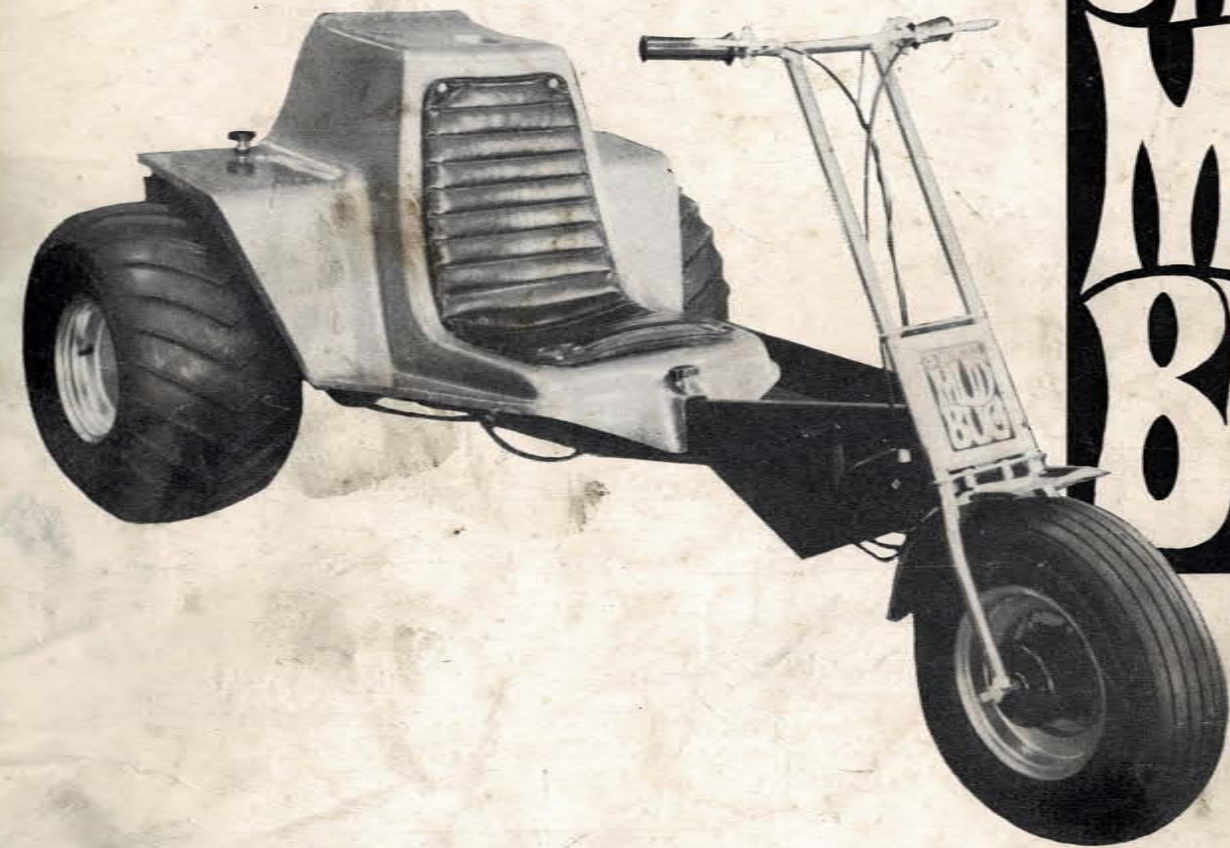


# OWNERS GUIDE

MODEL NOS.  
371-700, 371-730, 371-735

10 CENTS



# 3 WHEEL MUD BUG

## WARRANTY

This unit is warranted against defects in workmanship and/or material as noted below. For six (6) months from the date of sale to the original purchaser, MTD PRODUCTS INC will replace any part or parts of the chassis found to be defective in workmanship and/or material. The Power Train (Clutch, Torque Converter Brake, Chain and Sprockets) and Tires are covered under a thirty (30) day warranty.

The engine is warranted for ninety (90) days from date of sale to the original purchaser against defects in workmanship and/or materials and Tecumseh Authorized Servicing Accounts will repair, at Tecumseh's expense, any failure due to this type of defect.

**NOTE:** The above warranties do not cover all failures. Repairs required because of rentals, misuse, accident, neglect, incorrect maintenance or unauthorized alterations are the responsibility of the purchaser. Units or parts damaged in transit are the responsibility of the delivering agent and are not covered by warranty. All transportation charges on parts submitted for replacement under warranty must be paid by the purchaser. The warranty set forth is in lieu of all other warranties whether expressed or implied and whether merchantability or fitness for any particular purpose, and no waiver, altera-

tion or modification of the foregoing shall be valid. It is the absolute understanding that this unit will not be used on any street, highway, sidewalk or public road, nor will it be used for the purpose of competitive racing. Any licensing needed to comply with the existing local or state vehicle requirements in any given area is the sole responsibility of the purchaser. Warranty service is available through local Authorized Service Dealers or Distributors. Under no circumstances will return of a unit be accepted by the factory unless prior written permission has been extended.

**MTD PRODUCTS INC** • 5389 WEST 130th STREET • P. O. BOX 2741 CLEVELAND, OHIO 44111

FORM No. 770-3141A



# ASSEMBLY INSTRUCTIONS

Your Three Wheel Mud Bug comes packed as shown in Figure 1.

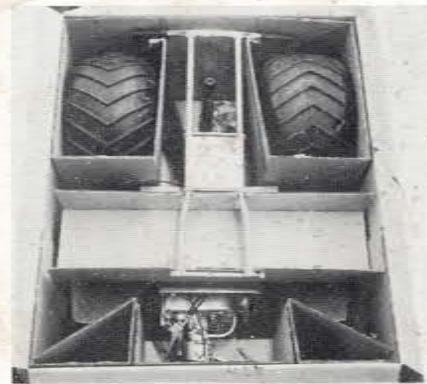


Figure 1

1. Remove fork assembly, two rear wheels, and front frame assembly from the carton.
2. Remove the four cardboard corner inserts and parts pack.
3. Remove main frame and body from carton.
4. Remove body from main frame assembly by removing two knob assembly.
5. Tip frame assembly back and rest center of frame on one rear wheel as shown in Figure 2.



Figure 2

6. Place throttle control cable, which is attached to front frame assembly through center channel of rear frame assembly. Now slide front frame assembly into channel.
7. Line up hole on side of frame assembly and start four hex hd. bolts by hand, then tighten secure with a wrench. See Figure 2.

8. Pull throttle control cable through center channel of frame assembly.
9. Bring throttle control cable over the engine.

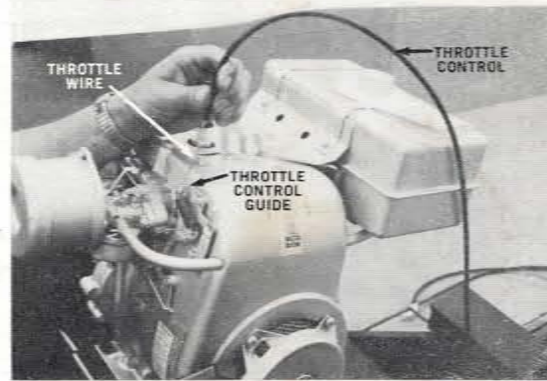


Figure 3

10. Remove throttle control stop from throttle control wire.
11. Start throttle wire through throttle control guide on engine. See Figure 3.
12. Pull the throttle pedal back towards the engine.
13. Push lever (A) up until lever (B) moves out away from idler screw (C). Secure throttle control stop on throttle control wire at this point. See Figure 4.

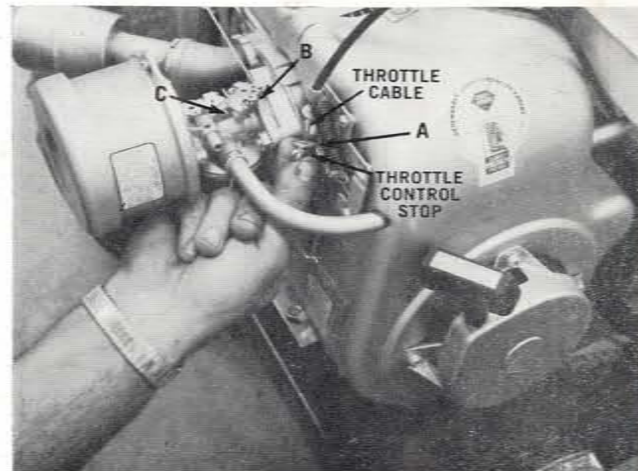


Figure 4

**NOTE:** The body should remain off until all assembling is complete, and oil is added to the engine.

## FORK ASSEMBLY

1. Place fork assembly in position and secure with castle nut and cotter pin (see Figures 5 and 6).

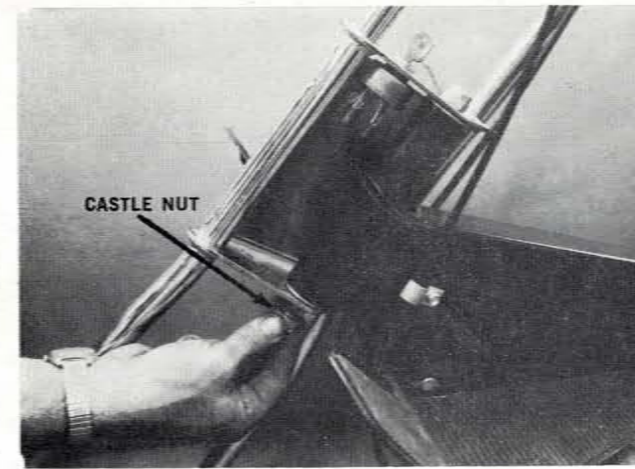


Figure 5

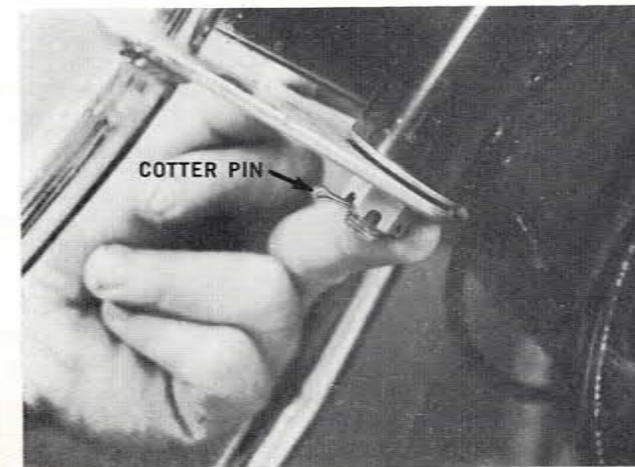


Figure 6

## FENDER ASSEMBLY

1. Place two (2) hex bolts in fork assembly at fender mounting holes.
2. Set spacers on top of fender and place fender up in position (see Figure 7).
3. Secure fender with two (2) hex nuts.

**NOTE:** Tires are over-inflated for shipping only.  
 FRONT ..... 5 to 7 PSI.  
 REAR ..... 62" DIA. or 3 PSI.

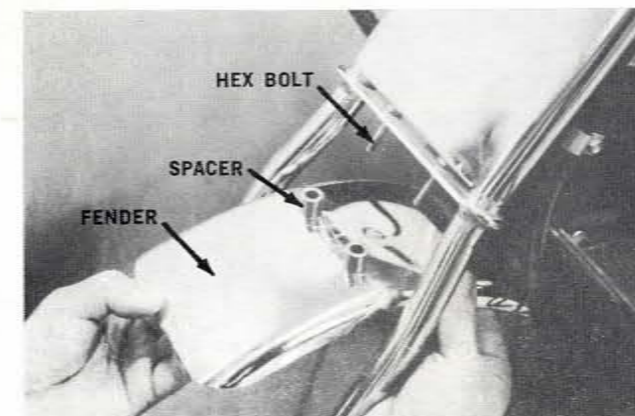


Figure 7

## FRONT WHEEL ASSEMBLY

1. Place front wheel in position on fork assembly and secure with axle and hex lock nut (see Figures 8 and 9).

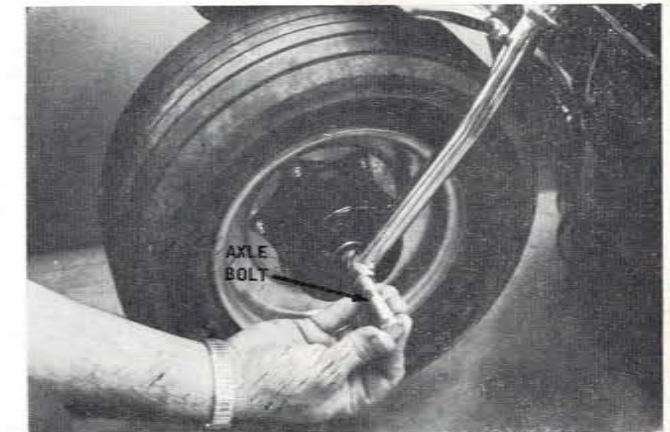


Figure 8



Figure 9

## REAR WHEEL ASSEMBLY

1. Place fork assembly in position and secure with cone nuts (see Figure 10).



Figure 10



## PRE-STARTING INSTRUCTIONS

### BRAKE LEVER ASSEMBLY

1. Remove two (2) round head screws and hex nuts from brake lever clamp.
2. Place brake lever on handle next to grip with lever parallel with ground.
3. Secure brake lever and clamp in position with round head screws and hex nuts (see Figure 11).

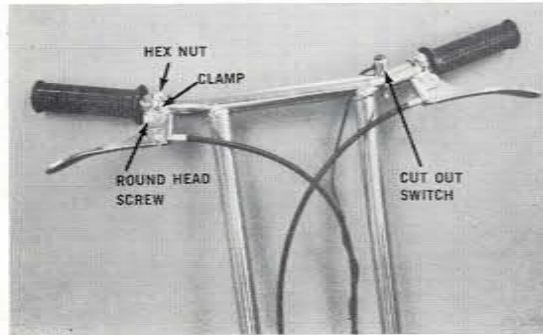


Figure 11

### CUT OUT SWITCH ASSEMBLY

1. Remove bolt and nut from cut out switch.
2. Place cut out switch next to brake control on the handlebar. Secure with bolt and nut (see Figure 11).

## WARNING

THE FRONT WHEEL OF MODEL 371-700 IS MADE UP OF TWO (2) WHEEL HALVES BOLTED TOGETHER. AS A SAFETY PRECAUTION TIRES MUST BE DEFLATED COMPLETELY AND VALVE CORE REMOVED BEFORE TIRE IS REMOVED FROM RIM.

## WARNING

To prevent unintentional wheelies upon starting Mud Bug follow the steps listed below:

1. Be sure throttle is in idle position.
2. Move choke arm to choke position (see Figure 14).
3. Have someone sit on unit and apply brake

### A. BEFORE STARTING

1. Fill fuel tank with "Regular Grade" gasoline only. **Do not mix with oil.** Be sure gasoline is fresh and container is clean. Be careful not to spill the gasoline and wipe away any that is spilled.

#### USE

**REGULAR GASOLINE ONLY**  
Do not mix oil with gasoline.

2. Fill crankcase with fresh clean oil. Be sure unit is setting level and fill slowly to avoid trapping air. Engine is equipped with dip stick, fill to full mark only. (See Figure 12)

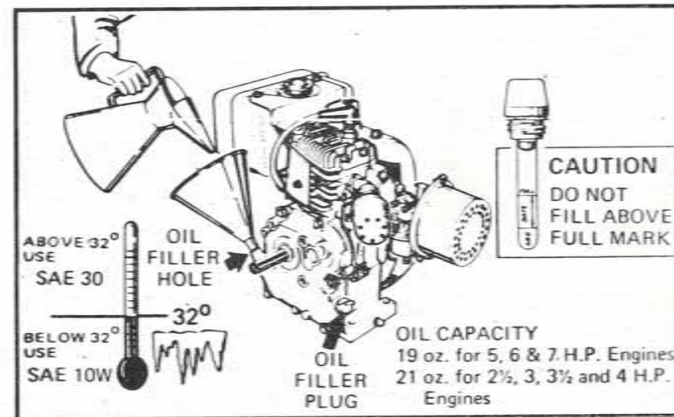


Figure 12

Use only oil marked with "MS" classification. Oil unmarked or classified "MM" or "ML" only cannot be used.

PLEASE NOTE—Engines seizing because of lack of oil or wearing out from dirty oil are **not** warranty. These are two of the most frequent causes of premature engine failure.

3. Check air cleaner (Figure 13)—Be sure it is in place and cover is securely locked in place. It is a paper element type cleaner which will reduce engine power when it becomes clogged with dirt. Refer to Fig. 15 for air cleaner maintenance.

4. Hold starter handle firmly, pull up sharply. Return rope slowly.
5. After engine starts, allow it to warm up then return choke arm to run position.
6. Operator should exercise extreme caution until he is familiar with unit.

PLEASE NOTE—Dirty air entering the internal parts of the engine through an improperly mounted or punctured air filter can ruin an engine in minutes. This is a frequent cause of premature engine wear and is **not** warranty.

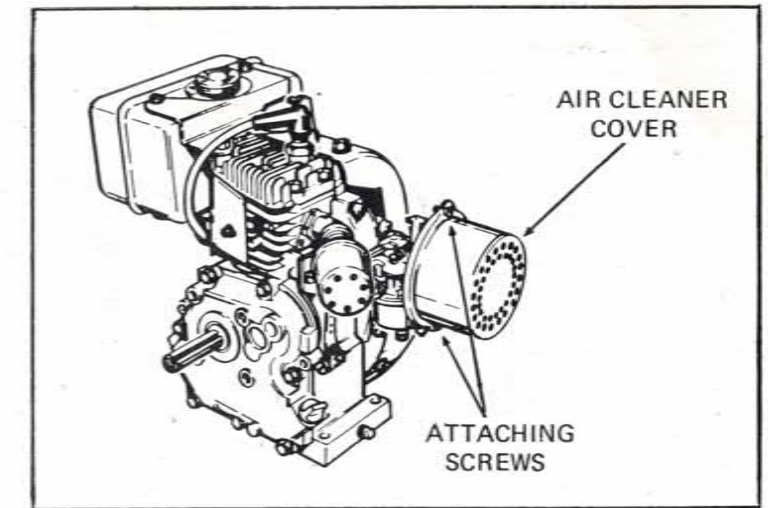


Figure 13

## TO START ENGINE

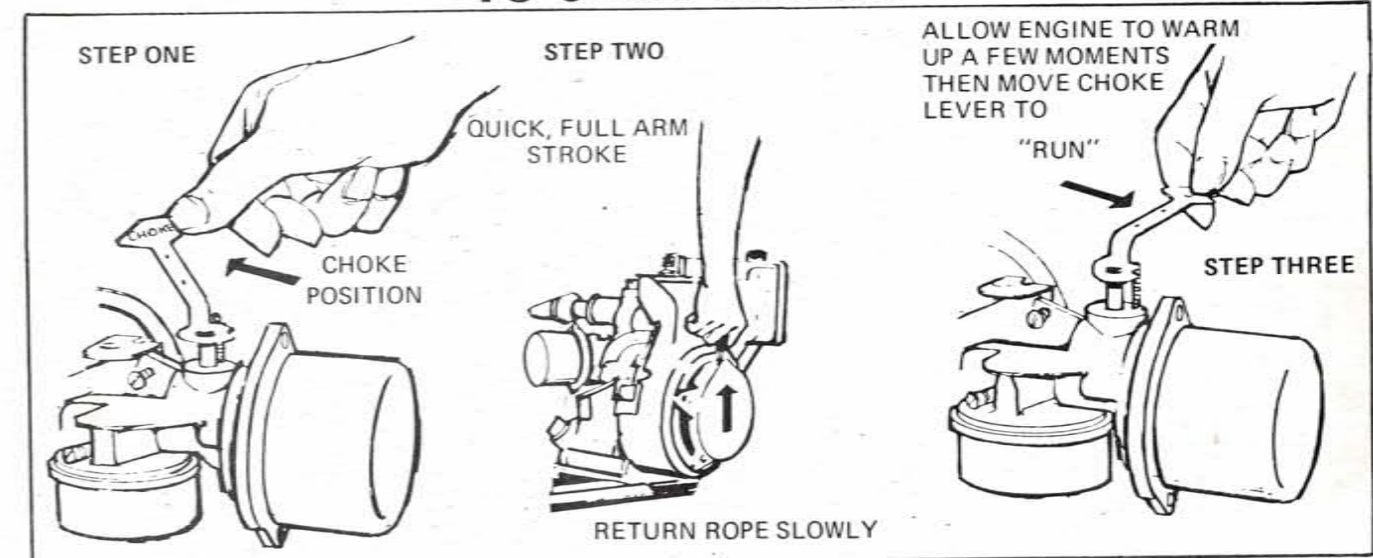


Figure 14

### B. TO START ENGINE

Before starting BE SURE spark plug wire is attached to spark plug and disengage any clutches or belts. Start the engine according to steps one, two and three (see Figure 14).

### C. TO STOP ENGINE

Press cut out switch on left handle bar (shown in Fig. 11).

### D. AIR CLEANER MAINTENANCE

The air cleaner should be removed frequently and tapped lightly against a solid surface (Fig. 15) which will dislodge loose dirt accumulation. The pores will eventually clog (engine will begin to lose power and at this point it will have to be replaced. Your Tecumseh dealer stocks them.

**NEVER** wash the paper air cleaner or attempt to brush dirt from it as this destroys its filtering ability.

**NEVER** run the engine without the filter in place or with a filter that has a hole punctured in the paper.

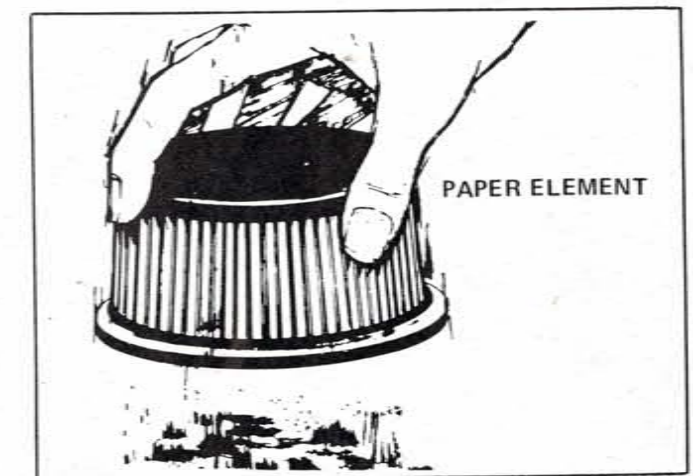


Figure 15



## E. MAXIMUM ENGINE SPEED

Engines are preset at the factory for a maximum of 3,850 RPM. After some experience, it is a great temptation to increase this maximum setting, but doing so can quickly and easily cause a major and costly engine failure and is **NOT** covered by warranty. If there is any doubt that engine is not running at factory set maximum speed, contact your closest Tecumseh servicing dealer who has the proper equipment and know-how to adjust the speed setting if necessary. PLEASE NOTE—Tying down or manually holding the governor arm open will also overspeed the engine with the same result. The evidence of this type of failure is readily discernable to a servicing dealer and it is **NOT** covered by warranty and any repair cost is the owner's responsibility.

## F. ENGINE MAINTENANCE

1. Check equipment and engine periodically and retighten any loose engine base mounting screws, air cleaner cover mounting screws and other exposed hardware.

2. Change oil regularly. Be sure oil drain plug is replaced securely before refilling.

**IMPORTANT**—After first two tanks of gas have been used, drain oil completely and refill as directed in paragraph "2" above. Oil level should be checked frequently during "break-in" period.

Thereafter change oil each twenty-five (25) hours of operation, or sooner if conditions are dusty.

3. Check oil level frequently between changes. Add oil if necessary.

4. Keep head and cylinder fins clean. This is an air-cooled engine and will operate efficiently only if kept clean. Overheating and any resultant damage from clogged cylinder fins is **NOT** covered by warranty.

5. Maintain air cleaner as directed in "Before Starting Engine" Paragraph 3.

## G. CARBURETOR ADJUSTMENTS

Carburetors are correctly adjusted for maximum performance when they leave the factory but can be adjusted if necessary. Because your unit uses a torque converter and carburetor, high speed settings must be made with engine at full throttle, the unit must be blocked up so that the back wheel is free of the ground. **Be sure** that the unit is in a secure upright position **with no chance of tipping over** and then proceed as follows.

**NOTE**—A dirty or partially clogged air cleaner will cause engine to run rich and lose power. (Refer to paragraph D.) Clean or change the air cleaner element as necessary—do not change carburetor settings until you have eliminated this possibility. New air cleaner elements can be purchased from your nearest Tecumseh servicing dealer.

1. Close "high speed adjusting needle" **finger tight only** by turning clockwise. Do not force as this will damage carburetor internal seat. (Fig. 17)
2. Open (counterclockwise) one full turn.
3. Close "idle adjusting needle" **finger tight only** by turning clockwise. Do not force as this will damage carburetor internal seat. (Fig. 17)

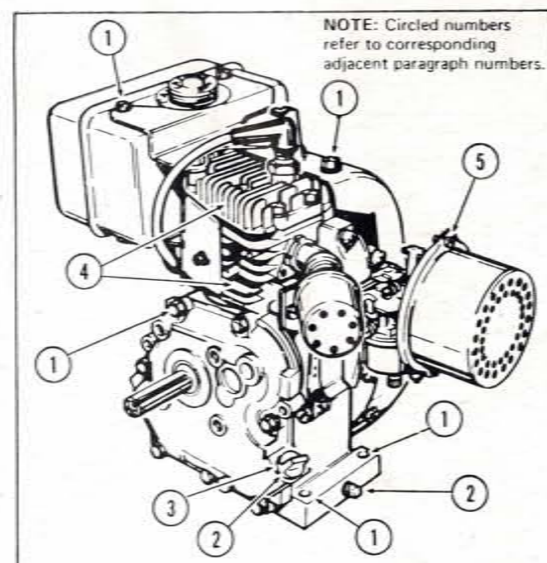


Figure 16

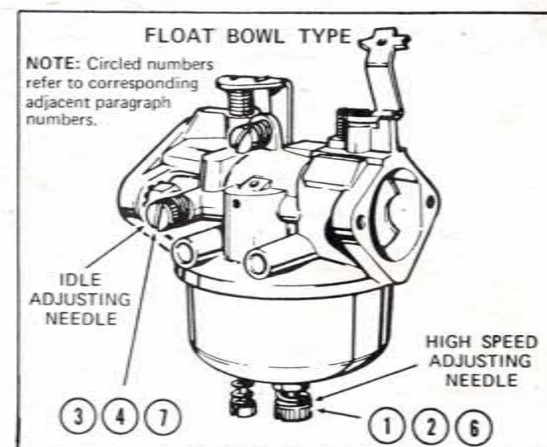


Figure 17

4. Open (counterclockwise) five-eighths  $\frac{5}{8}$  turn.
5. Start engine.
6. With engine running at full throttle, adjust "high speed adjusting needle" backward and/or forward  $\frac{1}{8}$  turn at a time until engine runs smoothly. Allow engine to run at each new needle setting for at least 10 seconds to give engine time to react to each new setting. When engine is running smoothly correct setting has been reached.
7. Close throttle until engine is idling and adjust "idle adjusting needle" in same manner.

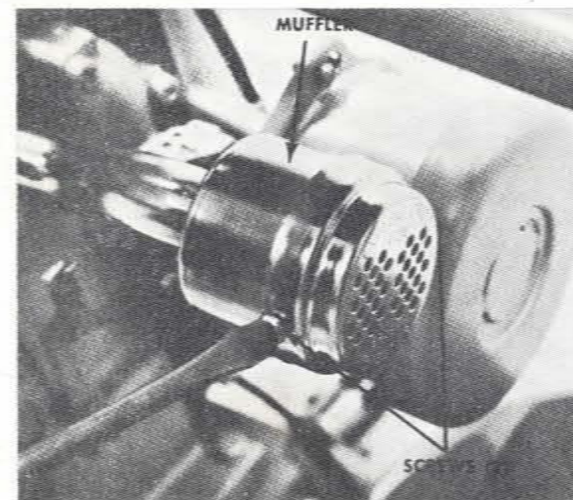


Figure 18

## SPARK ARRESTER

The spark arrester and muffler shown in Figures 18, 19 and 20 are part of the engine.

1. Figure 18 shows location of spark arrester. If spark arrester needs cleaning or replacing, just remove two (2) screws as shown in Figure 18.
2. Remove muffler cap as shown in Figure 19.
3. Figure 20 shows muffler and spark arrester disassembled for easy cleaning. **NOTE:** Removal of muffler is **NOT** necessary.

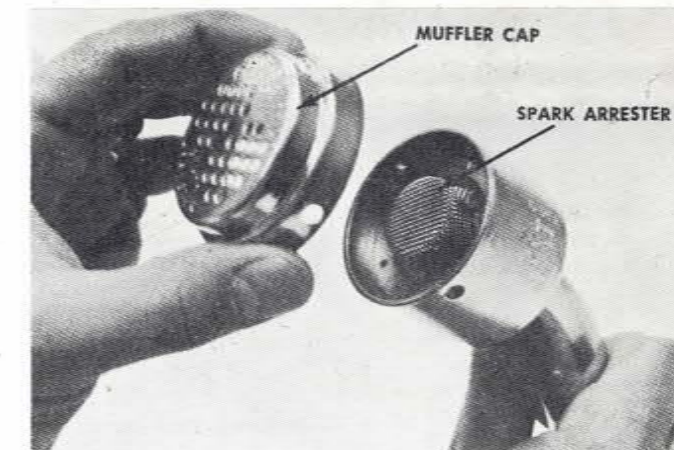


Figure 19

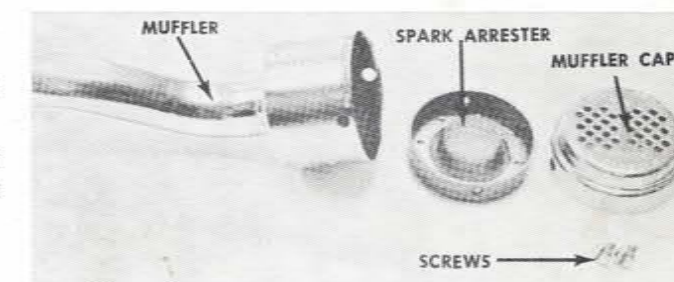


Figure 20



Parts and service available through all authorized Tecumseh, Lauson Power Products Service Dealers. Check the "Yellow Pages" of your telephone directory under "Engines - Gasoline."

## ADJUSTMENTS

### THROTTLE ADJUSTMENT

1. If throttle cable is removed for replacement or needs adjustment, push lever (A) up until lever (B) moves out away from idler screw (C). Secure throttle control stop at this point (see Figure 21).

### BELT ADJUSTMENT

1. Figure 22 indicates proper belt tightness when belt is forced together immediately inside of the driving sheave.

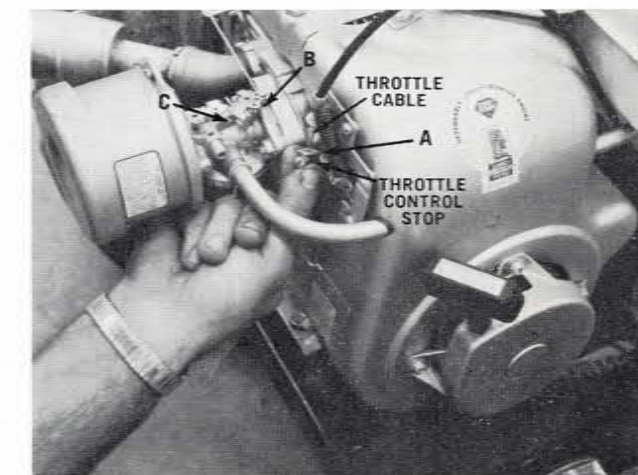
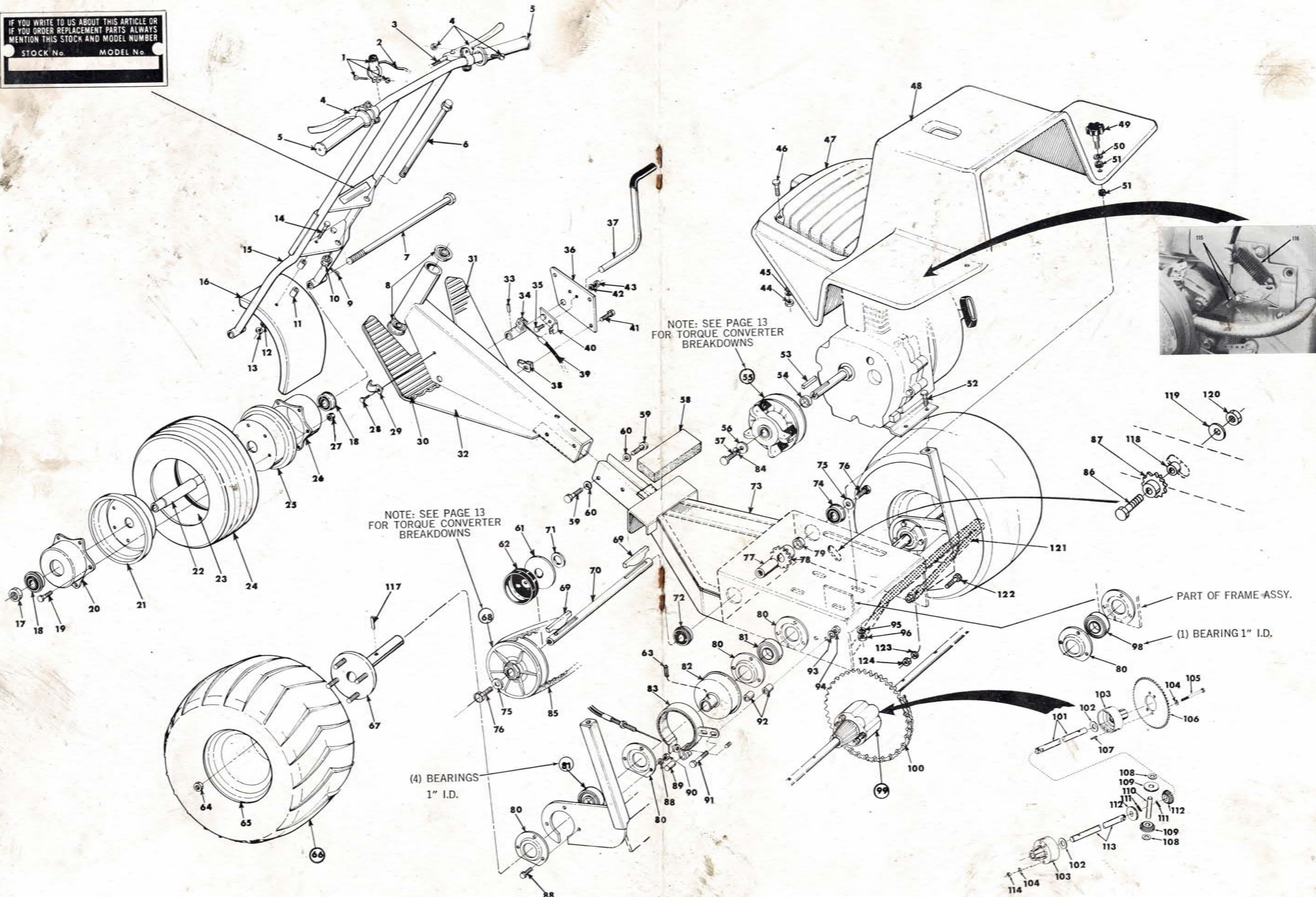


Figure 21



IF YOU WRITE TO US ABOUT THIS ARTICLE OR  
IF YOU ORDER REPLACEMENT PARTS, ALWAYS  
MENTION THIS STOCK AND MODEL NUMBER

STOCK No. \_\_\_\_\_ MODEL No. \_\_\_\_\_





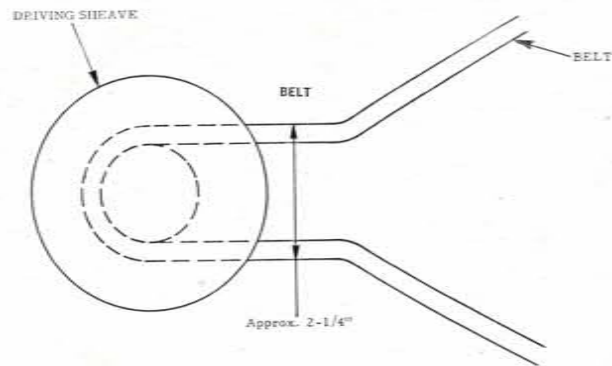


Figure 23

- To make the belt adjustment, loosen the four (4) engine bolts and slide the engine forward or back. Tighten engine bolts securely.

### CHAIN ADJUSTMENT

- The chain is preset at the factory and will not need any adjustment.

### BRAKE ADJUSTMENT

- There are two brake bands on your unit, one at each rear wheel.
- Loosen brake control stop (see Figure 25) on brake cable.
- Loosen hex jam nuts inside and outside of brake band (see Figure 25).
- The proper distance between the band and the brake drum is the equal of a match book.
- Tighten the two jam nuts and secure the brake control stop.
- Check the brakes by gripping the brake control levers and try to pull the unit towards you, the wheels should lock.

### LUBRICATION

- All bearings on your Three Wheel Mud Bug are sealed ball bearings, and require no lubrication.
- The chain should be lubricated at least once a



Figure 24

### FRAME ADJUSTMENT

- The frame is adjustable in two positions.
- Remove the knob assembly as shown in Figure 24. Slide frame in or out to desired position.

NOTE: You may need to adjust cable clamps afterwards.

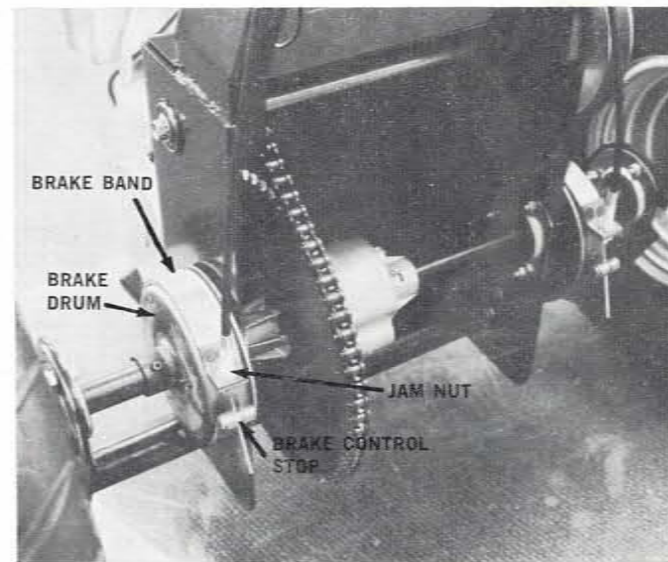


Figure 25

season with a light oil. NOTE: If you run your unit in a dry or dusty area, little or no lubrication should be used, to prevent chain wear.

## PARTS LIST FOR THREE-WHEEL MUD BUG MODEL NOS. 371-700, 371-730 AND 371-735

| No. Ref. | No. Part | DESCRIPTION  | Ref. No. | Part No. | DESCRIPTION   |
|----------|----------|--|----------|----------|---|
| 1        | 725-180  | Cut Out Switch (Model 371-700 and 371-730 Only)              | 75       | 736-231  | Flat Washer — Special                                 |
| 2        | 725-243  | Electric Wire for Cut Out Switch (Model 371-700 and 371-730) | 76       | 710-371  | Hex Hd. Cap Screw (5/16-18 x .88 with Plastic Insert) |
| 3        | 746-159  | Brake Cable  | 77       | 310-6702 | Spacer  |
| 4        | 746-155  | Control Level  | 78       | 717-210  | Sprocket — 9 Tooth                                    |
| 5        | 720-149  | Grip   | 79       | 310-6701 | Spacer  |
| 6        | 310-6647 | Pivot Bolt (hex. hd. 1/2-20 thd. x 8" lg.)                   | 80       | 310-5033 | Bearing Flange  |
| 7        | 710-485  | Axle Bolt (hex. hd. 1/2-20 thd. x 9 1/2" lg.)                | 81       | 741-160  | Ball Bearing (1" I.D. x 2" O.D.)                      |
| 8        | 741-113  | Flange Ball Bearing  | 82       | 310-6658 | Brake Drum Assembly                                   |
| 9        | 714-111  | Cotter Pin (3/32 dia. x 1" lg.)                              | 83       | 761-127  | Brake Band Assembly                                   |
| 10       | 712-114  | Castle Nut (1/2-20 thd.)                                     | 84       | 736-169  | Spring Lock Washer (3/8" I.D.)*                       |
| 11       | 748-193  | Spacer (.379 I.D. x .625 O.D. x .560 lg.)                    | 85       | 754-161  | "Y"-Belt Symmetric (27/32 x 33.2 lg.)                 |
| 12       | 736-264  | Flat Washer (.344 I.D. x .625 O.D. x .063)                   | 86       | 710-369  | Hex Hd. Cap Screw (3/8-24 x 2 1/2" lg.)*              |
| 13       | 712-107  | Hex Center Locknut (1/4-20 thd.)*                            | 87       | 723-168  | Sprocket  |
| 14       | 710-106  | Hex Hd. Cap Screw (1/4-20 x 1 1/4" lg.)*                     | 88       | 710-252  | Hex Hd. Cap   |
| 15       | 310-6650 | Front Fork Weld Assembly                                     | 89       | 746-141  | Brake Stop  |
| 16       | 727-158  | Front Fender   | 90       | 712-287  | Hex Nut (1/4-20 thd.)*                                |
| 17       | 712-285  | Hex Center Locknut (1/2-20 thd.)                             | 91       | 710-459  | Hex Hd. Cap Screw (3/8-24 x 1 1/2" lg.)*              |
| 18       | 741-145  | Ball Bearing with Snap Ring                                  | 92       | 748-192  | Spacer  |
| 19       | 710-252  | Hex Hd. Cap Screw (1/4-20 x 3/4" lg.)*                       | 93       | 736-148  | External Lock Washer (3/8" Screw)*                    |
| 20       | 348-6017 | Front Wheel Hub  | 94       | 712-116  | Elastic Stop Nut (3/8-24 thd.)                        |
| 21       | 333-6019 | Rim Half with Valve Hole                                     | 95       | 736-148  | External Lock Washer (3/8" Screw)*                    |
| 22       | 711-524  | Spacer Front Wheel (371-700 only)                            | 96       | 712-241  | Hex Nut (3/8-24 thd.)*                                |
| 23       | 734-339  | Inner Tube — Front Wheel (371-700)                           | 98       | 741-160  | Ball Bearing (1" I.D. x 2" O.D.)                      |
| 24       | 734-337  | Tire 4.00-6 Universal Thread — Front Wheel (371-700 only)    | 99       | 901-6676 | Differential Complete                                 |
| 25       | 501-6692 | Wheel Complete Front (371-730 & 735)                         | 100      | 713-154  | Chain, 1/2" Pitch x 65 Links                          |
| 26       | 734-400  | Tire Only (371-730 & 735)                                    | 101      | 738-151  | Differential Axle — R.H. (14.79" lg.)                 |
| 27       | 712-324  | Hex Insert Lock Nut (1/4-20 thd.)                            | 102      | 736-188  | Flat Washer (.760 I.D. x 1.490 O.D.) Heat Treated     |
| 28       | 710-352  | Hex Hd. Sheet Metal Screw Type Z 3/8" lg.                    | 103      | 719-150  | Differential Housing Half                             |
| 29       | 746-133  | Wire Clip — Open Type  | 104      | 736-119  | Spring Lock Washer (5/16" Screw)*                     |
| 30       | 735-138  | Foot Mat — L.H.  | 105      | 710-363  | Hex Hd. Cap Screw (5/16-24 x 4" lg.)*                 |
| 31       | 735-137  | Foot Mat — R.H.  | 106      | 310-9133 | Sprocket, 60 Tooth                                    |
| 32       | 348-6661 | Front Frame Weld Assembly                                    | 107      | 715-123  | Dowel Pin (3/16 dia. x 5/8" lg.)                      |
| 33       | 715-103  | Roll Pin (1/8 dia. x 3/4" lg.)*                              | 108      | 736-187  | Flat Washer (.635 I.D. x 1.240 O.D.) Heat Treated     |
| 34       | 348-6654 | Throttle Link Weld Assembly                                  | 109      | 748-158  | Miter Gear — Round Hole                               |
| 35       | 710-289  | Hex Hd. Cap Screw (1/4-20 x 1 1/2" lg.)*                     | 110      | 711-276  | Drive Pin   |
| 36       | 348-6659 | Foot Throttle Cover  | 111      | 715-247  | Roll Pin (3/16 dia. x 1" lg.)*                        |
| 37       | 310-6664 | Throttle Pedal Assembly                                      | 112      | 748-185  | Miter Gear Double "Y"*                                |
| 38       | 712-185  | Speed Nut (1/4-20 "U" Type)                                  | 113      | 738-152  | Differential Axle — L.H. (19.34" lg.)                 |
| 39       | 746-158  | Throttle Cable   | 114      | 712-237  | Hex Center Lock Nut (5/16-24 thd.)                    |
| 40       | 348-6660 | Cable Clip   | 115      | 746-140  | Throttle Control Stop                                 |
|          |          |  | 116      | 732-209  | Extension Spring                                      |
|          |          |  | 117      | 715-118  | Spiral Pin (5/16 x 1 3/4" lg.)                        |
|          |          |  | 118      | 750-184  | Spacer  |
|          |          |  | 119      | 736-219  | Belleville Washer                                     |
|          |          |  | 120      | 712-711  | Hex Nut (3/8-24 thd.)*                                |
|          |          |  | 121      | 310-6704 | Bumper  |
|          |          |  | 122      | 710-118  | Hex Hd. Cap Screw (5/16-18 x 3/4" lg.)*               |
|          |          |  | 123      | 736-119  | Spring Lock Washer (5/16" Screw)*                     |
|          |          |  | 124      | 712-267  | Hex Nut (5/16-18 thd.)*                               |

\*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.



## ELECTRIC DIAGRAM FOR MODEL 371-735

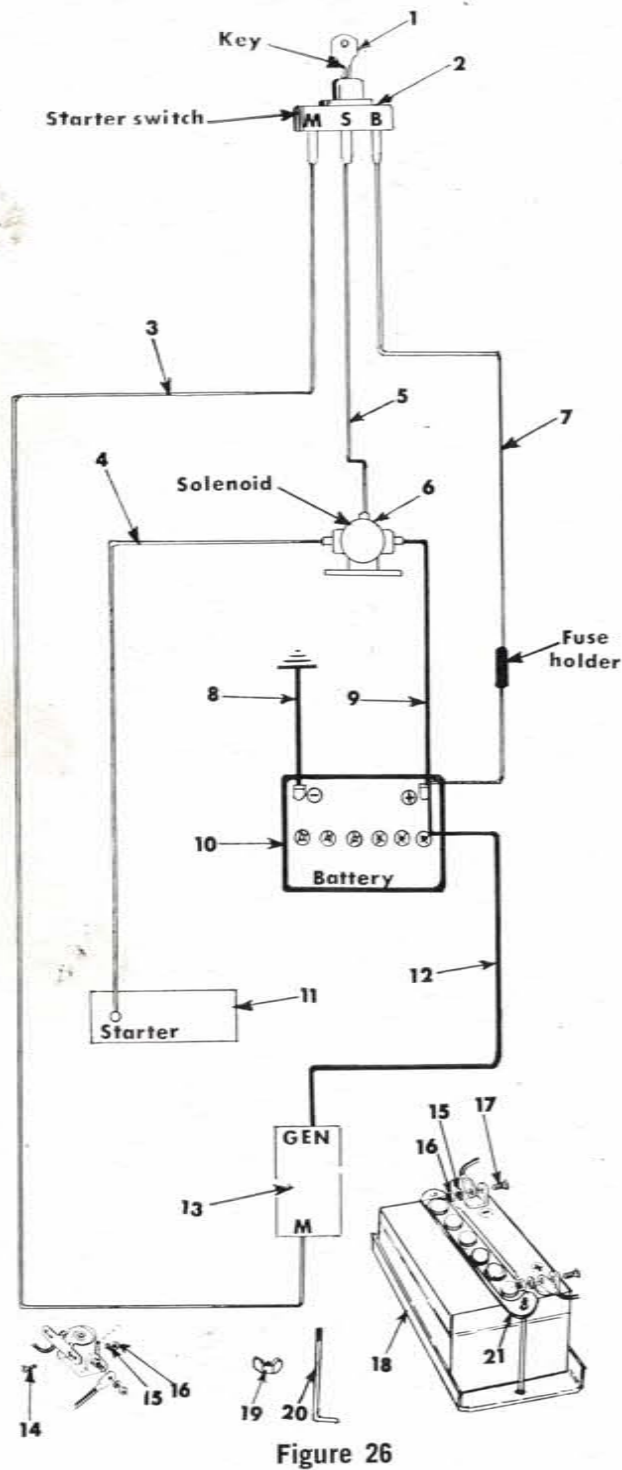


Figure 26

### INSTRUCTIONS FOR ACTIVATING DRY CHARGED BATTERIES ELECTRIC START ONLY

#### WARNING

SINCE BATTERY ACID IS CORROSIVE TO METALS, DO NOT POUR INTO ANY SINK OR DRAIN. RINSE EMPTY ELECTROLYTE CONTAINERS AND MUTILATE BEFORE DISCARDING. IF ACID IS ACCIDEN-

TALLY SPILLED ON BATTERY DURING FILLING OR CHARGING, OR ON BENCH OR CLOTHING, ETC., FLUSH OFF WITH CLEAR WATER AND NEUTRALIZE WITH SODA OR AMMONIA SOLUTION.

#### PARTS LIST FOR ELECTRICAL SYSTEM

| Ref. No. | No. Part | DESCRIPTION  |
|----------|----------|--|
| 1        | 725-201  | Starter Key  |
| 2        | 725-250  | Starter Switch   |
| 3        | 725-254  | Switch to Panel Wire (Yellow)<br>18 ga.—68" lg.        |
| 4        | 725-159  | Solenoid to Starting Wire                              |
| 5        | 725-252  | Switch to Solenoid Wire (Blue)<br>18 ga.—54" lg.       |
| 6        | 725-251  | Solenoid   |
| 7        | 725-253  | Switch to Battery w/ Fuse Hold (Red)<br>18 ga.—63" lg. |
| 8        | 725-221  | Battery to Ground Wire                                 |
| 9        | 725-150  | Solenoid to Battery Wire                               |
| 10       | 725-117  | Battery  |
| 11       | —        | Starter (Part of Engine)                               |
| 12       | 725-255  | Battery to Panel Wire (Red)<br>18 ga.—25" lg.          |
| 13       | —        | Rectifier Panel  |
| 14       | 710-252  | Hex Hd. Cap Screw (1/4-20 x 3/4" lg)*                  |
| 15       | 736-329  | Spring Lock Washer (1/4" Screw)*                       |
| 16       | 712-287  | Hex Nut (1/4-20thd.)*                                  |
| 17       | 710-134  | Carriage Bolt (1/4-20 x 5/8" lg.)*                     |
| 18       | 348-6681 | Battery Box  |
| 19       | 712-113  | Wing Nut   |
| 20       | 711-545  | Battery Hold Down Studs                                |
| 21       | 312-8821 | Battery Hold Down                                      |

FUSE — STANDARD AGC TYPE, 7½ AMPS, 32 VOLTS, 1¼" LONG X ¼" DIA. AVAILABLE AT MOST RADIO-TV SHOPS, SERVICE STATIONS AND AUTOMOTIVE STORES.

- Place battery to be filled on bench or workbench. Never activate battery in the unit. Remove vent plugs from all cells.
- Fill each cell carefully using battery grade 1.250-1.265 specific gravity. Sulfuric Acid to 3/8" above the top of the separators or to the split ring.
- Allow battery to set for 20 minutes. Battery can then be installed, however, to have maximum capacity the battery should be placed on a charger after the 20 minutes setting period. Battery can be charged at maximum of 35 amperes until the specific gravity reading is 1.265-1.275.
- The battery should be checked with a hydrometer after every 25 hours of operation. If the specific gravity is less than 1.225, remove battery and recharge.
- The battery should be kept clean. Any deposits of acid should be neutralized with soda and water. Be careful not to get this solution in the cells. Coat the terminals with a thin coat of grease.

- If the battery is not going to be used in the winter, remove the battery and store in a cool, dry place. Do not store directly on a concrete floor as this will drain the battery. Recharge whenever the specific gravity is less than 1.225.

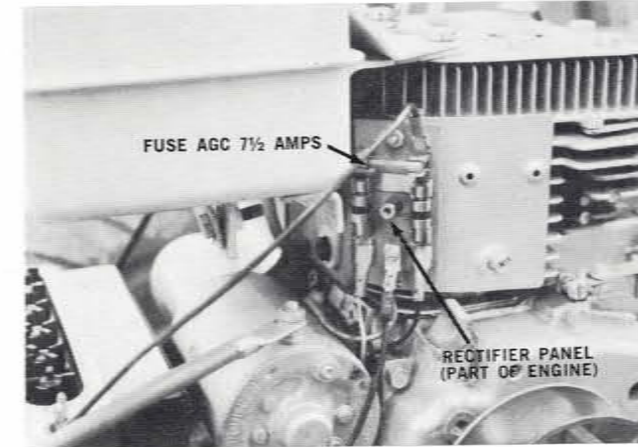


Figure 27

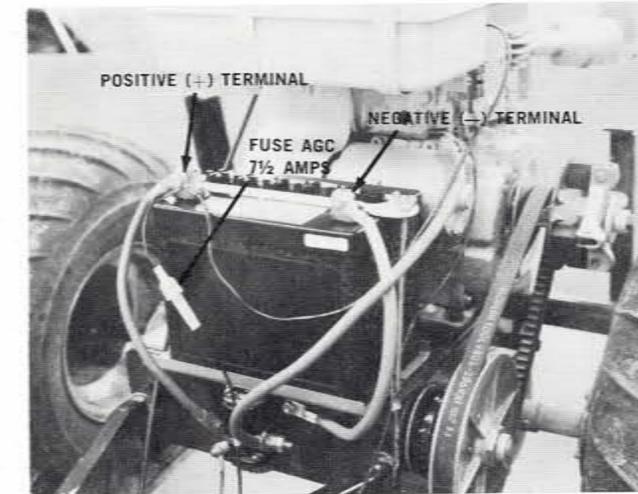


Figure 28

#### BATTERY INSTALLATION

- Place the battery box (Ref. 18) Fig. 26 on frame.
- Place battery on battery box with the positive (+) terminal on the operator's right. The negative (-) terminal is to the operator's left.

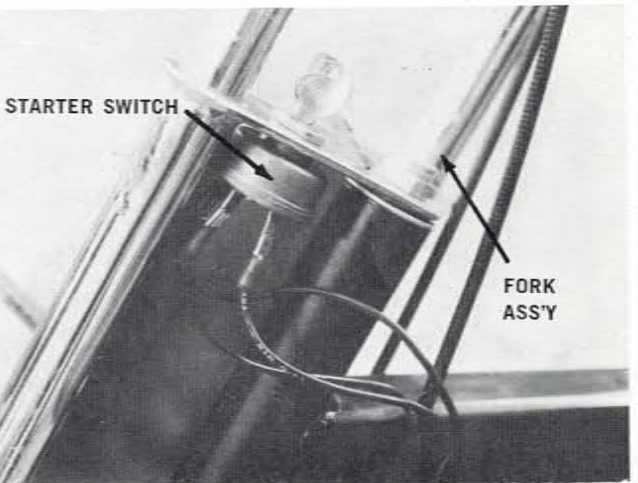


Figure 29

#### WARNING

If sparking occurs when you attach the second battery cable, STOP, and check the wiring.

- Install hold down rods under the battery case and the hold down over the battery caps. Flared edges of hold down should face upward to avoid battery damage. Secure battery in position with wiring nuts, tighten hand tight.
- Install long wire (Ref. No. 7) to positive (+) battery terminal. Attach ground wire (negative) to negative (-) battery terminal. A thin coating of grease on the battery terminals will reduce formation of corrosion.
- Attach wire (Ref. No. 9) from right hand side of solenoid to positive (+) terminal on battery.
- Attach wire (Ref. No. 12) from engine to positive (+) terminal on battery.
- Assemble the starter switch to fork assembly and plug in wire.
- Secure wire with brake cables at cable clamp on frame (see Fig. 29).



## TORQUE CONVERTERS

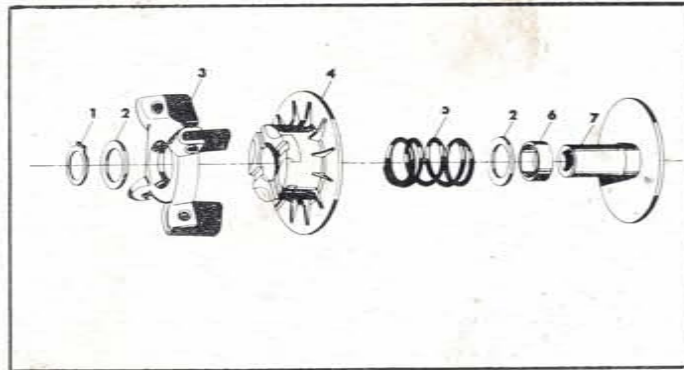


Figure 30

Fairbanks Morse — Torque Converter — Engine Pulley  
Model 14-850-003 (717-199)

### Parts List For Model 717-199 (Engine Pulley)

| REF. NO. | PART NUMBER |         | DESCRIPTION                |
|----------|-------------|---------|----------------------------|
|          | 14-850-003  | 850-3   |                            |
| 1        | 14 029 127  | 29-127  | Retaining Ring             |
| 2        | 14 027 164  | 27-164  | Washer                     |
| 3        | 14 110 443  | 110-443 | Pawl Carrier Assembly      |
| 4        | 14 148 004  | 148-4   | Sheave Ass'y—Outb'd Front  |
| 5        | 14 020 289  | 20-289  | Compression Spring         |
| 6        | 14 030 077  | 30-77   | Bearing                    |
| 7        | 14 148 003  | 148-3   | Sheave Ass'y—Inboard Front |

### DISASSEMBLY OF DRIVE UNIT

1. Place drive unit on solid flat surface with snap ring end up.
2. Compress spring (5) by forcing downward on pawl carrier assembly (3), and hold in this position.
3. With spring compressed, remove snap ring (1) and washer (2); then CAREFULLY allow spring to relax.
4. With spring relaxed, remove sheave assembly (4), spring (5), washer (2), and oilite bearing (6) from shaft, in that order.

### DISASSEMBLY OF DRIVEN UNIT

1. Carefully loosen nut (1) by turning clockwise (left hand thread) far enough so that the ramps on the cam assembly (7) and sheave assembly (5) will slip past each other to allow the tension on spring (6) to be released.
2. After relieving tension on the spring, remove nut (1). The remaining parts, (2-5) can now be removed from the shaft.

### ASSEMBLY OF DRIVE UNIT

1. Thoroughly clean all parts before assembling.
2. Place inboard sheave assembly (7) on solid, flat surface with shaft pointing up.
3. Slide oilite bearing (6) onto shaft until it rests against the aluminum sheave. DO NOT LUBRICATE BEARING. Then slide washer (2) onto shaft until it rests against shoulder on the shaft.
4. Lubricate the remaining part of the shaft of the inboard sheave assembly (7), and also the four slots on the upper surface of the outboard sheave (4), with aeroshell #17 grease, or high temperature lubricant.
5. Insert spring (5) into sheave assembly (4).
6. Install spring (5) and sheave (4) as an assembly, onto shaft with spring resting against washer (2).

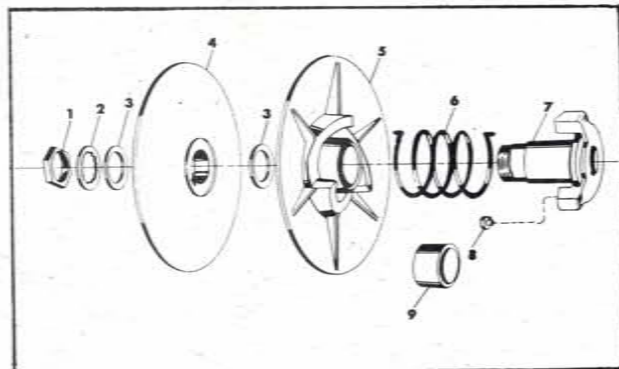


Figure 31

Fairbanks Morse — Torque Converter — Jack Shaft  
Model 850-3 (717-200)

### Parts List For Model 717-200 (Jack Shaft)

| NO. REF. | PART NUMBER |        | DESCRIPTION               |
|----------|-------------|--------|---------------------------|
|          | 14-850-003  | 850-3  |                           |
| 1        | 14 028 048  | 28-48  | Nut                       |
| 2        | 14 027 166  | 27-166 | Lockwasher                |
| 3        | 14 027 163  | 27-163 | Washer                    |
| 4        | 14 048 067  | 48-67  | Sheave—Outboard Rear      |
| 5        | 14 148 066  | 148-66 | Sheave Ass'y—Inboard Rear |
| 6        | 14 020 287  | 20-287 | Torsion Spring            |
| 7        | 14 052 010  | 52-10  | Cam Assembly              |
| 8        | 14 045 001  | 45-1   | Button                    |
| 9        | 14 030 078  | 30-78  | Bearing                   |

7. Center spring (5) on washer (2) and compress by forcing sheave assembly (4) downward and hold.
8. Place pawl carrier assembly (3) over end of shaft with key fitting into keyway on shaft. Make sure all four pawls (weights) are positioned so that small ends are between pawl carrier plate (3) and slotted surface of sheave assembly (4).
9. With spring compressed, pawls in place, and pawl carrier on shaft, assemble washer (2) and secure assembly with snap ring (1).
10. Check to see that each pawl is seated in a slot. If not, rotate sheave (4) until they are seated.

### ASSEMBLY OF DRIVEN UNIT

1. Thoroughly clean and inspect all parts for normal wear. Replace all worn parts.
2. Inspect nylon buttons (8) on cam assembly (7) for wear. Each button should extend  $\frac{1}{8}$ " beyond the surface of the ramp. If they extend less than  $\frac{1}{8}$ ", replace buttons. (To replace buttons, remove old buttons by inserting a punch in holes above buttons, and push or tap buttons out; press new buttons into holes.)
3. Check oilite bearing (9) in sheave (8) for out-of-roundness or excessive looseness on shaft (7). Also check to make sure that bearing (9) is secured tightly in sheave (8).
4. Assemble spring (6) over shaft on cam assembly (7) and insert end of spring into center hole of the three provided in cam.
5. Hold spring in hole of cam and insert shaft into sheave (8) from side with ramps. Secure end of spring in hole provided in sheave (8).
6. Assemble washer (3), sheave (4), washer (3), and lockwasher (2) onto shaft in that order, and start nut (1).
7. Before tightening nut (1), wind spring (6) by holding cam assembly (7) in one hand and rotating sheave (8) counterclockwise on ramp.
8. Secure assembly by tightening nut (1) to 50 ft-lb torque.



TECUMSEH

THREE WHEELED RIDING VEHICLE WARRANTY



FAILURE CAUSED BY, BUT NOT NECESSARILY LIMITED TO, THE FOLLOWING IS NOT WARRANTED.

Our engines used in this application are warranted for 90 days from date of sale to the original purchaser against defects in workmanship and/or material and our Authorized Servicing Accounts will repair as necessary.

Our warranty, however, is not an insurance policy against all possible failures and our servicing dealers are not authorized to make any repairs at our expense that are caused by the owner failing to properly maintain the engine or by altering it in any way.

1. Bent or broken crankshaft.
2. Accident, abuse or neglect.
3. Insufficient or dirty oil.
4. Improperly serviced air cleaner.
5. Missing or punctured air cleaner element.
6. Internal wear due to dirt.
7. Overheating due to dirty engine.
8. By-passing or altering governor controls.

9. Operating above factory recommended speeds.
10. Normal maintenance to magneto points, carburetor, fuel line, fuel tank and spark plug.
11. Normal wear. The number of total hours an engine is operated will ultimately determine its life.
12. Loss or damage to parts due to owner failing to keep external nuts, bolts, and screws tight.
13. Altering, adding or removing any parts.
14. Vibration.

Tecumseh's responsibility is limited to the engine itself and all parts such as clutches, kick starters, chains, sprockets or any damage to the engine resulting from failure of these or other accessories not of Tecumseh's manufacture, and the balance of the unit are the responsibility of the owner of the complete unit.