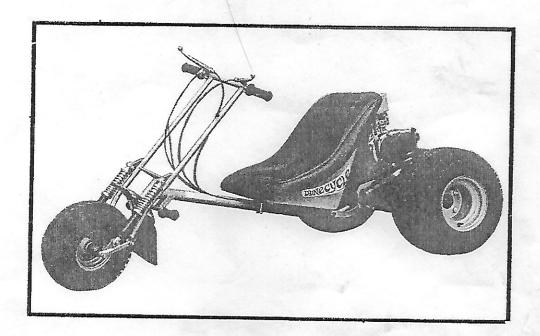
# A.P.E. DUNECYCLE TM



# OWNERS MANUAL

- ASSEMBLY INSTRUCTIONS
  - OPERATING INSTRUCTIONS
    - MAINTENANCE INSTRUCTIONS
      - REPAIR PARTS LIST

MFG. BY A.P.E. PRODUCTS

13727 EXCELSIOR DRIVE SANTA FE SPRINGS CA. 90670 A MEMBER OF TOWER INDUSTRIES INC.

## **Important Safety Instructions**

This vehicle is designed and built for recreational sports and is not intended for street use. As a recreational vehicle it is important that both vehicle performance and the terrain be approached with respect until the handling characteristics under all conditions are completely familiar to the driver. As with any performance machine periodic inspections should be made of all critical points and fastenings to insure safety and satisfaction.

- 1. All operators should be of sufficient age, capability, and understanding to properly operate this vehicle.
- 2. This vehicle is designed to be operated by one person only.
- 3. Any minor that operates this vehicle should first have proper instructions and close adult supervision.
- 4. The operator of this vehicle should never place his hands, feet or any part of his body near any moving parts.
- 5. The governor on this vehicle protects the engine and the operator from excessive speeds. It must not be altered, changed or tampered with. The guarantee on the engine is voided if the governor is changed or tampered with.

- 6. Do not fill the gas tank while the engine is running or when the engine is hot. Gasoline is highly flammable and must be handled with care.
- 7. Prior to each engine start check to see that the throttle is in idle position and check the engine cut off switch.
- 8. When cornering, lean hard to inside of turn. When climbing hills lean forward.
- 9. Do not use right brake on left turns, and left brake on right turns.
- 10. If unit is going to stall on a hill, turn around prior to stalling. If unit stalls on a hill turn sharply as brakes are energizing type and may not hold in reverse.
- 11. Brakes may become inoperative if wet, glazed, oily, overpowered, or otherwise mistreated.
- 12. Do not drop feet down while this vehicle is moving.
- 13. The operator should wear an approved protective helmet at all times.

#### WARRANTY

We warrant our products to be free from defects in workmanship and material. Our liability under this warranty is limited to the repair or replacement free of charge, except any transportation charges involved, of any part that our inspection shows to be defective, provided the defective part is returned to us within 60 days of the original

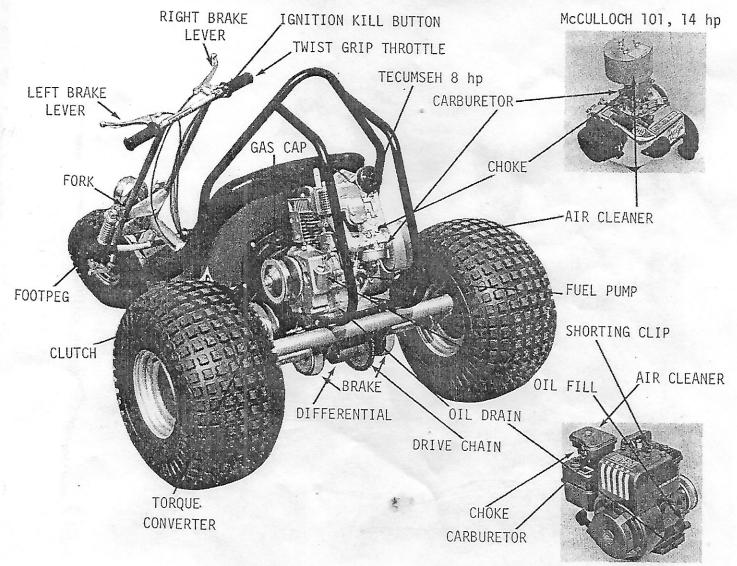
purchase. The foregoing warranty is given in place of all other expressed or implied warranties of any kind, including warranties of merchantability or fitness for a particular purpose. There is no warranty of any kind if the vehicle is used for racing or rental purposes.

## **Assembly Instructions**

- Assemble the front fork first. Place the spacer in the gooseneck bearings and position the fork. Install the ½ x 5 bolt with the flat washer under the head of the bolt and the lock washer above the nut. Secure the nut tight with standard length wrenches.
- Position the brake levers on as far as they will go and tighten the two screws. Be sure the right hand brake is on the right side when the operator is seated in the vehicle. Run the brake cables between the upright fork tubes. Check the brake adjustment.
- Position the throttle twist grip on the right handle bar and tighten the two screws. Rotate twist grip counterclockwise to check spring return and positive stop in idle position.
- Install rear tires with the valve stem on the outside. Check tire pressure. The proper pressure

for the rear tires is 2 to 4 lbs. The tires should feel soft and should never to over inflated. The proper pressure for the front tire is 6 lbs.

- 5. Fill the engine with oil. SEE THE ENGINE INSTRUCTIONS. It is advisable to always use the same grade of oil as originally used. Do not spill oil on the brakes. It is advisable to cover the brakes with a rag when filling or draining the oil.
- 6. Fill the gasoline tank with standard gasoline. DO NOT USE ETHYL.
- 7. Install the belt AFTER reading the operating instructions. The belt has been left off so the engine can be started and adjusted. To install the belt, loop around the clutch first, then start the belt at the top side of the torque converter, rotate the torque converter counterclockwise and push vehicle forward until belt is on.



#### **Operating Controls**

WARNING: Read all of the operating instructions before attempting to start or operate this engine. Do not start the engine until you are completely familiar with the location and use of all the controls. Check the throttle control prior to each use to be sure it is working properly.

- This vehicle is equipped with left and right hand brakes that are individually controlled. The brakes are used to stop the unit and also to help maneuver. The right hand lever controls the right hand brake and the left hand lever controls the left hand brake. By applying pressure to the brake lever, the brake band is tightened over the brake drum. This slows or stops the vehicle. To slow or stop the unit apply pressure to both right and left hand levers. To assist in maneuvering the unit use the left hand lever to help turn left and the right hand lever to turn right. The brakes are adjusted by turning the knurled screw at the end of the brake lever. Loosen the knurled nut, adjust the brakes and then tighten the knurled nut. Do not spill oil on the brakes. The brakes may become inoperative if oily, wet, glazed or overpowered.
- The clutch is an automatic centrifugal type that is mounted directly on the engine. The clutch does not engage while the engine is idling. As soon as the engine is speeded up the clutch gradually engages and the vehicle moves forward.
- 3. The throttle is controlled by the twist grip on the right hand side of the handle bar. By twisting the throttle the engine speed is increased or decreased. As the engine speed is increased slightly the vehicle moves forward. The clutch is disengaged at any time by allowing the throttle to return to idle position. The throttle along with the brakes control the vehicle and they should be checked prior to each start.

- 4. The engine "on and off" switch can be used at anytime to stop the engine by turning the switch to OFF. The engine can also be stopped with the "shorting clip" adjacent to the spark plug. To stop the engine hold the shorting clip against the spark plug. Do not release until the engine has remained stopped for 10 seconds.
- 5. This vehicle is driven by an automatic variable speed torque converter system. This system has a definite advantage to engine life and versatility. It operates in a manner similar to an automobile automatic transmission. The unit consists of three parts, the clutch on the engine, the torque converter on the jackshaft and the belt. It works by changing the diameter of the pulley where the belt is making contact. The ratio of engine speed to rear wheel speed is 16 to 1 in the low range and 6.8 to 1 in the high range.

When the engine speed is increased the automatic clutch tightens the belt, the system is engaged and the vehicle moves forward. The system starts out in the low range and automatically shifts to the high range as speed increases. When the vehicle is driven up a hill the torque converter system automatically shifts down to the low range for climbing ability. When level ground is reached the system automatically shifts to high as speed is increased.

6. This vehicle is equipped with an automotive type differential. The differential allows the two rear wheels to turn at different speeds. Cornering is made easier and separate control of each rear wheel is possible by using the left hand or right hand brake.

## **Operating Instructions**

Read the ENGINE OWNERS MANUAL before starting the engine.

- Before starting engine be sure the throttle is in idle position. Then put the engine "on-off" switch to the on position.
- 2. To start the engine, move the choke lever to "choke" position if engine is cold. A warm

engine may be restarted without choking. Do not overchoke the engine. Continued pulling of the starter rope with the choke lever in choke position will flood the engine. If the engine does not start after two or three pulls, place the choke lever in the "off" position and pull starter rope several times to clear engine of excess fuel. After engine starts, move choke control to off position.

Continued on Page 5

## **Operating Instructions**

(Continued)

- 3. Place the front tire against an immovable object and position yourself at the rear of the unit. Grasp the recoil starter handle and pull sharply. Do not allow the starter rope to snap back. An engine that fails to start promptly is an indication of some malfunction or an error in starting. Check your engine "Owners Manual".
- 4. After starting your engine, operate this vehicle first in a large open area. Practice slow starts and stops. Until you have become familiar with the vehicle, continue to go slowly. Avoid high speed, sharp turns, steep hills and rough terrain.
- Do not use right brake on left turns or left brake on right turns when running at higher speeds. When cornering, lean hard to the inside of turn. When climbing hills lean forward. Do not make jumps. Do not drag feet while moving.
- If unit is going to stall on a steep hill, turn around prior to stalling. The brakes are energizing type and may not hold as well in reverse. The brakes, like all band brakes, may become inoperative if oily, wet, glazed or overheated.

#### **READ SAFETY INSTRUCTIONS**

#### **Maintenance Instructions**

Detailed instruction for use and maintenance of the engine are given in the engine "Owners Manual". Read carefully. Remove the spark plug wire and position wire where it cannot make contact with the spark plug when changing oil or working on the vehicle.

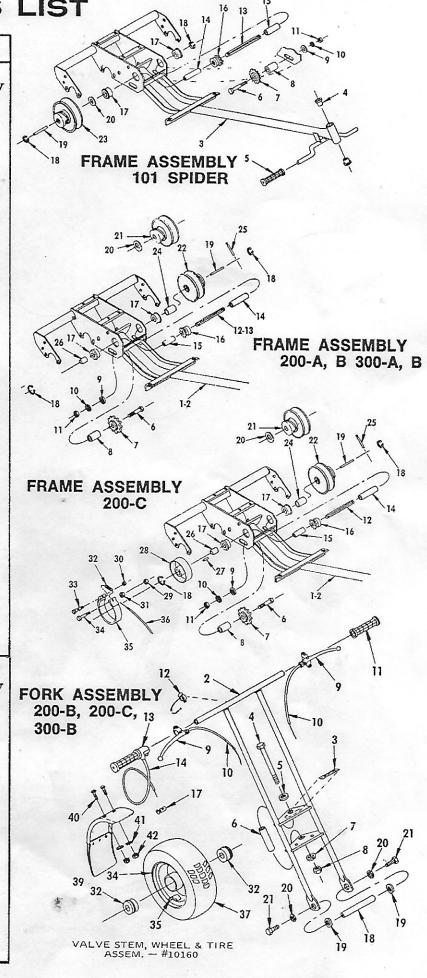
- 1. Change the oil after the first 2 hours of use and each 25 hours thereafter. See engine manual for all details.
- Periodically lubricate the fork assembly by removing the ½ x 5 bolt and the spacer. Clean the spacer and bushings and put a few drops on each bushing.
- After every 40 hours of use the clutch and torque converter should have a few drops of oil.
- 4. Adjust the chain after 2 hours of use. Loosen the idler sprocket nut and slide the idler sprocket to the rear. Tighten idler bolt securely. Allow about 3/8" flex for proper adjustment. Oil chain often.
- 5. You must service the air cleaner regularly. The air cleaner prevents dirt and dust from being drawn into the engine. Do not run the engine without the air cleaner in place. Under dusty conditions the air cleaner should be cleaned after 5 hours. See the engine manual for detailed instructions.

6. The rear tires are a very important part of this vehicle since it does not have spring suspension. The unit should never be used with over inflated tires. The correct tire pressure is 2 to 4 pounds in the rear and 6 pounds in the front.

Small leaks may be prevented by the use of a good self sealing compound. Punctures, if not unusually severe can be plugged with plug kits available at your tire dealer.

- 7. The governor on the engine is preset at the factory and must not be tampered with. To do so voids the warrantee.
- Any vehicle that is used in dust and dirt must be cleaned and serviced often. Your vehicle is no exception. Check all nuts and bolts frequently. Clean all moving parts.
- 9. Do not fill or drain fuel while the engine is still hot or running. Move the vehicle outside before draining fuel. Drain all fuel from tank and carburetor before storing for 30 days or more. Do not use stale or old gasoline. Do not use ethyl gasoline.

F. O.	PART NO.	DESCRIPTION	
1	10100	Frame for 200-A, B, C	Frame
2	10049	Frame for 300-A, B	Assembly
3	10061	Frame for 101 Spider	
4	10112	Gooseneck Bushing	
5	10270	Foot Peg	
ŝ	10334	Bolt, Hex Head 1/2-13 x 3	
7	10125	Idler Sprocket	
В	10127	Idler Spacer	
9	10332	Washer, Flat 1/2	
0	10333	Washer, Lock 1/2	
1	10331	Nut, Hex 1/2-13	
2	10062	Jack Shaft for 200-A, B C	
3	10450	Jack Shaft for 300-A, B and 101 Sp	oider
4	10452	Spacer, Long	
5	10451	Spacer, Short	
16	10454	Sprocket, 8 tooth	
17	10118	Bearing with Snap Ring	
8	10129	Snap Ring	
9	10120	Key 3/16 x 3/16 x 1-3/4	
21	10117	Washer, Flat 5/8 for 300-A, B Torque Converter for 300-A, B	
22	10095	Torque Converter for 200-A, B, C	
23	10132	Torque Converter for 101 Spider	
24	10096	Spacer for 200-A, B, C	
25	10097	Drive Pin for 200-A, B, C	
26	10110	Spacer for 200-A, B	
27	10455	Key, 3/16 x 3/16 x 3/4" 200-C	
28	10475	Brake Drum and Hub 200-C	
29	10459	Nut, Hex Locking 3/8-16 200-C	
3Q	10305	Nut, Hex 1/4-20 200-C	
31	10458	Nut, Hex Jam 3/8-16 200-C	
32	10221	Brake Return Spring 200-C	
33	13030	Brake Pin Assembly 200-C	
34	10336	Bolt, Hex Head 3/8-16 x 2 200-C	
35	10220	Brake Bank 4" 200-C	
36	10230	Brake Cable 200-C	
1	10037	Leading Link Fork Assembly	Fork
2	10004	Standard Fork Assembly	Assembly
3	10016	Decal, Off Road	areod meri
4	10330	Bolt, Hex Head 1/2-13 x 5"	
5	10332	Washer, Flat 1/2	
6	10272	Gooseneck Spacer	
7	10333	Washer, Lock 1/2	
8	10335	Nut, Hex Locking 1/2-13	
9	10013	Brake Lever	
10	10230	Brake Cable	
11	10270	Dummy Grip	
12	10254	Kill Button	
13	10014	Throttle Twist Grip Set	
14	10214	Throttle Cable for 200-A, B, C	
15	10213	Throttle Cable for 300-A, B	200
16	10026	Throttle Cable for Spider	
17	10215	Throttle Cable for Stop	
18	10009	Axle, Standard Fork	
9	10347	Washer, Flat 5/8 x 1-3/16 x 1/16	

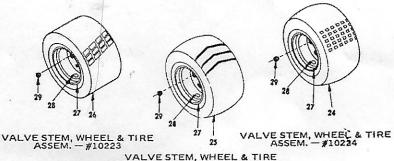


REF.	PART NO.	DESCRIPTION			SSEMBLY FOR 0-A, 101 SPIDER
20	10323	Washer, Lock 3/8 Fork	7 -00	, O.	n /43
21	10320	Bolt, Hex Head 3/8-16 x 3/4" Assembly			12
1 72	10338	Bolt, Hex Head 3/8-16 x 1-1/4" (continued)			10 44
1 3	10042	Swing Arm		40	3 45
24	10043	Axle, Leading Link Fork		A 38	20 27
25	10459	Nut, Hex Locking 3/8-16		(1)	31 27
26	10337	Washer, Flat 3/8		41	16
27	10339	Bolt, Hex Head 3/8-16 x 1-1/2"	1 6		42 33 22 25 7 25
28	10356	Bolt, Shoulder 3/8 x 1"	1 1	1.6	8 29 28 30 26
29	10329	Nut, Lock 5/16-18	-	32 33	29 29 22
30	10044	Washer, Felt 3/8		794	23
31	10041	Shock for Leading Link Fork		190	27 31 24 23
32	10118	Bearing with Snap Ring			34 36 27 20 22
33	10045	Axle Spacer		/F cm511	
34	10032	Wheel, Front	VAL	ASSEM.	WHEEL & TIRE - #10048
35	10274	Valve Stem	18 -	-	
36	10046	Tire, Front-Large		(6)	
37	10017	Tire, Front-Small Fender, Front-Wide		9	\
39	10047	Fender, Front-Small	10	1	
40	10240	Screw, 10-24 x 3/8		1	1234
41	10342	Washer, Lock #10	22	22	20
42	10343	Nut, Hex 10-24	1	7.4.	21
43	10035	Head Light for 300-A, 200-A	23		
44	10317	Washer, Lock 5/16	QE.	AT	7,6
45	10315	Nut, Hex 5/16-18	The Park of the Pa		10 10
			j AS	SEMBI	LYS
1	10238	Seat 200 B 101 Spider (Yellow) Seat			10
1 2	10156	Seat 300-A, B, (Orange Assembly	-		
1 3	10157	Seat 200-A (Green)			52 51
4	10158	Seat 200-C (Blue)		50	The state of the s
5	10258	Seat Cushion		1	49
6	10308	Bolt, Hex Head 1/4-20 x 3"			40
7 8	10300	Bolt Hex Head 1/4-20 x 1-1/4"	BI	RAKE	an a
9	10250	Washer, Flat 1/4 Washer, Flat Rubber 1/4	AS	SEME	BLY "
10	10302	Nut, Locking 1/4-20			
11	13008	Strap			
12	13007	Pad, Rubber			Plane 30
13	10251	Light Switch			
14	10159	Light Switch Cover			4 45
15	10276	Decal, Seat (Set)		-	40 10
16	10273	Decal, On-Off (Lights)		200	REAR AXLE ASSEMBLY
17	10034	Gas Tank (Black)		>el	
18	10029	Gas Cap for 10034			
19	10307	Pan Head Screw 1/4-20 x 3/4"	39	10315	Nut, Hex 5/16-18
20	10031	Plug 1/8 N.P.T.	40	10317	Washer, Lock 5/16
21	10030	Valve-Gas Tank	41	10312	Bolt, Carriage 5/16-18 x 3/4"
22	10188	Hose Clamp	42	10345	Wheel Bolt
23	10189	Fuel Line	43	10121	Chain #40
30	10083	Differential Assembly with Axles Brake &	44	10122	Master Link #40
31	10063	40 Tooth Sprocket Rear Axle		10220	Brake Band 4"
32	10067	Bearing, Flange Assembly		10230	Brake Cable
33	10066	Bearing Rear Axle	47	10336	Bolt, Hex 3/8-16 x 2
1 1	10328	Bolt Sock, Hd. Cap 5/16-18 x 1-1/2	48	10458	Nut, Hex Jam 3/8-16
ا ا	10329	Nut, Lacking 5/16-18	49	10459	Nut, Hex Locking 3/8-16
36	10077	Axie, Outer	50	13030	Brake Pin Assembly
37	10082	Brake Drum & Sleeve	51	10305	Nut Hex 1/4-20
38	10079	Axie Sleeve (200-C)	52	10221	Spring, Return

• "

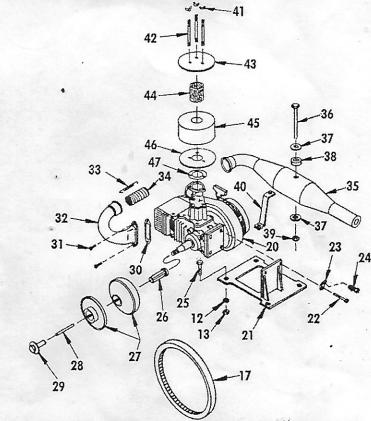
REF.	PART NO.	1 THE CRIPTION				
24	10280	Tire, Knobby (Give Brand Name)	Tire			
25	10266	Tire, Chevron	Assembly			
26	10401	Tire 18 x 9.50 x 9 (Give Brand Nan	ne)			
27	<sup>4</sup> 10263	Wheel, Rear (Silver Gray)				
28	10274	Valve Stem				
29	10344	Lug Nut 7/16-20 Tapered -				
1	10200	Engine 5 HP Briggs & Stratton 200-B,C	Engine Assembly			
2	10203	Engine 5 HP Briggs & Stratton,	Accembry			
~	10200	Alternator 200-A				
3	10222	Throttle Return Assembly				
4	10216	Throttle Return Spring	•			
5	10217	Washer, Flat 3/4"				
6	10210	Clutch Assembly for 200-A, B, C (	Give Clutch Nam			
7	10120	Key 3/16 x 3/16 x 1-3/4"				
8	10316	Washer, Special (Give Clutch Name	)			
9	10314	Bolt, Hex Head 5/16-24 x 1-1/4"				
10	10126	Belt, 9-1/2 Asymetric 200-A, B, C				
11	10313	Bolt, Hex Head 5/16-18 x 1-1/2"				
12	10317	Washer, Lock 5/16				
13	10315	Nut, Hex 5/16-18				
14	10148	Clutch Assembly 300-A, B				
15	10152	Washer, Special				
16	10153	Bolt, Hex Head, Locking 3/8-24 x	1-1/2"			
17	10234	Belt, 300-A, B and 101 Apider				
18	10124	Engine, 8 HP Tecumseh				
19	10036	Tail Light				
20	10030	Engine, McCulloch 101-D				
	10201					
21		Engine Mount	,,			
22	10350	Bolt, Sock, Hd. Cap 1/4-20 x 1-1/2				
23	10180	Throttle Cable Bracket				
24	10181	Throttle Cable Fitting				
25	10319	Bolt, Hex Head 5/16-18 x 1"				
26	10177	Clutch Adapter				
27	10168	Clutch Assembly				
28	10176	Key, 5/32 x 3/16 x 2-1/2				
29	10178	Nut 3/8-24 Special				
30	10086	Gasket				
31	10349	Bolt, Soc. Hd. Cap 10-24 x 3/4"				
32	10085	Header Pipe				
33	10094	Spring				
34	10087	Flex Tube				
35	10089	Cone				
36	10091	Bolt, Hex Head 3/8-24 x 5"				
37	10337	Washer 3/8				
38	10092	Washer, Rubber 3/8 x 1/4" thick				
39	10093	Nut, Locking 3/8-24				
40	10090	Mounting Bracket				
41	10352	Wing Nut 1/4-20				
42	10351	Stud 1/4-20				
43	10184	Top Plate				
44	10154	Filter Core				

#### TIRE ASSEMBLIES



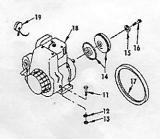
VALVE STEM, WHEEL & TIRE ASSEM. — Right #10285 / Left 10282

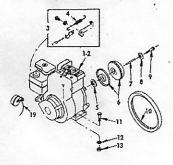
#### **ENGINE ASSEMBLY FOR 101 SPIDER**



**ENGINE ASSEMBLY** 300-A, B

ENGINE ASSEMBLY 200-A, B, C





			***********
45	10155	Filter	
		Bottom Plate	
47	10186	Gasket, Rubber	