

LIMITED URGENT

MWO effective date is July 1991 and completion date is July 1993

MWO 5-4310-452-20-1

MODIFICATION WORK ORDER

MODIFICATION OF INGERSOLL RAND 250 CFM AIR COMPRESSORS MODEL P250 (NSN 4310-01-158-3262) WDM H268

Headquarters, Department Of The Army, Washington, DC

27 March 1991

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this MWO. If you find technical errors that could cause personal injury or damage to materiel, please let us know. Contact Commander, US Army Tank-Automotive Command, Warren, Michigan 48397-5000, ATTN: AMSTA-MBS, and report the needed correction by telephoning: AV 786-7411 or Commercial 313-574-7411. Additionally, complete a DA Form 2028-2, Recommended Changes to Publications and Blank Forms, and mail to: Commander, US Army Tank-Automotive Command, Warren, Michigan 48397-5000, ATTN: AMSTA-MBS. A reply will be provided to you.

Approved for public release; distribution is unlimited.

1. PURPOSE. The purpose of this modification is to modify the Lunette/Drawbar on the Compressor to alleviate the breaking and distortion of the attaching bolts. The Lunette, being four (4) inches longer, will increase the maneuverability and eliminate damage to the compressors sheet metal.
2. PRIORITY. This modification is classified LIMITED URGENT.
3. END ITEMS OR SYSTEMS TO BE MODIFIED. The end item to be modified is the Ingersoll Rand 250 CFM Air Compressor, NSN 4310-01-158-3262, Model P-250 -WDM-H268. There will be no exceptions to this modification.
4. MODULES TO BE MODIFIED. N/A
5. PARTS TO BE MODIFIED. N/A

6. APPLICATION.

a. Time compliance schedule. The effective date of this MWO is July 1991 and its completion date is July 1993.

b. Level of Maintenance. Organizational maintenance is the lowest level of maintenance authorized to perform this modification.

c. Work Force and Man-Hour Requirements.

<u>WORK FORCE/SKILLS</u>	<u>MAN-HOURS</u>
Construction Equipment Repairer (MOS 626)	1.5 hours

Total man hours required for a single application of this MWO is 1.5 hours.

d. MWO's to be applied prior to or concurrently with this MWO. Not applicable.

e. Additional information. Not applicable.

7. TECHNICAL PUBLICATIONS AFFECTED/CHANGED. The following technical publications are affected by this MWO:

- TM 5-4310-452-24P dated December 1990
- TM 5-4310-452-14 dated December 1990

8. MWO KITS/PARTS AND THEIR DISPOSITION.

a. Kits/Part needed to apply the MWO. Parts used to make up this MWO kit include the following:

<u>NSN</u>	<u>NOMENCLATURE</u>	<u>CAGE</u>	<u>P/N</u>
2540-01-333-9644	KIT, LUNETTE	02686	131237

b. Contents of MWO Kit. The following is a list of parts that are included in the MWO kit. The kit should be inventoried before work begins.

<u>QTY</u>	<u>NOMENCLATURE</u>	<u>NSN</u>	<u>CAGE</u>	<u>P/N</u>
1	Lunette	2540-01-334-3982	02686	131238
5	Hex Head Bolts	5305-00-724-7247	96906	MS90728-170
5	5/8 Nuts	5310-00-763-8920	96906	MS51967-20

c. Bulk and Expendable Material.

<u>NOMENCLATURE</u>	<u>NSN</u>	<u>CAGE</u>	<u>P/N</u>
Paint, Zinc Primer	8010-00-297-0593	83421	8010-00-297-0593

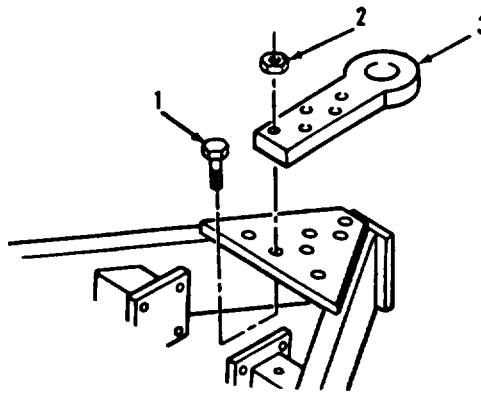
d. Parts Disposition. Original configuration Lunette, NSN 2540-01-192-4699 and all mounting hardware shall be discarded. Original Lunette shall be sent to the Defense Reutilization and Marketing Office (DRMO).

9. SPECIAL TOOLS; TOOL KITS; JIGS; TEST, MEASUREMENT AND DIAGNOSTIC EQUIPMENT (TMDE); AND FIXTURES REQUIRED. There are no special tools, tool kits, jigs, or test measurement and diagnostic equipment required to complete this MWO.

10. MODIFICATION PROCEDURE. Modify the Lunette/Drawbar using the following modification procedures.

TOOLS REQUIRED	NSN
Torque Wrench (200 ft/lb capability)	5120-00-221-7983
15/16 Combination Wrench	5120-00-895-9573
Grinder/Sander	
15/16 Socket – 1/2 inch drive	5120-00-181-6813
Ratchet – 1/2 inch drive	5120-00-230-6385

- (1) Remove the five nuts (2) and bolts (1) holding the lunette (3) to the frame.
- (2) Remove the old lunette.



CAUTION

CARC PAINT... Use breathing protection when sanding or removing paint.

(3) Using a sander/grinder, clean the area of old paint and scale before installing the new lunette on the drawbar frame. Make sure all paint, rust and scale is removed before installing the new lunette. Prime the surface which was just cleaned using zinc primer, NSN 8010-00-297-0593, or equivalent.

(4) Position the new lunette on trailer frame and install the bolts from the bottom side with the nuts on top.

(5) Using a torque wrench tighten the nuts in three increments. The first increment will be 90 ft/lbs. The second increment will be 125 ft/lbs. The third and final increment will be 190 ft/lbs, plus or minus 10 pounds.

(6) Torque all five nuts to the first increment before going to the next increment. The combination wrench will be used to hold the head of the bolt while tightening the nut.

11. CALIBRATION REQUIREMENTS. Not applicable.

12. WEIGHT AND BALANCE DATA. Weight and balance are not significantly affected.

13. QUALITY ASSURANCE REQUIREMENTS. The lunette and all mounting hardware provided with the installation kit have been tested to assure proper fit and reliability, when installed on the compressor in accordance with the instructions cited herein. No additional quality assurance or test requirements are necessary

14. RECORDING AND REPORTING OF THE MODIFICATION

a. Records and reports. Recording and reporting procedures will be documented on DA Forms 2407, 2408-5, 2408-9 and 2409. Procedures and instructions for using these forms are located in DA PAM 738-750. Completed DA Form 2407 will be sent to: US Army TACOM, Warren, Michigan, 48397-5000, ATTN: AMSTAMRS.

b. Marking equipment. After the MWO has been completed, the month and year will be stamped on the data identification plate located on the rear cowling of the compressor. Stamp the information under the blocks marked "date shipped" and "date inspected".

c. Identification data. The following chart shows the information changes on the Lunette.

NOMENCLATURE	CAGE and P/N		NSN	NSN
BEFORE/AFTER MODIFICATION	BEFORE MODIFICATION	AFTER MODIFICATION	BEFORE MODIFICATION	AFTER MODIFICATION
LUNETTE	DB-1238 (74410)	131238 (02686)	2540-01-192-4699	2540-01-334-3982

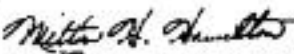
15. PRODUCT IMPROVEMENT PROPOSAL (PIP) NUMBER. This MWO is authorized by MC number 1-89-08-4238.

16. MODIFICATION IDENTIFICATION. The differences in the modified version of the lunette/drawbar configuration and the original version is the length of the lunette and the installation of the mounting hardware. The modified lunette/drawbar is 4 inches longer than the original version. The hardware used to mount the lunette/drawbar will be with the bolts being installed from the bottom with the nuts on top as indicated in the enclosure.

By Order of the Secretary of the Army:

GORDON R. SULLIVAN
General, United States Army
Chief of Staff

Official:


MILTON H. HAMILTON
Administrative Assistant to the
Secretary of the Army

Distribution:

To be distributed in accordance with DA Form 12-25-E (Block 5337) Unit maintenance requirements for MWO5-4310-452-20-1 .

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)

DATE SENT

PUBLICATION NUMBER

PUBLICATION DATE

PUBLICATION TITLE

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.

TEAR ALONG PERFORATED LINE

PRINTED NAME, GRADE OR TITLE AND TELEPHONE NUMBER

SIGN HERE

THE METRIC SYSTEM AND EQUIVALENTS

WEIGHT MEASURE

1 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

WEIGHTS

1 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

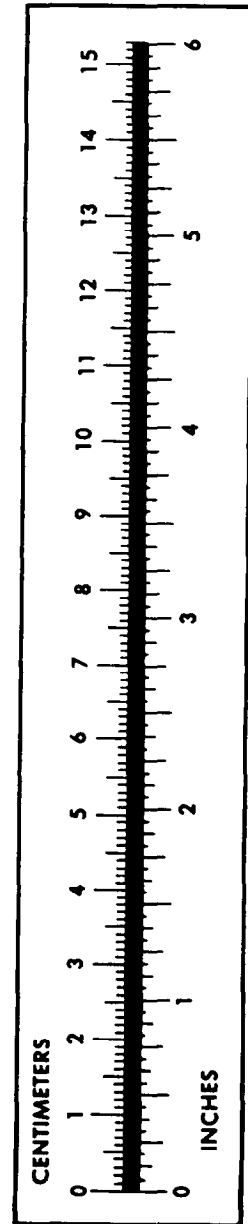
TEMPERATURE

$5/9(^{\circ}\text{F} - 32) = ^{\circ}\text{C}$
 212° Fahrenheit is equivalent to 100° Celsius
 90° Fahrenheit is equivalent to 32.2° Celsius
 32° Fahrenheit is equivalent to 0° Celsius
 $9/5^{\circ}\text{C} + 32 = ^{\circ}\text{F}$

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
its	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
ometers per Liter	Miles per Gallon	2.354
ometers per Hour	Miles per Hour	0.621



PIN: 069387-001