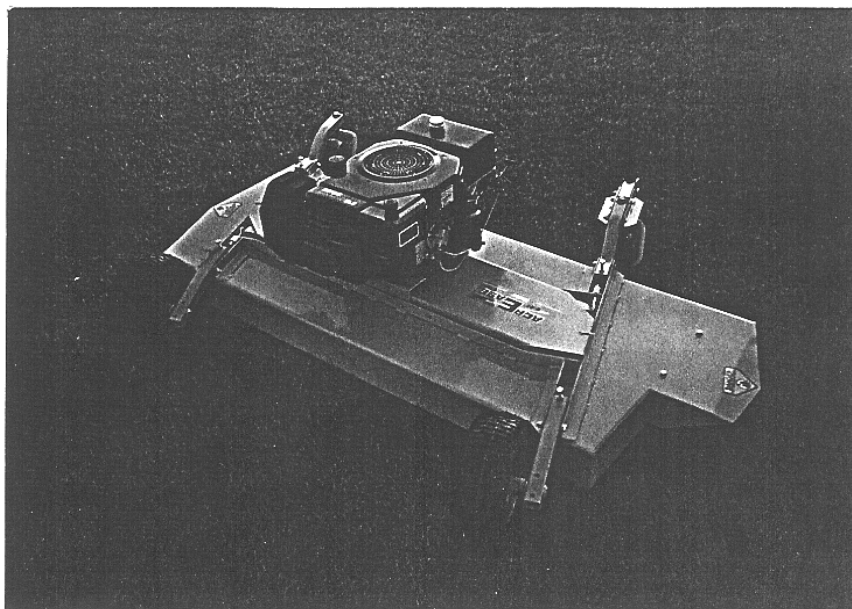


# OWNER'S MANUAL

For

003700 (Kohler Engine)

003701 (Tecumseh Engine)



**ACRE** **EASE** MOWER  
WING **EASE**™  
**Kunz**

KUNZ ENGINEERING, INC. / R.R. 1, 242 N. 45TH ROAD / MENDOTA, IL 61342 / PH (815) 539-6954

Revised 3/1/96

## OPERATIONS AND ADJUSTMENTS



This safety alert symbol is used to indicate safety instructions. Follow these instructions to avoid personal injury and/or property damage. Read and follow all instructions in this manual and the attached engine manual.



Read all the Owners Manuals before using equipment.



Know locations and function of all controls before operating the mower.

### A. HITCH CONFIGURATIONS *(Refer to Figure 1)*



Shut off the engine and allow the mower blades to come to a complete stop before adjusting the spreader hitch on the tow vehicle.

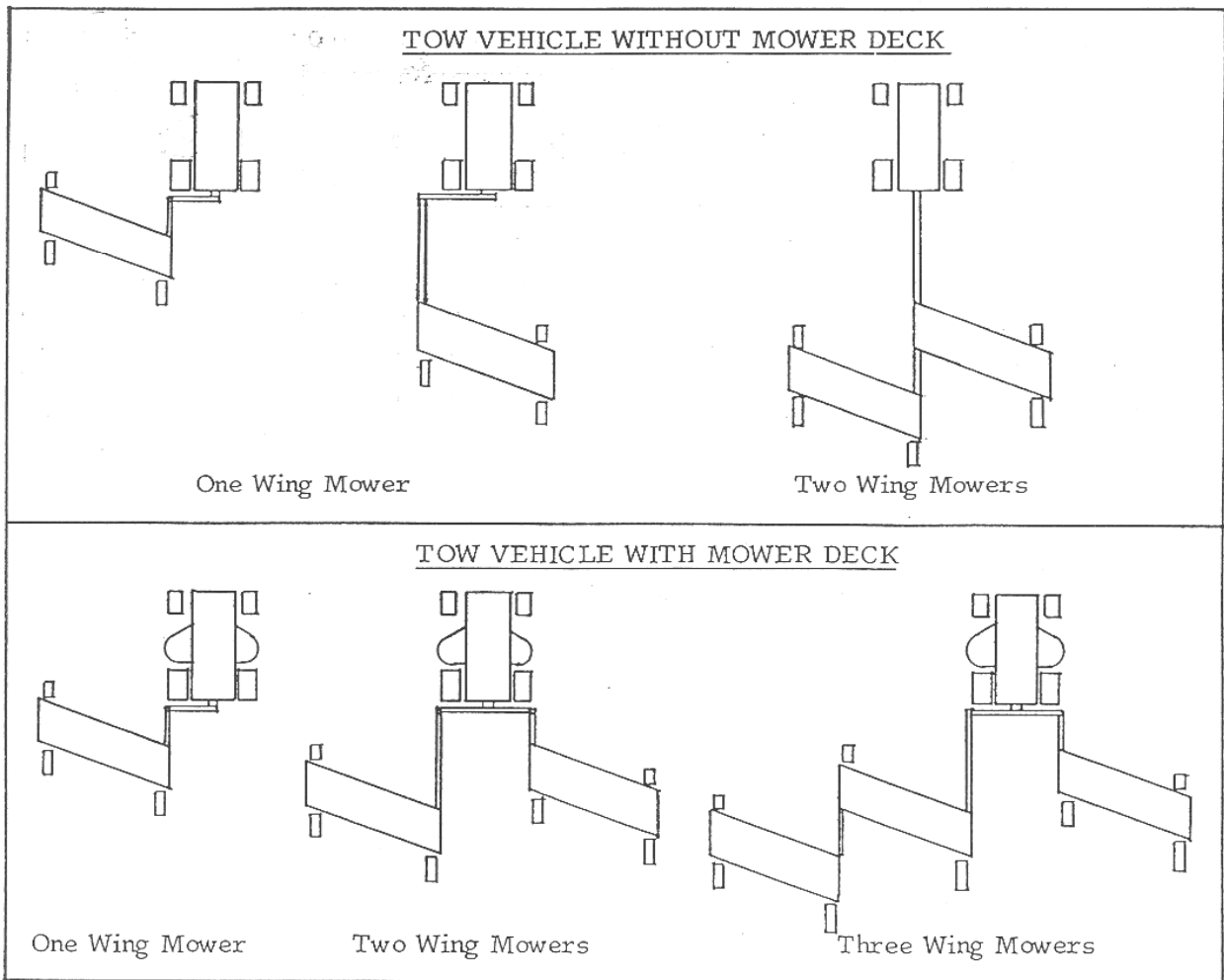


Figure 1: Wing Mower Towing Suggestions

The hitching system is designed so that the wing mower can be pulled directly behind a tow vehicle without a mower deck or as a left or right wing mower when towed behind a tow vehicle with or without a mower deck.

If more than one wing mower is towed, they can be pulled in tandem or one on the left and one on the right or a combination of the above conditions until the desired cutting width is obtained.

**⚠** Do not operate two wing mowers in tandem on slopes greater than 25% (1 foot rise, 4 foot run). This can create an unstable condition where the rear wing mower could push the front wing mower sideways.

When mowing large open areas, adjust the spreader hitch on the tow vehicle so that the wing mower tongue center line aligns with the outside cut line on the tow vehicle mower. When trimming around objects or mowing contours, it is best to adjust the tow vehicle hitch in to eliminate skips. The spreader hitch can be adjusted in and out to get the desired overlap to fit your mowing job

## B. ADJUSTING CUTTING HEIGHT.

**⚠** Shut off all engines and allow the mower blades to come to a complete stop on the wing mowers and on the tow vehicle before adjusting the cutting height.

The cutting height can be adjusted in a range from 1 1/2" to 3 1/2". This is accomplished by adjusting the height adjusting bolts on each of the four corners of the wing mower. *See Figure 2.* Turn the bolts clockwise to raise the mower cutting height and counter-clockwise to lower the mower cutting height.

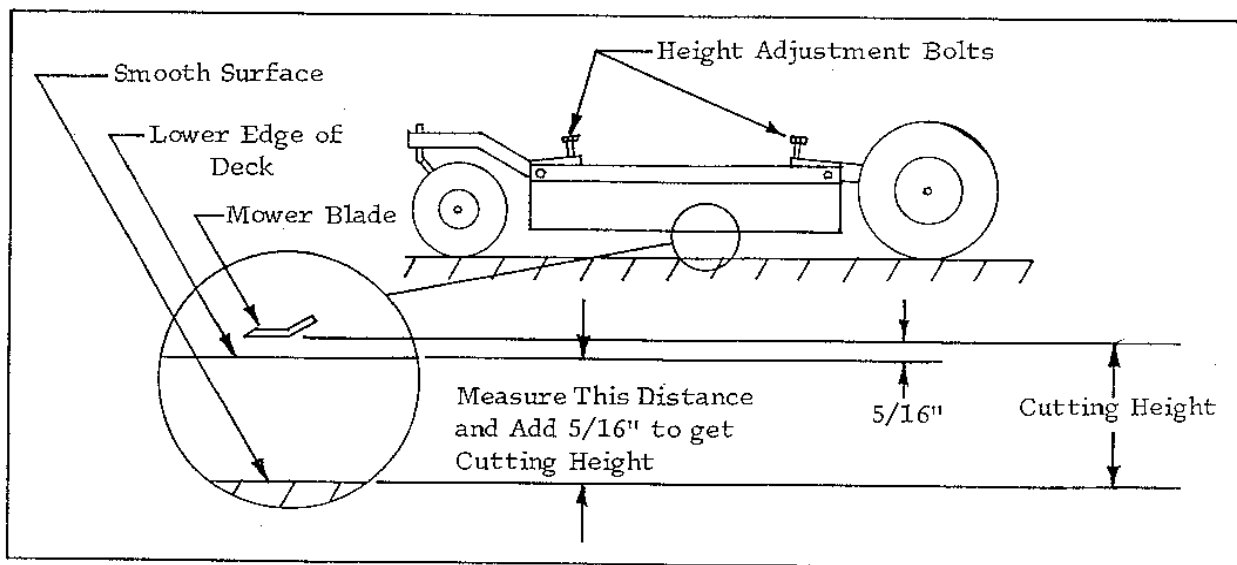



Figure 2: Adjusting Wing Mower Cutting Height

When more than one mower is used at a time, it is very important to have all the mowers adjusted as close to the same cutting height as possible to obtain a high quality cutting job.

Adjust the mowers as follows:


1. Pull the mowing unit on to a smooth, level surface.
2. Adjust the tow vehicle mower deck to the desired cutting height and level both fore and aft and side to side.
3. Measure the distance from the level surface to the mower blade cutting edge on the tow vehicle.

 Shut off tow vehicle engine and allow mower blades to stop completely before attempting to measure the cutting height.

4. Adjust the cutting height on the wing mower so that it cuts at the same height as the tow vehicle mower. Adjust each corner of the wing mower so that the distance from the smooth surface to the bottom edge of the deck is equal to the cutting height minus 5/16". The mower blade cutting edge is 5/16" above the lower edge of the deck.

Note: After the cutting height has been set, be sure to tighten the pivot bolts securely to eliminate free pivoting of the front casters or rear axes.

### C. STARTING ENGINE

 Set Parking Brake on tow vehicle.

Attach wing mower tongue to tow vehicle to complete the electrical ground circuit.

 Do not start wing mower unless it is attached to the tow vehicle.

Attach starter cable from tow vehicle to the terminal on the starter solenoid located below the instrument panel on the left.

See Figure 3.


Set the Choke to the desired position.

Set the throttle lever in the start position so the Mower Blades Clutch will not engage while starting. The Mower Blades Clutch engages at 1850 RPM.

Start engine and allow engine to warm up.

Adjust the choke to off.

Disconnect the Starter Cable. Be sure to recoil and attach the Starter Cable securely to the tow vehicle.

 Care should be taken when attaching Starter Cable to the tow vehicle so that the end cannot slip over a small bolt or object causing a direct short and possible fire.

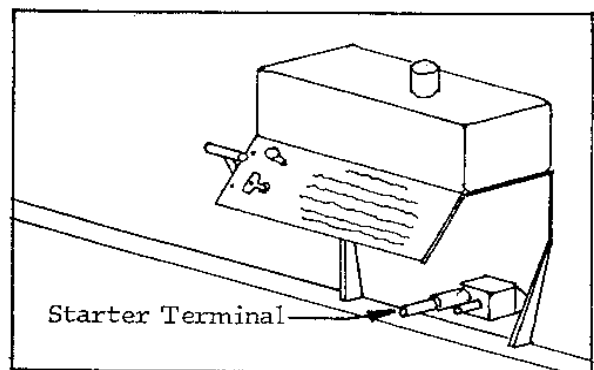





Figure 3: Starter Terminal Location

Adjust engine speed to full throttle to fully engage the Mower Blades Clutch.

 Clutch overheating or failure may occur if engine is not run at full speed in heavy load conditions.

 The engine full speed setting with mower blades running is 3350 RPM.

#### D. SHUTTING OFF WING MOWER


 Shift to neutral, disengage power to the mower deck, and set the parking brake before dismounting the tow vehicle.

Set the throttle to *slow* so the Mower Blades Clutch will disengage.

Allow engine to cool down for a short time before turning the engine off.


#### E. MOWER OPERATION


 Clean or replace any safety signs that are not readable or damaged.


 Remove all objects from the work area that might be picked up and thrown by the blades.

 Do not mow when children and others are around.


 Do not fill fuel tank while engine is running or hot.


 Keep all safety shields and deflectors in place during operation.

 Remove grass build up from under safety shields before each use. Do not remove safety shields while engine is running. Dry grass build up around belts and sheaves can cause fires.

 Shut off engine before disconnecting the wing mower from the tow vehicle or attempting to move the wing mower by hand.

 Never carry children or passengers.

 Do not allow children to operate this machine.

 Slow down and watch the ends of the wing mowers when making turns so objects are not struck and/or run over.

Depending on the number of wing mowers being towed, it is usually more efficient to mow the large areas first with the full system. Once the large areas are completed, mowers can be dropped off to mow narrower areas.



Look down, to the sides, and behind before and while backing to avoid backing over something or someone. Care should also be taken while backing so that the wing mower or mowers do not jackknife and damage hitches.

Backing up with one wing mower is easy. Backing becomes a greater challenge as additional wing mowers are towed. Avoid backing up by planning ahead. Make loops instead of backing.



Stop the mower blades on both the tow vehicle and all wing mowers if the tow vehicle becomes stuck or stops going forward because of loss of traction. Shut off the engines on the wing mowers before attempting to push or pull the tow vehicle.



Do not turn too sharply when the wing mowers are pulled in tandem or pulled behind a zero turn mower. Sharp turns can force the mowers into each other causing damage to the hitches.

Mowing too fast in very heavy, long grass can cause the wing mower engine to pull down and disengage the blade clutch. The engine can then start to accelerate again while slipping the clutch. Small amounts of clutch slippage for a few seconds will not cause damage. If the clutch is allowed to slip for longer periods, it will overheat and could be damaged. Watch the discharge chute; if material is not being discharged, then the clutch is slipping. In normal cutting conditions, clutch slippage will not be a problem.

Listen to the wing mower engines while mowing. The engines should run free and not work too hard. Working the engine too hard will cause overheating and premature failure.

Do not allow material to build up on the air inlet to the engine cooling system. If the wing mowers are towed with one on the left and one on the right side, there will be a lot of material blowing around the right wing mower engine. Special care should be taken to make sure the engine is getting enough inlet air. Do not allow the engine cooling fins under the shroud to be blocked. Air flow over the engine will be restricted causing the engine to overheat.

## F. DRIVE BELT REMOVAL AND TENSION



Shut off engine and allow mower blades to stop turning before making any adjustments or repairs.

Remove the safety shields.

Remove the two bolts holding the belt removal plate in place around the clutch. Lower the belt removal plate so it rests on the center mower blade.

Loosen the nuts on the spring-loaded idler; adjust bolt until the belt can be slipped off the idler and drive sheaves.

Slip the belt down past the clutch and over the center mower blade. Rotate the center mower blade away from the rear shroud so the belts can be removed.

Install the new belts by reversing the belt removal process.

The belt on the oil drain side of the engine should be mounted on the bottom clutch sheave to allow room for a shallow oil drain pan. Adjust the spring-loaded idler springs to a compressed length of  $1\frac{5}{16}$ " initially for a few hours until the belts run in; then adjust the spring to 1" to  $1\frac{1}{8}$ " compressed length.

See Figure 4

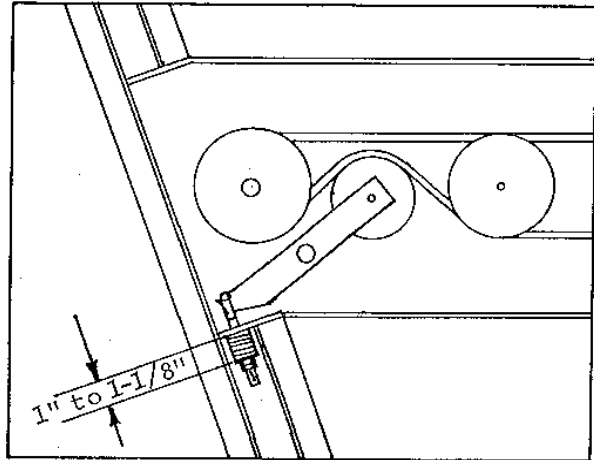


Figure 4: Spring Loaded Idler Spring Adjustment

#### G. MOWER BLADE BALANCING



Always balance the mower blades each time they are sharpened.

Out of balance mower blades cause excess vibrations which lead to premature bearing failures, bolts coming loose, and overall deterioration of the wing mowers.

#### H. LUBRICATION

There are eight lubrication points on the wing mower -- two spring-loaded idler pivots, two caster wheel pivots, and four wheels. Lubricate at approximately 10 hr. intervals or more often as required in dusty conditions. Lubricate with a high grade of pressure gun grease.

#### I. TIRE PRESSURE

To reduce wing mower bounce on rough yards, the tire pressure can be reduced so they feel slightly soft when they are stepped on. Care must be taken not to reduce the air pressure too much so the tire can be pushed off the rim bead losing the air in the tire.

#### J. STORAGE

If the mower is stored outside, the engine should be covered to prevent water from getting inside the engine during heavy rain storms. See the Engine Manual for additional information.

## WING MOWER SPECIFICATIONS

### **ENGINE:**

Make:	Tecumseh	Kohler
Model:	OVXL/C125	CV12.5S
Cylinders	1	1
Cycles	4	4
Crankshaft	Vertical	Vertical
Horsepower	12.5	12.5
Bore	3.31"	3.43"
Stroke	2.53"	2.64"
Displacement	21.82 cu. in.	24.29 cu. in.
Oil Capacity	1 U.S. qts.	2 U.S. qts.
Crank Shaft Dia.	1"	1"
Key Slot	1/4"	1/4"
Crank Shaft Length	3.156"	3.15"
Threaded Hole in End of Crankshaft	3/8 - 24	M10 x 1.5
Engine Mounting Bolts	5/16 - 18 x 1 1/2	M8 x 1.25 - 25
Starter	Electrical	Electrical
Choke	Manual	Manual

### **MOWER:**

Fuel Tank	4 qts.
Effective Cutting Width	56.9"
Deck Construction	11 Ga. welded steel
Cutting Height	1 1/2" to 3 1/2"
Height Adjustment	4 screws
Anti Scalp Wheels	6 - 3" O.D. x 1 1/4" wide 4 in front , 2 in rear
Rear Wheels (Fixed)	13/500 x 6, 2 ply Turf Pneumatic
Front Wheels (Caster)	9/350 x 4, 4 ply Slick Pneumatic
Blade Dia.	3 - 20"
Engine Speed, Blades Running	3350 rpm

### **DIMENSIONS:**

Length	52"
Width	72-1/4"
Height	23-1/2"
Weight -	with Tecumseh 315# with Kohler 340#

### **CLUTCH:**

Type	Centrifugal
Engagement Speed:	1850 rpm

### **STARTER CABLE:**

Size	4 Ga.
Length	16'

### **HITCH:**

Can be expanded to work behind tow vehicles with 38" to 60" mower decks.

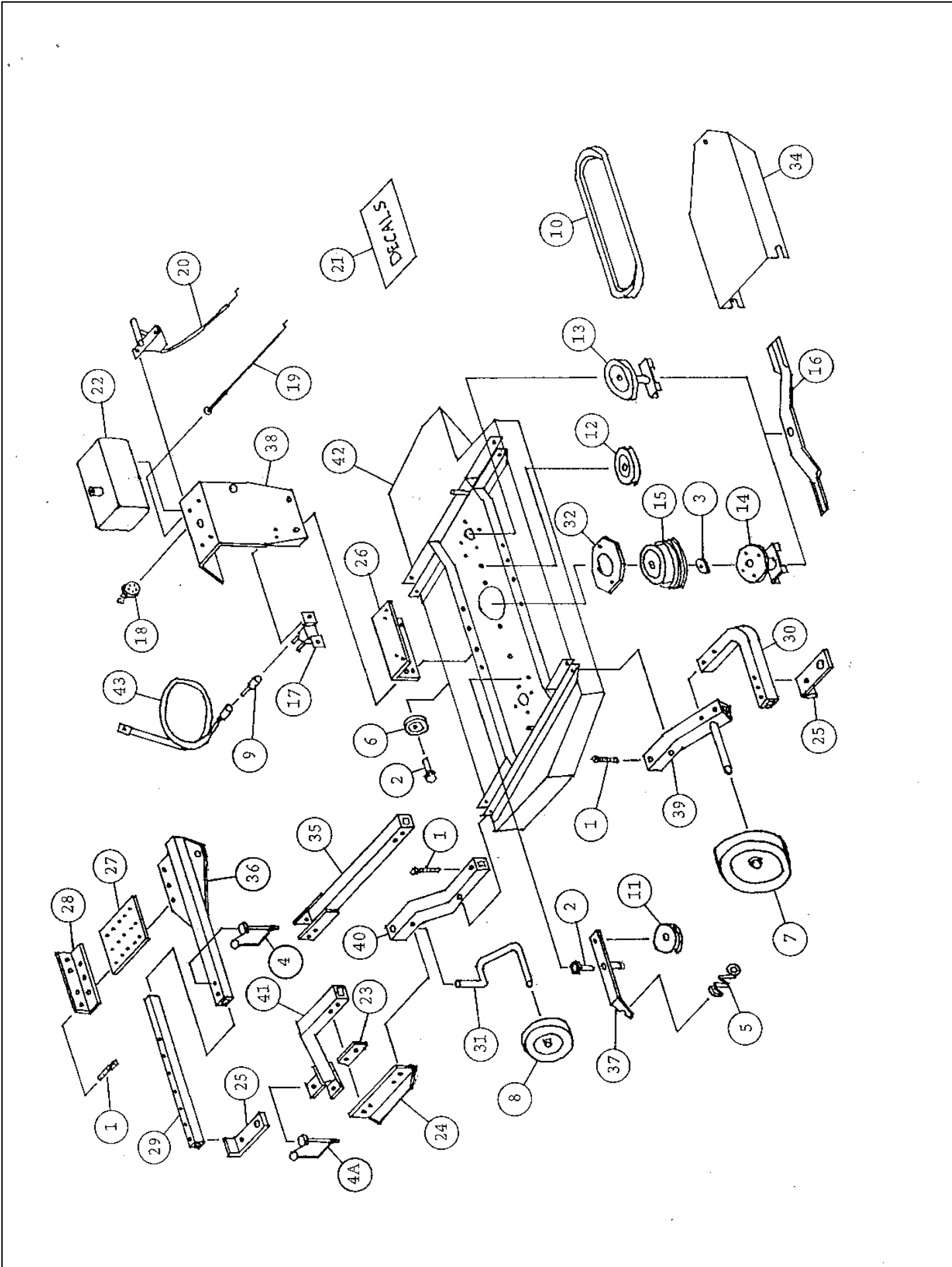
### **PAINT COLOR:**

Pewter Gray	Krylon #1606
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# PARTS LIST

Item	Part#	Description	Qty.	Item	Part#	Description	Qty.
1	202135	Hex Head Bolt, 3/8" x 3" Fully Threaded	6	21	275000	Name Decal, AcrEase	2
2	204000	Shoulder Bolt, 1/2" x 1 5/8" Shoulder Length	8	21	275001	Control Panel Decal, Starting Instructions	1
3	214008	Special Flat Washer, 1.5" Sq. x 3/16" Thick x 25/64 Hole	1	21	275002	Warning Decal, General	1
4	216002	Wire Lock Pin, 5/16" x 2 1/4" Opening	1	21	275003	Danger Decal, Cut Finger	2
4A	216006	Wire Lock Pin 3/8 x 2 1/4" Opening	1				
5	225000	Compression Spring, 1 1/2" L. x 1 3/32" O.D. x .135" Wire Dia.	2	21	275007	Warning Decal, Belt Shield	2
6	226000	Plastic Wheel, 3" O.D. x 1/2" I.D. x 1 1/4" Wide	6	22	277003	Fuel Tank, 1 Gal.	1
7	226001	Offset Wheel Assy., 13/500 x 6, 2 Ply Turf	2	23	600001	Spacer	1
8	226002	Centered Wheel Assy., 9/350" x 4, 4 Ply Slick	2	24	600002	Tongue Pivot Angle	2
9	235005	Starter Terminal	1	25	600006	Hitch Flat	2
10	238000	"V" Belt B Section, 58" O.C. Kevlar Cord (Cates Belt #6958)	2	26	600007	Engine Support Angle	2
11	241001	Flat Idler, 4" O.D. x 3/8" Hole	2	27	600008	Hitch Adaptor Plate	1
12	241002	"V" Idler, 5" O.D. x 3/8" Hole	2	28	600009	Hitch Stop Angle	1
13	258000	Spindle Assy.	2	29	600010	Hitch Extension	1
	258003	Housing Assy (With Two Bearings)	1	30	600020	Rear Hitch Tube	1
	243001	Bearing	2	31	600022	Caster Axle	2
	258004	Spindle Shaft	1	32	600030	Belt Removal Plate	1
	241003	Sheave, 5.5"	1	34	600033	Belt Shield	2
14	258001	Spindle (Center)	1	35	900000	Long Tongue Extension	1
15	258002	Centrifugal Clutch	1	36	900001	Telescope Hitch	1
	258005	Clutch Shoe	3	37	900003	Idler Arm Assy.	2
	225001	Spring, 1850 R.P.M. Engagement	3		243000	Bronze Bearing, 1/2" I.D. x 3/4" O.D. x 1 1/2" Long	1
	243002	Bearing	2	38	900004	Control Panel Brkt.	1
16	259000	Offset Mower Blade, 2" Wide, 20" Long, 3/8" Hole	3	39	900005	Rear Axle	2
17	264000	Solenoid	1	40	900006	Caster Support	2
18	264001	Ignition Switch	1	41	900007	Short Tongue	1
19	269000	Choke Control 20"	1	42	900010	Mower Deck	1
20	269001	Throttle Control, 15", Kohler Engine	1	43	900015	Starter Cable Assy.	1
20	269002	Throttle Control, 9", Tecumseh Engine	1				



# SAFETY SIGNS AND LOCATION

For Models 003700 & 003701

**⚠ WARNING : AVOID INJURY OR DEATH**

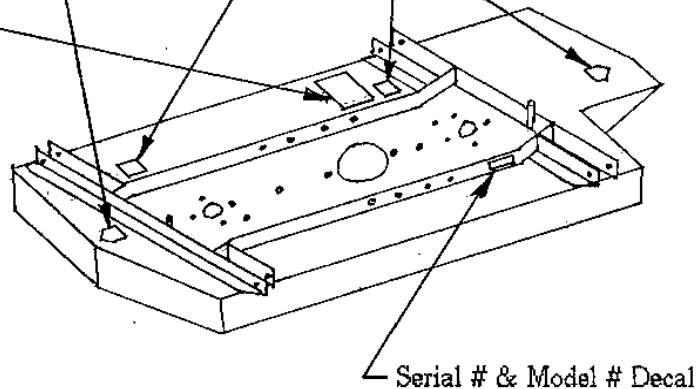
- READ AND FOLLOW OWNER'S MANUAL.
- KNOW LOCATION AND FUNCTION OF ALL CONTROLS.
- BEFORE STARTING ENGINE, REMOVE GRASS BUILD-UP FROM UNDER SAFETY SHIELDS.
- BEFORE STARTING ENGINE, ATTACH MACHINE TO TOW VEHICLE.
- SHUT OFF ENGINE BEFORE DISCONNECTING MACHINE FROM TOW VEHICLE OR ATTEMPTING TO MOVE MACHINE BY HAND.
- DO NOT FILL FUEL TANK WHILE ENGINE IS RUNNING OR HOT.
- IF TOW VEHICLE STOPS GOING FORWARD, STOP ENGINE ON TOWED MOWER BEFORE TRYING TO PUSH OR PULL TOW VEHICLE.
- WHEN MAKING TURNS, SLOW DOWN AND WATCH ENDS OF TOWED MOWER.
- NEVER CARRY CHILDREN OR PASSENGERS.
- LOOK DOWN, TO THE SIDES, AND BEHIND BEFORE AND WHILE BACKING.
- DO NOT ALLOW CHILDREN TO OPERATE THIS MACHINE.
- DO NOT MOW WHEN CHILDREN AND OTHERS ARE AROUND.
- REMOVE ALL OBJECTS THAT MAY BE THROWN BY BLADE.
- KEEP SAFETY SHIELDS AND DEFLECTORS IN PLACE.
- SHUT OFF ENGINE WHILE IN TRANSPORT.
- BEFORE DISMOUNTING TOW VEHICLE: SHIFT TO NEUTRAL, DISENGAGE POWER TO TOW VEHICLE MOWER, AND SET PARKING BRAKE.
- BE SURE BLADES, ENGINE AND MOVING PARTS ARE STOPPED BEFORE PLACING HANDS OR FEET NEAR BLADE OR PERFORMING SERVICE.



275002-Warning Decal, General

275003- Danger Decal,  
Cut Hand & Foot

275007- Warning Decal,  
Belt Shield



Serial # & Model # Decal



**Clean or Replace Any Safety Signs That Are not Readable or Damaged.**

Replacement decals can be purchased from your local dealer or

Kunz Engineering, Inc.  
R. R. 1, 242 N. 45th Rd.  
Mendota, IL 61342