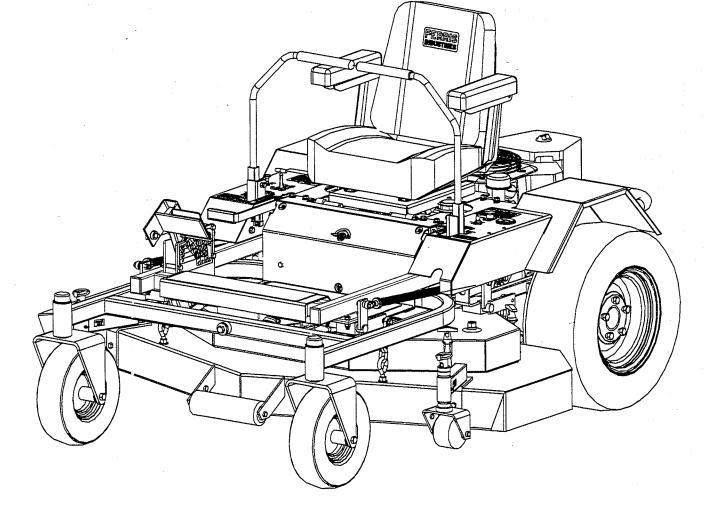
# ILLUSTRATED PARTS LIST ISZ Commercial Mowers

Featuring

FERRIS



MODELS: ISZ22K ISZ25K ISZKAV23

CUTTER DECKS: ISZ61 Ferris Industries Inc. 5375 N. Main Street Munnsville, NY 13409

Manual No. 22219 Printed in USA July 1999 Revision III .

### TABLE OF CONTENTS

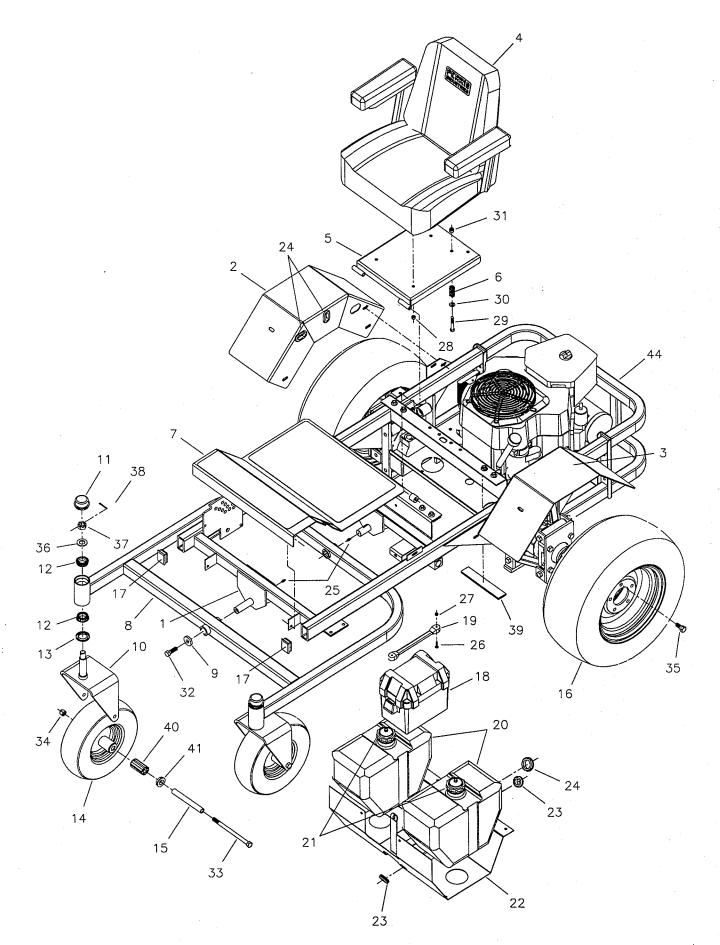
Main Frame	Page 1-2
Hydro Controls & Control Panels	3-4
Suspension & Parking Brake	5-6
Hydraulic System	7-8
Hydraulic Pump Drive	9-10
Cutter Deck Lift	11-12
61" Cutter Deck	13-14
Electrical Schematic	15-16
Replacement Decals	17-18



#### NOTE:

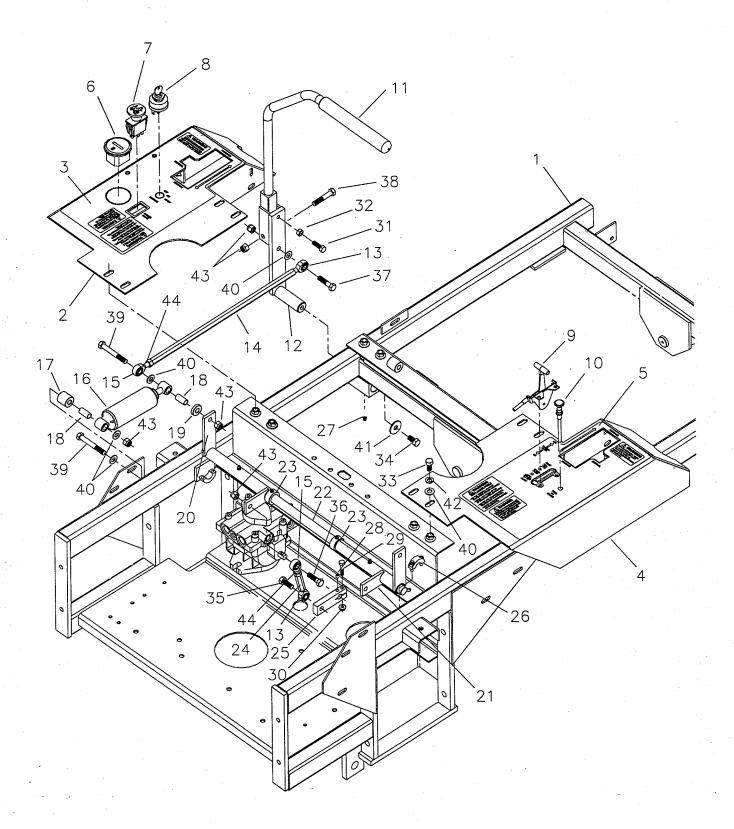
To insure that the correct parts are ordered and shipped for your machine, please be sure to use the parts book and pages that specifically cover your machine. Whenever in doubt, include the model and serial number of your machine along with the part numbers. For future reference, record the model and serial number of your machine in the space provided above.

**WARNING:** THOROUGHLY READ OPERATOR'S MANUAL AND COMPLETELY ASSEMBLE ALL LOOSE PARTS BEFORE OPERATING MOWER. DO NOT OPERATE YOUR MOWER UNLESS ALL PARTS ARE ATTACHED AND IN GOOD WORKING ORDER. KEEP YOUR MOWER IN GOOD REPAIR AT ALL TIMES.



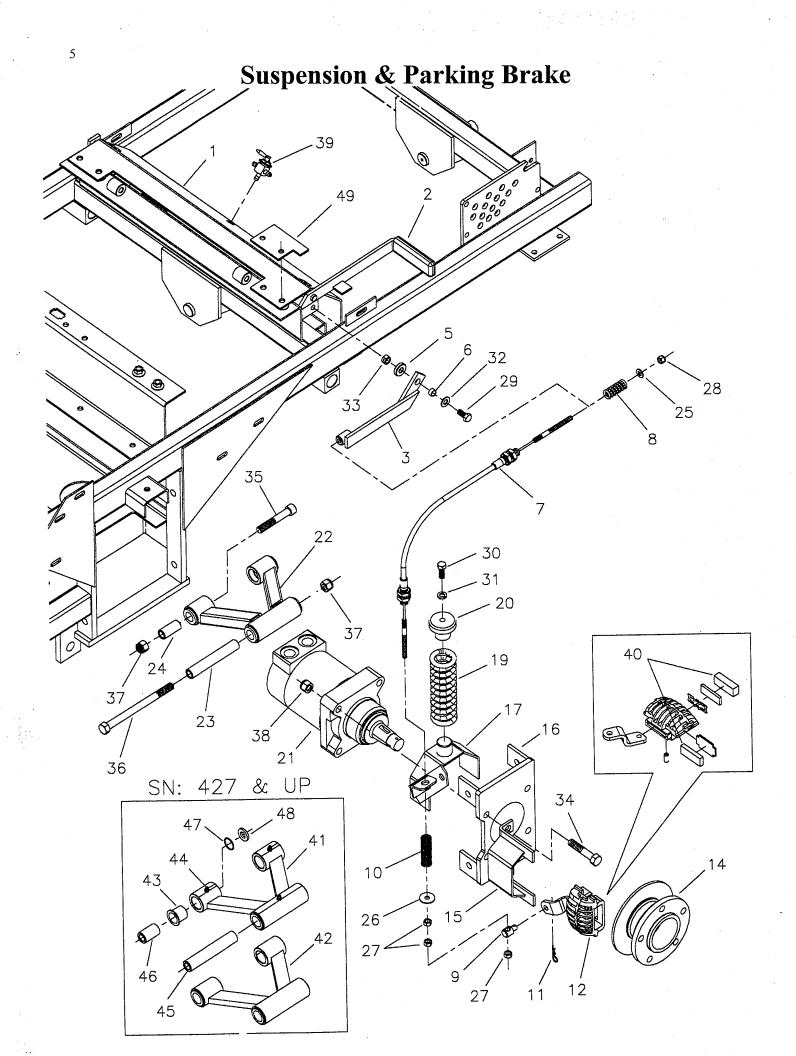
### **Main Frame**

REF. NO.	PART NO.	DESCRIPTION
1	45208	Frame, I.S. Main
	45377	Frame, ISZ Main (SN: 1220 & up)
2	45259	Fender, Right
	45395	Fender, ISZ Right (SN: 1220 & up)
3	45258	Fender, Left
	45394	Fender, ISZ Left (SN: 1220 & up)
4	22031	Seat
	22031-1	Seat Cushion (not shown)
5	45156	Plate, Seat Mount
6	21102	Spring, Compression
7	60013	Floor Plate Assembly
	44873	Floor Safety Walk
8	44908	Frame, Front Pivot
9	44913-009	Washer, Frame Retaining
10	44914	Yoke, Caster
11	21073	Cap
12	20884	Bearing, Taper Roller
13	21072	Seal, Grease
14	22029	Tire, Caster (complete)
15	22100	Shaft, Caster Axle
16	21353	Tire & Rim Assembly
17	22098	Cap, Plastic (SN: 101-1219 only)
18	21666	Box, Battery
19	21670	Strap, Rubber
20	21437	Fuel Tank, 4 Gallon
21	21468	Cap, Fuel Tank
22	44938	Mount, Fuel Tank
23	21379	Grommet, 7/8"
24	21397	Grommet, 1-1/4"
25	21728	Grease Fitting
26	25270	Machine Screw, #10-24 x 1"
27	25271	Nut, #10-24 Hex Nylon Lock
28	25057	Nut, 5/16-18 Hex Nylon Lock
29	25013-18	Bolt, 3/8-16 x 2-1/4" GD.5
30	25156	Washer, 3/8" SAE Flat
31	25096	Nut, 3/8-16 Hex Nylon Lock
32	25018-10	Bolt, 1/2-20 x 1-1/4" GD.5
33	25017-60	Bolt, 1/2-13 x 7-1/2" GD.5
34	25056	Nut, 1/2-13 Hex Nylon Lock
35	22215	Bolt, Wheel Lug, 1/2" x 1-5/8"
36	25160	Washer, 3/4" SAE Flat
37	25104	Nut, 3/4-16 Hex Slotted
38	25203-10	Pin, 1/8" x 1-1/4" Cotter
39	21877	Mount Pad, Rubber
40	21042	Bearing, Roller (2 per caster)
41 42	21043	Retainer, Bearing (2 per caster)
42 43	50831-24	Fuel Line, 24" Long, tank to valve (not shown)
43 44	50831-36 45284	Fuel Line, 36" Long, valve to engine (not shown)
		Bumper (SN: 1220 & up)
	45384	Bumper (SN: 1220 & up)



## **Motion Controls & Control Panels**

REF. NO.	PART NO.	DESCRIPTION
1		Frame, I.S. Main
2	45239	Panel, Control-Left
	45390	Panel, Control-Left (SN: 1220 & up)
3	22213	Decal, Control Panel-Left
4	45240	Panel, Control-Right
	45391	Panel, Control-Right (SN: 1220 & up)
5	22064	Decal, Control Panel-Right
6	20060	Hour Meter
7	22180	Switch, Blade Engagement
8	20927	Switch, Ignition
9	20811	Cable, Throttle
	21662	Cable, Throttle (Kawasaki only)
10	21663	Cable, Choke
11	60016	Hydro Control Handle Assembly
	22068	Grip, Foam
12	44934	Lever, Control
13	22047	Ball Joint, 3/8-24 LH Male
14	44958-009	Rod, Hydro Control
15	21124	Ball Joint, 3/8-24 Male
16	21687	Shock Absorber
17	44961-009	Spacer, Shock Mount-Long
18	44959-009	Mount, Shock
19	44960-009	Spacer, Shock Mount-Short
20	44952	Control, Hydro-Left
21	45264	Control, Hydro-Right
22	44950	Shaft, Control Pivot
23	10116	Collar, 3/4" Set
24	44957	Link, Control Arm
25	44956	Arm, Pump Control
26	20594	Collar, 3/4" Double Split
27	21728	Grease Fitting, Press-in
	20095	Grease Fitting, 1/4-28
28	25010-10	Bolt, 1/4-20 x 1-1/4" GD.5
29	25283-3	Set Screw, 1/4-20 x 3/8" Cone Point
30	25126	Nut, 1/4-20 Hex Serrated Flange
31	25011-8	Bolt, 5/16-18 x 1" GD.5
32	25032	Nut, 5/16-18 Hex
33	25013-6	Bolt, 3/8-16 x 3/4" GD.5
34	25199-6	Bolt, 3/8-16 x 3/4" GD.5 w/ Loctite Patch
35	25013-8	Bolt, 3/8-16 x 1" GD.5
36	25013-10	Bolt, 3/8-16 x 1-1/4" GD.5
37	25013-12	Bolt, 3/8-16 x 1-1/2" GD.5
38	25013-16	Bolt, 3/8-16 x 2" GD.5
39	25013-22	Bolt, 3/8-16 x 2-3/4" GD.5
40	25156	Washer, 3/8" SAE Flat
41	25165	Washer, 3/8" Fender
42	25171	Washer, 3/8" Lock
43	25096	Nut, 3/8-16 Hex Nylon Lock
44	25035	Nut, 3/8-24 Hex



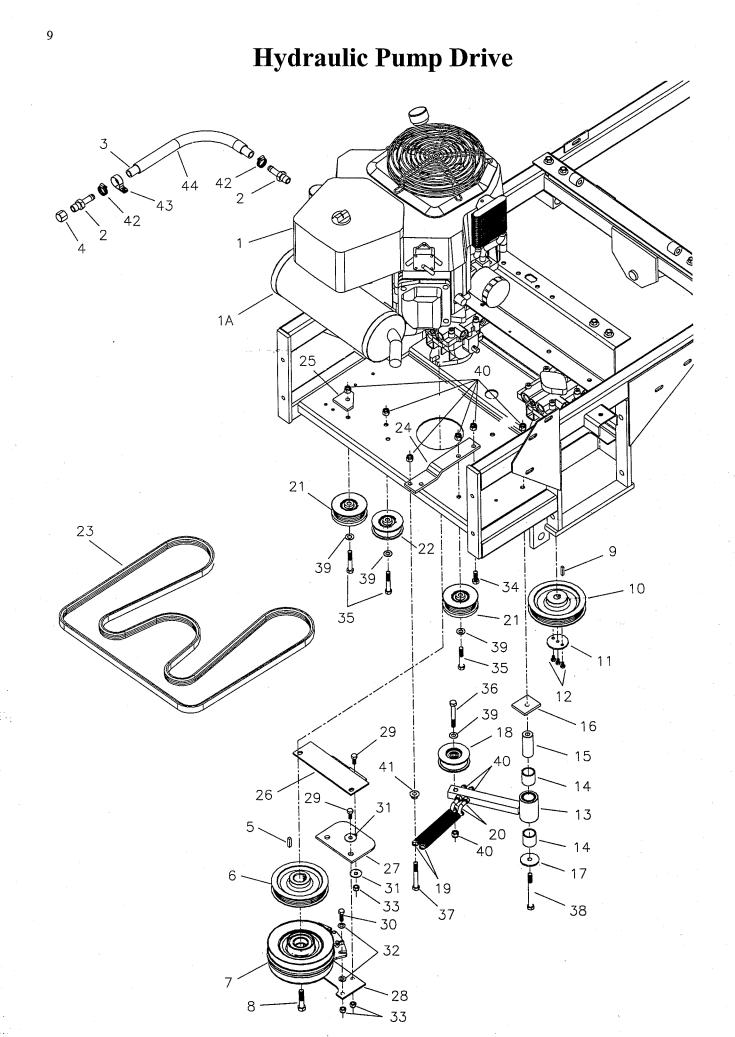
# Suspension & Parking Brake

REF. NO.	PART NO.	DESCRIPTION
1	45246	Panel, Parking Brake
2	25510	Grip, Foam
3	45230	Link, Brake Lock-Right
4	45229	Link, Brake Lock-Left (not shown)
5	44960-009	Spacer, Shock Mount-Short
6	41930-009	Spacer, Bushing
7	22209	Cable, Parking Brake
8	21773	Spring, Compression
9	41482-009	Adjuster, Brake Linkage
10	21102	Spring, Compression
11	25211	Pin, Hair
12	22207	Caliper, Brake-Right
13	22208	Caliper, Brake-Left (not shown)
14	22206	Hub, 6" Brake Disc
15	45223	Mount, Brake Caliper
16	45209	Mount, Wheel Motor
17	45224	Mount, I.S. Spring-Right
18	45223	Mount, I.S. Spring-Left (not shown)
19	21747	Spring, Suspension
20	45236-009	Retainer, Upper Spring
21		Wheel Motor
22	60062	A-Arm Assembly
	20823	Bushing, Flange
23	45238	Bushing, Outer Pivot
24	45237	Bushing, Inner Pivot
25	25155	Washer, 5/16" SAE Flat
26	25164	Washer, 5/16" Fender
27	25033	Nut, 5/16-24 Hex
28	25045	Nut, 5/16-24 Hex Nylon Lock
29	25013-6	Bolt, 3/8-16 x 3/4" GD.5
30	25013-8	Bolt, 3/8-16 x 1" GD.5
31	25171	Washer, 3/8" Lock
32	25156	Washer, 3/8" SAE Flat
33	25100	Nut, 3/8" Hex Side Lock
34	25018-20	Bolt, 1/2-20 x 2-1/2" GD.5
35	25294	Bolt, 1/2-13 x 3" Allen Head
36 37	25017-52	Bolt, 1/2-13 x 6-1/2" GD.5
37	25056 25098	Nut, 1/2-13 Hex Nylon Lock
38 39	22030	Nut, 1/2-20 Hex Nylon Lock
39 40	22030	Valve, Fuel Shut Off Brake Pad Kit (includes both pads)
40	60079	Upper A-Arm (complete w/ bushings & grease fittings)
41	60080	Lower A-Arm (complete w/ bushings & grease fittings)
43	22250	Bushing, Flange
<b>4</b> 3 44	20095	Grease Fitting, 1/4-28 Straight
45	45305	Sleeve, A-Arm Pivot-Long
46	45306	Sleeve, A-Arm Pivot-Short
40	22269	O-Ring
48	45307	Washer, A-Arm
49	45262	Plate, Brake Handle Stop

### 7 Hydraulic System S 24 27 26 30 m 28 0 20 0 ഹ 0` 0 χ 10/ 14 26 24 ц С A 24 ß Ø σ 20 28 23, m **D** Ø ဖ 22 25 -ഹ 27 0 S $\sim$ 32

# Hydraulic System

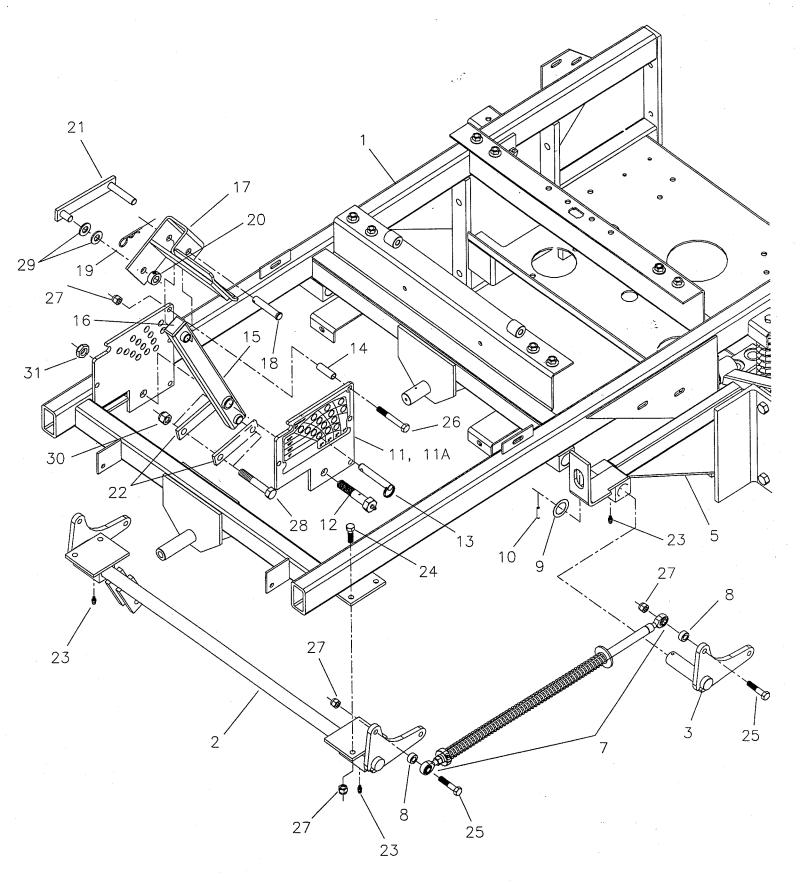
REF. NO.	PART NO.	DESCRIPTION
1	22042	Wheel Motor
2	22210	Fitting, 7/8" O-Ring 45 Deg. Swivel
3	21131	Fitting, 7/8" O-Ring 90 Deg. Swivel
4	21361	Fitting, 1/2" NPT 45 Deg. Swivel
5	22033	Pump, Hydraulic
6	45057-009	Collar, Dump Valve
7	22102	Shaft, 3/8" Flexible
8	45089	Housing, Flex Shaft
9	10546	Collar, 3/8" Set
10	45273	Mount, Dump Valve Knob
11	22114	Bushing, Brass
12	45081	Knob, Dump Valve
13	45269	Tank, Hydraulic Reservoir-Left
14	45270	Tank, Hydraulic Reservoir-Right
15	21877	Pad, Rubber Mount
16	21871	Breather
17	22109	Fitting, 1/4" NPT Straight Swivel
18	22108	Fitting, 1/4" NPT 90 Deg. Swivel
19	60038	Hydro Hose Assembly-14"
20	60023	Hydro Hose Assembly-13"
21	60024	Hydro Hose Assembly-24"
22	60025	Hydro Hose Assembly-11"
23	22027	Filter Head
24	22055	Fitting, 1/4" NPT M- 1/4" NPT F, 90 Deg.
25	22028	Filter
26	44981	Mount, Filter Head
27	22046	Hydraulic Hose Assembly
28	21615	Fitting, 7/16" O-Ring 90 Deg. Swivel
29	22053	Fitting, 9/16" O-Ring Straight Swivel
30	22052	Fitting, 9/16" O-Ring 90 Deg. Swivel
31	25273	Set Screw, 5/16" x 1/4" w/ Patch
32	25062-8	Set Screw, 5/16" x 1"



# **Hydraulic Pump Drive**

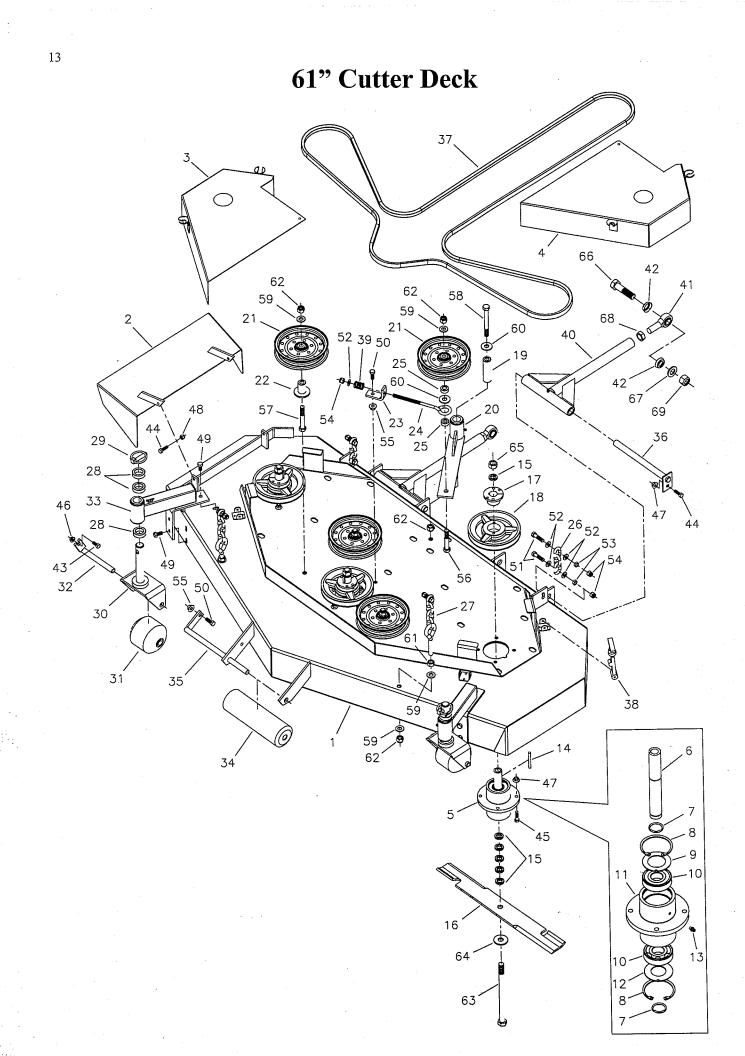
DEE NO		DESCRIPTION	DEE NO		DECODIDITION
	PART NO.	DESCRIPTION		<b>PART NO.</b> 25011 6	DESCRIPTION
1	22034	Engine, 22hp Kohler	29 20	25011-6	Bolt, 5/16-18 x 3/4" GD.5
	22069	Engine, 25hp Kohler	30 21	25011-8 25164	Bolt, 5/16-18 x 1" GD.5
	22232	Engine, 23hp Kawasaki	31		Washer, 5/16" Fender
1A	22161	Muffler, Kohler	32	25155 25057	Washer, 5/16" SAE Flat
2	21372	Fitting, 3/8NPT–1/2" Hose, Straight	33		Nut, 5/16-18 Hex Nylon Lock
3	50857-16	Hose, 16" Long	34	25013-8	Bolt, 3/8-16 x 1" GD.5
	50857-14 21466	Hose, 14" Long (Kawasaki)	35 36	25013-18	Bolt, 3/8-16 x 2-1/4" GD.5 Bolt, 3/8-16 x 2-3/4" GD.5
4		Cap, 3/8" NPT	30 37	25013-22 25013-24	Bolt, 3/8-16 x 2-3/4 GD.5
5 6	50407-1 22154	Key, 1/4" Sq. x 1" Pulley, Crank Shaft	37	25013-24	Bolt, 3/8-16 x 4" GD.5
0 7	22134	Clutch, Electric	38 39	25156	Washer, 3/8" SAE Flat
	45330	Clutch, ISZKAV23	39 40	25096	Nut, 3/8-16 Hex Nylon Lock
	43330 44853	Crank Shaft Bolt	40 41	25090	Nut, 3/8-16 Serrated Flange
	44833	Crank Shaft Bolt (Kawasaki)	41	21392	Clamp, Hose
 9	22156	Key, 5MM Sq. x 25MM	42	21592	Clamp, Vinyl Insulated Hold Down
9 10	22150	Pulley, Pump Drive	43	50862-14	Wire Loom, 14" Long
10	45143-009	Washer, Pulley Retaining		50862-14	Wire Loom, 12" Long (Kawasaki)
11	25248	Bolt, M6 x 1.00 x 10MM GD. 8.8		50802-12	wite Loom, 12 Long (Kawasaki)
12	45132	Arm, Idler (w/ Bushings)			
13	43132 22157	Bushing, Brass			
14	45135	Shaft, Idler Pivot			
15	45090	Spacer, Idler Pivot			
10	45139-009	Washer, Idler Arm Retaining			
17	60040	Hydro Idler Pulley Assembly			
	20827	Bearing			
	20827	Snap Ring, Internal			
	20880	Insert, Bearing			
	21879	Insert, Bearing, Shoulder			
	45140	Pulley, Backside Idler			
19	20807	Spring, Extension			
20	25290	Screw Hook			
21	60020	Idler Pulley Assembly			
	20827	Bearing			
	20865	Snap Ring, Internal			
	20880	Insert, Bearing			
	21879	Insert, Bearing, Shoulder			
	45073	Pulley, Idler			1
22	60021	Backside Idler Pulley Assembly			
	20827	Bearing			
	20865	Snap Ring, Internal			
	20880	Insert, Bearing			
	21879	Insert, Bearing, Shoulder			
	45140	Pulley, Backside Idler			
23	22062	Belt, Pump Drive			
24	45136	Anchor, Spring Idler			
	45396	Anchor, Spring Idler (SN: 1220 & up)			
25	45144	Support, Pulley			
26	45087	Mount, Clutch Anchor		· -	
27	43636	Pad, Clutch Anchor			
28	45086	Anchor, Clutch			

## **Cutter Deck Lift**



## **Cutter Deck Lift**

REF. NO.	PART NO.	DESCRIPTION
1	******	Frame, I.S. Main
2	45257	Shaft, Front Deck Lift
3	44927	Lift Pivot-Left
4	44928	Lift Pivot-Right (not shown)
5	45216	Deck Lift Frame-Left
6	45217	Deck Lift Frame-Right (not shown)
7	60041	Deck Lift Spring Rod Assembly
8	44933-009	Spacer, Lift Ball Joint
9	21253	Shim, 1-1/2" OD x 1" ID
10	25515	Pin, 3/16" x 1" Roll
11	60029	Lift Plate Assembly
	22063	Decal, Lift Plate
11A	60085	ISZ Lift Plate Assembly (SN: 1220 & up)
	22063	Decal, Lift Plate
12	44993	Bolt, Lift Pivot
13	22045	Pin, 1/2" x 3" Cotterless
14	44992-009	Spacer, Lift Plate
15	44987	Arm, Deck Lift Pivot
16	22097	Cap, Plastic
17	60014	Foot Pedal Assembly
	44875	Pedal Safety Walk
18	22044	Pin, 1/2" x 2-1/2" Clevis
19	25210	Pin, Hair
20	10580	Collar, 1/2" Set
21	44999	Lock, Foot Pedal
22	44994	Link, Deck Lift
23	21728	Grease Fitting, Press-In
	20095	Grease Fitting, 1/4-28
24	25013-10	Bolt, 3/8-16 x 1-1/4" GD.5
25	25013-14	Bolt, 3/8-16 x 1-3/4" GD.5
26	25013-22	Bolt, 3/8-16 x 2-3/4" GD.5
27	25096	Nut, 3/8-16 Hex Nylon Lock
28	25018-24	Bolt, 1/2-20 x 3" GD.5
29	25158	Washer, 1/2" SAE Flat
30	25098	Nut, 1/2-20 Hex Nylon Lock
31	25282	Nut, 5/8-11 Hex Jam Nylon Lock

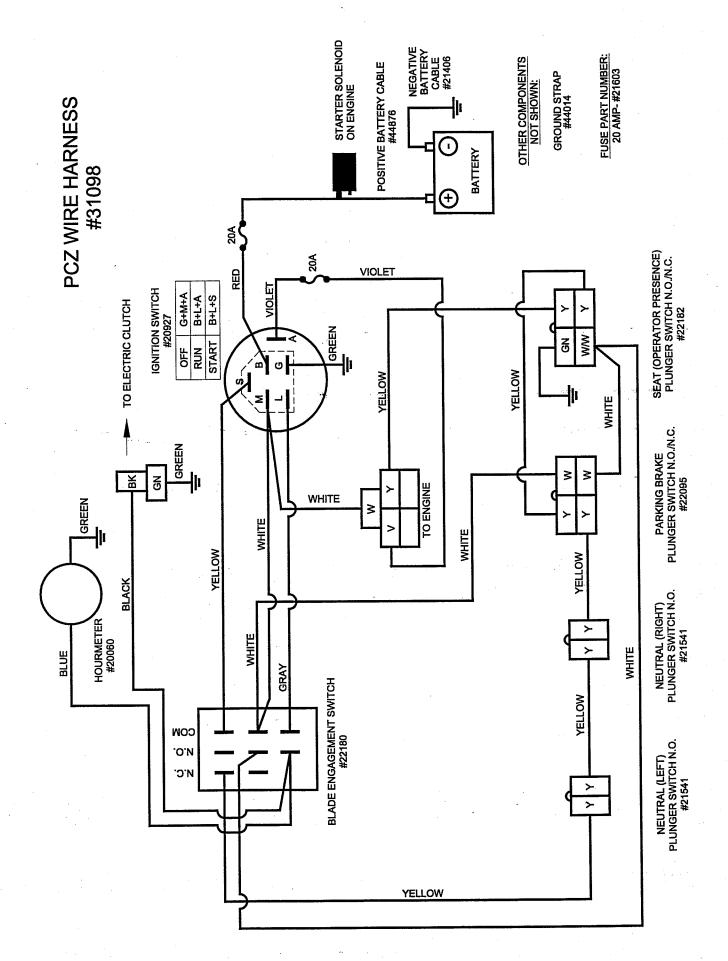


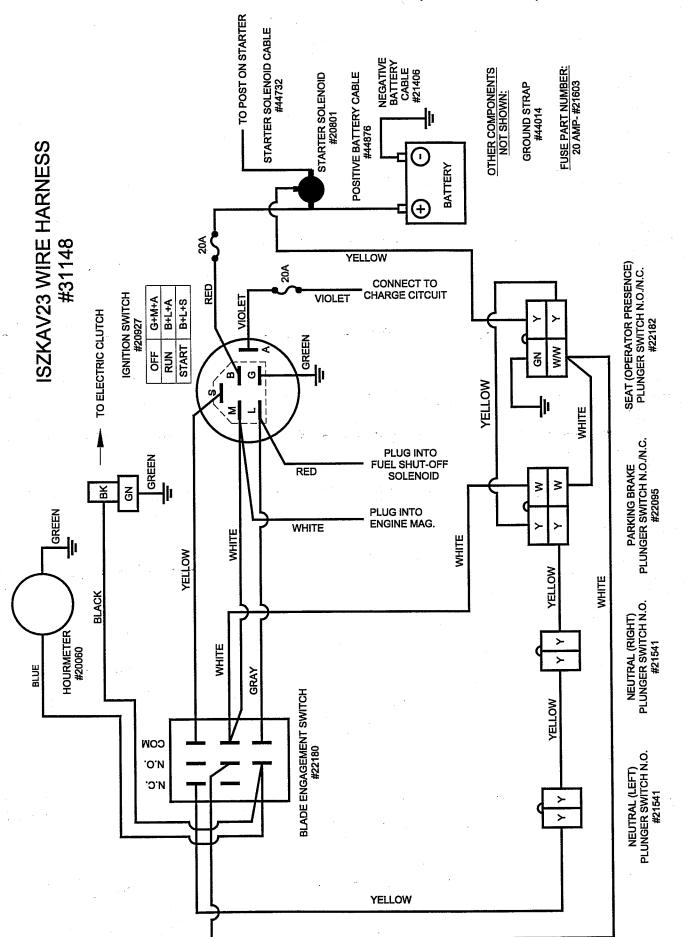
# 61" Cutter Deck

,

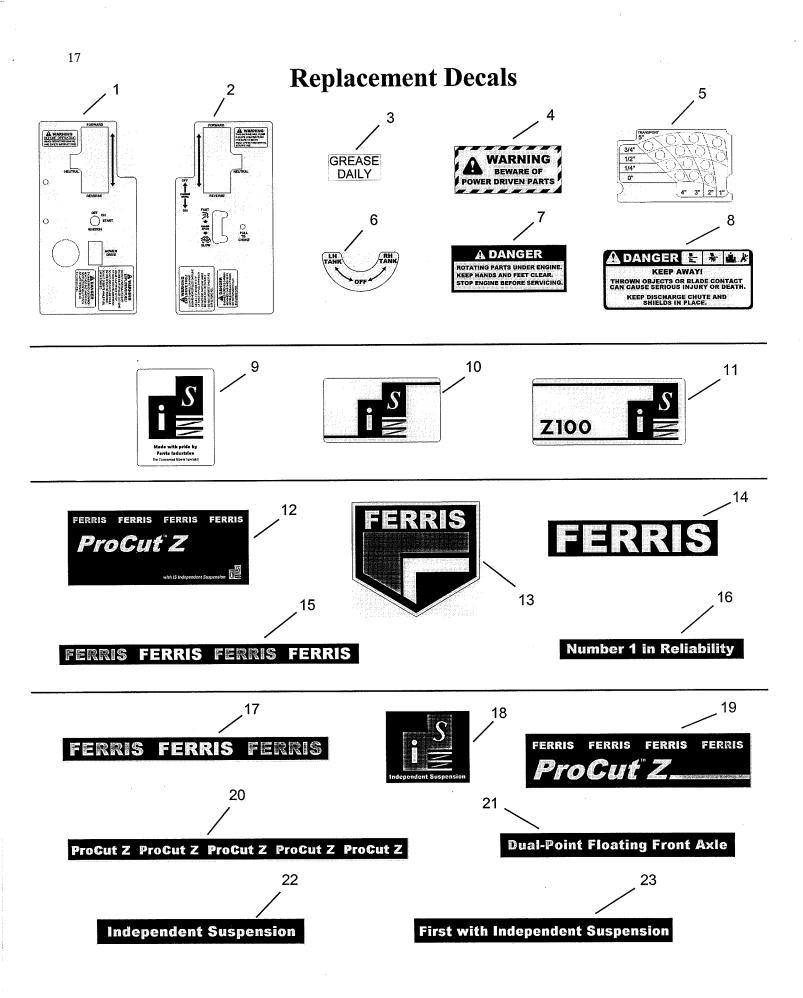
REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	45165	PCZ61 Cutter Deck	36	45037	Shaft, Deck Mount
2	41668	Chute, Discharge	37	22061	Belt, Cutter Deck
3	45253	Guard, Deck-Right	38	20841-1	Latch, Rubber
4	45252	Guard, Deck-Left	39	21680	Spring
5	30301	Spindle Assembly	40	45009	Pusher Bar
6	41480	Shaft, Spindle	41	22039	Ball Joint, 3/4-16 Male
7	20864	Snap Ring, External	42	22111	Seal, 3/4" Rod End
8	20866	Snap Ring, Internal	43	25011-6	Bolt, 5/16-18 x 3/4" GD.5
9	41653	Spindle Washer-Top	44	25011-8	Bolt, 5/16-18 x 1" GD.5
10	20828	Bearing	45	25011-10	Bolt, 5/16-18 x 1-1/4" GD.5
11	30293	Housing, Spindle	46	25127	Nut, 5/16-18 Small Serrated Flange
12	41672	Spindle Washer-Bottom	47	25139	Nut, 5/16-18 Large Serrated Flange
13	20095	Grease Fitting	48	25057	Nut, 5/16-18 Hex Nylon Lock
14	50407-9	Key, 1/4" Sq. x 2-1/2"	49	25013-6	Bolt, 3/8-16 x 3/4" GD.5
15 ·	41477	Spacer, Blade	50	25013-8	Bolt, 3/8-16 x 1" GD.5
16	20842	Blade, 21"	51	25013-14	Bolt, 3/8-16 x 1-3/4" GD.5
17	20819	Bushing, Tapered Hub	52	25156	Washer, 3/8" SAE Flat
18	20815	Pulley, Spindle	53	25084	Nut, 3/8-16 Hex Jam
19	45022	Shaft, Idler Arm Pivot	54	25096	Nut, 3/8-16 Hex Nylon Lock
20	60001	Idler Arm Assembly	55	25128	Nut, 3/8-16 Serrated Flange
	21541	Bushing, Flange	56	25017-24	Bolt, 1/2-13 x 3" GD.5
	21728	Grease Fitting, Press-In	57	25017-28	Bolt, 1/2-13 x 3-1/2" GD.5
	20095	Grease Fitting, <sup>1</sup> /4-28	58	25017-36	Bolt, 1/2-13 x 4-1/2" GD.5
	45019	Arm, Idler	59	25158	Washer, 1/2" SAE Flat
21	21976	Pulley, Idler	60	25150	Washer, 1/2" USS Flat
22	45024	Mount, Idler	61	25038	Nut, 1/2-13 Hex
23	42142	Anchor, Spring	62	25056	Nut, 1/2-13 Hex Nylon Lock
24	21811	Eye Bolt, 3/8-16 x 8"	63	25019-76	Bolt, 5/8-11 x 9-1/2" GD.5
25	45023-009	Spacer, Idler	64	25159	Washer, 5/8" USS Flat
26	50878-3	Chain, 3 Links	65	25040	Nut, 5/8-11 Hex
27	45026	Hanger, Front Deck	66	25265-24	Bolt, 3/4-16 x 3" GD.5
28	41476	Spacer, Caster	67	25160	Washer, 3/4" SAE Flat
29	20655	Pin, Lynch	68	25093	Nut, 3/4-16 Hex Jam
30	45188	Yoke, Caster Wheel	69	25284	Nut, 3/4-16 Hex Nylon Lock
31	22060	Roller, Caster			
32	45034	Pin, Caster Roller			
33	60054	Deck Caster Arm Assembly	7		
	21036	Decal, Grease Daily			
	21728	Grease Fitting, Press-In			
	20095	Grease Fitting, <sup>1</sup> / <sub>4</sub> -28			
	21541	Bushing, Flange			
	22098	Cap, Plastic			
34	20785	Roller, Deck			
35	41655	Pin, Roller			

**Electrical Schematic (Kohler)** 





### **Electrical Schematic (Kawasaki)**



### **Replacement Decals**

REF. NO.	PART NO.	DESCRIPTION	PLACEMENT	QTY. REQUIRED
1	22213	Decal, Control Panel-Left	Left control panel	1
2	22064	Decal, Control Panel-Right	Right control panel	1
3	21036	Decal, Grease Daily	Cutter deck anti-scalp caster base	2
4	20337	Decal, Warning-Power	Cutter deck, underneath floor	1
5	22063	Decal, Lift Plate	Cutter deck lift plate	1
6	22066	Decal, Fuel Shut Off	Brake panel	1
7	22143	Decal, Danger-Rotating	Main frame, near bumper	2
8	20851	Decal, Danger-Keep Away	Cutter deck and discharge chute	2

#### Common decals for all serial numbers.

#### Decals specific to serial numbers 101-180.

REF. NO.	PART NO.	DESCRIPTION	PLACEMENT	QTY. REQUIRED
9	22216	Decal, I.S. Logo	Back of seat	1
10	22217	Decal, I.S.	Brake panel above fuel valve	1
11	22218	Decal, I.S. Z100 Logo	Control panel side	2

#### Decals specific to serial numbers 181-280.

REF. NO.	PART NO.	DESCRIPTION	PLACEMENT	QTY. REQUIRED
12	22228	Decal, ProCut Z-I.S.	Control panel side	2
13	22227	Decal, Ferris Logo-Small	Back of seat (SN: 181 & up)	1
14	22230	Decal, Feris Text	Brake panel above fuel valve	1
15	22231	Decal, Ferris Text Long	Floor plate front edge	1
16	22229	Decal, Number One Reliability	Back of seat	1

#### Decals specific to serial numbers 281 & up.

REF. NO.	PART NO.	DESCRIPTION	PLACEMENT	QTY. REQUIRED
17	22240	Decal, Ferris Text (Repeat)	Brake panel	1
18	22236	Decal, IS Logo	Rear face of fender	2
19	22235	Decal, ProCut Z (Side)	Control panel side	2
20	22241	Decal, ProCut Z Text (Repeat)	Floor plate front edge	1
21	22238	Decal, Dual-Point Floating	Front pivot frame behind casters	2
22	22237	Decal, Independent Suspension	Front face of fender, above panel	2
23	22239	Decal, First w/ Independent	Back of seat	1