CANOGA
MIXERS

USA OWNED
USA MADE

LIMITED WARRANTY

MK DIAMOND PRODUCTS, INC. will guarantee every CANOGA® machine they build, to be free from defects in material and workmanship for (1) one year from date of purchase.
The obligation of MK DIAMOND PRODUCTS, INC. under this warranty is limited to the repair or replacement of any parts which, under normal use, prove to be defective in material or workmanship. The parts involved or the unit in question should be returned to MK DIAMOND PRODUCTS, INC. or to a point designated by us, transportation prepaid.

This warranty does not obligate us to bear the cost of labor or trasportation charges in connection with replacement or repair of defective parts. Likewise, it shall NOT apply to any unit which has been subjected to misuse, neglect or accident. This warranty does NOT apply to any machine which has been repaired or altered outside our factory.

This warranty does NOT obligate MK DIAMOND PRODUCTS, INC. with respect to items not of our manufacture, such as engines, motors, hydraulics, etc., which are subject to their own guarantees and warranties.

We shall in no event be liable for consequential damages or contingent liabilities arising out of failure of any equipment or parts to operate properly.

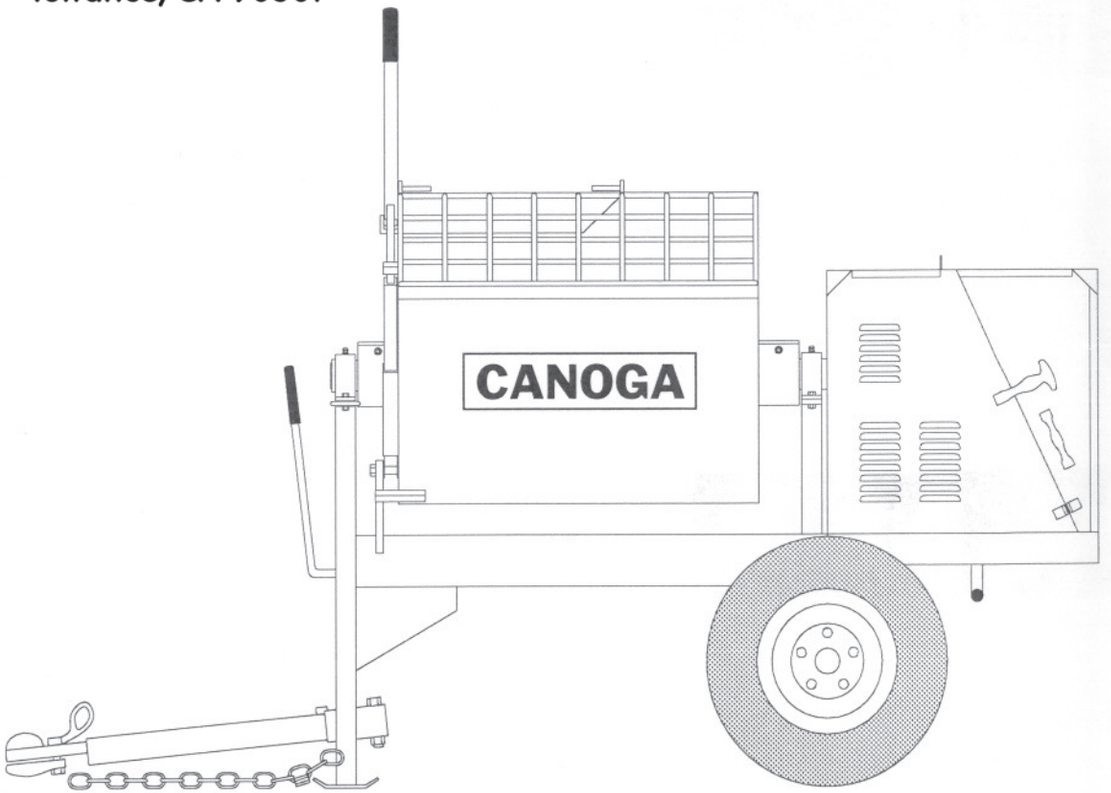
MANUFACTURED BY:

MK DIAMOND PRODUCTS, INC.
1315 Storm Parkway
Torrance, CA 90501
Telephone (310) 539-5221 Fax (310) 539-5158

CANOGA PLASTER MIXER 890 SERIES

MANUFACTURED BY:

MK DIAMOND PRODUCTS, INC.
Torrance, CA 90501



OWNERS/PARTS MANUAL
890 SERIES MACHINES

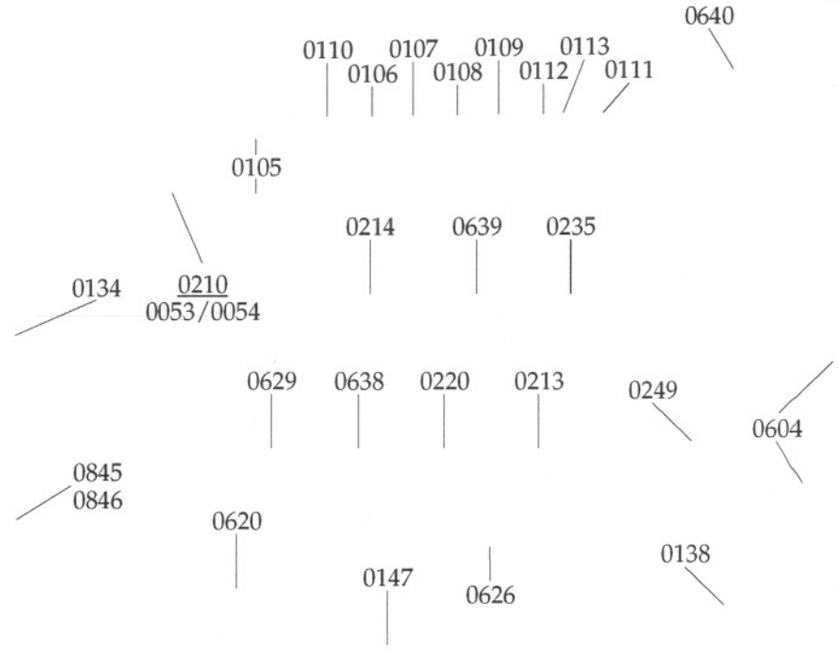
CONGRATULATIONS

You have just purchased the finest machine of its type available. If you follow the maintenance instructions contained in this manual, your machine will last a very long time. Preventative maintenance is always cheaper than unscheduled maintenance where work crews are idled due to the lack of an operating mixer.

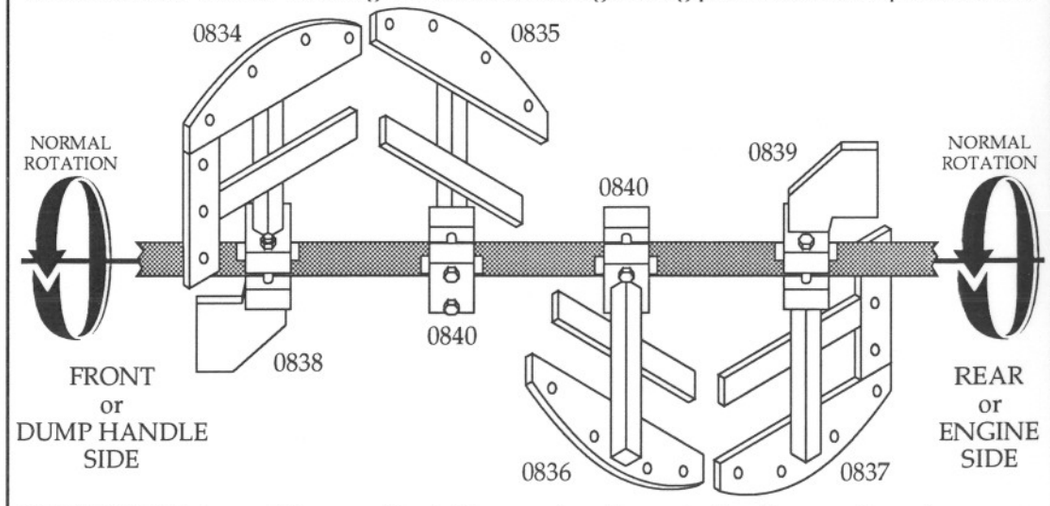
SAFETY INSTRUCTIONS

1. **DO NOT operate the mixer before reading the Owners Instruction Manual. Injury can occur from careless use of this equipment.**
2. **Keep unauthorized and inexperienced people away from the mixer at all times. Children should never be allowed near the mixer.**
3. **Block the wheels of the mixer when parked on a slope.**
4. **The top protective grill must be kept in place at all times or injury can occur. ALL GUARDS AND SAFETY DEVICES should be in place at all times.**
5. **NEVER reach through the grill for any reason when mixer is in operation. Hands and foreign objects should be kept away from the grill at all times when the mixer is in operation.**
6. **Maintain equipment regularly to keep in safe operating condition. ALWAYS STOP ENGINE DURING MAINTENANCE. Caution must be exercised while servicing this equipment. Rotating blades and moving parts can cause injury if contacted.**
7. **Engine compartment door should always be closed while mixer is being used. Dust and sand can damage engine, belts, and gears.**
8. **DO NOT add fuel or oil without first stopping the engine.**
9. **STOP ENGINE when leaving equipment. Never leave mixer unattended when in operation.**
10. **Periodically check all bolts and fasteners on the mixer for tightness and condition. The vibrations from the motor when in operation could loosen nuts and bolts.**
11. **Be certain that the safety chain is securely attached before towing the mixer. Be certain that the tow bar bolt and lock nut are secure and in good condition.**
12. **All warranties are VOID if any unauthorized modifications are made to this equipment.**

DON'T TAKE CHANCES! DON'T BE CARELESS! DON'T CAUSE INJURY!
ALWAYS PRACTICE SAFETY



IMPORTANT! Follow this diagram when mounting mixing paddles onto the paddle shaft.



CAUTION! Mixing paddles must be in the same location as in the diagram above to ensure proper mixing of material.

MODEL 890 PARTS LIST

Please specify MODEL and SERIAL NUMBERS when ordering parts.

PART NUMBER	DESCRIPTION	QUANTITY REQUIRED
0830	chassis	1
0831	mixing tub	1
0602	engine enclosure	1
0832	grill assembly	1
0604	mixing tub handle assembly	1
0833	paddle shaft	1
0040	1/4" drive key (pulleys)	2
0606	swivel tub stop assembly	1
0834	mixing paddle (front with end wiper)	1
0835	mixing paddle (mid-front)	1
0837	mixing paddle (rear with end wiper)	1
0836	mixing paddle (mid-rear)	1
0838	end scraping paddle (front)	1
0839	end scraping paddle (rear)	1
0840	mixing paddle mounting block	2
0842	steel scraper blade set (6 pc.)	1
0843	rubber scraper blade set (6 pc.)	1
0844	scraper blade mounting bolt set	1
0841	mixing paddle mounting bolt set	1
0615	1-3/4" paddle shaft bearing	2
0618	seal retainer guard	2
0619	seal retainer guard lid	2
0652	seal set (11 pc.)	2
0482	seal retainer (welded into ends of mixing tub)	2
0485	seal spring assembly	2
0643	bearing cup collar	2
0620	towing tongue (specify ball, pin, ring)	1
0644	tow tongue bolt/lock nut (3/4" x 4")	1
0147	axle assembly (torsion-bar suspension)	1
0622	bull gear (with key, 2 set screws & lock nuts)	1
0649	3/8" drive key (for bull gear)	1
0623	pinion gear with shaft (14 tooth) (used on gasoline powered mixers)	1
0625	rear clutch lever	1
0626	clutch actuating assembly	1
0851	front clutch lever	1
0629	clutch spring	2
0849	drive pulley (used on gasoline powered mixers)	1
0850	driven pulley(used on gasoline powered mixers)	1
0847	drive pulley (used on electric powered mixers)	1
0848	driven pulley (used on electric powered mixers)	1
0039	driven pulley hub (used on electric or gasoline powered mixers)	1
0636	V-belt (used on gasoline powered mixers)	3
0637	V-belt (used on electric powered mixers)	3
0638	V-belt guide assembly (used on Honda powered mixers)	1
0852	V-belt guide assembly (used on electric powered mixers)	1
0652	V-belt guide assembly (used on Briggs & Stratton powered mixers)	1
0639	dump handle grip	1
0640	clutch lever grip	2
0026	1/8" NPT straight grease fitting	4
0048	CANOGA nameplate	1
0053	5.00 x 13" wheel	2
0054	A78 x 13" tire	2
0210	A78/5.00 x 13" tire and wheel	2
0645	safety chain	1
0105	wheel hub (includes lug nuts)	2
0106	wheel bearing-inner	2
0107	wheel race-inner	2
0108	wheel bearing-outer	2
0109	wheel race-outer	2
0110	wheel grease seal	2
0111	wheel dust cap	2
0112	3/4" N.F. slotted axle nut	2
0113	1/8" x 1-1/2" cotter pin	2
0217	8 h.p. Briggs & Stratton - Std. (6:1 gear box)	1
0218	8 h.p. Briggs & Stratton - IC (6:1 gear box)	1
0134	8 h.p. Honda (6:1 gear box)	1
0845	3 h.p. electric motor (single phase)	1
0846	3 h.p. electric motor (three phase)	1
0138	axle spindle	2
0853	Owners/Parts manual	1
0235	metal pocket (for Owners/Parts manual)	1
0648	CANOGA gear Lube	1
0151	one gallon paint (CANOGA Orange)	1
0616	bag splitter	1
0156	quick link	1
0249	door hinge	1
0214	hose nozzle ring	1
0206	hitch fork (forged)	1
0234	hitch fork bolt/washer	1
0207	hitch wing nut (forged)	1
0211	ball hitch insert	1
0213	rubber latch clamp assembly	1
0220	door pull, handle	1
0820	1" pillow block bearing	2

SAFETY & MAINTENANCE SECTION

C A U T I O N! ELECTRIC MOTOR MODEL C A U T I O N!

THE STANDARD ELECTRIC MOTOR IN THE 890E (Electric) SERIES PLASTER MIXER IS 3 H.P., 230 VOLT, SINGLE PHASE, AND REQUIRES 16 AMPS.

REMEMBER! - WARRANTY IS VOID IF YOU DO NOT USE THE PROPER SIZE EXTENSION CORD.

THE WIRE GAUGE SELECTION WILL VARY WITH THE LENGTH OF THE EXTENSION CORD FROM THE POWER SOURCE AND THE AMPERAGE REQUIRED BY THE MOTOR:

SIZE OF WIRE	25 FT. LENGTH	50 FT. LENGTH	100 FT. LENGTH	250 FT. LENGTH
14-GAUGE	15 AMPS	15 AMPS	13 AMPS	7 AMPS
12-GAUGE	20 AMPS	20 AMPS	15 AMPS	11 AMPS
10-GAUGE	30 AMPS	30 AMPS	20 AMPS	18 AMPS

• ATTENTION •

IF AUTOMATIC SHUT-DOWN SWITCH ON MOTOR ACTIVATES, PLEASE NOTE:

MOTOR HAS A MANUAL RESET THERMAL PROTECTOR. IF MOTOR OVERHEATS, THERMAL PROTECTOR WILL OPEN MOTOR CIRCUIT. IF THIS OCCURS, TURN MAIN SWITCH OFF AND AFTER MOTOR COOLS SUFFICIENTLY, PUSH RESET BUTTON ON MOTOR. A CLICK INDICATES RESET AND MOTOR CAN THEN BE RESTARTED.

• WARNING •

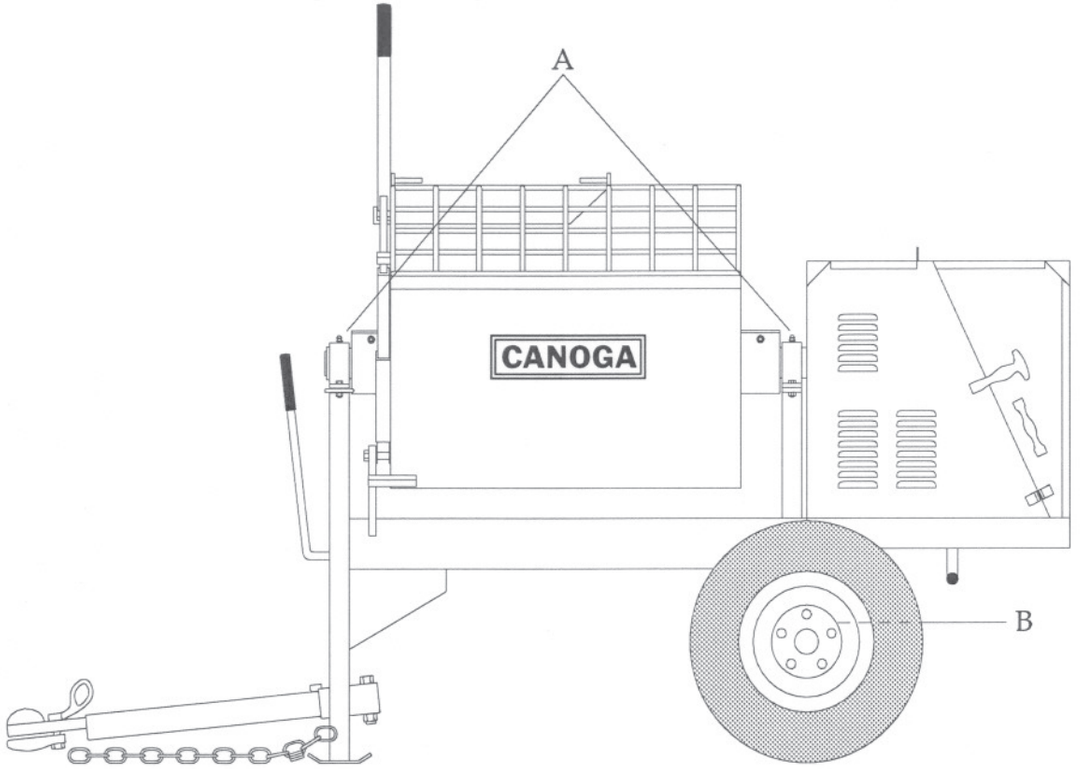
MOTOR MUST BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES, BY TRAINED PERSONNEL TO PREVENT SERIOUS ELECTRICAL SHOCKS.

TO SERVICE MOTOR, DISCONNECT POWER SOURCE FROM MOTOR AND ANY ACCESSORY DEVICES AND ALLOW MOTOR TO COME TO A COMPLETE STAND STILL.

FOR ASSISTANCE CALL OUR SERVICE DEPARTMENT: 1-800-421-5830

MAINTENANCE SECTION

Lubricate the grease fittings shown here "A" on the bearing cup collars and "B" the torsion-bar suspension daily with 1 or 2 shots from a hand grease gun.



C A U T I O N! GASOLINE ENGINE MODEL C A U T I O N!

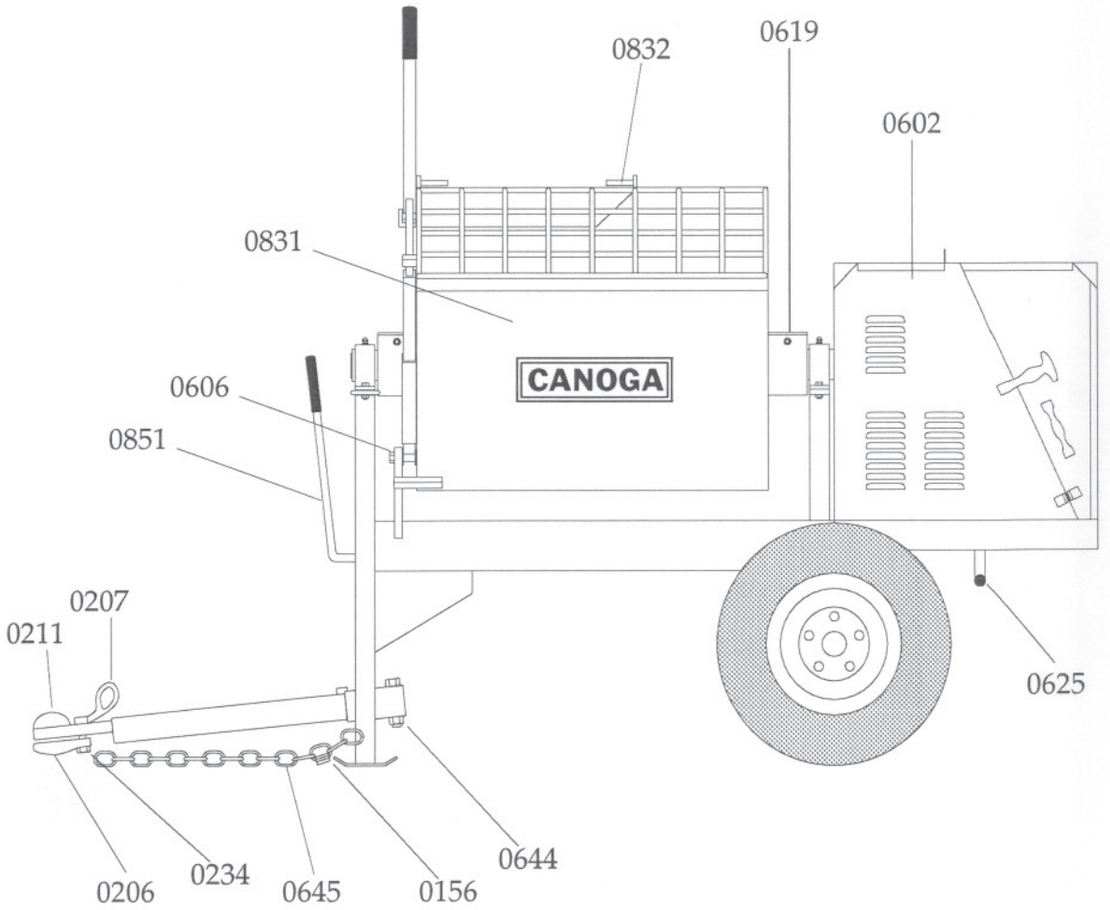
SHUT OFF FUEL VALVE

ON CARBURETOR WHEN TOWING MIXER.

IF YOU FAIL TO DO THIS....

....THE ENGINE CYLINDER MAY FILL WITH GASOLINE MAKING THE ENGINE UNABLE TO START. TO CLEAR THIS IT MAY BE NECESSARY TO REMOVE THE SPARK PLUG FROM THE ENGINE WITH THE SPARK PLUG WRENCH PROVIDED. - PULL THE STARTER CORD SEVERAL TIMES TO FORCE THE RAW FUEL FROM THE PISTON CHAMBER. - REPLACE THE SPARK PLUG AND THE SPARK PLUG WIRE. - START THE ENGINE BY USING THE USUAL PROCEDURE. - REFER TO THE ENGINE MANUAL.

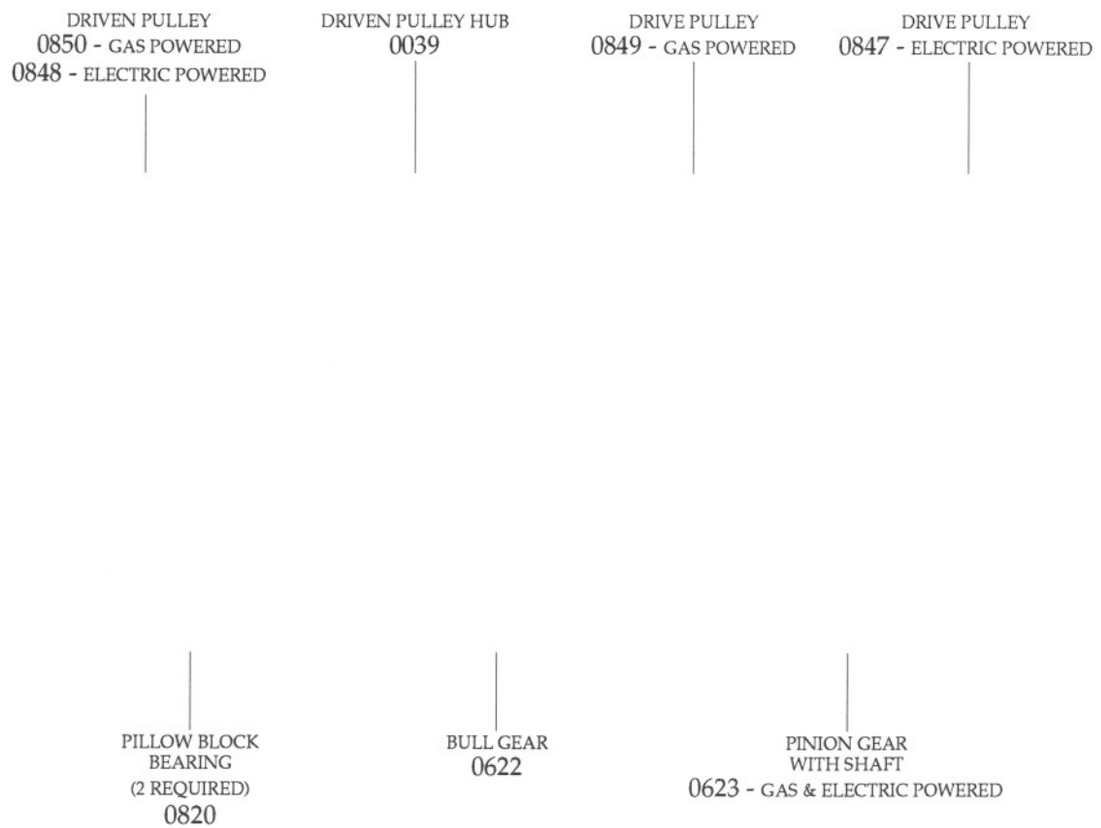
FOR ASSISTANCE CALL OUR SERVICE DEPARTMENT: 1-800-421-5830



III. GEAR MESH ALIGNMENT/REPLACEMENT

A. With bull gear in approximate position, place the pinion gear/shaft and pillow block bearing assembly on mounting plate. Mesh gears together so there is a backlash of .025 using a feeler gauge or shim stock. Make sure that the pinion gear's entire tooth surface is in contact with that of the bull gear. Tighten the bolts on the pinion gear/shaft and pillow block bearing assembly.

B. Adjust, the bull gear so that the bull gear's teeth are centered on the pinion gear's teeth,tighten both set screws and lock nuts if necessary.



CAUTION!
Disconnect the electrical cord on electric powered mixers/disconnect the spark plug wire on gasoline powered mixers before attempting any maintenance. Keep hands and other body parts away from moving parts of the mixer during maintenance/repair. Keep all unauthorized or inexperienced personnel away from the mixer at all times. Children should never be allowed near the mixer.

I. MAINTENANCE PERFORMED EVERY DAY.

A. Lubricate grease fittings as shown per diagram on pg. 4

B. Clean mixer thoroughly after each use.

C. Check engine oil level per instructions in engine owner's manual.

D. Visually check all bolts, nuts, etc. for tightness and condition, and tighten with the proper tools.

II. MAINTENANCE PERFORMED EVERY 40 HOURS OF OPERATION.

A. Check gear mesh and V-belt tension for proper adjustment (See repair section III). (lubricate gears with special **CANOGA** gear lubricant)

B. Check tire pressure. Inflate to pressure recommended on the side-wall of the tire.

C. Check engine owner's manual for necessary periodic maintenance such as engine oil change, air filter cleaning etc.

III. MAINTENANCE PERFORMED EACH YEAR.

A. Adjust or replace scraper blades. The scraper blades should be adjusted so that they remain 1/8" to 1/4" from the mixing tub.

B. Grease wheel bearings. Jack up the mixer and remove the dust cap, cotter pin, and nut on each wheel. Pull the wheel off the spindle carefully. Avoid letting the outside bearing fall to the ground while removing wheel. Remove the grease seals. Wash bearings in a solvent to remove grease and inspect all bearings and races for wear and replace as necessary. Pack all bearings with automotive wheel bearing grease, re-assemble the wheels, being careful not to let the bearings become contaminated with dirt or other foreign matter. Tighten the spindle nut until the wheel stops rotating freely. Loosen the nut until the wheel turns freely again and the cotter pin can be installed (usually 1/8 to 1/4 of a turn). Install the dust caps.

C. Inspect front and rear paddle shaft bearings for wear or damage by checking vertical movement of shaft, noise from bearing, seizure (freezing up) of bearing, excessive gear meshing due to worn bearing. Replace if necessary (see page 6).

D. If excessive bypassing of mortar past paddle shaft seals - install a new set of seals (see page 6).

E. Make sure the dump handle assembly moves freely (up & down) and fully engages the bottom locking plate.

F. Check both motor plate springs for proper tension to allow clutch lever to engage and disengage smoothly, yet firmly.

I. SEAL REPLACEMENT

A. Remove bull gear from the rear end of the paddle shaft.

B. CAUTION: Support mixing tub with a hoist or some other means.

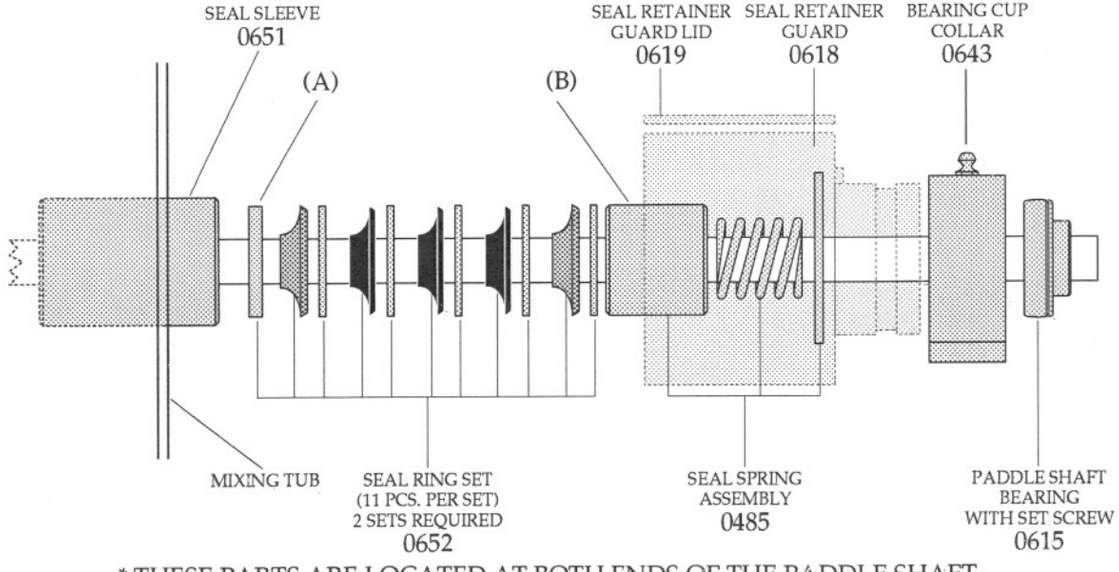
C. Unbolt front and rear bearing cup collar from chassis and lift tub to ground.

D. Loosen setscrews in paddle shaft bearings on each side of mixing tub. Then loosen eccentric locking collars by using a drift punch and hammer in opposite direction of paddle shaft rotation.

E. Unbolt and remove both front and rear seal retainer guards. Retainer guard lids can be removed for easier removal of retainer guards.

F. Slide back the seal sleeves and springs then remove old seals.
(Paddle shaft bearings should be replaced at this time.)

G. Insert the 1/4" thick steel spacer ring (A) into seal retainer cup. Then, beginning and ending with a non-black rubber seal, alternate rubber seals and 1/8" thick steel rings making sure that the I.D. of the seal is pushed forward (toward the tub) and the O.D. is pulled backward (5-seals and 5-1/8" steel rings per side). Lubricate each seal with waterproof grease as each one is installed. Following the set of seals, install the last 1/8" steel ring, the seal sleeve (B) large O.D. side first, the spring assembly and the seal retainer guard.



* THESE PARTS ARE LOCATED AT BOTH ENDS OF THE PADDLE SHAFT

II. PADDLE SHAFT REPLACEMENT

A. Remove bull gear from the rear end of the paddle shaft.

B. CAUTION: Support mixing tub with a hoist or some other means.

C. Unbolt front and rear bearing cup collar from chassis and lift tub to ground.

D. Clean plaster away from paddleshaft and remove paddles.

E. Loosen setscrews in paddle shaft bearings on each side of mixing tub. Then loosen eccentric locking collars by using a drift punch and hammer in oposite direction of paddle shaft rotation.

F. Unbolt and remove both front and rear seal retainer guards. Retainer guard lids can be removed for easier removal of retainer guards.

G. Slide back the seal sleeves and remove old seals.

H. Slide paddle shaft forward.

I. Replace paddle shaft and follow steps in reverse order.
(Install new paddle shaft seal ring set at this time.)