

# **PARTS & MAINTENANCE MANUAL**

## **TURF-TRUCKS**

**MODEL 898657** 4-WHEEL  
Automatic Transmission SUZUKI 660 EFI  
LIQUID COOLED  
GASOLINE ENGINE

**MODEL 898658** 4-WHEEL  
Manual Transmission SUZUKI 660 EFI  
LIQUID COOLED  
GASOLINE ENGINE

**MODEL 898656** 3-WHEEL  
Manual Transmission SUZUKI 660 EFI  
LIQUID COOLED  
GASOLINE ENGINE

# Always Think Safety!

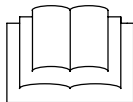
**Thank you** for purchasing a Cushman product. You are one of our many customers who have voted their confidence in our company by purchasing our products.

This is one of the best designed and built pieces of commercial industrial and turf equipment available. Many safety features have been designed and built into this product. Please **Do Not remove or defeat any safety features** as they were installed for your protection.

The useful life and good service you obtain from your vehicle depends to a large extent on the way it is **maintained and operated**.

Treat your equipment properly, lubricate and adjust it as instructed in this manual and it will give you many years of reliable service.

See your Cushman dealer for service and parts. She/he stocks genuine Cushman parts manufactured with the same precision and skill as the original parts.



## IMPORTANT!

This Manual Will Aid You In The Safe Operation And Proper Maintenance Of Your Equipment. Read Manual Thoroughly Before Attempting Operation. If Any Portion Is Not Clearly Understood, Contact An Authorized Dealer For Clarification.

## GENERAL INFORMATION



This symbol is used throughout the manual to alert you to information about unsafe actions or situations, and will be followed by the word **DANGER**, **WARNING**, or **CAUTION**. **DANGER** indicates immediate hazards that may result in severe injury or death. **WARNING** indicates unsafe actions or situations that may cause severe injury, death and/or major equipment or property damage. **CAUTION** indicates unsafe actions or situations that may cause injury, and/or minor equipment or property damage.

**NOTE:** This symbol appears next to information or instructions which will help you operate and maintain your equipment the right way.



### WARNING

The information and instructions included in this manual alert you to certain things you should do very carefully. If you do not, you could:

- hurt yourself or others
- hurt the next person who operates the equipment
- damage the equipment.

Cushman, a Textron Company, reserves the right to make changes at any time, without notice, in specifications and models and also to discontinue models and the accessories designed to be used on these models. The right is also reserved to change specifications or parts at any time without incurring any obligation to equip same on models manufactured prior to date of such change.

While the information contained in this parts manual is based on the latest product information available at the time of publication, the continuing accuracy of this parts manual cannot be guaranteed. Cushman reserves the right to make changes without notice.

Illustrations in this manual are a reference guide for parts identification only. Since these illustrations may not depict actual positioning of component parts, they should not be used as an assembly diagram. Doing so may result in improper assembly leading to sudden failure.



### WARNING

- **Altering this equipment in any manner which adversely affects the equipment operation, performance, durability or use, may cause hazardous conditions.**
- **When replacement parts are required, use genuine Cushman parts or parts with equivalent characteristics including type, strength and material. Failure to do so may result in product malfunction and possible injury to the operator and/or bystanders.**

This unit is not a motor vehicle within the definition of the national traffic motor vehicle safety act. It is not designed or manufactured for use on roads, streets or highways. It is not appropriate for such use.

**This unit is not meant to be licensed as a motor vehicle.**

### IMPORTANT!

SPARK ARRESTERS ARE REQUIRED BY CALIFORNIA PUBLIC RESOURCES CODE, SECTIONS 4428-4442, WHEN OPERATING ANY INTERNAL COMBUSTION ENGINE ON HYDROCARBON FUELS, ON FOREST-, BRUSH-, OR GRASS-COVERED LANDS.

## MODIFICATIONS AND ACCESSORIES

Factory installed modifications and accessories are available for use on this vehicle.

An accessory parts manual (Part No. 2701052) is available and can be obtained by contacting your authorized Cushman Dealer. **In the USA and Canada call 1-888-922-8873 for Dealer information.**

Read and understand all literature before attempting to operate this vehicle or any attached equipment.

### IMPORTANT!

THIS EQUIPMENT SHOULD NOT BE MODIFIED OR ADDED TO WITHOUT THE MANUFACTURER'S AUTHORIZATION.

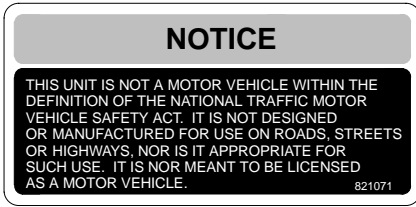
**NOTE:** Some vehicles may be equipped with special options that are not serviced by Cushman.

The addition of accessories not of manufacturer's design may result in erratic vehicle operation, improper battery charging and discharging, and failure of vehicle components.

Direct any inquiries to:

Textron Turf Care and Specialty Products  
Attn: Chief Engineer  
P.O. Box 82409  
Lincoln, NE 68501-2409 USA

## OPERATION CONTROL SYMBOLS AND DECALS



### Motor Vehicle Compliance

This decal lets the operator know that the vehicle is not defined as a motor vehicle and therefore should not be driven on streets, roads or highways



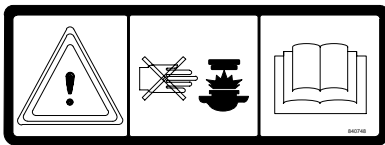
### P.T.O. Warning

This decal warns the operator that an uncovered P.T.O. can cause entanglement of clothing and/or body parts.



### Engine Oil Pressure Light

This light will come on when the ignition key is turned to the ON position and when the engine is started (it will shut off once the engine is running). **Its main function is to warn the operator if the oil pressure gets to low. If this light comes on during normal vehicle operation, stop the vehicle and check for problems**



### Radiator Coolant Warning

This decal warns the operator not to remove the radiator cap when the engine is hot. Refer to the Cooling System Section in this manual for proper safety and operating instructions.



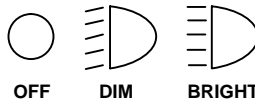
### Park Brake Indicator Light

This light will come on when the park brake is applied.



### Battery (Voltmeter) Charging

This symbol appears on the voltmeter gauge. This gauge indicates the charging of the battery.



### Headlight Switch Positions

These symbols appear on the light switch. As indicated, each one represents the headlights functions.



### Electric Cooling Fan Warning

This decal warns the operator keep hands away from the cooling fan, the cooling fan can start at any time even with the ignition key in the OFF position.



### Park Brake Warning

This decal warns the operator that the park brake **is not** automatically applied.



### Fuel Level Indicator

This symbol appears on the fuel gauge. The fuel gauge indicates the amount of fuel in the fuel tank



### Engine RPM

This symbol indicates engine rpm's.



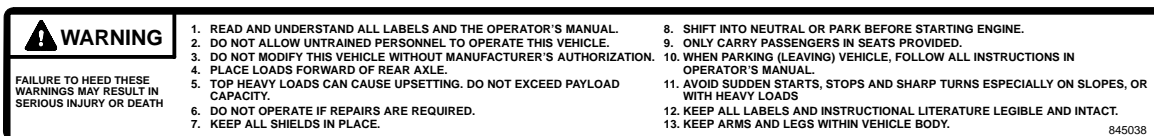
### Water Temperature Gauge

This symbol appears on the water temperature gauge. This gauge warns the operator if the coolant system is overheating.



### Read the Operator's Manual

This decal informs the operator to read and understand the Operator's manual. To prevent injury, they must be familiar with the operation of this product and be fully aware of **safe** operating procedures.



### Vehicle Operation

This decal informs the operator of proper procedures for safely operating the vehicle. Read this manual completely to become aware of other safety issues and operating procedures which will help you operate this vehicle in a safe and responsible manner.

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After you identify a part by the reference number and the part number,  
***always read the description of the part to be sure it is what you want.***

# VEHICLE IDENTIFICATION NUMBERS

## VEHICLE & ENGINE IDENTIFICATION NUMBERS

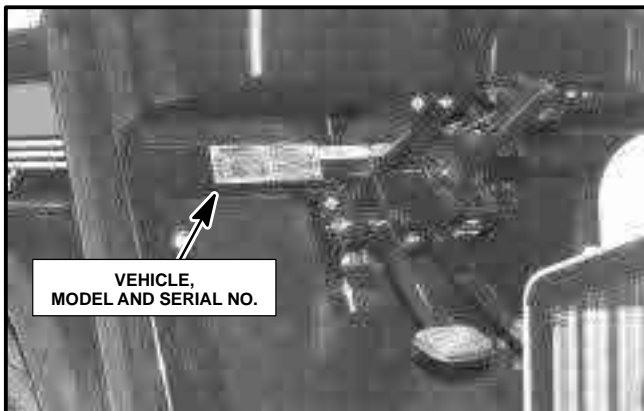
The Following Identification Numbers (Vehicle Identification Number, Model Number And Serial Number) Must Appear On All Correspondence Concerning This Vehicle.

**NOTE:** Reference to the *front*, *rear*, *left* and *right* sides of the vehicle are always determined by the *operator's seated position*.

### VEHICLE IDENTIFICATION NUMBERS

The Vehicle Identification Number (VIN), the model number, and the serial number are all printed on the Nameplate/Identification Decal attached to the crossmember under the dash (See Fig 1).

The serial number and model number are also stamped on the front left lower ROPS upright. It is located to the left of the model and serial no. decals (See Fig 2).



**Figure 1**  
Nameplate / Identification Decal



**Figure 2**  
Serial Number And Model Number

### ENGINE IDENTIFICATION NUMBERS

Your Cushman Turf-Truckster is equipped with a Suzuki 660 3-cylinder, 4-cycle, 12-valve, liquid-cooled gasoline powered engine,

The **Engine Serial No.** for the Suzuki 660 engine is stamped onto the upper engine block on the right side of the engine and is partially hidden by the right side engine mount, therefore it is also **hand printed** on the cylinder (valve) cover on the left-hand side of the engine.

We recommend you immediately record all vehicle identification numbers and keep in a secure place for ease of accessibility if ever you should need them.



**Figure 3**  
Suzuki 660 Engine Serial Number



**SPECIFICATIONS**

Specifications subject to change without notice.

All turf models are equipped with either a 4-wheel or 3-wheel hydraulic brake system, and a lever operated parking brake integral to the rear brake drums.

- Rear Axle:** Models 898656, 898657 & 898658 ..... 14.21:1 2-speed hypoid differential
- Transmission:** Models 898657 ..... 3-speed automatic
- Models 898658 & 898656 ..... 4-speed manual with low-low (creeper) 1st gear.

**Capacities**

- Fuel Tank** ..... 6.5 gal. (24.6 L)
- Cooling System:**
- Suzuki 660 ..... 3.3 qts. (3.1 L)
- Crankcase (including filter):**
- Suzuki 660 ..... 3.3 qt. (3.1 L)
- Transmission** (automatic) ..... 3.7 qt. (3.5 L)
- (manual) ..... 1.05 qt. (1.0 L)
- Differential** (14.21:1) ..... 5.2 Pints (2.46 L)
- Hydraulic System**
- Standard hydraulics ..... 4 gal. (15.2 L)
- With Hi-Lo hydraulic accessory ..... 7.6 gal. (28.8 L)

**Tires**

- Front** ..... 20 x 10.00-10 Multi-Rib
- Rear** ..... 24 x 13.00-12 Titan Ultra Trac

**Brake Fluid**

- Use type** ..... Dot 3

**Towing Capacity (trailer hitch only)**

- Trailer GVWR** ..... 1,500 lbs (680 kg)
- Tongue Weight** ..... 200 lbs (90.7 kg)

**Fuel**

- Gasoline Engines** ..... Unleaded gasoline
- 87 Octane or higher

**Lubrication Recommendations**

- Transmission Fluid** (automatic) ..... Mercon/Dexron II
- (manual) . SAE EP 80-90 Gear Lube
- Hydraulic System** ..... Hyd Benz Bio 377
- or GreensCare 68
- Differential Oil** ..... SAE EP 80-90 Gear Lube
- Pressure Gun Grease** ..... Lithium Base
- Power Steering** ..... Power Steering Fluid (GM)

**Steering**

- 14.1 ratio Saginaw power steering and a 14 inch (355.6 mm) steering wheel

**Battery**

- Volts ..... 12
- BCI Group ..... Size 24
- Cold Cranking Amps (minimum) ..... 420
- Reserve Capacity Minutes (minimum) ..... 70
- Ground Terminal Polarity ..... Negative

**ENGINE SPECIFICATIONS**



**WARNING**

- The engine governor controls are preset to control engine and ground speeds to design limits. To prevent premature engine failure and speeds greater than design limits, **NEVER** alter the governor controls in any manner to increase engine speed beyond recommended maximum R.P.M.

**Suzuki 660 EFI Engine**

- Horsepower (SAE hp) ..... 31
- Max. Engine Speed ..... 4450 RPM
- Stroke ..... 2.60" (66mm)
- Bore ..... 2.56" (65mm)
- Displacement ..... 40.1 cu in. (657 cm<sup>3</sup>)
- Compression Ratio ..... 10.5:1
- Cylinder Compression ..... 178 PSI (1,228 kPa)
- Engine Rotation
- (viewed from flywheel) ..... Counterclockwise
- Valve Clearance (intake) .0031" (0.08 mm) - cold
- (intake) .0047" (0.12 mm) - hot
- (exhaust) .0039" (0.10 mm) - cold
- (exhaust) .0047" (0.12 mm) - hot
- Spark Plug Gap ..... .032-.035 (0.8-0.9 mm)
- Spark Plug Number ..... Denso XU22EPR-U
- Spark Plug Torque ..... 18.5-21.5 lb. ft. (25-30 N-m)
- Ignition Timing ..... 4-5° BTDC @ 950 RPM
- Idle Speed ..... 950 ± 50 RPM

## GAUGES, WARNING LIGHTS and CONTROLS

The following pages contain information which will help you become more familiar with the different gauges and controls used while operating this vehicle.

### TACHOMETER (1)

Indicates the engine speed (x 100) in revolutions per minute (See Fig. 4).

### HOUR METER (2)

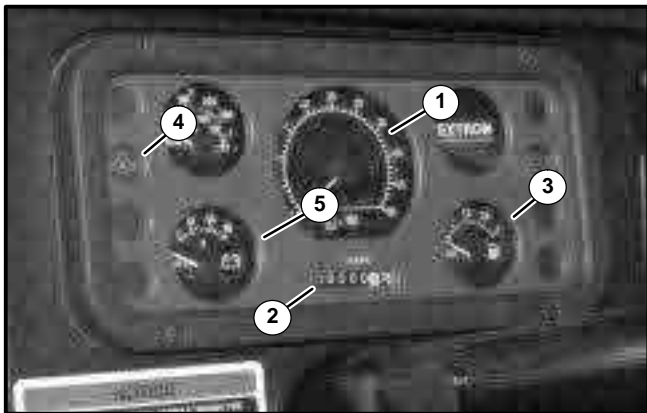
The hour meter (See Fig. 4) records the number of hours the engine has run. The hour meter runs when the key switch is **“ON” even if the engine is not running.**

### FUEL GAUGE (3)

The fuel gauge (See Fig. 4) indicates the amount of fuel remaining in the fuel tank.

### OIL PRESSURE WARNING LIGHT (4)

The **red** oil pressure light (See Fig. 4) indicates oil pressure is too low for engine operation.



**Figure 4**  
Dash Panel Identification

### VOLTMETER (5)

The voltmeter (See Fig. 4) indicates the voltage level of the battery. Under normal operation it will indicate 12 to 18 volts (meaning the battery is being properly charged). A reading below 12 volts indicates the battery is being drained, this may **indicate a malfunction in the charging system which should be checked immediately.**

### CHECK ENGINE LIGHT (6) Model 898656 Only

The “Check Engine Light” (See Fig. 5) is also the brake fluid level warning light. If this light comes on and remains on, check the brake fluid level, if the fluid level is correct (but the light remains on) have the vehicle inspected by the shop mechanic.

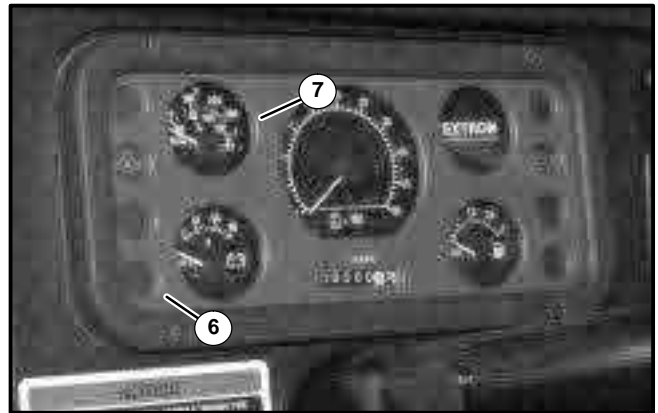
### BRAKE FLUID LEVEL WARNING LIGHT (6)

This light (See Fig. 5) indicates the brake fluid level is low.

### WATER TEMPERATURE GAUGE, AND OVERHEAT WARNING BUZZER (7)

The purpose of this system is to warn the operator if the engine temperature exceeds the normal operating range.

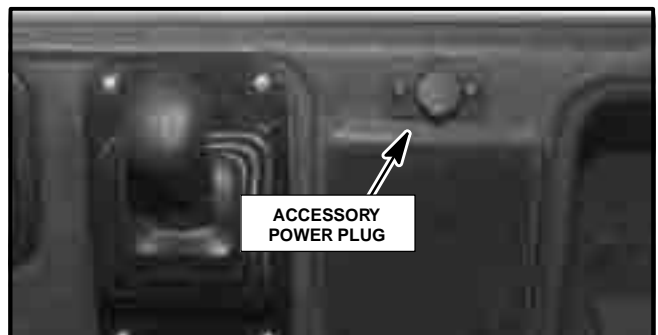
If the water temperature gauge (See Fig. 5) raises above the 230° F (110°C) mark, a heat sensor is activated causing the overheat warning buzzer to sound.



**Figure 5**  
Dash Panel Identification

### ACCESSORY POWER PLUG

A power port is available for plugging in laptop computers, cellular phones and other accessory items which require a 12-volt plug-in (See Fig. 6).

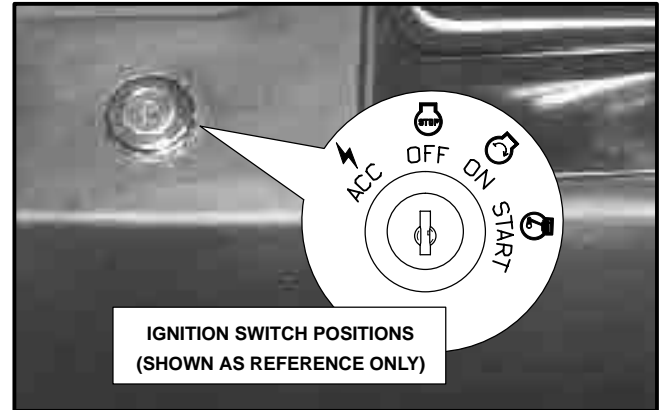


**Figure 6**  
Accessory Power Plug

**IGNITION SWITCH**

1. **ACCESSORY POSITION** – Allows use of various instruments and accessories without causing ignition system damage.
2. **OFF POSITION** – Prevents function of all vehicle electrical power operated features except for the flasher (hazard) lights, and the radiator cooling fan. **Switch must be in OFF position for key removal.**
3. **ON POSITION** – Key is placed in this position for normal engine operation.
4. **START POSITION** – Hold key in start position to engage engine starter. Upon release, key will return to ON position automatically. **Key must be returned to the OFF position before the starter can be reactivated.**

**NOTE: Do Not** turn key to START position with vehicle engine running. Damage to flywheel teeth may result.



**Figure 7**  
**Four Position Ignition Switch**



**DANGER**

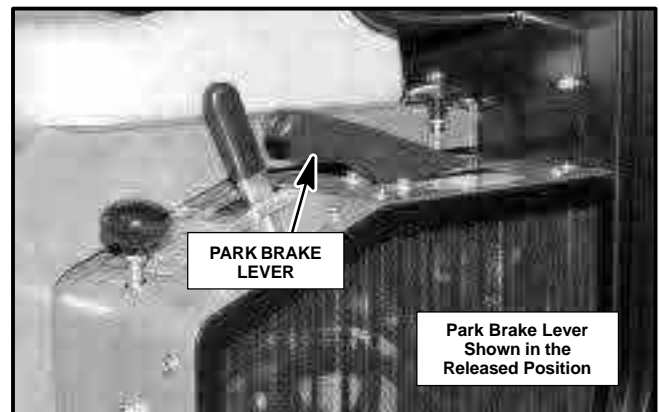
- **Never** return the key to the START position unless the gear selector is in “Park”, neutral or if you have a manual transmission, unless the clutch pedal is depressed. If the clutch pedal is not depressed and the vehicle is in any gear *other than neutral* (park or neutral for automatic transmissions) and the engine is started, the vehicle *may lurch* forward or backward depending which gear the vehicle is in. This lurching could cause serious personal injury or death.
- If the engine *will* start without depressing the clutch pedal (or with the gear selector in “R”, “D”, “2”, or “L” for automatic transmissions) **DO NOT** operate the vehicle. The vehicle should be repaired *immediately* by your authorized Cushman dealer.

**PARKING BRAKE LEVER**

**NOTE:** Park brakes are not automatically applied. Make sure to set the park brake when leaving the vehicle.

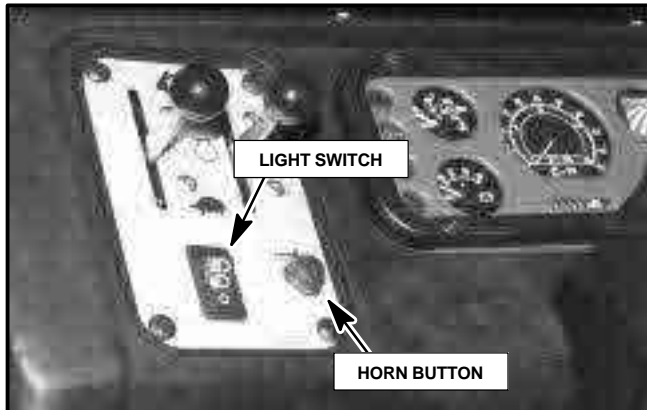
The park brake lever is located to the left side of the drivers seat. To engage the brake, pull up on the lever until park brake is applied (the handle will not pull back any further).

To release, while slightly pulling up on the handle, push the button at the end of the lever and, while holding the button in, lower the lever to it’s original position (See Fig. 8).



**Figure 8**  
**Park Brake Lever**

# CONTROLS



**Figure 9**  
Horn Button and Light Switch Location

## HORN BUTTON

The horn button is located to the left of the steering wheel, below the dash panel. Depress to sound horn. Horn will not sound when the ignition switch is in the **OFF** position.

## LIGHT SWITCH

The light switch is used to turn the headlights and tail-lights on. The switch has three detents, OFF, DIM, and BRIGHT. Push switch up one detent for DIM or push switch up two detents for BRIGHT.

### HEADLIGHT OPERATION SYMBOLS



OFF



DIM  
(1st Detent)



BRIGHT  
(2nd Detent)

## FOOT CONTROL PEDALS

### CLUTCH PEDAL (Manual Transmission Only)

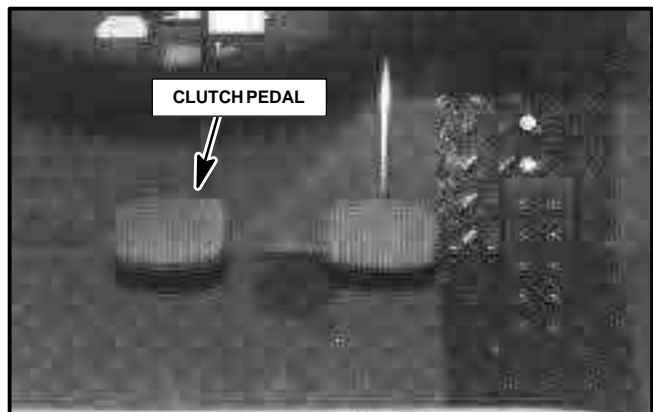
The clutch pedal has to be **depressed before** shifting into any of the gears. The clutch has a **Safety Feature** called a “**clutch interlock switch**”. This switch prevents the starter from operating unless the clutch is disengaged (the clutch pedal is depressed).

If the engine **will** start **without depressing** the clutch pedal:

- **DO NOT** operate the vehicle. The clutch interlock system should be repaired **immediately** by your authorized Cushman dealer.

The clutch pedal has to be **depressed:**

- before starting the vehicle
- before shifting into any of the gears
- and**
- before coming to a complete stop



**Figure 10**  
Clutch Pedal Location  
(Manual Transmission Only)



### DANGER

- **Never** start the engine unless the clutch pedal is depressed (pushed down). If the vehicle is **in any gear other than neutral**, with the clutch pedal **not** depressed and the engine is started, the vehicle will **lurch** forward or backward depending which gear the vehicle is in. This lurching could cause serious personal injury or death.

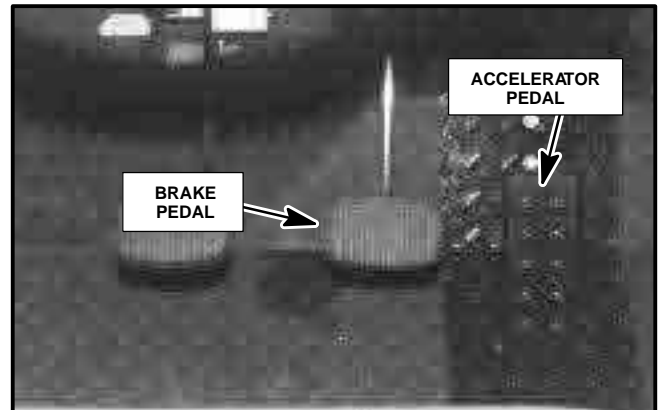
**FOOT THROTTLE PEDAL  
(ACCELERATOR PEDAL)**

Push pedal down to open throttle (*increase speed*), release the pedal to return throttle to idle position (*decrease speed*).

**SERVICE BRAKE PEDAL**

Depress the pedal to slow or stop the vehicle.

If the brakes **DO NOT** stop the vehicle properly, the brakes must be adjusted or repaired.



**Figure 11**  
**Foot Control Pedals**  
**(Clutch Pedal With Manual Trans. Only)**



**CAUTION**

- Improper maintenance of brake system can result in the operator losing control of vehicle.
- Loads not properly secured can quickly shift causing personal injury or vehicle damage if the brakes are applied too hard and fast.

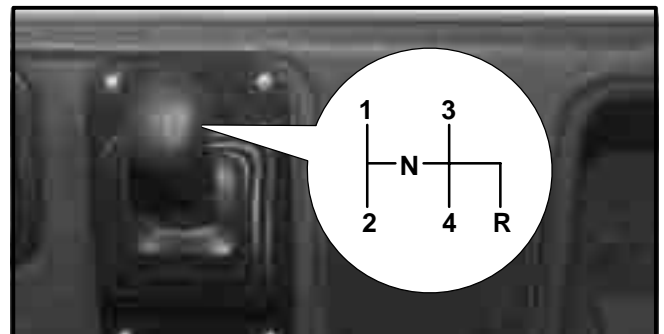
**GEAR SELECTOR**

**Manual Transmission**

The gear selector has an “H” pattern as shown in Fig. 12. There is also a shift-pattern design molded into the top of the gear selector handle.

Refer to the section “Driving the Vehicle” for information on the proper way to shift gears.

Remember, **before** shifting to **any** gear you have to **depress** the clutch pedal **before** you shift to that particular gear.



**Figure 12**  
**Shift Pattern (Manual Transmission)**



**DANGER**

- **Never** start the engine unless the clutch pedal is depressed (pushed down). If the vehicle is *in any gear other than neutral*, with the clutch pedal *not* depressed and the engine is started, the vehicle will *lurch* forward or backward depending which gear the vehicle is in. This lurching could cause serious personal injury or death.

# CONTROLS

## Gear Selector (con't.)

### Automatic Transmission

The gear selector has the gear selections listed on the left side of the shifter handle. **Some units may have the gear selections on the right side** as shown in Fig. 13.

Push in the selector lever button when shifting in or out of “P” Park, into “N” Neutral or when down shifting to “2” Second or “L” Low from “D” Drive.

It is not necessary to use the button when shifting up from **Low, Second or Drive to Neutral**, from **Reverse (R) to Neutral** or from **Neutral to Drive**.

Refer to the section “Driving the Vehicle” for information on the proper way to use the gear selector.

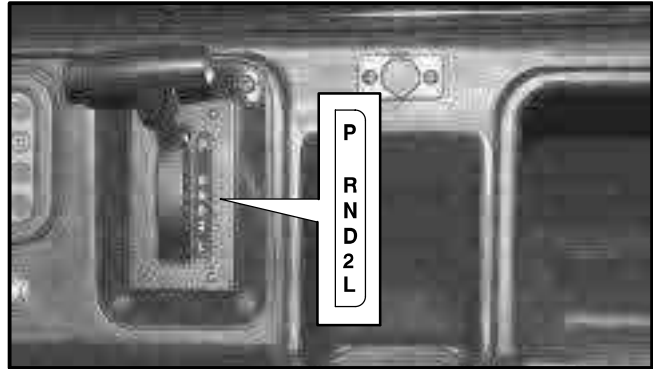


Figure 13  
Automatic Transmission Gear Selector



### DANGER

- **Never** turn the key to the START position unless the gear selector is in “Park” or neutral. If the vehicle is *in any gear other than Park or neutral*, and the engine is started, the vehicle *may lurch* forward or backward depending which gear the vehicle is in. This lurching could cause serious personal injury or death.
- If the engine *will* start when the gear selector is in “R”, “D”, “2”, or “L” **DO NOT** operate the vehicle. The vehicle should be repaired *immediately* by your authorized Cushman dealer.

## VEHICLE OPERATION



### WARNING

- This is heavy equipment that may cause serious injury or death to you the operator or bystanders if improperly used or overturned.
- **NEVER** operate this vehicle until you have read and understand the operator’s manual.
- **ONLY** trained and authorized persons shall operate this vehicle.
- **NEVER** allow children to operate the vehicle.

**Read this section carefully and thoroughly in order to become familiar with proper operating procedures.**

Be sure to obtain an operating demonstration from your Cushman dealer before attempting to drive the vehicle.

## Vehicle Operation (con't.)

**WARNING**

- This is heavy equipment that may cause serious injury or death to you the operator or bystanders if improperly used or overturned.
- **NEVER** operate this vehicle until you have read and understand the operator's manual.
- **ONLY** trained and authorized persons shall operate this vehicle.
- **NEVER** allow children to operate the vehicle.

1. **BEFORE** using the vehicle, always check all parts of unit and any attachments. If something is wrong **DO NOT** use the vehicle. Fix the problem before using the vehicle to prevent possible injury.
2. **WHILE** using the vehicle, *if something is wrong*, **STOP** using it. Fix the problem before using the vehicle again.
3. **ALWAYS** make sure the area of operation is clear of litter, trash and other foreign objects.
4. **NEVER** carry any persons on the vehicle other than the operator and any passenger for which a proper seat has been provided by the manufacturer (depending on model).
5. **ALWAYS** keep *both hands* on the steering wheel whenever possible. A passenger must **ALWAYS** use *handholds* provided.
6. To avoid loss of steering control, **NEVER** hang or install anything of a foreign nature such as a steering knob (spinner) on the steering wheel.
7. **ALWAYS** use extreme care when backing and make sure no one is behind you. To maintain vehicle control, **ALWAYS** *back the vehicle* carefully at reasonable speed.
8. **ALWAYS** keep arms and legs inside of vehicle while it is moving. Sit only in seats provided by the manufacturer. Any body parts that stick out past the side of vehicle could be hit by nearby objects.
9. **ALWAYS** stay a safe distance away from pedestrians, ramp edges, platforms, other equipment, etc.
10. **ALWAYS** watch for and avoid low overhang such as tree limbs, overhead walkways, etc. Make sure there is enough room overhead for your vehicle and your head to clear easily.
11. **ALWAYS** drive straight up and down the face of an incline, ramp, grade, slope, **NEVER** across the face.
12. **ALWAYS** slow down:
  - Before you turn.
  - When driving in strange areas.
  - When crossing railroad tracks, chuck holes or other rough ground surfaces.
13. **NEVER** make sudden stops, turns or accelerations which may upset the vehicle.
14. **ALWAYS** use good judgement when operating on or near an incline, ramp, grade, slope or other surface.
15. **ALWAYS** adjust your speed to conditions (dry, moist, icy, etc.).
16. **NEVER** start or stop suddenly. You may unseat your passenger or cause unstable vehicle operating conditions.

# CONTROLS

## Vehicle Operation (con't.)

17. **NEVER** change direction of vehicle abruptly or make sharp turns on an incline, ramp, grade, slope or other surface.
18. **NEVER** drive the vehicle with the engine speed increased by the hand throttle. Loss of vehicle control could result.
19. **ALWAYS** keep your windows clean and unobstructed.
20. The addition of any accessory equipment and the carrying of any payload will make the vehicle slightly less stable when turning or driving on slopes. A cab may make it hard for drivers to judge how fast they are going. To prevent loss of control and possible upset, **ALWAYS slow down before turning** and then turn corners slowly.
21. **ALWAYS** run vehicle where there is plenty of fresh air to prevent a buildup of carbon monoxide fumes. Carbon monoxide is colorless, odorless and deadly. **NEVER** run vehicle in an enclosed space where exhaust fumes will collect.
22. **NEVER overload** your vehicle. The nameplate (on cross-tube under dash) shows heaviest load you can carry. **ALWAYS** position loads carefully so they can't shift or tip over suddenly. **ALWAYS** keep loads low (not top heavy) so vehicle does not get top heavy when driven. **ALWAYS** place loads on rear deck (box) **AHEAD** of rear axle. If you place heavy loads behind the rear axle, the front wheel(s) will begin to lift off the ground and vehicle may become unstable. Steering control may be lost.
23. **ALWAYS** fasten the seat belt (if so equipped) **BEFORE** starting the engine.
24. **ALWAYS** make sure the engine is stopped and cool before removing radiator pressure cap. To prevent scalding by hot water, **NEVER** remove the radiator cap while engine is hot.
25. **NEVER** use the vehicle in or near an area where there is dust or fumes in the air which are explosive. The electrical and exhaust systems of this vehicle will make sparks which can ignite explosive materials.
26. **ALWAYS** signal that you are going to turn or stop so that other persons know what you plan to do. Obey all traffic rules and regulations.

## PRE-STARTING CHECKLIST

Before starting your engine for the first time; after a prolonged shutdown; and before each days use, check the following:

- Check the engine oil level.
- Check the radiator coolant level and radiator intake screen.
- Check the fuel level.
- Check tire pressure.
- Check brake fluid level.

## ENGINE BREAK IN

The service life of your engine is dependent upon how your engine is operated during the first **50 hours** of operation.

- ALWAYS:**
- Use care not to overload your engine
  - Maintain engine oil level
  - Maintain cooling system



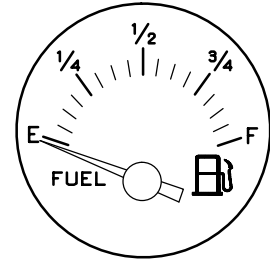
### WARNING

- To prevent premature engine failure and speeds greater than design limits, **NEVER** alter the governor controls in any manner to increase engine speed beyond recommended maximum R.P.M.



## FUEL LEVEL

1. Check fuel level in fuel tank. Turn the ignition switch to the ON position, fuel level will be determined by how far the fuel gauge needle rises. The illustration below shows the various levels for reading the fuel gauge.
2. Fuel tank capacity is **6.5 gal. (24.6 L)**. Fill if necessary using the following fuel recommendations:
  - **Gasoline Engines** - Unleaded gasoline with an 87 or higher Octane reading.



Fuel Tank Volume

The fuel tank is located on the right side of the vehicle in front of the rear tire.



### WARNING

- Remove fuel cap slowly. Fuel may be under pressure. Spray may cause serious injury.
- Engine fuels are extremely flammable and highly explosive under certain conditions.
- **NEVER** remove the fuel tank cap or attempt to refuel the unit while the engine is running.
- **NEVER** refuel indoors. **NEVER** smoke while refueling.
- **ALWAYS** wipe up spilled fuel immediately.
- **NEVER** operate the unit without an approved cap on the fuel tank filler opening.

## Gasoline Containing Alcohol

We **DO NOT** recommend the use of **ALCOHOL** bearing fuels in any of our products. The use of these fuels may create a potential safety hazard.



### WARNING

- Gasoline containing **ALCOHOL** can cause deterioration of some non-metallic materials in the fuel system.
- Fuel hoses must be inspected frequently and replaced if excessive stiffness, deterioration or fuel leakage is found.
- Gasoline containing **ALCOHOL** will attract and hold moisture inside fuel tanks. Moisture may cause corrosion of metallic parts within the fuel system.
- Fuel leakage from a fuel system can occur while the system is in use, in transit, or in storage. Such leakage can contribute to an explosion or fire, causing serious bodily injury or death.

## OIL LEVEL (Engine)

**Always** turn the engine **off** when checking the oil level. **Oil level should be checked daily.**

**NOTE:** Make sure vehicle is parked on a **level** surface with the **park brake** applied.

***If the engine has recently been running, allow time (with the engine turned off) to let the oil settle to obtain a correct level reading.***

# SERVICE & MAINTENANCE

## Engine Oil Level (con't.)

Remove the dipstick and wipe with a clean rag, reinsert the dipstick until the small cap on the dipstick contacts the oil tube, remove dipstick and read the oil level (dipstick is located on the right side of the engine, to the right and below the rear of the alternator).

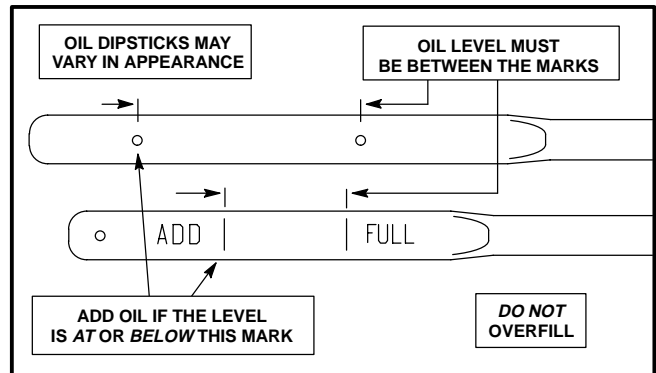
The oil level should always be between the **ADD** and **FULL** mark on the dipstick. **DO NOT OVER FILL.**

If the oil level is below the add mark, add an **SAE 10W-30** oil to bring the level up between the marks.

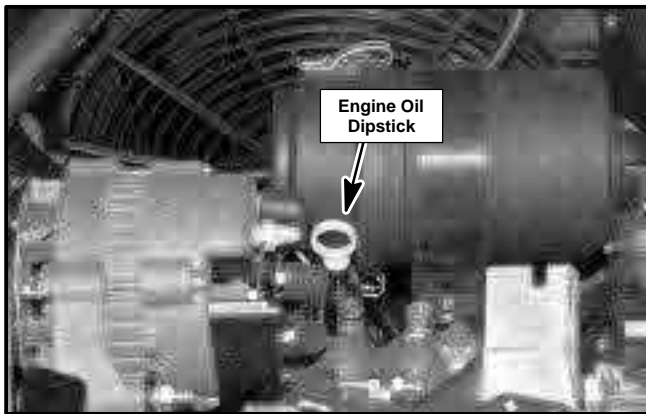
Remove the oil fill cap and add the appropriate amount of engine oil. Use the dip stick to check the level again, if oil level is sufficient, replace oil fill cap.

**DO NOT OVERFILL**

**Engine Oil Capacity, Suzuki 660 . . . . . 3.3 qts. (3.1 L)**



**Figure 16**  
**Oil Level Reading**



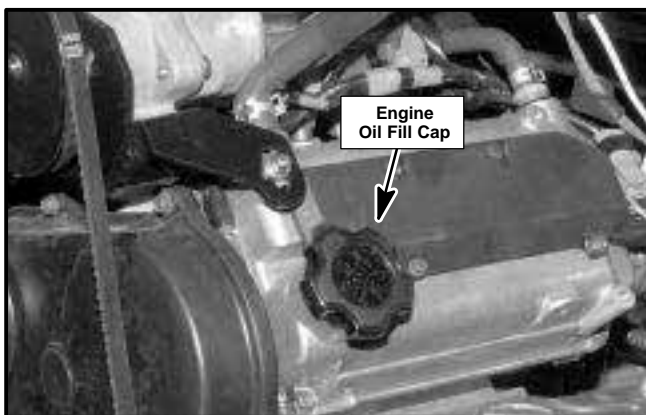
**Figure 14**  
**Dipstick Location**

## Engine Oil Replacement Filters:

**Suzuki 660 . . . . . Order Part No. 2701908**

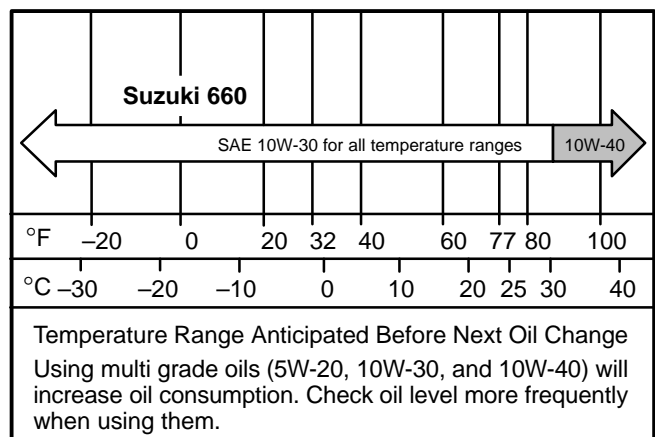


**Figure 17**  
**Oil Pressure Warning Light**



**Figure 15**  
**Oil Fill Cap**

**NOTE:** If you notice the **oil pressure warning light** coming on while driving the vehicle, **Stop** the vehicle and check for problems.



### TIRE PRESSURE

1. Check all tires for proper inflation. Keep tires inflated to the specifications corresponding to that particular tire size. Air pressure needed is determined by the payload carried. Adjust pressure as required. Lower pressure will help avoid leaving tire marks in soft turf. Higher pressures may be required for heavy loads. **NEVER** exceed the maximum pressure indicated on the tire.

TIRE SIZE	TIRE PRESSURE
20-8.00 X 10 (4 PLY) . . . . .	20 PSI (138 KPA)
20-10.00 X 10 . . . . .	20 PSI (138 KPA)
24-13.00 X 12 . . . . .	15 PSI (110 KPA)

**NOTE:** Improper inflation will shorten the life of your tires considerably. Fill tires with care. Use a pressure gauge before connecting an air hose to a partly inflated tire. **Due to the low air volume needed, over-inflation may be reached in a matter of two or three seconds.**

### RADIATOR COOLANT LEVEL

The vehicle is equipped with a cooling radiator and an electric cooling fan.

 **WARNING**

- The cooling fan is thermostatically controlled and *may start at any time, even with the ignition key in the OFF position, DO NOT* attempt service without first disconnecting the negative (-) battery cable or without first removing the fan fuse.
- The cooling system is under pressure, if a leak is present, be careful when raising the seat or when opening the engine cover. *Hot* coolant can be sprayed causing personal injury.

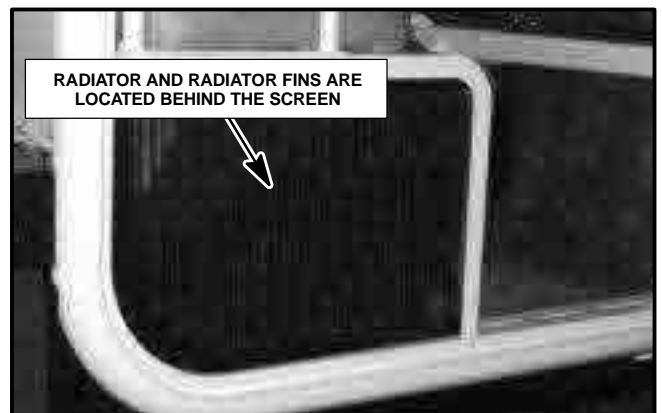
To provide proper engine cooling it is important to keep the cooling system properly maintained. Part of maintaining the system involves making sure the intake screen, radiator fins and surrounding engine areas remain free of debris.

- **DO NOT** obstruct or cover the intake screen in front of the radiator. Keep the fins and radiator screens clean.
- If the radiator fins or intake screen become dirty, air cannot circulate well enough to cool the engine sufficiently, therefore you risk the chance of the engine overheating. **Engines damaged due to overheating caused by plugged radiators WILL NOT be warranted.**

The cooling system level and the intake screen should be checked every day before vehicle operation.

Along with the daily pre-start list, you should also:

1. Check the radiator and coolant hoses for leaks and faulty connections, repair as necessary.
2. Inspect the engine belts for fraying or cracking and check the engine for loose hardware.



**Figure 18**  
**Intake Screen (Right Side of Vehicle)**

# SERVICE & MAINTENANCE

## Radiator Coolant Level (con't.)

**NOTE:** Clean the radiator fins with compressed air. If water is used to clean the radiator, use compressed air to blow all the water from the fins. Water left between the fins will collect dirt and plug the radiator, this will reduce the amount of air flow to properly cool the engine. **Engines damaged due to overheating caused by plugged radiators WILL NOT be warranted.**

## DRAINING & FILLING THE COOLING SYSTEM

The cooling system should be drained and refilled every **400 hours or nine (9) months.**


**Cooling System Capacity:** Suzuki 660 Engine . . . . . 3.3 qts. (3.1 L)

Disconnect the negative (-) battery cable or remove the electric fan fuse from the fuse panel under the front hood.

After the engine has cooled, remove the radiator cap, place an approved container below the radiator and open the drain cock at the bottom of the radiator (remove the bottom radiator hose to completely drain the system). Also drain the fluid from the coolant reservoir bottle.

Connect the lower radiator hose (if removed), close the drain cock and make sure coolant reservoir is properly secure.

**NOTE:** Most communities have a disposal site for this type of refuse. **Please dispose** of fluids properly.

 **WARNING**

- **ALWAYS** make sure the engine is stopped and cool before removing the radiator cap. To prevent scalding by hot water, **NEVER** remove cap while radiator is hot.

## To Fill the Cooling System:

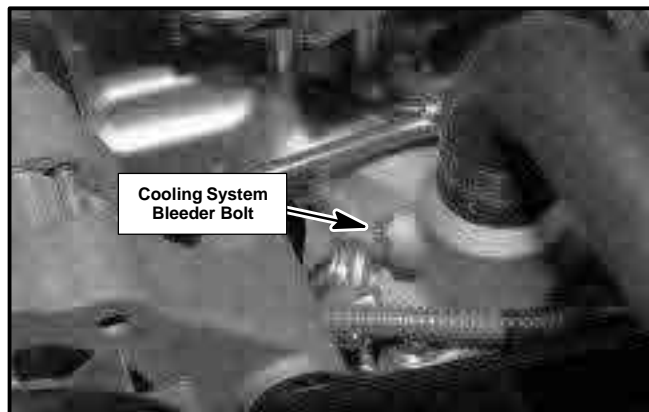
Make a 50/50 mixture of anti-freeze and water in a separate container before adding coolant to the radiator. **Never** add straight anti-freeze to the radiator, the mixture **must never** be more than 50% anti-freeze.

Unless the radiator is very low, always add coolant to the overflow reservoir not to the radiator.

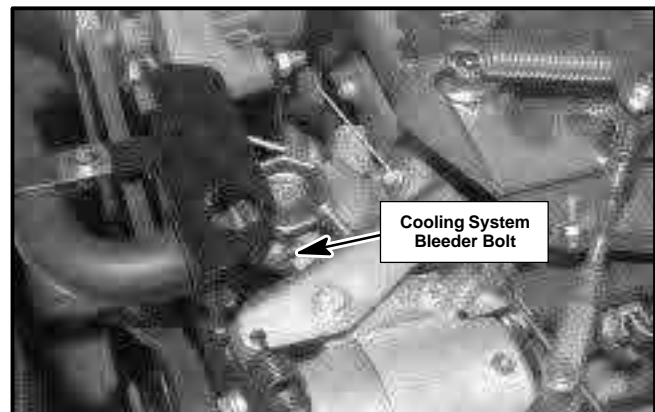
Fill radiator to the bottom of the filler neck with the anti-freeze/water mixture and fill the reservoir bottle to the **full** mark.

Loosen the bleeder bolt on top of the thermostat housing (See Fig's. 19 & 20 below) until coolant begins to come out through the bleeder bolt port. Once coolant begins to leak from the hole, retighten the bolt.

Run the engine with the radiator cap removed until the upper radiator hose gets warm (this will tell you the thermostat has opened allowing coolant to circulate through the whole system). The coolant level will drop as the coolant circulates, continue adding coolant until the level remains constant approximately 1/4" (6.3 mm) from the bottom of the filler neck.



**Figure 19**  
**Bleeder Bolt on Models 898657 & 898658**



**Figure 20**  
**Bleeder Bolt on Model 898656**

**WATER TEMPERATURE GAUGE  
and OVERHEAT WARNING BUZZER**

The purpose of this system is to warn the operator if the engine temperature exceeds the normal operating range. If the water temperature gauge raises above the 230° mark, a heat sensor is activated causing the overheat warning buzzer to sound.

During operation (driving), if the water temperature gauge shows **230° F (110° C) or over**, and/or the overheat warning buzzer sounds, follow this procedure:

1. **STOP** the vehicle, **DO NOT STOP THE ENGINE**.
2. **Immediately** disengage any accessories that are operating.
3. Slow the engine to a "fast idle".
4. Remove any dirt , chaff, debris, etc. from the radiator intake screen located on the right side of the engine cover (***the intake screen and surrounding area will be hot, use caution when removing debris from this area.***)



**Figure 21  
Water Temperature Gauge**

The temperature indicator on the gauge should go down within approximately 30 seconds after the intake screen is cleaned. If the temperature **does not go down, STOP THE ENGINE** and check the following areas:

1. Raise vehicle seat and visually check to see if electric radiator fan is operating and check to determine if there may be a leak in the cooling system (allow ample time for the engine and surrounding area to cool before attempting to perform any service or maintenance).



**WARNING**

- **Be careful when opening the engine cover, when raising the seat and when cleaning the chaff from around the intake screen. Parts that are metal may be hot to the touch.**
- **The vehicle seat is a machinery guard. To avoid injury, use extreme caution and DO NOT place hands or clothing near moving parts (belts, fan, etc.).**
- **ALWAYS make sure the engine is stopped and cool before removing the radiator cap or before performing any service or maintenance on or around the engine area. To prevent scalding by hot water, NEVER remove the radiator cap while radiator is hot.**
- **The cooling system is under pressure, if a leak is present, be careful when raising the seat or when opening the engine cover. Hot coolant can be sprayed causing personal injury.**

2. Check the radiator fins and screen. If they are dirty, they **must** be cleaned. **Engines damaged due to overheating caused by plugged radiators WILL NOT be warranted.**
3. Check oil engine level.
4. Check radiator and coolant reservoir levels.

Failure to:

- (1) heed the overheat warning *and*
- (2) maintain cooling system, **will cause permanent damage.**

## STARTING THE ENGINE (Gasoline Engines)

### Automatic Transmission

1. Apply the park brake (the parking brake should have been applied when the vehicle was last parked).
2. Make sure the gear selector is in Park “P” (engine **will not** start if gear selector is in “R”, “D”, “2”, or “L”). If the engine **will** start when the gear selector is in “R”, “D”, “2”, or “L” **DO NOT** operate the vehicle. The vehicle should be repaired **immediately** by your authorized Cushman dealer.
3. Turn the ignition key to the ON position and observe the warning lights and gages (some of the warning lights will remain on until the engine has started and is running).



### DANGER

- **Never** turn the key to the START position unless the gear selector is in “Park” or neutral. If the vehicle is *in any gear other than Park or neutral*, and the engine is started, the vehicle *may lurch* forward or backward depending which gear the vehicle is in. This lurching could cause serious personal injury or death.
- If the engine **will** start when the gear selector is in “R”, “D”, “2”, or “L” **DO NOT** operate the vehicle. The vehicle should be repaired **immediately** by your authorized Cushman dealer.

4. Turn and hold ignition key in the START position to engage engine starter, release key when engine starts (upon release, the key will automatically return to the ON position).
  - If the engine does not start after operating starter for 10 seconds, stop the starter. Wait for 30 seconds, then try to start the engine again (turn key to Off before restarting).
  - The starter motor should never be run for more than 30 seconds.
5. Allow engine to warm-up before driving the vehicle (always allow at least one minute for the engine to warm-up).

### Manual Transmission

1. Make sure the parking brake is applied (the parking brake should have been applied when the vehicle was last parked).
2. Turn the ignition key to the ON position and observe the warning lights and gages (some of the warning lights will remain on until the engine has started and is running).
3. Move the gear selector to “NEUTRAL”.
4. Push clutch pedal down (**starter will not operate unless clutch pedal is pushed down**). The clutch interlock switch prevents the starter from operating unless the clutch is disengaged (the clutch pedal is depressed). If the engine **will** start **without depressing** the clutch pedal **DO NOT** operate the vehicle. The clutch interlock system should be repaired **immediately** by your authorized Cushman dealer.



### DANGER

- **Never** turn the key to the START position unless the clutch pedal is depressed (pushed down) or the gear selector is in neutral. If the vehicle is *in any gear other than neutral*, and the clutch pedal *is not* depressed when the engine is started, the vehicle *may lurch* forward or backward depending which gear the vehicle is in. This lurching could cause serious personal injury or death.

## Starting The Engine, Gasoline Engines, Manual Transmission (con't.)

5. Turn and hold ignition key in the START position to engage engine starter, release key when engine starts (upon release, the key will automatically return to the ON position).
  - If the engine does not start after operating starter for 10 seconds, stop the starter. Wait for 30 seconds, then try to start the engine again (turn key to Off before restarting).
  - The starter motor should never be run for more than 30 seconds.
6. Allow engine to warm-up before driving the vehicle (always idle and warm-up the engine for at least one minute)

## DRIVING THE VEHICLE

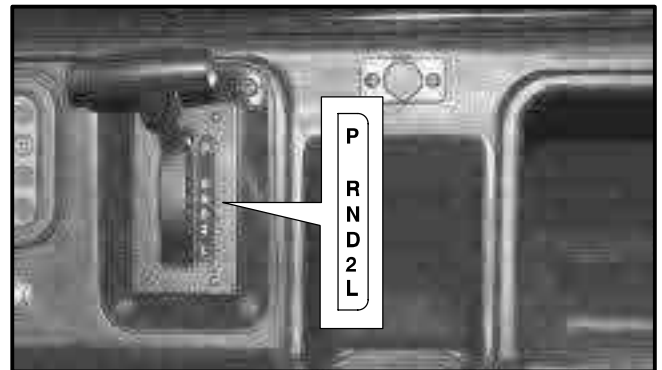
### Automatic Transmission

After the engine has been started:

Depress the brake pedal and move the gear selector to either “D” Drive or “R” Reverse, depending on which direction you want the vehicle to travel (you can select “2” Second or “L” Low, but Drive is recommended for normal driving).

Release the park brake, release the brake pedal and slowly depress (push down) the accelerator pedal to achieve the desired speed.

**Vehicle engine speed should NEVER be faster than idle speed when shifting from PARK or NEUTRAL into REVERSE, DRIVE, SECOND or LOW, sudden vehicle movement may occur.**



**Figure 22**  
**Automatic Transmission Gear Selector**

**NOTE:** Accelerating the engine speed with the transmission in gear (REVERSE, DRIVE, SECOND or LOW) while holding the vehicle with the service brake or parking brake, **may cause transmission damage.**

**MAKE SURE** the vehicle is at a complete stop before moving the selector lever to PARK or when shifting from DRIVE to REVERSE, or from REVERSE to DRIVE, if vehicle is not completely stopped, **transmission damage may occur.**

When driving forward down a steep incline or long grade, the transmission may be shifted to a lower gear (SECOND or LOW) to help slow the vehicle. Excessive or prolonged use of brakes can cause loss of braking efficiently or loss of braking function due to overheating and can cause premature brake wear.

### Manual Transmission

After the engine has been started, release the parking brake.

Determine which direction you need the vehicle to go and select a gear using the gear selector lever.

The gear selector has an “H” pattern as shown in Fig. 23 (there is also a shift-pattern design molded into the top of the gear selector handle).

With the clutch pedal fully depressed, select the appropriate gear (forward or reverse), release the clutch pedal slowly while depressing the throttle pedal.

## OPERATING THE VEHICLE

### Driving the Vehicle, Manual Transmission (con't.)

As you release the clutch pedal you will notice after the pedal has been partially released the vehicle begins to move. When the vehicle begins to move, give the throttle a little more gas and at the same time keep releasing the clutch pedal.

**When selecting the forward direction, begin with 1st or 2nd gear shifting to the next higher gear as the vehicle gains speed.**

**NOTE:** 1st gear is a "creeper" gear, high engine r.p.m. can result in damage to engine if care is not taken before shifting to 2nd gear.

When the vehicle gains enough speed, depress the clutch pedal and shift to the next higher gear and so on.

**When you shift gears remember that as you push in the clutch you need to release the throttle pedal.**

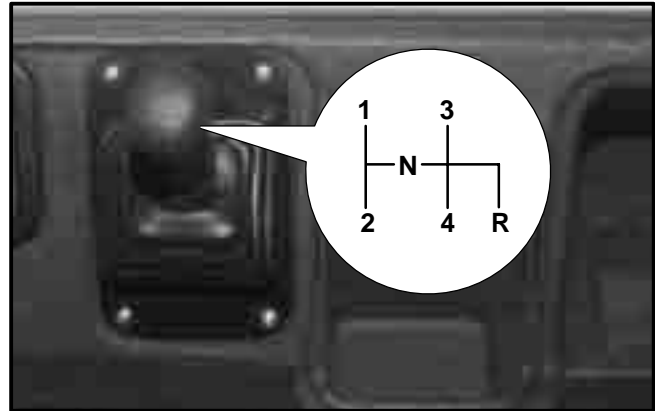
**DO NOT** drive with the clutch pedal partially depressed.

**NOTE:** **Do Not** push in the accelerator pedal at the same time you push in the clutch to shift the gears. Only downshift if the vehicle is at a complete stop, or if the engine's speed is decreasing.

Remember, **before** shifting to **any** gear you have to **depress** the clutch pedal **before** you shift to that gear.

You **can** down-shift from fourth to third, from third to second and so on while the vehicle is moving but only when **the engine's speed is decreasing** (even though the engine rpm's and the vehicles' speed is decreasing, some of the lower gears may require the vehicle to come to a near **or** complete stop while down-shifting).

If the engine rpm and/or the vehicle speed is **not decreased** sufficiently and you try to down-shift, it is possible to damage the transmission. **Do Not** force the gear selector to the next lower gear, slow the engine and vehicle speed until the gear selector can be shifted properly.



**Figure 23**  
**Gear Shifting Pattern**

## STOPPING, PARKING (LEAVING) THE VEHICLE

### Manual Transmission

Before you leave the operator's seat, do the following things in the order shown below.

1. Bring the vehicle to a **COMPLETE stop** and hold in position with the service brake while depressing the clutch pedal (when bringing the vehicle to a stop, apply the brakes until the vehicle has slowed **then** push the clutch in and apply the brakes until the vehicle comes to a complete stop).



### DANGER

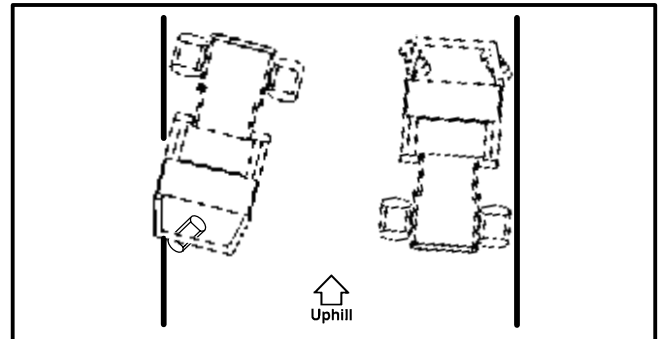
- If the clutch pedal is **not** depressed (pushed down) or if the clutch pedal is released before the engine has **completely stopped** and the gear selector is in **any gear other than neutral**, the vehicle **may lurch (jump)** forward or backward, depending which gear the vehicle is in. This lurching could cause serious personal injury or death.



## Stopping, Parking (Leaving) the Vehicle (con't.)

2. After the **vehicle** has come to a complete stop, turn the key switch to the "OFF" position while holding the clutch and the brake pedals down until the **engine** is **COMPLETELY STOPPED**. Place the vehicle in first gear, remove your foot from the brake pedal and remove the ignition key to prevent unauthorized use of vehicle.
3. **Apply** the **parking brake**. The parking brake **is NOT** automatically applied.

When parking the vehicle or starting the engine on an incline, the front wheel should be "**curbed**" whenever possible (See Fig 24).



**Figure 24**  
Vehicle parked With Front Wheel(s) Curbed

## Automatic Transmission

Before you leave the operator's seat, do the following things in the order shown below.

1. Bring the vehicle to a **COMPLETE stop** and hold in position with the service brake. Move the gear selector to the "P" Park position and apply the park brake, **then** remove your foot from the brake pedal.
2. Turn the ignition key to the "OFF" position. Remove the key to prevent unauthorized use of the vehicle.

When parking the vehicle or starting the engine on an incline, the front wheel should be "**curbed**" whenever possible (See Fig 24).

## TOWING A TRAILER (Trailer Hitch)

**Trailer GVWR** – 1,500 lbs. (680 kg)      **Tongue Weight** – 200 lbs. (90.7 kg)

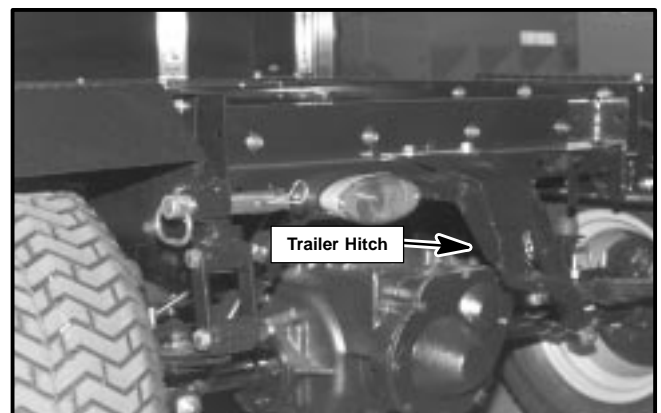
This vehicle is capable of pulling trailers and other equipment of greater weight than the vehicle itself, so **caution and good judgment** must be used to avoid losing control of the vehicle while braking or cornering.

Connect the equipment to be pulled to the trailer hitch on the rear of the vehicle. Secure using a tow pin or similar object. Be sure to secure the tow pin (or similar object) so it cannot fall out of the mounting hole.



### WARNING

- **NEVER** pull loads which may exceed the braking capacity of the vehicle. The operator must determine if the Cushman vehicle has adequate braking capacity to stop either a loaded or unloaded vehicle and the trailer on the type(s) of surface(s) and grade(s) on which the vehicle will be operated.
- Position the load on the trailer so that the tongue weight on the towing vehicle will not cause instability or affect steering control.
- **NEVER** make sudden stops, turns or accelerations when towing a trailer or equipment.



**Figure 25**  
Trailer Hitch

### SERVICE and MAINTENANCE

*Think Ahead! Work Safely!*



#### WARNING

- When replacement parts are required, use genuine Cushman parts or parts with equivalent characteristics including type, strength and material. Failure to do so may result in product malfunction and possible injury to the operator and/or bystanders.
- Never attempt to perform service or maintenance functions on this vehicle if you are UNAUTHORIZED or UNTRAINED. Improper maintenance can cause hazardous conditions. See your authorized CUSHMAN dealer for necessary maintenance and service.
- Note the Safety and Operation decals applied to various parts of the vehicle, replace any decals which may become illegible, torn, or removed from the vehicle.

#### FRONT COWL ACCESS

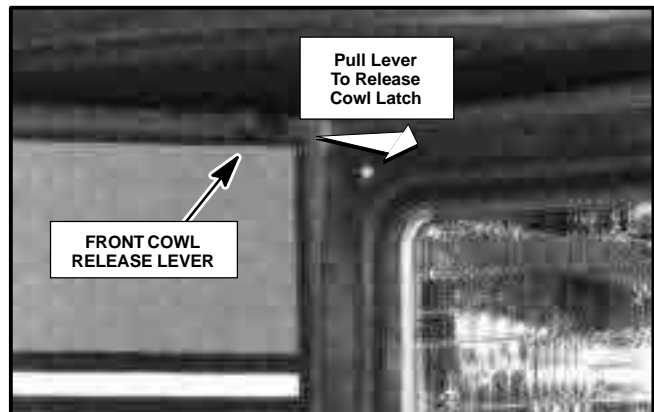
The front cowl opens to gain access to the fuse panel, the horn, the master cylinder reservoir as well as various access panels which when removed, allow access to wiring for the dash panel, shifting lever linkage and the upper part of the front suspension.

To open the front cowl; while facing the front of the vehicle, locate the release lever near the upper left corner of the left side headlight.

Pull the lever to the right to release the front cowl latch and at the same time pull up on the front cowl.

Open the cowl allowing it to rest against the rops structure (if equipped) or the steering wheel.

The front cowl will not “spring up” when the release lever is pulled. The cowl will have to be raised when the latch is released.



**Figure 26**  
**Release Lever For Front Cowl**

#### DIAGNOSTIC CHECK (Electrical System)

The electrical system is equipped with a plug-in connector which, when used with the Diagnostic Jumper Accessory (Part No. 2700920) will perform diagnostic checks on various electrical components.

Place the gear selector into **park**, apply the park brake and turn the ignition switch to the **off** position.

Open the front cowl (hood) and locate the plug-in connector coming from the small section of wire-harness below the brake fluid reservoir (See Fig. 27).

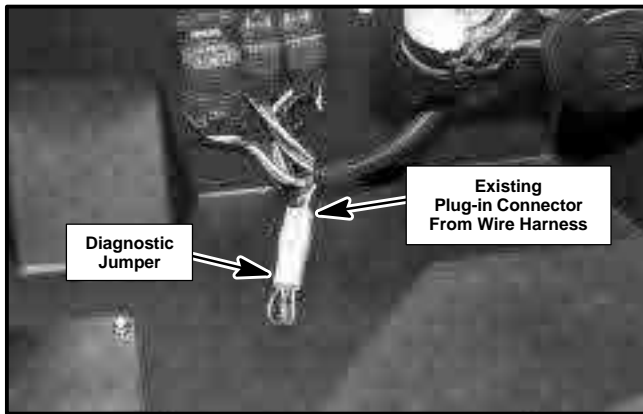
Plug the diagnostic jumper into the plug-in connector.

Turn the ignition switch to the **on** position and note the brake fluid level warning light at the lower left corner of the instrument panel (See Fig. 28).

The light will flash a code to let you know that everything is normal (Code 12) **or** to let you know which specific component needs attention.

The light will first flash to correspond to the first digit of the code, then flash again to correspond with the second digit of the code.

## Diagnostic Check, Electrical System (con't.)



**Figure 27**  
**Diagnostic Jumper Shown Connected**



**Figure 28**  
**This Light Will Flash For Diagnostic Check**

A Code 14 would turn the light on for 0.3 seconds then off for one second (long pause), then on-off, on-off, on-off, on-off (the last four flashes will be short quick flashes).

If a Code 43 were present the light would - flash then pause,... flash then pause,... flash then pause,... flash then pause, **then** flash, flash, flash (four long pauses followed by three quick flashes).

The code will continue to repeat itself until the ignition switch is turned off (**if there are multiple faults, each code will be displayed three (3) times starting with the lowest numbered code**).

Turn the ignition key to the **off** position, then back to the **on** position each time you want to take a reading.

The following list shows **which code number corresponds to which component and lists possible causes for each fault:**

### CODE

- 11 **Pressure Sensor** – Voltage at pin 25 (green/yellow wire) of the 34 pin ECU connector is either higher than 4.5 V or lower than 0.19V.
  - 12 **Normal** – System operating normally
  - 13 **Throttle Sensor** – Voltage at pin 33 (gray/yellow wire) of the 34 pin ECU connector is either higher than 4.73V or lower than 0.25V.
  - 14 **O2 Sensor** – No signal for a length of time at pin 24 of the 34 pin ECU connector.
  - 15 **Crank Angle Sensor** – While in starting mode, no signal is seen at pin 16 (brown/red wire) of the 34 pin ECU connector.
  - 16 **Vehicle Speed Sensor** – No signal for a length of time at pin 16 (orange wire) of the 26 pin ECU connector.
  - 19 **Water Temperature Sensor** – Voltage at pin 32 (green/white wire) of the 34 pin ECU connector is either higher than 4.85V or lower than 0.15V.
  - 41 **Shift Solenoid No. 1** – Open or short circuit at pin 27 (blue/black wire) of the 34 pin ECU connector, should be “on” if gear selector is in “L” (“on” meaning there should be 12 volts going through this wire).
  - 42 **Shift Solenoid No. 2** – Open or short circuit at pin 28 (blue/white wire) of the 34 pin ECU connector, should be on if gear selector is in “L” or “2” (“on” meaning there should be 12 volts going through this wire).
  - 43 **Shift Solenoid No. 3** – Open or short circuit at pin 29 (blue/red wire) of the 34 pin ECU connector.
  - 46 **Shift Switch** – No signal at pin 18 (green/pink wire) of the 26 pin ECU connector, **and** no signal at pin 19 (orange/blue wire) of the 26 pin ECU connector, **and** no signal at pin 20 (orange/green wire) of the 26 pin ECU connector, **and** no signal at pin 24 (green/blue wire) of the 26 pin ECU connector, **and** no signal at pin 25 (green wire) of the 26 pin ECU connector, **and** no signal at pin 26 (red wire) of the 26 pin ECU connector.
- or**  
signal present at more than one of pins 18, 19, 20, 24, 25 and 26 of the 26 pin ECU connector.

## FUSES

The fuse box is located under the front cowl (See Fig. 29).

The fuses protect the electrical lighting circuits and accessory circuits such as the windshield washers, turn signals etc.

When replacing fuses, make sure the ignition key is turned to the **off** position and all switches associated with that fuse are also in the **off** position.

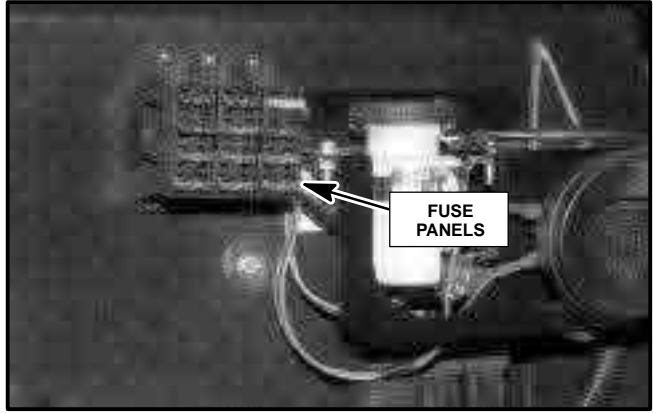
Be sure the replacement fuse is the same amp as the fuse being replaced.

Pull straight out to remove a fuse. To install a fuse, push the new fuse into the appropriate fuse slot.

You can troubleshoot most blown fuses using the process of elimination, for instance; did the fuse blow when a specific accessory was turned on, when the headlights were turned on, or perhaps the instrument panel lights flickered then went dead while traveling on a bumpy road.

Some of the more common causes of electrical failure are loose wires, loose ground wire(s), faulty connections, broken or exposed wires and improper connections.

If you replace a fuse and the replacement fuse blows when power is again supplied to that source and this continues to happen each time you replace the fuse there may be a more serious problem than anticipated, please contact your Cushman Service Representative for further assistance.

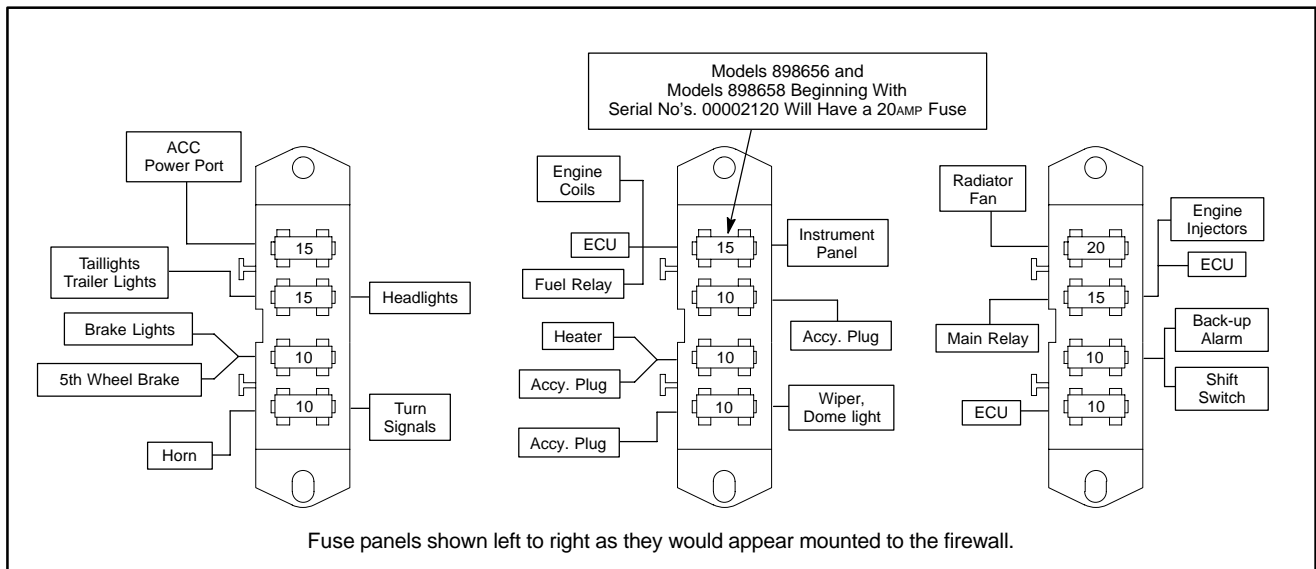


**Figure 29**  
**Fuse Block Located Under Front Cowl**



### CAUTION

- Fuses continuously being “blown” when electrical power is supplied may indicate a more serious problem, if the problem continues and you can’t pin-point a problem, please contact your Cushman dealer for the service representative nearest you.
- Electrical failure and/or fire can result if the fuses are *not* the proper amperage.



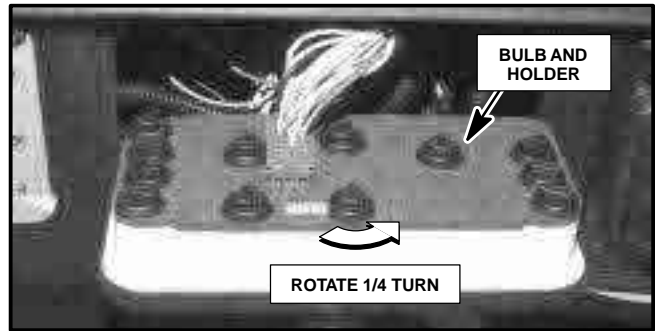
**BULB REPLACEMENT, DASH PANEL**

Remove the four (4) screws securing the instrument panel to the dash.

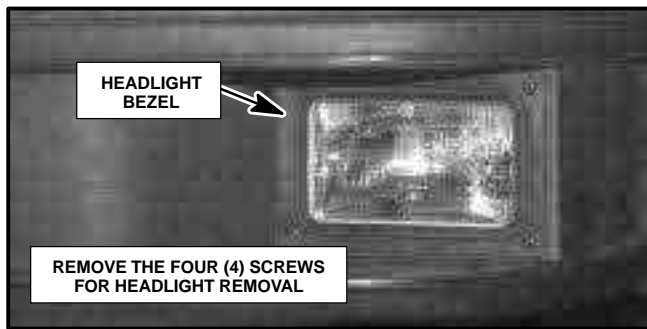
Pull the instrument panel out and tilt forward to gain access to the rear of the panel (See Fig. 30).

Determine which bulb will be replaced. Rotate the bulb holder 1/4 turn, pull up and remove holder and bulb. Remove the bulb from the holder and replace with the appropriate bulb. Reverse this sequence to install the bulb and holder.

Use the number printed on the bulb to obtain the correct replacement bulb, also refer to the chart on Page 28 for bulb specifications.



**Figure 30**  
**Dash Panel Bulb Removal**



**Figure 31**  
**Headlight Removal**

**HEADLIGHT REPLACEMENT**

Remove the four (4) screws securing the headlight bezel to the front cowl (See Fig. 31).

Pull the headlight and bezel from the front cowl opening. Disconnect the electrical connector from the rear of the headlight and remove the headlight from the bezel. Replace headlight and install in the reverse sequence used for removal.

- Headlight** . . . . . Part No. 837303
- Bezel** . . . . . Part No. 841428
- Mounting Screws** . . . Part No. 800943

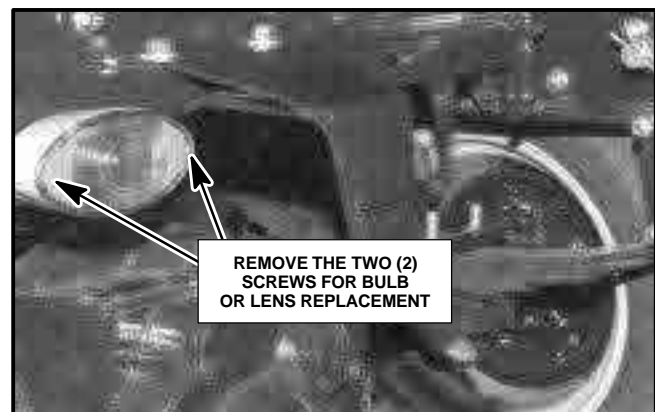
**BULB REPLACEMENT, TAILLIGHT**

Remove the two (2) screws securing the taillight lens to the taillight.

Remove the bulb and replace with a No. 1157 bulb. Replace the lens cover making sure the gasket is positioned correctly.

To remove the taillight from the vehicle, remove the two (2) nuts and shakeproof washers securing the taillight to the frame.

- Taillight Assembly** . . . . . Part No. 893602
- Bulb** . . . . . Part No. 822049
- Lens Screws** . . . . . Part No. 312288
- Lens and Gasket** . . . . . Part No. 829099
- License Illuminator Lens** . . . Part No. 829099



**Figure 32**  
**Taillight Bulb Replacement**

# SERVICE & MAINTENANCE

## BULBS, FUSES AND FLASHER

<b>BULBS:</b>	Voltmeter light .....	No. GE 658	
	Oil pressure warning light .....	No. C194	
	Tachometer .....	No. C161	
	Water temperature gauge light .....	No. GE 658	
	Fuel gauge light .....	No. GE 658	
	Hour Meter Light .....	No. GE 658	
	Turn signal(s), front (accessory) .....	32 CP	No. 1156 .....
	Taillight(s) .....	32-4 CP	No. 1157 .....
	Headlight(s) .....	65-45 Watt	No. H6545 .....
			Part No. 837670
			Part No. 822049
			Part No. 837303
<b>FUSES:</b>	.....	10 AMP	.....
	.....	15 AMP	.....
	.....	20 AMP	.....
	.....	30 AMP	.....
			Part No. 836892
			Part No. 849983
			Part No. 826000
			Part No. 833038
<b>FLASHER:</b>	Turn signal (accessory) .....		Part No. 825501

## ACCESS PANELS

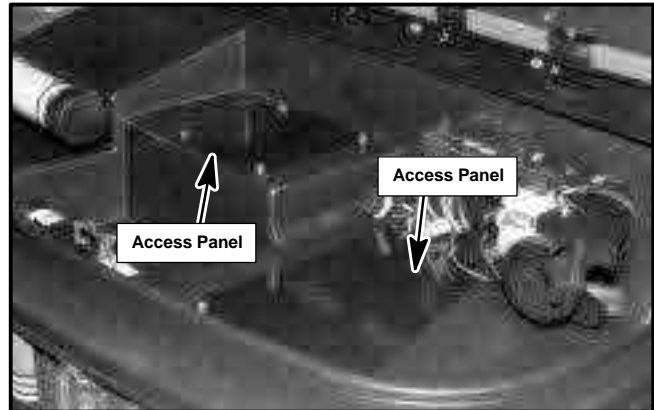
There are four access panels; two (2) located under the front hood, one located in the middle of the floorboard and one located on the fane behind the stopwall.

The panels under the front hood allow access to the shifter linkage, some of the electrical wiring for the instrument panel and sections of the front suspension.

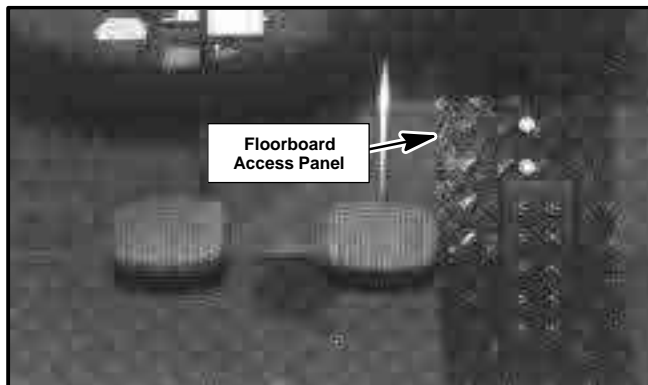
The panel on the floorboard allows access to the throttle cable, linkage, electrical wire harness, as well as the brake lines running to the master cylinder. ***It will be necessary to remove the accelerator pedal in order to completely remove the center floorboard panel.***

The panel behind the stopwall allows more access to the engine and transmission areas

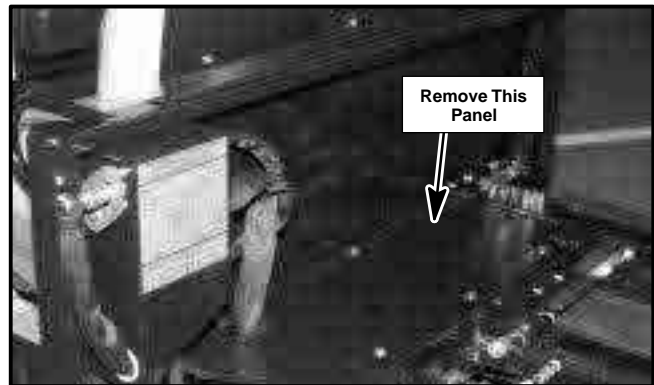
To remove any of the panels, simply remove the hardware securing the panel and remove panel.



**Figure 34**  
Access Panels Under Front Hood  
(3-Wheel Model Shown)



**Figure 33**  
Access Panel on Floorboard



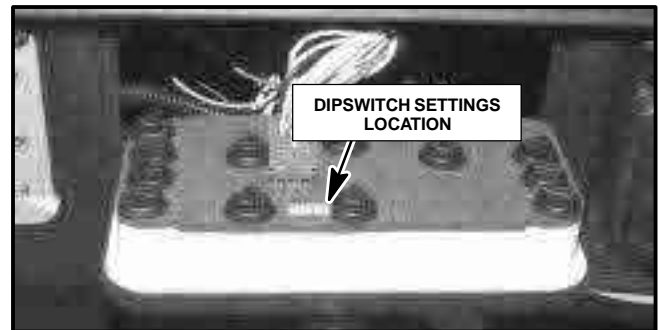
**Figure 35**  
Rear Platform Access Panel

**DASH PANEL DIPSWITCH SETTINGS**

Remove the four (4) screws securing the instrument panel to the dash.

Pull the instrument panel out and tilt forward to gain access to the rear of the panel (See Fig. 36).

Using a small blade screwdriver or similar tool, push the switch levers either up or down using the following sequence codes (the top of the dash panel will be referenced as "position 1")

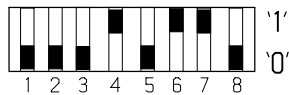


**Figure 36**  
**Dash Panel Dipswitch Location**



SEQUENCE CODE **0 1 1 1 0 0 1 0**

MODEL: 898658 With  
Serial No's. Up To Rev1287



SEQUENCE CODE **0 0 0 1 0 1 1 0**

MODELS: 898656, 898657 &  
Models 898658 Beginning With  
Serial No's. 00002120

**ENGINE MAINTENANCE**

**Keep your engine clean.**

If dirt has accumulated on the engine, it should be washed with a non-flammable solvent or strong detergent.



**WARNING**

- To reduce risk of fire, always keep the engine free of excessive grease.
- The engine cover is a machinery guard. Never remove or install the engine cover while the engine is running. Moving parts can cause personal injury.

When washing becomes necessary, it can be carried out simultaneously when servicing the vehicle.

In order to maintain reliable service from your engine, a regular check-up and maintenance schedule should be followed.

The following maintenance information covers basic engine service only.

For extensive service and repairs, we recommend contacting the authorized Cushman dealer nearest you.

Proper maintenance will prolong the engine's life and avoid premature overhaul.

**Access To Engine**

**Never** remove or install the engine cover while the engine is running. The engine cover is a **machinery guard** and its removal exposes you to moving parts. Keep hands, hair and clothing away from flywheel, radiator cooling fan, alternator fan, engine belts, pulleys and air intake.

To gain access to the engine, push the engine cover latch to the rear of the unit, tilt cover forward. The latch is located on top of the engine cover (center-rear, between the seat cushion(s) and backwall).

# SERVICE & MAINTENANCE

## Access to Engine (con't.)

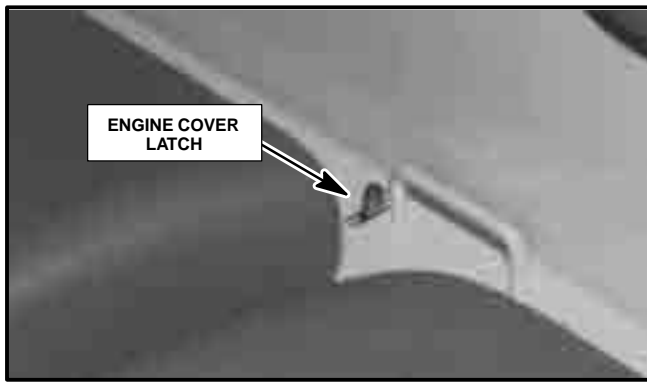
When replacing the engine cover, make sure the retaining tabs, located at the front corners of the engine cover, are inserted into the slots in the floorboard.



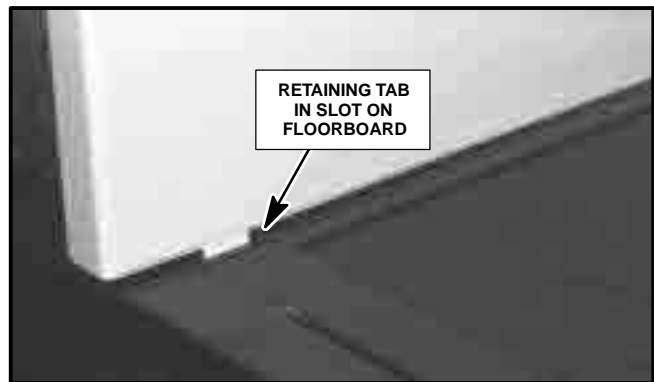
### WARNING

- Failure to latch the seat properly can result in the engine cover tipping forward causing loss of control of the vehicle and possible personal injury.

There is also a key-lock latch available. To gain access to the engine on models with a locking handle, insert the key into the locking handle located at the side of the engine cover latch, turn the key to allow the latch to be pushed back (the locking handle can also be used as an accessory on any of the other turf vehicles).



**Figure 37**  
Engine Cover Latch



**Figure 38**  
Engine Cover Retaining Tab

## AIR CLEANER ELEMENT

This is a large capacity dry type air cleaner with a replaceable element.

We recommend the filter element be **replaced** before engine performance is effected. This may occur at **250 hours** of service in very dirty operating conditions or at **500 hours** in normal operating conditions.

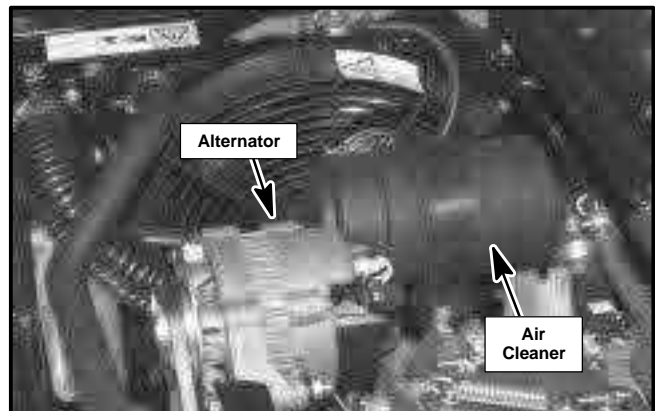
We **DO NOT** recommend cleaning the filter element because of the possibility of damaging the element.

### Checking and Installing the Element

Tilt the engine cover forward and locate the air cleaner on the right side of the engine (See Fig. 39).

To remove the air cleaner element release the latches securing the cover to the air cleaner assembly. Remove the filter element.

Check the element for damage, pin holes, etc. by placing a light source such as a flashlight inside.



**Figure 39**  
Air Cleaner Assembly

Air Cleaner Complete . . . . . **Part No. 892679**  
Air Cleaner Element . . . . . **Part No. 840352**



## Air Cleaner Element (con't.)

Replace the element with a new one if it is damaged or is excessively clogged with dirt and/or debris.

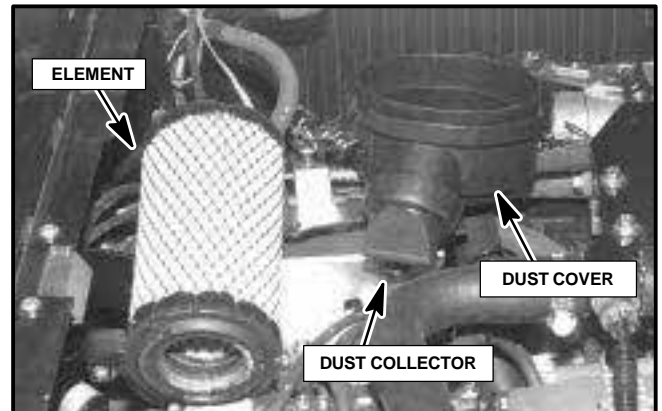
Clean dust from inside of housing with damp cloth, making sure dust does **NOT** enter air intake.

Check all gaskets to be sure they are **NOT** damaged or loose.

Insert element in housing open end first.

Position the cover so that the collector is pointing down. Clamp cover into position with collector pointing down.

- **DO NOT** use bent or dented air cleaner assemblies.
- **DO NOT** use bent or damaged air cleaner element.
- The dust collector empties automatically when properly installed with collector down.



**Figure 40**  
**Air Cleaner Element and Dust Cover**  
**(Shown Removed From the Housing)**



### WARNING

- **Before servicing or doing any maintenance work around the engine area, make sure the engine has had time to cool. Serious burns can result if the engine or surrounding area is hot.**

A dirty, clogged or damaged air filter will cause the engine to start hard as well as run rough and sluggish. Don't forget to check the air cleaner element if the engine does not run smoothly and other problems cannot be found.

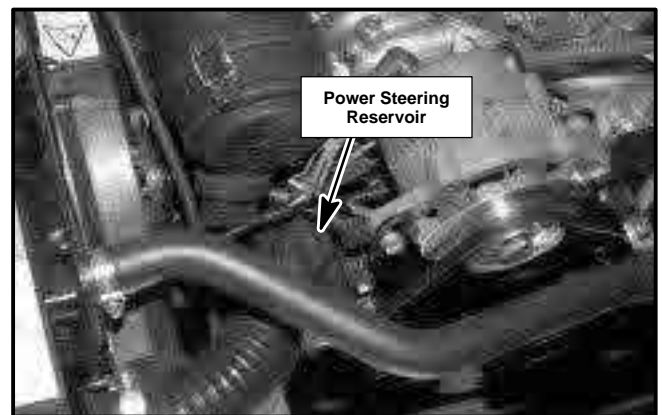
## POWER STEERING (4-WHEEL MODELS)

The power steering reservoir is located on the right side of the engine, below and to the right of the alternator.

The level in the reservoir should be **checked after the first 35 hours** and then **again after another 35 hours**, after that the level should be **checked every 100 hours**. Use GM power steering fluid to maintain the correct fluid level.

Remove the power steering reservoir cap. When checking the fluid level for the first time at the beginning of the day, the fluid level should be at the "cold" mark on the dipstick.

When checking the fluid level after the engine has been running and the fluid is warm, the level should read between the "cold" and "hot" marks.



**Figure 41**  
**Power Steering Reservoir**

## BATTERY

The battery is located on the left side of the vehicle, directly behind the stopwall behind the drivers seat.

The battery is negative ground and if connected in the opposite polarity, damage to the alternator will occur. The same applies when connecting a booster battery to the system.



### WARNING

- Untrained/Unauthorized persons should **NEVER** attempt to service or recharge the battery in this vehicle.
- Battery electrolyte is an acidic solution and should be handled with care. If electrolyte is spilled or splashed on any part of the body, immediately flush the exposed area with liberal amounts of water and obtain medical aid immediately.



Figure 42  
Voltmeter (Battery Charging System)

The battery in this vehicle is “low maintenance”. Add distilled water as required.

**NOTE:** Keep top of battery clean and free of corrosion by washing with a solution of baking soda and water or ammonia and water. Rinse with clean water. Terminals with heavy corrosion should be removed and cleaned with solution. For best results clean both battery post and cable terminals until shiny. Replace terminals and tighten.

The voltmeter indicates the voltage level of the battery. Under normal operation it will indicate 12 to 18 volts (meaning the battery is being properly charged). A reading below 12 volts indicates the battery is being drained, this may indicate a malfunction in the charging system which should be checked immediately.

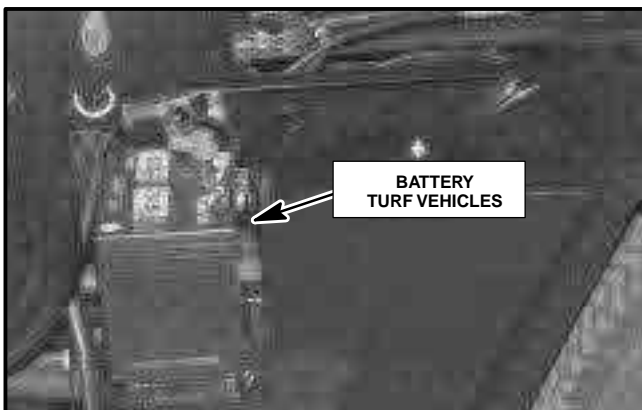


Figure 43  
Battery Location For Turf Vehicles

## JUMP STARTING WITH A BOOSTER BATTERY



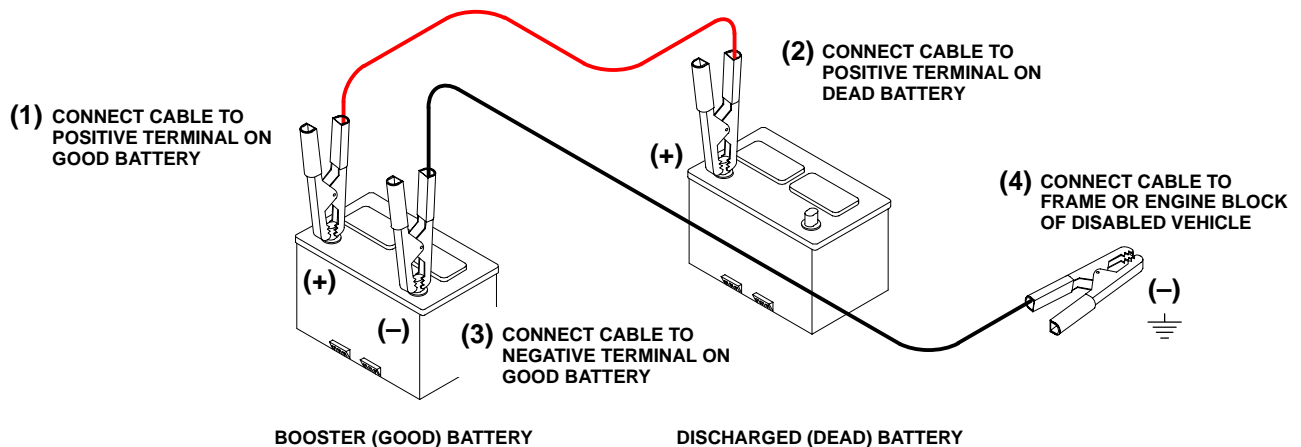
### WARNING

- **DO NOT** allow open flames or sparks near a battery when connecting for jump starting or while recharging the battery with a charger.
- Hydrogen gas is produced during the charging process and can be explosive. Provide adequate ventilation to prevent possible explosion.

## Jump Starting With a Booster Battery (con't.)

Both booster battery and discharged battery should be treated carefully when using jumper cables. Follow **exactly** the procedure outlined, being careful not to cause sparks.

1. Apply parking brake, put transmission in neutral and turn off all electrical loads.
2. Attach one end of one jumper cable to the positive (+) terminal of the booster battery and the other end to the positive (+) terminal of the discharged battery. **DO NOT** permit vehicles to touch each other.



3. Attach one end of remaining cable to the negative (–) terminal of the booster battery and the other end to a good ground on the vehicle or engine **away from the discharged battery**. **DO NOT** lean over the battery when making this connection.
4. Reverse this sequence **exactly** when removing the jumper cables.

**NOTE:** This is a negative ground wiring system, reversing battery connection will damage alternator rectifier.  
Booster batteries used for starting must be connected with proper polarity.  
Vehicle battery cables should be **disconnected** before using a “Fast Charger.”

## TOWING THE VEHICLE (automatic transmission)

When transporting the vehicle or when it is disabled, the **BEST** method of moving the vehicle is on a trailer. If that is not possible, the driveshaft **MUST** be removed before towing the vehicle.

If towing the vehicle with a tow-rope or a chain, an operator is required to steer the vehicle and to control the brakes.



### WARNING

- **NEVER** tow the vehicle faster than 5 M.P.H. (8 km/h). Towing at excessive speed could cause either vehicle to lose proper steering control.

## SERVICE & MAINTENANCE

### Towing the Vehicle, Automatic Transmission (con't.)

Attach a tow line (tow line attaching locations are shown in Fig. 44) only to the front vertical frame member of the vehicle.

Release the park brake and slowly move the towing vehicle forward until the tow line becomes tight.

Tow at a maximum speed of 5 m.p.h. (8 km/h).

While towing, try to keep the tow line taught at all times. Be cautious going down inclines and while turning corners.

If in an **EMERGENCY** and the vehicle **must be** towed **and** the drive shaft cannot be removed, attach a tow line to the front vertical frame member **ONLY**. Make sure the transmission is in "N" Neutral and the park brake is released. Tow at a maximum speed of 5 m.p.h. (8 km/h).

### Manual Transmission

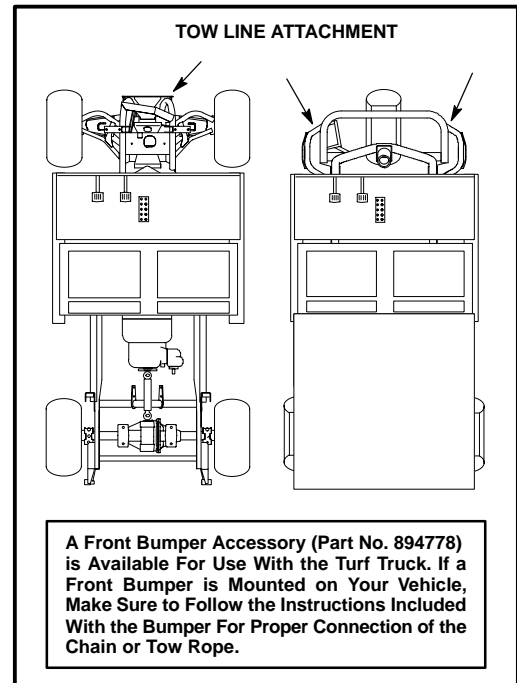
If for any reason the vehicle needs to be towed, follow the guidelines below to properly tow the vehicle.

If towing the vehicle with a tow-rope or a chain, an operator is required to steer the vehicle and to control the brakes.

Attach a tow line only to the front vertical frame member on either side of vehicle as shown in Figure 44.

Make sure the drive transmission is in "neutral" (out of gear) and the park brake is released.

With the tow line attached, have the towing vehicle move forward until the tow line becomes tight.



**Figure 44**  
**Tow Line Attachment Location**



### WARNING

- **NEVER** tow the vehicle faster than 5 M.P.H. (8 km/h). Towing at excessive speed could cause either vehicle to lose proper steering control.

While towing, try to keep the tow line taught at all times. Be cautious going down inclines and while turning corners.

## JACKS, JACKING LOCATIONS AND USING A HOIST

A scissors type jack **or** a floor jack with a 1 1/2 ton (minimum) capacity that can be lowered to 3 3/8" (86mm) height is required.

The jacking locations are shown in the chart illustration on the following page.

Put the gear selector in "P" Park (for automatic transmissions). Apply the park brake (for manual transmissions, place gear selector in 1st gear and apply the park brake).

Place a jack in the appropriate location (See Fig. 45) and place a block behind (or in front) of the tire **diagonally opposite** the side which is being raised (See Illustration on following page).

## Jacks, Jacking Locations and Using a Hoist (con't.)



### WARNING

- **DO NOT** rely solely on hydraulic or mechanical jacks for support. Use appropriate jack stands or equivalent for supporting the vehicle.
- If using a hoist, raise vehicle to appropriate height and support using jack stands or equivalent support.
- **Never** place feet, hands or any part of your body under the vehicle when raising it with a hoist.

Jack the vehicle to the appropriate height and place jack stands or equivalent support beneath the frame near the jack. Lower the jack and allow the vehicle to rest on the jack stands.

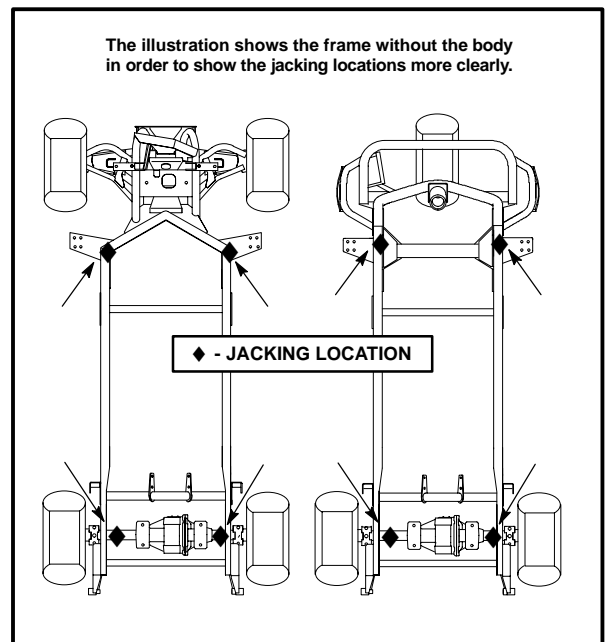
**NOTE:** Raise the vehicle only enough to perform the maintenance required.

When using a hoist to raise the vehicle, use the same procedure for supporting the frame and blocking the tires as you would when using a jack.

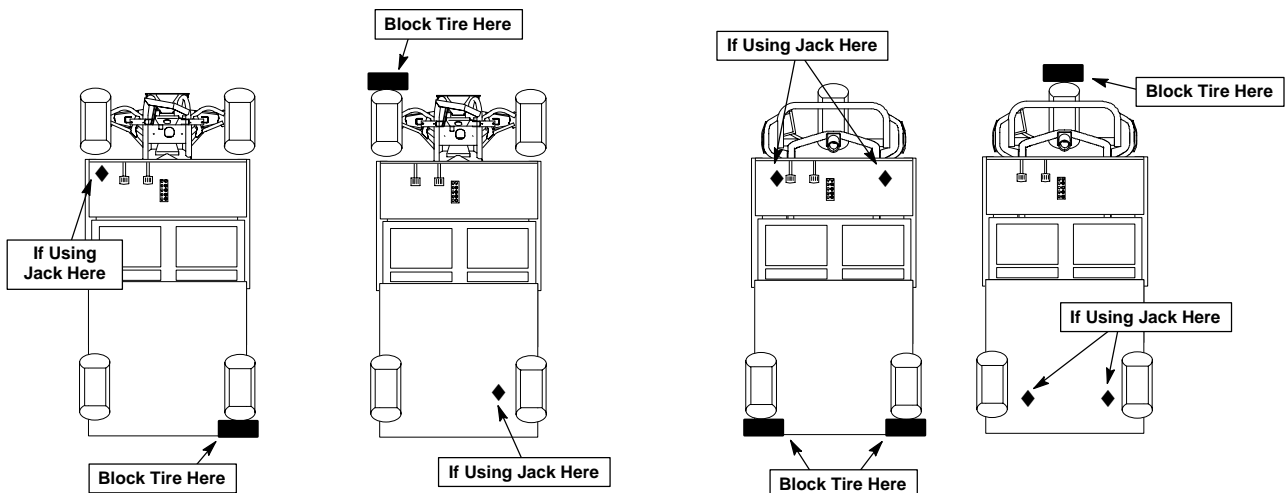
To prevent damage to the vehicle or attached accessory, **NEVER** use a hoist to raise only **one corner** of the vehicle. **ALWAYS** raise **BOTH front or rear corners equally**.

When removing the front tire on the three-wheel vehicle, place blocks behind both rear tires, then jack one side of the vehicle to the appropriate height and place jack stands or equivalent support beneath the frame. Lower the jack and allow the vehicle to rest on the jack stands.

Raise the opposite side of the vehicle enough to allow the front tire to clear the ground. Place supports under the frame and lower the jack to allow the vehicle to rest on the jack stands.



**Figure 45**  
**Jacking Locations**



## TIRE REMOVAL (Front and Rear)

With the vehicle on a flat level surface (if possible), put the gear selector in **Park** and apply the park brake.

Place a block in front of (or behind) the tire diagonally opposite the side which is being raised (**Refer to the “Jacks, Jacking Locations and Using a Hoist” section in this manual**).

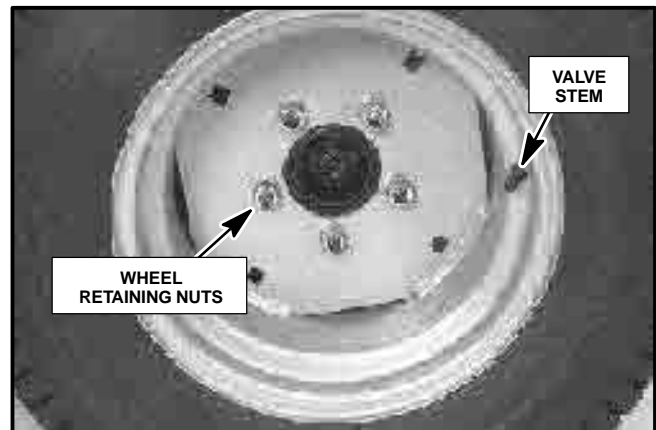
Raise the vehicle only enough to perform the maintenance required.

1. Remove the wheel retaining nuts and remove tire and wheel assembly from hub.
2. Install the tire and wheel by reversing the above sequence. Make sure valve stem is located toward the outside.
3. Tighten wheel retaining nuts to 70 to 100 ft. lbs. (95 to 140 N·m) torque.



### WARNING

- **DO NOT** rely solely on hydraulic or mechanical jacks for support. Use appropriate jack stands or equivalent for supporting the vehicle. **Never** place feet, hands or any part of your body under the vehicle when raising it.



**Figure 46**  
**Wheel Retaining Nuts and Valve Stem**

## TIRE REMOVAL 3-Wheel Front

Put the gear selector in 1st gear (manual transmissions) or in **“P”** Park (for automatic transmissions). Apply the park brake.

Place a block behind both rear wheels (**Refer to the “Jacks, Jacking Locations and Using a Hoist” section in this manual**).

Raise the vehicle only enough to perform the maintenance required.

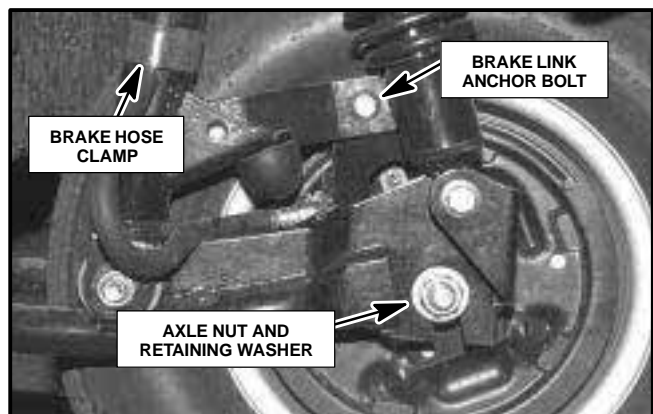
With the vehicle raised and properly supported, remove the brake link anchor bolt and bushing. Retain hardware.

Loosen the axle nuts on each side of the front tire, loosen the nuts enough to allow the washer to slide out of the retaining slot (***the washers have a tab on them which fits into a slot on the axle support***).

Support the tire, slide the washers out and remove tire and axle assembly (it may be necessary to remove the brake hose clamp to allow the axle to clear the front fork). Remove the wheel retaining nuts and remove the tire from the axle.

Install the tire and wheel by reversing the above sequence.

Tighten the wheel retaining nuts to 70 to 100 ft. lbs. (95 to 140 N·m) torque.



**Figure 47**  
**3-Wheel Front Tire Removal**

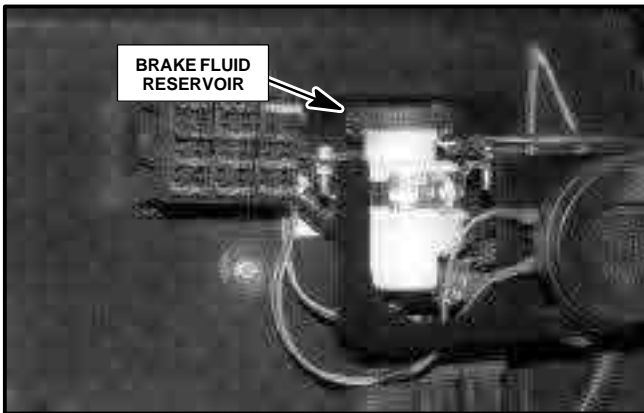
**BRAKES**

This vehicle is equipped with a three or four wheel hydraulic brake system and a hand operated park brake lever.



**WARNING**

- **Improper maintenance of the brake system may result in loss of vehicle control by the operator. Losing control of the vehicle due to brake loss may cause vehicle damage and/or injury to the operator or bystanders.**



**Figure 48**  
**Brake Fluid Reservoir**

If the brakes **Do Not** stop the vehicle properly, they must be repaired before the vehicle is operated again.

The brake fluid master cylinder reservoir is located under the front cowl.

If the brake fluid level indicator light (See Fig. 49) comes on and remains on, check the brake fluid level in the reservoir.

The fluid level must be kept within the MIN (minimum) and MAX (maximum) levels as shown in Figure 48. If you notice continuous problems with the fluid level, check all brake lines and hoses for leaks and/or tight connections.

When it is necessary to add fluid, use a **DOT 3 type** brake fluid.

If the brakes do not hold properly, if they feel spongy **or** if the brake fluid reservoir is allowed to “run-dry”, it may be necessary to bleed the brake lines in order to get fluid back into the system.

**Bleeding a 4-Wheel Brake System**

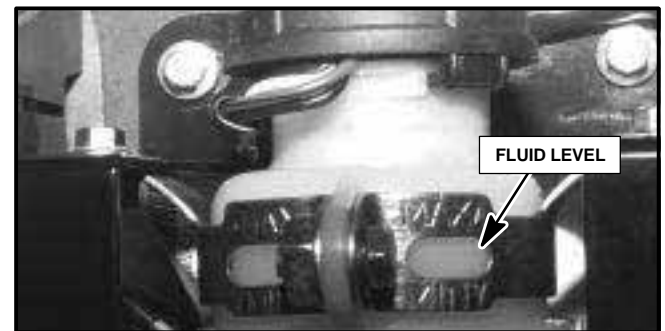
When bleeding the system with four wheel brakes, bleed the **left rear** brake first **then** the **right rear**, then the **right front** and finally the **left front**.

Attach a hose to the bleeder screw on top of the left rear dust shield and place the other end of the hose in a container to catch the fluid run-off when bleeding the system (*Most communities have a disposal system for this type of refuse. Please dispose of fluids properly*).



**Figure 49**  
**Brake Fluid Level Indicator Light**  
**(Also “Check Engine” Light, Model 898656 Only)**

The brake fluid level indicator light **also functions** as the “**Check Engine**” light on Models 898656. If the brake fluid level is correct but the light remains **on**, have the vehicle inspected by the shop mechanic.



**Figure 50**  
**Brake Fluid Level Reading**

## SERVICE & MAINTENANCE

### Brakes, Bleeding a 4-Wheel Brake System (con't.)

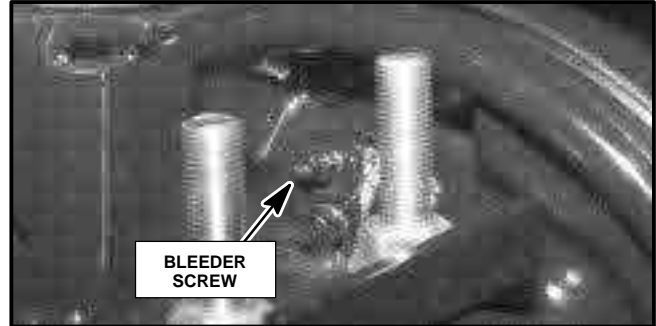
Loosen the bleeder screw. Have an assistant push down on the brake pedal and hold pedal down. Tighten the bleeder screw and release the brake pedal.

Loosen the bleeder screw again, press down on the brake pedal, hold pedal down and tighten the bleeder screw, release pedal.

**Do Not** release the brake pedal until the bleeder screw is tightened otherwise air will be sucked back into the brake lines.

Continue this procedure until all air bubbles are purged from the system and a steady flow of fluid comes from the brake line. Repeat the procedure on the right rear brake, then the right front and finally the left front.

**Do Not** let the reservoir run dry when bleeding the system, air can get back into the system meaning the whole bleeding process will have to be started over. Check the reservoir regularly when bleeding the system.



**Figure 51**  
Bleeder Screw on Top of Dust Shield  
(Front and Rear 4-Wheel, Rear 3-Wheel)

### 3-WHEEL BRAKES

#### Bleeding the 3-Wheel Brake System

For **3-wheel brakes**, do the **left rear, right rear, then the front**.

Attach a hose to the bleeder screw (See Fig. 51) on top of the left rear dust shield and place the other end of the hose in a container to catch the fluid run-off when bleeding the system. *Most communities have a disposal system for this type of refuse. Please dispose of fluids properly.*

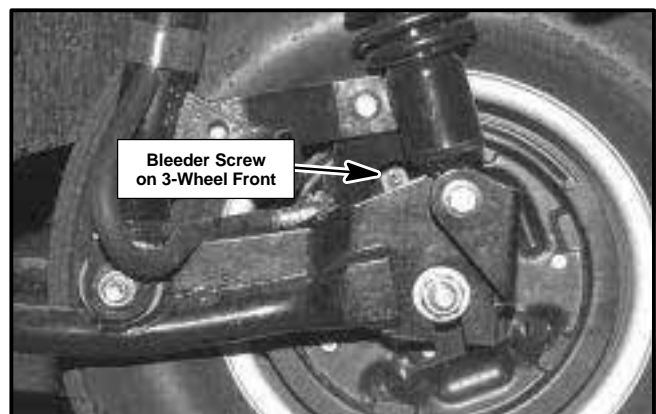
Loosen the bleeder screw. Have an assistant push down on the brake pedal and hold pedal down. Tighten the bleeder screw and release the brake pedal.

Loosen the bleeder screw again, press down on the brake pedal, hold pedal down and tighten the bleeder screw, release pedal.

**Do Not** release the brake pedal until the bleeder screw is tightened otherwise air will be sucked back into the brake lines.

Continue this procedure until all air bubbles are purged from the system and a steady flow of fluid comes from the brake line. Repeat the procedure on the right rear brake, then the right front and finally the left front.

**Do Not** let the reservoir run dry when bleeding the system, air can get back into the system meaning the whole bleeding process will have to be started over. Check the reservoir regularly when bleeding the system.



**Figure 52**  
3-Wheel Front Bleeder Screw



**PARK BRAKE**

The park brake applies the brakes to **both** rear wheels.

To engage the brake, pull up on the lever until park brake is applied (the park brake lever will be at an approximate 45° angle when applied).

To release, slightly pull up on the handle, push the button at the end of the lever and while holding the button in, lower the lever to it's original position.

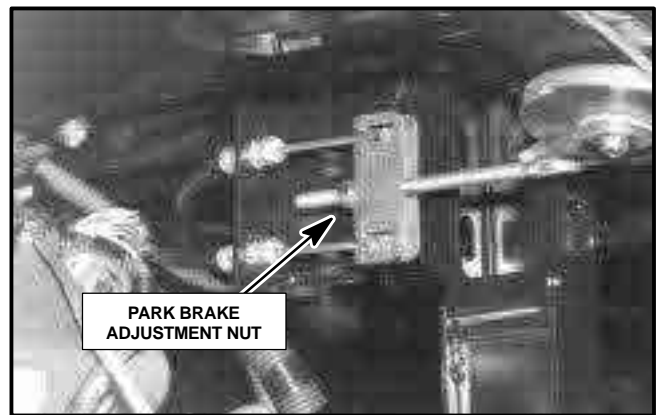
**Park Brake Adjustment**

Raise the engine cover and locate the park brake cable and bracket beneath the console panel (See Fig. 54).

With the park brake released (brake lever down) tighten the adjustment nut a couple of turns and apply the park brake, continue adjustment until the brake lever is at an approximate 45° when the brake is applied.



**Figure 53**  
**Park Brake Lever Location**



**Figure 54**  
**Park Brake Adjustment Nut**

**GOVERNOR OIL LEVEL**

Check the oil level in the governor after **every 100 hours** of use. To check the level, remove the plug from the back side of the governor. Oil should be up to the level of the plug opening.

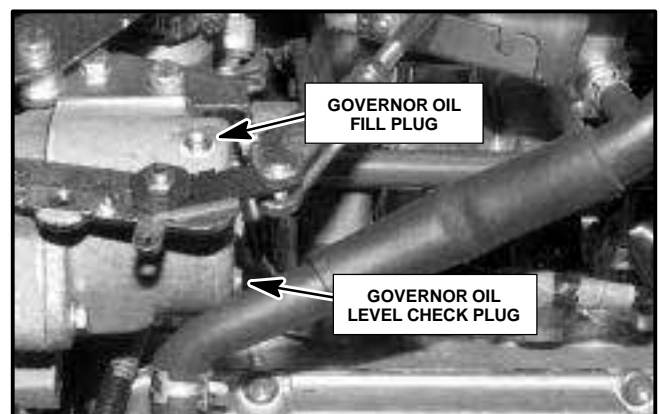
**Governor Oil Capacity** . . . . . 1.5 oz. (44 ml)

**Oil Type** . . . . . SAE 20W engine oil

If fluid level is low, add the recommended oil type. Remove the plug from the rear side of the governor, remove the plug from the top of the governor and add an SAE 20W motor oil until the oil begins to leak from the rear port. Replace both plugs.

*When replacing the plug, use Teflon tape or a Permatex 20 sealant (or equivalent pipe thread sealant) on the threads of the plug.*

Torque the plugs to 95 ± 10 in.lb.



**Figure 55**  
**Governor Fill Plug (Suzuki Engines Only)**

## SERVICE & MAINTENANCE

### TWO-SPEED DIFFERENTIAL (14.21:1)

The differential fluid should be checked every **100 hours (or 3 months)** and **changed** after the first **100 hours**. After the first change at 100 hours the fluid should be **changed** every **600 hours (or 12 months)**.

**Differential Fluid Capacity** . 5.2 pints. (2.46 L)

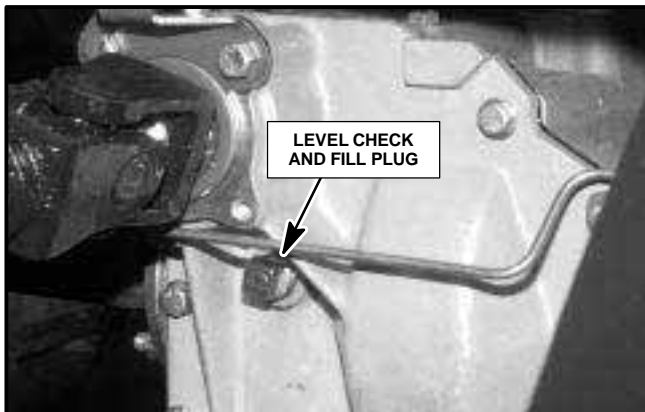
**Fluid Type** . . . . . SAE EP 80-90 Gear Lube

To check fluid level, remove the filler plug from the front of the differential.

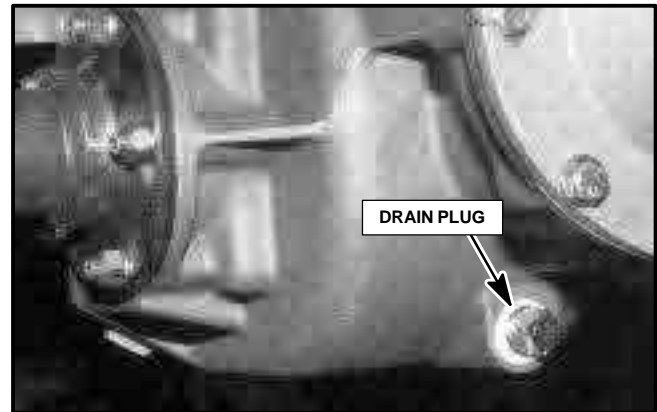
Fluid should be level with the bottom of the filler hole. If level is low, add gear lube until the appropriate level is reached (fluid will begin to leak from the filler hole when full level is reached). Replace filler plug.

To drain the differential fluid, remove the drain plug from the bottom rear of the differential and drain. Replace drain plug and add fluid to the recommended level.

When draining and filling the differential, use a pipe thread sealant on the plug threads before replacing them.



**Figure 56**  
**Differential Filler and Level Check Plug**



**Figure 57**  
**Differential Drain Plug**

## DRIVE TRANSMISSION

### Manual Transmission (Suzuki 660 EFI Engine)

Maintaining proper lubrication level in the transmission is very important to the life of the gears and bearings.

Check transmission fluid level every **100 hours (or 3 months)**.

Change transmission fluid every **600 hours** or **(12 months)**.

**Transmission Capacity:** 1.05 qts. (0.9 L)

**Recommended Lubricant:** SAE EP 80-90 Gear Lube

The filler plug is located on the right side of the transmission. When removed, the filler plug opening is used to determine proper fluid level.

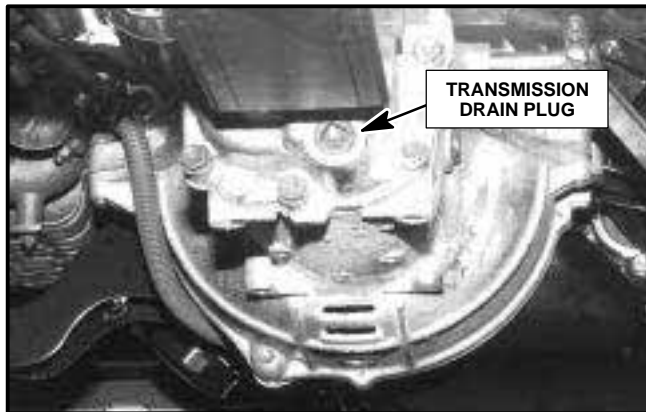
The fluid level must be level with the bottom of the filler plug hole.

If level is low, add fluid (through the filler hole) until it begins to flow from the filler hole. Reinstall the plug.

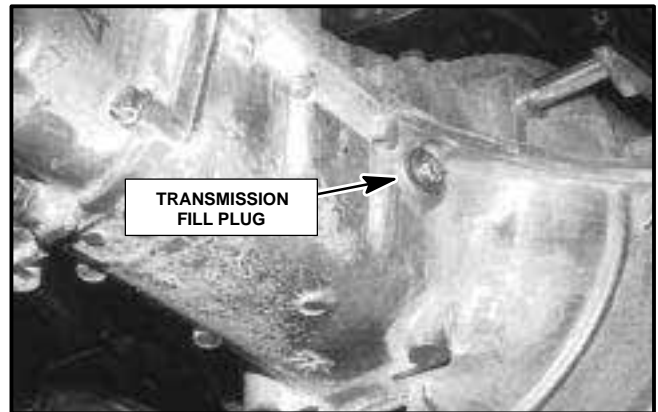
To drain the transmission fluid, remove the drain plug on the rear of the transmission.

When draining and filling the transmission, use a pipe thread sealant on the plug threads before replacing them.

**Drive Transmission, Manual (con't.)**



**Figure 58**  
**Transmission Drain Plug (Suzuki 660 EFI Engine)**



**Figure 59**  
**Transmission Filler Plug (Suzuki 660 EFI Engine)**

**Automatic Transmission**

Check transmission fluid level every **100 hours (or 3 months)**.  
Change transmission fluid every **600 hours or (12 months)**.

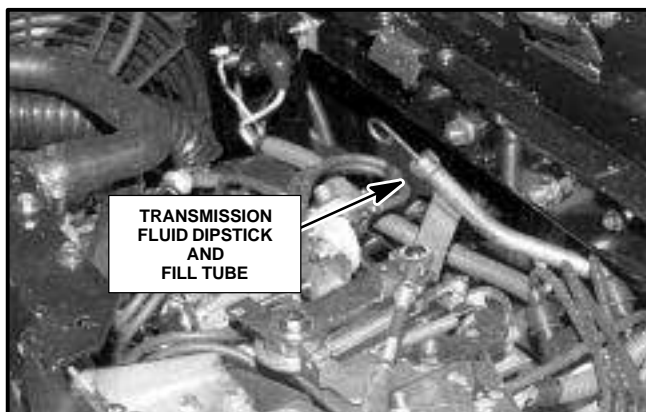
**Transmission Capacity:** 3.7 qts. (4.2 L)  
**Recommended Lubricant:** Mercon/Dexron II

To check the transmission fluid the engine must be running. Place the gear selector in "P" Park, apply the park brake and start the engine.

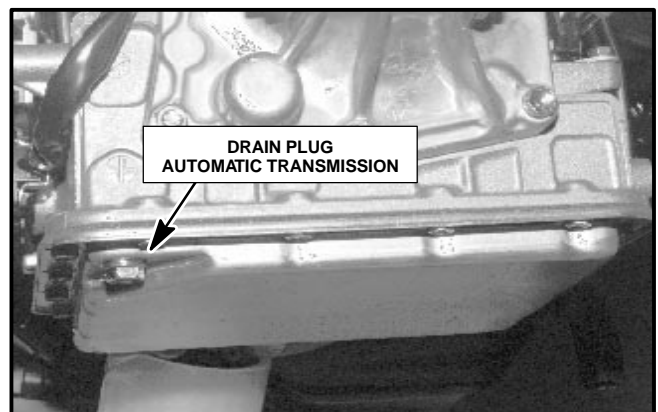
With the engine running, remove the dipstick and wipe it with a clean rag. Insert the dipstick into the extension tube until it contacts the tube. Remove the dipstick and read the fluid level.

Fluid must be kept between the two marks on the dipstick. If necessary, add fluid to obtain the proper level. **Do Not overfill.** Add fluid using the extension tube as the fill tube.

To drain the transmission fluid, remove the drain plug located on the bottom left, rear corner of the transmission pan.



**Figure 60**  
**Automatic Transmission Dip Stick**



**Figure 61**  
**Automatic Transmission Drain Plug**

**NOTE:** Most communities have special sites to dispose of used petroleum based products such as transmission fluid, engine oil and differential fluid. Please use an appropriate container to catch any fluids and dispose of properly.

# SERVICE & MAINTENANCE

## MAINTENANCE GUIDE

The following maintenance charts have been compiled as a general guideline for service intervals, based on hours of operation.

Maintenance Operation	Daily	First 35 Hrs	First 50 Hrs	Every 75 Hrs or 2 months	Every 100 Hrs or 3 months
Check engine oil level	●				
Check cooling system coolant level	● <i>f</i>				
Clean radiator intake screen	●				
Check water separator, drain as required (diesel only)	●				
Check fuel level	●				
Check engine for loose parts, damage and leaks	●				
Check exhaust color (diesel only)	●				
Check for engine noise; vibration	●				
Check tire pressure	●				
Change engine oil and filter (Suzuki only)			●		● *
Change engine oil (Perkins Diesel)		●		● *	
Change engine oil filter (Perkins)		●		● *	
Check valve clearance (to be done by authorized dealer)		●			
Check engine idle speed		●			
Check power steering fluid		●			●
Change fuel filter					●
Lubricate chassis (see lube chart)					●
Check governor oil level (Suzuki engines)					●
Check differential oil level					●
Check transmission fluid level					●
Check hydraulic tank fluid level					●
Check brake fluid (BF)					●
Check brake adjustment					●
Check clutch adjustment					●
Change differential oil					After first 100 hrs.

\* Depending on operating conditions, the engine oil and engine filter may need more frequent replacement.

*f* If coolant level is low add a 50/50 mixture of water and anti-freeze, **NEVER** add straight anti-freeze to the coolant system

### OIL FILTER:

Suzuki 660 EFI  
(all models) - Part No. 2701908

### AIR CLEANER ELEMENT:

(all models) - Part No. 840352

### FUEL FILTER:

Suzuki 660 EFI  
(all models) - Part No. 2701998

### TIMING BELT

Suzuki 660 EFI  
(all models) - Part No. 2701985

## Maintenance Guide (con't.)

Maintenance Operation	Every 200 Hrs or 6 months	Every 400 Hrs or 9 months	Every 600 Hrs or 12 months	Every 1500 Hrs	
Replace air cleaner element	● ‡				
Check valve clearance (See authorized dealer)	●				
Check fan belt and tension	●				
Inspect radiator hoses and clamps	●				
Change coolant		●			
Replace hydraulic system filter			●		
Change hydraulic system oil (tank only)			●		
Clean battery and terminals.			●		
Check alternator			●		
Repack front and rear wheel bearings			●		
Check starter motor brushes			●		
Check brake linings			●		
Change differential fluid			●		
Drain and replace radiator coolant			●		
Check engine idle speed			●		
Check glow plugs (diesel only)			●		
Check injection pump and timing (diesel only)			●		
Check fuel hoses and clamps			●		
Check all belts for tightness and cracking			●		
Adjust front brakes			●		
Replace timing belt (Suzuki engines)				●	
Change transmission fluid			●		
Check fuel hoses and clamps			●		
Check spark plugs for fouling (clean and gap as necessary)			●		

\* Depending on operating conditions, the engine oil and engine filter may need more frequent replacement.

‡ Depending on operating conditions, the air filter element may require more frequent replacement.

### SPARK PLUGS:

Suzuki 660:

Part No. 2701832 Denso XU22EPR-U  
gap .032" - .035" (0.8 mm - 0.9 mm)

### ENGINE BELTS, Suzuki 660:

**4-Wheel** (898657 & 898658)  
Part No. 2700564 (gov, hyd pump)  
53" (1346 mm)  
Part No. 2700565 (alt., pwr strng.)  
45" (1143 mm)

**3-Wheel** (898656)  
Part No. 2700564 (gov, hyd pump)  
53" (1346 mm)  
Part No. 2701365 (alt., pwr strng.)  
39" (991 mm)

# SERVICE & MAINTENANCE

## LUBRICATION RECOMMENDATIONS

**Automatic Transmission Fluid** . Mercon/Dexron II

**Power Steering** . . . . . Power Steering Fluid (GM)

**Brake Fluid** . . . . . Dot 3

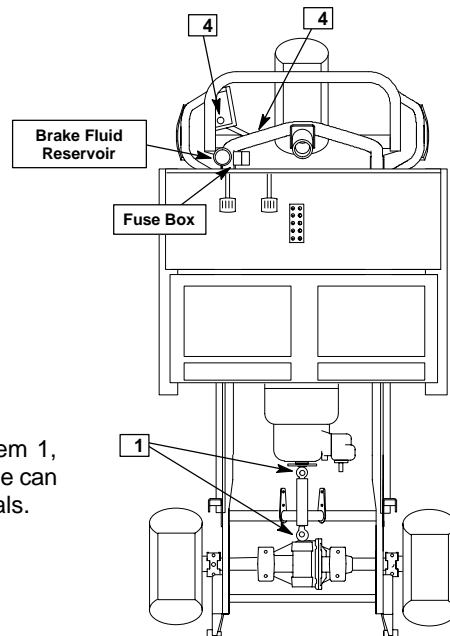
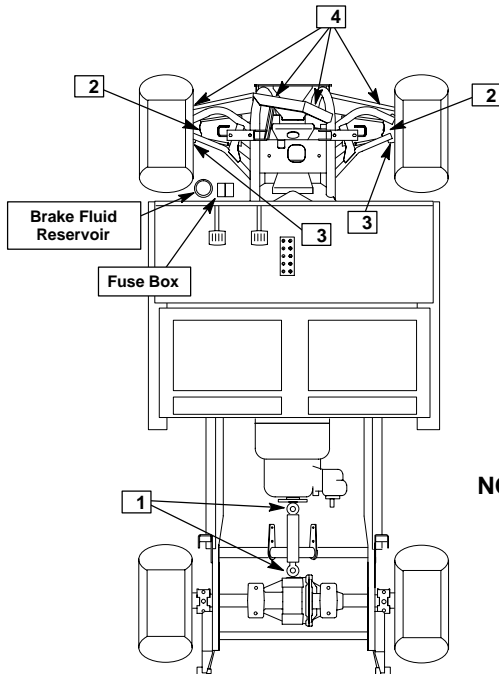
**Hydraulic Fluid** . . . . . Ransomes Turf Protector Biodegradable (Hyd Benz Bio 377) *or*  
GreensCare 68 Biodegradable Hydraulic Oil

**Transmission Fluid** (man) SAE EP 80–90 Gear Lube

**Differential Fluid** . . . . . SAE EP 80–90 Gear Lube

**Pressure Gun Grease** . . . . . Lithium Base

**Lubricate** all chassis fittings with ***lithium base*** pressure gun grease every **100 hours** or **1000 miles**.



**NOTE:** Reference to item 1,  
Too much grease can  
damage the seals.

Ref. No.	Lubrication Area	Number Of Grease Fittings
1.	Drive shaft . . . . .	2
2.	Upper Ball Joints . . . . .	2
3.	Lower Ball Joint . . . . .	2
4.	Tie Rod Ends, 4-wheel . . . . .	4
	Tie Rod Ends, 3-wheel . . . . .	2

The biodegradable hydraulic fluids can be ordered in the following quantities:

**Hyd Benz Bio 377**

2 1/2 gal. (9.5 L) - Part No. 65363

5 gal. (19 L) - Part No. 65352

55 gal. (208 L) - Part No. 65354

**GreensCare 68**

5 gal. (19 L) - Part No. 5003103

55 gal. (208 L) - Part No. 5003102

## ACCESSORIES, ATTACHMENTS and 5th WHEEL IMPLEMENTS

There are numerous accessories, attachments and implements available for your vehicle.

Some accessories and attachments include:

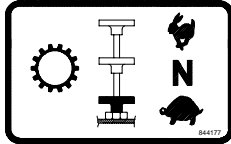
High/Low Hydraulics System; Steel Cab Sets; Steel Door Sets; Heater/Defroster; Dump Boxes; Platform Beds **also**, the Quick Aerator, Core Harvester, TD 1500 & 2000 Top Dressers the Vicon Spreader, Turf Master Sprayers, Seed & Fertilizer Spreaders.....and more

For information and availability on these accessories and others, contact your local Cushman Dealer.

## EQUIPMENT

The following information will tell you about the different controls and functions used when operating the P.T.O. and hydraulics system. These features are used when operating the accessories and implements often used with this vehicle.

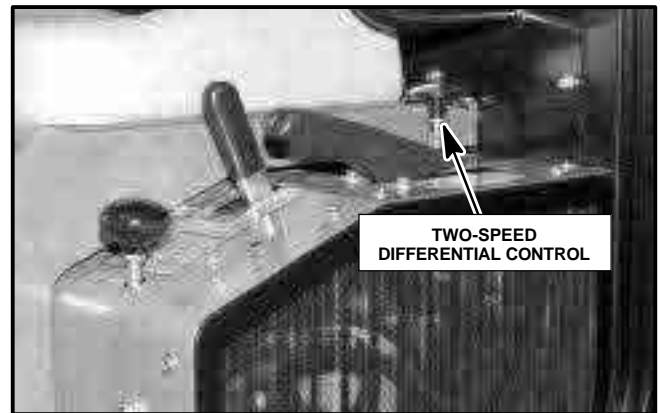
### TWO-SPEED DIFFERENTIAL



The two-speed differential has a high and low operating range, as well as a neutral position.

Shift the two-speed differential **ONLY** when the vehicle is **stopped**. Pull the control handle all the way UP to operate in the high range, push it all the way DOWN to operate in the low range.

The two-speed differential control is located on the control panel to the left of the operator's seat (See Fig 62).



**Figure 62**  
**Two-speed Differential Control Handle**

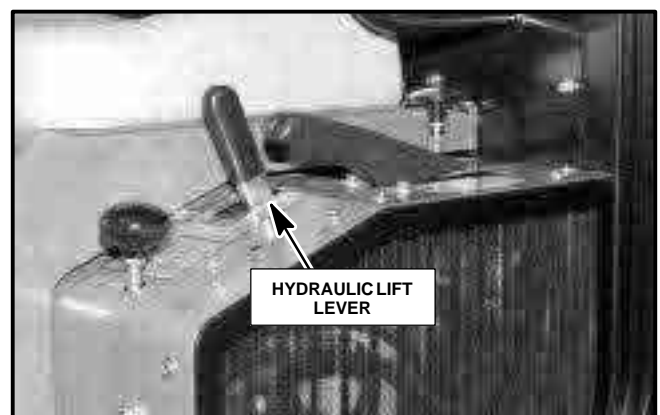
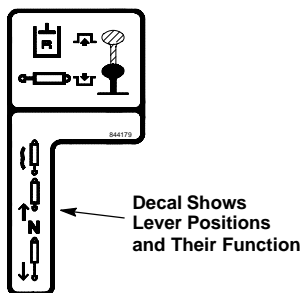
### POWER HYDRAULIC LIFT SYSTEM

The power hydraulic lift system is referred to as a "live" system. This means the hydraulic pump operates whenever the engine is running.

The hydraulic lift control lever is located on the control panel to the left of the driver's seat (See Fig 63).

The hydraulic lift is used when the vehicle is equipped with a dump box or similar accessory.

Push the lever forward and to the right to latch it in the float position (the float position allows the accessory being used to follow the contour of the land, the accessory, when in the lowered position, will "float" over the ground even in undulating terrain).



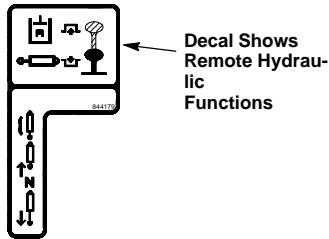
**Figure 63**  
**Hydraulic Lift Control Handle**

Pull back on the lever to extend the hydraulic cylinder ram (raise the dump box) push forward on the lever to retract the hydraulic cylinder ram (lower the dump box).

# OPERATING REMOTE HYDRAULICS

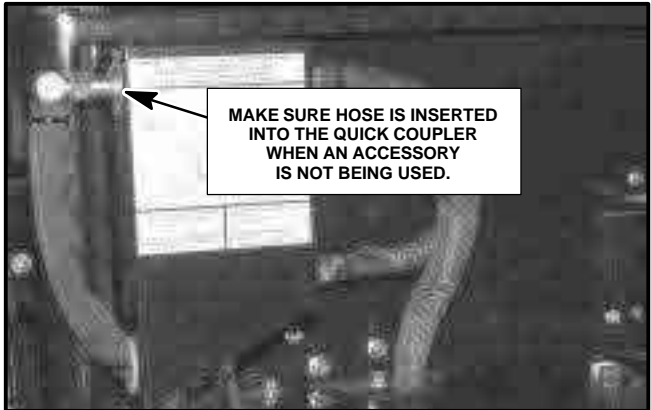
## REMOTE HYDRAULICS

The hydraulic system has a remote selector valve located at the front of the control panel, to operate accessories such as the Core Harvester™ or Top Dresser.



**NOTE:** The “DOWN” position directs hydraulic oil to the standard vehicle hydraulic lift system.

The “UP” position directs hydraulic oil to the left side of the hydraulic panel for remote hydraulic system use.



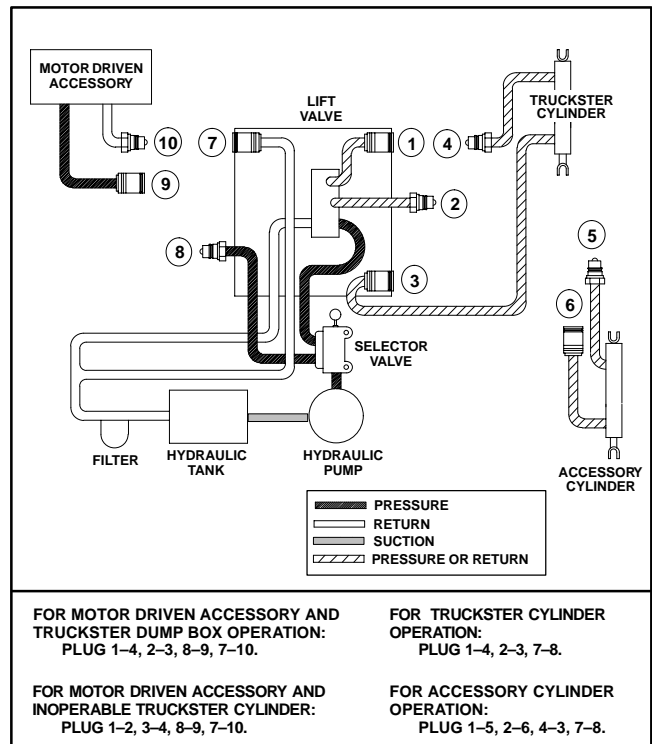
**Figure 65**  
Remote Hydraulics Closed Loop Shown



**Figure 64**  
Remote Hydraulics Control Handle

When the remote hydraulics are not connected to equipment, the male and female quick connectors must be connected to form a closed loop (See Fig. 65).

It is **extremely important** that the hose nipple be inserted into the quick connector to form a closed loop as shown. This will prevent dirt from entering the system and prevent the hydraulic system from over-heating, leading to system failure if the remote selector knob is accidentally pulled up with the accessory removed.



**Standard Hydraulic Hook-Up Shown**



### WARNING

- The vehicle is equipped with a hydraulic system to operate equipment. During operation, **ALWAYS** stay clear of moving parts to prevent injury.



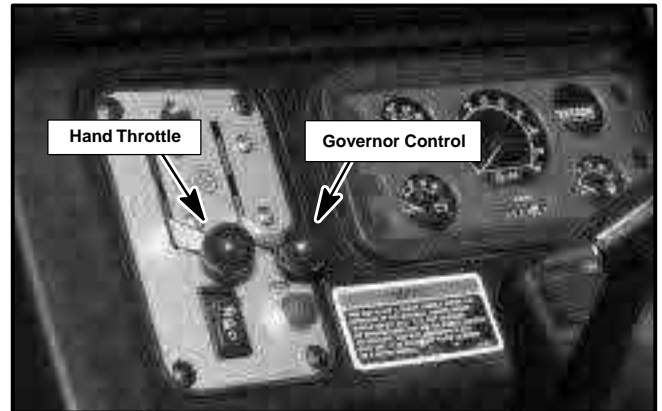
## GOVERNOR CONTROL AND HAND THROTTLE

A manually set, variable governor control is included with the P.T.O. for regulation of P.T.O. or ground speed. The control lever is attached to the panel to the left of the instrument panel. The hand throttle lever is attached to the same panel.

The engine governor is preset to control engine (vehicle) ground speeds to design limits, to prevent speeds greater than design limits, NEVER alter the governor controls in any manner to increase speed beyond the recommended maximum R.P.M.

Normal Operation Mode:

- Hand throttle control lever in “DOWN” position.
- Variable governor control in “UP” position.



**Figure 66**  
Governor and Hand Throttle Controls

## POWER TAKE OFF (Hydraulic P.T.O.)

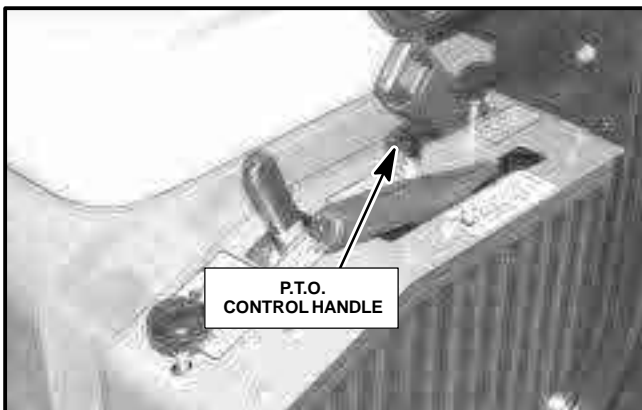
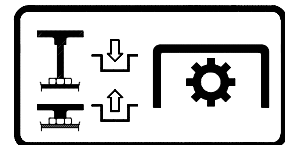
The hydraulic P.T.O. transmits power from a hydraulic pump to a splined shaft at the rear of the vehicle for easy hook-up and operation of optional equipment.

The control handle is located on the control panel to the left of the operator's seat.

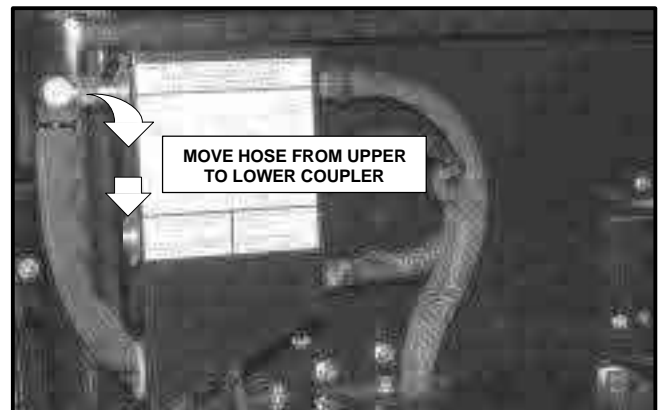
To activate the P.T.O., move the live hydraulic hose from the **upper coupler** on the left side of the hydraulic panel to the **lower coupler** on the left side of the panel as shown in Fig 68.

Make sure the hydraulic P.T.O. control handle is in the **down** position (if the control handle **is not down** the P.T.O. shaft can start rotating).

**NOTE:** To engage P.T.O. **ALWAYS STOP** the vehicle, **THEN** pull the P.T.O. control knob upward.



**Figure 67**  
P.T.O. Control Handle Location  
PULL UP to engage. – PUSH DOWN to disengage.



**Figure 68**  
Moving Live Hydraulic Hose for Hydraulic P.T.O.

# OPERATING REMOTE HYDRAULICS

## Power Take Off, Hydraulic P.T.O. (con't.)

### For Use When The Vehicle Is Stationary (Automatic & Manual Transmission)

Verify the accessory being used is properly attached and all connection points are secure.

For automatic transmissions, put the gear selector in the Park position, make sure the park brake is still applied and start the engine. Continue with Step 1 shown below.

For manual transmissions, put the gear selector in neutral and engage the clutch (push the clutch pedal down), make sure the park brake is still applied and start the engine. Continue with Step 1 shown below.

1. Slide the hi-lo hydraulic lever to either the lo or hi position (See Fig. 69). Most applications will use the “lo” hydraulic setting. Push the hand control throttle lever to the **up** position (full throttle).
2. Move the governor control lever to desired engine R.P.M.
3. Lower the hand lever throttle to reduce engine speed and pull up on the PTO control handle to engage the PTO. Push hand lever throttle up to the full throttle position

The PTO will *not* stop *unless the PTO control handle is pushed down*.



### WARNING

- When an attachment is not connected to the P.T.O. shaft, disengage drive to the P.T.O. by pushing the hydraulic control handle down and replacing the live hydraulic hose in the *upper coupler*.
- The PTO runs when the control handle is *up*, the control handle must be in the down position for the PTO to stop.
- P.T.O. includes a spring loaded P.T.O. cover. This cover must remain on the vehicle and be used at all times. An uncovered rotating spline can catch clothing and result in serious injury or death.
- **ALWAYS** disengage the P.T.O. before attaching any equipment to the P.T.O. shaft.
- **ALWAYS** remain clear of the P.T.O. shaft and all moving parts.

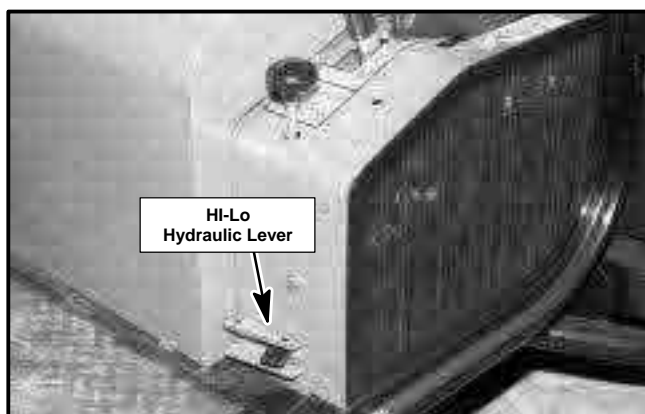


Figure 69  
Governor and Hand Throttle Controls

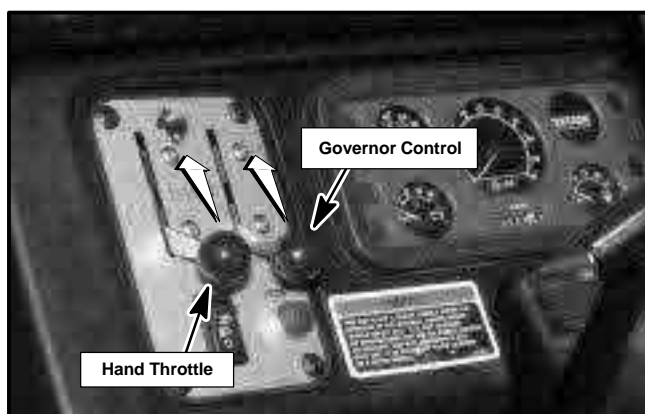


Figure 70  
Governor and Hand Throttle Controls

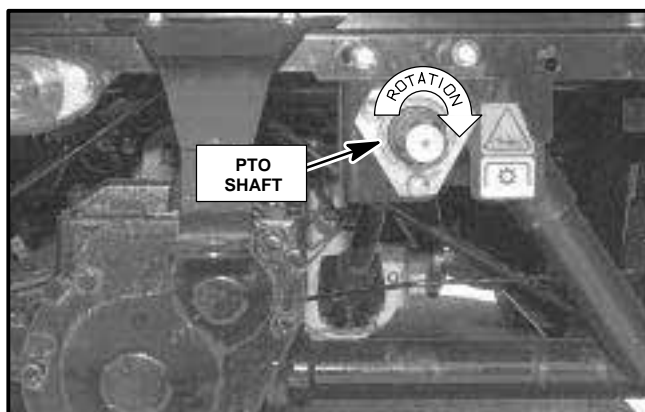


Figure 71  
P.T.O. Shaft Location

## For Use While Vehicle Is Moving (Automatic and Manual Transmissions)

1. Refer to the Power Take-Off R.P.M./Vehicle Speed decal to select the proper P.T.O. and ground speed combination for the accessory equipment being used. The decal representing the P.T.O. and ground speed is located on the top of the engine cover between the seats.

See Fig. 71 on the previous page for PTO rotation.

Make sure the accessory being used is properly connected and ready for use.

RPT		KPT		MPH		MPH							
1	2	1	2	1	2	1	2						
15.3	14.0	8.1	7.7	5.5	15.7	2800	1.7	2.5	3.1	4.5	5.1	6.7	7.3
2.1	1.3	4.4	7.8	1.0	21.3	2700	1.8	2.1	1.1	4.9	3.0	15.7	
2.6	4.6	7.1	8.4	5.5	22.2	2800	1.6	2.3	1.7	5.2	3.7	11.3	
2.8	2.9	7.6	6.4	8.7	24.4	3100	1.7	3.1	1.7	5.5	4.4	15.2	
3.3	5.3	6.1	5.5	7.6	25.0	3300	2.0	3.3	2.0	6.3	11.0	15.2	
3.7	5.1	6.6	4.8	7.8	26.0	3500	2.1	3.5	2.7	6.7	12.4	17.1	
3.8	5.1	6.1	6.7	1.1	26.2	3700	2.1	3.9	3.1	7.4	12.1	17.1	
3.5	6.2	5.6	6.3	7.0	33.7	3800	2.5	4.0	3.1	8.1	12.1	17.1	
3.7	6.8	10.1	6.3	7.1	34.3	4000	2.5	4.1	3.5	8.4	12.1	17.1	
3.8	6.8	10.6	12.1	3.2	35.8	4300	2.7	4.3	3.6	7.7	11.1	17.1	
4.1	3.1	11.0	12.4	12.8	37.4	4500	3.3	4.0	6.3	10.1	15.0	22.0	

### Automatic Transmissions

As you approach the work area, determine a starting point; stop the vehicle at the starting point; place the gear selector in Park and apply the park brake. Slide the hi-lo hydraulic lever to either the “lo” or “hi” position (See Fig. 69 on the previous page) then continue with Step 2 below (although “lo” is the standard setting for operating accessories, some accessories such as the Vicon Spreader, Top Dresser and Core Harvester will use the “hi” setting).

### Manual Transmissions

As you approach the work area, determine a starting point; stop the vehicle at the starting point, with clutch pedal depressed, place the gear selector in neutral and apply the park brake. Slide the hi-lo hydraulic lever to either the “lo” or “hi” position (See Fig. 69 on the previous page) then continue with Step 2 below (although “lo” is the standard setting for operating accessories, some accessories such as the Vicon Spreader, Top Dresser and Core Harvester will use the “hi” setting).

2. Place the governor hand control to the full **up** position (See Figure 72). Push the foot throttle (accelerator) pedal to the floorboard.
3. Move the governor control lever to adjust desired engine R.P.M.
4. After desired r.p.m. has been set, release the accelerator pedal to allow the engine to return to idle.

Place foot on the brake pedal and release park brake.

Select desired gear, release brake pedal, press accelerator to the floorboard and pull **up** on the hydraulic control handle to engage the PTO (the PTO can only be **stopped** by pushing the control handle **down**.)

Begin driving the vehicle over the work area. Check the accessory occasionally to ensure proper operation.

Even though the accelerator pedal is pushed all the way down, the vehicle will only travel at the speed allowed by the r.p.m. setting of the governor hand control.



Figure 72  
Governor Hand Control



### WARNING

- **NEVER** attempt to drive the vehicle with the engine speed increased by the hand throttle. The hand throttle also controls the foot throttle, so the foot throttle pedal cannot be used to reduce engine and vehicle speed. **FAILURE** to obey this warning may result in you, the operator, losing vehicle control.

# OPERATING REMOTE HYDRAULICS

## HYDRAULIC RESERVOIR

Normally the hydraulic system will not need additional fluid. Sometimes a leak may develop causing the system to require repair and refilling.



### WARNING

- Escaping hydraulic oil under pressure can have sufficient force to penetrate the skin, causing serious injury. If injured by escaping fluid, see doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.
- After applying pressure to the system, use a piece of cardboard or wood, **NOT** your hands, to check for leaks.
- Wear eye protection and use caution to stay clear of any moving parts.

If you notice hydraulic fluid escaping when the system is being used or if a leak is suspected, **turn off all hydraulic functions and stop the engine**. Check the hoses and fittings to determine where the fluid may be escaping from. If necessary, start the engine and using a piece of cardboard or similar material, check areas where the leak is suspected. Repair as needed.

Periodically check the hydraulic fluid level (hydraulic level should be checked every **100 hours** of operation). Loss of fluid can signal a small leak before it becomes worse.

To check the hydraulic fluid level:

1. Place vehicle on level surface. Fully lower any accessory attachment, including dump box. Stop the vehicle engine.
2. Remove the dipstick/breather plug from the top of the tank (See Figs. 73 and 74). Wipe the dipstick, then place in tank with the threaded flange resting on the tank (do not screw in). Fluid should show on the knurled portion of the dipstick (See Fig 74). Add fluid as required. **Do Not** overfill the hydraulic system. Severe damage may result. **Always** reinstall the dipstick/breather plug.

If additional fluid is needed, add either **Ransomes Turf Protector** Biodegradable hydraulic fluid **or** **GreensCare 68** biodegradable hydraulic oil.

3. Screw the dipstick/breather plug securely in place.

### Hydraulic System Capacity:

Standard Hydraulics . . . . . 4 gal. (15.2 L)  
Hi-Lo Hydraulics . . . . . 7.6 gal. (28.8 L)

### Ransomes Turf Protector Hyd Benz Bio 377

2 1/2 gal. (9.5 L) - Part No. 65363  
5 gal. (19 L) - Part No. 65352  
55 gal. (208 L) - Part No. 65354

### GreensCare 68

5 gal. (19 L) - Part No. 5003103  
55 gal. (208 L) - Part No. 5003102

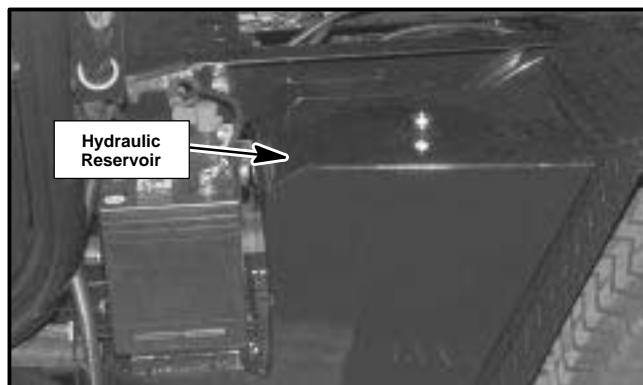


Figure 73  
Hydraulic Reservoir Tank



Figure 74  
Hydraulic Tank Dipstick


## TORQUE SPECIFICATIONS HEX HEAD CAP SCREWS

The torque values shown should be used as a general guideline when specific torque values are not given.  
Note the minimum grade for the U.S. standard bolt is **grade 5**.

### U.S. Standard Hardware


Grade	Shank Size (Diameter in inches, fine or coarse thread)														
		1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	1 1/8			
SAE grade 5*	ft.-lbs.	9	18	31	50	75	110	150	250	378	583	782			
	N·m	12	24	42	68	102	150	203	339	513	790	1060			
SAE grade 8**	ft.-lbs.	13	28	46	75	115	165	225	370	591	893	1410			
	N·m	18	38	62	108	156	224	305	502	801	1211	1912			
Flangelock Screw w/ Flangelock Nut	ft.-lbs.		24	40											
	N·m		33	54											


\* Grade 5 marking –  **Minimum commercial quality** (Lower quality not recommended).


\*\* Grade 8 marking – 

### Metric Standard Hardware

Grade	Shank Size (Diameter in millimeters, fine or coarse thread)														
		M4	M5	M6	M7	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27
Grade 8.8*	ft.-lbs.	1.5	3	5.2	8.2	13.5	24	43.5	70.5	108	142	195	276	353	530
	N·m	2	4	7	11	18	32	58	94	144	190	260	368	470	707
Grade 10.9**	ft.-lbs.	2.2	4.5	7.5	12	18.8	35.2	62.2	100	147	202	275	390	498	747
	N·m	3	6	10	16	25	47	83	133	196	269	366	520	664	996
Grade 12.9***	ft.-lbs.	2.7	5.2	8.2	15	21.8	43.5	75	119	176	242	330	471	596	904
	N·m	3.6	7	11	20	29	58	100	159	235	323	440	628	794	1205

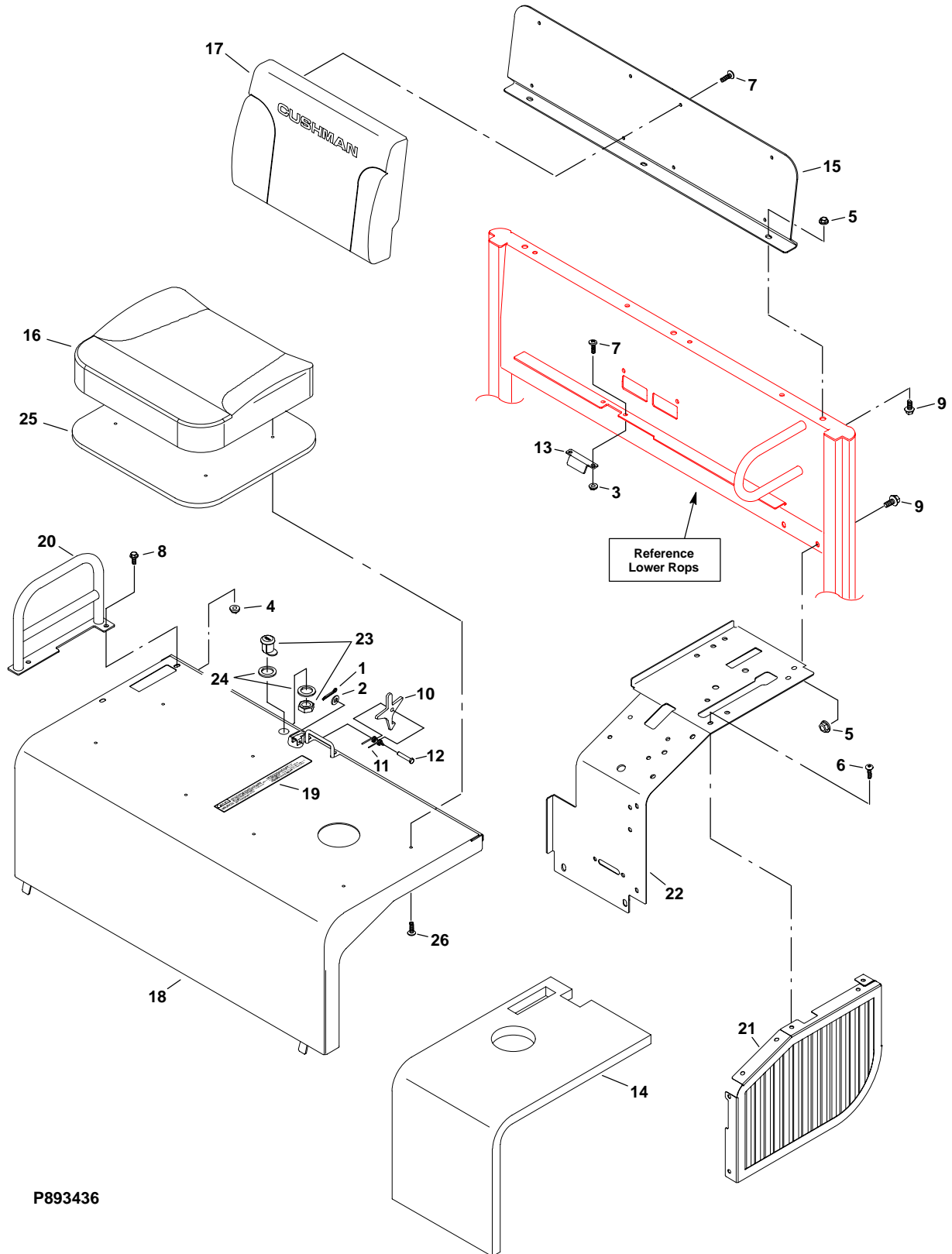
\* Grade 8.8 marking – 

\*\* Grade 10.9 marking – 

\*\*\* Grade 12.9 marking – 

# ENGINE COVER

## SUZUKI 660 EFI TURF MODELS 898656, 898657 & 898658



P893436

**ENGINE COVER**  
**SUZUKI 660 EFI TURF MODELS 898656, 898657 & 898658**

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	306328	Pin, cotter, .09 x .75	1	16	893321	Seat, base assembly	2
2	308090	Washer, 1/4	1	17	893322	Backrest assembly	2
3	450452	Nut, M6-1.00 (G10.9)	2	18	2700789	Cover, engine, w/decals	1
4	450453	Nut, M8-1.25 (G10.9)	2	19	845038	•Decal, Operation	1
5	450454	Nut, M10-1.50 (G10.9)	5	20	893541	Handhold (right side)	1
6	800026	Screw, 1/4-20 x 3/4	7	21	894232	Cover, left	1
7	450541	Screw, M6-1.00 x 16	10	22	2700796	Panel, console (turf)	1
8	452388	Screw, M8-1.25 x 20 (8.8)	2	*	822819	•Decal, Warning, Park Brake	1
9	452398	Screw, M10-1.50 x 20	5	*	844177	•Decal, auxillary transmission	1
10	523085	Bracket	1	*	844179	•Decal, hydraulic controls	1
11	816401	Spring, torsion	1	23 ♦	840436	Lock, handle	1
12	830784	Pin, clevis, .25 x 1.88	1	24 ♦	309488	Washer	2
13	841789	Catch, engine cover latch	1	25	2702725	Seal, seat base	2
14	841804	Insulation, engine cover	3	26	450543	Screw, M6-1.00 x 25	8
15	842030	Mount, backrest	2				

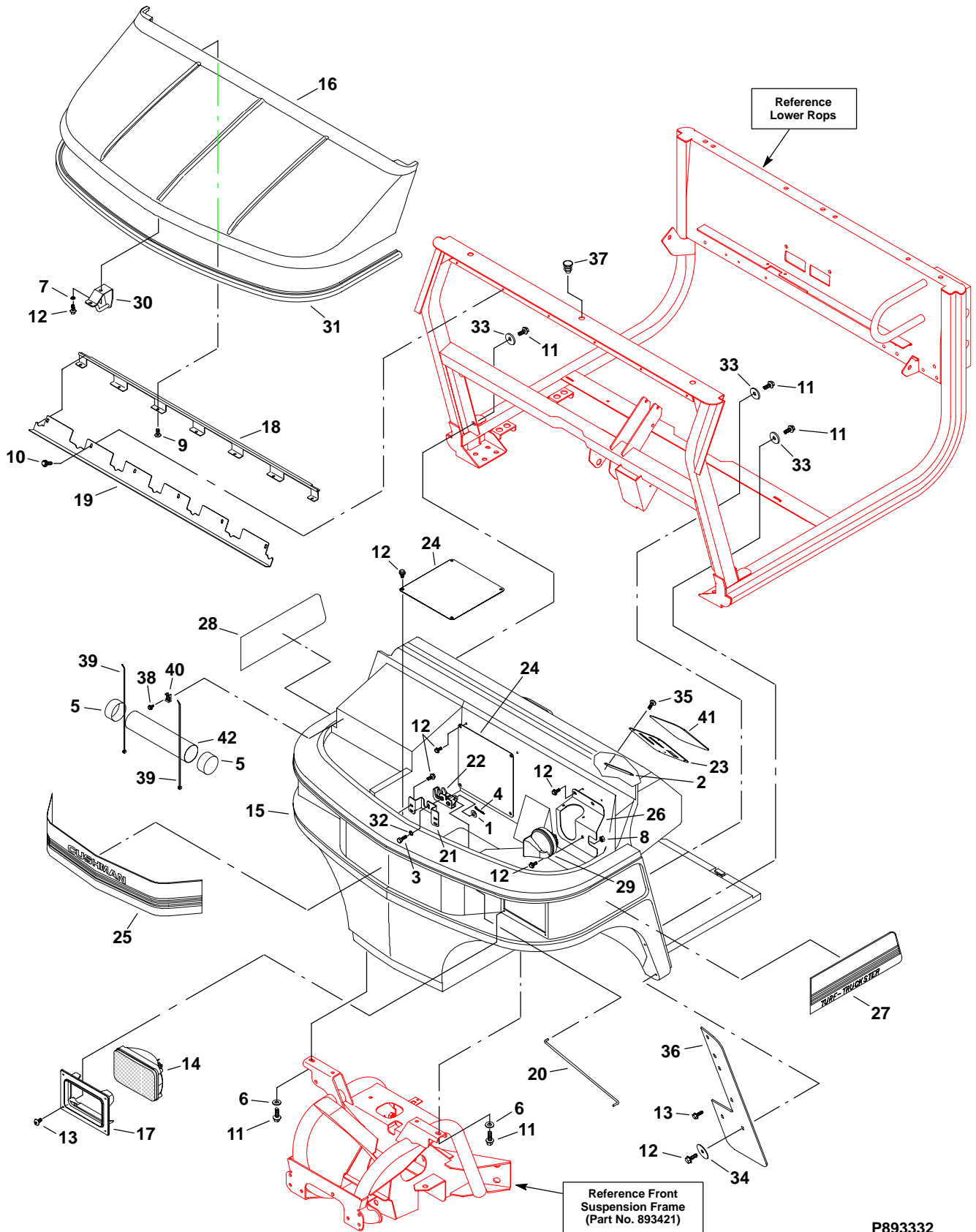
• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

\* Not Illustrated.

♦ Although Item No's. 23 & 24 (handle lock and washers) are used on EC Models, they may be obtained for use on any turf vehicles.

# BODY, HOOD, HEADLIGHTS

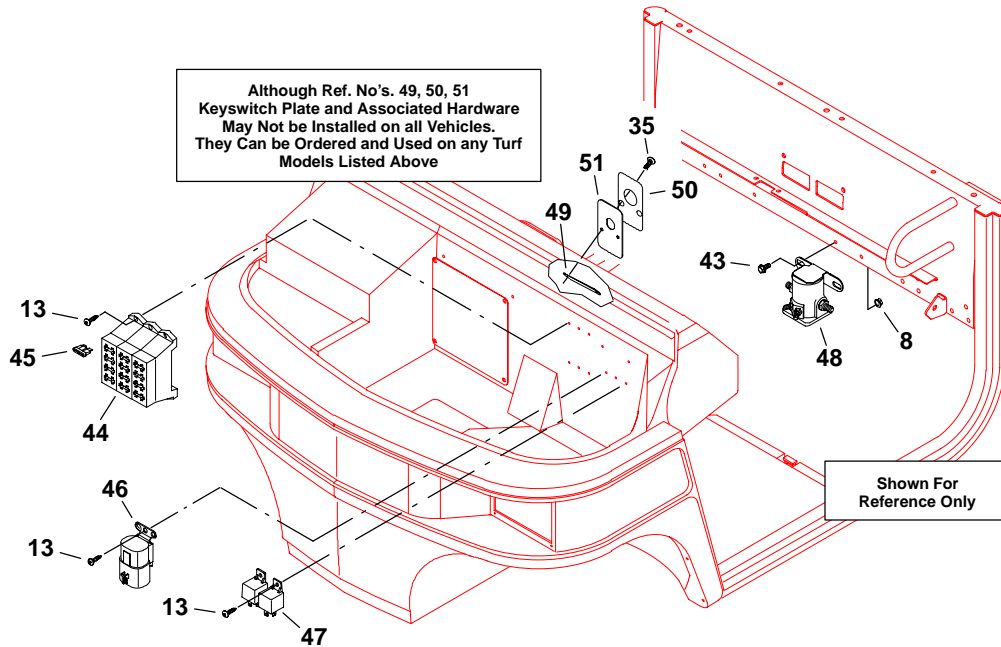
## SUZUKI 660 TURF 4-WHEEL MODELS 898657 & 898658



P893332



## BODY, HOOD, HEADLIGHTS SUZUKI 660 TURF 4-WHEEL MODELS 898657 & 898658



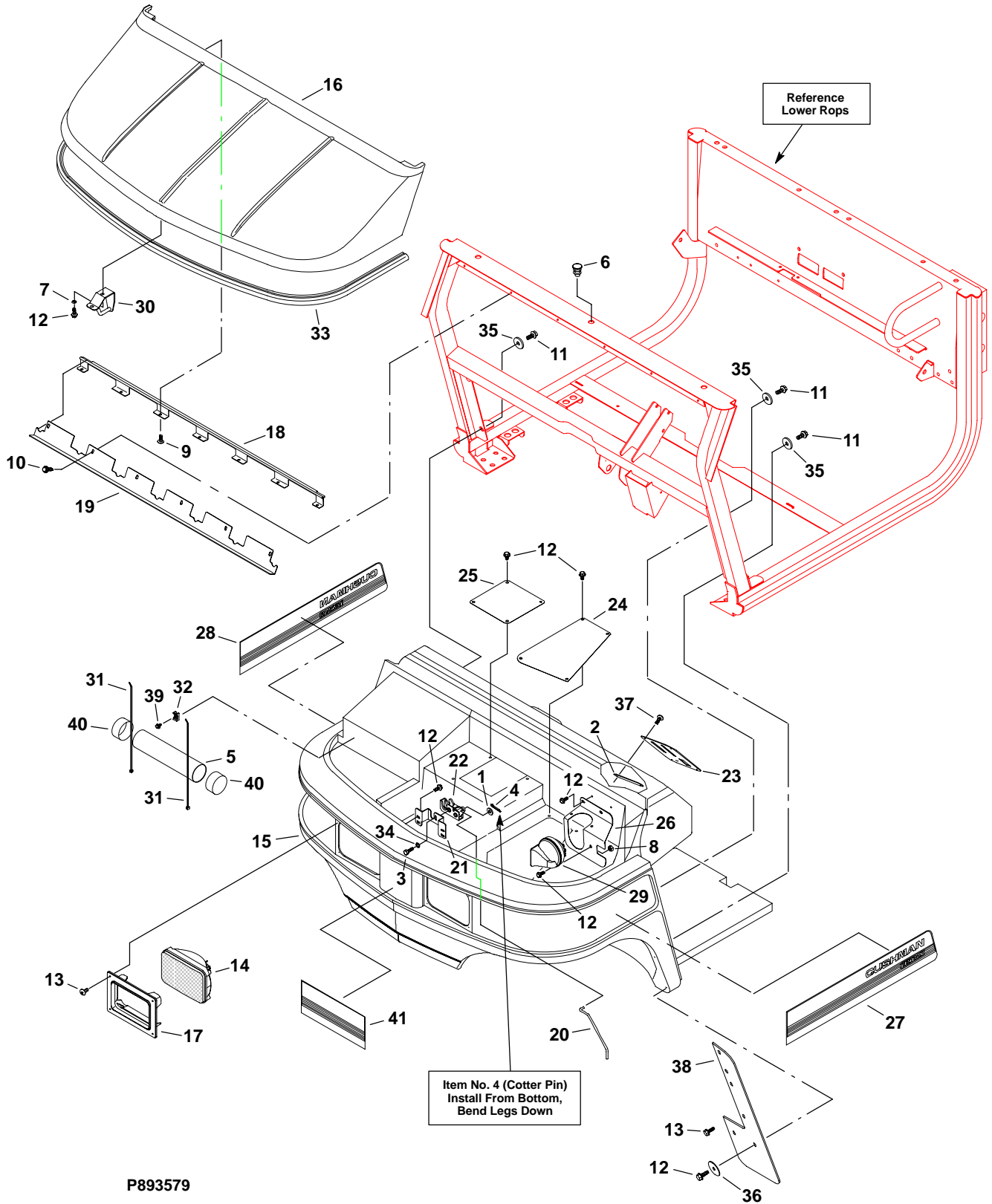
Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	303952	Washer, #10	1	27	844426	Decal, Turf (left)	1
2	894743	Nut ay., double 1/4-20	2	28	844427	Decal, Turf (right)	1
3	306419	Screw, 1/4-20 x 1/2	2	29	886090	Horn	1
4	306463	Pin, cotter	1	30	894030	Striker, hood	1
5	38061A	Cap, vinyl	2	31	844669	Seal, weather	As Req'd.
6	450400	Washer, M8	2	32	306488	Lockwasher, 1/4 shakeproof	2
7	450410	Lockwasher, M6	2	33	548159	Washer, 5/16 (1 1/4" diameter)	4
8	450452	Nut, M6-1.00	3	34	548175	Washer, 1/4 (1 1/4" diameter)	8
9	450541	Screw, M6-1.00 x 16 (RPH)	7	35	800582	Screw, 1/4-20 x 3/4	6
10	452695	Screw, M6-1.00 x 20, taptite	6	36	844049	Flap, mud	2
11	800930	Screw, M8-1.25 x 16 (8.8)	6	37	844293	Plug	3
12	800934	Screw, M6-1.00 x 16 (8.8)	25	38	800344	Screw, tapping, #10 type AB	2
13	800943	Screw, tap, #10-14	19	39	823549	Tie, cable, 15.5" (394 mm)	2
14	837303	Headlight, rectangular	2	40	840508	Mount, cable tie	2
15	2700792	Clip, front (w/decals)	1	41	844116	Decal, left dash panel, turf	1
*	821071	•Decal, notice not motor vehicle	1	42	38541	Tube, document	1
*	840901	•Decal, Warning read ops. manual	1	43	452378	Screw, M6-1.00 x 20	2
16	843854	Hood, Turf (green)	1	44	825996	Fuse-holder	3
17	841428	Bezel, headlamp	2	45	826000	Fuse, 20 amp	As Req'd.
18	841477	HInge, hood	1	(45)	833038	Fuse, 30 amp	As Req'd.
19	841637	Angle, front clip mount	1	(45)	836892	Fuse, 10 amp	As Req'd.
20	841715	Rod, hood release	1	(45)	842983	Fuse, 15 amp	As Req'd.
21	841753	Bracket, hood latch	1	46	835480	Relay, 30 amp	1
22	2702198	Latch, hood	1	47	843167	Relay, 12V 15A, DPST	2
23	841264	Panel, dash (left)	1	48	2701465	Solenoid, 12V	1
24	841913	Plate, access	2	49	2702012	Strap, keyswitch mount	1
25	844430	Decal, CUSHMAN	1	50	2702014	Decal, keyswitch plate	1
26	844167	Bracket, horn/brake reservoir	1	51	2701850.7	Plate, keyswitch mount	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

\* Not Illustrated.

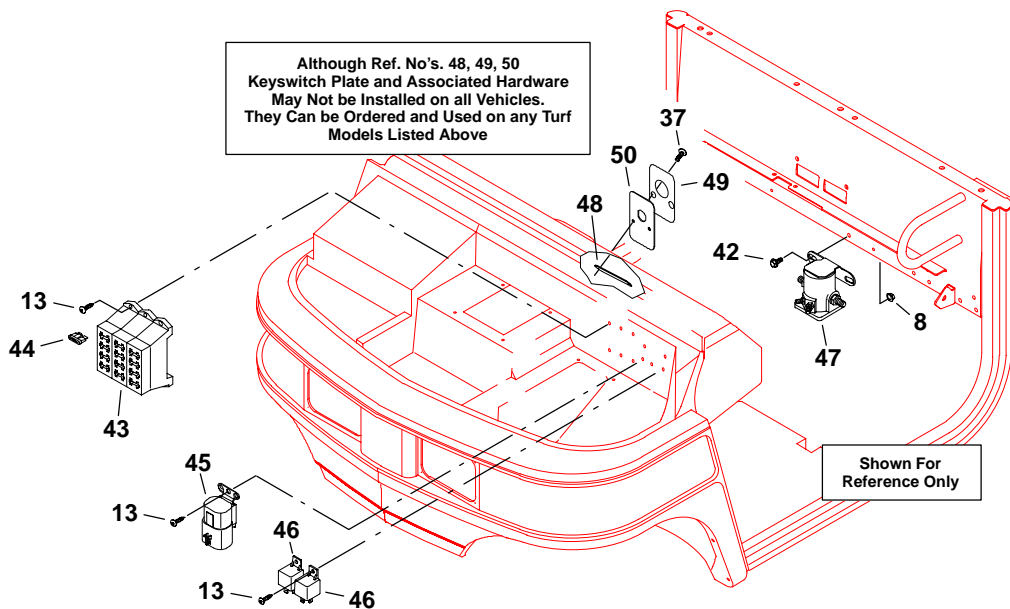
# BODY, HOOD, HEADLIGHTS

## 3-WHEEL SUZUKI 660 EFI TURF MODEL 898656



P893579

## BODY, HOOD, HEADLIGHTS 3-WHEEL SUZUKI 660 EFI TURF MODEL 898656



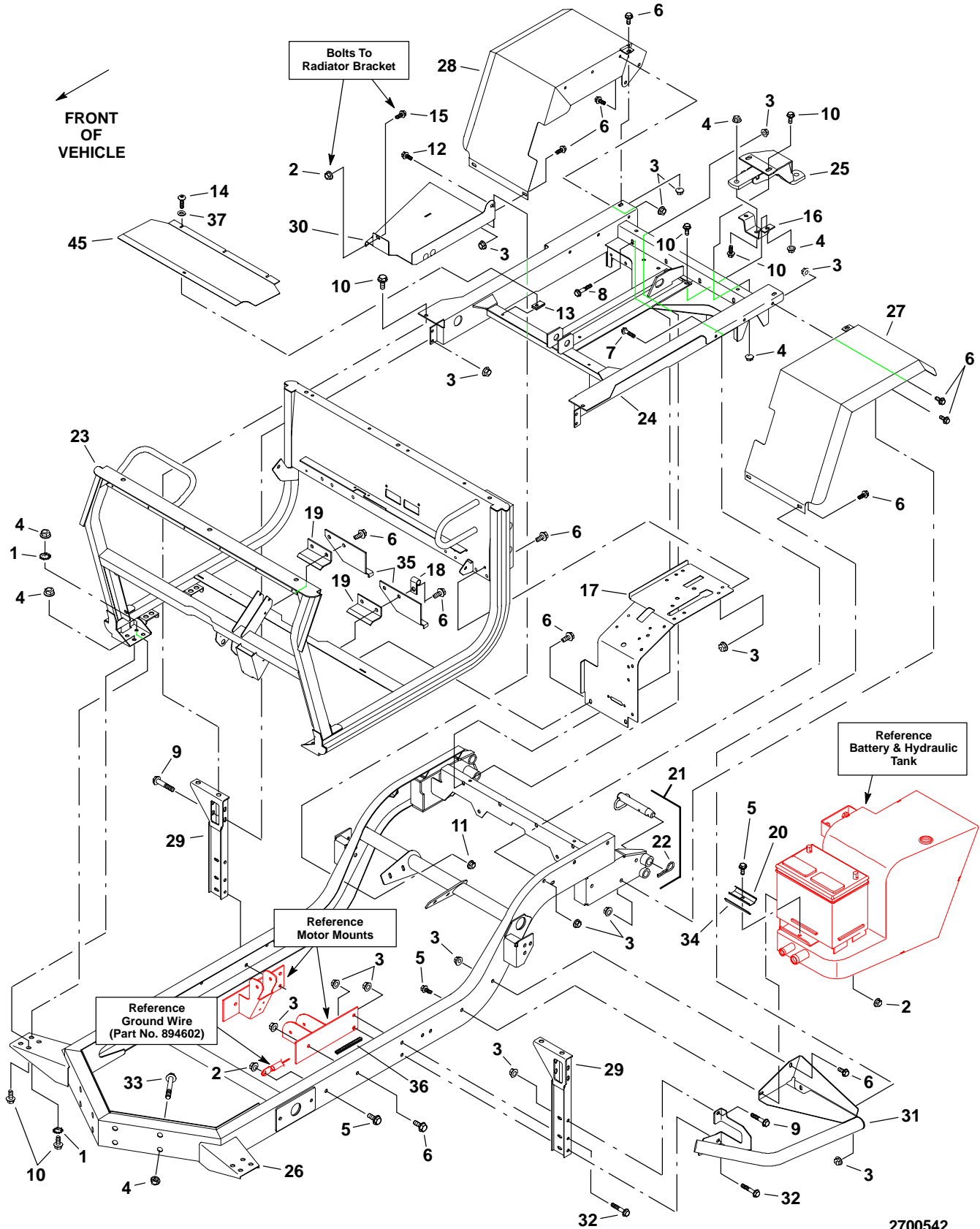
Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	303952	Washer, #10 . . . . .	1	26	844167	Bracket, horn/brake reservoir . . .	1
2	894743	Nut ay., double 1/4-20 . . . . .	2	27	844422	Decal, turf, LH (3-wheel) . . . . .	1
3	306419	Screw, 1/4-20 x 1/2 . . . . .	2	28	844423	Decal, turf, RH (3-wheel) . . . . .	1
4	306463	Pin, cotter . . . . .	1	29	886090	Horn . . . . .	1
5	38541	Tube, document . . . . .	1	30	894030	Striker, hood . . . . .	1
6	844293	Plug . . . . .	3	31	823549	Tie, cable, 15.5" (394 mm) . . . . .	2
7	450410	Lockwasher, M6 . . . . .	2	32	840508	Mount, cable tie . . . . .	2
8	450452	Nut, M6-1.00 . . . . .	3	33	844669	Seal, weather . . . . .	As Req'd.
9	450541	Screw, M6-1.00 x 16 (RPH) . . . . .	7	34	306488	Lockwasher, 1/4 shakeproof . . . . .	2
10	452695	Screw, M6-1.00 x 20, taptite . . . . .	6	35	548159	Washer, 5/16 (1 1/4" diameter) . . . . .	4
11	800930	Screw, M8-1.25 x 16 (8.8) . . . . .	4	36	548175	Washer, 1/4 (1 1/4" diameter) . . . . .	8
12	800934	Screw, M6-1.00 x 16 (8.8) . . . . .	25	37	800582	Screw, 1/4-20 x 3/4 . . . . .	6
13	800943	Screw, tap, #10-14 . . . . .	19	38	844049	Flap, mud . . . . .	2
14	837303	Headlight, rectangular . . . . .	2	39	800344	Screw, tapping, #10 type AB . . . . .	2
15	2700793	Clip, front w/decals (3-wheel) . . . . .	1	40	38061A	Cap, vinyl . . . . .	2
*	821071	•Decal, notice not motor vehicle . . . . .	1	41	844783	Decal, 3-wheel (center) . . . . .	1
*	840901	•Decal, Warning read ops. manual . . . . .	1	42	452378	Screw, M6-1.00 x 20 . . . . .	2
16	843854	Hood, turf (green) . . . . .	1	43	825996	Fuse-holder . . . . .	3
17	841428	Bezel, headlamp . . . . .	2	44	826000	Fuse, 20 amp . . . . .	As Req'd.
18	841477	HInge, hood . . . . .	1	(44)	833038	Fuse, 30 amp . . . . .	As Req'd.
19	841637	Angle, front clip mount . . . . .	1	(44)	836892	Fuse, 10 amp . . . . .	As Req'd.
20	844653	Rod, hood release (3-wheel) . . . . .	1	(44)	842983	Fuse, 15 amp . . . . .	As Req'd.
21	841753	Bracket, hood latch . . . . .	1	45	835480	Relay, 30 amp . . . . .	1
22	2702198	Latch, hood . . . . .	1	46	843167	Relay, 12V 15A, DPST . . . . .	2
23	841264	Panel, dash (left) . . . . .	1	47	2701465	Solenoid, 12V . . . . .	1
*	844116	Decal, left dash panel, turf . . . . .	1	48	2702012	Strap, keyswitch mount . . . . .	1
24	844645	Cover, steering gear (3-wheel) . . . . .	2	49	2702014	Decal, keyswitch plate . . . . .	1
25	844646	Cover, access (3-wheel) . . . . .	1	50	2701850.7	Plate, keyswitch mount . . . . .	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

\* Not Illustrated.

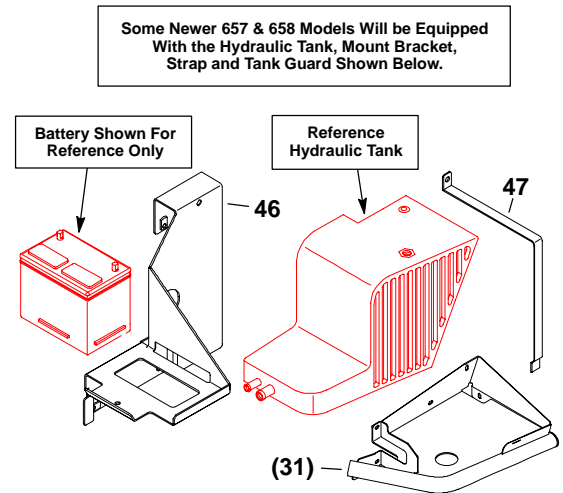
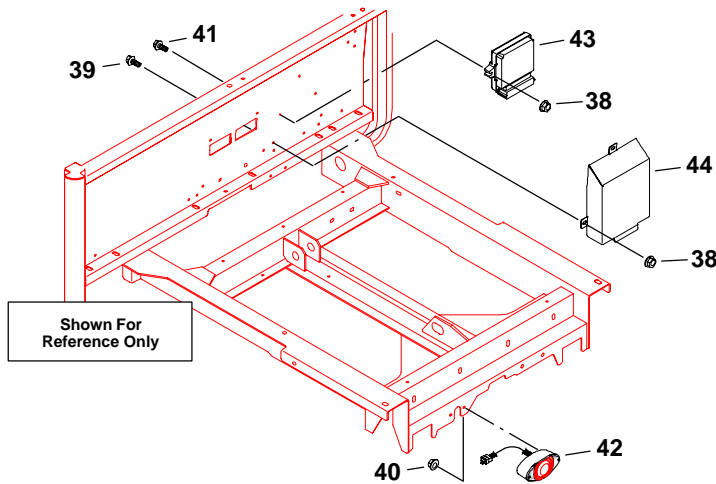
# FRAME

## 4-WHEEL SUZUKI 660 TURF MODELS 898657 & 898658



2700542

## FRAME 4-WHEEL SUZUKI 660 TURF MODELS 898657 & 898658



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	309067	Lockwasher, 1/2 shakeproof	2	26	893235	Frame, main (4-wheel)	1
2	450453	Nut, M8-1.25 (G10.9)	3	<b>also</b>	893235G	Frame, main (4-wheel galv.)	1
3	450454	Nut, M10-1.50 (10.9)	40	27	893487	Fender (left)	1
4	450455	Nut, M12-1.75 (10.9)	21	28	893488	Fender (right)	1
5	452389	Screw, M8-1.25 x 25 (G8.8)	3	29	893525	Support, platform	2
6	452398	Screw, M10-1.50 x 20 (8.8)	27	30	893527	Support, fuel tank	1
7	452402	Screw, M10-1.50 x 50 (8.8)	6	31	2703294.7	Guard, hydraulic tank	1
8	452403	Screw, M10-1.50 x 60 (8.8)	4	32	452406	Screw, M10-1.50 x 90 (8.8)	4
9	452405	Screw, M10-1.50 x 80 (8.8)	5	33	452415	Screw, M12-1.75 x 80 (8.8)	8
10	452410	Screw, M12-1.75 x 30 (8.8)	17	34 ♦	844729	Spacer, battery hold-down	1
11	548911	Nut, 5/16-18	1	35 ◇	844647	Angle, hold-down	2
12	800177	Screw, 5/16-18 x 3/4	1	36	821893	Trim, push-on	As Req'd.
13	800279	Nut, speed, 1/4-20	4	37	308090	Washer, 1/4	4
14	300646	Screw, 1/4-20 x 3/4 (G5)	4	38	450452	Nut, M6-1.00 (10.9)	5
15	800930	Screw, M8-1.25 x 16 (8.8)	1	39	452378	Screw, M6-1.00 x 20	3
16	841258	Bracket, drawbar	1	40	548910	Nut, 1/4-20	2
17	2700796	Panel, console, turf (w/decals)	1	41	800881	Screw, M6-1.00 x 35 (8.8)	2
*	822819	•Decal, Warning Park Brake	1	42	893602	Lamp ay., tail and stop	1
*	844177	•Decal, auxillary transmission	1	43	2702917	Engine control unit (ECU) model '657	1
*	844179	•Decal, hydraulic controls	1	(43)	2702972	ECU model '658 w/serial no's. up to Rev1287	1
18	810437	Clamp	1	(43)	2702975	ECU model '658 w/serial no's. beginning with 00002120	1
19	842870	Angle, support	2	44	2700993.7	Cover, ECU	1
20	844601	Bracket, battery clamp	1	45	2701107.7	Panel, access	1
21	882971	Pin, disconnect	2	46	2702284.7	Mount, tank (hydraulic)	1
22	809265	•Pin, hair 25/32 x 2 11/16	1	47	2702281.7	Strap, oil tank	1
23	893145	ROPS, lower	1				
24	893199.7	Platform, turf	1				
<b>also</b>	893199G	Platform, turf (galvanized)	1				
25	893220	Drawbar, turf	1				

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

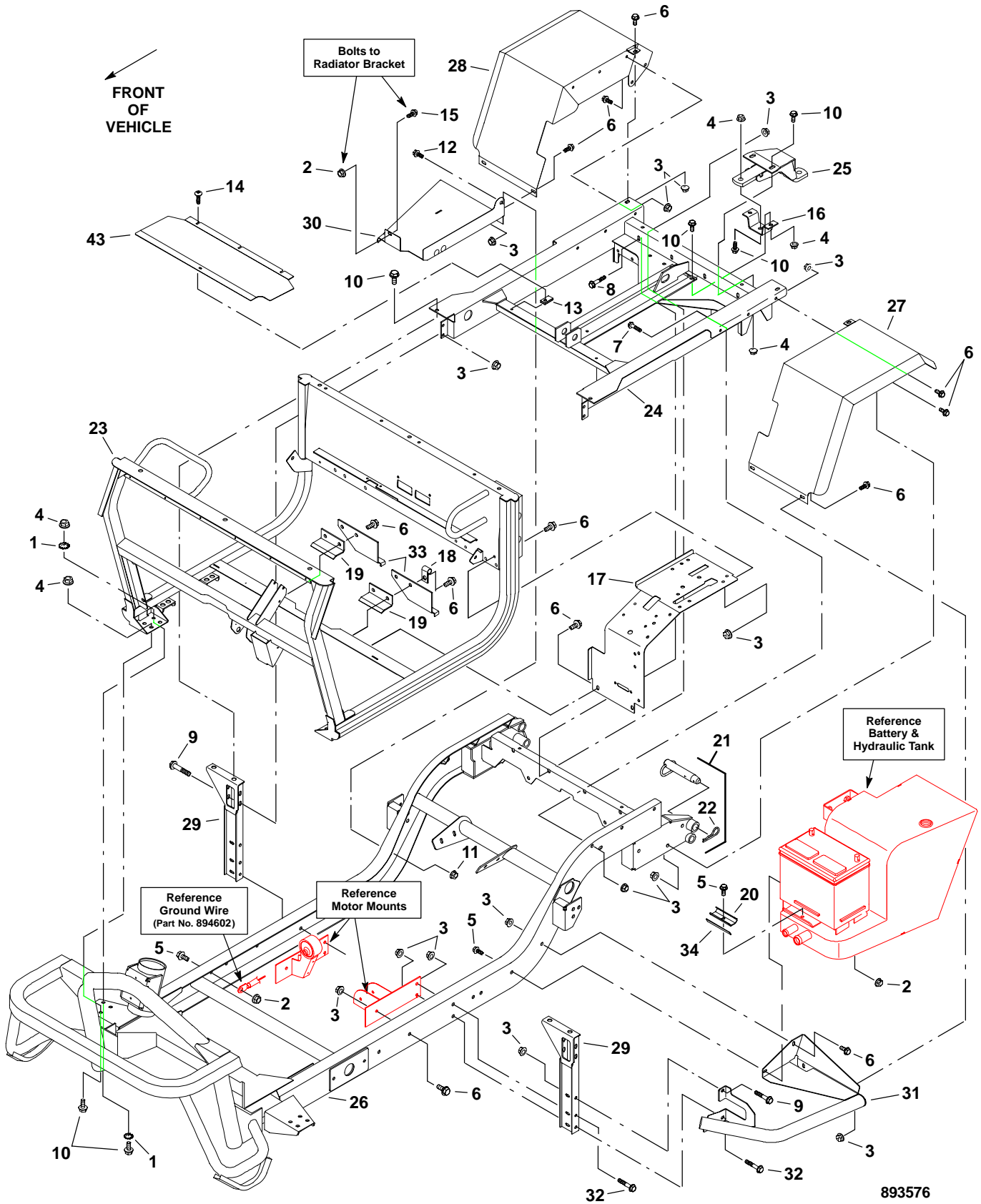
\* Not Illustrated.

♦ Item No. 34 (Battery Hold-down Spacer, Part No. 844729) may not be used on all vehicles. If the battery clamp cannot be adjusted to properly secure the battery, this spacer will be required.

◇ Only one (1) of Item No. 35 (Hold-down Angle, Part No. 844647) is used with Models 898658 beginning with Serial No. 00002120. Models prior to this use two of these hold-down angles.

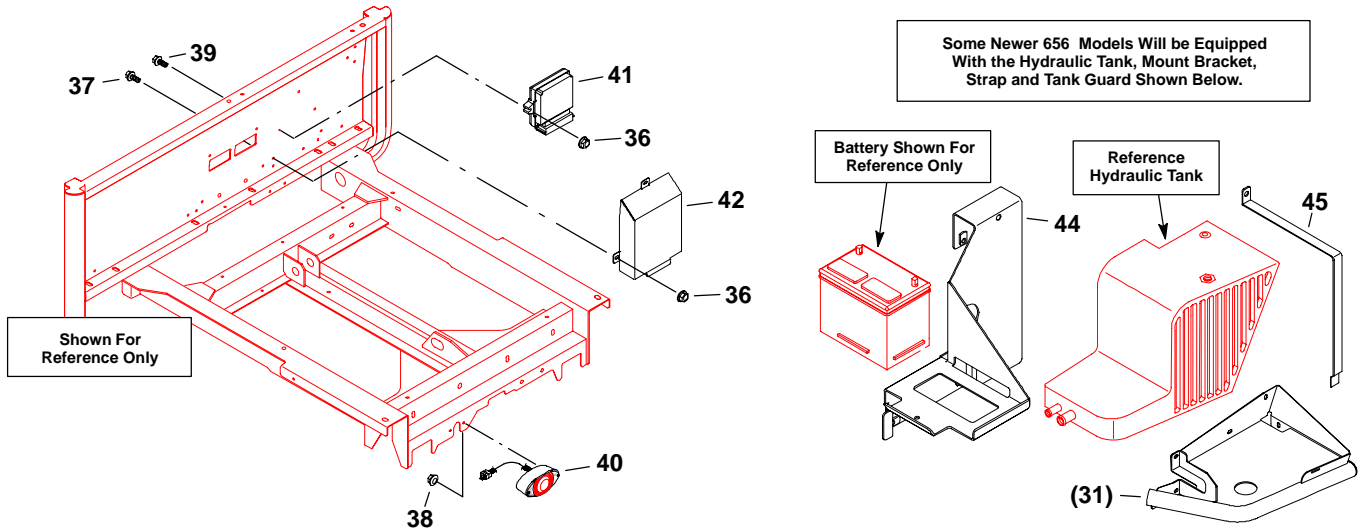
# FRAME

## 3-WHEEL SUZUKI EFI TURF MODEL 898656



893576

## FRAME 3-WHEEL SUZUKI EFI TURF MODEL 898656



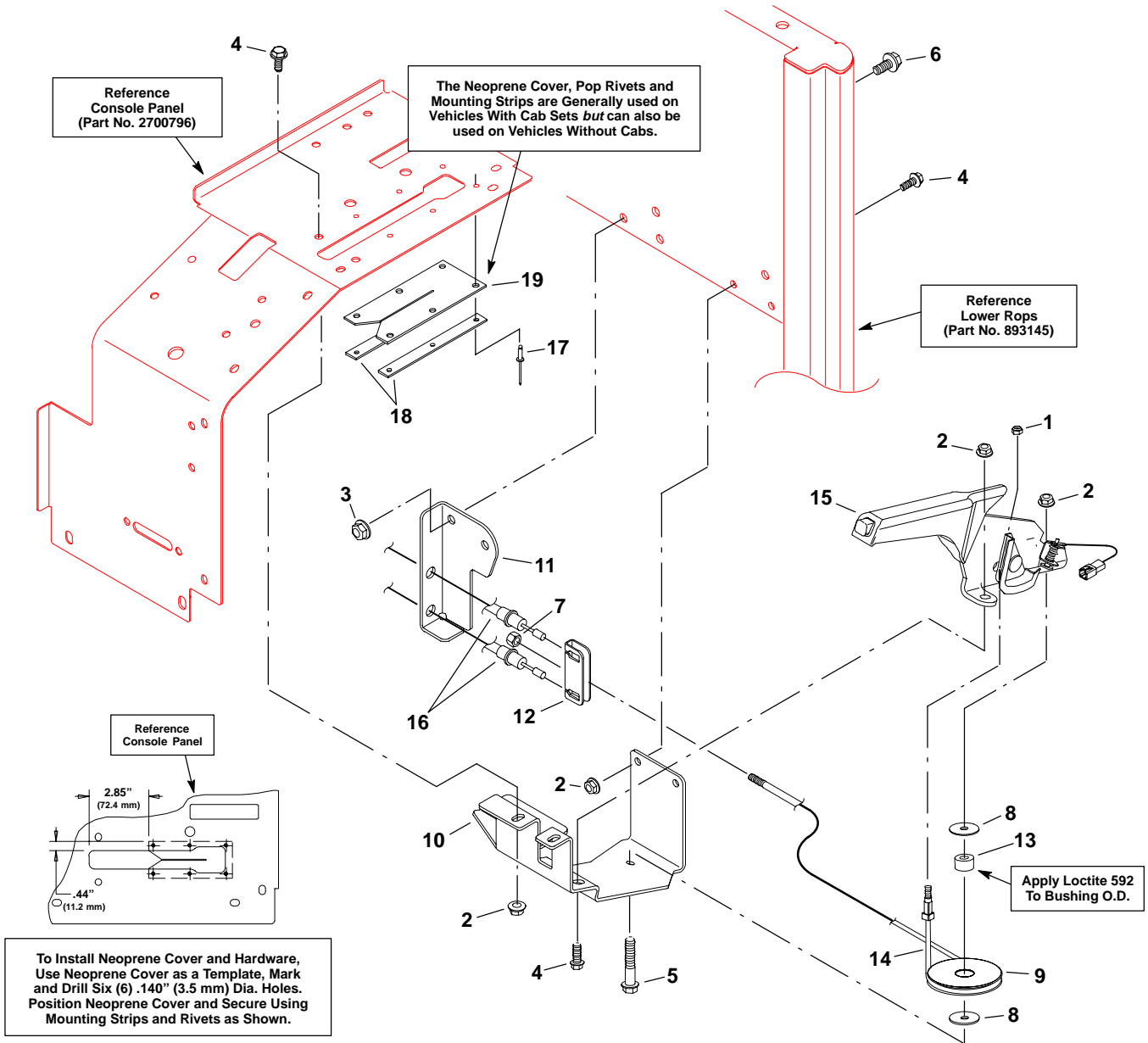
Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	309067	Lockwasher, 1/2 shakeproof . . . .	2	23	893145	ROPS, lower . . . . .	1
2	450453	Nut, M8-1.25 (G10.9) . . . . .	3	24	893199.7	Platform, turf . . . . .	1
3	450454	Nut, M10-1.50 (G10.9) . . . . .	40	also	893199G	Platform, turf (galvanized) . . . . .	1
4	450455	Nut, M12-1.75 (G10.9) . . . . .	13	25	893220	Drawbar, turf . . . . .	1
5	452389	Screw, M8-1.25 x 25 (8.8) . . . . .	3	26	897159	Frame, main (3-wheel) . . . . .	1
6	452398	Screw, M10-1.50 x 20 (8.8) . . . . .	27	also	897159G	Frame, main (3-wheel galv.) . . . . .	1
7	452402	Screw, M10-1.50 x 50 (8.8) . . . . .	6	27	893487	Fender (left) . . . . .	1
8	452403	Screw, M10-1.50 x 60 (8.8) . . . . .	4	28	893488	Fender (right) . . . . .	1
9	452405	Screw, M10-1.50 x 80 (8.8) . . . . .	5	29	893525	Support, platform . . . . .	2
10	452410	Screw, M12-1.75 x 30 (8.8) . . . . .	17	30	893527	Support, fuel tank . . . . .	1
11	548911	Nut, 5/16-18 . . . . .	1	31	2703294.7	Guard, hydraulic tank . . . . .	1
12	800177	Screw, 5/16-18 x 3/4 . . . . .	1	32	452406	Screw, M10-1.50 x 90 (8.8) . . . . .	4
13	800279	Nut, speed, 1/4-20 . . . . .	4	33	844647	Angle, hold-down . . . . .	2
14	800582	Screw, 1/4-20 x 3/4 . . . . .	4	34 ♦	844729	Spacer, battery hold-down . . . . .	1
15	800930	Screw, M8-1.25 x 16 (8.8) . . . . .	1	35	308090	Washer, 1/4 . . . . .	4
16	841258	Bracket, drawbar . . . . .	1	36	450452	Nut, M6-1.00 (10.9) . . . . .	5
17	2700796	Panel, console, w/decals (turf) . . . . .	1	37	452378	Screw, M6-1.00 x 20 . . . . .	3
*	822819	•Decal, Warning Park Brake . . . . .	1	38	548910	Nut, 1/4-20 . . . . .	2
*	844177	•Decal, auxillary transmission . . . . .	1	39	800881	Screw, M6-1.00 x 35 (8.8) . . . . .	2
*	844179	•Decal, hydraulic controls . . . . .	1	40	893602	Lamp ay., tail and stop . . . . .	1
18	810437	Clamp . . . . .	1	41	2702975	Engine control unit (ECU) . . . . .	1
19	842870	Angle, support . . . . .	2	42	2700993.7	Cover, ECU . . . . .	1
20	844601	Bracket, battery clamp . . . . .	1	43	2701107.7	Panel, access . . . . .	1
21	882971	Pin, disconnect . . . . .	2	44	2702284.7	Mount, tank (hydraulic) . . . . .	1
22	809265	•Pin, hair 25/32 x 2 11/16 . . . . .	1	45	2702281.7	Strap, oil tank . . . . .	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

\* Not Illustrated.

♦ Item No. 34 (Battery Hold-down Spacer, Part No. 844729) may not be used on all vehicles. If the battery clamp cannot be adjusted to properly secure the battery, this spacer will be required.

## PARK BRAKE LEVER AND CABLE SUZUKI 660 EFI TURF MODELS 898656, 898657 & 898658

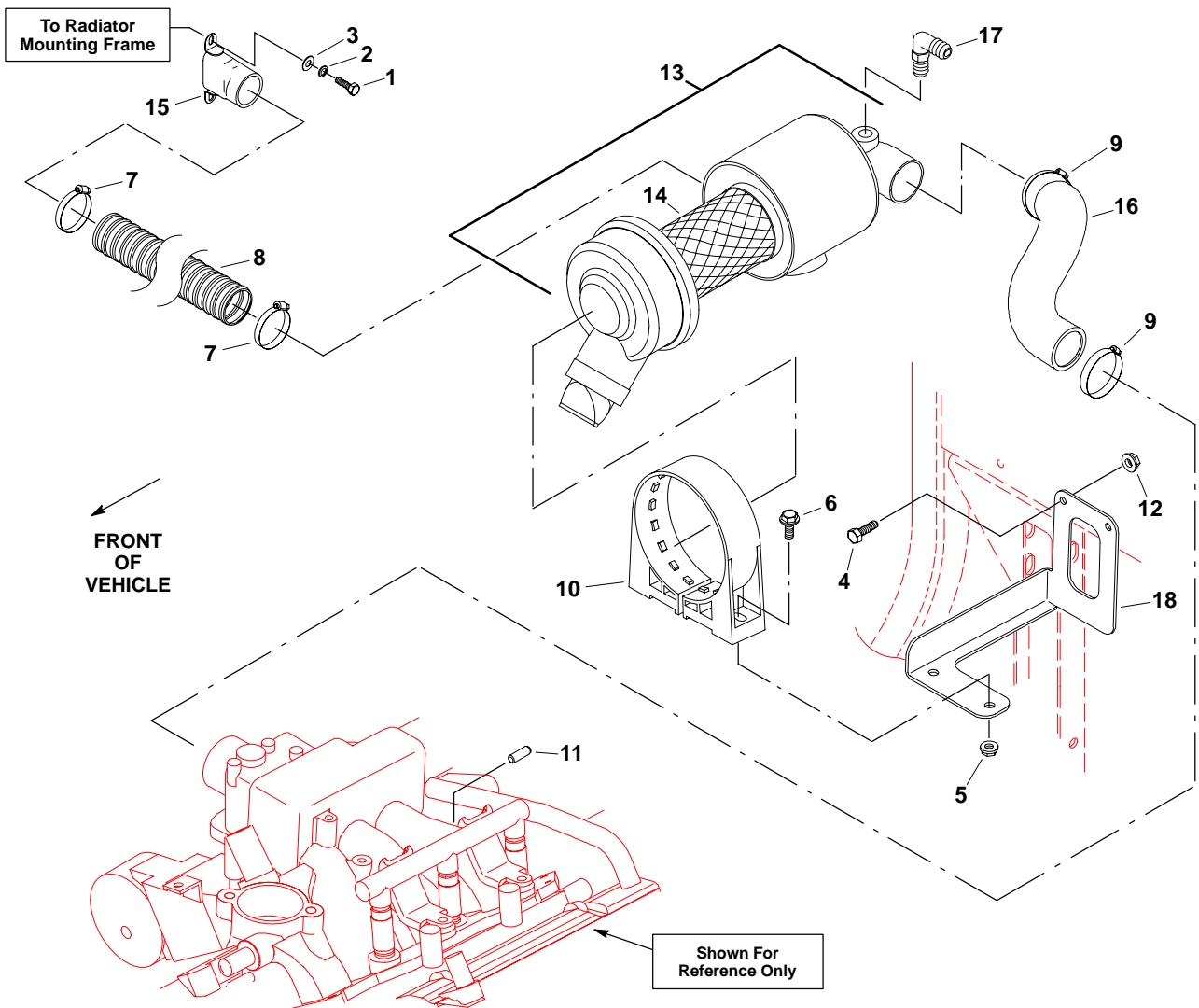


P893446, P2701428

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	450377	Nut, staytite, M6-1.00	1	11	843158	Bracket, park brake cable	1
2	450453	Nut, M8-1.25 (G10.9)	6	12	843356	Equalizer, park brake	1
3	450454	Nut, M10-1.50 (10.9)	2	13	843359	Bushing, park brake	1
4	452388	Screw, M8-1.25 x 20 (G8.8)	5	14	845133	Cable, park brake	1
5	452391	Screw, M8-1.25 x 40 (8.8)	1	15	894317	Lever, park brake	1
6	452398	Screw, M10-1.50 x 20 (8.8)	2	16	893583	Cable, park brake (to rear brakes)	2
7	800446	Locknut, 5/16-24	1	17	133741	Rivet, pop (.12 .5 clsd. end)	6
8	809152	Washer, 5/16 x 1 3/16	2	18	2701335	Mounting, park brake	1
9	827182	Pulley, 3" dia. (76 mm dia.)	1	19	2701336	Cover, parking brake	1
10	845134	Bracket, park brake lever	1				



**AIR CLEANER, BRACKET and FILTER**  
**SUZUKI 660 EFI TURF MODELS 898657**  
**and MODELS 898658 With Serial No's. Up To REV1287**

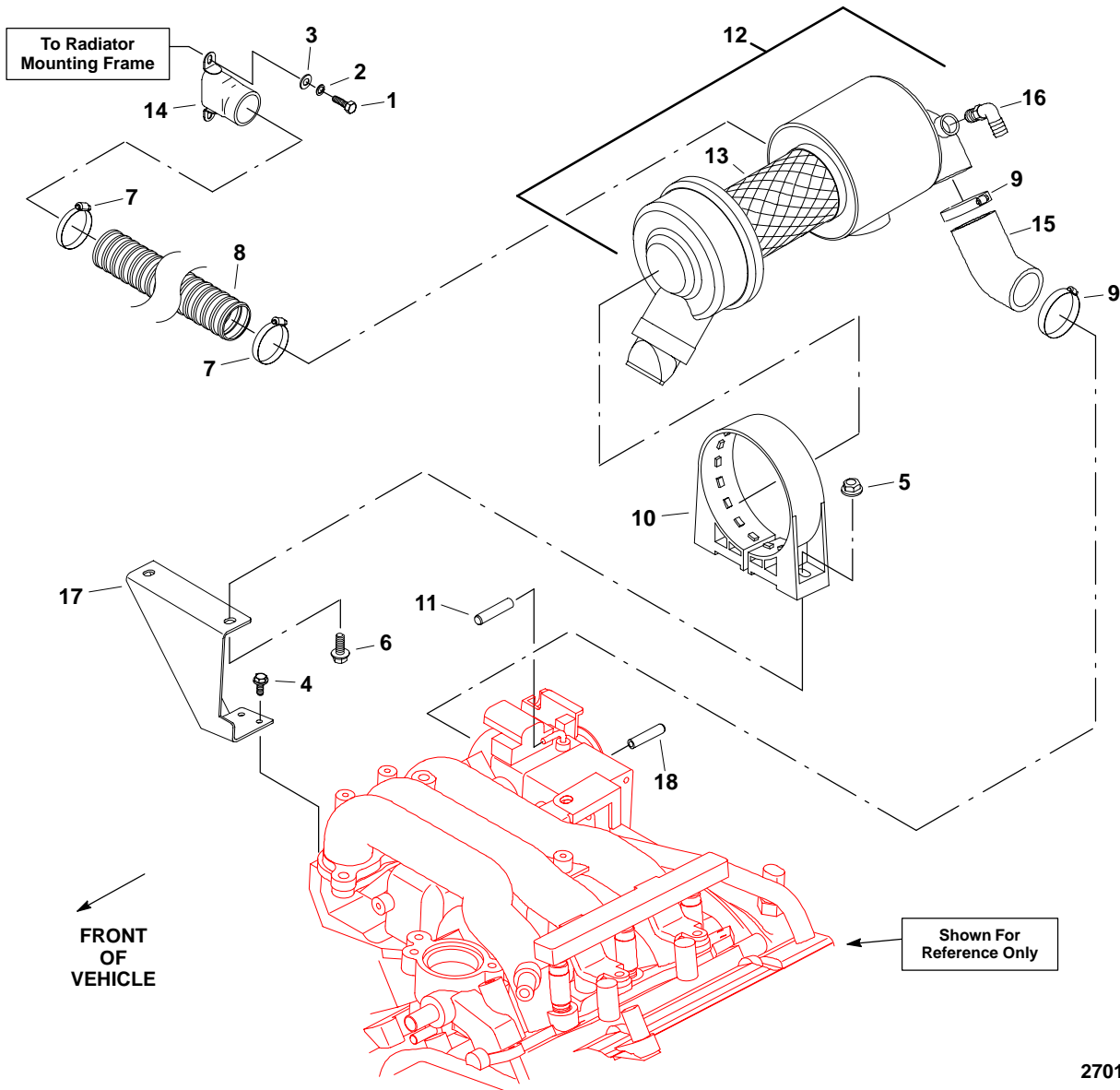


895016, 895114

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	300646	Screw, 1/4-20 x 3/4	2	10	842915	Bracket, air filter	1
2	306396	Lockwasher, 1/4	2	11	842997	Cap, 7/64 i.d. x 3x4	1
3	308090	Washer, 1/4	2	12	450452	Nut, M6-1.00 (10.9)	2
4	452378	Screw, M6-1.00 x 20	2	13	893182	Filter complete, air	1
5	450453	Nut, M8-1.25 (G10.9)	2	14	840352	•Element, air cleaner	1
6	452388	Screw, M8-1.25 x 20 (G8.8)	2	15	888549	Connector, hose (air cleaner)	1
7	825358	Clamp, worm-drive	4	16	2700162	Hose, air intake	1
8	834217	Hose, air cleaner	1	17	2700333	Connector, hose 3/8 to 1/2	1
9	825358	Clamp, worm-drive	2	18	2700329.7	Bracket, air cleaner	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

**AIR CLEANER, BRACKET and FILTER**  
**SUZUKI 660 EFI TURF MODEL 898656**  
**and MODELS 898658 With Serial No's. Beginning With 00002120**

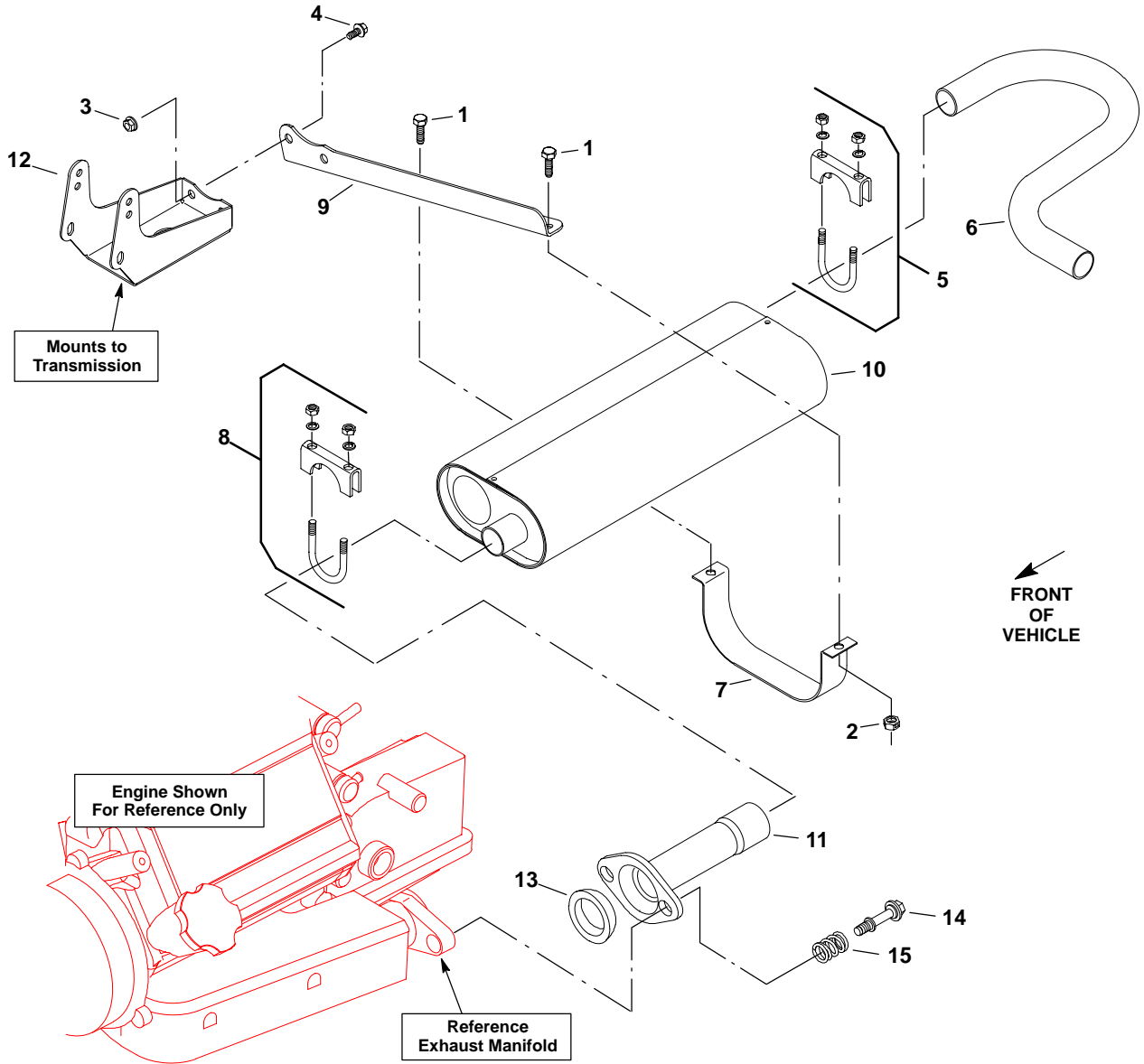


2701379

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	300646	Screw, 1/4-20 x 3/4	2	10	842915	Bracket, air filter	1
2	306396	Lockwasher, 1/4	2	11	842997	Cap, 7/64 i.d. x 3x4	1
3	308090	Washer, 1/4	2	12	893182	Filter complete, air	1
4	800934	Screw, M6-1.00 x 16 (8.8)	2	13	840352	•Element, air cleaner	1
5	450453	Nut, M8-1.25 (G10.9)	2	14	888549	Connector, hose (air cleaner)	1
6	452389	Screw, M8-1.25 x 25 (G8.8)	2	15	2701393	Hose, air intake	1
7	825358	Clamp, worm-drive	4	16	2700333	Connector, hose 3/8 to 1/2	1
8	834217	Hose, air cleaner	1	17	2701446.7	Bracket, air cleaner	1
9	825358	Clamp, worm-drive	2	18	2702431	Plug	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

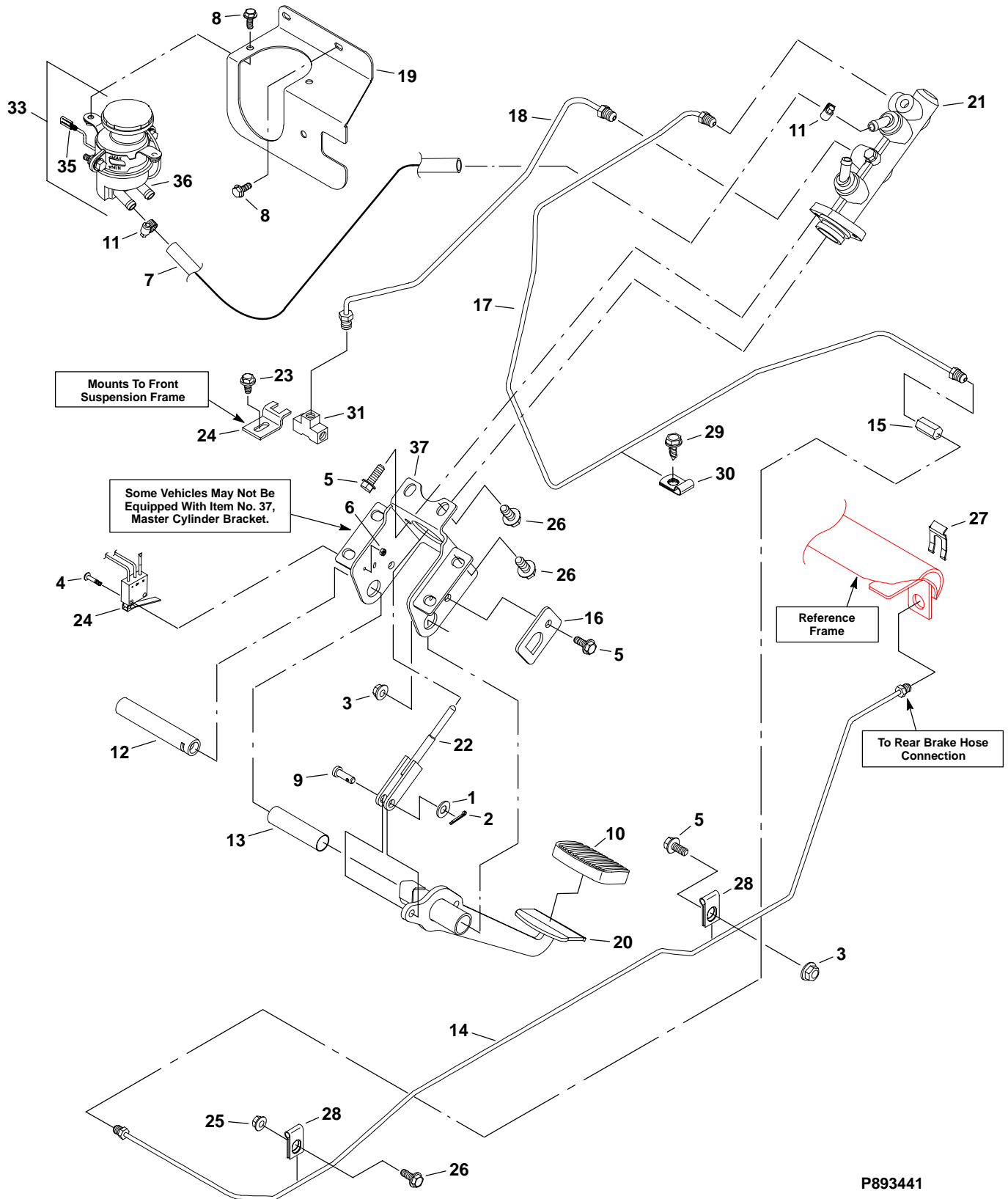
## EXHAUST SYSTEM SUZUKI 660 EFI TURF MODELS 898656, 898657 & 898658



2700049

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	450193	Screw, M8-1.25 x 30	2	9	843968	Support, muffer	1
2	450378	Locknut, M8-1.25 staytite	2	10	893381	Muffer	1
3	450454	Nut, M10-1.50 (G10.9)	2	11	894742.8	Tube, exhaust inlet	1
4	452398	Screw, M10-1.50 x 20 (8.8)	2	12	839946	Bracket, muffer	1
5	813688	Clamp, tubing (1 1/8")	1	13	2702500	Seal ring, muffer	1
6	833188	Tailpipe	1	14	2702502	Bolt, muffer flange	2
7	838295	Strap, muffer hanger	1	15	2702501	Spring, muffer flange	2
8	841982	Clamp, exhaust tube (1 1/2")	1				

# HYDRAULIC BRAKE LINES 4-WHEEL SUZUKI 660 EFI TURF MODELS 898657 & 898658



P893441

**HYDRAULIC BRAKE LINES**  
**4-WHEEL SUZUKI 660 EFI TURF MODELS**  
**898657 & 898658**

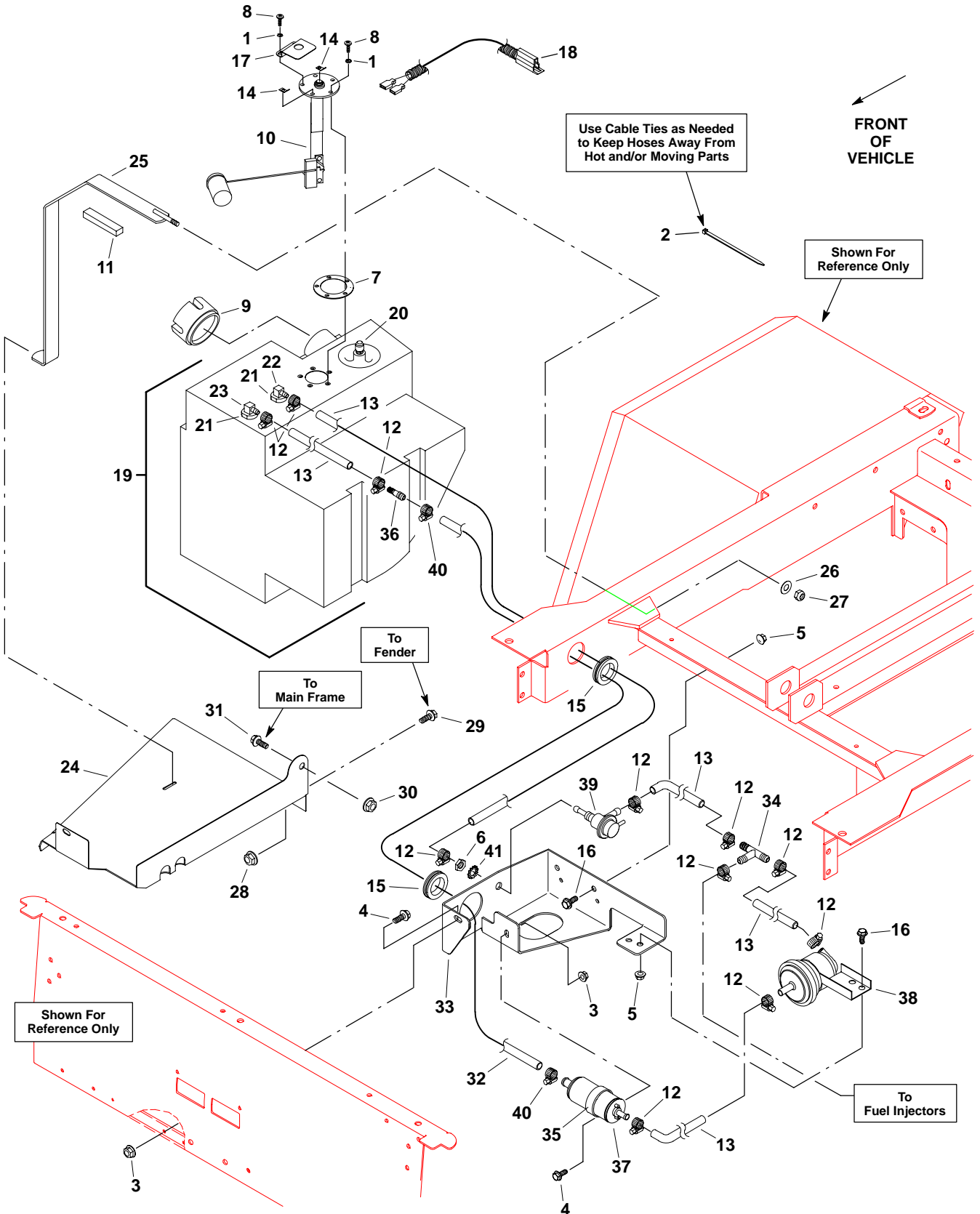
Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	103867	Washer, 5/16	1	20	892921	Lever, brake	1
2	306328	Pin, cotter, 3/32 x 3/4	1	21	895113	Cylinder, brake (dual)	1
3	450453	Nut, M8-1.25 (G10.9)	2	22	894167	Rod, brake	1
4	450510	Screw, M3-.50 x 20 (G10.9)	2	23	452692	Screw, tap M6-1.00 x 12	1
5	452388	Screw, M8-1.25 x 20 (8.8)	4	24	890808	Switch, micro	1
6	452424	Nut, M3-.50	2	25	450454	Nut, M10-1.50 (G10.9)	1
7 ♦	845380	Hose, 5/16" brake	As Req'd.	26	452398	Screw, M10-1.50 x 20 (8.8)	7
8	800934	Screw, M6-1.00 x 16 (8.8)	4	27	809137	Clip	1
9	806714	Pin, clevis 5/16 x 15/16	1	28	810435	Clamp	2
10	810152	Cover, brake pedal	1	29	800943	Screw, tap #10-14 x 5/8	1
11	825624	Clamp, hose	4	30	812445	Clamp, tube/wire	1
12	840725	Pin, brake pivot	1	31	841842	Tee, M10-1.00	1
13	840726	Bearing, brake pivot	1	32	843418	Clamp, tee	1
14	842051	Tube, brake line rear	1	33	894456	Reservoir, brake fluid	1
15	842103	Union, brake fitting (metric)	1	34 *	825886	•Terminal, 1/4 L male	2
16	842935	Tab, locking	1	35	826006	•Connector, 2-contact female	1
17	843022	Tube, rear brake	1	36	2702215	•Reservoir, brake fluid	1
18	843021	Tube, front brake	1	37	2701737.7	Bracket, master cylinder	1
19	844167	Bracket, reservoir mounting	1				

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

♦ The brake hose (Part No. 845380) is serviced as a 6' (1829 mm) length.

\* Not Illustrated.

**FUEL SYSTEM**  
**SUZUKI 660 EFI TURF MODELS**  
 898658 With Serial No's. Up to REV1287  
 and MODELS 898657



2700045, 2701741

**FUEL SYSTEM**  
**SUZUKI 660 EFI TURF MODELS**  
**898658 With Serial No's. Up to REV1287**  
**and MODELS 898657**

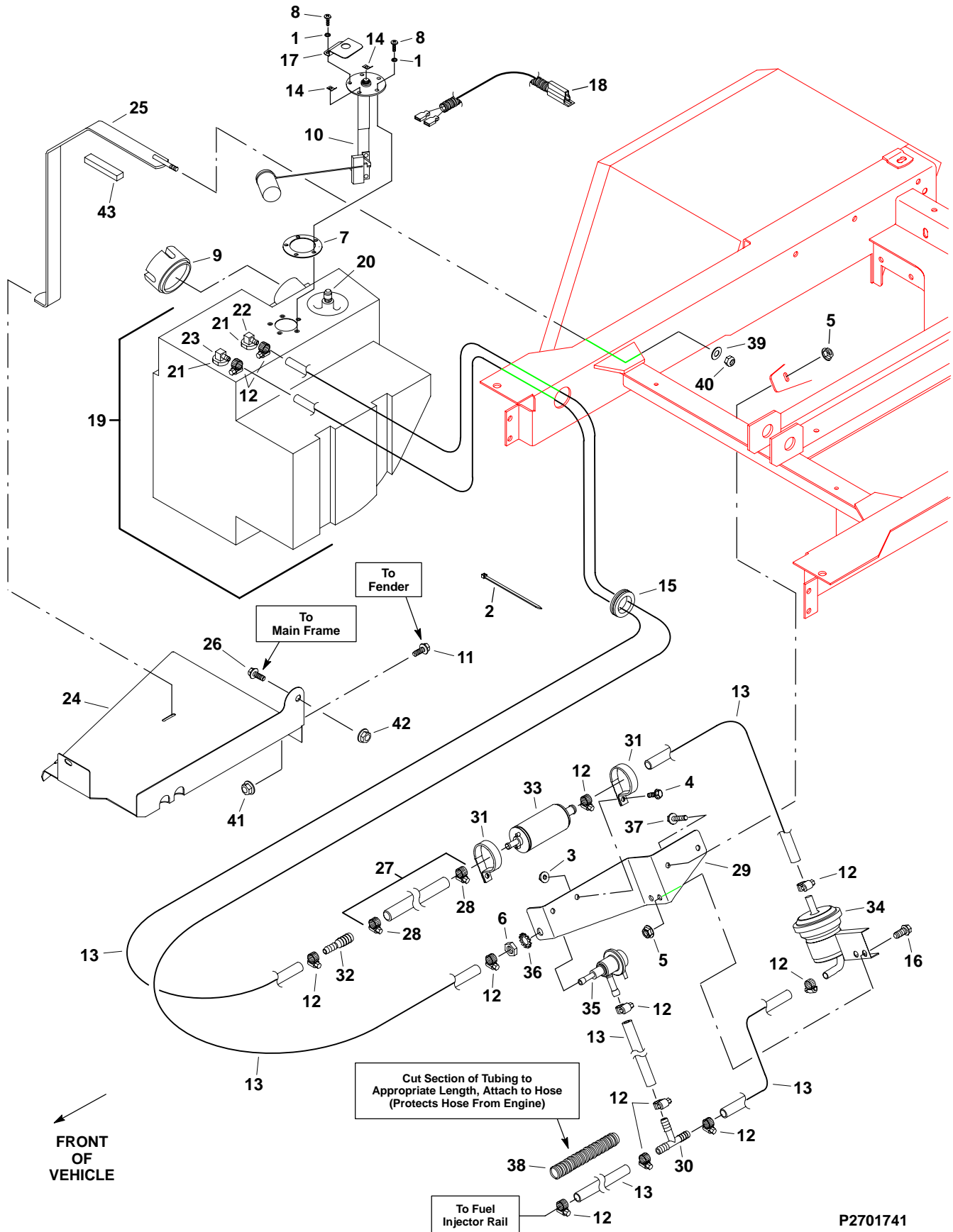
Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	120052	Lockwasher, #10	5	22	843727	•Elbow, 90°	1
2	320107	Tie, cable, 7 1/2" (190.5 mm)	2	23	843726	•Tube, fuel pick-up	1
3	450452	Nut, M6-1.00 (G10.9)	2	24	893527	Support, fuel tank	1
4	452378	Screw, M6-1.00 x 20	2	25	893555	Strap, fuel tank	1
5	450453	Nut, M8-1.25 (10.9)	4	26	103867	Washer, 5/16	1
6	800875	Nut, M12-1.25 (8.8)	1	27	800221	Nut, crownlock, 5/16-24	1
7	829954	Gasket	1	28	450454	Nut, M10-1.50 (10.9)	2
8	800021	Screw, #10-32 x 1/2	5	29	452398	Screw, M10-1.50 x 20 (8.8)	2
9	843343	Cap fuel (unvented)	1	30	548911	Nut, 5/16-18	1
10	843298	Sender, fuel	1	31	800177	Screw, 5/16-18 x 3/4	1
11	833851	Seal, foam	As Req'd.	32▼	888487	Kit, hose	
12	825624	Clamp, hose	11			(7/16 i.d. x 18" hose & clamps)	1
13	826590	Hose, fuel, 5/16 i.d.	As Req'd.	33	2700159.7	Bracket, fuel (hi-p)	1
14	829787	Terminal, 45° 1/4 male	2	34	2700161	Connector, tee (5/16")	1
15	829997	Grommet	1	35	2700166	Clamp, fuel pump (hi-p)	1
16	800930	Screw, M8-1.25 x 16 (8.8)	4	36	2700178	Connector, union (5/16-7/16)	1
17	833953	Cover, fuel sender	1	37	2701897	Pump, fuel (660 efi)	1
18	894201	Harness, fuel tank	1	38	2701898	Filter, fuel (660 efi)	1
19	841969	Tank, fuel	1	39	2701899	Regulator, fuel (660 efi)	1
20	836852	•Breather	1	40	830930	Clamp, hose	2
21	84310	•Grommet	2	41	309067	Washer, star	1

•INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN PRECEDING ASSEMBLY

▼Ref. No. 32 (888487, Hose Kit) is shipped with an 18" length of hose and two clamps.

Cut hose to appropriate length for your particular application.

**FUEL SYSTEM**  
**SUZUKI 660 EFI TURF MODELS 898656**  
**and MODELS 898658 With Serial No's. Beginning With 00002120**



P2701741



**FUEL SYSTEM**  
**SUZUKI 660 EFI TURF MODELS 898656**  
**and MODELS 898658 With Serial No's. Beginning With 00002120**

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	120052	Lockwasher, #10	5	23	843726	•Tube, fuel pick-up	1
2	320107	Tie, cable, 7 1/2" (190.5 mm)	2	24	843078	Support, fuel tank	1
3	450452	Nut, M6-1.00 (G10.9)	2	25	893555	Strap, fuel tank	1
4	452378	Screw, M6-1.00 x 20	2	26	800177	Screw, 5/16-18 x 3/4	1
5	450453	Nut, M8-1.25 (10.9)	4	27 ▼	888487	Kit, hose (7/16 i.d. x 18" hose)	1
6	800875	Nut, M12-1.25 (G8.8)	1	28	830930	•Clamp, hose	2
7	829954	Gasket	1	29	2701693.7	Bracket, fuel (hi-p)	1
8	800021	Screw, #10-32 x 1/2	5	30	2700161	Connector, tee (5/16")	1
9	843343	Cap fuel (unvented)	1	31	2700166	Clamp, fuel pump (hi-p)	2
10	843298	Sender, fuel	1	32	2700178	Connector, union (5/16-7/16)	1
11	452398	Screw, M10-1.50 x 20 (8.8)	2	33	2701897	Pump, fuel (660 efi)	1
12	825624	Clamp, hose	12	34	2701898	Filter, fuel (660 efi)	1
13	826590	Hose, fuel, 5/16 i.d.	As Req'd.	35	2701899	Regulator, fuel (660 efi)	1
14	829787	Terminal, 45° 1/4 male	2	36	309067	Washer, star	1
15	829997	Grommet	1	37	452389	Screw, M8-1.25 x 25 (8.8)	2
16	800930	Screw, M8-1.25 x 16 (8.8)	2	38 ◇	826191	Tubing, convoluted	As Req'd.
17	833953	Cover, fuel sender	1	39	103867	Washer, 5/16	1
18	894201	Harness, fuel tank	1	40	800221	Nut, crownlock 5/16-24	1
19	841969	Tank, fuel	1	41	450454	Nut, M10-1.50 (10.9)	2
20	836852	•Breather	1	42	548911	Nut, 5/16-18	1
21	84310	•Grommet	2	43	833851	Seal, foam	As Req'd.
22	843727	•Elbow, 90°	1				

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN PRECEDING ASSEMBLY

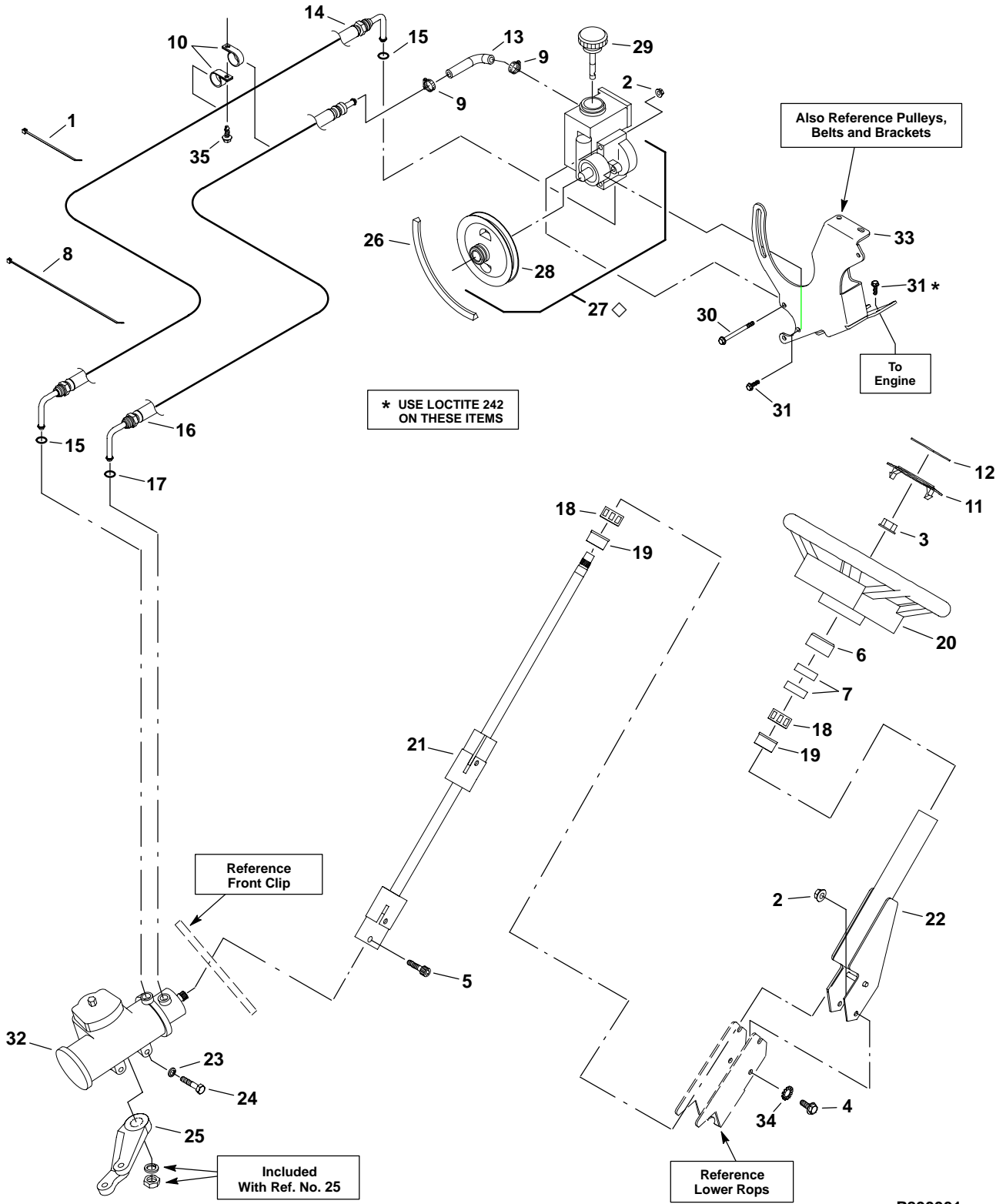
▼ Ref. No. 27 (888487, Hose Kit) is shipped with an 18" length of hose and two clamps.

Cut hose to appropriate length for your particular application.

◇ Ref. No. 38 (826191, convoluted tubing) is shipped in a 25 ft (7.6 M) length.

Cut tubing to appropriate length for your particular application.

**STEERING WHEEL, STEERING SHAFT, CONNECTING HOSES  
POWER STEERING PUMP, AND STEERING GEAR  
SUZUKI 660 TURF MODELS 898657 & 898658**



P893331

**STEERING WHEEL, STEERING SHAFT, CONNECTING HOSES  
POWER STEERING PUMP, AND STEERING GEAR  
SUZUKI 660 TURF MODELS 898657 & 898658**

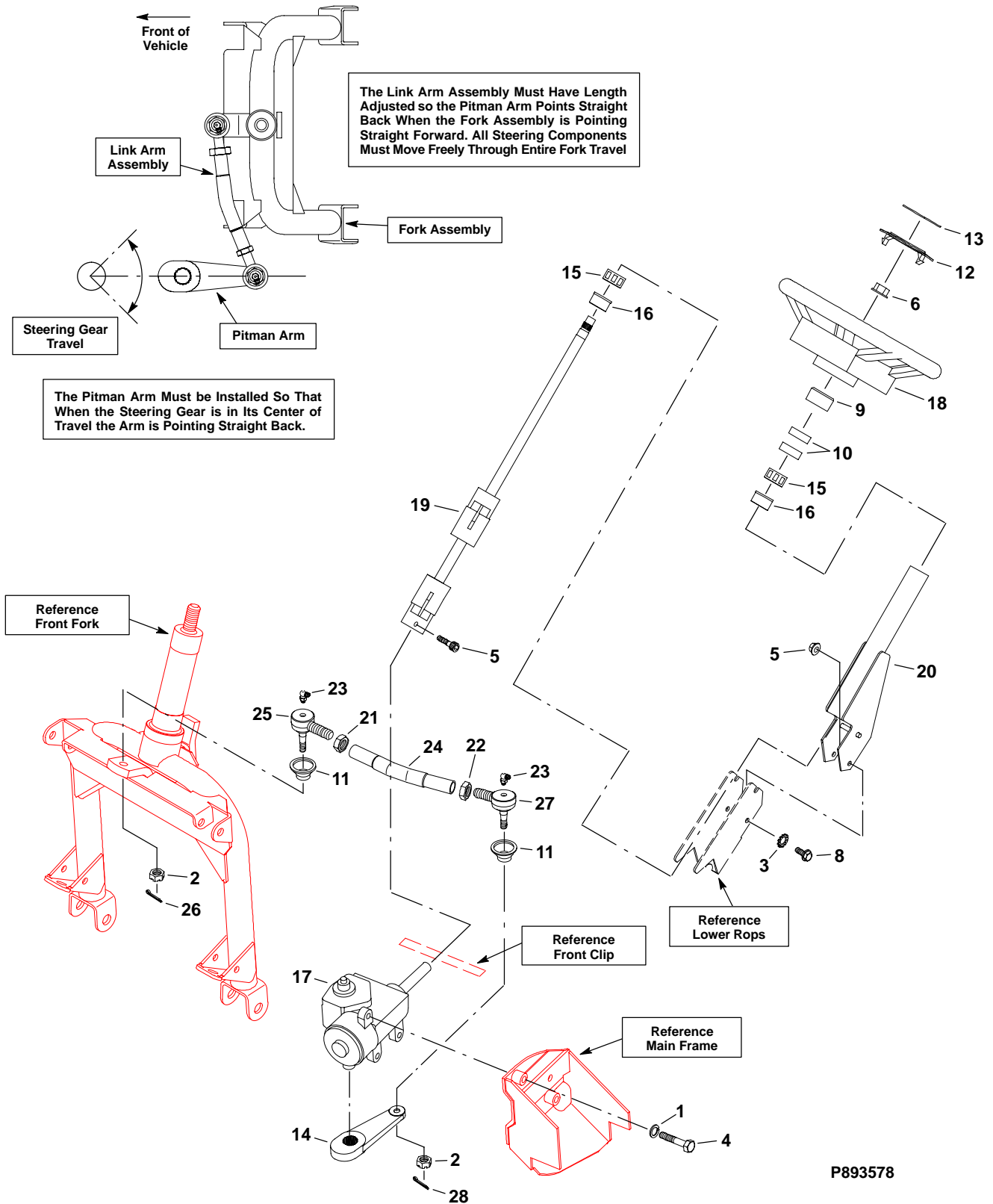
Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	320107	Tie, cable, 7 1/2" (190 mm) . . . . .	3	20	892228	Wheel, steering (w/o horn) . . . . .	1
2	450453	Nut, M8-1.25 (G10.9) . . . . .	4	21	893344	Shaft, steering . . . . .	1
3	450457	Nut, M16-2.00 . . . . .	1	22	893571	Tube, steering mount . . . . .	1
4	800930	Screw, M8-1.25 x 16 (G8.8) . . . . .	2	23	303269	Lockwasher, 7/16 . . . . .	3
5	450739	Screw, M10-1.50 x 30 (G12.9) . . . . .	1	24	311392	Screw, 7/16-14 x 2 . . . . .	3
6	2700453	Cover . . . . .	1	25	841336	Arm, pitman . . . . .	1
7	819923	Collar, foam . . . . .	2	26	2700565	V-belt, 45" (1143 mm) . . . . .	1
8	823549	Tie, cable, 15 1/2" (394 mm) . . . . .	2	27 ◇	892534	Pump, power steering . . . . .	1
9	830930	Clamp . . . . .	2	28	839907	•Pulley, steering pump . . . . .	1
10	809092	Clamp, tube . . . . .	2	29	2700573	•Cap, steering reservoir . . . . .	1
11	892486	Cover, steering wheel center . . . . .	1	30	452394	Screw, M8-1.25 x 70 (8.8) . . . . .	2
12	839862	•Decal, steering wheel . . . . .	1	31	452388	Screw, M8-1.25 x 20 (8.8) . . . . .	4
13	840222	Hose, 3/8 i.d. x 90° elbow . . . . .	1	32 ▼	841255	Gear, power steering . . . . .	1
14	843767	Hose, steering pressure . . . . .	1	33	842988	Bracket, steering pump and alt. mounting (Suzuki 660) . . . . .	1
15	111838	•O'-Ring . . . . .	2	34	306799	Lockwasher, 5/16 external, shakeproof . . . . .	2
16	843768	Hose, steering return . . . . .	1	35	800943	Screw, tap, #10-24 x 5/8 . . . . .	1
17	111838	•O'-Ring . . . . .	1				
18	808060	Bearing, needle . . . . .	2				
19	828590	Housing, bearing . . . . .	2				

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEEDING ASSEMBLY.

◇ Service Parts for the pump are available at automotive centers. Refer to 1991-92 Buick Regal with a 3.8L V6 engine (Saginaw Pump #26025515).

▼ Also see Alternator, Engine Belts, Pulleys and Brackets.

# STEERING WHEEL, STEERING SHAFT AND STEERING GEAR 3-WHEEL SUZUKI 660 EFI TURF MODEL 898656



P893578

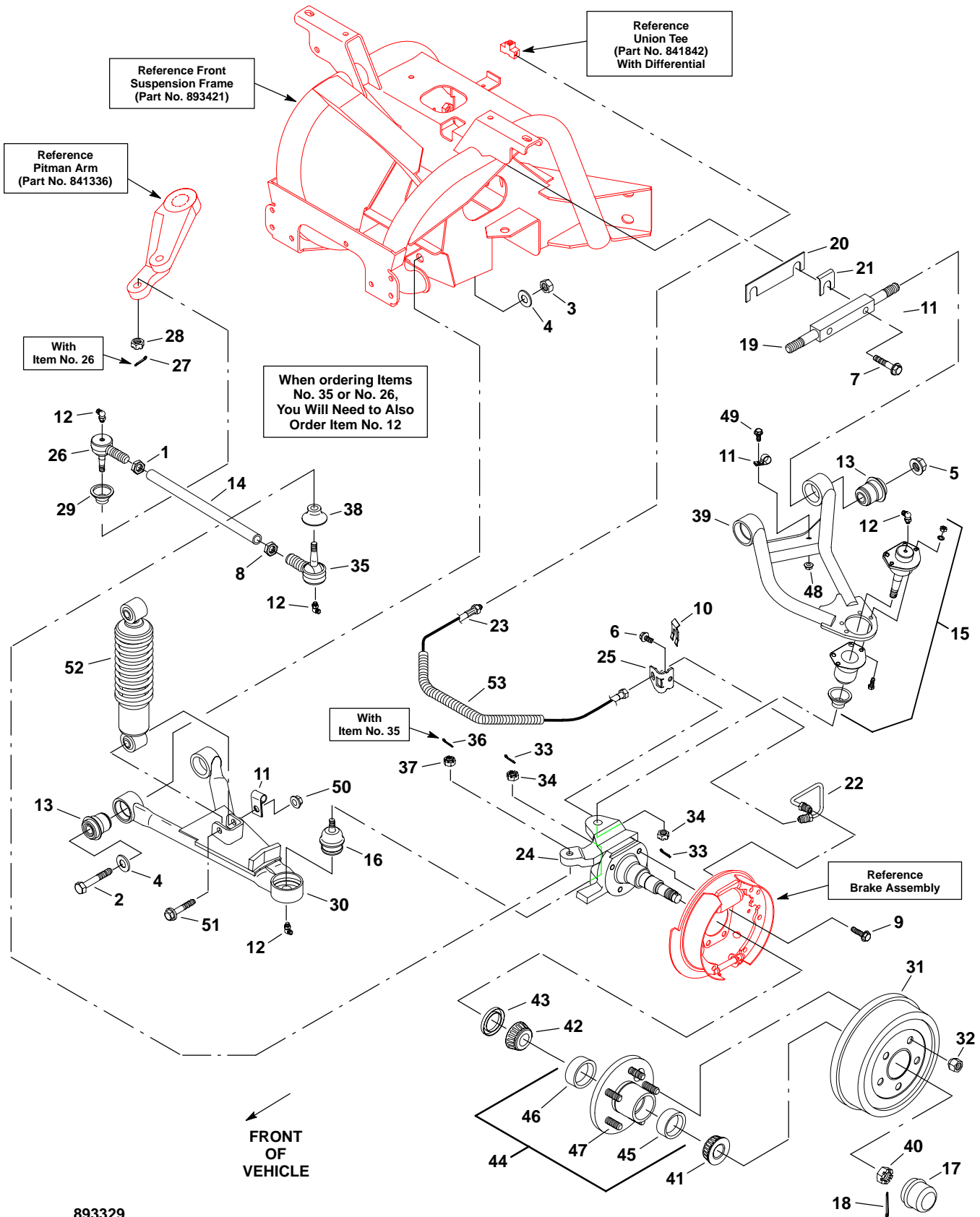
**STEERING WHEEL, STEERING SHAFT AND STEERING GEAR  
3-WHEEL SUZUKI 660 EFI TURF MODEL 898656**

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	303269	Lockwasher, 7/16	3	16	828590	Housing, bearing	2
2	306825	Nut, castle, 7/16-20	2	17	887597	Gear, steering	1
3	306799	Lockwasher, 5/16 ext. shkprf.	2	18	892228	Wheel, steering 14" w/o horn	1
4	311392	Screw, 7/16-14 x 2 (G5)	3	19	893564	Shaft, steering 3-wheel	1
5	450453	Nut, M8-1.25 (10.9)	2	20	893571	Tube, steering mount	1
6	450457	Nut, M16-2.00 (10.9)	1	21	302944	Nut, 9/16-18 jam	1
7	450739	Bolt, M10-1.50 x 30 sckthd (12.9)	1	22	800485	Nut, 9/16-18 jam (LH thread)	1
8	800930	Screw, M8-1.25 x 16 ( 8.8)	2	23	831405	Fitting, grease 90° 1/4-28	2
9	2700453	Cover	1	24	841793	Link, fork	1
10	819923	Collar, foam	2	25	887512	End assembly, tie rod (right)	1
11	816586	Retainer, grease	2	26	306328	•Pin, cotter, 3/32 x 3/4	1
12	892486	Cover, steering wheel center	1	*	548224	•Fitting, lubrication	1
13	839862	•Decal, steering wheel	1	27	887750	End assembly, tie rod (left)	1
14	845225	Arm, pitman	1	28	306328	•Pin, cotter, 3/32 x 3/4	1
15	808060	Bearing, needle	2	*	548224	•Fitting, lubrication	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

\* Not Illustrated. Although this lubrication fitting is the standard fitting that comes with this tie rod, it is **not** used in this application. Use Ref. No. 23, Part No. 831405.

# FRONT SUSPENSION (Left Side) and TIE RODS 4-WHEEL SUZUKI 660 TURF MODELS 898657 & 898658



893329

**FRONT SUSPENSION (Left Side) and TIE RODS  
4-WHEEL SUZUKI 660 TURF MODELS 898657 & 898658**

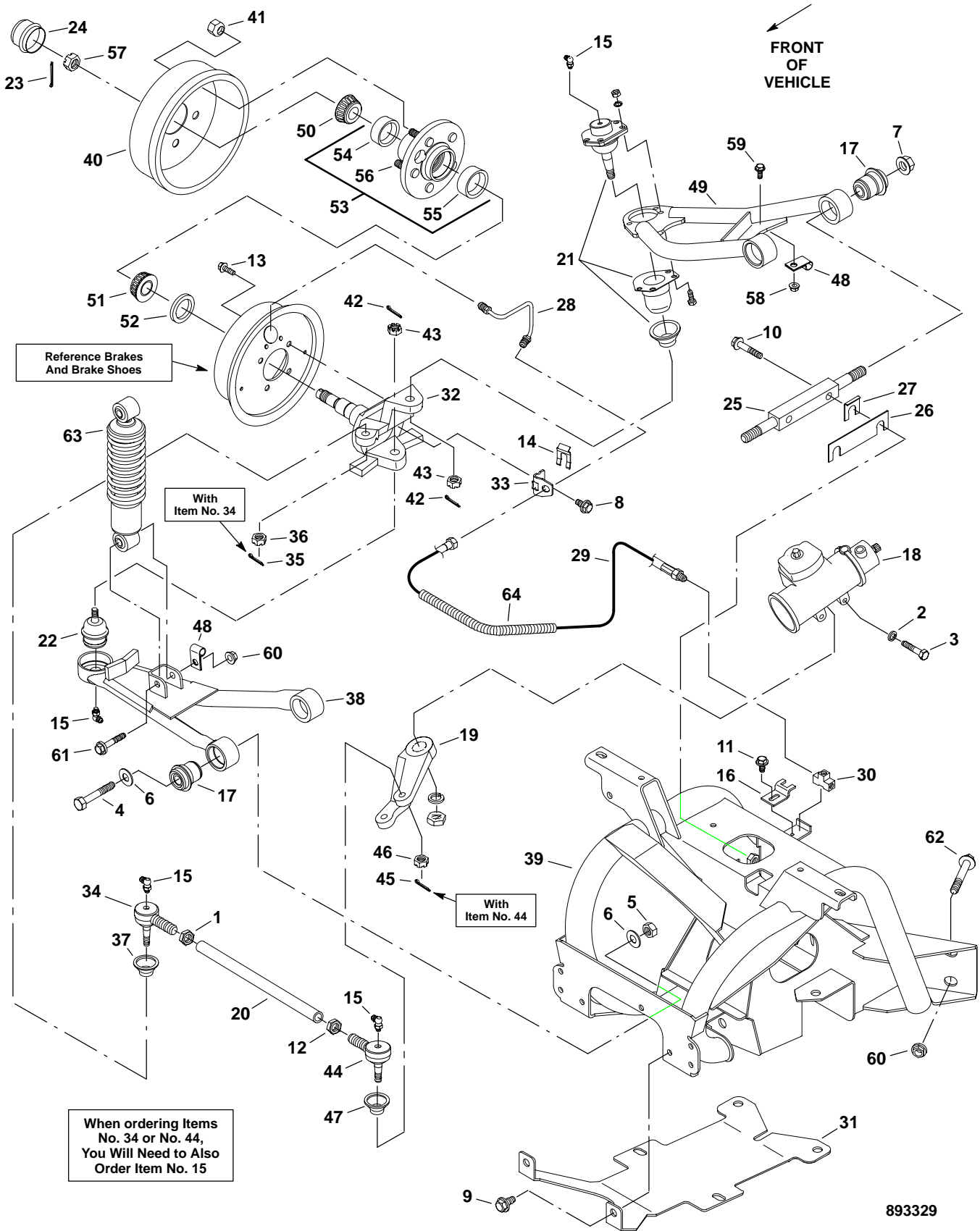
Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	302944	Nut, jam, 9/16-18	1	28	2702247	Nut, castle 3/4-16	1
2	450077	Bolt, M16-2.00 x 90	2	29	816586	Retainer, grease	1
3	450382	Nut, M16-2.00, locking insert	2	30	893233	Arm assembly, lower control	1
4	450393	Washer, M16	4	31	841430	Drum, brake	1
5	450457	Nut, M16-2.00, flange (G10.9)	2	32	800909	Nut, wheel retaining, M12-1.50	5
6	452398	Screw, M10-1.5 x 20 (8.8)	1	33	306328	Pin, cotter, 3/32 x 3/4	2
7	800945	Bolt, M12-1.75 x 60 (G10.9)	2	34	306825	Nut, castle, 7/16-20	2
8	800485	Nut, 9/16-18, left-hand	1	35	887750	End, tie rod (LH thread)	1
9	800919	Bolt, M10-1.5 x 30 (G10.9)	4	36	306328	•Pin, cotter, 3/32 x 3/4	1
10	809137	Clip	1	*	548224	•Fitting, lubrication	1
11	810437	Clamp	4	37	311537	Nut, castle 3/4-16	1
12	831405	Fitting, grease, 1/4-28 (90°)	4	38	816586	Retainer, grease	1
13	841167	Bushing, silentbloc	4	39	893266	Arm assembly, upper control	1
14	841404	Rod, tie	1	40	311537	Nut, castle 3/4-16	1
15	844148	Ball joint, upper	1	41	385174	Bearing, cone (outer)	1
16	841429	Ball joint, lower	1	42	815403	Bearing, cone (inner)	1
17	817250	Cap, grease	1	43	817928	Seal, grease	1
18	304636	Pin, cotter 1/8 x 1 1/8"	1	44	270225.7	Hub assembly	1
19	841630	Trunnion, control arm	1	45	808088	•Cup, bearing (outer)	1
20	841737	Shim, .060"	4	46	814474	•Cup, bearing (inner)	1
21	841738	Shim, .024"	2	47	800908	•Screw, lug M12-1.50 x 42	5
22	2702217	Tube, brake (left)	1	48	450452	Nut, M6-1.00 (G10.9)	1
23	841841	Hose, brake	1	49	452378	Screw, M6-1.00 x 20 (G10.9)	1
24	894573	Knuckle, steering (left)	1	50	450455	Nut, M12-1.75 (G10.9)	4
25	842104	Bracket, brake tube	1	51	452413	Screw, M12-1.75 x 60	4
26	887512	End, tie rod (RH thread)	1	52	894635	Strut ay, (shock & spring)	1
27	306328	•Pin, cotter, 3/32 x 3/4	1	53	2703081	Protector, spring hose	1
*	548224	•Fitting, lubrication	1				

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

\* Not Illustrated. Although this lubrication fitting is the standard fitting used with this tie rod, it is **not** used in this application. Use Ref. No. 12, Part No. 831405.

If ordering Ref. No's. 26 (887512) or 35 (887750) you will also need to order Ref. No. 12 (831405).

# FRONT SUSPENSION (Right Side) TIE RODS, and SKID PLATE 4-WHEEL SUZUKI 660 TURF MODELS 898657 & 898658





**FRONT SUSPENSION (Right Side) TIE RODS, and SKID PLATE  
4-WHEEL SUZUKI 660 TURF MODELS 898657 & 898658**

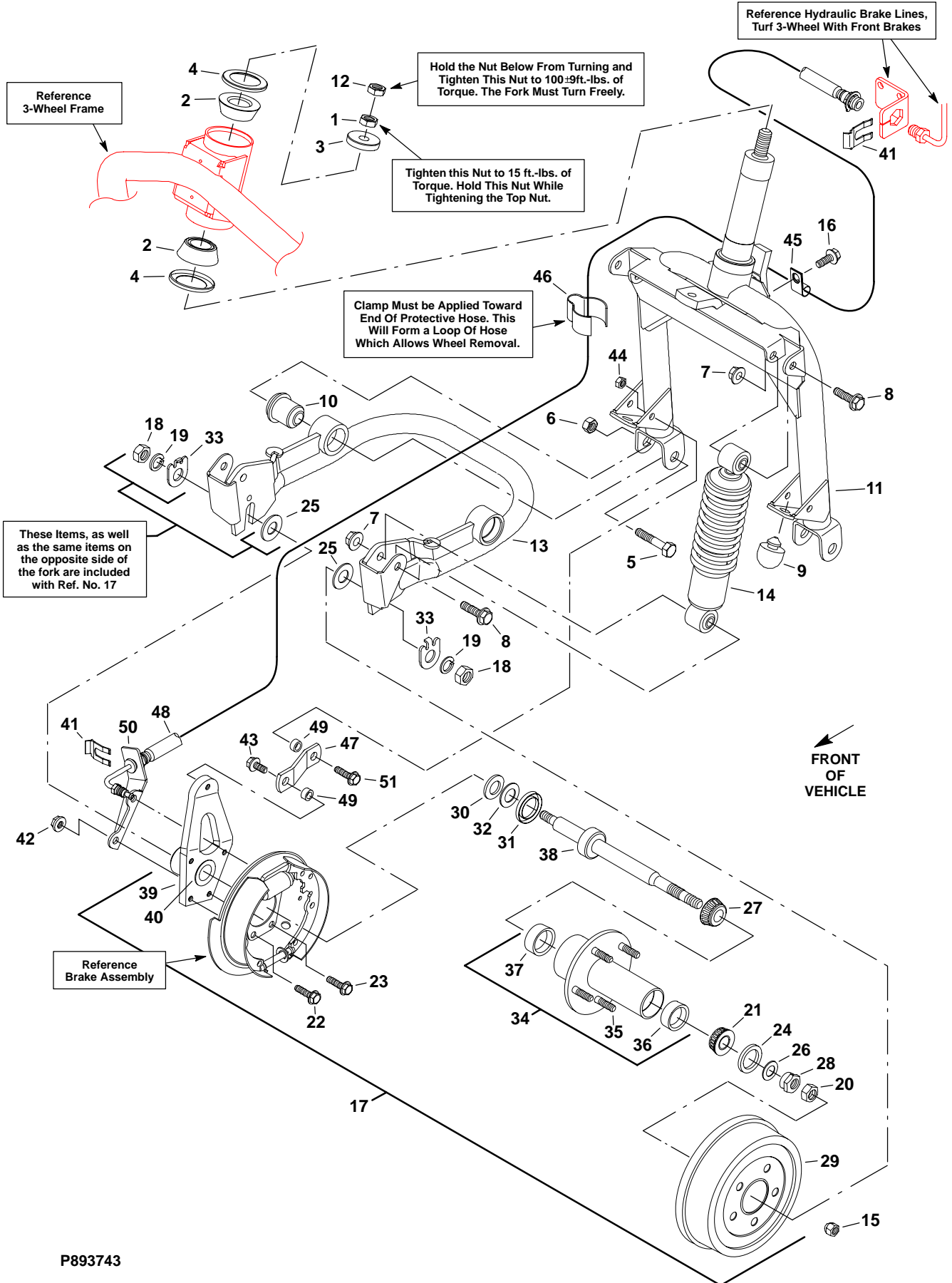
Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	302944	Nut, jam, 9/16-18	1	34	887512	End, tie rod (RH thread)	1
2	303269	Lockwasher, 7/16	3	35	306328	•Pin, cotter, 3/32 x 3/4	1
3	311392	Screw, 7/16-14 x 2	3	*	548224	•Fitting, lubrication	1
4	450077	Bolt, M16-2.00 x 90	2	36	306825	Nut, castle, 7/16-20	1
5	450382	Nut, locking insert M16-2.00	2	37	816586	Retainer, grease	1
6	450393	Washer, M16	4	38	893234	Arm assembly, lower control	1
7	450457	Nut, M16-2.00, flange (G10.9)	2	39	893421	Frame assembly, front	1
8	452398	Screw, M10-1.5 x 20 (G8.8)	1	40	841430	Drum, brake	1
9	452408	Screw, M10-1.75 x 20 (10.9)	6	41	800909	Nut, wheel retaining, M12-1.50	5
10	800945	Bolt, M12-1.75 x 60 (10.9)	2	42	306328	Pin, cotter, 3/32 x 3/4	2
11	452692	Screw, M6-1.00 x 12	1	43	306825	Nut, castle, 7/16-20	2
12	800485	Nut, 9/16-18, left-hand	1	44	887750	End, tie rod (LH thread)	1
13	800919	Bolt, M10-1.5 x 30	4	45	306328	•Pin, cotter, 3/32 x 3/4	1
14	809137	Clip	1	*	548224	•Fitting, lubrication	1
15	831405	Fitting, grease 1/4-28 (90°)	4	46	306825	Nut, castle, 7/16-20	1
16	843418	Clamp, tee	1	47	816586	Retainer, grease	1
17	841167	Bushing, silentbloc	4	48	810437	Clamp	4
18	841255	Gear, power steering	1	49	893266	Arm assembly, upper control	1
19	841336	Arm, pitman	1	50	385174	Bearing, cone (outer)	1
20	841404	Rod, tie	1	51	815403	Bearing, cone (inner)	1
21	844148	Ball joint, upper	1	52	817928	Seal, grease	1
22	841429	Ball joint, lower	1	53	2702257.7	Hub assembly	1
23	304636	Pin, cotter 1/8 x 1 1/8	1	54	808088	•Cup, bearing (outer)	1
24	817250	Cap, grease	1	55	814474	•Cup, bearing (inner)	1
25	841630	Trunnion, control arm	1	56	800908	•Screw, lug M12-1.50 x 42	5
26	841737	Shim, .060"	4	57	311537	Nut, castle 3/4-16	1
27	841738	Shim, .024"	2	58	450452	Nut, M6-1.00, flange (10.9)	1
28	841839	Tube, brake (right)	1	59	452378	Screw, M6-1.00 x 20	1
29	841841	Hose, brake	1	60	450455	Nut, M12-1.75 (10.9)	12
30	841842	Tee, union, M10-1.00 flare	1	61	452413	Screw, M12-1.75 x 60	4
31	842033	Plate, skid	1	62	452415	Screw, M12-1.75 x 80 (8.8)	8
32	894574	Knuckle, steering (right)	1	63	894635	Strut ay. (shock & spring)	2
33	842104	Bracket, brake tube	1	64	2703081	Protector, spring hose	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

\* Not Illustrated. Although this lubrication fitting is the standard fitting used with this tie rod, it is **not** used in this application. Use Ref. No. 15, Part No. 831405.

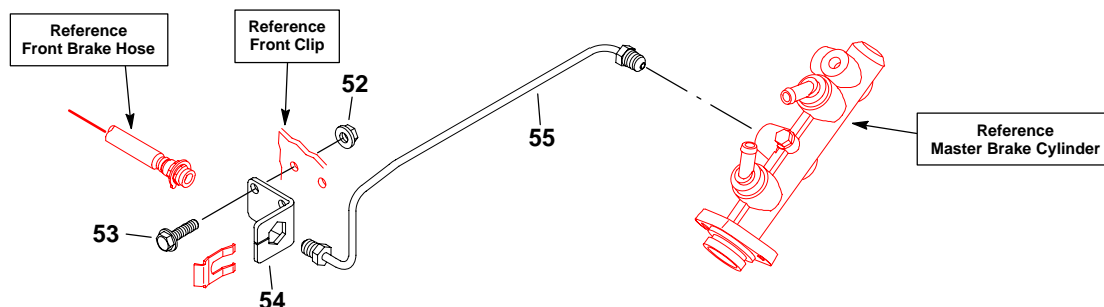
If ordering Ref. No's. 34 (887512) or 44 (887750) you will also need to order Ref. No. 15 (831405).

# FRONT FORK 3-WHEEL SUZUKI 660 EFI TURF MODEL 898656



P893743

## FRONT FORK 3-WHEEL SUZUKI 660 EFI TURF MODEL 898656



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	307665	Nut, 3/4-16 jam	1	30	844129	•Washer, oilite 1 x 1.5 x .125	1
2	842646	Cone, bearing	2	31	844197	•Seal, oil 1.5 id. x 2.5 od.	1
3	844180	Retainer, spindle bearing	1	32	844433	•Spring, thrust	1
4	844190	Seal, oil	2	33	844508	•Washer, keeper	2
5	450075	Bolt, M16-2.00 x 80	2	34	2702258	•Hub, complete (3-wheel)	1
6	450382	Nut, M16-2.00 locking insert	2	35	800908	••Bolt, lug M12-1.50 x 42	5
7	450455	Nut, M12-1.75 (G10.9)	4	36	808088	••Cup, tapered roller bearing 1.78 od. .48T	1
8	452413	Bolt, M12-1.75 x 60	4	37	827069	••Cup, tapered roller bearing 2.44 od. .56T	1
9	813850	Bumper, rubber	2	38	894537	•Axle, complete	1
10	841167	Bushing, silentbloc	2	39	894539	•Arm, complete, brake	1
11	894549	Fork assembly	1	40	844128	••Bushing, oilite	1
12	307665	•Nut, 3/4-16 jam	1	41	809137	Clip	2
13	894550	Yoke assembly	1	42	450454	Nut, M10-1.50 (10.9)	2
14	894636	Strut and shock, complete	2	43	452398	Screw, M10-1.50 x 20	1
15	800909	Nut, wheel mount	5	44	450379	Nut, staytite, M10-1.50	1
16	112050	Screw, 1/4-20 x 5/8 (G5)	1	45	814924	Clamp	1
17	894538	Axle, hub & brake assembly	1	46	825477	Clip	1
18	304104	•Nut, 5/8-18	2	47	841760	Link, brake anchor	1
19	306494	•Lockwashr, 5/8	2	48	2702216	Hose, front brake	1
20	307665	•Nut, 3/4-16	1	49	844486	Bushing	2
21	385174	•Cone, tapered bearing	1	50	844642	Bracket, brake hose support	1
22	452398	•Screw, M10-1.50 x 20 (G8.8)	2	51	452399	Screw, M10-1.50 x 25 (8.8)	1
23	452400	•Bolt, M10-1.50 x 30 (8.8)	2	52	450453	Nut, M8-1.25	2
24	807630	•Seal, oil	1	53	452390	Screw, M8-1.25 x 30 (8.8)	2
25	809156	•Washer, 5/8 x 1.38 dia.	2	54	845378	Bracket, hose support	1
26	809229	•Washer, 3/4 x 1.6 dia.	1	55	845391	Tube, brake line (3-wheel front)	1
27	827068	•Cone, tapered bearing	1				
28	836719	•Nut, bearing adjustment	1				
29	841430	•Drum, brake	1				

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

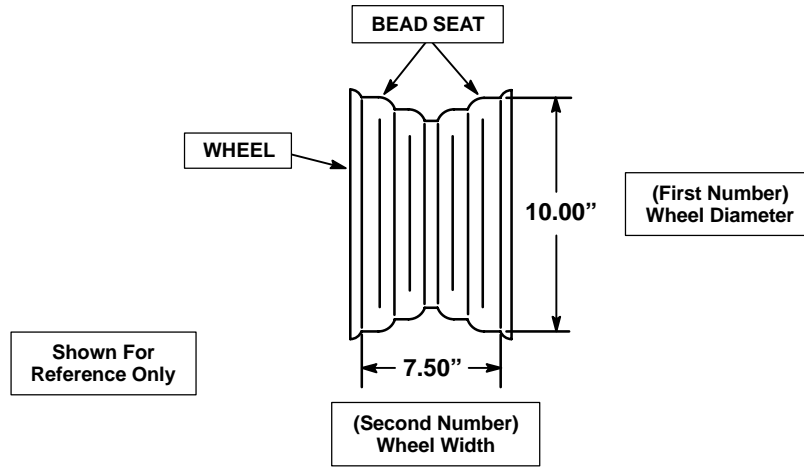
## WHEEL SIZE MEASUREMENT

*Wheel size* is determined by measuring the wheel at the bead seat.

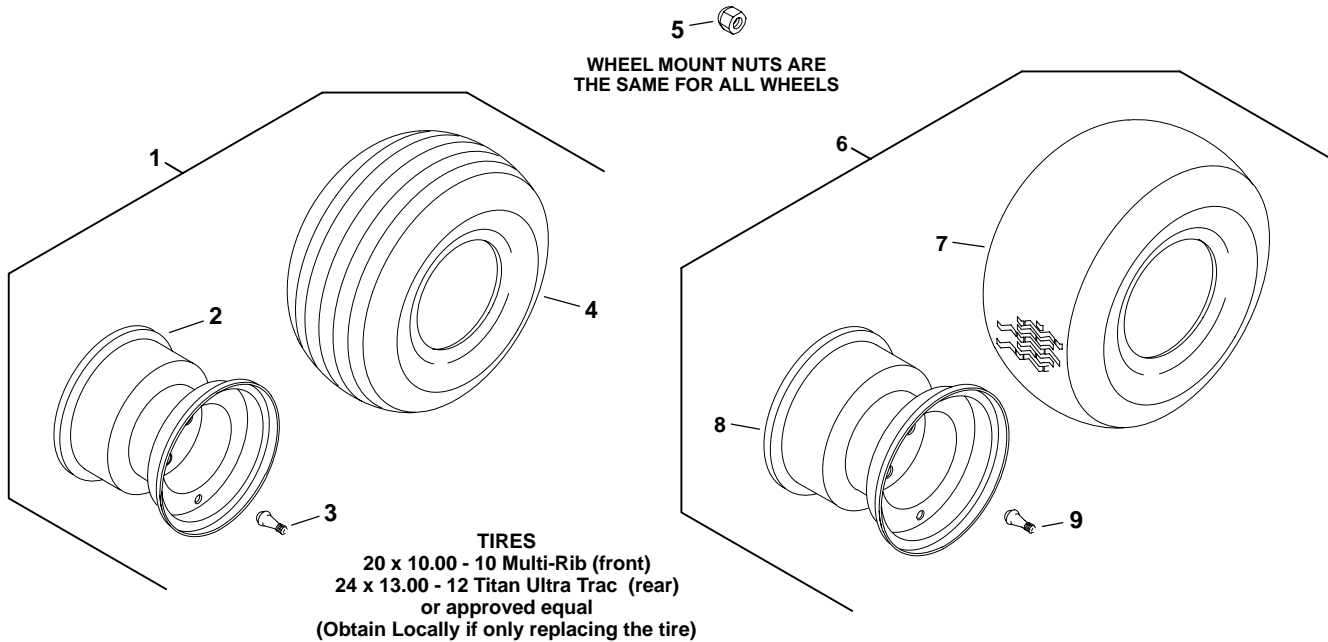
The **first number** is the **wheel diameter** measured at the bead seat.

The **second number** is the **wheel width** measured at the bead seat.

The illustration below shows an **example** of how to measure the wheel to determine tire size.



## FRONT and REAR TIRES FOR TURF MODELS



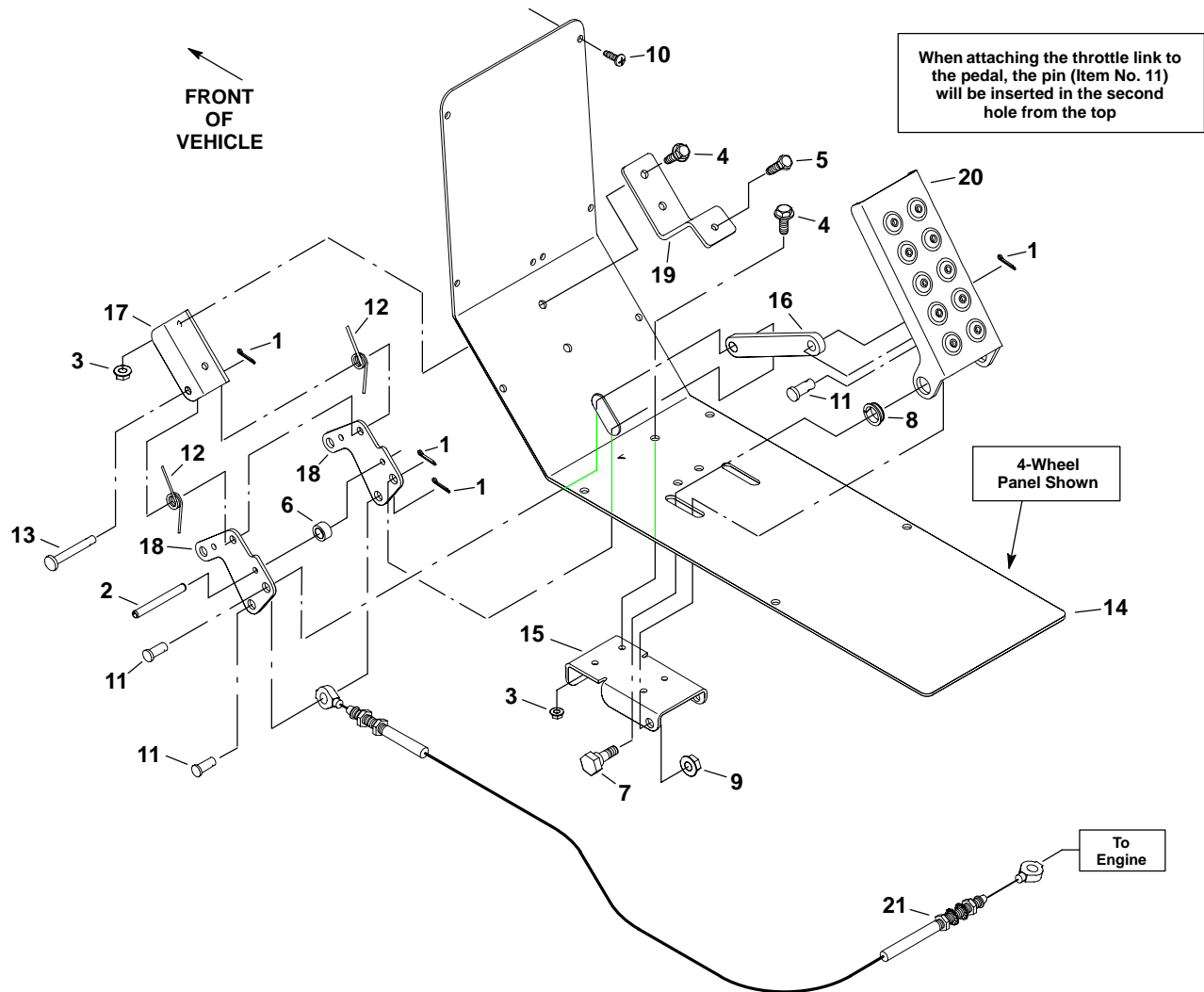
P894262

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	894763	Tire and wheel (front) 4-wheel . . .	2	6	894762	Tire and wheel (rear) . . . . .	2
2	841433	•Wheel, 10.00 x 7.50, five bolt . .	1	7	◇◇	•Tire, 24 x 13.00 - 12, Titan ultra trac or approved equal (rear) . . . . .	1
3	886735	•Stem, valve . . . . .	1	8	841434	•Wheel, 12.00 x 10.50 . . . . .	1
4	◇◇	•Tire, 20 x 10.00 - 10, multi-rib . .	1	9	886735	•Stem, valve . . . . .	1
5	800909	Nut, wheel mount . . . . .	20				

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN PRECEDING ASSEMBLY

◇◇ Obtain locally

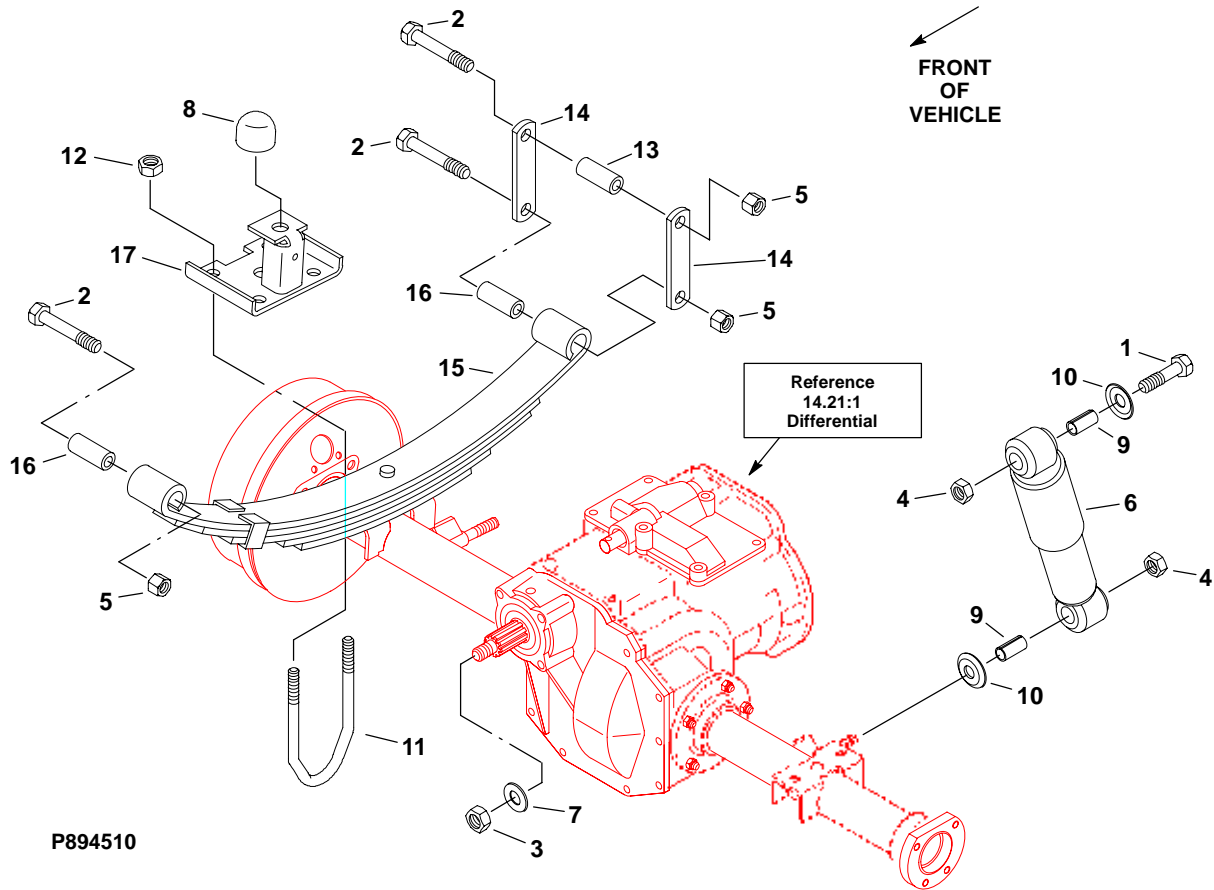
## FOOT THROTTLE AND LINKAGE SUZUKI 660 EFI TURF MODELS 898656, 898657 & 898658



P893675, P895114, P894659

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	306328	Pin, cotter, 3/32 x 3/4	4	12	844223	Spring, torsion	2
2	844224	Pin, roll 3/16 x 1 3/4"	2	13	830784	Pin, clevis, 1/4 x 1 7/8	1
3	450452	Nut, M6-1.00 (G10.9)	6	14	841663	Panel, floor access (4-wheel)	1
4	452378	Screw, M6-1.00 x 20	6	(14)	844445	Panel, floor access (3-wheel)	1
5	452695	Screw, M6-1.00 x 20, taptite	1	15	843360	Channel, mount	1
6	515268	Bushing	2	16	843561	Link, throttle	1
7	524633	Screw, shoulder 5/16-18 x 1	2	17	843562	Mount, channel	1
8	524643	Bearing, split	2	18	843563	Plate, pivot	2
9	548911	Nut, 5/16-18	2	19	843997	Bracket, stop	1
10	800943	Screw, tap, #10-14 x 5/8	10	20	894159	Pedal, throttle	1
11	806714	Pin, clevis, 5/16 x 3/4	3	21	895119	Cable, throttle (Suzuki Models)	1

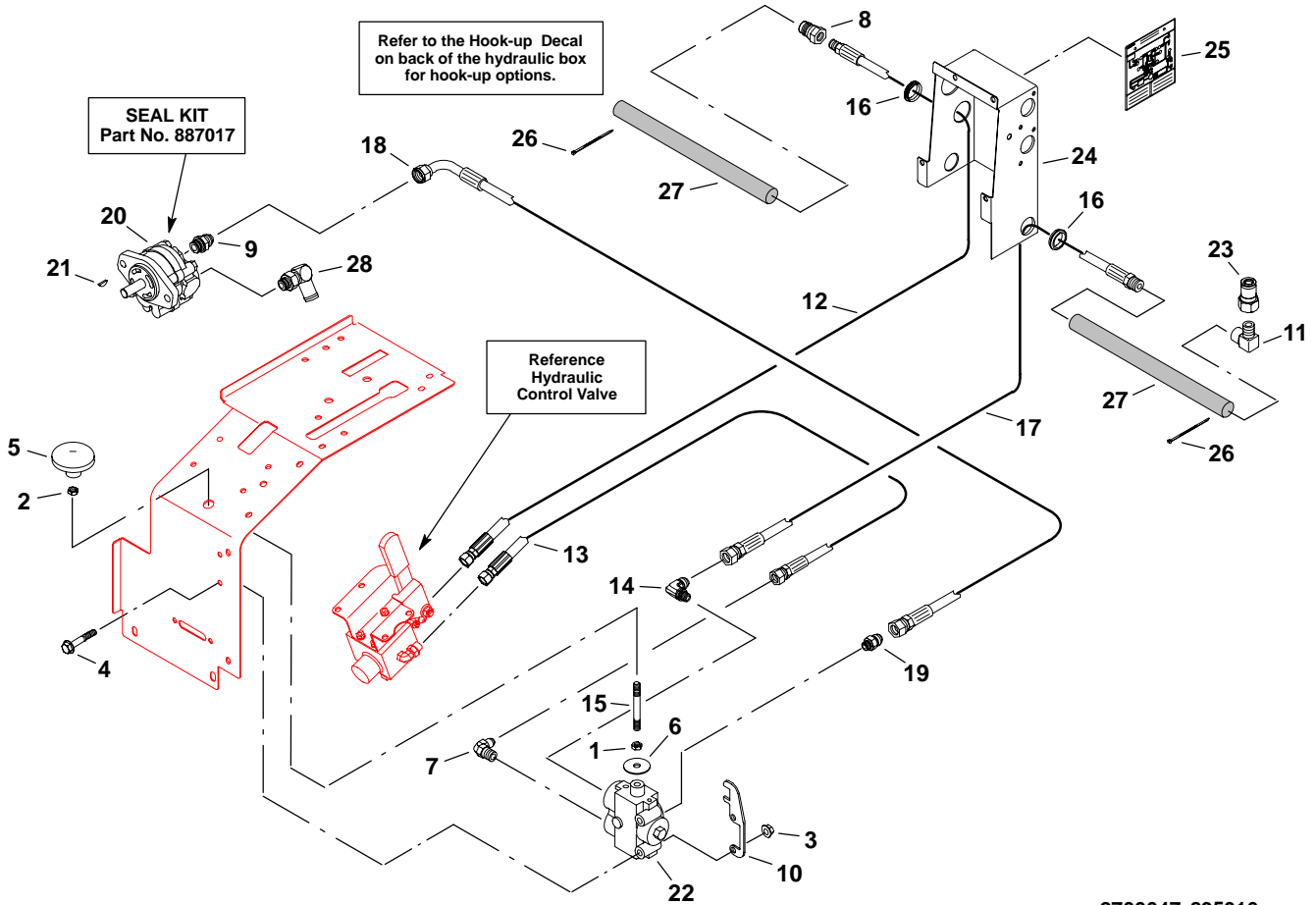
**REAR SPRING, SHACKLES, U-BOLTS  
and REAR SHOCK ABSORBERS  
SUZUKI 660 EFI TURF MODELS 898656, 898657 & 898658**



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	311396	Screw, 7/16-14 x 2 1/4	2	10	825500	Washer, 3/8	4
2	311398	Screw, 1/2-13 x 3 1/2	6	11	887187	U-bolt, 2"	4
3	800198	Nut, 1/2-20 crownlock	1	12	548061	•Nut, 7/16-20 unitorq	2
4	800294	Nut, 7/16-14 crownlock	4	13	843238	Bushing, nylatron	2
5	800602	Nut, 1/2-13	6	14	843876	Shackle, rear spring	4
6	807332	Shock absorber	2	15	893862	Spring, leaf	2
7	809180	Washer, 7/16	1	16	843238	•Bushing, nylatron	2
8	813850	Bumper, rubber	2	17	893613	Upstop	2
9	823621	Bushing	4				

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

# HYDRAULIC CONTROL VALVE SYSTEM



2700047, 895016

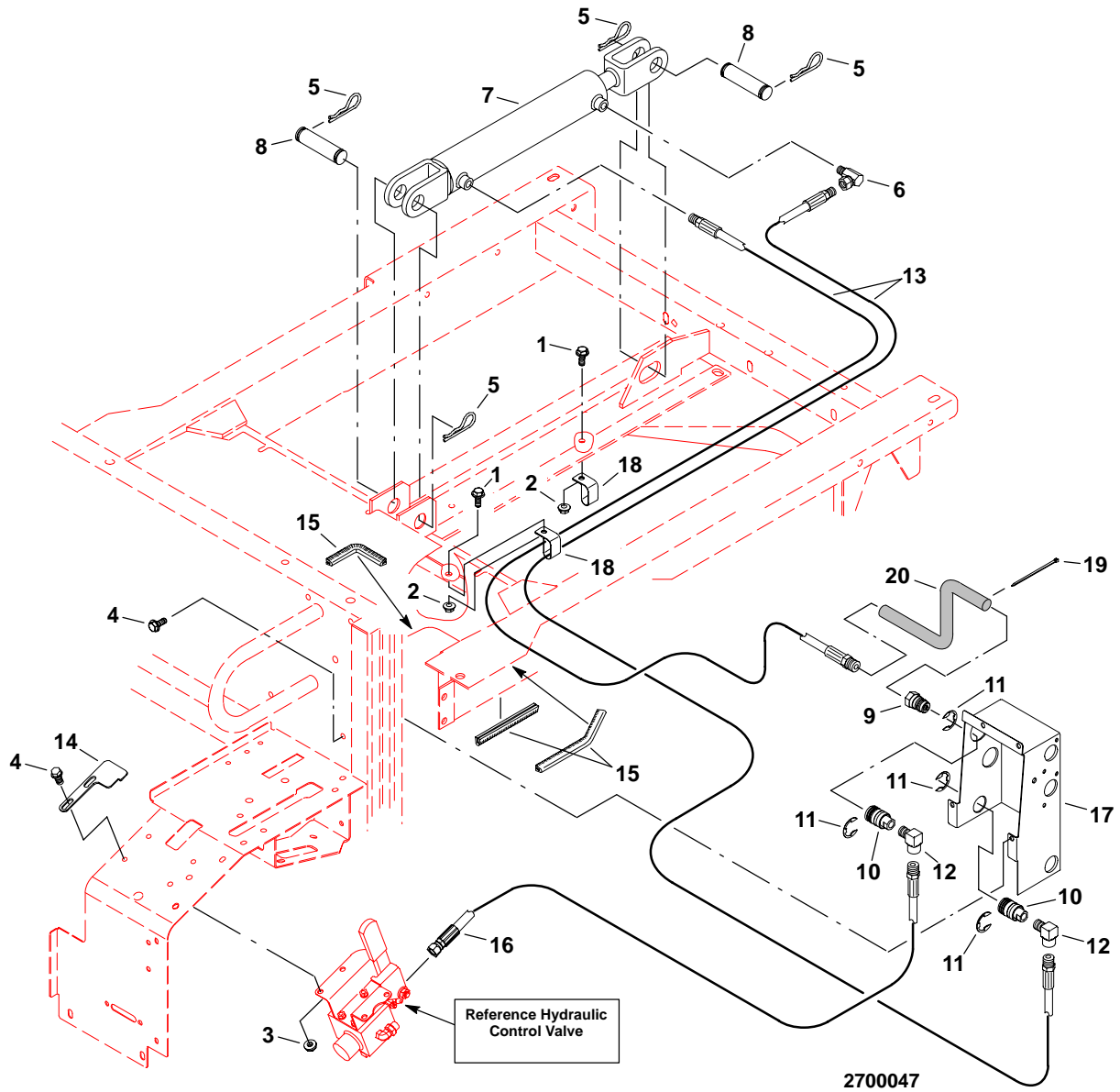
Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	304632	Nut, jam 3/8-16	1	16	844584	Bushing, flip-lok	2
2	306388	Nut, jam 3/8-24	1	17	844600	Hose, hydraulic, .5 x 39" (991 mm) 8FJIC-.37MNPT	1
3	450453	Nut, M8-1.25 (G10.9)	2	18	2701291	Hose, hydraulic, .37 x 24" (610 mm) 8FJIC-8FJIC90	1
4	452392	Screw, M8-1.25 x 50 (G8.8)	2	19	844652	Adapter, straight	1
5	548171	Knob	1	20♦	888042	Pump, hydraulic	1
6	822419	Washer, flat (1.62 dia.)	1	21	306560	•Key, woodruff #5	1
7	826558	Elbow, 90° w/o-ring	1	*	887017	Kit, seal, hydraulic pump	1
8	832408	Coupler, half (male)	1	22	894696	Valve, hydraulic selector	1
9♦	844566	Fitting, hydraulic	1	23	894702	Nipple, hydraulic, dry seal	1
10	832798	Plate, stop	1	24	2700800	Cover, hydraulics (w/decals)	1
11	835101	Fitting, hydraulic 90°	1	25	837270	•Decal, hydraulic connections	1
12	841892	Hose, hydraulic, .25 x 42" (1067 mm) .44FJIC-.37MNPT	1	26	320107	Tie, cable 7 1/2" (190 mm)	2
13	844019	Hose, hydraulic, 3/8 x 17" (432 mm) 9/19-18 UNF 2B JIC, 37° flare	2	27	840877	Sleeve, nylon	2
14	844571	Adapter, 90° elbow	1	28♦	844583	Fitting, 90° adapter	1
15	844582	Rod, handle extension	1				

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

\* Not Illustrated.

♦ Although Ref. No. 20 (hydraulic pump, Part No. 888042) is shipped with two hydraulic fittings, these fittings **are not** used in this application. When ordering Ref. No. 20 you will also need to order hydraulic fittings Ref. No's 9 & 28. These fittings are the correct fittings to use in this application.

# HYDRAULIC LIFT SYSTEM

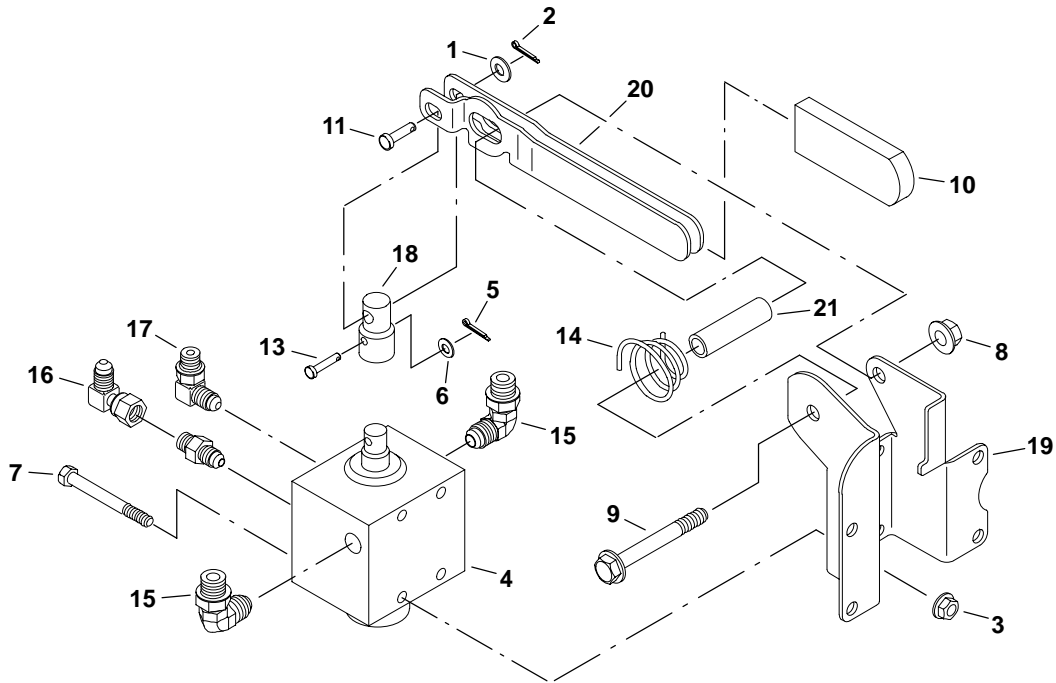


Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	452378	Screw, M6-1.00 x 20	2	13	832900	Hose, hydraulic, 1/4 x 38" (955 mm) .25MNPT-.37MNPT	2
2	450452	Nut, M6-1.00 (G10.9)	2	14	844051	Plate, float latch	1
3	450453	Nut, M8-1.25 (10.9)	4	15	821893	Trim, push-on	As Req'd.
4	800930	Screw, M8-1.25 x 16 (G8.8)	8	16	844598	Hose, hydraulic, 1/4 x 30" (762 mm) 4FJIC-6MNPT	1
5	809265	Pin, hair	4	17	2700800	Cover, hydraulics (w/decals)	1
6	823119	Adapter, 90°	1	*	837270	Decal, hydraulic connections	1
7	882993	Cylinder, lift	1	18	817320	Clamp, hose	2
8	830810	Pin, clevis	2	19	320107	Tie, cable 7 1/2" (190 mm)	2
9	832408	Coupler half, male	1	20	840877	Sleeve, nylon	1
10	832409	Coupler half, female	2				
11	832414	Ring, retaining	4				
12	835101	Fitting, hydraulic 90°	2				

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.  
\* Not Illustrated.



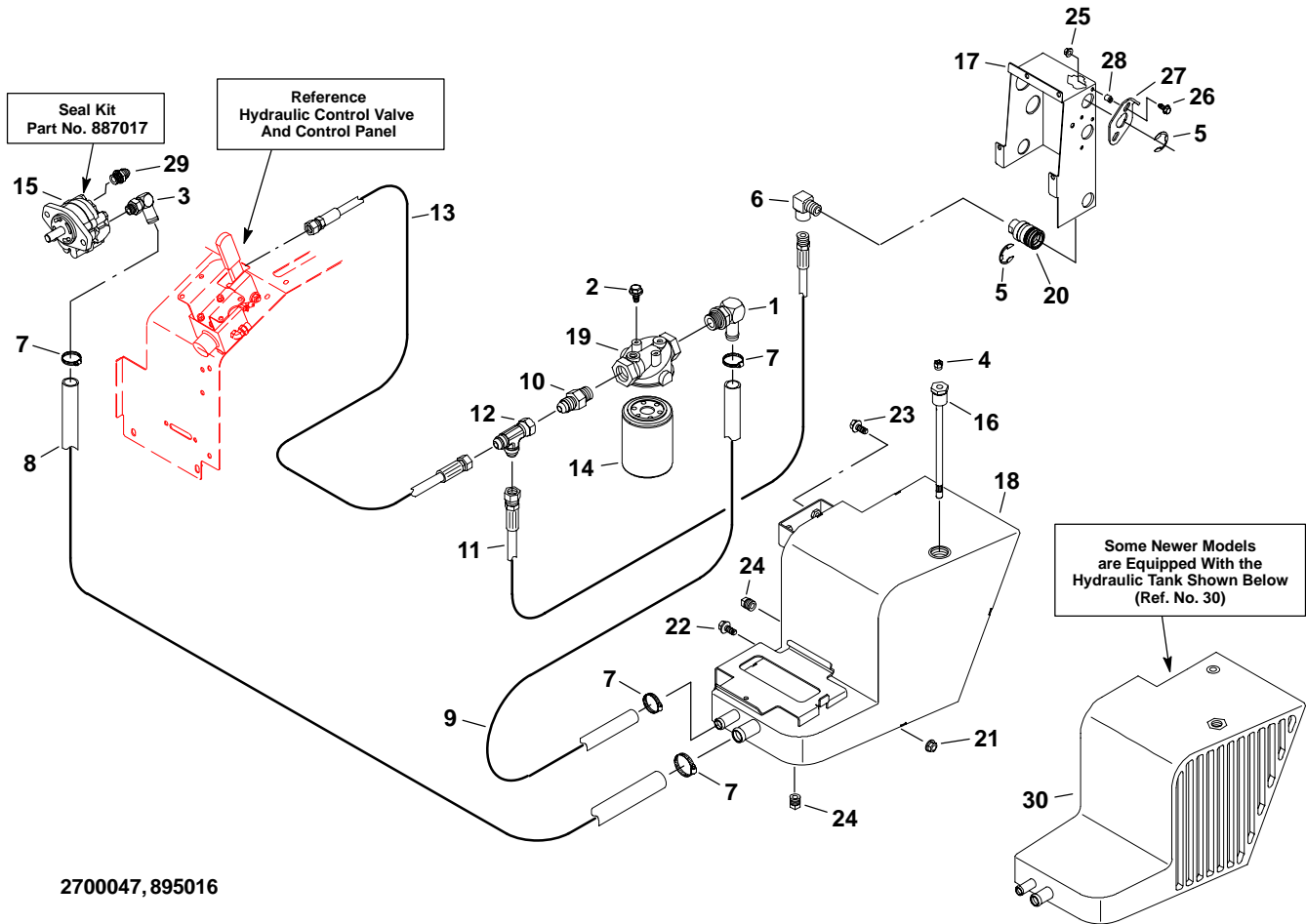
## HYDRAULIC CONTROL VALVE



894233

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	103867	Washer, 5/16	1	12	823118	Fitting, hydraulic straight	1
2	306328	Pin, cotter 3/32 x 3/4	1	13	823225	Pin, clevis 3/16 x 1	1
3	548910	Nut, flange, 1/4-20	4	14	825538	Spring, compression	1
4	886270	Valve, hydraulic	1	15	844454	Elbow, 90° w/o-ring	2
5	306463	Pin, cotter 1/16 x 1/2	1	16	828056	Fitting	1
6	308089	Washer, #10	1	17	828057	Fitting	1
7	316907	Screw, 1/4-20 x 2 3/4	4	18	839213	Connector, valve	1
8	450454	Nut, M10-1.50 (G10.9)	1	19	843355	Mount, control valve	1
9	452404	Screw, M10-1.50 x 70 (8.8)	1	20	843758	Handle, control valve	1
10	521144	Cover, handle	1	21	843759	Bushing, control valve	1
11	814079	Pin, clevis 5/16 x 1 1/8	1				

## HYDRAULIC FILTER AND RESERVOIR



2700047, 895016

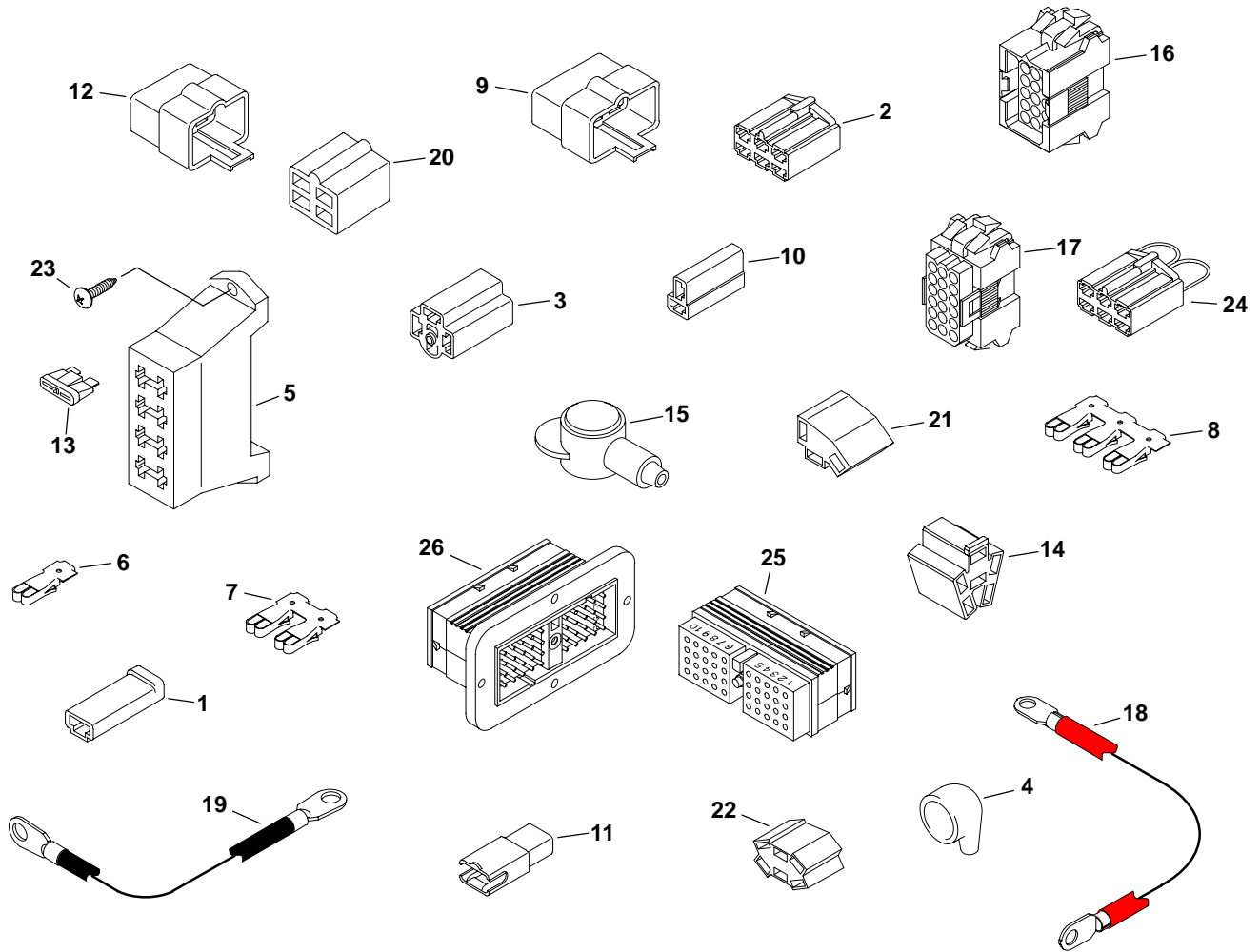
Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	523768	Adapter, 90° elbow	1	*	887017	Kit, seal, hydraulic pump	1
2	548827	Screw, 1/4-20 x 1/2	2	16	893539	Dipstick, hydraulic tank	1
3	844583	Fitting, 90° adapter	1	17	2700800	Cover, hydraulics (w/decals)	1
4	827486	Valve, pressure relief	1	*	837270	Decal, hydraulic connections	1
5	832414	Ring, retaining	2	18	894675	Tank, hydraulic	1
6	835101	Fitting, hydraulic 90°	1	19	894691	Head, filter	1
7	836206	Clamp, hose	4	20	894701	Coupler, hydraulic dryseal	1
8	844564	Hose, hydraulic, 1 x 26"	1	21	450453	Nut, M8-1.25 (G10.9)	2
9	844565	Hose, hydraulic, 3/4 x 16"	1	22	452388	Screw, M8-1.25 x 20 (G8.8)	2
10	844590	Adapter, straight	1	23	452399	Screw, M10-1.50 x 25 (8.8)	2
11	844600	Hose, hydraulic, 1/2 x 39 (990 mm) 8FJIC-.37MNPT	1	24	800113	Plug	2
12	844627	Fitting, swivel tee	1	25	450452	Nut, M6-1.00 (10.9)	2
13	844630	Hose, hydraulic, 3/8 x 21 (533 mm) 6FJIC-8FJIC	1	26	452380	Screw, M6-1.00 x 30 (8.8)	2
14	885249	Element, filter	1	27	844937	Plate, coupler retainer	1
15	888042	Pump, hydraulic	1	28	844973	Bushing	1
				29	844566	Fitting, hydraulic	1
				30	2700273	Tank, hydraulic	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

\* Not Illustrated.

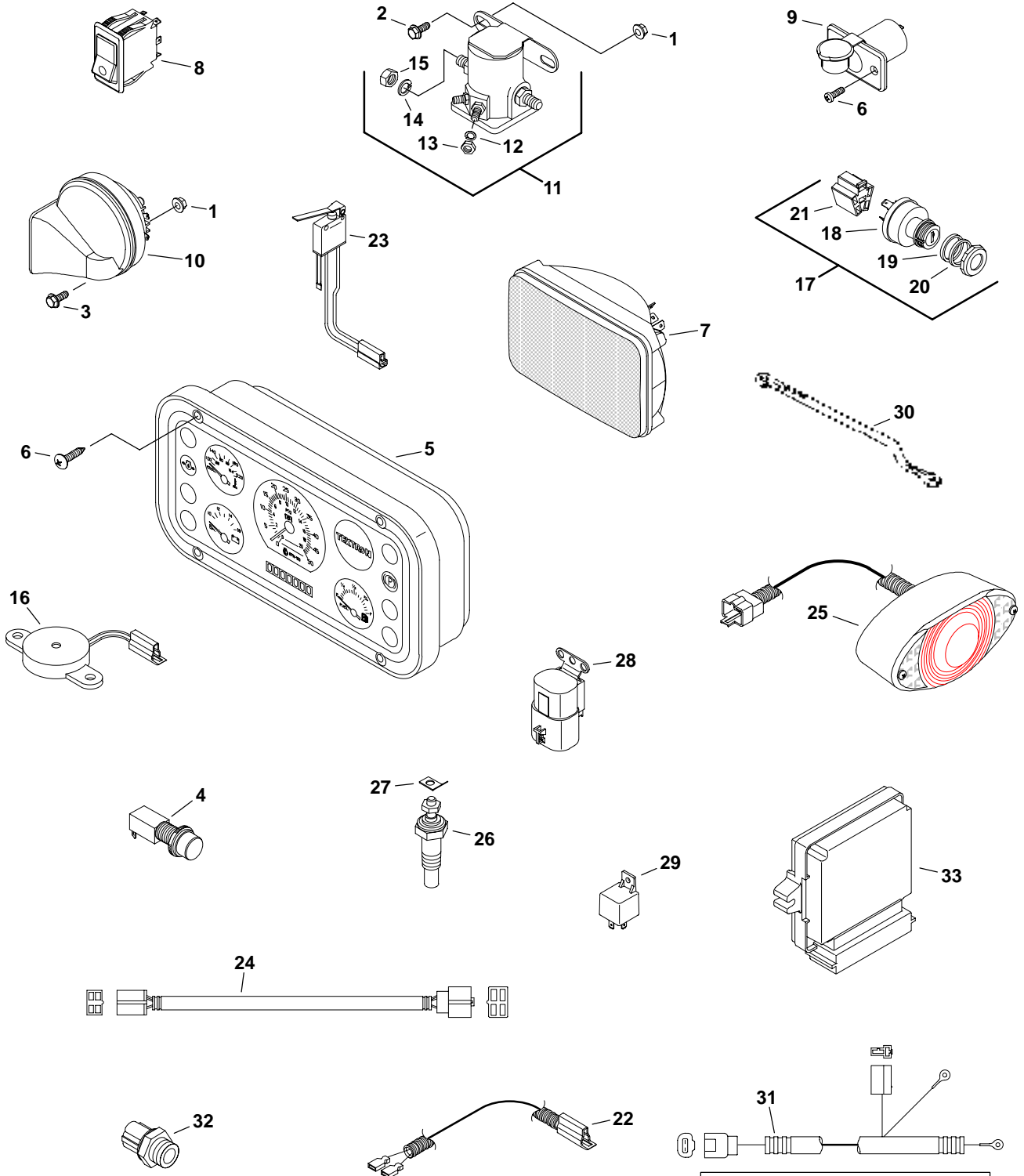
◆ Although Ref. No. 15 (hydraulic pump, Part No. 888042) is shipped with two hydraulic fittings, these fittings **are not** used in this application. When ordering Ref. No. 15 you will also need to order hydraulic fittings Ref. No's 3 & 29. These fittings are the correct fittings to use in this application.

## ELECTRICAL CONNECTORS



Ref. No.	Part No.	Description	No. Req'd.	Ref. No.	Part No.	Description	No. Req'd.
1	825880	Connector, female . . . . .	As Req'd	15	841895	Cover, battery terminal . . . . .	1
2	825877	Connector, female, 6-contact . . .	1	16	844013	Connector, 18-contact . . . . .	1
3	825894	Connector, female, 3-contact . . .	1	17	843550	Connector, receptacle, 18-contact . . . . .	1
4	825970	Boot, terminal (solenoid) . . . . .	2	18	894596	Cable, battery, red 30" (762 mm) . . . . .	1
(4)	825970	Boot, terminal (alternator) . . . . .	3	(18)	894594	Cable, battery, red 46" (1168 mm) . . . . .	1
(4)	844328	Boot, terminal (alternator) . . . . .	1	(18)	2701502	Cable, battery, red 38" (965 mm) . . . . .	1
5	825996	Fuseholder . . . . .	1	19	894513	Cable, battery, black 46" (1168 mm) . . . . .	1
6	825997	Terminal, fuse clip, 1-way 1 lead . . . . .	4	(19)	892811	Cable, battery, black 24" (607 mm) . . . . .	1
7	825998	Terminal, fuse clip, 1-way 2 lead . . . . .	6	20	829630	Connector, male, 4-contact . . . . .	1
8	825999	Terminal, fuse clip, 3-way 1 lead . . . . .	2	21	837301	Connector, head lamp . . . . .	2
9	825973	Connector, male, 6-contact . . . . .	3	22	843598	Connector, rocker switch . . . . .	1
10	826005	Connector, male, 2-contact . . . . .	1	23	800943	Screw, #10-14 x 5/8 . . . . .	2
11	826726	Connector, male, 1-contact . . . . .	1	24	2700913	Jumper, taillight . . . . .	1
12	829631	Connector, female, 4-contact . . .	2	25	839919	Plug, 40 pin . . . . .	1
13	826000	Fuse, 20 amp. . . . .	As Req'd	26	839920	Receptacle, 40 pin . . . . .	1
(13)	833038	Fuse, 30 amp. . . . .	As Req'd				
(13)	836892	Fuse, 10 amp. . . . .	As Req'd				
(13)	842983	Fuse, 15 amp. . . . .	As Req'd				
14	837296	Connector . . . . .	1				

# ELECTRICAL COMPONENTS and SECONDARY WIRING HARNESSSES



The wiring harnesses are shown as a reference only. Although the actual harness resembles the illustrations shown, connections, terminals and routing can change without notice.

Used With Model 898656 and Models 898658 With Serial No's. Beginning With 00002120 Only.

## ELECTRICAL COMPONENTS and SECONDARY WIRING HARNESSSES

Ref. No.	Part No.	Description	No. Req'd.	Ref. No.	Part No.	Description	No. Req'd.
1	450452	Nut, M6-1.00 (G10.9) . . . . .	3	19	837299	•Spacer . . . . .	1
2	452378	Screw, M6-1.00 x 20 . . . . .	2	20	837300	•Spacer . . . . .	1
3	800934	Screw, M6-1.00 x 16 (G10.9) . . . . .	1	21	890158	•Connector and wire . . . . .	1
4	830366	Switch, push (horn button) . . . . .	1	22	894201	Harness, wire, fuel tank . . . . .	1
5	2701658	Panel, instrument w/tach . . . . .	1	23	894308	Switch (normally open) . . . . .	1
6	800943	Screw, #10-14 x 5/8 . . . . .	4	24	894313	Harness, wire, taillight . . . . .	1
7	837303	Headlight, rectangular . . . . .	2	25	893602	Taillight . . . . .	1
8	843581	Switch, headlight . . . . .	1	26	843857	Sender, water temperature . . . . .	1
9	843942	Socket, 12V acc. plug . . . . .	1	27	829787	Terminal, 45° 1/4" male . . . . .	1
10	886090	Horn . . . . .	1	28	835480	Relay, 30 amp (12V) . . . . .	1
11	889673	Solenoid . . . . .	1	29	843167	Relay, 12V, 15 amp DPST . . . . .	2
12	120052	•Lockwasher, #10 . . . . .	2	30	2702952	Wire, noise suppressor . . . . .	1
13	132520	•Nut, #10-32 . . . . .	2	31	◇ 2701758	Harness, fan switch . . . . .	1
14	306325	•Lockwasher, 5/16 . . . . .	2	32	▼ 17680-50F70	Switch, fan . . . . .	1
15	306932	•Nut, 5/16-18 . . . . .	2	(32)	◇ 2703052	Switch, fan . . . . .	1
16	890000	Buzzer assembly . . . . .	1	33	▼ 2702917	Engine control unit (ECU) . . . . .	1
17	890154	Switch, ignition, complete . . . . .	1	(33)	◇ 2702975	Engine control unit (ECU) . . . . .	1
18	837295	•Switch, ignition . . . . .	1				
*	837296	•Connector . . . . .	1				

• INDENTED PARTS NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

\* Not Illustrated

▼ Models 898658 with Serial No's. **up to** REV1287 and Models 898657.

◇ Models 898658 with Serial No's. **beginning with** 00002120 and Models 898656.

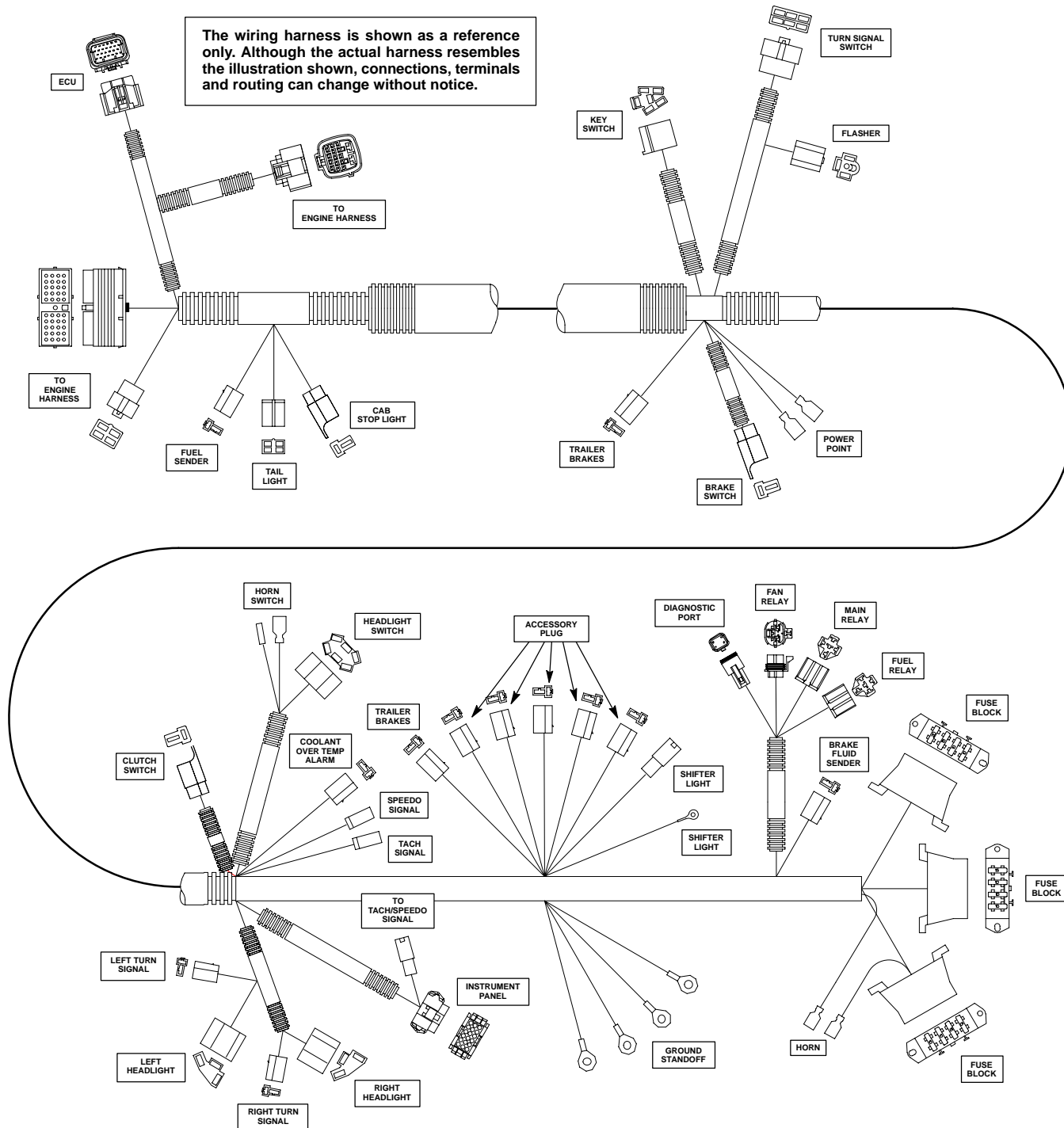
The convoluted tubing used on the wiring harnesses can be ordered in bulk length only. Cut off the required amount for your particular application. Order the tubing as follows:

Part No. 826190 .350 i.d. sold in 50' (15.2 m) lengths

Part No. 826191 .500 i.d. sold in 25' (7.6 m) lengths

# ENGINE & MAIN WIRE HARNESS

## SUZUKI 660 EFI TURF MODELS 898656, 898657 & 898658



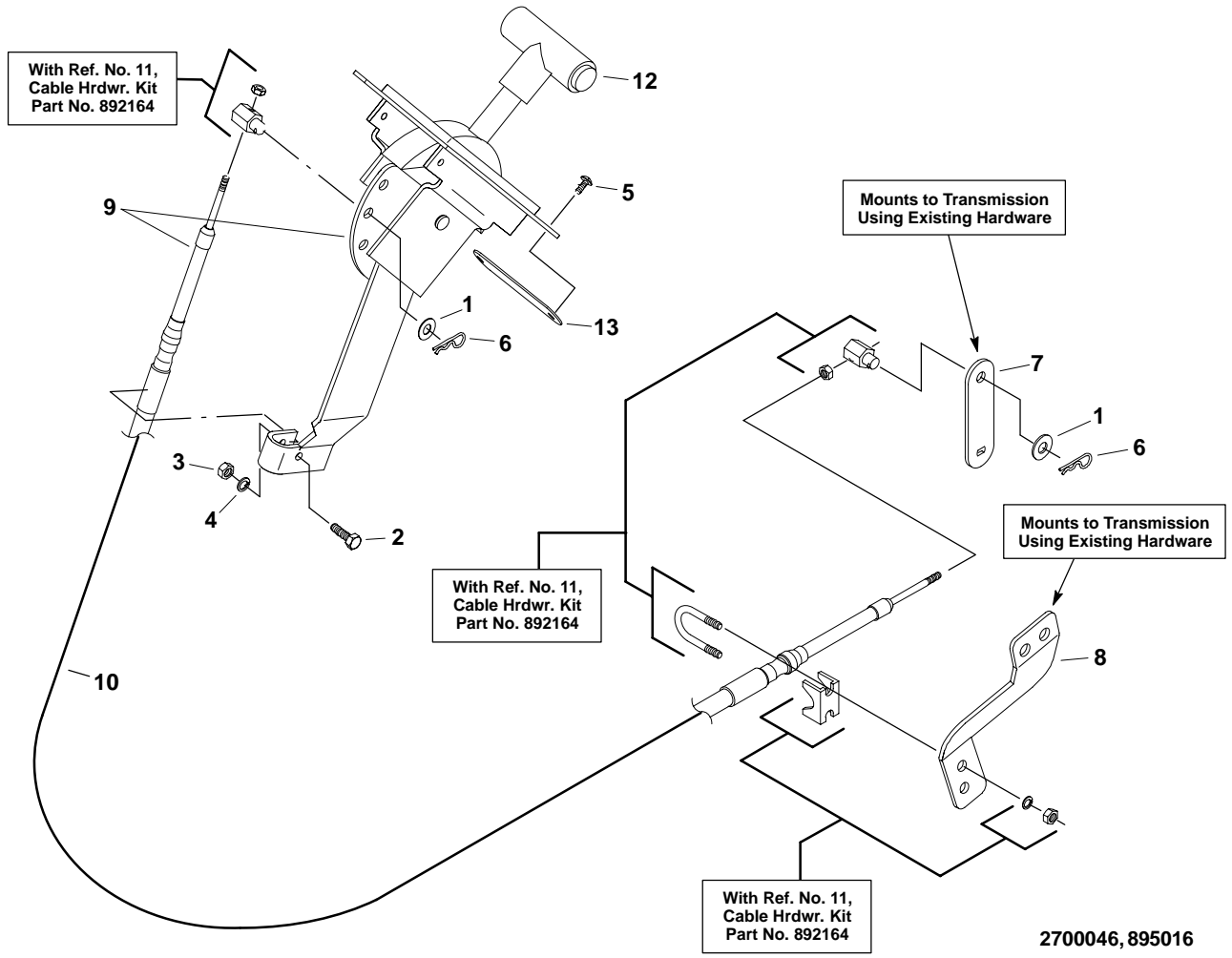
Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1 ▼	895052	Harness, main . . . . .	1	* ▼	2702946	Harness, Suzuki engine . . . . .	1
*	895049	Harness, engine (all models) . . . . .	1	* ◇	2702947	Harness, Suzuki engine . . . . .	1
* ◇	2700919	Harness, main . . . . .	1				

\* Not Illustrated.

▼ Models 898658 with Serial No's. **up to** REV1287 and Models 898657.

◇ Models 898658 with Serial No's. **beginning with** 00002120 and Models 898656.

# AUTOMATIC TRANSMISSION SHIFTER SUZUKI 660 TURF MODEL 898657

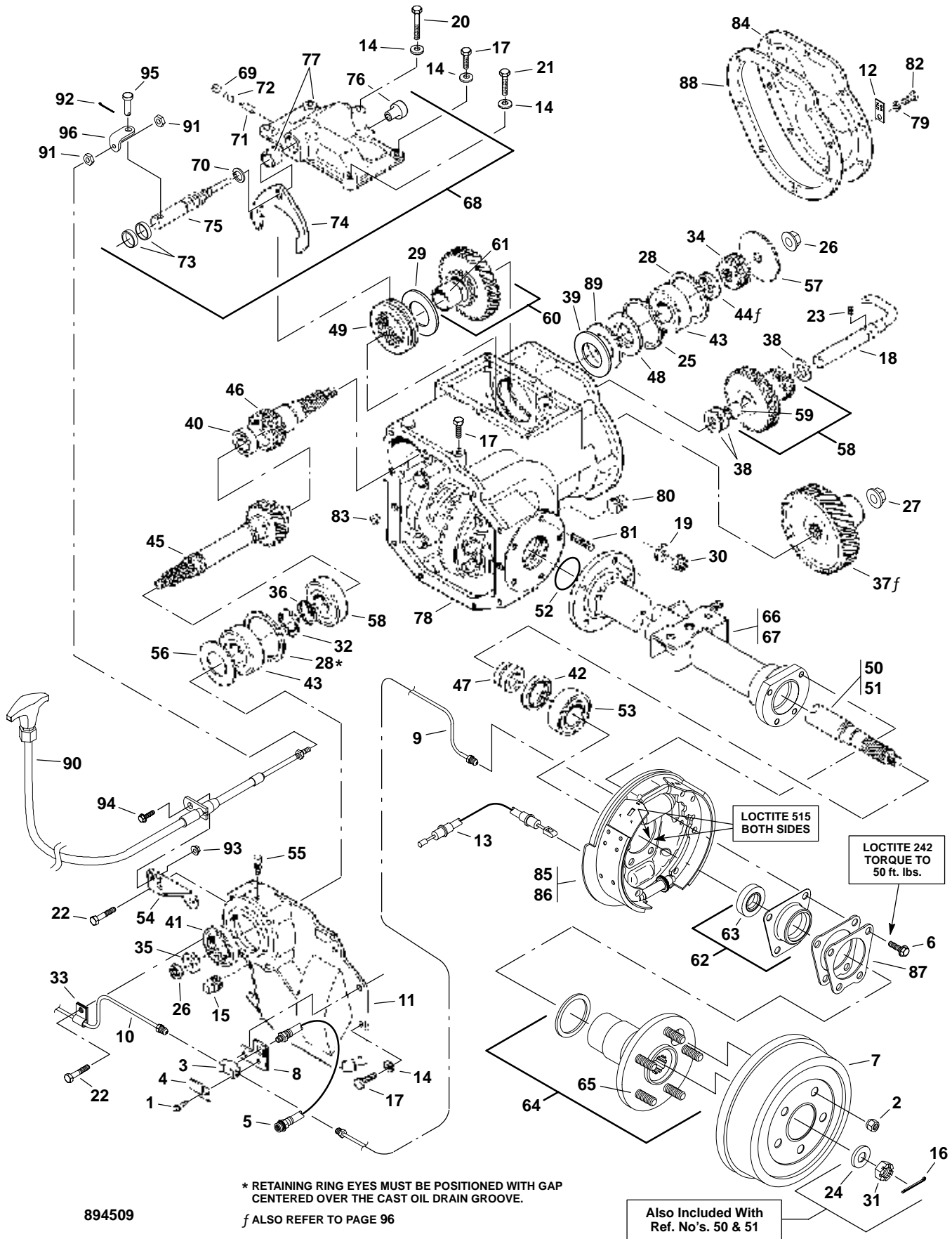


2700046, 895016

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	103867	Washer, 5/16	2	8	845345.7	Bracket, shifter cable mount	1
2	302030	Screw, 1/4-20 x 1 1/4	1	9	894584	Shifter ay. w/cable	1
3	306375	Nut, 1/4-20	1	10	894508	•Cable, shifter	1
4	306396	Lockwasher, 1/4	1	11	892164	•Kit, cable hardware	1
5	800582	Screw, 1/4-20 x 3/4	4	12	894585	•Shifter, ATM	1
6	821164	Pin, hair 1/4 x 1 1/8	2	13	894743	Nut, double (1/4-20)	1
7	842740	Lever, shifter	1				

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

**TWO-SPEED HYPOID DIFFERENTIAL (14.21:1)  
SUZUKI 660 EFI TURF MODELS 898656, 898657 & 898658**



894509



**TWO-SPEED HYPOID DIFFERENTIAL (14.21:1)**  
**SUZUKI 660 EFI TURF MODELS 898656, 898657 & 898658**

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
	894826	Differential, 14.21:1	1	50 ▼	2700530	●Shaft, assembly (left)	1
1	112050	●Screw, 1/4-20 x 5/8, tapping	1	(50)	2700514	●●Shaft, axle (left) 23.27" (591.05 mm)	1
2	800909	●Nut, wheel retaining	10	51 ▼	2700531	●Shaft, assembly (right)	
3	841842	●Fitting, hydraulic brake tee	1	(51)	2700515	●●Shaft, axle (right) 29.21" (741.93 mm)	1
4	832584	●Clamp, tee mount bracket	1	52	836694	●Seal, 'O' ring	2
5	832587	●Hose, hydraulic brake	1	53	836695	●Bearing, tapered roller	2
6	800944	●Screw, M10-1.50 x 25	8	54	836841	●Bracket	1
7	841430	●Drum, brake	2	55	836852	●Breather	1
8	836959	●Bracket, tee mounting	1	56	837020	●Baffle, vent	1
9	841838	●Tube, brake, (left)	1	57	836692	●Baffle, oil scoop	1
10	841837	●Tube, brake, (right)	1	58	894519	●Gear, cluster	1
11	836431	●Cover, front	1	59	844087	●●Bushing	2
12	839948	●Tag, 14.21:1 ratio	1	60	894886	●Gear, driven	1
13	893583	●Cable, park brake	2	61	812006	●●Bushing	2
14	103867	●Washer, 5/16	14	62	893519	●Retainer, complete w/seal	2
15	111074	●Plug	1	63	838539	●●Seal, bearing	1
16	304636	●Pin, cotter, 1/8 x 1 1/8	2	64	2701599	●Hub assembly	2
17	306322	●Screw, 5/16-18 x 7/8	12	65	800908	●●Screw, wheel retaining	5
18	891089	●Jackshaft	1	66	893588	●Housing, axle (left)	1
19	306405	●Washer, 3/8	10	67	893590	●Housing, axle (right)	1
20	306423	●Screw, 5/16-18 x 1 3/4	2	68	889780	●Cover ay., shift	1
21	306435	●Screw, 5/16-18 x 1 1/4	1	69	548204	●●Set screw, 3/8-16 x 3/8	1
22	307776	●Screw, 3/8-16 x 2 3/4	3	70	548937	●●Lockwasher	1
23	548201	●Screw, set, 5/16-18 x 5/16	1	71	807366	●●Button, positioning	1
24	845356	●Washer	2	72	2700493	●●Spring	1
25	548952	●Lockring	1	73	831099	●●Seal	2
26	800559	●Nut, 1/2-20, crownlock	2	74	836657	●●Fork, shift	1
27	800973	●Nut, 3/4-16, crownlock	1	75	836658	●●Shaft, shift	1
28	800737	●Ring, retaining	2	76	836662	●●Bushing, guide	1
29	844956	●Bearing, bronze thrust	1	77	889925	●●Cover	1
30	805837	●Locknut, special	10	78	891829	●Housing, carrier w/gears	1
31	800743	●Nut, 3/4-16, slotted	2	79	103867	●●Washer, 5/16	8
32	800695	●Ring, retaining	1	80	111074	●●Plug	1
33	810435	●Clamp	1	81	111758	●●Stud	10
34	842359	●Pinion, 15 tooth	1	82	306322	●●Screw, 5/16-18 x 7/8	8
35	809180	●Washer, special	1	83	517226	●●Bushing	2
36	809254	●Ring, retaining	1	84	836443	●●Cover, rear	1
37	842360	●Gear, 52 tooth	1	85	◇	●Brake, rear complete, (right)	1
38	811992	●Shim, cluster gear	3	86	◇	●Brake, rear complete, (left)	1
39	811993	●Bearing, thrust	1	87	844813	●Ring, backing	4
40	812009	●Bearing, ball	1	88	2702146	●Spacer, diff. cover (rear)	1
41	812335	●Seal, oil	1	89	844951	●Shim, .003	1
42	838539	●Seal, oil	2	(89)	844952	●Shim, .005	1
43	836693	●Bearing, ball	3	(89)	844953	●Shim, .010	2
44	836420	●Spacer, pinion, .625" (15.9 mm)	1	90	893067	Cable, control (2 speed hi-low)	1
or	844750	●Spacer, pinion, .750" (19.0 mm)	1	91	132520	Nut, #10-32	2
45	836421	●Shaft, input	1	92	306328	Pin, cotter, 3/32 x 3/4	1
46	836422	●Shaft, main	1	93	450452	Nut, M6-1.00 (10.9)	1
47	836426	●Collar, axle bearing	2	94	452378	Screw, M6-1.00 x 20	1
48	845034	●Collar, thrust	1	95	806703	Pin, clevis, 5/16 x 29/32	1
49	836429	●Collar, engaging	1	96	837043	Bracket	1
				97	2701374	Washer (with Ref. No. 64)	1

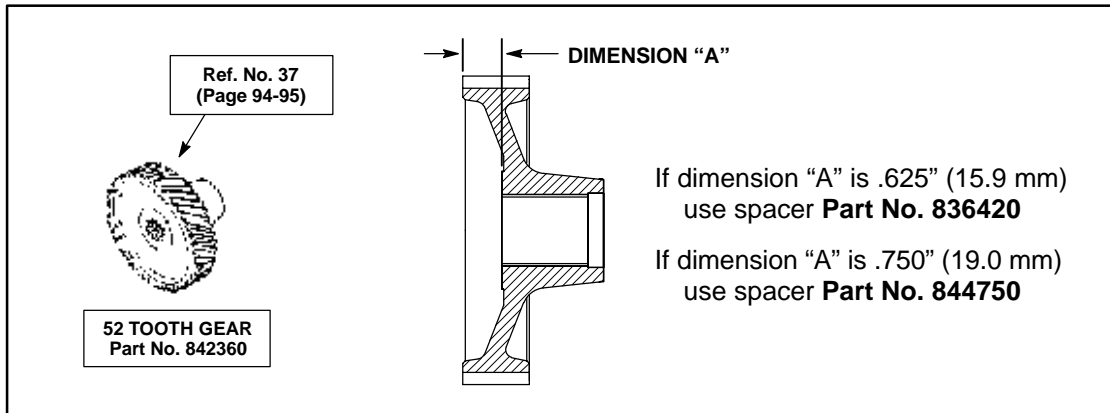
● INDENTED PARTS NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

◇ Refer to the parts breakdown for the brakes.

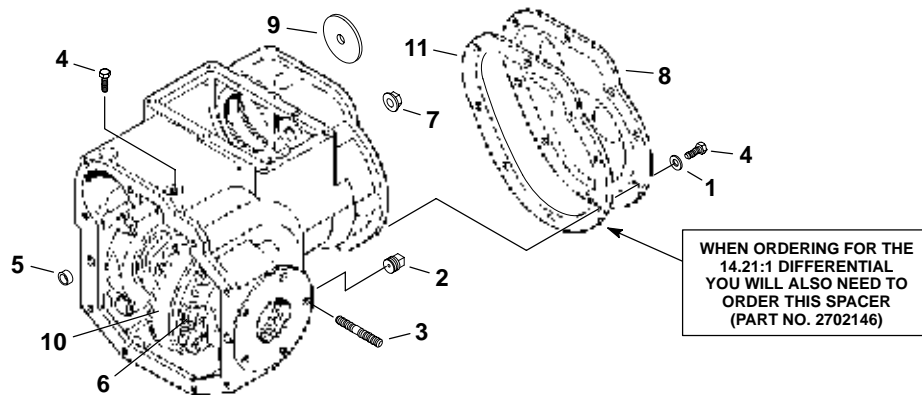
▼ Also includes Ref. No's. 16, 24 & 31.

## TWO-SPEED HYPOID DIFFERENTIAL 14.21:1 (con't.) TURF MODELS 898656, 898657 & 898658

Two (2) different pinion spacers (Reference No. 44 on Pages 94-95) have been used in the 14.21:1 differential Part No. 894826. To determine which spacer is the correct one for your particular application, the 52-tooth gear, Part No. 842360 (Item No. 37 on Pages 94-95) must be measured as shown.



## HOUSING and GEAR ASSEMBLY FOR 14.21:1 DIFFERENTIALS, SUZUKI 660 EFI TURF MODELS 898656, 898657 & 898658

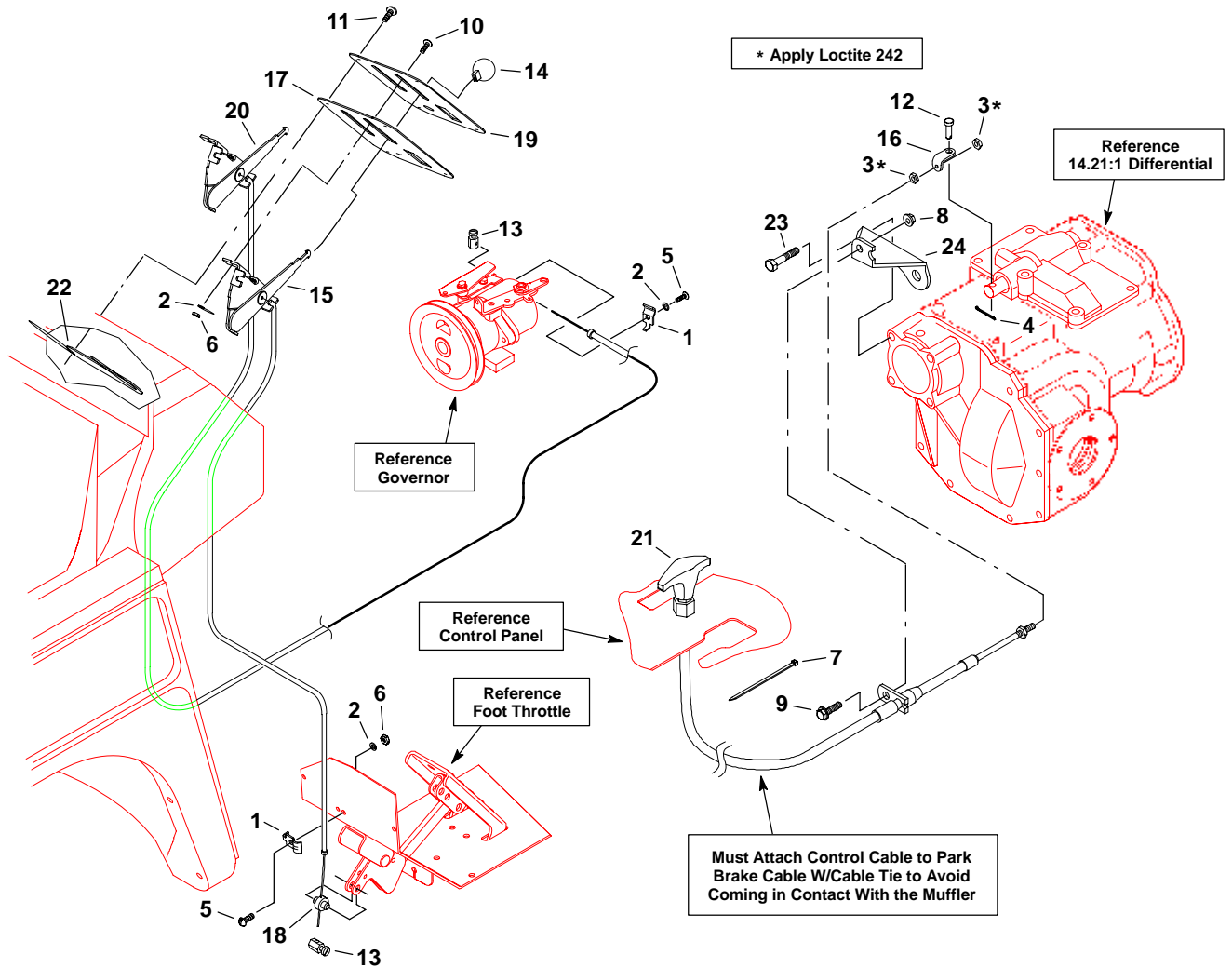


Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
	891829	Housing and gear assembly	1	9	836692	•Baffle, oil	1
1	103867	•Washer, 5/16	8	10	889870	•Gear set	1
2	111074	•Plug	1	*	836681	•Shim, .003	2
3	111758	•Stud	10	*	836682	•Shim, .005	2
4	306322	•Screw, 5/16-18 x 7/8	9	*	836683	•Shim, .010	2
5	517226	•Bushing	2	*	836684	•Shim, .030	3
6	800717	•Screw, 3/8-24 x 13/16	10	*	836685	•Shim, .003	1
7	800718	•Nut, 3/4-16 hex lock	1	*	836686	•Shim, .005	2
*	814476	•Cup, bearing (2.53 o.d.)	1	*	836687	•Shim, .010	4
8	836443	•Cover, rear	1	*	836688	•Shim, .003	1
*	836675	•Cup, bearing (2.89 o.d.)	2	*	836689	•Shim, .005	1
*	836676	•Cone, bearing (1.63 i.d.)	2	*	836690	•Shim, .010	2
*	836677	•Cup, bearing (2.84 o.d.)	1	*	836691	•Shim, .030	2
*	836678	•Cone, bearing (1.375 i.d.)	1	11	2702146	Spacer, rear cover (14.21:1)	1
*	836680	•Cone, bearing (1.125 i.d.)	1				

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

\* Not Illustrated.

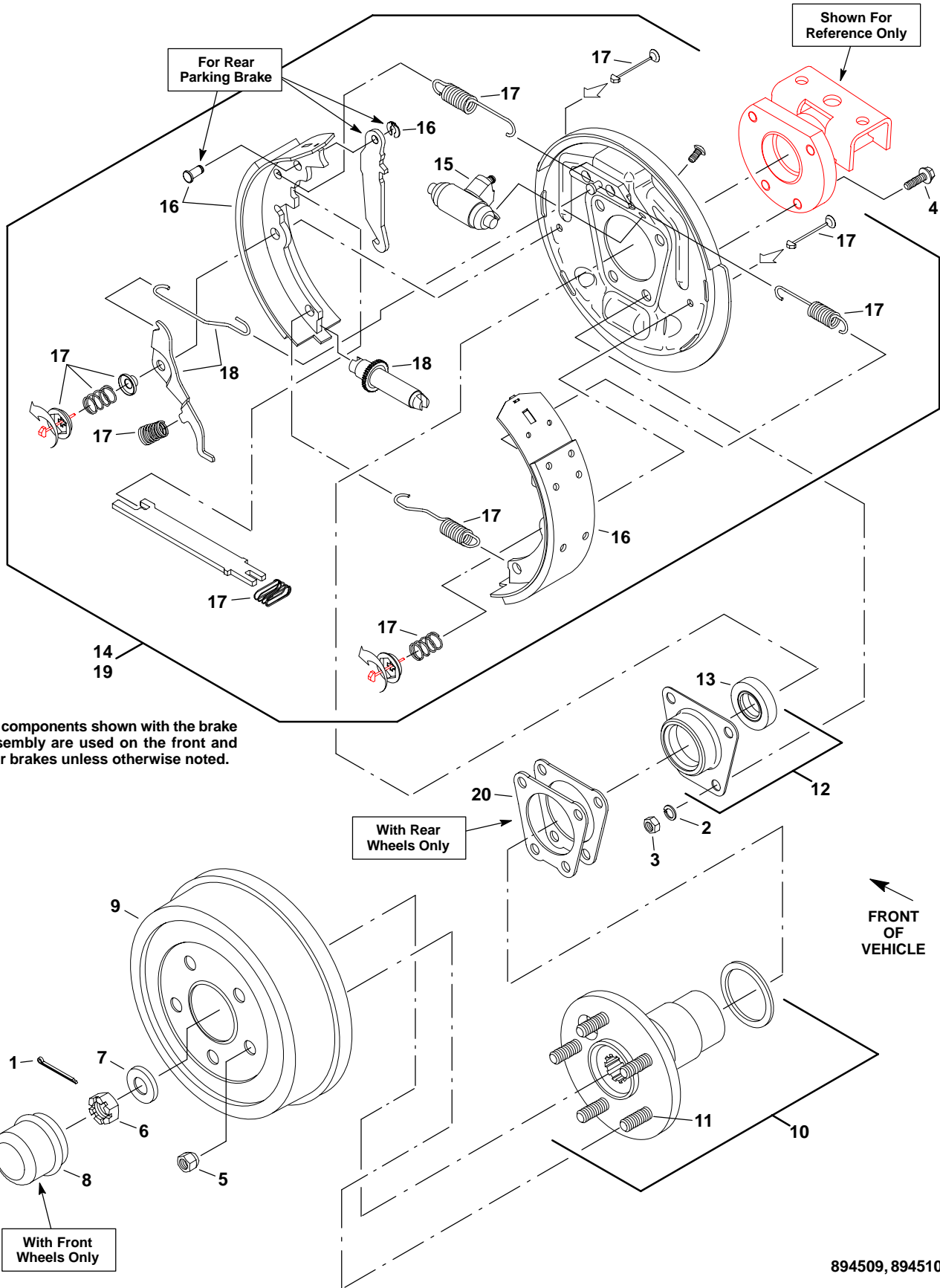
## HAND CONTROLS, GOVERNOR and THROTTLE SUZUKI 660 EFI TURF MODELS 898656, 898657 & 898658



893439, 894509

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	111898	Clamp, cable	3	13	817104	Stop, wire	2
2	120052	Lockwasher, #10	7	14	827821	Knob	2
3	132520	Nut, #10-32	2	15	828049	Cable, control (hand throttle)	1
4	306328	Pin, cotter 29/32 x 3/4	1	16	837043	Bracket (cable to differential)	1
5	306514	Screw, #10-32 x 1/2	3	17	841264	Panel, left hand (turf)	1
6	306531	Nut, #10-24	6	18	843607	Bushing, throttle cable	1
7	320107	Tie, cable 7 1/2" (190.5 mm)	1	19	844116	Decal, left hand dash (turf)	1
8	450452	Nut, M6-1.00 (G10.9)	1	20	844130	Cable, governor control	1
9	452378	Screw, M6-1.00 x 20	1	21	893067	Cable, control (hi-lo shift)	1
10	800271	Screw, #10-24 x 1/2 (G5)	4	22	894743	Nut, double	2
11	800582	Screw, 1/4-20 x 3/4	4	23	307776	Screw, 3/8-16 x 2 3/4	2
12	806703	Pin, clevis 5/16 x 31/32	1	24	836841	Bracket, hi-lo shift cable mount	1

# FRONT and REAR BRAKES & HUBS SUZUKI 660 EFI TURF MODELS 898656, 898657 & 898658



All components shown with the brake assembly are used on the front and rear brakes unless otherwise noted.

894509, 894510

**FRONT and REAR BRAKES & HUBS**  
**SUZUKI 660 EFI TURF MODELS 898656, 898657 & 898658**

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	304636	Pin, cotter 1/8 x 1 1/8	2	*	2702258	Axle, hub & brake assembly (front)	
2	306325	Lockwasher, 5/16	8			Model 898656 only	1
3	306932	Nut, M10-1.50	8	12	893519	Seal and retainer	2
4	800944	Screw, M10-1.50 x 25 (G10.9)	8	13	838539	•Seal, bearing	1
5	800909	Nut, wheel retaining, M12-1.5	10	14 ▼	893585	Brake, complete, front (LH)	1
6	805843	Nut, castle, 5/8-18	2	*	893586	Brake, complete, front (RH)	1
7	809156	Washer, special	2	15	894930	•Cylinder, wheel	1
8	817250	Cap, grease	2	16	894932	Kit, brake shoe	1
9	841430	Drum, brake	2	17	894933	Kit, spring (LH)	1
10	2701599	Hub assembly (rear, all models)	2	*	894934	Kit, spring (RH)	1
11	800908	•Screw, lug, M12-1.50 x 45	10	18	894935	Kit, adjuster repair (LH)	1
*	2702257.7	Hub assembly (front)		*	894936	Kit, adjuster repair (RH)	1
		Models 898657 & 898658	2	19 ▼	893581	Brake, complete w/lever, rear (LH)	1
*	808088	•Cup, bearing (outer)	1	*	893582	Brake, complete w/lever, rear (RH)	1
*	814474	•Cup, bearing (inner)	1	*	894931	Kit, cylinder repair	1
*	800908	•Screw, lug, M12-1.50 x 45	10	20	844813	Ring, retainer	4

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

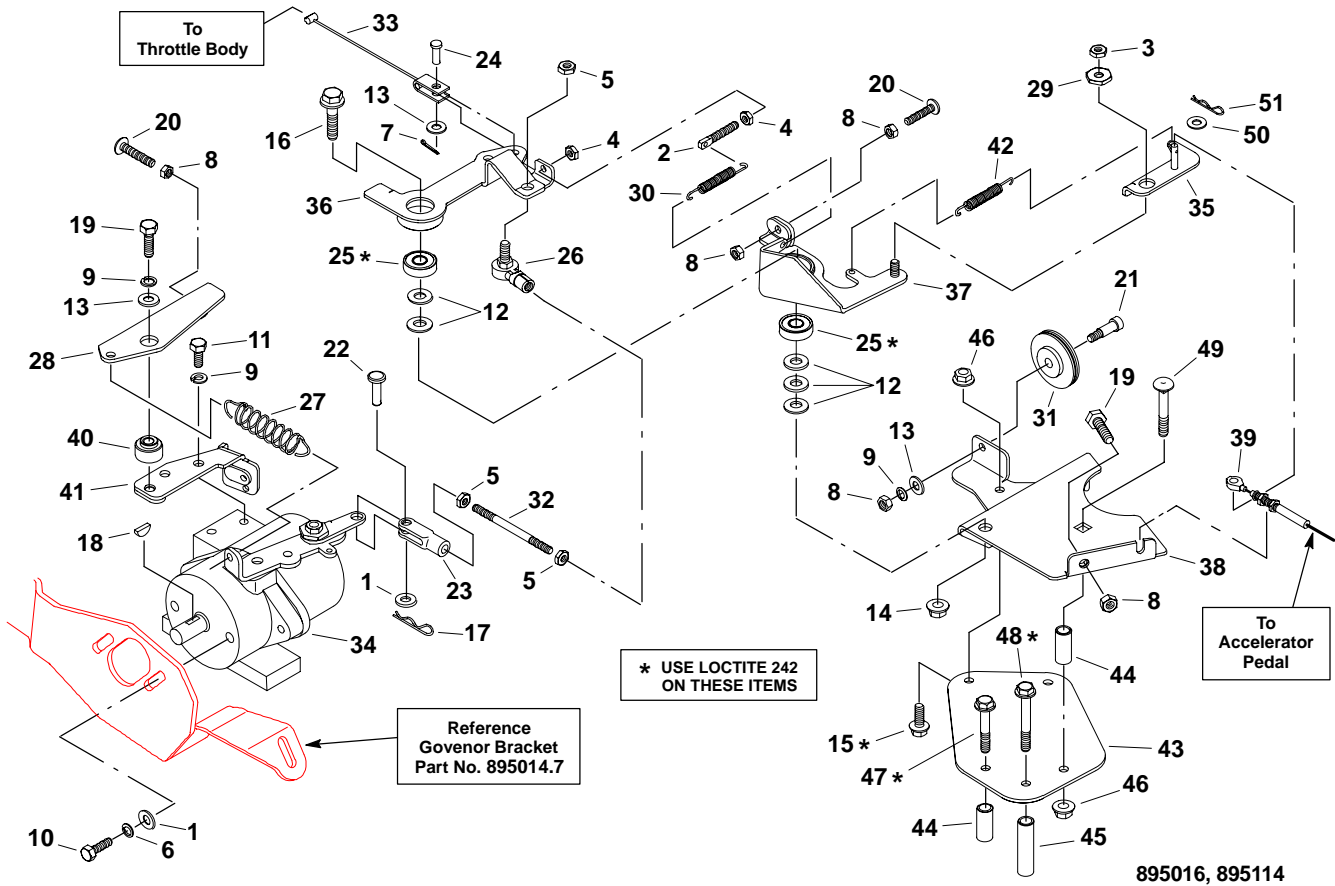
\* Not Illustrated.

▼ When ordering the front or rear brake assemblies (Part No's. 893585, 893586, 893581 & 893582) all components shown in the illustration with items No. 14 & 19 are included with the assemblies. If replacement parts are required, the individual parts will be grouped into kits as stated in the above parts list.

For a breakdown of the 3-wheel front brakes, see the parts illustration for Front Fork, 3-wheel.

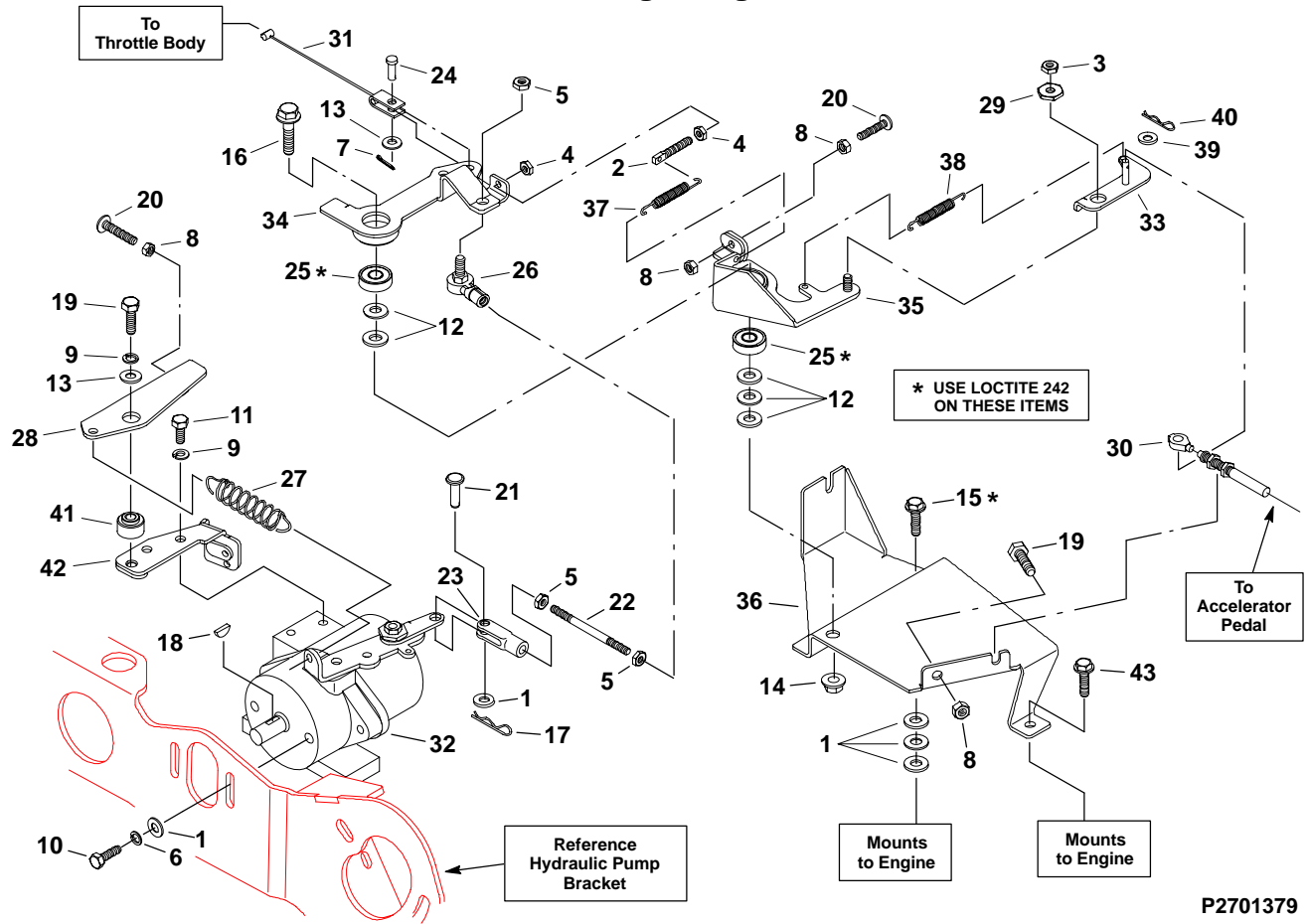
# GOVERNOR AND THROTTLE LINKAGE

## SUZUKI 660 TURF MODELS 898658 With Serial No's. *Up To* REV1287 & MODELS 898657



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	103867	Washer, 3/8	3	27	833101	Spring, extension	1
2	111893	Screw, special #10-32	1	28	894434	Arm assembly, governor	1
3	130728	Nut, 1/4-20	1	29	835271	Nut	1
4	132520	Nut, jam #10-32	2	30	2700334	Spring, extension	2
5	306320	Nut, 5/16-24	3	31	843013	Pulley, governor	1
6	306325	Lockwasher, 5/16	2	32	843536	Rod, governor arm	1
7	306372	Pin, cotter 3/32 x 1/2"	1	33	2700503	Cable, throttle body	1
8	306375	Nut, 1/4-20	4	34	2700810	Governor, complete	1
9	306396	Lockwasher, 1/4	4	35	2701129	Arm, throttle	1
10	306450	Screw, 5/16-18 x 3/4	2	36	2700859	Arm, governor	1
11	306487	Screw, 1/4-20 x 5/8	2	37	2700540	Lever, governor (Suzuki 660)	1
12	306981	Washer, 3/8	5	38	894464	Base, throttle (Suzuki 660)	1
13	308090	Washer, 1/4	3	39	895119	Cable, throttle	1
14	450454	Nut, M10-1.50 (G10.9)	1	40	843866	Bushing, governor	1
15	452378	Screw, M6-1.00 x 20	2	41	894435	Bracket assembly, governor	1
16	452401	Screw, M10-1.50 x 40 (G8.8)	1	42	2700335	Spring, governor	1
17	548190	Pin, hair (11/16 x 1 7/8)	1	43	2700502	Bracket, lower govnr. mount	1
18	553046	Key, woodruff 1/4 x 1/2	1	44	2700522	Bushing, standoff, 1" (25.4 mm)	2
19	302288	Screw, 1/4-20 x 1	2	45	2700523	Bushing, standoff, 1 3/4" (44.5 mm)	1
20	800024	Screw, 1/4-20 x 1 1/2	2	46	450452	Nut, M6-1.00 (10.9)	3
21	800927	Screw, shoulder, 1/4-20 x 5/8	1	47	452381	Screw, M6-1.00 x 40 (8.8)	1
22	806773	Pin, clevis (5/16 x 1 1/8)	1	48	452383	Screw, M6-1.00 x 60 (8.8)	1
23	810722	Yoke	1	49	452548	Bolt, carriage, M6-1.00 x 50 (G4.6)	1
24	813379	Pin, clevis (1/4 x 3/8)	1	50	450399	Washer, M6	1
25	830140	Bearing, ball	2	51	821164	Pin, hair (1/4 x 1 1/8)	1
26	831586	Ball joint	1				

**GOVERNOR AND THROTTLE LINKAGE**  
**SUZUKI 660 EFI TURF MODEL 898656 and MODELS 898658**  
**With Serial No's. Beginning With 00002120**

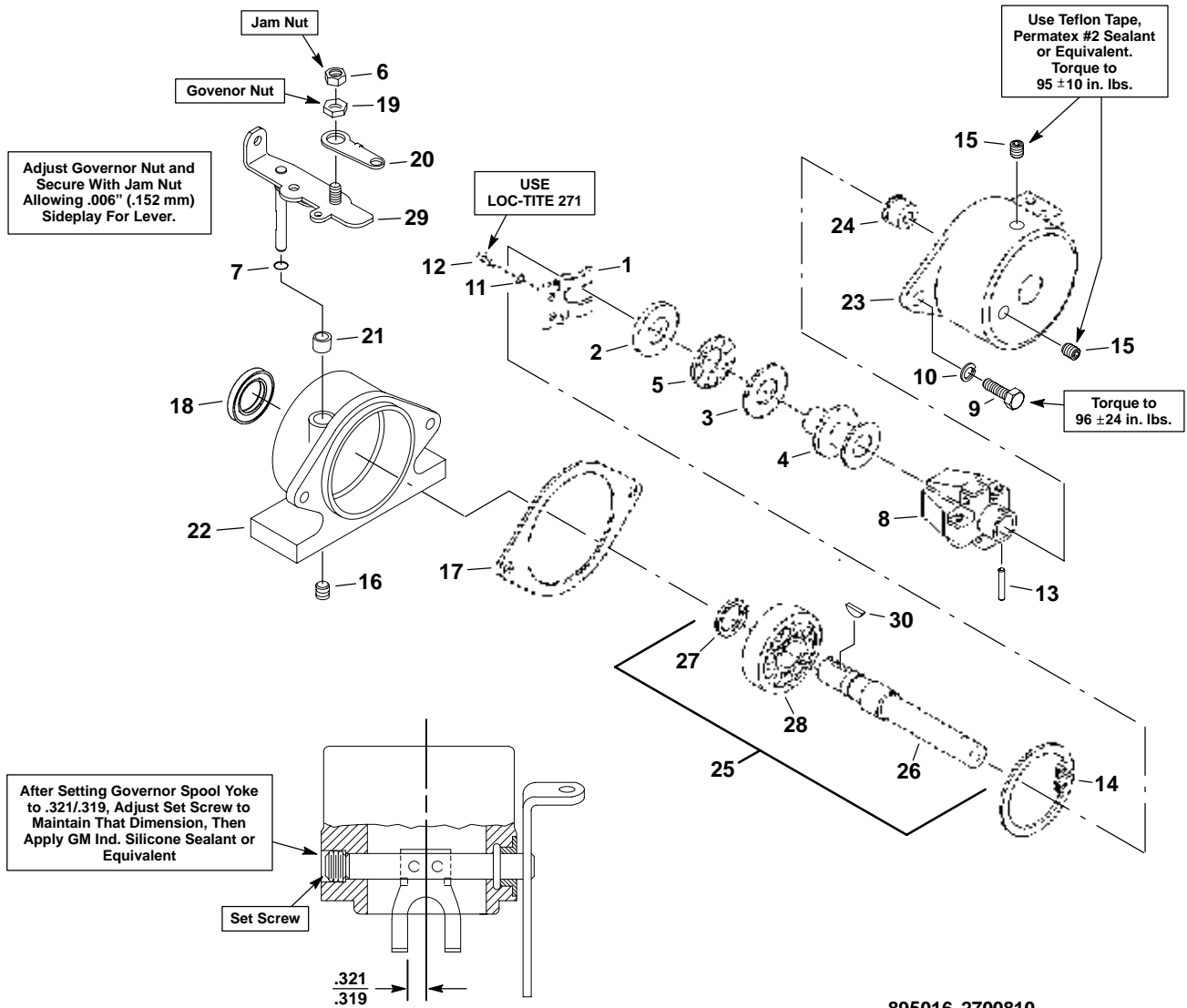


P2701379

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	103867	Washer, 3/8	5	23	810722	Yoke	1
2	111893	Screw, special #10-32	2	24	813379	Pin, clevis 1/4 x 3/8	1
3	130728	Nut, 1/4-20	1	25	830140	Bearing, ball	2
4	132520	Nut, jam #10-32	4	26	831586	Ball joint	1
5	306320	Nut, 5/16-24	3	27	833101	Spring, extension	1
6	306325	Lockwasher, 5/16	2	28	894434	Arm assembly, governor	1
7	306372	Pin, cotter 3/32 x 1/2"	1	29	835271	Nut	1
8	306375	Nut, 1/4-20	4	30	895119	Cable, throttle	1
9	306396	Lockwasher, 1/4	3	31	2701543	Cable, throttle body	1
10	306450	Screw, 5/16-18 x 3/4	2	32	2700810	Governor, complete	1
11	306487	Screw, 1/4-20 x 5/8	2	33	2701129	Arm, throttle	1
12	306981	Washer, 3/8	5	34	2700859	Arm, governor	1
13	308090	Washer, 1/4	2	35	2700540	Lever, governor	1
14	450454	Nut, M10-1.50 (G10.9)	1	36	2701609	Base, throttle	1
15	452388	Screw, M8-1.25 x 20 (8.8)	1	37	2700334	Spring, extension	1
16	452401	Screw, M10-1.50 x 40 (8.8)	1	38	2700335	Spring, governor	1
17	548190	Pin, hair 11/16 x 1 7/8	1	39	450399	Washer, M6	1
18	553046	Key, woodruff 1/4 x 1/2	1	40	821164	Pin, hair (1/4 x 1 1/8)	1
19	302288	Screw, 1/4-20 x 1	2	41	843866	Bushing, governor	1
20	800024	Screw, 1/4-20 x 1 1/2	2	42	894435	Bracket, governor	1
21	806773	Pin, clevis 5/16 x 1 1/8	1	43	2701829	Bolt	1
22	843536	Rod, governor arm	1				

# GOVERNOR

## SUZUKI 660 EFI TURF MODELS 898656, 898657 & 898658



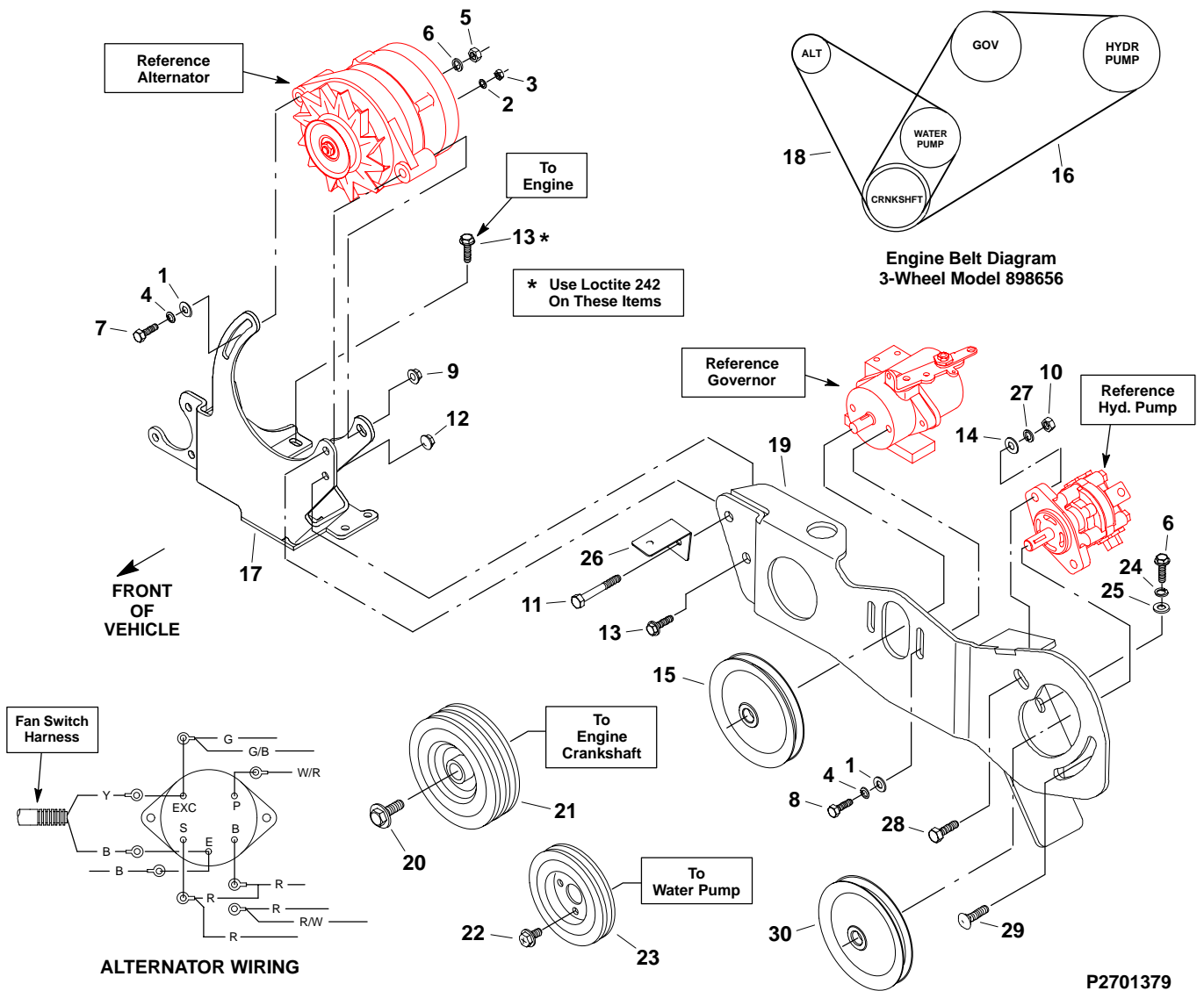
895016, 2700810

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
	2700810	Governor, complete	1	16	800558	•Screw, set, 3/8-16 x 5/16"	1
1	111812	•Yoke, spool	1	17	833056	•Gasket, governor	1
2	111814	•Washer, thrust	1	18	833102	•Seal, oil	1
3	111816	•Washer, thrust	1	19	835271	•Nut, governor arm	1
4	111817	•Spool, governor	1	20	843537	•Bracket, governor knee	1
5	112840	•Bearing, thrust	1	21	843149	•Bushing, steel	1
6	130728	•Nut, jam, 1/4-20	1	22	843157	•Head, governor	1
7	158061-18	•O-ring	1	23	894471	•Reservoir, governor	1
8	160410	•Carrier & weights	1	24	833103	••Bearing, needle	1
9	302288	•Screw, 1/4-20 x 1"	2	25	888397	•Shaft, governor, complete	1
10	306396	•Lockwasher, 1/4"	2	26	833066	••Shaft, governor	1
11	306506	•Lockwasher, #6	2	27	833104	••Ring, retaining	1
12	306915	•Screw, machine, #6-32 x 5/16"	2	28	833345	••Bearing, ball	1
13	306966	•Pin, roll, 1/8" x 3/4"	1	29	2700525	•Lever, governor control	1
14	548325	•Ring, retaining	1	30	2702249	Key, woodruff .12 x .50	1
15	800227	•Plug, 1/8-27	2				

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

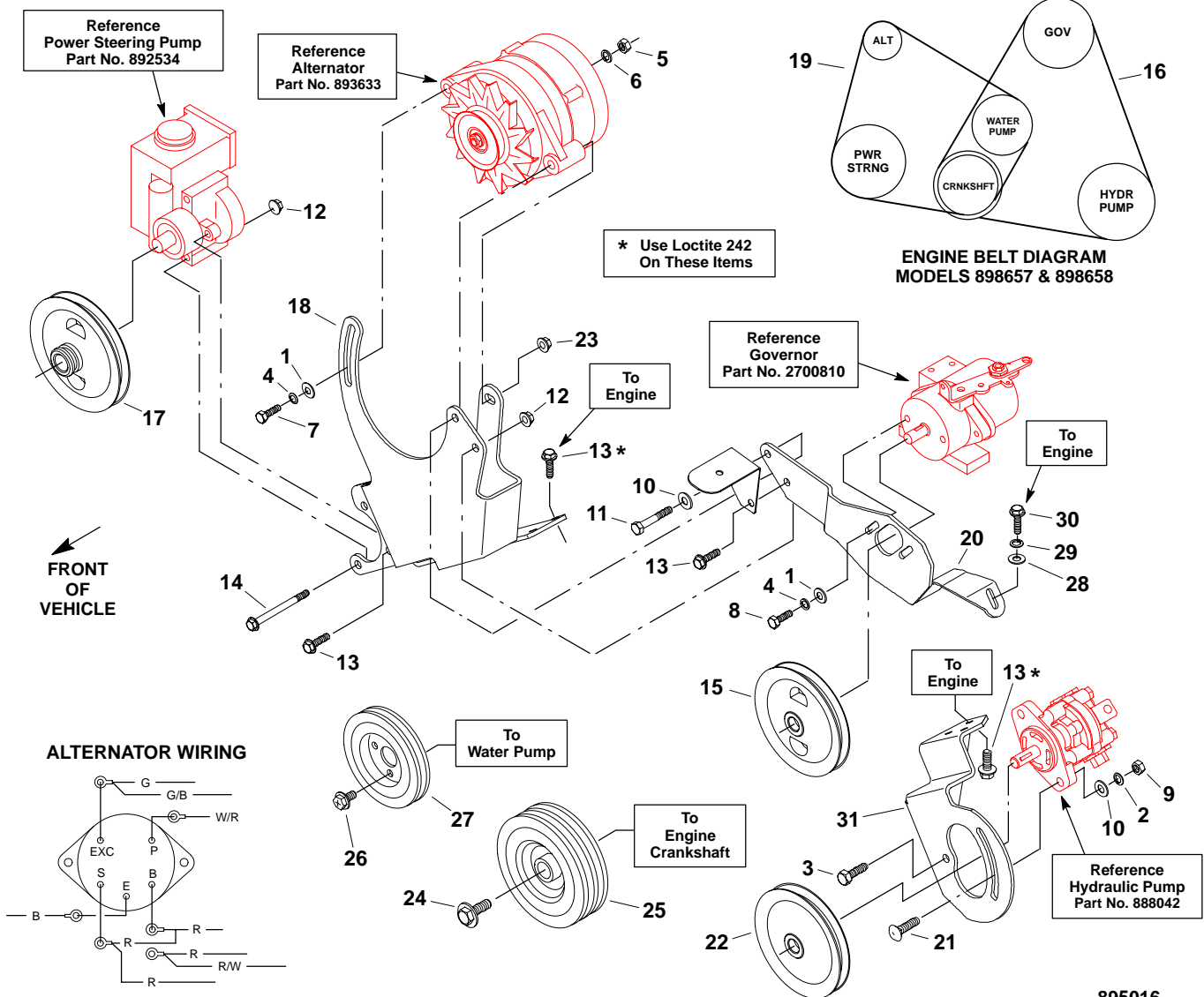


## ALTERNATOR, ENGINE BELTS, PULLEYS and BRACKETS SUZUKI 660 EFI TURF MODEL 898656



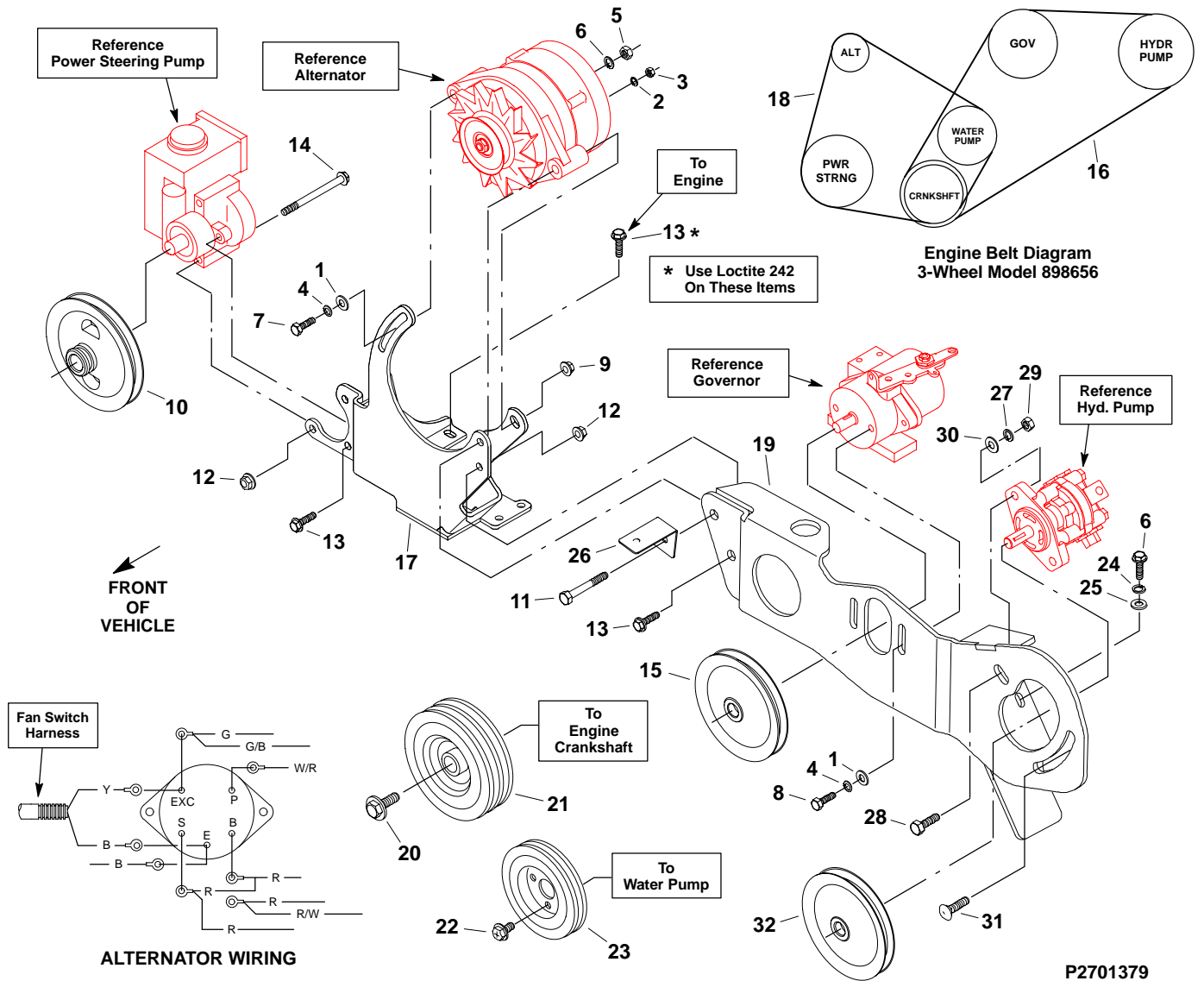
Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	103867	Washer, 3/8	3	16	2700564	V-belt, 53" (1346 mm)	1
2	120052	Lockwasher, #10	4	17	2701657.7	Bracket, alternator mounting	1
3	306531	Nut, #10-24	4	18	2701365	V-belt, 39" (991 mm)	1
4	306325	Lockwasher, 5/16	3	19	2701691.7	Bracket, governor mounting	1
5	306375	Nut, 1/4-20	1	20	2701944	Bolt	1
6	306396	Lockwasher, 1/4	2	21	2701942	Pulley, crankshaft	1
7	306416	Screw, 5/16-18 x 1	1	22	2702537	Bolt	4
8	306450	Screw, 5/16-18 x 3/4	2	23	2702525	Pulley, water pump	1
9	548804	Nut, 3/8-16	1	24	450400	Washer, M8	1
10	306562	Nut, 3/8-16	2	25	452378	Screw, M6-1.00 x 20	1
11	306837	Screw, 3/8-16 x 3 1/4	1	26	2701688.7	Bracket, upper radiator hose	1
12	450453	Nut, M8-1.25 (G10.9)	1	27	120177	Lockwasher, 3/8	2
13	452388	Screw, M8-1.25 x 20 (8.8)	4	28	306835	Screw, 3/8-16 x 1 3/4	1
14	306981	Washer, 3/8	3	29	800073	Bolt, carriage 3/8-16 x 1 1/4	1
15	844035	Pulley, 4.75" (governor)	1	30	828100	Pulley, 5.50" (hydraulic pump)	1

# ALTERNATOR, ENGINE BELTS, PULLEYS and BRACKETS SUZUKI 660 EFI TURF MODELS 898658 With Serial No's. *Up To* REV1287 and MODELS 898657



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	103867	Washer, 3/8	3	17	839907	Pulley, 5.50" (steering pump)	1
2	120177	Lockwasher, 3/8	2	18	895010.7	Bracket, alternator mounting	1
3	306835	Screw, 3/8-16 x 1 3/4	1	19	2700565	V-belt, 45" (1143 mm)	1
4	306325	Lockwasher, 5/16	3	20	895014.7	Bracket, governor mounting	1
5	306375	Nut, 1/4-20	1	21	800073	Bolt, carriage, 3/8-16 x 1 1/4	1
6	306396	Lockwasher, 1/4	1	22	828100	Pulley, 5.50" (hydraulic pump)	1
7	306416	Screw, 5/16-18 x 1	1	23	548804	Nut, 3/8-16	1
8	306450	Screw, 5/16-18 x 3/4	2	24	2701944	Bolt	1
9	306562	Nut, 3/8-16	2	25	2701941	Pulley, crankshaft	1
10	306981	Washer, 3/8	3	26	2702537	Bolt	4
11	311213	Screw, 3/8-16 x 3	1	27	2702524	Pulley, water pump	1
12	450453	Nut, M8-1.25 (G10.9)	3	28	450399	Washer, M6	1
13	452388	Screw, M8-1.25 x 20 (8.8)	9	29	450432	Lockwasher, M6	1
14	452394	Screw, M8-1.25 x 70 (8.8)	2	30	452378	Screw, M6-1.00 x 20	1
15	844035	Pulley, 4.75" (governor)	1	31	845277.7	Bracket, hydraulic pump	1
16	2700564	V-belt, 53" (1346 mm)	1	32	2701110.7	Bracket, upper radiator hose	1

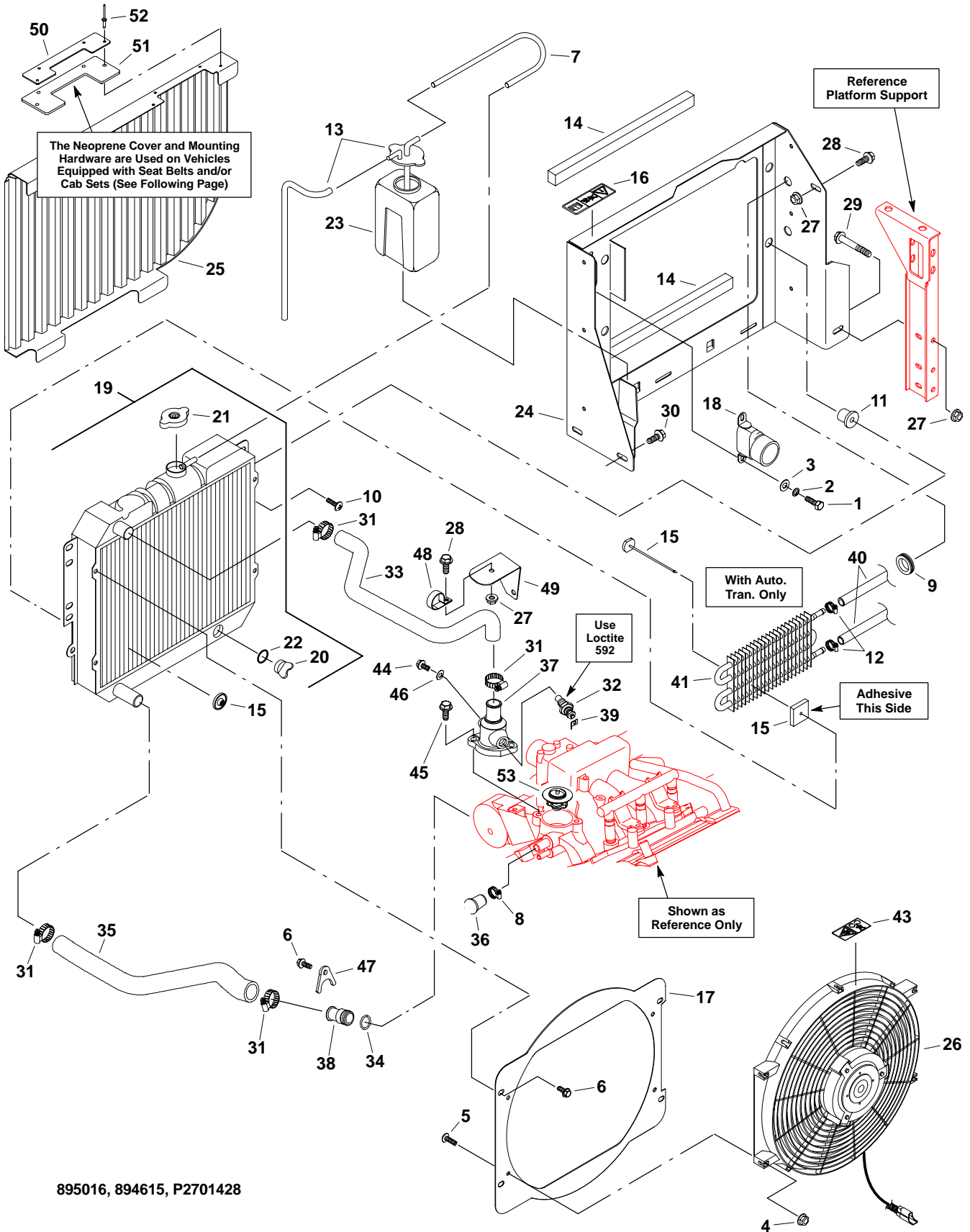
# ALTERNATOR, ENGINE BELTS, PULLEYS and BRACKETS SUZUKI 660 EFI TURF MODEL 898658 With Serial No's. Beginning With 00002120



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	103867	Washer, 3/8	3	17	2701657.7	Bracket, alternator mounting	1
2	120052	Lockwasher, #10	4	18	2701365	V-belt, 39" (991 mm)	1
3	306531	Nut, #10-24	4	19	2701691.7	Bracket, governor mounting	1
4	306325	Lockwasher, 5/16	3	20	2701944	Bolt	1
5	306375	Nut, 1/4-20	1	21	2701942	Pulley, crankshaft	1
6	306396	Lockwasher, 1/4	2	22	2702537	Bolt	4
7	306416	Screw, 5/16-18 x 1	1	23	2702525	Pulley, water pump	1
8	306450	Screw, 5/16-18 x 3/4	2	24	450400	Washer, M8	1
9	548804	Nut, 3/8-16	1	25	452378	Screw, M6-1.00 x 20	1
10	839907	Pulley, 5.50" (steering pump)	1	26	2701688.7	Bracket, upper radiator hose	1
11	306837	Screw, 3/8-16 x 3 1/4	1	27	120177	Lockwasher, 3/8	2
12	450453	Nut, M8-1.25 (G10.9)	3	28	306835	Screw, 3/8-16 x 1 3/4	1
13	452388	Screw, M8-1.25 x 20 (8.8)	5	29	306562	Nut, 3/8-16	2
14	452394	Screw, M8-1.25 x 70 (8.8)	2	30	306981	Washer, 3/8	3
15	844035	Pulley, 4.75" (governor)	1	31	800073	Bolt, carriage 3/8-16 x 1 1/4	1
16	2700564	V-belt, 53" (1346 mm)	1	32	828100	Pulley, 5.50" (hydraulic pump)	1

# RADIATOR and COOLING SYSTEM

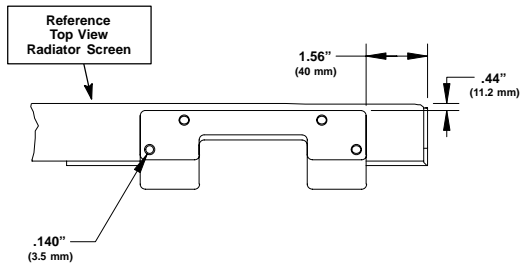
## SUZUKI 660 TURF MODELS 898658 With Serial No's. *Up To* REV1287 and MODELS 898657



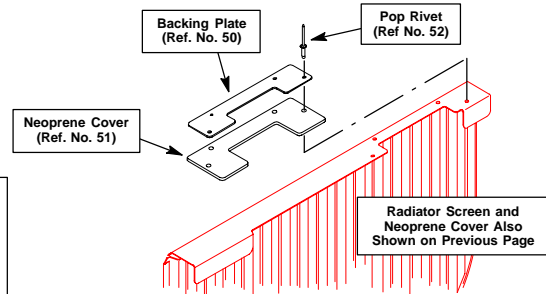
895016, 894615, P2701428

## RADIATOR and COOLING SYSTEM

### SUZUKI 660 TURF MODELS 898658 With Serial No's. *Up To* REV1287 & MODELS 898657



The Neoprene Cover and Mounting Hardware (Ref. No's. 50, 51 & 52) are Used On Vehicles Which Are Equipped With Seat Belts.  
Seat Belts Are Included With the Upper ROPS Accessory (Part No. 894761); the Upper ROPS Mod (Part No. 53715) and the Cab Set Mod (Part No. 53721).



To Install the Neoprene Cover and Backing Plate, Place the Cover on Top of the Radiator Screen and Position the Cover Using the Dimensions Shown in the Illustration above.  
Using the Cover as a Template, Mark and Drill Four (4) .140" (3.5 mm) Dia. Holes.  
Secure the Cover and Mount Plate Using the Rivets as Shown.

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	300646	Screw, 1/4-20 x 3/4	2	27	450453	Nut, M8-1.25 (G10.9)	3
2	306396	Lockwasher, 1/4	2	28	452388	Screw, M8-1.25 x 20 (G8.8)	2
3	308090	Washer, 1/4	2	29	452395	Screw, M10-1.50 x 80 (8.8)	1
4	450452	Nut, M6-1.00	4	30	452398	Screw, M10-1.50 x 20 (8.8)	2
5	450541	Screw, M6-1.00 x 16	4	31	820889	Clamp, tubing	6
6	452378	Screw, M6-1.00 x 20	5	32	843857	Sender, water temperature	1
7	835805	Hose, radiator overflow	As Req'd.	33	2700160	Hose, radiator upper	1
8	832033	Clamp, tube	1	34	2700031	O-ring, 15/16" i.d.	1
9	809231	Grommet	2	35	2700050	Hose, radiator lower	1
10	800177	Screw, 5/16-18 x 3/4	4	36	833715	Plug	1
11	831846	Nut, isolation	4	37	845334	Outlet, water	1
12 ◇	825624	Clamp, hose	4	38	845365	Tube, water outlet	1
13	889051	Cap, coolant reservoir	1	39	829787	Terminal, 45° 1/4" male	1
14	833512	Foam	2	40	826590	Hose, 5/16 i.d.	As Req'd.
15	800789	Kit, oil cooler mounting, automatic transmission	1	41	838340	Cooler, oil (auto. trans.)	1
16	840754	Decal, Warning Pressure	1	42 *	821893	Trim, push-on	As Req'd.
17	843040	Bracket, fan mounting	1	43	009034880	Decal, fan	1
18	888549	Connector, hose (air cleaner)	1	44	2702540	Bolt, bleed valve	1
19	894590	Radiator	1	45	2702469	Bolt, water outlet mount	2
20	833443	•Plug	1	46	2702541	Washer, bleed valve	1
21	889049	•Cap, radiator	1	47	845409	Bracket, u-water inlet	1
22	833442	•O-ring	1	48	2701108	Clamp, 1.25 i.d.	1
23	889050	Reservoir, coolant	1	49	2701110.7	Bracket, upper radiator hose	1
24	893388	Mount, radiator	1	50	2701421	Backing plate, cover	1
25	893554	Screen	1	51	2701422	Cover, neoprene	1
26	2700799	Fan, radiator, cooling	1	52	133741	Rivet, pop (.12 .50 clsd end)	1
				53	2702542	Thermostat	1

Item No's. 9, 12, 15, 40 & 41 are used with the automatic transmission vehicles only.

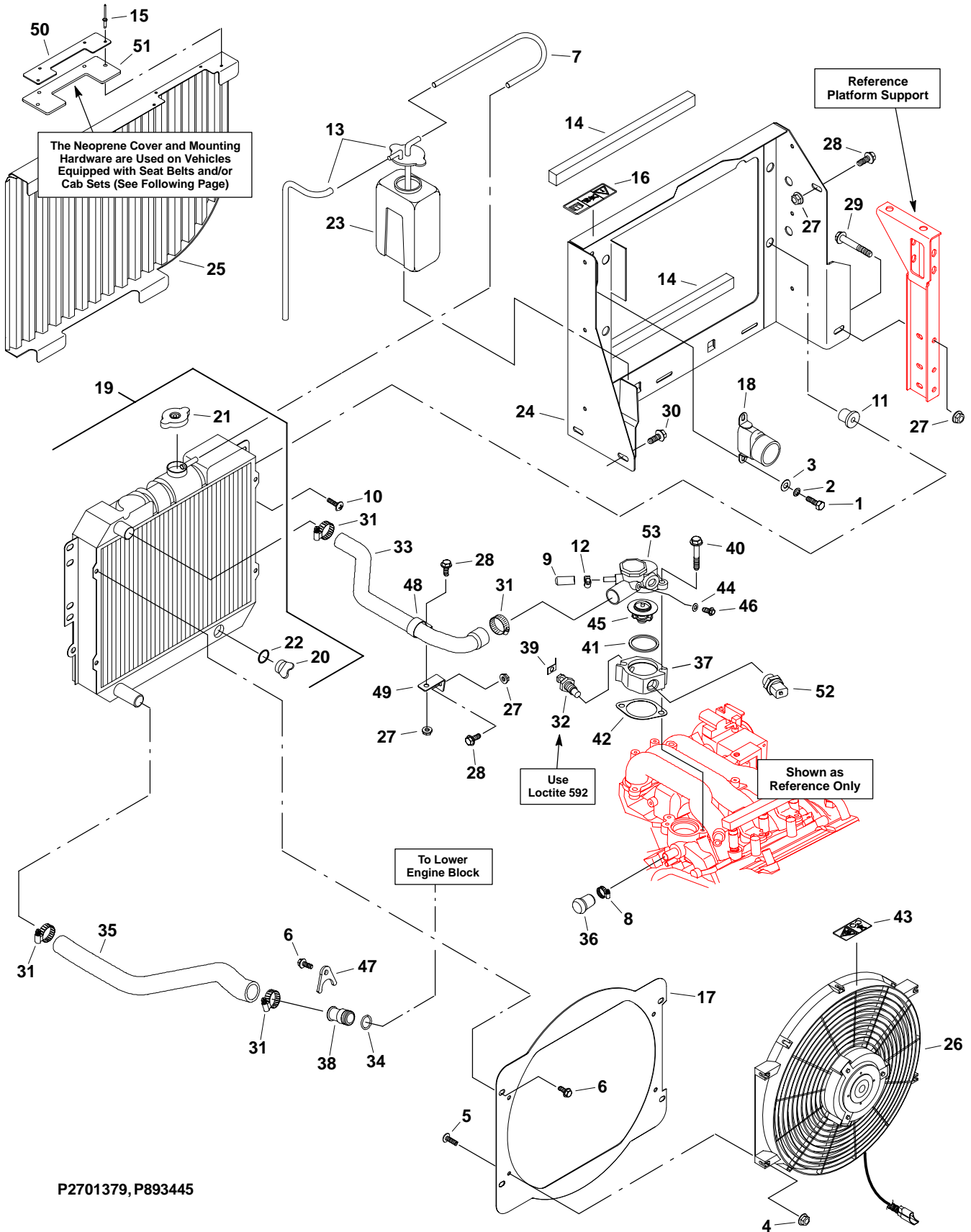
• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

◇ The parts illustration only shows two (2) of Item 12 (825624 Hose Clamps). The other two are used to secure the cooler hoses to the transmission lines.

\* Not Illustrated. Item 42 (821893 Push-on Trim) is used to protect the automatic transmission hoses and is used on the right side motor mount and the right side frame rail.

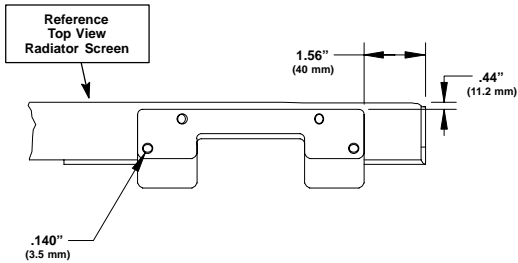
# RADIATOR and COOLING SYSTEM

## SUZUKI 660 EFI TURF MODEL 898658 With Serial No's. *Beginning With 00002120* and MODEL 898656

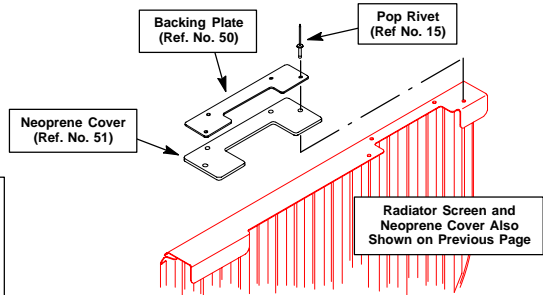


## RADIATOR and COOLING SYSTEM

### SUZUKI 660 EFI TURF MODEL 898658 With Serial No's. *Beginning With 00002120* and MODEL 898656



The Neoprene Cover and Mounting Hardware (Ref. No's. 15, 50 & 51) are Used On Vehicles Which Are Equipped With Seat Belts.  
Seat Belts Are Included With the Upper ROPS Accessory (Part No. 894761); the Upper ROPS Mod (Part No. 53715) and the Cab Set Mod (Part No. 53721).

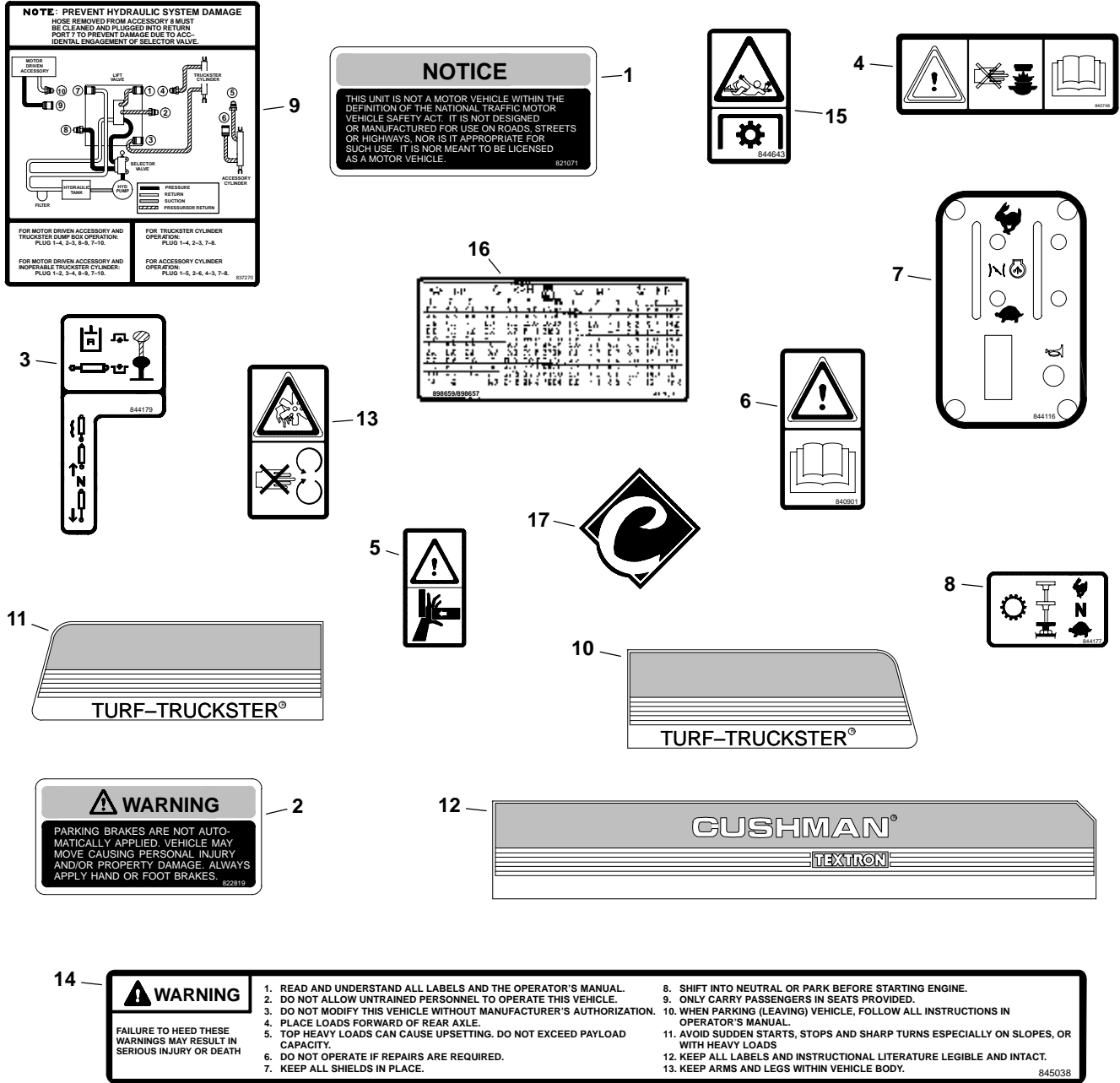


To Install the Neoprene Cover and Backing Plate, Place the Cover on Top of the Radiator Screen and Position the Cover Using the Dimensions Shown in the Illustration above.  
Using the Cover as a Template, Mark and Drill Four (4) .140" (3.5 mm) Dia. Holes.  
Secure the Cover and Mount Plate Using the Rivets as Shown.

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	300646	Screw, 1/4-20 x 3/4	2	28	452388	Screw, M8-1.25 x 20 (G8.8)	3
2	306396	Lockwasher, 1/4	2	29	452395	Screw, M10-1.50 x 80 (8.8)	1
3	308090	Washer, 1/4	2	30	452398	Screw, M10-1.50 x 20 (8.8)	2
4	450452	Nut, M6-1.00	4	31	820889	Clamp, tubing	4
5	450541	Screw, M6-1.00 x 16	4	32	843857	Sender, water temperature	1
6	452378	Screw, M6-1.00 x 20	5	33	2701639	Hose, radiator upper	1
7	835805	Hose, radiator overflow	As Req'd.	34	2700031	O-ring, 15/16" i.d.	1
8	832033	Clamp, tube	1	35	2700050	Hose, radiator lower	1
9	845224	Cap, .313 x 1	1	36	833715	Plug	1
10	800177	Screw, 5/16-18 x 3/4	4	37	2701637	Housing, thermostat	1
11	831846	Nut, isolation	4	38	845365	Tube, water outlet	1
12	825624	Clamp, hose	1	39	829787	Terminal, 45° 1/4" male	1
13	889051	Cap, coolant reservoir	1	40	452392	Screw, M8-1.25 x 50 (8.8)	3
14	833512	Foam	2	41	2701638	Spacer, thermostat	1
15	133741	Rivet, pop (.12 .50 clsd end)	4	42	2701513	Gasket, thermostat spacer	1
16	840754	Decal, Warning Pressure	1	43	009034880	Decal, fan	1
17	843040	Bracket, fan mounting	1	44	2702540	Bolt, bleed valve	1
18	888549	Connector, hose (air cleaner)	1	45	2702542	Thermostat	1
19	894590	Radiator	1	46	2702541	Washer, bleed valve	1
20	833443	•Plug	1	47	845409	Bracket, u-water inlet	1
21	889049	•Cap, radiator	1	48	2701108	Clamp, 1.25 i.d.	1
22	833442	•O-ring	1	49	2701688.7	Bracket, upper radiator hose	1
23	889050	Reservoir, coolant	1	50	2701421	Backing plate, cover	1
24	893388	Mount, radiator	1	51	2701422	Cover, neoprene	1
25	893554	Screen	1	52	2701757	Switch, fan (on-93°C, off-88°C)	1
26	2700799	Fan, radiator, cooling	1	53	2702539	Cap, thermostat	1
27	450453	Nut, M8-1.25 (G10.9)	4				

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

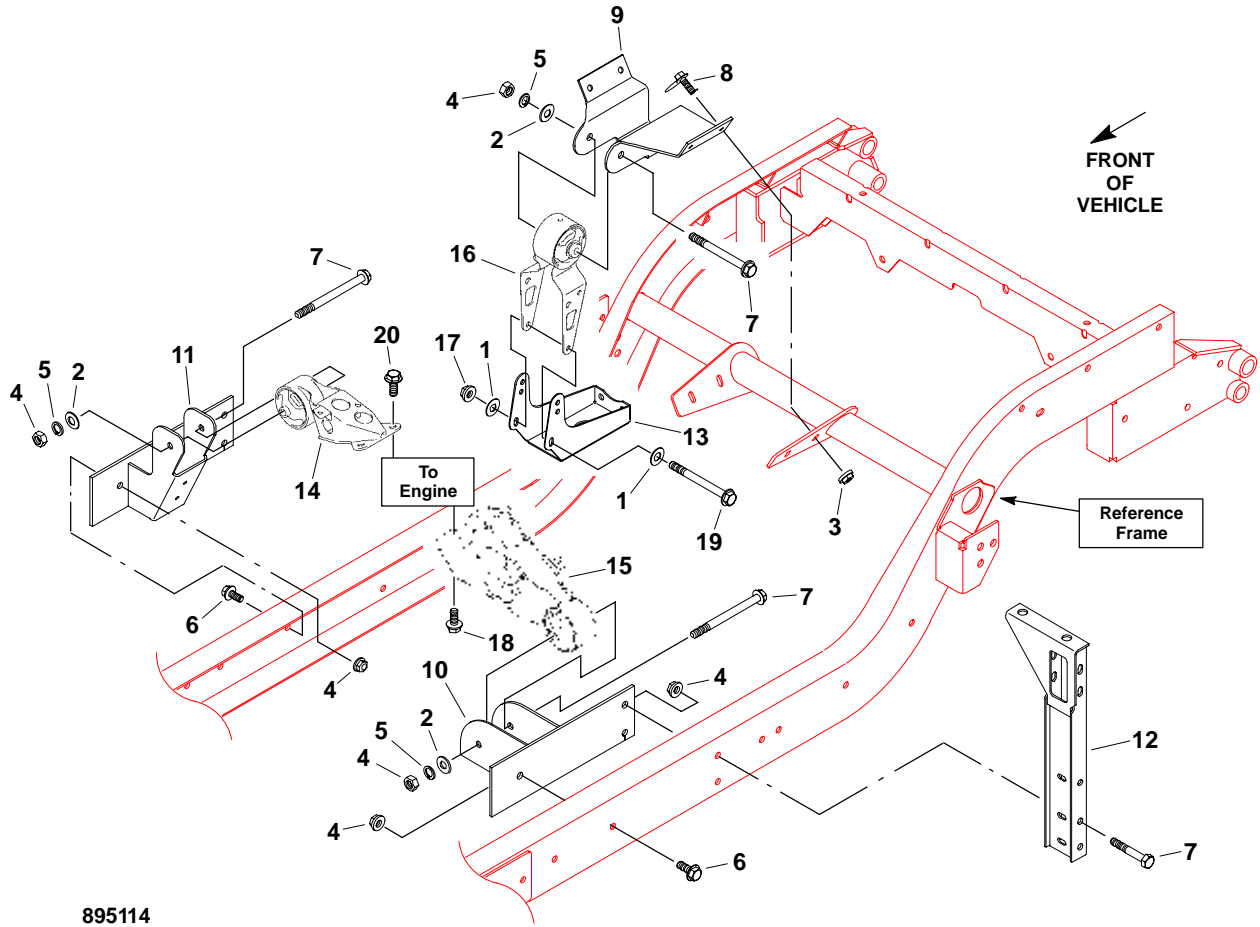
# DECALS, TURF MODELS



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	821071	Decal, Notice not motor vehicle	1	10	844426	Decal, 4 wheel turf LH	1
2	822819	Decal, Warning, park brake	1	11	844427	Decal, 4 wheel turf RH	1
3	837270	Decal, remote hyd. connections	1	12	844430	Decal, Cushman-Textron	1
4	840754	Decal, Warning, pressure	1	13	009034880	Decal, Warning, fan	1
5	845027	Decal, Pinch point	As Req'd.	14	845038	Decal, Vehicle Operation	1
6	840901	Decal, Warning, read ops. man.	1	15	844643	Decal, Warning, pto	1
7	844116	Decal, LH dash, turf	1	16	845232	Decal, ground speed	1
8	844177	Decal, aux. transmission	1	17	2701389	Decal, diamond C	1
9	844179	Decal, hydraulic controls	1				



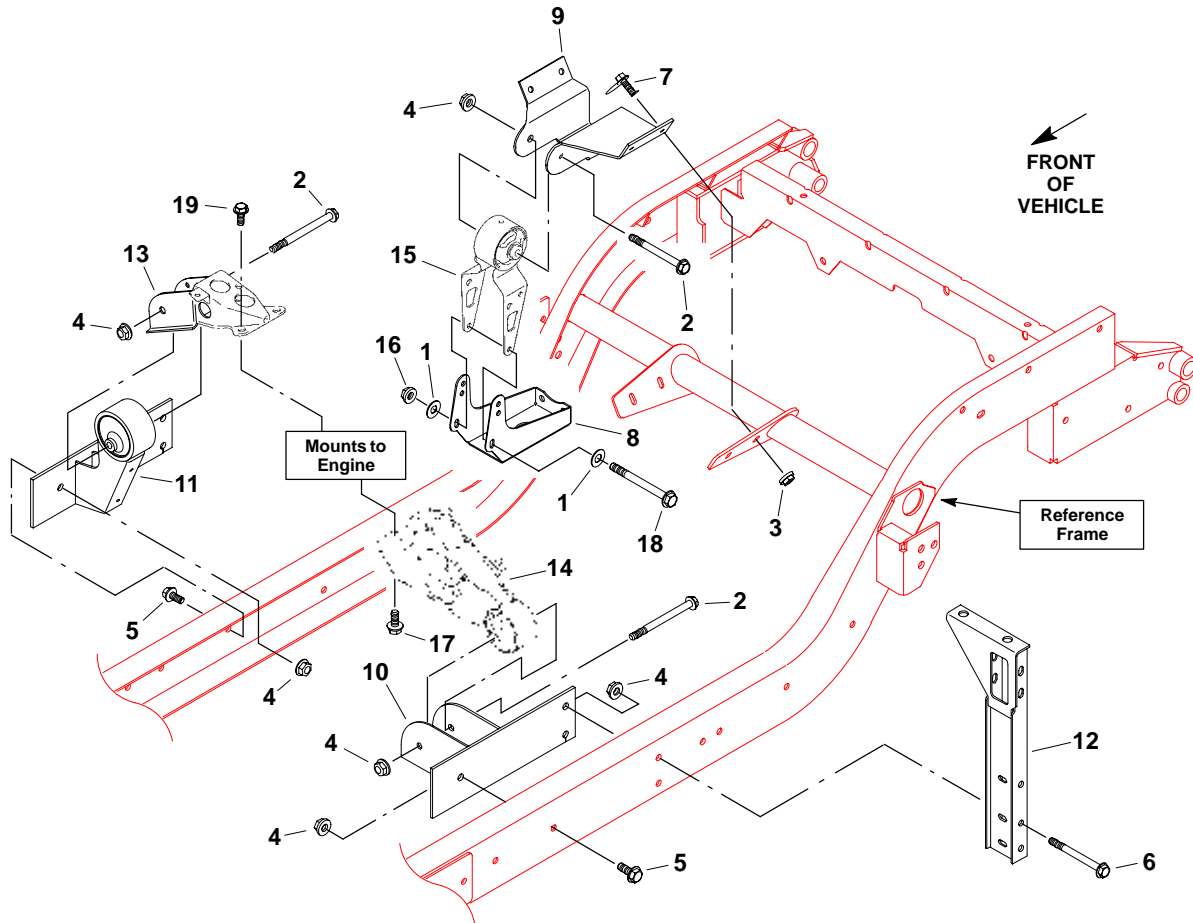
**ENGINE and TRANSMISSION MOUNTS**  
**SUZUKI 660 TURF MODELS 898658 With Serial No's. Up To REV1287**  
**and MODELS 898657**



895114

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	103867	Washer, 5/16	2	11	895000.7	Mount, motor (right)	1
2	306982	Washer, 7/16	3	12	893525	Support, platform	2
3	450453	Nut, M8-1.25 (G10.9)	4	13	839946	Bracket, muffler	1
4	452454	Nut, M10-1.50 (10.9)	9	14	2702996	Mount, engine (right)	1
5	450412	Lockwasher, M10	3	15	2702999	Mount, engine (left)	1
6	452398	Screw, M10-1.50 x 20 (8.8)	2	16	2703001	Mount, rear	1
7	452406	Screw, M10-1.50 x 90 (8.8)	7	17	2703002	Nut	2
8	452389	Screw, M8-1.25 x 25 (8.8)	4	18	2701827	Bolt	4
9	845206.7	Bracket, transmission to frame	1	19	2702661	Bolt	2
10	894998.7	Mount, motor (left)	1	20	2702998	Bolt	3

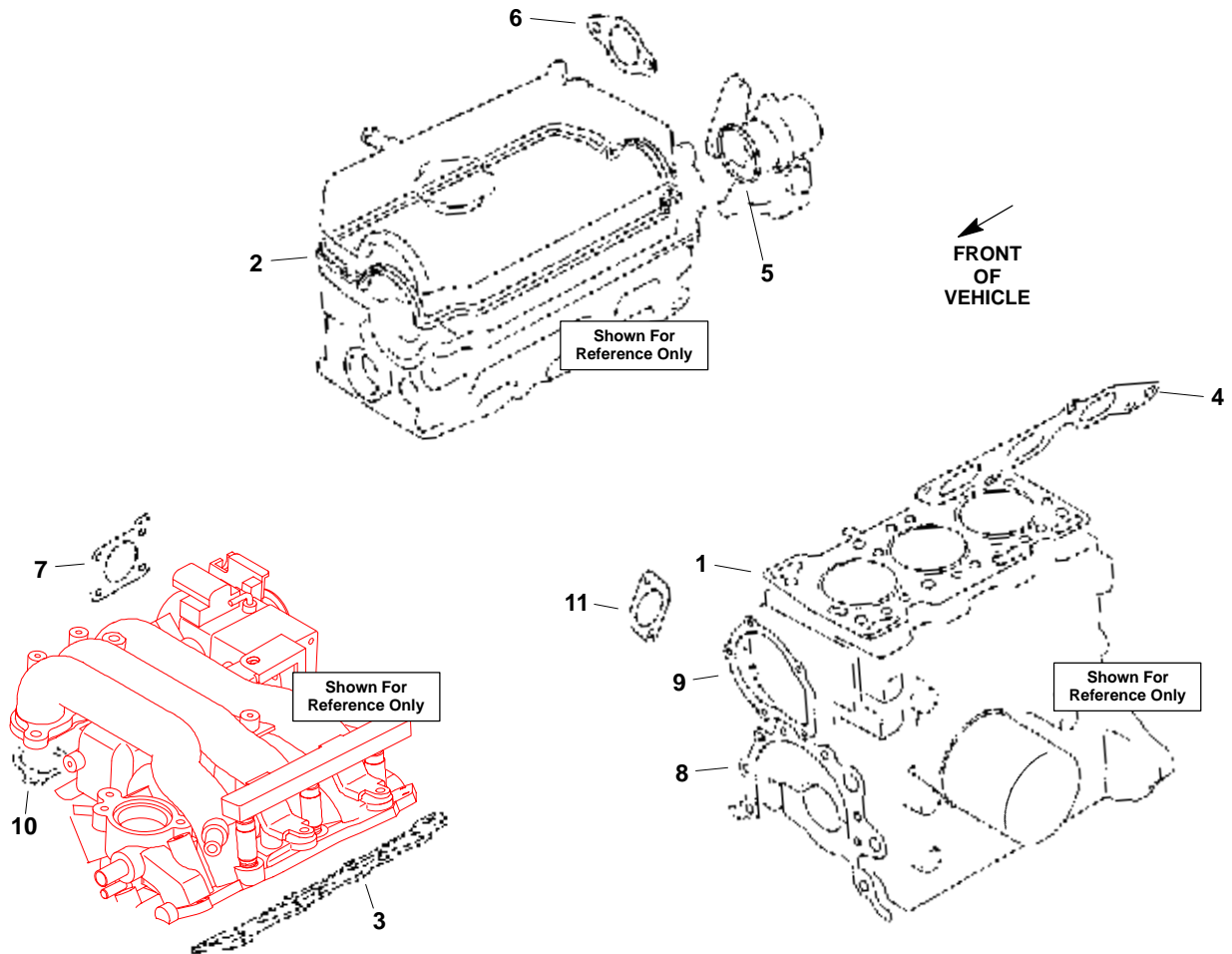
**ENGINE and TRANSMISSION MOUNTS**  
**SUZUKI 660 EFI TURF MODELS 898658 With Serial No's. Beginning With 00002120**  
**and MODELS 898656**



P2700567, P2701381

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	103867	Washer, 5/16	2	11	2701698	Mount,motor (right)	1
2	452405	Screw, M10-1.50 x 80 (8.8)	3	12	893525	Support, platform	2
3	450453	Nut, M8-1.25 (G10.9)	4	13	2702997	Mount, engine (right)	1
4	452454	Nut, M10-1.50 (10.9)	9	14	2703000	Mount, engine (left)	1
5	452398	Screw, M10-1.50 x 20 (8.8)	2	15	2703001	Mount, rear	1
6	452406	Screw, M10-1.50 x 90 (8.8)	4	16	2703002	Nut	2
7	452389	Screw, M8-1.25 x 25 (8.8)	4	17	2701827	Bolt	4
8	839946	Bracket, muffler	1	18	2702661	Bolt	2
9	845206.7	Bracket, transmission to frame	1	19	2702998	Bolt	3
10	894998.7	Mount, motor (left)	1				

**ENGINE GASKETS**  
**SUZUKI 660 EFI TURF**  
**MODELS 898656, 898657, 898658**

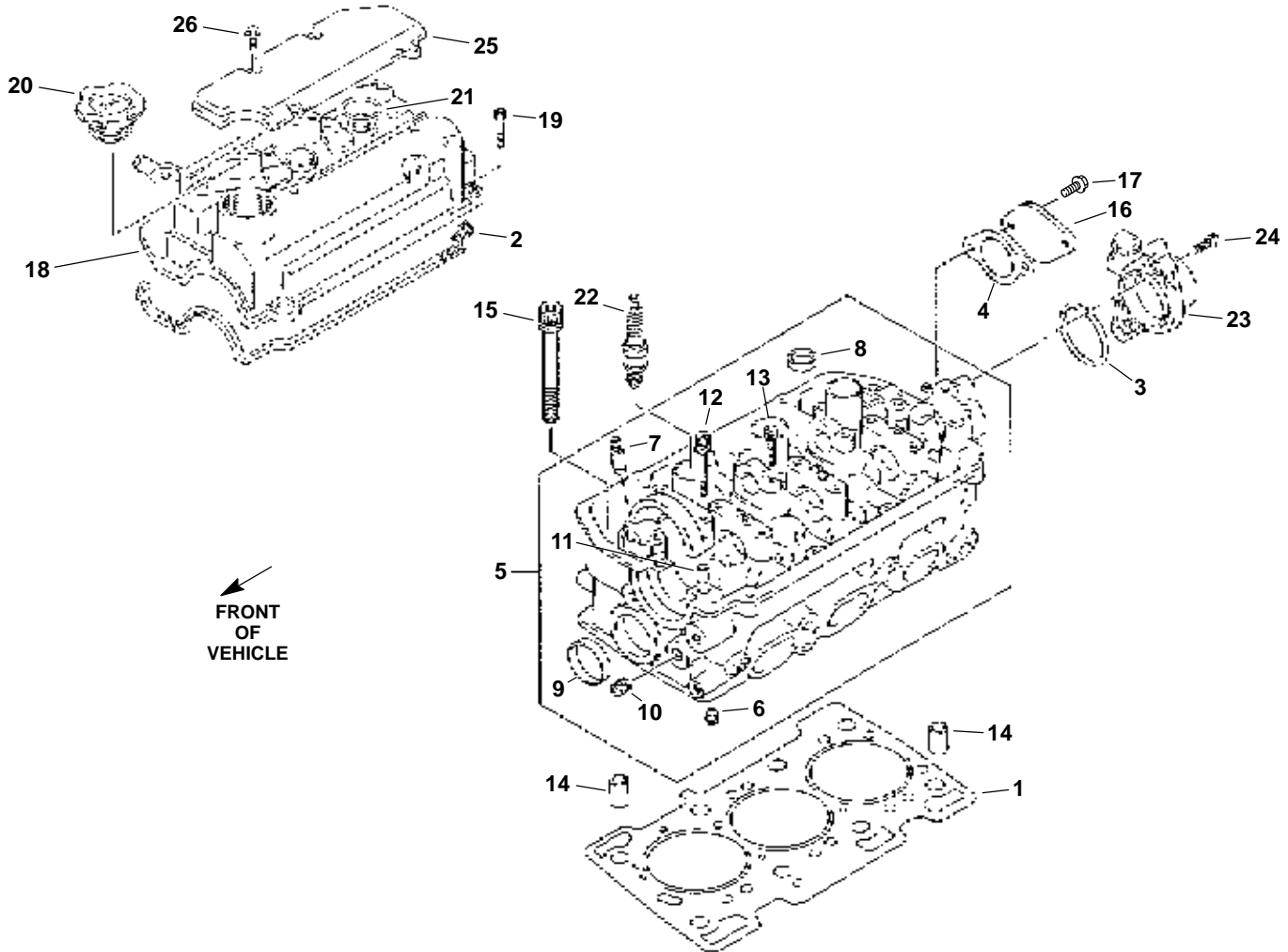


All Items Shown are used with all Models Unless Otherwise Indicated.

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
◇	2701775	Gasket set, complete . . . . .	1	6	2701799	•Gasket, cyl. plate . . . . .	1
▼	2701812	Gasket set, complete . . . . .	1	7	2701803	•Gasket, throttle body . . . . .	1
1	2701776	•Gasket, head . . . . .	1	8	2701800	•Gasket, oil pump cover . . . . .	1
2	2701795	•Gasket, valve cover . . . . .	1	9	2701801	•Gasket, water pump . . . . .	1
3	2701796	•Gasket, intake manifold . . . . .	1	10	◇ 2701804	•Gasket, surge tank . . . . .	1
4	2701797	•Gasket, exhaust manifold . . . . .	1	11	2701802	•Gasket, water inlet . . . . .	1
5	2701798	•Gasket, distributor drive . . . . .	1				

- INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY
- ▼ Models 898658 with Serial No's. **up to** REV1287 and Models 898657.
- ◇ Models 898658 with Serial No's. **beginning with** 00002120 and Models 898656.

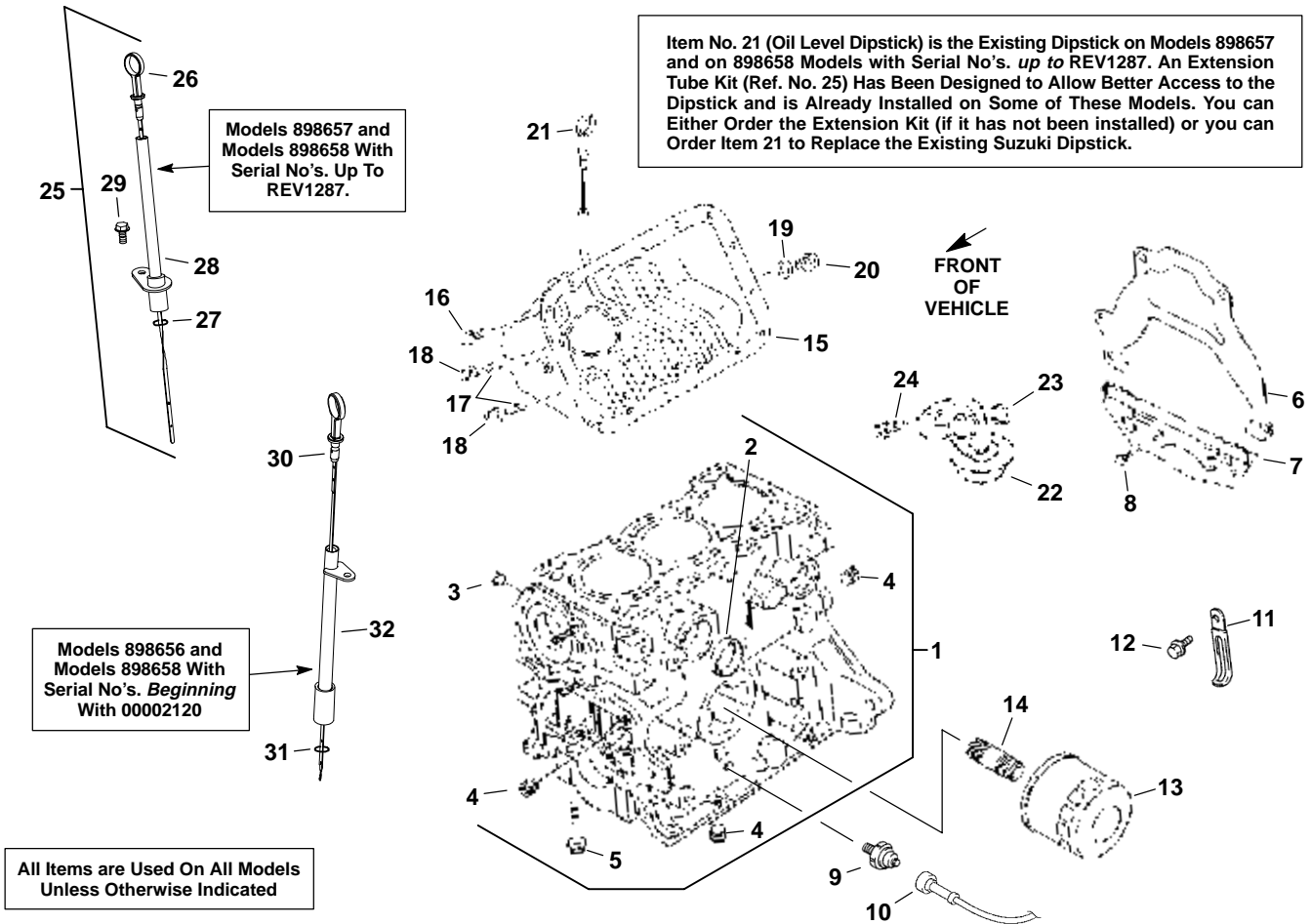
**CYLINDER HEAD & COMPONENTS**  
**SUZUKI 660 EFI TURF MODELS 898656, 898657, 898658**



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2701776	Gasket, head	1	15	2701825	Bolt, cylinder head	8
2	2701795	Gasket, valve cover	1	16	2701826	Plate, cylinder head	1
3	2701798	O-ring, distributor drive	1	17	2701827	Screw	2
4	2701799	Gasket	1	18	2701828	Cover, cylinder head	1
5	2701813	Head, cylinder	1	19	2701829	Bolt	4
6	2701814	•Plug, oil venturi	1	20	2701830	Cap, oil filler	1
7	2701815	•Guide, valve	12	21	2701831	O-ring, spark plug pipe	3
8	2701816	•Seal	2	22	2701832	Plug, spark	
9	2701819	•Seal	1			Nippon Denso XU22EPR-U	3
10	2701820	•Plug	4	23	2701833	Case, distributor	1
11	2701821	•Pin	10	24	2701834	Bolt	2
12	2701822	•Bolt	11	25	2701835	Cover, cylinder	1
13	2701823	•Bolt	13	26	2701836	Bolt	4
14	2701824	Pin	2				

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

## CYLINDER BLOCK, COMPONENTS, OIL DIPSTICK & FILTER SUZUKI 660 EFI TURF MODELS 898656, 898657 & 898658



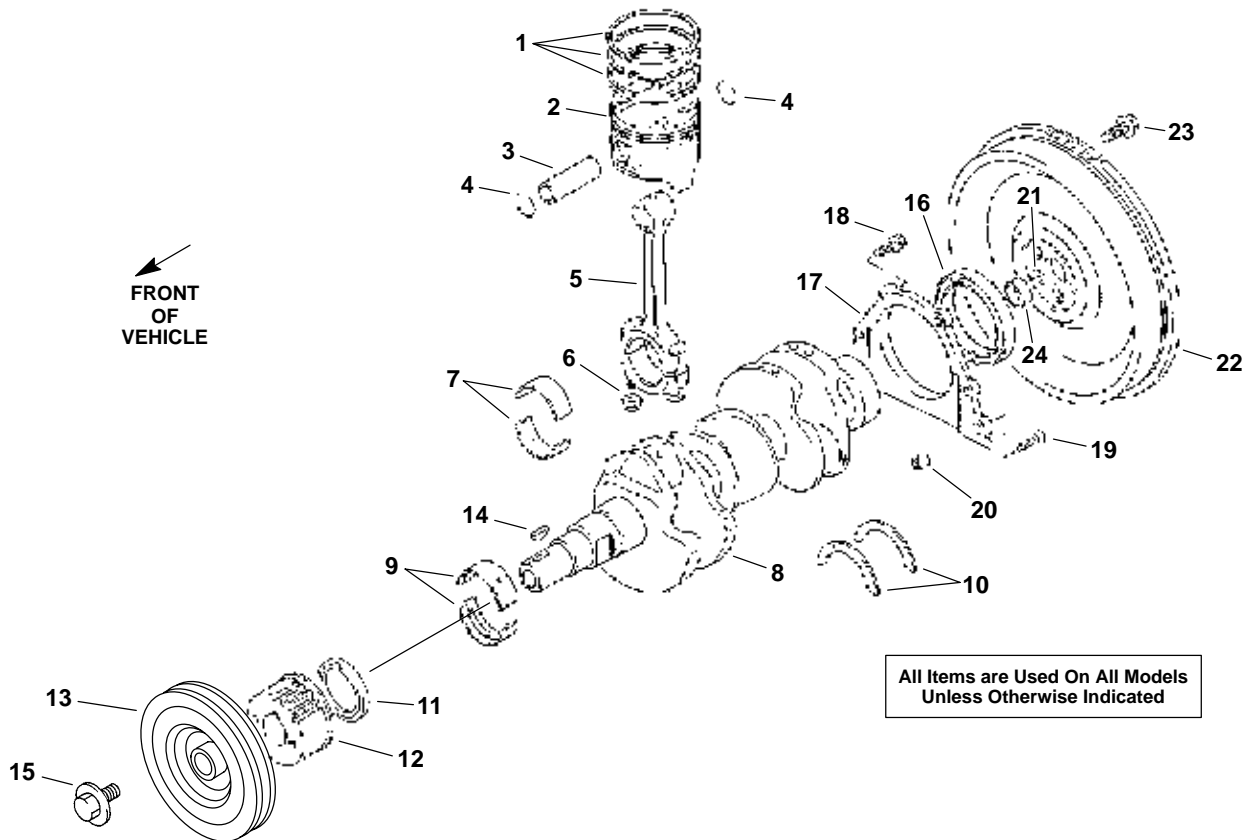
Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2701837	Block, cylinder	1	16	2701912	Bolt	14
2	2701819	•Seal	2	17	2701913	Stud	2
3	2701820	•Plug	1	18	2701914	Nut	2
4	2701838	•Plug	3	19	2701915	Plug, oil drain	1
5	2701839	•Bolt	8	20	2701916	Gasket, oil drain plug	1
6	2701840	Plate, clutch hsng. upper	1	21	2701917	Dipstick, oil level	1
(6)	2701900	Plate, clutch hsng. upper (898657)	1	22	2701919	Strainer, oil pump	1
7 ◇	2701901	Plate, clutch hsng. lower	1	23	2701920	O-ring	1
(7)	2701900	Plate, clutch hsng. lower (898657)	1	24	2701921	Bolt	2
8	2702537	Bolt	1	25 ▼	2701606	Kit, dipstick extension	1
9	2701904	Sender, oil pressure	1	26 ▼	2701598	•Dipstick, oil level	1
10	2701905	Wire, oil pressure	1	27 ▼	2701605	•O-ring, rubber	1
11	2701906	Clamp (898657)	1	28 ▼	2701559.7	•Extension, dipstick	1
12	2701907	Bolt	1	29 ▼	800934	•Screw, M6-1.00 x 16 (8.8)	1
13	2701908	Filter, oil	1	30	2701598	Dipstick, oil level	1
14	2701909	Nipple	1	31	2701605	O-ring, rubber	1
15 ▼	2701910	Pan, oil	1	32 ◇	2701709.7	Extension, dipstick	1
(15)◇	2701911	Pan, oil	1				

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

▼ Models 898658 with Serial No's. *up to* REV1287 and Models 898657.

◇ Models 898658 with Serial No's. *beginning with* 00002120 and Models 898656.

**CRANKSHAFT, FLYWHEEL, PISTONS**  
**SUZUKI 660 EFI TURF MODELS 898656, 898657 & 898658**

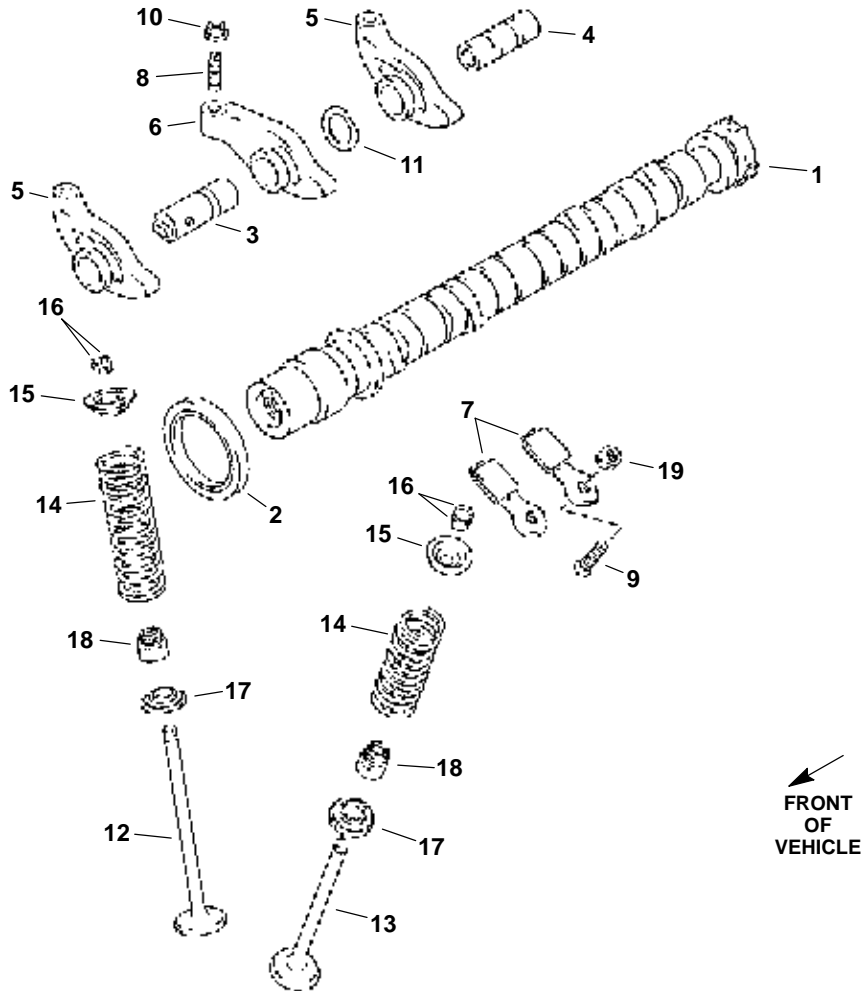


All Items are Used On All Models  
 Unless Otherwise Indicated

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2701922	Ring, piston (standard)	3	11	2701939	Seal, front	1
(1)	2701923	Ring, piston	3	12	2701940	Pulley, timing belt	1
(1)	2701924	Ring, piston	3	13 ▼	2701941	Pulley, crankshaft	1
2	2701925	Piston (standard)	3	(13) ◇	2701942	Pulley, crnkshft (Model 656)	1
(2)	2701926	Piston (OS:0.25)	3	14	2701943	Key	1
(2)	2701927	Piston (OS:0.50)	3	15	2701944	Bolt	1
3	2701928	Pin, piston	3	16	2701945	Seal, rear main	1
4	2701929	Ring, snap	6	17	2701946	Plate, rear	1
5	2701930	Rod, connecting	3	18	2701834	Bolt	4
6	2701931	•Nut, connecting rod	2	19	2701948	Bolt	2
7	2701932	Bearing, cnnectng. rod	6	20	2701949	Pin	2
(7)	2701933	Bearing, cnnectng. rod	6	21	2701953	Pin (manual trans.)	1
8	2701934	Crankshaft	1	(21)	2701954	Pin (automatic trans.)	1
9	2701935	Bearing set, crnkshft.	1	22	2701950	Flywheel (manual trans.)	1
(9)	2701936	Bearing set, crnkshft.	1	23	2701951	Bolt (manual trans.)	6
10	2701937	Bearing set, crank thrust	1	24	2701952	Bearing, input shaft (manual)	1
(10)	2701938	Bearing set, thrst	1				

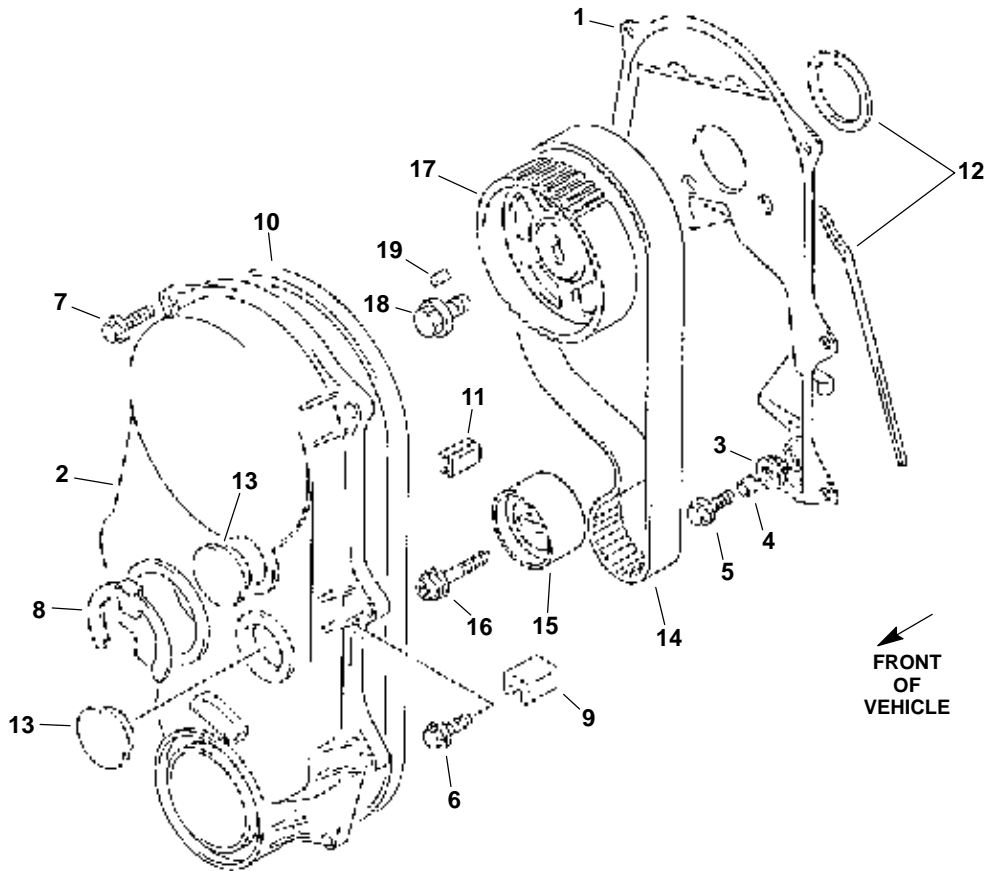
- INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY
- ▼ Models 898658 with Serial No's. **up to** REV1287 and Models 898657.
- ◇ Models 898658 with Serial No's. **beginning with** 00002120 and Models 898656.

**CAMSHAFT & COMPONENTS**  
**SUZUKI 660 EFI TURF**  
**MODELS 898656, 898657 & 898658**



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2701947	Camshaft	1	11	2701965	Washer, wavy	4
2	2701955	Seal, camshaft	1	12	2701966	Valve, intake	6
3	2701956	Shaft, rocker arm (No. 1)	2	13	2701967	Valve, exhaust	6
4	2701957	Shaft, rocker arm (No. 2)	2	14	2701968	Spring, valve	12
5	2701958	Arm, valve rocker, intake No. 1	3	15	2701969	Retainer, valve spring	12
6	2701959	Arm, valve rocker, intake No. 2	3	16	2701970	Cotter, valve	24
7	2701960	Arm, rocker exhaust	6	17	2701971	Seat, valve spring	12
8	2701961	Screw, adjusting	6	18	2701972	Seal, valve stem	12
9	2701962	Screw, valve adjusting	6	19	2701964	Nut, adjusting (exhaust)	6
10	2701963	Nut, adjusting (intake)	12				

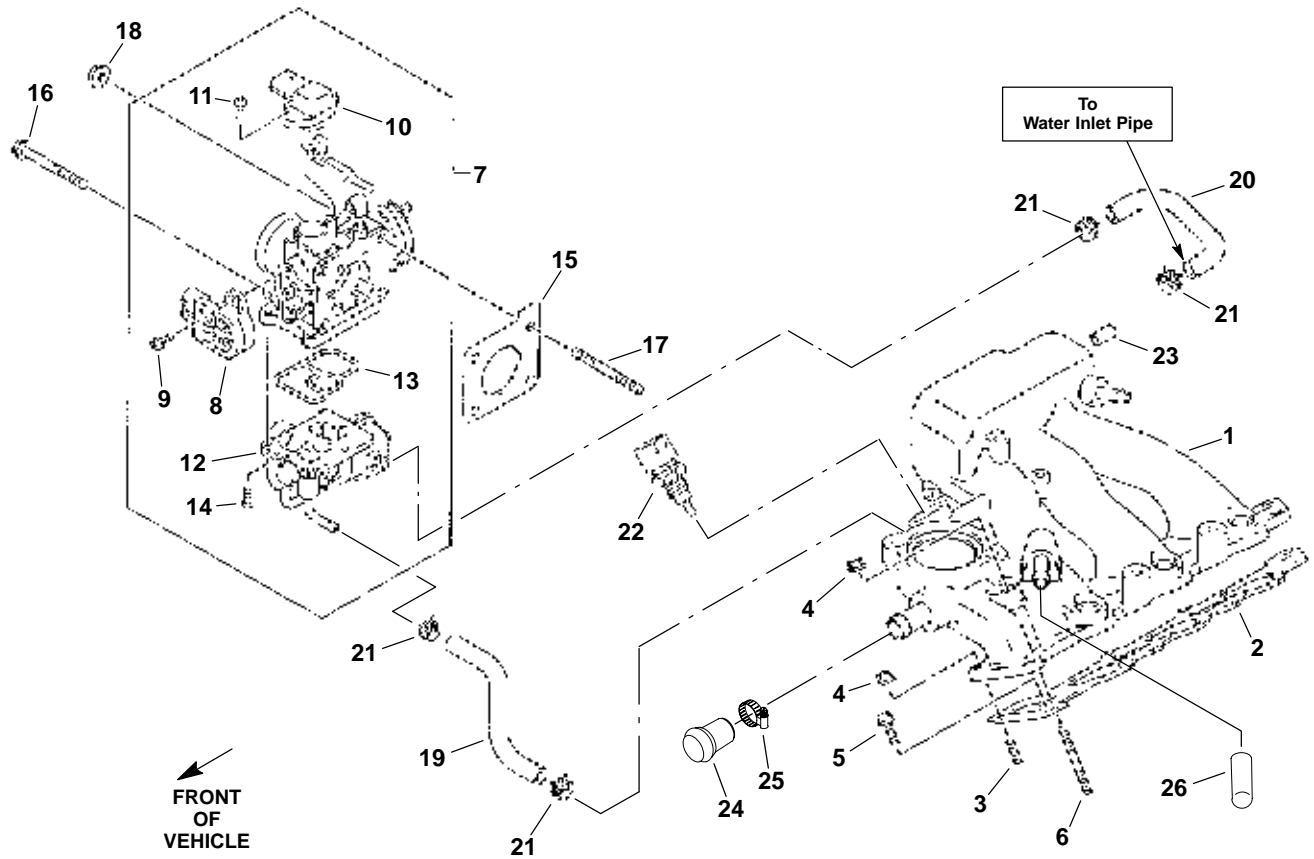
**TIMING BELT & TIMING COVER**  
**SUZUKI 660 EFI TURF**  
**MODELS 898656, 898657 & 898658**



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2701973	Cover, timing belt (inside) . . . . .	1	11	2701982	Seal . . . . .	1
2	2701974	Cover, timing belt (outside) . . . . .	1	12	2701983	Seal set . . . . .	1
3	2701975	Grommet . . . . .	4	13	2701984	Cap . . . . .	2
4	2701976	Spacer . . . . .	4	14	2701985	Belt, timing . . . . .	1
5	2701977	Bolt . . . . .	4	15	2701986	Tensioner assembly . . . . .	1
6	2701978	Bolt . . . . .	5	16	2701987	Bolt . . . . .	1
7	2701834	Bolt . . . . .	3	17	2701988	Pulley, cam shaft timing . . . . .	1
8	2701980	E-ring . . . . .	1	18	2701989	Bolt . . . . .	1
9	2701981	Seal . . . . .	1	19	2701990	Pin . . . . .	1
10	2701979	Seal, cover outside . . . . .	1				



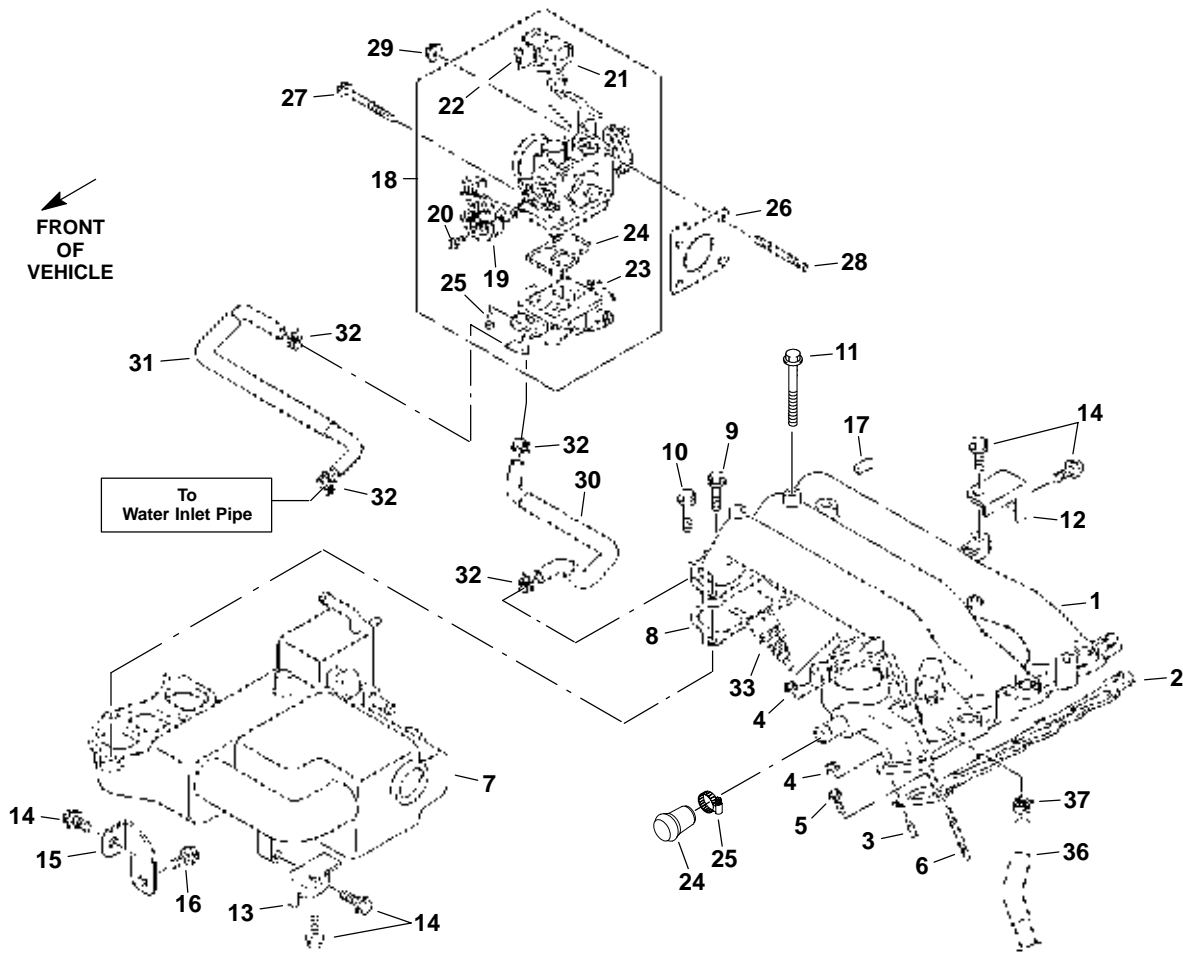
**INTAKE MANIFOLD & THROTTLE BODY**  
**SUZUKI 660 EFI TURF MODELS 898657 and**  
**MODELS 898658 With Serial No's. Up To REV1287**



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2701991	Manifold, intake .....	1	14	2701998	•Screw .....	4
2	2701796	Gasket, intake manifold .....	1	15	2701803	Gasket .....	1
3	2701992	Stud bolt .....	2	16	2702001	Bolt .....	2
4	2701914	Nut .....	3	17	2702426	Stud bolt .....	2
5	2701834	Bolt .....	6	18	2701914	Nut .....	2
6	2701993	Stud bolt .....	1	19	2702427	Hose, water inlet .....	1
7	2701994	Body assy., throttle .....	1	20	2702428	Hose, water outlet .....	1
8	2701995	•Sensor, throttle position .....	1	21	2702429	Clip .....	4
9	2701996	•Screw .....	2	22	2702430	Sensor, water temp. ....	1
10	2701997	•Sensor, pressure .....	1	23	2702431	Plug .....	1
11	2701998	•Screw .....	2	24	833715	Cap plug .....	1
12	2701999	•Valve, ISC .....	1	25	832033	Clamp, hose .....	1
13	2702000	•Gasket .....	1	26	842998	Cap, 5/16 i.d. x 1 .....	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

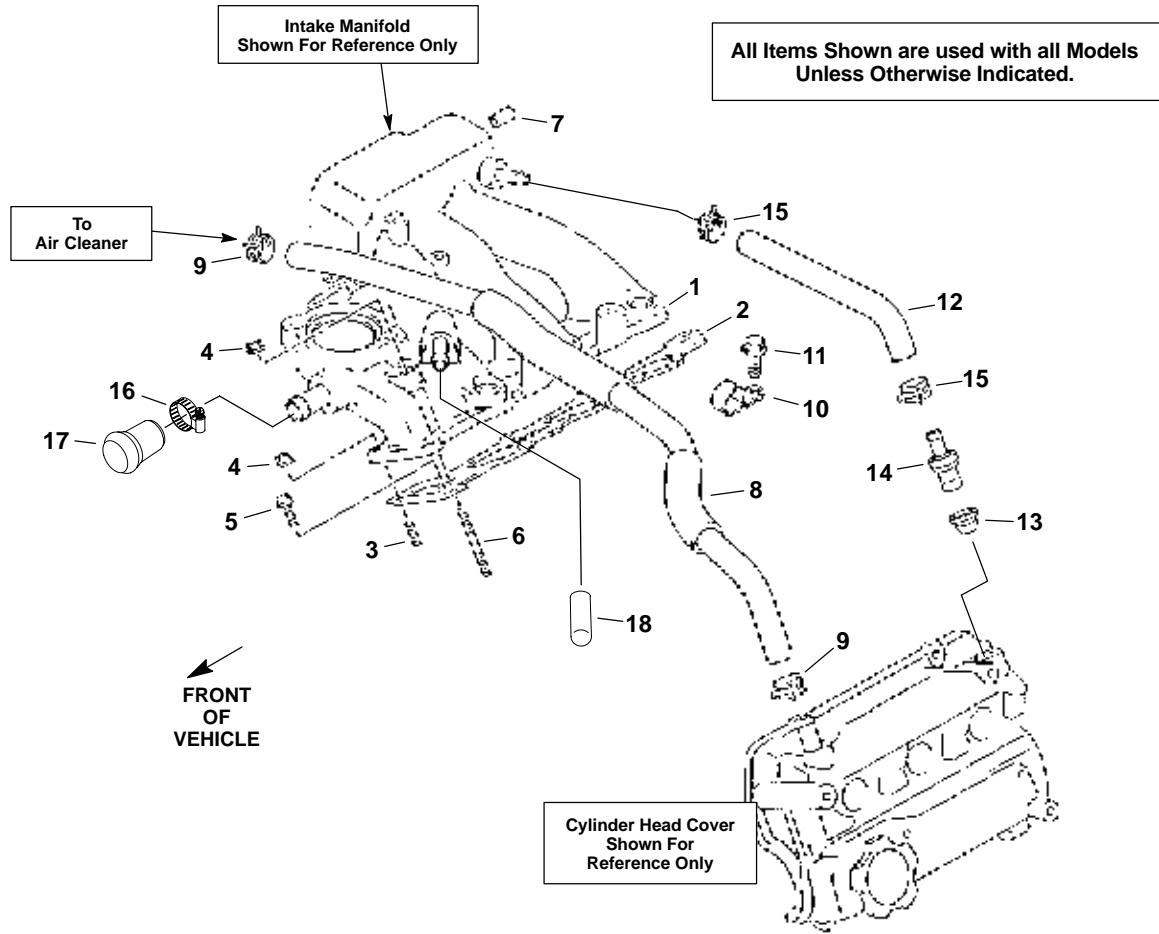
**INTAKE MANIFOLD & THROTTLE BODY**  
**SUZUKI 660 EFI TURF MODEL 898656 and**  
**MODELS 898658 With Serial No's. Beginning With 00002120**



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2702467	Manifold, intake . . . . .	1	20	2701996	•Screw . . . . .	2
2	2701796	Gasket, intake manifold . . . . .	1	21	2702477	•Sensor, pressure . . . . .	1
3	2701992	Stud bolt . . . . .	2	22	2701998	•Screw . . . . .	2
4	2701914	Nut . . . . .	3	23	2702478	•Valve, ISC . . . . .	1
5	2701834	Bolt . . . . .	6	24	2702000	•Gasket . . . . .	1
6	2701993	Stud bolt . . . . .	1	25	2701998	•Screw . . . . .	4
7	2702468	Tank, surge . . . . .	1	26	2701803	Gasket . . . . .	1
8	2701804	Gasket . . . . .	1	27	2702001	Bolt . . . . .	2
9	2702469	Bolt . . . . .	1	28	2702426	Stud bolt . . . . .	2
10	2702470	Bolt . . . . .	2	29	2701914	Nut . . . . .	2
11	2702471	Bolt . . . . .	1	30	2702479	Hose, water inlet . . . . .	1
12	2702472	Bracket, intake manf. No. 1 . . . . .	1	31	2702480	Hose, water outlet . . . . .	1
13	2702473	Bracket, intake manf. No. 2 . . . . .	1	32	2702429	Clip . . . . .	4
14	2701827	Bolt . . . . .	5	33	2702481	Sensor, water temp. . . . .	1
15	2702474	Bracket, surge tank . . . . .	1	34	833715	Cap plug . . . . .	1
16	2702475	Bolt . . . . .	1	35	832033	Clamp, hose . . . . .	1
17	2702431	Plug . . . . .	1	36	2702432	Hose, brake vacuum . . . . .	1
18	2702476	Body assy., throttle . . . . .	1	37	2702433	Clamp . . . . .	1
19	2701995	•Sensor, throttle position . . . . .	1				

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

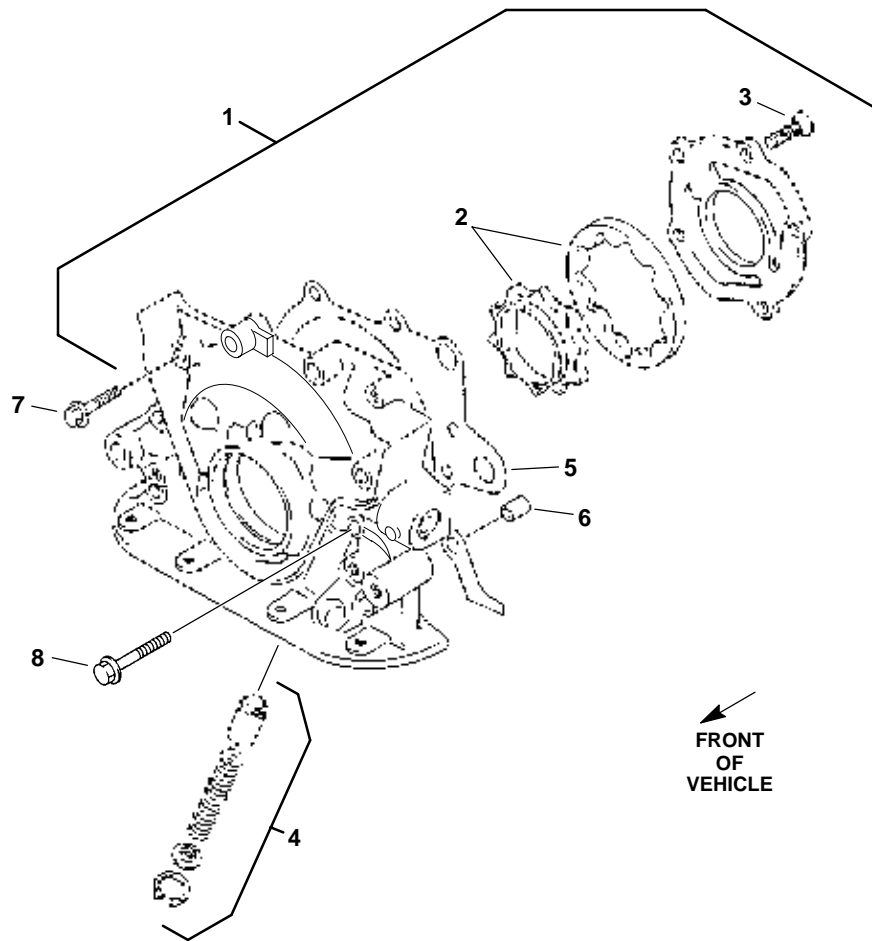
**PCV VALVE & COMPONENTS**  
**SUZUKI 660 EFI**  
**MODELS 898656, 898657 & 898658**



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2701991	Manifold, intake	1	10	2702485	Clamp	1
(1) ◇	2702467	Manifold, intake	1	11	2702486	Bolt	1
2	2701796	Gasket, intake manifold	1	12	2702487	Hose, PVC	1
3	2701992	Stud bolt	2	(12) ◇	2702488	Hose, PVC	1
4	2701914	Nut	4	13	2702489	Seal	1
5	2701834	Bolt	6	14	2702490	Valve, PCV	1
6	2701993	Stud bolt	1	15	2702491	Clip	2
7	2702431	Plug	1	16	832033	Clamp, hose	1
8	2702482	Hose, breather	1	17	833715	Plug	1
(8) ◇	2702483	Hose, breather	1	18	842998	Cap, 5/16 i.d. x 1	1
9	2702484	Clip, hose	2				

◇ Models 898656 and Models 898658 with Serial No's. **beginning with** 00002120.

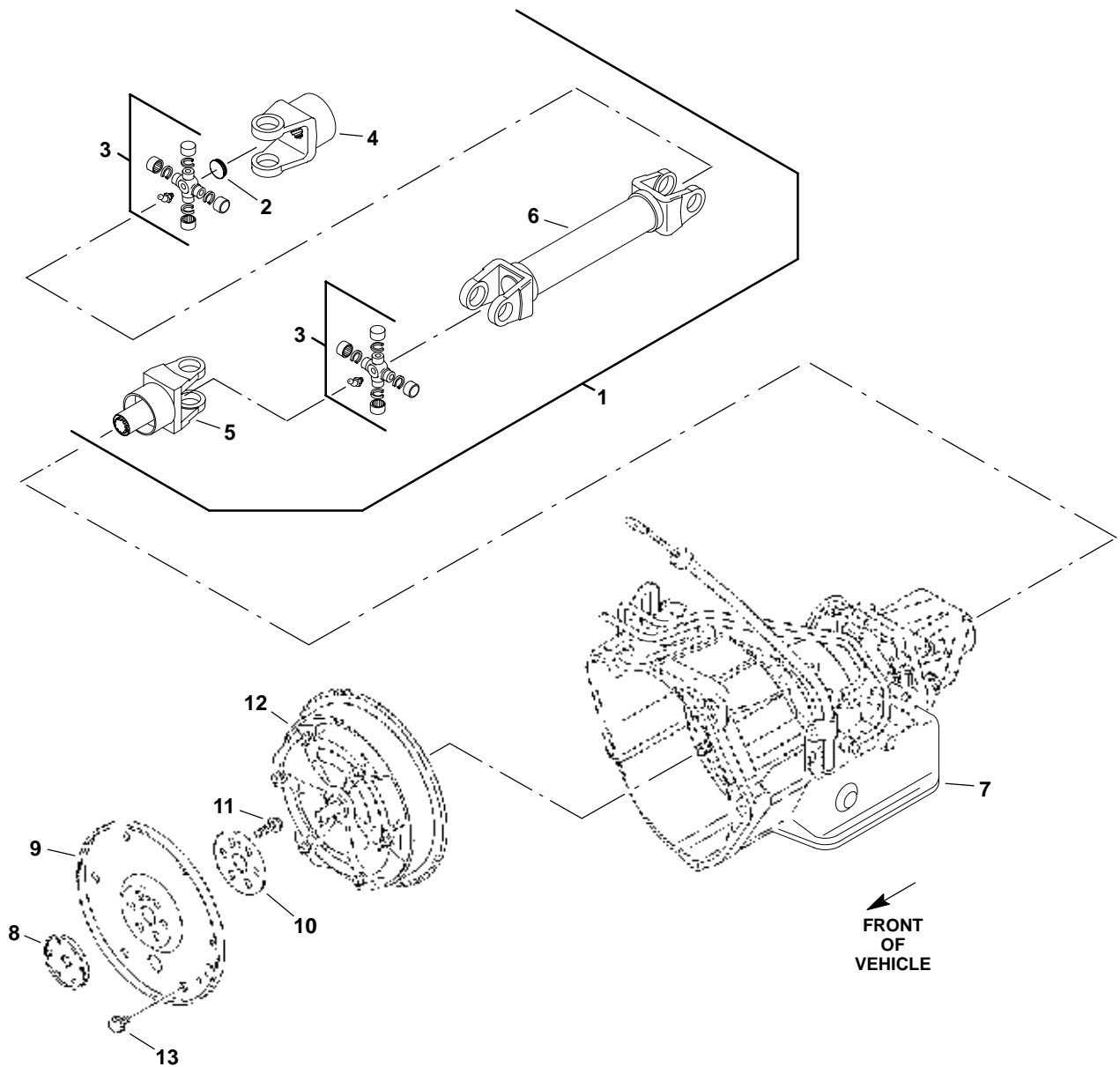
**OIL PUMP  
SUZUKI 660 EFI TURF  
MODELS 898656, 898657 & 898658**



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2702515	Pump, oil	1	5	2701800	Gasket, oil pump cover	1
2	2702516	•Rotor, oil pump	1	6	2701949	Pin	2
3	2702517	•Screw	5	7	2702519	Bolt	4
4	2702518	••Valve set, oil relief	1	8	2702520	Bolt	4

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

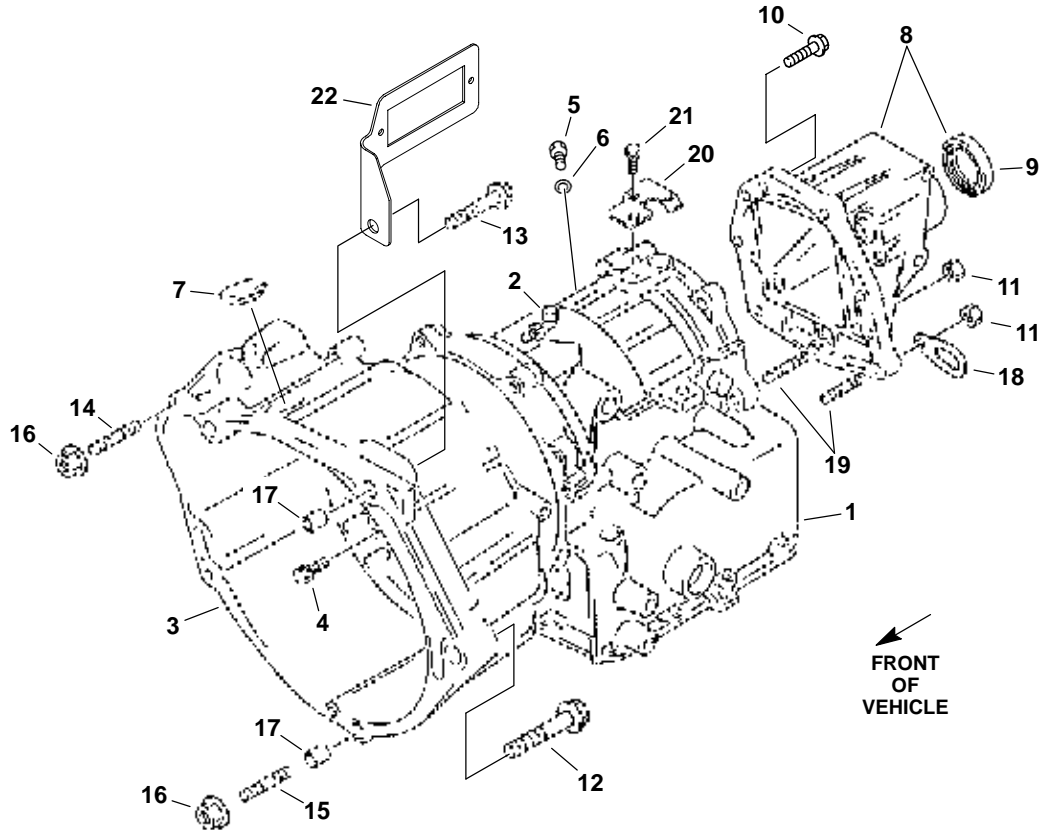
**DRIVESHAFT, TORQUE CONVERTER  
and AUTOMATIC TRANSMISSION  
SUZUKI 660 MODEL 898657**



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	895112.7	Driveshaft, complete (automatic transmission)	1	7	2702697	Transmission, complete	1
2	548482	•Plug, expansion	3	8	2702698	Flange, drive plate	1
3	826284	•Cross, u-joint	2	9	2702699	Plate, drive (flywheel)	1
4	826285	•Yoke, universal	1	10	2702700	Plate, drive rear	1
5	895125	•Yoke, front	1	11	2701951	Bolt	6
6	895126	•Shaft, drive	1	12	2702701	Converter, torque	1
				13	2702702	Bolt	6

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

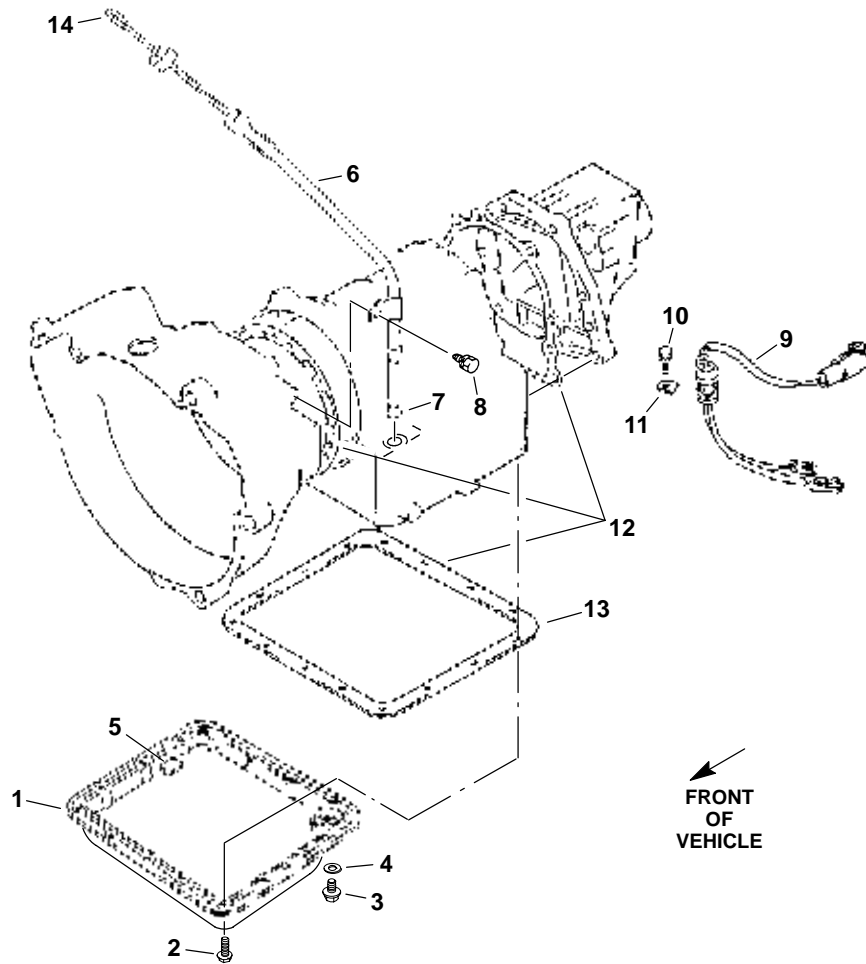
**AUTOMATIC TRANSMISSION  
and COMPONENTS  
SUZUKI 660 MODEL 898657**



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2702750	Case, transmission	1	12	2702756	Bolt	1
2	2702751	•Breather	1	13	2702686	Bolt	1
3	2702752	Housing, torque converter	1	14	2702757	Stud	1
4	2702753	Bolt	6	15	2702758	Stud	1
5	2702760	Plug, booster	1	16	2702689	Nut	2
6	2702761	•O-ring	1	17	2702690	Collar	2
7	2702662	Cap	1	18	2702759	Hook, engine	1
8	2702754	Housing, extension	1	19	2702762	Bolt, transmission case	2
9	2702683	•Seal, extension case	1	20	2702763	Bracket, connector clamp	1
10	2702755	Bolt	5	21	2702764	Bolt	1
11	2702494	Nut	2	22	2703051.7	Bracket, electrical (40 pin)	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

**AUTOMATIC TRANSMISSION PAN,  
DIPSTICK & GASKETS  
SUZUKI 660 MODEL 898657**



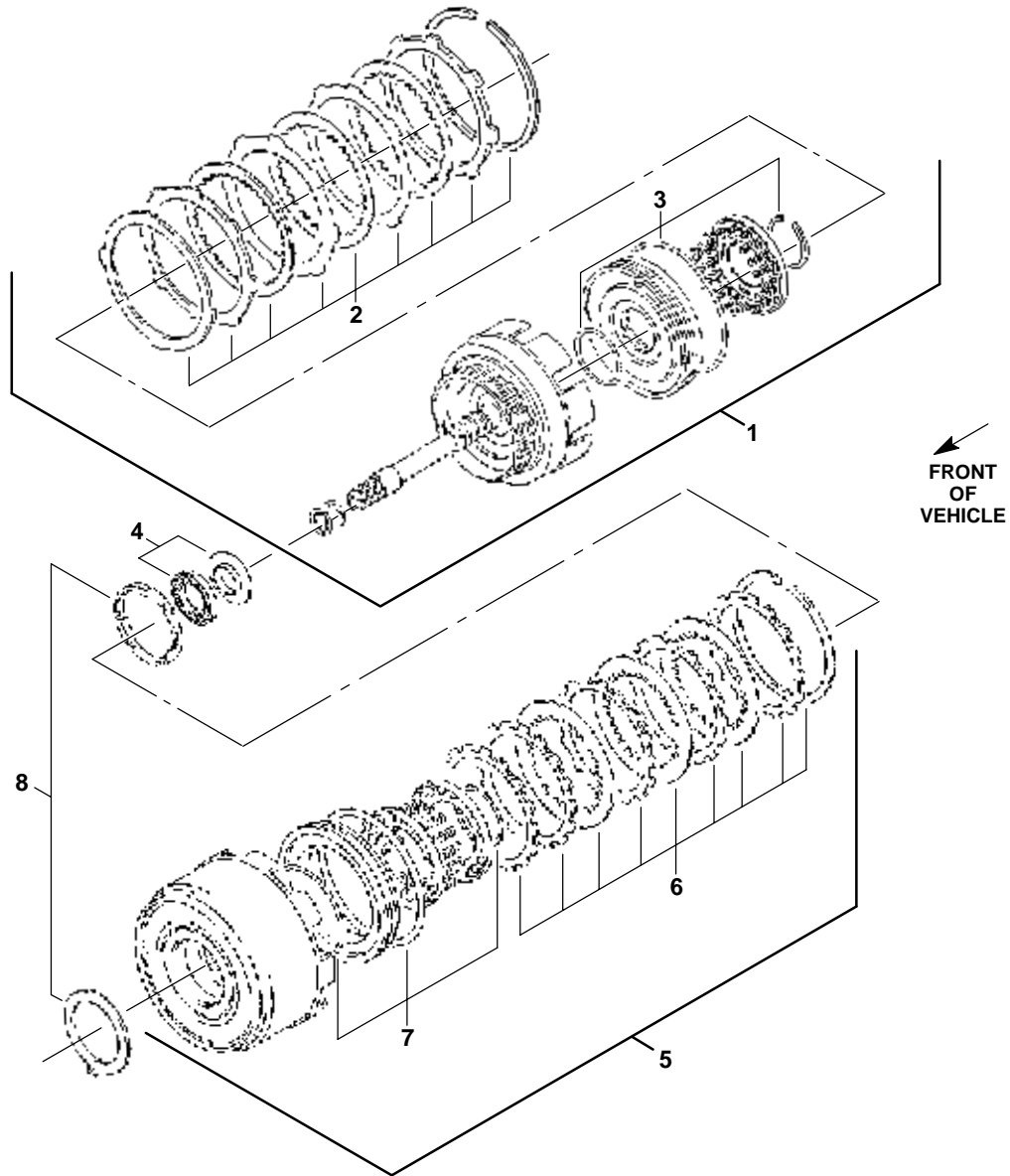
Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2702806	Pan, transmission	1	8	2702475	Bolt	1
2	2702807	Bolt	15	9	2702816	Harness, solenoid wire	1
3	2702808	Plug, transmission drain	1	10	2701921	Bolt	1
4	2702809	Gasket, plug	1	11	2702817	Plate, solenoid harness	1
5	2702810	Magneto, fluid cleaner	1	12	2702748	Set, transmission gasket	1
6	2702811	Tube, transmission dipstick	1	13	2702749	•Gasket, transmission pan	1
7	2702813	•O-ring	1	14	2702814	Dipstick, transmission	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY





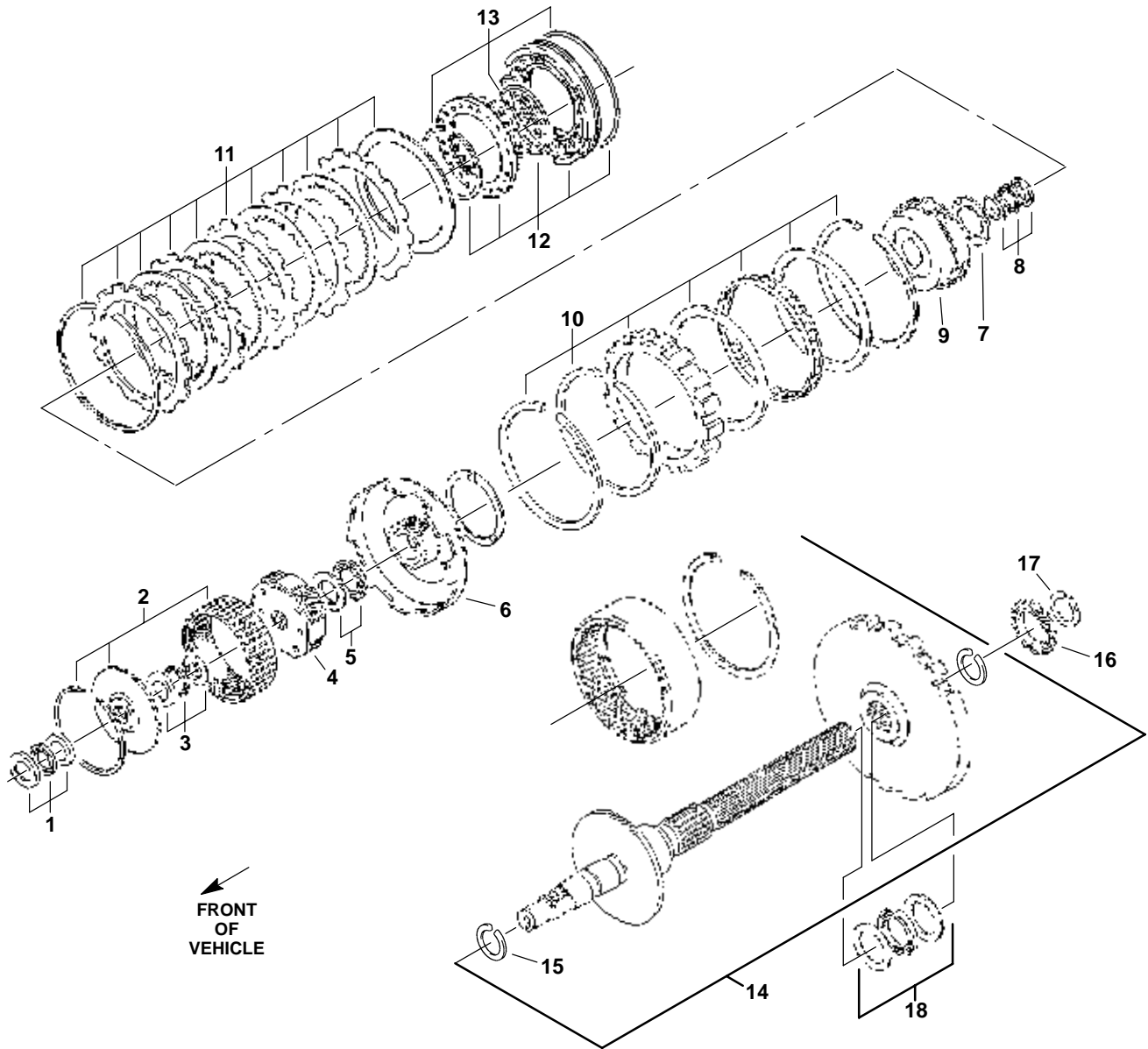
**TRANSMISSION INPUT SHAFT & CLUTCH ASSEMBLY  
(AUTOMATIC TRANSMISSION)  
SUZUKI 660 MODEL 898657**



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2702769	Shaft set, input	1	5	2702773	Clutch assembly, direct	1
2	2702770	•Plate set, forward clutch	1	6	2702774	•Plate set, direct clutch	1
3	2702771	•O-ring set, forward clutch	1	7	2702775	•O-ring set, direct clutch	1
4	2702772	Bearing set, thrust (No. 1)	1	8	2702776	Washer set, direct clutch	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

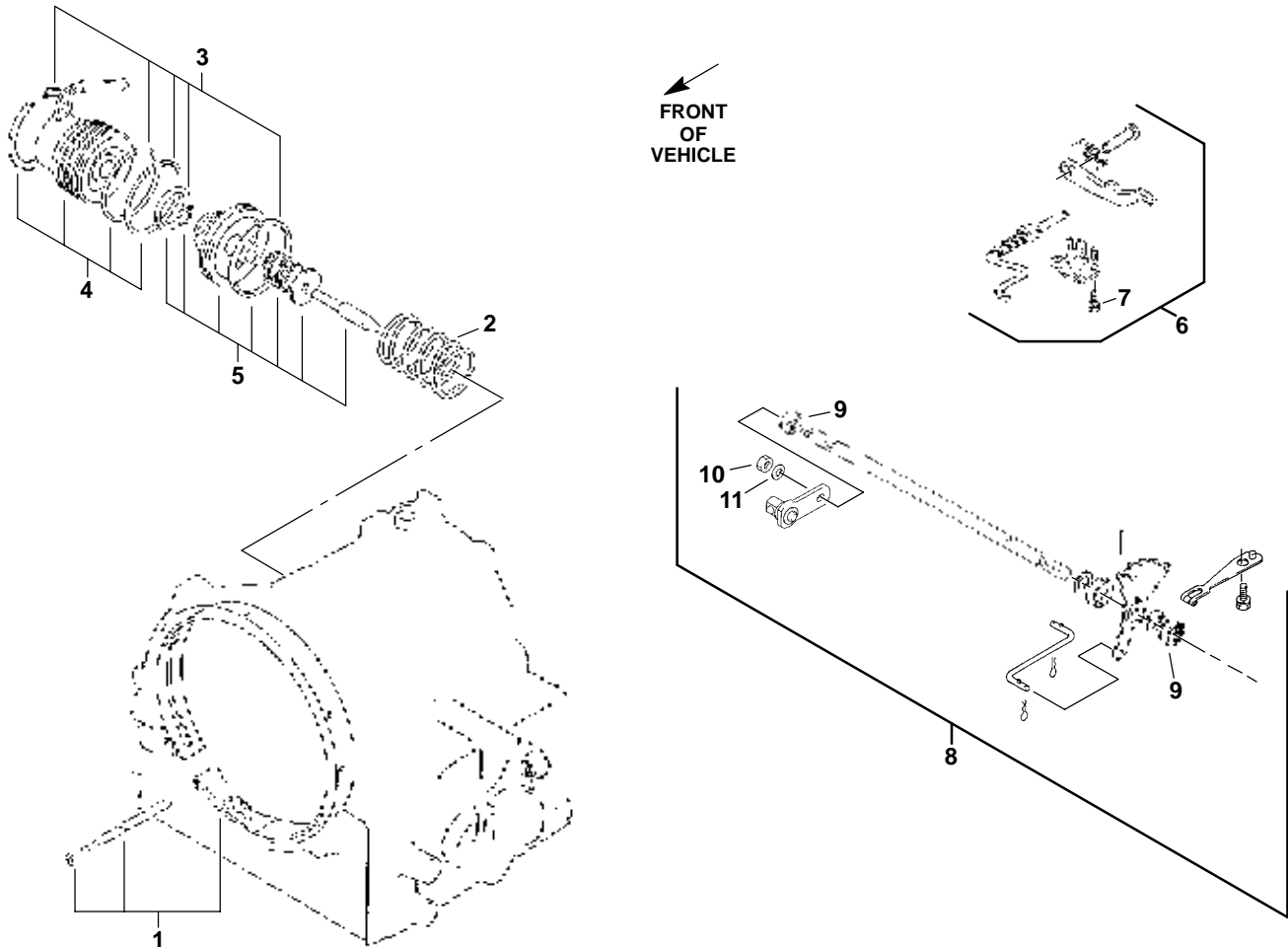
**TRANSMISSION PLANETARY GEARS and OUTPUT SHAFT  
(AUTOMATIC TRANSMISSION)  
SUZUKI 660 MODEL 898657**



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2702778	Bearing set, thrust (No. 3) . . . . .	1	10	2702786	Clutch set, 1-way . . . . .	1
2	2702777	Gear assembly, forward planetary link . . . . .	1	11	2702787	Plate set, 1st/reverse . . . . .	1
3	2702780	Bearing set, thrust (No. 4) . . . . .	1	12	2702788	Piston set, 1st/reverse . . . . .	1
4	2702779	Gear assembly, front . . . . .	1	13	2702789	•O-ring set, 1st/reverse . . . . .	1
5	2702781	Bearing set, thrust (No. 5) . . . . .	1	14	2702790	Shaft, output . . . . .	1
6	2702782	Gear, planetary sun . . . . .	1	15	2702792	Ring, snap . . . . .	1
7	2702783	Washer set, thrust . . . . .	1	16	2702793	Ring, speedometer exciter . . . . .	1
8	2702785	Bearing set, thrust (No. 1) . . . . .	1	17	2702794	Cir-clip, exciter ring . . . . .	1
9	2702784	Gear, rear planetary . . . . .	1	18	2702795	Bearing, thrust (Set No. 6) . . . . .	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

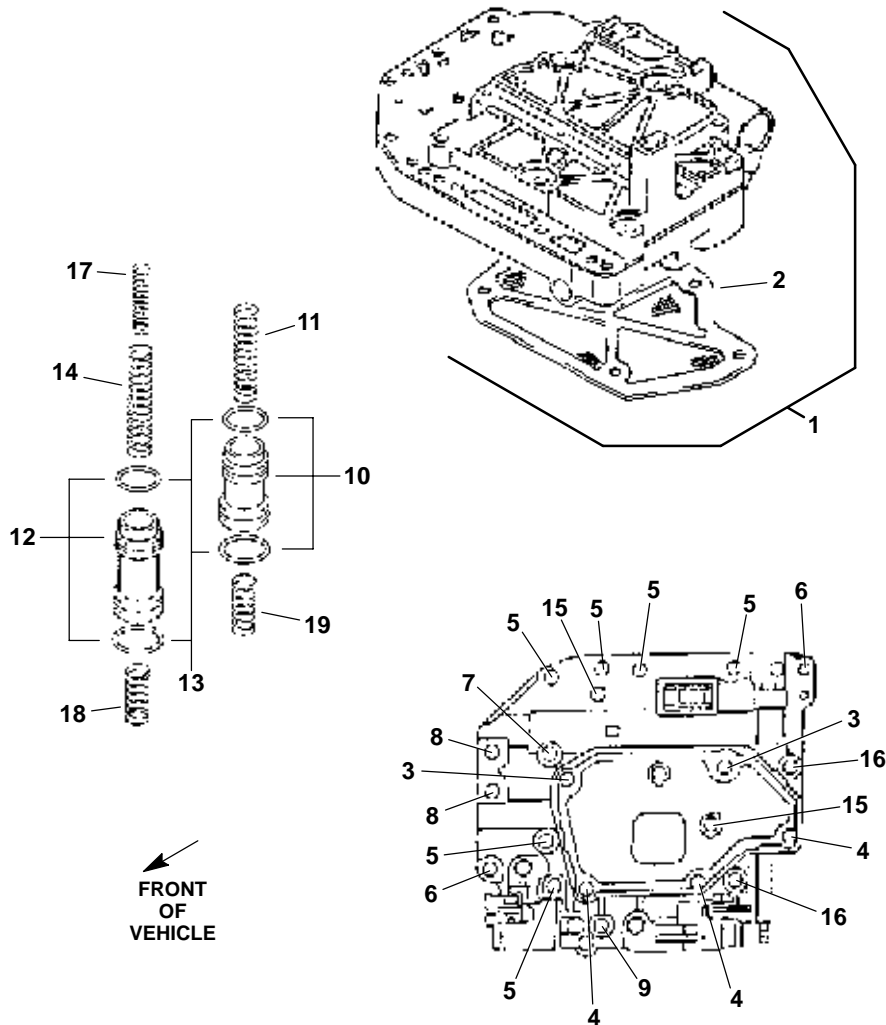
**BRAKE BAND & SHIFT SHAFT  
(AUTOMATIC TRANSMISSION)  
SUZUKI 660 MODEL 898657**



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2702800	Band set, second brake	1	6	2702796	Pole set, parking	1
2	2702805	Spring, second brake piston return	1	7	2701921	•Bolt	3
3	2702803	Piston assembly, second brake	1	8	2702797	Shaft set, lever	1
4	2702804	Cover set, 2nd brake	1	9	2702798	•Seal	2
5	2702801	Ring set, 2nd brake seal	1	10	2702494	Nut	1
				11	2702799	Washer	1

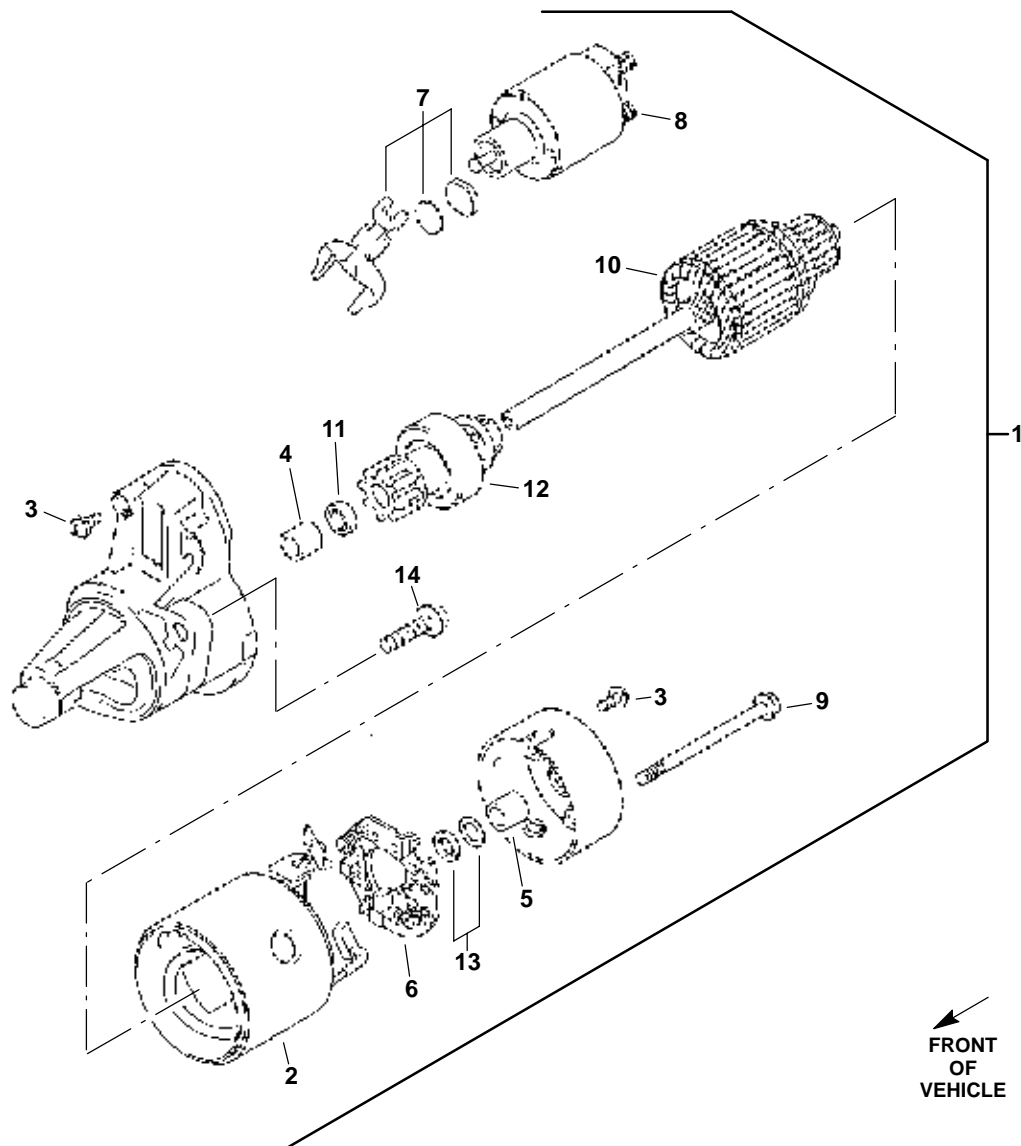
• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

**TRANSMISSION VALVE  
(AUTOMATIC TRANSMISSION)  
SUZUKI 660 MODEL 898657**



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2702821	Body assembly transmission valve	1	11	2702829	Spring, forward piston	1
2	2702825	Strainer, transmission	1	12	2702830	Piston set, B1 accumulator	1
3	2702826	Bolt, valve body, No. 5	2	13	2702833	Seal ring set, accumulator	1
4	2702827	Bolt, valve body, No. 6	3	14	2702831	Spring, accumulator 2nd brake position	1
5	2702836	Bolt, valve body, No. 1	6	15	2702839	Bolt, valve body, No. 1	2
6	2702834	Bolt, valve body, No. 2	2	16	2702840	Bolt, valve body, No. 2	2
7	2702835	Bolt, valve body, No. 3	1	17	2702841	Spring, 2nd brake No. 2	1
8	2702837	Bolt, valve body, No. 4	2	18	2702842	Spring, 2nd brake No. 3	1
9	2702838	Bolt, valve body, No. 6	1	19	2702832	Spring, accumulator forward piston lower	1
10	2702828	Piston set, C1 accumulator	1				

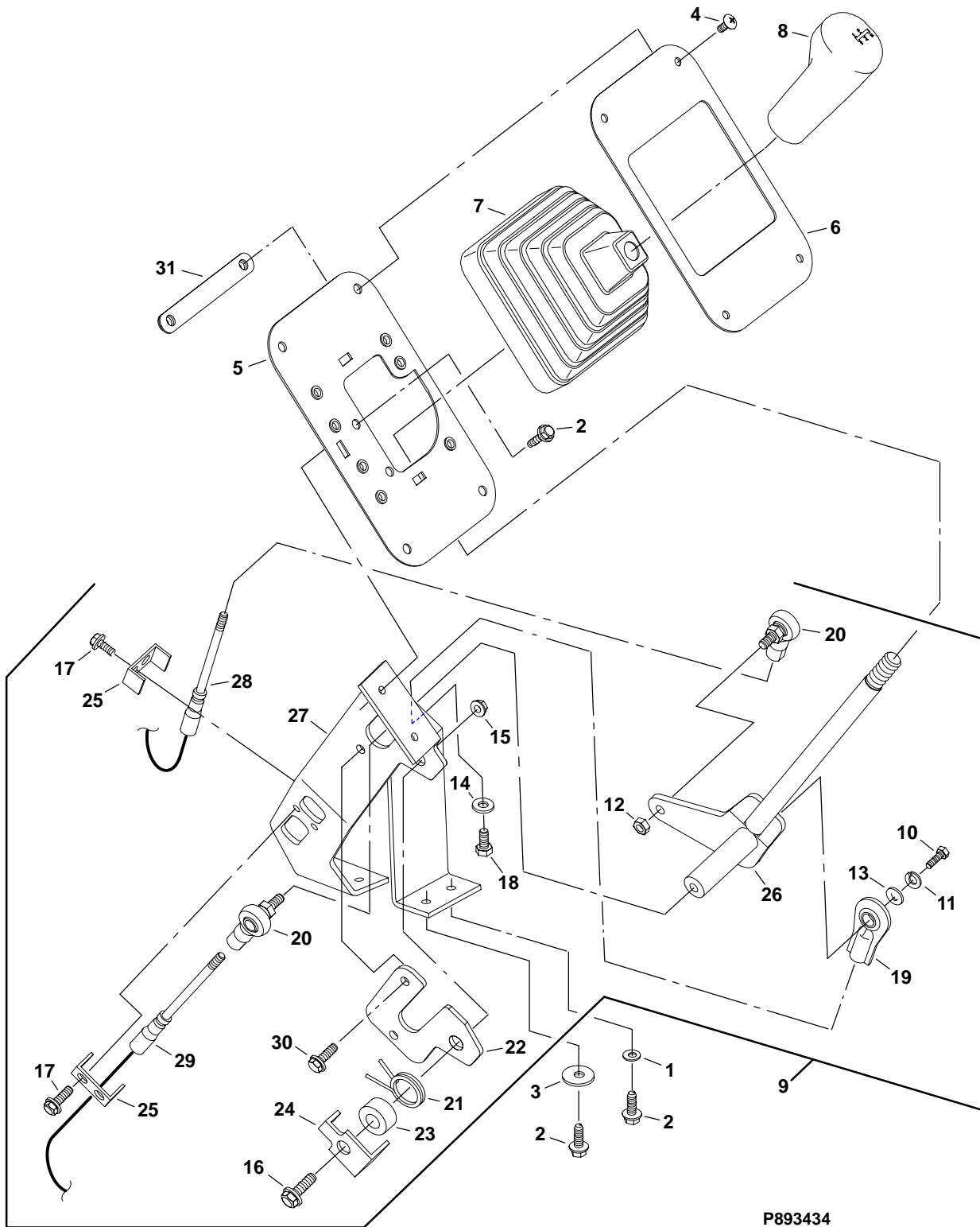
**STARTER  
(AUTOMATIC TRANSMISSION)  
SUZUKI 660 MODEL 898657**



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2702906	Motor assembly, starting	1	8	2702900	•Switch assembly	1
2	2702907	•Yoke assembly	1	9	2702908	•Bolt	2
3	2702895	•Screw assembly	1	10	2702909	•Armature	1
4	2702896	•Bushing	1	11	2702903	•Ring assembly	1
5	2702897	•Bushing	1	12	2702904	•Clutch assembly	1
6	2702898	•Holder assembly, brush	1	13	2702905	•Washer	1
7	2702899	•Lever assembly	1	14	2702470	•Bolt	2

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

# SHIFTER and SHIFTER LINKAGE SUZUKI 660 EFI TURF MODELS 898656 & 898658



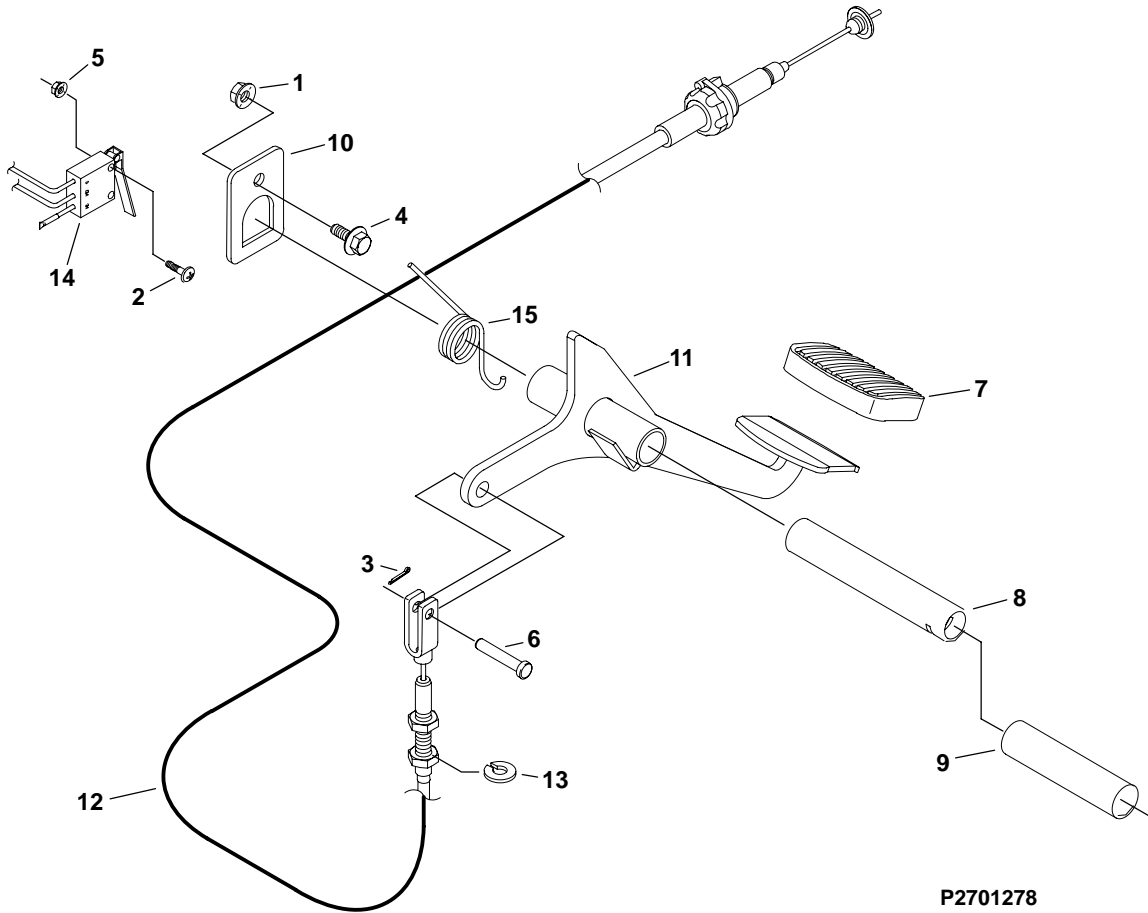
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**SHIFTER and SHIFTER LINKAGE**  
**SUZUKI 660 EFI TURF MODELS 898656 & 898658**

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	308090	Washer, 1/4	5	17	452695	•Screw, M6-1.00 x 20, taptite	4
2	452695	Screw, M6-1.00 x 20, taptite	6	18	548008	•Screw, 1/2-20 x 1	1
3	548175	Washer, 1/4 x 1.25	3	19	842773	•Rod end, 1/2" (female)	1
4	800582	Screw, 1/4-20 x 3/4	4	20	842774	•Ball joint, 1/4"	2
5	841265	Panel, dash (right hand)	1	21	843614	•Spring, torsion	1
6	843792	Plate, shifter boot	1	22	843679	•Plate, wear	1
7	2702696	Boot, shifter	1	23	843685	•Bushing, spring	1
8	2702695	Knob, shifter	1	24	843686	•Tab, locating	1
9	2701274	Shifter, complete	1	25	843724	•Clamp, cable	2
10	300977	•Screw, 1/4-28 x 5/8	1	26	893967	•Selector, complete	1
11	306396	•Lockwasher, 1/4	1	27	893968	•Mount, shifter	1
12	306397	•Nut, 1/4-28	1	28	2701273	•Cable, shifter, 97" (2.5M)	1
13	308090	•Washer, 1/4	1	29	2701328	•Cable, shifter, 89" (2.3M)	1
14	308091	•Washer, 1/2	1	30	452692	•Screw, M6-1.00 x 12, taptite	2
15	450454	•Nut, M10-1.50 (G10.9)	1	31	894793	Nut assembly, double 1/4-20	2
16	452400	•Screw, M10-1.50 x 30 (8.8)	1				

• INDENTED PARTS NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

**CLUTCH LINKAGE  
SUZUKI 660 EFI  
TURF MODELS 898656 & 898658**

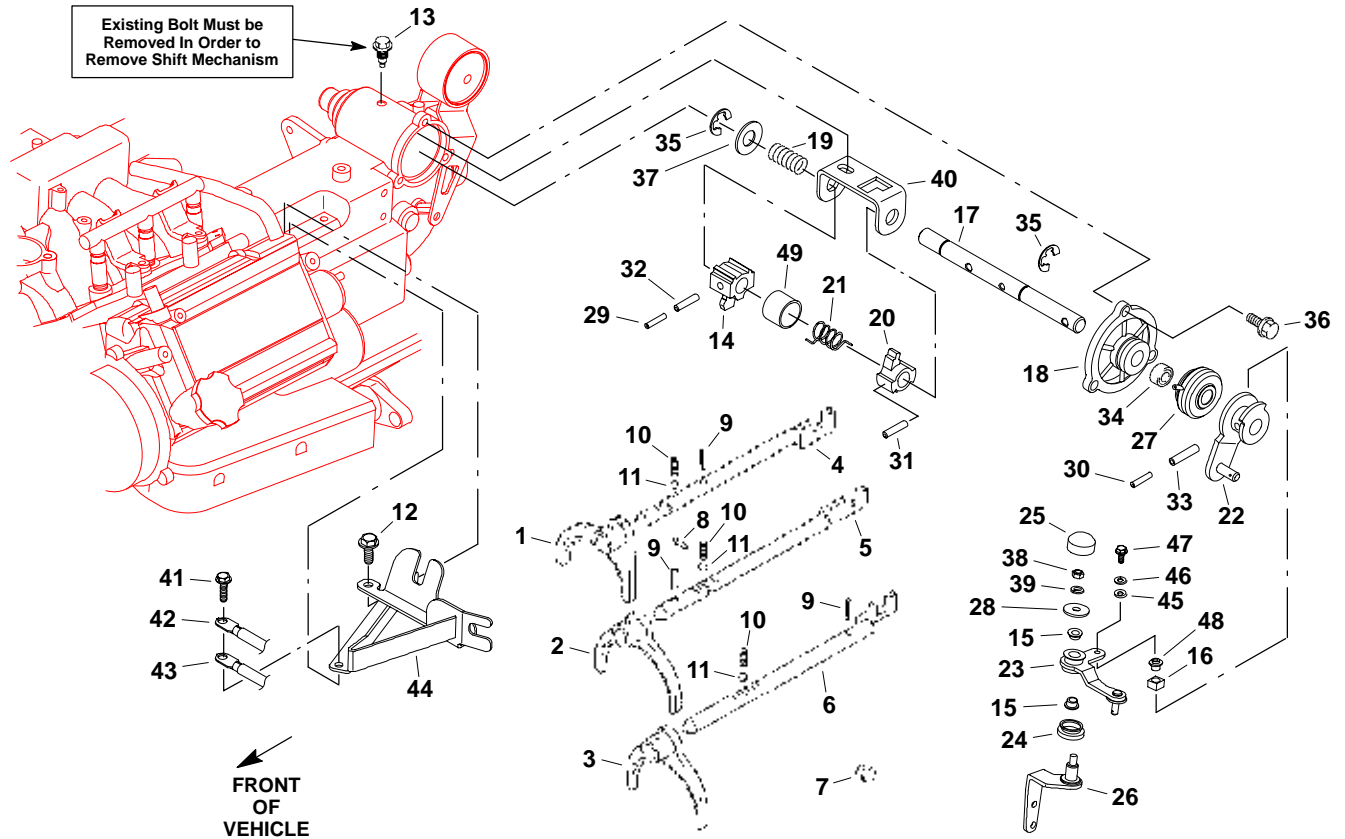


P2701278

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	450453	Nut, M8-1.25 (G10.9)	1	9	840726	Bearing, brake pivot	1
2	450510	Screw, M3-.50 x 20	2	10	842935	Tab, locking	1
3	306328	Pin, cotter, 3/32 x 3/4	1	11	892933	Lever, clutch	1
4	452388	Screw, M8-1.25 x 20 (8.8)	1	12	895013	Cable, clutch	1
5	452424	Nut, flange M3-.50	2	13	844202	Washer, slotted	4
6	806714	Pin, clevis, 5/16 x 15/16	1	14	890808	Switch, clutch interlock	1
7	810152	Cover, pedal	1	15	844611	Spring, torsion	1
8	840725	Pin, brake pivot	1				

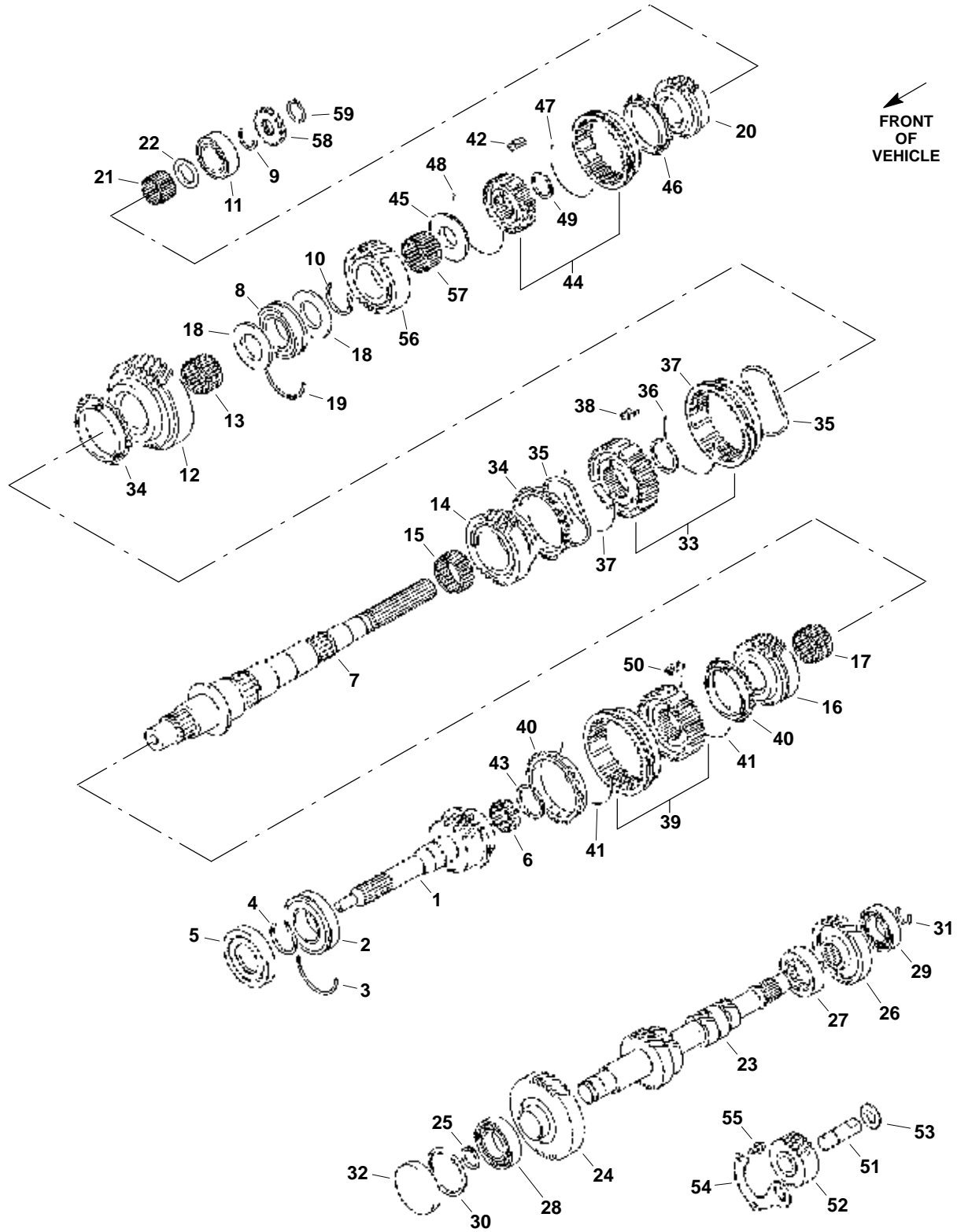


## SHIFTER GEARS & FORK (MANUAL TRANSMISSION) SUZUKI 660 EFI MODELS 898656 & 898658



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2702618	Fork, low speed gear shift	1	26	2702644	Bracket, select lever	1
2	2702619	Fork, high speed gear shift	1	27	2702645	Boot, shaft oil	1
3	2702620	Fork, reverse gear shift	1	28	2702647	Washer	1
4	2702621	Shaft, low speed	1	29	2702648	Spring pin (3.5 x 28)	1
5	2702622	Shaft, high speed	1	30	2702649	Spring pin (3 x 25)	1
6	2702625	Shaft, reverse	1	31	2702650	Spring pin (3 x 20)	1
7	2702626	Plug	1	32	2702651	Spring pin (6 x 28)	1
8	2702627	Roller	1	33	2702652	Spring pin (6 x 25)	1
9	2702628	Spring pin (4.5 x 18)	3	34	2702653	Seal, oil (14 x 22 x 6)	1
10	2702629	Spring, gear shift locating	3	35	2702654	E-ring	2
11	2702630	Ball	5	36	2701827	Bolt	5
12	2702660	Bolt	1	37	2702655	Washer	1
13	2702632	Bolt, gear shift stop	1	38	2702494	Nut	1
14	2702633	Lever, gear shift/select	1	39	2702656	Lock washer	1
15	2702634	Bushing, select lever boss	2	40	2701111	Plate, reverse interlock	1
16	2702635	Bushing, select lever shaft	1	41	452392	Bolt, M8-1.25 x 50 (8.8)	1
17	2702636	Shaft, gear shift/select	1	42	892811	Cable, battery (24" black)	1
18	2702637	Case, gear shift guide	1	43	884513	Cable, battery (46" black)	1
19	2702638	Spring, low select	1	44	2701369.7	Bracket, shift mount	1
20	2702639	Cam, reverse gear shift	1	45	308090	Washer, 1/4	1
21	2702640	Spring, cam guide return	1	46	450410	Washer, M6	1
22	2702641	Lever, shift cable	1	47	800934	Screw, M6-1.00 x 16 (8.8)	1
23	2701351	Lever, gear selector cable	1	48	2701370	Nut, insert	1
24	2702642	Boot, select lever (inside)	1	49	2701366	Bushing	1
25	2702643	Boot, select lever (outside)	1				

**INPUT SHAFT & GEARS (Manual Transmission)**  
**SUZUKI 660 EFI TURF MODELS 898656 & 898658**



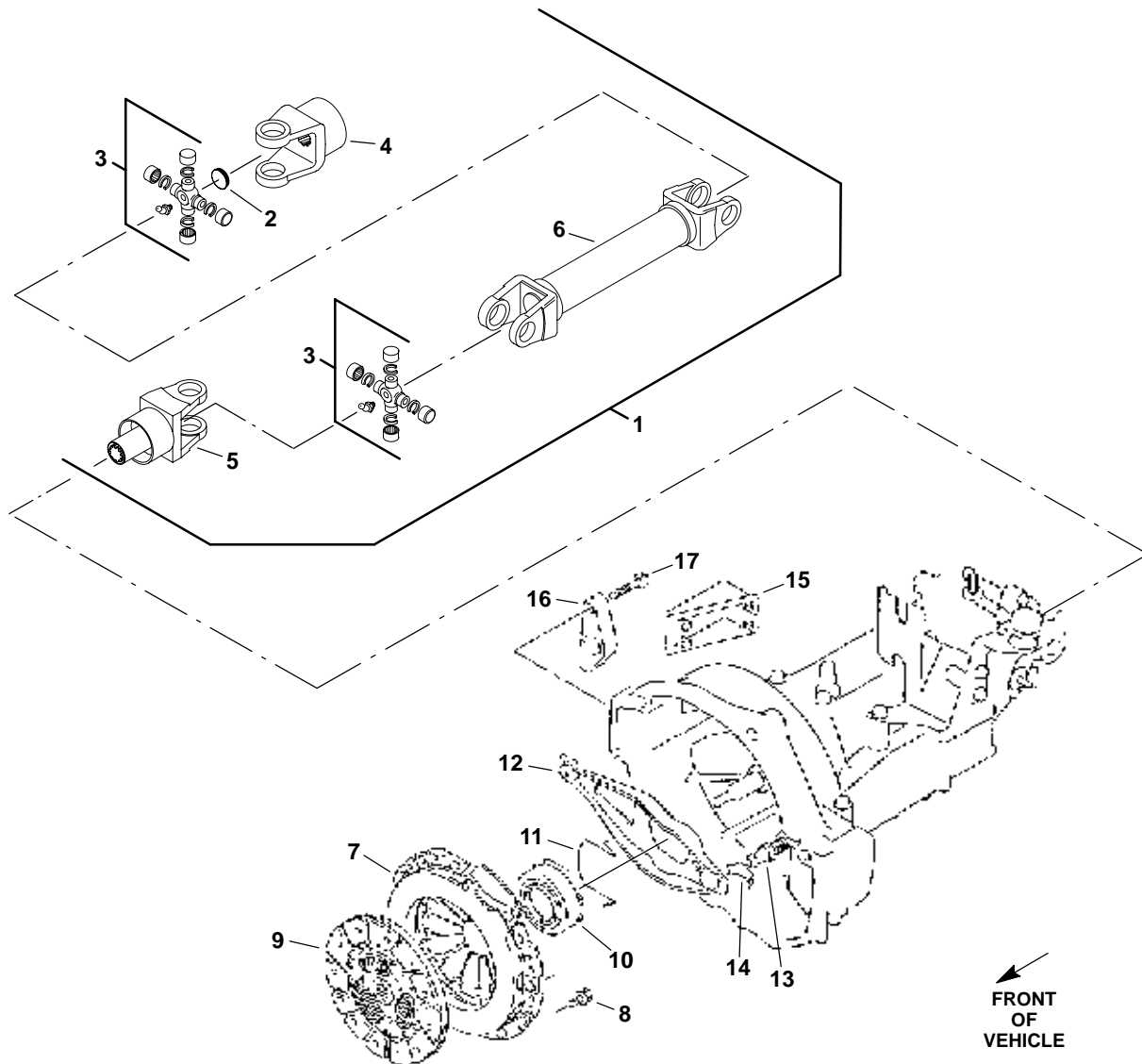
**INPUT SHAFT & GEARS (Manual Transmission)  
SUZUKI 660 EFI TURF MODELS 898656 & 898658**

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2702556	Shaft, input	1	30	2702585	Circlip	1
2	2702557	Bearing	1	31	2702586	Ring, snap	1
3	2702558	C-ring	1	32	2702587	Plug (od: 47)	1
4	2702559	Ring, snap	1	33	2702595	Hub, low speed sync	1
5	2702560	Seal	1	34	2702596	Ring, synchronizer	2
6	2702561	Bearing (20 x 26 x 17)	1	35	2702597	Spring, synchronizer	2
7	2702562	Shaft, main	1	36	2702598	Circlip, low speed sync hub	1
8	2702563	Bearing (27 x 55 x 13)	1	37	2702599	Spring	2
9	2702564	Ring, snap	1	38	2702600	Key, synchronizer	3
10	2702565	Ring, snap	1	39	2702601	Hub, high speed sync	1
11	2702566	Bearing (20 x 47 x 14)	1	40	2702602	Ring, 2nd gear sync	2
12	2702567	Gear, main shaft, low	1	41	2702603	Spring, low speed sync	2
13	2702569	Bearing (30 x 35 x 21)	1	42	2702600	Key, synchronizer	3
14	2702570	Gear, main shaft, 2nd	1	43	2702604	Circlip, synchronizer	1
15	2702571	Bearing (35 x 40 x 21.8)	1	44	2702605	Hub, 5th speed sync	1
16	2702572	Gear, main shaft, 3rd	1	45	2702606	Plate, 5th sync hub	1
17	2702569	Bearing (30 x 35 x 21)	1	46	2702607	Ring, high speed sync	1
18	2702573	Washer, main shaft bearing	2	47	2702608	Spring, synchronizer ring	1
19	2702574	C-ring (main shaft fr brng)	1	48	2702609	Spring, 5th sync	1
20	2702575	Gear, main shaft, 5th	1	49	2702610	Circlip, synchronizer	1
21	2702576	Bearing (22 x 26 x 22.8)	1	50	2702600	Key, synchronizer	3
22	2702577	Washer, main shaft, 5th	1	51	2702611	Shaft, reverse idle gear	1
23 ▼	2702578	Shaft, counter	1	52	2702612	Gear, reverse idle	1
(23)◇	2702579	Shaft, counter	1	53	2702613	Washer	1
24	2702580	Gear, counter shaft drive	1	54	2702614	Plate, rev shft stop	1
25	2702581	Ring, snap	1	55	2701921	Bolt	2
26	2702582	Gear, cntr shft, 5th	1	56	2702615	Gear, main shaft reverse	1
27	2702583	Bearing, counter shaft center	1	57	2702616	Bearing (27 x 32 x 23.8)	1
28	2702566	Bearing (20 x 47 x 14)	1	58	2702617	Ring, speedometer exciter	1
29	2702584	Bearing	1	59	2702581	Ring, snap	1

▼ Models 898658 with Serial No's. **up to** REV1287.

◇ Models 898658 with Serial No's. **beginning with** 00002120 and Models 898656.

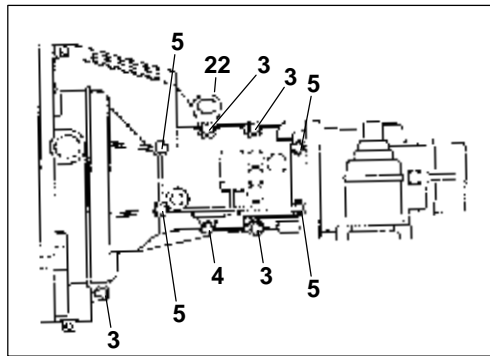
**CLUTCH and DRIVESHAFT  
SUZUKI 660 EFI TURF MODELS 898656 & 898658**



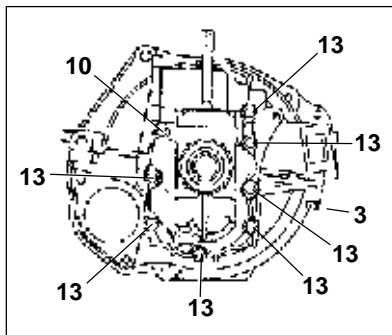
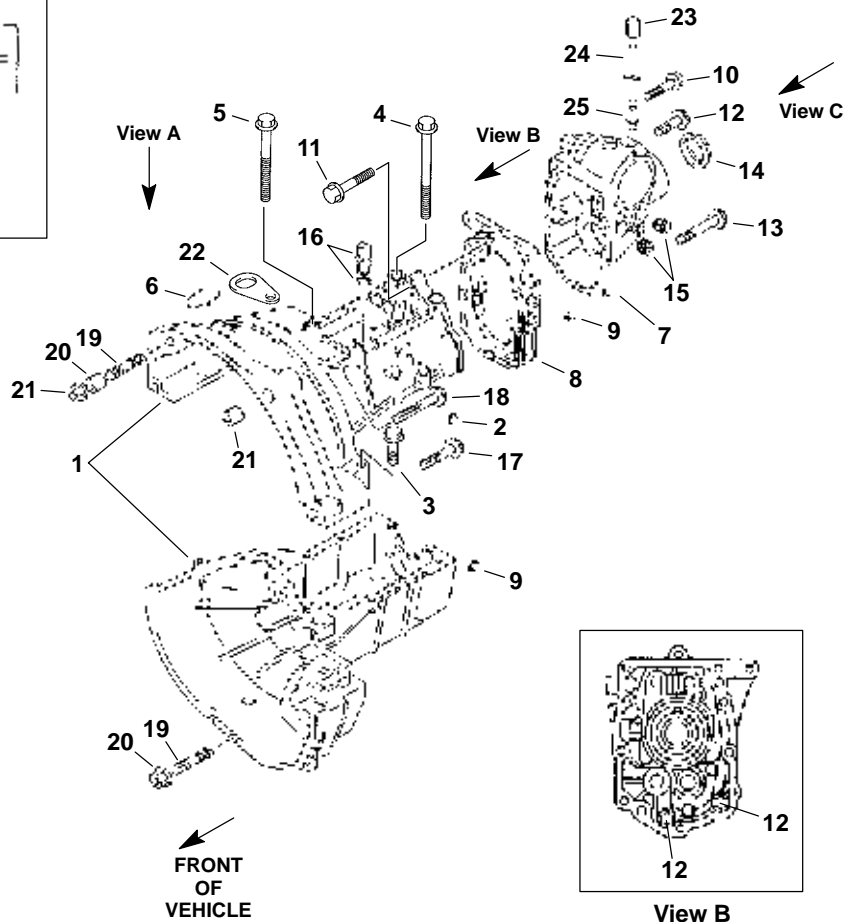
Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2701321.7	Driveshaft, complete (manual transmission)	1	9	2702548	Disc, clutch	1
2	548482	•Plug, expansion	3	10	2702549	Bearing, clutch release	1
3	826284	•Cross, u-joint	2	11	2702550	Clip, release bearing	1
4	826285	•Yoke, universal	1	12	2702551	Fork, clutch release	1
5	894192	•Yoke, front	1	13	2702552	Support, clutch release fork	1
6	895126	•Shaft, drive	1	14	2702553	Clip, clutch release fork	1
7	2702546	Cover, clutch	1	15	2702554	Cap, transmission case	1
8	2702547	Bolt (8 x 16)	6	16	2702555	Bracket, clutch cable	1
				17	2702470	Bolt	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

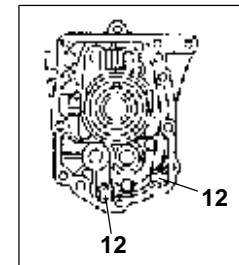
## TRANSMISSION CASE SUZUKI 660 EFI TURF MODELS 898656 & 898658



View A



View C

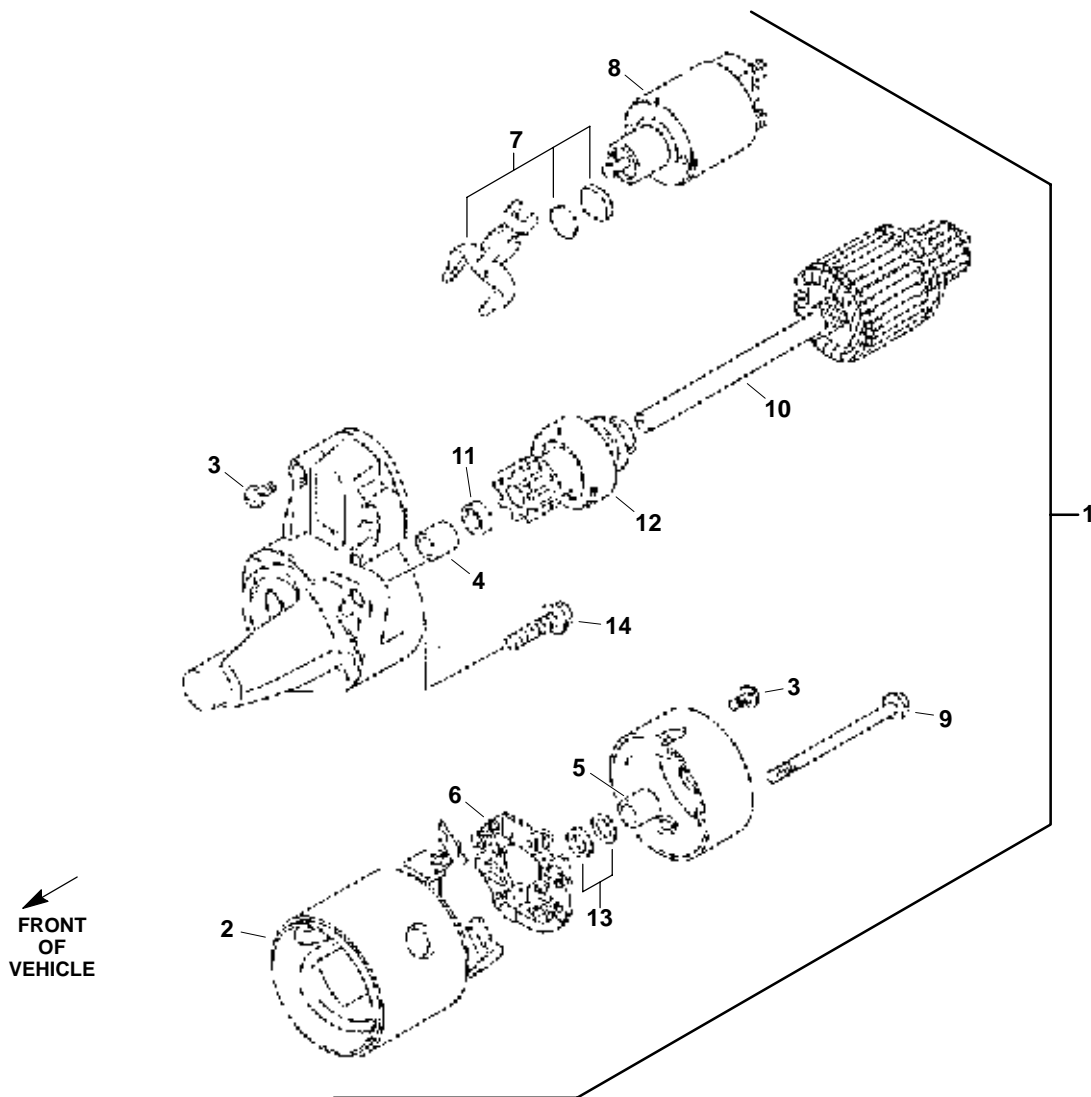


View B

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2702657	Case, transmission	1	14	2702683	Seal, extension case	1
2	2702658	•Pin	2	15	2702684	Plug (L:15)	2
3	2702659	•Bolt	5	16	2702685	Switch, back-up lamp	1
4	2702660	•Bolt	1	17	2702686	Bolt	1
5	2702661	•Bolt	4	18	2702687	Bolt	1
6	2702662	Cap (D:36)	1	19	2702758	Stud bolt	2
7	2702663	Case, extension No. 1	1	20	2702689	Nut	2
8	2702664	Case, extension No. 2	1	21	2702690	Pin	2
9	2702658	Pin	4	22	2702691	Hook, engine	1
10	2702665	Bolt (8 x 120)	1	23	2702692	Plug, breather	1
11	2702470	Bolt	1	24	2702693	Hose	1
12	2702659	Bolt	2	25	2702694	Plug	1
13	2702660	Bolt	7				

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

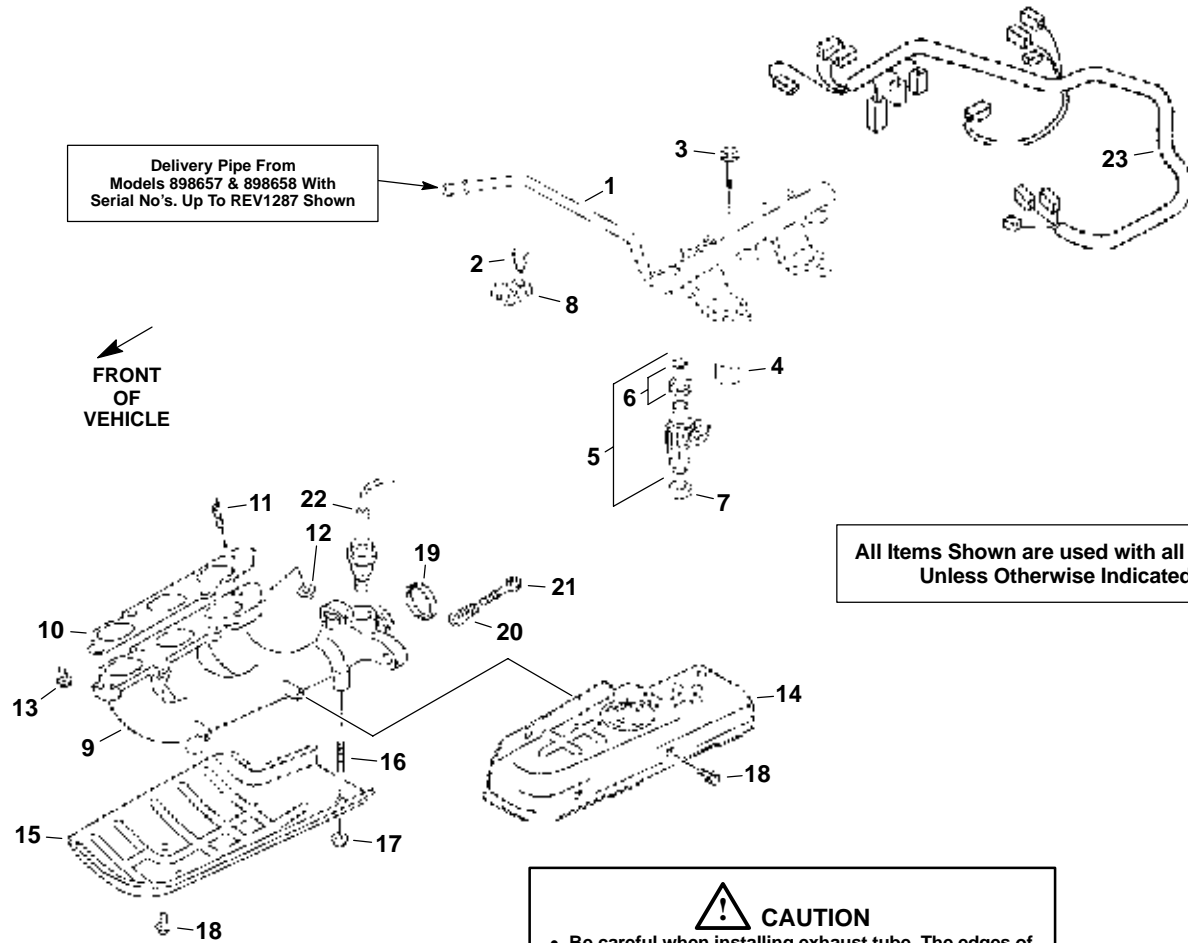
**STARTER**  
**(Manual Transmission)**  
**SUZUKI 660 EFI MODELS 898656 & 898658**



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2702893	Starter, complete	1	8	2702900	•Switch	1
2	2702894	•Yoke assembly	1	9	2702901	•Bolt, housing	2
3	2702895	•Screw	1	10	2702902	•Armature	1
4	2702896	•Bushing	1	11	2702903	•Ring assembly	1
5	2702897	•Bushing	1	12	2702904	•Clutch assembly	1
6	2702898	• Holder assembly, brush	1	13	2702905	•Washer	1
7	2702899	•Lever, pinion drive	1	14	2702470	Bolt	2

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

# EMISSION CONTROLS SUZUKI 660 EFI TURF MODELS 898656, 898657 & 898658



**CAUTION**  
 • Be careful when installing exhaust tube. The edges of the shield are *sharp* and can cause personal injury.

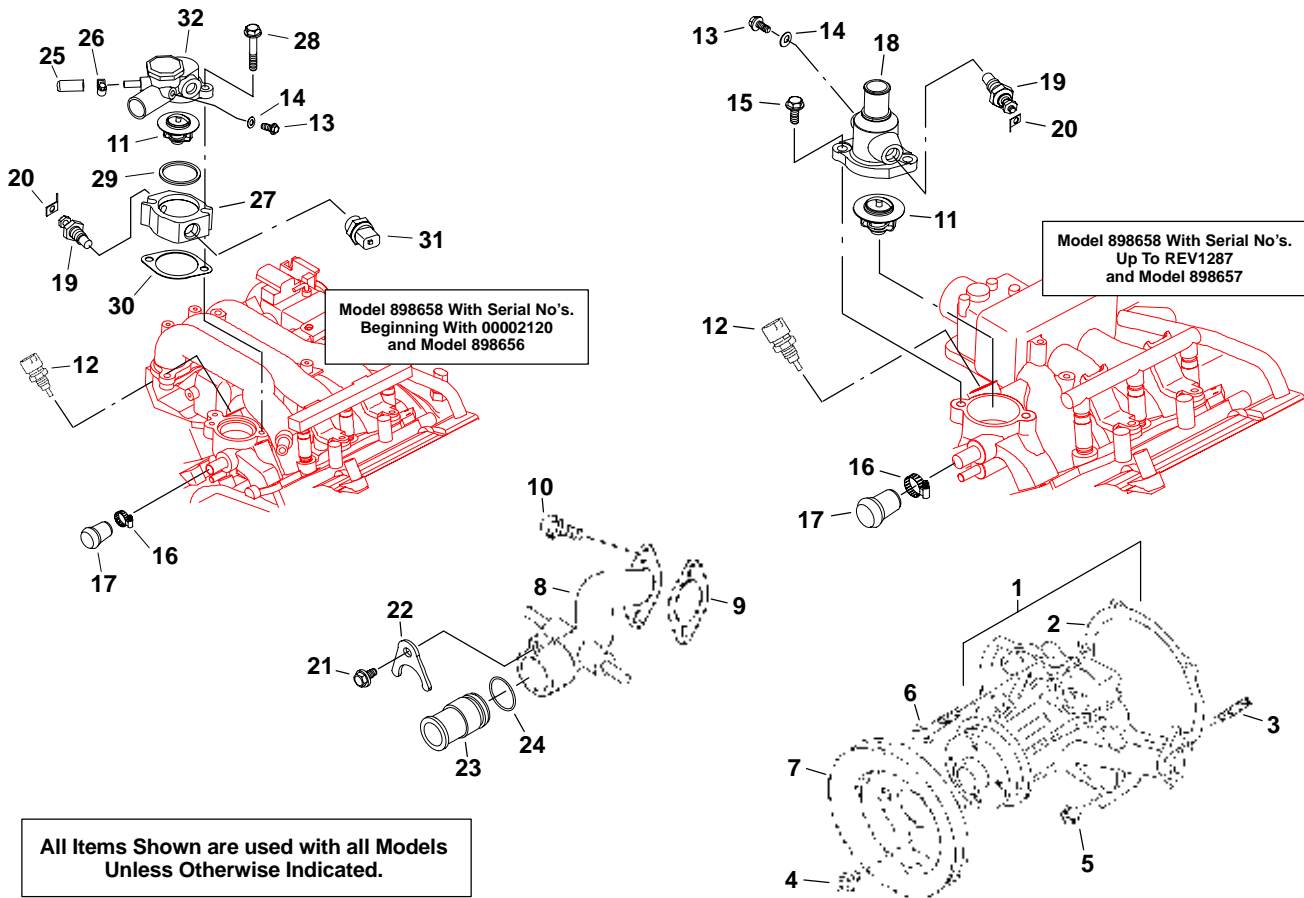
Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2702508	Pipe, delivery	1	13	2702495	Bolt	1
(1) ◇	2702509	Pipe, delivery	1	14	2702496	Cover, manifold upper	1
2	2702486	Bolt	1	15	2702497	Cover, manifold lower	1
3	2701829	Bolt	2	16	2701913	Stud bolt	2
4	2702510	Insulator	2	17	2702498	Nut	2
5	2702511	Injector, fuel	3	18	2702499	Bolt (6x10)	5
6	2702512	•Grommet set	3	19	2702500	Ring, seal	1
7	2702513	Cushion	3	20	2702501	Spring	2
8	2702514	Clamp	1	21	2702502	Bolt (10x65)	2
9	2702492	Manifold, exhaust	1	22	2702503	Sensor, oxygen	1
10	2701797	Gasket	1	23 ▼	2702946	Harness, Suzuki engine	1
11	2702493	Stud bolt	3	(23) ◇	2702947	Harness, Suzuki engine	1
12	2702494	Nut	3				

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

▼ Models 898658 with Serial No's. **up to** REV1287 and Models 898657.

◇ Models 898658 with Serial No's. **beginning with** 00002120 and Models 898656.

## WATER PUMP, THERMOSTAT & WATER OUTLET SUZUKI 660 EFI TURF MODELS 898656, 898657 & 898658

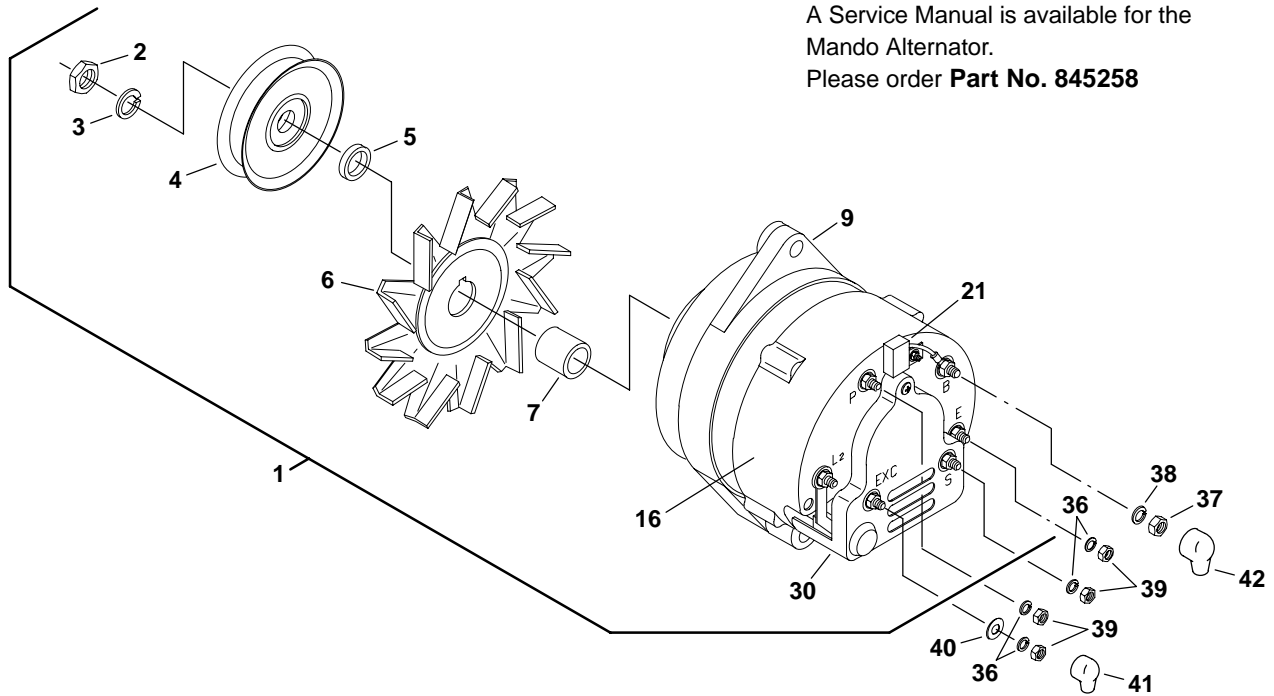


Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1 ▼	2702521	Pump, water	1	15 ▼	2702469	Bolt, water outlet mount	2
2	2701801	•Gasket, water pump	1	16	832033	Clamp, hose	1
(1) ◇	2702522	Pump, water	1	17	833715	Plug	1
(2)	2701801	•Gasket, water pump	1	18 ▼	845334	Outlet, water	1
3	2702523	Stud	2	19	843857	Sender, water temp.	1
4 ▼	2702537	Bolt	4	20	829787	Terminal, 45° 1/4 male	1
(4) ◇	2702537	Bolt	3	21	452378	Screw, M6-1.00 x 20	1
5	2701914	Nut	2	22	845409	Bracket, u-water inlet	1
6	2702519	Bolt	3	23	845365	Tube, water inlet	1
7 ▼	2702524	Pulley, water pump	1	24	2700031	O-ring	1
(7) ◇	2702525	Pulley, water pump	1	25 ◇	845224	Cap, .313 x 1	1
8	2702543	Case, water inlet	1	26 ◇	825624	Clamp, hose	1
9	2701802	Gasket	1	27 ◇	2701637	Housing, thermostat	1
10	2701834	Bolt	2	28 ◇	452392	Screw, M8-1.25 x 50 (8.8)	3
11	2702542	Thermostat (82°C)	1	29 ◇	2701638	Spacer, thermostat	1
12	2702430	Sensor, water temp.	1	30 ◇	2701513	Gasket, thermostat spacer	1
13	2702540	Bolt, bleed valve	1	31 ◇	2703052	Switch, fan	1
14	2702541	Washer, bleed valve	1	32 ◇	2702539	Cap, thermostat	1

- INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY
- ▼ Models 898658 with Serial No's. **up to** REV1287 and Models 898657.
- ◇ Models 898658 with Serial No's. **beginning with** 00002120 and Models 898656.



# ALTERNATOR SUZUKI 660 EFI TURF MODELS 898656, 898657 & 898658



A Service Manual is available for the Mando Alternator.  
Please order **Part No. 845258**

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	893633	Alternator	1	22 *	842572	••Mold-B	1
2	842558	•Nut	1	23 *	842573	••Nut, flange	1
3	842559	•Lockwasher	1	24 *	842574	••Through bolt	4
4	842560	•Pulley	1	25 *	893855	•Regulator assembly	1
5	842561	•Spacer	1	26 *	842575	••Brush	1
6	842562	•Fan	1	27 *	842576	••Spring, brush	1
7	842563	•Spacer	1	28 *	842577	•Set, screw	1
8 *	893849	•Bracket assembly (front)	1	29 *	842578	•Terminal-L	1
9	842564	••Bracket, front	1	30	842579	•Cover	1
10 *	842565	••Screw, flange	3	31 *	842580	•Set, screw	1
11 *	842566	••Bearing	1	32 *	842581	•Wire, lead (A)	1
12 *	842567	••Retainer	1	33 *	842582	•Wire, lead (B)	1
13 *	893850	•Rotor assembly	1	34 *	842571	•Nut, flange	2
14 *	893851	••Stator assembly	1	35 *	842570	•Mold	1
15 *	893852	•Bracket assembly (rear)	1	36	120052	Lockwasher, #10	4
16	842568	••Bracket, rear	1	37	306375	Nut, 1/4-20	1
17 *	893853	••Rectifier assembly	1	38	306396	Lockwasher, 1/4	1
18 *	842569	••Screw set	1	39	306531	Nut, #10-24	4
19 *	842570	••Mold	1	40	308089	Washer, #10	1
20 *	842571	••Nut, flange	2	41	825970	Boot, terminal	4
21	893854	••Condenser assembly	1	42	844328	Boot, terminal	1

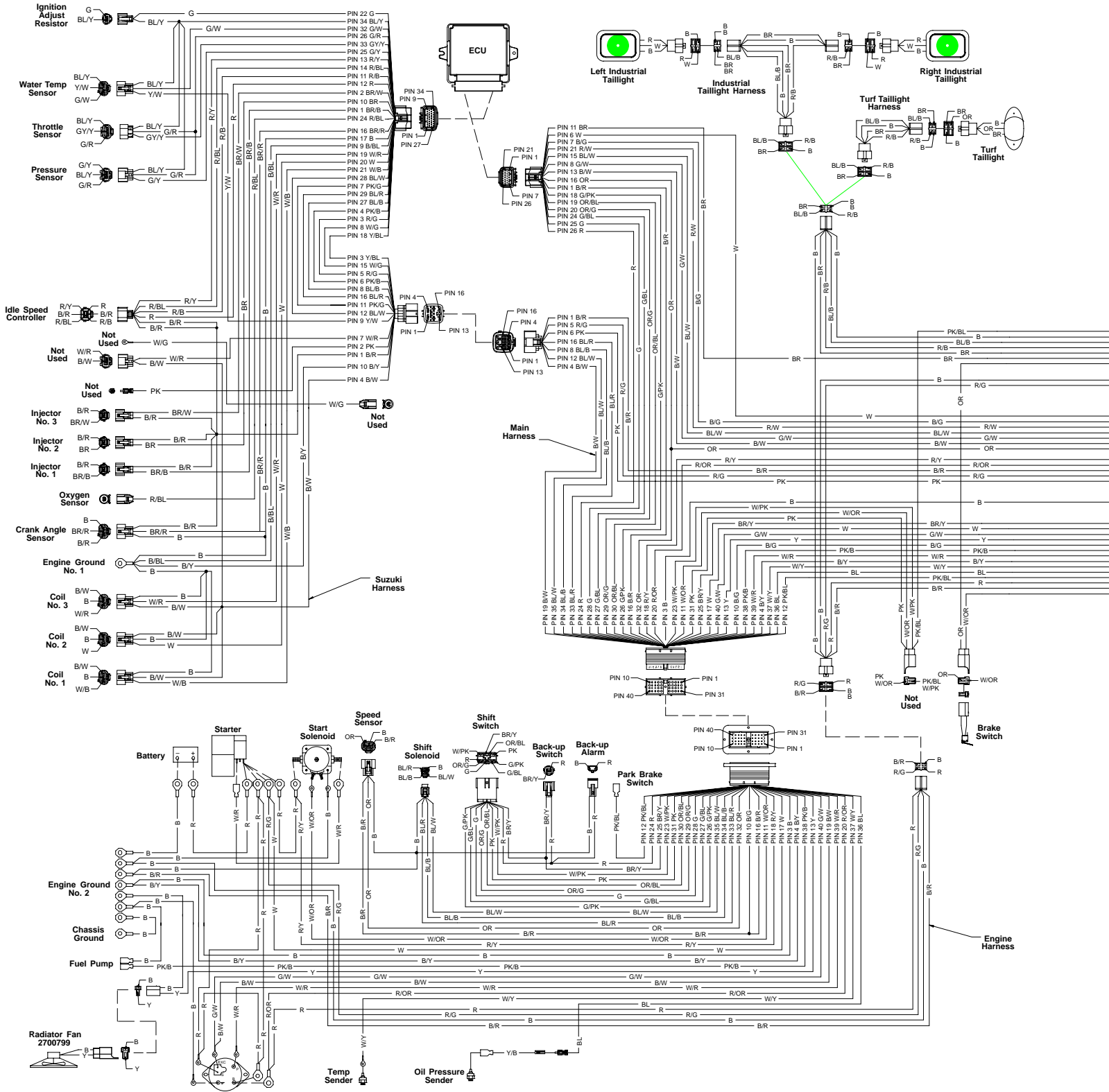
• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

\* Not Illustrated

# WIRING DIAGRAM

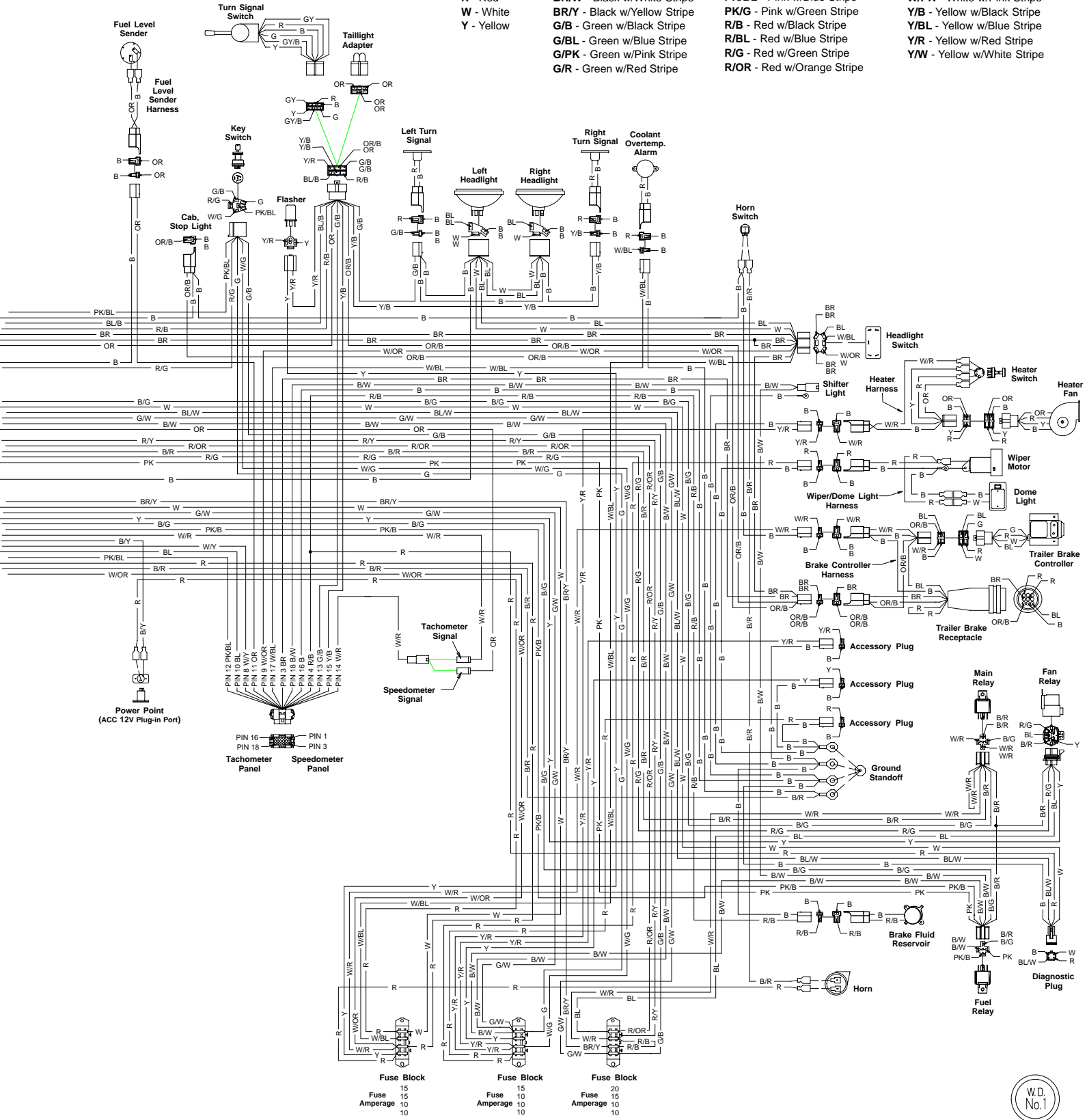
## SUZUKI 660 EFI

### TURF TRUCKSTER, MODEL 898657 (automatic transmission)

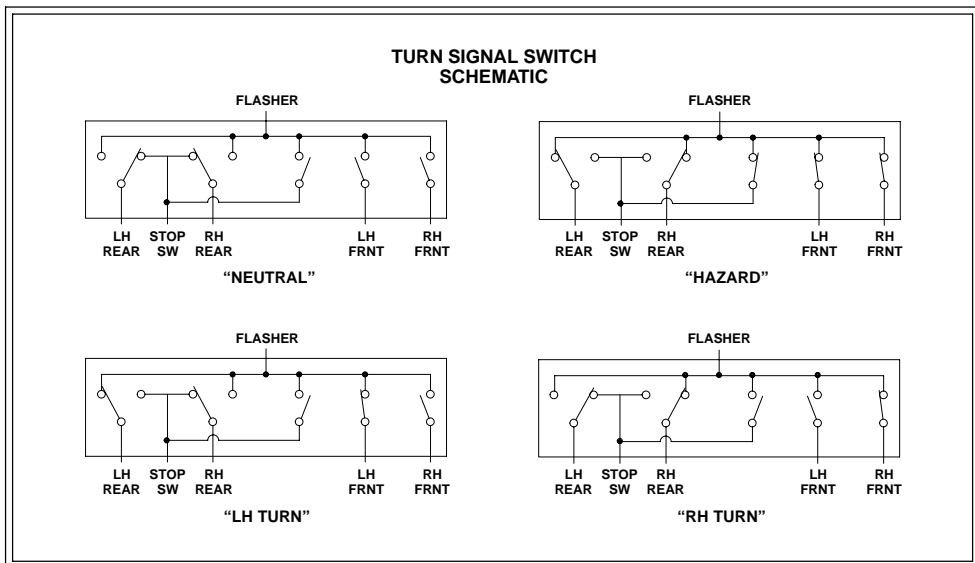
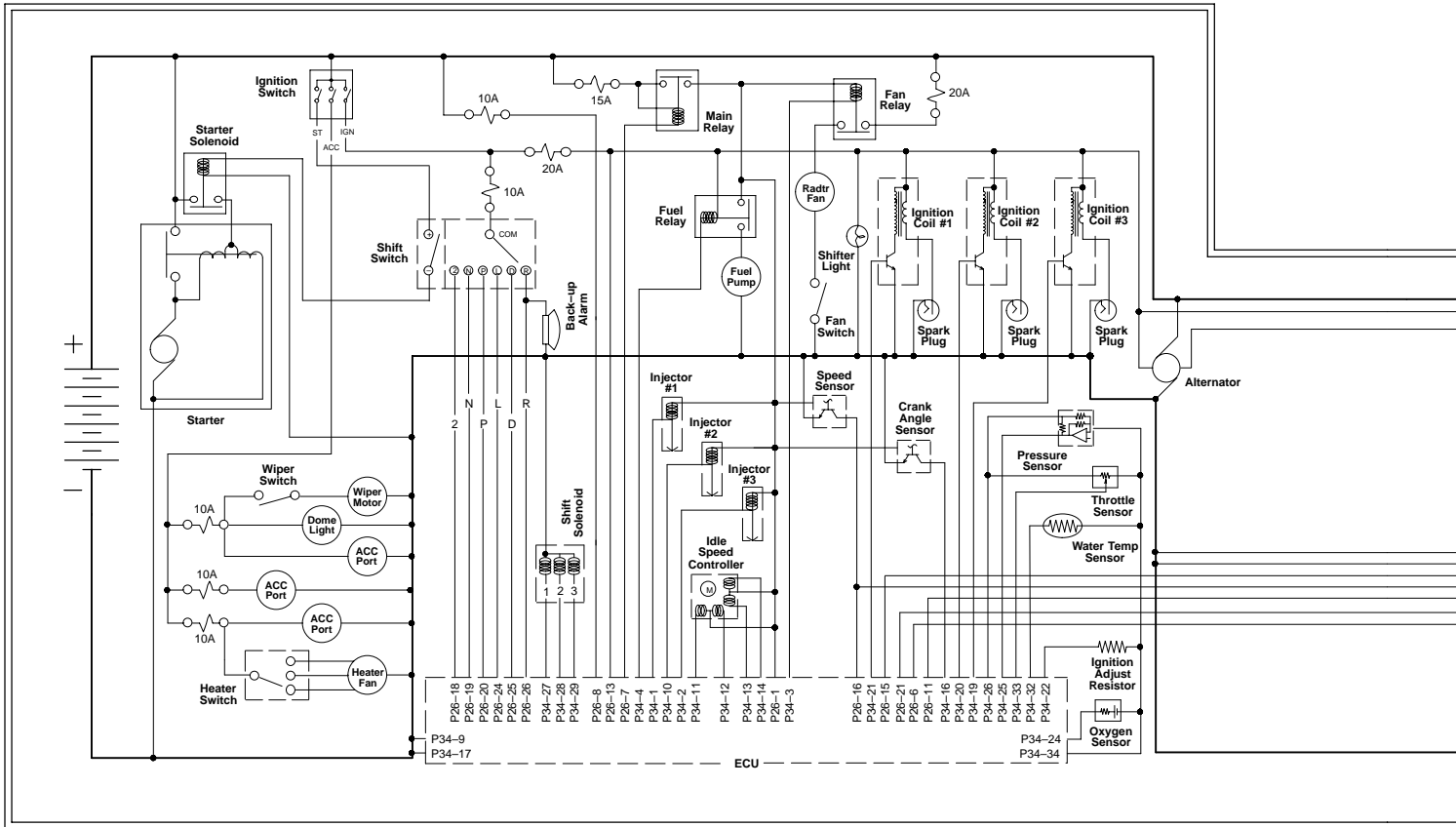


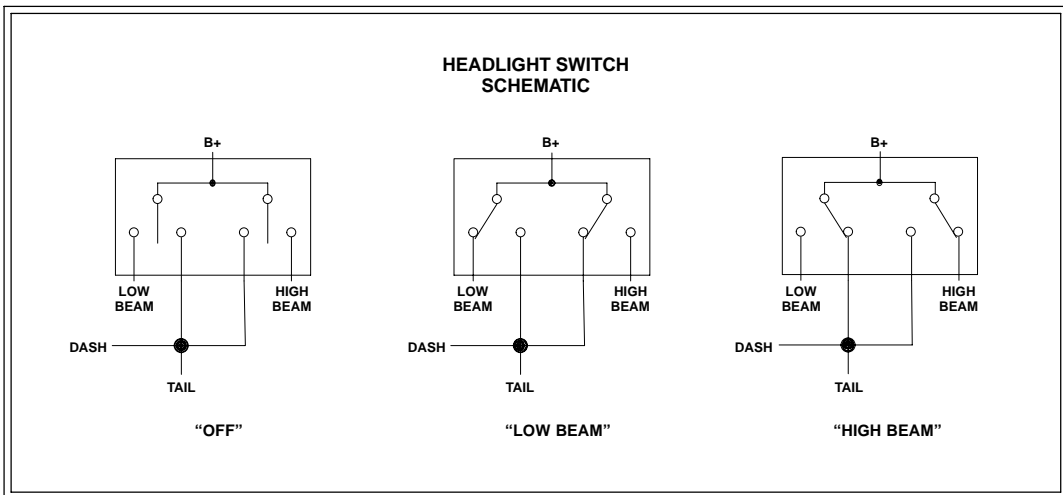
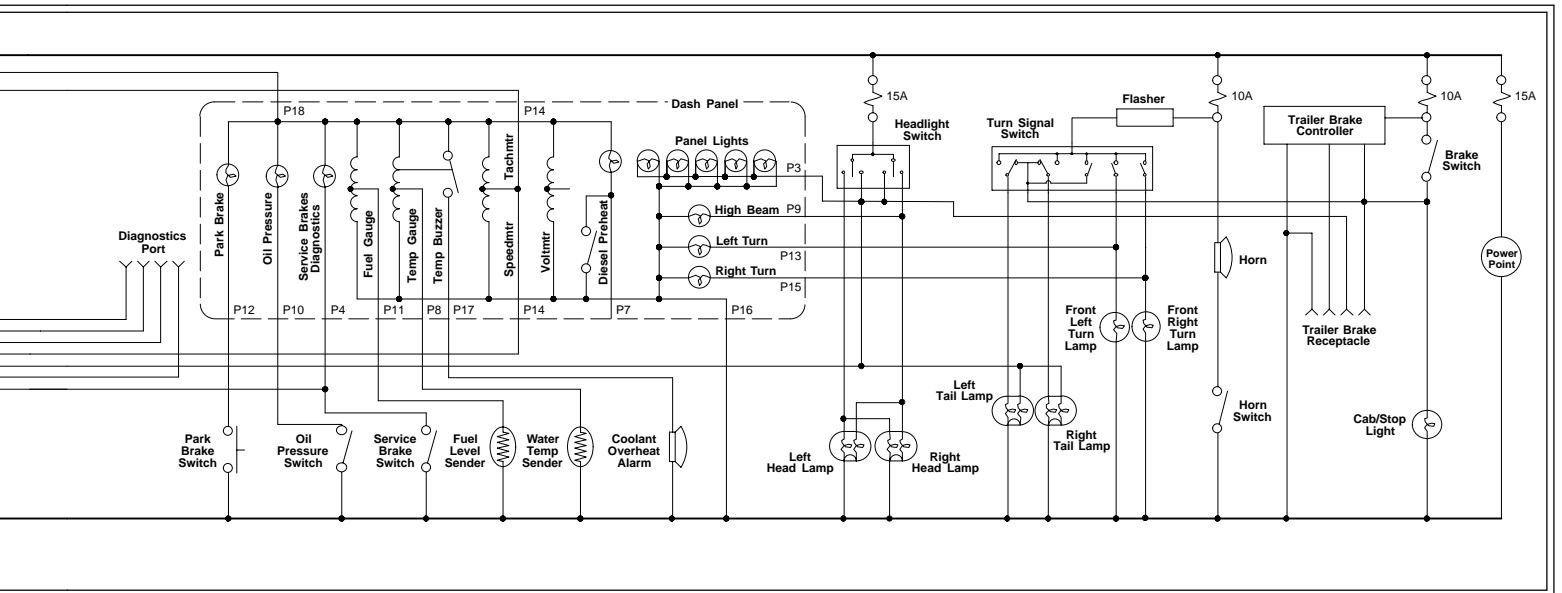
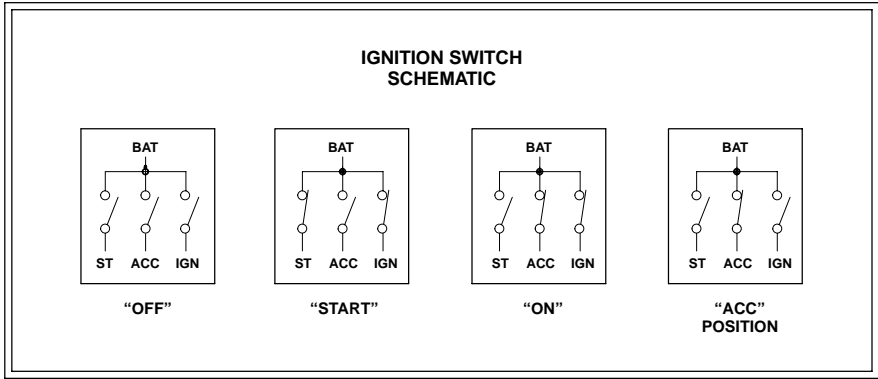
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| <b>GY</b> - Grey   | <b>BL/B</b> - Blue w/Black Stripe   | <b>OR/B</b> - Orange w/Black Stripe | <b>W/R</b> - White w/Red Stripe     |
| <b>OR</b> - Orange | <b>BL/R</b> - Blue w/Red Stripe     | <b>OR/BL</b> - Orange w/Blue Stripe | <b>W/Y</b> - White w/Yellow Stripe  |
| <b>PK</b> - Pink   | <b>BL/W</b> - Black w/White Stripe  | <b>P/BL</b> - Purple w/Blue Stripe  | <b>W/B</b> - White w/Black Stripe   |
| <b>P</b> - Purple  | <b>BL/Y</b> - Black w/Yellow Stripe | <b>PK/B</b> - Pink w/Black Stripe   | <b>W/BL</b> - White w/Blue Stripe   |
| <b>R</b> - Red     | <b>BR/W</b> - Black w/White Stripe  | <b>PK/BL</b> - Pink w/Blue Stripe   | <b>W/PK</b> - White w/Pink Stripe   |
| <b>W</b> - White   | <b>BR/Y</b> - Black w/Yellow Stripe | <b>PK/G</b> - Pink w/Green Stripe   | <b>Y/B</b> - Yellow w/Black Stripe  |
| <b>Y</b> - Yellow  | <b>G/B</b> - Green w/Black Stripe   | <b>R/B</b> - Red w/Black Stripe     | <b>Y/BL</b> - Yellow w/Blue Stripe  |
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|                    | <b>G/R</b> - Green w/Red Stripe     | <b>R/OR</b> - Red w/Orange Stripe   |                                     |



**WIRING SCHEMATIC**  
**SUZUKI 660 EFI**  
**TURF TRUCKSTER, MODEL 898657 (automatic transmission)**

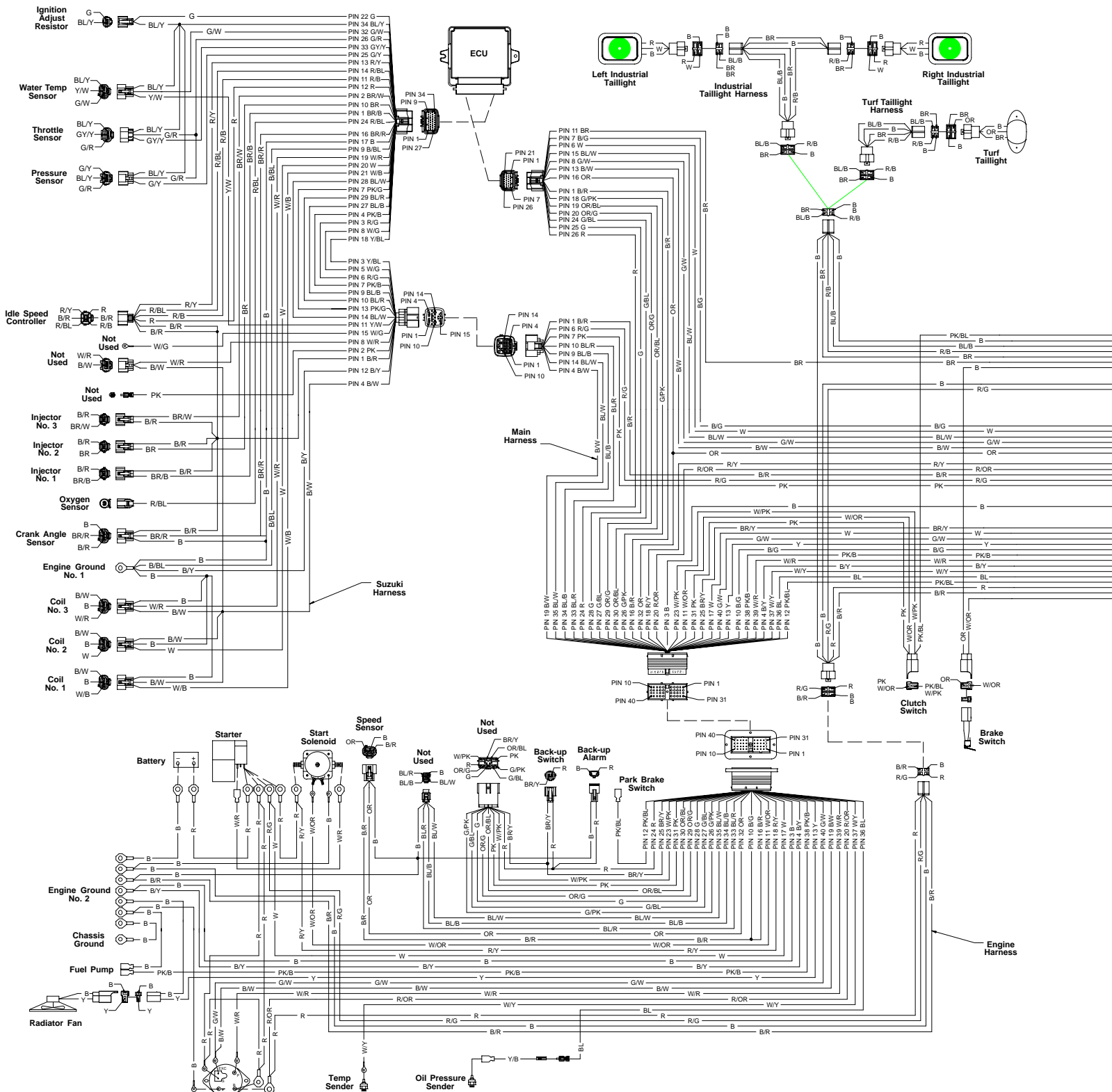




# WIRING DIAGRAM

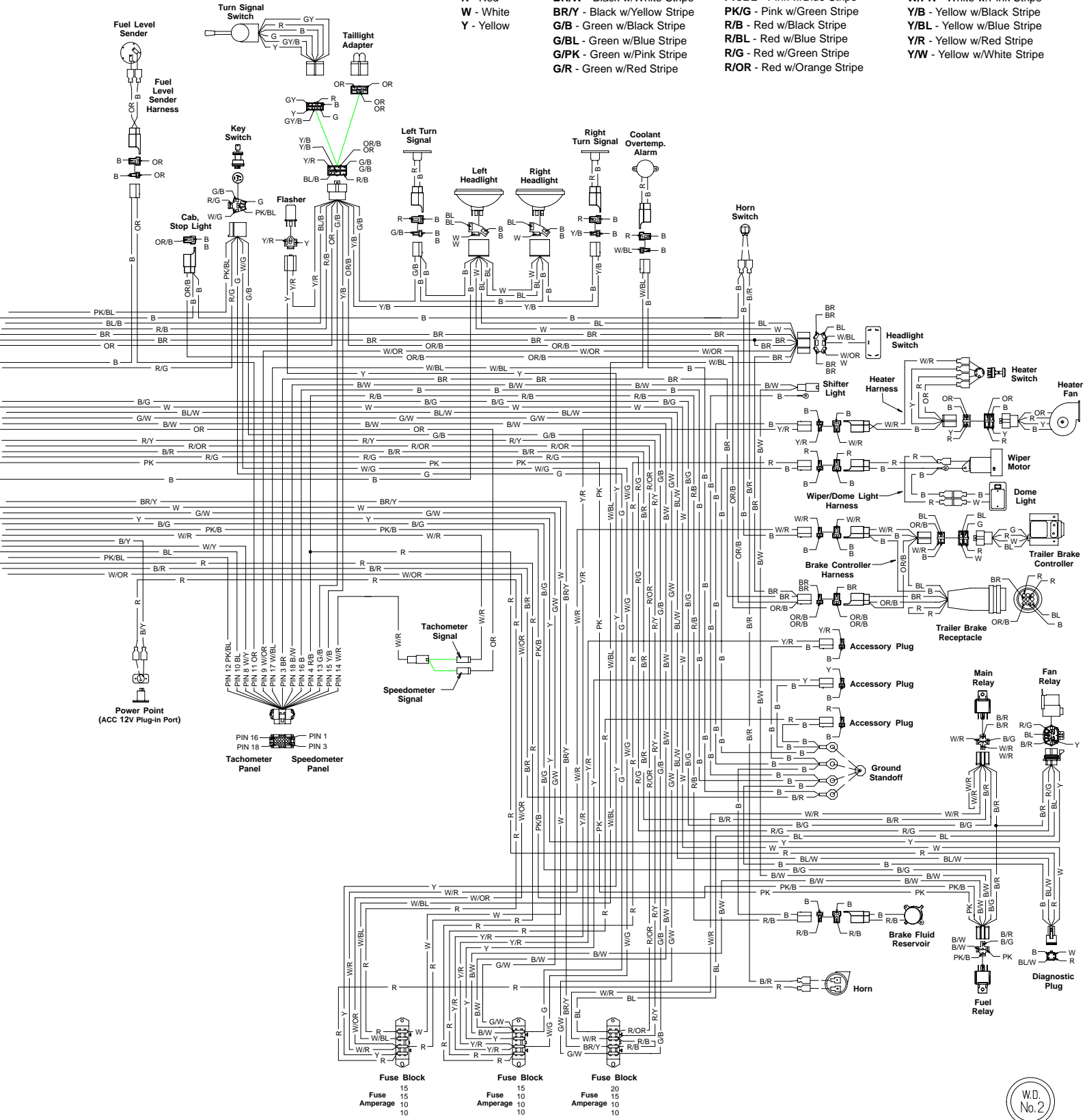
## SUZUKI 660 EFI

### TURF TRUCKSTER, MODEL 898658 With Serial No's. Up To REV1287



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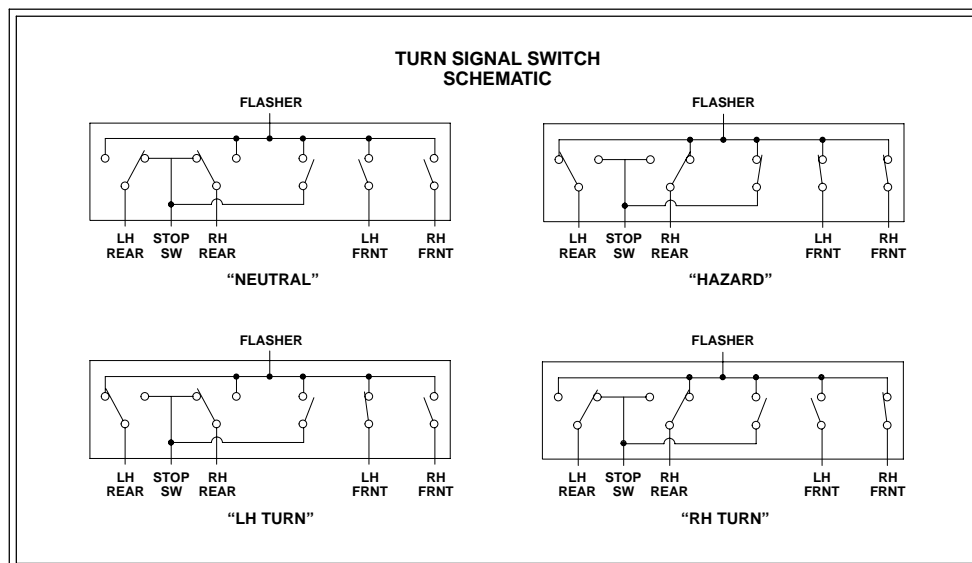
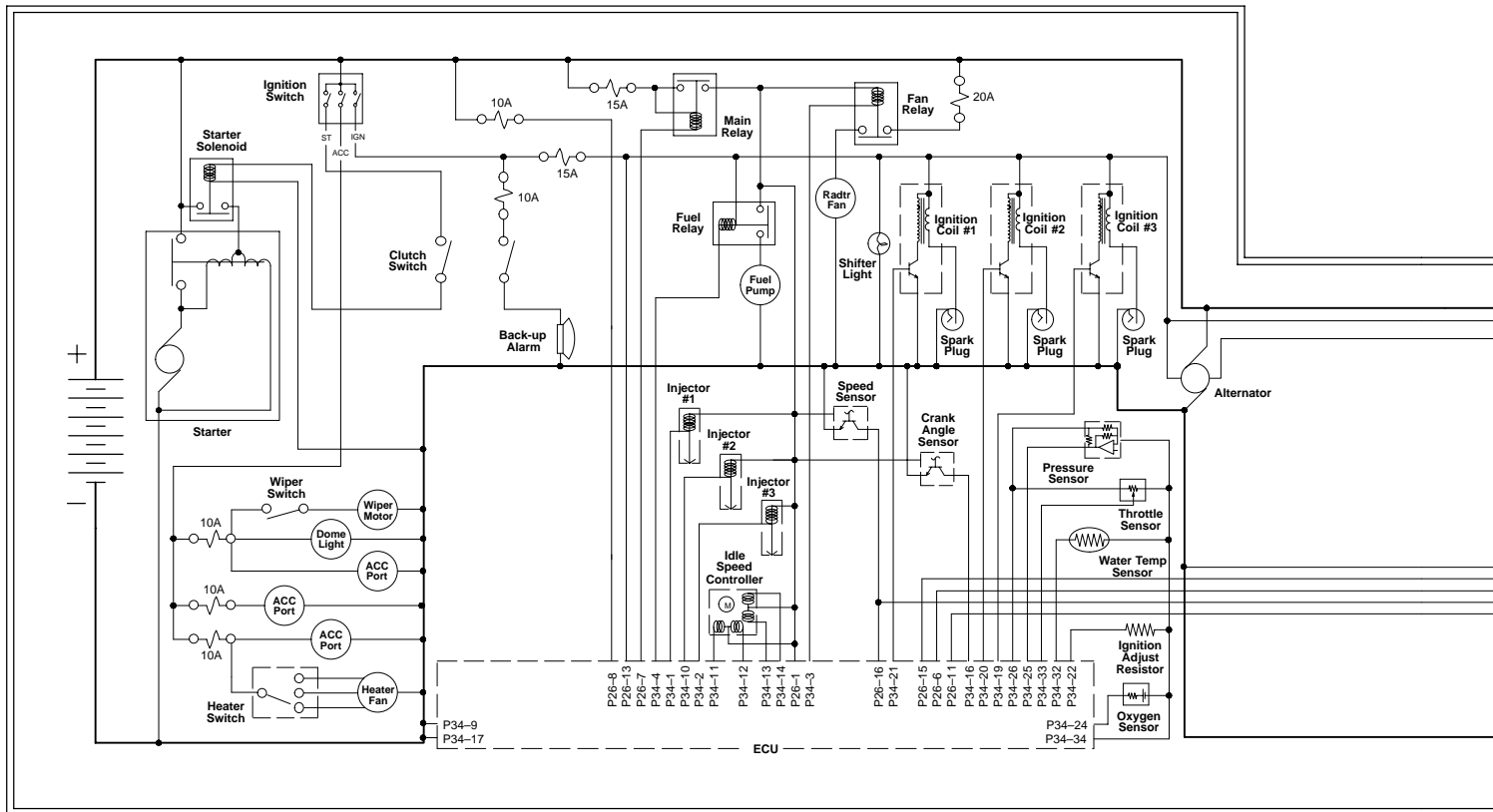
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| <b>BL</b> - Blue   | <b>B/R</b> - Black w/Red Stripe     | <b>G/Y</b> - Green w/Yellow Stripe  | <b>W/BR</b> - White w/Brown Stripe  |
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| <b>G</b> - Green   | <b>B/Y</b> - Black w/Yellow Stripe  | <b>OR/G</b> - Orange w/Green Stripe | <b>W/OR</b> - White w/Orange Stripe |
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| <b>PK</b> - Pink   | <b>BL/W</b> - Black w/White Stripe  | <b>P/BL</b> - Purple w/Blue Stripe  | <b>W/B</b> - White w/Black Stripe   |
| <b>P</b> - Purple  | <b>BL/Y</b> - Black w/Yellow Stripe | <b>PK/B</b> - Pink w/Black Stripe   | <b>W/BL</b> - White w/Blue Stripe   |
| <b>R</b> - Red     | <b>BR/W</b> - Black w/White Stripe  | <b>PK/BL</b> - Pink w/Blue Stripe   | <b>W/PK</b> - White w/Pink Stripe   |
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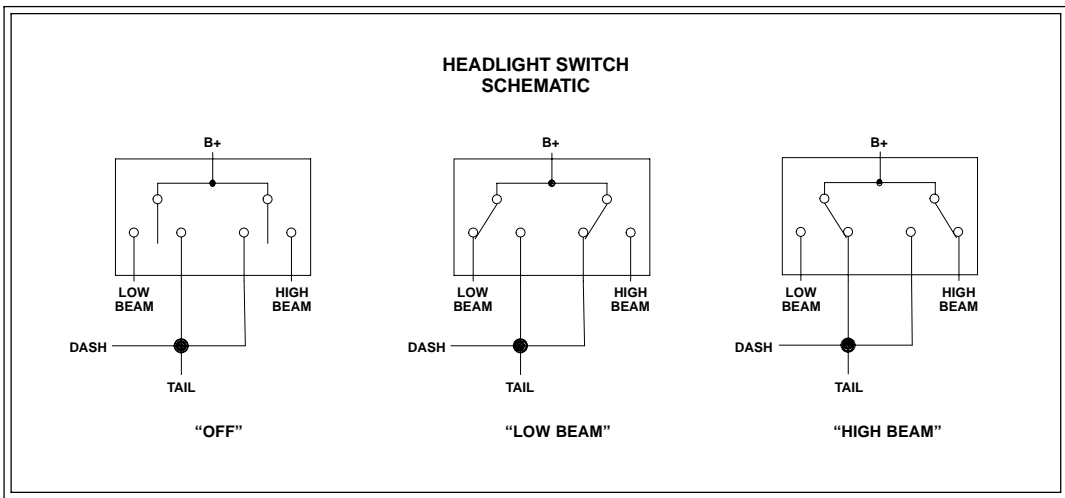
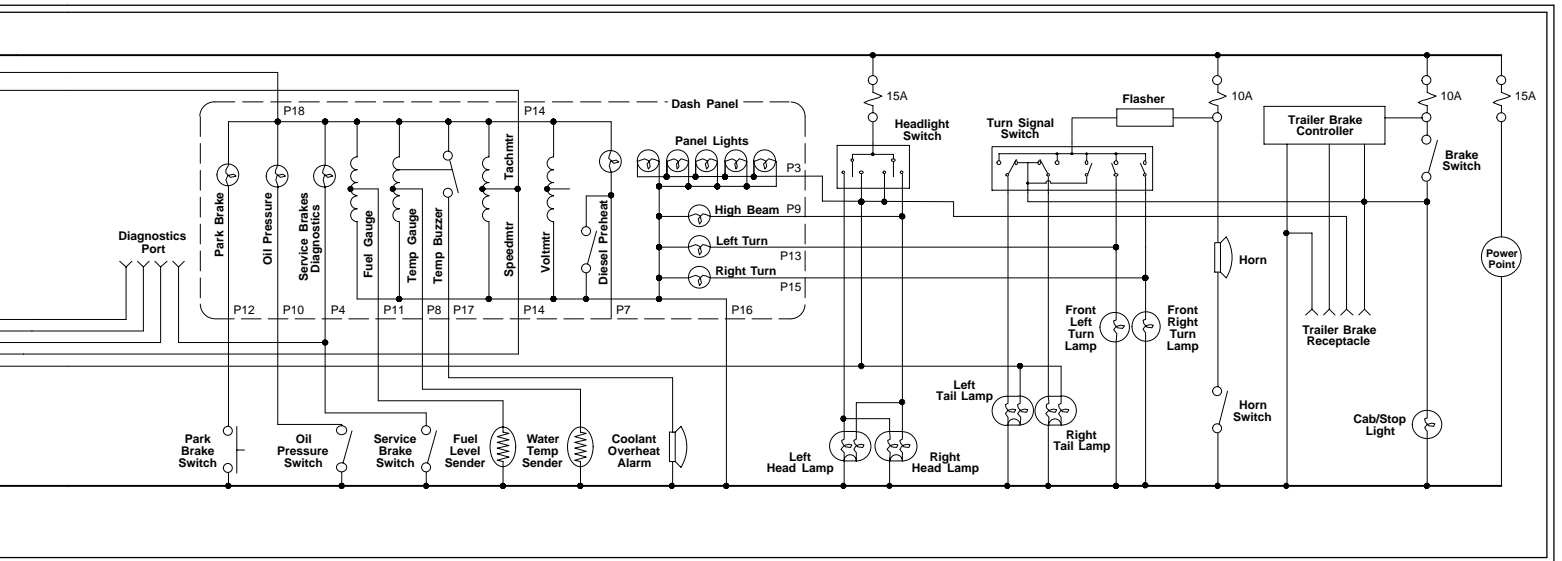
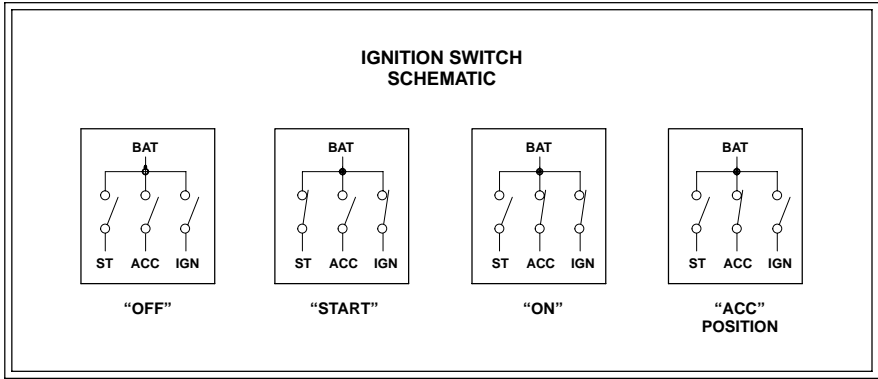
# WIRING SCHEMATIC

## SUZUKI 660 EF1

### TURF TRUCKSTER, MODEL 898658 With Serial No's. Up To REV1287



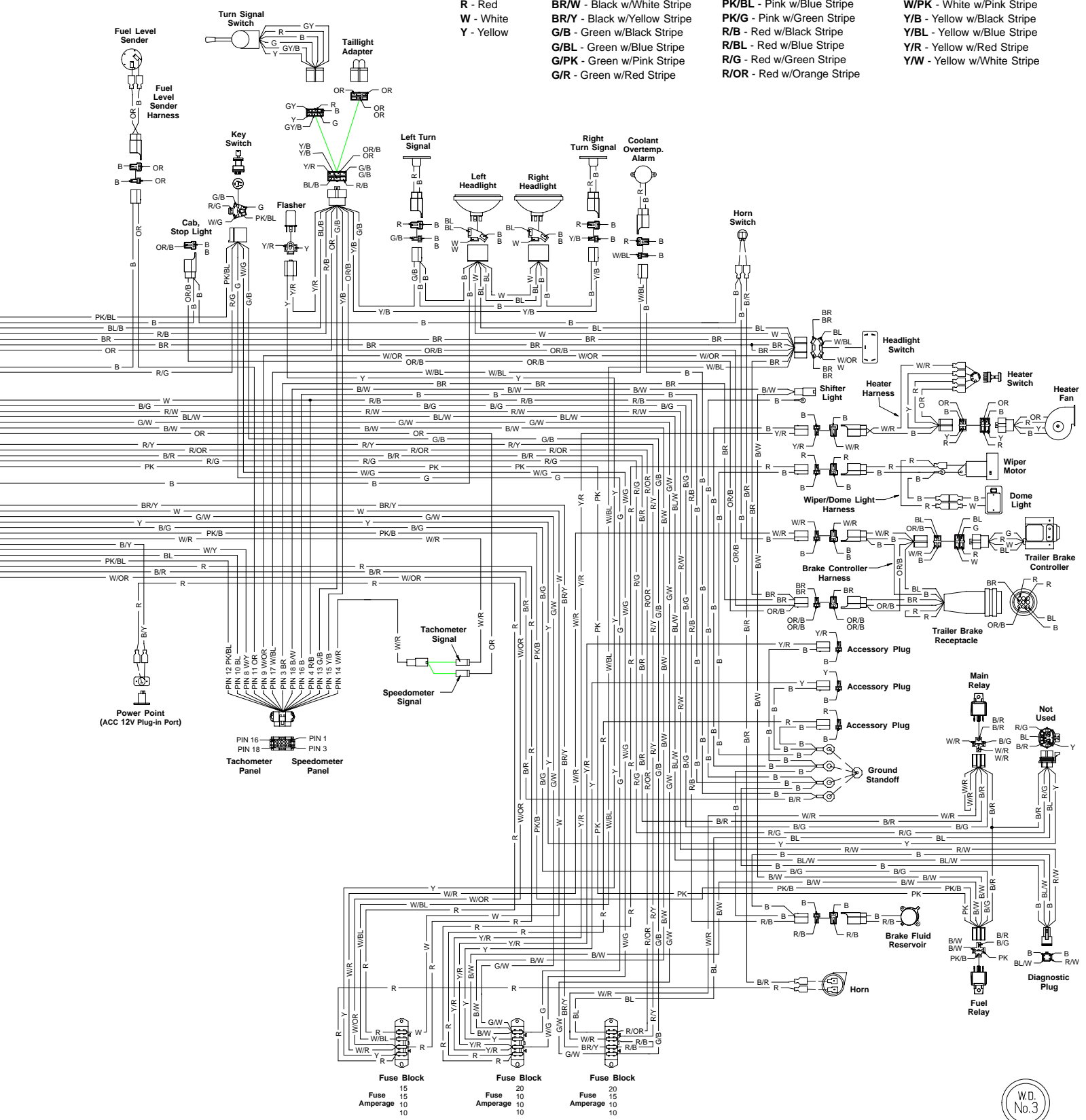




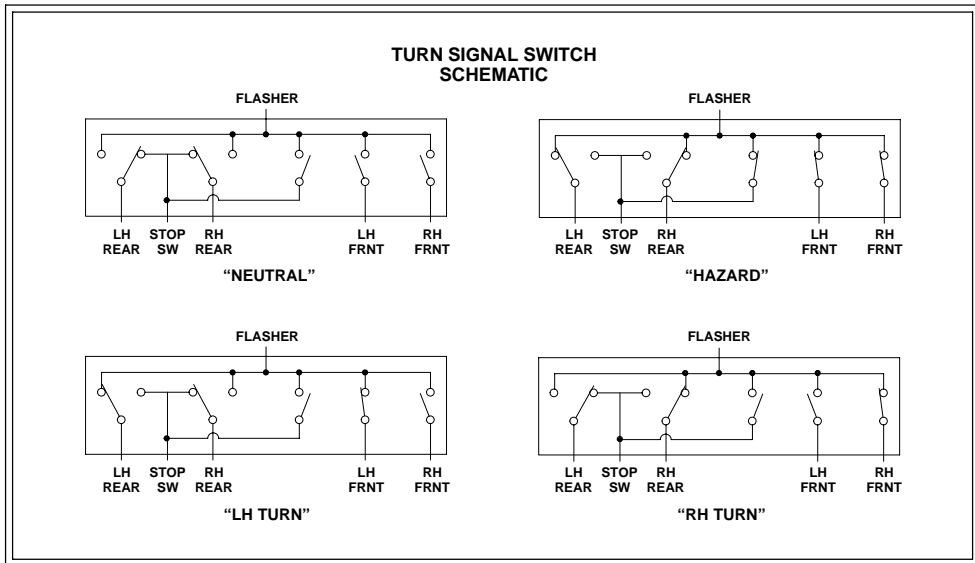
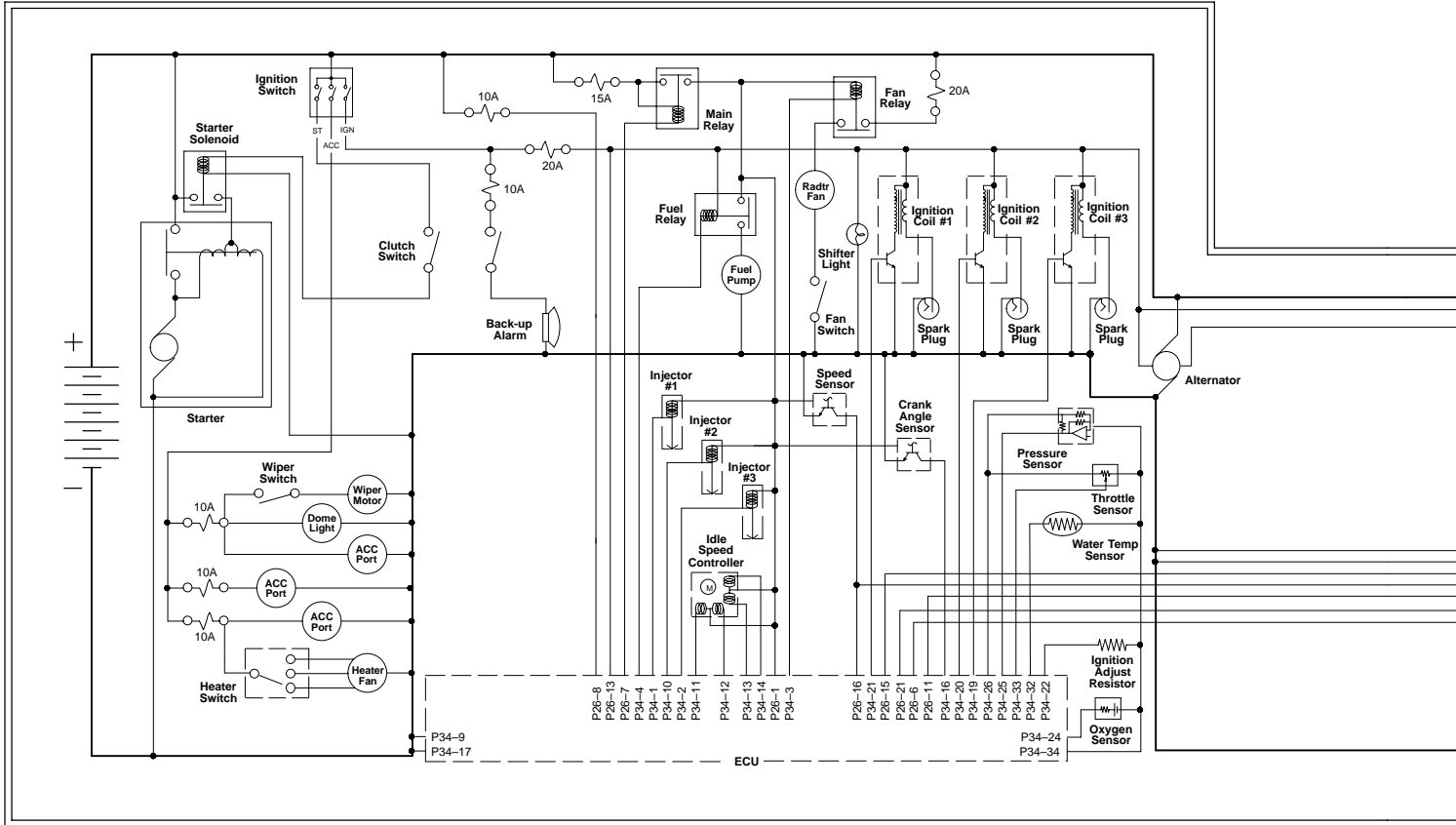


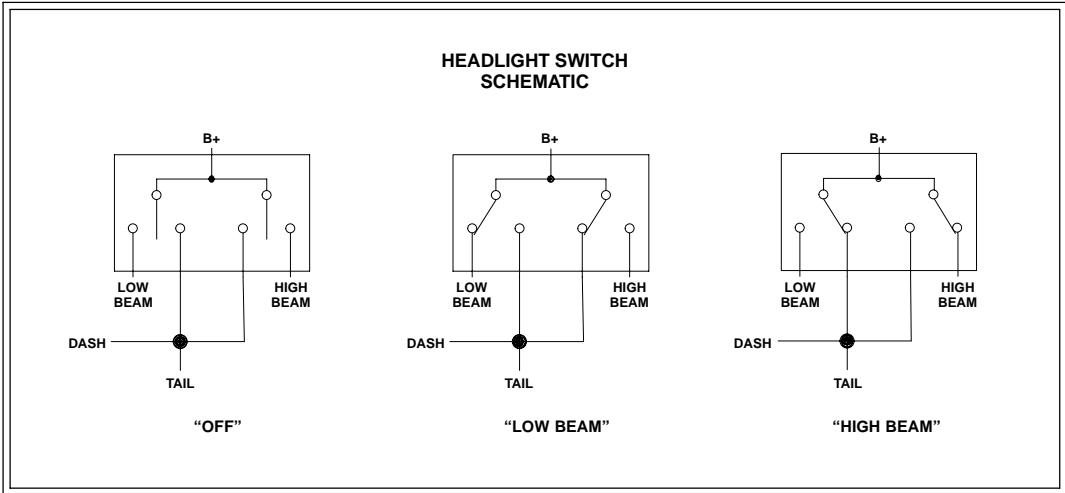
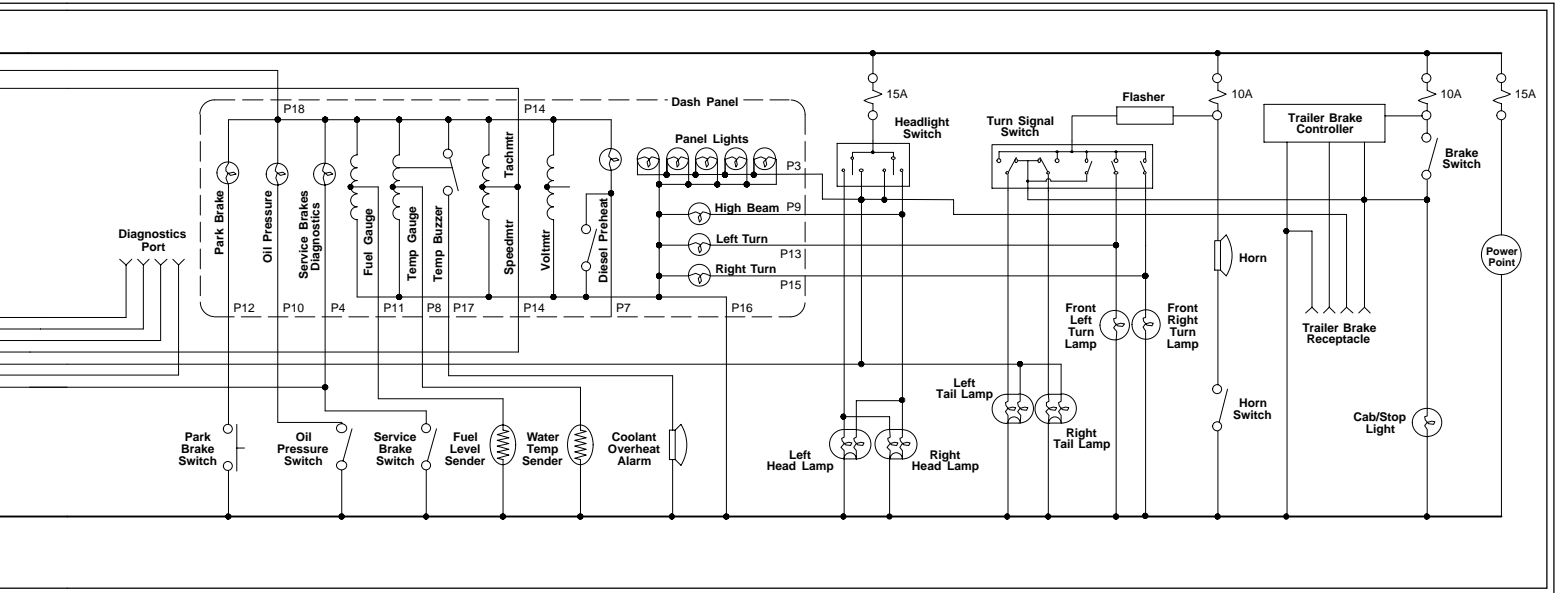
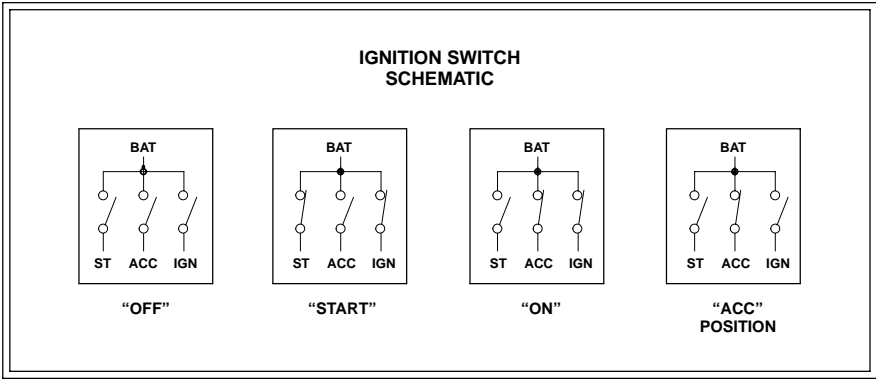
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| <b>P</b> - Purple  | <b>BL/Y</b> - Black w/Yellow Stripe | <b>PK/B</b> - Pink w/Black Stripe   | <b>W/BL</b> - White w/Blue Stripe   |
| <b>R</b> - Red     | <b>BR/W</b> - Black w/White Stripe  | <b>BR/W</b> - Black w/White Stripe  | <b>PK/BL</b> - Pink w/Black Stripe  |
| <b>W</b> - White   | <b>BR/Y</b> - Black w/Yellow Stripe | <b>PK/G</b> - Pink w/Green Stripe   | <b>R/B</b> - Red w/Black Stripe     |
| <b>Y</b> - Yellow  | <b>G/B</b> - Green w/Black Stripe   | <b>G/BL</b> - Green w/Blue Stripe   | <b>R/BL</b> - Red w/Blue Stripe     |
|                    | <b>G/BL</b> - Green w/Blue Stripe   | <b>G/PK</b> - Green w/Pink Stripe   | <b>R/G</b> - Red w/Green Stripe     |
|                    | <b>G/R</b> - Green w/Red Stripe     | <b>R/OR</b> - Red w/Orange Stripe   |                                     |



**WIRING SCHEMATIC**  
**SUZUKI 660 EFI**  
**TURF TRUCKSTER, MODEL 898656 and**  
**MODELS 898658 With Serial No's. Beginning With 00002120**





## Notes