

COLUMBIA ParCar 

Parts Catalog

Electric
Industrial and Commercial
Three-Wheeled Vehicles
1995 - 2003

EX-21: 4B, 2B, 3B
TE-31: 4L, 2L
IS-11: 4A, 2A
TX-61: 4P, 2P

GENERAL INFORMATION

This Parts Catalog has been prepared for your convenience when ordering parts for Electric Industrial / Commercial Three Wheeled Vehicles Models CR-10, IS-11, EX-21, TE-31, and TX-61. Item numbers shown in the illustrations correspond to item numbers in the parts list. Consult the illustration when ordering parts so you are sure to get just what you want. In most cases, only the latest parts are shown in the illustrations.

Numbers following the description of the parts is the quantity needed for complete assembly shown in illustration.

Prices of parts and accessories listed in this catalog are published separately.

The following instructions should be followed carefully when ordering parts:

- Specify the correct part number for each item. Whenever in doubt about the model and year, please refer to the Vehicle Identification Number (VIN).
- The VINs are located on all vehicles. The VIN for the vehicle models are as follows:

Model Type	First Two VIN Digits	Model ID	Use Type
EX-21	4B 2B 3B 6B	Expediter	Industrial
TE-31	4L 2L 3B 6B	Tool Express	Maintenance
IS-11	4A 2A 6A	Stockchaser	Stock Carrier
TX-61	4P 2P 6P	Transport Express	People Mover

- Part numbers are to be used when ordering replacement parts. To place a parts order call 800-222-4653, fax your order to 608-524-8380, or mail orders to P.O. Box 30, Reedsburg, WI 53959, Attention Parts Department.

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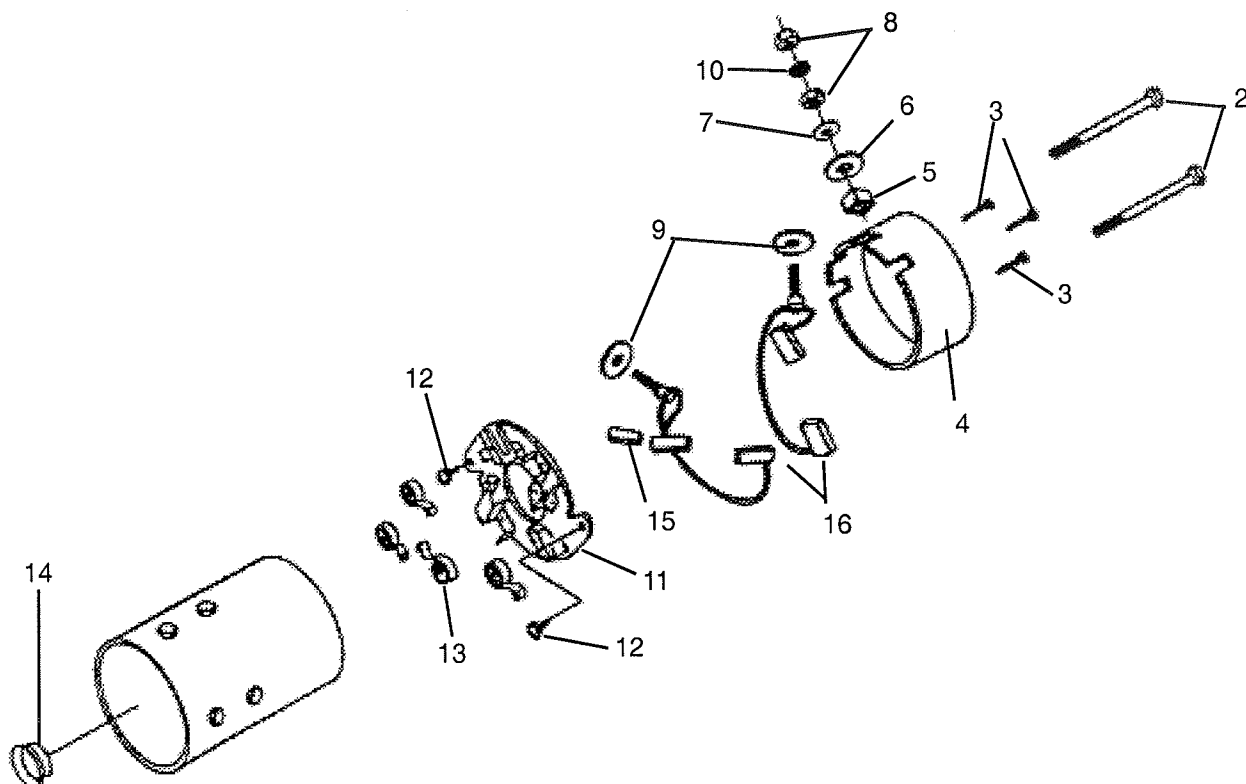
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INDEX OF TERMS

Abbreviation = Definition

AS = As Required
Assy. = Assembly
Blk = Black
" = Inches
' = Feet
Dia. = Diameter
DOT = Department of Transportation
Hz = Hertz
HD= Heavy Duty
Hd= Head
ID = Inside Diameter
Incl. = Include(s)(ed)
LH = Left Hand
OD = Outside Diameter
RH = Right Hand
V = Volt (s)
VIN = Vehicle Identification Number

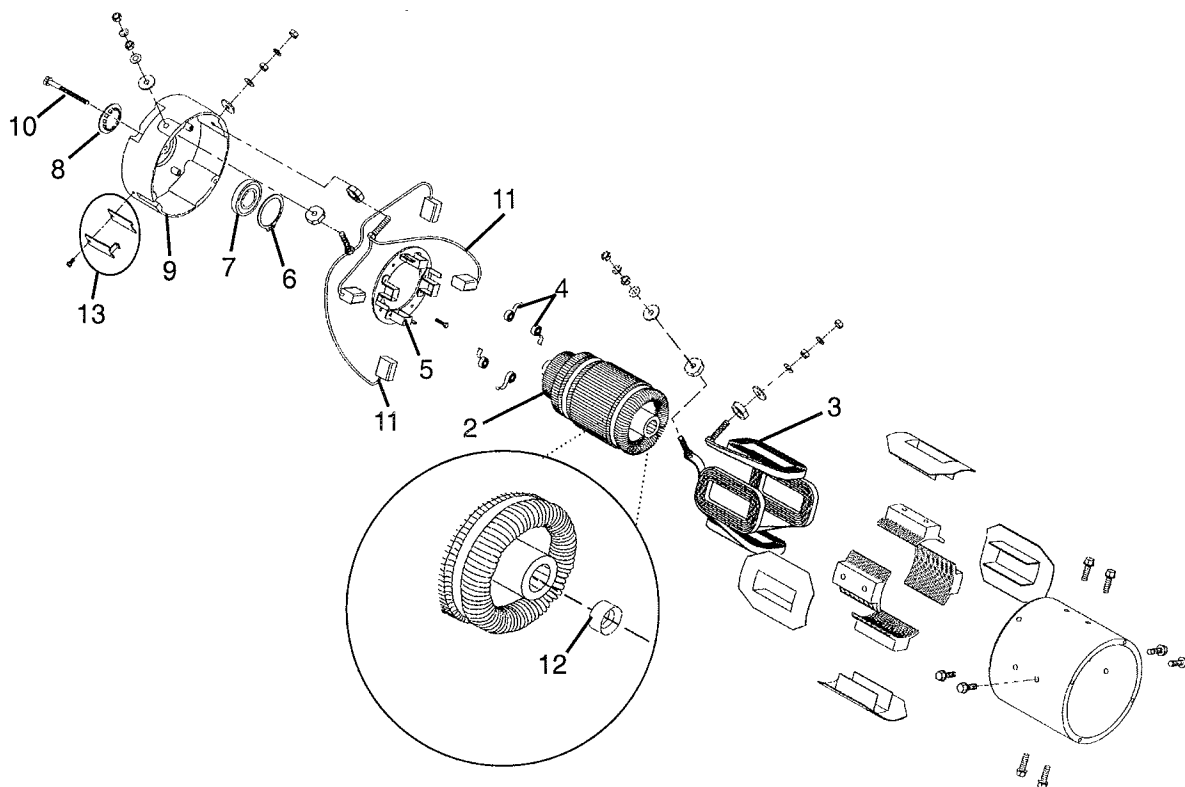
TRACTION MOTOR (GE) EX-21, IS-11



ITEM NO.	PART NO.	DESCRIPTION	QTY.	Beginning V.I.N. to Ending V.I.N.
1	69201-96	Motor, Traction Complete (incl items 2-16)	1	9A-00100 to 9A-00135
2	83280-86	Screw, Motor Clamp End Drive	2	4A-25001 to 4A-25104
3	83282-86	Screw, Bearing Retainer	3	4B-25100 to 4B-25216
4	83281-86	Endshield, Commutator	1	
5	72352-73	Bushing, Terminal Insulation	4	
6	83288-86	Washer, Insulating	4	
7	6702-B	Washer, Plain 11/32	4	
8	83259-75	Nut, Terminal Stud	8	
9	83289-86	Washer, Insulating	4	
10	7041-B	Lockwasher, Split 5/16	4	
11	83284-86	Plate, Brush	1	
12	83286-86	Screw, Brush Plate Mounting	2	
13	83284-86	Spring, Brush	4	
14	11423	Resilient Bumper, Electric Motor	1	
15	83285-86	Gasket, Rubber	4	
16	83283-86	Set, Brush	2	

* Not Pictured in Illustration

TRACTION MOTOR XP - 24V/36V/48V VEHICLES

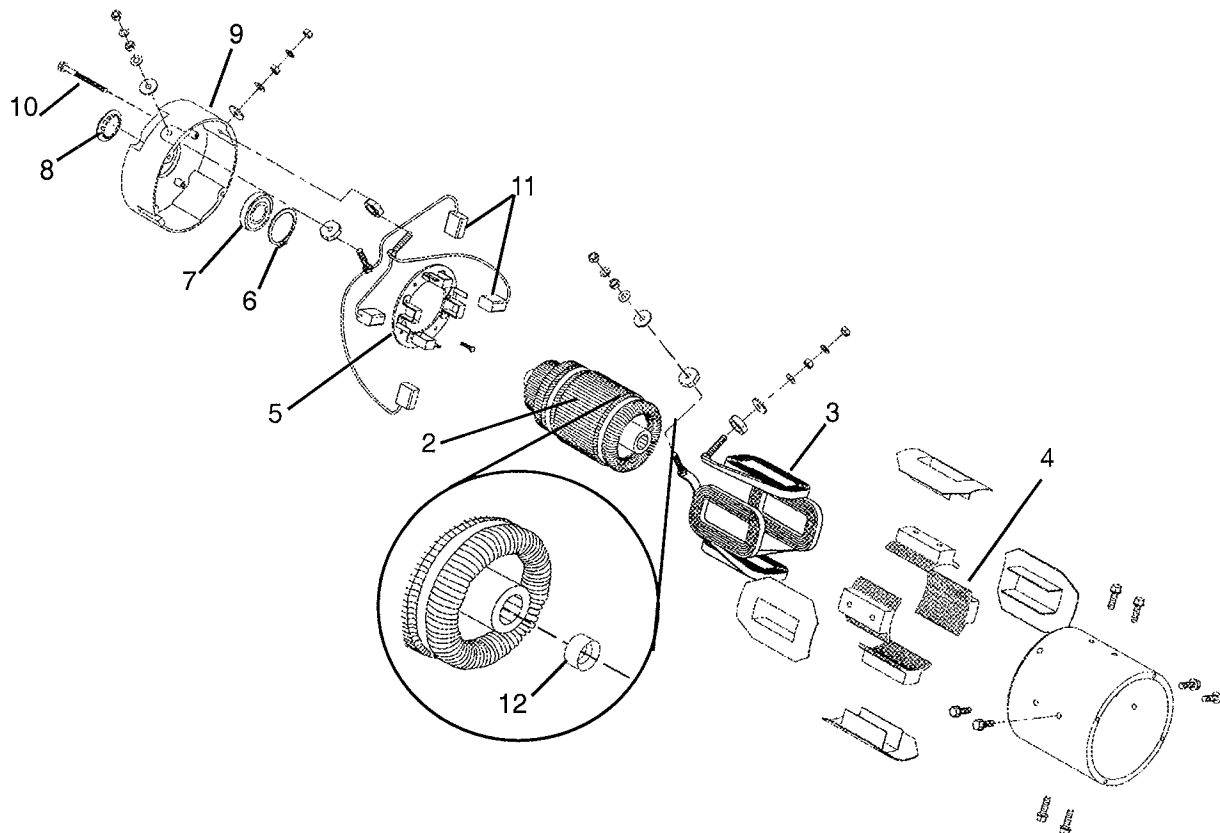


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ITEM NO.	PART NO.	DESCRIPTION	QTY.	Beginning V.I.N. to Ending V.I.N.
1	69201-96	Motor Complete (Incl Items 2-9)	1	4A-25105 to _____
2	83281-89A	Armature	1	4B-25217 to _____
3	83282-95	Coil, Field Kit	1	4L-22100 to _____
*	83289-89A	Kit, Insulator	4	5A-34000 to _____
4	83287-89A	Spring, Brush	4	5B-34000 to _____
5	83284-95	Plate, Brush w/Springs	1	5L-34000 to _____
6	83285-89A	Ring, Retaining	1	
7	83286-89A	Bearing	1	
8	83290-95	Plug, End Cap	1	
9	83288-95	End Cap, Motor	1	
10	83291-89A	Bolt, End Cap	2	
11	83283-89A	Brush Set	1	
12	11423	Resilient Bumper	1	
13	N/A	Cover Plate Assy.	1	

* Not Pictured in Illustration

TRACTION MOTOR - SEPARATELY EXCITED

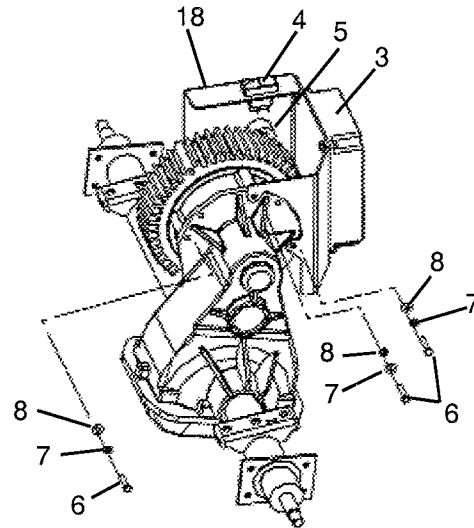
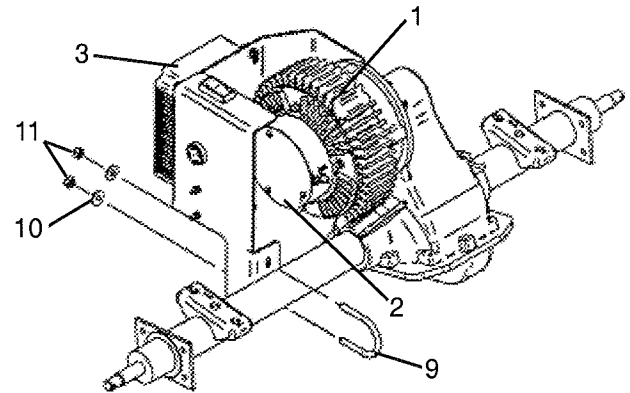
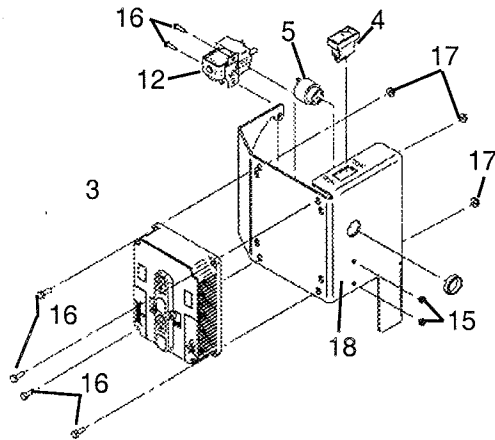


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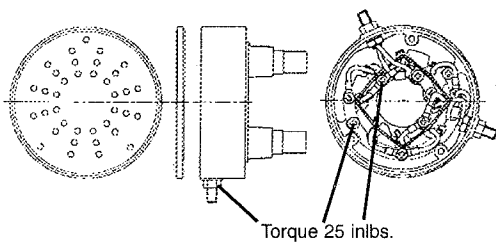
ITEM NO.	PART NO.	DESCRIPTION	QTY.	Beginning V.I.N. to Ending V.I.N.
1	69300-03	Motor Complete, (Incl. Items 2-13)	1	3B-33000 to _____ 5B-34000 to _____ 5A-34000 to _____
2	83281-89A	Armature Assy.	1	
3		Fied Coil Assy.	1	
4		Pole Shoe Assy.	1	
5	83284-89A	Brush Box Assy.	1	
6	83285-89A	Ring, Retaining	1	
7	83286-89A	Bearing	1	
8	83290-89A	Plug, Motor End Cap	1	
9	83288-89A	End Cap, Motor	1	
10	83291-89A	End Cap, Bolt	4	
11	83283-89A	Replacement Brush Set	1	
12	11423	Resilient Bumper, Electric Motor	1	

* Not Pictured in Illustration

TRACTION MOTOR - ACE EPS



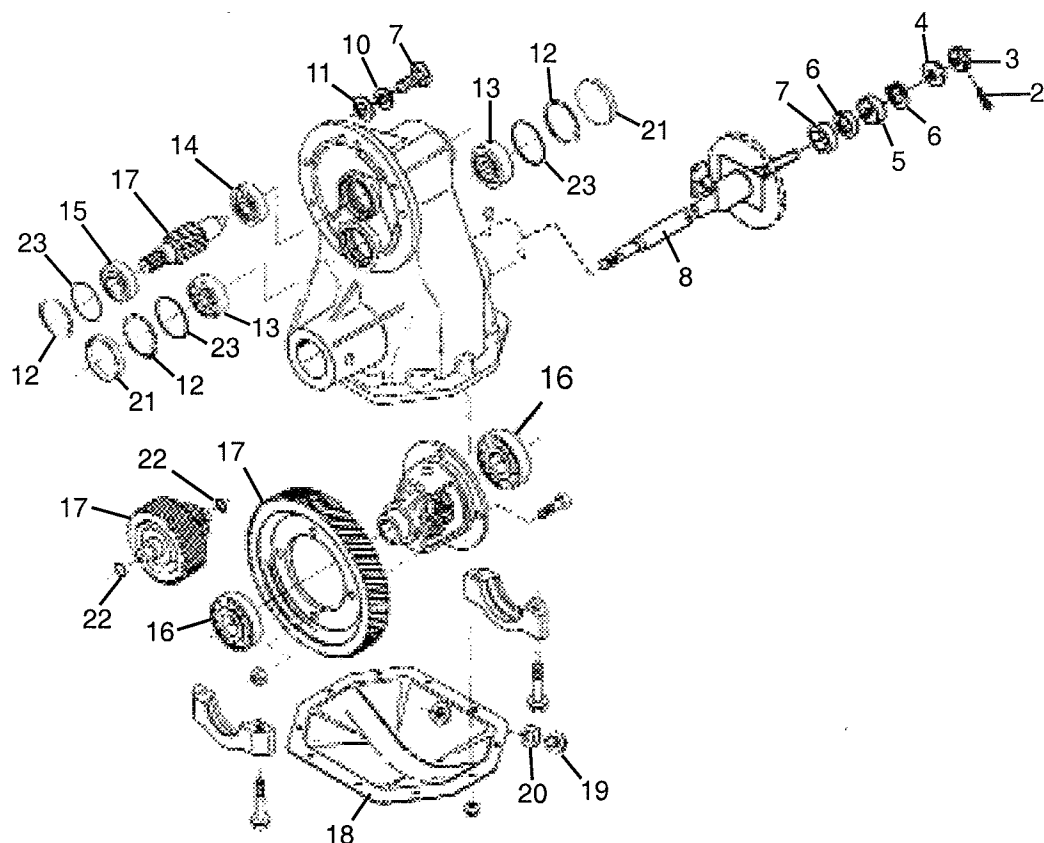
Brush Card Assembly



ITEM NO.	PART NO.	DESCRIPTION	QTY.	Beginning V.I.N. to Ending V.I.N.	
1	69210-01	Motor, Direct Drive ETEK	1	2BD-25736	to _____
	69211-02	Motor, Direct Drive ETEK Open		2LD-33000	to _____
2	83284-01	Brush Card, ACE EPS	1	2AD-33000	to _____
3	74896-02	Controller, Sevcon ACE		2PD-33000	to _____
4	71516-01	Switch, Run/Tow	1		
5	71408-96	Alarm, Reverse 9/48V DC	1		
6	3993	Screw, Hex Cap 1/4-20x1 1/4"	3		
7	7036-B	Lockwasher, 1/4"	3		
8	6703-B	Washer, Plain Type A	4		
9	5211	U-Bolt, 5/16x2 11/16x2x1	1		
10	6000-B	Washer, 5/16	2		
11	7725	Locknut, Nylok 5/16-24	2		
12	71455-01	Contactor, W/Bracket 24V	1		
13	2551-W	Screw, Hex Cap 1/4-20x1" (Controller Mtg)	4		
14	7525	Locknut, Flange Whiz 5/16-18 (Cable Mtg)	4		
15	7624	Locknut, Nylok #10-24	2		
16	2339	Screw, Hex Hd #10-24x3/4"	2		
17	7686	Locknut, Nylok 1/4-20 (Controller Mtg)	4		
18	71020-01	Panel, Controller Mounting	1		
*	11423	Resilient Bumper - Elec Motor	1		

* Not Pictured in Illustration

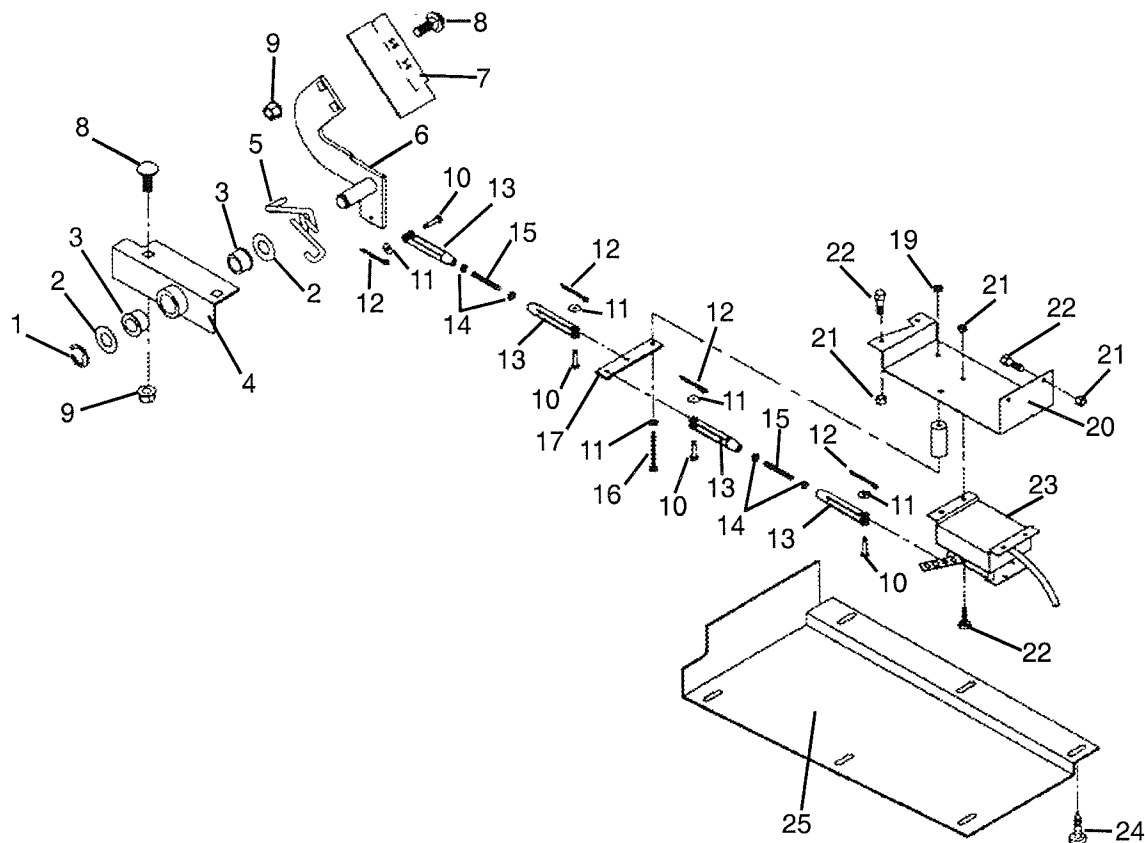
REAR AXLE DIFFERENTIAL - EX-21, TE-31, IS-11, TX-61, JAG



ITEM NO.	PART NO.	DESCRIPTION	QTY.	Beginning V.I.N. to Ending V.I.N.
1	82899-95 82647-02 82900-95	Differential, Complete EX-21, TE-31 (Incl Items 4-8 & 12-23) <i>14.76.1</i> Differential, Complete IS-11, TX-61, JAG (Incl Items 4-8 & 12-23)	1 1	9A-00100 to 9A-00135 2A-33000 to _____ 2BD-25736 to _____
2	559	Pin, Cotter 1/8x1 1/4"	2	2LD-33000 to _____
3	7947-W	Nit, Hex Cap Slotted 5/8-18	2	2PD-33000 to _____
4	6655-B	Washer, Steel	2	4A-25001 to _____
5	82705-78	Bearing, Axle Ball	2	4B-25100 to _____
6	82706-78	Ring, Retaining	4	4L-22100 to _____
7	82704-78	Seal, Oil	1	4P-25000 to _____
8	90001-95	Axle, Helical Left	1	3B-33000 to _____
	90002-95	Axle, Helical Right	1	5B-34000 to _____
9	3993	Screw, Hex Cap 1/4-20x1 1/4"	3	5A-34000 to _____
10	7036-B	Lockwasher, Split 1/4"	3	
11	6703-B	Washer, 1/4"	3	
12	90006-90	Ring, Snap	3	
13	82810-90	Kit, Ball Bearing	2	
14	90004-90	Bearing, Ball Input Gear	1	
15	90003-90	Bearing, Ball Input Gear	1	
16	90005-90	Bearing, Ball Differential	2	
17	82811-95 <i>82775-99</i>	Set, Gear	1	
18	90007-90	Plate, Cover	1	
19	90008-90	Plug, Fill	1	
20	90009-90	Washer, Nylok	1	
21	89456-93	Kit, Dust Cover	1	
22	11119	O'Ring (.551" OD)	2	
23	11118	O'Ring (2.00" OD)	3	

* Not Pictured in Illustration

ACCELERATOR LINKAGE EX-21/TE31

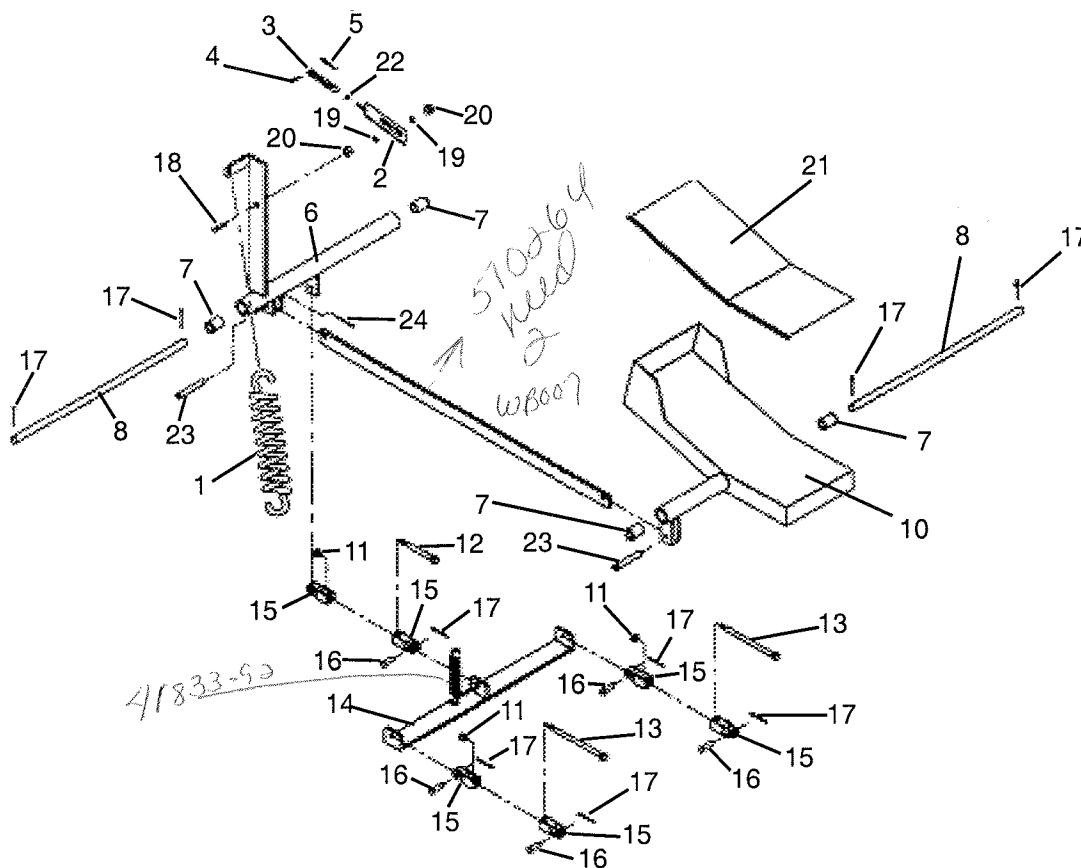


ITEM NO.	PART NO.	DESCRIPTION	QTY.	Beginning V.I.N. to Ending V.I.N.
1	11077	Retaining Ring	1	2BD-25736 to _____
2	6828	Washer, Spacer	2	2LD-33000 to _____
3	9077	Bushing	2	4B-25001 to _____
4	40586-96	Bracket, Weldment	1	4L-22100 to _____
5	40503-96	Spring, Torsion	1	3B-33000 to _____
6	40591-96	Arm, Accelerator Weldment	1	4B-25001 to _____
7	40580-96	Pedal, Accelerator	1	4L-22100 to _____
8	5452-BS	Bolt, Carriage 5/16-18x5/8"	4	
9	7525	Locknut, Flange Whiz 5/16-18	4	
10	502	Pin, Clevis 3/4"	4	
11	6716	Washer, #10 Plain Type A	5	
12	515	Pin, Cotter 1/16x14"	4	
13	42456-86	Clevis	4	
14	7638	Nut, Jam #10-32	4	
15	4003	Stud, #10-32x1 1/2"	2	
16	3477	Screw, #10-32x2"	1	
17	40590-96	Arm, Accelerator	1	
18	40560-96	Standoff, Accelerator	1	
19	7626-W	Locknut, Nylok #10-32	1	
20	40593-96	Plate, Speed Controls	1	
21	7624	Locknut, Nylok #10-24	8	
22	2592	Screw, Phillips Hd #10-24x1/2"	8	
23	74882-87	Speed Switch (Metal Case)	1	
	74882-97	Speed Switch (Plastic Case)	1	
	70061-00	Speed Switch (12" Leads)	1	
24	2653-B	Screw, TEK #3 #10-32x1 1/2"	6	
25	42429-96	Guard Pedal	1	

* Not Pictured in Illustration

40826-02
Rear 480
acc
cable

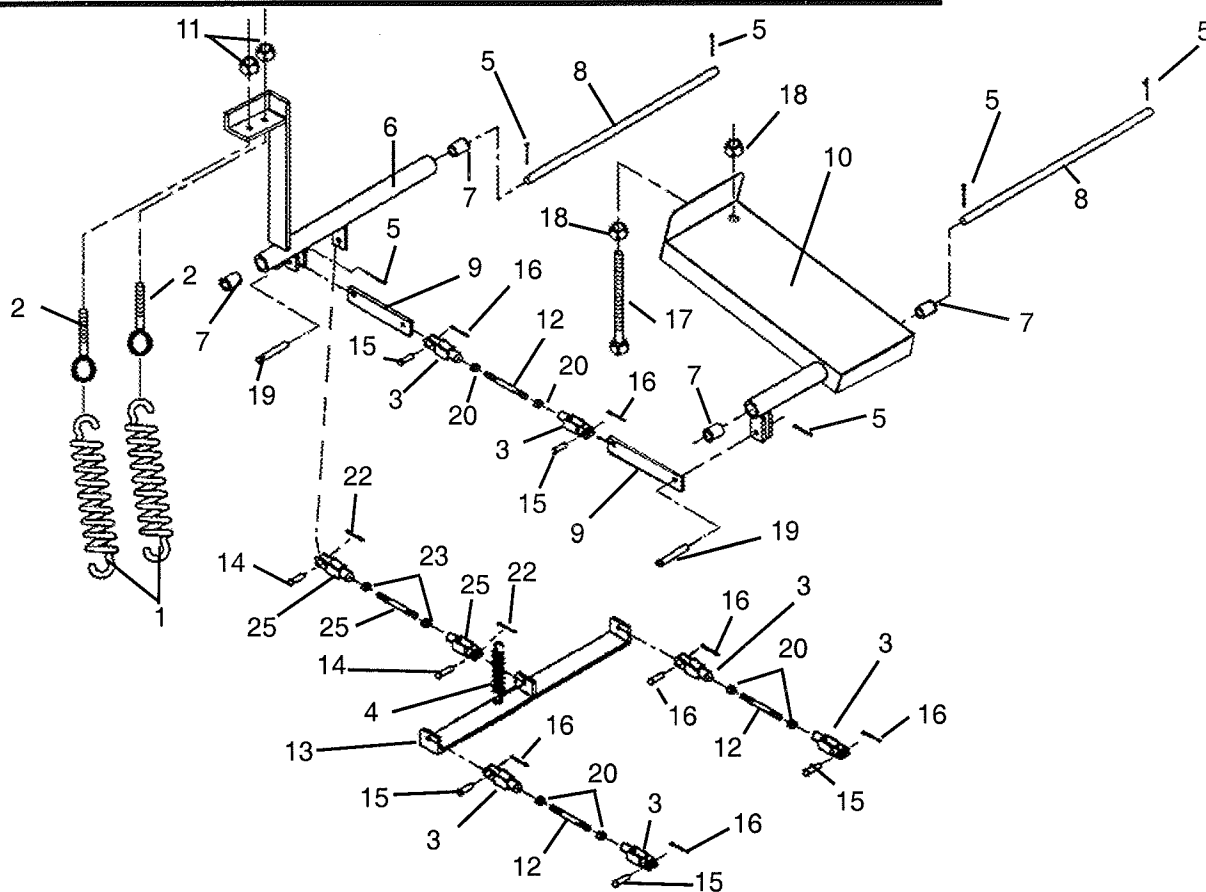
ACCELERATOR & BRAKE LINKAGE - IS-11/TX-61 - 95 - 98



ITEM NO.	PART NO.	DESCRIPTION	QTY.	Beginning V.I.N. to Ending V.I.N.
1	11808	Spring, Accelerator	1	9A-00100 to 9A-00135 4A-25001 to 4A-25160
2	43510-95 <i>085</i>	Actuator, Speed Switch	1	
3	73062-86A	Yoke, Clevis RH	1	
4	502	Pin, Clevis 3/4"	1	
5	515	Pin, Cotter	1	
6	42578-95 <i>085</i>	Accelerator, Actuator	1	
7	57364-95	Bushing, Flanged	4	
8	42509-95	Shaft, Long <i>510300</i>	2	
9	42511-95	Link, Control	1	
10	42577-95	Pedal, Brake/Accelerator	1	
11	7739	Locknut, Nylok 5/16-18	3	
12	2667	Screw, Hex Cap 5/16-18x2"	1	
13	4249	Screw, Hex Cap 5/16-18x4 1/2"	2	
14	42512-95	Equalizer, Brake	1	
15	<i>73059-96</i>	Clevis	6	
16	497	Pin, Clevis 5/16x7/8"	6	
17	552	Pin, Cotter Rue Ring 5/16" Regular	8	
18	3993	Screw, Hex Cap 1/4-20x1 1/4"	1	
19	6703-B	Washer, 1/4 Plain Type A	2	
20	7688-B	Nut, Hex 1/4-20	2	
21	43444-95	Pad, Adhesive	1	
22	7676	Nut, Hex 1/4-28	1	
23	495	Pin, Clevis 5/16x1 1/8"	2	

* Not Pictured in Illustration

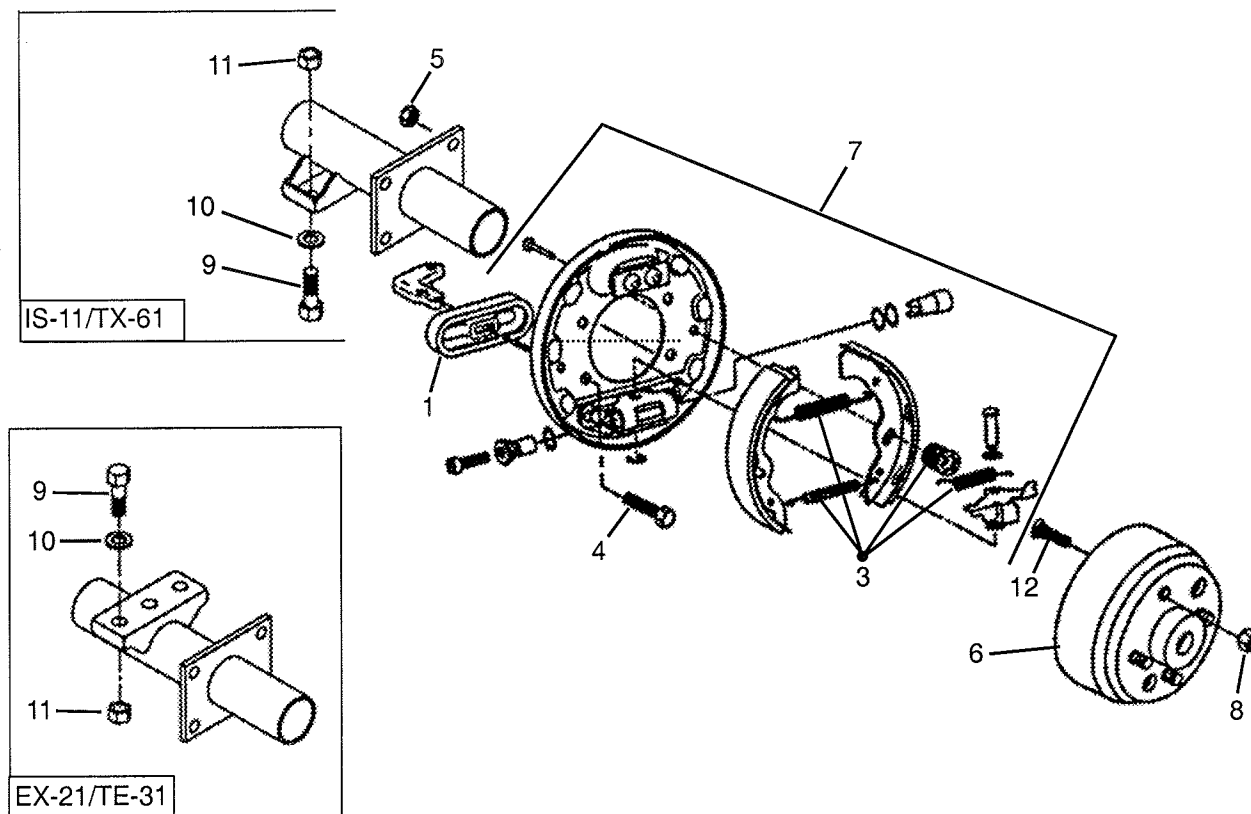
ACCELERATOR & BRAKE LINKAGE - IS-11/TX-61 - 98 -



ITEM NO.	PART NO.	DESCRIPTION	QTY.	Beginning V.I.N. to Ending V.I.N.
1	11809	Spring, Accelerator	2	4A-25213 to _____ 4P-25001 to _____ 4AH-25223 to _____
2	5215	Eyebolt 5/16-18 x 1 1/8"	2	
3	73059-96	Yoke, Clevis	2	
4	41833-82	Spring, Return	1	
5	520-W	Pin, Cotter	1	
6	42578-98	Accelerator, Actuator	1	
7	57364-95	Bushing, Flanged	4	
8	42509-95	Shaft, Long	2	
9	510264	Link, Control <i>42511-95A</i>	2	
10	305532	Pedal, Brake/Accelerator <i>42577-00A</i>	1	
11	7525	Locknut, Nylok 5/16-18	2	
12	24820-96	Stud, Full Thread 5/16-24 x 3"	3	
13	42512-95	Equalizer, Brake	1	
14	493	Pin Clevis 1/4 x 1"	6	
15	494	Pin, Clevis 5/16x1"	6	
16	552	Pin, Cotter #10 Rue Ring	6	
17	3861-B	Screw, Hex Cap 1/4-20 x 3 1/2"	1	
18	7724-B	Locknut, Flange Lock 1/4-20	2	
19	495	Pin, Clevis 5/16 x 1 1/8"	2	
20	7744	Nut, Jam 5/16-24	6	
21	719708	Clevis Pin	2	
22	555	Pin, Cotter #8 Rue Ring	2	
23	7676	Nut, Jam 1/4-28	2	
24	11701	Stud, Full Thread 1/4-28 x 2 1/4"	1	
25	73062-86A	Clevis #51 1/4-28	2	

* Not Pictured in Illustration

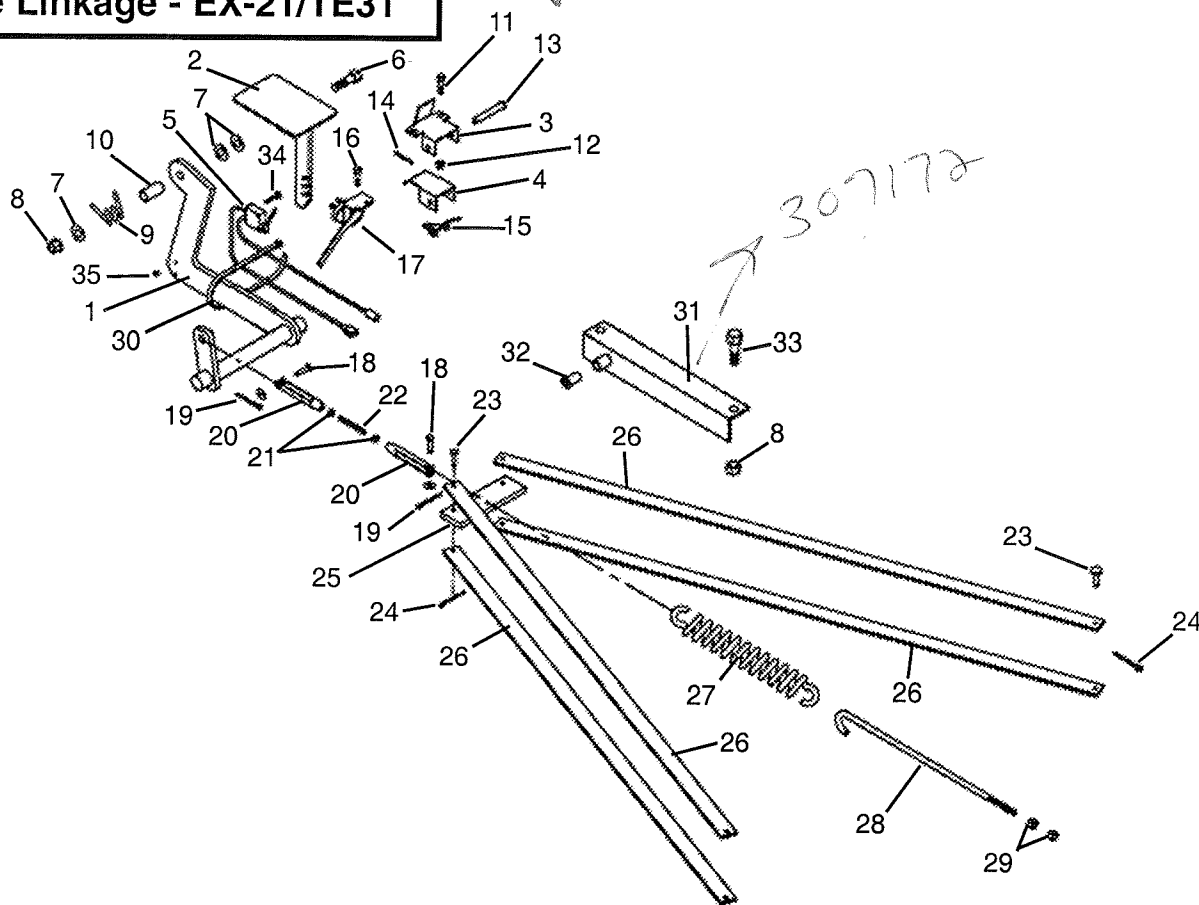
Brake Assembly - Mechanical, EX-21, TE31, IS11, TX61



ITEM NO.	PART NO.	DESCRIPTION	QTY.	Beginning V.I.N. to Ending V.I.N.
1	41822-86B	Cover, Dust	2	9A-00100 to 9A-00135
2	41819-86B	Set, Brake Shoe	2	2AD-33000 to _____
3	41816-86B	Kit, Spring	2	2BD-25736 to _____
4	3987-BS	Screw, Hex Cap 5/16-18x3/4"	8	2DL-33000 to _____
5	7740-B	Locknut, 3-Way Center Lock 5/16-18	8	2PD-33000 to _____
6	41815-86A	Drum, Brake	2	4A-25001 to _____
	41844-96	Drum, Brake W/Studs	2	4B-25100 to _____
7	41813-86B	Brake, LH (Incl Items 4-9 & 11)	1	4L-22100 to _____
	41814-86B	Brake, RH (Incl Items 4-9 & 11)	1	4P-25000 to _____
8	43152-66	Nut, Lug 1/2-20	8	3B-33000 to _____
9	4716-W	Screw, Hex Cap 3/8-16x1 1/4"	4	
10	6416	Washer, 3/8 W-Plain Type A	4	
11	7512	Locknut, Flange Whiz 3/8-16	4	
12	41199	Stud, Wheel	8	
*	9990-W	Clamp Brake Cable	2	

* Not Pictured in Illustration

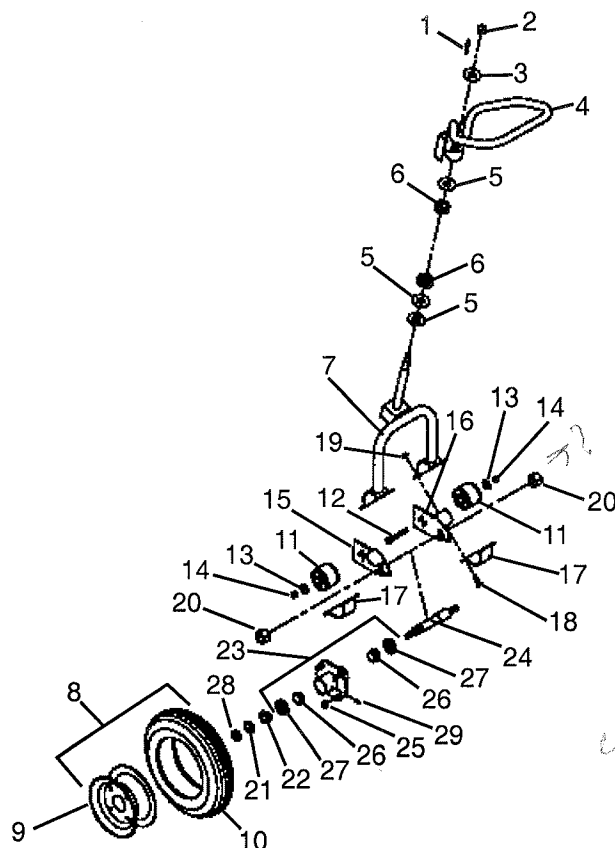
Brake Linkage - EX-21/TE31



ITEM NO.	PART NO.	DESCRIPTION	QTY.	Beginning V.I.N. to Ending V.I.N.
1	42564-96	Arm, Brake	1	4B-25100 to _____ 4L-22100 to _____ 2BD-25736 to _____ 3B-33000 to _____
2	42660-96	Pedal, Brake	1	
3	42668-96	Latch, Park Brake	1	
4	42667-96	Lock, Brake	1	
5	78012-98	Micro-Switch, Brake	1	
6	2871-W	Screw, Hex Cap 5/16-18x1 1/4"	1	
7	6830	Washer, Plain	3	
8	7525	Locknut, Flange Whiz 5/16-18	3	
9	11813-96	Spring, Torsion	1	
10	26252-96	Bushing, Brake	1	
11	2592	Screw, Phillips Hd. #10-24x1/2"	2	
12	7624	Locknut, Nylok #10-23	2	
13	42360-96	Pin, Pivot	1	
14	534	Pin, Cotter	1	
15	11814-96	Spring, Torsion	1	
16	2604	Screw, Phillips Hd. #10-32x1/2"	2	
17	68040-96	Switch, Brake Light	1	
18	494	Pin, Clevis	2	
19	552	Pin, Clip	2	
20	73059-96	Yoke	2	
21	7744	Nut, Jam 5/16-24	2	
22	24820-96	Stud, Threaded 5/16-24x3"	1	
23	497	Pin, Clevis	4	
24	520-W	Pin, Cotter	4	
25	42670-96	Equalizer, Brake	1	
26	42393-96	Strap, Brake	4	
27	11812-96	Spring, Extension	1	
28	42424-96	Rod, Adjusting	1	
29	7748-B	Nut, Hex 5/16-18 UNC-2B	2	
30	10043	Tye Wrap	1	
31	42665-96	Bracket, Brake	1	
32	9077	Bushing	1	
33	5452-BS	Bolt, Carriage 5/16-18x5/8"	2	
34	2556	Screw, Phillips Hd. 6-32x1"	2	
35	7592	Locknut, Hex, Nylok 6-32	2	

* Not Pictured in Illustration

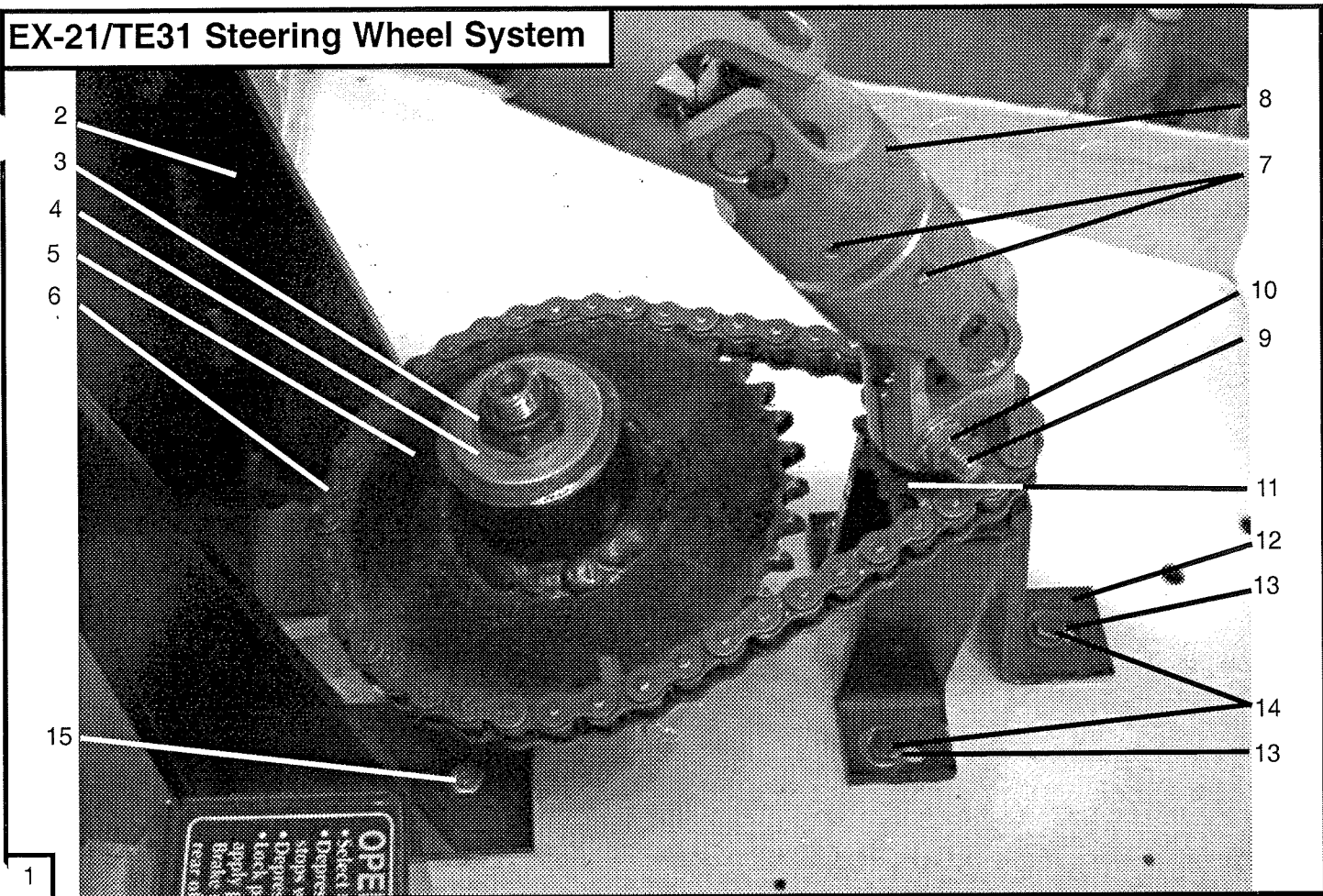
STEERING & FRONT SUSPENSION - EX21, TE-31



ITEM NO.	PART NO.	DESCRIPTION	QTY.	Beginning V.I.N. to Ending V.I.N.
1	41204-63A	Key, Hub	1	4B-25100 to _____
2	7995	Locknut, Nylok 5/8-16 Thin	1	2BD-25736 to _____
3	6655-B	Washer	1	3B-33000 to _____
4	57036-96	Tillar Bar	1	4L-22100 to _____
5	6832	Washer	AR	
6	9078	Bearing	2	
7	45530-96	Front Fork	1	
8	40988-96 ⁹⁵	Tire and Rim 4.80 x 8.00 LRB	1	
9	2109-94	Rim, 4-Hole 8.00 x 3.75	1	
10	42110-95	Tire 4.80 x 8.00 LRB	1	
11	43470-96	Mount, Suspension	2	
12	4259	Screw, Hex Cap 7/16-20x4"	2	
13	6336	Washer	2	
14	7825	Locknut, Nylok 7/16-20	2	
15	43472-96	Bracket, Fork LH	1	
16	43473-96	Bracket, Fork RH	1	
17	45532-96	Clamp, Half	2	
18	4716-W	Screw, Hex Cap 3/8-16x1 1/4"	4	
19	7512	Lacknut, Flange Whiz 3/8-16	4	
20	8166	Nut Torque 5/8-11 R/B 781140	2	
21	7897	Nut, Jam 1-8	1	
22	7896	Nut, Bearing Adjusting	1	
23	43485-96	Assembly, Hub	1	
24	43484-96	Axle Front Fork	1	
25	43152-66	Nut, Tappered Wheel 1/4-20	4	
26	41787-97	Bearing, Tapered Roller → cnp 729986	2	
27	43735-97	Seal, Oil	2	
28	6568	Spacer, Axle	1	
29	9853	Fitting, Lubrication	1	

* Not Pictured in Illustration

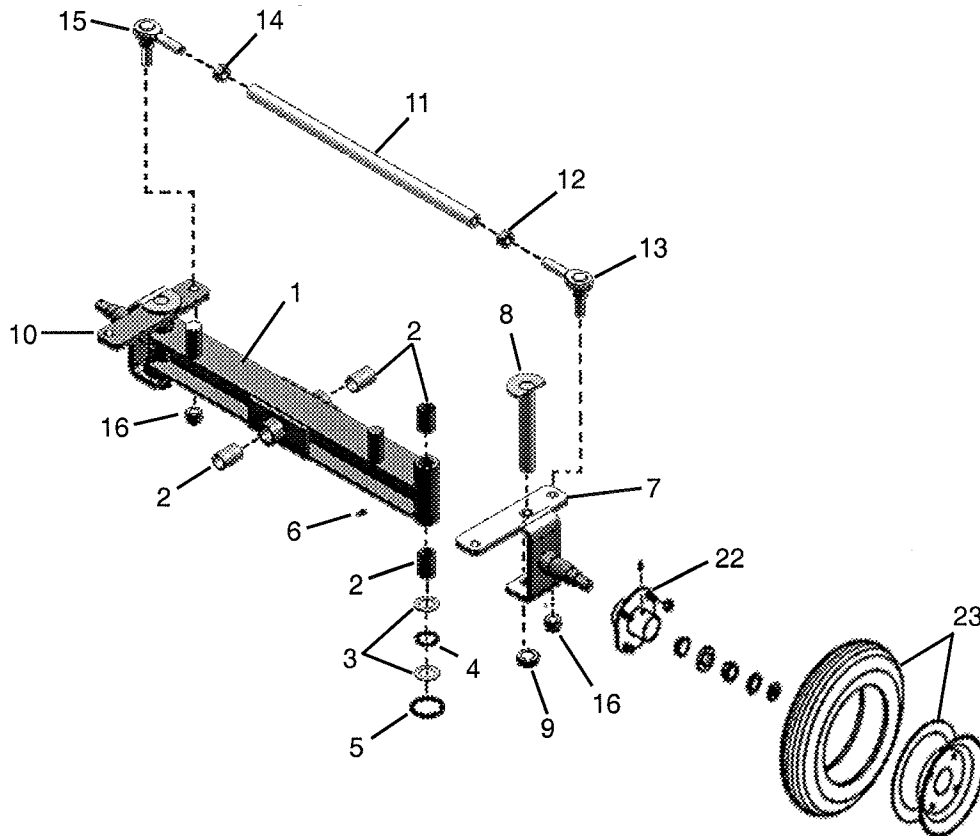
EX-21/TE31 Steering Wheel System



ITEM NO.	PART NO.	DESCRIPTION	QTY.	Beginning V.I.N. to Ending V.I.N.
1	57104-00	Steering Shaft System EX-21	1	
	57105-00	Steering Shaft System TE-31	1	2BD-25736 to _____
2	57046-00	Steering Column EX-21	1	2LD-33000 to _____
	57045-00	Steering Column TE-31	1	4B-33000 to _____
3	7995	Locknut, Nylok 5/8-18 Thin	1	4L-33000 to _____
4	655-B	Washer Flat	1	3B-33000 to _____
5	57107-00	Steering Sprocket (Large)	1	
6	57241-00	Roller Chain	1	
7	388	Pin, Spring 1/4x1 1/2"	3	
8	57108-00	Shaft, Solid Steering EX-21 (Alum)	1	
	57109-00	Shaft, Solid Steering TE-31 (Alum)	1	
9	2871-W	Screw, Hex Cap 5/16-18x1"	1	
*	7748-B	Locknut, Nylok 5/16-18	1	
10	57106-00	Steering Shaft Sprocket (Small)	1	
11	57047-00	Tripod, Steering Shaft	1	
12	6702-B	Washer, Plain Blk 11/32	7	
13	2667	Screw, Hex Cap 5/16-18x2"	3	
14	3987-BS	Screw Hex Cap 5/16-18x3/4"	4	
*	7525	Locknut, Flange 5/16-18	4	
*	9029	Bearing, Steering Column	2	
*	6656	Washer, 3/4 (Steering Column)	1	
*	57089-99	Wheel, Steering	1	
*	7995	Locknut, Nylok 5/8-18	1	
*	57098-98	Cover, Steering Hub	1	
*	2638	Screw, Self-Tapping #6x3/4	2	
*	57089-99	Holder, Scorecard	1	
*	2641	Screw, Self-Tapping #10x1"	3	
*	57024-00	Steering Column Cover	1	

* Not Pictured in Illustration

EX-21/TE31 4-Wheel Front Suspension



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	58427-04	Trunnion, EX-21 Wldmt	1
2	9083	Bushing	6
3	6042	Washer, Needle Thrust	4
4	9085	Bearing Torrington Needle Thrust	2
5	11100	O'Ring	2
6	9800	Fitting, Grease	2
7	58664-04	Steering Spindle, LH	1
8	56843-00	Kingpin, Assy	2
9	7513	Nut, Nylon Jam 3/4-16	3
10	58663-04	Steering Spindle, RH	1
11	58616-04	Link, Tie Rod - Long	1
12	7644	Nut, Hex Jam 1/2-20	2
13	57063-96	Tie Rod, End Assy. RH Thread	2
14	5832	Nut, Hex Jam 1/2-20 LH Thread	2
15	58604-04	Tie Rod, End Assy. LH Thread	2
16	7812-W	Nut, Nylok1/2-20	4
17	54817-00	Screw, Hex Cap 3/4-16x5 1/2"	1
18		Link, Tie Rod Short	1
19		Shaft/A, Steering Lower	1
20		Brace, Axle Trunnion Mount	1
21		Axle Trunion Mount	1
22	43481-89	Hub, Front Wheel	2
23	40988-95	Rim and Tire, 4.80 x 8.00	2
*		Axle Support Weldment	1
*		Plate, Retainer axle	1

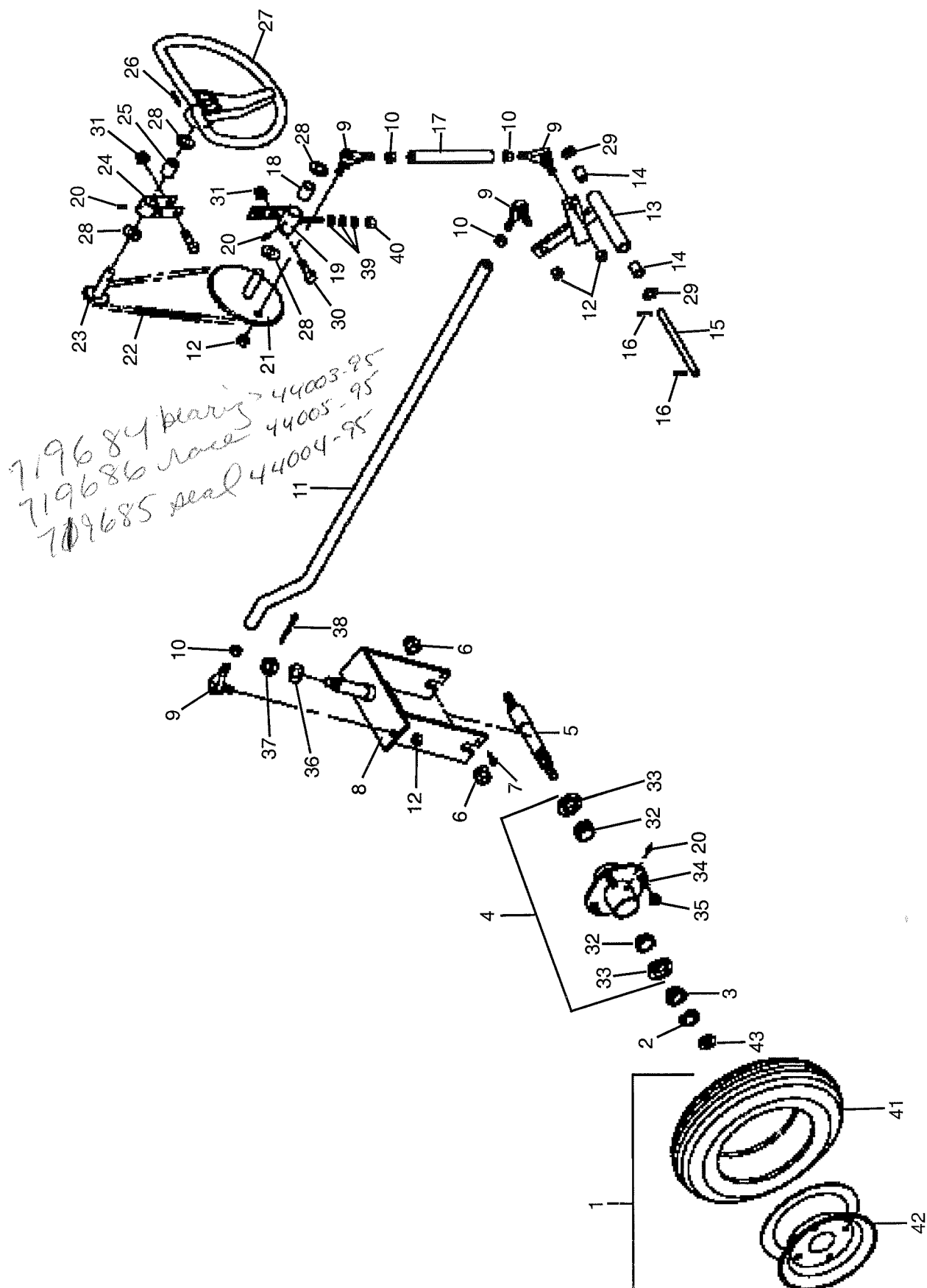
Beginning V.I.N. to Ending V.I.N.

4B-33000 to _____

4L-33000 to _____

* Not Pictured in Illustration

STEERING & FRONT SUSPENSION - 1S11, TX61

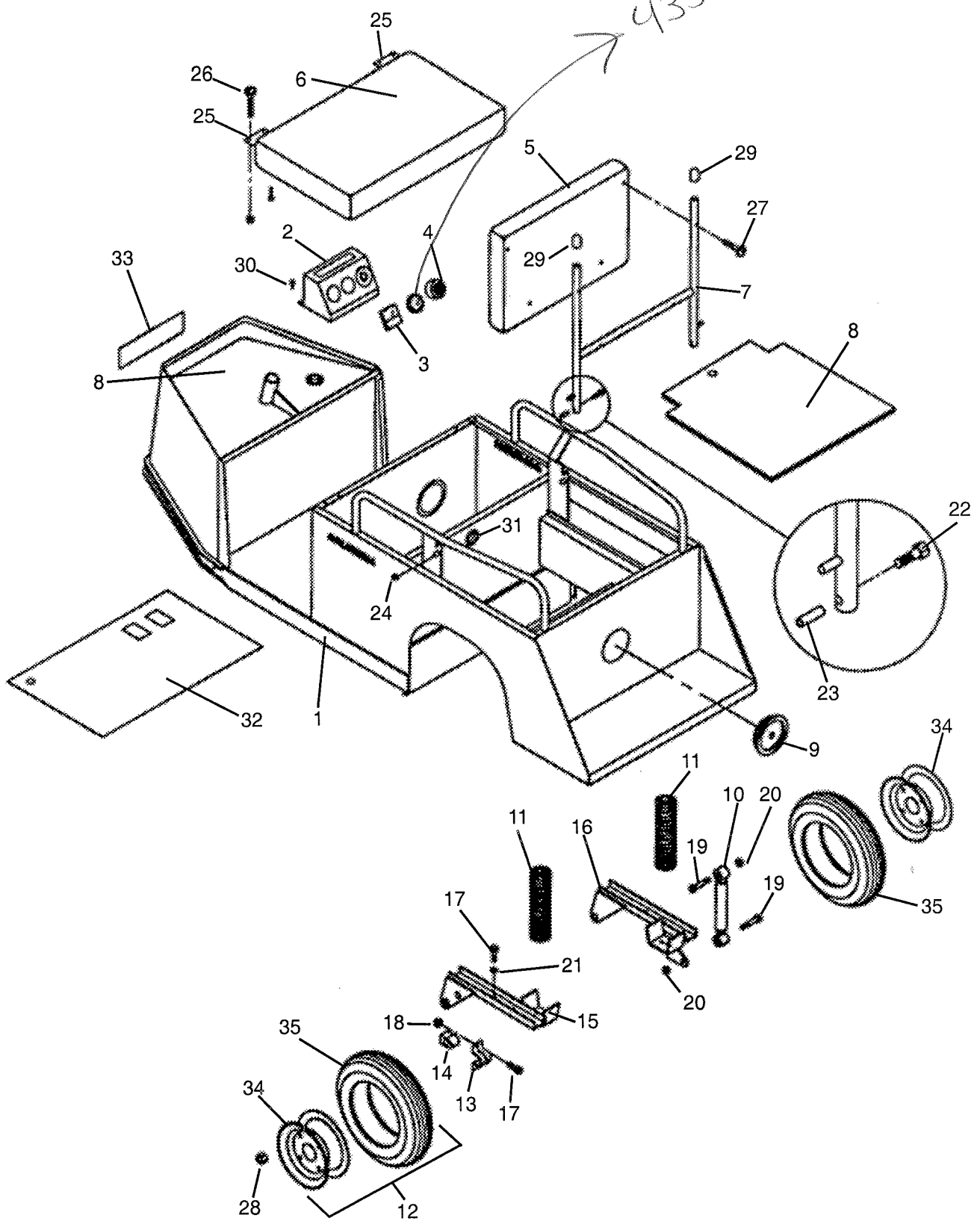


STEERING & FRONT SUSPENSION - 1S11, TX61

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	40988-95	Tire and Rim, 4.80 x 8.00 LRB	1
2	7897	Nut, Jam, 1-8	1
3	7896	Nut, Bearing Adjusting	1
4	43485-96	Hub Assembly	1
5	43484-96	Axle, Front Fork	1
6	8166	Nut, Torque 5/8-11	2
7	2685-W	Screw, Hex Self-Tapping 10-24x5/8"	2
8	57228-96	Fork, Front	1
9	57063-96	End, Tie Rod Assy.	4
10	7644	Nut, Jam Hex Hd. 1/2-20	4
11	57231-95A	Steering Shaft, Long	1
12	7812-W	Lock, Nylok 1/2-20	4
13	57229-96	Bell Crank	1
14	57364-95	Bushing, Flanged	2
15	57242-95	Pivot, Short Shaft	1
16	520-W	Pin, Cotter	2
17	57357-95	Shaft, Short Steering	1
18	57352-95	Bushing, Nylon (NN1216-16)	2
19	57327-95	Hub, Lower	1
20	9853	Fitting, Grease	3
21	57325-95	Sprocket, Lower	1
22	57240-95	Chain, Roller	1
23	57324-95	Sprocket, Upper	1
24	57326-95	Hub, Upper	1
25	57351-95	Bushing, Nylon (NN1216-20)	1
26	388	Pin, Spring	1
27	57099-95	Wheel, Steering	1
28	57363-95	Washer, Nylon	3
29	6568-B	Washer	AR
30	2667	Screw, Hex Cap 5/16-18x2"	4
31	7525	Locknut, Flange 5/16-18	4
32	41787-97	Bearing, Tapered Roller	2
33	43735-97	Seal, Oil	2
34	29044-97	Stud, Wheel	4
35	43125-66	Nut, Lug	4
36	5908-B	Washer, Flat	1
37	82713-96	Nut, Castle 3/4-16	1
38	559-B	Pin, Cotter	1
39	6702-B	Washer, Plain	3
40	7725	Locknut, Nylok 5/16-24	1
41	42110-95	Tire, 4.80 x 8.00 LRB	1
42	42109-94	Rim, 8.00 x 3.75 4 Hole	1
43	6568	Spacer, Axle	1

Beginning V.I.N. to Ending V.I.N.	
9A-00100 to	9A-00135
4A-25001 to	_____
4P-25000 to	_____

BODY and REAR SUSPENSION - EX-21,TE-31



BODY & REAR SUSPENSION - EX-21, TE-31

Beginning V.I.N. to Ending V.I.N.	
4B-25100	to _____
4L-22100	to _____
2BD-25736	to _____
2LD-33000	to _____
3B-33000	to _____

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	47940-96	Chassis, Expeditor	1
2	47950-97	Console	1
3	75040-95	Meter, Battery Status (24V)	1
4	71762-82A	Keyswitch W/Keys	1
5	52981-96	Backrest	1
6	52980-96	Seat	1
7	52983-96	Frame, Back Rest	1
8	90752-96	Deck	1
9	68020-92	Tail Light, W/Grommet	1
10	54514-89	Absorber, Rear Shock	1
11	54567-96	Spring, Compression	2
12	40988-95	Tire & Rim Assy. (4.80 x 8 LRB)	2
13	54626-96	Retainer, Stabilizer	2
14	54627-96	Block, Stabilizer	2
15	54587-96	Swing Arm, LH	1
16	54586-96	Swing Arm, RH	1
17	4716-W	Screw, Hex Cap 3/8-16x1 1/4"	8
18	7512	Locknut, Flange 3/8-16	8
19	3407	Screw, Hex Cap 1/2-13x2 1/4"	2
20	7685	Locknut, Nylok 1/2-13	2
21	6416	Washer, W-Plain	4
22	2667	Screw, Hex Cap 5/16-18x2"	2
23	52988-96	Bushing, Seat Adjusting	2
24	7525	Locknut, Flange Whiz 5/16-18	2
25	45402-98	Tab, Seat	2
26	2355	Screw, Flat Hd. (Wood) 4-22x1/2"	6
27	2367	Screw, Oval Hd. 1/4-20x1 1/2"	4
28	43152-66	Nut, Lug	8
29	22370-96	Endcap, Backrest Frame	2
30	2653-B	Screw, Tek #10x3/4"	2
31	11418-A	Grommet	2
32	50710-96	Mat, Floor	1
33	84205-92A	Plate, Name (Columbia)	1
34	42109-94	Rim, 4 Hole (8.00 x 3.75)	2
35	42110-95	Tire, LRB (4.8 x 8.00)	2

* Not Pictured in Illustration

CONTROL CONSOLE - EX-21,TE-31 (Special Configuration)



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	47940-96	Battery Discharge Indicator	1
2	47950-97	On/Off Switch	1
*	71730-01	Key Switch W/Keys	1
3	75040-95	Forward/Reverse Switch (Optional)	1

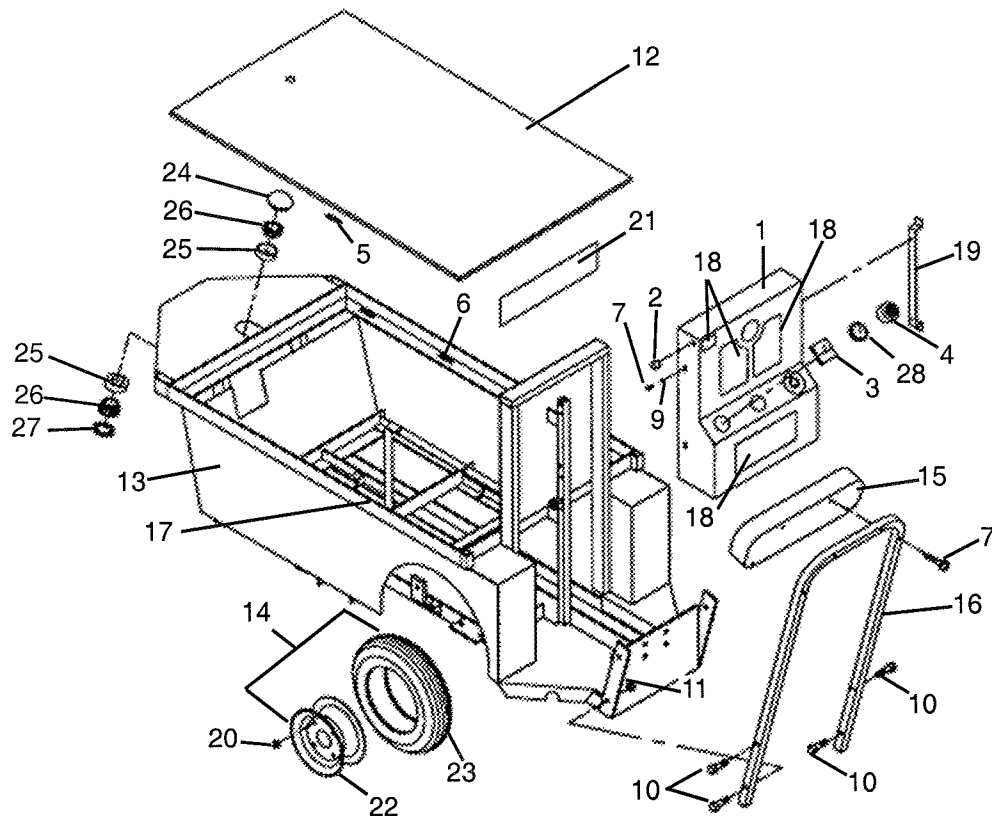
Beginning V.I.N. to Ending V.I.N.

3B-33000 to _____

* Not Pictured in Illustration

*Label
cluster
53282-96*

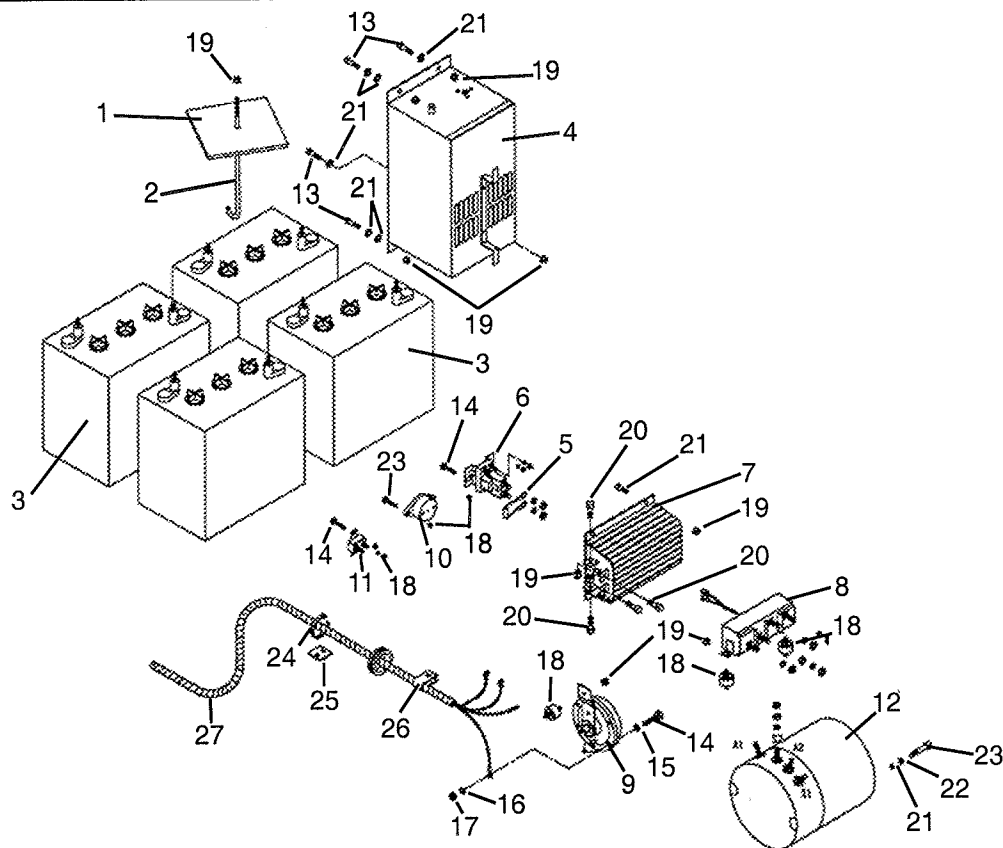
BODY & REAR SUSPENSION - IS-11,



ITEM NO.	PART NO.	DESCRIPTION	QTY.	Beginning V.I.N. to Ending V.I.N.
1	47887-95	Console, Steel	1 *	9A-00100 to 9A-00135 *
	47887-98	Console, Molded Black Plastic	1 **	
2	71807-80	Horn, switch	1	4A-25100 to 4A-25117 *
3	75040-95	Meter, Battery Status (24V)	1	2A-xxxxx to _____
4	71762-82A	Keyswitch W/Keys	1	2P-xxxxx to _____
	71760-01	Universal Keyswitch W/Hdwr.	1	4A-25118 to _____ **
5	5542	Reclosable, Fastener (COOP)	2	4P-25000 to _____
6	5541	Reclosable, Fastener (HOOK)	2	
7	2653-B	Screw, Tek #10x3/4"	4	
8	6703-B	Washer, Type A Plain	4	
9	44002-95	Screw, Flat Hd. Wood #6x1 5/8"	4	
10	3407	Screw, Hex Cap 1/2-13x2 1/4"	4	
11	7685	Locknut, Nylok 1/2-13	4	
12	90750-95	Deck	1	
13	47900-95	Chassis, Stockchaser IS-11	1	
*		Chassis, Transport ExpressTX-62	1	
14	40988-95	Tire and Rim, LRB (4.80 x 8.00)	2	
15	44001-95	Cushion, Seat	1	
16	44000-95	Frame, Seat	1	
17	48865-ZZ	Pinchweld (1 Ft.)	1	
18	53270-95	Label Set	1	
19	47179-95	Bracket, Charger Cord	1	
20	43152-86	Nut, Lug	8	
21	84205-92A	Label, Columbia	1	
22	42109-94	Rim, 4-hole (8.00 x 3.75)	2	
23	42110-95	Tire, LRB (4.80 x 8.00)	2	
24	43646-79	Cap, Grease	1	
25	44005-95	Bearing, Race	2	
26	44003-95	Bearing, Roller	2	
27	44004-95	Seal, Bearing	1	
28	43501-96	Amp Meter, Charger	1	

* Not Pictured in Illustration

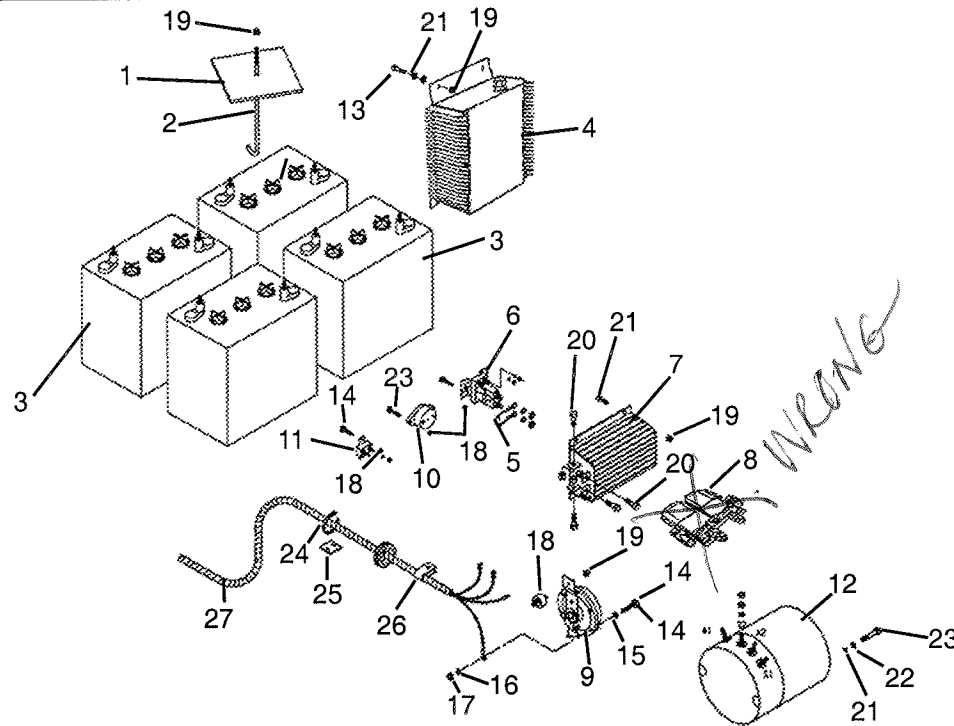
BATTERIES AND HARDWARE - EX-21,TE31



ITEM NO.	PART NO.	DESCRIPTION	QTY.	Beginning V.I.N. to Ending V.I.N.
1	66362-96	Plate, Battery Hold-Down	1	2BD-25736 to _____
2	66561-90	Rod, Battery Hold-Down	1	2LD-33000 to _____
3	66014-84	Battery, 6V T105	4	4B-25001 to _____
4	43500-95	Charger, On-Board 24V	1	4L-22100 to _____
5	70592-87	Resistor Assembly	1	3B-33000 to _____
6	71470-87	Solenoid	1	
7	74883-87	Controller	1	
8	71430-96	Switch, Reversing	1	
9	69001-76A	Horn Assembly	1	
10	74590-96	Breaker, Circuit 90 Amp	1	
11	74591-96	Breaker, Circuit 20 Amp	1	
12	69201-96	Motor, Traction 24V <i>R/B 69200-89A</i>	1	
13	3787-B	Screw, HHC 1/4-20x3/4"	4	
14	2592	Screw, Phillips Hd. #10-24x1/2"	5	
15	6150-W	Washer	1	
16	7118	Lockwasher, #10 Internal Tooth	1	
17	7624	Locknut, Nylok #10-24	7	
18	11452-96	Mount, Rubber	3	
19	7724-B	Locknut, Flange Whiz	19	
20	3728	Screw, Hex Cap 1/4-20x1/2"	8	
21	6703-B	Washer, Plain Type "A"	9	
22	7036-B	Lockwasher	3	
23	3993	Screw, Hex Cap 1/4-20x1 1/4"	3	
24	10008	Tye Wrap	4	
25	10020	Holder, Tye Wrap	4	
26	3390	Clamp, Wire Harness	1	
27	70037-96A	Harness, Wire	1	
*	71408-96	Alarm, Reverse Buzzer	1	

* Not Pictured in Illustration

BATTERIES AND HARDWARE - EX-21,TE31

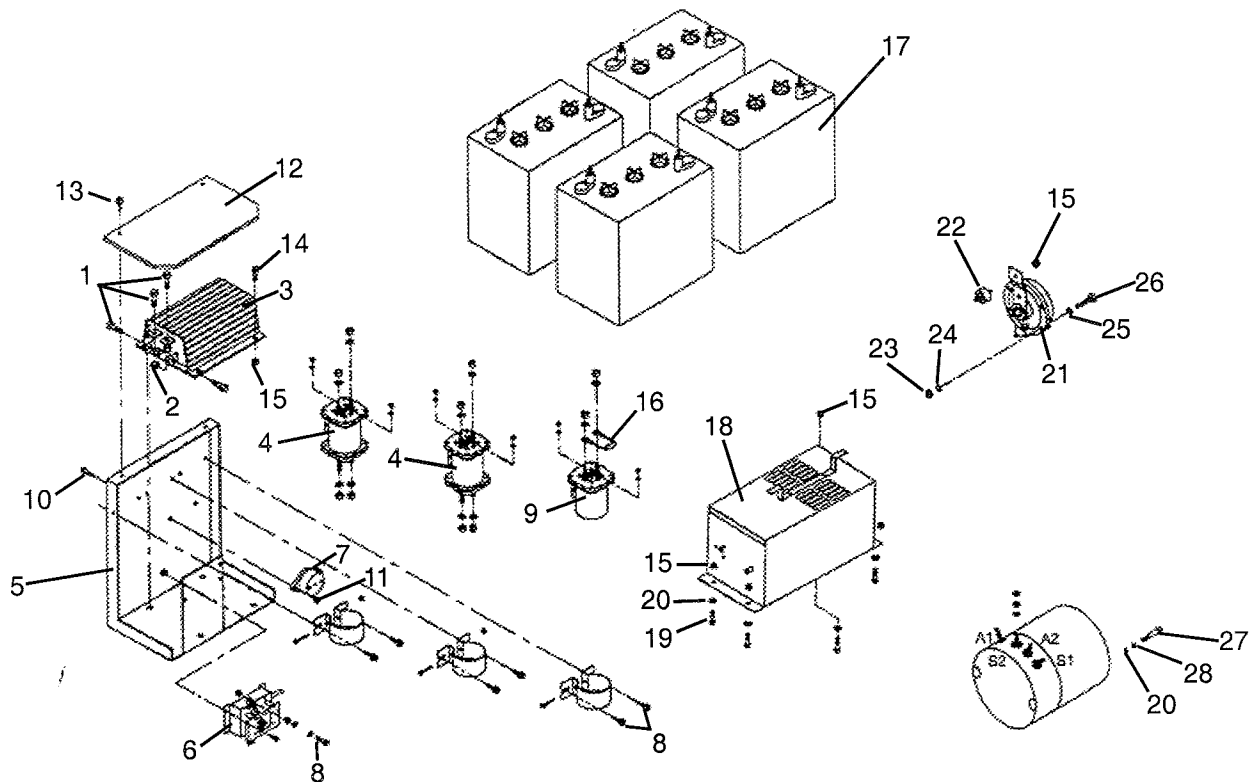


See page 6-11 for additional parts and part numbers

ITEM NO.	PART NO.	DESCRIPTION	QTY.	Beginning V.I.N. to Ending V.I.N.
1	66362-96	Plate, Battery Hold-Down	1	3B-33000 to _____ 5B-34000 to _____ 5L-34000 to _____
2	66561-90	Rod, Battery Hold-Down	1	
3	66014-03	Battery, 6 Volt, Deep Cycle (220 AmpHr)	4	
*	66005-03K	Battery, 6 Volt, Deep Cycle (244 AmpHr)	4	
*	66013-03	Battery, 12V 31 EV Batteries	4	
4	43500-95	Charger, On-Board 24V	1	
*	43500-03	Charger, On-Board 24V (Yellow)	1	
*	66583-03	Charger, On-Board 48V (Yellow)	1	
5	70592-87	Resistor Assembly	1	
6	71470-87	Solenoid	1	
7	74883-87	Controller	1	
*	47892-04	Controller, Regen 500A, 24-48V	1	
8	71455-01	Contactor & Mtg Brkt, 24V	1	
9	69001-76A	Horn Assembly	1	
10	74590-96	Breaker, Circuit 90 Amp	1	
11	74591-96	Breaker, Circuit 20 Amp	1	
12	69201-96	Motor, Traction 24V XP	1	
*	69300-03	Motor, Traction 24V 48V Sep Ex - Blue	1	
13	3787-B	Screw, HHC 1/4-20x3/4"	4	
14	2592	Screw, Phillips Hd. #10-24x1/2"	5	
15	6150-W	Washer	1	
16	7118	Lockwasher, #10 Internal Tooth	1	
17	7624	Locknut, Nylok #10-24	7	
18	11452-96	Mount, Rubber	3	
19	7724-B	Locknut, Flange Whiz	19	
20	3728	Screw, Hex Cap 1/4-20x1/2"	8	
21	6703-B	Washer, Plain Type "A"	9	
22	7036-B	Lockwasher	3	
23	3993	Screw, Hex Cap 1/4-20x1 1/4"	3	
26	3390	Clamp, Wire Harness	1	
27	70037-96A	Harness, Wire	1	
*	71408-96	Alarm, Reverse Buzzer	1	

* Not Pictured in Illustration

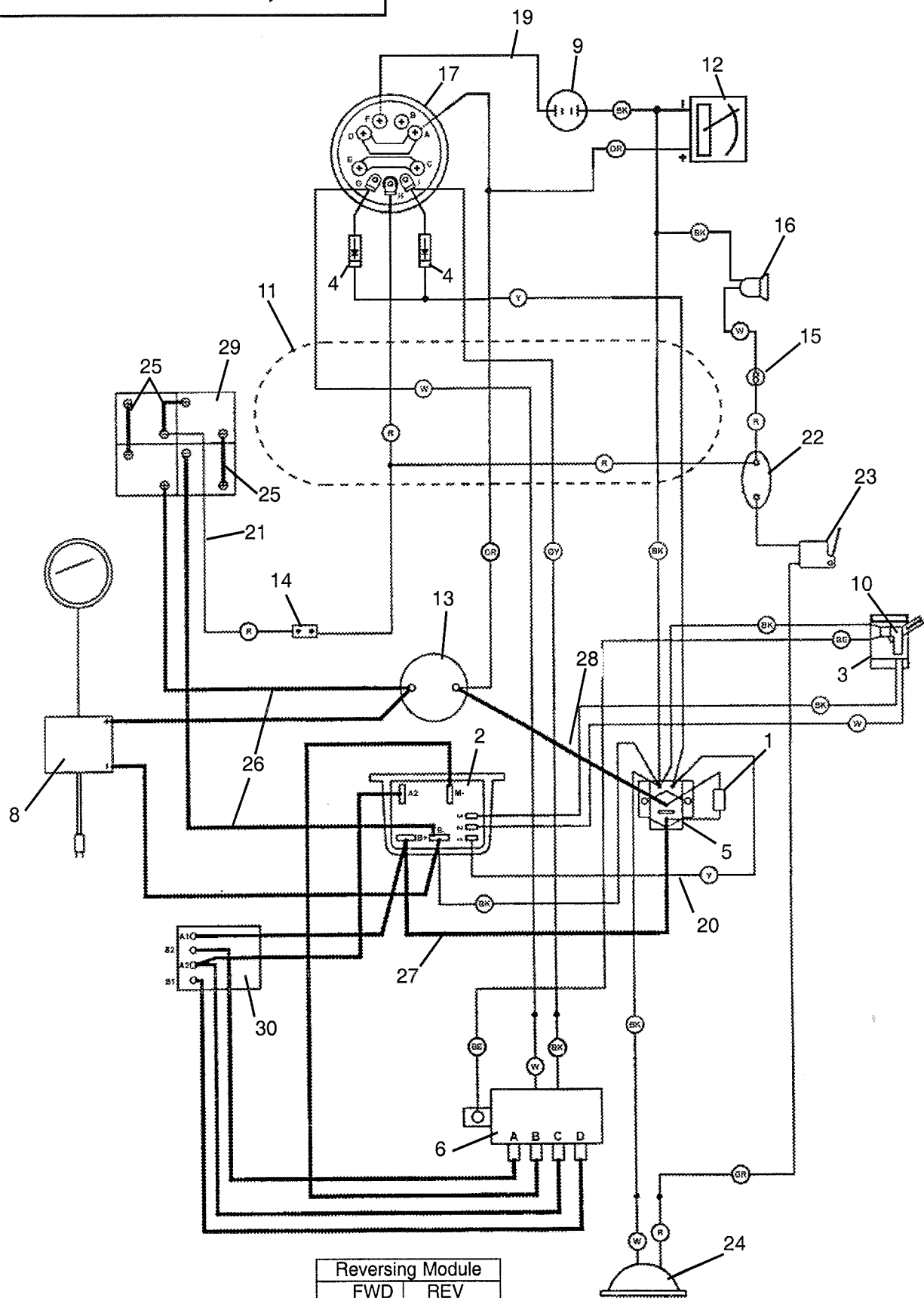
BATTERIES AND HARDWARE - IS-11,TX-61



ITEM NO.	PART NO.	DESCRIPTION	QTY.	Beginning V.I.N. to Ending V.I.N.
1	3987-BS	Screw, Hex Cap 5/16-18x3/4"	4	
2	7525	Locknut, Flang Wiz 5/16-18	4	
3	74883-87	Controller	1	9A-00100 to 9A-00134
4	43503-95	Solenoid, 24V 6 Terminal	2	4A-25100 to _____
5	43509-95	Support, Solenoid Bank	1	4P-25000 to _____
6	74882-87	Switch, Speed	1	4AH-25223 to _____
7	74590-96	Breaker, Circuit 90 Amp	1	
8	2685-W	Screw, Hex Self-Tapping #10-24x5/8"	10	
9	43502-95	Solenoid, 24V 4 Terminal	1	
10	2595	Scvrew, Phillips Hd #10-24x1"	2	
11	7624	Locknut, Hex Nylok 10-24	2	
12	44037-95	Cover, Solenoid Band	1	
13	2653-B	Screw, TEK #3 #10x3/4"	2	
14	2551-W	Screw, Hex Cap 1/4-20x1"	4	
15	7724-B	Locknut, Flange Whiz 1/4-20	10	
16	70592-87	Resistor, Assembly	1	
17	66014-03	Battery, 6 Volt, Deep Cycle (220 AmpHr)	4/6	
*		Battery, 6 Volt, Deep Cycle (244 AmpHr)	4/6	
18	43500-95	Charger, On-Board 24V	1	
*	43500-95	Charger, On-Board 24V (Yellow)	1	
*	43499-00	Charger, On-Board 36V	1	
*	66501-03	Charger, On-Board 36V (Yellow)	1	
19	3787-B	Screw, HHC 1/4-20x3/4"	4	
20	6703-B	Washer, Plain Type A	7	
21	69001-76A	Horn, 12 Volt (2 Terminal)	1	
22	11452-96	Mount, Rubber	1	
23	7624	Locknut, Nylok #10-24	1	
24	7118	Lockwasher #10 Internal Tooth	1	
25	6150-W	Washer	1	
26	2592	Screw, Phillips Hd #10-24x1/2"	1	
27	3993	Screw, Hex Cap 1/4-20x1 1/4"	3	
28	7036-B	Lockwasher, 1/4"	3	

* Not Pictured in Illustration

ELECTRICAL WIRING - EX-21, TE-31



Reversing Module			
FWD		REV	
A	C	A	C
B	D	B	D

ELECTRICAL WIRING - EX-21, TE-31

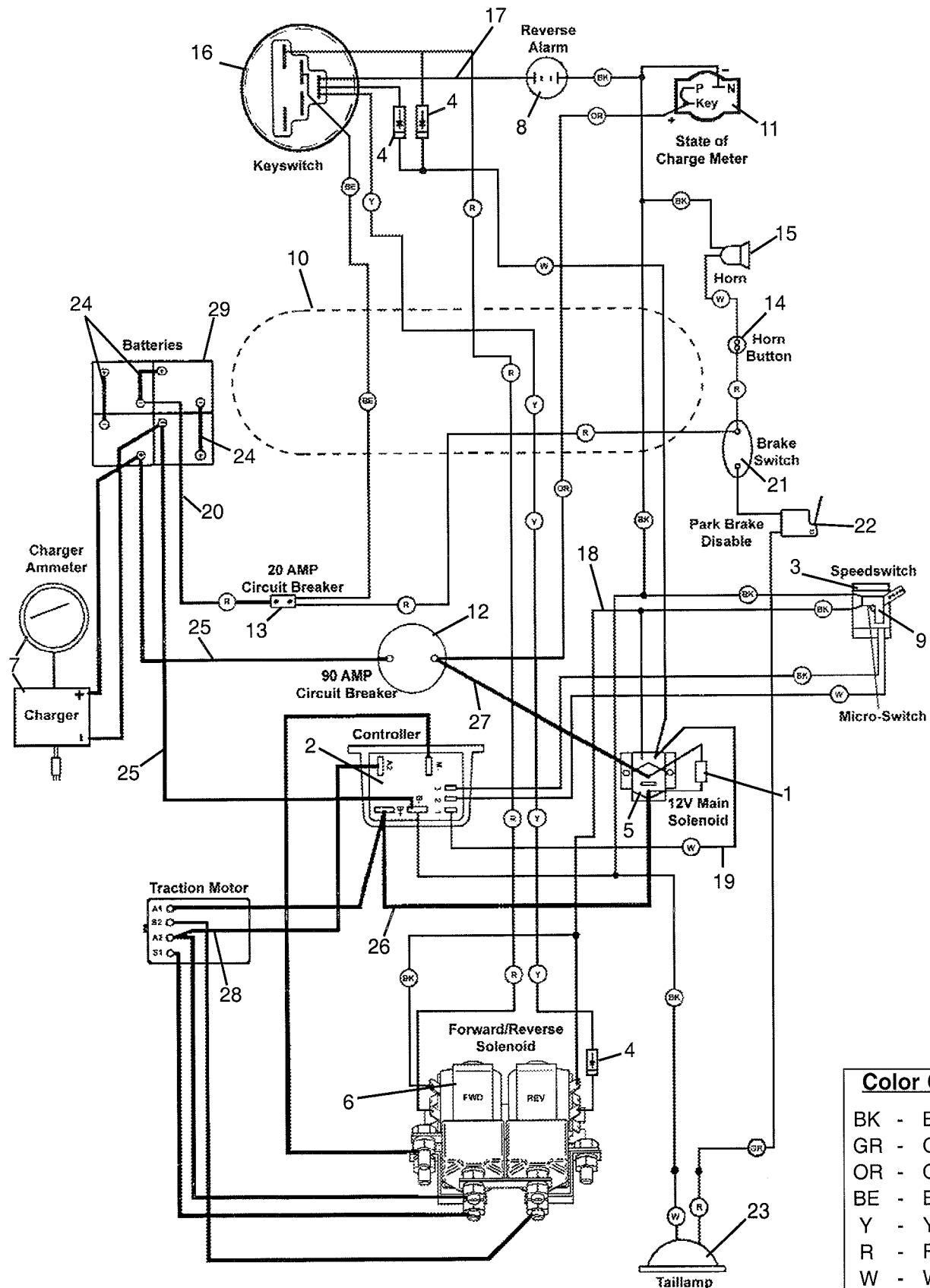
Beginning V.I.N. to Ending V.I.N.	
4B-25197 to 4B-25388	
4L-22100 to 4L-22114	
** 4B-25389 to 4B-25479	
** 4L-22115 to 4L-22124	

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	75092-87	Resistor	1
2	74883-87	Module, Speed Controller (24V)	1
3	74882-97	Speed Switch (Pot Box)	1
4	74886-67	Diode Only	3
5	71470-87	Solenoid, 4 Terminal (12 Volt)	1
6	71430-96A	Module, Reversing	1
8	43500-95	Charger, Built-In (24 Volt)	1
*	43500-03	Charger, Built-In (24 Volt) Yellow)	1
9	71408-96	Alarm, Reverse (9/48V DC)	1
10	74882-93	Speed Switch, Micro-Switch	1
11	70037-96A ol	Harness, Main Wire	1
12	75040-95	Meter, State-of-Charge (24 Volt Analog)	1
*	75051-01	Battery Discharge Indicator, 24V (ENM)	1
*	75033-91	Meter, Hour	Optional
13	74590-96	Circuit Breaker (90 Amp)	1
14	74591-96	Circuit Breaker (20 Amp)	1
15	71807-80	Button, Horn	1
*	71807-03	Button, Marine Horn	1
16	69001-76A	Horn, 12 Volt	1
17	71762-82A	Keyswitch W/Hdwr	1
*	71766-82A	Key Only	1
19	70485-96	Wire, Yellow Reverse Alarm	1
20	70073-93	Wire, Yellow Controller Positive	1
21	74594-96	Wire, Red Positive	1
22	68040-96	Switch, Brake Light	1
23	78012-98	Micro-Switch, Park Brake	1
24	68020-92	Taillight assembly	1
25	70099-88	Cable	3
26	70447-90	Cable	8
27	70448-90	Cable	2
28	70445-90	Cable	1
29	66014-03***	Battery, 6 Volt, Deep Cycle (220 AmpHr)	4
*		Battery, 6 Volt, Deep Cycle (244 AmpHr)	4
30	69201-96	Motor, Traction	1

* Not Pictured in Illustration

*** Wet, Sold as is only, Pickup or Will Call **ONLY**

ELECTRICAL WIRING - EX-2, TE-311



Color Code

BK - Black
 GR - Green
 OR - Orange
 BE - Blue
 Y - Yellow
 R - Red
 W - White

All Unspecified
cables are Black

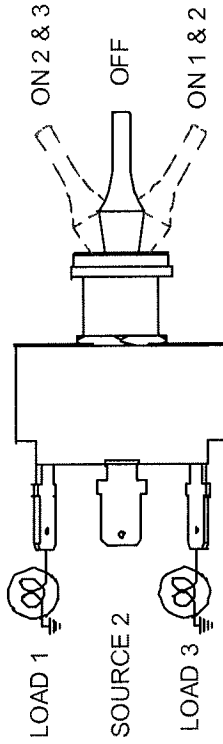
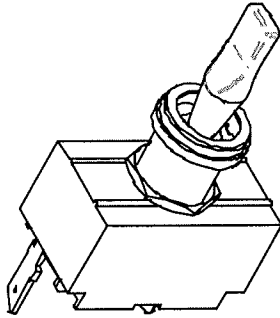
ELECTRICAL WIRING - EX-21

Beginning V.I.N. to Ending V.I.N.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	75092-87	Resistor	1
2	74883-87	Module, Speed Controller (24V)	1
3	74882-87	Speed Switch (Pot Box)	1
4	74886-67	Diode Only	3
5	71470-87	Solenoid, 4 Terminal (12 Volt)	1
6	69823-00	Solenoid, Forward/Reversing	1
7	43500-95	Charger, Built-In (24 Volt)	1
*	43500-03	Charger, On-Board 24V (Yellow)	1
8	71408-96	Alarm, Reverse	1
9	74882-93	Speed Switch, Micro-Switch	1
10	70031-01	Harness, Main Wire	1
11	75051-01	Meter, BDI Gauge (24 Volt digital display)	1
*	75033-91	Meter, Hour	Optional
12	74590-96	Circuit Breaker (90 Amp)	1
13	74591-96	Circuit Breaker (20 Amp)	1
14	71807-80	Button, Horn	1
*	71807-03	Button, Marine Horn	1
15	69001-76A	Horn, 12 Volt	1
16	71730-01	Keyswitch, Universal W/Hdwr	1
*	71731-01	Key Set	1
17	70485-96	Wire, Yellow Reverse Alarm	1
18	70072-96	Wire, Solenoid Negative	1
19	70073-96	Wire, Solenoid/Controller Positive	1
20	74594-96	Wire, Circuit Breaker Positive	1
21	68040-96	Switch, Brake Light	1
22	78012-98	Micro-Switch, Park Brake	1
23	68020-92	Taillight assembly	1
24	70099-88	Cable	3
25	70447-90	Cable	4
26	70448-90	Cable	5
27	70445-90	Cable	1
28	69201-96	Motor, Traction	1
29	66013-03 **	Battery, 12 Volt, Deep Cycle	4
*	66014-03 **	Battery, 6 Volt, Deep Cycle (220 AmpHr)	4
*		Battery, 6 Volt, Deep Cycle (244 AmpHr)	4

* Not Pictured in Illustration

** Wet, Sold as is only, Pickup or Will Call **ONLY**



SPECIFICATIONS

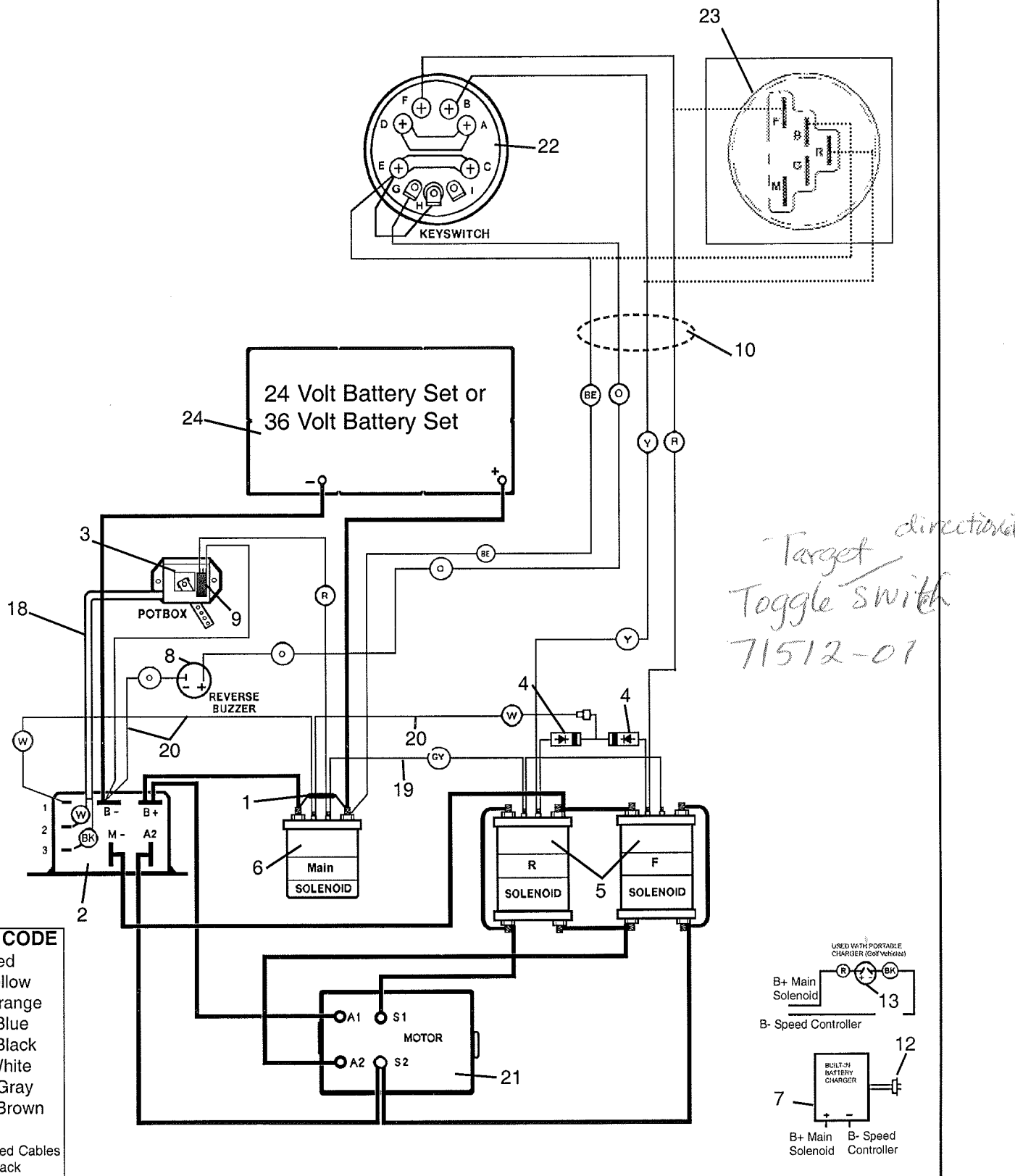
CIRCUITRY
 EL RATING
 UP POSN
 CEN POSN
 DN POSN
 TERMINALS
 MTG STEM DIM
 MTG HOLE DIM
 HANDLE
 MTG HDW
 KEYWAY
 PANEL THKNSS
 SPDT
 25 A @ 12 V DC
 ON
 OFF
 ON
 1/4" BLADE (3)
 15/32 -32 THDS
 15/32"
 1" BLK PADDLE
 BLK KNURLED FACE NUT & HEX NUT
 LOCATED IN DN POSN
 TO 1/4" THK

APC#
 71512-01

0	REV	DESCRIPTION	8/2/02	R. RAJ	APPROVED
EOR 98275-AUTHORIZATION		DATE			
DIMENSIONAL TOLERANCES UNLESS OTHERWISE SPECIFIED: 3 PLACE DECIMALS ± .000 2 PLACE DECIMALS ± .000 1 PLACE DECIMALS ± .000 ANGLES ± 1.0°					
DRAWN BY		DATE	REVISED		
R. Raj		8/3/2007	SEATS INCORPORATED PO BOX 60 REEDSBURG, WI 53959		
APPROVED BY		DATE	TITLE		
			TOGGLE SWITCH - F/R, SPDT		
FILE NAME		SIZE	PART NO	SHEET 1 OF 1	
719109-00.dft		A	09704	DO NOT SCALE PRINT	

PLEASE NOTE
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XP Plus Speed Control Wire Diagram - IS-11



XP Plus Speed Control Wire Diagram - IS-11

Beginning V.I.N. to Ending V.I.N.	
9A-00100 to	9A-00134
4A-25100 to	_____
5A-34001 To	_____

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	70592-87	Resistor (Curtis)	1
2	74883-87	Module, Speed Controller (36 Volt)	1
3	70061-00A	Speed Switch (Pot Box) (12 in Leads, Plastic Case)	1
	74882-97	Speed Switch (Pot Box) (Plastic Case)	1
4	74886-87	Diode, Set (With Connectors)	1
*	74886-67	Diode (Only)	2
5	71459-87	Solenoid 6T 36 V	2
6	71458-87	Solenoid 4T 36 V	1
7	43500-95**	Charger, Built-In 24V, 25 AMP (115V - 60Hz)	1
*	43500-03	Charger, Built-In 24V (Yellow)	1
	66501-89**	Charger, Built-In 36V, 25 AMP (115V - 60Hz)	1
*	66501-03	Charger, Built-in 36V (Yellow)	1
*	66534-91A**	Charger, Built-In (200V - 50Hz) (Export)	1
*	66493-67A	AC Cord (Used with Built-in Charger)	1
*	66536-89A	Charger, Portable (100V - 50Hz) (Export)	1
*	66534-83A	Charger, Portable (36V - 60Hz)	1
*	66534-91	Charger, Portable (200V - 50Hz) (Export)	1
*	66536-85	Charger, Portable (230V - 50Hz) (Export)	1
*	66538-93	Charger, Portable (230V - 60Hz)	1
*	66539-96MZ	Charger, Portable Global SCR (100-125V/200-250V, 50/60Hz)	1
8	71408-96	Buzzer, Round Reverse (9-48 Volt)	1
	71756-75	Buzzer, Reverse (24/36 Volt)	1
9	74882-93	Micro-Switch, (Speed Switch)	1
10	70059-96	Main Harness	1
*	75033-91A	Hour Meter (Optional)	1
12	66035-87	AC Receptacle, Charger - Built-in	1
13	66036-72	Receptacle, DC	1
*	66853-90	Meter, State of Charge Kit (Optional)	1
*	74592-68	Breaker, Circuit 15 Amp (Required with Accessory's)	1
*	71807-80	Button, Horn	1
*	69001-76A	Horn, 12 Volt	1
18	70049-96	Aux. Wire Harness (Pot Box Micro-Switch)	1
19	70050-96	Harness, Wire, Solenoid (Gray Wire)	1
20	70048-96	Harness, Auxillary Wiring, Solenoid (White and Orange Wires)	1
21	69200-89A	Motor, Complete (XP, 3.2 Horsepower)	1
22	71762-82A	Key Switch, with Key <i>older than '01</i>	1
*	71766-82A	Key, Only	1
23	71730-01	Key Switch, with Key <i>01 and newer</i>	1
*	71731-01	Key, Only	1
*	66063-69B	Cord Set, DC, Portable (With Plug)	1
24	66006-03 **	Battery, 12 Volt, Deep Cycle (220 AmpHr)	4/6
*		Battery, 12 Volt, Deep Cycle (244 AmpHr)	4/6

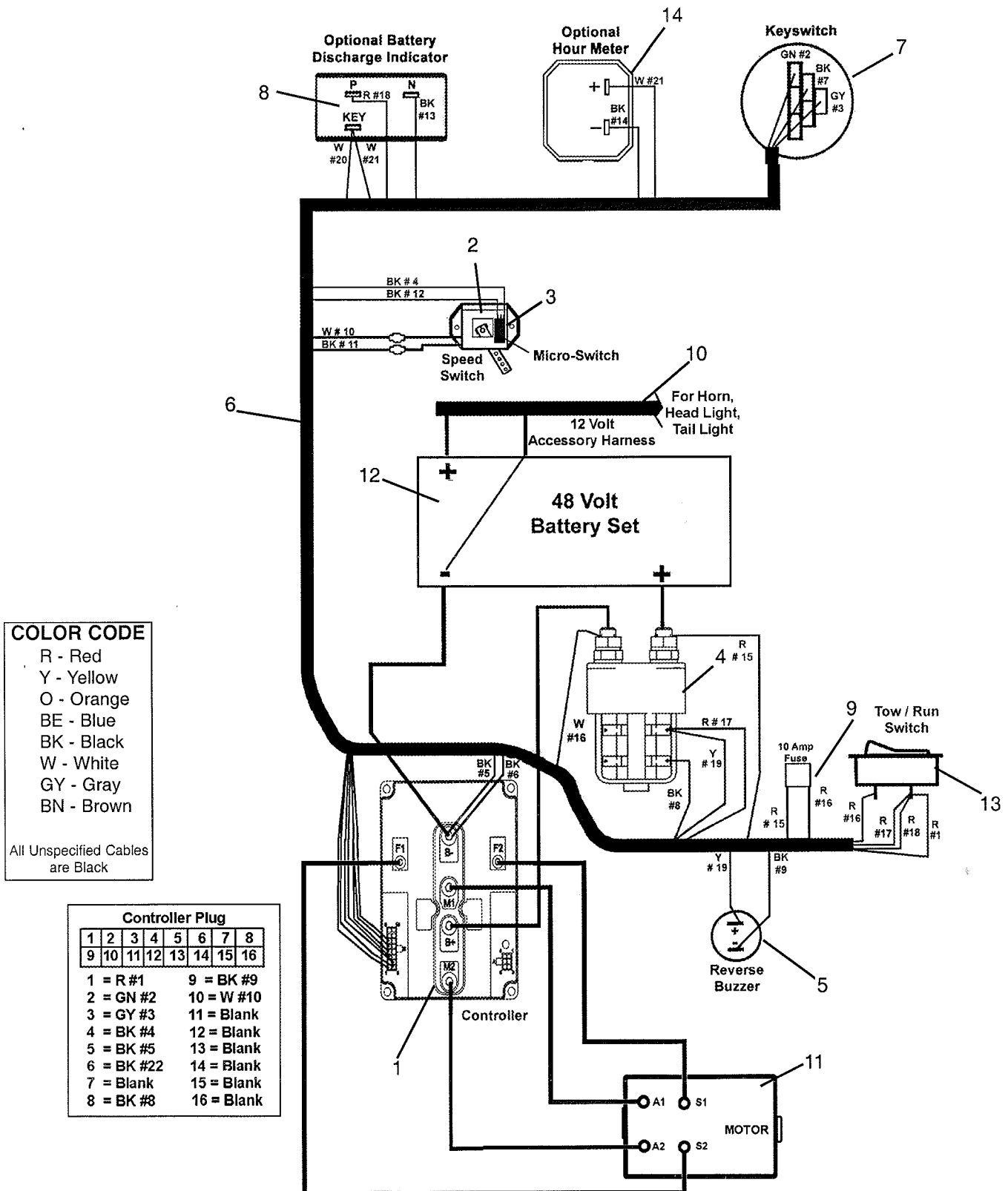
* Not Pictured in Illustration

** Used with Non-Golf Vehicles

*** Wet, Sold as is Only, Pickup or Will Call **ONLY**

*Amp Meter
43501-95*

Separately Excited Speed Control Wire Diagram (Regen Braking)



Separately Excited Speed Control Wire Diagram (Regen Braking)

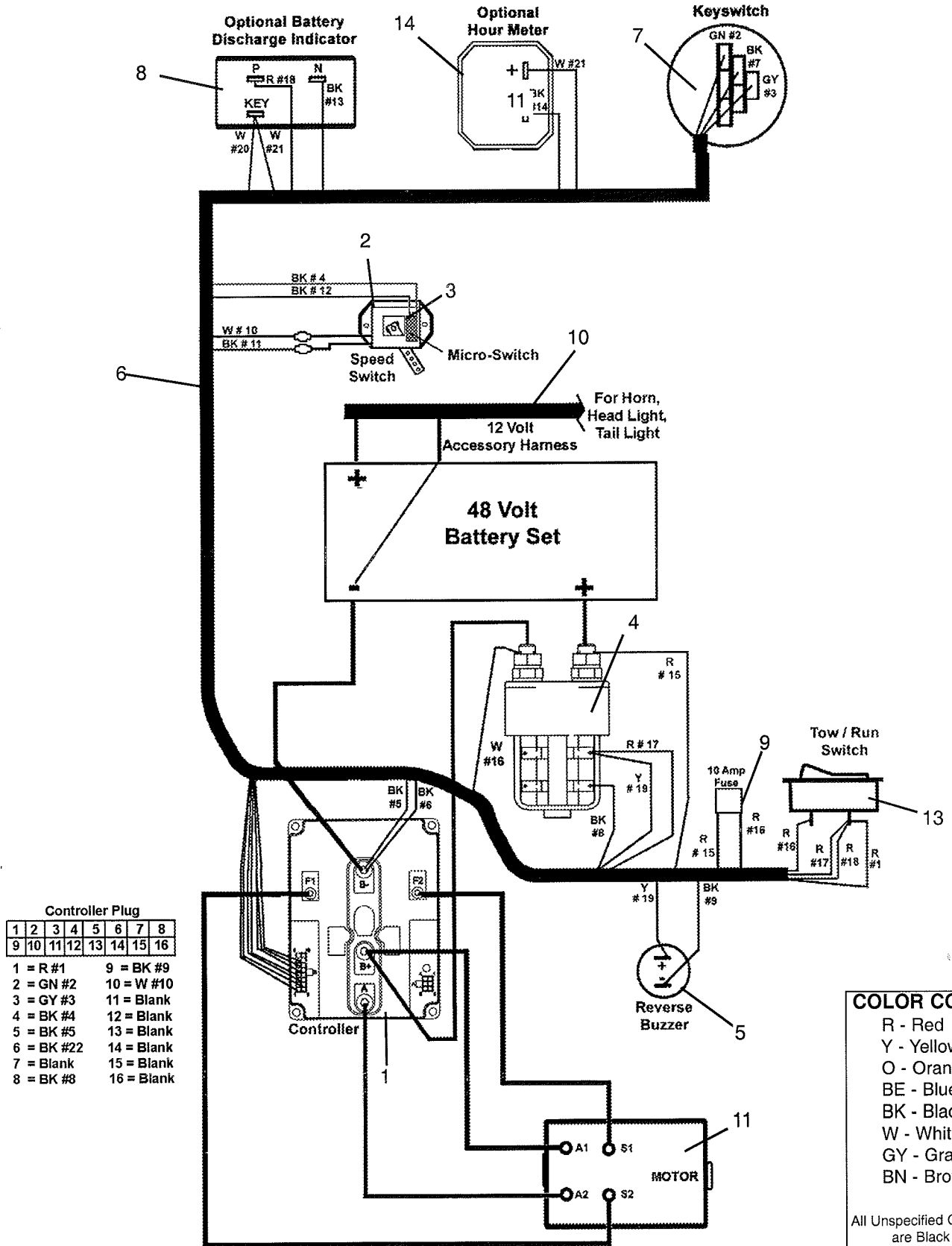
Beginning V.I.N. to Ending V.I.N.	
4B-25100	to _____
6B-34000	to _____

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	47895-05A 47892-04	Module, Controller (24/-48 Volt)(500 AMP)	1
2	70061-00A	Speed Switch (Pot Box) (12 in Leads, Plastic Case)	1
3	74882-93	Micro-Switch, (Speed Switch)	1
4	71455-01	Solenoid 24 V (Contactor)	1
5	71408-96	Buzzer, Reverse (9-48 Volt)	1
6	70068-02	Main Harness	1
7	71730-01	Key Switch	1
*	71731-01	Keys Only	1
8	75053-01	Battery Discharge Indicator (48V)	1
9	74592-68	Fuse	1
*	71807-80	Button, Horn	1
*	71807-03	Button, Marine Horn	1
*	69001-76A	Horn, 12 Volt	1
10	78871-03	Harness, Auxillary 12 Volt	1
11	69300-03	Motor, Complete	1
12	66013-03 **	Battery, 12 Volt, Deep Cycle (31EV)	4
13	71516-01	Run/Tow Switch	1
14	75033-91	Hourmeter (Optional)	1
*	66583-03	Charger, Built-In 24V, 25 AMP (115V - 60Hz)	1
*	43500-03	Charger, Built-In 24V (Yellow)	1
*	66583-03	Charger, Built-In 48V (Yellow)	1
*	66493-67A	AC Cord (Used with Built-in Charger)	1
*		Seat W/Switch, Expediter	1
*	66034-02	Receptacle, AC	1
*	66439-67A	Extension Cord, Built-in Charger	1

* Not Pictured In Illustration

** Wet, Sold as is Only, Pickup or Will Call **ONLY**

Separately Excited Speed Control Wire Diagram (Plug Braking)



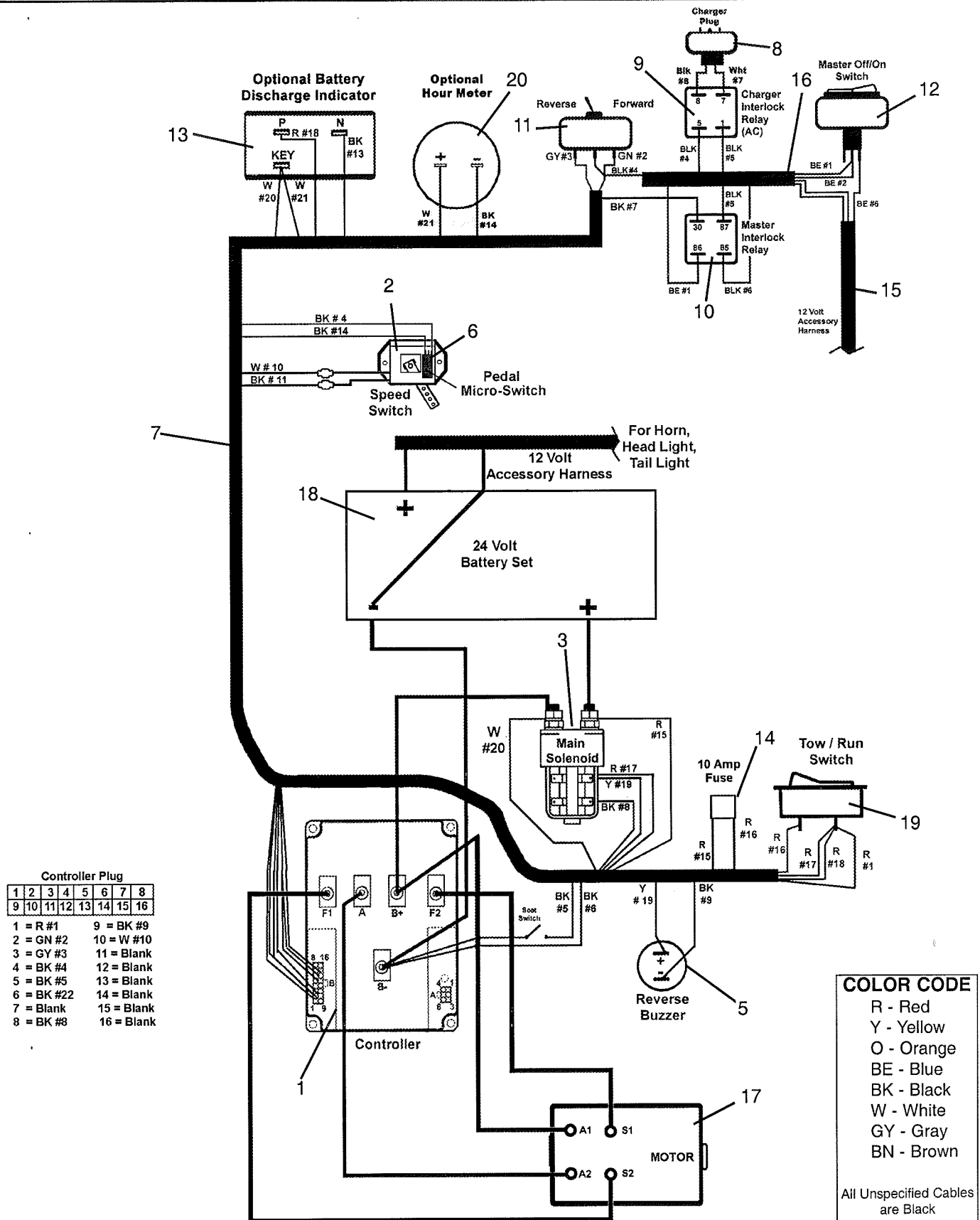
Separately Excited Speed Control Wire Diagram (Plug Braking)

Beginning V.I.N. to Ending V.I.N.			
ITEM NO.	PART NO.	DESCRIPTION	QTY.
			4B-25100 to _____
1	74897-02	Module, Controller (24/36 Volt)(Sevcon)	1
2	70061-00A	Speed Switch (Pot Box) (12 in Leads, Plastic Case)	1
3	74882-93	Micro-Switch, (Speed Switch)	1
4	71455-01	Solenoid 24 V (Contactor)	1
5	71408-96	Buzzer, Round Reverse (9-48 Volt)	1
6	70068-02	Main Harness	1
7	71730-01	Key Switch W/Keys	1
*	71731-01	Keys Only	1
8	75051-01	Battery Discharge Indicator (24V)	1
9	74592-68	Fuse	1
*	71807-80	Button, Horn	1
*	71807-03	Button, Marine Horn	1
*	69001-76A	Horn, 12 Volt	1
10	78871-03	Harness, Auxillary 12 Volt	1
11	69300-03	Motor, Complete (Sep-Ex)	1
12	66014-03 **	Battery, 6 Volt, Deep Cycle (220 AmpHr)	4
*		Battery, 6 Volt, Deep Cycle (244 AmpHr)	4
13	71516-01	Run/Tow Switch	1
14	75033-91	Hourmeter (Optional)	1
*	66583-03	Charger, Built-In 24V, 25 AMP (115V - 60Hz)	1
*	43500-03	Charger, Built-In 24V (Yellow)	1
*	66493-67A	AC Cord (Used with Built-in Charger)	1
*		Seat W/Switch, Expediter	1
*	66034-02	Receptacle, AC	1
*	66439-67A	Extension Cord, Built-in Charger	1

* Not Pictured In Illustration

** Wet, Sold as is Only, Pickup or Will Call **ONLY**

Separately Excited Speed Control Wire Diagram (Special Configuration)



Separately Excited Speed Control Wire Diagram(Special Configuration)

Beginning V.I.N. to Ending V.I.N.
4B-25100 to _____

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	SS-100001	Module, Controller (24/36 Volt)(Sevcon)	1
2	70061-00A	Speed Switch (Pot Box) (12 in Leads, Plastic Case)	1
3	71455-01	Solenoid 24 V (Contactor)	1
5	71408-96	Buzzer, Round Reverse (9-48 Volt)	1
6	74882-93	Micro-Switch, (Speed Switch)	1
7	70068-02	Main Harness	1
8	66035-87	Receptacle, AC	1
9	SS-100002	Charger Interlock Relay	1
10	SS-100001	Master Interlock Relay 12V	1
11	75040-95	Forward/Reverse Switch	1
12	47950-97	On/Off Switch	1
13	75051-01	Battery Discharge Indicator	1
14	74592-68	Fuse	1
*	71807-80	Button, Horn	1
*	69001-76A	Horn, 12 Volt	1
15	78871-03	Harness, Auxillary 12 Volt	1
16	SS-100003	Harness, Interlock Wire	1
17	69300-97	Motor, Complete	1
18	66014-03 **	Battery, 6 Volt, Deep Cycle (220 AmpHr)	4
*		Battery, 6 Volt, Deep Cycle (244 AmpHr)	4
19	71516-01	Run/Tow Switch	1
20	75033-91	Hourmeter (Optional)	1
*	66583-03	Charger, Built-In 24V, 25 AMP (115V - 60Hz)	1
*	66493-67A	AC Cord (Used with Built-in Charger)	1
*	SS-100004	Seat W/Switch Expediter	1

* Not Pictured In Illustration

** Wet, Sold as is Only, Pickup or Will Call **ONLY**

COMMON HARDWARE

WASHERS

6000-B	5/16", W-Plain
6005	1/2" Flat
6042	Needle Thrust
6150-W	20 x 3/8 x 1/16
6242-W	Flat
6250-B	Finishing, Black Zinc
6257-W	28 x 1.38 x .059, Steel Zinc
6333	5/16", W-Plain
6336	7/16", W-Plain
6341-B	5/16 x 1 1/8 1/16, Steel
6350	5/16 Flat Hardened
6388-HB	3/8 x .71 x .06, Steel Zinc
6412	3/8" Flat
6416	3/8", W-Plain
6417-W	3/8 x 1 1/8 x 1/8
6568-B	1/2" Flat
6568	3/4" Flat
6607-W	.39 x .91 x .18, Steel Zinc
6655-B	9/16" Flat
6656	3/4" Flat
6702-B	5/16", N-Plain (Black)
6703	1/4" N-Plain
6703-B	1/4", N.Plain (Black)
6716	#10, Plain
6801	3/8 x 1.5 x 1.8
6828	.635 x 1.185 x .036
6830	5/16 Nylon
6832	1 1/4" Flat
7422	1/4x1" Fender

LOCKNUTS

7500	#4-40 Hex Nylok
7503	Metric 8x1 1/4" Hex Flange
7512	3/8-16 Flange Whiz
7513	3/4-16, Hex Nylok Jam
7522	#6 Keps
7523	#4 Keps
7525	5/16-18, Hex Flange Whiz
7592	#6.32, Hex Nylok YWZC
7624	#10-24, Hex Nylok
7626	#10-32, Hex Nylok
7683	1/4-28, Hex Nylok
7685	1/2-13, Nylok Thin
7686	1/4-20, Hex Nylok
7687	1/2-13 zHex Cntr Lock
7692	1/4-20 Hex Nylok
7693	1/4-20 Hex Top Lock
7710-W	5/16-18, Hex Nylok, Thin
7724-B	1/4-20 Flange Whiz
7725	5/16-24, Hex Nylok
7727	5/16-24, Hex Nylok, Thin
7739	5/16-18, Hex Nylok
7740	5/16-18, Two-Way Center
7742	1/4-20, Three Way Crown
7750	5/16-18 Hex Flange 2-Way Cntr
7775	3/8-24, Hex Nylok
7778	3/8-16 Hex Nylok
7810	5/16-18 Flange Cntr Zinc
7812-W	1/2-20 Hex Nylok
7825	7/16-20 Hex Nylok

COMMON HARDWARE (cont.)

LOCKNUTS (Cont.)

827-W	7/16-14 Hex Nylok
7995.....	5/8-18, Hex Nylok, Thin
8161.....	5/16-18, Hex Flange
8165	7/16-20 Disc Lock
8166	5/8-11 Disc Lock

NUTS

5832	1/4-20 Jam, LH Thread
7516	5/16-18 Weld
7634	#10-32, Hex Cap, Brass
7638.....	#10-3, Hex Cap
7644	1/4-20 Jam
7676.....	1/4-28, Hex Cap
7677.....	1/4-28, Hex Jam, LH
7688.....	1/4-20, Hex Cap
7688-B	1/4-20, Hex Cap (Black)
7744	5/16-24 Jam
7748-B.....	5/16-18, Hex Cap (Black)
7748-W.....	5/16-18, Hex Cap
7753.....	5/16-24, Hex Cap
7783.....	2/8-16, Hex Cap
7825	7/16-20, Hex Nylok
7831	7/16-20 Jam
7845	1/2-20 Hex
7880	1/2-13 Hex Cap
7896	Bearing, Adjuster Nut
7897	1-8 Grade 2 Jam Nut
7947-B	5/8-18 Slotted
7947-W	5/8-18 Slotted, Grade 2

BOLTS

3403-B	5/16-18x2" Carriage
3454-BS	1/4-20x1 3/4" Black
4010	1/2-20x 1 1/4" Grd 5 HHCS
4750	5/16-18x7 1/2" Grd 8 Hex Hd
5240	1/4-20x1 Turned Eye Bolt
5400-BS.....	5/16-18 x 1", Bolt, Carriage
5401-BS	1/4-20x2 1/4" UNC-2A Carriage
5449-BS	5/16-18 x 1 1/2", Bolt, Carriage
5452-BS	5/16-18 x 5/8", Bolt, Carriage

SCREWS

1357-W.....	1/4-201", Oval Pozi Hd
2001-BS	1/4-20x2", Oval HD (Black)
2002	1/4-20x1 3/4", Oval Hd
2003-B	1/4-20x 3/4 Oval CSK Hd
2008	1/4-20x5/8" Phillips Flathead
2010-B	1/4-20x1 1/2" Socket Cap Blk
2339.....	#10-24x3/4", Hex Hd Mach.
2363.....	5/16-18x1 1/2", Flat Hd
2367.....	1/4-20x1 1/2", Oval Hd
2368.....	5/16-18x3/4", Self-Tapping

COMMON HARDWARE (cont.)

SCREWS (Cont.)

2369.....	5/16-18x1", Self-Tapping, Washer Hd
2420	1/4-20x3/4" Pan Hd
2502.....	#10-24x1/2", Self-Tapping
2505.....	#4-40x5/8"
2506	#4-40x7/8" Round Hd
2509	1/4-20x1" Thread Forming
2510	#4-40x3/4" Round Hd
2511	#8-32x3/8" Hex
2551-W.....	1/4-20x1" Hex Cap
2556	#6-32x1" Phillips Hd
2592	#10-24x1/2" Phillips Hd
2599	1/4-20x1 3/4" Phillips Hd
2602	1/4-20x1 1/4" Phillips Hd
2604	#10-32x 1/2" Phillips Hd
2615	8-15x7/8 Wood Round Hd
2642	#4x5/8" Hex Hd
2638.....	#6x3/4", Pan Head, Self-Tapping
2646	#6x5/8" Hex Hd
2647	#8x3/8" Hex Hd
2653-B	#10x3/4" TEK #3
2659.....	#10-24x7/8", Pozi Pan Hd
2665	#10-24x5/8" Phillips Hd
2667.....	5/16-18x2", Hex Cap
2685-W	10-24x5/8" Self Taping
2818.....	5/16-19x1 1/2", Hex Cap
2821.....	1/4-20x2 1/4", Hex Cap
2871-W.....	5/16-18x1 1/4", Hex Cap
2872-W.....	1/4-20x 1 1/2", Hex Cap
2882-W.....	5/16-18x5/8", Hex Cap
3406	1/2-13x3" Hex Cap
3407	1/2-13x2 1/4" Hex Cap
3412	5/16-18x2 1/2" Grd 8 HHC
3419.....	5/16-18x2 1/4", Hex Cap
3427.....	5/16-18x3 1/2", Hex Cap
3451.....	3/8-16x3/8"Hex
3452	3/8-24x8" Hex Cap
3454.....	1/4-20x1 3/4", Hex Cap
3477.....	#10-32x2" Phillips Hd
3502.....	#10-24x3/4", Hex Washer Hd
3503.....	#10-24x1 1/4" Hex Washer Hd
3650.....	1/4-20x3", Hex Cap
3728.....	1/4-20x1/2", Hex Cap
3768.....	1/4-20x2 1/2", Hex Cap
3775.....	3/8-16x2", Hex Cap
3787.....	1/4-20x3/4", Hex Cap
3787-B.....	1/4-20x3/4", Hex Cap (Black)
3950.....	1/2-20x4", Hex Cap
3986	5/16-18x3/4" HHCS
3987-BC	1/4-20x2 1/2" HHCS
3987-BS	5/16-18x3/4", Hex Cap
3991.....	5/16-18x7/8", Hex Cap
4004	1/2-20x4 1/2" Hex Cap
4014-W	5/16-24x1 1/4" Hex Cap
4017.....	5/16-18x1", Hex Cap
4018	5/16-18x1 1/4" Grd 8

COMMON HARDWARE (cont.)

SCREWS (cont.)

4036.....	5/16-24x1 1/2", Hex Cap
4068.....	5/16-18x 2 1/2", Hex Cap
4086	5/16-18x3" Hex Cap
4253	7/16-20x3 1/2" Hex Cap
4259	7/16-20x4" Hex Cap
4319.....	3/8-24x1", Hex Cap
4391.....	5/16-24x5/8", Hex Cap
4434-W	3/8-24x3 1/4" Hex Cap
4451-W	3/8-16x5 1/4", Hex Hd
4713-W	3/8-16x3/4" Hex Cap
4716-W	3/8-16x1 1/4", Hex Cap
4719-W	3/8-16x2 1/2" Hex Cap
4720-W.....	3/8-16x1 3/4", Hex Cap
4734.....	5/16-18x1 1/4", Hex Flange
5206-BS	5/16-18x1 Pan Hd
5207-BS	5/16-18x2" Pan Hd
5208.....	5/16-18x2 1/2"
5208-B	5/16-18x2 1/2" Pan Hd, Blk
5210	1/4-20x1" Thumb Screw
54817-00	3/4-16x5 1/2" Grade 5 Hex Cap
7624.....	#10-24x3/4", Hex Cap

LOCKWASHERS

6969	#4 Reg Med Split
7036	1/4", Split
7036-B	1/4", Split (Black)
7037	5/16" Spring Heavy Duty
7038-B	3/8", Split (Black)
7039	7/16", Split
7041-B	5/16", Split
7068	1/2" Reg Med Split
7069.....	#10, Split
7118	#10, Internal Tooth
7127	5/16", Internal Tooth
7130-W	3/8", Internal Tooth

PINS

216	3/16x1/2" Clevis
217.....	1/4x2 3/4" Clevis
388	1/4x2" Spring
494	5/16x1" Clevis
497	5/16x7/8" Clevis
498	3/16x3" Clevis
499	1/4x1 1/2" Clevis
502	3/4" Clevis
515	1/16x3/4" Cotter
520-W	1/8x1" Cotter
533	5/64x1" Cotter
534	3/32x1" Cotter
552	#Rue 10, Cotter
601	.133x3/4" Roll
611	1/4x1" Roll

COMMON HARDWARE (cont.)

PINS (cont.)

625 1/4x1/2" Roll
42360-96 1/4x1 3/4" Clevis

FASTENERS

1787 Hi-Lo Screw
5298 Push Nut
8128 1/4 Speednut
814431 Pushnut
8200 1/4x3/4" Push
11077 5/8" E-Ring
11712A 1/4 Turn
11714A 1/4 Turn Retaining Clip
24820-96 5/16-24x3" Stud, Threaded

RIVET

8201 1/8x1/4" POP STSTL
8321 1/8x1/2" POP
8480 3/16x3/8" POP
8692 5/32x1/4" POP
8698198X3/8 Exp Alum.

NOTES:



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