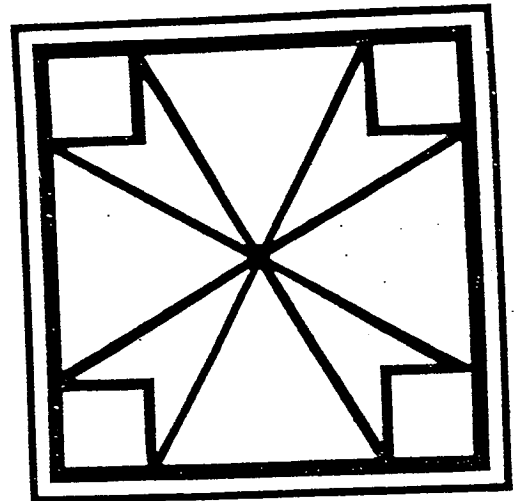


DEINES CORPORATION



MODELS

1440

1450

~~**1848T**~~

~~**1858T**~~

~~**1868T**~~

~~**ALL VACUUM COLLECTORS**~~



LAIRD MANUFACTURING CORPORATION
Deines "The Commercial Alternative"
Box 119
LAIRD, SASKATCHEWAN S0K 2H0
(306) 223-4218 1-800-20-LAIRD

VOLUME NINE

**PARTS, MAINTENANCE
& OPERATION MANUAL**

U.S. PATENT
NO. 3702051

DEINES LIMITED WARRANTY

Deines Corporation, P.O. Box 207, Ransom, Kansas 67572, proudly warrants to the original purchaser all products and components manufactured by Deines to be free of defects in material and workmanship.

Deines Corporation does not warrant trade accessory items (batteries, engines, generators, transmissions, gear boxes, etc.) which are warranted by their respective manufacturers.

Deines will, at its option, replace or repair, without charge to the original purchaser for materials or labor any component or product manufactured by Deines found upon examination by any Deines Authorized Distributor or Dealer or by Deines at its plant in Ransom, Kansas to be defective in material and/or workmanship.

To obtain warranty service the component or product must be returned to an Authorized Distributor or Dealer or to the Deines Plant, TRANSPORTATION PREPAID, accompanied by a letter stating the warranty claim. Upon receipt of a Warranty Claim Letter Deines will within ten business days commence performance of its obligations under this Warranty.

This Warranty will commence upon the date of delivery and will extend as follows: one year for Industrial and/or Commercial applications; one year for Residential applications.

THIS WARRANTY WILL NOT TAKE EFFECT unless the Warranty Registration Card is signed and returned to the Deines Corporation within ten days from date of delivery.

This Warranty is void if the component or product is modified in any manner which Deines concludes after inspection adversely affects the reliability of the component or product; if the component or product has been repaired or serviced by anyone other than an Authorized Distributor or Dealer or the Deines Plant; if the component or product is damaged because not operated in accordance with applicable instructions or because of accident, misuse or abuse; if the component or product is damaged because of accident, misuse or abuse; if the component or product is damaged because not properly maintained as set forth in applicable instructions.

This EXPRESS WARRANTY IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES. Deines neither assumes nor authorizes any other person, natural or corporate, to assume for it any other obligations or liability in connection with or with respect to any component or product.

EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ALL IMPLIED WARRANTIES MADE BY DEINES IN CONNECTION WITH ANY COMPONENT OR PRODUCT MANUFACTURED BY IT INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE ARE LIMITED IN DURATION TO THE WARRANTY PERIODS SET FORTH IN PARAGRAPH FOUR ABOVE, AND NO WARRANTIES WHETHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS, SHALL APPLY AFTER SAID APPLICABLE PERIOD HAS EXPIRED.

DEINES SHALL UNDER NO CIRCUMSTANCES BE LIABLE FOR ANY DIRECT, INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES AND/OR EXPENSES.

This Warranty gives you specific legal rights. You also have implied warranty rights. In the event of a problem with warranty service or performance, you may be able to go to a small claims court, a State court, or a Federal district court.

SAFETY OPERATING PRECAUTIONS

WARNING READ ENGINE OPERATING MANUAL BEFORE STARTING ENGINE

1. Remove stones, wires, cans, boards, branches, bones and other foreign objects FROM THE AREA BEFORE EACH MOWING. Avoid striking rocks or roots. Any of the above, if struck by the mower may be thrown, causing injury to people, property, or to the mower.
2. Place mower drive control levers in neutral and mower clutch handle in neutral or disengaged position before starting engine. (The mower will not start due to safety switches unless the above is adhered to).
3. Never place hands or feet under cutting head while motor is running.
4. Never fill the fuel tank while the engine is hot, and wipe off any gasoline that might have spilled. Replace fuel cap on tank.
5. Only persons thoroughly acquainted with rules of safety operation should be permitted to use mower. Never allow a small child to operate or be in the operating area of power equipment.
6. Do not attempt to get off or on mower when mower is engaged and motor is running. Wait until mower blades stop turning before getting on or off mower. Make sure clutch handle is in neutral or disengaged before parking mower.
7. Keep blades sharp and properly balanced. If your equipment should start vibrating, stop the engine and check for damaged or loose parts. Vibration is generally a warning of trouble.
8. When putting on new blades, put on new spring washer and lock nut. Check lock nut at frequent intervals making sure they are tight.
9. Always keep hands, feet, loose clothing, and other objects away as there is danger of tipping over.
10. Do not attempt to clean housing or to otherwise clean, adjust, or repair machine before stopping mower engine, disconnecting the spark plug cable, and blade engage lever is in disengaged position.
11. Never leave machine running unattended, and remove key from ignition switch to prevent children from starting mower.
12. Always keep all shields and guards in place. Mower must never be operated with any shield or guard removed.
13. Never run engine inside a building without opening all doors and windows.
14. Keep persons away from mowing area. Although area has been supposedly cleared of foreign objects, small objects may have been overlooked and may be discharged or thrown by moving parts.
15. Always drive slowly over unseen ground, on hills and curves to prevent tipping of mower.
16. Do not operate the mower at high speed going down hill, and do not turn sharp corners while going down hill. NOTE: The transmissions produce considerable braking action when engine is throttled back at idling speed, and this procedure is recommended for applying braking action.
17. Do not operate mower on crossways or on inclines which have a greater than 25% slope. A 25% slope is a 2½ foot rise every 10 feet. Do not operate mower going up or down hill if slope is greater than 35%.

In addition to the above safety procedures for operation of the Marty "J" the following precautions should be observed when using gasoline. It's improper use, handling, and storage can be dangerous. Remember:

- * Always use an approved container.
- * Place container out of reach of children.
- * Never add gasoline to a running or hot engine. Fill tank out of doors and wipe up spilled gasoline.
- * Use gasoline only as a fuel - Never as a cleaner.
- * And positively NO SMOKING.

HOW TO ORDER PARTS

Each available part has been given a key number, which is used only as a reference in locating the part number, description, and quantity in the list which follows each "exploded view". This key number is not a part number, do not use it when ordering parts.

WHEN ORDERING PARTS, FOLLOW THE INSTRUCTIONS LISTED BELOW, BY DOING SO, YOU WILL BE ASSURED OF RECEIVING THE CORRECT PART IN THE SHORTEST TIME.

1. Give the serial number and model number of your unit.
2. Write the complete part number and the description of the part.
3. Whenever the terms LEFT or RIGHT, FRONT or REAR are used herein it should be understood to mean a position facing in direction while operating the machine.
4. Give detailed shipping instructions - that is: by truck, bus, railroad, parcel post, etc.

Deines Corporation reserves the right to void any warranty when original factory specified replacement parts are not used.

Deines Corporation is continually striving to improve its products.

We must therefore reserve the rights to make improvements, or changes, when it becomes practical to do so, without incurring any obligation to make changes or additions, to the equipment sold previously.

HARDWARE KEY

Throughout this operation and parts manual, you will find common hardware such as bolts, nuts, and washers, illustrated or not illustrated. The service part immediately preceding a hardware listing is the part using these particular items for mounting purpose or installation. This hardware is not included with parts or assembly when ordering as a replacement.

MAINTENANCE

ADJUSTMENTS

For final drive chain adjustment, slide axle forward.

For transmission chain adjustment, loosen transmission, slide transmission to rear. Retorque transmission mount bolts to 35 foot pounds.

If engine has been moved on any tractor:

locate the adjusting nuts located on each push arm. Loosen the forward nut (right hand thread) several turns. Then tighten the rear nut enough to bring the belts in to proper tension. Remember that each side should be tightened equally. Now reverse the forward nuts until they are tight and lock the adjustment turnbuckle into place.

HYDROSTATIC TRANSMISSION LUBE AND MAINTENANCE

CHECK HYDROSTATIC TRANSMISSION ON EACH SIDE OF MOWER EVERY TWENTY-FIVE HOURS OF OPERATION.

Remove the oil reserve cap and observe to see that oil is up to the oil level line on the side of the reservoir oil inlet. When the oil is cool the oil will not be expanded and will appear low at the base of the inlet. When the oil is warm or hot, it will be expanded and will appear at a higher level.

Fill oil reservoir of transmission with Ford Type F or GM Dextron fluid. DO NOT ALLOW OIL TO BECOME LOW AS SEVERE DAMAGE TO TRANSMISSION WILL RESULT.

If hydrostatic transmission does not operate with proper oil level, a malfunction has resulted and transmission must be returned to your dealer, who will return it to the manufacturer of the transmission to be adjusted.

HYDROSTATIC TRANSMISSION DRIVE BELT ADJUSTMENT

The belt tightener for each transmission drive belt is located between the engine and transmission drive pulley. Adjustments are made by loosening the idler pulley and sliding up (putting pressure on the belt) to 75 torque inch pounds. NOTE: DAMAGE TO TRANSMISSION WILL RESULT BY HAVING THE BELT TO TIGHT. THIS PLACES A HEAVY SIDE LOAD ON THE BEARINGS OF THE TRANSMISSION.

NOTE: ALL PULLEYS HAVE LOCKTIGHT ON THEM, TO REMOVE PULLEYS HEAT TO 250° F.

USE CAUTION WITH HEATED PULLEYS

OPERATION

OPERATING PROCEDURES

All models of the Marty-J Mowers are fully assembled and tested at the Deines Corporation factory to be free from defects in workmanship and material. The Marty-J will give you many trouble free years of operation when you follow the service and maintenance procedures provided in this PARTS, MAINTENANCE AND OPERATION MANUAL.

NOTE: FOLLOW DIRECTIONS AND SAFETY PRECAUTION DECALS THAT ARE ON THE MOWER.

STEERING

Each steering arm independently controls the direction of the corresponding front drive wheel, both forward and reverse. In neutral the wheel is locked. The further the drive lever is moved, the faster the wheel turns. Consequently an indefinite range of speed is available from 0 to 5½ miles per hour, forward or reverse. Therefore the steering arm serves as a speed control, braking system and a steering wheel.

ENGAGING DECK

SET ENGINE SPEED TO ABOUT HALF THROTTLE BEFORE ENGAGING OR DISENGAGING BLADE CLUTCH DRIVE HANDLE. Pull mower blade clutch arm over center. After mower is engaged, set throttle from 2600 to 3200 RPM

CAUTION: NEVER ENGAGE BLADE DRIVE OR MOWER EXCEPT WHEN SITTING ON SEAT, KEEP HANDS AND FEET FROM BENEATH MOWER AND DECK.

If engine pulls down, return the steering levers closer to neutral. In extremely heavy cutting; it may be necessary to use the slowest speed and take a narrower cut. Your Marty-J is unique in that the speed of the mower is not related to the speed of the blades. Since very little power is needed to drive the mower you receive the greatest efficiency out of the mower deck.

Normal cutting height is from 1 to 4 inches. Height of the cut is adjusted by means of raising or lowering the rollers or gauge wheels.

Make right hand turns for cutting normal height grass. This way the clippings are chopped up finer. The last cut can be raked or sept up eliminating cleaning the entire yard. In tall grass or weeds, make left turns so grass or weeds are discharged on the cut area. This is necessary so that clippings can discharge freely.

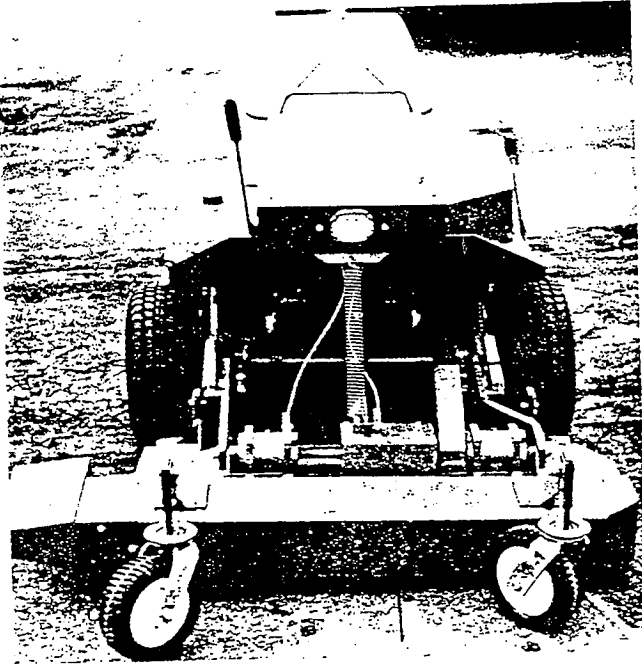


DUMP VALVE OPERATION

In order to move the machine when the engine is not running, release dump valves. The left transmission dump valve is located at the front-center of the transmission. The right transmission dump valve is located at the rear-center of the transmission. To dump, push in plunger with finger and flip clip over valve head.

MAINTENANCE

EXPOSING MOWER DECK



CAUTION: NEVER RAISE DECK WITH ENGINE RUNNING.

To raise mower deck, place hand under center front of deck and raise deck and at the same time with the other hand push springs toward body until deck is in vertical position.

CLEANING MOWER

Water pressure from a garden hose can be used in cleaning underside of housing, if cleaned immediately after use before clippings under mower has a chance to dry out. This should be done whenever an accumulation of grass builds up under mower. Mower will do a better job of mowing if underside of mower deck is kept clean. A wide bladed putty knife also works well for cleaning grass and dirt accumulation. A light coat of oil after cleaning is also beneficial.

BLADE CARE

For best results, cutting blades must be kept sharp. The blade can be sharpened with a few strokes of a file, or on a grinding wheel.

DO NOT ATTEMPT TO SHARPEN WHILE ON MOWER

When grinding, care should be taken to maintain blade balance and the blade should be checked for proper balance before re-installation on the mower. Imbalance of blade or bent blades will cause excessive vibration when running, and eventual damage to mower gear boxes.

To insure satisfactory operation, it is recommended that before the start of each mowing season, the old blades be discarded and replaced with new blades if worn excessively.

CAUTION: BE SURE TO REMOVE ENGINE SPARK PLUG WIRE OR IGNITION KEY BEFORE ATTEMPTING TO REMOVE OR REPLACE BLADES.

DRIVE CONTROL CABLE ADJUSTMENT

To maintain neutral adjustment, loosen lock nuts (a) on each end of turnbuckles on steering cables. Adjust to neutral and relock nuts.



MAINTENANCE

ADJUSTING GAUGE WHEELS

The cutting height of the mower is determined by the position of the gauge wheels on the mower deck or by the position of the transporting height position. The mower deck is of the full floating type and will closely follow the contours of the ground when using the gauge wheels for the height of cut positions.

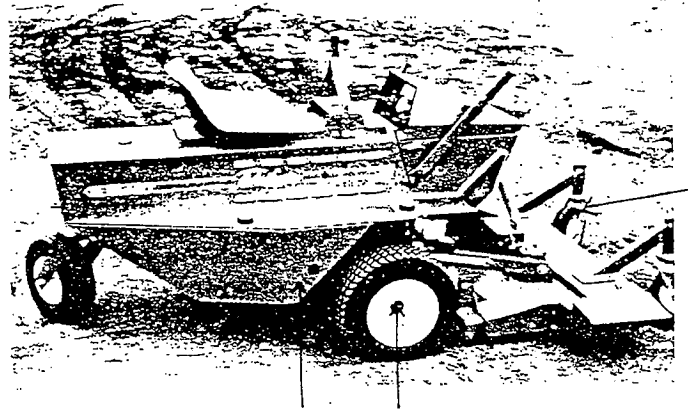
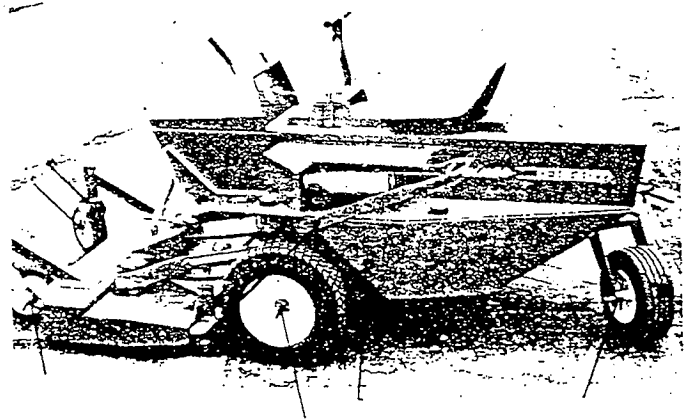
Adjustment is done by removing the gauge pin and clip, moving the gauge wheel and fork up or down to the desire height, then replacing the gauge pin and clip.



LUBRICATION

Check grease in gear box after each 50 hours of operation. Gear box should be approx. $\frac{1}{4}$ full with MOLY-LITHIUM GREASE, except for the 1450 & 1850T Durst gearbox. It should be approximately $\frac{1}{2}$ -full with multi-purpose 90 W. oil.

Grease all zerks with MULTIPURPOSE GREASE on areas indicated below. This should be done every time mower has been operated.



BE SURE TO READ AND FOLLOW ALL SAFETY PRECAUTIONS BEFORE WORKING ON THE MOWER.

OPERATION

CAUTION: WHEN MOWING ALWAYS OPERATE THE ENGINE AT NOT LESS THAN $\frac{3}{4}$ THROTTLE SETTING.

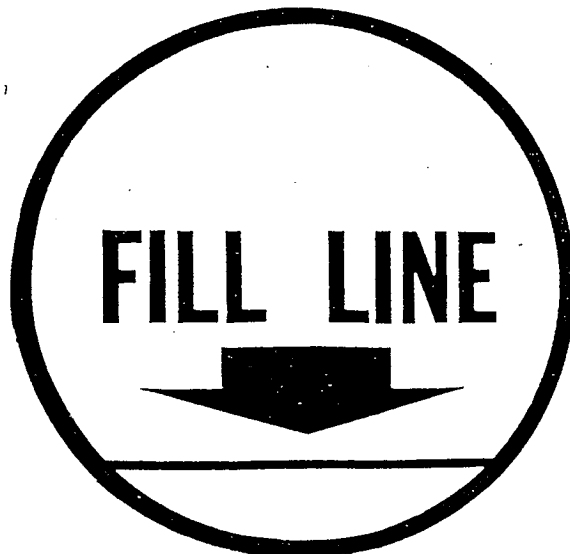
OF CONTROLS

CONTROL THE SPEED THROUGH THE USE OF TRANSMISSION CONTROL ONLY.

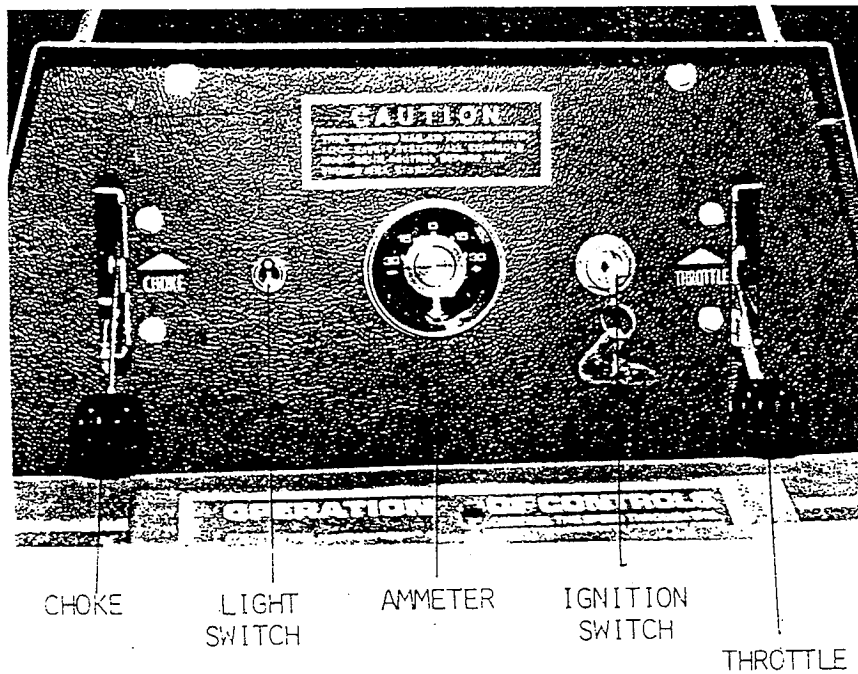
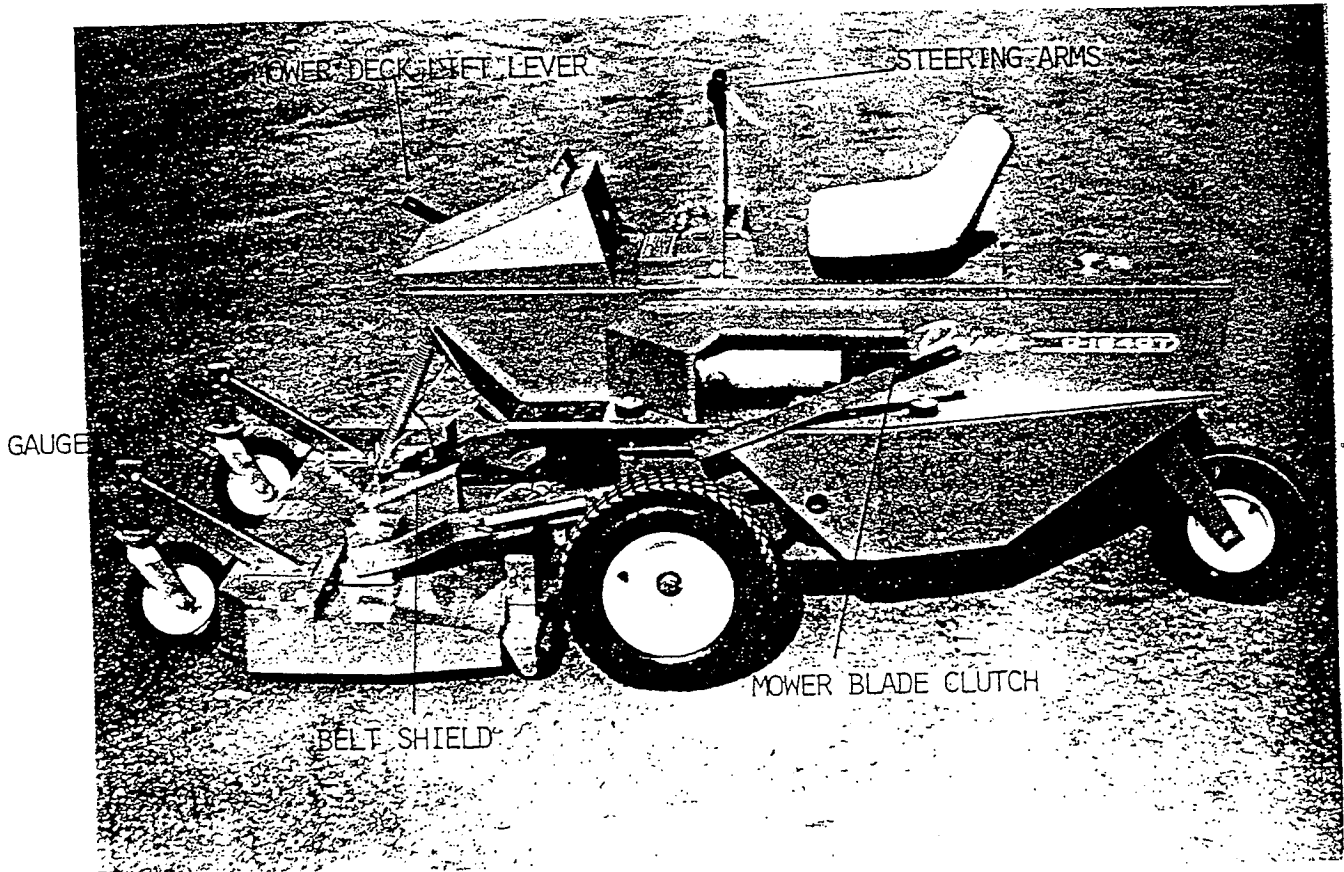
• FORWARD
• NEUTRAL
• REVERSE

BLADE DRIVE CLUTCH ARM
● ——— ●
ENGAGED DISENGAGED

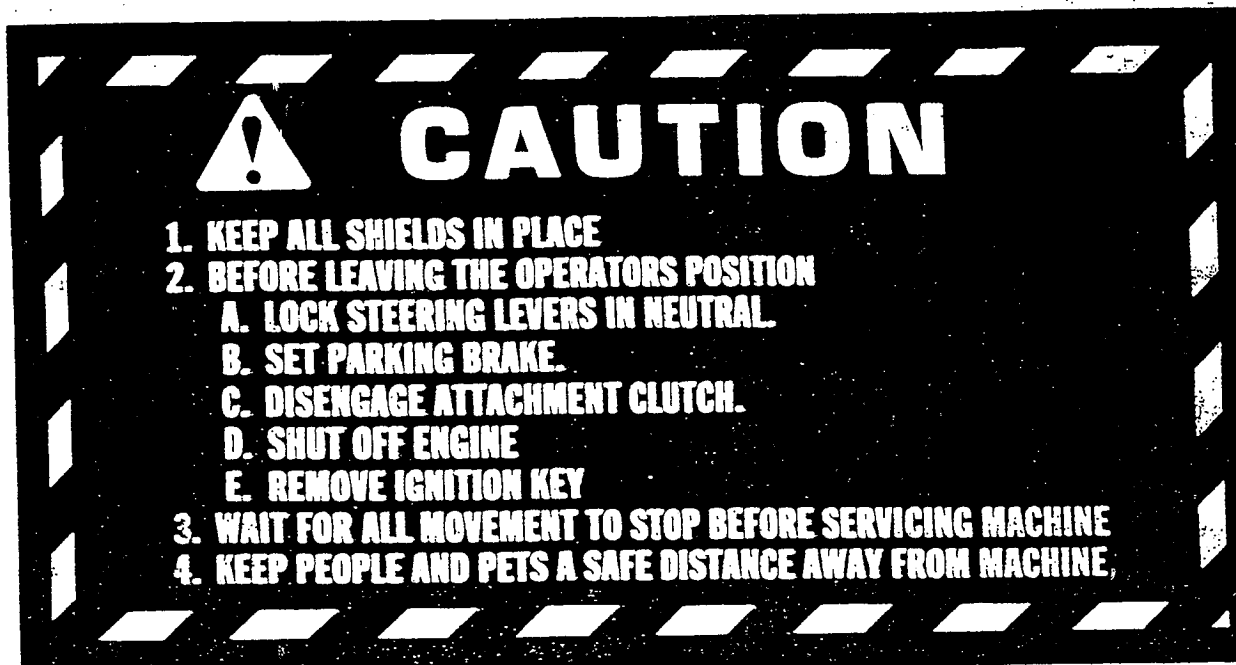
DECK TRANSPORTING ARM
● ——— ●
LOWER RAISE



CONTROLS







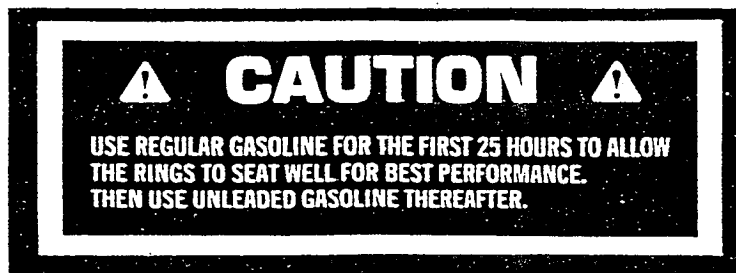
! **CAUTION**

- 1. KEEP ALL SHIELDS IN PLACE**
- 2. BEFORE LEAVING THE OPERATORS POSITION**
 - A. LOCK STEERING LEVERS IN NEUTRAL.**
 - B. SET PARKING BRAKE.**
 - C. DISENGAGE ATTACHMENT CLUTCH.**
 - D. SHUT OFF ENGINE**
 - E. REMOVE IGNITION KEY**
- 3. WAIT FOR ALL MOVEMENT TO STOP BEFORE SERVICING MACHINE**
- 4. KEEP PEOPLE AND PETS A SAFE DISTANCE AWAY FROM MACHINE.**



CAUTION

THIS MACHINE HAS AN IGNITION INTER-LOCK SAFETY SYSTEM. ALL CONTROLS MUST BE IN NEUTRAL BEFORE THE ENGINE WILL START.



! **CAUTION** **!**

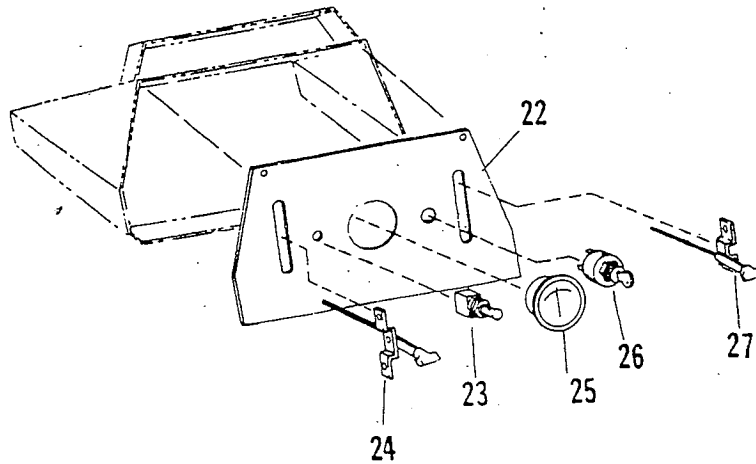
USE REGULAR GASOLINE FOR THE FIRST 25 HOURS TO ALLOW THE RINGS TO SEAT WELL FOR BEST PERFORMANCE. THEN USE UNLEADED GASOLINE THEREAFTER.



CAUTION

USE TYPE "F" TRANSMISSION OIL, OR GMC DEXTRON OIL ONLY...

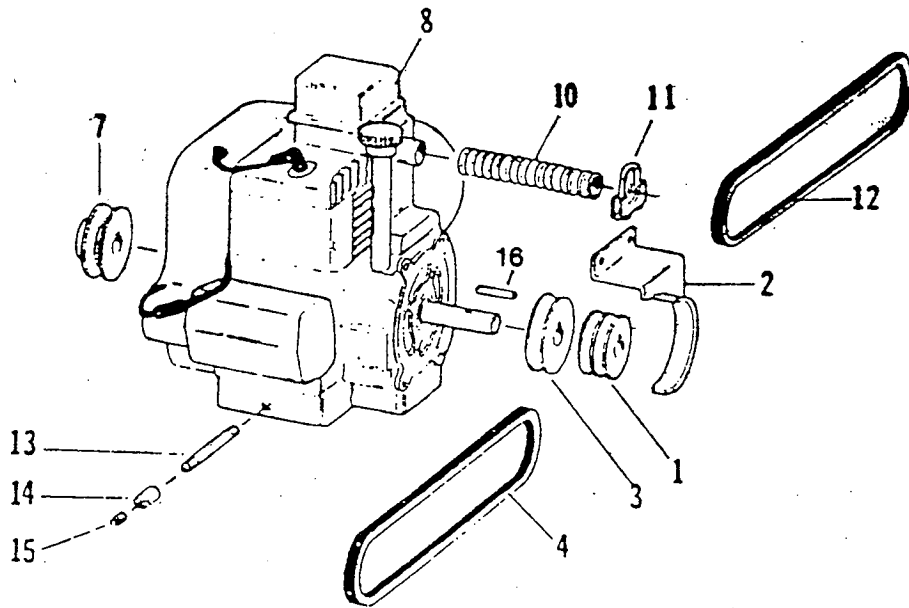
1440 and 1450 DASH ASSEMBLY



1440 and 1450 DASH ASSEMBLY PARTS LIST

<u>REF. NO.</u>	<u>PARTS NO.</u>	<u>NO. REQ.</u>	<u>DESCRIPTION</u>
22	100-216	1	Dash
23	100-118	1	Light Switch
24	300-161	1	Choke Cable
25	100-112	1	Ammeter
26	100-113	1	Ignition Switch
27	300-160	1	Throttle Cable

1440 and 1450 ENGINE ASSEMBLY

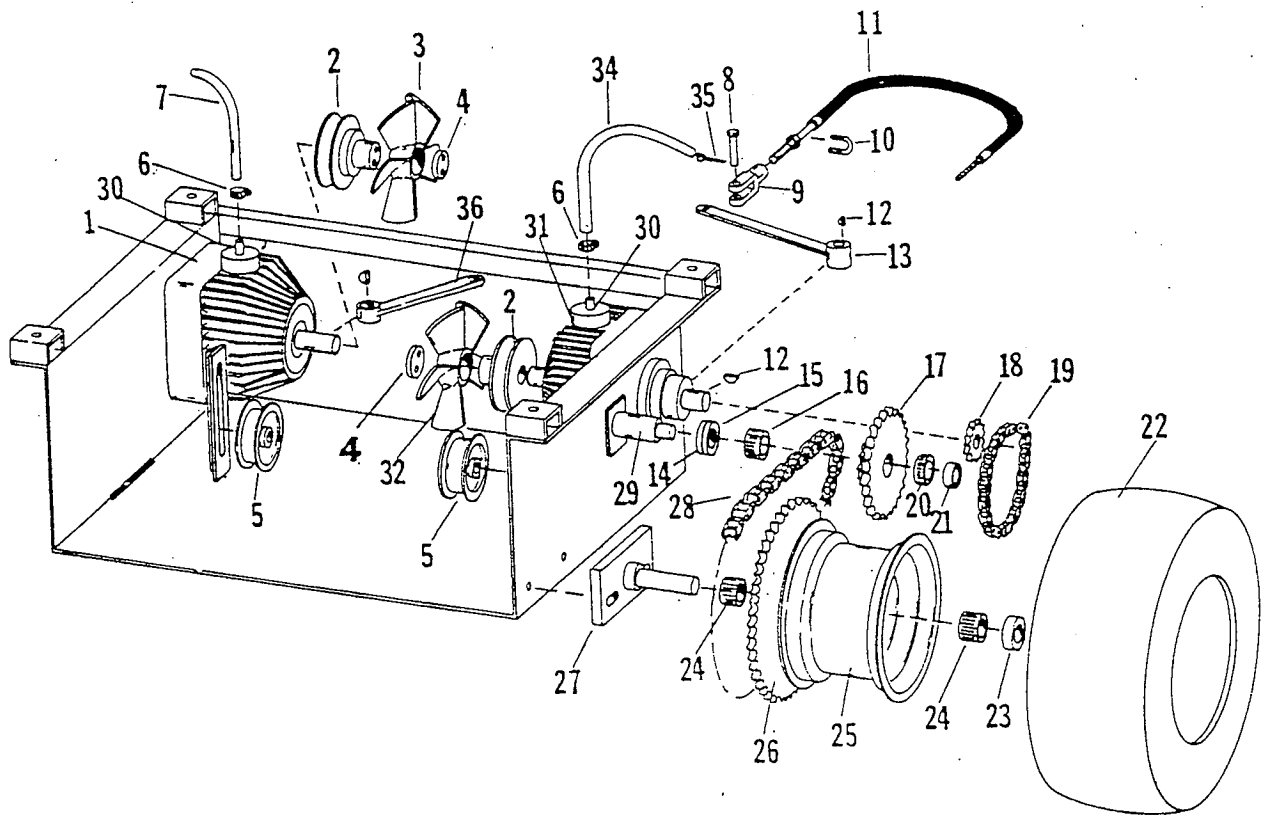


1440 and 1450 ENGINE PARTS LIST

<u>REF. NO.</u>	<u>PARTS NO.</u>	<u>NO. REQ.</u>	<u>DESCRIPTION</u>
1	300-131	1	1440 PTO Pulley
	400-177	1	1450 PTO Pulley
2	300-113	1	Tecumseh 40" Belt Cup
	300-114	1	Tecumseh 50" Belt Cup
3	300-130	1	L. H. Engine Pulley
4	300-137	2	1440 Drive Belts
	400-182	2	1450 Drive Belts
7	400-299	1	R. H. Engine Pulley
8	400-502	1	14 H. P. Tecumseh Engine
10	300-150	1	Exhaust Tubing
11	400-125	1	Exhaust Clamp
12	100-157	2	Trans. Belt
13	400-138	1	Nipple
14	400-139	1	Coupling
15	400-140	1	Plug
Not Shown	300-335	1	Belt Cup Mtg. Bracket
16	300-287	1	L.H. Engine Pulley Key
Not Shown	300-335	1	Belt Cup Mtg. Bracket
Not Shown	400-108	1	Throttle Clip
Not Shown	300-284	1	R.H. Engine Pulley Key

1440 and 1450 MODELS

BASE ASSEMBLY



REF. NO.	PART NO.	NO. REQ.	DESCRIPTION	REF. NO.	PART NO.	NO. REQ.	DESCRIPTION
1	300-121	1	Right Hand Transmission	19	100-145	2	Chain
2	300-122	2	Transmission Pulley	20	300-315	2	3/4" Idler Sprocket Bearer
3	300-147	1	Right Hand Transmission Fan	21	300-126	2	Idler Shaft Set Collar
4	400-145	2	Fan Washer	22	300-163	2	Drive Tire
5	400-265	2	Transmission Belt Idler Pulley	23	300-144	2	Drive Wheel Axle Collar
6	400-155	4	Transmission Hose Clamp	24	400-294	4	Bearing
7	100-269	1	Transmission Hose L. H.	25	400-221	2	Wheel
8	100-135	2	Clevis Pin	400-224	2	Drive Wheel & Tire	
9	100-141	2	Clevis	26	100-144	2	Sprocket
10	100-139	2	Steering Cable Clamp	27	300-129	2	Drive Wheel Axle
11	100-140	2	Control Cable	28	100-143	2	Drive Chain
12	100-196	6	Key	29	300-128	2	Idler Shaft
13	300-145	1	Left Hand Transmission Arm	30	400-219	2	Hydrostat Adapter
14	300-536	1	Thick Idler Shaft Bushing	31	300-148	1	Left Hand Transmission
15	300-535	1	Thin Idler Shaft Bushing	32	300-123	1	Left Hand Transmission Fan
16	300-316	2	5/8" Idler Sprocket Bearing	34	100-268	1	Transmission Hose
17	100-142	2	Idler Sprocket	35	100-136	2	Cotter Key
18	300-127	2	Transmission Sprocket	36	300-124	1	Right Hand Transmission Fan

MOWER BODY ASSEMBLY PARTS LIST

REF. NO.	PART NO.	NO. REQ.	DESCRIPTION
1	300-100	1	Body
2	100-210	1	Motor Frame - Tecumseh Models
	100-281	1	Motor Frame - Onan Models
3	100-284	1	Compartment Divider (NOTE: NOT USED ON MODEL D-1440 & D-1450)
4	100-296	1	Divider Grommets (NOTE: NOT USED ON MODEL D-1440 & D-1450)
5	300-143	8	Rubber Body Mounts
6	300-311	4	Body Bolt Washer
7	300-310	4	Body Bolt
8	100-206	1	Muffler Guard
9	300-111	1	Left Hand Body Skirt
10	300-101	1	Right Hand Body Skirt
11	100-217	1	Dash Hood
12	300-312	1	Long Deck Lift Linkage
13	100-123	1	Spring
14	300-313	1	Short Deck Lift Linkage
15	300-102	1	Hydro Reservoir
16	300-103	1	Hydro Reservoir Clamps
17	100-114	4	Handle Grips
18	400-137	2	Shaft Collar
19	100-219	1	Tail Wheel Fork
20	400-132	1	Tail Wheel Axle
21	400-300	1	Tail Wheel Spacer
22	300-222	1	Tail Wheel & Tire
	400-214		Tail Wheel Rim
	400-213		Tail Wheel Tire
23	100-111	1	Battery
24	300-142	1	Battery Hold-Down Strap
25	300-109	1	Fuel Tank
26	300-424	1	Fuel Tank Bracket Bolt
27	300-133	1	Fuel Tank Bracket
28	400-115	1	Fuel Valve
29	100-140	2	Control Cable
30	400-238	1	Lid Prop
32	300-107	2	Steering Lever
33	400-136	2	Steering Cable Arm
34	300-153	5	Bushing
35	300-329	2	Steering Lever Machine Washer
36	100-239	1	Lid Latch Spring
37	400-352	2	Steering Cable Threaded Barrel
38	100-139	4	Steering Lever Clamp
39	100-117	2	Wiring Harness Clamp
40	100-116	1	Seat
41	400-153	1	Lever Lock Spring
42	400-461	4	Seat Washers (Nylon)
43	100-295	1	Small Rubber Grommet
45	400-242	2	Tail Wheel Bearing
46	400-314	6	Heat Shield Spacer
47	400-315	1	Heat Shield
48	300-116	1 Pr.	Right and Left Head Light Retainer
49	100-110	1	Head Light
51	400-316	1	Spring Hanger (1848T, 1850T, and 1860T Models Only)
52	100-123	1 or 2	Deck Tension Spring
53	100-285	1	Divider Door (NOTE: NOT USED ON MODEL D-1440)
54	400-116	2	Reservoir Connector
55	400-278	1	D.P.S.T. Switch
NOT SHOWN	400-126	1	Weight Bar (USED ON 1848T, 1850T, and 1860T Models Only)
NOT SHOWN	400-356	2	Rectifier Cup Washers
NOT SHOWN	400-361	2	Tailwheel Roler Bearings

