

RECORDATION NO. 7610-B Filed & Recorded

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INTERSTATE COMMERCE COMMISSION

A G R E E M E N T

THIS AGREEMENT is entered into this 7th day of November, 1975 by and between PRECISION NATIONAL LEASING CORPORATION ("Precision National") and WILLIAM M. GIBBONS ("Trustee") as trustee of the CHICAGO, ROCK ISLAND AND PACIFIC RAILROAD COMPANY (the "Rock Island").

W I T N E S S E T H:

WHEREAS, Precision National heretofore purchased 120 locomotives from the Rock Island pursuant to two purchase agreements, each entitled "Sales Agreement" and dated respectively August 29, 1974 and December 19, 1974; and

WHEREAS, Precision National concurrently with the purchase of the locomotives leased them back to the Rock Island pursuant to two lease agreements, each entitled "Lease" and dated respectively August 29, 1974 and December 19, 1974 (the "Leases"); and

WHEREAS, the Leases provided for the rebuilding of the locomotives at the expense of Precision National; and

WHEREAS, prior to the filing of a proceeding by the Rock Island pursuant to Section 77 of the Bankruptcy Act, Precision National caused the complete rebuilding of 14 locomotives; and

WHEREAS, on the date the Rock Island filed the Section 77 proceeding 10 locomotives were in the process of being rebuilt and have subsequently been completed pursuant to the Interim Agreement (referred to below); and

WHEREAS, an agreement dated April 15, 1975, by and between Precision National and the Trustee ("Interim Agreement") was approved by order of the United States District Court for the Northern District of Illinois, Eastern Division, the court which is administering the Section 77 proceeding (the "Court"), copies of which Interim Agreement and order are attached hereto as Exhibits A and B (which, like all other Exhibits, are annexed hereto and made a part hereof); and

WHEREAS, Precision National and the Trustee have carried on extensive negotiations to provide for the rebuilding of the unrebuilt locomotives; and

WHEREAS, Precision National and the Trustee have now reached an agreement to adopt the Leases with respect to certain locomotives and to adopt the Leases, as modified, with respect to other locomotives, which agreement is reflected herein;

NOW, THEREFORE, in consideration of the mutual covenants herein contained, and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, it is hereby agreed as follows:

1. Immediately upon execution of this Agreement, the Trustee hereby agrees to "adopt" the Leases with respect to the 24 rebuilt locomotives designated by number on Exhibit C by taking all necessary action as required by law. Effective upon such adoption of the Leases with respect to said 24 locomotives, Precision National shall be deemed to have waived the right to declare a default under the Leases with respect to said 24 locomotives by reason of (a) the Rock Island's filing of the Section 77 proceeding and (b) other actions of the Rock Island and the Trustee prior to the date of this Agreement which might be considered Events of Default under the Leases. The adoption of the unexpired Leases with respect to said 24 locomotives by the Trustee shall not preclude a rejection of such Leases with respect to said 24 locomotives in a plan of reorganization which may be approved in the Section 77 proceeding, and any claim which may result from such rejection shall be governed as to priority by Section 77(b).

2. Immediately upon execution of this Agreement, the Trustee hereby agrees to "adopt" the Leases as herein modified with respect to the 96 unrebuilt locomotives designated by number on Exhibits D, E, F and G by taking all necessary action as required by law. Such adoption by the Trustee shall be considered adoption of pre-Section 77 unexpired leases, as hereby modified.

3. Effective upon such adoption of the Leases with respect to the 96 unrebuilt locomotives, Precision National agrees to forbear from exercising its right to declare a default under the Leases with

respect to said 96 locomotives by reason of (a) the Rock Island's filing of the Section 77 proceeding and (b) other actions by the Rock Island and the Trustee prior to the date of this Agreement which might be considered Events of Default under the Leases. Precision National shall be required to so forbear only so long as no order of any court shall be entered adverse (as hereinafter defined) to the petition for cost of administration status for the obligations of Trustee under the Leases with respect to said locomotives, all as more fully provided in Paragraph 4 hereof. (For purposes of this Agreement, the phrases "order of any court entered adverse" and "adverse order" and any similar phrase shall mean (i) a denial by any court of cost of administration status for the Trustee's obligations under the Leases as modified with respect to the 96 unrebuilt locomotives or (ii) a deferral (deferral shall not mean usual and customary continuances occasioned by the judicial process) by any court of a decision on the petition of the Trustee and Precision National referred to in Paragraph 4 hereof.)

4. It is a condition to Precision National's obligations hereunder with respect to the said 96 locomotives that an order be entered by the Court upon the joint petition of the Trustee and Precision National confirming the view of the Trustee and Precision National that the Trustee's obligations under the Leases as modified by this Agreement (including but not limited to damage claims, if any, arising out of (i) a rejection of the Leases in a plan of reorganization which may be approved in the Section 77 proceeding, (ii) the liquidation of the Rock Island, or (iii) any other

default) with respect to said 96 locomotives (sometimes referred to as "leases as so modified") shall be costs of administration and shall be deemed for all purposes as Trustee's obligations, which order shall at all times remain in full force and effect. With respect to this condition:

(a) The Trustee together with Precision National will urge the Court to act quickly on the petition, since the matter is of an urgent nature.

(b) The proposed form of order from the Court will contain the following specific findings, among others:

(i) that Precision National had, by reason of the Rock Island's filing of the Section 77 proceeding, the right to terminate its obligations under the Leases and immediately retake possession of all 120 locomotives;

(ii) that the Leases with respect to said 96 locomotives, as modified by the Agreement, dated November 7, 1975, requires Precision National to expend in excess of \$10,500,000 upon the rebuilding of such locomotives;

(iii) that the Leases as so modified are necessary to the continuing operation of the Rock Island and are hereby approved; and

(iv) that all obligations of the Trustee under

the Leases as so modified (including but not limited to damage claims, if any, arising out of (i) a rejection of the Leases in a plan of reorganization which may be approved in the Section 77 proceeding, (ii) the liquidation of the Rock Island, or (iii) any other default) shall be costs of administration.

(c) Immediately upon the adoption provided for in Paragraph 2 hereof, Precision National agrees to begin the rebuilding of the said 96 locomotives and to continue said rebuilding, all as hereinafter provided, as long as no order of any court is entered adverse to the petition for said cost of administration status.

(d) In the event of such an adverse order from any court, Precision National shall have the right (to be exercised by notice in writing to the Trustee within 120 days of such adverse order) either to discontinue all locomotive rebuilding or to declare a default under the Leases with respect to said 96 locomotives and retake possession thereof. (Any locomotive in the state of being rebuilt by the Trustee upon the Trustee's receipt of such notice shall be completed, and Precision National hereby agrees to pay for such rebuilding in accordance with the terms hereinafter set forth; and Precision National further agrees to purchase from the Trustee at the Trustee's

invoice prices all parts and materials specifically ordered [including unfilled orders which may not be cancelled without penalty] for rebuilding said locomotives and not then incorporated therein.) If Precision National shall fail to exercise said right to discontinue rebuilding or to declare a default under the Leases, such failure shall be deemed a waiver of the condition set forth in this Paragraph 4, and Precision National and the Trustee shall be bound under the Leases as so modified by reason of the adoption of the Trustee made pursuant to Paragraph 2 hereof (and thereupon the Trustee shall have the right to reject the Leases with respect to said 96 locomotives in a plan of reorganization which may be approved in the Section 77 proceeding, and any claim which may result from such rejection shall be governed as to priority by Section 77(b)).

(e) Provided the condition set forth in this Paragraph 4 shall be satisfied (unless such condition is waived as hereinabove permitted), Precision National shall be deemed to have waived the right to declare a default under the Leases with respect to the said 96 locomotives by reason of (a) the Rock Island's filing of the Section 77 proceeding and (b) other actions of the Rock Island and the Trustee prior to the date of this Agreement which might be considered Events of Default under the Leases.

5. Precision National, or others it selects, will rebuild the said 96 locomotives to the following specifications:

(a) with respect to the 25 locomotives designated by number on Exhibit D, the specifications set forth in Exhibit D ("Rebuild #1") (the Trustee, as Precision National's designee, will rebuild 14 of said 25 locomotives as specified on Exhibit D within the 180-day period immediately following the date of adoption of the Leases at a cost to Precision National of \$126,000 per locomotive, with all other terms and conditions of the Reconstruction Agreement, dated December 19, 1974, by and between the Rock Island and Precision National ["Reconstruction Agreement"] to be applicable to said rebuilding);

(b) with respect to the 36 locomotives designated by number on Exhibit E, the specifications set forth in Exhibit E ("Rebuild #2") (the Trustee, as Precision National's designee, will rebuild these 36 locomotives as specified on Exhibit E within the 270-day period immediately following the expiration of the 180-day period referred to in Subparagraph 5(a) at the price of \$87,443 per unit for each unit completed by June 30, 1976 (notwithstanding the date of completion, at least 6 locomotives will be rebuilt at this lower price) and \$88,946 per unit for each unit completed thereafter, with all other terms and conditions of the Reconstruction Agreement to be applicable to said rebuilding);

(c) with respect to the 12 locomotives designated by number on Exhibit F, the specifications set forth in Exhibit G, except that the specifications with respect to the "engine" shall be those set forth on pages 14 and 15 of Exhibit E and not the specifications with respect to the "engine" set forth on pages 11 through 16 of Exhibit G ("Rebuild #3); and

(d) with respect to the 23 locomotives designated by number on Exhibit G, the specifications set forth in Exhibit G ("Rebuild #4"). (It is understood that Rebuild #4 does not require a general change in gear ratios. Precision National agrees, however, to furnish the Trustee for his installation 62:15 ring gears and pinions as wheels wear out, subject to the limitation of 1 ring gear and 1 pinion per wheel set for each Rebuild #4 locomotive which continues to have 61:16 gear ratios after rebuilding.)

It is understood that the Trustee will provide to Precision National from time to time such locomotives as Precision National shall require in order to effect an orderly rebuilding program by Precision National during the 11-month period (or such shorter period as Precision National shall deem appropriate) immediately following the date of this Agreement. Upon 72 hours notice, the Trustee agrees to provide to Precision National such locomotives as Precision National shall request for the rebuilding program.

6. Except as otherwise hereinafter provided, the rent for each unrebuilt locomotive will continue to be \$75.00 per day through December 31, 1975 and thereafter will be \$35.00 per day, except that:

(a) the rent will abate on any locomotive while it is being rebuilt; and

(b) the rent will abate on any unrebuilt locomotive which requires (i) a Rebuild #1 and not designated for rebuilding by the Trustee(11) or (ii) a Rebuild #4 (23) while it is being stored by the Trustee at a location to be agreed upon and not being used (any such locomotive will be stored at the risk of the Trustee).

7. After completion and acceptance of a rebuilt locomotive, the rent will be:

(a) for each Rebuild #1 locomotive, \$110 per day (and with respect to the 14 such locomotives to be rebuilt by the Rock Island, such rent will begin on the earlier to occur of completion and acceptance of a rebuilt locomotive or the expiration of the 180-day period referred to in Subparagraph 5(a));

(b) for each Rebuild #2 locomotive, \$90 per day (and such rent shall begin on the earlier to occur of ...)

completion and acceptance of a rebuilt locomotive or the expiration of the 270-day period referred to in Subparagraph 5(b));

(c) for each Rebuild #3 locomotive, \$95 per day; and

(d) for each Rebuild #4 locomotive, \$105 per day.

8. The Trustee agrees to purchase from Precision National Corporation all parts and materials required by him for rebuilding the locomotives referred to in Subparagraphs 5(a) and (b) to be rebuilt by the Trustee, provided:

(a) that Precision National Corporation's prices (for such parts and materials as it is able to supply) are not greater than the lowest alternative source of supply from which the Trustee has a written quotation (which written quotation shall be provided to Precision National Corporation);

(b) that the parts to be supplied by Precision National Corporation will be of equivalent quality to the alternative source of supply from which the Trustee has said written quotation; and

(c) that the Trustee does not now have such parts in its inventory.

9. The party (or designee) doing the rebuilding work shall permit authorized representatives of the other party to

inspect any work in progress. Entry upon the property where work is taking place shall be conditioned upon the execution of a general release of any and all claims that might or could result from such entry.

10. The Trustee agrees to cause this Agreement to be filed and recorded in accordance with Section 20c of the Interstate Commerce Act, and to do all things required by the paragraph in each of the Leases entitled "Recording."

11. As soon as practicable, but not later than 20 days after completion of the rebuilding of the 96 unrebuilt locomotives, Precision National and the Trustee will execute a "Supplement to the Leases" which will set out the "old" number designations and the "new" number designations on all 120 locomotives, and the Trustee agrees to cause said agreement to be filed and recorded in accordance with Section 20c of the Interstate Commerce Act.

12. Except as modified hereby, the terms and conditions of the Leases shall remain in full force and effect.

IN WITNESS WHEREOF, the Trustee and Precision National have caused this Agreement to be executed as of the day and year hereinabove specified.



William M. Gibbons, as Trustee of
the Chicago, Rock Island and Pacific
Railroad Company

PRECISION NATIONAL LEASING CORPORATION

By

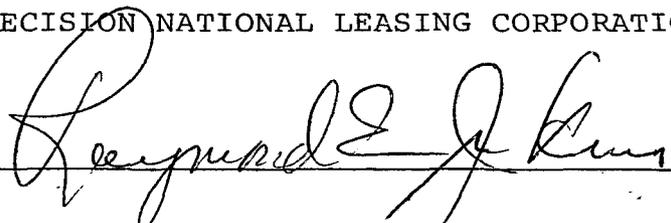


EXHIBIT "A"

DEVOE, SHADUR & KRUPP

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OF COUNSEL

MAURICE ROSENFELD

WILLIAM H. KLEIN

April 15, 1975

BY MESSENGER

William M. Gibbons, Esq.
Trustee
The Chicago, Rock Island & Pacific
Railroad Company ("Rock Island")
10th Floor - 139 West Van Buren Street
Chicago, Illinois 60605

RE: Precision National Leasing Corporation

Dear Mr. Gibbons:

We are writing on behalf of our client, Precision National Leasing Corporation ("Precision National"), to confirm the agreements we reached at our meeting on Friday, April 11th, which agreements supercede our previous discussions.

We agreed as follows:

1. In order to establish an interim arrangement for a period of ninety days from April 11th (the "interim period"), Precision National and the Rock Island agree that except as expressly modified by this letter, the locomotive leases dated August 29 and December 19, 1974 (the "Leases") between the parties shall remain in full force and effect and each of the parties shall abide by their terms, including the obligations imposed thereunder upon the Rock Island to make monthly rental payments and to maintain the locomotives as set forth therein. Because rental payments under the Leases are paid monthly in arrears on or before the last day of each month for which such rental is due, said rent, as accrued, shall be deemed a cost of administration of the debtor Rock Island under section 77 of the Bankruptcy Act.

2. The obligation of Precision National to reconstruct locomotives is hereby modified and suspended during the interim period and Precision National shall not be required during said

LETTER TO William M. Gibbons, Esq.
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DATE April 15, 1975

period to accept locomotives for reconstruction nor shall the Rock Island undertake reconstruction for Precision National except as described in the last sentence of this paragraph. However, the six locomotives currently in the possession of the Morrison-Knudsen Company, Inc. ("M-K") for reconstruction shall be completed in the normal course of M-K's business and shall thereupon be returned to service with the Rock Island in accordance with the Lease of August 29, 1974. Similarly, the four locomotives currently being reconstructed by the Rock Island at its Silvis, Illinois plant pursuant to the Lease of December 19, 1974 shall also be completed and returned to service in accordance with the Lease of December 19, 1974.

3. By entering into this interim agreement and by accepting payments, issuing invoices or taking other steps, neither Precision National nor the Rock Island waives or abandons any right it has under the Leases or otherwise, except:

- (a) With the exception of the locomotives referred to in the last two sentences of paragraph 2 hereof, the Rock Island waives and abandons its right to the delivery of additional reconstructed locomotives pursuant to the Leases during said interim period and waives and releases any claim for damages arising therefrom.
- (b) Precision National covenants and agrees that, during the interim period only and provided that the Rock Island shall make timely payments of rent as provided in the Leases, Precision National shall not declare a default pursuant to paragraph 18(e) of the Leases because of the Rock Island's action in filing a petition pursuant to Section 77 of the Bankruptcy Act. (Neither this agreement nor the foregoing covenant by Precision National shall be deemed to be a release or waiver of any claim, including claims for damages, possessed by Precision National by or because of the filing of said petition or for any other matter or reason.)

4. The funds paid by the Rock Island to Precision National prior hereto (including Rock Island's remittances Nos. 490467 and 495147) or subsequent hereto shall irrevocably become Precision National's property and shall not be recoverable by the Rock Island even if (i) the leases are disaffirmed or rejected by it or (ii) Precision National later exercises its rights to declare a default in the Leases and pursue its various rights and remedies. In addition, it is agreed that the last sentence of paragraph 4 of Order

DEVOE, SHADUR & KRUPP

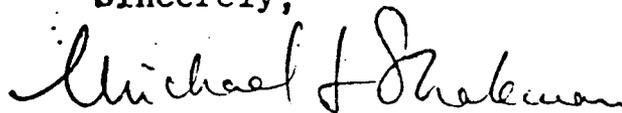
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No. 1 entered on March 17, 1975 in In the Matter of Chicago, Rock Island and Pacific Railroad Company (No. 75 B 2697) does not and shall not apply to any payments made to Precision National pursuant to this letter (including Rock Island's remittances Nos. 490467 and 495147) and that the parties hereto will seek and recommend the entry of an order by the Court (in the form attached hereto as Exhibit A) so confirming.

Finally, we agreed that prior to the conclusion of the interim period the Rock Island would review its need for the reconstruction of locomotives and would consider, among other possibilities, the following alternatives (which Precision National is willing to discuss with the Rock Island): (a) repurchase of the locomotives from Precision National; (b) a discontinuance of the reconstruction program provided in the Leases; (c) the assumption by the Rock Island of all reconstruction activity; (d) a continuation of Precision National's reconstruction of the locomotives and arrangements to adequately secure Precision National for the safety and security of its position and of the amounts it expends in connection with locomotive reconstruction.

We would appreciate your indicating the agreement of the Rock Island and of yourself as its Trustee and as the authorized representative of the Debtor under Section 77 of the Bankruptcy Act by your signing and returning a counterpart of this letter.

Sincerely,


Michael L. Shakman

MLS:msi

AGREED:

The Chicago, Rock Island and
Pacific Railroad Company, debtor
by its Trustee and duly authorized
agent


William M. Gibbons, Esq.

EXHIBIT "B"

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

In the Matter of)
) In Proceedings for the
CHICAGO ROCK ISLAND AND) Reorganization of a
PACIFIC RAILROAD COMPANY,) Railroad
)
Debtor.) No. 75 B 2697

ORDER

This matter having come before the Court and the Trustee having advised the Court that it has entered into the attached Interim Agreement with Precision National Leasing Corporation ("Precision National"), the owner of 120 diesel locomotives leased by the debtor, and the Court being duly advised in the premises, finds and orders as follows:

1. For good cause shown, Precision National is granted leave to intervene in this proceeding for the purposes of obtaining approval of the Interim Agreement and receiving notice of all matters occurring in this proceeding.
2. The Interim Agreement attached hereto is approved.
3. No payments made pursuant to said Agreement (including Rock Island's remittances Nos. 450467 and 495147) shall be subject to recovery from Precision National pursuant to the last sentence of paragraph 4 of Order No. 1 entered in this case on March 17, 1975.

ENTER: Frank J. McGary

Frank J. McGary,
District Judge

APR 30 1975

Exhibit A

A TRUE COPY ATTEST
H. STUART CUNNINGHAM, CLERK
BY Sharon L. Shady
DEPUTY CLERK
U.S. DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
MAY 7 1975

EXHIBIT "C"

24 Rebuilt Locomotives

	<u>Old Number</u>	<u>New Number</u>
1.	430	4425
2.	UP 144	4429
3.	UP 140	4430
4.	1200	4431
5.	1202	4432
6.	1211	4437
7.	1212	4438
8.	1220	4444
9.	1221	4445
10.	1228	4448
11.	1253	4459
12.	1305	4481
13.	N&W 3476	4483
14.	N&W 3480	4484
15.	4200	4485
16.	4203	4488
17.	PNC 1504	4491
18.	N&W 2412	4492
19.	St.L.&S.F. 547	4493
20.	St.L.&S.F. 557	4494
21.	1214	4500
22.	1260	4508
23.	1262	4509
24.	1274	4517

November 7 , 1975

EXHIBIT "D"

14 Units to be Rebuilt
by the Rock Island

1. 1218	8. 1271
2. 1223	9. 1276
3. 1235	10. 1280
4. 1251	11. 1287
5. 1258	12. 1307
6. 1263	13. 1311
7. 1266	14. 1312

The Rock Island hereby represents and warrants that the above-designated 14 locomotives are, in its reasonable opinion, the worst locomotives of the remaining unrebuilt 96 locomotives with respect to current condition.

11 Units to be Rebuilt
by Precision National or Designee

1. 1213	7. 1292
2. 1217	8. 1298
3. 1233	9. 1303
4. 1288	10. 1209
5. 1290	11. 1234
6. 1291	

November 7, 1975

GENERAL SPECIFICATIONS FOR
REMANUFACTURED LOCOMOTIVE

1. Remove long and short hood.
2. Remove trucks.
3. Strip cab and remove.
4. Remove equipment rack, air compressor, engine, main generator, electrical cabinet, load regulator and traction motor blowers.
5. Clean main frame and apply primer.
6. Check center casting and main frame alignment and cracks.
7. Straighten main frame if necessary.
8. Inspect and repair fuel tank if needed.
9. Check and replace end plates as needed.
10. Inspect draft gear housing.
11. Apply reworked draft gear if needed (refer page 4).
12. Apply new pilot, if needed and remove foot boards.
13. Apply handrails and stanchions if needed, in kind.
14. Apply reworked traction motor blowers (refer page 4).
15. Apply new underframe piping as needed.
16. Apply electric emergency fuel shut down.
17. Apply reworked load regulator (refer page 4).
18. Apply manufactured electrical locker (refer page 5).
19. Apply sanitary toilet.
20. Apply reworked cab (refer page 7).
21. Apply reworked trucks (refer page 9).
22. Apply reworked D12B-D14 Main Generator (refer page 12).
23. Apply new deep base WBO Air Compressor unless delivery prohibits (refer page 13).

24. Apply reworked 16-567-BC-C or D engine on GP-7 (refer page 14).
25. Apply reworked equipment rack (refer page 21).
26. Apply reworked 10 K.W. Auxiliary Generator (refer page 22).
27. Apply exhaust manifold with Farr spark arrestor kit.
28. Apply 2 stack exhaust manifold arrangement.
29. Make air equipment leakage test.
30. Apply reworked long hood (refer page 23).
31. Install new batteries - 70 percent replacement estimated.
32. Paint rebuilt locomotive (refer page 25).
33. Replace where necessary all heavy cables.
34. Install electric sanding system (Combination system-Electric and Pneumatic).
35. Safety appliances to be checked to comply with current regulations.
36. Final test (refer page 24).

DRAFT GEAR ASSEMBLIES

1. Weld and machine as needed.
2. Apply new bushings and pins as required.

TRACTION MOTOR BLOWERS

1. Apply new bearings.
2. Apply new gaskets.
3. Assemble and electrical test.

LOAD REGULATOR

1. Degrease and ccb blast.
2. Apply new gaskets and seals.
3. Apply new brushes.
4. Apply new resistors as needed.
5. Rewire as needed.
6. Assemble and test.
7. Renew LRC and transition switches where necessary.

HIGH VOLTAGE ELECTRICAL CABINET

1. Remanufacture electrical cabinets to Rock Island specifications.
- ✓ 2. Apply reclaimed buss bars if possible.
3. Apply reworked reverser. (Refer below).
4. Apply reworked power contactors. (Refer Page 6)
5. Apply reclaimed field shunting resistors where necessary on GP-9 locomotives only.
7. Apply new remote train lined ground reset button, to be located in cab.
8. Apply solid state voltage regulator where necessary.
9. Apply new fast-on terminal boards.
10. Apply new relays and switches and resistors where necessary to upgrade. Includes new remote reset ground relay.
11. Apply new wire (Imron-Dupont).
12. Apply new E.I. backward transition where necessary and retain on units where transition already exists.
13. Test electrically.
- ✓ 14. Battery charging diodes where necessary.

4 Motor Reverser

1. Apply new tube insulation as required.
2. Apply new bearings.
3. Apply new gaskets.
4. Apply new interlock assembly.
5. Apply new finger contacts.
6. Apply new segments.
7. Apply new 311F Magnet Valves.
8. Assemble and test.

POWER CONTACTORS

1. Vacu Blast parts
2. Apply new contacts
3. Apply new interlock assemblies as required
4. Apply new 311F magnet valves
5. Apply new gaskets
6. Assemble and test

CAB

1. Sand blast cab.
2. Apply putty, sand and prime.
3. Apply new 26-L air brake equipment, including new copper pipe. Delivery on Porta-Rac extremely extended so Morrison-Knudsen are using a plate mounted air brake installation including standard air filtration.
4. Apply all new wiring and replace conduit where necessary.
5. Apply new insulation and cab ceilings.
6. Apply remanufactured air brake stand and new valves.
7. Apply reworked control stand. (Refer below)
8. Apply reworked throttle stand. (Refer Page 2)
9. Apply new electric speed indicator (Barco or Vapor).
10. Apply new cab doors if needed and apply new weatherstrip as required.
11. Apply remanufactured isolation panel. (Refer Page 3)
12. Apply new hot water heaters as needed and where not so equipped.
13. Replace all deteriorated cab siding and angle iron.
14. Apply Prime windows where needed.
15. Apply reupholstered seats where needed in kind.
16. Apply Prime absorption type water cooler and refrigerator unit (Dometic may be substituted where Prime is not available)
17. Install MU headlight set up to be mounted on control stand.
18. Install Torpedo and Fusee rack and card holders for Federal and Air cards.

CONTROL STAND

1. Note blast frame.
2. Modify frame for modifications (Salem Duplex air gauge kit with magnified lens).
3. Apply all new parts to make conversion.
4. Apply road service switching switch where necessary.
5. Apply new wire.

THROTTLE STAND

1. Sandblast frame.
2. Rework throttle mechanism.
3. Apply new bearings.
4. Apply new insulation for segments.
5. Machine all segments.
6. Apply new fast-on terminal boards.
7. Apply new wire.

ISOLATION PANEL

1. Manufacture new panel.
2. Apply reworked battery charging meter.
3. Apply all new parts.
4. Apply new wire.

TRUCKS - 4 Wheel

1. Trucks stripped to bare frame.
2. Frames sand blasted, (or clean them chemically).
3. Bolster and spring plank sand-blasted.
4. Frames are visual checked and trammed.
5. Straighten and heat treat if needed.
6. Weld up motor support lug and re-drill.
7. Weld up pedestal jaws if needed.
8. Frame wear plates changed if needed.
9. Frame bushings and pins are renewed.
10. Apply reworked brake cylinder. (Refer Page 10)
11. Apply reworked brake hangers-new bushings and pin boss modified if needed.
12. Apply laboratory tested and matched coil springs.
13. Apply new nylatron pedestal liners using Huck fasteners.
14. Apply bolster with new wear plates.
15. Apply elliptical springs, qualified or new.
16. Apply swing hangers (magnafluxed and new bushings applied).
17. Apply wheels (Refer Page 10) to traction motors (Refer Page 11) using new brass, if needed; new lubricator wicks and repaired gear cases.
18. Apply reworked journal boxes. (Refer Page 11)
19. Apply new Quick-Just slack adjusters where necessary.
20. Apply reworked straps - new bushings..
21. Change to 62-15 gear ratio if necessary.
22. Change nose supports to rubber where necessary.

BRAKE CYLINDERS

1. Apply new cups.
2. Apply new filters.
3. Apply new gaskets.
4. Inspect and repair piston rod and spring.

WHEELS

1. Magnaflux and reflectoscope axle and gear (apply new, if necessary).
 2. Mount new 40" wheels on either reusable or new axle (it is permissible to use used mounted wheels with 2 inch or more tread thickness).
 3. Apply new races and water guards as needed.
 4. Gear ratio to be 62/15.
-

TRACTION MOTORS

(do specified work only if mileage exceeds 250,000, otherwise shop qualify)

1. Cob blast armature and frame.
2. High frequency test armature. If it does not pass test, it will be replaced with a suitable armature by Rock Island (Rock Island retains the old armature).
3. Armature place in varnish vacuum impregnator 4 hours.
4. Armature baked 8 to 10 hours at 300° F.
5. Armature commutator turned in lathe.
6. Armature commutator slots are undercut.
7. Armature commutator slots are cleaned and Vee'd.
8. Armature is dynamically balanced.
9. Armature is assembled using new or factory remanufactured bearing assemblies, new gaskets and new inserts.
10. Frame is gaged at all critical points.
11. Frame is welded and machined at points required.
12. Frame coils and leads are checked and replaced if needed.
13. Frame placed in varnish vacuum impregnator 4 hours.
14. Frame is baked 8 to 10 hours at 300° F.
15. Brush holders are reworked.
16. Apply new brushes - Rock Island to supply specifications - Union Carbide grade DE-S two wafer.
17. Apply new pinion if needed.
18. Traction motor tested and run for 1 hour.

JOURNAL BOXES

1. Replace box liners as needed.
2. Rotate races and replace as needed.
3. Inspect and apply new roller as needed.
4. Apply new gaskets.
5. Inspect thrust blocks and replace as needed.

D12B - D14 MAIN GENERATOR

1. Cob-blast armature, frame and A.C. Stator.
2. High frequency test armature. If it does not pass test, it will be replaced with suitable armature by Rock Island (Rock Island retains the old armature).
3. Armature place in varnish vacuum impregnator 4 hours.
4. Armature baked 10 hours at 300° F.
5. Armature commutator is turned in lathe.
6. Armature commutator slots are undercut on automatic undercutter.
7. Armature is dynamically balanced.
8. Armature commutator slots are cleaned and Vee'd
9. Armature is assembled using new bearing and gaskets.
10. Main head bushing is checked and new case hardened bushing applied if needed.
11. Frame coils and leads checked and replaced as needed.
12. Frame placed in varnish vacuum impregnator 4 hours.
13. Frame is baked 8 hours at 300° F.
14. A.C. Frame is checked and rewind kit applied if needed.
15. A.C. Frame is dipped in varnish.
16. A.C. Frame is baked 8 hours at 300° F.
17. Brush holders are reworked.
18. Apply new brushes. Rock Island to furnish specifications - Union Carbide DE-8 two wafer.
19. Hi-pot main generator.

WBO AIR COMPRESSOR TO BE
REBUILT TO EMD SPECIFICATIONS

1. Vacu blast parts.
 2. Apply new main bearings as needed.
 3. Inspect and mike crankshaft.
 4. Apply new seals in caps.
 5. Apply new shims and check lateral.
 6. Apply EMD high pressure rods.
 7. Check piston and use new if needed.
 8. Apply new wrist pin.
 9. Apply new rings.
 10. Check rods and apply if needed.
 11. Apply reworked valves to heads (inspect and lap valves).
 12. Reseat unloader plunger.
 13. Apply all new gaskets.
 14. Apply reworked inner cooler.
 15. Load test for 5 hours.
- Note: Convert WKO to WBO
16. New deep base WBO air compressor to be installed if available.*

*In lieu of items 1 through 15.

16-567 Engine

(Rebuilt to SMO Specifications)

1. Crankcase is checked and line bored.
2. Main bearing caps are spot faced for hardened flat washers and nut
3. All holes in case are tapped (welded and retapped if needed).
4. Sealer paint applied to case and pan.
5. Check liner inserts and replace as needed.
6. Apply reworked crankshaft using new main bearings (Refer Page 16)
7. Apply reworked power assemblies using new rod bearings.
(Refer Page 16)
8. Apply water hydro test.
9. Check lead readings.
10. Apply pee pipes and gage.
11. Apply case to pan using new gasket.
12. Apply air box and crankcase cover.
13. Apply reworked camshaft. (Refer Page 17)
14. Apply reworked layshaft. (Refer Page 17)
15. Apply reworked stubshaft with increased oil passage.
16. Apply gear train (gears cleaned and checked - new bushings and thrust washer).
17. Apply rear housing using new gasket.
18. Apply inspected fly wheel using new hardened washers and improved nuts and bolts.
19. Drill and apply rear counter weights.
20. Apply reworked auxiliary generator drive assembly. (Refer Page 17)
21. Apply blower stands.
22. Apply reworked blowers. (Refer Page 17)
23. Apply reworked injectors. (Refer Page 19)

24. Apply reworked rocker arm assemblies (Refer Page 13).
25. Apply reworked exhaust valve bridges (Refer Page 13).
26. Apply test cock relief valves.
27. Apply lube oil cross over manifold.
28. Apply reworked lube oil pressure relief valve (Refer Page 13).
29. Apply governor drive gear.
30. Apply accessory drive housing using new gasket.
31. Apply reworked engine protector (Refer Page 13).
32. Apply coil spring accessory drive gear.
33. Apply reworked oil separator (Refer Page 12).
34. Apply reworked lube oil pressure pump (Refer Page 19).
35. Apply reworked lube oil scavenging pump (Refer Page 19)
36. Apply reworked water pumps (Refer Page 19).
37. Apply reworked governor drive assembly (Refer Page 19).
38. Apply reworked cylinder head cover (Refer Page 19).
39. Apply support frame.
40. Apply front counter weights.
41. Apply overspeed trip housing.
42. Apply reworked governor (Refer Page 19).
43. Apply governor linkage.
44. Apply injector control linkage (Refer Page 20).
45. Load test engine (Refer Page 20).
46. Rock Island to provide recommended manufacturers of oils, lubricants, and water treatment.

CRANKSHAFT

1. Inspect and mike (use PNC chromeplated if needed).
2. Polish all journals.
3. Manga-glow inspection.
4. Apply new pipe plugs - clean oil passages.
5. Apply reworked harmonic balancer (6 spring packs, new spring plate and new pins if needed).
6. Apply reworked accessory drive gear (new coil springs, if needed)
7. Apply reworked oil slinger.
8. Apply reworked main drive gear.

POWER ASSEMBLIES (Built to EMD Specifications)

1. Heads water tested and inspected (factory reworked head used if needed).
2. Heads vacu blasted.
3. Polish injector valve seats.
4. Apply new inconnell valves.
5. Apply new valve spring keeper if needed.
6. Liner Bore is checked (new chromeplated liner used if needed).
7. Liner is vapor blasted.
8. Liner ridge is honed and buffed.
9. Liner is water tested.
10. Rods given dimensional check by gauging.
11. Rods surfaces are polished.
12. Wrist pins are checked.
13. Carriers are converted to full flow (new inserts).
14. Apply water elbows to cylinder heads using new "O" rings.

15. Apply new Koppers or EMD rings to qualified pistons.
16. Apply pistons and carriers to rods.
17. Apply pistons and rod assemblies to liner using new EMD seals.
18. Apply cylinder heads using new nuts if needed.

CAMSHAFT

1. Vacu blast blocks.
2. Remove all burrs.
3. Apply factory reworked poly-ground segments as needed, weld up dowel holes, and camshaft stub ends.
4. Apply new bearings.
5. Assemble and gage run out.

LAYSHAFT

1. Spray weld and turn to correct size.
2. Straighten and assemble.

AUXILIARY GENERATOR DRIVE ASSEMBLY

1. Apply new oil seals and bushings.

BLOWERS

1. Inspect rotors.
2. Apply new thrust collars.
3. Apply new bushings and gaskets.
4. Test run blowers for 1 hour.

INJECTORS

1. Apply new fuel filter.
2. Apply new "O" ring.
3. Apply factory rebuilt barrel and plunger.
4. Apply factory rebuilt tip kit.
5. Apply new components as needed.
6. Convert spherical to needle type if needed.
7. Assemble and calibrate.

ROCKER ARM ASSEMBLY

1. Polish shaft.
2. Apply pins - rollers - races as needed.

EXHAUST VALVE BRIDGES

1. Apply new adjuster bodies where necessary.
2. Test all springs and replace as needed.
3. Assemble and pressure test.

LUBE OIL PRESSURE RELIEF VALVE

1. Inspect
2. Assemble and pressure test.

ENGINE PROTECTOR

1. Apply new rebuild kit (new gaskets, "O" rings, etc.)
2. Assemble and test 30 minutes.

OIL SEPARATOR

1. Clean and replace filter if needed.

LUBE OIL PRESSURE PUMP

1. Inspect all gears (replace as needed)
2. Apply new gaskets
3. Apply new bushing.

LUBE OIL SCAVENGING PUMP

1. Inspect all gears (replace as needed).
2. Apply new gaskets.
3. Apply new bushing.

WATER PUMPS

1. Check impellar and housing for wear.
2. Apply new seals and bushings.
3. Apply new inner and outer bearing.
4. Assemble and check clearance.

GOVERNOR DRIVE ASSEMBLY

1. Apply remanufactured governor drive assemblies in kind.

CYLINDER HEAD COVER

1. Straighten as needed.
2. Apply new rubber gasket.

GOVERNOR

1. Apply remanufactured governors in kind.

1. ADJUSTOR: CONTROL LINAGE

1. Inspect and remove all burrs.

LOAD TEST ENGINE

1. Fuel hydro and prelube.
2. Start and check for leaks.
3. Shut down and check main and rod bearing temperatures.
4. Run in 2nd notch (loaded) 30 minutes. Shutdown and check main and rod bearing temperatures.
5. Run in 4th notch (loaded) 30 minutes. Shutdown and check main and rod bearing temperatures.
6. Run in 6th notch (loaded) 30 minutes. Shutdown and check main and rod bearing temperatures.
7. Run in 8th notch (loaded) 3 hours periodically checking bearing temperatures.
8. Record all reading of pressure and temperature.
9. Correct any leaks of malfunctions and retighten engine.

EQUIPMENT RACK

1. Remanufacture existing equipment rack.
2. Install vapor preheaters, (Fuel oil).
3. Install synchronized compressor controls.
4. Install Prime start switch on rack.
5. Install on remanufactured rack, engine temperature switches and manifold, including hot engine temperature switch.

10-K.W. AUXILIARY GENERATOR

1. Cob blast armature and frame.
2. Test armature - If armature does not pass test, it will be replaced with rewound armature.
3. Armature dipped in varnish.
4. Armature baked 8 hours at 300° F.
5. Armature commutator is turned and undercut.
6. Armature is dynamically balanced.
7. Armature commutator slots are cleaned and Vee'd.
8. Armature is assembled with new bearings and gaskets.
9. Frame coils and leads are checked and replaced if needed.
10. Frame is dipped in varnish.
11. Frame is baked 2 hours at 300° F.
12. Armature and frame are assembled with new brushes and reworked brush holders.
13. Auxiliary generator is electrically tested.
14. Brushes to be Rock Island specifications AC-98 EMD part # 3190442.

LONG HOOD

1. Sand blast long hood.
2. Apply putty, sand off and prime.
3. Modify number lights for modulite panel type power parts - Rock Island option.
4. Apply new door latches as needed.
5. Apply new door hinges as needed.
6. Use fiberglass filters AAF (American Air Filter).
7. Apply new conduit as required and new wire.
8. Apply new shutter magnet valves.
9. Apply reworked shutter cylinder assemblies (new gaskets).
10. Apply reworked radiators (per Morrison-Knudsen specifications) 90% tubes to be open.
11. Modify hood for removing complete power assembly.
12. Modify hood for cooling fan hook-up.
13. Apply reworked cooling fans (new bearings and gaskets and tested).
14. Modify shutters so manual shutter is linked to automatic shutter by a rod to provide full automatic operation.
15. Apply reworked hand brake assembly.

TEST

1. Electrically test all circuits.
2. Start and check for leaks - water - fuel - air.
3. Air cure main generator.
4. Apply load box and set temperature switches.
5. Load for 1 hour at full load.
6. Record all pressure and temperature readings.
7. Shutdown and check bearings.
8. Start and set transition.
9. Test Hand brake.
10. Make running and movement checks.

PAINT

1. Paint trucks (Rock Island option).
2. Paint engine room gray.
3. Paint inside cab (Rock Island option).
4. Apply Kant Skid cab floor (or Benelux).
5. Prime outside.
6. Apply colors as required (Rock Island option).
7. Code inside of locomotive.
8. Code outside of locomotive as required, ACI label.
9. Apply GP-40 type arm rest.
10. Apply Prime rear view mirrors and wind deflectors (Salem on option if Prime not available).
11. Apply metal cab awnings.

EXHIBIT "E"

36 Units - Modified Rebuild

1.	436	19.	1277
2.	441	20.	1279
3.	1203	21.	1282
4.	1204	22.	1283
5.	1205	23.	1284
6.	1208	24.	1300
7.	1216	25.	1304
8.	1224	26.	1306
9.	1231	27.	1309
10.	1250	28.	1310
11.	1255	29.	1313
12.	1264	30.	1314
13.	1265	31.	1315
14.	1268	32.	1316
15.	1269	33.	1317
16.	1270	34.	1318
17.	1272	35.	1319
18.	1273	36.	1320

The Rock Island hereby represents and warrants that the above-designated 36 locomotives and the 12 locomotives designated by number on Exhibit F are, in its reasonable opinion, the best locomotives of the remaining unrebuilt 96 locomotives with respect to current condition.

I. General Description:

GP-7 locomotives selected for this program will be those which have relatively high service life remaining in some of their major components. The completed locomotives will not require a major rebuild for at least 15 years.

The locomotive horsepower will remain at 1500. All low voltage wiring will be renewed. The air system will be changed to 26L, eliminating the necessity of using this power as a trailing unit in mixed consists.

The finished locomotive will carry The Rock's new blue and white colors and logo.

II. General Specifications:

A. Electrical Equipment:

1. Shop Rework:

- 1.10 Qualify all high voltage wiring.
- 1.20 Renew all low voltage wiring.
- 1.30 Renew all control contactors, control relays and other devices and bring up to latest standards.
- 1.40 Recondition all reversers and power contactors.
- 1.50 Shop qualify all AC fans and blower motors.

A. Electrical Equipment:

1. Shop Rework: (Continued)

- 1.60 Shop qualify all DC motors and equipment.
- 1.70 Shop qualify auxiliary generators.
- 1.80 Shop qualify main generators 300,000 miles or under.
- 1.81 Rework main generators over 300,000 miles as required.
- 1.90 Shop qualify traction motors 300,000 miles or under.
- 1.91 Rework traction motors over 300,000 miles as required.

B. Diesel Engines:

1. Shop Rework:

- 1.10 All diesel engines which have accumulated 300,000 miles or less will, prior to dismantling of locomotives, be inspected and tested, as well as load tested, to determine condition prior to approval as qualified for service.
- 1.11 All diesel engines which have accumulated over 300,000 miles will be load tested and reworked as required. Gear trains will be rebushed. Water pumps and blowers will be reworked as required.

C. Other Locomotive Equipment:

1. Shop Rework:

1.10 Recondition trucks.

1.20 Wheel sets will be shop qualified or reconditioned, equipped with bull ring gear for 62/i5 ratio, and service metal will be no less than 1-7/8".

1.30 Journal boxes will be reconditioned.

1.40 Draft arrangement, including all components and draft gear pockets, will be shop qualified or reconditioned.

1.50 Radiators will be tested, and gaskets and cores will be replaced as required.

1.60 Superstructure will be reworked, including attachments.

1.70 Cab equipment will be shop qualified or reconditioned. Engineer's side will be equipped with a sliding rail seat. Benelex floor will be installed.

1.80 Footboards will be removed.

1.90 Underframe, superstructure interior and exterior will be painted.

C. Other Locomotive Equipment: (Continued)

2. New Equipment:

- 2.10 26L Brake Equipment.
- 2.20 Internal spark arrestor.
- 2.30 Electric speed indicator.
- 2.40 Electric sanding equipment.
- 2.50 Deep sump, water cooled air compressor with synchronized compressor control.
- 2.60 Refrigerator-type water cooler for packaged water.
- 2.70 Retention-type toilet.
- 2.80 Fuel oil preheater.
- 2.90 Hot water cab heaters.

3. Miscellaneous:

- 3.10 Retain present engine air filtration system, recondition as required.
- 3.20 New or reconditioned injectors.
- 3.30 Reconditioned governor.
- 3.40 Main bearing replacement, if over one year old.
- 3.50 Replacement of individual power assemblies on shop qualified diesel engines, if required.

C. Other Locomotive Equipment:

3. Miscellaneous: (Continued)

3.60 Engine protector switches to be applied as required.

3.70 Spin-type fuel filters to be applied as required.

3.80 Metal awnings to be applied both sides of cab as required.

3.90 Recondition oil coolers.

4. Final Work and Testing:

4.10 Load test when all work is completed.

4.20 Paint and trim.

4.30 Road test Silvis to Chicago and return.

4.40 Retorque components at assigned maintenance points.

GENERAL SPECIFICATION FOR MODIFIED REBUILT LOCOMOTIVE (Shop Qualification)

1. Load box locomotive power plant.
2. Remove long and short hood.
3. Strip cab and remove.
4. Remove equipment rack, air compressor, engine main generator, electrical cabinet, load regulator and traction motor blowers, battery, etc.
5. Remove trucks.
6. Invert locomotive main frame.
7. Remove fuel tank.
8. Clean main frame.
9. Check center casting and main frame for alignment and cracks, and repair as required.
- ~~10.~~—Inspect draft gear housing.
11. Apply new underframe piping as required.
12. Straighten main frame if necessary.
13. Rework draft gears as required.
14. Turn main frame topside.
15. Remove foot boards.
16. Install new end plates.
17. Apply hand rails and stanchions.
18. Apply traction motor blowers.
19. Apply electric emergency fuel shutdown.
20. Apply reworked load regulator.
21. Apply remanufactured electrical locker.
22. Apply approved type toilet.
23. Apply reworked cab.
24. Apply reworked trucks.
25. Apply D-12 D-14 main generator.

GENERAL SPECIFICATION FOR MODIFIED REBUILT LOCOMOTIVE (Shop Qualification)

26. Apply new deep sump air compressor.
27. Apply reworked engine with spark arrestor manifold.
28. Apply reworked equipment racks.
29. Apply reworked auxiliary generator.
30. Apply reworked long hood.
31. Install batteries.
32. Final test including air leakage test, water system leakage test, load test, etc.
33. Paint unit.

DRAFT GEAR ASSEMBLIES

1. Weld and machine as needed.
2. Apply new bushings and pins as required.

TRACTION MOTOR BLOWERS

1. Apply new bearings as required.
2. Apply new gaskets.
3. Assemble and electrical test.

LOAD REGULATOR

1. Degrease.
2. Apply new gaskets and seals as required.
3. Apply new brushes as required.
4. Apply new resistors as required.
5. Rewire as required.
6. Assemble and test.
7. Renew LRC and transition switches where required.

HIGH VOLTAGE ELECTRICAL CABINET

1. Remanufacture electrical cabinets.
2. Apply reworked reverser. (Refer Page 9)
3. Apply reworked power contractors. (Refer Page 9)
4. Apply reclaimed field shunting resistors where necessary on GP-9's.
5. Apply new remote train lined ground reset.
6. Apply solid state voltage regulator where necessary.
7. Apply new fast-on terminal boards.
8. Apply new relays and switches and resistors where necessary to upgrade.
9. Apply new wire.
10. Apply new E.I. backward transition where necessary.
11. Test electrically.

12. Install battery charging diodes where necessary.

4 MOTOR REVERSER

1. Apply new tube insulation as required.
2. Apply new bearings as required.
3. Apply new gaskets.
4. Apply new interlock assembly as required.
5. Apply new finger contacts as required.
6. Apply new segments as required.
7. Apply new 311F Magnet Valves or equivalent.
8. Assemble and test.

POWER CONTRACTORS

1. Clean parts as required.
2. Apply new contacts as required.
3. Apply new interlock assemblies as required.
4. Apply new 311F Magnet Valves or equivalent.
5. Apply new gaskets.
6. Assemble and test.

CAB

1. Chemically strip and clean cab.
2. Apply putty, sand and prime.
3. Apply new 26-L air brake equipment.
4. Apply all new wiring and replace conduit where necessary.
5. Apply new insulation and cab ceilings.
6. Apply fabricated air brake stand.
7. Apply reworked control stand. (Refer below).

8. Apply reworked throttle stand.
9. Apply new electric speed indicator.
10. Apply new cab doors if needed and apply new weatherstripping as required.
11. Apply remanufactured isolation panel. (Refer Page 11)
12. Apply new hot water heaters.
13. Replace all deteriorated cab siding and supports.
14. Apply windows where needed.
15. Apply reupholstered seats where needed in kind. Engineer's seat to be sliding rail type.
16. Apply approved type water cooler.
17. Install MU headlight set up to be mounted on control stand.
18. Install Torpedo and Fusee rack and necessary card holders.

CONTROL STAND

1. Clean assembly.
2. Modify frame for 4" duplex air gauges.
3. Apply road-switching switch where necessary.
4. Apply new wire.

THROTTLE STAND

1. Clean frame.
2. Rework throttle mechanism.
3. Apply new bearings as required.
4. Apply new insulation for segments as required.
5. Apply new fast-on terminal boards.
6. Apply new wire.

ISOLATION PANEL

1. Manufacture new panel.
2. Apply reworked battery changing meter.
3. Apply all new parts.
4. Apply new wire.

TRUCKS - 4 WHEEL

1. Trucks stripped to bare frame.
2. Frames and component parts cleaned chemically.
3. Frames visual checked and trammed.
4. Straighten frame as required.
5. Weld motor support lug and re-drill.
6. Weld pedestal jaws if required.
7. Frame wear plates to be changed if required.
8. Renew frame bushings and pins as required.
9. Rework brake cylinder.
10. Rework brake hangers with new bushings and modified pin boss as required.
11. Test and match coil springs.
12. Install new nylatron pedestal liners using Huck fasteners.
13. Rework bolster with new wear plates as required.
14. Qualify or renew elliptical springs as required.
15. Qualify swing hangers (magnaflux and apply new bushings as required).
16. Apply wheels (Refer Page 12) to traction motors (Refer Page 12) using new brass, if needed; new lubricator wicks and repaired gear cases. 62/15 gear ratio.
17. Rework journal boxes. (Refer Page 12)
18. Install new quick-just slack adjusters where necessary.

19. Rework straps apply new bushings as required.
20. Change nose supports to rubber where necessary.

BRAKE CYLINDERS

1. Rework brake cylinders, install new cups, new filters, new gaskets, and qualify piston rod and spring.

WHEELS

1. Magnaflux and reflectoscope axle. 62 tooth axle gear to be applied.
2. Mount new 40" wheels on either reusable or new axle. 1 7/8" tread permissible.
3. Apply new races and water guards as needed.

TRACTION MOTORS

1. Clean assembly chemically.
2. Armature commutator slots are cleaned and Vee'd. as required.
3. Check leads and replace as required.
4. Brush holders rework as required.
5. Apply new brushes as required.
6. Apply pinion if required (15 tooth).
7. Traction motor run tested.

JOURNAL BOXES

1. Replace box liners as required.
2. Rotate races or replace as required.
3. Qualify bearings renew as required.
4. Apply new gaskets.
5. Qualify thrust blocks and replace as needed.

D12B - D14 MAIN GENERATOR

1. Clean complete assembly.
2. Armature commutator slots are undercut as required.
3. Leads checked and replaced as required.
4. Brush holders reworked as required.
5. Apply new brushes as required.
6. Hi-pot main generator.

16-567 Engine (Shop qualified)

Shop Qualified:

1. Hydro test.
2. Check piston to head clearance (lead reading)
3. Apply reworked power assemblies as required.
4. Gauge piston cooling pipes.
5. Inspect and rework gear train as required. Install reworked stub shaft with increased oil passage.
6. Rework auxiliary drive generator as required.
7. Qualify blowers, replace as required.
8. Apply reworked injectors.
9. Apply reworked rocker arm assemblies as required.
10. Apply reworked exhaust valve bridges as required.
11. Inspect lube oil pressure relief valve repair as required.
12. Install reworked engine protector as required.
13. Rework oil separator.
14. Rework water pumps as required.
15. Apply reworked cylinder head cover as required.
16. Install reworked governor.
17. Rework governor linkage as required.
18. Install engine mounted spin on type fuel filters as required.
19. Replace lower main bearings if required.

AUXILIARY GENERATOR DRIVE ASSEMBLY

1. Apply new oil seals and bushings as required.

BLOWERS

1. Shop qualify by inspection and if necessary unit exchange.

INJECTORS

1. Unit exchange assemblies.

ROCKER ARM ASSEMBLY

1. Polish shaft as required.
2. Apply pins - rollers - races as needed.

EXHAUST VALVE BRIDGES

1. Rework as required.

LUBE OIL PRESSURE RELIEF VALVE

1. Rework as required.

ENGINE PROTECTOR

1. As required unit exchange assembly.

OIL SEPARATOR

1. Clean and replace filter if needed.

WATER PUMPS

1. Rework as required.

GOVERNOR DRIVE ASSEMBLY

1. Apply remanufactured governor drive assemblies in kind as required.

CYLINDER HEAD COVER

1. Straighten as required.
2. Apply new rubber gasket.

GOVERNOR

1. Apply remanufactured governors.

LOAD TEST ENGINE

1. Record all pertinent data.

EQUIPMENT PACK

1. Remanufacture existing equipment rack.
2. Install vapor preheaters (fuel oil).
3. Install synchronized compressor controls and shutter controls in separate cabinet.
4. Install prime start switch on rack.
5. Install engine temperature switches and manifold.

10 K.W. AUXILIARY GENERATOR

1. Clean assembly.
2. Armature commutator slots are cleaned and vee'd as required.
3. Frame coils and leads are checked and replaced as required.
4. Install new brushes as required.
5. Auxiliary generator is electrically tested.

LONG HOOD

1. Clean chemically.
2. Apply putty, sand off and prime.
3. Modify number lights for modulite panel type.
4. Apply new door latches as required.
5. Apply new door hinges as required.
6. Use fiberglass filters.
7. Apply new conduit as required and new wire.
8. Apply reworked shutter cylinder assemblies (new gaskets).
9. Apply shop qualified and tested radiators.
10. Modify hood for removing complete power assembly.
11. Apply reworked cooling fans as required.
12. Modify shutters so manual shutter is linked to automatic shutter by a rod to provide full automatic operation.
13. Apply reworked hand brake assembly.

SHORT HOOD

1. Clean chemically.
2. Apply putty, sand and prime.
3. Modify number lights.
4. Apply new door latches as required.
5. Apply new door hinges as required.
6. Apply new conduit and wiring as required.

TEST

1. Electrically test all circuits.
2. Start and check for leaks - water - fuel - air.
3. Air cure main generator.
4. Load test power plant.
5. Record all pressure and temperature readings.
6. Set transition.
7. Make running and movement checks.

PAINT

1. Paint trucks.
2. Paint engine room gray.
3. Paint inside cab green.
4. Apply benelex floor.
5. Prime outside.
6. Apply blue and white paint and logo.
7. Code inside of locomotive.
8. Code outside of locomotive as required, apply ACI label.
9. Apply GP-40 type arm rests both sides.
10. Apply rear view mirrors and wind deflectors as required.
11. Apply metal cab awnings as required.

EXHIBIT "F"

12 Units - Modified Rebuild

1.	432	7.	1278
2.	1207	8.	1281
3.	1227	9.	1285
4.	1229	10.	1286
5.	1254	11.	1293
6.	1259	12.	1322

November 7, 1975

EXHIBIT "G"

23 Units - Modified Rebuild

1.	431	13.	1261
2.	1206	14.	1289
3.	1225	15.	1294
4.	1210	16.	1295
5.	1215	17.	1296
6.	1219	18.	1297
7.	1222	19.	1299
8.	1230	20.	1302
9.	1232	21.	4205
10.	1236	22.	4208
11.	1237	23.	4209
12.	1257		

November 7, 1975

DETAILED ACCOUNTING OF WORK TO BE PERFORMED

1. Remove long hood.
2. Remove trucks.
3. Remove cab.
4. Remove equipment rack, air compressor, engine, main generator, electrical cabinet and load regulator.
5. Sandblast main frame and apply primer.
6. Check center casting and main frame for alignment and cracks.
7. Straighten main frame if needed.
8. Inspect and repair fuel tank if needed. Replace small tanks with 1700 gallon tanks.
9. Qualify end plates. Remove footboards and modify as required, including application of proper cut lever.
10. Inspect draft gear housing and restore to correct dimensions as required.
11. Apply reworked draft gear if needed. (Refer I, page 4)
12. Apply electric emergency fuel shutdown.
13. Qualify traction motor blowers. (Refer II, Page 4)
14. Apply new underframe piping as required.
15. Apply new high voltage cables if needed.
16. Apply electric sanding system.
17. Apply reworked load regulator. (Refer III, Page 4)
18. Apply manufactured electrical locker. (Refer IV, Pages 4 and 5)
19. Apply new sanitary facilities.
20. Apply qualified cab. (Refer V, Pages 5 and 6)
21. Apply reworked trucks. (Refer VI, Pages 7 and 8)
22. Apply qualified or shop worked D12B-D14 main generator. (Refer VII, Page 10)
23. Apply deep sump WBO air compressor. (Refer VIII, Page 11)
24. Apply reworked 16-567 BC engine. (Refer IX, Pages 11 and 12)
25. Apply qualified equipment rack. (Refer X, Page 16)

26. Apply qualified 10 KW auxiliary generator. (Refer XI, Page 17)
27. Apply exhaust manifold with spark arrester kit.
28. Make air equipment leakage test.
29. Apply qualified hoods. (Refer XII A and XII B, Pages 17 and 18)
30. Apply qualified batteries.
31. Test rebuilt locomotive. (Refer XIII, Page 18)
32. Paint rebuilt locomotive. (Refer XIV, Page 18)
33. Road test.
34. 72 hour and final inspection.
35. Remove roof top tank reservoirs from units so equipped and apply standard tank in same location as other units.
36. Use fiberglass filters AAF (American Air Filter).

I.**DRAFT GEARS**

1. Weld and machine as needed.
2. Apply all new bushings and pins if needed.
3. Yoke inspected and qualified.
4. Couplers inspected and qualified.

II.**TRACTION MOTOR BLOWERS**

1. Apply new bearings as required.
2. Apply new gaskets.
3. Assemble and test electrically.

III.**LOAD REGULATOR**

1. Degrease and cob blast.
2. Apply new gaskets and seals.
3. Apply new brushes.
4. Rewire as needed.
5. Assemble and test.
6. Apply new resistors as required.
7. Renew LRC and transistor switches as required.

IV.**HIGH VOLTAGE ELECTRICAL CABINET**

1. Modify GP-9 frame to new style or manufacture new frame if GP-7 type.
2. Apply reclaimed buss bars if possible.
3. Apply reworked reverser. (Refer HVC-1, Page 5)
4. Apply reworked power contractors. (Refer HVC-2, Page 5)
5. Apply reclaimed fuse holders and battery switch.
6. Apply reclaimed field shunting resistors if possible.
7. Apply new solid state voltage regulator.

8. Apply new fast-on terminal boards.
9. Apply new relays and switches and resistors. Includes new remote reset ground relay.
10. Apply new wire.
11. Apply new E. I. backward transition where necessary and retain on units so equipped.
12. Test electrically.
13. Renew battery charging diodes where necessary.
14. Apply new remote train line ground relay reset in cab.

HVC-1

4 MOTOR REVERSER

1. Apply new tube insulation if needed.
2. Apply new bearings.
3. Apply new gaskets.
4. Apply new interlock assembly.
5. Apply new finger contacts.
6. Apply new segments if needed.
7. Apply new 311F magnet valves as needed.
8. Assemble and test.

HVC-2

POWER CONTACTORS

1. Vacu-Blast parts.
2. Apply new contacts.
3. Apply new interlock assemblies.
4. Apply new 311F magnet valves if needed.
5. Apply new gaskets.
6. Assemble and test.

V.

CAB

1. Sandblast cab.

2. Apply putty, sand and prime.
3. Apply new 26-L air brake equipment, including new copper pipe, new porto rack, and new parts.
4. Apply all new wiring and replace conduits as necessary.
5. Apply manufactured air brake stand and new valves.
6. Apply qualified control stand. (Refer CLN-1, Below)
7. Apply qualified throttle stand. (Refer CLN-2, Below and Page 7)
8. Apply new Barco electric speed recorder.
9. Apply new water cooler, Dometic or equivalent.
10. Apply Benelex floor.
11. Apply new seat rails and seat on engineer's side. Apply reupholstered seats at other locations as needed where existing seats are located.
12. Repair siding and supports as needed.
13. Apply manufactured isolation panel. (Refer CLN-3, Page 7)
14. Apply metal cab awnings.
15. Apply new hot water heaters as needed and where not equipped.
16. Install new window glass as needed.
17. Install MU headlight setup, mount on control stand.
18. Install fusee and torpedo racks and card holders where needed.

CLN-1

CONTROL STAND

1. Clean assembly.
2. Modify frame for 4" duplex air gauges.
3. Apply road switching switch where necessary.
4. Apply new wire.

CLN-2

THROTTLE STAND

1. Clean frame.
2. Rework throttle mechanism.
3. Apply new bearings as required.

4. Apply new insulation for segments as required.
5. Apply new fast-on terminal board.
6. Apply new wire.

CLN-3

ISOLATION PANEL

1. Manufacture new panel.
2. Apply reworked battery charging meter.
3. Apply all new parts.
4. Apply new wire.

VI.

TRUCKS - 4-WHEEL

1. Trucks stripped to bare frame.
2. Frames sand-blasted.
3. Bolster and spring plank sand-blasted.
4. Frames are visually checked and trammed.
5. Straighten and heat treat if needed.
6. Weld up motor support lug and re-drill.
7. Weld up pedestal jaws if needed.
8. Frame wear plates changed if needed.
9. Frame bushings and pins are renewed.
10. Apply reworked brake cylinders. (Refer T-1, Page 8)
11. Apply reworked brake hangers - new bushings and pin boss modified if needed.
12. Apply tested and matched coil springs.
13. Apply qualified pedestal liners.
14. Apply bolster with new wear plates.
15. Apply reworked elliptical springs. (Refer T-2, Page 8)
16. Apply swing hangers (magnafluxed and new bushings applied).
17. Apply wheels (refer T-3, Page 8) to traction motors (refer T-4, Pages 8 and 9) using new brass if needed, new lubricator wicks and repaired gear cases.

18. Apply reworked journal boxes. (Refer T-5, Page 9)
19. Install new Quick-Just slack adjusters where necessary.
20. Rework straps. Apply new bushings as required.
21. Change nose supports to rubber where necessary.

T-1

BRAKE CYLINDERS

1. Apply new cups.
2. Apply new filers.
3. Apply new gaskets.
4. Inspect and repair piston rod and spring.

T-2

ELLIPTICAL SPRINGS

1. Re-set leaves (manufacture new leaf if needed).
2. Temper leaves.
3. Test and band springs.

T-3

WHEELS

1. Magnaflux and reflectoscope axle and gear. If replacement is required change gearing to 62/15.
2. Mount 40" wheels as needed on either reusable or new axle if less than 1 7/8" rim thickness with full flange.
3. Apply new races and water guards as needed.
4. When it is necessary, either during or after rebuilding, to demount wheels from the axle, the ring gear should be changed out if it has a 61-tooth gear and replaced with a 62-tooth gear. When wheel sets are reassembled under a locomotive, care should be taken to assure that there is no mixing of gearing thereunder.

T-4

TRACTION MOTORS

Traction motors: To be thoroughly inspected and tested -- to be replaced with shop qualified traction motor if it does not check out "sound."

1. Clean assembly.
2. Clean and Vee armature commutator as required.
3. Check leads and replace as required.
4. Rework brush holders as required.
5. Apply new brushes as required.

6. Apply pinion as required (15 or 16).

7. Run test traction motor.

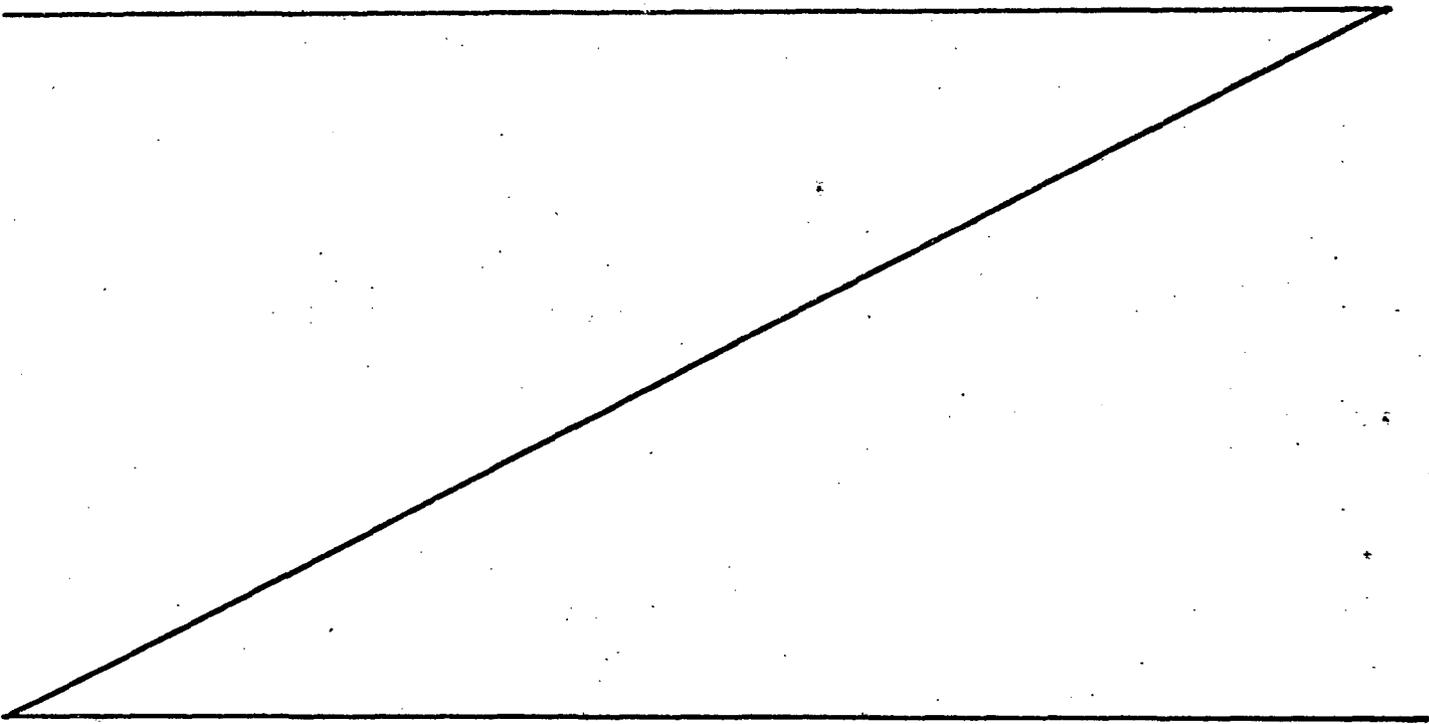
8. Traction motors which have accumulated more than 300,000 miles prior to the rebuild will be warranted for a period of one year from the date of completion and acceptance of the rebuilt locomotive. If the traction motor fails within the warranty period and Precision National is notified in writing within said period, it will be replaced by Precision National, at Precision National's option, with either: (a) a shop-qualified equivalent traction motor bearing a one-year warranty; or (b) a rebuilt traction motor.

*or which are supplied
by Precision National
without mileage history*

T-5

JOURNAL BOXES

1. Replace box liners as needed.
2. Rotate races and replace as needed.
3. Inspect and apply new roller as needed.
4. Apply new gaskets.
5. Inspect thrust blocks and replace as needed.

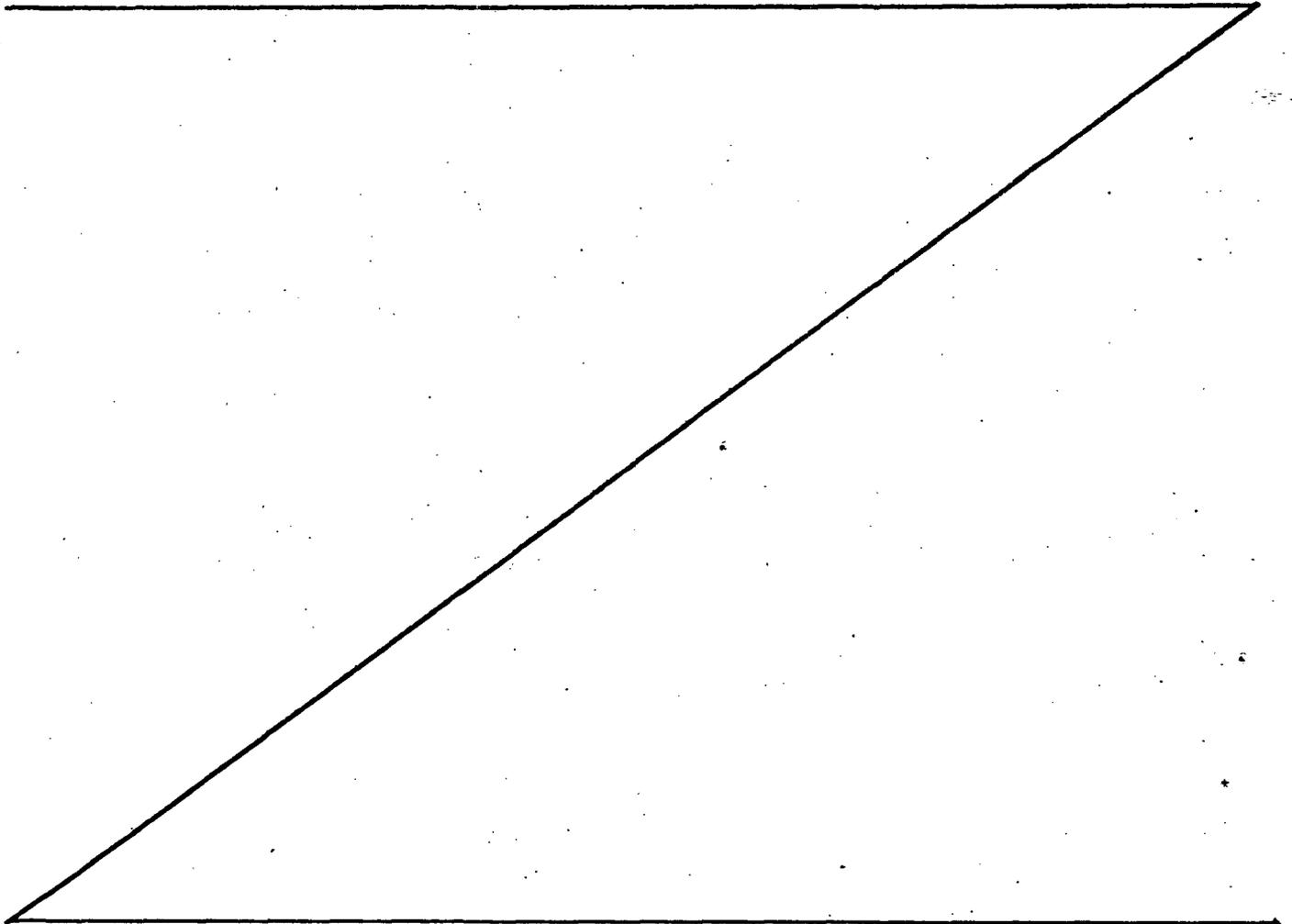


VIII.

D12B-D14 MAIN GENERATOR

Main generators: To be thoroughly inspected and tested -- to be replaced with shop-qualified generator if it does not check out "sound."

1. Clean complete assembly.
2. Undercut armature commutator slots as required.
3. Check and replace leads as required.
4. Rework brush holders as required.
5. Apply new brushes as required.
6. Hi-pot main generator.



VIII.**WBO DEEP SUMP AIR COMPRESSOR**

1. Apply new or remanufactured reduced maintenance.
2. Apply new drive shaft and rubber couplings as needed.

IX.**16-567 ENGINE
(Rebuilt to EMD Specifications)**

1. Crankcase is checked and line bored, head pockets replaced as needed.
2. Main bearing caps are spot faced for hardened flat washers and nut.
3. All holes in case are tapped (welded and retapped if needed).
4. Sealer paint applied to case and pan.
5. Check liner inserts and replace as needed.
6. Apply chromeplated crankshaft, using new main bearings. (Refer E-1, Page 12)
7. Apply reworked power assemblies, using new rod bearings. (Refer E-2, Page 13)
8. Apply water hydro test.
9. Check lead readings.
10. Apply pee pipes and gage.
11. Apply case to pan, using new gasket.
12. Apply air box and crankcase cover.
13. Apply reworked camshaft. (Refer E-3, Page 13)
14. Apply reworked layshaft. (Refer E-4, Page 14)
15. Apply reworked stubshaft with increased oil passage.
16. Apply gear train (gears cleaned and checked - new bushings and thrust washer).
17. Apply rear housing, using new gasket.
18. Apply inspected fly wheel, using new hardened washers and improved nuts and bolts.
19. Drill and apply rear counter weights.
20. Apply reworked auxiliary generator drive assembly. (Refer E-5, Page 14)
21. Apply blower stands.

22. Apply reworked blowers. (Refer E-6, Page 14)
23. Apply reworked injectors. (Refer E-7, Page 14)
24. Apply reworked rocker arm assemblies. (Refer E-8, Page 14)
25. Apply reworked exhaust valve bridges. (Refer E-9, Page 14)
26. Apply test cock relief valves, reworked.
27. Apply lube oil cross-over manifold.
28. Apply reworked lube oil pressure relief valve. (Refer E-10, Page 14)
29. Apply governor drive gear.
30. Apply accessory drive housing using new gasket.
31. Apply reworked or new engine protector. (Refer E-11, page 15)
32. Apply coil spring accessory drive gear.
33. Apply reworked oil separator. (Refer E-12, Page 15)
34. Apply reworked lube oil pressure pump. (Refer E-13, Page 15)
35. Apply reworked lube oil scavenging pump. (Refer E-14, Page 15)
36. Apply reworked waterpumps. (Refer E-15, Page 15)
37. Apply reworked governor drive assembly. (Refer E-16, Page 15)
38. Apply reworked cylinder head cover. (Refer E-17, Page 15)
39. Apply support frame.
40. Apply front counterweights.
41. Apply overspeed trip housing.
42. Apply reworked governbr. (Refer E-18, Page 16)
43. Apply governor linkage.
44. Apply injector control linkage. (Refer E-19, Page 16)
45. Load test engine. (Refer E-20, Page 16)

E-1

CRANKSHAFT

1. Chromeplate to be a maximum of 0.045" on the radius.*
2. Apply reworked harmonic balancer (6 spring packs, new spring plate and new pins if needed).
3. Apply reworked accessory drive gear (new coil springs if needed).

*PNC to inform RI of crankshafts where chromeplate is greater than 0.035".

4. Apply reworked oil slinger.
5. Apply reworked main drive gear.

E-2

POWER ASSEMBLIES
(Built to EMD Specifications)

1. Heads water tested and inspected.
2. Heads vacu-blasted.
3. Polish injector valve seats.
4. Apply new Inconnell valves.
5. Apply new valve spring keeper if needed.
6. Liner bore is checked (new chromeplated liner used if needed).
7. Liner is vapor blasted.
8. Liner ridge is honed and buffed.
9. Liner is water tested.
10. Rods given dimensional check by gauging.
11. Rods surfaces are polished.
12. Wrist pins are checked.
13. Carriers are converted to full flow (new inserts).
14. Apply water elbows to cylinder heads using new "O" rings.
15. Apply new Koppers ring to pistons.
16. Apply pistons and carriers to rods.
17. Apply pistons and rod assemblies to liner, using new E.M.D. seals between head and liner.
18. Apply cylinder heads, using new nuts if needed.

E-3

CAMSHAFT

1. Vacu-blast blocks.
2. Remove all burrs.
3. Apply factory reworked poly-ground segments as needed; weld up dowel holes and camshaft stub ends.
4. Apply new bearings.
5. Assemble and gauge run out.

E-4

LAYSHAFT

1. Spray weld and turn to correct size.
2. Straighten and assemble.

E-5

AUXILIARY GENERATOR DRIVE ASSEMBLY

1. Apply new oil seals and bushings.

E-6

BLOWERS

1. Inspect rotors and, where necessary, spray metal and machine seal area.
2. Apply new thrust collars.
3. Apply new bushings and gaskets.
4. Test run blowers for 1 hour.

E-7

INJECTORS

1. Apply new fuel filter.
2. Apply new "O" ring.
3. Apply factory rebuilt barrel and plunger if needed.
4. Apply factory rebuilt needle valve tip kit if needed.
5. Apply new components as needed.
6. Assemble and calibrate.

E-8

ROCKER ARM ASSEMBLY

1. Polish shaft.
2. Apply pins, rollers, bushings as needed.

E-9

EXHAUST VALVE BRIDGES

1. Apply new adjuster bodies as needed.
2. Test all springs and replace as needed.
3. Assemble and pressure test.

E-10

LUBE OIL PRESSURE RELIEF VALVE

1. Inspect.
2. Assemble and pressure test.

E-11

ENGINE PROTECTOR

1. Apply new or reworked, as needed.
2. Assemble and test 30 minutes.

E-12

OIL SEPARATOR

1. Clean and replace filter if needed.

E-13

LUBE OIL PRESSURE PUMP

1. Inspect all gears (replace as needed).
2. Apply new gaskets.
3. Apply new bushing.

E-14

LUBE OIL SCAVENGING PUMP

1. Inspect all gears (replace as needed).
2. Apply new gaskets.
3. Apply new bushing.

E-15

WATER PUMPS

1. Check impellar and housing for wear.
2. Apply new seals and bushings.
3. Apply new inner and outer bearing.
4. Assemble and check clearance.

E-16

GOVERNOR DRIVE ASSEMBLY

1. Apply new bushings.
2. Apply new gaskets.
3. Assemble and check movement.

E-17

CYLINDER HEAD COVER

1. Straighten as needed.
2. Apply new rubber gaskets.

E-18

GOVERNOR

1. Apply new gaskets, "O" rings, and seals.
2. Apply new parts as needed.
3. Assemble and test run for 2 hours.

E-19

INJECTOR CONTROL LINKAGE

1. Inspect and remove all burrs.

E-20

LOAD TEST ENGINE

1. Fuel hydro and prelube.
2. Start and check for leaks.
3. Shut down and check main and rod bearing temperatures.
4. Run in 2nd notch (loaded) 30 minutes, shutdown and check main and rod bearing temperatures.
5. Run in 4th notch (loaded) 30 minutes, shutdown and check main and rod bearing temperatures.
6. Run in 6th notch (loaded) 30 minutes, shutdown and check main and rod bearing temperatures.
7. Run in 8th notch (loaded) 3 hours periodically checking bearing temperatures.
8. Record all reading of pressure and temperature and vacuum.
9. Correct any leaks or malfunctions and retighten engine.

X.

EQUIPMENT RACK

1. Apply reworked lube oil cooler.
2. Apply air compressor control panel (all new parts), including synchronized compressor controls.
3. Apply reworked fuel pump and motor (new seals, gaskets, and bearings).
4. Apply new water temperature manifold, GP-40 type.
5. Apply new water temperature switches.
6. Apply prime (fuel) and start switch, GP-40 type.
7. Apply fuel oil heaters.
8. Rework Michiana bowl.

XI.

10 K.W. AUXILIARY GENERATOR

1. To be thoroughly inspected and tested.
2. To be replaced with a shop-qualified auxiliary generator if it does not check out "sound."
3. Clean assembly.
4. Armature commutator slots cleaned as required.
5. Frame coils and leads checked and replaced as required.
6. Install new brushes as required.
7. Test auxiliary generator electrically.

XII. A.

LONG HOOD

1. Sand-blast long hood.
2. Apply putty, sand off, and prime.
3. Apply new door latches as needed.
4. Apply new door hinges as needed.
5. Apply all new wire, replace conduit as required.
6. Qualify shutter valve assemblies or replace if defective.
7. Apply reworked radiators (reworked cores and new gaskets).
8. Apply qualified cooling fans.
9. Modify number lights for modulite panel type.
10. Modify shutters so manual shutter is linked to automatic by a rod for fully automatic operation.
11. Apply reworked handbrake assembly.
12. Modify hood for removal of complete power assemblies using "Rock" design covers -- this is an "extra" and the Rock Island agrees to pay Precision National \$400 for each so-modified hood.

XII. B.

SHORT HOOD

1. Clean and sand-blast.
2. Apply putty, sand and prime.
3. Modify number lights, use modulite number panels.
4. Apply new door latches as required.
5. Apply new door hinges as required.
6. Apply new conduit and wiring.

XIII.

TEST

1. Electrically test all circuits.
2. Start and check for leaks: water - fuel - air.
3. Apply load box and set temperature switches.
4. Load for 1 hour.
5. Make all vacuum pressure and temperature readings.
6. Shutdown and check bearings.
7. Start and set transition.
8. Make running and movement checks.

XIV.

PAINT

(to Rock specifications)

1. Paint trucks black.
2. Paint engine room gray.
3. Paint inside cab green.
4. Prime outside.
5. Apply colors as required.
6. Code inside of locomotive
7. Code outside of locomotive as required.