

2 pump hydraulic setup diagram

2 Pump Hydraulic Setup Diagram: A Comprehensive Analysis

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Abstract: This article provides a comprehensive analysis of the '2 pump hydraulic setup diagram,' tracing its historical evolution, exploring diverse applications, and examining its current relevance in various industrial sectors. We will delve into the advantages, disadvantages, and design considerations associated with different configurations (parallel and series) of 2 pump hydraulic systems. The analysis will cover critical aspects like pump selection, system optimization, and troubleshooting techniques.

1. Introduction: The Historical Context of 2 Pump Hydraulic Setup Diagrams

The utilization of hydraulic systems dates back centuries, with rudimentary forms used in ancient civilizations. However, the modern understanding and application of hydraulic power, significantly shaped by the development of effective pumps, began to flourish in the late 19th and early 20th centuries. Early hydraulic systems often utilized single pumps, limiting their capacity and resilience. The need for increased power output, improved reliability, and enhanced system flexibility spurred the development of multi-pump setups, with the '2 pump hydraulic setup diagram' becoming a significant design element. Early diagrams were rudimentary, often hand-drawn schematics, but gradually evolved with advancements in engineering software and documentation standards.

2. Types of 2 Pump Hydraulic Setup Diagrams: Parallel vs. Series Configurations

A '2 pump hydraulic setup diagram' can be configured in two primary ways:

parallel and series.

2.1 Parallel 2 Pump Hydraulic Setup Diagram: In a parallel configuration, both pumps discharge into a common reservoir or manifold. This setup offers several advantages:

Increased Flow Rate: The combined flow rate of both pumps is available to the system, ideal for applications demanding high flow rates.

Improved Redundancy: If one pump fails, the system can continue to operate (though at reduced capacity), providing a crucial safety feature in critical applications.

Load Sharing: The load is distributed between the two pumps, reducing stress on individual components and extending their lifespan.

2.2 Series 2 Pump Hydraulic Setup Diagram: In a series configuration, the output of the first pump feeds the input of the second pump. This arrangement offers:

Increased Pressure: The pressure is boosted sequentially, resulting in significantly higher system pressure compared to a parallel setup. This is crucial for applications requiring high-pressure actuation.

Specific Pressure Stages: Allows for different pressure levels within the system, useful for applications requiring multiple pressure stages for different actuators.

Less Redundancy: Failure of one pump typically results in complete system failure.

3. Component Selection and Design Considerations in a 2 Pump Hydraulic Setup Diagram

The design of a 2 pump hydraulic setup requires careful consideration of several factors:

Pump Selection: The type of pump (gear, piston, vane) needs to be chosen based on the required flow rate, pressure, and viscosity of the hydraulic fluid. Matching pump characteristics is critical to avoid operational conflicts.

Reservoir Sizing: Adequate reservoir size is crucial for maintaining sufficient hydraulic fluid levels and preventing cavitation.

Valving: Properly sized and selected valves are essential for controlling fluid flow and pressure within the system. This includes directional control valves, pressure relief valves, and flow control valves.

Piping and Fittings: Pipe sizing and material selection are critical to minimize pressure drop and ensure system integrity.

4. Applications of 2 Pump Hydraulic Setup Diagrams

'2 Pump hydraulic setup diagrams' find widespread application across diverse

industrial sectors:

Heavy Machinery: Construction equipment, excavators, and cranes often utilize dual-pump systems for their power and redundancy requirements.

Manufacturing: Industrial presses, injection molding machines, and automated assembly lines utilize 2 pump systems to manage complex operations.

Aerospace: Aircraft hydraulic systems may employ dual pumps to ensure safety and reliability in critical flight control systems.

Mobile Hydraulics: Vehicles such as tractors and forklifts may incorporate dual-pump configurations for improved performance and redundancy.

5. Troubleshooting and Maintenance of 2 Pump Hydraulic Systems

Regular maintenance and timely troubleshooting are essential for optimal performance and longevity of 2 pump hydraulic systems. Common issues include:

Pump Failure: Regular pump inspections and preventative maintenance can prevent costly downtime.

Leakage: Regular inspection and prompt repair of leaks is crucial to maintaining system pressure and preventing fluid loss.

Valve Malfunction: Proper valve maintenance and replacement ensure accurate control of the hydraulic system.

6. Current Relevance and Future Trends

The '2 pump hydraulic setup diagram' remains highly relevant in contemporary engineering. Advancements in pump technology, control systems, and hydraulic fluid formulations constantly improve the efficiency, reliability, and versatility of dual-pump systems. The increasing focus on energy efficiency and sustainability will likely lead to the development of more optimized 2 pump systems that minimize energy consumption and environmental impact. The integration of advanced control systems, such as PLC-based control systems, will further enhance the precision and automation capabilities of these setups. Furthermore, research into more robust and durable components will lead to even more resilient and longer-lasting systems.

7. Conclusion

The '2 pump hydraulic setup diagram' represents a significant advancement in hydraulic technology, offering increased power, improved redundancy, and greater operational flexibility compared to single-pump systems.

Understanding the different configurations, design considerations, and troubleshooting techniques associated with these systems is essential for engineers and technicians involved in their design, implementation, and maintenance. The continuing evolution of hydraulic technology ensures the enduring relevance of the 2 pump hydraulic setup diagram across a wide range

of applications.

FAQs

1. What are the key differences between a parallel and a series 2 pump hydraulic setup? A parallel setup offers increased flow rate and redundancy, while a series setup provides increased pressure.
1. How do I choose the right pumps for a 2 pump hydraulic system? Pump selection depends on required flow rate, pressure, and fluid viscosity. Careful consideration of pump compatibility is crucial.
1. What are the common causes of failure in a 2 pump hydraulic system? Common causes include pump failure, leakage, valve malfunction, and contamination.
1. What is the importance of reservoir sizing in a 2 pump hydraulic system? Adequate reservoir size prevents cavitation and ensures sufficient fluid supply.
1. How can I improve the efficiency of a 2 pump hydraulic system? Efficiency can be improved through proper pump selection, optimized valving, and minimizing pressure drops.
1. What are the safety considerations for working with a 2 pump hydraulic system? Safety measures include proper training, regular maintenance, and adherence to safety protocols.
1. What are the environmental considerations related to 2 pump hydraulic systems? Environmental concerns focus on minimizing fluid leakage and selecting environmentally friendly hydraulic fluids.

1. What are the future trends in 2 pump hydraulic system design? Future trends include improved efficiency, increased integration of smart technology, and development of more sustainable components.

1. Where can I find more information on 2 pump hydraulic setup diagrams? You can find more information in specialized hydraulic engineering textbooks, online resources, and industry journals.

Related Articles:

1. Designing Efficient Parallel Hydraulic Systems: This article focuses on optimization techniques for parallel 2 pump systems, minimizing energy losses and maximizing efficiency.

1. Troubleshooting Common Problems in Dual-Pump Hydraulic Systems: This article provides a step-by-step guide to diagnosing and resolving common issues in 2 pump systems.

1. Hydraulic Pump Selection for High-Pressure Applications: This article details the factors to consider when selecting pumps for high-pressure 2 pump systems.

1. The Role of Valves in Optimizing 2 Pump Hydraulic Systems: This article explores the importance of proper valve selection and configuration for efficient system operation.

1. Safety Standards and Regulations for 2 Pump Hydraulic Systems: This article covers safety standards and regulatory compliance for the design and operation of 2 pump systems.

1. Comparative Analysis of Gear, Vane, and Piston Pumps in Dual-Pump Systems: This article compares the performance and characteristics of

different pump types in 2 pump configurations.

1. Advanced Control Systems for 2 Pump Hydraulic Systems: This article examines the integration of advanced control systems, such as PLC control, to enhance system precision and automation.
1. Maintaining and Servicing 2 Pump Hydraulic Systems: This article provides detailed instructions on preventative maintenance and troubleshooting for 2 pump hydraulic systems.
1. Case Studies: Successful Applications of 2 Pump Hydraulic Systems in Heavy Machinery: This article presents real-world examples of successful implementation of 2 pump hydraulic systems in heavy equipment.

Publisher: Industrial Hydraulics Press – A leading publisher specializing in fluid power engineering textbooks and technical publications, with a strong track record in disseminating authoritative information on hydraulic system design and maintenance.

Editor: Mr. David Miller, Certified Fluid Power Specialist (CFPS) – Mr. Miller has over 30 years of experience in the hydraulics industry, holding several patents and contributing significantly to the development of advanced hydraulic system technologies. His editorial oversight ensures the accuracy and relevance of the content.

2 pump hydraulic setup diagram: Technical Manual United States Department of the Army, 1977

2 pump hydraulic setup diagram: ,

2 pump hydraulic setup diagram: Intermediate (field) (direct and General Support) and Depot Level Maintenance , 1977

2 pump hydraulic setup diagram: Internal flow mechanism of modern hydraulic machinery Kan Kan, Zhiqun Daniel Deng, Yongguang Cheng, Pengcheng Guo, Daqing Zhou, 2023-02-03

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2 pump hydraulic setup diagram: Manuals Combined: 150+ U.S. Army Navy Air Force Marine Corps Generator Engine MEP APU Operator, Repair And Parts Manuals , Over 36,000 total pages Just a SAMPLE of the CONTENTS by File Number and TM Number:: 013511 TM

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5-6115-323-14 10 GENERATOR GASOLINE ENGINE DRIVEN, SKID MOUNTED, TUBULAR FRAME, 1.5 KW, SI PHASE, AC, 120/240 V, 28 V, DC (LESS ENGINE) (DOD MODELS MEP-01 60 HZ (NSN 6115-00-889-1446) AND (MODEL MEP-025A) 28 V DC (6115-00-017-8236) {TO 35C2-3-385-1} 015380 TM 5-6115-332-24P 3 GENERATOR GASOLINE ENGINE: AIR COOLED, 5 KW, AC, 120/240 V, SINGLE PHASE; 120/208 V, 3 PHASE, SKID MOUNTED, TUBULAR FRAME (LESS ENGINE) M DESIGN: 60 HZ (DOD MODEL MEP-017A) (NSN 6115-00-017-8240); 400 (DOD MODEL MEP-022A) (6115-00-017-8241) {TO 35C2-3-424-24} 020611 LO 5-6115-457-12 GENERATOR SET, DIESEL ENGINE DRIVEN; SKID MTD, 100 KW, 3 PHASE, 120/208 AND 240/416 V (DOD MODELS MEP-007A), UTILITY CLASS, 50/ (NSN 6115-00-133-9101); (MODEL MEP-106A) PRECISE CLASS, 50/60 H (6115-00-133-9102) AND (MODEL MEP-116A), PRECISE CLASS, 400 HZ (6115-00-133-9103) 020612 LO 5-6115-458-12 GENERATOR SET, DIESEL ENGINE DRIVEN, SKID MTD, 200 KW, 3 PHASE, 4 WIRE, 120/208/416 VOLTS, DOD MODELS MEP-009A, UTILITY CLASS, 50/60 HERTZ (NSN 6115-00-133-9104), MEP-108A, PRECISE CLASS, 50 HERTZ (6115-00-935-8729) {LO 07536A-12} 020614 LO 5-6115-465-12 GENERATOR SET, DIESEL ENGINE DRIVEN, TACTICAL, SKID MOUNTED, 30 3 PHASE, 4 WIRE, 120/206 AND 240/416 V (DOD MODEL MEP-055A), UT CLASS, 50/60 HZ (NSN 6115-00-118-1240); (MODEL MEP 104A), PRECI CLASS, 50/60 HZ (6115-00-118-1247) AND (MODEL 114A) PRECISE CLA 400 HZ (6115-00-118-1248) 025150 TM 5-6115-271-14 12 GENERATOR SET, GASOLINE ENGINE DRIVEN, S MTD, TUBULAR FRAME, 3 KW, 3 PHASE, AC, 120/208 AND 120/240 V, 2 DC (LESS ENGINE) DOD MODEL MEP-016A, 60 HZ (NSN 6115-00-017-823 MODEL MEP-016C 60 HZ (6115-00-143-3311) MODEL MEP-021A 400 HZ (6115-00-017-8238) MODEL MEP-021C 400 HZ (6115-01-175-7321) MODEL MEP-026A DC HZ (6115-00-017-8239) MODEL MEP-026C 28 V DC (6115-01-175-7320) {TO 35C2-3-386-1; TM 05926A-14; NAVFAC P-8-6 025151 TM 5-6115-271-24P 3 GENERATOR SET, GASOLINE ENGINE DRIVEN, SKID MOUNTED, TUBULA FRAME, 3 KW, 3 PHASE, AC; 120/208 AND 120/240 VOLTS, 28 VDC (LE ENGINE) (DOD MODEL MEP-016A) 60 HERTZ (NSN 6115-00-017-8237) (MEP-021A) 400 HERTZ (6115-00-017-8238) (MEP-026A) 28 VDC HERTZ (6115-00-017-8239) (MEP-016C) 60 HERTZ (6115-01-143-3311) (MEP- 400 HERTZ (6115-01-175-7321) (MEP-026C) 28 VDC HERTZ (6115-01-175-7320) {TO 35C2-3-386-4; SL-4-05926A} 032507 TM 5-6115-275-14 10 GENERATOR SET, GASOLINE ENGINE DRIVEN, SKID MOUNTED, TUBULAR FRAME, 10 KW, AC, 120/208V PHASE, AND 120/240V, SINGLE PHASE, LESS ENGINE: DOD MODELS MEP- HZ, (NSN 6115-00-889-1447) AND MEP-023A, 400 HZ (6115-00-926-08 {NAVFAC P-8-615-14; TO 35C2-3-452-1} (THIS ITEM IS INCLUDED ON EM 0086, EM 0088 & EM 0127) 032508 TM 5-6115-275-24P 5 GENERATOR, GASOLINE ENGINE DRIVEN, SKID MOUNTED, TUBULAR FRAME, 10 KW, AC, 120/208 V, 3 PHASE AND 120/240 V, SINGLE PHASE (LESS ENGINE); D MEP-018A, UTILITY CLASS, 60 HZ (NSN 6115-00-889-1447) AND MEP-0 PRECISE CLASS, 400 HZ (6115-00-926-0843) {NAVFAC P8-615-24P; TO 35C2-3-452-4} (THIS ITEM IS INCLUDED ON EM 0086, EM 0088 & EM 0127) 032551 TM 5-6115-584-12 11 GENERATOR SET, DIESEL ENGINE DRIVEN, TACTICAL SKID MTD, 5 KW, 1 PHASE, 2 WIRE; 1 PHASE, 3 WIRE; 3 PHASE, 4 WIRE, 120, 120/240 AND 120/208 V (DOD MODEL MEP-002A) UTILITY CLASS, 60 HZ (NSN 6115-00-465-1044) {NAVFAC P-8-622-12; TO 35C2-3-456-1; TM 05682C-12} 032640 TM 5-6115-585-12 12 GENERATOR SET, DIESEL ENGINE DRIVEN, TACTICAL SKID MTD, 10 KW, 1 PHASE, 2 WIRE 1 PHASE, 3 WIRE AND 3 PHASE, 4 WIRE; 120, 120/240 AND 120/208 V (DOD MODEL MEP-003A) UTILITY CLASS, 60 HZ (NSN 6115-00-465-1030 AND (MODEL MEP-112A), UTILITY CLASS, 400 HZ (6115-00-465-1027) {NAVFAC P-8-623-12; TO 35C2-3-455-1; TM-05684C/05685B-12} 032781 TM 5-6115-584-34 8 GENERATOR SET, DIESEL ENGINE DRIVEN, TAC SKID MOUNTED, 5 KW, 1 PHASE, 2 WIRE, 1 PHASE, 3 WIRE, 3 PHASE, 120, 120/240 AND 120/208 V (DOD MODEL MEP-002A), UTILITY CLASS, (NSN 6115-00-465-1044) {NAVFAC P-8-622-34; TO 35C2-3-456-2; TM 0568C-34} 032936 TM 5-6115-329-14 4 GENERATOR SET GASOLINE ENGINE DRIVEN, 0.5 KW (LESS ENGINE) (DOD MODEL MEP-014 UTILITY CLASS, 60 HZ) (NSN 6115-00-923-4469), (DOD MODEL MEP-01 UTILITY CLASS, 400 HZ (6115-00-940-7862) AND (DOD MODEL MEP-024 UTILITY CLASS, 28 VDC (6115-00-940-7867) {TO 35C2-3-440-1}

033374 TM 5-6115-332-14 10 GENERATOR SET, TAC GASOLINE ENGINE: AIR COOLED, 5 KW, AC, 120/240 V, SINGLE PHASE, V, 3 PHASE, SKID MOUNTED, TUBULAR FRAME (LESS ENGINE) (MILITARY DOD MODEL MEP-017A), UTILITY, 60 HZ (NSN 6115-00-017-8240) AND MODEL MEP-022A), UTILITY, 400 HZ (6115-00-017-8241) {NAVFAC P-8-614-14; TO 35C2-3-424-1} 033750 TM 5-6115-585-34 9 GENERATOR SET, DIESEL ENGINE DRIVEN, TAC SKID MOUNTED, 10 KW, 1 PHASE, 2 WIRE, 1 PHASE, 3 WIRE, 3 PHASE, 4 WIRE, 120, 120/240 AND 120/208 VOLTS (DOD MODEL MEP-003A), UT CLASS, 60 HZ (NSN 6115-00-465-1030) {NAVFAC P-8-623-12; TO 35C2-3-455-2; TM-05684C/05685B-34} 034072 TM 5-6115-585-24P 5 GENERATOR SET, DIESEL ENGINE DRIVEN, TA SKID MTD, 10 KW, 1 PHASE, 2 WIRE; 1 PHASE, 3 WIRE; 3 PHASE, 4 W 120, 120/240 AND 120/208 V (DOD MODELS 003A), UTILITY CLASS, 60 (NSN 6115-00-465-1030) AND (MODEL MEP-112A), UTILITY CLASS, 400 (6115-00-465-1027) {NAVFAC P-8-623-24P; TO 35C2-3-455-4; SL-4-05684C/06585B} 040180 TM 5-6115-584-12-HR HAND RECEIPT MANUAL COVERING END ITEM/COMPONENTS OF END ITEM (C BASIC ISSUE ITEMS (BII), AND ADDITIONAL AUTHORIZATION LIST (AAL) GENERATOR SET, DIESEL ENGINE DRIVEN, TACTICAL SKID MTD, 5 KW, 1 WIRE; 1 PH, 3 WIRE; 3 PH, 4 WIRE, 120, 120/240 AND 120/208 V (D MEP-002A) UTILITY CLASS, 60 HZ (NSN 6115-00-465-1044) 040833 TM 5-6115-458-12-HR HAND RECEIPT MANUAL COVERING THE END ITEM/COMPONENTS OF END ITE BASIC ISSUE ITEMS (BII), AND ADDITIONAL AUTHORIZATION LIST (AA) GENERATOR SET, DIESEL ENGINE DRIVEN, TACTICAL, SKID MOUNTED, 20 3 PHASE, 4 WIRE, 120/208 AND 240/416 V (DOD MODEL MEP-009A), UT CLASS, 50/60 HZ (NSN 6115-00-133-9104) AND (DOD MODEL MEP-108A) PRECISE CLASS, 50/60 HZ (6115-00-935-8729) 040843 TM 5-6115-593-34 GENERATOR SET, DIESEL ENGINE DRIVEN, TAC SKID MTD, 500 KW, 3 PHASE, 4 WIRE, 120/208 AND 240/416 VOLTS DOD MODEL, MEP-029A, CLASS UTILITY, 50/60 HZ, (NSN 6115-01-030- DOD MODEL, MEP-029B, CLASS UTILITY, 50/60 HZ, (6115-01-318-6302 INCLUDING OPTIONAL KITS DOD MODEL, MEP-029AHK, HOUSING KIT, (6115-01-070-7550), DOD MODEL, MEP-029ACM, AUTOMATIC CONTROL MO (6115-01-275-7912) DOD MODEL, MEP-029ARC, REMOTE CONTROL MODULE (6110-01-070-7553) DOD MODEL, MEP-029ACC, REMOTE CONTROL CABLE, (6110-01-087-4127) {NAVFAC P-8 041070 TM 5-6115-593-12 GENERATOR SET, ENGINE DRIVEN, TACTICAL SKID MTD, 500 KW, 3 PHASE, 4 WIRE; 120/ 240/416 VOLTS DOD MODEL MEP-029A; CLASS UTILITY, HERTZ 50/60; (NSN 6115-01-030-6085); MEP-029B; UTILITY; 50/60; (6115-01-318- INCLUDING OPTIONAL KTS DOD MODELS MEP-029AHK; NOMENCLATURE HOUS (6115-01-070-7550) MEP-029ACM; AUTOMATIC CONTROL MODULE; (6115-01-275-7912); MEP-029ARC, REMOTE CONTROL MODULE, (6110-01-070-7553); MEP-029ACC, REMOTE CONTROL CABLE (6110-01-087-4127) {TO 35C2-3-463-1} 041338 LO 55-1730-229-12 POWER UNIT, AVIATION, MULTI-OUTPUT GTED ELECTRICAL, HYDRAULIC, PNEUMATIC (AGPU), WHEEL MOUNTED, SELF-PROPELLED, TOWABLE DOD MODEL-MEP-360A, CLASS-PRECISE, HERTZ-400, (NSN 1730-01-144-1897 042791 TM 5-6115-457-12-HR HAND RECEIPT MANUAL COVERING THE BASIC ISSUE ITEMS (BII) FOR GE SET, DIESEL ENGINE DRIVEN, TACTICAL, SKID MTD; 100 KW, 3 PHASE, 120/208 AND 240/416 V (DOD MODELS MEP007A), UTILITY CLASS, 50/6 (NSN 6115-00-133-9101), (MODEL MEP-106A), PRECISE CLASS, 50/60 (6115-00-133-9102) AND (MODEL MEP116A) PRECISE CLASS, 400 HZ (6115-00-133-9103) 043437 TM 5-6115-593-24P 1 GENERATOR SET, DIESEL ENGINE DRIVEN, TACTICAL SKID MOUNTED, 500 KW, 3 PHA 4 WIRE; 120/208 AND 240/416 VOLTS DOD MODEL MEP-029A UTILITY CL 50/60 HZ (NSN 6115-01-030-6085) MEP-029B UTILITY CLASS, 50/60 (6115-01-318-6302) INCLUDING OPTIONAL KITS DOD MODEL MEP-029AHK HOUSING KIT (6115-01-070-7550) MEP-029ACM AUTOMATIC CONTROL MOD (6115-01-275-7912) MEP-029ARC REMOTE CONTROL MODULE (6110-01-070-7553) MEP-029ACC REMOTE CONTROL CABLE (6110-01-087 {NAVFAC P-8-631-24P; TO 35C2-3-463-4} 044703 TM 5-6115-545-12-HR HAND RECEIPT MANUAL COVERING COMPONENTS OF END ITEM (COEI), BAS ITEMS (BII), AND ADDITIONAL AUTHORIZATION LIST (AAL) FOR GENERA DIESEL ENGINE DRIVEN, TACTICAL SKID MTD, 60 KW, 3 PHASE, 4 WIRE 120/208 AND 240/416 V (DOD MODELS MEP-006A) UTILITY CLASS, 50/6 (NSN 6115-00-118-1243),

(MODEL MEP-105A) PRECISE CLASS, 50/60 H (6115-00-118-1252) AND (MODEL MEP-115A) PRECISE CLASS, 400 HZ (6115-00-118-1253) 050998 TM 5-6115-600-12 8 GENERATOR DIESEL ENGINE DRIVEN, TACTICAL SKID MTD, 100 KW, 3 PHASE, 4 WIR 120/208 AND 240/416 V (DOD MODEL MEP-007B) CLASS UTILITY, 50/60 (NSN 6115-01-036-6374) INCLUDING OPTIONAL KITS, DOD MODEL MEP00 WINTERIZATION KIT, FUEL BURNING AND MEP007BWE WINTERIZATION KIT ELECTRIC 051007 TM 5-6115-600-24P 4 GENERATOR SET, DIESEL ENGINE DRIVEN, 100 KW, 3 PHASE, 4 WIRE, 120/208 AND VOLTS (DOD MODEL MEP-007B), UTILITY CLASS, 50/60 HZ (NSN 6115-01-036-6374) INCLUDING OPTIONAL KITS, DOD MODEL MEP007BWF, WINTERIZATION KIT, FUEL BURNING AND MEP007BWE WINTERIZATION KIT, ELECTRIC {TO 35C2-3-442-14; NAVFAC P-8-628-24P; SL-4-07464B} 057268 LO 5-6115-600-12 GENERATOR SET, DIESEL ENGINE DRIVEN; TACTICAL, SKID MTD, 100 KW PHASE, 4 WIRE; 120/208 AND 240/416 V (DOD MODEL MEP007B), CLASS UTILITY, 50/60 HZ (NSN 6115-01-036-6374) 057513 LO 5-6115-604-12 GENERATOR SET, DIESEL ENGINE DRIVEN, AIR TRANSPORTABLE; SKID MT 750 KW, 3 PHASE, 4 WIRE; 2400/4160 AND 2200/3800 VOLTS (DOD MOD MEP208A) CLASS PRIME UTILITY, HZ 50/60 (NSN 6115-00-450-5881) {LI 6115-12/9} 060183 TM 5-6115-612-24P 6 GENERATOR SET, AVIATION, GAS TURBINE ENGINE DRIVEN, INTEGRA TRAILER MOUNTED, 10KW, 28 VOLTS MODEL MEP-362A, PRECISE, DC (NSN 6115-01-161-3992) {TM 6115-24P/1; AG-320B0-IPE-000; TO 35C2-3-471-4} 060188 TM 5-6115-612-34 4 GENERATOR SET, AVIATION, GAS TURBINE ENG DRIVEN, INTEGRAL TRAILER MOUNTED 10KW 28 VOLTS DOD MODEL MEP 36 PRECISE, DC, (NSN 6115-01-161-3992) {AG-320BO-MME-000; TM 6115- TO 35C2-3-471-2} 060645 LO 5-6115-612-12 AVIATION GENERATOR SET, GAS TURBINE, ENGINE DRIVEN, INTEGRAL TR MOUNTED, 10KW, 28 VOLTS DC DOD MODEL MEP 362A CLASS PRECISE (NSN 6115-01-161-3992) 060921 TM 55-1730-229-34 5 POWER UNIT, AVIATION, MULTI-OUTPUT GTED, ELECTRICAL, HYDRAULIC, PNEUMATIC (AGPU) WHEEL MOUNTED, SELF-PROPELLED, TOWA AC 400HZ, 3PH, 0.8 PF, 115/200V, 30 KW, DC 28VDC 700 AMPS, PNEUMATIC, 60 LBS/MIN. AT 40 PSIG, HYDRAULIC, 15 GPM AT 3300 PS DOD MODEL MEP-360A, CLASS PRECISE, 400 HERTZ, (NSN 1730-01-144- {AG 320A0-MME-000; TO 35C2-3-473-2; TM 1730-34/1} 060922 TM 55-1730-229-12 8 POWER UNIT, AVIATION, MULTI-OUTPUT GTED ELECTRICAL, HYDRAULIC, PNEUMATIC (AGPU) WHEEL MOUNTED, SELF-PROPELLED, TOWABLE, AC 400HZ, 3PH, 0.8 PF, 115/200V, 30 KW, DC 28 VDC 700 AMPS, PNEUMATIC 60 LBS/M AT 40 PSIG, HYDRAULIC 15 GPM AT 3300 PSIG, DOD MODEL MEP-360A, CLASS PRECISE, HERTZ 400, (NSN 1730-01-144-1897) {AG 320A0-OMM-000; TO 35C2-3-473-1; TM 1730-12/1} 061758 LO 5-6115-614-12 GENERATOR SET, DIESEL ENGINE DRIVEN, TACTICAL SKID MTD. 200 KW, 3 PHASE, 4 WIRE, 120/208 AND 240/416 VOLTS MODEL MEP009B, UTILI 50/60 HERTZ, (NSN 6115-01-021-4096) 061772 LO 5-6115-622-12 GENERATOR SET, DIESEL ENGINE-DRIVEN, WHEEL MOUNTED 750-KW, 3-PH 4-WIRE, 2200/3800 AND 2400/4160 VOLTS CUMMINS ENGINE COMPANY IN MODEL KTA-2300G-2 DOD MODEL MEP-012A; CLASS UTILITY; HERTZ 062762 LO 5-6115-615-12 GENERATOR SET, DIESEL ENGINE DRIVEN, TACTICAL SKID MOUNTED, 3 K MODEL 016B; CLASS UTILITY MODE 50/60 HZ (NSN 6115-01-150-4140); DOD MODEL MEP-021B; CLASS UTILITY; MODE 400 HZ (6115-01-151-812 DOD MODEL MEP-026B; CLASS UTILITY; MODE 28 VDC (6115-01-150-036 {LI 05926B/06509B-12/5; P-8-646-LO} 064310 TM 5-6115-626-14&P 2 POWER UNIT PU-406B/M (NSN 6115-00-394-9576) MEP-005A 30 KW 60 HZ GENERATOR SET M200A1 2-WHEEL4-TIRE, MODIFIED TRAILER 064390 TM 5-6115-632-14&P 5 POWER UNIT PU-753/M (NSN 6115-00-033-1 MEP-003A 10 KW 60 HZ GENERATOR SET M116A2 2-WHEEL, 2-TIRE, MODI TRAILER 064392 TM 5-6115-629-14&P 3 POWER PLANT AN/AMJQ-12A (NSN 6115-00-257-1602) (2) MEP-006A 60HZ, GENERATOR SETS (2) M200A1 2-WHEEL, 4-TIRE, MODIFIED TRAIL 064443 TM 5-6115-625-14&P 2 POWER UNIT PU-405A/M (NSN 6115-00-394-9577) MEP-004A 15 KW 60 HZ GENERATOR SET M200A1 2-WHEEL, 4-TIRE, MODIFIED TRAILER (THIS ITEM IS INCLUDED ON EM 0086 & EM 0087) 064445 TM 5-6115-633-14&P 4 POWER PLANT AN/MJQ-18 (NSN 6115-00-033-1398) (2) MEP-003A 1 60 HZ GENERATOR SETS M103A3 2-WHEEL 1 1/2 TON MODIFIED TRAILER 064446 TM

5-6115-628-14&P 4 POWER PLANT AN/MJQ-15 (NSN 6115-00-400-7591) (2) MEP-113A 1 400 HZ GENERATOR SETS, (2) M200A1 2-WHEEL, 4-TIRE, MODIFIED TRA (THIS ITEM IS INCLUDED ON EM 0086) 064542 TM 5-6115-631-14&P 4 POWER PLANT AN/MJQ-16 (NSN 61 15-00-033-1395) (2) MEP-002A 5 KW 60 HZ GENERATOR SETS M103A3 2-WHEEL, 2-TIRE, MODIFIED TRAI 065071 TM 55-1730-229-24P 6 POWER AVIATION, MULTI-OUTPUT GTED ELECTRICAL, HYDAULIC, PNEUMATIC (AG WHEEL MOUNTED, SELF-PROPELLED, TOWABLE AC 400 HZ, 3 PH, 0.8 PF, 115/200V, 30 KW DC 28 VDC 700 AMPS PNEUMATIC 60 LBS/MIN. AT 40 HYDRAULIC 15 GPM AT 3300 PSIG DOD MODEL MEP-360A, CLASS PRECISE 400 HERTZ (NSN 1730-01-144-1897) {TO 35C2-3-473-4; TM 1730-24P/ AG 320A0-IPB-000} 065603 TB 5-6115-593-24 WARRANTY PROGRAM FOR GENERATOR SET DOD MODEL MEP-029A HOUSING K DOD MODEL MEP-029AHK 066727 TM 5-6115-640-14&P 2 POWER AN/MJQ-32 (NSN 6115-01-280-2300) AN/MJQ-33 (6115-01-280-2301) (MEP-701A 3KW 60 HZ ACOUSTIC SUPPRESSION KIT GENERATOR SETS M116 2-WHEEL, 2-TIRE, 3/4-TON MODIFIED TRAILERS 066808 TM 5-6115-627-14&P 2 POWER PLANT AN/MJQ-10A (NSN 6115-00-394-9582); (2) MEP-005A 30 KW 60 HZ GEN SETS; (2) M200A1 2-WHEEL, 4 TIRE MODIFIED TRAILERS 066809 TM 5-6115-630-14&P 4 POWER UNIT, PU-751/M (NSN 6115-00-033-1373) MEP-002A, 5 KW, 60 HZ GENERATOR SET M116A1 2-WHEEL, 2-TIRE, MODIFIED TRAILER 066824 TM 5-6115-465-10-HR 1 HAND RECEIPT MANUAL COVERING END ITEM/COMPONENTS OF END ITEM (C BASIC ISSUE ITEMS, (BII) AND ADDITIONAL AUTHORIZATION LIST (AAL GENERATOR SET, DIESEL ENGINE DRIVEN, TACTICAL SKID MOUNTED, 30K 4 WIRE, 120/208 AND 240/416 VOLTS - MEP-005A, UTILITY, 50/60 HE (NSN 6115-00-118-1240); MEP-104A, PRECISE, 50/60 HERTZ, (6115-00-118-1247): MEP-114A, PRECISE, 400 HERTZ, (6115-00-118- INCLUDING AUXILIARY EQUIPMENT MEP-005AWF WINTERIZATION KIT, FUE BURNING (6115-00-463-9083); MEP-005AWE, WINTERIZATION KIT, ELEC (6115-00 067310 TM 9-6115-650-14&P 1 POWER PLAN AN/MJQ-25 (NSN 6115-01-153-7742) (2) MEP-112A 10 KW 400 HZ GENE SETS M103A3 2-WHEEL, 2-TIRE, MODIFIED TRAILER 067311 TM 9-6115-653-14&P 2 POWER UNIT PU-732/M (NSN 6115-00-260-3082) MEP-113A 15 KW 400 HZ GENERATOR SET M200 2-WHEEL, 4-TIRE, MODIFIED TRAILER 067544 TM 9-6115-652-14&P 1 POWER UNIT PU-760/M (NSN 6115-00-394-9581) MEP-114A 30 KW 400 HZ GENERATOR M200A1 2-WHEEL, 4-TIRE, MODIFIED TRAILER 067632 TM 9-6115-648-14&P POWER UNIT PU-650B/G (NSN 6115-00-258-1622) MEP-006A 60 KW 60 HZ GENERATOR M200A1 2-WHEEL, 4-TIRE, MODIFIED TRAILER 067744 TM 9-6115-646-14&P 1 POWER UNIT PU-495A/G, (NSN 6115-00-394-9575) AND PU-495B/G, (6115-01-134-0 MEP-007A 100 KW, 60 HZ OR MEP-007B, 100 KW, 60 HZ GENERATOR SET M353-2-WHEEL, 2-TIRE MODIFIED TRAILER 067746 TM 9-6115-651-14&P POWER UNIT 707A/M (NSN 6115-00-394-9573) MEP-115A, 60 KW, 400 HZ GENERATOR M200A1, 2-WHEEL, 4-TIRE, MODIFIED TRAILER 067879 TM 9-6115-647-14&P 1 POWER UNIT PU-789/M (NSN 6115-01-208-9827) MEP-114A, 30 KW 400 HZ GENERATOR SET M353 2-WHEEL, 2-TIRE, MODIFIED TRAILER 069601 TM 9-6115-464-10-HR HAND RECEIPT MANUAL COVERING THE END ITEMS/COMPONENTS OF END IT (COEI), BASIC ISSUE ITEMS (BII), AND ADDITIONAL AUTHORIZATION L (AAL) FOR GENERATOR SET, DIESEL ENGINE DRIVEN, TACTICAL SKID MO 15 KW, 3 PHASE, 4 WIRE, 120/208 AND 240/416 VOLTS DOD MODEL MEP UTILITY CLASS, 50/60 HERTZ (NSN 6115-00-118-1241) DOD MODEL MEP PRECISE CLASS, 50/60 HERTZ (6115-00-118-1245) DOD MODEL MEP-113 PRECISE CLASS, 400 HERTZ (6115-00-118-1244) 069602 LO 9-6115-464-12 GENERATOR SET, DIESEL ENGINE DRIVEN, TACTICAL, SKID MTD, 15KW, 4 WIRE, 120/208 AND 240/416 VOLTS (DOD MODEL MEP 004A) (NSN 6115-00-118-1241); (DOD MODEL MEP 104A) (6115-00-118-1245) (DOD MODEL MEP-113A) (6115-00-118-1244) 069954 TM 9-6115-465-24P 2 GENERATOR SET, DIESEL ENGINE DRIVE TACTICAL SKID MTD. 30KW, 3 PHASE, 4 WIRE, 120/208 AND 240/416 V MODELS; MEP-005A, UTILITY, 50/60 HZ, (NSN 6115-00-118-1240), MEP-104A PRECISE, 50/60 HZ, (6115-00-118-1247), MEP-114A, PRECISE, 400 H (6115-00-118-1248), INCLUDING OPTIONAL KITS, DOD MODELS; MEP-00 WINTERIZATION KIT, FUEL BURNING, (6115-00-463-9083), MEP-005-AW WINTERIZATION KIT, ELECTRIC, (6115-00-463-9085), MEP-002-ALM, L BANK KIT,

(6115-00-463-9088), MEP-005-AWM, WHEEL MOUNTING KIT, (6115-00-463-9094) {TO-35C2-3-070096 TM 9-6115-464-24P 1 GENERATOR S DIESEL ENGINE DRIVEN, TACTICAL SKID MTD., 15KW, 3 PHASE, 4 WIRE 120/208 AND 240/416 VOLTS (DOD MODEL MEP-004A) UTILITY CLASS 50/60 HERTZ (NSN 6115-00-118-1241) (DOD MODEL MEP-103A) PRECISE CLASS 50/60 HERTZ (6115-00-118-1245) (DOD MODEL MEP-113A) PRECI CLASS 400 HERTZ (6115-00-118-1244) INCLUDING OPTIONAL KITS (DOD MODEL MEP-005-AWF) WINTERIZATION KIT, FUEL BURNING (6115-00-463 (DOD MODEL MEP-005-AWE) WINTERIZATION KIT, ELECTRIC (6615-00-46 (DOD MODEL MEP-004-ALM) LOAD BANK KIT (6115-00-191-9201 071025 TM 9-6115-641-10 2 GENERATOR SET SKID MOUNTED, TACTICAL QUIET 5 KW, 60 AND 400 HZ MEP-802A (60 HZ) (NSN 6115-01-274-7387) MEP-812A (400 HZ) (6115-01-274-7391) {TO 35C2-3-456-11} 071026 TM 9-6115-642-10 2 GENERATOR SET SKID MOUNTED, TACTICAL QUIE 10 KW, 60 AND 400 HZ MEP-803A (60 HZ) (NSN 6115-01-275-5061) MEP-813A (400 HZ) (6115-01-274-7392) {TO 35C2-3-455-11; TM 09247A/09248A-10/1} 071028 TM 9-6115-643-10 3 GENERATOR SET, SKID MOUNTED, TACTICAL QUI 15 KW, 50/60 AND 400 HZ MEP-804A (50/60 HZ) (NSN 6115-01-274-73 MEP-814A (400 HZ) (6115-01-274-7393) {TO 35C2-3-445-21} 071029 TM 9-6115-644-10 2 GENERATOR SET, SKID MOUNTED, TACTICAL QUIET 30 KW, 50/60 AND 400 HZ MEP-805A (50/60 HZ), (NSN 6115-01-274-7389) MEP-815A (400 HZ), (6115-01-274-7394) {TO 35C2-3-446-11; TM 09249A/09246A-10/1} 071030 TM 9-6115-645-10 2 GENERATOR SET, SKID MOUNTED, TACTICAL QUIET 60 KW, 50/60 AND 400 HZ MEP-806A (50/60 HZ), (NSN 6115-01-274-7390) MEP-816A (400 HZ), (6115-01-274-7395) {TO 35C2-3-444-11; TM 09244A/09245A-10/1} 071031 LO 9-6115-641-12 GENERATOR SET, SKID MOUNTED, TACTICAL QUIET 5 KW, 60 AND 400 HZ MEP-802A TACTICAL QUIET 60 HZ (NSN 6115-01-274-7387) MEP-812A TACTICAL QUIET 400 HZ (6115-01-274-7391) 071032 LO 9-6115-642-12 GENERATOR SET, SKID MOUNTED, TACTICAL QUIET 10 KW, 60 AND 400 HZ MEP-803A TACTICAL QUIET 60 HZ (NSN 6115-01-275-5061) MEP-813A TACTICAL QUIET 400 HZ (6115-01-274-7392) 071033 LO 9-6115-643-12 GENERATOR SET, SKID MOUNTED, TACTICAL QUIET 15 KW, 50/60/400 HZ MEP-804A TACTICAL QUIET 50/60 HZ (NSN 6115-01-274-7388) MEP-814 TACTICAL QUIET 400 HZ (6115-01-274-7393) 071034 LO 9-6115-644-12 GENERATOR SET, SKID MOUNTED, TACTICAL QUIET 30 KW, 50/60 AND 40 MEP-805A TACTICAL QUIET 50/60 HZ (NSN 6115-01-274-7389) MEP-815 TACTICAL QUIET 400 HZ (6115-01-274-7394) {LI 09249A/09246A-12} 071035 LO 9-6115-645-12 GENERATOR SET, SKID MOUNTED, TACTICAL QUIET 60 KW, 50/60 AND 40 MEP-806A TACTICAL QUIET 50/60 HZ (NSN 6115-01-274-7390) MEP-816 TACTICAL QUIET 400 HZ (6115-01-274-7395) {LI 09244A/09245A-12} 071036 TB 9-6115-641-24 WARRANTY PROGRAM FOR GENERATOR SET, TACTICAL QUIET 5 KW, 60 AND 400 HZ MEP-802A AND MEP-812A 071037 TB 9-6115-642-24 WARRANTY PROGRAM FOR GENERATOR SET, TACTICAL QUIET 10 KW, 60 AND 400 HZ MEP-803A AND MEP-813A {SI 09247A/09248A-24} 071038 TB 9-6115-643-24 WARRANTY PROGRAM FOR GENERATOR SET, TACTICAL QUIET 15 KW, 50/60 AND 400 HZ MEP-804A AND MEP-814A 071039 TB 9-6115-644-24 WARRANTY PROGRAM FOR GENERATOR SET, TACTICAL QUIET 30 KW, 50/60 AND 400 HZ MEP-805A AND MEP-815A {SI 09249A/09246A-24} 071040 TB 9-6115-645-24 WARRANTY PROGRAM FOR GENERATOR SET, TACTICAL QUIET 60 KW, 50/60 AND 400 HZ MEP-806A AND MEP-816A {SI 09244A/09245A-24} 071541 TM 9-6115-464-12 2 GENERATOR SET, DIESEL ENGINE DRIVEN, TACTICAL SKID MTD, 15 KW, 3 PHASE, 4 WIRE, 120/2 AND 240/416 VOLTS DOD MODEL MED-004A UTILITY CLASS 50/60 HERTZ (NSN 6115-00-118-1241) DOD MODEL MEP-103A PRECISE CLASS 50/60 HERTZ (6115-00-118-1245) DOD MODEL MEP-113A PRECISE CLASS 400 HERTZ (6115-00-118-1244) INCLUDING OPTIONAL KITS DOD MODEL MEP-005-AWF WINTERIZATION KIT, FUEL BURNING (6115-00-463-9083) DOD MODEL MEP-005-AWE WINTERIZATION KIT, ELECTRIC (6115-00-463-9085) DOD MODEL MEP-004-ALM LOAD BANK KIT (6115-00-291 071604 TM 9-6115-645-24P GENERATOR SET, TACTICAL QUIET 60KW, 50/60/400 HZ (NSN 6115-01-274-7390) (MEP-806A) (6115-01-274-7395) (MEP-816A) {TO 35C2-3-444-14; TM 09244A/09245A-24P/3} 071605 TM 9-6115-642-24P GENERATOR SET, TACTICAL QUIET 10 KW, 60/400 HZ (NSN 6115-01-275-5061) (MEP-803A) (6115-01-274-7392) (MEP-813A) {TO

35C2-3-455-14; TM 09247A/09248A-24P/3} 071610 TM 9-6115-643-24P GENERATOR SET, TACTICAL QUIET 15KW, 50/60 - 400 HZ (NSN 6115-01-274-7388) (MEP-804A) (6115-01-274-7393) (MEP-814A) {TO 35C2-3-445-24} 071611 TM 9-6115-644-24P GENERATOR SET, TACTICAL QUIET 30KW, 50/60-400 HZ (NSN 6115-01-274-7389) (MEP-805A) (6115-01-274-7394) (MEP-815A) {TO 35C2-3-446-14; TM 09249A/09246A-24P/3} 071613 TM 9-6115-641-24P GENERATOR SET, TACTICAL QUIET 5 KW, 60/400 HZ (NSN 6115-01-274-7387) (MEP-802A) (6115-01-274-7391) (MEP-812A) {TO 35C2-3-456-14} 071713 TM 9-6115-645-24 4 GENERATOR SET, SKID MOUNTED, TACTICAL QUIET 60KW, 50/60 AND 400 HZ MEP-806A (50/60 HZ) (NSN 6115-01-274-7390) MEP-816A (400 HZ) (6115-01-274-7395) {TO 35C2-3-444-12; TM 09244A/09245A-24/2} 071748 TM 9-6115-644-24 1 GENERATOR SET, SKID MOUNTED, TACTICAL QUIET 30 KW, 50/60 AND 400 HZ MEP-805A (50/60 HZ) (NSN 6115-01-274-7389) MEP-815A (400 HZ) (6115-01-274-7394) {TO 35C2-3-446-12; TM 09249A/09246A-24/2} 071749 TM 9-6115-643-24 4 GENERATOR SET, SKID MOUNTED, TACTICAL QUIET 15 KW, 50/60 AND 400 HZ MEP-804A (50/60 HZ) (NSN 6115-01-274-7388) MEP-814A (400 HZ) (6115-01-274-7393) {TO 35C2-3-445-22} 071750 TM 9-6115-642-24 4 GENERATOR SET, SKID MOUNTED, TACTICAL QUIET 10 KW, 60 AND 400 HZ MEP-803A (60 HZ) (NSN 6115-01-275-5061) MEP-813A (400 HZ) (6115-01-274-7392) {TO 35C2-3-455-12; TM 09247A/09248A-24/2} 071751 TM 9-6115-641-24 3 GENERATOR SET, SKID MOUNTED, TACTICAL QUIET 5 KW, 60 AND 400 HZ MEP-802A (60 HZ) (NSN 6115-01-274-7387) MEP-812A (400 HZ) (6115-01-274-7391) {TO 35C2-3-456-12} 072239 TM 9-6115-464-34 1 GENERATOR SET, DIESEL ENGINE DRIVEN, TACTICAL SKID MTD., 15 KW, 3 PHASE, 4 WIRE 120/208 AND 240/416 VOLTS DOD MODEL MEP-004A UTILITY CLASS 50/60 HERTZ (NSN 6115-00-118-1241) DOD MODEL MEP 103A PRECISE CLASS 50/60 HERTZ (6115-00-118-1245) DOD MODEL MEP-113A PRECISE CLASS 400 HERTZ (6115-00-118-1244) INCLUDING OPTIONAL KITS DOD MODEL MEP-005AWF WINTERIZATION KIT, FUEL BURNING (6115-00-463-9083) DOD MODEL MEP-005AWE WINTERIZAT KIT, ELECTRIC (6115-00-463-9085) DOD MODEL MEP-004ALM LOAD BANK KIT (6115-00-291-920 073744 TM 9-6115-604-24P 1 GENERATOR SET, DIESEL ENGINE DRIVEN, AIR TRANSPORTABLE SKID MOUNTED, 750KW, 3 PHASE, 4 WIRE, 2400/4160, AND 2200/3800 VOLTS DOD MODEL MEP208A PRIME UTILITY CLASS 50/60 HERTS (NSN 6115-00-450-5881) DOD MODEL 80-1466 REMOTE CONTROL MODULE CLASS (6115-01-150-5284 DOD MODEL 80-7320 SITE REQUIREMENTS MODULE CLASS (6115-01-150-5 {NAVFAC P-8-633-24P} 074040 TM 9-6115-545-24P GENERATOR SET, DIESEL ENGINE DRIVEN, TAC SKID MTD., 60 KW, 3 PHASE, 4 WIRE, 120/208 AND 240/416 VOLTS, D MODELS MEP-006A, UTILITY CLASS, 50/60 H/Z, (NSN 6115-00-118-124 MEP-105A, PRECISE CLASS, 50/60 H/Z, (6115-00-118-1252), MEP-115 PRECISE CLASS, 400 H/Z (6115-00-118-1253); INCLUDING OPTIONAL K DOD MODELS MEP-006AWF, WINTERIZATION FUEL BURNING, (6115-00-407 MEP-006AWE, WINTERIZATION KIT, ELECTRIC, (6115-00-455-7693), ME LOAD BANK KIT, (6115-00-407-8322), AND MEP-006AWM, WHEEL MOUNTI (6115-00-463-9092) {TO 074212 TM 9-6115-604-12 GENERATOR SET, DIESEL DRIVEN, AIR TRANSPORTABLE SKID MTD., 750 KW, 3 PHASE, 4 WIRE, 24 AND 2200/3800 V (DOD MODEL MEP 208A) CLASS PRIME UTILITY, HZ 50 (NSN 6115-00-450-5881) {NAVFAC P-8-633-12} 074896 TM 9-6115-604-34 GENERATOR SET, DIESEL ENGINE DRIVEN, AIR TRANSPORTABLE SKID MTD., 750 KW, 3 PHASE, 4 WIRE, 2400/4160 AND 2200/3800 VOLTS DOD MODEL MEP 208A PRIME UTILITY CLASS 50/60 HERTZ (NSN 6115-00-450-5881) {NAVFAC P-8-633-34} 075027 TM 9-6115-584-24P 1 GENERATOR SET, DIESEL E DRIVEN, TACTICAL SKID MTD 5 KW, 1 PHASE -2 WIRE, 1 PHASE -3 WIR 3 PHASE -4 WIRE, 120, 120/240 AND 120/208 VOLTS (DOD MODEL MEP- UTILITY CLASS, 60 HZ (NSN 6115-00-465-1044) {NAVFAC P-8-622-24P TO 35C2-3-456-4} 077581 TM 9-6115-673-13&P 2KW MILITARY TACTICAL GENERATOR SET 120 VAC, 60 HZ (NSN 6115-01-435-1565) (MEP-531A) (EIC: LKA) (NSN 6115-21-912-0393) (MECHRON) 28 VDC (NSN 6115-01-435-1567) (MEP-501A) (EIC: LKD) (NSN 6115-21-912-0392) (MECHRON) 078167 TM 9-6115-672-14 GENERATOR SET SKID MOUNTED TACTICAL QUIET 60KW, 50/60 AND 400 HZ, MEP-806B (50/60 HZ) (NSN 6115-01-462-0291) EIC: GGW, MEP-816B (400 HZ) (NSN 6115-01-462-0292) EIC: GGX 078443 TM

9-6115-639-13 1 3KW TACTICAL QUIET GENERATOR SET MEP 831A (60 HZ) (NSN 6115-01-285-3012) (EIC: VG6) MEP 832A (400 HZ) (NSN 6115-01-287-2431) (EIC: VN7) 078490 TM 9-6115-671-14 OPERATOR, UNIT, GENERATOR SET, SKID MOUNTED, TACTICAL QUIET 30 KW, 50/60 AND 400 HZ, MEP-805B (50/60 HZ) (NSN 6115-01-461-9335) (EIC: GGU) MEP-815B (400 HZ) (6115-01-462-0290) (EIC: GGV) 078503 TM 9-6115-671-24P GENERATOR SET SKID MOUNTED, TACTICAL QUIET 30 KW, 50/60 AND 400 HZ MEP-805B (50/60 HZ) (NSN 6115-01-461-9335) (EIC: GGU) MEP-815B (400 HZ) (NSN 6115-01-462-0290) (EIC: GGV) 078504 TM 9-6115-672-24P GENERATOR SET, SKID MOUNTED, TACTICAL QUIET 60 KW, 50/60 AND 400 HZ MEP-806B (50/60 HZ) (NSN 6115-01-462-0291) (EIC: GGU) MEP-816B (400 HZ) (NSN 6115-01-462-0292) (EIC: GGX) 078505 TB 9-6115-671-24 WARRANTY PROGRAM FOR GENERATOR SET, TACTICAL QUIET 30KW, 50/60 AND 400 HZ MEP-805B AND MEP-815B PROCURED UNDER CONTRACT DAAK01-96-D-00620 WITH MCII INC 078506 TB 9-6115-672-24 WARRANTY PROGRAM FOR GENERATOR SET, TACTICAL QUIET 30KW, 50/60 AND 400 HZ MEP-806B AND MEP-816B PROCURED UNDER CONTRACT DAAK01-96-D-00620 WITH MCII INC 078523 TM 9-6115-664-13&P 5KW, 28VDC, AUXILIARY POWER UNIT (APU) MEP 952B NSN 6115-01-452-6513 (EIC: N/A) 078878 TM 9-6115-639-23P 3KW TACTICAL QUIET GENERATOR SET MEP 831A (60 HZ) (NSN 6115-01-285-3012) (EIC: VG6) MEP 832A (400 HZ) (NSN 6115-01-287-2431) (EIC: VN7) 079379 TB 9-6115-641-13 WINTERIZATION KIT (NSN 6115-01-476-8973) INSTALLED ON GENERATOR SET, SKID MOUNTED, TACTICAL QUIET, 5KW, 60 AND 400 HZ MEP-802A (600HZ) (6115-01-274-7387) MEP-812A (400HZ) (6115-01-274-7391) 079460 TB 9-6115-642-13 WINTERIZATION KIT (NSN 6115-01-477-0564) (EIC: N/A) INSTALLED ON GENERATOR KIT, SKID MOUNTED, TACTICAL QUIET, 10KW, 60 AND 400 HZ MEP-803A (60HZ) (6115-01-275-0561) MEP-813A (400HZ) (6115-01-274-7392) 079461 TB 9-6115-643-13 WINTERIZATION KIT (NSN 6115-477-0566) INSTALLED ON GENERATOR SET, SKID MOUNTED, TACTICAL QUIET, 15KW, 50/60 AND 400 HZ, MEP-804A (50/60HZ) (6115-01-274-7388) MEP-814A (400HZ) (6115-01-274-7393) 079462 TB 9-6115-644-13 WINTERIZATION KIT (NSN 6115-01-474-8354) (EIC: N/A) INSTALLED ON GENERATOR SET, SKID MOUNTED, 30KW, 50/60 AND 400 HZ MEP-805A (50/60HZ) (NSN 6115-01-274-7389) MEP-815A (400HZ) (NSN 6115-01-274-7394) 079463 TB 9-6115-645-13 WINTERIZATION KIT (NSN 6115-01-474-8344) (EIC: N/A) INSTALLED ON GENERATOR SET, SKID MOUNTED, TACTICAL QUIET, 60KW, 50/60 AND 400 HZ, MEP-806A (50/60HZ) (6115-01-274-7390) MEP-816A (400HZ) (6115-01-274-7395) 080214 TM 9-6115-670-14&P AUXILIARY POWER UNIT, 20KW, 120/240 VAC, 60 HZ, MODEL NO. MEP-903A(SICPS) NSN 6115-01-431-3062 MODEL NUMBER MEP-903B (JTACS) NSN 6115-01-431-3063 MODEL NO MEP-903C9WIN-T) NSN 6115-01-458-5329 (EIC: N/A)

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current focus of manufacturing is towards flexible automation and miniaturization.

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2 pump hydraulic setup diagram: *Soviet Aeronautics*, 1972

2 pump hydraulic setup diagram: *Direct and General Support Maintenance Manual*, 1991

2 pump hydraulic setup diagram: *Blueprint Reading And Sketching Including Machine Drawings; Piping Systems; Electrical and Electronics Prints; Architectural and Structural Steel Drawings*, Chapter 1 BLUEPRINTS When you have read and understood this chapter, you should be able to answer the following learning objectives: Describe blueprints and how they are produced. Identify the information contained in blueprints. Explain the proper filing of blueprints. Blueprints (prints) are copies of mechanical or other types of technical drawings. The term blueprint reading, means interpreting ideas expressed by others on drawings, whether or not the drawings are actually blueprints. Drawing or sketching is the universal language used by engineers, technicians, and skilled craftsmen. Drawings need to convey all the necessary information to the person who will make or assemble the object in the drawing. Blueprints show the construction details of parts, machines, ships, aircraft, buildings, bridges, roads, and so forth. BLUEPRINT PRODUCTION Original drawings are drawn, or traced, directly on translucent tracing paper or cloth, using black waterproof India ink, a pencil, or computer aided drafting (CAD) systems. The original drawing is a tracing or “master copy.” These copies are rarely, if ever, sent to a shop or site. Instead, copies of the tracings are given to persons or offices where needed. Tracings that are properly handled and stored will last indefinitely. The term blueprint is used loosely to describe copies of original drawings or tracings. One of the first processes developed to duplicate tracings produced white lines on a blue background; hence the term blueprint. Today, however, other methods produce prints of different colors. The colors may be brown, black, gray, or maroon. The differences are in the types of paper and developing processes used. A patented paper identified as BW paper produces prints with black lines on a white background. The diazo, or ammonia process, produces prints with either black, blue, or maroon lines on a white background. Another type of duplicating process rarely used to reproduce working drawings is the photostatic process in which a large camera reduces or enlarges a tracing or drawing. The photostat has white lines on a dark background. Businesses use this process to incorporate reduced-size drawings into reports or records. The standards and procedures prescribed for military drawings and blueprints are stated in military standards (MIL-STD) and American National Standards Institute (ANSI) standards. The Department of Defense Index of Specifications and Standards lists these standards; it is issued on 31 July of each year. The

following list contains common MIL-STD and ANSI standards, listed by number and title, that concern engineering drawings and blueprints.

2 pump hydraulic setup diagram: 35th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference , 1994

2 pump hydraulic setup diagram: Thermophysical Properties of Individual Hydrocarbons of Petroleum and Natural Gases Boris A. Grigoriev, Anatoly A. Gerasimov, Igor S. Alexandrov, Boris Nemzer, 2022-07-09 Thermophysical Properties of Individual Hydrocarbons of Petroleum and Natural Gases: Properties, Methods, and Low-Carbon Technologies is a go-to data source for engineers who need derive property data on everyday components. Providing more precise data improves existing oil and gas processing systems and creates opportunities for more sustainable operations and equipment, such as hydrogen and carbon capture. Covering modern equations of state, this source discusses detailed descriptions of experimental apparatus, methods of measurement, corrections and error estimates as well as results of previous experiments. Generalized predictive methods for calculating viscosity and thermal conductivity are also covered. Rounding out with property databases and lower-carbon technology advances, the book gives today's engineers a detailed study of methods for more sustainable experimental research of thermophysical properties. - Teaches approaches for the measurement and modeling of thermophysical properties for future sustainability growth, including hydrogen and carbon capture - Provides exact property data of natural gas and their main components, including saturated properties - Gives readers new knowledge in experimental measurement procedures and guidelines for calculating thermophysical properties, along with updates on applications

2 pump hydraulic setup diagram: Digital Image Processing - Latest Advances and Applications Francisco Cuevas, Pier Luigi Mazzeo, Alessandro Bruno, 2024-07-24 This book offers a comprehensive analysis of image processing and its many applications in various fields. From improving the resolution of blurry images to identifying crop pests, optimizing water resource management, and extracting crucial details from photographs and videos, it covers a wide range of techniques and uses. Readers will be immersed in the fascinating world of image edge detection, combining color-based multidimensional scaling maps to highlight areas of saliency, and using deep learning to transform perception in driver assistance systems and autonomous vehicles. Additionally, they will explore how visual recognition can predict crack trajectories, bionic color theory, and the creation of realistic simulations of radar images. A highlight of the book is its focus on the revolutionary application of image processing in dentistry, from making precise measurements to developing next-generation dental biometrics systems. With a detailed and broad overview, this book provides readers with the tools and knowledge necessary to unlock the potential hidden in images, opening up new possibilities and applications in fields ranging from agriculture and medicine to technology and science.

2 pump hydraulic setup diagram: Proceedings of the 52nd Purdue Industrial Waste Conference1997 Conference Purdue Research Foundation, 2020-02-06 The 52nd Purdue Industrial Waste Conference showcased 18 sessions on subjects such as biological aspects, physical-chemical aspects, oil and petroleum wastes, management and reuse strategies, international activities, and pollution prevention. This book compiles the work of nearly 200 international experts, covering the latest practical techniques, advanced research, new methods, actual operating data, and important case studies.

2 pump hydraulic setup diagram: Biomedical Implants Ravi K. Dwivedi, Premanand S. Chauhan, Avadesh K. Sharma, Madhavi Singh, Anupma Agarwal, 2024-02-14 This book provides a comprehensive overview of the development of implants, from the selection of materials to the outcome of the process. It covers various steps, including biocompatible material, synthesis, and characterization, compatibility and limitations of materials, specific implants, and finite element analysis of medical implants. It also presents a comparison between predictions and experimental results by studying real-world problems and addresses the issue of sustainability in implant manufacturing, process modeling, and optimization in additive manufacturing supported by case

studies. Features: • Covers the development of implants from the selection of material to the suitable process of manufacturing technologies. • Includes biocompatible material, synthesis, characterization, compatibility, and limitations of materials. • Reviews biofabrication in terms of artificial organs and soft tissues. • Discusses implant manufacturing, including additive and micro-manufacturing and failure analysis through case studies. • Addresses the issue of sustainability in implant manufacturing. This book is intended for researchers and graduate students specializing in mechanical, biomedical, healthcare engineering, biomaterials, and additive manufacturing.

2 pump hydraulic setup diagram: *Advances in Building Technology* M. Anson, J.M. Ko, E.S.S. Lam, 2002-11-14 This set of proceedings is based on the International Conference on Advances in Building Technology in Hong Kong on 4-6 December 2002. The two volumes of proceedings contain 9 invited keynote papers, 72 papers delivered by 11 teams, and 133 contributed papers from over 20 countries around the world. The papers cover a wide spectrum of topics across the three technology sub-themes of structures and construction, environment, and information technology. The variety within these categories spans a width of topics, and these proceedings provide readers with a good general overview of recent advances in building research.

2 pump hydraulic setup diagram: *The Nautical Gazette*, 1944

2 pump hydraulic setup diagram: *A Guide to Golf Course Irrigation System Design and Drainage* Edward Pira, 1997-01-15 A Guide to Golf Course Irrigation System Design and Drainage details every phase of an irrigation program - from the system design to construction, from scheduling to operation, and much more. It also covers the fundamentals of drainage design and installation. Turfgrass managers and golf course superintendents will refer to this handy book often to plan and implement effective irrigation systems, ensure appropriate capacity, easy installation, and practical operation and maintenance.

2 pump hydraulic setup diagram: *NASA Technical Note*, 1965

2 pump hydraulic setup diagram: *Preparation of Polymer Nano-Foams* Alexander Müller, 2013-11-27 The current energy debate considerably affects science, economy and politics. A key aspect of this discussion is energy saving by improvement of thermal insulations for buildings. In this regard, nano insulation materials (NIMs) are the insulation materials of the future. If additionally, a pore size reduction to nanoscale results in optical transparency, completely new markets for polymer foams will arise. However, the realization of these high-potential materials is accompanied by many challenges, as for example the extremely high interfacial tension emerging during foaming processes that cause an undesired coarsening of the foam structure. To overcome these challenges, new strategies and templates have to be scientifically developed. Moreover, it is crucial to understand the foaming in detail. In this context the early state of foaming was studied by means of the principle of supercritical microemulsion expansion (POSME). The benefit of using microemulsions containing a super- or near-critical fluid as oil component is the thermodynamic stability at high pressures. This allows a fast repeatability of the expansion process at nanoscale by applying pressure cycles. In combination with a specially designed stroboscopic high pressure cell, the structural processes could be observed by time resolved small angle neutron scattering experiments. It turned out that the addition of a low molecular oil as anti aging agent results in a deceleration of foam coarsening during expansion by more than an order of magnitude. Parallel to these studies, the nanofoams by continuity inversion of dispersions (NF-CID) principle was utilized for the preparation of nanoporous polymeric materials. The significant innovation of the NF-CID principle is the generation of an extremely high number density of propellant pools by a continuity inversion of a CO₂-soaked colloidal crystal, i.e. the formerly discrete polymer nanoparticles convert into a homogeneous matrix with nanodisperse fluid inclusions, if the temperature is raised above the glass transition of the respective polymer. Expanding those templates by applying a specific set of parameters led to polymethylmethacrylate and polystyrene nanoporous materials that feature pore sizes smaller than 100 nm.

2 pump hydraulic setup diagram: *Heat Transfer in Phase Change* I. S. Habib, L. S. Yao, J.

Goodman, 1992

2 pump hydraulic setup diagram: Maritime Reporter and Seaboard , 1944

2 pump hydraulic setup diagram: 10th International Conference on Robotics, Vision, Signal Processing and Power Applications Mohamad Adzhar Md Zawawi, Soo Siang Teoh, Noramalina Binti Abdullah, Mohd Ilyas Sobirin Mohd Sazali, 2019-04-02 This proceedings book presents a collection of research papers from the 10th International Conference on Robotics, Vision, Signal Processing & Power Applications (ROVISP 2018), which serves as a platform for researchers, scientists, engineers, academics and industrial professionals from around the globe to share their research findings and development activities. The book covers various topics of interest, including, but not limited to: •Robotics, Control, Mechatronics and Automation•Vision, Image, and Signal Processing•Artificial Intelligence and Computer Applications•Electronic Design and Applications•Biomedical, Bioengineering and Applications•RF, Antenna Applications and Telecommunication Systems•Power Systems, High Voltage and Renewable Energy•Electrical Machines, Drives and Power Electronics•Devices, Circuits and Embedded Systems•Sensors and Sensing Techniques

Additional Resources

3.02.01.141 11 & 16GPM Manual(English) - Delavan Fluid Power

Our two stage, hi-low, external gear hydraulic pump, models 11GPM & 16GPM are designed to be direct- driven by gas engines or electric motors. They are suited for use in log splitters and ...

TWO-STAGE HYDRAULIC PUMP - SPX FLOW

Read and carefully follow the operating instructions before installation and use of this pump. Most problems with new equipment are caused by improper operation or installation. NOTE: Inspect ...

The Best Guide to Two Stage Hydraulic Pumps - Mentored ...

A two-stage hydraulic pump is two gear pumps that combine flow at low pressures and only use one pump at high pressures. This allows for high flow rates at low pressures or high pressures ...

INSTRUCTION MANUAL - Ace Pumps

Consult the Tractor Hydraulic System Pump Selection Guide(HSG), Internet Hydraulic Selection Guide (IHSG) at www.AcePumps.com, or your tractor dealer to determine the type hydraulic ...

Hydraulic Pump

The Raymarine hydraulic pump (also known as the Raymarine reversing hydraulic pump) is intended to operate a vessel's steering mechanism as part of a Raymarine autopilot system.

PARTS MANUAL

DO NOT EXCEED THE OPERATING SPECIFICATIONS FOR PRESSURE, FLOW OR TEMPERATURE. ALL HYDRAULIC SYSTEMS REQUIRE A MEANS TO LIMIT THE ...

2 Pump Hydraulic Setup Diagram (2024) - x-plane.com

The '2 pump hydraulic setup diagram' represents a significant advancement in hydraulic technology, offering increased power, improved redundancy, and

greater operational flexibility ...

SINGLE-STAGE AND TWO-STAGE HYDRAULIC HAND PUMP

same pressure rating as the pump and cylinder. Personal Release hydraulic pressure BEFORE removing or tightening hose couplings.

How To Set Up A 2-Pump Hydraulic Setup

A 2-pump hydraulic setup is a hydraulic system that uses two pumps to generate fluid pressure and power. It is commonly used in industrial and heavy-duty applications, where a single ...

The Basics of 2-Stage Hydraulic Pump Adjustment: ...

2-stage hydraulic pump: pressure adjustment and flow adjustment. Pressure adjustment involves changing the pressure settings on the pump, while flow adjustment involves adjusting the flow ...

HYDRAULIC SELECTION GUIDE - Ace Pumps

HYDRAULIC SYSTEM CONNECTIONS The following hydraulic connection recommendations are important for optimum pump efficiency and motor seal life.

TWO-STAGE HYDRAULIC PUMP - SPX FLOW

Connect the pump power supply, and place the hydraulic control valve in the advance position. Place the motor control toggle switch in the run position, and push the start button.

INSTRUCTION MANUAL - Ace Pumps

GEMINITM DUAL PUMP KIT WHAT IS THE GEMINI DUAL PUMP KIT? The kit allows the user to operate two Ace Pumps from one Selective Control Valve (SCV) or the Power Beyond ...

Installation Instructions: For 12 VDC, Hydraulic Power Unit, ...

Install 9/16-18 SAE ORB, SAE #6, hydraulic fittings into ports "A", "B", "A1 and "B1". Torque fittings to 18 lb.-ft. Mount the Power Unit using two, 3/8-16 x 3/4 mounting bolts (Diagram A-2). ...

298403 - SeaStar Solutions

The SeaStar P/A system is comprised of two circuits: a hand operated manual system, which is the control element, and a hydraulic power pump, which is the working element. The manual ...

Lecture 24 HYDRAULIC CIRCUIT DESIGN AND ANALYSIS

Explain various hydraulic circuits to control single-acting and double-acting cylinders. Explain a regenerative circuit and determine the load-carrying capacities. Describe the working of a ...

Series 42 Axial Piston Pumps Technical Information - Danfoss

The Non-Feedback Proportional Hydraulic (NFPH) control is a hydraulic displacement control in which an input signal pressure directly controls the pump servo piston to set pump displacement.

Installation Instructions - Ace Pumps

Installation Instructions Determine your tractor's hydraulic system type by consulting the operating manual, Ace HSG (Hydraulic Selection Guide), or Ace iHSG by scanning MANUAL

MULTIPLE CONTROL VALVE SETUP AND ADJUSTMENT ...

Set BPS - Disconnect the US Coil, start the pump for the valve to be adjusted. Turn the BPS adjuster in (CW) until the car moves up, then back the adjuster out (CCW) until the car stalls, ...

Series 2 variable displacement piston pump technical pump

Eatons Series 2 pump offers a choice of five integral charge pump displacements. The Charge Pump design allows greater through-torque for tandem pumps and multiple motor applications.

3.02.01.141 11 & 16GPM Manual(English) - Delavan Fluid Power

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