LUBRICATION ORDER

LO5-4320-215-12

23 May 1978 (Supercedes LO 5-4320-215012, 17 February 1961)

**PUMP, CENTRIFUGAL: FRESH WATER; GASOLINE DRIVEN;
2 WHEEL MOUNTED; 4 IN.; 500 GPM; 30 FT HEAD
(CARVER MODEL K400S) W/WISCONSIN
ENGINE MODEL MVF4D**

Reference: C9100-IL

Intervals and related task-hour times are based on normal hours of operation. The task-hour time specified is the time you need to do all the service prescribed for a particular interval. Change the interval if your lubricants are contamin-ated or if you are operating the equipment under adverse operating conditions, including longer-than-usual operating hours. You may extend the interval during periods of low activity, but you must take adequate preservation precautions.

* The time specified is the time required to perform all services at the particular interval.

Clean fittings before lubricating. Relubricate all areas exposed to water after amphibious operation. Lubricate points indicated by dotted arrow shaft on both sides of equipment. Clean parts with SOLVENT, dry cleaning, or with 01 L, fuel, dies 81. Dry before lubricating. Drain crankcase when HOT. Fill and check level. The lowest level of maintenance authorized to lubricate e point is indicated by one of the following: (C) Operator/crew or (O) Organizational Maintenance.

You can help improve this publication. If you find any mistake or if you know of a way to improve the procedures phase let us know. Your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) should be mailed directly to: Commander, U.S. Army Troop Support & Aviation Materiel Readiness Command, ATTN: DRSTS-MTPS, 4300 Goodfellow Blvd. St. Louis, MO 63120. A reply will be furnished to you."

*TOTAL TASK-HR		*TOTAL TASK-HR	
INTERVAL	TASK-HR	INTERVAL	TASK-HR
10	0.5	250	0.1
50	0.4	1000	0.5
100	0.5		

LUBRICANT ● INTERVAL

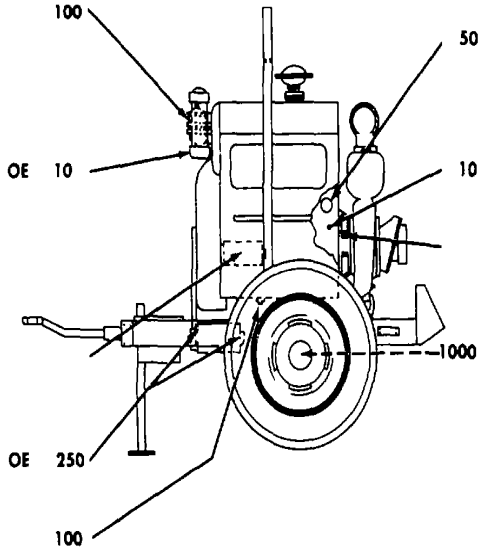
Oil Filter
(Disassemble, clean housing, renew element and reassemble)
(O) (See note 2)

Air Cleaner
(Refill oil reservoir to full mark; every 50 hours dis-assemble entire unit, (O) clean, re-oil and reassemble. (See key)

Starter
(Sealed bearings)
DO NOT LUBRICATE

Generator
(O) (Sparingly)

Crankcase Oil Drain Plug
(O) (Drain and refill)



INTERVAL ● LUBRICANT

50 OE Crankcase Oil Fill and Breather Cap
(Clean and re-oil)
(See key) (O)

10 Crankcase Oil Level Gage (Check level) (C)

GAA Pump Seal Grease Cup (O)
(Refill when wing nut reaches cop) (See note 3)

1000 GAA Wheel Bearings
(Remove wheel, clean, inspect and lubricate bearings and reassemble) (O)

- KEY-

LUBRICANTS		REFILL CAPACITY (APP)	EXPECTED TEMPERATURES			INTERVALS
			Above +32°F Above 0°C	+40°F to -10°F + 5°C to -23°C	0°F to -65°F -18°C to -50°C	
OE (MIL-L-2104)	OIL, Engine		OE 30 or 9250	OEA/APG-PD-1	OEA/APG-PD-1	Intervals given are in hours of normal operation.
	Crankcase	5 qt (4.75L)				
	Air Cleaner	3/8 qt (0.36L)				
	Oil Can Points					
OEA/APG-PD-1	OIL, Engine, Subzero					
GAA (MIL-G-10924)	GREASE, Automotive and Artillery		All Temperatures			

TESTS:

1. FOR OPERATION OF EQUIPMENT IN PROTRACTED COLD TEMPERATURES BELOW-10°F(-23°C). Remove lubricants prescribed in the key for temperatures above -10°F (-23°C). Clean parts with SOLVENT, dry-clasping, lubricate with lubricants specified in the key for temperatures as below -10°F (-23°C).
2. OIL FILTER. After installing new filter element, fill crankcase, operate engine 5 minutes, check housing for leaks, check crankcase oil level and bring to full mark.
3. PUMP SEAL GREASE CUP. To fill cup turn wing nut clockwise to cap, remove cap, fill cup, replace cap and turn wing nut counterclockwise to top of shaft.
4. OIL CAN POINTS. Every 50 hours clean and lightly coat throttle linkage, leveling jacks and door latches with OE.

Copy of this Lubrication Order will remain with the equipment at all times; instructions contained herein are mandatory.

BY ORDER OF THE SECRETARY OF THE ARMY:

BERNARD W. ROGERS
General United States Army
Chief of Staff

OFFICIAL:

J.C. PENNINGTON
Brigadier General, United States Army
The Adjutant General

DISTRIBUTION: To be distributed In accordance with DA Form 12-25A, Operator Maintenance requirements for Pumps, Fresh Water.

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LO 5-4320-215-12

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

THEN...JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL.

SOMETHING WRONG WITH PUBLICATION

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

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BE EXACT PIN-POINT WHERE IT IS

PAGE NO.	PARA-GRAPH	FIGURE NO.	TABLE NO.

IN THIS SPACE, TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT.

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DA FORM 1 JUL 79 2028-2

PREVIOUS EDITIONS ARE OBSOLETE.

P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

THE METRIC SYSTEM AND EQUIVALENTS

'NEAR MEASURE

. Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches
1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches
1 Kilometer = 1000 Meters = 0.621 Miles

'VEIGHTS

Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
1 Kilogram = 1000 Grams = 2.2 lb.
1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces
1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

SQUARE MEASURE

1 Sq. Centimeter = 100 Sq. Millimeters = 0.155 Sq. Inches
1 Sq. Meter = 10,000 Sq. Centimeters = 10.76 Sq. Feet
1 Sq. Kilometer = 1,000,000 Sq. Meters = 0.386 Sq. Miles

CUBIC MEASURE

1 Cu. Centimeter = 1000 Cu. Millimeters = 0.06 Cu. Inches
1 Cu. Meter = 1,000,000 Cu. Centimeters = 35.31 Cu. Feet

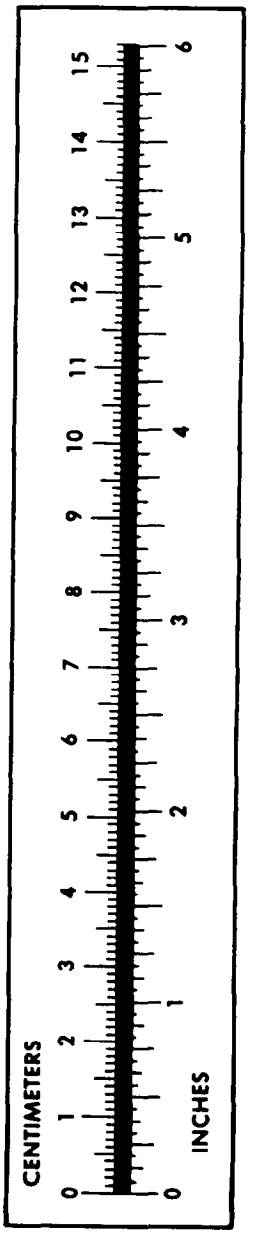
TEMPERATURE

5/9(°F - 32) = °C
212° Fahrenheit is evuivalent to 100° Celsius
90° Fahrenheit is equivalent to 32.2° Celsius
32° Fahrenheit is equivalent to 0° Celsius
9/5C° + 32 =°F

APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Square Feet	Square Meters	0.093
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
ıts	Liters	0.473
arts	Liters	0.946
allons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	0.907
Pound-Feet	Newton-Meters	1.356
Pounds per Square Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic Meters	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
'ers	Gallons	0.264
.ms	Ounces	0.035
.ograms	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pounds-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
lometers per Liter	Miles per Gallon	2.354
›meters per Hour	Miles per Hour	0.621



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