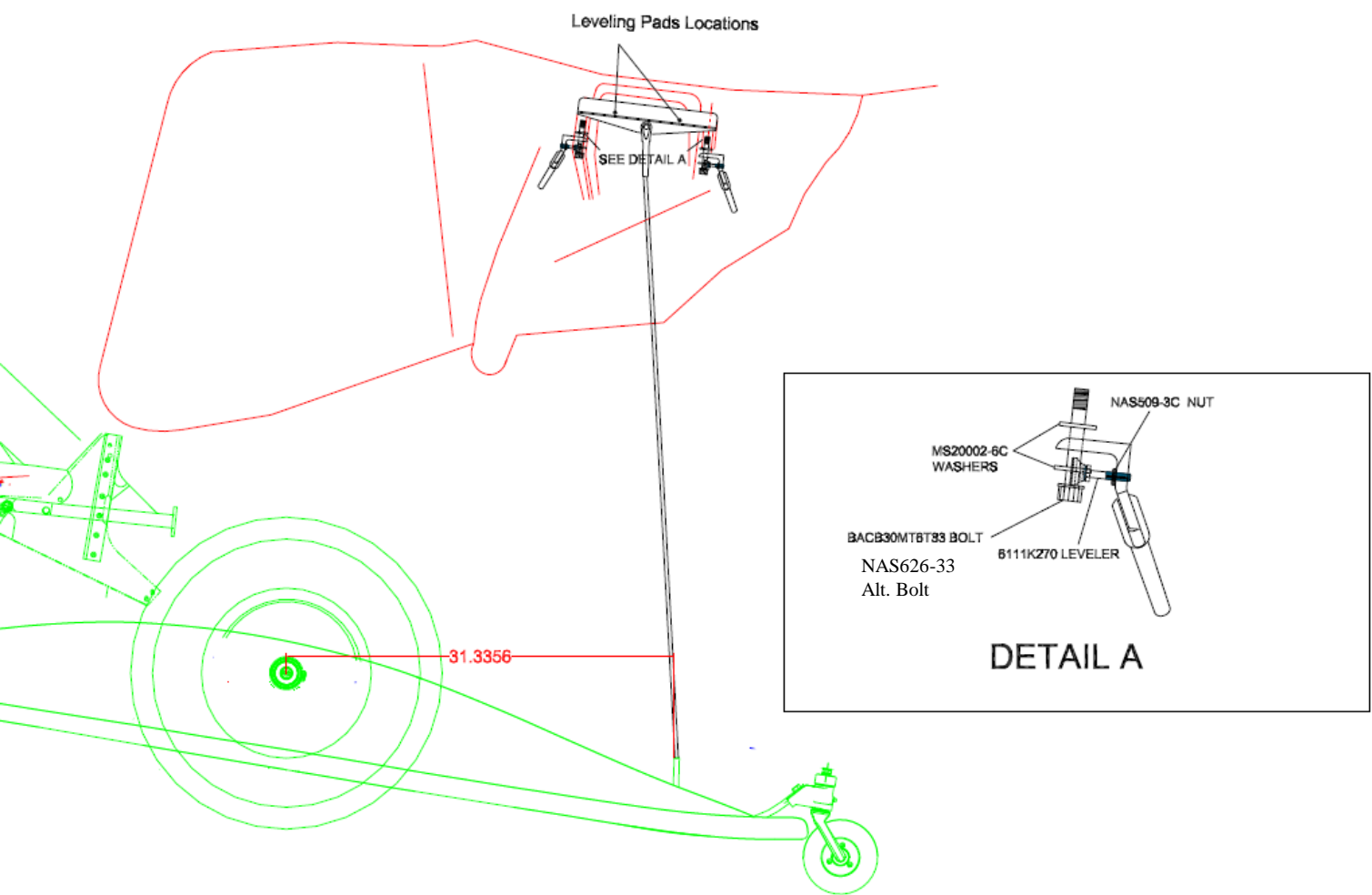


FIGURE 5.6

TAIL SKI – AXLE LOCATION AND ASSEMBLY

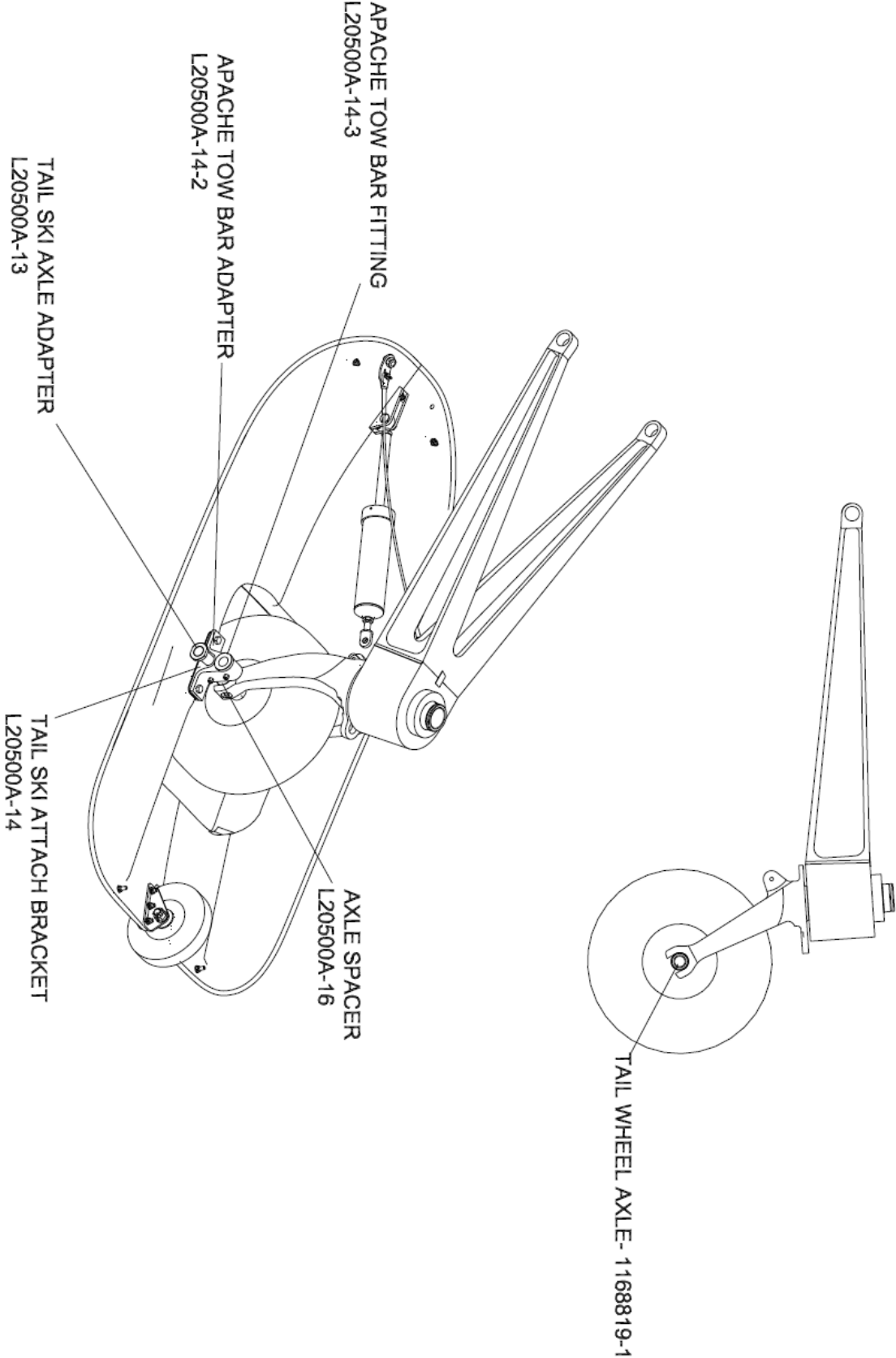


FIGURE 6.0

TAIL SKI – AXLE LOCATION AND ASSEMBLY

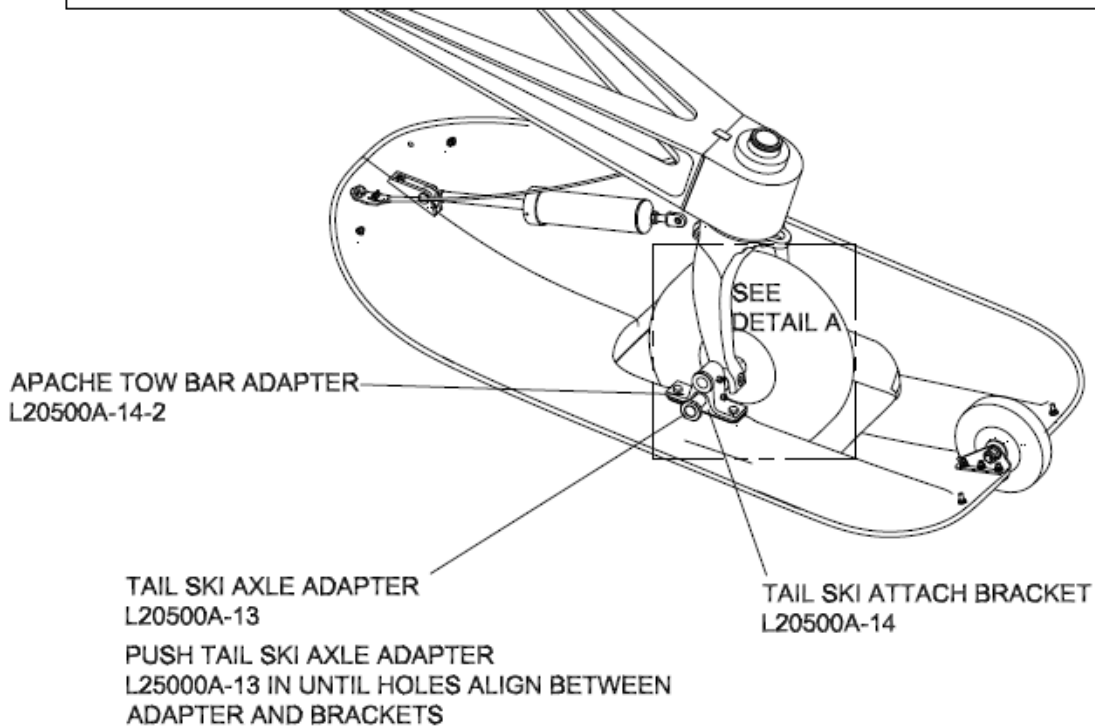
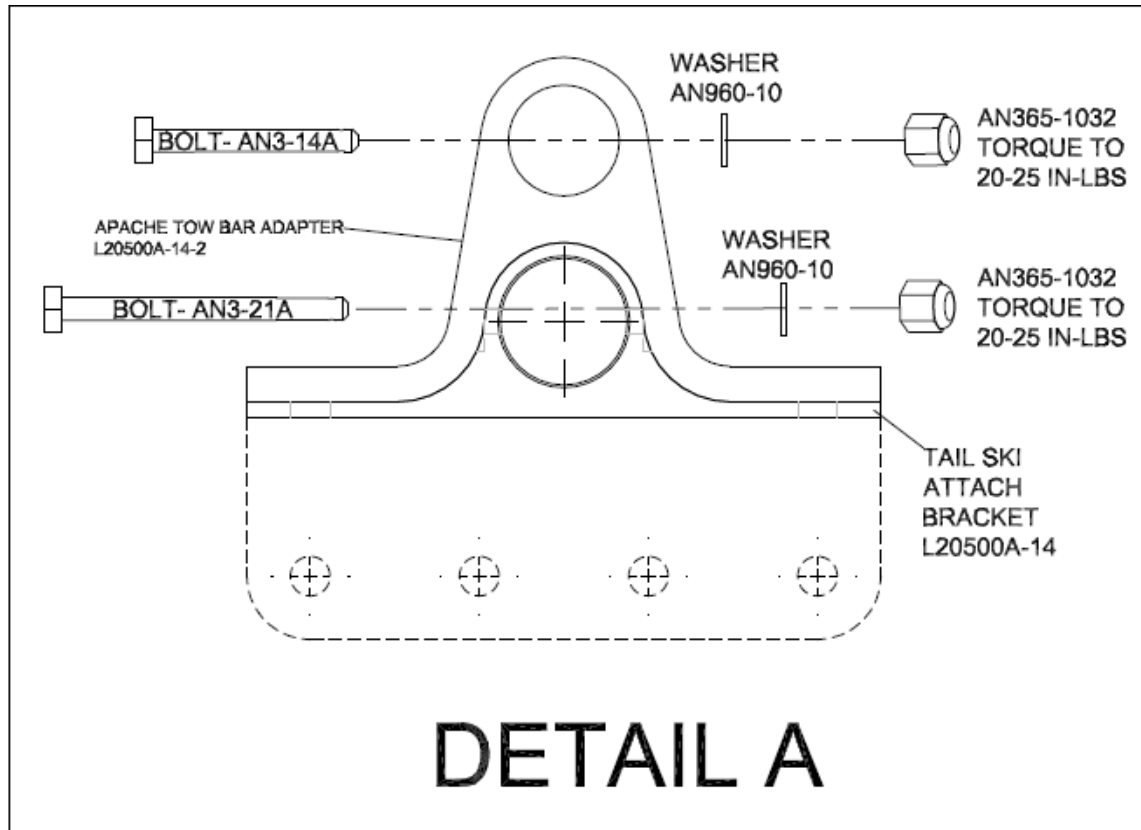


FIGURE 6.1

TAIL SKI – SPRING CYLINDER POSITIONING AND ASSEMBLY

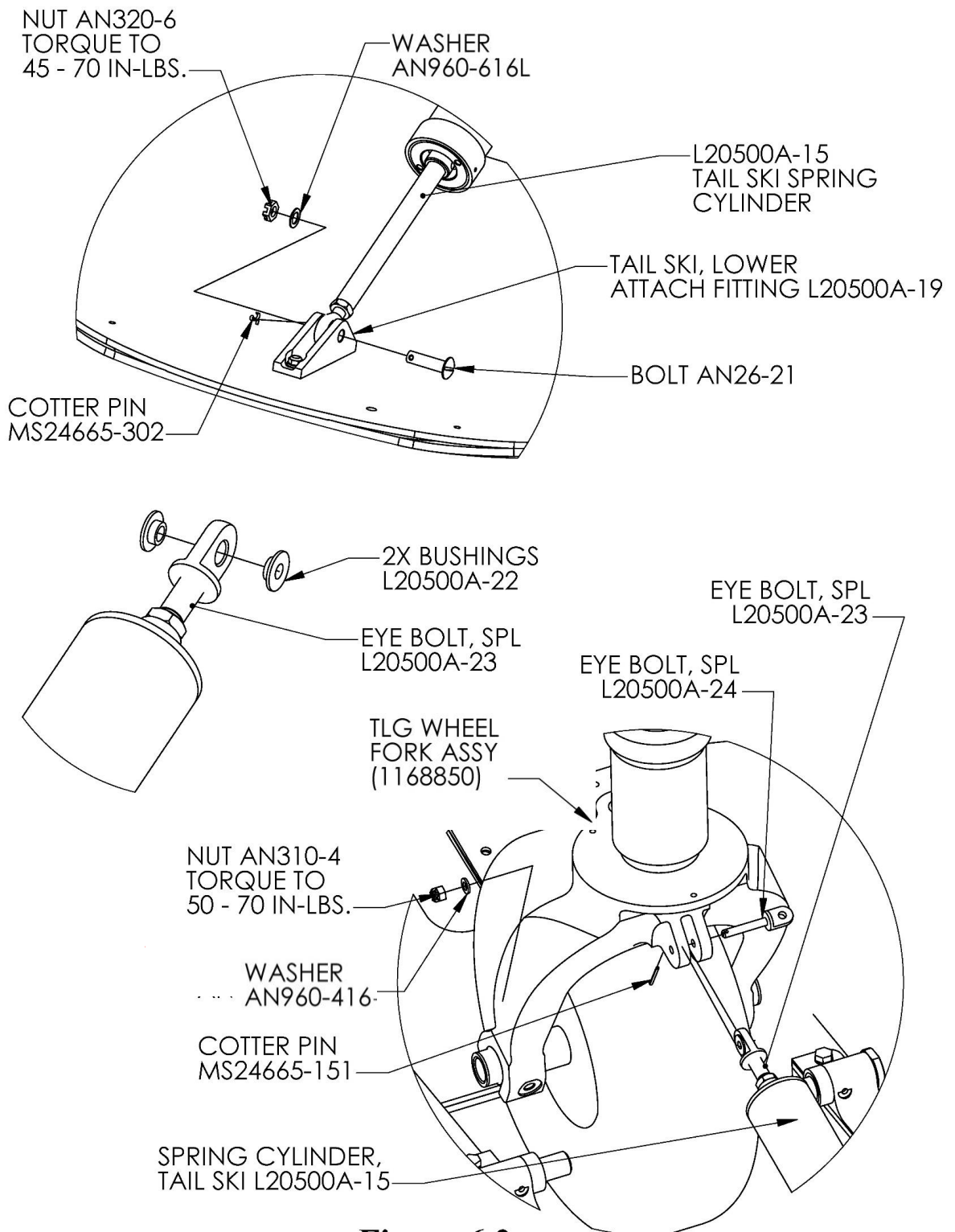


Figure 6.2

TAIL SKI – SAFETY CABLE ASSEMBLY

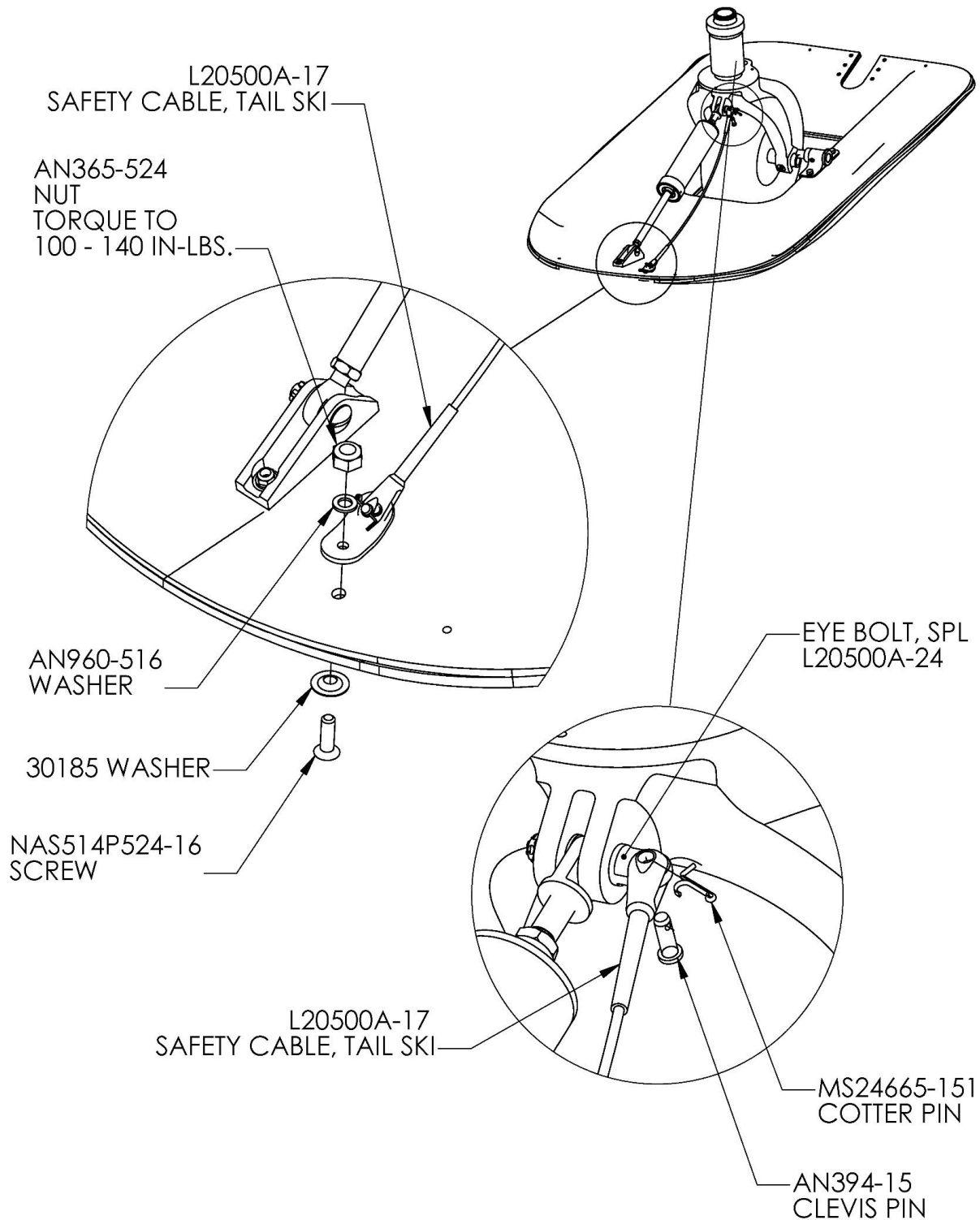


Figure 6.3

MAINTENANCE AND INSPECTION CRITERIA

Section 7.0 MAINTENANCE AND GROUND HANDLING RESTRICTIONS

1. **DO NOT** – Push or Pull on skis to move aircraft
2. **DO NOT** – Subject to flame or high heat
3. **DO NOT** - Attempt to jack aircraft with skis installed
4. **DO NOT** – Subject to harsh solvents or caustic chemicals
5. **DO NOT** – Use skis as a tie down for the aircraft
6. **DO NOT** – Disassemble the Main Ski Spring Cylinder (Airglas Part No.# L20500A-8)
7. **DO NOT** – Disassemble the Tail Ski Spring Cylinder (Airglas Part No.# L20500A-15)
8. **DO NOT** – Attempt to change a main gear tire with the skis installed
9. **DO NOT** – Attempt to change a tail gear tire with the skis installed
10. **DO NOT** – Use standard wheel chocks with skis installed

Section 8.0 MAINTENANCE OPERATIONAL CHECKS

25-14 Check (25 hour or 14 day inspection)

1. **CHECK** – Force required to move main ski tail wheel (Airglas Part No. # L20500-D501A) sideways, force shall be 3-5 lbs (22.24 Newtons).
2. **CHECK**- Main landing gear skis (if installed) inspect for cracks, excessive wear, fractures and abrasions. Security of spring cylinders. Main ski safety and check cables for security (Airglas Part No.# L20500A-12-1) & (Airglas Part No.# L20500A-11).
3. **CHECK** – Main landing gear ski tail wheel spring for damage and security (Airglas Part No. # L20500-D501A).
4. **CHECK**- Tail landing gear skis (if installed) inspect for cracks, excessive wear, fractures and abrasions. Security of the spring cylinder (Airglas Part No. # L20500A-15, Boeing Part No.# 7-511210303-003). Security of the safety cable No. (Airglas Part No. # L20500A-17). Security of the tail wheel assembly (Airglas Part No. # L20500-18).

Section 9.0 INSPECTION CRITERIA

500-Annual (500 hour or Annual inspection)

1. **INSPECT** – The main landing gear ski (Airglas Part No.# L20500A-01) for excessive cracks, wear, fractures and abrasions. Inspect the bottom for cracks, scratches and excess wear. If damaged consult manufacturer. Lubricate tail wheel fittings with SuperLube Synthetic Grease (PTFE).
2. **INSPECT** – The tail landing gear ski (Airglas Part No.# L20500A-03) for excessive cracks, wear, fractures and abrasions. Inspect the bottom for cracks, scratches and excess wear. If damaged consult manufacturer. Lubricate tail wheel fittings with SuperLube Synthetic Grease (PTFE).
3. **INSPECT** – The main landing gear safety cable (Airglas Part No.# L20500A-12) for integrity and fraying. The main landing gear check cable (Airglas Part No.# L20500A-11) for integrity and fraying. The main landing gear spring cylinder (Airglas Part No.# L20500A-8) for cracks, dents, wear, fractures and abrasions. The main landing gear bracket assembly (Airglas Part No.# L20500A-20 & 21) for integrity, cracks, dents and excessive wear.
4. **INSPECT**- The tail landing gear ski safety cable (Airglas Part No.# L20500A-17) for integrity and fraying. The tail landing gear spring cylinder (Airglas Part No.# L20500A-15) for cracks, dents, wear, fractures and abrasions.
5. **INSPECT**- The main landing gear ski axle (Airglas Part No.# L20500A-7 for cracks, dents and fractures. The main landing gear ski axle assemblies (Airglas Part No.# L20500A-5 and L20500A-6) for cracks, dents, fractures and thread integrity.
6. **INSPECT** –The tail landing gear ski axle adapters (Airglas Part No.# L20500A-13) for cracks, dents and fractures. The two (2) special eyebolts (Airglas Part No.#'s L20500A-24 & L20500A-23) for cracks and integrity.

MAINTENANCE TASKS

Section 10.0 MAINTENANCE TASKS

10.1 TOP SURFACE MAINTENANCE

The surface of the ski has a very durable plastic coating that is not affected by gas or oil or environmental conditions. It may be brightened up with rubbing compound and wax occasionally but should not require painting. (NOTE) Small hairline crack marks may appear in this coating at stress points. These do not affect the strength of the ski in any way and ARE NOT to be considered cracks as they are only in the surface coating and don't extend into the laminate.

10.2 BOTTOM SURFACE MAINTENANCE

1. The Teflon urethane coating allows maximum sliding in all snow conditions. No wax is required. Additional coats may be applied by brush or spray when necessary.
2. When bottom surface becomes excessively scratched or worn, it may be sanded down with a small belt or disc sander and re-coated with a brush application of the graphite filled epoxy resin coating 4B2. This is allowed to cure at room temperature and is then roughed up. Then it is coated with a Teflon urethane coating. A kit for this process is obtainable from manufacturer. If major repairs are necessary, manufacturer can advise on proper procedure.

TYPES OF POSSIBLE DAMAGE

A.) Negligible damage

1. Small nicks, scratches or abraded areas in top or bottom of ski.

B.) Repairable damage

1. **Cracks or fractures** - except in area of ski bushing or spring cylinder attach points. Airglas should be consulted on repairs in this area.
2. **Delamination** - except in area of ski bushing and spring cylinder attach points. Airglas should be consulted on repairs in this area.
3. **Small holes** - max. 2" dia.
4. **Abrasion** - bottom wear due to contact with rocks etc., bottom coatings worn through to glass fibers.
5. **Demolished section** - if under 30% of the area of the ski and it must be confined to forward or aft 1/3 of ski. Consult Airglas for repair.
6. **Major bottom damage** - complete new or partial bottom may be factory installed.

C.) DAMAGE NECESSITATING REPLACEMENT

1. Major damage in area of ski bushings.
2. Damage to more than 30% of area of top of ski. This could be a combination of cracks, fractures, delamination, and demolished sections. This type of damage would be caused from a crash.

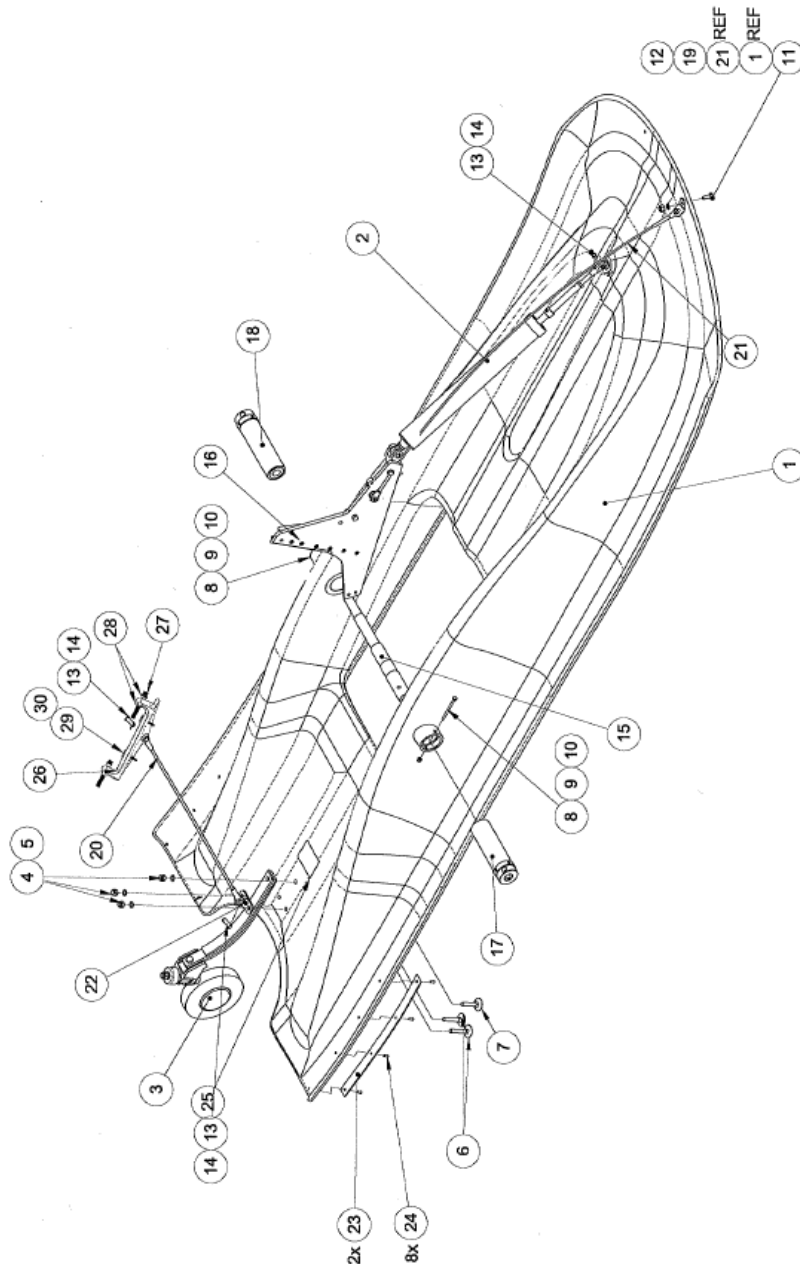
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REV	ECN	DESCRIPTION	APPROVED BY	DATE
A	1100-00	INITIAL RELEASE - USER DATA, PINS, CONNECTED	WKL	8-Nov-04
B			WKL	4-Feb-04
C		Added Check Cable Bracket & Hardware	JRH	4-Aug-10



AIRGLAS, INC.
Anchorage, Alaska

LEFT SKI ASSEMBLY

Size	Code Ident. No.	Rev
C	17564	C
Scale	1:8	Sheet 2 OF 2

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REV

ECN

DESCRIPTION

APPD BY

DATE

A

1100-49

PART NOMENCLATURE

WKL

8-Jan-04

B

1100-60

REBUILT FROM SCANNED DATA, FINs CORRECTED

WKL

4-Feb-04

C

Added Check Cable Bracket & Hardware

JDH

4-Aug-15

D

CHANGED TAIL WHEEL ASSEMBLY

JDH

11-Feb-16

E

Added HD Runner Info

JDH

23-Apr-19

NOTES: UNLESS OTHERWISE SPECIFIED

1. MATERIAL: SEE BELOW

2. ASSEMBLE PER MASTER PROCESS-SPEC 10071-L20500A-01

3. ON PLACARD DOT PEEN, ETCH OR ENGRAVE THE FOLLOWING;

MODEL "L20500A"

PART NO. "L20500A-1"

SERIAL NO. "XXXX"

DATE OF MFG. "XXXX"

NO.	QTY	CODE-IDENT-NO	PART NO.	DESCRIPTION	STOCK SIZE	MATERIAL	MATERIAL SPEC.	WEIGHT-LBS	FINISH
1	1	17564	L20500A-01	MAIN SKI					
2	1	17564	L20500A-8	SPRING CYLINDER, MAIN SKI					
3	1	17564	L20500-D501 HD	TAIL WHEEL, ASSY (Heavy Duty)					
4	3		AN363-616	NUT					
5	3		AN960-616L	WASHER					
6	2	17564	EB616-24	ELEVATOR BOLT					
7	1	17564	EB616-22	ELEVATOR BOLT					
8	2		AN3-27A	BOLT					
9	2		AN960-10	WASHER					
10	2		AN365-1032	NUT					
11	1		AN5-6A	BOLT					
12	1		AN365-524	NUT					
13	3		AN396-23	CLEVIS PIN					
14	3		MS24665-302	COTTER PIN					
15	1	17564	L20500A-7	AXLE, MAIN LANDING GEAR					
16	1	17564	L20500A-21	BRACKET ASSEMBLY					
17	1	17564	L20500A-5	AXLE ASSY, INBOARD					
18	1	17564	L20500A-6	AXLE ASSY, OUTBOARD					
19	1		AN960-516L	WASHER					
20	1	17564	L20500A-11	CHECK CABLE					
21	1	17564	L20500A-12	SAFETY CABLE ASSY					
22	1	17564	L20500A-11-1A	SKI ANGLE BRACKET, L.H.					
23	2	17564	L20500-44	MAIN SKI RUNNER / L20500-44HD Is a Heavy Duty Runner, L20500-44HD has countersunk holes in					
24	8		SSB6-10	RIVET / USE AN509-10R-16 or MS24694S58. With MS21042-3 Nut on Heavy Duty Runner					
25	1	17564		PLACARD					
26	1	17564	L20500A-11-3	C CHECK CABLE BRACKET					
27	2		BAC830M16133	BOLT NAS626-33 Alt.					
28	4		MS20002-6C	WASHER, BEVELED					
29	2		6111K270	LEVELER					
30	2		NAS509-3C	NUT					

UNLESS OTHERWISE SPECIFIED

DIMENSIONS ARE IN INCHES

TOLERANCES EXCEPT AS NOTED

DECIMALS X FRACTIONS ANGLES X ± 5°

XXX .005 XXX .005 X ± 5°

FRACTIONS

1/64

CONTRACT NO.

SPEC. CONTROL NO.

AIRGLAS, INC.

Anchorage, Alaska

L20500A

AH-64D

NEXT ASSY.

USED ON

APPLICATION

Approved by : WKL

Checked by : GL

Drawn by : PCSI

Date : SEPTEMBER 22, 2003

Size

Code Ident.No.

L20500A-1

Rev

E

Scale 1:8

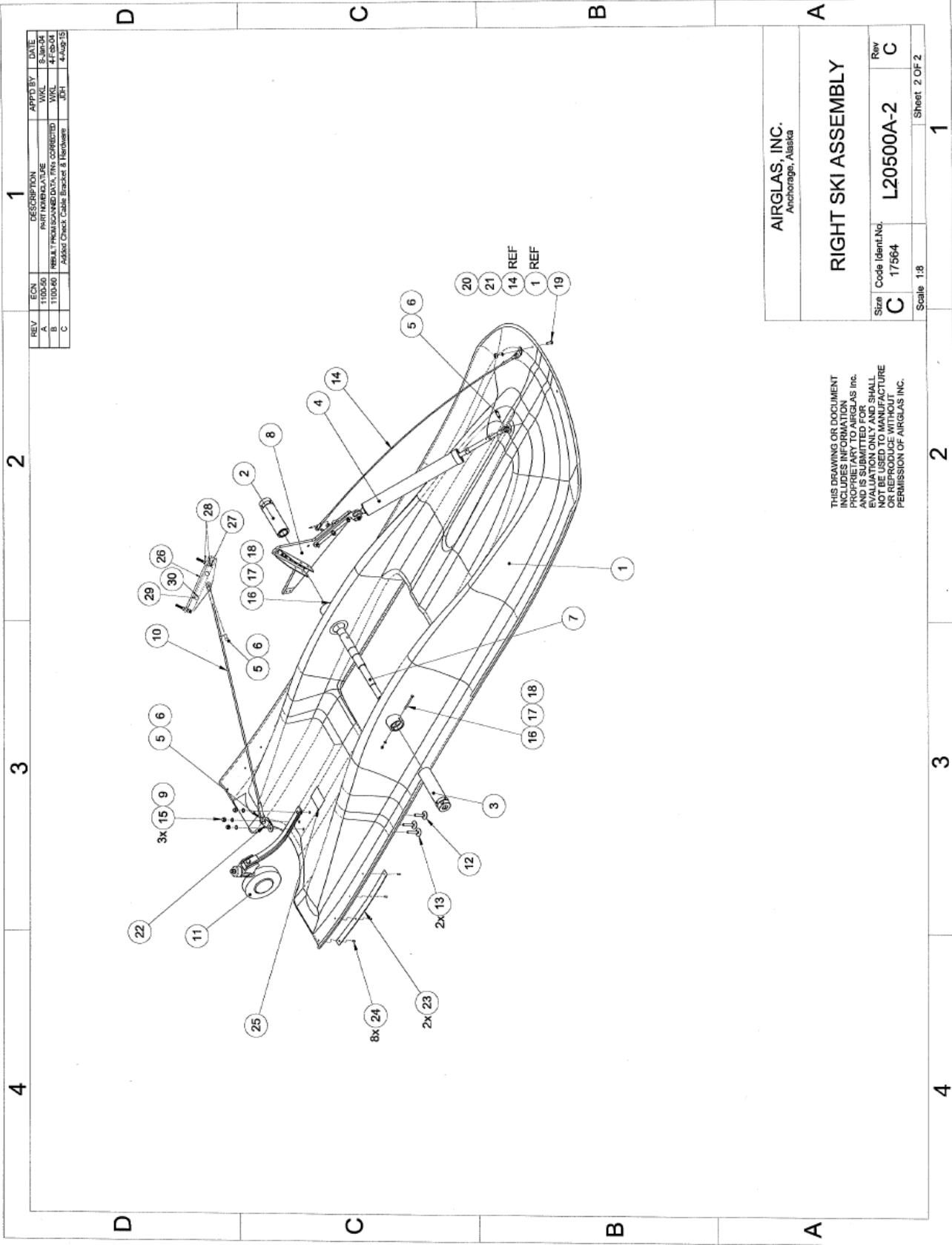
Sheet 1 OF 2

LEFT SKI ASSEMBLY

25

AIRGLAS, INC

ANCHORAGE, ALASKA 99507



REV	ECO	DESCRIPTION	APPROV BY	DATE
A	110040	INITIAL RELEASE	WKL	8-30-04
B	110040	REPLAINT FROM DISASSEMBLED DATA, TINS CORRECTED	WKL	4-15-04
C		Added Check Cable Bracket & Hardware	JCH	4-Aug-15

AIRGLAS, INC.
Anchorage, Alaska

RIGHT SKI ASSEMBLY

Size	Code Ident.No.	Rev
C	17564	C
L20500A-2		C
Scale 1:8		
Sheet 2 OF 2		

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4 3 2 1

REV	ECN	DESCRIPTION	APPROD BY	DATE
1	1100-00	PART MINOR ALTERATION	WKL	8-JUN-03
2	1100-00	REBUILD FROM EXISTING DATA, PART CORRECTED	WKL	4-FEB-04

NOTES: UNLESS OTHERWISE SPECIFIED
1. MATERIAL: SEE BELOW
2. ASSEMBLE PER MASTER PROCESS-SPEC 1001-L20500A-03

NO	QTY	CODE/IDENT/NO	PART NO	DESCRIPTION	STOCK SIZE	MATERIAL	MATERIAL SPEC.	WEIGHT/LBS	FINISH	ZONE
1	1	17664	L20600A-03	TAIL SKI ASSEMBLY						
2	1	17664	L20600A-19	TAIL SKI LOWER ATTACH FITTING						
3	1	17664	L20600-18	TAIL WHEEL BRACKET KIT						
4	6		NS5700-4	WASHER						
5	11		AN60416	WASHER						
6	12		AN66428A	NUT						
7	13		AN60516	WASHER						
8	4		AN6-12A	BOLT						
9	8		AN6-10A	BOLT						
10	1		AN609416R-18	SCREW						
11	1		AN6B-21	CLEVIS BOLT						
12	1		AN60616L	WASHER						
13	1		AN606	NUT						
14	1		MS24635-302	COUPLER PIN						
15	1		AN609416R-20	SCREW						
16	1		NS514F304-16	SCREW						
17	1		AN665584	NUT						
18	6		AN4-7A	BOLT						
19	2		AN6-14A	BOLT						
20	4		AN6B-10	WASHER						
21	4		AN665-1032	NUT						
22	2	17664	L20600A-14	TAIL SKI ATTACH BRACKET						
23	2	17664	L20600A-13	TAIL SKI AXLE ADAPTER						
24	2	17664	L20600A-16	AXLE SPACER						
25	1	17664	L20600A-15	SPRING CYLINDER TAIL SKI						
26	1	17664	L20600A-17	SAFETY CABLE TAIL SKI						
27	2		AN60416L	WASHER						
28	1	17664	30185	WASHER						
29	2	17664	L20600A-22	BUSHING						
30	1		AN6104	NUT						
31	1		MS24635-151	COUPLER PIN						
32	1	17664	L20600A-24	EYE BOLT SFL						
33	2	17664	L20600-43	TAIL SKI RUNNER						
34	16		SSB6-6	RVET						
35	2		AN609416R-16	SCREW						
36	2		AN609416R-14	SCREW						
37	1	17664	L20600A-23	EYE BOLT SFL						
38	2	17664	L20600A-142	APACHE TOWBAR ADAPTER						
39	2	17664	L20600A-143	APACHE TOWBAR FITTING						
40	2	17664	L20600A-144	U-BOLT STYLE TOWBAR FITTING (OPTIONAL)						
41	2		AN6-21A	BOLT						

UNLESS OTHERWISE SPECIFIED
TOLERANCES ARE IN INCHES
DIMENSIONS ARE IN INCHES
DECIMALS X .005 ANGLES X ± .5°
FRACTIONS XX ± .005 XXX ± .005
± 1/64

CONTRACT NO.
SPEC. CONTROL NO.

APPROVED BY: WKL
CHECKED BY: GL
DRAWN BY: PST
DATE: Sept. 22, 2003

AIRGLAS, INC.
Anchorage, Alaska

TAIL SKI ASSEMBLY

Size Code Ident No. Rev
C 17564 L20500A-3 B

Scale 1:1 Sheet 1 OF 2

REMOVAL OF SKISPROCEDURE

The best method to remove the L20500A Ski kit is to remove the Tail Ski (L20500A-3) first.

Tail Ski Removal Procedure:

1. Remove Bolts (AN4-7A), Washers (AN960-416), and Nuts (A365-428), (and NAS70C-4 Washers) holding tail ski, Tail Wheel Bracket Kit (L20500-18) to ski and remove Tail Wheel Bracket Kit. *See Figure 2.0* (retain hardware)
2. Remove Cotter pin (MS24665-151), Washer (AN960-416) and Nut (AN310-4) from Eye Bolt (L20500A-24) attached to TLG wheel fork assembly lugs 1168850.
3. Hold the Spring Cylinder in one hand, lift the front of the ski, and remove the L20500A-24 from TLG lug. Retain the upper Spring Cylinder Eye Bolt (L20500A-23) and Bushings. After removal from the TLG lug, loosely reinstall the L20500A-24 back into the L20500A-23 Eyebolt, using the Washer (AN960-416) and Nut (AN310-4). Note: The Safety cable (L20500A-17) can remain attached to eyebolt (L20500A-24) for storage. *See Figure 6.2*
4. Remove Bolt(s) (AN3-21A) lower bolts of Apache Tow Bar Adapter (L20500A-14-2). Retain Bolt, Washer(s) (AN960-10) and Nut(s) (AN365-1032). *See page 29 & 30 of Manual for Breakdown of parts*
5. Remove Tail Ski Axle Adapter(s) (L20500A-13) from Ski Attach Bracket(s), remove Axle Spacer(s) (L20500A-16) on Tail Ski Axle Adapter(s). *See page 29 & 30 of Manual for Breakdown of parts*
6. Remove Ski Axle Adapter (s) (L20500A-13) from Tail Ski Axle. Use care in holding up ski during this step.
7. Once ski is completely removed from tail landing gear, connect tow vehicle to standard axle location.
8. Tow helicopter backwards until the wheel rolls over and out of tail ski.
9. Re-Install Tail Wheel Bracket Kit (L20500-18) onto tail ski. *See Figure 2.0*
10. Reinstall a Wire Strike (Deflector) onto Tail Landing Gear using all hardware identified in Helicopters Illustrated Parts Breakdown (IPB).

Main Ski Removal Procedure:

NOTE: Preparation of both skis is the same except where noted.

11. Remove Tail Wheel Assembly and Check Cable from rear of the Main Ski by removing Elevator Bolts (EB616-20, EB616-21) from the bottom of the ski *See figure 1.1* Save all hardware for future use.
12. Remove bolt(s) (AN3-27A) from Inboard and Outboard Axles and Ski Bushing. Retain Washer(s) (AN960-10) and Nut(s) (AN365-1032) onto bolt(s) *See Figure 5.2*.
13. Remove Spring Cylinder, Main Ski (L20500A-8) from Upper Mounting Bracket (L20500A-21-3), retain Clevis Bolt (AN26-25), (2) Washers (AN960-616L) and Nut (AN320-6), (4) Special Washers (P/N 528D378D050 (2 each side of rod end). *See Figure 5.3*
14. Remove upper end of Safety Cable Assy. (L20500A-12) from to Eye Bolt (AN45-11) at 2nd hole back on Bracket Assy. (P/N L20500A-20, L20500A-21) Retain clevis pin (AN395-17) and cotter pin MS249665-302. *See Figure 5.5*
15. Completely remove Axle Assy's, Inboard & Outboard (L20500A-5 & L20500A-6) from Main Ski Bushing Assy. (L20500-4) . Lift Rear of ski to take weight off of axles. *See Figure 5.1* Note: Assistance will be needed to support ski during this operation.
16. Remove Check Cable (L20500A-11) from check cable bracket, PN L20500A-11-3 by removing Clevis Pin and Cotter Pin.
17. Install Airglas installation ramps on both main skis. Ensure all attachments to gear are removed.

18. Tow helicopter or push helicopter aft with help of assistants until the main wheels are completely outside of skis. CAUTION – To avoid damage to ski take extreme care to ensure that the wheels are on the outboard part of the wheel wells. *See Figure 5.0*
19. Re-Install Tail Wheel Assembly (L20500-D501A) *See Figure 1.1*
20. Once ski is removed, continue to remove other hardware as needed. If skis are only removed for maintenance or other issues, all remaining hardware can remain installed on helicopter.

RETURNING AIRCRAFT TO ORIGINAL CONFIGURATION (WITHOUT SKIS)

21. Remove Axle (L20500A-7) from Trailing Arm (1168320-101). Remove bolt, and slide axle out by rotating and pulling on it. Retain existing hardware for later install of Jack Pad (1168321-1) . *See Figure 3.2*
22. Install Jack Pad (1168321-1) and align with Trailing Arm (1168320-101), using hardware from Step 21 above. Torque to value given in Figure 3.2
23. Remove both inboard pylons.
24. Remove inboard attach bolts and check cable bracket (L20500-11-3).
25. Install original HS6170V6-22 bolts back into inboard pylon.
26. Re-install pylon. Match torque of existing pylon bolts.
27. Remove Step Assembly (7-511113527-1 & -2). Keep existing hardware for future use. *See figure 3.0.*
28. Remove Airglas Bracket Assembly (L20500A-20 R.H., L20500A-21 L.H.) to Main Landing Gear, retain existing hardware *See Figure 3.1*
29. Install Wire Cutter Assembly (443-83020-2). *See figure 3.0*, Bolt Wire Cutter to Clamp (443-83023-1) (both sides) using existing hardware from Step 28. *See Figure 3.1*
30. Re-install Step Assembly (7-511113527-1 & -2) to Wire Cutter Assembly using existing hardware from Step 27. *See Figure 3.1 inboard .*