



TECHNICAL SERVICE BULLETIN

Bulletin Number: DC-2234

Date: 8/28/08

Affected Model(s): All FlowMaster Pumps-
(12/24VDC, 120/230-380/420VAC, Hydraulic)

Subject: **FlowMaster Pump Improvements**

In-line with our commitment to ongoing and continuous improvement to our product lines, we will soon release our newly improved and enhanced FlowMaster pump series. Recently you were notified of some of the changes in Sales Bulletin DC-2233 by our Product Management group. Many hours of designing and field testing have been dedicated to making a great pump even greater. Engineering was put to task to increase overall service life and minimize costly downtime.

After more than two years of development and testing, the pumps are in production. The release will be handled as a running change and it will be a little while before all models include all of the enhancements. Following is a more detailed listing of the enhancements you can expect and have been built into all hydraulic and electric versions of FlowMasters:

- **A hardened and ground section on the upper portion of the reciprocating tube provides an excellent sealing surface to maintain full oil levels in the pump crankcase**
- **Newly designed upper and lower bushing & plunger seals, along with custom made polyurethane cup seals, keep grease from migrating into the crankcase. The hardened bushings and specially hard coated plungers greatly extends the life of the pump, even in high temperature operation**
- **An updated design and hardened wrist pin anchor provides maximum strength in delivering the FlowMaster's reciprocating energy from the motor through the reciprocating tube**
- **Hardened and ground wrist pin bushings are designed to precisely fit into the wrist pin anchor, taking all of the force off of the wrist pin**

pivot screws. This design eliminates the occasional catastrophic failure of the previous pivot screws

- **The custom wrist pin pivot screws are designed especially to fit the wrist pin bushings, with the overall length controlled to give the maximum amount of thread contact for strength. A deeper hex socket insures a strong, positive fit for tools in assembly and disassembly**
- **The former aluminum ball check cage in the lower portion of the pump tube has been replaced with a steel ball cage for maximum life against wear and fatigue**
- **The crankcase cover now has a built in oil dipstick, allowing for easier checking of crankcase oil level and condition of the oil. Makes changing the crankcase oil easier by allowing easy access to the crankcase without having to remove the entire cover**

Most of these changes will not even be noticeable from the outside. The main difference on the outside of the pump will be the crankcase cover with the fill plug and dipstick. The crankcase cover and dipstick kit will work on all old style pumps also. As you will see in the chart below, the cover and dipstick are sold in a kit, part number 275381, which should solve the questions of, "Is there oil in the crankcase", or "How do I change the oil?" **Please Note: Lincoln offers a selection of product under our "Mityvac" brand name that greatly simplify the task of evacuating fluids from reservoirs like the ones on the FlowMaster pump. Refer to the Mityvac catalog listed on the website home page under "Online Catalogs" (pages 7-9/Hand Vacuum Pumps and Fluid Evacuation Equipment).** With this being true the vintage, or series of the pump may be a bit confusing. In the event of servicing any FlowMaster it will now be imperative that you know exactly what series you have. Old style pumps can be updated to the improved new style version as depicted in the attached service page links.

New Style Service Page Links---

[-Form 403665 \(24 VDC models\)](#)

[-Form 403628 \(120/230 VAC models\)](#)

[-Form 403626 \(Hydraulic models\)](#)

[-Form 403750 \(Hydraulic models\)](#)

[-Form 403751 \(12 VDC model 276041\)](#)

[-Form 403755 \(50 HZ-380/420 VAC models\)](#)

[-Form 403634 \(275383 soft parts kit\)](#)

[-Form 403753 \(275381 crank case cover and dipstick kit\)](#)

Detailed instructions for such a conversion are included in each of the manuals. Also attached is a detailed listing of old style and their new style counter-parts. A separate listing of new parts that are used and available kits are also included.

If you have questions or concerns, please do not hesitate to call Lincoln Technical Services at 314/679-4200 Extension 4782 or fax us at 314/679-HELP (4357).

Regards,
Barry Frankum

Current FlowMaster Part Number vs. New FlowMaster Part Numbers-7/2008

Current #	New #-Phase I	Description:	Where used:
34798	275011	O-ring	All models
270617	275022	Reciprocating tube-60 lb.	85481, 85487, 86258, 270699, 274053, 274055, 273006, 85679
270624	275011	O-ring	All models
270626	274999	Cup seal	All models
270629	275009	Housing cover	All models
270631	274998	Backup washer	All models
270635	275006	Pivot screw	All models
270642	275010	Reciprocating tube-5 gal.	85483, 85486, 85571, 85569, 85552, 85587, 276041, 274873, 275181
270643	275189	Housing tube	85552, 85569, 85587
270646	275158	Reciprocating tube-400 lb.	85480, 85481, 85482, 85483, 85487, 86258, 85470, 86259, 85585, 85219
270647	275192	Housing tube	85480, 85481, 85482, 85483, 85610
270648	270614	Plunger link rod	85568, 85569, 85587, 85591
270649	275018	Reciprocating tube-120 lb.	85480, 85589
270650	275191	Housing tube-120 lb.	85480, 85481, 85482, 85483, 85219
270659	275191	Housing tube-120 lb.	85480, 85481, 85482, 85483, 85219
270660	275190	Housing tube-60 lb.	85481, 85480, 85482, 85483, 85219
270661	275192	Housing tube-400 lb.	85482, 85480, 85481, 85483, 85610
270662	275189	Housing tube-5 gal.	85483, 85480, 85481, 85482, 85569
270663	275383	Soft parts kit	All models
270667	275619	Plunger tube	All models
270668	275005	Wrist pin bushing	All models
270669	274992	Wrist pin anchor	All models
270671	275002	Pump plunger	All models
270672	275001	Pump cylinder	All models
270673	272540	Pump housing	All models
270675	272179	Ball cage	All models
272663	272573	Gear set	All models
New Parts-			
272791		O-ring	All models
274993		Upper bushing	All models
274994		Tube end	All models
274997		Back-up ring	All models
275000		Upper bushing/plunger assembly	All models
275002		Lower bushing/plunger assembly	All models
275007		Inlet screen	All models
275015		O-ring	All models
Repair Kits-			
275186		Upper bushing/plunger kit	All new models only
275187		Lower bushing/plunger kit	All new models-fits old style pumps for repair or upgrade
275188		Pivot pin/Anchor kit	All new models-fits old style pumps for repair or upgrade
275381		Housing cover kit	All new models-fits old style pumps for repair or upgrade
275382		Upper plunger and Pivot kit	Fits old style pumps for repair or upgrade to new style
275383		Repair Kit	All new models-fits old style pumps for repair or upgrade