

GROVER C.
WATKINS

502-442-1666 — P. O. Box 218 — PADUCAH, KY. 40301

August 24, 1978

EMERGENCY SAFETY BULLETIN

It has been reported to us that one of the secondary sweep shafts on a TEMPEST has broken, permitting the sweep and the two cars mounted on it to tilt over to the ground.

Non destructive testing of both secondary sweep shafts on your TEMPEST must be done immediately. We recommend ultra sonic testing, however, any non-destructive test which will reveal a fatigue crack may be used. If the test shows any imperfections, please close the ride and call us collect at 502-442-1666.

If the test shows no defect, please send us a copy of the test report.

We urge you to have the tests done immediately.

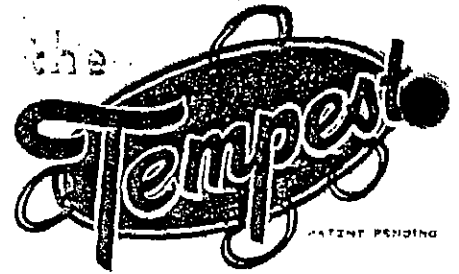
GROVER C. WATKINS, INC.

James A.
WATKINS, Inc.

Telephone 502-243-7373

1337 North 5th St. — PADUCAH, KY. 40301

Manufacturers
of

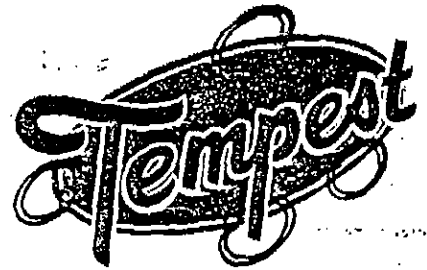


AMUSEMENT RIDE

SERVICE BULLETIN

The maximum speed of your TEMPEST is nine revolutions per minute of the main sweep. Do not attempt to tamper with the governor setting or otherwise increase this speed. Experience has shown that the most appealing ride is given when the TEMPEST is operated at six to seven revolutions per minute for the first part of the cycle, then increasing the speed to the full nine revolutions per minute before shut-off.

DO NOT EXCEED NINE REVOLUTIONS PER MINUTE FOR THE MAIN SWEEP



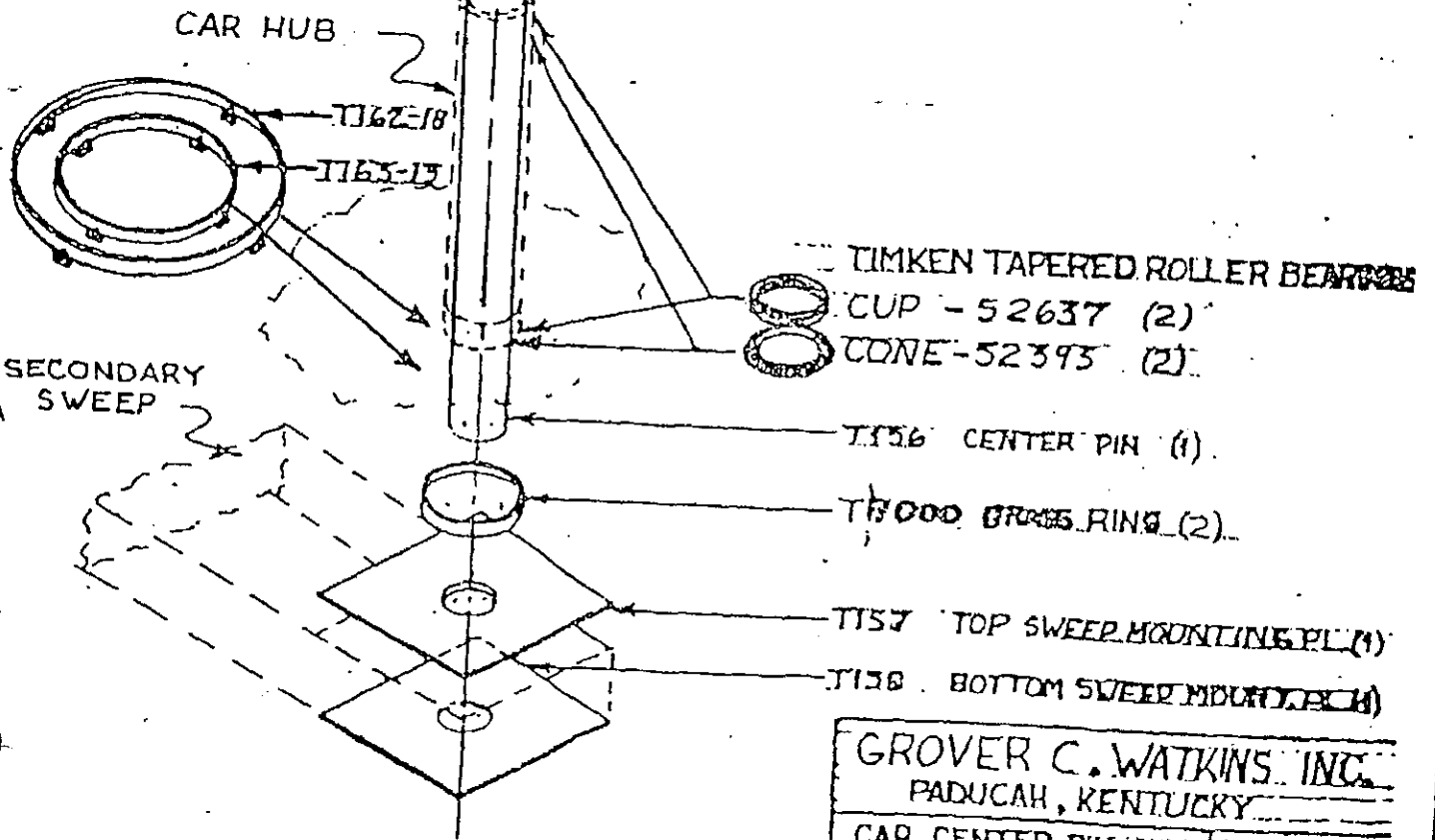
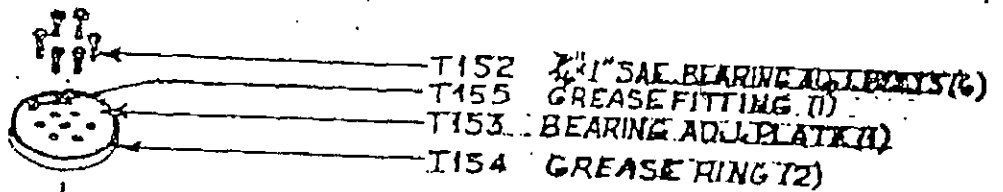
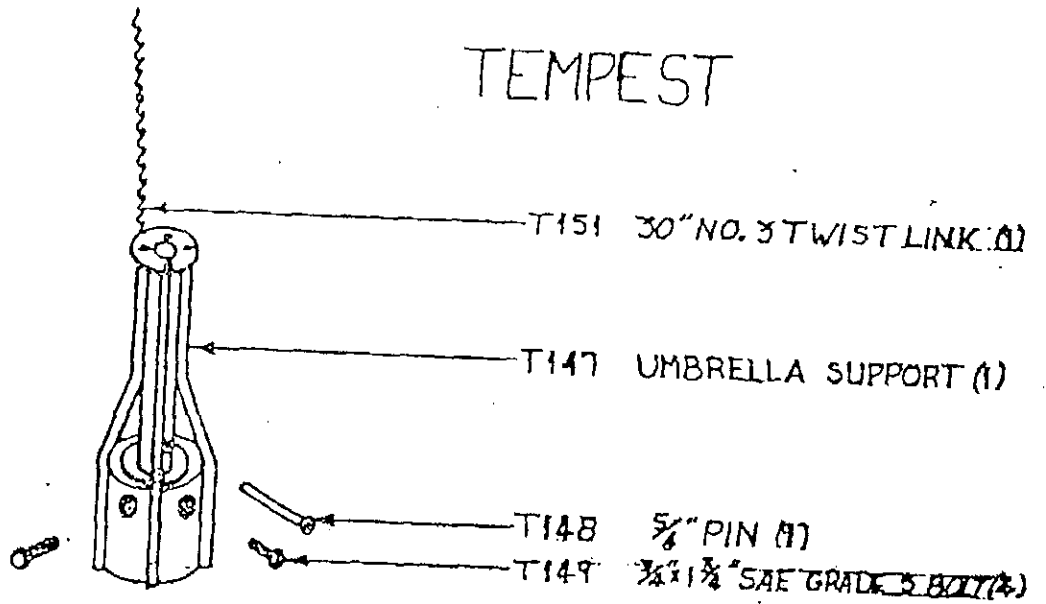
SERVICE BULLETIN

Replacement of TEMPEST Bolts And Nuts

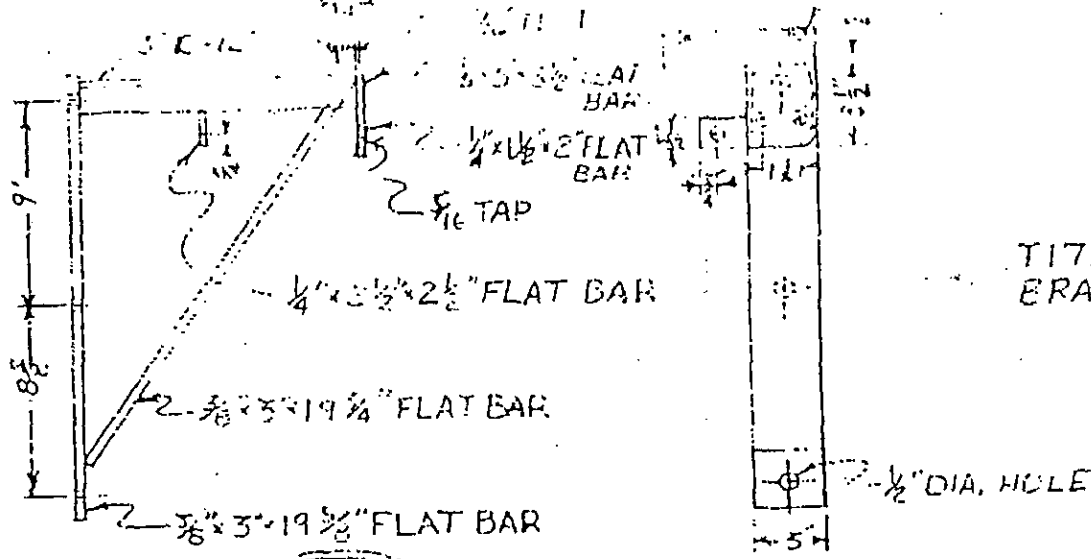
All cap screws on the TEMPEST are Grade 5 high tensile bolts which have a strength almost twice that of ordinary bolts. Also, self-locking nuts are used at all critical points. When replacing bolts on your TEMPEST, do not use ordinary bolts. Grade 5 high tensile bolts are available from us or from Caterpillar Tractor Dealers and better industrial supply houses throughout the country.

GROVER C. WATKINS, INC.

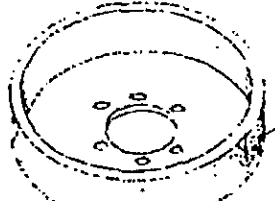
TEMPEST



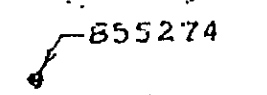
GROVER C. WATKINS, INC.
 PADUCAH, KENTUCKY
 CAR CENTER PIN ASSY. SHEET



T171 MOUNTING BRACKET FOR BRAKE

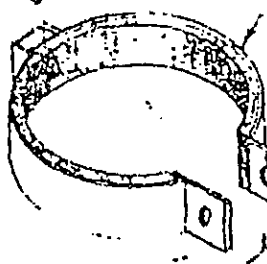


1946466 BRAKE DRUM

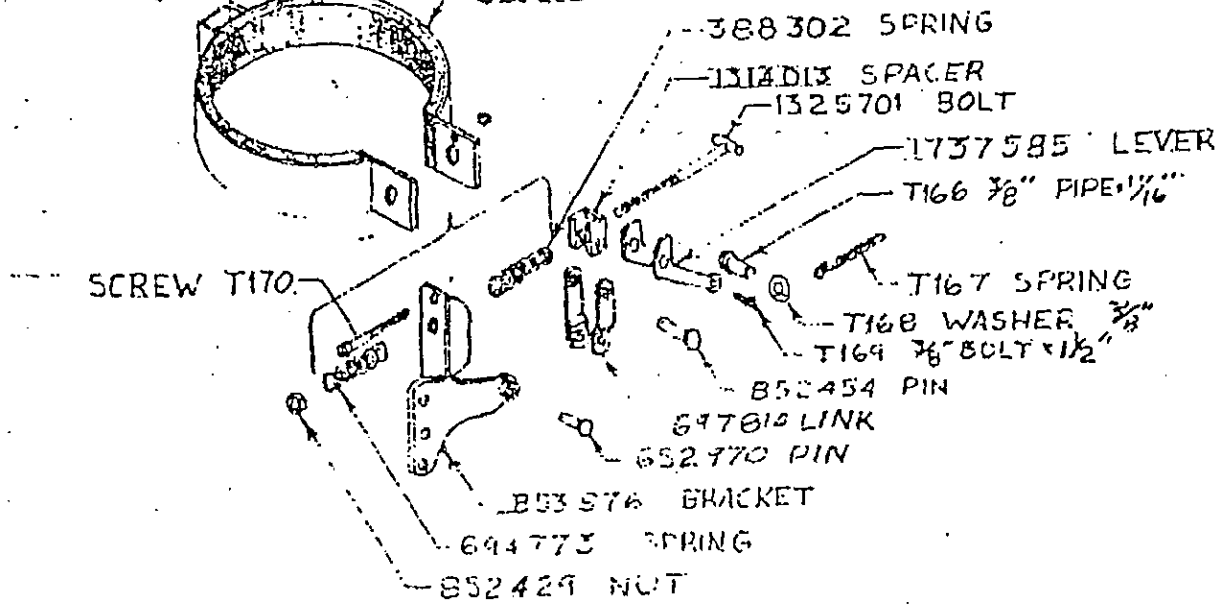


855274 SPRING

5/16" Bolt



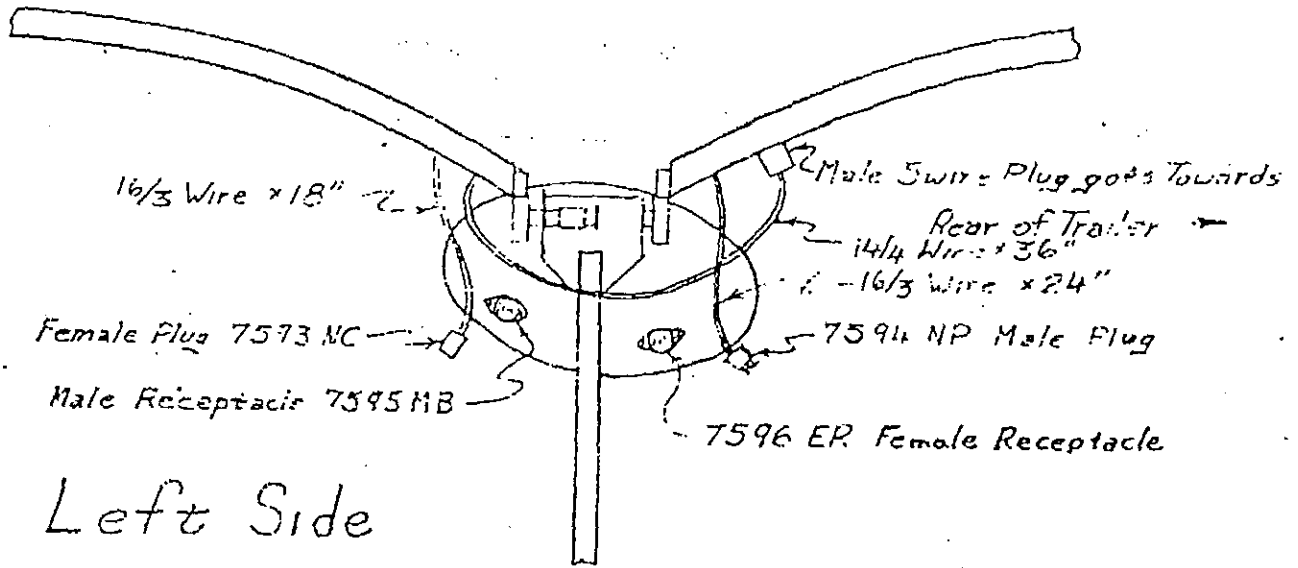
863446 BRAKE BAND



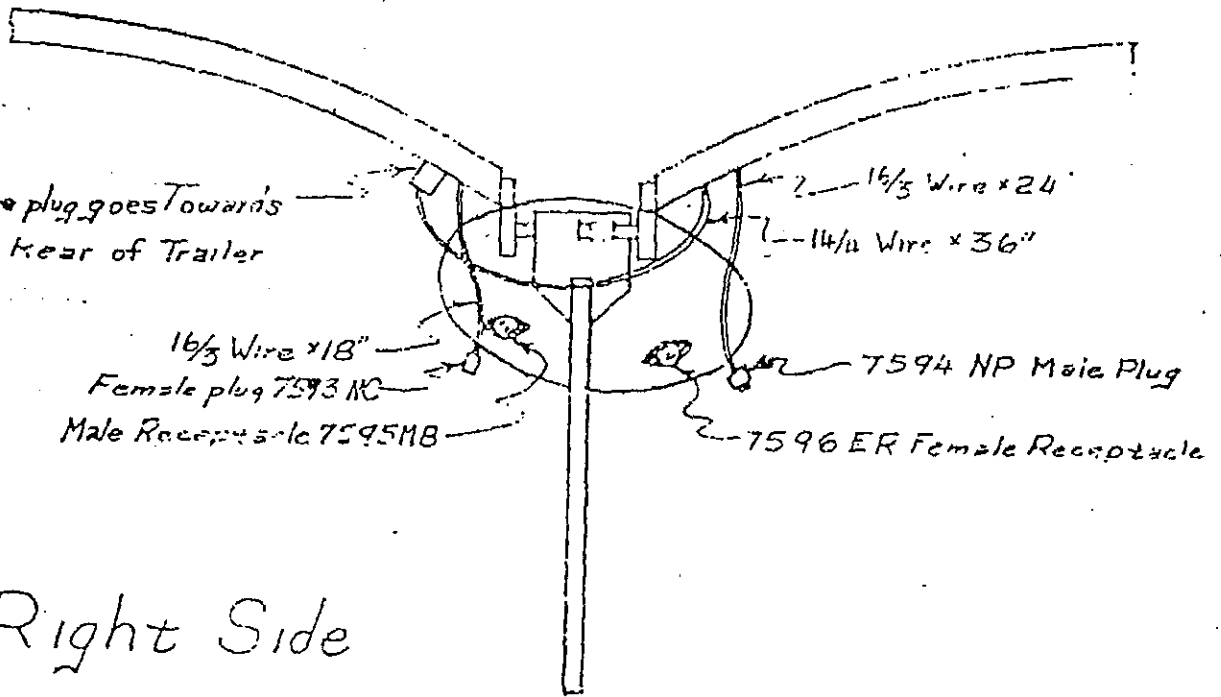
61. DODGE PARKING BRAKE

TEMPEST

GROVER, C. WATKINS INC.
 PADUCAH, KENTUCKY
 BRAKE ASS. SHEET
 NO. 17



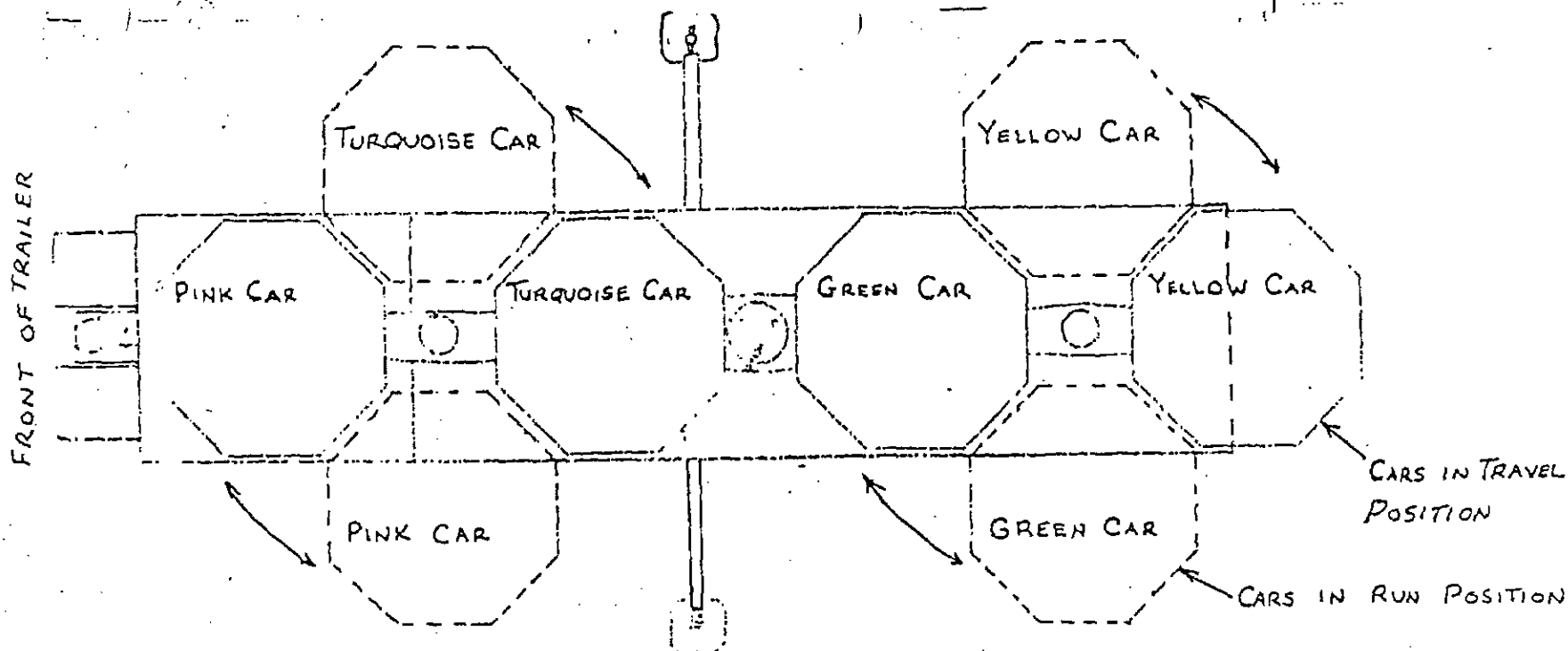
Left Side



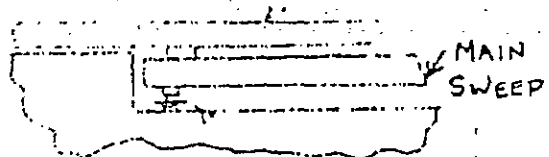
Right Side

Tempest

Grover C. Watkins Inc Paducah, Kentucky		
Light Arch Set Up		
Date 3/15/77	Scale None	Dwg. No.
Dr B. Davis	Ch.	TL71144



SECONDARY SWEEP



PINS IN CENTER SPROCKET

TO ALIGN CARS FOR RUN POSITION.

1. MAIN SWEEP JACK SCREWS MUST BE DOWN TIGHT IN TRAILER SOCKETS.
2. REMOVE 3 LOCKING PINS IN CENTER SPROCKETS USE LUG WRENCH HANDLE TO REMOVE PINS.
3. MOVE SECONDARY SWEEP COUNTER CLOCKWISE AS SHOWN SO THAT THEY ARE CROSSWISE ON TRAILER
4. REPLACE LOCKING PINS IN CENTER SPROCKET.
5. REMOVE JACK SCREWS

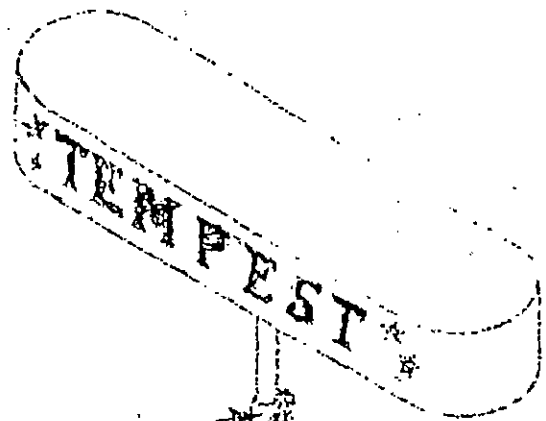
GROVER C. WATKINS, INC
PADUCAH, KENTUCKY

TEMPEST CAR ALIGNMENT

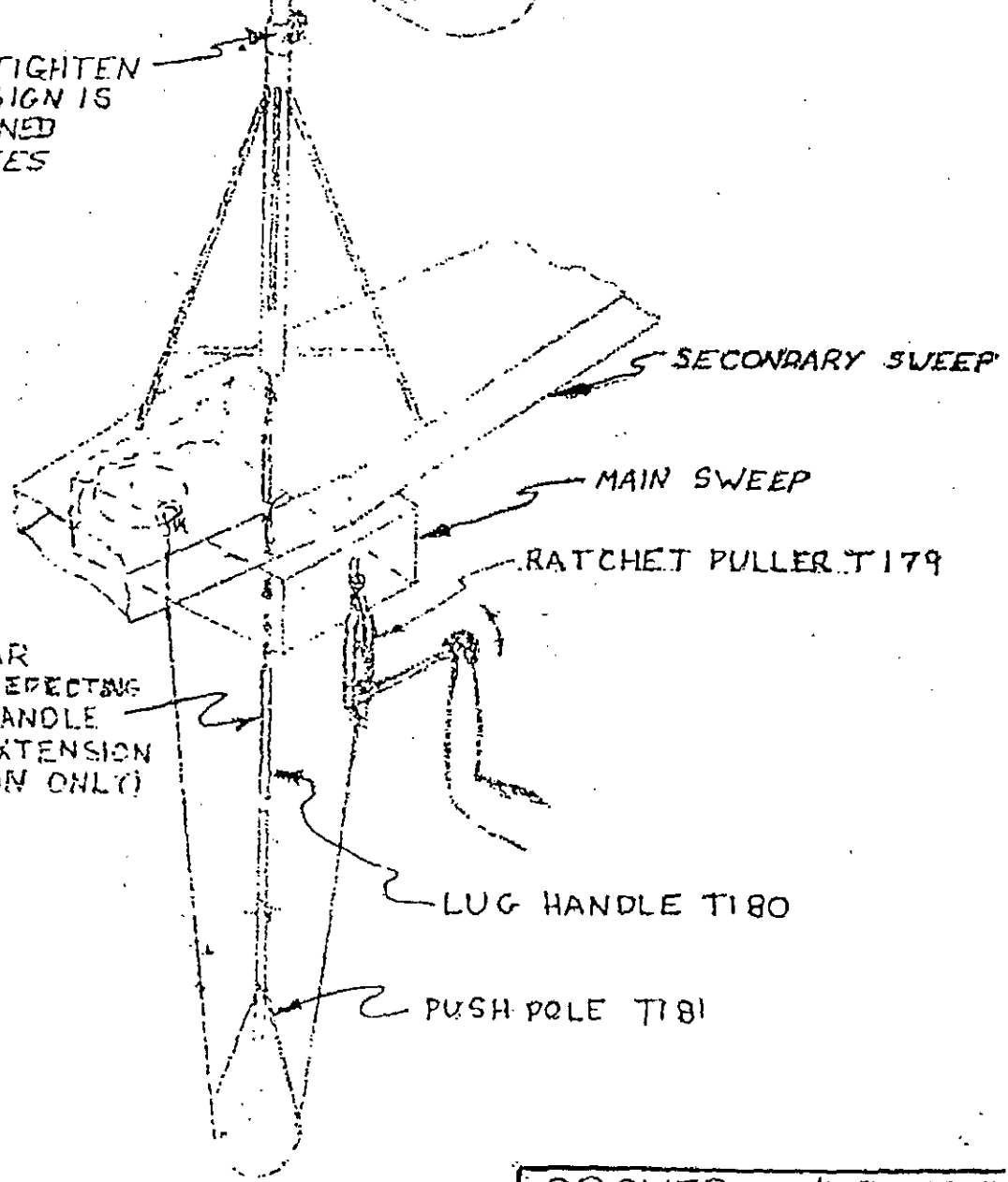
ANNABLE 8-7-72

DRAWING NO.

TEG 445



INSERT PIN & TIGHTEN CLAMP AFTER SIGN IS RAISED AND TURNED 90 DEGREES



SECONDARY SWEEP

MAIN SWEEP

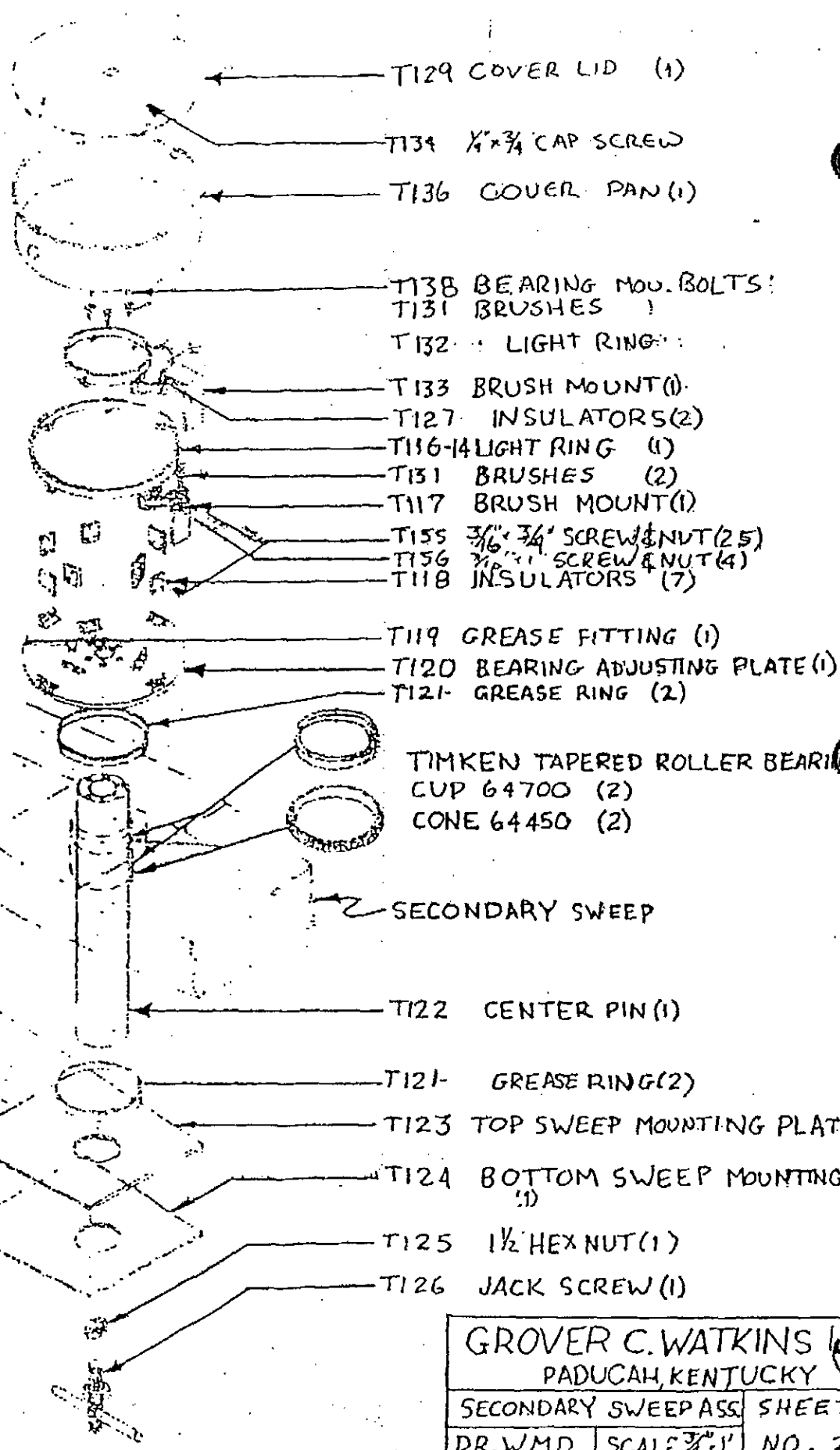
RATCHET PULLER T179

LUG HANDLE T180

PUSH POLE T181

FOLLOW SIMILAR PROCEDURE FOR ERECTING UMBRELLA (LUG HANDLE IS USED AS AN EXTENSION FOR SIGN ERECTION ONLY)

GROVER C. WATKINS IN	
PADUCAH, KENTUCKY	
DR. WMD	SHEET
SCALE NO	NO. 9

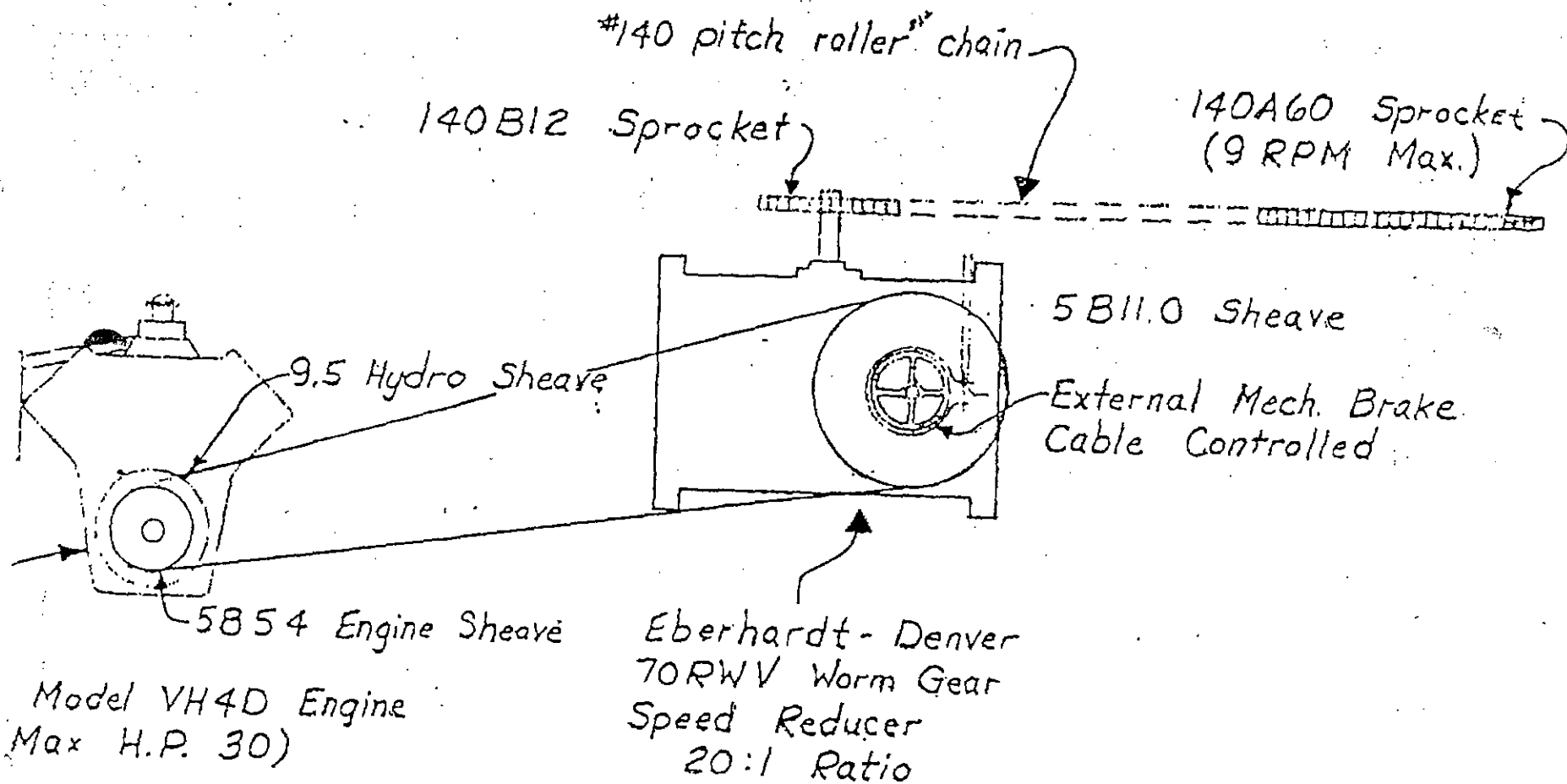


- T129 COVER LID (1)
- T134 1/2 x 3/4" CAP SCREW
- T136 COVER PAN (1)
- T138 BEARING HOUS. BOLTS:
- T131 BRUSHES (1)
- T132 LIGHT RING:
- T133 BRUSH MOUNT (1)
- T127 INSULATORS (2)
- T136-14 LIGHT RING (1)
- T131 BRUSHES (2)
- T117 BRUSH MOUNT (1)
- T155 3/16" x 3/4" SCREW & NUT (25)
- T156 7/16" x 1" SCREW & NUT (4)
- T118 INSULATORS (7)
- T119 GREASE FITTING (1)
- T120 BEARING ADJUSTING PLATE (1)
- T121 GREASE RING (2)
- TIMKEN TAPERED ROLLER BEARING
- CUP 64700 (2)
- CONE 64450 (2)
- SECONDARY SWEEP
- T122 CENTER PIN (1)
- T121 GREASE RING (2)
- T123 TOP SWEEP MOUNTING PLATE
- T124 BOTTOM SWEEP MOUNTING PLATE (1)
- T125 1/2" HEX NUT (1)
- T126 JACK SCREW (1)

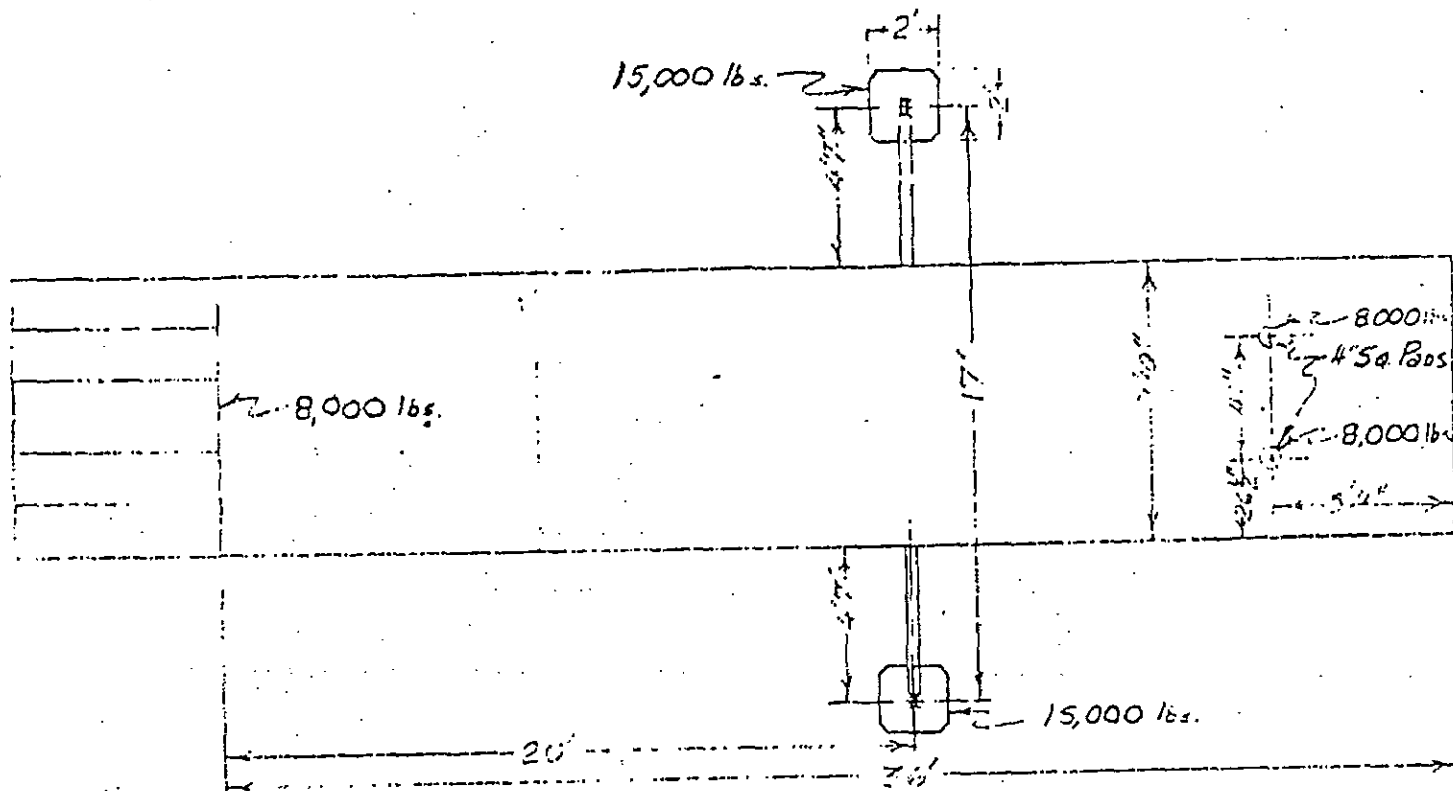
GROVER C. WATKINS INC
 PADUCAH, KENTUCKY

SECONDARY SWEEP ASS.	SHEET
DR. WMD	SCALE 3/4" = 1" NO. 2

MAIN SWEEP



TEMPEST PRIMARY POWER TRAIN



Tempest

Grover C. Watkins Inc.
Paducah, Kentucky

Load Distribution Plan View

Date: _____	Scale: 1/4" = 1'	Dwg. No.
Dr. B. _____	h.	T. 11385

INSERT SIGN IN POLES
WITH POLES IN HORIZONTAL
POSITION THEN RAISE

SIGN POLE, FENCE
HANDRAIL CLAMP
TOGETHER AT
CENTER OF RAMP

TIEY ENTRANCE SI

TEMPEST

SMOOTH SIDE
FACES OUT

TIBB SIGN POLE.

HANDRAIL
CENTER PIPE

Section A-A

FENCE, SIGN POLE & HANDRAIL
CLAMP TOGETHER AT CENTER
OF RAMP

FENCE SOCKET

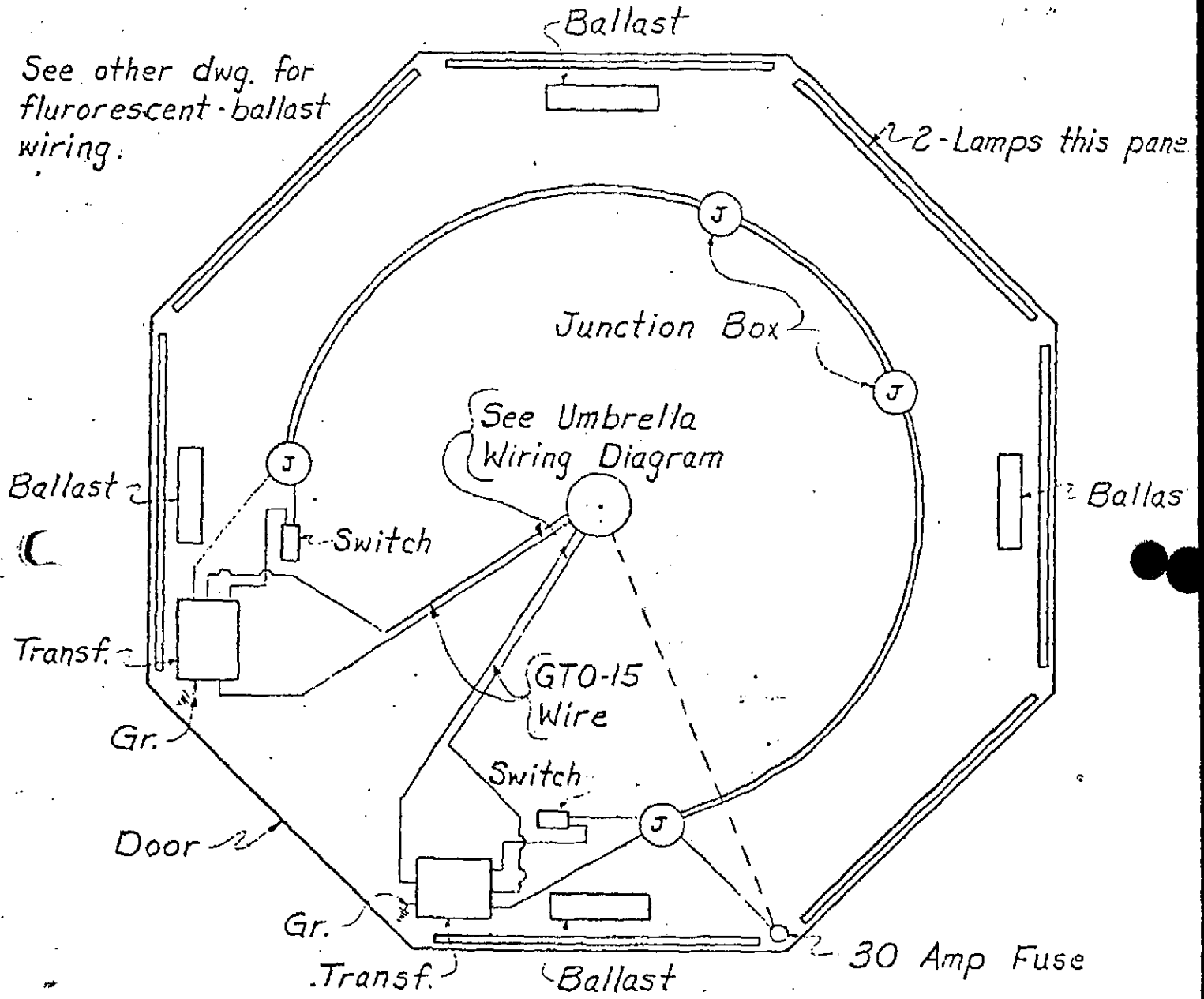
Tempest

GROVER C. WATKINS
PADUCAH, KENTUCKY

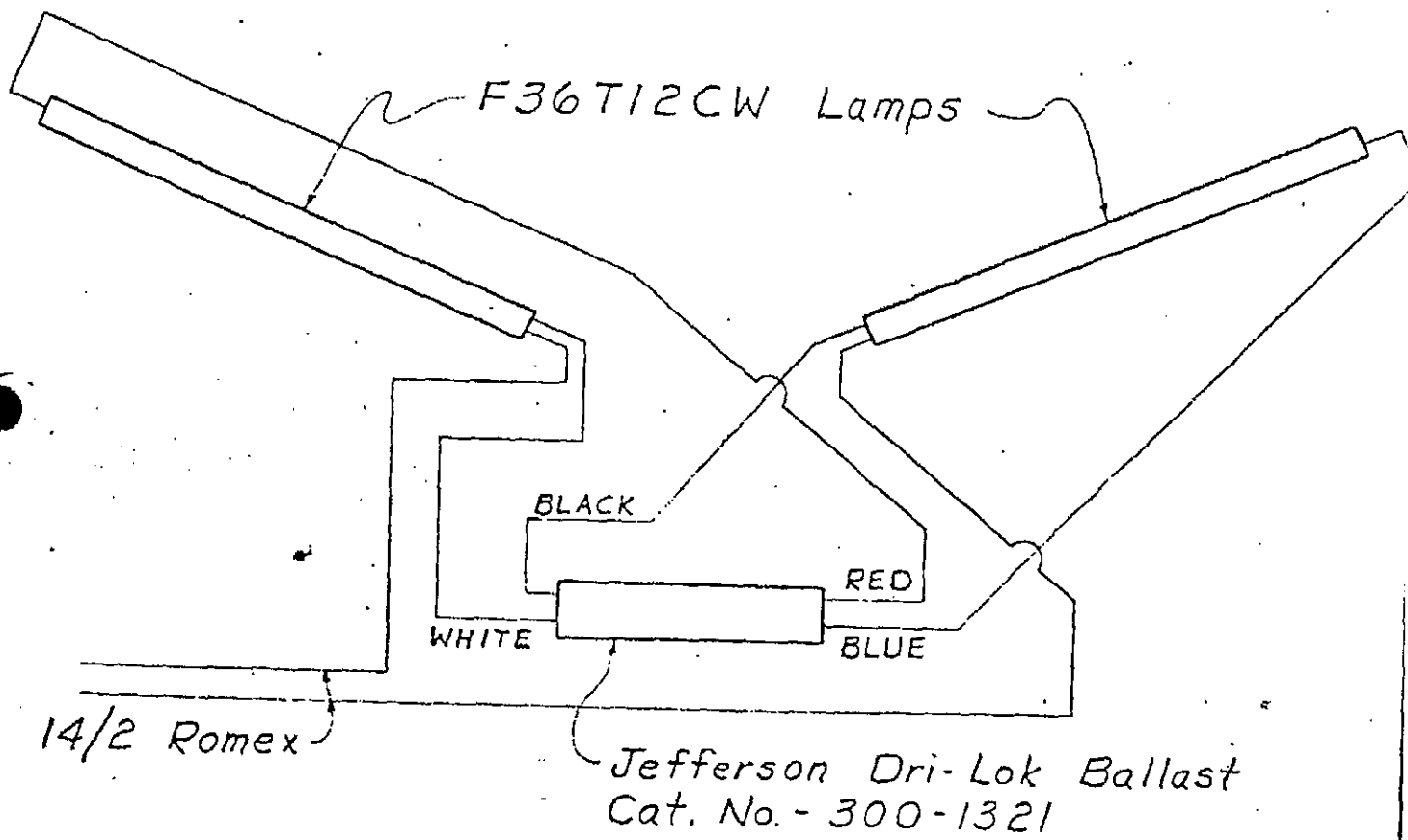
ENTRANCE SIGN SHEET

DR. WMD SCALE NONE NO. 11

See other dwg. for
fluorescent-ballast
wiring.



WIRING DIAGRAM FOR CAR



TYPICAL FLURORESCENT
BALLAST WIRING DIAGRAM

Grover C.
WATKINS, inc.

Telephone 502-422-1666 — Route 7 — PADUCAH, KY. 42001

Manufacturers of the

Tempest
PATENT PENDING

the

HUSLER
AMUSEMENT RIDES

LIGHT COLLECTOR RINGS

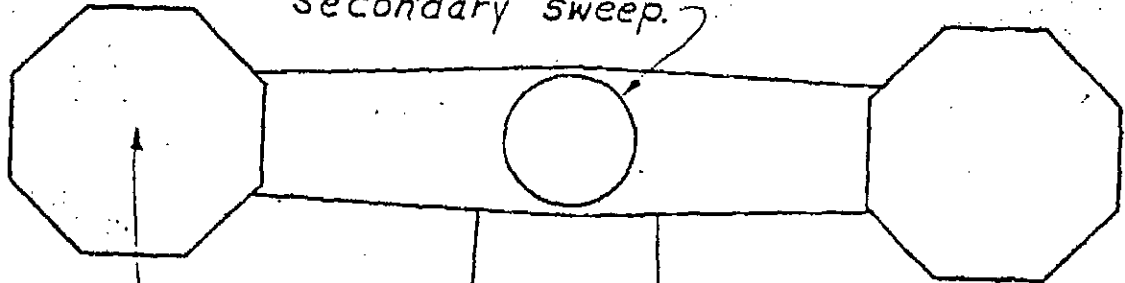
There are seven sets of light collector rings on your TEMPEST.

All of the rings should be cleaned regularly and lubricated with a light coat of vaseline. The contact hinges should be given a drop or two of oil.

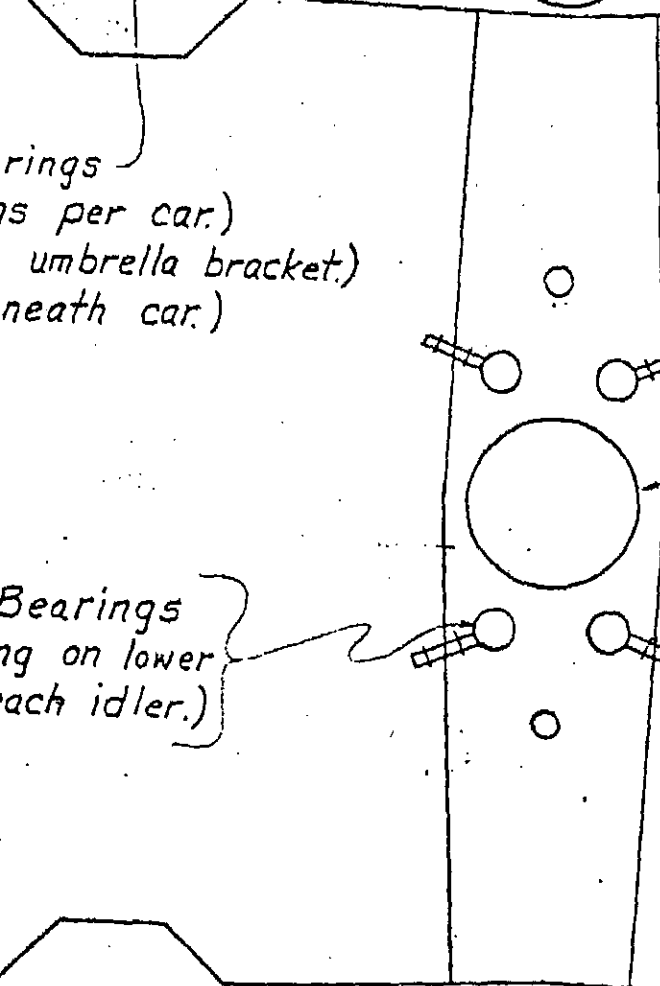
Don't forget that there are a pair of collector rings on each secondary sweep under the steel cover right under the TEMPEST sign tower. These must also be lubricated regularly.

Proper maintenance will insure many years of service from these parts.

2-fittings - (one above sprocket,
(one inside cover on top of
secondary sweep.)



Car Bearings
(2-fittings per car.)
(one inside umbrella bracket.)
(one underneath car.)

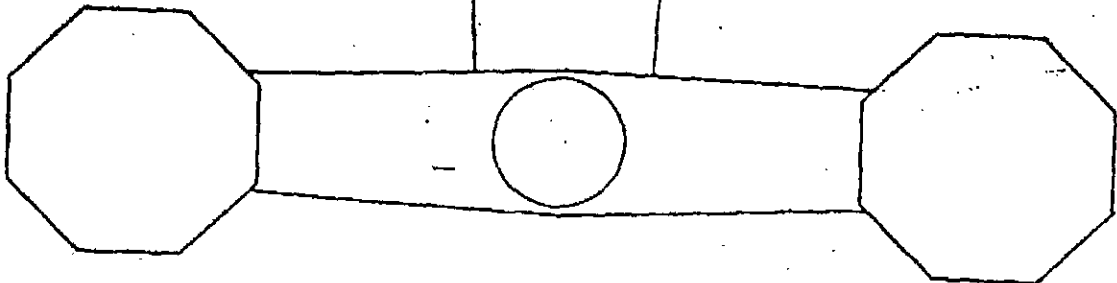


Lower Chain Idler
(2 - fittings)

Main Center Pin Bearing
(3 - fittings)
2-above sweep under spro
one under lower sprocket

Idler Bearings
(one fitting on lower
side of each idler.)

One fitting each
Spring Housing



CAUTION: DO NOT LUBRICATE
WHEN LIGHTS ARE ON.

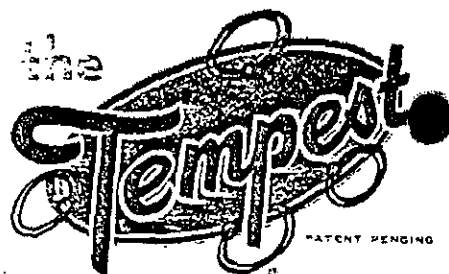
TEMPEST LUBRICATION CHART

Grover C.
WATKINS, Inc.

Telephone 502-442-7078

1051 North 9th St. — PADUCAH, KY. 42001

Manufacturers
of



AMUSEMENT RIDE

Service Bulletin

Roller Chain Lubrication

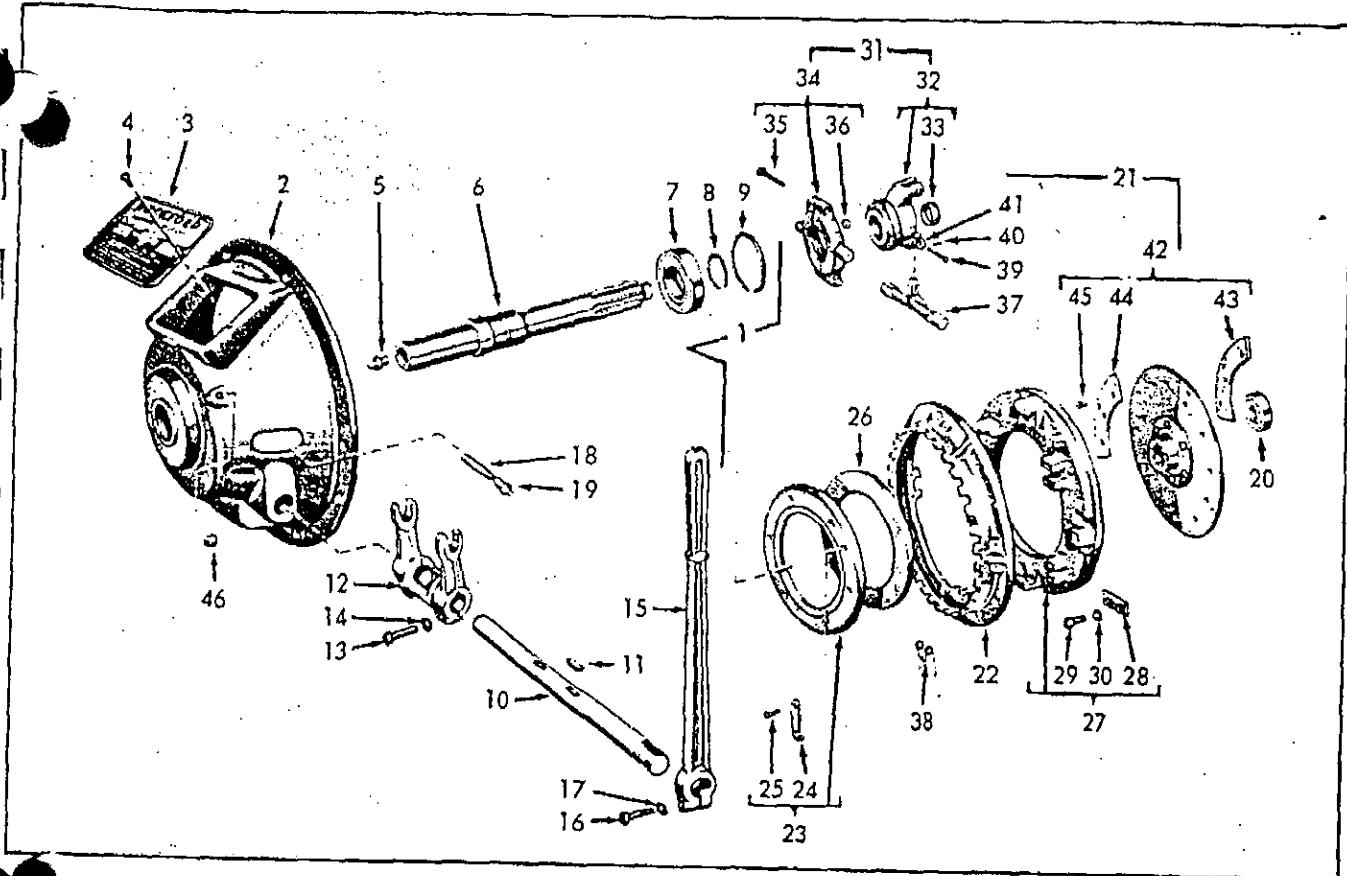
The roller chains on your "Tempest" are, of course, a very important part. It is extremely important that the interior of the pins and rollers receive lubrication. If you remember that the clearance between these parts is one-half thousandths of an inch, it is easy to understand why thick greases cannot penetrate into these close areas. We have seen instances where operators have applied very thick heavy grease, intended for exposed gears to their roller chains thereby causing extreme wear and failure.

We recommend regular application of a couple of drops of motor oil to the top of each pin in the roller chain. It should be done often enough to be certain that the interior pins and rollers are receiving the oil. Due to varying conditions of dust and wind, etc. it is hard to set a regular interval but generally these chains should be lubricated at least once a week.

Remember the important thing is to use oil, not grease regularly.

Grover C. Watkins, Inc.

WC-302-B CLUTCH AND POWER TAKE-OFF UNIT, ROCKFORD No. PTA-5822



206585C-A

Rockford Part Number	Description	No Req	Ref. No.	Rockford Part Number	Description	No Req
1	PTA-5M30 HOUSING and SHAFT ASSEMBLY 1	1	26	CL-3448	ADJUSTING RING PLATE 1	1
2	PT-969-28 No. 5 S.A.E. HOUSING (Rep'l. PT-969) 1	1	27	UCL-2348-1	PRESSURE PLATE ASSEMBLY Includes: 1	1
3	PT-1593 INSTRUCTION PLATE (Rep'l. PT-897) 1	1	28		CL-3352 Cam block 1	4
4	PT-770 INSTRUCTION PLATE GASKET 1	1	29		CL-3917 Screw, 1/4"-20 thread x 3/8" long, 4	4
5	PT-347 SCREW for instruction plate, 1/4"-20 x 3/8" 4	2	30		fillister head 4	4
6	PT-360 ALEMITE FITTING, No. 1610 1	1	31	UCL-1-3444-A	CL-3468 Lockwasher, 1/4" Shakeproof 4	1
7	UPT-684-3 DRIVE SHAFT ASSEM. (Incl. Ref. No. 5) 1	1	32	UCL-3444	SLEEVE and BEARING ASSEMBLY 1	1
8	PT-972 SHAFT BEARING, Wis. Motor No. ME-195 1	1	33		(Replaces UCL-3444-A) 1	1
9	PT-807 SNAP RING on shaft for bearing 1	1	34	UCL-2-3091	SLEEVE ASSEMBLY 1	1
10	PT-938 PT-191 replaced by PT-807. 1	1	35		Includes: 2	2
11	PT-200 SHAFT BEARING, Wis. Motor No. ME-195 1	1	36		CL-3089 Bushing 2	1
12	PT-351 SNAP RING in housing for bearing 1	1	37	UCL-2-3091	RELEASE BEARING ASSEMBLY 1	1
13	UPT-199 SHIFTER SHAFT 2	1	38		(Replaces UCL-1-3091). 1	1
14	PT-352 KEY for shifter yoke, No. 15 Woodruff 1	2	39		Includes: 2	2
15	UPT-353 SHIFTER YOKE (Incl. Ref. No's. 13, 14) 1	2	40		CL-3443-1 Screw, 5/16"-24 thread x 1-5/8" 2	2
16	PT-353 CLAMP SCREW for yoke, 3/8"-18 x 1 1/2" hex. 2	2	41		long, hexagon 2	2
17	UPT-769 LOCKWASHER for yoke clamp screw, 3/8" 2	1	42		CL-7356 Elastic stop nut, 5/16"-24 thread. 2	2
18	PT-604 SHIFTING LEVER (Incl. Ref. No's. 16, 17) .. 1	1	43	UCL-4281	CAMSHAFT ASSEMBLY 2	2
19	PT-353 CLAMP SCREW for shifting lever, 3/8"-16 x 1-1/2" hexagon 1	1	44	CL-2326	RETURN SPRING 4	4
20	PT-639 LOCKWASHER for lever clamp screw, 3/8" .. 1	1	45	CL-2355	LEVER PIN 2	2
21	PT-355 PIPE NIPPLE for Alemite fitting 1	1	46	CL-487	COTTER PIN for lever pin, 3/32" x 1/2" long 2	2
22	PT-395 ALEMITE FITTING No. 1618 1	1	47	CL-4701	WASHER for lever pin, 3/16" I.D. 2	2
23	CL-5452 PILOT BEARING, Wis. Motor No. ME-190 1	1	48	CL-4701	WASHER for lever pin, 3/16" I.D. 2	2
24	CL-5452 ALEMITE FITTING, No. 1743 (Not illustrated) 2	2	49	UCL-7-1191-3	DRIVEN MEMBER ASSEMBLY Includes: 1	1
25	21 CLA-1640-A CLUTCH ASSEMBLY - Complete 1	1	50		CL-4491-43 Facing (Rep'l. (4) CL-1418) 1	1
26	22 CL-2346 BACK PLATE 1	1	51		CL-4491-43 Facing (Rep'l. (4) CL-1419) 1	1
27	23 CL-8681-1 ADJUSTING RING ASSEMBLY Includes: 1	1	52		CL-1011 Tubular rivet. 12	12
					PT-668 ALEMITE FITTING, No. 1930 1	1

Order parts from nearest SERVICE STATION shown in directory following parts list.
IMPORTANT: Always give Model, Specification and Serial Numbers as shown on name plate.

SERVICE BULLETIN

CLUTCH CARE

The clutch in your TEMPEST is a heavy duty model designed to give many years of trouble free service. There are, however, a few minor maintenance procedures which will greatly prolong its life.

ADJUSTMENT, internal

If you cannot feel a distinct "snap" as the clutch is engaged, the clutch is too loose and is probably slipping. The proper adjustment method is given on the cover plate.

ADJUSTMENT, lever

The cable control to the clutch lever must be adjusted by means of the turnbuckle so that the lever is free to move slightly when it is released and also when it is fully engaged and "snapped in". This is a very simple adjustment, but failure to maintain this free movement will cause failure of the clutch release bearing.

OPERATION

Each time the ride is started, the clutch should be "snapped" in. Some operators have not done this and worn the clutch lining very quickly.

At the end of the cycle, the clutch should be engaged first, [before the throttle is released].

LUBRICATION

Under normal use, the clutch release bearing should be greased sparingly two (2) times a week.