condition, with some curled slightly. This group of folders covers from the Baltimore & Ohio Railroad to "French Visitors."

### VALUE ASSIGNED: \$832.00

Box 21 45 Folders of 8x10 B&W photographs, 1940's and 1950's, good condition, with some curled slightly. This group of folders covers from the Genena Steel Company to the New York Central Railroad.

#### VALUE ASSIGNED: \$890.00

Box 22 47 Folders of 8x10 B&W photographs, 1940's and 1950's, good condition, with some curled slightly. This group of folders covers from the Norfolk Southern Railroad to Sharon Steel Company. The Pennsylvania RR has ten folders, the largest group in the collection.

#### VALUE ASSIGNED: \$930.00

Box 23 52 Folders of 8x10 B&W photographs, 1940's and 1950's, good condition, with some curled slightly. This group of folders covers from the Silver Summit Mining Company to Youngstown Sheet & Tube Company. The U. S. Government has ten folders distributed among the Army, Navy, Air Force, Transportation Corps, and Russian locomotives. The Southern Pacific has seven folders.

VALUE ASSIGNED: \$1,115.00

<u>SUB-TOTAL PAGES 43ff: \$23,697.00</u>

## -Operation, Maintenance, and Parts Manuals

#### Locomotives

Every locomotive sent to a customer from the Eddystone Works was accompanied by a manual -- an "Instruction Book" -- for the operator of the locomotive. The elaborate nature and large size of these manuals were probably due initially to the novelty of diesel electric locomotives after a century of steam. These manuals were well illustrated in order that every one of the thousands of parts could be readily identified, removed, repaired,

and/or replaced.

The early manuals (pre-WWII) were divided into seven sections:

I. General Instructions, to prepare the locomotive for operation;

II. Mechanical Parts with 15 lists and charts, many of the latter were pullouts, one a 22"x11" sheet with elevation of the locomotive; III. Diesel Data, with many illustrations and cross-sections of the De La Vergne VO engine; IV. Diesel Operation, the operating and maintenance routines; V. Diesel Parts, a straight listing of the 19 groups from Air Cleaner and Silencer to Waterpump; VI. Electric Transmission, a 120 page operation and maintenance manual provided by the Westinghouse Electric & Manufacturing Co.; and VII. Electric Parts, supplied by WE&MC with the following subsections -- generators and motors; controllers; contactors and switches; interlocks; relays, panels, and valves; manually operated switches and push buttons; and resistors.

In addition to the Westinghouse sections on electrical components, the earliest manuals had instructional and parts sections from other vendors such as the Westinghouse Air Brake Company or the Gardner-Denver Company for air compressors. As time went on the O & M manuals sent out by BLW and later by BLH became increasingly full of the manuals of vendors of governors, instruments, gauges, fuel injectors, blowers, etc. Add to this unique mix of add-on equipment at any one time the constant improvement of the diesel engine and the diversification of classes and models of locomotives and each manual approaches uniqueness. For example, the first two O & M manuals listed below are for the

660/1000 HP VO six/eight cylinder engine powered switchers (that proved to be the backbone of the BLW diesel electric business) one published in 1939, the other in 1940; they have different compressors.

By 1941 the O & M manual became general instructions for all "Baldwin Diesel Electric Locomotives." Gone were the specific diagrams with part numbers. There were four rather than seven sections: General Instructions, Diesel Engine Instructions, Electric Instructions, and Mechanical Instructions. The latter section, however, was taken from a Westinghouse Air Brake Company 1941 publication, No. 14-EL "Brake Equipment for Diesel-Electric Switching Locomotives." At the rear of the manual was an envelope with electrical diagram blueprints.

The BLW had separated operating and maintenance instructions from its renewal parts system and sent the customer two books in the place of one. Thus the complicated diagrams and illustrations were relegated to the renewal parts books that were put together, in a sense tailored, for each locomotive. The renewal parts volumes took on an "as built" function. This is particularly true because the renewal parts book was where the increasing number of outside vendor instruction and parts catalogs now could be found.

Addenda

Three operating and maintenance manuals as described above (in 3-hole, black post binders, 8.5"xll"): 1939 660/1000 HP DE switcher, c. 140pp. and instead of Section VII, 27 photographs; 1940 660/1000 HP DE switcher, c. 330pp., seven sections; and 1941 660/1000 HP DE switcher, c. 190pp., four sections. All are a combination of mimeographed text and printed illustrations.

The photographs in the first manual are in good condition and

give a history of the development of Baldwin diesel electric locomotives from 1925 to 1939. Along with the first DE loco in 1925 there are pictures of the 1929 model, the 1936 660 HP switcher purchased by the Santa Fe in 1937, and the 900 HP by the New Orleans Public Belt RR that same year. There are 21 excellent pictures devoted to the 1939 1000 HP switcher sold to the Missouri Pacific. These photographs cover "as built" and construction process views.

#### VALUE ASSIGNED: \$375.00

Boxes 78, A lot of 36 combination instruction, maintenance, and parts 103,104 manuals, 1939 to 1941. These are for the BLW 660 and 1000 HP diesel electric switchers and are in good condition. Most volumes are 3-hole post binders with soft covers, have 200 to 300 pages, and are well illustrated with pictures, diagrams, and elevations. About a dozen are in pamphlet form (c. 30pp.) Except for the latter, the actual railroads and locomotives are identified. Two of the instructional manuals (1940) are in French.

## VALUE ASSIGNED: \$1,320.00

Boxes 50, A lot of 18 combination instruction, maintenance, and parts 97,98, & manuals, 1940 to 1946, c. 200 to 300pp.,good condition. These are for the BLW 660 and 1000 HP diesel electric switchers. Most volumes are 3-hole post binders with soft covers and are well illustrated with pictures, diagrams, and elevations. The actual railroads and locomotives are identified. One of the instructional manuals (1940) is in French and has manuscript annotations. Many of the volumes in this lot are "master" copies from the office of G. V. Hofman.

#### VALUE ASSIGNED: \$810.00

Boxes 8, A lot of 16 combination instruction, maintenance, and parts 18 & 116 manuals, 1940 to 1953; they are in good condition. Half of these manuals are for the pre-WWII BLW 660 and 1000 HP diesel electric switchers; the rest reflect higher HP and different models of the post-WWII era. Most volumes are 3-hole post binders with soft covers, have 200 to 300 pages, and are well illustrated with pictures, diagrams, and elevations.

The Southern Pacific, the U. S. Army Transport. Research and Development Command, Canadian Pacific and Seaboard Air Line are represented. A 1940 instruction and parts book has 19 photographs, 40pp. of promotional material from various railroads of the day using Baldwin locomotives, and a 1931 Railway Age article on BLW DE switching locomotive articulated trucks.

VALUE ASSIGNED: \$665.00

Boxes 118 A lot of 19 combination instruction, maintenance, and parts manuals, 1940 to 1949; they are in good condition. All but one of these manuals are for the pre-WWII BLW 660 and 1000 HP diesel electric switchers. Most volumes are 3-hole post binders with soft covers, have 200 to 300 pages, and are well illustrated with pictures, diagrams, and elevations.

Represented among others are the Union, Patapasco & Back River, Missouri Pacific, Southern Pacific and the Santa Fe Railroads.

#### VALUE ASSIGNED: \$665.00

Boxes 52, A lot of 27 combination instruction, maintenance, and parts 54,57,59, manuals, 1947 to 1956; they are in good condition. Most volumes are 3-hole post binders with soft covers, have 200 to 300 pages, and are well illustrated with pictures, diagrams, and elevations.

Most of these manuals are for the post-WWII BLW/BLH, small, Whitcomb class diesel hydraulic and diesel electric switchers. These weighed 80 tons and under and most were sold to industrial firms for yard work. Seven manuals are for over the road freight, switching, and transfer locomotives with over 1000 HP. One of the latter manuals is in Spanish.

#### VALUE ASSIGNED: \$675.00

Addenda Box 1 A lot of 11 operators' manuals for diesel electric locomotives, 1940 to 1957, various sizes, good condition. Included are "Operating Instructions for Switching Locomotive" (15pp, 13pl. picture place frontispiece, c. 1940, 6x9"), "Operator's Manual for 660, 1000, 1500 HP Switchers and Road Switchers (44pp., 1948, c. 5x8"), "Operator's Manual, 1500 HP Road Switcher (41pp, 1950, c. 5x8"), "Trouble Shooting Handbook, All-Service Locomotives" (12pp., 1952, 4.25x9.25") 2 copies, and

"Trouble Shooting, Switching Locomotives" (12pp., 1952, 4.25x9.25") 2 copies, "Operator's Manual, Standard 1600 HP All- Service Diesel-Electric Locomotives" (55pp, 1952, c.5x8") "Operator's Manual for the RF-16 Diesel Electric Freight Locomotive" (c. 50pp, 1953, 5x8.5"unbound), and "Maintenance of Baldwin Model VO Diesel Engine for Diesel Electric Locomotives" (134pp plus two supplements, c. 1956), second copy unbound.

VALUE ASSIGNED: \$150.00

Stationary Engine Operation and Maintenance Manuals

Addenda Box 1

12:

Instruction and Operating & Maintenane Manuals for De La Vergne type diesel engines, 12 pamphlets, mimeographed in BLW Group blue binders, good to mint condition, including VO, 600, and 700 Series volumes. Type "SI" Horizontal Models, 18pp. 6 figures, March, 1925, 3 copies; O & M for Series-10 direct reversing marine engine, c. 60pp, 2 figures, well illustrated, vendor catalogs, 2 copies; and

O & M manual of Baldwin Model VO diesel engine, c. 40pp. including 9 figures, 2 copies: O & M manual for Model VA diesel engine, c. 40pp. including 16 figures, 3 copies; Engine manual for 600 Series Stationary Diesel Engines (Manual DE-101), c. 110 pp. well illustrated, pull-out engine diagram has three colors for cooling, lubrication and fuel systems; BLH Engine Manual for 700 Series Stationary Diesel Engine (Manual DE-120) [for Borough of South River, NJ], c. 115pp., well illustrated, vendor catalogs; Parts List, c. 50pp. with diagrams.

## VALUE ASSIGNED: \$120.00

Addenda Box 3

127

Instructions and Parts Lists for two BLW VO and one BLH 600 Series diesel engines, 3-hole post binders. 1. VO six cylinder, 450 HP marine auxiliary engine for U.S. Maritime Commission Cl-M-AVI cargo vessels, in two parts: instructions and parts list, c. 190pp., well illustrated, good condition; 2. VO six cylinder, 560 HP marine auxiliary engine originally for the Navy Department but modified in the exhaust, starting, cooling, lubrication systems, engine mounting and air intake filter for the Corps of Engineers. The cover of this manual is paper and the front cover is torn, otherwise in good to fair condition. The volume is in two sections: instructions and parts list, c.290pp., well illustrated;

3. BLH Engine Manual (DE-113) for the 600 Series Stationary Diesel Engine, 6 cylinders, 1060 HP, for the Ohio River Company, divided into the instructions and parts list sections, c.190pp., well illustrated, good condition.

#### VALUE ASSIGNED: \$60.00

C-3-1&2 A lot of 37 instruction and operating & maintenance manuals for De La Vergne type diesel engines, mimeographed in BLW Group blue binders, good condition, some duplication, c. 1940's. Includes the VA, VF and VO models.

### VALUE ASSIGNED: \$555.00

C-3-1,2, A lot of 25 VO, 600, and 700 Series for stationary diesel 3, & 4 engine manuals prepared by BLW and BLH for customers and to keep a record of the engines "as built," c. 1940 to 1955.

These engines were purchased by the Boroughs of Weatherly, PA, and South River, NJ, for electrical power, by the U. S. Treasury Dept. for Russia, by the U. S. Army for auxiliary electrical power, among others. Accompanying these manuals is a set of assembly blueprint drawings of one engine in lieu of a renewal parts book.

Also there is an envelope of the masters used to create the BLH Engine Manual (DE-113) for the 600 Series stationary diesel engine, 6 cylinders, 1060 HP, c.190pp. illustrated.

# VALUE ASSIGNED: \$375.00

Boxes 7, A lot of 26 VO, 600, and 700 Series for stationary diesel engine operation, maintenance, and parts manuals prepared by BLW and BLH for customers and to keep a record of the engines "as built," c. 1940's to 1950's. Good condition except for three manuals without spines. In addition to the manuals there are test reports, free standing, vendor instructional and parts manuals. Increasingly the parts lists have vendors catalogs bound right in, e.g. Westinghouse and Electric Machinery Mfg. Co. for generators; Woodward governors, and Elliott superchargers.

Since this period includes WWII, a large number of stationary engines were purchased by branches of the U. S. Govt.: the Army Corps of Engineers, the Navy Dept., the U. S. Maritime Commission and the Air Force. A large segment of business before central power plants and long distance electrical power lines was taken by municipal power stations such as the Paul Smith Electric Light, Power, and Railroad Company in New York. Some of the manuals represented are: DE 109, 112, 113,117, 118, 124-1, and 127.

### VALUE ASSIGNED: \$390.00

Boxes 51, A lot of 36 VO, 600, and 700 Series for stationary diesel 53,56,64, engine operation, maintenance, and parts manuals prepared by BLW and BLH for customers and to keep a record of the engines "as built," c. 1940's to 1950's. Good condition and well illustrated. In addition to BLW/BLH supplied information there are bound-in and free standing, vendor instructional and parts manuals.

Included are, among others, the following DE Manuals: 101, 103, 110, 115, 116, 117, 118, 122, 126, and 127.

#### VALUE ASSIGNED: \$510.00

Boxes 70, A lot of 32 VO, 600, and 700 Series for stationary diesel 75,77, & engine operation, maintenance, and parts manuals prepared by BLW and BLH for customers and to keep a record of the engines

"as built," c. 1940's to 1950's. Good condition. These manuals like all the rest described above and to be described below bear the names of the customers in addition to the sales numbers, and engine serial numbers. This group of manuals is dominated by U. S. Government purchases during and after WWII.

VALUE ASSIGNED: \$480.00

Boxes 102 A lot of 30 VO, 600, and 700 Series for stationary diesel engine operation, maintenance, and parts manuals prepared by BLW and BLH for customers and to keep a record of the engines "as built," c. 1940's to 1950's. Good condition.

VALUE ASSIGNED: \$450.00

# Locomotive Parts Books

As mentioned on pages 62 and 63 above, it was essential for the Baldwin Locomotive Works and for its successor, the Baldwin-Lima-Hamilton Corporation to know exactly what parts went into what locomotive because of their continuing interest to supply renewal parts and ultimately to repair and modernize it if so requested. This was true even when individual locomotives migrated from one railroad to another by sale and resale. Thus the copies of the individual renewal books on file at BLW in the 1930's and 1940's had the customer name, the date when the book was issued, the type of locomotive and specification number, the loco. construction number, the customer's road number, and the diesel engine number. While on the face of it these parts list books seem to be all the same, they are not.

As also mentioned above, other elements of uniqueness for the parts list books were (1) the constant internal improvements made by BLW and BLH -- although the model was the same --, (2) the proliferation of different models under BLH, and (3) the increasing

use of parts and sub-assemblies from vendors. This latter trend was reflected in the increase of vendor instructional and parts catalogs being bound in the BLW/BLH parts list volumes.

One final point on the composition of these parts list volumes is that the Baldwin Locomotive Works abandoned its combined instruction book and parts list for its diesel electric switcher In its place BLW produced the general operating and by 1942. maintenance manuals and handbooks, and individual parts list books for each locomotive. The individual characteristics of each locomotive were kept in the Diesel Service Department consolidated in alphabetical "Lot" books sub-divided between 660 HP and 1000 HP switchers. The similar locomotives of several customers were gathered together under these "Lot" letters, e.g. "A," "B," etc. and eventually "AA," "BB," etc. The basic parts list book (c. 160pp.) is divided into three sections; mechanical, including general locomotive parts with a sub-section for air operated devices; diesel engine section; and electrical section with generators, motors, switches, heaters, relays, controllers, reversers, etc. The mechanical section has among its 15 drawings two (28'x11') fold-outs: one for a side elevation of the switcher locomotive, the other for a front view, a rear view and cross sections. There is an envelope at the rear for wiring diagrams. [See Appendex 5. for the c. 1949 BLW list of parts books, instruction books, and operating & maintenance books.]

This system lasted until BLH took over. At that juncture an important set of data was added to the essential specification,

serial, construction, and road numbers. BLH added a drawing index with a beginning summary; it gave in addition to the sales number, date, and data mentioned immediately above, the gauge, model designation, wheel arrangement, horsepower of engine(s) and the turbocharger model. The general organization was mechanical parts, air brakes & other pneumatic equipment, diesel engine parts, and finally electrical parts. The drawing list recorded the standard parts in each particular locomotive and provided a place to register all special orders.

Boxes 50, A lot of 27 alphabetical "Lot" renewal parts list books, c. 73,74,76, 1940 to 1949, c. 200 to 600pp. (Some of the double letter, 97,98, & e.g. "AA" consolidated books are estimated at 600pp. but this is uncommon.) Generally good condition taking into consideration that much of the information is on mimeograph paper from the 1940's. There are two sets of these volumes - one for 660 HP and one for 1000 HP switchers.

## VALUE ASSIGNED: \$675.00

Boxes 14, A lot of 36 renewal parts list volumes, c. 200 to 300pp., c. 50,73,76, 1940's to 1950's, good condition. This is a transition group 116 & 125 of parts list volumes. Both railroads and industrial firms are represented. Also included are "Diesel Locomotive Equipment Identification sheets," Master parts, Z-1000 for repair parts manuals, and free standing United American Bosch Co. fuel equipment manual.

# VALUE ASSIGNED: \$630.00

Boxes 6, A lot of 29 renewal parts list volumes, c. 200 to 300pp., c. 9,11,&12 1948 to 1955, good condition. For the names of the railroad and industrial company customers check with the inventories of the appraiser or the Pennsylvania Historical and Museum Commission, for box lists; or check the boxes themselves.

### VALUE ASSIGNED: \$435.00

Boxes 13, A lot of 30 renewal parts list volumes, c. 200 to 300pp., c. 15,16,&17 1947 to 1955, good condition. For the names of the railroad and industrial company customers check with the inventories of the appraiser or the Pennsylvania Historical and Museum Commission, for box lists; or check the boxes, themselves. In

box #15 there are two extra instructional and renewal parts volumes on the 1955 U.S. Army 52 ton diesel hydraulic locomotive with the Maybach transmission.

# VALUE ASSIGNED: \$480.00

1 %

Boxes 26, A lot of 38 renewal parts list volumes, c. 200 to 300pp., c. 27,29,30, 1948 to 1956, good condition. For the names of the railroad and industrial company customers check with the inventories of the appraiser or the Pennsylvania Historical and Museum Commission, for box lists; or check the boxes themselves.

## VALUE ASSIGNED: \$570.00

Boxes 32, A lot of 34 renewal parts list volumes, c. 200 to 300pp., c. 33,34,&35 1949 to 1954, good condition. For the names of the railroad and industrial company customers check with the inventories of the appraiser or the Pennsylvania Historical and Museum Commission, for box lists; or check the boxes themselves. In box # 33 is the maintenance and parts volume for "Jawn Henry," the 4500 HP steam-turbine electric of the Norfolk and Western RR.

## VALUE ASSIGNED: \$545.00

Boxes 36, A lot of 39 renewal parts list volumes, c. 200 to 300pp., c. 40,49,52 1950 to 1956, good condition. For the names of the railroad and industrial company customers check with the inventories of the appraiser or the Pennsylvania Historical and Museum Commission, for box lists; or check the boxes themselves.

### VALUE ASSIGNED: \$585.00

Boxes 65, A lot of 32 renewal parts list volumes, c. 200 to 300pp., c. 66,67,68, 1948 to 1955, good condition. For the names of the railroad and industrial company customers check with the inventories of the appraiser or the Pennsylvania Historical and Museum Commission, for box lists; or check the boxes themselves.

# VALUE ASSIGNED: \$480.00

Boxes 72, A lot of 33 renewal parts list volumes, c. 200 to 300pp., c. 79,80,&81 1950 to 1956, good condition. For the names of the railroad and industrial company customers check with the inventories of the appraiser or the Pennsylvania Historical and Museum Commission, for box lists; or check the boxes themselves.

#### VALUE ASSIGNED: \$495.00

Boxes 82, A lot of 31 renewal parts list volumes, c. 200 to 300pp., c. 83,85,&86 1948 to 1956, good condition. For the names of the railroad and industrial company customers check with the inventories