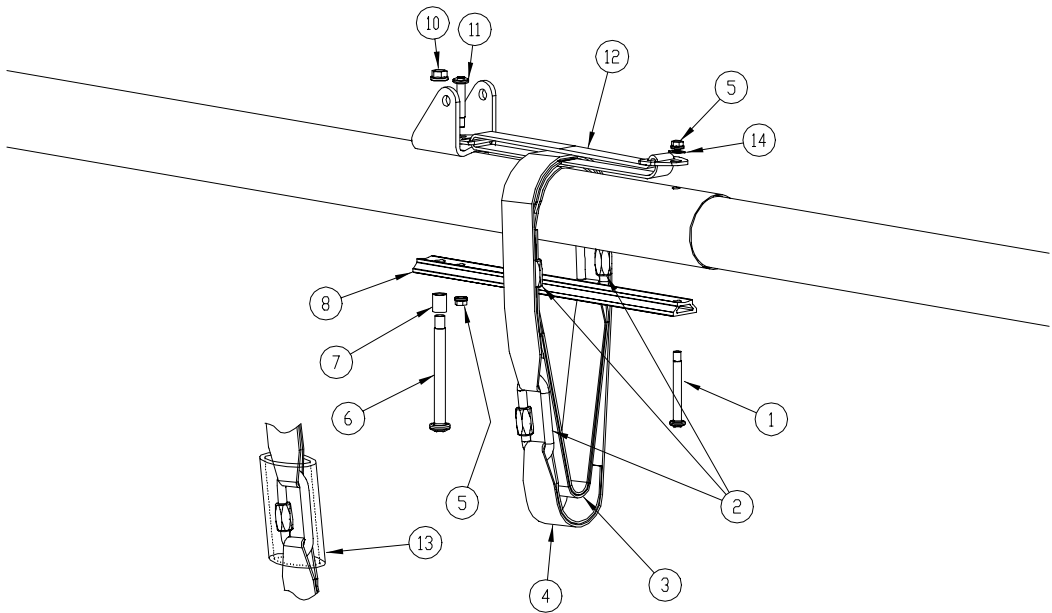


XC 155, 142 Assembly Diagrams

Table of Contents

<u>Drawing ID</u>	<u>Drawing Description</u>	<u>Page No</u>
78E01	XC 155 Middle Keel Assembly	2
78E02	XC 155 VG Assembly	3
78E05A	XC 155 Kingpost Assembly	4
80E01	XC 142 Middle/Rear Keel; XC 155 Rear Keel	5
80E02	XC 142 VG Assembly	6
80E03	XC 142 and XC 155 Crossbar Assembly	7
80E04	XC 142 and XC 155 Noseplate Assembly	8
80E05	XC 142 Kingpost Assembly	9
80E06	XC Control Bar Assembly	10
80E07	VG Folding Basetube Assembly	11
80E09	XC Rear Leading Edge Assembly	12

ID	PART NO	DESCRIPTION	QNT
Center Keel			
1	10C-4341	BOLT NAS 623-3-34	1
2	20P-1311	RAPIDLINK - OVAL 5MM 40MM SS	3
3	45J-1868	HANG LOOP RAMAIR MAIN LOWER 68	1
4	45J-1168	HANG LOOP BACKUP RAMAIR 1" TUB	1
5	10N-1730	CLINCH NUT 3/16 MS20142-3	2
6	10C-5401	BOLT NAS 623-4-40	1
7	10T-3100	SPACER SS .313 * .028 * .390	1
8	20G-2102	TRACK LAYFLAT CBAR APEX SHORT	1
10	10N-1740	CLINCH NUT 1/4 MS21042-4	1
11	10C-4301	BOLT NAS 623-3-30	1
12	45J-1800	HANG LOOP RAMAIR MAIN TOP	1
13	15P-1231	VINYL TUBE .75ID *.875OD * 2	3
14	10U-1130	WASHER STEEL AN960-10	2



WILLS WING

500 BLUERIDGE AVE • ORANGE • CA • 92665 • PH/FAX (714) 998-6359 / 998-0647

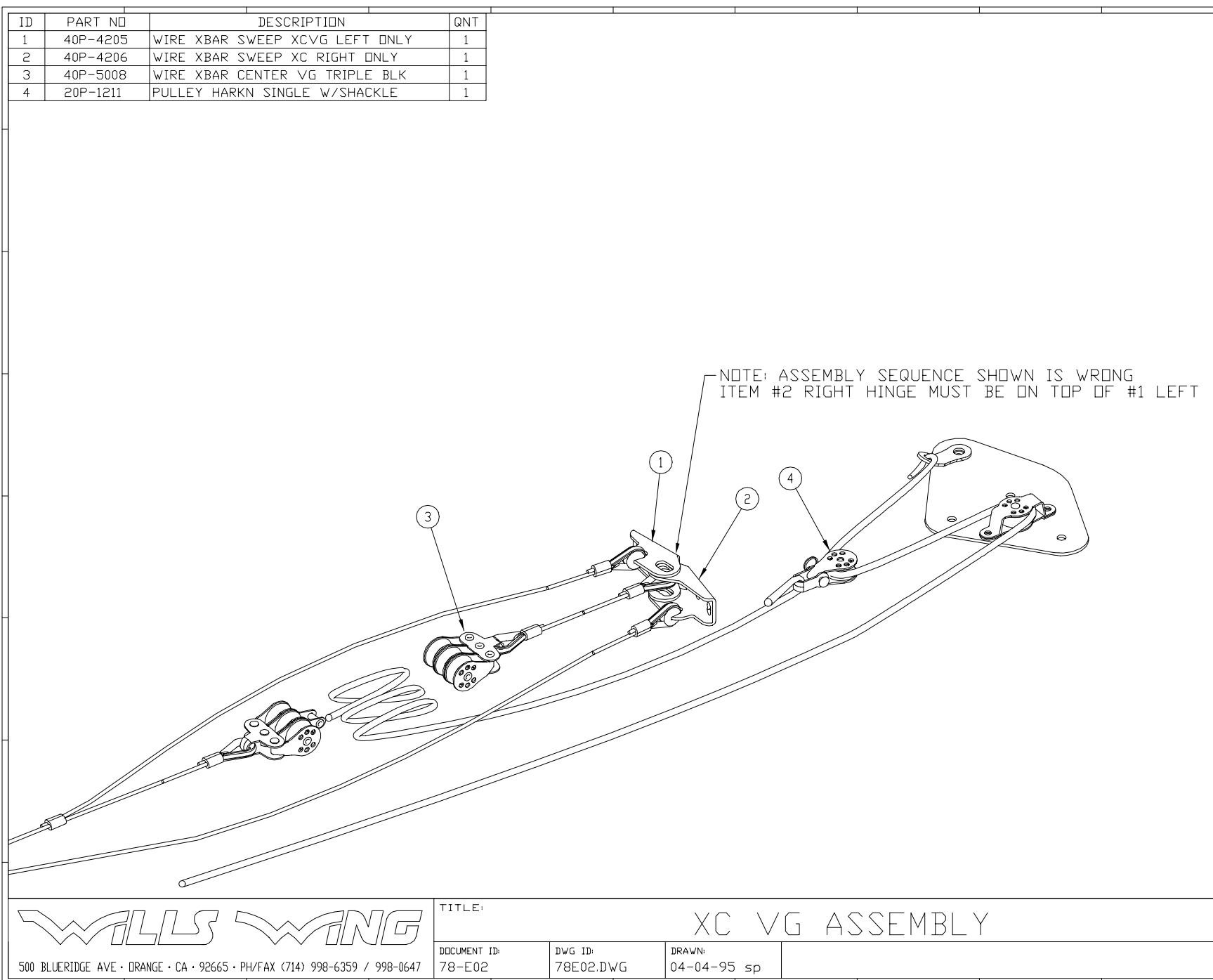
TITLE:

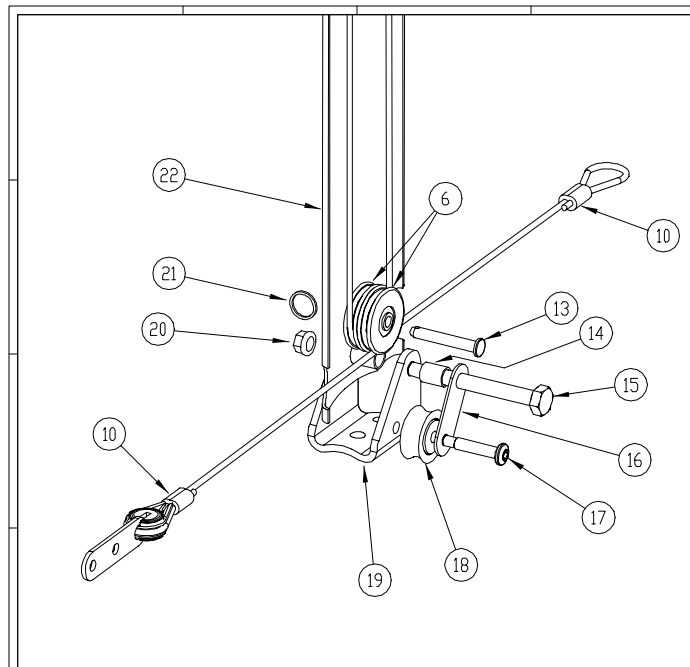
XC 155 MIDDLE KEEL

DOCUMENT ID:
78E01

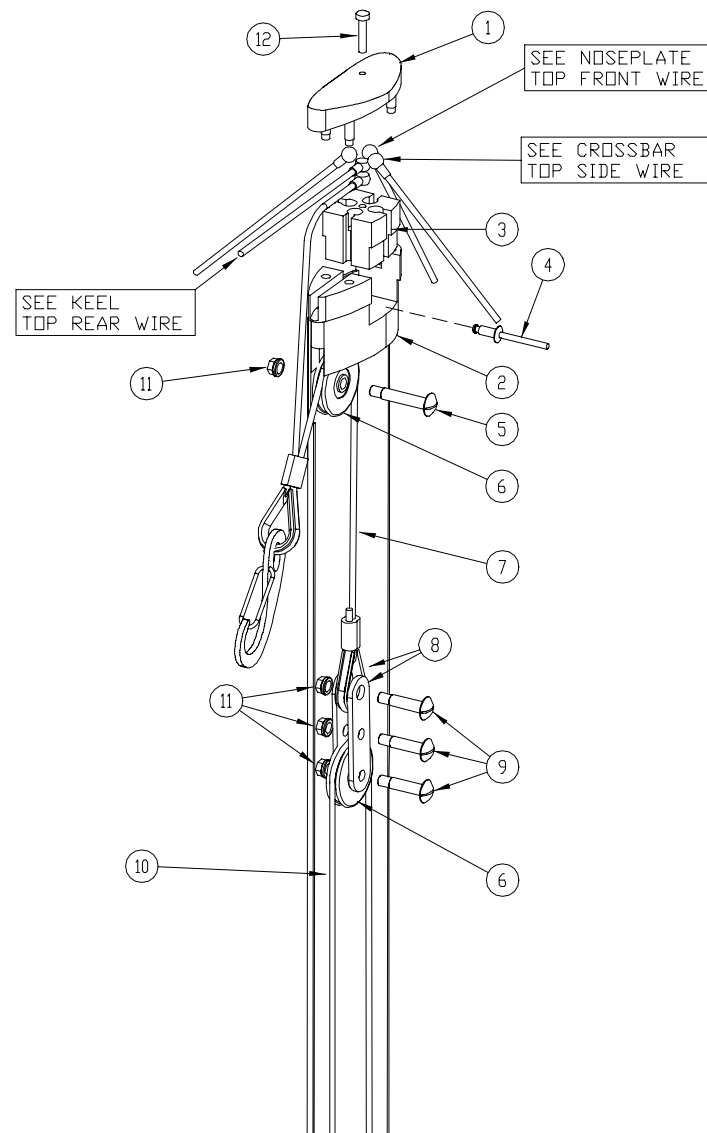
DWG ID:
78E01A.DWG

DRAWN:
R01-15-96 sp





ID	PART NO	DESCRIPTION	QNT
1	15J-1501	CAP AT KINGPOST TOP POLYCARB	1
2	15J-1502	TOP AT KINGPOST POLYCARB	1
3	20G-2323	KINGPOST TOP INSERT AT ALUM	1
4	10R-0342	RIVET AL 1/8 * .25	2
5	10B-1161	BOLT AN23-16A	1
6	15K-1011	PULLEY DELRIN AN210-1A REPLACE	4
	10T-4111	BUSH SS .312 * .058 * .295	
7	40P-5002	WIRE VG COMPENSATOR UPPER	1
8	20E-2304	TANG 3 HOLE VG 2' LONG	2
9	10B-1101	BOLT AN23-10A	3
10	40P-5007	WIRE VG COMPENSATOR LOWER XC	1
11	10N-1730	CLINCH NUT 3/16 MS20142-3	4
12	10M-1361	SCREW 6/32 FLSTR MACH HEAD SS	1
13	10G-1330	CLEVIS PIN MS20392-2C33	1
14	10T-1120	SPACER AL .313 * .028 * .405	1
15	10A-2201	BOLT AN4-20A	1
16	20E-2221	TANG 2 HOLE BENT FOR VG PULLEY	1
17	10C-4081	BOLT NAS 623-3-8	1
18	20P-1230	PULLEY HARKN SHEAVE TOP LEG VG	1
19	20A-1213	BRACKET, KP BASE FOR VG PULLEY	1
20	10N-1740	CLINCH NUT 1/4 MS21042-4	1
21	10P-1100	SAFETY RING AN 9491 SMALL	1
22	40K-1303	KINGPOST STRM LF VG TUBE ONLY	1



WILLS WING

500 BLUERIDGE AVE • ORANGE • CA • 92665 • PH/FAX (714) 998-6359 / 998-0647

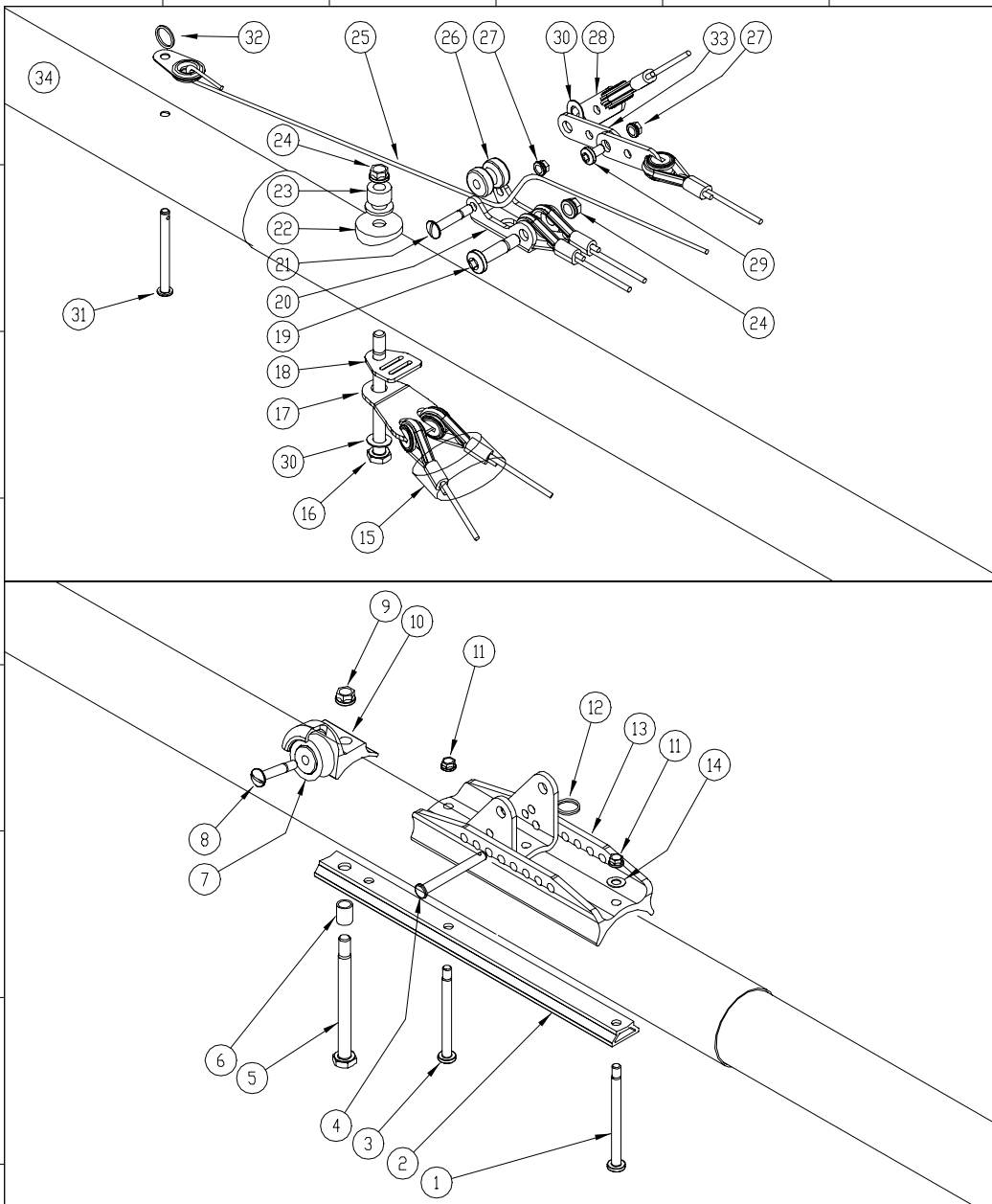
TITLE:

XC 155 KINGPOST

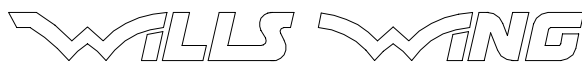
DOCUMENT ID:
78-E05A

DWG ID:
78E05A.dwg

DRAWN:
04-04-95 sp



ID	PART NO	DESCRIPTION	QNT
Center Keel			
1	10C-4341	BOLT NAS 623-3-34	1
2	20G-2103	TRACK LAYFLAT CBAR APEX SHORT2	1
3	10C-4301	BOLT NAS 623-3-30	1
4	10G-1510	CLEVIS PIN MS20392-2C51	1
5	10A-2271	BOLT AN4-27A	1
6	10T-3100	SPACER SS .313 * .028 * .390	1
7	20P-1230	PULLEY HARKN SHEAVE TOP LEG VG	1
8	10B-1101	BOLT AN23-10A	1
9	10N-1740	CLINCH NUT 1/4 MS21042-4	1
10	20G-1510	BRACKET VG PULLEY KEEL MOUNT	1
11	10N-1730	CLINCH NUT 3/16 MS20142-3	2
12	10P-1100	SAFETY RING AN 9491 SMALL	1
13	20G-1312	CG BRACKET KP HANG 95	1
14	10U-1130	WASHER STEEL AN960-10	1
Rear Keel			
15	15A-1007	FRICTION CAP 7/8	1
16	10A-2271	BOLT AN4-27A	1
17	40P-3301	WIRE SET BOTTOM REAR BALL SWDG	1
18	20E-2321	TANG 1 HOLE 2 SLOT 5/8 WEBBING	1
19	10C-5121	BOLT NAS 623-4-12	1
20	20A-1601	BRACKET, KEYHOLE TYPE LAYFLAT	1
21	10B-1161	BOLT AN23-16A	1
22	15F-1602	STAND-OFF 1/8	1
23	20G-2901	COLLAR KEYHOLE TANG BOLT	1
24	10N-1740	CLINCH NUT 1/4 MS21042-4	2
25	45K-1502	XBAR PULLBACK ROPE - XC	1
26	15K-1001	PULLEY DELRIN KEYHOLE BRACKET	1
27	10N-1730	CLINCH NUT 3/16 MS20142-3	2
28	40P-2401	WIRE TOP REAR BALL SWDG 3/32	1
29	10D-1060	BOLT NAS 603-6	1
30	10U-1140	WASHER STEEL AN960-416	2
31	10G-1570	CLEVIS PIN MS20392-2C57	1
32	10P-1100	SAFETY RING AN 9491 SMALL	1
33	20E-2305	TANG 3 HOLE FOLDING BASE CENTER	1
34	15C-4209	ENDCAP 42mm OD 40.2 ID	1



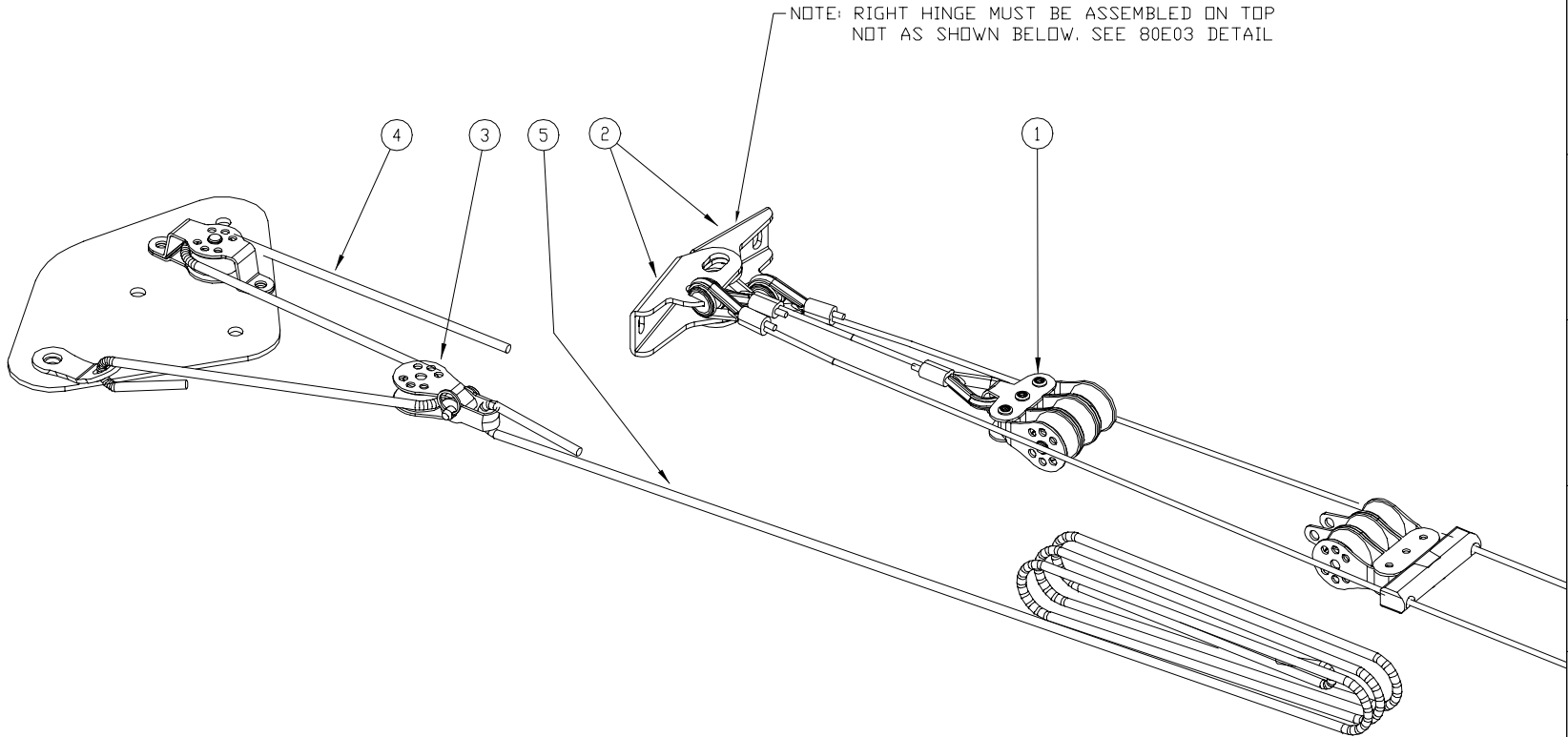
500 BLUERIDGE AVE • ORANGE • CA • 92665 • PH/FAX (714) 998-6359 / 998-0647

TITLE: XC142 MIDDLE/REAR KEEL XC155 REAR KEEL

PART NO:	DWG ID:	DOCUMENT ID:	REVISED:	DRAWN:	SCALE:
NA	80E01.DWG	80E01	03-15-96	01-15-96 sp	NA

T.U.S. .X ± .05
 .XX ± .015
 .XXX ± .003
 .XXXX ± .0005
 ANGLES ± 1/2°

ID	PART NO	DESCRIPTION	QNT
1	40P-5008	WIRE XBAR CENTER VG TRIPLE BLK	1
2	40P-4207	WIRE XBAR SWEEP XC SET SPREADR	1
3	20P-1211	PULLEY HARKN SINGLE W/SHACKLE	1
4	45K-1501	VG ROPE - XC LOWER	1
5	30J-3101	CORD - 4mm ACCESSORY PER FOOT	10



WILLS WING

500 BLUERIDGE AVE • ORANGE • CA • 92665 • PH/FAX (714) 998-6359 / 998-0647

TITLE:

XC142 VG ASSEMBLY

PART NO:
NA

DWG ID:
80E02.DWG

DOCUMENT ID:
80E02

REVISED:
03-15-96

DRAWN:
01-15-96 sp

SCALE:
NA

T.U.S. .X ± .05
.XX ± .015
.XXX ± .003
.XXXX ± .0005
ANGLES ± 1/2°

ID	PART NO	DESCRIPTION	QNT
Crossbar - Leading Edge Junction			
2	40P-2202	WIRE TOP SIDE BALL SWEDGE 3/32	2
3	10A-2330	BOLT AN4-33	2
4	20G-1110	XBAR/LE BRACKET 52MM LDNG EDGE	2
5	10N-1340	CASTLE NUT 1/4 AN310-4	2
6	10A-2300	BOLT AN4-30	2
7	40P-3103	WIRE BOTTOM SIDE 3/32 AT STYLE	2
8	10N-1740	CLINCH NUT 1/4 MS21042-4	2
XC 155 Only			
1	10B-2464	BOLT AN24-46A GROUND/ KEYHOLE	2
4	20G-1120	XBAR/LE BRACKET 62MM LDNG EDGE	2
XC 142 ONLY			
1	10B-2400	BOLT AN24-40	2
4	20G-1110	XBAR/LE BRACKET 52MM LDNG EDGE	2
Crossbar Center			
9	10P-1100	SAFETY RING AN 9491 SMALL	2
10	10N-1740	CLINCH NUT 1/4 MS21042-4	2
11	15J-2114	SOCKET XBAR CNTR BALL JOINT 66	1
12	15J-2124	BALL -XBAR CNTR BALL JOINT 66	1
13	45K-1312	XBAR STRAP HOLD DOWN 155 SHORT	1
14	10G-1890	CLEVIS PIN MS20392-2C89	2
15	10A-2301	BOLT AN4-30A	2
16	10U-1151	WASHER STEEL AN960-516L	2
17	10N-1750	CLINCH NUT 5/16 MS21042-5	1
18	10T-7101	BUSH BRONZE .439 * .313 * .130	1
19	10U-5125	WASHER NYLON .75 * .316 * .020	9
20	10C-6191	BOLT NAS 623-5-19	1
21	10U-1140	WASHER STEEL AN960-416	2
22	15A-1103	NUT CAP SHALLOW	1
23	10u-1141	WASHER STEEL AN960-416L	2

XC155 BOLT AND COMPENSATOR ASSEMBLY REVERSED FROM XC142

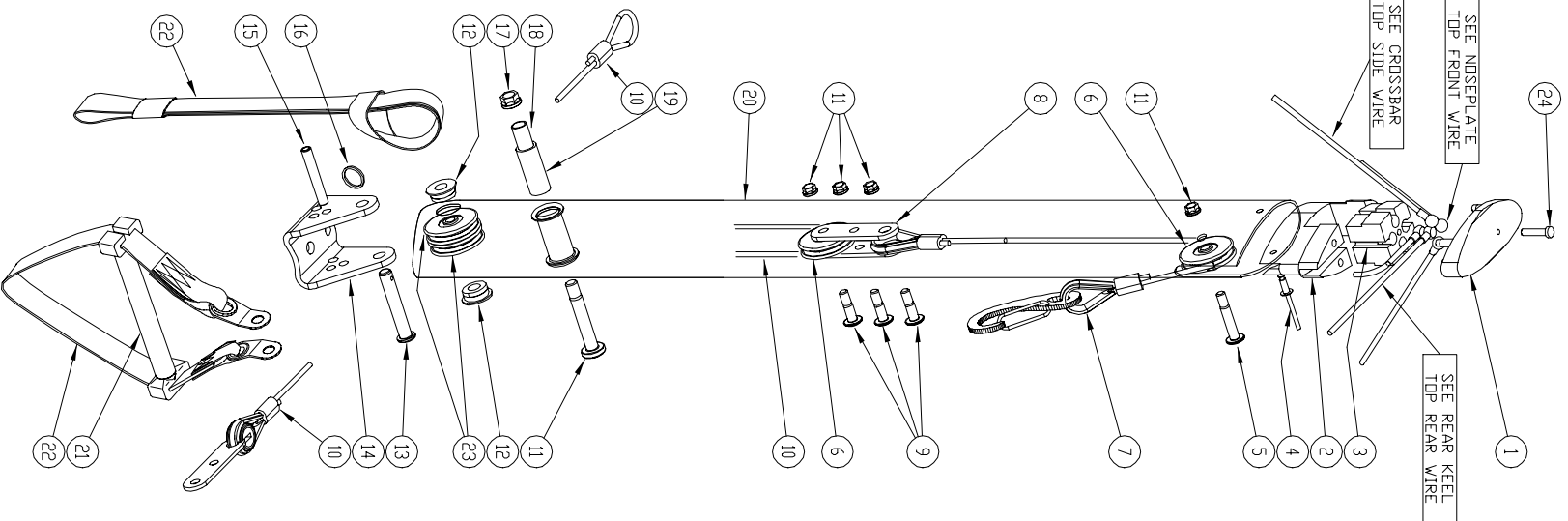
RIGHT CROSSBAR HINGE BRACKET MUST ALWAYS BE ASSEMBLED ON TOP OF LEFT AS SHOWN BELOW

500 BLUERIDGE AVE • ORANGE • CA • 92665 • PH/FAX (714) 998-6359 / 998-0647

TITLE: **XC142 AND XC155 CROSSBAR**

PART NO: NA	DWG ID: 80E03.DWG	DOCUMENT ID: 80E03	REVISED: NA	DRAWN: 01-15-96 sp	SCALE: NA
----------------	----------------------	-----------------------	----------------	-----------------------	--------------

T.U.S. .X ± .05
.XX ± .015
.XXX ± .003
.XXXX ± .0005
ANGLES ± 1/2°



ID	PART NO	DESCRIPTION	QNT
1	15J-1501	CAP AT KINGPOST TOP POLYCARB	1
2	15J-1502	TOP AT KINGPOST POLYCARB	1
3	20G-2323	KINGPOST TOP INSERT AT ALUM	1
4	10R-0342	RIVET AL 1/8 * .25	2
5	10B-1161	BOLT AN3-16A	1
6	15K-1011	PULLEY DELRIN AN210-1A REPLACE	2
7	10T-4111	BUSH SS .312 * .058 * .295	1
8	40P-5002	WIRE VG COMPENSATOR UPPER	1
9	20E-2304	TANG 3 HOLE VG 2" LONG	2
10	10B-1101	BOLT AN23-10A	3
11	40P-5007	WIRE VG COMPENSATOR LOWER XC	1
12	10C-5191	BOLT NAS 623-4-19	1
13	10T-8010	BUSH MACHINED KP BASE KP HANG	2
14	10G-2410	CLEVIS PIN MS20392-3C41	1
15	20A-1214	BRACKET, KP BASE KP HANG	1
16	10K-4021	PIN COIL SPRING .187 * 1.250	1
17	10P-1100	SAFETY RING AN 9491 SMALL	1
18	10N-1740	CLINCH NUT 1/4 MS21042-4	1
19	10T-1121	SPACER AL .313 * .028 * 1.075	1
20	10T-5131	WRONG PART# - SEE 10T-5132	1
21	40K-1311	KNGST STRM LF VG KP HANG TUBE	1
22	20G-2812	SPREADER BAR XC KINGPOST HANG	1
23	45J-1401	HANG LODP SET - KINGPOST STK	1
24	15K-1011	PULLEY DELRIN AN210-1A REPLACE	2
25	10T-4112	BUSH SS .312 * .028 * .295	1
26	10M-1361	SCREW 6/32 FLSTR MACH HEAD SS	1



500 BLUERIDGE AVE • ORANGE • CA • 92665 • PH/FAX (714) 998-6359 / 998-0647

TITLE:

XC142 KINGPOST

PART NO:
NA

DWG ID:
80E05.DWG

DOCUMENT ID:
80E05

REVISED:
03-15-96

DRAWN:
01-15-96 sp

SCALE:
NA

T.U.S. .X ± .05
.XX ± .015
.XXX ± .003
.XXXX ± .0005
ANGLES ± 1/2°

ID	PART NO	DESCRIPTION	QNT
1	10G-1330	CLEVIS PIN MS20392-2C33	4
2	10N-1740	CLINCH NUT 1/4 MS21042-4	4
3	20G-1423	CBAR PLUG AT LEG BOT STR TOEIN	2
4	20G-1802	CBAR BRACKET AT BASE END VG	1
5	10K-4040	PIN VG PULLEY SS MACHINED	1
6	20P-1220	PULLEY ALUM MACH CBAR BASE VG	1
7	10D-1161	BOLT NAS 603-16P	1
8	10C-5241	BOLT NAS 623-4-24	1
9	20C-1801	JAMCLEAT KNIFE V-CUT / ROPE VG	1
10	20G-1803	BRACKET BASE PULLEY ROPE VG	1
11	10P-1100	SAFETY RING AN 9491 SMALL	4
12	10N-1750	CLINCH NUT 5/16 MS21042-5	1
13	10T-5113	BUSH SPLIT HEADED AT CB SHORT	2
14	20G-1711	CBAR ELBOW AT TOP STREAM	2
15	20G-2203	SLIDER LAYFLAT CBAR APEX 3	1
16	10A-3201	BOLT AN5-20A GROUND & SLOTTED	1
17	10C-5111	BOLT NAS 623-4-11	2
18	15J-2003	GLIDE NOTCHED LAFLT APEX SLDR	1
19	15J-2002	GLIDE LAYFLAT APEX SLIDR SIDE	2
20	20G-1433	CBAR PLUG AT LEG TOP STR TOEIN	2
21	45G-3064	COVER NEOPRENE CB APEX RT VG	1
22	45G-3062	COVER NEOPRENE CBAR APEX LEFT	1
23	15A-1610	PROTECTOR VG ROPE - UHMW TAPE	1
24	10C-5121	BOLT NAS 623-4-12	1
25	20G-1801	CBAR BRACKET AT BASE TUBE END	1

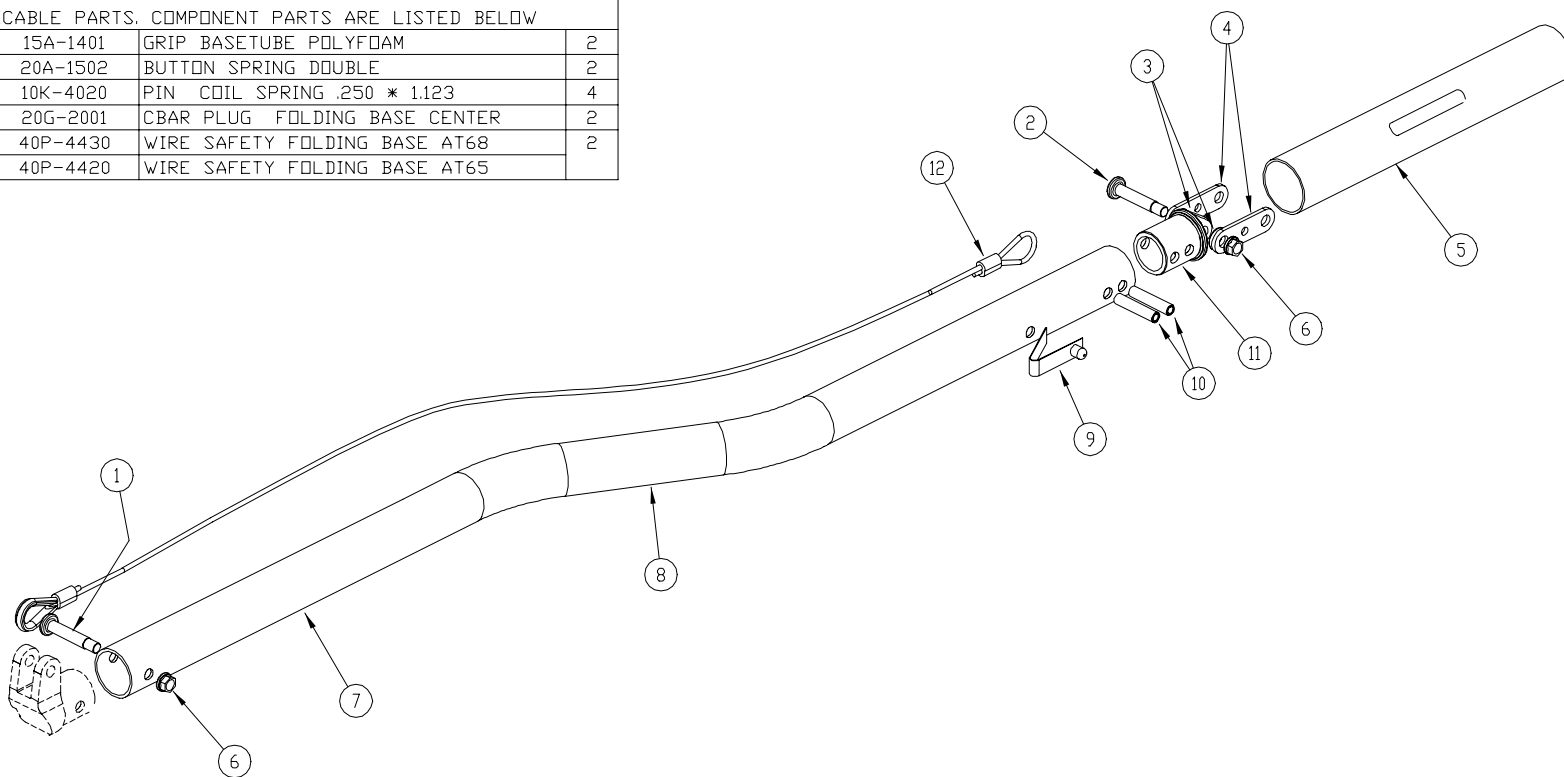
500 BLUERIDGE AVE • ORANGE • CA • 92665 • PH/FAX (714) 998-6359 / 998-0647

TITLE: **XC CONTROL BAR**

PART NO: NA	DWG ID: 80E06.DWG	DOCUMENT ID: 80E06	REVISED: NA	DRAWN: 01-15-96 sp	SCALE: NA
----------------	----------------------	-----------------------	----------------	-----------------------	--------------

T.U.S. .X ± .05
.XX ± .015
.XXX ± .003
.XXXX ± .0005
ANGLES ± 1/2°

ID	PART NO	DESCRIPTION	QNT
1	10C-5171	BOLT NAS 623-4-17	2
2	10C-5071	BOLT NAS 623-4-7	2
3	10U-5095	WASHER NYLON .560 * .320 * .013	4
4	20E-2305	TANG 3 HOLE FOLDNG BASE CENTER	2
5	40F-1391	SLEEVE FOLDING BASETUBE CENTER	1
6	10N-1740	CLINCH NUT 1/4 MS21042-4	4
XC 142 ONLY (INCLUDES ITEMS 8-12)			
7	40F-1332	BASETUBE HALF AT65 FOLDING SPD	2
XC 155 ONLY (INCLUDES ITEMS 8-12)			
7	40F-1342	BASETUBE HALF AT68 FOLDING SPD	2
ITEM NO.7 40F-1332/1342 ARE ASSEMBLIES WITH NO USER SERVICABLE PARTS. COMPONENT PARTS ARE LISTED BELOW			
8	15A-1401	GRIP BASETUBE POLYFOAM	2
9	20A-1502	BUTTON SPRING DOUBLE	2
10	10K-4020	PIN COIL SPRING .250 * 1.123	4
11	20G-2001	CBAR PLUG FOLDING BASE CENTER	2
12	40P-4430	WIRE SAFETY FOLDING BASE AT68	2
OR	40P-4420	WIRE SAFETY FOLDING BASE AT65	



WILLS WING

500 BLUERIDGE AVE • ORANGE • CA • 92665 • PH/FAX (714) 998-6359 / 998-0647

TITLE:

VG FOLDING BASE TUBE

PART NO:
NA

DWG ID:
80E07.DWG

DOCUMENT ID:
80E07

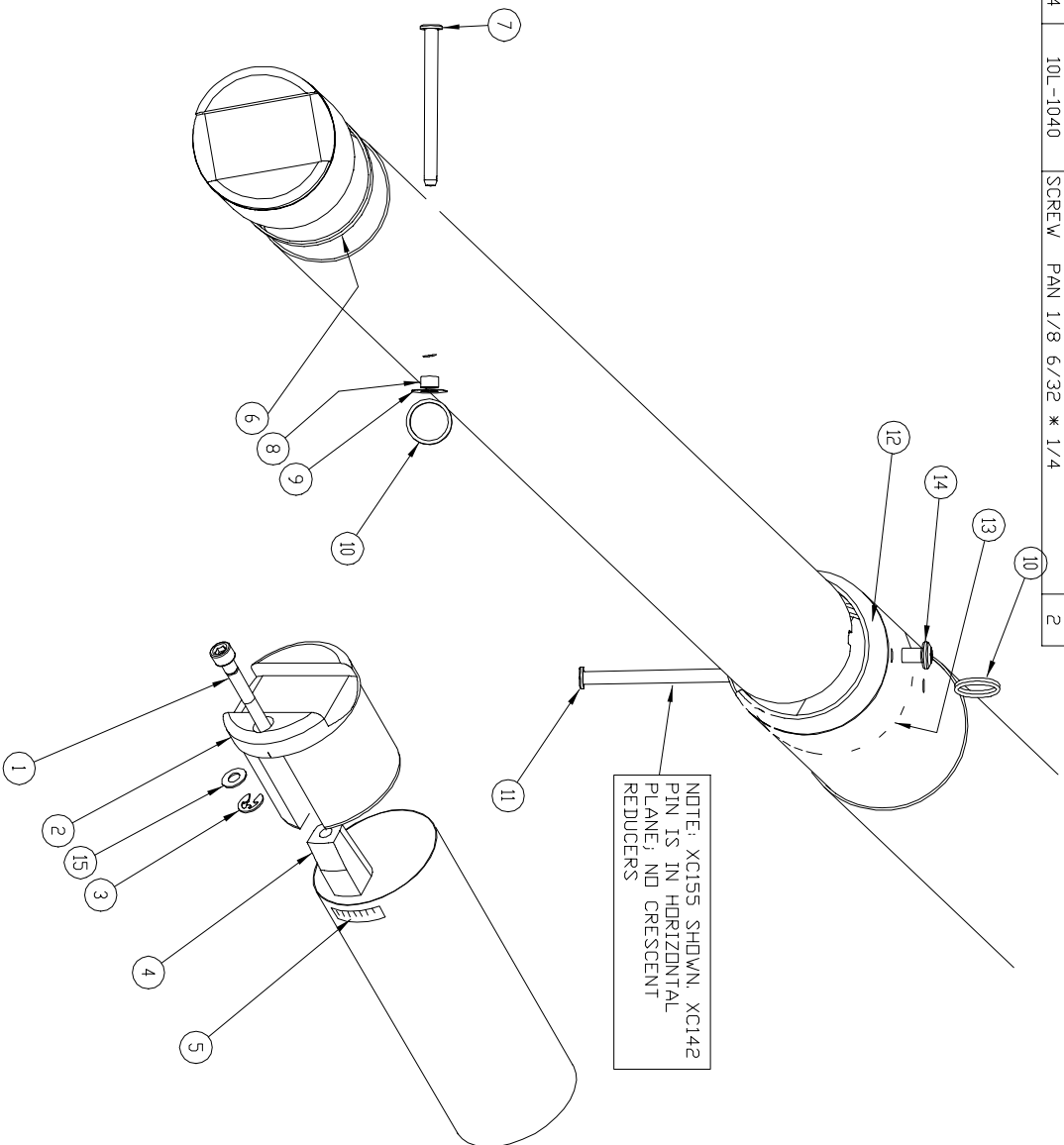
REVISED:
03-15-96 sp

DRAWN:
01-15-96 sp

SCALE:
NA

T.U.S. .X ± .05
.XX ± .015
.XXX ± .003
.XXXX ± .0005
ANGLES ± 1/2°

ID	PART NO	DESCRIPTION	QNT
COMMON			
1	10K-2026	SCREW SOCKET CAP 10-32*1.75 SS	2
2	15J-1911	ENDCAP SAIL MOUNT ADJUSTABLE	2
3	10S-1101	C-CLIP SAIL ADJUSTER CAP SCREW	2
4	15J-1912	LOCKING SLIDE ADJUST ENDCAP	2
5	70G-4019	PLACARD - SAIL ADJUSTER ALIGN	2
6	40M-1321	SHIM KIT ALL 7075 MODELS 50mm	2
7	10G-2770	CLEVIS PIN MS20392-3C77	2
8	10T-1111	SPACER AL .375 * .035 * .375	2
9	10U-1400	WASHER MS 15795-210	2
10	10P-1100	SAFETY RING AN 9491 SMALL	2
15	10U-1130	WASHER STEEL AN960-10	2
XC 142 ONLY			
11	10G-1650	CLEVIS PIN MS20392-2C65	2
XC 155 ONLY			
11	10G-1750	CLEVIS PIN MS20392-2C75	2
12	15J-1711	CRESCENT REDUCR 60/52 94 REAR	2
13	15J-1710	CRESCENT REDUCR 60/52 94 FRONT	2
14	10L-1040	SCREW PAN 1/8 6/32 * 1/4	2



WILLS WING

500 BLUERIDGE AVE • ORANGE • CA • 92665 • PH/FAX (714) 998-6359 / 998-0647

TITLE:

XC REAR LEADING EDGE

PART NO:
NA

DWG ID:
80E09.DWG

DOCUMENT ID:
80E09

REVISED:
03-15-96

DRAWN:
01-15-96 sp

SCALE:
NA

T.U.S. .X ± .05
.XX ± .015
.XXX ± .003
.XXXX ± .0005
ANGLES ± 1/2°