THIS Booklet is dedicated to winning the war, to encouragement of war bond purchases, to men of the Onan organization now fighting for freedom and to those present Onan men and women on production assembly lines.

OFFICIAL O.W.I. PHOTOS
NEARLY 25 years ago, D. W. Onan & Sons entered the industrial and manufacturing field and the subsequent building of light and power generators. In a barn in the north section of Minneapolis, D. W. Onan assembled bits of equipment and machinery obtained by a small loan. It was a "one-man" shop. He solicited business with meager success. Later he moved his shop to the basement of his home where his two sons, Bud and Bob, helped Dad produce at night the units sold by day.

WITH the advent of A. C. radio sets, demand rose from rural communities for electric generators of the portable, gasoline-driven type. Domestic use of Onan generators grew with rapidity. A small factory building was erected adjacent to the Onan frame house and production began in earnest.

MAGICALLY, Onan generators found their way to all parts of the planet, providing light and power in 49 foreign countries. The United States defense program and requirements of Allied Nations brought heavy demands for the Onan portable generator. With advent of December 7, 1941, full production at expanded plants was shifted to full war production for the United Nations. A peace-time commodity, used in normal pursuit of happiness in homes and on farms and in industrial concerns, the Onan generator is now garbed in field dress for action on war fronts and military centers. Sixty-five different models are now produced for 41 branches of the service for use on land, sea, and in the air.
THE MANUFACTURE of many types of mechanical equipment preceeded the building of electric generating sets by D. W. Onan & Sons. Shown above are several automotive maintenance tools first built by Onan. At left, Dave Onan is shown operating a crating room and contractors' saw, many of which are still in use throughout the world. Below are shown several early models of Onan generating sets.
FIRST ASSEMBLY LINES in Onan’s first full-scale production brought the large type generator into general use. Shipped mainly to South America, these generators carried heavy loads on construction and communication projects of all kinds. High quality generators has been the rule since inception of Onan units. Expansion brought full speed ahead. Peace-time production changed overnight to war production to give power and light to our fighting men. Units now produced range from 350 watts to 35,000 watts.
D.W. ONAN founded the firm on $100 borrowed capital. Today he operates the world’s largest manufacturing concern building gasoline engine-driven electric generating plants only. Dave is on duty seven days a week . . . can operate any one of the factories’ machines, perform any single operation in Onan generator production. One of the city’s leading civic organization leaders, he has gained a full reservoir of Minneapolis good-will.
Bob
R. D. ONAN, younger of the two sons, is personal director and handles all matters of public contact and promotion. He discharges many of his father's duties.

Bud
C. W. ONAN has full responsibility of production for his Dad. His knowledge of engines and generators makes him one of the country's top experts.
**Key Men**

G. H. KING is assistant to Bud Onan. He answers the government's questions . . . what do you have? . . . when can we get it? . . . how much does it cost?

PLANT ASSISTANT to Bob Onan is Harry Horsley who assists workers with all problems of personal or business nature. His work is important in maintenance of high morale.

FINANCIAL DETAILS and cost accounting is the responsibility of Verne Aanenson who heads a staff of office employees in air-conditioned, sound-proof offices.

FIRST and only secretary of D. W. Onan is Mrs. Nell Tangen. Her responsibilities are heavy and, as all good secretaries, knows her boss "like a book."

PALMER STARK has grown up with the Onan family. Years ago he watched over Bud and Bob as youngsters. Now he superintends one of the plants.
ARTHUR RANDALL (above) is employment manager. He has added nearly 100 men and women a week to the Onan organization.

PURCHASING AGENT is Harry Jacobson (above).

MACHINE SHOP and tool and die production is the responsibility of Steen Eklund (above).

OLDEST EMPLOYEE in service, Onan's first office boy, is Julius (Dyke) Grabow (above). Dyke produces all manuals, handbooks and catalogues.

J. C. HOIBY (above) is Chief of Engineers.
NEW AND EXPANDED office space make up general offices at 43 Royalston avenue. New types of units keep drafting room (above) a whirl of activity.

COST ACCOUNTING OFFICE (above) keeps close tab on unit costs and expenses to give the government maximum of product efficiency for minimum cost.

PURCHASING AND BILLING departments (above) keep production rolling, seek out needed materials and provide sufficient stocks to make unit deliveries per schedule.
FIRST general office (right) has been remodeled to conform with standards of recent expansions.

FULL-TIME plant photographer (below) keeps busy preparing identification badges for all employees.

GUARDS at front office reception room interview callers, make quick appointments and issue office passes.

ALL PLANT and front office workers are registered at entrance gates, guarded 24 hours a day.
Precision...

DRILL PRESSES, crankshaft grinders and lathes of all descriptions and sizes grind their way 'round the clock in Onan machine shops. Precision from start to finish assures war production perfection.
DRILLING . . . TURNING . . . increasing the production tempo in the plants' machine shops. Onan electric plants are of the highest quality. Finished generators are used for portable, stationary or emergency stand-by services. Requirements are heavy for war use, performance must be dependable.
THE VAST QUANTITIES of war supplies turned out by Onan rate their high performance commendations because of precision manufacture and operation. Multiple drill presses save time. Castings, received from the nation's top sub-contractors, are finished by and in Onan machine shops.
PLANT SCHOOLS for tool and die makers turn out trained specialists for the Onan organization. Work of an apprentice (above) is checked by a youthful night foreman. Day shift foreman (lower left) works closely with early employees and new tool and die makers alike.

TOOL AND DIE department is constantly expanded to meet ever increasing needs of production machine installations.
GRINDING AND WELDING for precision, accuracy, for materials that will stand up under combat duty. Onan generators are lightweight, rugged, compact and heavy-duty.
ONE OF THE FIRST STEPS in production is machining and perfection of generator housings for larger units.
PUNCH PRESS day and night foremen (above right) operate their department at its peak to provide initial process in production of Onan generators. Newest type, automatic presses give this department its outstanding record of keeping ahead at all times. Unique, practical safety guards result in 100% safety.
NUMBER OF LAMINATIONS for armature and field assemblies is re-checked by weight to insure fully-balanced generating performance. No supervisor jobs for foremen... they work side-by-side with their men.
FROM ARMATURE ASSEMBLIES and copper wire come the units which make their way along production lines to the front lines. Each armature, before wiring, gets a series of basic tests which make for efficiency of unit operation.
LINE PRODUCTION of generator field assemblies (above) keeps abreast of overall output in other departments. Working hand-in-hand to avert schedule interruptions are stock room and production control foremen. Engine assembly lines (below) work on parallel schedules.
THE INTRICATE processes of winding armatures and fields is carried on by generator production foremen and workers alike. Wire and generators are synonymous to bullets and guns.
NIMBLE FINGERS of women have increased armature windings production as much as 50%. Fred Anderson (left) of personnel staff is shown with Mrs. Harold Paukert, first woman plant worker in the Onan organization. Mrs. Paukert has the same job her husband, now in U. S. Army, held for two years.
WATCH-LIKE precision and accuracy whether in armature or carburetor assemblies results in highest grade construction and attention to infinite detail by hundreds of women . . . housewives . . . sweethearts of servicemen.
DYNAMIC BALANCING of generator rotors insure fine performance, smooth running of finished Onan electric generators. Testing follows each progressive phase of manufacture to send trouble-free, uninterrupted service to fighting forces.
DIPPED in moisture proofing preparation, armatures are baked in ovens to insure long-time operations under all weather conditions, regardless of humidity or temperature extremes.
PRIOR TO FULL WAR production, Onan generators were manufactured at the Royalston plant and shipped for peace-time use to 49 foreign countries. From this plant, the Onan organization spread, in quick succession, to five factory buildings. All located in Minneapolis, each plant performs its cooperative duties.
There was no time to build a central, spacious, model plant. Full-scale production ahead necessitated acquisition of available buildings where assembly lines were constructed. On the battle fronts today, Onan generators are providing the light and power to help the Allied Nations restore peace.
SUB-ASSEMBLIES of brushes, coils, cable connections require patience, accuracy. Finished products provide the power to manipulate huge guns, tanks, planes, ships. They make life easier for our marines, soldiers, sailors . . . and make it tough for the Axis.
Motor Assemblies

GASOLINE MOTORS which drive the generators are built from start to finish in Onan plants. Forty types of internal combustion engines are manufactured and assembled by expert mechanics on Onan assembly lines. The motor units, combined with generators and controls, incorporate everything needed in a modern power plant.
FROM THESE EVERYDAY OPERATIONS at plants of D. W. Onan & Sons come the
light and power for all branches of American and Allied Nations fighting forces. They
give the light in field hospitals to enable surgeons to perform delicate operations, they
operate X-ray machines. On every Allied war front, these units supply current for light,
motors. They operate telephone and radio communication systems. The same peace-
time Onan generators now are giving service on the front lines . . . clad in olive drab,
otherwise the same.
SUB-ASSEMBLY and assembly lines entail specific knowledge of proper fitting. Sixty-five different models come off these lines... from small portable units to the large mounted types for heavy duty.
ASSEMBLY of instrument panels and spray painting in regulation colors move generator units near completion.
LARGE GENERATOR SETS move closer to the war front lines with workmen putting together component parts on the final assembly floors on Onan plants.
FINAL ASSEMBLY floors occupy much space at Onan plants. Highly-skilled workmanship is important to proper operation.
COORDINATION and close proximity of all assembly lines, including motor assemblies, sub-assemblies, armature winding and all phases of generator production, makes for full-speed production, eliminates bottle-necks.
GOVERNMENT INSPECTORS test for radio interference. X-ray power units are tested with actual X-ray machines to make certain that every Onan generator leaving the test room is Onan’s "best unit."
EVERY NUT AND BOLT for final assembly is inspected by workers and foremen. Ammeters, voltmeters, and all visual instruments must be in perfect working order.
World's Largest Test Room
EACH ONAN GENERATOR is operated for a specified period before being sent to the field. Hundreds of large units are tested here daily to insure trouble free, uninterrupted service. Master-control gasoline feeds and “gang” exhausts permit attachment of a full compliment of complete units for running tests.
INDIVIDUAL ATTENTION is given each unit in the World's Largest Test Room. Full-output operation, plus meticulous inspection assures efficient field performance.
MAJOR AND MINOR adjustments and accomplished by top-notch foremen and government inspectors on all units. Foremen compile test records and an accurate tab is made of test room unit operations and all adjustments permanently set.
IN FRIGID ZONES, generators must give the same efficient operation as in warmer climates. Wherever our forces may be advancing, from equatorial to arctic zones, temperature extremes have little effect on proper operation of Onan units. This "freezer room" (above) reduces temperatures to as low as 65 degrees below zero ... 97 degrees below the freezing point!

THE SEARCH FOR IMPROVEMENTS, new manufacture methods and means of stepping up efficiency of operation continues on full shift by specialists in Experimental Engineering. Modern engineering and precision workmanship of Onan units is constantly improved, day by day and week by week, to guarantee that our fighting forces are supplied with the world's finest and most modern electric generators.
INTERCHANGE of unit assemblies by truck between the five Onan plants and quick shipment is accomplished without delay at this loading platform (above), one of the latest additions to Onan operation efficiency.

SHIPS AT SEA, planes, tanks are quickly supplied with completed electric generators. Packing and shipping start units direct to destination points here and abroad. No delay, no piling up of orders, no bottle-neck.
LT. GEN. WILLIAM S. KNUDSEN (above with D. W. Onan), War department’s production chief, inspects operations.

DUTY ON THE HOME FRONT was emphasized when this flagship of D. W. Onan & Sons war bond fleet (above) set the pace for utilization of motor trucks to spur bond sales in the Northwest. Shown at right at truck’s “V” is Bud Onan (left), Bob Onan (right).
ONAN EMPLOYEES invest at least 10 per cent of earnings in war bonds. Here is presentation of 10% Minute Man award with U. S. Treasury, Federal Reserve bank, city, military and civic officials participating.

"... you are settling the pace on the home front as well." A. J. REYNOLDS, state administrator of war savings staff.

"You are instrumental in helping Minneapolis maintain its high national rating in war bond purchases." MARTIN CLARK, Federal Reserve bank.

"You are 100% in production and 100% in the investment in the future of our country." LT. J. A. ZURFALL, naval ordnance executive officer.

"You of the Onan organization are doing more than your share. ... Minneapolis is proud of you." MAYOR MARVIN L. KLINE.
ELECTRICITY generated by stream-lined, Minneapolis-made Onan generators has made life easier in the Virgin Islands, in Java before the Japs came, in Alaska, in many far-off places. They have accompanied exploring and mining expeditions to every continent.

From the largest units units of 35,000 watts (above) to the smallest 350 watt units (right), in popular use in Mexico, these generators, before Pearl Harbor, turned darkness into light in 49 different countries, producing power for equipment ranging from lawn mowers to homes, hospitals, trucks, telephone systems, dental clinics, theatres—the list is almost endless. Now these olive drab and navy gray units have turned their generated power into fighting the Axis.

The vanguard of civilization along the Burma road, in deep Asia, the Siberian steppes, in Australian mining fields before December 7, 1941, Onan generators have turned to help the defeat of barbarism and the enemies of earthly civilization.
MINNEAPOLIS’ BIGGEST HALL . . . the Municipal auditorium . . . was the scene of Onan’s 1942 Christmas party where all workers brought wives, husbands or guests. Thousands of Northwest radio listeners heard broadcasts of festivities, re-broadcast later via short-wave to soldiers in the Pacific.
THERE ARE NO BOSSES in the Onan organization. Workers have always taken advantage of the opportunity to increase their own income by means of the production savings program which returns to employees an added percentage over their total wage. This is paid from funds created by lowering of production costs by workers through their efficiency and experience and the combined effort and cooperative spirit of the many associates. These added amounts account for many completely-owned homes, high credit standings of the workers, and the contented atmosphere which is always found here.
Its’ Sub-Contractors

FIFTY-ONE SUB-CONTRACTORS and 350 other firms manufacture and supply innumerable items of equipment for Onan generators. Without the excellent quality materials, quick delivery and common understanding of war production requirements, schedules could not be maintained by Onan and high quality generators could not be pushing their way through assembly lines for ultimate war purposes.

<table>
<thead>
<tr>
<th>Company Name</th>
<th>City, State</th>
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<tbody>
<tr>
<td>American Farm Machinery Co.</td>
<td>St. Paul, Minn.</td>
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<td>Armature Rewinding Co.</td>
<td>Minneapolis, Minn.</td>
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<td>Automatic Electric Mfg. Co.</td>
<td>Mankato, Minn.</td>
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<td>American Welding &amp; Mfg. Co.</td>
<td>Warren, Ohio</td>
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<td>Wm. Bros Boiler Mfg. Co.</td>
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<td>Cedarberg Manufacturing Co.</td>
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<td>Central Body Co.</td>
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<td>Donaldson Co., Inc.</td>
<td>St. Paul, Minn.</td>
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<td>Earl Manufacturing Co.</td>
<td>Minneapolis, Minn.</td>
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<td>Excel Auto-Radiator Co.</td>
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<td>Foley Manufacturing Co.</td>
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<td>Gilbert Manufacturing Co.</td>
<td>Stillwater, Minn.</td>
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<td>Gregg Manufacturing Co.</td>
<td>St. Paul, Minn.</td>
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<td>Gross-Given Manufacturing Co.</td>
<td>Minneapolis, Minn.</td>
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<td>Hamilton Manufacturing Co.</td>
<td>Two Rivers, Wis.</td>
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<td>Highway Safety Appliance, Inc.</td>
<td>Minneapolis, Minn.</td>
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<td>Hart Carter Co.</td>
<td>Minneapolis, Minn.</td>
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<td>R. C. Hitchcock &amp; Sons</td>
<td>Minneapolis, Minn.</td>
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<td>C. J. Hoigaard Company</td>
<td>Minneapolis, Minn.</td>
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<td>Hartman Electrical Mfg. Co.</td>
<td>Mansfield, Ohio</td>
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<td>M.A.C. Company</td>
<td>Minneapolis, Minn.</td>
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<td>Millerbernd Bros.</td>
<td>Winsted, Minn.</td>
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<tr>
<td>Milwaukee Lace Paper Co.</td>
<td>Milwaukee, Wis.</td>
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SONS  

Salutes . . .  

Its’ “Kinfolk”  

NEARLY 4,500 EMPLOYEES of sub-contractors work full time at their separate factories in production of items for shipment to D. W. Onan & Sons. Although these workers are not members of the Onan organization, D. W. Onan & Sons considers them as “kinfolk” . . . as much interested in producing the world's best generators for our government as the Onan organization itself.

Minneapolis Electrical Steel
  MINNEAPOLIS, MINN.

Minneapolis-Moline Power Co.
  MINNEAPOLIS AND HOPKINS, MINN.

Modern Die & Drop Forge Co.
  BLUE ISLAND, ILL.

North Star Specialty Mfg. Co.
  MINNEAPOLIS, MINN.

Northwest Automatic Products
  MINNEAPOLIS, MINN.

Northwest Plastic, Inc.
  ST. PAUL, MINN.

Newton Manufacturing Co.
  NEWTON, IOWA

Perfex Corp.
  MILWAUKEE, WIS.

Pierce Governor Co.
  ANDERSON, IND.

Powell Muffler Co.
  UTICA, N. Y.

Paul Pufal & Sons Foundry
  ST. PAUL, MINN.

Queen Stove Works
  ALBERT LEA, MINN.

Rao Manufacturing Co.
  MINNEAPOLIS, MINN.

Salisbury Satterlee Co.
  MINNEAPOLIS, MINN.

H. J. Shotwell Company
  MINNEAPOLIS, MINN.

Smith System Heating Co.
  MINNEAPOLIS, MINN.

Stanley Iron Works
  MINNEAPOLIS, MINN.

States Electric Co.
  MINNEAPOLIS, MINN.

  MINNEAPOLIS, MINN.

Standard Iron & Wire Works
  MINNEAPOLIS, MINN.

Toledo Standard Commutator Co.
  TOLEDO, OHIO

Toro Manufacturing Co.
  MINNEAPOLIS, MINN.

Universal Foundry Co.
  OSHKOSH, WIS.

Western Spring Mfg. Co.
  MINNEAPOLIS, MINN.

Zenith Carburetor Co.
  DETROIT, MICH.
Serving With United States Armed Forces

Joe Warhol  Raynard E. Werner
Robert Johnsen  F. Neil Wick
Russell A. Lystad  Sven S. Gudemestad
Waren Christiansen  Merlin C. Anderson
Lee Fretland  Oliver Anderson
Gilbert Wedin  Rufus Biggerstaff
Jack Clemmer  Raymond Bohnenstingel
LeRoy Anderson  Phillip E. Bosrud
Chester Oliver  Robert W. Braun
John Kling  John L. Brown
Evertten Valentey  Roy Busse
Samuel Thompson  Adrian R. Clark
Fred Richmond  Donald Cruikshank
Royer L. Dahlén  CollinBeneficent
William L. Daniels  George E. Ramstead
L. Herbert Decker  Lloyd Discher
Earl K. Debenestad  Clifford Fredrickson
David Emerick  John Harold Leland
Harold W. Enger  William McCauley
Curtis Dean Howard  Thomas J. McDonald
Howard G. Hammerot  William Daniels
Harvey W. Hanschen  Paul J. Jueter
Sigurd Hansen  Martin Jurichko
Wills J. Harvieux  Robert T. Kennedy
Robert Douglas Hauser  Claire Kriese
Randolph Hewes  John Kuchta
Theodore B. Hovde  Willfred L. Lang
George Jaroscak  Lawrence P. Larsen
Parlin N. Jenson  Richard Larson
Byron L. Johnson  Johannes S. Magdal
Donald C. Johnson  Edmond Novicki
Paul J. Juetten  Leslie Barton
Martin Jurichko  Wallace Peterson
Robert T. Kennedy  Glen Johnson
Robert D. Kennedy  Einar Johnson
Claire Kriese  Harry Super
John Kuchta  Galen Odoms
Willfred L. Lang  Bryson McHardy
Lawrence P. Larsen  Ellsworth Houg
Richard Larson  Harlan Jacobson
Johannes S. Magdal  Richard S. Larson
Edmond Novicki  Desmond Austin
Leslie Barton  Ivan Richmond
Wallace Peterson  Kenneth Mix
Glen Johnson  James Allsgogen
Einar Johnson  Donald Homnold
Harry Super  Elias Daniels
Galen Odoms  George Ramstead
Bryson McHardy  James Worrell
Ellsworth Houg  Peter Semanko
Harlan Jacobson  John Blanchard
Richard S. Larson  Norbert Paul
Desmond Austin  Melvin Overton
Elias Daniels  Robert W. Brown
George Ramstead  Raynard E. Werner
James Worrell  Peter Semanko

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'ROUND THE PLANET OF EARTH
Onan generators provide light and power.