



**235E**

(Parts Manual)

MM165



This manual is furnished with each new TENNANT Model 235E. It provides necessary operating and preventive maintenance instructions. Read this manual completely and understand the machine before operating or servicing it.

This manual covers all machine variations and standard accessories. The tabbed instruction portion of the manual consists of the Specification, Operation, Maintenance, and Appendix sections. The tabbed parts section consists of the Standard Model Parts; Options; Hydraulic Components; and Cross Reference sections.

All right side and left side references to the machine are determined by facing the direction of forward travel. All hardware considered to be of a common nature or locally available has been omitted from the parts sections. Be aware that this machine may contain metric hardware. Make sure you use equivalent hardware when replacement becomes necessary.

This machine will provide excellent service. However, the best results will be obtained at minimum costs if:

- The machine is operated with reasonable care.
- The machine is maintained regularly - per the maintenance instructions provided.
- The machine is maintained with Tennant Company supplied or equivalent parts.

Parts and supplies may be ordered by phone or mail from any Tennant Company parts and service center, distributor, or from any of the Tennant Company subsidiaries. Before ordering parts or supplies, be sure to have your machine model number and serial number handy. Fill out the data block below for future reference. The telephone numbers, telex numbers, mailing addresses, and locations of those outlets are listed in the Customer Documents section of the manual.

<b>MACHINE DATA</b>	
<i>Please fill out at time of installation.</i>	
Machine Serial Number -	_____
Engine Serial Number -	_____
Sales Representative -	_____
Customer Number -	_____
Date of Installation -	_____
Manual Number -	MM165
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## SECTION 5

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*NOTE: SECTION 5, STANDARD MODEL PARTS, lists repair parts for a standard model machine. This section also contains parts common to all models of the machine.*



**ORDERING REPAIR PARTS**

The components used in this machine have been carefully selected for performance and safety. Use only TENNANT Company specified or equivalent parts.

To receive prompt service in filling of your parts orders, please direct all orders for parts with TENNANT Company part numbers to the TENNANT Company, and all orders for parts with vendor part numbers to the local supplier of the respective vendor.

When ordering parts, please furnish all of the following information:

1. Machine model number - shown on the machine data plate.



2. Machine serial number - shown on the machine data plate.
3. Power source - gasoline, LPG, diesel, electric.
4. Company name.
5. Shipping address.
6. Billing address.
7. Name, first and last - of person ordering parts.
8. Telephone number.
9. Purchase order number.
10. Part number, description, and quantity - of each item on the order.
11. Customer ID Number.

Do not order parts by key number or the figure number of the illustrated parts. Indented items indicate parts of assemblies. Standard hardware is furnished only when part of a purchased assembly. Please get hardware from a local hardware supplier.

If the old part cannot be identified, send it to us with the quantity needed specified on the order.

Any claim for loss or damage to a shipment in transit should be filed promptly against the transportation company making the delivery. Shipments will be complete unless the packing list or order acknowledgement indicate items back ordered.

If parts received are suspected to be incorrect or defective, please write, wire, or phone the TENNANT Company representative from whom you ordered the part. They will give authorization for return and/or handle replacement shipments when required.

**SERIAL NUMBER INFORMATION EXPLANATION**

Serial number listings are shown to indicate on which machines each part can be used. These listings are explained by the following examples:

(000000- ) The part can be used on all machines.

(003342- ) The part can be used on all machines beginning with the serial number listed.

(000000-004320) The part can be used on all machines up to and including serial number listed.

(004321-005678) The part can be used on all machines between and including the serial numbers listed.

Where xxxxxx's are listed in place of a serial number, it indicates a change was made but the exact serial number had not been established when the catalog went to press.

**SI UNITS OF MEASURE (INTERNATIONAL SYSTEM)**

Metric equivalents have been included, where applicable, throughout this parts catalog.

**FASTENER STRENGTH IDENTIFICATION**

Fasteners required to have high-strength qualities equivalent to SAE Grade 8 are identified throughout this catalog by the description GR 8. Unless identified by this description, all standard fasteners are SAE Grade 5.

(Specifications and design subject to change without notice.)

**Fig. 1 - Recommended General Maintenance Items**

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
	87959	(000000- )	Maintenance Kit, 400 Hour	1
	65870-1	(000000- )	Hydraulic Fluid, (5/20), 1 gal (3.8 L)	1
	55740	(000000- )	Element, Hydraulic Filter	1
	87963	(000000- )	Maintenance Kit, Hopper	1
	87405	(000000- )	Seal, Hopper Halves	1
	87217	(000000- )	Seal, Hopper Cover	1
	87338	(000000- )	Seal, Access Door	1
	68198	(000000- )	Adhesive, 1 oz (30 ml)	1
	87061	(000000- )	Lip, Hopper Rear	1
	87060	(000000- )	Retainer, Hopper Lip	1
	87412	(000000- )	Seal, Dump Door	2
	87413	(000000- )	Spacer, Seal	2
	87689	(000000- )	Cord, Sponge	1
	87688	(000000- )	Wrap, Dump Door Seal	1
	87687	(000000- )	Retainer, Hopper Seal	1
	87164	(000000- )	Seal, Dump Door Top	1
	87165	(000000- )	Retainer, Seal	1
	87167	(000000- )	Retainer, Door Seal	1
	34323	(000000- )	Screw, Hex, Nylon Lock	5
	87964	(000000- )	Maintenance Kit, Rear Skirt	1
	87197	(000000- )	Flap, Recirculation	1
	87199	(000000- )	Seal, Rear Brush Wrap	1
	87586	(000000- )	Angle, Recirculation Flap	1
	87206	(000000- )	Retainer, Rear Seal	1
	34292	(000000- )	Screw, Hex, Nylon Lock	7
	87965	(000000- )	Maintenance Kit, Seals	1
	87465	(000000- )	Seal, Brush Lift Handle	1
	87464	(000000- )	Retainer, Brush Lift Seal	1
	87181	(000000- )	Seal, Hopper Top	1
	87180	(000000- )	Retainer, Hopper Top Seal	1
	87211	(000000- )	Skirt, Lower, L.H.	1
	87555	(000000- )	Retainer, Lower Skirt	1
	87975	(000000- )	Retainer, Skirt, L.H.	1
	87184	(000000- )	Seal, Hopper, L.H.	1
	87182	(000000- )	Retainer, Felt Seal	1
	34292	(000000- )	Screw, Hex, Nylon Lock	4
	87175	(000000- )	Skirt, Lower, R.H.	1
	87176	(000000- )	Retainer, Lower Seal	1
	87183	(000000- )	Seal, Hopper, R.H.	1
	87182	(000000- )	Retainer, Felt Seal	1
	87353	(000000- )	Seal, Foam Rubber	2
	87354	(000000- )	Seal, Foam Rubber	2
	87731	(000000- )	Seal, Foam Rubber	1
	68198	(000000- )	Adhesive, 1 oz (30 ml)	1
	47069	(000000- )	Sleeve, Vacuum Fan Tube	1

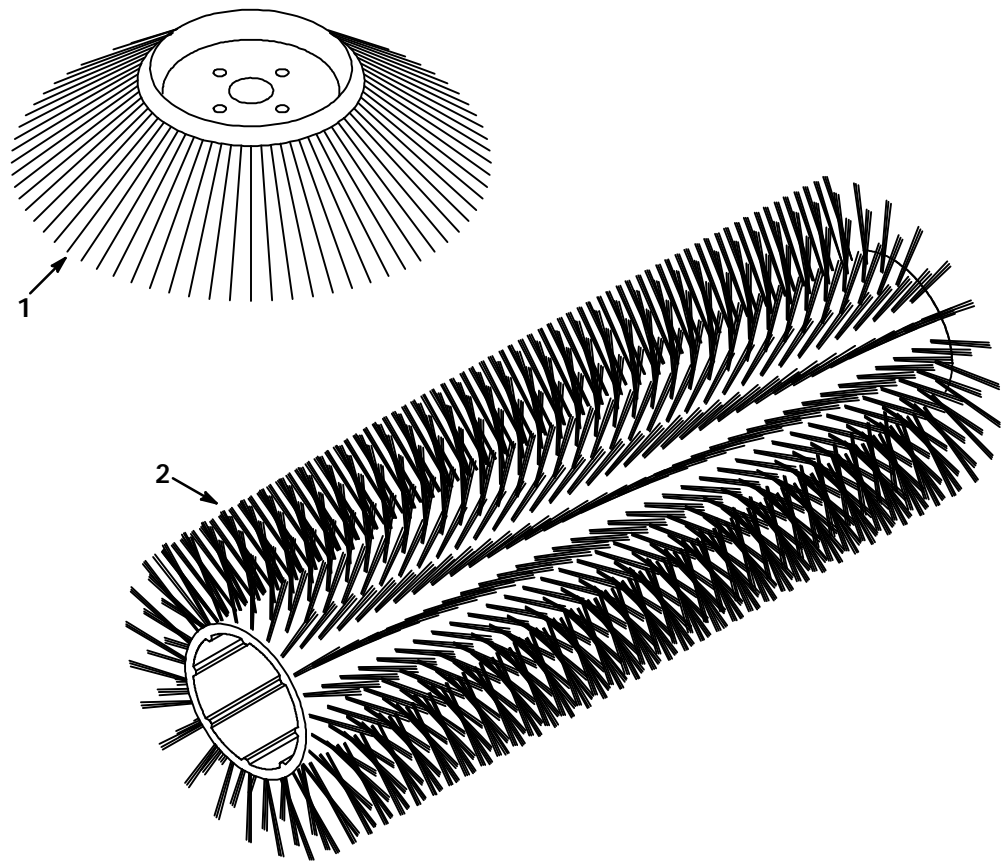


Fig. 2 - Replacement Brushes

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Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	87419	(000000- )	Side Brush, Polypropylene	1
1	87420	(000000- )	Side Brush, Nylon	1
2	87333	(000000- )	Main Brush, 24 Single Row, Polyester	1
2	87097	(000000- )	Main Brush, 8 Double Row, Proex and Wire	1
2	87334	(000000- )	Main Brush, 8 Double Row, Polyester	1
2	87099	(000000- )	Main Brush, 8 Double Row, Polypropylene	1

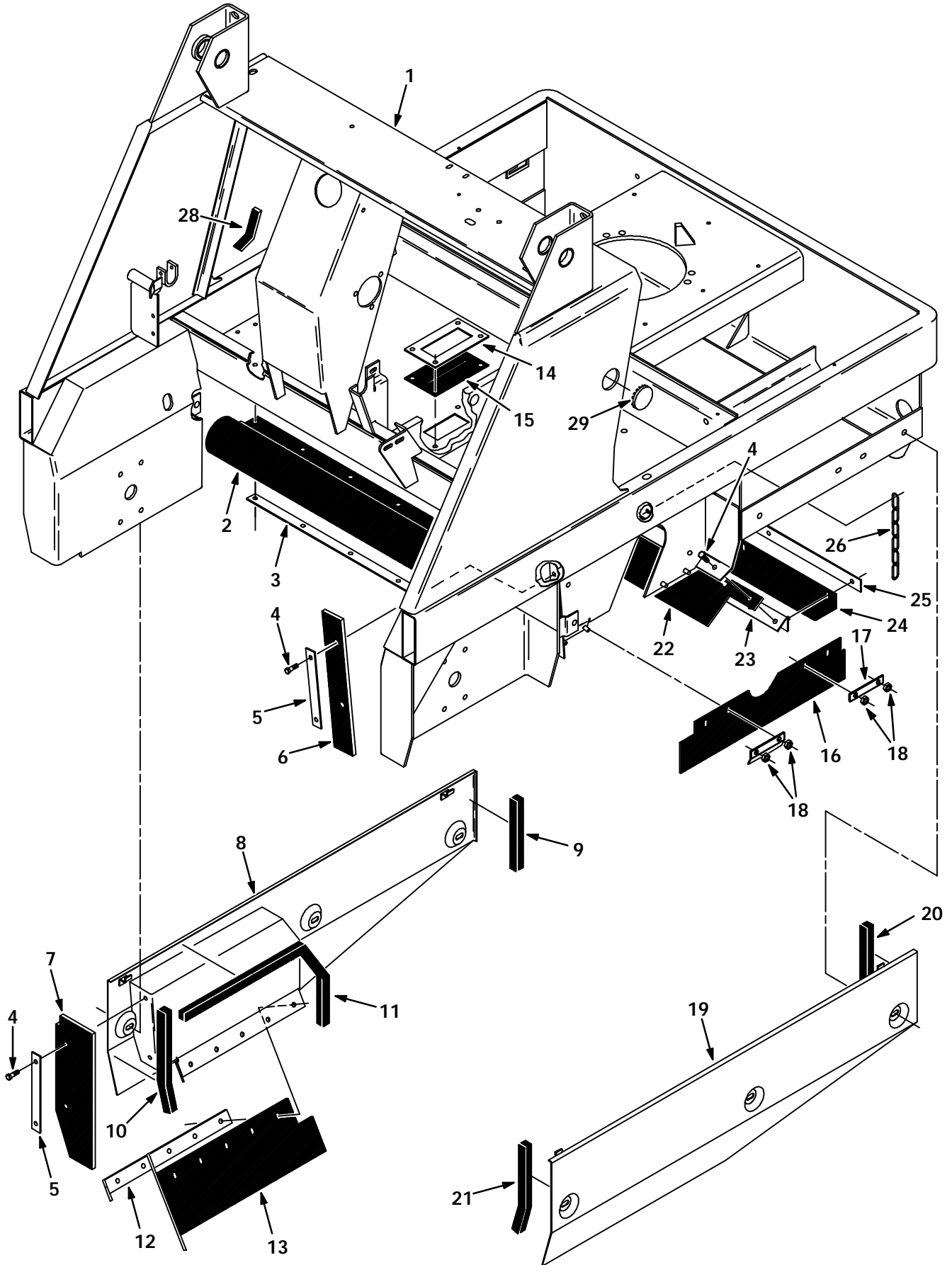


Fig. 3 - Main Frame Group



Fig. 3 - Main Frame Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	87100	(000000- )	Frame, Main	1
2	87181	(000000- )	Seal, Hopper Top	1
3	87180	(000000- )	Retainer, Seal	1
4	34292	(000000- )	Screw, Nylon Hex	11
5	87182	(000000- )	Retainer, Felt Seal	2
6	87184	(000000- )	Seal, Hopper, L.H.	1
7	87183	(000000- )	Seal, Hopper, R.H.	1
8	87190	(000000- )	Door Assembly, Brush, R.H.	1
9	87353	(000000- )	Seal, Foam Rubber	1
10	87354	(000000- )	Seal, Foam Rubber	1
11	87731	(000000- )	Seal, Foam Rubber	1
12	87176	(000000- )	Retainer, Lower Seal	1
13	87175	(000000- )	Skirt, Lower, R.H.	1
14	87464	(000000- )	Retainer, Seal	1
15	87465	(000000- )	Seal, Brush Lift Handle	1
16	87211	(000000- )	Skirt, Lower, L.H.	1
17	87555	(000000- )	Retainer, Lower Skirt	1
18	01760	(000000- )	Nut, Nylon Lock	4
19	87189	(000000- )	Door Assembly, Brush, L.H.	1
20	87353	(000000- )	Seal, Foam Rubber	1
21	87354	(000000- )	Seal, Foam Rubber	1
22	87197	(000000- )	Flap, Recirculation	1
23	87586	(000000- )	Angle, Recirculation Flap	1
24	87199	(000000- )	Skirt, Rear	1
25	87206	(000000- )	Retainer, Rear Seal	1
26	47277	(000000- )	Chain, Link	1
27	87975	(000000- )	Retainer, Skirt, L.H.	1
28	87970	(000000- )	Seal, Foam	1
29	47178-6	(003248- )	Plug Button	1

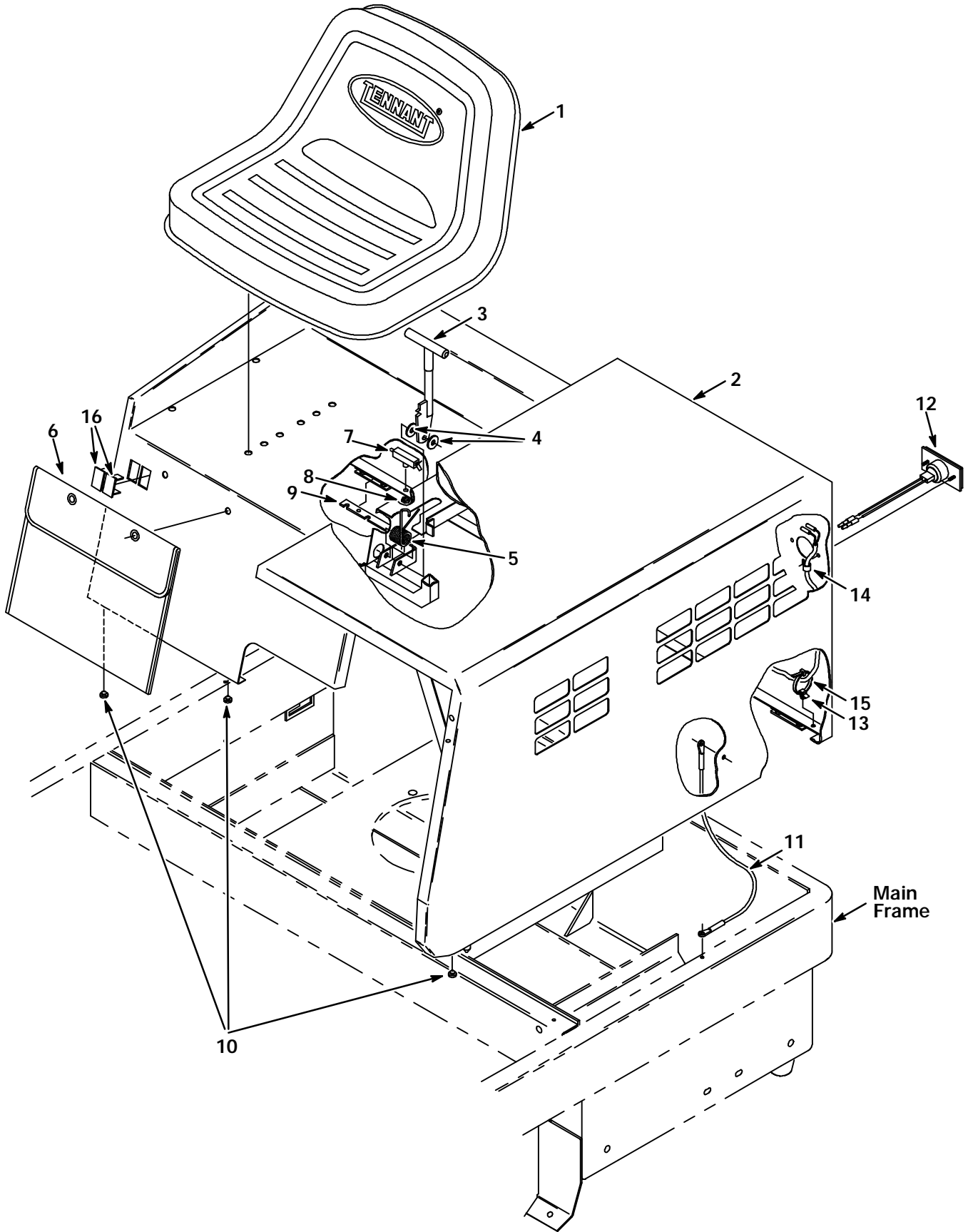


Fig. 4 - Seat and Rear Shroud Group

Fig. 4 - Seat and Rear Shroud Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	82342	(000000- )	Seat Assembly	1
2	87952	(000000- )	Shroud and Label Assembly	1
3	87612	(000000- )	Latch, Shroud	1
4	43454	(000000- )	Washer, Nylon	2
5	87581	(000000- )	Spring, Torsion	1
6	68275	(000000-002611)	Pouch, Operator Manual, 13.6 in (345 mm)	1
6	48790	(002612- )	Pouch, Operator Manual, 7.5 in (190 mm)	1
7	63846	(000000- )	Switch, Push Button	1
8	86730	(000000- )	Nut, Hex	1
9	87710	(000000- )	Plate, Contact	1
10	29233	(000000- )	Bumper, Rubber	3
11	36192	(000000- )	Lanyard Assembly	2
12	87346	(000000- )	Light Assembly, Tail	2
	87948	(000000- )	Bulb	1
	87949	(000000- )	Socket Assembly	1
13	87705	(000000- )	Mount, Cable Tie	5
14	46236	(000000- )	Clamp, Cable	2
15	49266	(000000- )	Tie, Cable	5
16	57772	(000000- )	Plate, Cover	2

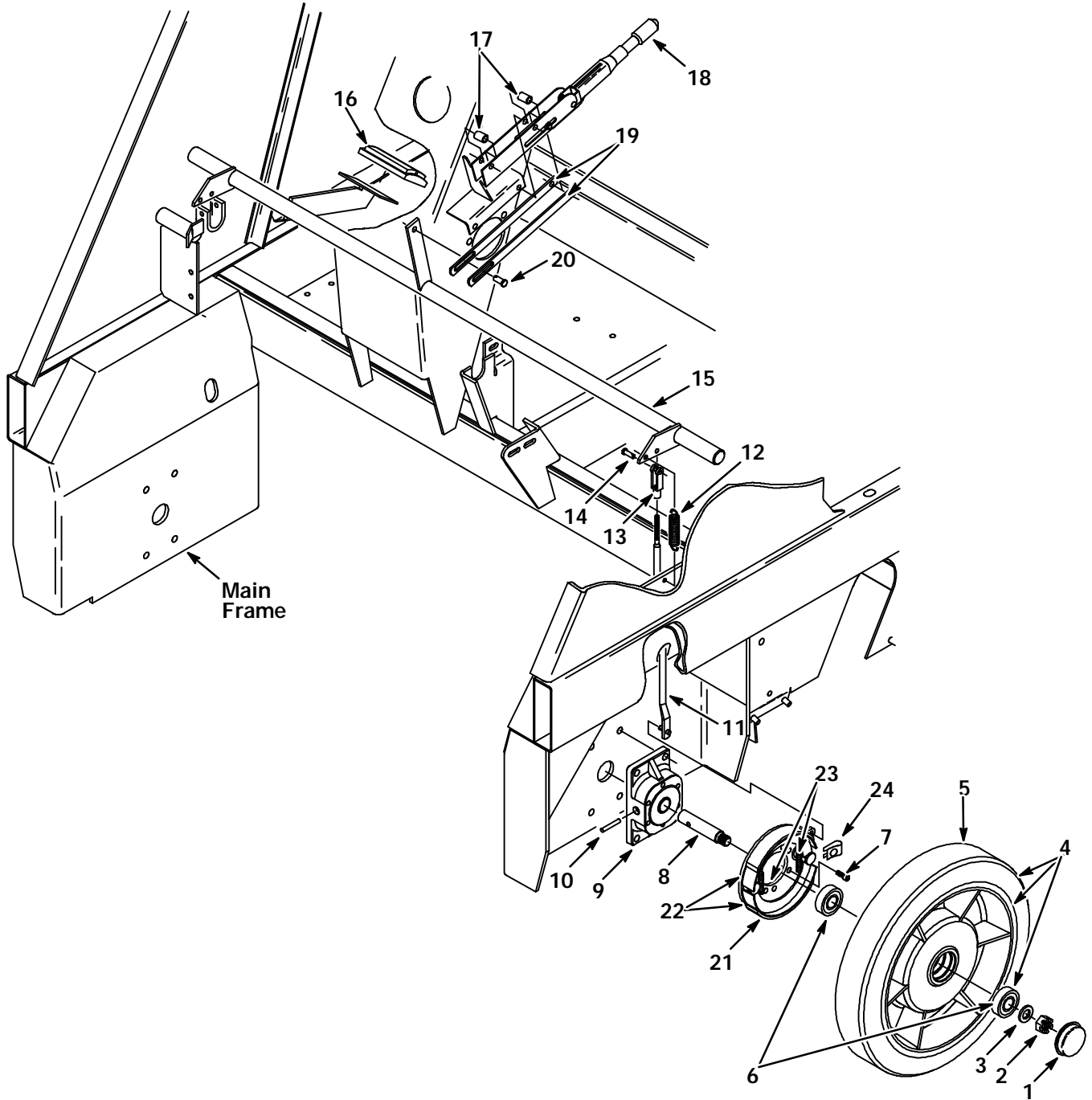


Fig. 5 - Front Wheel and Brake Group

Fig. 5 - Front Wheel and Brake Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	86922	(000000- )	Cap, Hub	2
2	87053	(000000- )	Nut, Slotted	2
3	28862	(000000- )	Washer, Thrust	2
4	87252	(000000- )	Wheel Assembly	2
5	87194	(000000- )	Tire, Solid	1
6	46390	(000000- )	Bearing, Ball	2
7	39296	(000000- )	Screw, Socket	12
8	87050	(000000- )	Shaft, Front Wheel	2
9	87046	(000000- )	Hub, Front Wheel	2
10	26315	(000000- )	Pin, Roll	2
11	87270	(000000- )	Rod, Brake	2
12	13352	(000000- )	Spring, Tension	2
13	14595-1	(000000- )	Clevis, Adjustable	2
14	14605	(000000- )	Pin, Clevis	2
15	87134	(000000- )	Shaft, Brake	1
16	51109	(000000- )	Pad	1
17	51562	(000000- )	Sleeve	2
18	51545	(000000- )	Lever, Brake	1
19	87248	(000000- )	Arm, Extension	2
20	10120	(000000- )	Pin, Clevis	1
21	87142	(000000- )	Brake Assembly	2
22	87868	(000000- )	Shoes, Brake (set for 1 wheel)	1
23	87869	(000000- )	Springs, Brake (set for 1 wheel)	1
24	87966	(000000- )	Clip	1

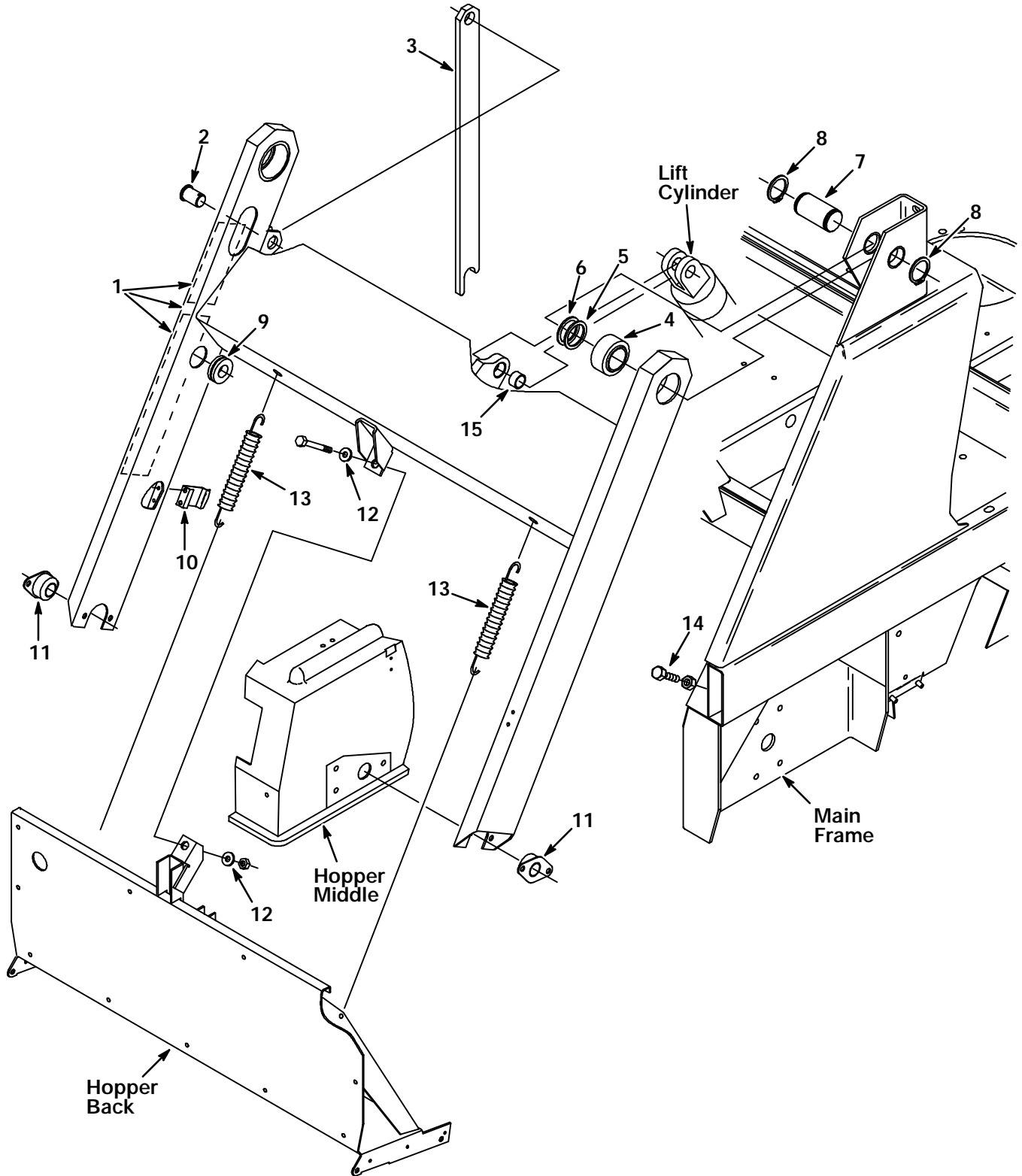


Fig. 6 - Hopper Lift Arms Group

Fig. 6 - Hopper Lift Arms Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	87854	(000000- )	Arm and Decal Assembly, Lift	1
2	87229	(000000- )	Pin, Pivot	1
3	87228	(000000- )	Arm, Prop	1
4	87045	(000000- )	Bearing, Self-Aligning	2
5	87433	(000000- )	Spacer	2
6	87148	(000000- )	Spacer	2
7	87146	(000000- )	Pin, Pivot	2
8	87147	(000000- )	Ring, Retaining	4
9	10632-13	(000000- )	Grommet	1
10	87244	(000000- )	Clip, Spring	1
11	87216	(000000- )	Bearing, Flange	2
12	41187	(000000- )	Washer, Belleville	2
13	52238	(000000- )	Spring, Tension	2
14	86646	(000000- )	Screw, Hex	2
15	87149	(000000- )	Bearing, Journal	1

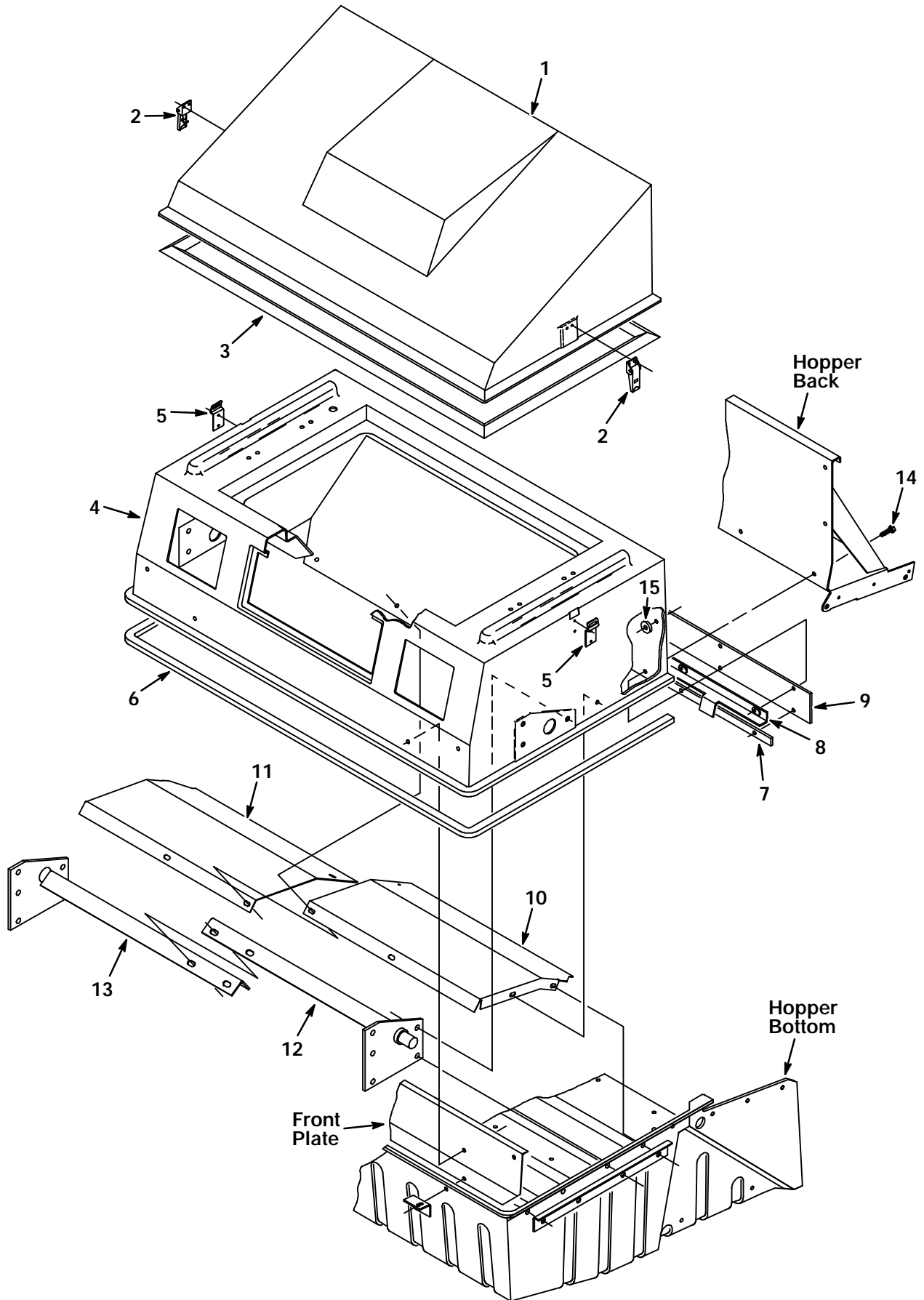


Fig. 7 - Hopper Middle and Cover Group



Fig. 7 - Hopper Middle and Cover Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	87203	(000000- )	Cover, Hopper	1
2	87579	(000000- )	Latch, Tension	2
3	87217	(000000- )	Seal, Hopper Cover	1
4	87202	(000000- )	Hopper, Middle	1
5	87056	(000000- )	Strike, Hopper Cover	2
6	87405	(000000- )	Seal	1
7	87165	(000000- )	Retainer, Seal	1
8	87167	(000000- )	Retainer, Door Seal	1
9	87164	(000000- )	Seal, Dump Door	1
10	87390	(000000- )	Baffle, Debris, L.H.	1
11	87166	(000000- )	Baffle, Debris, R.H.	1
12	87113	(000000- )	Plate, Pivot, L.H.	1
13	87114	(000000- )	Plate, Pivot, R.H.	1
14	34323	(000000- )	Screw, Nylon Hex	5
15	87958	(000000- )	Washer, Nylon	6

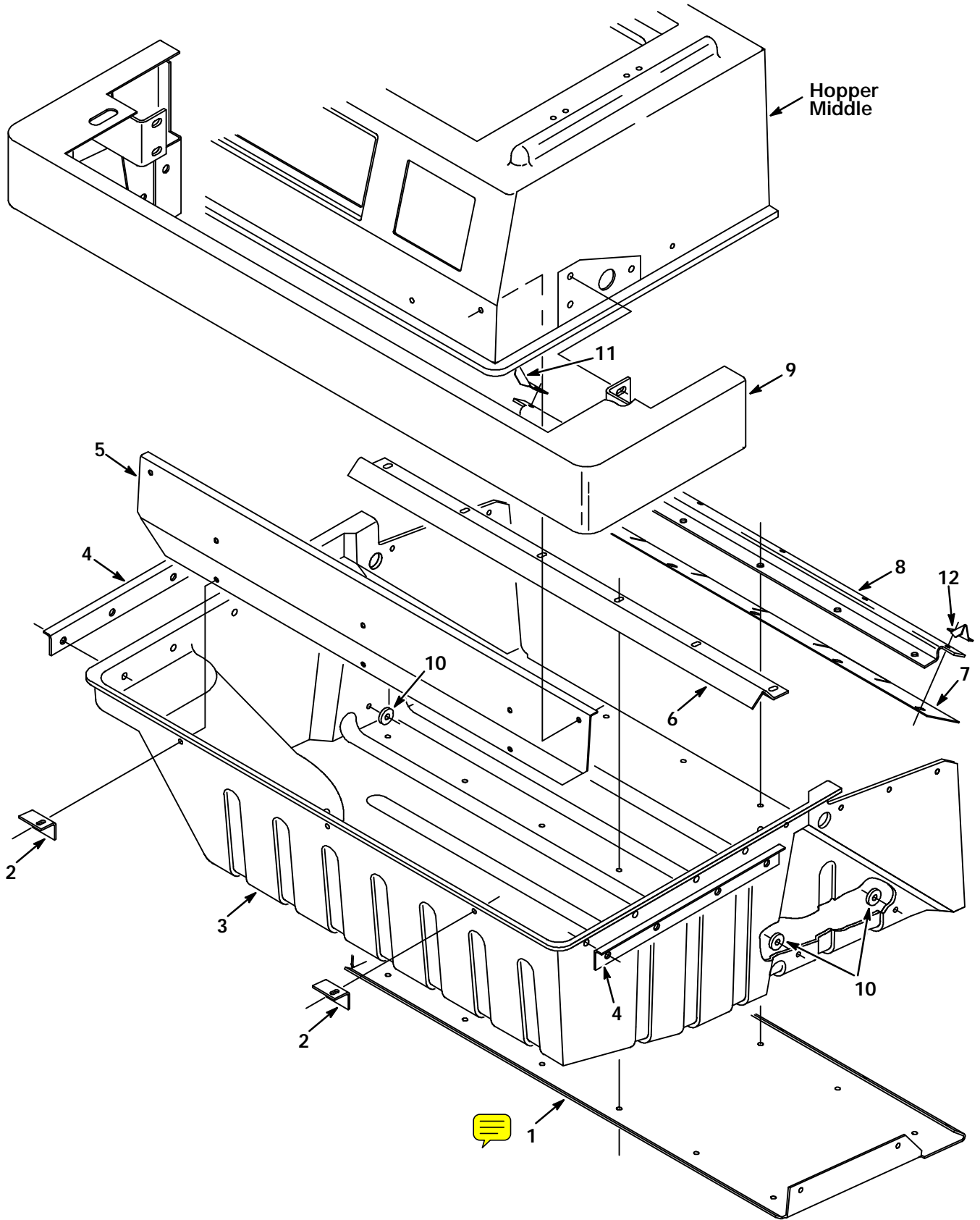


Fig. 8 - Hopper Bottom Group

Fig. 8 - Hopper Bottom Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	87059	(000000- )	Plate, Hopper Bottom	1
2	87103	(000000- )	Angle, Support	2
3	87201	(000000- )	Hopper, Bottom	1
4	87406	(000000- )	Angle, Bottom Support	2
5	87208	(000000- )	Plate, Front	1
6	87461	(000000- )	Angle, Stiffener	1
7	87061	(000000- )	Lip, Rear	1
8	87060	(000000- )	Retainer, Lip	1
9	87117	(000000- )	Bumper, Front	1
10	87958	(000000- )	Washer, Nylon	4
11	87969	(000000- )	Deflector, Hopper, R.H.	1
12	87979	(000000- )	Deflector, Hopper, L.H.	1

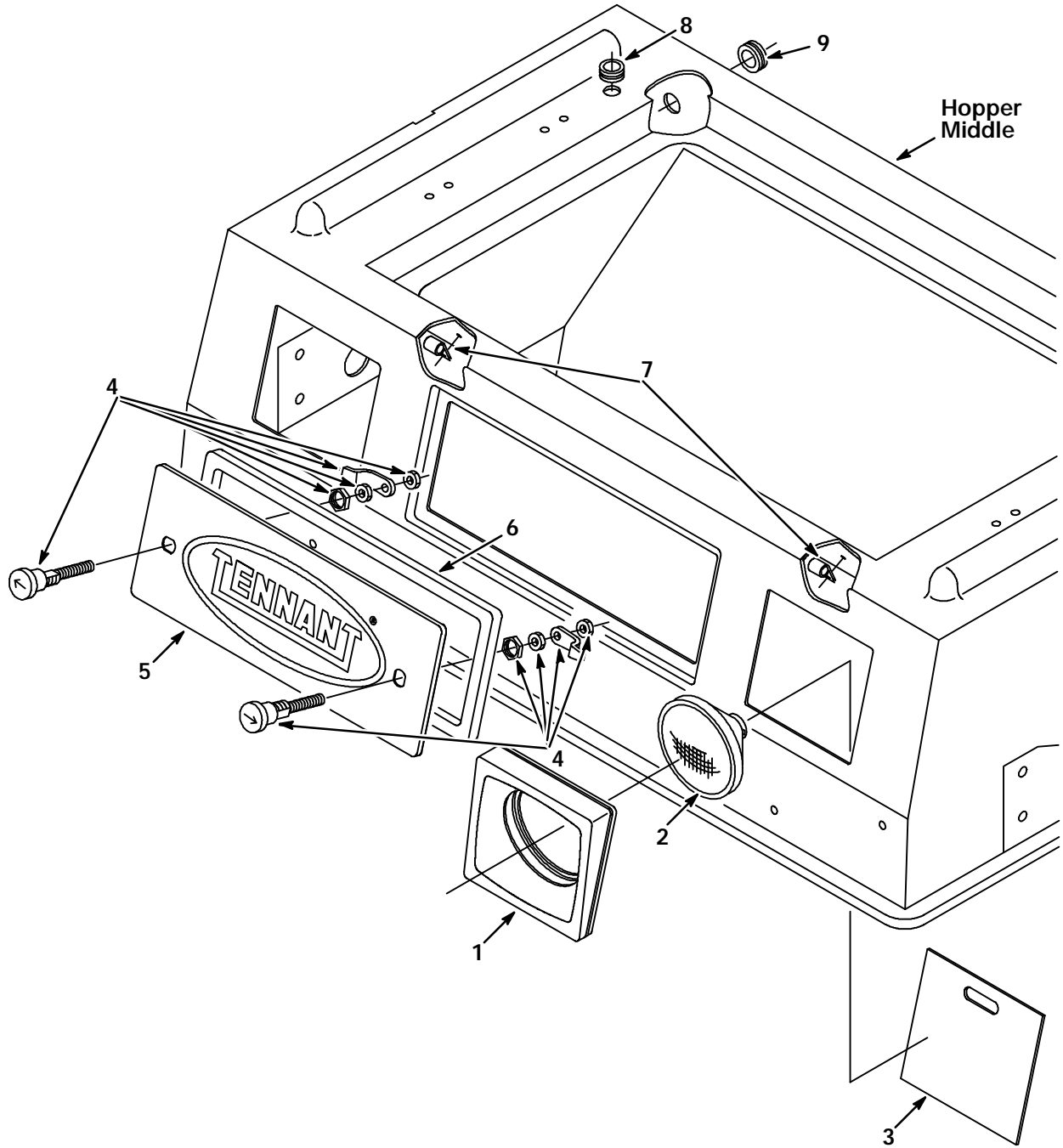


Fig. 9 - Hopper Headlights and Access Door Group

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Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	87460	(000000- )	Mount, Headlight	2
2	45391	(000000- )	Lamp	2
3	87739	(000000- )	Guard, Headlight	2
4	87337	(000000- )	Latch, Door	2
5	87621	(000000- )	Door and Label Assembly, Access	1
6	87338	(000000- )	Seal, Access Door	1
7	26395-2	(000000- )	Clamp, Cable	2
8	10632-11	(000000- )	Grommet, Rubber	1
9	10632-15	(000000- )	Grommet, Rubber	1

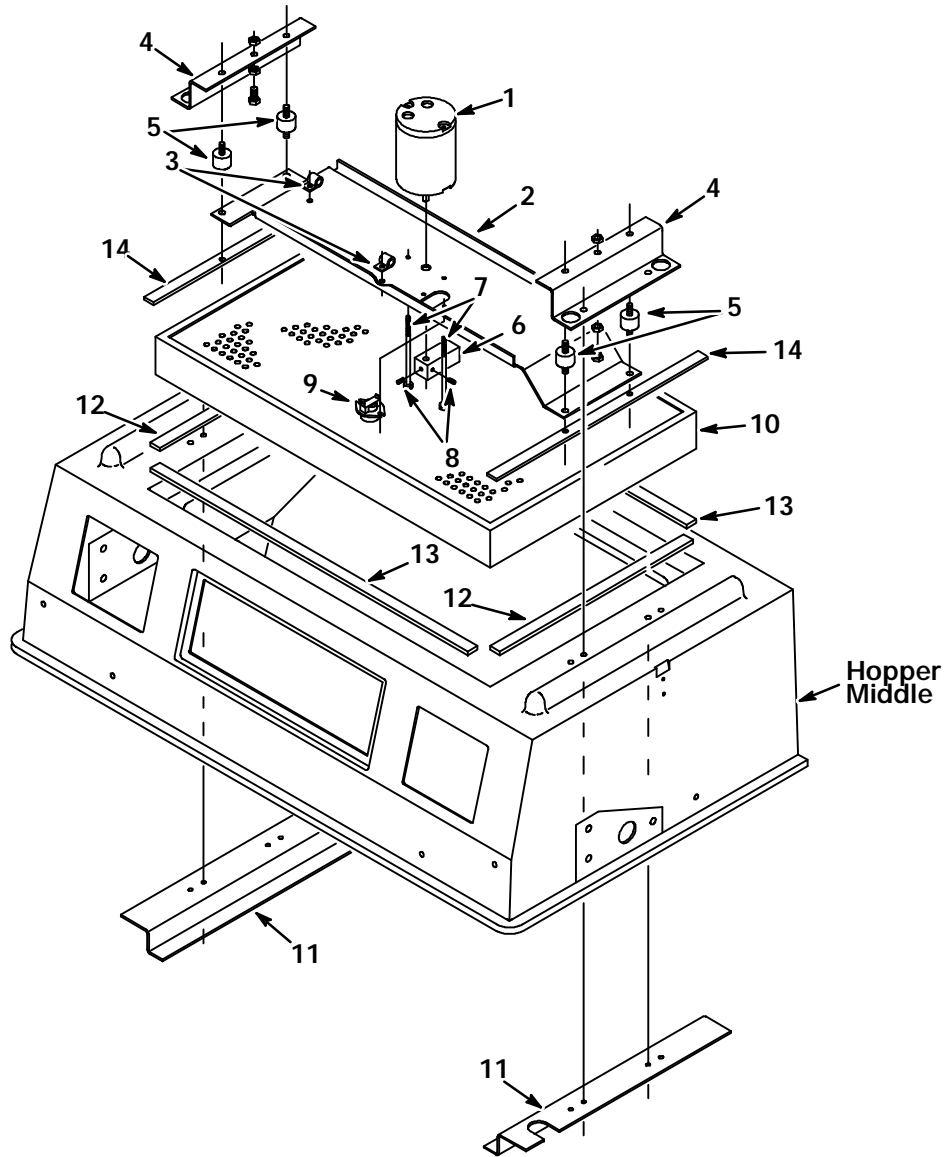


Fig. 10 - Hopper Filter and Shaker Motor Group

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Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	44939	(000000- )	Motor, Shaker	1
2	87074	(000000- )	Bracket, Shaker Filter	1
3	40678	(000000- )	Clamp, Cable	2
4	87209	(000000-001391)	Bracket, Shaker Mount	2
4	87985	(001392- )	Bracket, Shaker Mount	2
5	51322	(000000- )	Isolator, Vibration	4
6	87306	(000000- )	Weight, Eccentric	1
7	87286	(000000- )	Screw, Hex	2
8	20634	(000000- )	Screw, Nylon Set	2
9	87546	(000000- )	Thermostat	1
10	87550	(000000-001391)	Filter Assembly	1
10	87341	(001392- )	Filter Assembly	1
11	87084	(000000- )	Plate, Mount	2
12	87967	(000000- )	Strip, Seal Retainer	2
13	87968	(000000- )	Strip, Seal Retainer	2
14	87982	(000000- )	Bar, Shaker	2

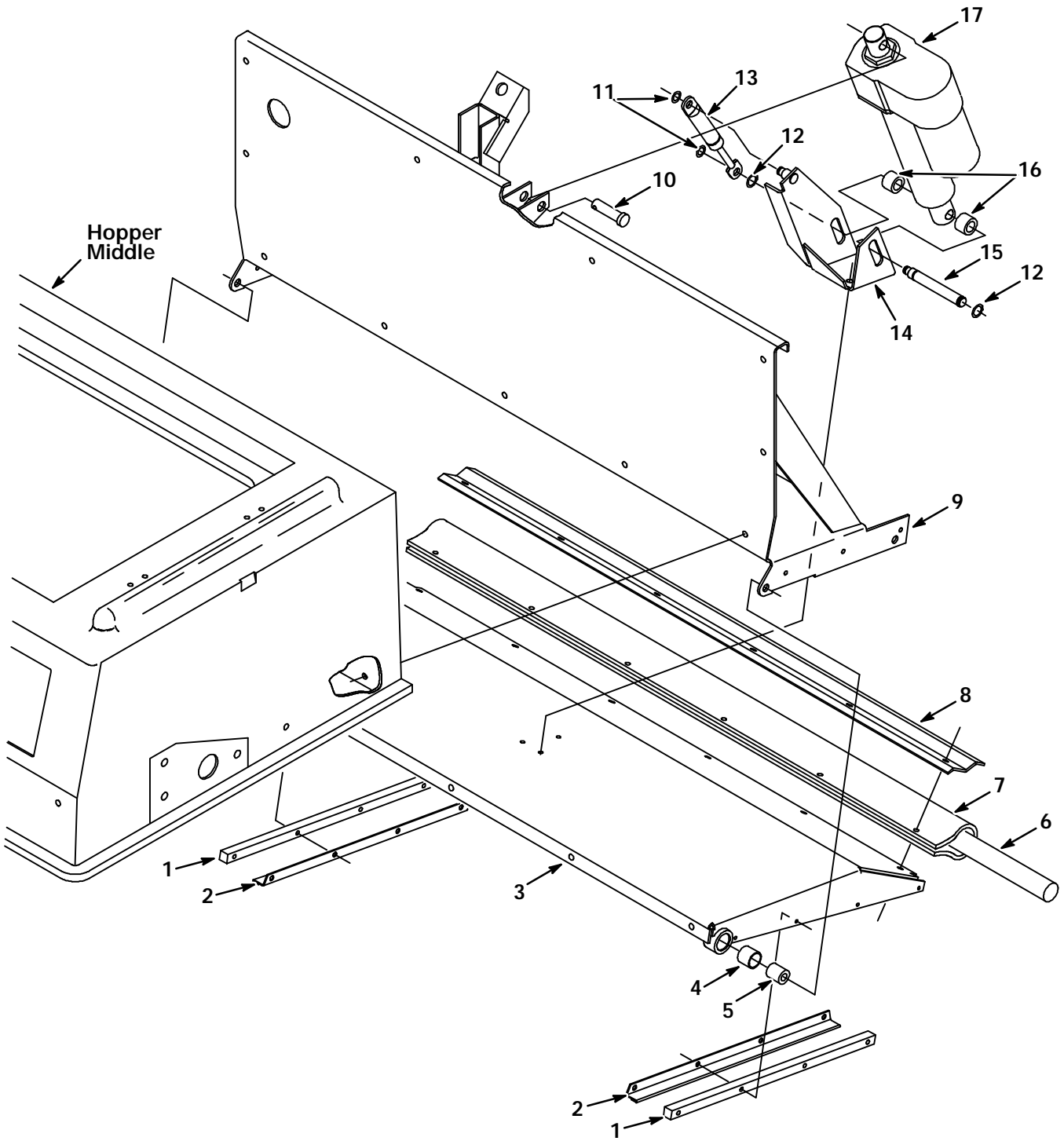


Fig. 11 - Hopper Dump Door and Actuator Group

Fig. 11 - Hopper Dump Door and Actuator Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	87413	(000000- )	Spacer, Seal	2
2	87412	(000000- )	Seal, Dump Door	2
3	87162	(000000- )	Door, Dump	1
4	64379	(000000- )	Bearing, Journal	2
5	87104	(000000- )	Bushing, Door Pivot	2
6	87689	(000000- )	Cord, Sponge	1
7	87688	(000000- )	Seal Wrap, Dump Door	1
8	87687	(000000- )	Retainer, Hopper Seal	1
9	87108	(000000- )	Back, Hopper	1
10	63147	(000000- )	Pin, Clevis	1
11	23524-1	(000000- )	Ring, Retaining	2
12	23524	(000000- )	Ring, Retaining	2
13	65577	(000000- )	Spring, Gas	1
14	87120	(000000- )	Mount, Dump Door Actuator	1
15	87152	(000000- )	Pin, Actuator	1
16	87693	(000000- )	Spacer, Actuator Mount	2
17	87445	(000000- )	Actuator	1

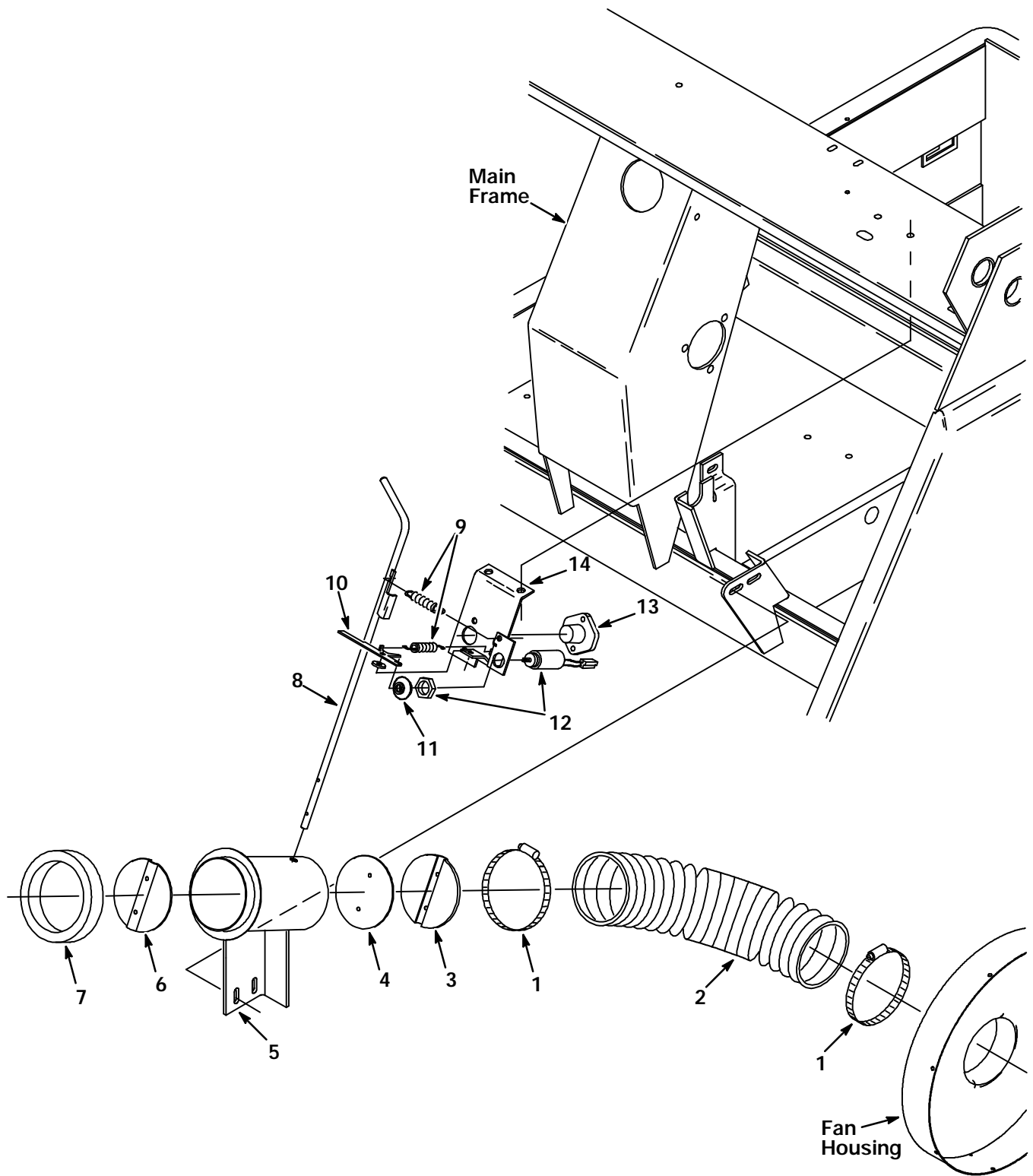


Fig. 12 - Vacuum Fan Control Group



Fig. 12 - Vacuum Fan Control Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	23498	(000000- )	Clamp, Worm Drive	2
2	87051	(000000- )	Duct, Vacuum	1
3	49300	(000000- )	Damper1	
4	87983	(000000- )	Seal, Damper	1
5	87265	(000000- )	Tube, Vacuum Fan	1
6	46140	(000000- )	Plate, Damper	1
7	47069	(000000- )	Sleeve	1
8	87580	(000000- )	Rod, Damper	1
9	09087	(000000- )	Spring, Tension	2
10	87573	(000000- )	Lever, Vacuum Fan	1
11	87707	(000000- )	Boot, Solenoid	1
12	87584	(000000- )	Solenoid Assembly	1
13	44078	(000000- )	Switch	1
14	87280	(000000- )	Bracket, Shaker Switch	1

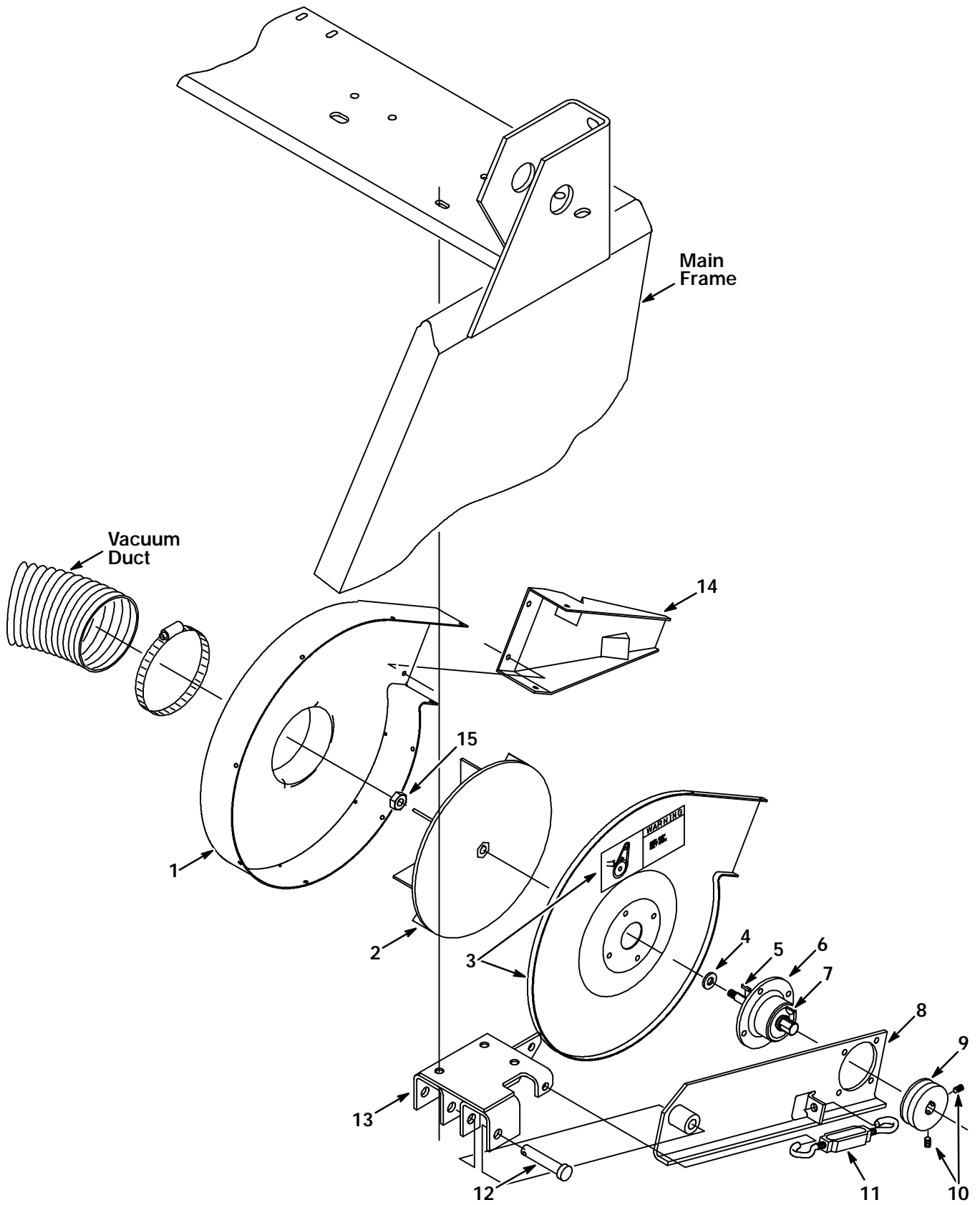


Fig. 13 - Vacuum Fan Assembly

**Fig. 13 - Vacuum Fan Assembly**

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	87624	(000000- )	Housing, Fan	1
2	08143	(000000- )	Impeller1	
3	87852	(000000- )	Plate and Decal Assembly	1
4	10362	(000000- )	Spacer	1
5	00960	(000000- )	Key, Square	1
6	16934	(000000- )	Shaft, Bearing and Flange Assembly	1
7	00500-4	(000000- )	Key, Woodruff	1
8	87620	(000000- )	Arm, Vacuum Fan	1
9	87630	(000000- )	Sheave, Fan	1
10	39328	(000000- )	Screw, Set	2
11	25494	(000000- )	Turnbuckle	1
12	06279	(000000- )	Pin, Clevis	1
13	87860	(000000- )	Bracket, Vacuum Fan	1
14	87644	(000000- )	Deflector, Vacuum Fan	1
15	87299	(000000- )	Nut , Flex Loc	1

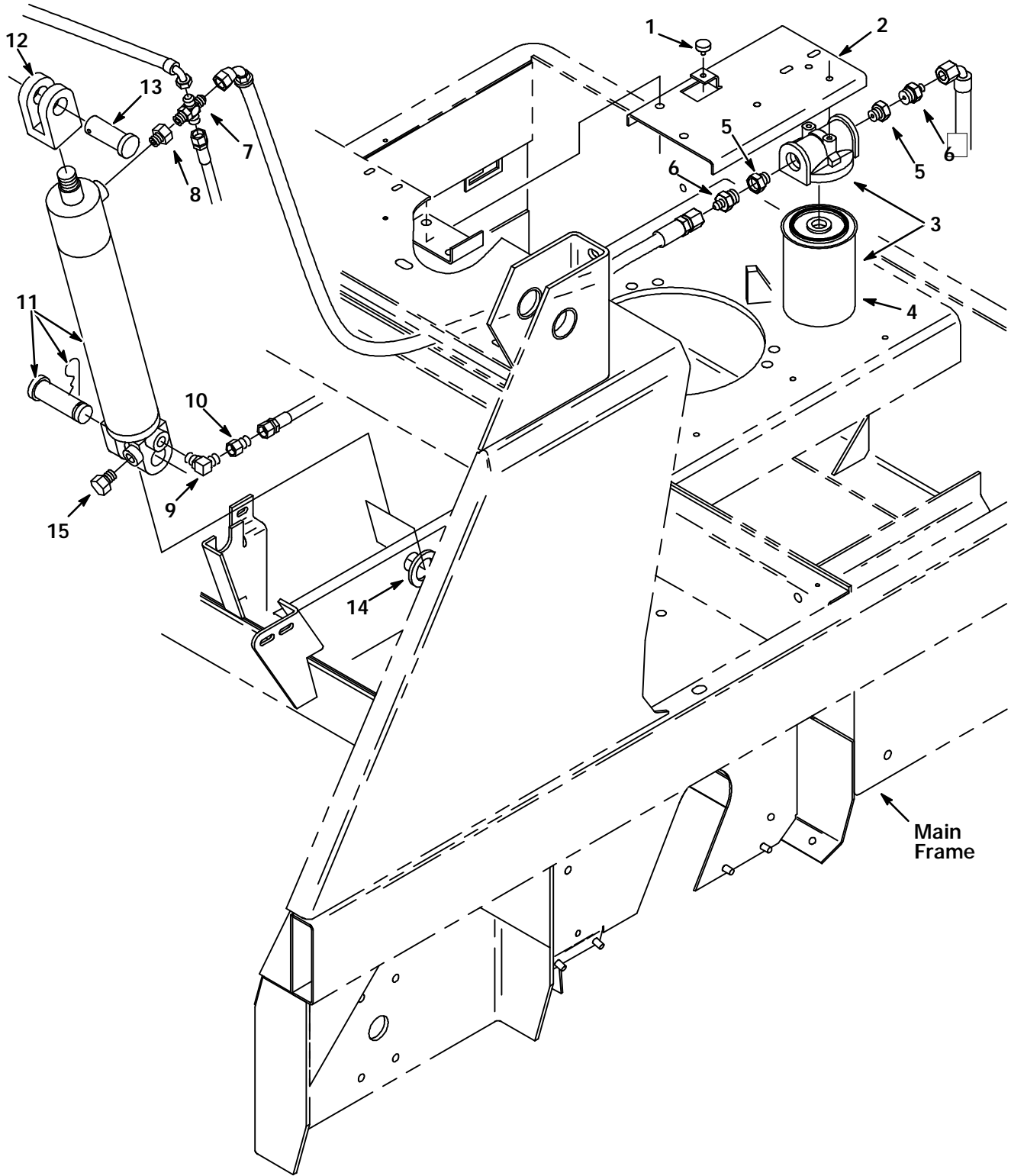


Fig. 14 - Hydraulic Lift Cylinder and Filter Group

Fig. 14 - Hydraulic Lift Cylinder and Filter Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	51787	(000000- )	Bumper, Rubber	1
2	48657	(000000- )	Bracket, Filter	1
3	55619	(000000- )	Filter Assembly	1
4	55740	(000000- )	Element, Hydraulic Filter	1
5	47519	(000000- )	Fitting, Straight	2
6	55686	(000000- )	Fitting, Straight	2
7	82802	(000000- )	Fitting, Cross	1
8	87414	(000000- )	Fitting, Straight	1
9	47638	(000000- )	Fitting, Elbow	1
10	16455	(000000- )	Fitting, Restrictor	1
11	87055	(000000-002748)	Cylinder, Hydraulic (See Hydraulic Components)	1
11	48575	(002749-003295)	Cylinder, Hydraulic (See Hydraulic Components)	1
11	65223	(003296- )	Cylinder, Hydraulic (See Hydraulic Components)	1
12	87079	(000000- )	Clevis, Cylinder	1
13	04733-4	(000000- )	Pin, Clevis	1
14	32969	(000000- )	Washer	1
15	46482	(003296- )	Fitting, Plug	1

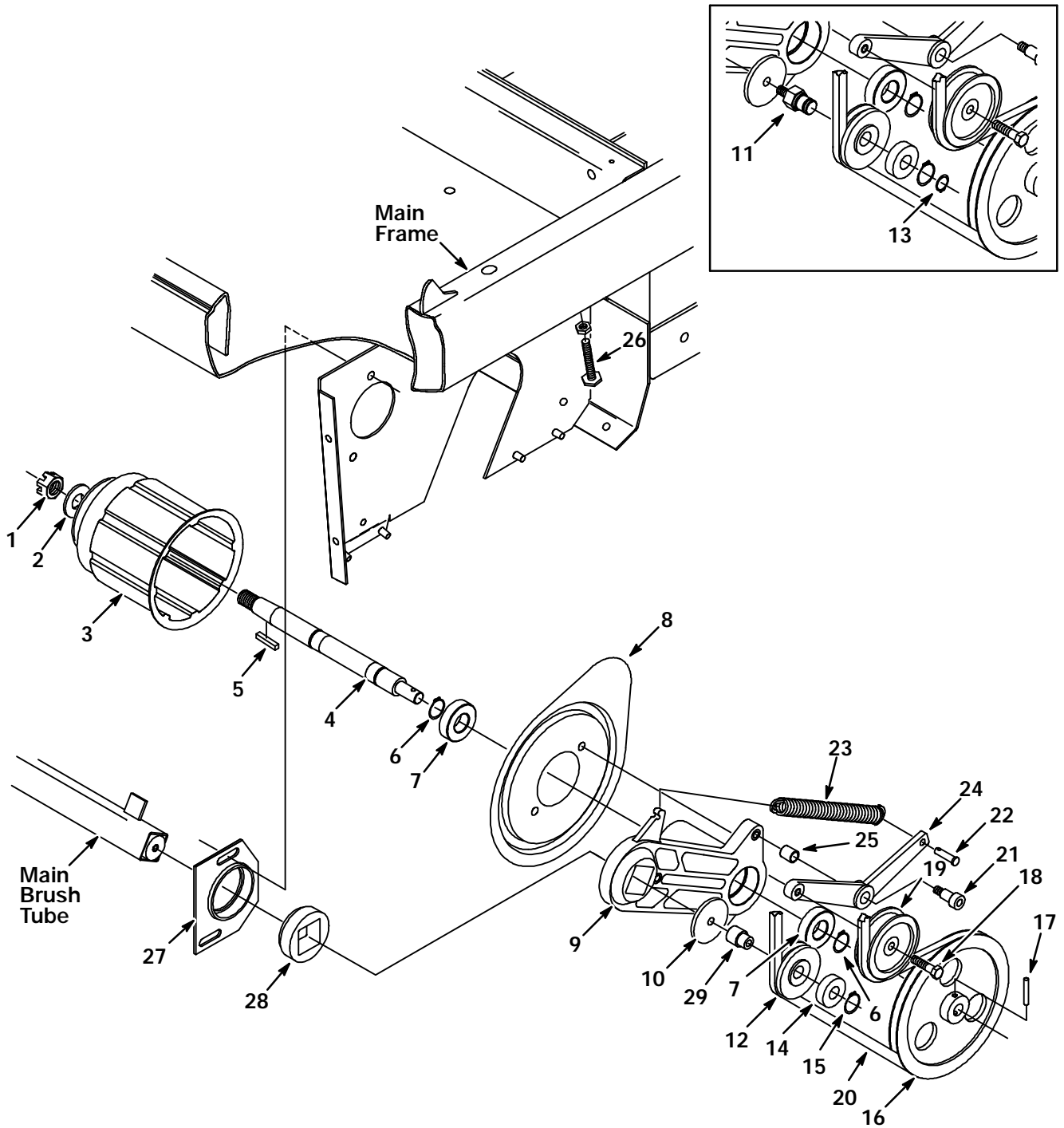


Fig. 15 - Main Brush Drive Group

Fig. 15 - Main Brush Drive Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	39527	(000000- )	Nut, Slotted	1
2	39350	(000000- )	Washer	1
3	87631	(000000- )	Plug, Brush Drive	1
4	87040	(000000- )	Shaft, Drive	1
5	00928	(000000- )	Key, Square	1
6	09005	(000000- )	Ring, Retaining	2
7	13534	(000000- )	Bearing, Ball	2
8	87368	(000000- )	Flange, Debris	1
9	87030	(000000- )	Arm, Main Brush	1
10	87078	(000000- )	Washer, Brush Arm	1
11	87027	(000000-001437)	Shaft, Sheave Mount (Replaced by 87267)	1
12	49495	(000000- )	Sheave	1
13	23225	(000000-001437)	Ring, Retaining	1
14	01844	(000000- )	Bearing, Ball	1
15	23224	(000000- )	Ring, Retaining	1
16	49439	(000000- )	Sheave	1
17	01866	(000000- )	Pin, Roll	1
18	82842	(000000- )	Screw, Nylon Hex	1
19	02356	(000000- )	Pulley, Idler	1
20	87474	(000000- )	V-Belt	1
21	33123	(000000- )	Screw, Shoulder	1
22	09370	(000000- )	Pin, Clevis	1
23	46785-1	(000000- )	Spring, Tension	1
24	87645	(000000- )	Arm Assembly, Idler	1
25	87646	(000000- )	Bearing, Bronze	1
26	30205	(000000- )	Screw, Leveler	1
27	87215	(000000- )	Housing, Bearing	1
28	87080	(000000- )	Bearing	1
29	87267	(001438- )	Spacer, Bearing	1

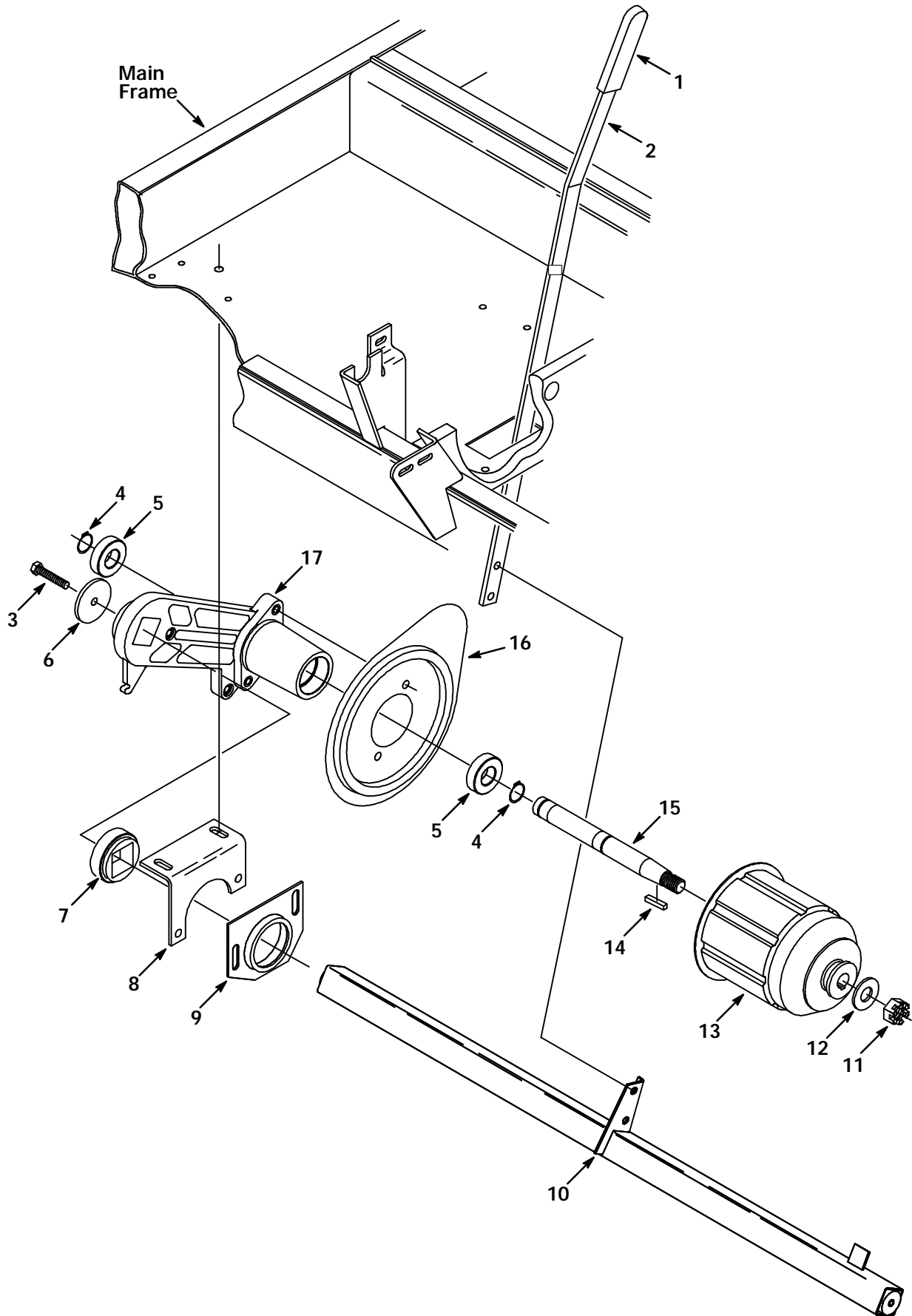


Fig. 16 - Main Brush Idler Group



Fig. 16 - Main Brush Idler Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	16447	(000000- )	Grip, Handle	1
2	87275	(000000- )	Handle, Brush Lift	1
3	55347	(000000- )	Screw, Hex	1
4	09005	(000000- )	Ring, Retaining	2
5	13534	(000000- )	Bearing, Ball	2
6	87078	(000000- )	Washer, Brush Arm	1
7	87080	(000000- )	Bearing	1
8	87088	(000000- )	Bracket, Bearing Housing	1
9	87215	(000000- )	Housing, Bearing	1
10	87082	(000000- )	Tube, Main Brush	1
11	39527	(000000- )	Nut, Slotted	1
12	39350	(000000- )	Washer	1
13	87631	(000000- )	Plug, Brush Drive	1
14	00928	(000000- )	Key, Square	1
15	87041	(000000- )	Shaft, Idler	1
16	87368	(000000- )	Flange, Debris	1
17	87030	(000000- )	Arm, Main Brush	1

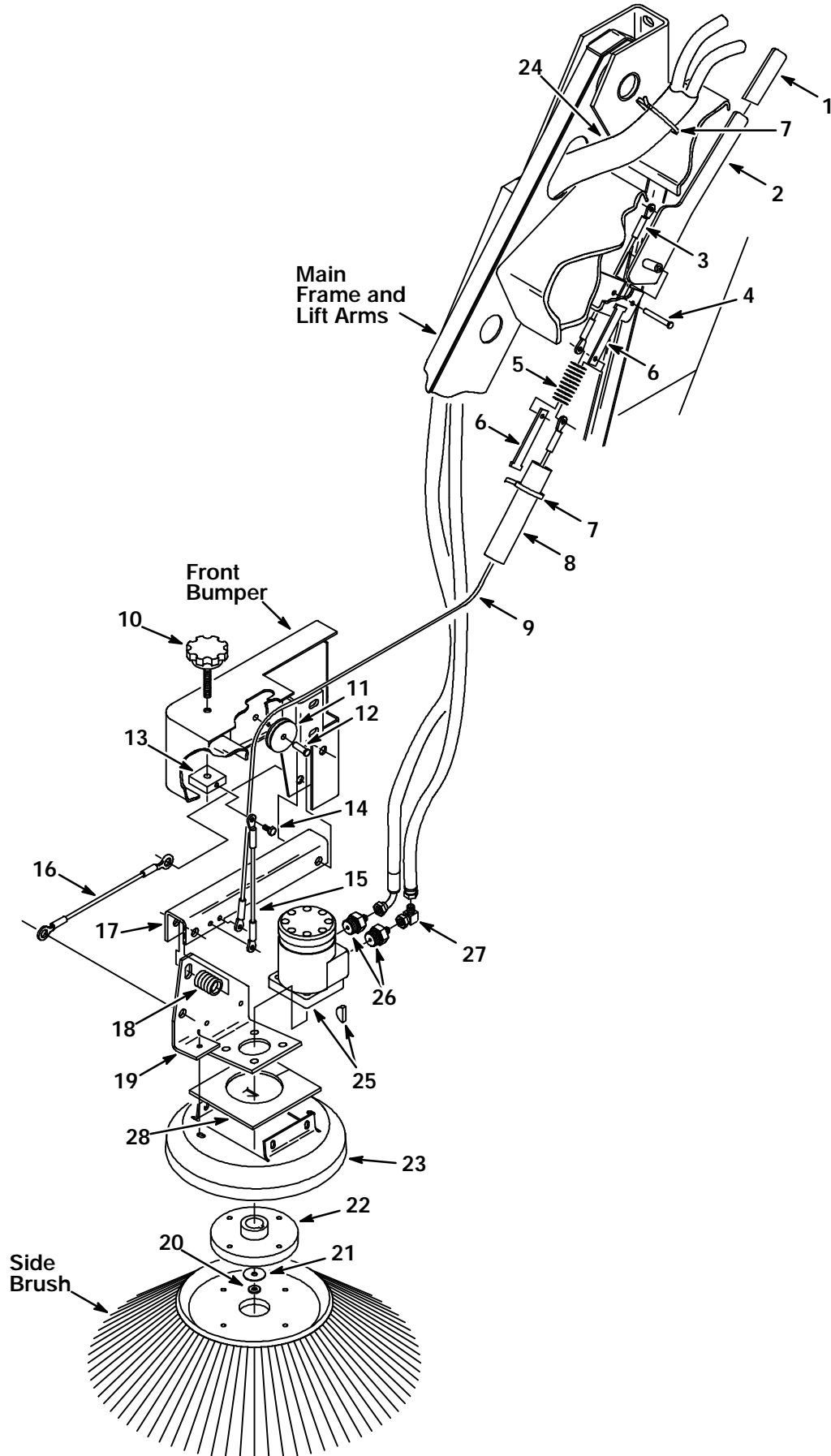


Fig. 17 - Side Brush Group

Fig. 17 - Side Brush Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	16447	(000000- )	Grip, Handle	1
2	87574	(000000- )	Handle, Side Brush	1
3	87297	(000000- )	Cable, Brush Adjustment	1
4	04734	(000000- )	Pin, Clevis	1
5	45261	(000000- )	Spring, Compression	1
6	87627	(000000- )	Strip, Spring	2
7	49266	(000000- )	Tie, Cable	3
8	57452	(000000- )	Sleeve, Hydraulic	1
9	87298	(000000- )	Cable, Brush Lift	1
10	36468	(000000- )	Knob	1
11	36070	(000000- )	Pulley, Cable	1
12	04733	(000000- )	Pin, Clevis	1
13	87293	(000000- )	Block, Threaded	1
14	58670	(000000- )	Screw, Nylon Hex	1
15	87297	(000000- )	Cable, Brush Adjustment	1
16	87172	(000000- )	Cable, Side Brush	1
17	87170	(000000- )	Channel, Side Brush Mounting	1
18	87242	(000000- )	Spring	1
19	87221	(000000- )	Bracket, Motor Mounting	1
20	41185	(000000- )	Washer, Belleville	1
21	41178	(000000- )	Washer	1
22	87418	(000000- )	Mount	1
23	87439	(000000- )	Deflector, Side Brush	1
24	87656	(000000- )	Sleeve, Hydraulic	1
25	87475	(000000-001891)	Motor, Hydraulic (See Hydraulic Components)	1
25	28804	(001892- )	Motor, Hydraulic (See Hydraulic Components)	1
26	57984	(000000- )	Fitting, Straight	2
27	39210	(000000- )	Fitting, Elbow	1
28	87950	(000000- )	Deflector	1

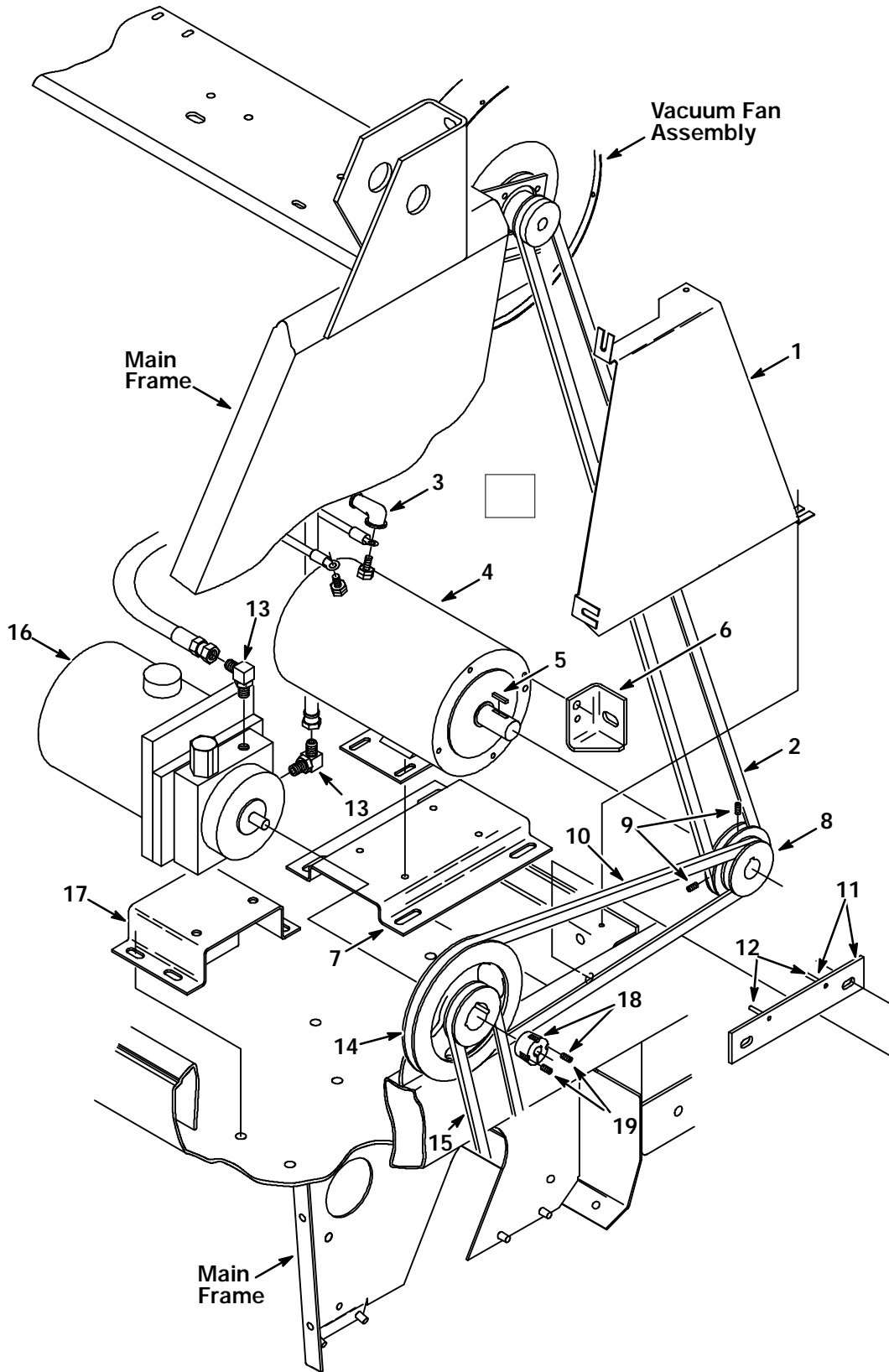


Fig. 18 - Main Brush Motor and Hydraulic Pump Group

Fig. 18 - Main Brush Motor and Hydraulic Pump Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	87524	(000000- )	Guard, Belt	1
2	87428	(000000- )	V-Belt	1
3	02076	(000000- )	Cover, Terminal	2
4	36260	(000000- )	Motor, Electric	1
5	38824	(000000- )	Brush Assembly	4
	00927	(000000- )	Key, Square	1
6	87590	(000000- )	Bracket, Belt Adjustment	1
7	87233	(000000- )	Bracket Assembly, Motor	1
8	87237	(000000- )	Sheave, Electric Motor	1
9	50011	(000000- )	Screw, Set	2
10	87473	(000000- )	V-Belt	1
11	87236	(000000- )	Plate Assembly, Belt Retaining	1
12	26103	(000000- )	Pin, Roll	2
13	47638	(000000- )	Fitting, Elbow	2
14	87238	(000000- )	Sheave, Hydraulic Power Unit	1
15	87474	(000000- )	V-Belt	1
16	87340	(000000- )	Power Unit, Hydraulic (See Hydraulic Components)	1
17	87416	(000000- )	Bracket, Hydraulic Power Unit	1
18	87339	(000000- )	Bushing, Taper Lock	1
19	39330	(000000- )	Screw, Set	2

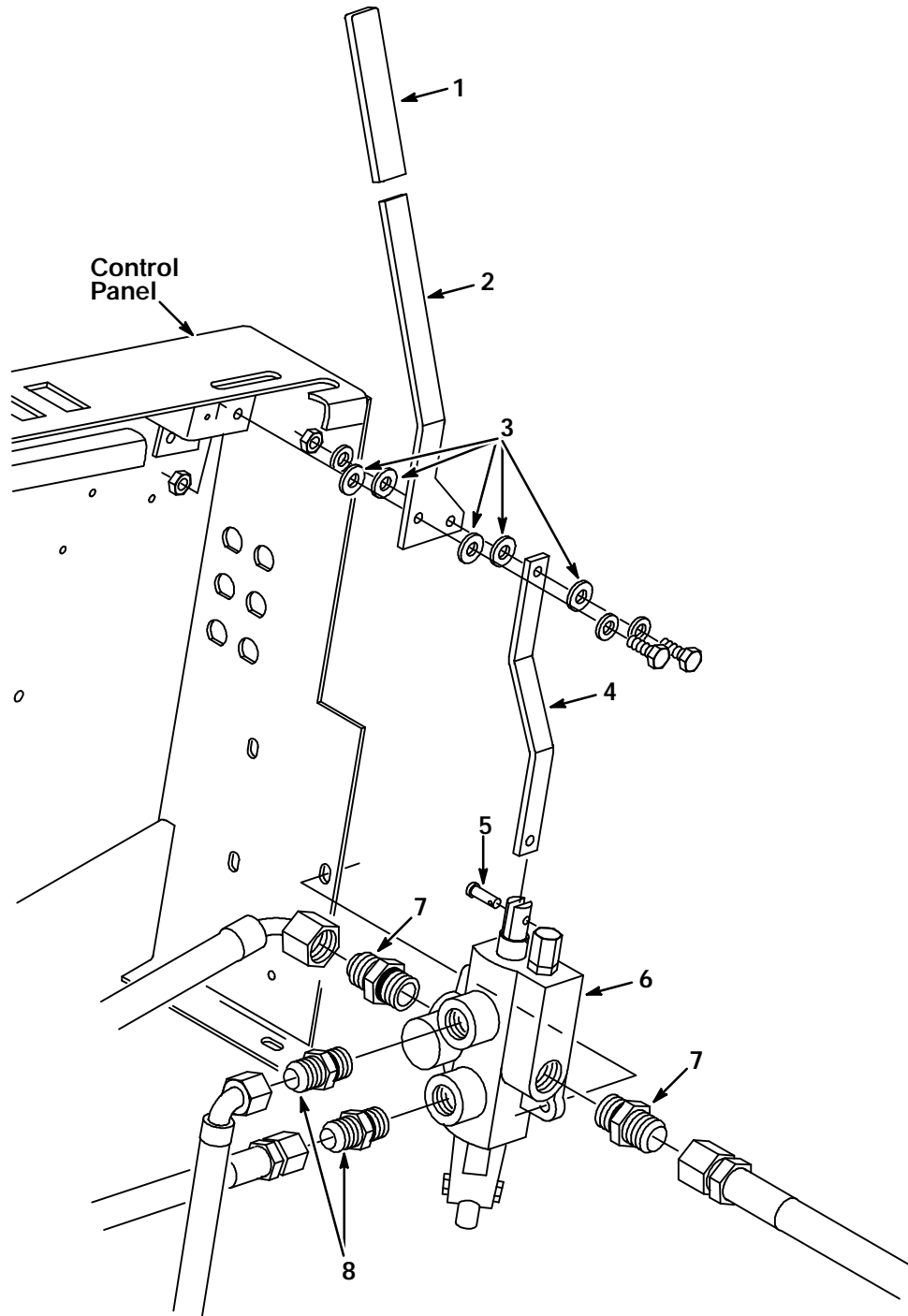


Fig. 19 - Hopper Control Valve Group

03278

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	87246	(000000- )	Grip, Vinyl	1
2	87375	(000000- )	Lever, Hydraulic Valve	1
3	43454	(000000- )	Washer, Nylon	5
4	87376	(000000- )	Arm, Extension	1
5	14605	(000000- )	Pin, Clevis	1
6	87409	(000000- )	Valve, Hydraulic (See Hydraulic Components)	1
7	57984	(000000- )	Fitting, Straight	2
8	55686	(000000- )	Fitting, Straight	2

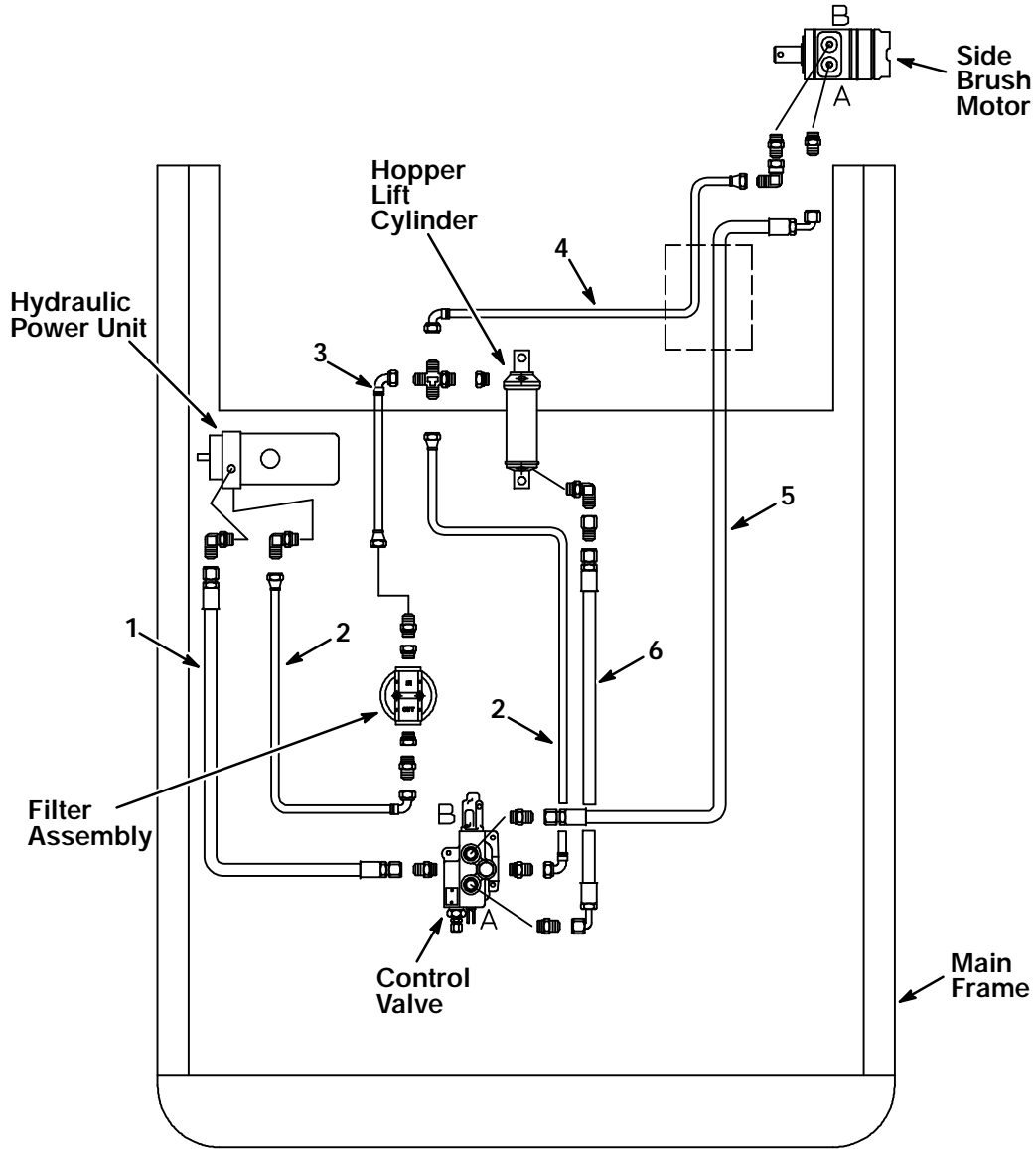


Fig. 20 - Hydraulic Hoses Group

03283

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	34382	(000000- )	Hose, Hydraulic	1
2	16474	(000000- )	Hose, Hydraulic	2
3	57965	(000000- )	Hose, Hydraulic	1
4	87654	(000000- )	Hose, Hydraulic	1
5	87652	(000000- )	Hose, Hydraulic	1
6	87651	(000000- )	Hose, Hydraulic	1

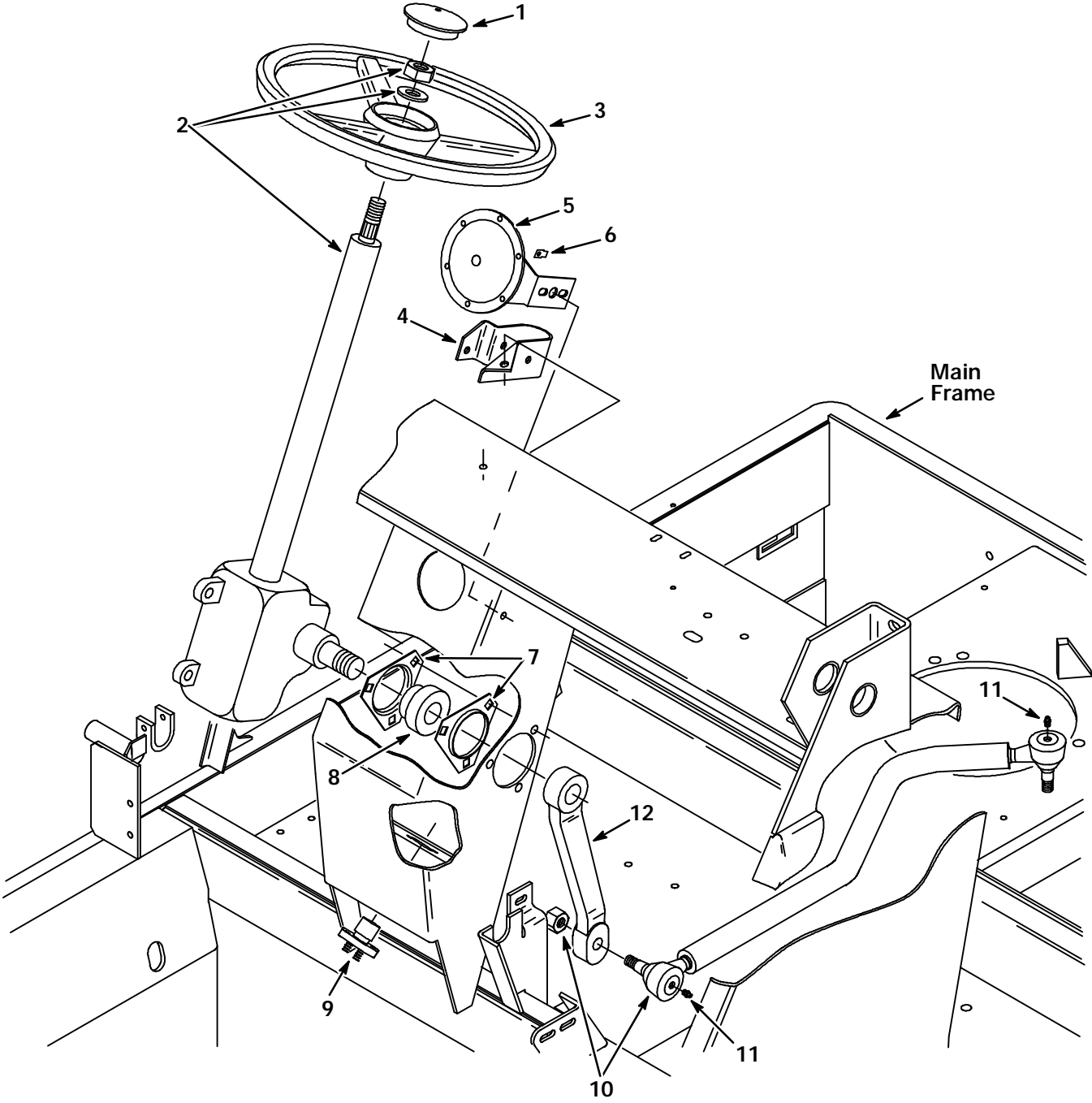


Fig. 21 - Steering Wheel Group



Fig. 21 - Steering Wheel Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	57497	(000000- )	Cap, Rubber	1
2	49452	(000000- )	Gear Assembly, Steering	1
3	87488	(000000- )	Wheel, Steering	1
4	87245	(000000- )	Bracket, Steering Column	1
5	10046	(000000- )	Horn	1
6	68106	(000000- )	Terminal, Tab	2
7	51449	(000000- )	Bearing, Flange	2
8	48050	(000000- )	Bearing and Collar	1
9	44078	(000000- )	Switch	1
10	87240	(000000- )	Link, Drag	1
11	07259	(000000- )	Fitting, Grease	2
12	87820	(000000- )	Arm, Pitman	1

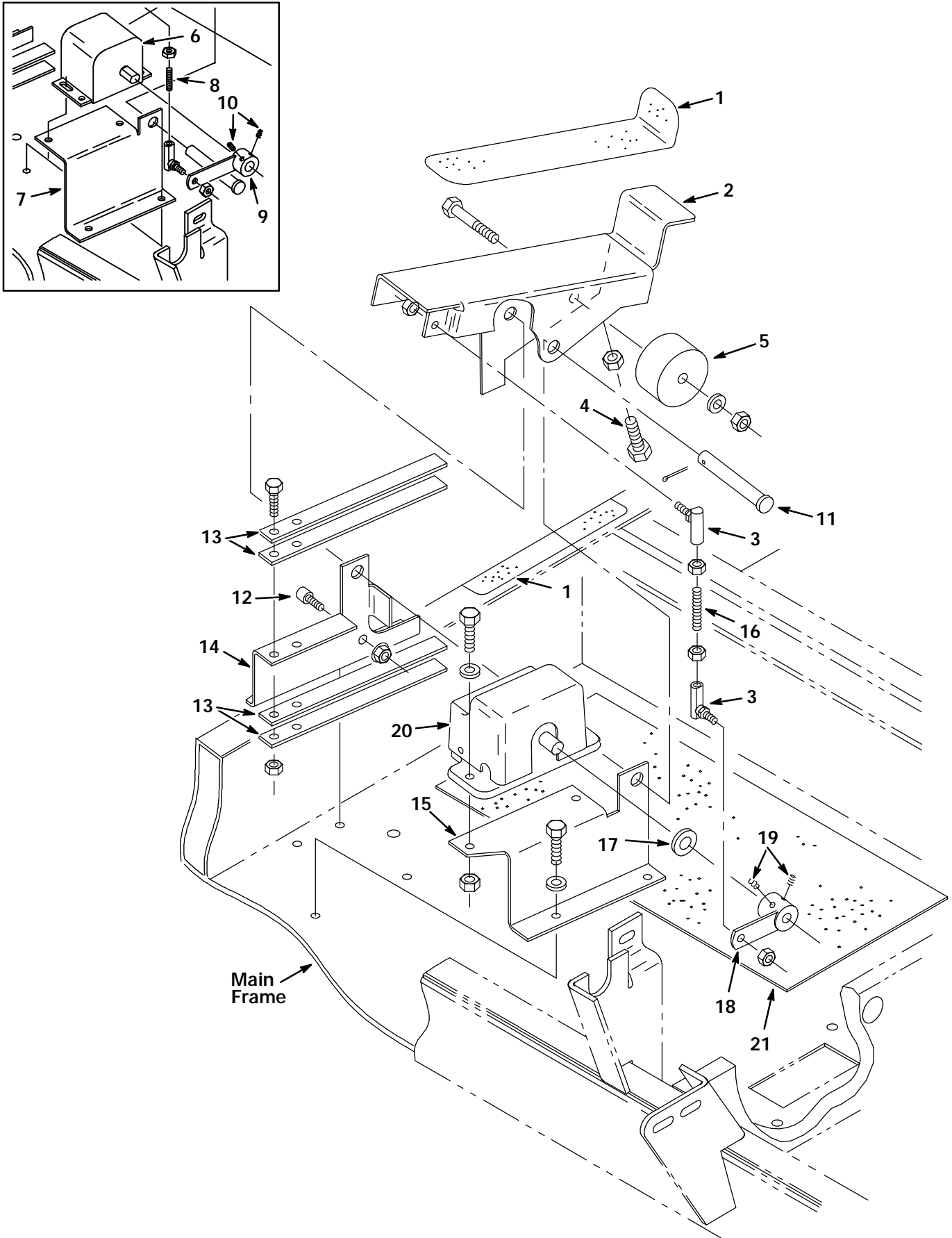


Fig. 22 - Directional Pedal Group

Fig. 22 - Directional Pedal Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	82839	(000000- )	Pad, Tread	2
2	87957	(000000- )	Pedal	1
3	14601	(000000- )	Ball Joint	2
4	36801	(000000- )	Screw, Hex, Full Thread	1
5	87725	(000000- )	Spacer	1
6	48538	(000000-002204)	Accelerator Replacement Kit	1
7	87719	(000000-002204)	Bracket, Mounting, L.H.	1
8	36971	(000000-002204)	Stud	1
9	87714	(000000-002204)	Lever, Speed Control	1
10	20634	(000000-002204)	Screw, Nylon Set	2
11	06474A	(000000- )	Pin, Clevis	1
12	02984	(000000- )	Screw, Socket	1
13	49681	(000000- )	Plate, Spring	4
14	87718	(000000- )	Bracket, Mounting, R.H.	1
15	14409	(002205- )	Bracket, Pedal Mount, L.H.	1
16	42196	(002205- )	Rod, Threaded	1
17	43611	(002205- )	Washer, Nylon	1
18	14400	(002205- )	Arm	1
19	17186	(002205- )	Screw, Set	2
20	14368	(002205- )	Accelerator Unit, Curtis	1
21	16369	(000000- )	Tread, Floor	1

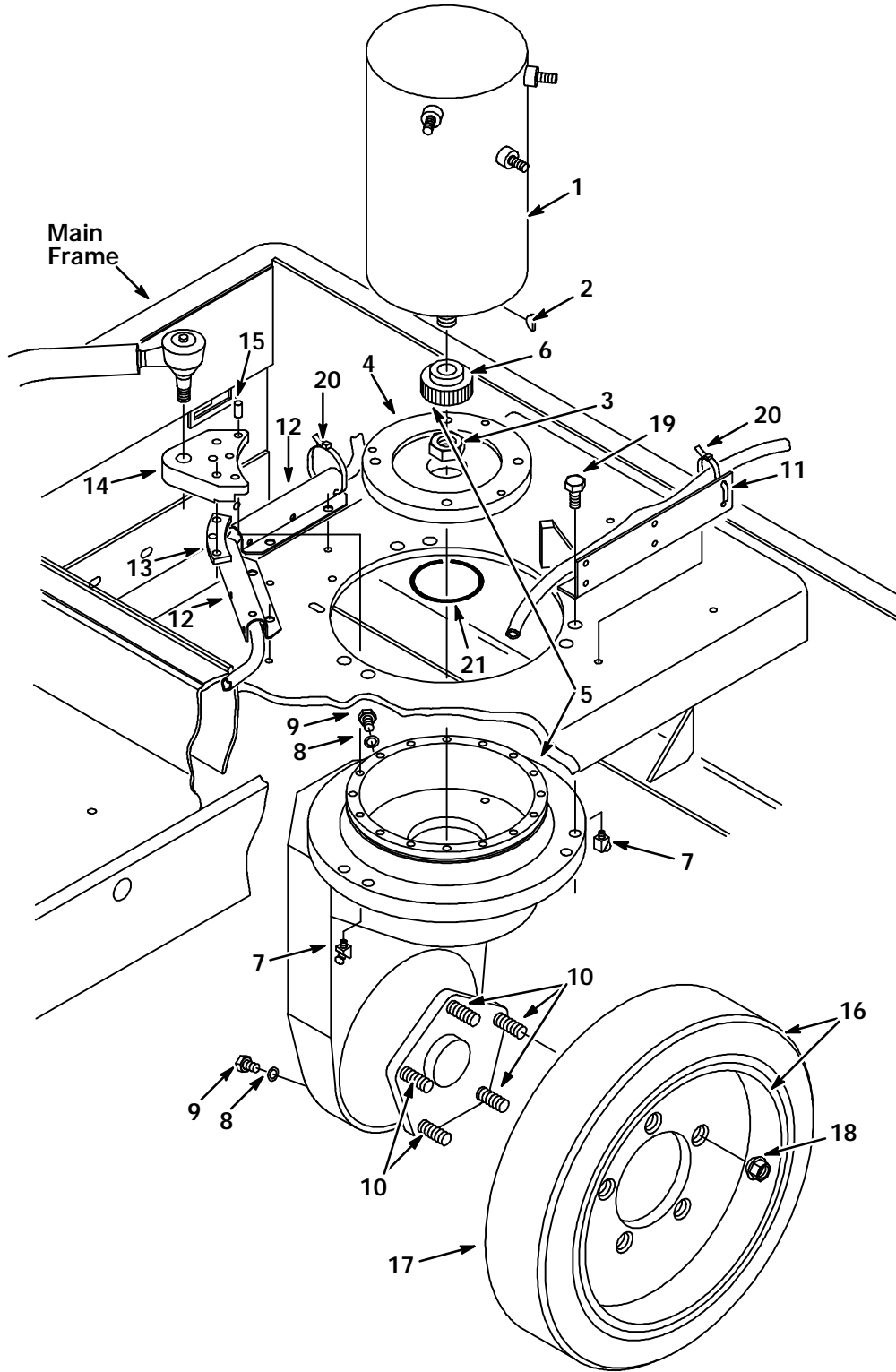


Fig. 23 - Rear Drive Wheel Group

Fig. 23 - Rear Drive Wheel Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	87249	(000000- )	Motor, Electric	1
	87864	(000000- )	Brush Set	1
2	87774	(000000- )	Key, Woodruff	1
3	51824	(000000- )	Nut, Nylon Lock	1
4	87469	(000000- )	Adaptor, Motor	1
5	87355	(000000- )	Gearbox	1
	61791	(000000- )	Bearing and Housing Assembly	1
6	87849	(000000- )	Gear	1
7	87839	(000000- )	Fitting, Grease	2
8	87840	(000000- )	Seal	2
9	87841	(000000- )	Plug	2
10	12540	(000000- )	Bolt, Wheel	5
11	87554	(000000- )	Angle, Cable Mounting	1
12	87549	(000000- )	Cover, Harness	2
13	87359	(000000- )	Clamp, Steering	1
14	87751	(000000- )	Ear Assembly, Steering	1
15	87749	(000000- )	Pin, Dowel	3
16	87193	(000000- )	Tire and Wheel Assembly, Solid	1
17	87054	(000000- )	Tire, Solid	1
18	87750	(000000- )	Nut, Wheel	5
19	41345	(000000- )	Screw, Hex	6
20	49266	(000000- )	Tie, Cable	9
21	12545	(000000- )	Seal, O-Ring	1

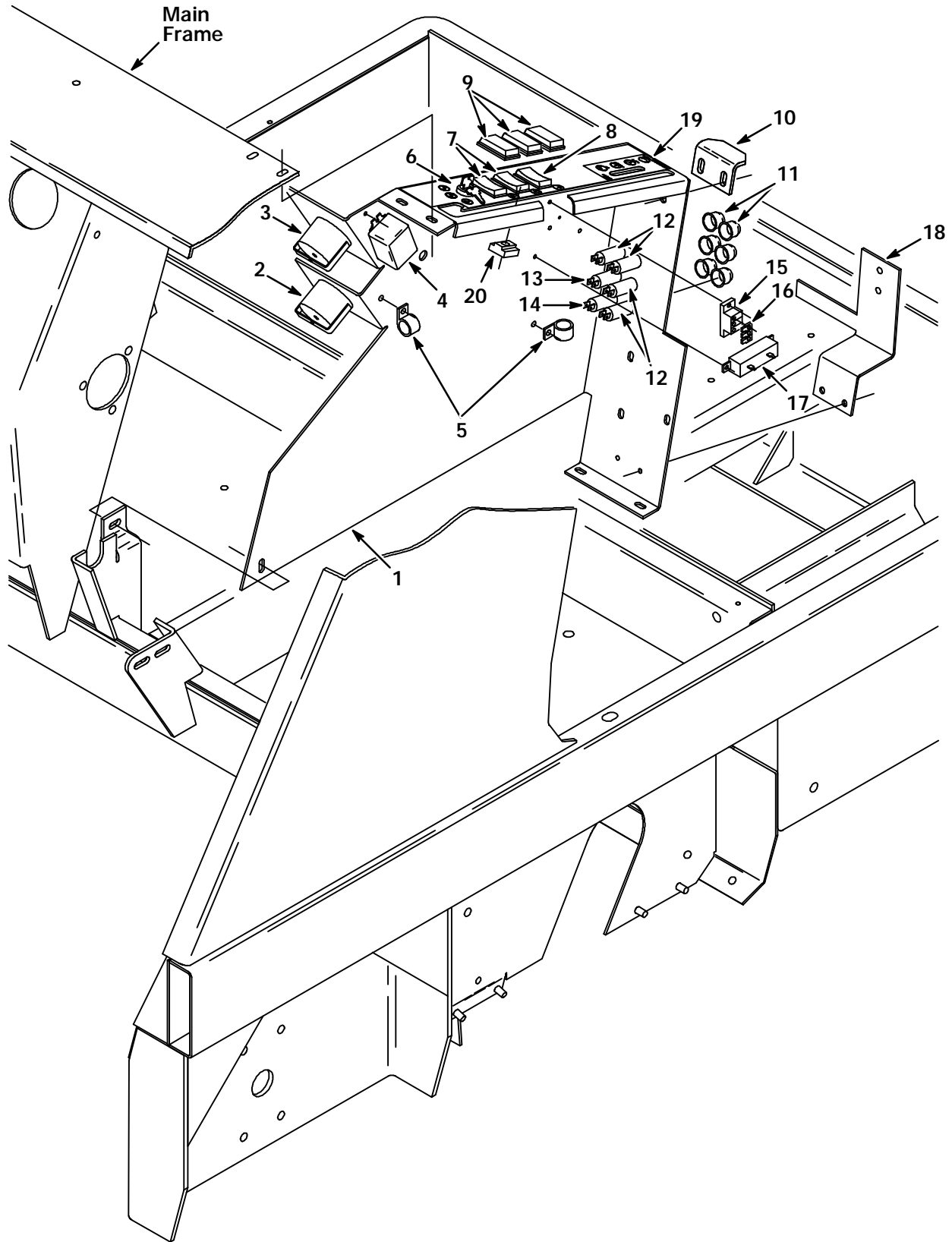


Fig. 24 - Control Panel Group

Fig. 24 - Control Panel Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	87278	(000000- )	Panel, Control	1
2	87289	(000000- )	Indicator, Battery Discharge	1
3	12087	(000000- )	Gauge, Hour	1
4	87284	(000000- )	Relay	1
5	40678-1	(000000- )	Clamp, Cable	2
6	31203	(000000- )	Switch Assembly, Key	1
	31204	(000000- )	Key Set	1
7	31965	(000000- )	Switch, Rocker, SPST	2
8	31964	(000000- )	Switch, Rocker, DPDT	1
9	57807	(000000- )	Seal, Rocker Switch	3
10	87369	(000000- )	Stop, Seat Support	1
11	57751	(000000- )	Boot, Circuit Breaker	6
12	57164	(000000- )	Circuit Breaker, 10 A	4
13	87583	(000000- )	Circuit Breaker, 2.5 A	1
14	57803	(000000- )	Circuit Breaker, 15 A	1
15	68113	(000000- )	Diode Assembly	1
16	48252	(000000- )	Terminal, Tab	3
17	87349	(000000- )	Resistor	1
18	87383	(000000- )	Bracket, Connector	1
19	87635	(000000- )	Label, Control Panel	1
20	48568	(000000- )	Nut, Brush Limiter	1

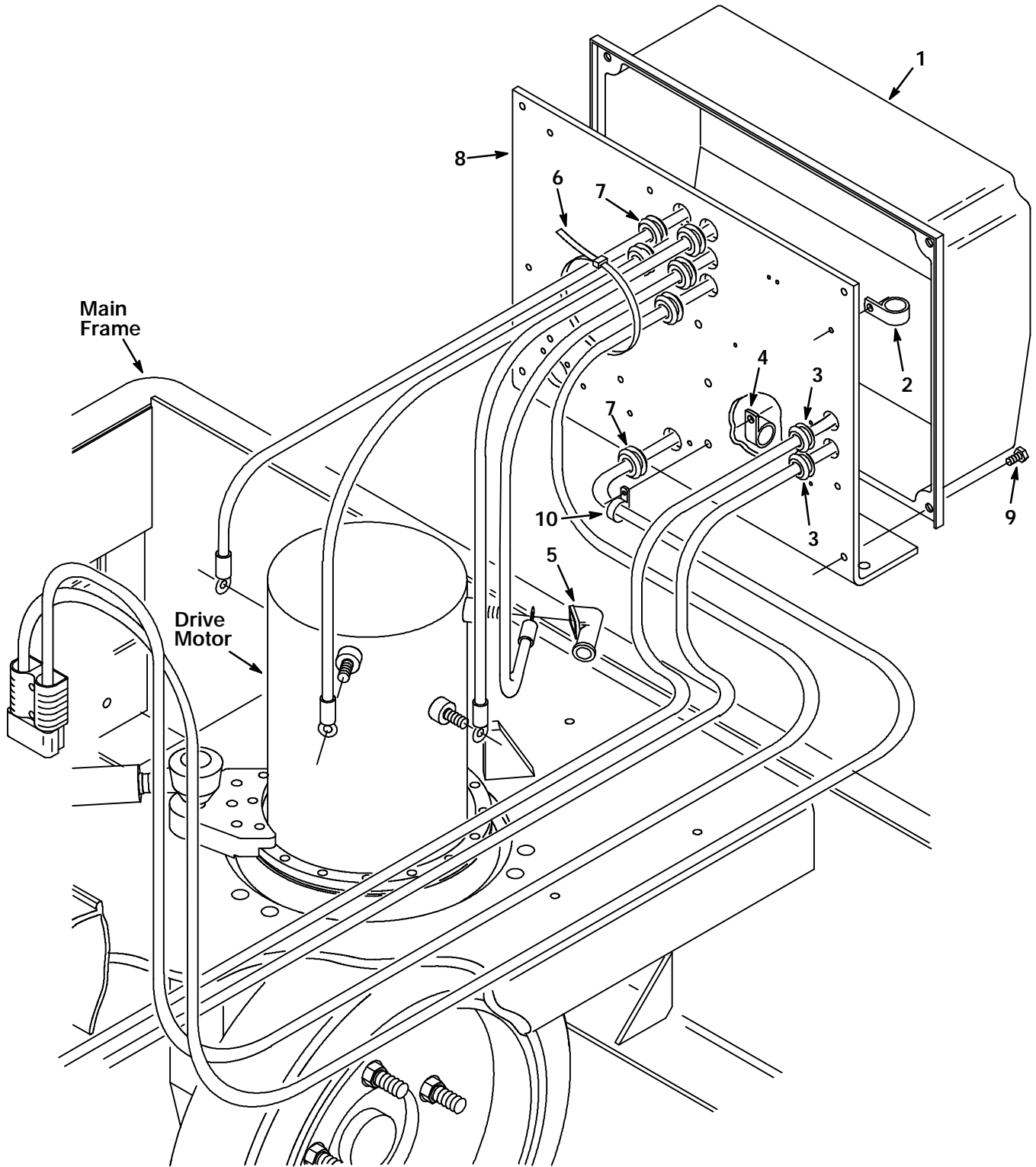


Fig. 25 - Electrical Component Plate Group



**Fig. 25 - Electrical Component Plate Group**

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	87258	(000000- )	Cover, Electrical Component	1
2	26395-2	(000000- )	Clamp, Cable	1
3	87514	(000000- )	Grommet	2
4	26395-1	(000000- )	Clamp, Cable	1
5	02076	(000000- )	Cover, Terminal	4
6	49266	(000000- )	Tie, Cable	2
7	87515	(000000- )	Grommet	6
8	87259	(000000-002310)	Plate, Electrical Component	1
8	87591	(002311- )	Plate Assembly, Electrical Component	1
9	58670	(000000- )	Screw, Hex	4
10	26395-1	(000000- )	Clamp, Cable	1

# STANDARD MODEL PARTS

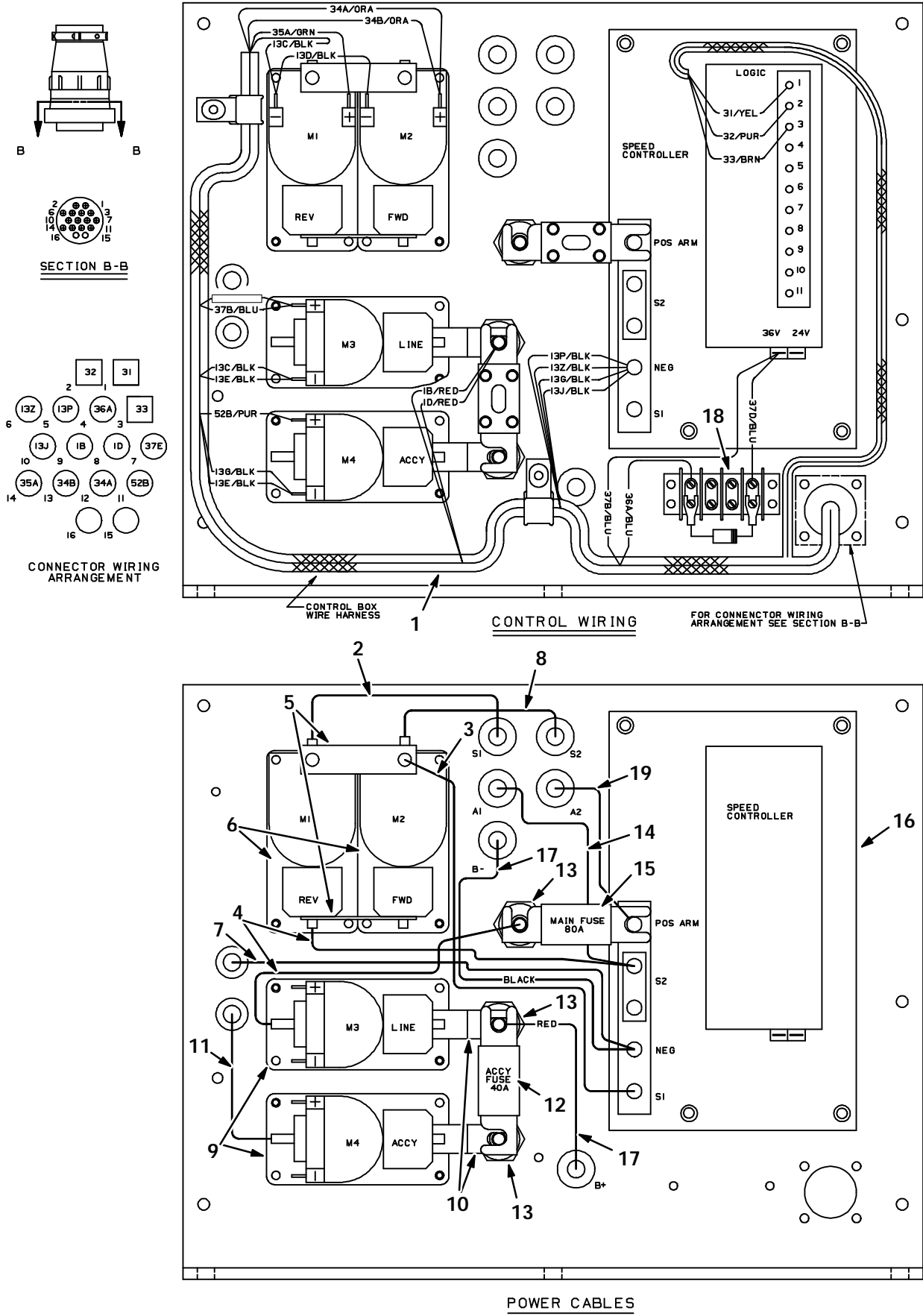


Fig. 26 - Control Box Group

Fig. 26 - Control Box Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	87517	(000000-002310)	Wire Harness, Control Box	1
2	87561	(000000-002310)	Wire Assembly	1
3	87565	(000000-002310)	Wire Assembly	1
4	87564	(000000-002310)	Wire Assembly	2
5	87483	(000000-002310)	Buss Bar, Relay	2
6	87482	(000000-002310)	Contactor	2
7	87567	(000000-002310)	Wire Assembly	1
8	87562	(000000-002310)	Wire Assembly	1
9	86375	(000000-002310)	Contactor	2
10	87507	(000000-002310)	Buss Bar, Fuse	2
11	87566	(000000-002310)	Wire Assembly	1
12	87319	(000000-002310)	Fuse, 40 A	1
13	76062	(000000-002310)	Insulator	3
14	87560	(000000-002310)	Wire Assembly	1
15	87318	(000000-002310)	Fuse, 80 A	1
16	48543	(000000-002310)	Controller Replacement Kit	1
17	87559	(000000-002310)	Wire Harness, Controller	1
	22892	(000000-002310)	Connector, Grey, 175 A	1
18	02327	(000000-002310)	Diode, Assembly	1
19	87558	(000000-002310)	Wire Assembly	1

# STANDARD MODEL PARTS

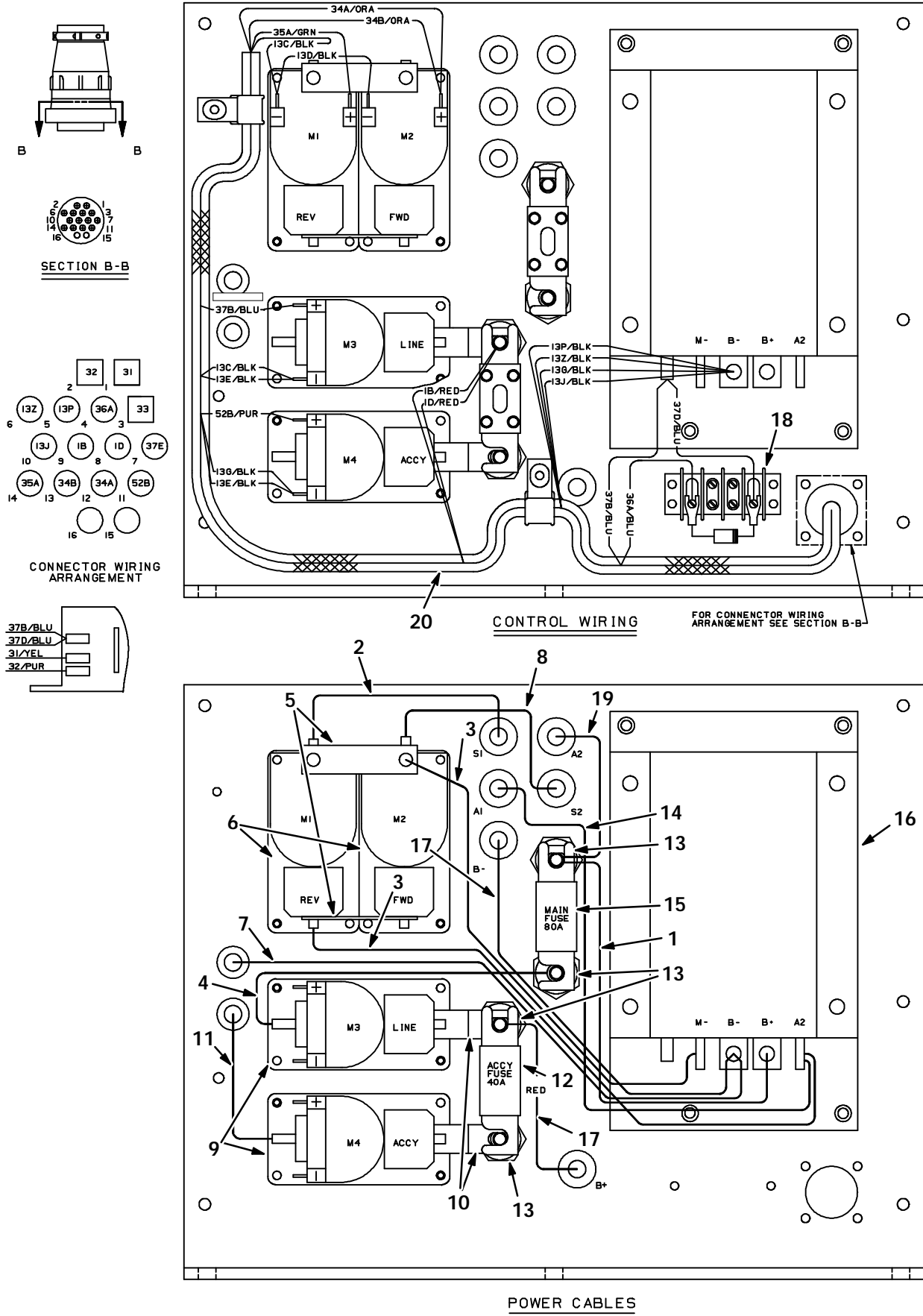


Fig. 27 - Control Box Group

Fig. 27 - Control Box Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	15846	(002311- )	Wire Assembly	1
2	87561	(002311- )	Wire Assembly	1
3	87495	(002311- )	Wire Assembly	2
4	87564	(002311- )	Wire Assembly	1
5	87483	(002311- )	Buss Bar, Relay	2
6	87482	(002311- )	Contactor	2
7	87498	(002311- )	Wire Assembly	1
8	87562	(002311- )	Wire Assembly	1
9	86375	(002311- )	Contactor	2
10	87507	(002311- )	Buss Bar, Fuse	2
11	87566	(002311- )	Wire Assembly	1
12	87319	(002311- )	Fuse, 40 A	1
13	76062	(002311- )	Insulator	4
14	87496	(002311- )	Wire Assembly	1
15	87318	(002311- )	Fuse, 80 A	1
16	48533	(002311- )	Controller Kit, Curtis	1
17	87971	(002311- )	Wire Harness, Controller	1
	22892	(002311- )	Connector, Grey, 175 A	1
18	02327	(002311- )	Diode, Assembly	1
19	87558	(002311- )	Wire Assembly	1
20	87823	(002311- )	Wire Harness, Control Box	1

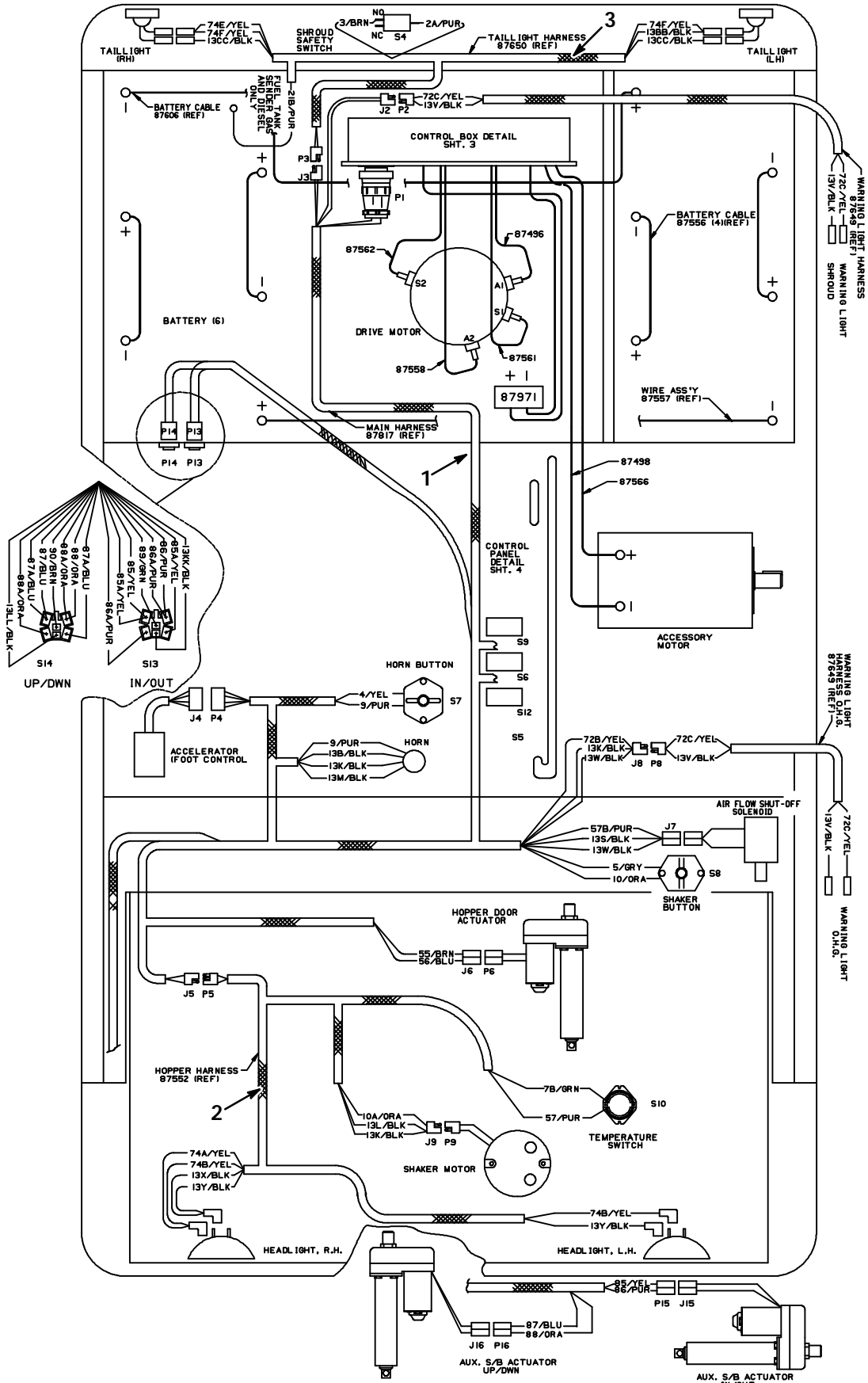


Fig. 28 - Wire Harness Group

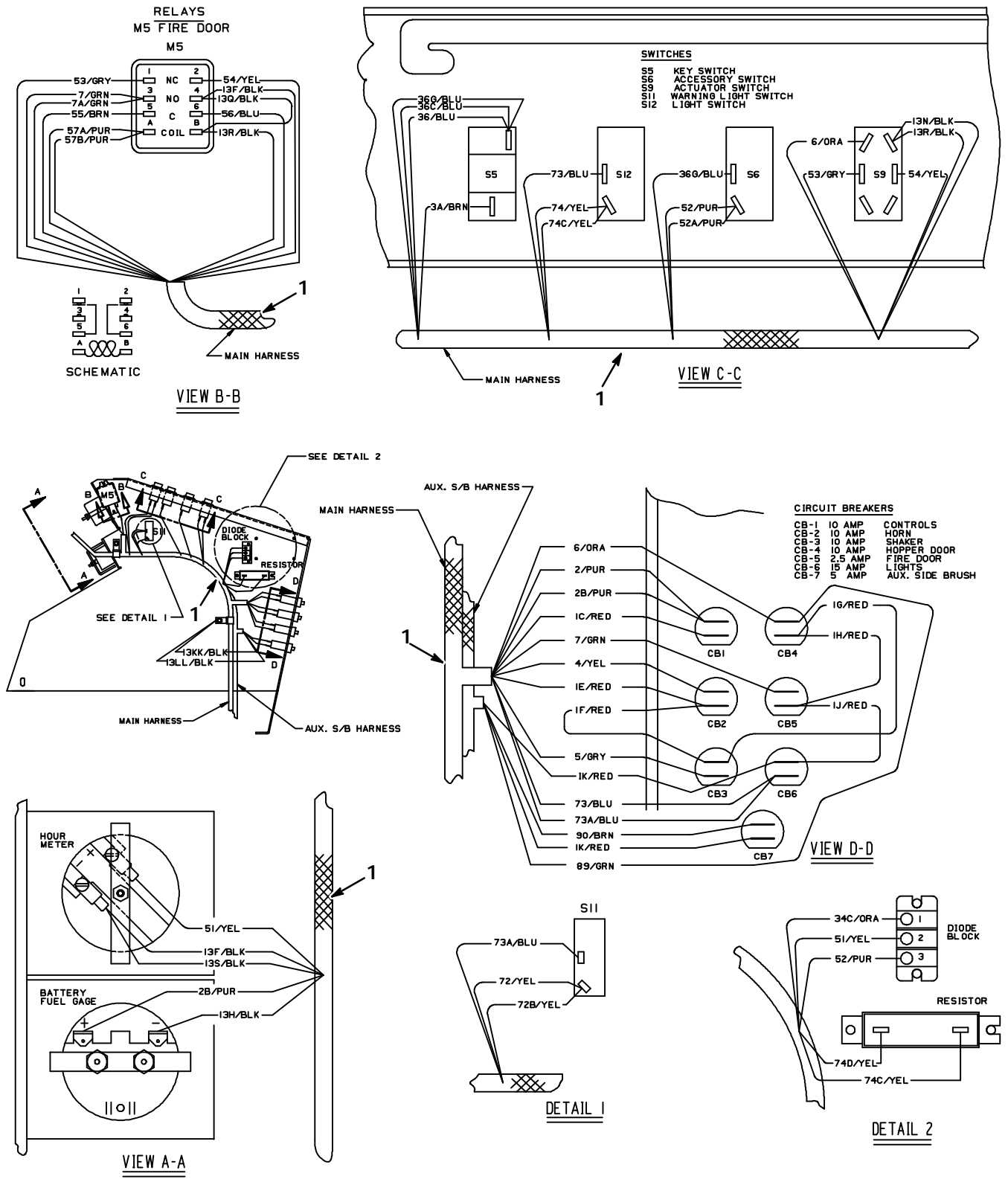


Fig. 28 - Wire Harness Group

03363

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	87429	(000000-002310)	Wire Harness, Main	1
1	87817	(002311- )	Wire Harness, Main	1
2	87552	(000000- )	Wire Harness, Hopper	1
3	87650	(000000- )	Wire Harness, Taillights	1

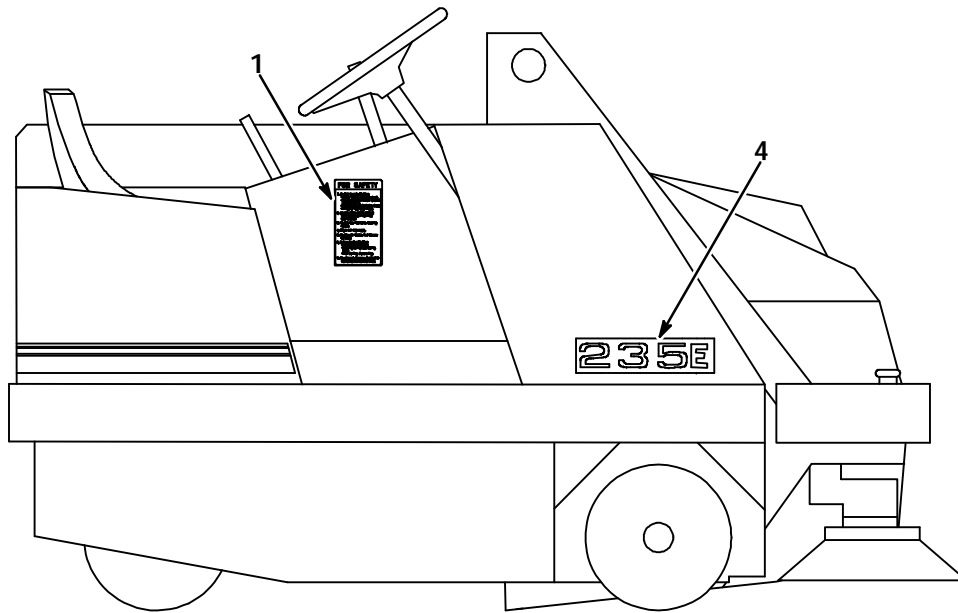
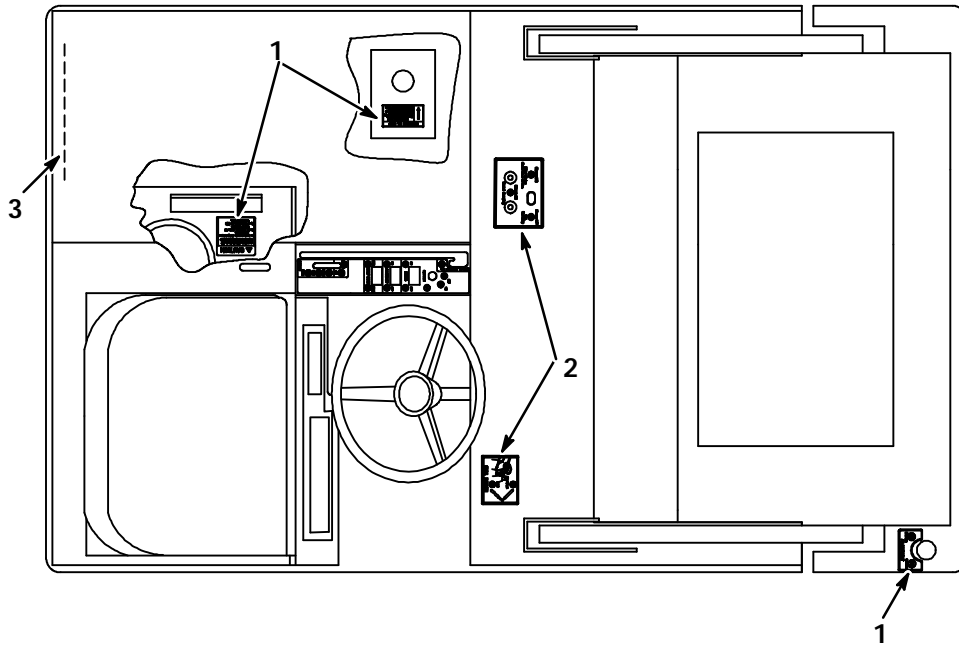


Fig. 29 - Labels Group

03285

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	87640	(000000- )	Label Kit, Information and Hazard	1
2	87639	(000000- )	Label Kit, Operation	1
3	87563	(000000- )	Label, Charging Instructions	1
4	87530	(000000- )	Label, Lintel, 235E	2
	87953	(000000- )	Label Replacement Kit, Complete 235E	1



SECTION 6

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*NOTE: SECTION 6, OPTIONS, lists repair parts included as part of the available options.*



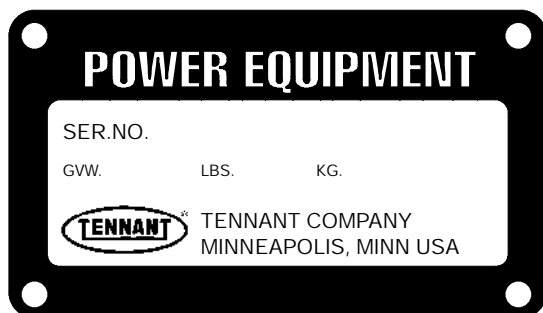
**ORDERING REPAIR PARTS**

The components used in this machine have been carefully selected for performance and safety. Use only TENNANT specified or equivalent parts.

To receive prompt service in filling of your parts orders, please direct all orders for parts with TENNANT part numbers to the TENNANT, and all orders for parts with vendor part numbers to the local supplier of the respective vendor.

When ordering parts, please furnish all of the following information:

1. Machine model number - shown on the machine data plate.



2. Machine serial number - shown on the machine data plate.
3. Power source - gasoline, LPG, diesel, electric.
4. Company name.
5. Shipping address.
6. Billing address.
7. Name, first and last - of person ordering parts.
8. Telephone number.
9. Purchase order number.
10. Part number, description, and quantity - of each item on the order.
11. Customer ID Number.

Do not order parts by key number or the figure number of the illustrated parts. Indented items indicate parts of assemblies. Standard hardware is furnished only when part of a purchased assembly. Please get hardware from a local hardware supplier.

If the old part cannot be identified, send it to us with the quantity needed specified on the order.

Any claim for loss or damage to a shipment in transit should be filed promptly against the transportation company making the delivery. Shipments will be complete unless the packing list or order acknowledgement indicate items back ordered.

If parts received are suspected to be incorrect or defective, please write, wire, or phone the TENNANT representative from whom you ordered the part. They will give authorization for return and/or handle replacement shipments when required.

**SERIAL NUMBER INFORMATION EXPLANATION**

Serial number listings are shown to indicate on which machines each part can be used. These listings are explained by the following examples:

(000000- ) The part can be used on all machines.

(003342- ) The part can be used on all machines beginning with the serial number listed.

(000000-004320) The part can be used on all machines up to and including serial number listed.

(004321-005678) The part can be used on all machines between and including the serial numbers listed.

Where xxxxxx's are listed in place of a serial number, it indicates a change was made but the exact serial number had not been established when the catalog went to press.

**SI UNITS OF MEASURE (INTERNATIONAL SYSTEM)**

Metric equivalents have been included, where applicable, throughout this parts catalog.

**FASTENER STRENGTH IDENTIFICATION**

Fasteners required to have high-strength qualities equivalent to SAE Grade 8 are identified throughout this catalog by the description GR 8. Unless identified by this description, all standard fasteners are SAE Grade 5.

(Specifications and design subject to change without notice.)

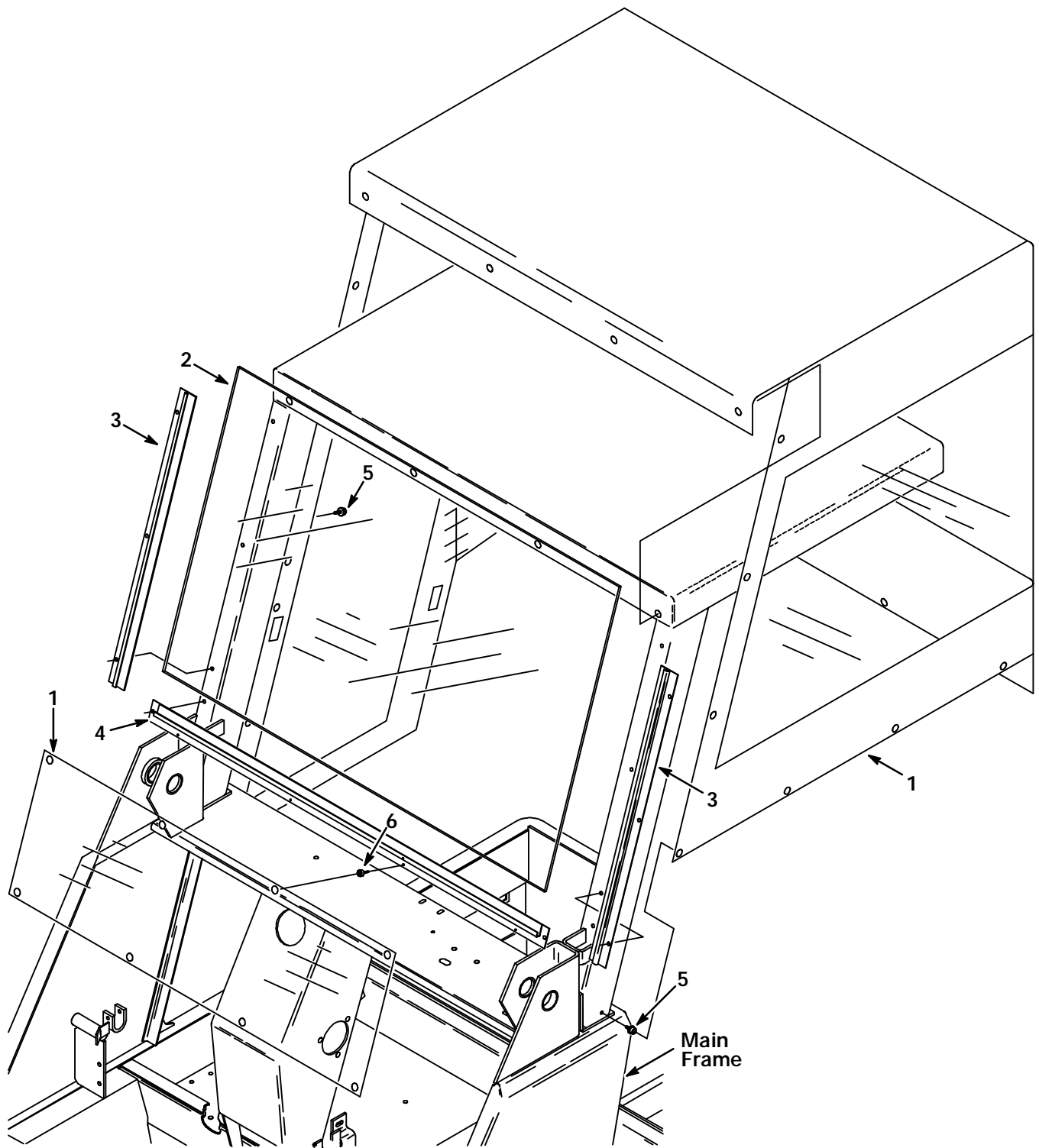
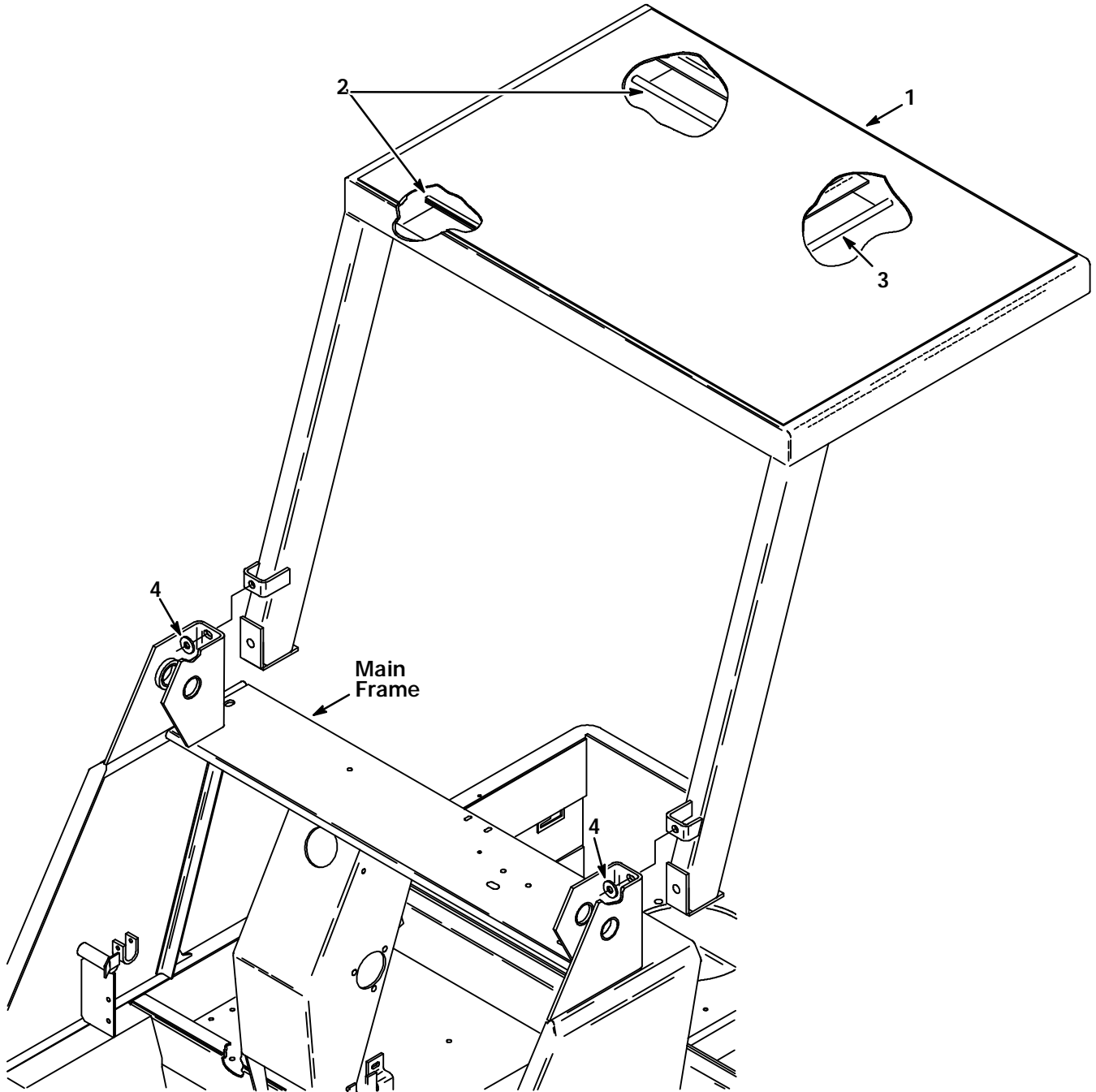


Fig. 1 - Cab Kit

**Fig. 1 - Cab Kit**

<b>Key</b>	<b>TENNANT Part No.</b>	<b>Machine Serial Number</b>	<b>Description</b>	<b>Qty.</b>
	87655	(000000- )	Cab Kit, Soft Side	1
1	87657	(000000- )	Cab, Soft Side	1
2	87697	(000000- )	Windshield	1
3	87698	(000000- )	Channel, Side	2
4	87701	(000000- )	Channel, Bottom	1
5	87694	(000000- )	Snap, Male	29
6	87695	(000000- )	Snap, Male	4

*NOTE: To identify parts shown but not listed here, see Section 5, Standard Model Parts.*



**Fig. 2 - Overhead Guard Kit**

03355

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
	87829	(000000- )	Guard Kit, Overhead	1
1	87450	(000000- )	Guard, Overhead	1
2	87742	(000000- )	Molding, Rigid	2
3	62595-21	(000000- )	Molding, Rigid	1
4	36328	(000000- )	Washer, Belleville	2

*NOTE: To identify parts shown but not listed here, see Section 5, Standard Model Parts.*

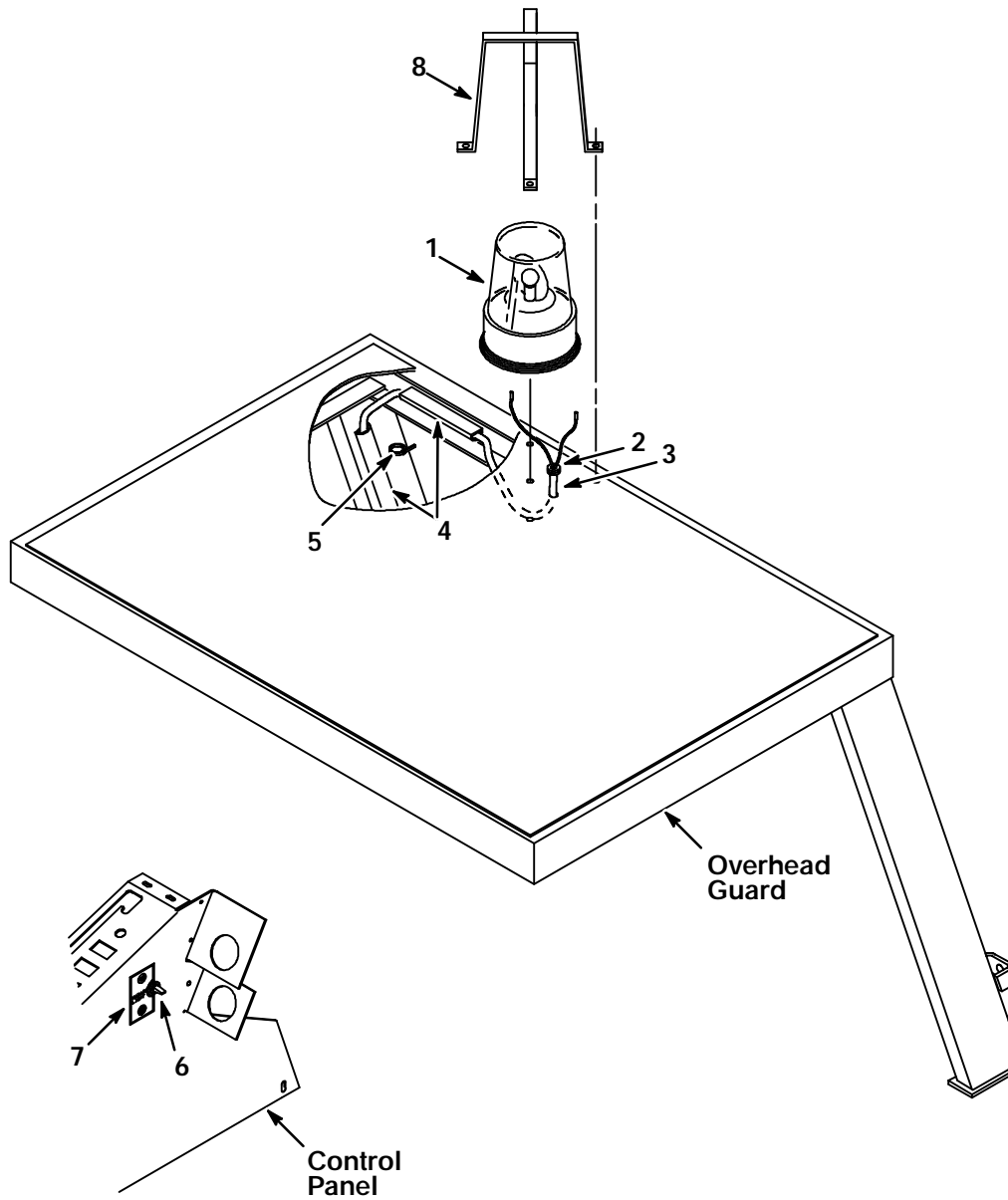
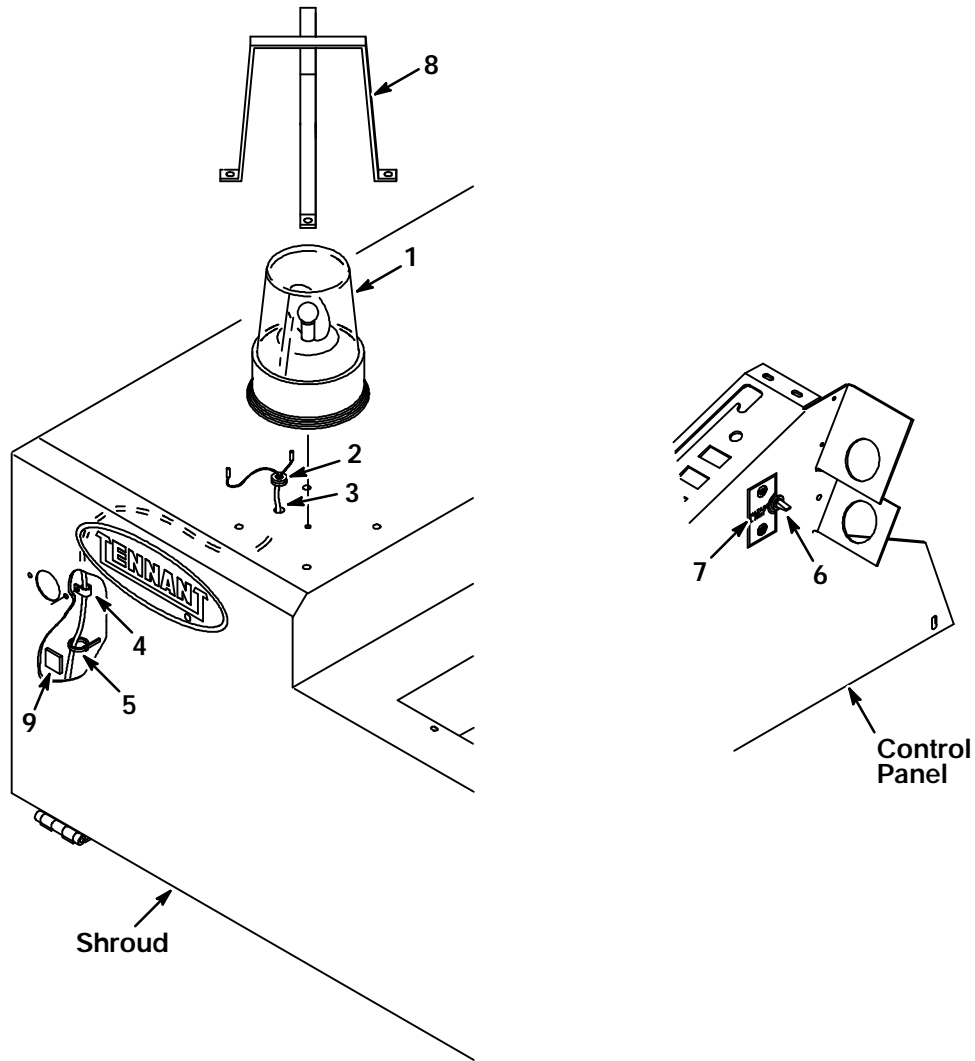


Fig. 3 - Revolving Light Kit, Overhead Guard

03359

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	87721	(000000- )	Light Kit, Revolving Amber	1
	87709	(000000- )	Light, Revolving Amber	1
	44681-1	(000000- )	Lens, Amber	1
	45283	(000000- )	Bulb	1
2	10632-12	(000000- )	Grommet	1
3	87649	(000000- )	Wire Harness, Overhead Guard	1
4	87673	(000000- )	Duct, Vinyl	1
5	49266	(000000- )	Tie, Cable	2
6	55264	(000000- )	Switch, Toggle	1
7	87174	(000000- )	Label, Hazard Light	1
8	45272	(000000- )	Guard, Light	1
	44681	(000000- )	Lens, Revolving Light, Red	1
	44681-2	(000000- )	Lens, Revolving Light, Blue	1

NOTE: To identify parts shown but not listed here, see Section 5, Standard Model Parts.



**Fig. 4 - Revolving Light Kit, Shroud**

03358

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	87720	(000000- )	Light Kit, Revolving Amber	1
	87709	(000000- )	Light, Revolving Amber	1
	44681-1	(000000- )	Lens, Amber	1
	45283	(000000- )	Bulb	1
2	10127	(000000- )	Grommet	1
	<hr/>			
3	87649	(000000- )	Wire Harness, Shroud	1
4	26395-2	(000000- )	Clamp, Cable	1
5	49266	(000000- )	Tie, Cable	5
6	55264	(000000- )	Switch, Toggle	1
7	87174	(000000- )	Label, Hazard Light	1
<hr/>				
8	45272	(000000- )	Guard, Light	1
9	55248	(000000- )	Mount, Cable Tie	1
	44681	(000000- )	Lens, Revolving Light, Red	1
	44681-2	(000000- )	Lens, Revolving Light, Blue	1

*NOTE: To identify parts shown but not listed here, see Section 5, Standard Model Parts.*



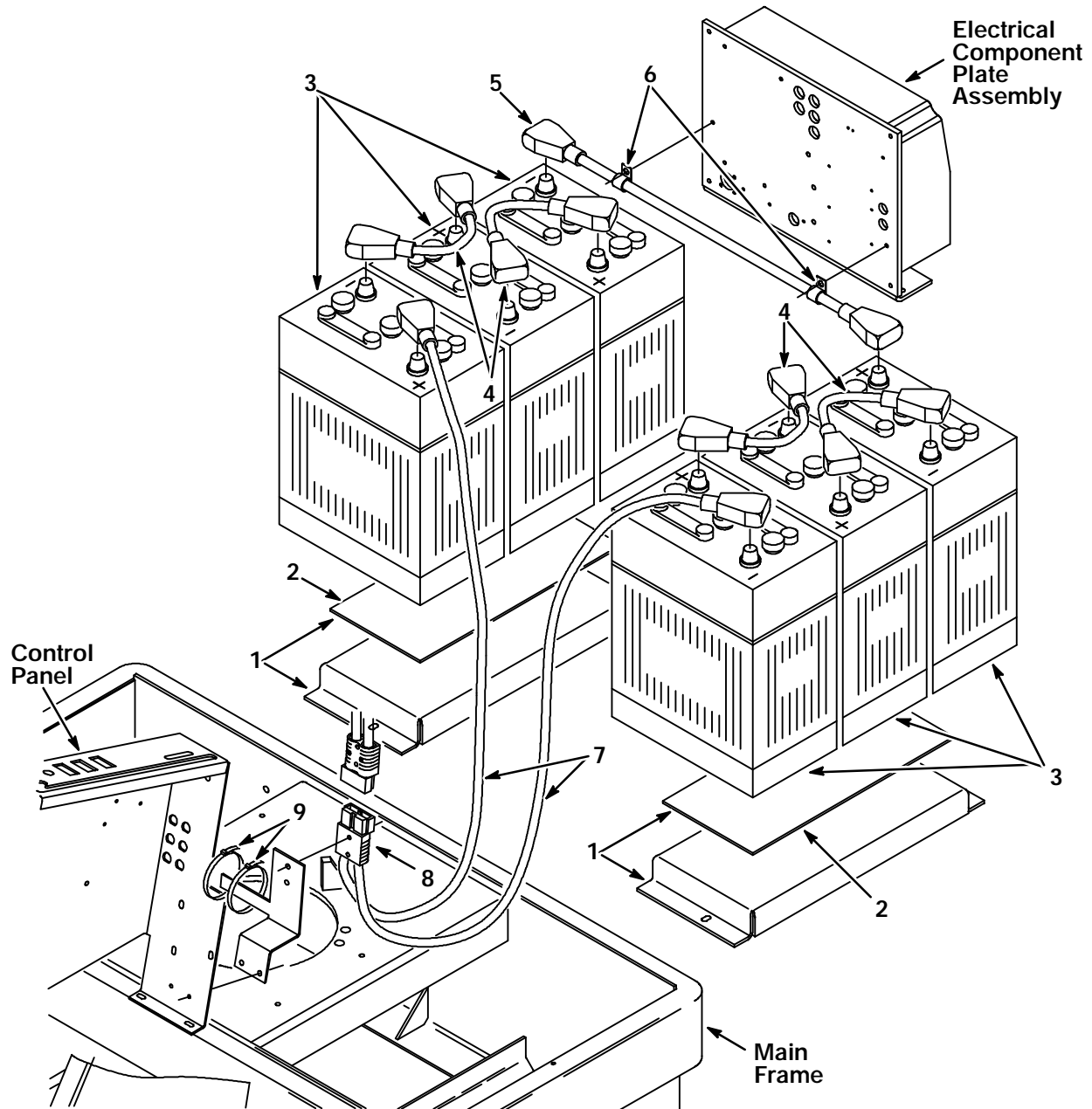


Fig. 5 - Battery Kit, 295 A/h, Wet

03356

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
	87827	(000000- )	Battery Kit, 295 A/h, Wet	1
1	87446	(000000- )	Support Assembly, Battery	2
2	87988	(000000- )	Pad, Battery, (Wood)	1
	87885	(000000- )	Battery Set, Wet	1
3	10157	(000000- )	Battery, 6 V	6
4	87556	(000000- )	Wire Assembly	4
5	87606	(000000- )	Wire Assembly	1
6	40678	(000000- )	Clamp, Cable	2
7	87557	(000000- )	Wire Harness, Battery	1
8	22892	(000000- )	Connector, Grey, 175 A	1
9	49266	(000000- )	Tie, Cable	2

NOTE: To identify parts shown but not listed here, see Section 5, Standard Model Parts.

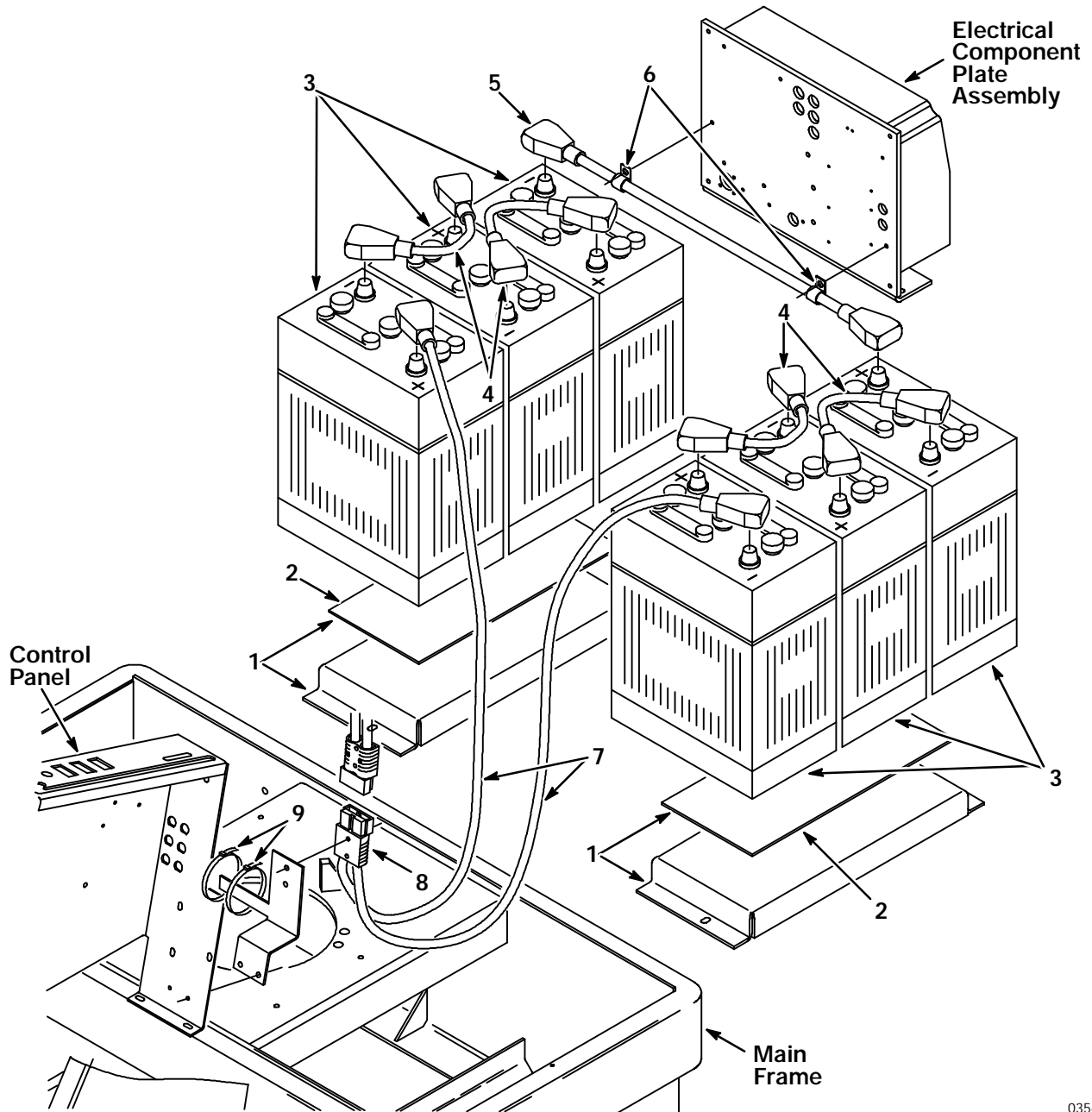


Fig. 6 - Battery Kit, 295 A/h, Dry, International Only

03568

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
	87847	(000000- )	Battery Kit, 295 A/h, Dry, International Only	1
1	87446	(000000- )	Support Assembly, Battery	2
2	87988	(000000- )	Pad, Battery, (Wood)	1
	87981	(000000- )	Battery Set, Dry, International Only	1
3	10158	(000000- )	Battery, 6 V, Dry, International Only	6
4	87556	(000000- )	Wire Assembly	4
5	87606	(000000- )	Wire Assembly	1
6	40678	(000000- )	Clamp, Cable	2
7	87557	(000000- )	Wire Harness, Battery	1
8	22892	(000000- )	Connector, Grey, 175 A	1
9	49266	(000000- )	Tie, Cable	2

NOTE: To identify parts shown but not listed here, see Section 5, Standard Model Parts.

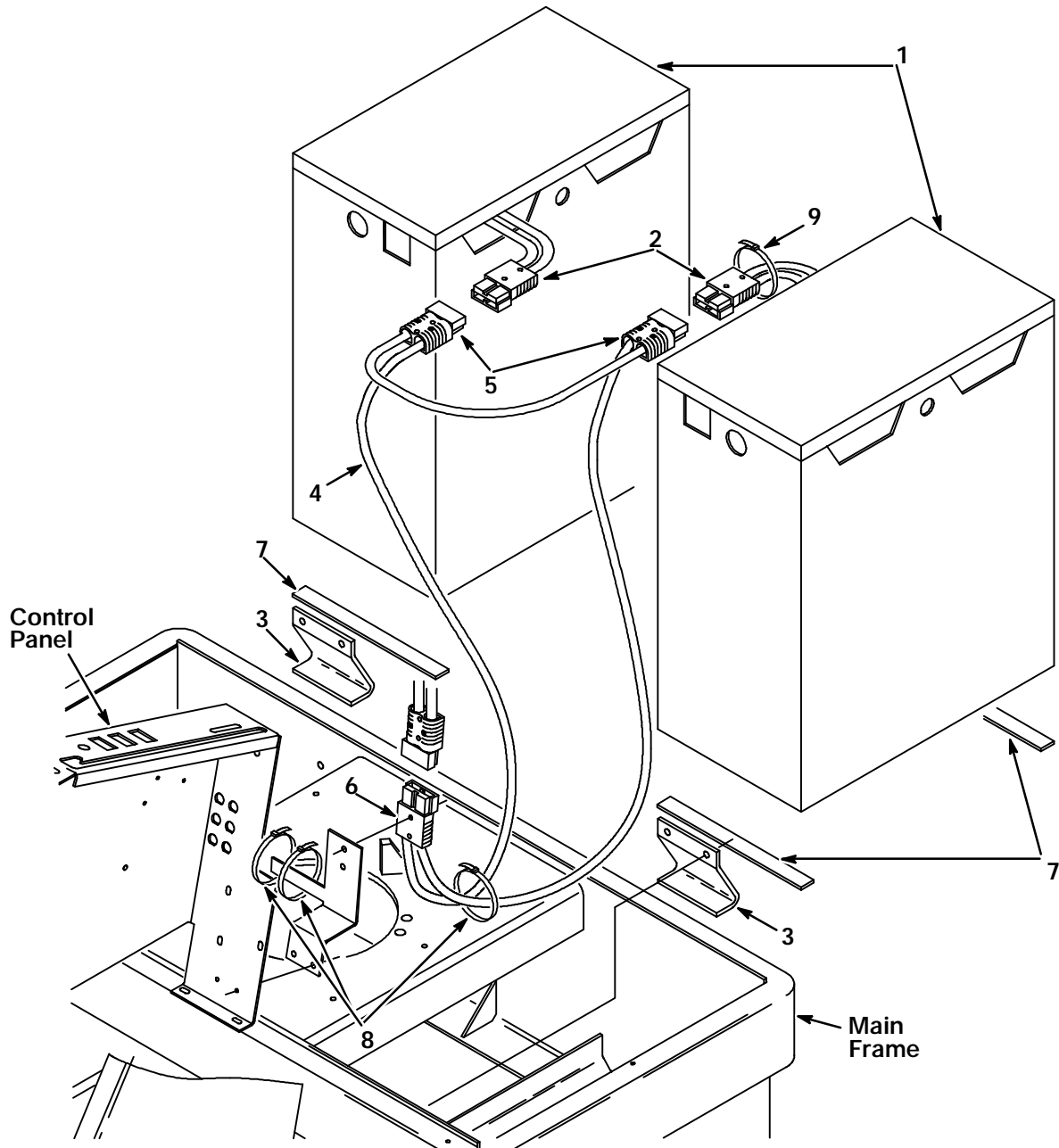


Fig. 7 - Battery Kit, 306 A/h, Wet

03286

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
	87828	(000000- )	Battery Kit, 306 A/h, Wet	1
	87884	(000000- )	Battery Set, Wet	1
1	87101	(000000- )	Battery, 18 V	2
2	47985	(000000- )	Connector, Orange, 175 A	1
3	87324	(000000- )	Stop, Front Battery	2
4	87607	(000000- )	Wire Harness, Battery	1
5	47985	(000000- )	Connector, Orange, 175 A	2
6	22892	(000000- )	Connector, Grey, 175 A	1
7	87329	(000000- )	Pad, Battery	4
8	49266	(000000- )	Tie, Cable	3
9	44961	(000000- )	Tie, Cable	1

NOTE: To identify parts shown but not listed here, see Section 5, Standard Model Parts.

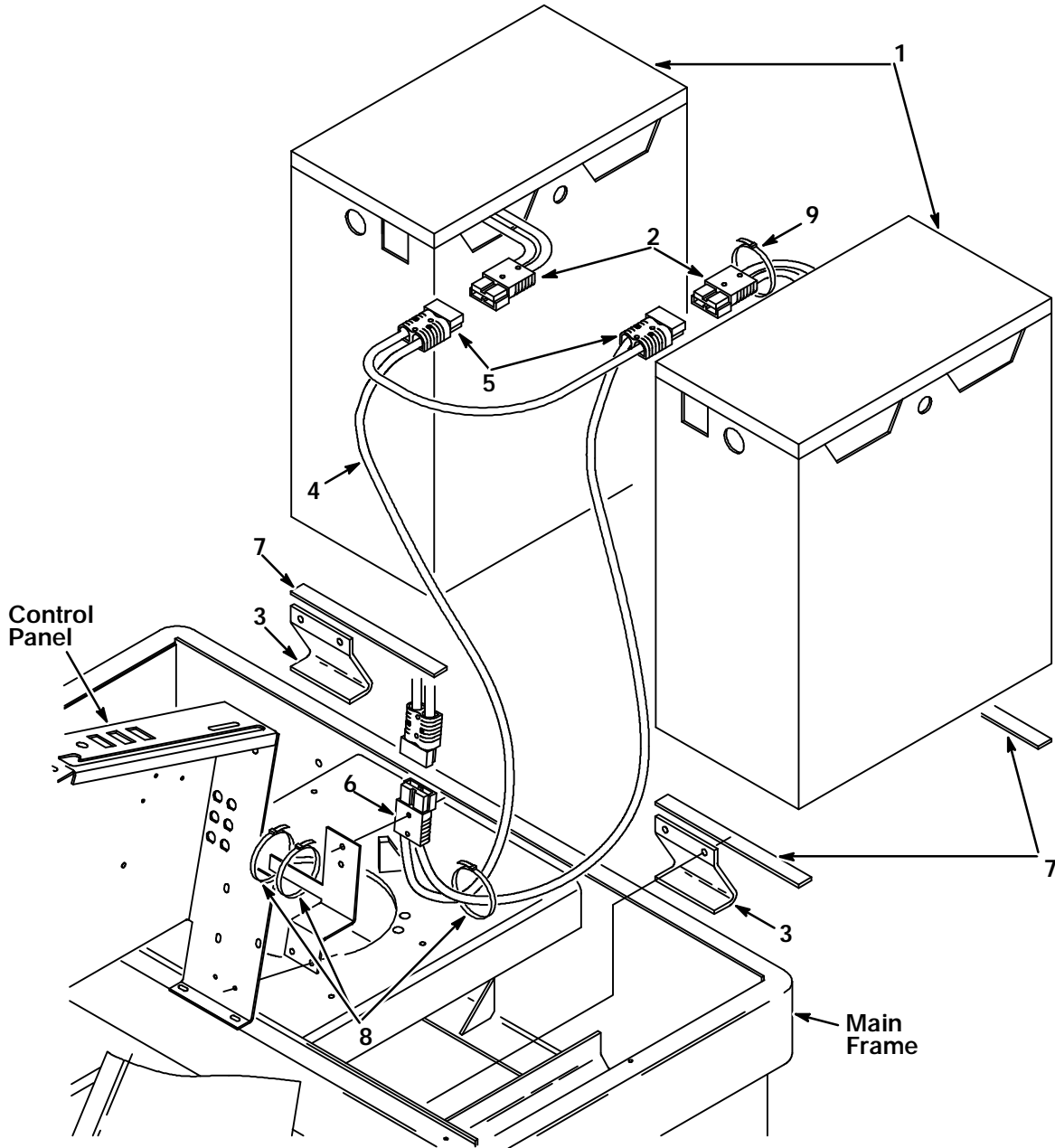


Fig. 8 - Battery Kit, 306 A/h, Dry, International Only

03567

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
	87845	(000000- )	Battery Kit, 306 A/h, Dry, International Only	1
	87980	(000000- )	Battery Set, Dry, International Only	1
1	87842	(000000- )	Battery, 18 V, Dry, International Only	2
2	47985	(000000- )	Connector, Orange, 175 A	1
3	87324	(000000- )	Stop, Front Battery	2
4	87607	(000000- )	Wire Harness, Battery	1
5	47985	(000000- )	Connector, Orange, 175 A	2
6	22892	(000000- )	Connector, Grey, 175 A	1
7	87329	(000000- )	Pad, Battery	4
8	49266	(000000- )	Tie, Cable	3
9	44961	(000000- )	Tie, Cable	1

NOTE: To identify parts shown but not listed here, see Section 5, Standard Model Parts.

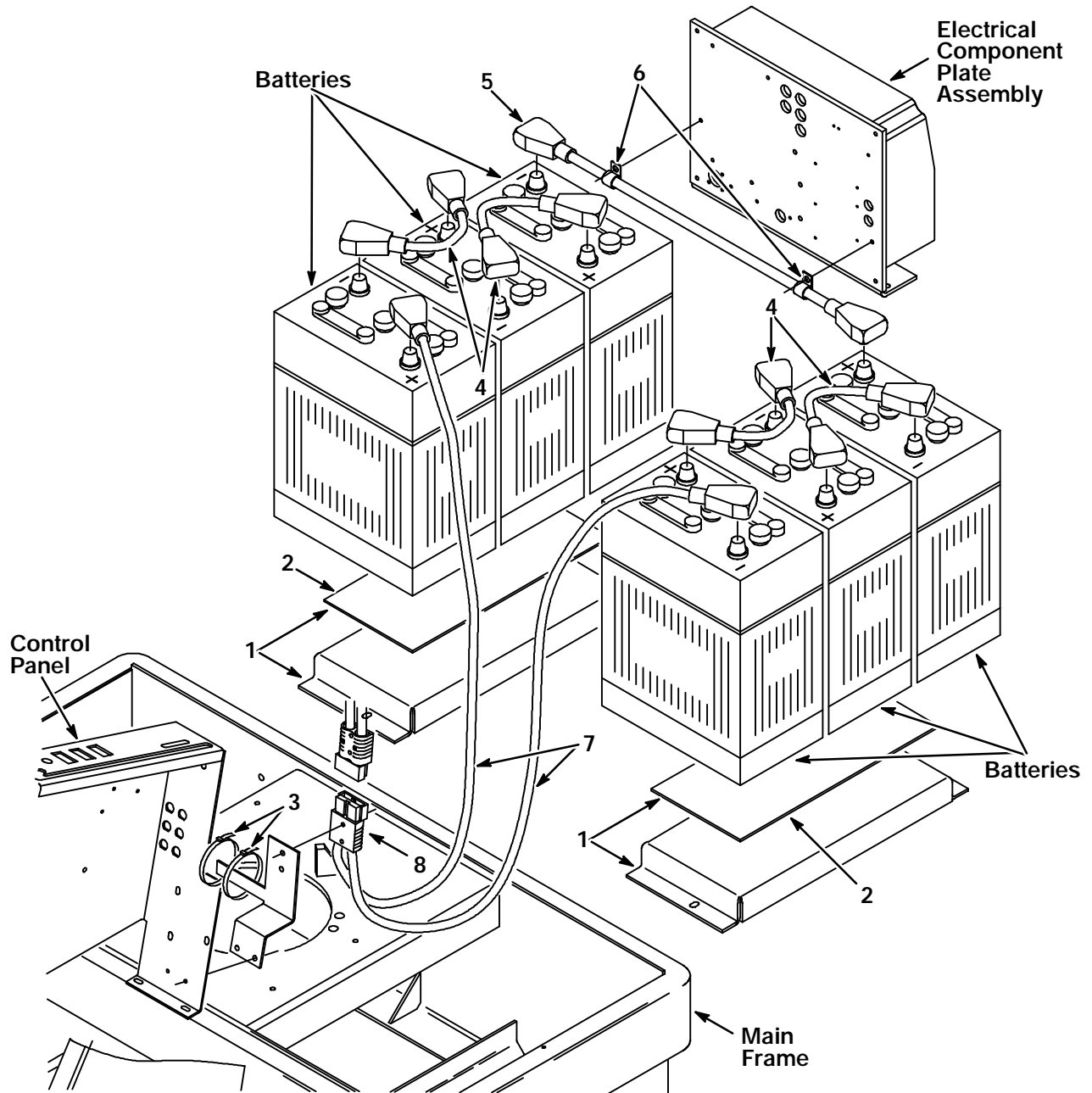


Fig. 9 - Battery Installation Kit, 295 A/h

03676

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
	87887	(000000- )	Battery Installation Kit, 295 A/h	1
1	87446	(000000- )	Support Assembly, Battery	2
2	87988	(000000- )	Pad, Battery, (Wood)	1
3	49266	(000000- )	Tie, Cable	2
4	87556	(000000- )	Wire Assembly	4
5	87606	(000000- )	Wire Assembly	1
6	40678	(000000- )	Clamp, Cable	2
7	87557	(000000- )	Wire Harness, Battery	1
8	22892	(000000- )	Connector, Grey, 175 A	1

NOTE: To identify parts shown but not listed here, see Section 5, Standard Model Parts.

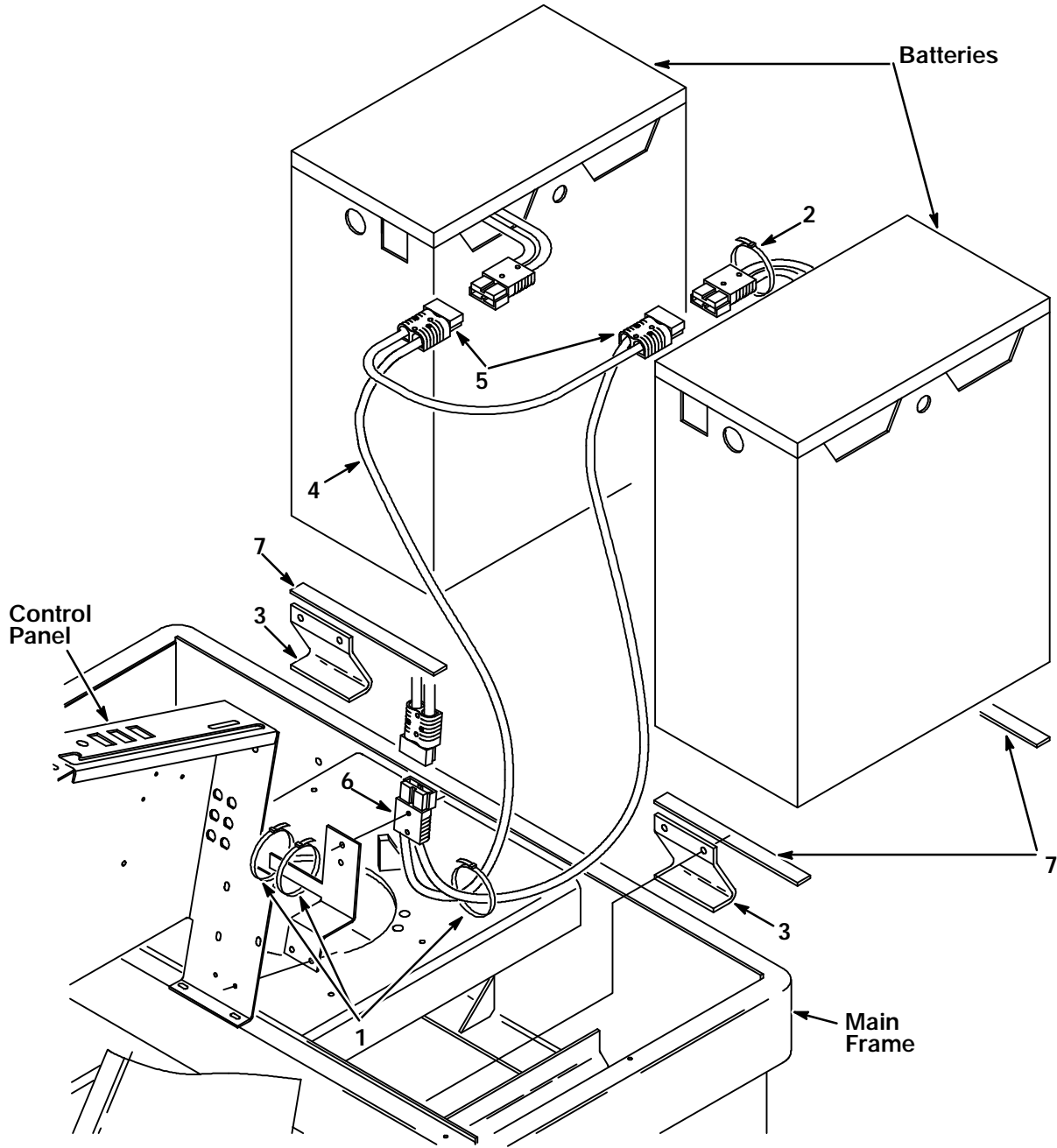


Fig. 10 - Battery Installation Kit, 306 A/h

04023

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
	87886	(000000- )	Battery Installation Kit, 306 A/h	1
1	49266	(000000- )	Tie, Cable	3
	44961	(000000- )	Tie, Cable	1
3	87324	(000000- )	Stop, Front Battery	2
4	87607	(000000- )	Wire Harness, Battery	1
5	47985	(000000- )	Connector, Orange, 175 A	2
6	22892	(000000- )	Connector, Grey, 175 A	1
7	87329	(000000- )	Pad, Battery	4

NOTE: To identify parts shown but not listed here, see Section 5, Standard Model Parts.

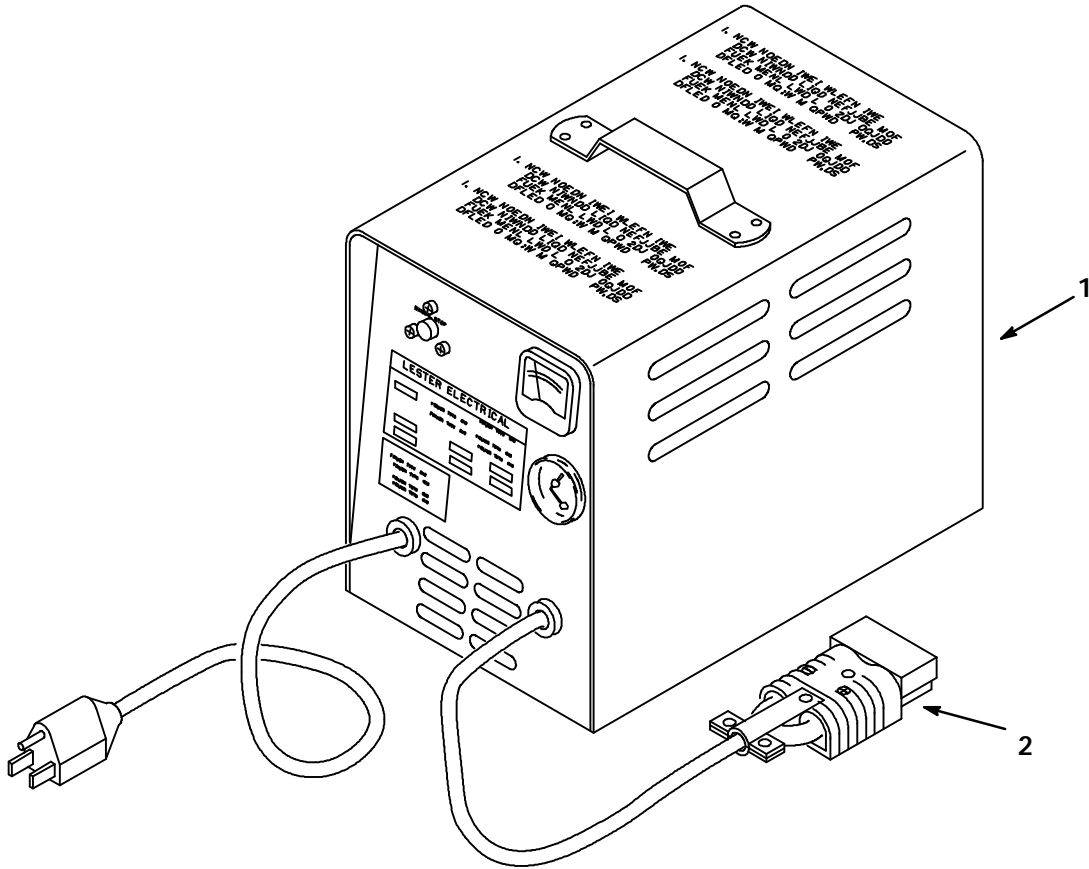


Fig. 11 - Battery Charger Group, 36A, 36V, 115 V

03360

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	87028	(000000- )	Charger, Battery, 36A, 36V, 115 V	1
2	22892	(000000- )	Connector, Grey, 175 A	1
	87994	(000000- )	Ammeter	1
	05265	(000000- )	Capacitor	1
	87996	(000000- )	Fuse Assembly	1
	87997	(000000- )	Heatsink Assembly	1
	87998	(000000- )	Timer Kit, Electric	1

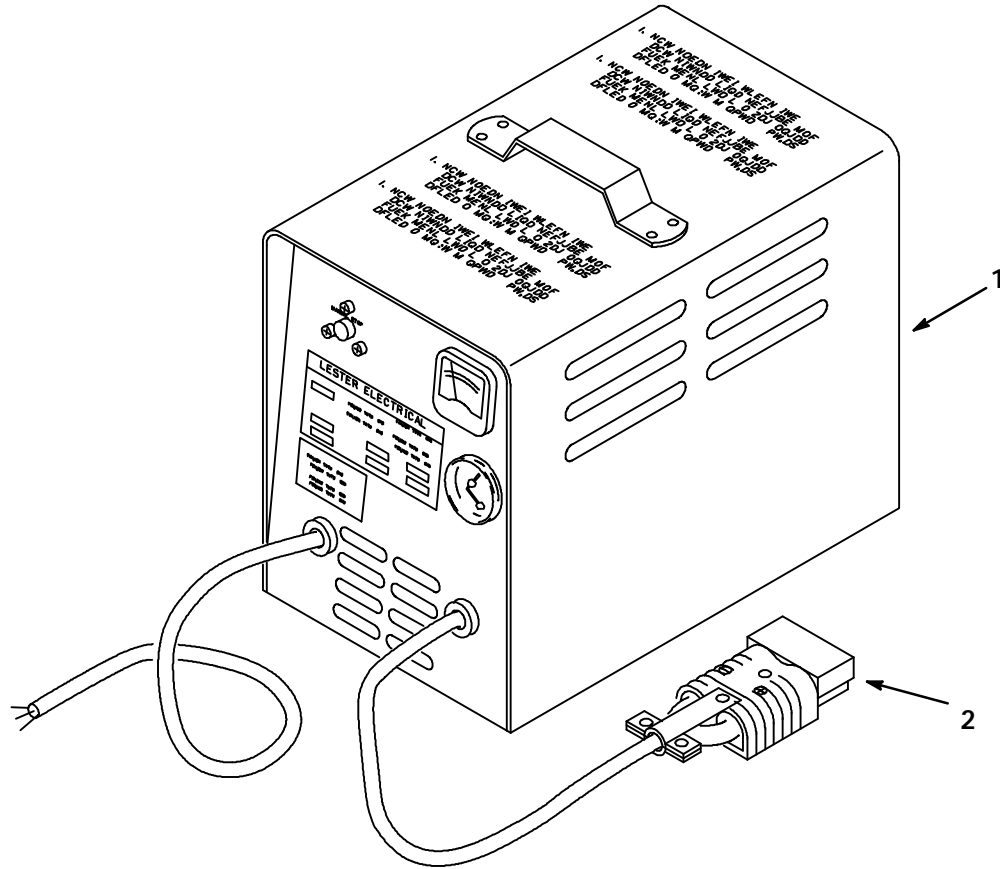


Fig. 12 - Battery Charger Group, 40A, 36V, 50 Hz

03569

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	87834	(000000- xxxxxx)	Charger, Battery, 40A, 36V, 50 Hz (Replaced by 65573)	1
2	22892	(000000- xxxxxx)	Connector, Grey, 175 A	1
	87994	(000000- xxxxxx)	Ammeter	1
	05265	(000000- xxxxxx)	Capacitor	1
	87996	(000000- xxxxxx)	Fuse Assembly	1
	87997	(000000- xxxxxx)	Heatsink Assembly	1
	87999	(000000- xxxxxx)	Timer Kit, Electric	1



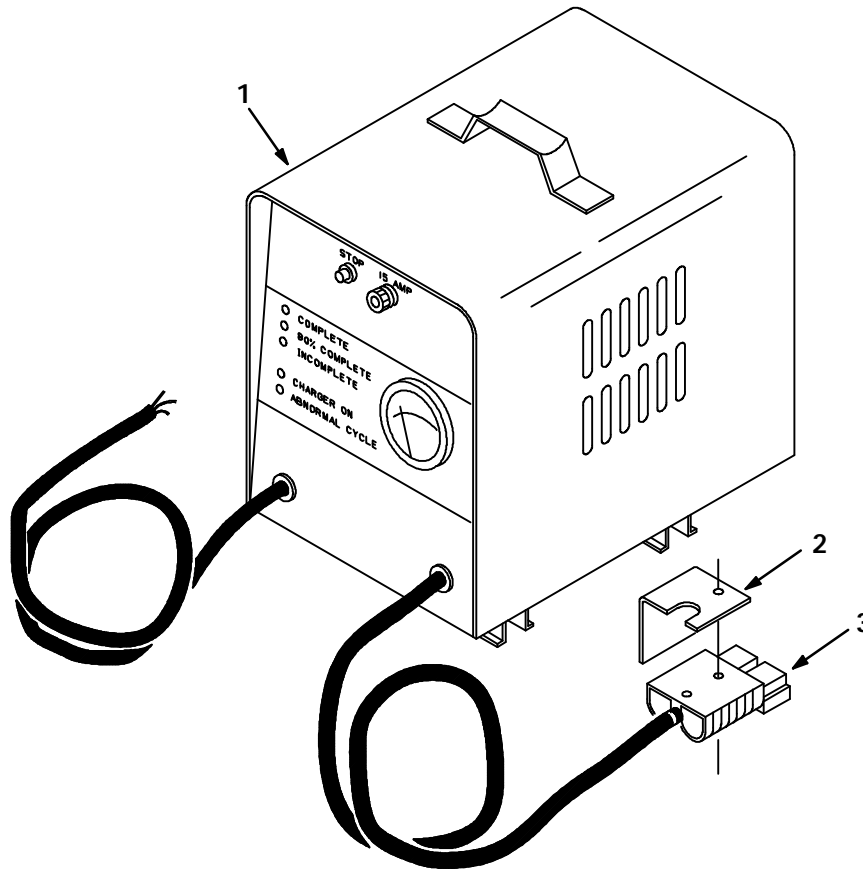


Fig. 13 - Battery Charger Group, 30A, 36V, 230V, 50Hz

08085/08086

Key	TENNANT Part No.	Machine Serial Number	Description	Qty
1	65573	( xxxxxx- )	Charger, 30A, 36V, 230V, 50Hz	1
2	65568	( xxxxxx- )	Bracket, Charger	1
3	22892	( xxxxxx- )	Connector, Grey, 175 A	1
	38889	( xxxxxx- )	Ammeter	1
	65613	( xxxxxx- )	Condenser 12.5Mfd	1
	65614	( xxxxxx- )	A.C. Fuse 15Amp	1
	30058	( xxxxxx- )	Fuse Holder	1
	65616	( xxxxxx- )	Diode	1
	65959	( xxxxxx- )	Control Transformer	1
	65618	( xxxxxx- )	Transformer	1
	65619	( xxxxxx- )	Circuit Breaker	1
	65620	( xxxxxx- )	Charger Control Assembly	1

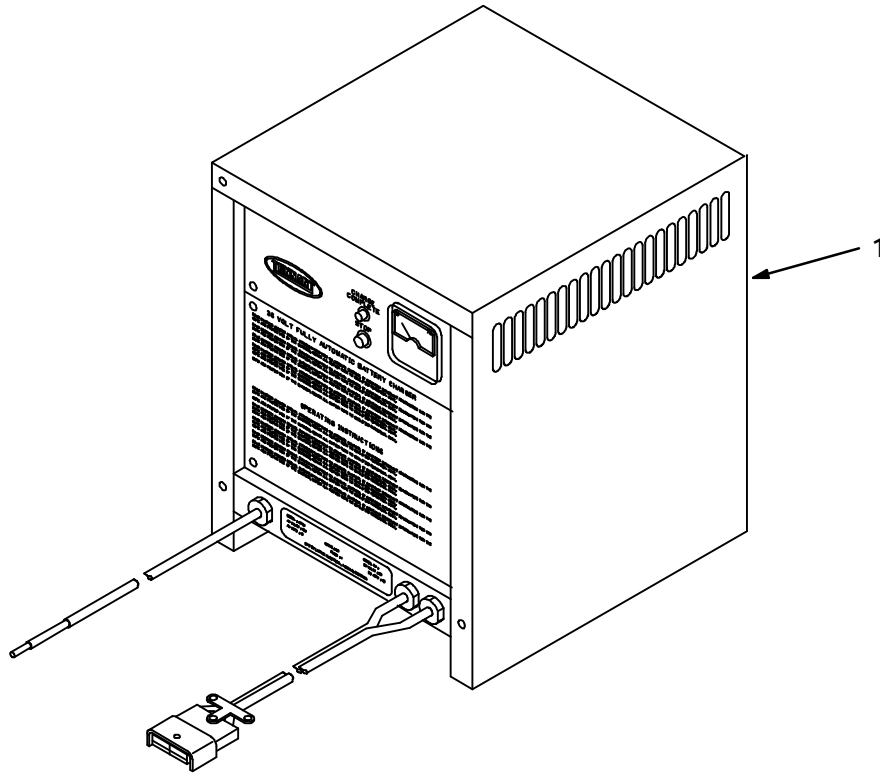


Fig. 14 - Battery Charger Group, 60 A

08646

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	41390	(000000- xxxxxx)	Battery Charger, 60 A, 60 Hz (Replaced by 65763)	1
	24417	(000000- xxxxxx)	Ammeter	1
	24419	(000000- xxxxxx)	Timer, Electronic	1
	24420	(000000- xxxxxx)	Heatsink Assembly	2
	24421	(000000- xxxxxx)	Relay	1
	24422	(000000- xxxxxx)	Fuse, AC	2
	24423	(000000- xxxxxx)	Fuse, DC	1
	24424	(000000- xxxxxx)	Swith, Push Button	1
	24430	(000000- xxxxxx)	Capacitor	1
	24436	(000000- xxxxxx)	Bracket, Plug	1
	22892	(000000- xxxxxx)	Connector, Gray, 175 A	1

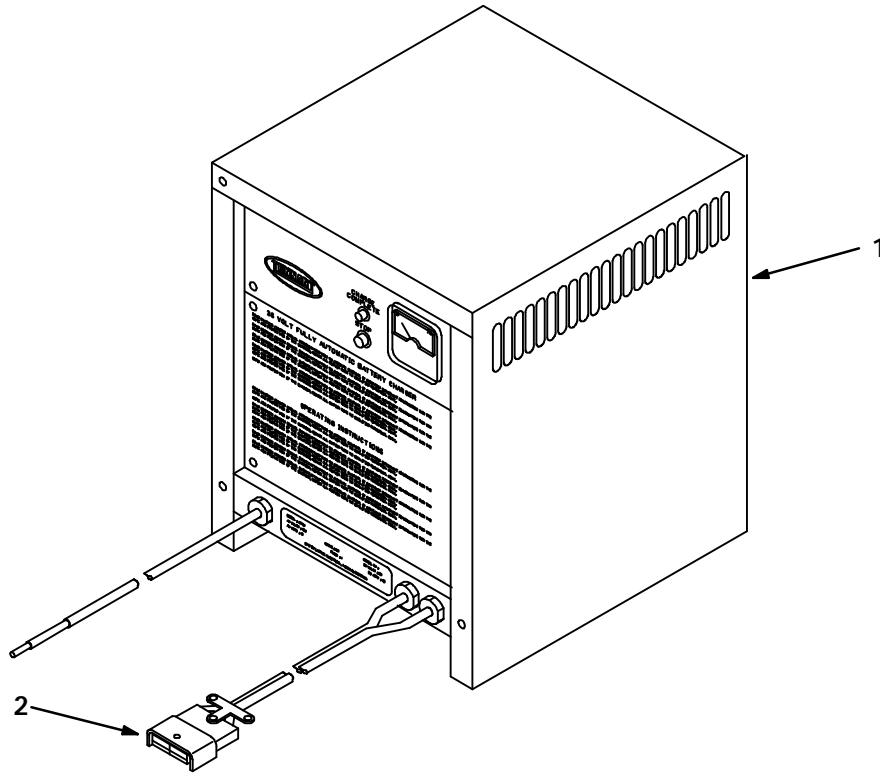
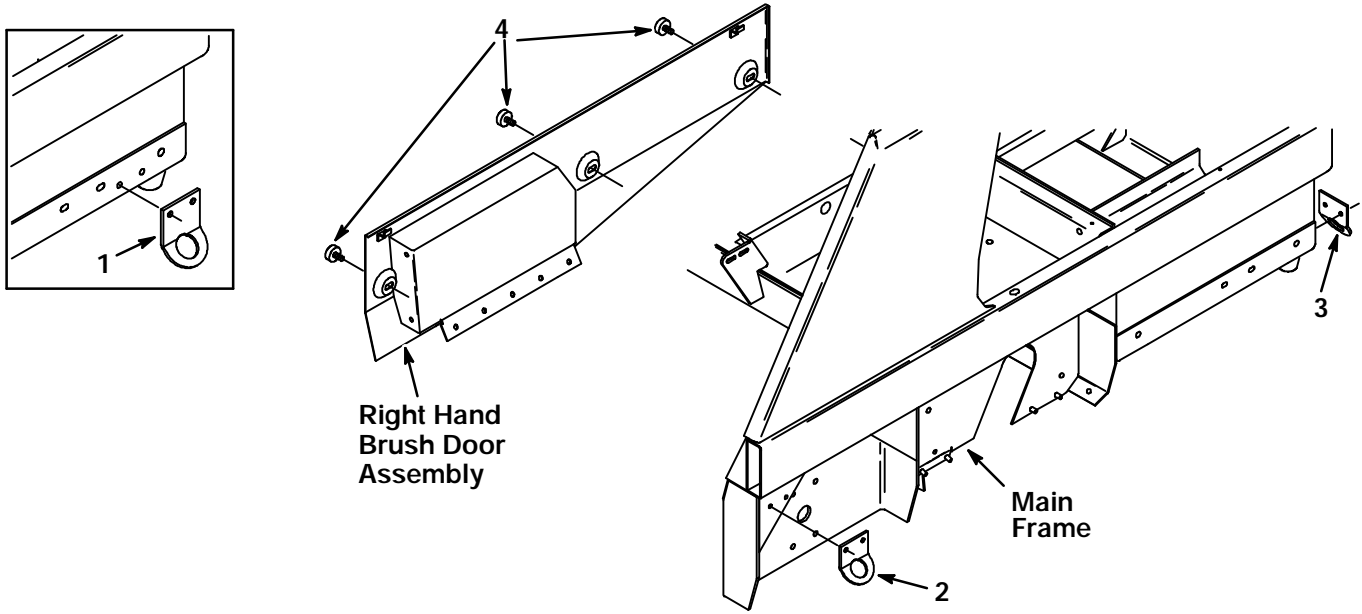


Fig. 15 - Battery Charger Group, 50 A

08647

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	65763	( xxxxxx- )	Battery Charger, 36V/50A, 60Hz/1Ph 240V	1
2	22892	( xxxxxx- )	Connector, Grey, 175 A	1



**Fig. 16 - Demo Kit**

03362

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
	87790	(000000- )	Demo Kit	1
1	87083	(000000-001045)	Bracket Replacement Kit, Rear (set of 2)	1
2	45079	(000000- )	Bracket, Tie-Down	2
3	45079	(001046- )	Bracket, Tie-Down	2
4	87462	(000000- )	Knob	3

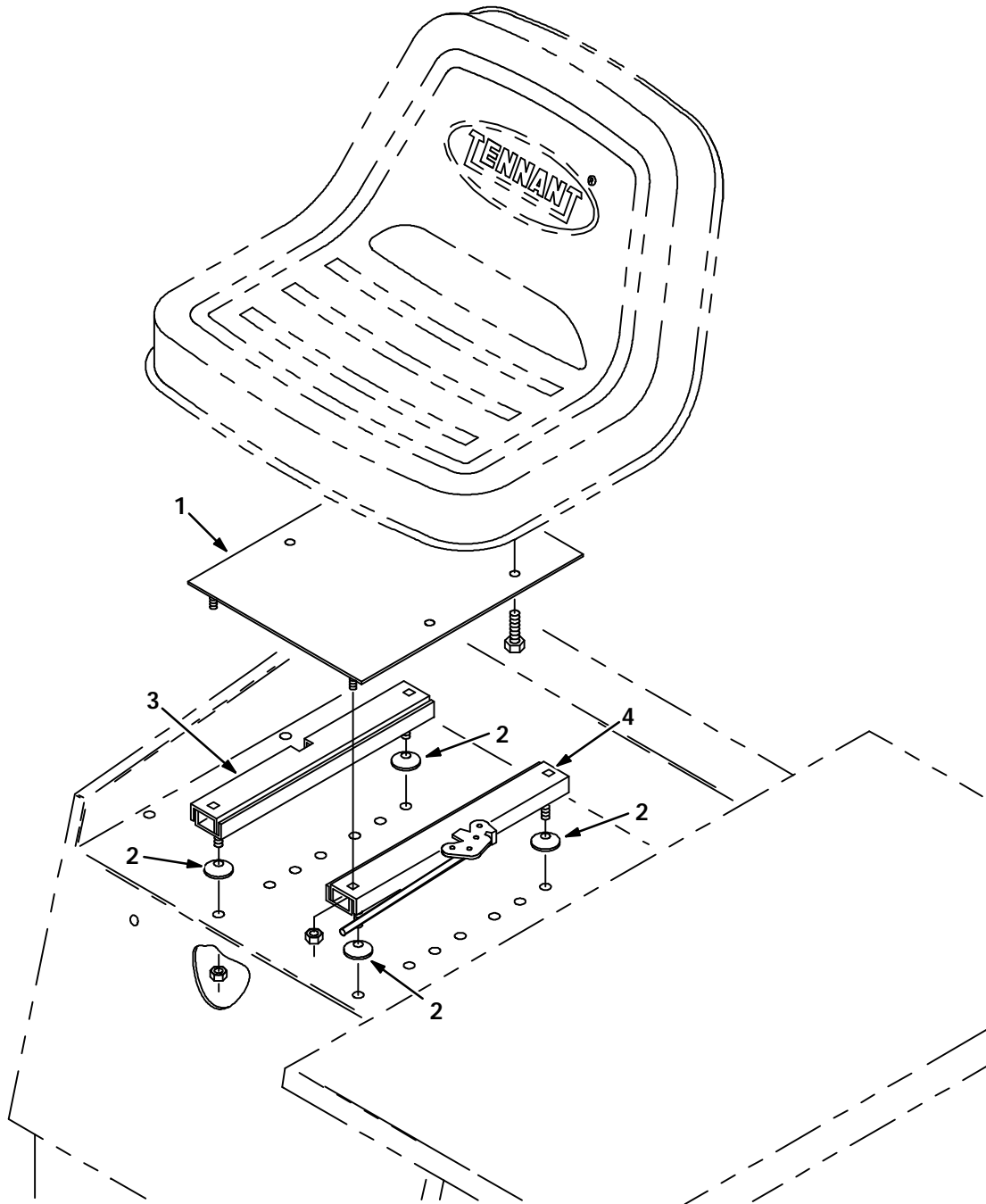


Fig. 17 - Adjustable Seat Kit

08660

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
	48685	(000000- )	Adjustable Seat Kit	1
1	66099	(000000- )	Plate, Seat Support	1
2	52615	(000000- )	Spacer, Seat Adjuster	4
3	51459	(000000- )	Adjuster, Seat	1
4	51458	(000000- )	Adjuster Assembly, Seat	1

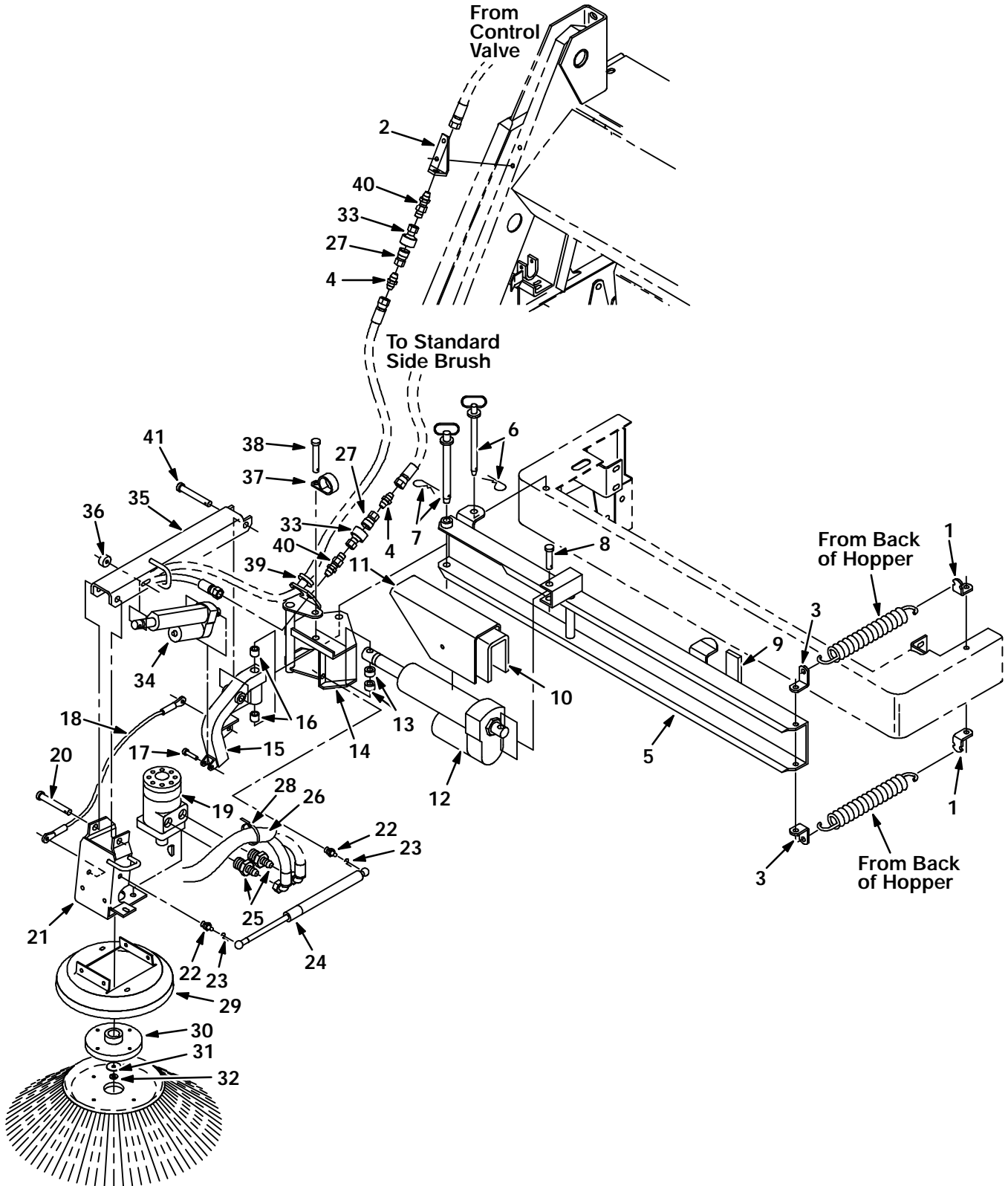


Fig. 18 - Auxiliary Side Brush Group

Fig. 18 - Auxiliary Side Brush Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	43499	(000000- )	Bracket	2
2	48582	(000000- )	Bracket, Bulkhead	1
3	48580	(000000- )	Bracket	2
4	06678	(000000- )	Fitting, Straight	2
5	48556	(000000- )	Cross Member, Front	1
6	35273	(000000- )	Pin, Hitch	1
7	35278	(000000- )	Pin, Hitch	1
8	51534	(000000- )	Pin, Clevis	1
9	35280	(000000- )	Seal, Foam Rubber	1
10	34219	(000000- )	Insulation, Foam	1
11	35279	(000000- )	Cover, Actuator	1
12	87445	(000000- )	Actuator	1
13	82229	(000000- )	Sleeve	2
14	35274	(000000- )	Lever, Actuator	1
15	48567	(000000- )	Pivot, Brush Arm	1
16	45097	(000000- )	Bearing	2
17	15173	(000000- )	Pin, Clevis	1
18	48581	(000000- )	Cable	1
19	28804	(000000- )	Motor, Hydraulic	1
20	06474A	(000000- )	Pin, Clevis	1
21	48584	(000000- )	Bracket, Motor	1
22	58494	(000000- )	Stud, Ball	2
23	64595	(000000- )	Clip, Spring	2
24	31182	(000000- )	Spring, Gas	1
25	57984	(000000- )	Fitting, Straight	2
26	87677	(000000- )	Sleeve, Nylon	1
27	34413	(000000- )	Coupling, Male	2
28	49266	(000000- )	Tie, Cable	6
29	87439	(000000- )	Deflector	1
30	87418	(000000- )	Hub, Side Brush	1
31	41178	(000000- )	Washer	1
32	41185	(000000- )	Washer, Belleville	1
33	34414	(000000- )	Coupling, Female	2
34	48594	(000000- )	Actuator	1
35	48557	(000000- )	Arm, Extended Reach	1
36	02965	(000000- )	Sleeve	1
37	43560	(000000- )	Clamp, Cable	1
38	23683	(000000- )	Pin, Clevis	1
39	10632	(000000- )	Grommet	1
40	82621	(000000- )	Fitting, Bulkhead	2
41	23683	(000000- )	Pin, Clevis	1
	49287	(000000- )	Clamp, Cable	1
	27184	(000000- )	Blade, Connector	2
	48563	(000000- )	Wire Harness, Aux Side Brush	1

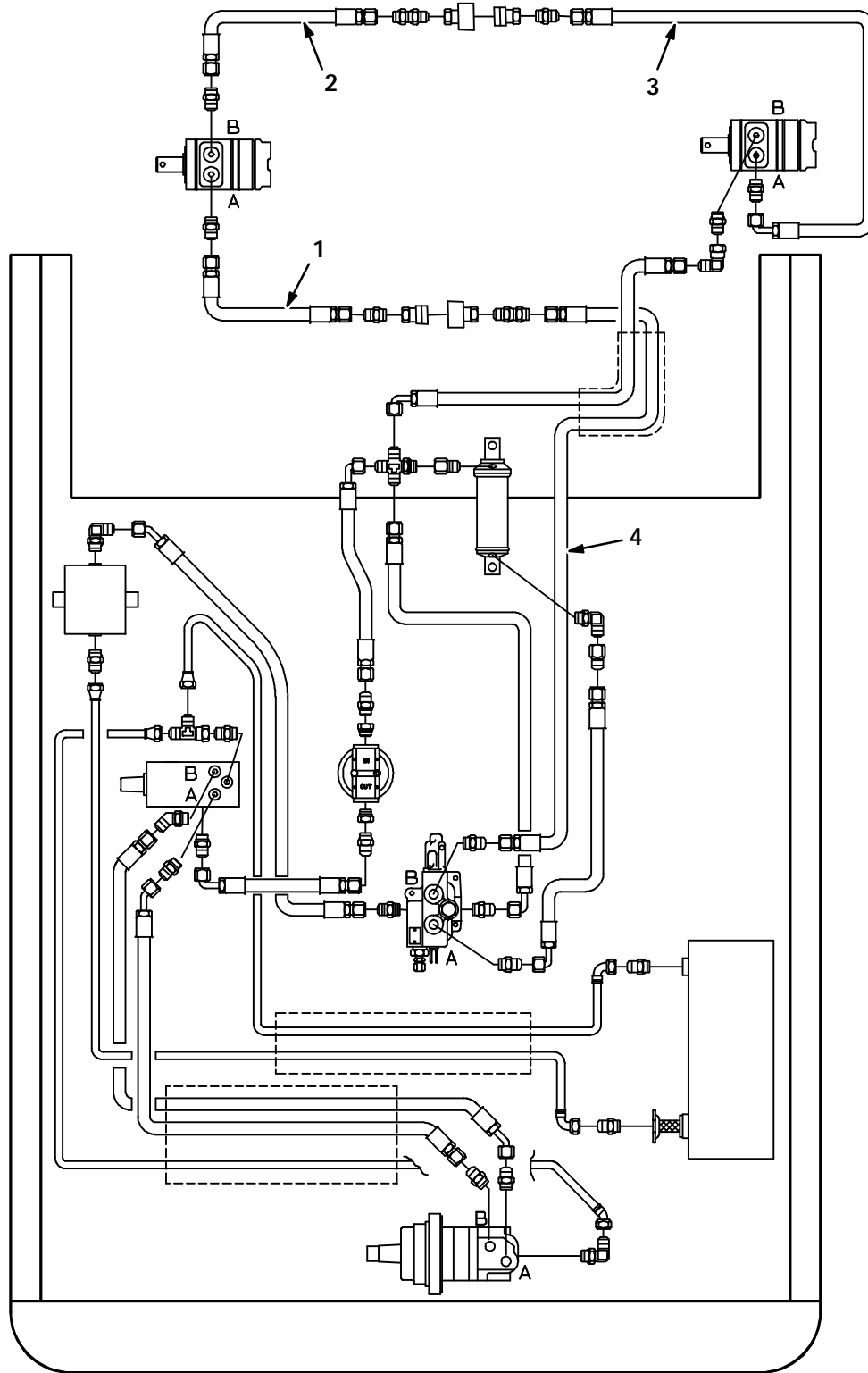
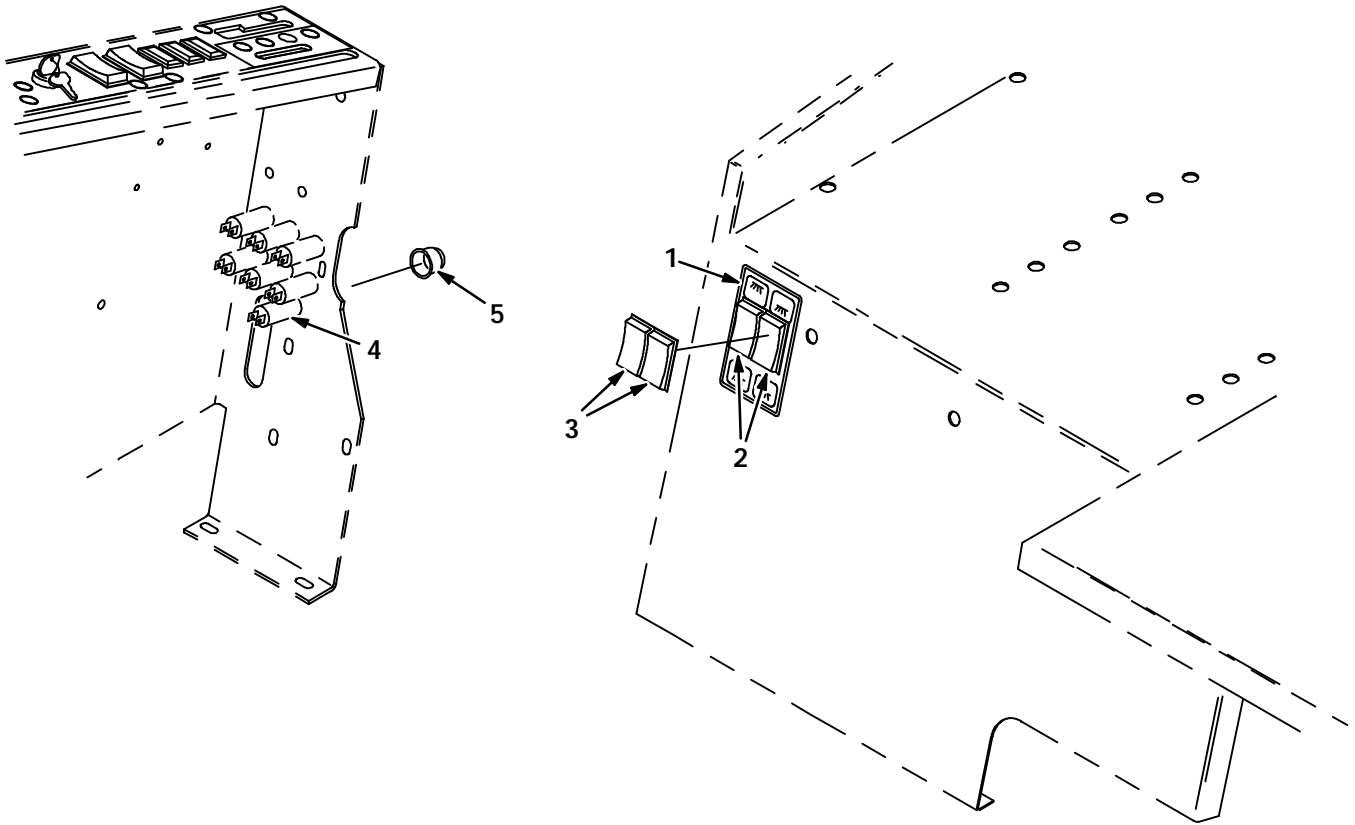


Fig. 19 - Auxiliary Side Brush Hydraulic Hose Group

06852

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	57967	(000000- )	Hose, Hydraulic	1
2	48617	(000000- )	Hose, Hydraulic	1
3	57947	(000000- )	Hose, Hydraulic	1
4	19634	(000000- )	Hose, Hydraulic	1





06853

Fig. 20 - Auxiliary Side Brush Electrical Group

Key	TENNANT Part No.	Machine Serial Number	Description	Qty.
1	35304	(000000- )	Label, Brush Control	1
2	65560	(000000- )	Switch, Rocker, DPDT	2
3	57807	(000000- )	Cover, Rocker Switch Seal	2
4	27920	(000000- )	Breaker, Circuit, 5A	1
5	57751	(000000- )	Boot, Circuit Breaker	1



## SECTION 7

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*NOTE: SECTION 7, HYDRAULIC COMPONENTS, lists repair parts for repairable hydraulic components.*



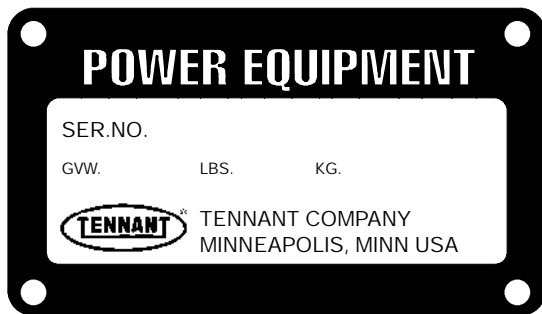
**ORDERING REPAIR PARTS**

The components used in this machine have been carefully selected for performance and safety. Use only TENNANT specified or equivalent parts.

To receive prompt service in filling of your parts orders, please direct all orders for parts with TENNANT part numbers to the TENNANT, and all orders for parts with vendor part numbers to the local supplier of the respective vendor.

When ordering parts, please furnish all of the following information:

1. Machine model number - shown on the machine data plate.



2. Machine serial number - shown on the machine data plate.
3. Power source - gasoline, LPG, diesel, electric.
4. Company name.
5. Shipping address.
6. Billing address.
7. Name, first and last - of person ordering parts.
8. Telephone number.
9. Purchase order number.
10. Part number, description, and quantity - of each item on the order.
11. Customer ID Number.

Do not order parts by key number or the figure number of the illustrated parts. Indented items indicate parts of assemblies. Standard hardware is furnished only when part of a purchased assembly. Please get hardware from a local hardware supplier.

If the old part cannot be identified, send it to us with the quantity needed specified on the order.

Any claim for loss or damage to a shipment in transit should be filed promptly against the transportation company making the delivery. Shipments will be complete unless the packing list or order acknowledgement indicate items back ordered.

If parts received are suspected to be incorrect or defective, please write, wire, or phone the TENNANT representative from whom you ordered the part. They will give authorization for return and/or handle replacement shipments when required.

**SERIAL NUMBER INFORMATION EXPLANATION**

Serial number listings are shown to indicate on which machines each part can be used. These listings are explained by the following examples:

(000000- ) The part can be used on all machines.

(003342- ) The part can be used on all machines beginning with the serial number listed.

(000000-004320) The part can be used on all machines up to and including serial number listed.

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(Specifications and design subject to change without notice.)

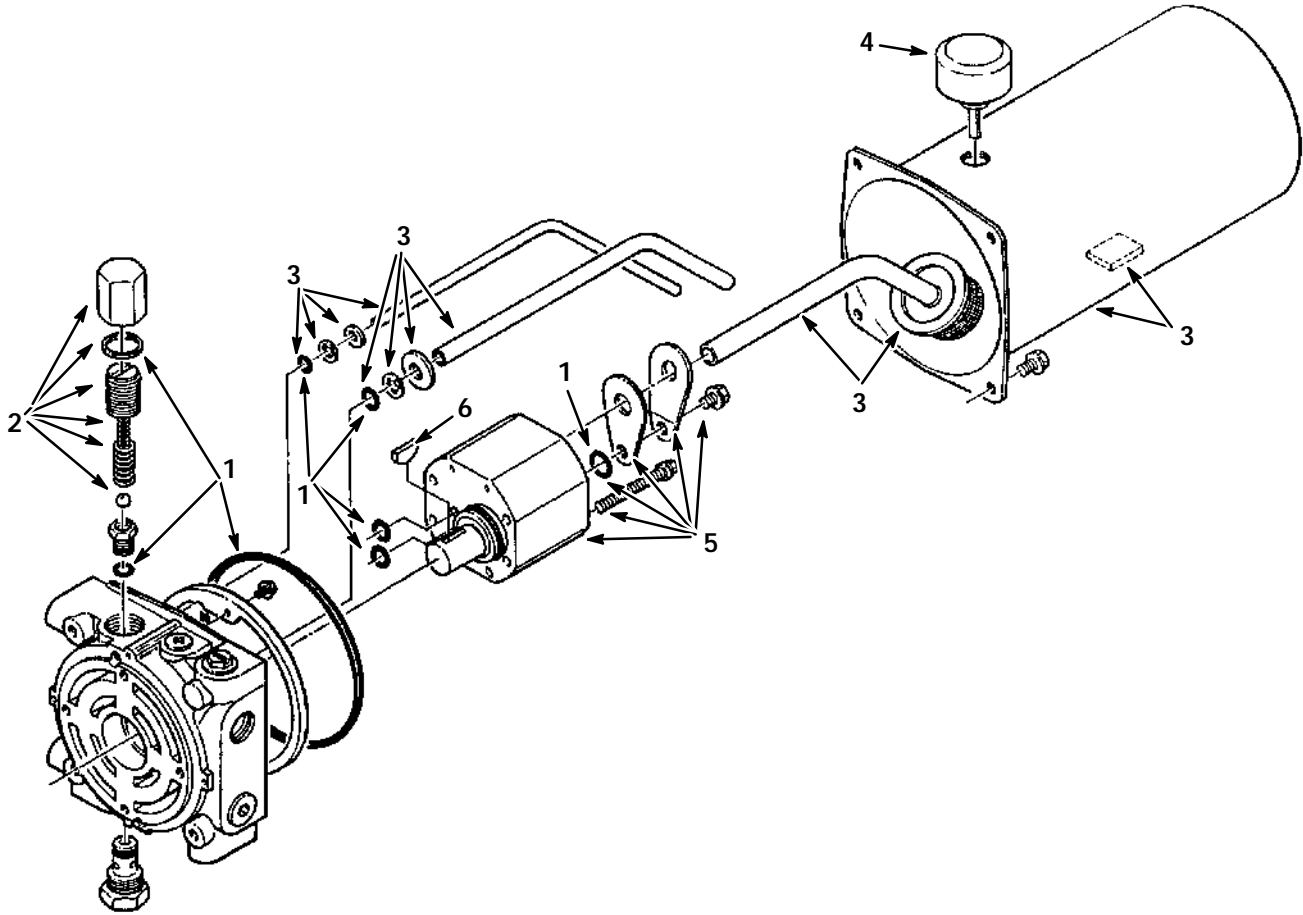


Fig. 1 - Hydraulic Power Unit Breakdown, 87340

03564

Key	TENNANT Part No.	Manufacture Serial Number	Description	Qty.
	87340	(000000- )	Power Unit, Hydraulic	1
1	87748	(000000- )	Seal Kit	1
2	06484	(000000- )	Relief Valve	1
3	87747	(000000- )	Reservoir Assembly	1
4	87499	(000000- )	Breather and Dipstick	1
5	87745	(000000- )	Pump Kit	1
6	00500-4	(000000- )	Key, Woodruff	1

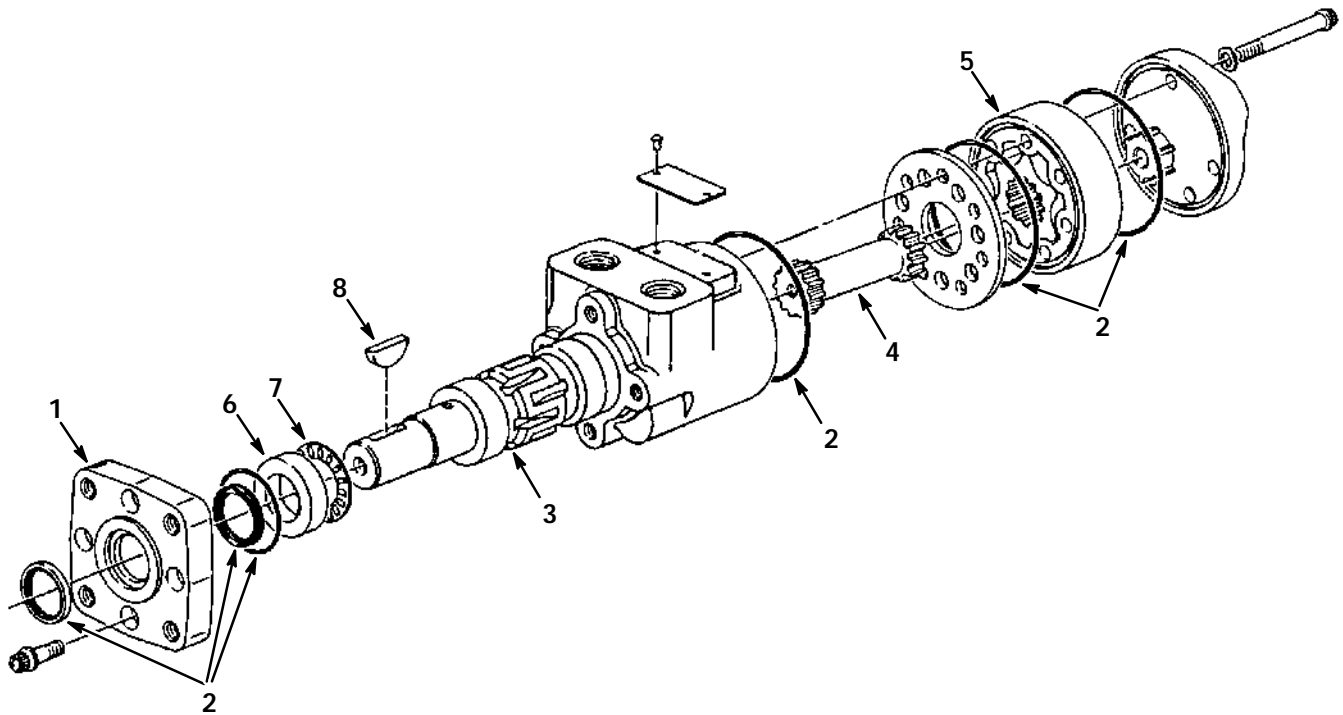
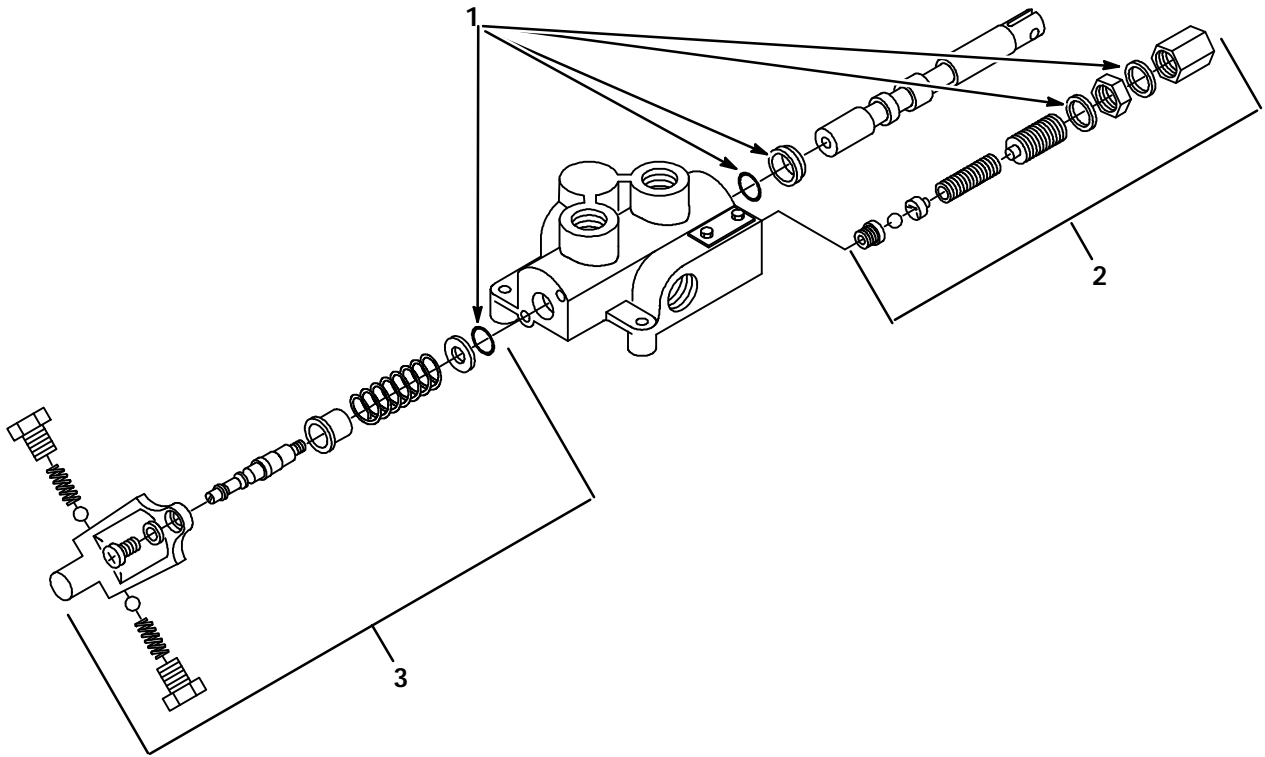


Fig. 2 - Hydraulic Motor Breakdown, 87475

03563

Key	TENNANT Part No.	Manufacture Serial Number	Description	Qty.
	87475	(000000- )	Motor, Hydraulic, (Replaced by 28804)	1
1	34174	(000000- )	Flange, Mounting	1
2	47649	(000000- )	Seal Kit	1
3	87662	(000000- )	Shaft, Output	1
4	34176	(000000- )	Drive	1
5	87663	(000000- )	Geroter	1
6	16695	(000000- )	Race, Thrust	1
7	45628	(000000- )	Bearing, Thrust	1
8	00500-15	(000000- )	Key, Woodruff	1



**Fig. 3 - Hydraulic Valve Breakdown, 87409**

03480

Key	TENNANT Part No.	Manufacture Serial Number	Description	Qty.
	87409	(000000- )	Valve, Hydraulic	1
1	01666	(000000- )	Seal Kit	1
2	87754	(000000- )	Relief Valve Kit	1
3	01669	(000000- )	Detent Kit	1



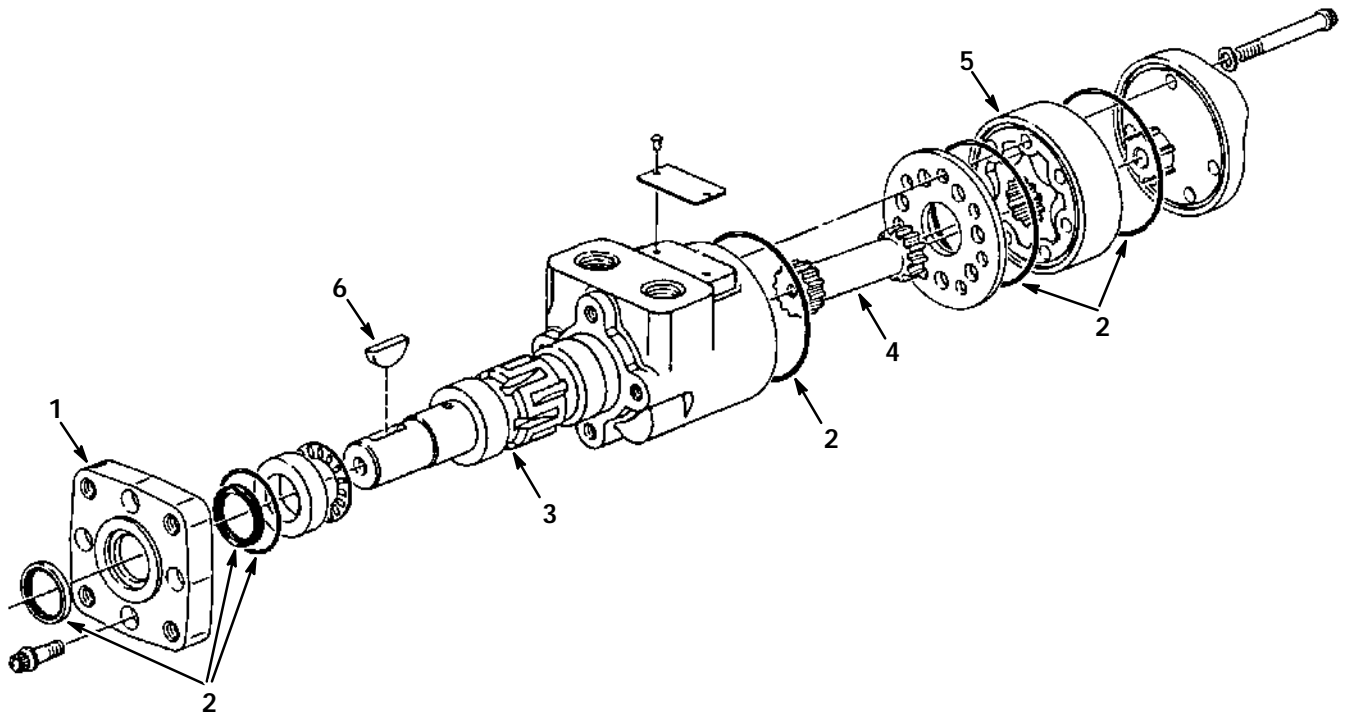
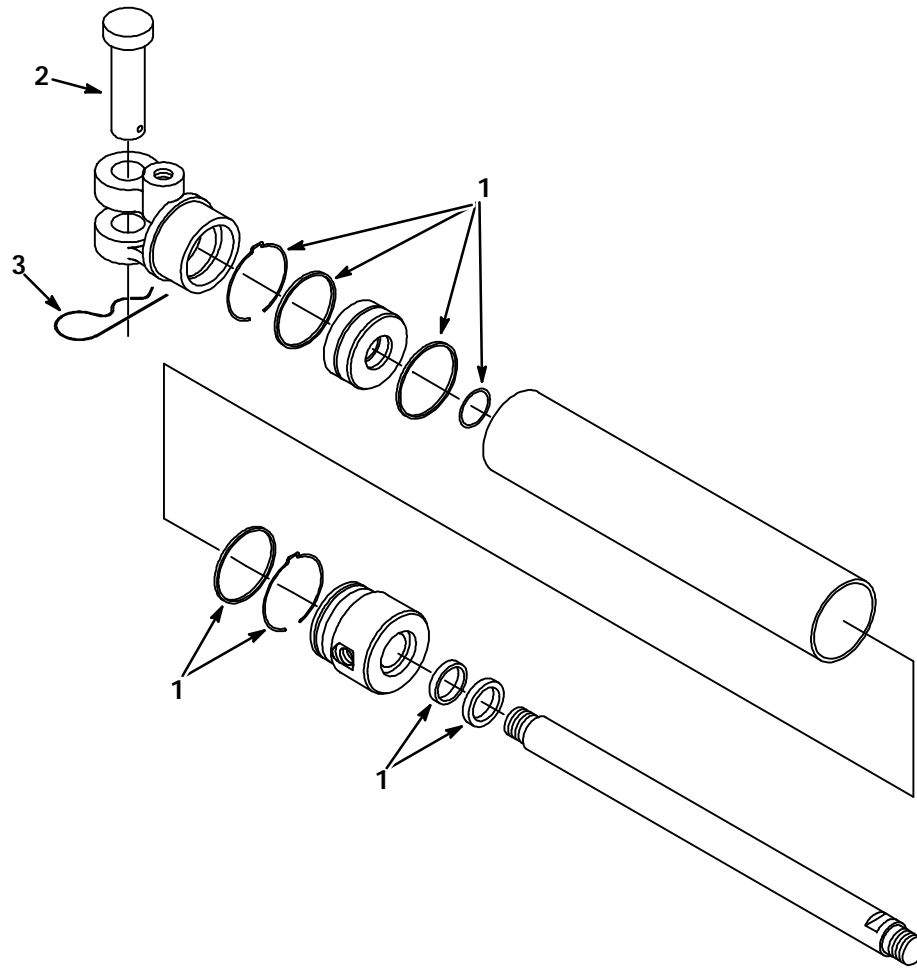


Fig. 4 - Hydraulic Motor Breakdown, 28804

05608

Key	TENNANT Part No.	Manufacture Serial Number	Description	Qty.
	28804	(000000- )	Motor, Hydraulic	1
1	31354	(000000- )	Flange, Mounting	1
2	28835	(000000- )	Seal Kit	1
3	87662	(000000- )	Shaft, Output	1
4	34176	(000000- )	Drive	1
5	50186	(000000- )	Geroter Set	1
6	00500-15	(000000- )	Key, Woodruff	1



**Fig. 5 - Hydraulic Lift Cylinder Breakdown, 87055**

08680

Key	TENNANT Part No.	Manufacture Serial Number	Description	Qty.
	87055	(000000- )	Cylinder, Hydraulic (Replaced by 48575)	1
1	87744	(000000- )	Seal Kit	1
2	87850	(000000- )	Pin, Clevis	1
3	87851	(000000- )	Pin, Hair Cotter	1

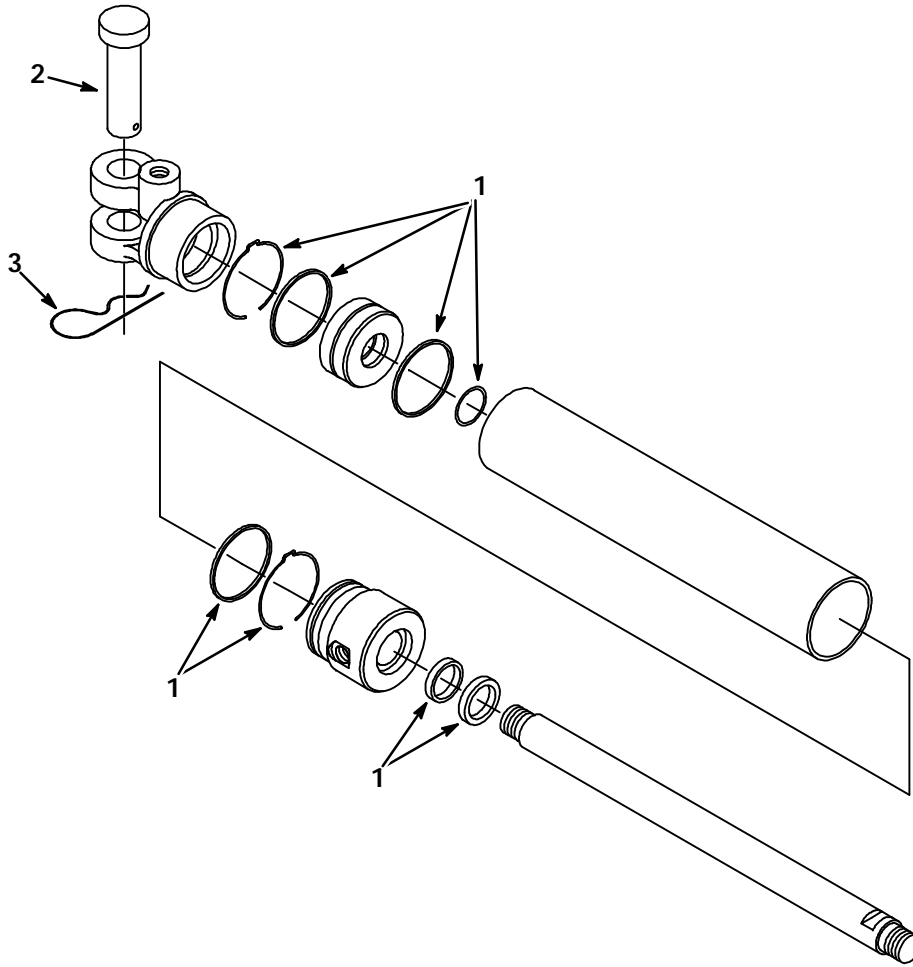
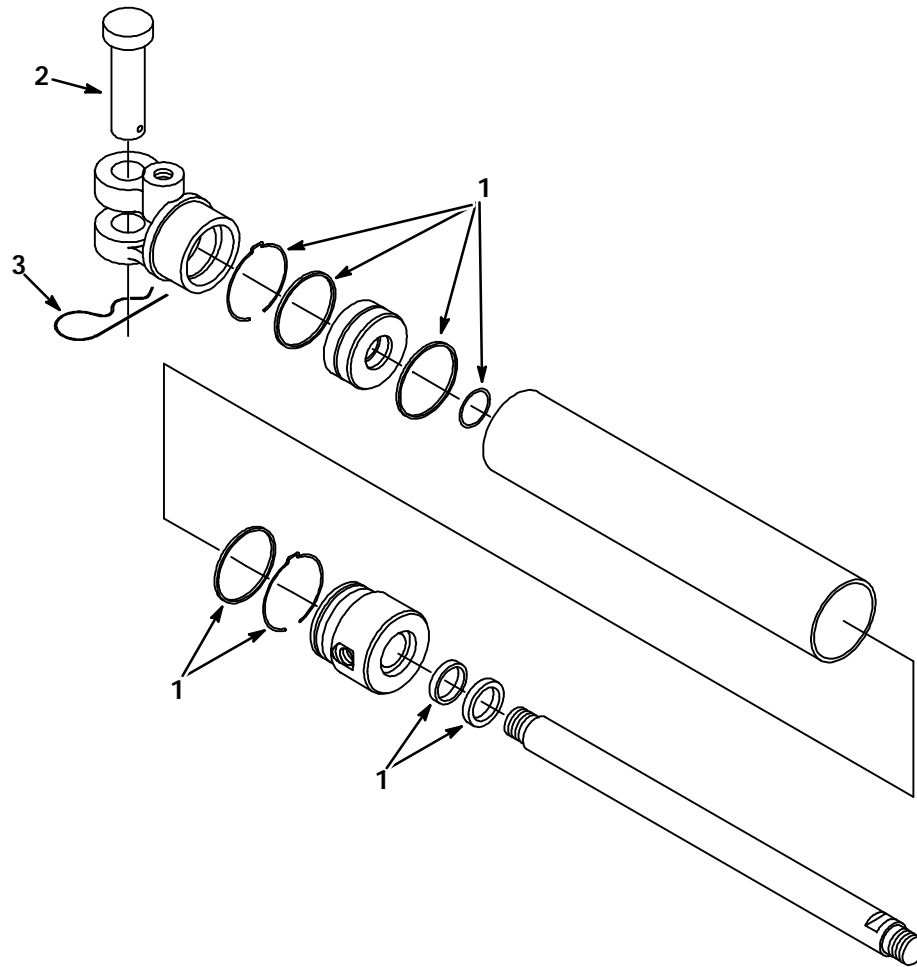


Fig. 6 - Hydraulic Lift Cylinder Breakdown, 48575

08685

Key	TENNANT Part No.	Manufacture Serial Number	Description	Qty.
	48575	(000000- )	Cylinder, Hydraulic	1
1	48577	(000000- )	Seal Kit	1
2	87850	(000000- )	Pin, Clevis	1
3	87851	(000000- )	Pin, Hair Cotter	1



**Fig. 7 - Hydraulic Lift Cylinder Breakdown, 65223**

09727

Key	TENNANT Part No.	Manufacture Serial Number	Description	Qty.
	65223	(000000- )	Cylinder, Hydraulic	1
1	48577	(000000- )	Seal Kit	1
2	87850	(000000- )	Pin, Clevis	1
3	87851	(000000- )	Pin, Hair Cotter	1

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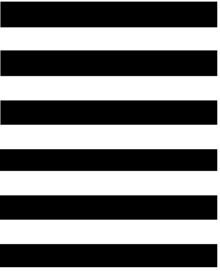
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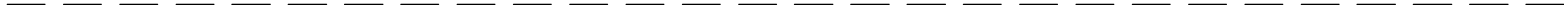
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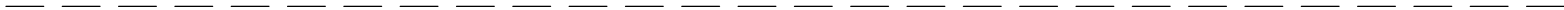


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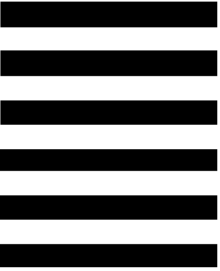
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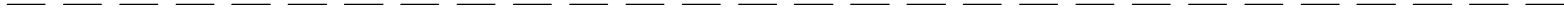
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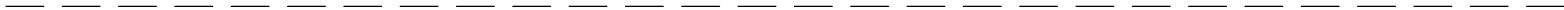


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## TENNANT SERVICE LITERATURE AVAILABLE...

A variety of information is available to you in forms to suit your needs. The following is a list of those publications that relate to the Model 235 family of machines:

Machine Model	Publication	Form	TENNANT Part No.
235D	Operation, Maintenance, and Parts Manual	Printed	MM331
235 G/LP	Operation, Maintenance, and Parts Manual	Printed	MM166
235E	Operation, Maintenance, and Parts Manual	Printed	MM165
235D	Operation, Maintenance, and Parts Manual	Microfiche	85331
235	Operation, Maintenance, and Parts Manual	Microfiche	85166
235E	Operation, Maintenance, and Parts Manual	Microfiche	85165
235	Operator Handbook	Printed	MM167
235E	Operator Handbook	Printed	MM167
235	Kolher® M18 Engine Service Manual	Printed	87877
235	Kubota® ZB600 Engine Service Manual	Printed	87878

Keep your manuals in a safe, convenient location for your future reference in order to operate, maintain, and order repair parts for your machine. Everyone who operates, maintains, or purchases parts for the machine should have easy access to a copy of the manual.

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