### 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 injure to people, property, or to the mower.

2. Place mower drive dontrol 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 throughly 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 bay be diasharged or thrown by moving parts.

5. 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 reccommended for applying braking action.

 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 IN-STRUCTIONS LISTED BELOW, BY DOING SO, YOU WILL BE ASSURED OF RECEIVING THE CORRECT PART IN THE SHORTEST TIME.

- Give the serial number and model number of your unit.
- Write the complete part number and the description of the part.
- Whenever the terms LEFT of RIGHT, FRONT or REAR are used herein it should be understood to mean a position facing in direction while operating the machine.
- 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

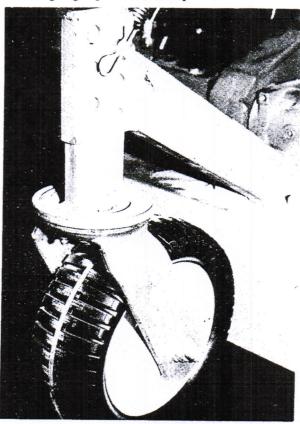
Throughout this operation and parts manual, you will find common hard-ware such as bolts, nuts, and washers, illustrated or not illustrated. The service part immediately preceding a hardware listing is the part using these particular items for mount-ting purpose or installation. This hardware is not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

## 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.

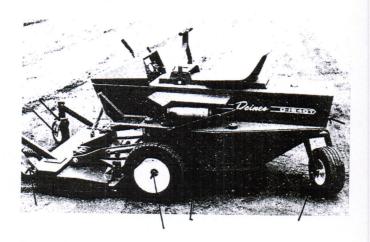


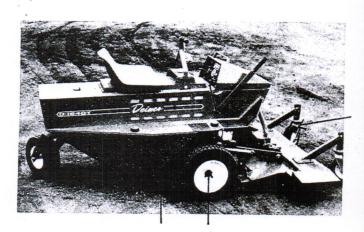
BE SURE TO READ AND FOLLOW ALL SAFETY PRECAUTIONS BE-FOR WORKING ON THE MOWER.

#### LUBRICATION

Check grease in gear box after each 50 hours of operation. Gear box should be approx. ½ full with MOLY-LITHIUM GREASE, 4 oz. to be purchased from your dealer. To check, remove gear box cover by removing the 4 screws which secure it.

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



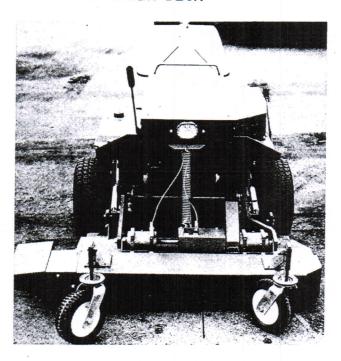


### CLEANING MOWER

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

## 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, curring blade 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

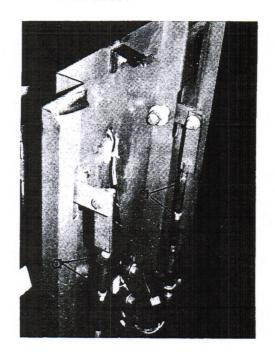
When grinding, care should be taken to maintain blade balance and the blade should be checked for proper balance before re-installation on the mower. Imbalance of blade or bent blades will cause excessive vibration when running, and eventual damage to mower gear boxes.

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.



**ADJUSTMENTS** 

For final drive chain adjustment, slide axle forward.

Fc transmission chain adjustment, loosen transmission, slide transmission to rear. Retorque transmission mount bolts to 35 ft. 1bs.

If engine has been moved: locate the adjusting nuts located on each push arm. Loosen the forward nut (RH thread) several turns. Then tighten the rear nut enough to bring the belts into 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 exceeded 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 DAM-AGE TO TRANSMISSION WILL RESULT.

## HYDROSTATIC TRANSMISSION DRIVE BELT ADJUSTMENT

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

OTE; ALL PULLEYS HAVE LOCKTIGHT ON THEM, TO REMOVE PULLEYS, HEAT TO 250 F. USE CAUSTION WITH HEATED PULLEYS.

### ENGINE

EAD ONAN ENGINE MANUAL THOROUGHLY EFORE ATTEMPTING TO WORK ON YOUR NGINE.

OIL CHANGE

It is recommended that the oil be changed every 10 hours (more often in dusty conditions). Use a 30W MS oil when adding oil. The oil drain is located under the dipstick filler tube.

CAUTION: The dipstick for you ONAN engine reads accurate. DO NOT OVERFILL or damage will result.

SPARK PLUGS

Spark plugs may be reached by opening the compartment divider door for the rear plug, and by going through the right side of the crossmember in front of the tractor for the front plug.

CHANGING POINTS

To change points first close the choke, then remove the air cleaner and the air cleaner body by removing the three screws mounting the air cleaner body to the engine. BE SURE TO LEAVE THE CHOKE CABLE IN THE CLOSED OR UP POSITION WHEN WORKING ON OR AROUND THE CARBURETOR.

CARBURETOR ADJUSTMENTS
SEE ONAN ENGINE MANUAL BEFORE ADJUSTMENTS ARE MADE.
Close the choke then remove air cleaner and air
cleaner body. The front adjusting screw is for the
low speed jet. Adjust according to the engine manual specifications set forth by ONAN. The high
speed jet should never need adjusting, however if
adjusting is needed an authorized ONAN service
center should make the required adjustments.

BELT CHANGING

Remove belt from the gear boy pulley. Split the rockshaft by removing the two bolts and work the belts through. Next remove the two bolts and the belt cup from the engine. Replace with new belts and reverse above procedure.

BELT TIGHTENING- Deck Drive Belts
Loosen front lock nuts on the turnbuckles, Turn
them down to the ends. Tightening of the belt is
accomplished by turning the top adjusting nuts the
same number of turns on each side. When desired
tightness is achieved tighten the bottom nuts.
To assure the proper tension engage the belts. It
should now take 18 pounds pressure to depress the
tope of the belts to the engaging shaft. Excessively tight belts may cause camage to the gearboxes on the mower deck.

# **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 BE-FORE 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 (see ammeter on dash).

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 lowers the rollers or gauge wheels.

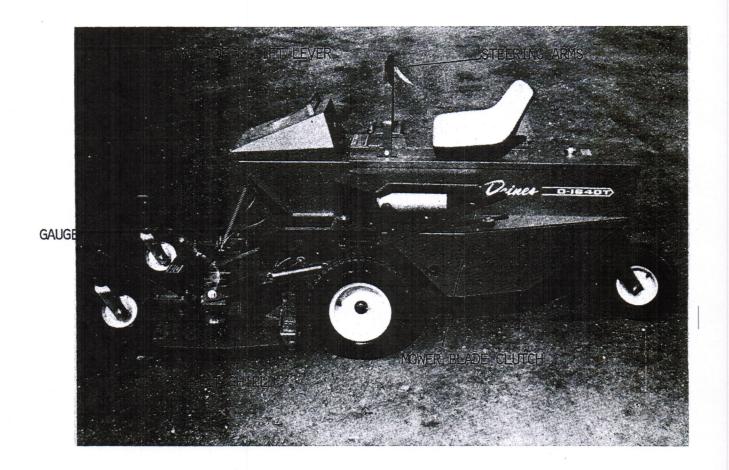
Make right hand turns for cutting normal height grass. This way the clippings are chopped up finer. The last cut can be raked or sept up eliminating cleaning the entire yard. In tall grass or weeds, make left turns so grass or weeds are discharged on the cut area. This is necessary so that clippings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

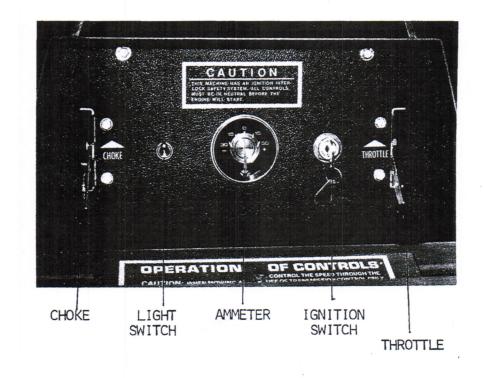


DUMP VALVE OPERATION

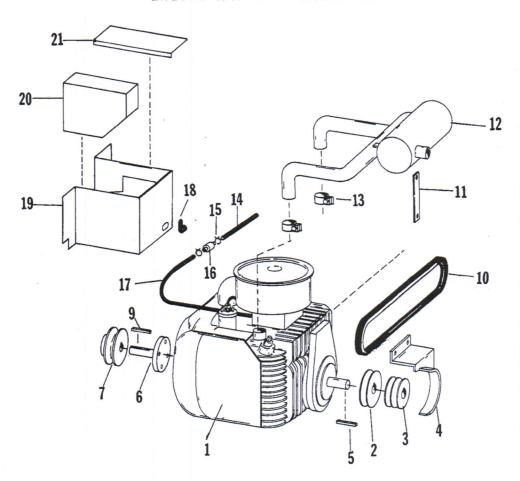
In order to move the machine when the engine is not running, release dump valves. The left transmission dump valve is located at the front-center of the transmission. The right transmission dump valve is located at the rear-center of the transmission. To dump, push in plunger with finger and flip clip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

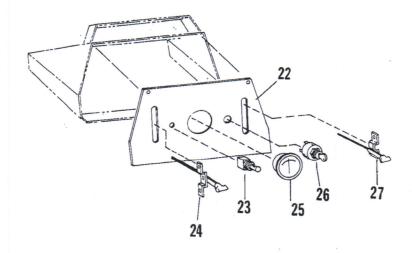
# CONTROLS





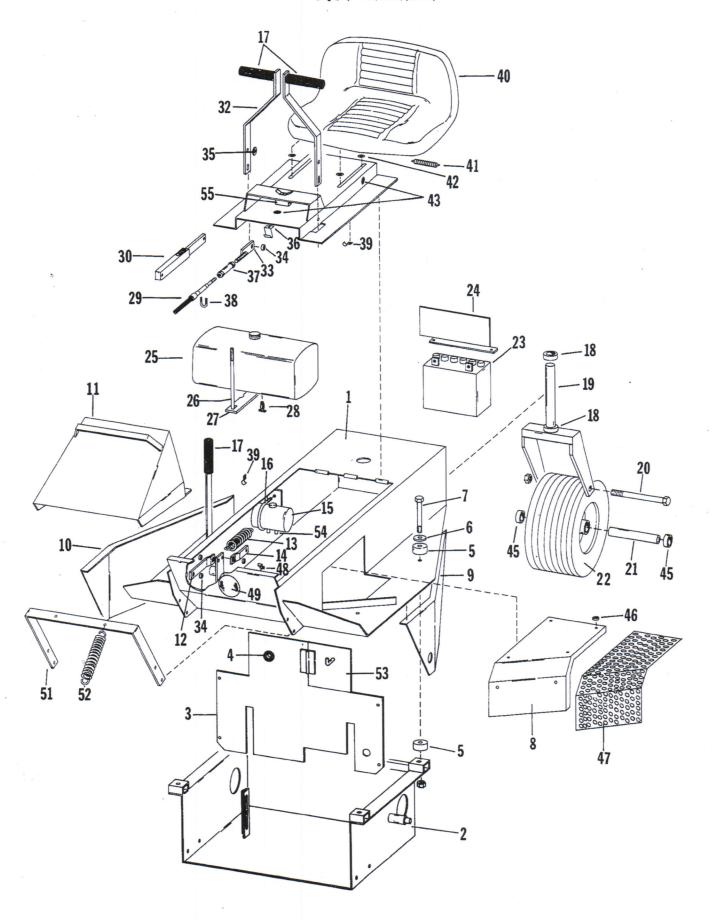
#### ENGINE AND DASH ASSEMBLY





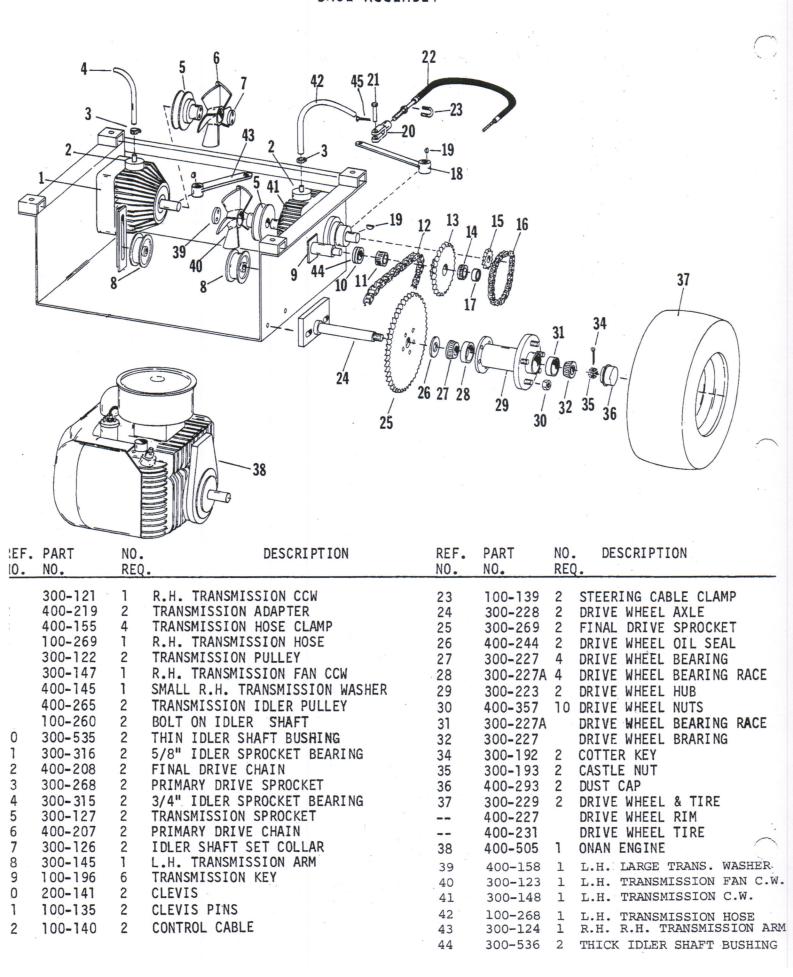
### 1848T and 1860T ENGINE AND DASH ASSEMBLY PARTS LIST

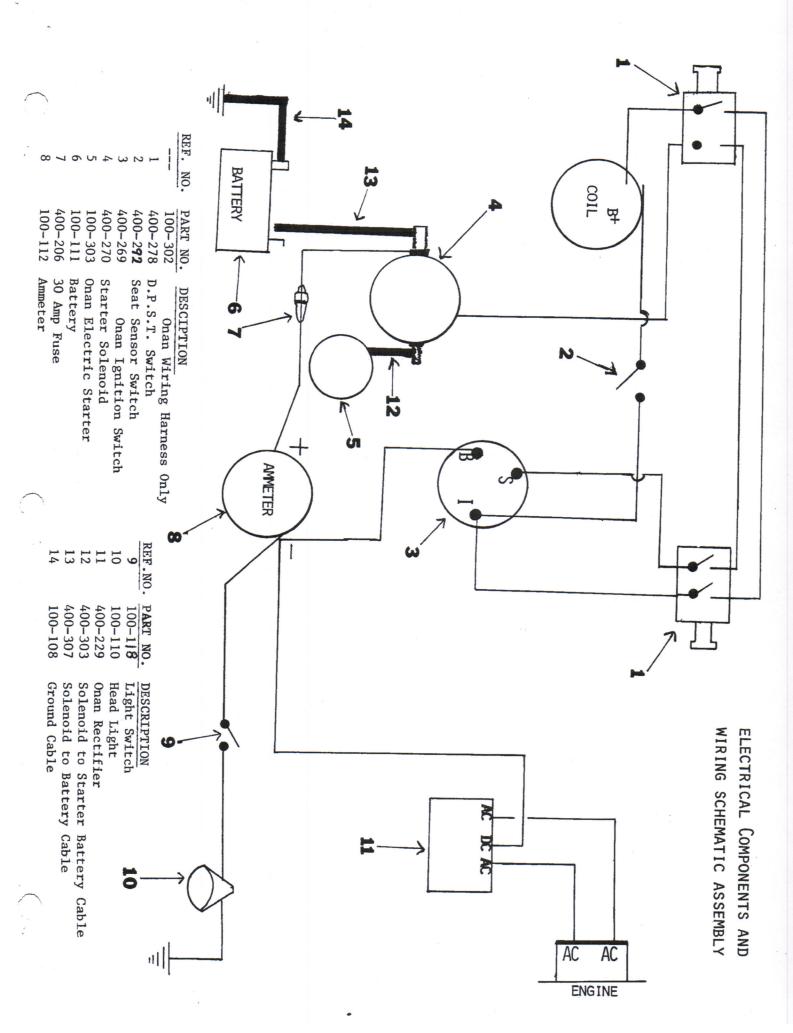
PART	NO.	and the second of the second o
NO.	REQ.	DESCRIPTION
400-505	1	18 H.P. ONAN ENGINE
400-298	1	ONAN L.H. ENGINE PULLEY
400-177	1	48 & 60 PTO PULLEY
300-306	1	48" & 60" ONAN BELT CUP
300-287	1	KEY
100-287	1	ONAN STUB SHAFT
400-299	1	ONAN R.H. ENGINE PULLEY
300-284	1	KEY
100-293	2	TRANSMISSION BELT
100-282	1	ONAN MUFFLER BRACE
100-255	1	ONAN MUFFLER & MANIFOLD
100-256	2	EXHAUST CLAMP
100-267	1	FUEL LINE HOSE
400-124	4	FUEL LINE CLAMPS
400-249	1	FUEL FILTER
100-266	1	FUEL LINE HOSE
400-120	1	THROTTLE & CHOKE CLIP
400-144	1	SHROUD
400-143	1	SHROUD LID
400-142	1	SHROUD LID
100-216	1	DASH
100-118	1	LIGHT SWITCH
300-161	1	CHOKE CABLE
100-112	1	AMMETER
400-269	1	IGNITION SWITCH
400-254	1	THROTTLE CABLE
	NO.  400-505 400-298 400-177 300-306 300-287 100-287 400-299 300-284 100-293 100-255 100-256 100-256 100-267 400-124 400-249 100-266 400-120 400-144 400-143 400-142 100-216 100-118 300-161 100-112 400-269	NO.       REQ.         400-505       1         400-298       1         400-177       1         300-306       1         300-287       1         100-287       1         400-299       1         300-284       1         100-293       2         100-282       1         100-255       1         100-256       2         100-267       1         400-124       4         400-125       1         100-266       1         400-143       1         400-144       1         400-143       1         400-142       1         100-216       1         100-118       1         300-161       1         100-269       1

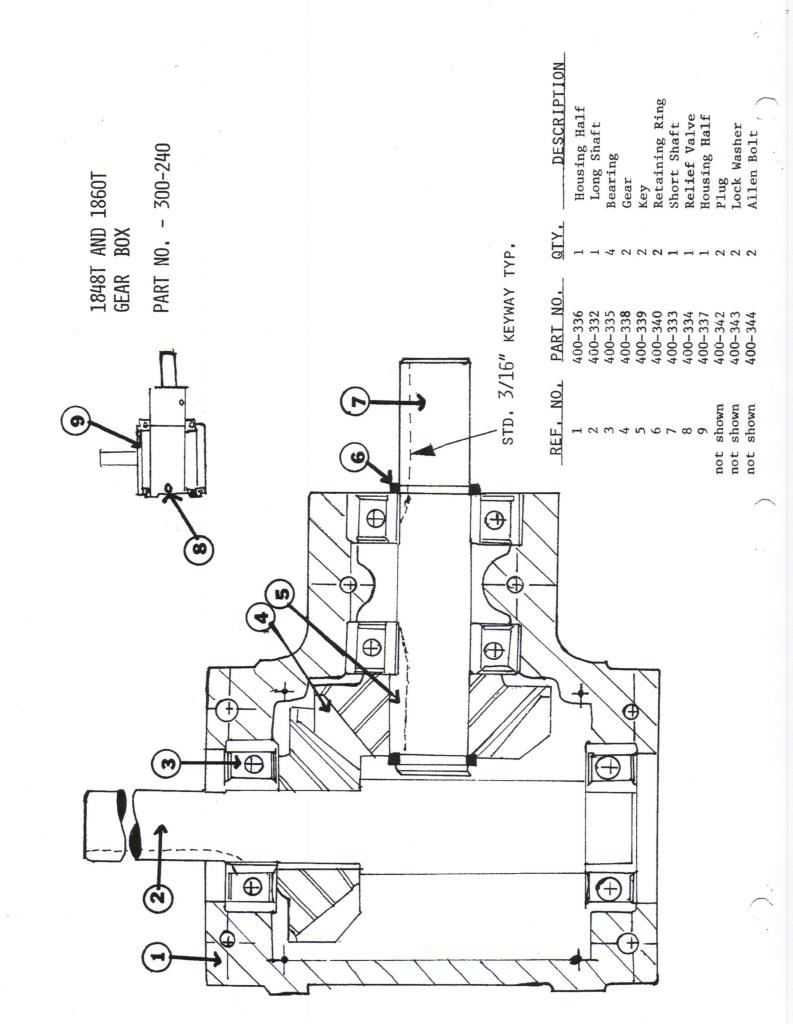


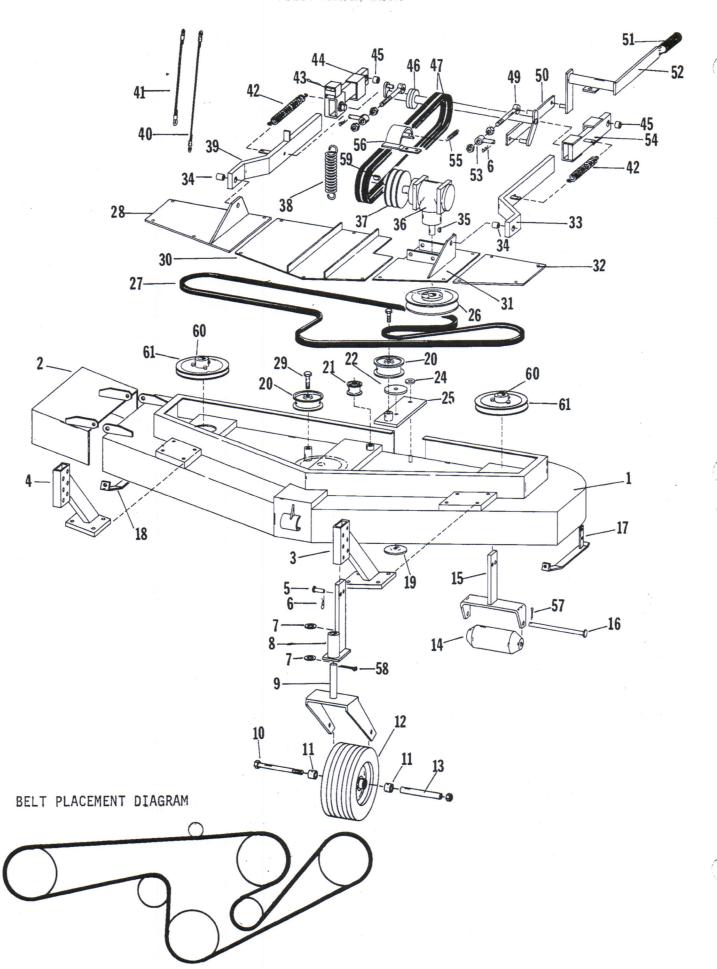
REF.	PART NO.	NO. REQ.	DESCRIPTION
1	300-100	1	Body
2	100-210	i	Motor Frame
3	100-284	i	Compartment Divider (NOTE: NOT USED ON MODEL D1440)
3 4	100-296	i	Onan Divider Grommets (NOTE: NOT USED ON MODEL D1440)
5	300-143	8	Rubber Body Mounts
6	300-311	4	Body Bolt Washer
7	300-310	4	Body Bolt
5,6,7	300-309		Complete Set of Body Bolt, Washer and Mount
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	300-136	1	Clutch Tension Spring
14	300-313	1	Short Deck Lift Linkage
15 16	300-102 300-103	1	Hydro Reservoir
17	100-114	4	Hydro Reservoir Clamps Handle Grip
18	400-137	2	Shaft Collar
19	100-219	i	Tail Wheel Fork
20	400-132	i	Tail Wheel Axle
21	400-300	i	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 30	100-140 400-238	2	Control Cable Lid Prop
32	300-107	2	Steering Lever
33	400-136	2	Steering Cable Arm
34	300-153	6	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	400-356	6	Seat Cup Washers
43	100-295	1	Small Rubber Grommet
45	400-242	2	Tail Wheel Bearings
46 47	400-314 400-315	6 1	Heat Shield Spacer Heat Shield
48	300-116	_	Right and Left Head Light Retainer
49	100-110	1 pr.	Head Light
51	100-110		NOT USED ON 40" MODELS
52	100-123	1	Deck Tension Spring
53	100-285	i	Divider Door (NOTE: NOT USED ON MODEL D1440)
54	400-116	1	Reservoir Connector
51	400-316	1	Spring Hanger on the 1848T & 1860T

#### 1848T and 1860T BASE ASSEMBLY





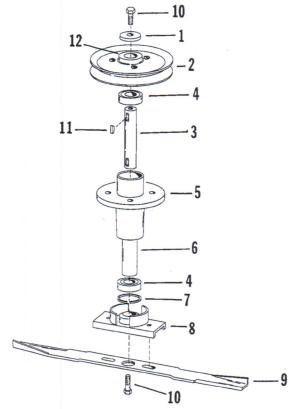




#### 1860T MOWER DECK PARTS LIST

REF. NO.	PART NO.	NO. REQ.	DESCRIPTION
1	400-312	1	BARE DECK
2	\$ 100-273	1	FOOT GUARD
2 3 4	300-332	1	L.H. CASTOR WHEEL ARM
4	300-331	1	R.H. CASTOR WHEEL ARM
5	300-203 300-20 <b>3</b> -	4 10	CASTOR ARM PIN
7	300-202	4	STEM WASHER
8	300-197	2	CASTOR WHEEL STEM
9	300-250	2	CASTOR WHEEL FORK
10	300-264	2	CASTOR WHEEL AXLE
11	400-234	4	BEARING
12	300-247	2	CASTOR WHEEL & TIRE
	400-212 400-233		CASTOR TIRE ONLY CASTOR WHEEL ONLY
13	300-117	2	CASTOR WHEEL SPACER
14	100-132	2 2 2	REAR RUBBER ROLLER
15	300-243	2	REAR ROLLER BRACKET
16	300-201	2	REAR ROLLER PIN
17	100-276	1	L.H. ANTI-SKALP SKID
18 19	100-275 300-262	1	R.H. ANTI-SKALP SKID WASHER
20	300-233	2	IDLER PULLEY
21	400-100	ī	IDLER PULLEY
22	100-188	1	WASHER
24	300-173	3	WASHER
25	300-272	1	IDLER ARM
26	300-234	1	PULLEY
27 28	400-181 300-303	1	DECK BELT DECK SHIELD
29	300-503	2	BOLT
30	300-266	ī	DECK SHIELD
31	300-304	1	GEAR BOX PLATE
32	300-265	1	DECK SHIELD
33	400-328	1	L.H. FRONT PUSHARM
34 35	300-319 300-289	2	PUSHARM BUSHING KEY
36	300-240	1	GEAR BOX
37	400-178	i	PULLEY
38	100-123	2	DECK TENSION SPRING
39	400-329	1	R.H. FRONT PUSHARM
40 41	300-219 300-216	2 1	DECK LIFT CABLE DECK LIFT CABLE
42	300-216	2	CLUTCH TENSION SPRING
43	400-278	1	SWITCH
44	400-318	1	R.H.REAR PUSHARM
45	300-319	. 2	REAR PUSHARM BUSHING
46	300-360	1	ROCKSHAFT
47	300-254	2	DRIVE BELT
49 50	100-294 300-351	2	CLUTCH TURNBUCKLE CLUTCH LINKAGE
51	100-114	i	HANDLE GRIP
52	300-352	i	CLUTCH LEVER
53	300-354	2	CLUTCH TRUNION
54	400-319	1	L.H. REAR PUSHARM
55	400-153	1	SPRING
56	300-292	2	BELT GUARD COTTER KEY
57 58	300-194 300-279	2	COTTER KEY
58 59	300-279		
60	400-263	1 3	KEY STOCK HUB
61	400-264	3	7" RIM SPINDLE PULLEY
		٠.	

#### SPINDLE ASSEMBLY FOR 1860T MOWER



REF.	PART NO.	NO. REQ.	DESCRIPTION
1 2 3 4 5 6 7 8 9 10 11	300-173 400-264 400-261 300-238 400-258 300-253 400-257 400-260 300-261 300-466 400-324 400-263	3 3 3 6 3 3 3 3 6 6 6	SPINDLE PULLEY WASHER 7" RIM SPINDLE PULLEY 60" SPINDLE SHAFT SPINDLE BEARING SPINDLE HOUSING SPINDLE HOUSING SNAP RING 60" BLADE SADDLE 60" BLADE 3/8 x 1 NF BOLT SPINDLE 1/4 x 3/4 WOODRUFF KEY
13	300-407	3 9	SPINDLE HUB SCREW FOR SPINDLE PULLEY