
GARDNER DENVER®

400TLS996 Rev B
August 2013

DRILLING PUMP

MODEL

MAVERICK

OPERATING AND SERVICE MANUAL

Gardner
Denver

GARDNER DENVER®

400TLS996 Rev B
August 2013

DRILLING PUMP

MODEL

MAVERICK

OPERATING AND SERVICE MANUAL

Gardner

Denver

MAVERICK

MAINTAIN PUMP RELIABILITY AND PERFORMANCE WITH GENUINE GARDNER DENVER® PARTS AND SUPPORT SERVICES

Gardner Denver® genuine pump parts are manufactured to design tolerances and are developed for optimum dependability. Design and material innovations are the result of years of experience with hundreds of different pump applications. Reliability in materials and quality assurance are incorporated in our genuine replacement parts.

Your authorized Gardner Denver distributor offers all the backup you'll need. A worldwide network of authorized distributors provides the finest product support in the pump industry. Your local authorized distributor maintains a large inventory of genuine parts and he is backed up for emergency parts issues with access to Oklahoma City, OK and the factory in Quincy, IL.

Your authorized distributor can support all your Gardner Denver pump needs.

Trained parts specialists are available to assist you in selecting the correct replacement parts.

ALL ORDERS for PARTS should be placed with the NEAREST Authorized Distributor.

To find your nearest distributor you may use one of the following choices:

* **Log onto the Gardner Denver web site: www.pumpingperfected.com**

* **Send an E-Mail request to: pumps@gardnerdenver.com**

* **Contact one of our sales offices listed below.**

The Gardner Denver Sales Offices are located as follows:

DOMESTIC

Gardner Denver
2200 South Prospect
Oklahoma City, OK. 73129

Phone: (405) 677-5736

Fax: (405) 677-5807

INTERNATIONAL

Gardner Denver
1800 Gardner Expressway
Quincy, IL 62305

Phone: (217) 222-5400

Fax: (217) 223-1581

INSTRUCTIONS FOR ORDERING REPAIR PARTS:

When ordering parts, specify Pump MODEL and SERIAL NUMBER (see nameplate on unit). The Serial Number is also stamped on top of the cylinder end of the frame (cradle area).

Where NOT specified, quantity of parts required per pump or unit is one (1); where more than one is required per unit, quantity is indicated in parentheses. SPECIFY THE NUMBER OF PARTS REQUIRED, EXACTLY.

DO NOT ORDER BY SETS OR GROUPS.

To determine the Right Hand and Left-Hand side of a pump, stand at the power end and look toward the fluid end. Right Hand and Left Hand are indicated in parenthesis following the part name, i.e. (RH) and (LH), when appropriate.

FOREWORD

Gardner Denver® pumps are the result of advanced engineering and skilled manufacturing. To be assured of receiving maximum service from this pump the owner must exercise care in its operation and maintenance. This book is written to give the operator and maintenance personnel essential information for day-to-day operation, maintenance and adjustment. Careful adherence to these instructions will result in economical operation and minimal downtime.



DANGER

Danger is used to indicate the presence of a hazard, which will cause severe personal injury, death or substantial property damage if the warning is ignored.



WARNING

Warning is used to indicate the presence of a hazard, which can cause severe personal injury, death or substantial property damage if the warning is ignored.



CAUTION

Caution is used to indicate the presence of a hazard, which will or can cause minor personal injury or property damage if the warning is ignored.

NOTICE

Notice is used to notify people of installation, operation or maintenance information which is important but not hazard related.

TABLE OF CONTENTS

Maintain Pump Reliability and Performance	i
Instructions for Ordering Repair Parts	i
Foreword.....	ii
List of Tables and Figures	iv
Section 1: Danger Notices.....	1
Section 2: Design Concept, Description and Specifications	9
Introduction.....	9
Pump Design	10
Power End	10
Gear Reduction Unit.....	11
Power End and Gear Reduction Unit Lube System	11
Fluid End.....	12
Liner Clamps and Liners.....	13
Pistons and Piston Rods	13
Piston/Rod Washing System	13
Oil Stop Heads.....	13
Suction Strainer	14
General Specifications.....	14
Section 3: Preparation, Operation and Maintenance	15
Preparation after Shipping & Storage.....	15
Pump Mounting Instructions.....	15
Power End Lubrication System	16
Piston/Rod Washing System.....	18
Startup and New Pump Run-in Procedures	18
Periodic Routine Maintenance Schedule	19
Liner Clamp and Liners	21
Pistons and Piston Rods	21
Maintenance of Valves	22
Oil Stop Heads.....	22
Extension Rods	24
Section 4: Service Procedures	25
Fluid End Service	25
Power End Service.....	28
Section 5: Troubleshooting.....	32
Section 6: Rebuilding Data, Recommended Running Clearances and Torques	38
Appendix A: Superbolt Installation and Removal Instructions.....	40
Product Warranty.....	44

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.