

MFG: JVI INDUSTRIES  
NAME: BULGY THE WHALE  
Type: KIDDIE

*Bulgy*

ARMYTOWN.COM

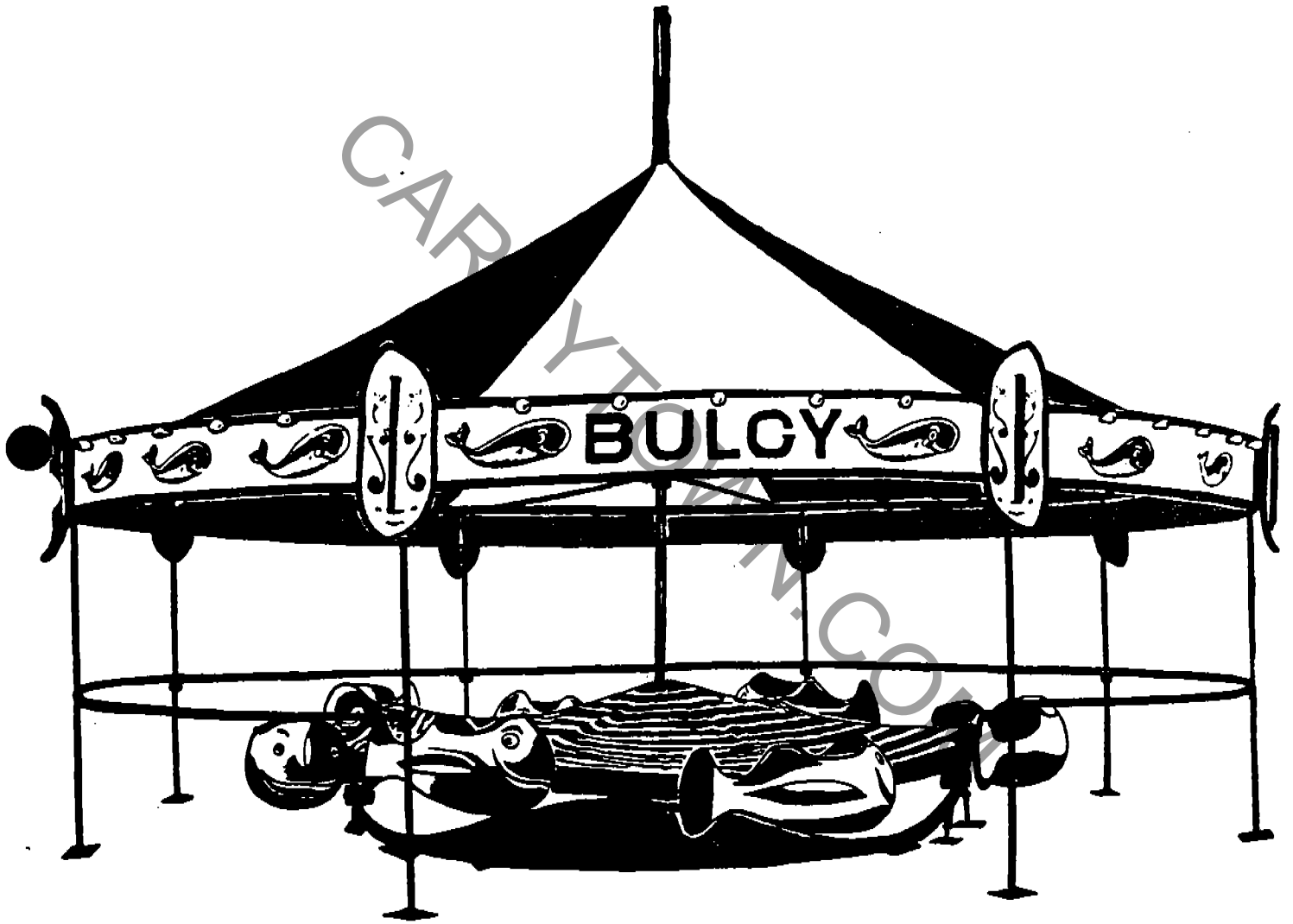


**JV INDUSTRIES, INC.**

P.O. BOX 13399 SALEM, OR 97309-1399

(503) 399-0817

■ FABRICATORS OF STEEL AND FIBERGLASS PRODUCTS ■  
■ MANUFACTURER OF AMUSEMENT DEVICES ■

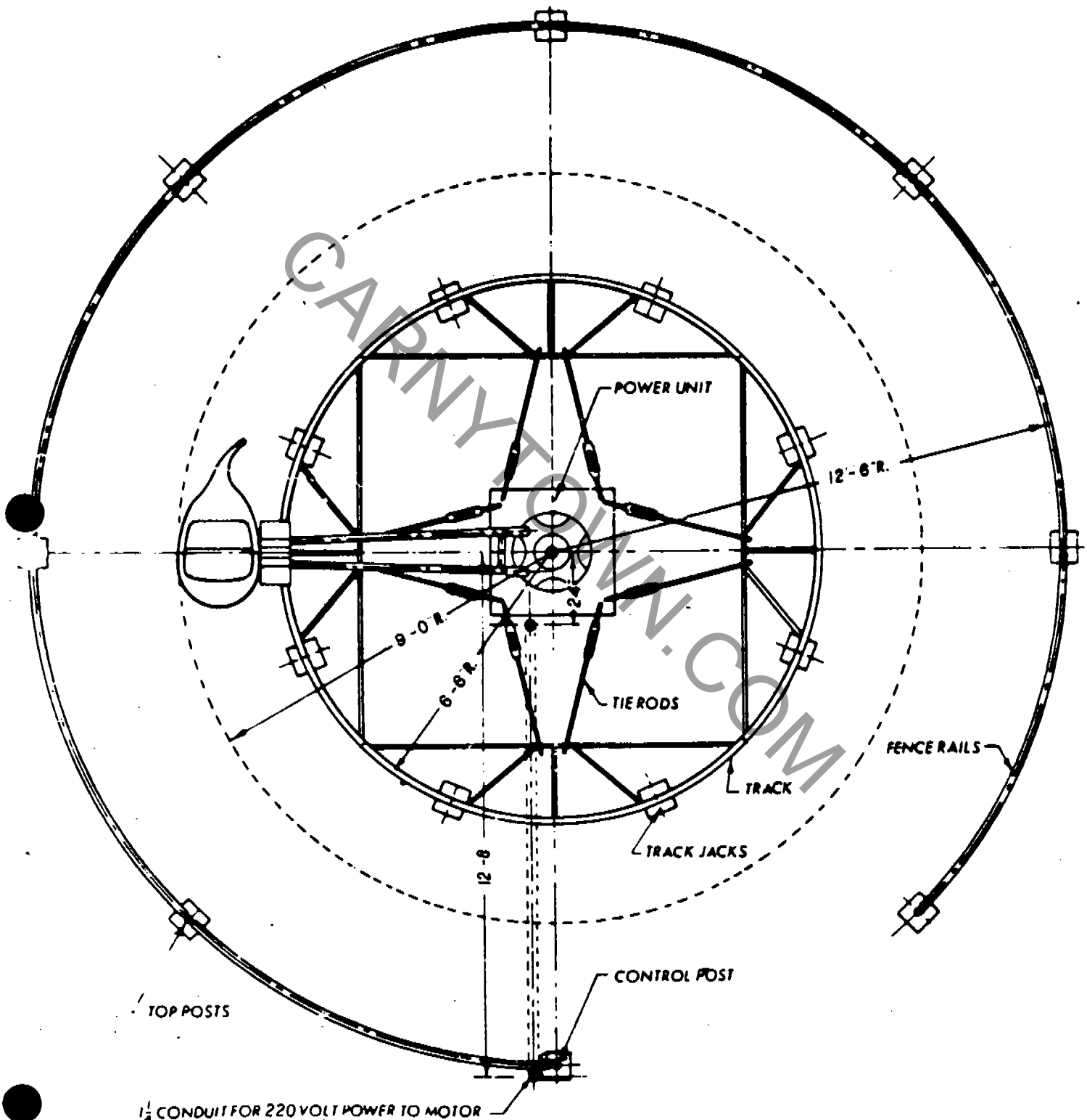


**BULGY**

**MANUAL & PARTS CATALOG**



# GROUND PLAN FOR "BULGY THE WHALE"



**NOTE:**

The location of the Control Post may be either to the left of the entrance as shown or to the right. Conduit for the light and power input circuits should be brought to the base of the Control Post.



# INSTRUCTIONS FOR SETTING UP "BULGY"

**POWER UNIT:** Place the power unit in the center of the area to be occupied by the ride and block it in a level position.

**TRACK:** Lay the four sections of track around the power unit with the low points of the track in line with the corners of the power unit base. With the track in this position the braces on the track are parallel with the sides of the power unit base. Secure the track sections together with the bolts provided.

**TIE RODS:** Insert one end of the tie rods in the keyhole slots provided in the base of the power unit and hook the other ends over the track brace opposite the high points of the track. Adjust the tie rods so as to centralize and secure the track to the power unit. Level and stabilize the track by adjusting the jacks.

**SWEEPS:** Secure the sweeps to the balls provided on the hub of the power unit, placing sweeps on the lower set of balls first.

**SWEEP COVER:** Place sweep cover over the power unit with the ring in the center of the sweep cover, over the bracket which is mounted on the hub. Fold the canvas so that it is out of the way until the assembly of the ride is completed.

**LOWER CENTER POLE:** Insert the lower center pole through the bracket supporting the sweep cover and into the bearing mounted on the top of the hub.

**RADIAL MEMBERS:** Insert one end of the radial members in the sockets provided on the lower center pole and the outer ends in the top of the outer posts. Place the post having the controls in the position selected for the entrance with the switches facing in toward the center of the ride. Connect the radial member having the electrical fittings to the control post. The male fitting goes to the outer end and connects to the female fitting on the light disconnect switch.

**CRESTING:** Place the crestings in the sockets provided on the outer posts with the BULGY sign in the entrance position. Hook the medallions over the ends of the crestings, insert the brackets in the back of the medallions

and secure to the bolt on outer posts.

**LIGHT CLUSTER:** Place the light cluster over the top of the lower center pole.

**TOP:** Place the canvas top over the radial members with the center ring over the top of the lower center pole.

**UPPER CENTER POLE:** With the rope block hooked to the top of the upper center pole, place it over the upper end of the lower center pole.

**TOP:** Hook the top fasteners into the rings on the crestings and hoist the center of the top with the rope block, running the hoisting rope through the ring in the center of the top.

**LIGHT CLUSTER:** Slide the light cluster up on the upper center pole to the desired height and secure with set screw. Plug the male fitting on the light cluster into the female fitting on the radial member.

**WHALES:** Place the whales on the ends of the sweeps and secure with bolts. The wheel fenders are secured by the same bolts used for the whales.

**CONTROLS:** Plug cable controls into outlets provided in the magnetic switch mounted on the power unit. Plug outer ends into fittings provided at the base of the control post. Mount the timer switch on the control post and plug into the leads from the disconnect switch. Also plug the light fittings together on the crestings. A toggle switch on the side of the 110 Volt disconnect switch controls the lights.

**SWEEP COVER:** Spread the canvas sweep cover over the sweeps and connect to the hooks on the whales.

**FENCE RAILS:** Place the curved members forming the fence rail into sockets provided on the outer posts.

**TIMER SWITCH:** The timer switch should always be removed from the control post and packed in a separate box during transporting. This switch should receive the same care that would normally be given a high grade clock.



# BULGY PARTS CATALOG

## LUBRICATING INSTRUCTIONS

### WAGNER MOTOR

The motor has a sufficient quantity of lubricant in the bearing housings for three years' normal operation. When relubrication is necessary, clean the grease gun fittings and remove drain plugs. Add grease (Texaco Regal Starfak No. 2 or equal) until the old grease has passed out of drain openings.

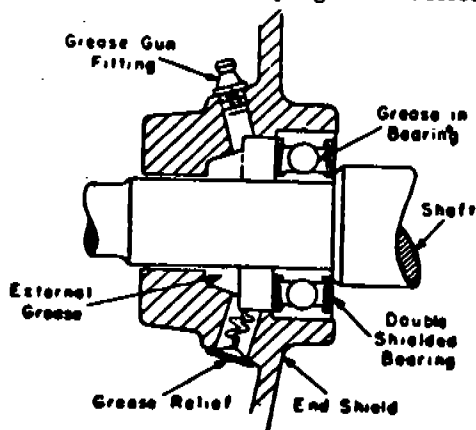
If necessary, use oil to soften grease.

Run motor with drain plug removed until excess grease has escaped and then replace plug.

### GENERAL ELECTRIC MOTOR

The motor has a sufficient quantity of lubricant in the bearing housings for three years' normal operation. When relubrication is necessary, clean grease fitting and free relief valve of hardened grease. Add grease (Texaco Regal Starfak No. 2 or equal) until old grease has passed out of relief valve.

After greasing, run motor for about 10 minutes, and then wipe off grease escaping from relief valve.



### ROLLER CHAIN

The Roller Chain should be lubricated once each season with Texaco Crater No. 1 or equal. Best results are obtained if the chain is dipped into heated lubricant and then hung up to drain.

### COUNTERSHAFT BEARINGS

The Countershaft Bearings have a sufficient quantity of lubricant for three months' operation. When relubricating, use Texaco Regal Starfak No. 2, or equal. Zerk fittings, shown on Page #3, Reference No. 55, are provided for lubricating these bearings. Add just enough grease to show slightly at the seals.

When storing for the winter, add grease until it shows at the seals. After storage or idle period, add a little fresh grease before running.

### REDUCTION GEAR

With the exception of the upper bearing, the Reduction Gear has a sufficient quantity of lubricant for a season's operation.

The upper bearing should be greased lightly once a week with Texaco Regal Starfak No. 2 or equal. The Zerk fitting, shown on Page 3, Reference No. 56 is provided for lubrication of this bearing. Drain plug, Reference No. 58, Page 3, is provided for draining housing.

### CENTER POLE BEARING

The Center Pole Bearing has a sufficient quantity of lubricant for a season's operation. Relubricate with Texaco Regal Starfak No. 2, adding just enough to show slightly at the seals. Zerk fitting, shown on Page #3, Reference No. 57, is provided for the lubrication of this bearing.

### SWEEP BEARING

Lubricate the Sweep Bearings each day with a small amount of Texaco Regal Starfak No. 2 or equal. The Zerk fittings shown on Page 5 Ref. No. 30 are provided for the lubrication of these bearings.

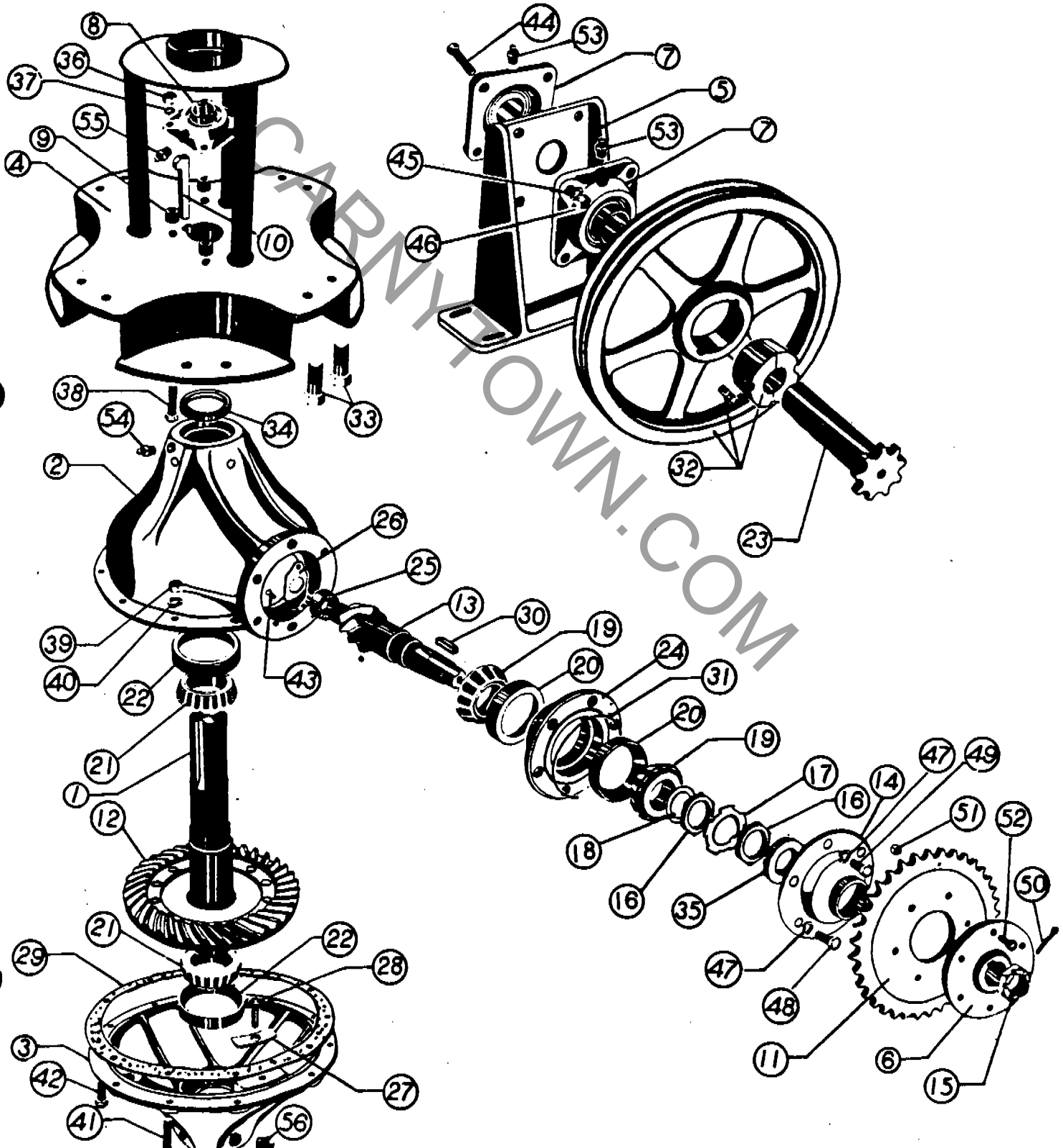
### SWEEP WHEEL BEARING

The Sweep Wheel Bearings, shown on Page 5 Ref. No. 13, are packed with a sufficient quantity of grease to operate for one season. When storing for the winter, dismantle, clean and repack with Texaco Regal Starfak No. 2 or equal.



# "BULGY" PARTS CATALOG

## REDUCTION GEAR & COUNTERSHAFT ASSEMBLIES





## "BULGY" PARTS CATALOG

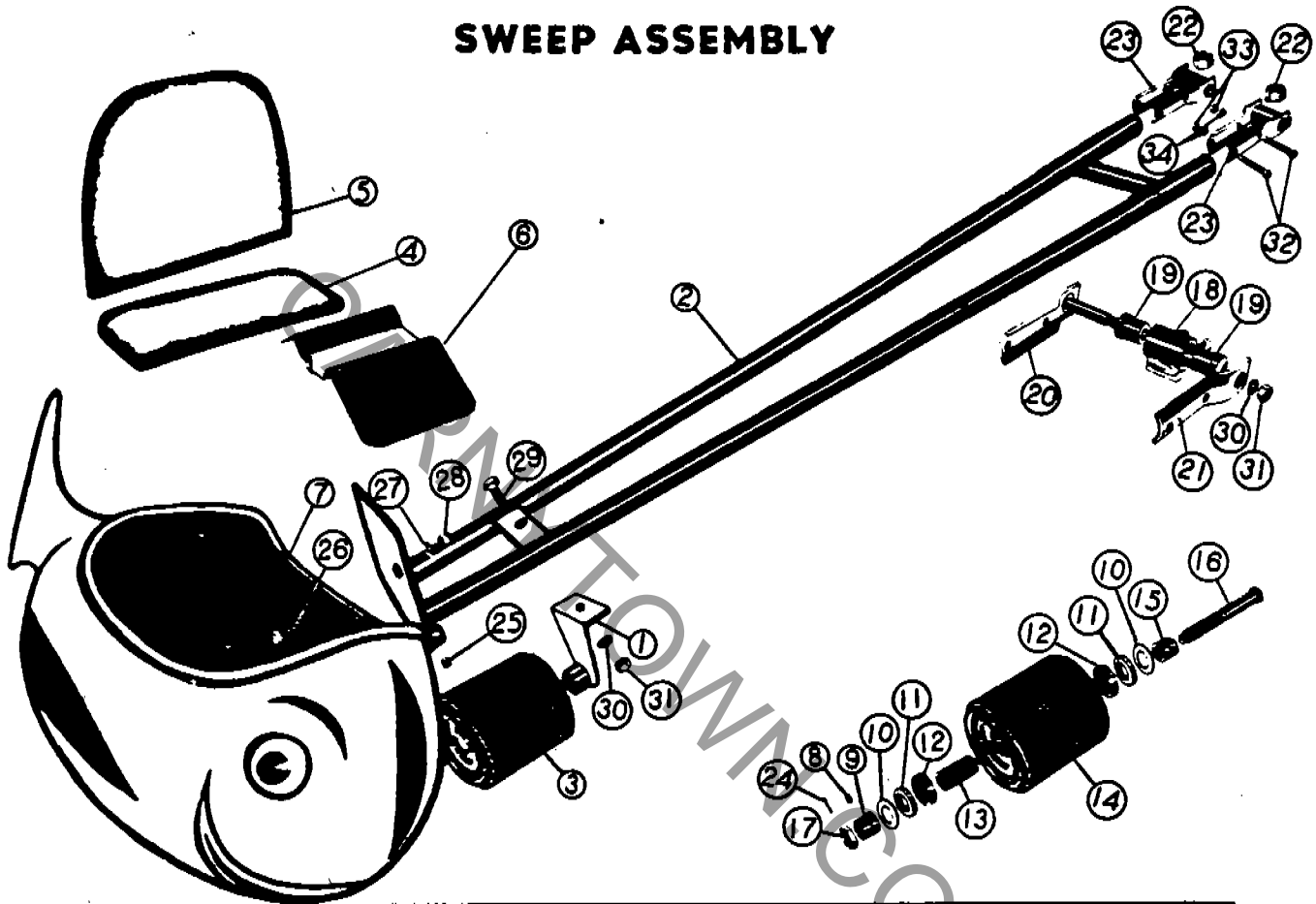
### REDUCTION GEAR & COUNTERSHAFT ASSEMBLIES

REF. NO.	PART NO.	NAME OF PART	NO. REQ.	REF. NO.	PART NO.	NAME OF PART	NO. REQ.
1	MB-4	SHAFT, Drive	1	29	MB-40	GASKET, Reduction gear housing	1
2	MB-5	HOUSING, Reduction gear (upper)	1	30	MB-41	KEY, Drive pinion	1
3	MB-6	HOUSING, Reduction gear (lower)	1	31	MB-42	GASKET, Drive pinion bearing sleeve	1
4	B-7	HUB, Sweep	1	32	MB-57	SHEAVE, Driven	1
5	MB-10	BRACKET, Countershaft	1	33	B-64	BOLT, Sweep hinge	16
6	MB-15	HUB, Sprocket	1	34	MB-76	OIL SEAL, Reduction gear housing	1
7	MB-16	BEARING, Countershaft	2	35	MB-77	OIL SEAL, Drive pinion	1
8	MB-17	BEARING, Center pole	1	36		NUT, 1/2 in. S. A. E. Thd.	4
9	MB-18	SPACER, Center pole bearing	4	37		LOCKWASHER, 1/2 in.	4
10	MB-19	KEY, Sweep hub	1	38		CAP SCREW, 1/2 in. X 2-1/2 in. S. A. E.	4
11	B-21	SPROCKET, Driven	1	39		NUT, 7/16 in. S. A. E. Thd.	11
12	MB-24	GEAR, Ring	1	40		LOCKWASHER 7/16 in.	11
13	MB-25	PINION, Drive	1	41		CAP SCREW, 7/16 in. X 1-3/4 in. S. A. E.	8
14	MB-26	SUPPORT, Drive pinion grease retainer	1	42		CAP SCREW, 7/16 in. X 2 in. S. A. E.	3
15	MB-27	NUT, Drive pinion	1	43		RIVET, 1/4 in. X 1-1/4 in. Rd. Hd.	2
16	MB-28	NUT, Drive pinion bearing lock	2	44		CAP SCREW, 1/2 in. X 2-1/4 in. S. A. E.	4
17	MB-29	WASHER, Drive pinion bearing lock	1	45		LOCKWASHER, 1/2 in.	4
18	MB-30	WASHER, Drive pinion bearing thrust	1	46		NUT, 1/2 in. S. A. E.	4
19	MB-31	CONE, Drive pinion bearing	2	47		LOCKWASHER, 9/16 in.	6
20	MB-32	CUP, Drive pinion bearing	2	48		CAP SCREW, 9/16 in. X 1-1/4 in. U. S. S.	3
21	MB-33	CONE, Ring gear bearing	2	49		CAP SCREW, 9/16 in. X 1-3/4 in. U. S. S.	3
22	MB-34	CUP, Ring gear bearing	2	50		COTTER PIN, 1/8 in. X 1-1/2 in.	1
23	B-34	SPROCKET, Countershaft	1	51		NUT, 3/8 in. S. A. E. Thd. (lock)	6
24	MB-35	SLEEVE, Drive pinion bearing	1	52		CAP SCREW, 3/8 in. X 1-1/2 in. S. A. E.	6
25	MB-36	BEARING, Drive pinion pilot	1	53		ZERK FITTING, Countershaft bearing	2
26	MB-37	RETAINER, Drive pinion pilot bearing	1	54		ZERK FITTING, Upper bearing	1
27	MB-38	BLOCK, Ring gear thrust	1	55		ZERK FITTING, Center pole bearing	1
28	MB-39	PIN, Ring gear thrust block	1	56		DRAIN PLUG, Housing (1/2 in.)	1



## "BULGY" PARTS CATALOG

### SWEEP ASSEMBLY

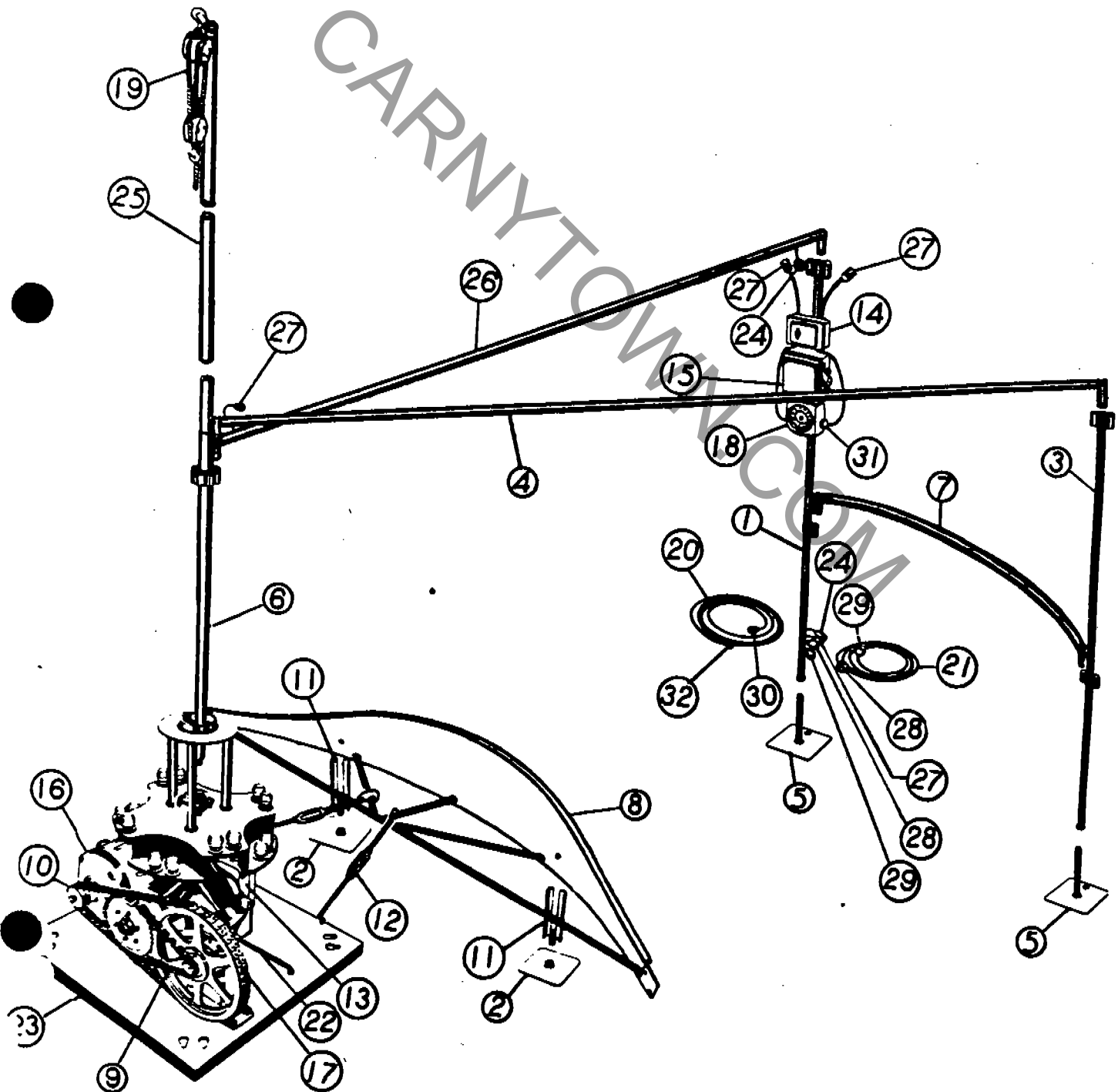


REF. NO.	PART NO.	NAME OF PART	NO. REQ.	REF. NO.	PART NO.	NAME OF PART	NO. REQ.
1	B-17	BRACKET, Wheel	8	18	B-59	BRACKET, Sweep hinge	16
2	B-18	SWEEP	8	19	B-60	BUSHING, Sweep hinge	22
3	B-27	WHEEL ASSEMBLY	8	20	B-61	STRAP & STUD ASSEMBLY, Sweep hinge	16
4	B-28	SEAT, Car	8	21	B-62	STRAP, Sweep hinge	16
5	B-29	SEAT BACK, Car	8	22	B-63	NUT, Sweep hinge	16
6	B-18	GUARD, Wheel	8	23	B-66	HINGE FITTING ASSEMBLY	16
7	B-19	WHALE	8	24		COTTER KEY, 3/32" X 1-1/4"	8
8	B-40	PIN, Bearing sleeve retainer	8	25		SET SCREW, 5/16" X 1/8"	8
9	B-41	SLEEVE, Wheel bearing (outer)	8	26		CAP SCREW, 3/8" X 1-1/2" S.A.E.	8
10	B-42	WASHER, Grease retainer	16	27		LOCKWASHER, 3/8"	8
11	B-43	OIL SEAL, Wheel bearing	16	28		NUT, 3/8 S.A.E.	8
12	H-44	BEARING, Wheel	16	29		CAP SCREW, 1/2" X 1-1/2" S.A.E.	8
13	B-45	SPACER, Wheel bearing	8	30		LOCKWASHER, 1/2"	24
14	B-46	WHEEL	8	31		NUT, 1/2" S.A.E.	24
15	B-47	SLEEVE, Wheel bearing (inner)	8	32		CAP SCREW, 7/16" X 2-1/2" S.A.E.	32
16	B-48	AXLE, Wheel	8	33		NUT, 7/16" S.A.E.	32
17	B-49	NUT, Wheel axle	8	34		LOCKWASHER 7/16"	32



# "BULGY" PARTS CATALOG

## MISCELLANEOUS ASSEMBLY





# "BULGY" PARTS CATALOG

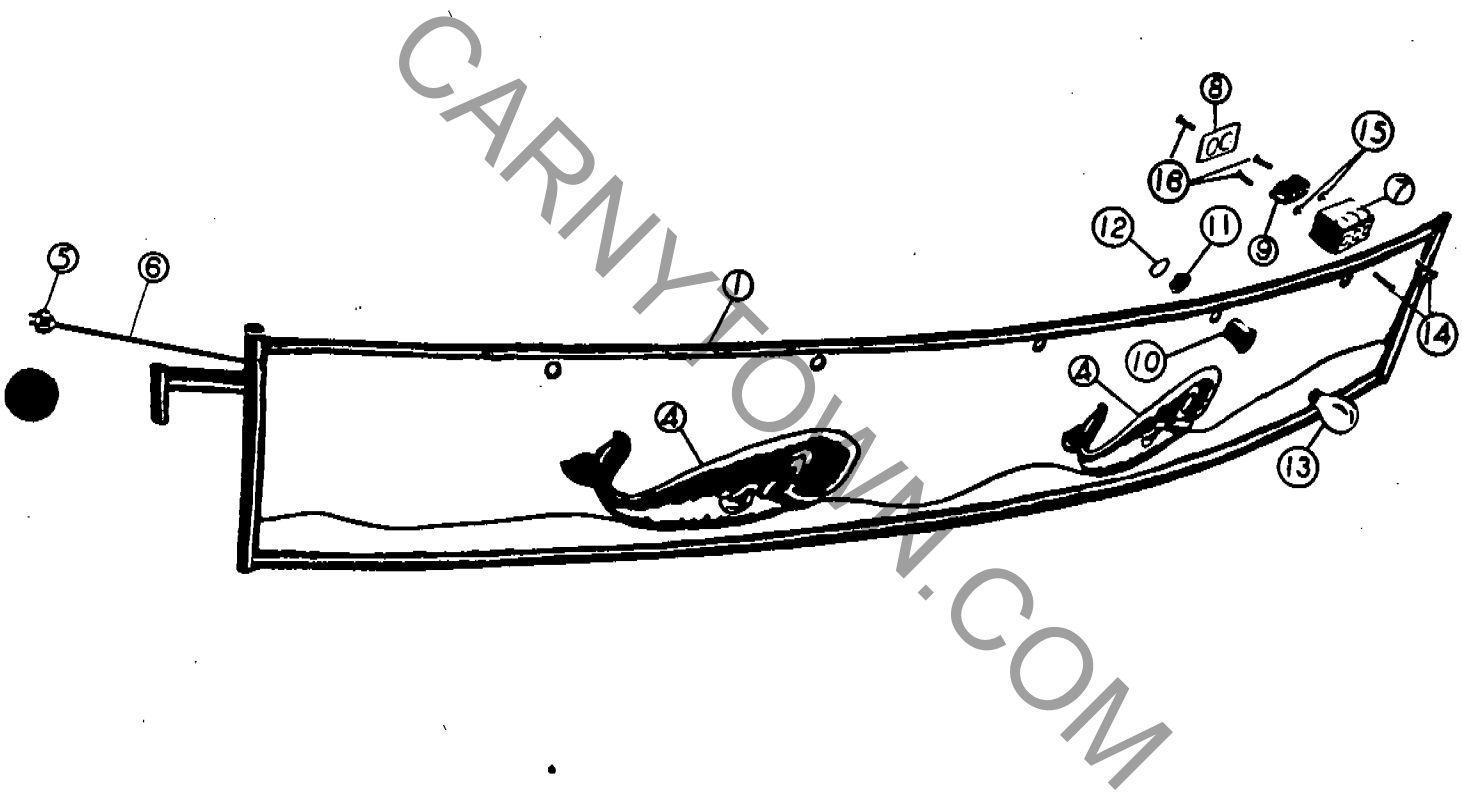
## MISCELLANEOUS ASSEMBLY

REF. NO.	PART NO.	NAME OF PART	NO. REQ.	REF. NO.	PART NO.	NAME OF PART	NO. REQ.
1	B-5	POST, Control	1	24	MB-83	PLUG, 110 V. Input to switch & Radial (Rod) Input	2
2	B-8	PLATE, Track Jack	8	25	MB-92	POLE, Upper Center	1
3	B-9	POST, Top	6	26	MB-93	RADIAL ROD ASSEMBLY, (with electrical fittings)	1
4	MB 9	ROD, Radial	7	*	MB-94	MOTOR, (3 phase)	1
*	B-10	POST, Top (Single fence bracket)	1	27	MB-102	CONNECTOR BODY, Radial Rod Output & 110 V. Output	4
5	B-11	JACK Top Post	8	28	MB-103	PLUG, Power cord & power input (Single Phase)	2
6	MB-11	POLE, Lower Center	1	29	MB-104	CONNECTOR BODY, Power cord & power output (Single Phase)	2
7	B-12	RAIL, Fence	7	*	MB-105	PLUG, Power cord & power input (3-phase)	2
8	B-24	TRACK SECTION	4	*	MB-106	CONNECTOR BODY, Power cord & power output (3-phase)	2
9	B-26	ROLLER CHAIN	1	30	MB-107	CONNECTOR BODY, Holding coil cord & 110 V. input to Timer Switch	1
10	B-33	SHEAVE, Motor	1	31	MB-108	PLUG, 110V. Output from Timer Switch	1
11	B-36	JACK, Track	8	32	MB-109	PLUG, Holding Coil	1
12	B-37	TIE BAR, Track	8	*		CAP SCREW, 5/8" x 1-1/2" S. A. E. (track jack)	8
13	MB-44	SWITCH, Magnetic	1	*		WASHER, 5/8" Flat (track jack)	8
14	MB-45	SWITCH, Disconnect (lights)	1	*		LOCKWASHER, 5/8" (track jack)	8
*	MB-46	SWITCH, Light Toggle	1	*		NUT, 5/8" S. A. E. (track jack)	8
*	MB-47	FUSE, Light Disconnect	2	*		CAP SCREW, 1/2" x 1-1/2" S. A. E. (track)	8
15	MB-48	SWITCH, Disconnect, (power)	1	*		LOCKWASHER, 1/2" (track)	6
*	MB-49	FUSE, Power Disconnect Switch	2	*		NUT, 1/2" S. A. E. (track)	8
16	MB-50	MOTOR, (Single Phase)	1	*		CAP SCREW, 1/2" x 1-1/2" S. A. E. (Countershaft bracket)	4
17	B-53	"V" Belt	2	*		WASHER, 1/2" Flat (Countershaft bracket)	4
18	MB-53	SWITCH, Timer	1	*		LOCKWASHER, 1/2" (Countershaft bracket)	4
*	B-54	COVER, Sweep	1	*		NUT, 1.2" S. A. E. (Countershaft bracket)	4
*	MB-54	TOP	1	*		CAP SCREW, 3/8" x 1" S. A. E. (Motor to motor plate)	4
*	MB-55	SIDE WALL	1	*		LOCKWASHER, 3/8" (Motor to motor plate)	4
19	MB-58	ROPE BLOCK, Top	1	*		NUT, 3/8" (Motor to motor plate)	4
20	MB-60	CORD ASSEMBLY, Holding coil	1	*		CAP SCREW, 3/8" x 1-1/4" S. A. E. (Motor plate to base)	4
	MB-61	CORD ASSEMBLY, Power	1	*		LOCKWASHER, 3/8" (Motor plate to base)	4
22	MB-70	BRACE, Countershaft bracket	1	*		NUT, 3/8" S. A. E. (Motor plate to base)	4
23	MB-71	BASE, Power Unit	1	*			
*	MB-72	CLAMP, Motor hold down	4				



# "BULGY" PARTS CATALOG

## CRESTING ASSEMBLY



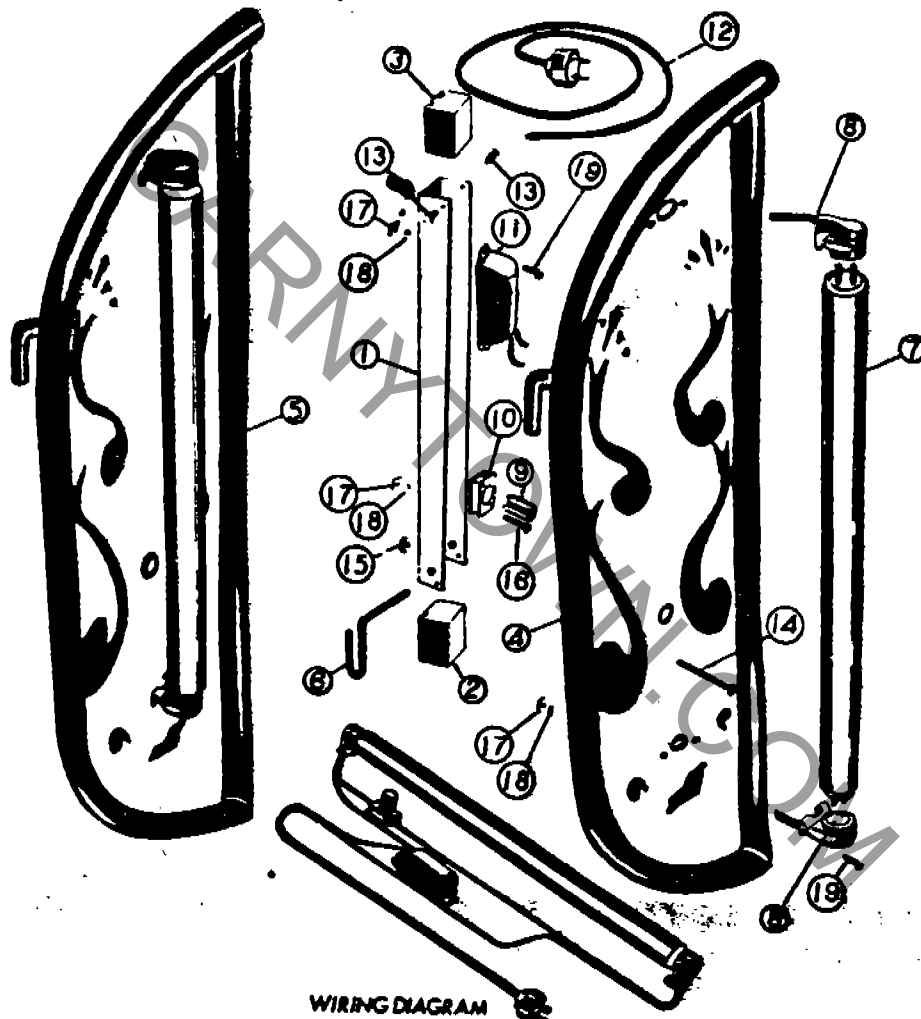
REF. NO.	PART NO.	NAME OF PART	NO. REQ.	REF. NO.	PART NO.	NAME OF PART	NO. REQ.
1	B-10	CRESTING	8	9	MB-87	RECEPTACLE, Cresting light	8
•	B-50	CRESTING ASSEMBLY (plain)	7	10	MB-88	SOCKET, Cresting lamp	40
•	B-51	CRESTING ASSEMBLY (sign)	1	11	MB-89	CAP, Cresting lamp socket	40
4	B-52	DECAL	23	12	MB-90	RING, Cresting lamp socket snap	40
5	MB-83	CAP, Cresting light	8	13	MB-91	LAMP, Cresting	40
	MB-84	CORD, Cresting light	8	14		MACHINE SCREW, 8-32 X 3/4" Rd. Hd. (brass)	16
	MB-85	BOX, Outlet	8	15		NUT, 8-32 (brass)	16
8	MB-86	COVER, Outlet box	8	16		MACHINE SCREW, 6-32 X 1/2" Flat Hd.	24

\* Not illustrated



# "BULGY" PARTS CATALOG

## MEDALLION ASSEMBLY



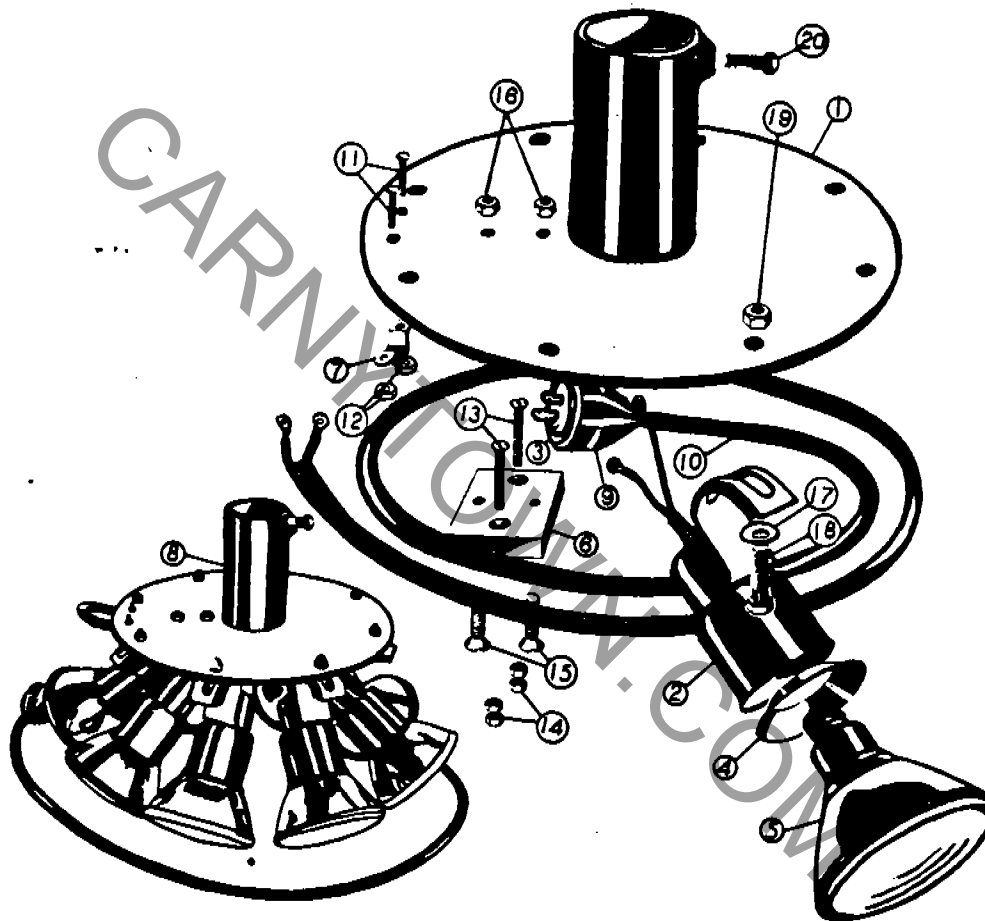
WIRING DIAGRAM

REF. NO.	PART NO.	NAME OF PART	NO. REQ.	REF. NO.	PART NO.	NAME OF PART	NO. REQ.
1	MB-63	BOX, Medallion Fluorescent Light Fixture	8	11	MB-82	BALLAST, Medallion Fluorescent	8
2	MB-64	BOX END, (Lower) Medallion Fluorescent Fixture	8	12	MB-83	CAP, Medallion Light	8
3	MB-65	BOX END, (Upper) Medallion Fluorescent Fixture	8	13		METAL SCREW, No. 7 x 1/2"	24
4	MB-67	MEDALLION	8	14		MACHINE SCREW, 8-32 x 1-3/4" Rd. Hd. (Brass)	16
	MB-68	MEDALLION ASSEMBLY	8	15		NUT, 8-32 (Brass)	16
	MB-69	LOCK, Medallion	8	16		MACHINE SCREW, 6-32 x 3/4" (Brass)	16
	MB-78	TUBE, Medallion Fluorescent	8	17		NUT, 6-32 (Brass)	64
	MB-79	SOCKET, Medallion Fluorescent Tube	16	18		LOCKWASHER, 1/8"	64
	MB-80	STARTER, Medallion Fluorescent	8	19		MACHINE SCREW, 6-32 x 1/2"	64
	MB-81	SOCKET, Medallion Fluorescent Starter	8				



# "BULGY" PARTS CATALOG

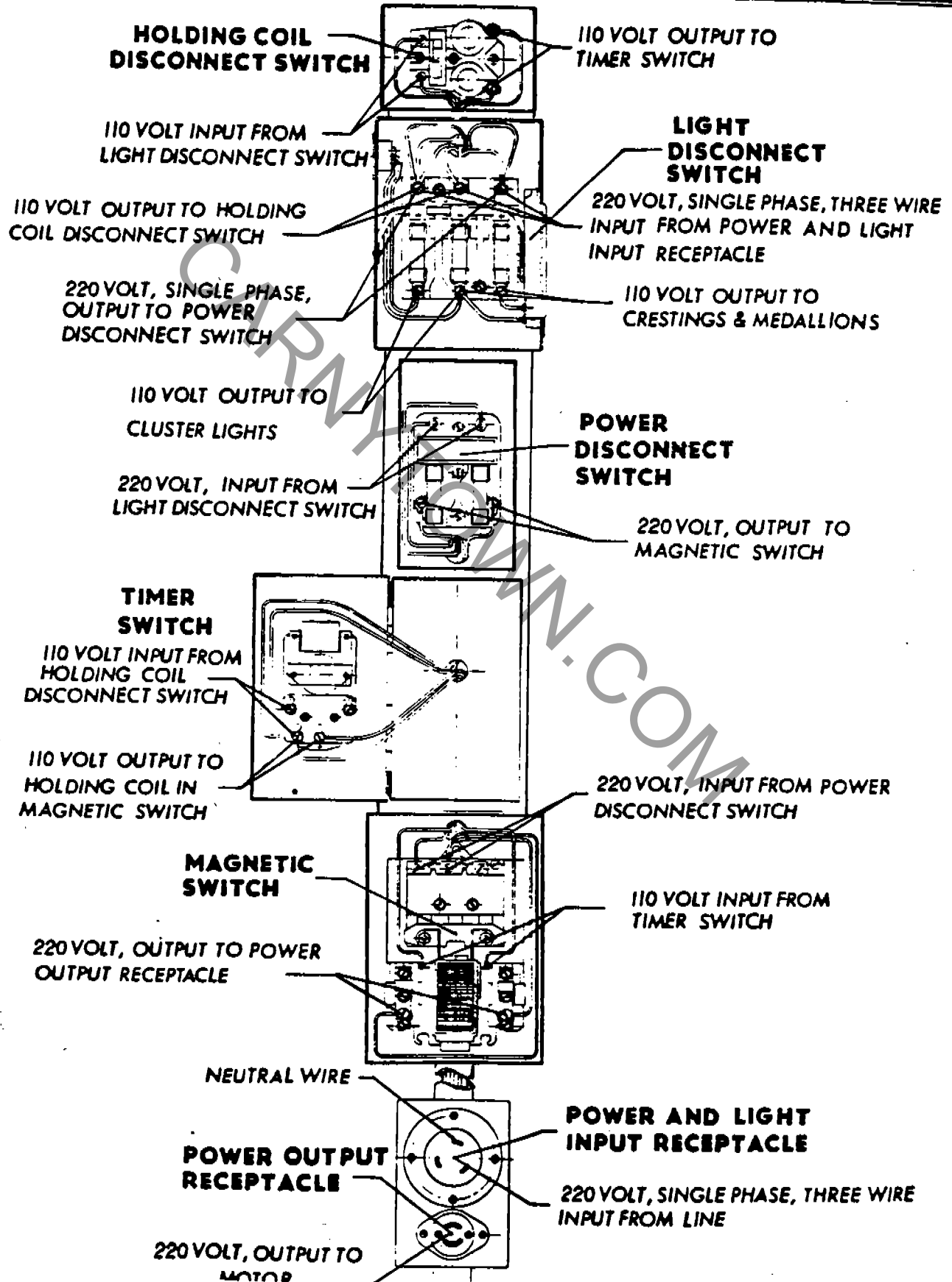
## CLUSTER LIGHT ASSEMBLY



REF. NO.	PART NO.	NAME OF PART	NO. REQ.	REF. NO.	PART NO.	NAME OF PART	NO. REQ.
1	MB-20	FLANGE, Light Cluster	1	11		MACHINE SCREW, 6-32 x 3/4 (Rd. Hd. Brass)	2
2	MB-56	LAMPHOLDER, Cluster Light	8	12		NUT, 6-32	2
3	MB-83	CAP, Cluster Light	1	13		MACH. SCREW, 8-32 x 1-1/2 (Flat Hd. Brass)	2
4	MB-95	GASKET, Cluster Light Lampholder	8	14		NUT, 8-32	4
5	MB-96	LAMP, Cluster Light	8	15		MACH. SCREW, 10-32 x 1" (Flat Hd. Brass)	2
6	MB-97	BLOCK, Terminal	1	16		NUT, 10-32	2
7	MB-98	CLAMP, Cord	1	17		WASHER, 1/4" Flat	8
8	MB-99	ASSEMBLY, Cluster Light	1	18		CAP SCREW, 1/4"x 3/4" SAE	8
9	MB-100	COVER, Cluster Light Cap (Rubber)	1	19		NUT, 1/4" SAE	8
10	MB-101	CORD, Cluster Light	1	20		CAP SCREW, 3/8"x 3/4" U.S. Std.	1



# WIRING DIAGRAM for BULGY with SINGLE PHASE MOTOR





# WIRING DIAGRAM for BULGY with THREE PHASE MOTOR

