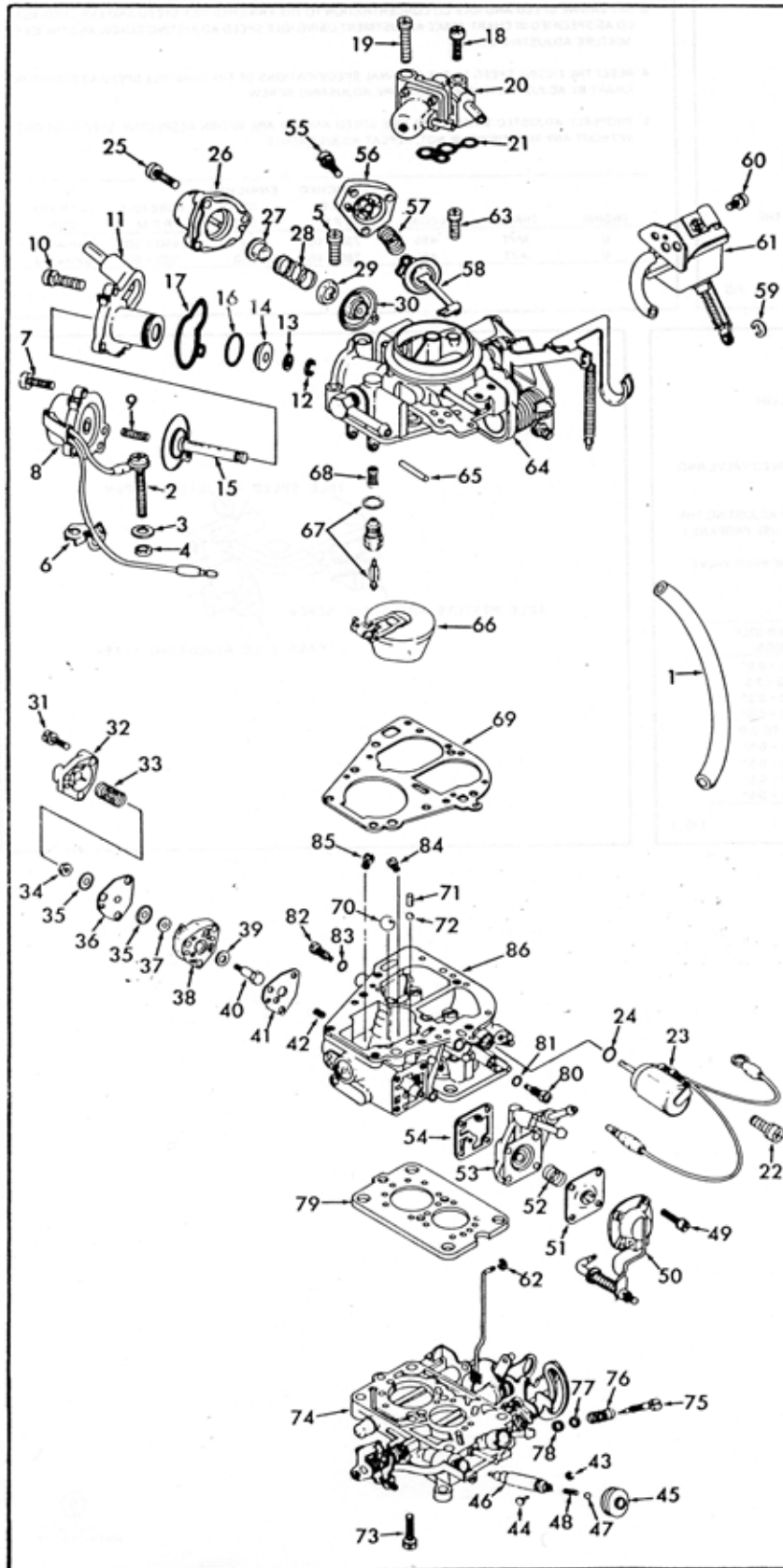


# INSTRUCTION SHEET

## OFF VEHICLE CARBURETOR SERVICE

### (MIKUNI) SOLEX-MODELS 28-32 DIDTA, 30-32DIDTA

**GENERAL EXPLODED VIEW**  
THE GENERAL DESIGN AND PARTS SHOWN WILL VARY TO  
INDIVIDUAL UNITS COVERED ON THIS INSTRUCTION SHEET.



#### DISASSEMBLY

USE EXPLODED VIEW AS A GUIDE. THE NUMERICAL SEQUENCE MAY GENERALLY BE FOLLOWED TO DISASSEMBLE UNIT FAR ENOUGH TO PERMIT CLEANING AND INSPECTION. SNAP LINKS OUT OF PLASTIC RETAINERS. UNHOOK THROTTLE RETURN SPRING AT LOWER END AND SECONDARY LEVER RETURN SPRING AT UPPER END. WHEN REMOVING CHOKE PULL OFF DIAPHRAGM AND DIAPHRAGM SHAFT WILL NOT CLEAR GUIDE PIN. TAP PIN IN A LITTLE UNTIL SHAFT CAN BE TURNED SLIGHTLY AND REMOVED. NOTE SIZES AND LOCATION OF PRIMARY & SECONDARY JETS FOR PROPER REASSEMBLY (RECORD SIZES BELOW.)

BY PASS SCREW AND ADJUSTING SCREW LOCATED ON PRIMARY SIDE OF FLOAT BOWL ARE SEALED BY WHITE PAINT AT THE FACTORY. IT IS RECOMMENDED THAT THEY NOT BE REMOVED OR TAMPED WITH. NO SERVICE INSTRUCTIONS ARE AVAILABLE FOR SERVICE. TAMPING WITH ANY FACTORY SEALED ADJUSTMENT WILL BE AT THE RISK OF THE INDIVIDUAL SERVICING THE CARBURETOR.

BEFORE REMOVING IDLE ADJUSTING NEEDLE (75), TURN IN COUNTING THE NUMBER OF TURNS IT TAKES TO LIGHTLY SEAT NEEDLE AND RECORD FOR REASSEMBLY.

#### NOMENCLATURE

REF. NO.	REF. NO.
1. HOSE - WATER	43. E-CLIP - PIN
2. SCREW & LKWSHR. - GRD LEAD	44. PIN - SUB. EGR VALVE
3. WASHER - FLAT	45. BOOT - SUB. EGR VALVE
4. SEAL - GRD LEAD SCREW	46. VALVE ASSY. - SUB. EGR
5. SCREW & LKWSHR. - WIRE CLAMP	47. BALL - SUB. EGR VALVE
6. CLAMP - WIRE	48. SPRING - BALL
7. SCREW & LKWSHR. (3) - SOLENOID BOWL VENT	49. SCREW & LKWSHR. (4) - PUMP COVER
8. SOLENOID ASSY. - BOWL VENT	50. COVER & LINK ASSY. - PUMP DIAPH
9. SPRING - SOLENOID BOWL VENT	51. DIAPHRAGM ASSY.
10. SCREW & LKWSHR. - BOWL VENT HSG.	52. SPRING - DIAPHRAGM
11. HOUSING ASSY. - BOWL VENT	53. HOUSING - DIAPHRAGM
12. E-CLIP - VENT VALVE	54. GASKET - HOUSING
13. WASHER - VENT VALVE	55. SCREW & LKWSHR. (3) - COVER
14. VENT VALVE	56. COVER - CHOKE BREAKER
15. DIAPHRAGM - VENT VALVE	57. SPRING - DIAPHRAGM
16. O-RING - VENT VALVE HSG.	58. DIAPHRAGM ASSY. - CHOKE BREAKER
17. SEAL - VENT VALVE HSG.	59. E-CLIP - SEC. VAC UNIT LINK
18. SCREW & LKWSHR. - GRD LEAD	60. SCREW & LKWSHR. (2) - SEC VAC UNIT
19. SCREW & LKWSHR. - AIR SWITCHING VALVE	61. SECONDARY VACUUM UNIT ASSY.
20. AIR SWITCHING VALVE ASSY.	62. E-CLIP - CHOKE ROD
21. SEAL - AIR SWITCHING VALVE ASSY.	63. SCREW & LKWSHR. (4) - BOWL COVER
22. SCREW & LKWSHR. - SOLENOID ASSY.	64. BOWL COVER ASSY.
23. SOLENOID ASSY. - FUEL CUT OFF	65. PIN - FLOAT
24. O-RING - SOLENOID	66. FLOAT ASSY.
25. SCREW & LKWSHR. (3) - MIXTURE CONTROL VALVE	67. NEEDLE & SEAT ASSY.
26. COVER - MCV	68. SCREEN - FUEL INLET
27. SPRING GUIDE - MCV	69. GASKET - BOWL COVER
28. SPRING - MCV	70. BALL - ROLL OVER
29. GUIDE - MCV	71. WEIGHT - PUMP DISC BALL
30. DIAPHRAGM - MCV	72. BALL - PUMP DISC
31. SCREW & LKWSHR. (3) - VALVE COVER	73. SCREW & LKWSHR. (2) - THROTTLE BODY
32. COVER - ENRICHMENT VALVE	74. THROTTLE BODY ASSY.
33. SPRING - DIAPHRAGM RETURN	75. NEEDLE - IDLE MIXTURE
34. NUT - VALVE STEM	76. SPRING - MIXTURE NEEDLE
35. WASHER (2) - DIAPHRAGM	77. WASHER - NEEDLE SEAL
36. DIAPHRAGM - ENRICHMENT VALVE	78. SEAL - IDLE NEEDLE
37. WASHER - STEM (FIBER)	79. GASKET - THROTTLE BODY
38. HOUSING - ENRICHMENT VALVE	80. JET - PRIMARY PILOT
39. VALVE (RUBBER)	81. O-RING - PRI PILOT JET
40. STEM - ENRICHMENT VALVE	82. JET - SECONDARY PILOT
41. GASKET - VALVE MOUNTING	83. O-RING - SEC PILOT JET
42. JET - ENRICHMENT	84. JET - PRIMARY MAIN
	85. JET - SECONDARY MAIN
	86. BOWL ASSY. - FLOAT

#### CLEANING

CLEANING MUST BE DONE WITH CARBURETOR DISASSEMBLED. SOAK PARTS LONG ENOUGH TO SOFTEN AND REMOVE ALL FOREIGN MATERIAL. USE A CARBURETOR CLEANER. MAKE CERTAIN THE THROTTLE BODY IS FREE OF ALL CARBON DEPOSITS. WASH OFF IN SUITABLE SOLVENT. BLOW OUT ALL PASSAGES IN CASTINGS WITH COMPRESSED AIR AND CHECK CAREFULLY TO INSURE THOROUGH CLEANING OF OBSCURE AREAS. CAUTION: DO NOT SOAK BOWL COVER (64), FLOAT BOWL (86) OR THROTTLE BODY (74) FOR A PROLONG PERIOD OF TIME BECAUSE OF PLASTIC AND RUBBER COMPONENTS THAT ARE NOT REMOVABLE. DO NOT SOAK OR WASH DIAPHRAGM ASSEMBLIES, FLOAT, SOLENOIDS OR RUBBER PARTS SUCH AS (1), (8), (15), (20), (21), (23), (30), (45), (58), (61), (66) IN CLEANING SOLVENTS. THESE PARTS WILL BE USED OVER.

#### REASSEMBLY

REASSEMBLE IN REVERSE ORDER OF DISASSEMBLY. NOTE SPECIAL INSTRUCTIONS AND ADJUSTMENTS.

#### SPECIAL INSTRUCTIONS

IDLE ADJUSTING NEEDLE (75) - TURN IN UNTIL LIGHTLY SEATED. THEN BACK OUT NUMBER OF TURNS RECORDED ON DISASSEMBLY (BASIC SET 2 1/2 TURNS OUT)

LINK INSTALLATION - INSTALL LINK END INTO LARGE OPENING OF PLASTIC BUSHING. SNAP INTO PLACE.

ROLL OVER BALL (70) - INSTALL STEEL BALL IN CHAMBER OF FLOAT BOWL AND UNDER BRASS BLADE WHICH MUST BE FACING DOWNWARD.

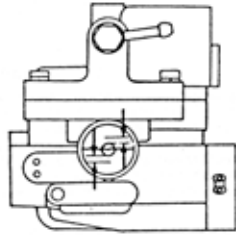
#### SMALL SPRING GUIDE

ITEM NO 28 - 1/2" x 1 1/16"  
33 - 5/16" x 1 1/16"  
52 - 7/16" x 9/16"  
57 - 5/16" x 3/4"



# ADJUSTMENTS

ENGINE AT NORMAL OPERATING TEMPERATURE OPERATING AT IDLE SPEED, IN NEUTRAL AND WITH ALL ACCESSORIES OFF. NORMAL FUEL LEVEL IS WITHIN LEVEL MARK ON THE SIGHT GLASS. FUEL LEVEL CAN BE 160" (4MM) ABOVE OR BELOW THE NORMAL LEVEL, IF IT STAYS WITHIN THIS RANGE IT NEED NOT BE ADJUSTED.



NOTE: TO CHANGE FLOAT LEVEL REQUIRES CHANGING THE THICKNESS OF THE NEEDLE SEAT GASKET. (DO NOT BEND FLOAT HANGER)

FLOAT LEVEL CHECK

FIG. 1

## IDLE SPEED AND MIXTURE SETTING PROCEDURE (CHECK EMISSION LABEL IN ENGINE COMPARTMENT)

- 1 TRANSMISSION IN NEUTRAL, PARKING BRAKE ON, A/C, LIGHTS, ALL ACCESSORIES OFF
- 2 RUN ENGINE TO OPERATING TEMPERATURE 80 TO 90°C (170 TO 190°F)
- 3 SET ENGINE SPEED AND IDLE CO CONCENTRATION TO THE ENRICHED IDLE SPEED AND ENRICHED IDLE CO AS SPECIFIED IN CHART. MAKE ADJUSTMENT USING IDLE SPEED ADJUSTING SCREW AND THE IDLE MIXTURE ADJUSTING SCREW.
- 4 RESET THE ENGINE SPEED TO THE NOMINAL SPECIFICATIONS OF THE CURB IDLE SPEED AS SHOWN IN CHART BY ADJUSTING THE IDLE MIXTURE ADJUSTING SCREW.
- 5 PROPERLY ADJUSTED WHEN CURB IDLE SPEED AND CO ARE WITHIN RESPECTIVE SPECIFICATIONS WITHOUT ANY MISFIRING. IF NOT, REPEAT ADJUSTMENTS.

ENGINE	TRANS	LOCAL	ENRICHED IDLE R.P.M.	ENRICHED IDLE CO%	CURB IDLE R.P.M.	CURB IDLE CO%
U	M/T	49S	730 ± 10	1.0 ± 0.1	650 ± 50	Below 0.1
U	A/T	49S	780 ± 10	1.0	700 ± 50	Below 0.1

FIG. 2

## IDLE SPEED AND MIXTURE SETTING PROCEDURE (CHECK EMISSION LABEL IN ENGINE COMPARTMENT)

- 1 TRANSMISSION IN NEUTRAL, PARKING BRAKE ON, A/C, LIGHTS, ALL ACCESSORIES OFF.
- 2 RUN ENGINE TO OPERATING TEMPERATURE 80 TO 90°C (170° TO 190°F)
- 3 AIR HOSE RUNNING BETWEEN THE REED VALVE AND AIR CLEANER, REMOVE FROM REED VALVE AND PLUG THE AIR INLET OF THE REED VALVE. (THIS STEP NOT FOR CANADA.)
- 4 SET THE ENGINE SPEED AND THE IDLE CO TO THE RESPECTIVE VALUES SPECIFIED BY ADJUSTING THE SPEED ADJUSTING SCREW AND THE MIXTURE ADJUSTING SCREW. (NOTE: DO NOT USE PROPANE.)
- 5 UNPLUG THE AIR INLET OF THE REED VALVE AND RECONNECT THE AIR HOSE TO THE REED VALVE.
- 6 RECHECK ENGINE IDLE SPEED, ADJUST IF NOT IN SPECIFIED RANGE.

ENGINE	TRANS.	LOCAL	CURB IDLE R.P.M.	CURB IDLE CO%
F	ALL/T	50S	750 ± 50	1.0 ± 0.5*
J	ALL/T	CAN	850 ± 50	1.0 ± 2.5
K	M/T	50S	650 ± 50	1.0 ± 0.5*
K	A/T	50S	700 ± 50	1.0 ± 0.5*
K	ALL/T	CAN	850 ± 50	0.5 TO 2.0
U	M/T	CALIF	650 ± 50	1.0 ± 0.5*
U	A/T	CALIF	700 ± 50	1.0 ± 0.5*
W	ALL/T	49S	750 ± 50	1.0 ± 0.5*
W	ALL/T	CALIF	750 ± 50	1.0 ± 0.5*

\*WITH AIR INJECTION SYSTEM DISCONNECTED.

FIG. 3

