

OPERATION
AND
MAINTENANCE
MANUAL
WITH
PARTS LIST

MODEL: G 1-50
SERIAL #: Starting at 114806
MANUAL # MG-150-00

****IMPORTANT****

READ AND FOLLOW INSTRUCTIONS GIVEN IN
SAFETY AND OPERATIONS SECTIONS, AND
THOSE SECTIONS RELATED TO YOUR SERV-
ICE AND REPAIR RESPONSIBILITIES.



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Commercial and Industrial Vehicles Since 1949

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SECTION 1

INTRODUCTION

G 1-50

SECTION 1

ABOUT THIS MANUAL

This manual provides you with information you need to safely operate and maintain this vehicle.

We assume that those who will perform maintenance operations are trained vehicle service technicians capable of performing routine maintenance procedures such as changing a tire using a voltmeter and so forth.

We also assume that they have or will attend a training program designed to familiarize them with the safe operation and use of this particular vehicle.

This manual contains the following major sections:

SECTION 1: INTRODUCTION

Contains information about how to use this manual, a description of the G 1-50, how to do an incoming inspection and vehicle specifications.

SECTION 2: VEHICLE OPERATION

Provides safety rules and guidelines describes the driver training program and explains the operation of each control on the G 1-50.

SECTION 3: MAINTENANCE PROCEDURES

Contains a scheduled maintenance checklist lubrication diagram troubleshooting guide recommended spare parts list, and detailed maintenance procedures.

SECTION 4: SERVICE PROCEDURES

Contains service procedures in alphabetical order for each assembly found in the G 1-50. Each major heading contains procedures organized in logical order.

SECTION 5: ILLUSTRATED PARTS

Includes an illustration and parts list for each assembly that has replaceable parts for the G 1-50.

NOTATIONAL CONVENTIONS

The following types of notations are used throughout this manual:



A warning alerts you of something that may cause injury to yourself or others. Be sure you exercise special care and follow any instructions provided in a warning message.



A caution informs you of something that may cause damage to the vehicle. Be sure you exercise special care and follow any instructions provided in a caution message.



A note provides additional information about a subject.

VEHICLE DESCRIPTION

This manual applies to vehicles with serial numbers starting at 114806 with the Onan engine.

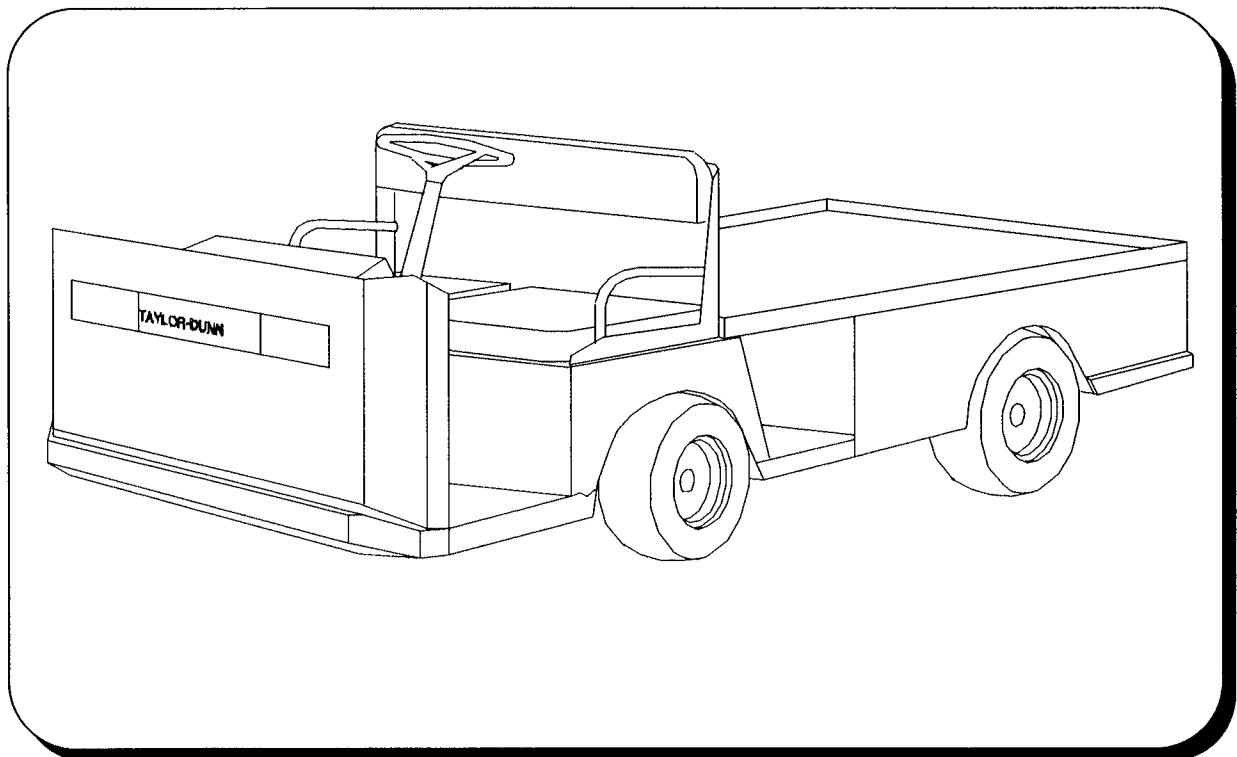
The G 1-50 is designed to be driven on smooth surfaces in and around industrial plants, nurseries, institutions, motels, mobile home parks and resorts.

This vehicle is not designed to be driven on public highways. It is not designed to go in excess of 18 mph whether on a level or on a downhill surface. Driving at a speed higher than 18 mph may result in steering difficulty, engine damage, and/or loss of control. It is not designed to be towed in excess of 5 mph.

The vehicle can handle a total payload (incl. cargo, optional equipment, passengers and driver) of up to 1500 lbs. Various options are available to enable you to customize the vehicle to suit your particular needs (consult your Taylor-Dunn salesperson or representative for current options).

This vehicle conforms to requirements for Type G vehicles as described in O.S.H.A. Standard Section 1910.178 (Powered Industrial Trucks) and with all applicable portions of the American National Standard for Personnel and Burden Carriers (ANSI B56.8-1988).

The model and serial number for this vehicle are imprinted on a decal located under the driver's seat and stamped in a main frame rail directly below the passenger seat.



STANDARD SPECIFICATIONS G 1-50

ITEM	SPECIFICATION
Standard dimensions	304.8L x 112.4W x 122H Centimeters
	120 x 44 1/4 x 48H Inches
	Bed size 76 1/4 x 36 Inches
Dry weight	517 kg
	1,140 lbs
Turning radius	312 centimeters
	125 Inches
Transmission	Automatic variable pitch V-belt transmission. Double reduction helical gear, 13.87:1
Brakes	Hydraulic disc on front Hydraulic drum on rear
Engine	See table "ENGINE SPECIFICATIONS"
Tires	5.70 x 8 Load range B, pneumatic
Tire pressure	50 psi max.
Maximum load	1500 lbs (681kg) including driver, passengers and optional equipment
Battery	Group 24, 12 volt

ENGINE SPECIFICATIONS G 1-50

SPECIFICATION		
ITEM	UNITS	E-140H
Power rating @3600rpm	hp	14.00
	kw	10.40
Displacement	cu. in.	23.70
	cc	389.00
Bore	in.	3.31
	mm	84.20
Stroke	in.	2.76
	mm	70.00
Compression ratio		8.5:1
Weight	lb	81.60
	kg	37.00
Oil capacity	US qt.	1.00
	L	0.90
Oil type	SAE 30 Type SF or SG	
Lubrication system	Pressurized with a replaceable filter	
Spark plug	Champion RL-95YC	
Spark plug gap	in.	0.04
	mm	0.89
Spark plug torque	ft-lb	20.00
	Nm	26.00

TAKING DELIVERY OF YOUR VEHICLE

THIS VEHICLE SHOULD BE INSPECTED IMMEDIATELY AFTER DELIVERY. Use the following guidelines to make sure there are no obvious problems.

Inspecting the Vehicle

Examine the contents of all packages and accessories that may have come in separate packages with this vehicle. Make sure everything listed on the packing slip is there. Nothing should look broken or damaged.

Examine any visible wiring for obvious signs of damage. Check that all connections are secure.

Check that battery connections are tight and all cells are filled.

Inspect the tires for obvious wear or damage. Check the tire pressure. Make sure that all wheel lugs are secure.

Check the body seats windshield (optional) trim and other external parts for obvious damage.

Checking the Controls

Operate each of the following controls before turning on the key switch:

- ◆ Accelerator pedal
- ◆ Brake pedal
- ◆ Forward - reverse selector lever
- ◆ Parking brake
- ◆ Steering wheel
- ◆ Horn
- ◆ Lights.

Each control should operate smoothly and easily without sticking or requiring undue effort.

What To Do If You Find A Problem

If you find a problem with this vehicle you must immediately file a claim with the carrier. The claim must be filed within 48 hours of receiving this vehicle. Forward a copy of the damage claim to your Taylor-Dunn dealer.



Do not repair modify or adjust any part of this vehicle unless you are authorized to do so. Incorrect repairs may result in injury to yourself and others and cause the invalidation of your warranty.

SECTION 2
OPERATING GUIDELINES

G 1-50

SAFETY RULES AND GUIDELINES

It is the responsibility of the owner of this vehicle to assure that the operator understands the various controls and operating characteristics of this vehicle and obeys the following safety rules and guidelines (extracted from the American National Standards Institute Personnel and Burden Carriers ANSI B56.8).

This vehicle is designed to be driven over smooth surfaces in and around places such as warehouses, nurseries, motels, parks, and resorts. Before you drive this vehicle please observe the following safety rules and guidelines:



Do not drive this vehicle on public roads and highways. Do not exceed 18 MPH at any time. Speeds over 18 MPH may cause steering difficulty and loss of control and engine damage.

- ◆ Do not drive this vehicle unless you are a qualified and trained operator.
- ◆ Keep all body parts (head, arms', legs') inside this vehicle while it is moving.

- ◆ Drive slowly when making a turn especially if the ground is wet slippery or when driving on an incline.
- ◆ This vehicle may overturn easily if turned sharply when driving at high speeds, especially when on an incline.
- ◆ Drive only on level surfaces or on surfaces having an incline of no more than 10% (6 degrees.).
- ◆ Do not drive over loose objects, holes or bumps.
- ◆ Observe all traffic regulations and speed limits (18 mph max.).
- ◆ Keep to the right under normal conditions.
- ◆ Maintain a safe distance from all objects.
- ◆ Keep the vehicle under control at all times.
- ◆ Yield right of way to pedestrians, ambulances, fire trucks, or other vehicles in emergency situations.
- ◆ Do not overtake another vehicle at intersections, blind spots, or other dangerous locations.
- ◆ Keep a clear view ahead at all times.

DRIVER TRAINING PROGRAM

The owner of this vehicle shall conduct an Operator Training program for all those who will be operating this vehicle. The training program shall not be condensed for those claiming to have previous vehicle operation experience. Successful completion of the Operator Training program shall be required for all personnel who operate this vehicle.

The Operator Training program shall include the following:

- ◆ Operation of this vehicle under circumstances normally associated with your particular environment.
- ◆ Emphasis on the safety of cargo and personnel.
- ◆ All safety rules contained within this manual.
- ◆ Proper operation of all vehicle controls.
- ◆ A vehicle operation and driving test.

Driver Qualifications.

Only those who have successfully completed the Operator Training program are authorized to drive this vehicle. Operators must possess the visual auditory physical and mental ability to safely operate this vehicle as specified in the American National Standards Institute Controlled Personnel and Burden Carriers ANSI B56.8.

The following are minimum requirements necessary to qualify as an operator of this vehicle:

- ◆ Demonstrate a working knowledge of each control.
- ◆ Understand all safety rules and guidelines as presented in this manual.
- ◆ Know how to properly load and unload cargo.
- ◆ Know how to properly park this vehicle.
- ◆ Recognize an improperly maintained vehicle.
- ◆ Demonstrate ability to handle this vehicle in all conditions. .

VEHICLE CONTROLS

The following describes the use of each control on this vehicle.

NOTE *Some controls are optional equipment and may not be installed on this vehicle.*

Key switch /Starter

A key switch located on the right side of the instrument panel starts the vehicle. Rotate the key clockwise to turn the vehicle on counter-clockwise to turn the vehicle off. Rotate it momentarily all the way clockwise to start the vehicle just like most cars.

NOTE *The vehicle will NOT START unless the forward-reverse shift lever is in the neutral (center) position and driver is seated.*

This switch is also designed to secure and disable the vehicle. You can remove the key ONLY when the key switch is in the OFF position.

Deadman Switch

A switch located under the driver's seat disables the vehicle when the driver leaves the seat. The driver must be seated for the engine to run.

This is an added safety feature and should never be bypassed.

Choke Knob

The choke knob is located between the front seats behind the forward-reverse shift lever. When starting a cold engine pull out the choke knob until the engine responds properly. As the engine warms up push the knob in.

Forward-Reverse Shift Lever

The forward-reverse shift lever located between the driver and front passenger seats determines the direction of travel (forward or

reverse) of the vehicle. Push knob down and then forward of the neutral (center) position to make the vehicle go forward. Push knob down and then pull it back of the neutral position to go in reverse.

CAUTION

DO NOT SHIFT from forward to reverse or vice-versa while the vehicle is in motion. Make sure the vehicle is completely stopped before shifting. Shift only when the engine is at idle speed. Damage to the transmission may result.

NOTE *The shift lever has a detent in the forward, reverse and neutral positions. The shift lever should be in the neutral position with the park brake set whenever the operator leaves the driver's seat.*

Accelerator pedal

The accelerator pedal, located to the right of the brake pedal, controls the speed of the vehicle and is designed for right foot operation. It operates the same way as the accelerator pedal in an automobile and controls the vehicle's SPEED while the forward/reverse shift lever controls the DIRECTION of motion.

Depress the pedal to speed the vehicle up. Release the pedal to slow down.

NOTE *The foot brake pedal will need to be used to slow this vehicle on a down grade.*

Steering

The steering wheel and steering system is an automotive type. To turn right, turn the steering wheel to the right (clockwise). To turn left, turn the steering wheel to the left (counter clockwise).

Foot brake pedal

The foot brake pedal located to the right of the steering column is for operation with the right foot only. It works the same as the brake in an automobile. Applying pressure to the brake pedal slows the vehicle according to the amount of pressure you apply. Removing your foot from the pedal releases the braking action.

Park Brake Lever

The park brake is actuated with a hand lever located on the kick panel between the front seats. To set the park brake push down on the lever. To release the park brake pull up on the lever.

Tip: For easier application of the park brake step on the foot brake pedal while applying the park brake.

Horn button

The horn button is located on the floor board to the left of the steering column. It is designed to be operated by the left foot. Depress the button to sound the horn and release the button to turn it off.

Instrument Panel

The headlight switch is located on the left side of the instrument panel. An accessory switch, if any, is adjacent and to the right of it.

Hour Meter

The hour meter is located to the right of the fuel gauge. This tracks the number of hours the engine has been in operation.

Fuel Gauge

The fuel gauge is located to the right of the accessory switch. The gas filler cap is located on the right panel towards the rear of the truck.

STARTING

Before Starting

Pre-start checklist:

- ◆ Check oil level. Add oil if low.
- ◆ Check fuel level. Add fuel if low.
- ◆ Make sure cooling air intake areas and external surfaces of the engine are clean and unobstructed.
- ◆ Check that all air cleaner components and all shrouds, equipment covers and guards are in place and securely fastened.
- ◆ Check that the transmission is in the center (neutral) position.

▲ WARNING

Never run the engine in a closed building or confined area and avoid inhaling engine fumes. The exhaust gases contain poisonous carbon monoxide.

Starting

1. If the engine is cold place the choke control in the "ON" position. If the engine is warm (in normal operating temperature) place the choke control in the "OFF" position.
2. Depress the accelerator pedal halfway to the floor.
3. Rotate the key switch clockwise all the way to engage the starter just like most cars. Release the key switch as soon as the engine starts.

▲ CAUTION

Do not crank the engine continuously for more than 10 seconds at a time. If the engine does not start, wait 60 seconds before attempting to start again. Failure to follow these guidelines can burn out the starter motor.

▲ CAUTION

If the engine starts but does not keep running (a false start), wait for the engine to stop completely before re-starting. Starting the engine while the flywheel is still rotating can damage the starter.

▲ CAUTION

If the starter does not turn the engine over, release the key switch immediately. Do not try to start the engine again until the problem is corrected. Do not jump start using another battery as this may burn out the starter motor.

4. On a cold engine gradually return the choke control to the "OFF" position as the engine warms up.

Driving

- ◆ Slow down and sound the horn when approaching a corner or other blind intersection.
- ◆ No horseplay or dangerous driving.
- ◆ Do not drive this vehicle in hazardous areas unless this vehicle is approved and labeled for such operation.
- ◆ Immediately report any accident or vehicle problem to your supervisor.

Loading and Unloading

- ◆ Do not load cargo that can easily fall off this vehicle.
- ◆ Do not exceed the cargo load capacity of this vehicle.
- ◆ Do not carry more than the maximum number of passengers allowed for this vehicle.
- ◆ Be extra careful when handling cargo that is longer, wider or higher than this vehicle.

Parking

- ◆ Set the parking brake and place shift lever in neutral before leaving the vehicle.
- ◆ If you will be away from this vehicle turn off the key switch and remove the key and take the key with you.
- ◆ If you park this vehicle on an incline block the wheels.
- ◆ Do not block fire aisles, fire equipment or stairways.

Towing

- ◆ To tow this vehicle attach a tow strap to the front bumper tow bar and place the forward/reverse shift lever in the neutral position.
- ◆ Use another driver to steer this vehicle while it is being towed; be sure the driver uses the brakes when you slow or stop the towing vehicle.

▲ WARNING

Do not exceed 5 MPH or carry any passengers while towing this vehicle.



SECTION 3
SCHEDULED
MAINTENANCE
AND
SERVICE PROCEDURES
G 1-50

Section 3

This section explains how to perform the scheduled maintenance procedures. Use the Maintenance Checklist to determine how often you should perform each procedure. Vehicle maintenance or repairs should only be performed by a qualified mechanic.

This section contains the following:

- ◆ Maintenance guidelines.
- ◆ Maintenance checklist.
- ◆ Lubrication chart.
- ◆ Troubleshooting guide.
- ◆ Recommended spare parts list.
- ◆ Detailed maintenance procedures.

MAINTENANCE GUIDELINES

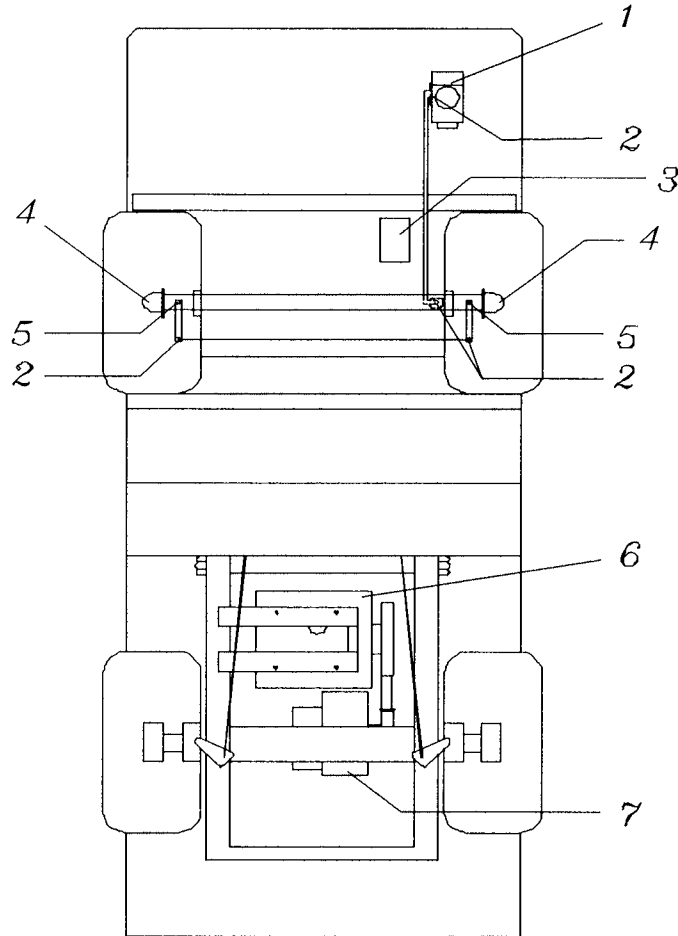
- Allow only qualified and authorized personnel to maintain repair adjust and inspect the vehicle.
- Before starting any repairs or maintenance immobilize the vehicle by turning the ignition off, setting the key switch to the "OFF" position, removing the key and setting the park brake.
- Disconnect the battery leads before working on or disconnecting any electrical component or wire.
- Block the chassis with jack stands before working under a raised vehicle.
- Conduct vehicle performance checks in an authorized area where safe clearance exists.
- Before starting the vehicle follow the recommended safety procedures in Section 2, "Vehicle Operation."
- Avoid fire hazards and have fire protection equipment present in the work area. Do not use an open flame to check level or leakage of fuel, battery electrolyte, or coolant. Do not use open pans of fuel or flammable fluids for cleaning parts.
- Ventilate the work area properly.
- Regularly inspect and maintain in a safe working condition, brakes, steering mechanisms, speed and directional control mechanisms, warning devices, lights, governors, guards and safety devices.
- Check the fuel system for leaks and condition of parts. If a leak is found take action to prevent the use of the vehicle until the leak has been eliminated.
- Inspect and maintain battery limit switches, protective devices, electrical conductors and connections in conformance with Taylor-Dunn's recommended procedures.
- Keep the vehicle in clean condition to minimize fire hazards and facilitate detection of loose or defective parts.

PERIODIC MAINTENANCE CHECKLIST					
Maintenance Item	Weekly (20 hrs)	Monthly (80 hrs)	Quarterly (250 hrs)	Semi-yearly (500 hrs)	Yearly (1000 hrs)
Check tire pressure (50 psi)	X				
Check and fill battery (use distilled water only)	X				
Check foot brake system. Adjust if necessary		X			
Check belts and mounts.		X			
Check steering for play. Adjust as necessary		X			
Check control cables		X			
Check steering spline coupling set screw.		X			
Lubricate all Zerk fittings			X		
Lubricate all moving parts without Zerk fittings (use all-purpose oil)			X		
Clean and tighten all wire connections			X		
Wash battery with water (use soda if necessary)			X		
Check brake lining for wear. Adjust as necessary				X	
Check and adjust front wheel bearings				X	
Check rear axle oil				X	
Change rear axle oil					X
Replace air filter element					X
Check nuts and bolts, particularly engine and drive train					X
Clean and re-pack front wheel bearings (use wheel bearing grease).					X
NOTE: For Engine Maintenance, see next table, "Engine Maintenance".					

ENGINE MAINTENANCE

REQUIRED MAINTENANCE	
Maintenance item	Frequency*
Clean air intake screen	Daily
Check oil level	Daily
Change oil	100 Hours
Fill fuel tank	As required
Replace fuel filter	400 Hours
Service foam air filter	50 Hours
Clean cooling fins and external surfaces	50 Hours
Check paper air filter	200 Hours
Check spark plug	200 Hours
Replace spark plug	400 Hours
Check valve-tappet clearance	200 Hours
*More frequently when the engine is operated under extremely dusty or dirty conditions.	

LUBRICATION CHART



#	Description	Location	Lubricant type
1	Steering gear box	1	General purpose grease
2	Steering ball joints	4	General purpose grease
3	Master cylinder	1	DOT 5 Brake fluid
4	Front wheel bearings	2	General purpose grease
5	King pin	2	General purpose grease
6	Engine oil	1	SAE 30 Detergent motor oil
7	Transmission	1	SAE 30 Non-detergent motor oil

TROUBLESHOOTING GUIDE

SYMPTOM	PROBABLE CAUSE*
Steering pulls in one direction	Unbalance tire pressure
	Front end out of alignment
Hard steering	Low tire pressure
	Dry lube points in steer linkage
	Damaged king pin/Ball joint
Excessive steering play	Worn ball joints
	Mis-adjusted or worn steer gear
	Loose steering linkage
Lack of power or slow operation	Brake dragging
	Parking brake dragging
	Worn transmission gears
	Front end out of alignment
	Mis-adjusted throttle cable
Abnormal noise	Worn transmission gears or bearings
	Worn axle bearing (front or rear)
	Loose wheel lug nuts
	Engine bearings worn
Oil leak in rear wheel bearing area	Wheel bearing and/or gasket failed
	Transmission overfilled
Brake pedal soft or spongy	Air in brake lines
Brake pedal low	Brake worn (1/16" wear limit)
	Brake fluid low
	Brakes out of adjustment
Braking power low	Brakes worn (1/16" wear limit)
	Brake shoes/pads contaminated with fluid
	Brake pedal linkage binding
	Brakes out of adjustment
	Air in brake lines

TROUBLESHOOTING GUIDE (cont.)

SYMPTOM	PROBABLE CAUSE*
Poor idle or low speed performance	Spark plug fouled
	Choke on
	Carburetor out of adjustment
	Weak spark
	Fuel pump failed
	Air leak in intake manifold
	Plugged fuel tank vent
* Probable causes are to be used as a guide only. They are not all inclusive of the problems that can result with the symptom indicated	

MAINTENANCE PROCEDURES

FUEL

Use only clean fresh unleaded gasoline with a pump sticker octane rating of 87 or higher (for countries using the Research method octane rating should be 90 or higher).

During some times of the year only mandated "oxygenated" gasoline's may be available. These are acceptable for use but not preferable. Leaded gasoline may be used but will result in the extra maintenance for removing combustion chamber and spark plug deposits.

CAUTION

Do not use gasoline or gasoline additives containing methanol because methanol can be corrosive to fuel system components

CAUTION

Do not use gasoline left over from the previous season to minimize gum deposits in the fuel system and to ensure easy starting. Do not add oil to the gasoline. Do not overfill the fuel tank. Leave room for the fuel to expand.

WARNING

Do not add gasoline while the engine is hot or running. Do not start the engine near spilled gasoline. NEVER use gasoline as a cleaning agent.

FUEL FILTER

The engine is equipped with an in-line fuel filter. Visually inspect the filter periodically and replace every 400 hours or when dirty.

OIL

Use premium quality motor oil. Look for the API (American Petroleum Institute) classification and use Class SG or SH oil (also SG/CD, SG/CE, SH/CD OR SH/CE). Also look for the SAE (Society of Automotive Engineers) viscosity grade. Referring to the table below, choose the viscosity grade appropriate for the ambient temperatures expected during the period of time until the next scheduled oil change.

Single-grade SAE 30 oil is preferable when temperatures are consistently above freezing. Multi-grade oils are better when wide temperature variations are expected.

RECOMMENDED ENGINE OIL VISCOSITY	
TEMP. RANGE (F)	OIL TYPE
-20 - 50	5W30
0-80	10W30 OR 10W40
10-100	15W40
32 AND UP	Single grade 30

CHECKING OIL

NOTE → *Make sure the engine is stopped and resting on a level surface when checking or adding oil. Also make sure the engine is cool and the oil has had time to drain into the sump.*

Check oil BEFORE EACH USE as follows:

1. Clean the area around the fill tube to keep dirt and debris out of the engine.
2. Remove the oil fill cap/dipstick and wipe oil off. Reinsert the dipstick and push it all the way down into the tube.
3. Remove the dipstick and check the oil level. It should be within the crosshatch area.

CHANGING OIL

For a new engine change oil after the first 24 hours of operation. Change oil every 100 operating hours thereafter.

It is recommended to change the oil while the engine is warm from operation.

NOTE → *Make sure the engine is stopped and resting on a level surface.*

Change oil as follows:

1. Place a pan under the vehicle below the drain plug to catch the used engine oil. Remove the oil drain plug and dipstick. Allow all the oil to drain out.
2. Reinstall the drain plug. Make sure it is tightened securely.
3. Replace the oil filter.
4. Fill with 1 quart of new oil (of the proper type). Always check the level on the dipstick before adding more oil.

AIR CLEANER

This engine is equipped with a high-density paper air cleaner element with an oiled foam pre-cleaner which surrounds the paper element.

PRE-CLEANER

If so equipped wash and re-oil the pre-cleaner every 50 operating hours (more often under extremely dusty or dirty conditions).

1. Rotate the quarter turn fastener and remove the outer air cleaner cover.
2. Remove pre-cleaner from the paper element.
3. Rinse the pre-cleaner thoroughly until all traces of detergent are eliminated. Squeeze out excess water (DO NOT WRING). Air dry.
4. Saturate pre-cleaner in clean fresh engine oil and squeeze out excess oil.
5. Reinstall pre-cleaner over paper element.

PAPER ELEMENT

Perform this procedure every 200 operating hours (more often under extremely dirty or dusty conditions).

1. Remove the pre-cleaner element cover and paper element.
2. Check the paper element. Replace the element as necessary.

NOTE → *Do not wash or use pressurized air on the paper element as it will be damaged. If dirty, bent, or damaged replace with a genuine Onan element. Handle elements carefully. Do not use if surfaces are bent or damaged.*

3. With the air cleaner disassembled check the base plate. Make sure it is secured and not bent or damaged. Also check the element cover seals and breather tube for damage or improper fit. Replace all damaged components.

CAUTION

Damaged or loose components could allow un-filtered air into the engine causing premature wear and failure.

4. Reinstall the paper element cover and cover nut. Tighten the cover nut securely.
5. If so equipped install the pre-cleaner (washed and oiled) over the paper element.
6. Install air cleaner cover. Tighten quarter turn nut until it is snug against cover.

IGNITION SYSTEM

CAUTION

Do not apply 12-V DC to kill terminal of ignition module as the module will burn out.

No maintenance timing or adjustments are necessary or possible with this dependable electronic ignition system other than periodically checking/replacing the spark plug. If starting problems occur which are not corrected by replacing the plug, refer to the engine manual for trouble analysis.

SPARK PLUG

Perform this procedure every 400 operating hours.

1. Clean the area around the spark plug base to keep dirt and debris out of the engine.
2. Remove plug and check its condition. Hard starting or engine misfire can be caused by a wrong plug, worn or fouled plug, cracked porcelain or improper spark gap.

3. Replace the plug when dirty or if reuse is questionable. See "Engine Specifications Section 2, for plug type.



Do not clean the spark plug in a machine using abrasive grit. Check spark gap (0.035) using a wire feeler gauge. Adjust the gap as necessary by carefully bending the ground electrode.

4. Install the plug and torque to 20 ft lbs.

SHIFTER CABLE

Over time the cables which operate the forward/reverse shift mechanism stretch and may eventually require adjustment to assure adequate gear management.

To check and adjust the shift cable do the following:

5. Disconnect the ball joint at the transmission by sliding the outer sleeve towards the jam nut and then separating the ball joint from the receptacle.
6. Place the shift lever in the neutral position (in the detent).
7. Rotate the shift plate on the transmission so that it is halfway between forward and reverse.
8. Adjust the length of the shift cable (at the mounting bracket.) so that the ball joint receptacle can slide onto the ball joint without moving the shift plate.

CAUTION

Do not adjust the cable at the ball joint. It MUST be screwed in all the way.

BATTERY

⚠ WARNING

Battery electrolyte is poisonous and dangerous. It contains sulfuric acid. Avoid contact with skin eyes or clothing. Wear rubber gloves and safety glasses while servicing batteries. DO NOT INGEST!!

Batteries produce an explosive gas when charging. DO NOT SMOKE, produce an open flame or spark while checking or servicing a battery.

CLEANING

1. Dry dirt can be readily blown off with low pressure air or brushed off.
2. Wetness or wet dirt on the covers indicates battery acid. Using a nonmetallic brush with flexible bristles wash it off with a strong solution of baking soda and hot water (1 lb. of soda to gallon of water). Continue until all fizzling stops which indicates that the acid has been neutralized. Then rinse thoroughly with clear water. DO NOT get any of the solution into the battery cells.

SERVICING

1. Check the electrolyte level. If low fill with distilled water up to the correct level (see diagram).

⚠ CAUTION

Do not overfill the battery. An over-filled battery may leak acid.

2. Clean the battery with water. Blow off excess water with compressed air.
3. Clean the cell posts connectors and steel tray with water.

⚠ CAUTION

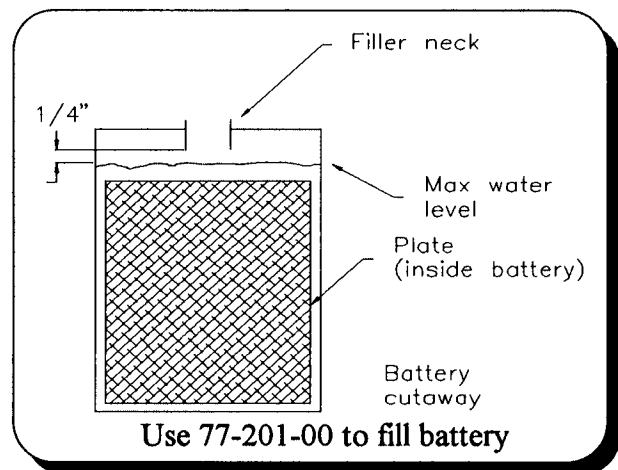
CHARGING

⚠ WARNING

Explosive mixtures of hydrogen gas are present within battery cells at all times. Do not work with or charge battery in an area where open flames (including gas furnace or water heater pilots), sparks, cigarettes or any other source of combustion are present. Always provide ample ventilation in rooms where batteries are being charged.

To charge the battery do the following:

4. Check the electrolyte level. If low fill with distilled water up to the correct level.
5. Charge the battery as necessary until the specific gravity of the electrolyte reaches 1.260 at 26.7C (80F).



Section 3

BATTERY STORAGE

The following pointers will help extend the life of the battery when storing your vehicle for the winter season:

Clean and check the electrolyte level and charge level of the battery. Do not store a battery low in electrolyte or in a low state of charge.

Recharge a battery not in use every 1 to 2 months.

If possible store the battery in a cool dry place.

TIRES

1. Check the tires for nicks or grooves and replace if necessary.
2. Ensure that the tire is properly seated on the rim.

3. Ensure that all the lug nuts are installed and secure.
4. Check the air pressure in the tires and inflate if necessary to the pressure specified.

TIRE CARE

Refer to the chart below to determine the correct tire pressure for your needs.

CAUTION

Avoid over-inflating or under-inflating tires as both these conditions cause increased tire wear.

TIRE INFLATION CHART

Tire size	Type	Part number	Load range	Ply rating	PSI (MAX.)	Max. load/tire (lbs)
5.70-8	Highway tread	10-081-00	B	4	60	915
5.70-8	Highway tread	Special order	C	6	90	1,160

BRAKE SYSTEM

CAUTION

Do not drive the vehicle if any worn or broken part is detected in any part of the brake system. The cause of the damage must be repaired immediately.

The rear brakes are hydraulic drum brakes. They are manual adjusting type and will require periodic adjustment to assure safe operation and maximum brake life.

Servicing the rear brake assembly consists of;

- ♦ Adjusting the service brakes
- ♦ Replacing the brake drum and shoes
- ♦ Adjusting the parking brake

The front brakes are hydraulic disc. Hydraulic disk brakes are not adjustable and only require periodic inspection to insure that they are in good operating condition.

REAR BRAKES

ADJUSTING THE REAR BRAKES

1. Raise the rear end and support it. .

WARNING

Always use jack stands when supporting the vehicle.

2. Remove the wheel and tire assembly.
3. Insert a brake adjusting spoon into the adjusting slot in the brake drum and turn the star adjusting nut until the brakes lock the wheel.
4. Now back off the star adjusting nut until the wheel spins freely with a minimum of drag.
5. Repeat steps 2 to 4 for the other side.

6. Lower the vehicle and test drive.

NOTE *If the rear brakes do not brake evenly then repeat steps 1- 6.*

REPLACING THE BRAKE DRUM

NOTE *It is recommended to replace drums as a set.*

1. Raise the vehicle and support it.

Always use jack stands when supporting the vehicle.

2. Remove the wheel and tire assembly.
3. Remove the brake drum.

NOTE *If the drum is difficult to remove it may be necessary to back off the brake shoe adjustment before removing the brake drum.*

NOTE *Make sure the new drum is clean and dry.*

4. Install the new brake drum.
5. Adjust the brakes (both sides).
6. Install the wheel and tire assembly.
7. Remove the jack stands and lower the vehicle.
8. Test drive the vehicle.

REPLACING THE BRAKE SHOES

1. Raise the vehicle and support it.

WARNING

Always use jack stands when supporting the vehicle.

2. Remove the wheel and tire assembly.
3. Remove the brake drum.
4. Remove the brake shoe retracting springs.
5. Remove the hair pins from the mechanical actuating lever.
6. Remove the brake shoe hold down spring from each shoe.

7. Remove the brake shoes and adjusting screw assembly.

NOTE → *Make sure you note the orientation of the adjusting screw assembly when removing from brake assembly.*

8. Disassemble and clean the adjusting screw assembly.
9. Apply Hi-Temp grease to the adjusting screw assembly, the hold down and retracting spring contacts on the brake shoes and the torque spider contact points on the brake shoes.
10. Reassemble the brakes in reverse order.
11. Adjust the brakes
12. Install the wheels.
13. Lower and road test the vehicle.

FRONT BRAKES

The front brake rotors are an integral part of the front hub. If the rotors are damaged or worn the front hub must be replaced.

REPLACING THE BRAKE PADS

1. Raise the front end and support it.

WARNING

Always use jack stands when supporting the vehicle.

2. Remove the front wheels.
3. Remove the two 1/4" caliper retaining bolts.

NOTE → *At this point there is nothing retaining the brake cylinder. Do not let it hang by the brakes hose.*

4. Inspect the spacers for wear and replace as necessary.
5. Replace the spacer bushings.

6. Re-assemble the brake using new brake pads.

WARNING

The 1/4" gr. 8 lock nuts for the caliper bolts must be replaced.

7. Test drive

REPAIRING THE BRAKE BODY

1. Remove the brake body.
2. Carefully remove the two pistons, rubber boots and O-rings.

CAUTION

The pistons are very brittle and break easily

3. Clean and dry the brake body completely.

CAUTION

Make sure there are no contaminants left in the brake body.

4. Inspect the interior of the brake body. If any damage or wear is found it must be replaced.
5. Re-assemble the brake body using clean DOT 5 brake fluid as a lubricant.

NOTE → *Use tool #41-350-13 to install the rubber boots*

6. Install the brake body.

WARNING

The 1/4" gr. 8 lock nuts for the caliper bolts must be replaced.

7. Bleed the brakes.
8. Test drive

PARKING BRAKE

PRIMARY ADJUSTMENT

1. Block the wheels.
2. Release the parking brake
3. Turn the parking brake handle to adjust.
4. The brake should be adjusted to hold firmly but with no drag when released.

SECONDARY ADJUSTMENT

NOTE → *You must adjust the rear brakes before performing this adjustment.*

1. Block the wheels.
2. Release the parking brake.
3. Back off the primary adjustment (previous section).
4. Loosen the two jam nuts on the turn buckle assembly at the equalizer.
5. Turn the turn buckle assembly until the brake cables are snug with no brake drag.
6. Tighten the two jam nuts.

NOTE → *It will be necessary to readjust the primary parking brake adjustment.*

PARKING BRAKE CABLES

Visually inspect the brake cables for signs of wear or cracks. Visually inspect the end connections for broken wire strands.

WARNING

Replace any worn or damaged cables immediately.

Front Axle and Steering

Your front axle and wheel assembly consists of an axle mounted on 2 leaf springs with automotive spindles, steering worm, and steering linkage.

Zerk type grease fittings have been provided to ensure proper amounts of lubricant reaching wear points.

The maintenance manual is set up for average vehicle use. For heavier, use lubrication and service should be more frequent.

The steering worm gear box and steering linkage is similar to those used on automobiles.

STEERING LUBE

The G 1-50 uses grease rather than oil to lubricate the steering gearbox. All that is required is the once-a-year check of the quantity and quality of the grease.

1. Remove the steering box cover.
2. If the grease supply is low or has been contaminated with water or dirt, add grease or clean out the gearbox and replenish with a multi-purpose (chassis) type grease.

Reinstall the steering gear box cover.

ALIGNING THE FRONT END/ADJUSTING TOE-IN

NOTE → *Caster and camber are set at the factory and do not require adjustment.*

1. Raise the front end of the vehicle and support with jack stands.
2. Center the steering.
3. With a piece of chalk make mark a line around the center of both of tires by holding the chalk against the tire while turning the wheel.
4. Loosen tie rod sleeve clamps at each end of tie rod so the adjusting sleeve can be turned.
5. With wheels in straight forward direction measure the distance between chalk lines at the front and the rear of the tires.

Section 3

6. Adjust the tie rod sleeve until the distance from mark to mark across the front of the tires is the same as the distance from mark to mark across the rear.

Tighten the adjusting sleeve clamp nuts securely.

REMOVING AND INSTALLING THE WHEEL HUBS

1. Remove tire/wheel assembly.
2. Remove dust cap.
3. Remove cotter pin and unscrew spindle nut, outer washer, bearing and hub assembly.
4. Thoroughly clean the bearings spindle and hub assembly.
5. Inspect bearings, races and seal for wear or damage. Replace damaged or worn parts.
6. Generously pack bearings with wheel bearing grease.
7. Re-assemble in reverse order.
8. Tighten spindle nut to 30 ft lbs. to seat bearings.
9. Back off the spindle nut to the next slot on the nut and install the new cotter pin.
10. Install the dust cap and tire/wheel assembly.

ADJUSTING FRONT WHEEL BEARINGS

1. Remove the bearing dust cap.
2. Refer to steps 8 through 10 in previous section.

KING PINS AND BUSHINGS

REMOVING KING PINS AND BUSHINGS

1. Remove the tire/wheel assembly.
2. Remove the kin pin lock nut.
3. Remove the king pin from the axle.
4. Press bushings from the axle.

5. Thoroughly clean the bushing housing and king pin before installing new bushings.

INSTALLING KING PINS AND BUSHINGS

1. Inspect the kin pins. If any damage or wear marks are apparent they should be replaced.
2. Reassemble in reverse order. Lightly grease the king pin and seat into place in the yoke.
3. Install new lock nut and tighten snug against lower yoke plate.

⚠ WARNING

DO NOT DRAW THE YOKE PLATES TOGETHER !

BALL JOINTS

REMOVING BALL JOINTS

1. Remove cotter pin and nut from ball joint.
 2. Loosen the clamp on the tie rod.
 3. Remove the ball joint from the steering arm with a pickle fork.
 4. Remove the ball joint by unscrewing from sleeve.
- ◆ Count the turns required to remove the ball joint.

INSTALLING BALL JOINTS

1. Install the new ball joint and position the same way as the one removed. Screw in to tie rod the same number of turns as noted above.
2. Tighten ball joint nut to 40-45 ft lbs.
3. Re-align front wheels.
4. Tighten sleeve clamp(s) securely.
5. Grease the new ball joint(s). Refer to the Lubrication Chart in Section 3.

STEERING WORM ASSEMBLY

REMOVING THE STEERING WORM

1. Remove the steering wheel.
2. Remove the pitman arm.
3. Remove the 3 mounting bolts at the bottom of the steering assembly and lower the steering gear out of the column.

INSTALLING THE STEERING WORM

1. Install the steering gear in reverse order.
2. Align the front wheels straight ahead.
3. Install the steering wheel loosely.
4. Center the steering gear.
5. Install the steering arm while keeping the front wheels in the straight ahead position. Tighten nut to 70 ft lbs.
6. Remove and center the steering wheel on the steering shaft while keeping the front wheels in the straight ahead position.
7. Install the steering wheel nut and cap.

CVT DRIVE ASSEMBLY

DRIVE BELT

⚠ WARNING

Disconnect both battery leads to prevent accidental engagement of power while servicing the vehicle.

REMOVING THE DRIVE BELT

1. Block front wheels and place the shifter in neutral.
2. Pull up on the belt at the same time pulling it over the outside edge of the secondary sheave.
3. Rotate the secondary sheave counter clockwise to roll the belt off the secondary sheave.

4. Slip the belt over the primary sheave for complete belt removal.
5. Inspect the drive belt for wear and damage. Minimum belt width is 1.06".

INSTALLING THE DRIVE BELT

1. Pry open the secondary sheave and insert a small block to hold it open.

NOTE *Some parts of the sheave are aluminum. Be careful not to damage them.*

2. Slip the belt over and around the primary sheave.
3. Pull the belt around the secondary sheave and remove the block from step 1.

PRIMARY SHEAVE

REMOVAL

1. Block front wheels and place shifter in neutral.
2. Remove the drive belt.
3. Remove parking brake cables and hydraulic brake hoses.
4. Remove upper shock bolts.
5. Disconnect traction bar from swing arm.
6. Disconnect the exhaust flex pipe from the muffler.
7. Disconnect engine wiring.
8. Remove shift cable ties from frame. You do not need to remove the cable.
9. Raise rear of frame to provide enough clearance to remove the sheave.
10. Remove the sheave mounting bolt, lock washer, heavy-duty flat washer and cap washer.

⚠ CAUTION

Hoist frame to clear sheave only. If it is raised to far other components may be damaged.

11. Remove the sheave mounting bolt lock washer heavy-duty flat washer and cap washer.
12. Remove primary sheave assembly.

NOTE *There are no internally serviceable parts in the primary sheave. If it is defective it must be replaced as an assembly.*

INSTALLATION

1. Lube the engine output shaft with grease.
2. Install in reverse order

SECONDARY SHEAVE

REMOVAL

1. Remove the drive belt.
2. Remove the secondary sheave mounting bolt, lock washer and heavy-duty flat washer.
3. Remove the left rear shock.
4. Remove the secondary sheave.
5. Inspect ramp shoes and replace as necessary.

NOTE *There are no other serviceable parts in the secondary sheave. If it is defective it must be replaced as an assembly.*

INSTALLATION

1. Lube the transmission input shaft with grease.
2. Install in reverse order.

THROTTLE CABLE ADJUSTMENTS

A correctly adjusted cable operates as follows:

- ◆ When the pedal is depressed completely there should be a 1/32" gap between the throttle arm and the throttle stop on the engine.

- ◆ When the cable is released it should not push on the throttle arm.
- ◆ The throttle arm should start to move at the same time the pedal is depressed.

1. Adjust the pedal stop bolt to give maximum travel.
2. Clamp the cable near the end of the cable sleeve (at the accelerator).
3. Depress the pedal completely.
4. Adjust the cable length at the engine so that the throttle arm is 1/32" from the stop (on the engine).
5. Tighten the cable clamp (at the engine).
6. Release the pedal.
7. Adjust the pedal stop screw to eliminate any excessive travel.
8. Tighten the pedal stop screw jam nut.

REMOVING AND INSTALLING THE TRANSMISSION

1. Remove both rear wheels.
2. Remove the drive belt.
3. Remove the secondary sheave.
4. Remove the shift cable arm
5. Remove the parking brake cables and hydraulic brake lines from the rear brakes.
6. Remove upper shock bolts.
7. Remove the 4 U-bolts mounting the rear axle tubes to the swing arm.
8. Hoist up the rear of the frame to provide clearance to remove the transmission.

CAUTION

Hoist frame to clear transmission only. If it is raised to far other components may be damaged.

9. Remove transmission from frame.

INSTALLING THE REAR AXLE

1. Install in reverse order.
2. Bleed the brakes.

For REAR AXLE TRANSMISSION servicing refer to Dana Drive Manual, M7-001-04 (attached).

REMOVING AND INSTALLING THE ENGINE

1. Disconnect the battery cables from the battery.
2. Remove the drive belt.
3. Disconnect the throttle linkage.
4. Unplug the engine harness, disconnect the wires from the starter solenoid.
5. Remove the four screws from the muffler header (00-610-32).
6. Disconnect and plug the fuel line.

CAUTION

Some fuel may leak from the fuel line when it is disconnected.

7. Remove the four lower engine mounting bolts
8. Hoist the engine out.
9. Install in reverse order.

For engine servicing refer to the Onan Engine Manual, M7-001-03 (attached).

STORING AND RETURNING CARS TO SERVICE**STORING CARS**

If the vehicle will be out of service for two months or more use the following storage procedure:

1. Change oil when the engine is still warm from operation.
2. Drain the fuel tank and fuel system (or run the engine until the fuel tank and fuel system are empty).

3. Remove the spark plug and pour one tablespoon of motor oil into the hole. Install the plug but do not connect spark plug lead. Crank the engine two or three revolutions.
4. Turn engine over by hand until the piston is at the top of its stroke. Leave the spark plug disconnected.
5. Clean exterior surfaces of the engine. Spread a light film of oil over any exposed metal surfaces of the engine to prevent rust.
6. Charge the battery (see "Battery" this section).
7. Protect the tires from moisture, oil and ozone (such as is found in the battery charging area).
8. Lift the body off the tires and clean and dry the chassis.



Avoid storing in humid areas to prevent rust and corrosion.

RETURNING CARS TO SERVICE

The following steps must be taken to properly return a car to service after storage.

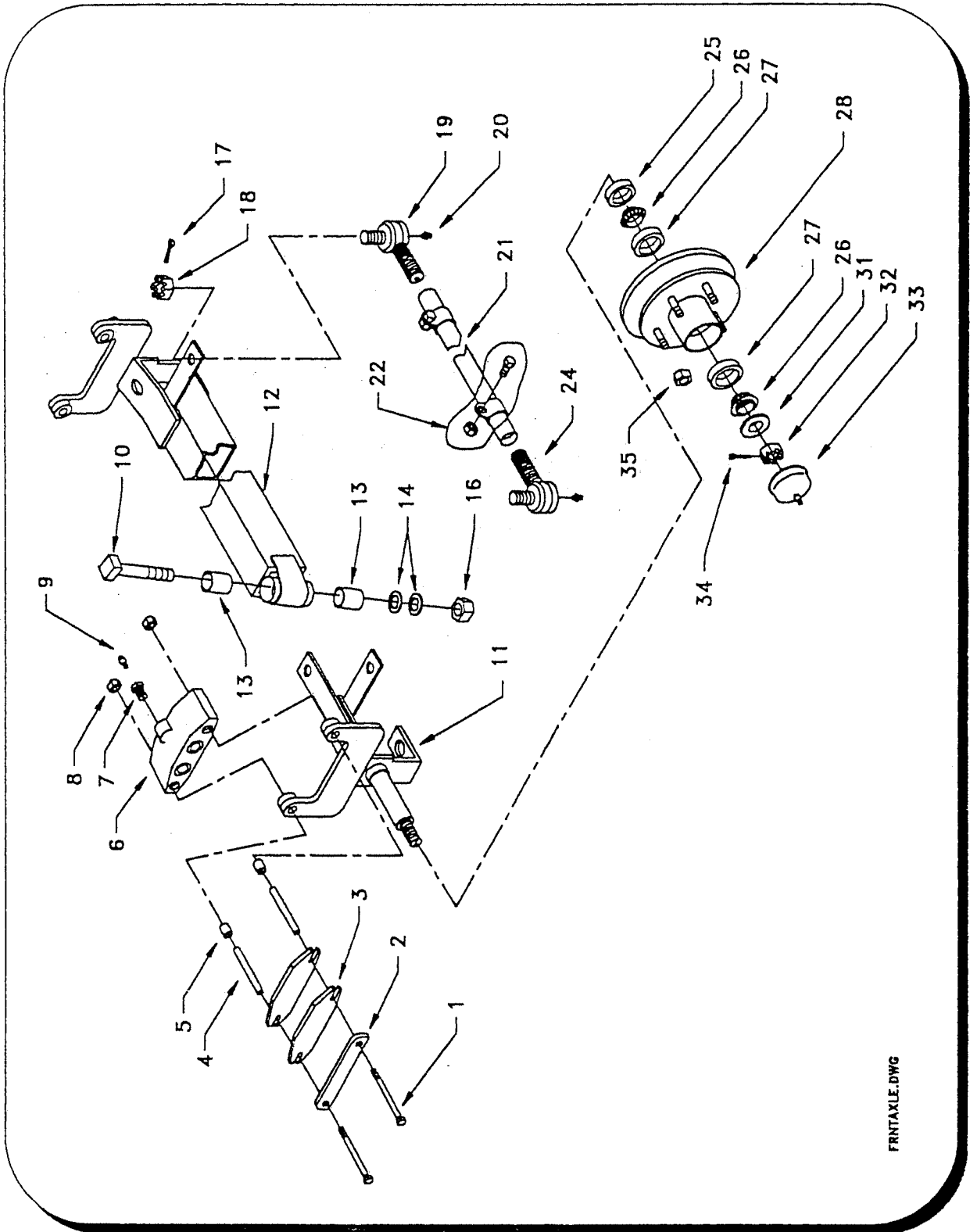
1. Readjust the tire pressure to specifications.
2. With the key turned off check the operation of the brakes parking brake accelerator steering mechanism and choke.
3. Re-connect the spark plug. Start and run the engine for a brief period.
4. Operate the car for a short distance to note any problems with the items listed in step 2.
5. Clean and wash the car before returning it to service.



SECTION 4
ILLUSTRATED PARTS
LIST

G 1-50

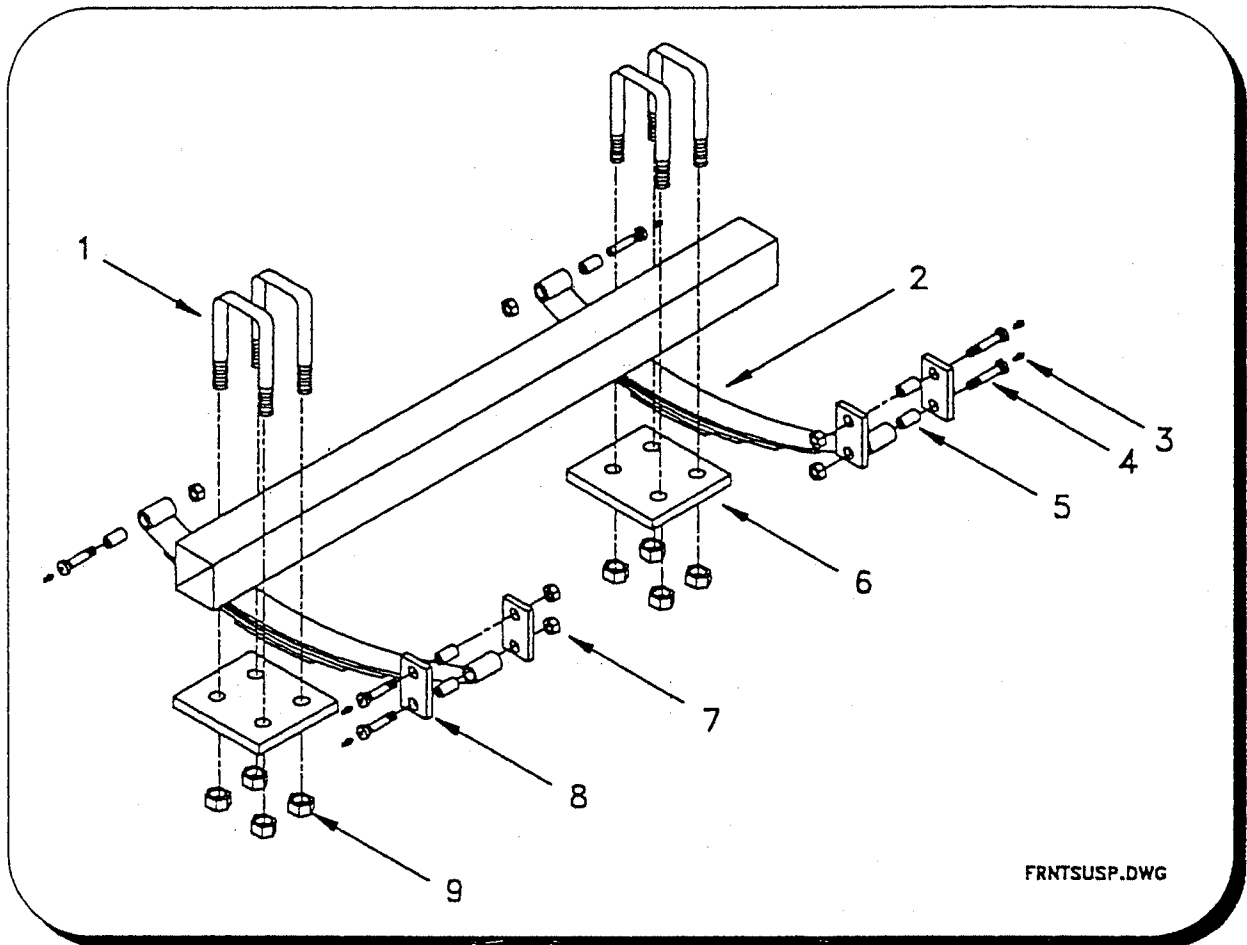
FRONT AXLE



FRNTAXLE.DWG

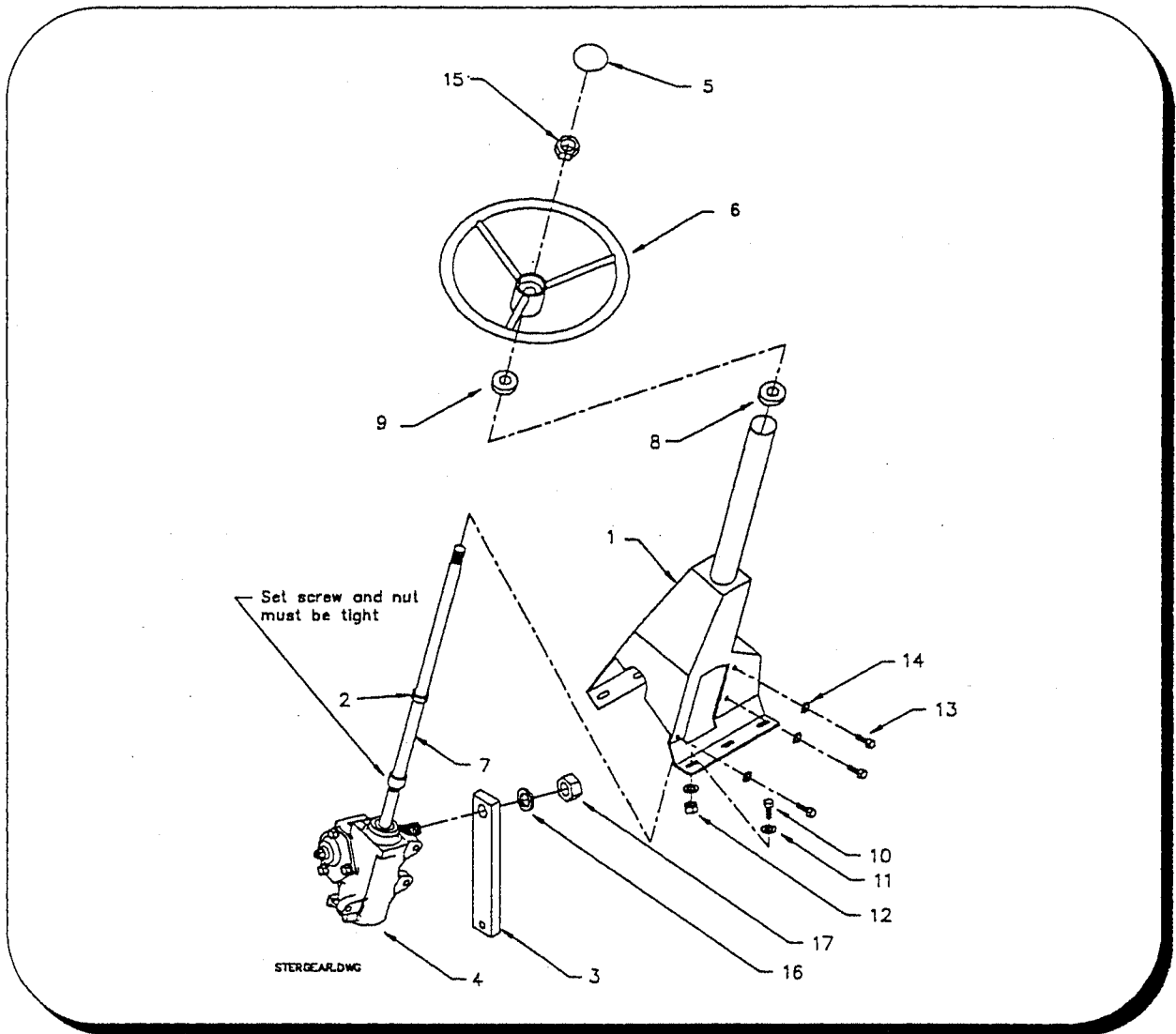
FRONT AXLE			
Item #	Part #	Description	QTY
1	88-067-21	Brake body bolt (grade 8)	4
2	41-350-51	Brake pad backing plate	2
3	41-348-70	Brake pad	4
4	41-348-52	Spacer	4
5	32-240-40	Bushing	4
6	41-350-70	Brake body (Rebuild kit 41-350-66)	2
7	99-588-01	Brake bleeder fitting	2
8	88-069-82	Brake body nut (grade 8) DO NOT REUSE!	4
9	99-588-00	Brake bleeder valve	2
10	21-020-15	King pin	2
11	14-210-88	Left (driver) side steering yoke	1
11	14-210-89	Right (passenger) steering yoke	1
12	15-210-00	Front axle weldment	1
13	32-240-55	Upper/lower king pin bushing	2
14	97-180-55	Thrust washer	4
16	88-189-81	King pin nut	2
17	88-527-11	1/8 x 1 cotter pin	2
18	88-159-85	Ball joint nut	2
19	86-501-99	Ball joint (right thread)	1
20	87-074-00	Grease fitting	2
21	18-041-00	Tie rod	1
22	86-510-00	Ball joint clamp w/nut and bolt	2
24	86-501-98	Ball joint (left thread)	1
25	45-338-00	Grease seal	2
26	80-017-00	Inner/Outer wheel bearing	4
27	80-103-00	Inner/Outer race	4
28	12-158-10	Front hub (w/rotor),Nnote: rotorN/A separately	2
31	88-228-61	3/4 SAE flat washer	2
32	88-239-85	Wheel bearing nut	2
33	92-104-00	Wheel bearing cap	2
34	88-527-11	Cotter pin	2
35	97-236-00	Wheel nut	10

FRONT SUSPENSION

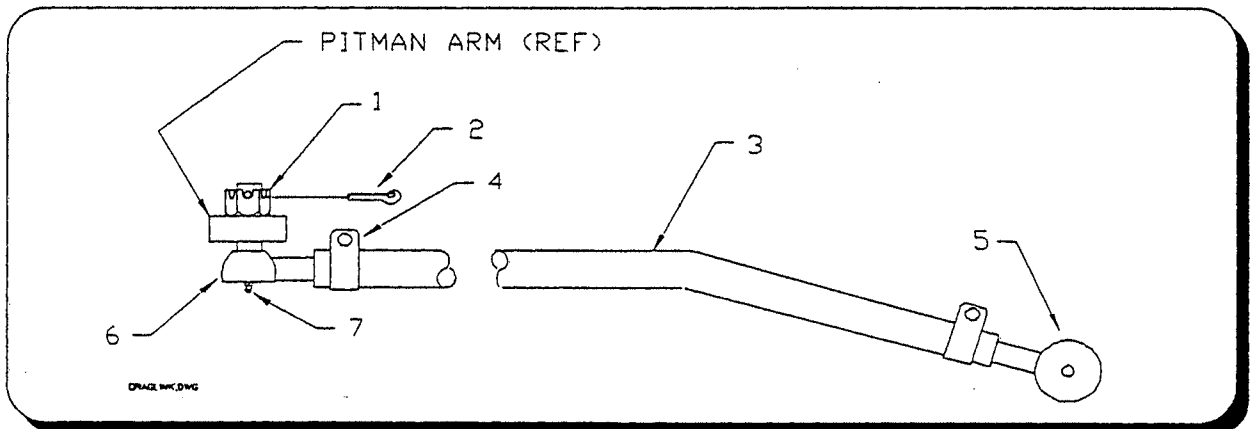


FRONT SUSPENSION			
Item #	Part #	Description	QTY
1	96-123-00	U-Bolt	4
2	85-512-10	Leaf Spring	2
3	87-074-00	Grease fitting	6
4	96-248-01	Shackle bolt	6
5	32-213-00	Nylon bushing	6
6	16-865-02	Spring plate	2
7	88-169-82	9/16 NF lock nut	6
8	16-870-10	Spring shackle	4
9	88-109-81	3/8 NC lock nut	8
Not shown	10-081-00	Tire, 570 x 8, LR B	2
	10-086-00	Tire, 500 x 8 soft-solid (optional)	2
	92-000-00	Wheel cover, drop center (optional)	2
	92-002-00	Wheel cover, split rim (optional)	2

STEERING GEAR

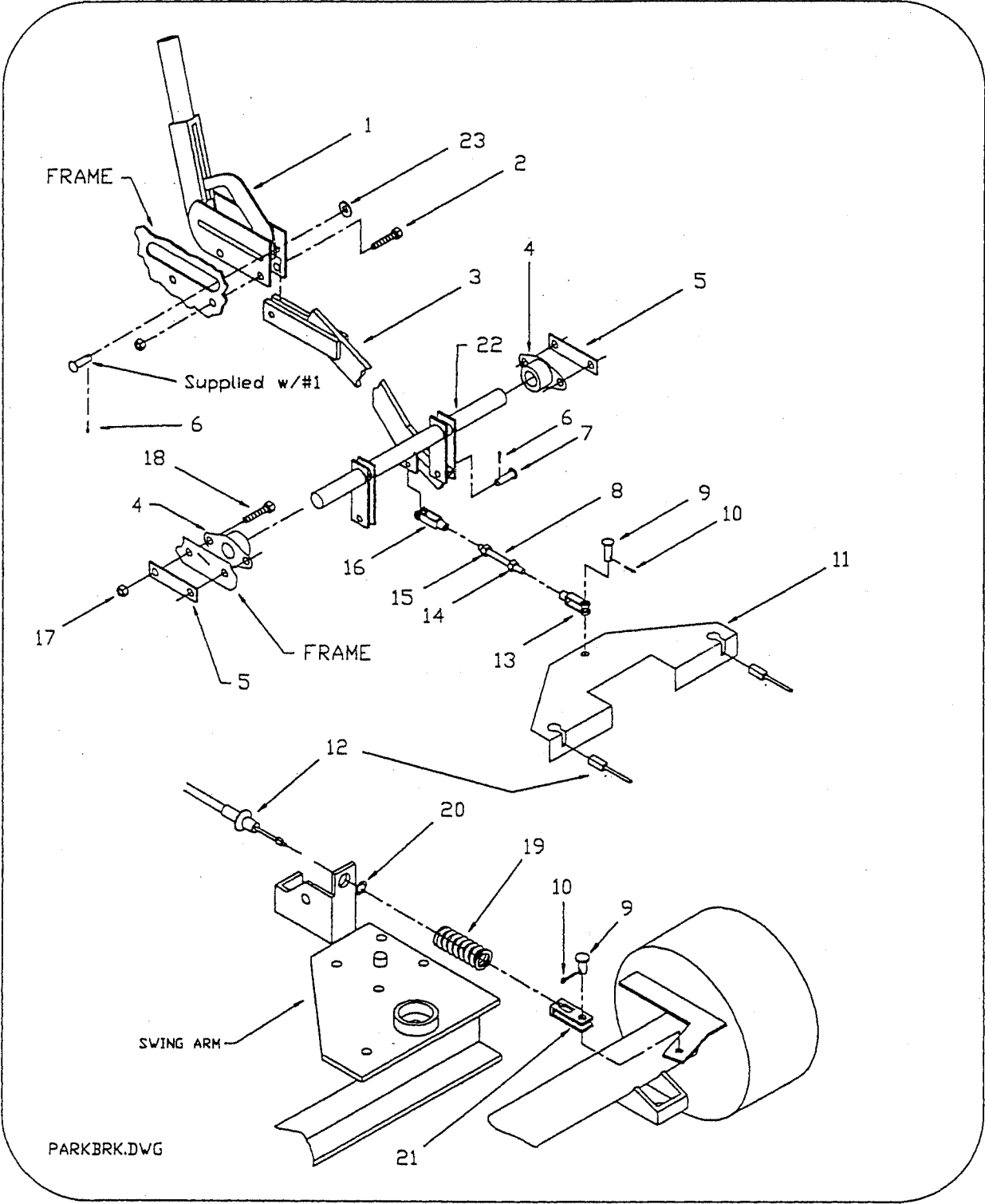


DRAG LINK



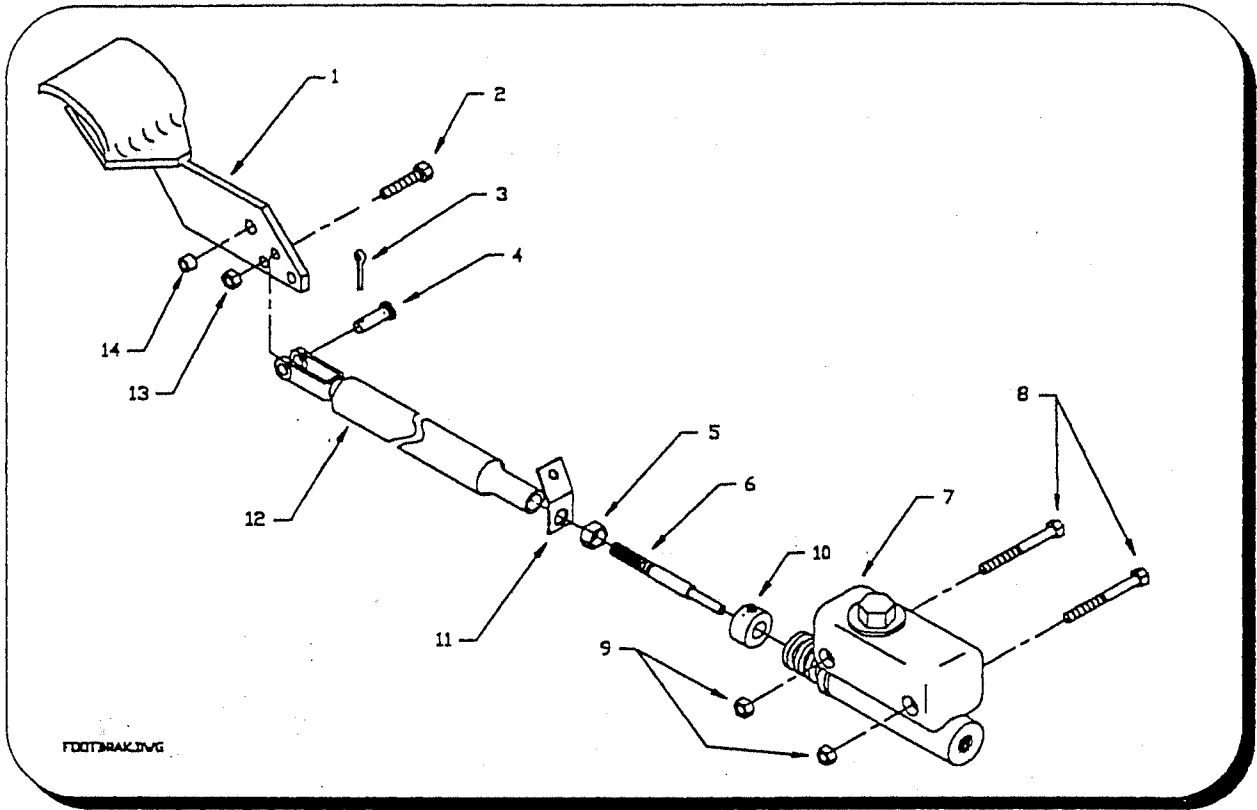
STEERING GEAR			
ITEM #	PART #	DESCRIPTION	QTY
1	00-210-17	Steering column	1
2	17-110-00	Collar	1
3	18-111-30	Pitman arm	1
4	18-308-21	Steering gear	1
5	19-011-25	Steering wheel cap	1
6	19-011-20	Steering wheel	1
7	20-031-33	Steering shaft	1
8	80-400-10	Upper steering shaft washer 3/4" sealed ball brg.	1
9	97-200-00	Dust washer	1
10	88-100-11	3/8 x 1 NC hex bolt	6
11	88-108-61	3/8 SAE flat washer	12
12	88-109-81	3/8 NC lock nut	6
13	88-120-11	7/16 x 1 NC hex bolt	3
14	88-128-62	7/16 split lock washer	3
15	88-159-82	1/2 NF jam nut	1
16	88-268-62	7/8 split lock washer	1
17	88-279-82	7/8 NF jam nut	1
DRAG LINK			
1	88-159-85	Castle nut	2
2	88-527-11	Cotter pin	2
3	18-057-10	Drag link	1
4	86-510-00	Ball joint clamp	2
5	86-501-99	Ball joint w/grease fitting (RH)	1
6	86-501-98	Ball joint w/grease fitting (LH)	1
7	87-074-00	Grease fitting	2

PARKING BRAKE LINKAGE

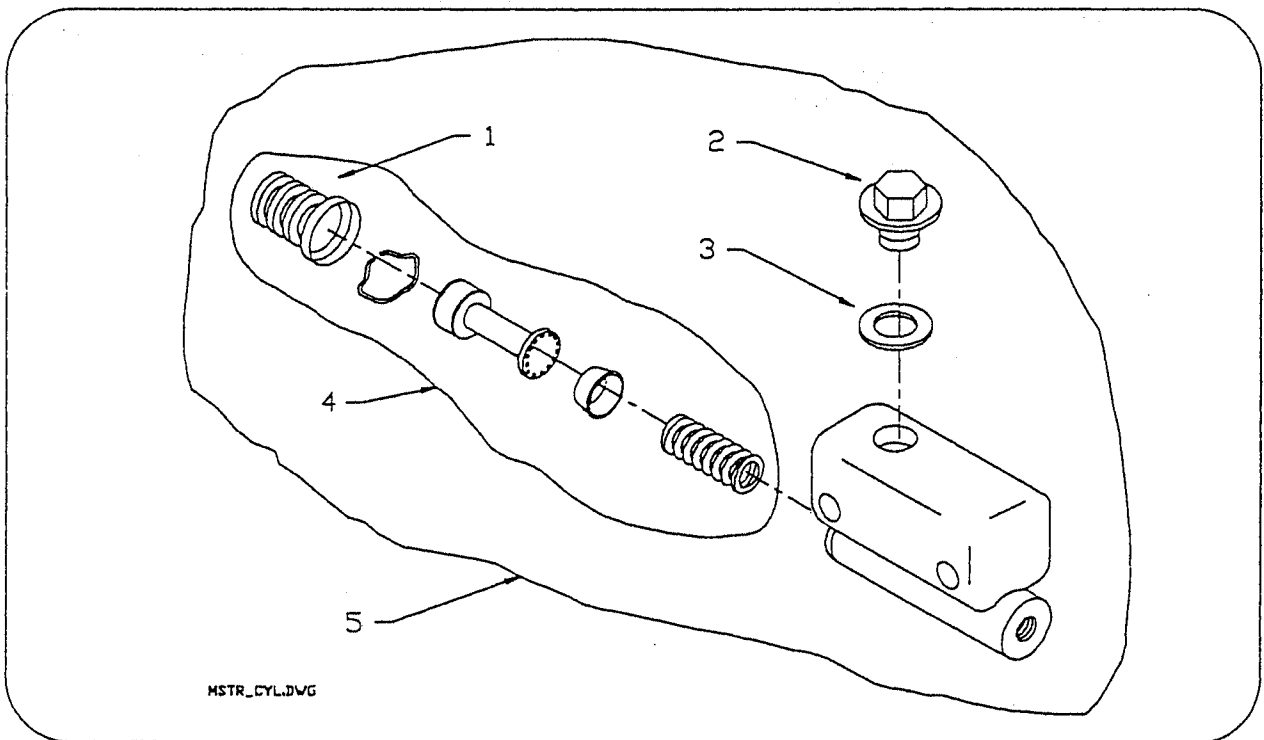


PARKING BRAKE LINKAGE			
ITEM #	PART #	DESCRIPTION	QTY
1	51-340-30	parking brake lever	1
2	88-100-15	3/8 x 1-3/4 NC hex bolt	2
3	00-610-20	Parking brake linkage weldment	1
4	80-410-20	3/8 NF hex nut	1
5	02-610-25	Bearing cover plate	2
6	88-517-09	3/32 x 3/4 Cotter pin	4
7	96-772-00	3/8 x 1 Clevis pin	2
8	96-343-00	Adjusting link	1
9	96-773-00	5/16 x 1 Clevis pin	4
10	88-527-11	1/8 x 1 Cotter pin	3
11	02-610-23	Equalizer	1
12	96-826-12	Parking brake cable	2
13	96-763-00	5/16 Clevis	1
14	88-099-80	5/16 NF hex nut	1
15	88-099-81	5/16 NF hex nut (left thread)	1
16	96-765-00	5/16 Clevis (left thread)	1
17	88-109-81	3/8 NC lock nut	4
18	88-100-09	3/8 x 3/4 NC hex bolt	1
19	85-126-00	Spring	2
20	88-847-08	Retainer ring	2
21	96-762-00	Brake cable clevis	2
22	00-610-15	Cross shaft	1
23	88-088-61	5/16 SAE flat washer	1

FOOT BRAKE LINKAGE

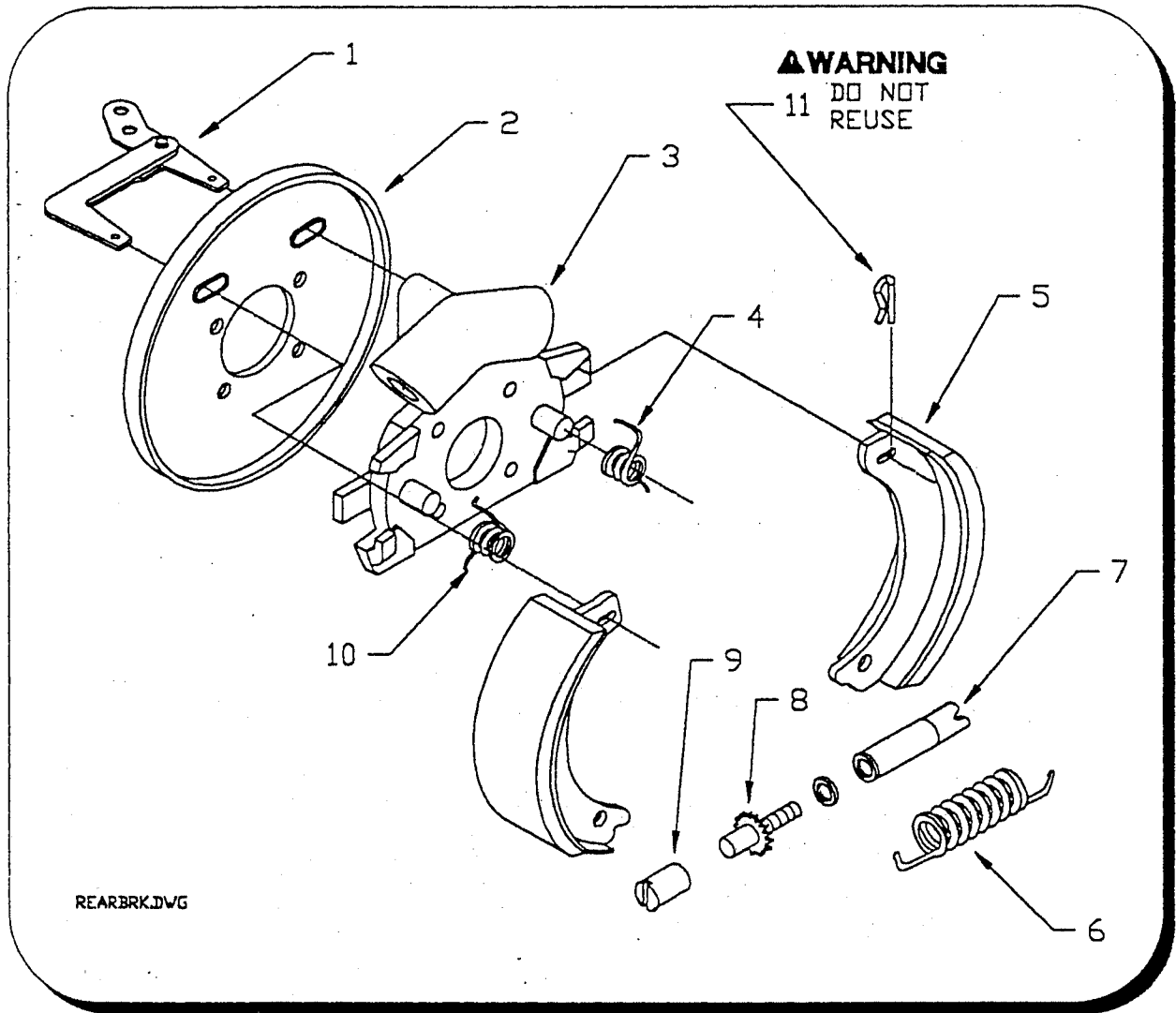


MASTER CYLINDER



FOOT BRAKE LINKAGE			
ITEM #	PART #	DESCRIPTION	QTY
1	05-210-97	Brake pedal	1
2	88-100-11	3/8 x 1 NC hex bolt	1
3	88-517-09	Cotter pin	1
4	96-772-00	Clevis pin	1
5	88-119-80	3/8 NF hex bolt	1
6	50-009-00	Push rod	1
7	99-510-02	Master cylinder assembly.	1
8	88-101-20	3/8 x 3 grade 5 hex bolt	2
9	88-109-81	3/8 NC lock nut	2
10	17-104-00	Collar	1
11	06-210-03	Return spring mounting clip	1
12	00-210-08	Push rod	1
13	88-109-81	3/8 NC lock nut	1
14	32-240-40	Bushing	1
MASTER CYLINDER			
1	99-510-51	Boot	1
2	99-510-52	Cap	1
3	99-510-53	Gasket	1
4	99-510-61	Rebuild kit	1
5	99-510-01	Master cylinder assembly	1

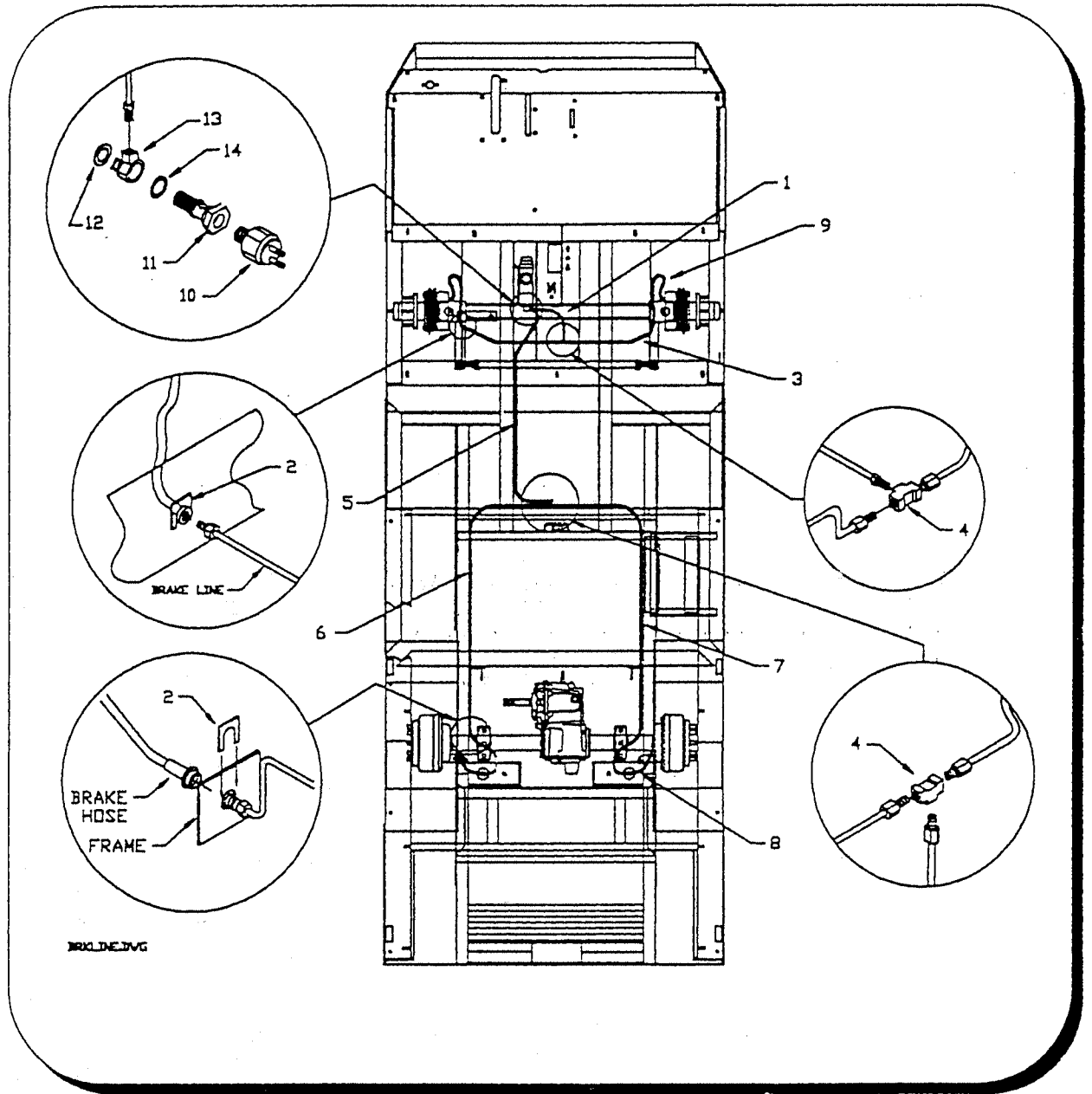
REAR BRAKES



REAR BRAKES			
ITEM #	PART #	DESCRIPTION	QTY
1	41-347-15	Parking brake actuator	2
2	41-347-00	Backing plate	2
3	41-347-27	Spider, w/wheel cylinder	2
4	85-411-10	Torsion spring (green)	2
5	41-635-00	Brake shoes	2
6	85-215-00	Spring	2
7	41-347-33	Adjustment body	2
8	41-347-31	Star wheel adjuster	2
9	41-347-30	Socket	2
10	85-411-15	Torsion spring (red)	2
11	41-347-34	Parking brake actuator retaining clip. DO NOT REUSE!	4

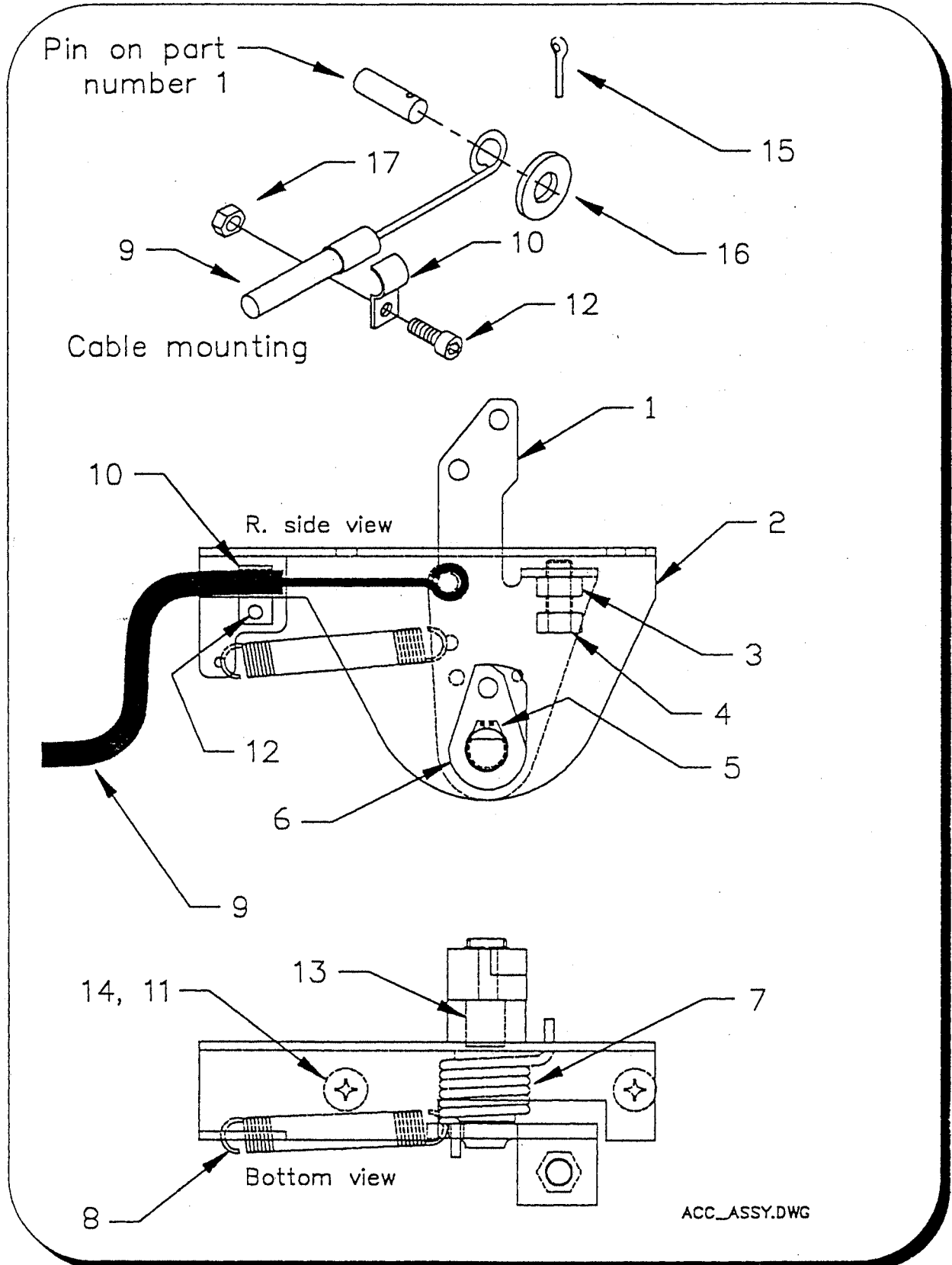
-- 41-347-28 LEFT HYD BRAKE ASSEMBLY
 -- 41-347-29 RIGHT HYD BRAKE ASSEMBLY
 -- 90-507-00 CYLINDER REPAIR KIT

BRAKE LINES AND HOSES



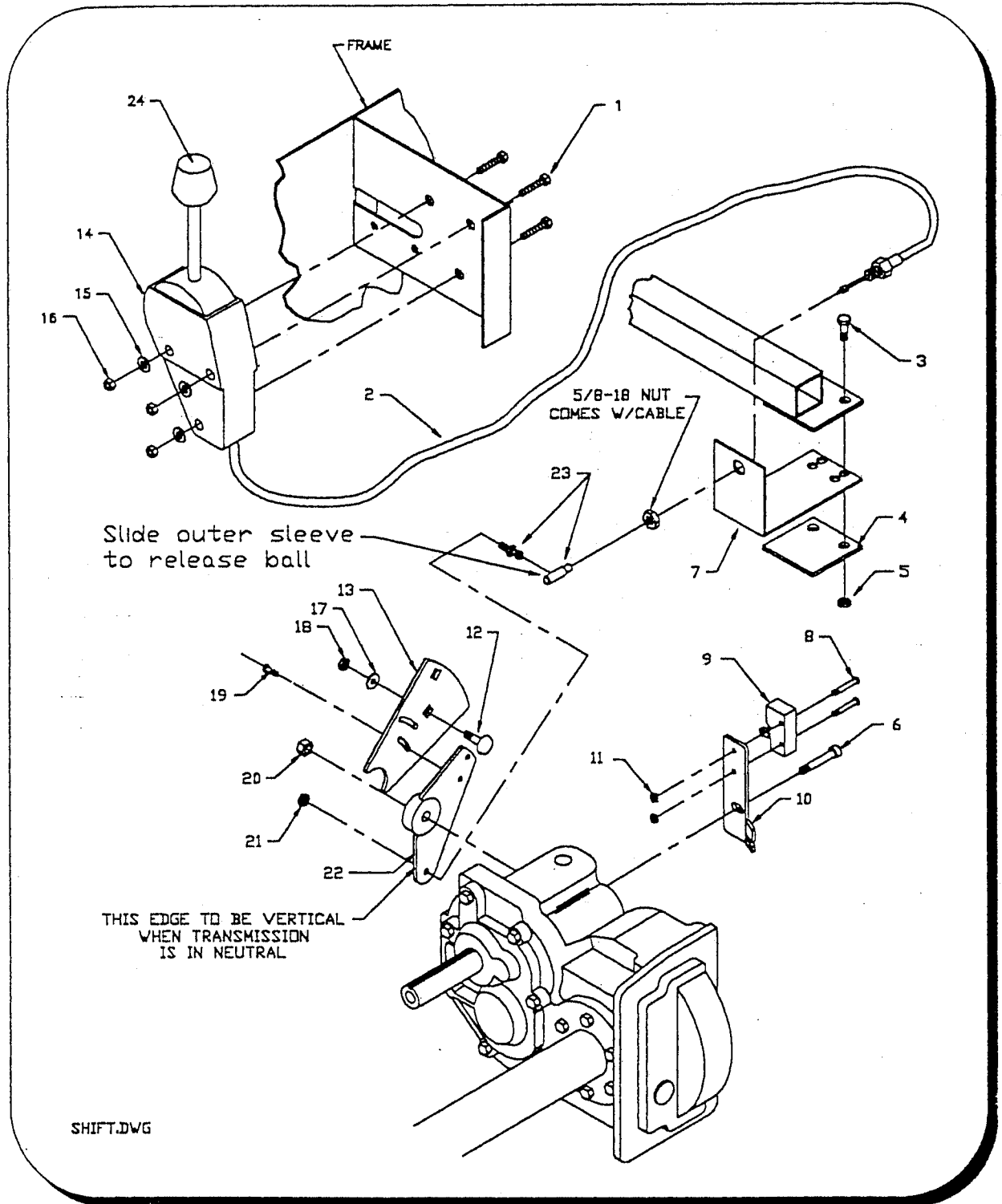
BRAKE LINES AND HOSES			
ITEM #	PART #	DESCRIPTION	QTY
1	99-603-54	Brake line	1
2	99-576-00	Hose retaining clip	4
3	99-603-53	Brake line, front	2
4	99-564-00	T-Union	2
5	99-607-51	Brake line	1
6	99-605-55	Brake line, left rear	1
7	99-605-56	Brake line, right rear	1
8	99-580-10	Rear brake hose	2
9	99-580-20	Front brake hose	2
10	71-110-00	Brake light switch	1
11	99-578-00	Master cylinder fitting	1
12	99-572-00	Copper washer	1
13	99-565-00	Y-Fitting	1
14	99-571-00	Copper washer	1

ACCELERATOR PEDAL LINKAGE



ACCELERATOR PEDAL LINKAGE			
ITEM #	PART #	DESCRIPTION	QTY
1	62-037-03	Rotor	1
2	62-033-16	Mounting bracket w/bushings	1
3	88-119-80	3/8 NF hex nut	1
4	88-110-09	3/8 x 3/4 NF hex bolt (gr. 5)	1
5	88-840-08	Circlip	1
6	62-033-06	Cam	1
7	85-352-38	Return spring (torsion)	1
8	85-209-09	Return spring (extension)	1
9	96-872- 001	Throttle cable	1
10	96-871-01	Clamp	1
11	88-069-81	1/4 NC lock nut (not pictured)	2
12	88-025-05	8-32 Socket head machine Screw	1
13	32-215-50	Bushing	2
14	88-065-06	1/4 x 1/2 Truss head screw	2
15	88-517-11	Cotter pin	1
16	88-068-61	1/4 SAE Flat washer	1
17	88-029-86	8-32 Lock nut	1
NOT SHOWN	98-254-10	Accel. pedal	1
NOT SHOWN	88-065-09	Accel. pedal mounting bolts	2
NOT SHOWN	88-069-81	Accel. pedal mounting nuts	2
	62-037-02	Complete accelerator assembly (less cable and hardware)	1

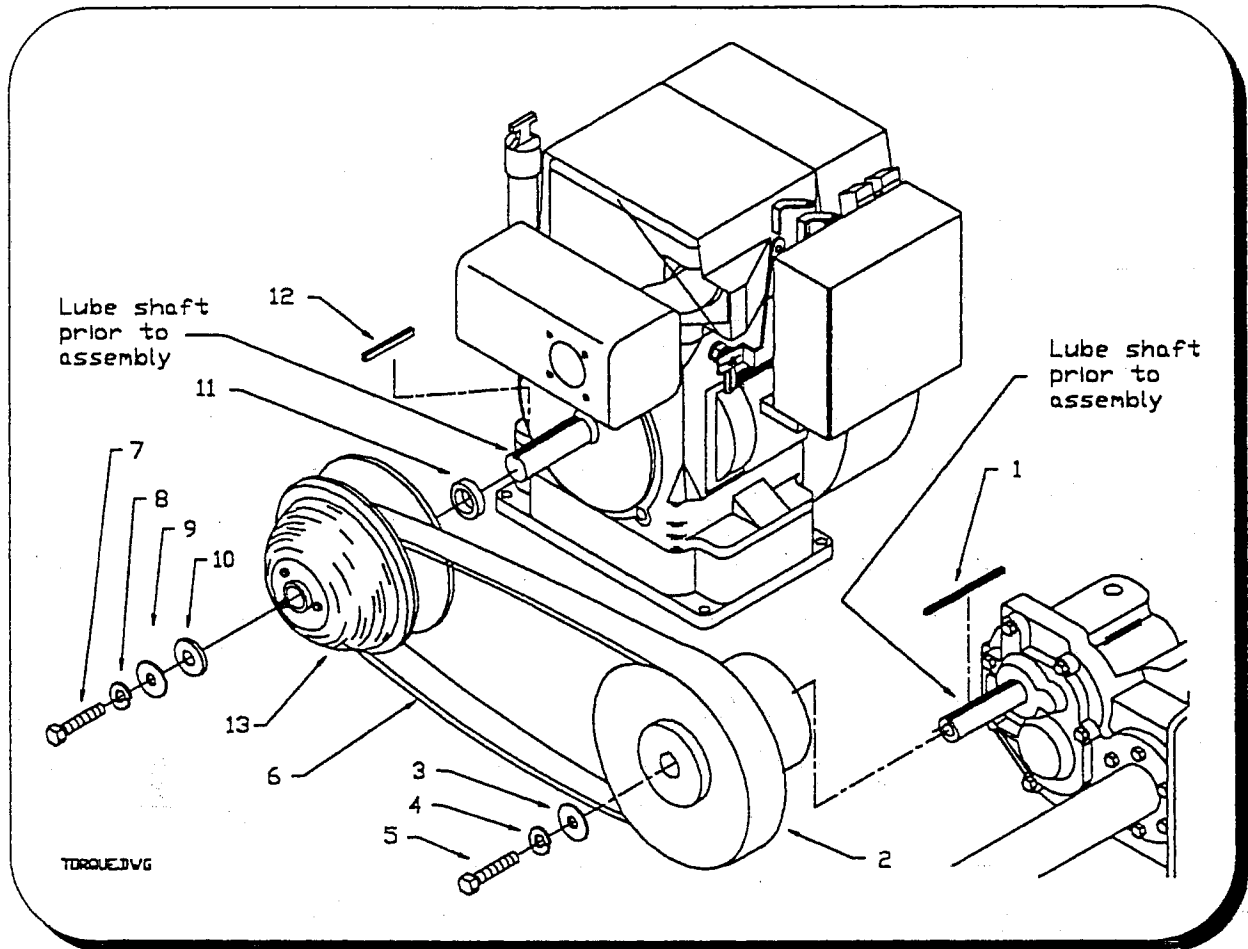
SHIFTING LINKAGE



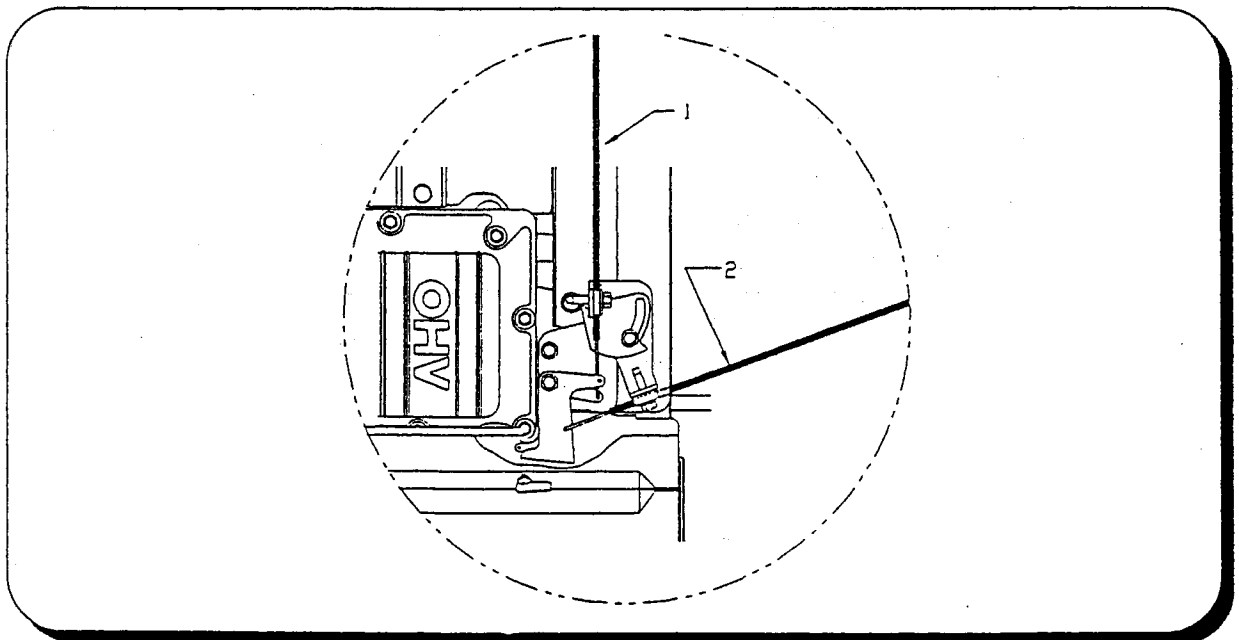
SHIFTING LINKAGE			
ITEM #	PART #	DESCRIPTION	QTY
1	88-080-18	5/16 x 2-1/2 hex bolt	3
2	96-851-00	Shift cable	1
3	88-080-11	5/16 x 1 hex bolt	1
4	00-610-26	Spacer	1
5	88-089-81	5/16 Lock nut	1
6	88-107-08	3/8 x 5/8 NF Socket head bolt	1
7	00-610-25	Mounting bracket	1
8	88-014-13	6-32 x 1-1/4 machine screw	2
9	71-130-01	Neutral start switch	1
10	00-610-34	Neutral switch bracket	1
11	88-019-86	6-32 Lock nut	2
12	88-102-09	3/8 x 3/4 NC Carriage bolt	1
13	02-610-40	Neutral switch trigger arm	1
14	96-853-10	Shift quadrant	1
15	88-088-61	5/16 SAE washer	3
16	88-089-81	5/16 NC Lock nut	3
17	88-108-65	3/8 Cut washer	1
18	88-109-80	3/8 NC hex nut	1
19	88-047-09	10-32 x 3/4 Machine screw	1
20	89-089-81	5/16 NC lock nut	1
21	88-079-80	1/4 NF hex nut	1
22	00-610-31	Shift lever <i>00-610-33</i>	1
23	96-852-00	Shift cable rod end	1
24	94-306-07	"Push to shift" decal	1

ENGINE MOUNT			
ITEM #	PART #	DESCRIPTION	QTY
1	88-239-80	3/4 NF hex nut	1
2	88-229-62	3/4 split lock washer	1
3	88-220-22	3/4 x 3 1/2 Hex bolt	1
4	86-523-99	Front engine mount	1
5	16-406-00	Spacer, 7/16	2
6	88-229-81	3/4 NC lock nut	1
7	88-828-09	#10 x 3/4 sheet metal screw	1
8	66-400-20	Spark arrester	1
9	66-400-10	Muffler	1
10	00-610-32	Exhaust extension adapter	1
11	88-101-13	3/8 x 1 1/4 Hex screw (grade 5)	4
12	88-100-11	3/8 x 1 Hex screw	2
13	66-400-46	Exhaust extension	1
14	88-188-62	5/8 Split lock washer	1
15	00-610-22	Swing arm	1
17	00-610-17	Tail pipe	1
18	88-109-81	3/8 NC lock nut	13
20	86-521-98	Rod end (LH)	1
21	88-180-15	5/8 x 1 3/4 NC hex bolt	2
22	86-521-99	Rod end (RH)	1
23	88-189-81	5/8 NC lock nut	1
24	41-402-00	Traction bar	1
25	86-510-00	Clamp	2
26	96-123-50	U-Bolt	4
27	88-817-06	Extension adapter screw	4
28	4C-610-00	Transmission assembly. (w/brakes)	1
29	67-001-00	Engine assembly	1

CVT DRIVE

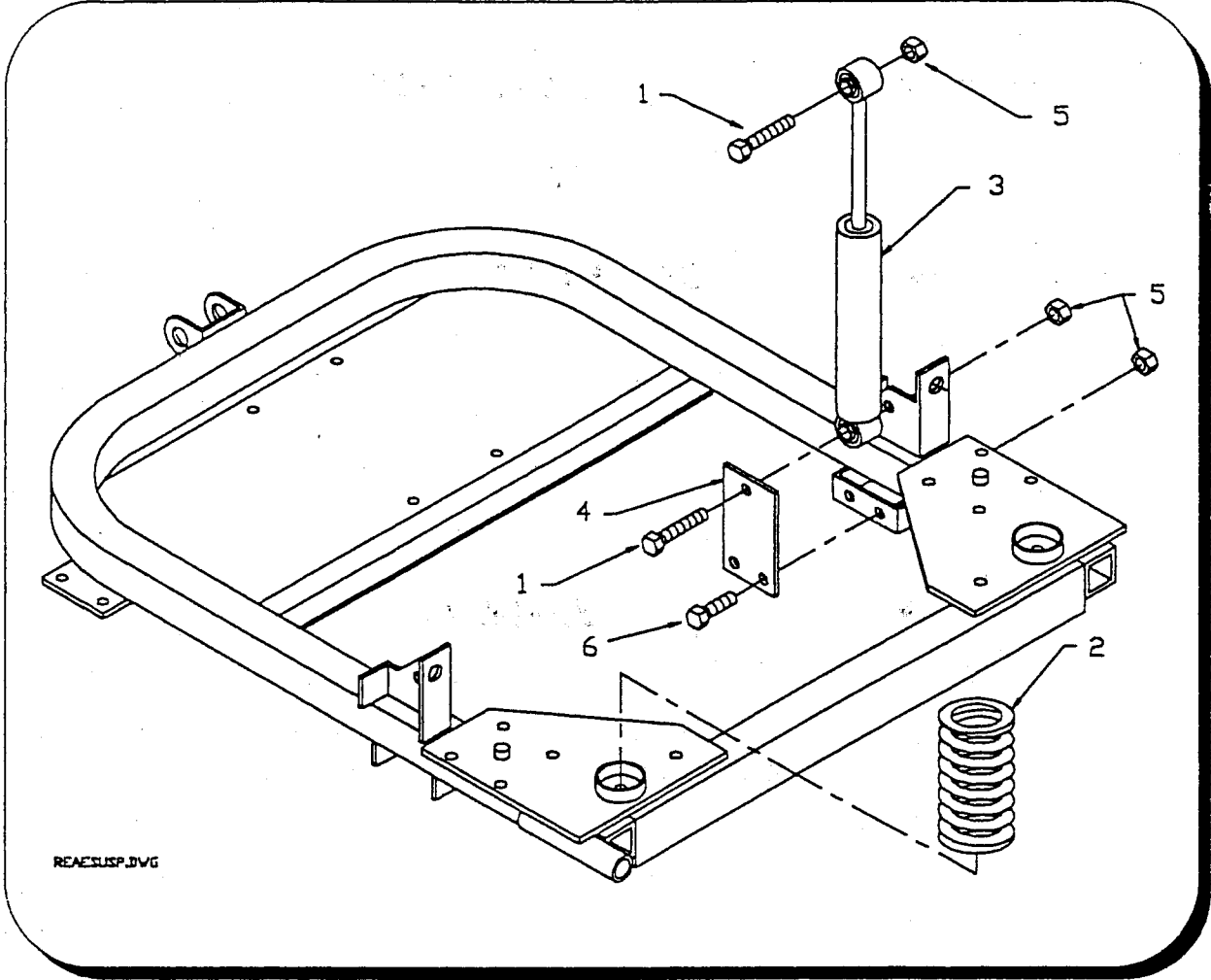


THROTTLE AND CHOKE CABLE MOUNTING



TORQUE CONVERTER			
ITEM #	PART #	DESCRIPTION	QTY
1	97-030-10	Key, 3/16 x 3	1
2	30-180-50	Secondary sheave 30-182-00	1
3	98-601-51	Flat washer	1
4	88-148-62	1/2" Split lock washer	1
5	89-112-30	12 x 1.75 x 50 Metric hex bolt	1
6	30-680-00	Drive belt 30-681-00	1
7	88-130-20	7/16 x 3 NF Hex bolt	1
8	88-128-62	7/16" Split lock washer	1
9	88-159-61	1/2" Flat washer (thick)	1
10	97-182-00	7/16" Cup washer	1
11	16-409-10	Spacer	1
12	97-030-20	Key, 3/16 x 1/4 x 2.5	1
13	30-180-00	Primary sheave 30-181-00	1
Not shown	30-180-51	Ramp shoe for secondary sheave (left)	3
	30-180-52	Ramp shoe for secondary sheave (right)	3
THROTTLE AND CHOKE CABLES			
1	96-872-01	Throttle cable	1
2	96-860-01	Choke cable	1

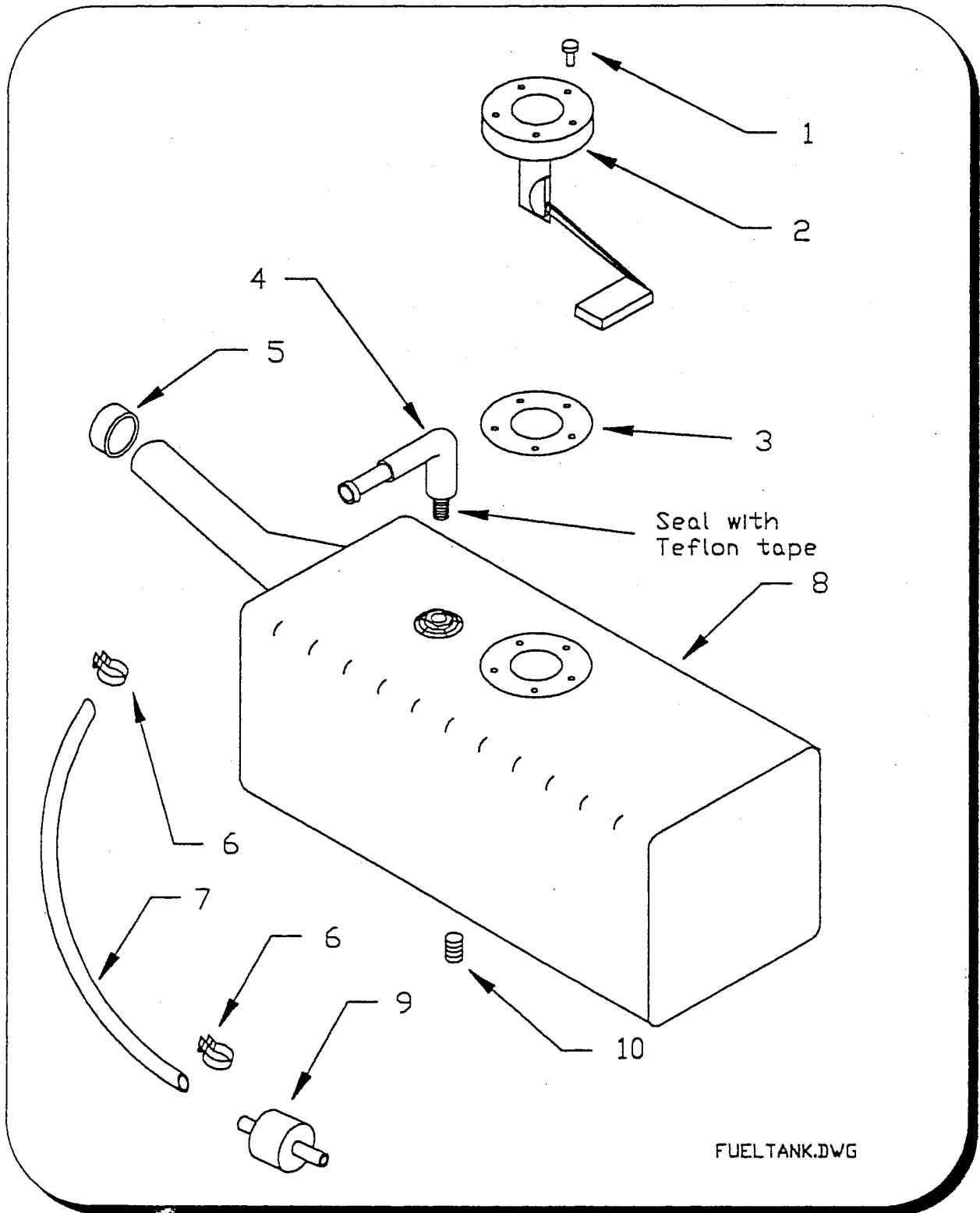
REAR SUSPENSION



REAESUSP.DWG

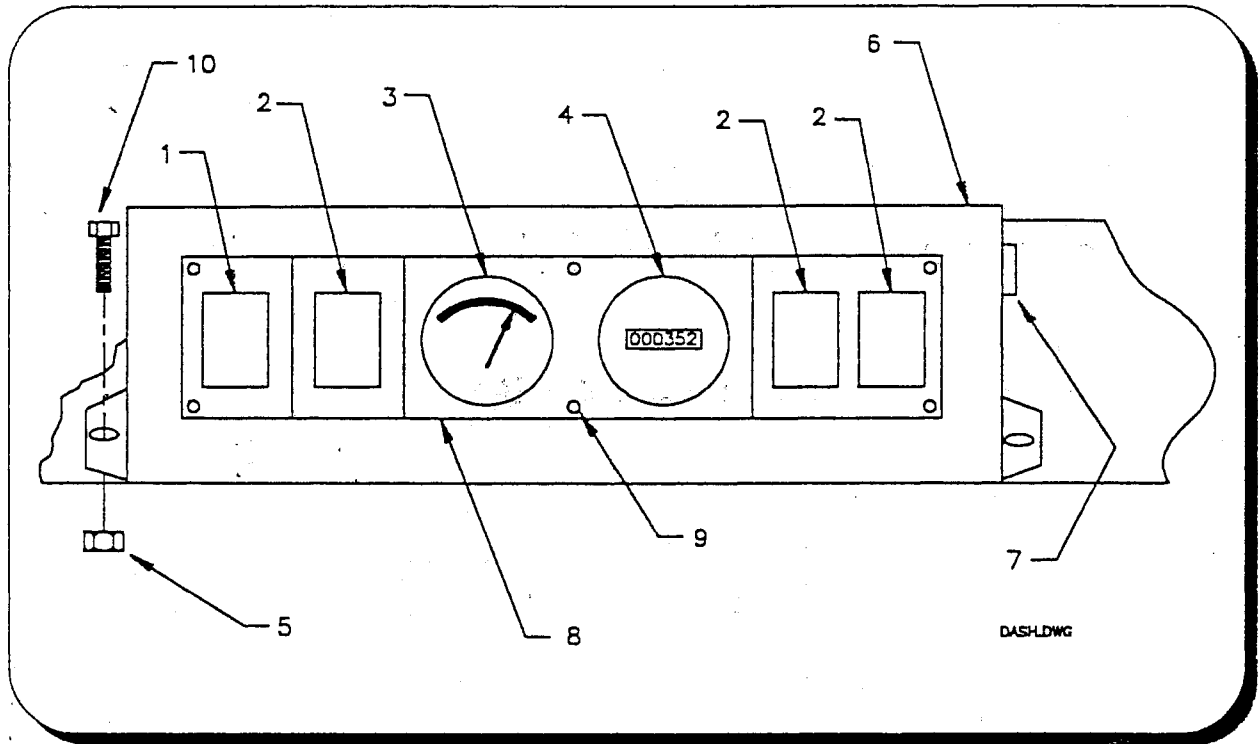
REAR SUSPENSION			
ITEM #	PART #	DESCRIPTION	QTY
1	88-120-17	7/16 x 2-1/4 Hex bolt	4
2	85-142-00	Spring	2
3	86-602-00	Shock	2
4	41-403-00	Shock bracket	2
5	88-129-81	7/16" Lock nut	8
6	88-120-11	7/16 x 1 Hex bolt	4
Not shown	10-081-00	Tire, 570 x 8, LR B	2
	10-086-00	Tire, 500 x 8 soft-solid (optional)	2
	92-000-00	Wheel cover, drop center (optional)	2
	92-002-00	Wheel cover, split rim (optional)	2

FUEL TANK AND LINES



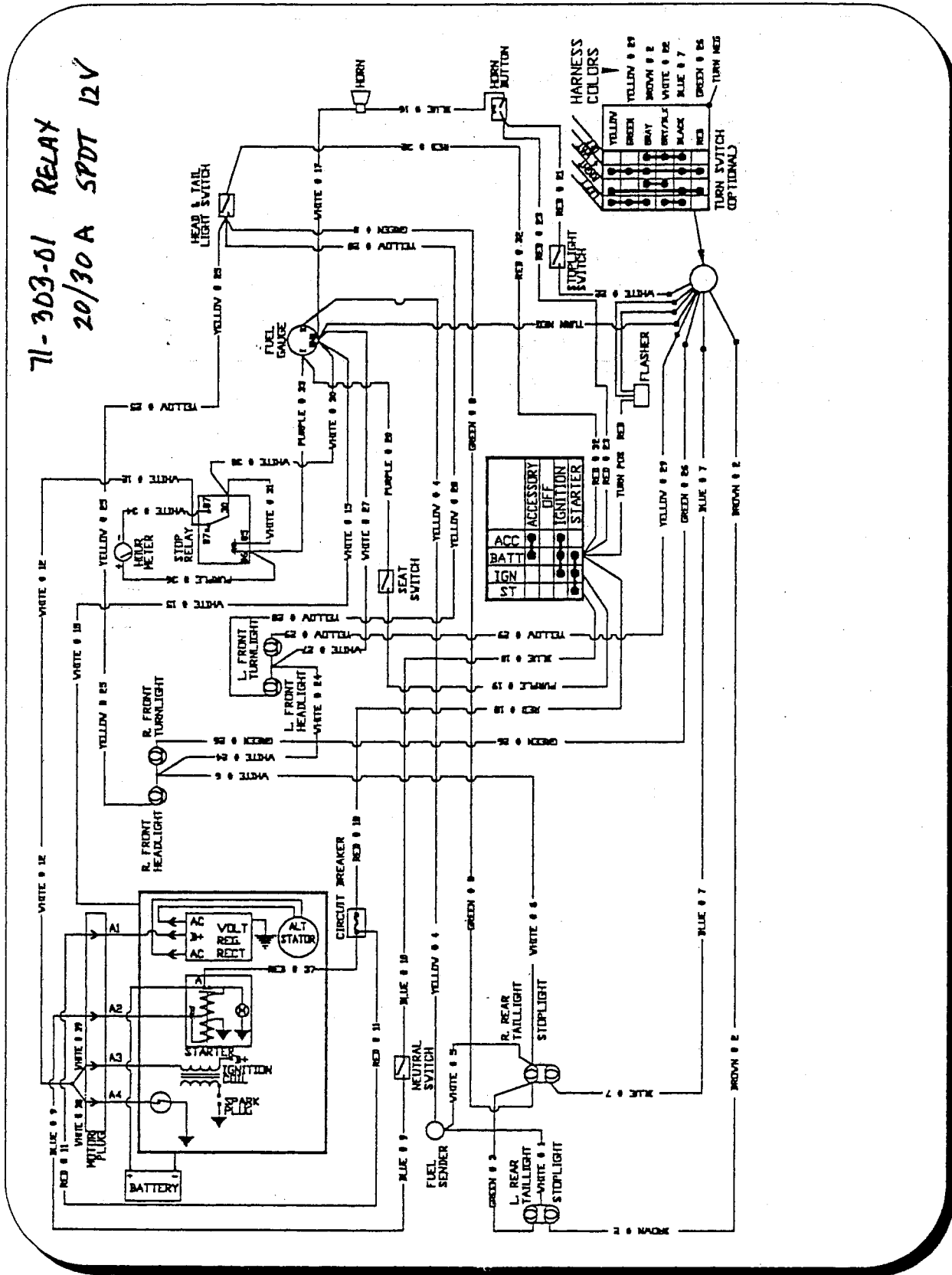
FUEL TANK AND LINES			
ITEM #	PART #	DESCRIPTION	QTY
1	74-009-23	Screw (set of 5)	1
2	74-009-21	Fuel gauge sender	1
3	74-009-22	Gasket	1
4	96-154-10	Fuel tank fitting	1
5	02-210-01 →	Cap 05-210-01	1
6	96-608-10	Clamp	2
7	98-512-00	Fuel line	3.3'
8	02-210-78 →	Fuel tank 05-210-78	1
9	05-210-02	Fuel filter	1
10	96-154-00	Drain plug	1
NOT SHOWN	05-210-39	Mounting strap	2
	77-022-51	Rubber gasket on frame (around filler tube opening)	1

INSTRUMENT PANEL



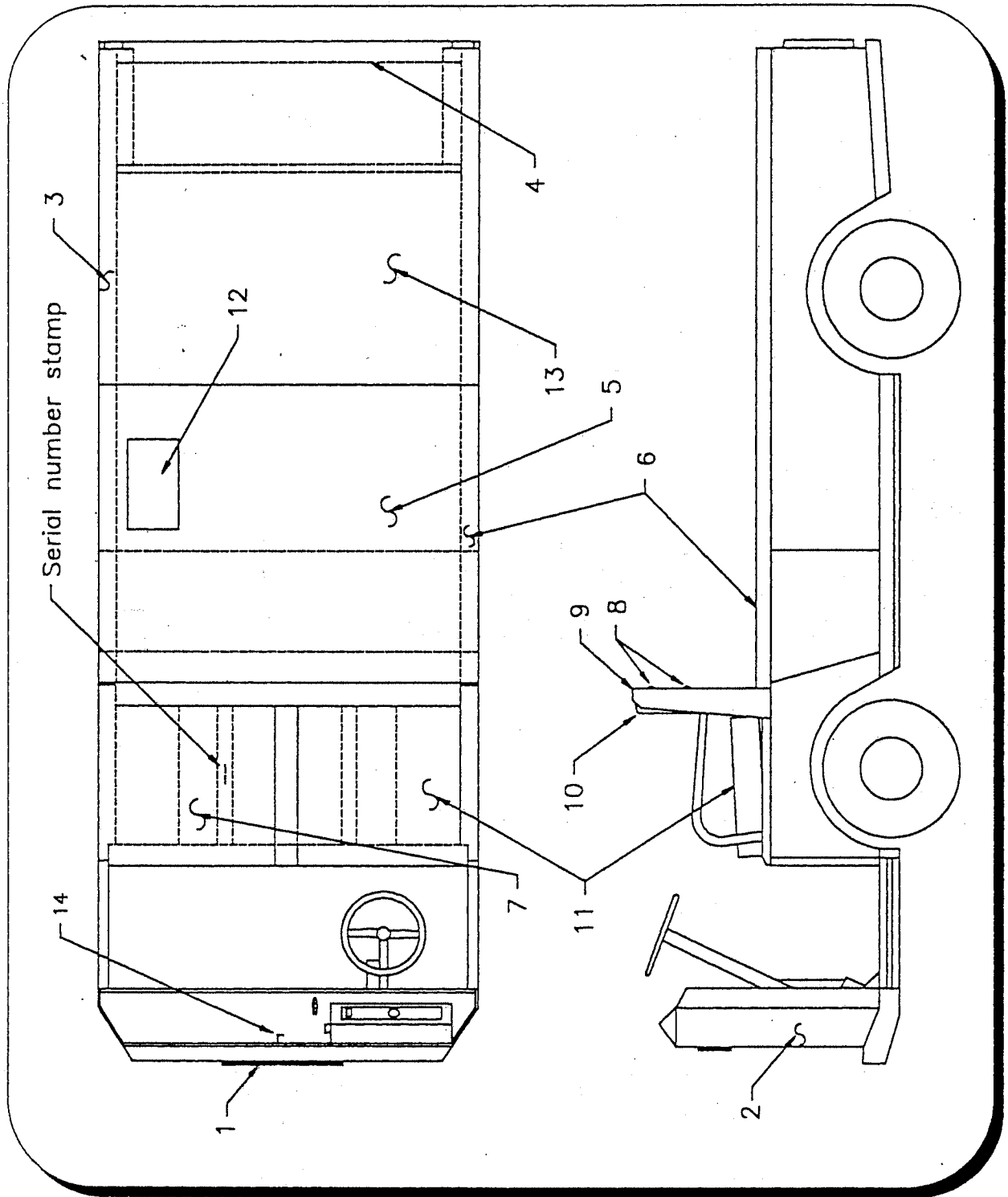
DASH PANEL			
ITEM #	PART #	DESCRIPTION	QTY
1	71-039-10	Switch	1
2	71-039-20	Hole plug (positions may contain optional switches)	3
3	74-009-20	Fuel gauge	1
4	74-000-00	Hour meter	1
5	88-069-81	1/4 Nut	2
6	00-610-01	Console	1
7	71-120-01	Key switch	1
8	94-304-18	Instrument panel	1
9	88-817-07	Sheet metal screw	6
10	88-065-08	1/4 x 5/8 Phillips head bolt	2

ELECTRICAL SYSTEM



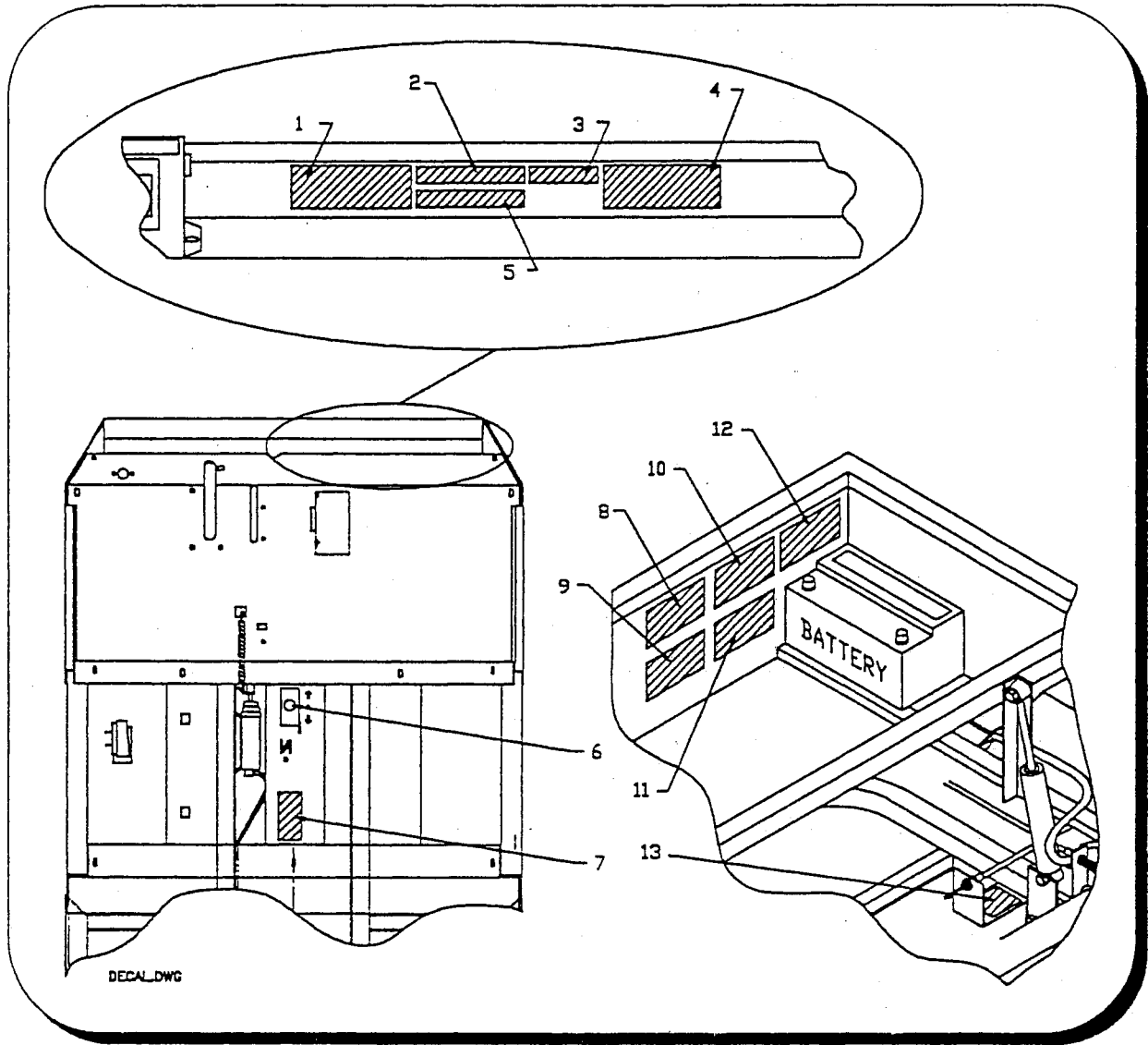
ELECTRICAL SYSTEM (FRAME)		
PART #	DESCRIPTION	QTY
71-120-01	Key switch	1
71-130-01	Neutral start switch	1
71-110-00	Brake light switch	1
71-141-20	Turn signal switch (optional)	1
71-039-10	Light switch	1
73-004-20	Horn	1
71-102-10	Seat switch	1
71-122-20	Horn button	1
71-303-01	Engine kill relay (behind dash panel)	1
71-900-05	Signal flasher	1
72-082-01	Headlight bulb	2
94-050-10	Left headlight assembly.	1
94-050-11	Right headlight assembly.	1
72-082-10	Front turn signal bulb (optional)	2
72-082-20	Turn signal bulb socket (optional)	2
72-025-00	Tail/stop light (w/rubber gasket and pigtail)	2
75-146-00	Harness	1
79-840-20	Circuit breaker	1
74-009-21	Fuel level sender	1
77-054-10	Battery	1

FRAME



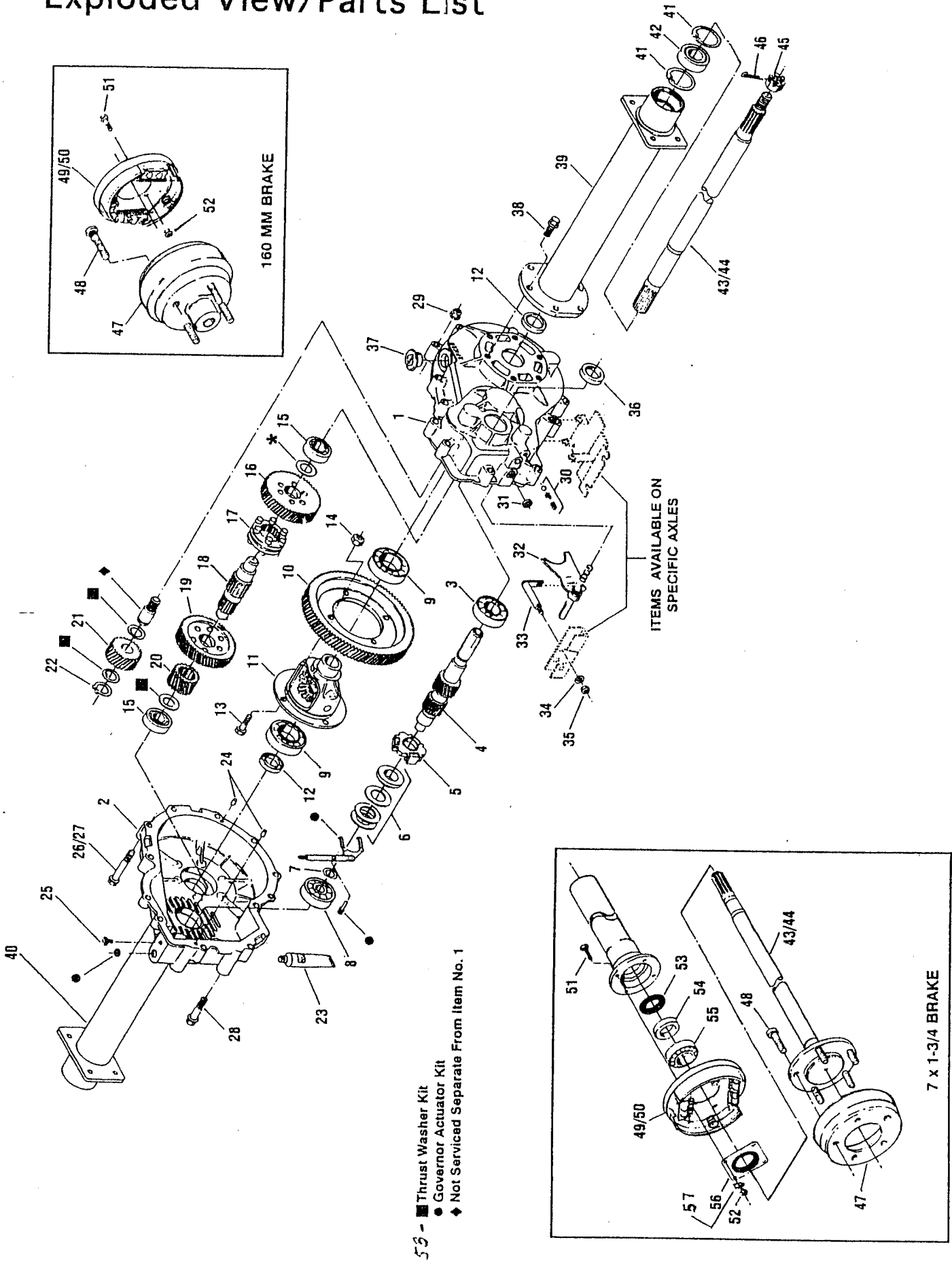
FRAME			
ITEM #	PART #	DESCRIPTION	QTY
1	94-201-10	TAYLOR-DUNN name plate	1
NOT SHOWN	88-817-07	Name plate screw	6
	94-201-11	Name plate fastener (plastic)	2
2	00-610-08	Front cowl weldment (not painted)	1
3	00-210-14	Side deck angle	1
4	00-210-18	Rear deck angle	1
5	90-444-30	Deckboard front	1
NOT SHOWN	90-440-62	Deckboard front cover	1
	90-440-61	Deckboard rear cover	1
	05-210-91	Deckboard heat shield	1
	88-607-09	Deckboard rivets	16
6	00-210-14	Side deck angle	1
7	90-174-00	Passenger seat cushion	1
8	88-837-09	Seat back screws	6
9	00-210-04	Seat back weldment	1
10	90-179-00	Seat back cushion	1
11	90-174-00	Driver seat cushion	1
12	77-054-10	Battery (standard)	1
NOT SHOWN	50-243-10	Battery hold down rod	2
13	90-444-20	Deckboard rear	1
14	02-210-25	Wire harness cover	1
NOT SHOWN	90-199-10	Seat belt (1 set)	2

DECALS/WARNING LABELS



DECALS/WARNING LABELS			
ITEM #	PART #	DESCRIPTION	QTY
1	94-306-00	Operator warning	1
2	94-384-01	"Not a motor vehicle"	1
3	94-306-01	Fuel /oil check	1
4	94-306-02	Speed warning	1
5	94-373-05	Data plate	1
6	94-306-07	"Push to shift"	1
7	94-306-09	Do not shift while moving	1
8	94-306-03	Heat warning	1
9	94-306-04	Rotating parts warning	1
10	94-306-05	Oil type	1
11	94-306-06	Dipstick warning	1
12	94-313-00	Battery warning	1
13	94-306-08	Do not drill (spring steel)	1

Exploded View/Parts List



TAYLOR-DUNN®**G-150 Gas Axle (4C-610-20)**

Item #	Part #	Description	Qty
1	66-610-63	Housing, Axle	1
2	66-610-64	Housing, Axle	1
3	80-480-02	Bearing, Ball	1
4	---	Shaft, Input	1
7	66-610-88	Shim Kit	1
8	66-610-35	Bearing, Ball	1
9	80-480-00	Bearing, Ball	2
10	---	Gear, Final Drive (Ring)	1
11	66-610-66	Differential Assembly	1
12	45-303-30	Seal, Oil	2
13	66-610-86	Cap Screw	4
14	66-610-38	Nut, Lock	4
15	80-480-01	Bearing, Ball	2
16	---	Gear, Assembly, Drive (forward)	1
17	66-610-85	Gear, Clutch	1
18	66-610-84	Shaft, Intermediate Finish	1
19	---	Gear, Assembly, Drive (reverse)	1
20	---	Gear, Final Drive (Pinion)	1
21	---	Gear, Assembly, Idler	1
22	66-610-83	Ring, Snap	1
23	---	Sealant, RTV Silicon	A/R
24	66-640-13	Pin, Dowel or Straight	2
25	66-610-67	Vent	1
27	66-610-65	Screw, Flange Head (short)	13
28	66-610-68	Screw, Hex Tapping	2
29	66-610-69	Nut, Lock	15
30	66-610-82	Kit, Detent (items not serviced separately)	1
31	66-610-29	Seal, Oil	1

TAYLOR-DUNN®**G-150 Gas Axle (4C-610-20)**

Item #	Part #	Description	Qty
32	66-610-70	Assembly, Shift Rod	1
33	66-610-71	Actuator Assembly, Shift	1
34	66-610-72	Washer	1
35	66-610-73	Nut, Lock	1
36	45-303-30	Seal, Oil	1
37	66-610-59	Plug, Rubber	1
38	66-610-74	Screw, Flange Head	12
39	66-610-76	Tube Assembly (RT)	1
40	66-610-75	Tube Assembly (LT)	1
43	66-610-77	Axle Shaft (RT)	1
44	66-610-78	Axle Shaft (LT)	1
47	41-516-00	Brake Drum	2
48	66-610-28	Wheel Stud	10
49	41-347-29	Brake Assembly (RT)	1
50	41-347-28	Brake Assembly (LT)	1
51	66-610-79	Screw, Flange Head	8
52	66-610-80	Nut, Lock	8
53	45-303-00	Seal, Oil	A/R
(Items not serviced separately)			
54	32-509-10	Ring, Retaining	1
55	80-505-10	Bearing	1
56	45-303-10	Seal	1
57	66-610-72	Washer	4
58	66-610-81	Thrust Washer Kit	1
59	66-610-87	Gear Kit (includes 4, 10, 16, 19, 20 & 21)	1

Items 5, 6, 26, 41, 42, 45 & 46 left out intentionally

TAYLOR-DUNN®**G-150 Gas Axle (4C-610-30)**

Item #	Part #	Description	Qty
1	---	Housing, Axle	1
2	---	Housing, Axle	1
3	80-480-02	Bearing, Ball	1
4	---	Shaft, Input	1
7	---	Shim Kit	1
8	66-610-35	Bearing, Ball	1
9	80-480-00	Bearing, Ball	2
10	---	Gear, Final Drive (Ring)	1
11	---	Differential Assembly	1
12	45-303-30	Seal, Oil	2
13	66-610-86	Cap Screw	4
14	66-610-38	Nut, Lock	4
15	80-480-01	Bearing, Ball	2
16	---	Gear, Assembly, Drive (forward)	1
17	66-610-85	Gear, Clutch	1
18	66-610-84	Shaft, Intermediate Finish	1
19	---	Gear, Assembly, Drive (reverse)	1
20	---	Gear, Final Drive (Pinion)	1
21	---	Gear, Assembly, Idler	1
22	66-610-83	Ring, Snap	1
23	---	Sealant, RTV Silicon	A/R
24	66-640-13	Pin, Dowel or Straight	2
25	66-610-67	Vent	1
27	66-610-65	Screw, Flange Head (short)	13
28	66-610-68	Screw, Hex Tapping	2
29	66-610-69	Nut, Lock	15
30	66-610-82	Kit, Detent (items not serviced separately)	1
31	66-610-29	Seal, Oil	1

TAYLOR-DUNN®

G-150 Gas Axle (4C-610-30)

Item #	Part #	Description	Qty
32	66-610-70	Assembly, Shift Rod	1
33	66-610-71	Actuator Assembly, Shift	1
34	66-610-72	Washer	1
35	66-610-73	Nut, Lock	1
36	45-303-30	Seal, Oil	1
37	66-610-59	Plug, Rubber	1
38	66-610-74	Screw, Flange Head	12
39	66-610-76	Tube Assembly (RT)	1
40	66-610-75	Tube Assembly (LT)	1
43	---	Axle Shaft (RT)	1
44	---	Axle Shaft (LT)	1
47	41-516-00	Brake Drum	2
48	66-610-28	Wheel Stud	10
49	41-347-29	Brake Assembly (RT)	1
50	41-347-28	Brake Assembly (LT)	1
51	66-610-79	Screw, Flange Head	8
52	66-610-80	Nut, Lock	8
53	45-303-00	Seal, Oil	A/R
	---	(Items not serviced separately)	
54	32-509-10	Ring, Retaining	1
55	80-505-10	Bearing	1
56	45-303-10	Seal	1

Items 5, 6, 26, 41, 42, 45 & 46 left out intentionally