



PARTS LIST

INSTALLATION INSTRUCTIONS

LANCASTER TWO STAGE - END SUCTION PUMP

MODELS 2L94 - 2L97

IMPORTANT DON'TS:

DON'T run pump without liquid.
DON'T hang piping unto the pump. Support pipe separately.

IMPORTANT CHECKS:

CHECK that pump runs in right direction.

CHECK that suction lift is not too great, especially when discharge head is only a few feet.

CHECK that pump case is completely full of water when starting.

CHECK that suction line has no air leaks or high spots.

INSTALLATION: Pump should be as close as possible to source of water, and preferably not more than 10 to 15 feet higher than water, although pump could operate at somewhat greater suction lift at reduced capacity. Suction piping should never be smaller than suction tapping of pump, and should be larger, if suction line is long. Wherever possible, avoid use of bends and elbows. Use pipe compound on all male threads. Horizontal suction pipe must rise gradually from source to pump and contain no high spots, which will cause air pockets. When required use foot valve at least as large as suction intake on pump, so as not to restrict flow. To avoid strain on pump, all pipes should be aligned and supported independently before making any connections. When installing extra long pipe, provide a means to take care of expansion in pipes.

TO START: Check electrical wiring being sure pump turns in correct direction. Prime pump by filling pump case and pipes completely with water, allowing air to escape through opening in top of pump case.

(Where installation requires a foot valve on suction line, the entire suction line must be filled). Turn shaft over by hand or start and stop motor to be sure all air is out of pump and suction line. Pump will not operate at all, or will not pump full capacity if any air is left.

CHECKING FOR TROUBLE:

1. If pump will not deliver any water:
Pump is not completely primed.
Incorrect speed. Low voltage.
Suction lift more than 20 feet (at sea level).
Is pump running in right direction?
Discharge head greater than pump is selected for.
Impeller vanes clogged with weeds or debris.
Air leaks in suction line.
Foot valve strainer clogged or buried in mud or sand.
2. If pump delivers less water than normal:
Incorrect speed.
Discharge head greater than pump is selected for.
Impeller vanes partially clogged.
Air leaks in suction line, or high spots.
Suction lift excessive.
Foot valve strainer partially clogged or buried in mud or sand.

Impeller vanes worn.
Foot valve just at surface of water, with insufficient submergence.

Mechanical seal leaking excessively. See below.

3. If motor overheats:

Voltage low.

Bent shaft.

Impeller rubbing on case.

4. If pump loses prime while running:

Suction line has air leaks.

Air or gas in liquid.

Suction lift excessive.

5. Pump loses prime while standing still:

Foot valve leaking.

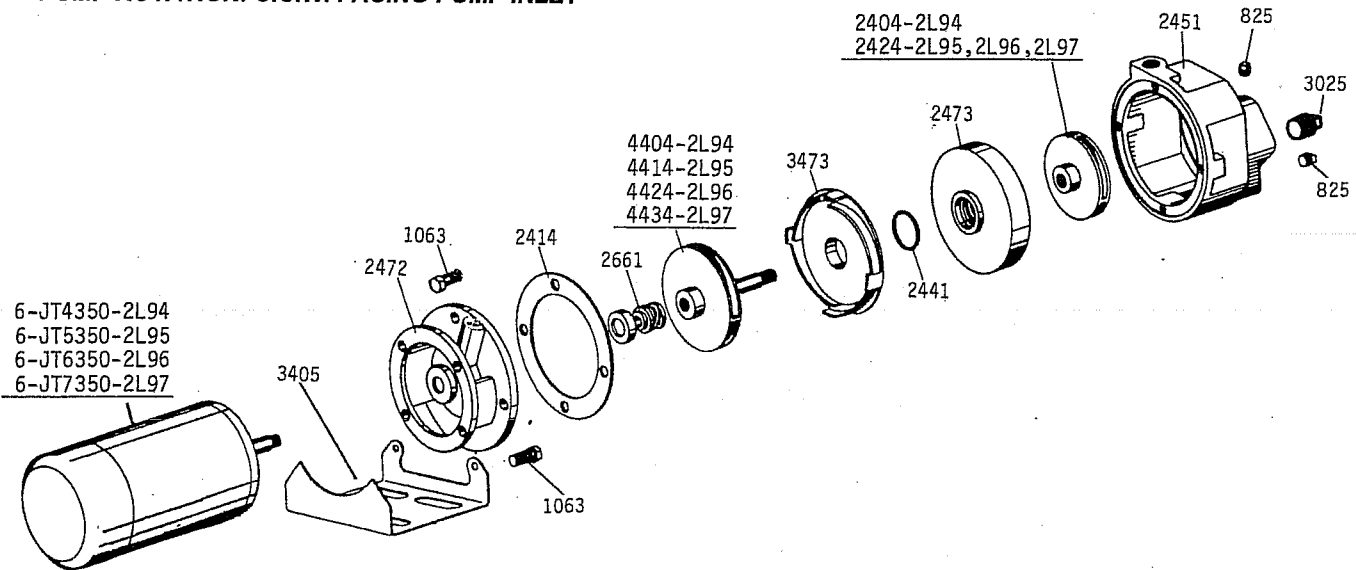
Suction pipe or pump housing leaking.

Mechanical seal leaking. See next paragraph.

MECHANICAL SEAL: When pump equipped with mechanical shaft seal leaks, sand or abrasives may have been drawn from well or pump may have run dry. If so, installation of new seal will be necessary. When installing new seal, the carbon ring should be handled carefully and seated properly to avoid breakage. Wash out sand from pump case, impeller and shaft, as sand will damage the new seal in a matter of minutes. To prevent burning out of the mechanical seal in pump, do not start motor until pump has been primed.

A PRESSURE RELIEF VALVE SHOULD BE INSTALLED WITH ANY PUMP CAPABLE OF PRODUCING MORE THAN 75 PSI AT THE PUMP

PUMP ROTATION: C.C.W. FACING PUMP INLET



PART NO.	REQ'D.	DESCRIPTION	PART NO.	REQ'D.	DESCRIPTION
825	2	1/4" Pipe Plug	3405	1	Pump Base
1063	8	3/8-16 x 1" Cap Screw	3473	1	Diffuser
2404	1	Front Impeller, 2L94	4404	1	Rear Impeller, 2L94
2414	1	Gasket	4414	1	Rear Impeller, 2L95
2424	1	Front Impeller, 2L95, 2L96, 2L97	4424	1	Rear Impeller, 2L96
2441	1	O'ring	4434	1	Rear Impeller, 2L97
2451	1	Pump Body	6-JT4350	1	3/4 HP Motor
2472	1	Motor Support	6-JT5350	1	1 HP Motor
2473	1	Diffuser Assy.	6-JT6350	1	1-1/2 HP Motor
2661	1	Rotary Seal	6-JT7350	1	2 HP Motor
3025	1	1" Pipe Plug			