

*Madson
Pro
Street
Lawn
Mowers
Project
Guide*

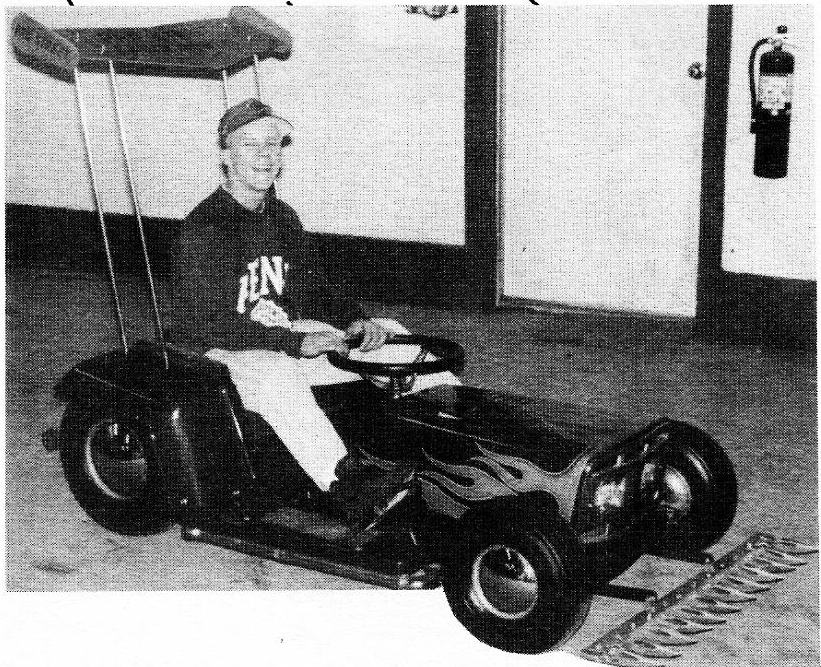
THE ROAD TO SUCCESS

*Madson
Pro Street Lawn
Mowers*

8729 East Little Lane
Clinton, WI 53525

*The Cutting Edge of a New
Generation!*

(608) 676-4283



VIDEO INDEX

- SECTION 1. 5 MINUTES "THE PRO STREET LAWN MOWER"
- SECTION 2. 5 MINUTES "BACKGROUND OF SOME OF OUR OTHER PROJECTS"
- SECTION 3. 1 MINUTE "THE BEFORE AND AFTER SHOT"
- SECTION 4. 5 MINUTES BUILDING A "LATE MODEL PRO STREET LAWN MOWER
1980-1997"
- SECTION 5. 25 MINUTES DISASSEMBLY OF AN "ORIGINAL STYLE PRO STREET
LAWN MOWER 1970-1980"
- SECTION 6. 50 MINUTES "REASSEMBLING OF THE PRO STREET LAWN MOWER"
1. CROSS MEMBERS, 2. RUNNING BOARDS, 3. FRONT
AXLES, REMOVE OLD STEERING, 5. WELDING NEW
STEERING AND TIE RODS, 6. SAFETY OF CUTT-OFF SAW
7. FRONT AXLE, 8. REAR DECK LID, 9. ENGINE MOUNT
10. FRAME MODIFICATIONS, 11. ENGINE INSTALLATION
12. FRONT STEERING BUSHINGS, 13. FRAME FILLER
PLATE, 14. REAR AXLE WELDING:
15. TRANSMISSION PULLEY AND BRAKING SYSTEM
16. THROTTLE LINKAGE, 17. HAND CLUTCH
- SECTION 7. 5 MINUTES "SCOTT AND BRENT EXPLAINING TRANSAXLE"
- SECTION 8. 5 MINUTES "LUKE AND SCOTT MAKING HEADERS"
- SECTION 9. 7 MINUTES "PAINT JOB AND FRAME"
- SECTION 10. 5 MINUTES "FINISHED CLUTCH, STEERING, AND ENGINE"
- SECTION 11. 3 MINUTES "ACCESSORIES"
- SECTION 12. 15 MINUTES "MAKING THE SEAT"
- SECTION 13. 2 MINUTES "THE BEGINNING"

PLEASE SEND US A PICTURE OF YOUR PRO STREET LAWN MOWER AND
ANY SUGGESTIONS YOU HAVE FOR IMPROVING THE PROJECT GUIDE AND
VIDEO.

YOU CAN ORDER

A HARD WOOD STEERING BUSHING FOR \$5.00 EACH

A HAT FOR \$5.00 A TEE SHIRT FOR \$10.00 A POLO SHIRT FOR \$20.00

PLEASE ADD \$5.00 FOR SHIPPING AND HANDLING

THE NEW LATE MODEL PRO STREET LAWN MOWERS

THE LATE MODEL PRO STREET LAWN MOWER SECTION HAS BEEN EDITED INTO SECTIONS 2 AND 3 OF THE VIDEO INDEX. LATE MODELS ARE A LOT EASIER TO BUILD AND CAN BE BUILT IN ABOUT 3 DAYS.

ONE OF THE BEST WAYS YOU CAN HELP PROMOTE THIS SPORT IS TO SEND A PICTURE AND A STORY ABOUT YOUR PRO STREET LAWN MOWER TO *HOT ROD*, *POPULAR HOTRODDING*, *CAR CRAFT* AND OTHER MAGAZINES. IT IS REALLY NEAT TO SHARE YOUR IDEAS WITH OTHER PEOPLE THAT WOULD BE INTERESTED IN DOING THE SAME THINGS YOU LIKE TO DO.

1. STEERING

A. CUT THE STEERING SECTOR OUT OF THE FRAME, AND CUT THE PITMAN ARM OFF THE BOTTOM AND WELD IT ON THE TOP, 1" SHORTER THAN IT WAS.

B. USE 14" OF THE BLADE ENGAGEMENT LEVER TO LENGTHEN THE STEERING CONTROL ROD, AFTER CUTTING THE CENTER OUT AND LEAVING ABOUT 4½" ON EACH END, TOTAL LENGTH SHOULD BE 23½". CUT OFF, FLATTEN, AND REWELD STEERING ARM TO AXLE, SO IT IS 4" CENTER TO CENTER.

C. WELD THE STEERING SECTOR TO THE FIREWALL WITH TWO 3/8" BY 13" RODS.

D. CUT 6½" OFF STEERING COLUMN AND DRILL HOLE TO CENTER STEERING WHEEL.

E. IF NEW KING PIN BUSHINGS ARE LOOSE, EPOXY THEM IN PLACE.

F. BEND AXLES DOWN 3 DEGREES.

G. WELD 5/16" NUTS ON ENDS OF AXLES TO WIDEN FRONT END, AND ADD SPACERS.

H. WELD IN STEERING STOPS AND GRIND OUT ON TOP OF AXLE TO MISS ENGINE AND STEERING NUT.

J. ADJUST CASTER TO 10 DEGREES BY WELDING IN 1/4" ROD.

K. THE TIE ROD IS BEHIND THE AXLE SO THE STEERING GEOMETRY IS CORRECT.

2. CLUTCH, BRAKE, AND THROTTLE.

- A. CLUTCH AND BRAKE IS NOW ONE PEDAL, AND SHOULD HAVE A NEUTRAL SAFETY SWITCH.
- B. CUT CONTROL LEVERS OFF CLUTCH AND BRAKE SHAFT AND RELOCATE.
- C. WELD NEW ARM ONTO CLUTCH IDLER PULLEY LEVER, AND RELOCATE SPRING.
- D. LENGTHEN CLUTCH/BRAKE SHAFT WITH THE PIECE THAT YOU CUT OUT OF THE OLD STEERING CONTROL ROD.
- E. WELD END OF BLADE ENGAGEMENT LEVER TO END OF BRAKE CONTROL ROD, AND CONNECT TO THE DISC BRAKE WITH THE SPRING.
- F. USE CABLE CLAMPS TO CONNECT BELT TO BRAKE ROD FOR BELT BRAKE.
- G. RUN A PIECE OF PIPE OVER CLUTCH ROD AND SECURE ON END WITH BOLT FOR GAS PEDAL. USE END OF BLADE ENGAGEMENT ROD FOR GAS PEDAL.
- H. WELD THROTTLE STOPS ON PIVOT POINT, AND MOVE CHOKE LEVER UP 1".

3. TRANSAXLE.

- A. USE PICKLE FORK TO GET PULLEY OFF INPUT SHAFT.
- B. CHECK ANTIROTATION TABS ON BUSHINGS IN TRANSAXLE, AND REMOVE INNER WHEEL BEARINGS SEALS, AND DRILL HOLES IN AXLE HOUSING TO LUBE AND FOR BREATHERS.
- C. REMEMBER TO REMOVE CENTER BOLT WHEN DISASSEMBLING CASE OF TRANSAXLE.
- D. ADD S.T.P. TO GREASE, AND STRAIGHTEN SHIFTER LEVER.
- E. THIS 900 SERIES TRANSAXLE HAS A LOWER GEAR RATION THAN THE 600 SERIES.

4. ELECTRICAL.

- A. USE OLD CROSSMEMBER TO MOUNT BATTERY, AND MAKE BATTERY BOX OUT OF SHEET METAL TO FIT NEW A.T.V. BATTERY.

5. EXHAUST.

- A. MAKE DUAL EXHAUST FROM STAINLESS STEEL TUBING OR ELECTRICAL CONDUIT AND BOLT TO FRAME.
- B. DRILL OUT THREADS SO THAT THE ENGINE EXHAUST HEADER WILL SLIP INTO THE FRAME EXHAUST MANIFOLD.
- C. ENLARGE 3/8" HOLES IN FRAME TO FIT EXHAUST MANIFOLD.

6. HOOD.

- A. NARROW HOOD 2" IN FRONT, AND CUT 3" OUT OF THE HEIGHT OF GRILL.
- B. ADD 3" TO BOTTOM OF HOOD SIDES, AND WELD HINGE TO AXLE, BOLT TO HOOD.
- C. CUT HOLES FOR HOOD EXHAUST 12" AND 18 3/4" FROM FRONT SEAM AND 3 1/3" UP FROM BOTTOM EDGE, AND MOUNT HOOD TILT STOP CHAIN.

7. FIRE WALL.

- A. CUT OFF BOTTOM SIDES TO HAVE A TOTAL HEIGHT OF 13", AND CUT OUT CENTER TO CLEAR DRIVE AND BRAKE SYSTEMS.
- B. CUT FIRE WALL TO BEND SIDES IN, AND WELD NUTS TO MOUNT FIRE WALL TO FRAME. THEN WELD STEERING SECTOR TO THE FIRE WALL.

Project Guide

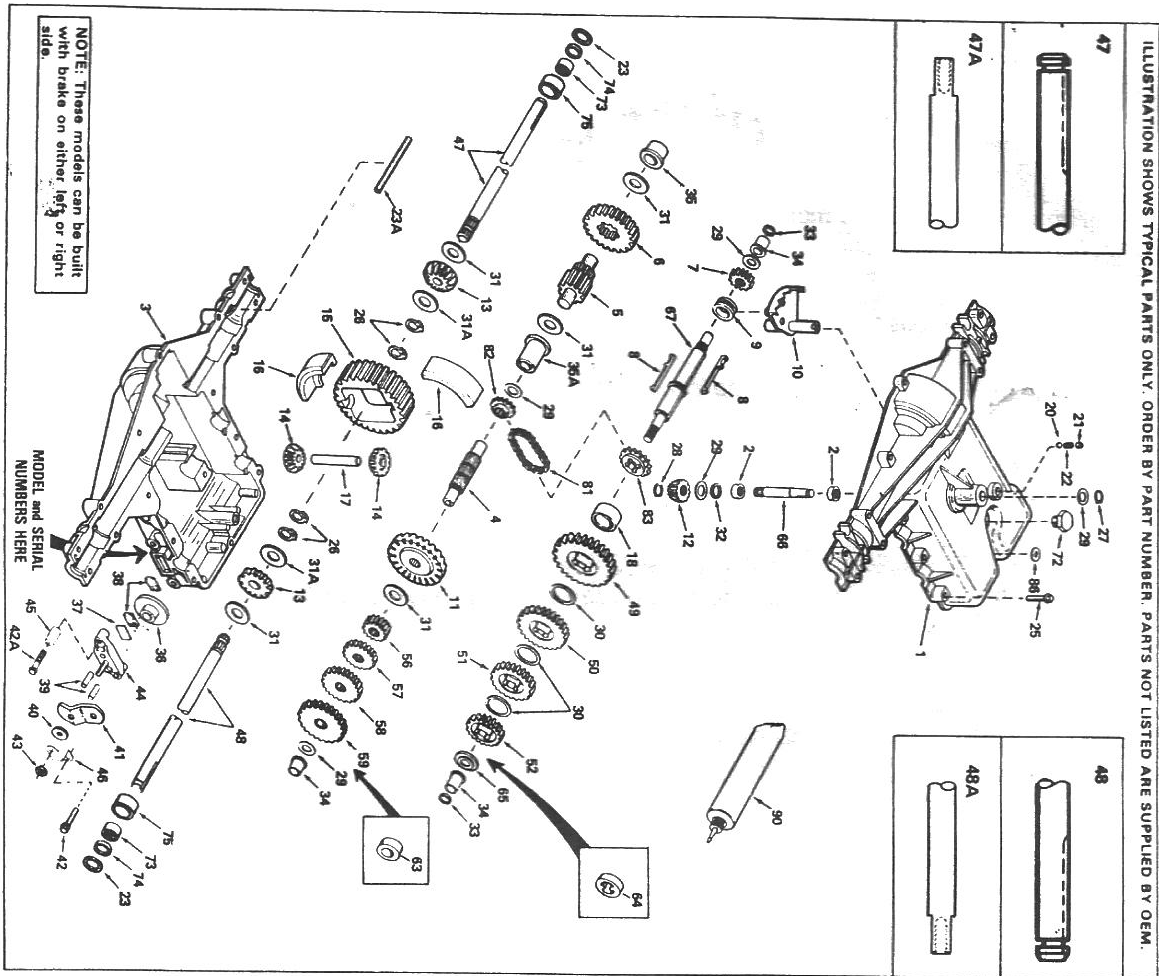
1. The faster you gear it to go, the more repairs you will have, 1 to 1 ratio from engine to transaxle is a starting point.
2. Rear axle replacement bushings should be 2"x1"x $\frac{3}{4}$ ".
3. After you make an oil lubricating slot in the input bushing of the transaxle, polish the bushing and the input shaft so that it is really smooth and has more clearance.
4. This is only a guide. It is not supposed to have "all" the answers. You should figure some of it out for yourself.
5. We do not accept any responsibility for the construction or design of this project. All final decisions are up to you.
6. This can be a safe and fun learning experience if you supervise it properly.
7. Always have adult supervision at all times.
8. If you have the exhaust come out of the bottom, it will make a lot more dust.
9. You should bend the front axles up 3° so the camber is right.
10. The brake pedal is also a tranny brake, in other words, use it to stop the tranny from turning before you put it in gear.
11. This video tape has a 90-day guarantee. So, if it is defective, please send it back for a prompt replacement.
12. We also make Madson Power Blasters "The Cut-Outs That Don't Leak!"

3 Ways to Make Money With Pro Street Lawn Mowers

1. Buy a bunch of old used Murray Lawn Mowers. Recycle them into Pro Street Lawn Mowers for under \$200.00 and sell them for \$1,500 each.
2. Become one of our "Video Dealers" and sell our video "Building a Pro Street Lawn Mower". You can buy the videos at a greatly reduced Dealer Price by the dozen. You can use the Pro Street Lawn Mower you built and the knowledge you gained from building it to help sell the videos to your customers.
3. Make "Big Money" promoting Pro Street Lawn Mowers with our "Multi Level Marketing Plan". It takes more time and money to get started, although the return on your investment could be much greater! Call for details.

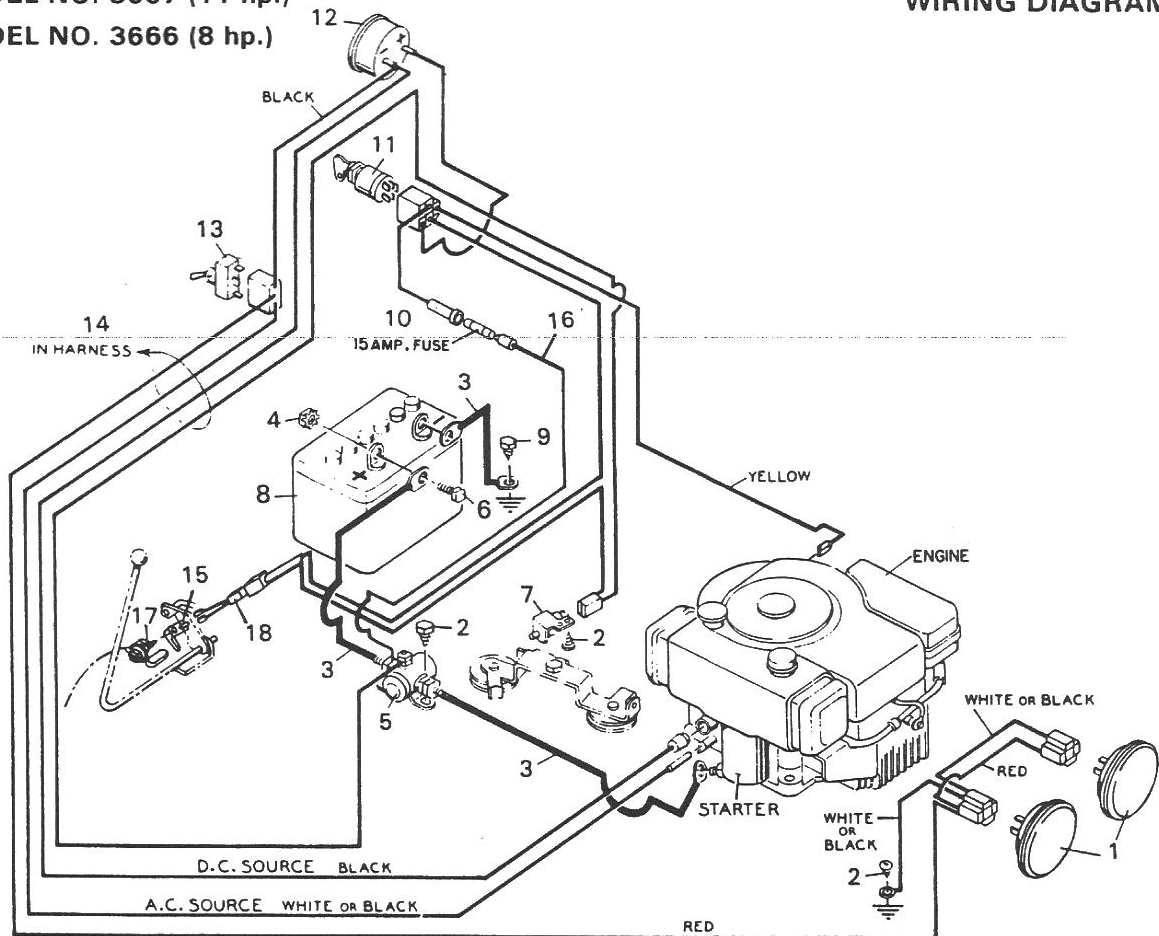
TECUMSEH/PERLESS "900" SERIES TRANSAXLES

ILLUSTRATION SHOWS TYPICAL PARTS ONLY. ORDER BY PART NUMBER. PARTS NOT LISTED ARE SUPPLIED BY OEM.



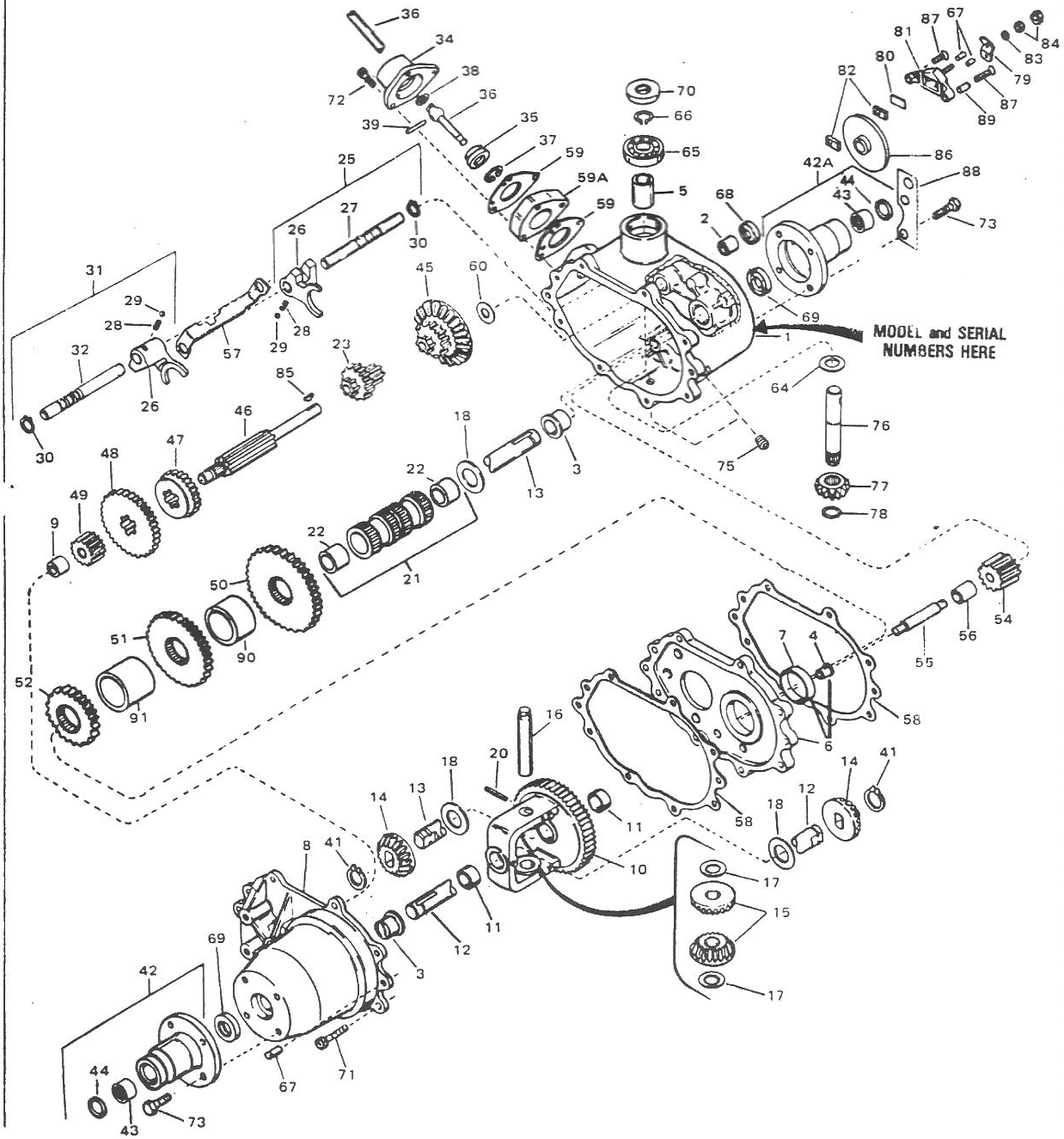
MODEL NO. 3667 (11 hp.)
MODEL NO. 3666 (8 hp.)

WIRING DIAGRAM

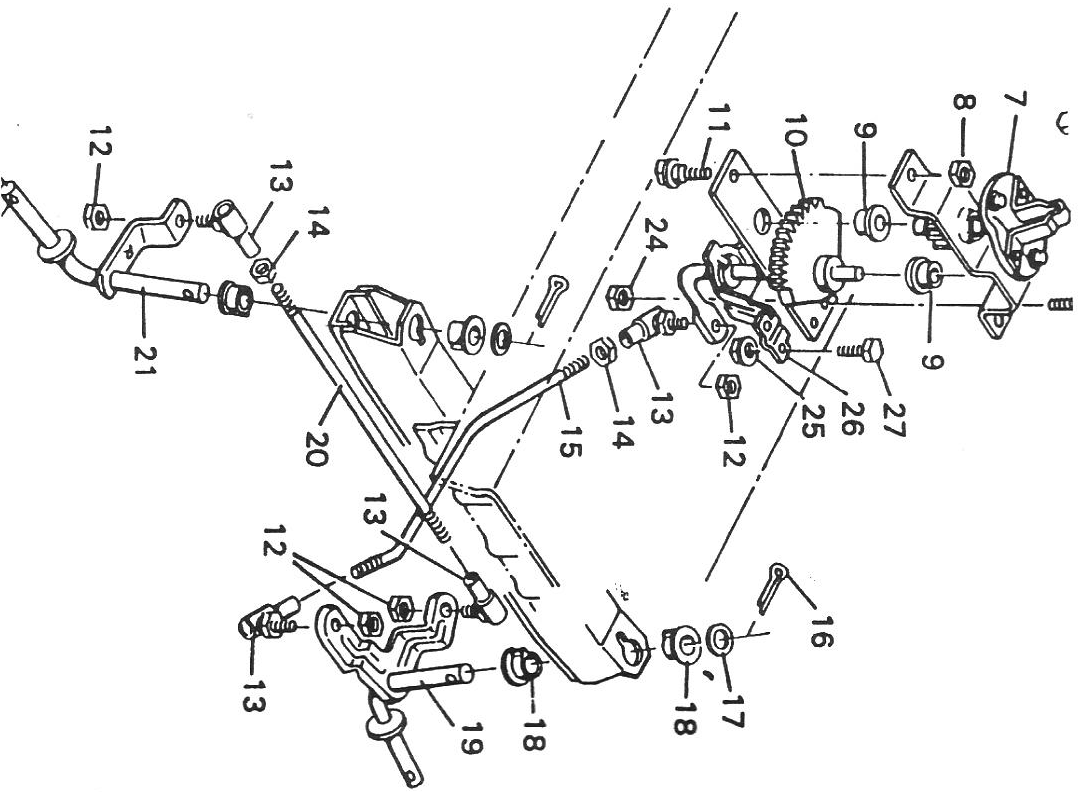


TECUMSEH/PEERLESS "601" SERIES TRANSAXLES

ILLUSTRATION SHOWS TYPICAL PARTS ONLY. ORDER BY PART NUMBER. PARTS NOT LISTED ARE SUPPLIED BY OEM.



PARTS LIST



KEY NO.	PART NO.	DESCRIPTION
1	21688	Steering Wheel
2	21303	Steering Wheel Cap
3	15X76	Keeps Nut 5/16"-18
4	1X75	Bolt 5/16"-18X1 3/4"
5	21486C	Steering Post
6	1X45	Screw 5/16"-18X7/8"
7	21493	Steering Gear & Coupling Ass'y.
8	15X84	Locknut 3/8"-16
9	20587	Bearing
10	21692	Steering Arm Gear & Brkt. Ass'y.
11	9X12Z	Shoulder Bolt
12	15X87	Locknut 3/8"-24
13	21031	Ball Joint
14	15X61	Hex Nut 3/8"-24
15	21482	Drag Link Rod
16	30X49	Cotter Pin 1 1/4"
17	17X83Z	Washer
18	23820	Spindle Bearings
19	24045	Spindle Ass'y. L.H.
20	21475	Tie Rod Ass'y.
21	24044	Spindle Ass'y. R.H.
22	403000	Rim Only
	403001	Tire Only
	400162	Valve Stem & Cap
23	403010	Front Wheel Bearing
24	15X43	Locknut 5/16"-18
25	15X79	Flange Nuts 5/16-18
26	21693	Steering Bracket
27	1X45	Bolt 5/16-18X5/8"
28	17X115	Washer

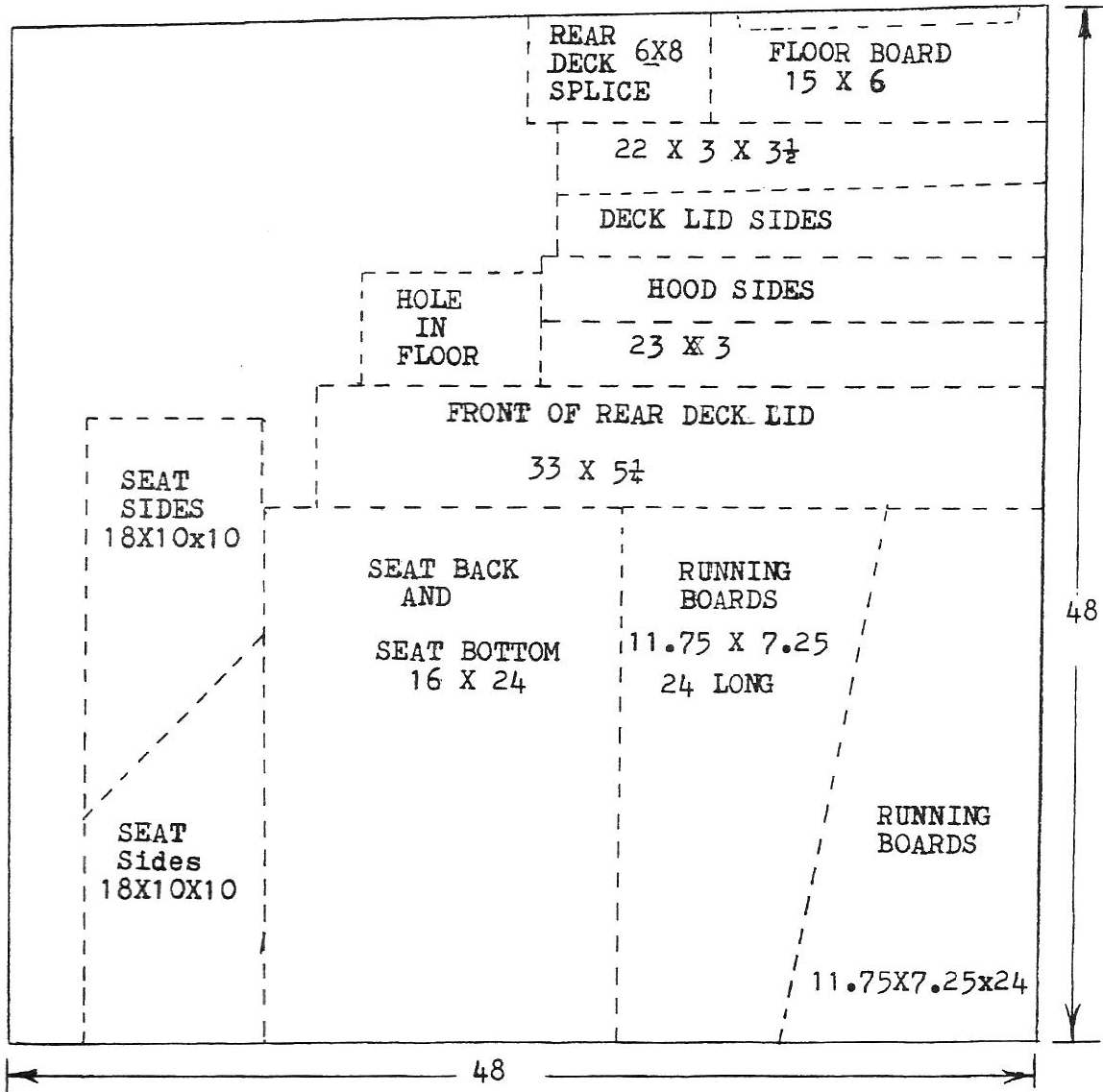
8. ENGINE MOUNTING.

- A. DRILL THREADS OUT OF ENGINE, AND USE 3" BY 3/8" STUDS WELDED TO THE FRAME, WITH THE RIGHT FRONT AND LEFT REAR STUDS IN THEIR ORIGINAL LOCATION.
- B. ENGINE SHOULD BE 2" ABOVE FLOOR PAN.

9. REAR DECK AND RUNNING BOARDS.

- A. WELD FLOOR BOARD TO REAR DECK, AND CUT SHIFTER SLOT.
- B. CUT THREADED ROD CONNECTORS IN HALF, WELD TO FRAME, AND BOLT RUNNING BOARDS AND DECK LID TO THEM.
- C. YOU CAN MAKE THE REAR DECK SEAT AREA 19" WIDE AND USE THE ORIGINAL SEAT BUT YOU WILL ALSO HAVE TO WIDEN THE REAR AXLE.

SHEET METAL LAYOUT FOR LATE MODEL PRO STREET LAWN MOWERS



MY GOALS FOR THE "PRO STREET LAWN MOWER ASSOCIATION"

1. TO FEEL THE TEAMWORK OF HELPING OTHERS BY SHARING NEW AND INNOVATIVE IDEAS ON BUILDING PRO STREET LAWN MOWERS.

2. THAT IT IS UP TO THE MEMBERSHIP TO DEVELOP AND GROW THE SPORT IN THEIR AREA. YOU CAN DO THIS AS A NONPROFIT MEMBER OR A PROFIT-MINDED DEALER.

3. FOR YOU TO REALIZE THAT HALF THE FUN IS BUILDING YOUR OWN PRO STREET LAWN MOWER.

4. IT IS IN YOUR OWN BEST PERSONAL INTEREST TO HELP PROMOTE THE SPORT OF PRO STREET LAWN MOWERS SO THAT YOU CAN HAVE MORE LOCAL AND REGIONAL RACING AND SHOW EVENTS.

5. IN ORDER TO QUALIFY AS AN "ACTIVE MEMBER" YOU MUST SEND IN A COMPLETED PICTURE OF YOUR PRO STREET LAWN MOWER. WE WILL PUBLISH IT IN OUR NEXT PROJECT GUIDE ALONG WITH ANY NEW IDEAS YOU MADE ON IT.

6. THAT, IF FOR SOME REASON, YOU CANNOT BE AN "ACTIVE MEMBER BY BUILDING A PRO STREET LAWN MOWER YOU CAN STILL BE AN "INACTIVE MEMBER" AND HELP THOSE THAT HAVE THE FACILITIES TO BUILD A PRO STREET LAWN MOWER.

7. THAT "INACTIVE MEMBERS" ARE JUST AS IMPORTANT AS "ACTIVE MEMBERS". IF YOU CANNOT BUILD A PRO STREET LAWN MOWER YOURSELF, PLEASE GIVE OR SELL YOUR VIDEO TO SOMEONE WHO CAN.

8. AT THE HIGH SCHOOL LEVEL, THIS CAN BE A GREAT INDUSTRIAL ARTS PROJECT THAT A GROUP CAN WORK ON TOGETHER TO MAKE CLASS A MORE INTERESTING AND FUN PLACE TO BE.

9. I'M ONLY CAPABLE OF TAKING THE "FIRST STEP" BY MAKING THE "PRO STREET LAWN MOWER VIDEO". IT IS UP TO THE MEMBERS TO TAKE THE "SECOND STEP" BY ENCOURAGING OTHERS TO JOIN AND TO HELP PROMOTE THE SPORT.

10. FOR YOU TO FEEL THE SENSE OF PRIDE AND ACCOMPLISHMENT WHEN YOU TRANSFORM AN OLD "WORN OUT" LAWN MOWER INTO A "LIKE NEW" PRO STREET LAWN MOWER.

Project Guide Update

1. FRONT AXLE AND STEERING.

- A. TO WIDEN THE FRONT AXLE 3" USE A 4" X 12" X 16 GAGE PIECE OF SHEET METAL.
- B. I KNOW THAT WHEN THE FRONT AXLE IS ON BACKWARDS THE STEERING GEOMETRY IS WRONG. I DON'T THINK IT IS WORTH THE TROUBLE TO CHANGE IT. IF YOU WANT TO FIX IT, RELOCATE THE HOLES IN THE CONTROL ARMS FOR THE TIE RODS 1/2" FARTHER OUT ON EACH SIDE.
- C. YOU CAN SPLICE IN 3" ON THE TIE ROD AND 11" ON THE DRAG LINK, OR YOU CAN MAKE A NEW TIE ROD THAT IS 20" AND A DRAG LINK THAT IS 24" OUT OF 3/8" STEEL ROD AND THREAD THE ENDS.
- D. STEERING SHAFT SHOULD BE 10" LONG MADE OF 5/8" PIPE. THE PIT MAN ARM SHOULD BE AT LEAST 1 7/8" FROM THE END TO THE CENTER OF THE HOLE.
- E. WELDING THE PIT MAN ARM IS THE MOST IMPORTANT WELD YOU WILL MAKE, TAKE YOUR TIME AND DO IT RIGHT.

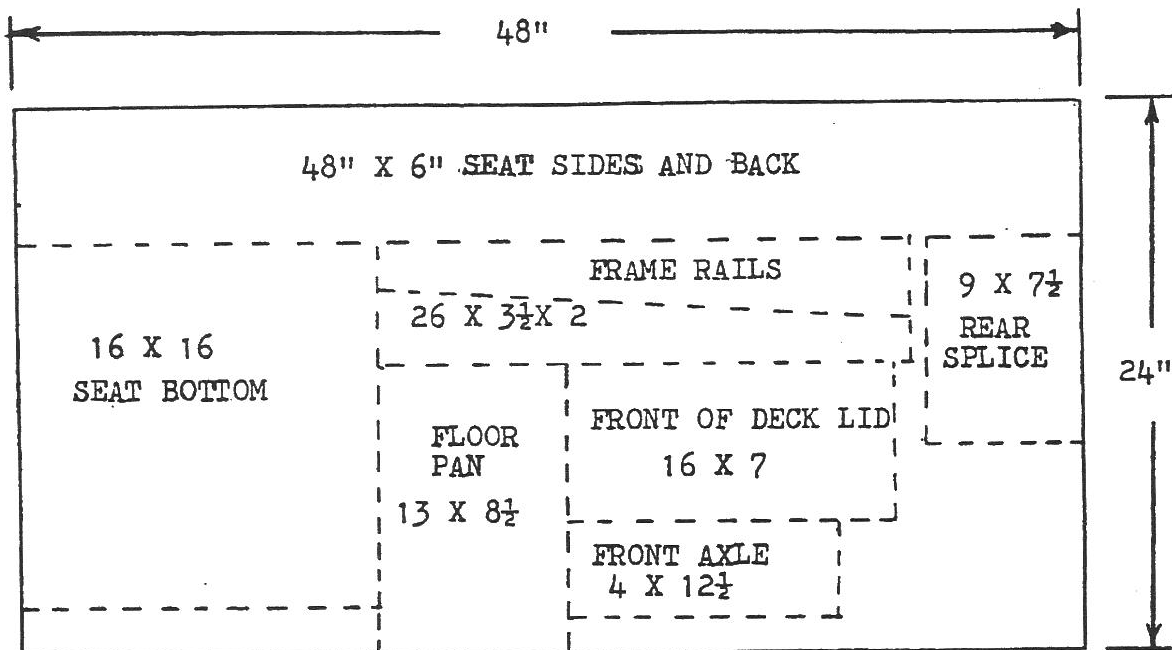
2. REAR DECK LID

- A. CUT 7" OUT OF THE CENTER SECTION OF THE SEAT, IT IS A LOT EASIER TO MAKE SQUARE CORNERS INSTEAD OF RADIUSED CORNERS.
- B. USE THE SAME REAR DECK LID SUPPORT AND WELD IT TO THE FRAME. PUT BOLTS WITH NUTS ON THEM TO ACT LIKE STUDS AND DRILL HOLES IN THE DECK LID TO MATCH. AS SEEN WHEN I'M WELDING THE REAR AXLE.
- C. WELD A 3/8" ROD ON THE FLOOR PAN TO "LOCK DOWN" THE FRONT OF THE DECK LID, ONLY WELD THE ROD ON THE FRONT SIDE SO THE DECK LID WILL SLIDE INTO THE OPEN RADIUS OF THE ROD ON THE BACK SIDE.
- D. MAKE 4 STEEL TABS WITH 5/16" HOLES IN THEM AND WELD THEM TO THE RUNNING BOARDS SO YOU CAN BOLD THE DECK LID TO THEM.

3. FRAME, TRANS AXLE, AND HOOD.

- A. FRONT HOOD MOUNTS CAN BE 3/8" OR 7/16" THREADED ROD 4 1/2" LONG AND STICKING OUT 3" FROM FRAME.
- B. FRONT MOTOR MOUNTS ARE SET BACK 12" FROM AXLE AND 2 1/2" UP. STEERING CROSS MEMBER IS 23" BACK FROM AXLE.

SHEET METAL LAYOUT



- C. WELD FIRE WALL TO FLOOR PAN AT A 68 DEGREE ANGLE. WELD FIRE WALL NUT ON INSIDE OF FRAME 26 7/8" FROM AXLE AND 1" FROM THE TOP. TOTAL HEIGHT OF FIRE WALL SHOULD BE 11 3/4".
 - D. CUT 12" X 3/4" SLOT OUT OF LEFT SIDE OF FRAME RAIL.
 - E. LOWER OIL FILL TUBE ABOUT 3/4" FOR PROPER HOOD CLEARANCE, RELOCATE OIL LEVEL ON DIP STICK AND GET LOW PROFILE GAS CAP. YOU SHOULDN'T HAVE TO MODIFY AIR CLEANER TO CLEAR HOOD.
 - F. WELD WASHERS TO REAR WHEELS TO BOLT THEM TO REAR AXLES.
 - G. USE 20 OZ. OF 80-90 OIL AND 4 OZ. OF OIL ADDITIVE. DO NOT USE THE STANDARD INPUT SHAFT SEAL ON THE TRANSAXLE, USE A CHICAGO RAWHIDE SEAL PART NO. CR6372. THE REAR AXLE BUSHINGS SHOULD BE 2" X 1" X 3/4".
 - H. SOME MOWERS HAVE THE REAR PULLEY HUB END MOUNTED ON THE TOP OF THE PULLEY AND SOME ON THE BOTTOM. THE ONE PICTURED IS FOR A DIFFERENT APPLICATION, YOU WANT THE HUB ON THE INSIDE OF THE LITTLE PULLEY. YOU CAN JUST DRIVE THE END OFF INTO A SOCKET WITH A PUNCH. YOU NEED 3/4" BETWEEN THE BOTTOM PULLEY AND THE FLOOR.
4. BRAKES, THROTTLE, AND CLUTCH.
- A. I LIKE THE SOLID BRAKE ROD BETTER THAN THE CHAIN.
 - B. THE PIPE AND T FITTING IS FOR DUAL SIDE PIPES.
 - C. ADD 4" TO THE BRAKE LEVER.
 - D. FASTEN BRAKE BELT TO THE CENTER OF BACK OF FRAME.
 - E. FOR DIRECT THROTTLE CONTROL, JUST CUT A HOLD IN THE AIR CLEANER TO CLEAR THE LEVER. YOU COULD BE SURPRISED AT WHAT A DIFFERENCE A NEW AIR CLEANER ELEMENT WILL MAKE, I WAS!
 - F. I RECOMMEND VENTING THE EXHAUST OUT THE LOWER FRONT LEFT HAND CORNER OF THE FRAME, BEND THE EDGE OF THE FRAME DOWN TO VENT THE EXHAUST. TOO MUCH DUST IF VENTED OUT BOTTOM.
 - G. CUT A SLOT IN THE FLOOR PAN FOR THE CLUTCH LEVER AND MAKE A NOTCH IN THE SLOT TO LOCK THE CLUTCH LEVER IN GEAR.
 - H. YOU MAY WANT TO ADD AN IDLER PULLEY TO GIVE YOU MORE ADJUSTMENT WITH YOUR BELT CLUTCH.
 - I. I RECOMMEND USING A 3 1/2" BROWNING TAPER LOCK PULLEY ON THE ENGINE, BECAUSE THE KEY IS THE WRONG SIZE. PUT IT ON WITH THE BOLT HEADS FACING THE ENGINE AND USE YOUR IMAGINATION TO GET IT OFF.

MOTOR MOUNT FOR ENGINE

