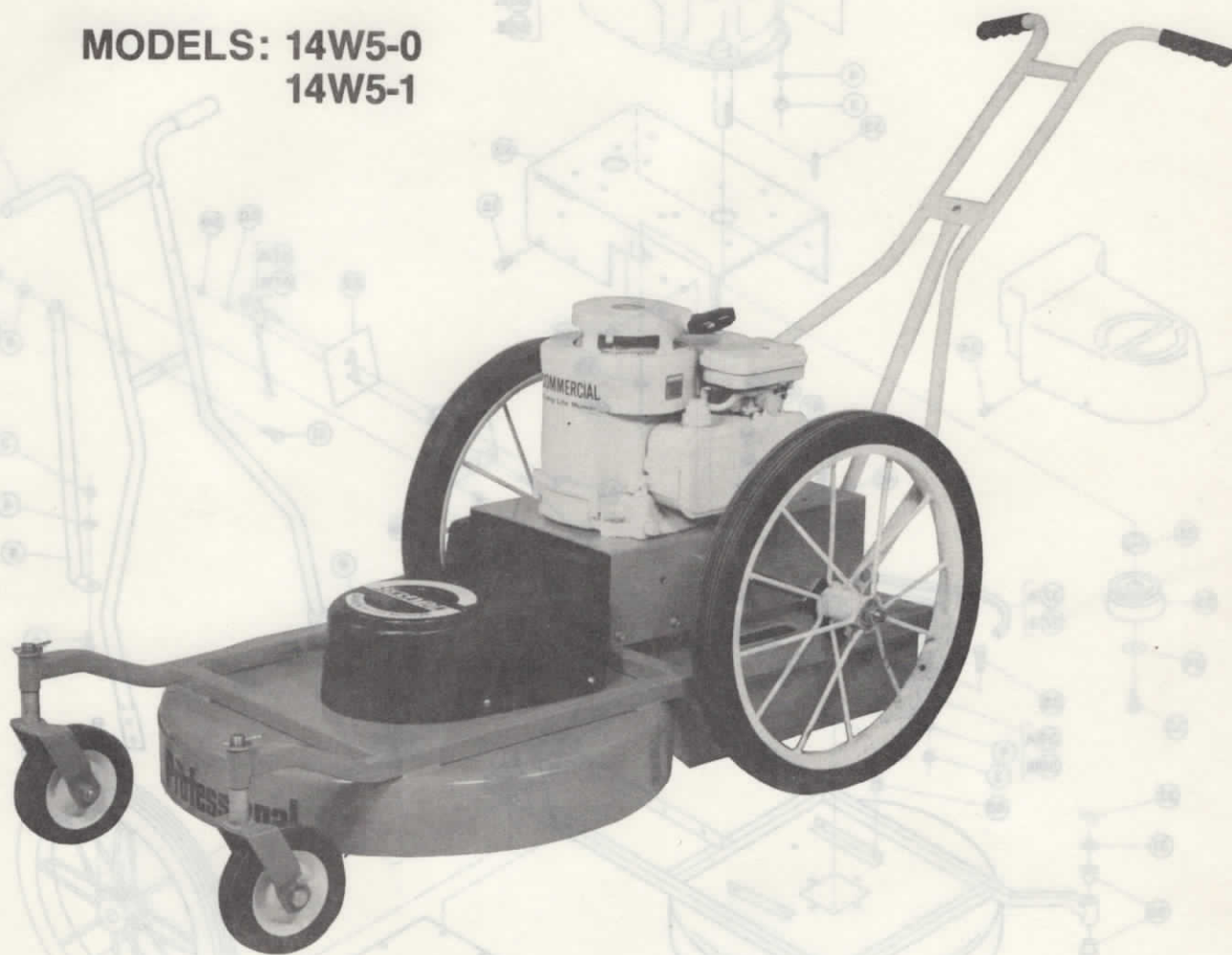


COMMERCIAL

SENSATION

POWER MOWER PARTS LIST

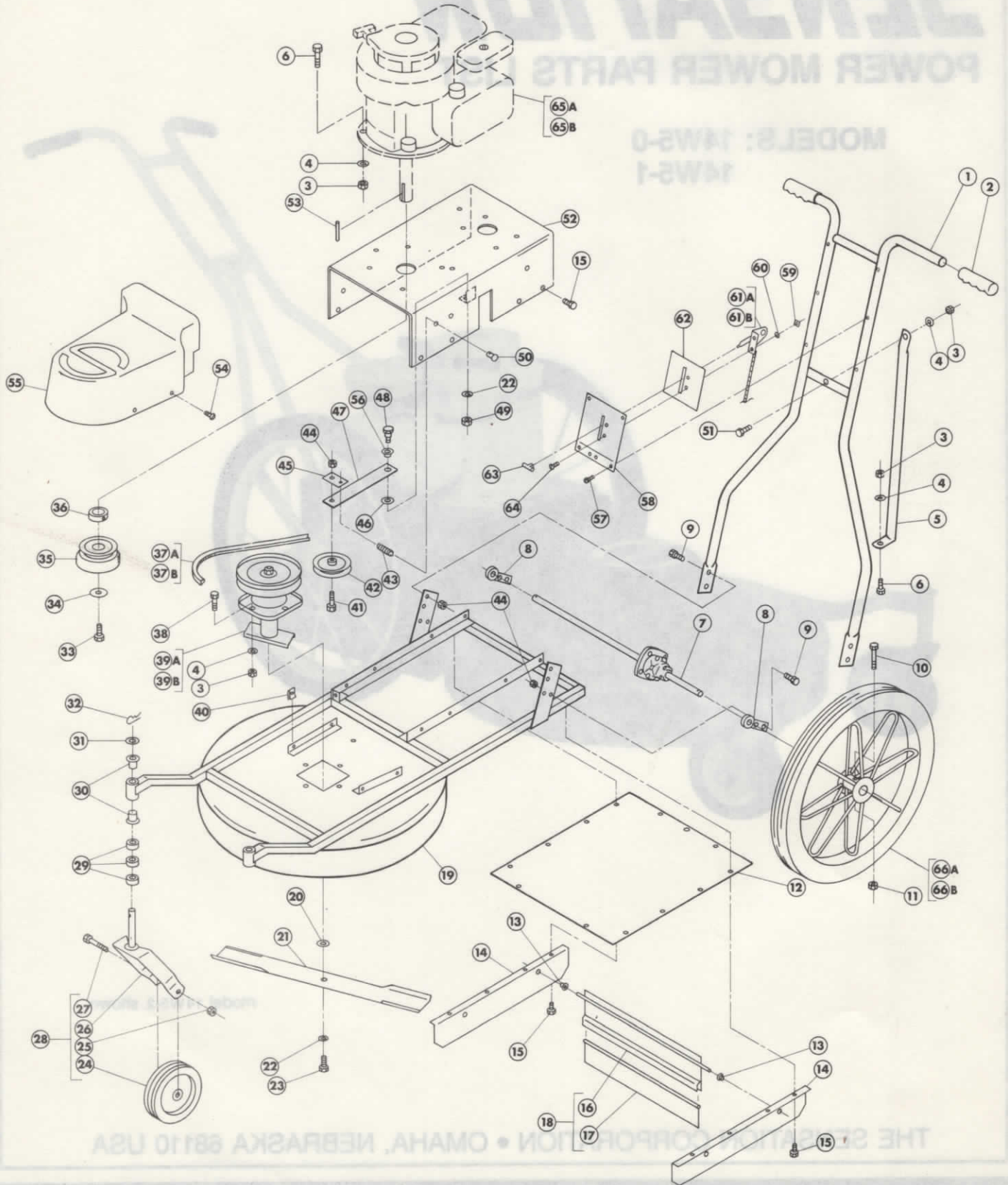
**MODELS: 14W5-0
14W5-1**



model 14W5-2 shown

THE SENSATION CORPORATION • OMAHA, NEBRASKA 68110 USA

ASSEMBLY



THE SENSATION CORPORATION • OMAHA, NEBRASKA 68110 USA

BLADE SPINDLE ASSEMBLY

PARTS LIST

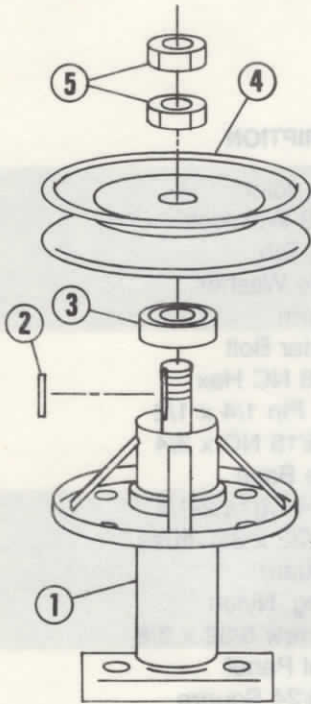
REF NO.	PART NO.	DESCRIPTION	REF NO.	PART NO.	DESCRIPTION
1	252-205	Handle W/Grips	43	203-805	Spring, Idler
2	323-305	Grips Only (Black)	44	970-224	Nut 3/8 Whizlock
3	960-200	Nut 5/16 NC Hex	45	203-304	Spring Tab
4	982-200	Lock Washer 5/16	46	999-458	Acetate Washer
5	253-213	Handle Brace	47	293-302	Idler Arm
6	901-210	HCS 5/16 NC x 1-1/2	48	999-514	Shoulder Bolt
7	043-222	Axle/Differential	49	960-224	Nut 3/8 NC Hex
8	243-203	Axle Hanger Bearing	50	993-184	Clevis Pin 1/4 x 1/2
9	901-227	HCS 3/8 NC x 3/4	51	901-205	HCS 5/16 NC x 3/4
10	903-190	HCS 1/4 NC x 1-1/4	52	021-204	Engine Base
11	964-181	Nut 1/4 NC Hex Lock	53	995-194	Key 1/4 Sq. x 2-1/4
12	021-103	Shield, Bottom	54	929-156	MS 10/32 x 3/4 Truss
13	243-804	Bearing, Flange	55	283-211	Belt Guard
14	023-217	Side Guard	56	243-302	Bushing, Nylon
15	955-184	Tap Screw 1/4 NC x 1/2	57	957-140	Tap Screw 8/32 x 3/8
16	031-201	Drag Shield	58	323-107	Control Panel
17	323-304	Rubber, Drag Shield	59	974-151	Nut 10/24 Square
18	032-201	Drag Shield Assembly	60	984-151	Lock Washer #10 Star
19	021-203	Frame — Deck Assembly	61A	193-210	Throttle Control — Briggs
20	980-224	Washer 3/8 Flat	61B	193-216	Throttle Control — Clinton
21	123-202	Blade 24"	62	193-215	Reinforcement Plate
22	982-224	Lock Washer 3/8	63	323-306	Knob-Throttle Control
23	904-229	HCS 3/8 NF x 1 GR 5	64	924-154	MS 10/24 x 1/2 Truss
24	083-504	Wheel 6" Steel			
25	964-271	Nut 1/2 NC Hex Lock	65A	Used on Model 14W5-0 Engine, 5 HP Clinton C.I.	
26	081-203	Wheel Fork			
27	901-283	HCS 1/2 NC x 2-3/4	65B	Used on Model 14W5-1 Engine 5 HP B&S #130902	
28	082-204	Caster Assembly			
29	273-206	Spacer, Height Adj.			
30	243-205	Bearing, Flange			
31	981-296	Washer, 5/8 Flat SAE	66A	Used on Models with Pneu. Tires	
32	999-147	Hair Pin Cotter			
33	902-229	HCS 3/8 NF x 1	082-210	Wheel & Tire Ass'y.	
34	999-405	Washer, Special	083-222	Wheel Only	
35	063-303	Clutch	263-202	Tube 20 x 2.125	
36	273-112	Shaft Collar	263-201	Tire 20 x 2.125	
37A	153-102	Belt, 4L415	263-205	Rim Liner Strip	
* 37B	153-101	Belt, 4L400	263-206	Valve Stem Cap	
38	901-207	HCS 5/16 NC x 1			
39A	313-205	Blade Spindle Ass'y.	66B	Used on Models with Semi Pneu. Tires	
** 39B	312-203	Blade Spindle Ass'y			
40	999-496	"U" Fastener	082-206	Wheel & Tire Ass'y.	
41	901-231	HCS 3/8 NC x 1-1/2	083-222	Wheel Only	
42	293-301	Pulley, Idler	263-203	Tire, 20 x 1.75	

NOTE: * 1. Used on models with Blade Spindle P/N 312-203 with 4" OD Pulley.

** 2. Blade Spindle P/N 312-203 no longer available. Replaced with P/N 313-205. Use belt P/N 153-102 with replacement Blade Spindle P/N 313-205.

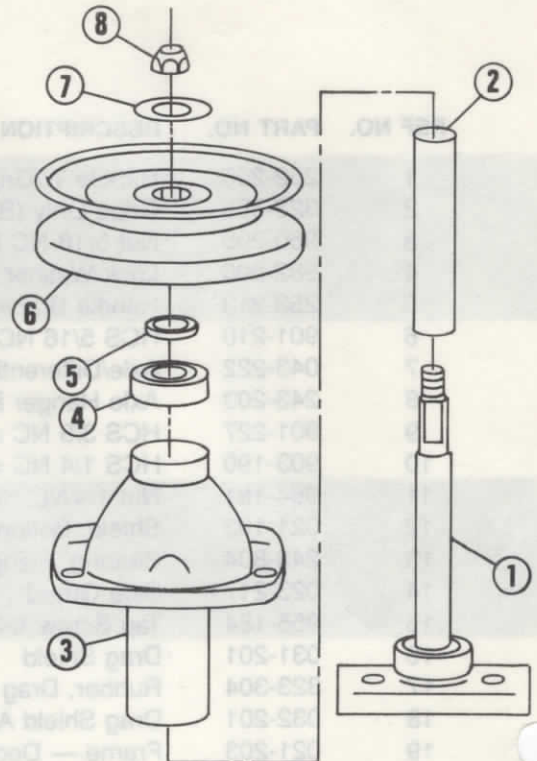
3. The Engine used on this unit is warranted by the engine manufacturer and all parts and service must be obtained from the designated service center which may be found in the Yellow Pages under "Engines".

BLADE SPINDLE ASSEMBLY



PART NO. 312-203

REF NO.	PART NO.	DESCRIPTION
1	313-204	Spindle w/Bearings
2	995-158	Sq. Key 3/16x1
3	243-209	Bearing Only
4	143-303	Pulley 4" O.D.
5	963-298	Nut 3/4 NF Hex Jam

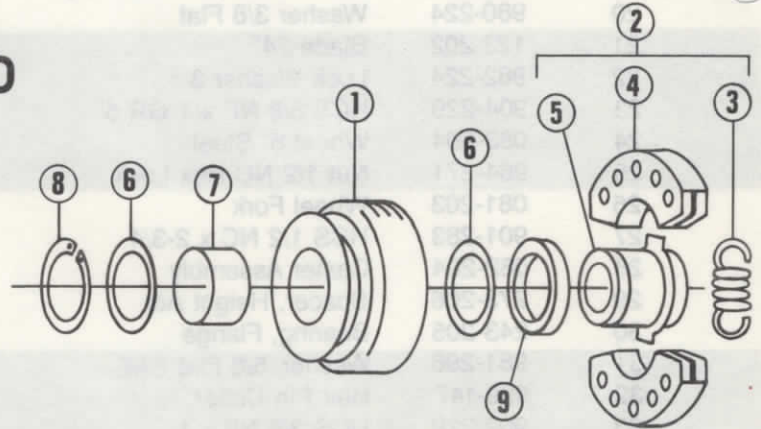


PART NO. 313-205

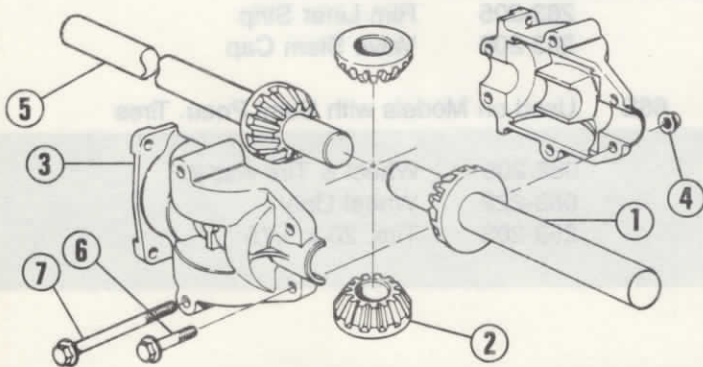
REF NO.	PART NO.	DESCRIPTION
1	313-206	Shaft Ass'y.
2	313-207	Sleeve
3	313-208	Spindle Housing
4	243-210	Bearing
5	313-209	Spacer
6	143-206	Pulley
7	999-576	Washer
8	999-577	Nut 7/16-20 Lock

CLUTCH ASSEMBLY-COMET 350

REF NO.	PART NO.	DESCRIPTION
1	200169	Drum & Sheave
2	200125	Rotor Assembly
3	200114	Spring, Red
4	200117	Shoe Assembly
5	200124	Hub, Rotor
6	200147	Washer, Thrust
7	200145	Bushing, Bronze
8	1003	Snap Ring
9	202716	Steel Collar



NOTE: The Clutch Used On This Unit Is Warranted By The Manufacturer. All Parts And Service Must Be Obtained Direct From COMET INDUSTRIES, 358 N.W. "F" Street, Richmond, Indiana 47374.



DIFFERENTIAL ASSEMBLY-INDUS

REF NO.	INDUS PART NO.	DESCRIPTION
1	NA	Axle Short Shaft
2	12798	Miter Gear
3	NA	Housing Half
4	12682	Locknut
5	NA	Axle Long Shaft
6	13204	Bolt, Short
7	12680	Bolt, Long

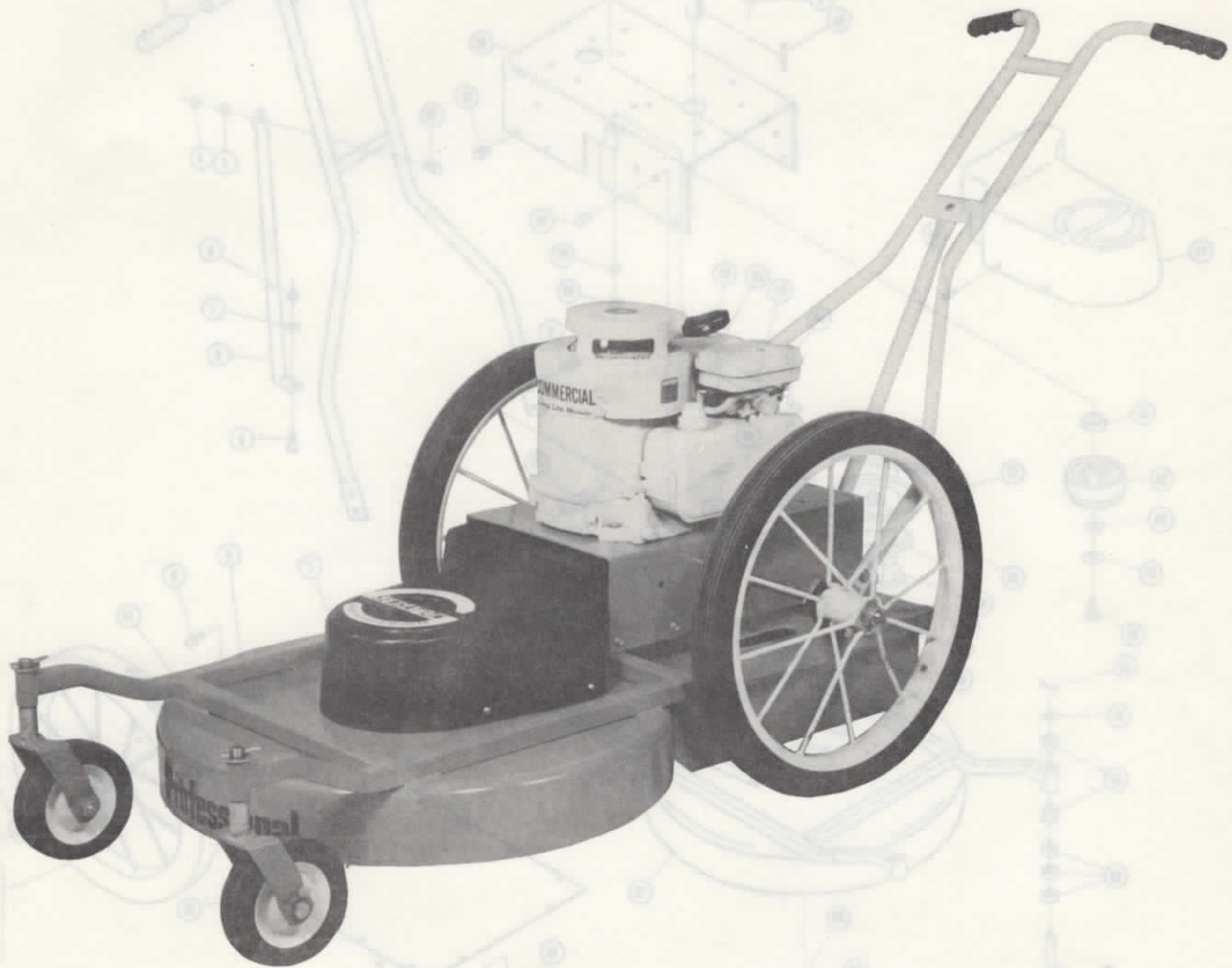
NOTE: The differential used on this unit is warranted by the manufacturer. Parts listed must be obtained direct from Indus Wheel Co., 1815 Madison Avenue, Indianapolis, Indiana 46206. If parts are not listed, complete unit modified by Sensation should be purchased from The Sensation Corp. P/N 043-209.

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SENSATION

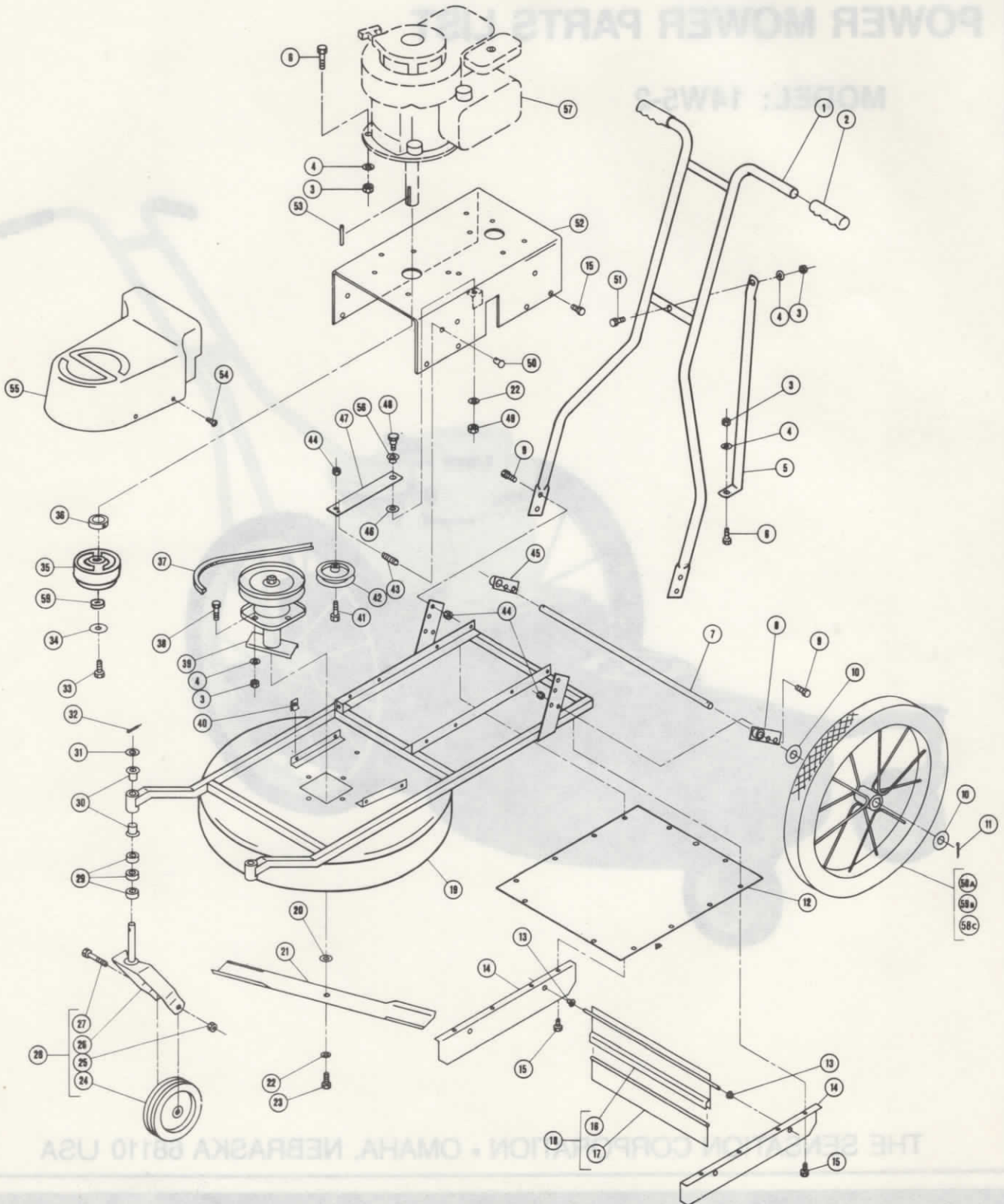
POWER MOWER PARTS LIST

MODEL: 14W5-2



THE SENSATION CORPORATION • OMAHA, NEBRASKA 68110 USA

ASSEMBLY



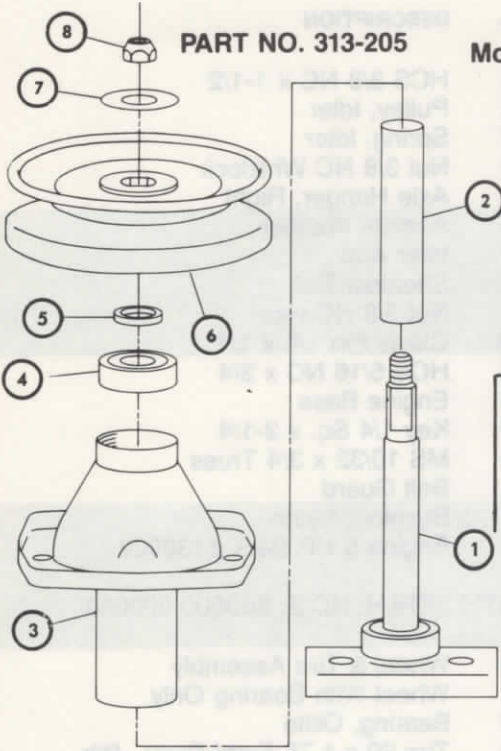
PARTS LIST

REF NO.	PART NO.	DESCRIPTION	REF NO.	PART NO.	DESCRIPTION
1	252-114	Handle W/Grips	41	901-231	HCS 3/8 NC x 1-1/2
2	323-305	Grips Only (Black)	42	293-301	Pulley, Idler
3	960-200	Nut 5/16 NC Hex	43	203-805	Spring, Idler
4	982-200	Lock Washer 5/16	44	970-224	Nut 3/8 NC Whizlock
5	253-213	Handle Brace	45	311-104	Axle Hanger, Right
6	901-210	HCS 5/16 NC x 1-1/2	46	999-458	Acetate Washer
7	313-102	Axle Shaft	47	293-302	Idler Arm
8	311-105	Axle Hanger, Left	48	999-514	Shoulder Bolt
9	901-227	HCS 3/8 NC x 3/4	49	960-224	Nut 3/8 NC Hex
10	981-296	Washer 5/8 Flat SAE	50	993-313	Clevis Pin 1/4 x 1/2
11	992-134	Cotter Pin 1/8 x 1-1/4	51	901-205	HCS 5/16 NC x 3/4
12	021-103	Shield, Bottom	52	021-104	Engine Base
13	243-804	Bearing, Flange	53	995-194	Key 1/4 Sq. x 2-1/4
14	023-217	Side Guard	54	929-156	MS 10/32 x 3/4 Truss
15	955-184	Tap Screw 1/4 NC x 1/2	55	283-211	Belt Guard
16	031-201	Drag Shield	56	243-302	Bushing, Nylon
17	323-304	Rubber, Drag Shield	57		Engine 5 HP B&S #130902
18	032-201	Drag Shield Assembly			
19	021-105	Frame — Deck Assembly	58A	MODELS WITH SERIAL NO'S. 800000-900058	
20	980-224	Washer 3/8 Flat			
21	123-202	Blade 24"		082-125	Wheel & Tire Assembly
22	982-224	Lock Washer 3/8		082-117	Wheel With Bearing Only
23	904-231	HCS 3/8 NF x 1-1/2 GR 5		243-212	Bearing, Oilite
24	083-504	Wheel 6" Steel		263-203	Tire 20 x 1.75 Semi Pneu. Rib
25	964-271	Nut 1/2 NC Hex Lock			
26	081-203	Wheel Fork	58B	MODELS WITH SERIAL NO'S. 900059-900082 900124 & UP	
27	901-283	HCS 1/2 NC x 2-3/4			
28	082-204	Caster Assembly			
29	273-206	Spacer, Height Adj.		082-121	Wheel & Tire Assembly
30	243-205	Bearing, Flange		082-122	Wheel With Bearing Only
31	981-296	Washer, 5/8 Flat		243-106	Bearing, Oilite
32	999-571	Clinch Pin		263-203	Tire 20 x 1.75 Semi Pneu. Rib
33	902-229	HCS 3/8 NF x 1			
34	999-405	Washer, Special	58C	MODELS WITH SERIAL NO'S. 900083-900123	
35	063-303	Clutch			
36	273-112	Shaft Collar		082-124	Wheel & Tire Assembly
37	153-102	Belt, Blade Drive		082-123	Wheel With Bearing Only
38	901-207	HCS 5/16 NC x 1		243-106	Bearing, Oilite
39	313-205	* Blade Spindle Ass'y.		263-208	Tire 20 x 1.75 Semi Pneu. Dia.
	313-210	Blade Spindle Ass'y.			
40	999-496	"U" Fastener	59	273-113	Spacer

NOTE: * 1. Blade Spindle P/N 313-205 no longer available. Replaced with P/N 313-210

2. The Engine used on this unit is warranted by the engine manufacturer and all parts and service must be obtained from the designated service center which may be found in the Yellow Pages under "Engines".

BLADE SPINDLE ASSEMBLY



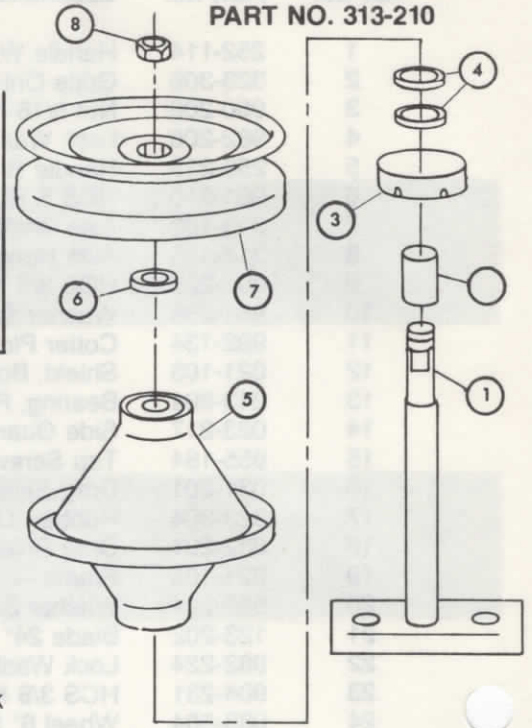
PART NO. 313-205

Models with serial no's. 900000 to 900183

REF NO.	PART NO.	DESCRIPTION
1	313-206	Shaft Ass'y.
2	313-207	Sleeve
3	313-208	Spindle Housing
4	243-210	Bearing
5	313-209	Spacer
6	143-206	Pulley
7	999-576	Washer
8	999-577	Nut 7/16-20 Lock

Models with serial no's. 900184 & up

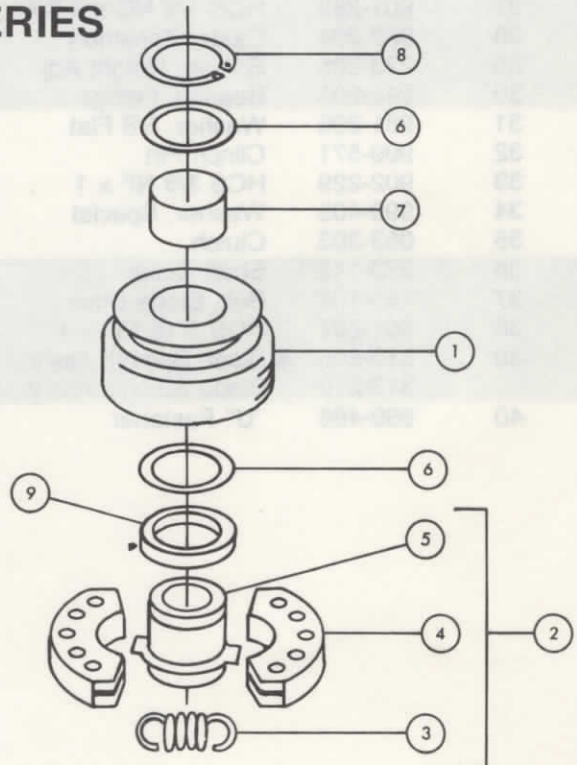
REF NO.	PART NO.	DESCRIPTION
1	313-211	Shaft Assembly
2	313-212	Spacer
3	313-213	Dust Cap
4	313-214	Spacer 12GA
5	313-215	Housing
6	313-216	Spacer 8 GA
7	143-206	Pulley
8	999-577	Nut 7/16-20 Lock



PART NO. 313-210

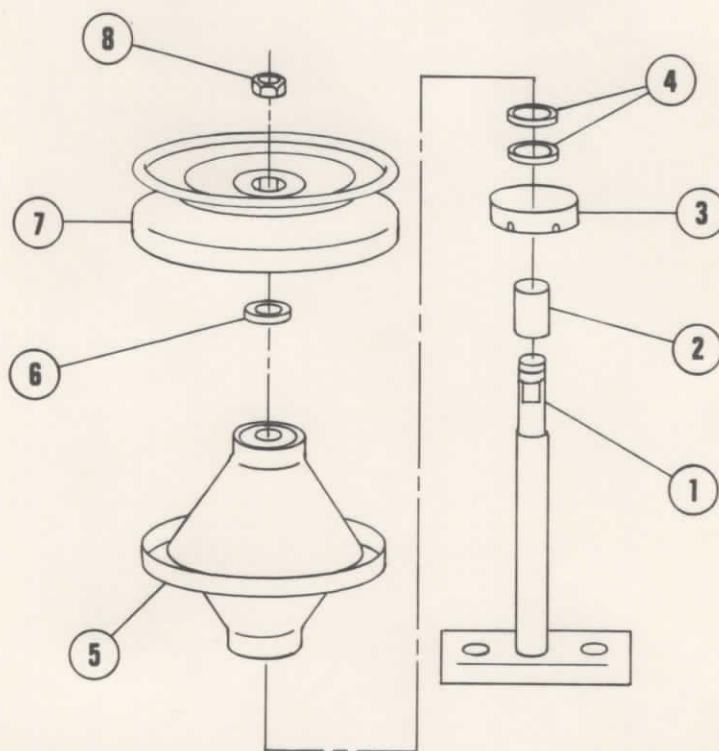
CLUTCH ASSEMBLY COMET 350 SERIES

REF NO.	PART NO.	DESCRIPTION
1	200169	Drum & Sheave
2	200125	Rotor Assembly
3	200114	Spring, Red
4	200117	Shoe Assembly
5	200124	Hub, Rotor
6	200147	Washer, Thrust
7	200145	Bushing, Bronze
8	1003	Snap Ring
9	202716	Steel Collar



NOTE: The Clutch Used On This Unit Is Warranted By The Manufacturer. All Parts And Service Must Be Obtained Direct From COMET INDUSTRIES, 358 N.W. "F" Street, Richmond, Indiana 47374.

NOTICE: Models 24S5-7 and 14W5-2 are equipped with a different blade spindle than that listed in the parts list. The blade spindle P/N 313-205 has been replaced by blade spindle P/N 313-210, illustrated below.



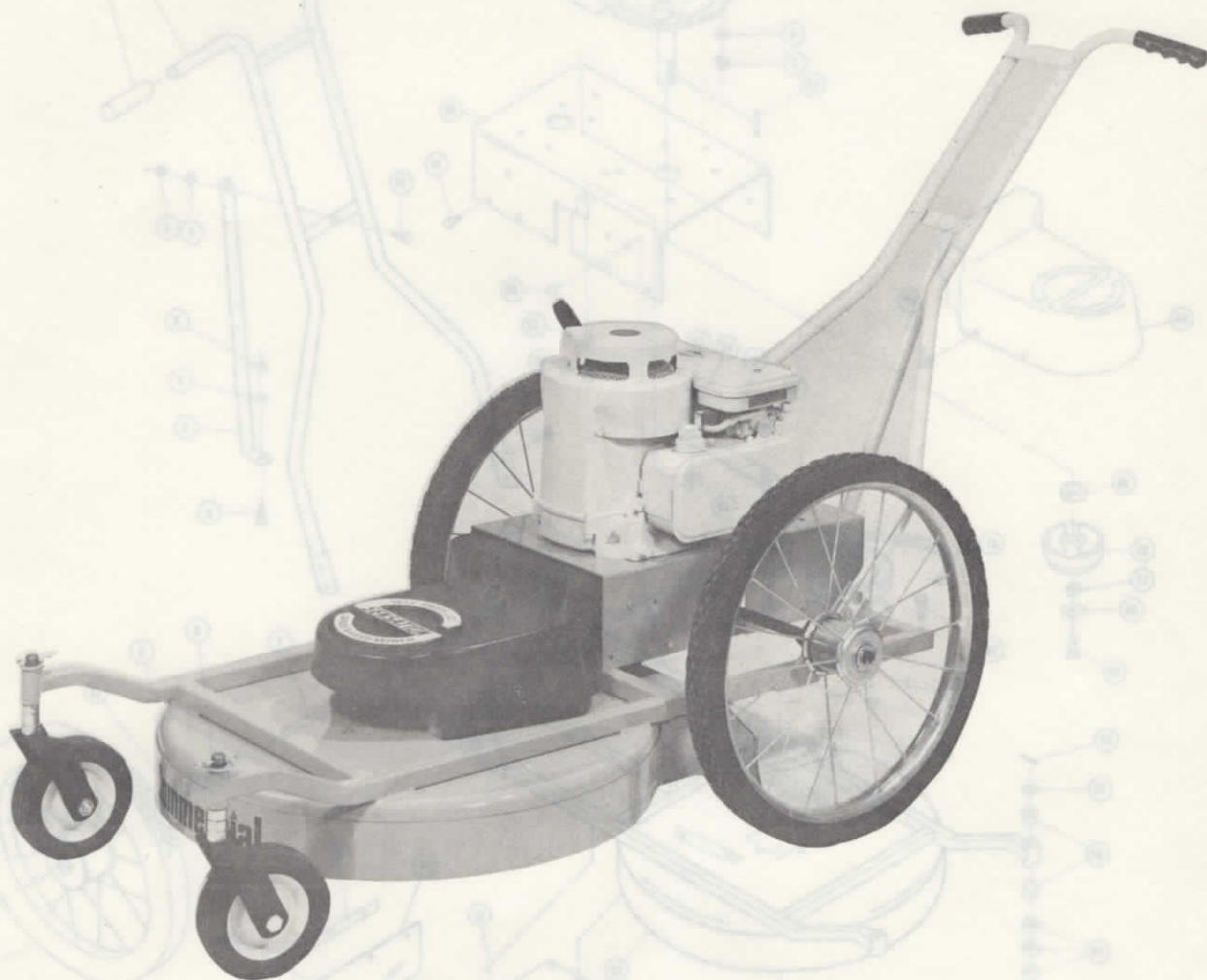
Item No.	Part No.	Description
1	313-211	Shaft Assembly
2	313-212	Spacer
3	313-213	Dust Cap
4	313-214	Spacer 12GA
5	313-215	Housing W/Bearings
6	313-216	Spacer 8 GA
7	143-206	Pulley
8	999-577	Nut 7/16-20 Lock

COMMERCIAL

SENSATION

POWER MOWER PARTS LIST

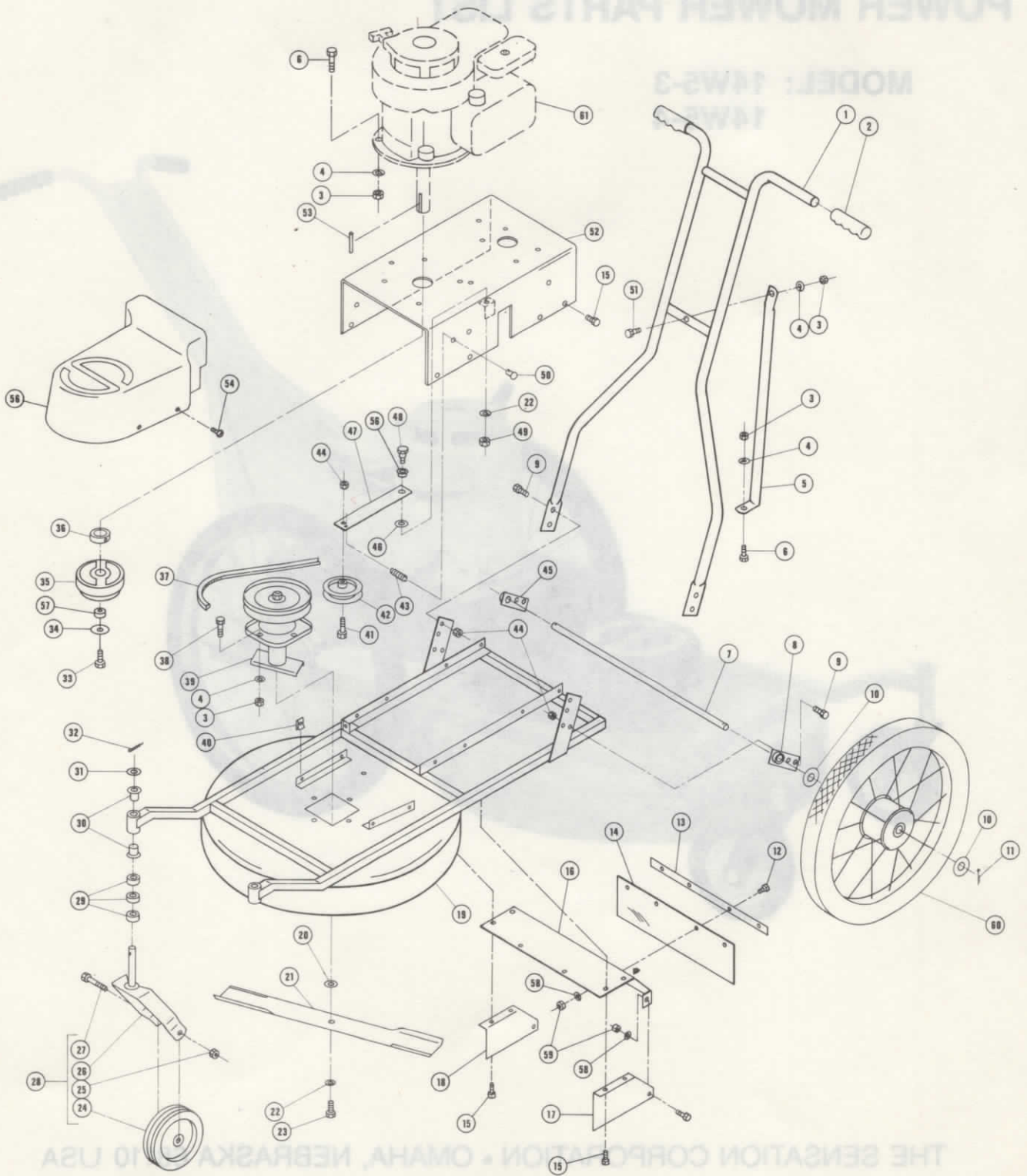
MODEL: 14W5-3
14W5-4



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SENSATION

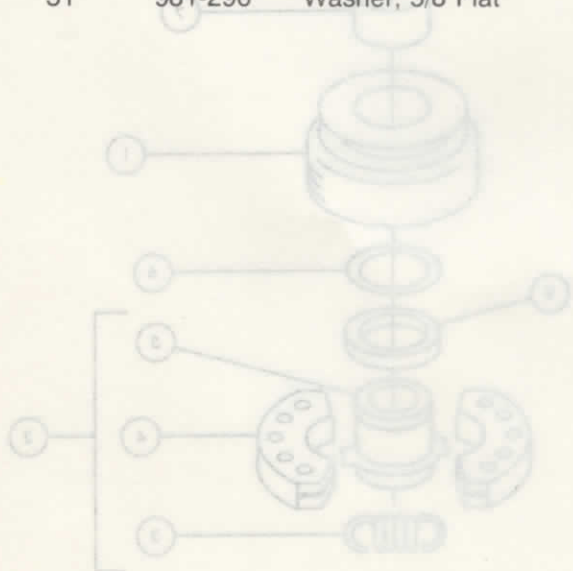
ASSEMBLY





PARTS LIST

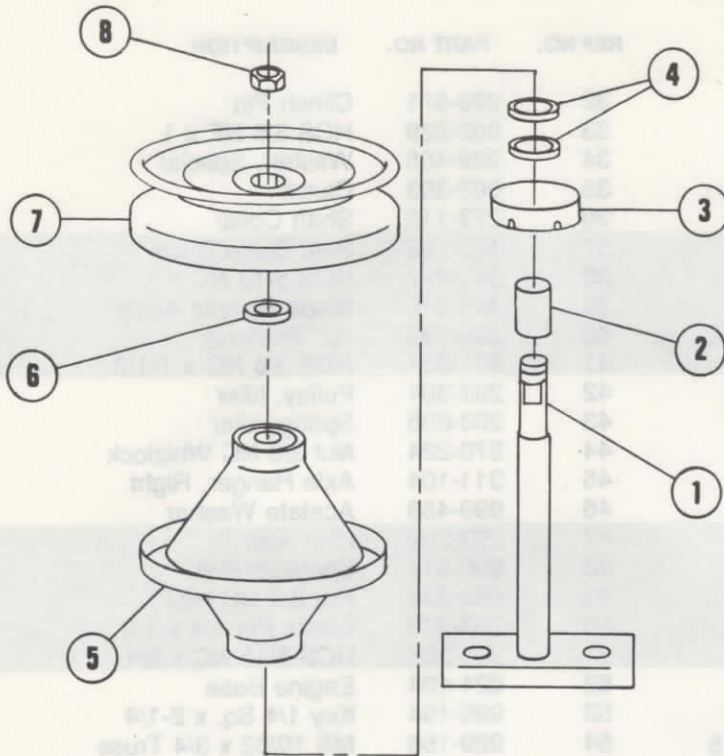
REF NO.	PART NO.	DESCRIPTION	REF NO.	PART NO.	DESCRIPTION
1	252-114	Handle W/Grips	32	999-571	Clinch Pin
2	323-305	Grips Only (Black)	33	902-229	HCS 3/8 NF x 1
3	960-200	Nut 5/16 NC Hex	34	999-405	Washer, Special
4	982-200	Lock Washer 5/16	35	063-303	Clutch
5	253-213	Handle Brace	36	273-112	Shaft Collar
6	901-210	HCS 5/16 NC x 1-1/2	37	153-102	Belt, Blade Drive
7	313-106	Axle Shaft	38	901-207	HCS 5/16 NC x 1
8	311-105	Axle Hanger, Left	39	313-210	Blade Spindle Ass'y.
9	901-227	HCS 3/8 NC x 3/4	40	999-496	"U" Fastener
10	981-296	Washer 5/8 Flat SAE	41	901-231	HCS 3/8 NC x 1-1/2
11	992-134	Cotter Pin 1/8 x 1-1/4	42	293-301	Pulley, Idler
12	901-185	HCS 1/4 NC x 5/8	43	203-805	Spring, Idler
13	033-211	Clamping Strip	44	970-224	Nut 3/8 NC Whizlock
14	323-207	Rubber, Dragshield	45	311-104	Axle Hanger, Right
15	955-184	Tap Screw 1/4 NC x 1/2	46	999-458	Acetate Washer
16	033-212	Drag Shield	47	293-302	Idler Arm
17	023-255	Side Guard, Left	48	999-514	Shoulder Bolt
18	023-254	Side Guard, Right	49	960-224	Nut 3/8 NC Hex
19	021-106	Frame — Deck Assembly	50	993-313	Clevis Pin 1/4 x 1/2
20	980-224	Washer 3/8 Flat	51	901-205	HCS 5/16 NC x 3/4
21	123-202	Blade 24"	52	021-104	Engine Base
22	982-224	Lock Washer 3/8	53	995-194	Key 1/4 Sq. x 2-1/4
23	904-231	HCS 3/8 NF x 1-1/2 GR 5	54	929-156	MS 10/32 x 3/4 Truss
24	083-504	Wheel, 6" Steel 14W5-3	55	283-211	Belt Guard
	083-302	Wheel, 5" Steel 14W5-4	56	243-302	Bushing, Nylon
25	964-271	Nut 1/2 NC Hex Lock	57	273-113	Spacer
26	081-203	Wheel Fork	58	982-181	Lock Washer 1/4 Split
27	901-283	HCS 1/2 NC x 2-3/4	59	960-181	Nut 1/4 NC Hex
28	082-204	Caster Ass'y. 14W5-3	60	083-114	Wheel Bearing & Tire Ass'y.
	082-211	Caster Ass'y 14W5-4		243-107	Bearing Only
29	273-206	Spacer, Height Adj.	61		Engine 5 HP B&S #130902
30	243-205	Bearing, Flange			
31	981-296	Washer, 5/8 Flat			



DESCRIPTION	PART NO.	REF. NO.
Blade Collar	202718	9
Eng Ring	1003	8
Bushing, Bronze	200745	7
Washer, Thrust	200747	6
Hub, Rotor	200754	5
Shaft Assembly	200717	4
Spring, Rod	200714	3
Rotor Assembly	200725	2
Drum & Shave	200759	1

Note: The Engine used on this unit is warranted by the engine manufacturer and all parts and service must be obtained from the designated service center which may be found in the Yellow Pages under "Engines".

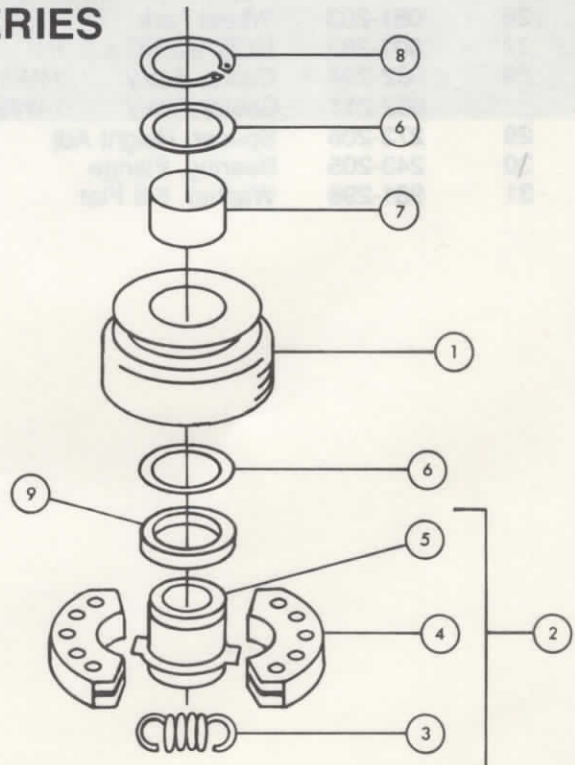
BLADE SPINDLE ASSEMBLY



REF NO.	PART NO.	DESCRIPTION
1	313-211	Shaft Assembly
2	313-212	Spacer
3	313-213	Dust Cap
4	313-214	Spacer 12GA
5	313-215	Housing W/Bearings
6	313-216	Spacer 8 GA
7	143-206	Pulley
8	999-577	Nut 7/16-20 Lock

CLUTCH ASSEMBLY COMET 350 SERIES

REF NO.	PART NO.	DESCRIPTION
1	200169	Drum & Sheave
2	200125	Rotor Assembly
3	200114	Spring, Red
4	200117	Shoe Assembly
5	200124	Hub, Rotor
6	200147	Washer, Thrust
7	200145	Bushing, Bronze
8	1003	Snap Ring
9	202716	Steel Collar



NOTE: The Clutch Used On This Unit Is Warranted By The Manufacturer. All Parts And Service Must Be Obtained Direct From COMET INDUSTRIES, 358 N.W. "F" Street, Richmond, Indiana 47374.

COMMERCIAL

SENSATION

POWER MOWER OWNER'S MANUAL

**MODELS: 14W5-0
14W5-1
14W5-2
14W5-3
14W5-4**



14W5-2 shown

THE SENSATION CORPORATION • OMAHA, NEBRASKA 68110 USA

SAFETY



Caution Symbol

THE TRIANGULAR SYMBOL SHOWN ABOVE IS USED THROUGHOUT THIS BOOKLET TO CALL SPECIAL ATTENTION TO ITEMS AFFECTING THE OPERATOR'S PERSONAL SAFETY. THESE ITEMS SHOULD BE GIVEN CLOSE ATTENTION.

1. Keep all shields in place.
2. Wait for all movement to stop before servicing machine.
3. Keep people and pets a safe distance away from machine.
Know the controls and how to stop quickly — READ THE OWNER'S MANUAL.
5. Do not allow children to operate vehicle. Do not allow adults to operate it without proper instruction.
6. Do not carry passengers.
7. Clear work area of objects which might be picked up and thrown. The blade can throw objects with sufficient force to cause damage or injury.
8. Stop engine before leaving operator position and before making any repairs or adjustments.
9. Take all possible precautions when leaving vehicle unattended, such as stopping engine.
10. Do not stop or start suddenly when going uphill or downhill. Mow across the face of steep slopes, never up and down the face.
11. Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.
12. Stay alert for holes in terrain and other hidden hazards.
13. Handle gasoline with care — it is highly flammable.
 - A. Use approved gasoline container.
 - B. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors.
 - C. Wipe up any spilled gasoline thoroughly before starting the engine.
 - D. Open doors if engine is run in garage — exhaust fumes are dangerous. Do not run engine indoors.
14. Keep vehicle and attachments in good operating condition and keep safety devices in place.
15. Keep all nuts, bolts, and screws tight to be sure equipment is in safe working condition.
16. Never store equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark.
17. Allow engine to cool before storing in any enclosure.
18. To reduce fire hazard, keep engine free of grass, leaves, or excessive grease.
19. Vehicle and attachments should be stopped and inspected for damage after striking a foreign object, and the damage should be repaired before restarting and operating the equipment.
20. Do not change engine governor settings or overspeed engine.
21. When using mower:
 - A. Mow only in daylight or in good artificial light.
 - B. Never make a cutting-height adjustment while engine is running.
 - C. Shut engine off when unclogging chute.
 - D. Check blade-mounting bolts for proper tightness at frequent intervals.
 - E. The blade continues to rotate for a few seconds after the engine is shut off. Do not place any part of the body in the blade area until you are sure the blade has stopped.
 - F. Do not mow on wet grass.
22. Do not wear loose-fitting clothing that could get caught in moving parts.
23. Follow maintenance instructions as outlined in this manual.
24. DISCONNECT THE SPARK PLUG WIRE BEFORE MAKING ANY ADJUSTMENT OR REPAIR.

SET-UP INSTRUCTIONS

HANDLE ASSEMBLY

1. Position the handle onto the outside of the handle brackets. Secure using four hex cap screws 3/8 NC x 3/4 (insert from the outside) and flange lock nuts provided. Finger tighten only.
2. Attach the handle brace onto the top of the frame using hex cap screw 5/16 NC x 1-1/2, lock washer, and nut provided. Finger tighten only.
3. Attach the brace to the handle (Push the handle up slightly, if necessary). Secure using 5/16 NC nut and lock washer provided.
4. Tighten all nuts and bolts installed in steps 1, 2, and 3.

CONTROL PANEL ASSEMBLY 14W5-0, -1

1. Remove the protective packing from the control panel. Place the panel on the handle aligning the 4 mounting holes. Secure using 4 - 8/32 x 3/8 tapping screws provided. Do not overtighten.

ENGINE

Follow engine manufacturer's instructions (refer to engine manual provided).

ADJUSTMENTS

BLADE BELT TENSION

Tension — The Idler Arm is spring loaded, making it self-adjusting. Therefore, no adjustments are required.



CAUTION: STOP ENGINE BEFORE MAKING ANY WHEEL ADJUSTMENTS.

Your mower can cut grass at heights of 3", 2-1/2", 2", and 1-1/2". Height adjustment is made by adding or removing spacers from the front wheel spindles.

TO ADJUST HEIGHT

1. Remove the clinch pin, washer, and wheel assembly from the mower.
2. Remove or add spacers on the wheel spindle shaft according to the cutting height desired.
 - Zero spacers — 1-1/2" cut
 - One spacer — 2" cut
 - Two spacers — 2-1/2" cut
 - Three spacers — 3" cut
3. Reinstall the wheel assembly on the mower.
4. Place the remaining spacers (if any) back onto the wheel spindle shaft.
5. Secure with washer and clinch pin.

OPERATION



CAUTION: DO NOT OPERATE MOWER WITHOUT DRAG SHIELD ASSEMBLY IN PLACE AND SWINGING FREELY.

STARTING



CAUTION: LOCATE MACHINE ON A LEVEL SURFACE BEFORE STARTING TO PREVENT MACHINE FROM ROLLING.

Move throttle control lever to choke position. Pull recoil handle briskly until engine starts. To stop engine, move throttle control lever to "Stop" position.

MOWING

Note: Mow with a sharp blade as a dull blade tends to tear, rather than cut, grass.

Move the throttle control lever to a suitable running speed for mowing. Note: For best results, the mower should be operated with the engine at full or nearly full throttle.



CAUTION: WHEN CROSSING A GRAVEL DRIVEWAY, ROAD, OR SIDEWALK, CARE SHOULD BE TAKEN SO LOOSE SAND AND ROCKS ARE NOT THROWN.

MAINTENANCE



CAUTION: DISCONNECT SPARK PLUG LEAD PRIOR TO PERFORMING ANY MAINTENANCE.

BLADE SPINDLE

The blade spindle is equipped with sealed precision ball bearings and requires no lubrication. The bearings are replaceable when in need of replacement.

DECK HOUSING

Area beneath deck housing should be clear of matter, grass, or other debris to prevent possible blade interference and to insure best cutting performance.

ENGINE

Follow engine manufacturers' recommendation (refer to engine manual provided).

WHEELS

1. Lubricate each front wheel bearing and rear on 14W5-3 periodically using a grease gun.
2. Lubricate front wheel spindle bearing (and rear wheel bearings on 14W5-2) periodically using a light oil (SAE 10).

DIFFERENTIAL **MODELS 14W5-0, -1**

The differential is sealed at the factory and should not require adjustment or lubrication.

AXLE HANGER BEARINGS **14W5-0, -1**

The rear wheel axle hanger bearing are sealed bearings which require no lubrication.

BLADE

The blade must be kept sharp and in balance to insure best cutting results and top engine performance. Use genuine "Sensation" replacement blades. Substitutes may endanger performance and personal safety.



CAUTION: REPLACE BLADE WHICH SHOWS ANY SIGN OF CRACKS OR CRYSTALLIZATION TO PREVENT ITS DISINTEGRATION AT HIGH ROTATING SPEEDS.



CAUTION: USE A PAD OR WEAR A HEAVY GLOVE TO PROTECT YOUR HAND WHEN REMOVING OR INSTALLING BLADE.

BLADE REMOVAL/REPLACEMENT

Assemble blade in sequence as illustrated on parts diagram. Tighten blade bolt securely. Bolt should be torqued to 35 ft/LB's.

BLADE SHARPENING

It is recommended that the blade be taken to your Sensation dealer to insure proper sharpening and balancing.

BELT REPLACEMENT

Note: Due to the unique characteristics and functions of these belts, only genuine Sensation service parts should be used for replacement to insure proper belt operation.

BLADE DRIVE BELT

1. Place blade control lever in the disengaged position.
2. Insure that spark plug lead is removed before proceeding.
3. Remove belt guard from cutting deck and loosen mounting bolts on belt guides.
4. Remove and install new belt. Be sure belt is inside belt guides and that the mounting bolts have been secured.
5. Place blade control lever in the cut position. Visually check belts to see that they are not striking any of the belt guides. Adjust guides if necessary.
6. Re-assemble belt guard.

OPTIONAL EQUIPMENT

AUXILIARY GAS TANK KIT

Adds 3 quart capacity to your current engine gas tank — means less down time for refilling.

SKID BARS

Replaces the standard 6" front caster wheel assembly. Used in heavy weeded areas eliminating cut weed accumulation on front end of mower.

ONE-PIECE SENSATION SUIT

Bright, highway safety orange colored utility jumpsuit. Provides protection for personal clothing and gives a neat, snappy, professional teamwork look.

GREASE GUN KIT

Used for lubricating wheel bearings.

COMMERCIAL

SENSATION

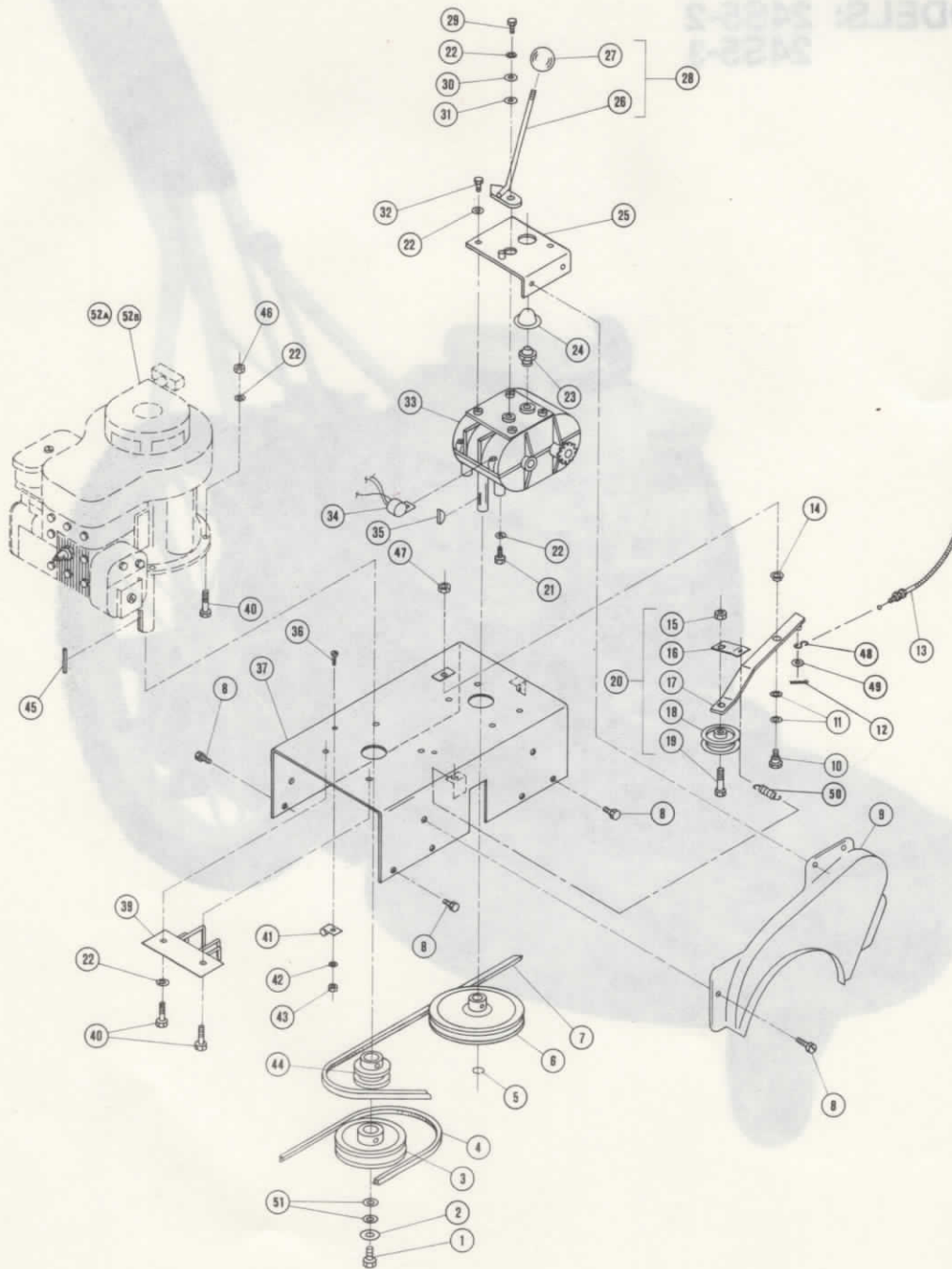
POWER MOWER PARTS LIST

MODELS: 24S5-2
24S5-3



THE SENSATION CORPORATION • OMAHA, NEBRASKA 68110 USA

ENGINE BASE ASSEMBLY



MODELS: 2485-2
2485-1

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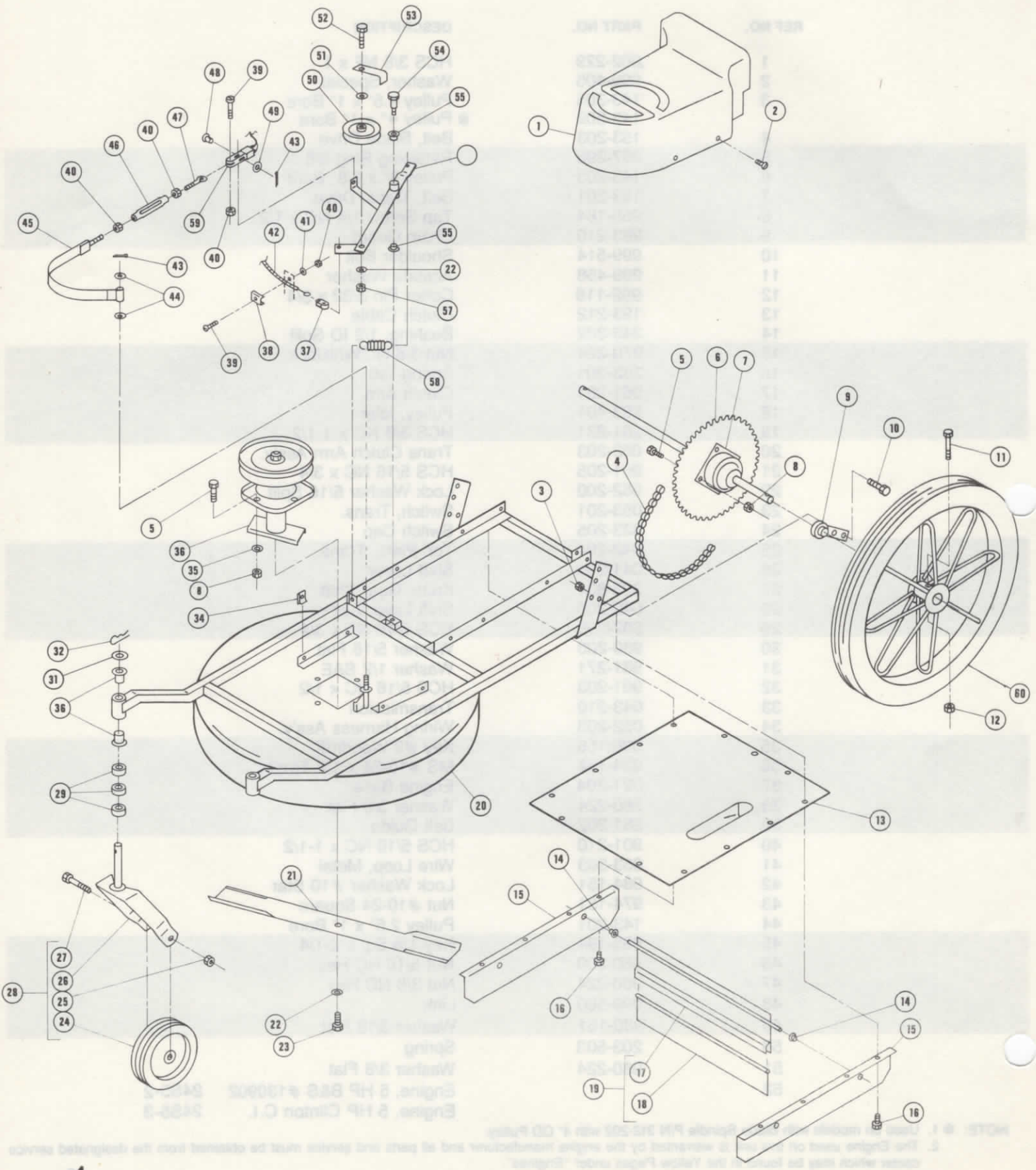
ENGINE BASE PARTS LIST

REF NO.	PART NO.	DESCRIPTION
1	902-229	HCS 3/8 NF x 1
2	999-405	Washer, Special
3	143-305	Pulley 4.5" x 1" Bore
	143-302	* Pulley 4" x 1" Bore
4	153-203	Belt, Blade Drive
5	987-296	Retaining Ring 5/8
6	143-203	Pulley 8" x 5/8" Bore
7	153-201	Belt, Trans. Drive
8	955-184	Tap Screw 1/4 NC x 1/2
9	283-210	Chain Guard
10	999-514	Shoulder Bolt
11	999-458	Acetate Washer
12	992-118	Cotter Pin 3/32 x 3/4
13	193-212	Clutch Cable
14	243-302	Bushing, 1/2 ID Split
15	970-224	Nut 3/8 NC Whizlock
16	203-301	Spring Tab
17	061-201	Clutch Arm
18	293-401	Pulley, Idler
19	901-231	HCS 3/8 NC x 1-1/2
20	062-203	Trans Clutch Arm Ass'y.
21	901-205	HCS 5/16 NC x 3/4
22	982-200	Lock Washer 5/16 Split
23	053-201	Switch, Trans.
24	323-205	Switch Cap
25	042-204	Top Plate, Trans.
26	041-201	Shift Lever
27	323-804	Knob, Gear Shift
28	042-205	Shift Lever Ass'y.
29	902-205	HCS 5/16 NF x 3/4
30	980-200	Washer 5/16 Flat
31	981-271	Washer 1/2 SAE
32	901-203	HCS 5/16 NC x 1/2
33	043-210	Transmission
34	052-203	Wiring Harness Ass'y.
35	996-156	Key #9 Woodruff
36	924-154	MS #10-24 x 1/2 Truss
37	021-204	Engine Base
38	980-224	Washer 3/8 Flat
39	281-202	Belt Guide
40	901-210	HCS 5/16 NC x 1-1/2
41	053-303	Wire Loop, Metal
42	984-151	Lock Washer #10 Star
43	974-151	Nut #10-24 Square
44	143-201	Pulley 2.5" x 1" Bore
45	995-194	Key 1/4 Sq. x 2-1/4
46	960-200	Nut 5/16 NC Hex
47	960-224	Nut 3/8 NC Hex
48	999-560	Link
49	980-151	Washer 3/16 Flat
50	203-503	Spring
51	980-224	Washer 3/8 Flat
52		Engine, 5 HP B&S #130902 24S5-2 Engine, 5 HP Clinton C.I. 24S5-3

NOTE: * 1. Used on models with Blade Spindle P/N 312-202 with 4" OD Pulley.

2. The Engine used on this unit is warranted by the engine manufacturer and all parts and service must be obtained from the designated service center which may be found in the Yellow Pages under "Engines".

FRAME ASSEMBLY

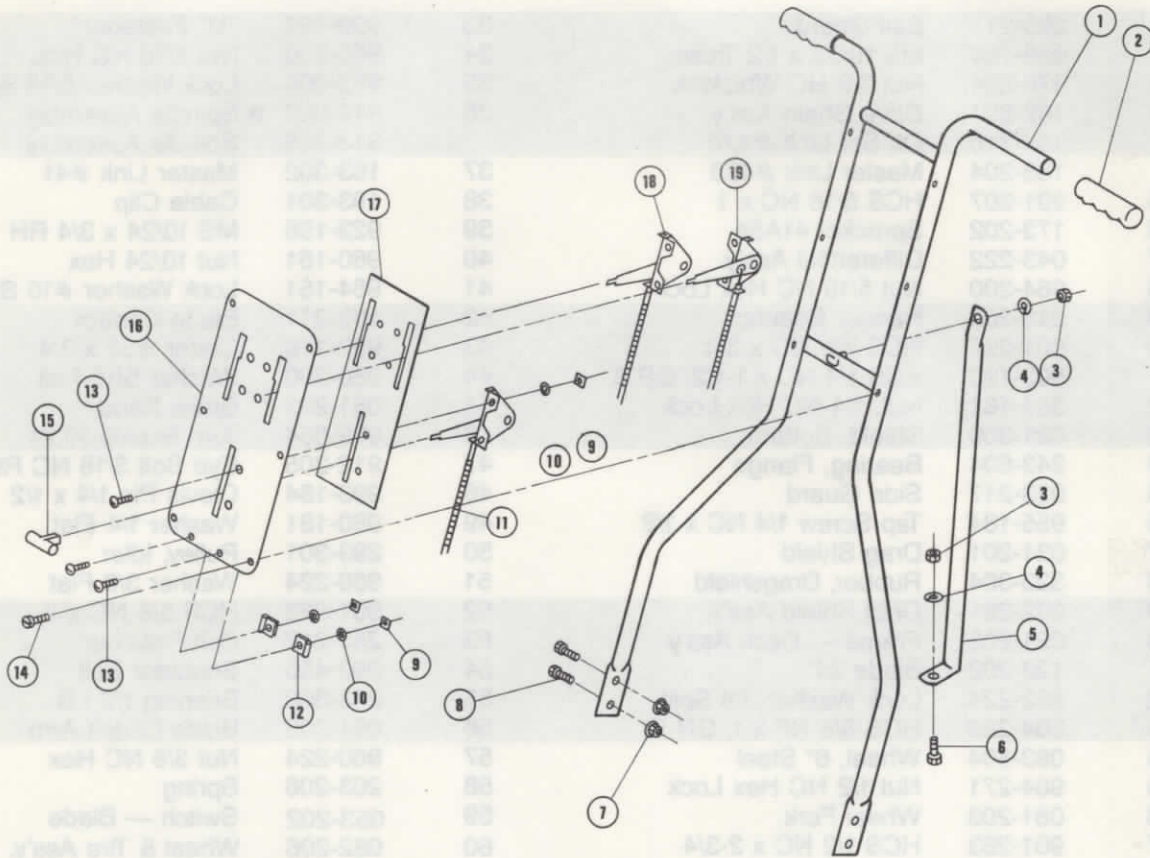


FRAME ASSEMBLY PARTS LIST

REF NO.	PART NO.	DESCRIPTION	REF NO.	PART NO.	DESCRIPTION
1	283-211	Belt Guard	33	999-496	"U" Fastener
2	929-154	MS 10/32 x 1/2 Truss	34	960-200	Nut 5/16 NC Hex
3	970-224	Nut 3/8 NC Whizlock	35	982-200	Lock Washer 5/16 Split
4	162-201	Drive Chain Ass'y.	36	312-202	* Spindle Assembly
	163-210	Off Set Link #420		313-205	Spindle Assembly
	163-204	Master Link #420	37	163-302	Master Link #41
5	901-207	HCS 5/16 NC x 1	38	193-301	Cable Clip
6	173-202	Sprocket 41A54	39	923-156	MS 10/24 x 3/4 RH
7	043-222	Differential Ass'y.	40	960-151	Nut 10/24 Hex
8	964-200	Nut 5/16 NC Hex Lock	41	984-151	Lock Washer #10 Star
9	243-203	Hanger Bearing	42	193-211	Blade Control
10	901-227	HCS 3/8 NC x 3/4	43	992-118	Cotter 3/32 x 3/4
11	903-190	ACS 1/4 NC x 1-1/2, GR 8	44	980-200	Washer 5/16 Flat
12	964-181	Nut, 1/4 NC Hex Lock	45	061-203	Brake Band
13	021-209	Shield, Bottom	46	999-554	Turn Buckle 10/24
14	243-804	Bearing, Flange	47	912-305	Eye Bolt 3/16 NC RH
15	023-217	Side Guard	48	993-184	Clevis Pin 1/4 x 1/2
16	955-184	Tap Screw 1/4 NC x 1/2	49	980-181	Washer 1/4 Flat
17	031-201	Drag Shield	50	293-301	Pulley, Idler
18	323-304	Rubber, Dragshield	51	980-224	Washer 3/8 Flat
19	032-201	Drag Shield Ass'y.	52	901-233	HCS 3/8 NC x 2
20	021-203	Frame — Deck Ass'y.	53	283-217	Belt Retainer
21	123-202	Blade 24"	54	999-456	Shoulder Bolt
22	982-224	Lock Washer 3/8 Split	55	243-302	Bushing 1/2 I.D.
23	904-229	HCS 3/8 NF x 1, GR 5	56	061-202	Blade Clutch Arm
24	083-504	Wheel, 6" Steel	57	960-224	Nut 3/8 NC Hex
25	964-271	Nut 1/2 NC Hex Lock	58	203-206	Spring
26	081-203	Wheel Fork	59	053-202	Switch — Blade
27	901-283	HCS 1/2 NC x 2-3/4	60	082-206	Wheel & Tire Ass'y.
28	082-204	Caster Assembly		083-209	Wheel Only
29	273-206	Spacers, Height Adj.		263-203	Tire 20 x 1/75 Rib
30	243-205	Bearing, Flange			
31	981-296	Washer 5/8 Flat			
32	994-147	Hair Pin Cotter			

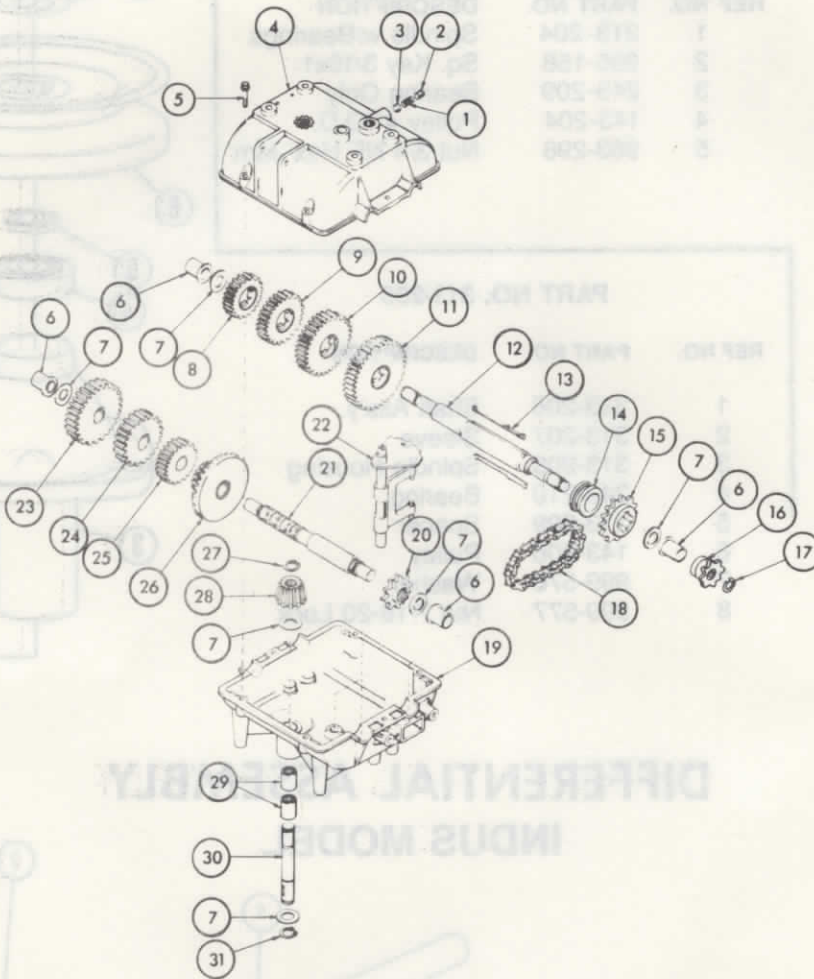
NOTE: * Blade Spindle P/N 312-202 no longer available. Replaced with P/N 313-205.
Use Engine Pulley P/N 143-305 with replacement Blade Spindle.

HANDLE ASSEMBLY



REF NO.	PART NO.	DESCRIPTION	REF NO.	PART NO.	DESCRIPTION
1	252-205	Handle w/Grips	11	193-210	Throttle Control
2	323-305	Handle Grips	12	053-303	Wire Loop, Metal
3	960-200	Nut 5/16 NC Hex	13	926-154	MS 10/24 x 1/2
4	982-200	Lock Washer 5/16	14	957-140	Tap Screw 8/32 x 3/8
5	253-213	Handle Brace	15	323-306	Knob
6	901-211	HCS 5/16 NC x 1-1/4	16	323-203	Control Panel
7	970-224	Nut 3/8 NC Whizlock	17	193-213	Reinforcement Panel
8	901-227	HCS 3/8 NC x 3/4	18	193-211	Blade Control
9	974-151	Nut 10/24 Square	19	193-212	Clutch Control
10	984-151	Lock Washer #10 Star	20	901-205	HCS 5/16 NC x 3/4

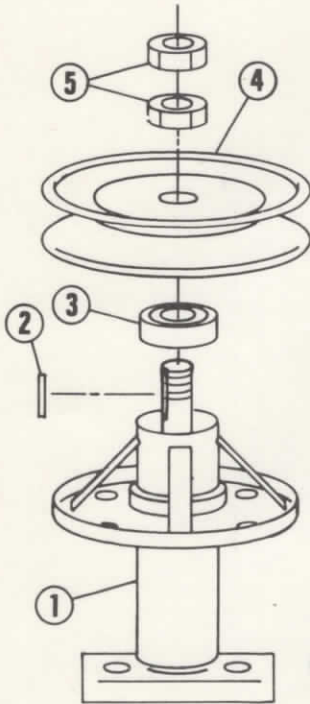
TRANSMISSION ASSEMBLY PEERLESS 500 SERIES



REF NO.	PEERLESS PART NO.	DESCRIPTION	REF NO.	PEERLESS PART NO.	DESCRIPTION
1	792079	Spring	17	792072	Retaining Ring
2	792078	Set Screw 3/8-16	18	786062	Roller Chain #41
3	792077	Steel Ball 5/16	19	770061	Case, Transmission
4	772070	Cover, Transmission	20	786061	Sprocket 10 Teeth
5	792073	Hex Head Screw 1/4-20	21	776134	Shaft, Counter
6	780105	Bushing, Flanged	22	784243	Rod & Fork Ass'y.
7	780072	Race, Thrust	23	778112	Gear, Spur 30 Teeth
8	778105	Gear, Spur 20 Teeth	24	778111	Gear, Spur 25 Teeth
9	778106	Gear, Spur 25 Teeth	25	778110	Gear, Spur 20 Teeth
10	778107	Gear, Spur 30 Teeth	26	778109	Gear, Bevel 42 Teeth With 15 Tooth Gear
11	778108	Gear, Spur 35 Teeth	27	788040	Retaining Ring
12	776133	Shaft, Output & Brake	28	778113	Bevel Pinion, Input
13	792071	Key	29	780106	Bearing, Needle
14	784216	Collar, Shift	30	776135	Shaft, Input
15	786060	Sprocket 14 Teeth	31	792035	Retaining Ring
16	786047	Sprocket 8 Teeth			

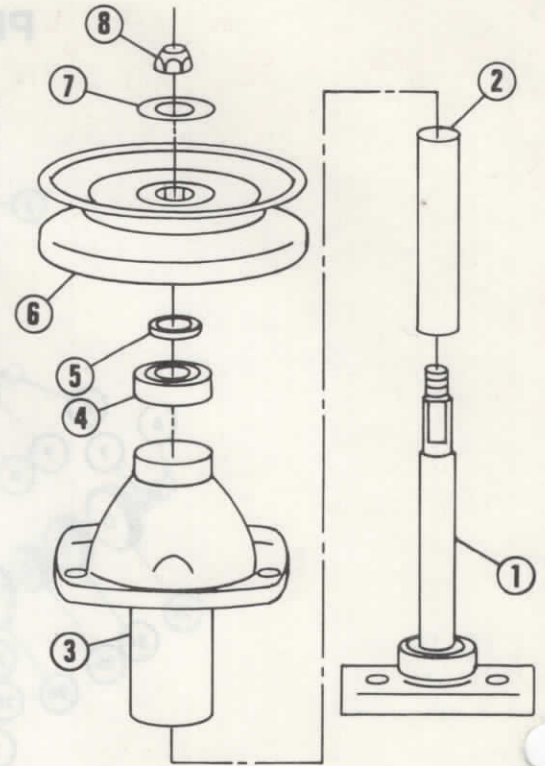
NOTE: The transmission used on this unit is warranted by the manufacturer. All parts and service must be obtained from the designated TECUMSEH/PEERLESS Service Center, which may be found in the yellow pages under "Engines."

BLADE SPINDLE ASSEMBLY



PART NO. 312-202

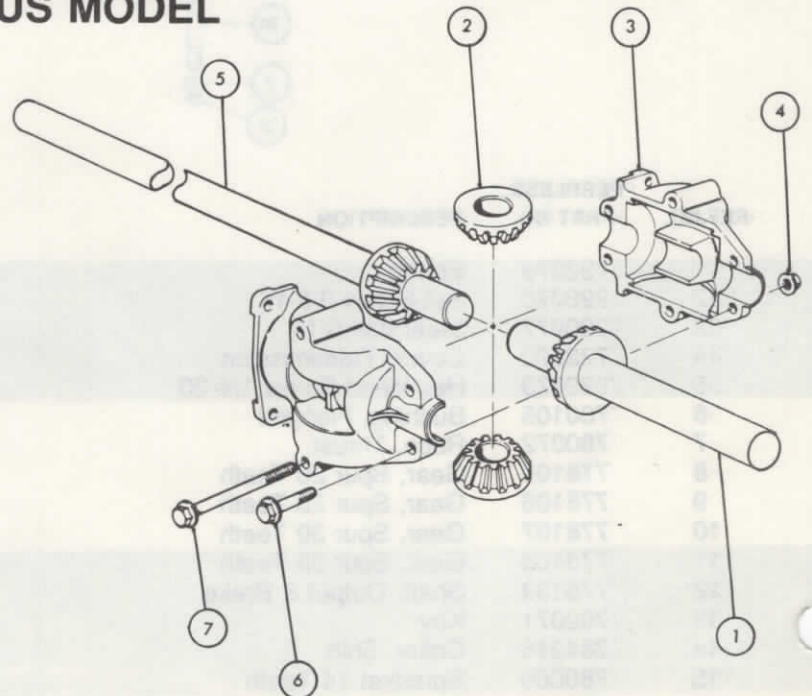
REF NO.	PART NO.	DESCRIPTION
1	313-204	Spindle w/Bearings
2	995-158	Sq. Key 3/16x1
3	243-209	Bearing Only
4	143-204	Pulley 4" O.D.
5	963-298	Nut 3/4 NF Hex Jam



PART NO. 313-205

REF NO.	PART NO.	DESCRIPTION
1	313-206	Shaft Ass'y.
2	313-207	Sleeve
3	313-208	Spindle Housing
4	243-210	Bearing
5	313-209	Spacer
6	143-206	Pulley
7	999-576	Washer
8	999-577	Nut 7/16-20 Lock

DIFFERENTIAL ASSEMBLY INDUS MODEL



REF NO.	INDUS PART NO.	DESCRIPTION
1	NA	Axle Short Shaft
2	12798	Miter Gear
3	NA	Housing Half
4	12682	Locknut
5	NA	Axle Long Shaft
6	13204	Bolt, Short
7	12680	Bolt, Long

NA — No Longer Available, See Note

NOTE: The differential used on this unit is warranted by the manufacturer. Parts listed must be obtained direct from Indus Wheel Co., 1815 Madison Avenue, Indianapolis, Indiana 46206. If parts are not listed, complete unit modified by Sensation should be purchased from The Sensation Corp. P/N 043-209.

COMMERCIAL

SENSATION

POWER MOWER PARTS LIST

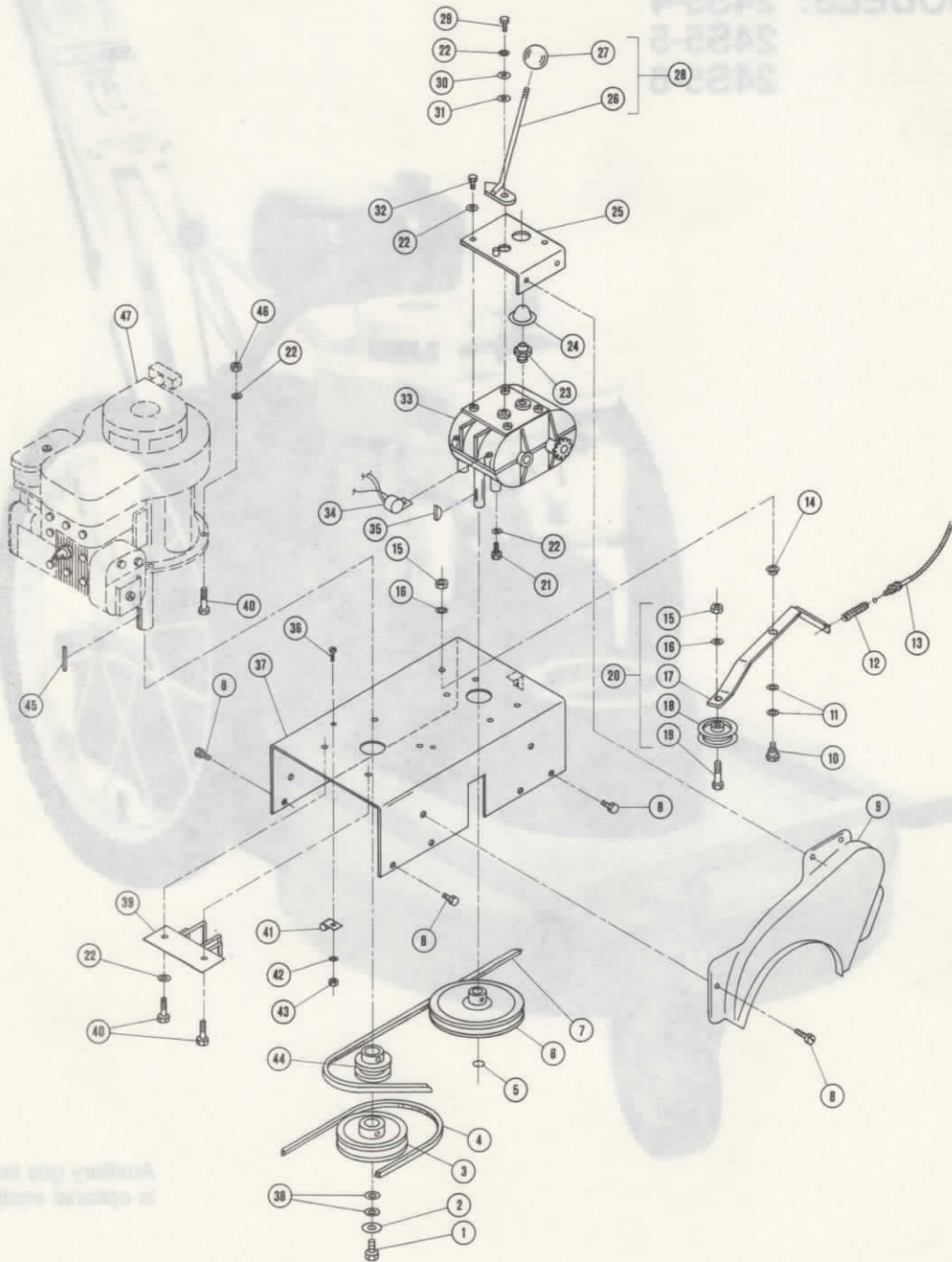
**MODELS: 24S5-4
24S5-5
24S5-6**



Auxiliary gas tank shown
is optional equipment

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ENGINE BASE ASSEMBLY



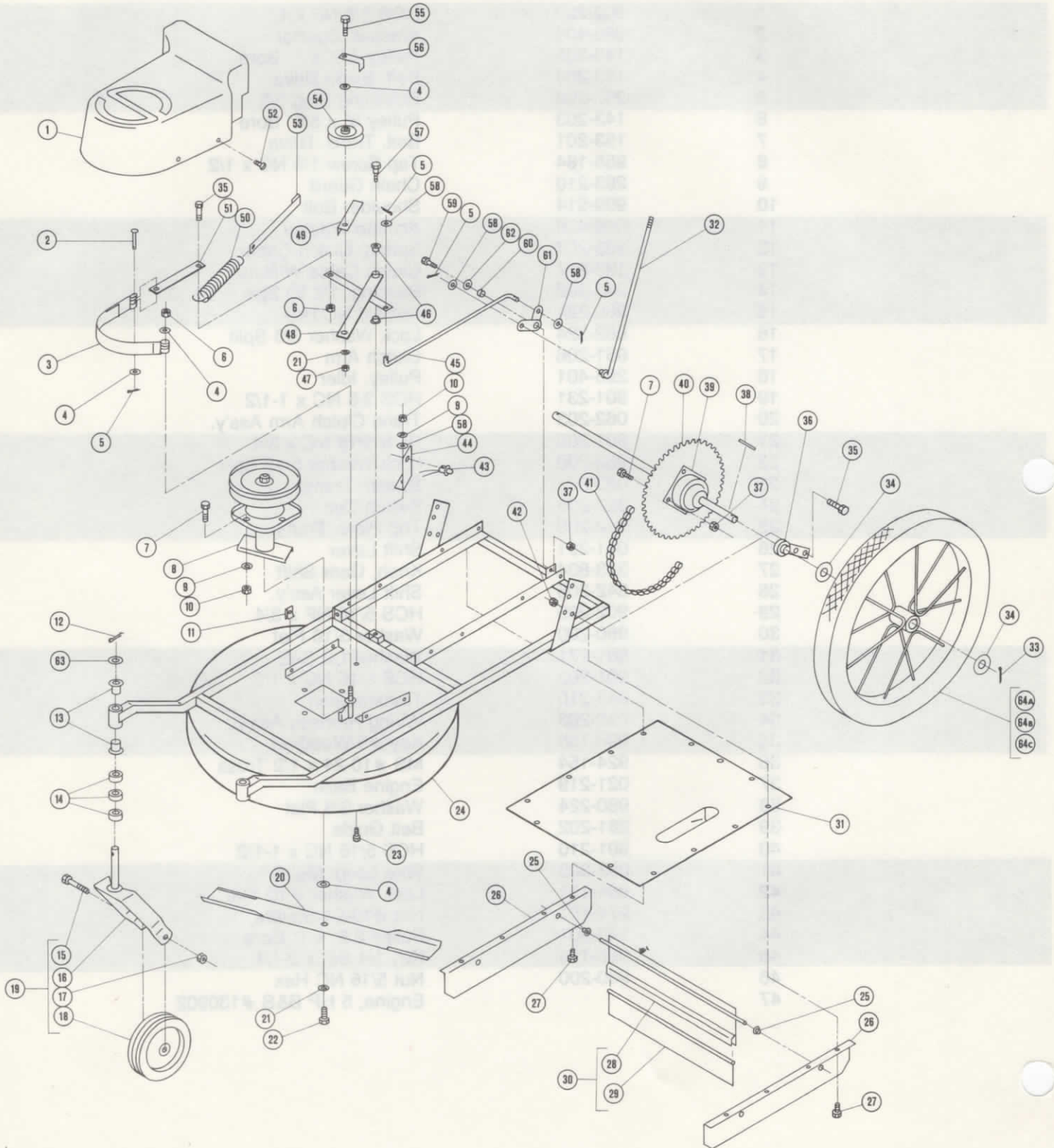
Always use the correct
oil grade and quantity.

THE SENSATION CORPORATION • OMAHA, NEBRASKA 68110 USA

ENGINE BASE PARTS LIST

REF NO.	PART NO.	DESCRIPTION
1	902-229	HCS 3/8 NF x 1
2	999-405	Washer, Special
3	143-305	Pulley 4.5" x 1" Bore
4	153-203	Belt, Blade Drive
5	987-296	Retaining Ring 5/8
6	143-203	Pulley 8" x 5/8" Bore
7	153-201	Belt, Trans. Drive
8	955-184	Tap Screw 1/4 NC x 1/2
9	283-210	Chain Guard
10	999-514	Shoulder Bolt
11	999-458	Acetate Washer
12	203-207	Spring, Clutch Cable
13	193-217	Clutch Cable W/Nuts
14	243-302	Bushing, 1/2 ID Split
15	960-224	Nut 3/8 NC Hex
16	982-224	Lock Washer 3/8 Split
17	061-206	Clutch Arm
18	293-401	Pulley, Idler
19	901-231	HCS 3/8 NC x 1-1/2
20	062-203	Trans Clutch Arm Ass'y.
21	901-205	HCS 5/16 NC x 3/4
22	982-200	Lock Washer 5/16 Split
23	053-201	Switch, Trans.
24	323-205	Switch Cap
25	042-209	Top Plate, Trans.
26	041-201	Shift Lever
27	323-804	Knob, Gear Shift
28	042-205	Shift Lever Ass'y.
29	902-205	HCS 5/16 NF x 3/4
30	980-200	Washer 5/16 Flat
31	981-271	Washer 1/2 SAE
32	901-203	HCS 5/16 NC x 1/2
33	043-210	Transmission
34	052-203	Wiring Harness Ass'y.
35	996-156	Key #9 Woodruff
36	924-154	MS #10-24 x 1/2 Truss
37	021-219	Engine Base
38	980-224	Washer 3/8 Flat
39	281-202	Belt Guide
40	901-210	HCS 5/16 NC x 1-1/2
41	053-303	Wire Loop, Metal
42	984-151	Lock Washer #10 Star
43	974-151	Nut #10-24 Square
44	143-201	Pulley 2.5" x 1" Bore
45	995-194	Key 1/4 Sq. x 2-1/4
46	960-200	Nut 5/16 NC Hex
47		Engine, 5 HP B&S #130902

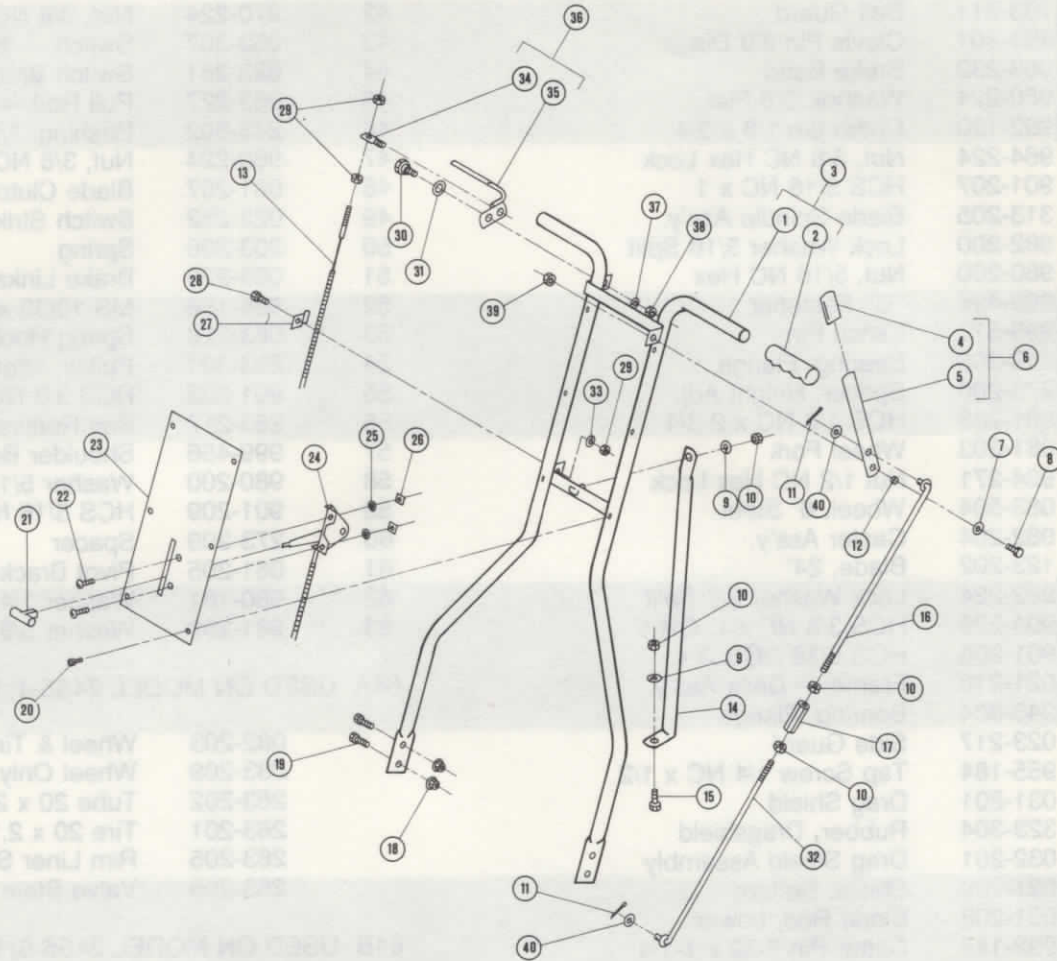
FRAME ASSEMBLY



FRAME ASSEMBLY PARTS LIST

REF NO.	PART NO.	DESCRIPTION	REF NO.	PART NO.	DESCRIPTION
1	283-211	Belt Guard	42	970-224	Nut, 3/8 NC Whizlock
2	993-301	Clevis Pin 3/8 Dia.	43	053-307	Switch — Blade
3	063-232	Brake Band	44	023-251	Switch Bracket
4	980-224	Washer, 3/8 Flat	45	063-227	Pull Rod — Blade
5	992-130	Cotter pin 1/8 x 3/4	46	243-302	Bushing, 1/2 I.D.
6	964-224	Nut, 3/8 NC Hex Lock	47	960-224	Nut, 3/8 NC Hex
7	901-207	HCS 5/16 NC x 1	48	061-207	Blade Clutch Arm
8	313-205	Blade Spindle Ass'y.	49	023-252	Switch Strike
9	982-200	Lock Washer 5/16 Split	50	203-206	Spring
10	960-200	Nut, 5/16 NC Hex	51	063-229	Brake Linkage
11	999-496	"U" Fastener	52	929-156	MS 10/32 x 3/4 Truss
12	999-571	Clinch Pin	53	063-228	Spring Hook
13	243-205	Bearing, Flange	54	293-301	Pulley, Idler
14	273-206	Spacer, Height Adj.	55	901-233	HCS 3/8 NC x 2
15	901-283	HCS 1/2 NC x 2-3/4	56	283-217	Belt Retainer
16	081-203	Wheel Fork	57	999-456	Shoulder Bolt
17	964-271	Nut 1/2 NC Hex Lock	58	980-200	Washer 5/16 Flat
18	083-504	Wheel, 6" Steel	59	901-209	HCS 5/16 NC x 1-1/4
19	082-204	Caster Ass'y.	60	273-209	Spacer
20	123-202	Blade, 24"	61	061-205	Pivot Bracket
21	982-224	Lock Washer 3/8 Split	62	980-181	Washer 1/4 Flat
22	904-229	HCS 3/8 NF x 1, GR 5	63	981-296	Washer 5/8 Flat
23	901-205	HCS 5/16 NC x 3/4	64A USED ON MODEL 24S5-4; PNEU.		
24	021-218	Frame — Deck Ass'y.			
25	243-804	Bearing, Flange			
26	023-217	Side Guard	082-203		Wheel & Tire Ass'y.
27	955-184	Tap Screw 1/4 NC x 1/2	083-209		Wheel Only
28	031-201	Drag Shield	263-202		Tube 20 x 2.125
29	323-304	Rubber, Dragshield	263-201		Tire 20 x 2.125
30	032-201	Drag Shield Assembly	263-205		Rim Liner Strip
31	021-209	Shield, Bottom	263-206		Valve Stem Cap
32	061-208	Blade Rod, Lower	64B USED ON MODEL 24S5-5; SEMI PNEU.		
33	992-146	Cotter Pin 5/32 x 1-1/4			
34	981-298	Washer, 3/4 SAE Flat			
35	901-227	HCS 3/8 NC x 3/4	082-209		Wheel & Tire Ass'y.
36	243-203	Axle Hanger	083-217		Wheel Only
37	964-200	Nut, 5/16 NC Hex Lock	263-208		Tire, 20 x 1.75
38	995-160	Sq. Key, 3/16 x 1-1/2	64C USED ON MODEL 24S5-6; FOAM		
39	043-209	Differential Ass'y.			
40	173-202	Sprocket 41A54			
41	162-201	Drive Chain Ass'y.	082-208		Wheel & Tire Ass'y.
	163-210	Off Set Link #420			
	163-204	Master Link #420			

HANDLE ASSEMBLY

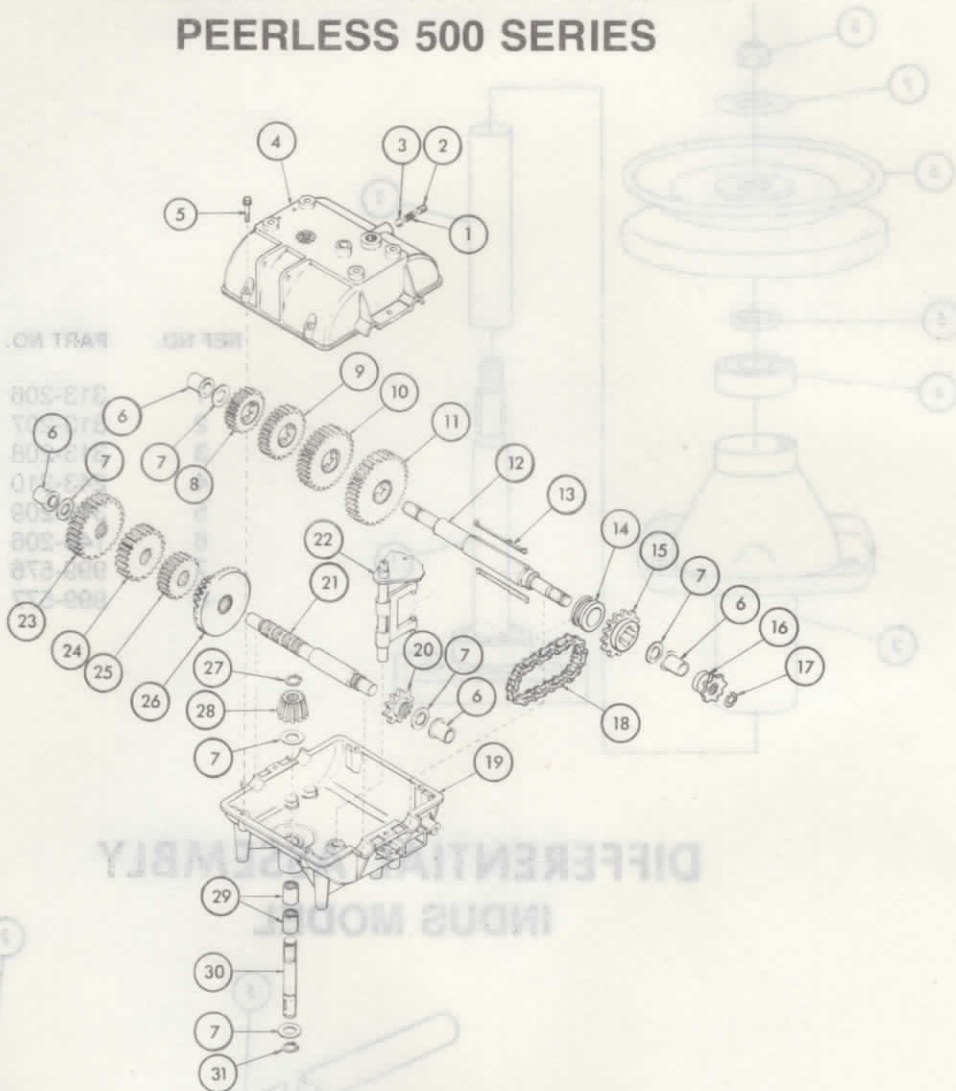


REF NO.	PART NO.	DESCRIPTION	REF NO.	PART NO.	DESCRIPTION
1	252-206	Handle W/Grips	21	323-306	Knob — Shift Lever
2	323-317	Grips Smooth (Black)	22	926-154	MS 10/24 x 1/2
3	252-206	Handle W/Grips	23	193-218	Control Panel
4	323-316	Grip, Flat	24	193-210	Throttle Control
5	063-226	Blade Control	25	984-151	Lock Washer #10 Star
6	062-204	Blade Control W/Grip	26	974-151	Nut 10/24 Square
7	980-181	Washer 1/4 Flat	27	193-219	Cable Clamp
8	901-205	HCS 5/16 NC x 3/4	28	901-185	HCS 1/4 NC x 5/8
9	982-200	Lock Washer 5/16 Split	29	960-181	Nut 1/4 NC Hex
10	960-200	Nut 5/16 NC Hex	30	999-514	Shoulder Bolt
11	992-130	Cotter Pin 1/8 x 3/4	31	999-416	Machine Bushing 1/2
12	273-208	Spacer	32	061-208	Blade Rod, Lower
13	193-217	Clutch Cable	33	982-181	Lock Washer 1/4 Split
14	253-213	Handle Brace	34	063-236	Pivot Screw 3/8 NC
15	901-210	HCS 5/16 NC x 1-1/2	35	061-209	Clutch Control
16	061-210	Blade Rod, Upper	36	062-205	Clutch Control Ass'y.
17	999-591	Coupling Nut 5/16 NC	37	982-224	Lock Washer 3/8 Split
18	970-224	Nut 3/8 NC Whizlock	38	960-224	Nut 3/8 NC Hex
19	901-227	HCS 3/8 NC x 3/4	39	964-200	Nut 5/16 NC Hex Lock
20	957-140	Tap Screw 8/32 x 3/8	40	980-200	Washer 5/16 Flat

TRANSMISSION ASSEMBLY PEERLESS 500 SERIES

DESCRIPTION
PART NO.
REF NO.

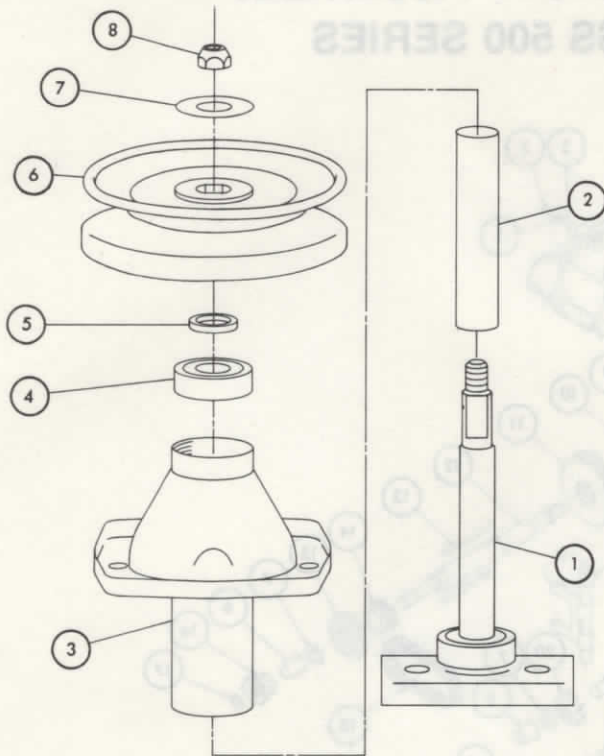
Shaft Assy
Sieve
Spindle Housing
Bearing
Spacer
Pulley
Washer
Nut 7/16-20 Lock



REF NO.	PEERLESS PART NO.	DESCRIPTION	REF NO.	PEERLESS PART NO.	DESCRIPTION
1	792079	Spring	17	792072	Retaining Ring
2	792078	Set Screw 3/8-16	18	786062	Roller Chain #41
3	792077	Steel Ball 5/16	19	770061	Case, Transmission
4	772070	Cover, Transmission	20	786061	Sprocket 10 Teeth
5	792073	Hex Head Screw 1/4-20	21	776134	Shaft, Counter
6	780105	Bushing, Flanged	22	784243	Rod & Fork Ass'y.
7	780072	Race, Thrust	23	778112	Gear, Spur 30 Teeth
8	778105	Gear, Spur 20 Teeth	24	778111	Gear, Spur 25 Teeth
9	778106	Gear, Spur 25 Teeth	25	778110	Gear, Spur 20 Teeth
10	778107	Gear, Spur 30 Teeth	26	778109	Gear, Bevel 42 Teeth With 15 Tooth Gear
11	778108	Gear, Spur 35 Teeth	27	788040	Retaining Ring
12	776133	Shaft, Output & Brake	28	778113	Bevel Pinion, Input
13	792071	Key	29	780106	Bearing, Needle
14	784216	Collar, Shift	30	776135	Shaft, Input
15	786060	Sprocket 14 Teeth	31	792035	Retaining Ring
16	786047	Sprocket 8 Teeth			

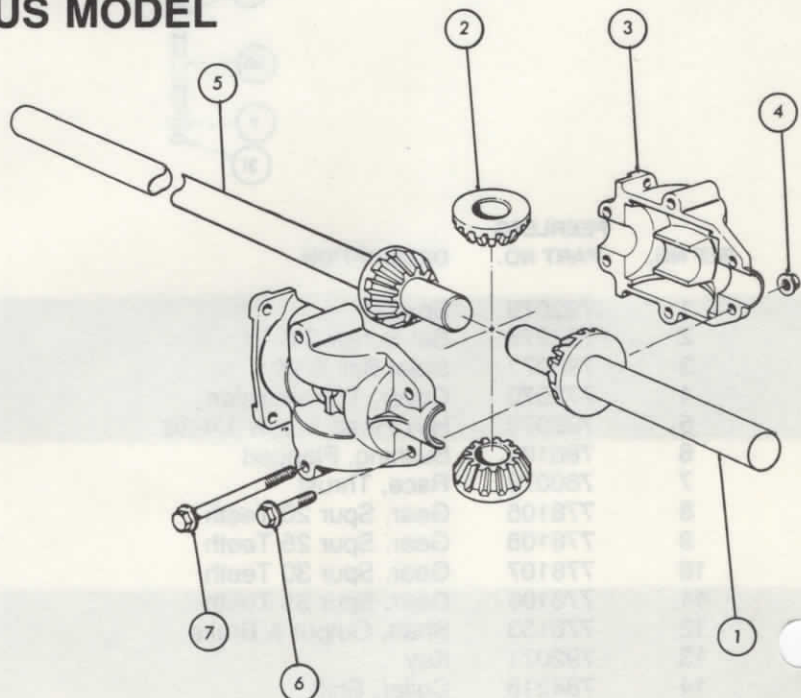
NOTE: The transmission used on this unit is warranted by the manufacturer. All parts and service must be obtained from the designated TECUMSEH/PEERLESS Service Center, which may be found in the yellow pages under "Engines."

BLADE SPINDLE ASSEMBLY



REF NO.	PART NO.	DESCRIPTION
1	313-206	Shaft Ass'y.
2	313-207	Sleeve
3	313-208	Spindle Housing
4	243-210	Bearing
5	313-209	Spacer
6	143-206	Pulley
7	999-576	Washer
8	999-577	Nut 7/16-20 Lock

DIFFERENTIAL ASSEMBLY INDUS MODEL



REF NO.	INDUS PART NO.	DESCRIPTION
1	NA	Axle Short Shaft
2	12798	Miter Gear
3	NA	Housing Half
4	12682	Locknut
5	NA	Axle Long Shaft
6	13204	Bolt, Short
7	12680	Bolt, Long

NA — No Longer Available, See Note

NOTE: The differential used on this unit is warranted by the manufacturer. Parts listed must be obtained direct from Indus Wheel Co., 1815 Madison Avenue, Indianapolis, Indiana 46206. If parts are not listed, complete unit modified by Sensation should be purchased from The Sensation Corp. P/N 043-209.

COMMERCIAL

SENSATION

POWER MOWER OWNER'S MANUAL

**MODELS: 24S5-4
24S5-5
24S5-6**



THE SENSATION CORPORATION • OMAHA, NEBRASKA 68110 USA

SAFETY



Caution Symbol

THE TRIANGULAR SYMBOL SHOWN ABOVE IS USED THROUGHOUT THIS BOOKLET TO CALL SPECIAL ATTENTION TO ITEMS AFFECTING THE OPERATOR'S PERSONAL SAFETY. THESE ITEMS SHOULD BE GIVEN CLOSE ATTENTION.

1. CAUTION: Before leaving the operator's position, shift transmission into Neutral, disengage attachment clutch, and shut off engine.
2. Keep all shields in place.
3. Wait for all movement to stop before servicing machine.
4. Keep people and pets a safe distance away from machine.
5. Know the controls and how to stop quickly — READ THE OWNER'S MANUAL.
6. Do not allow children to operate vehicle. Do not allow adults to operate it without proper instruction.
7. Do not carry passengers.
8. Clear work area of objects which might be picked up and thrown. The blade can throw objects with sufficient force to cause damage or injury.
9. Disengage all attachment clutches and shift into Neutral before attempting to start engine.
10. Stop engine before leaving operator position and before making any repairs or adjustments.
11. Take all possible precautions when leaving vehicle unattended, such as disengaging power take-off, shifting into Neutral, and stopping engine.
12. Do not stop or start suddenly when going uphill or downhill. Mow up and down the face of steep slopes, never across the face.
13. Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.
14. Stay alert for holes in terrain and other hidden hazards.
15. Handle gasoline with care — it is highly flammable.
 - A. Use approved gasoline container.
 - B. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors.
 - C. Wipe up any spilled gasoline thoroughly before starting the engine.
 - D. Open doors if engine is run in garage — exhaust fumes are dangerous. Do not run engine indoors.
16. Keep vehicle and attachments in good operating condition and keep safety devices in place.
17. Keep all nuts, bolts, and screws tight to be sure equipment is in safe working condition.
18. Never store equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark.
19. Allow engine to cool before storing in any enclosure.
20. To reduce fire hazard, keep engine free of grass, leaves, or excessive grease.
21. Vehicle and attachments should be stopped and inspected for damage after striking a foreign object, and the damage should be repaired before restarting and operating the equipment.
22. Do not change engine governor settings or overspeed engine.
23. When using mower:
 - A. Mow only in daylight or in good artificial light.
 - B. Never make a cutting-height adjustment while engine is running.
 - C. Shut engine off when unclogging chute.
 - D. Check blade-mounting bolts for proper tightness at frequent intervals.
 - E. The blade continues to rotate for a few seconds after the engine is shut off. Do not place any part of the body in the blade area until you are sure the blade has stopped.
 - F. Do not mow on wet grass.
24. Do not wear loose-fitting clothing that could get caught in moving parts.
25. Follow maintenance instructions as outlined in this manual.
26. DISCONNECT THE SPARK PLUG WIRE BEFORE MAKING ANY ADJUSTMENT OR REPAIR.

SET-UP INSTRUCTIONS

HANDLE ASSEMBLY

1. Position the handle onto the outside of the handle brackets making sure the six punched holes in the handle face upward. Secure using four hex cap screws 3/8 NC x 3/4 (insert from the outside) and flange lock nuts provided. Finger tighten only.
2. Attach the handle brace onto the top of the frame using hex cap screw 5/16 NC x 1-1/2, lock washer, and nut provided. Finger tighten only.
3. Attach the brace to the handle threaded stud. (Push the handle up slightly, if necessary). Secure using 5/16 NC nut and lock washer provided.
4. Tighten all nuts and bolts installed in steps 1, 2, and 3.

CONTROL PANEL ASSEMBLY

1. Remove the protective packing from the control panel. Place the panel on the handle aligning the six mounting holes. Secure using six 8/32 x 3/8 tapping screws provided. Do not overtighten.

BLADE CONTROL ROD ASSEMBLY

1. Place one 5/16 NC nut onto both control rods and screw them to the end of the threads.
2. Attach the control rod with a painted end to the pivot bracket by inserting the rod from the left side. Secure using flat washer and cotter key provided.
3. Place coupling nut onto the lower rod and screw it on approximately 1/2".
4. Place the upper control rod into the coupling nut and screw it in approximately 1/2".
5. Insert the upper rod into the blade control lever.
6. Try the blade control lever to test the tension being exerted. If the tension is too great, remove the upper control rod from the blade control lever and unscrew the coupler nut equally from both rods. If the tension is too little, reverse process.

7. Attach the upper control rod to the blade control lever using flat washer and cotter key provided.
8. Hold coupling nut with a wrench and tighten both 5/16 nuts against the coupling nut.

CLUTCH CONTROL ASSEMBLY

1. Place spring onto the end of the cable housing. Pull the cable with ball out from the spring as far as possible.
2. Hold the clutch control arm with your right hand. Slide the cable up into the slot in the clutch arm and pull back on the cable. The cable ball should be tight against the clutch arm.
3. Push the cable housing forward placing the spring against the clutch arm. Slide the threaded cable fitting up into the slot of mounting bracket with a nut on each side. The nut on the outside should be threaded all the way back to the end of the threads.
4. Tighten the inside nut securely against the bracket. Check to see if the cable and spring are in their proper position and not striking the transmission pulley.
5. Remove 1/4 nut from the opposite end and place the threaded fitting into clutch lever pivot bracket and secure with the 1/4 nut removed.
6. Adjust for proper belt tension and release (see Adjustment Section).

ENGINE

Follow engine manufacturer's instructions (refer to engine manual provided).

SHIFT LEVER ASSEMBLY

1. Remove the bolt, lock washer, and small washer from the shifting shaft on top of the transmission. Be sure to leave the large washer in place.
2. Place the shift lever onto the shaft with the point towards gear speed selection legend.
3. Re-assemble hardware as removed onto the shaft and tighten securely. **Do not** hammer on the shifting plate or shift lever. The bolt will pull it down in place.

CONTROLS

CONTROLS

The following section is intended to familiarize the operator with the location and function of controls before operating the mower. Check all controls for smooth, un-obstructed action before operating machine.

THROTTLE CONTROL

The throttle control lever controls the speed of the engine and, therefore, on self-propelled models the speed of the mower. Pushing the lever forward, away from the operator, increases engine speed. Pulling the lever back, toward the operator, decreases engine speed. **PULL THE THROTTLE LEVER FULL BACK, TOWARD THE OPERATOR TO STOP THE ENGINE.**

WHEEL DRIVE

The clutch lever mounted on the right hand upper handle, controls the forward motion of the mower. To engage the wheel drive mechanism, pull the clutch lever toward the upper handle. Release the clutch handle to its "neutral" position to stop the forward motion of the mower.

BLADE DRIVE

The blade lever mounted on the left hand upper handle controls the rotation of the cutting blade. To engage the

blade mechanism, pull the blade lever toward the upper handle until it self locks itself down. Push the blade lever forward to its neutral position to stop the rotation of the cutting blade.

SHIFT LEVER

Gear selection is made by moving the shift lever handle watching the indicator, and moving it to the desired gear. If the gear shift lever will not advance move the mower back and forth slightly. This causes the gear teeth to mesh properly.

Note: Two electrical interlock devices are provided; one to prevent the engine from starting while the transmission is in gear and one to prevent starting with cutting blade in cut position.



CAUTION: THE ELECTRICAL INTERLOCK SYSTEM IS PROVIDED SPECIFICALLY AS A SAFETY FEATURE AND CARE SHOULD BE TAKEN TO INSURE THAT BOTH SWITCHES FUNCTION PROPERLY AT ALL TIMES. INTERLOCK SYSTEM TEST PROCEDURES ARE CONTAINED IN THE MAINTENANCE SECTION OF THIS BOOKLET.

CUTTING HEIGHT ADJUSTMENT



CAUTION: STOP ENGINE BEFORE MAKING ANY WHEEL ADJUSTMENTS.

Your mower can cut grass at heights of 3", 2-1/2", 2", and 1-1/2". Height adjustment is made by adding or removing spacers from the front wheel spindles.

TO ADJUST

1. Remove the clinch pin, washer, and wheel assembly from the mower.

2. Remove or add spacers on the wheel spindle shaft according to the cutting height desired.
 - Zero spacers — 1-1/2" cut
 - One spacer — 2" cut
 - Two spacers — 2-1/2" cut
 - Three spacers — 3" cut
3. Reinstall the wheel assembly on the mower.
4. Place the remaining spacers (if any) back onto the wheel spindle shaft.
5. Secure with washer and clinch pin.

OPERATION



CAUTION: DO NOT OPERATE MOWER WITHOUT DRAG SHIELD ASSEMBLY IN PLACE AND SWINGING FREELY.

PRE-OPERATION CHECK AND SERVICE

Before each period of operation, visually check all nuts, bolts, fasteners, and tires for proper condition.

STARTING



CAUTION: LOCATE MACHINE ON A LEVEL SURFACE BEFORE STARTING TO PREVENT MACHINE FROM ROLLING.

1. Place blade control lever in "disengaged" position.
2. Place transmission lever in "neutral" position.
3. Move throttle control lever to choke position.
4. Pull recoil handle briskly until engine starts.
5. To stop engine, move throttle control lever to "Stop" position.

MOWING

Note: Mow with a sharp blade as a dull blade tends to tear, rather than cut, grass.

1. With the engine running, pull the blade control lever to the cut position.
2. Move the throttle control lever to a suitable running speed for mowing. Note: For best results, the mower should be operated with the engine at full or nearly full throttle.
3. Move shift lever handle, watch indicator and move to the desired gear.

Note: The ground speed is controllable by the transmission speed setting. This setting should be varied depending on the job being performed.



CAUTION: WHEN OPERATING MOWER ON BUMPY GROUND, GRADES, OR SLOPES, USE LOWER TRANSMISSION SETTING.

4. Pull clutch lever toward upper handle slowly. Release to stop drive mechanism.



CAUTION: MOWER MUST BE AT A FULL STOP BEFORE SHIFTING FROM A FORWARD SPEED TO REVERSE AND FROM REVERSE TO FORWARD! OTHERWISE, SEVERE DAMAGE TO TRANSMISSION MAY OCCUR.



CAUTION: WHEN CROSSING A GRAVEL DRIVEWAY, ROAD, OR SIDEWALK, DISENGAGE CUTTING BLADE SO LOOSE SAND AND ROCKS ARE NOT THROWN.

TRANSPORTING

1. When transporting mower from one area to another, shift to higher gear setting and reduce throttle speed.
2. Disengage cutting blade.

GEAR SELECTION RECOMMENDATION

- Reverse . . . For maneuvering machine only. **Not** to be used for mowing.
- 1st Gear . . . Primary mowing gear for tall weeds and grasses. Either walk behind or with riding sulky.
- 2nd Gear . . . Secondary mowing gear for normal grass heights. Primarily used with riding sulky.
- 3rd Gear . . . For transporting machine on level, clear terrain only at reduced throttle speed. Do not use for mowing.

ADJUSTMENTS

BLADE BELT TENSION

Tension is adjusted by adjusting the coupling nut connecting the upper and lower blade control rods.

1. Unscrew the 5/16 nuts away from the coupling nut.
2. Remove the upper control rod from the blade control lever.

3. Screw the coupling nut on (for increased tension) and off (for decreased tension) equally on each rod. Test.
4. Repeat step #3 until proper tension is achieved.
5. Re-assemble. Be sure the 5/16 nuts are locked against the coupling nut.

DRIVE BELT TENSION

Tension is adjusted by the position of the cable housing and adjusting the threaded fitting attached to the clutch lever pivot bracket.

1. Loosen the bottom 1/4 nut on the threaded fitting attached to the clutch lever pivot bracket.
2. Turn the top 1/4 nut in a clockwise manner to increase tension and counter clockwise to decrease tension.
3. Lock the bottom nut against pivot bracket. Test run. Repeat step #4 until proper clutching sequence is accomplished. Be sure to lock lower 1/4 nut against the pivot bracket.

DRIVE CHAIN TENSION

Chain tension is maintained by the fixed position of the differential.

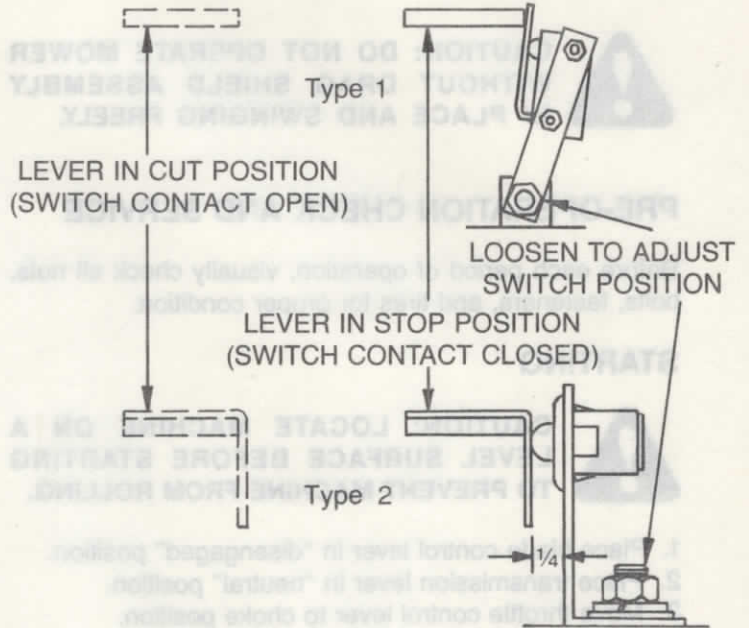
1. Remove the chain guard.
2. Loosen the axle hanger bearing mounting bolts.
3. Move the differential forward until chain is barely snug. You should be able to deflect the chain 1/2 when properly tensioned.
4. Securely tighten the axle hanger mounting bolts.

BLADE CUT/STOP LEVER

1. Loosen nut as shown.
2. With blade control lever in the disengaged position, pivot switch assembly against the idler arm until switch contact closes.
3. Hold switch assembly in the closed position and tighten nut.

Note: Do not adjust switch assembly with blade control lever in the cut position. Switch damage will result.

INTERLOCK, BLADE CUT/STOP LEVER



BLADE BRAKE BAND

Brake band will rub on the lower half of the blade spindle when the blade control lever is placed in the disengaged position.

Tension — The brake band is spring loaded when engaged, making it self-adjusting. Therefore, no adjustments are required.

Alignment — There is two-way lock nut installed on the pivot bracket located on the left side of the spindle pulley. This nut aligns the brake band to the pulley. The nut should be tightened down as far as possible and still allow the brake band to pivot freely.

Refer to maintenance section for interlock circuit information.

MAINTENANCE



CAUTION: DISCONNECT SPARK PLUG LEAD PRIOR TO PERFORMING ANY MAINTENANCE.

BLADE SPINDLE

The blade spindle is equipped with sealed precision ball bearings and requires no lubrication. The bearings are replaceable when in need of replacement.

DECK HOUSING

Area beneath deck housing should be clear of matter, grass, or other debris to prevent possible blade interference and to insure best cutting performance.

ENGINE

Follow engine manufacturers' recommendation (refer to engine manual provided).



CAUTION: REPLACE BLADE WHICH SHOWS ANY SIGN OF CRACKS OR CRYSTALLIZATION TO PREVENT ITS DISINTEGRATION AT HIGH ROTATING SPEEDS.

BLADE

The blade must be kept sharp and in balance to insure best cutting results and top engine performance. Use genuine "Sensation" replacement blades. Substitutes may endanger performance and personal safety.



CAUTION: USE A PAD OR WEAR A HEAVY GLOVE TO PROTECT YOUR HAND WHEN REMOVING OR INSTALLING BLADE.

BLADE REMOVAL/REPLACEMENT

Assemble blade in sequence as illustrated on parts diagram. Tighten blade bolt securely. Bolt should be torqued to 35 ft/LB's.

BLADE SHARPENING

It is recommended that the blade be taken to your Sensation dealer to insure proper sharpening and balancing.

AXLE HANGER BEARINGS

The rear wheel axle hanger bearing are sealed bearings which require no lubrication.

DRIVE CHAIN

Lubrication — Chain should be protected against abrasive and corrosive atmospheres. Periodically brush oil (SAE 10) onto the entire chain, the frequency being determined by the operating conditions.

CHAIN REPLACEMENT

1. Remove chain guard and loosen axle hanger bearing mounting bolts.
2. Locate master link and remove. Be careful not to bend keeper out of shape.
3. Install new chain making sure the keeper snaps tightly in place, seating itself in both pin grooves.
4. Adjust for proper tension (see adjustment section) and re-assemble chain guard.

FRONT WHEELS

1. Lubricate each wheel bearing (2 each wheel) periodically using a grease gun. Sensation markets a grease gun made special for this purpose.
2. Lubricate upper and lower wheel spindle bearing periodically using a light oil (SAE 10).

PIVOT POINTS

1. Lubricate transmission control and blade control pivot points using a light oil (SAE 10) periodically depending upon operating conditions.

DIFFERENTIAL

The differential is sealed at the factory and should not require adjustment or lubrication.

ELECTRICAL INTERLOCK TEST PROCEDURE



CAUTION: THE ELECTRICAL INTERLOCK SYSTEM IS PROVIDED SPECIFICALLY AS A SAFETY FEATURE AND CARE SHOULD BE TAKEN TO INSURE THAT BOTH SWITCHES FUNCTION PROPERLY AT ALL TIMES.



CAUTION: REMOVE SPARK PLUG LEAD BEFORE TESTING.

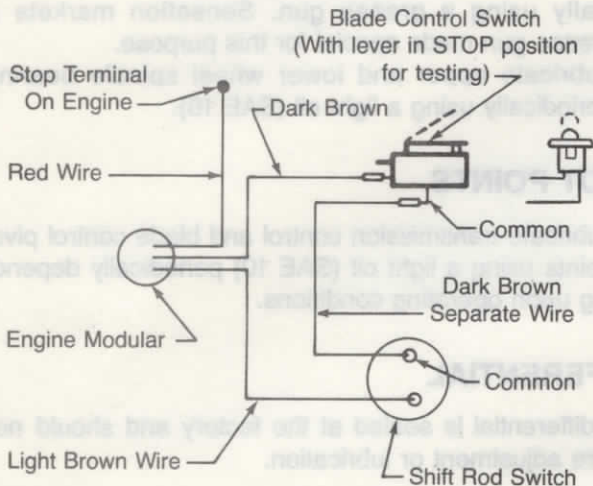
Note: This test requires a circuit testing device (continuity light or meter) generally available at electronic or automotive supply stores.

1. Remove belt guard from cutting deck to allow access to the blade control switch.
2. Place the transmission in neutral and remove the gear shift lever and transmission cover plate.
3. With the blade control lever in the disengaged position, verify that the blade control switch lever is in the position shown in the wiring diagram.

Note: If adjustment is required to obtain the proper switch lever position, refer to the adjustment section of this booklet.

4. Test each switch by placing the circuit tester leads onto the terminals that the wires connect to. The circuit testing device should indicate a complete circuit at this time. If it does not, switch is defective and should be replaced.

WIRING DIAGRAM, SWITCHES



BELT REPLACEMENT

Note: Due to the unique characteristics and functions of these belts, only genuine Sensation service parts should be used for replacement to insure proper belt operation.

BLADE DRIVE BELT

1. Place blade control lever in the disengaged position.
2. Insure that spark plug lead is removed before proceeding.
3. Remove belt guard from cutting deck and loosen mounting bolts on belt guides.
4. Remove and install new belt. Be sure belt is inside belt guides and that the mounting bolts have been secured.
5. Place blade control lever in the cut position. Visually check belts to see that they are not striking any of the belt guides. Adjust guides if necessary.
6. Re-assemble belt guard.

TRANSMISSION DRIVE BELT

1. Place blade control lever in the disengaged position.
2. Insure that the spark plug lead is removed before proceeding.
3. Remove belt guard and mounting bolts on engine pulley belt guides only.
4. Remove blade belt from engine pulley.
5. Remove clutch belt and install new one. Be sure belt is inside belt guides and that the clutch idler pulley is on the outside of the belt.
6. Place blade belt back onto engine pulley and tighten securely mounting bolts in the belt guide.
7. Place blade control lever in the cut position. Visually check belts to see that they are not striking any of the belt guides. Adjust guides if necessary.
8. Test clutch control to see if proper belt tension exists, if not refer to adjustment section.
9. Re-assemble belt guard.

BLADE BRAKE BAND

Brake band should be inspected for wear periodically depending on the operator usage of the blade clutch/brake mechanism. Replacement should be made before steel to steel contact is made.

To replace:

1. Remove belt guard and place blade control lever in disengaged position.
2. Unhook the spring hook from the engine base, releasing spring tension.
3. Remove the clevis pin and 2 way lock nut holding the brake band.
4. Install new brake band and re-assemble.

TRANSMISSION

The transmission is sealed at the factory and should not require adjustment and/or lubrication.

OPTIONAL EQUIPMENT

RIDING SULKY

Adds comfort plus to the performance. Means less down time due to personal fatigue as compared to conventional walk behind usage.

GREASE GUN KIT

Used for lubricating wheel bearings.

AUXILIARY GAS TANK KIT

Adds 3 quart capacity to your current engine gas tank — means less down time for refilling.

ONE-PIECE SENSATION SUIT

Bright, highway safety orange colored utility jumpsuit. Provides protection for personal clothing and gives a neat, snappy, professional teamwork look.

SKID BARS

Replaces the standard 6" front caster wheel assembly. Used in heavy weeded areas eliminating cut weed accumulation on front end of mower.

COMMERCIAL

SENSATION

POWER MOWER PARTS LIST

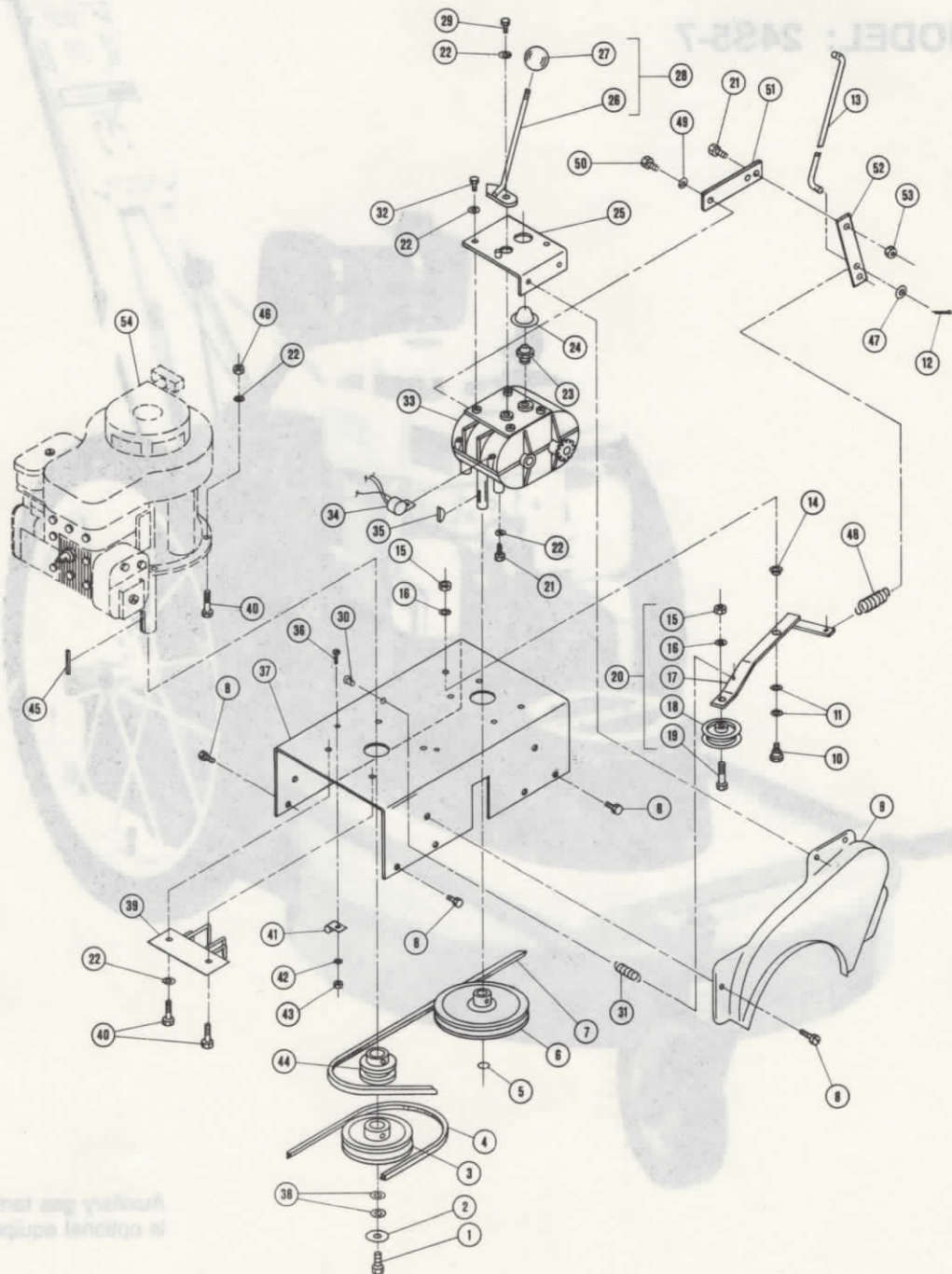
MODEL: 24S5-7



Auxiliary gas tank shown
is optional equipment

THE SENSATION CORPORATION • OMAHA, NEBRASKA 68110 USA

ENGINE BASE ASSEMBLY



Verify gas tank shown
if optional equipment

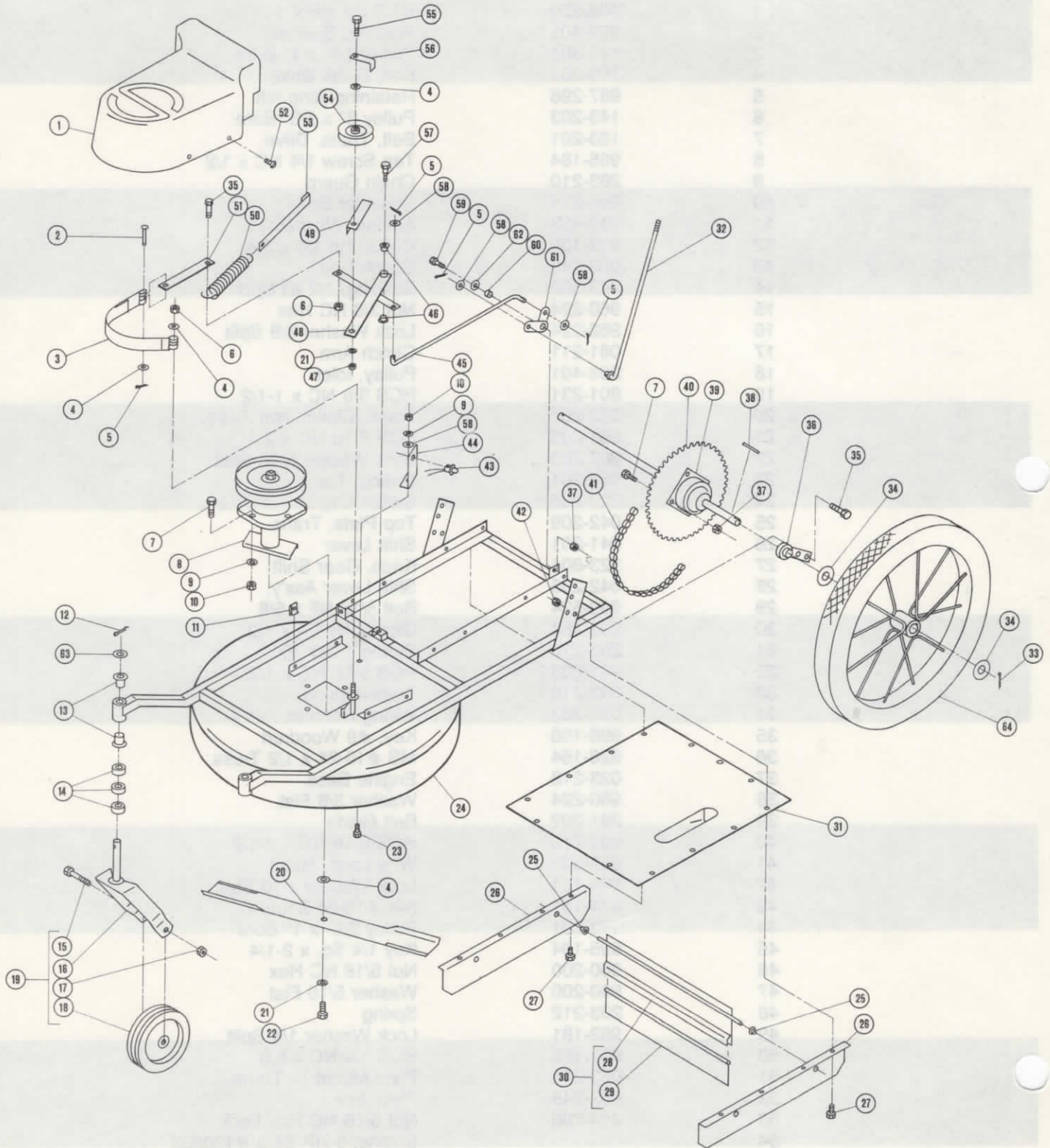
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ENGINE BASE PARTS LIST

REF NO.	PART NO.	DESCRIPTION
1	902-229	HCS 3/8 NF x 1
2	999-405	Washer, Special
3	143-305	Pulley 4.5" x 1" Bore
4	153-203	Belt, Blade Drive
5	987-296	Retaining Ring 5/8
6	143-203	Pulley 8" x 5/8" Bore
7	153-201	Belt, Trans. Drive
8	955-184	Tap Screw 1/4 NC x 1/2
9	283-210	Chain Guard
10	999-514	Shoulder Bolt
11	999-458	Acetate Washer
12	992-130	Cotter Pin 1/8 x 3/4
13	063-243	Clutch Rod
14	243-302	Bushing, 1/2 ID Split
15	960-224	Nut 3/8 NC Hex
16	982-224	Lock Washer 3/8 Split
17	061-211	Clutch Arm
18	293-401	Pulley, Idler
19	901-231	HCS 3/8 NC x 1-1/2
20	062-207	Trans. Clutch Arm Ass'y.
21	901-205	HCS 5/16 NC x 3/4
22	982-200	Lock Washer 5/16 Split
23	053-201	Switch, Trans.
24	323-205	Switch Cap
25	042-209	Top Plate, Trans.
26	041-201	Shift Lever
27	323-804	Knob, Gear Shift
28	042-205	Shift Lever Ass'y.
29	999-524	Bolt 5/16 NF x 5/8
30	993-184	Clevis Pin 1/4 x 1/2
31	203-210	Spring 1-3/8" Ext
32	901-203	HCS 5/16 NC x 1/2
33	043-210	Transmission
34	052-203	Wiring Harness Ass'y.
35	996-156	Key, #9 Woodruff
36	926-154	MS #10-24 x 1/2 Truss
37	023-218	Engine Base
38	980-224	Washer 3/8 Flat
39	281-202	Belt Guide
40	901-210	HCS 5/16 NC x 1-1/2
41	053-303	Wire Loop, Metal
42	984-151	Lock Washer #10 Star
43	974-151	Nut #10-24 Square
44	143-201	Pulley 2.5" x 1" Bore
45	995-194	Key 1/4 Sq. x 2-1/4
46	960-200	Nut 5/16 NC Hex
47	980-200	Washer 5/16 Flat
48	203-212	Spring
49	982-181	Lock Washer 1/4 Split
50	901-185	HCS 1/4 NC x 5/8
51	063-244	Pivot Mount — Trans.
52	063-245	Pivot Arm
53	964-200	Nut 5/16 NC Hex Lock
54		Engine, 5 HP B&S #130902

Note: The Engine used on this unit is warranted by the engine manufacturer and all parts and service must be obtained from the designated service center which may be found in the Yellow Pages under "Engines".

FRAME ASSEMBLY

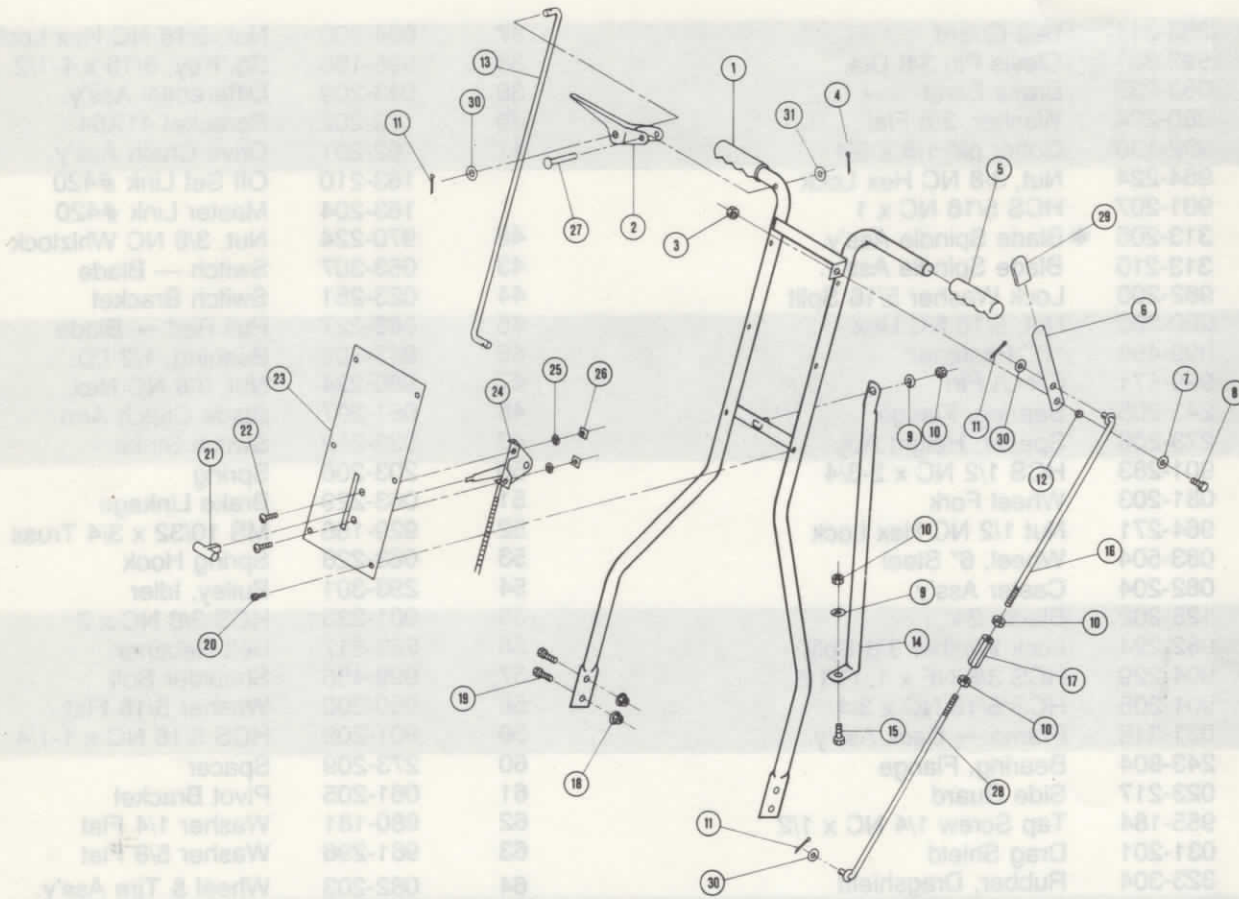


FRAME ASSEMBLY PARTS LIST

REF NO.	PART NO.	DESCRIPTION	REF NO.	PART NO.	DESCRIPTION
1	283-211	Belt Guard	37	964-200	Nut, 5/16 NC Hex Lock
2	993-301	Clevis Pin 3/8 Dia.	38	995-160	Sq. Key, 3/16 x 1-1/2
3	063-232	Brake Band	39	043-209	Differential Ass'y.
4	980-224	Washer, 3/8 Flat	40	173-202	Sprocket 41A54
5	992-130	Cotter pin 1/8 x 3/4	41	162-201	Drive Chain Ass'y.
6	964-224	Nut, 3/8 NC Hex Lock		163-210	Off Set Link #420
7	901-207	HCS 5/16 NC x 1		163-204	Master Link #420
8	313-205 *	Blade Spindle Ass'y.	42	970-224	Nut, 3/8 NC Whizlock
	313-210	Blade Spindle Ass'y.	43	053-307	Switch — Blade
9	982-200	Lock Washer 5/16 Split	44	023-251	Switch Bracket
10	960-200	Nut, 5/16 NC Hex	45	063-227	Pull Rod — Blade
11	999-496	"U" Fastener	46	243-302	Bushing, 1/2 I.D.
12	999-571	Clinch Pin	47	960-224	Nut, 3/8 NC Hex
13	243-205	Bearing, Flange	48	061-207	Blade Clutch Arm
14	273-206	Spacer, Height Adj.	49	023-252	Switch Strike
15	901-283	HCS 1/2 NC x 2-3/4	50	203-206	Spring
16	081-203	Wheel Fork	51	063-229	Brake Linkage
17	964-271	Nut 1/2 NC Hex Lock	52	929-156	MS 10/32 x 3/4 Truss
18	083-504	Wheel, 6" Steel	53	063-228	Spring Hook
19	082-204	Caster Ass'y.	54	293-301	Pulley, Idler
20	123-202	Blade, 24"	55	901-233	HCS 3/8 NC x 2
21	982-224	Lock Washer 3/8 Split	56	283-217	Belt Retainer
22	904-229	HCS 3/8 NF x 1, GR 5	57	999-456	Shoulder Bolt
23	901-205	HCS 5/16 NC x 3/4	58	980-200	Washer 5/16 Flat
24	021-218	Frame — Deck Ass'y.	59	901-209	HCS 5/16 NC x 1-1/4
25	243-804	Bearing, Flange	60	273-209	Spacer
26	023-217	Side Guard	61	061-205	Pivot Bracket
27	955-184	Tap Screw 1/4 NC x 1/2	62	980-181	Washer 1/4 Flat
28	031-201	Drag Shield	63	981-296	Washer 5/8 Flat
29	323-304	Rubber, Dragshield	64	082-203	Wheel & Tire Ass'y.
30	032-201	Drag Shield Assembly		083-209	Wheel Only
31	021-209	Shield, Bottom		263-202	Tube 20 x 2.125
32	061-208	Blade Rod, Lower		263-201	Tire 20 x 2.125
33	992-146	Cotter Pin 5/32 x 1-1/4		263-205	Rim Liner Strip
34	981-298	Washer, 3/4 SAE Flat		263-206	Valve Stem Cap
35	901-227	HCS 3/8 NC x 3/4			
36	243-203	Axle Hanger			

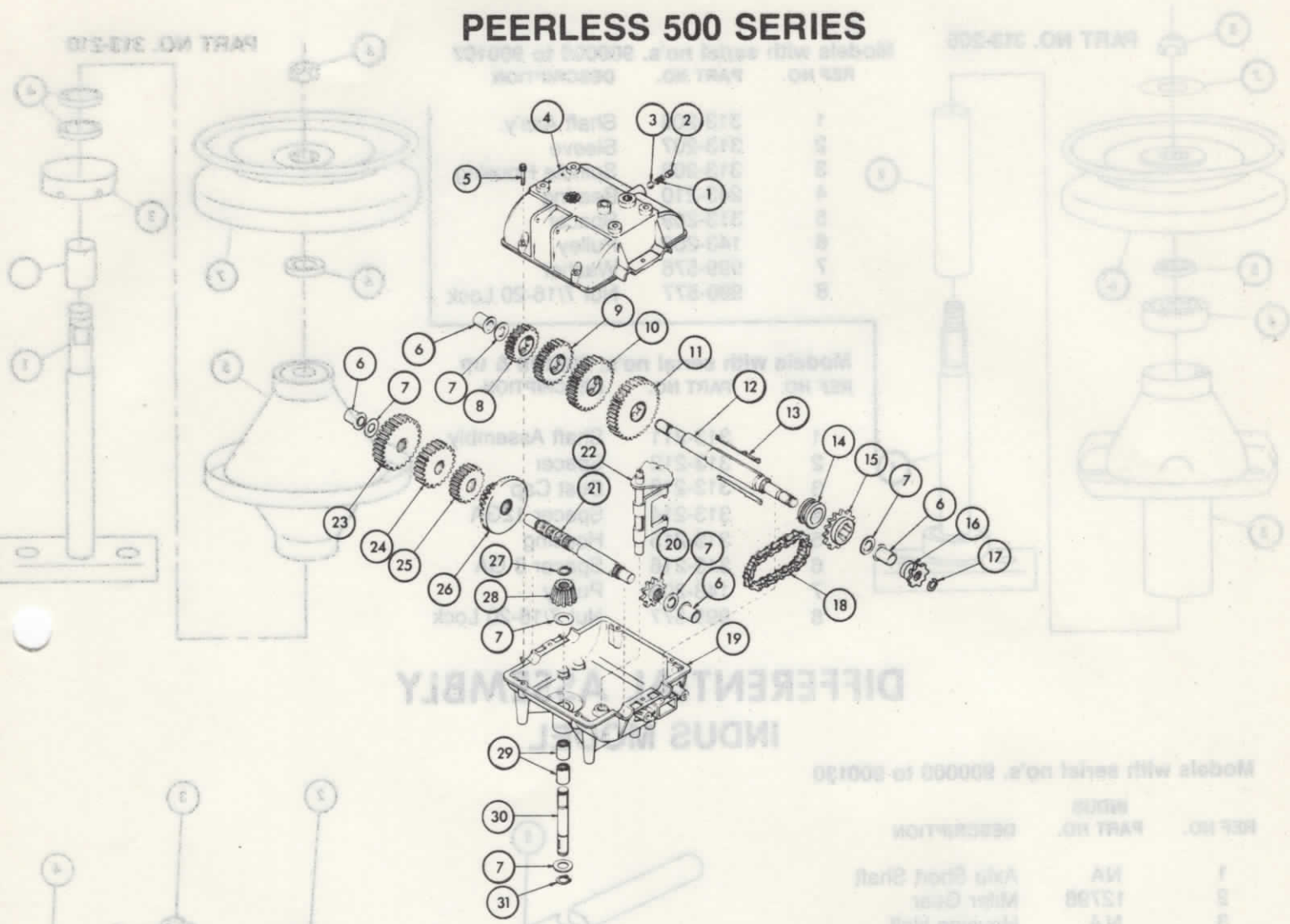
NOTE: * Blade Spindle P/N 313-205 no longer available. Replaced with P/N 313-210

HANDLE ASSEMBLY



REF NO.	PART NO.	DESCRIPTION	REF NO.	PART NO.	DESCRIPTION
1	252-210	Handle W/Grips	16	061-210	Blade Rod, Upper
2	062-301	Clutch Lever W/Grip	17	999-591	Coupling Nut 5/16 NC
3	964-200	Nut 5/16 NC Lock	18	970-224	Nut 3/8 NC Whizlock
4	992-116	Cotter pin 3/32 x 1/2	19	901-227	HCS 3/8 NC x 3/4
5	323-317	Handle Grips	20	957-140	Tap Screw 8/32 x 3/8
6	062-204	Blade Control W/Grip	21	323-306	Knob, Throttle
7	980-181	Washer 1/4 Flat	22	926-154	MS 10/24 x 1/2
8	901-205	HCS 5/16 NC x 3/4	23	193-218	Control Panel
9	982-200	Lock Washer 5/16	24	193-210	Throttle Control
10	960-200	Nut 5/16 NC Hex	25	984-151	Lock Washer #10 Star
11	992-130	Cotter 1/8 x 3/4	26	974-151	Nut 10/24 Square
12	273-208	Spacer	27	993-311	Clevis Pin 3/16 x 1-3/4
13	063-243	Clutch Rod	28	061-208	Blade Rod, Lower
14	253-213	Handle Brace	29	323-316	Grip — Flat
15	901-211	HCS 5/16 NC x 1-3/4	30	980-200	Washer 5/16 Flat
			31	980-151	Washer 3/16 Flat

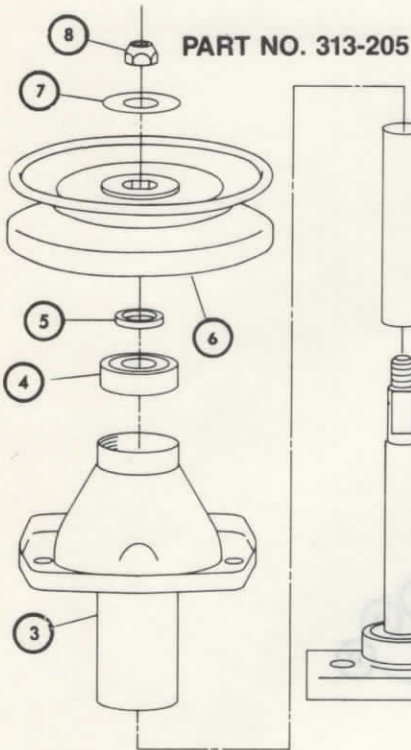
TRANSMISSION ASSEMBLY PEERLESS 500 SERIES



REF NO.	PEERLESS PART NO.	DESCRIPTION	REF NO.	PEERLESS PART NO.	DESCRIPTION
1	792079	Spring	17	792072	Retaining Ring
2	792078	Set Screw 3/8-16	18	786062	Roller Chain #41
3	792077	Steel Ball 5/16	19	770061	Case, Transmission
4	772070	Cover, Transmission	20	786061	Sprocket 10 Teeth
5	792073	Hex Head Screw 1/4-20	21	776134	Shaft, Counter
6	780105	Bushing, Flanged	22	784243	Rod & Fork Ass'y.
7	780072	Race, Thrust	23	778112	Gear, Spur 30 Teeth
8	778105	Gear, Spur 20 Teeth	24	778111	Gear, Spur 25 Teeth
9	778106	Gear, Spur 25 Teeth	25	778110	Gear, Spur 20 Teeth
10	778107	Gear, Spur 30 Teeth	26	778109	Gear, Bevel 42 Teeth
11	778108	Gear, Spur 35 Teeth			With 15 Tooth Gear
12	776133	Shaft, Output & Brake	27	788040	Retaining Ring
13	792071	Key	28	778113	Bevel Pinion, Input
14	784216	Collar, Shift	29	780106	Bearing, Needle
15	786060	Sprocket 14 Teeth	30	776135	Shaft, Input
16	786047	Sprocket 8 Teeth	31	792035	Retaining Ring

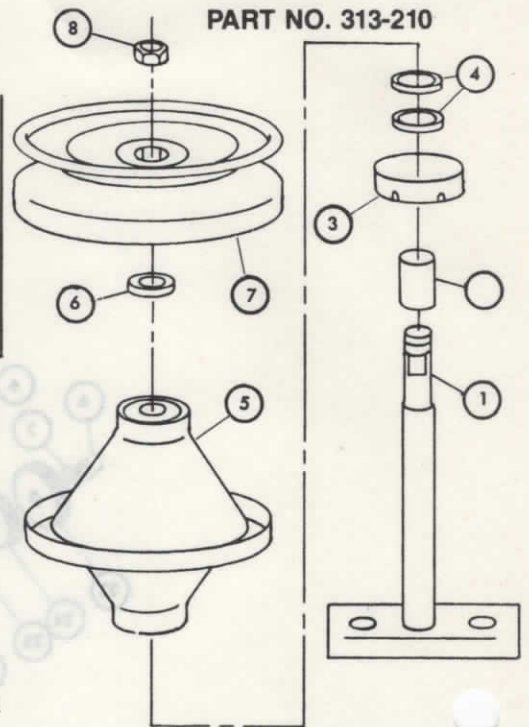
NOTE: The transmission used on this unit is warranted by the manufacturer. All parts and service must be obtained from the designated TECUMSEH/PEERLESS Service Center, which may be found in the yellow pages under "Engines."

BLADE SPINDLE ASSEMBLY



Models with serial no's. 900000 to 900107

REF NO.	PART NO.	DESCRIPTION
1	313-206	Shaft Ass'y.
2	313-207	Sleeve
3	313-208	Spindle Housing
4	243-210	Bearing
5	313-209	Spacer
6	143-206	Pulley
7	999-576	Washer
8	999-577	Nut 7/16-20 Lock



Models with serial no's. 900108 & up

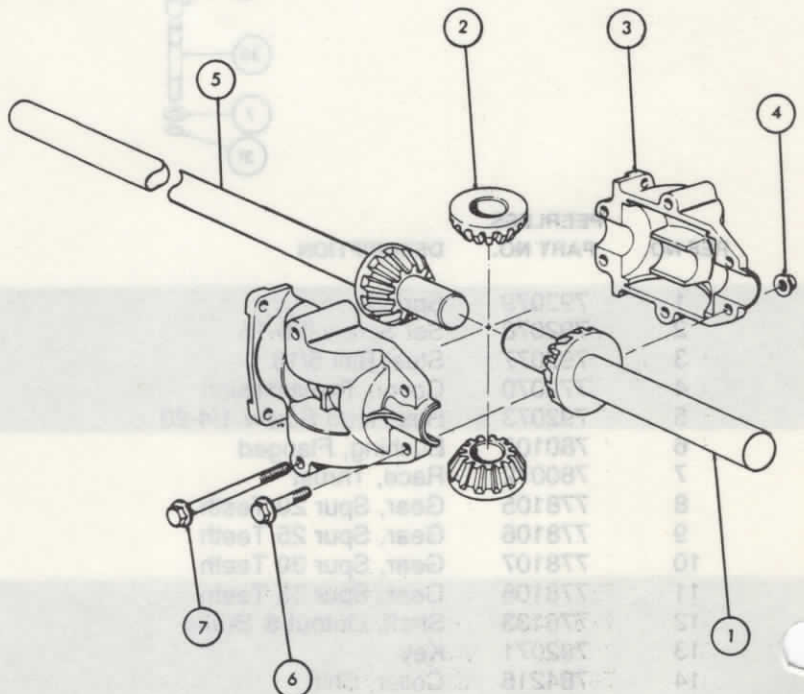
REF NO.	PART NO.	DESCRIPTION
1	313-211	Shaft Assembly
2	313-212	Spacer
3	313-213	Dust Cap
4	313-214	Spacer 12GA
5	313-215	Housing
6	313-216	Spacer 8 GA
7	143-206	Pulley
8	999-577	Nut 7/16-20 Lock

DIFFERENTIAL ASSEMBLY INDUS MODEL

Models with serial no's. 900000 to 900130

REF NO.	INDUS PART NO.	DESCRIPTION
1	NA	Axle Short Shaft
2	12798	Miter Gear
3	NA	Housing Half
4	12682	Locknut
5	NA	Axle Long Shaft
6	13204	Bolt, Short
7	12680	Bolt, Long

NA — No Longer Available, See Note



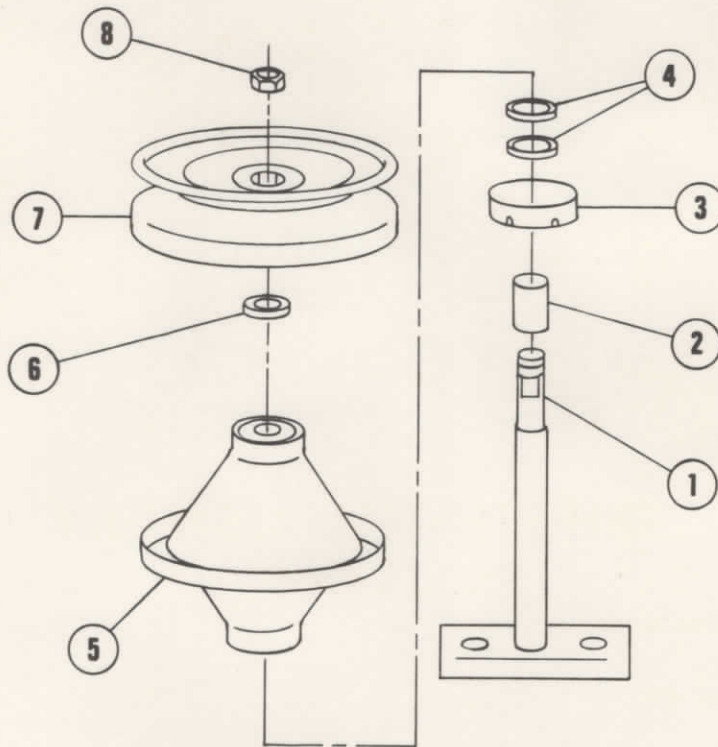
Models with serial no's. 900131 & up

REF NO.	INDUS PART NO.	DESCRIPTION
1	B14729	Axle, Short Shaft
2	12798	Miter Gear
3	C14688	Housing Half
4	12682	Locknut
5	B14730	Axle, Long Shaft
6	13204	Bolt, Short
7	12680	Bolt, Long

NOTE: The differential used on this unit is warranted by the manufacturer. Parts listed must be obtained direct from Indus Wheel Co., 1815 Madison Avenue, Indianapolis, Indiana 46206. If parts are not listed, complete unit modified by Sensation should be purchased from

8 The Sensation Corp. P/N 043-209.

NOTICE: Models 24S5-7 and 14W5-2 are equipped with a different blade spindle than that listed in the parts list. The blade spindle P/N 313-205 has been replaced by blade spindle P/N 313-210, illustrated below.



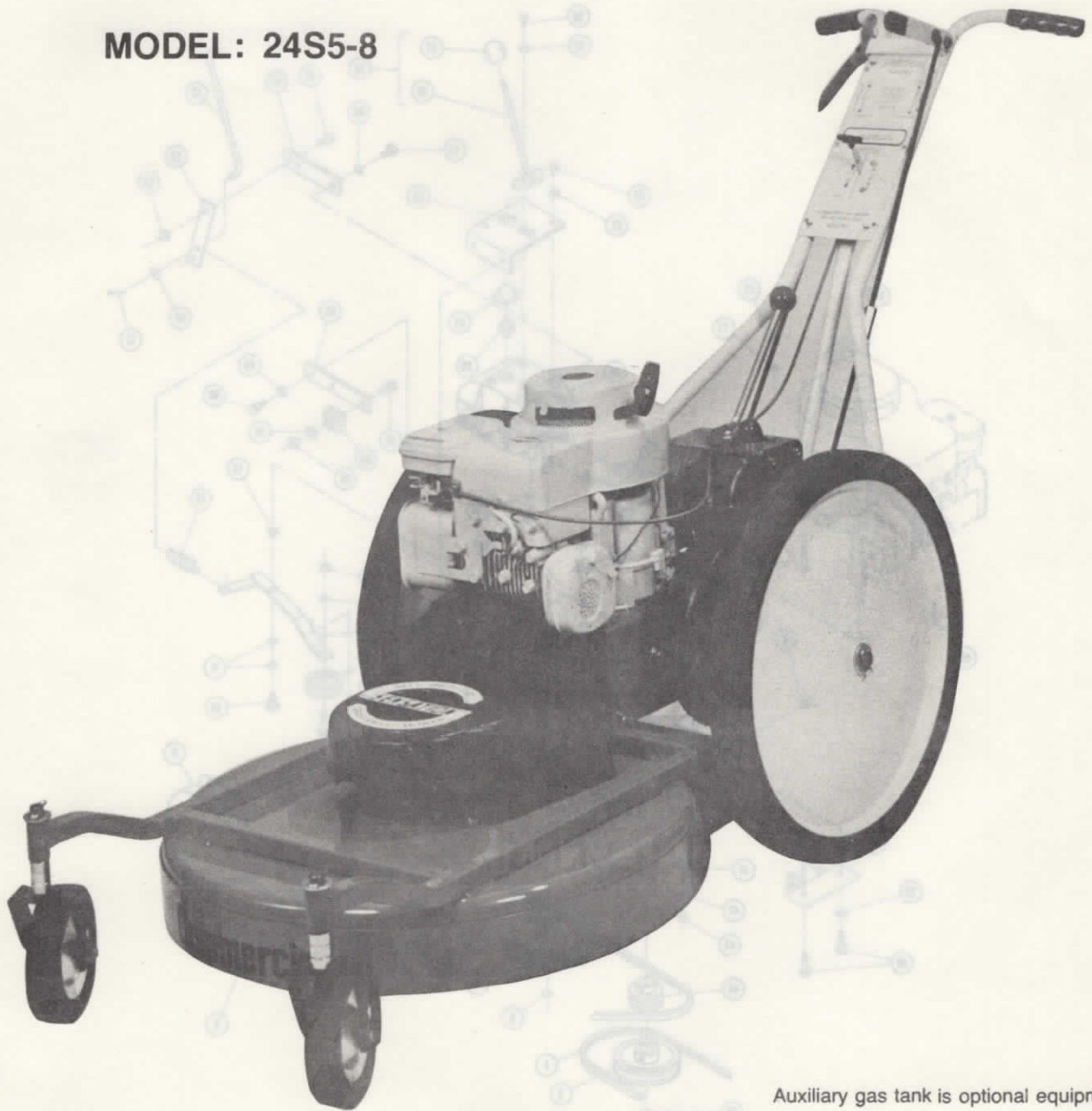
Item No.	Part No.	Description
1	313-211	Shaft Assembly
2	313-212	Spacer
3	313-213	Dust Cap
4	313-214	Spacer 12GA
5	313-215	Housing W/Bearings
6	313-216	Spacer 8 GA
7	143-206	Pulley
8	999-577	Nut 7/16-20 Lock

COMMERCIAL

SENSATION ENGINE

POWER MOWER PARTS LIST

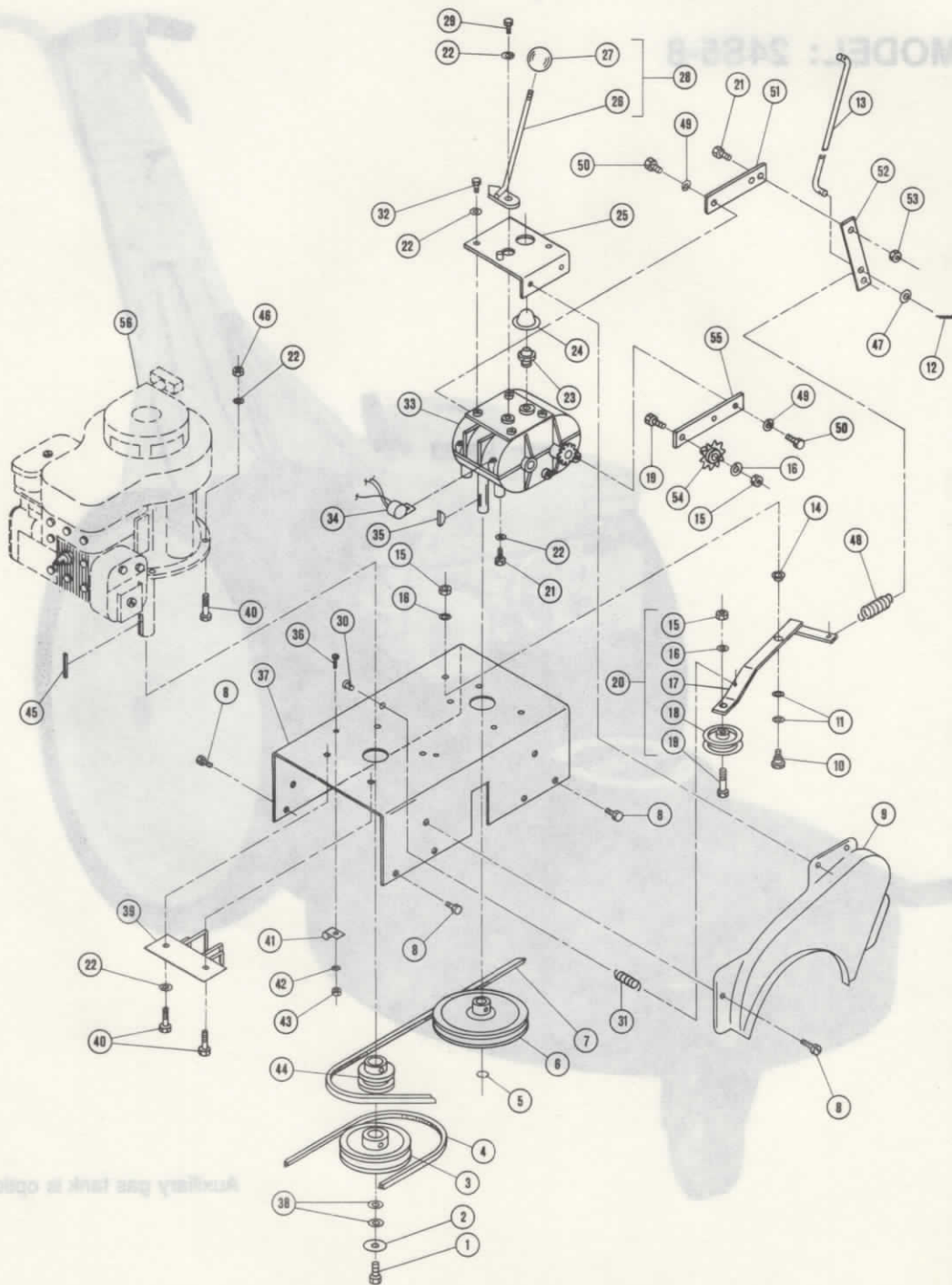
MODEL: 24S5-8



Auxiliary gas tank is optional equipment

THE SENSATION CORPORATION • OMAHA, NEBRASKA 68110 USA

ENGINE BASE ASSEMBLY



Auxiliary gas tank is optional equipment

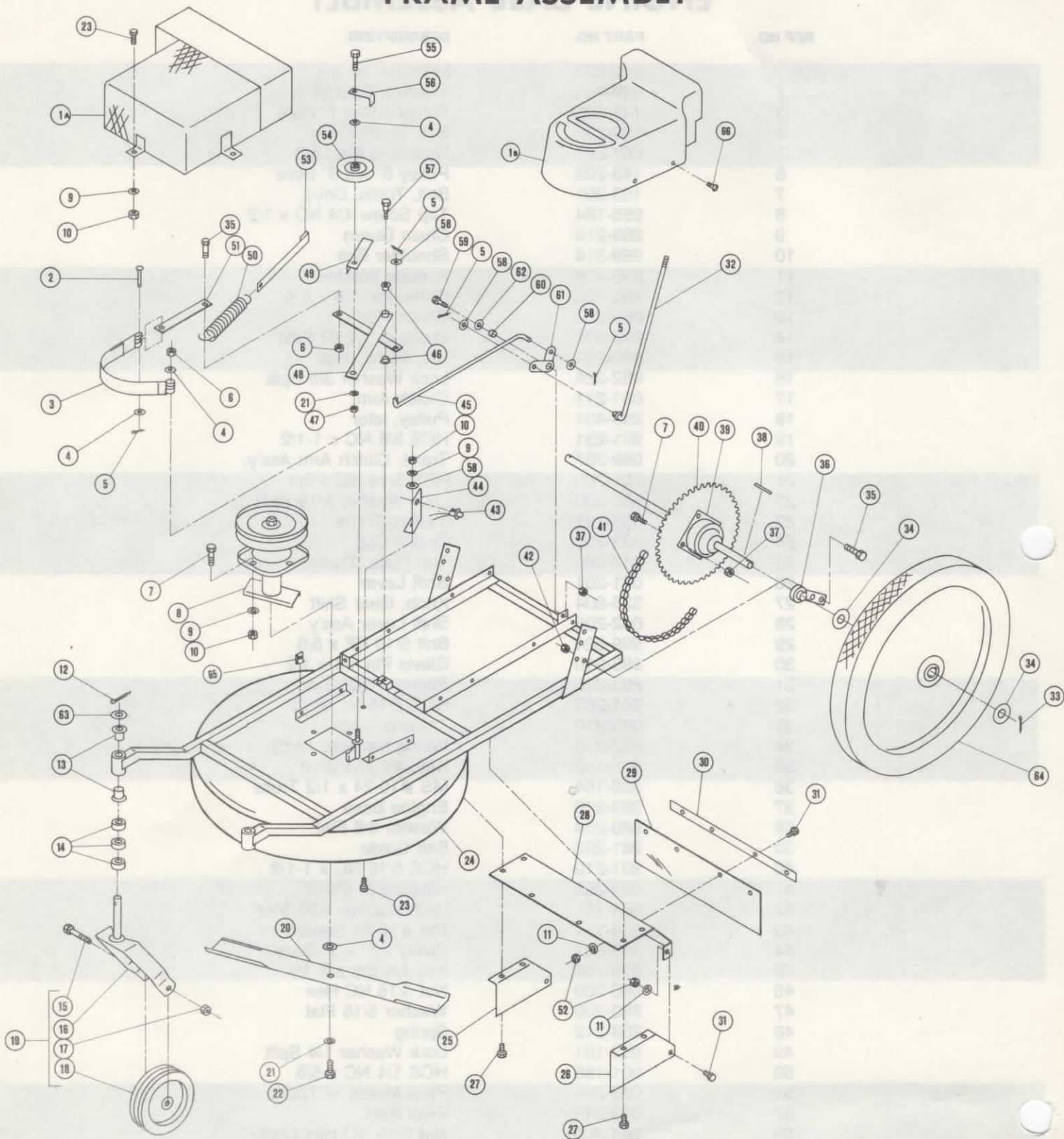


ENGINE BASE ASSEMBLY

REF NO.	PART NO.	DESCRIPTION
1	902-229	HCS 3/8 NF x 1
2	999-405	Washer, Special
3	143-305	Pulley 4.5" x 1" Bore
4	153-203	Belt, Blade Drive
5	987-296	Retaining Ring 5/8
6	143-203	Pulley 8" x 5/8" Bore
7	153-201	Belt, Trans. Drive
8	955-184	Tap Screw 1/4 NC x 1/2
9	283-210	Chain Guard
10	999-514	Shoulder Bolt
11	999-458	Acetate Washer
12	992-130	Cotter Pin 1/8 x 3/4
13	063-243	Clutch Rod
14	243-302	Bushing, 1/2 ID Split
15	960-224	Nut 3/8 NC Hex
16	982-224	Lock Washer 3/8 Split
17	061-211	Clutch Arm
18	293-401	Pulley, Idler
19	901-231	HCS 3/8 NC x 1-1/2
20	062-207	Trans. Clutch Arm Ass'y.
21	901-205	HCS 5/16 NC x 3/4
22	982-200	Lock Washer 5/16 Split
23	053-201	Switch, Trans.
24	323-205	Switch Cap
25	042-209	Top Plate, Trans.
26	041-201	Shift Lever
27	323-804	Knob, Gear Shift
28	042-205	Shift Lever Ass'y.
29	999-524	Bolt 5/16 NF x 5/8
30	993-310	Clevis Pin 1/4 x 1/2
31	203-210	Spring 1-3/8" Ext
32	901-203	HCS 5/16 NC x 1/2
33	043-210	Transmission
34	052-203	Wiring Harness Ass'y.
35	996-156	Key, #9 Woodruff
36	926-154	MS #10-24 x 1/2 Truss
37	023-218	Engine Base
38	980-224	Washer 3/8 Flat
39	281-202	Belt Guide
40	901-210	HCS 5/16 NC x 1-1/2
41	053-303	Wire Loop, Metal
42	984-151	Lock Washer #10 Star
43	974-151	Nut #10-24 Square
44	143-201	Pulley 2.5" x 1" Bore
45	995-194	Key 1/4 Sq. x 2-1/4
46	960-200	Nut 5/16 NC Hex
47	980-200	Washer 5/16 Flat
48	203-212	Spring
49	982-181	Lock Washer 1/4 Split
50	901-185	HCS 1/4 NC x 5/8
51	063-244	Pivot Mount — Trans.
52	063-245	Pivot Arm
53	964-200	Nut 5/16 NC Hex Lock
54	293-207	Sprocket, Idler 10 T
55	293-208	Bracket Chain Idler
56		Engine, 5 HP B&S #130902

Note: The Engine used on this unit is warranted by the engine manufacturer and all parts and service must be obtained from the designated service center which may be found in the Yellow Pages under "Engines".

FRAME ASSEMBLY



NOTE: The bicycle shown on this page is a trademark of the manufacturer and the name and model may be different from the actual product. Always use the correct parts and specifications for your bicycle.



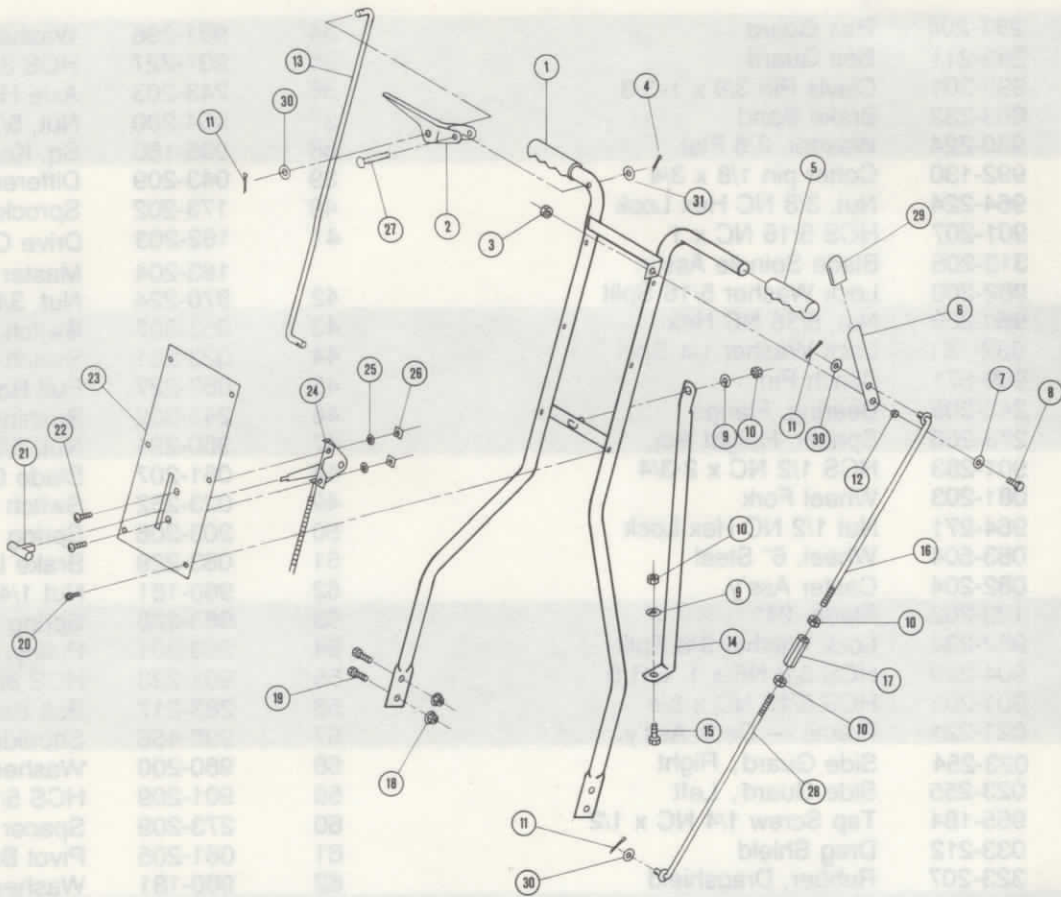
FRAME ASSEMBLY PARTS LIST

REF NO.	PART NO.	DESCRIPTION	REF NO.	PART NO.	DESCRIPTION
1A	281-206	Belt Guard	34	981-298	Washer, 3/4 SAE Flat
1B	283-211	Belt Guard	35	901-227	HCS 3/8 NC x 3/4
2	993-301	Clevis Pin 3/8 x 1-3/8	36	243-203	Axle Hanger
3	063-232	Brake Band	37	964-200	Nut, 5/16 NC Hex Lock
4	980-224	Washer, 3/8 Flat	38	995-160	Sq. Key, 3/16 x 1-1/2
5	992-130	Cotter pin 1/8 x 3/4	39	043-209	Differential Ass'y.
6	964-224	Nut, 3/8 NC Hex Lock	40	173-202	Sprocket 41A54
7	901-207	HCS 5/16 NC x 1	41	162-203	Drive Chain Ass'y.
* 8	313-205	Blade Spindle Ass'y.		163-204	Master Link #420
9	982-200	Lock Washer 5/16 Split	42	970-224	Nut, 3/8 NC Whizlock
10	960-200	Nut, 5/16 NC Hex	43	053-307	Switch — Blade
11	982-181	Lock Washer 1/4 Split	44	023-251	Switch Bracket
12	999-571	Clinch Pin	45	063-227	Pull Rod — Blade
13	243-205	Bearing, Flange	46	243-302	Bushing, 1/2 I.D.
14	273-206	Spacer, Height Adj.	47	960-224	Nut, 3/8 NC Hex
15	901-283	HCS 1/2 NC x 2-3/4	48	061-207	Blade Clutch Arm
16	081-203	Wheel Fork	49	023-252	Switch Strike
17	964-271	Nut 1/2 NC Hex Lock	50	203-206	Spring
18	083-504	Wheel, 6" Steel	51	063-229	Brake Linkage
19	082-204	Caster Ass'y.	52	960-181	Nut 1/4 NC Hex
20	123-202	Blade, 24"	53	063-228	Spring Hook
21	982-224	Lock Washer 3/8 Split	54	293-301	Pulley, Idler
22	904-229	HCS 3/8 NF x 1, GR 5	55	901-233	HCS 3/8 NC x 2
23	901-205	HCS 5/16 NC x 3/4	56	283-217	Belt Retainer
24	021-221	Frame — Deck Ass'y.	57	999-456	Shoulder Bolt
25	023-254	Side Guard, Right	58	980-200	Washer 5/16 Flat
26	023-255	Side Guard, Left	59	901-209	HCS 5/16 NC x 1-1/4
27	955-184	Tap Screw 1/4 NC x 1/2	60	273-209	Spacer
28	033-212	Drag Shield	61	061-205	Pivot Bracket
29	323-207	Rubber, Dragshield	62	980-181	Washer 1/4 Flat
30	033-211	Clamping Strip	63	981-296	Washer 5/8 Flat
31	901-185	HCS 1/4 NC x 5/8	64	083-220	Wheel & Tire Ass'y.
32	061-208	Blade Rod, Lower	65	999-496	"U" Fastener
33	992-146	Cotter Pin 5/32 x 1-1/4	66	929-156	MS 10/32 x 3/4 Truss

DESCRIPTION	PART NO.	REF NO.	DESCRIPTION	PART NO.	REF NO.
Washer 3/8 Flat	980-224	4	Washer 3/8 Flat	980-224	4
Washer 5/16 Flat	980-200	9	Washer 5/16 Flat	980-200	9
Washer 1/4 Flat	980-181	7	Washer 1/4 Flat	980-181	7
Washer 5/8 Flat	981-296	63	Washer 5/8 Flat	981-296	63
Washer 3/4 SAE Flat	981-298	34	Washer 3/4 SAE Flat	981-298	34
Washer 5/16 Flat	980-200	9	Washer 5/16 Flat	980-200	9
Washer 1/4 Flat	980-181	7	Washer 1/4 Flat	980-181	7
Washer 5/8 Flat	981-296	63	Washer 5/8 Flat	981-296	63
Washer 3/4 SAE Flat	981-298	34	Washer 3/4 SAE Flat	981-298	34
Washer 5/16 Flat	980-200	9	Washer 5/16 Flat	980-200	9
Washer 1/4 Flat	980-181	7	Washer 1/4 Flat	980-181	7
Washer 5/8 Flat	981-296	63	Washer 5/8 Flat	981-296	63
Washer 3/4 SAE Flat	981-298	34	Washer 3/4 SAE Flat	981-298	34

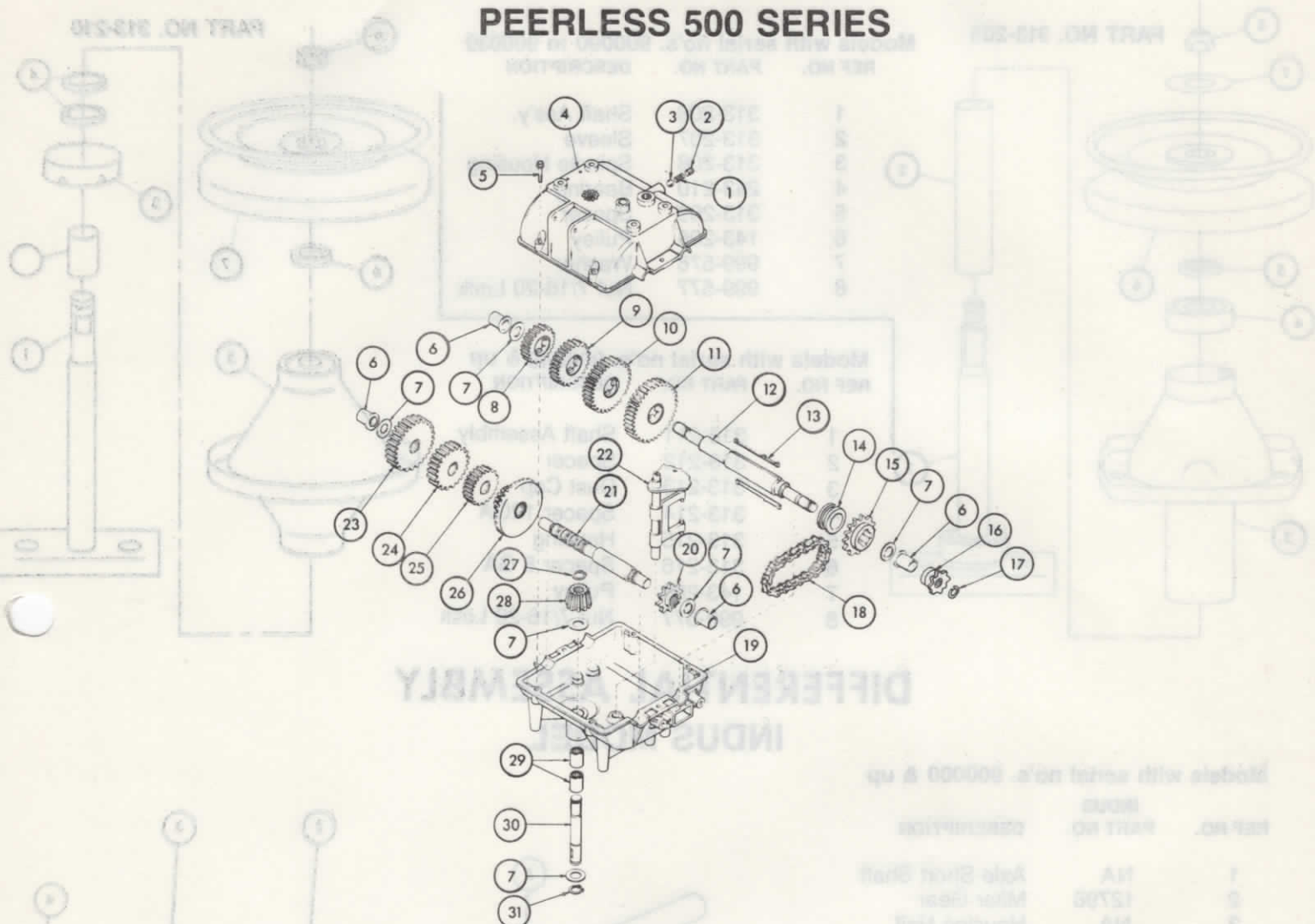
NOTE: Blade Spindle P/N 313-205 no longer available. Replaced with P/N 313-210.

HANDLE ASSEMBLY



REF NO.	PART NO.	DESCRIPTION	REF NO.	PART NO.	DESCRIPTION
1	252-210	Handle W/Grips	16	061-210	Blade Rod, Upper
2	062-301	Clutch Lever W/Grip	17	999-591	Coupling Nut 5/16 NC
3	964-200	Nut 5/16 NC Lock	18	970-224	Nut 3/8 NC Whizlock
4	992-116	Cotter Pin 3/32 x 1/2	19	901-227	HCS 3/8 NC x 3/4
5	323-317	Handle Grips	20	957-140	Tap Screw 8/32 x 3/8
6	062-204	Blade Control W/Grip	21	323-306	Knob, Throttle
7	980-181	Washer 1/4 Flat	22	926-154	MS 10/24 x 1/2
8	901-205	HCS 5/16 NC x 3/4	23	193-218	Control Panel
9	982-200	Lock Washer 5/16	24	193-210	Throttle Control
10	960-200	Nut 5/16 NC Hex	25	984-151	Lock Washer #10 Star
11	992-130	Cotter 1/8 x 3/4	26	974-151	Nut 10/24 Square
12	273-208	Spacer	27	993-311	Clevis Pin 3/16 x 1-3/4
13	063-243	Clutch Rod	28	061-208	Blade Rod, Lower
14	253-213	Handle Brace	29	323-316	Grip — Flat
15	901-211	HCS 5/16 NC x 1-3/4	30	980-200	Washer 5/16 Flat
			31	980-151	Washer 3/16 Flat

TRANSMISSION ASSEMBLY PEERLESS 500 SERIES

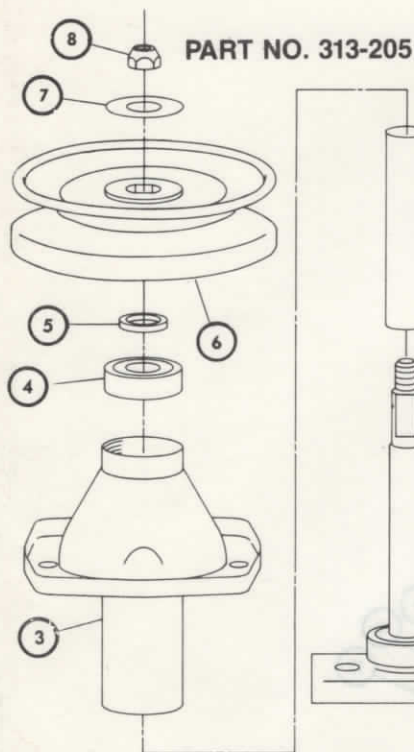


REF NO.	PEERLESS PART NO.	DESCRIPTION
1	792079	Spring
2	792078	Set Screw 3/8-16
3	792077	Steel Ball 5/16
4	772070	Cover, Transmission
5	792073	Hex Head Screw 1/4-20
6	780105	Bushing, Flanged
7	780072	Race, Thrust
8	778105	Gear, Spur 20 Teeth
9	778106	Gear, Spur 25 Teeth
10	778107	Gear, Spur 30 Teeth
11	778108	Gear, Spur 35 Teeth
12	776133	Shaft, Output & Brake
13	792071	Key
14	784216	Collar, Shift
15	786060	Sprocket 14 Teeth
16	786047	Sprocket 8 Teeth

REF NO.	PEERLESS PART NO.	DESCRIPTION
17	792072	Retaining Ring
18	786062	Roller Chain #41
19	770061	Case, Transmission
20	786061	Sprocket 10 Teeth
21	776134	Shaft, Counter
22	784243	Rod & Fork Ass'y.
23	778112	Gear, Spur 30 Teeth
24	778111	Gear, Spur 25 Teeth
25	778110	Gear, Spur 20 Teeth
26	778109	Gear, Bevel 42 Teeth With 15 Tooth Gear
27	788040	Retaining Ring
28	778113	Bevel Pinion, Input
29	780106	Bearing, Needle
30	776135	Shaft, Input
31	792035	Retaining Ring

NOTE: The transmission used on this unit is warranted by the manufacturer. All parts and service must be obtained from the designated TECUMSEH/PEERLESS Service Center, which may be found in the yellow pages under "Engines."

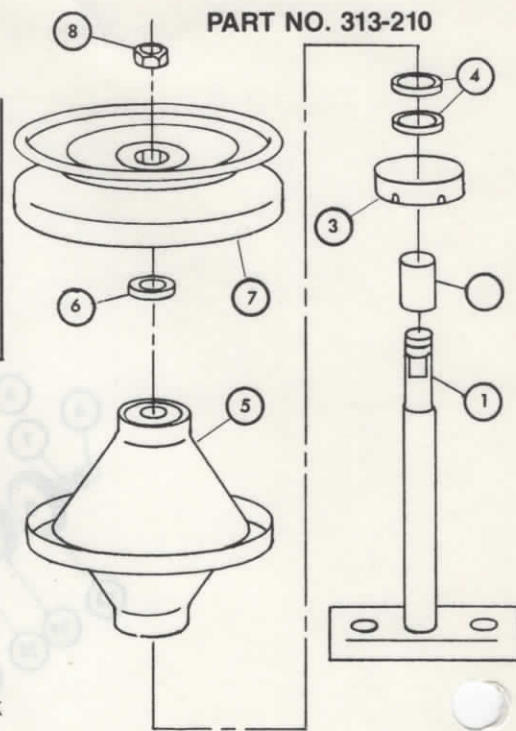
BLADE SPINDLE ASSEMBLY



PART NO. 313-205

Models with serial no's. 900000 to 900039

REF NO.	PART NO.	DESCRIPTION
1	313-206	Shaft Ass'y.
2	313-207	Sleeve
3	313-208	Spindle Housing
4	243-210	Bearing
5	313-209	Spacer
6	143-206	Pulley
7	999-576	Washer
8	999-577	Nut 7/16-20 Lock



PART NO. 313-210

Models with serial no's. 900040 & up

REF NO.	PART NO.	DESCRIPTION
1	313-211	Shaft Assembly
2	313-212	Spacer
3	313-213	Dust Cap
4	313-214	Spacer 12GA
5	313-215	Housing
6	313-216	Spacer 8 GA
7	143-206	Pulley
8	999-577	Nut 7/16-20 Lock

DIFFERENTIAL ASSEMBLY INDUS MODEL

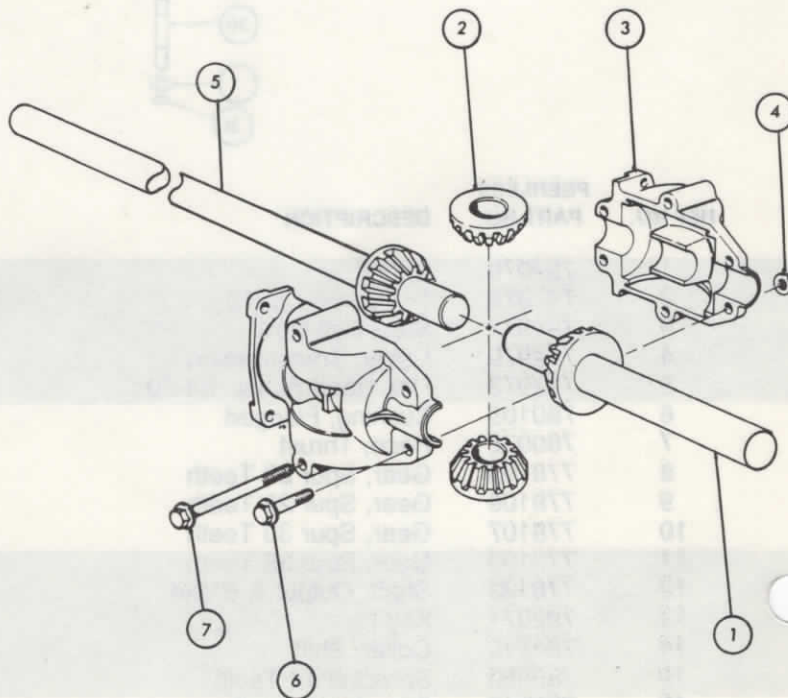
Models with serial no's. 900000 & up

REF NO.	INDUS PART NO.	DESCRIPTION
1	NA	Axle Short Shaft
2	12798	Miter Gear
3	NA	Housing Half
4	12682	Locknut
5	NA	Axle Long Shaft
6	13204	Bolt, Short
7	12680	Bolt, Long

NA — No Longer Available, See Note

Models with serial no's. 000001 & up

REF NO.	INDUS PART NO.	DESCRIPTION
1	B14729	Axle, Short Shaft
2	12798	Miter Gear
3	C14688	Housing Half
4	12682	Locknut
5	B14730	Axle, Long Shaft
6	13204	Bolt, Short
7	12680	Bolt, Long



NOTE: The differential used on this unit is warranted by the manufacturer. Parts listed must be obtained direct from Indus Wheel Co., 1815 Madison Avenue, Indianapolis, Indiana 46206. If parts are not listed, complete unit modified by Sensation should be purchased from The Sensation Corp. P/N 043-209.

COMMERCIAL

SENSATION

POWER MOWER PARTS LIST

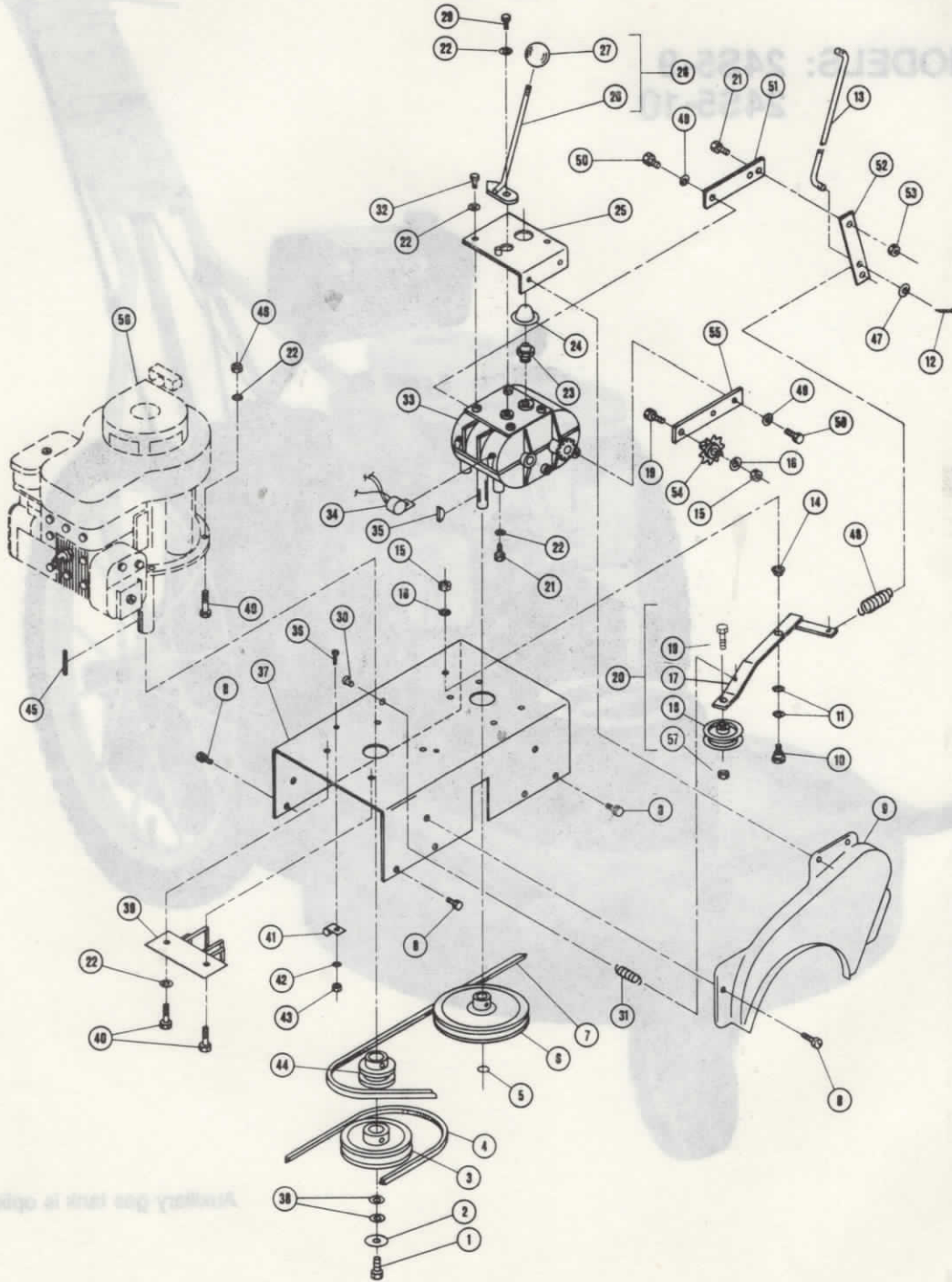
**MODELS: 24S5-9
24S5-10**



Auxiliary gas tank is optional equipment

THE SENSATION CORPORATION • OMAHA, NEBRASKA 68110 USA

ENGINE BASE ASSEMBLY



Verify the fit is correct.

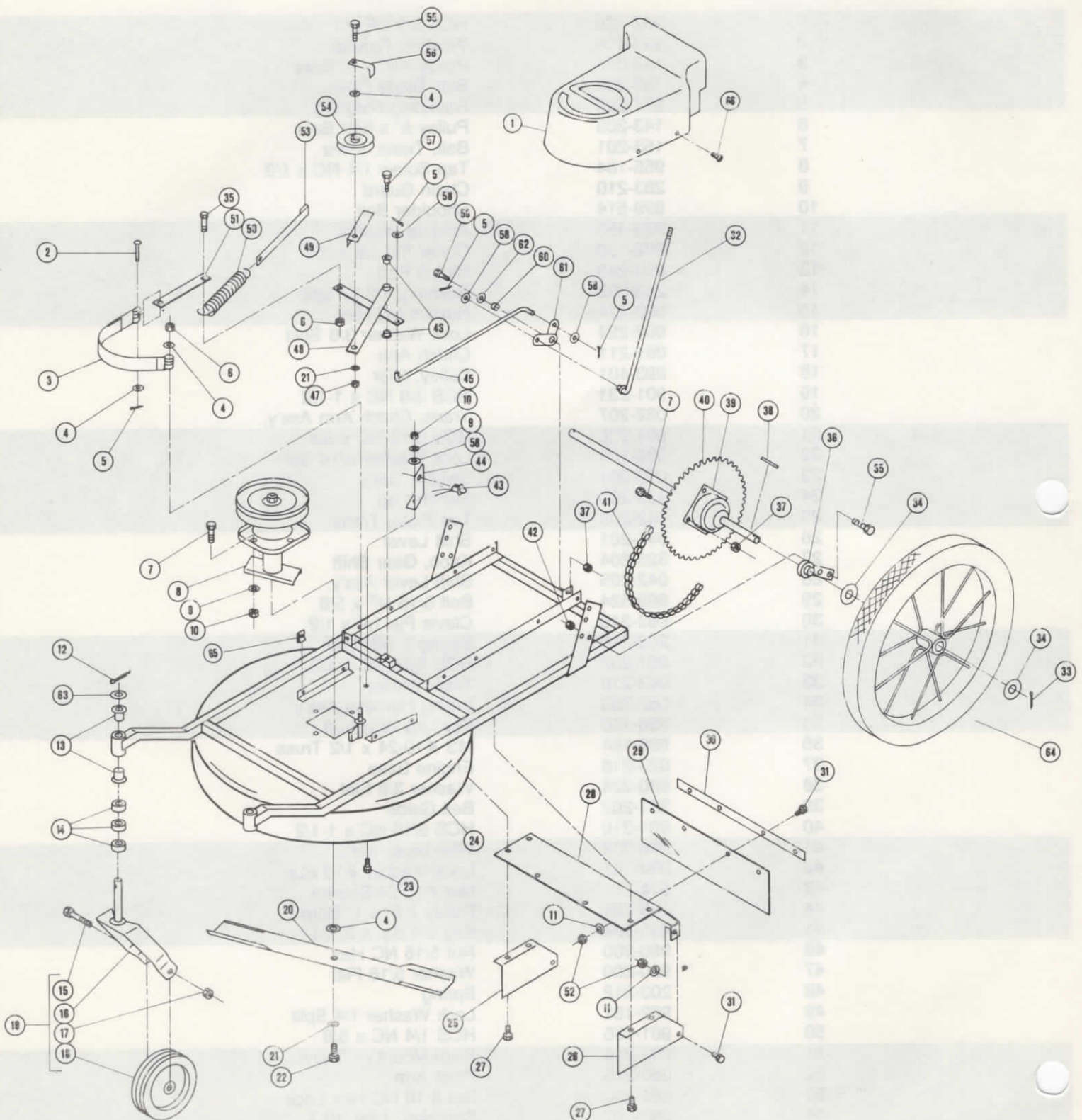
THE SENSATION CORPORATION • OMAHA, NEBRASKA 68110 USA

ENGINE BASE ASSEMBLY

REF NO.	PART NO.	DESCRIPTION
1	902-229	HCS 3/8 NF x 1
2	999-405	Washer, Special
3	143-305	Pulley 4.5" x 1" Bore
4	153-203	Belt, Blade Drive
5	987-296	Retaining Ring 5/8
6	143-203	Pulley 8" x 5/8" Bore
7	153-201	Belt, Trans. Drive
8	955-184	Tap Screw 1/4 NC x 1/2
9	283-210	Chain Guard
10	999-514	Shoulder Bolt
11	999-458	Acetate Washer
12	992-130	Cotter Pin 1/8 x 3/4
13	063-243	Clutch Rod
14	243-302	Bushing, 1/2 ID Split
15	960-224	Nut 3/8 NC Hex
16	982-224	Lock Washer 3/8 Split
17	061-211	Clutch Arm
18	293-401	Pulley, Idler
19	901-231	HCS 3/8 NC x 1-1/2
20	062-207	Trans. Clutch Arm Ass'y.
21	901-205	HCS 5/16 NC x 3/4
22	982-200	Lock Washer 5/16 Split
23	053-201	Switch, Trans.
24	323-205	Switch Cap
25	042-209	Top Plate, Trans.
26	041-201	Shift Lever
27	323-804	Knob, Gear Shift
28	042-205	Shift Lever Ass'y.
29	999-524	Bolt 5/16 NF x 5/8
30	993-310	Clevis Pin 1/4 x 1/2
31	203-210	Spring 1-3/8" Ext
32	901-203	HCS 5/16 NC x 1/2
33	043-210	Transmission
34	052-203	Wiring Harness Ass'y.
35	996-156	Key, #9 Woodruff
36	926-154	MS #10-24 x 1/2 Truss
37	023-218	Engine Base
38	980-224	Washer 3/8 Flat
39	281-202	Belt Guide
40	901-210	HCS 5/16 NC x 1-1/2
41	053-303	Wire Loop, Metal
42	984-151	Lock Washer #10 Star
43	974-151	Nut #10-24 Square
44	143-201	Pulley 2.5" x 1" Bore
45	995-194	Key 1/4 Sq. x 2-1/4
46	960-200	Nut 5/16 NC Hex
47	980-200	Washer 5/16 Flat
48	203-212	Spring
49	982-181	Lock Washer 1/4 Split
50	901-185	HCS 1/4 NC x 5/8
51	063-244	Pivot Mount — Trans.
52	063-245	Pivot Arm
53	964-200	Nut 5/16 NC Hex Lock
54	293-207	Sprocket, Idler 10 T
55	293-208	Bracket Chain Idler
56		Engine, 5 HP B&S #130902
57	970-224	Nut 3/8 NC Whizlock

Note: The Engine used on this unit is warranted by the engine manufacturer and all parts and service must be obtained from the designated service center which may be found in the Yellow Pages under "Engines".

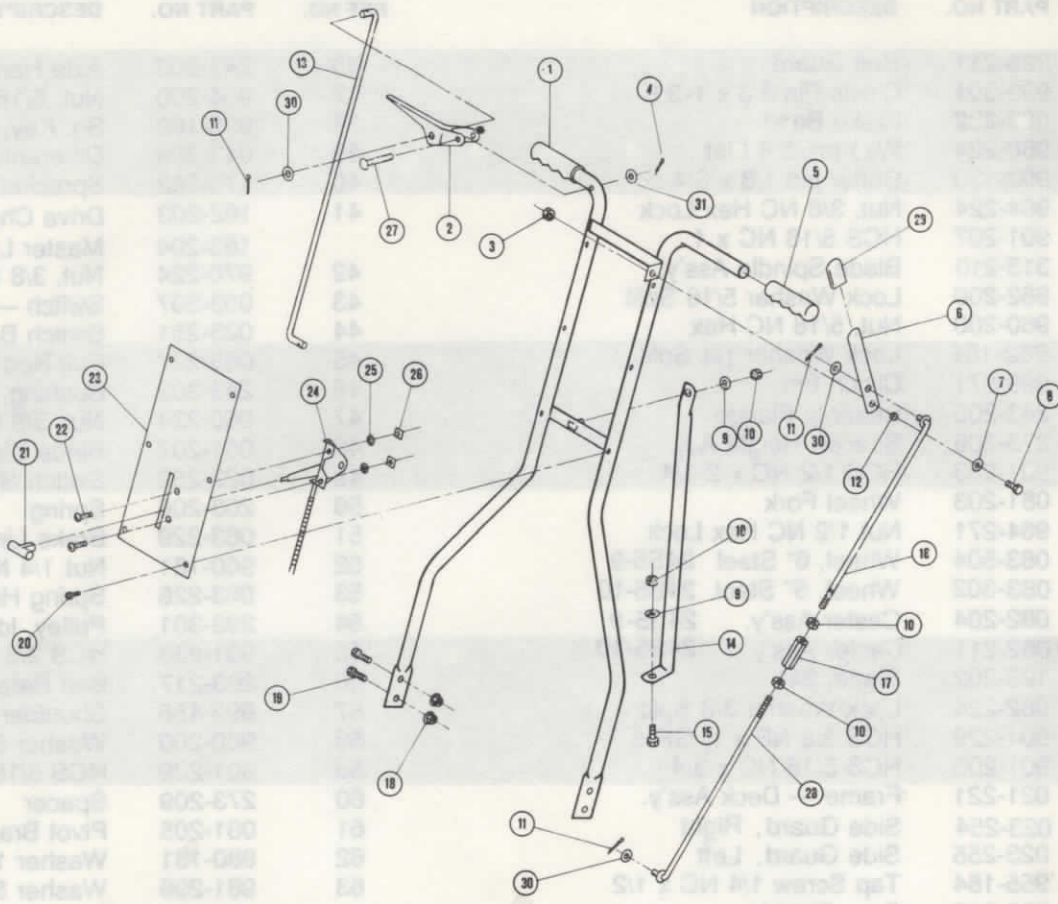
FRAME ASSEMBLY



FRAME ASSEMBLY PARTS LIST

REF NO.	PART NO.	DESCRIPTION	REF NO.	PART NO.	DESCRIPTION
1	283-211	Belt Guard	36	243-203	Axle Hanger
2	993-301	Clovis Pin 3/8 x 1-3/8	37	964-200	Nut, 5/16 NC Hex Lock
3	003-202	Brake Band	38	995-160	Sq. Key, 3/16 x 1-1/2
4	980-224	Washer, 3/8 Flat	39	043-209	Differential Ass'y.
5	992-130	Cotter pin 1/8 x 3/4	40	173-202	Sprocket 41A54
6	964-224	Nut, 3/8 NC Hex Lock	41	162-203	Drive Chain Ass'y.
7	901-207	HCS 5/16 NC x 1		163-204	Master Link #420
8	313-210	Blade Spindle Ass'y.	42	970-224	Nut, 3/8 NC Whizlock
9	982-200	Lock Washer 5/16 Split	43	053-307	Switch — Blade
10	960-200	Nut, 5/16 NC Hex	44	023-251	Switch Bracket
11	982-181	Lock Washer 1/4 Split	45	063-227	Pull Rod — Blade
12	999-571	Clinch Pin	46	243-302	Bushing, 1/2 I.D.
13	243-205	Bearing, Flange	47	960-224	Nut, 3/8 NC Hex
14	273-206	Spacer, Height Adj.	48	061-207	Blade Clutch Arm
15	901-233	HCS 1/2 NC x 2-3/4	49	023-252	Switch Strike
16	081-203	Wheel Fork	50	203-206	Spring
17	964-271	Nut 1/2 NC Hex Lock	51	063-229	Brake Linkage
18	083-504	Wheel, 6" Steel 24S5-9	52	960-181	Nut 1/4 NC Hex
	083-302	Wheel, 5" Steel 24S5-10	53	063-228	Spring Hook
19	082-204	Caster Ass'y. 24S5-9	54	293-301	Pulley, Idler
	082-211	Caster Ass'y 24S5-10	55	901-233	HCS 3/8 NC x 2
20	123-202	Blade, 24"	56	283-217	Belt Retainer
21	982-224	Lock Washer 3/8 Split	57	999-456	Shoulder Bolt
22	904-229	HCS 3/8 NF x 1, GR 5	58	980-200	Washer 5/16 Flat
23	901-205	HCS 5/16 NC x 3/4	59	901-209	HCS 5/16 NC x 1-1/4
24	021-221	Frame — Deck Ass'y.	60	273-209	Spacer
25	023-254	Side Guard, Right	61	061-205	Pivot Bracket
26	023-255	Side Guard, Left	62	980-181	Washer 1/4 Flat
27	955-184	Tap Screw 1/4 NC x 1/2	63	981-296	Washer 5/8 Flat
28	033-212	Drag Shield	64	082-203	Wheel & Tire Ass'y.
29	323-207	Rubber, Dragshield		083-209	Wheel Only
30	033-211	Clamping Strip		263-202	Tube 20 x 2.125
31	901-185	HCS 1/4 NC x 5/8		263-201	Tire 20 x 2.125
32	061-208	Blade Rod, Lower		263-205	Rim Liner Strip
33	992-146	Cotter Pin 5/32 x 1-1/4		233-206	Valve Stem Cap
34	981-298	Washer, 3/4 SAE Flat	65	999-496	"U" Fastener
35	901-227	HCS 3/8 NC x 3/4	66	929-156	MS 10/32 x 3/4 Truss

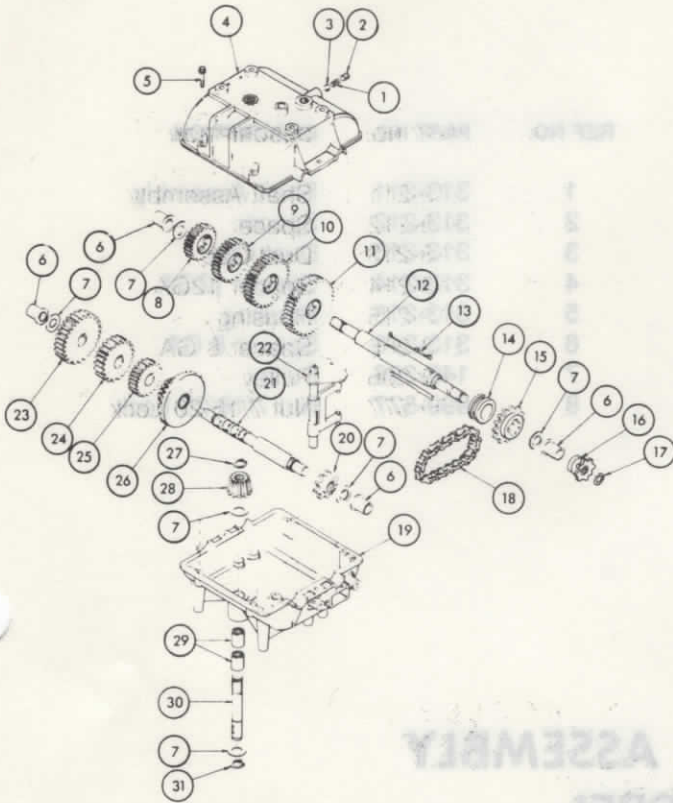
HANDLE ASSEMBLY



REF NO.	PART NO.	DESCRIPTION	REF NO.	PART NO.	DESCRIPTION
1	252-210	Handle W/Grips	16	061-210	Blade Rod, Upper
2	062-301	Clutch Lever W/Grip	17	999-591	Coupling Nut 5/16 NC
3	964-200	Nut 5/16 NC Lock	18	970-224	Nut 3/8 NC Whizlock
4	992-116	Cotter Pin 3/32 x 1/2	19	901-227	HCS 3/8 NC x 3/4
5	323-317	Handle Grips	20	957-140	Tap Screw 8/32 x 3/8
6	062-204	Blade Control W/Grip	21	323-306	Knob, Throttle
7	980-181	Washer 1/4 Flat	22	926-154	MS 10/24 x 1/2
8	901-205	HCS 5/16 NC x 3/4	23	193-218	Control Panel
9	982-200	Lock Washer 5/16	24	193-210	Throttle Control
10	960-200	Nut 5/16 NC Hex	25	984-151	Lock Washer #10 Star
11	992-130	Cotter 1/8 x 3/4	26	974-151	Nut 10/24 Square
12	273-208	Spacer	27	993-311	Clevis Pin 3/16 x 1-3/4
13	063-243	Clutch Rod	28	061-208	Blade Rod, Lower
14	253-213	Handle Brace	29	323-316	Grip — Flat
15	901-211	HCS 5/16 NC x 1-3/4	30	980-200	Washer 5/16 Flat
			31	980-151	Washer 3/16 Flat

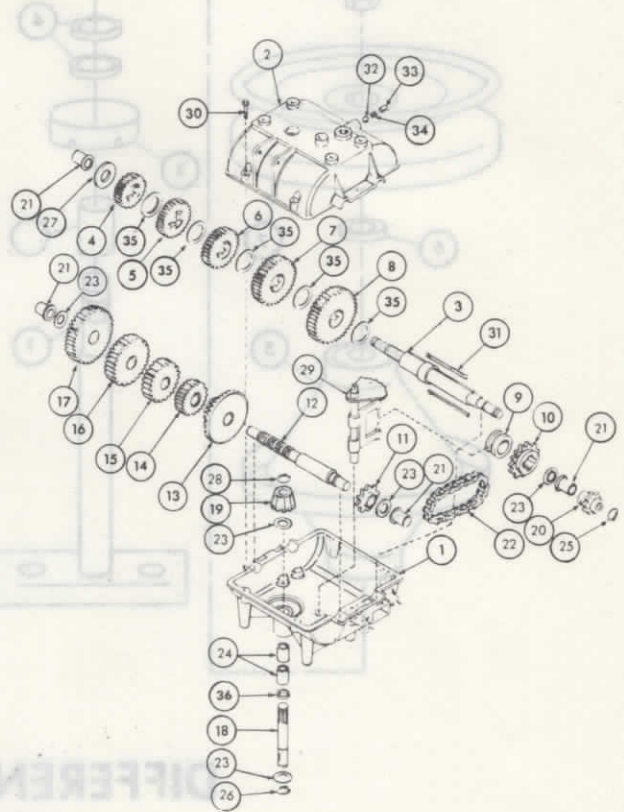
TRANSMISSION ASSEMBLY

PEERLESS 500 SERIES



REF NO.	PEERLESS PART NO.	DESCRIPTION
1	792079	Spring
2	792078	Set Screw 3/8-16
3	792077	Steel Ball 5/16
4	772070	Cover, Transmission
5	792073	Hex Head Screw 1/4-20
6	780105	Bushing, Flanged
7	780072	Race, Thrust
8	778105	Gear, Spur 20 Teeth
9	778106	Gear, Spur 25 Teeth
10	778107	Gear, Spur 30 Teeth
11	778108	Gear, Spur 35 Teeth
12	776133	Shaft, Output & Brake
13	792071	Key
14	784216	Collar, Shift
15	786060	Sprocket 14 Teeth
16	786047	Sprocket 8 Teeth
17	792072	Retaining Ring
18	786062	Roller Chain #41
19	770061	Case, Transmission
20	786061	Sprocket 10 Teeth
21	776134	Shaft, Counter
22	784243	Rod & Fork Ass'y.
23	778112	Gear, Spur 30 Teeth
24	778111	Gear, Spur 25 Teeth
25	778110	Gear, Spur 20 Teeth
26	778109	Gear, Bevel 42 Teeth With 15 Tooth Gear
27	788040	Retaining Ring
28	778113	Bevel Pinion, Input
29	780106	Bearing, Needle
30	776135	Shaft, Input
31	792035	Retaining Ring

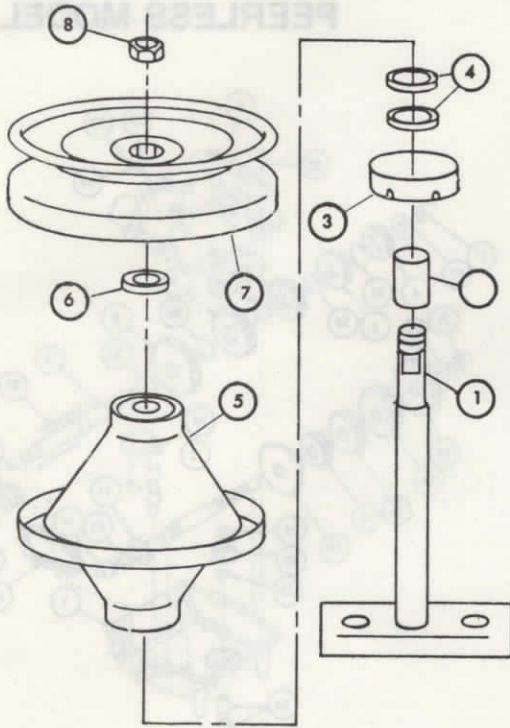
PEERLESS MODEL 731



REF NO.	PEERLESS PART NO.	DESCRIPTION
1	770061	Case, Transmission
2	772070	Cover, Transmission
3	776166	Shaft, Output
4	778121A	Gear, Spur 20 Teeth
5	778122	Gear, Spur 22 Teeth
6	778123	Gear, Spur 25 Teeth
7	778124	Gear, Spur 30 Teeth
8	778125	Gear, Spur 35 Teeth
9	784266	Collar, Shift
10	786083	Sprocket 18 Teeth
11	786082	Sprocket 9 Teeth
12	776134	Shaft, Counter
13	778109	Gear, Bevel 42 Teeth With 15 Tooth Spur Gear
14	778126	Gear, Spur 20 Teeth
15	778127	Gear, Spur 25 Teeth
16	778128	Gear, Spur 28 Teeth
17	778129	Gear, Spur 30 Teeth
18	776135	Shaft, Input
19	778113	Bevel Pinion, Input
20	786047	Sprocket 8 Teeth
21	780105	Bushing, Flanged
22	786061	Roller Chain #41
23	780072	Race, Thrust
24	780086	Bearing, Needle
25	792072	Retaining Ring
26	792035	Retaining Ring
27	780109	Washer
28	788040	Retaining Ring
29	784267	Rod & Fork Ass'y.
30	792073	Hex Head Screw
31	792089A	Key
32	792077	Steel Ball 5/16
33	792078	Set Screw 3/8-16
34	792079	Spring
35	780108	Washer, Thrust
36	792001	Ring, Square Cut

NOTE: The transmission used on this unit is warranted by the manufacturer. All parts and service must be obtained from the designated TECUMSEH/PEERLESS Service Center, which may be found in the yellow pages under "Engines."

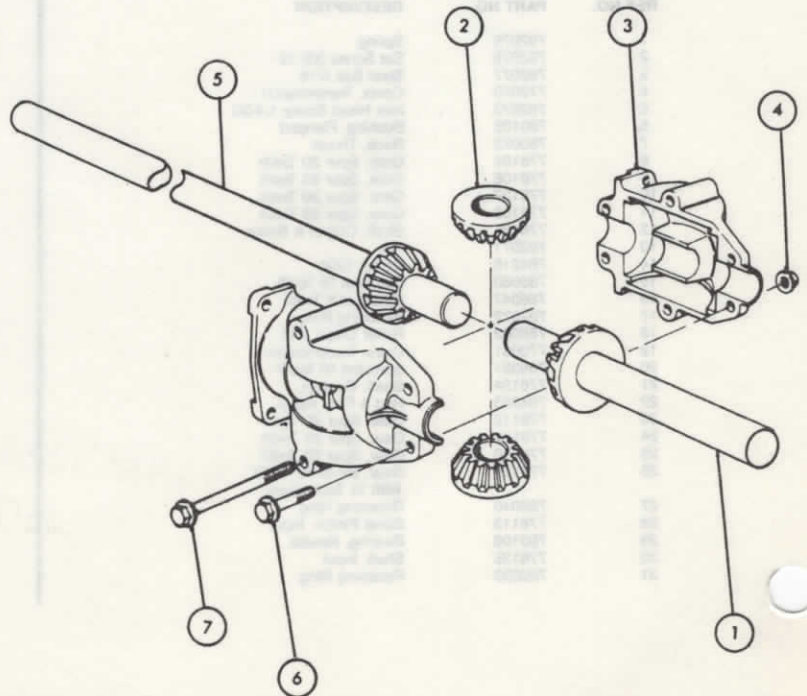
BLADE SPINDLE ASSEMBLY



REF NO.	PART NO.	DESCRIPTION
1	313-211	Shaft Assembly
2	313-212	Spacer
3	313-213	Dust Cap
4	313-214	Spacer 12GA
5	313-215	Housing
6	313-216	Spacer 8 GA
7	143-206	Pulley
8	999-577	Nut 7/16-20 Lock

DIFFERENTIAL ASSEMBLY INDUS MODEL

REF NO.	INDUS PART NO.	DESCRIPTION
1	B14729	Axle, Short Shaft
2	12798	Miter Gear
3	C14688	Housing Half
4	12682	Locknut
5	B14730	Axle, Long Shaft
6	13204	Bolt, Short
7	12680	Bolt, Long



NOTE: The differential used on this unit is warranted by the manufacturer. Parts listed must be obtained direct from Indus Wheel Co., 1815 Madison Avenue, Indianapolis, Indiana 46206. If parts are not listed, complete unit modified by Sensation should be purchased from The Sensation Corp. P/N 043-209.

COMMERCIAL

SENSATION

POWER MOWER OWNER'S MANUAL

MODELS: 24S5-7
24S5-8
24S5-9
24S5-10



Auxiliary gas tank shown
is optional equipment

THE SENSATION CORPORATION • OMAHA, NEBRASKA 68110

SAFETY



Caution Symbol

THE TRIANGULAR SYMBOL SHOWN ABOVE IS USED THROUGHOUT THIS BOOKLET TO CALL SPECIAL ATTENTION TO ITEMS AFFECTING THE OPERATOR'S PERSONAL SAFETY. THESE ITEMS SHOULD BE GIVEN CLOSE ATTENTION.

1. **CAUTION:** Before leaving the operator's position, shift transmission into Neutral, disengage attachment clutch, and shut off engine.
2. Keep all shields in place.
3. Wait for all movement to stop before servicing machine.
4. Keep people and pets a safe distance away from machine.
5. Know the controls and how to stop quickly — **READ THE OWNER'S MANUAL.**
6. Do not allow children to operate vehicle. Do not allow adults to operate it without proper instruction.
7. Do not carry passengers.
8. Clear work area of objects which might be picked up and thrown. The blade can throw objects with sufficient force to cause damage or injury.
9. Disengage all attachment clutches and shift into Neutral before attempting to start engine.
10. Stop engine before leaving operator position and before making any repairs or adjustments.
11. Take all possible precautions when leaving vehicle unattended, such as disengaging power take-off, shifting into Neutral, and stopping engine.
12. Do not stop or start suddenly when going uphill or downhill. Mow up and down the face of steep slopes, never across the face.
13. Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.
14. Stay alert for holes in terrain and other hidden hazards.
15. Handle gasoline with care — it is highly flammable.
 - A. Use approved gasoline container.
 - B. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors.
 - C. Wipe up any spilled gasoline thoroughly before starting the engine.
 - D. Open doors if engine is run in garage — exhaust fumes are dangerous. Do not run engine indoors.
16. Keep vehicle and attachments in good operating condition and keep safety devices in place.
17. Keep all nuts, bolts, and screws tight to be sure equipment is in safe working condition.
18. Never store equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark.
19. Allow engine to cool before storing in any enclosure.
20. To reduce fire hazard, keep engine free of grass, leaves, or excessive grease.
21. Vehicle and attachments should be stopped and inspected for damage after striking a foreign object, and the damage should be repaired before restarting and operating the equipment.
22. Do not change engine governor settings or overspeed engine.
23. When using mower:
 - A. Mow only in daylight or in good artificial light.
 - B. Never make a cutting-height adjustment while engine is running.
 - C. Shut engine off when unclogging chute.
 - D. Check blade-mounting bolts for proper tightness at frequent intervals.
 - E. The blade continues to rotate for a few seconds after the engine is shut off. Do not place any part of the body in the blade area until you are sure the blade has stopped.
 - F. Do not mow on wet grass.
24. Do not wear loose-fitting clothing that could get caught in moving parts.
25. Follow maintenance instructions as outlined in this manual.
26. **DISCONNECT THE SPARK PLUG WIRE BEFORE MAKING ANY ADJUSTMENT OR REPAIR.**

SET-UP INSTRUCTIONS

NOTE: USE PARTS LIST IN CONJUNCTION WITH SET UP INSTRUCTIONS FOR PROPER ASSEMBLY OF PARTS.

HANDLE ASSEMBLY

1. Position the handle onto the outside of the handle brackets making sure the six punched holes in the handle face upward. Secure using four hex cap screws 3/8 NC x 3/4 (insert from the outside) and flange lock nuts provided. Finger tighten only.
2. Attach the handle brace onto the top of the frame using hex cap screw 5/16 NC x 1-1/2, lock washer, and nut provided. Finger tighten only.
3. Attach the brace to the handle threaded stud. (Push the handle up slightly, if necessary). Secure using 5/16 NC nut and lock washer provided.
4. Tighten all nuts and bolts installed in steps 1, 2, and 3.

CONTROL PANEL ASSEMBLY

1. Remove the protective packing from the control panel. Place the panel on the handle aligning the six mounting holes. Secure using six 8/32 x 3/8 tapping screws provided. Do not overtighten.

BLADE CONTROL ROD ASSEMBLY

1. Place one 5/16 NC nut onto both control rods and screw them to the end of the threads.
2. Attach the control rod with a painted end to the pivot bracket by inserting the rod from the left side. Secure using flat washer and cotter key provided.
3. Place coupling nut onto the lower rod and screw it on approximately 1/2".

4. Place the upper control rod into the coupling nut and screw it in approximately 1/2".
5. Insert the upper rod into the blade control lever.
6. Try the blade control lever to test the tension being exerted. If the tension is too great, remove the upper control rod from the blade control lever and unscrew the coupler nut equally from both rods. If the tension is too little, reverse process.
7. Attach the upper control rod to the blade control lever using flat washer and cotter key provided.
8. Hold coupling nut with a wrench and tighten both 5/16 nuts against the coupling nut.

CLUTCH CONTROL ASSEMBLY

1. Attach the clutch control rod to the clutch lever by inserting the rod through the bottom side. Secure using flat washer and cotter key provided.
2. Attach lower end of clutch control rod to pivot arm by inserting into the hole above spring. Secure using flat washer and cotter key provided.

ENGINE

Follow engine manufacturer's instructions (refer to engine manual provided).

SHIFT LEVER ASSEMBLY

1. Place the shift lever onto the shaft with the point towards gear speed selection legend.
2. Mount the flange bolt and lock washer on the shaft and tighten securely. **Do not** hammer on the shifting plate or shift lever. The bolt will pull it down in place.

CONTROLS

CONTROLS

The following section is intended to familiarize the operator with the location and function of controls before operating the mower. Check all controls for smooth, un-obstructed action before operating machine.

THROTTLE CONTROL

The throttle control lever controls the speed of the engine and, therefore, on self-propelled models the speed of the mower. Pushing the lever forward, away from the operator, increases engine speed. Pulling the lever back, toward the operator, decreases engine speed. **PULL THE THROTTLE LEVER FULL BACK, TOWARD THE OPERATOR TO STOP THE ENGINE.**

WHEEL DRIVE

The clutch lever mounted on the right hand upper handle, controls the forward motion of the mower. To engage the wheel drive mechanism, pull the clutch lever toward the upper handle. Release the clutch handle to its "neutral" position to stop the forward motion of the mower.

BLADE DRIVE

The blade lever mounted on the left hand upper handle controls the rotation of the cutting blade. To engage the

blade mechanism, pull the blade lever toward the upper handle until it self locks itself down. Push the blade lever forward to its neutral position to stop the rotation of the cutting blade.

SHIFT LEVER

Gear selection is made by moving the shift lever handle watching the indicator, and moving it to the desired gear. If the gear shift lever will not advance move the mower back and forth slightly. This causes the gear teeth to mesh properly.

Note: Two electrical interlock devices are provided; one to prevent the engine from starting while the transmission is in gear and one to prevent starting with cutting blade in cut position.



CAUTION: THE ELECTRICAL INTERLOCK SYSTEM IS PROVIDED SPECIFICALLY AS A SAFETY FEATURE AND CARE SHOULD BE TAKEN TO INSURE THAT BOTH SWITCHES FUNCTION PROPERLY AT ALL TIMES. INTERLOCK SYSTEM TEST PROCEDURES ARE CONTAINED IN THE MAINTENANCE SECTION OF THIS BOOKLET.

CUTTING HEIGHT ADJUSTMENT



CAUTION: STOP ENGINE BEFORE MAKING ANY WHEEL ADJUSTMENTS.

Your mower can cut grass at heights of 3", 2-1/2", 2", and 1-1/2". Height adjustment is made by adding or removing spacers from the front wheel spindles.

TO ADJUST

1. Remove the clinch pin, washer, and wheel assembly from the mower.

2. Remove or add spacers on the wheel spindle shaft according to the cutting height desired.

Zero spacers — 1-1/2" cut

One spacer — 2" cut

Two spacers — 2-1/2" cut

Three spacers — 3" cut

3. Reinstall the wheel assembly on the mower.

4. Place the remaining spacers (if any) back onto the wheel spindle shaft.

5. Secure with washer and clinch pin.

OPERATION



CAUTION: DO NOT OPERATE MOWER WITHOUT DRAG SHIELD ASSEMBLY IN PLACE AND SWINGING FREELY.



CAUTION: WHEN OPERATING MOWER ON BUMPY GROUND, GRADES, OR SLOPES, USE LOWER TRANSMISSION SETTING.

PRE-OPERATION CHECK AND SERVICE

Before each period of operation, visually check all nuts, bolts, fasteners, and tires for proper condition.

STARTING



CAUTION: LOCATE MACHINE ON A LEVEL SURFACE BEFORE STARTING TO PREVENT MACHINE FROM ROLLING.

1. Place blade control lever in "disengaged" position.
2. Place transmission lever in "neutral" position.
3. Move throttle control lever to choke position.
4. Pull recoil handle briskly until engine starts.
5. To stop engine, move throttle control lever to "Stop" position.

MOWING

Note: Mow with a sharp blade as a dull blade tends to tear, rather than cut, grass.

1. With the engine running, pull the blade control lever to the cut position.
2. Move the throttle control lever to a suitable running speed for mowing. Note: For best results, the mower should be operated with the engine at full or nearly full throttle.
3. Move shift lever handle, watch indicator and move to the desired gear.

Note: The ground speed is controllable by the transmission speed setting. This setting should be varied depending on the job being performed.

4. Pull clutch lever toward upper handle slowly. Release to stop drive mechanism.



CAUTION: MOWER MUST BE AT A FULL STOP BEFORE SHIFTING FROM A FORWARD SPEED TO REVERSE AND FROM REVERSE TO FORWARD! OTHERWISE, SEVERE DAMAGE TO TRANSMISSION MAY OCCUR.



CAUTION: WHEN CROSSING A GRAVEL DRIVEWAY, ROAD, OR SIDEWALK, DISENGAGE CUTTING BLADE SO LOOSE SAND AND ROCKS ARE NOT THROWN.

TRANSPORTING

1. When transporting mower from one area to another, shift to higher gear setting and reduce throttle speed.
2. Disengage cutting blade.

GEAR SELECTION RECOMMENDATION

- Reverse . . . For maneuvering machine only. **Not** to be used for mowing.
- 1st Gear . . . Primary mowing gear for tall weeds and grasses. Either walk behind or with riding sulky.
- 2nd Gear . . . Secondary mowing gear for normal grass heights. Primarily used with riding sulky.
- 3rd Gear . . . For transporting machine on level, clear terrain only at reduced throttle speed. Do not use for mowing.

ADJUSTMENTS

BLADE BELT TENSION

Tension is adjusted by adjusting the coupling nut connecting the upper and lower blade control rods.

1. Unscrew the 5/16 nuts away from the coupling nut.
2. Remove the upper control rod from the blade control lever.

3. Screw the coupling nut on (for increased tension) and off (for decreased tension) equally on each rod. Test.
4. Repeat step #3 until proper tension is achieved.
5. Re-assemble. Be sure the 5/16 nuts are locked against the coupling nut.

DRIVE CHAIN TENSION

MODEL 2455-7

Chain tension is maintained by the fixed position of the differential.

1. Remove the chain guard.
2. Loosen the axle hanger bearing mounting bolts.
3. Move the differential forward until chain is barely snug. You should be able to deflect the chain 1/2 when properly tensioned.
4. Securely tighten the axle hanger mounting bolts.

MODEL 2455-8

Chain tension is maintained by the fixed position of the chain idler.

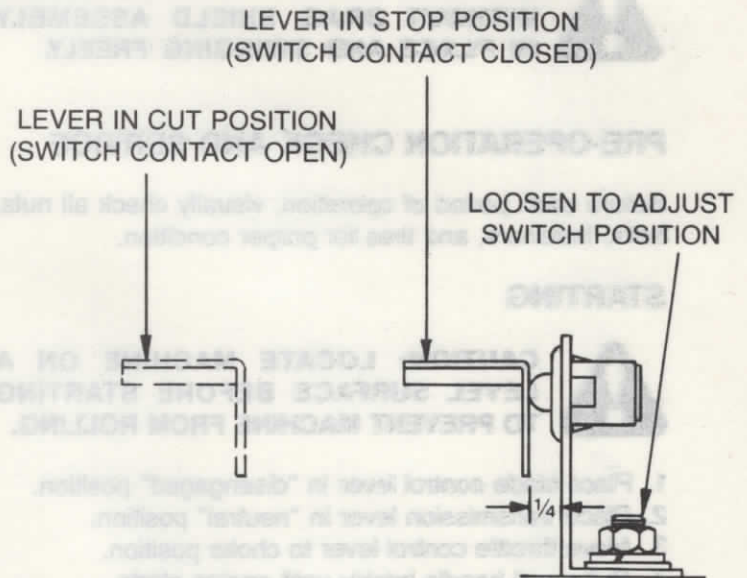
1. Remove the chain guard.
2. Loosen the idler bracket mounting bolts.
3. Move the chain idler rearward until chain is barely snug. You should be able to deflect the chain 1/2 inch when properly tensioned.
4. Securely tighten the idler bracket mounting bolts.

INTERLOCK, BLADE CUT/STOP LEVER

1. Loosen nut as shown.
2. With blade control lever in the disengaged position, pivot switch assembly against the idler arm until switch contact closes.
3. Hold switch assembly in the closed position and tighten nut.

Note: Do not adjust switch assembly with blade control lever in the cut position. Switch damage will result.

INTERLOCK, BLADE CUT/STOP LEVER



BLADE BRAKE BAND

Brake band will rub on the lower half of the blade spindle when the blade control lever is placed in the disengaged position.

Tension — The brake band is spring loaded when engaged, making it self-adjusting. Therefore, no adjustments are required.

Alignment — There is two-way lock nut installed on the pivot bracket located on the left side of the spindle pulley. This nut aligns the brake band to the pulley. The nut should be tightened down as far as possible and still allow the brake band to pivot freely.

Refer to maintenance section for interlock circuit information.

MAINTENANCE



CAUTION: DISCONNECT SPARK PLUG LEAD PRIOR TO PERFORMING ANY MAINTENANCE.

BLADE SPINDLE

The blade spindle is equipped with sealed precision ball bearings and requires no lubrication. The bearings are replaceable when in need of replacement.

DECK HOUSING

Area beneath deck housing should be clear of matter, grass, or other debris to prevent possible blade interference and to insure best cutting performance.

ENGINE

Follow engine manufacturers' recommendation (refer to engine manual provided).



CAUTION: REPLACE BLADE WHICH SHOWS ANY SIGN OF CRACKS OR CRYSTALLIZATION TO PREVENT ITS DISINTEGRATION AT HIGH ROTATING SPEEDS.

BLADE

The blade must be kept sharp and in balance to insure best cutting results and top engine performance. Use genuine "Sensation" replacement blades. Substitutes may endanger performance and personal safety.



CAUTION: USE A PAD OR WEAR A HEAVY GLOVE TO PROTECT YOUR HAND WHEN REMOVING OR INSTALLING BLADE.

BLADE REMOVAL/REPLACEMENT

Assemble blade in sequence as illustrated on parts diagram. Tighten blade bolt securely. Bolt should be torqued to 35 ft/LB's.

BLADE SHARPENING

It is recommended that the blade be taken to your Sensation dealer to insure proper sharpening and balancing.

AXLE HANGER BEARINGS

The rear wheel axle hanger bearing are sealed bearings which require no lubrication.

DRIVE CHAIN

Lubrication — Chain should be protected against abrasive and corrosive atmospheres. Periodically brush oil (SAE 10) onto the entire chain, the frequency being determined by the operating conditions.

CHAIN REPLACEMENT

1. Remove chain guard and loosen mounting bolts on axle hanger bearing, or idler bracket on 24S5-8.
2. Locate master link and remove. Be careful not to bend keeper out of shape.
3. Install new chain making sure the keeper snaps tightly in place, seating itself in both pin grooves.
4. Adjust for proper tension (see adjustment section) and re-assemble chain guard.

FRONT WHEELS

1. Lubricate each wheel bearing (2 each wheel) periodically using a grease gun. Sensation markets a grease gun made special for this purpose.
2. Lubricate upper and lower wheel spindle bearing periodically using a light oil (SAE 10).

PIVOT POINTS

1. Lubricate transmission control and blade control pivot points using a light oil (SAE 10) periodically depending upon operating conditions.

DIFFERENTIAL

The differential is sealed at the factory and should not require adjustment or lubrication.

ELECTRICAL INTERLOCK TEST PROCEDURE



CAUTION: THE ELECTRICAL INTERLOCK SYSTEM IS PROVIDED SPECIFICALLY AS A SAFETY FEATURE AND CARE SHOULD BE TAKEN TO INSURE THAT BOTH SWITCHES FUNCTION PROPERLY AT ALL TIMES.



CAUTION: REMOVE SPARK PLUG LEAD BEFORE TESTING.

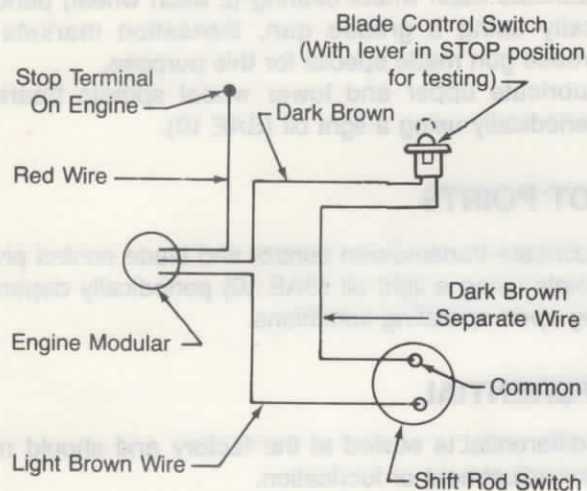
Note: This test requires a circuit testing device (continuity light or meter) generally available at electronic or automotive supply stores.

1. Remove belt guard from cutting deck to allow access to the blade control switch.
2. Place the transmission in neutral and remove the gear shift lever and transmission cover plate.
3. With the blade control lever in the disengaged position, verify that the blade control switch lever is in the position shown in the wiring diagram.

Note: If adjustment is required to obtain the proper switch lever position, refer to the adjustment section of this booklet.

4. Test each switch by placing the circuit tester leads onto the terminals that the wires connect to. The circuit testing device should indicate a complete circuit at this time. If it does not, switch is defective and should be replaced.

WIRING DIAGRAM, SWITCHES



TRANSMISSION DRIVE BELT

1. Place blade control lever in the disengaged position.
2. Insure that the spark plug lead is removed before proceeding.
3. Remove belt guard and mounting bolts on engine pulley belt guides only.
4. Remove blade belt from engine pulley.
5. Remove clutch belt and install new one. Be sure belt is inside belt guides and that the clutch idler pulley is on the outside of the belt.
6. Place blade belt back onto engine pulley and tighten securely mounting bolts in the belt guide.
7. Place blade control lever in the cut position. Visually check belts to see that they are not striking any of the belt guides. Adjust guides if necessary.
8. Test clutch control to see if proper belt tension exists, if not refer to adjustment section.
9. Re-assemble belt guard.

BELT REPLACEMENT

Note: Due to the unique characteristics and functions of these belts, only genuine Sensation service parts should be used for replacement to insure proper belt operation.

BLADE DRIVE BELT

1. Place blade control lever in the disengaged position.
2. Insure that spark plug lead is removed before proceeding.
3. Remove belt guard from cutting deck and loosen mounting bolts on belt guides.
4. Remove and install new belt. Be sure belt is inside belt guides and that the mounting bolts have been secured.
5. Place blade control lever in the cut position. Visually check belts to see that they are not striking any of the belt guides. Adjust guides if necessary.
6. Re-assemble belt guard.

BLADE BRAKE BAND

Brake band should be inspected for wear periodically depending on the operator usage of the blade clutch/brake mechanism. Replacement should be made before steel to steel contact is made.

To replace:

1. Remove belt guard and place blade control lever in disengaged position.
2. Unhook the spring hook from the engine base, releasing spring tension.
3. Remove the clevis pin and 2 way lock nut holding the brake band.
4. Install new brake band and re-assemble.

TRANSMISSION

The transmission is sealed at the factory and should not require adjustment and/or lubrication.

OPTIONAL EQUIPMENT

RIDING SULKY

Adds comfort plus to the performance. Means less down time due to personal fatigue as compared to conventional walk behind usage.

GREASE GUN KIT

Used for lubricating wheel bearings.

AUXILIARY GAS TANK KIT

Adds 3 quart capacity to your current engine gas tank — means less down time for refilling.

ONE-PIECE SENSATION SUIT

Bright, highway safety orange colored utility jumpsuit. Provides protection for personal clothing and gives a neat, snappy, professional teamwork look.

SKID BARS

Replaces the standard 6" front caster wheel assembly. Used in heavy weeded areas eliminating cut weed accumulation on front end of mower.