

CHALLENGER[®]



OWNER'S MANUAL

ALUMINUM & STEEL CAR CARRIERS

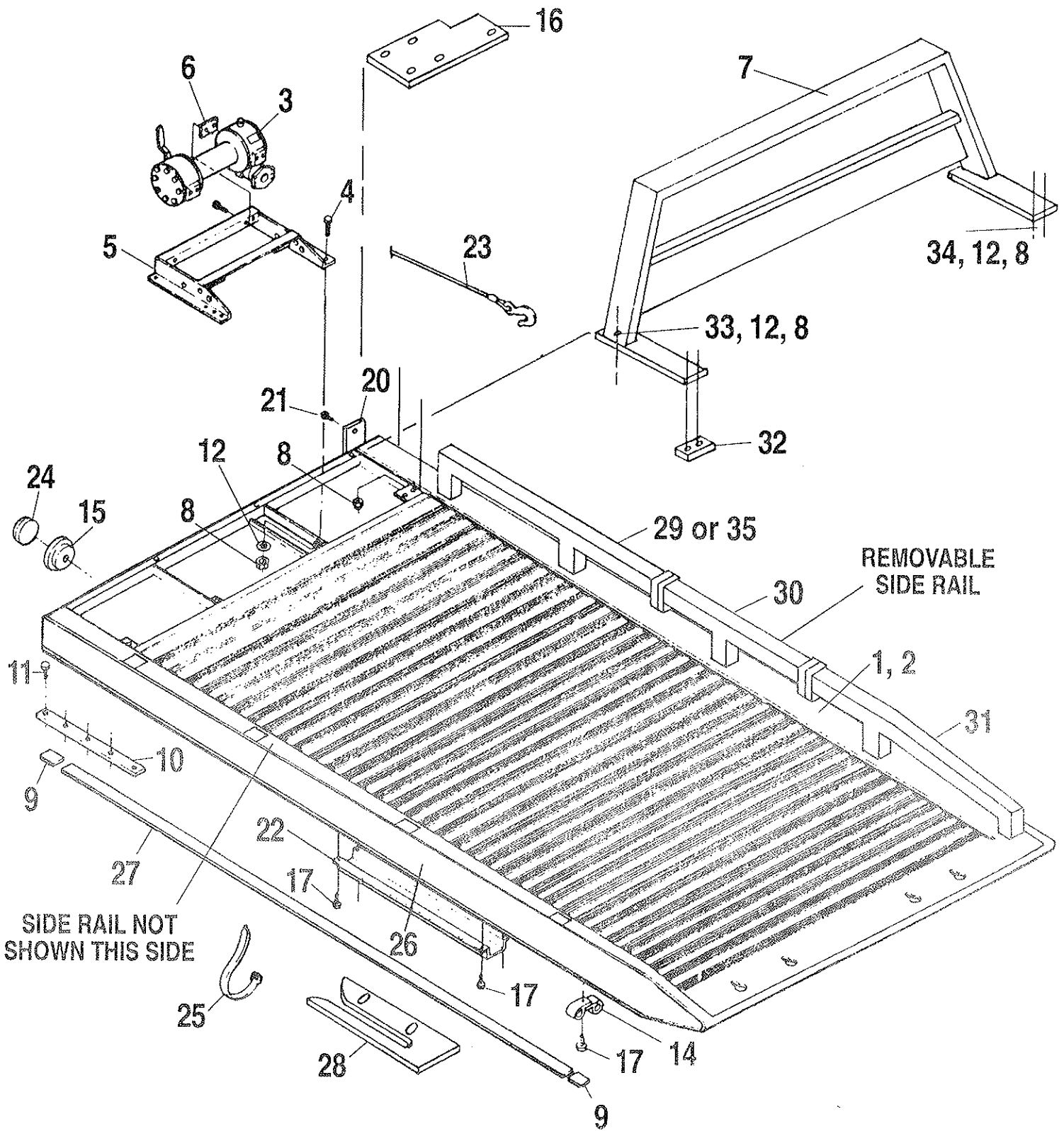
Parts, Installation & Maintenance

I-75 at Ooltewah Exit #11 • 8503 Hilltop Drive • Ooltewah, Tennessee 37363 • (615) 238-4171

Mailing Address: P.O. Box 120 • Ooltewah, Tennessee 37363 • FAX (615) 238-5371

PRICE \$15.00 PART NO. 0500801

SECTION I - PARTS ALUMINUM BED ASSEMBLY

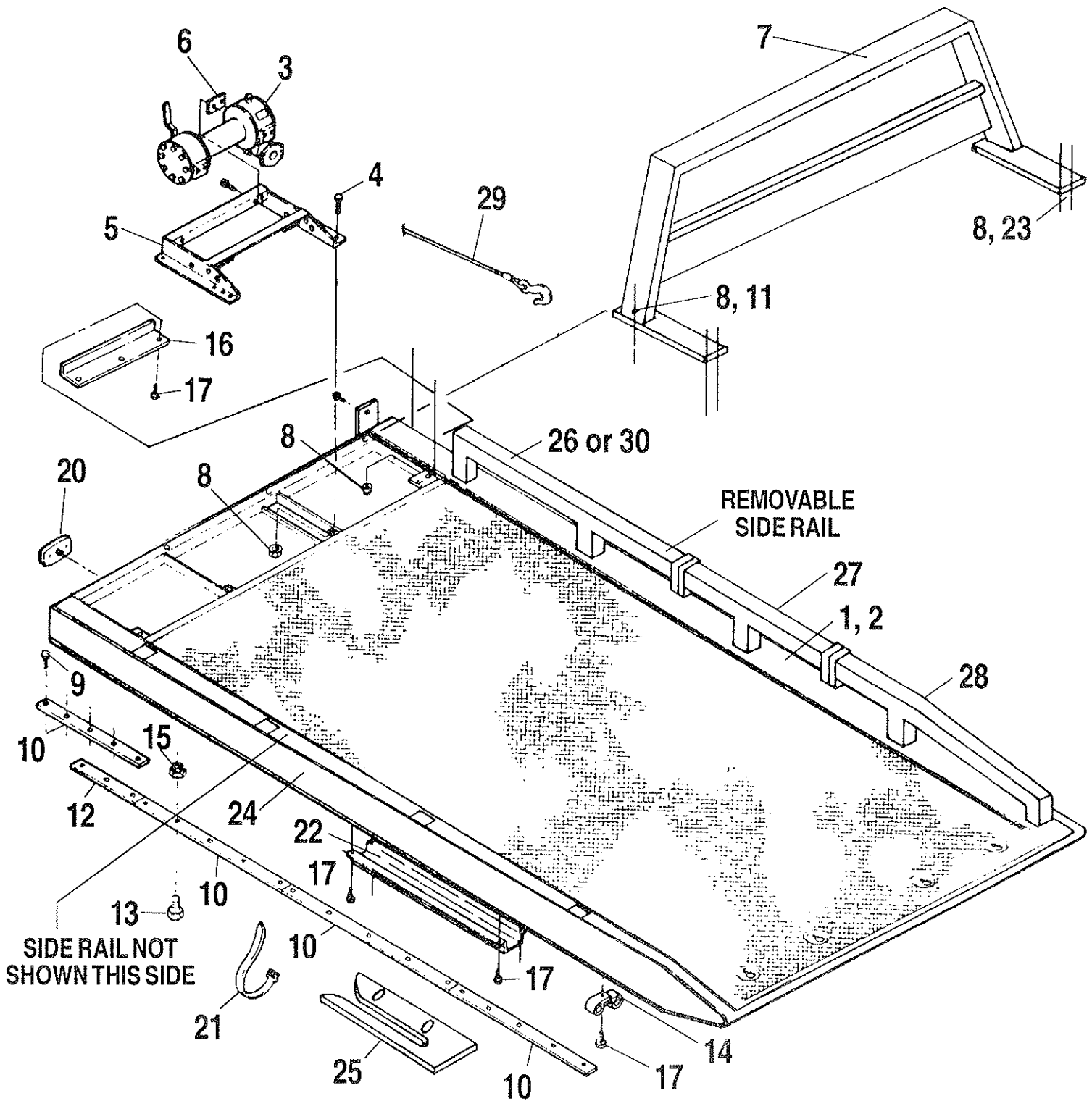


SECTION 1 - PARTS

ALUMINUM BED ASSEMBLY

REF. NO.	NO. REQ'D.	PART NUMBER	DESCRIPTION
1	1	0805033	CAR CARRIER 19' ALUMINUM
2	1	0805034	CAR CARRIER 21' ALUMINUM
3	1	0300250	WINCH ASS'Y.
4	2	0400181	SCREW, 1/2" - 1-1/2" LG. HEX HD. CAP
5	1	0801482	WINCH MOUNTING BRACKET
6	2	0701172	SPACER WINCH BRACKET
7	1	0805020	CAB PROTECTOR (SPECIFY HEIGHT)
8	16	0400408	NUT, 1/2" - 13 NYLON LOCK
9	4	0702517	BEARING PAD STOP BAR
10	2	0302027	BEARING PAD
11	8	0400088	SCREW, 1/4" - 20 x 5/8" LG. BRASS
12	16	0400492	WASHER, 1/2" FLAT
14	14	0300134	HOSE CLAMP
15	2	0301740	GROMMET, LIGHT ASSEMBLY MOUNTING
16	1	0709868	COVER PLATE (BOTTOM)
17	15	0400077	SCREW, SELF-DRILLING
20	2	0709869	CAP, END
21	6	0400044	SCREW, DRIVE
22	1	0704799	TRAY, HOSE
23	1	0301669	CABLE ASS'Y, WINCH
24	2	0301742	LIGHT ASSEMBLY, AMBER
25	8	0300132	WIRE TIE
26	2	0500235	DECAL, ARROW
27	2	0302180	BEARING PAD
28	1	0708913	ANTI TILT PLATE
29	2	0802660	FRONT REMOVABLE SIDE RAIL (19' CARRIER)
30	2	0802661	CENTER REMOVABLE SIDE RAIL
31	2	0802662	REAR REMOVABLE SIDE RAIL
32	2	0709870	CAB PROTECTOR REINFORCEMENT PLATE
33	2	0400181	SCREW, 1/2" - 13 x 1-1/2" LG. HEX HD. CAP
34	4	0400237	SCREW, 1/2" - 13 x 4" LG. HEX HD. CAP
35	2	0805038	FRONT REMOVABLE SIDE RAIL (21' CARRIER)

SECTION I - PARTS STEEL BED ASSEMBLY

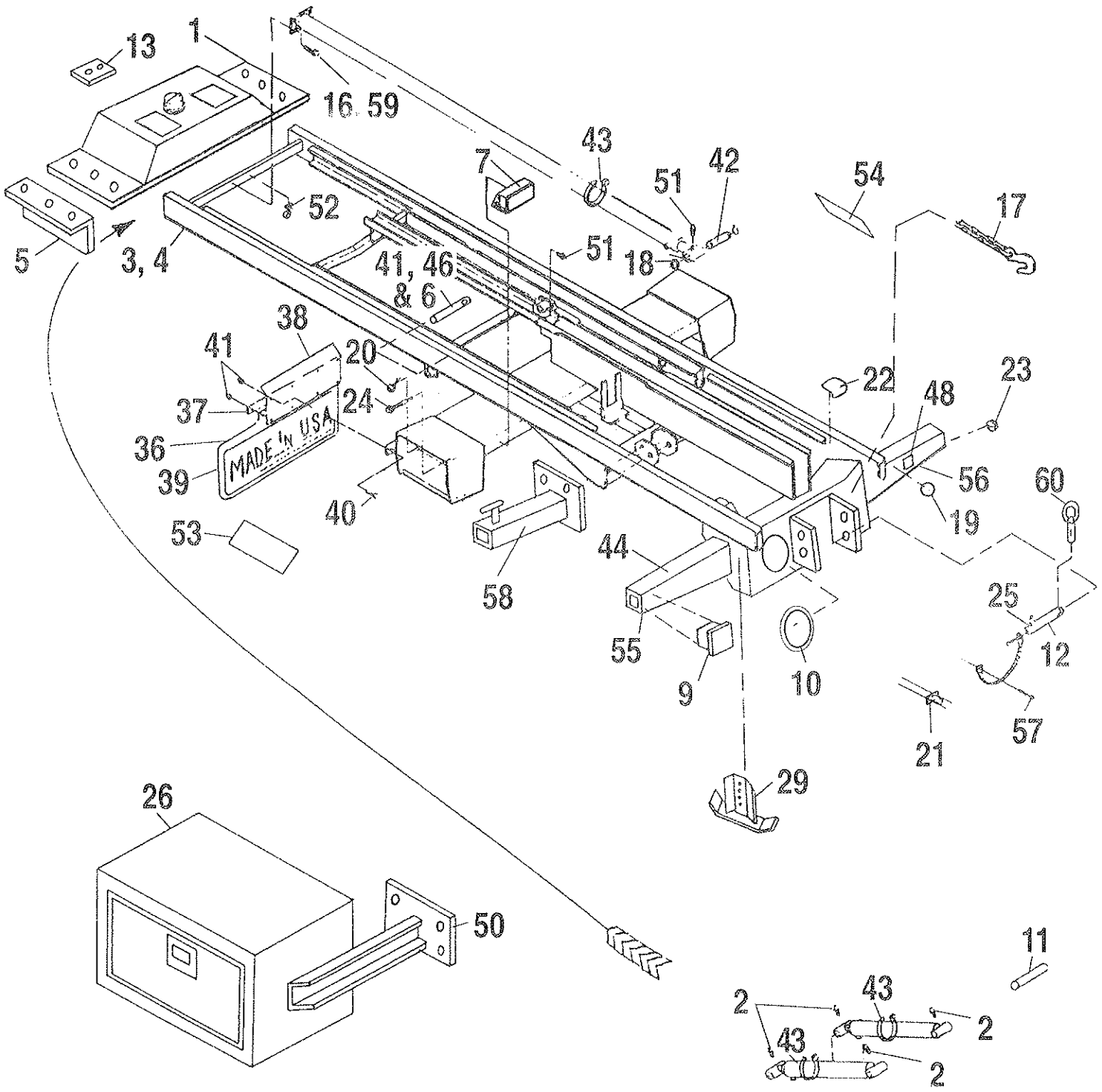


SECTION 1 - PARTS

STEEL BED ASSEMBLY

REF. NO.	NO. REQ'D.	PART NUMBER	DESCRIPTION
1	1	0805047	CAR CARRIER 19' STEEL
2	1	0805048	CAR CARRIER 21' STEEL
3	1	0300250	WINCH ASS'Y.
4	4	0400181	SCREW, 1/2" - 13 x 1-1/2" LG. HEX HD. CAP
5	1	0801482	WINCH MOUNTING BRACKET
6	2	0701172	SPACER, WINCH BRACKET
7	1	0805020	CAB PROTECTOR (SPECIFY HEIGHT)
8	14	0400408	NUT, 1/2" - 13 NYLON LOCK
9	8	0400088	SCREW, 1/4" - 20 x 5/8" LG. BRASS
10	8	0302027	BEARING PAD
11	2	0400177	SCREW, 1/2" - 13 x 1-1/4" LG. HEX HD. CAP
12	2	0302200	BEARING PAD
13	38	0400089	SCREW, 1/4" - 20 x 1" LG. BRASS
14	2	0300134	HOSE CLAMP
15	38	0400367	NUT, 1/4" - 20 NYLON LOCK
16	1	0705332	COVER PLATE, BOTTOM
17	13	0400077	SCREW, SELF-DRILLING
20	2	0301887	LIGHT ASS'Y, AMBER
21	8	0300132	WIRE TIE
22	1	0705331	TRAY, HOSE
23	4	0400211	SCREW, 1/2" - 13 x 1-3/4" LG. HEX HEAD CAP
24	2	0500235	DECAL, ARROW
25	1	0708913	ANTI TILT PLATE
26	2	0802660	FRONT REMOVABLE SIDE RAIL (19' CARRIER)
27	2	0802661	CENTER REMOVABLE SIDE RAIL
28	2	0802662	REAR REMOVABLE SIDE RAIL
29	1	0301669	CABLE ASS'Y, WINCH
30	2	0805039	FRONT REMOVABLE SIDE RAIL (21' CARRIER)

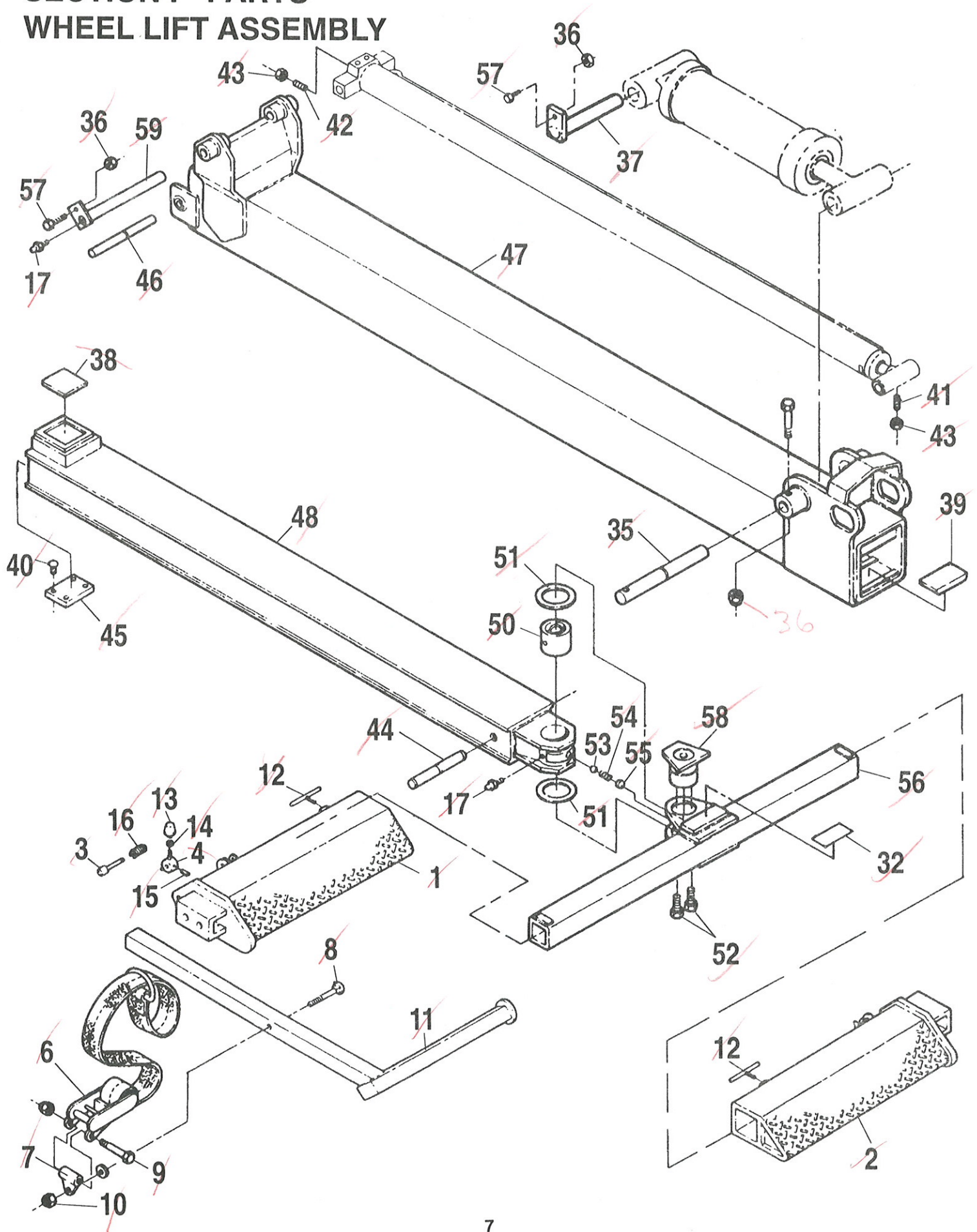
SECTION I - PARTS TILT FRAME ASSEMBLY



SECTION I - PARTS MOUNTING AND TILT FRAME ASSEMBLY

REF. NO.	NO. REQ'D.	PART NUMBER	DESCRIPTION
1	1	0802669	RESERVIOR ASS'Y
2	4	0300113	GREASE FITTING
3	1	0805019	SUB FRAME, INDEPENDENT WHEEL LIFT
4	1	0805035	SUB FRAME, INDEPENDENT TOW BAR
5	2	0802668	OIL TANK MOUNTING BRACKETS (SPECIFY FRAME WIDTH)
6	1	0704792	REAR HINGE PIN
7	1	0301800	JUNCTION BOX
9	2	0302986	TAIL LIGHT (CHASSIS TAKE OFF)
10	2	0304147	WORK LIGHT
11	4	0702434	SHAFT, LIFT CYLINDER
12	1	0709867	PIN, SAFETY
13	2	0302983	WEAR PAD & SCREWS
16	20	0400211	SCREW 1/2" - 13 x 1-3/4" LG. PL. HEX HEAD CAP
17	2	0301932	SAFETY CHAIN W / HOOKS 10' LG.
18	10	0301642	SNAP RING, 1-1/4"
19	1	0301671	SOCKET, TOW LIGHT
20	2	0300867	ILLUMINATOR, CONTROL PANEL
21	1	0300273	ILLUMINATOR, LICENSE PLATE
22	2	0301958	SKUFF PAD, SAFETY CHAIN
23	2	0302987	LIGHT, SEALED RED MARKER
24	1	0300686	THROTTLE (25 ft.) ASS'Y
25	1	0400564	ROLL PIN
26	1	0302988	TOOL BOX
29	2	0802666	EXTENSION STAND
36	2	0306001	MUD FLAP
37	2	0705092	BAR, MUD FLAP
38	2	0704793	BRACKET, MUD FLAP MOUNTING
39	9	0400122	SCREW, 3/8" - 16 x 1-1/4" LG. PL. HEX HEAD CAP
40	4	0400121	SCREW, 3/8" - 16 x 3/4" LG. PL. HEX HEAD CAP
41	20	0400392	NUT, 3/8" - 16 NYLON LOCK
42	1	0703960	PIN, EXTEND CYLINDER
43	18	0300132	CABLE TIE
44	8	0301601	CLAMP, INSULATED WIRE
46	1	0400150	SCREW, 3/8" - 16 x 2-1/2" PL. HEX HEAD CAP
47	12	0400045	SCREW, #10 - 32 x 1/2" LG. SELF-TAPPING
48	1	0303061	BACK UP ALARM
50	2	0802667	TOOL BOX MOUNTING BRACKET
51	3	0301397	GREASE FITTING, 90°
52	4	0300134	CLAMP, INSULATED WIRE
53	1	0500425	DECAL, CONTROL STATION (L.H.)
54	1	0500428	DECAL, CONTROL STATION (R.H.)
55	1	0802664	TAIL LAMP HOUSING, LEFT
56	1	0802665	TAIL LAMP HOUSING, RIGHT
57	1	0700584	CHAIN, 12" SASH
58	2	0802663	L-ARM STORAGE TUBE BRACKET
59	20	0400408	NUT, 1/2" - 13 NYLON LOCK
60	1	0302474	LYNCH PIN

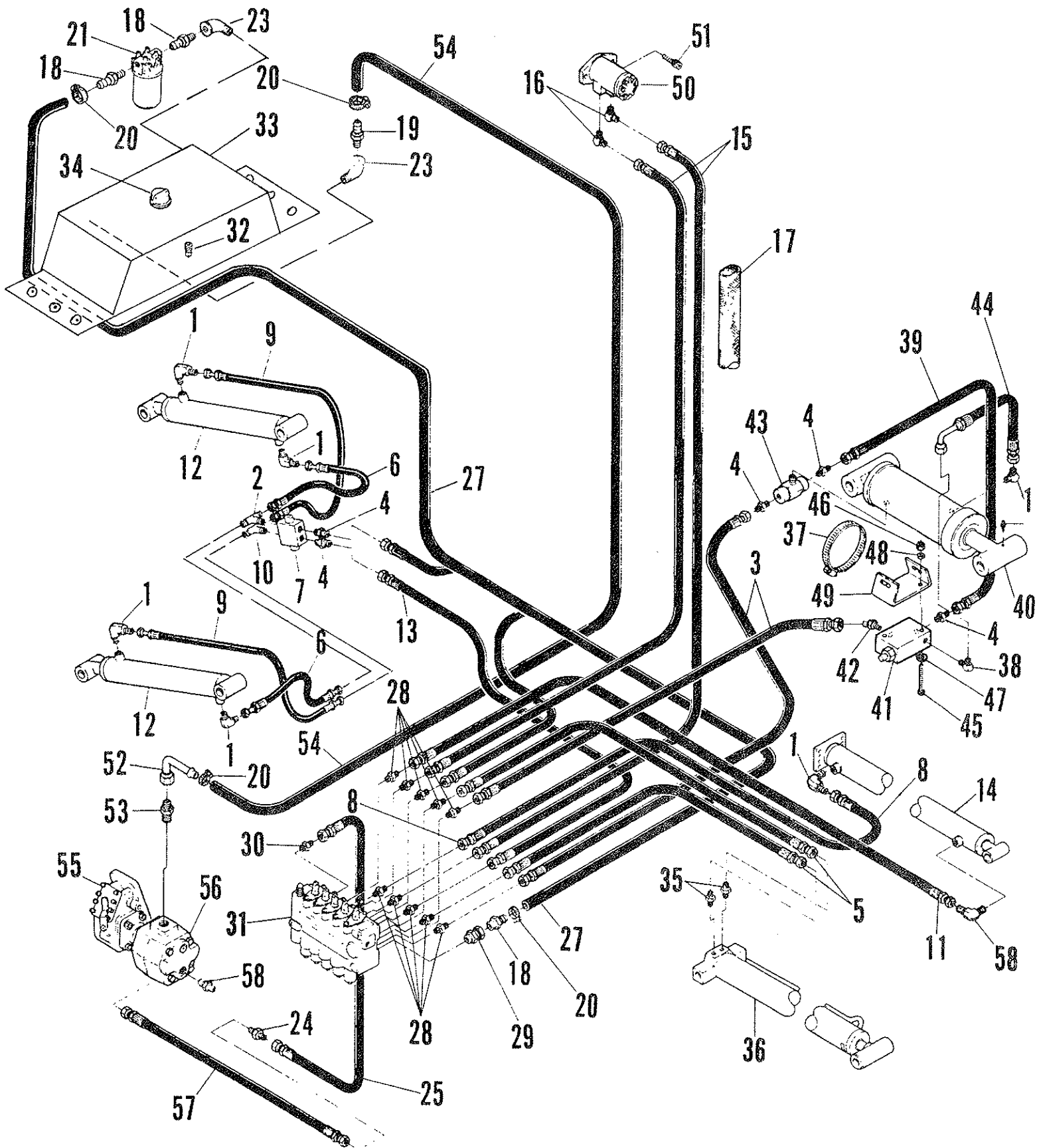
SECTION I - PARTS WHEEL LIFT ASSEMBLY



SECTION 1 - OPTIONAL EQUIPMENT OUTER CROSS TUBE & SLIDE-IN TIRE RESTRAINT ASS'Y

REF. NO.	NO. REQ'D.	PART NUMBER	DESCRIPTION
1	1	0800912	CROSS TUBE, LEFT OUTER
2	1	0800913	CROSS TUBE, RIGHT OUTER
3	2	0701916	PIN, PLUNGER
4	1	0800837	HANDLE, LEFT PLUNGER
5	1	0800838	HANDLE, RIGHT PLUNGER
6	2	0301399	RATCHET, TIE DOWN (INCLUDES SCREW & NUT)
7	2	0800583	PIVOT, TIE DOWN
8	2	0400161	BOLT, 3/8" - 16 x 2-3/4" CARRIAGE GR. 5 PL
9	2	0400480	WASHER, 3/8" FLAT PL.
10	2	0400390	NUT, 3/8" - 16 JAM LOCK HEX PL.
11	2	0800897	RESTRAINT, TIRE
12	2	0800590	HANDLE, TEE
13	2	0300341	KNOB
14	2	0400393	NUT, 3/8" - 16 JAM
15	2	0400560	PIN, 5/32" x 1" LG. ROLL
16	2	0301416	SPRING, PLUNGER
17	3	0300113	FITTING, GREASE
18	2	0400068	SCREW, 1/4" - 20 x 5/16" LG. SOCKET SET
19	2	0901203	HOOK LATCH ASS'Y (INCLUDES ITEMS 16-21)
20	2	0704994	LATCH, CHAIN HOOK
21	2	0400576	RIVET, POP
22	2	0400519	WASHER, FLAT
23	2	0302155	SPRING, CHAIN HOOK LATCH
24	2	0400036	SCREW, #10 - 32 x 1" LG. RD HD. SLOTTED MACH. PL.
25	2	0400357	NUT, #10 - 32 NYLON LOCK PL.
26	2	0801472	RESTRAINT, TIRE
27	2	0800583	PIVOT, TIE DOWN
28	2	0400480	WASHER, 3/8" FLAT PL.
29	2	0400390	NUT, 3/8" - 16 ESLOK JAM
30	2	0400161	BOLT, 3/8" - 16 x 2-3/4" LG. GR. 8 PL. CARRIAGE
31	2	0301399	STRAP, TIE DOWN W / RATCHET
32	3	0500241	DECAL, SAFETY CHAIN WARNING
33	2	0500397	DECAL, SNAP (LATCH WARNING)
34	2	0800590	TEE HANDLE
35	1	0705238	PIN, PIVOT
36	3	0400392	NUT, 3/8" - 16 NYLON LOCK
37	1	0801012	SHAFT, LIFT CYL
38	1	0301850	BEARING PAD, 1/4" x 3" x 3" NYLON
39	1	0302183	BEARING PAD, 3/8"
40	4	0400044	SCREW, #10 x 1/2" DRIVE
41	1	0400129	SCREW, 3/8" - 16 x 3/4" LG. CUP POINT ALLEN HEAD
42	1	0400139	SCREW, 3/8" - 16 x 1-1/2" LG. HEX SOCKET
43	2	0400392	NUT, 3/8" - 16 NYLON LOCK
44	1	0702131	SHAFT, INNER TUBE CYLINDER
45	1	0703277	SLIDER, PAD
46	1	0703345	SHAFT, EXTEND CYLINDER
47	1	0801556	OUTER BOOM
48	1	0801568	INNER BOOM
49	2	0301956	STRAP, RUBBER
50	1	0301914	BEARING, INNER BOOM
51	2	0703640	WASHER, THRUST
52	2	0701956	SCREW, 1/2" - 13 x 1" LG. HEX HD CAP GR.5
53	1	0301398	BALL, DETENT
54	1	0301197	SPRING, DETENT
55	1	0702546	SPACER
56	1	0801074	CROSS TUBE, INNER WELDMENT
57	1	0400141	SCREW, 3/8" - 16 x 7/8" LG. HEX HD CAP GR.5 PL.
58	1	0801073	PIN, CROSS TUBE PIVOT
59	1	0801009	SHAFT, PIN ASS'Y, UPPER BOOM

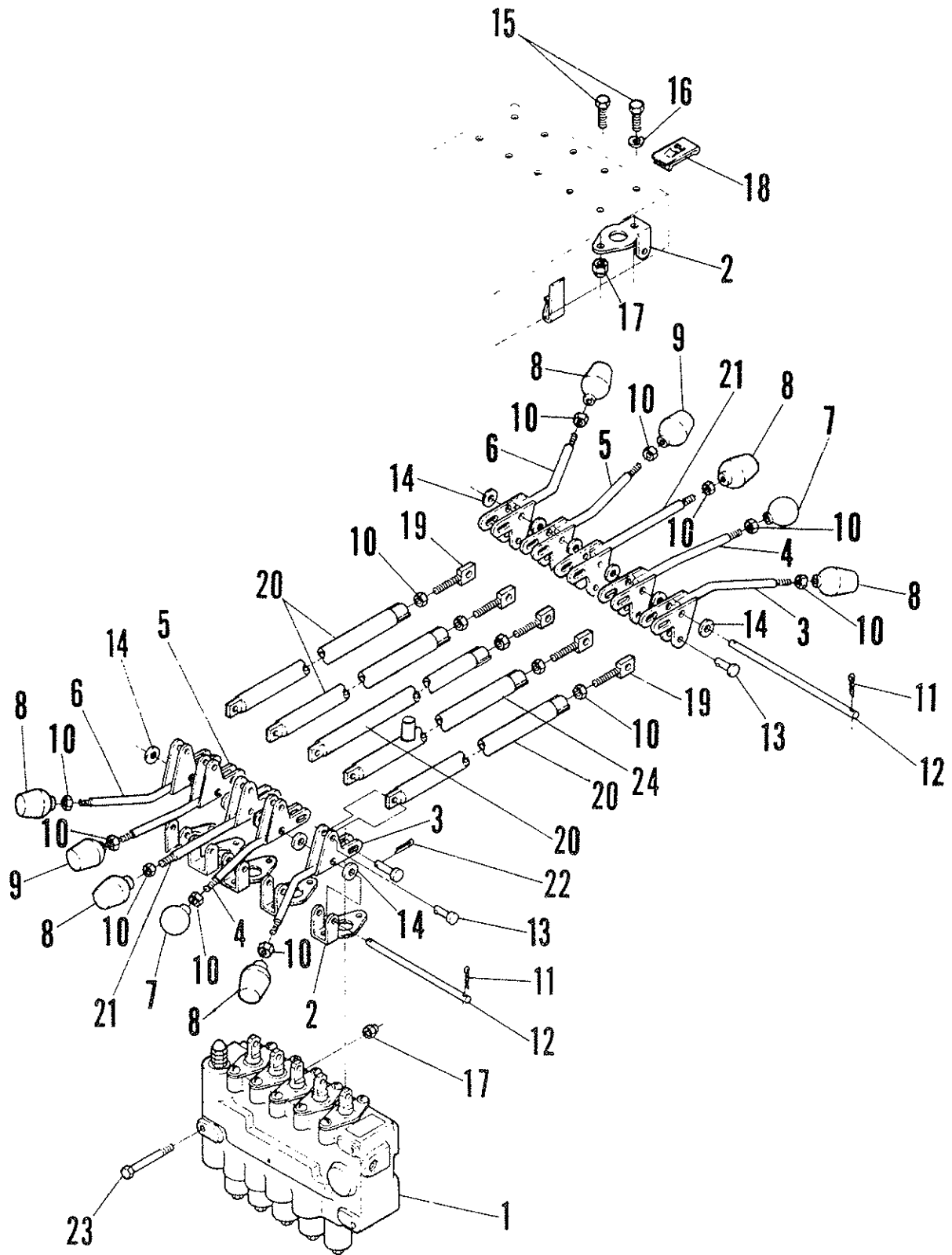
SECTION I - PARTS HYDRAULICS



SECTION I - PARTS (HYDRAULICS)

REF. NO.	NO. REQ'D.	PART NUMBER	DESCRIPTION
1	6	0300142	ELBOW, 1/2" MJ x 1/4" MP x 90°
2	2	0300208	TEE, 3/8" MJ x 3/8" MJ x 1/4" MP
3	2	0301403	HOSE, ASS'Y
4	5	0301424	CONNECTOR, 3/8" MJ x 1/4" MP
5	2	0301478	HOSE ASS'Y, 54" LG. (W/L EXTEND CYLINDER)
6	2	0301524	HOSE ASS'Y, 14" LG. (BED LIFT CYLINDER)
7	1	0301640	VALVE, BED TILT CYLINDER LOCK
8	1	0301658	HOSE ASS'Y, 128" LG. (BED EXT. CYLINDER)
9	2	0301660	HOSE ASS'Y, 21" LG. (BED LIFT CYLINDER)
10	1	0301694	ORIFICE TEE
11	1	0301769	HOSE ASS'Y, 52" LG. (BED EXT. CYLINDER)
12	2	0301796	CYLINDER, BED LIFT
13	2	0301878	HOSE ASS'Y, 137" LG. (BED LIFT LOCK VALVE)
14	1	0301970	CYLINDER, 108" STROKE BED EXTEND
15	2	0301663	HOSE ASS'Y, 204" LG. (WINCH MOTOR)
16	2	0301665	ELBOW, 3/8" MJ x 1/2" MP x 90°
17	1	0705296	SKUFF JACKET
18	3	0300055	HOSE BARB, 3/4" HOSE x 3/4" MP
19	1	0300056	HOSE BARB, 1" HOSE x 1" MP
20	4	0300071	CLAMP, 1" HOSE
21	1	0300136	FILTER ASS'Y
23	2	0300692	ELBOW, 1" x 90° STREET
24	1	0300865	CONNECTOR, 1/2" MJ x 1/2" MB
25	1	0301659	HOSE ASS'Y, 150" LG. (VALVE TO PUMP)
27	1	0704802	HOSE, 192" LG. RETURN (FILTER TO CONTROL VALVE)
28	10	0300044	CONNECTOR, 3/8" MJ x 1/2" MB
29	1	0300065	SWIVEL, 3/4" MB x 3/4" FPX PIPE
30	1	0300789	CONNECTOR, 5/8" SAE x 1/2" JIC STRAIGHT
31	1	0302179	VALVE, 5 SPOOL CONTROL
32	1	0300347	PLUG, 1/2" SQ. HD BLACK
33	1	0802669	RESERVOIR
34	1	0709871	OIL TANK TOP CAP
35	2	0301522	CONNECTOR, 3/8" MJ x 3/8" MB STRAIGHT
36	1	0302178	CYLINDER, WHEEL LIFT HYDRAULIC EXTEND
37	1	0300133	CLAMP, 3"-4" HOLDING VALVE RETAINER
38	1	0300209	ELBOW, 3/8" MJ x 3/8" MP x 90°
39	1	0301473	HOSE ASS'Y, 18" LG. (W/L HOLDING VALVE TO TEE)
40	1	0301484	CYLINDER, 8-1/4" STROKE WHEEL LIFT TILT
41	1	0301731	VALVE, WHEEL LIFT CYLINDER HOLDING
42	1	0301848	ELBOW, 3/8" JIC c 3/8" NPT x 45°
43	1	0301868	TEE, 1/4" FP x 1/4" FP x 1/4" MALE RUN
44	1	0301900	HOSE ASS'Y, 18" LG. (W/L CYL. to W/L HOLDING VALVE)
45	2	0400064	SCREW, 1/4" - 20 x 2-1/4" LG. RD SLOTTED HEAD CAP
46	2	0400366	NUT, 1/4" - 20 HEX ZINC PL
47	2	0400451	FLATWASHER, 1/4" ZINC PL
48	2	0400452	LOCKWASHER, 1/4" HELICAL ZINC PL
49	1	0703001	BRACKET, W/L HOLDING VALVE MOUNTING
50	1	0300090	MOTOR, WINCH
51	2	0400196	SCREW, 1/2" - 13 x 1-1/4" LG. SOCKET HEAD CAP
52	1	0302170	SWIVEL, 90° BENT TUBE
53	1	0301780	CONNECTOR, STRAIGHT THREAD "O" RING
54	1	0300058	HOSE, 1" DIA. SUCTION (PUMP TO RESERVOIR)
55	1	0302037	PTO
56	1	0302166	PUMP, HIGH PRESSURE HYDRAULIC
57	1	0300165	HOSE ASS'Y, 91" LG. HI-PRESSURE
58	1	0302160	ELBOW, 6 MJ - 4 MP 90 L

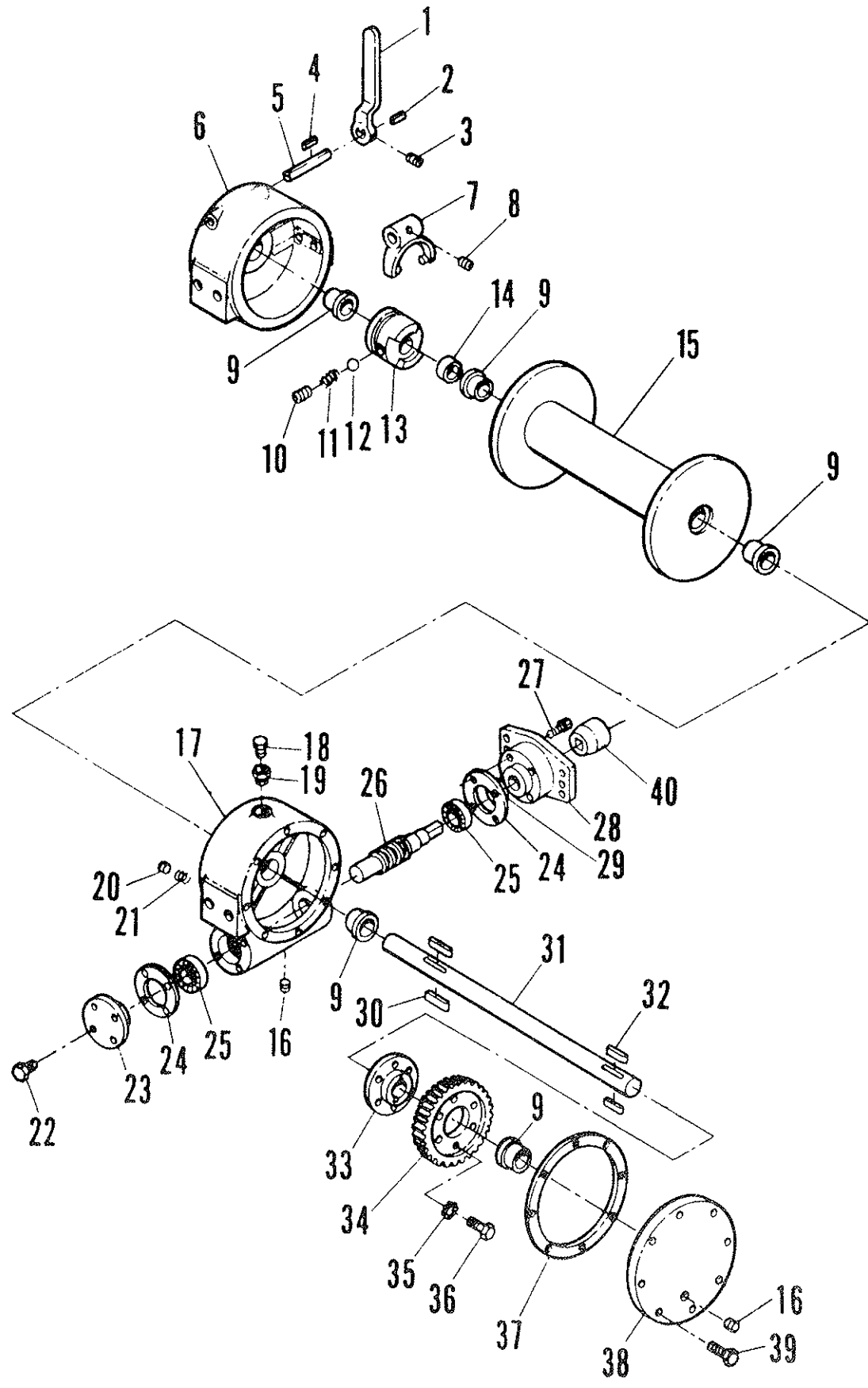
SECTION I - PARTS CONTROL & CROSSROD ASSEMBLY



SECTION 1 - PARTS CONTROL & CROSSROD ASSEMBLY

REF. NO.	NO. REQ'D.	PART NUMBER	DESCRIPTION
1	1	0302179	5-SPOOL CONTROL VALVE
2	10	0301638	BRACKET, CONTROL HANDLE
3	2	0800798	REAR OUTER CONTROL HANDLE
4	2	0800797	REAR INNER CONTROL HANDLE
5	2	0800795	FWD, INNER CONTROL HANDLE
6	2	0800796	FWD, OUTER CONTROL HANDLE
7	2	0301720	KNOB, BALL
8	6	0300341	KNOB
9	2	0300834	KNOB, "IN-OUT" RED (CABLE)
10	10	0400393	NUT, 3/8" - 16 JAM
11	4	0400541	COTTER PIN, 1/16" x 3/4" LG.
12	2	0705242	CONTROL HANDLE PIVOT ROD
13	15	0400532	CLEVIS PIN, 5/16" DIA. x 1" LG.
14	10	0400465	WASHER, 5/16" FLAT
15	10	0400121	SCREW, 3/8" - 16 x 3/4" HEX HEAD
16	5	0400482	LOCKWASHER, 3/8" HELICAL
17	8	0400392	NUT, 3/8" - 16 NYLON LOCK
18	4	0400243	NUT, 3/8" - TINNEMAN "J"
19	5	0800800	CONTROL ROD LINK
20	4	0800799	VALVE SHIFTER
21	2	0801566	CONTROL HANDLE, CENTER
22	10	0400543	COTTER PIN, 1/8" x 3/4" LG.
23	3	0400140	SCREW, 3/8" - 16 x 4" LG. HEX HD.
24	1	0805036	CONTROL ROD LINK, ANTI TILT

SECTION I - PARTS HYDRAULIC WINCH

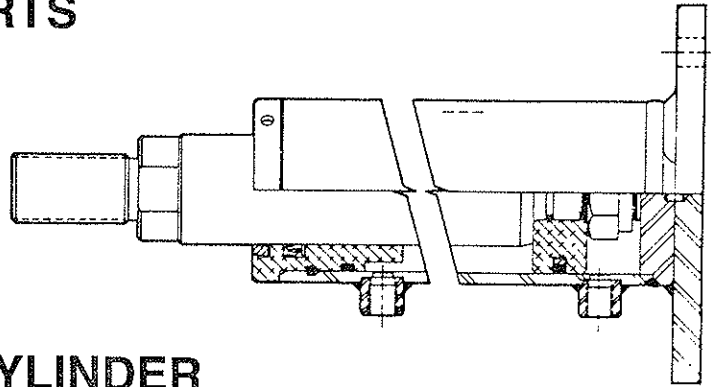


SECTION 1 - PARTS HYDRAULIC WINCH

REF. NO.	NO. REQ'D.	PART NUMBER	DESCRIPTION
1	1	0300261	LEVER
2	1	0300448	KEY
3	1	0300449	SCREW
4	1	0300450	KEY
5	1	0300451	SHAFT
6	1	0300452	CLUTCH HOUSING
7	1	0300398	YOKE
8	1	0300399	SCREW
9	5	0300453	BUSHING
10	1	0300454	SCREW
11	1	0300455	SPRING
12	1	0300456	BALL
13	1	—	CLUTCH
14	1	0300458	SPACER
15	1	0300381	DRUM
16	2	0300459	PLUG
17	1	0300460	HOUSING
18	1	0300461	PLUG
19	1	0300462	REDUCER
20	1	0300463	DRAG BRAKE
21	1	0300464	SPRING
22	16	0300465	SCREW
23	1	0300466	CAP
24	2	0300447	GASKET
25	2	0300467	BEARING
26	1	0300468	WORM
27	1	0300695	SCREW
28	1	0300694	CAP. ADAPTOR
29	1	0300471	SEAL
30*	2	—	KEY
31*	1	—	SHAFT
32*	2	—	KEY
33	1	0300472	HUB
34	1	0300473	GEAR
35	6	0300474	WASHER
36	6	0300475	SCREW
37	1	0300476	GASKET
38	1	0300477	COVER
39	4	0300569	SCREW
40	1	0300290	COUPLING

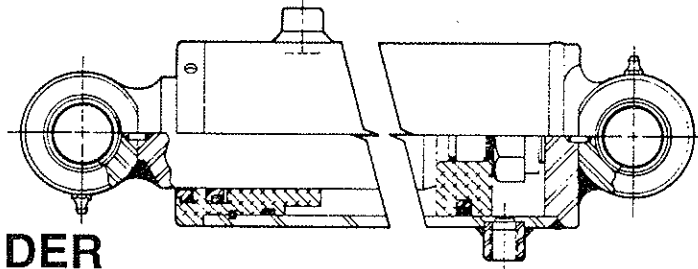
*When ordering specify winch serial number.

SECTION I - PARTS CYLINDERS



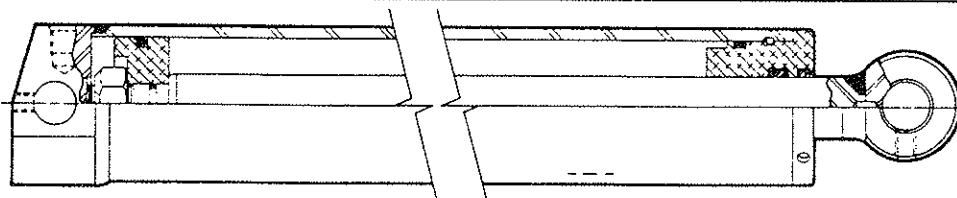
BED EXTEND CYLINDER

REF. NO.	NO. REQ'D.	PART NUMBER	DESCRIPTION
1	1	0301970	BED EXTEND CYLINDER (COMPLETE)
2	—	0304219	SEAL KIT



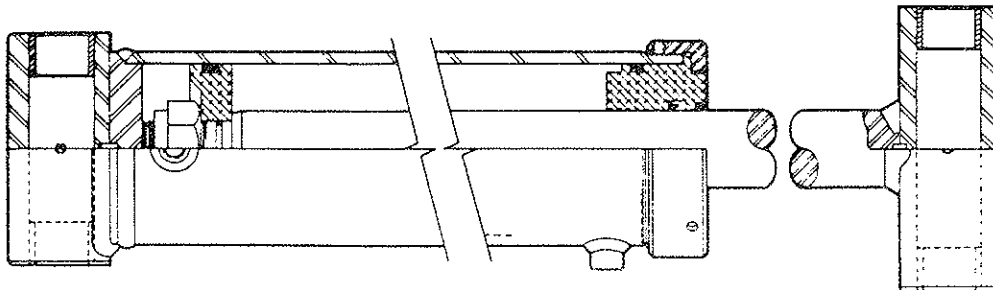
BED TILT CYLINDER

REF. NO.	NO. REQ'D.	PART NUMBER	DESCRIPTION
1	2	0301796	BED TILT CYLINDER (COMPLETE)
2	—	0304219	SEAL KIT



WHEEL LIFT EXTEND CYLINDER

REF. NO.	NO. REQ'D.	PART NUMBER	DESCRIPTION
1	1	0302178	HYDRAULIC CYLINDER, EXTEND (COMPLETE)
2	1	0304086	SEAL KIT, EXTEND CYLINDER

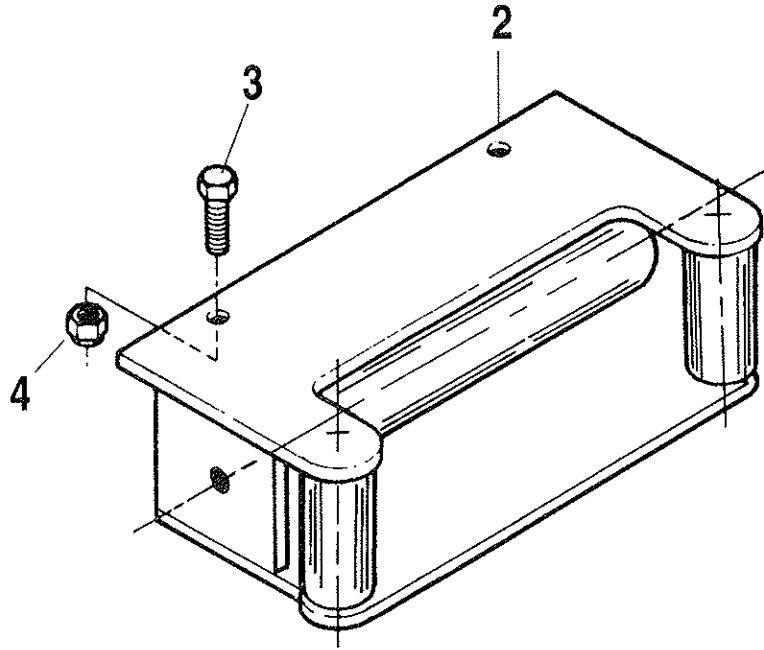


WHEEL LIFT CYLINDER

REF. NO.	NO. REQ'D.	PART NUMBER	DESCRIPTION
1	1	0301484	HYDRAULIC CYLINDER LIFT (COMPLETE)
2	1	0304181	SEAL KIT, LIFT CYLINDER

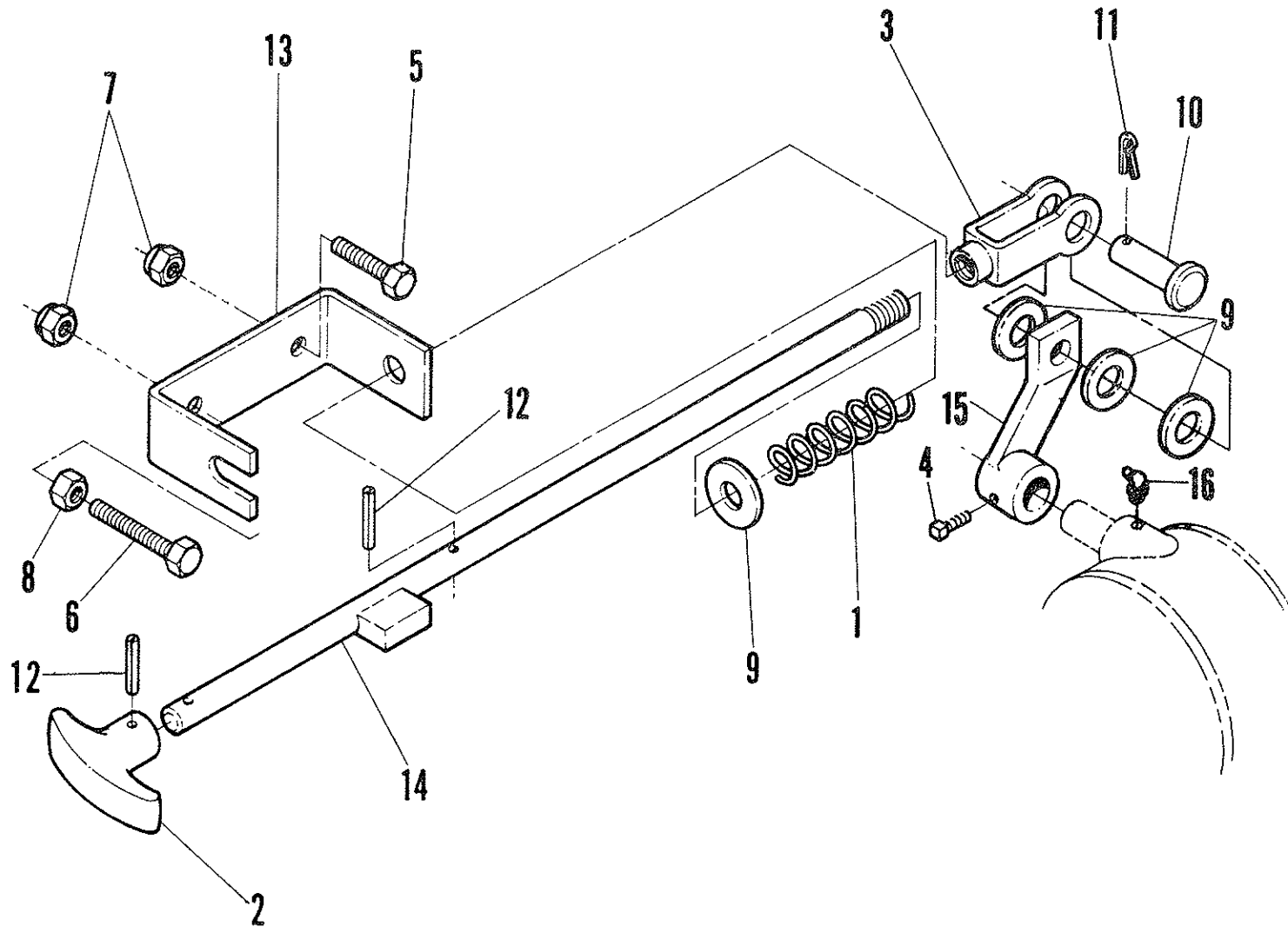
SECTION 1 - OPTIONAL EQUIPMENT

CABLE ROLLER ASS'Y



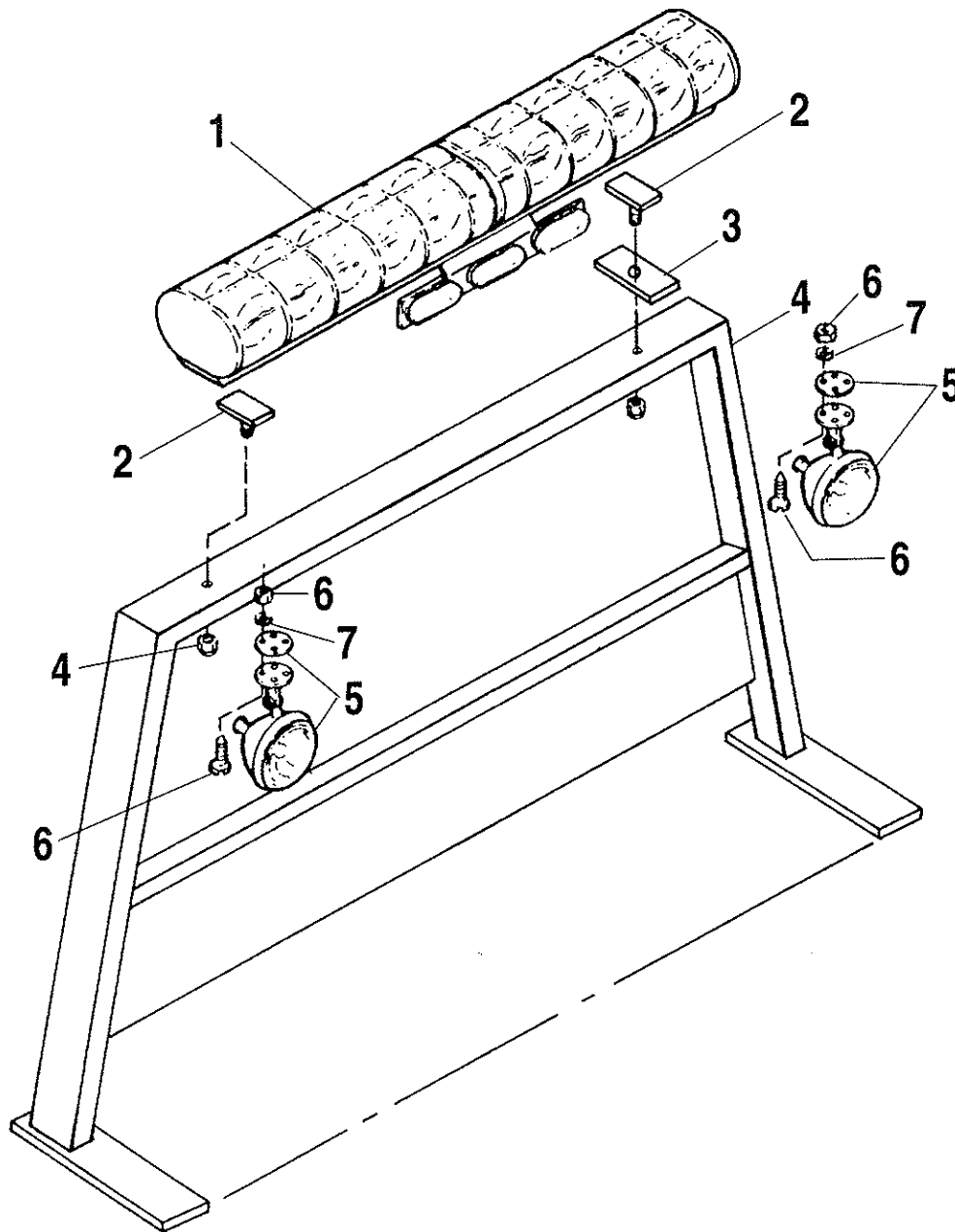
REF. NO.	NO. REQ'D.	PART NUMBER	DESCRIPTION
1	—	0900892	CABLE ROLLER ASS'Y
2	1	0805037	CABLE ROLLER GUIDE WELDMENT
3	2	0400177	SCREW, 1/2" - 13 x 1-1/4" HEX HEAD
4	2	0400408	NUT, 1/2" - 13 NYLON LOCK

SECTION I - OPTIONAL EQUIPMENT WINCH CLUTCH CONTROL



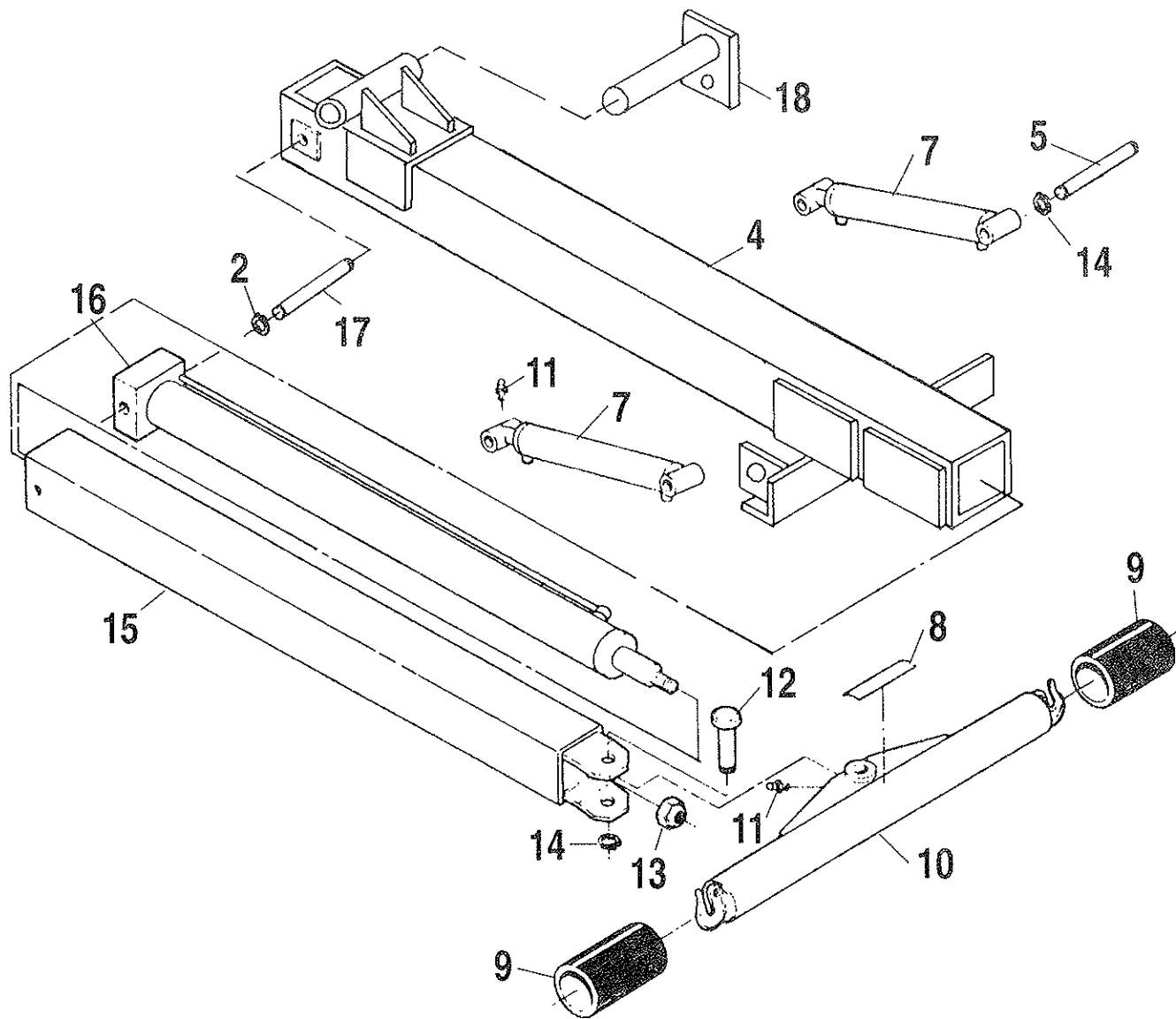
REF. NO.	NO. REQ'D.	PART NUMBER	DESCRIPTION
1	1	0300845	SPRING, COMPRESSION
2	1	0301532	"T" HANDLE
3	1	0301588	ADJUSTING YOKE
4	1	0400116	SCREW, 5/16" - 18 x 1/2" LG. SQ. HD. SET
5	1	0400126	SCREW, 3/8" - 16 x 1" LG. HEX. HD. CAP
6	1	0400150	SCREW, 3/8" - 16 x 2 1/2" LG. HEX. HD. CAP
7	2	0400392	NUT, 3/8" - 16 NYLON LOCK
8	1	0400393	NUT, 3/8" - 16 JAM
9	4	0400492	WASHER, 1/2" FLAT
10	1	0400537	PIN, 1/2" DIA. x 1-1/2" LG. CLEVIS
11	1	0400546	PIN, 1/8" x 1-1/4" LG. COTTER
12	2	0400560	PIN, 5/32: x 1" LG. ROLL
13	1	0702408	MOUNTING CHANNEL
14	1	0800780	CONTROL ROD, SINGLE WINCH
15	1	0801270	WELDMENT, BELL CRANK
16	1	0301397	GREASE FITTING 90°

SECTION I - OPTIONAL EQUIPMENT LIGHTING ACCESSORIES



REF. NO.	NO. REQ'D.	PART NUMBER	DESCRIPTION
1	1	0301359	WRECKER SPECIAL LIGHT
2	2	0800539	"T" BOLT ADAPTOR
3	2	0709872	RUBBER CUSHION
4	2	0400392	NUT, 3/8" - 16 NYLON LOCK
5	2	0300095	SPOTLIGHT W/GASKET
6	8	0400043	SCREW, #10 - 24 x 1" MACHINE
6	8	0400356	NUT, #10 NYLON LOCK
7	8	0400520	WASHER, #10 LOCK

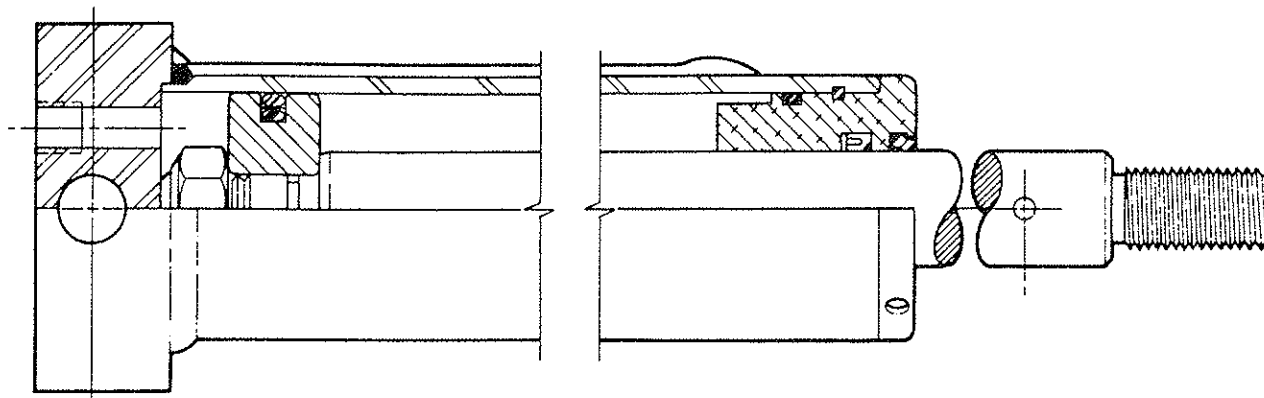
SECTION I - OPTIONAL EQUIPMENT INDEPENDENT TOW BAR ASSEMBLY



REF. NO.	NO. REQ'D.	PART NUMBER	DESCRIPTION
1			TOW BAR ASSEMBLY (COMPLETE)
2	2	0301381	SNAP RING, 3/4"
4	1	0802670	TUBE, TOW BAR OUTER
5	2	0702434	PIN, CYLINDER
7	2	0302368	CYLINDER, TOW BAR
8	1	0500241	DECAL, SAFETY CHAIN WARNING
9	2	0301723	GUARD, TOW BAR BUMPER
10	1	0800898	CROSSTUBE, TOW BAR
11	3	0300113	GREASE FITTING
12	1	0301424	PIN, CONNECTOR
13	1	0400436	NUT
14	4	0301642	SNAP RING, 1-1/4"
15	1	0800777	TUBE, TOW BAR INNER
16	1	0301632	CYLINDER, TOW BAR EXTEND
17	1	0702418	SHAFT, EXTEND CYLINDER
18	1	0805030	SHAFT, TOW BAR PIVOT, PIN WITH KEEPER

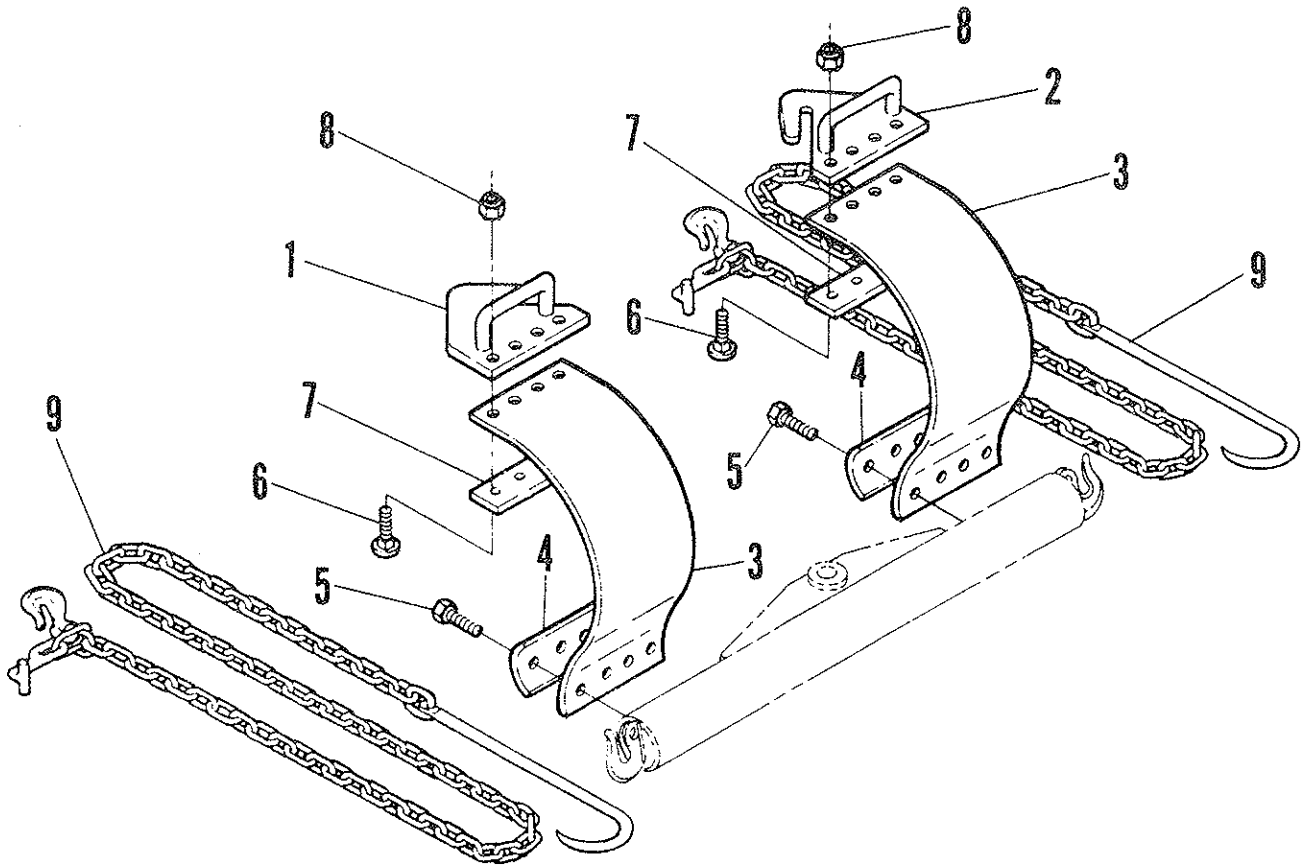
SECTION I - OPTIONAL EQUIPMENT

HYDRAULIC CYLINDER (TOW BAR)



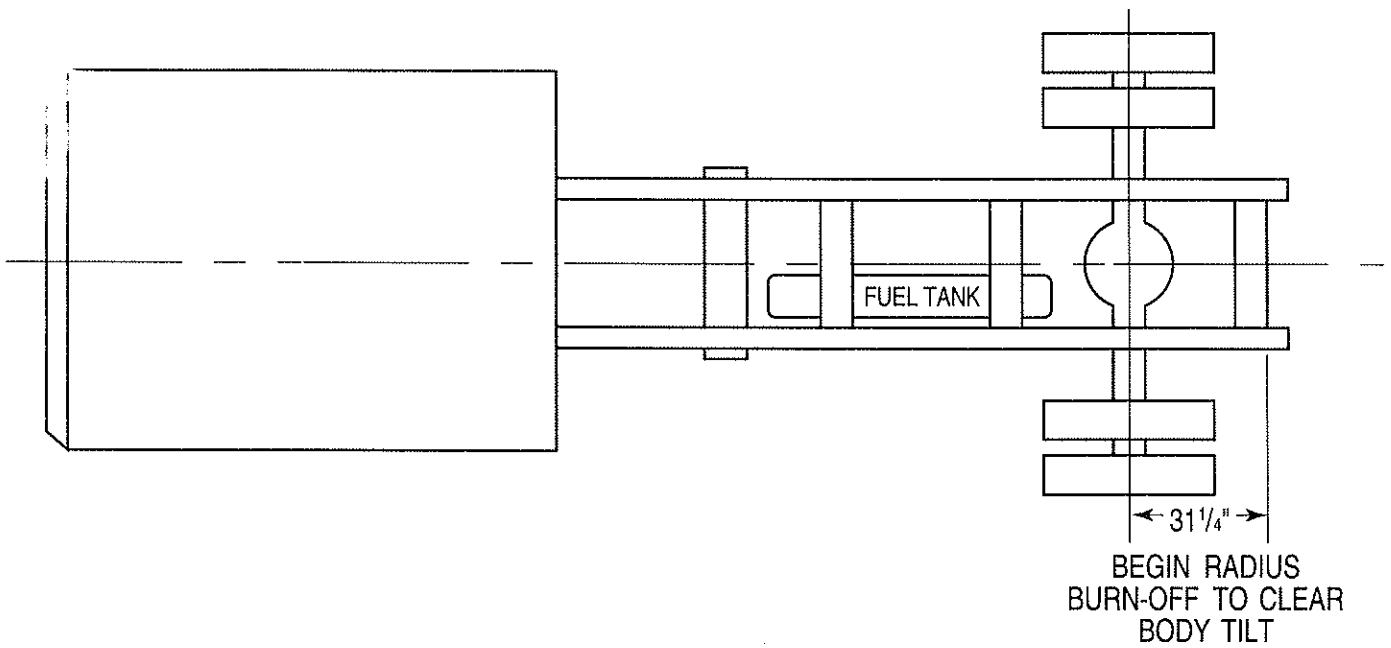
REF. NO.	NO. REQ'D.	PART NUMBER	DESCRIPTION
1	1	0301798	TOW BAR CYLINDER (COMPLETE)
2	—	0304220	SEAL KIT

SECTION I - OPTIONAL EQUIPMENT TOWING SLING

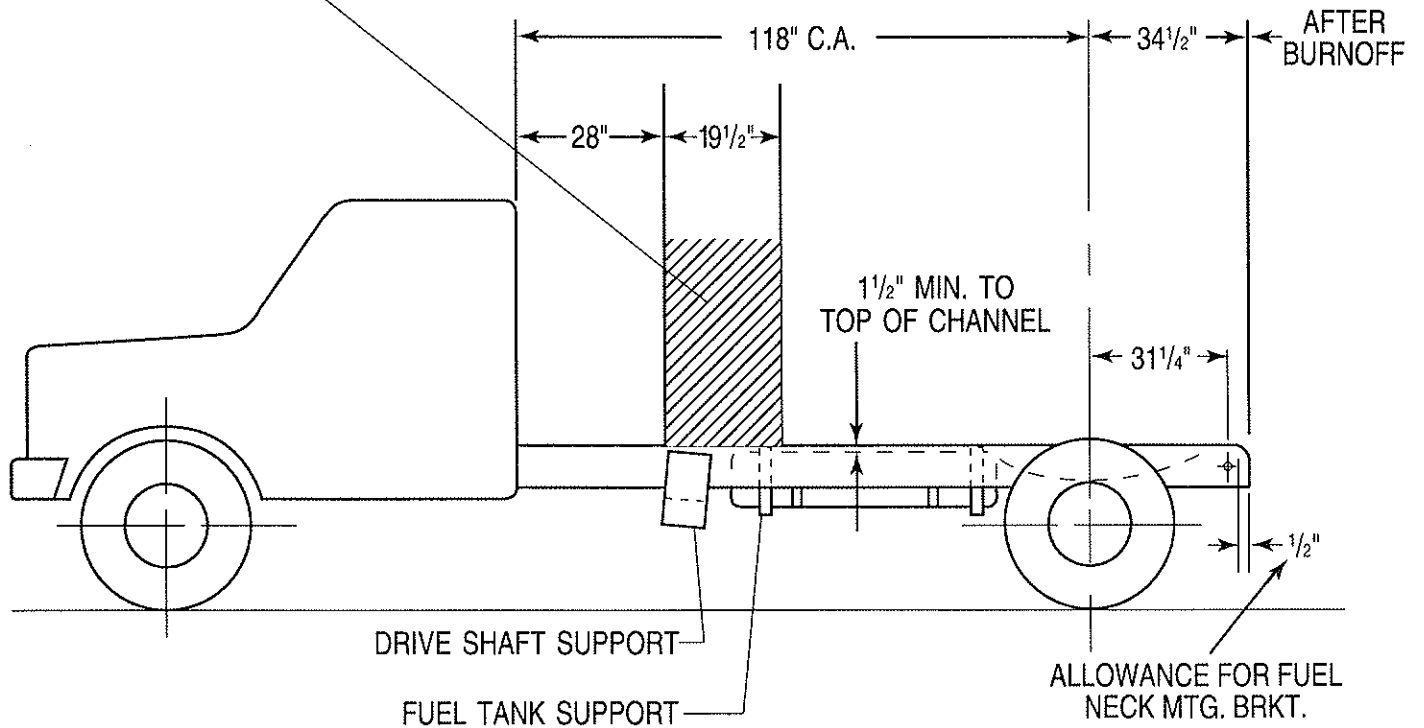


REF. NO.	NO. REQ'D.	PART NUMBER	DESCRIPTION
1	1	0800608	CHAIN KEEPER, LEFT
2	1	0800609	CHAIN KEEPER, RIGHT
3	2	0701919	TOW SLING BELT
4	2	0800873	BELT RETAINER
5	8	0400105	SCREW, 5/16" - 18 x 1-1/4" LG. SELF-TAPPING
6	8	0400156	CARRIAGE BOLT, 3/8" - 16 x 1-1/4" LG.
7	2	0701920	GRIP PLATE
8	8	0400392	NUT, 3/8" - 16 NYLON LOCK
9	2	0300176	"J" HOOK ASSEMBLY

SECTION II - 19' CARRIER CHASSIS PREPARATION

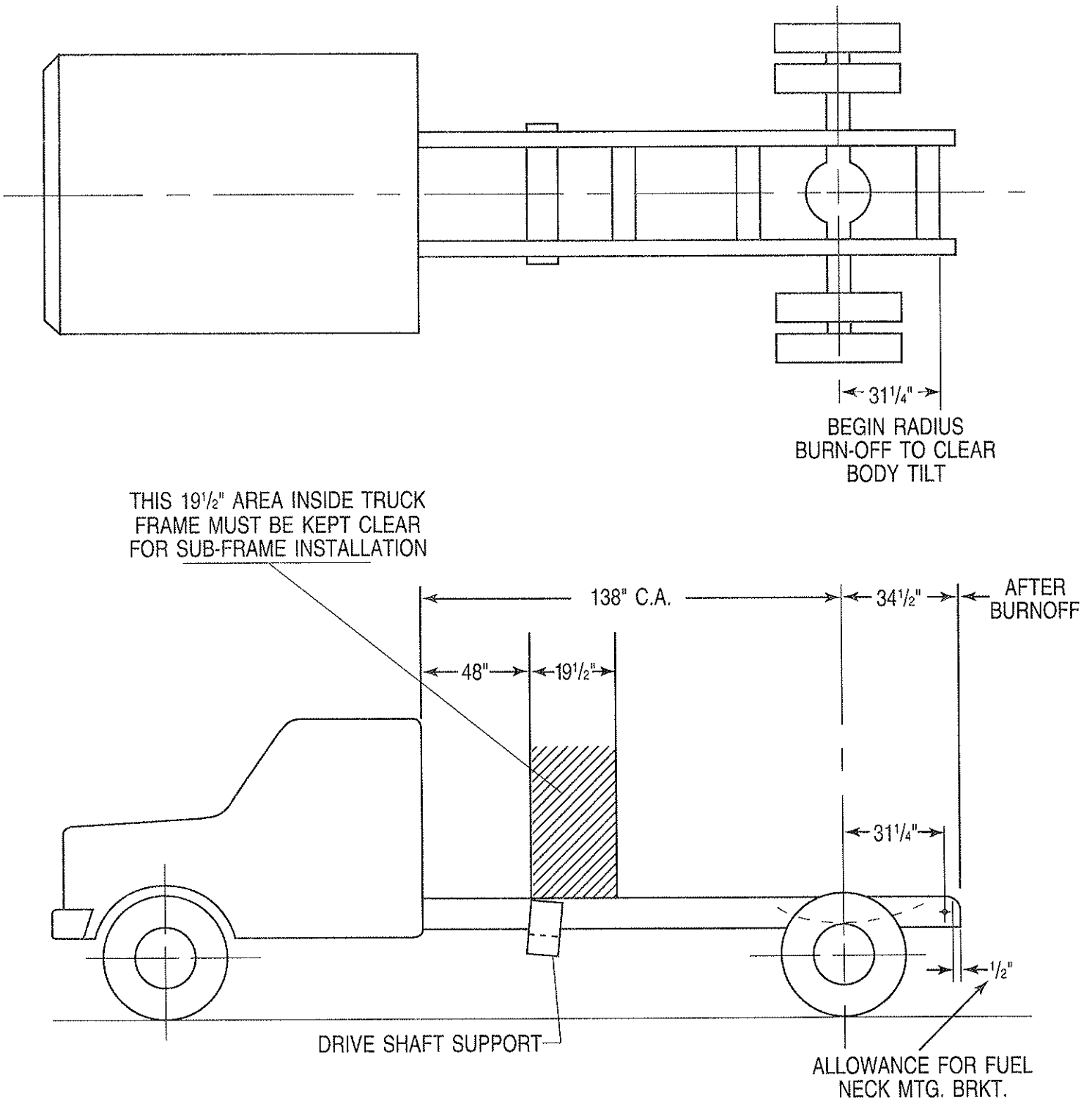


THIS 19 1/2" AREA INSIDE TRUCK
FRAME MUST BE KEPT CLEAR
FOR SUB-FRAME INSTALLATION



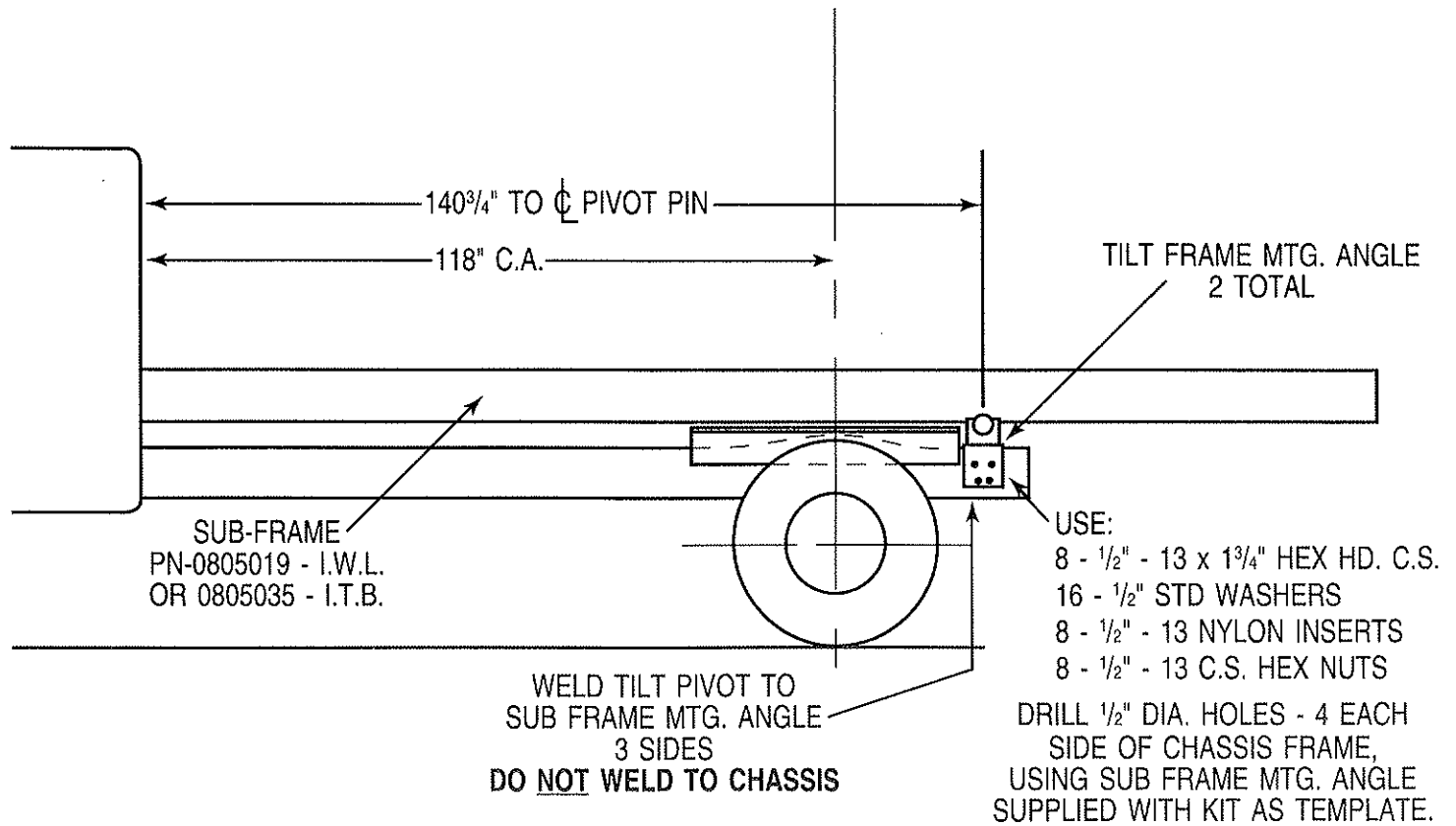
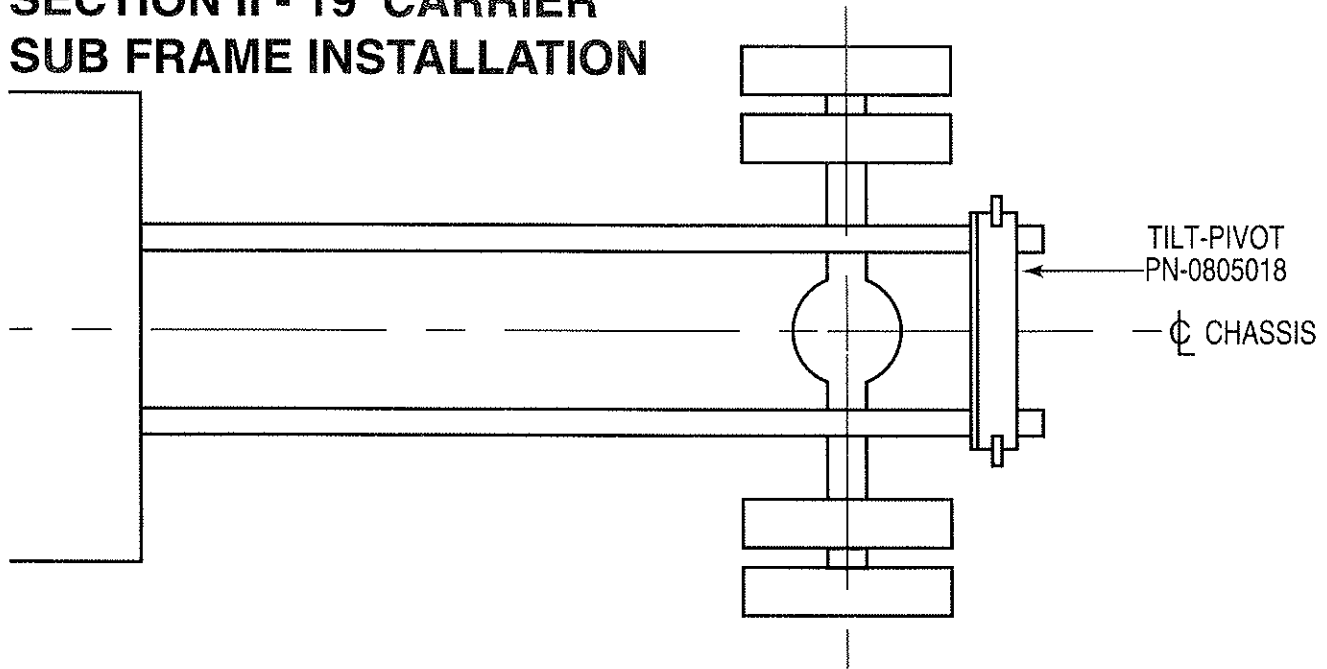
— CHASSIS PREPARATION —
BEFORE SUBFRAME AND
BODY INSTALLATION.

SECTION II - 21' CARRIER CHASSIS PREPARATION

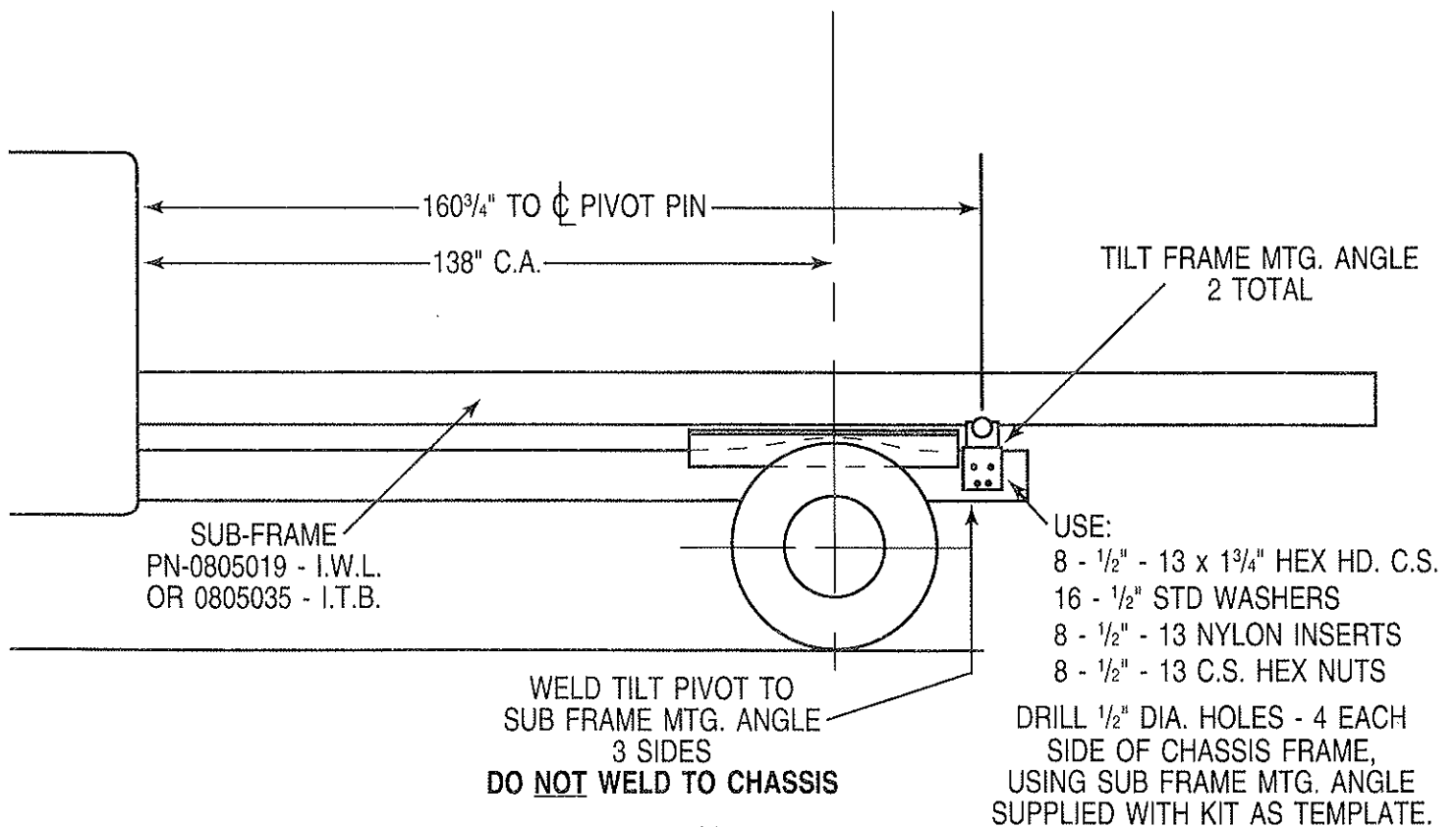
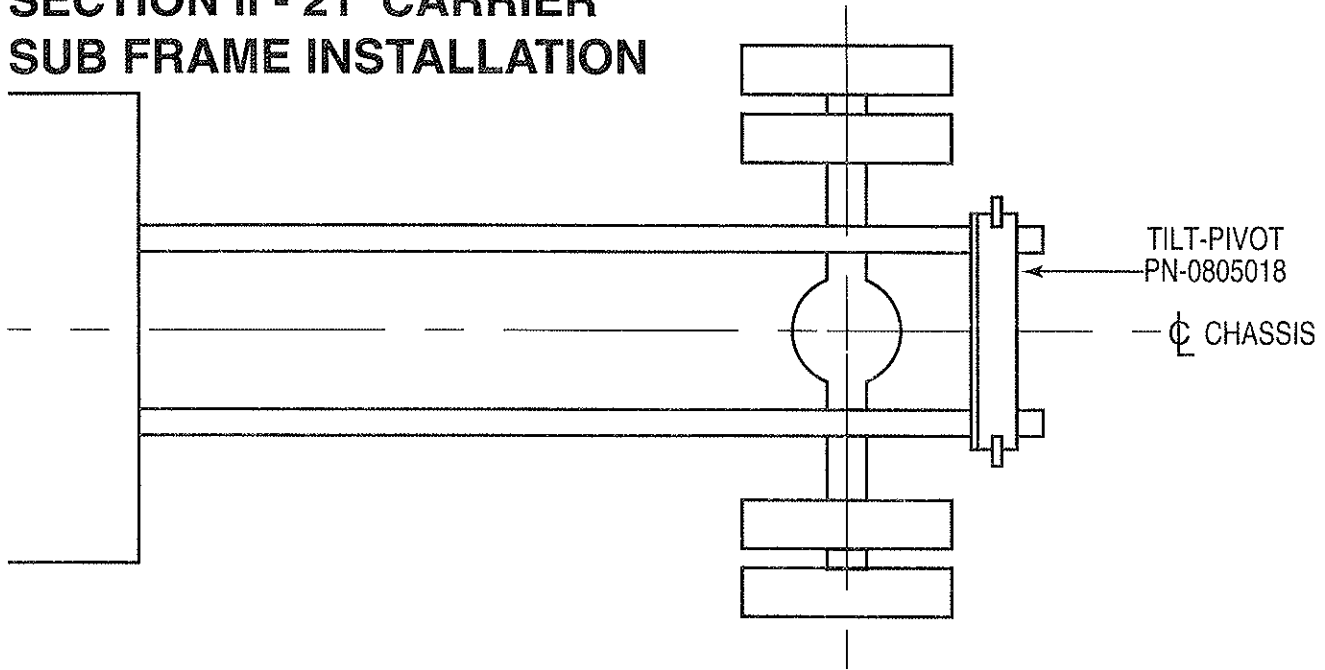


— CHASSIS PREPARATION —
BEFORE SUBFRAME AND
BODY INSTALLATION.

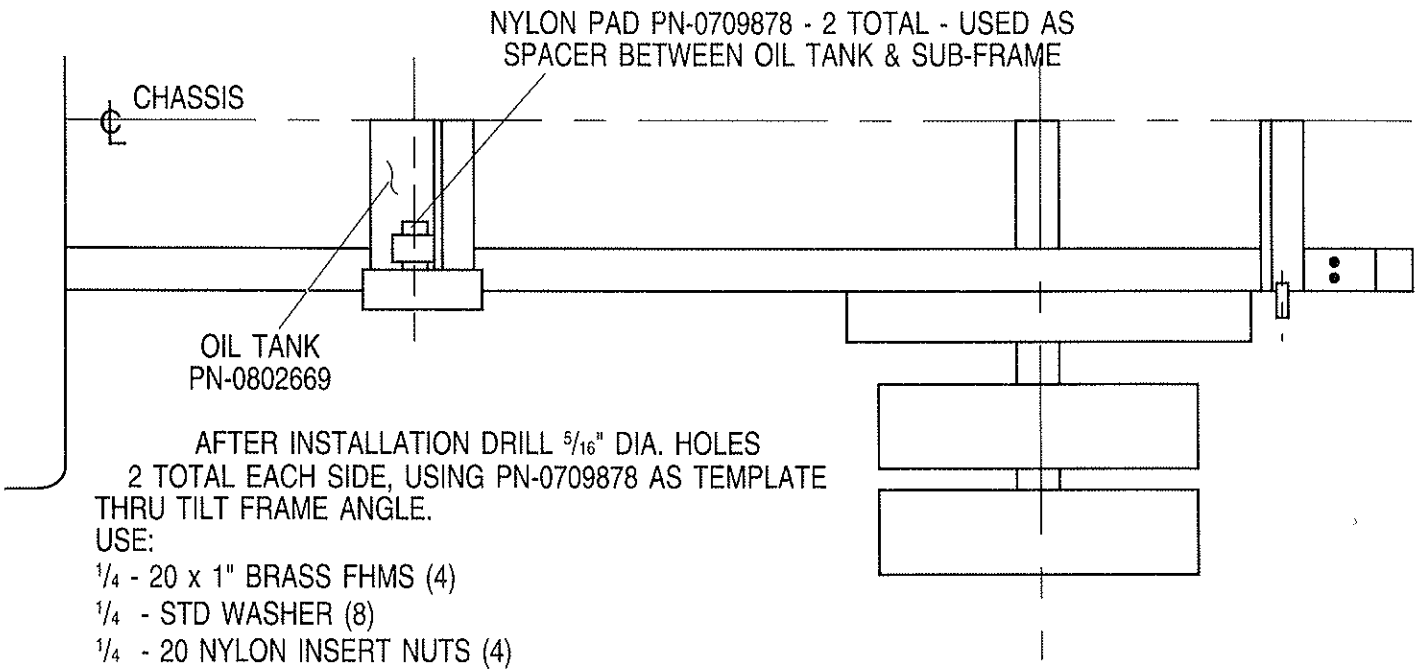
SECTION II - 19' CARRIER SUB FRAME INSTALLATION



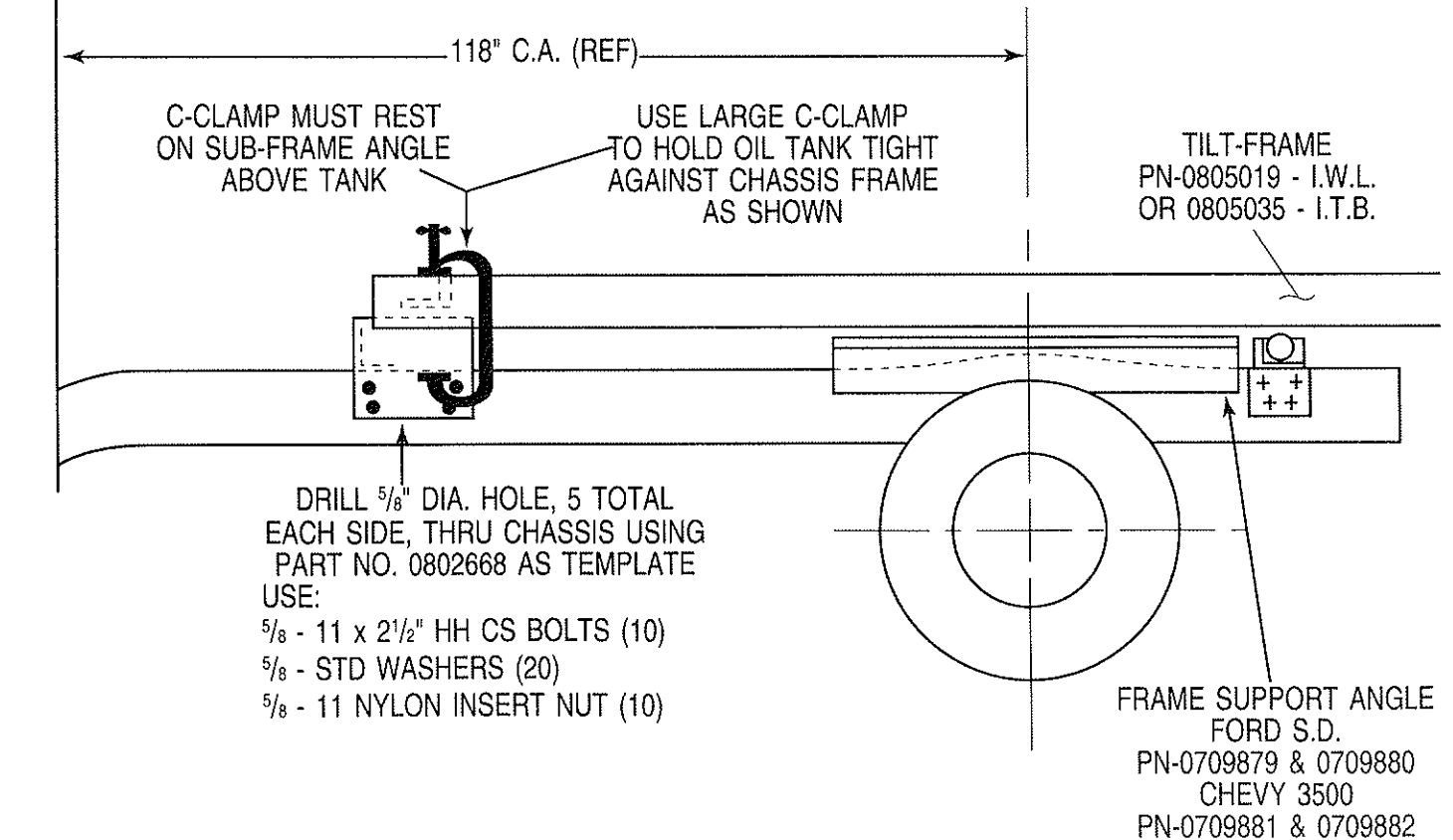
SECTION II - 21' CARRIER SUB FRAME INSTALLATION



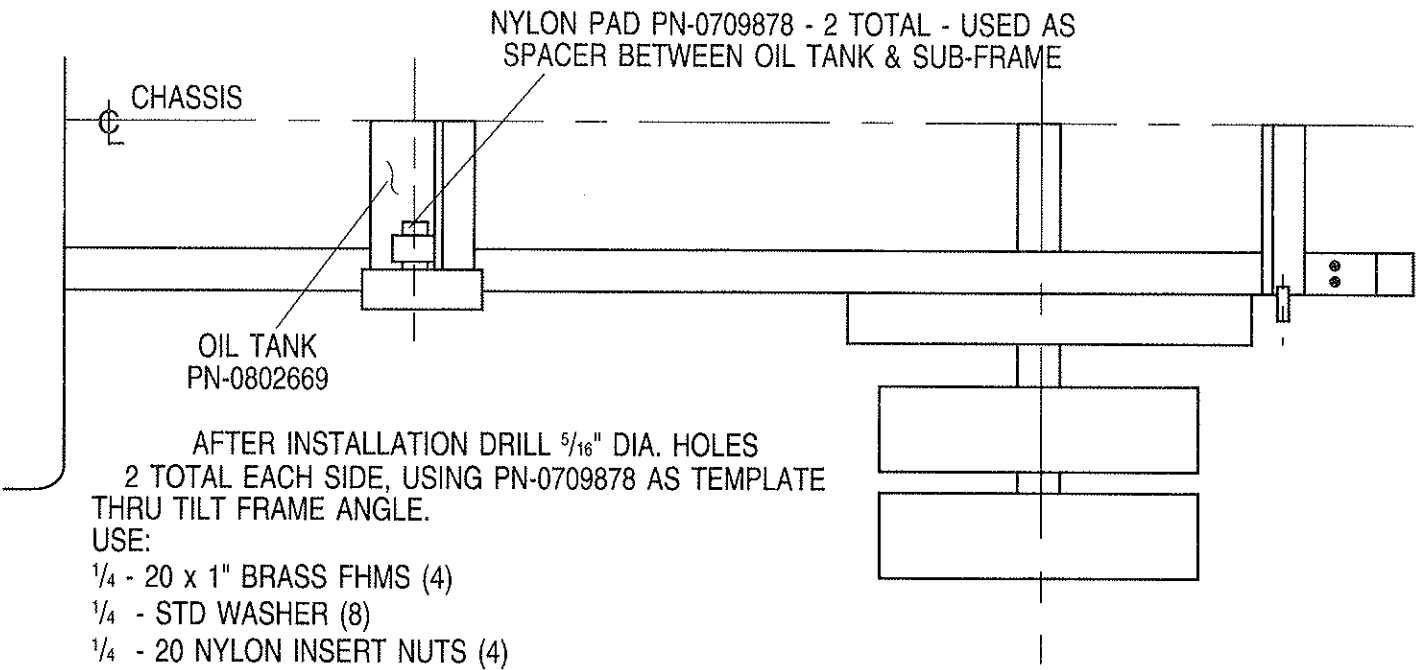
SECTION II - 19' CARRIER OIL TANK INSTALLATION



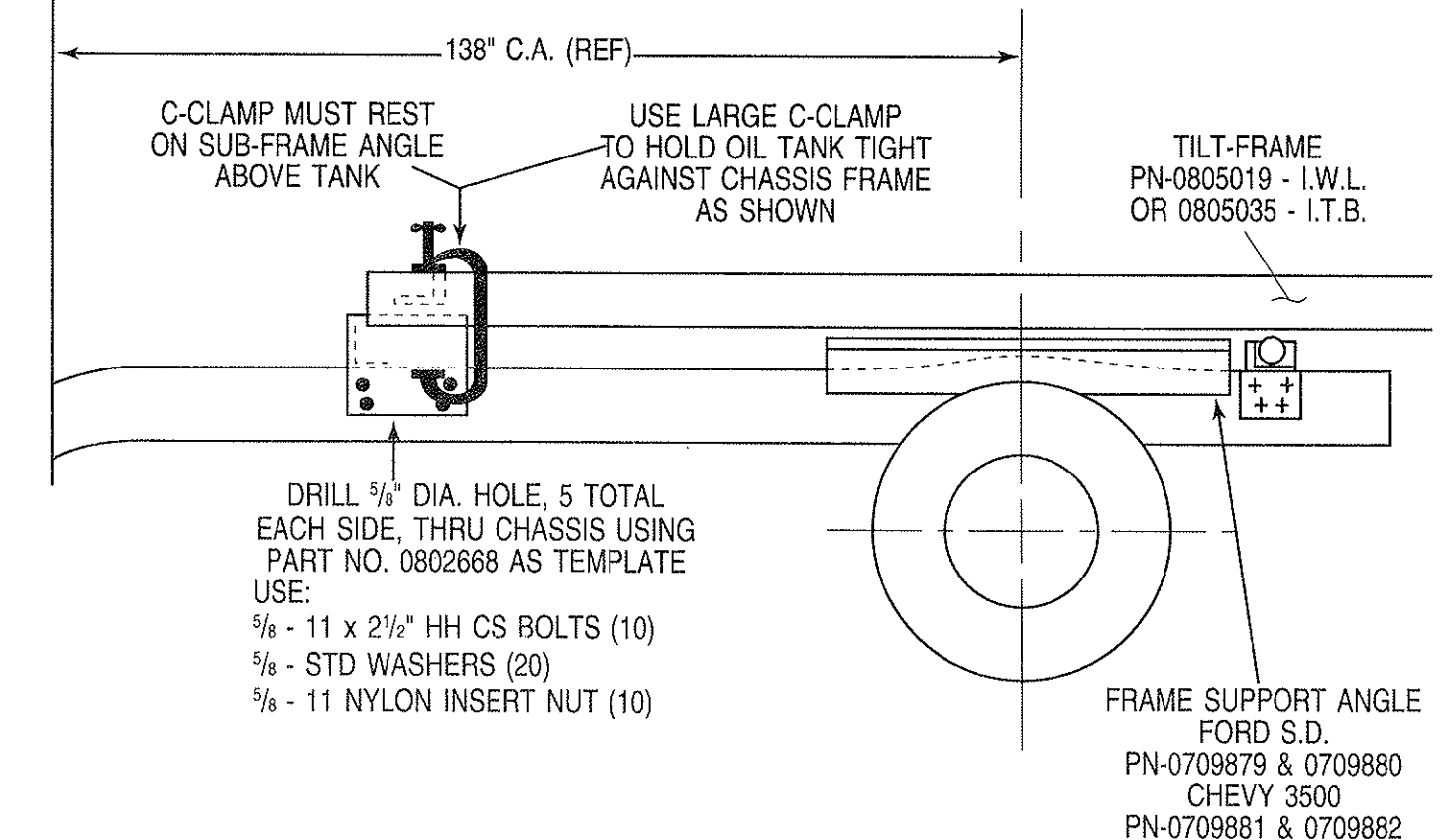
CAUTION NOTE: NYLON PADS (PN-0709878) TO BE
INSTALLED ONLY AFTER OIL TANK HAS BEEN PROPERLY
LOCATED AND MOUNTED - WITH NO CYLINDER EXTENDED.



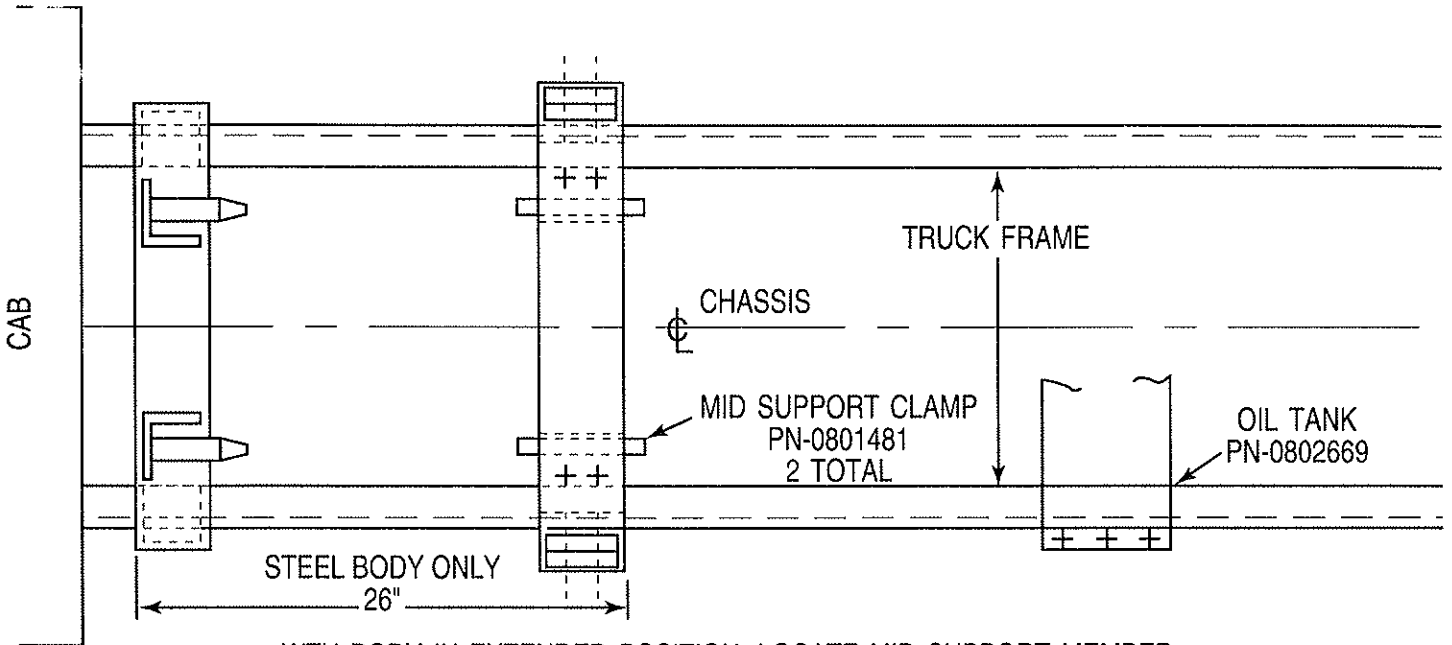
SECTION II - 21' CARRIER OIL TANK INSTALLATION



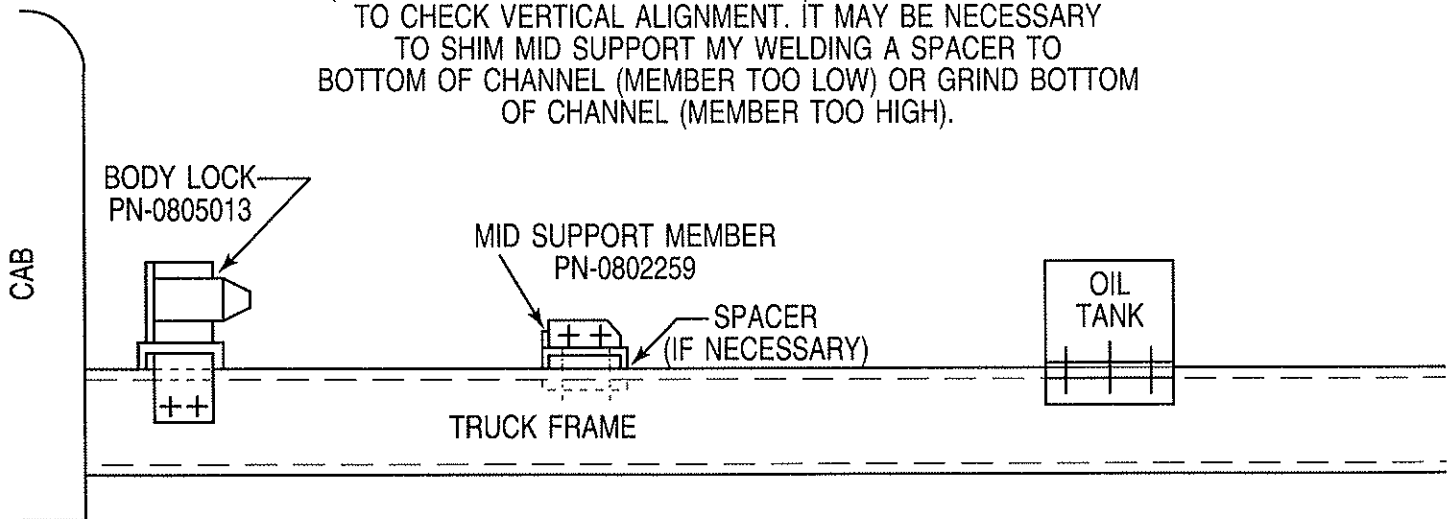
CAUTION NOTE: NYLON PADS (PN-0709878) TO BE
INSTALLED ONLY AFTER OIL TANK HAS BEEN PROPERLY
LOCATED AND MOUNTED - WITH NO CYLINDER EXTENDED.



SECTION II - 21' CARRIER MID SUPPORT MEMBER INSTALLATION

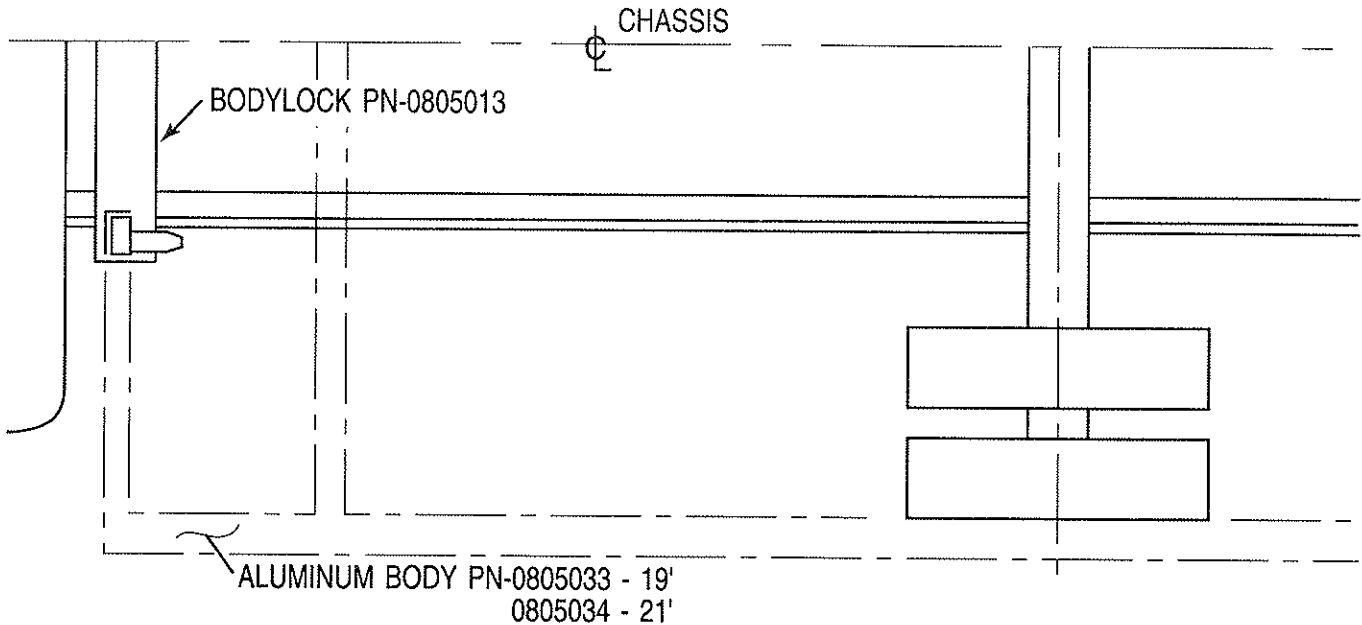


WITH BODY IN EXTENDED POSITION, LOCATE MID SUPPORT MEMBER APPROXIMATELY MIDWAY BETWEEN BEDLOCK & OIL TANK. (LOCATE TO CLEAR CROSS MEMBER). SLIDE BODY FORWARD TO CHECK VERTICAL ALIGNMENT. IT MAY BE NECESSARY TO SHIM MID SUPPORT BY WELDING A SPACER TO BOTTOM OF CHANNEL (MEMBER TOO LOW) OR GRIND BOTTOM OF CHANNEL (MEMBER TOO HIGH).



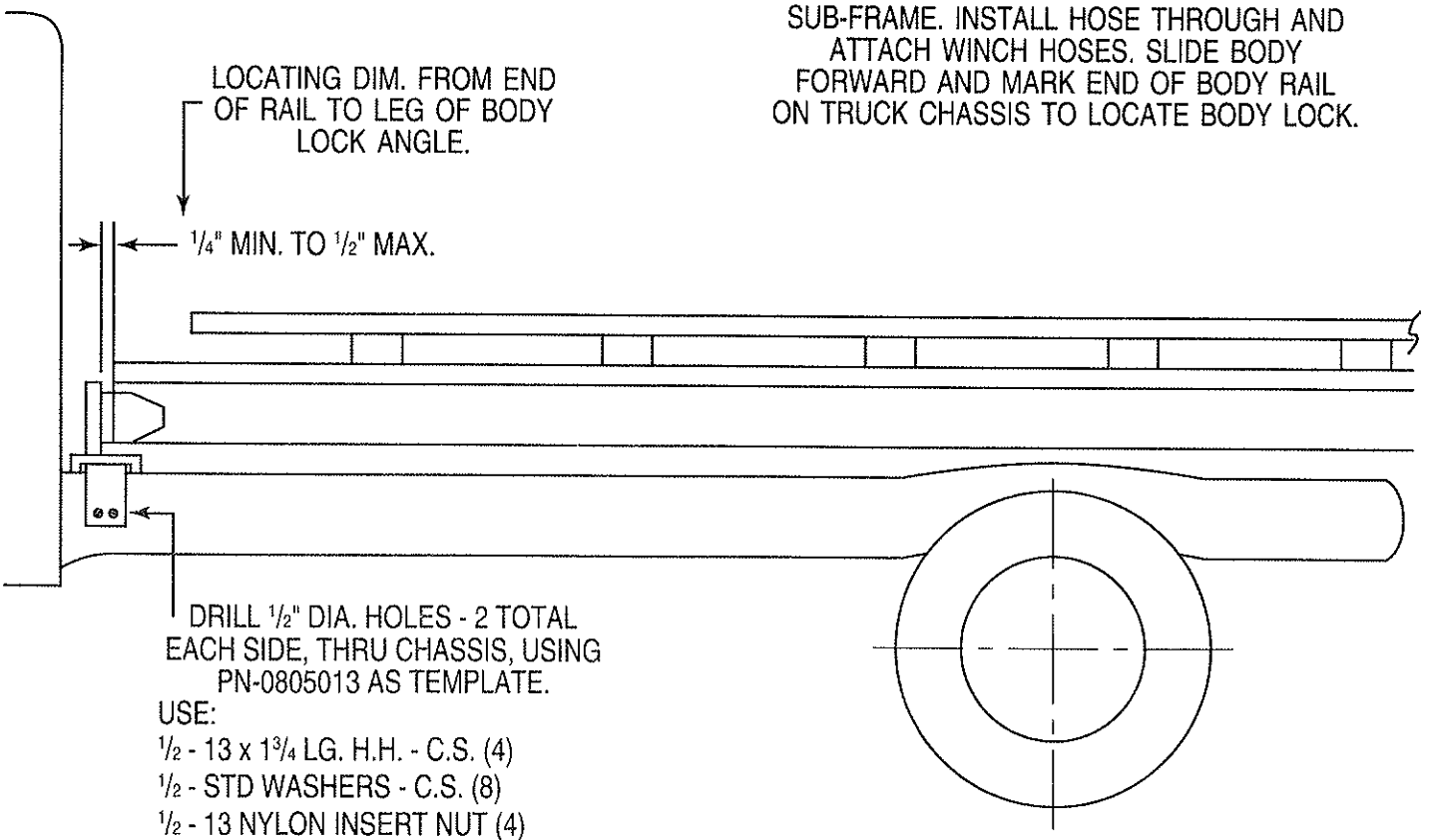
NOTE ON STEEL BODY
MID SHIP MEMBER
MAXIMUM DISTANCE FROM
BODYLOCK IS 26".

SECTION II - FORD SUPER DUTY CARRIER BODYLOCK INSTALLATION

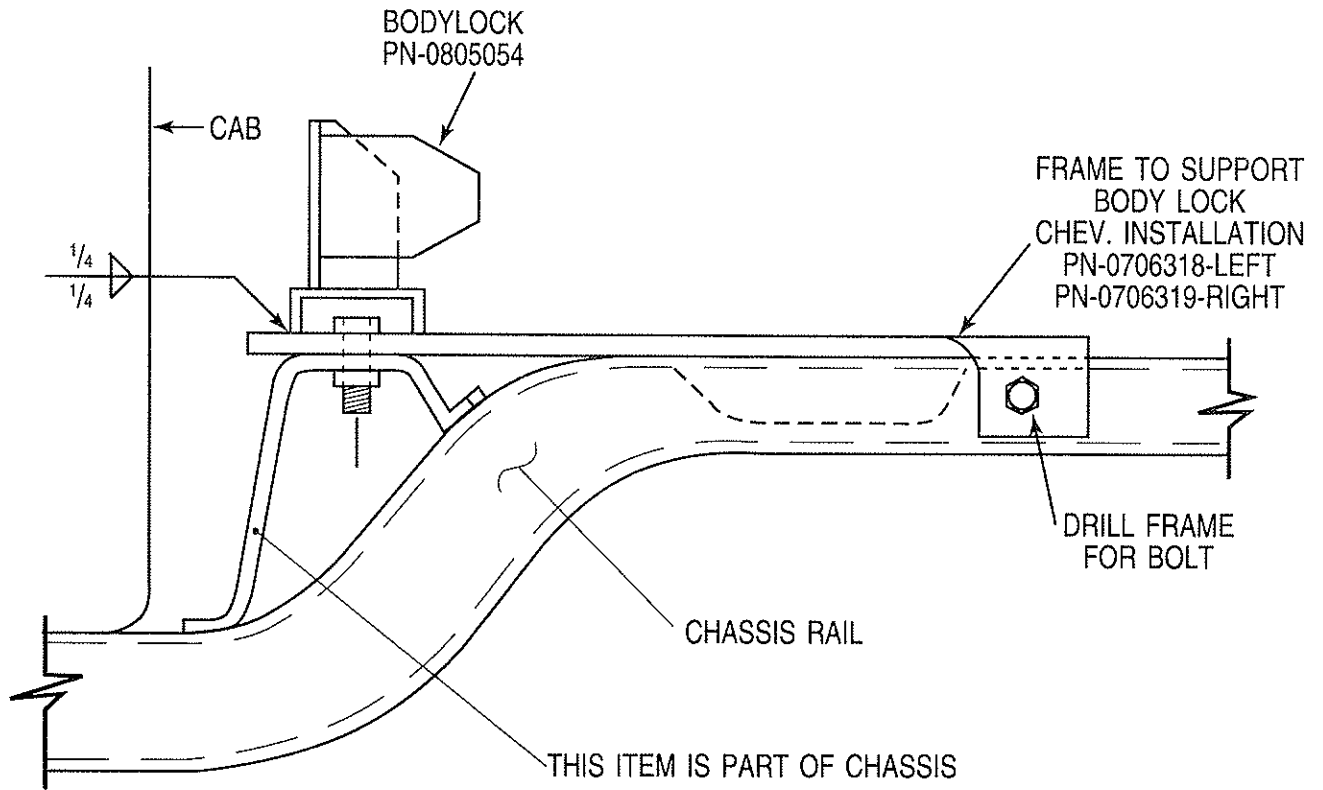


CAUTION NOTE:
WINCH HOSES MUST LAY FLAT
IN HOSE TRAY TO PREVENT HOSE
DAMAGE WHEN INSTALLING BODY
TO SUB-FRAME.

BODYLOCK INSTALLATION
AFTER SLIDING BODY ONTO SUB-FRAME
AND ATTACHING CYLINDER TO BODY,
TIGHTEN OTHER END OF CYLINDER AT
SUB-FRAME. INSTALL HOSE THROUGH AND
ATTACH WINCH HOSES. SLIDE BODY
FORWARD AND MARK END OF BODY RAIL
ON TRUCK CHASSIS TO LOCATE BODY LOCK.



SECTION II - CHEVY 3500 & HD3500 ONLY



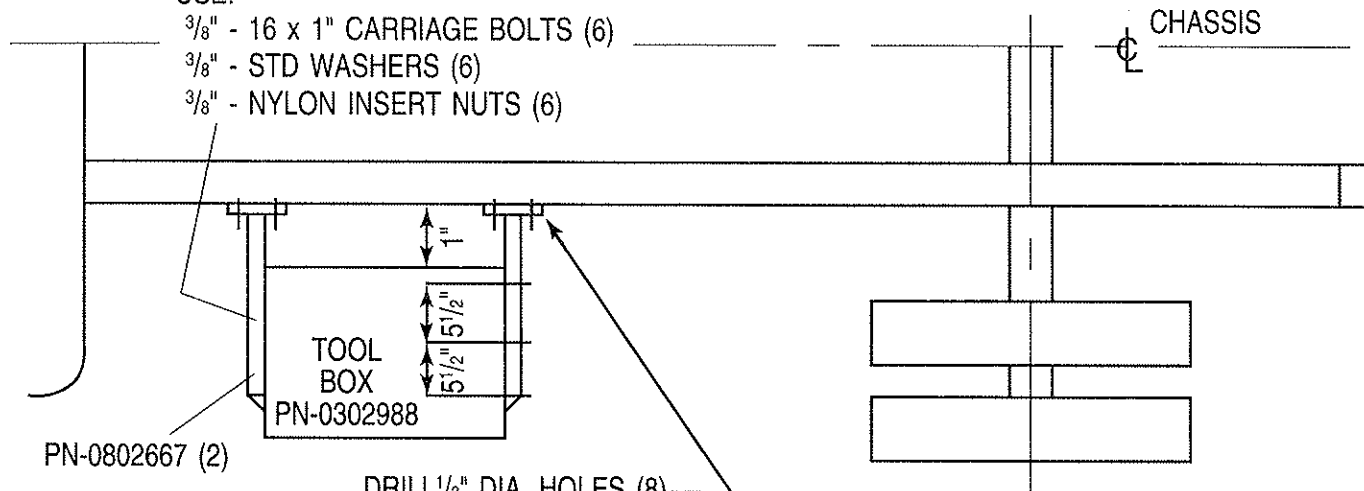
SECTION II - 19' OR 21' CARRIER TOOL BOX MOUNTING

DRILL $\frac{7}{16}$ " DIA. HOLES (6) THRU BOX
USE:

$\frac{3}{8}$ " - 16 x 1" CARRIAGE BOLTS (6)

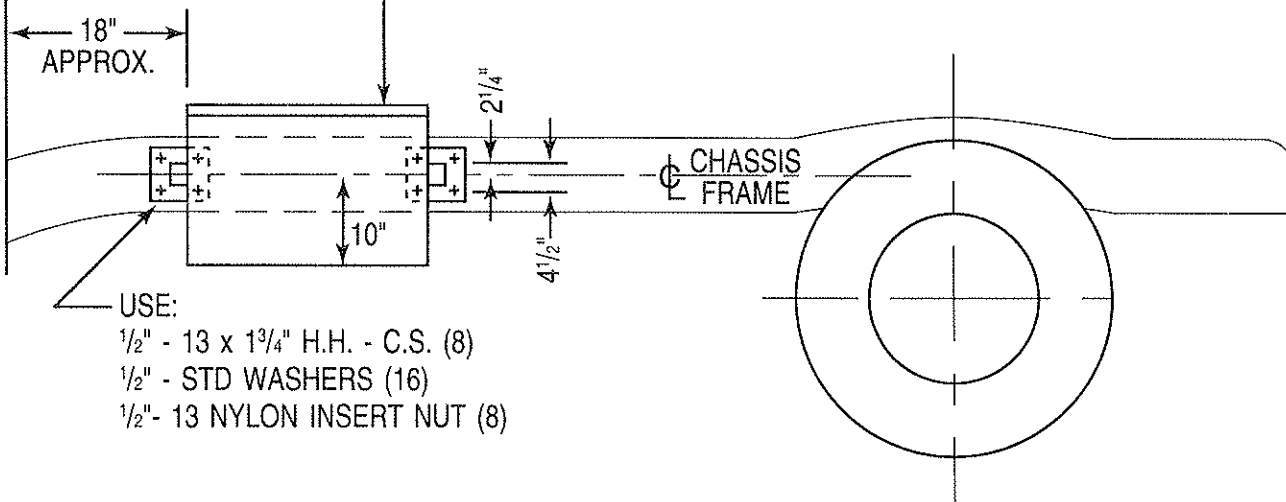
$\frac{3}{8}$ " - STD WASHERS (6)

$\frac{3}{8}$ " - NYLON INSERT NUTS (6)



DRILL $\frac{1}{2}$ " DIA. HOLES (8)
USING TOOL BOX
AS TEMPLATE AFTER
ASSEMBLING MOUNTING
BRACKETS TO TOOL BOX.

• CAUTION NOTE •
CHECK FOR CLEARANCE
BETWEEN TOOL BOX AND
BODY BEFORE DRILLING
HOLES IN TRUCK CHASSIS.



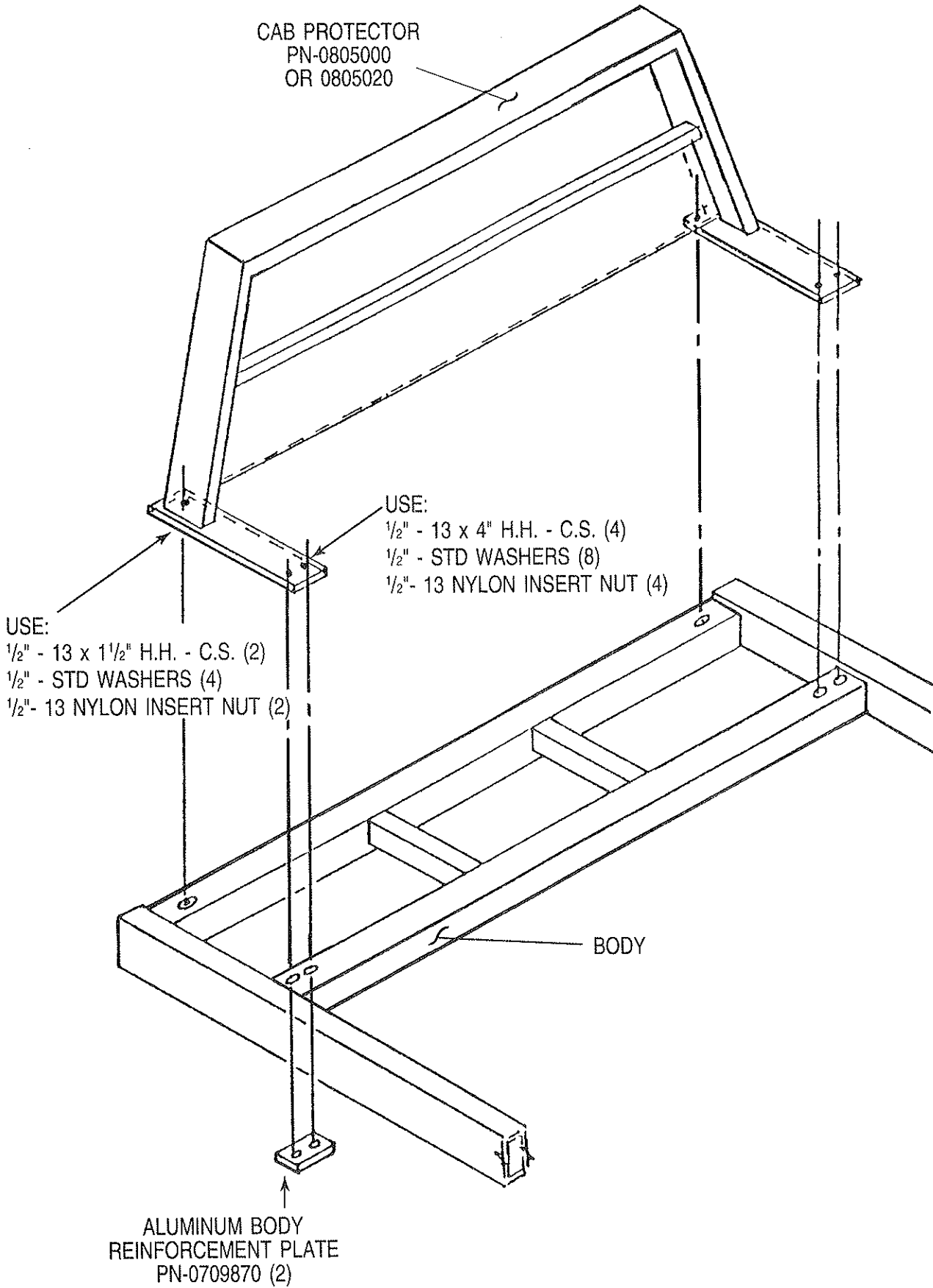
USE:

$\frac{1}{2}$ " - 13 x $1\frac{3}{4}$ " H.H. - C.S. (8)

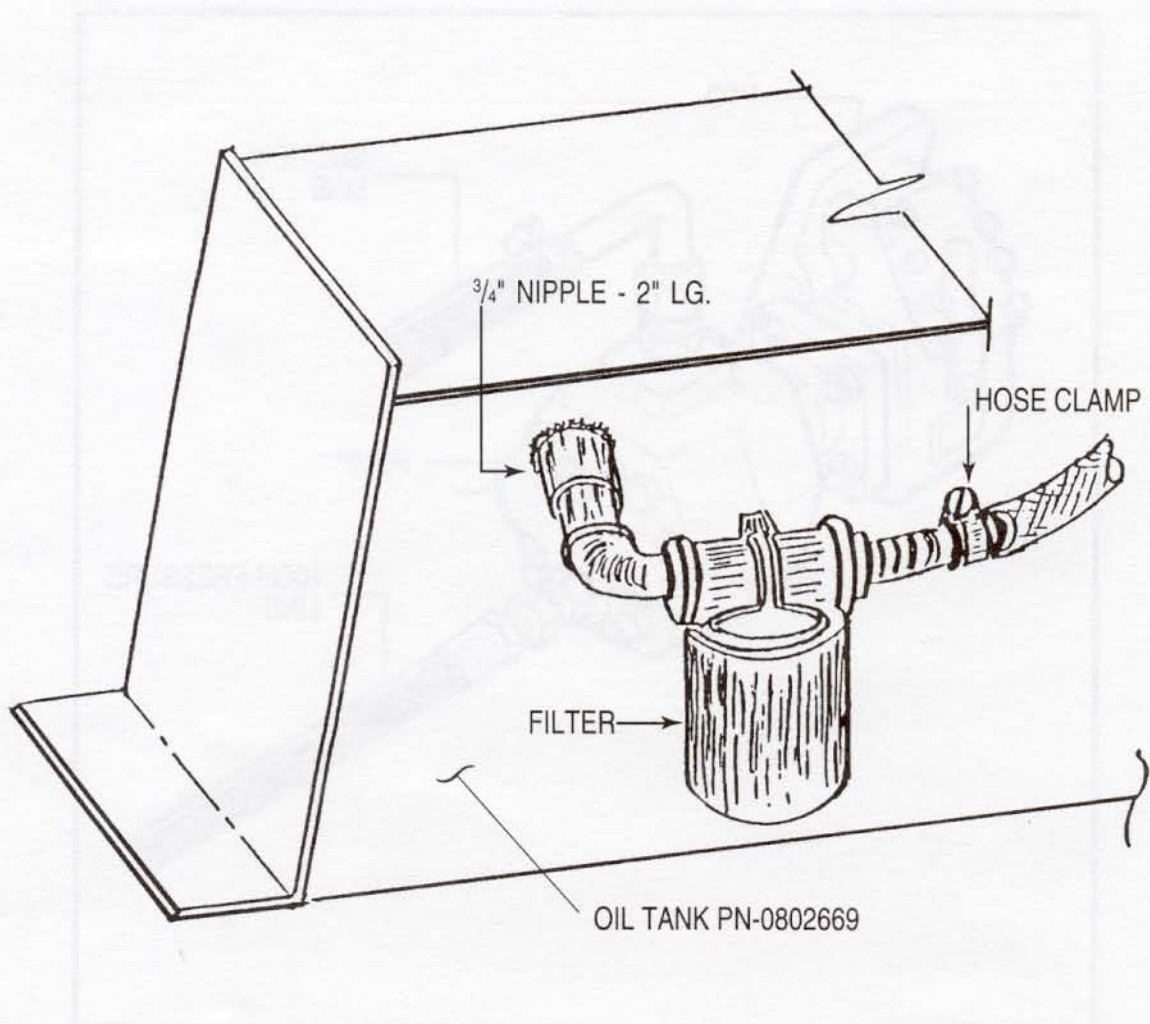
$\frac{1}{2}$ " - STD WASHERS (16)

$\frac{1}{2}$ " - 13 NYLON INSERT NUT (8)

SECTION II - CARRIER CAB PROTECTOR



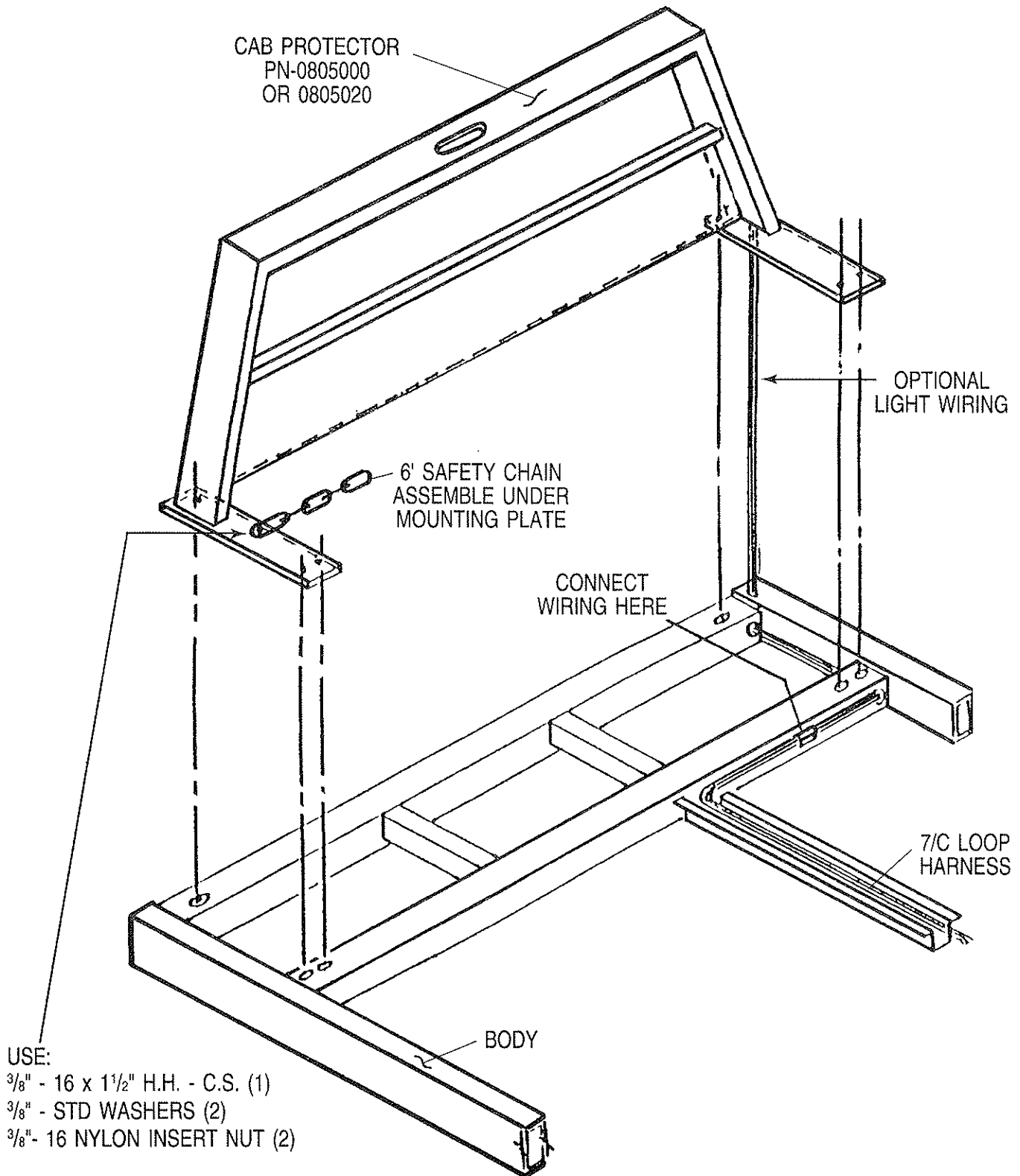
SECTION II - CARRIER OIL RESERVOIR FILTER



CAUTION

MAKE SURE THAT OIL RESERVOIR IS FULL BEFORE OPERATING UNIT. — FILL OIL TANK TO 1½" BELOW TOP OF TANK WITH BODY EXTENDED FOUR FEET AND ALL OTHER CYLINDERS COLLAPSED.

SECTION II - CARRIER CAB PROTECTOR - WIRING INSTALLATION AND SAFETY CHAIN INSTALLATION



NOTES

Section VII - SCHEMATICS

801 HYDRAULIC SCHEMATIC

A series of horizontal lines for writing notes, with a faint hydraulic schematic diagram visible in the background.

