SUZUKI

LT-4WD, LT-F4WD, LT-F4WDX AND LT-F250

NOTE: Metric fasteners are used throughout vehicle.

CONDENSED SERVICE DATA

MODELS	LT-4WD, LT-F4WD, LT-F250	LT-F4WDX
General		
Engine Make	Suzuki	Suzuki
Engine Type	Four-Stroke; Air-Cooled	Four-Stroke; Air-Cooled
Number of Cylinders	1	1
Bore	66.0 mm (2.598 in.)	68.5 mm (2.697 in.)
Stroke	72.0 mm (2.835 in.)	76.0 mm (2.992 in.)
Displacement	246 cc (15.0 cu. in.)	280 cc (17.1 cu. in.)
Compression Ratio	8.5:1	8.9:1
Fuel Recommendation	Unleaded or Low-Lead	Unleaded or Low-Lead
Pump Octane Rating	85-95	85-95
Engine Lubrication	Wet Sump; Pum	Wet Sump; Pump
Engine/Transmission Oil	SAE 10W-40	SAE 10W-40
Forward Speeds	5	5
Reverse Speeds	1	1
Tire Size:		
Front	22 × 8.00-10	24 × 8.00-10
Rear	25 × 12.00-10*	25 ×10.00-12
Tire Pressure (cold):**		
Front	35 kPa*** (5.1 psi)	30 kPa (4.4 psi)
Rear	20 kPa (2.8 psi)	27.5 kPa (4.0 psi)

*On Model LT-F250, rear tire size is 24x11.00-10.
**On Model LT-F250, tire pressure for all tires is 25 kPa (3.6 psi).
***On Model LT-4WD, decrease front tire pressure to 30 kPa (4.4 psi) when load is less than 80 kg (175 lbs.).

Tune-Up		
Engine Idle Speed	1350-1450 rpm*	1400-1600 rpm
Spark Plug:		
NGK	D7EA	D7EA
Nippon Denso	X22ES-U	X22ES-U
Electrode Gap	0.6-0.7 mm (0.024-0.028 in.)	0.6-0.7 mm (0.024-0.028 in.)
Ignition:		
Type	Breakerless	Breakerless
Timing	See Text	See Text
Carburetor:		
Make	Mikuni	Mikuni

MODELS	LT-4WD, LT-F4WD, LT-F250	LT-F4WDX
Tune-Up (Cont.)		
Carburetor: (Cont.)		
Model:		
Before 1990	VM24SS	....
After 1989	BST31SS	BST31SS
Bore Size:		
Before 1990	24 mm (0.94 in.)	....
After 1989	31 mm (1.22 in.)	31 mm (1.22 in.)
Float Height:		
Before 1990	23.5-25.5 mm (0.92-1.00 in.)	....
After 1989	12.5-13.5 mm (0.49-0.53 in.)	12.5-13.5 mm (0.49-0.53 in.)
Jet Needle:		
Before 1990	5L21	....
After 1989	5D40	5D40
Clip Position:		
Before 1990	3rd Groove From Top	....
After 1989	4th Groove From Top	4th Groove From Top
Pilot Jet:		
Before 1990	#22.5	....
After 1989	#40	#37.5
Needle Jet:		
Before 1990	O-1	....
After 1989	P-4	P-2
Main Jet:		
Before 1990	#100	....
After 1989	#122.5	#122.5
Throttle Cut-Away:		
Before 1990	1.5	....
After 1989	#125	#130
Idle Mixture Setting:		
Before 1990	1¾ Turns Out	....
After 1989	See Text	2⅝ Turns Out
Throttle Cable Free Play	0.5-1.0 mm (0.02-0.04 in.)	0.5-1.0 mm (0.02-0.04 in.)

*Idle speed on models after 1989 should be 1400-1600 rpm.

Sizes-Clearances

Valve Clearance (cold):		
Intake	0.03-0.08 mm (0.001-0.003 in.)	0.03-0.08 mm (0.001-0.003 in.)
Exhaust	0.08-0.13 mm (0.003-0.005 in.)	0.08-0.13 mm (0.003-0.005 in.)
Valve Face Angle	45°	45°
Valve Seat Angle	15° & 45°	15° & 45°
Valve Seat Width	0.9-1.1 mm (0.035-0.043 in.)	0.9-1.1 mm (0.035-0.043 in.)
Valve Stem Diameter:		
Intake	5.475-5.490 mm (0.2156-0.2161 in.)	5.475-5.490 mm (0.2156-0.2161 in.)
Exhaust	5.455-5.470 mm (0.2148-0.2154 in.)	5.455-5.470 mm (0.2148-0.2154 in.)

MODELS	LT-4WD, LT-F4WD, LT-F250	LT-F4WDX
Sizes-Clearances (Cont.)		
Valve Guide Bore Diameter:		
Intake & Exhaust	5.500-5.512 mm (0.2165-0.2170 in.)	5.500-5.512 mm (0.2165-0.2170 in.)
Valve Stem-to-Guide Clearance:		
Intake	0.010-0.037 mm (0.0004-0.0015 in.)	0.010-0.037 mm (0.0004-0.0015 in.)
Exhaust	0.030-0.057 mm (0.0012-0.0022 in.)	0.030-0.057 mm (0.0012-0.0022 in.)
Wear Limit	0.35 mm (0.014 in.)	0.35 mm (0.014 in.)
Valve Spring Free Length (Min.):		
Inner	35.1 mm (1.38 in.)	35.1 mm (1.38 in.)
Outer	39.9 mm (1.57 in.)	39.9 mm (1.57 in.)
Rocker Arm Bore Diameter:		
Intake & Exhaust	12.000-12.018 mm (0.4724-0.4731 in.)	12.000-12.018 mm (0.4724-0.4731 in.)
Rocker Shaft Diameter	11.977-11.995 mm (0.4715-0.4722 in.)	11.977-11.995 mm (0.4715-0.4722 in.)
Camshaft Lobe Height:		
Intake	33.780-33.820 mm (1.3299-1.3315 in.)	34.112-34.152 mm (1.3430-1.3446 in.)
Wear Limit	33.480 mm (1.3181 in.)	33.820 mm (1.3315 in.)
Exhaust	32.990-33.030 mm (1.2988-1.3004 in.)	33.790-33.830 mm (1.3303-1.3319 in.)
Wear Limit	32.690 mm (1.2870 in.)	33.490 mm (1.3185 in.)
Camshaft Journal Diameter	21.959-21.980 mm (0.8645-0.8653 in.)	21.959-21.980 mm (0.8645-0.8653 in.)
Camshaft Journal Clearance	0.032-0.066 mm (0.0013-0.0026 in.)	0.032-0.066 mm (0.0013-0.0026 in.)
Wear Limit	0.150 mm (0.0059 in.)	0.150 mm (0.0059 in.)
Camshaft Runout (Max.)	0.10 mm (0.004 in.)	0.10 mm (0.004 in.)
Cylinder Head Cover Distortion (Max.)	0.05 mm (0.002 in.)	0.05 mm (0.002 in.)
Cylinder Head Distortion (Max.)	0.05 mm (0.002 in.)	0.05 mm (0.002 in.)
Piston-to-Cylinder Wall Clearance	0.040-0.060 mm (0.0016-0.0020 in.)	0.060-0.070 mm (0.0024-0.0028 in.)
Wear Limit	0.120 mm (0.0047 in.)	0.120 mm (0.0047 in.)
Cylinder Bore Diameter	66.000-66.015 mm (2.5984-2.5990 in.)	68.500-68.515 mm (2.6968-2.6974 in.)
Wear Limit	66.090 mm (2.6020 in.)	68.580 mm (2.7000 in.)
Cylinder Bore Distortion (Max.)	0.05 mm (0.002 in.)	0.05 mm (0.002 in.)
Piston Diameter Measured 18 mm (0.71 in.) from Skirt Bottom	65.955-69.970 mm (1.5966-2.5972 in.)	68.445-68.460 mm (2.6947-2.6953 in.)

MODELS	LT-4WD, LT-F4WD, LT-F250	LT-F4WDX
Sizes-Clearances (Cont.)		
Piston Diameter Measured 18 mm (0.71 in.) from Skirt Bottom		
Wear Limit	65.880 mm (2.5937 in.)	68.380 mm (2.6921 in.)
Piston Pin Bore Diameter	16.002-16.008 mm (0.6300-0.6302 in.)	17.002-17.008 mm (0.6694-0.6696 in.)
Wear Limit	16.030 mm (0.6311 in.)	17.030 mm (0.6705 in.)
Piston Pin Diameter	15.996-16.000 mm (0.6298-0.6299 in.)	16.996-17000 mm (0.6691-0.6693 in.)
Wear Limit	15.980 mm (0.6291 in.)	16.980 mm (0.6685 in.)
Piston Ring End Gap:		
Top Ring	0.10-0.25 mm (0.004-0.010 in.)	0.15-0.30 mm (0.006-0.012 in.)
Wear Limit	0.70 mm (0.028 in.)	0.70 mm (0.028 in.)
Second Ring	0.10-0.25 mm (0.004-0.010 in.)	0.50-0.65 mm (0.020-0.026 in.)
Wear Limit	0.70 mm (0.028 in.)	1.00 mm (0.039 in.)
Piston Ring Side Clearance (Max.):		
Top	0.180 mm (0.0071 in.)	0.180 mm (0.0071 in.)
Second	0.150 mm (0.0059 in.)	0.150 mm (0.0059 in.)
Connecting Rod Small End Bore Diameter	16.006-16.014 mm (0.6302-0.6305 in.)	17.006-17.014 mm (0.6695-0.6698 in.)
Wear Limit	16.040 mm (0.6315 in.)	17.040 mm (0.6709 in.)
Capacities		
Fuel Tank	12 L (3.2 gal.)	12 L (3.2 gal.)
Engine/Transmission/ Final Drive Sump	See Text	See Text
Front Differential	150 mL (5.1 oz.)	150 mL (5.1 oz.)
Tightening Torques		
Camshaft Sprocket Bolt	10-12 N•m (88-106 in.-lbs.)	10-12 N•m (88-106 in.-lbs.)
Clutch Shoe Nut	90-100 N•m (65-79.5 ft.-lbs.)	110-130 N•m (79.5-95.5 ft.-lbs.)
Clutch Sleeve Hub Nut	60-80 N•m (43.5-58 ft.-lbs.)	60-80 N•m (43.5-58 ft.-lbs.)
Cylinder Base Nut	7-11 N•m (62-97 in.-lbs.)	7-11 N•m (62-97 in.-lbs.)
Cylinder Head Cover Bolt	8-10 N•m (71-88 in.-lbs.)	9-11 N•m (80-97 in.-lbs.)
Cylinder Head Nut:		
6 mm	7-11 N•m (62-97 in.-lbs.)	7-11 N•m (62-97 in.-lbs.)

MODELS	LT-4WD, LT-F4WD, LT-F250	LT-F4WDX
Tightening Torques (Cont.)		
Cylinder Head Nut: (Cont.)		
8 mm	21-25 N•m (15-18 ft.-lbs.)	21-25 N•m (15-18 ft.-lbs.)
Engine Mounting Bolts:		
10 mm:		
Prior to 1990	80-95 N•m (58-68.5 ft.-lbs.)	....
After 1989	64-76 N•m (47-56 ft.-lbs.)	64-76 N•m (47-56 ft.-lbs.)
12 mm:		
Prior to 1990	80-95 N•m (58-68.5 ft.-lbs.)	....
After 1989	60-72 N•m (43.5-52 ft.-lbs.)	60-72 N•m (43.5-52 ft.-lbs.)
Flywheel Nut	145-175 N•m (105-126.5 ft.-lbs.)	145-175 N•m (105-126.5 ft.-lbs.)
Front Axle Nuts	85-115 N•m (61.5-83 ft.-lbs.)	85-115 N•m (61.5-83 ft.-lbs.)
Rear Axle Nuts	85-115 N•m (61.5-83 ft.-lbs.)	85-115 N•m (61.5-83 ft.-lbs.)
Wheel Retaining Nuts:		
Front	45-65 N•m (32.5-47 ft.-lbs.)	45-65 N•m (32.5-47 ft.-lbs.)
Rear	45-65 N•m (32.5-47 ft.-lbs.)	45-65 N•m (32.5-47 ft.-lbs.)
Standard Screws:		
Unmarked or Marked "4"		
4 mm	1.0-2.0 N•m (8.9-18 in.-lbs.)	1.0-2.0 N•m (8.9-18 in.-lbs.)
25 mm	2.0-4.0 N•m (18-36 in.-lbs.)	2.0-4.0 N•m (18-36 in.-lbs.)
6 mm	4.0-7.0 N•m (36-62 in.-lbs.)	4.0-7.0 N•m (36-62 in.-lbs.)
8 mm	10-16 N•m (88.5-142 in.-lbs.)	10-16 N•m (88.5-142 in.-lbs.)
10 mm	22-35 N•m (16-26 ft.-lbs.)	22-35 N•m (16-26 ft.-lbs.)
12 mm	35-55 N•m (26-40 ft.-lbs.)	35-55 N•m (26-40 ft.-lbs.)
14 mm	50-80 N•m (37-59 ft.-lbs.)	50-80 N•m (37-59 ft.-lbs.)
16 mm	80-130 N•m (59-96 ft.-lbs.)	80-130 N•m (59-96 ft.-lbs.)
18 mm	130-190 N•m (96-140 ft.-lbs.)	130-190 N•m (96-140 ft.-lbs.)
Marked "7"		
4 mm	1.5-3.0 N•m (13-27 in.-lbs.)	1.5-3.0 N•m (13-27 in.-lbs.)
5 mm	3.0-6.0 N•m (27-53 in.-lbs.)	3.0-6.0 N•m (27-53 in.-lbs.)
6 mm	8.0-12.0 N•m (71-106 in.-lbs.)	8.0-12.0 N•m (71-106 in.-lbs.)
8 mm	18-28 N•m (13-21 ft.-lbs.)	18-28 N•m (13-21 ft.-lbs.)

MODELS	LT-4WD, LT-F4WD, LT-F250	LT-F4WDX
Tightening Torques (Cont.)		
Marked "7" (Cont.)		
10 mm	40-60 N•m (29-44 ft.-lbs.)	40-60 N•m (29-44 ft.-lbs.)
12 mm	70-100 N•m (52-74 ft.-lbs.)	70-100 N•m (52-74 ft.-lbs.)
14 mm	110-160 N•m (81-118 ft.-lbs.)	110-160 N•m (81-118 ft.-lbs.)
16 mm	170-250 N•m (125-184 ft.-lbs.)	170-250 N•m (125-184 ft.-lbs.)
18 mm	200-280 N•m (147-206 ft.-lbs.)	200-280 N•m (147-206 ft.-lbs.)

LUBRICATION

All Models

ENGINE, TRANSMISSION AND FINAL DRIVE. The engine and transmission are lubricated by a crankshaft-driven oil pump. The final drive assembly is lubricated by the commonly shared sump. Recommended oil is a multigrade SAE 10W-40 motor oil with an API classification of SE or SF.

Fill the sump through filler plug (F—Fig. S13-1) opening. Oil level should be maintained at level indicated on sight glass (G). Oil is drained by removing plug in underside of housing. Dry capacity of sump is 3860 mL (4.1 qt.). Refilling after changing oil and oil filter requires only 3600 mL (3.8 qt.) as some oil will be retained in housing. Oil requirement after only changing oil is 3500 mL (3.7 qt.).

Manufacturer recommends changing the oil and oil filter after the first month of 200 km (125 miles) of operation and every three months or 1000 km (600 miles) thereafter.

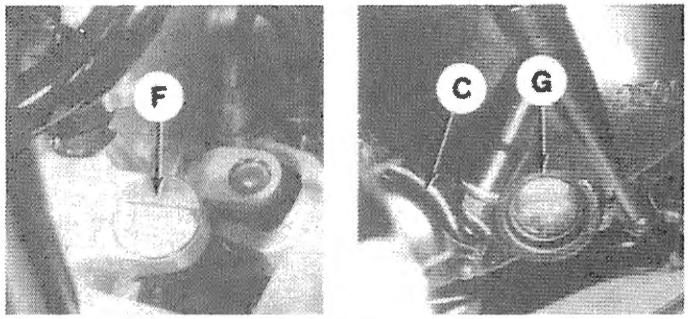

Fig. S13-1—Engine, transmission and final drive assembly oil is poured through filler plug opening (F) and maintained at level on sight glass (G). Oil filter is located behind side cover (C).

The oil filter may be renewed after removing side cover (C). Make certain inner "O" ring is properly installed before inserting filter. Insert new filter with open end toward engine and closed end toward side cover. Renew side cover "O" ring and ensure filter retaining spring is properly located when installing cover.

FRONT DIFFERENTIAL UNIT. The differential oil level on models equipped with front-wheel drive should be checked after the first month or 200 km (125 miles) of operation and every six months of 2000 km (1200 miles) of operation thereafter. The differential oil should be changed on an annual basis. Recommended lubricant is a good quality SAE 90 hypoid gear oil. Differential capacity is 150 mL (5.1 oz.).

Check differential oil level through oil level plug (G—Fig. S13-3) opening with vehicle on a level surface. Oil is drained by removing drain plug (P) and level plug (G). To fill, install drain plug (P) and add recommended oil through level plug (G) opening until oil starts to run out plug opening, then install level plug (G) and securely tighten.

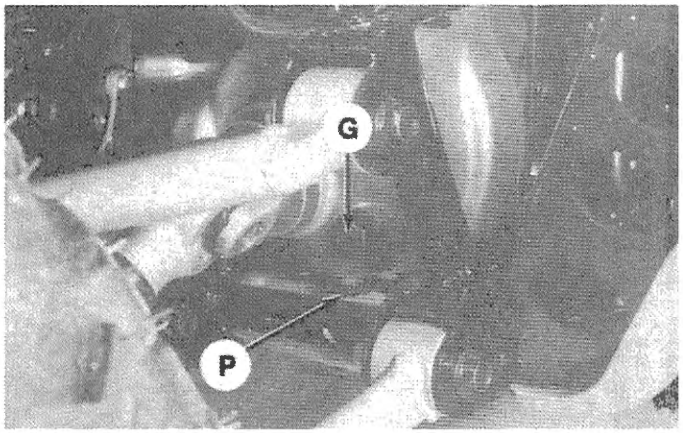

Fig. S13-3—On four-wheel-drive models, the front differential unit oil is checked and filled through plug (G) opening and drained through drain plug (P) opening.

CABLES, LEVERS AND SHAFTS. The choke cable, throttle cable, range cable, reverse cable, speedometer cable, shifting cable and throttle lever should be lubricated with motor oil every three months or 1000 km (600 miles). The front wheel bearings, steering shaft, rear brake lever and brake camshaft should be greased every three months or 1000 km (600 miles). Do not excessively grease the brake camshaft as grease may contact brake linings reducing braking ability.

AIR CLEANER ELEMENT

All Models

The air cleaner element should be removed and cleaned after every three months or 1000 km (600 miles) of operation. To remove air cleaner element, first remove seat and element cover. Remove element retainer and withdraw element. Remove screw and carefully separate foam element from frame.

Thoroughly clean element in a suitable nonflammable solvent. Saturate element in clean motor oil. Compress element to remove excess oil. Reinstall element by reversing removal procedure.

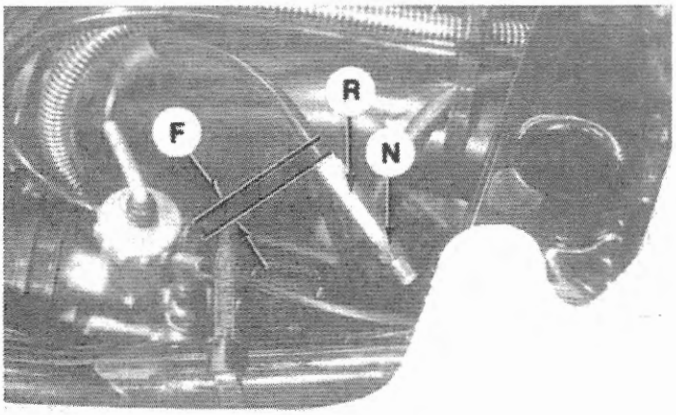

Fig. S13-5—Slide dust boots away from adjuster assembly and loosen locknut (N) and rotate adjuster (R) as required to obtain correct free play (F).

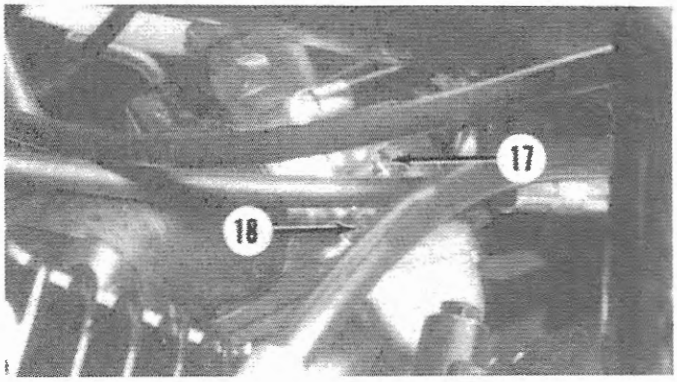

Fig. S13-6—View of installed carburetor showing location of idle speed screw (17) and idle mixture screw (18).

FUEL SYSTEM

All Models Prior to 1990

CARBURETOR. A Mikuni VM24SS-type carburetor is used. Refer to CONDENSED SERVICE DATA for carburetor specifications.

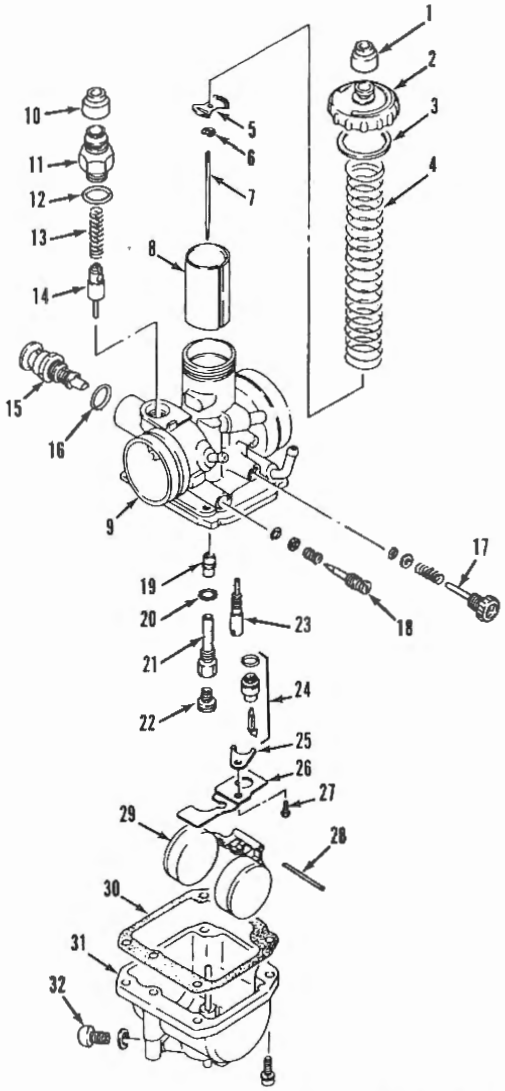

Fig. S13-7—Exploded view of Mikuni VM24SS carburetor.

1. Grommet
2. Cap
3. Gasket
4. Spring
5. Retainer
6. Jet needle clip
7. Jet needle
8. Throttle slide
9. Body
10. Grommet
11. Cable guide
12. Washer
13. Spring
14. Starter valve
15. Starter valve limiter
16. Washer
17. Idle speed screw
18. Idle mixture screw
19. Needle jet
20. Washer
21. Air bleed
22. Main jet
23. Pilot jet
24. Inlet valve
25. Inlet valve retainer
26. Baffle plate
27. Screw
28. Float pin
29. Float
30. Gasket
31. Float bowl
32. Drain screw

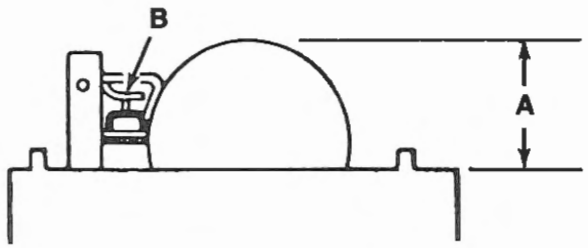

Fig. S13-8—Float level (A) on Mikuni VM24SS should be 23.5-25.5 mm (0.92-1.00 in.). Bend float arm tang (B) to adjust.

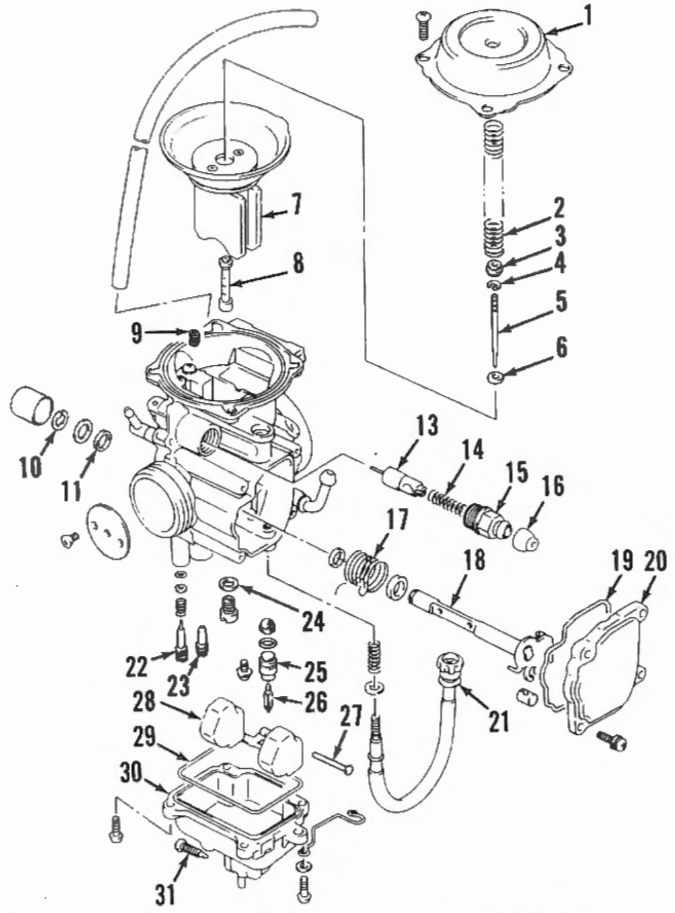

Fig. S13-9—Exploded view of Mikuni BST31SS carburetor.

1. Cover
2. Spring
3. Spring seat
4. Clip
5. Jet needle
6. Washer
7. Throttle slide
8. Needle jet
9. Pilot air jet
10. "E" ring
11. Seal
12. Throttle plate
13. Starter valve
14. Spring
15. Cable guide
16. Grommet
17. Spring
18. Throttle shaft
19. Gasket
20. Cover
21. Idle speed screw
22. Idle mixture screw
23. Pilot jet
24. Main jet
25. Fuel inlet valve seat
26. Fuel inlet valve
27. Float pin
28. Float
29. Gasket
30. Fuel bowl
31. Drain screw

Before performing carburetor adjustments, throttle cable should be adjusted to provide 0.5-1.0 mm (0.02-0.04 in.) free play at idle position. To adjust throttle cable free play, the seat must be removed to expose throttle cable adjuster assembly. Slide dust boots away from adjuster assembly. Loosen locknut (N—Fig. S13-5) and rotate adjuster (R) as required to obtain correct free play (F). Tighten locknut (N) to retain adjustment and install dust boots and seat.

Initial setting of idle mixture screw (18—Fig. S13-6) is 1¾ turns out from a lightly seated position. Rotating idle mixture screw clockwise will lean mixture while rotating screw counterclockwise will richen mixture. Final adjustment should be made with engine running at normal operating temperature. Adjust idle speed screw (17) so engine idles at 1350-1450 rpm. Adjust idle mixture screw (18) so highest idle speed is achieved and readjust idle speed screw to recommended rpm. After adjusting carburetor, check throttle cable adjustment as previously described.

Refer to Fig. S13-7 for an exploded view of the carburetor if complete disassembly is required. Note location of components during disassembly. Float height should be 23.5-25.5 mm (0.92-1.00 in.). To check float height, remove float bowl and invert carburetor. Measure distance (A—Fig. S13-8) between bottom float and gasket surface on carburetor body. Adjust float by bending float arm tang (B).

All Other Models. All models after 1989 are equipped with a Mikuni BST31SS. Before making carburetor adjustments, adjust throttle cable free play as outlined in previous section for Mikuni VM24SS carburetor. Refer to CONDENSED SERVICE DATA for carburetor specifications.

Initial setting of idle mixture screw (22—Fig. S13-9) is 2⅞ turns out on LT-4WD and LT-F4WD models, 2⅝ turns out on LT-F4WDX models and 2¾ turns out on LT-F250 models. Make final adjustment with engine at normal operating temperature. Adjust idle speed screw (21) so engine idles at 1400-1600 rpm.

Refer to Fig. S13-9 for an exploded view of carburetor. Note location of components during disassembly. Inspect components for damage and excessive wear. Rubber bellows attached to throttle slide (7) must be free of tears and holes. Note the following during assembly: Install needle jet (8) so flat side matches flat in body. Be sure throttle slide (7) bellows fits groove in body properly. To check float height, hold carburetor so float is hanging down as shown in Fig. S13-10 and float arm is lightly pressing against float valve. Float height (H) should be 12.5-13.5 mm (0.49-0.53 in.). Adjust float height by carefully bending float arm tang.

FUEL PUMP. A diaphragm-type fuel pump located adjacent to the fuel tank is used. Alternating pressure and vacuum inside intake manifold is directed to one side of fuel pump diaphragm via a hose. During vacuum pulse, diaphragm draws fuel through inlet check valve

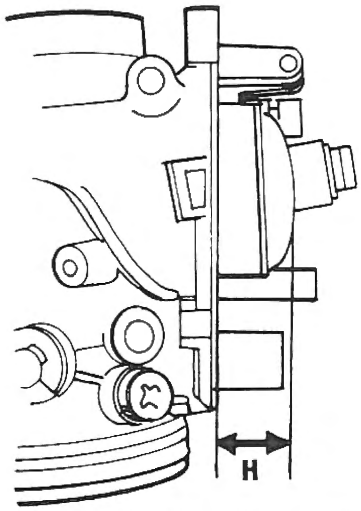

Fig. S13-10—Hold fuel bowl of Mikuni BST31SS carburetor as shown when measuring float height (H).

into fuel chamber. During pressure pulse, diaphragm reduces fuel chamber volume, thus moving fuel through outlet check valve.

If fuel delivery to carburetor is interrupted, first eliminate other sources of difficulty such as insufficient fuel, clogged fuel strainers, cracked or split hoses or loose pump housing retaining screws before servicing fuel pump. When servicing pump, defective or questionable parts should be renewed. Diaphragm should be renewed if deterioration is evident.

FUEL STRAINER. Strainers are mounted on the end of the "ON" pickup tube and the "RES" (reserve) pickup tube of the fuel valve assembly mounted on the fuel tank. The strainers should be cleaned periodically to prevent fuel starvation. For access to strainers, drain fuel tank and detach fuel hose. Remove cap screws and withdraw fuel valve assembly with strainers from fuel tank. Reinstall by reversing removal procedure.

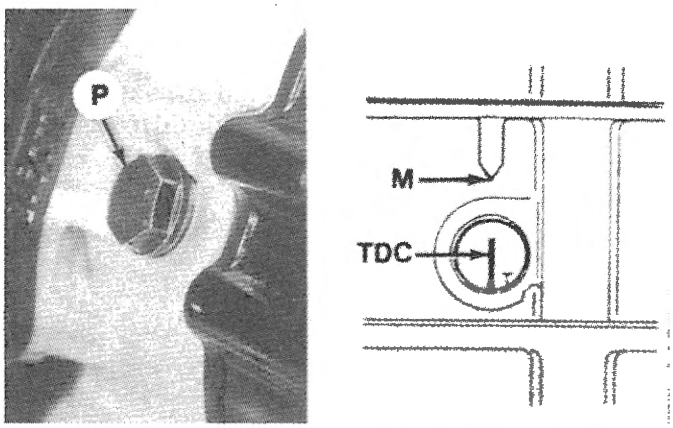

Fig. S13-11—Piston is at Top Dead Center when "T" mark (TDC) on flywheel is aligned with stationary mark (M). Remove inspection plug (P) in left crankcase half to view timing mark. Piston must also be on compression stroke as outlined in test for valve clearance adjustment.

IGNITION AND ELECTRICAL

All Models

SPARK PLUG. Standard spark plug is NGK D7EA or Nippon Denso X22ES-U. Spark plug electrode gap should be 0.6-0.7 mm (0.024-0.028 in.).

Spark plug should be removed, cleaned and electrode gap set every three months or 1000 km (600 miles) and renewed every 18 months or 6000 km (4000 miles).

IGNITION. A capacitor discharge, pointless electronic ignition system is used. The ignition system consists of the flywheel, a power source coil located underneath the flywheel, an externally mounted pickup coil, a CD ignition module, an ignition coil, an engine stop switch and an ignition switch. On later models, the battery provides current for the ignition and the power source coil is not used. Ignition timing should occur at 5° BTDC with engine operating at approximately 1800 rpm and below on all models. Ignition timing at approximately 3800 rpm should occur at 35° BTDC on LT-4WD, LT-F4WD and LT-F250 models and 30° BTDC on LT-F4WDX models. Ignition timing is fixed and not adjustable. The flywheel has a single mark "T" (Fig. S13-11) to indicate Top Dead Center (TDC) and which is used during valve clearance adjustment or when setting camshaft timing.

If ignition malfunction occurs, check condition of spark plug, all wires and connections before troubleshooting ignition circuit. Using Suzuki pocket tester 09900-25002 or a suitable ohmmeter, refer to the following test specifications and procedures to aid troubleshooting.

To check power source coil on Models LT-4WDJ, LT-4WDK, LT-F4WDJ, LT-F4WDK, LT-F250J and LT-F250K, separate wire connectors leading from power source coil to CDI module and attach one tester lead to coil end of black wire. Attach remaining tester lead to blue wire with yellow tracer. Power source coil can be considered satisfactory if resistance reading is within the limits of 105-160 ohms.

To check pickup coil, separate black wire with yellow tracer at connector and green wire with white tracer at connector leading from pickup coil to CDI module. Attach one tester lead to black wire with yellow tracer and remaining tester lead to green wire with white tracer. Pickup coil can be considered satisfactory if resistance reading is within the limits of 90-140 ohms.

To check condition of ignition coil, separate wire connectors from terminal ends on ignition coil. Identify wire location for correct reassembly. Attach one tester lead to negative terminal on coil and remaining tester lead to positive terminal on coil. Primary coil resistance should be approximately 0-0.5 ohms. Attach one tester lead to high tension wire and remaining tester lead to positive terminal on coil. Secondary coil resistance reading should be approximately 10k-16k on Models LT-4WDJ,

LT-4WDK, LT-F4WDJ, LT-F4WDK, LT-F250J and LT-F250K, and 12k-20k ohms on all other models.

CHARGING CIRCUIT. The charging circuit consists of an AC generator located underneath the flywheel, a regulator/rectifier and a battery. The standard battery is a FB14A-A2 on LT-4WD, LT-F4WD and LT-F250 models and YB14A-A2 on LT-F4WDX models. The battery has a 14 ampere hour, 12 volt rating. Under load the AC generator should produce approximately 14-15.5 volts DC at 5000 rpm on Models LT-4WDJ, LT-4WDK, LT-F4WDJ, LT-F4WDK, LT-F250J and LT-F250K, and 13-15 volts on all other models. No-load voltage of the AC generator should be 55 volts AC at 5000 rpm on Models LT-4WDJ, LT-4WDK, LT-F4WDJ, LT-F4WDK, LT-F250J and LT-F250K, and 60 volts on all other models.

The battery should be checked and filled to maximum level with distilled water, if required, after the first month or 200 km (125 miles) and every three months or 1000 km (600 miles) thereafter. During periods of vehicle storage, the battery should be charged once a month to reduce sulfation and prolong battery life. When charging battery, always disconnect battery from charging circuit to prevent damage to regulator/rectifier or other components. Do not exceed maximum charging rate of 1.4 amperes.

NOTE: A "spill retarded"-type battery is used. Prior to charging battery, remove all battery caps. Make sure battery is charged in a well-ventilated area.

The AC generator can be statically checked using Suzuki pocket tester 09900-25002 or a suitable ohmmeter. Separate wire connector block from AC generator to regulator/rectifier and attach tester leads between each yellow stator lead. Tester reading should indicate continuity between each lead. Attach one tester lead to ground and remaining tester lead to each yellow wire individually. Tester reading should indicate infinite resistance at each lead.

An operational check can be performed using Suzuki pocket tester 09900-25002 or a suitable voltmeter as follows: Set ignition switch to light position. Remove seat and attach voltmeter leads noting correct polarity. Start and run engine at 5000 rpm. With a fully charged battery, AC generator and regulator/rectifier can be considered satisfactory if voltage reading is within the limits of approximately 14-15.5 volts DC at 5000 rpm on Models LT-4WDJ, LT-4WDK, LT-F4WDJ, LT-F4WDK, LT-F250J and LT-F250K, and 13-15 volts on all other models. If voltage is not within required limits, then the AC generator may be eliminated as cause of difficulty by performing a no-load test. Separate AC generator to regulator/rectifier wire connector block. Start and run engine at 5000 rpm. Attach voltmeter leads between each yellow stator lead. The AC generator can be considered satisfactory if no-load voltage is not less than 55 volts AC on Models LT-4WDJ, LT-4WDK, LT-F4WDJ, LT-F4WDK, LT-F250J and LT-F250K, and 60 volts on all other models.

ELECTRIC STARTER. Starter should draw 80 amperes at engine starting speed. Removal and disassembly of starter is evident after inspection of unit. Starter brushes should be renewed if worn to 6 mm (0.24 in.) or less. Service limit of commutator under cut is 0.2 mm (0.008 in.)

WIRING. If wiring requires repair, always use replacement wire of the same gauge. Wires should be routed away from areas of extreme heat or sharp edges. Plastic tie straps should be used to retain wires in their original positions to prevent short circuiting. Refer to Fig. S13-12 for schematic wiring diagram.

FASTENERS

All Models

After the first month or 200 km (125 miles) of operation and every three months or 1000 km (600 miles) thereafter, retighten the cylinder head, cylinder, exhaust system, engine mounts, and all chassis nuts and bolts. Refer to TIGHTENING TORQUES section of CONDENSED SERVICE DATA for torque specifications.

VALVE SYSTEM

All Models

The valves are actuated via rocker arms by a single overhead camshaft. Camshaft is timed and driven by a roller drive chain from left end of crankshaft. Valve clearance should be adjusted after the first month or 200 km (125 miles) of operation and every three months or 1000 km (600 miles) thereafter. Valve clearance should be adjusted with engine cold.

To adjust valve clearance, first remove seat, rear carrier, rear fender, spark plug and valve adjustment caps. Remove manual starter and timing inspection plug. Rotate crankshaft until "T" mark (TDC—Fig. S13-11) on flywheel aligns with stationary mark (M) on crankcase and piston is on compression stroke. To ensure piston is on compression stroke, rotate crankshaft ¼ turn past TDC while observing intake valve. If valve movement is indicated, rotate crankshaft one full revolution and align timing marks again.

Clearance between rocker arm adjusting screw and valve stem should be 0.03-0.08 mm (0.001-0.003 in.) for intake valve and 0.08-0.13 mm (0.003-0.005 in.) for exhaust valve. Check clearance with feeler gauge (F—Fig. S13-13). Adjust clearance by loosening locknut (L) and turning screw (A). Be sure to recheck clearance after locknut is tightened.

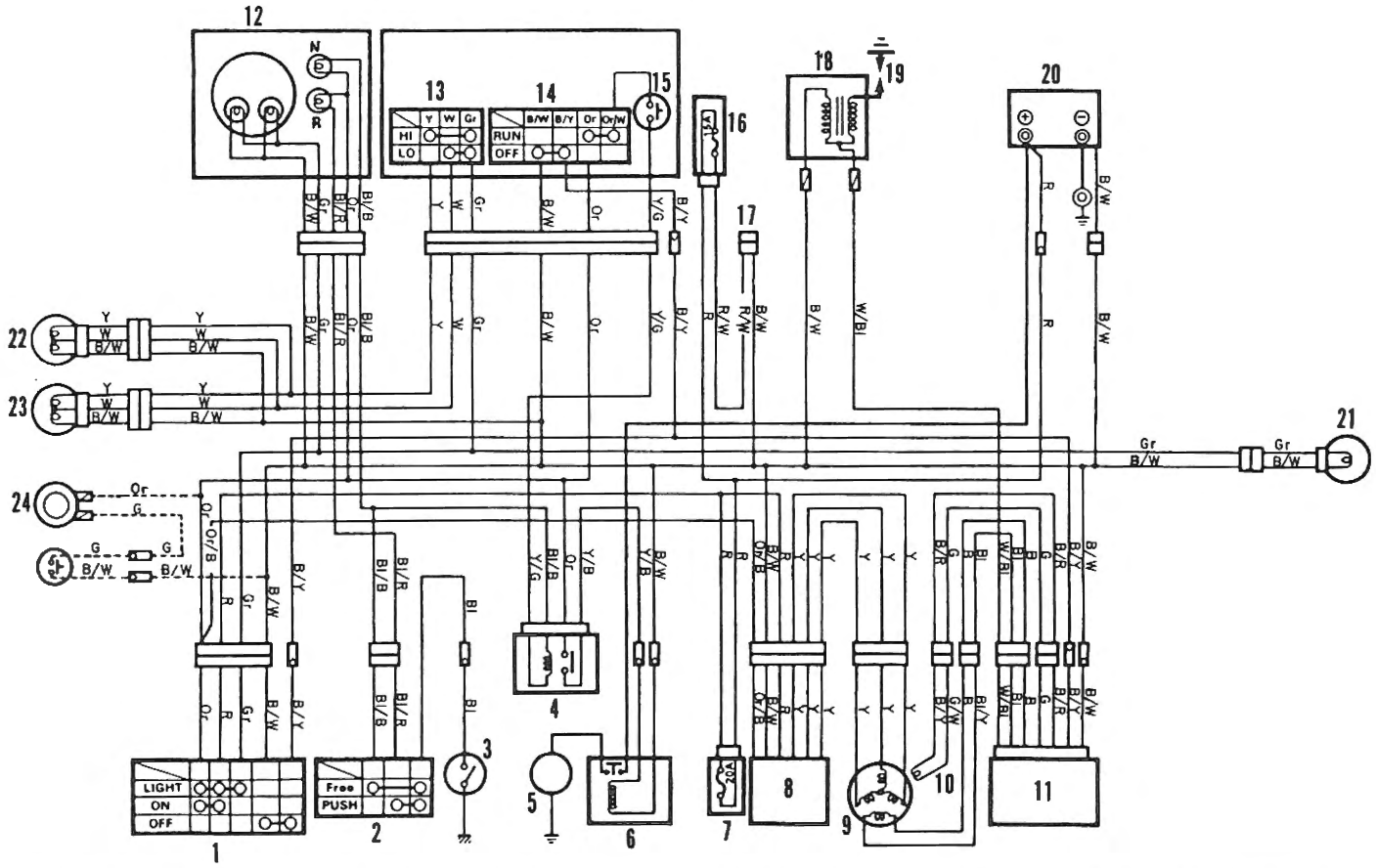

Fig. S13-12—Wiring diagram for early models. Later models are not equipped with an ignition power source coil in magneto.

1. Ignition switch
2. Reverse switch
3. Neutral switch
4. Neutral relay
5. Starter motor
6. Starter relay
7. Fuse
8. Regulator/rectifier
9. Magneto
10. Pickup coil
11. CDI module
12. Speedometer
13. Dimmer switch
14. Engine stop switch
15. Starter button
16. Accessory fuse
17. Accessory terminal
18. Ignition coil
19. Spark plug
20. Battery
21. Taillight
22. Headlight
23. Horn
24. Horn button

B. Black
G. Green
R. Red
W. White
Y. Yellow
Bl. Blue
Gr. Gray
Or. Orange
B/W. Black with white tracer
B/Y. Black with yellow tracer
G/W. Green with white tracer
R/W. Red with white tracer
Y/B. Yellow with black tracer
Y/G. Yellow with green tracer
Y/R. Yellow with red tracer
W/Bl. White with blue tracer
Bl/B. Blue with black tracer
Bl/R. Blue with red tracer
Bl/Y. Blue with yellow tracer
Or/B. Orange with black tracer
Or/W. Orange with white tracer

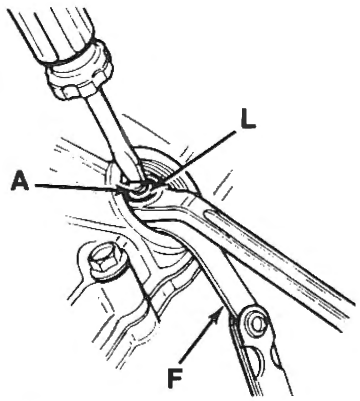

Fig. S13-13—Measure valve clearance with feeler gauge (F). Loosen locknut (L) and rotate screw (A) to adjust.

CLUTCH

All Models

Two types of automatically actuated clutches are used. One type is a three-shoe centrifugal clutch attached to right end of crankshaft and actuated by engine rpm. The other type is a multiple-disc clutch attached to right end of transmission countershaft and actuated by the gear shift lever. During gear selection, a lever attached to end of gear shift shaft simultaneously disengages the multiple-disc clutch to permit smooth transmission operation.

The clutch should be adjusted after the first month or 200 km (125 miles) of operation and every six months or 2000 km (1200 miles) thereafter. To adjust clutch, remove right rear tire and threaded plug in right crank-

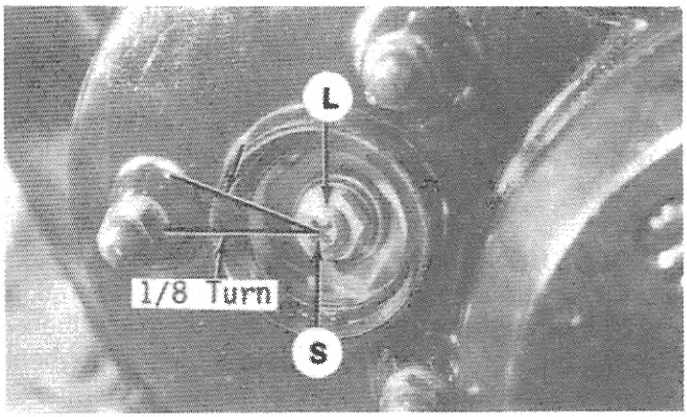

Fig. S13-15—View of clutch adjuster screw (S) and locknut (L). Refer to text for adjustment procedures.

case cover to expose adjuster screw (S—Fig. S13-15) and locknut (L). Loosen locknut (L) and turn adjuster screw (S) clockwise until internal resistance is felt. Then rotate screw (S) counterclockwise 1/8 turn and retain adjusting screw position while tightening locknut (L).

To check clutch operation, first adjust clutch as previously outlined. Ensure oil level is correct and engine is at operating temperature. Attach a suitable tachometer. Shift transfer lever to "2WD" position and sub-transmission lever to "High" position, then select low gear and slowly accelerate engine while observing meter. Initial engagement should occur at 1800-2200 rpm. Next, with transmission still in low gear, lockup brakes and momentarily open throttle. Do not maintain full throttle longer than 10 seconds. Engine speed should be held to 3100-3700 rpm. Any results other than specified may indicate disassembly and repair of clutch assemblies is required.

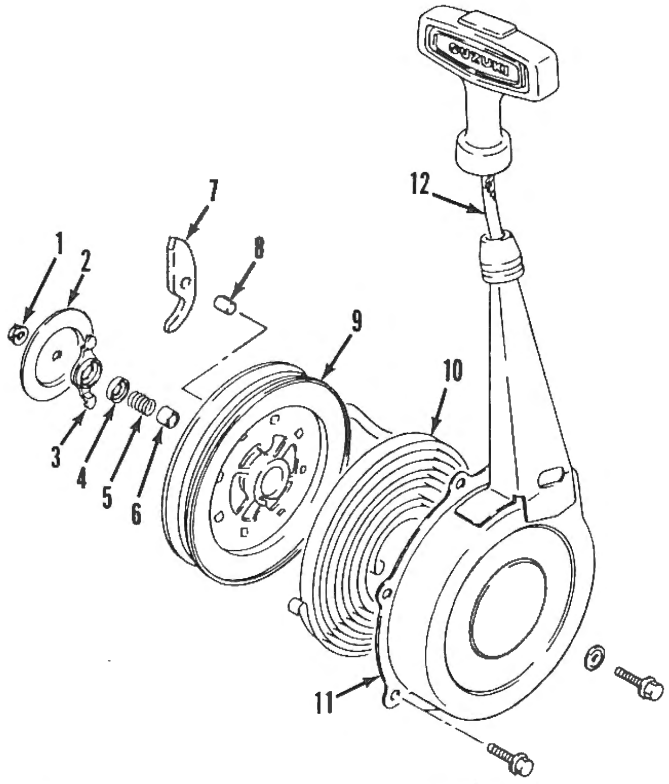

Fig. S13-17—Exploded view of manual starter.

1. Nut
2. Friction plate
3. Pawl guide
4. Spring guide
5. Spring
6. Spacer
7. Starter pawl
8. Pin
9. Rope pulley
10. Rewind spring
11. Housing
12. Rope

MANUAL STARTER

All Models

R&R AND OVERHAUL. Refer to Fig. S13-17 for exploded view of manual starter used on all models. Starter may be removed as a complete unit from vehicle after removing six starter housing retaining cap screws. Refer to exploded view and disassemble starter as follows: If starter spring remains under tension, pull starter rope and hold rope pulley (9) with notch in pulley adjacent to rope outlet. Pull rope back through outlet so it engages notch in pulley and allow pulley to slowly unwind. Remove retaining nut (1) and disassemble unit. Be careful when removing rewind spring (10); a rapidly uncoiling starter spring could cause serious injury.

Rewind spring is wound in a clockwise direction in starter housing. Rope is wound on rope pulley in a clockwise direction as viewed with pulley in housing. Reassemble starter assembly by reversing disassembly procedure. To place tension on rewind spring, pass rope through rope outlet in housing and install rope handle. Pull rope out and hold pulley so notch in pulley is adjacent to rope outlet. Pull a loop of rope back through outlet between notch in pulley and housing. Turn rope pulley clockwise three or four complete revolutions to place tension on spring. Do not place more tension on rewind spring than is necessary to draw rope handle up against housing.

FRONT BRAKE ASSEMBLY

All Models

Independently operated front and rear brakes are used. The front brake system has hydraulically actuated two-shoe internal expanding drum brakes mounted on each front knuckle. A self-adjuster strut assembly is used to automatically adjust brake shoes as brake linings wear. A handlebar mounted master cylinder with fluid reservoir supplies pressure to each wheel cylinder when actuated by right handlebar lever. Information on rear brake system is outlined in REAR BRAKE ASSEMBLY section.

Only DOT 3 or DOT 4 glycol-based brake fluid should be used in front brake system. The use of other types of brake fluids such as petroleum-based or silicone-based

fluids may damage hydraulic components resulting in brake system failure. Under normal operating conditions, brake fluid will absorb small amounts of moisture which can cause pitting to cylinder bore surface resulting in early brake cylinder failure. Drain and refill hydraulic system with new brake fluid every two years to reduce corrosion damage.

BLEEDING. Any operation that required draining or repair of hydraulic brake components will make it necessary to fill and bleed brake system. Check reservoir fluid level before proceeding. Remove cap (7—Fig. S13-18), diaphragm (8) and fill reservoir with DOT 3 or DOT 4 glycol-based fluid only. Reinstall cap to prevent entrance of dirt or foreign materials. Attach a suitable hose such as vacuum hose to either bleeder screw (10) and submerge other end in a container filled with small amount of brake fluid to prevent air from reentering system. Actuate brake lever several times, then hold brake lever toward handlebar. Open brake bleeder to relieve line pressure allowing fluid and air to flow into container. Close bleed screw before releasing brake lever. Do not permit reservoir to run dry while bleeding. Repeat procedure while periodically refilling fluid reservoir until all air or old fluid is removed.

Attach bleeder hose to remaining bleeder screw and repeat bleeding procedure to complete brake bleeding operation.

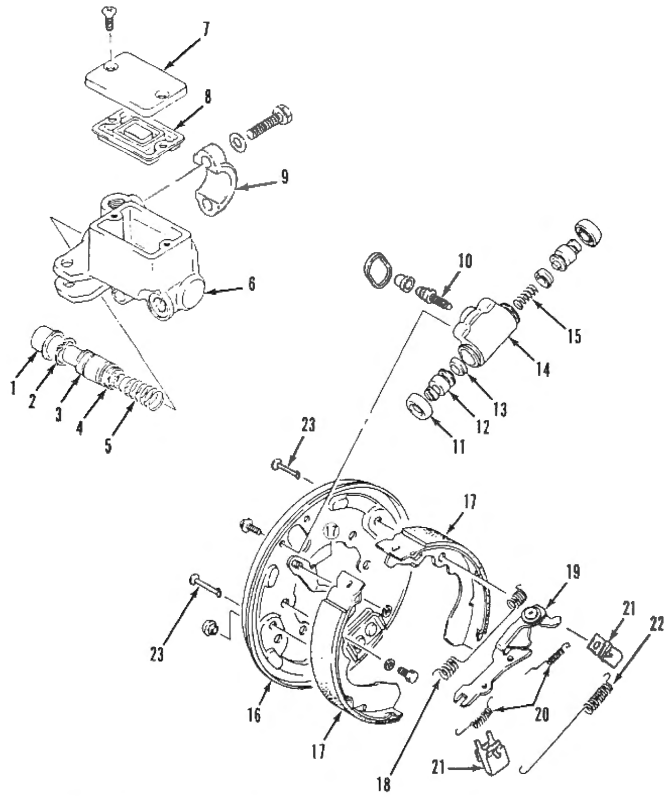

Fig. S13-18—Exploded view of front brake system.

1. Boot
2. Snap ring
3. Piston & cup
4. Primary cup
5. Spring
6. Reservoir & housing
7. Cap
8. Diaphragm
9. Clamp
10. Bleed screw
11. Boot
12. Piston
13. Cup
14. Cylinder housing
15. Spring
16. Backing plate
17. Brake shoes
18. Spring
19. Self-adjuster strut
20. Springs
21. Clips
22. Spring
23. Pins

INSPECTION. The brake system should be inspected after the first month or 200 km (125 miles) of operation and every three months or 1000 km (600 miles) thereafter. To inspect front brake drums, shoes and wheel cylinders, suitable support front of vehicle and remove front wheel. Pull brake drum (39—Fig. 13-20) off hub (37). Remove hub (37), if needed, for greater access to brake components. Brake drum should be renewed if inside diameter exceeds 165.7 mm (6.52 in.) on LT-4WD, LT-F4WD and LT-250 models or 180.7 mm (7.11 in.) on LT-F4WDX models. Front brake shoes (17—Fig. S13-18) should be renewed if linings are worn to 1.5 mm (0.06 in.) or less. Wheel cylinders (14) should be overhauled or renewed if brake fluid is observed within boots (11) indicating defective cups or cylinder.

If either the brake shoes or wheel cylinders require servicing, then the complete drum brake assembly should be serviced as outlined in R&R AND OVERHAUL section. If brake components are considered satisfactory, then reinstall the hub, brake drum and wheel. Tighten front axle nut to 85-115 N•m (61.5-83.0 ft.-lbs.) and wheel nuts to 45-65 N•m (32.5-47.0 ft.-lbs.)

R&R AND OVERHAUL. Refer to Fig. S13-18 for an exploded view of front brake system.

WARNING: Inhaling asbestos brake dust is injurious to human health. Approved OSHA respiration equipment must be worn when working on or around brake components. DO NOT use compressed air to clean brake drums, shoes or nearby components as brake dust will be blown into air. Only vacuum equipment designed to pick up brake dust should be used.

To remove drum brake components (10 through 23), first remove brake drums as outlined in INSPECTION AND ADJUSTMENT section. Rotate pins (23) 90° to release clips (21). Carefully expand brake shoes (17) to clear shoe locating slots in wheel cylinder pistons (12) and lower pivot bracket. Withdraw brake shoes (17), springs (18, 20 and 22) and self-adjuster strut (19) as an assembly. Detach brake line from wheel cylinder (14) and plug line to reduce fluid loss. Unbolt and remove wheel cylinder assembly (10 through 15) from backing plate (16).

Inspect and renew any components that are damaged or worn excessively. The flexible brake hoses should be renewed if cracks, splits or chaffing is evident or if hoses have been in service for four years.

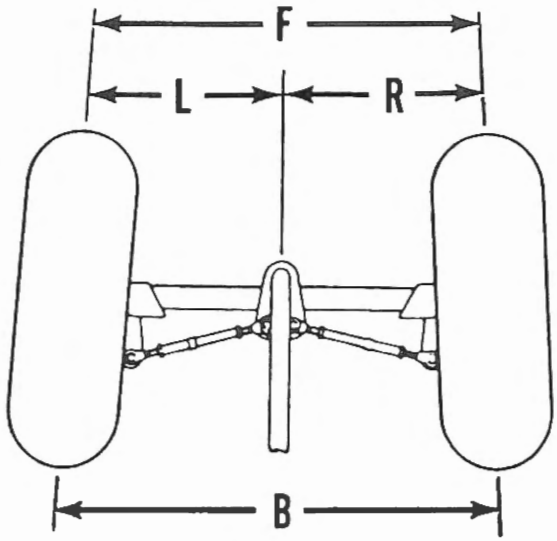

Fig. S13-19—Toe-in should be 11-19 mm (0.4-0.7 in.). Refer to text for measuring procedures.

To overhaul wheel cylinders (14), disassemble cylinder noting location and direction of components. Inspect cylinder bore for damage due to corrosion or scoring. Renew complete wheel cylinder if excessive damage is evident. Superficial damage may be removed using a suitable cylinder hone. After honing, rinse cylinder with clean brake fluid. Shake out excess fluid but do not wipe dry. Using a shop towel or rag to dry cylinder will leave lint particles in bore. Renew boots (11) and piston cups (13). During reassembly, lubricate components with clean brake fluid. Apply a suitable sealer to wheel cylinder contact area on backing plate and install wheel cylinder. Tighten wheel cylinder retaining cap screws to 10-13 N•m (7.0-9.5 ft.-lbs.) and attach brake line.

Apply a light coat of grease to brake shoe locating slots in pistons (12) and lower pivot bracket. Apply a light coat of silicone grease to three brake shoe-to-backing plate contact points on each shoe. With reference to Fig. S13-18, install the brake shoes, self-adjuster strut and springs. Secure brake shoes with pins (23) and clips (21). Install the hub, brake drum and wheel. Tighten front axle nut to 85-115 N•m (61.5-83.0 ft.-lbs.) and wheel nut to 45-65 N•m (32.5-47.0 ft.-lbs.).

MASTER CYLINDER. To remove front brake master cylinder (6—Fig. S13-18), remove union cap screw at master cylinder. Brake fluid will remove paint; be careful when removing master cylinder. Remove the two retaining cap screws and withdraw master cylinder. Remove brake lever, reservoir cap (7) and diaphragm (8). Remove dust boot (1) and snap ring (2). Disassemble plunger assembly while noting location and direction of components. Inspect cylinder bore for damage due to corrosion or scoring. Renew complete master cylinder if excessive damage is evident. Superficial damage may be removed using a suitable cylinder hone. After honing, rinse cylinder with clean brake fluid. Shake out excess fluid but do not wipe dry. Using a shop towel or rag to dry cylinder will leave lint particles in bore. Renew boot (1) and primary and secondary cups (3 and 4). During reassembly, lubricate components with clean brake fluid. Reassembly is the reverse of disassembly. Bleed brakes as outlined in BLEEDING section.

STEERING

All Models

ADJUSTMENT. The toe-in should be checked and adjusted after the first month or 200 km (125 miles) of operation and every three months of 1000 km (600 miles) thereafter. Prior to toe-in adjustment, inspect steering assembly for damaged or excessively worn components. If service to steering assembly is required refer to R&R AND OVERHAUL section.

To check toe-in, inflate tires to recommended pressure listed in CONDENSED SERVICE DATA. Position vehicle on a flat smooth surface and set handlebars straight forward. Position a load of 75 kg (165 lbs.) on vehicle's seat. Using a suitable tape measure, measure distance between right and left tire centerlines on back side of tires (B—Fig. S13-19) and record measurement. Locate the same tire centerline points on front side of tires (F) and record measurement. The front measurement should be 11-19 mm (0.4-0.7 in.) less than rear measurement. Note that the distance from a projected vehicle centerline to left (L) and right (R) tire centerlines should be equal.

To adjust, loosen tie rod locknuts (21—Fig. S13-20) on both left and right tie rods. The tie rod ends and locknuts color coded yellow have left-hand threads. Rotate tie rod sleeves (22) in equal increments to maintain equal vehicle centerline to left and right tire centerline distances. Tighten tie rod locknuts (21) to 22-35 N•m (16.0-25.5 ft.-lbs.).

R&R AND OVERHAUL. Refer to Fig. S13-20 for an exploded view of steering assembly. To remove either knuckle (36), first remove wheel and components (37 through 44). Remove brake line from wheel cylinder and remove four cap screws securing backing plate to knuckle (36). Withdraw backing plate with brake components. Remove cotter pins and cap screws (25) retaining steering arm (24). Remove shock absorber (26) upper mounting bolt and remove upper control arm (29) and lower control arm (45) mounting bolts. Withdraw components as an assembly. Remainder of steering component disassembly is evident after inspection of unit and referral to Fig. S13-20.

During reassembly, renew all cotter pins. Lubricate all friction points with Suzuki Super Grease "A" or a good quality grease. Install knuckle (36) outer bearing first if inner and outer bearings were removed. Tighten steering shaft holder cap screws (9) to 18-28 N•m (13k-20 ft.-lbs.); steering shaft lower nut (17) to 38-60 N•m (27.5-43.5 ft.-lbs.); ball joint cap screws (27) to 120-170

N•m (87-123 ft.-lbs.); ball joint to knuckle retaining cap screw (34) to 44-66 N•m (32.0-47.5 ft.-lbs.); steering arm cap screws (25) to 40-60 N•m (29.0-43.5 ft.-lbs.); tie rod cap screw (23) to 40-60 N•m (29.0-43.5 ft.-lbs.); tie rod end nut (19) to 22-35 N•m (16.0-25.5 ft.-lbs.); brake backing plate cap screws to 18-28 N•m (13-20 ft.-lbs.) and front axle nut (42) to 85-115 N•m (61.5-83.0 ft.-lbs.). Coat threads on spindle arm cap screws (34) and ball joint cap screws (27) with Thread Lock Super "1303" or equivalent prior to installation. Brake system

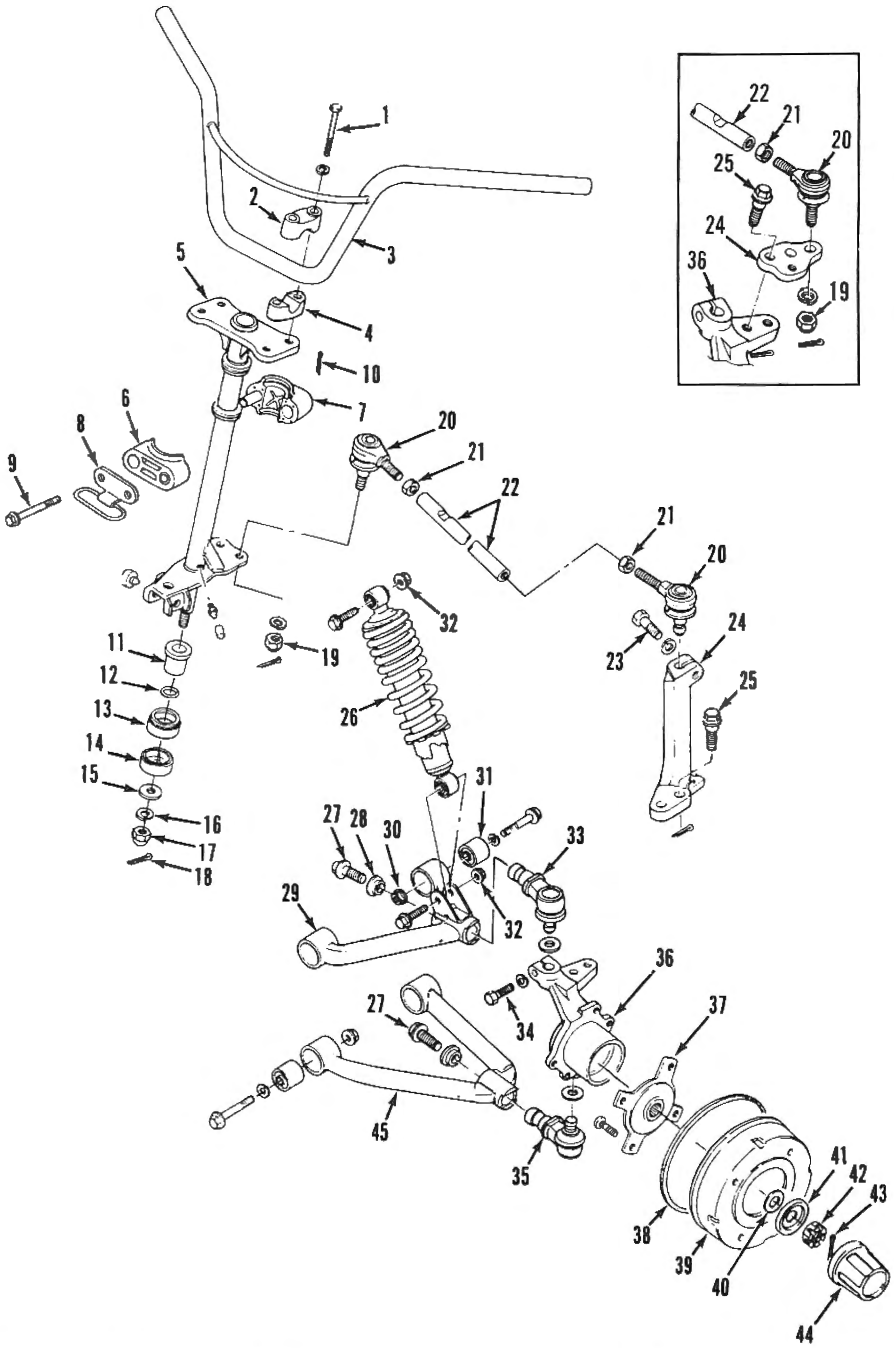

Fig. S13-20—Exploded view of steering and front suspension assembly. Components in box are used on LT-F250 models.

1. Cap screw
2. Handlebar clamp half
3. Handlebar
4. Handlebar clamp half
5. Steering shaft
6. Outer shaft holder
7. Inner shaft holder
8. Plate
9. Cap screw
10. Cotter pin
11. Bushing
12. Clip
13. Dust seal
14. Dust seal
15. Flat washer
16. Lockwasher
17. Nut
18. Cotter pin
19. Nut
20. Tie rod end
21. Locknut
22. Sleeve
23. Cap screw
24. Steering arm
25. Cap screw
26. Shock absorber
27. Cap screw
28. Stopper
29. Upper control arm
30. Nut
31. Bushing
32. Nut
33. Ball joint
34. Cap screw
35. Ball joint
36. Knuckle
37. Hub
38. Dust seal
39. Drum
40. Washer
41. Cap holder
42. Castle nut
43. Cotter pin
44. Cap
45. Lower control arm

must be bled as outlined under BLEEDING in FRONT BRAKE ASSEMBLY section.

FRONT SUSPENSION

All Models

A double wishbone-type front suspension and oil dampened shock absorbers are used. Shock absorbers have five load settings. Refer to Fig. S13-20 for exploded view of suspension components. The suspension components should be periodically inspected for excessive wear and damage. Removal and disassembly is evident after inspection of unit and referral to exploded view.

During reassembly, upper and lower control arm nuts (30) should be tightened to 50-70 N•m (36.0-50.5 ft.-lbs.) while ball joint cap screws (27) should be tightened to 120-170 N•m (87-123 ft.-lbs.). Tighten shock absorber retaining nuts to 48-60 N•m (35-43.5 ft.-lbs.).

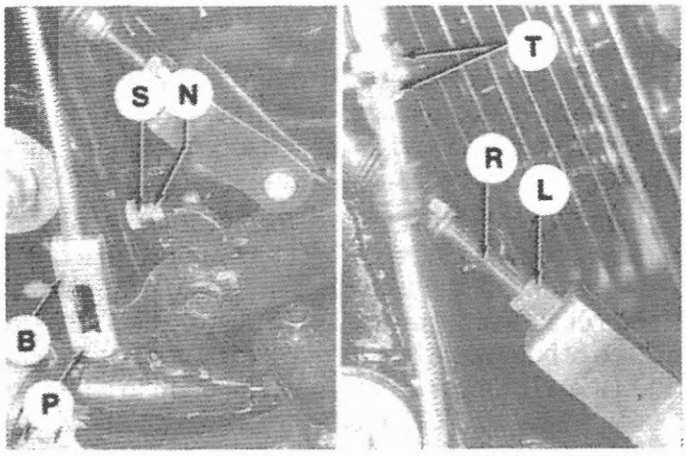

Fig. S13-24—Refer to text for adjustment procedures on rear brake pedal and related components.

B. Bracket
L. Locknut
N. Locknut
P. Pin
R. Rod
S. Screw
T. Nuts

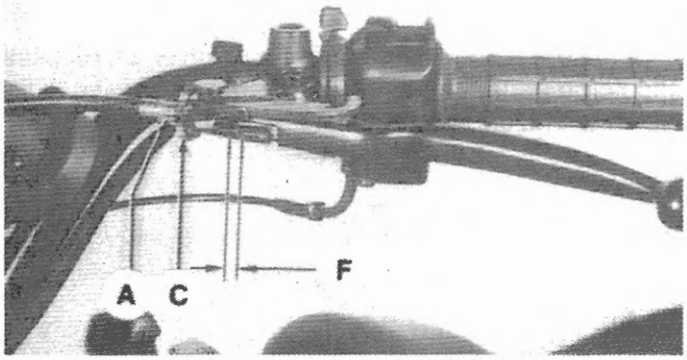

Fig. S13-25—Rear brake lever should have 3-7 mm (0.1-0.3 in.) free travel (F), and is adjusted by loosening locknut (C) and rotating adjuster (A). Refer to text.

REAR BRAKE ASSEMBLY

All Models

The rear brake system has a mechanically actuated two-shoe internal expanding drum brake mounted on each rear axle knuckle. The left handlebar lever and right foot pedal individually operate the rear brakes via brake cables. Refer to FRONT BRAKE ASSEMBLY section for information on front brake system.

INSPECTION AND ADJUSTMENT. The brake system should be inspected and adjusted after the first month or 200 km (125 miles) of operation and every three months or 1000 km (600 miles) thereafter. To adjust rear brake, first adjust brake pedal then adjust brake lever. Actuate brake pedal and measure free travel at end of pedal. Free travel should be 20-30 mm (0.8-1.2 in.).

To adjust brake pedal and brake lever, first loosen locknut (N—Fig. S13-24) and rotate screw (S) until top of brake pedal pad is level with footpeg, then tighten locknut (N). Loosen locknut (L) and rotate rod (R) until correct brake pedal free travel is obtained, then tighten locknut. After adjusting brake pedal, loosen nuts (T) and adjust cable length until lower end of slot in cable bracket (b) just contacts brake pedal pin (P). Then slide protective cover down brake lever cable and measure brake lever free travel. Lever should have 3-7 mm (0.1-0.3 in.) of free travel between lever base and bracket as measured at (F—Fig. S13-25). To adjust, loosen locknut (C), turn adjuster (A) on brake lever until correct free travel is obtained, then tighten locknut (C).

All models are equipped with a rear brake lining wear indicator mark (I—Fig. S13-26) scribed on rear brake shoe cam to externally determine brake lining wear limit. To externally check rear brake lining wear, apply rear brake and note location of indicator mark (I) in relation to range (R) on brake backing plate. If indicator mark (I)

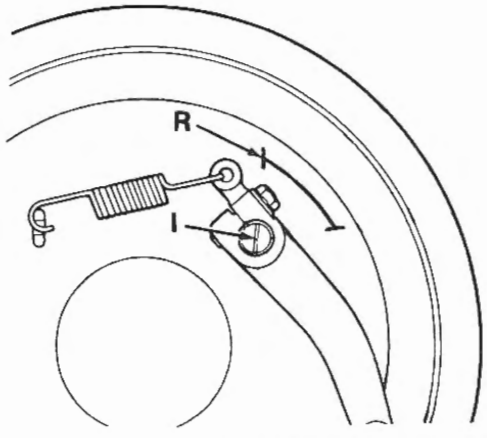

Fig. S13-26—Indicator mark (I) on rear brake shoe cam should be within range (R) when brakes are applied for brake linings to be considered satisfactory.

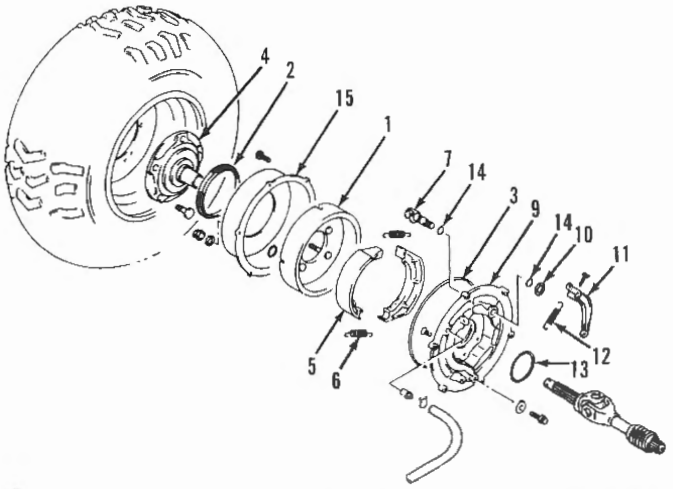

Fig. S13-27—Exploded view of rear brake and hub assembly used on LT-F4WDX models.

1. Brake drum
2. Dust seal
3. "O" ring
4. Axle hub
5. Brake shoes
6. Springs
7. Camshaft
9. Backing plate
10. Washer
11. Lever
12. Spring
13. "O" ring
14. "O" rings
15. Brake drum cover

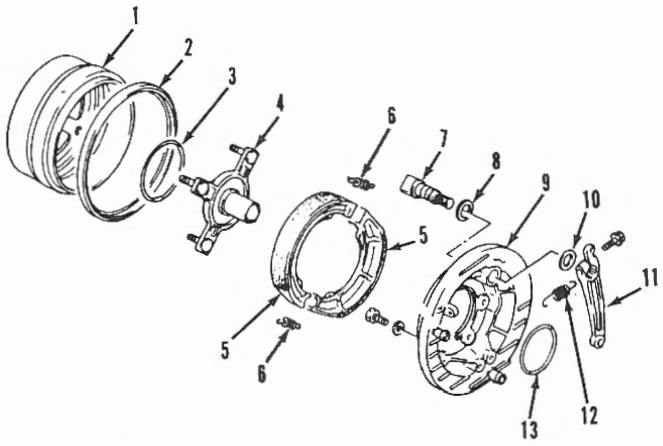

Fig. S13-28—Exploded view of rear brake components used on all models except LT-F4WDX.

1. Drum
2. Dust seal
3. "O" ring
4. Hub
5. Brake shoes
6. Springs
7. Camshaft
8. "O" ring
9. Backing plate
10. Dust seal
11. Lever
12. Spring
13. "O" ring

stays within range (R), then brake linings can be considered satisfactory.

R&R AND OVERHAUL. To remove rear brake shoes for inspection or renewal, first support rear of vehicle and remove rear wheels. Unscrew axle nut.

WARNING: Inhaling asbestos brake dust is injurious to human health. Approved OSHA respiration equipment must be worn when working on or around brake components. DO NOT use compressed air to clean brake drums, shoes or nearby components as brake dust will be blown into air. Only vacuum equipment designed to pick up brake dust should be used.

On LT-F4WDX models, unscrew brake drum nuts securing brake drum to axle hub, then use a suitable puller and remove axle hub. Remove brake drum cover (15—Fig. S13-27). Disassemble remainder of brake components as required.

On all other models, remove brake drum (1—Fig. S13-28) and, using a suitable puller, remove axle hub. Disassemble other brake components as required.

Brake shoes should be renewed if linings are worn to 1.5 mm (0.06 in.) or less. Brake drum should be renewed if inside diameter exceeds 165.7 mm (6.52 in.) on LT-4WD, LT-F4WD and LT-F250 models or 180.7 mm (7.11 in.) on LT-F4WDX models.

Reinstall brake shoes by reversing removal procedure while noting the following: Lightly coat brake camshaft and anchor pin with grease. Lightly coat splined portion of axle with grease. Apply Suzuki Bond 1216 to surface of hub where brake drum and hub flanges meet. On LT-F4WDX models, tighten brake drum to axle hub retaining nuts to 48-72 N•m (34.5-72 ft.-lbs.). Apply rear brake, then tighten rear axle nuts to 85-115 N•m (61.5-83.0 ft.-lbs.). Tighten wheel retaining nuts to 45-65 N•m (32.5-47.0 ft.-lbs.).

FRONT AND REAR FINAL DRIVE ASSEMBLIES

All Models

Service on front and rear final drive assemblies should be performed by a factory-trained service technician as Suzuki special tools are required.