

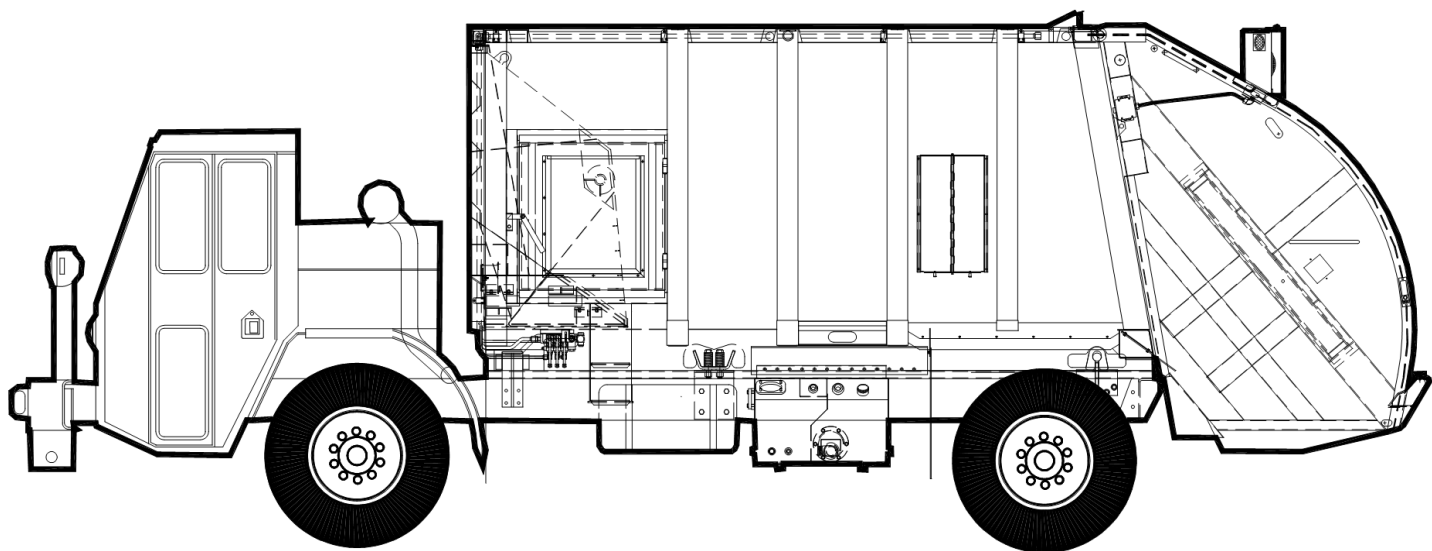


NYC Formula® 4000 20 Yd. Alley Truck
25DR SERIES 001-008

PARTS AND SERVICE MANUAL

ISSUED JANUARY 2015

TP1NYF4-PSM-0115



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**Environmental
Solutions Group**

Environmental Solutions Group
201 W. Main Street, Ste 300
Chattanooga, TN 37408
Heil Customer Care: 866.275.4345



WARNING

IF INCORRECTLY USED, THIS EQUIPMENT CAN CAUSE SEVERE INJURY. THOSE WHO USE AND MAINTAIN THE EQUIPMENT SHOULD BE TRAINED IN ITS PROPER USE, WARNED OF ITS DANGERS, AND SHOULD READ AND FULLY UNDERSTAND THIS ENTIRE MANUAL BEFORE ATTEMPTING TO SET UP, OPERATE, ADJUST OR SERVICE THE EQUIPMENT. KEEP THIS MANUAL FOR FUTURE REFERENCE

IMPORTANT SAFETY NOTICE

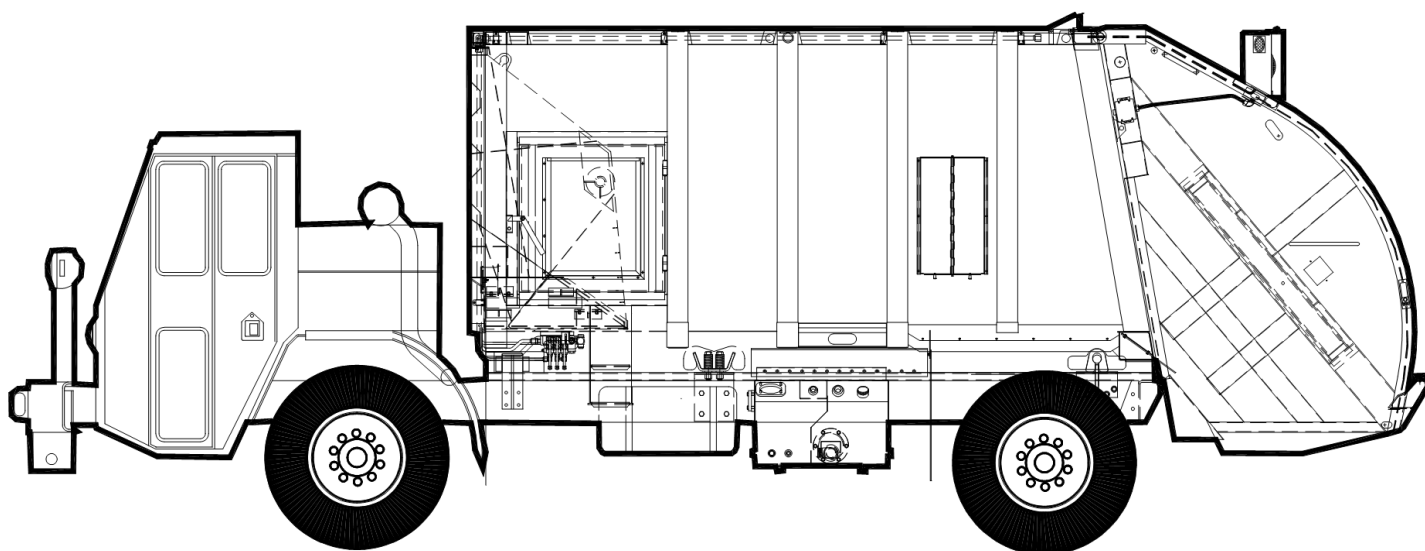
Proper service and repair are important to the safe, reliable operation of the Heil Co.'s products. Service procedures recommended by Heil are described in this service manual and are effective for performing service operations. Some of these service operations may require the use of tools or blocking devices specially designed for the purpose. Special tools should be used when and as recommended. It is important to note that some warnings against the use of specific methods that can damage the product or render it unsafe are stated in the service manual. It is also important to understand these warnings are not exhaustive. Heil could not possibly know, evaluate and advise the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each method. Consequently, Heil has not undertaken any such broad evaluations. Accordingly, anyone who uses service procedures or tools which are not recommended by Heil must first satisfy himself thoroughly that neither his safety nor the product safety will be jeopardized by the method he selects.

“Heil Environmental, as manufacturer of the equipment that is covered by this manual, is providing a product to the user who has acknowledged to have superior knowledge of the conditions of the use to which the product will be put. Heil Environmental relies upon the user's superior knowledge in specifying any changes or modifications including, but not limited to, the inclusion or non inclusion of options that are required by the user and the Heil product, and for the particular application of the user relative to the Heil product.”



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NYC Formula® 4000

TABLE OF CONTENTS

Section 1 - General Information

Understanding the Parts Manual	4
Numerical Index	8
Serial Plate and Heil Customer Support	9
Nomenclature	10
Recommended Spare Parts	11
Glossary	13

Section 2 - Body and Attaching Parts

Body Assemblies and Attaching Parts	16
Body Assembly	18
20 Yard Body Assembly	20
Tailgate Lock Pin Weldment	22
SS Body Door Assembly	24
Body Side Door Weldment	26
Narrow Sign Frame Panel Assembly	28
Standard Ejector Panel Weldment	30
Side Door Access Ladder Installation Kit	32
Side Door Ladder Assembly	34
20 Yard Tailgate Rubber Flap Kit	36
SS Rubber Flap Bolt Retainer	38
SS Rubber Flap Bolt Retainer	40
20 Yard Body Weldment	42
SS Body Side Weldment	44
Body Side Door Frame Assembly	46
20 Yard Roof Assembly	48
20 Yard Roof Cross Member	50
20 Yard Subframe Assembly	52
Tailgate Assembly	54
Tailgate Assembly	56
CS Lock Hook Weldment	64
SS Lock Hook Weldment	66
Hopper Plug Assembly	68
Lower Panel Assembly	70
Inner Slide Weldment	72
Tailgate Weldment	74
SS Tailgate Side Panel Weldment	76
CS Tailgate Side Panel Weldment	78
Proximity Control Bracket Weldment	80
Hinge Cross Member	82
Assembly Valve Cross Member	84
Mounting Kits	86
Mount Kit	88
Oil Tank Assembly	92
Oil Tank Weldment	94
Filter Mounting Bracket	96
20 Yard Tire Bin Assembly	98
Mounting Bracket	100

Center Mount Bracket	102
20 Yard Suction Quick Disconnect Kit	104
Decal Kit	106
20 Yard Decal Installation	108

Section 3 - Controls

Controls and Accessories	114
Tailgate Control Kit	116
SS Control Rod Assembly	120
Yoke Assembly	122
SS Control Rod Assembly	124
Control Rod Assembly	126
SS Control Rod Assembly	128
CS Control Rod Assembly	130
CS Control Rod Assembly	132
SS Control Rod Assembly	134
SS Control Rod Assembly	136
Proximity Switch Deutsch Connector	138
Proximity Mounting Bracket	140

Section 4 - Hydraulic and Pneumatic Circuits

Hydraulic Kits	144
20 Yard Body Hydraulic Kit	146
Front Tube Cover	154
Front Cover Kit	156
Rear Tube Cover	158
3/4 Inch Special T-Fitting	160
20 Yard Tailgate Hydraulic Installation	162
Quick Disconnect Coupling with Plug	170
SS Special Long Elbow	172
CS Special Long Elbow	174
Hydraulic Mounting Kits	176
Mounting Hydraulic Kit	178
Driveline Assembly	182
Snow Plow Hydraulic Kit	184

Section 5 - Hydraulic and Pneumatic Components

Cylinders	188
Air Cylinder	190
20 Yard Chrome Ejector Cylinder	192
Narrow Tailgate Raise Cylinder	194
Tailgate Slide Cylinder	196
Tailgate Blade Cylinder	198
Valves	200
Body Valve	202
Snow Plow Solenoid Valve	204
Tailgate Control Valve	206
Tailgate Control Valve Outlet Section	208
Tailgate Control Valve Inlet Section	210

NYC Formula® 4000

TABLE OF CONTENTS

Slide Function Tailgate Working Valve Section.....	212
Blade Function Tailgate Working Valve Section.....	214
Counter Balance Valve	216
OAI Tandem Pump Control Valve.....	218
Counter Balance Valve.....	220
Pump.....	222
Piston Pump Installation.....	224
Filter Assembly.....	226
Return Line Filter.....	228
General	230
Quick Disconnect.....	232
Section 6 - Electrical	
Electrical Installations.....	236
MRU Chassis Electrical Kit.....	238
Mack MRU Control Panel Installation	240
Control Panel Assembly.....	242
Control & Relay Boxes Harness.....	244
Park Brake Pressure Switch Kit.....	246
MRU Cab to Body Harness.....	248
Body Electrical Kit.....	250
Front Body Harness.....	252
Rear Body Harness.....	254
Throttle Advance/Tailgate Clear Kit.....	256
Tailgate Electrical Kit.....	258
SS Tailgate Harness.....	262
SS Estop/Buzzer/LT Harness.....	264
SS Tailgate Open Harness.....	266
CS Throttle Tail Light Harness.....	268
CS Tailgate Open Harness.....	270
Tail Light Harness.....	272
Buzzer/Estop/Work Light Panel.....	274
Light Box Electrical Kit.....	276
Light Cluster Harness.....	278
Access Hole Cover Weldment.....	280
Air Solenoid Assembly.....	282
Deutsch 12 V Air Valve.....	284
Oil Tank Electrical Installation.....	286
Photoelectrics Level Sensor with Packard Connector...	288
Oil Tank to Body Harness.....	290
Oil Temperature Harness.....	292
Oil Filter Monitor Harness.....	294
Numerical Index.....	297

NYC Formula® 4000

25DR SERIES 001-008

PARTS SERVICE MANUAL

ISSUED JANUARY 2015

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SECTION 1

GENERAL INFORMATION

UNDERSTANDING THE PARTS MANUAL

The Parts Manual is the first Manual of the Parts and Service Manual. Not all illustrations in this section are from this Parts Manual. We have used illustrations from other Parts Manuals in order to have a common Section 1 for all Parts Manuals and to be consistent in our explanation across all Parts Manuals.

A. Parts Manual Sections

1. The Parts Manual includes illustrations and parts listings of serviceable assemblies and attaching parts.
2. The Parts Manual is made up of seven sections including Section 1 - General Information, for easy access and use. Sections 2-7 contain the parts lists and technical illustrations for the unit divided into logical sections. There is a Numerical Index at the end of the Parts Manual to quickly find pages of known part numbers.
3. The Table of Contents provides a listing of all serviceable assemblies and attaching parts ordered by the page number on which it can be found.
4. Each section can be divided into logical sub-sections. Each logical sub-section has a page number and starts the sub-section.

Section 2 - Body and Attaching Parts	Section
Body Assemblies and Attaching Parts.....	16
28 Yard Body Assembly.....	18
Arm Installation.....	28
Composite Top Door.....	30
Packer Panel.....	32
Cab Protector Assembly.....	34

Figure 1. Table of Contents Listings

B. Parts Lists and Illustrations

1. The Parts Lists and Illustrations (when available) show serviceable assemblies and sub-assemblies broken down to weldments, wear parts and attaching parts.
2. Weldments that have no attaching parts or wear parts are not illustrated or shown in a Parts List., unless the weldment has a sub-assembly with wear parts or attaching parts.
3. Schematics are not included in the Parts Lists unless parts are identified in a schematic with a Parts List.
4. The Schematics are referenced to Service Manual Section 9 and included in Service Manual Section 9.
5. The top of each page identifies the name of the assembly or multiple similar assemblies followed underneath with the part number for each assembly.
6. Each assembly given in a section of the manual may have an illustration and will always have a Parts List.
7. The left page (even-numbered page) is an illustration (when available) with callouts and the right page shows the matching Parts List.
8. An illustration and Parts List may show two or more similar assemblies. The Parts List will identify the parts differences between the similar assemblies.

UNDERSTANDING THE PARTS MANUAL (CONTINUED)

C. Illustration Page

See Figure 2.

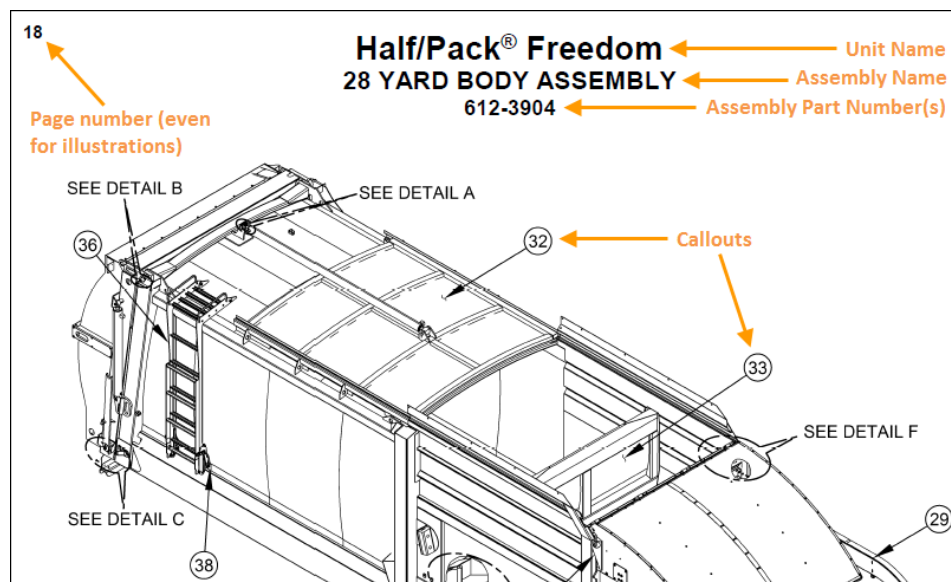


Figure 2. Titles and Part Numbers

1. Each illustration page consists of a drawing with numbered callouts showing all the parts of the assembly listed in the Parts List.
2. Each callout on the page is a number, which is the same as the item number in the ITEM column in the Parts List.
3. As we continue to upgrade the manuals, the illustrations will not show welded parts, unless the part is an assembly with a sub-assembly with wear parts or loose attaching parts.

D. Parts List Page

See Figure 3.

1. The parts list is organized into five columns:
 - ITEM – This number corresponds to the callout on the illustration
 - PART NO. – The Heil part number associated with the referenced part on the illustration
 - DESCRIPTION – Description of the associated part
 - EFF – This is a letter code to identify each top assembly
 - QTY – This is the number of parts needed in the top assembly.

UNDERSTANDING THE PARTS MANUAL (CONTINUED)

Page number (odd for parts lists) → 141

Half/Pack® Freedom
MACK FRONT DRIVE PUMP KIT INSTALLATIONS
 272-3460, 272-3460-001

Effectivity code for 272-3460

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	272-3460	KIT, Installation, Pump w/o Cover, Mack	A	REF
-	272-3460-001	KIT, Installation, Pump w/Cover, Mack	B	REF
1	211-3298	BRACKET, Pump, 1/2" (Depends on Pump)	-	1
2	030-0661	ASSEMBLY, Driveline	-	1
3	311-3502-009	BRACKET, Pump (Depends on Pump)	-	1
4	047-1794	HHCS, 7/16"-20 x 1", Gr.8, Yellow, Zinc Dichromate Plated	-	4
6	112-9882	PANEL, Cover, Pump, #11 Ga., Front Mount, Mack	B	1
7	035-2592	GUARD, Cover, Pump, 1/4" x 3" x 3"	B	1
9	211-6917	GUARD, Pump Shaft	-	1

Read as "Pump Shaft Guard"

These items are not illustrated

These parts are just in the second top assembly, 272-3460-001.

This part is in both top assemblies

Figure 3. Parts List

2. A hyphen (-) preceding an item number shows that the item is not illustrated.
3. The item number in the ITEM column for each part number has the same number as a call out on its matching illustration.
 - a. When there are two assemblies identified at the top of the page, and each assembly uses a different (usually similar) part at the same location, the following item numbers are given an alpha variant designation after the item number.
 - b. For example, when the assemblies at the top of a Parts List are 612-1111 and 612-1122, and 612-1111 uses a bolt (part number FS070714) at a location, it is given the designation as Item 12. When the 612-1122 assembly uses a bolt (part number FS070712) at the same location, it is given the designation as Item 12a.
4. Part numbers are typically in the following format, where "n" is a number: nnn-nnnn. Some part numbers may look like nnn-nnnn-xxx. Use these numbers when you order parts.
5. The descriptions are given in the following format: NOUN, MODIFIER, MODIFIER. For example, ASSEMBLY, Body, 16 yd.
6. An effectivity code ("A" thru "Z" (does not include "I" or "O")) or "-" is given in the EFF column for each top assembly (and its parts) listed at the top of the page.
 - a. For example, when there is only one assembly part number at the top of the page, the effectivity code is "-" in the EFF column.
 - b. For example, if the assembly part numbers at the top of the page are 272-3460 and 272-3460-001, the effectivity code "A" is shown in the EFF column for 272-3460 and the effectivity code "B" is shown in the EFF column for 272-3460-001.
7. An effectivity code, as defined above, is also given to each sub-assembly and part for each top assembly given at the top of the page.
 - a. A "-" is in the EFF column for each assembly or part that is the same between two or more top assemblies.
 - b. Each sub-assembly or part that is different for one or more of the part numbers at the top of the page is assigned the same effectivity code as the top assembly that the part or sub-assembly is in.
 - c. For example, when the assembly part numbers at the top of the page are 612-1111 and 612-1122 and each top assembly uses the same bolt at Item 11 (FS070715), then the effectivity code for that bolt is "-".
 - d. When 612-1111 uses a bolt (part number FS070714) at Item 12 and 612-1122 uses a bolt (part number FS070712) at Item 12a, Item 12 is given an effectivity code of A and Item 12a is given an effectivity code of B.

UNDERSTANDING THE PARTS MANUAL (CONTINUED)

8. The following entries can appear in a parts list:

- A/R - AS REQUIRED (in the QTY column)
- NSS - NOT SERVICED SEPARATELY (in the PART NO. column). This means the part is not available for ordering individually. It is probably a part in another part number for ordering purposes, such as in a seal kit
- REF – REFERENCE (in the QTY column).

9. When REF is in the QTY column, it indicates:

- The part is an assembly shown at the top of the page.
- The part is in another assembly and listed and/or shown for reference purposes.

10. The DESCRIPTION column may contain references to other pages in the current section of the Parts Manual; another section in the Parts Manual; a section in the Service Manual. See Figure 3.

- a. See "Pg. xxxx" in the DESCRIPTION column indicates the page number where the Parts List is located for this assembly or part in this section of the Parts Manual.
- b. See "SM XX" in the DESCRIPTION column indicates the Section in the Service Manual where you find more information, which in this case is the schematic and is in Service Manual Section 10 – Schematics.
- c. See "Section X" in the DESCRIPTION column indicates is the Section in the Parts Manual where this assembly or part is shown with an illustration (when available) and a Parts List.

NUMERICAL INDEX

The Numeric Index consists of all parts with their respective page number. Use the Numeric Index to help find part numbers in the Parts Manual. See Figure 4.

A. Finding a Part Number in the Manual

You use the Numerical Index to find the Parts List page or pages that a part number is on. When you find the Part Number in the Numerical Index, the Numerical Index shows you what page or pages where the Part Number is listed in the Parts Manual.

B. Part Numbers in the Numerical Index

The parts are listed in ascending order, that is, the lowest numbered part starts the Numerical Index and the last part number is the highest alpha character.

1. If part number 001-4105 (a cylinder) is the lowest part number in a manual, then it is the first part number given in the Numerical Index with the page or pages you can find the part number in one or more Parts List.
2. If a part number is TAS-F158-050 and it is the highest alpha-based part number, then this part number would be the last part number in the Numerical Index with the page or pages you can find the part number in one or more Parts Lists.
3. Once you have a Parts List page number for a part number, then you find the part number and its Item Number in the Parts List and can see the part in the related illustration, if available.

Half/Pack® Freedom						831
NUMERICAL INDEX						
PART NO.	PAGE NO.	PART NO.	PAGE NO.	PART NO.	PAGE NO.	
001-3682	688, 692	003-3553	568	020-1972	564	
001-6369-003	430	003-3567	688	020-1992	558	
001-6369-005	430	003-4013	44, 732	020-2584	130	
001-6369-006	430	003-4207	28, 62, 74	020-2585	130, 132	
001-6369-007	430	003-4248-001	68	020-2585-003	132	
001-6386-001	432	003-4297	44, 46, 732	020-2585-004	132	
001-6386-003	432	003-4297-001	46	020-2585-006	132	

 The first part number in ascending order

Figure 4. Numerical Index

SERIAL PLATE

A. Serial Plate Location and Information

1. The serial plate is the “birth certificate” of the unit. It is located on the front, left side of the unit.
2. Information stamped in the four boxes on the serial plate shows:
 - Model number: 612-nnnn (“n” is any single-digit number)
 - Unit’s unique serial number
 - Body size (cu. yd.)
 - Date of manufacture (last number of the year followed by the number of the day of the year, e.g. 6145 is year 2006 and the 145th day of 2006).

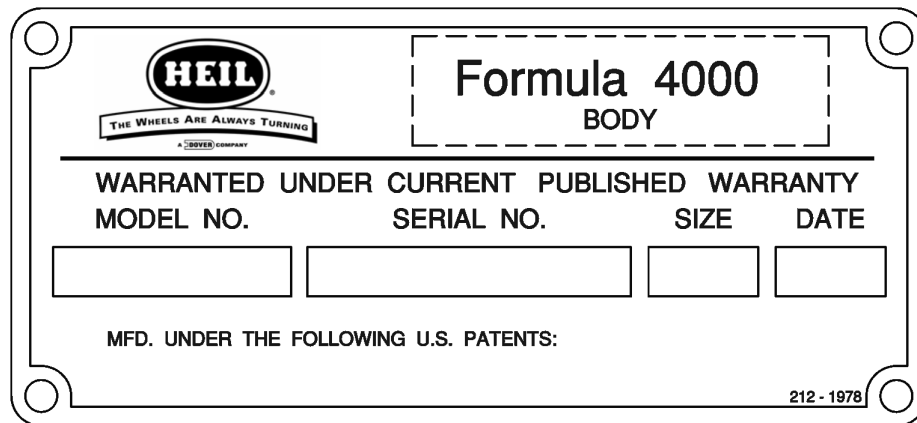


Figure 1. Sample Serial Plate

B. Year of Manufacture Information

The code for the year of manufacture is in accordance with FMVSS 115. See the following table.

Year of Manufacture			
Year Code	Year	Year Code	Year
S	1995	5	2005
T	1996	6	2006
V	1997	7	2007
W	1998	8	2008
X	1999	9	2009
Y	2000	A	2010
1	2001	B	2011
2	2002	C	2012
3	2003	D	2013
4	2004	E	2014

HEIL CUSTOMER SUPPORT

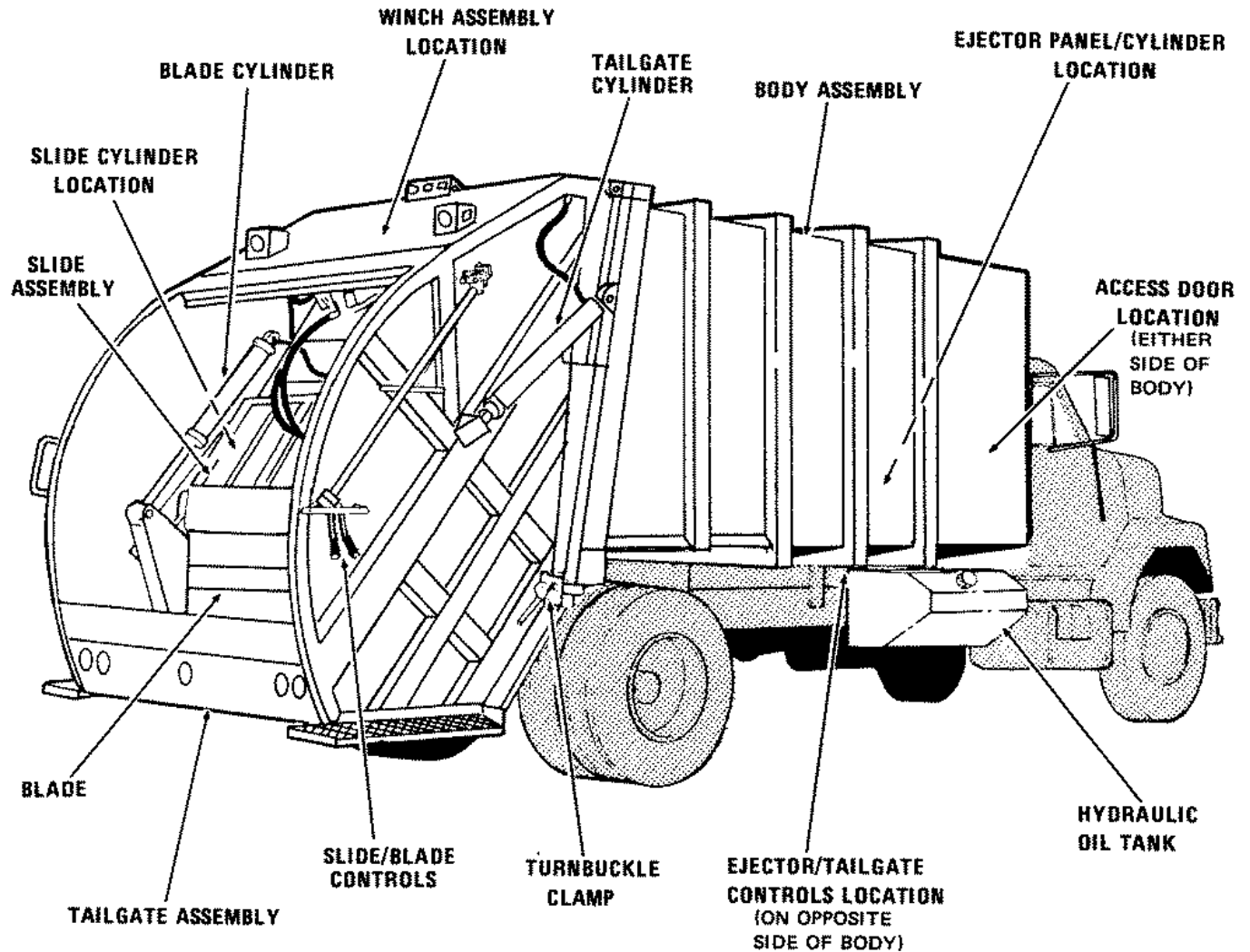
For inquiries about units, call Customer Care at 866-ASK-HEIL (866-275-4345).

For inquiries about parts, call Parts Central at 800-528-5308.

For Technical Service, call 866-310-4345.

NOMENCLATURE

The following picture shows the major components and their typical location on the unit.



RECOMMENDED SPARE PARTS

The following table gives a list of recommended spare parts for your unit.

PART NO.	DESCRIPTION	QTY
Body Assembly		
021-4423	BAR, Rubber Flap Retainer	2
022-4007-001	SEAL, Side Door	2
022-4007-002	SEAL, Side Door	2
022-4027	SEAL, Tailgate	1
022-4028	SEAL, Tailgate	
Controls		
013-5388	LEVER, Control	1
013-5389	LEVER, Control	1
013-5390	BELL, Crank	4
070-1990	HANDLE, Tailgate Control, RH	1
070-1995	HANDLE, Control, RH Sweep	1
070-1996	HANDLE, Control, LH Tailgate	1
070-1997	HANDLE, Control, LH Sweep	1
108-2279	SWITCH, Toggle	2
108-2280	BOOT, Toggle Switch	2
Hydraulic Circuits		
057-3111-025	HOSE, 1/2" Ejector Cylinder	1
057-3112-034	HOSE, 3/4" Ejector Cylinder	1
QA3-FFFF-015	HOSE, 1/2" Return	1
057-3110-060	HOSE, 1" Pressure	1
057-2179-045	HOSE, 1" Hydraulic, JIC	1
074-3061-002	ADAPTER, Swivel	1
QB3-FFFF-051	HOSE, 1/2" Case Drain	1
QB3-FFFF-099	HOSE, 1/2" Return	1
QB6-EKFK-036	HOSE, 1" Return	1
QB6-FKFK-042	HOSE, 1" Return	1
QC2-FEFE-054	HOSE, 3/8" Load Sense	1
Hydraulic Components		
001-6222	CYLINDER, Packer	2
001-7076	CYLINDER, Slide	2
001-7077	CYLINDER, Blade	2
001-7026	CYLINDER, Tailgate Raise	2

NYC Formula® 4000

RECOMMENDED SPARE PARTS

The following table gives a list of recommended spare parts for your unit.

PART NO.	DESCRIPTION	QTY
001-3699	CYLINDER, Air	1
031-6268-002	VALVE, Tailgate Control	1
031-5975	VALVE, Body	1
031-6414	VALVE, Pump Control	1
075-0912-030	ELEMENT, Replacement Filter (3 micron)	2
067-0630	GAUGE, Thermometer Sight	1
075-0712	FILTER, Breather	2
108-6800	SWITCH, Oil Temp	2
Electrical		
115-1395	KIT, Light Middle Body Turn, Amber LED	2
115-1039	ASSEMBLY, Light, Stop, Oval, LED	4
115-1397	LIGHT, LED, Backup, 6" Oval	2
115-1428	LIGHT, Flood, LED	2
108-7487	FLASHER, Light, Unit	1
108-8282	ALARM, Backup Smart	1
115-1031	LIGHT, Halogen Flood	1
115-1036	LED, Red, 2 1/2" Clearance	2
115-1039	ASSEMBLY, Light, Stop, Oval, LED	2
115-1227	ASSEMBLY, LED, Stop Turn Tail Light	2
115-1245-001	LED, Flashing, Amber 7"	1
115-1412	LIGHT, Tag, LED	1
115-1428	LIGHT, Flood, LED	2

GLOSSARY

The Glossary is a collection of terms used in this manual and the explanation for each term. The terms are used in the descriptions of parts.

°	Degree	ORFS	O-Ring Face Seal
#	Number	Pg.	Page
'	Feet	PLC	Programmable Logic Controller
"	Inch	PSI	Pounds per Square Inch
AWG	American Wire Gauge	PTO	Power Take Off
Amp.	Ampere	RH	Right Hand
ANSI	American National Standard Institute	Rd.	Round
cm.	Centimeter	RPM	Revolutions Per Minute
CNG	Compressed Natural Gas	SAE	Society of Automotive Engineers
CS	Curb Side	SH	Service Hoist
DA	Double Acting	SHCS	Socket Head Cap screw
DC	Direct Current	SL	Service Lift
Dia.	Diameter	SS	Street Side
Ft.	Feet	SM	Service Manual
Ga.	Gauge	SPST	Single Pole Single Throw
Gal.	Gallon	ST	Stop/Turn
Gr.	Grade	S/S	Stainless Steel
GPM	Gallons Per Minute	Std.	Standard
Hd.	Head	Str.	Straight
HHCS	Hex Head Cap Screw	SPST	Single Pole Single Throw
HRS	High Resistant Steel	SPDT	Single Pole Double Throw
ID	Inside Diameter	STT	Stop Tail Turn
I/O	Input/Output	T/G	Tailgate
ISO	International Standards Organization	Thd.	Thread
JIC	Joint Industry Council	TPA	Terminal Position Assurance
KSI	Kilo pound Per Square Inch	V	Volts
Lbs.	Pounds	w/	With
Lg.	Length	w/o	Without
LED	Light Emitting Diode	Yd.	Yard
Mach.	Machined		
Min.	Minimum		
Misc.	Miscellaneous		
mm.	Millimeter		
MNPT	Male National Pipe Thread		
Mtg.	Mounting		
MJIC	Male Joint Industry Council		
NC	Normally Close		
NO	Normally Open		
No.	Number		
NPT	National Pipe Thread		
OD	Outside Diameter		

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SECTION 2 BODY AND ATTACHING PARTS

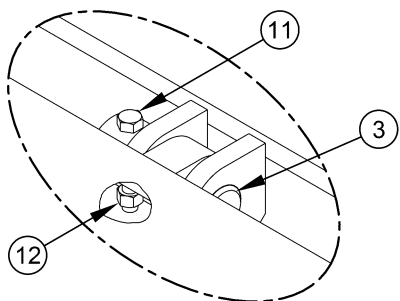
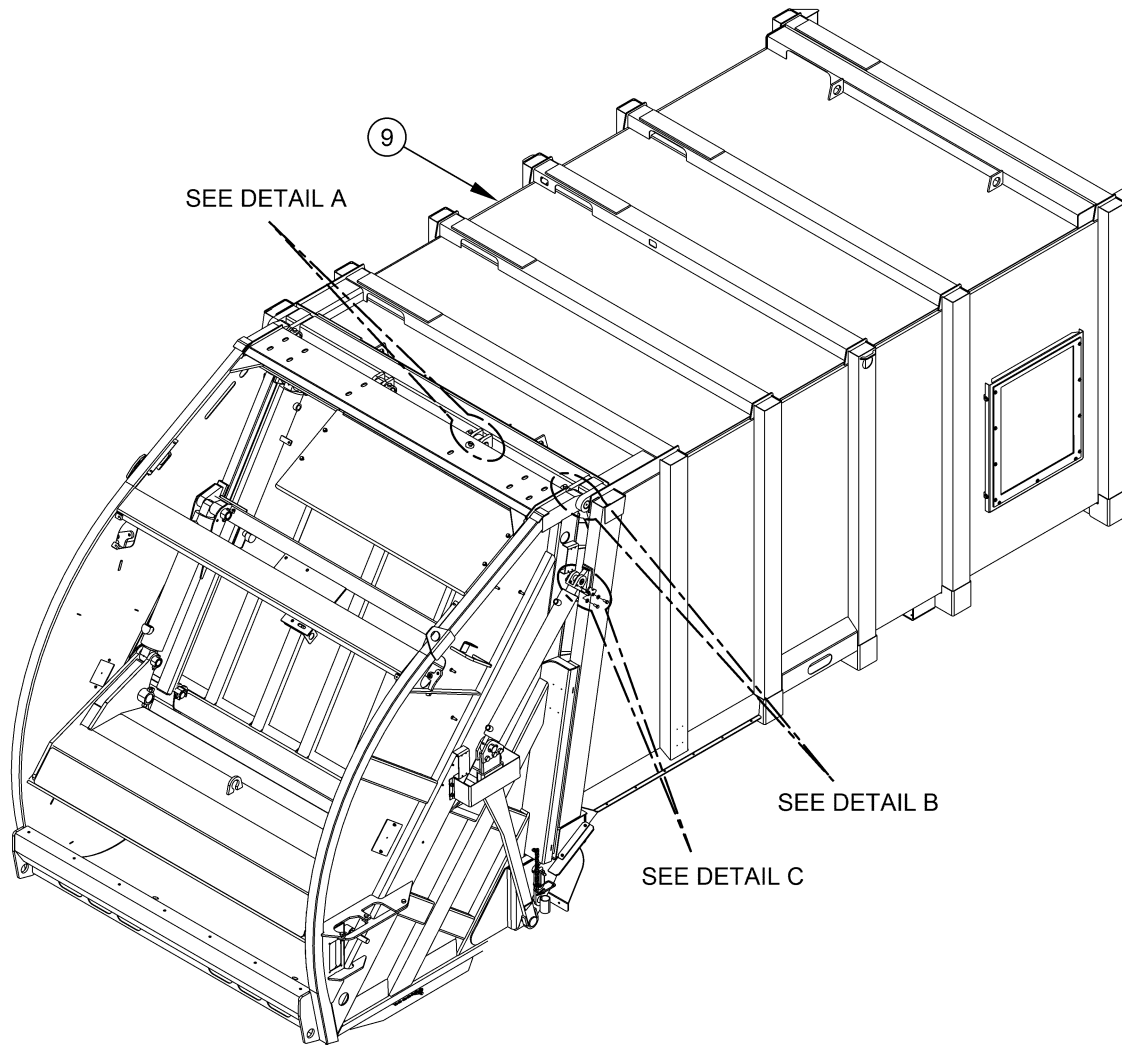
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BODY ASSEMBLIES AND ATTACHING PARTS

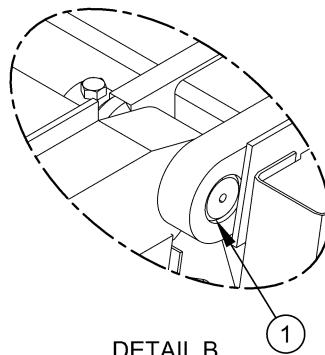
NYC Formula[®] 4000

BODY ASSEMBLY

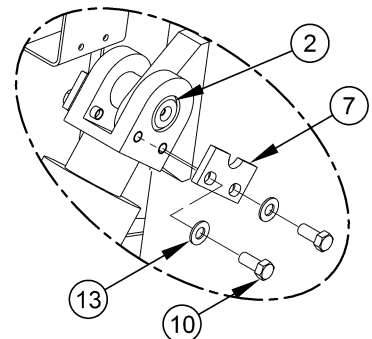
612-4059



DETAIL A



DETAIL B



DETAIL C

NYC Formula® 4000

BODY ASSEMBLY

612-4059

19

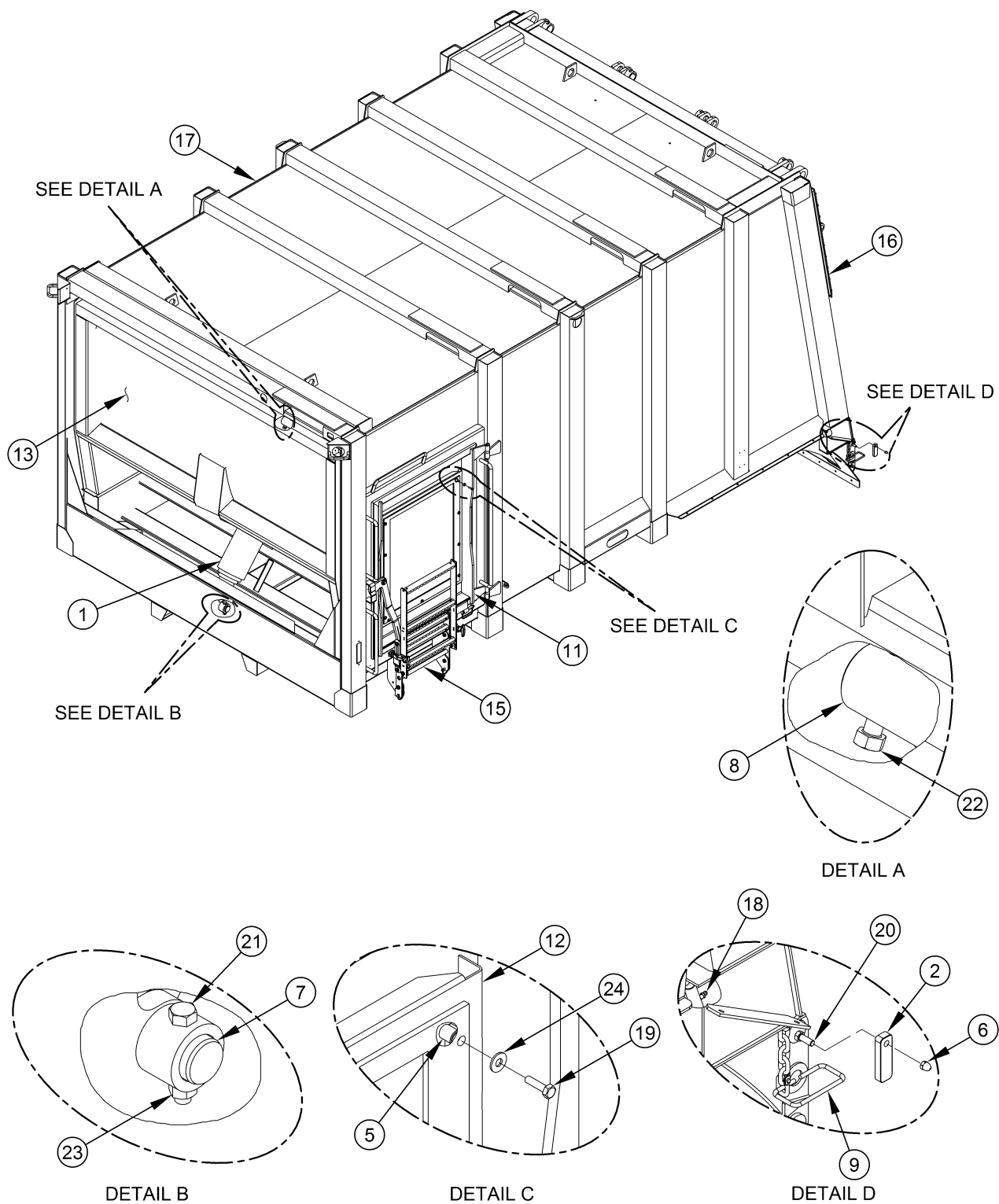
ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	612-4059	ASSEMBLY, Body	-	REF
1	048-2834	PIN, Power Link, Pivot, Tailgate, 1-3/4" Dia.	-	2
2	048-6169	PIN, Raise Cylinder, Upper, 2-1/4" Dia.	-	2
3	048-7497	PIN, Pivot Center, Tailgate, Narrow, 1-3/4" Dia.	-	2
7	311-0069	PIN, Retainer, 1/4"	-	4
9	612-4058	ASSEMBLY, Body, 20 Yd. (20)	-	1
10	FSP070917	HHCS, 3/8"-16" x 7/8", Gr. 5, Plated	-	8
11	FSP071142	HHCS, 1/2"-13 x 3-1/4", Gr. 5, Plated	-	4
12	FSP231100	NUT, Lock, 1/2"-13, Gr. 5, Plated	-	4
13	FSP520900	WASHER, Flat, 3/8" SAE, Plated	-	8

Note: Items 4-6 and 8 are Welded.

NYC Formula® 4000

20 YARD BODY ASSEMBLY

612-4058



NYC Formula® 4000

20 YARD BODY ASSEMBLY

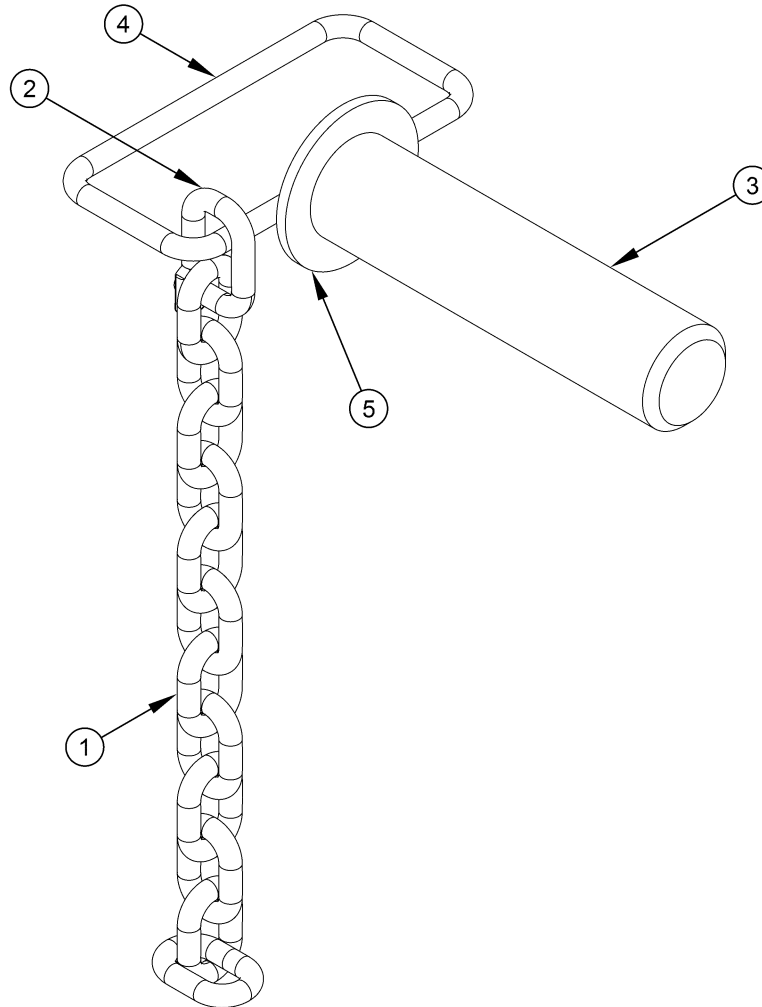
612-4058

21

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	612-4058	ASSEMBLY, Body, 20 Yd.	-	REF
1	001-6937	CYLINDER, Ejector, Chrome, D/A Telescopic (See Section 5)	-	1
2	021-3874	BAR, Lock, 1/2" x 1"	-	2
5	047-2192	NUT, Well, 1/4"-20	-	22
6	047-2285-001	NUT, Acorn, Center Lock, 3/8"-16	-	2
7	048-5798	PIN, Rod End, 1-1/2" Dia., CRS	-	1
8	048-5799	PIN, Ejector, Base End, 2" Dia.	-	1
9	048-6162	WELDMENT, Pin, Tailgate Lock ⁽²²⁾	-	2
11	113-6724	ASSEMBLY, Door, Body, SS ⁽²⁴⁾	-	1
12	113-6733	ASSEMBLY, Panel, Sign Frame, Narrow ⁽²⁸⁾	-	2
13	237-8162	WELDMENT, Panel, Ejector, Standard ⁽³⁰⁾	-	1
15	372-7880	KIT, Installation, Access Ladder, Side Door ⁽³²⁾	-	1
16	372-7882	KIT, Rubber Flap, Tailgate, 20 Yd. ⁽³⁶⁾	-	1
17	612-4057	WELDMENT, Body, 20 Yd. ⁽⁴²⁾	-	1
18	FS190700	FITTING, Grease, Str., 1/4"-28	-	2
19	FSP070720	HHCS, 1/4"-20 x 1", Gr. 5, Plated	-	22
20	FSP070920	HHCS, 3/8"-16 x 1", Gr. 5, Plated	-	2
21	FSP071140	HHCS, 1/2"-13 x 3", Gr. 5, Plated	-	1
22	FSP071142	HHCS, 1/2"-13 x 3-1/4", Gr. 5, Plated	-	1
23	FSP241100	NUT, Lock, 1/2"-20, Gr. 5, Plated	-	2
24	FSP510700	WASHER, Flat, 1/4" Std., Plated	-	22

Note: Items 3, 4, 10 and 14 are Welded.

NYC Formula[®] 4000
TAILGATE LOCK PIN WELDMENT
048-6162



NYC Formula® 4000

TAILGATE LOCK PIN WELDMENT

048-6162

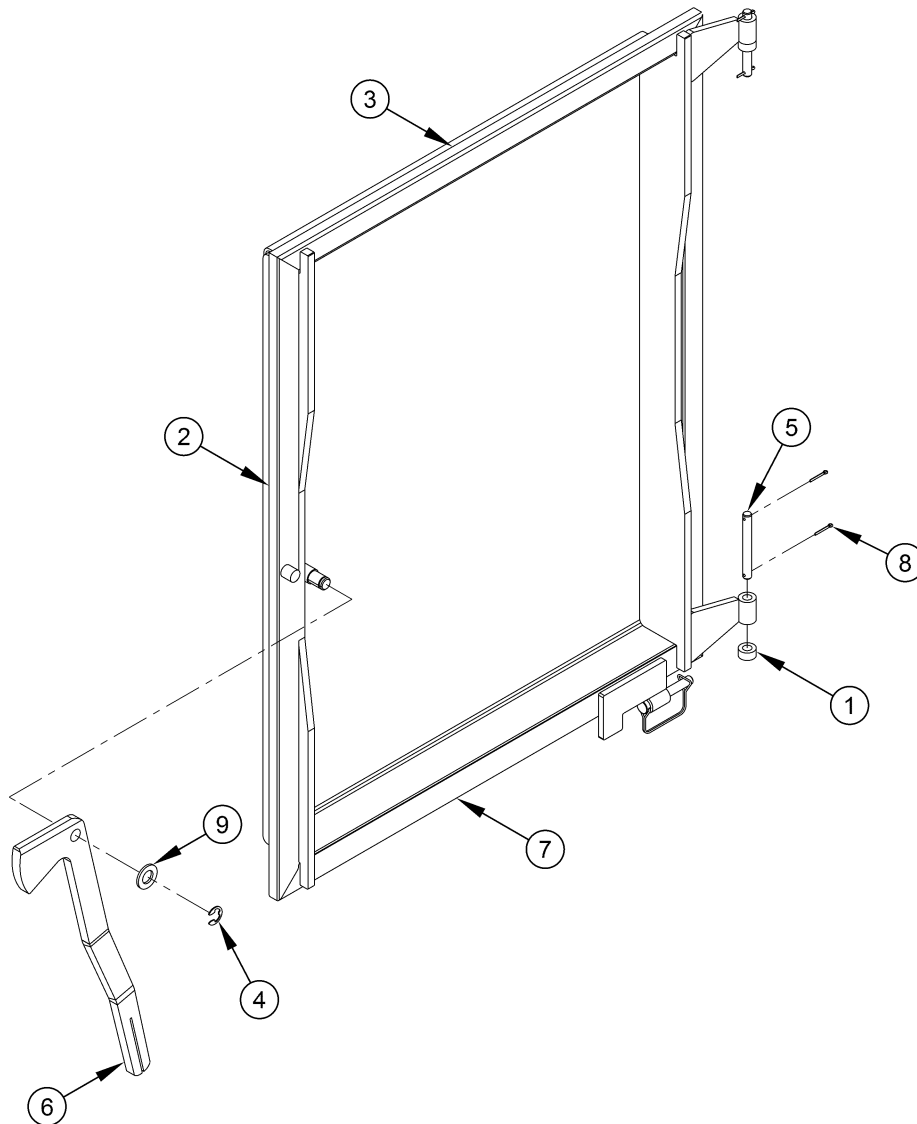
23

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	048-6162	WELDMENT, Pin, Tailgate Lock	-	REF
1	043-0576	CHAIN, Tailgate Lock, 15-1/2" Lg.	-	1
2	043-0841	LINK, Chain, 1/4"	-	1
3	048-6163	PIN, Latch, 1-1/4" Dia.	-	1
4	070-1561	HANDLE, Pin, 1/4" Dia.	-	1
5	FS512000	WASHER, Flat, 3/32", Std., Plain	-	1

NYC Formula[®] 4000

SS BODY DOOR ASSEMBLY

113-6724



NYC Formula® 4000

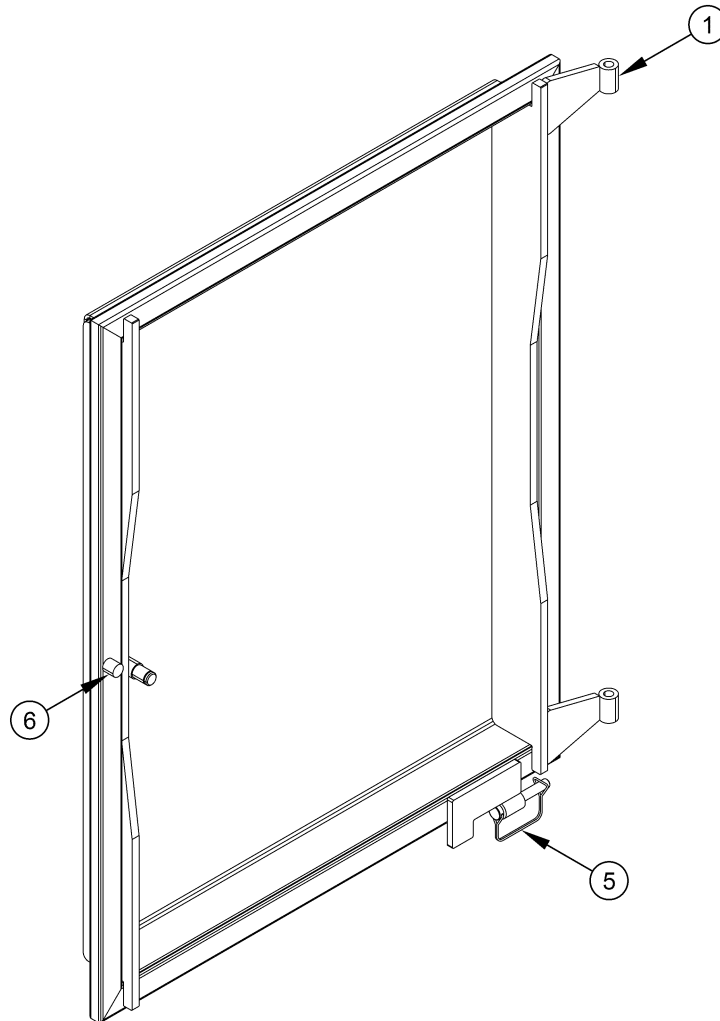
SS BODY DOOR ASSEMBLY

113-6724

25

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	113-6724	ASSEMBLY, Door, Body, SS	-	REF
1	015-2274	SPACER, 1"	-	2
2	022-4007-001	SEAL, Side Door	-	2
3	022-4007-002	SEAL, Side Door	-	2
4	026-1654	RING, Retaining	-	1
5	048-6160	PIN, Side Door, 1/2" Dia.	-	2
6	070-1942	HANDLE, Side Door, Body	-	1
7	113-6723	WELDMENT, Door, Body Side ⁽²⁶⁾	-	1
8	FS340420	PIN, Cotter, 1/8" x 1", Steel, Plated	-	4
9	FS521500	WASHER, Flat, 3/4" SAE, Plain	-	1

NYC Formula® 4000
BODY SIDE DOOR WELDMENT
113-6723



NYC Formula® 4000

BODY SIDE DOOR WELDMENT

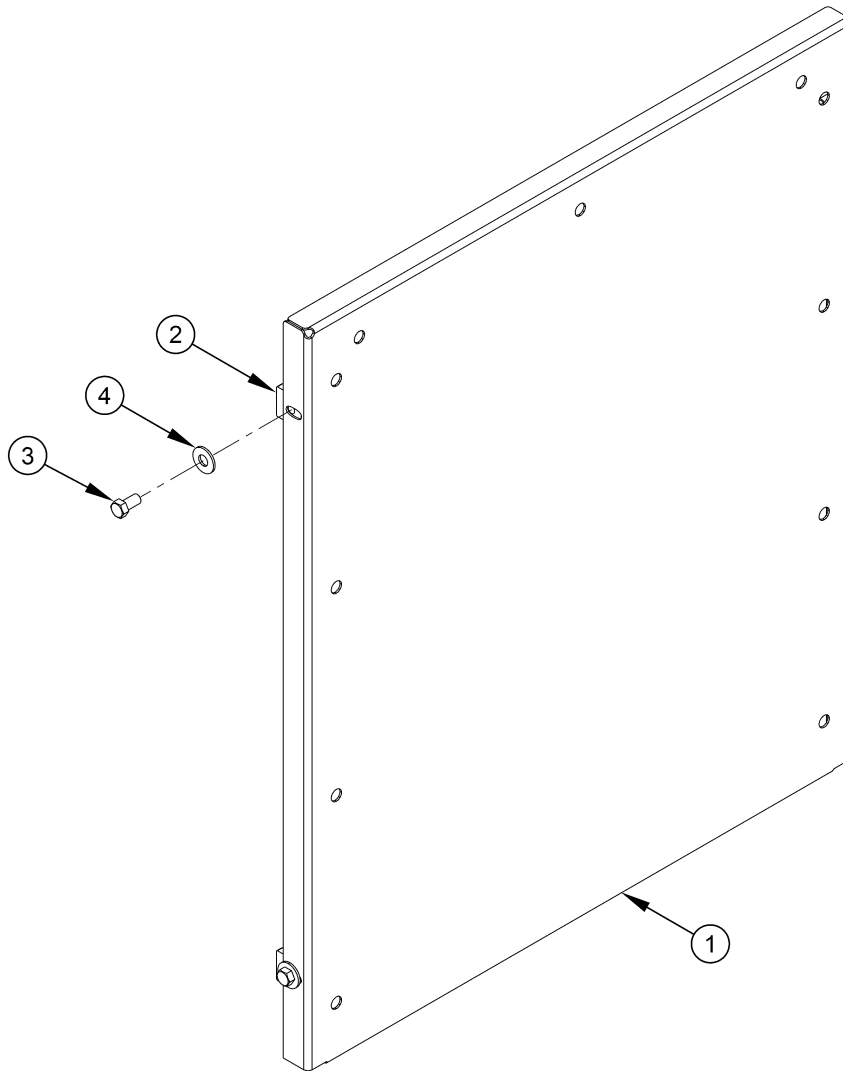
113-6723

27

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	113-6723	WELDMENT, Door, Body Side	-	REF
1	005-4766	HINGE, Door	-	2
5	048-7428	PIN, Wire Lock	-	1
6	112-8332-004	STOP, Handle, 3/4" Dia.	-	1

Note: Items 2-4 and 7-10 are Welded.

NYC Formula® 4000
NARROW SIGN FRAME PANEL ASSEMBLY
113-6733



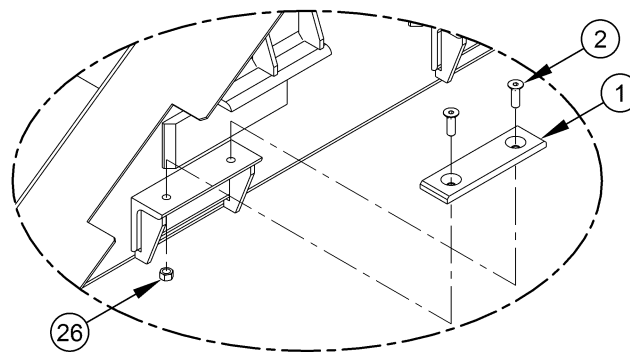
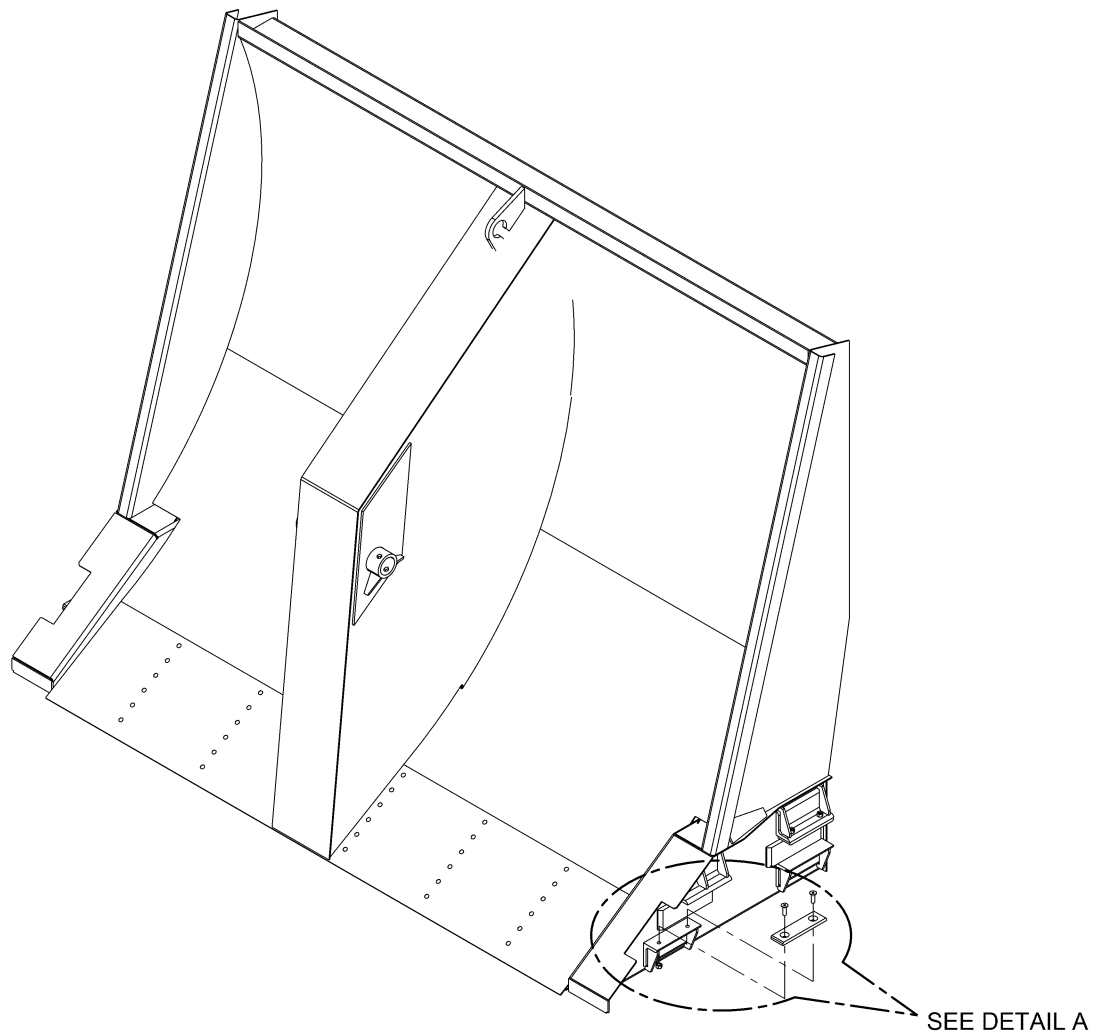
NYC Formula® 4000

NARROW SIGN FRAME PANEL ASSEMBLY

113-6733

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	113-6733	ASSEMBLY, Panel, Sign Frame, Narrow	-	REF
1	113-6733-001	PANEL, Sign Frame, Narrow, #14 Ga.	-	1
2	113-6733-002	BRACKET, Sign Frame, Narrow, 1/4"	-	4
3	FSS070915	HHCS, 3/8"-16 x 3/4", Gr. 5, S/S	-	4
4	FSS510900	WASHER, Flat, 3/8", Std., Plain, S/S	-	4

NYC Formula® 4000
STANDARD EJECTOR PANEL WELDMENT
237-8162



DETAIL A

NYC Formula® 4000

STANDARD EJECTOR PANEL WELDMENT

237-8162

31

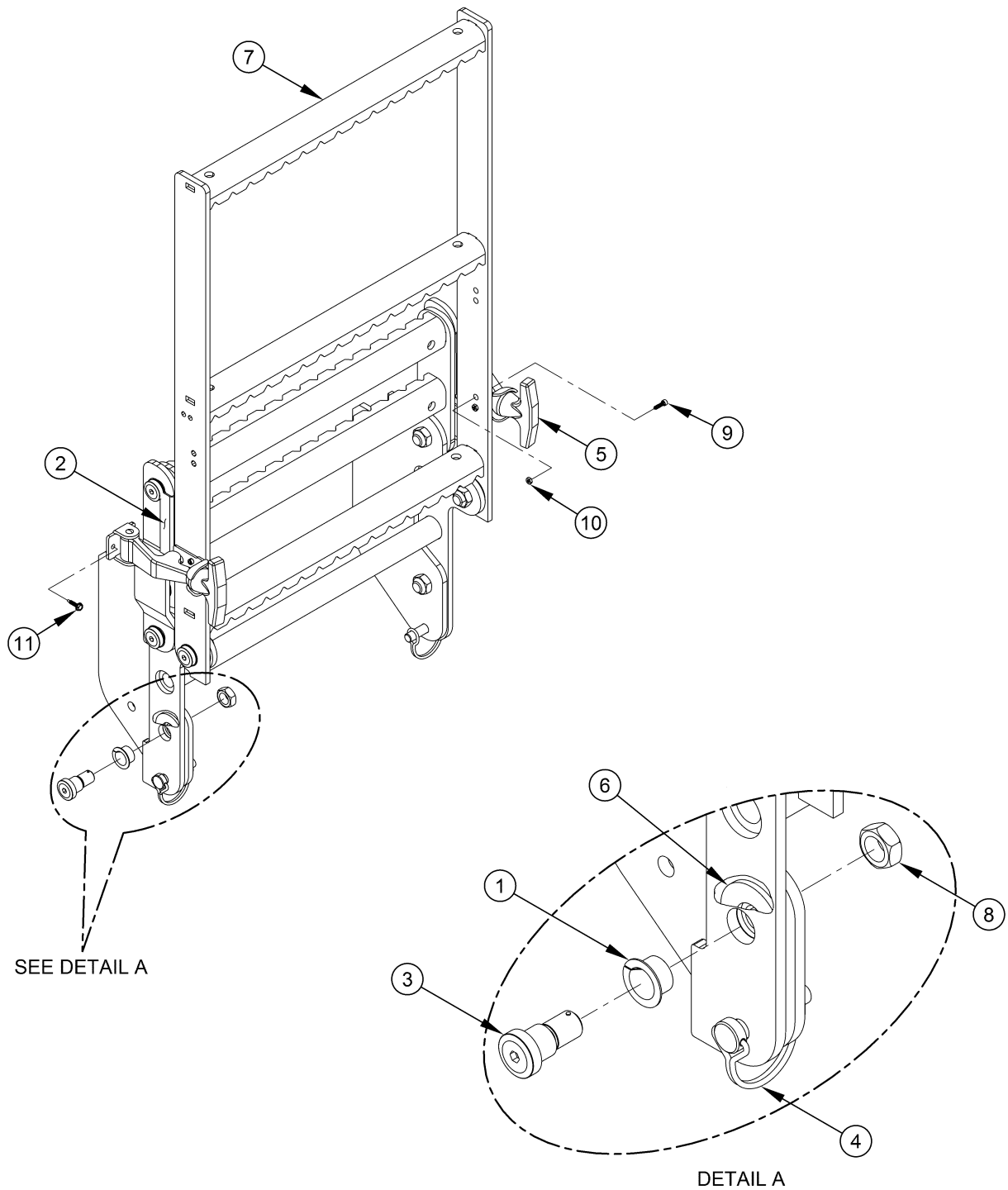
ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	237-8162	WELDMENT, Panel, Ejector, Std.	-	REF
1	021-3945	BAR, Wear, Ejector	-	4
2	047-1775-125	FHCS, 3/8"-16 x 1-1/4", Zinc Plated	-	8
26	FSP230900	NUT, Lock, 3/8"-16, Gr. 5, Plated	-	8

Note: Items 3-25 are Welded.

NYC Formula® 4000

SIDE DOOR ACCESS LADDER INSTALLATION KIT

372-7880



NYC Formula® 4000

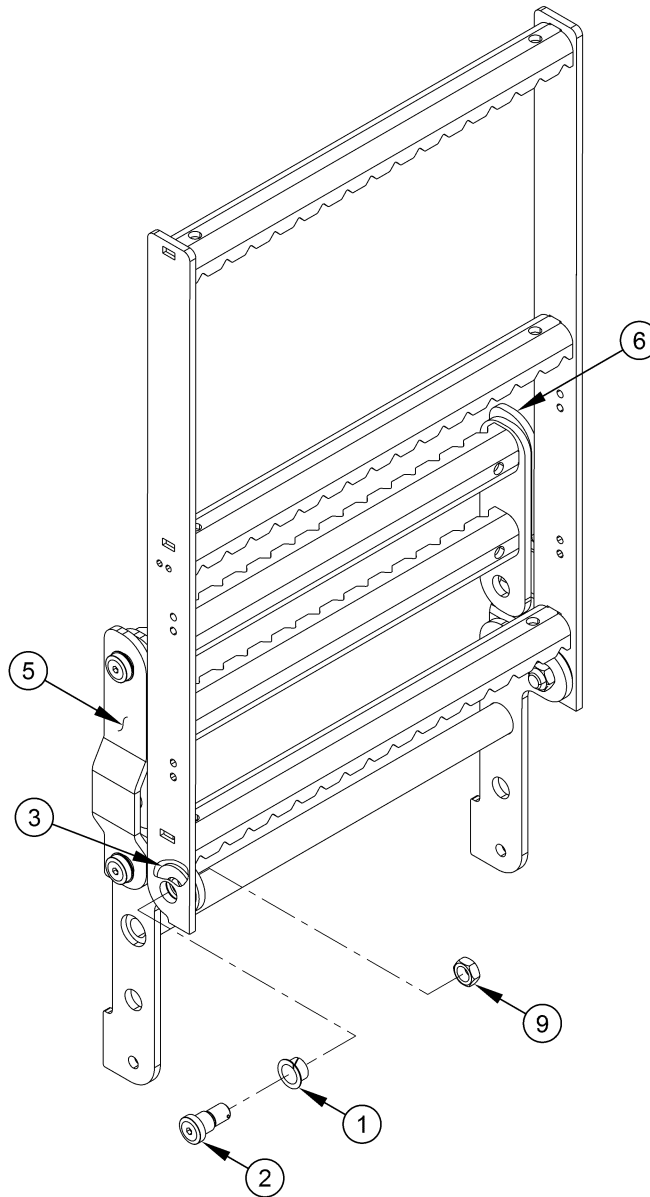
SIDE DOOR ACCESS LADDER INSTALLATION KIT

372-7880

33

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	372-7880	KIT, Installation, Access Ladder, Side Door	-	REF
1	003-4393	NYLINER, Bearing	-	4
2	022-3925-003	GUARD, Trimlock, Edge	-	2
3	047-2189	SCREW, Shoulder, 1/2"-13 Thd., 1/16" Dia.	-	4
4	047-2685	PIN, Linch, 1-38" Lg., Zinc Plated	-	2
5	053-2448	LATCH, Draw, Rubber	-	2
6	055-3106	WASHER, 5/8", UHMW	-	4
7	121-2606	ASSEMBLY, Ladder, Side Door ³⁴	-	1
8	FS291100	NUT, Jam, 1/2"-13, Plated	-	4
9	FSP070211	HHCS, 3/32"-56 x 1/2", Gr. 5, Plated	-	4
10	FSP290200	NUT, Jam, 3/32"-56, Plated	-	4
11	FSP500207	SCREW, Tek, 3/32"-56 x 1/4", Plated	-	4

NYC Formula® 4000
SIDE DOOR LADDER ASSEMBLY
121-2606



NYC Formula® 4000

SIDE DOOR LADDER ASSEMBLY

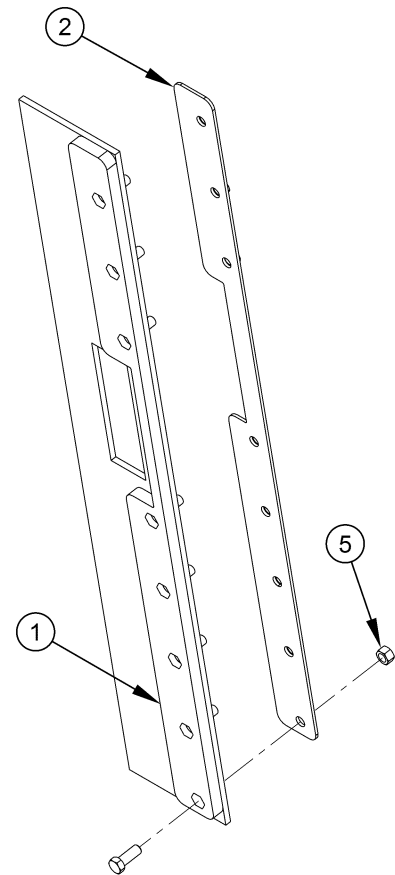
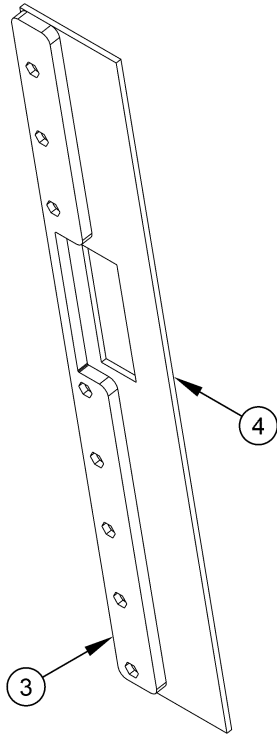
121-2606

35

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	121-2606	ASSEMBLY, Ladder, Side Door	-	REF
1	003-4393	NYLINER, Bearing	-	6
2	047-2189	SCREW, Shoulder, 1/2"-13 Thd., 1/16" Dia.	-	6
3	055-3106	WASHER, 5/8", UHMW	-	6
5	121-2606-003	SIDE RAIL, Ladder, Side Door Access, 1/4"	-	1
6	121-2606-004	SIDE RAIL, Ladder, Side Door Access, 1/4"	-	1
9	FS291100	NUT, Jam, 1/2"-13, Plated	-	6

Note: Items 4, 7 and 8 are Welded.

NYC Formula® 4000
20 YARD TAILGATE RUBBER FLAP KIT
372-7882



NYC Formula® 4000

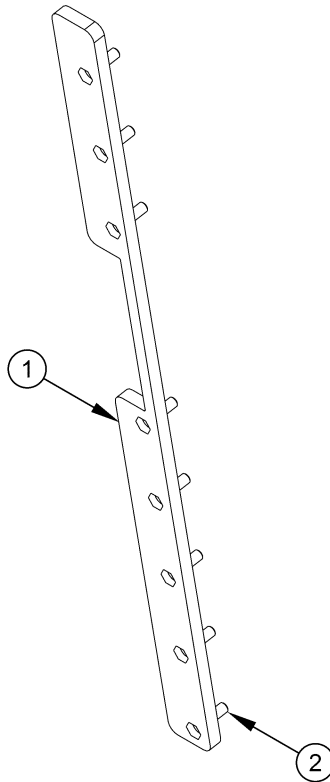
20 YARD TAILGATE RUBBER FLAP KIT

372-7882

37

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	372-7882	KIT, Rubber Flap, Tailgate, 20 Yd.	-	REF
1	021-4423	RETAINER, Bolt, Rubber Flap, SS ³⁸	-	1
2	021-4423-002	BAR, Retainer, Rubber Flap, 11 Ga.	-	2
3	021-4424	RETAINER, Bolt, Rubber Flap, SS ⁴⁰	-	1
4	217-1784	BAR, Retainer, Rubber Flap, 1/4"	-	2
5	FSP230900	NUT, Lock, 3/8"-16, Gr. 5, Plated	-	16

NYC Formula[®] 4000
SS RUBBER FLAP BOLT RETAINER
021-4423

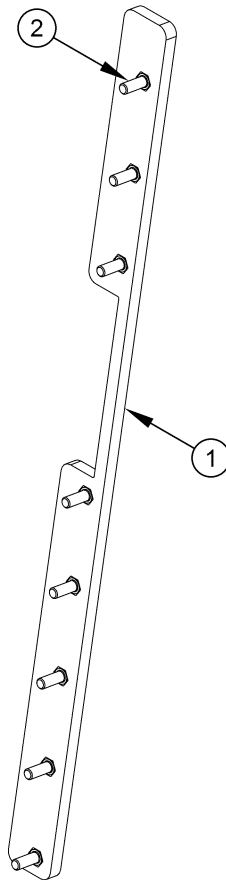


NYC Formula® 4000
SS RUBBER FLAP BOLT RETAINER
021-4423

39

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	021-4423	RETAINER, Bolt, Rubber Flap, SS	-	REF
1	021-4423-001	BAR, Retainer, Rubber Flap, 1/2"	-	1
2	FS070920	HHCS, 3/8"-16 x 1", Gr. 5	-	8

NYC Formula® 4000
SS RUBBER FLAP BOLT RETAINER
021-4424

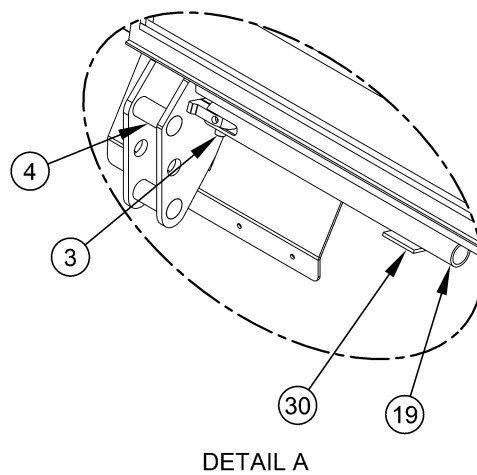
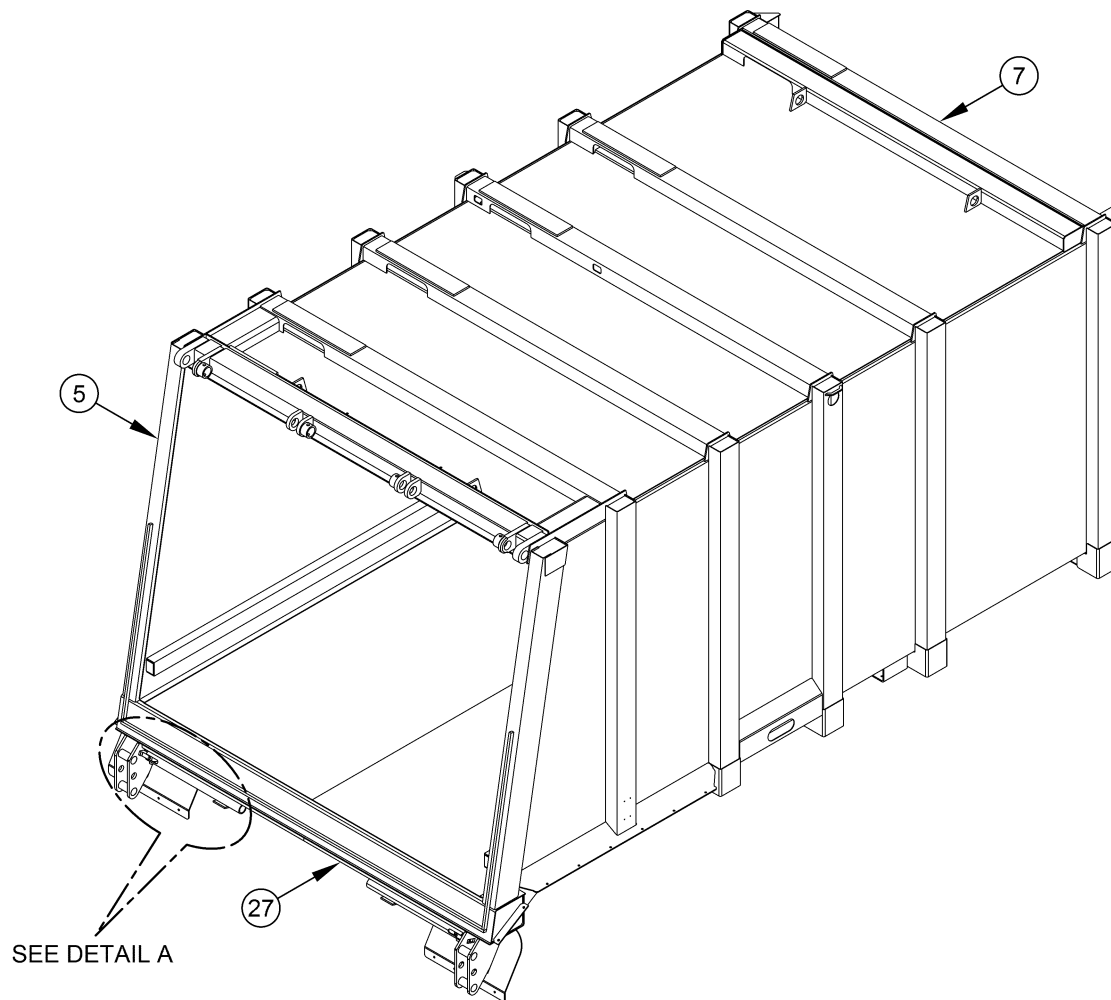


NYC Formula® 4000
SS RUBBER FLAP BOLT RETAINER
021-4424

41

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	021-4424	RETAINER, Bolt, Rubber Flap, SS	-	REF
1	021-4423-001	BAR, Retainer, Rubber Flap, 1/2"	-	1
2	FS070920	HHCS, 3/8"-16 x 1", Gr. 5	-	8

NYC Formula® 4000
20 YARD BODY WELDMENT
612-4057



NYC Formula® 4000

20 YARD BODY WELDMENT

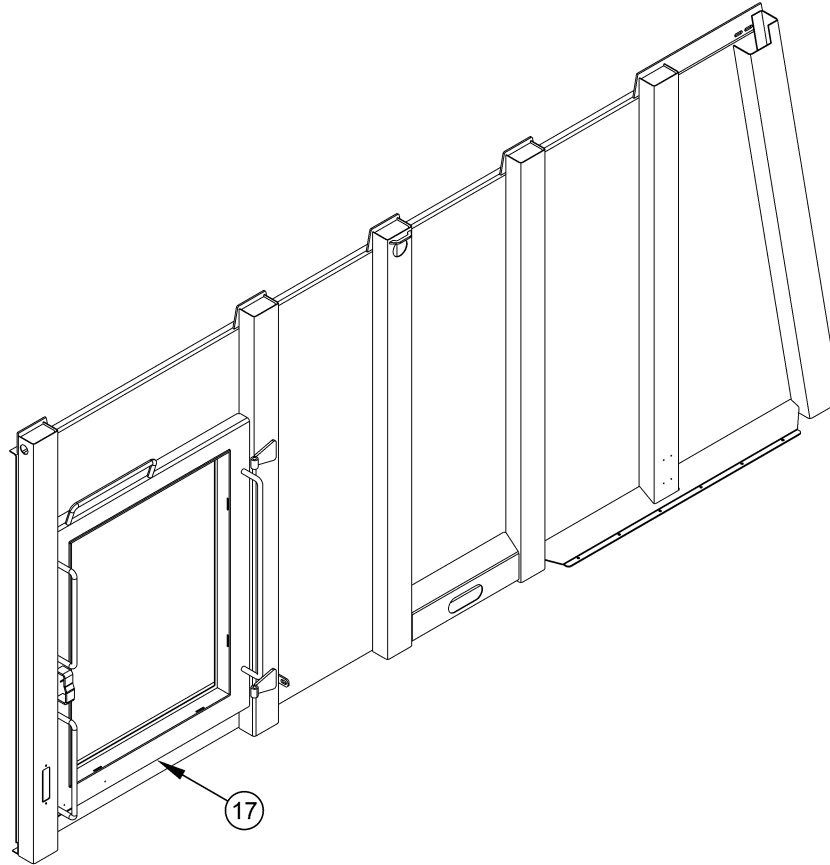
612-4057

43

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	612-4057	WELDMENT, Body, 20 Yd.	-	REF
3	048-5470	PIN, Tailgate Prop, 3/4"	-	2
4	048-6145	PIN, Body Hook, 1-1/2" Dia. x 4"	-	4
5	113-7074	WELDMENT, Body Side, SS [44]	-	1
7	113-7076	ASSEMBLY, Roof, 20 Yd. [48]	-	1
19	177-5079	SUPPORT, Tailgate Prop	-	2
27	237-9728	ASSEMBLY, Subframe, 20 Yd. [52]	-	1
30	311-2335	BRACKET, Latch	-	2

Note: Items 1, 2, 6, 8-18, 20, 21-26, 28, 29 and 31-33 are Welded.

NYC Formula® 4000
SS BODY SIDE WELDMENT
113-7074



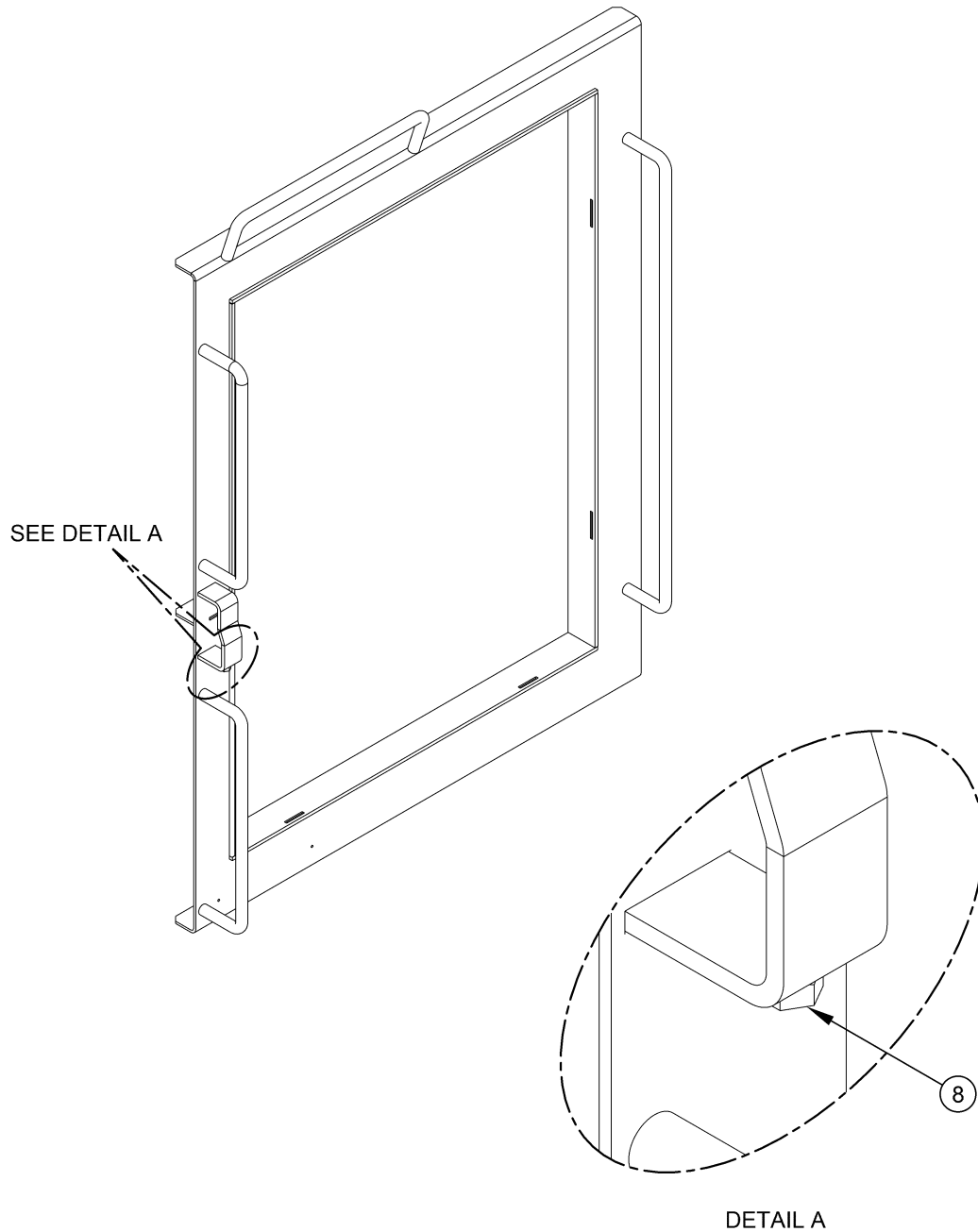
NYC Formula® 4000 **SS BODY SIDE WELDMENT** **113-7074**

45

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	113-7074	WELDMENT, Body Side, SS	-	REF
17	237-9729	ASSEMBLY, Frame, Side Door, Body ⁴⁶	-	1

Note: Items 1-16, 18 and 19 are Welded.

NYC Formula® 4000
BODY SIDE DOOR FRAME ASSEMBLY
237-9729



NYC Formula® 4000

BODY SIDE DOOR FRAME ASSEMBLY

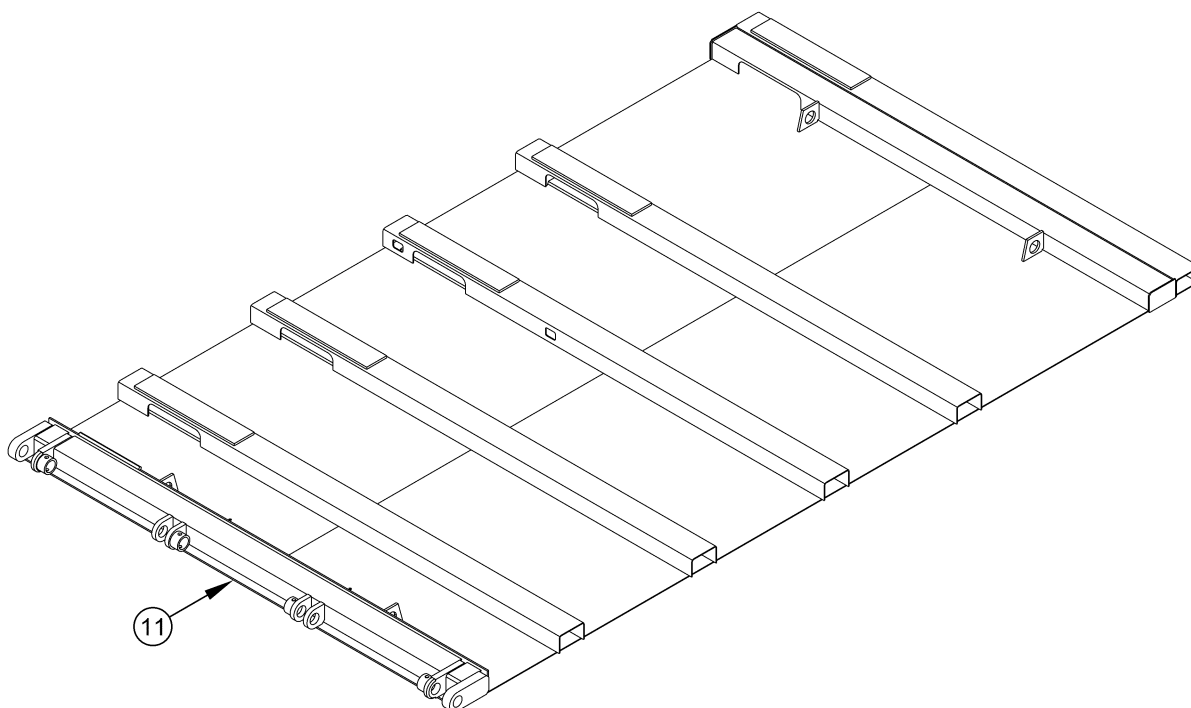
237-9729

47

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	237-9729	ASSEMBLY, Frame, Side Door, Body	-	REF
8	FS290900	PIN, Cotter, 1/8" x 1", Steel	-	1

Note: Items 1-7 are Welded.

NYC Formula® 4000
20 YARD ROOF ASSEMBLY
113-7076



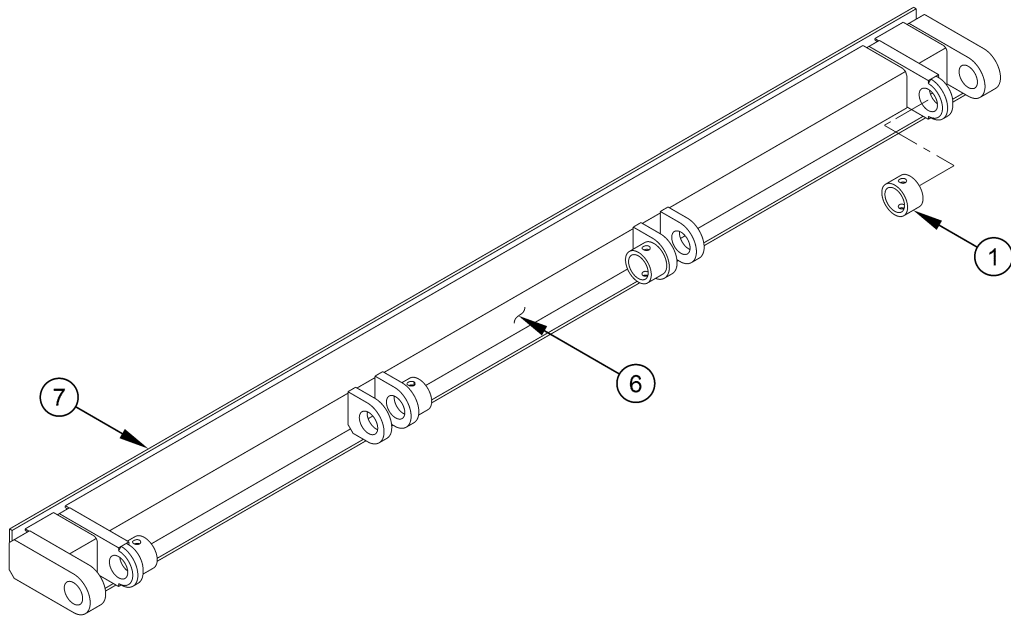
NYC Formula® 4000 **20 YARD ROOF ASSEMBLY** **113-7076**

49

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	113-7076	ASSEMBLY, Roof, 20 Yd.	-	REF
11	177-5853	CROSS MEMBER, Roof, 20 Yd. ⁵⁰	-	1

Note: Items 1-10 and 12 are Welded.

NYC Formula® 4000
20 YARD ROOF CROSS MEMBER
177-5853



NYC Formula® 4000

20 YARD ROOF CROSS MEMBER

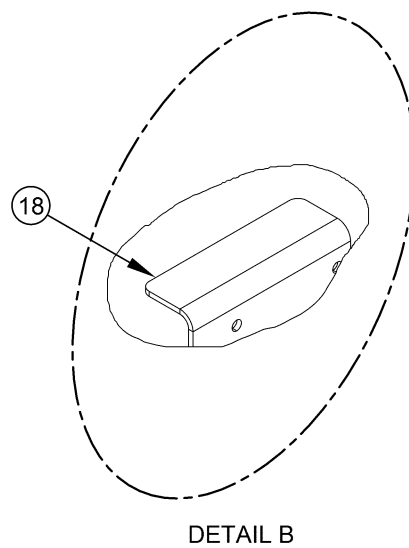
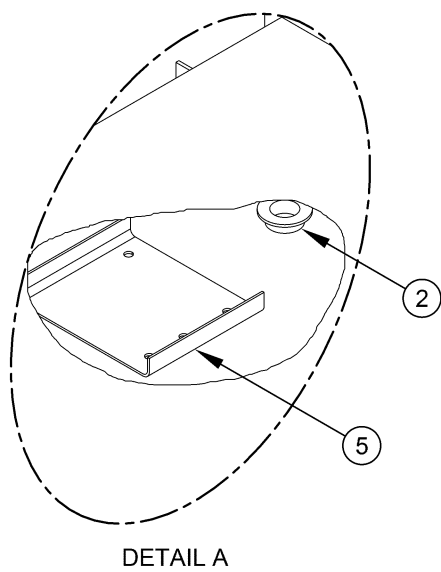
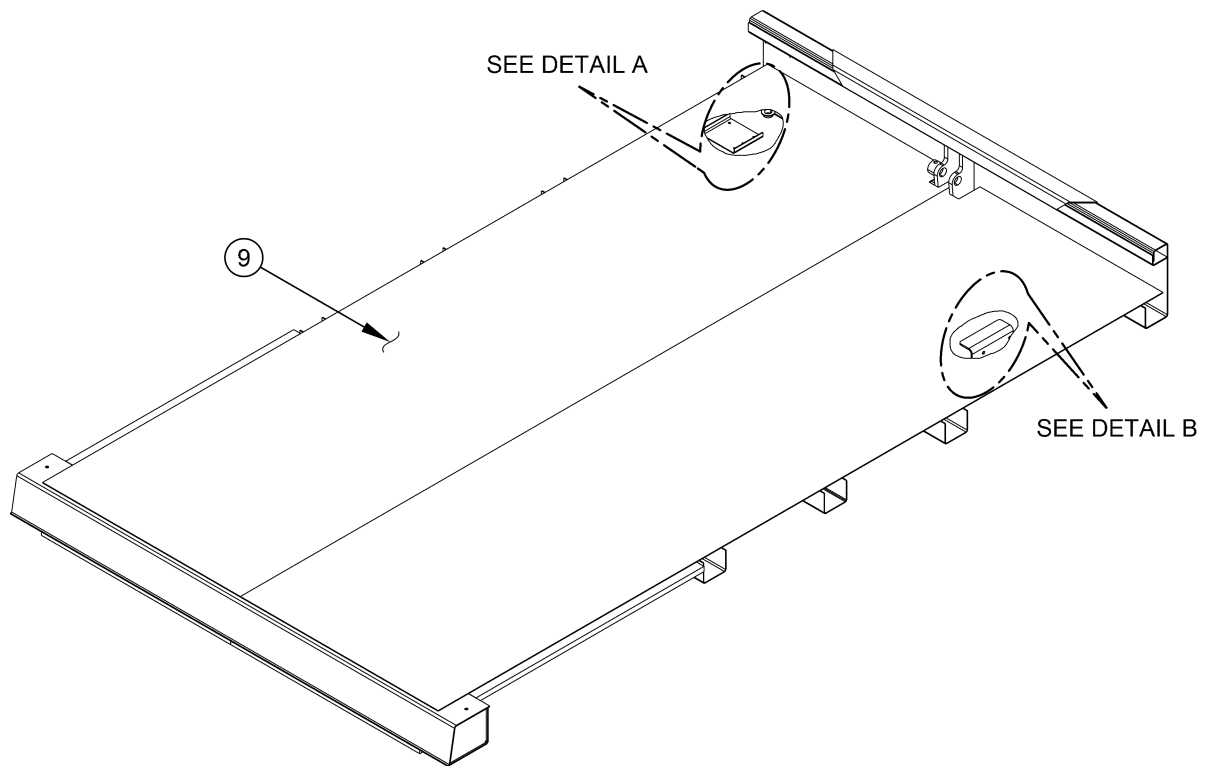
177-5853

51

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	177-5853	CROSS MEMBER, Roof, 20 Yd.	-	REF
1	040-2072	COLLAR, 1.88 ID x 2-1/2" OD, Steel	-	4
6	177-5853-001	BRACE, Cross Member, Roof, 20 Yd.	-	1
7	177-5853-002	BRACE, Cross Member, Roof, 20 Yd.	-	1

Note: Items 2-5 are Welded.

NYC Formula® 4000
20 YARD SUBFRAME ASSEMBLY
237-9728



NYC Formula® 4000

20 YARD SUBFRAME ASSEMBLY

237-9728

53

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	237-9728	ASSEMBLY, Subframe, 20 Yd.	-	REF
2	074-1827-006	FLANGE, Tank, 1"	-	1
5	211-4643	BRACKET, Valve, 12 Ga.	-	1
9	237-7391-003	SHEET, Floor, #10 Ga.	-	2
18	311-5634	BRACKET, Valve, Pump, 1/4"	-	1

Note: Items 1, 3, 4, 6-8, 10-17 and 19 are Welded.

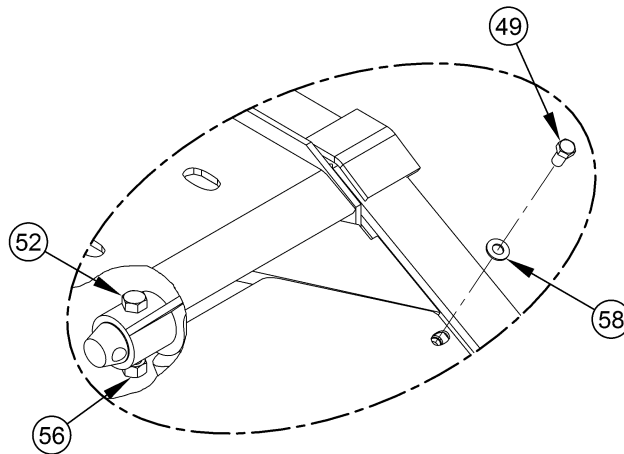
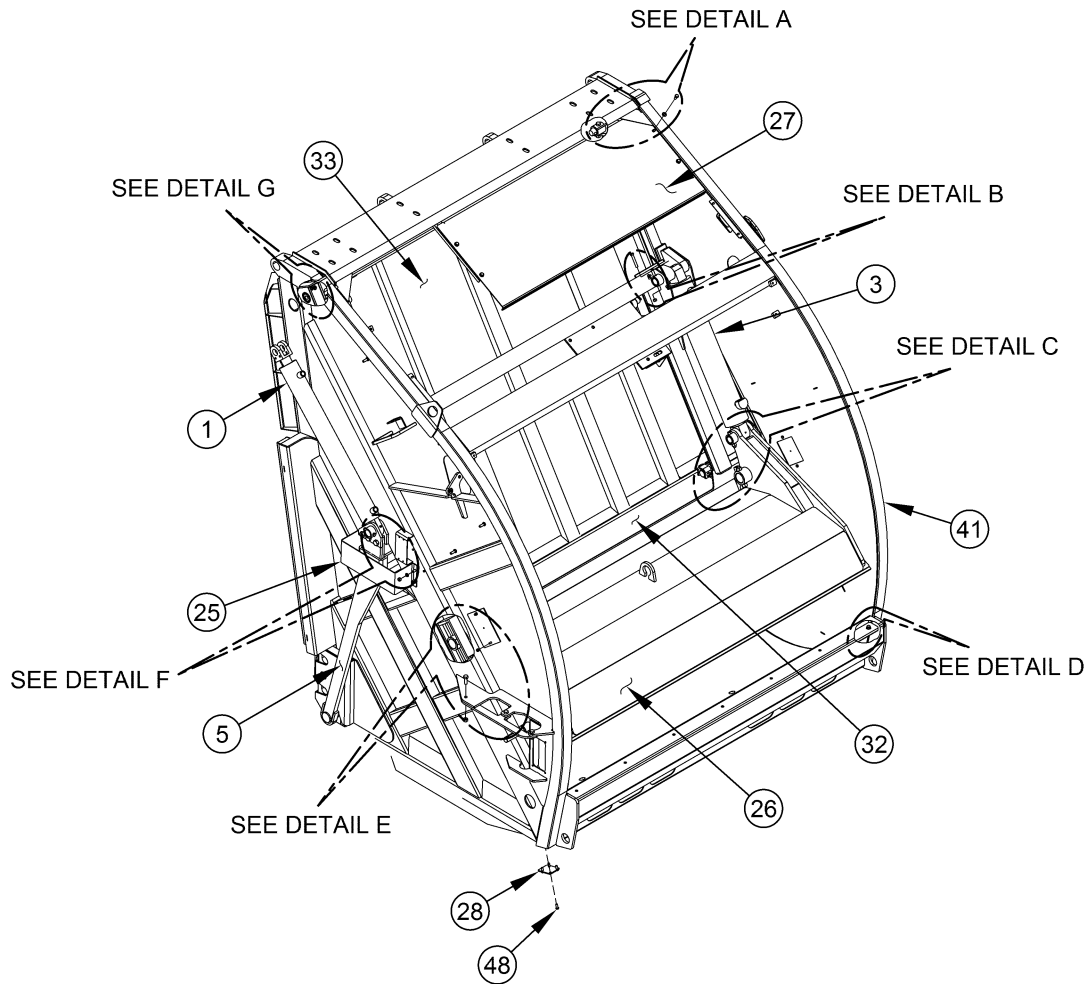
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TAILGATE ASSEMBLY

NYC Formula[®] 4000

TAILGATE ASSEMBLY

615-6664



DETAIL A

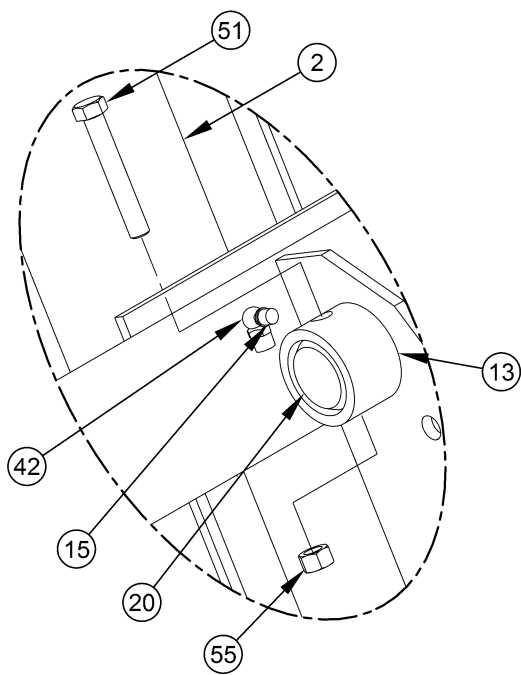
SHEET 1 OF 3

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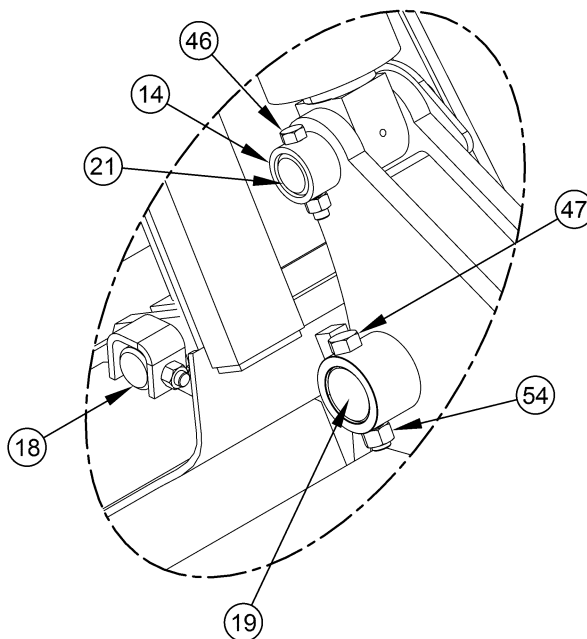
NYC Formula® 4000

TAILGATE ASSEMBLY

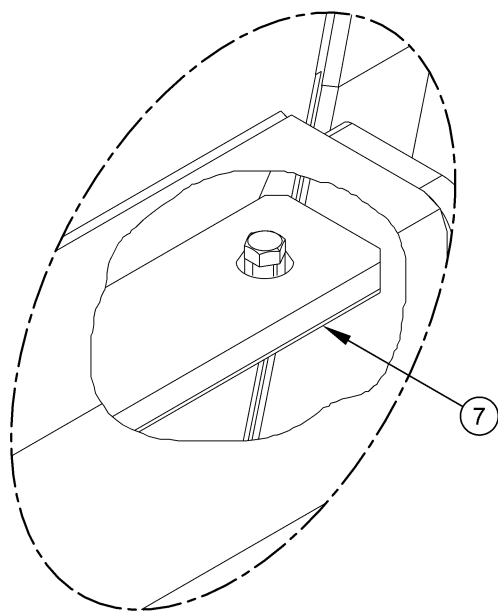
615-6664



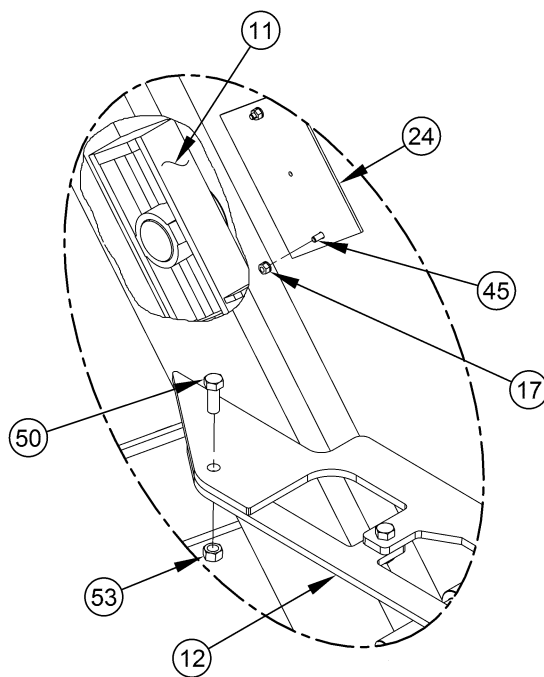
DETAIL B



DETAIL C



DETAIL D



DETAIL E

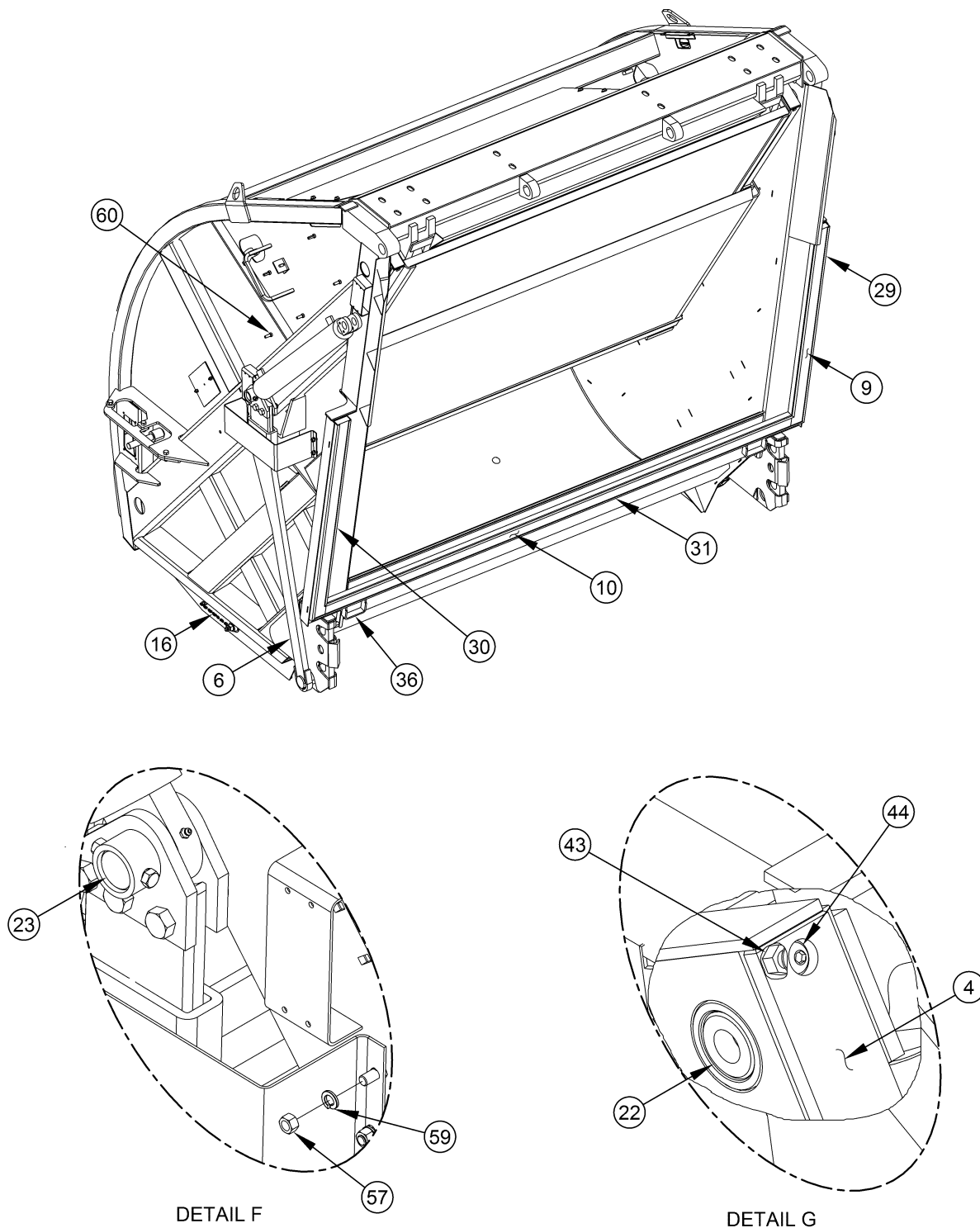
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NYC Formula[®] 4000

TAILGATE ASSEMBLY

615-6664



SHEET 3 OF 3

NYC Formula® 4000

TAILGATE ASSEMBLY

615-6664

61

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	615-6664	ASSEMBLY, Tailgate	-	REF
1	001-7026	CYLINDER, Tailgate Raise, Narrow (See Section 5)	-	2
2	001-7076	CYLINDER, Slide, Tailgate (See Section 5)	-	2
3	001-7077	CYLINDER, Blade, Tailgate (See Section 5)	-	2
4	003-4117	BAR, Bearing, Slide	-	4
5	004-2528	WELDMENT, Hook, Lock, CS ⁶⁴	-	1
6	004-2529	WELDMENT, Hook, Lock, SS ⁶⁶	-	1
7	014-2110	PAD, Hopper Lip, 79-1/2"	-	1
9	022-4028	SEAL, Tailgate, 1" x 2-1/2", 42-1/2" Lg.	-	2
10	022-4041	SEAL, Tailgate, 1" x 2-1/2", 20 Yd.	-	1
11	028-0358	SHOE, Blade	-	2
12	035-3656	GUARD, Tailgate, Narrow, 3/8"	-	2
13	040-2071	COLLAR, 1-1/2" ID x 2" OD	-	2
14	040-2228	COLLAR, Steel Tube, 1.5" ID x 2" OD	-	2
15	042-1356	CAP, Fitting, Grease	-	2
16	042-2044	ASSEMBLY, Plug, Hopper ⁶⁸	-	1
17	047-1727	NUT, Flange, 1/4"-20	-	4
18	048-3771	PIN, Slide Cylinder to Outer, 1-1/2" Dia.	-	2
19	048-3777	PIN, Blade to Shoe, 2" Dia.	-	2
20	048-5485	PIN, Cylinder, Blade, Base End, 1-1/2" Dia.	-	2
21	048-5549	PIN, Blade Cylinder to Blade	-	2
22	048-6001	PIN, Pivot, Slide, 1-1/2" Dia.	-	2
23	048-6168	PIN, Cylinder, Tailgate Raise, 1-1/2" Dia.	-	2
24	112-2607	COVER, 7" x 5-1/2", 10 Ga. HRS	-	2
25	113-0734	COVER, Tailgate Lock, #12 Ga.	-	2
26	113-1674-003	ASSEMBLY, Panel, Lower ⁷⁰	-	1
27	113-6737	COVER, Tailgate, Upper, 12 Ga.	-	1
28	113-6738	COVER, Radius Tube, Tailgate, #8 Ga.	-	2
29	177-5813	CHANNEL, Seal, Tailgate, Narrow	-	1
30	177-5814	CHANNEL, Seal, Tailgate, Narrow	-	1
31	177-5856	CHANNEL, Seal, 95", Tailgate, 20 Yd.	-	1
33	237-9731	WELDMENT, Slide, Inner ⁷²	-	1
36	311-5565	BRACKET, Tailgate Prop, 1/4"	-	2
-38	372-7829-003	KIT, Electrical, Tailgate (See Section 6)	-	1
-39	372-7874	INSTALLATION, Hydraulic, Tailgate, 20 Yd. (See Section 4)	-	1
-40	372-7878	KIT, Control, Tailgate (See Section 3)	-	1
41	615-6663	WELDMENT, Tailgate ⁷⁴	-	1
42	FS190490	FITTING, Grease, 90°, 1/8" NPT	-	2
43	FS230900	NUT, Lock, 3/8"-16, Gr. 5	-	8
44	FS410916	SCREW, Mach., Flat Hd., 3/8" x 13/16"	-	8
45	FSP070715	HHCS, 1/4"-20 x 3/4", Gr. 5 Plated	-	4

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NYC Formula® 4000

TAILGATE ASSEMBLY

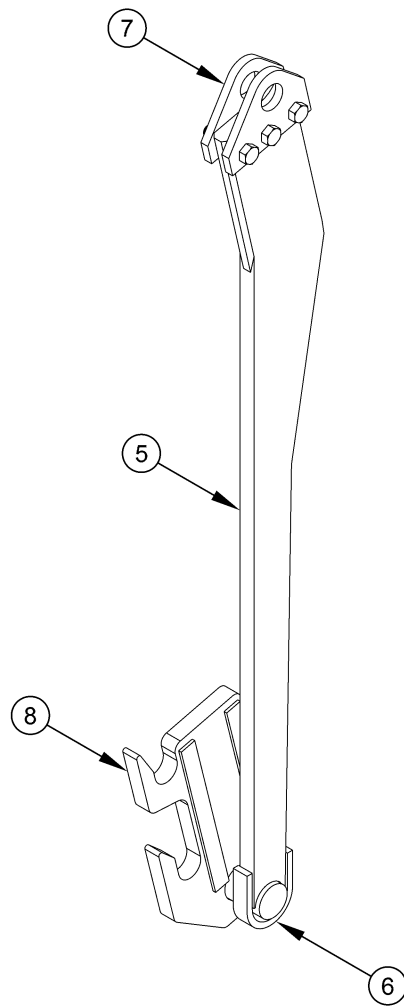
615-6664

63

ITEM	PART NO.	DESCRIPTION	EFF	QTY
46	FSP071136	HHCS, 1/2"-13 x 2-3/4", Gr. 5, Plated	-	4
47	FSP071344	HHCS, 5/8"-11 x 3-1/2", Gr. 5, Plated	-	2
48	FSP080815	HHCS, 5/16"-18 x 3/4", Gr. 8, Plated	-	4
49	FSP080915	HHCS, 3/8"-16 x 3/4", Gr. 8, Plated	-	4
50	FSP081123	HHCS, 13-1/2" x 1-1/4", Gr. 8, Plated	-	6
51	FSP100934	HHCS, 3/8"-24 x 2-1/2", Gr. 5, Plated	-	4
52	FSP101134	HHCS, 1/2"-20 x 2-1/2", Gr. 5, Plated	-	2
53	FSP231100	NUT, Lock, 1/2"-13, Gr. 5, Plated	-	10
54	FSP231300	NUT, Lock, 5/8"-11, Gr. 5, Plated	-	2
55	FSP240900	NUT, Lock, 3/8"-24, Plated	-	4
56	FSP241100	NUT, Lock, 1/2"-20, Gr. 5, Plated	-	2
57	FSP320900	NUT, Lock, 3/8"-16, Gr. 8, Plated	-	8
58	FSP520900	WASHER, Flat, 3/8" SAE, Plated	-	4
59	FSP540900	WASHER, Lock, 3/8"-16, Plain	-	8
60	FSS070920	HHCS, 3/8"-16 x 1", Gr. 5, S/S	-	7

Note: Items 8, 32, 34, 35 and 37 are Welded.
Item 61 is Not Available.

NYC Formula® 4000
CS LOCK HOOK WELDMENT
004-2528



NYC Formula® 4000

CS LOCK HOOK WELDMENT

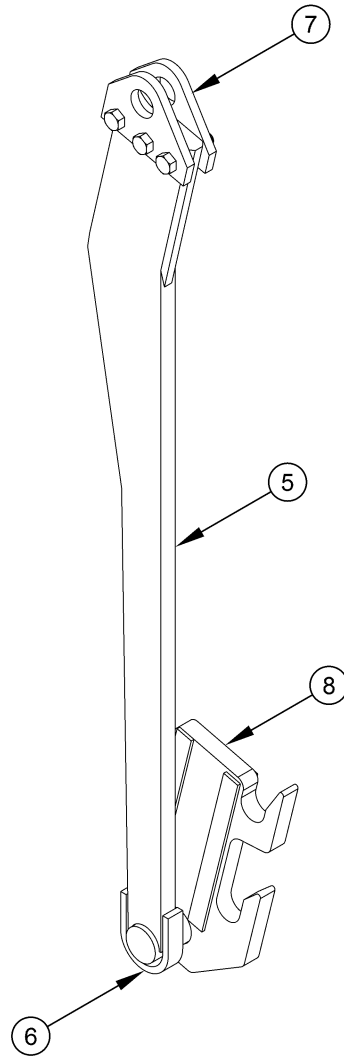
004-2528

65

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	004-2528	WELDMENT, Hook, Lock, CS	-	REF
5	004-2527	ARM, Lock, 1"	-	1
6	004-1965-006	BRACE, Lock, 3/8"	-	1
7	113-0547	LUG, Cylinder, Lock Hook Cap, 1/2"	-	2
8	234-0494	PLATE, Lock, Lower, 1"	-	1

Note: Items 1-4 are Welded.

NYC Formula® 4000
SS LOCK HOOK WELDMENT
004-2529



NYC Formula® 4000

SS LOCK HOOK WELDMENT

004-2529

67

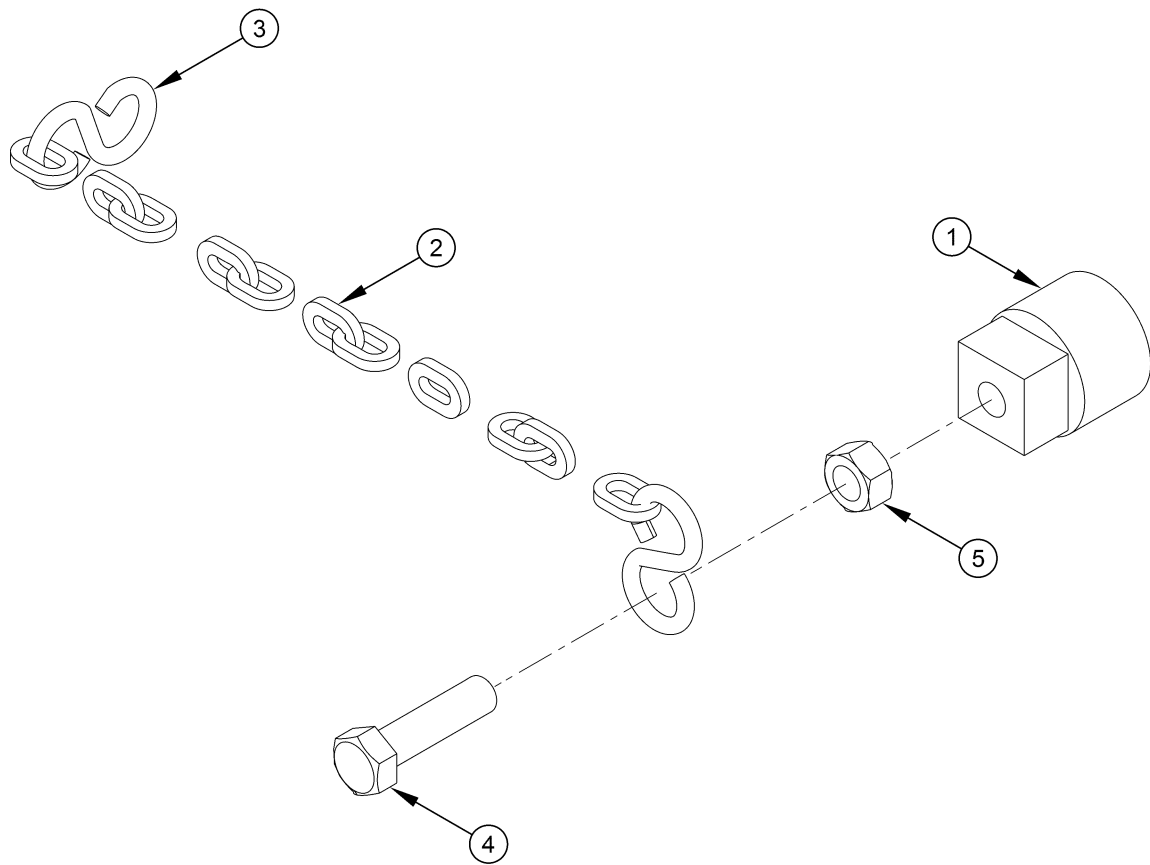
ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	004-2529	WELDMENT, Hook, Lock, SS	-	REF
5	004-2527	ARM, Lock, 1"	-	1
6	004-1965-006	BRACE, Lock, 3/8"	-	1
7	113-0547	LUG, Cylinder, Lock Hook Cap, 1/2"	-	2
8	234-0494	PLATE, Lock, Lower, 1"	-	1

Note: Items 1-4 are Welded.

NYC Formula[®] 4000

HOPPER PLUG ASSEMBLY

042-2044

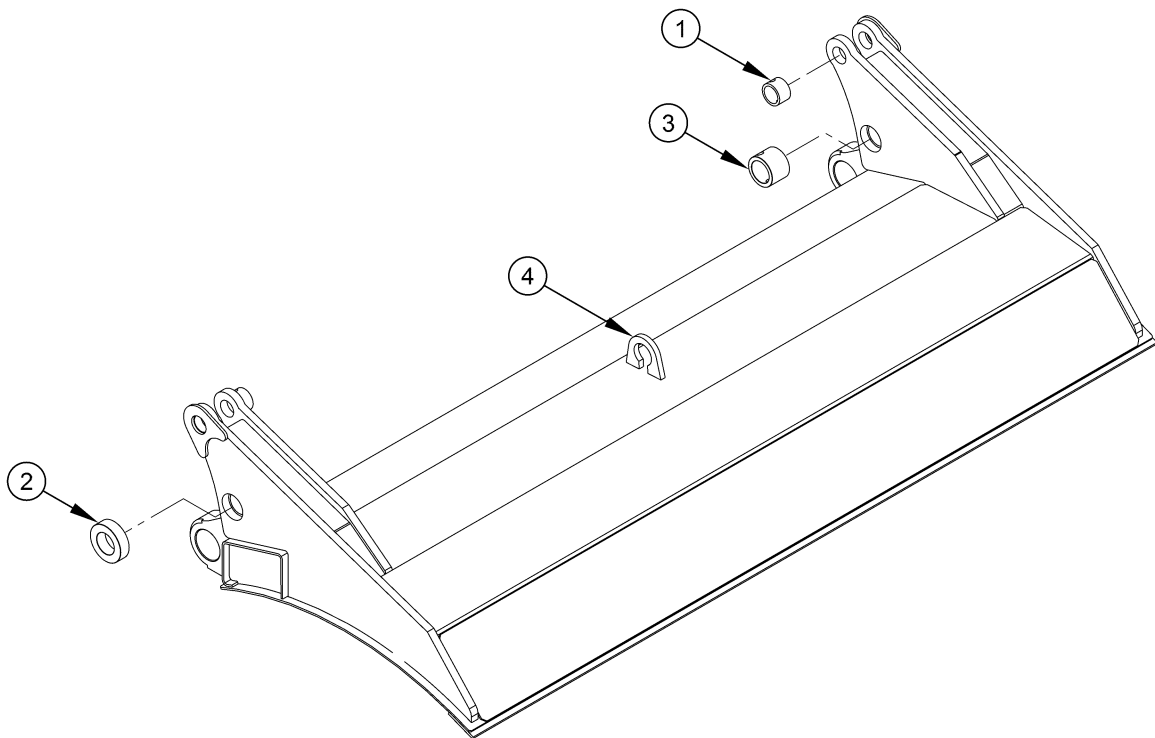


NYC Formula® 4000 **HOPPER PLUG ASSEMBLY** **042-2044**

69

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	042-2044	ASSEMBLY, Plug, Hopper	-	REF
1	042-2042	PLUG, Pipe, Drill and Tap, 5/16"-18	-	1
2	043-0910-010	CHAIN, Twist Link, 10" Lg.	-	1
3	043-0911	"S" HOOK	-	2
4	FSP070822	HHCS, 5/16"-18 x 1-1/4", Gr. 5, Plated	-	1
5	FSP230800	NUT, Lock, 5/16"-18, Gr. 5, Plated	-	1

NYC Formula® 4000
LOWER PANEL ASSEMBLY
113-1674-003



NYC Formula® 4000

LOWER PANEL ASSEMBLY

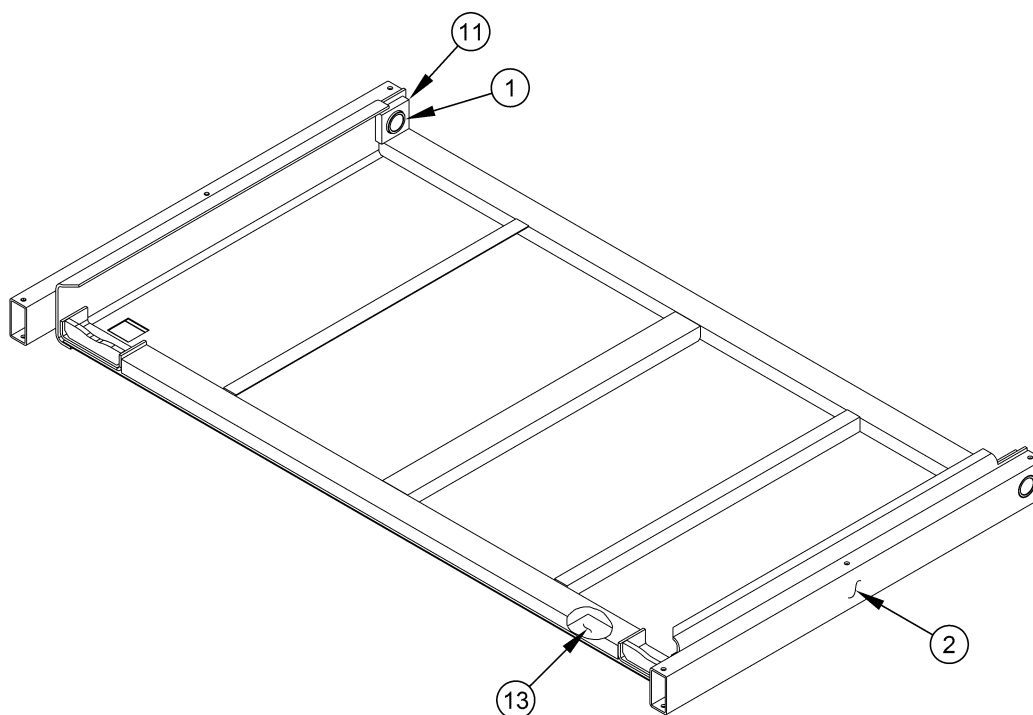
113-1674-003

71

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	113-1674-003	ASSEMBLY, Panel, Lower	-	REF
1	040-2228	COLLAR, Steel Tube, 1.5" ID x 2" OD	-	2
2	040-2626	BEARING, Outer, 3-1/2" OD x 3/4" Wall	-	2
3	040-2627	COLLAR, Bearing, Inner, 2-3/4" OD x 3/8" Wall	-	2
4	111-8072	TAB, Lift, 1/2" HRS	-	1

Note: Items 5-17 are Welded.

NYC Formula® 4000
INNER SLIDE WELDMENT
237-9731



NYC Formula® 4000

INNER SLIDE WELDMENT

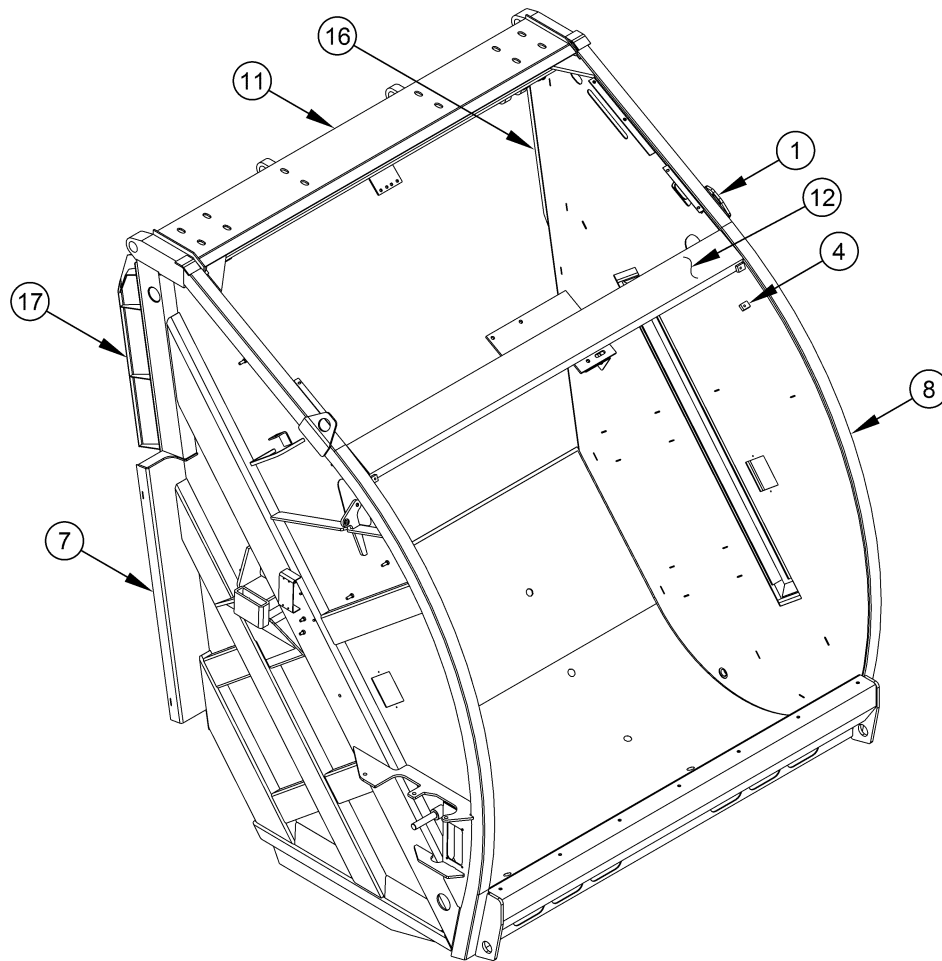
237-9731

73

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	237-9731	WELDMENT, Slide, Inner	-	REF
1	003-3333	BEARING, Slide, Inner, 2" OD x 1-1/2" ID	-	2
2	037-9018-001	TUBE, Rectangular, Slide, Inner, 4" x 2" x 0.187" Wall	-	2
11	077-7427	SUPPORT, Bearing, 3/4"	-	2
13	237-4011-010	PLATE, 12" x 3", 1/4" Th.	-	2

Note: Items 3-10, 12 and 14 are Welded.

NYC Formula® 4000
TAILGATE WELDMENT
615-6663



NYC Formula® 4000

TAILGATE WELDMENT

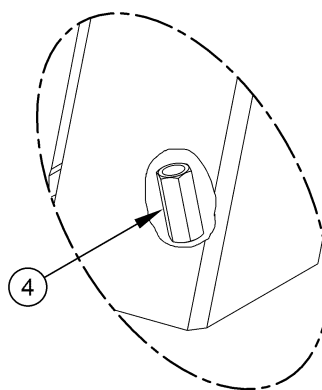
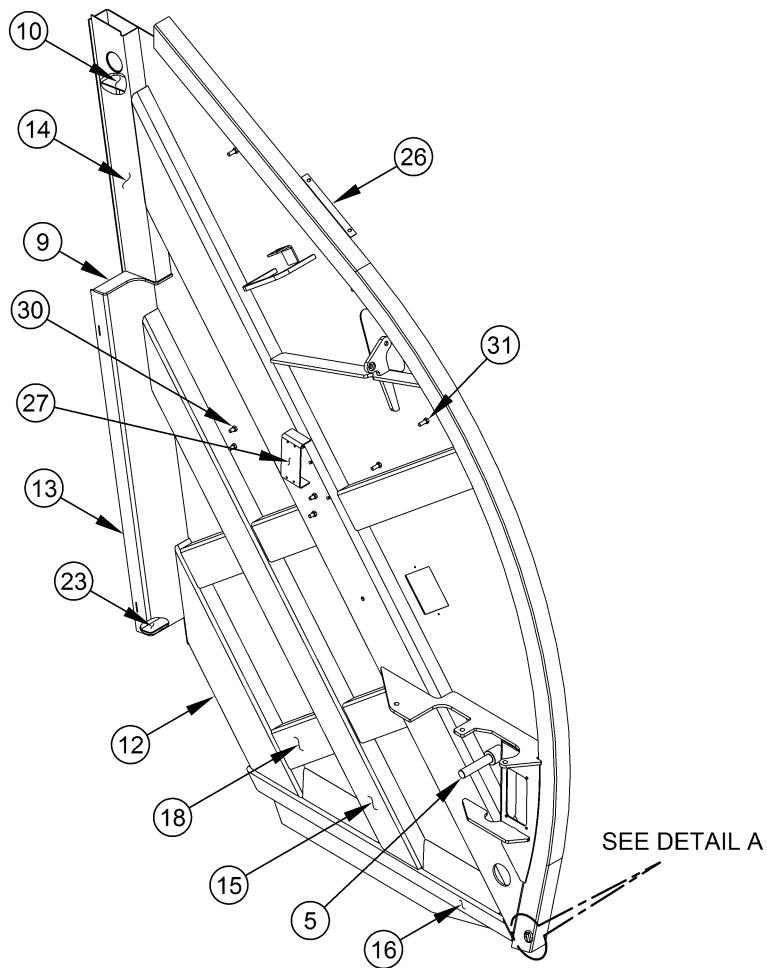
615-6663

75

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	615-6663	WELDMENT, Tailgate	-	REF
1	004-1500	LINK, Lifting	-	2
4	077-6846	SUPPORT, Tube, 5/16"-24	-	4
7	113-0131	WELDMENT, Side Panel, Tailgate, SS ⁽⁷⁶⁾	-	1
8	113-0132	WELDMENT, Side Panel, Tailgate, CS ⁽⁷⁸⁾	-	1
11	177-5851	CROSS MEMBER, Hinge ⁽⁸²⁾	-	1
12	177-5852	ASSEMBLY, Cross Member, Valve ⁽⁸⁴⁾	-	1
16	615-0846-007	CLOSURE, SS, #12 Ga.	-	1
17	615-0846-008	CLOSURE, CS, #12 Ga.	-	1

Note: Items 2, 3, 5, 6, 9, 10, 13-15 and 18-20 are Welded.

NYC Formula® 4000
SS TAILGATE SIDE PANEL WELDMENT
113-0131



DETAIL A

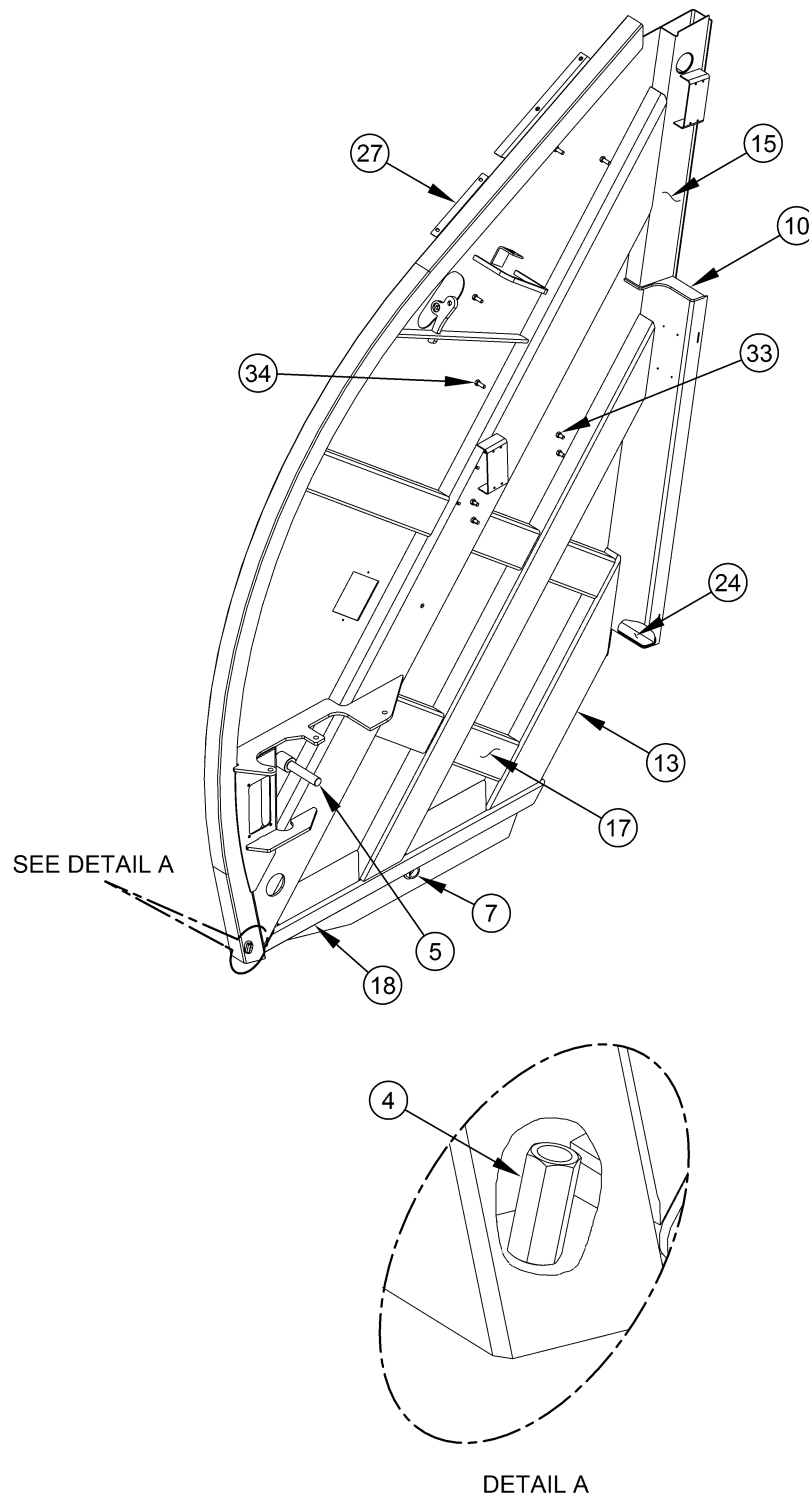
NYC Formula® 4000
SS TAILGATE SIDE PANEL WELDMENT
113-0131

77

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	113-0131	WELDMENT, Side Panel, Tailgate, SS	-	REF
4	047-2367	NUT, Cover, Mounting	-	2
5	048-7496	PIN, Control, Tailgate, 1-3/4" Dia.	-	1
-7	077-7707	SUPPORT, Tube	-	1
9	112-2494-010	BRACE, 1/4"	-	1
10	112-2494-012	GUSSET, 11 Ga.	-	2
12	113-0131-001	BOLSTER, Tailgate Side, #10 Ga.	-	1
13	113-0131-004	BRACE, SS, 11 Ga., 48" Lg.	-	1
14	113-0131-011	BRACE, SS, 11 Ga., 33.19" Lg.	-	1
15	113-0131-020	BRACE, SS, 11 Ga., 70.248" Lg.	-	1
16	113-0131-025	BRACE, SS, 8 Ga., 42.52" Lg.	-	1
18	113-0132-024	BRACE, 11 Ga.	-	4
23	126-4504	CLOSURE, Side Panel, #11 Ga.	-	1
26	211-2485	BRACKET, Angle, 1" x 1" x 1/8"	-	1
27	211-9820	BRACKET, Tailgate Open, 12 Ga.	-	1
30	FSP070913	HHCS, 3/8"-16 x 5/8", Gr. 5, Plated	-	2
31	FSS070920	HHCS, 3/8"-16 x 1", Gr. 5, S/S	-	4

Note: Items 1-3, 6, 8, 11, 17, 19-22, 24, 25, 28 and 29 are Welded.

NYC Formula® 4000
CS TAILGATE SIDE PANEL WELDMENT
113-0132



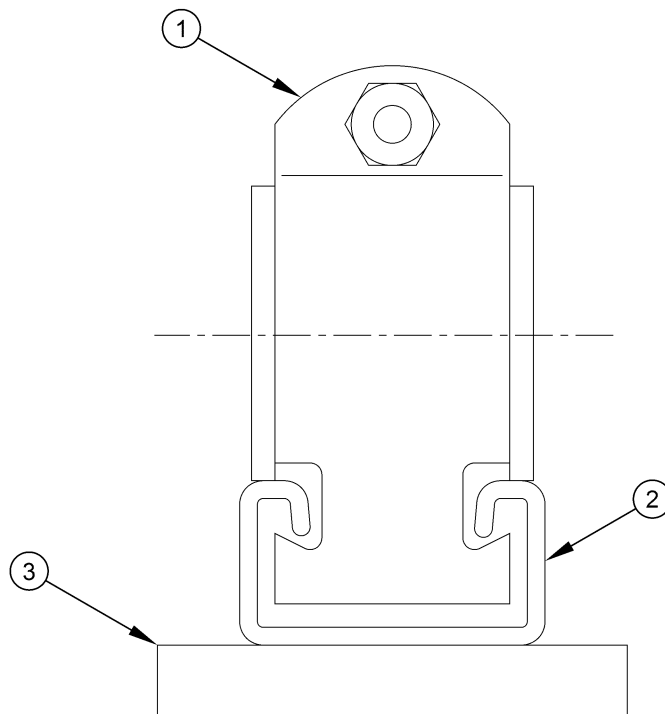
NYC Formula® 4000
CS TAILGATE SIDE PANEL WELDMENT
113-0132

79

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	113-0132	WELDMENT, Side Panel, Tailgate, CS	-	REF
4	047-2367	NUT, Cover, Mounting	-	2
5	048-7496	PIN, Control, Tailgate, 1-3/4" Dia.	-	1
7	074-1827-006	FLANGE, Tank, 1"	-	1
-8	077-7707	SUPPORT, Tube	-	1
10	112-2494-010	BRACE, 1/4"	-	1
13	113-0132-001	BOLSTER, Tailgate Side, #10 Ga.	-	1
15	113-0132-011	BRACE, SS, 11 Ga.	-	1
17	113-0132-024	BRACE, 11 Ga.	-	4
18	113-0132-032	BRACE, SS, 8 Ga., 40.42" Lg.	-	1
24	126-4504	CLOSURE, Side Panel, #11 Ga.	-	1
27	211-2485	BRACKET, Angle, 1" x 1" x 1/8"	-	1
-29	311-0487	WELDMENT, Bracket, Control, Proximity ⁸⁰	-	2
33	FSP070913	HHCS, 3/8"-16 x 5/8", Gr. 5, Plated	-	2
34	FSS070920	HHCS, 3/8"-16 x 1", Gr. 5, S/S	-	5

Note: Items 1-3, 6, 9, 11, 12, 14, 16, 19-23, 25, 26, 28 and 30-32 are Welded.

NYC Formula® 4000
PROXIMITY CONTROL BRACKET WELDMENT
311-0487



NYC Formula® 4000

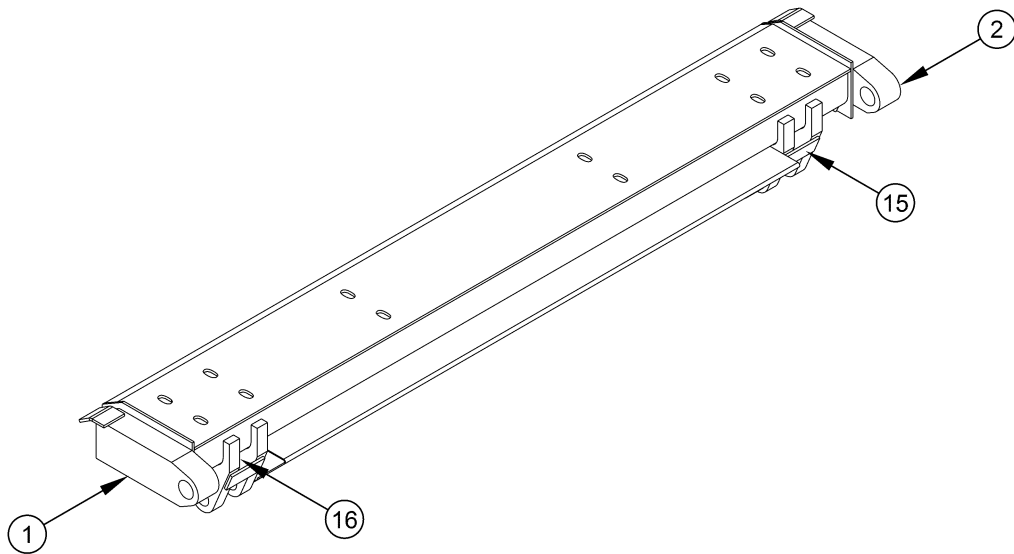
PROXIMITY CONTROL BRACKET WELDMENT

311-0487

81

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	311-0487	WELDMENT, Bracket, Control, Proximity	-	REF
1	036-1474-009	ASSEMBLY, Clamp, Hydraulic Tubing, 1-1/4"	-	1
2	207-2938-006	CHANNEL, Hydraulic, Tube Clamp, 3"	-	1
3	311-0488	BRACKET, Mount, Control, Proximity, 3/8"	-	1

NYC Formula® 4000
HINGE CROSS MEMBER
177-5851



NYC Formula® 4000

HINGE CROSS MEMBER

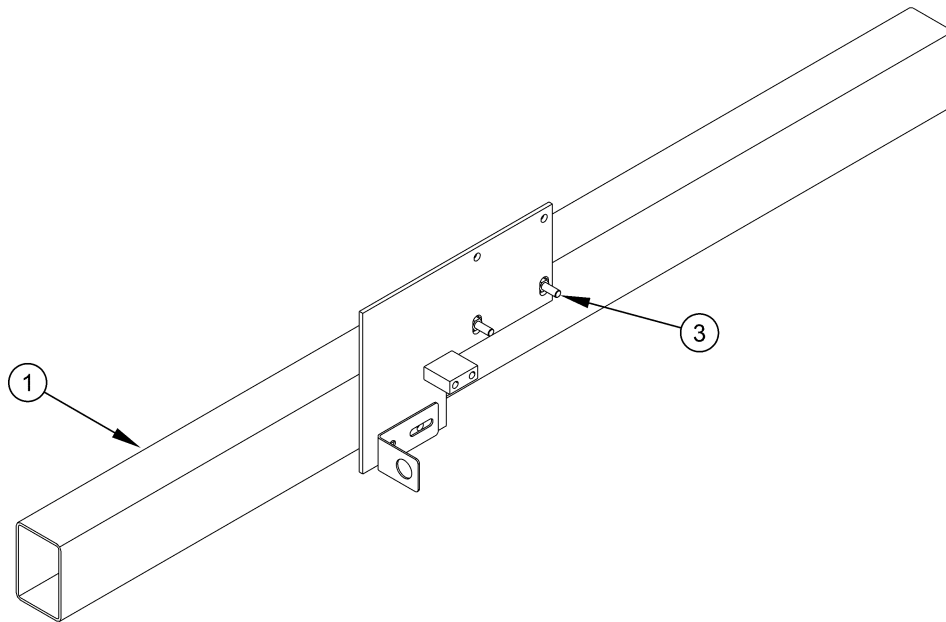
177-5851

83

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	177-5851	CROSS MEMBER, Hinge	-	REF
1	005-3254	HINGE, Tailgate, 2-1/2"	-	1
2	005-3255	HINGE, Tailgate, 2-1/2"	-	1
15	211-4231	BRACKET, 1/4"	-	2
16	211-8872	LUG, Slide Inner, 1-1/4"	-	2

Note: Items 3-14 are Welded.

NYC Formula® 4000
ASSEMBLY VALVE CROSS MEMBER
177-5852



NYC Formula® 4000

ASSEMBLY VALVE CROSS MEMBER

177-5852

85

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	177-5852	ASSEMBLY, Cross Member, Valve	-	REF
1	177-5852-001	CROSS MEMBER, Tailgate, 3/16"	-	1
3	FS071122	HHCS, 1/2"-13 x 1-1/4", Gr. 5	-	2

Note: Item 2 is Welded.

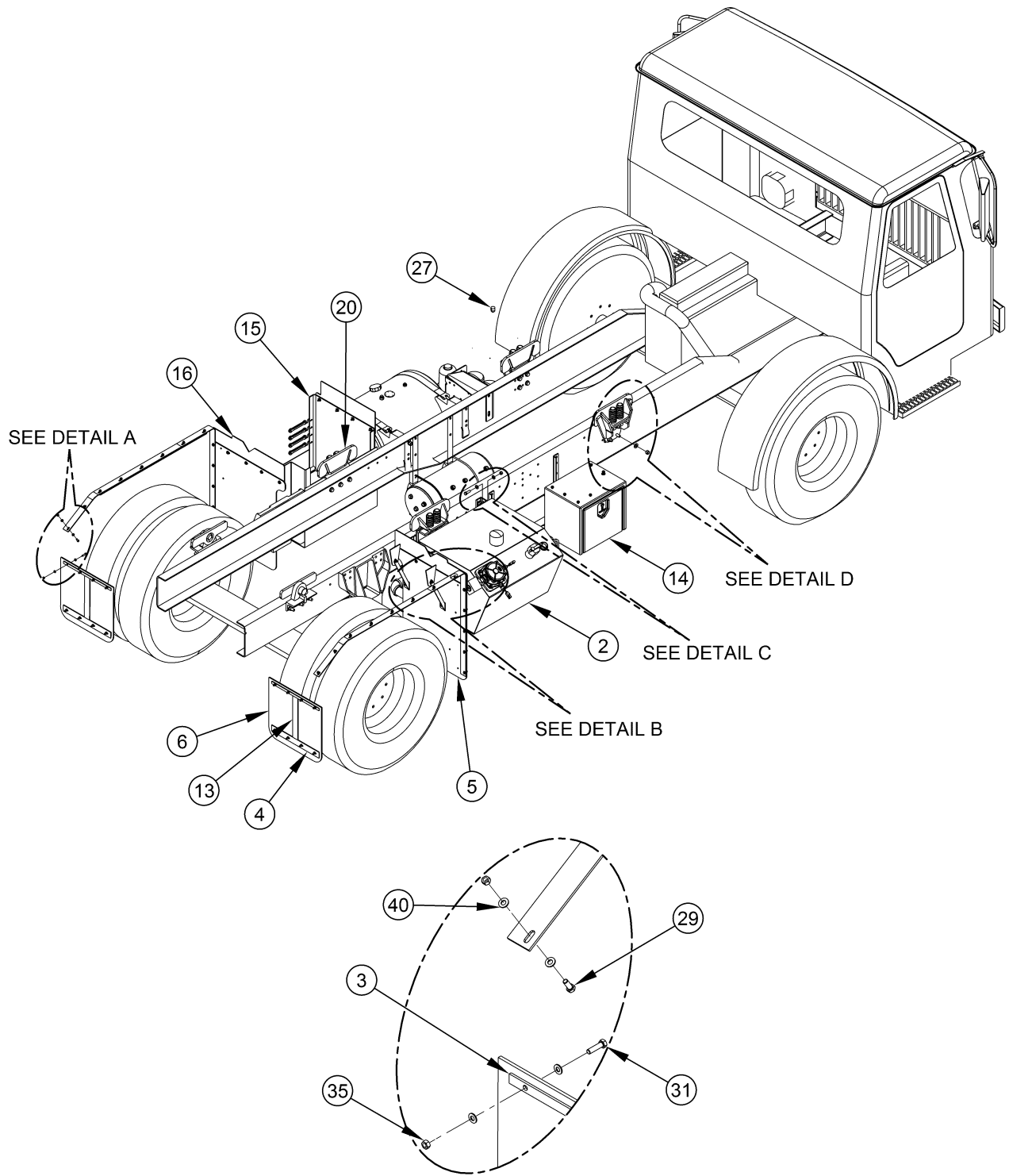
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MOUNTING KITS

NYC Formula® 4000

MOUNT KIT

372-7876



DETAIL A

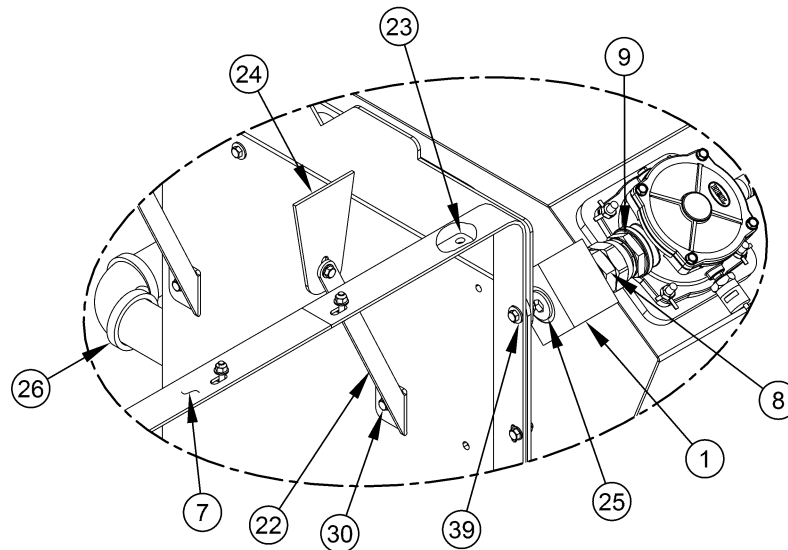
SHEET 1 OF 2

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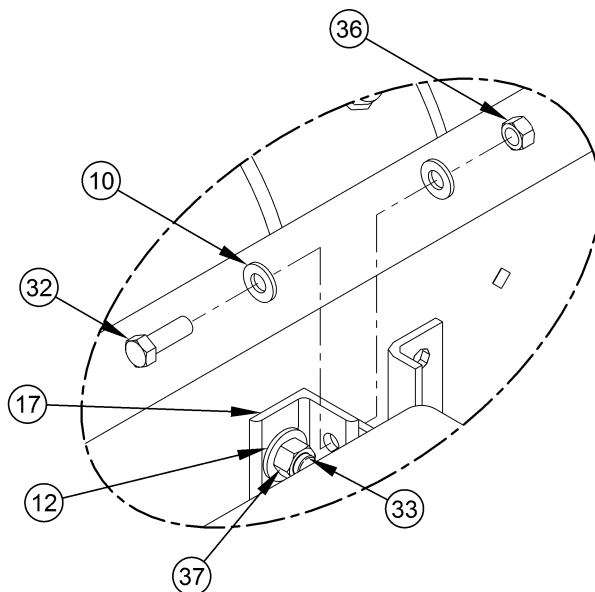
NYC Formula® 4000

MOUNT KIT

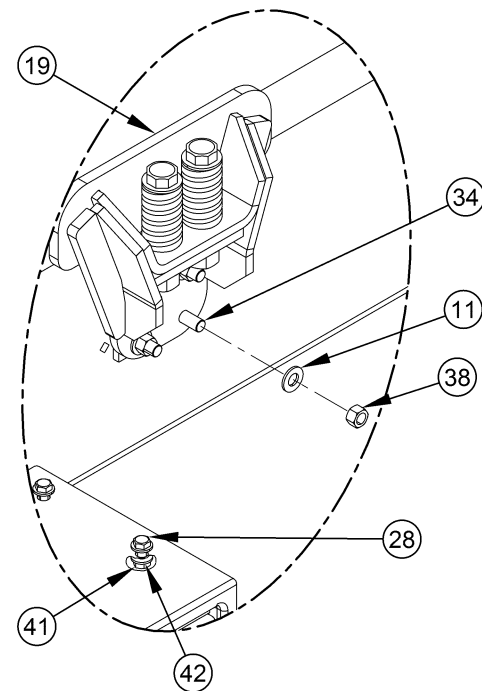
372-7876



DETAIL B



DETAIL C



DETAIL D

SHEET 2 OF 2

NYC Formula® 4000

MOUNT KIT

372-7876

91

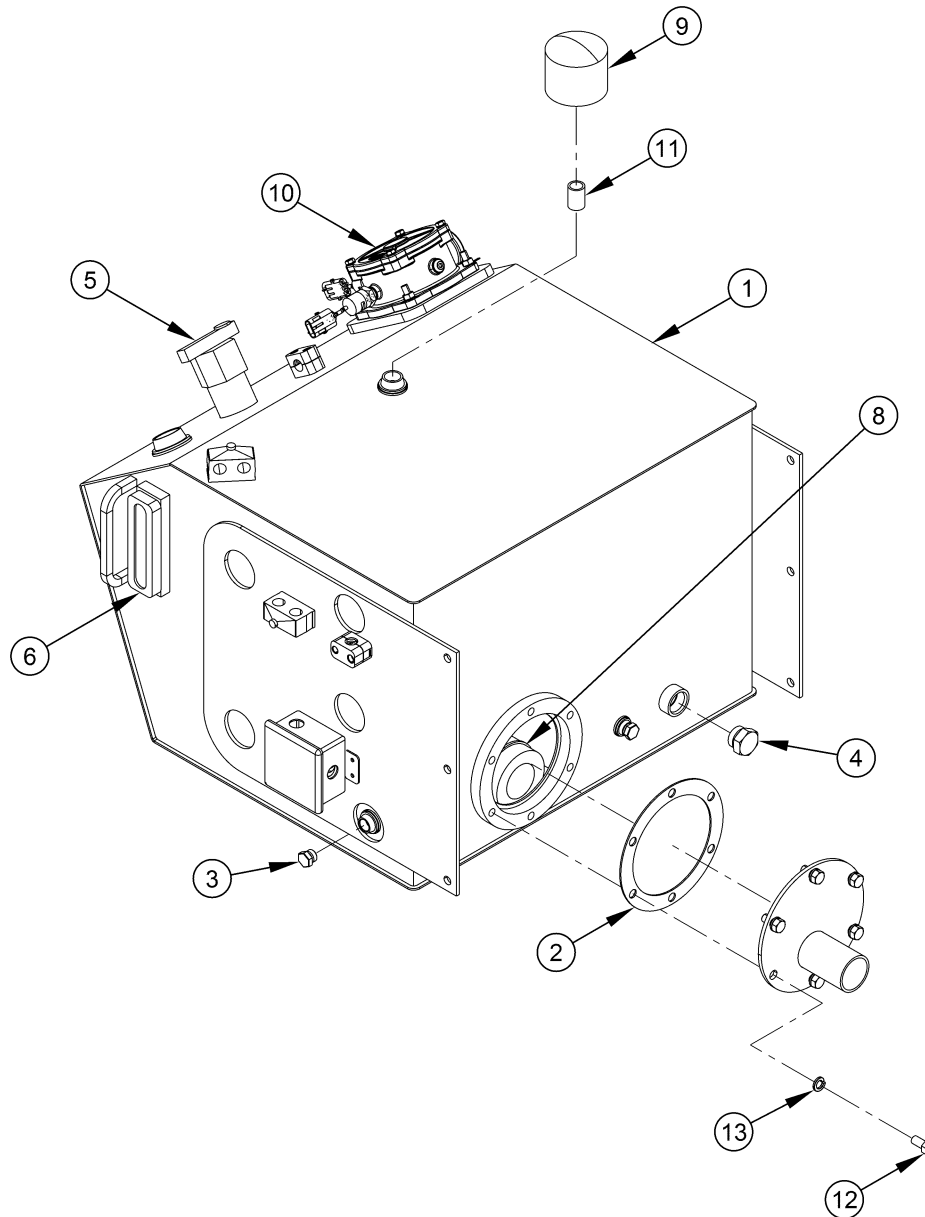
ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	372-7876	KIT, Mount	-	REF
1	002-1244	MANIFOLD, Return Line	-	1
2	020-2659	ASSEMBLY, Oil Tank ⁽⁹²⁾	-	1
3	021-4432	SUPPORT, Mudflap, 18-1/2", 7 Ga.	-	2
4	021-4433	SUPPORT, Mudflap, 18-1/2", 7 Ga.	-	2
5	035-3159-002	MUDFLAP, Steel, 11 Yd., 1/4"	-	2
6	035-3668	MUDFLAP, Rubber, Black	-	2
7	035-3702	MUDFLAP, Body, 20 Yd.	-	2
8	054-3341-012	CONNECTOR, Male, Tube to Str. Thd., 1-7/8"-12 x 1-1/2", #24	-	1
9	054-7496-008	CONNECTOR, Swivel, SAE Male, O-Ring, 1-1/2" x 37° Female, Tube 1-1/2"	-	1
10	055-1391-005	WASHER, Steel, Hardened, 1/2" x 1/8" Thickness, Zinc Plated	-	12
11	055-1391-007	WASHER, Steel, Hardened, 5/8" x 0.121" Thickness, Zinc, Plated	-	40
12	055-1391-008	WASHER, Steel, Hardened, 3/4" x 0.16" Thickness, Zinc Plated	-	8
13	126-4329-001	SUPPORT, Mudflap, 0.18" x 2", Flat, #7 Ga.	-	2
14	151-4696	BOX, Tool, 14" x 16" x 18"	-	1
15	151-4758	ASSEMBLY, Tire Bin, 20 Yd. ⁽⁹⁸⁾	-	1
16	151-4758-001	BRACKET, Mudflap, Steel, 20 Yd.	-	1
17	211-4055	BRACKET, Tank Mtg., 2" x 2" x 1/4" HRS	-	2
19	311-3082	BRACKET, Mounting ⁽¹⁰⁰⁾	-	2
20	311-3400	BRACKET, Center Mount ⁽¹⁰²⁾	-	2
22	311-4176-003	STIFFENER, Mudflap, 3/16"	-	2
23	311-6105	BRACKET, Rubber Fender, 1/4", 20 Yd., 41-3/4" Lg.	-	2
24	311-6106	BRACKET, Support, Mudflap	-	2
25	354-3776-010	PLUG, Hex, Hollow, 1" ORB	-	1
26	372-7883	KIT, Quick Disconnect, Suction, 20 Yd. ⁽¹⁰³⁾	-	1
27	FS902001	PLUG, Pipe, 1" NPT x 1/16", Iron	-	1
28	FSP070715	HHCS, 1/4"-20 x 3/4", Gr. 5 Plated	-	6
29	FSP070817	HHCS, 5/16"-18 x 7/8", Gr. 5, Plated	-	2
30	FSP070820	HHCS, 5/16"-18 x 1", Gr. 5, Plated	-	14
31	FSP070822	HHCS, 5/16"-18 x 1-1/4", Gr. 5, Plated	-	34
32	FSP081124	HHCS, 1/2"-13 x 1-1/2", Gr. 8, Plated	-	6
33	FSP111326	HHCS, 5/8"-11 x 13/4", Gr. 8, Plated	-	4
34	FSP111334	HHCS, 5/8"-18 x 2-1/2", Gr. 8, Plated	-	20
35	FSP230800	NUT, Lock, 5/16"-18, Gr. 5, Plated	-	50
36	FSP231100	NUT, Lock, 1/2"-13, Gr. 5, Plated	-	6
37	FSP351300	NUT, Lock, 5/8"-18, Gr. 8, Plated	-	4
38	FSP351300	NUT, Lock, 5/8"-18, Gr. 8, Plated	-	20
39	FSP510800	WASHER, Flat, 5/16" Std., Plated	-	10
40	FSP520800	WASHER, Flat, 5/16", SAE, Plain	-	90
41	FSS230700	NUT, Lock, 1/4"-20, Gr. 5, S/S	-	6
42	FSS520700	WASHER, Flat, 1/4" SAE, Plain, S/S	-	12

Note: Items 18 and 21 is Welded.

NYC Formula[®] 4000

OIL TANK ASSEMBLY

020-2659



NYC Formula® 4000

OIL TANK ASSEMBLY

020-2659

93

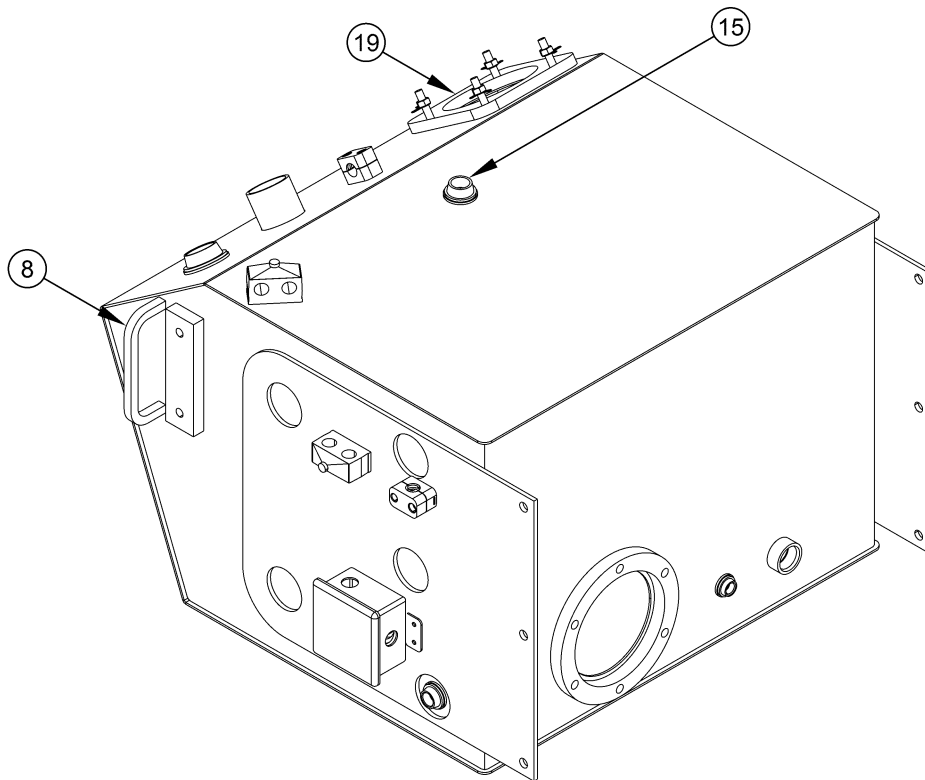
ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	020-2659	ASSEMBLY, Oil Tank	-	REF
1	020-2658	WELDMENT, Oil Tank ⁽⁹⁴⁾	-	1
2	022-2707	GASKET, Oil Tank	-	1
3	054-3342-006	PLUG, Str. Thd., 3/4"-16 x 1/2", #8	-	3
4	054-3342-010	PLUG, Str. Thd., 1-5/16"-12 x 1", #16	-	3
5	060-0419	FILLER, Cap, 2 NPT, Female Threads	-	1
6	067-0630	GAUGE, Sight, Thermometer, 1/2"-13	-	1
8	075-0578	STRAINER, Suction, 100 Mesh	-	1
9	075-0712	FILTER, Breather	-	1
10	075-0953	FILTER, Return Line (See Section 5)	-	1
11	FS881500	NIPPLE, Black Std., 3/4" x Close	-	1
12	FSP071120	HHCS, 1/2"-13 x 1" Gr. 5, Plated	-	6
13	FSP541100	WASHER, Lock, 1/2", Plain, Plated	-	6

Note: Item 7 is Welded.

NYC Formula® 4000

OIL TANK WELDMENT

020-2658



NYC Formula® 4000

OIL TANK WELDMENT

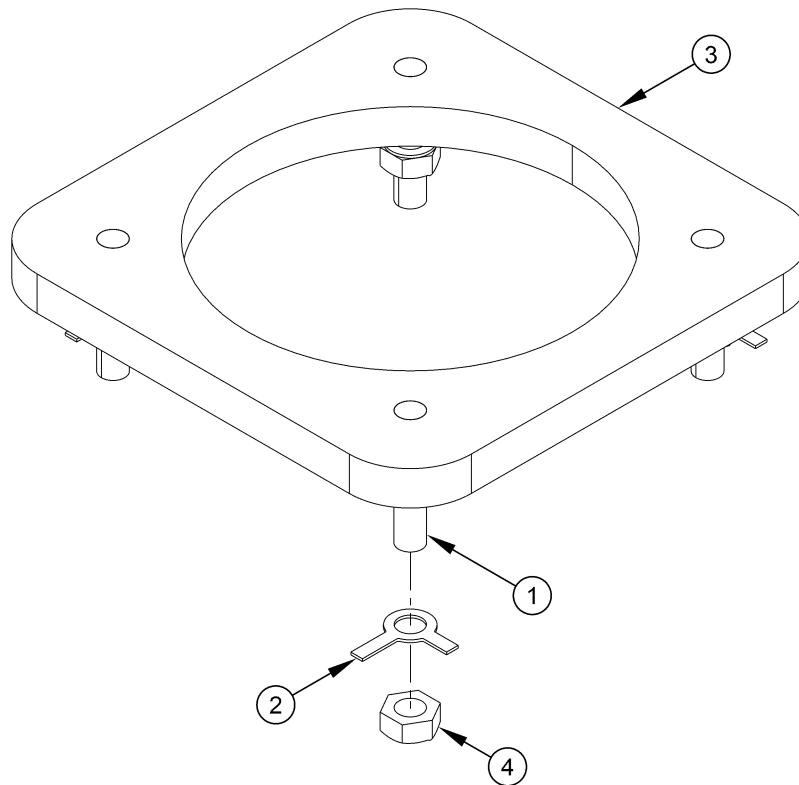
020-2658

95

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	020-2658	WELDMENT, Oil Tank	-	REF
8	035-3511	GUARD, Sight Gauge, Oil Tank	-	1
15	074-1827-005	FLANGE, Tank, 3/4" NPT	-	2
19	211-7154	BRACKET, Mounting, Filter ⁹⁶	-	1

Note: Items 1-7, 9-14, 16-18 are Welded.

NYC Formula® 4000
FILTER MOUNTING BRACKET
211-7154



NYC Formula® 4000

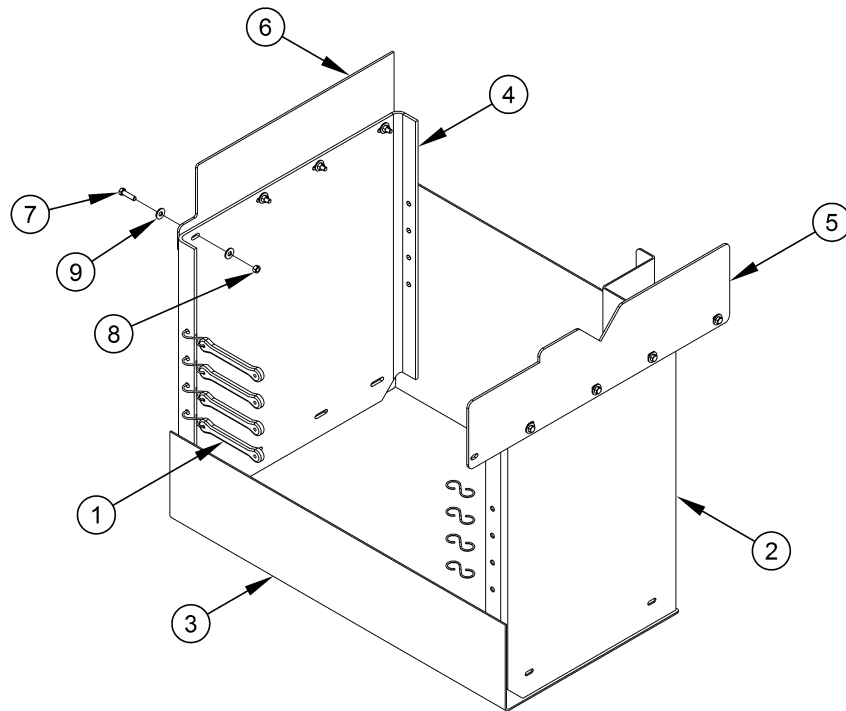
FILTER MOUNTING BRACKET

211-7154

97

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	211-7154	BRACKET, Mounting, Filter	-	REF
1	047-2293-001	STUD, Double End, 3/8"-16	-	4
2	053-1997	LOCK, Nut, 3/8"	-	4
3	211-7154-001	PLATE, Mounting, Filter	-	1
4	FS270900	NUT, Hex., 3/8"-24	-	4

NYC Formula® 4000
20 YARD TIRE BIN ASSEMBLY
151-4758



NYC Formula® 4000

20 YARD TIRE BIN ASSEMBLY

151-4758

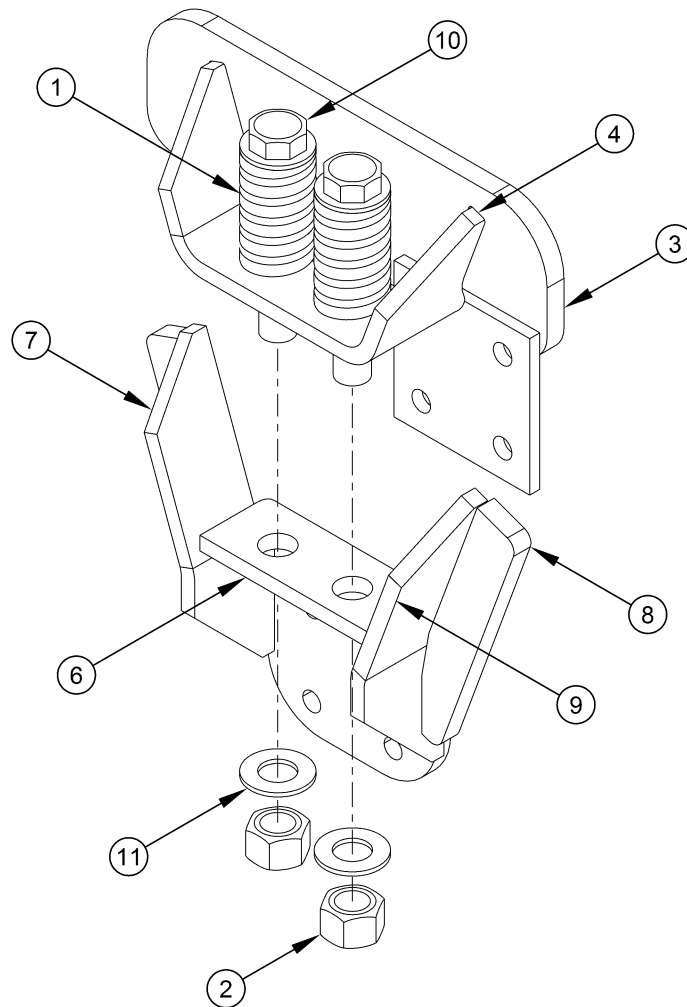
99

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	151-4758	ASSEMBLY, Tire Bin, 20 Yd.	-	REF
1	036-1604-002	STRAP, Utility, Rubber, 24"	-	4
2	113-5910	PLATE, End, Paper Bin, 1/4"	-	1
3	113-5911	RACK, New Paper, #10 Ga.	-	1
4	151-4160-001	PLATE, Paper Rack, 1/4"	-	1
5	151-4758-001	BRACKET, Mudflap, Steel, 20 Yd.	-	1
6	211-0680-001	BRACKET, News Paper Pack, 3/16"	-	1
7	FSP070822	HHCS, 5/16"-18 x 1-1/4", Gr. 5, Plated	-	8
8	FSP230800	NUT, Lock, 5/16"-18, Gr. 5, Plated	-	8
9	FSP510800	WASHER, Flat, 5/16" Std., Plated	-	16

NYC Formula[®] 4000

MOUNTING BRACKET

311-3082



NYC Formula® 4000

MOUNTING BRACKET

311-3082

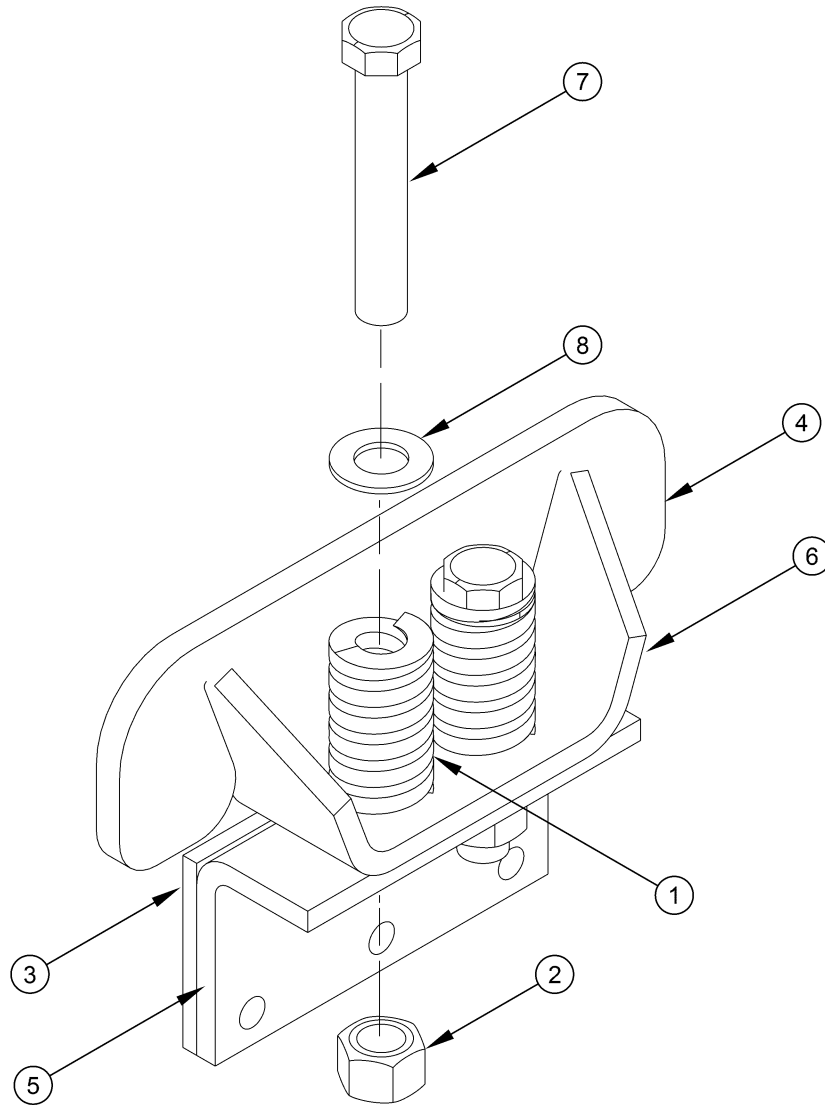
101

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	311-3082	BRACKET, Mtg.	-	REF
1	019-1242	SPRING, 1" OD x 6"	-	2
2	047-2161	NUT, 1"-8	-	2
3	177-4460	BRACKET, Mtg.	-	1
4	211-4667	BRACKET, Spring Mount	-	1
-5	234-1338-004	PLATE, Mtg., 3/8" Thickness	-	1
6	311-3082-001	BRACKET, Mtg., 1/2"	-	1
7	311-3082-002	BRACKET, Spring Mount, 1/2", SS	-	1
8	311-3082-003	STIFFENER, Mount Guide, 5/8"	-	2
9	311-3082-004	BRACKET, Spring Mount, 1/2", CS	-	1
10	FS072070	HHCS, 1"-8 x 6", Gr. 5	-	2
11	FS522000	WASHER, Flat, 1", SAE, Plain	-	4

NYC Formula® 4000

CENTER MOUNT BRACKET

311-3400



NYC Formula® 4000

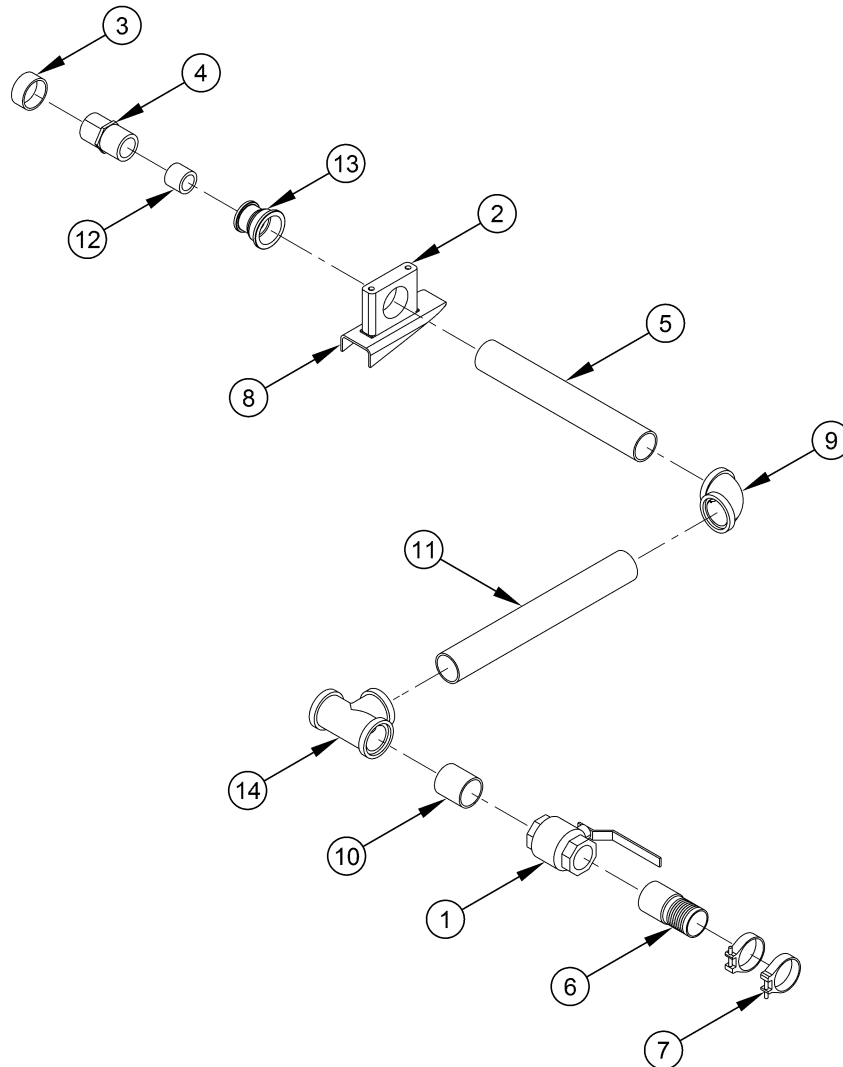
CENTER MOUNT BRACKET

311-3400

103

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	311-3400	BRACKET, Mount, Center	-	REF
1	019-1242	SPRING, 1" OD x 6"	-	2
2	047-2161	NUT, 1"-8	-	2
3	134-7642-004	PLATE, Floor, #11 Ga.	-	1
4	177-4460	BRACKET, Mtg.	-	1
5	211-4461	BRACKET, Mtg., Control, A Frame	-	1
6	211-4667	BRACKET, Spring Mount	-	1
7	FS072070	HHCS, 1"-8 x 6", Gr. 5	-	2
8	FS522000	WASHER, Flat, 1", SAE, Plain	-	2

NYC Formula[®] 4000
20 YARD SUCTION QUICK DISCONNECT KIT
372-7883



NYC Formula® 4000

20 YARD SUCTION QUICK DISCONNECT KIT

372-7883

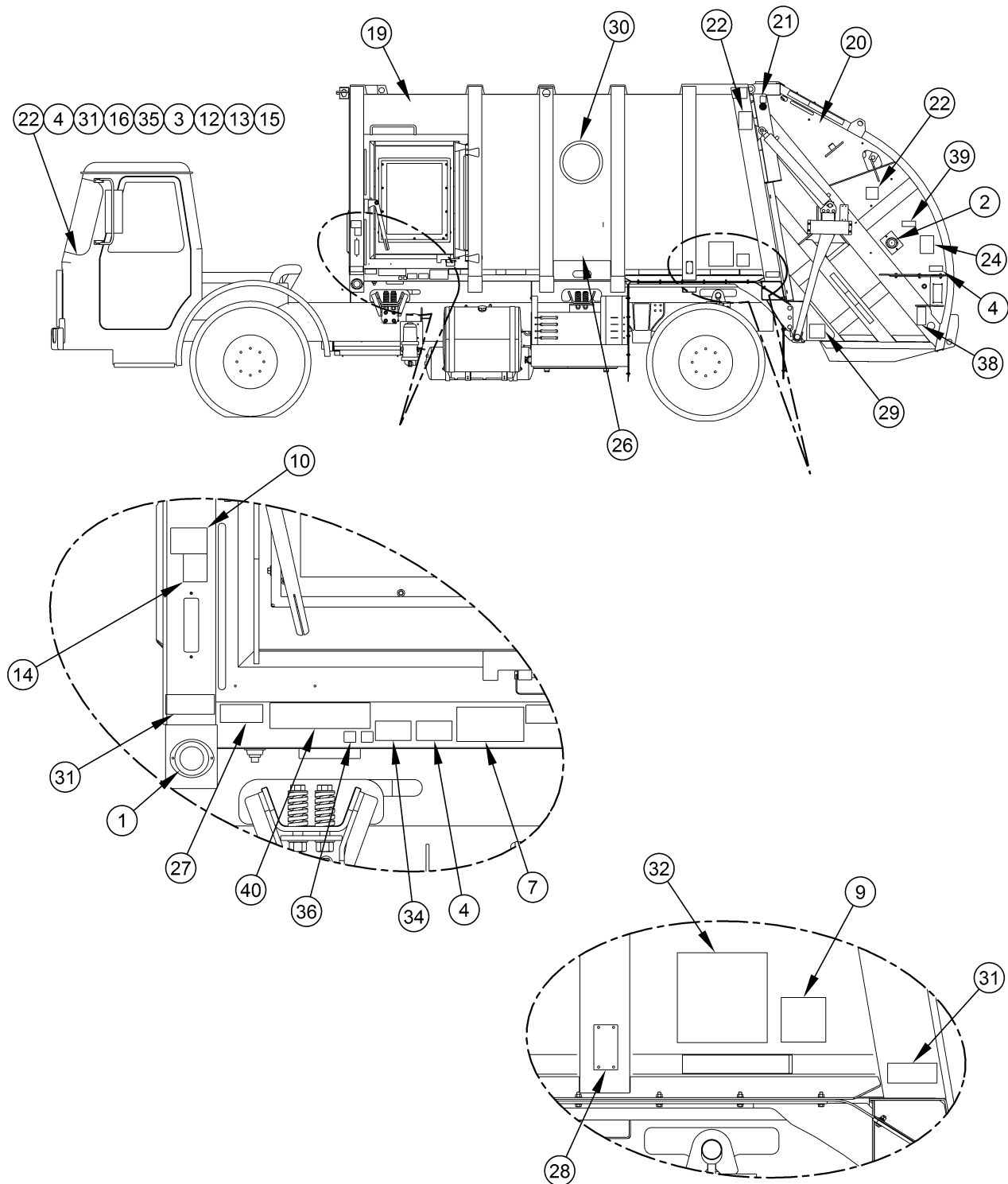
105

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	372-7883	KIT, Quick Disconnect, Suction, 20 Yd.	-	REF
1	031-2616	VALVE, Shut Off, Suction Line, 2"	-	1
2	036-1597-013	CLAMP, Tube, Hydraulic, 2-1/2"	-	1
3	042-1348	CAP, Dust w/Chain	-	1
4	045-1011	DISCONNECT, Quick, 1-1/ 4" NPT	-	1
5	057-2899-016	NIPPLE, Pipe, 2" NPT x 16"	-	1
6	058-8579-006	FLANGE, Split, Fitting, 2"	-	1
7	074-4498-032	CLAMP, Hose, Suction, 2"	-	2
8	311-4288	BRACKET, Clamp, 3/16"	-	1
9	FS743000	ELBOW, 90°, Female to Female Malleable, #150, 2"	-	1
10	FS883000	ELBOW, Street, 90°, 2", Ductile, #300	-	1
11	FS883095	NIPPLE, 2" NPTx 18", Black Std.	-	1
12	FS892200	NIPPLE, Extra Heavy, Black, 1-1/4"	-	1
13	FS933023	REDUCER, Bell, Male to Female, 2" x 1-3/8"	-	1
14	FS943000	TEE, Malleable, 2", #150-#300	-	1

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DECAL KIT

NYC Formula® 4000 **20 YARD DECAL INSTALLATION** **212-3304**



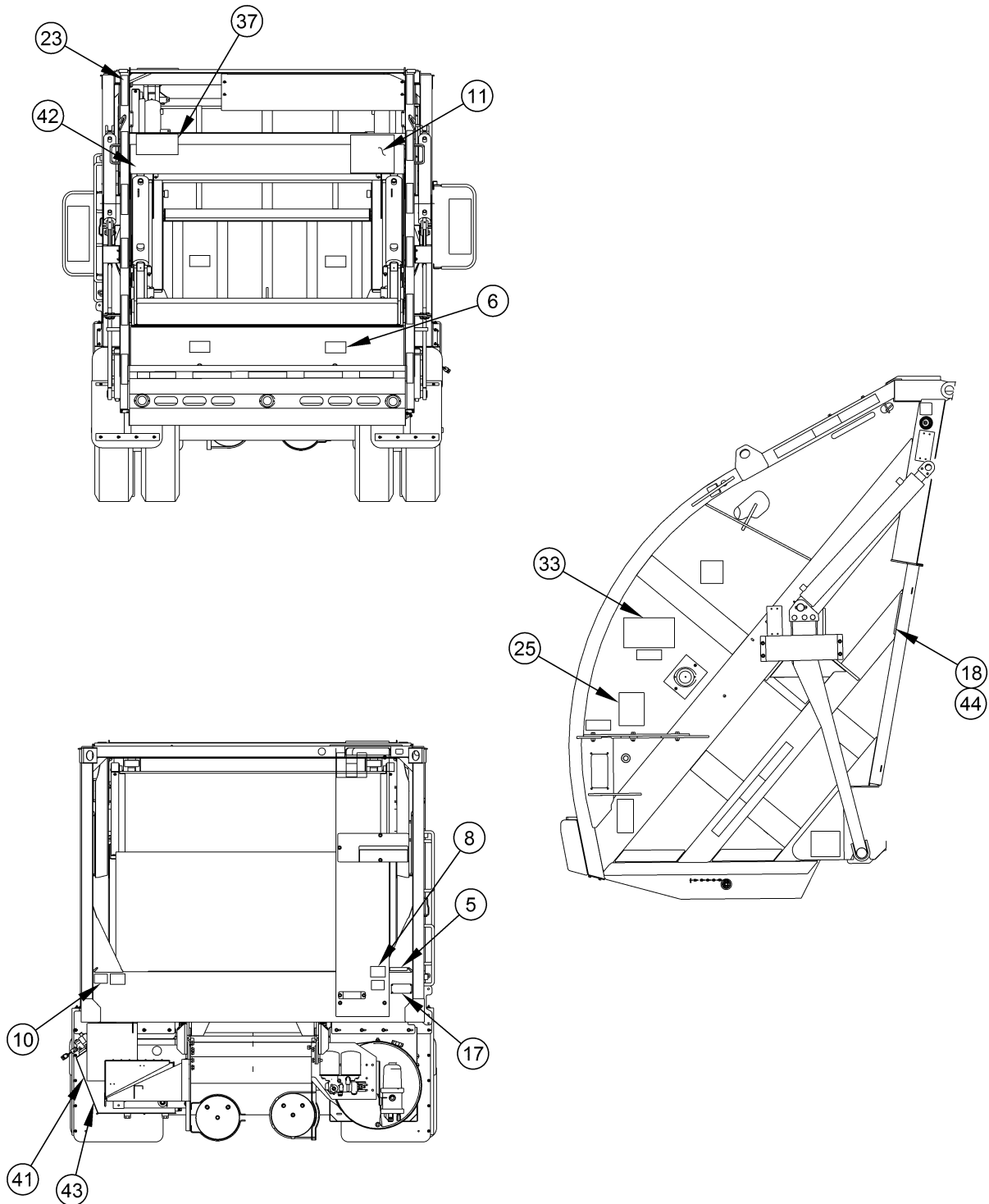
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NYC Formula® 4000

20 YARD DECAL INSTALLATION

212-3304



SHEET 2 OF 2

NYC Formula® 4000

20 YARD DECAL INSTALLATION

212-3304

111

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	212-3304	INSTALLATION, Decal, 20 Yd.	-	REF
1	115-0342	REFLECTOR, Amber	-	2
2	115-0343	REFLECTOR, Red	-	5
3	212-0651	DECAL, Caution, Disengage PTO	-	1
4	212-0735	DECAL, Warning, Operational Manual	-	4
5	212-0984	DECAL, ANSI Compliance	-	1
6	212-1115	DECAL, Danger, Stand Clear of Packer	-	4
7	212-1116	DECAL, Caution, Access Door	-	1
8	212-1205	DECAL, Caution, Stand Clear	-	2
9	212-1576	DECAL, Stand Clear	-	2
10	212-1608	DECAL, Caution, Before Entering The Body	-	3
11	212-1719	DECAL, Caution, Wide Turn	-	1
12	212-1821	DECAL, Danger, Not Designed for Towing	-	1
13	212-1902-001	DECAL, Caution, Riding Step	-	1
14	212-1907-001	DECAL, Danger, Access Door	-	1
15	212-1909-001	DECAL, Warning, Overall Height	-	1
16	212-1918-001	DECAL, Safety Instructions	-	1
17	212-1978	PLATE, Serial No., Body	-	1
18	212-1979	PLATE, Serial No., Tailgate	-	1
19	212-2195	STENCIL, Sanitation	-	2
20	212-2200	DECAL, Don't Litter	-	2
21	212-2205	DECAL, Fitting, Grease	-	2
22	212-2228	DECAL, Proximity Switch, Adjustment	-	4
23	212-2231	TAPE, Reflective, Red and White	-	50'
24	212-2255	DECAL, Lever Operation, Tailgate Control, SS	-	1
25	212-2256	DECAL, Lever Operation, Tailgate Control, CS	-	1
26	212-2264	STENCIL, Order Number	-	2
27	212-2420	TAPE, Reflective, Red and White	-	60'
28	212-2441	DECAL, Towing	-	2
29	212-2442	DECAL, Caution, Tailgate Lock	-	2
30	212-2443	DECAL, City Logo	-	2
31	212-2248	STENCIL, Sanitation	-	4
32	212-2618	DECAL, Danger, Tailgate Prop Operation	-	2
33	212-2671-100	DECAL, Lubrication Guide	-	1
34	212-2687	DECAL, Pressure Settings	-	1
35	212-2689	DECAL, Flag, Made in the USA	-	1
36	212-2737	DECAL, Test Port	-	2
37	212-3003	DECAL, Slow Down	-	1
38	212-3011	DECAL, Warning, Do not Stand or Cross	-	2
39	212-3019	DECAL, Notice, Emergency Stop	-	2
40	212-3045	DECAL, Body Controls	-	1
41	212-3222	DECAL, Notice, Oil Tank Overflow	-	1
42	212-3226	STENCIL, Unit Designation, Tailgate	-	1
43	212-3242	STENCIL, Hydraulic Oil Only	-	1
44	FS370608	RIVET, 3/16" x 5/16"	-	8

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SECTION 3 CONTROLS

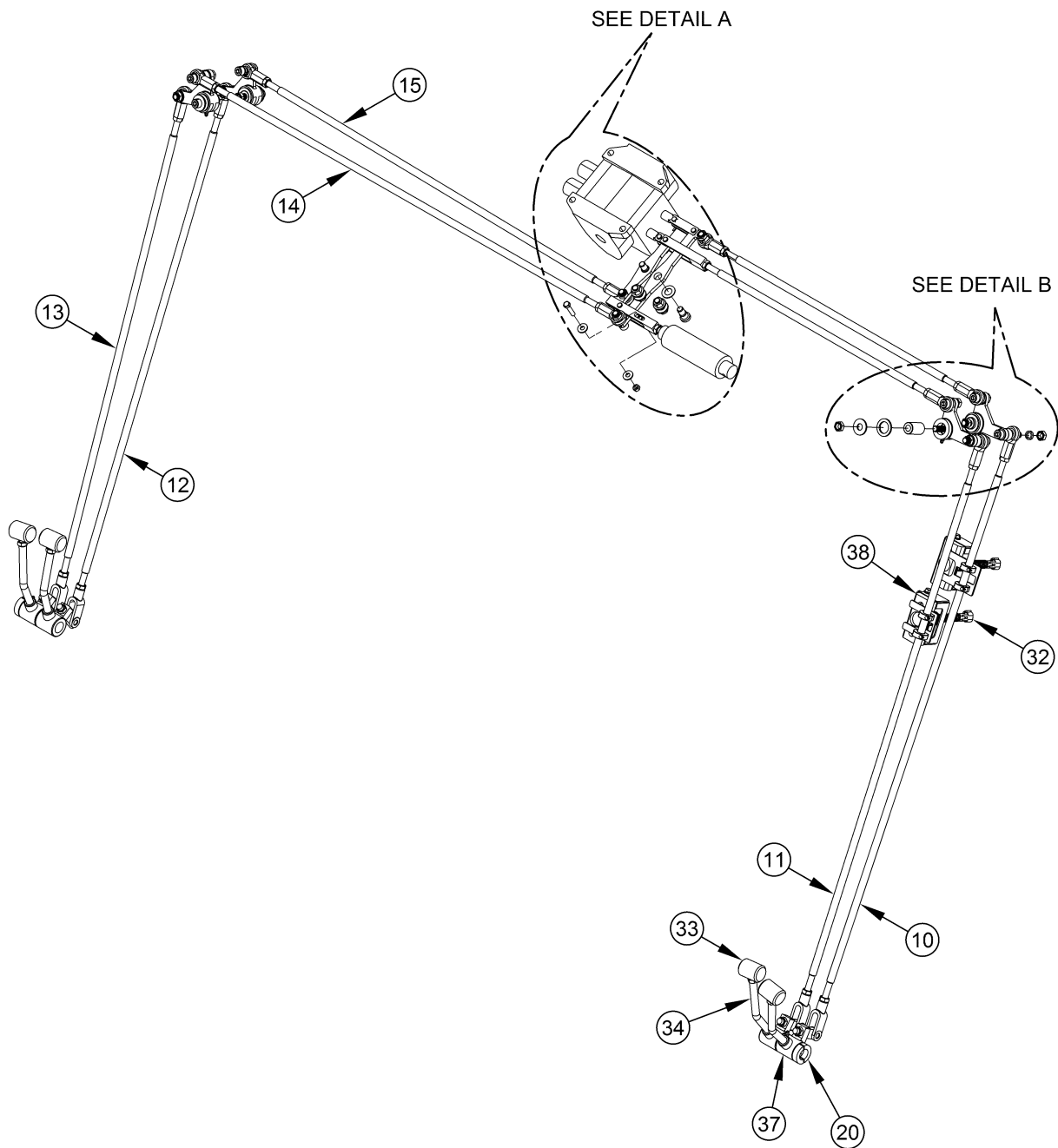
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CONTROLS AND ACCESSORIES

NYC Formula® 4000

TAILGATE CONTROL KIT

372-7878



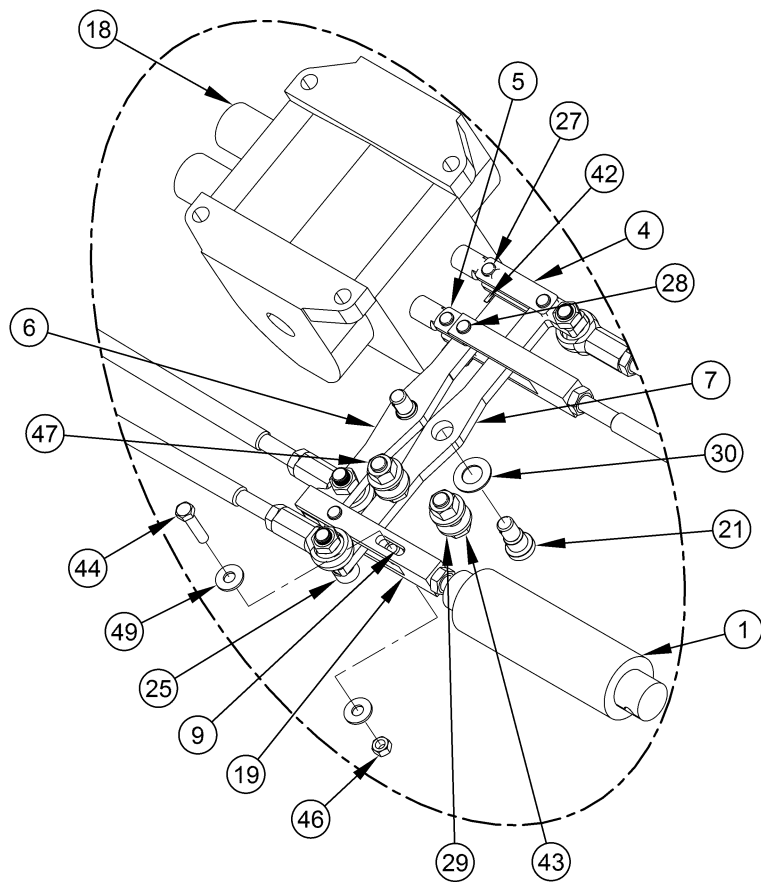
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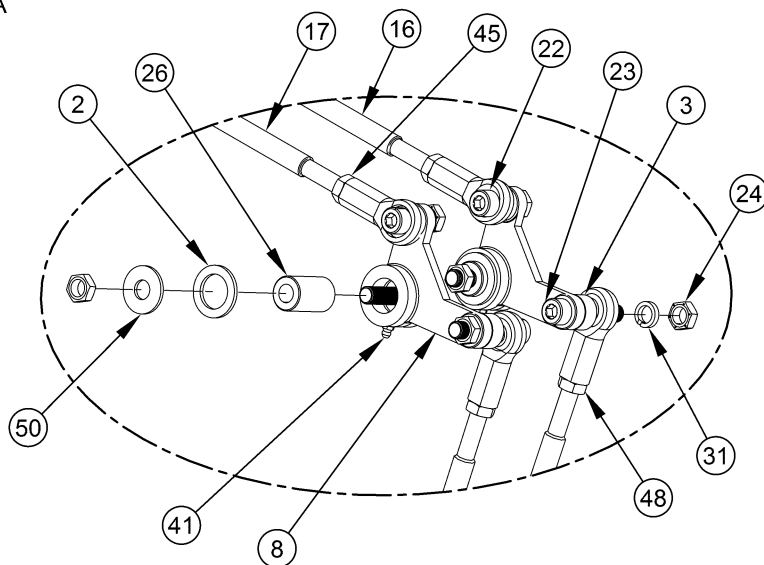
NYC Formula® 4000

TAILGATE CONTROL KIT

372-7878



DETAIL A



DETAIL B

SHEET 2 OF 2

NYC Formula® 4000

TAILGATE CONTROL KIT

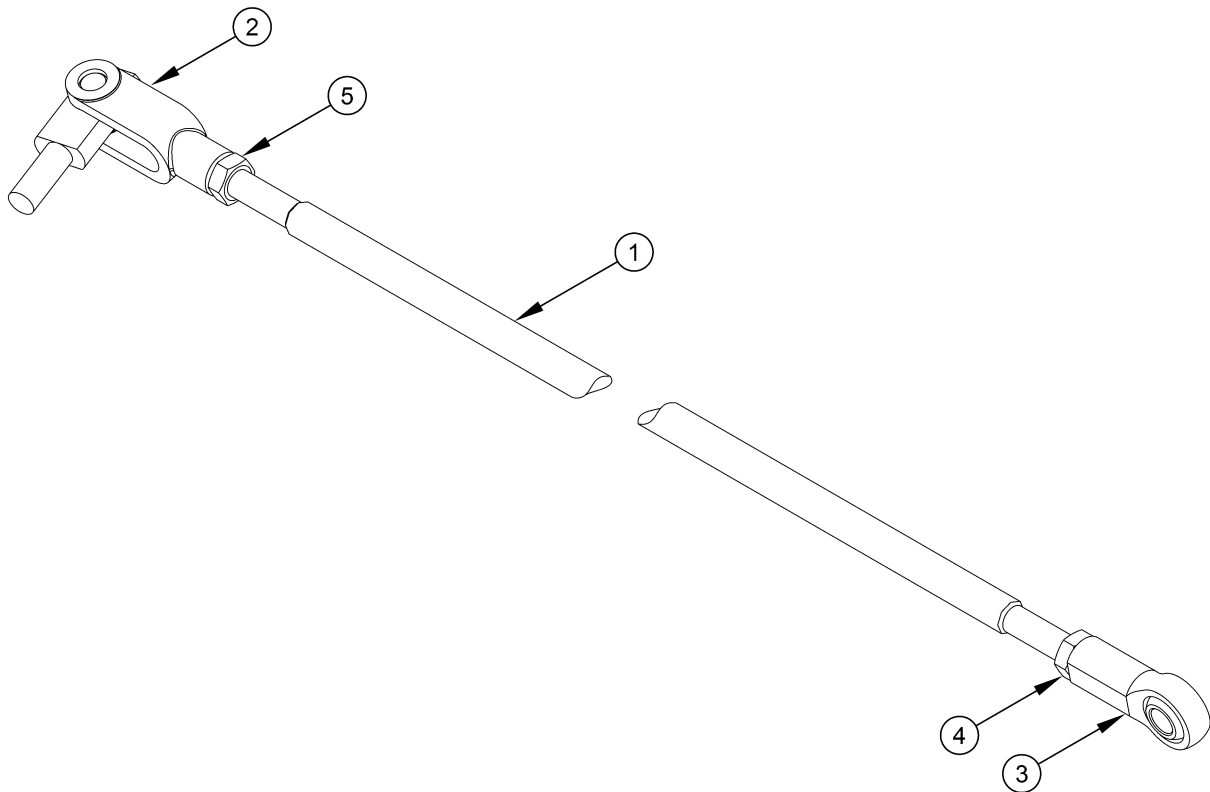
372-7878

119

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	372-7878	KIT, Control, Tailgate	-	REF
1	001-3699	CYLINDER, Air (See Section 5)	-	1
2	003-5270	WASHER, Thrust, Bronze	-	8
3	003-5271	BUSHING, Controls, Tailgate	-	3
4	005-3728-001	LINK	-	2
5	005-3728-002	LINK	-	2
6	013-5388	LEVER, Control	-	1
7	013-5389	LEVER, Control	-	1
8	013-5390	BELL CRANK	-	4
9	015-2790	SPACER, Control	-	1
10	027-5074	ASSEMBLY, Control Rod, SS 	-	1
11	027-5075	ASSEMBLY, Control Rod, SS 	-	1
12	027-5076	ASSEMBLY, Control Rod 	-	1
13	027-5077	ASSEMBLY, Control Rod, SS 	-	1
14	027-5093	ASSEMBLY, Control Rod, CS 	-	1
15	027-5094	ASSEMBLY, Control Rod, CS 	-	1
16	027-5095	ASSEMBLY, Control Rod, SS 	-	1
17	027-5096	ASSEMBLY, Control Rod, SS 	-	1
18	031-6268-002	VALVE, Control, Tailgate (See Section 5)	-	1
19	032-1494	YOKE, Special	-	1
20	040-2070	COLLAR, Lock, 1"	-	2
21	047-2189	SCREW, Shoulder, 1/2"-13 Thd., 1/16" Dia.	-	2
22	047-2615-001	CAPSCREW, 1/2"-20x1-1/2", Socket Hd.	-	6
23	047-2615-002	CAPSCREW, 1/2"-20x2-1/2", Socket Hd.	-	7
24	047-2618	NUT, Jam, Tailgate Linkage, 1/2"-20, Top Lock	-	15
25	047-2619	CAPSCREW, 1/2"-20x1-3/4", Socket Hd.	-	2
26	048-5435	PIN, Control, Tailgate	-	4
27	048-7481-001	PIN, Clevis	-	3
28	048-7481-002	PIN, Clevis	-	3
29	055-1391-005	WASHER, Steel, Hardened, 1/2" x 1/8" Thickness, Zinc Plated	-	4
30	055-1400	WASHER, Controls, 0.59" Dia.	-	2
31	055-3099-010	WASHER, Lock, High Collar	-	4
32	063-0123-001	CONNECTOR, Deutsch, Proximity Switch, 30 mm. 	-	2
33	070-1391	GRIP, Handle	-	4
34	070-1462	HANDLE, Control, 5/8" Dia.	-	2
37	211-4017	BOSS, Control, Handle	-	2
38	311-5572	BRACKET, Mounting, Proximity 	-	2
41	FS190700	FITTING, Grease, Str., 1/4"-28	-	12
42	FS340412	PIN, Cotter, 1/8"-9/16", Steel	-	6
43	FSP071122	HHCS, 1/2"-13 x 1-1/4", Gr. 5, Plated	-	2
44	FSP100824	HHCS, 5/16-24 x 1-1/2", Gr. 5, Plated	-	1
45	FSP211100	NUT, Special, 1/2"-20, Plated	-	4
46	FSP230800	NUT, Lock, 5/16"-18, Gr. 5, Plated	-	1
47	FSP231100	NUT, Lock, 1/2"-13, Gr. 5, Plated	-	2
48	FSP301100	NUT, Jam, 1/2"-20, Plated	-	5
49	FSP510800	WASHER, Flat, 5/16" Std., Plated	-	2
50	FSP511100	WASHER, Flat, 1/2" Std., Plated	-	4

Note: Items 35, 36, 39 and 40 are Welded.

NYC Formula® 4000
SS CONTROL ROD ASSEMBLY
027-5074



NYC Formula® 4000

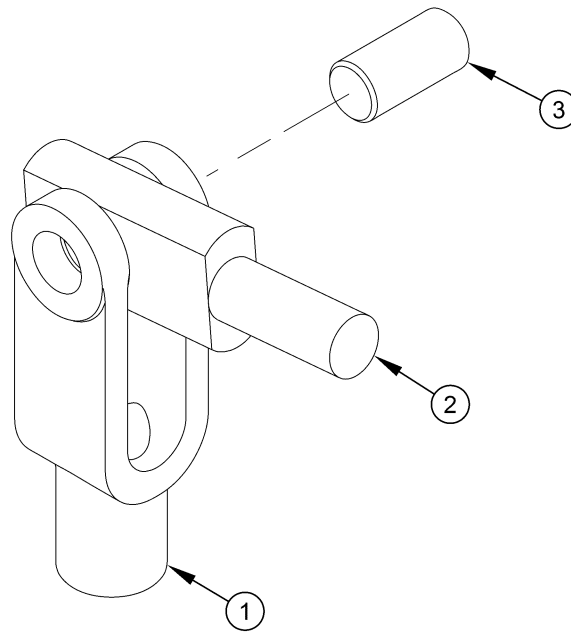
SS CONTROL ROD ASSEMBLY

027-5074

121

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	027-5074	ASSEMBLY, Control Rod, SS	-	REF
1	027-5074-001	ROD, Control, Tailgate, 5/8" Dia.	-	1
2	032-1011	ASSEMBLY, Yoke ¹²²	-	1
3	032-1667	ROD END, Control, Tailgate, Grease less	-	1
4	FSP211100	NUT, Special, 1/2"-20, Plated	-	1
5	FSP301100	NUT, Jam, 1/2"-20, Plated	-	1

NYC Formula® 4000
YOKE ASSEMBLY
032-1011

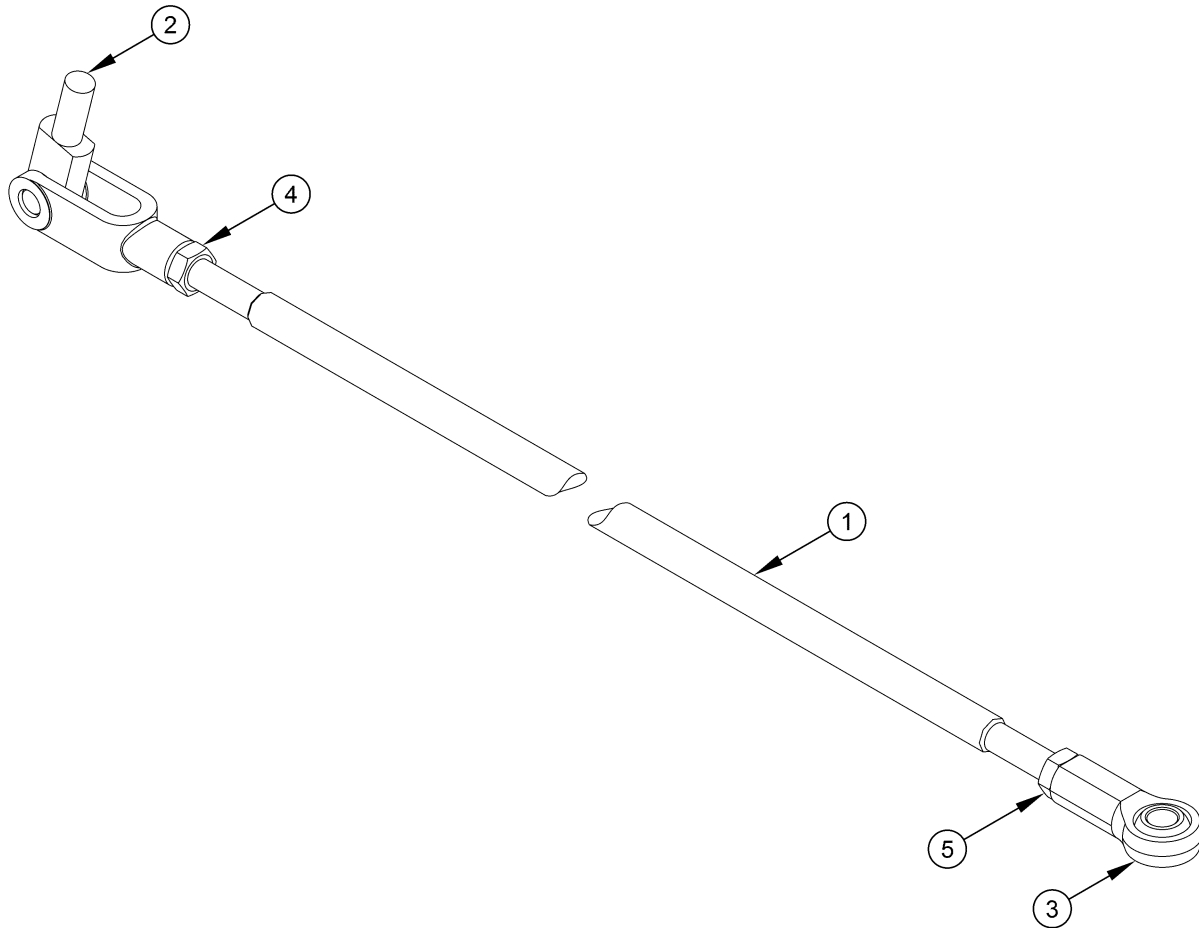


NYC Formula® 4000
YOKE ASSEMBLY
032-1011

123

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	032-1011	ASSEMBLY, Yoke	-	REF
1	032-1009	CLEVIS, Rod End, LH	-	1
2	047-2154	BOLT, Mounting, Yoke, 1" Dia.	-	1
3	048-5494	PIN, Yoke Assembly, 1/2" Dia.	-	1

NYC Formula® 4000
SS CONTROL ROD ASSEMBLY
027-5075



NYC Formula® 4000

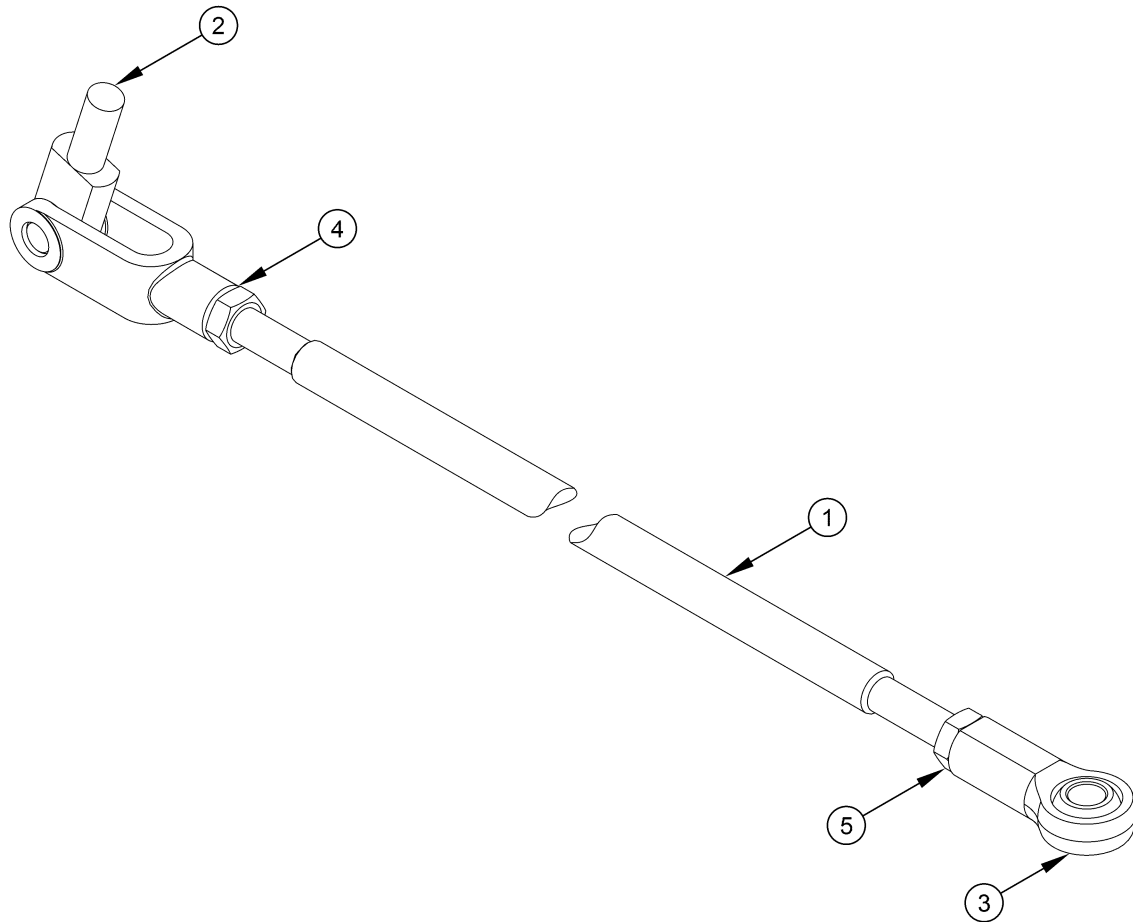
SS CONTROL ROD ASSEMBLY

027-5075

125

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	027-5075	ASSEMBLY, Control Rod, SS	-	REF
1	027-5075-001	ROD, Control, Tailgate, 5/8" Dia.	-	1
2	032-1011	ASSEMBLY, Yoke ¹²²	-	1
3	032-1667	ROD END, Control, Tailgate, Grease less	-	1
4	FSP211100	NUT, Special, 1/2"-20, Plated	-	1
5	FSP301100	NUT, Jam, 1/2"-20, Plated	-	1

NYC Formula[®] 4000
CONTROL ROD ASSEMBLY
027-5076



NYC Formula® 4000

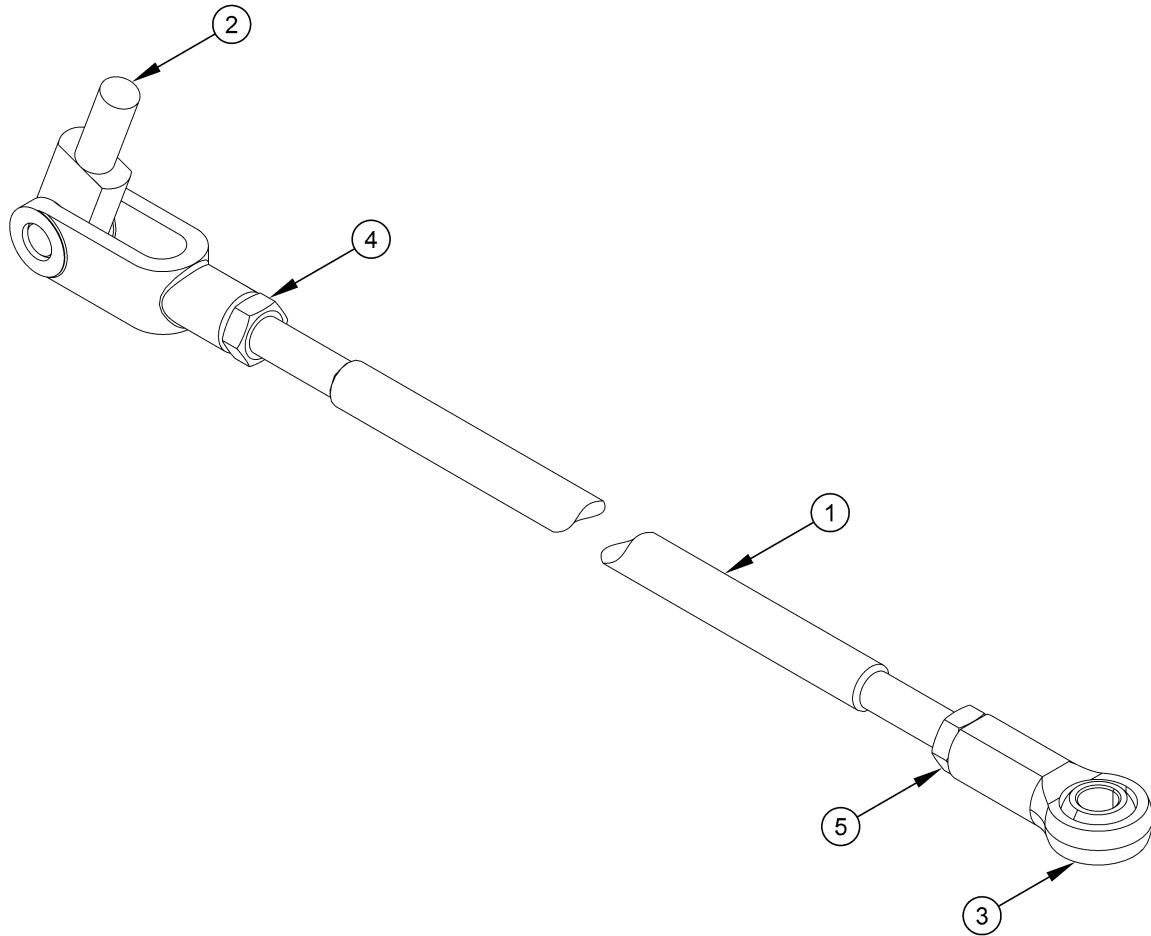
CONTROL ROD ASSEMBLY

027-5076

127

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	027-5076	ASSEMBLY, Control Rod	-	REF
1	027-5076-001	ROD, Control, Tailgate, 5/8" Dia.	-	1
2	032-1011	ASSEMBLY, Yoke ¹²²	-	1
3	032-1667	ROD END, Control, Tailgate, Grease less	-	1
4	FSP211100	NUT, Special, 1/2"-20, Plated	-	1
5	FSP301100	NUT, Jam, 1/2"-20, Plated	-	1

NYC Formula® 4000
SS CONTROL ROD ASSEMBLY
027-5077



NYC Formula® 4000

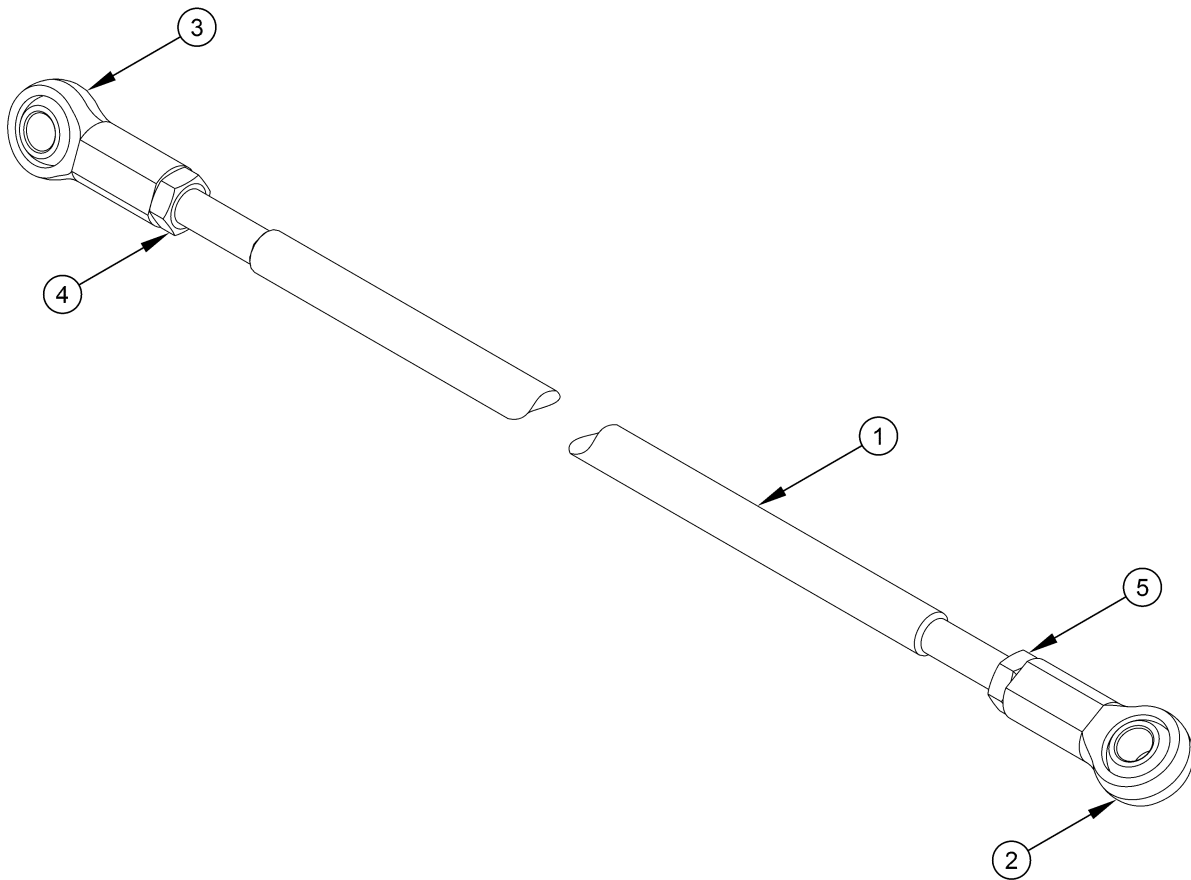
SS CONTROL ROD ASSEMBLY

027-5077

129

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	027-5077	ASSEMBLY, Control Rod, SS	-	REF
1	027-5077-001	ROD, Control, Tailgate, 5/8" Dia., SS	-	1
2	032-1011	ASSEMBLY, Yoke ¹²²	-	1
3	032-1667	ROD END, Control, Tailgate, Grease less	-	1
4	FSP211100	NUT, Special, 1/2"-20, Plated	-	1
5	FSP301100	NUT, Jam, 1/2"-20, Plated	-	1

NYC Formula® 4000
CS CONTROL ROD ASSEMBLY
027-5093



NYC Formula® 4000

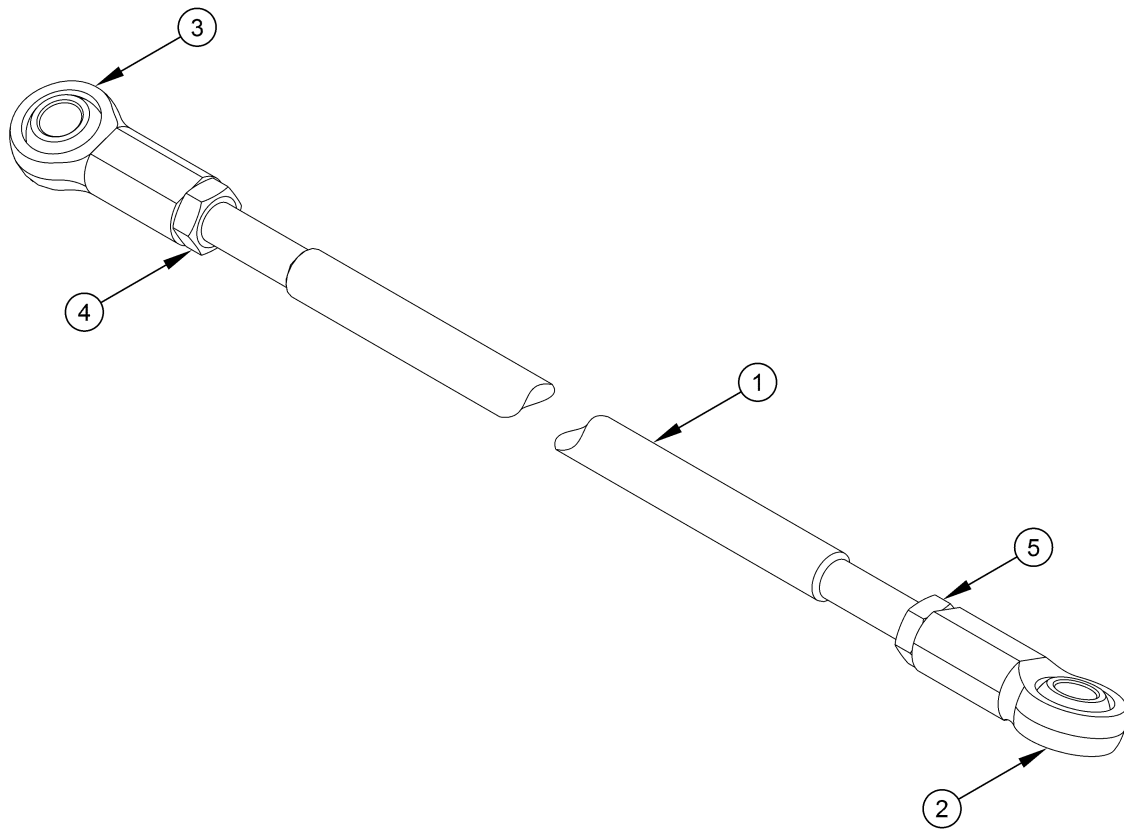
CS CONTROL ROD ASSEMBLY

027-5093

131

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	027-5093	ASSEMBLY, Control Rod, CS	-	REF
1	027-5093-001	ROD, Control, Tailgate, 5/8" Dia.	-	1
2	032-1667	ROD END, Control, Tailgate, Grease less	-	1
3	032-1668	ROD END, Control, Tailgate, Grease less	-	1
4	FSP211100	NUT, Special, 1/2"-20, Plated	-	1
5	FSP301100	NUT, Jam, 1/2"-20, Plated	-	1

NYC Formula® 4000
CS CONTROL ROD ASSEMBLY
027-5094



NYC Formula® 4000

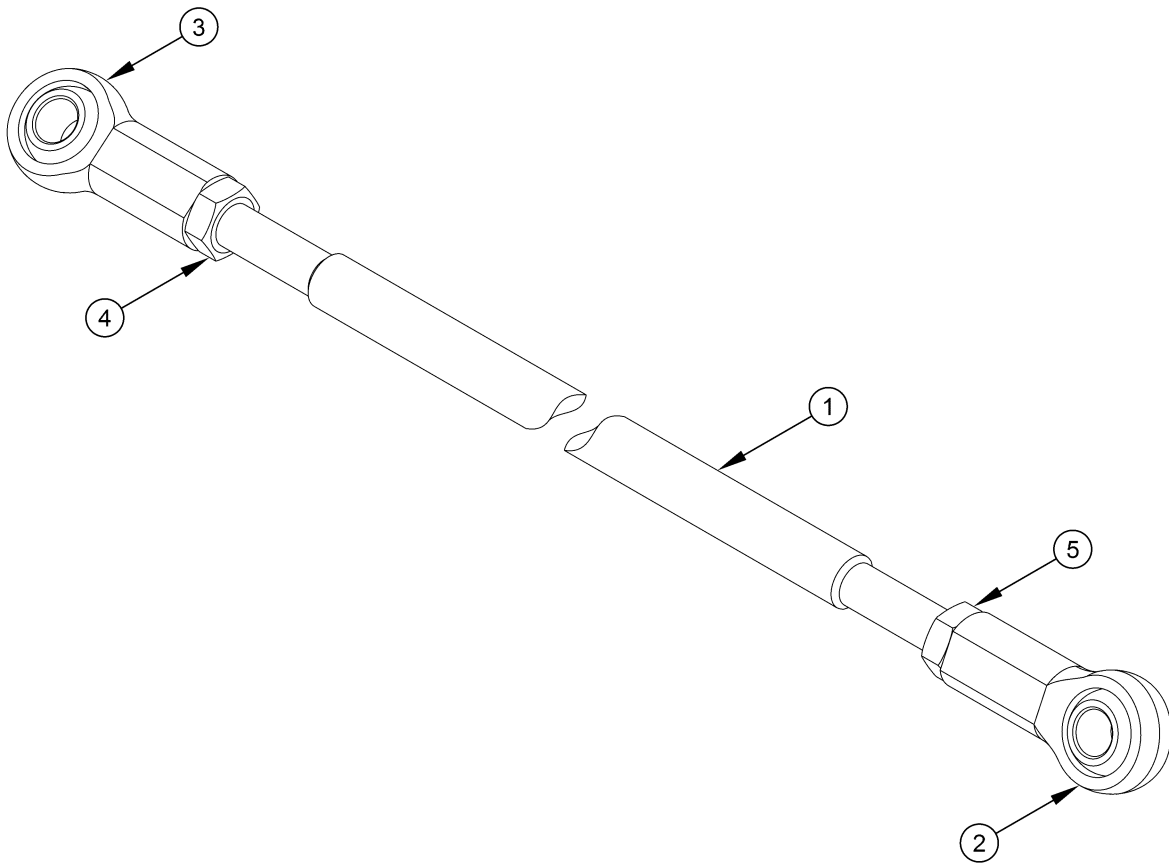
CS CONTROL ROD ASSEMBLY

027-5094

133

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	027-5094	ASSEMBLY, Control Rod, CS	-	REF
1	027-5094-001	ROD, Control, Tailgate, 5/8" Dia.	-	1
2	032-1667	ROD END, Control, Tailgate, Grease less	-	1
3	032-1668	ROD END, Control, Tailgate, Grease less	-	1
4	FSP211100	NUT, Special, 1/2"-20, Plated	-	1
5	FSP301100	NUT, Jam, 1/2"-20, Plated	-	1

NYC Formula® 4000
SS CONTROL ROD ASSEMBLY
027-5095



NYC Formula® 4000

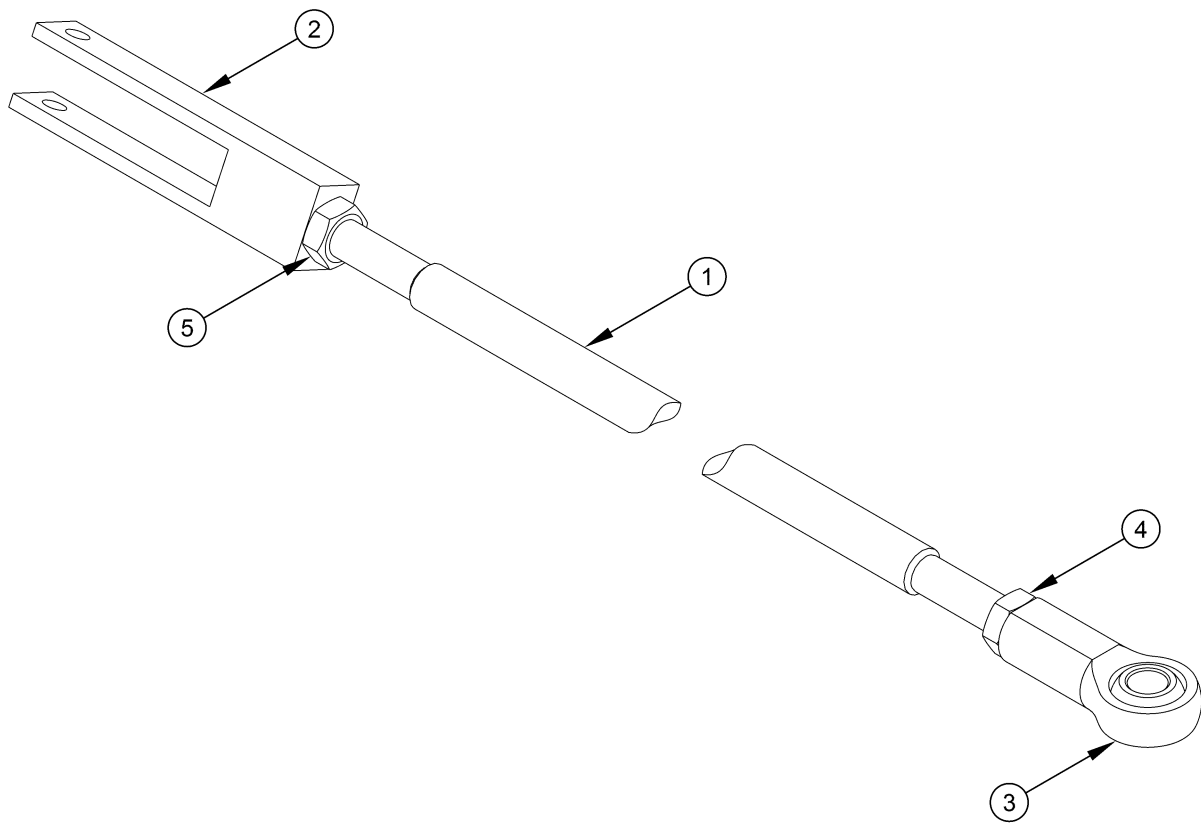
SS CONTROL ROD ASSEMBLY

027-5095

135

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	027-5095	ASSEMBLY, Control Rod, SS	-	REF
1	027-5095-001	ROD, Control, Tailgate, 5/8" Dia.	-	1
2	032-1667	ROD END, Control, Tailgate, Grease less	-	1
3	032-1668	ROD END, Control, Tailgate, Grease less	-	1
4	FSP211100	NUT, Special, 1/2"-20, Plated	-	1
5	FSP301100	NUT, Jam, 1/2"-20, Plated	-	1

NYC Formula® 4000
SS CONTROL ROD ASSEMBLY
027-5096



NYC Formula® 4000

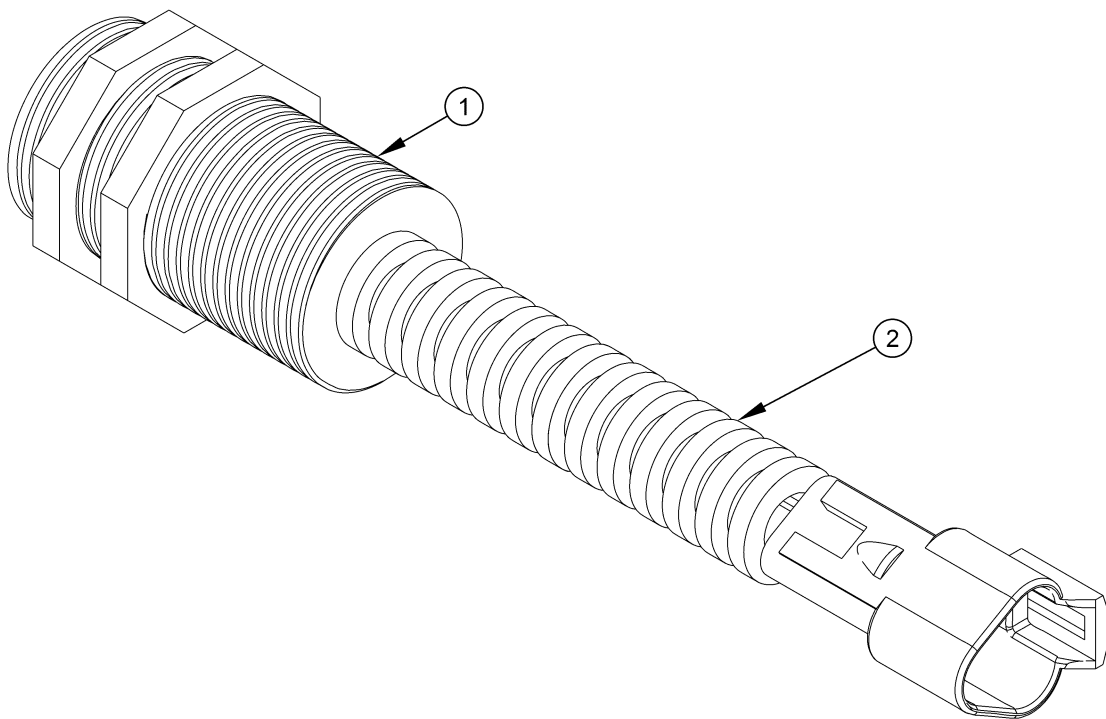
SS CONTROL ROD ASSEMBLY

027-5096

137

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	027-5096	ASSEMBLY, Control Rod, SS	-	REF
1	027-5096-001	ROD, Control, Tailgate, 5/8" Dia.	-	1
2	032-1495	YOKE, Special, 1-1/8" x 3/4"	-	1
3	032-1668	ROD END, Control, Tailgate, Grease less	-	1
4	FSP211100	NUT, Special, 1/2"-20, Plated	-	1
5	FSP301100	NUT, Jam, 1/2"-20, Plated	-	1

NYC Formula® 4000
PROXIMITY SWITCH DEUTSCH CONNECTOR
063-0123-001

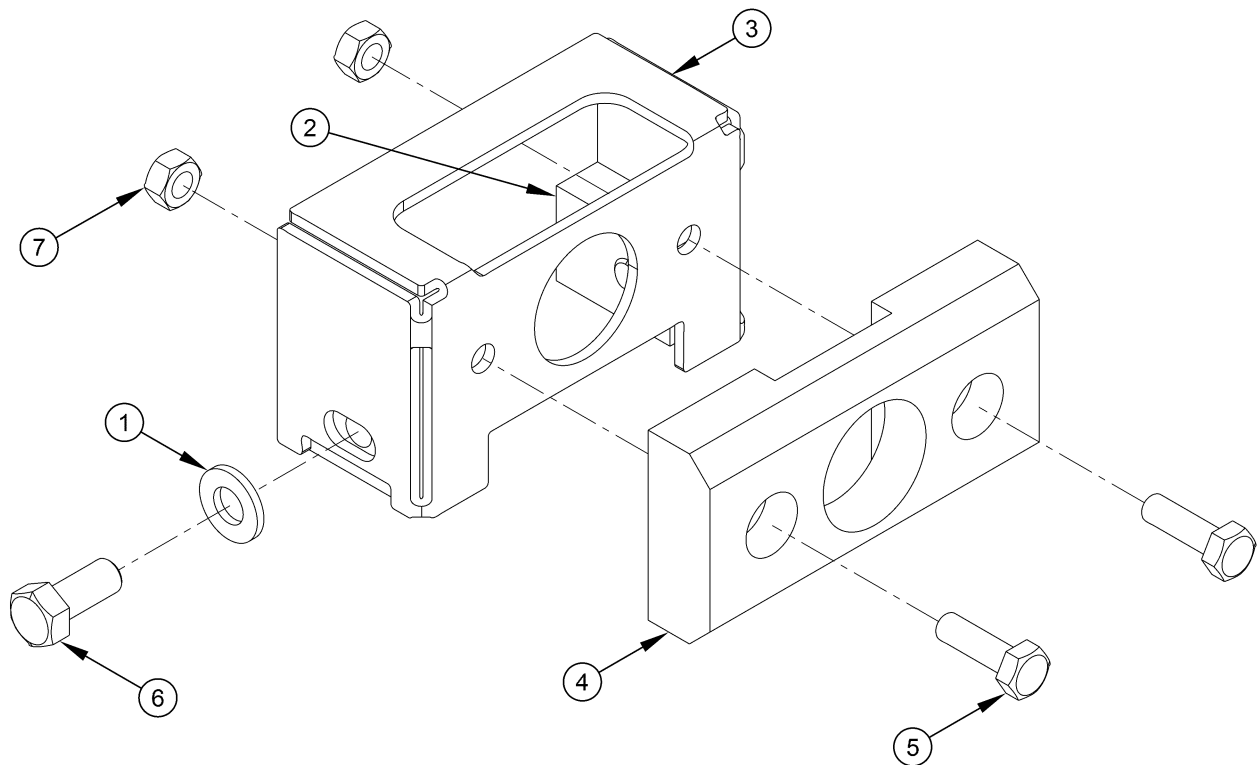


NYC Formula® 4000
PROXIMITY SWITCH DEUTSCH CONNECTOR
063-0123-001

139

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	063-0123-001	CONNECTOR, Deutsch, Proximity Switch, 30 mm.	-	REF
1	063-0123	SWITCH, Proximity, 30 mm.	-	1
2	108-5034-002	LOOM, Electrical, Split Convolutd, Plastic, 3/8"	-	1

NYC Formula® 4000
PROXIMITY MOUNTING BRACKET
311-5572



NYC Formula® 4000

PROXIMITY MOUNTING BRACKET

311-5572

141

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	311-5572	BRACKET, Mounting, Proximity	-	REF
1	055-1391-002	WASHER, Steel, Hardened, 5/16" x 0.8" Thickness, Zinc Plated	-	2
2	077-6846	SUPPORT, Tube	-	2
3	311-5572-001	BRACKET, Mount, Proximity	-	1
4	311-5572-002	GUIDE, Proximity	-	1
5	FSP070717	HHCS, 1/4"-20 x 7/8", Gr. 5, Plated	-	2
6	FSP100815	HHCS, 5/16"-24 x 3/4", Gr. 5, Plated	-	2
7	FSP230700	NUT, Lock, 1/4"-20, Gr. 5, Plated	-	2

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SECTION 4 HYDRAULIC AND PNEUMATIC CIRCUITS

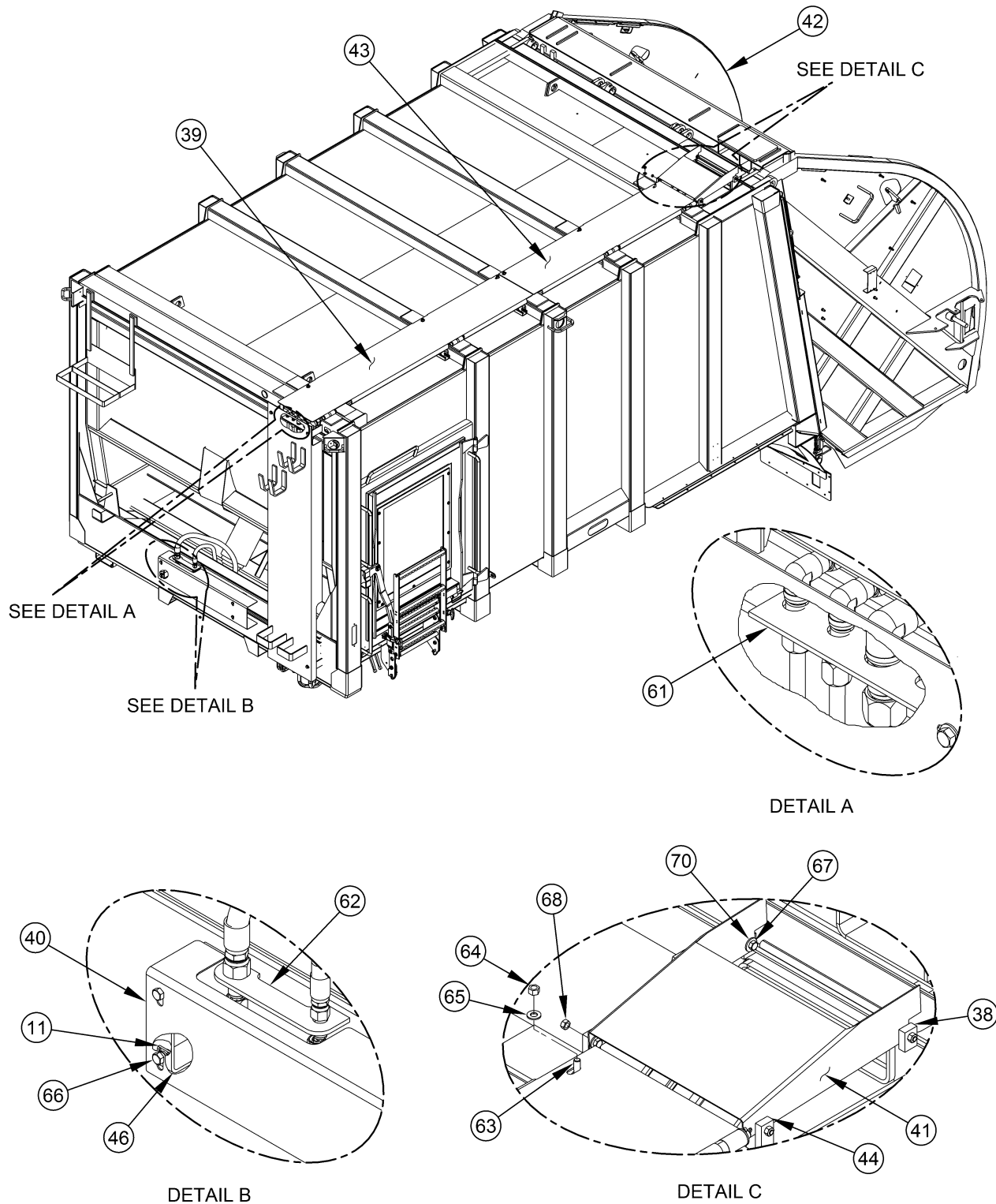
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HYDRAULIC KITS

NYC Formula® 4000

20 YARD BODY HYDRAULIC KIT

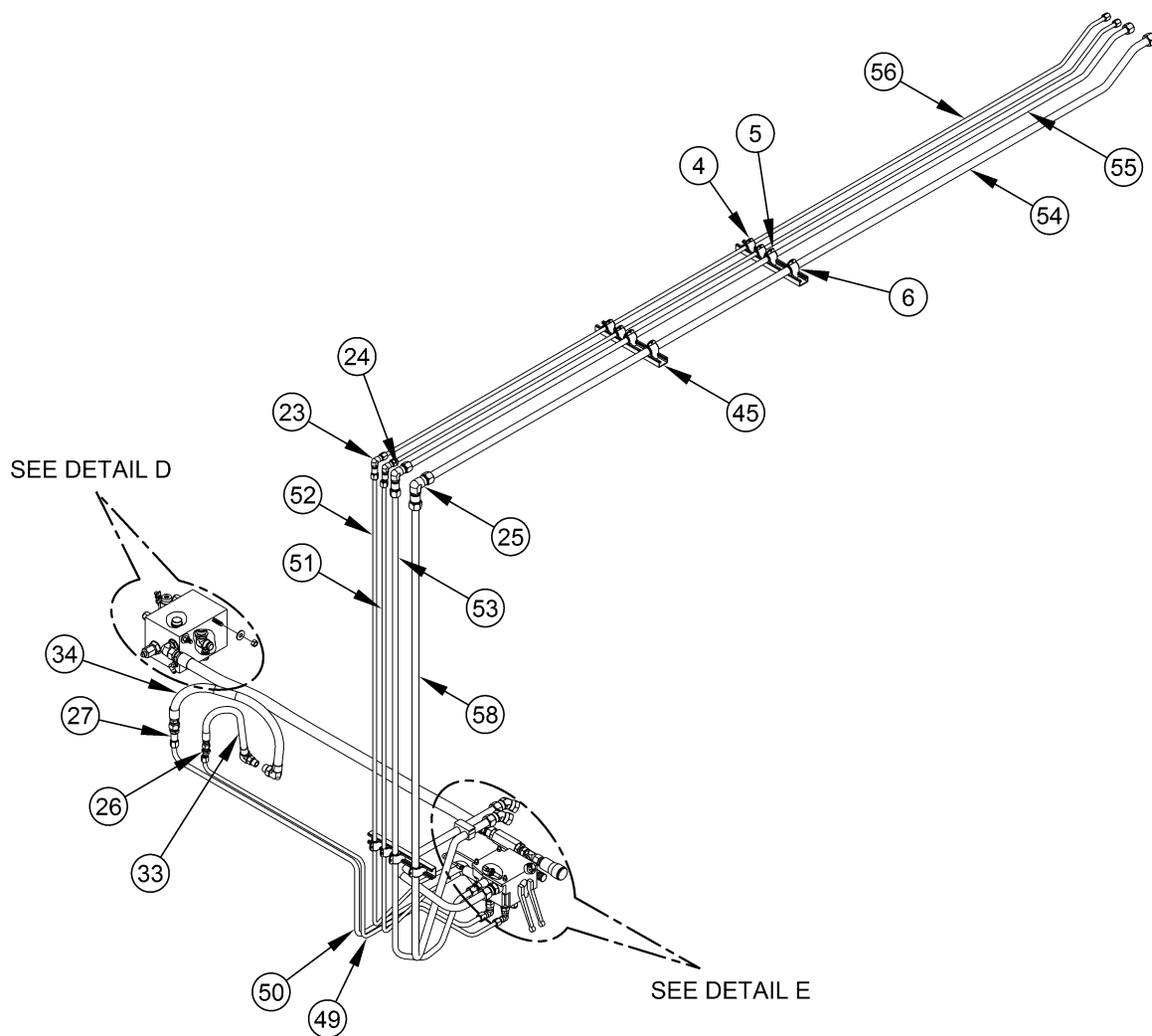
372-7879



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NYC Formula® 4000 **20 YARD BODY HYDRAULIC KIT** **372-7879**

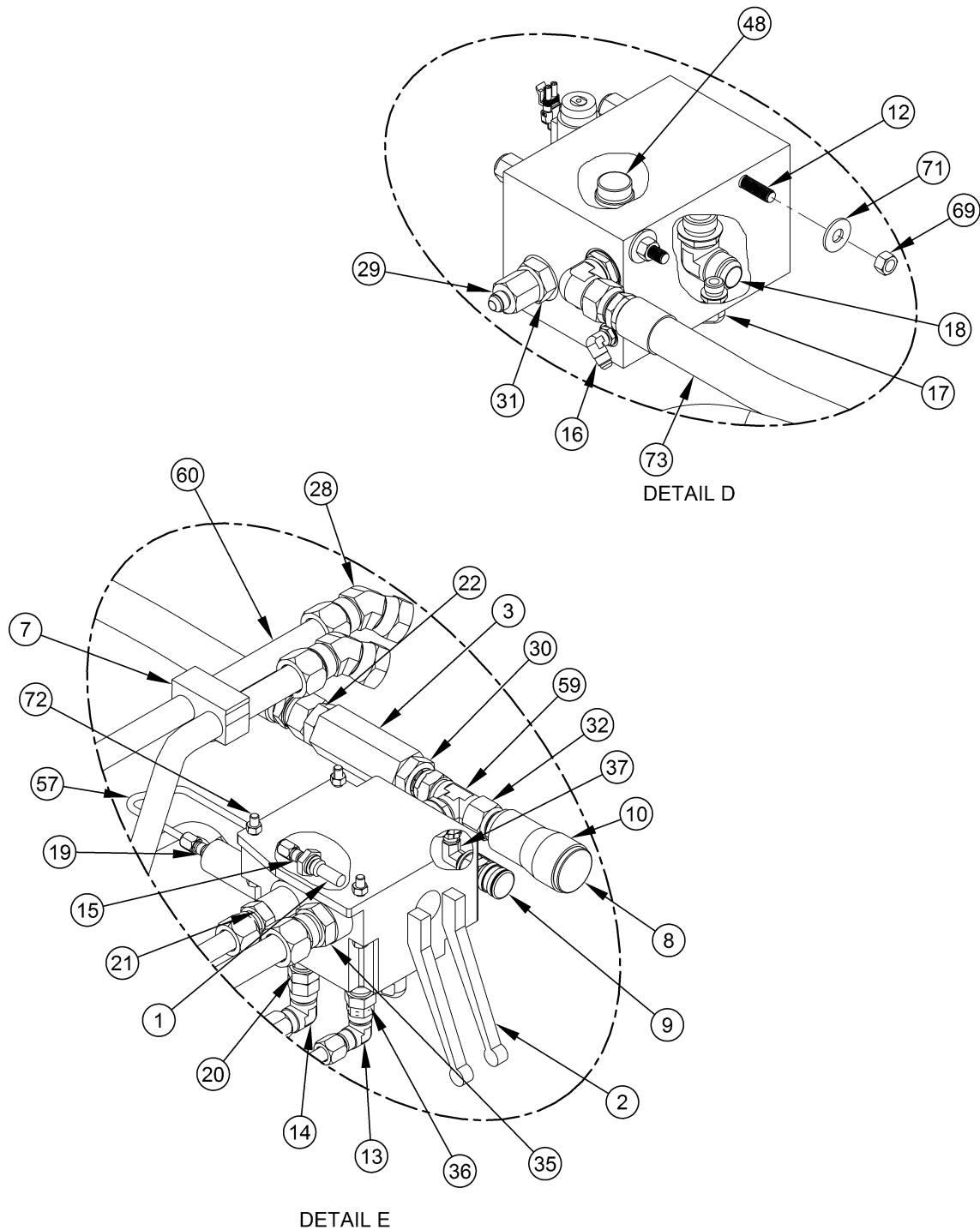


BODY HYDRAULIC KIT

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NYC Formula® 4000 **20 YARD BODY HYDRAULIC KIT** **372-7879**



SHEET 3 OF 3

NYC Formula® 4000

20 YARD BODY HYDRAULIC KIT

372-7879

151

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	372-7879	KIT, Hydraulic, Body, 20 Yd.	-	REF
1	031-5952	FUSE, Velocity, V20 Valve	-	1
2	031-5975	VALVE, Body (See Section 5)	-	1
3	031-6264	VALVE, Check, 1"	-	1
4	036-1474-004	ASSEMBLY, Clamp, Hydraulic Tubing, 1/2"	-	6
5	036-1474-006	ASSEMBLY, Clamp, Hydraulic Tubing, 3/4"	-	3
6	036-1474-008	ASSEMBLY, Clamp, Hydraulic Tubing, 1-1/2"	-	3
7	036-1495-016	CLAMP, Twin Stauff, 1"	-	1
8	042-1347	PLUG, Dust, Coupling Body, #12	-	1
9	045-1006	DISCONNECT, Quick, Male, 1/4" NPT	-	1
10	045-1010	DISCONNECT, Quick, Male End	-	1
11	047-2287-001	NUT, Weld, 3/8"-16	-	4
12	047-2577	CAPSCREW, Socket Hd., 1-1/2" Minimum Thd., Lg.	-	2
13	054-2988-006	ELBOW, Male to Female Swivel, 90°, 37° Flare,	-	3
14	054-2988-007	Swivel Tube 3/4"-16 x 1/2", #8	-	1
15	054-3007-003	ELBOW, Male to Female Swivel, 90°, 37° Flare,	-	1
16	054-3340-005	Swivel Tube 7/8"-14 x 5/8", #10	-	1
17	054-3340-006	UNION, Tube to Tube, 37° Flare, 1/4"-4 x 7/16"-20 Thd.	-	1
18	054-3340-010	ELBOW, Male, Tube to O-Ring, 3/8"	-	1
19	054-3341-003	ELBOW, Male, 90°, Tube to Str. Thd., 3/4"-16 x 1/2", #8	-	1
20	054-3341-007	ELBOW, Male, 90°, Tube to Str. Thd. 1-5/16"-12 x 1", #16	-	2
21	054-3341-008	CONNECTOR, Male, Tube to Str. Thd., 7/16"-20 x 1/4", #4	-	1
22	054-3341-010	CONNECTOR, Male, Tube to Str. Thd., 7/8"-14 x 5/8", #10	-	1
23	054-3533-006	CONNECTOR, Male, Tube to Str. Thd., 1-1/16"-12 x 3/4", #12	-	1
24	054-3533-008	CONNECTOR, Male, Tube to Str. Thd., 1-5/16"-12 x 1", #8	-	1
25	054-3533-010	ELBOW, Union, Bulk Head, 90°, 1/2"-8 x 3/4"-16 Thd.	-	2
26	054-3535-006	ELBOW, Union, Bulk Head, 90°, 3/4"-12 x 1-1/16"-12 Thd.	-	1
27	054-3535-007	ELBOW, Union, Bulk Head, 90°, 1"-16 x 1-5/16"-12 Thd.	-	1
28	054-3629-010	UNION, Bulkhead, Tube to Tube, 3/4"-16 x 1/2"	-	1
29	054-6547-009	UNION, Bulkhead, Tube to Tube, 7/8"-14 x 5/8", #6	-	1
30	054-7108	ELBOW, 45°, Flare, 37°	-	2
31	054-7148	REDUCER, 3/4" to 1/2" JIC Tube	-	1
32	054-7496-004	CONNECTOR, Str.	-	1
33	057-3111-025	ADAPTER, Restrictor, #16 SAE to #12 JIC	-	1
34	057-3112-034	CONNECTOR, Swivel, 3/4"-1-1/16"-12 x 3/4"-1-1/16"-12	-	1
35	058-3205-011	HOSE, Cylinder, Ejector, 1/2", 25" Lg.	-	1
36	058-3205-016	HOSE, Cylinder, Ejector, 3/4", 34" Lg.	-	1
37	074-3061-002	REDUCER, Str. Thd., SAE 1-5/16"-12 x 1" to	-	1
38	077-6846	37° JIC 1-1/16"-12 x 3/4"	-	1
39	113-0122	REDUCER, Str. Thd., SAE 7/8"-14 x 5/8" to 37° JIC 3/4"-16 x 1/2"	-	3
40	113-0239	ADAPTER, Swivel, 90°, Male, 4-4, 1/4" x 1/4" Thd.	-	1
41	113-0541	SUPPORT, Tube, 5/16"-24	-	2
42	113-6008	COVER, Tube, Front ^[154]	-	1
43	113-7080	COVER, Tube, #14 Ga.	-	1
44	177-3975	COVER, Tube, #14 Ga.	-	1
45	207-2938-004	KIT, Cover, Front ^[156]	-	1
		COVER, Tube, Rear ^[158]	-	1
		SUPPORT, Cover, 1/2"	-	2
		CHANNEL, Clamp, Hydraulic Tube, 13 and 16 Yd.	-	3

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NYC Formula® 4000

20 YARD BODY HYDRAULIC KIT

372-7879

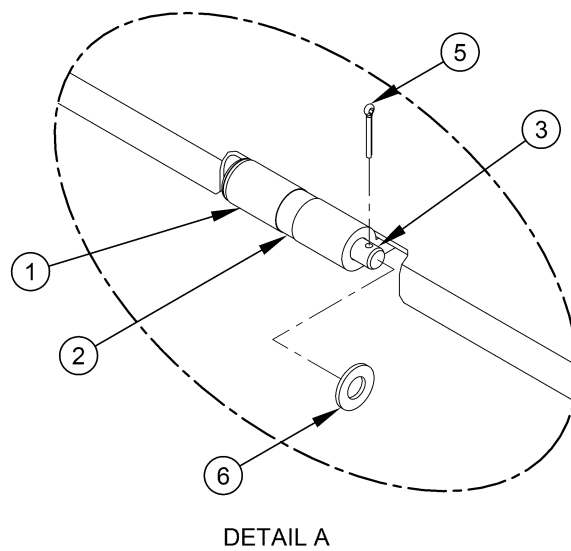
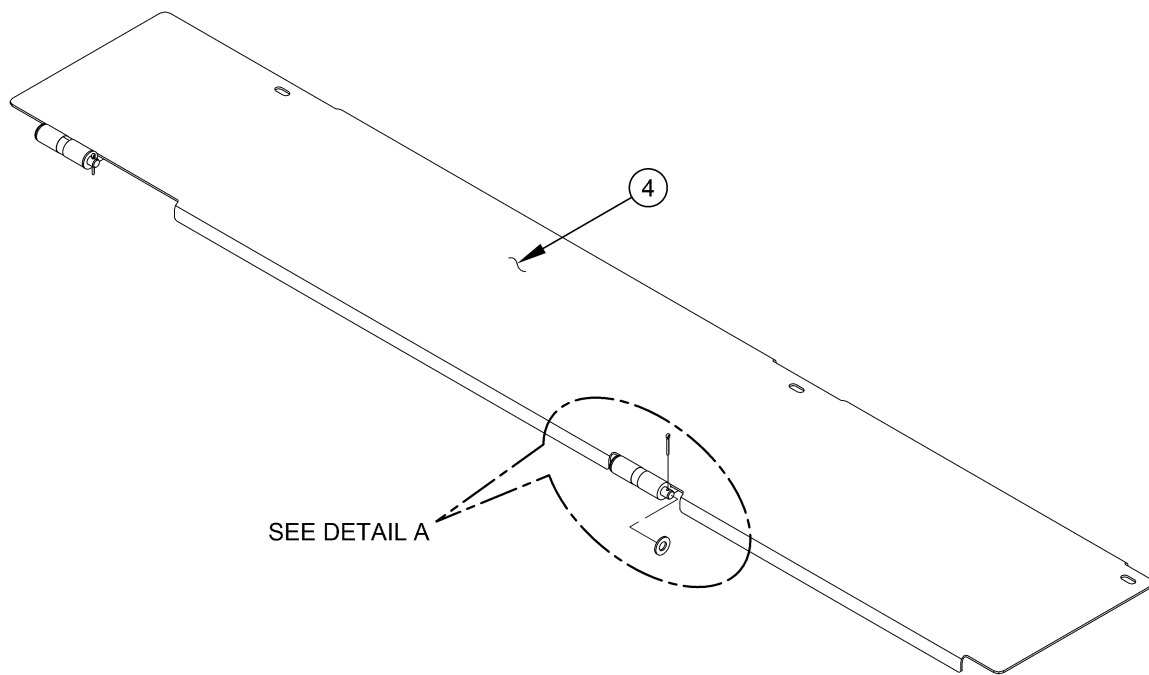
153

ITEM	PART NO.	DESCRIPTION	EFF	QTY
46	211-9940	BRACKET, Cover, Front, 3/16"	-	2
-47	274-0567	SEALANT, Tamper Proof, 5 Oz Tube	-	1
48	354-3776-010	PLUG, Hex, Hollow, 1" ORB	-	1
49	354-4981	TUBE, Steel, Ejector Retractor, 37° Flare, 1/2" OD x 0.049" Wall	-	1
50	354-4982	TUBE, Steel, Ejector, 37° Flare, 5/8" OD x 0.065" Wall	-	1
51	354-4983	TUBE, Steel, Tailgate Unlock/Raise, 37° Flare, 1/2" OD x 0.049" Wall	-	1
52	354-4984	TUBE, Steel, Tailgate Lock, 37° Flare, 1/2" OD x 0.049" Wall	-	1
53	354-4985	TUBE, Steel, Front Power Bay, 37° Flare, 3/4" OD x 0.083" Wall	-	1
54	354-4986	TUBE, Steel, Return Line, Roof, 37° Flare, 1" OD x 0.109" Wall	-	1
55	354-4987	TUBE, Steel, Return, 37° Flare, 3/4" OD x 0.083" Wall	-	1
56	354-4988	TUBE, Steel, Body Top, 37° Flare, 1/2" OD x 0.049" Wall	-	2
57	354-4989	TUBE, Steel, 37° Flare, 1/4" OD x 0.035" Wall	-	1
58	354-4990	TUBE, Steel, Return, 37° Flare, 1" OD x 0.109" Wall	-	1
59	354-4991	T-FITTING, Special, 3/4" ^{16b1}	-	1
60	354-5003	TUBE, Steel, Return, Body Valve, 37° Flare, 1" OD x 0.109" Wall	-	1
61	372-7879-001	BRACKET, Bulk Head, 3/16"	-	1
62	372-7879-002	BRACKET, Bulk Head, 1/4"	-	1
63	FS070920	HHCS, 3/8"-16 x 1", Gr. 5	-	6
64	FS230900	NUT, Lock, 3/8"-16, Gr. 5	-	6
65	FS510900	WASHER, Flat, 3/8", Std., Plain	-	6
66	FSP070913	HHCS, 3/8"-16 x 5/8", Gr. 5, Plated	-	4
67	FSP100820	HHCS, 5/16"-24 x 1", Gr. 5, Plated	-	4
68	FSP230800	NUT, Lock, 5/16"-18, Gr. 5, Plated	-	7
69	FSP231100	NUT, Lock, 1/2"-13, Gr. 5, Plated	-	2
70	FSP510800	WASHER, Flat, 5/16" Std., Plated	-	4
71	FSP511100	WASHER, Flat, 1/2" Std., Plated	-	2
72	FSS070836	CAPSCREW, 5/16"-18 x 2-3/4", Gr. 5, S/S	-	3
73	QG6-FKFK-062	ASSEMBLY, Hose, 3/4" x 1", 37° JIC Female Swivel, 62"	-	1

NYC Formula® 4000

FRONT TUBE COVER

113-0122



NYC Formula® 4000

FRONT TUBE COVER

113-0122

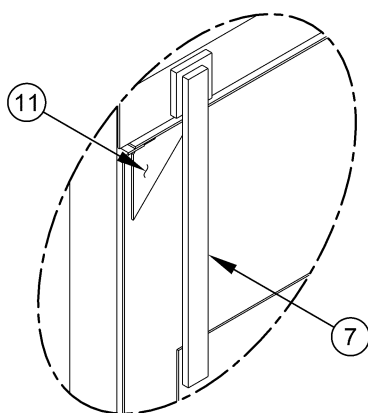
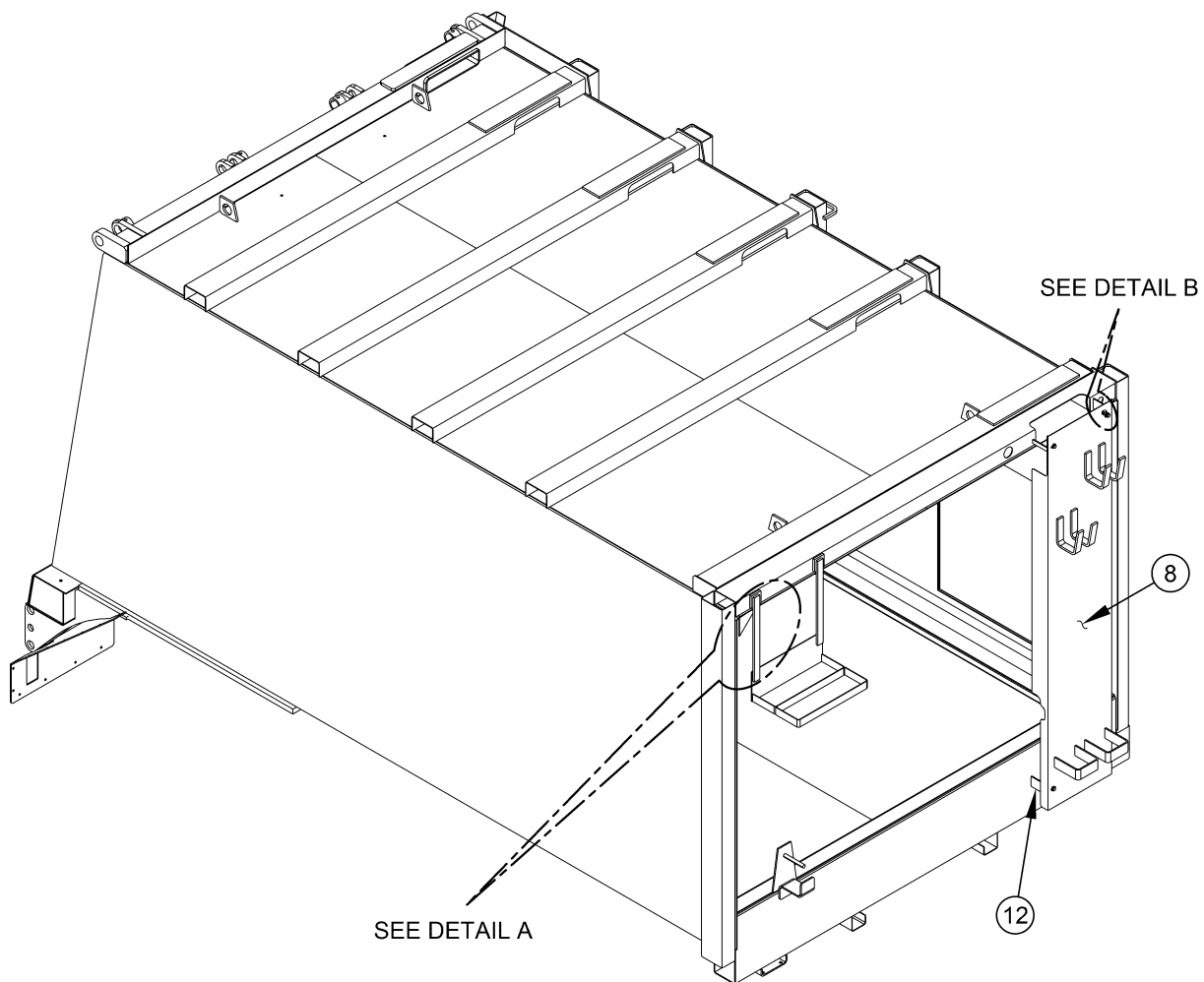
155

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	113-0122	COVER, Tube, Front	-	REF
1	005-3121-005	HINGE, Strap, 1-1/2"	-	4
2	015-2274	SPACER, 1"	-	2
3	048-3891	PIN, Hinge, Side Door, 1/2" Dia., Zinc, Plated	-	2
4	113-0120	COVER, Roof, Front, #14 Ga.	-	1
5	FS340420	PIN, Cotter, 1/8" x 1", Steel, Plated	-	2
6	FS521100	WASHER, Flat, 1/2", SAE, Plain	-	2

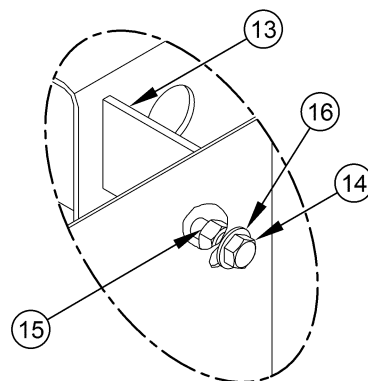
NYC Formula[®] 4000

FRONT COVER KIT

113-6008



DETAIL A



DETAIL B

NYC Formula® 4000

FRONT COVER KIT

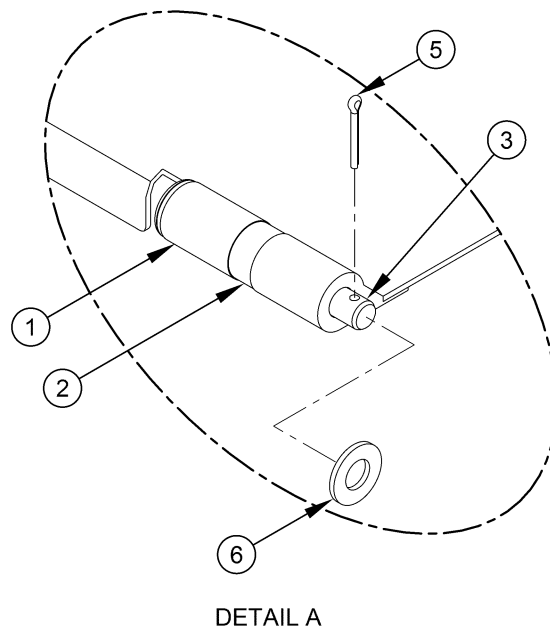
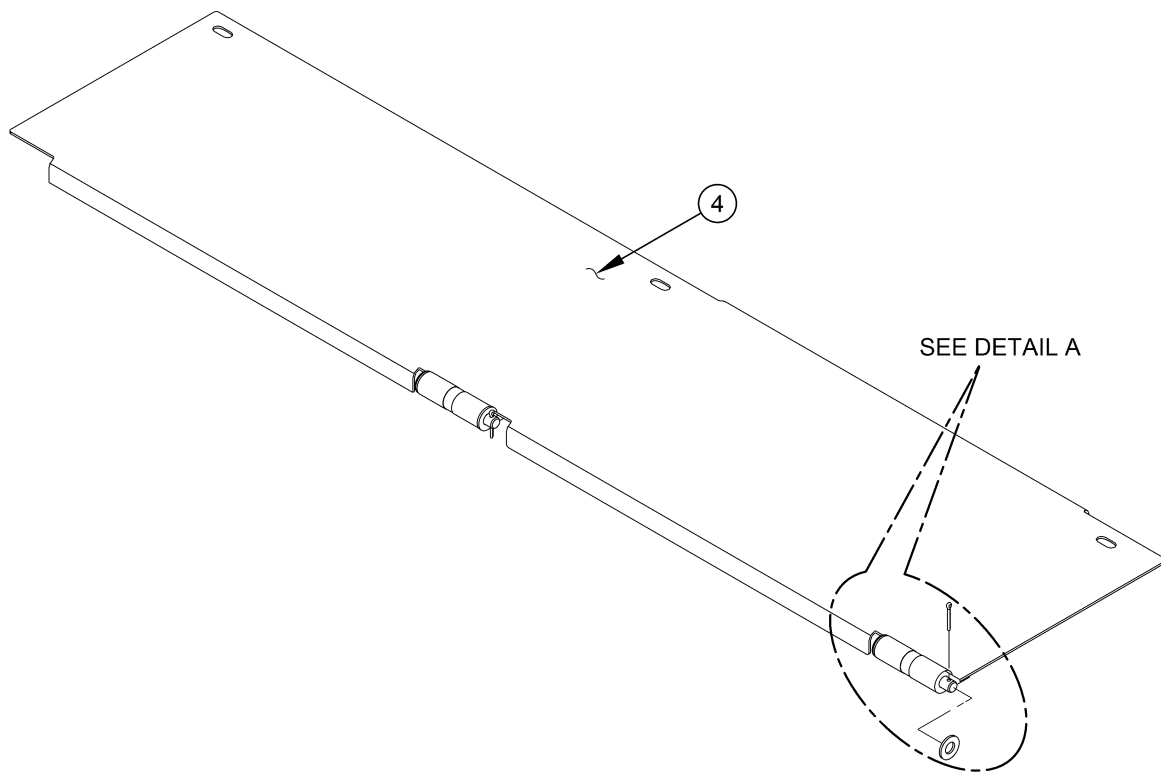
113-6008

157

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	113-6008	KIT, Cover, Front	-	REF
7	053-2130	KEEPER, Brace, 3/8" x 1-1/4"	-	2
8	113-0073	COVER, Hydraulic, Front Head, #14 Ga.	-	1
11	177-3859	GUSSET, Upper, #7 Ga.	-	1
12	211-9749	BRACKET, Cover, 3/16" x 2	-	2
13	211-9849	BRACKET, Front Cover, 0.18" x 2"	-	1
14	FSP070920	HHCS, 3/8"-16 x 1", Gr. 5, Plated	-	4
15	FSP230900	NUT, Lock, 3/8"-16, Gr. 5, Plated	-	4
16	FSP520900	WASHER, Flat, 3/8" SAE, Plated	-	4

Note: Items 1-6, 9 and 10 are Welded.

NYC Formula® 4000
REAR TUBE COVER
113-7080



NYC Formula® 4000

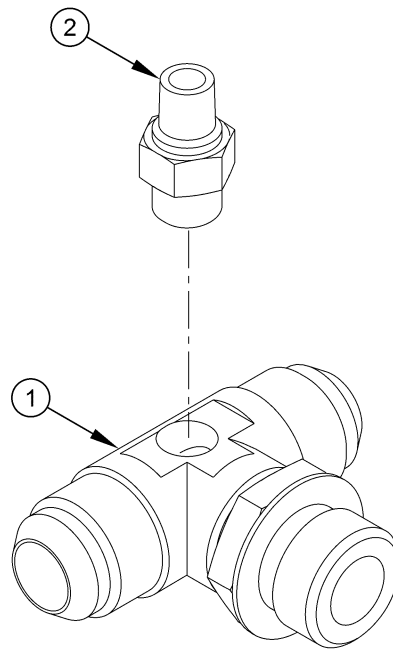
REAR TUBE COVER

113-7080

159

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	113-7080	COVER, Tube, Rear	-	REF
1	005-3121-005	HINGE, Strap, 1-1/2"	-	4
2	015-2274	SPACER, 1"	-	2
3	048-3891	PIN, Hinge, Side Door, 1/2" Dia., Zinc, Plated	-	2
4	113-7080-001	COVER, Roof, 12 Ga.	-	1
5	FS340420	PIN, Cotter, 1/8" x 1", Steel, Plated	-	2
6	FS521100	WASHER, Flat, 1/2", SAE, Plain	-	2

NYC Formula® 4000
3/4 INCH SPECIAL T-FITTING
354-4991

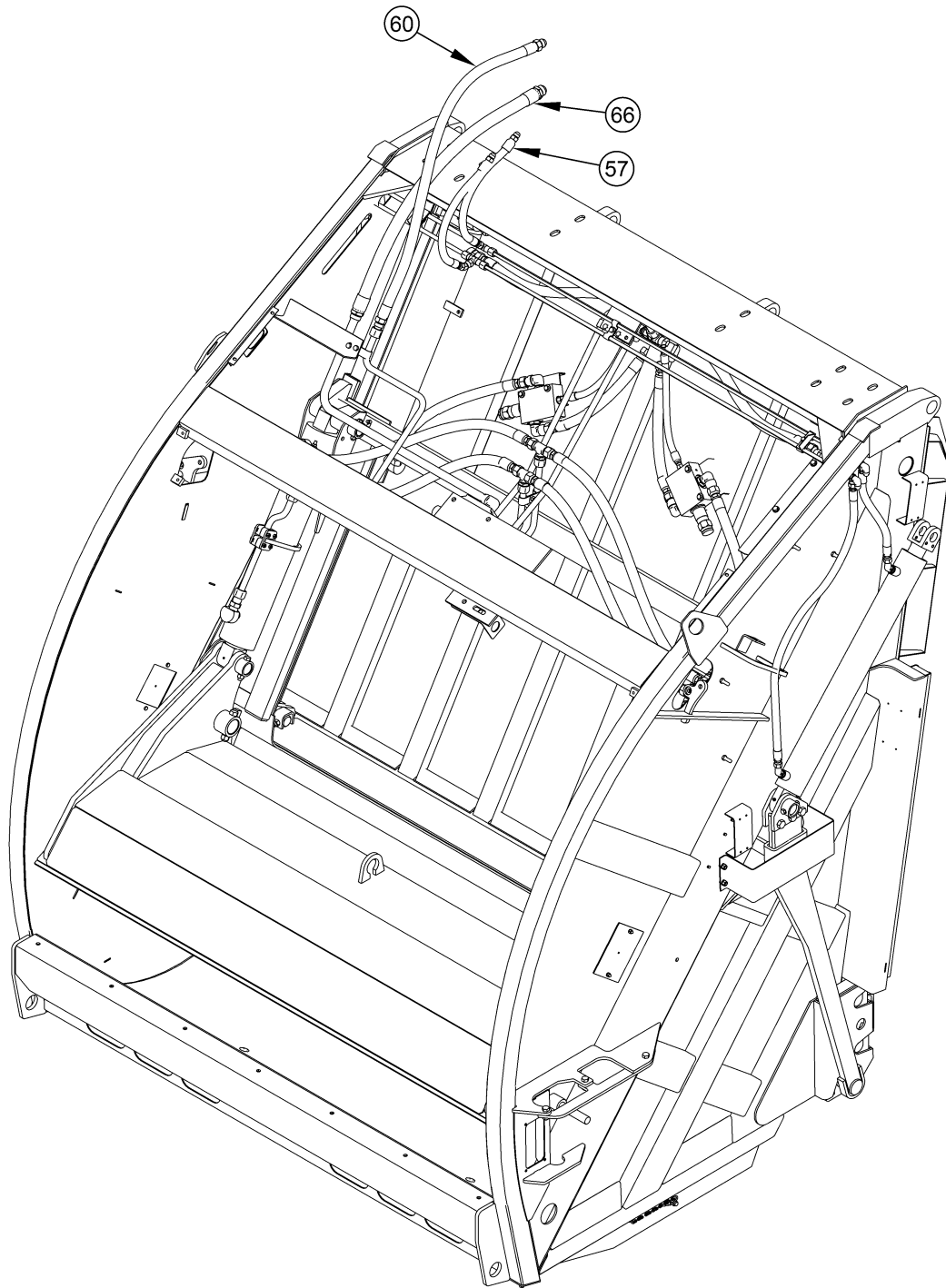


NYC Formula® 4000
3/4 INCH SPECIAL T-FITTING
354-4991

161

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	354-4991	T-FITTING, Special, 3/4"	-	REF
1	054-3344-008	TEE, Male Branch, 3/4"	-	1
2	054-9737-002	ADAPTER, Fitting, Straight, Male, 3/8" SAE-1/4" NPT	-	1

NYC Formula® 4000
20 YARD TAILGATE HYDRAULIC INSTALLATION
372-7874



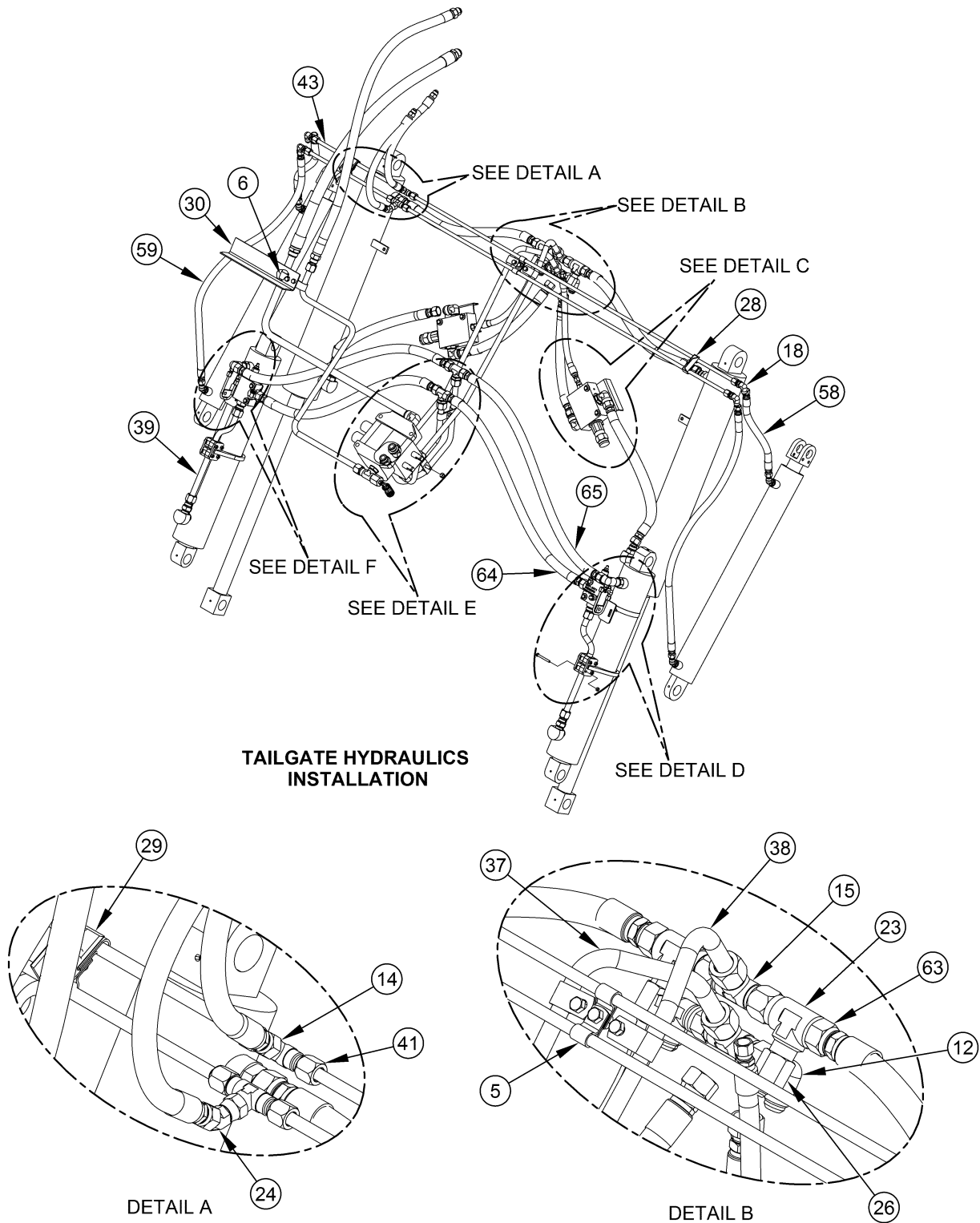
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NYC Formula® 4000

20 YARD TAILGATE HYDRAULIC INSTALLATION

372-7874



SHEET 2 OF 3

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NYC Formula® 4000

20 YARD TAILGATE HYDRAULIC INSTALLATION

372-7874

167

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	372-7874	INSTALLATION, Hydraulic, Tailgate, 20 Yd.	-	REF
1	031-6268-002	VALVE, Control, Tailgate (See Section 5)	-	1
2	031-6280	VALVE, Counter Balance (See Section 5)	-	2
3	031-6471	VALVE, Counter, Balance, Size 12, 4:1 (See Section 5)	-	2
4	036-1295-001	CLAMP, Tube/Wire, 3/4" OD x 11/16" ID	-	7
5	036-1295-003	CLAMP, Tube/Wire, 1/2"	-	6
6	036-1295-005	CLAMP, Tube/Wire, 1"	-	1
7	036-1715-002	CLAMP, Tube Strap, 4.75"-5.62"	-	2
8	036-1948-012	CLAMP, Half, Tube, 3/4"	-	4
10	045-1404	COUPLING, Quick Disconnect, w/Plug ¹⁷⁰	-	1
11	047-2643	BOLT, Shoulder, 1/2"	-	2
12	054-2988-008	ELBOW, 90°, Female, Tube to Swivel, 3/4", 37° Flare	-	2
13	054-3005-006	ELBOW, Male, 45°, 3/8"-6 x 9/16"-18 Thd.	-	4
14	054-3139-006	TEE, Union, Tube to Tube to Tube, 3/4"-16, 1/2", #8	-	2
15	054-3139-008	TEE, Union, Tube to Tube to Tube, 1-1/16"-12 x 3/4", #12	-	2
16	054-3237-002	ELBOW, Male, Reducing, 90°, Tube 1-5/16"-12 x 1" to Str. Thd. 1"-1/16"-12 x 3/4"	-	4
17	054-3237-011	ELBOW, 90°, Male, Reducing, Tube, to, Str. Thd., 1/4"-7/16"-20 x 9/16"-18-3/8"	-	2
18	054-3340-006	ELBOW, Male, 90°, Tube to Str. Thd., 3/4"-16 x 1/2", #8	-	4
19	054-3340-008	ELBOW, 90°, Male, Tube to Str. Thd., 1-1/16-12 x 3/4", #12	-	2
20	054-3340-010	ELBOW, Male, 90°, Tube to Str. Thd. 1-5/16"-12 x 1", #16	-	1
21	054-3341-008	CONNECTOR, Male, Tube to Str. Thd., 1-1/16-12 x 3/4", #12	-	12
22	054-3344-008	TEE, Male Branch, 3/4"	-	3
23	054-3624-008	TEE, Run, Female, Swivel, 37° Flare, 3/4"-1-1/16"-12	-	2
24	054-3629-006	ELBOW, Female Swivel, 45°, 37° Flare, Tube 3/4"-16 x 1/2", #8	-	1
25	054-6547-007	REDUCER, JIC, #12-#4, 1-1/16"-12	-	1
26	054-6547-008	REDUCER, JIC, 3/4" to 3/8" Tube	-	2
27	058-3205-029	REDUCER, Str. Thd., SAE Boss to 37° JIC, 1/4" x 7/16"-20 to 3/8" x 9/16-18	-	2
28	077-8302-001	SUPPORT, Tube, CS, 1" x 1" x 1/8"	-	1
29	077-8302-002	SUPPORT, Tube, SS, 1" x 1" x 1/8"	-	1
30	177-5810	BRACKET, Support, Tube, #10 Ga.	-	1
-31	274-0567	SEALANT, Tamper Proof, 5 Oz Tube	-	1
34	311-5558	BRACKET, Mounting, C- Balance, Slide Cylinder, 11 Ga.	-	2
35	354-4992	ASSEMBLY, Tube, Blade Cylinders, 37° Flare, 3/4" OD x 0.083" Wall -	-	1
36	354-4993	ASSEMBLY, Tube, Blade Cylinders, 37° Flare, 3/4" OD x 0.083" Wall -	-	1
37	354-4994	ASSEMBLY, Tube, Slide Cylinders, 37° Flare, 3/4" OD x 0.083" Wall -	-	1
38	354-4995	ASSEMBLY, Tube, Slide Cylinders, 37° Flare, 3/4" OD x 0.083" Wall -	-	1
39	354-4998	TUBE, Steel, Hydraulic, 37° Flare, 3/4" OD x 0.083" Wall	-	2
40	354-4999	TUBE, Steel, Hydraulic, 37° Flare, 1/4" OD x 0.035" Wall	-	2
41	354-5000	TUBE, Cylinder, Tailgate, 37° Flare, 1/2" OD x 0.049" Wall	-	2
42	354-5001	TUBE, Steel, Hydraulic, 37° Flare, 3/4" OD x 0.083" Wall	-	1
43	354-5004	TUBE, Cylinder, Tailgate, 37° Flare, 1/2" OD x 0.049" Wall	-	2
44	354-5005	TUBE, Return, Hydraulic, 37° Flare, 1" OD x 0.109" Wall	-	1
45	354-5006	ELBOW, Long, Special, SS ¹⁷²	-	1
46	354-5007	ELBOW, Long, Special, CS ¹⁷⁴	-	1

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NYC Formula® 4000

20 YARD TAILGATE HYDRAULIC INSTALLATION

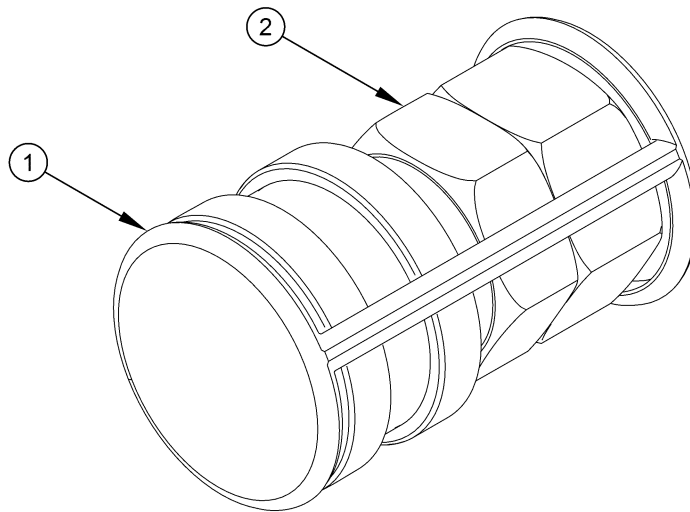
372-7874

169

ITEM	PART NO.	DESCRIPTION	EFF	QTY
47	354-5008-004	ELBOW, Fitting, 90°, Female, 7/16"-20	-	1
48	FSP070732	HHCS, 1/4"-20 x 2-1/4", Gr. 5, Plated	-	8
49	FSP070832	HHCS, 5/16"-18 x 2-1/4", Gr. 5, Plated	-	4
50	FSP070836	HHCS, 5/16"-18 x 2-3/4", Gr. 5, Plated	-	4
51	FSP070920	HHCS, 3/8"-16 x 1", Gr. 5, Plated	-	9
52	FSP230700	NUT, Lock, 1/4"-20, Gr. 5, Plated	-	8
53	FSP230800	NUT, Lock, 5/16"-18, Gr. 5, Plated	-	8
54	FSP230900	NUT, Lock, 3/8"-16, Gr. 5, Plated	-	11
55	FSP510800	WASHER, Flat, 5/16" Std., Plated	-	8
56	QG2-FEFE-017	ASSEMBLY, Hose, 3/8", 37° Female to Male Swivel, 17"	-	2
57	QG3-EFFF-036	ASSEMBLY, Hose, 1/2", 37° JIC Male to Female, Swivel, 36"	-	2
58	QG3-FFFF-015	ASSEMBLY, Hose, 1/2", 37° JIC Female Swivel, 15"	-	2
59	QG3-FFFF-043	ASSEMBLY, Hose, 1/2", 37° JIC Female Swivel, 43"	-	2
60	QG5-EHEH-045	ASSEMBLY, Tube, 3/4", 37° JIC Male, 45"	-	1
61	QG5-FHFH-020	ASSEMBLY, Hose, 3/4", 37° JIC Female to Male Swivel, 20"	-	2
62	QG5-FHFH-022	ASSEMBLY, Hose, 3/4", 37° JIC Female to Male Swivel, 22"	-	2
63	QG5-FHFH-027	ASSEMBLY, Hose, 3/4", 37° JIC Female to Male Swivel, 27"	-	2
64	QG5-FHFH-036	HOSE, Hydraulic, 3/4", 37° JIC Female to Male Swivel, 36"	-	2
65	QG5-FHFH-040	HOSE, Hydraulic, 3/4", 37° JIC Female to Male Swivel, 40"	-	2
66	QG6-EKEK-045	ASSEMBLY, Hose, 1", 37° JIC Male to Female Swivel, 45"	-	1

Note: Items 9, 32 and 33 are Welded.

NYC Formula® 4000
QUICK DISCONNECT COUPLING WITH PLUG
045-1404

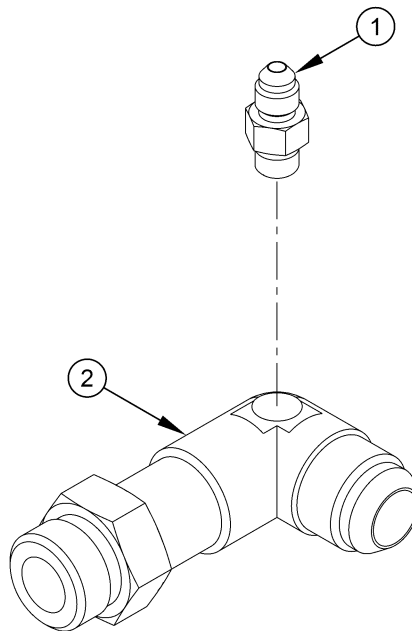


NYC Formula® 4000
QUICK DISCONNECT COUPLING WITH PLUG
045-1404

171

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	045-1404	COUPLING, Quick Disconnect, w/Plug	-	REF
1	045-1006-003	PLUG, Quick Disconnect, Male	-	1
2	045-1404-002	COUPLING, Quick Disconnect, 1/4" Thd.	-	1

NYC Formula® 4000
SS SPECIAL LONG ELBOW
354-5006

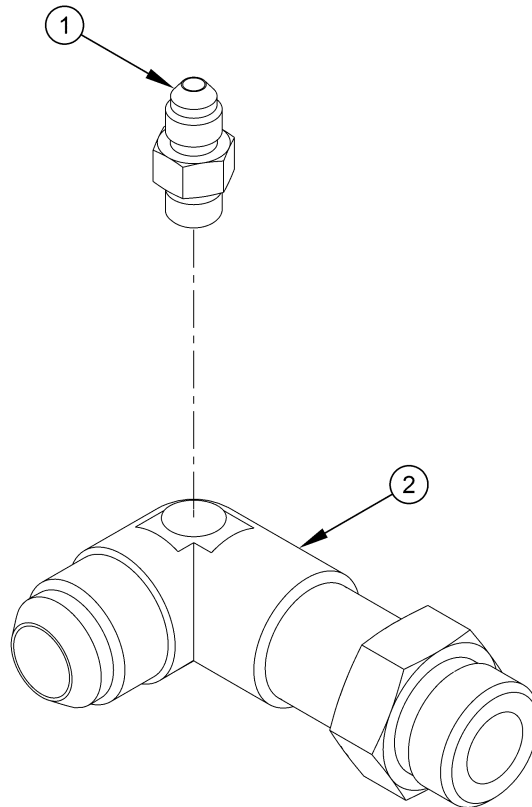


NYC Formula® 4000 **SS SPECIAL LONG ELBOW** **354-5006**

173

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	354-5006	ELBOW, Long, Special, SS	-	REF
1	054-3341-003	CONNECTOR, Male, Tube to Str. Thd., 7/16"-20 x 1/4", #4	-	1
2	054-9408-012	ELBOW, 1" Tube to Str. Thd., 1-1/16"-12	-	1

NYC Formula[®] 4000
CS SPECIAL LONG ELBOW
354-5007



NYC Formula® 4000 **CS SPECIAL LONG ELBOW** **354-5007**

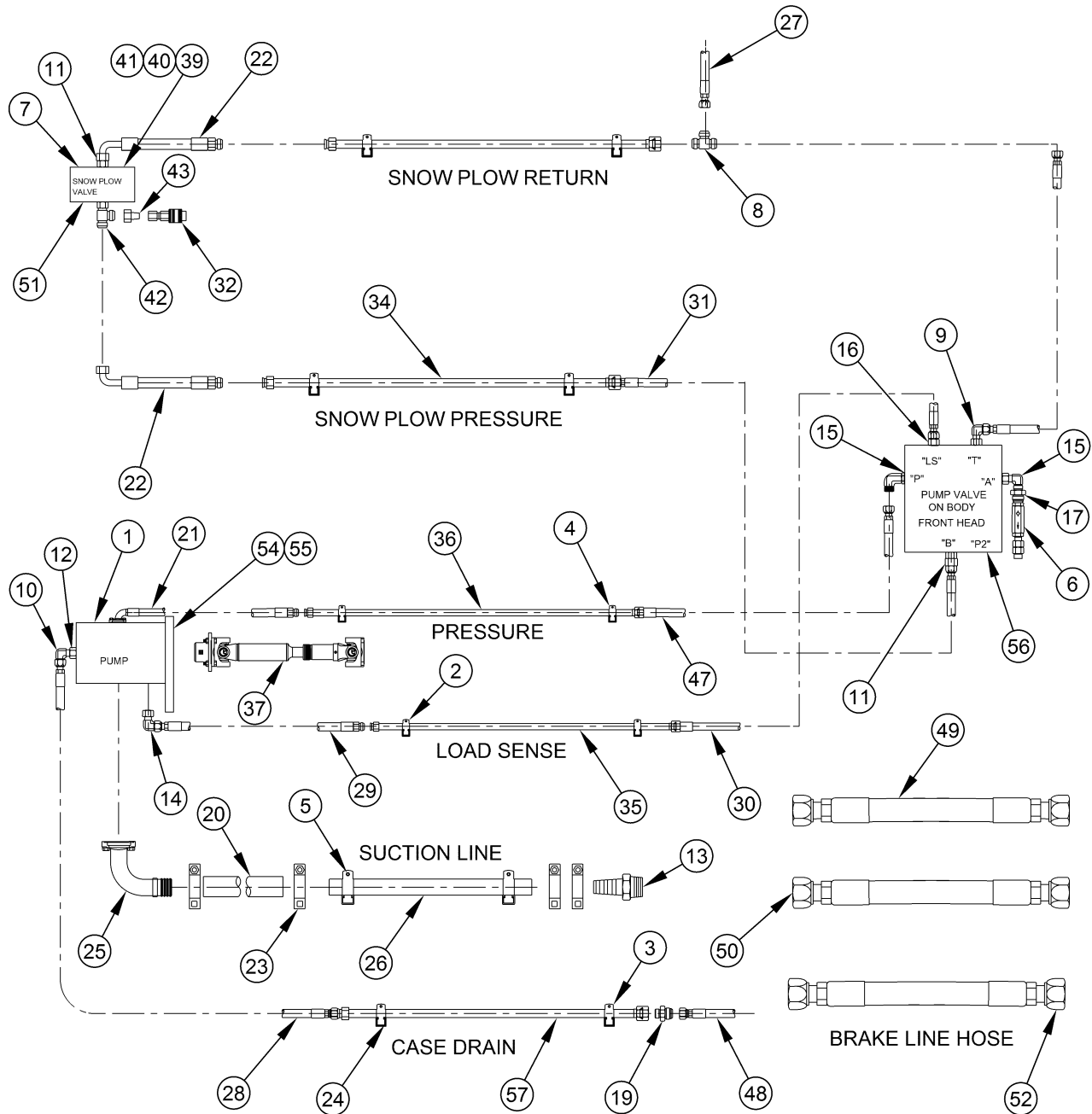
175

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	354-5007	ELBOW, Long, Special, CS	-	REF
1	054-3341-003	CONNECTOR, Male, Tube to Str. Thd., 7/16"-20 x 1/4", #4	-	1
2	054-9408-012	ELBOW, 1" Tube to Str. Thd., 1-1/16"-12	-	1

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HYDRAULIC MOUNTING KITS

NYC Formula® 4000 **MOUNTING HYDRAULIC KIT** **372-7872**



NYC Formula® 4000

MOUNTING HYDRAULIC KIT

372-7872

179

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	372-7872	KIT, Hydraulic, Mounting	-	REF
1	219-2301	INSTALLATION, Pump, Piston (See Section 5)	-	1
2	036-1474-003	ASSEMBLY, Clamp, Hydraulic Tubing, 3/8"	-	2
3	036-1474-004	ASSEMBLY, Clamp, Hydraulic Tubing, 1/2"	-	6
4	036-1474-008	ASSEMBLY, Clamp, Hydraulic Tubing, 1-1/2"	-	2
5	036-1474-012	ASSEMBLY, Clamp, Hydraulic Tubing, 2"	-	2
6	031-6264	VALVE, Check, 1"	-	1
7	031-6139	VALVE, Solenoid, Snow Plow (See Section 5)	-	1
8	054-3139-006	TEE, Union, Tube to Tube to Tube, 3/4"-16, 1/2", #8	-	1
9	054-3237-021	ELBOW, Male, Reducing, 90°, Tube to Str. Thd., 1/2" x 3/4"-16	-	1
10	054-2988-006	ELBOW, Male to Female Swivel, 90°, 37° Flare,	-	1
		Swivel Tube 3/4"-16 x 1/2", #8	-	1
11	054-3341-006	CONNECTOR, Male, Tube to Str. Thd., 3/4"-16 x 1/2", #8	-	2
12	058-3205-016	REDUCER, Str. Thd., SAE 7/8"-14 x 5/8" to 37° JIC 3/4"-16 x 1/2"	-	1
13	058-8579-006	FLANGE, Split, Fitting, 2"	-	1
14	054-3340-005	ELBOW, Male, Tube to O-Ring, 3/8"	-	1
15	054-3340-010	ELBOW, Male, 90°, Tube to Str. Thd. 1-5/16"-12 x 1", #16	-	2
16	054-3341-005	CONNECTOR, Male, Tube to Str. Thd., 9/16"-18 x 3/8", #6	-	1
17	054-3341-010	CONNECTOR, Male, Tube to Str. Thd., 1-5/16"-12 x 1", #8	-	2
-18	059-0316	COMPOUND, Retaining, Loctite Type, 603	-	1
19	054-3007-006	UNION, Tube to Tube, 3/4"-16 x 1/2", #8	-	1
20	057-2172-122	HOSE, Suction, 2", 122" Lg.	-	1
21	057-3110-060	HOSE, High Pressure, 1" Dia, 60" Lg.	-	1
22	QF3-EFTF-064	HOSE, Snow Plow, 1/2", 37° JIC Male to Female, Swivel, 64"	-	2
23	074-4498-032	CLAMP, Hose, Suction, 2"	-	2
24	207-2938-006	CHANNEL, Hydraulic, Tube Clamp, 3"	-	12
25	354-0366	KIT, Suction, 90°, 2"	-	1
26	354-1214	TUBE, Suction Line, 2"	-	1
27	QG3-FFFF-175	ASSEMBLY, Hose, 1/2", 37° JIC Female Swivel, 175"	-	2
28	QG3-EFFF-064	ASSEMBLY, Hose, 1/2", 37° JIC Male to Female, Swivel, 64"	-	1
29	QG2-EEFE-060	HOSE, 3/8", 37° JIC Male to Female Swivel, 60"	-	1
30	QG2-EEFE-046	HOSE, 3/8", 37° JIC Male to Female Swivel, 46"	-	1
31	QG3-EFFF-046	HOSE, 1/2", 37° JIC Male to Female Swivel, 46"	-	1
32	031-5601-002	DISCONNECT, Quick, Female, 1/4"	-	1
-33	059-0318	LOCKER, Thread, Blue, Loctite 242	-	1
34	CAM-C042-000	TUBE, 1/2"	-	2
35	CAS-B042-000	TUBE, Load Sense, 3/8"	-	1
36	354-4974	TUBE, Pressure, 37° Flare, 1" OD x 0.109" Wall	-	1
37	030-0865	ASSEMBLY, Driveline ¹⁸²	-	1
38	311-1099	BRACKET, Tube, Hydraulic	-	2
39	015-3277	SPACER, Snow Plow, 3/4" OD x 0.156" Wall	-	4
40	FS100950	HHCS, 3/8"-24 x 4, Gr. 5	-	4
41	FS270900	NUT, Hex., 3/8"-24	-	4
42	054-3343-006	TEE, Run, Male, Tube to Str. Thd. to Tube, 3/4"-16 x 1/2", #8	-	1
43	054-9521-014	ADAPTER, Extension Pipe, 1/4" NPT, #8 JIC	-	1
-44	311-1102	BRACKET, Tube, Hydraulic	-	2

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NYC Formula® 4000

MOUNTING HYDRAULIC KIT

372-7872

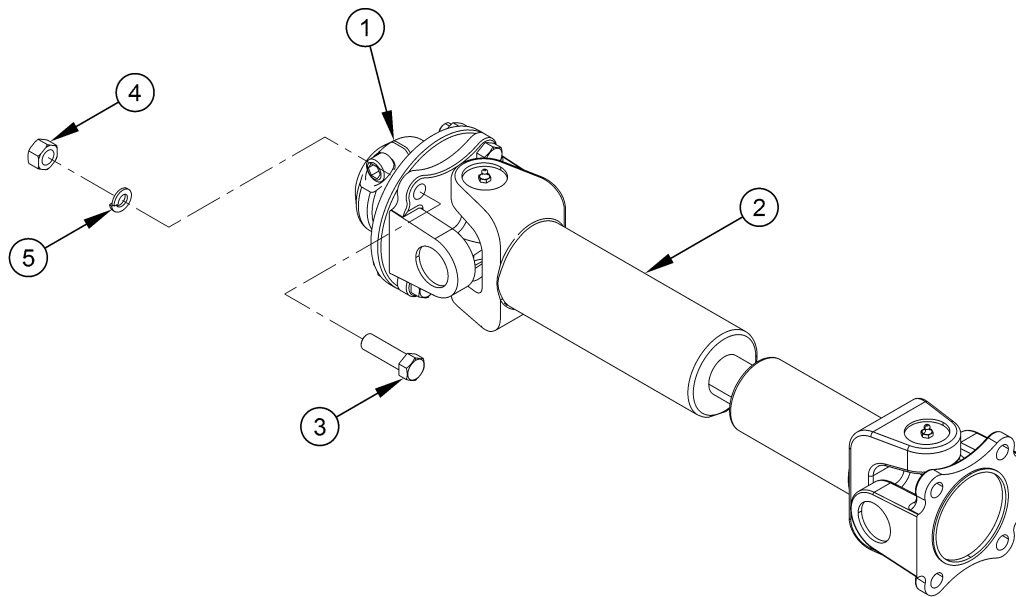
181

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-45	207-2938-008	CHANNEL, Tube Clamp, Hydraulic, 10"	-	4
-46	QG6-EFFF-040	ASSEMBLY, Hose, 1/2", 37° JIC Male to Female Swivel, 40"	-	1
47	QG3-FFFF-166	ASSEMBLY, Hose, 1/2", 37° JIC Female Swivel, 166"	-	1
48	QG3-FFFF-137	ASSEMBLY, Hose, 1/2", 37° JIC Female Swivel, 137"	-	1
49	QG6-FFFF-137	ASSEMBLY, Hose, 1/2", 37° JIC Female Swivel, 137"	-	1
50	QG6-FFFF-120	ASSEMBLY, Hose, 1/2", 37° JIC Female Swivel, 120"	-	1
51	054-3005-006	ELBOW, Male, 45°, 3/8"-6 x 9/16"-18 Thd.	-	2
52	057-2904-032	HOSE, Brake, 3/4" Dia., 32" Lg.	-	1
-53	372-4536	KIT, Hydraulic, Snow Plow 	-	1
54	311-4292	BRACKET, Pump, 1/2"	-	1
55	FSP081154	HHCS, 1/2"-13 x 4-1/2", Gr. 8, Plated	-	8
56	031-6414	VALVE, Pump Control, OAI, Tandem Pump (See Section 5)	-	1
57	CAM-C045-000	TUBE, Drain, Case, 1/2"	-	1

NYC Formula[®] 4000

DRIVELINE ASSEMBLY

030-0865



NYC Formula® 4000

DRIVELINE ASSEMBLY

030-0865

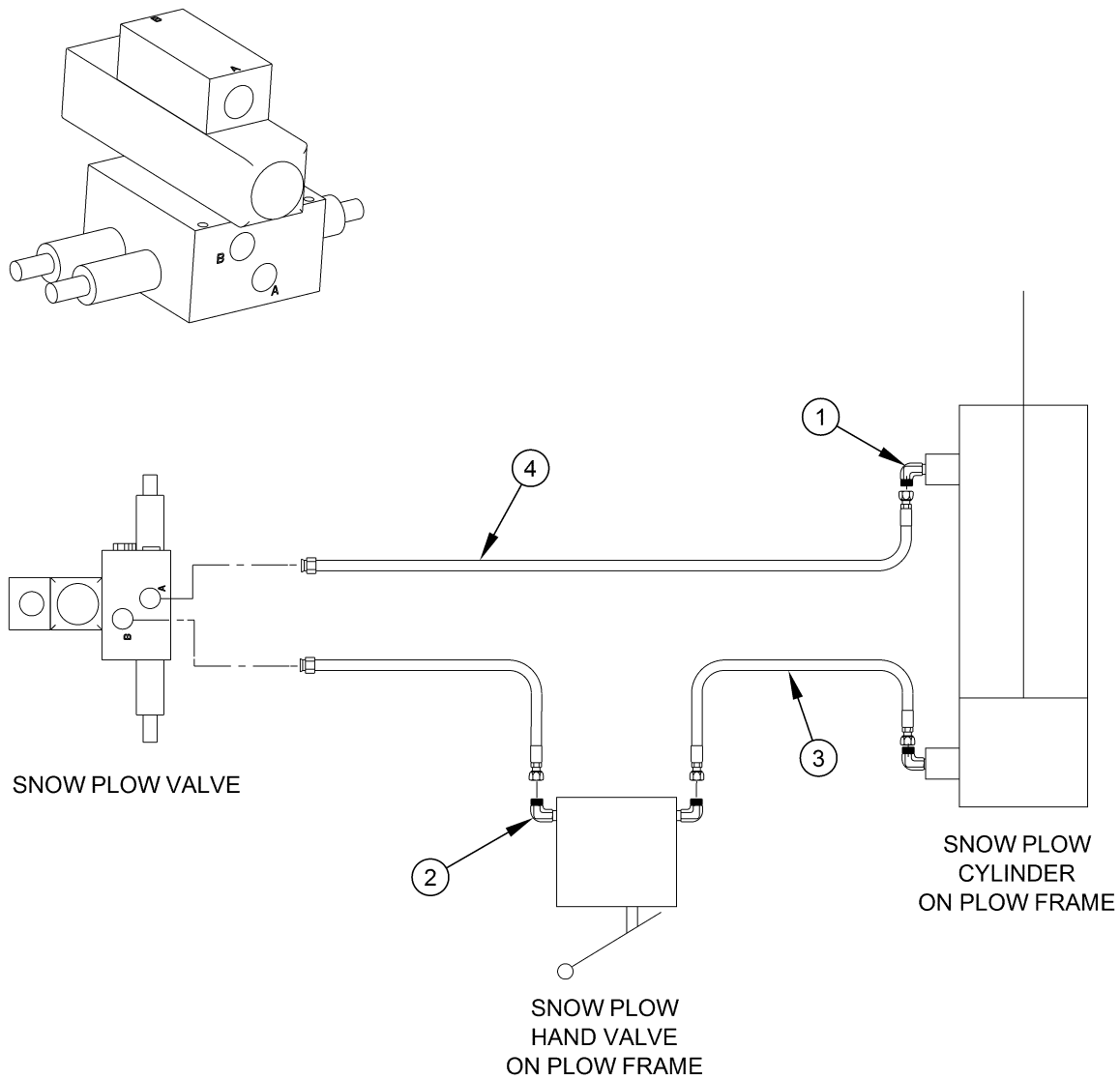
183

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	030-0865	ASSEMBLY, Driveline	-	REF
1	030-0863	FLANGE, Companion, 1-1/4"	-	1
2	030-0864-016	DRIVELINE, 1350	-	1
3	FSP111024	HHCS, 7/16"-20 x 1-1/2", Gr. 8, Plated	-	4
4	FSP351000	NUT, Lock, 7/16"-20, Gr. 8, Plated	-	4
5	FSP551000	WASHER, Lock, 7/16", Plated	-	4

NYC Formula[®] 4000

SNOW PLOW HYDRAULIC KIT

372-4536



NYC Formula® 4000

SNOW PLOW HYDRAULIC KIT

372-4536

185

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	372-4536	KIT, Hydraulic, Snow Plow	-	REF
1	054-3667-003	ADAPTER, Male, 37° Flare, Tube 1/2" x 3/4"-16 to 1/4"	-	2
2	054-3667-007	ADAPTER, Male, 37° Flare, Tube 3/4"-16 x 1/2" NPT	-	2
3	QC3-FFFF-018	HOSE, 37° JIC Female Swivel, 1/2" x 18"	-	1
4	QC3-FFFF-050	HOSE, 37° JIC Female Swivel, 1/2" x 50"	-	2

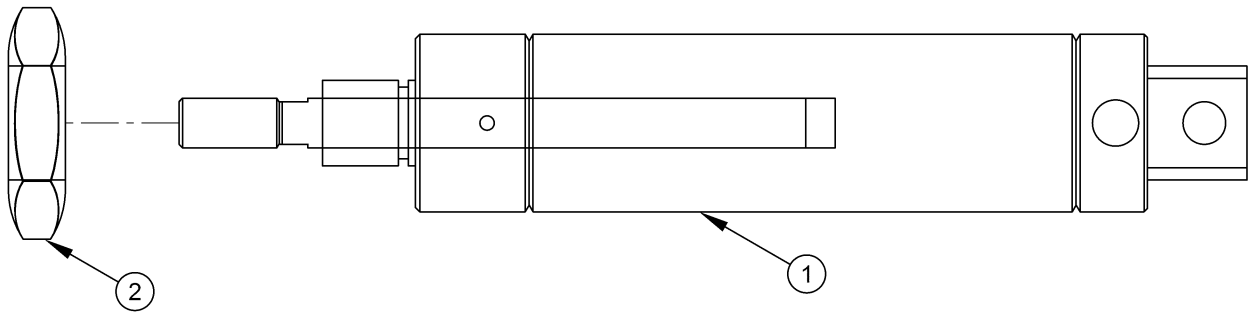
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SECTION 5 HYDRAULIC AND PNEUMATIC COMPONENTS

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CYLINDERS

NYC Formula® 4000
AIR CYLINDER
001-3699



NYC Formula® 4000
AIR CYLINDER
001-3699

191

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	001-3699	CYLINDER, Air	-	REF
1	001-3699-001	CYLINDER	-	1
2	001-3699-002	NUT, Mtg.	-	1

NYC Formula® 4000
20 YARD CHROME EJECTOR CYLINDER
001-6937

To Be Supplied

NYC Formula® 4000
20 YARD CHROME EJECTOR CYLINDER
001-6937

193

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	001-6937	CYLINDER, Ejector, Chrome, 20 Yd.	-	REF

NYC Formula® 4000
NARROW TAILGATE RAISE CYLINDER
001-7026

To Be Supplied

NYC Formula® 4000
NARROW TAILGATE RAISE CYLINDER
001-7026

195

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	001-7026	CYLINDER, Tailgate Raise, Narrow	-	REF

NYC Formula® 4000
TAILGATE SLIDE CYLINDER
001-7076

To Be Supplied

NYC Formula® 4000
TAILGATE SLIDE CYLINDER
001-7076

197

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	001-7076	CYLINDER, Slide, Tailgate	-	REF

NYC Formula® 4000
TAILGATE BLADE CYLINDER
001-7077

To Be Supplied

NYC Formula® 4000
TAILGATE BLADE CYLINDER
001-7077

199

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	001-7077	CYLINDER, Blade, Tailgate	-	REF

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VALVES

NYC Formula® 4000
BODY VALVE
031-5975

To Be Supplied

NYC Formula® 4000

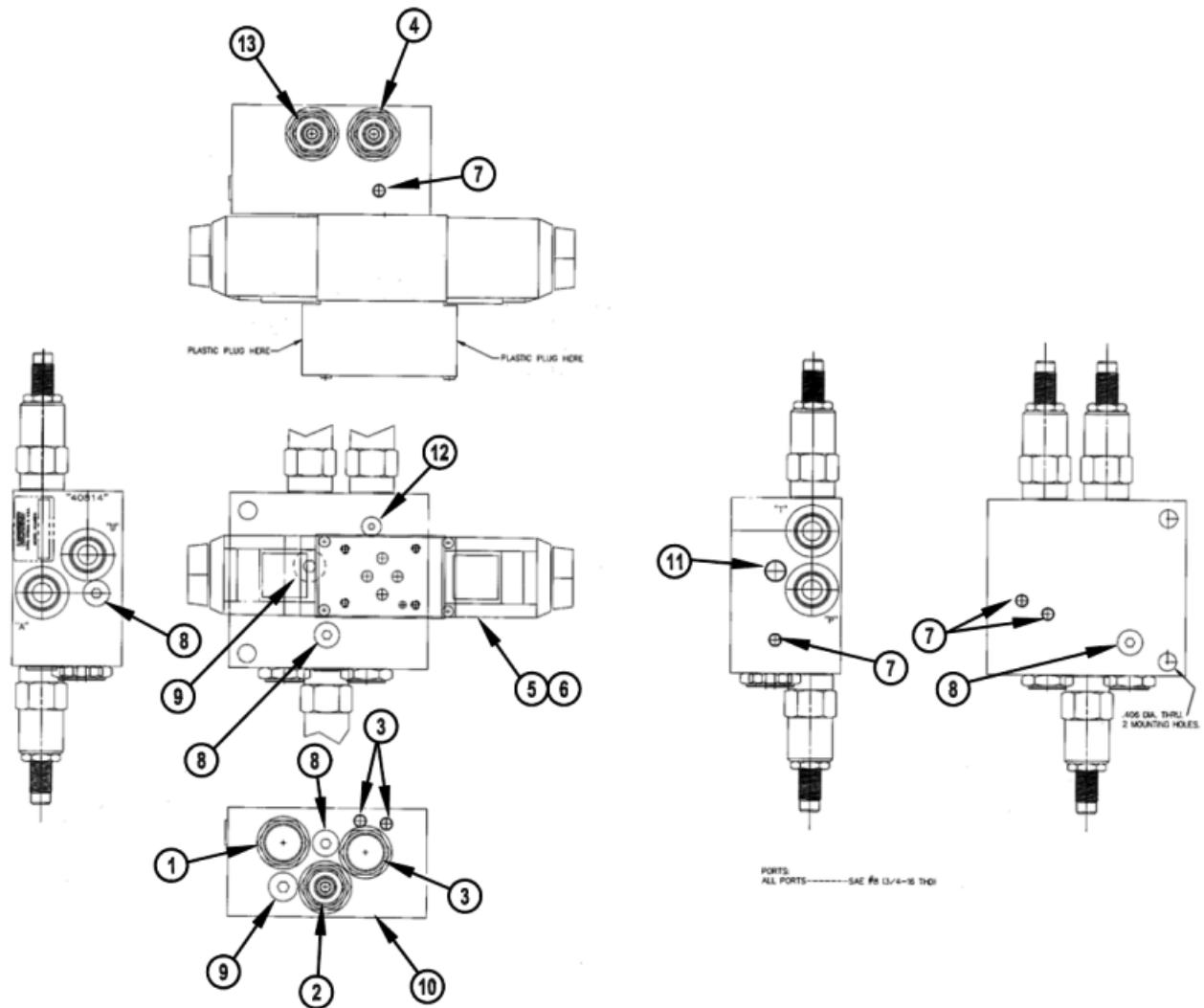
203

BODY VALVE

031-5975

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	031-5975	VALVE, Body	-	REF

NYC Formula® 4000 **SNOW PLOW SOLENOID VALVE** **031-6139**



NYC Formula® 4000

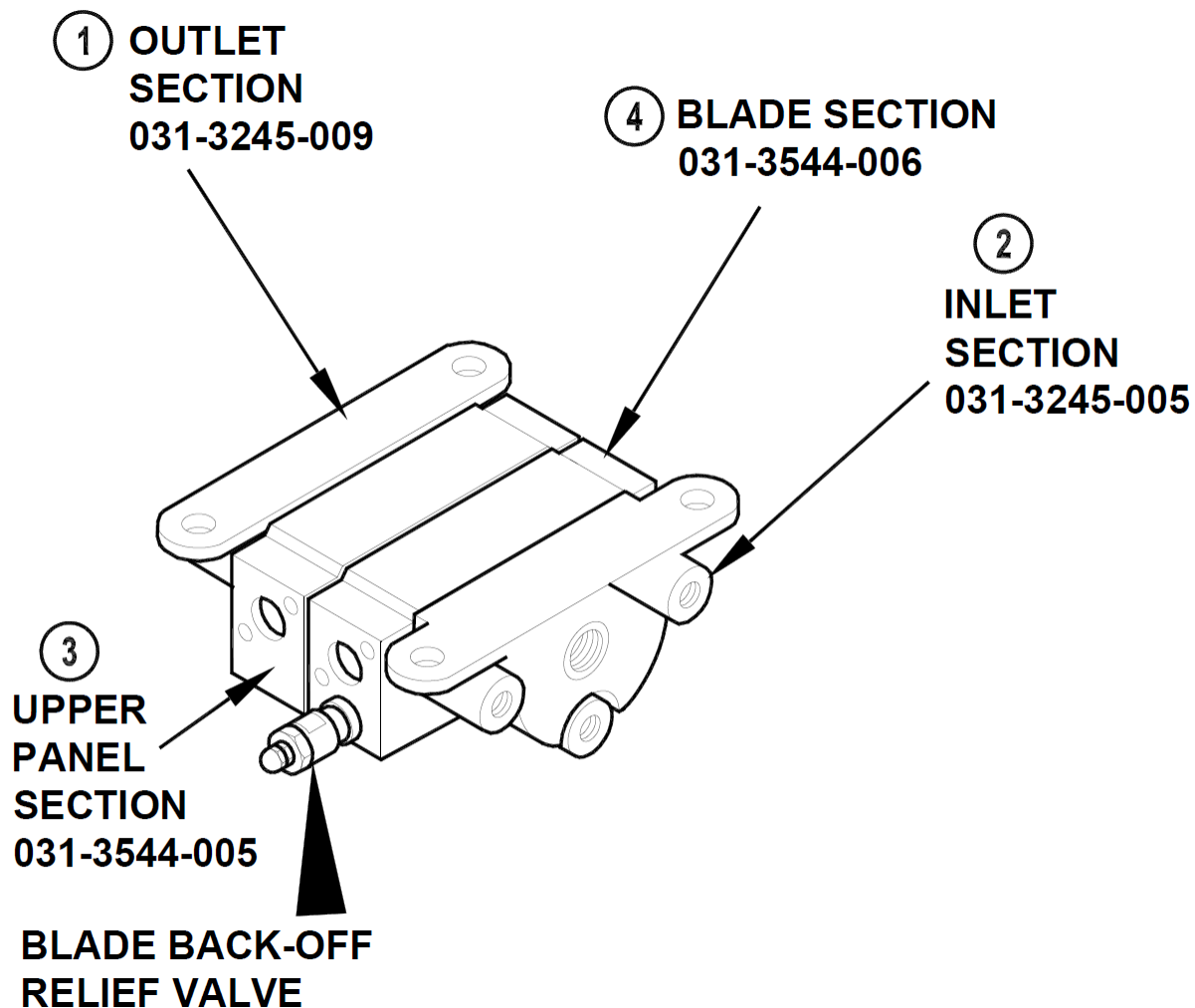
SNOW PLOW SOLENOID VALVE

031-6139

205

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	031-6139	VALVE, Solenoid, Snow Plow	-	REF
1	031-6139-001	VALVE, Check	-	1
-	031-5875-026	KIT, Seal	-	1
2	031-6139-002	REGULATOR, Flow	-	1
-	031-5875-026	KIT, Seal	-	1
3	031-6139-003	VALVE, Check, Pilot, Single	-	1
-	031-6139-008	KIT, Seal	-	1
4	031-6139-004	VALVE, Relief	-	1
-	031-5875-026	KIT, Seal	-	1
5	031-6139-005	VALVE, Directional Control	-	1
6	031-6139-006	KIT, Bolt	-	1
7	219-1918-011	PLUG, Expander	-	6
8	031-6139-010	PLUG	-	4
9	219-1918-105	PLUG	-	2
10	NSS	MANIFOLD	-	1
11	219-1918-012	PLUG	-	1
12	031-6139-009	PLUG	-	1
13	031-6139-007	VALVE, Relief	-	1

NYC Formula® 4000
TAILGATE CONTROL VALVE
031-6268-002



NYC Formula® 4000

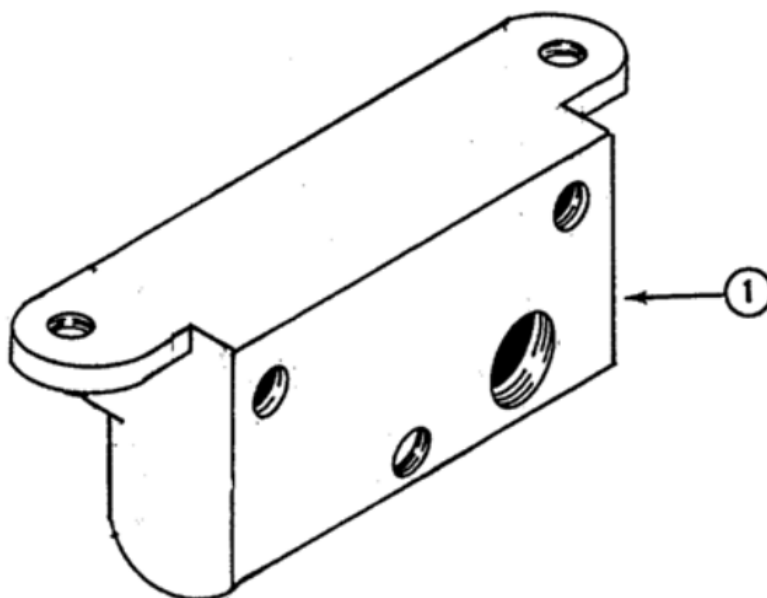
TAILGATE CONTROL VALVE

031-6268-002

207

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	031-6268-002	VALVE, Control, Tailgate	-	REF
1	031-3245-009	SECTION, Outlet, Control Valve, Tailgate 	-	1
2	031-3245-005	SECTION, Inlet, Control Valve, Tailgate 	-	1
3	031-3544-005	SECTION, Valve, Working, Tailgate, Slide Function 	-	1
4	031-3544-006	SECTION, Valve, Working, Tailgate, Blade Function 	-	1

NYC Formula® 4000
TAILGATE CONTROL VALVE OUTLET SECTION
031-3245-009



NYC Formula® 4000

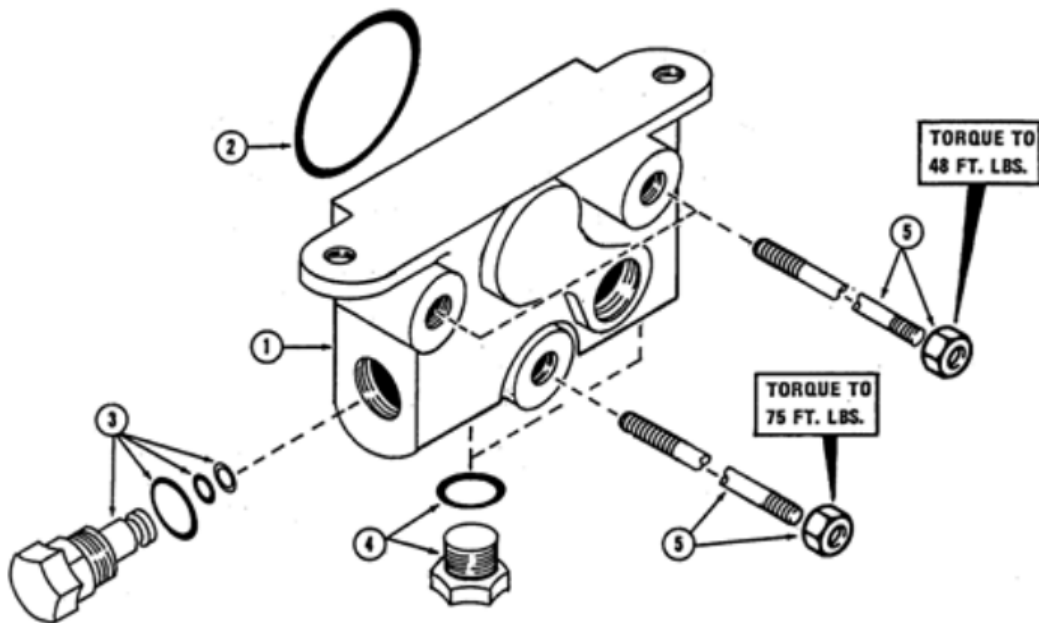
TAILGATE CONTROL VALVE OUTLET SECTION

031-3245-009

209

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	031-3245-009	SECTION, Outlet, Control Valve, Tailgate	-	REF
1	031-3245-009	SECTION, Outlet, Control Valve, Tailgate	-	1

NYC Formula® 4000
TAILGATE CONTROL VALVE INLET SECTION
031-3245-005



NYC Formula® 4000

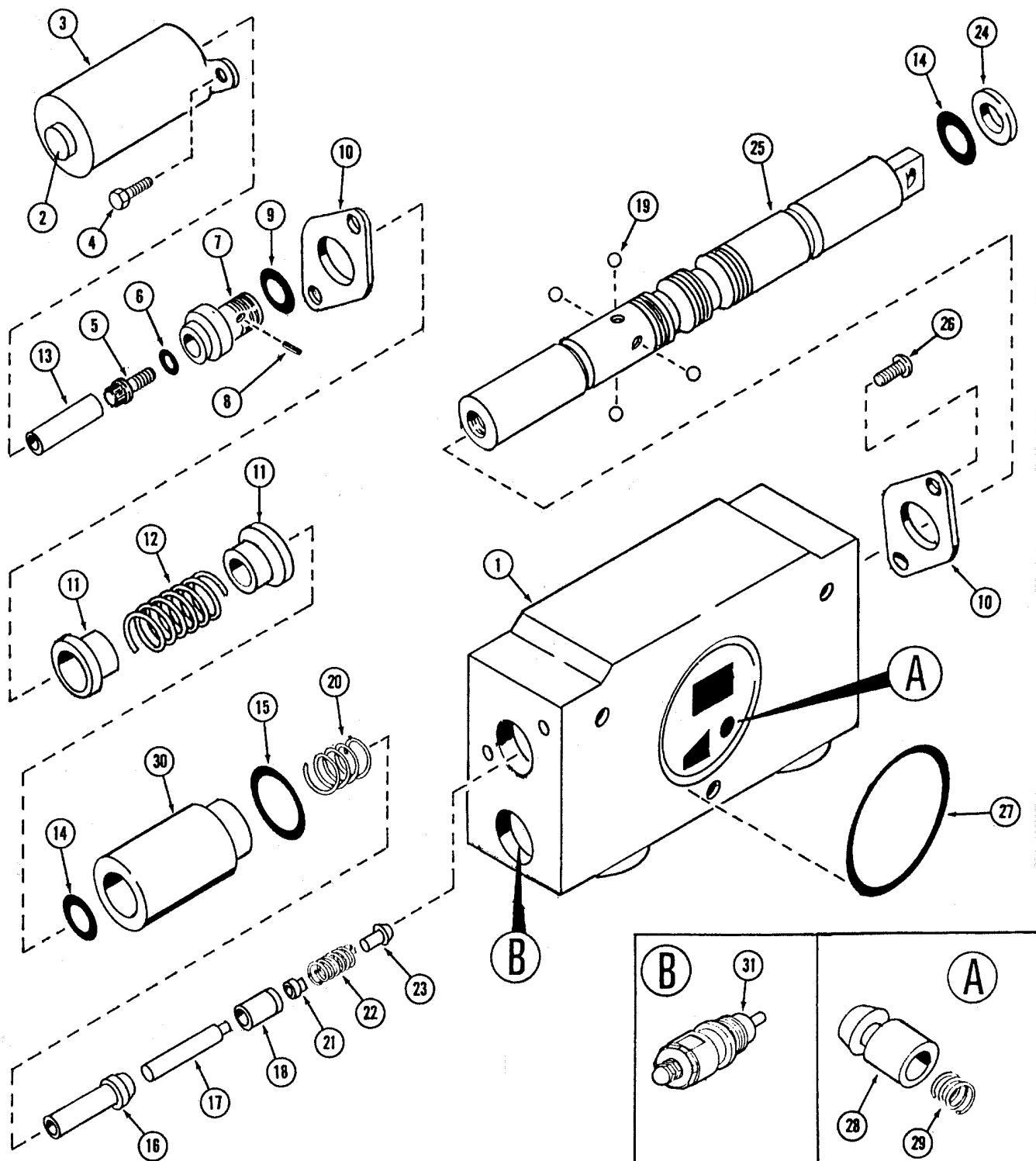
TAILGATE CONTROL VALVE INLET SECTION

031-3245-005

211

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	031-3245-005	SECTION, Inlet, , Control Valve, Tailgate	-	REF
1	NSS	HOUSING (Part of Inlet Section)	-	1
2	031-3245-010	O-RING (Part of Inlet Section)	-	1
3	031-3271	PLUG, Shut-Off (Includes O-Ring)	-	1
4	031-2018-010	PLUG (Includes O-Ring)	-	2
5	027-4680	ASSEMBLY, Tie Rod, 2-Spool Valve (Includes Rods and Nuts)	-	1
-5a	027-4678	ASSEMBLY, Tie Rod, 3-Spool Valve (Includes Rods and Nuts)	-	1
-5b	027-4679	ASSEMBLY, Tie Rod, 4-Spool Valve (Includes Rods and Nuts)	-	1

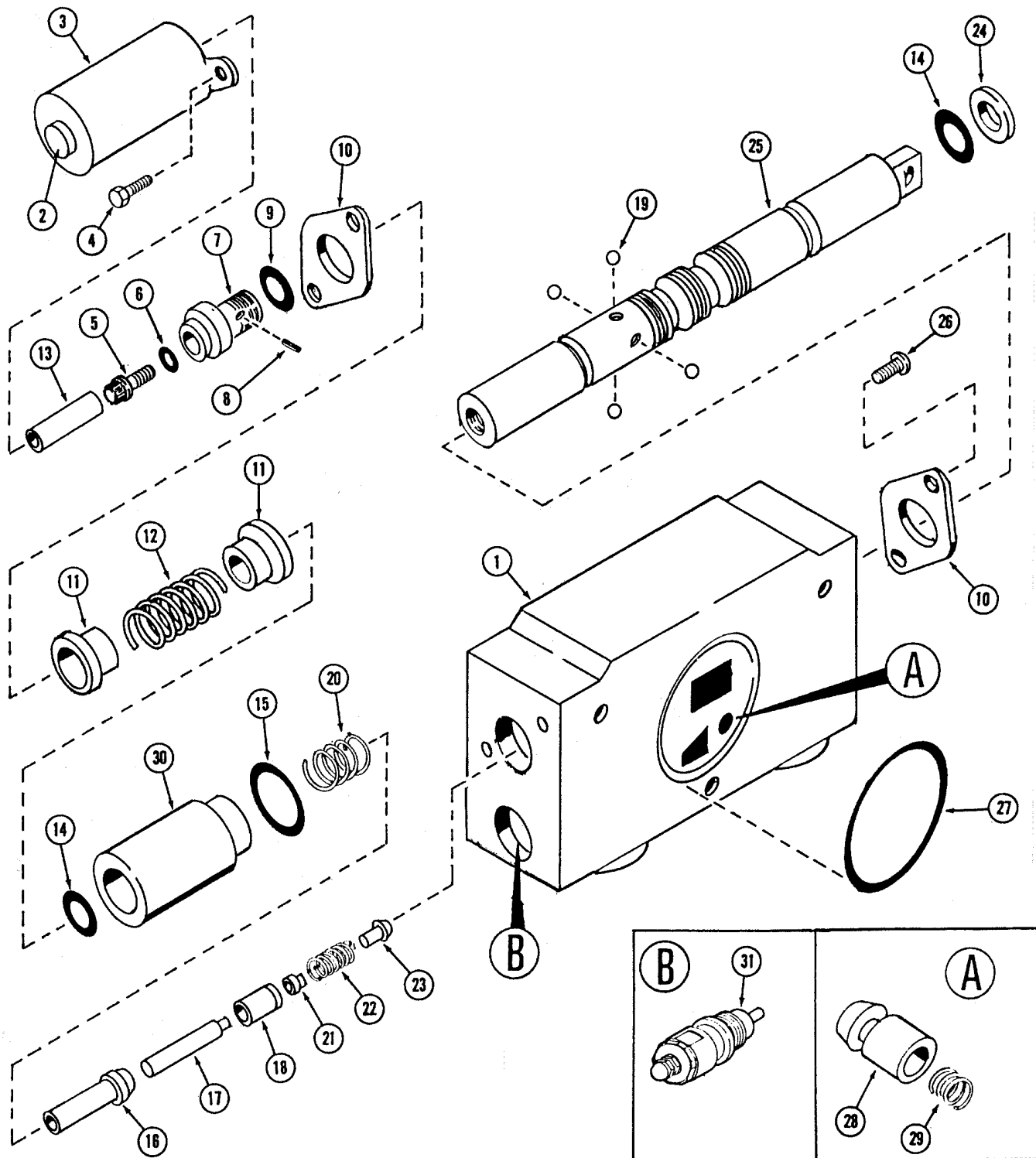
NYC Formula® 4000 **SLIDE FUNCTION TAILGATE WORKING VALVE SECTION** **031-3544-005**



SLIDE FUNCTION TAILGATE WORKING VALVE SECTION 031-3544-005

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	031-3544-005	SECTION, Valve, Working, Tailgate, Slide Function	-	REF
1	NSS	BODY	-	1
2	031-2012-013	PLUG	-	1
3	031-2012-012	CAP, Spool	-	1
4	031-2012-015	CAPSCREW	-	2
5	031-2012-010	SCREW, Adjusting	-	1
6	031-2012-008	O-RING	-	1
7	031-2018-003	END, Spool	-	1
8	031-2909-008	INSERT, Locking	-	1
9	031-2018-004	O-RING	-	1
10	031-2012-004	PLATE, Seal	-	2
11	031-2018-021	SEAT, Spring	-	2
12	031-3544-007	SPRING	-	1
13	031-2012-016	SPACER	-	1
14	031-2012-001	O-RING	-	2
15	031-2909-003	O-RING	-	1
16	031-2018-018	CAM, Detent	-	1
17	031-2928-011	ROD, Adjusting	-	1
18	031-2928-014	SLEEVE	-	1
19	031-2012-002	BALL	-	4
20	031-2928-002	SPRING	-	1
21	031-2928-013	GUIDE, Spring	-	1
22	031-3217-001	SPRING	-	1
23	031-2928-012	POPPET	-	1
24	031-2012-007	WIPER	-	1
25	NSS	SPOOL (See Kit)	-	1
26	031-2012-006	SCREW, Machine	-	2
27	031-3245-010	O-RING	-	1
28	031-3245-016	POPPET	-	1
29	031-3245-014	SPRING	-	1
30	031-2909-001	SLEEVE, Detent	-	1
-31	272-3861	KIT, Spool (Consists of Items 5-11, 14-25, and 30)	-	1

NYC Formula® 4000 **BLADE FUNCTION TAILGATE WORKING VALVE SECTION** 031-3544-006

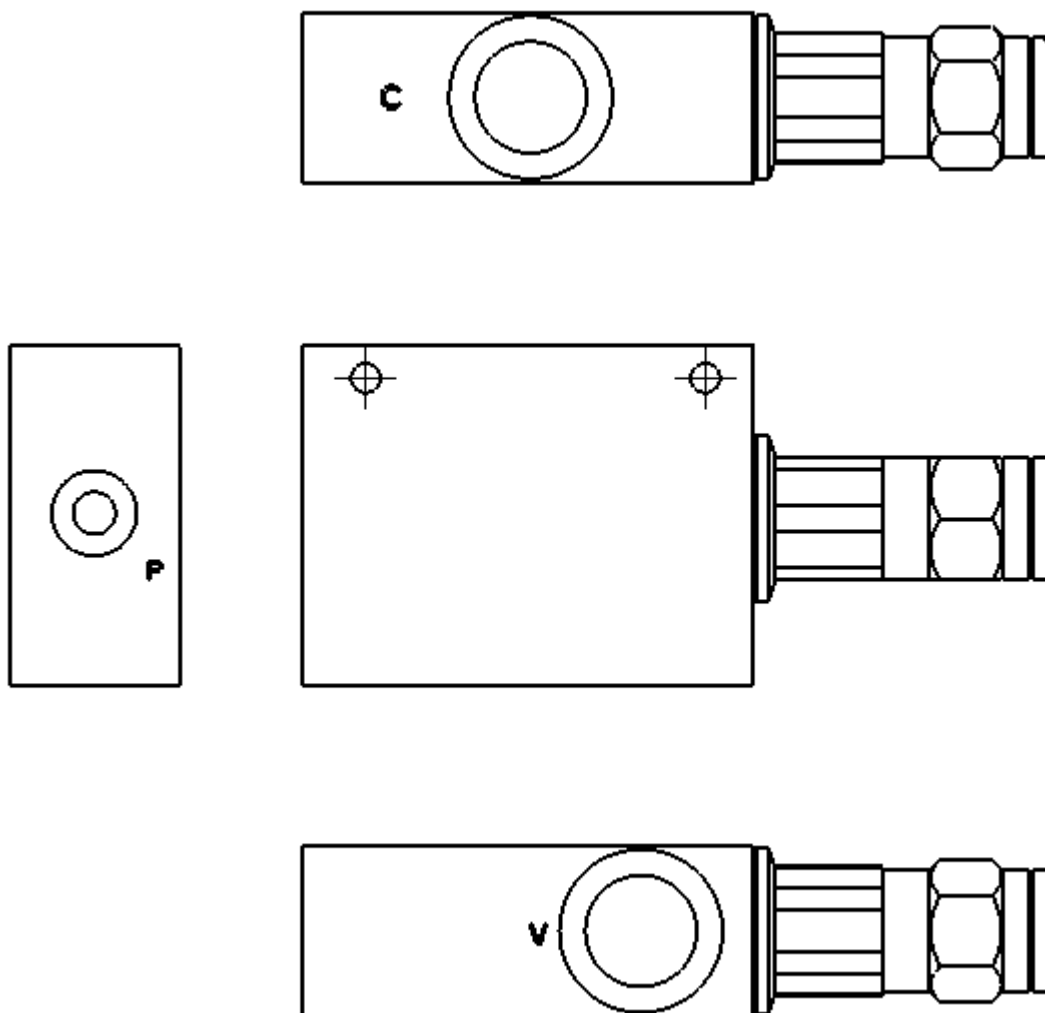


BLADE FUNCTION TAILGATE WORKING VALVE SECTION

031-3544-006

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	031-3544-006	SECTION, Valve, Working, Tailgate, Blade Function	-	REF
1	NSS	BODY	-	1
2	031-2012-013	PLUG	-	1
3	031-2012-012	CAP, Spool	-	1
4	031-2012-015	CAPSCREW	-	2
5	031-2012-010	SCREW, Adjusting	-	1
6	031-2012-008	O-RING	-	1
7	031-2018-003	END, Spool	-	1
8	031-2909-008	INSERT, Locking	-	1
9	031-2018-004	O-RING	-	1
10	031-2012-004	PLATE, Seal	-	2
11	031-2018-021	SEAT, Spring	-	2
12	031-3544-007	SPRING	-	1
13	031-2012-016	SPACER	-	1
14	031-2012-001	O-RING	-	2
15	031-2909-003	O-RING	-	1
16	031-2018-018	CAM, Detent	-	1
17	031-2928-011	ROD, Adjusting	-	1
18	031-2928-014	SLEEVE	-	1
19	031-2012-002	BALL	-	4
20	031-2928-002	SPRING	-	1
21	031-2928-013	GUIDE, Spring	-	1
22	031-3217-001	SPRING	-	1
23	031-2928-012	POPPET	-	1
24	031-2012-007	WIPER	-	1
25	NSS	SPOOL (See Kit)	-	1
26	031-2012-006	SCREW, Machine	-	2
27	031-3245-010	O-RING	-	1
28	031-3245-016	POPPET	-	1
29	031-3245-014	SPRING	-	1
30	031-2909-001	SLEEVE, Detent	-	1
31	031-3244-006	VALVE, Relief (Set at 2900 PSI)	-	1
		(Order Separately - Part of Valve)	-	1
-32	272-3861	KIT, Spool (Consists of Items 5-11, 14-25, and 30)	-	1

NYC Formula® 4000
COUNTER BALANCE VALVE
031-6280

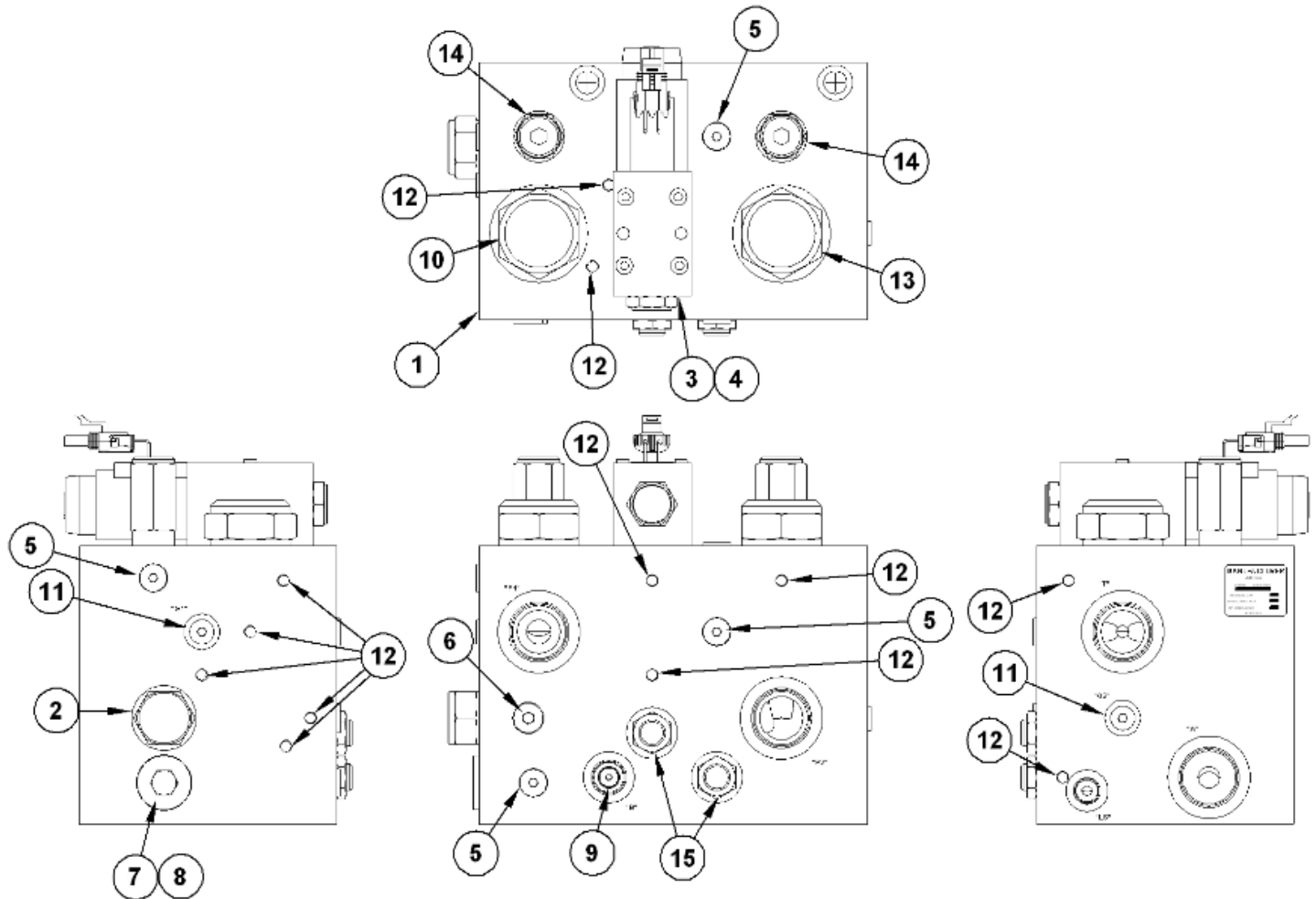


NYC Formula® 4000
COUNTER BALANCE VALVE
031-6280

217

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	031-6280	VALVE, Counter Balance	-	REF
-	031-6280-001	KIT, O-Ring	-	1

NYC Formula® 4000 **OAI TANDEM PUMP CONTROL VALVE** **031-6414**



NYC Formula® 4000
OAI TANDEM PUMP CONTROL VALVE
031-6414

219

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	031-6414	VALVE, Pump Control, OAI, Tandem Pump	-	REF
1	031-6414-010	MANIFOLD	-	1
2	031-6414-011	VALVE, Check	-	1
3	031-6414-012	VALVE, Directional Control	-	1
4	031-6414-013	KIT, Bolt	-	1
5	031-6414-014	FITTING, Zero Leak Gold	-	4
6	031-6414-015	FITTING, Zero Leak Gold	-	1
7	031-6414-016	PLUG, Orifice	-	1
8	031-6414-017	PLUG, SAE	-	1
9	031-6414-018	PLUG, Orifice	-	1
10	031-6414-019	VALVE, Sensing, Differential Pressure	-	1
11	031-6414-020	PLUG, SAE	-	2
12	219-1918-011	PLUG, Expander	-	12
13	219-1918-101	VALVE, Sensing, Differential Pressure	-	1
14	219-1918-107	VALVE, Relief	-	2
15	219-1918-102	VALVE, Shuttle	-	2

NYC Formula® 4000
COUNTER BALANCE VALVE
031-6471

To Be Supplied

NYC Formula® 4000
COUNTER BALANCE VALVE
031-6471

221

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	031-6471	VALVE, Counter Balance	-	REF

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PUMP

NYC Formula® 4000
PISTON PUMP INSTALLATION
219-2301

To Be Supplied

NYC Formula® 4000
PISTON PUMP INSTALLATION
219-2301

225

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	219-2301	INSTALLATION, Pump, Piston	-	REF

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FILTER ASSEMBLY

NYC Formula® 4000
RETURN LINE FILTER
075-0953

NO ILLUSTRATION

NYC Formula® 4000
RETURN LINE FILTER
075-0953

229

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	075-0953	FILTER, Return Line	-	REF

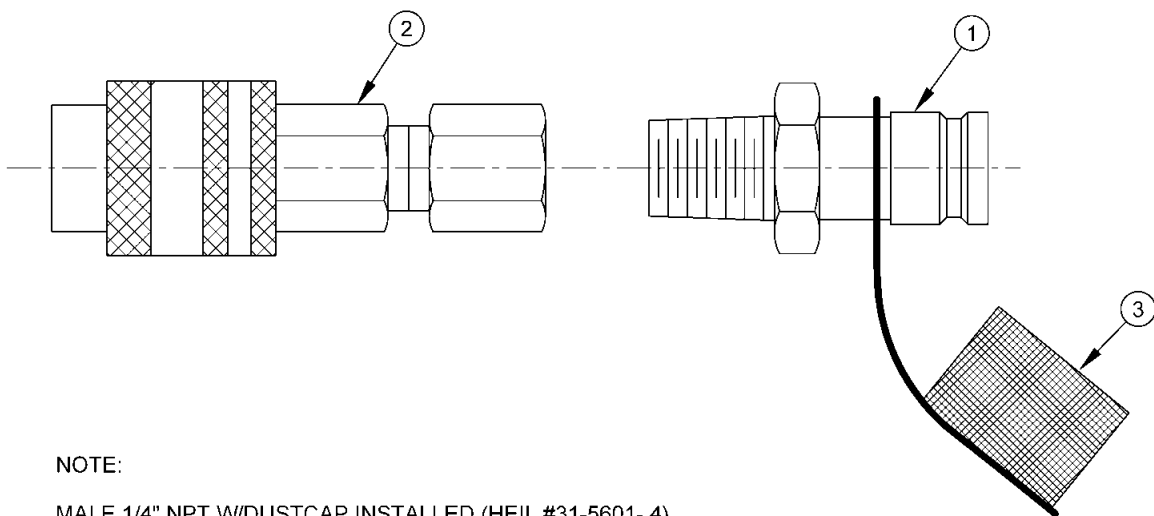
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GENERAL

NYC Formula® 4000

QUICK DISCONNECT

031-5601



NOTE:

MALE 1/4" NPT W/DUSTCAP INSTALLED (HEIL #31-5601- 4)
MALE #4 SAE W/DUSTCAP INSTALLED (HEIL #31-5601- 4)
MALE #6 SAE W/DUSTCAP INSTALLED (HEIL #31-5601- 5)

NYC Formula® 4000

QUICK DISCONNECT

031-5601

233

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	031-5601	DISCONNECT, Quick	-	REF
1	031-5601-003	ADAPTOR, Male, 1/4", MNPT	-	1
2	031-5601-004	DISCONNECT, Quick, Male, SAE, #4	-	1
3	031-5601-005	DUST CAP	-	1

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SECTION 6 ELECTRICAL

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ELECTRICAL INSTALLATIONS

NYC Formula® 4000
MRU CHASSIS ELECTRICAL KIT
372-7829-001

NO ILLUSTRATION

NYC Formula® 4000

MRU CHASSIS ELECTRICAL KIT

372-7829-001

239

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	372-7829-001	KIT, Electrical, Chassis, MRU	-	REF
-1	245-4734-015	INSTALLATION, Control Panel, Mack MRU 	-	1
-2	254-4865	ASSEMBLY, Control Panel 	-	1
-3	254-4865-200	KIT, Pressure Switch, Park Brake 	-	1
-4	263-1784-015	HARNESS, Cab to Body, MRU  (See Service Manual Schematics)	-	1
-5	701-9151	SCHEMATIC, Overall, 20 Yd. (See Service Manual Schematics)	-	REF

NYC Formula® 4000
MACK MRU CONTROL PANEL INSTALLATION
254-4734-015

NO ILLUSTRATION

NYC Formula® 4000

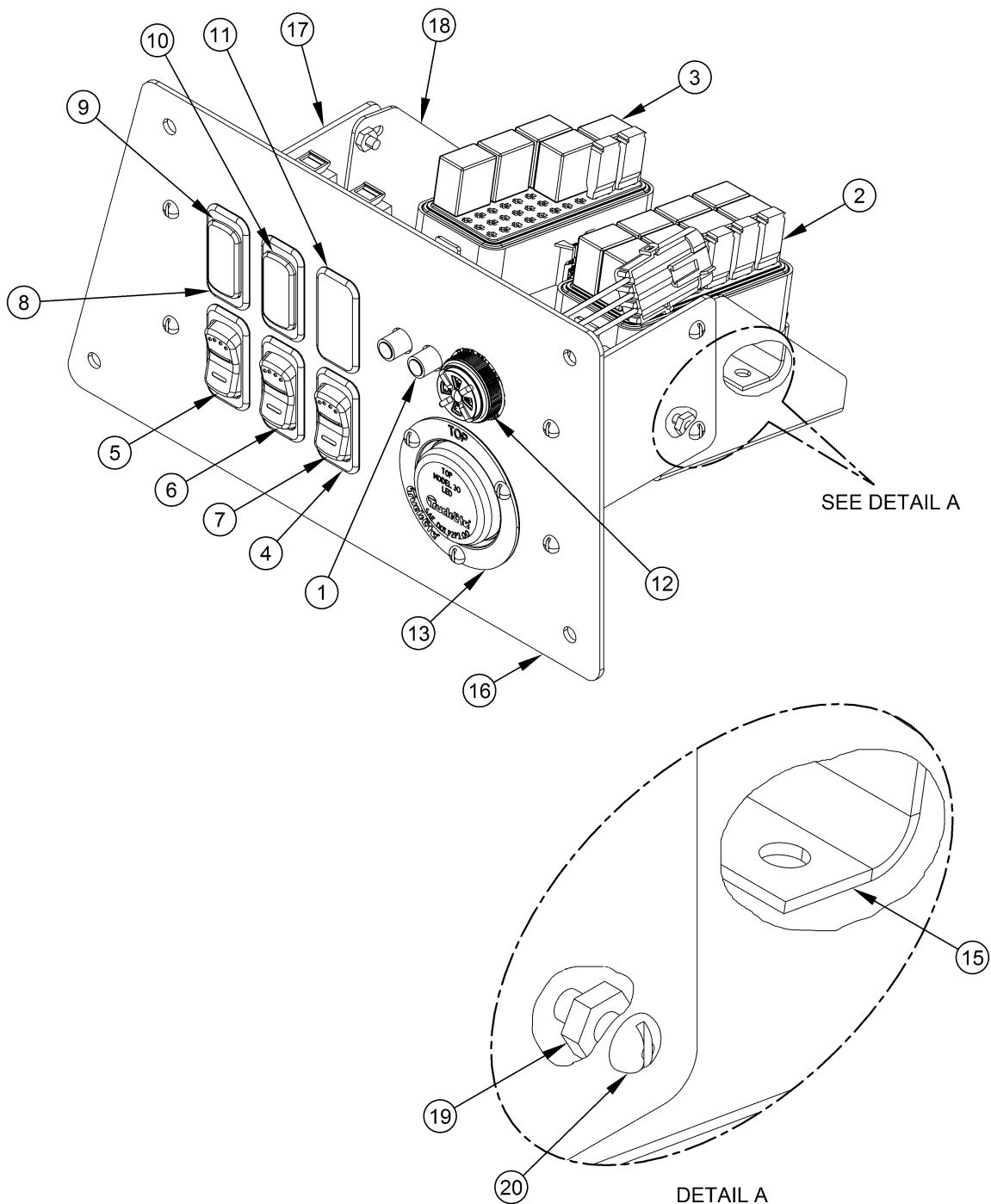
MACK MRU CONTROL PANEL INSTALLATION

254-4734-015

241

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	254-4734-015	INSTALLATION, Control Panel, Mack MRU	-	REF
-1	047-2603	RIVNUT, 1/4"-20	-	4
-2	FSP420716	SCREW, Mach., 1/4"-20 x 3/4", Rd. Hd., Plated	-	4
-3	FSP510700	WASHER, Flat, 1/4" Std., Plated	-	4

NYC Formula® 4000 **CONTROL PANEL ASSEMBLY** **254-4865**



NYC Formula® 4000

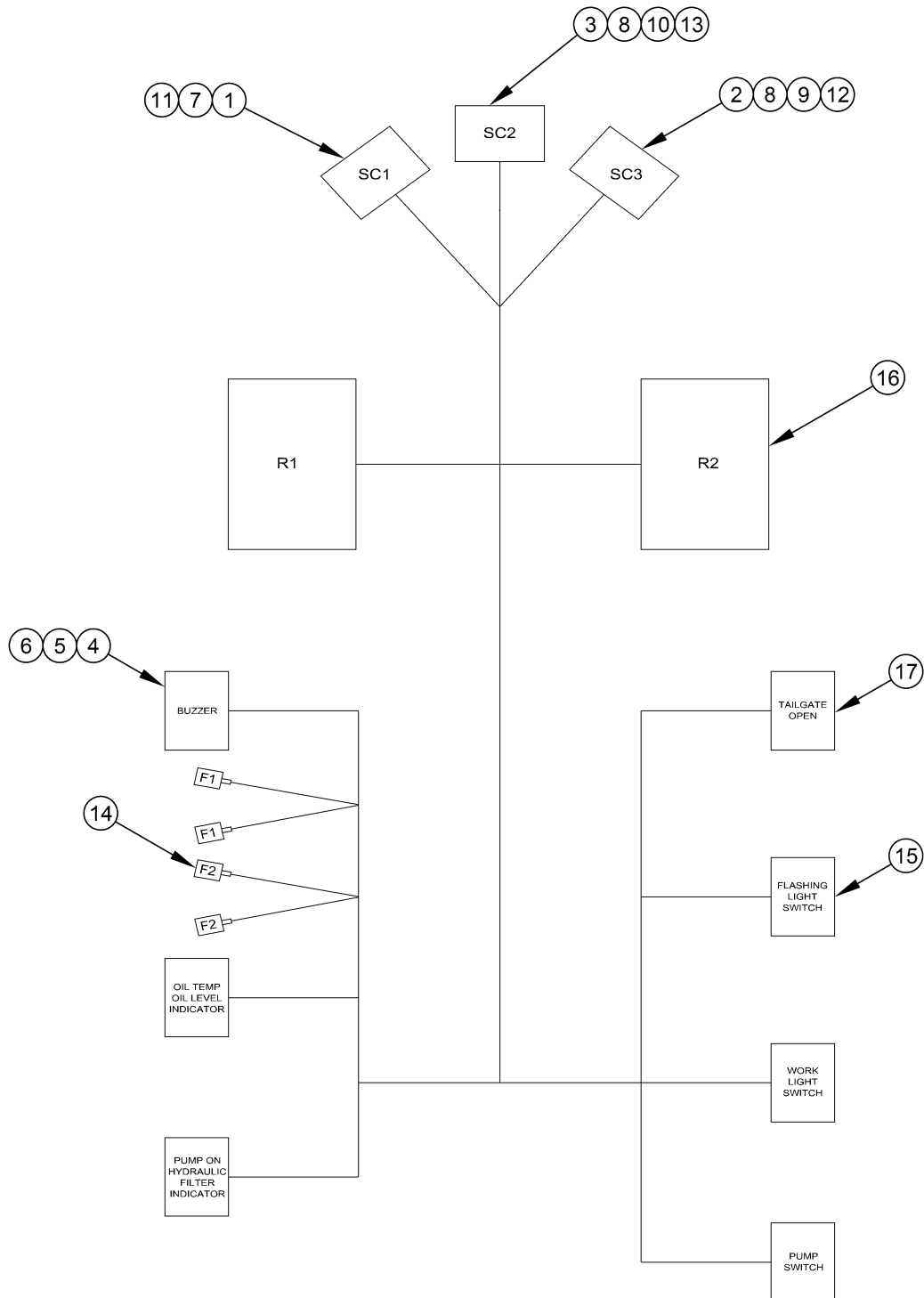
CONTROL PANEL ASSEMBLY

254-4865

243

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	254-4865	ASSEMBLY, Control Panel	-	REF
1	108-4867-001	CIRCUIT BREAKER, 15 Amp.	-	2
2	108-8390	DIODE, Mini, 280 Type	-	6
3	108-8391	RELAY, Foot Print, ISO 280	-	13
4	108-8443	BASE, Rocker Switch, SPST	-	3
5	108-8444-001	CAP, Rocker, Pump	-	1
6	108-8444-003	CAP, Rocker, Light, Work	-	1
7	108-8444-004	CAP, Rocker, Flashing Light	-	1
8	108-8445	BASE, Switch, Indicator	-	2
9	108-8446-008	CAP, Indicator, Pump On/Hydraulic Filter	-	1
10	108-8446-009	CAP, Indicator, Oil Temp/Oil Level	-	1
11	108-8449	PANEL, Plug, Rocker Switch	-	1
12	108-8616-002	BUZZER, Dual Tone	-	1
13	115-1442	LAMP, Clearance, Red Flange, 2"	-	1
-14	263-1784-014	HARNESS, Boxes, Control & Relay  (See Service Manual Schematics)	-	-
		1		
15	311-4829	BRACKET, Mtg., Fuse Block, 60 Way	-	4
16	311-4944-003	PANEL, Control, Mack MRU	-	1
17	311-6081	BRACKET, Mount, Relay Plate	-	2
18	311-6081-001	MOUNT, Relay Box, MRU	-	1
19	FSP270400	NUT, #10-32, Plated	-	11
20	FSP420412	SCREW, Mach., #10-24 x 9/16", Rd. Hd., Plated	-	11

NYC Formula® 4000 **CONTROL & RELAY BOXES HARNESS** **263-1784-014**



NYC Formula® 4000

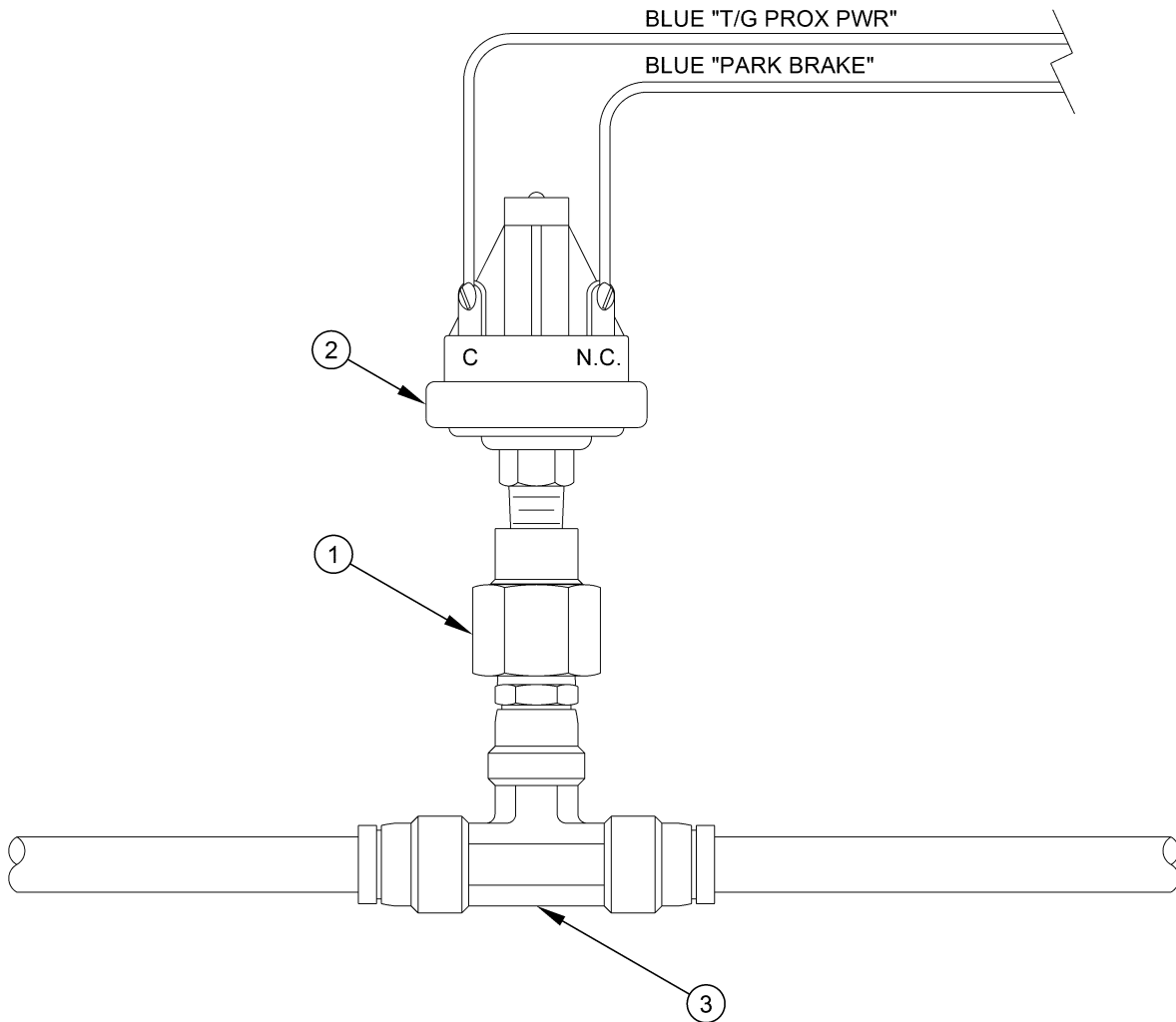
CONTROL & RELAY BOXES HARNESS

263-1784-014

245

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	263-1784-014	HARNESS, Boxes, Control & Relay (See Service Manual Schematics) -	REF	
1	108-4815-301	SOCKET, #12, Nickel, Plated	-	2
2	108-4815-303	SOCKET, #16, Nickel, Plated	-	9
3	108-4815-403	PIN, #16, Nickel, Plated	-	11
4	108-4827-006	CONNECTOR, Female, 3 Way, Packard	-	1
5	108-4827-121	TERMINAL, Female, 16-14 AWG, Packard	-	3
6	108-4827-132	SEAL, Cable, 16-14 AWG	-	3
7	108-6461-02P	PLUG, 2-Way	-	1
8	108-6461-100	PLUG, Sealing	-	3
9	108-6461-12P	PLUG, 12-Way	-	1
10	108-6461-12R	RECEPTACLE, 12-Way	-	1
11	108-6461-2PW	PLUG, 2-Way Wedge	-	1
12	108-6461-CPW	WEDGE, 12-Way Plug	-	1
13	108-6461-CRW	RECEPTACLE, 12-Way Wedge	-	1
14	108-7149-005	DISCONNECT, Quick, Male, Terminal, 1/4", 16-14 Ga.	-	4
15	108-8454	CONNECTOR, Switch, Rocker	-	5
16	108-8502	BLOCK, Fuse And Relay, 60 Way	-	2
17	115-1036-002	PIGTAIL, Clearance/Marker	-	1

NYC Formula® 4000
PARK BRAKE PRESSURE SWITCH KIT
254-4865-200



NYC Formula® 4000

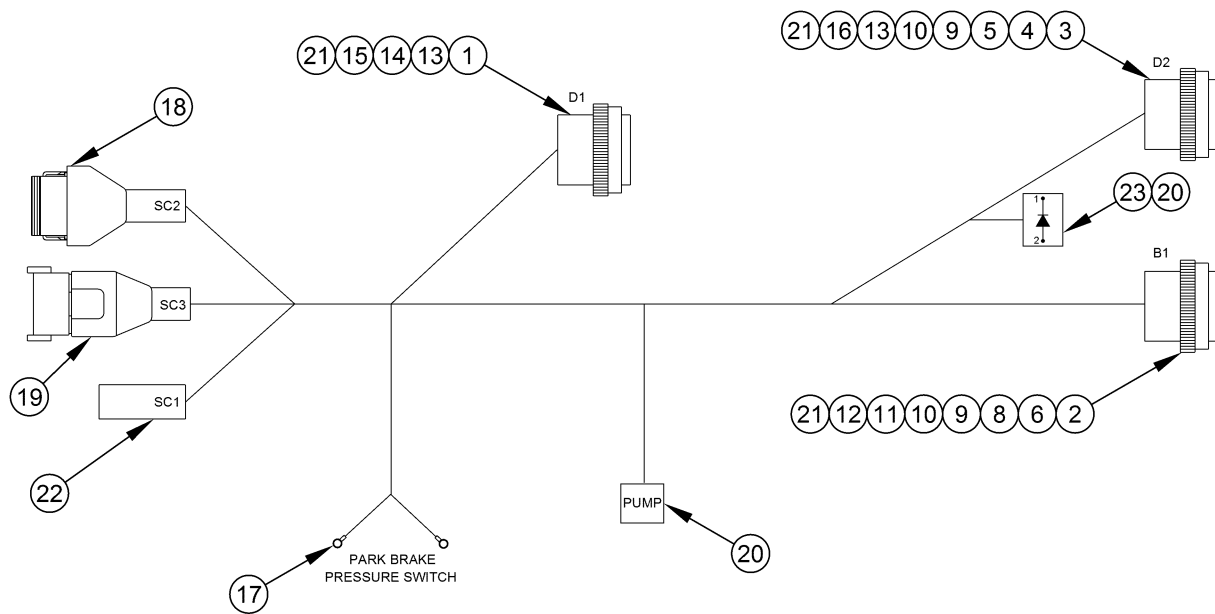
PARK BRAKE PRESSURE SWITCH KIT

254-4865-200

247

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	254-4865-200	KIT, Pressure Switch, Park Brake	-	REF
1	054-5867	REDUCER, Coupling	-	1
2	108-5617	SWITCH, Pressure, Air, 6 PSI	-	1
3	354-1530-004	TEE, Branch, Male, Brass Fitting, 3/8" x 1/4" x 5/8"	-	1

NYC Formula® 4000 MRU CAB TO BODY HARNESS 263-1784-015

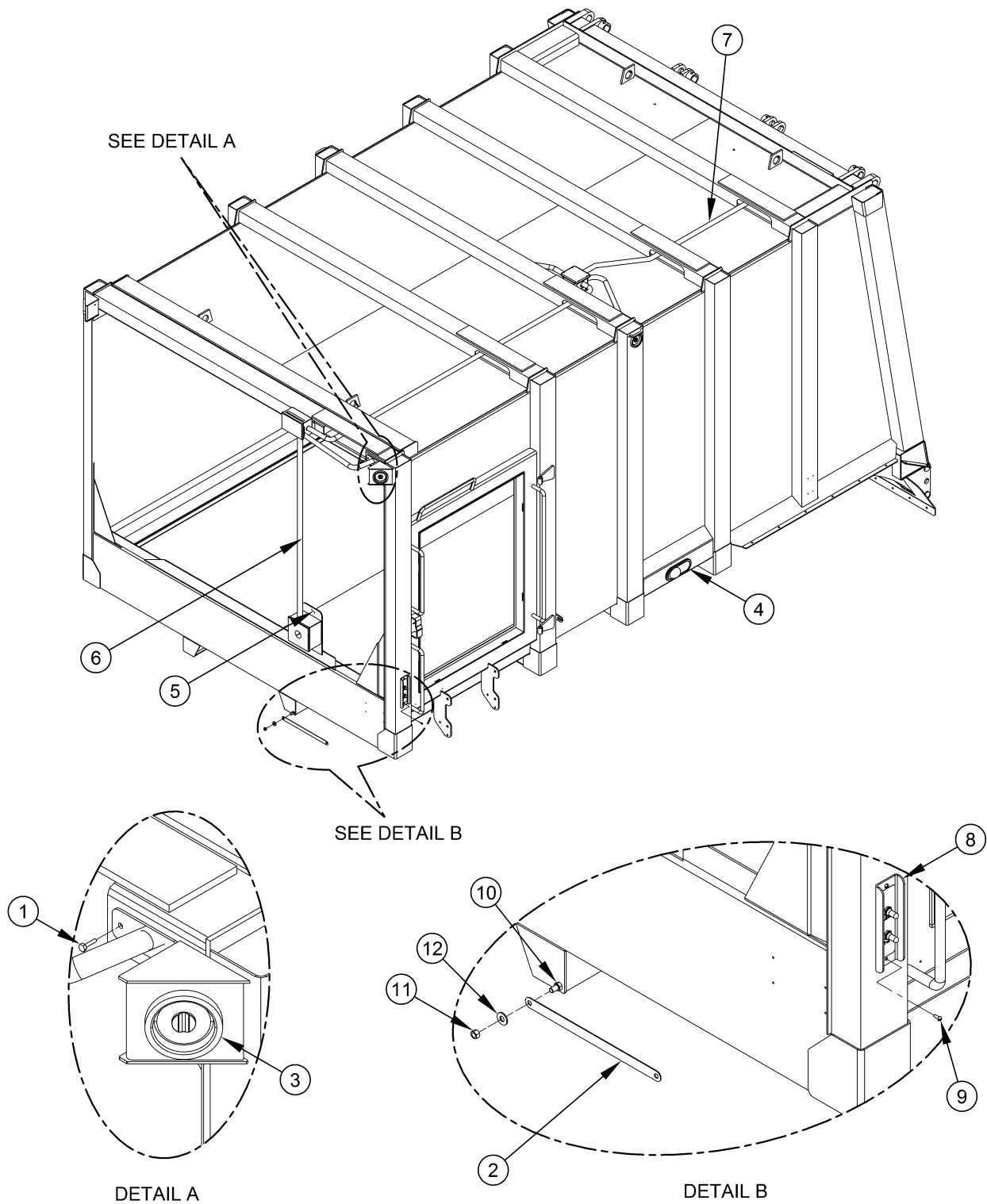


NYC Formula® 4000
MRU CAB TO BODY HARNESS
263-1784-015

249

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	263-1784-015	HARNESS, Cab to Body, MRU (See Service Manual Schematics)	-	REF
1	108-4815-037	RECEPTACLE, Pin, 24-Pin	-	1
2	108-4815-068	PLUG, Socket, 24-Pin	-	1
3	108-4815-103	PLUG, Sealing, 6 GA, #4	-	1
4	108-4815-104	PIN, #8-10 AWG, Solid/Size, Nickel	-	1
5	108-4815-106	PLUG, Sealing, #8	-	1
6	108-4815-114	PLUG, Sealing, #20	-	8
-7	108-4815-123	SOCKET, Connector, Gold, 16-18 AWG	-	3
8	108-4815-127	SOCKET, #20, Gold, Plated	-	3
9	108-4815-188	BACKSHELL, Long Compression	-	2
10	108-4815-189	NUT, Small Compression	-	2
11	108-4815-301	SOCKET, #12, Nickel, Plated	-	2
12	108-4815-303	SOCKET, #16, Nickel, Plated	-	18
13	108-4815-401	PIN, #12, Nickel, Plated	-	7
14	108-4815-403	PIN, #16, Nickel, Plated	-	2
15	108-4815-404	PIN, #20, Nickel, Plated	-	1
16	108-4815-425	CONNECTOR, 9 Pin, Plug	-	1
17	108-4943-002	TERMINAL, Ring, #8	-	2
18	108-6461-009	PLUG, 12 Way, Str., Deutsch DTP Series	-	1
19	108-6461-010	RECEPTACLE, Str., 12 Way, Deutsch DT Series	-	1
20	108-6461-011	PLUG, Str., 2 Way, Deutsch DT Series	-	2
21	108-6461-100	PLUG, Sealing	-	22
22	108-8411-001	RECEPTACLE, 2 Way, Deutsch DTP Series	-	1
23	108-8587-001	PACK, Single Diode, Deutsch DT Series	-	1

NYC Formula® 4000
BODY ELECTRICAL KIT
372-7829-002



NYC Formula® 4000

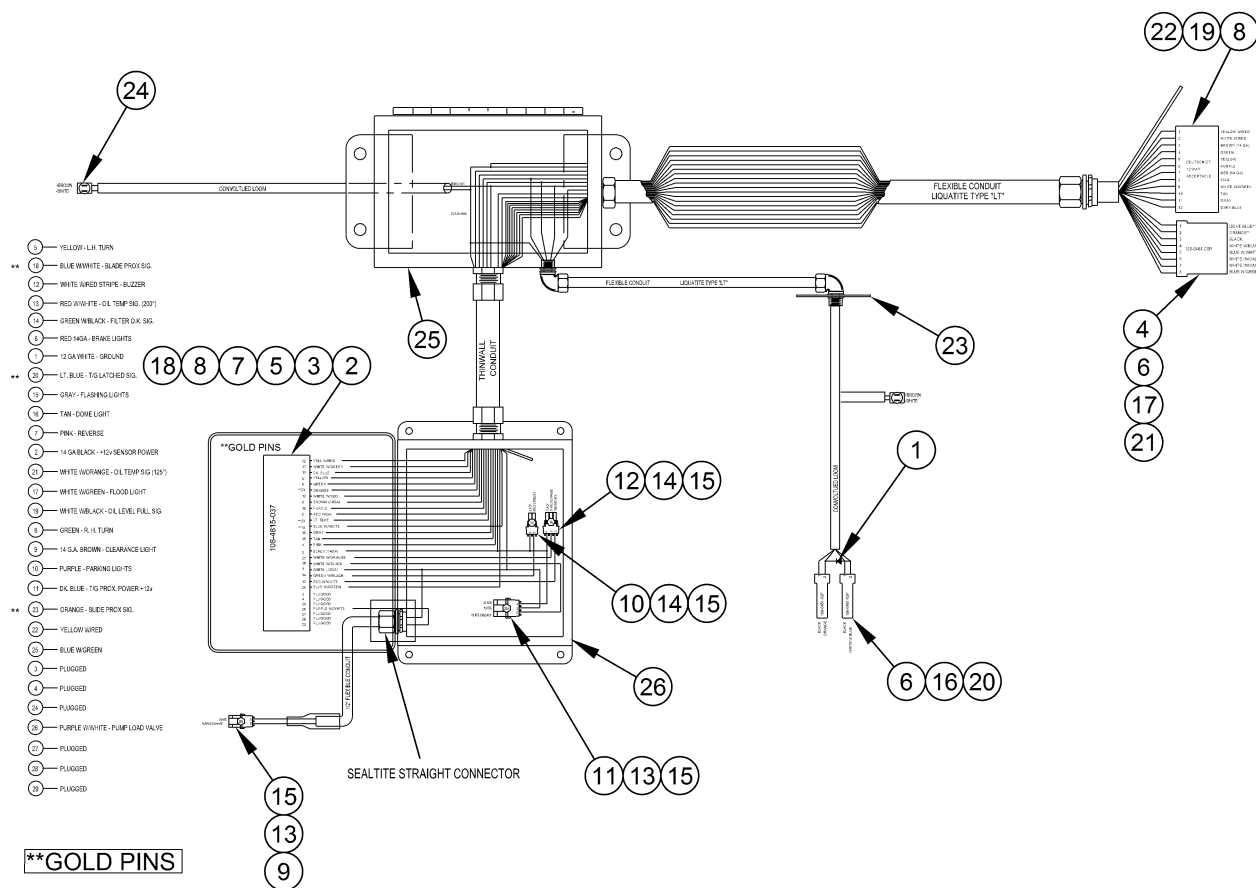
BODY ELECTRICAL KIT

372-7829-002

251

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	372-7829-002	KIT, Electrical, Body	-	REF
1	047-2151-001	SCREW, Tek, #12-14 x 3/4"	-	6
2	108-8597	STRAP, Ground, Tin/Copper, 13"	-	1
3	115-1037	LAMP, LED, Clearance/Marker, Yellow	-	4
4	115-1395	KIT, Light, Amber LED, Mid Body Turn	-	2
5	211-9822	BRACKET, Box, Electrical, 3/16"	-	1
6	263-1784-001	HARNESS, Body, Front ²⁵² (See Service Manual Schematics)	-	1
7	263-1784-002	HARNESS, Body, Rear ²⁵⁴ (See Service Manual Schematics)	-	1
8	372-6807	KIT, Throttle Advance/Tailgate Clear, Narrow ²⁵⁶	-	1
9	FSP420412	SCREW, Mach., #10-24 x 9/16", Rd. Hd., Plated	-	2
10	FSS070913	HHCS, 3/8"-16 x 5/8", Gr. 5, S/S	-	1
11	FSS230900	NUT, Lock, 3/8"-16, Gr. 5, S/S	-	1
12	FSS510900	WASHER, Flat, 3/8", Std., Plain, S/S	-	1

NYC Formula® 4000
FRONT BODY HARNESS
263-1784-001



NYC Formula® 4000

FRONT BODY HARNESS

263-1784-001

253

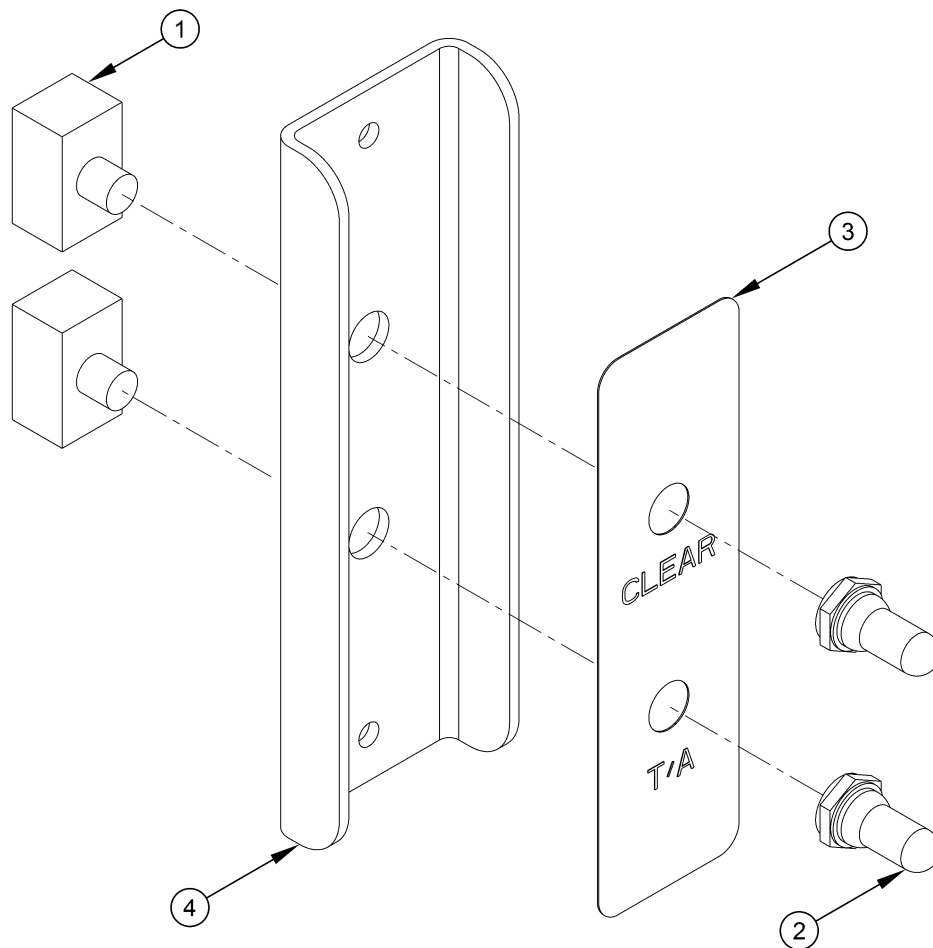
ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	263-1784-001	HARNESS, Body, Front (See Service Manual Schematics)	-	REF
1	108-2648	DIODE, Silicon Rectifier	-	1
2	108-4815-037	RECEPTACLE, Pin, 24-Pin	-	1
3	108-4815-114	PLUG, Sealing, #20	-	3
4	108-4815-123	SOCKET, Connector, Gold, 16-18 AWG	-	3
5	108-4815-126	PIN, #20, Gold, Plated	-	3
6	108-4815-303	SOCKET, #16, Nickel, Plated	-	9
7	108-4815-401	PIN, #12, Nickel, Plated	-	2
8	108-4815-403	PIN, #16, Nickel, Plated	-	29
9	108-4827-003	CONNECTOR, Male, 2 Way, Packard	-	1
10	108-4827-004	CONNECTOR, Female, 2 Way, Packard	-	1
11	108-4827-005	CONNECTOR, Male, 3 Way, Packard	-	1
12	108-4827-006	CONNECTOR, Female, 3 Way, Packard	-	1
13	108-4827-111	TERMINAL, Male, 16-14 AWG, Packard	-	5
14	108-4827-121	TERMINAL, Female, 16-14 AWG, Packard	-	5
15	108-4827-132	SEAL, Cable, 16-14 AWG	-	10
16	108-6461-02P	PLUG, 2-Way	-	2
17	108-6461-08P	PLUG, 8-Way	-	1
18	108-6461-100	PLUG, Sealing	-	4
19	108-6461-12R	RECEPTACLE, 12-Way	-	1
20	108-6461-2PW	PLUG, 2-Way Wedge	-	2
21	108-6461-8PW	PLUG, 8-Way Wedge	-	1
22	108-6461-CRW	RECEPTACLE, 12-Way Wedge	-	1
23	113-0125	BRACKET, Mount, Harness, #14 Ga.	-	1
24	115-1036-002	PIGTAIL, Clearance/Marker	-	2
25	151-4433	BOX, Electrical, Hoffman Enclosure	-	1
26	151-4441	BOX, Electrical, Hoffman Enclosure	-	1

NYC Formula® 4000
REAR BODY HARNESS
263-1784-002

255

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	263-1784-002	HARNESS, Body, Rear (See Service Manual Schematics)	-	REF
1	108-4815-122	PIN (16-18 GA)	-	6
2	108-4815-303	SOCKET, #16, Nickel, Plated	-	20
3	108-4815-403	PIN, #16, Nickel, Plated	-	14
4	108-6461-08P	PLUG, 8-Way	-	1
5	108-6461-8PW	PLUG, 8-Way Wedge	-	1
6	108-6461-08R	RECEPTACLE, 8-Way	-	1
7	108-6461-8RW	RECEPTACLE, 8-Way Wedge	-	1
8	108-6461-12P	PLUG, 12-Way	-	1
9	108-6461-CPW	WEDGE, 12-Way Plug	-	1
10	108-6461-12R	RECEPTACLE, 12-Way	-	1
11	108-6461-CRW	RECEPTACLE, 12-Way Wedge	-	1
12	108-8493-003	HOUSING, Plug, 3-Way, Black	-	2
13	108-8493-007	RECEPTACLE, Contacts, 18-1/2 mm. - 15-1/2 mm. AWG	-	6
14	108-8493-010	SEALS, 2-1/2 mm. - 3-1/3 mm.	-	6
15	112-6390	COVER, 6", #14 Ga.	-	1
16	113-0125	BRACKET, Mount, Harness, #14 Ga.	-	2
17	115-1036-002	PIGTAIL, Clearance/Marker	-	2

NYC Formula® 4000
THROTTLE ADVANCE/TAILGATE CLEAR KIT
372-6807

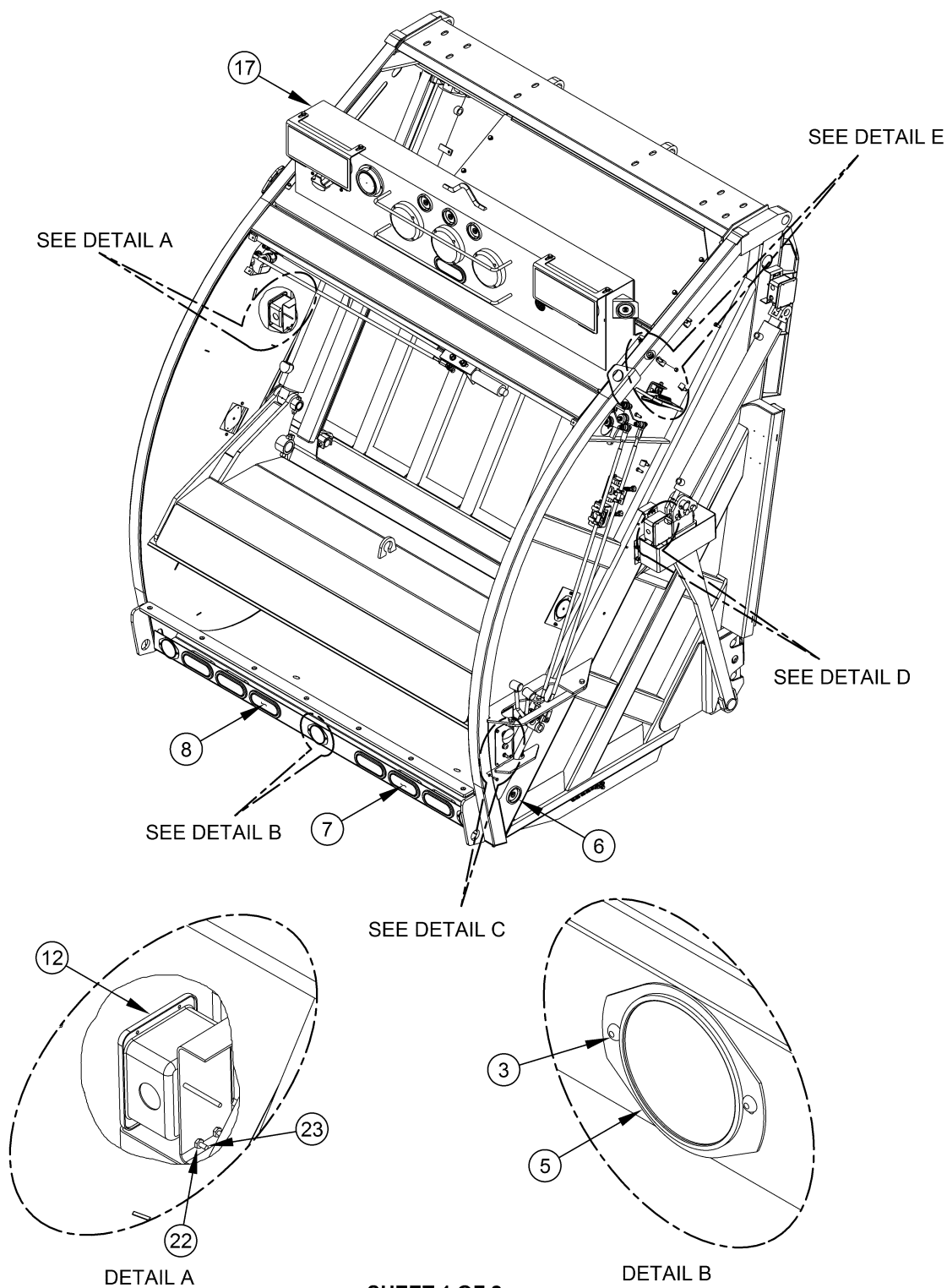


NYC Formula® 4000
THROTTLE ADVANCE/TAILGATE CLEAR KIT
372-6807

257

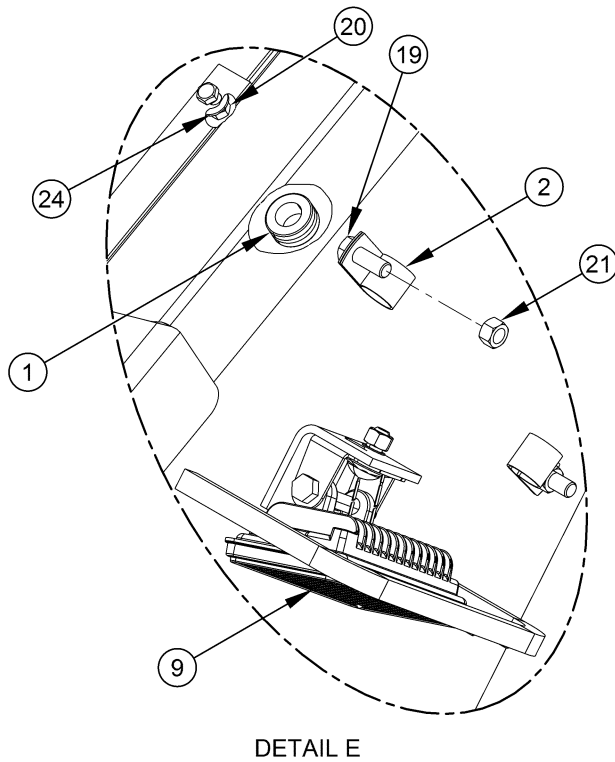
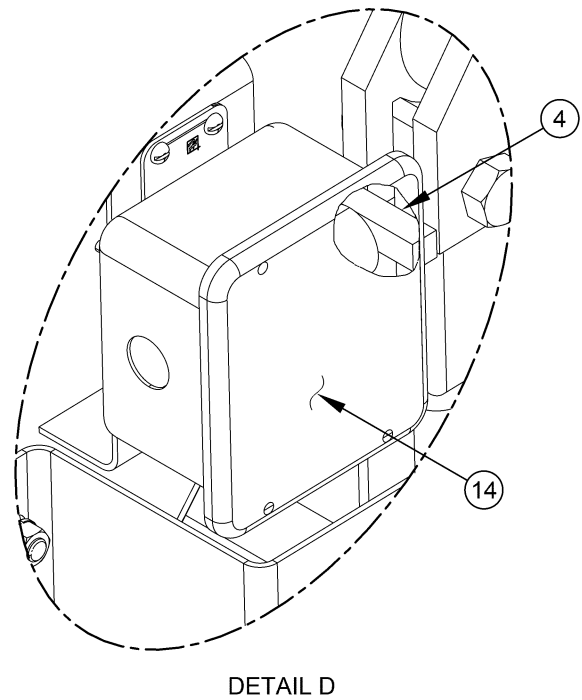
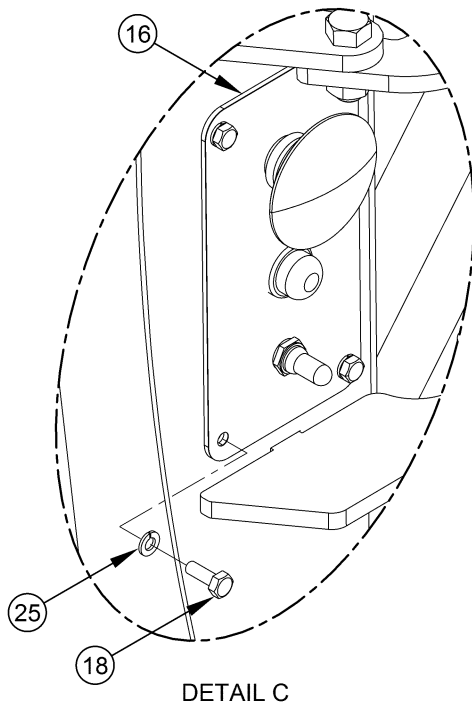
ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	372-6807	KIT, Throttle Advance/Tailgate Clear, Narrow	-	REF
1	108-2279	SWITCH, SPST, NO, 10 Amp., 1/2" Dia.	-	2
2	108-2280	BOOT, Protector, Toggle Switch	-	2
3	212-3206	DECAL, Tailgate Clear & Throttle Advance	-	1
4	311-5569	BRACKET, Throttle Advance/Tailgate Clear, #11 Ga.	-	1

NYC Formula® 4000
TAILGATE ELECTRICAL KIT
372-7829-003



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NYC Formula® 4000
TAILGATE ELECTRICAL KIT
372-7829-003



SHEET 2 OF 2

NYC Formula® 4000

TAILGATE ELECTRICAL KIT

372-7829-003

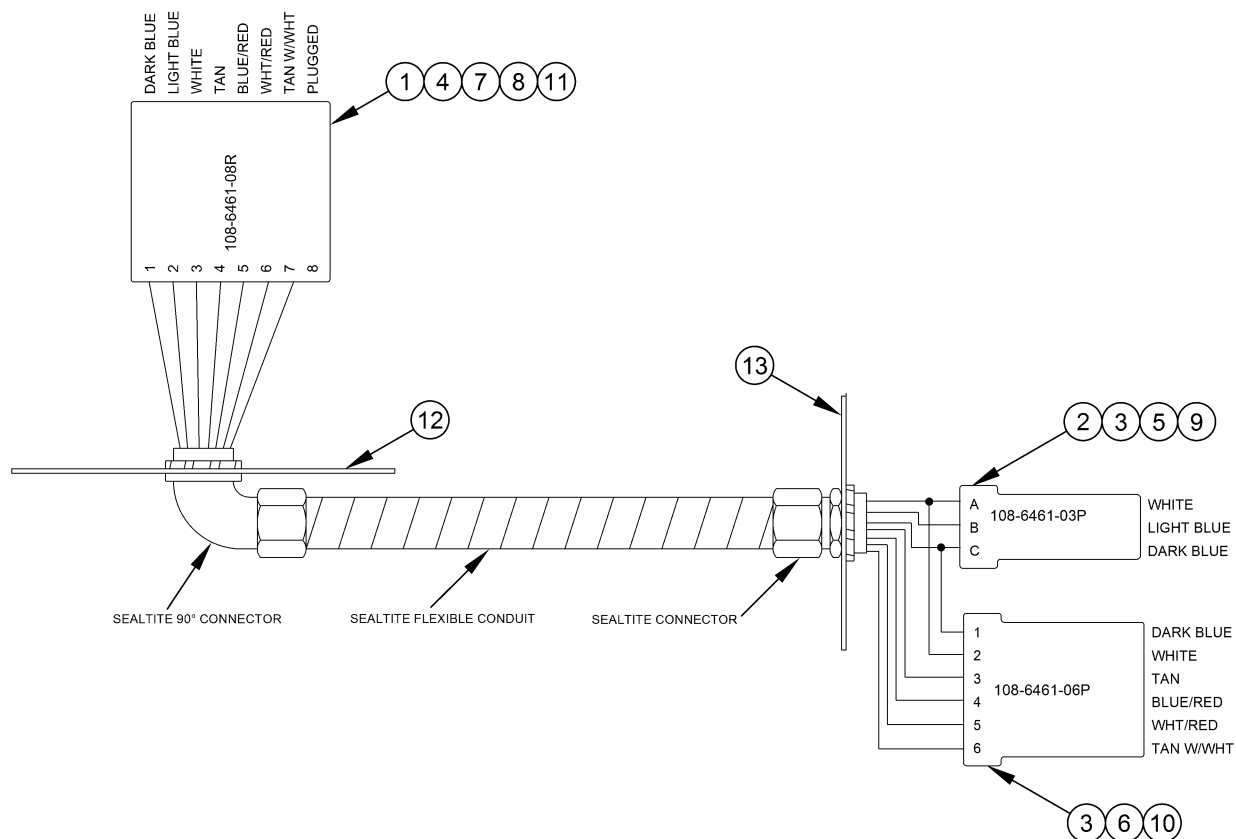
261

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	372-7829-003	KIT, Electrical, Tailgate	-	REF
1	003-4514-005	GROMMET, Rubber, Black, 7/8"	-	2
2	036-1122-012	CLAMP, Wire, Tube, 3/4" x 13/32"	-	6
3	047-1786	RIVET, Side Door, 3/16" Dia.	-	8
4	096-0568	STRIKER, Proximity, Tailgate Lock, 1/2"	-	2
5	115-0343	REFLECTOR, Red	-	5
6	115-1036	LAMP, LED Clearance/Marker, Red	-	2
7	115-1039	ASSEMBLY, Light, Stop, LED, Oval	-	4
8	115-1397	ASSEMBLY, Light, Back Up, LED, Oval, 6"	-	2
9	115-1444	ASSEMBLY, Light, LED, Trapezoid	-	2
-10	263-1784-004	HARNESS, Tailgate, SS ¹ ₂₆₂ (See Service Manual Schematics)	-	1
-11	263-1784-005	HARNESS, Estop/Buzzer/LT, SS ¹ ₂₆₄ (See Service Manual Schematics)	-	-
12	263-1784-006	HARNESS, Tailgate Open, SS ¹ ₂₆₆ (See Service Manual Schematics) -	-	1
-13	263-1784-007	HARNESS, Tail Light, Throttle, CS ¹ ₂₆₈ (See Service Manual Schematics)	-	-
14	263-1784-008	HARNESS, Tailgate Open, CS ¹ ₂₇₀ (See Service Manual Schematics) -	-	1
-15	263-1784-009	HARNESS, Tail Light ¹ ₂₇₂ (See Service Manual Schematics)	-	1
16	372-6132-003	PANEL, Buzzer/Estop/Work Light ¹ ₂₇₄	-	2
17	372-7830	KIT, Electrical, Light Box ¹ ₂₇₆	-	1
18	FSP070715	HHCS, 1/4"-20 x 3/4", Gr. 5 Plated	-	12
19	FSP070920	HHCS, 3/8"-16 x 1", Gr. 5, Plated	-	6
20	FSP230700	NUT, Lock, 1/4"-20, Gr. 5, Plated	-	4
21	FSP230900	NUT, Lock, 3/8"-16, Gr. 5, Plated	-	6
22	FSP270400	NUT, #10-32, Plated	-	12
23	FSP420415	SCREW, Mach., #10-24 x 3/4", Rd. Hd., Plated	-	12
24	FSP510700	WASHER, Flat, 1/4" Std., Plated	-	4
25	FSP550700	WASHER, Lock, 1/4", Plated	-	8

NYC Formula® 4000

SS TAILGATE HARNESS

263-1784-004



NYC Formula® 4000
SS TAILGATE HARNESS
263-1784-004

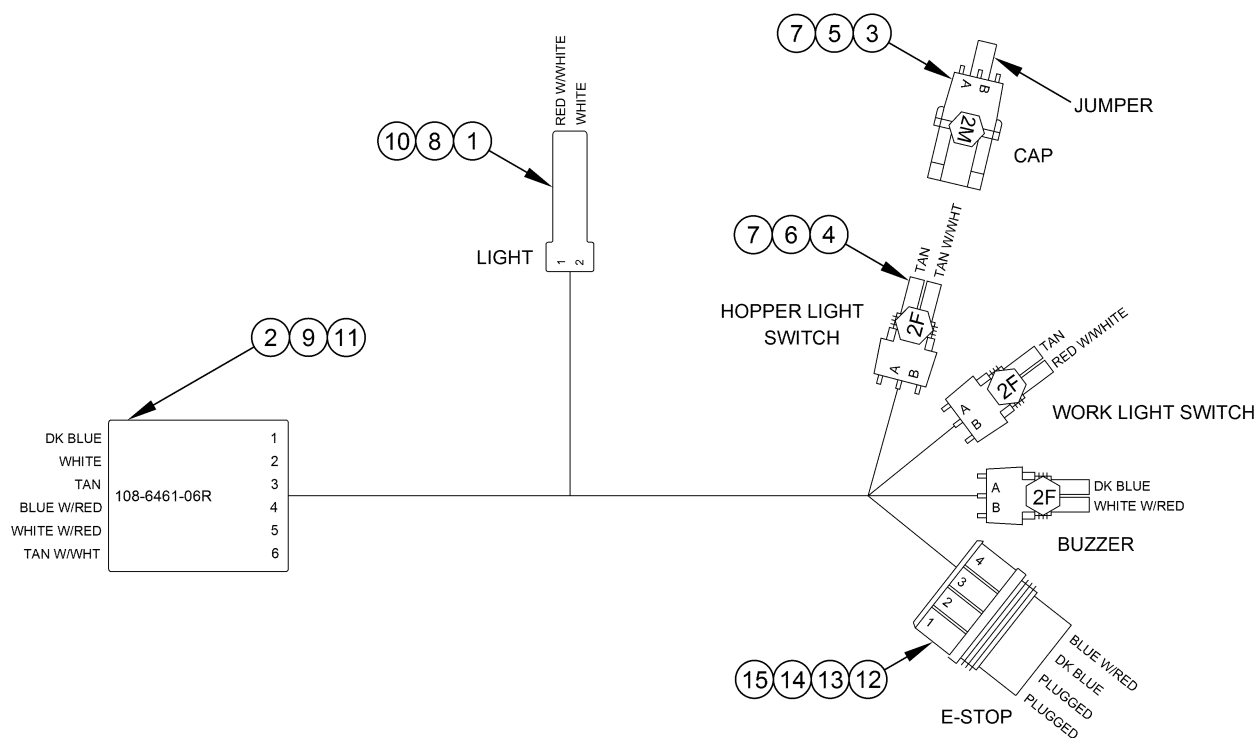
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ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	263-1784-004	HARNESS, Tailgate, SS (See Service Manual Schematics)	-	REF
1	108-4815-122	PIN (16-18 GA)	-	1
2	108-4815-123	SOCKET, Connector, Gold, 16-18 AWG	-	1
3	108-4815-303	SOCKET, #16, Nickel, Plated	-	8
4	108-4815-403	PIN, #16, Nickel, Plated	-	6
5	108-6461-03P	CONNECTOR, Plug, 3-Way	-	1
6	108-6461-06P	PLUG, 6-Way	-	1
7	108-6461-08R	RECEPTACLE, 8-Way	-	1
8	108-6461-100	PLUG, Sealing	-	1
9	108-6461-3PW	PLUG, 3-Way Wedge	-	1
10	108-6461-6PW	PLUG, 6-Way Wedge	-	1
11	108-6461-8RW	RECEPTACLE, 8-Way Wedge	-	1
12	112-7159	COVER, #14 Ga.	-	1
13	113-0125	BRACKET, Mount, Harness, #14 Ga.	-	1

NYC Formula® 4000

SS ESTOP/BUZZER/LT HARNESS

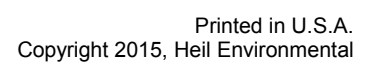
263-1784-005



NYC Formula® 4000
SS ESTOP/BUZZER/LT HARNESS
263-1784-005

265

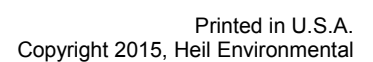
ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	263-1784-005	HARNESS, Estop/Buzzer/LT, SS (See Service Manual Schematics)	-	REF
1	108-4815-303	SOCKET, #16, Nickel, Plated	-	2
2	108-4815-403	PIN, #16, Nickel, Plated	-	6
3	108-4827-003	CONNECTOR, Male, 2 Way, Packard	-	1
4	108-4827-004	CONNECTOR, Female, 2 Way, Packard	-	3
5	108-4827-111	TERMINAL, Male, 16-14 AWG, Packard	-	2
6	108-4827-121	TERMINAL, Female, 16-14 AWG, Packard	-	6
7	108-4827-132	SEAL, Cable, 16-14 AWG	-	8
8	108-6461-02P	PLUG, 2-Way	-	1
9	108-6461-06R	RECEPTACLE, 6-Way	-	1
10	108-6461-2PW	PLUG, 2-Way Wedge	-	1
11	108-6461-6RW	RECEPTACLE, 6-Way Wedge	-	1
12	108-8493-007	RECEPTACLE, Contacts, 18-1/2 mm. - 15-1/2 mm. AWG	-	2
13	108-8493-010	SEAL, 2-1/2 mm. - 3-1/3 mm.	-	2
14	108-8493-011	SEAL, Cavity Plug	-	2
15	108-8493-012	HOUSING, Plug, 4-Way, Black	-	1



NYC Formula® 4000
SS TAILGATE OPEN HARNESS
263-1784-006

267

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	263-1784-006	HARNESS, Tailgate Open, SS (See Service Manual Schematics)	-	REF
1	063-0124	SWITCH, Proximity, Connector, NC, 30 mm	-	1
2	108-4815-122	PIN (16-18 GA)	-	1
3	108-4815-123	SOCKET, Connector, Gold, 16-18 AWG	-	1
4	108-4815-303	SOCKET, #16, Nickel, Plated	-	2
5	108-4815-403	PIN, #16, Nickel, Plated	-	2
6	108-6461-03P	CONNECTOR, Plug, 3-Way	-	1
7	108-6461-03R	CONNECTOR, Male, 3-Position	-	1
8	108-6461-3PW	PLUG, 3-Way Wedge	-	1
9	108-6461-3RW	RECEPTACLE, 3-Way Wedge	-	1
10	113-0125	BRACKET, Mount, Harness, #14 Ga.	-	1
11	151-4421	BOX, Switch, Proximity	-	1



NYC Formula® 4000

CS THROTTLE TAIL LIGHT HARNESS

263-1784-007

269

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	263-1784-007	HARNESS, Tail Light, Throttle, CS (See Service Manual Schematics) .	-	REF
1	108-4815-123	SOCKET, Connector, Gold, 16-18 AWG	-	6
2	108-4815-303	SOCKET, #16, Nickel, Plated	-	18
3	108-4815-403	PIN, #16, Nickel, Plated	-	6
4	108-4827-003	CONNECTOR, Male, 2 Way, Packard	-	1
5	108-4827-004	CONNECTOR, Female, 2 Way, Packard	-	3
6	108-4827-015	SEAL, Female, 2 Way	-	6
7	108-4827-111	TERMINAL, Male, 16-14 AWG, Packard	-	2
8	108-4827-121	TERMINAL, Female, 16-14 AWG, Packard	-	3
9	108-4827-132	SEAL, Cable, 16-14 AWG	-	8
10	108-6461-02P	PLUG, 2-Way	-	1
11	108-6461-04P	PLUG, 4 Way, Deutsch DT Series	-	1
12	108-6461-06P	PLUG, 6-Way	-	1
13	108-6461-08R	RECEPTACLE, 8-Way	-	1
14	108-6461-100	PLUG, Sealing	-	2
15	108-6461-12P	PLUG, 12-Way	-	1
16	108-6461-2PW	PLUG, 2-Way Wedge	-	2
17	108-6461-4PW	PLUG, 4-Way Wedge	-	1
18	108-6461-6PW	PLUG, 6-Way Wedge	-	1
19	108-6461-8PW	PLUG, 8-Way Wedge	-	1
20	108-6461-CPW	WEDGE, 12-Way Plug	-	1
21	108-8493-007	RECEPTACLE, Contacts, 18-1/2 mm. - 15-1/2 mm. AWG	-	2
22	108-8493-010	SEAL, 2-1/2 mm. - 3-1/3 mm.	-	2
23	108-8493-011	SEAL, Cavity Plug	-	2
24	108-8493-012	HOUSING, Plug, 4-Way, Black	-	1
25	113-0125-002	PLATE, Harness, #14 Ga.	-	1
26	112-6390	COVER, 6", #14 Ga.	-	1

NYC Formula® 4000
CS TAILGATE OPEN HARNESS
263-1784-008

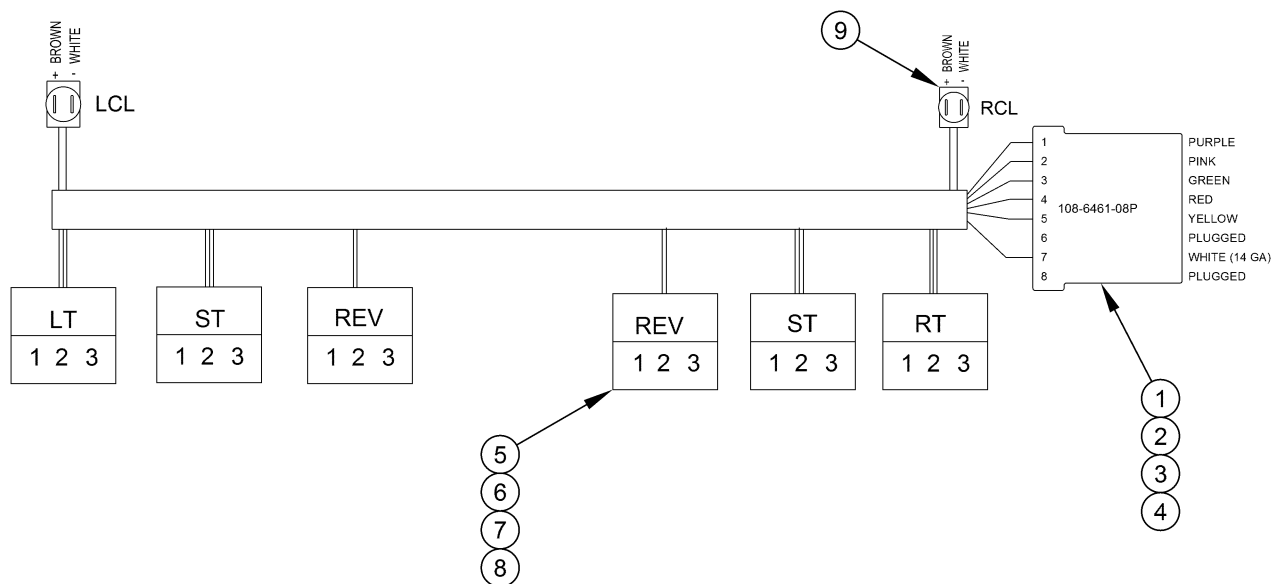
271

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	263-1784-008	HARNESS, Tailgate Open, CS (See Service Manual Schematics)	-	REF
1	063-0124	SWITCH, Proximity, Connector, NC, 30 mm	-	2
2	108-4815-122	PIN (16-18 GA)	-	3
3	108-4815-123	SOCKET, Connector, Gold, 16-18 AWG	-	4
4	108-4815-303	SOCKET, #16, Nickel, Plated	-	8
5	108-4815-403	PIN, #16, Nickel, Plated	-	3
6	108-6461-03P	CONNECTOR, Plug, 3-Way	-	4
7	108-6461-06R	RECEPTACLE, 6-Way	-	1
8	108-6461-3PW	PLUG, 3-Way Wedge	-	4
9	108-6461-6RW	RECEPTACLE, 6-Way Wedge	-	1
10	113-0125-001	BRACKET, Mount, Harness, CS, #14 Ga.	-	1
11	151-4421	BOX, Switch, Proximity	-	1
12	151-4435	BOX, Switch, Proximity, Tailgate	-	1

NYC Formula® 4000

TAIL LIGHT HARNESS

263-1784-009



NYC Formula® 4000

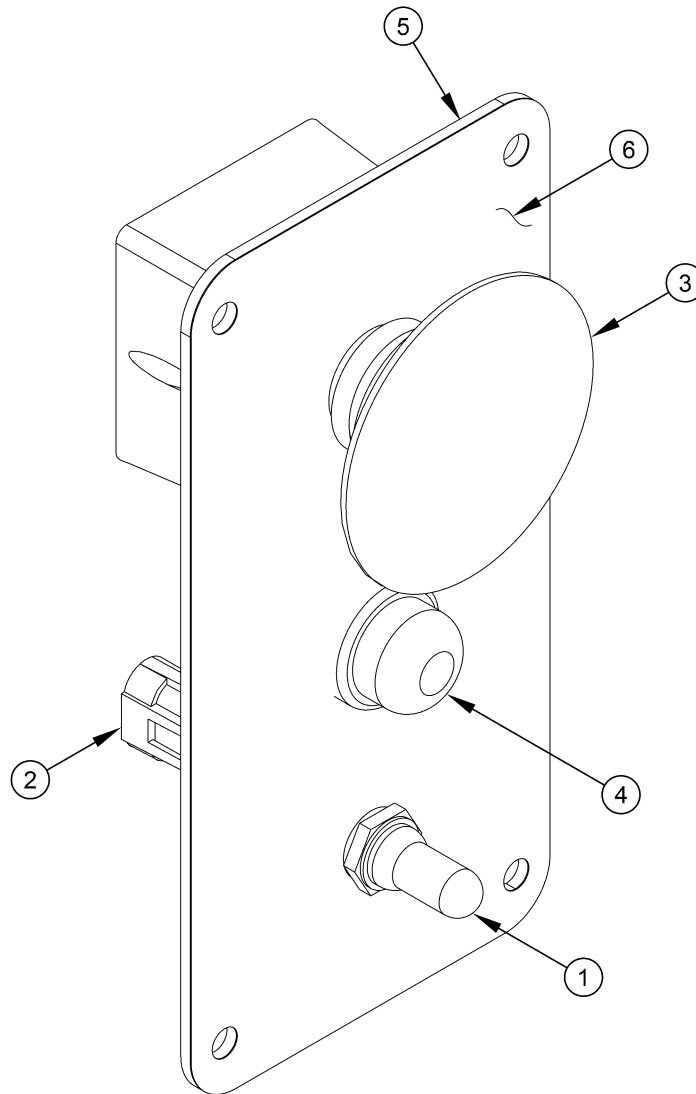
TAIL LIGHT HARNESS

263-1784-009

273

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	263-1784-009	HARNESS, Tail Light (See Service Manual Schematics)	-	REF
1	108-4815-303	SOCKET, #16, Nickel, Plated	-	6
2	108-6461-08P	PLUG, 8-Way	-	1
3	108-6461-100	PLUG, Sealing	-	2
4	108-6461-8PW	PLUG, 8-Way Wedge	-	1
5	108-8493-003	HOUSING, Plug, 3-Way, Black	-	6
6	108-8493-007	RECEPTACLE, Contacts, 18-1/2 mm. - 15-1/2 mm. AWG	-	16
7	108-8493-010	SEAL, 2-1/2 mm. - 3-1/3 mm.	-	16
8	108-8493-011	SEAL, Cavity Plug	-	2
9	115-1036-002	PIGTAIL, Clearance/Marker	-	2

NYC Formula® 4000
BUZZER/ESTOP/WORK LIGHT PANEL
372-6132-003

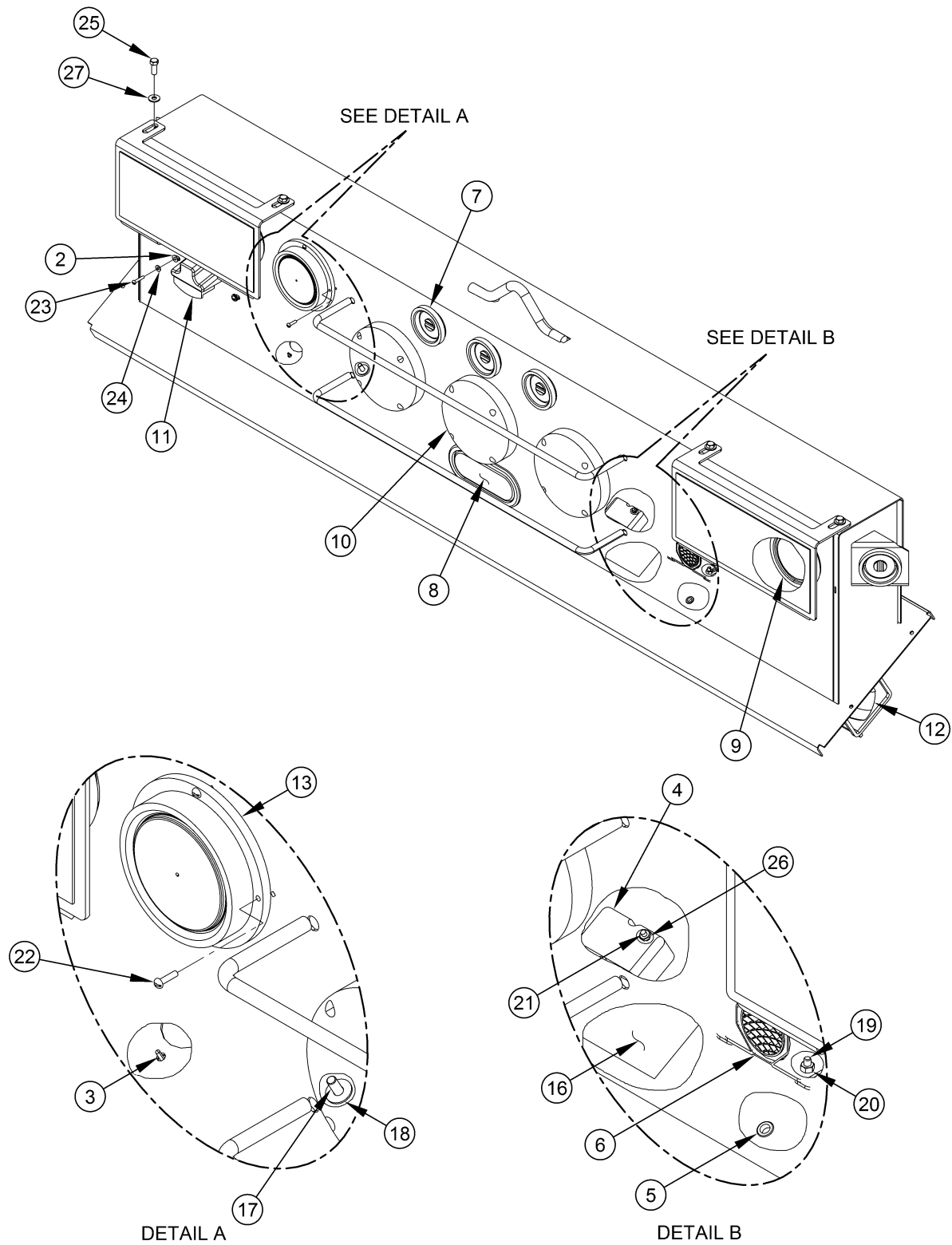


NYC Formula® 4000
BUZZER/ESTOP/WORK LIGHT PANEL
372-6132-003

275

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	372-6132-003	PANEL, Buzzer/Estop/Work Light	-	REF
1	108-2280	BOOT, Protector, Toggle Switch	-	1
2	108-8498	SWITCH, Toggle, SPST	-	1
3	108-8507-001	SWITCH, Sealed, Aluminum Head, E- Stop	-	1
4	108-8571	ASSEMBLY, Buzzer Switch (See Service Manual Schematics)	-	1
5	113-6126-030	PLATE, cover, Switch, 12 Ga.	-	1
6	212-3207-003	DECAL, Plate, Switch Cover	-	1

NYC Formula® 4000 **LIGHT BOX ELECTRICAL KIT** **372-7830**



NYC Formula® 4000

LIGHT BOX ELECTRICAL KIT

372-7830

277

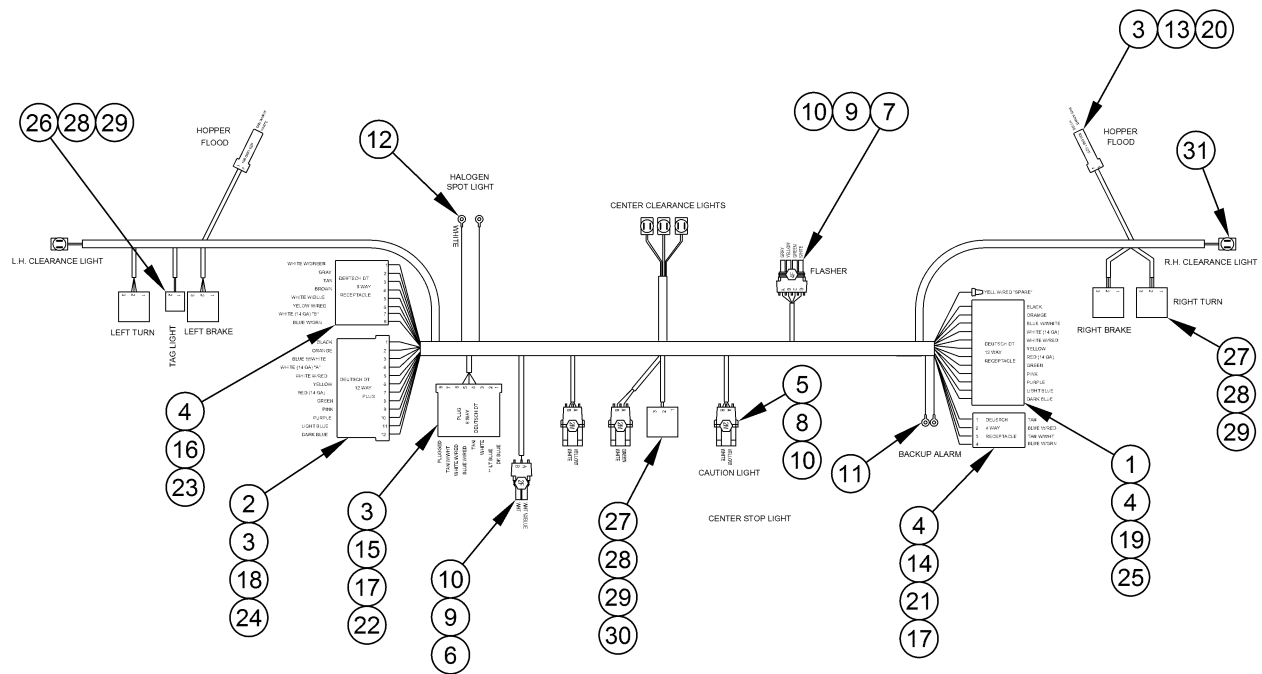
ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	372-7830	KIT, Electrical, Light Box	-	REF
2	047-1640	NUT, Well, #10-32 x 3/8"	-	2
3	047-2151-001	SCREW, Tek, #12-14 x 3/4"	-	6
4	108-7487	FLASHER, Truck-Lite, Ultra Flash II	-	1
5	108-7794	GROMMET, 3/4"	-	1
6	108-8282	ALARM, Backing, Smart	-	1
7	115-1036	LAMP, LED Clearance/Marker, Red	-	5
8	115-1039	ASSEMBLY, Light, Stop, LED, Oval	-	1
9	115-1227	ASSEMBLY, Light, LED, STT, Red, 4" Rd.	-	4
10	115-1245-001	LIGHT, Amber, Round, 7"	-	3
11	115-1412	LIGHT, LED, Tag	-	1
12	115-1428	LIGHT, Flood, LED	-	2
13	115-1460	ASSEMBLY, Light, Flood, LED Par 36	-	1
-14	263-1784-003	HARNESS, Cluster, Light ^[278] (See Service Manual Schematics)	-	1
16	311-6103	WELDMENT, Cover, Access Hole ^[280]	-	1
17	FS070815	HHCS, 5/16"-18 x 3/4", Gr. 5, Plated	-	2
18	FS520800	WASHER, Flat, 5/16", SAE, Plain	-	2
19	FSP070715	HHCS, 1/4"-20 x 3/4", Gr. 5 Plated	-	2
20	FSP230700	NUT, Lock, 1/4"-20, Gr. 5, Plated	-	2
21	FSP420412	SCREW, Mach., #10-24 x 9/16", Rd. Hd., Plated	-	2
22	FSP420415	SCREW, Mach., #10-24 x 3/4", Rd. Hd., Plated	-	6
23	FSP420421	SCREW, Mach., Rd. Hd., #10-24 x 1-1/8" x 1-1/8", Plated	-	14
24	FSP520400	WASHER, Flat, #10, SAE, Plated	-	2
25	FSS070920	HHCS, 3/8"-16 x 1", Gr. 5, S/S	-	8
26	FSS230400	NUT, Lock, #10-24, S/S	-	2
27	FSS510800	WASHER, Flat, 5/16", Std., Plain, S/S	-	8

Note: Items 1 and 15 is Welded.

NYC Formula® 4000

LIGHT CLUSTER HARNESS

263-1784-003



NYC Formula® 4000

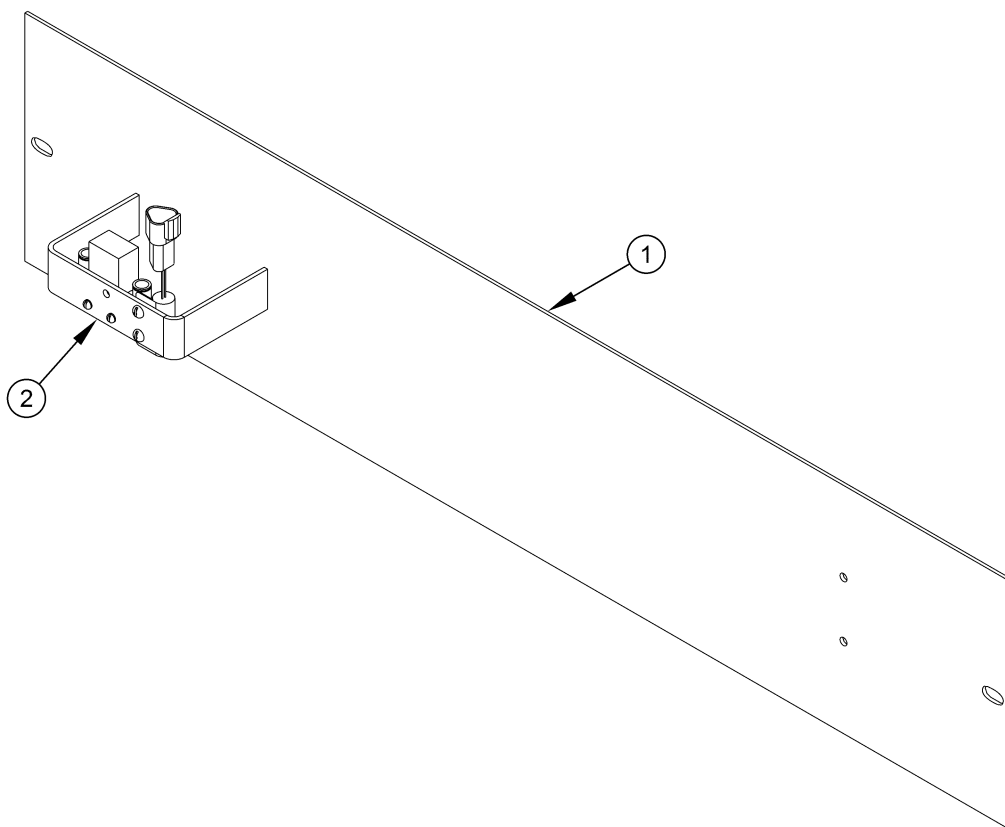
LIGHT CLUSTER HARNESS

263-1784-003

279

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	263-1784-003	HARNESS, Cluster, Light (See Service Manual Schematics)	-	REF
1	108-4815-122	PIN (16-18 GA)	-	3
2	108-4815-123	SOCKET, Connector, Gold, 16-18 AWG	-	4
3	108-4815-303	SOCKET, #16, Nickel, Plated	-	22
4	108-4815-403	PIN, #16, Nickel, Plated	-	24
5	108-4827-003	CONNECTOR, Male, 2 Way, Packard	-	3
6	108-4827-004	CONNECTOR, Female, 2 Way, Packard	-	1
7	108-4827-008	CONNECTOR, Female, 4 Way, Packard	-	1
8	108-4827-111	TERMINAL, Male, 16-14 AWG, Packard	-	6
9	108-4827-121	TERMINAL, Female, 16-14 AWG, Packard	-	7
10	108-4827-132	SEAL, Cable, 16-14 AWG	-	13
11	108-4943-002	TERMINAL, Ring, #8	-	2
12	108-4943-003	TERMINAL, Ring, #10	-	2
13	108-6461-02P	PLUG, 2-Way	-	2
14	108-6461-04R	RECEPTACLE, 4 Way, Deutsch DT Series	-	1
15	108-6461-08P	PLUG, 8-Way	-	1
16	108-6461-08R	RECEPTACLE, 8-Way	-	1
17	108-6461-100	PLUG, Sealing	-	1
18	108-6461-12P	PLUG, 12-Way	-	1
19	108-6461-12R	RECEPTACLE, 12-Way	-	1
20	108-6461-2PW	PLUG, 2-Way Wedge	-	2
21	108-6461-4RW	RECEPTACLE, 4-Way Wedge	-	1
22	108-6461-8PW	PLUG, 8-Way Wedge	-	1
23	108-6461-8RW	RECEPTACLE, 8-Way Wedge	-	1
24	108-6461-CPW	WEDGE, 12-Way Plug	-	1
25	108-6461-CRW	RECEPTACLE, 12-Way Wedge	-	1
26	108-8493-002	HOUSING, Plug, 2-Way, Black	-	1
27	108-8493-003	HOUSING, Plug, 3-Way, Black	-	5
28	108-8493-007	RECEPTACLE, Contacts, 18-1/2 mm. - 15-1/2 mm. AWG	-	16
29	108-8493-010	SEAL, 2-1/2 mm. - 3-1/3 mm.	-	16
30	108-8493-011	SEAL, Cavity Plug	-	1
31	115-1036-002	PIGTAIL, Clearance/Marker	-	5

NYC Formula® 4000
ACCESS HOLE COVER WELDMENT
311-6103



NYC Formula® 4000

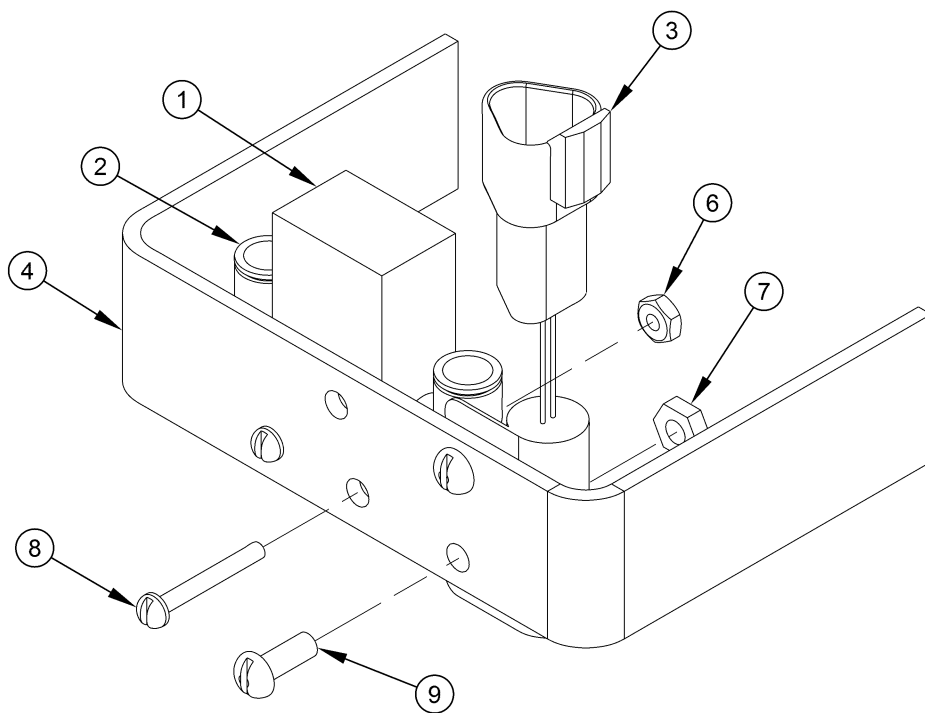
ACCESS HOLE COVER WELDMENT

311-6103

281

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	311-6103	WELDMENT, Cover, Access Hole	-	REF
1	113-6729	COVER, Access Hole	-	1
2	372-4674-001	ASSEMBLY, Solenoid, Air 	-	1

NYC Formula® 4000
AIR SOLENOID ASSEMBLY
372-4674-001



NYC Formula® 4000

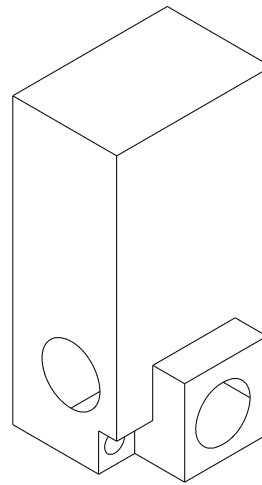
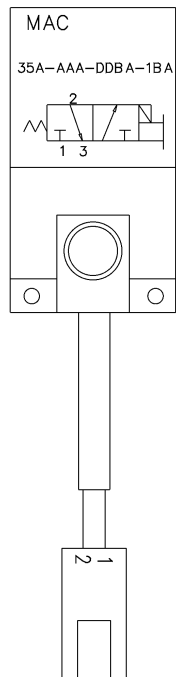
AIR SOLENOID ASSEMBLY

372-4674-001

283

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	372-4674-001	ASSEMBLY, Solenoid, Air	-	REF
1	031-6087-012	VALVE, Air, 12 V, Deutsch 	-	1
2	054-8470-001	ELBOW, Connector, Air Line	-	2
3	108-2864-001	SWITCH, Tilt, with Connector	-	1
4	211-0694	BRACKET, Air Valve	-	1
-5	263-1597-010	HARNESS, Air Solenoid (See Service Manual Schematics)	-	1
6	FSP230200	NUT, Lock, #6, Gr. 5, Plated	-	2
7	FSP270400	NUT, #10-32, Plated	-	2
8	FSP420220	SCREW, Mach., #6-32 x 1", Rd. Hd., Plated	-	2
9	FSP420412	SCREW, Mach., #10-24 x 9/16", Rd. Hd., Plated	-	2

NYC Formula® 4000
DEUTSCH 12 V AIR VALVE
031-6087-012

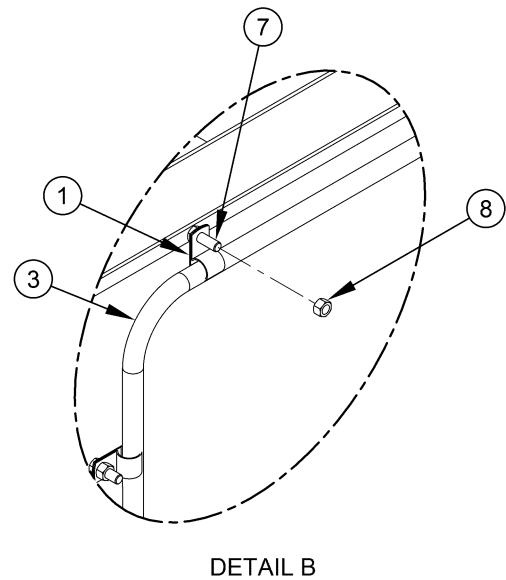
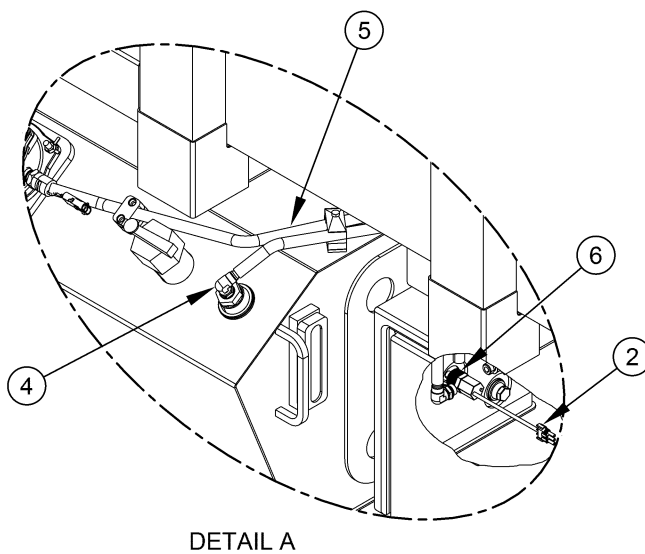
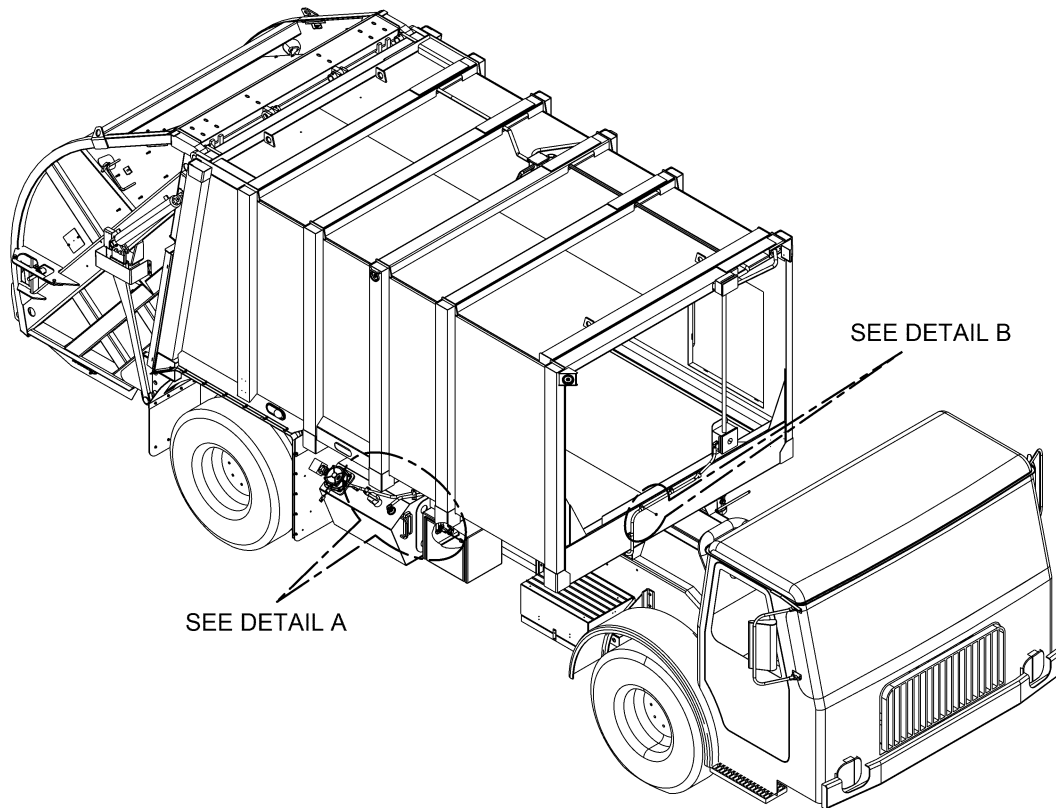


NYC Formula® 4000 **DEUTSCH 12 V AIR VALVE** **031-6087-012**

285

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	031-6087-012	VALVE, Air, 12 V, Deutsch	-	REF
-1	031-5724-012	SOLENOID, Air	-	1
-2	NA	-	-	-
-3	108-6461-011	PLUG, Str., 2 Way, Deutsch DT Series	-	1
-4	NA	-	-	-
-5	NA	-	-	-
-6	108-5034-001	LOOM, Electrical, Split Convolute, Plastic, 1/4"	-	2

NYC Formula® 4000
OIL TANK ELECTRICAL INSTALLATION
372-7829-004



NYC Formula® 4000

OIL TANK ELECTRICAL INSTALLATION

372-7829-004

287

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	372-7829-004	INSTALLATION, Electrical, Oil Tank	-	REF
1	036-1122-012	CLAMP, Wire, Tube, 3/4" x 13/32"	-	11
2	063-0134	SENSOR, Level, Photoelectrics with Packard Connector 	-	1
3	263-1784-010	HARNESS, Oil Tank to Body  (See Service Manual Schematics) ..	-	1
4	263-1784-012	HARNESS, Oil Temperature  (See Service Manual Schematics) ..	-	1
5	263-1784-013	HARNESS, Monitor, Oil Filter  (See Service Manual Schematics) .	-	1
6	354-4411	ADAPTER, 1" NPT to 3/8" BSP, 11-1/2" Thd.	-	1
7	FSP070920	HHCS, 3/8"-16 x 1", Gr. 5, Plated	-	11
8	FSP230900	NUT, Lock, 3/8"-16, Gr. 5, Plated	-	10

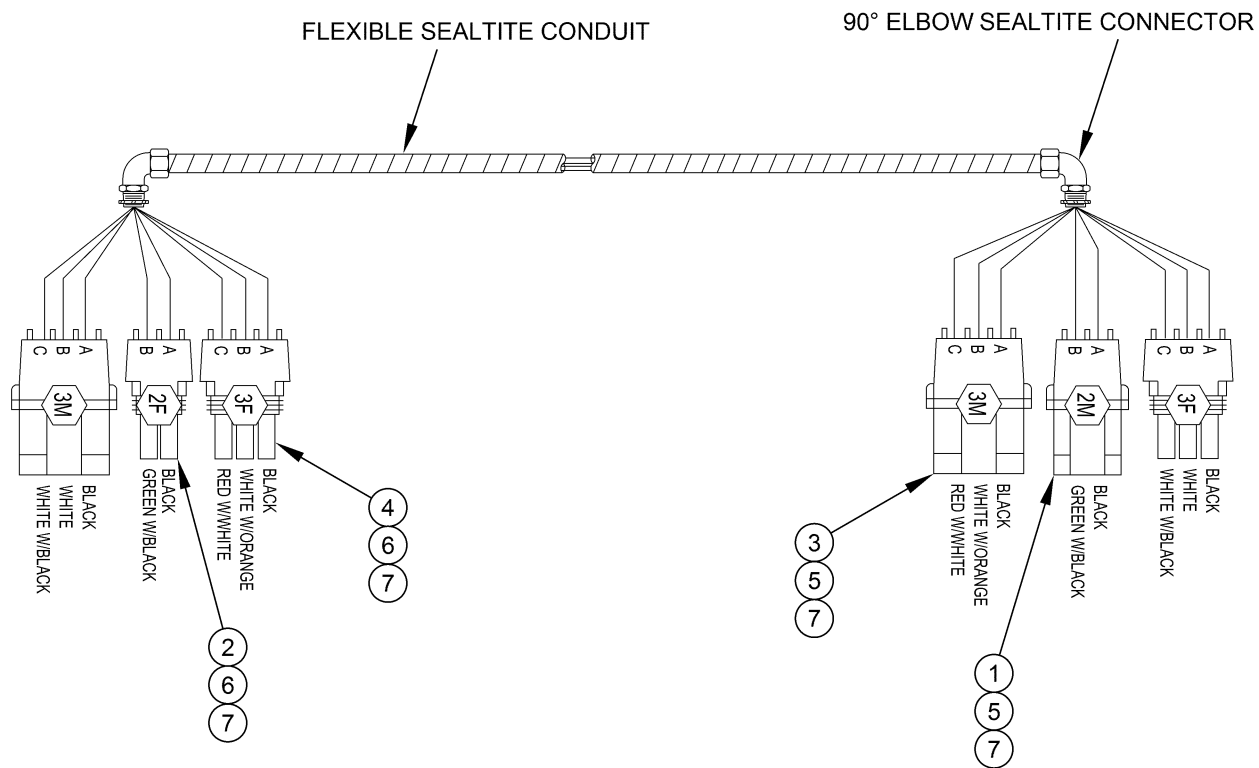
NYC Formula® 4000
PHOTOELECTRICS LEVEL SENSOR WITH PACKARD CONNECTOR
063-0134

NO ILLUSTRATION

PHOTOELECTRICS LEVEL SENSOR WITH PACKARD CONNECTOR 063-0134

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	272-8000	SENSOR, Level, Photoelectrics with Packard Connector	-	REF
-1	063-0134-001	SENSOR, Level, Photoelectrics	-	1
-2	108-4827-006	CONNECTOR, Female, 3 Way, Packard	-	1
-3	108-4827-121	TERMINAL, Female, 16-14 AWG, Packard	-	3
-4	108-4827-132	SEAL, Cable, 16-14 AWG	-	3

NYC Formula® 4000
OIL TANK TO BODY HARNESS
263-1784-010



NYC Formula® 4000

OIL TANK TO BODY HARNESS

263-1784-010

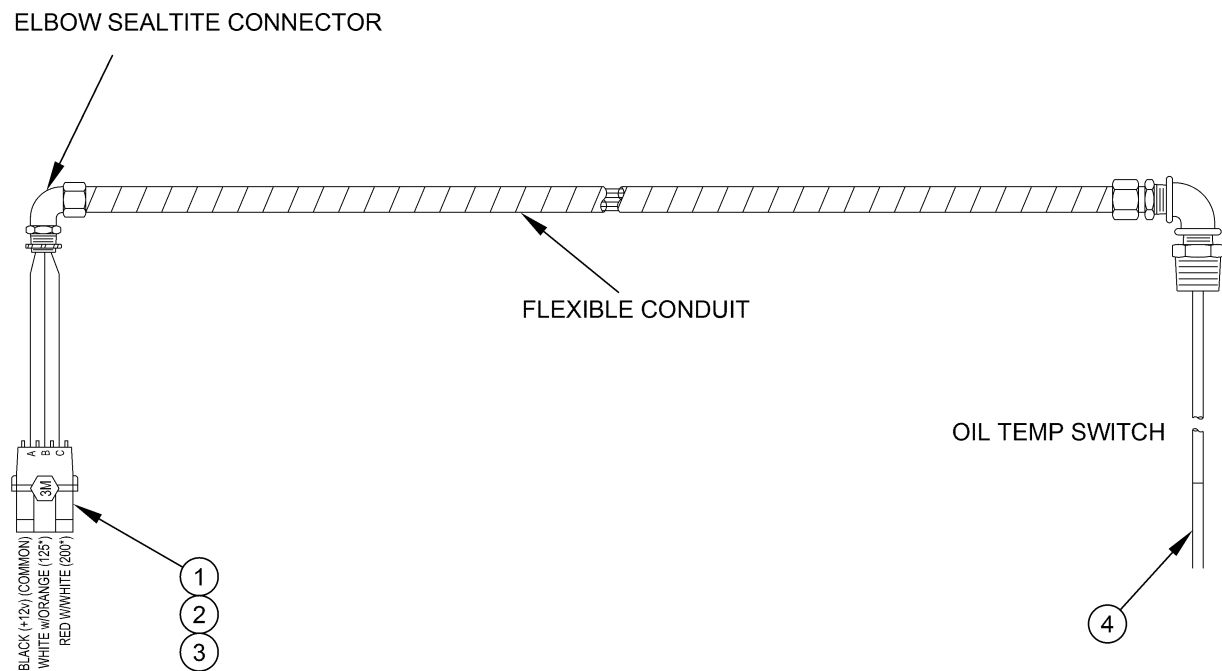
291

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	263-1784-010	HARNESS, Oil Tank to Body (See Service Manual Schematics)	-	REF
1	108-4827-003	CONNECTOR, Male, 2 Way, Packard	-	1
2	108-4827-004	CONNECTOR, Female, 2 Way, Packard	-	1
3	108-4827-005	CONNECTOR, Male, 3 Way, Packard	-	2
4	108-4827-006	CONNECTOR, Female, 3 Way, Packard	-	2
5	108-4827-111	TERMINAL, Male, 16-14 AWG, Packard	-	8
6	108-4827-121	TERMINAL, Female, 16-14 AWG, Packard	-	8
7	108-4827-132	SEAL, Cable, 16-14 AWG	-	16

NYC Formula® 4000

OIL TEMPERATURE HARNESS

263-1784-012



NYC Formula® 4000

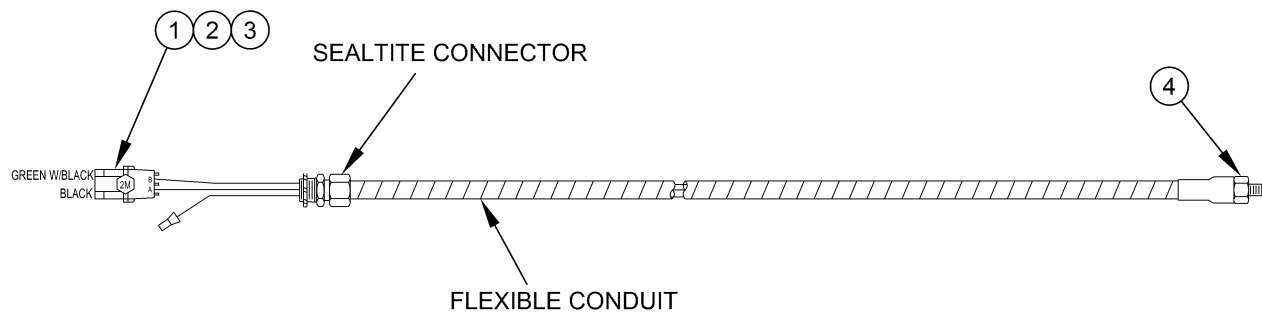
OIL TEMPERATURE HARNESS

263-1784-012

293

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	263-1784-012	HARNESS, Oil Temperature (See Service Manual Schematics)	-	REF
1	108-4827-005	CONNECTOR, Male, 3 Way, Packard	-	1
2	108-4827-111	TERMINAL, Male, 16-14 AWG, Packard	-	3
3	108-4827-132	SEAL, Cable, 16-14 AWG	-	3
4	108-6800	SWITCH, Oil Temperature	-	1

NYC Formula® 4000
OIL FILTER MONITOR HARNESS
263-1784-013



NYC Formula® 4000

OIL FILTER MONITOR HARNESS

263-1784-013

295

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	263-1784-013	HARNESS, Monitor, Oil Filter (See Service Manual Schematics)	-	REF
1	108-4827-003	CONNECTOR, Male, 2 Way, Packard	-	1
2	108-4827-111	TERMINAL, Male, 16-14 AWG, Packard	-	2
3	108-4827-132	SEAL, Cable, 16-14 AWG	-	2
4	REF	SWITCH, Pressure, Fairey Arlon	-	1

Note: Item 4 is TTF-300-S24-TXWSA-CC10L-B.

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NYC Formula® 4000

NUMERICAL INDEX

297

PART NO.	PAGE NO.	PART NO.	PAGE NO.	PART NO.	PAGE NO.
001-3699	116, 190	022-4041	56	031-2928-013	212, 214
001-3699-001	190	026-1654	24	031-2928-014	212, 214
001-3699-002	190	027-4678	210	031-3217-001	212, 214
001-6937	20, 192	027-4679	210	031-3244-006	214
001-7026	56, 194	027-4680	210	031-3245-005	206, 210
001-7076	56, 196	027-5074	116, 120	031-3245-009	206, 208
001-7077	56, 198	027-5074-001	120	031-3245-010	210, 212, 214
002-1244	88	027-5075	116, 124	031-3245-014	212, 214
003-3333	72	027-5075-001	124	031-3245-016	212, 214
003-4117	56	027-5076	116, 126	031-3271	210
003-4393	32, 34	027-5076-001	126	031-3544-005	206, 212
003-4514-005	258	027-5077	116, 128	031-3544-006	206, 214
003-5270	116	027-5077-001	128	031-3544-007	212, 214
003-5271	116	027-5093	116, 130	031-5601	232
004-1500	74	027-5093-001	130	031-5601-002	178
004-1965-006	64, 66	027-5094	116, 132	031-5601-003	232
004-2527	64, 66	027-5094-001	132	031-5601-004	232
004-2528	56, 64, 66	027-5095	116, 134	031-5601-005	232
004-2529	56	027-5095-001	134	031-5724-012	284
005-3121-005	154, 158	027-5096	116, 136	031-5875-026	204
005-3254	82	027-5096-001	136	031-5952	146
005-3255	82	028-0358	56	031-5975	146, 202
005-3728-001	116	030-0863	182	031-6087-012	282, 284
005-3728-002	116	030-0864-016	182	031-6139	178, 204
005-4766	26	030-0865	178, 182	031-6139-001	204
013-5388	116	031-2012-001	212, 214	031-6139-002	204
013-5389	116	031-2012-002	212, 214	031-6139-003	204
013-5390	116	031-2012-004	212, 214	031-6139-004	204
014-2110	56	031-2012-006	212, 214	031-6139-005	204
015-2274	24, 154, 158	031-2012-007	212, 214	031-6139-006	204
015-2790	116	031-2012-008	212, 214	031-6139-007	204
015-3277	178	031-2012-010	212, 214	031-6139-008	204
019-1242	100, 102	031-2012-012	212, 214	031-6139-009	204
020-2658	92, 94	031-2012-013	212, 214	031-6139-010	204
020-2659	88, 92	031-2012-015	212, 214	031-6264	146, 178
021-3874	20	031-2012-016	212, 214	031-6268-002	116, 162, 206
021-3945	30	031-2018-003	212, 214	031-6280	162, 216
021-4423	36, 38	031-2018-004	212, 214	031-6280-001	216
021-4423-001	38, 40	031-2018-010	210	031-6414	178, 218
021-4423-002	36	031-2018-018	212, 214	031-6414-010	218
021-4424	36, 40	031-2018-021	212, 214	031-6414-011	218
021-4432	88	031-2616	104	031-6414-012	218
021-4433	88	031-2909-001	212, 214	031-6414-013	218
022-2707	92	031-2909-003	212, 214	031-6414-014	218
022-3925-003	32	031-2909-008	212, 214	031-6414-015	218
022-4007-001	24	031-2928-002	212, 214	031-6414-016	218
022-4007-002	24	031-2928-011	212, 214	031-6414-017	218
022-4028	56	031-2928-012	212, 214	031-6414-018	218

NYC Formula® 4000

NUMERICAL INDEX

PART NO.	PAGE NO.	PART NO.	PAGE NO.	PART NO.	PAGE NO.
031-6414-019	218	045-1006-003	170	048-7497	18
031-6414-020	218	045-1010	146	053-1997	96
031-6471	162, 220	045-1011	104	053-2130	156
032-1009	122	045-1404	162, 170	053-2448	32
032-1011	120, 122, 124, 126, 128	045-1404-002	170	054-2988-006	146, 178
032-1494	116	047-1640	276	054-2988-007	146
032-1495	136	047-1727	56	054-2988-008	162
032-1667	120, 124, 126, 128, 130, 132, 134	047-1775-125	30	054-3005-006	162, 178
032-1668	130, 132, 134, 136	047-1786	258	054-3007-003	146
035-1530-004	246	047-2151-001	250, 276	054-3007-006	178
035-3159-002	88	047-2154	122	054-3139-006	162, 178
035-3511	94	047-2161	100, 102	054-3139-008	162
035-3656	56	047-2189	32, 34, 116	054-3237-002	162
035-3668	88	047-2192	20	054-3237-011	162
035-3702	88	047-2285-001	20	054-3237-021	178
036-1122-012	258, 286	047-2287-001	146	054-3340-005	146, 178
036-1295-001	162	047-2293-001	96	054-3340-006	146, 162
036-1295-003	162	047-2367	76, 78	054-3340-008	162
036-1295-005	162	047-2577	146	054-3340-010	146, 162, 178
036-1474-003	178	047-2603	240	054-3341-003	146, 172, 174
036-1474-004	146, 178	047-2615-001	116	054-3341-005	178
036-1474-006	146	047-2615-002	116	054-3341-006	178
036-1474-008	146, 178	047-2618	116	054-3341-007	146
036-1474-009	80	047-2619	116	054-3341-008	146, 162
036-1474-012	178	047-2643	162	054-3341-010	146, 178
036-1495-016	146	047-2685	32	054-3341-012	88
036-1597-013	104	048-2834	18	054-3342-006	92
036-1604-002	98	048-3771	56	054-3342-010	92
036-1715-002	162	048-3777	56	054-3343-006	178
036-1948-012	162	048-3891	154, 158	054-3344-008	160, 162
037-9018-001	72	048-5435	116	054-3533-006	146
040-2070	116	048-5470	42	054-3533-008	146
040-2071	56	048-5485	56	054-3533-010	146
040-2072	50	048-5494	122	054-3535-006	146
040-2228	56, 70	048-5549	56	054-3535-007	146
040-2626	70	048-5798	20	054-3624-008	162
040-2627	70	048-5799	20	054-3629-006	162
042-1347	146	048-6001	56	054-3629-010	146
042-1348	104	048-6145	42	054-3667-003	184
042-1356	56	048-6160	24	054-3667-007	184
042-2042	68	048-6162	20, 22	054-5867	246
042-2044	56, 68	048-6163	22	054-6547-007	162
043-0576	22	048-6168	56	054-6547-008	162
043-0841	22	048-6169	18	054-6547-009	146
043-0910-010	68	048-7428	26	054-7108	146
043-0911	68	048-7481-001	116	054-7148	146
045-1006	146	048-7481-002	116	054-7496-004	146
		048-7496	76, 78	054-7496-008	88

NYC Formula® 4000

NUMERICAL INDEX

299

PART NO.	PAGE NO.	PART NO.	PAGE NO.	PART NO.	PAGE NO.
054-8470-001	282	108-2280	256, 274	108-6461-02P	244, 252, 264, 268, 278
054-9408-012	172, 174	108-2648	252	108-6461-03P	262, 266, 270
054-9521-014	178	108-2864-001	282	108-6461-03R	266
054-9737-002	160	108-4815-037	248, 252	108-6461-04P	268
055-1391-002	140	108-4815-068	248	108-6461-04R	278
055-1391-005	88, 116	108-4815-103	248	108-6461-06P	262, 268
055-1391-007	88	108-4815-104	248	108-6461-06R	264, 270
055-1391-008	88	108-4815-106	248	108-6461-08P	252, 254, 272, 278
055-1400	116	108-4815-114	248, 252	108-6461-08R	254, 262, 268, 278
055-3099-010	116	108-4815-122	254, 262, 266, 270, 278	108-6461-100	244, 248, 252, 262, 268, 272, 278
055-3106	32, 34	108-4815-123	248, 252, 262, 266, 268, 270, 278	108-6461-12P	244, 254, 268, 278
057-2172-122	178	108-4815-126	252	108-6461-12R	244, 252, 254, 278
057-2899-016	104	108-4815-127	248	108-6461-2PW	244, 252, 264, 268, 278
057-2904-032	178	108-4815-188	248	108-6461-3PW	262, 266, 270
057-3110-060	178	108-4815-189	248	108-6461-3RW	266
057-3111-025	146	108-4815-301	244, 248	108-6461-4PW	268
057-3112-034	146	108-4815-303	244, 248, 252, 254, 262, 264, 266, 268, 270, 272, 278	108-6461-4RW	278
058-3205-011	146	108-4815-401	248, 252	108-6461-6PW	262, 268
058-3205-016	146, 178	108-4815-403	244, 248, 252, 254, 262, 264, 266, 268, 270, 278	108-6461-6RW	264, 270
058-3205-029	162	108-4815-404	248	108-6461-8PW	252, 254, 268, 272, 278
058-8579-006	104, 178	108-4815-425	248	108-6461-8RW	254, 262, 278
059-0316	178	108-4827-003	252, 264, 268, 278, 290, 294	108-6461-CPW	244, 254, 268, 278
059-0318	178	108-4827-004	252, 264, 268, 278, 290	108-6461-CRW	244, 252, 254, 278
060-0419	92	108-4827-005	252, 290, 292	108-6800	292
063-0123	138	108-4827-006	244, 252, 288, 290	108-7149-005	244
063-0123-001	116, 138	108-4827-008	278	108-7487	276
063-0124	266, 270	108-4827-015	268	108-7794	276
063-0134	286	108-4827-111	252, 264, 268, 278, 290, 292, 294	108-8282	276
063-0134-001	288	108-4827-121	244, 252, 264, 268, 278, 288, 290	108-8390	242
067-0630	92	108-4827-132	244, 252, 264, 268, 278, 288, 290, 292, 294	108-8391	242
070-1391	116	108-4867-001	242	108-8411-001	248
070-1462	116	108-4943-002	248, 278	108-8443	242
070-1561	22	108-4943-003	278	108-8444-001	242
070-1942	24	108-5034-001	284	108-8444-003	242
074-1827-005	94	108-5034-002	138	108-8444-004	242
074-1827-006	52, 78	108-5617	246	108-8445	242
074-3061-002	146	108-6461-009	248	108-8446-008	242
074-4498-032	104, 178	108-6461-010	248	108-8446-009	242
075-0578	92	108-6461-011	248, 284	108-8449	242
075-0712	92			108-8454	244
075-0953	92, 228			108-8493-002	278
077-6846	74, 140, 146			108-8493-003	254, 272, 278
077-7427	72			108-8493-007	254, 264, 268, 272, 278
077-7707	76, 78			108-8493-010	254, 264, 268, 272, 278
077-8302-001	162				
077-8302-002	162				
096-0568	258				
108-2279	256				

NYC Formula® 4000

NUMERICAL INDEX

PART NO.	PAGE NO.	PART NO.	PAGE NO.	PART NO.	PAGE NO.
108-8493-011	264, 268, 272, 278	113-6737	56	177-5856	56
108-8493-012	264, 268	113-6738	56	207-2938-004	146
108-8498	274	113-7074	42, 44	207-2938-006	80, 178
108-8502	244	113-7076	42, 48	207-2938-008	178
108-8507-001	274	113-7080	146, 158	211-0680-001	98
108-8571	274	113-7080-001	158	211-0694	282
108-8587-001	248	115-0342	108	211-2485	76, 78
108-8597	250	115-0343	108, 258	211-4017	116
108-8616-002	242	115-1036	258, 276	211-4055	88
111-8072	70	115-1036-002	244, 252, 254, 272, 278	211-4231	82
112-2494-010	76, 78	115-1037	250	211-4461	102
112-2494-012	76	115-1039	258, 276	211-4643	52
112-2607	56	115-1227	276	211-4667	100, 102
112-6390	254, 268	115-1245-001	276	211-7154	94, 96
112-7159	262	115-1395	250	211-7154-001	96
112-8332-004	26	115-1397	258	211-8872	82
113-0073	156	115-1412	276	211-9749	156
113-0120	154	115-1428	276	211-9820	76
113-0122	146, 154	115-1442	242	211-9822	250
113-0125	252, 254, 262, 266	115-1444	258	211-9849	156
113-0125-001	270	115-1460	276	211-9940	146
113-0125-002	268	121-2606	32, 34	212-0651	108
113-0131	74, 76	121-2606-003	34	212-0735	108
113-0131-001	76	121-2606-004	34	212-0984	108
113-0131-004	76	126-4329-001	88	212-1115	108
113-0131-011	76	126-4504	76, 78	212-1116	108
113-0131-020	76	134-7642-004	102	212-1205	108
113-0131-025	76	151-4160-001	98	212-1576	108
113-0132	74, 78	151-4421	266, 270	212-1608	108
113-0132-001	78	151-4433	252	212-1719	108
113-0132-011	78	151-4435	270	212-1821	108
113-0132-024	76, 78	151-4441	252	212-1902-001	108
113-0132-032	78	151-4696	88	212-1907-001	108
113-0239	146	151-4758	88, 98	212-1909-001	108
113-0541	146	151-4758-001	88, 98	212-1918-001	108
113-0547	64, 66	177-3859	156	212-1978	108
113-0734	56	177-3975	146	212-1979	108
113-1674-003	56, 70	177-4460	100, 102	212-2195	108
113-5910	98	177-5079	42	212-2200	108
113-5911	98	177-5810	162	212-2205	108
113-6008	146, 156	177-5813	56	212-2228	108
113-6126-030	274	177-5814	56	212-2231	108
113-6723	24, 26	177-5851	74, 82	212-2248	108
113-6724	20, 24	177-5852	74, 84	212-2255	108
113-6729	280	177-5852-001	84	212-2256	108
113-6733	20, 28	177-5853	48, 50	212-2264	108
113-6733-001	28	177-5853-001	50	212-2420	108
113-6733-002	28	177-5853-002	50	212-2441	108

NYC Formula® 4000

NUMERICAL INDEX

301

PART NO.	PAGE NO.	PART NO.	PAGE NO.	PART NO.	PAGE NO.
212-2442	108	263-1784-010	286, 290	354-4987	146
212-2443	108	263-1784-012	286, 292	354-4988	146
212-2618	108	263-1784-013	286, 294	354-4989	146
212-2671-100	108	263-1784-014	242, 244	354-4990	146
212-2687	108	263-1784-015	238, 248	354-4991	146, 160
212-2689	108	272-3861	212, 214	354-4992	162
212-2737	108	272-8000	288	354-4993	162
212-3003	108	274-0567	146, 162	354-4994	162
212-3011	108	311-0069	18	354-4995	162
212-3019	108	311-0487	78, 80	354-4998	162
212-3045	108	311-0488	80	354-4999	162
212-3206	256	311-1099	178	354-5000	162
212-3207-003	274	311-1102	178	354-5001	162
212-3222	108	311-2335	42	354-5003	146
212-3226	108	311-3082	88, 100	354-5004	162
212-3242	108	311-3082-001	100	354-5005	162
212-3304	108	311-3082-002	100	354-5006	162, 172
217-1784	36	311-3082-003	100	354-5007	162, 174
219-1918-011	204, 218	311-3082-004	100	354-5008-004	162
219-1918-012	204	311-3400	88, 102	372-4536	178, 184
219-1918-101	218	311-4176-003	88	372-4674-001	280, 282
219-1918-102	218	311-4288	104	372-6132-003	258, 274
219-1918-105	204	311-4292	178	372-6807	250, 256
219-1918-107	218	311-4829	242	372-7829-001	238
219-2301	178, 224	311-4944-003	242	372-7829-002	250
234-0494	64, 66	311-5558	162	372-7829-003	56, 258
234-1338-004	100	311-5565	56	372-7829-004	286
237-4011-010	72	311-5569	256	372-7830	258, 276
237-7391-003	52	311-5572	116, 140	372-7872	178
237-8162	20, 30	311-5572-001	140	372-7874	56, 162
237-9728	42, 52	311-5572-002	140	372-7876	88
237-9729	44, 46	311-5634	52	372-7878	56, 116
237-9730	56	311-6081	242	372-7879	146
237-9731	56, 72	311-6081-001	242	372-7879-001	146
245-4734-015	238	311-6103	276, 280	372-7879-002	146
254-4734-015	240	311-6105	88	372-7880	20, 32
254-4865	238, 242	311-6106	88	372-7882	20, 36
254-4865-200	238, 246	354-0366	178	372-7883	88, 104
263-1597-010	282	354-1214	178	612-4057	20, 42
263-1784-001	250, 252	354-3776-010	88, 146	612-4058	18, 20
263-1784-002	250, 254	354-4411	286	612-4059	18
263-1784-003	276, 278	354-4974	178	615-0846-007	74
263-1784-004	258, 262	354-4981	146	615-0846-008	74
263-1784-005	258, 264	354-4982	146	615-6663	56, 74
263-1784-006	258, 266	354-4983	146	615-6664	56
263-1784-007	258, 268	354-4984	146	701-9151	238
263-1784-008	258, 270	354-4985	146	CAM-C042-000	178
263-1784-009	258, 272	354-4986	146	CAM-C045-000	178

NYC Formula® 4000

NUMERICAL INDEX

PART NO.	PAGE NO.	PART NO.	PAGE NO.	PART NO.	PAGE NO.
CAS-B042-000	178	FSP071344	56	FSP551000	182
FS070815	276	FSP080815	56	FSS070836	146
FS070920	38, 40, 146	FSP080915	56	FSS070913	250
FS071122	84	FSP081123	56	FSS070915	28
FS072070	100, 102	FSP081124	88	FSS070920	56, 76, 78, 276
FS100950	178	FSP081154	178	FSS230400	276
FS190490	56	FSP100815	140	FSS230700	88
FS190700	20, 116	FSP100820	146	FSS230900	250
FS230900	56, 146	FSP100824	116	FSS510800	276
FS270900	96, 178	FSP100934	56	FSS510900	28, 250
FS290900	46	FSP101134	56	FSS520700	88
FS291100	32, 34	FSP111024	182	NSS	204, 210, 212, 214
FS340412	116	FSP111326	88	QC3-FFFF-018	184
FS340420	24, 154, 158	FSP111334	88	QC3-FFFF-050	184
FS370608	108	FSP211100	116, 120, 124, 126, 128, 130, 132, 134, 136	QF3-EFTF-064	178
FS410916	56			QG2-EEFE-046	178
FS510900	146	FSP230200	282	QG2-EEFE-060	178
FS512000	22	FSP230700	140, 162, 258, 276	QG2-FEFE-017	162
FS520800	276	FSP230800	68, 88, 98, 116, 146, 162	QG3-EFFF-036	162
FS521100	154, 158			QG3-EFFF-046	178
FS521500	24	FSP230900	30, 36, 156, 162, 258, 286	QG3-EFFF-064	178
FS522000	100, 102			QG3-FFFF-015	162
FS743000	104	FSP231100	18, 56, 88, 116, 146	QG3-FFFF-043	162
FS881500	92	FSP231300	56	QG3-FFFF-137	178
FS883000	104	FSP240900	56	QG3-FFFF-166	178
FS883095	104	FSP241100	20, 56	QG3-FFFF-175	178
FS892200	104	FSP270400	242, 258, 282	QG5-EHEH-045	162
FS902001	88	FSP290200	32	QG5-FHFB-020	162
FS933023	104	FSP301100	116, 120, 124, 126, 128, 130, 132, 134, 136	QG5-FHFB-022	162
FS943000	104			QG5-FHFB-027	162
FSP070211	32	FSP320900	56	QG5-FHFB-036	162
FSP070715	56, 88, 258, 276	FSP351000	182	QG5-FHFB-040	162
FSP070717	140	FSP351300	88	QG6-EFFF-040	178
FSP070720	20	FSP420220	282	QG6-EKEK-045	162
FSP070732	162	FSP420412	242, 250, 276, 282	QG6-FFFF-120	178
FSP070817	88	FSP420415	258, 276	QG6-FFFF-137	178
FSP070820	88	FSP420421	276	QG6-FKFK-062	146
FSP070822	68, 88, 98	FSP420716	240		
FSP070832	162	FSP500207	32		
FSP070836	162	FSP510700	20, 240, 258		
FSP070913	76, 78, 146	FSP510800	88, 98, 116, 146, 162		
FSP070917	18	FSP511100	116, 146		
FSP070920	20, 156, 162, 258, 286	FSP520400	276		
FSP071120	92	FSP520800	88		
FSP071122	116	FSP520900	18, 56, 156		
FSP071136	56	FSP540900	56		
FSP071140	20	FSP541100	92		
FSP071142	18, 20	FSP550700	258		



HEIL ENVIRONMENTAL WARRANTY STATEMENT

The Heil Co. d/b/a Heil Environmental ("Heil") warrants its solid waste collection equipment to be free from defects in material and workmanship under normal use for a period of one (1) year or 2000 hours of operation (whichever comes first) from the date of equipment In-Service or during the period of coverage offered by an extended warranty program, when proper service and maintenance as described in Heil Service Bulletins and Parts & Service Manuals are performed. The standard or extended equipment warranty is not transferable except for sales demonstration units.

This warranty is expressly limited to the repair or replacement of any component or part thereof, of any such refuse or recycling collection body manufactured by Heil that is proven to Heil's satisfaction to have been defective in material or workmanship. Such components or parts shall be repaired or replaced at Heil's option without cost to the standard purchaser for parts and labor provided such unit is returned to an authorized Heil Distributor for replacement or repair. The repair or replacement must be made during the standard or extended warranty coverage period. Before any warranty can be allowed on new equipment, a validated warranty registration form must be on file with Heil's Customer Service Department within sixty (60) days of the equipment's In-Service date. Wear items are excluded from warranty coverage.

All OEM service parts sold by Heil have a six (6) month warranty from the date of purchase. Aftermarket parts purchased from Heil are supported by a 90-day warranty. The parts warranty covers parts only, providing that factory inspection reveals a defect in material or workmanship. Labor, troubleshooting, equipment downtime, etc. is not covered under the parts warranty policy.

HEIL MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, AND MAKES NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE. HEIL DOES NOT ASSUME ANY LIABILITY OR ACCEPT CLAIMS FOR LOSS OF PROFITS, PRODUCT DOWN TIME OR ANY OTHER DIRECT, INCIDENTAL OR INDIRECT CONSEQUENTIAL LOSSES, COSTS, DAMAGES OR DELAYS.

Any improper use, operation beyond rated equipment or component capacity, substitution of parts that are not Heil-approved, or any alteration or repair by others in such a manner as in Heil's sole judgment affect the product operation or integrity shall void the warranty.

Other than the extension of the standard warranty period purchased under a supplemental Heil Extended Warranty Program, no employee or representative is authorized to modify this warranty in any way nor shall any other warranties be granted. No dealer-supplied warranty program is endorsed or supported by Heil.

Heil retains the right to modify its factory warranty program prospectively at any time.



www.heil.com

Customer Care Phone:
866-ASK-HEIL
(866-275-4345)

Parts Central Phone:
800-528-5308

Technical Service Phone:
866-310-4345

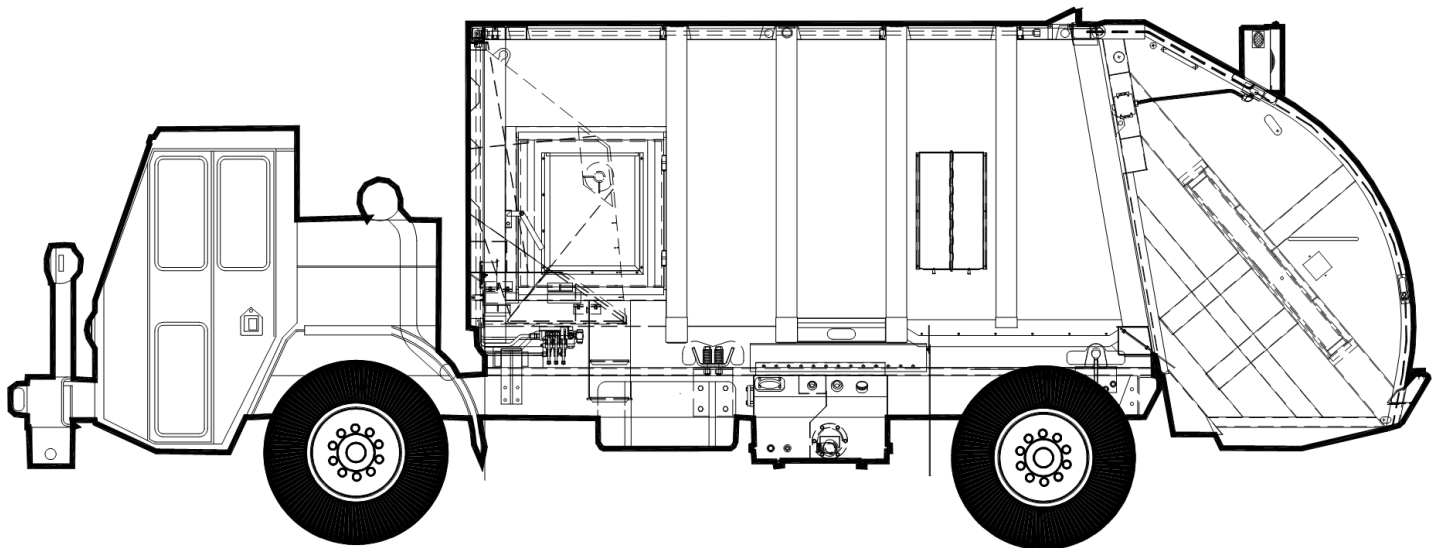
Customer Support

Heil Environmental
4301 Gault Avenue North
Fort Payne, AL 35967-9984



**NYC Formula® 4000 20 Yd. Alley Truck
25DR SERIES**

**SERVICE MANUAL
ISSUED JANUARY 2015**



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**Environmental Solutions Group
201 W. Main Street, Ste 300
Chattanooga, TN 37408
Heil Customer Care: 866.275.4345**



WARNING

IF INCORRECTLY USED, THIS EQUIPMENT CAN CAUSE SEVERE INJURY. THOSE WHO USE AND MAINTAIN THE EQUIPMENT SHOULD BE TRAINED IN ITS PROPER USE, WARNED OF ITS DANGERS, AND SHOULD READ AND FULLY UNDERSTAND THIS ENTIRE MANUAL BEFORE ATTEMPTING TO SET UP, OPERATE, ADJUST OR SERVICE THE EQUIPMENT. KEEP THIS MANUAL FOR FUTURE REFERENCE

IMPORTANT SAFETY NOTICE

Proper service and repair are important to the safe, reliable operation of the Heil Co.'s products. Service procedures recommended by Heil are described in this service manual and are effective for performing service operations. Some of these service operations may require the use of tools or blocking devices specially designed for the purpose. Special tools should be used when and as recommended. It is important to note that some warnings against the use of specific methods that can damage the product or render it unsafe are stated in the service manual. It is also important to understand these warnings are not exhaustive. Heil could not possibly know, evaluate and advise the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each method. Consequently, Heil has not undertaken any such broad evaluations. Accordingly, anyone who uses service procedures or tools which are not recommended by Heil must first satisfy himself thoroughly that neither his safety nor the product safety will be jeopardized by the method he selects.

“Heil Environmental, as manufacturer of the equipment that is covered by this manual, is providing a product to the user who has acknowledged to have superior knowledge of the conditions of the use to which the product will be put. Heil Environmental relies upon the user's superior knowledge in specifying any changes or modifications including, but not limited to, the inclusion or non inclusion of options that are required by the user and the Heil product, and for the particular application of the user relative to the Heil product.”

NYC Formula® 4000

TABLE OF CONTENTS

Service Manual

Maintenance and Adjustment	5
Introduction	6
Hazard Symbols and Definitions	7
Lock-Out/Tag-Out Procedures	11
Maintenance/Lubrication Information	12
Oil Lubricant Recommendation	12
Grease Lubrication Recommendation	12
Hydraulic Oil Specifications	12
Body Preventive Maintenance Chart	13
Lubrication Guide	15
Specifications	16
Hydraulic System	17
Check Oil Level	17
Hydraulic Oil Tank	17
Low Oil/High Temperature/Filter By-Pass Indicators	18
When to Change Oil Filter Element	18
Change Hydraulic Oil Filter	18
Drain and Clean the Hydraulic Oil Tank	20
Side Door Access	22
Tailgate Lock Mechanism	23
Tailgate Support Props	24
Tailgate (Secondary) Valve	26
Service/Parts Assistance	27
Pressure Adjustment Procedures	27
Adjustment of Throttle Advance Proximity Switch	36
Adjustment of Tailgate Raise Alarm Proximity Switch	37
Auxiliary Quick Disconnect Hook-Up	38
Troubleshooting Guide	39
Electrical Symbols	40
Hydraulic Symbols	41
Torque for Hydraulic Tubes and Fittings	43
Standard Torque Data for Nuts and Bolts	44
Bolt Type Identification Chart	44
Standard Torque Data for Nuts and Bolts Table	44
Schematics	49
Packard Connection Kit-108-4827	50
Connectors, Plugs, Pins and Accessories for Deutsch Electrical Parts - 108-4815	52
Deutsch Connection Kit - 108-6461-PC	56
Deutsch DT Series Connector Kits - 108-8411	57
Deutsch DT Series Connector Kits - Boots- 108-6461	58
Air Solenoid Harness 263-1597-010	63
SS Tailgate Harness - 263-1784-004	64
SS Estop/Buzzer/LT Harness - 263-1784-005	65
SS Open Tailgate Harness - 263-1784-006	66
CS Open Tailgate Harness - 263-1784-008	67

NYC Formula® 4000

TABLE OF CONTENTS

Tailgate Harness - 263-1784-009	68
Oil Tank To Body Harness - 263-1784-010	69
Oil Temperature Harness - 263-1784-012	70
Oil Filter Monitor Harness - 263-1784-013	71
Front - Body Harness - 263-1784-001.....	Printed and PDF
Rear Body Harness - 263-1784-002.....	Printed and PDF
CS Throttle - Tailgate Harness - 263-1784-007	Printed and PDF
Control and Relay Boxes Schematics - 701-9151-001	Printed and PDF
Light Cluster Harness - 263-1784-003	Printed and PDF
Control and Relay Boxes and Harness - 263-1784-014.....	Printed and PDF
MRU Cab to Body Harness - 263-1784-015	Printed and PDF
20 Yard Overall Schematic - 701-9151	Printed and PDF
Hydraulic Schematic - 701-9158	Printed and PDF
Index	83

NYC Formula® 4000

25DR SERIES 001-008

**SERVICE MANUAL
ISSUED JANUARY 2015**

NYC Formula® 4000

NOTES

SERVICE MANUAL

MAINTENANCE AND ADJUSTMENT

NYC Formula® 4000

Maintenance and Adjustment

INTRODUCTION

The following sections are a guide for maintenance and service of the Heil unit. The sections cover preventive maintenance, adjustment, and troubleshooting hints. Before performing maintenance, check the work area carefully to find all the hazards present and make sure all necessary safeguards or safety devices are used to protect all persons and equipment involved. In order to diagnose a problem quickly and effectively, a service person must be thoroughly familiar with the machine.

This section explains the system and its major components.



IMPORTANT!

- Before starting any maintenance, study this section of the manual.
- Read all hazard warnings and decals on the unit.
- Clear the area of other persons before performing any maintenance.
- Know and understand safe use of all controls.
- It is your responsibility to understand and follow manufacturer's instructions on equipment and care.

HAZARD SYMBOLS AND DEFINITIONS

Listed below are the definitions for the various levels of hazards. It is important that the operators of this equipment and people who service units read and understand all warnings as they relate to this equipment operation.

- **DANGER** – indicates an imminently hazardous situation, which if not avoided WILL result in DEATH or SERIOUS INJURY if you don't follow proper instructions.
- **WARNING** – indicates an imminently hazardous situation, which if not avoided COULD result in DEATH OR SERIOUS INJURY if you don't follow proper instructions.
- **CAUTION** – indicates an imminently hazardous situation, which if not avoided will result in MINOR to MODERATE INJURY if you don't follow proper instructions.
- **NOTICE** – means unit or other property may be damaged if these instructions are not followed.

The following warnings are generally in the Operator's Manual for each specific unit or are generic safety messages if an Operator's Manual does not have these safety messages. Other safety alert messages may be in other sections of the Parts and Service Manual or in an Operator's Manual. You must read and obey all safety alert messages in any manual produced by Heil to support your unit.

WARNING

Failure to follow all instructions and safety precautions in this manual, in the Service Manual, in other manufacturer's manuals and on the safety decals attached to the product could result in serious injury or death to operators or bystanders and/or damage to property. Do not operate this vehicle before you read and understand the Operation Manual, the Parts Service Manual for this unit, other applicable manufacturer's manuals and the safety decals on the product. Each operator of this unit must read and understand all directions in this manual before they first operate this vehicle. Keep this manual in the cab for new operators and to remind all operators about safe use.

DANGER

Do not operate the unit or perform repair or maintenance procedures on the unit until you read and understand all of the instructions in this manual. Failure to do so can result in injury or death to operators or bystanders.

DANGER

Make sure the unit is on firm, stable ground before you raise the body and clear the area of all unnecessary people. Do not prop a body unless it is on firm, stable ground. A unit not on firm, stable ground can roll when raising or propping the body. This can cause serious injury or death to you or bystanders.

DANGER

Always prop the tailgate when you leave it raised for maintenance, service or cleaning procedures. Any part of your body between the unit's body and the tailgate while you prop the tailgate or when the tailgate is propped is dangerous. Serious injury or death can occur if any part of your body is between the tailgate and the body if the tailgate suddenly closes.

DANGER

A tailgate in motion is dangerous. Serious injury or death can occur if a person is struck by a moving tailgate or becomes trapped between the tailgate and the body. Clear the area near the tailgate of all unnecessary people before you lower the tailgate.

DANGER

The packer and crusher panels are dangerous. They can cause serious injury or death if a person is inside the hopper. Make sure no one is inside the hopper before you begin a packer or crusher function. Put the unit in the **Lock-Out/Tag-Out**  mode if it is necessary to enter the hopper area.

NYC Formula® 4000

Maintenance and Adjustment

DANGER

Any part of your body between the unit's body and the chassis or cylinders while you raise the body is dangerous. Serious injury or death will occur if the unit's body suddenly lowers and traps a part of your body. Keep all parts of your body out from underneath the unit's body and away from the cylinders during this procedure.

DANGER

Do not raise a body that has refuse while you do maintenance or service procedures. Refuse in the body can make the unit unstable. Always unload refuse from the body before you raise it for maintenance or service procedures. Always use the body props when you raise the body for maintenance or service procedures.

DANGER

A full or partially full load of refuse is dangerous while you lower the body with inoperative controls. Refuse in the body can make the unit unstable and cause it to overturn. Serious injury or death can occur if the unit overturns due to instability caused by the loaded refuse. REMOVE the refuse before you block the body.

DANGER

Lifting equipment that does not have sufficient lifting capability is dangerous. Equipment can fail and cause serious injury or death to the operator or bystanders. Make sure the lifting equipment has sufficient lifting capability and clear ALL persons not involved with the procedure away from the area.

DANGER

The lifting equipment can fail. Serious injury or death can occur if the lifting equipment breaks and the body falls or the unit rolls over. Do not place your body or limbs between the unit's body and chassis while you remove the body-supporting props. Be attentive and prepared to move quickly away from the unit in the event there is an equipment failure.

DANGER

Contact of the unit with overhead electric lines is dangerous. Serious injury or death can occur. Make sure there is adequate overhead clearance before you raise the container. If the unit does make contact with overhead electric lines do not touch any metal in the cab. Stay in the unit until help arrives..

WARNING

Make sure the unit is in the **Lock-Out/Tag-Out**  mode when you do maintenance or service procedures, or when you go in the hopper, climb in or on the body or on equipment. Equipment can be operated when the unit is not in the **Lock-Out/Tag-Out**  mode. When the unit is not in the **Lock-Out/Tag-Out**  mode, equipment operated while you do maintenance or service procedures, go in the hopper or climb in or on the body or on equipment can cause serious injury or death.

WARNING

Moving equipment can be dangerous to bystanders. Serious injury or death can occur if a person is in the wrong area or is not attentive to the operations. Clear the area of all unnecessary people before you operate the controls.

WARNING

Raising the body with the tailgate closed can damage the underride bumper. The under ride bumper can hit the ground when the tailgate is not fully raised before you raise the body. Serious injury or death can occur and also cause damage to the unit.

WARNING

Clear all people of the area before you lift a refuse container. Make sure the refuse is secure in the refuse container before you lift the container. Loose refuse can fall and cause serious injury or death.

WARNING

The hydraulic fluid can be under pressure and can spray while you open the connection. Hydraulic fluid can cause damage to your eyes, hands or skin. Wear protective eye glasses, gloves and other clothing as necessary to protect you from the hydraulic fluid.

WARNING

A unit that needs service or repair can malfunction and create a dangerous condition. A part failure during operation can cause serious injury or death to a person or damage to the unit. Repair or replace any failed or defective part immediately.

WARNING

Improper dumping of the refuse can cause the unit to tip or rollover. Serious injury or death can occur if the unit rolls or tips over. Empty as much refuse as you can with the packer panel before you raise the body.

WARNING

Do not move the unit forward or backwards excessively fast (lurch) to dump the refuse load. Excessively fast movements with the body raised can make the body unstable and tip or roll the unit over. This can result in injury or death to the operator and damage the unit. Use only sufficient movement to loosen the load so that it will leave the body.

WARNING

Isopropyl alcohol is flammable and is harmful to eyes and skin. Keep isopropyl alcohol away from heat or open sources of ignition. Flush eyes and skin with water for 15 minutes after contact. Seek immediate medical help.

CAUTION

A container that is not locked to the container lift mechanism is dangerous. The container can fall off the container lift mechanism and cause minor or moderate injury. Make sure you engage and lock the container latch bars before you lift the container.

DANGER

Grabbing a refuse container with too much pressure can damage the container. Pieces of the container can “fly” off the container and cause moderate or minor injury to a bystander. Use enough pressure with the grabber to raise the container with the lift arm and not damage the container.

NYC Formula® 4000

Maintenance and Adjustment

CAUTION

A container that is not locked to the container lift mechanism is dangerous. The container can fall off the container lift mechanism and cause minor or moderate injury. Make sure you engage and lock the container latch bars before you lift the container.

CAUTION

Grabbing a refuse container with too much pressure can damage the container. Pieces of the container can “fly” off the container and cause moderate or minor injury to a bystander. Use enough pressure with the grabber to raise the container with the lift arm and not damage the container.

NOTICE

Do not move the unit forward or backwards excessively fast (lurch) to dump the refuse load. Excessively fast movements with the body raised puts a very high load on the body raise cylinders and could damage one or both cylinders and make the body unstable unable to lower. Inspect the cylinders after you dump each load and replace if necessary.

NOTICE

Do not operate the unit or perform repair or maintenance procedures on the unit until you read and understand the instructions in this manual. Failure to do so can result in damage to the unit or other property. If you do not understand a procedure or instruction, tell the owner or the designated person immediately. Do not operate the unit if you do not understand all procedures and instructions in this manual. The owner or designated person can contact your Heil dealer or Heil for additional help. See the Operator's Manual or Service Manual for contact information.

NOTICE

Grabbing a refuse container with too much pressure can damage the container. The container can become unusable. Use enough pressure with the grabber to raise the container with the lift arm and not damage the container.

NOTICE

If your employer or company has Lock-Out/Tag-Out procedures that are different from the following procedures, use your employer's or company's procedures. If your employer or company does not have lock-out/tag-out procedures, use the procedures that follow.

NOTICE

You can order Lock-Out/Tag-Out Tags through your Heil Dealer or through Heil.

LOCK-OUT/TAG-OUT PROCEDURES

Contact your supervisor if you have any questions about Lock-Out/Tag-Out procedures. If your supervisor has any questions, that person can contact ESG Technical Service.

Put the unit in a Lock-Out/Tag-Out condition:

- Before you enter the unit's body
- Before you climb or stand on the body or roof
- Before you do maintenance, repair or cleaning procedures on the unit.



Figure 1. Lock-Out/Tag-Out (Do Not Operate) Tag

Follow These Steps:

1. APPLY the brakes. Make sure the brakes do not let the unit move and they work properly.
2. Chock all wheels.
3. SET the tailgate props when you raise the tailgate for service, maintenance or cleaning.
4. SET the body props when you raise the body for service, maintenance or cleaning.
5. When there are in-cab controls, Turn the ignition switch to ON then:
 - Move the switches of the hydraulic controls. This relieves the pressure in the cylinders.
 - Turn the ignition switch to OFF.
6. When there are no in-cab controls, move the outside control levers to relieve the pressure in the cylinders.
7. Put a Lock-Out/Tag-Out onto the steering wheel.
8. Remove the ignition key from the cab, lock the vehicle and put the key in a secure location.
9. You can order Lock Out/Tag Out Tags (Part Number 212-1586) through your Heil Dealer or through Heil.

NYC Formula® 4000

Maintenance and Adjustment

MAINTENANCE/LUBRICATION INFORMATION

Before performing maintenance, check the job carefully to find all the hazards present and make sure all safe guards or safety devices are used to protect all persons and equipment involved.

OIL LUBRICANT RECOMMENDATION

Use only non-detergent engine oil to lubricate all moveable mechanical parts not furnished with grease fittings. Apply sufficient oil to give good lubrication, but do not bathe parts in oil. Always wipe off excess oil.

GREASE LUBRICANT RECOMMENDATION

Use a grease gun. Before engaging grease gun, clean the fitting. Always pump enough grease to purge the joint of contaminated grease and wipe off the excess grease. Lubricate a unit as given on the lubrication decal on the unit and in the Parts and Service Manual and Operator's Manual. Use NLGI 000 grease.

HYDRAULIC OIL SPECIFICATIONS

Heil hydraulic oil (MV32) contains the following specifications.

Gravity	API (ASTM D-287) 31.0
Specific Gravity @ 60°F (15.6°C)	(ASTM D-287) 0.8780
Flash Point	(ASTM D-92) 410°F
Pour Point	(ASTM D-97) -60°F
Viscosity @100°F @210°F	SUS (ASTM D-445 & ASTM D-2161) 153 SUS (ASTM D-445 & ASTM D-2161) 47.3
Viscosity Index	(ASTM D-2270) 155
Rust Protection	(ASTM D-665 A & B) Pass
Foam Test	(ASTM D-892) Pass
Four-Ball Wear Test	(ASTM D-4172) (40kg, 1800RPM, 130°F, 1 hr) 0.66
Zinc %wt.	(XRF) .04

The following oils by brand name are approved for use in the hydraulic system on this equipment and considered to be all temperature hydraulic fluids.

- Shell Tellus T32
- Mobil DTE 13M
- Texaco Rando HDZ 32

NYC Formula® 4000

Maintenance and Adjustment

13

BODY PREVENTIVE MAINTENANCE CHART

Preventive maintenance must be performed to ensure the safe and reliable operation of your unit. Use the chart below as a guideline for when essential items should be checked and serviced. Severe use or adverse conditions may require more frequent maintenance.

COMPONENT/SYSTEM	*HOURS OF OPERATION					CHECK/SERVICE
	8	40	200	1000	2000	
Hydraulic System	☒					Check oil level – add if necessary
		☒				Check cylinders, pump, hoses, tubes, fittings, and adapters for leaks. Check hoses for cracks, crushes, and cover blisters. Repair or replace if necessary with genuine Heil parts. Any replacement hose should be the same size and pressure rating as listed on the original OEM hose.
		☒				Check Control valve seals for leaks. Repair or replace if necessary.
				☒		Replace filter after first 30 days of operation, then every 6 months or 1000 hours of operation OR when filter bypass light is ON.
				☒		Replace tank breather/filter every time you replace filter element.
					☒	Drain, flush, and refill. Change filter element.
Electrical, Battery Cables	☒					Check for proper operation.
		☒				Check battery cables from battery to starter for loose cables, rubbing or damage and abrasions to cables. Replace if necessary.
Operator Controls	☒					
Front Mount Pump or Power Take-Off (PTO)		☒				Check seals for leaks and operation. Replace if necessary
		☒				Check drive line for smooth operation. Replace as necessary.
		☒				Check set screws for tightness. Tighten as necessary.
		☒				Make sure keys are in place. Replace if necessary.
			☒			Remove the pump's 40blt flange about 2 inches from the PTO and apply grease to female pilot of PTO pump flange. Failure to lubricate female pilot of PTO as given may cause damage to the pump shaft.
					☒	Drain, flush and refill. Change filter element.

NYC Formula® 4000

Maintenance and Adjustment

*HOURS OF OPERATION						
COMPONENT/SYSTEM	8	40	200	1000	2000	CHECK/SERVICE
Grease Fittings		☒				Lubricate as shown on Body Lube Chart.
Body Undercoating					☒	Inspect body undercoating and repair as necessary.
* Daily = 8 hrs. Weekly = 40 hrs. Monthly = 200 hrs. 6 Months = 1000 hrs. Yearly = 2000 hrs.						

LUBRICATION GUIDE

Clean fittings before applying grease and always pump enough grease into joint to remove the old grease. Wipe off excess grease. Lubricate moveable mechanical parts without fittings every 60 days with non-detergent engine oil.

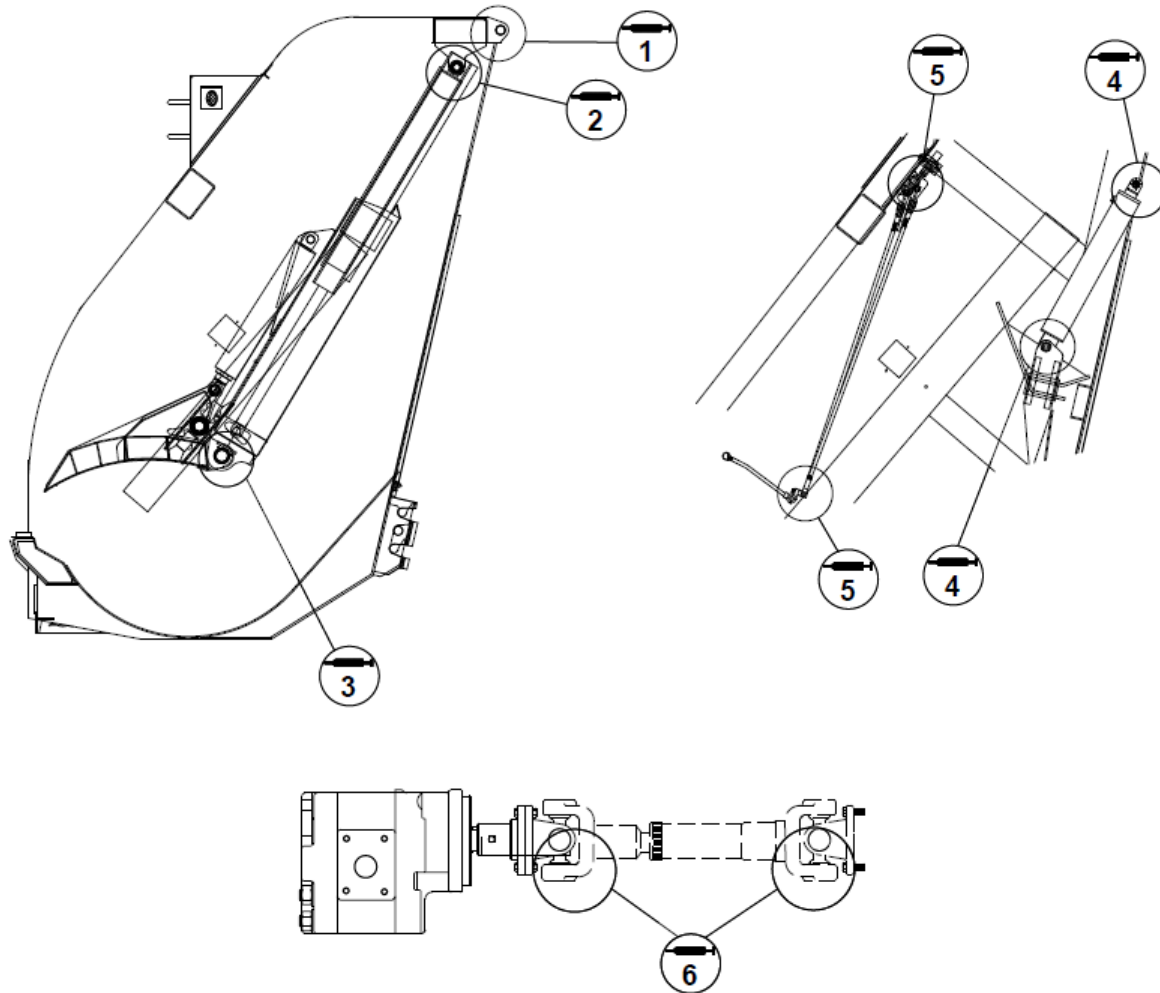


Figure 2. Lubrication Guide

REF NO.	LOCATION	QTY.
1	Tailgate Hinge	2
2	Inner Slide Pivot (Both Ends)	4
3	Outer Slide To Blade	2
4	Tailgate Raise Cylinders (Both Ends)	2
5	Control Handles/ Linkage:	4
	A. Upper Bellcranks	2
	B. Handle Pivot	4
6	Front Mount Pump Driveshaft	2
7	Ejector Cylinder (Both Ends) (Not Shown)	2

NYC Formula® 4000

Maintenance and Adjustment

SPECIFICATIONS

Hydraulic Oil Tank (full)	27 gal.
Hydraulic Return Line Filters	3 Micron Absolute
Hydraulic Oil Tank Suction Strainers	100 Mesh Screen
Hydraulic Cylinders:	
Blade (lower panel)	4" Bore x 21.62" Stroke
Slide	4.50" Bore x 26.5" Stroke
Ejector	Telescopic x 65.12" Stroke
Tailgate Raise	4" Bore x 26.2" Stroke
Hydraulic Pump	24 gal/min @ 1000 RPM @ 2750PSI
Main System Relief Pressure Setting	2700 PSI
Ejector 2 Stage Relief Valve;	
Low Setting	800 PSI
High Setting	1400 PSI
Tailgate Valve:	
Blade Detent	2250 PSI
Slide Detent	2350 PSI
Blade Back-Off Relief	2900 PSI



HYDRAULIC SYSTEM

The hydraulic tank for the system is bolted to the left side of the body. The hydraulic pump is located below the truck chassis.

The pump takes oil through a strainer at the bottom of the tank and sends oil to a 2-section valve under the body. A high pressure carryover in the under body valve sends the oil to a control valve on the tailgate. From the tailgate valve, the oil returns through the filter into the tank.

CHECK OIL LEVEL

Check the hydraulic oil level (after warming up the oil) daily or every eight (8) hours, whichever comes first. Fill as necessary.

Important: Contamination is a hydraulic system's worst enemy. Do not let dirt enter the system. Use a clean rag and remove dirt or other contamination around any system component before you disconnect or remove it. While you fill the reservoir, filter the oil through a 200 mesh (or finer) screen. Never use a cloth to filter the oil.

HYDRAULIC OIL TANK

Before checking the oil level, make sure the unit is in the following position:

1. Truck: on level ground.
2. Packer: (Ejector) Panel: at the front of the body.
3. Tailgate: is down and locked.
4. Packing Mechanism: is in the starting position (refer to Operator's manual).

Check the oil level by looking at the sight gauge on the front of the oil tank. The oil level should be between the full and add indicators on the gauge. If low, add recommended oil, see **Body Preventive Maintenance Chart** ¹³.

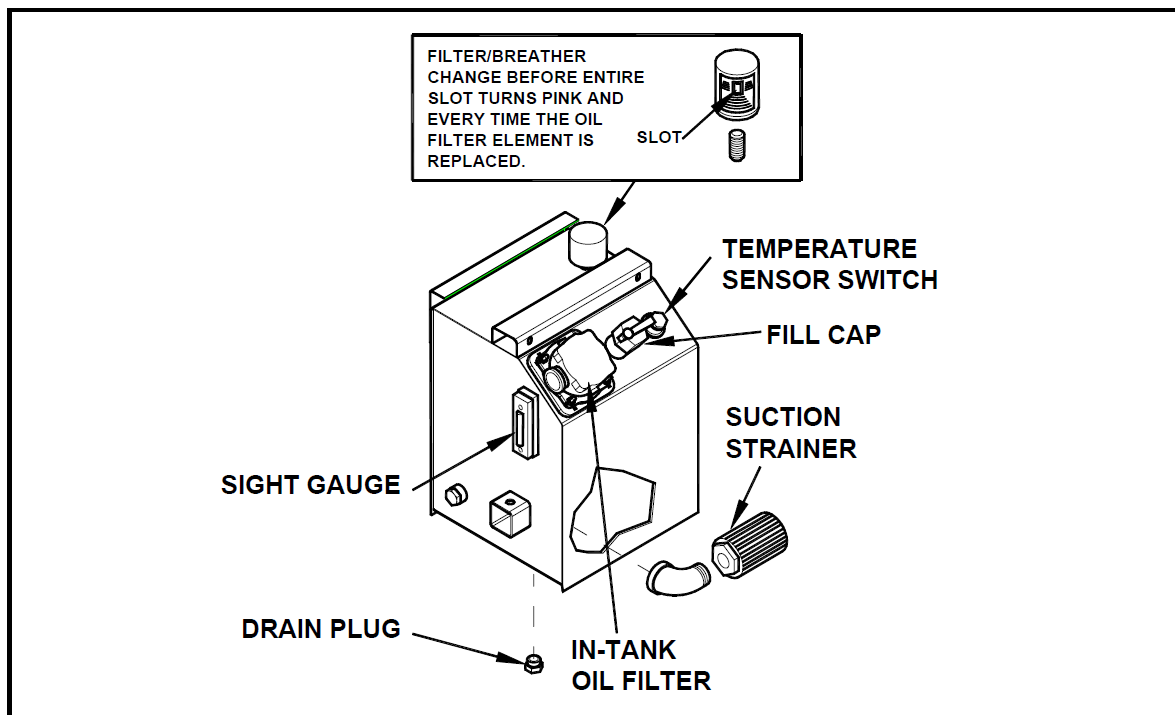


Figure 3 Hydraulic Tank

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Maintenance and Adjustment

LOW OIL/HIGH TEMPERATURE/FILTER BY-PASS INDICATORS

The hydraulic oil in the tank is monitored by sensors for low on oil, oil temperature and the filter needing to be changed. These sensors connect to indicator lights on the cab chassis dash to indicate action should be taken to avoid future problems.

LOW OIL INDICATOR – means the hydraulic tank is low on oil and oil needs to be added to the tank. The hydraulic pump will shut-off.

NOTICE

The pump will shut-off if any one of the following conditions occurs. Unit needs to be taken out of service and repaired immediately.

HIGH TEMPERATURE INDICATOR – measures the oil temperature in the tank. If light illuminates, the oil temperature is approx. 200° F and a hydraulic system problem has occurred (dirty oil, low oil level). The pump will shut-off.

FILTER BY-PASS INDICATOR – measures the cleanliness of the oil filter element. Light will illuminate when element is clogged and the hydraulic pump will shut-off.

WHEN TO CHANGE OIL FILTER ELEMENT

Change the filter more often under certain conditions such as an extremely dusty atmosphere or area. Use only Heil replacement filters. Purchase the filter element from your local Heil distributor.

Change the filter element every 1000 hours or every six (6) months or when indicated by the filter monitor light located in the cab.

CHANGE HYDRAULIC OIL FILTER

To change the hydraulic oil filter, refer to image below and follow these steps:

1. Remove nuts and filter cover.
2. Remove the filter element with the by-pass assembly and discard as required.
3. Clean the housing with a clean, lint-free cloth.
4. Check the o-ring and gasket. Replace them if necessary.
5. Lubricate all o-rings and gaskets.
6. Install new element.
7. Reinstall cover with nuts. Torque nuts to 13 in/lbs.

LOW OIL/HIGH TEMPERATURE/FILTER BY-PASS INDICATORS (CONTINUED)

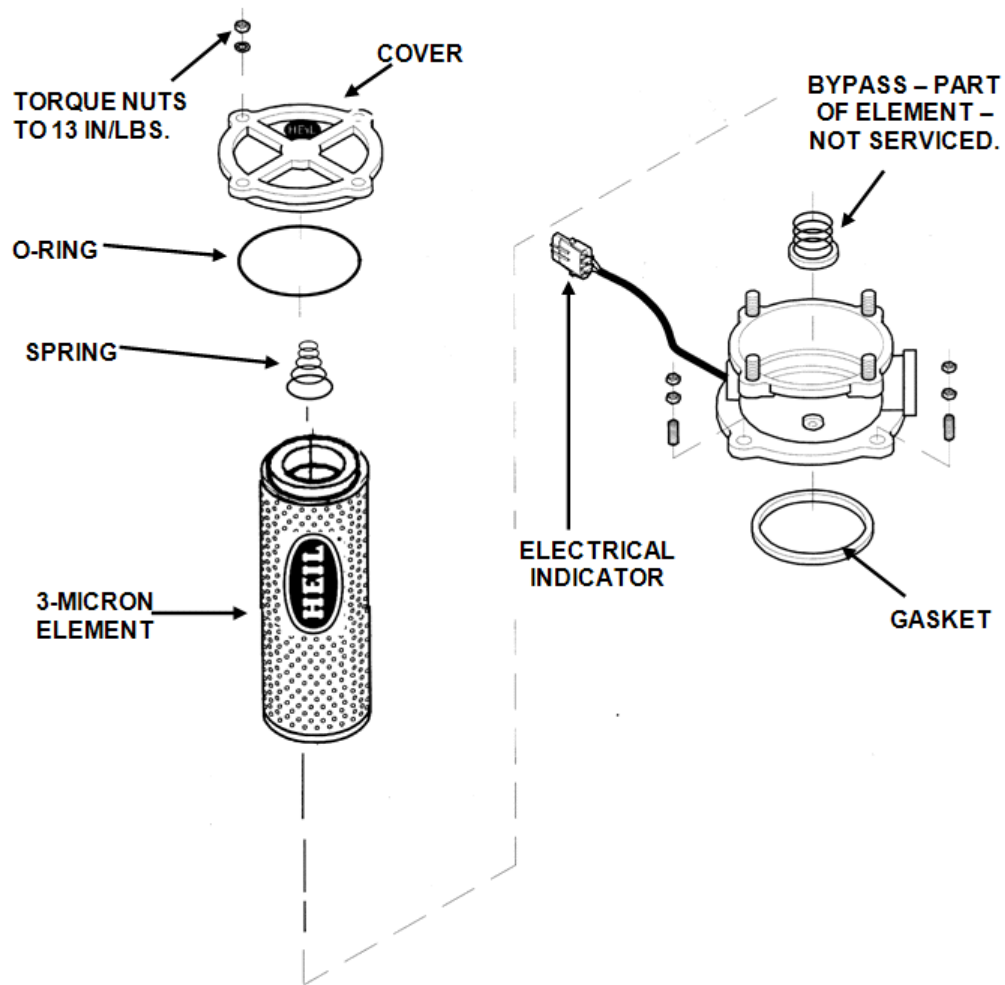


Figure 4. Hydraulic Oil Filter

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Maintenance and Adjustment

DRAIN AND CLEAN THE HYDRAULIC OIL TANK

Change the hydraulic oil at least annually or every 2000 hours of operating time, whichever comes first.

Remember that almost all hydraulic system malfunctions can be traced to dirt in the fluid. When working with the hydraulic system, the hands, tools, working area and parts must be as clean as possible.

CAUTION

Wear proper eye protection when you are working on or around hydraulic lines or components. Wear proper eye protection and avoid contact with hydraulic oil if possible. Never check for oil leaks with your hands.

To drain and clean the hydraulic oil tank, follow these steps:

1. Disengage the pump, shut off the engine and remove the ignition key.

WARNING

Make sure the unit is in the Lock-Out/Tag-Out mode when you do maintenance or service procedures, or when you go in the hopper, climb in or on the body or on equipment. Equipment can be operated when the unit is not in the Lock-Out/Tag-Out mode. When the unit is not in the Lock-Out/Tag-Out mode, equipment operated while you do maintenance or service procedures, go in the hopper or climb in or on the body or on equipment can cause serious injury or death.

NOTICE

If your employer or company has Lock-Out/Tag-Out procedures that are different from the following procedures, use your employer's or company's procedures. If your employer or company does not have Lock-Out/Tag-Out procedures, use the procedures that follow.

2. Contact your supervisor if you have any questions about Lock-Out/Tag-Out procedures. If your supervisor has any questions, that person can contact ESG Technical Service. Perform the **Lock Out/Tag Out procedures** .
3. Remove the fill cap from the top of the tank.
4. Remove the drain plug from the bottom of the tank so that the oil drains into a container.
5. While fluid is draining from the tank, remove and replace the filter/breather assembly. Change the assembly every time the in-tank filter is replaced.
6. To drain the entire hydraulic system, disconnect all hoses at the adapter and drain the hoses into a container.
7. Remove and replace the in-tank filter as described in **Change the Hydraulic Oil Filter**.
8. Remove the outlet flange and 100 mesh suction strainer to gain access to the tank inside.
9. Remove sediment from the tank bottom.
10. Install the outlet flange with a new gasket and the 100 mesh suction strainer into the tank.
11. Install the drain plug in the tank bottom.
12. Reconnect and tighten all hose connections that were disconnected.

DRAIN AND CLEAN THE HYDRAULIC OIL TANK (CONTINUED)

NOTICE

Before filling the tank be sure the funnel is clean and 200 mesh (or finer) screen is used to strain the hydraulic oil.

- 13. Fill tank with recommended oil, checking the sight gauge as you fill.
- 14. Check the entire system to make sure all connections are tight and no leaks are found.
- 15. Start the truck's engine and engage the pump.

WARNING

Moving equipment can be dangerous to bystanders. Serious injury or death can occur if a person is in the wrong area or is not attentive to the operations. Clear the area of all unnecessary people before you operate the controls.

- 16. Operate the packing panel through 10 cycles to be sure all air is out of the circuits.
- 17. Operate tailgate – full up and full down.
- 18. With the packing panel in the retracted position and lift in the in-transit position, check tank oil level. If necessary, add oil as needed.

NYC Formula® 4000

Maintenance and Adjustment

SIDE DOOR ACCESS

A hinged access door is located on the street side of the unit and provides access to the body area for clean-out purposes. It should never be entered unless the truck engine is turned off and key removed and follow Lock-Out/Tag-Out procedures. Refer to **Lock-Out/Tag-Out** procedures.



Figure 5. Side Door

TAILGATE LOCK MECHANISM

Listed are the steps required to operate, lock and secure the tailgate on the unit.

Pre-Trip Inspection

The operator will inspect the following prior to driving the unit.

1. RED indicator arrows are aligned on the locking arm and body anchor, see figure 7 below.
2. Locking pin is installed in hole as shown in figure 7 below.
3. The RED tailgate operating lever on the underbody control valve is in the center (neutral) position.
4. The large indicator light and alarm in the cab are OFF.

Tailgate Unlock/Raise Procedure

NOTICE

All functions required throttle advance.

In order for the tailgate to operate, the Packer Switch, located in the cab, must be in the ON position.

1. Remove the lock pin and store pin in the keeper provided. See figure 6.
2. Unlock and raise the tailgate by PULLING the red rear handle on the underbody valve. It takes approximately 6 seconds for the tailgate to unlock and begin to raise. Note the UNLOCKED position of the arrows in figure 6.
3. Continue to pull and hold the handle to raise tailgate completely. This takes approximately 35 seconds

Tailgate Lower/Lock Procedure

NOTICE

All functions required throttle advance.

1. To lower the raised tailgate, PUSH and hold the rear red handle on the underbody valve. From the fully raised position, it will take approximately 28 seconds to lower the tailgate to position shown in figure 7.
2. Continue to push and hold the handle until the indicator arrows are aligned and the indicator light and alarm, (in cab) are OFF.
3. Remove the locking pin from the keeper and install pin in the anchor hole, see figure 6.

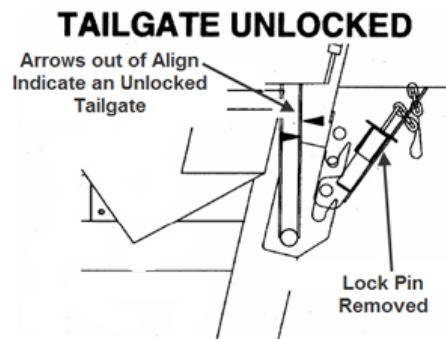


Figure 6. Tailgate Unlocked

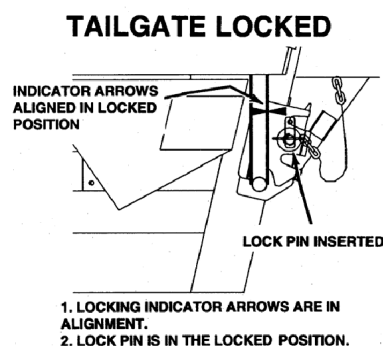


Figure 7. Tailgate Locked

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Maintenance and Adjustment

TAILGATE SUPPORT PROPS

Two support props are on the units and must be used whenever the tailgate is opened for service or maintenance. Both props must be used. Follow these directions to prop the tailgates:

To Use Props

1. Make sure the unit is on flat, stable ground and apply the parking brake and chock the wheels.
2. UNLOCK the tailgate.
3. Use the tailgate raise lever on the body and raise the tailgate enough to release and rotate the props so that you can secure each prop on its prop pin on each side of the tailgate.

DANGER

A tailgate in motion is dangerous. Serious injury or death may occur if a person is struck by a moving tailgate or becomes trapped between the tailgate and the body. Clear the area near the tailgate of all unnecessary people before you lower the tailgate.

WARNING

Make sure the unit is in the Lock-Out/Tag-Out mode when you do maintenance or service procedures, or when you go in the hopper, climb on the body or equipment. Equipment can be operated when the unit is not in the Lock-Out/Tag-Out mode. When the unit is not in the Lock-Out/Tag-Out mode, equipment operated while you do maintenance or service procedures, go in the hopper or climb on the body or equipment can cause serious injury or death.

4. Rotate props.
5. Lower the tailgate until you can secure each prop on its pin.
6. Turn off the engine and remove the ignition key.

To Store Props

1. Slowly raise the tailgate enough so that you can remove each prop bar from its pin, then rotate each prop so that you can put the props in the stored position.
2. Secure each prop with a pin.
3. LOWER the tailgate until it is completely CLOSED.
4. LOCK the tailgate.

TAILGATE SUPPORT PROPS (CONTINUED)

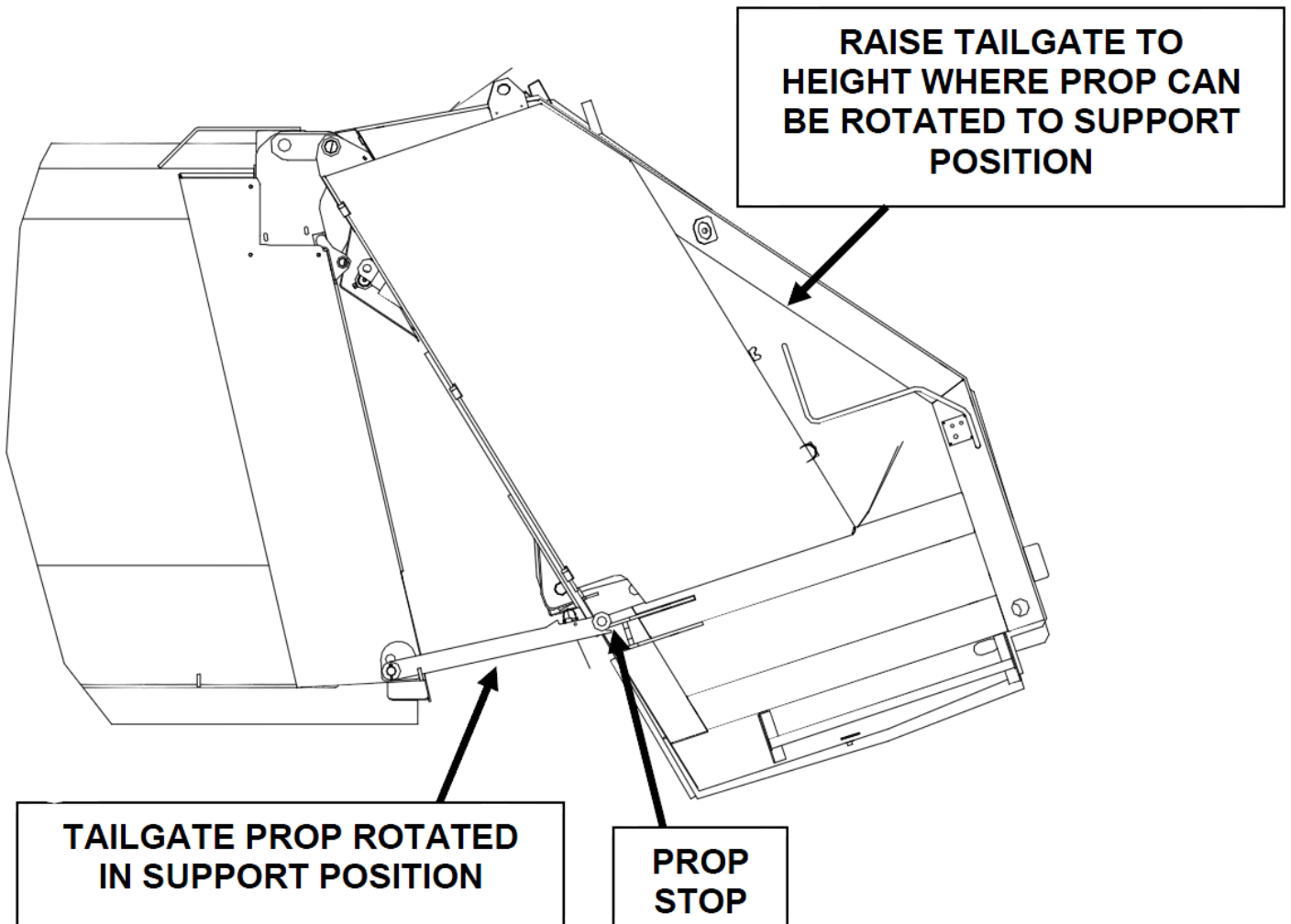


Figure 8. Tailgate Support Props

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Maintenance and Adjustment

TAILGATE (SECONDARY) VALVE

This valve controls the packing mechanism through the complete cycle. With this control valve, the position of the blade and slide and their respective cylinders can be positioned as desired. This valve uses separate valve sections that are bolted together.

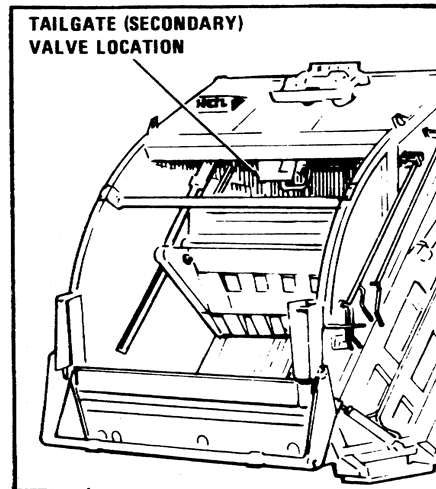


Figure 9. Secondary Valve Location

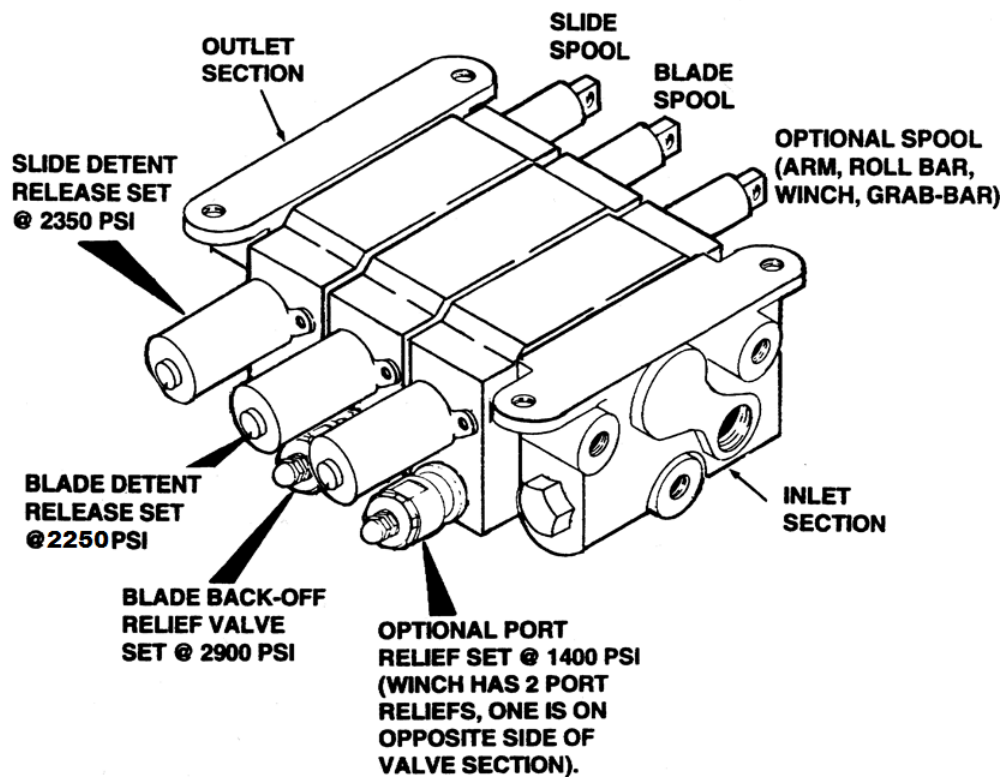


Figure 10. Secondary Valve

SERVICE/PARTS ASSISTANCE

Assistance in troubleshooting repair and service is available by contacting the authorized Heil Dealer in your area. Parts are available at your Heil Dealer or through Heil. Heil personnel are trained to give prompt, professional assistance.

ALWAYS give the unit serial number in all correspondence relating to the equipment.

See the back cover of this manual for Heil contact information.

PRESSURE ADJUSTMENT PROCEDURES

NOTICE

All pressures are +/-50 PSI at operating temperature. All adjustments must be made with throttle advance switch depressed.

Before Starting Adjustments

1. Hydraulic oil must be at or near operating temperature before attempting pressure adjustments. If the under body (primary) valve does not feel warm to the touch, warm oil by:
 - a. Locking the tailgate
 - b. Pressing the throttle advance button
 - c. Moving ejector panel out/in through 5 cycles
 - d. Run tailgate packing mechanism through 10 cycles.

WARNING

The hydraulic fluid can be under pressure and can spray while you open the connection. Hydraulic fluid can cause damage to your eyes, hands or skin. Wear protective eye glasses, gloves and other clothing as necessary to protect you from the hydraulic fluid.

2. Install an accurate 0-5000 PSI glycerin filled pressure gauge into ¼" NPT port on elbow going into valve inlet section. See **Primary Valve**  below. Remove any dirt and grease from around the body valve two stage relief valve.

Adjustment Procedures

The main relief is set at 2700 PSI and is adjusted using the same procedure as the Monoblock valve.

All adjustments must be made with throttle advance switch depressed.

Make pressure settings and adjustments in the following order:

1. Tailgate Valve
2. Underbody Valve Main Relief

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Maintenance and Adjustment

PRESSURE ADJUSTMENT PROCEDURES (CONTINUED)

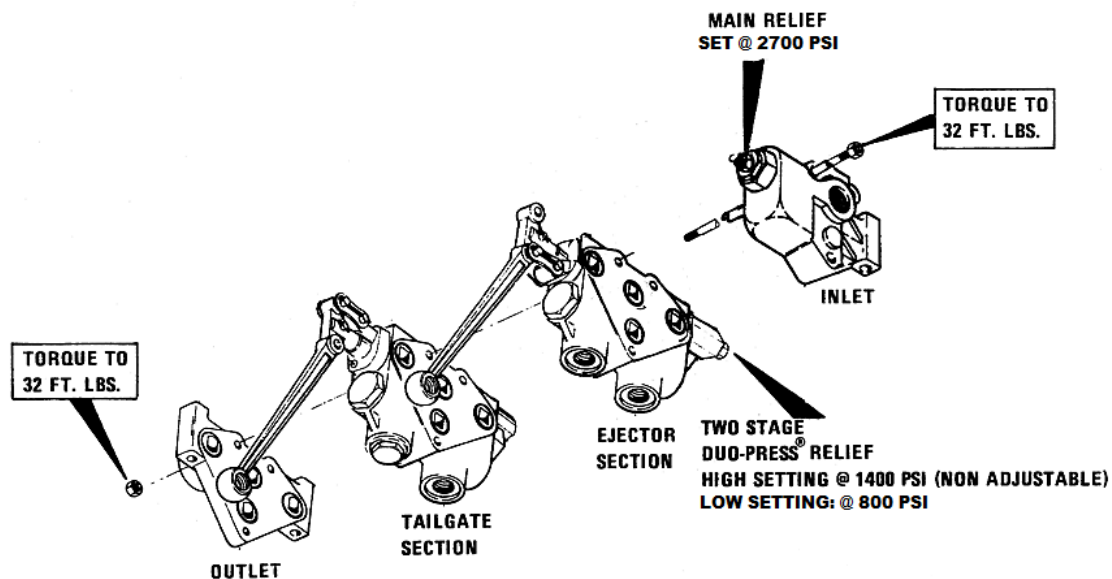


Figure 11. Primary Valve

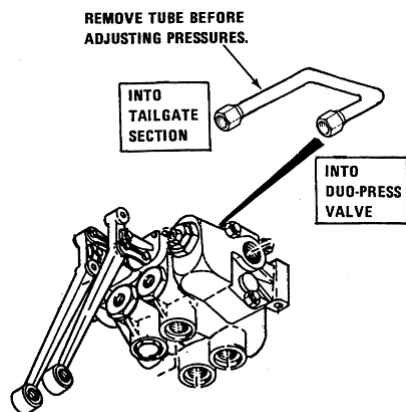


Figure 12. Pressure Gauge to Valve

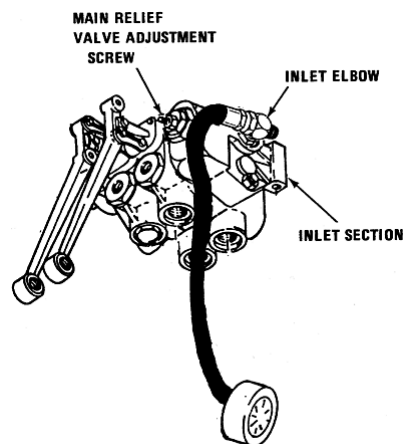


Figure 13. Hydraulic Tube

TAILGATE VALVE PRESSURE ADJUSTMENT

The packing mechanism is controlled by two levers at both corners of the tailgate. These levers control the lower panel (blade) and the upper panel. The blade and upper panel functions can be operated independently by engaging one lever at a time.

1. Start engine and engage PTO (or front pump).
2. Place the upper panel in the fully out position.
3. Turn PTO (or front pump) off.
4. Turn the engine off, remove keys and follow the Lock-Out Tag-Out procedures.
5. All mechanical linkages must be free of any binding. Move blade spool by hand in either direction if needed.
6. Remove any dirt and grease around the underbody main relief.
7. Lower the main relief pressure on the underbody valve.
 - a. Remove dome nut
 - b. loosen lock nut
 - c. Turn adjusting screw out of body (counterclockwise) 4 times to decrease the pressure setting.
8. Take unit out of Lock-Out mode and start engine.
9. Engage the pump and turn on throttle switch.
10. Move Blade control lever to shift spool in either direction
11. Slowly turn the main relief adjusting screw in to increase pressure. Watch the pressure gauge to see what the pressure is when spool kicks out of detent (returns to neutral). The correct kickout pressure for the blade is 2250 PSI. Detent should be checked in the down position of the panel.
12. If the setting is incorrect, remove the rubber plug from the end of the blade spool to expose the detent release adjusting screw.
13. Insert a screw driver and turn adjusting screw in to the spool (clockwise) to increase the kickout pressure, or turn adjusting screw out (counterclockwise) to decrease pressure.
14. Repeat steps 8 thru 12 to check results.

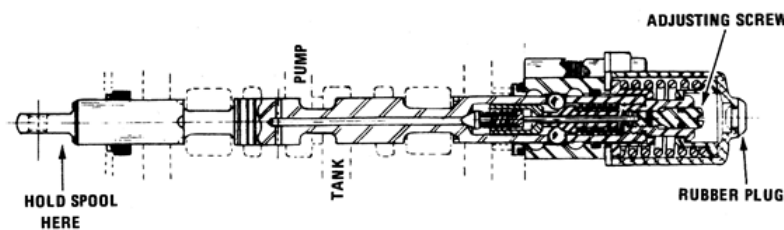


Figure 14. Detent Adjustment

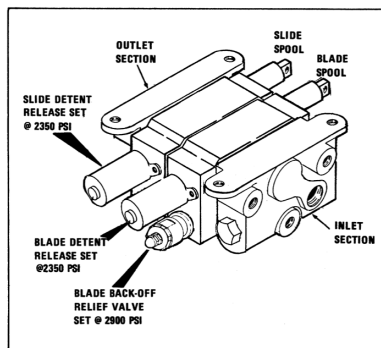


Figure 15. Tailgate Valve

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Maintenance and Adjustment

UNDERBODY VALVE - MAIN RELIEF & PUMP PRESSURE

Remove dirt and grease around main relief.

1. Pull tailgate control lever.
2. Read system pressure gauge. It should read 2700 +/- 50 PSI.
3. Turn in (clockwise) on the (pump unload) Pressure Compensating Adjuster Screw until it stops, which should be approximately 2900-3000PSI.
4. Loosen lock nut on underbody main relief and turn adjusting screw out (counterclockwise) until reaching 2700 PSI. Underbody valve relief is now set.
5. When correct pressure is attained, tighten the lock nut.
6. Lower pump Unload pressure by turning out the Pressure Compensating Adjuster Screw until reaching 2500 PSI. Pump is now set.
7. Recheck system for leaks.
8. Remove pressure gauges from lines.
9. Check for any leaks.

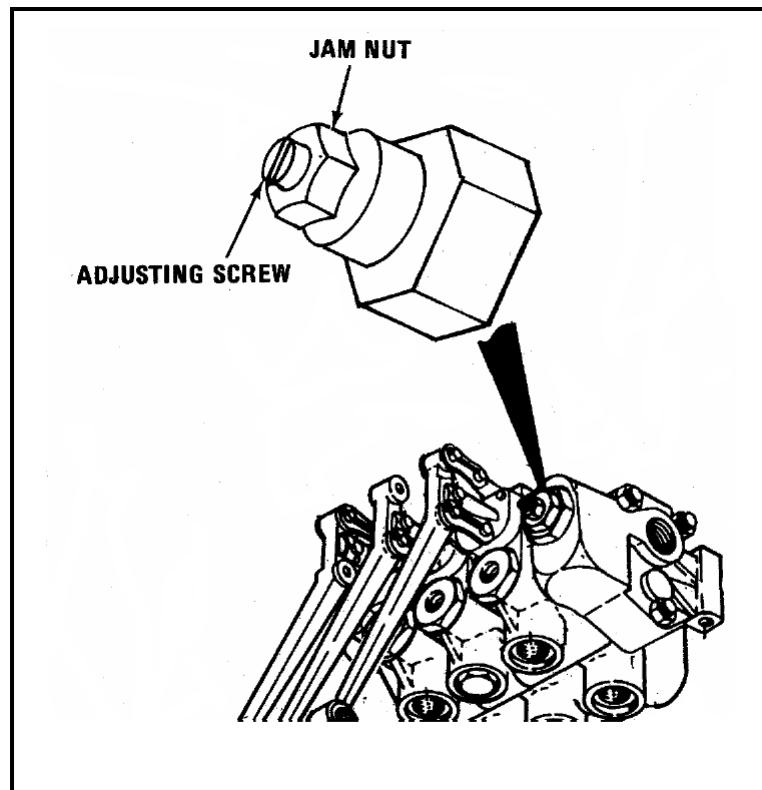


Figure 16. Underbody Valve Main Relief

TWO STAGE RELIEF VALVE

The two stage Duo-Press® relief used in the sectional valve differs from relief used on the earlier valve as it is only necessary to adjust the low setting. The high setting is pre-set at 1400 PSI.

The low setting is set at 800 +/- 50 PSI

1. Checking Low Pressure Setting

- a. Release any pressure from tailgate circuit by pulling the control lever "low position".
- b. Start engine and engage the pump and lock the tailgate to the body using screw clamps.
- c. Pull the ejector control lever to extend the ejector panel to bottom out the cylinder.
- d. At engine idle read the pressure on the gauge, it should read the correct PSI.
- e. If pressure is incorrect adjust the pressure setting.

2. Adjusting Low Pressure Setting

- a. Turn off engine and remove key and follow Lock-Out/Tag-Out procedures. Refer to Lock-Out/Tag-Out procedures ⁽¹¹⁾.
- b. Disengage pump.
- c. Remove hydraulic tube located between duo-press valve and tailgate section.
- d. Loosen lock nut on the back of duo-press valve and turn the assembly in clockwise to increase pressure and out counter clockwise to decrease pressure.
- e. If correct pressure is not attained repeat steps a-d again.
- f. When correct pressure is attained, reinstall hydraulic tube to the ejector and tailgate section.

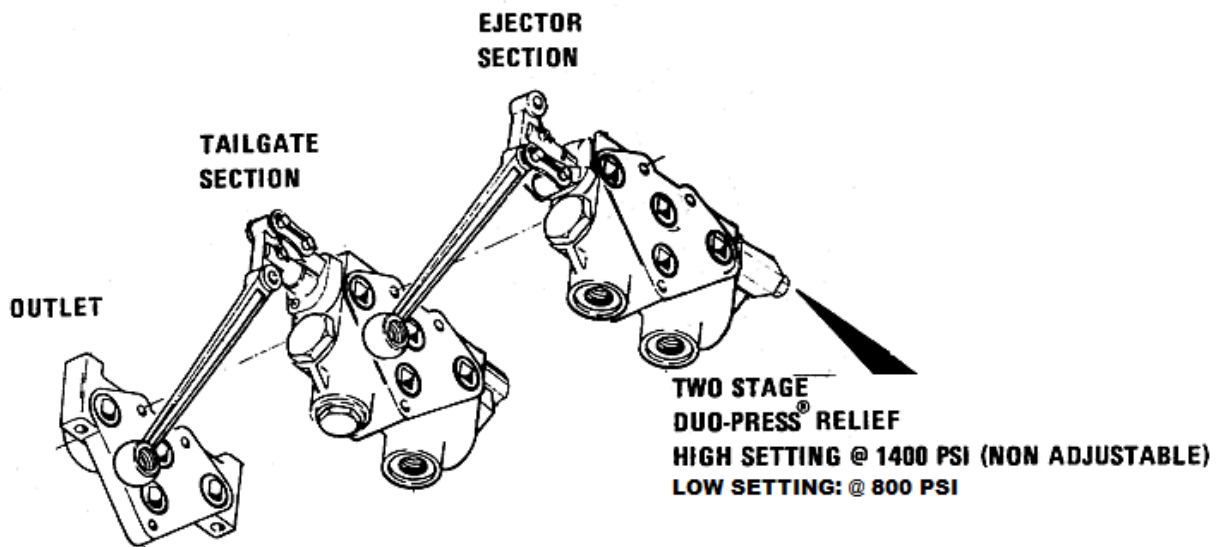


Figure 17. Duo-Press Relief Valve.

NYC Formula® 4000

Maintenance and Adjustment

UPPER KICKOUT ADJUSTMENT

1. Retract the outside cylinder to full up position.
2. Check distance from cylinder packing nut to center of cylinder mounting pin. This distance should be $4\frac{3}{4}" \pm \frac{1}{4}"$. See figure below.
3. if incorrect, loosen jam nuts and turn the adjusting rod clockwise to lengthen or counterclockwise to shorten rod. See figure below.

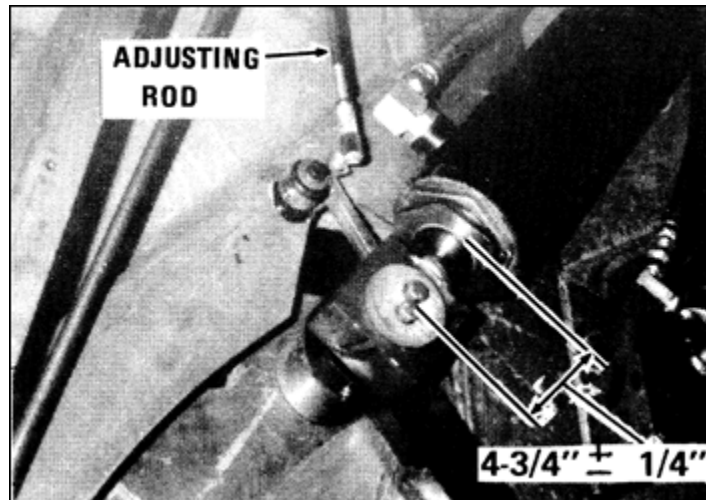


Figure 18. Upper Kick-Out Adjustment

LOWER KICK-OUT ADJUSTMENT

1. Extend the outside cylinder to full out position.
2. Check distance from cylinder packing nut to center of cylinder mounting pin. this distance should be $38\frac{3}{4}"$.
3. If incorrect, loosen the jam nuts and turn the adjusting rod clockwise to shorten or counterclockwise to lengthen rod.

TAILGATE CONTROL LEVER ALIGNMENT

1. The handles should be in line when in neutral position and the outside cylinder in mid stroke.
2. If out of alignment, loosen jam nuts on the blade control adjusting rod. Turn rod clockwise to shorten or counterclockwise to lengthen.

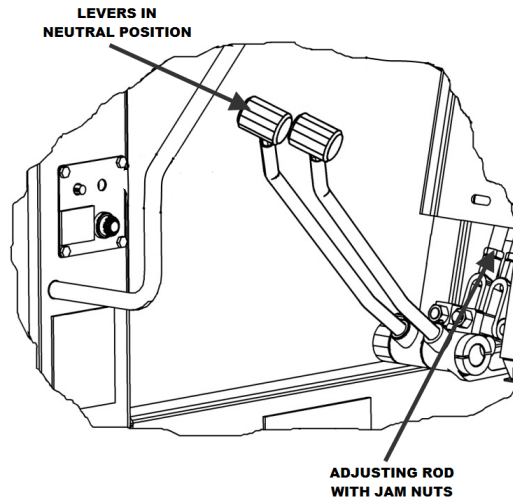


Figure 19. Tailgate Control Lever

BLADE BACK-OFF RELIEF ADJUSTMENT

1. A relief is provided in the tailgate valve to allow the lower panel to back off slightly, (to inches of cylinder stroke), during the final stages of packing the load.
2. If the cylinders back off excessively, (5 to 7 inches of cylinder stroke), the back-off needs to be adjusted.
3. For proper relief adjustment procedures, contact the Field Service Dept. of Heil Co. for further instructions.

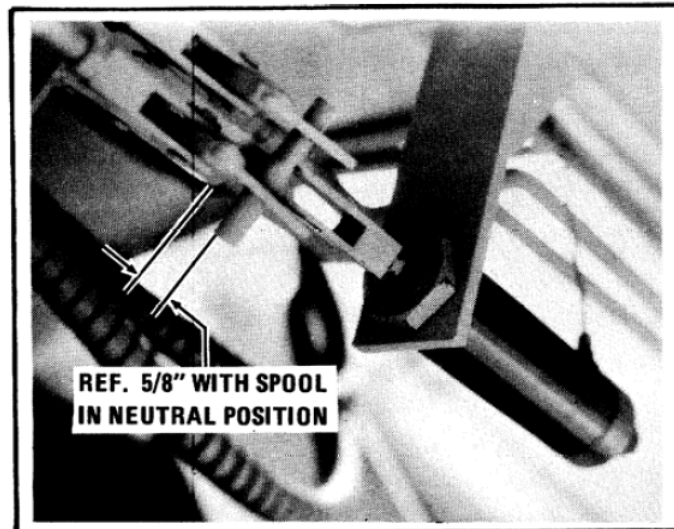


Figure 20. Tailgate Clear Cycle Adjustment

NYC Formula® 4000

Maintenance and Adjustment

DISASSEMBLY/ASSEMBLY OF UNDERBODY VALVE SECTIONS

1. Mark each valve section numerically to avoid incorrect reassembly.
2. Remove three assembly stud nuts from the inlet section using a 9/16" thin wall socket. See figure below.
3. Remove valve sections by sliding from assembly studs.
4. Remove and discard o-rings in each section. thoroughly clean o-ring counter bores and ground surfaces of each section.
5. Replace the four o-rings in each section.
6. Replace valve sections on assembly studs in the same manner in which they were removed. O-ring counter bores should be to the left when facing "A" port end of the valve.
7. Reassemble three studs nuts on the stud assembly. Torque nuts evenly to 32 ft./lbs.

NOTICE

Use care replacing valve sections to avoid dislodging o-rings from counterbores.

CAUTION

Do not use lock washers with stud nuts. If stud nuts are not tightened to the proper torque, valve spools may bind or stick or cause section seals to extrude.

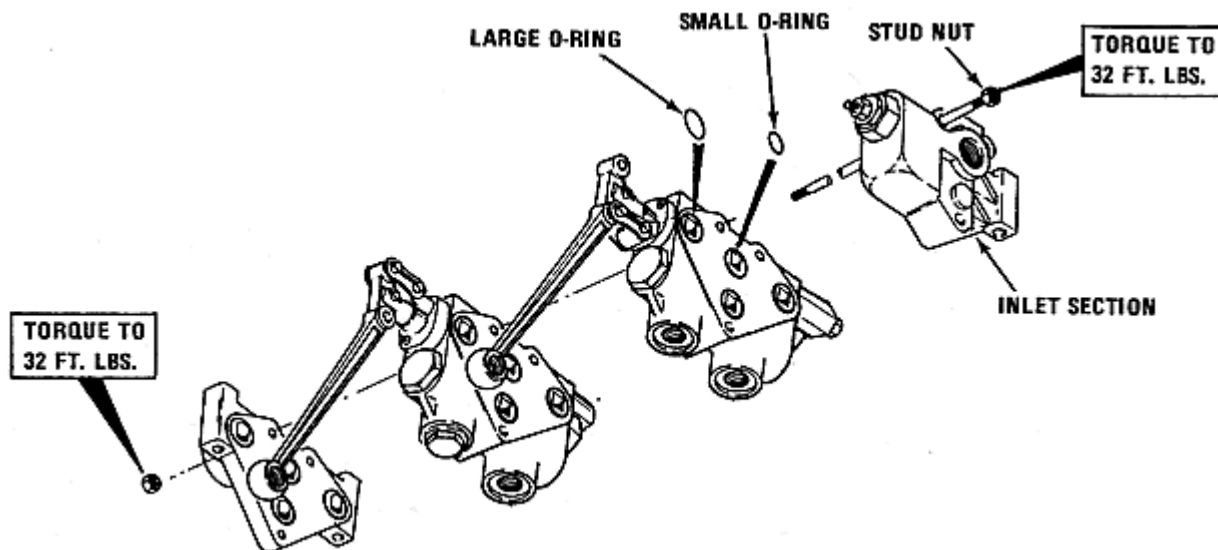


Figure 21. Valve Disassembly/Assembly

REPLACING SPOOL SEALS

1. Remove bonnet assembly parts from back of valve section keep parts in order of disassembly. See figure below.
2. Remove complete handle assembly from spool on the front of valve section. See figure below.

NOTICE

DO NOT REMOVE spool as the seals can be replaced externally. Prevent spool from turning or moving by inserting a screw driver through clevis slot or running a rod through clevis slot and using a handle. DO NOT hold the spool with a wrench. This will destroy the spool finish.

3. Remove retainer plate washer, back up washer and spool seal. See figure below.
4. Thoroughly clean counter bore.
5. Lightly oil new seal and slide over spool and insert in seal counter bore. Put washers back on spool and reassemble handle assembly. Torque screws evenly to 10 ft. /lbs.
6. Reassemble bonnet assembly, making sure it goes together in the same order as when removed.
7. Torque bonnet screws evenly to 10 ft. /lbs.

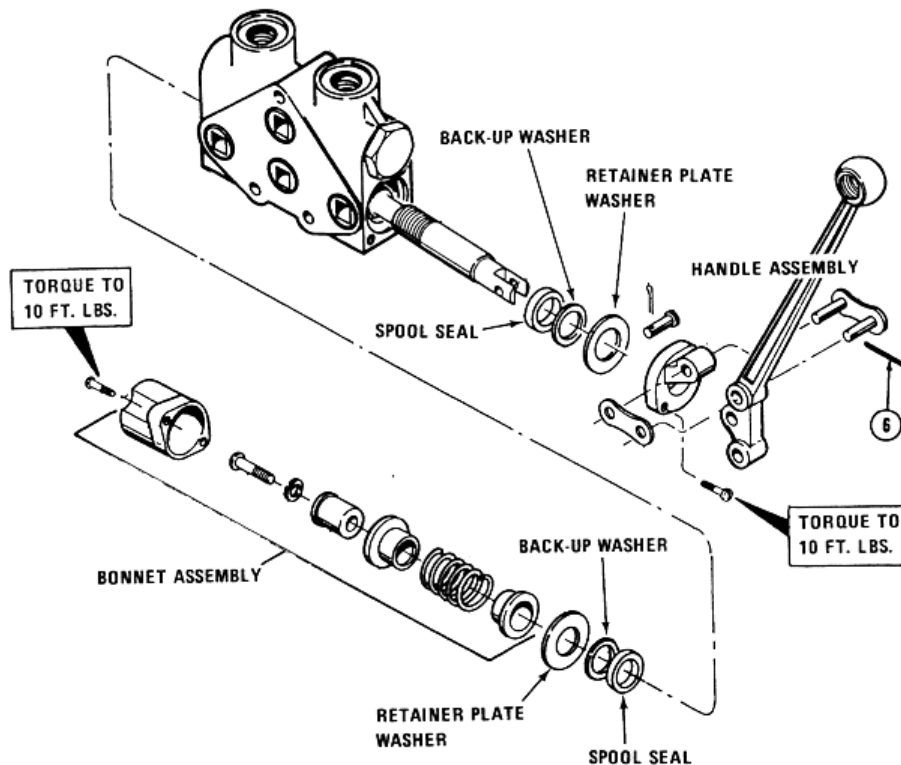


Figure 22. Spool Seal Replacement

NYC Formula® 4000

Maintenance and Adjustment

ADJUSTMENT OF THROTTLE ADVANCE PROXIMITY SWITCH

With the upper panel spool in the neutral position, the proximity switch sense lever should be centered directly in front of and 3/16" away from the face of the proximity switch.

NOTICE

Heil proximity switches have a Light Emitting Diode (LED) on the switch to indicate that the switch is sensing metal. The light changes color when the switch senses metal. Green indicates the light is ON. Yellow indicates the switch senses metal. Some proximity switches only have the yellow light.

Moving the proximity switch sense lever away from the switch by shifting upper panel spool in either direction will cause the proximity switch to close and actuate the throttle advance.

Adjust as follows:

1. Adjust proximity switch sense lever by loosening the mounting bolt and nut to move the lever to a centered position.
2. Adjust proximity switch by loosening both lock nuts on the switch. Move switch to within 3/16" from switch sense lever. Tighten nuts after adjustment has been made

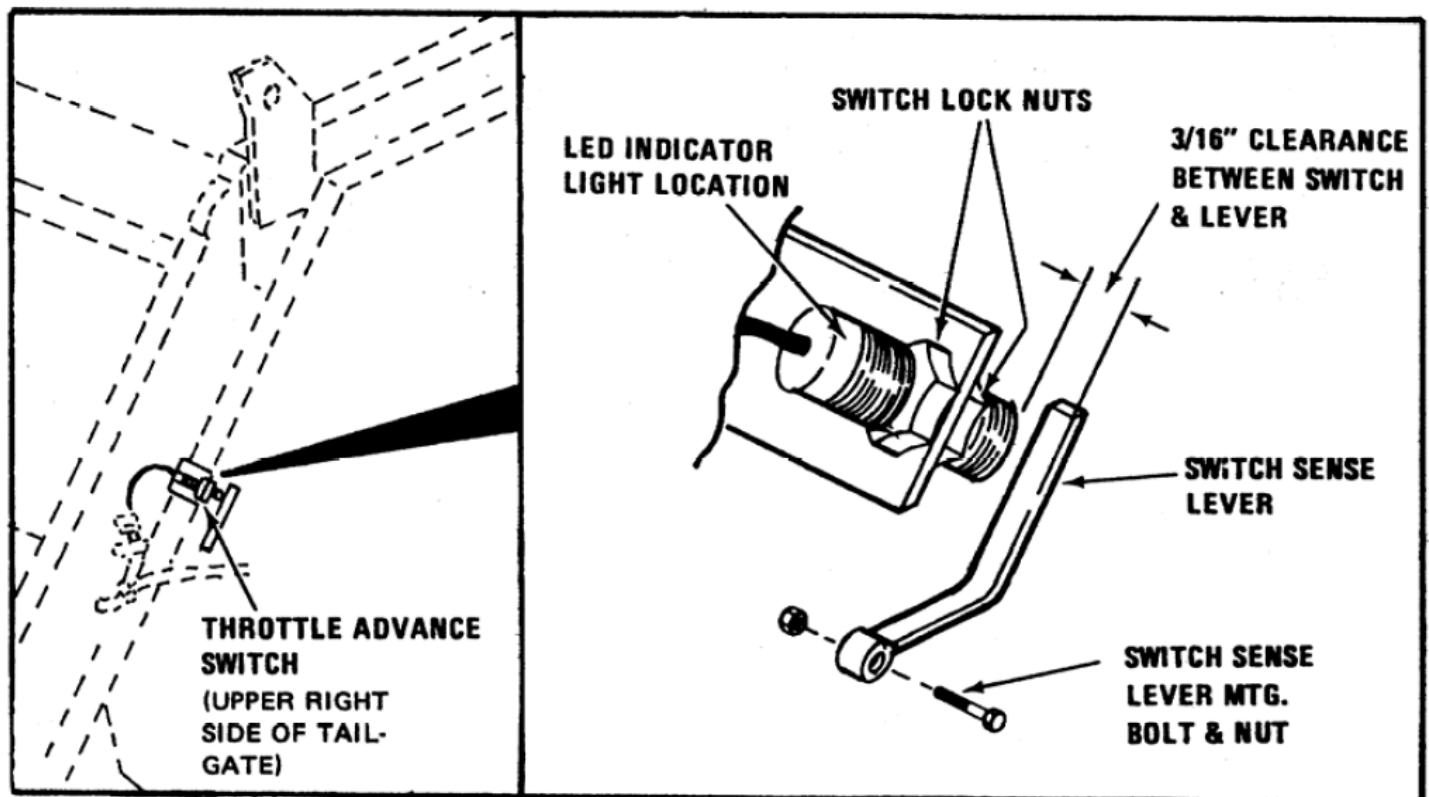


Figure 23. Throttle Advance Switch

ADJUSTMENT OF TAILGATE RAISE ALARM PROXIMITY SWITCH

This Alarm is used to indicate the tailgate has been raised to open position. When the tailgate is raised, the proximity switch will close and cause the tailgate alarm to sound.

NOTICE

Heil proximity switches have a Light Emitting Diode (LED) on the switch to indicate that the switch is sensing metal. The light changes color when the switch senses metal. Green indicates the light is ON. Yellow indicates the switch senses metal. Some proximity switches only have the yellow light.

When the tailgate is lowered, to a closed position, the proximity switch will open and the alarm will stop.

⚠ DANGER

A tailgate in motion is dangerous. Serious injury or death may occur if a person is struck by a moving tailgate or becomes trapped between the tailgate and the body. Clear the area near the tailgate of all unnecessary people before you lower the tailgate.

⚠ WARNING

Make sure the unit is in the Lock-Out/Tag-Out mode when you do maintenance or service procedures, or when you go in the hopper, climb on the body or equipment. Equipment can be operated when the unit is not in the Lock-Out/Tag-Out mode. When the unit is not in the Lock-Out/Tag-Out mode, equipment operated while you do maintenance or service procedures, go in the hopper or climb on the body or equipment can cause serious injury or death.

Adjust switch as follows:

1. Raise tailgate and secure it by using both tailgate props.
2. Loosen both lock nuts on switch.
3. Put props back in stored position, lower tailgate and lock the tailgate locks.
4. Loosen the outside lock nut until switch can be pushed against the body rear frame.
5. Slowly pull the switch back so it is 1/8" away from the rear frame. Tighten outside lock nut until it is tight.
6. Raise tailgate and secure it by using both tailgate props. Tighten inside lock nuts to lock switch in place.
7. Put tailgate props back into stored position, lower tailgate and lock with tailgate locks.

NOTICE

Never allow switch to contact body when tailgate is lowered as switch will become damaged and inoperable.

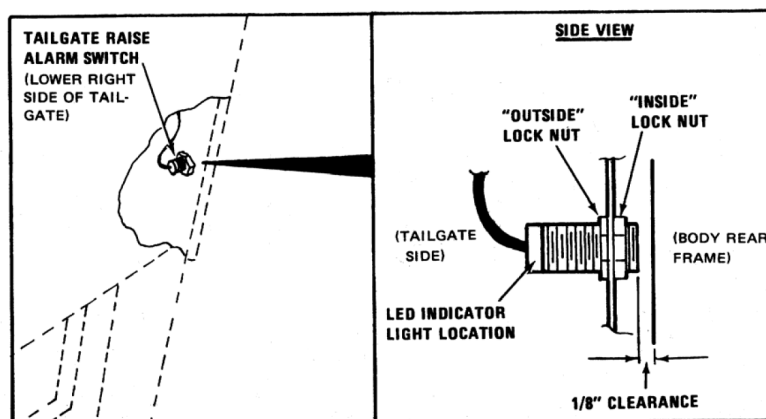


Figure 24. Tailgate Raise Alarm Switch

NYC Formula® 4000

Maintenance and Adjustment

AUXILIARY QUICK DISCONNECT HOOK-UP

In the event a unit has hydraulic system trouble and is unable to use the hydraulic system, the body can be emptied of refuse by hooking up an auxiliary pump system to the quick disconnects on the unit. See figures below.

NOTICE

Never connect a disabled unit to another unit as the system is designed for auxiliary pump usage only!

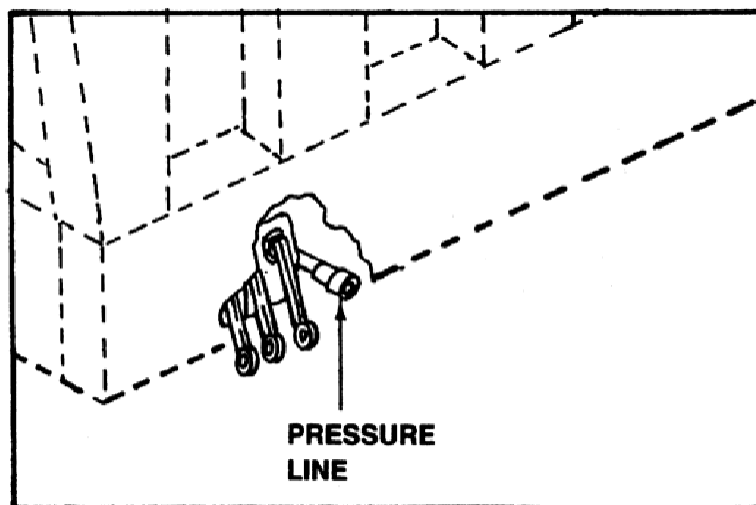


Figure 25. Auxiliary Quick Disconnect Pressure Line

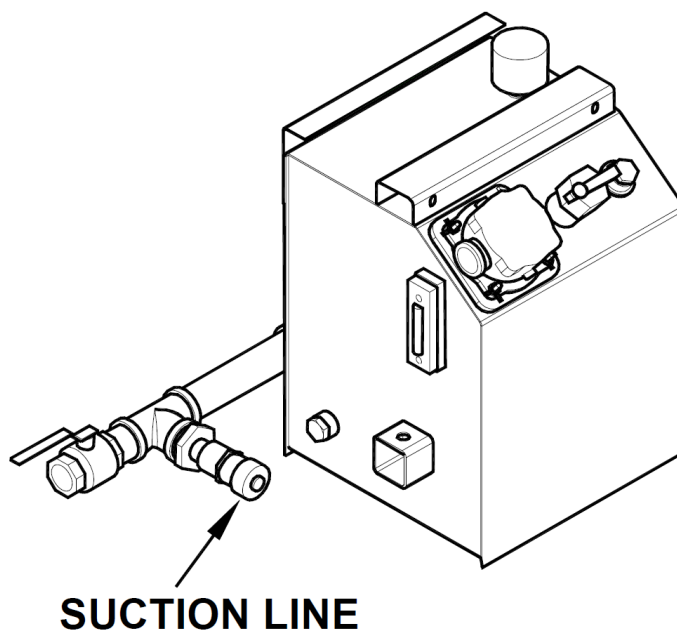


Figure 26. Auxiliary Quick Disconnect Suction Line

TROUBLESHOOTING GUIDE

Problem	Problem Cause	Remedy
Ejector Panel will not relieve.	Ejector panel set higher than Main relief.	1. Raise main relief setting. 2. Lower ejector relief setting.
Ejector Panel moves forward too much when packing.	Ejector relief set too low.	1. Lower main relief setting. 2. Raise ejector relief setting.
	Ejector relief stuck open	1. Remove relief spool and clean. 2. Replace unload section.
Ejector panel moves forward when other functions of packing cycle are in use.	Cylinder Bottoms before manual kick-outs center spool.	Adjust top kick-out.
Inside cylinder sticks in lower panel (blade) up position.	Detent set higher than main relief.	Lower the lower panel detent setting.
Lower panel will not tuck all the way (inside cylinders) are partially extended.	Lower Panel detent setting is too high.	Adjust lower panel detent setting up.

NYC Formula® 4000

Maintenance and Adjustment

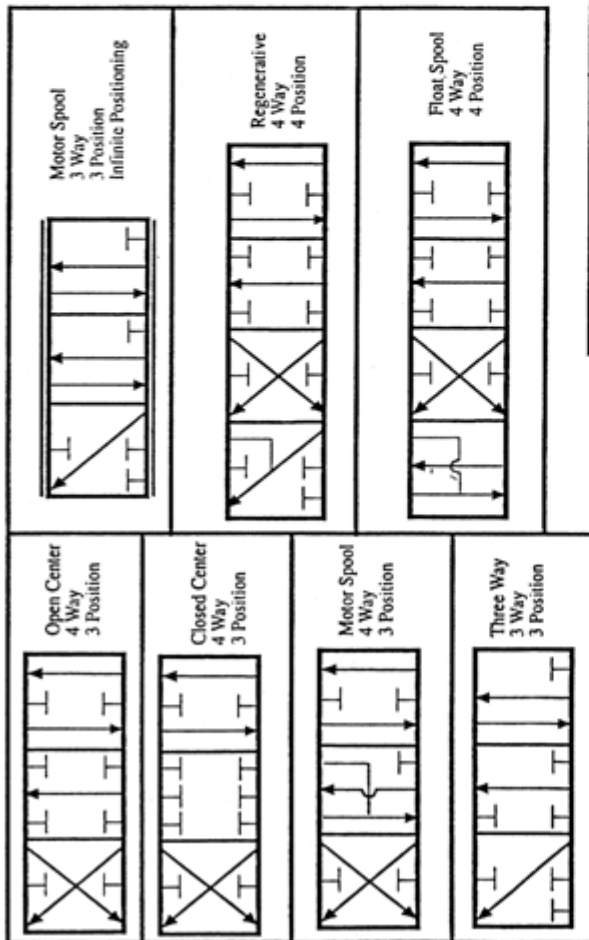
ELECTRICAL SYMBOLS

SYMBOL DEFINITIONS

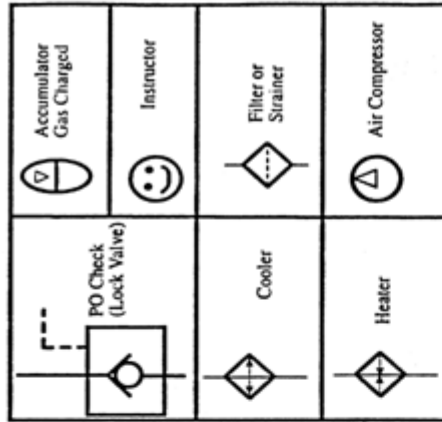
	BATTERY
	FUSE
	SOLENOID
	CONTACT RELAY
	NORMALLY OPEN CONTACT OF CR1
	NORMALLY CLOSED CONTACT OF CR1
	INDICATOR LIGHT (GREEN)
	PUSH BUTTON SWITCH NORMALLY CLOSED
	PUSH BUTTON SWITCH NORMALLY OPEN
	TOGGLE SWITCH
	DIODE
	PRESSURE SWITCH
	LIMIT SWITCH NORMALLY OPEN
	LIMIT SWITCH NORMALLY CLOSED
	CAPACITOR

HYDRAULIC SYMBOLS

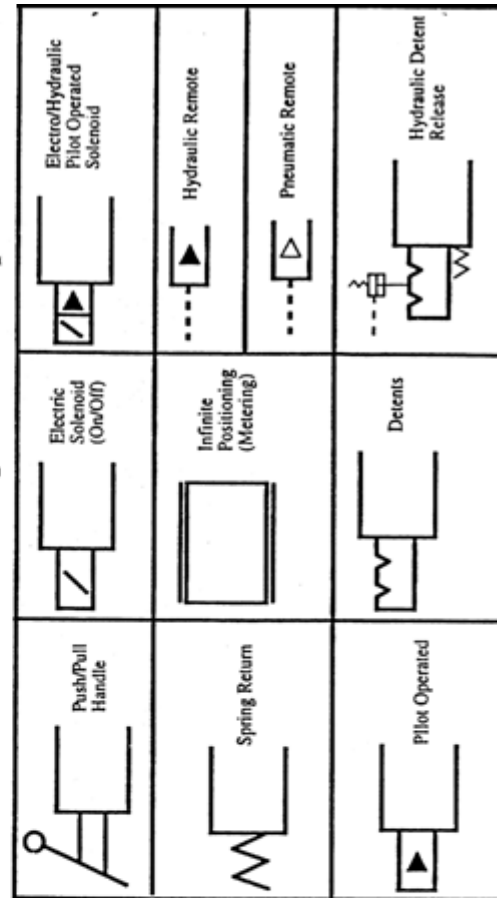
Directional Control Valves



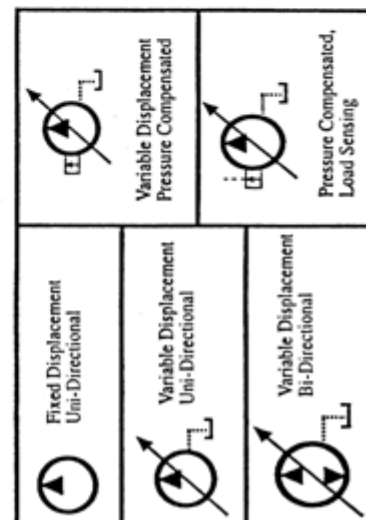
Miscellaneous



Spool Action Options



Pumps



Flow (Volume) Control

Pressure Controls

Flow (Volume) Control

Pressure Controls

Lines

Actuators

Fluids

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Reservoirs

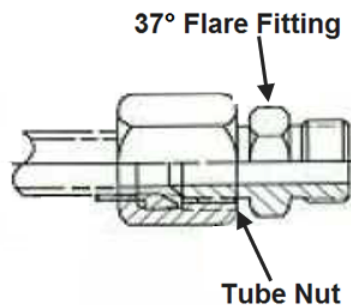
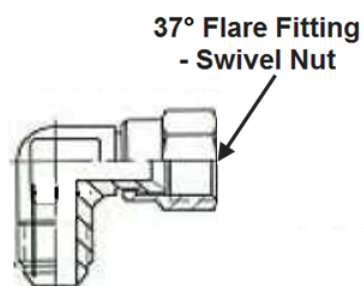
Gauges

Prime Movers

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TORQUE FOR HYDRAULIC FITTINGS

37 Degree Flare (JIC) Fittings		
	SET WRENCH TO	
Nominal Tube OD	Torque Wrench Setting	Alternate Torque Units
1/8"	6.5 ft-lbs.	80 in-lbs.
3/16"	9 ft-lbs.	110 in-lbs.
1/4"	12.5 ft-lbs	150 in-lbs.
5/16"	16.5 ft-lbs	200 in-lbs.
3/8"	21 ft-lbs	250 in-lbs.
1/2"	41 ft-lbs	490 in-lbs.
5/8"	64 ft-lbs	770 in-lbs.
3/4"	89 ft-lbs	1070 in-lbs.
7/8"	105 ft-lbs	1260 in-lbs.
1"	130 ft-lbs	1560 in-lbs.
1-1/4"	142.5 ft-lbs	1710 in-lbs.
1-1/2"	178.5 ft-lbs	2140 in-lbs.
2"	250 ft-lbs	3000 in-lbs.



NYC Formula® 4000

Maintenance and Adjustment

STANDARD TORQUE DATA FOR NUTS AND BOLTS

The following recommended torque data is for use as a general guideline. Recommended torque, in foot pounds, for all Standard Application nuts and bolts provided in the following table.

NOTICE

Torque specifications on a drawing override torque values in the Standard Torque Data for Nuts and Bolts Table.

- All thread surfaces are clean and lubricated with SAE-30 engine oil. See **NOTICE** above.
- Joints are rigid, that is no gaskets or compressible materials are used.
- When re-using nuts or bolts use minimum torque values.

BOLT TYPE IDENTIFICATION CHART

IH Type	S.A.E. Grade	Description	Bolt Head Marking**
1	1 or 2	No radial lines. Low or medium carbon steel not heat treated. NOT USED, replace with same grade bolt.	
5	5	Three radial lines. Quenched and tempered medium carbon steel.	
8	8	Six radial lines. Quenched and tempered special carbon or alloy steel	

STANDARD TORQUE DATA FOR NUTS AND BOLTS TABLE

Bolt Size (D)	Nut Type (STD/Lock)	Thread Turns per Inch (p)	Grade	Heil Plain Dry Condition Torque Value (ft-lbs)	Heil Zinc Plated Fastener Torque Value (ft-lbs)	Heil Lubricated Fastener Torque Value (ft-lbs)	Heil Deformed Lock Nut Torque Value (ft-lbs)
1/4 0.25	STD	20	5	9	8	6	
			8	13	12	8	
		28	5	10	9	7	
			8	15	13	10	
	Lock	20	5				6
			8				8
		28	5				7
			8				10
5/16 .3125	STD	18	5	19	17	12	
			8	27	24	17	
		24	5	21	19	14	

NYC Formula® 4000

Maintenance and Adjustment

45

STANDARD TORQUE DATA FOR NUTS AND BOLTS TABLE

Bolt Size (D)	Nut Type (STD/Lock)	Thread Turns per Inch (p)	Grade	Heil Plain Dry Condition Torque Value (ft-lbs)	Heil Zinc Plated Fastener Torque Value (ft-lbs)	Heil Lubricated Fastener Torque Value (ft-lbs)	Heil Deformed Lock Nut Torque Value (ft-lbs)
	Lock		8	29	27	19	
		18	5				12
			8				17
		24	5				14
			8				19
3/8 .375	STD	16	5	33	30	22	
			8	47	42	31	
		24	5	38	34	25	
			8	54	48	35	
	Lock	16	5				22
			8				31
		24	5				25
			8				35
7/16 .4375	STD	14	5	53	48	35	
			8	76	68	49	
		20	5	60	54	39	
			8	84	76	55	
	Lock	14	5				35
			8				49
		20	5				39
			8				55
1/2 .500	STD	13	5	82	73	53	
			8	115	104	75	
		20	5	92	83	60	
			8	130	117	84	
	Lock	13	5				53
			8				75
		20	5				60
			8				84
9/16 .5625	STD	12	5	118	106	77	
			8	166	150	108	
		18	5	131	118	85	

NYC Formula® 4000

Maintenance and Adjustment

STANDARD TORQUE DATA FOR NUTS AND BOLTS TABLE

Bolt Size (D)	Nut Type (STD/Lock)	Thread Turns per Inch (p)	Grade	Heil Plain Dry Condition Torque Value (ft-lbs)	Heil Zinc Plated Fastener Torque Value (ft-lbs)	Heil Lubricated Fastener Torque Value (ft-lbs)	Heil Deformed Lock Nut Torque Value (ft-lbs)
	Lock		8	186	167	121	
		12	5				77
			8				108
		18	5				85
			8				121
5/8 .625	STD	11	5	162	146	106	
			8	230	207	149	
		18	5	184	166	120	
			8	260	234	169	
	Lock	11	5				106
			8				149
		18	5				120
			8				169
3/4 0.750	STD	10	5	288	260	188	
			8	408	367	265	
		16	5	322	290	209	
			8	455	409	295	
	Lock	10	5				188
			8				265
		16	5				209
			8				295
7/8 0.8750	STD	9	5	465	418	302	
			8	657	591	427	
		14	5	513	461	333	
			8	724	652	471	
	Lock	9	5				302
			8				427
		14	5				333
			8				471
1 1.0000	STD	8	5	697	627	453	
			8	984	886	640	
		14	5	782	704	508	

NYC Formula® 4000

Maintenance and Adjustment

47

STANDARD TORQUE DATA FOR NUTS AND BOLTS TABLE

Bolt Size (D)	Nut Type (STD/Lock)	Thread Turns per Inch (p)	Grade	Heil Plain Dry Condition Torque Value (ft-lbs)	Heil Zinc Plated Fastener Torque Value (ft-lbs)	Heil Lubricated Fastener Torque Value (ft-lbs)	Heil Deformed Lock Nut Torque Value (ft-lbs)
	Lock		8	1105	994	718	
		8	5				453
			8				640
		14	5				508
			8				718
1-1/8 1.1250	STD	7	5	869	782	565	
			8	1395	1256	907	
		12	5	975	877	634	
			8	1564	1408	1017	
	Lock	7	5				565
			8				907
		12	5				634
			8				1017
1-1/4 1.2500	STD	7	5	1227	1104	797	
			8	1969	1772	1280	
		12	5	1358	1222	883	
			8	2179	1961	1417	
	Lock	7	5				797
			8				1280
		12	5				883
			8				1417
1-3/8 1.3750	STD	6	5	1608	1447	1045	
			8	2580	2322	1677	
		12	5	1830	1647	1190	
			8	2938	2644	1909	
	Lock	6	5				1045
			8				1677
		12	5				1190
			8				1909
1-1/2 1.5000	STD	6	5	2134	1921	1387	
			8	3425	3083	2226	

NYC Formula® 4000

Maintenance and Adjustment

STANDARD TORQUE DATA FOR NUTS AND BOLTS TABLE

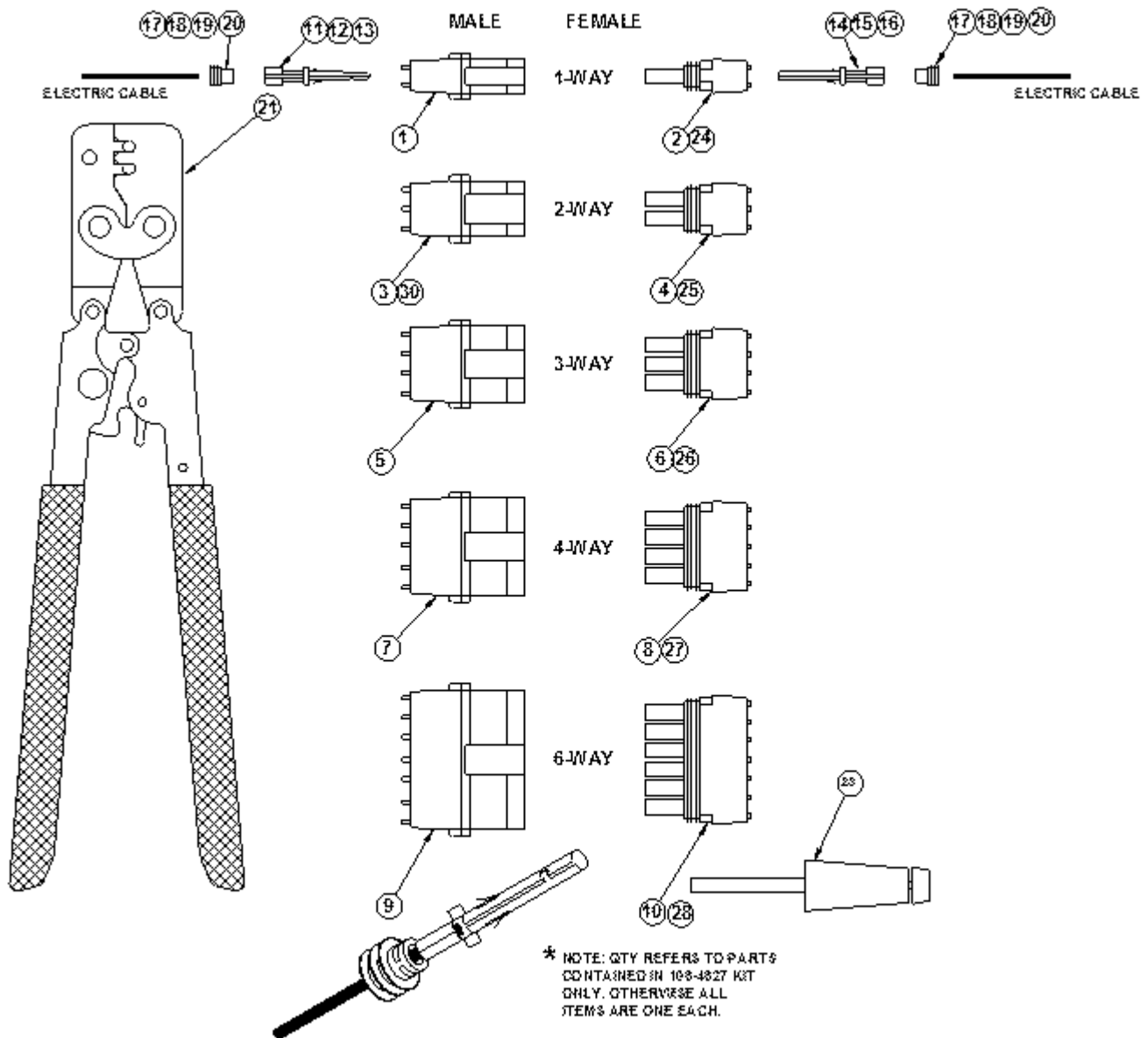
Bolt Size (D)	Nut Type (STD/Lock)	Thread Turns per Inch (p)	Grade	Heil Plain Dry Condition Torque Value (ft-lbs)	Heil Zinc Plated Fastener Torque Value (ft-lbs)	Heil Lubricated Fastener Torque Value (ft-lbs)	Heil Deformed Lock Nut Torque Value (ft-lbs)
		12	5	2401	2161	1561	
			8	3854	3468	2505	
	Lock	6	5				1387
			8				2226
		12	5				1561
			8				2505

SCHEMATICS

NYC Formula® 4000

Schematics

PACKARD CONNECTION KIT-108-4827



Schematics

PACKARD CONNECTION KIT - 108-4827

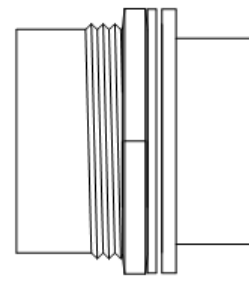
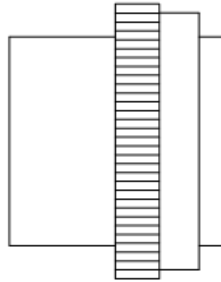
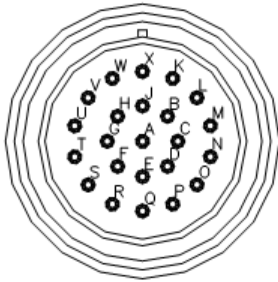
ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	108-4827	KIT, Packard Connection	-	REF
1	108-4827-001	CONNECTION, 1-Way Male	-	20
2	108-4827-002	CONNECTION, 1-Way Female	-	20
3	108-4827-003	CONNECTION, 2-Way Male	-	20
4	108-4827-004	CONNECTION, 2-Way Female	-	20
5	108-4827-005	CONNECTION, 3-Way Male	-	20
6	108-4827-006	CONNECTION, 3-Way Female	-	20
7	108-4827-007	CONNECTION, 4-Way Male	-	20
8	108-4827-008	CONNECTION, 4-Way Female	-	20
9	108-4827-009	CONNECTION, 6-Way Male	-	20
10	108-4827-010	CONNECTION, 6-Way Female	-	20
11	108-4827-110	TERMINAL, Male (18-20 AWG)	-	60
12	108-4827-111	TERMINAL, Male (16-14 AWG)	-	200
13	108-4827-112	TERMINAL, Male (10-12 AWG)	-	60
14	108-4827-120	TERMINAL, Female (18-20 AWG)	-	60
15	108-4827-121	TERMINAL, Female (16-14 AWG)	-	200
16	108-4827-122	TERMINAL, Female (10-12 AWG)	-	60
17	108-4827-130	SEAL, Cable – (20 GA)	-	20
18	108-4827-131	SEAL, Cable – (18 GA)	-	100
19	108-4827-132	SEAL, Cable – (16-14 GA)	-	400
20	108-4827-133	SEAL, Cable – (12 GA)	-	100
21	108-4827-134	PLUG, Cavity	-	20
22	108-4828-001	TOOL, Installation	-	1
23	108-4828-002	TOOL, Removal	-	1
24	108-4827-014	SEAL, 1-Way Female Connection	-	A/R
25	108-4827-015	SEAL, 2-Way Female Connection	-	A/R
26	108-4827-016	SEAL, 3-Way Female Connection	-	A/R
27	108-4827-017	SEAL, 4-Way Female Connection	-	A/R
28	108-4827-018	SEAL, 6-Way Female Connection	-	A/R
29	108-4827-200	GREASE, Trucklite, NYK	-	A/R
30	108-4827-010	CONNECTION, 2-Way Male	-	A/R

NYC Formula® 4000

Schematics

CONNECTORS, PLUGS, PINS AND ACCESSORIES FOR DEUTSCH ELECTRICAL PARTS

108-4815



PINS AND SOCKETS

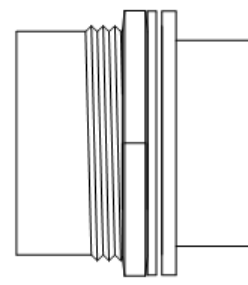
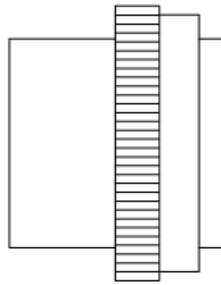
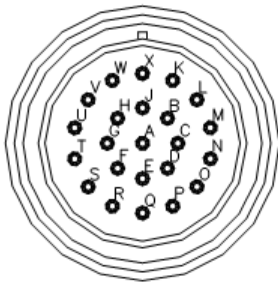
108-4815-101	PIN (6 GA)
108-4815-102	SOCKET (6 GA)
108-4815-103	SEALING PLUG (6 GA)
108-4815-104	PIN (8-10 GA)
108-4815-105	SOCKET (8-10 GA)
108-4815-106	SEALING PLUG (8-10 GA)
108-4815-107	PIN (12-14 GA)
108-4815-108	SOCKET (12-14 GA)
108-6461-100	SEALING PLUG (12-14 GA)
108-4815-110	PIN (16-18 GA)
108-4515-111	SOCKET (16-18 GA)
108-6461-100	SEALING PLUG (16-18 GA)
108-4815-112	PIN (20-24 GA)
108-4815-113	SOCKET (20-24 GA)
108-4815-114	SEALING PLUG (20-24 GA)

GOLD PINS & SOCKETS

108-4815-120	PIN (12-14 GA)
108-4815-121	SOCKET (12-14 GA)
108-4815-124	PIN (14-16 GA)
108-4815-125	SOCKET (14-16 GA)
108-4815-122	PIN (16-18 GA)
108-4815-123	SOCKET (16-18 GA)
108-4815-126	PIN (20-24 GA)
108-4815-127	SOCKET (20-24 GA)

METAL CONNECTOR SHELLS

108-4815-001	21 (Pin) RECEPTACLE
108-4515-002	21 (Socket) PLUG
108-4815-003	31 (Pin) RECEPTACLE
108-4815-004	31 (Socket) PLUG
108-4815-005	23 (Pin) RECEPTACLE
108-4815-006	23 (Socket) PLUG
108-4815-007	16 (Pin) RECEPTACLE
108-4815-008	16 (Socket) PLUG
108-4815-009	14 (Pin) RECEPTACLE (16 GA)
108-4515-010	14 (Socket) PLUG (16 GA)
108-4815-015	35 (Pin) RECEPTACLE (3-16 GA, 32-20 GA)
108-4815-016	35 (Socket) PLUG (3-16 GA, 32-20 GA)
108-4815-017	8 (Pin) RECEPTACLE (12 GA)
108-4815-018	8 (Socket) PLUG (12 GA)



PLASTIC CONNECTOR SHELLS

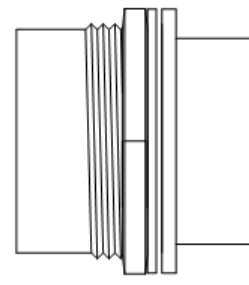
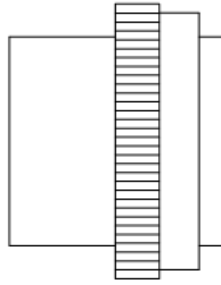
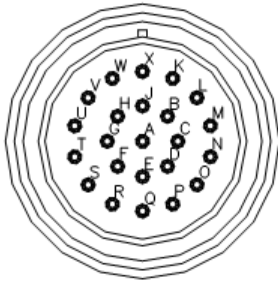
108-4815-020	21-PIN RECEPTACLE
108-4815-021	21-PIN SOCKET
108-4815-022	19-PIN RECEPTACLE
108-4815-023	19-PIN SOCKET
108-4815-024	23-PIN RECEPTACLE
108-4815-025	23-PIN SOCKET
108-4815-030	31 PIN RECEPTACLE
108-4815-031	31 SOCKET PLUG
108-4815-032	16 PIN PLUG
108-4815-033	16 SOCKET RECEPTACLE
108-4815-034	16 PIN RECEPTACLE
108-4815-035	16 SOCKET RECEPTACLE
108-4815-036	16 PIN RECEPTACLE
108-4815-037	29 PIN RECEPTACLE
108-4815-038	9 SOCKET RECEPTACLE
108-4815-067	23 SOCKET PLUG WITH RING ADAPTOR
108-4815-068	29 SOCKET PLUG WITH RING ADAPTOR
108-4815-069	9 SOCKET PLUG WITH RING ADAPTOR
108-4815-070	8 PIN RECEPTACLE (12-16)
108-4815-071	8 PIN PLUG (12-16)
108-4815-182	21 PIN RECEPTACLE
108-4815-183	21 SOCKET PLUG
108-4815-184	19 PIN RECEPTACLE
108-4815-185	19 PIN PLUG

ACCESSORIES

108-4815-150	PANEL NUT, 24 SHELL
108-4815-151	LOCKWASHER, 24 SHELL
108-4815-152	STRAIN RELIEF STRAIGHT 24
108-4815-153	STRAIN RELIEF 90° 24
108-4815-154	PANEL NUT, 18 SHELL
108-4815-155	LOCKWASHER, 18 SHELL
108-4815-156	STRAIN RELIEF STRAIGHT 18
108-4815-157	STRAIN RELIEF 90° 18
108-4815-158	REMOVAL TOOL (6 GA)
108-4815-159	REMOVAL TOOL (8-10 GA)
108-4815-160	REMOVAL TOOL (12-14 GA)
108-4815-161	REMOVAL TOOL (16-18 GA)
108-4815-162	REMOVAL TOOL (20-24 GA)
108-4815-163	CRIMP TOOL (12-24 GA)
108-4815-164	CRIMP TOOL (6-10 GA)
108-4815-165	RECEPTACLE CAP, 18 PIN
108-4815-166	RECEPTACLE CAP, 24 PIN
108-4815-167	PLUG CAP, 18 PIN
108-4815-168	PLUG CAP, 24 PIN

NYC Formula® 4000

Schematics



ACCESSORIES - Continued

108-4815-169	****
108-4815-170	DT SCREWDRIVER TOOL
108-4815-180	PANEL NUT, 18 SHELL
108-4815-181	LOCKWASHER, 18 SHELL
108-4815-186	BACKSHELL, 90°, 24 SHELL
108-4815-187	BACKSHELL, STRAIGHT, 24
108-4815-188	LG COMPRESSION BACKSHELL
108-4815-189	LG COMPRESSION NUT
108-4815-190	SM COMPRESSION BACKSHELL
108-4815-191	SM COMPRESSIONS NUT

METAL CONNECTOR SHELLS

108-4815-001	21 (PIN) RECEPTACLE
108-4515-002	21 (SOCKET) PLUG
108-4815-003	31 (PIN) RECEPTACLE
108-4815-004	31 (SOCKET) PLUG
108-4815-005	23 (PIN) RECEPTACLE
108-4815-006	23 (SOCKET) PLUG
108-4815-007	16 (PIN) RECEPTACLE
108-4815-008	16 (SOCKET) PLUG
108-4815-009	14 (PIN) RECEPTACLE (16 GA)
108-4515-010	14 (SOCKET) PLUG (16 GA)
108-4815-015	35 (PIN) RECEPTACLE (3-16 GA, 32-20 GA)
108-4815-016	35 (SOCKET) PLUG (3-16 GA, 32-20 GA)
108-4815-017	8 (PIN) RECEPTACLE (12 GA)
108-4815-018	8 (SOCKET) PLUG (12 GA)

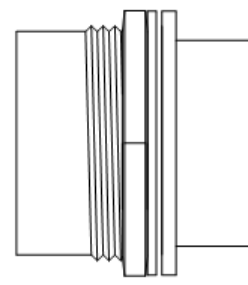
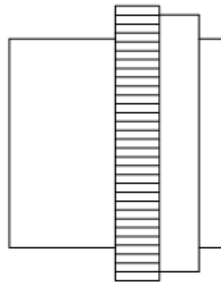
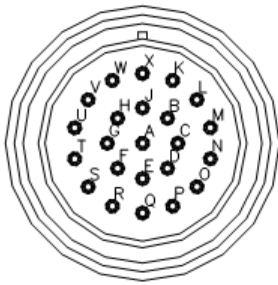
METAL CONNECTOR KITS WITH NORMAL WIRE SEALS (GREEN RING)

108-4815-011	14 PIN RECEPTACLE KIT (16 GA)
108-4815-012	14 SOCKET PLUG KIT (16 GA)
108-4815-013	14 PIN RECEPTACLE WITH STRAIN KIT (16 GA)
108-4815-014	14 SOCKET PLUG WITH STRAIN KIT (16 GA)
108-4815-052	35 PIN RECEPTACLE (16/20) KIT
108-4815-053	35 SOCKET PLUG (16/20) KIT
108-4815-054	35 PIN RECEPTACLE (16/20) WITH STRAIN KIT
108-4815-055	35 SOCKET PLUG (16/20) WITH STRAIN KIT
108-4815-056	21 PIN RECEPTACLE (12/16) KIT
108-4815-057	21 SOCKET PLUG (12/16) KIT
108-4815-058	21 PIN RECEPTACLE (12/16) WITH STRAIN KIT
108-4815-059	21 SOCKET PLUG (12/16 GA) WITH STRAIN KIT
108-4815-064	9 PIN RECEPTACLE KIT (4/8/12 GA)
108-4815-065	9 SOCKET PLUG KIT (4/8/12 GA)
108-4815-066	9 PIN RECEPTACLE WITH STRAIN KIT (4/8/12 GA)

NYC Formula® 4000

Schematics

55



METAL CONNECTOR KITS WITH EXTRA THIN WIRE SEALS (BLUE RING)

108-4815-60	31 PIN RECEPTACLE (16) KIT
108-4815-61	31 SOCKET PLUG (16) KIT
108-4815-62	31 PIN RECEPTACLE (16) WITH STRAIN KIT
108-4815-63	31 SOCKET PLUG (16) WITH STRAIN KIT

METAL CONNECTOR KITS WITH EXTRA THIN WALL WIRE SEALS (BLUE RING)

108-4815-040	21 PIN RECEPTACLE (12/16) KIT
108-4815-041	21 SOCKET PLUG (12/16 GA) KIT
108-4815-042	21 PIN RECEPTACLE (12/16) WITH STRAIN KIT
108-4815-043	21 SOCKET PLUG (12/16 GA) WITH STRAIN KIT

METAL CONNECTOR KITS WITH NORMAL WIRE SEALS (BLUE RING)

108-4815-044	23 PIN RECEPTACLE (16 GA) KIT
108-4815-045	23 SOCKET PLUG (16 GA) KIT
108-4815-046	23 PIN RECEPTACLE (16 GA) WITH STRAIN KIT
108-4815-047	23 SOCKET PLUG (16 GA) WITH STRAIN KIT
108-4815-048	31 PIN RECEPTACLE (16) KIT
108-4815-049	31 SOCKET PLUG (16) KIT
108-4815-050	31 PIN RECEPTACLE (16) WITH STRAIN KIT
108-4815-051	31 SOCKET PLUG (16) WITH STRAIN KIT

PLASTIC CONNECTOR KITS

108-4815-026	21 PIN RECEPTACLE KIT
108-4815-027	21 SOCKET PLUG KIT
108-4815-028	9 PIN RECEPTACLE KIT (4/8/12 GA)
108-4815-029	9 PIN RECEPTACLE KIT (4/8/12 GA)

KIT 108-4815 IS COMPRISED OF THE FOLLOWING:

- 108-4815-021
- 108-4815-121
- 108-4815-124
- 108-6461-100
- 108-4815-150
- 108-4815-151

KIT 108-4815-027 IS COMPRISED OF THE FOLLOWING:

- 108-4815-021
- 108-4815-121
- 108-4815-125
- 108-6461-100

NYC Formula® 4000

Schematics

DEUTSCH CONNECTION KIT - 108-6461-PC

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	108-6461-PC	KIT, Deutsch Connection	-	REF
1	108-6461-003P	PLUG, 3-Way	-	15
2	108-6461-003PW	WEDGE, 3-Way Plug	-	15
3	108-6461-003PB	BOOT, 3-Way Plug	-	15
4	108-6461-003R	RECEPTACLE, 3-Way	-	15
5	108-6461-003RW	WEDGE, 3-Way Receptacle	-	15
6	108-6461-003RB	BOOT, 3-Way Receptacle	-	15
7	108-6461-004P	PLUG, 4-Way	-	3
8	108-6461-004PW	WEDGE, 4-Way Plug	-	3
9	108-6461-004PB	BOOT, 4-Way Plug	-	3
10	108-6461-004R	RECEPTACLE, 4-Way	-	3
11	108-6461-004RW	WEDGE, 4-Way Receptacle	-	3
12	108-6461-004RB	BOOT, 4-Way Receptacle	-	3
13	108-6461-006P	PLUG, 6-Way	-	3
14	108-6461-006PW	WEDGE, 6-Way Plug	-	3
15	108-6461-006PB	BOOT, 6-Way Plug	-	3
16	108-6461-006R	RECEPTACLE, 6-Way	-	3
17	108-6461-006RW	WEDGE, 6-Way Receptacle	-	3
18	108-6461-006RB	BOOT, 6-Way Receptacle	-	3
19	108-6461-008P	PLUG, 8-Way	-	9
20	108-6461-008PW	WEDGE, 8-Way Plug	-	9
21	108-6461-008PB	BOOT, 8-Way Plug	-	9
22	108-6461-008R	RECEPTACLE, 8-Way	-	9
23	108-6461-008RW	WEDGE, 8-Way Receptacle	-	9
24	108-6461-008RB	BOOT, 8-Way Receptacle	-	9
25	108-6461-012P	PLUG, 12-Way	-	3
26	108-6461-CPW	WEDGE, 12-Way Plug	-	3
27	108-6461-CPB	BOOT, 12-Way Boot	-	3
28	108-6461-012R	RECEPTACLE, 12-Way	-	3
29	108-6461-CRW	WEDGE, 12-Way Receptacle	-	3
30	108-6461-CRB	BOOT, 12-Way Receptacle	-	3
31	108-6461-100	PLUG, Sealing	-	25
32	108-6461-101	PIN, Gold Plated	-	200
33	108-6461-102	SOCKET, Gold Plated	-	200
34	108-6461-200	CRIMPER, Production	-	1
35	108-6461-201	CRIMPER, Field Kit	-	1
36	108-6461-202	REMOVAL TOOL	-	1

NYC Formula® 4000

Schematics

57

DEUTSCH DT SERIES CONNECTOR KITS - 108-8411

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	108-8411	KITS, Deutsch Connector, DT Series	-	REF
1	108-8411-001	KIT, Deutsch Connector, DT Series	-	REF
-	108-8411-02R	RECEPTACLE, 2-Way	-	1
-	108-4815-120	PIN, Gold 12 AWG	-	2
-	108-8411-2RW	RECEPTACLE, 2-Way Wedge	-	1
-	108-6461-100	PLUG, Sealing	-	2
-	108-8411-2RB	BOOT, Receptacle	-	1
2	108-8411-002	KIT, Deutsch Connector, DT Series	-	REF
-	108-8411-02P	PLUG, 2-Way	-	1
-	108-4815-121	PIN, Gold 12 AWG	-	2
-	108-8411-2PW	PLUG, 2-Way Wedge	-	1
-	108-6461-100	PLUG, Sealing	-	2
-	108-8411-2RB	BOOT, Plug	-	1
3	108-8411-003	KIT, Deutsch Connector, DT Series	-	REF
-	108-8411-04R	RECEPTACLE, 4-Way	-	1
-	108-4815-120	PIN, Gold 12 AWG	-	4
-	108-8411-4RW	RECEPTACLE, 4-Way Wedge	-	1
-	108-6461-100	PLUG, Sealing	-	2
-	108-8411-4RB	BOOT, Receptacle	-	1
4	108-8411-004	KIT, Deutsch Connector, DT Series	-	REF
-	108-8411-04P	PLUG, 4-Way	-	1
-	108-4815-121	PIN, Gold 12 AWG	-	4
-	108-8411-4PW	PLUG, 4-Way Wedge	-	1
-	108-6461-100	PLUG, Sealing	-	2
-	108-8411-4PB	BOOT, Plug	-	1
5	108-8411-005	KIT, Deutsch Connector, DT Series	-	REF
-	108-8411-22R	RECEPTACLE, 2-Way Mounted	-	1
-	108-4815-120	PIN, Gold 12 AWG	-	2
-	108-8411-2RW	RECEPTACLE, 2-Way Wedge	-	1
-	108-6461-100	PLUG, Sealing	-	2
-	108-8411-2RB	BOOT, Receptacle	-	1
6	108-8411-006	KIT, Deutsch Connector, DT Series	-	REF
-	108-8411-24R	RECEPTACLE, 4-Way Mounted	-	1
-	108-4815-120	PIN, Gold 12-AWG	-	4
-	108-8411-4RW	RECEPTACLE, 4-Way Wedge	-	1
-	108-6461-100	PLUG, Sealing	-	2
-	108-8411-4RB	BOOT, Receptacle	-	1

NYC Formula® 4000

Schematics

DEUTSCH DT SERIES CONNECTOR KITS - BOOTS- 108-6461

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	108-6461	KITS, Deutsch Connection, DT Series	-	REF
1	108-6461-3PB	BOOT, 3-Way Plug	-	A/R
2	108-6461-3RB	BOOT, 3-Way Receptacle	-	A/R
3	108-6461-4PB	BOOT, 4-Way Plug	-	A/R
4	108-6461-4RB	BOOT, 4-Way Receptacle	-	A/R
5	108-6461-6PB	BOOT, 6-Way Plug	-	A/R
6	108-6461-6RB	BOOT, 6-Way Receptacle	-	A/R
7	108-6461-8PB	BOOT, 8-Way Plug	-	A/R
8	108-6461-8RB	BOOT, 8-Way Receptacle	-	A/R
9	108-6461-CPB	BOOT, 12-Way Plug	-	A/R
10	108-6461-CRB	BOOT, 12-Way Receptacle	-	A/R
11	108-6461-2PB	BOOT, 2-Way Plug	-	A/R
12	108-6461-2RB	BOOT, 2-Way Receptacle	-	A/R

NYC Formula® 4000

Schematics

59

DEUTSCH DT SERIES CONNECTOR KITS - STRAIGHT - 108-6461

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	108-6461	KITS, Deutsch Connection, DT Series	-	REF
1	108-6461-001	KIT, Deutsch Connector, DT Series, Straight	-	REF
-	108-6461-03P	PLUG, 3-Way	-	1
-	108-6461-3PW	PLUG, 3-Way Wedge	-	1
-	108-6461-102	SOCKET, Gold Plated	-	3
-	108-6461-100	PLUG, Sealing	-	2
-	108-6461-027	PLUG, 3-Way Straight Backshell	-	1
2	108-6461-002	KIT, Deutsch Connector, DT Series, Straight	-	REF
-	108-6461-03R	RECEPTACLE, 3-Way	-	1
-	108-6461-3RW	RECEPTACLE, 3-Way Wedge	-	1
-	108-6461-101	PIN, Gold Plated	-	3
-	108-6461-100	PLUG, Sealing	-	2
-	108-6461-015	RECEPTACLE, 3-Way Straight Backshell	-	1
3	108-6461-003	KIT, Deutsch Connector, DT Series, Straight	-	REF
-	108-6461-04P	PLUG, 4-Way	-	1
-	108-6461-4PW	PLUG, 4-Way Wedge	-	1
-	108-6461-102	SOCKET, Gold Plated	-	4
-	108-6461-100	PLUG, Sealing	-	1
-	108-6461-029	PLUG, 4-Way Straight Backshell	-	1
4	108-6461-004	KIT, Deutsch Connector, DT Series, Straight	-	REF
-	108-6461-04R	RECEPTACLE, 4-Way	-	1
-	108-6461-4RW	RECEPTACLE, 4-Way Wedge	-	1
-	108-6461-101	PIN, Gold Plated	-	4
-	108-6461-100	PLUG, Sealing	-	1
-	108-6461-017	RECEPTACLE, 4-Way Straight Backshell	-	1
5	108-6461-005	KIT, Deutsch Connector, DT Series, Straight	-	REF
-	108-6461-06P	PLUG, 6-Way	-	1
-	108-6461-6PW	PLUG, 6-Way Wedge	-	1
-	108-6461-102	SOCKET, Gold Plated	-	6
-	108-6461-100	PLUG, Sealing	-	1
-	108-6461-031	PLUG, 6-Way Straight Backshell	-	1
6	108-6461-006	KIT, Deutsch Connector, DT Series, Straight	-	REF
-	108-6461-06R	RECEPTACLE, 6-Way	-	1
-	108-6461-6RW	RECEPTACLE, 6-Way Wedge	-	1
-	108-6461-101	PIN, Gold Plated	-	6
-	108-6461-100	PLUG, Sealing	-	1
-	108-6461-019	RECEPTACLE, 6-Way Straight Backshell	-	1
7	108-6461-007	KIT, Deutsch Connector, DT Series, Straight	-	REF
-	108-6461-08P	PLUG, 8-Way	-	1
-	108-6461-08PW	PLUG, 8-Way Wedge	-	1
-	108-6461-102	SOCKET, Gold Plated	-	8
-	108-6461-100	PLUG, Sealing	-	1
-	108-6461-033	PLUG, 8-Way Straight Backshell	-	1

NYC Formula® 4000

Schematics

DEUTSCH DT SERIES CONNECTOR KITS - STRAIGHT - 108-6461 – CONTINUED

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	108-6461	KITS, Deutsch Connection, DT Series	-	REF
8	108-6461-008	KIT, Deutsch Connector, DT Series, Straight	-	REF
-	108-6461-08R	RECEPTACLE, 8-Way	-	1
-	108-6461-8RW	RECEPTACLE, 8-Way Wedge	-	1
-	108-6461-101	PIN, Gold Plated	-	8
-	108-6461-100	PLUG, sealing	-	1
-	108-6461-021	RECEPTACLE, 8-Way Straight Backshell	-	1
9	108-6461-009	KIT, Deutsch Connector, DT Series, Straight	-	REF
-	108-6461-12P	PLUG, 12-Way	-	1
-	108-6461-CPW	PLUG, 12-Way Wedge	-	1
-	108-6461-102	SOCKET, Gold Plated	-	12
-	108-6461-100	PLUG, Sealing	-	3
-	108-6461-035	PLUG, 12-Way Straight Backshell	-	1
10	108-6461-010	KIT, Deutsch Connector, DT Series, Straight	-	REF
-	108-6461-12R	RECEPTACLE, 12-Way	-	1
-	108-6461-CRW	RECEPTACLE, 12-Way Wedge	-	1
-	108-6461-101	PIN, Gold Plated	-	12
-	108-6461-100	PLUG, Sealing	-	3
-	108-6461-023	RECEPTACLE, 12-Way Straight Backshell	-	1
11	108-6461-011	KIT, Deutsch Connector, DT Series, Straight	-	REF
-	108-6461-02P	PLUG, 2-Way	-	1
-	108-6461-2PW	PLUG, 2-Way Wedge	-	1
-	108-6461-102	SOCKET, Gold Plated	-	2
-	108-6461-100	PLUG, Sealing	-	1
-	108-6461-025	PLUG, 2-Way Straight Backshell	-	1
12	108-6461-012	KIT, Deutsch Connector, DT Series, Straight	-	REF
-	108-6461-02R	RECEPTACLE, 2-Way	-	1
-	108-6461-2RW	RECEPTACLE, 2-Way Wedge	-	1
-	108-6461-101	PIN, Gold Plated	-	2
-	108-6461-100	PLUG, Sealing	-	1
-	108-6461-013	RECEPTACLE, 2-Way Straight Backshell	-	1
13	108-7142	KIT, 12-Way Panel Mount Receptacle	-	REF

NYC Formula® 4000

Schematics

61

DEUTSCH DT SERIES CONNECTOR KITS - 90° - 108-6461

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	108-6461	KITS, Deutsch Connection, DT Series	-	REF
1	108-6461-041	KIT, Deutsch Connector, DT Series, 90°	-	REF
-	108-6461-03P	PLUG, 3-Way	-	1
-	108-6461-3PW	PLUG 3-Way Wedge	-	1
-	108-6461-102	SOCKET, Gold Plated	-	3
-	108-6461-100	PLUG, Sealing	-	2
-	108-6461-028	PLUG, 3-Way, 90° Backshell	-	1
2	108-6461-042	KIT, Deutsch Connector, DT Series, 90°	-	REF
-	108-6461-03R	RECEPTACLE, 3-Way	-	1
-	108-6461-3RW	RECEPTACLE, 3-Way Wedge	-	1
-	108-6461-101	PIN, Gold Plated	-	3
-	108-6461-100	PLUG, Sealing	-	2
-	108-6461-016	RECEPTACLE, 3-Way 90° Backshell	-	1
3	108-6461-043	KIT, Deutsch Connector, DT Series, 90°	-	REF
-	108-6461-04P	PLUG, 4-Way	-	1
-	108-6461-4PW	PLUG, 4-Way Wedge	-	1
-	108-6461-102	SOCKET, Gold Plated	-	4
-	108-6461-100	PLUG, Sealing	-	1
-	108-6461-030	PLUG, 4-Way 90° Backshell	-	1
4	108-6461-044	KIT, Deutsch Connector, DT Series, 90°	-	REF
-	108-6461-04R	RECEPTACLE, 4-Way	-	1
-	108-6461-4RW	RECEPTACLE, 4-Way Wedge	-	1
-	108-6461-101	PIN, Gold Plated	-	4
-	108-6461-100	PLUG, Sealing	-	1
-	108-6461-018	RECEPTACLE, 4-Way 90° Backshell	-	1
5	108-6461-045	KIT, Deutsch Connector, DT Series, 90°	-	REF
-	108-6461-06P	PLUG, 6-Way	-	1
-	108-6461-6PW	PLUG, 6-Way Wedge	-	1
-	108-6461-102	SOCKET, Gold Plated	-	6
-	108-6461-100	PLUG, Sealing	-	1
-	108-6461-032	PLUG, 6-Way 90° Backshell	-	1
6	108-6461-046	KIT, Deutsch Connector, DT Series, 90°	-	REF
-	108-6461-06R	RECEPTACLE, 6-Way	-	1
-	108-6461-6RW	RECEPTACLE, 6-Way Wedge	-	1
-	108-6461-101	PIN, Gold Plated	-	6
-	108-6461-100	PLUG, Sealing	-	1
-	108-6461-020	RECEPTACLE, 6-way 90° Backshell	-	1
7	108-6461-047	KIT, Deutsch Connector, DT Series, 90°	-	REF
-	108-6461-08P	PLUG, 8-Way	-	1
-	108-6461-8PW	PLUG, 8-Way Wedge	-	1
-	108-6461-102	SOCKET, Gold Plated	-	8
-	108-6461-100	PLUG, Sealing	-	1
-	108-6461-034	PLUG, 8-Way 90° Backshell	-	1

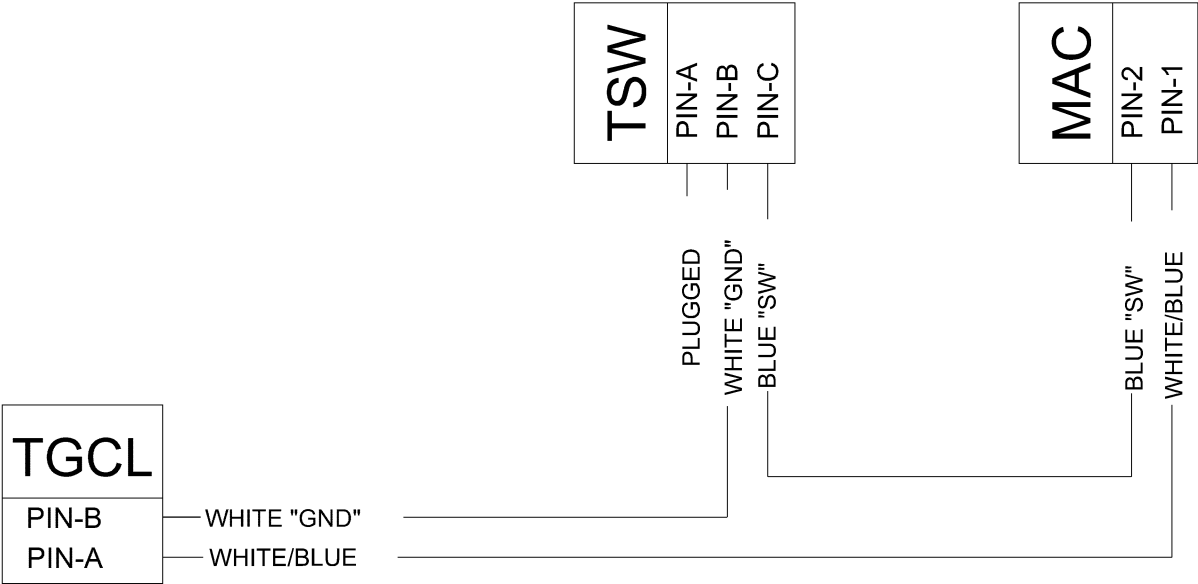
NYC Formula® 4000

Schematics

DEUTSCH DT SERIES CONNECTOR KITS - 90° - 108-6461 - CONTINUED

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	108-6461	KITS, Deutsch Connection, DT Series	-	REF
8	108-6461-048	KIT, Deutsch Connector, DT Series, 90°	-	REF
-	108-6461-08R	RECEPTACLE, 8-Way	-	1
-	108-6461-8RW	RECEPTACLE, 8-Way Wedge	-	1
-	108-6461-101	PIN, Gold Plated	-	8
-	108-6461-100	PLUG, Sealing	-	1
-	108-6461-022	RECEPTACLE, 8-Way 90° Backshell	-	1
9	108-6461-049	KIT, Deutsch Connector, DT Series, 90°	-	REF
-	108-6461-12P	PLUG, 12-Way	-	1
-	108-6461-CPW	PLUG, 12-Way Wedge	-	1
-	108-6461-102	SOCKET, Gold Plated	-	12
-	108-6461-100	PLUG, Sealing	-	3
-	108-6461-036	PLUG, 12-Way 90° Backshell	-	1
10	108-6461-050	KIT, Deutsch Connector, DT Series, 90°	-	REF
-	108-6461-12R	RECEPTACLE, 12-Way	-	1
-	108-6461-CRW	RECEPTACLE, 12-Way Wedge	-	1
-	108-6461-101	PIN, Gold Plated	-	12
-	108-6461-100	PLUG, Sealing	-	3
-	108-6461-024	RECEPTACLE, 12-Way 90° Backshell	-	1
11	108-6461-051	KIT, Deutsch Connector, DT Series, 90°	-	REF
-	108-6461-02P	PLUG, 2-Way	-	1
-	108-6461-2PW	PLUG, 2-Way Wedge	-	1
-	108-6461-102	SOCKET, Gold Plated	-	2
-	108-6461-100	PLUG, Sealing	-	1
-	108-6461-026	PLUG, 2-Way 90° Backshell	-	1
12	108-6461-052	KIT, Deutsch Connector, DT Series, 90°	-	REF
-	108-6461-02R	RECEPTACLE, 2-Way	-	1
-	108-6461-2RW	RECEPTACLE, 2-Way Wedge	-	1
-	108-6461-101	PIN, Gold Plated	-	2
-	108-6461-100	PLUG, Sealing	-	1
-	108-6461-014	RECEPTACLE, 2-Way 90° Backshell	-	1

AIR SOLENOID HARNESS 263-1597-010



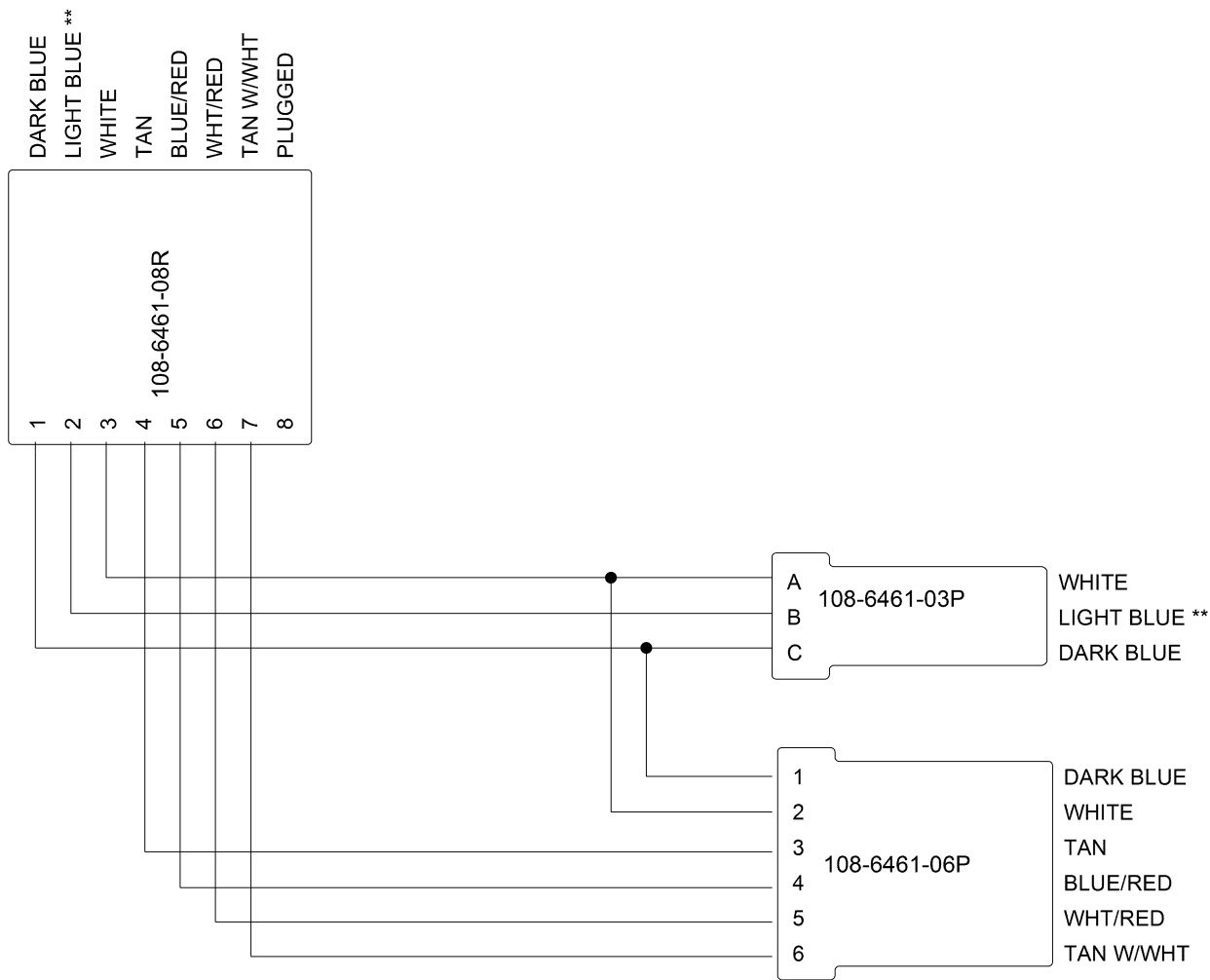
CONNECTOR INFORMATION

LABEL	HEIL PN
TSW	108-6461-001
MAC	108-6461-011
TGCL	108-4827-003

NYC Formula® 4000

Schematics

SS TAILGATE HARNESS - 263-1784-004

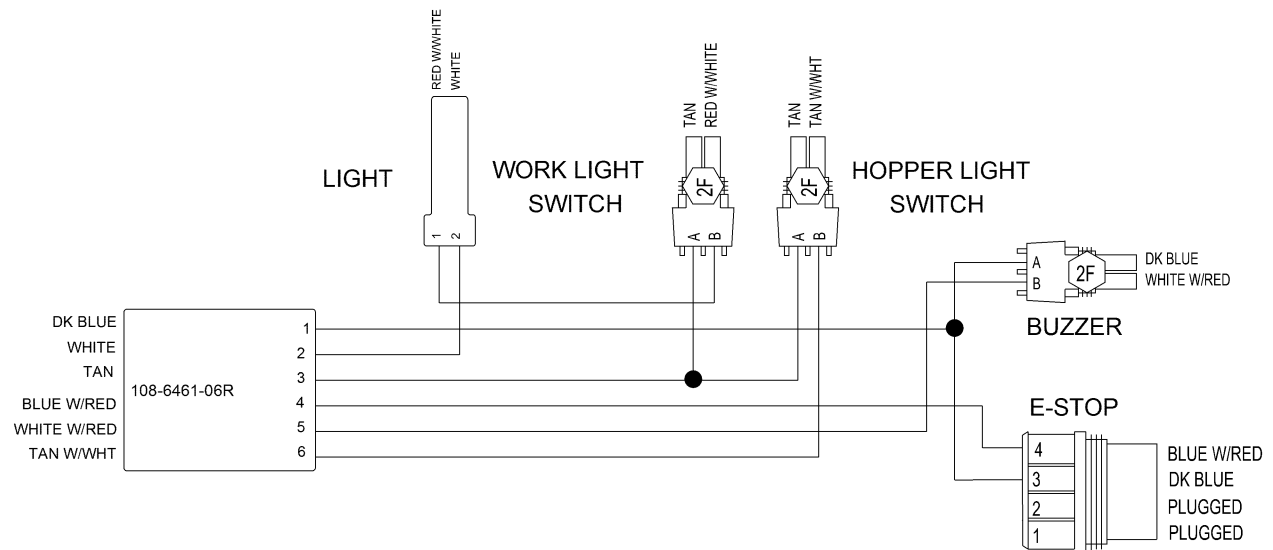


NYC Formula® 4000

Schematics

65

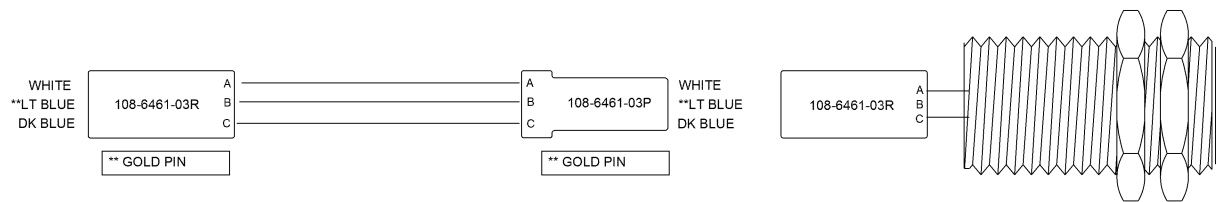
SS ESTOP/BUZZER/LT HARNESS - 263-1784-005



NYC Formula® 4000

Schematics

SS OPEN TAILGATE HARNESS - 263-1784-006

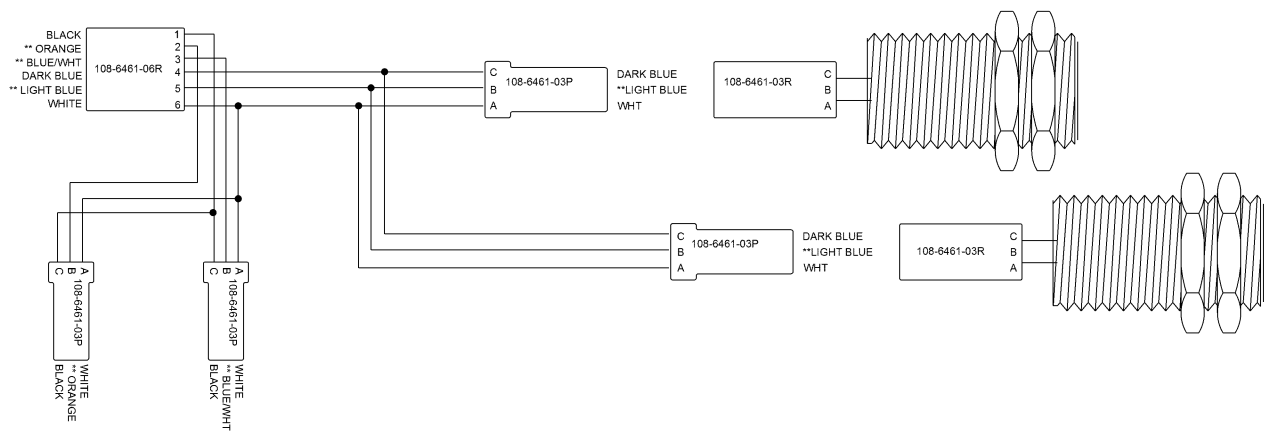


NYC Formula® 4000

Schematics

67

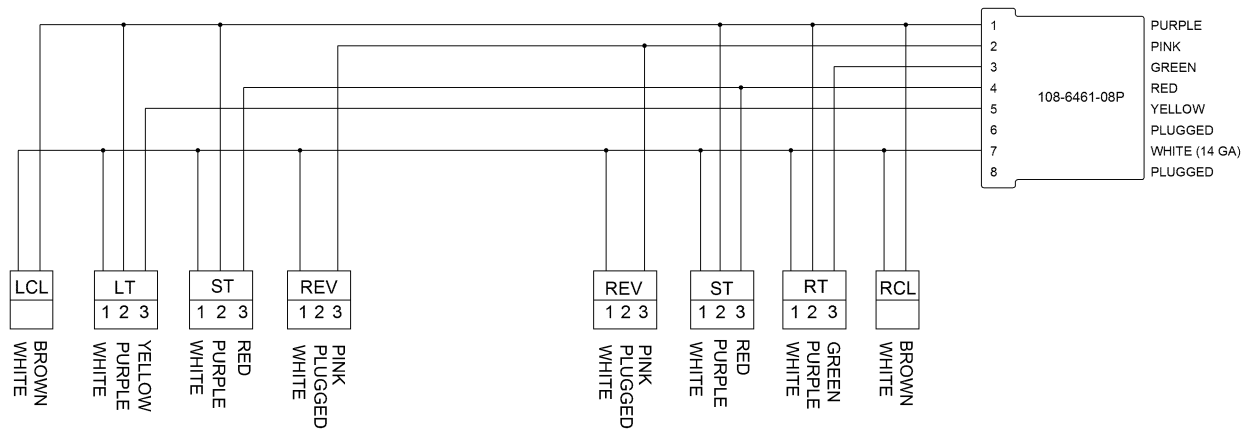
CS OPEN TAILGATE HARNESS - 263-1784-008



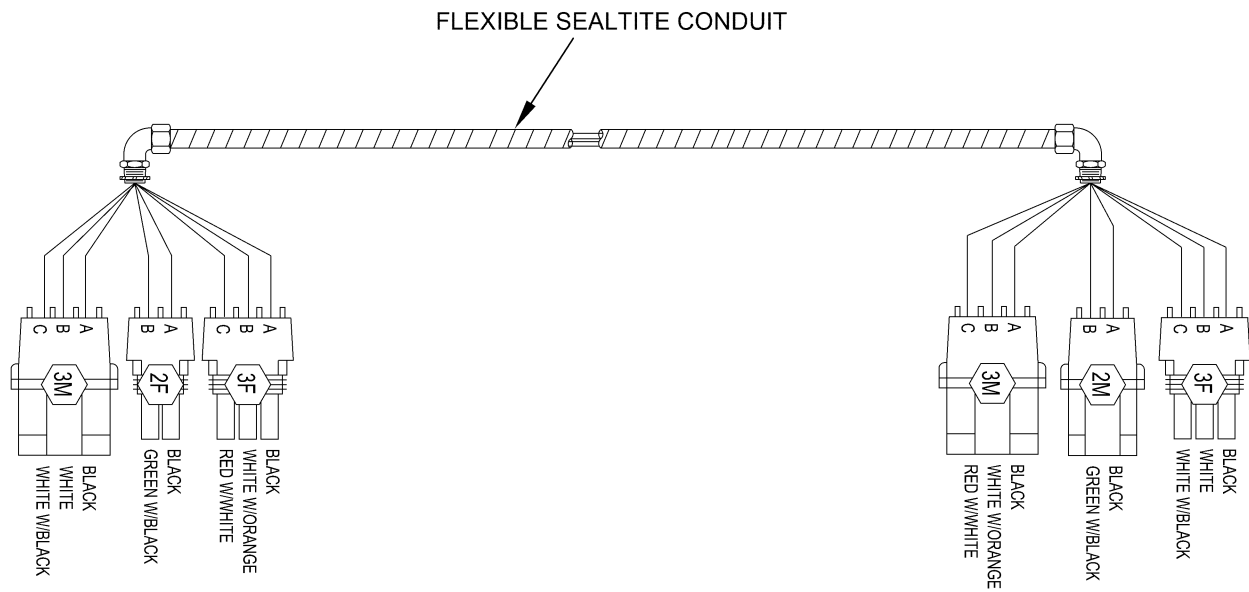
NYC Formula® 4000

Schematics

TAILGATE HARNESS - 263-1784-009



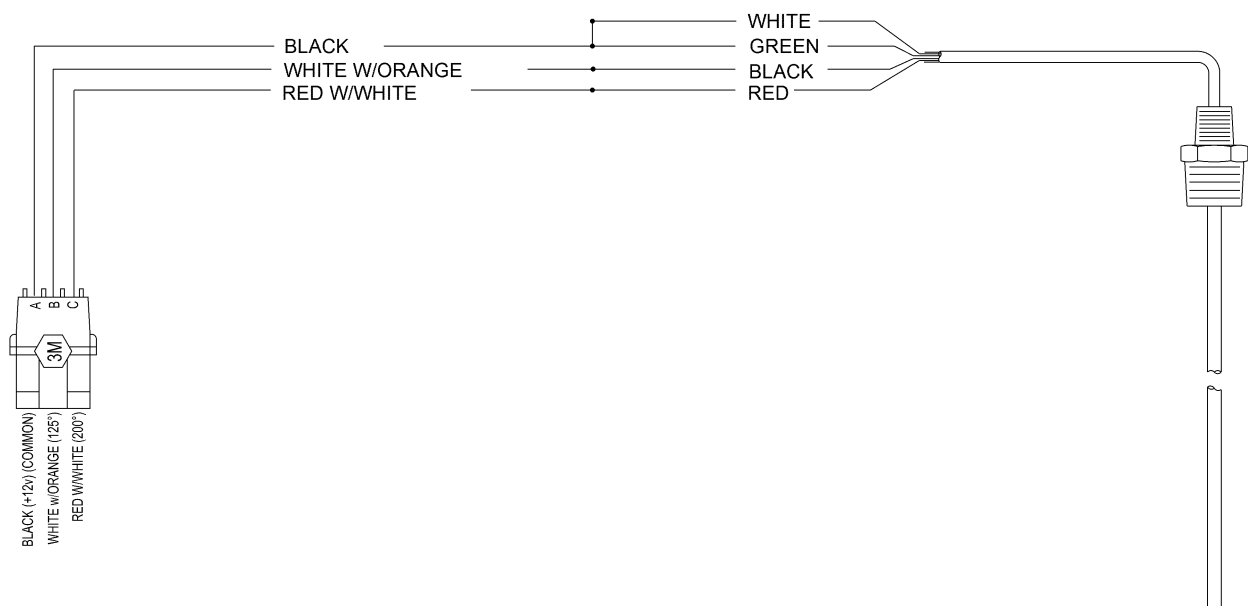
OIL TANK TO BODY HARNESS - 263-1784-010



NYC Formula® 4000

Schematics

OIL TEMPERATURE HARNESS - 263-1784-012

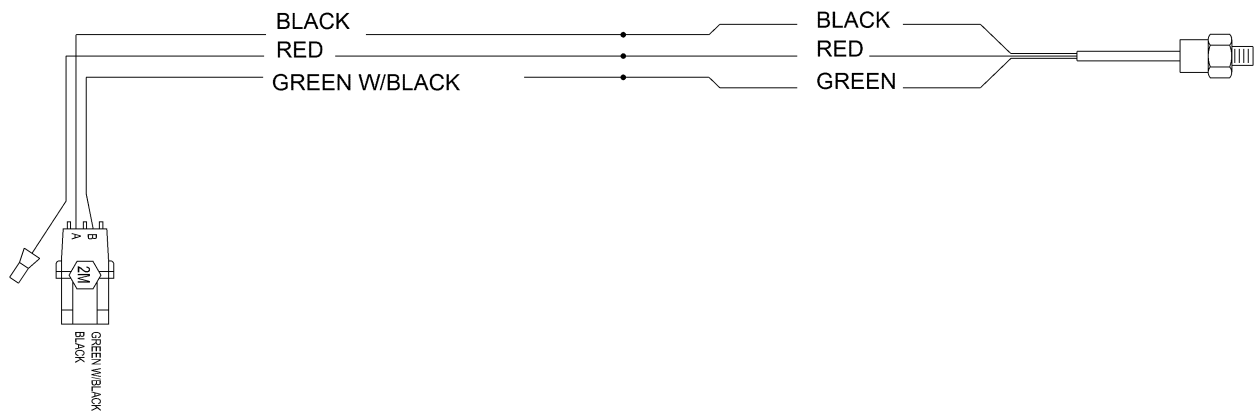


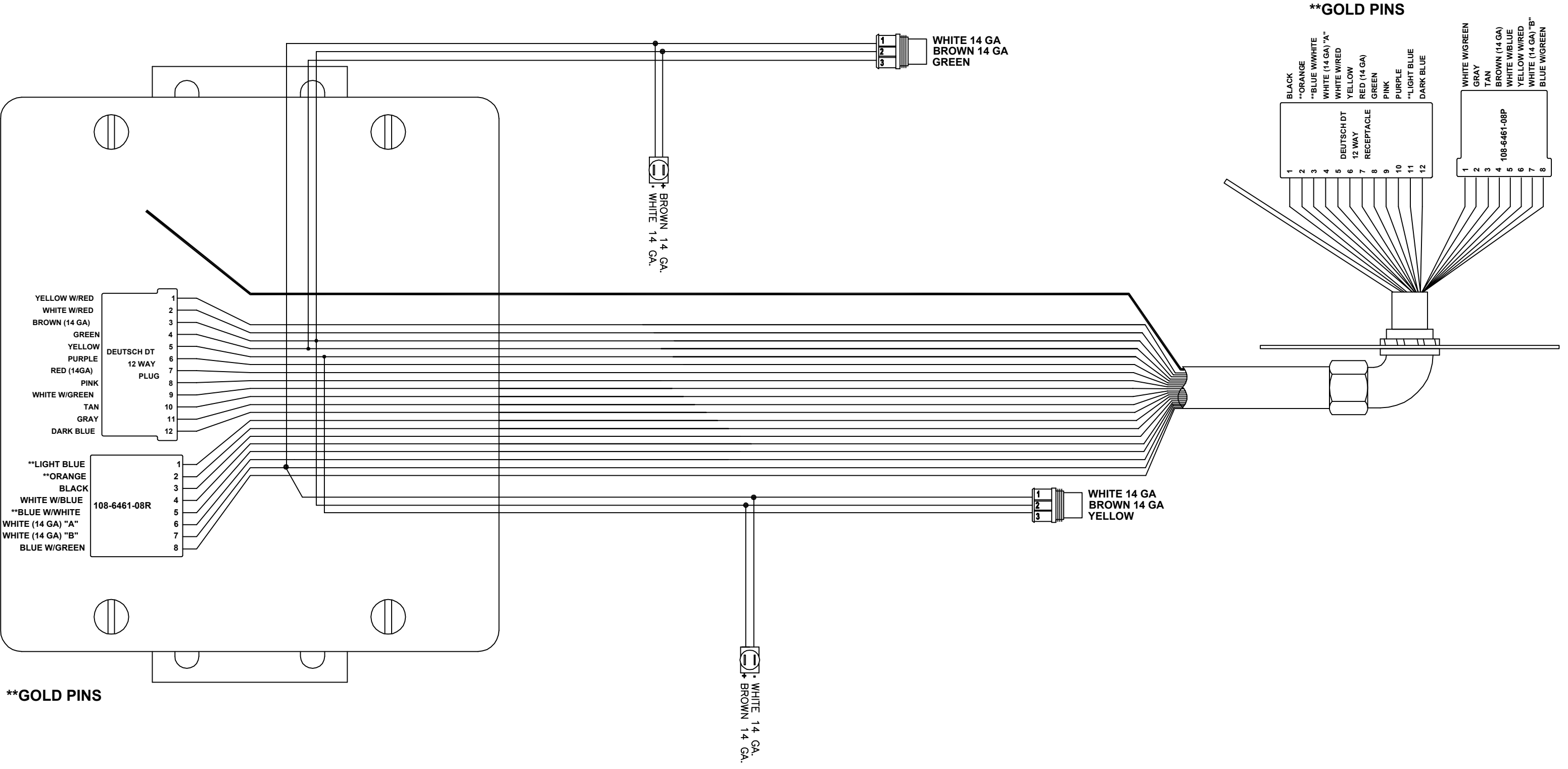
NYC Formula® 4000

Schematics

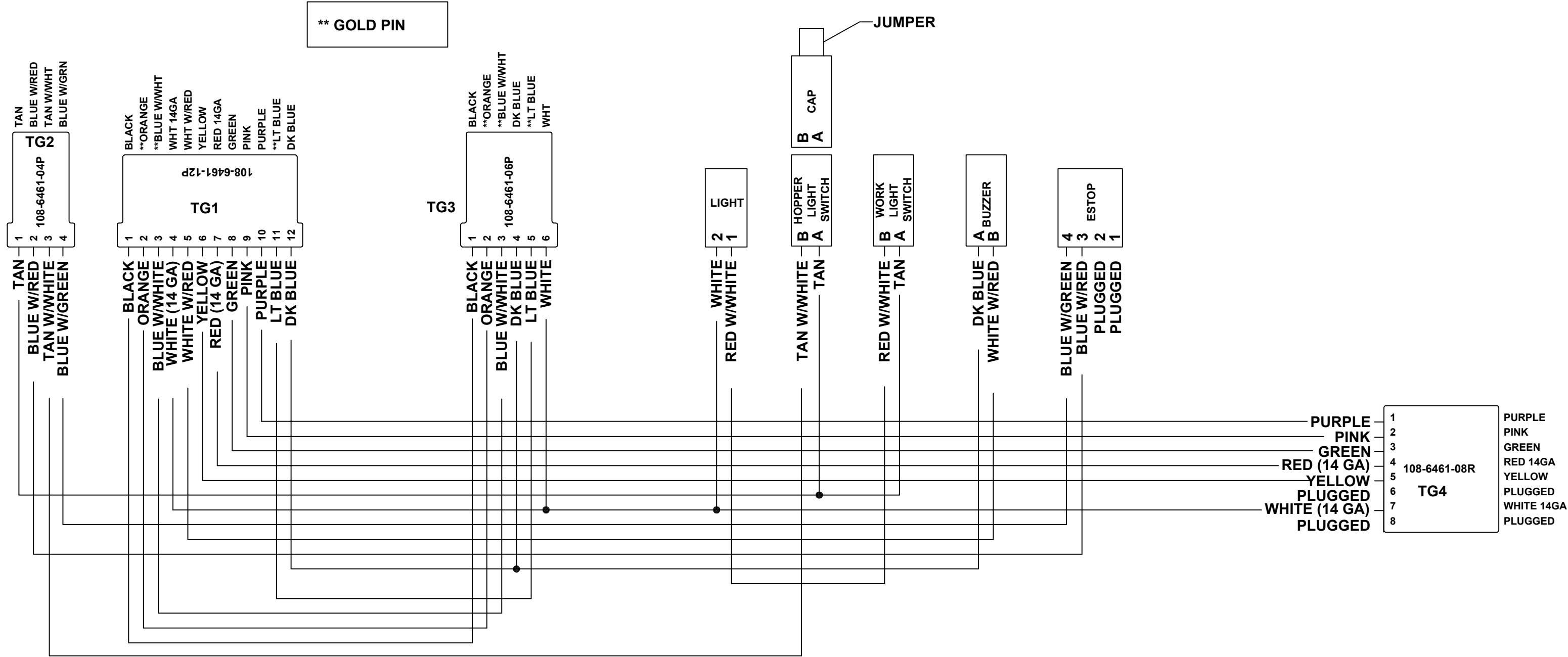
71

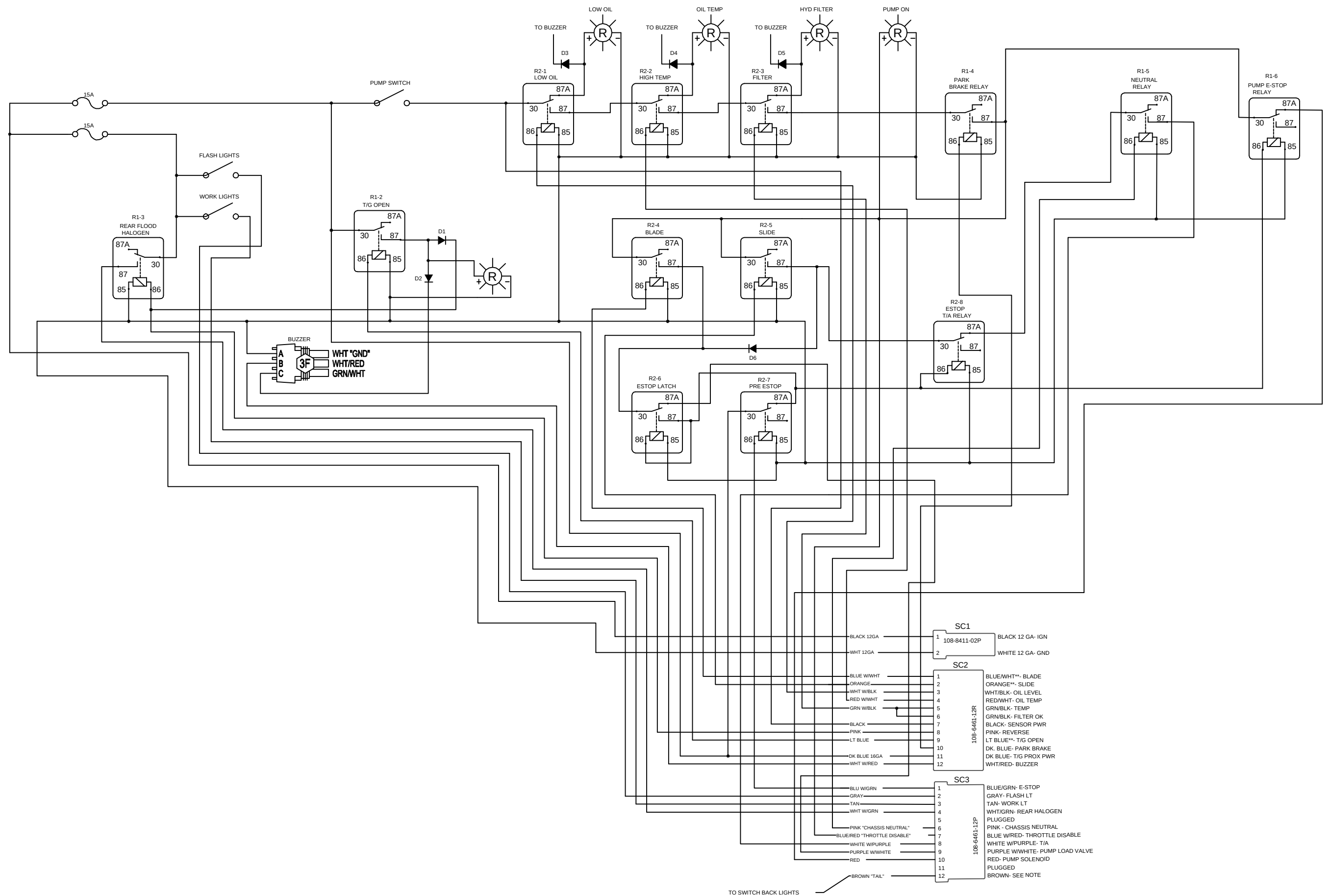
OIL FILTER MONITOR HARNESS - 263-1784-013



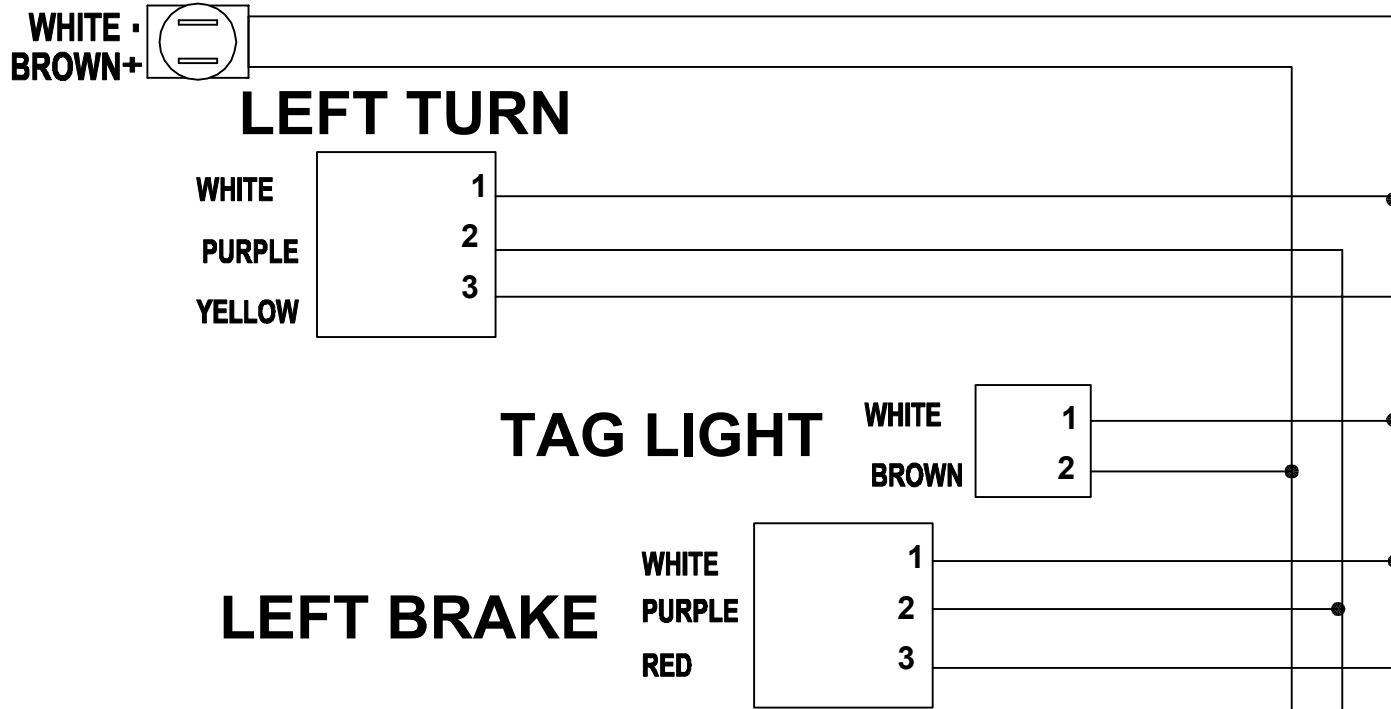


****GOLD PINS**

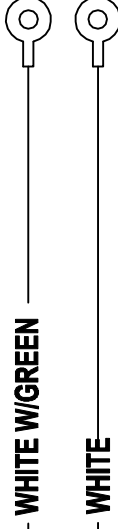




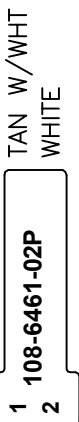
L.H. CLEARANCE LIGHT



HALOGEN SPOT LIGHT

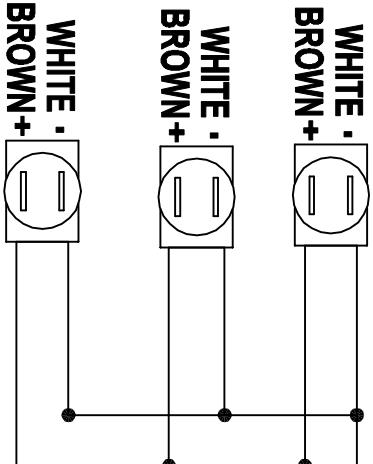


HOPPER FLOOD



3 PLACES

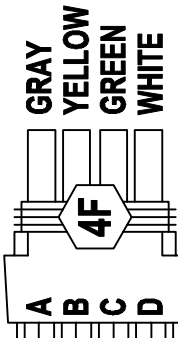
CENTER CLEARANCE LIGHTS



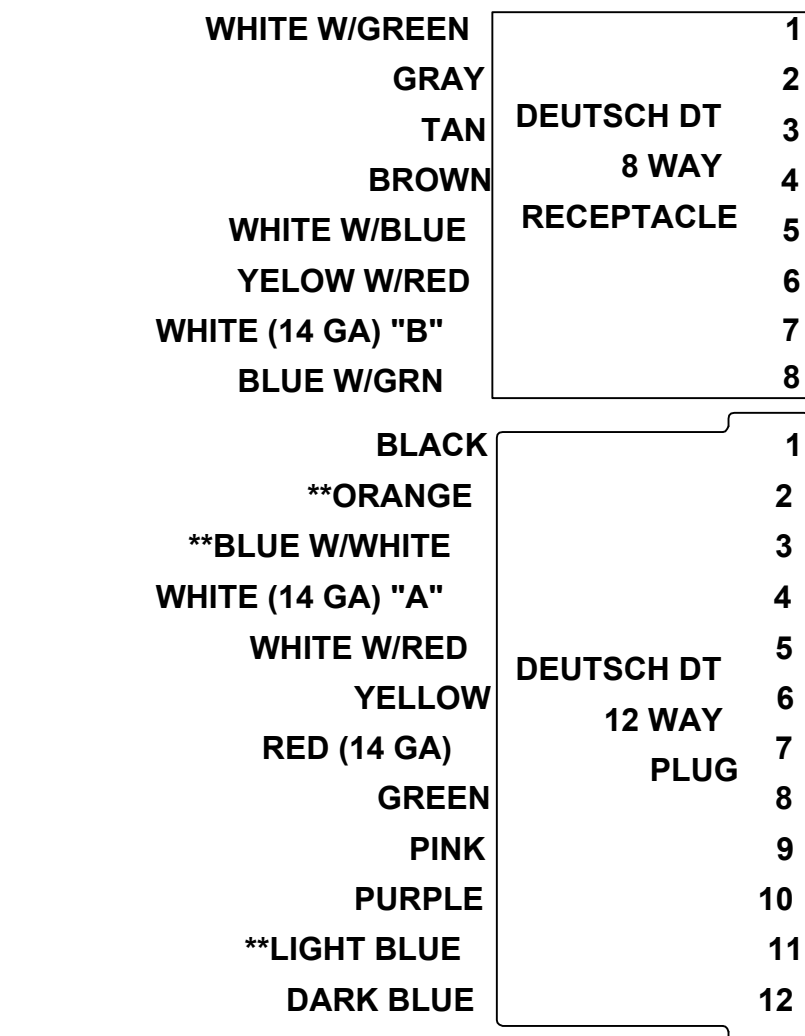
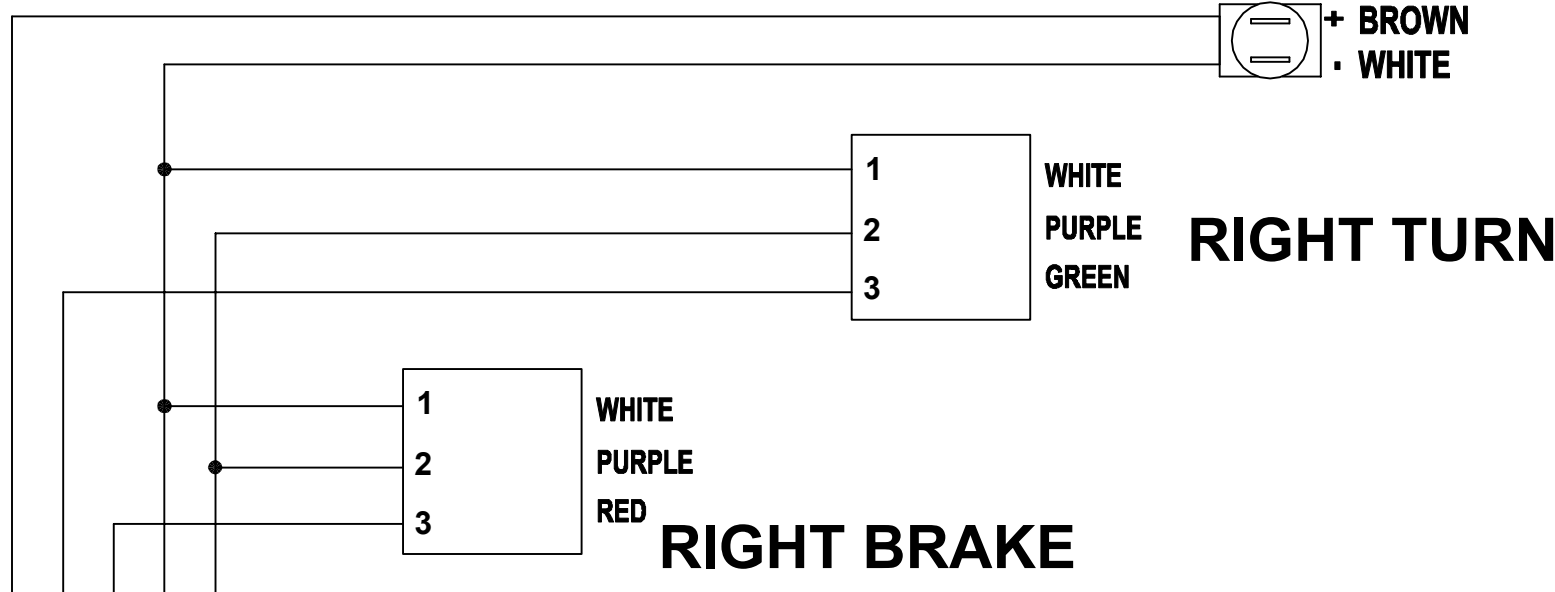
HOPPER FLOOD



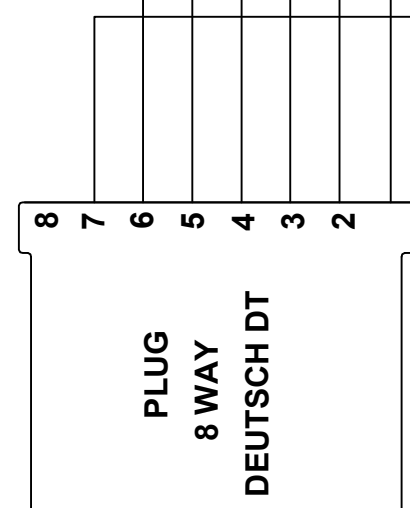
FLASHER



R.H. CLEARANCE LIGHT

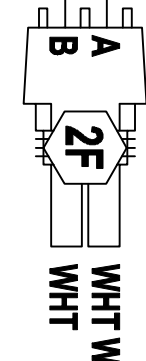


**GOLD PINS/SOCKETS

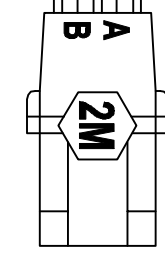


T/G LOCK L.H.

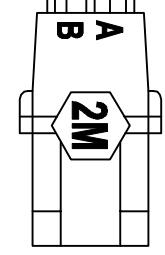
T/G CLEAR SOLENOID



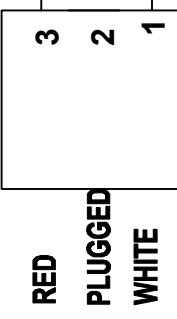
CAUTION LIGHT



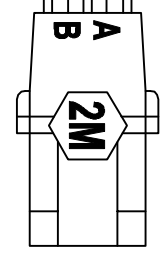
CAUTION LIGHT



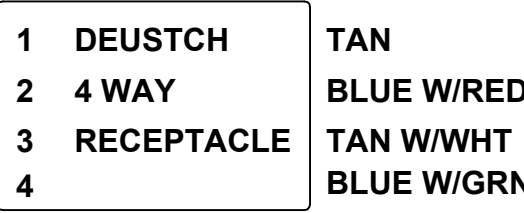
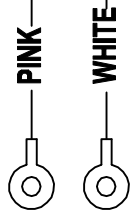
CENTER STOP LIGHT

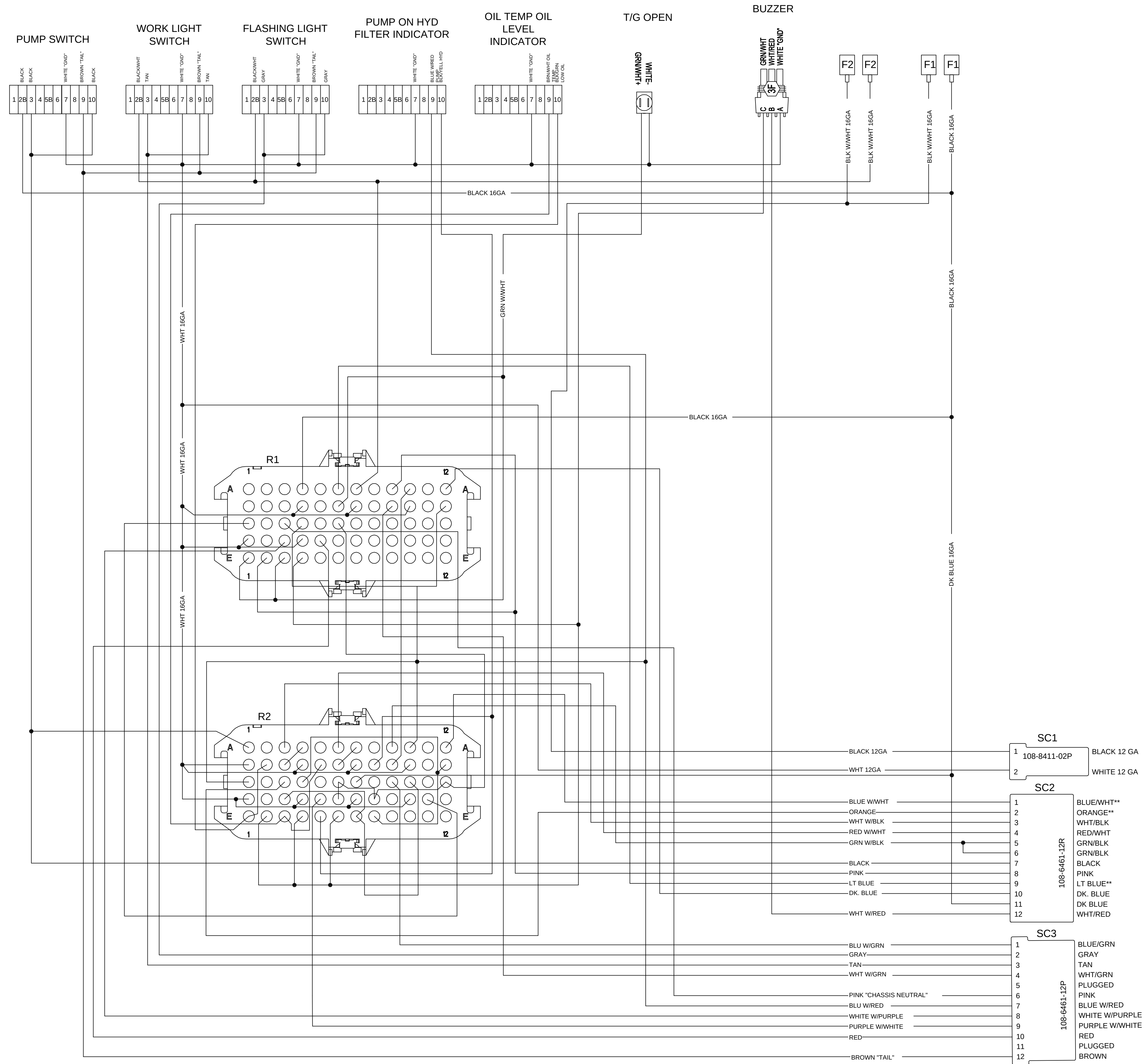


CAUTION LIGHT

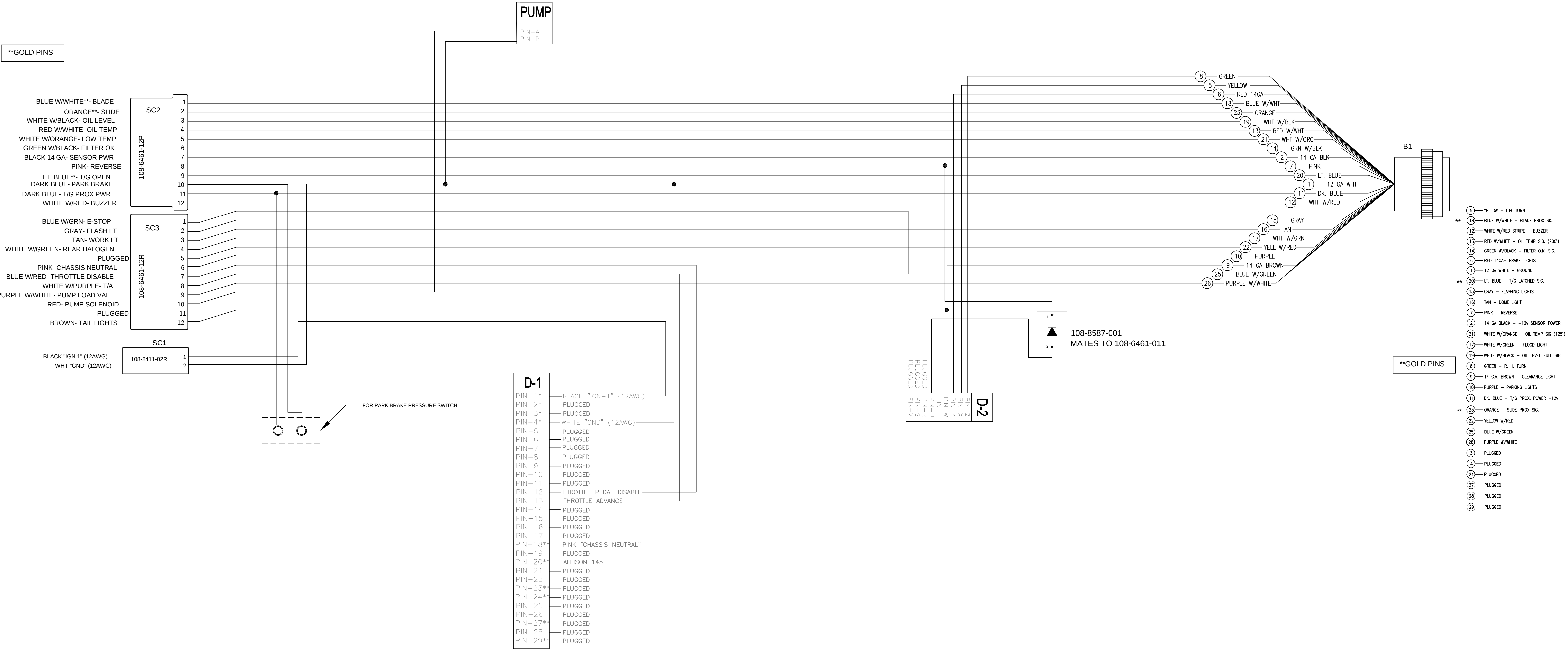


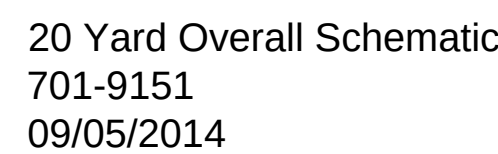
BACKUP ALARM

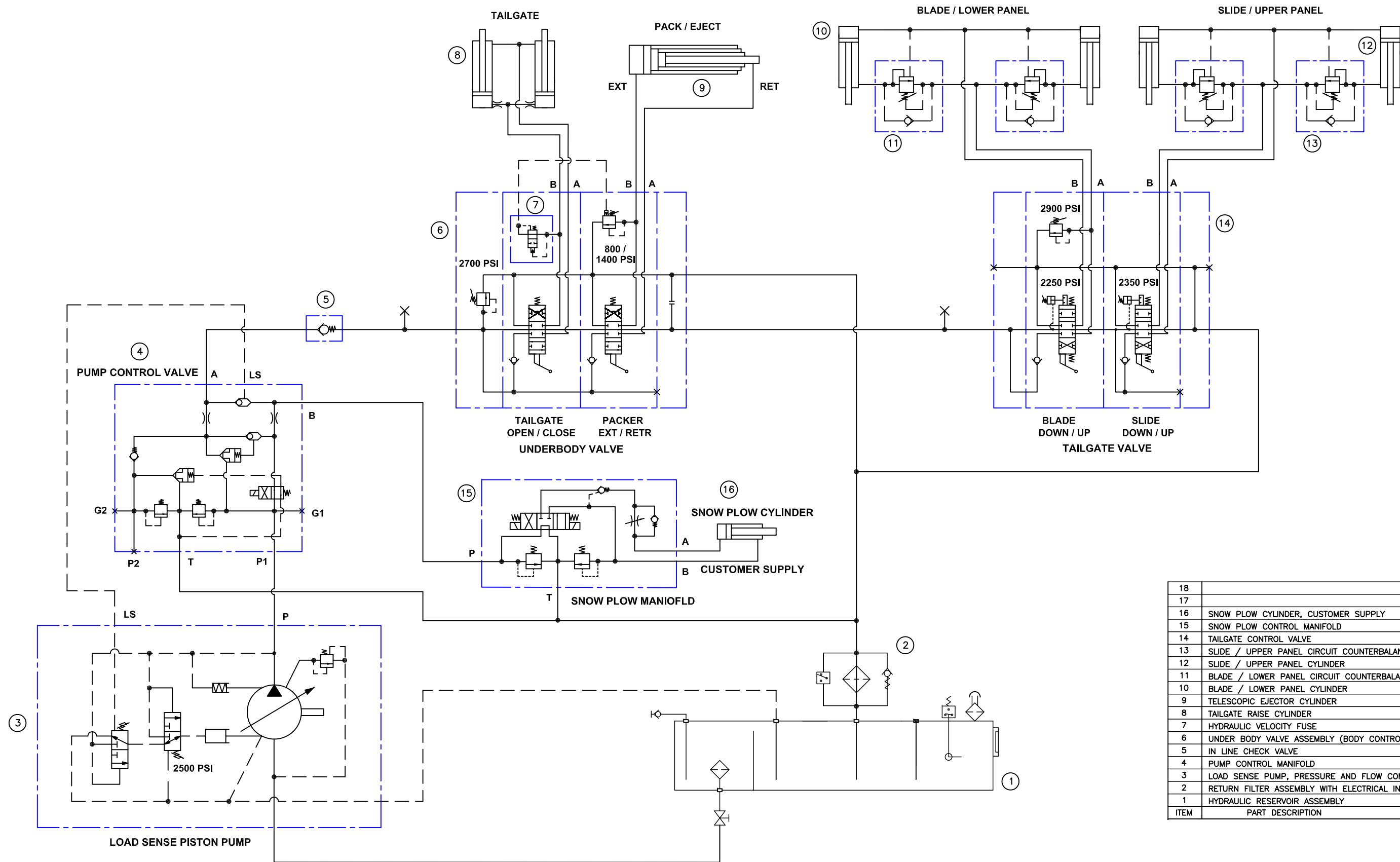




**GOLD PINS







18	
17	
16	SNOW PLOW CYLINDER, CUSTOMER SUPPLY
15	SNOW PLOW CONTROL MANIFOLD
14	TAILGATE CONTROL VALVE
13	SLIDE / UPPER PANEL CIRCUIT COUNTERBALANCE VALVE
12	SLIDE / UPPER PANEL CYLINDER
11	BLADE / LOWER PANEL CIRCUIT COUNTERBALANCE VALVE
10	BLADE / LOWER PANEL CYLINDER
9	TELESCOPIC EJECTOR CYLINDER
8	TAILGATE RAISE CYLINDER
7	HYDRAULIC VELOCITY FUSE
6	UNDER BODY VALVE ASSEMBLY (BODY CONTROL VALVE)
5	IN LINE CHECK VALVE
4	PUMP CONTROL MANIFOLD
3	LOAD SENSE PUMP, PRESSURE AND FLOW COMPENSATOR
2	RETURN FILTER ASSEMBLY WITH ELECTRICAL INDICATOR
1	HYDRAULIC RESERVOIR ASSEMBLY
ITEM	PART DESCRIPTION

TITLE: HYDRAULIC SCHEMATIC FOR
NYC 4000 REL WITH SNOW PLOW

PART No.

701-9158

NYC Formula® 4000

INDEX

A

auxiliary quick disconnect 38

B

blade back-off relief adjustment 33
body lubrication guide 15
body preventive maintenance chart 13
bolt type identification chart 44

C

change hydraulic oil filter 18
check oil level 17

D

diassembly and assembly of underbody valve 34
drain and clean the hydraulic oil tank 20

E

electrical symbols 40

G

grease lubrication recommendation 12

H

hazard symbols and definitions 7
hydraulic oil specifications 12
hydraulic oil tank 17
hydraulic symbols 41

I

introduction 6

L

lock-out/tag-out procedures
 lock-out tags 11
low oil high temperature filter by-pass indicators 18
lower kickout 32

M

maintenance/lubrication information 12

O

oil can lubrication recommendation 12

P

pressure adjustments procedure 27
proximity switch troubleshooting 36
purge the hydraulic system 17

R

replacing spool seals 35

S

service/parts assistance 27
side door access 22
specifications 16
standard torque data for nuts and bolts 44
standard torque data for nuts and bolts table 44

T

tailgate control lever 33
tailgate lock 23
tailgate support props 24
tailgate valve 26
tailgate valve pressure adjustment 29
tailgate proximity switch 37
torque for hydraulic fittings 43
troubleshooting guide 39
two stage relief valve 31

U

underbody valve pressure adjustment 30
upper kickout 32

W

when to change oil filter element 18

NYC Formula® 4000

NOTES



HEIL ENVIRONMENTAL WARRANTY STATEMENT

The Heil Co. d/b/a Heil Environmental ("Heil") warrants its solid waste collection equipment to be free from defects in material and workmanship under normal use for a period of one (1) year or 2000 hours of operation (whichever comes first) from the date of equipment In-Service or during the period of coverage offered by an extended warranty program, when proper service and maintenance as described in Heil Service Bulletins and Parts & Service Manuals are performed. The standard or extended equipment warranty is not transferable except for sales demonstration units.

This warranty is expressly limited to the repair or replacement of any component or part thereof, of any such refuse or recycling collection body manufactured by Heil that is proven to Heil's satisfaction to have been defective in material or workmanship. Such components or parts shall be repaired or replaced at Heil's option without cost to the standard purchaser for parts and labor provided such unit is returned to an authorized Heil Distributor for replacement or repair. The repair or replacement must be made during the standard or extended warranty coverage period. Before any warranty can be allowed on new equipment, a validated warranty registration form must be on file with Heil's Customer Service Department within sixty (60) days of the equipment's In-Service date. Wear items are excluded from warranty coverage.

All OEM service parts sold by Heil have a six (6) month warranty from the date of purchase. Aftermarket parts purchased from Heil are supported by a 90-day warranty. The parts warranty covers parts only, providing that factory inspection reveals a defect in material or workmanship. Labor, troubleshooting, equipment downtime, etc. is not covered under the parts warranty policy.

HEIL MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, AND MAKES NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE. HEIL DOES NOT ASSUME ANY LIABILITY OR ACCEPT CLAIMS FOR LOSS OF PROFITS, PRODUCT DOWN TIME OR ANY OTHER DIRECT, INCIDENTAL OR INDIRECT CONSEQUENTIAL LOSSES, COSTS, DAMAGES OR DELAYS.

Any improper use, operation beyond rated equipment or component capacity, substitution of parts that are not Heil-approved, or any alteration or repair by others in such a manner as in Heil's sole judgment affect the product operation or integrity shall void the warranty.

Other than the extension of the standard warranty period purchased under a supplemental Heil Extended Warranty Program, no employee or representative is authorized to modify this warranty in any way nor shall any other warranties be granted. No dealer-supplied warranty program is endorsed or supported by Heil.

Heil retains the right to modify its factory warranty program prospectively at any time.



www.heil.com

Customer Care Phone:
866-ASK-HEIL
(866-275-4345)

Parts Central Phone:
800-528-5308

Technical Service Phone:
866-310-4345

Customer Support

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Fort Payne, AL 35967-9984