

Sears

**OWNER'S
MANUAL**

MODEL NO.

817.80800
817.80810
817.80820
817.80830
817.80840
817.80850
817.80860

CAUTION:
READ RULES FOR
SAFE OPERATION
AND INSTRUCTIONS
CAREFULLY.



Sears

free spirit[®] MOPED

NOTE:
SEARS MOPED REPAIR AND PARTS MANUAL (PART NO. 817.80848) IS AVAILABLE
FOR PURCHASE THROUGH YOUR LOCAL SEARS OUTLET.

LIMITED WARRANTY ON FREE SPIRIT MOPED

(NOT INCLUDING TIRES, TUBES, BULBS OR LENSES)

For a period of 90 days or 2,000 miles, whichever comes first, from the date of purchase, Sears will repair or replace, free of charge, any defective parts in this Free Spirit Moped except tires, tubes, bulbs or lenses.

WARRANTY SERVICE IS AVAILABLE BY SIMPLY RETURNING THE MOPED TO THE NEAREST SEARS STORE OR SERVICE CENTER IN THE UNITED STATES.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

SEARS, ROEBUCK AND CO., Sears Tower, BSC 41-3, Chicago, IL 60684

LUBRICATION AND MAINTENANCE CHART

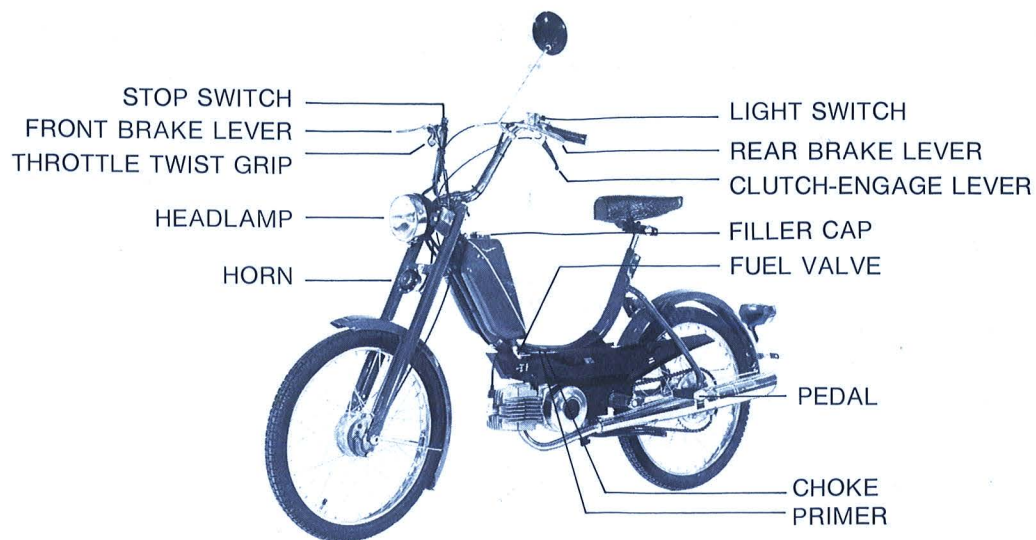
After miles	Every miles	
300	600 900 1800 3600 7200	OPERATIONS TO PERFORM
•	•	Tire wear and condition
•	•	Throttle cable adjustment
•	•	Check tire pressure
•	•	Check gearbox oil level
•	•	Clean and lubricate chain
•	•	Clean air filter
•	•	Change gearbox oil
•	•	Check spark plug
•	•	Decarbonize engine
•	•	Clean exhaust battle
•	•	Retighten screws and nuts
•	•	Clean fuel valve and lines
•	•	Clean carburetor
•	•	Idle speed adjustment
•	•	Check ignition timing
•	•	Adjust clutch
•	•	Check brakes / linings
•	•	Check / lubricate hub bearings
•	•	Steering bearing adjust / lubrication
•	•	Lubricate control cables
•	•	Lubricate front fork

NOTE:

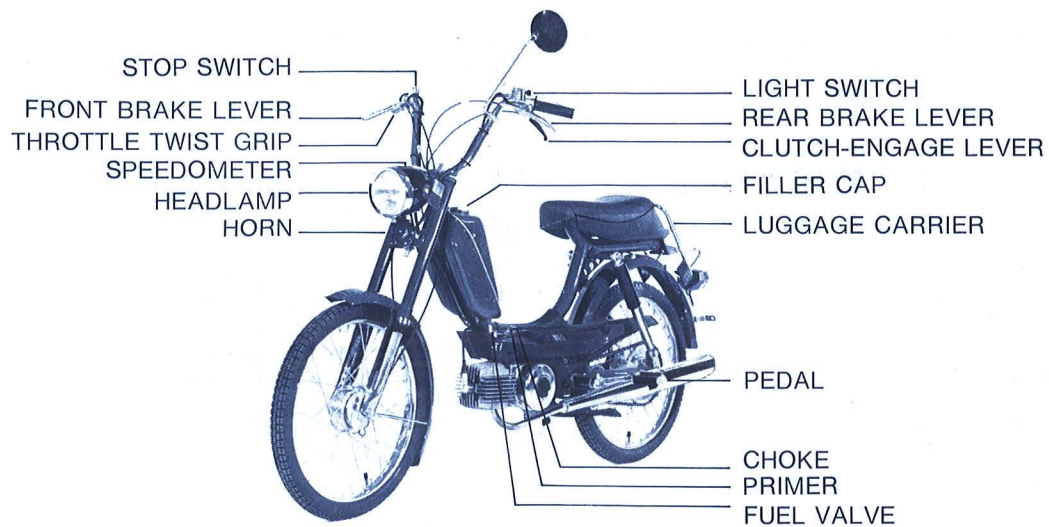
TIME SCHEDULE APPLIES TO MOPED USE ON DRY PAVED SURFACES. IF MOPED IS USED IN WET, MUDDY OR SANDY AREAS, MAINTENANCE SHOULD BE MORE FREQUENT. ALWAYS CHECK CONTROLS AND LIGHTING BEFORE ANY TRIP. FOR PROPER PROCEDURE OF LUBRICATION AND MAINTENANCE FUNCTIONS, CONSULT SEARS MOPED REPAIR AND PARTS MANUAL, PART NUMBER 817.80848.

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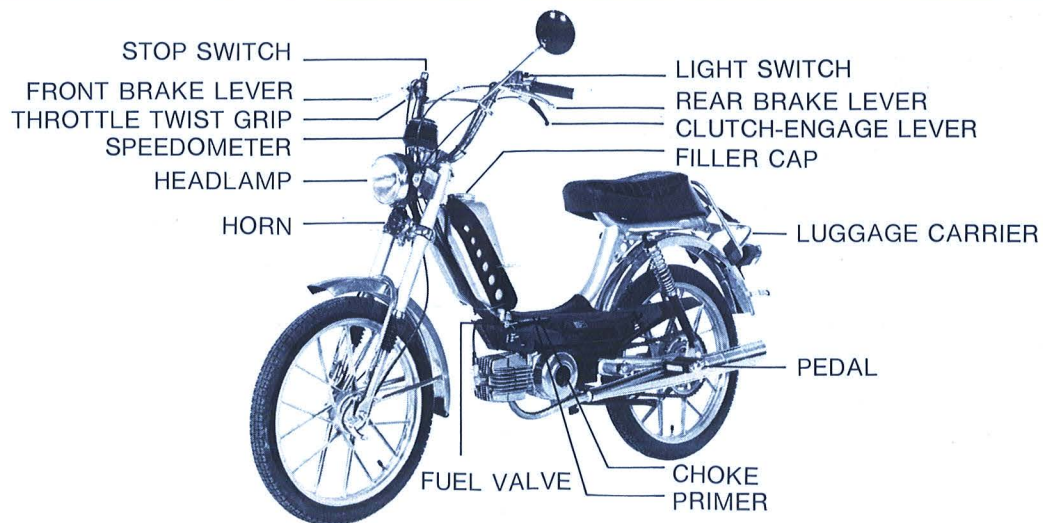
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MODEL No. 817.80800



MODEL Nos. 817.80810, 817.80820, 817.80830



MODEL Nos. 817.80840, 817.80850, 817.80860

IMPORTANT OWNER'S RESPONSIBILITY

BE SURE TO READ AND DO THE FOLLOWING BEFORE RIDING YOUR MOPED

IMPORTANT NOTICE

YOUR MOPED HAS BEEN COMPLETELY ASSEMBLED BY YOUR SEARS STORES

Read operating instructions and riding tips carefully and know how to properly operate all standard and optional accessory equipment furnished with your MOPED.

Be sure to test that your MOPED operates safely and that you can bring your MOPED to a smooth, safe stop.

BEFORE STARTING YOUR MOPED

Make sure that 50 to 1 formulated two stroke oil in the proper ratio has been added to your gasoline mixture (see page 7).

Make sure the transmission has been filled with Type F transmission fluid, as per assembly instructions.

Check tires for proper inflation pressure, front 26 lbs, rear 32 lbs.

Read lubrication and maintenance chart (page 2) to make requirements and proper intervals known.

SAFE RIDING TIPS

- 1) Observe all traffic regulations — red and green lights, one way streets, stop signs.
- 2) Keep to the right and ride in a straight line. Always ride in single file.
- 3) Always use your MOPED lighting when riding.
- 4) Give pedestrians right of way.
- 5) Look for cars pulling out into traffic, keep sharp look-out for sudden opening of auto doors.
- 6) Never hitch on other vehicles STUNT ride or race in traffic.
- 7) Never carry other riders — carry no packages that obstruct vision or prevent proper control of MOPED.

- 8) Be sure your brakes are operating efficiently, and keep your MOPED in perfect running condition.
- 9) Slow down at street intersections and look to right and left before crossing.
- 10) Always use proper signaling for turning and stopping.
- 11) Do not weave in or out of traffic or swerve from side to side.
- 12) Once in motion, ride with your pedals level.
- 13) Inform other persons riding your MOPED of proper operating methods.

... ALWAYS RIDE CAREFULLY ...

TO OWNER OF THIS MOPED

PLEASE BE SURE TO FILL OUT THE RECORD BELOW
SO THAT YOU WILL BE ABLE TO REFER TO IT IN CASE OF LOSS

PURCHASE DATE: MONTH _____ DAY _____ YEAR _____
(Check date on your sales slip)

PROTECT YOUR PURCHASE BY ENTERING THE MODEL AND SERIAL NUMBERS OF YOUR SEARS MOPED HERE.
THESE NUMBERS WILL BE FOUND ON THE VEHICLE IDENTIFICATION NUMBER PLATE (V. I. N.). (See page 5)

MODEL NO. _____ SERIAL NO. _____

YOUR CITY OR TOWN MAY REQUIRE THIS, CITY LICENSE NO. _____

OWNER's NAME _____

ADDRESS _____ CITY, STATE _____

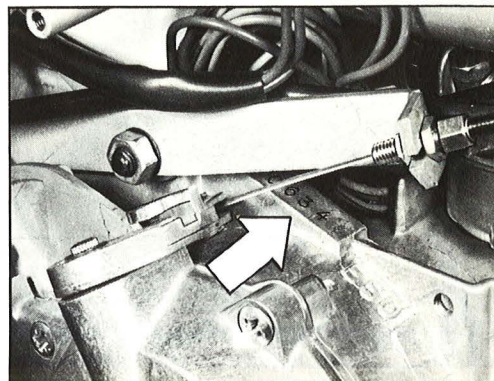
PLEASE NOTE IMPORTANT NUMBERS

POSITION OF VEHICLE IDENTIFICATION NUMBER PLATE, ENGINE NUMBER AND FRAME NUMBER

THE VEHICLE IDENTIFICATION NUMBER (V. I. N.) AND MODEL NUMBER PLATE IS FIXED TO THE STEERING HEAD OF YOUR MOPED.



THE ENGINE NUMBER IS ENGRAVED ON THE RIGHT HAND SIDE OF THE CRANKCASE.



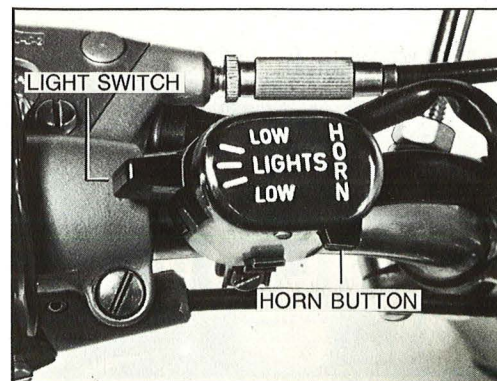
THE FRAME NUMBER IS ENGRAVED BESIDE THE IDENTIFICATION PLATE.



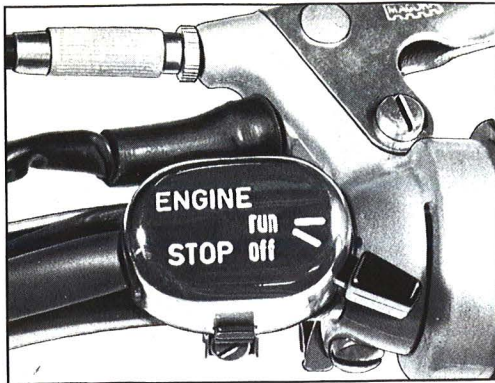
CONTROLS

LIGHT SWITCH

Located on the left hand side of handlebar also incorporates the horn button.

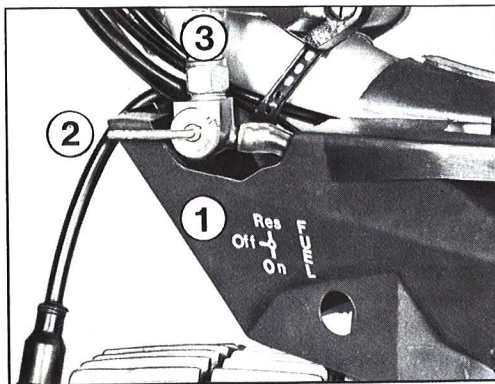


CONTROLS



ENGINE IGNITION SWITCH

Two position thumb switch located on the right side of handlebar. Center position to start and run the engine, lower position interrupts ignition, and stops the MOPED engine.



FUEL VALVE

Position 1 = On
Position 2 = Off
Position 3 = Reserve

NOTE:

RESERVE POSITION CONTAINS APPROXIMATELY 0,22 US gal. (1 litre).

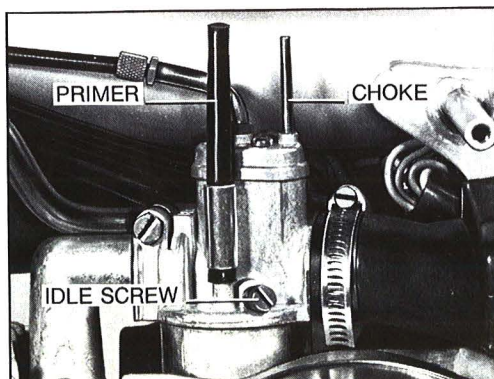


STEERING LOCK (Model Nos. 817.80840, 817.80850, 817.80860)

To lock:

Move handlebar to the right; insert key into lock, pushing lock cylinder inward while turning to the left; turn to the right and remove key.

Unlock by reversed procedure.



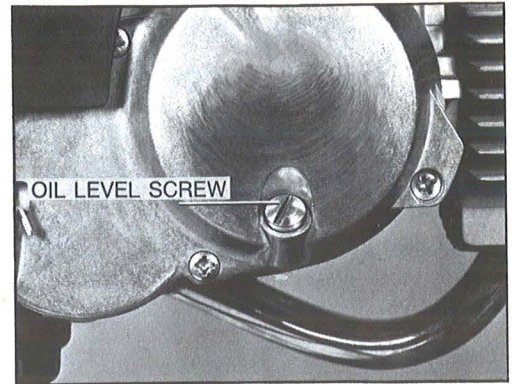
CARBURETOR

1. Primer
2. Choke: is operated by depressing it.
(See Starting Instructions, Page 8.)

RUNNING IN

CHECKING GEAR BOX OIL LEVEL

An oil level screw (at the same time being the filler plug) is fitted in the right gear box cover. The oil level is correct if when the machine is sitting level the oil reaches the lower edge of the screw hole. If too low, add oil until it overflows. Excess oil must be drained off. Oil quality (AUTOMATIC TRANSMISSION FLUID, TYPE F ONLY) and quantity, see enclosed Technical Data (page 12).



CHECKING THE TIRE PRESSURE

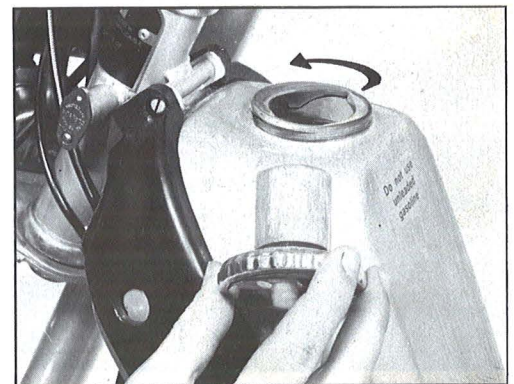
Correct pressure, front 26 psi, rear 32 psi.

OIL — GASOLINE MIXTURE — IMPORTANT

Your two-stroke MOPED engine is designed to run on a gasoline/oil mixture of 50 to 1. Use of this mixing ratio reduces formation of exhaust gas resulting in smaller deposits, extending intervals of cleaning, and decreasing air pollution. It is recommended that you mix gasoline with the oils listed in the "Technical Data" or lubrication chart. Not all filling stations sell special 50 to 1 two-stroke oils. Purchase Sears No. 80806 or equivalent.

HOW TO MIX

With specially formulated two-stroke oils in a ratio 1 to 50 (one filler cap of oil and one quart of regular grade gasoline) or four filler caps of oil to one gallon regular grade gasoline.



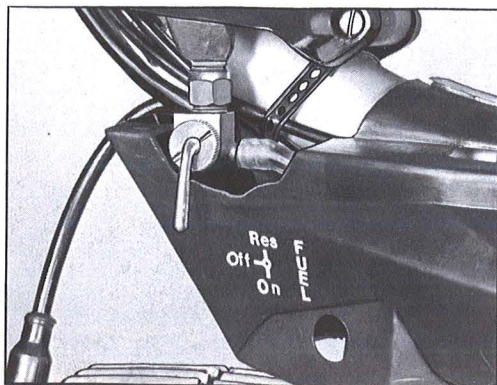
DO NOT USE UNLEADED FUEL!

STARTING INSTRUCTIONS

STARTING YOUR MOPED ENGINE:

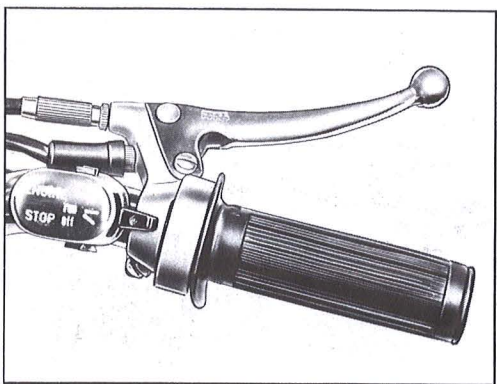
1) (For Model Nos. 817.80840, 817.80850, and 817.80860 only) UNLOCK MOPED.

2) Open fuel valve to "On".

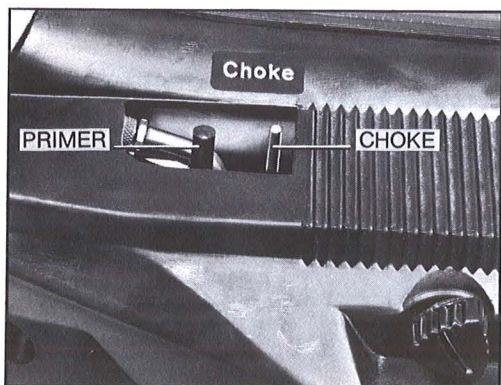


NOTE:

Agitate gas/oil mix before adding it to the fuel tank.



3) Move engine ignition switch to "Run" position.



4) COLD OR WARM ENGINE

If engine is cold:

Press in choke control. Briefly press in primer several times.

If engine is warm:

Do not apply choke or primer. (Exception see chapter "Start".)

START:

Pedal your MOPED as you would a bicycle. Once under way, briefly squeeze the clutch-engage lever and release.

If engine is cold:

While starting the engine do not open the throttle. Only after the engine has started, gradually open the throttle until engine is warm. Fully open throttle, but only once and briefly, so that the choke switches off.

If engine is warm:

During the starting procedure open throttle approximately 1/3rd i. e. turn throttle twist grip approximately 1/3rd of full movement. If the engine does not start at once, depress primer approximately for 2 seconds before you try to start the engine once more.

STARTING INSTRUCTIONS

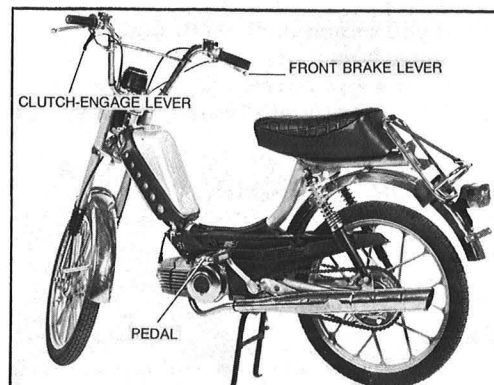
ALTERNATE STARTING METHOD

With your MOPED on its stand

Keep both hands on the handlebar grips with the weight of the MOPED forward, so that the rear wheel does not touch the ground. Hold front brake lever tight. Forcefully push down pedal with right or left foot by squeezing the clutch-engage lever briefly and releasing it. Repeat procedure until engine is running.

NOTE:

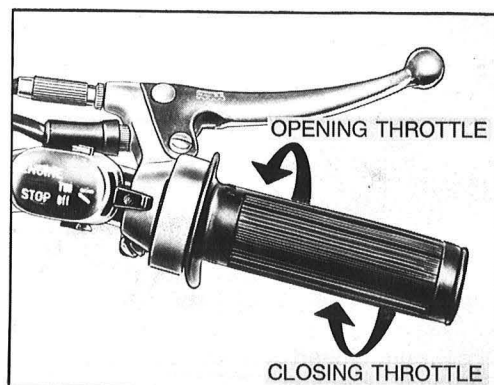
When the MOPED is on its stand and you open the throttle, the rear wheel must not touch the ground.



RIDING YOUR MOPED

THROTTLE

By opening the throttle the MOPED is set in operation. The speed is controlled by the throttle twist grip. To accelerate, open the throttle gradually, to slow down, close the throttle.

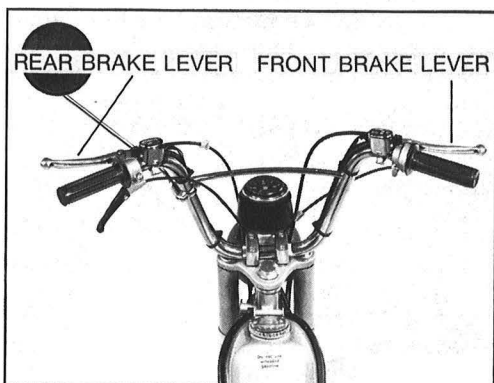


BRAKING

Close throttle and apply both brake levers equally.

CAUTION:

YOUR MOPED DOES NOT HAVE COASTER (BACK PEDALING) BRAKES.



HELPFUL RIDING HINTS

ON WET ROADS:

WHEN RIDING ON WET ROADS OR ON SANDY AREAS, THE FRICTION CONTACT BETWEEN THE TIRES AND ROAD ARE GREATLY REDUCED. BE VERY CAREFUL WHEN ACCELERATING, BRAKING, AND TURNING.

- 1) After reaching maximum speed, throttle to 3/4 open. While the decrease in speed is hardly noticeable, your fuel consumption is considerably reduced.
- 2) When riding downhill the engine acts as a brake. But during long descents open the throttle every now and then to allow fuel and oil into the engine. Without fuel there is no lubricant in the engine and during a long descent without opening the throttle could lead to an overheated or seized engine. Brakes should be used as necessary. If the speed is reduced to the extent that the clutch automatically disengages, **the engine is no longer acting as brake**. Engagement or disengagement of the clutch depends on the engine revolutions. The braking effect of the engine is again only obtained by opening the throttle. Thereafter the clutch will operate, and close the throttle again. (See before — engine brakes.)

HELPFUL RIDING HINTS

- 3) For safe riding, wear bright clothing, eye protection, shoes or boots.
- 4) It is good practice to always use your MOPED lights.
- 5) If you attach baskets or saddlebags to your MOPED, carry light cargo, and distribute the weight equally.
- 6) Always use signals when turning or changing lanes.
- 7) Ride with both pedals on equal level.
- 8) Respect property, ride carefully.

TO STOP AND PARK

Throttle down.
 Apply brake levers to stop.
 Switch off ignition switch.
 Always close fuel valve.

TROUBLE SHOOTING

Engine does not start or running engine stops

Reason	Remedy
Fuel valve closed	Open fuel valve or switch over to "Reserve"
Fuel tank is empty	Switch fuel valve over to "Reserve" or fill up with gasoline mixture
Spark plug is contaminated	Clean spark plug
Spark plug is defective	Replace spark plug
Ignition cable has worked loose or came off	Properly plug spark connector
Too much or too little gas	Open throttle about 1/3
Vehicle put out of operation with open fuel valve	Start with throttle wide open
Choke operated with warm engine	Remedy as above
Fuel valve is clogged	Have it cleaned by a workshop
Main jet is clogged	Clean main jet
Float needle not fixed in its notch	Remove float needle, and engage it

Engine runs unevenly or misfires

There is not enough fuel in the tank	Open fuel valve to "Reserve", refuel with gasoline mixture
Float leaks	Replace float
Ignition cable is not properly connected	Properly plug spark connector
Spark plug is defective	Replace spark plug
Jet needle is loose	Clamp needle in its notch. Correct notch see "Technical Data"

Poor performance

Choke working all the time	Push choke back (full throttle)
Exhaust is clogged	Remove oily deposits from the exhaust
Spark plug is defective	Replace spark plug
Exhaust port is clogged	Decoke exhaust port
Float leaks, float needle deformed (jams)	Check all parts of the float chamber and replace if necessary
Float needle is loose	Clamp needle in its notch. Correct needle position see "Technical Data"
Air filter is clogged	Clean air filter

CONSUMER INFORMATION

Stopping Distance and Passtime

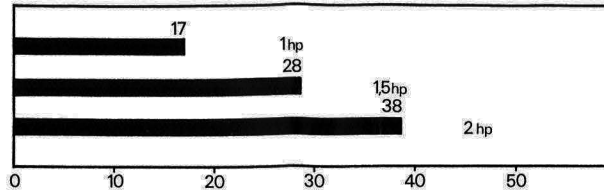
Vehicle minimum stopping distance on dry ground

This figure indicates braking performance that can be met or exceeded by the vehicles to which it applies, without locking the wheels, under maximum condition of loading. The information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions, and the information may not be correct under other conditions.

Description of vehicles to which this table applies

Fully Operational Service Brake

Maximum load



Stopping distance in feet at maximum speed

ACCELERATION AND PASSING ABILITY

This figure indicates passing times and distances that can be met or exceeded by the vehicles to which it applies in the situations diagrammed below.

The low speed pass assumes an initial speed of 20 mph and a limiting speed of 35 mph.

The high speed pass assumes an initial speed of 50 mph and a limiting speed of 80 mph.

Notice the information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions, and the information may not be correct under other conditions.

Description of vehicles to which this table applies.

Summary table

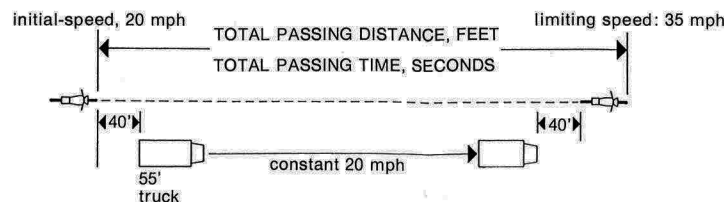
2 hp	1,5 hp	1 hp
Low speed pass*) 530 ft; 13,3 sec. High speed pass not capable	Low speed pass**) 785 ft; 22 sec. High speed pass not capable	Low speed pass***) not capable High speed pass not capable

*) Maximum speed attainable is 30 mph

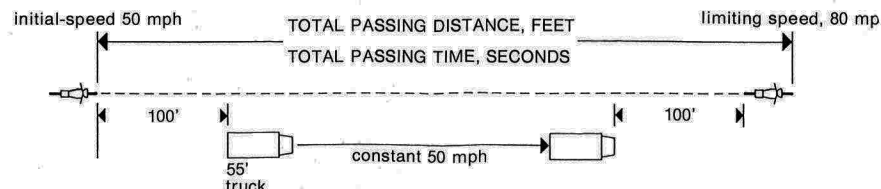
**) Maximum speed attainable is 25 mph

***) Maximum speed attainable is 20 mph

LOW-SPEED



HIGH-SPEED



NOTES

ENGINE

Maximum output	1.0 hp	at 3500 r. p. m.
Maximum torque		1.63 ft/lb (0.22 mkp) at 3000 r. p. m.
Compression ratio		9.2 : 1 (7.1 : 1)
Maximum output	1.5 hp	at 4500 r. p. m.
Maximum torque		1.79 ft/lb (0.248 mkp) at 3000 r. p. m.
Compression ratio		9.2 : 1 (7.1 : 1)
Maximum output	2.0 hp	at 5000 r. p. m.
Maximum torque		2.06 ft/lb (0.285 mkp) at 4500 r. p. m.
Compression ratio		9.2 : 1 (7.1 : 1)
Bore		1.49 in. (38 mm)
Stroke		1.69 in. (43 mm)
Displacement		48.8 cc
Cooling		air cooled
Lubrication		petroil lubrication
Carburetor	1.0 hp	Bing 1/14/163
Main jet		52/50
Needle jet		2.12 A
Needle position		1st notch from top
Carburetor	1.5 hp	Bing 1/14/163
Main jet		52/50
Needle jet		2.12 A
Needle position		1st notch from top
Carburetor	2.0 hp	Bing 1/14/164
Main jet		68/66
Needle jet		2.12 A
Needle position		1st notch from top
Ignition		magneto ignition
Breaker point gap0137—.0177 in. (0.35—0.45 mm)
Ignition timing051—.067 in. (1.3—1.7 mm)
		B. T. D. C.
Spark plug	1.0 hp	Bosch W 95 T1 (Bosch W 10A) Champion L90
Spark plug	1.5 hp	Bosch W 175 T1 (Bosch W 7A) Champion L86
Spark plug	2.0 hp	Bosch W 200 T35 (Bosch W 6B) Champion L82
Spark gap016—.020 in. (0.4—0.5 mm)
Dynamo		Flywheel magneto Bosch RCP1 6V 26-5/10W
Ignition coil		outside the generator

POWER TRANSMISSION

Gearbox	single speed automatic
Clutch	centrifugal
Primary transmission	helical gears
Secondary transmission	chain 1/2" × 3/16"
Pedalling chain	chain 1/2" × 1/8"

GEAR RATIOS

Engine gear	1.0 hp	106 : 21; i = 5.05
Gear-rear wheel		45 : 13; i = 3.46
Pedalling transmission		28 : 23; i = 1.217
Engine gear	1.5 hp	106 : 21; i = 5.05
Gear-rear wheel		45 : 13; i = 3.46
Pedalling transmission		28 : 23; i = 1.217
Engine gear	2.0 hp	106 : 21; i = 5.05
Gear-rear wheel		45 : 15; i = 3.00
Pedalling transmission		28 : 23; i = 1.217