Toyota Motor Manufacturing, West Virginia, Inc.

Buffalo, West Virginia

Plant ID No. 03-54-079-00072

Renewal Application for

Title V Permit

April 2013

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WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY
601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475
www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

1. **Name of Applicant (As registered with the WV Secretary of State's Office):**
Toyota Motor Manufacturing, West Virginia, Inc.

2. Facility Name or Location:
Toyota Motor Manufacturing, West Virginia
Buffalo, West Virginia

3. DAQ Plant ID No.:
0 7 9 — 0 0 0 7 2

4. Federal Employer ID No. (FEIN):
5 5 0 7 5 0 8 6 7

5. **Permit Application Type:**

☐ Initial Permit — When did operations commence? 11/03/1998
☒ Permit Renewal — What is the expiration date of the existing permit? 10/06/2013
☐ Update to Initial/Renewal Permit Application

6. Type of Business Entity:

☒ Corporation ☐ Governmental Agency ☐ LLC
☐ Partnership ☐ Limited Partnership

7. Is the Applicant the:

☐ Owner ☐ Operator ☒ Both

If the Applicant is not both the owner and operator, please provide the name and address of the other party.

—

8. Number of onsite employees:
1,100

9. Governmental Code:

☒ Privately owned and operated; 0
☐ Federally owned and operated; 1
☐ State government owned and operated; 2
☐ County government owned and operated; 3
☐ Municipality government owned and operated; 4
☐ District government owned and operated; 5

10. Business Confidentiality Claims

Does this application include confidential information (per 45CSR31)? ☐ Yes ☒ No

If yes, identify each segment of information on each page that is submitted as confidential, and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's *"PRECAUTIONARY NOTICE-CLAIMS OF CONFIDENTIALITY"* guidance.

11. Mailing Address		
Street or P.O. Box: 1 Sugar Maple Lane Post Office Box 600		
City: Buffalo	**State:** WV	**Zip:** 25033
Telephone Number: (304) 937-7000	**Fax Number:** (304) 937-7399	

12. Facility Location		
Street: 1 Sugar Maple Lane	**City:** Buffalo	**County:** Putnam
UTM Easting: 473.51 km	**UTM Northing:** 4,272.13 km	**Zone:** ☒ 17 or ☐ 18
Directions: The facility lies directly east of WV State Route 62 approximately one (1.0) mile south of Buffalo, WV		
Portable Source? ☐ Yes ☒ No		
Is facility located within a nonattainment area? ☒ Yes ☐ No		**If yes, for what air pollutants?** $PM_{2.5}$ for both annual and 2006 24-hr standard
Is facility located within 50 miles of another state? ☒ Yes ☐ No		**If yes, name the affected state(s).** OH KY
Is facility located within 100 km of a Class I Area[1]? ☐ Yes ☒ No **If no, do emissions impact a Class I Area[1]?** ☐ Yes ☒ No		**If yes, name the area(s).**

[1] *Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.*

13. Contact Information		
Responsible Official: Millie Marshall		**Title:** Senior Vice President
Street or P.O. Box: 1 Sugar Maple Lane		
City: Buffalo	**State:** WV	**Zip:** 25033
Telephone Number: (859) 372-3784	**Fax Number:** (859) 746-4374	
E-mail address: millie.marshall@tema.toyota.com		
Environmental Contact: Marc Crouse		**Title:** Specialist
Street or P.O. Box: 1 Sugar Maple Lane		
City: Buffalo	**State:** WV	**Zip:** 25033
Telephone Number: (304) 937-7528	**Fax Number:** (304) 937-7399	
E-mail address: marc.crouse@tema.toyota.com		
Application Preparer: Marc Crouse		**Title:** Specialist
Company: Toyota Motor Manufacturing, West Virginia, Inc.		
Street or P.O. Box: 1 Sugar Maple Lane		
City: Buffalo	**State:** WV	**Zip:** 25033-
Telephone Number: (304) 937-7528	**Fax Number:** (304) 937-7399	
E-mail address: marc.crouse@tema.toyota.com		

14. Facility Description

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
Motor Vehicle Parts and Accessories	Automotive engines, automotive transmissions	33635	3714

Provide a general description of operations.

TMMWV is primarily engaged in the manufacturing of automotive engines and automotive transmissions. As part of this manufacturing process, the plant contains machining, assembly, engine testing, and support operations. To support these operations, the plant is equipped with heating, ventilation, and air conditioning units, as well as various storage tanks (e.g., gasoline, motor oil, etc.)

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to "Plot Plan - Guidelines."

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
☐ SIP	☐ FIP
☒ Minor source NSR (45CSR13)	☐ PSD (45CSR14)
☐ NESHAP (45CSR15)	☐ Nonattainment NSR (45CSR19)
☐ Section 111 NSPS	☐ Section 112(d) MACT standards
☐ Section 112(g) Case-by-case MACT	☐ 112(r) RMP
☐ Section 112(i) Early reduction of HAP	☐ Consumer/commercial prod. reqts., section 183(e)
☐ Section 129 Standards/Reqts.	☐ Stratospheric ozone (Title VI)
☐ Tank vessel reqt., section 183(f)	☐ Emissions cap 45CSR§30-2.6.1
☐ NAAQS, increments or visibility (temp. sources)	☒ 45CSR27 State enforceable only rule
☒ 45CSR4 State enforceable only rule	☐ Acid Rain (Title IV, 45CSR33)
☐ Emissions Trading and Banking (45CSR28)	☐ **C**ompliance **A**ssurance **M**onitoring (40CFR64)
☐ CAIR NO_x Annual Trading Program (45CSR39)	☐ CAIR NO_x Ozone Season Trading Program (45CSR40)
☐ CAIR SO_2 Trading Program (45CSR41)	

19. Non Applicability Determinations
List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies. **FIP –** none in place **Nonattainment NSR (45CSR19) -** Not located in a non-attainment area or will not contribute to a violation of section 107 of the CAA. **Section 112(g) Case-by-Case MACT -** Facility is an area source of HAPs. **Section 112(r) RMP –** Facility does not have any chemicals in quantities subject to RMP requirements. **Section 129 Standards and Requirements –** Facility does not combust solid waste. **Section 183 (tank vessel requirement) –** No affected tanks/vessels utilized at this facility. **Emissions cap 45CSR§30-2.6.l –** Facility is not subject to an emissions cap under this rule. **NAAQS increments or visibility (temp. sources) –** No temporary sources.
☒ Permit Shield

19. Non Applicability Determinations *(Continued)* - *Attach additional pages as necessary.*

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

Greenhouse Gas Tailoring Rule - This is a modified Title V Permit and there have been no modifications that would have triggered a PSD permit. As such, there are no applicable GHG permitting requirements.

40 CFR 64 - Compliance Assurance Monitoring (CAM) – TMMWV has no single PSEU that has a potential, pre-control device potential to emit equal to or greater than 100 percent of the amount, in tons per year, of any pollutant that would require the facility to be classified as a major source. According to 40CFR§64.2(a)(3), this facility is not subject to CAM.

40 CFR 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels - The storage tanks at this facility are well under the 19,813 gallons required for Subpart Kb.

☒ Permit Shield

20. Facility-Wide Applicable Requirements

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*).

Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]

3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]

3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40 C.F.R. §61.145(b) and 45CSR15]

3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only.]

3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2]

☒ Permit Shield

20. Facility-Wide Applicable Requirements *(Continued)*

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements).

3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.
[W.Va. Code § 22-5-4(a)(14)]

3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

[40 C.F.R. 82, Subpart F]

3.1.8. **Risk Management Plan.** Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.
[40 C.F.R. 68]

3.1.9. The permittee shall prepare and maintain an emission point map of the facility. Excluding HVAC units, this map shall consist of a diagram of the location and identification of all emission points at the facility that vent to ambient air. A legend shall be prepared with the map that identifies the emission point type and source(s) contributing to that emission point. This map shall be prepared within ninety (90) days of permit issuance and thereafter be updated as necessary to reflect current facility operations. The map(s) shall be retained on-site and be made available to the Director or his/her duly authorized representative upon request.

[Permit no. R13-2062 – Specific Requirement A.8.ik.]

☒ Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/ reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Monitoring Requirements

3.2.1. TMMWV shall use a computerized system to schedule preventative maintenance jobs and insure the completion of these jobs.
THE SYSTEM:

a. The periodical maintenance requirements of the control equipment are first entered into a computerized system database according to manufacturer's specifications.
b. The computerized system keeps the information in the form of PM Information Reports which creates work orders as needed to insure the jobs are scheduled.
c. The PM Information Report(s) may reference Facility Maintenance Ledgers to provide direction for completion of the required maintenance on a production machine.
d. Periodical Maintenance Cards provide specific direction on the job to insure proper completion.
e. Once the maintenance is completed, the team members will close out the work order, which provides records of the completed work within the database. **[Monitoring Plan according to the requirements of R13-2062C; approved-2-24-03]**

3.2.2 Effective communications of equipment conditions are accomplished using the following:

a. **Andon Board:** A ceiling mounted display used to show machine conditions through the use of color text. The andon board is designed to be clearly visible to the majority of locations within the associated production area.
b. **Andon Yellow Indication:** The yellow status on the andon board typically communicates that the equipment is requiring attention from production/maintenance. The equipment is operating within specifications but is forecasting the status of the machine so preventative maintenance can be performed.
c. **Andon Red Indication:** The red status on the andon board typically communicates that a fault has occurred due to either equipment failure or that the operation is not within specifications.
d. **Mist and Dust Collector Log Sheets:** The Mist and Dust collector log sheet is a record of corrective and preventative action, which provides status of the equipment condition upon inspection. This forms - is not used as a long-term record (provided for through a computerized system.
e. All maintenance performed on equipment is logged into a computerized system, which creates and maintains a database used to provide scheduling of preventative maintenance and providing records of repair history.
f. **Machine Mounted Collectors:** All maintenance performed on machine mounted equipment is logged into a computerized system. Periodic operation checks are performed by production personnel to insure the units are operating. **[Monitoring Plan according to the requirements of R13-2062C; approved-2-24-03]**

Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, …

Are you in compliance with all facility-wide applicable requirements? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/ reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.
b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.
c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

[WV Code § 22-5-4(a)(15) and 45CSR13; 45CSR13, R13-2062, A.6.b]

Are you in compliance with all facility-wide applicable requirements? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/ reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

[WV Code § 22-5-4(a)(15) and 45CSR13; 45CSR13, R13-2062, A.6.b]

3.3.2. a. The permittee shall develop, or continue the application of, a plan to test representative sources of air pollutants at the facility permitted herein so as to determine compliance with the limits contained in this permit. This plan shall, henceforth from the date of issuance of this permit, be subject to approval of the Director.

b. At a minimum of once annually or at any other reasonable time required by the Director, the permittee shall submit a report to the Director detailing the testing that has taken place at the facility to the end of achieving compliance with 3.3.2(a). Also included in this report will be a proposal for any future testing required at the facility to meet the requirements under 3.3.2(a). The proposal for future testing is subject to the approval of the Director.

c. Tests that may be required by the Director to determine compliance with 3.3.2(a) of this permit shall be conducted in accordance with the methods as set forth below. The Director may require a different test method or approve an alternative method upon discretion. Compliance testing shall be conducted at maximum permitted load unless otherwise specified or approved by the Director.

(1) Tests to determine compliance with particulate emission limits shall be conducted, as applicable, in accordance with Method 5, 5A, 5B, 5C, 5D, 5E, 5F, 5G, or 5H as set forth in 40 CFR 60, Appendix A and EPA Method 201, 201A, and 202 as set forth in 40 CFR 51.

d. With regard to any testing required by the Director, the permittee shall submit to the Director a test protocol detailing the proposed test methods, the date, and the time the proposed testing is to take place, as well as identifying the sampling locations and other relevant information. The test protocol must be received by the Director no less than thirty (30) days prior to the date the testing is to take place. Test results shall be submitted to the Director no more than sixty (60) days after the date the testing takes place.

[45CSR§30-5.1.c.]

Are you in compliance with all facility-wide applicable requirements? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/ reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

3.3.3. The permittee shall develop and revise as necessary a plan to periodically test representative sources of air pollutants at the facility permitted herein so as to determine compliance with the limits contained in this permit. This plan shall, upon revision, be subject to approval of the Director. All performance tests conducted as result of this plan shall be in accordance with the requirements under Condition 3.3.1. The minimum source categories and associated pollutants required to be tested as a part of this plan are given in the following table:

Table A.6(a): Minimum Performance Test Requirements

Source Category	Pollutant(s) of Concern
Process Exhaust Vents	Particulate Matter(1)
Mist Collectors that Vent Outside the Building	Particulate Matter(1)
Dust Collectors	Outlet Particulate Matter(1) Concentration
Engine Test Cells	CO, NO_x

(1) Filterable Only.

[Permit no. R13-2062 – Specific Requirement A.6.a.]

Recordkeeping Requirements

3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit and time of sampling or measurements;
b. The date(s) analyses were performed;
c. The company or entity that performed the analyses;
d. The analytical techniques or methods used;
e. The results of the analyses; and
f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A.]

3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records. All records required in this permit shall be made available to the Director or his duly authorized representative upon request, and, when requested by the Director, certified as accurate on the form provided as Appendix B.
[45CSR§30-5.1.c.2.B; 45CSR13, R13-2062, A.8.jm]

3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§30-5.1.c. State-Enforceable only.]

Are you in compliance with all facility-wide applicable requirements? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/ reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
[45CSR§§30-4.4. *and* 5.1.c.3.D.]

3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
[45CSR§30-5.1.c.3.E.]

3.5.3. All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:
Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0475
FAX: 304/926-0478

If to the US EPA:
Associate Director
Office of Enforcement and Permits
Review (3AP12)
U. S. Environmental Protection
Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.
[45CSR§30-8.]

3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.
[45CSR§30-5.3.e.]

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4.
[45CSR§30-5.1.c.3.A.]

Are you in compliance with all facility-wide applicable requirements? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/ reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:
   1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.
   2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.
   3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.
   4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken. **[45CSR§30-5.1.c.3.C.]**

b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.

[45CSR§30-5.1.c.3.B.]

3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.
[45CSR§30-4.3.h.1.B.]

3.5.10. The permittee shall submit to the Director, postmarked by March 15 of each year, a report containing the records as required under Sections 4.1.19, 4.4.1, 4.4.2, 4.4.3, 5.4.1, 5.4.2 and 5.4.3. Additionally, the permittee shall submit a certification of compliance with all requirements of this permit using the form included with this permit as Appendix B. If, during the previous annual period, the permittee had been out of compliance with any part of this permit, it shall be noted along with the following information: 1) the source/equipment/process that was non-compliant and the specific requirement of this permit that was not met, 2) the date the permitted discovered that the source/ equipment/process was out of compliance, 3) the date the Director was notified, 4) the corrective measures to get the source/equipment/process back into compliance, and 5) the date the source began to operate in compliance. The submission of any non-compliance report shall give no enforcement action immunity to episodes of non-compliance contained therein. **[Permit no. R13-2062 – Specific Requirement A.8.hj.]**

3.7. **Permit Shield**

3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.

3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.

Are you in compliance with all facility-wide applicable requirements? ☒ **Yes** ☐ **No**

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F.**

21. Active Permits/Consent Orders		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit *(if any)*
R13-2062K	10/12/2011	
R30-07900072-2008	10/6/2013	

22. Inactive Permits/Obsolete Permit Conditions		
Permit Number	Date of Issuance	Permit Condition Number
R13-2062	3/21/1997	
R13-2062A	07/10/1998	
R13-2273	03/29/1999	
R13-2062B	02/25/2000	
R13-2062C	04/03/2002	
R13-2062D	01/13/2004	
R13-2062E	01/21/2005	
R13-2062F	10/28/2005	
R13-2062G	05/23/2006	
R13-2062H	09/14/2006	
R13-2062I	12/21/2006	
R13-2062J	07/08/2008	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	

Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	141.09
Nitrogen Oxides (NO_X)	85.61
Lead (Pb)	NA
Particulate Matter ($PM_{2.5}$)[1]	NA
Particulate Matter (PM_{10})[1]	76.27
Total Particulate Matter (TSP)	76.27
Sulfur Dioxide (SO_2)	3.32
Volatile Organic Compounds (VOC)	246.73
Hazardous Air Pollutants[2]	Potential Emissions
VOC HAPs	0.43
PM HAPs	0.46
Regulated Pollutants other than Criteria and HAP	Potential Emissions

[1] *$PM_{2.5}$ and PM_{10} are components of TSP.*

[2] *For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.*

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)		
☒	1.	Air compressors and pneumatically operated equipment, including hand tools.
☒	2.	Air contaminant detectors or recorders, combustion controllers or shutoffs.
☒	3.	Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
☒	4.	Bathroom/toilet vent emissions.
☒	5.	Batteries and battery charging stations, except at battery manufacturing plants.
☒	6.	Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
☐	7.	Blacksmith forges.
☐	8.	Boiler water treatment operations, not including cooling towers.
☒	9.	Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
☐	10.	CO_2 lasers, used only on metals and other materials which do not emit HAP in the process.
☒	11.	Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
☒	12.	Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
☒	13.	Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
☒	14.	Demineralized water tanks and demineralizer vents.
☐	15.	Drop hammers or hydraulic presses for forging or metalworking.
☐	16.	Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
☐	17.	Emergency (backup) electrical generators at residential locations.
☒	18.	Emergency road flares.
☐	19.	Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO_x, SO_2, VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis: _____ _____ _____ _____ _____ _____ _____ _____ _____

24. Insignificant Activities (Check all that apply)		
☐	20.	Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27. Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis: _____ _____ _____ _____ _____
☐	21.	Environmental chambers not using hazardous air pollutant (HAP) gases.
☒	22.	Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
☐	23.	Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
☒	24.	Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
☐	25.	Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
☒	26.	Fire suppression systems.
☒	27.	Firefighting equipment and the equipment used to train firefighters.
☒	28.	Flares used solely to indicate danger to the public.
☒	29.	Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
☐	30.	Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
☒	31.	Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
☐	32.	Humidity chambers.
☐	33.	Hydraulic and hydrostatic testing equipment.
☐	34.	Indoor or outdoor kerosene heaters.
☒	35.	Internal combustion engines used for landscaping purposes.
☐	36.	Laser trimmers using dust collection to prevent fugitive emissions.
☐	37.	Laundry activities, except for dry-cleaning and steam boilers.
☒	38.	Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
☐	39.	Oxygen scavenging (de-aeration) of water.
☐	40.	Ozone generators.
☒	41.	Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant

24. Insignificant Activities (Check all that apply)		
		owners/operators must still get a permit if otherwise requested.)
☒	42.	Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
☒	43.	Process water filtration systems and demineralizers.
☒	44.	Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
☒	45.	Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
☒	46.	Routing calibration and maintenance of laboratory equipment or other analytical instruments.
☐	47.	Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
☐	48.	Shock chambers.
☐	49.	Solar simulators.
☒	50.	Space heaters operating by direct heat transfer.
☐	51.	Steam cleaning operations.
☐	52.	Steam leaks.
☐	53.	Steam sterilizers.
☒	54.	Steam vents and safety relief valves.
☒	55.	Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
☒	56.	Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
☐	57.	Such other sources or activities as the Director may determine.
☒	58.	Tobacco smoking rooms and areas.
☐	59.	Vents from continuous emissions monitors and other analyzers.

Section 5: Emission Units, Control Devices, and Emission Points

25. Equipment Table
Fill out the **Title V Equipment Table** and provide it as **ATTACHMENT D**.
26. Emission Units
For each emission unit listed in the **Title V Equipment Table**, fill out and provide an **Emission Unit Form** as **ATTACHMENT E**.
For each emission unit not in compliance with an applicable requirement, fill out a **Schedule of Compliance Form** as **ATTACHMENT F**.
27. Control Devices
For each control device listed in the **Title V Equipment Table**, fill out and provide an **Air Pollution Control Device Form** as **ATTACHMENT G**.
For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the **Compliance Assurance Monitoring (CAM) Form(s)** for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as **ATTACHMENT H**.

Section 6: Certification of Information

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance

*Note: This Certification must be signed by a responsible official. The **original**, signed in **blue ink**, must be submitted with the application. Applications without an **original** signed certification will be considered as incomplete.*

a. Certification of Truth, Accuracy and Completeness

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

b. Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

Responsible official (type or print)	
Name:	Title:

Responsible official's signature:

Signature: _____ Signature Date: _____

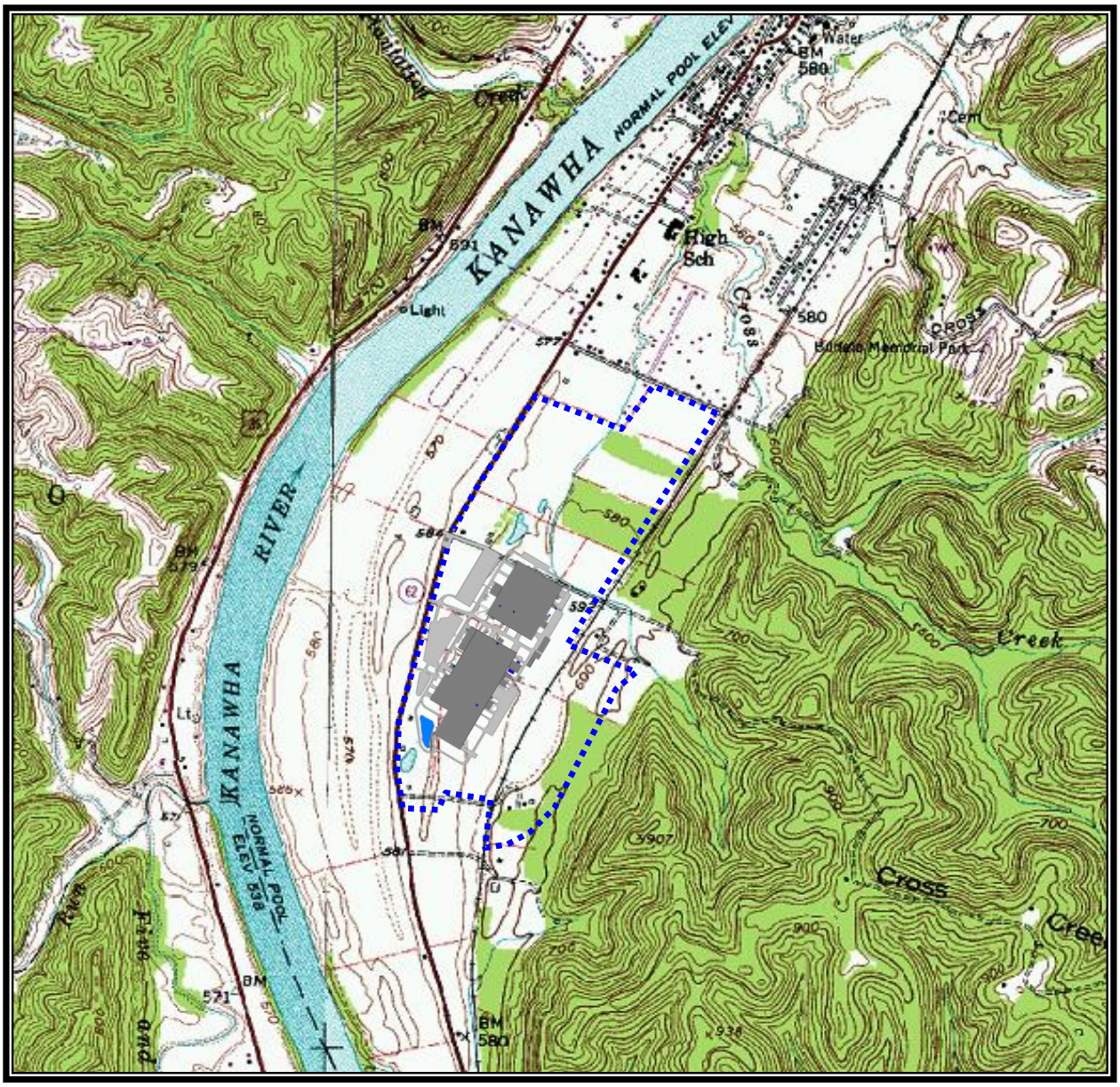
(Must be signed and dated in blue ink)

Note: Please check all applicable attachments included with this permit application:	
☒	ATTACHMENT A: Area Map
☒	ATTACHMENT B: Plot Plan(s)
☒	ATTACHMENT C: Process Flow Diagram(s)
☒	ATTACHMENT D: Equipment Table
☒	ATTACHMENT E: Emission Unit Form(s)
☐	ATTACHMENT F: Schedule of Compliance Form(s)
☒	ATTACHMENT G: Air Pollution Control Device Form(s)
☐	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

All of the required forms and additional information can be found and downloaded from, the DEP website at www.dep.wv.gov/daq, requested by phone (304) 926-0475, and/or obtained through the mail.

Attachment A

Toyota Motor Manufacturing, WV Inc.

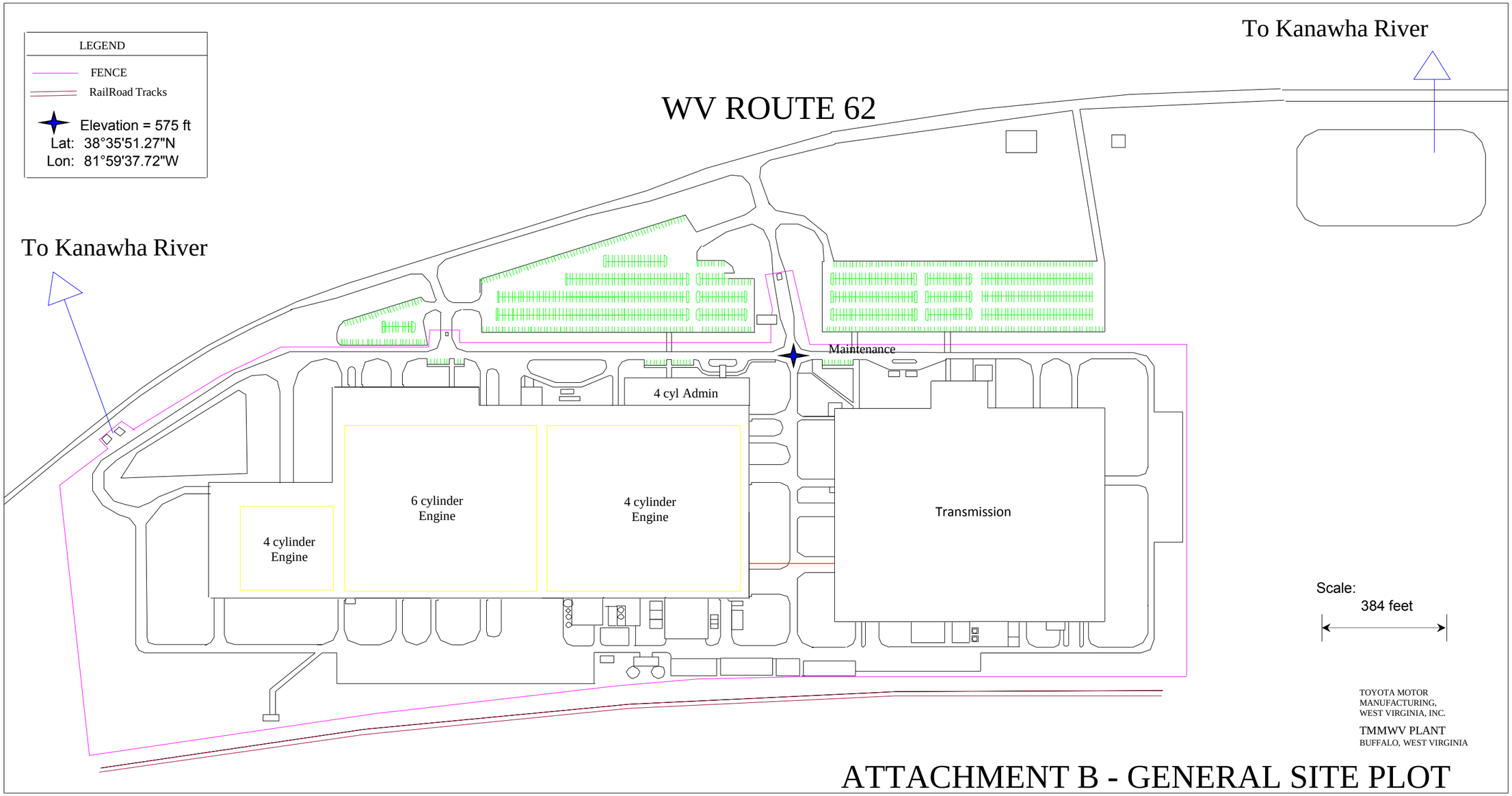


SCALE: 1:24 000

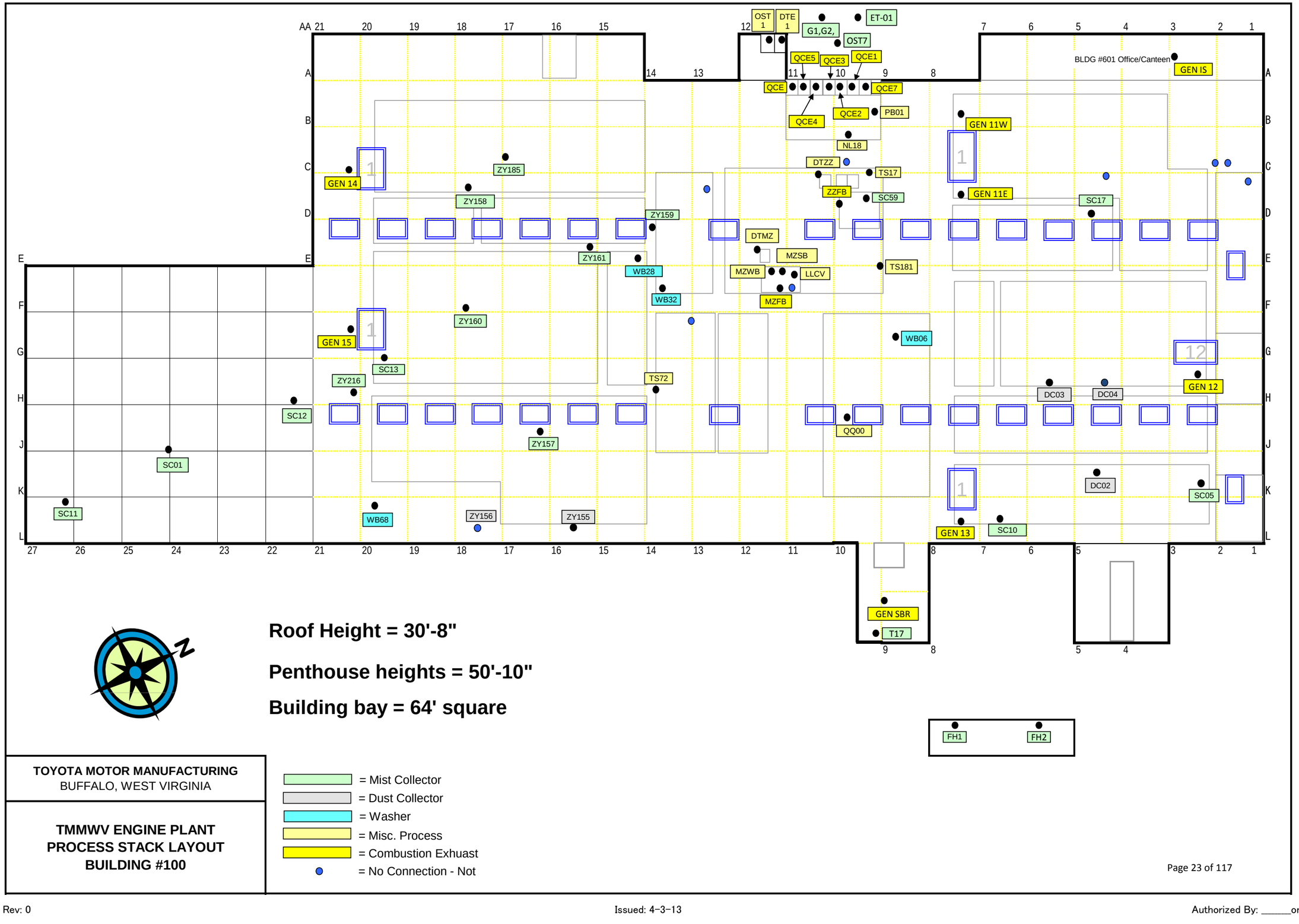
1 1/2 0 1 Mile

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

Attachment B



ATTACHMENT B - GENERAL SITE PLOT



TOYOTA MOTOR MANUFACTURING
BUFFALO, WEST VIRGINIA

TMMWV ENGINE PLANT
PROCESS STACK LAYOUT
BUILDING #100

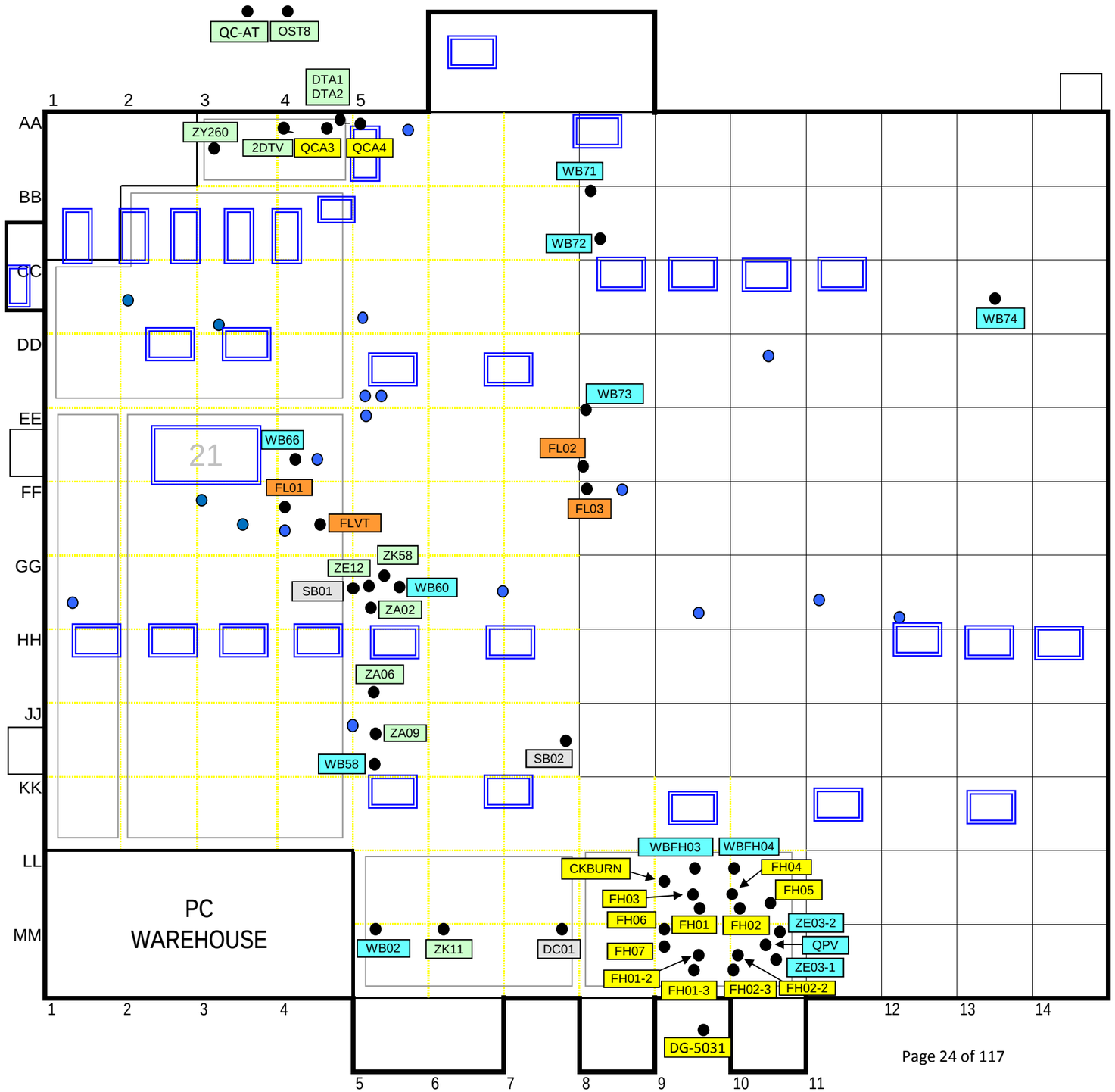
TOYOTA MOTOR MANUFACTURING
BUFFALO, WEST VIRGINIA

PROCESS EMISSION STACK LAYOUT BUILDING #200

= Dust Collector
= Washer
= Anodizer
= Combustion Exhuast
= Misc. Process
= No Connection - Not Used

Roof Height = 29'

Building bay = 60' square



Attachment C

FIGURE 1-01-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
4-CYLINDER BLOCK MACHINING LINE 1

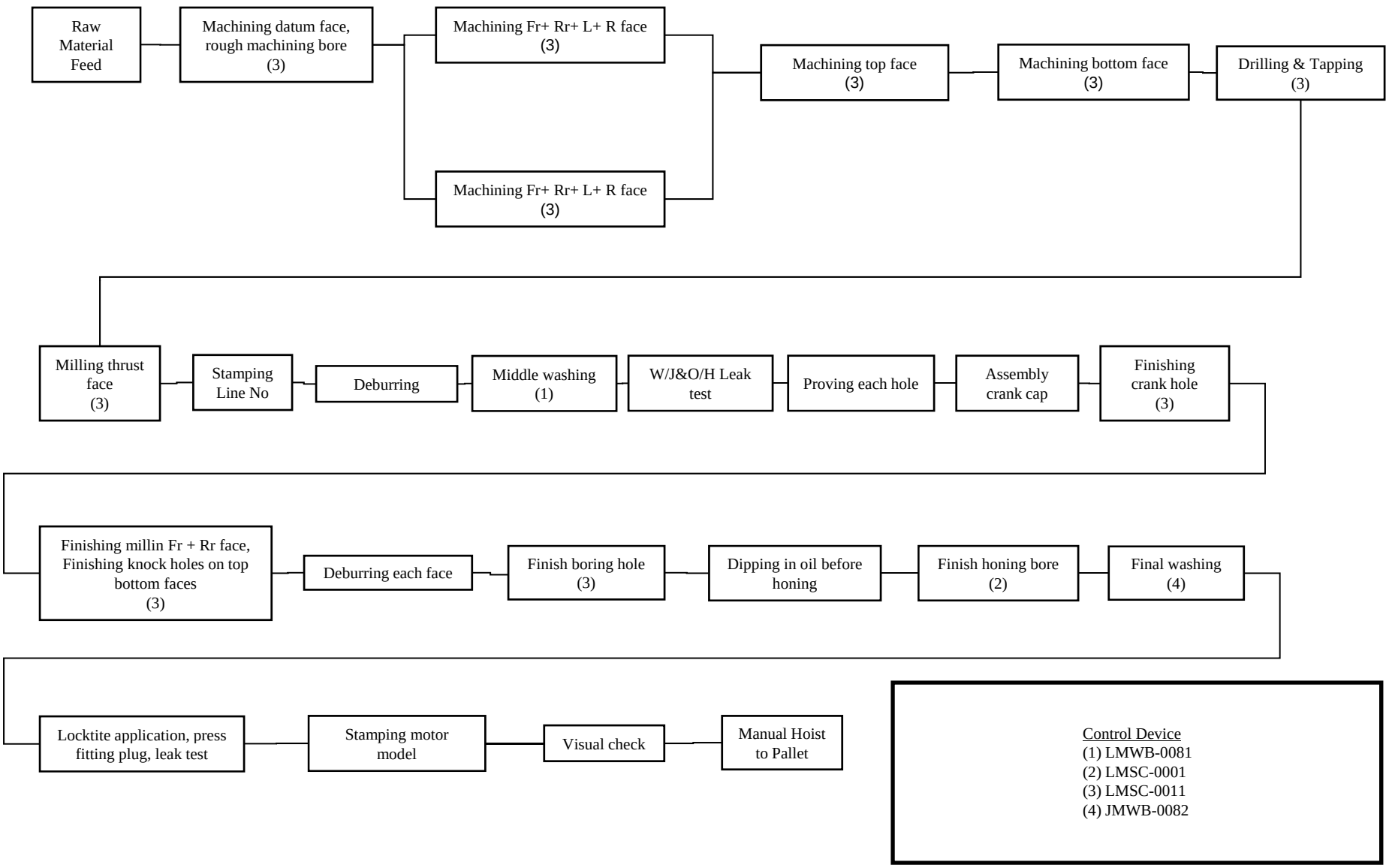


FIGURE 1-01-02
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
4-CYLINDER BLOCK MACHINING LINE 2

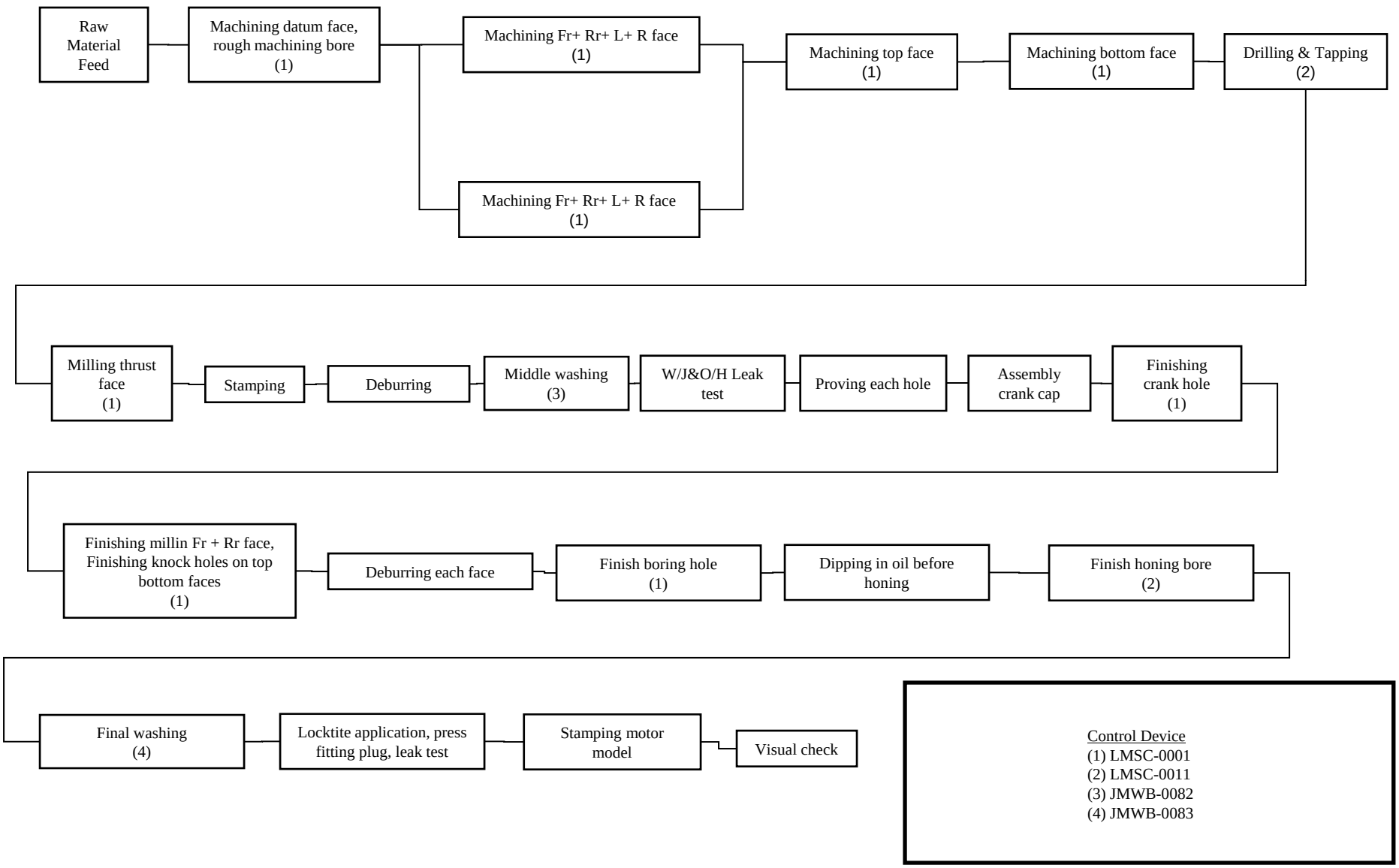


FIGURE 1-02-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
4-CYLINDER- CONNECTING ROD MACHINING

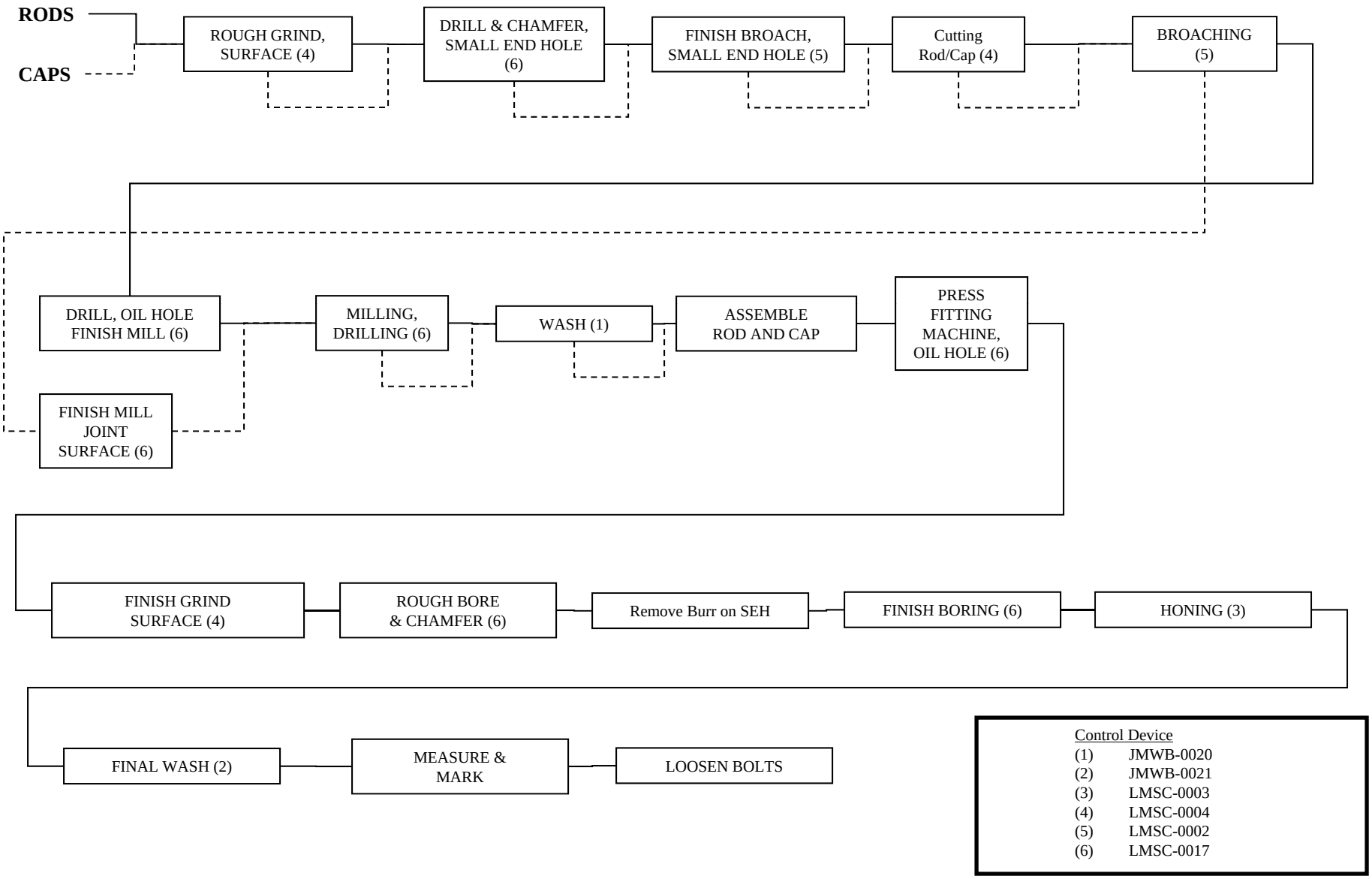


FIGURE 1-03-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
4-CYLINDER- PISTON PIN MACHINING

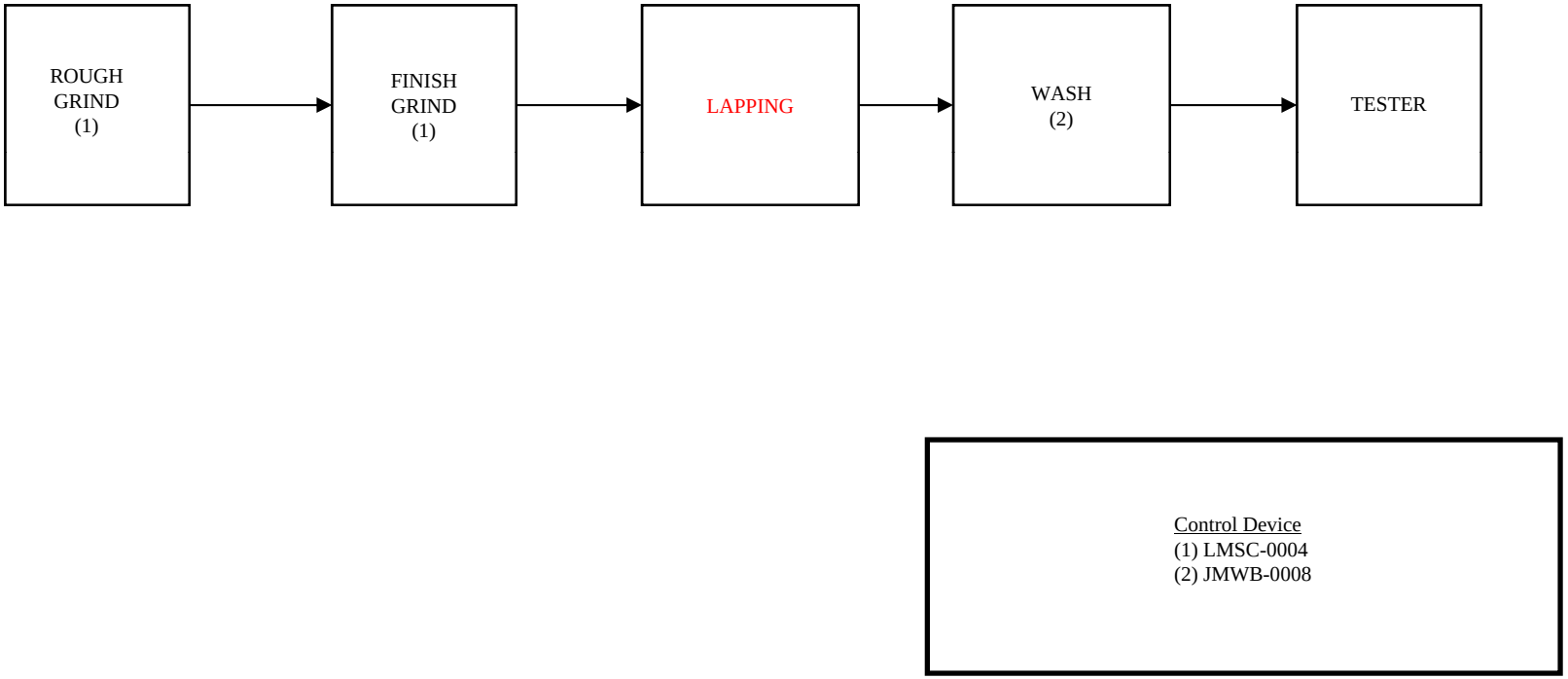


FIGURE 1-04-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
4-CYLINDER HEAD MACHINING

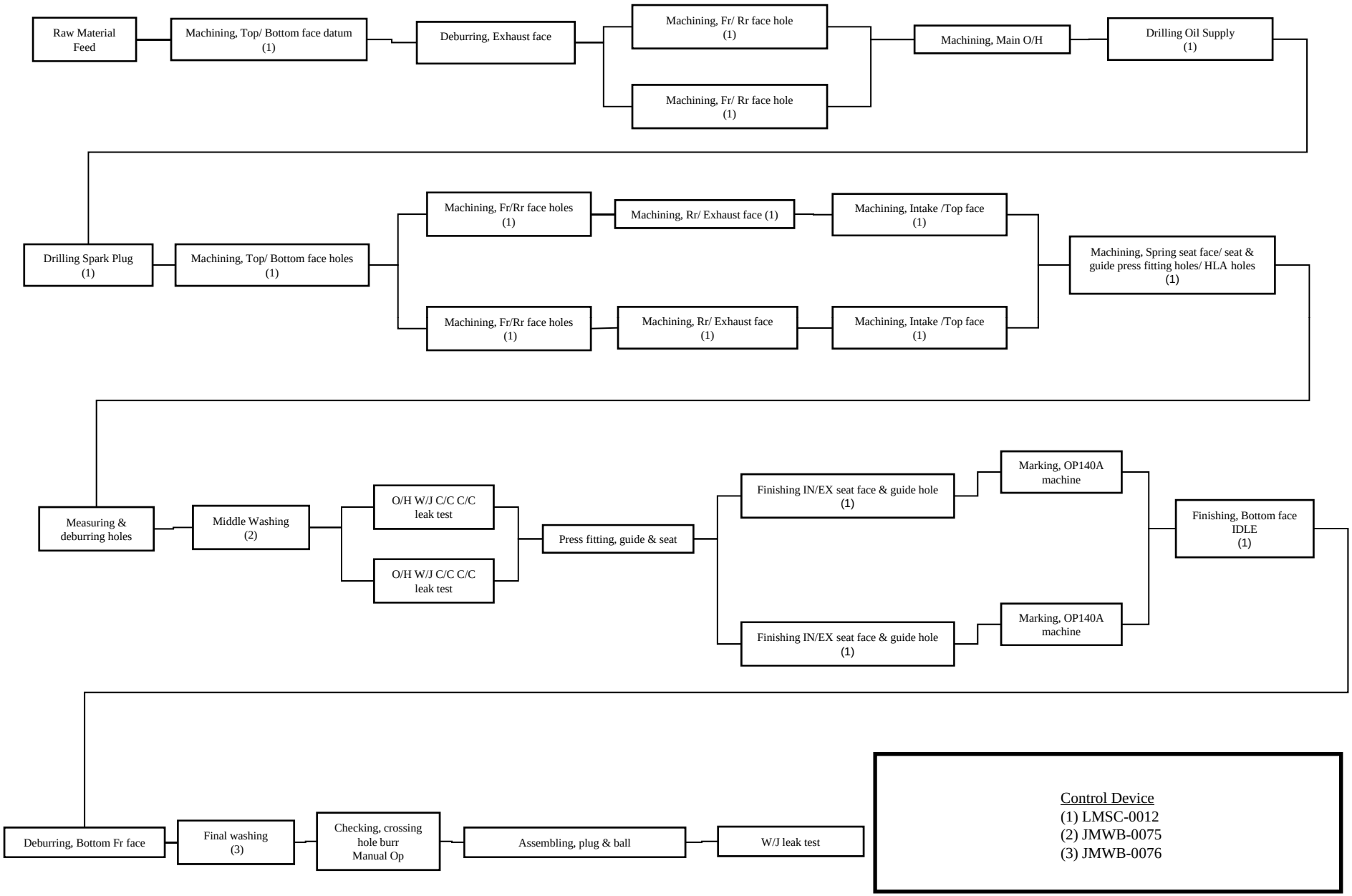


FIGURE 1-05-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
4-CYLINDER- CAM CARRIER

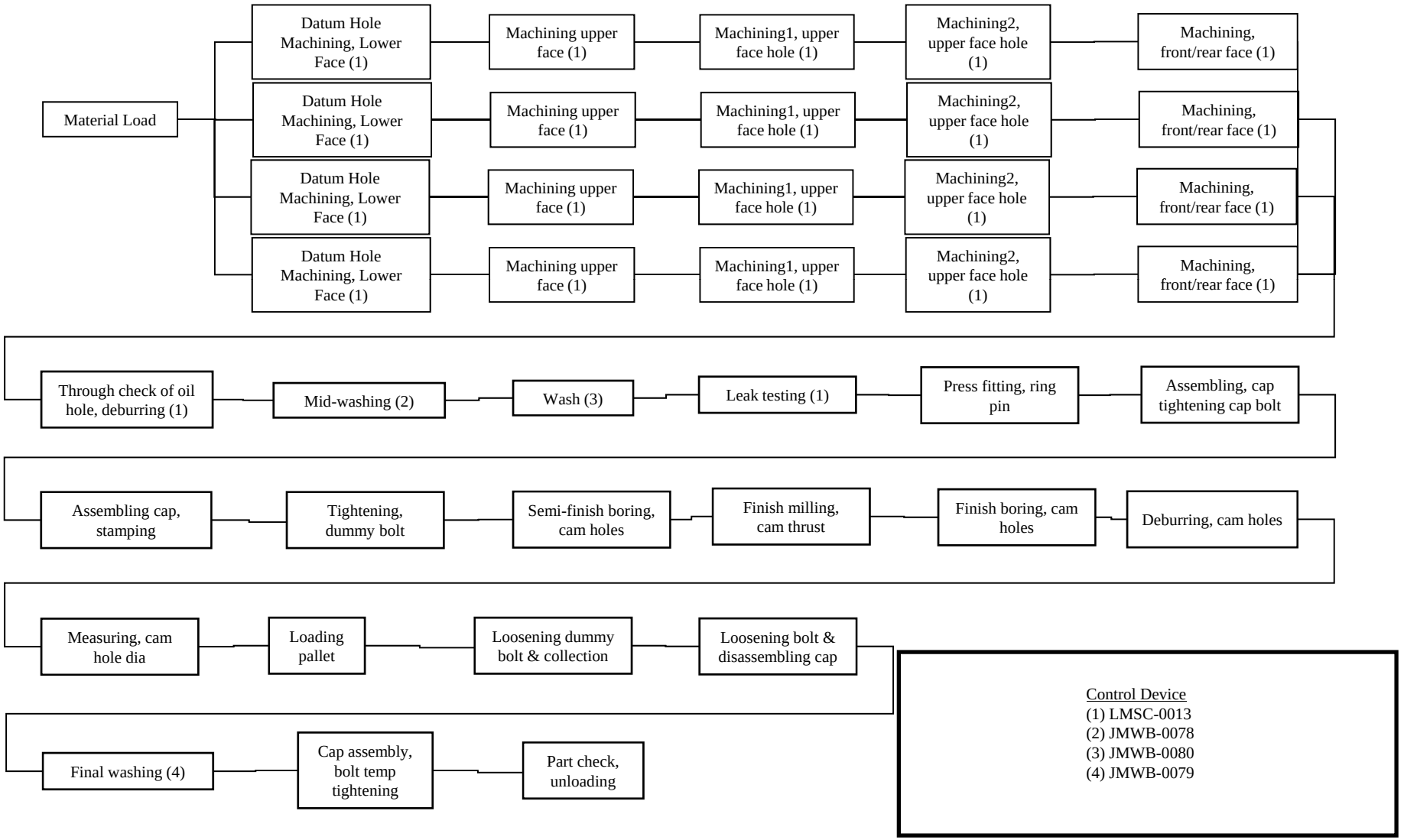


FIGURE 1-6-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
4-CYLINDER- CAM SHAFT NO. 1 MACHINING

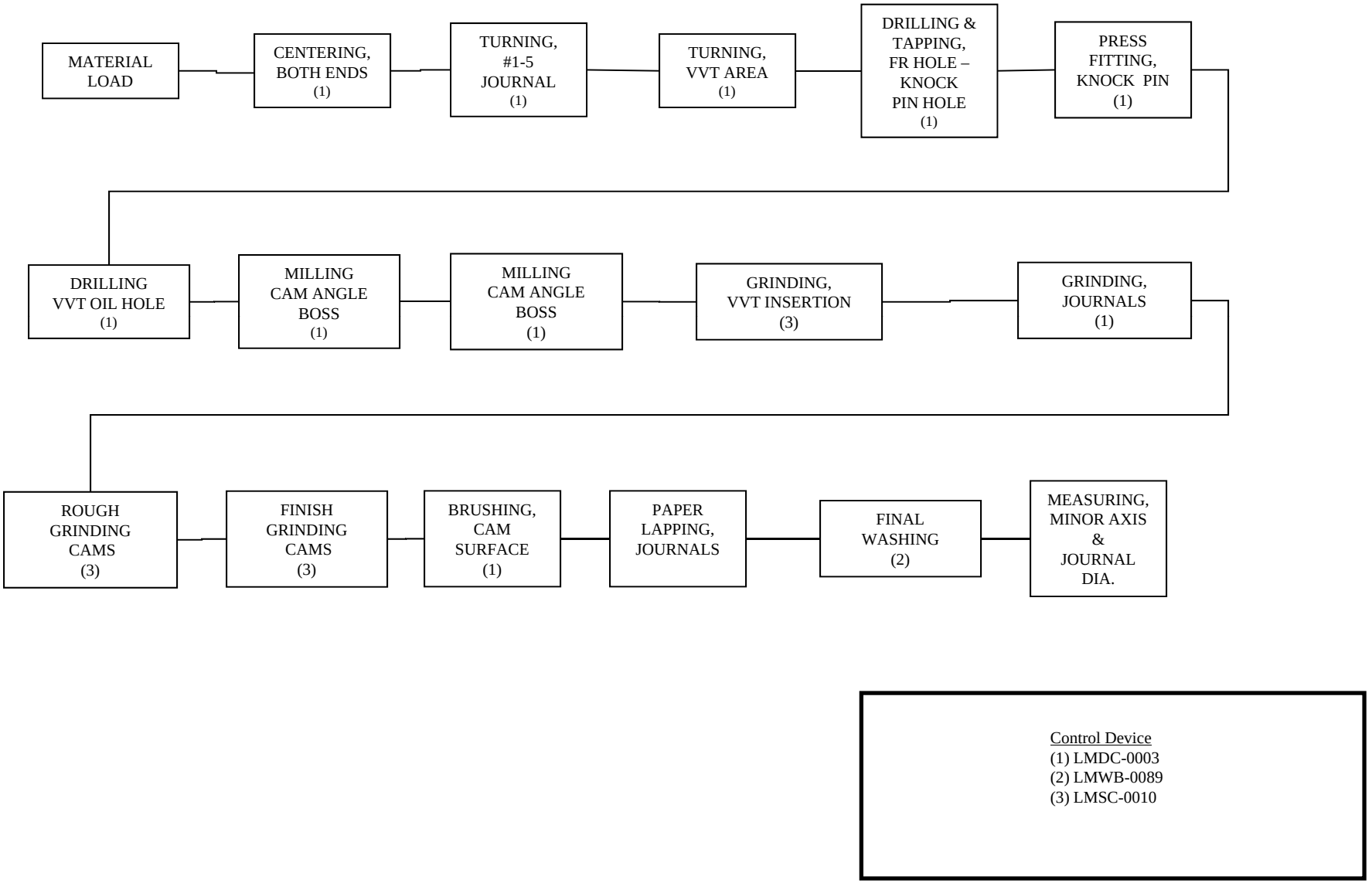


FIGURE 1-06-02
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
4-CYLINDER- CAM SHAFT No. 2 MACHINING

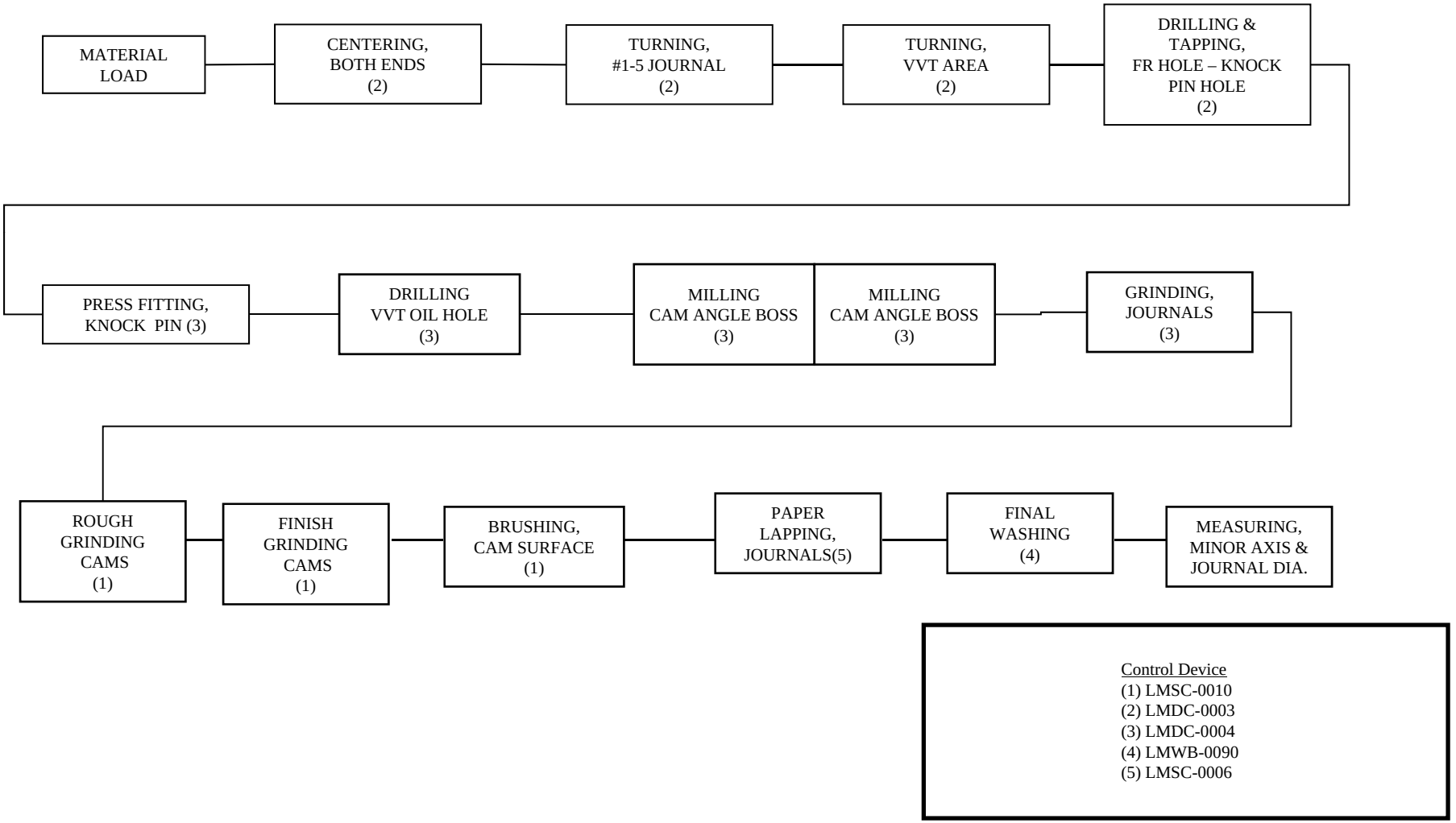


FIGURE 1-07-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
4-CYLINDER- CRANKSHAFT MACHINING

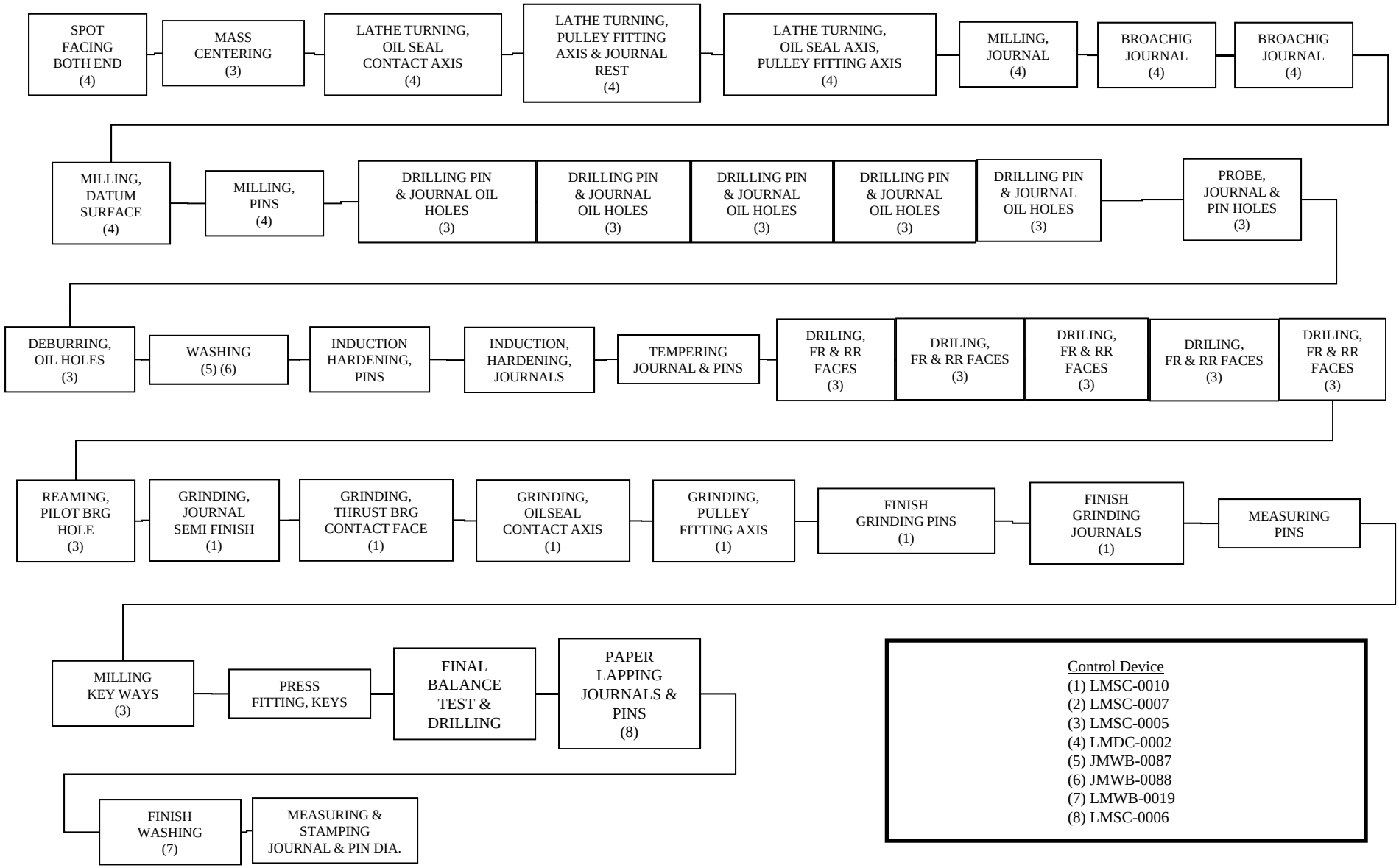


FIGURE 2-01-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
4-CYLINDER- Short Block Sub

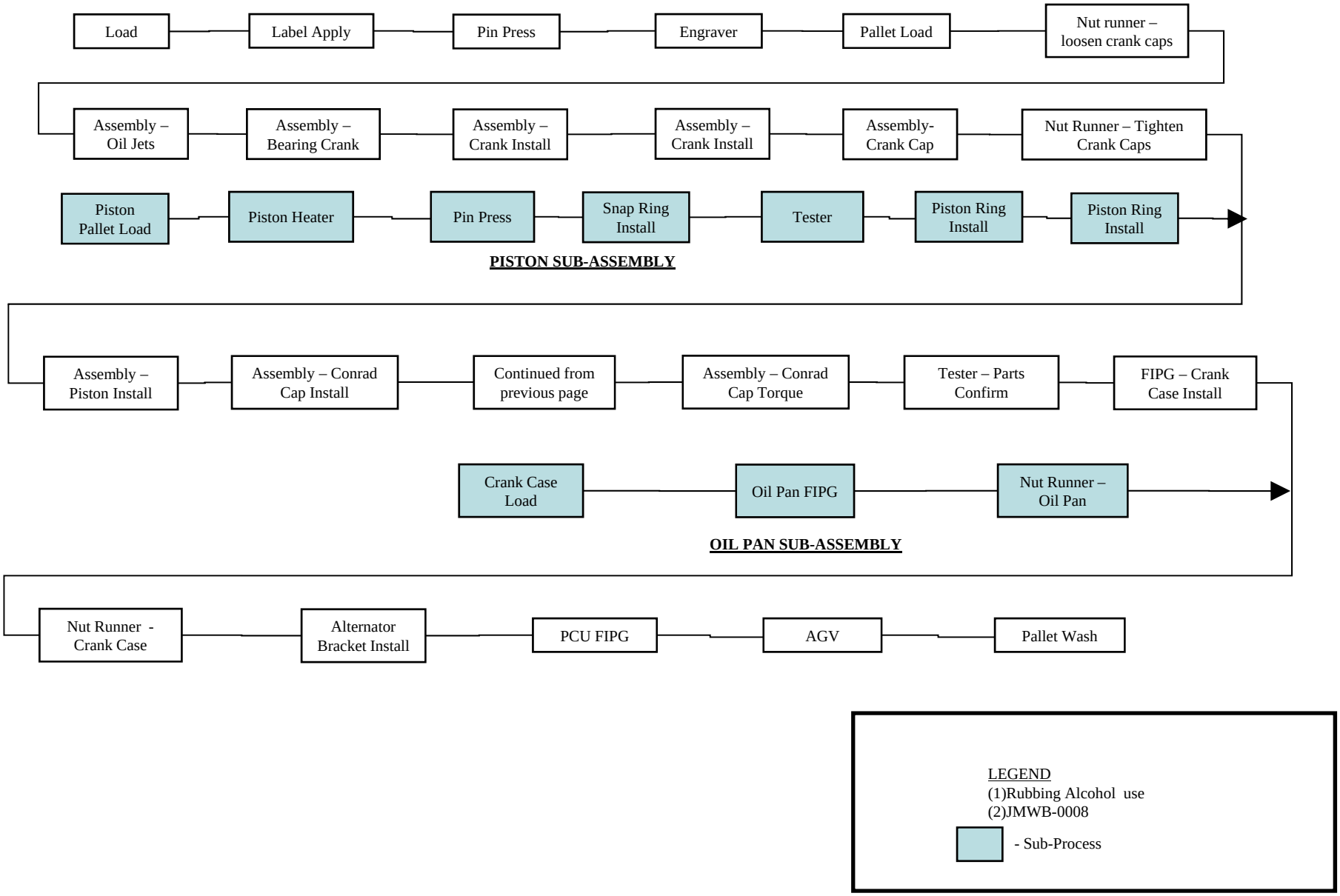


FIGURE 2-02-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
4-CYLINDER- Head Sub Assembly

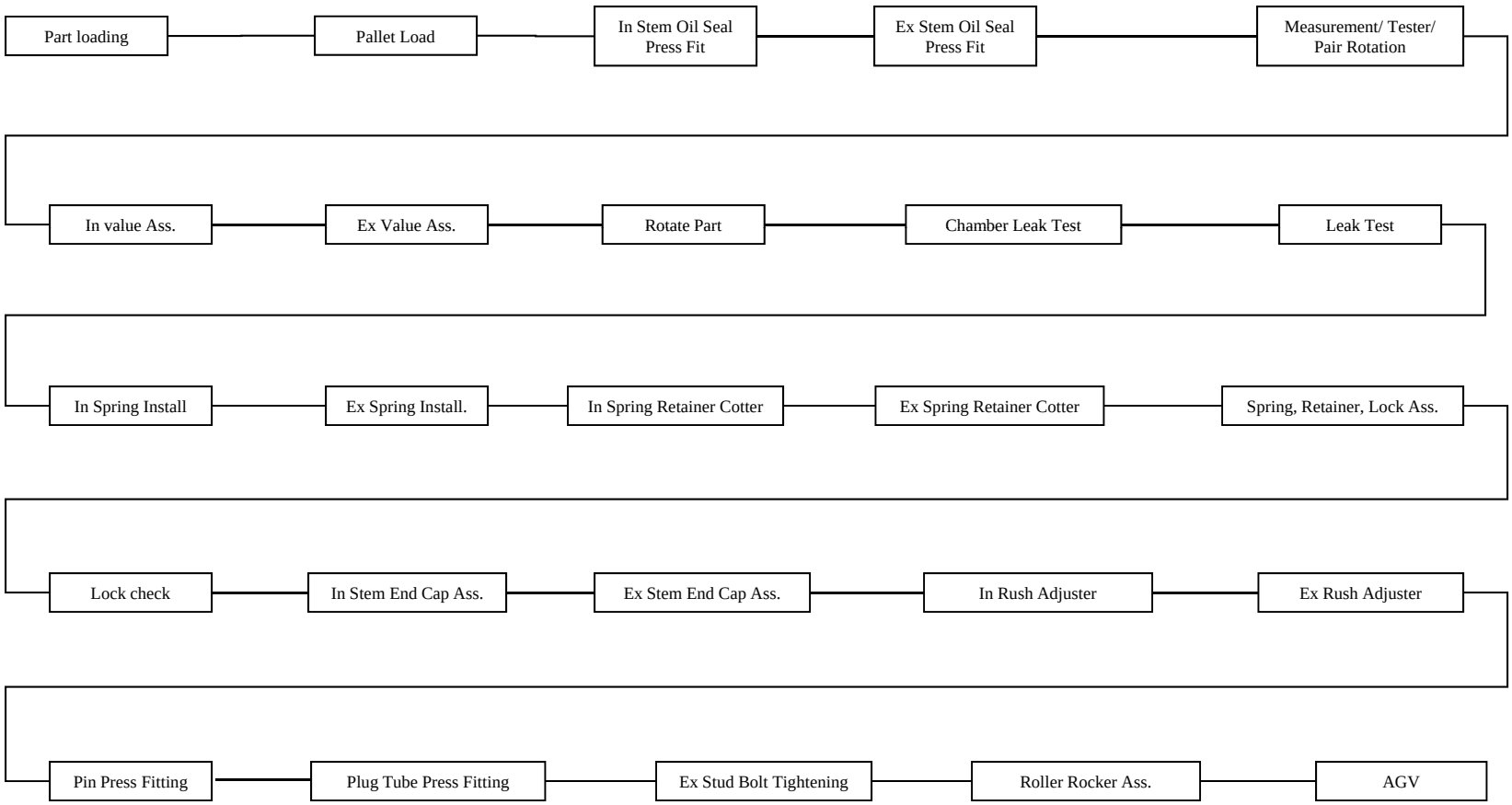


FIGURE 2-03-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
4-CYLINDER- HEAD COVER ASSEMBLY

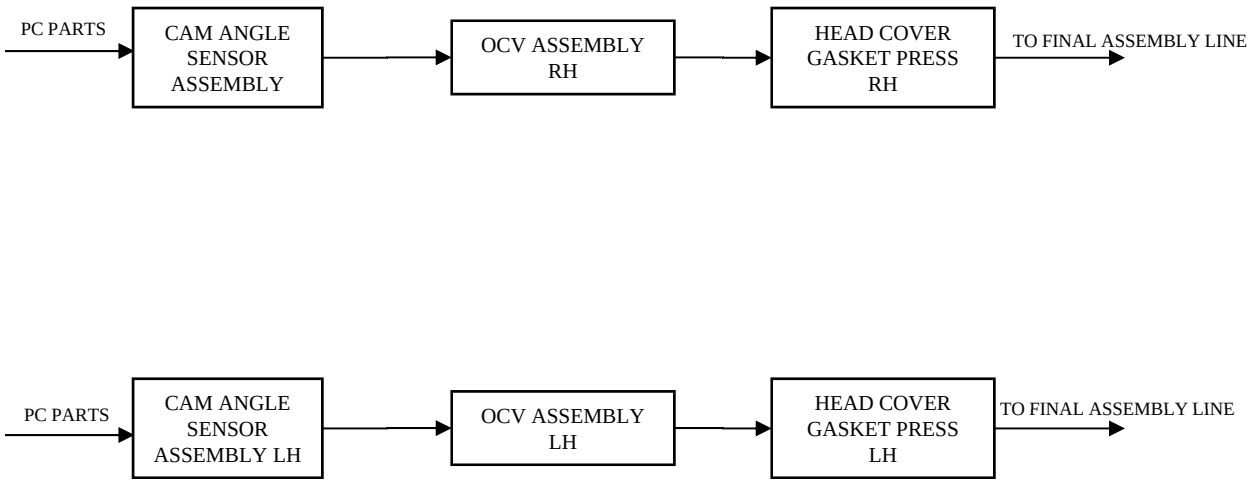


FIGURE 2-04-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
4-CYLINDER- Cam Carrier Sub assembly

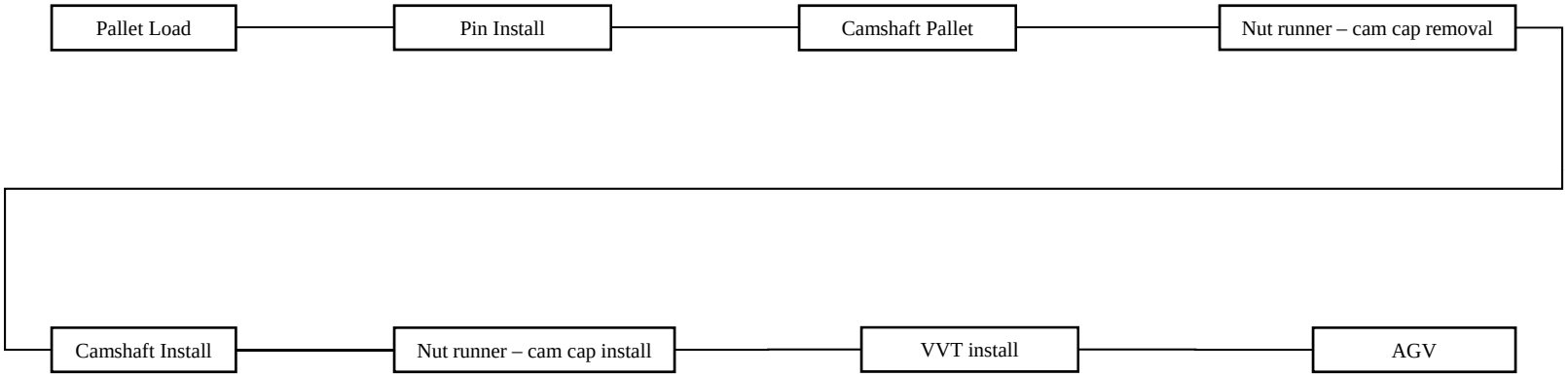
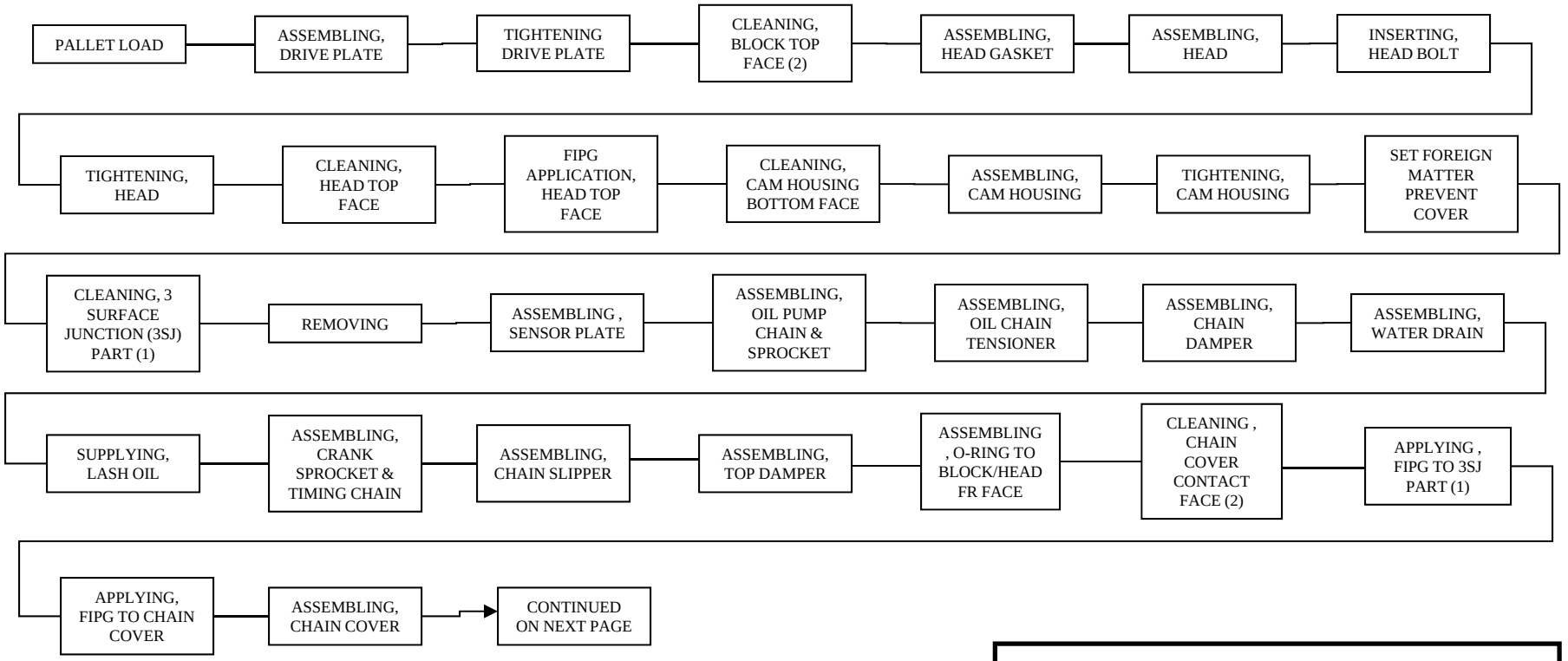


FIGURE 2-05-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
4-CYLINDER MAIN ASSEMBLY



Legend
(1) Stack QQ-00
(2) Rubbing Alcohol used

FIGURE 2-05-02
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
4-CYLINDER MAIN ASSEMBLY CONTINUED

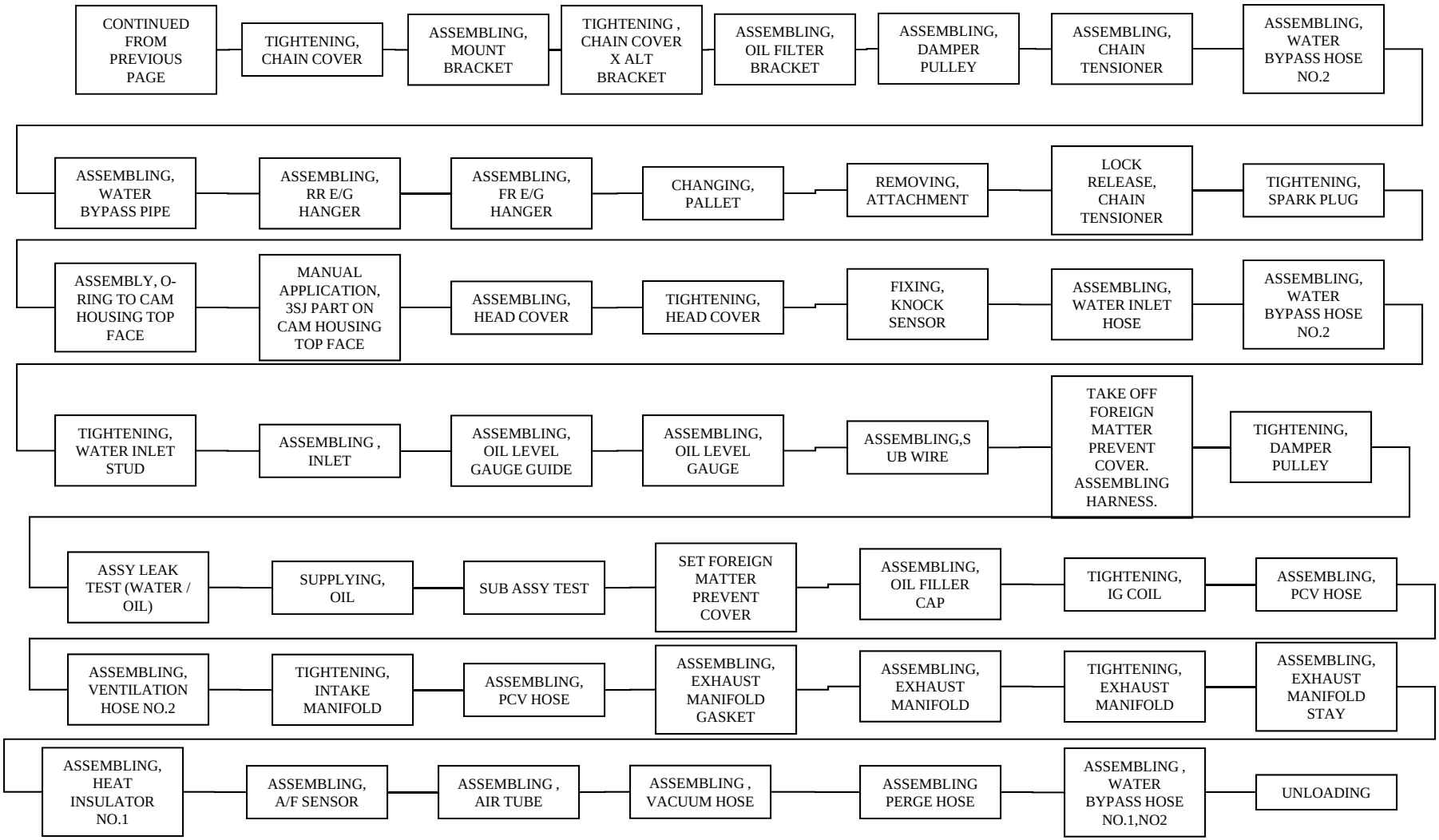


FIGURE 2-06-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
4-CYLINDER- ENGINE TEST LINE

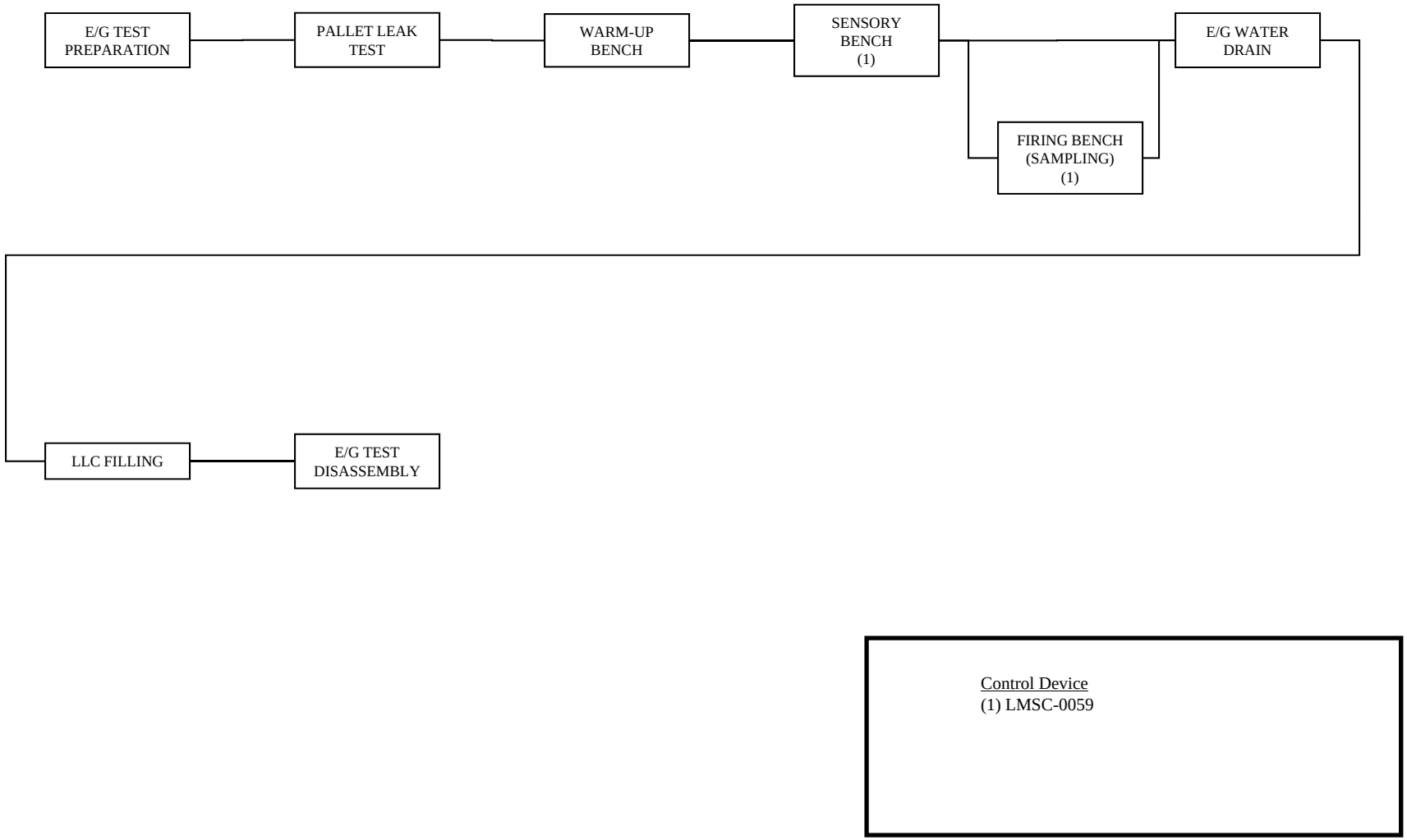


FIGURE 4-1-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
PROCESS FLOW – TOOL REGRINDING

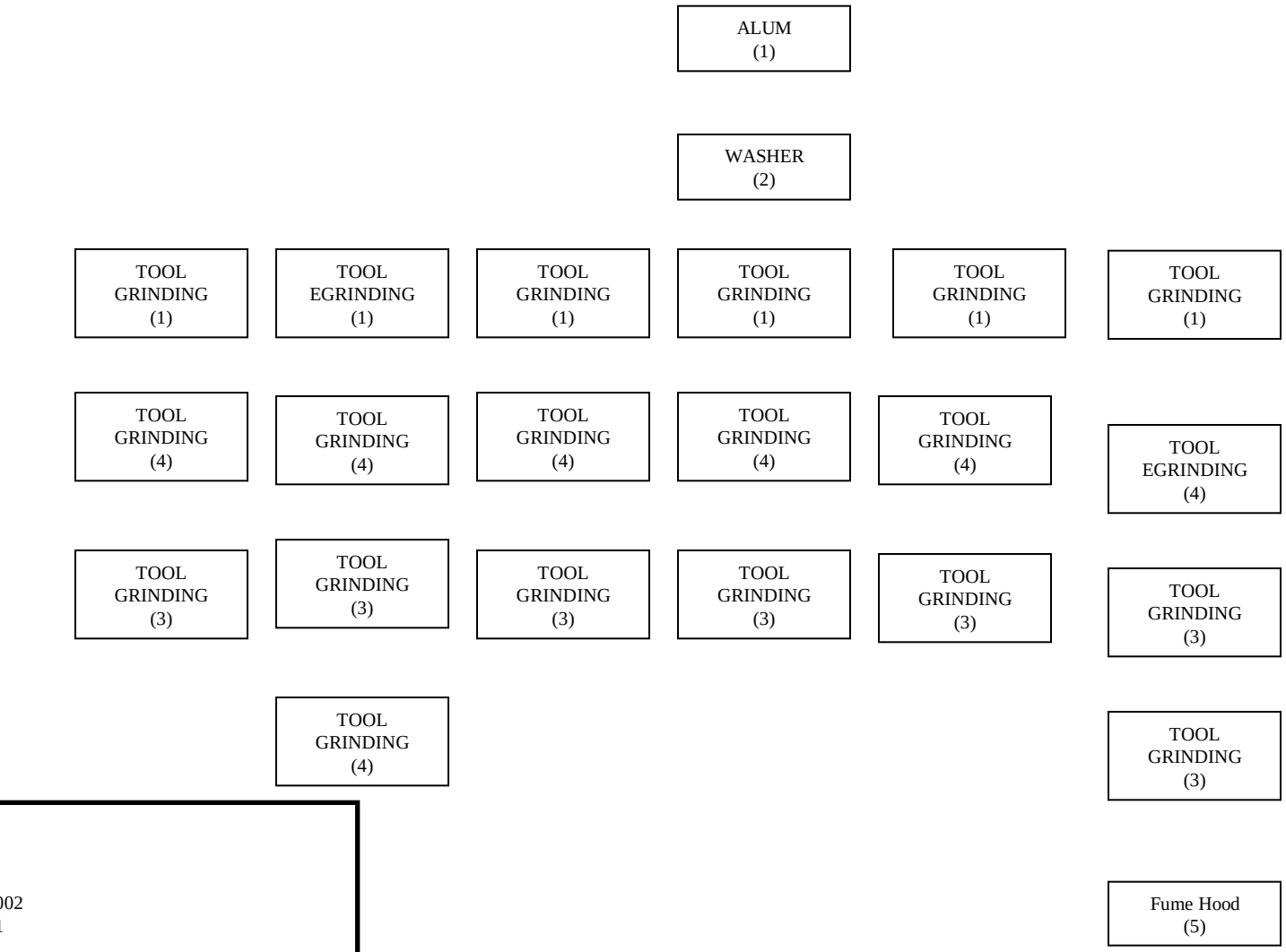
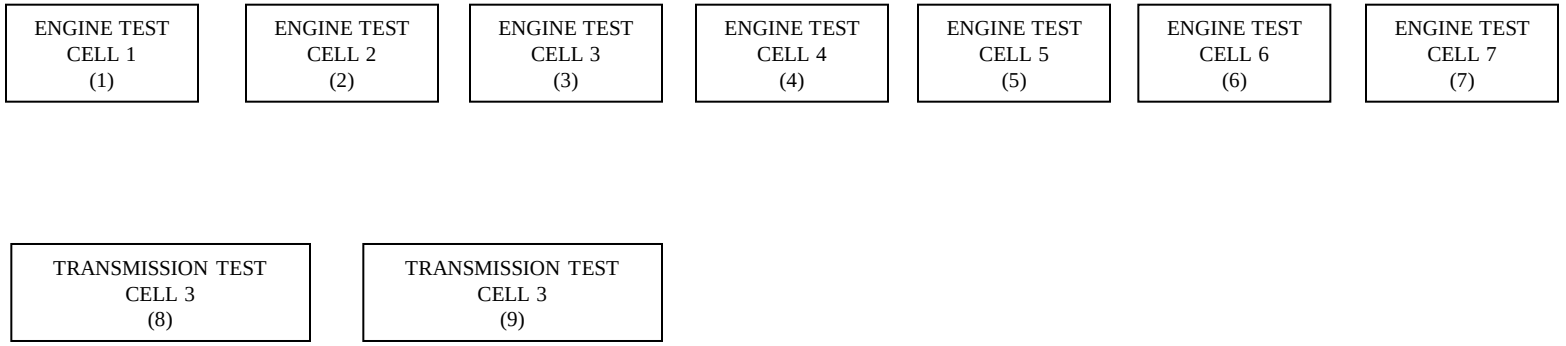


FIGURE 4-02-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
PROCESS FLOW – ENGINE TESTING



Control Device
(1) Catalytic Converter – QCE1
(2) Catalytic Converter – QCE2
(3) Catalytic Converter – QCE3
(4) Catalytic Converter – Vehicle Exhaust System – QCE4
(5) Catalytic Converter – QCE5
(6) Catalytic Converter – Vehicle Exhaust System - QCE6
(7) Catalytic Converter – QCE7
(8) Catalytic Converter – QCA3
(9) Catalytic Converter – QCA4

FIGURE 5--01-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
6-CYLINDER SHORT BLOCK SUB ASSEMBLY

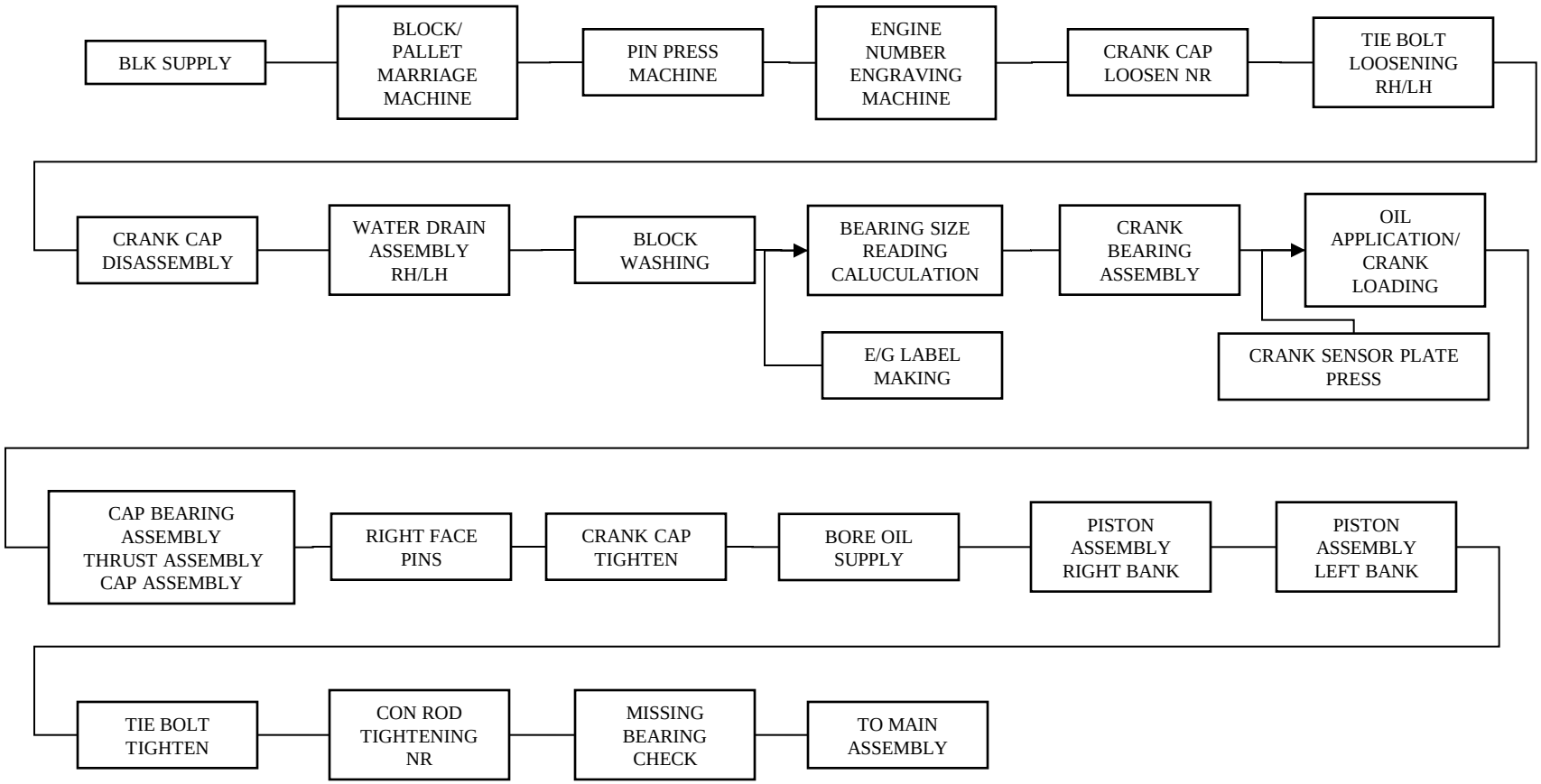


FIGURE 5-02-01

TOYOTA MOTOR MANUFACTURING WEST VIRGINIA

PROCESS FLOW – PISTON SUB ASSEMBLY

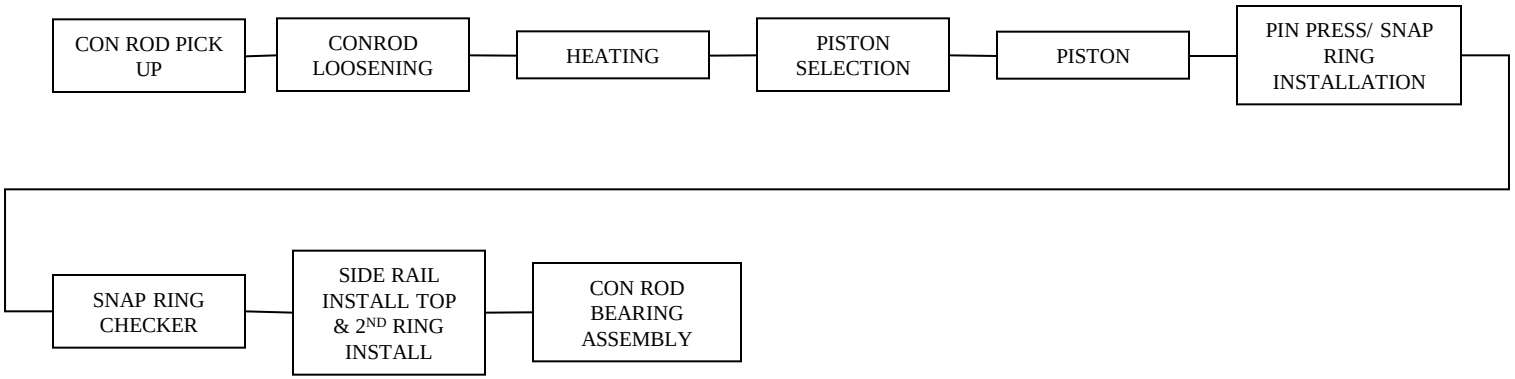


FIGURE 5-03-01

TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
PROCESS FLOW – HEAD SUB ASSEMBLY

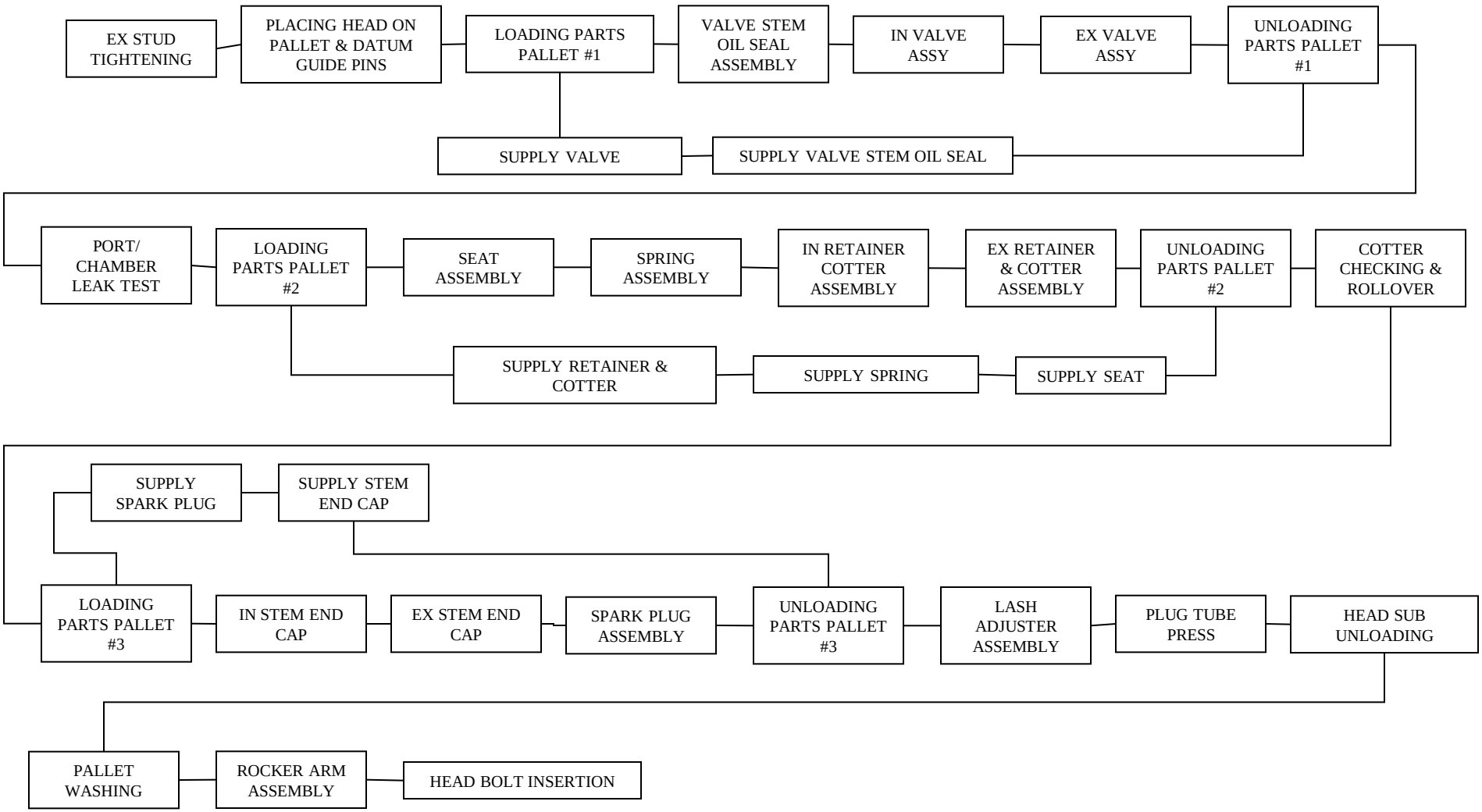


FIGURE 5-04-01

TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
PROCESS FLOW – CAM CARRIER SUB ASSEMBLY

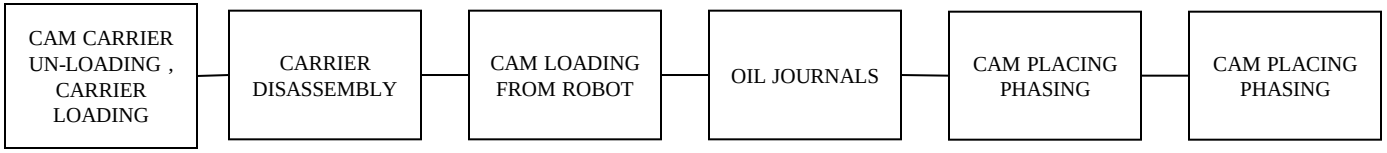


FIGURE 5-05-01

TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
PROCESS FLOW – CAM HOUSING SUB ASSEMBLY

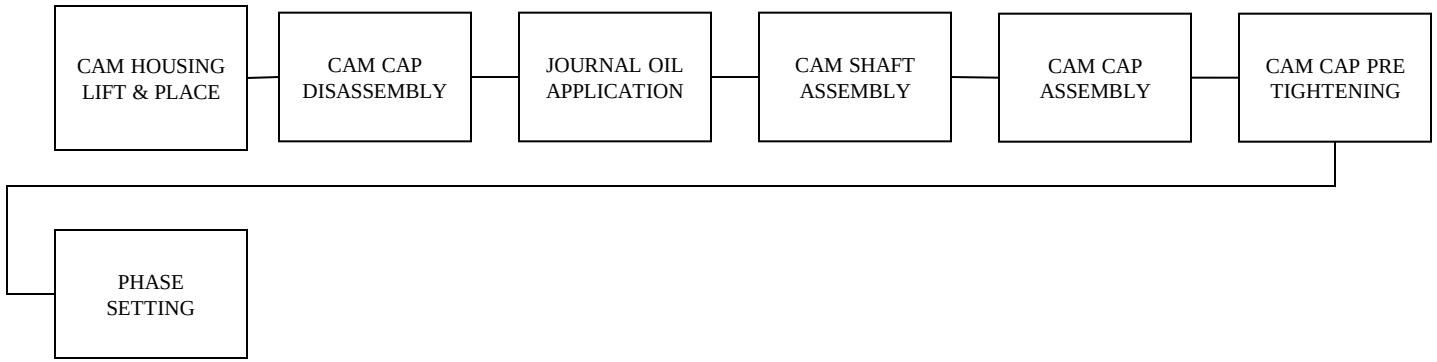


FIGURE 5-06-01

TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
PROCESS FLOW –INTAKE MANIFOLD SUB ASSEMBLY

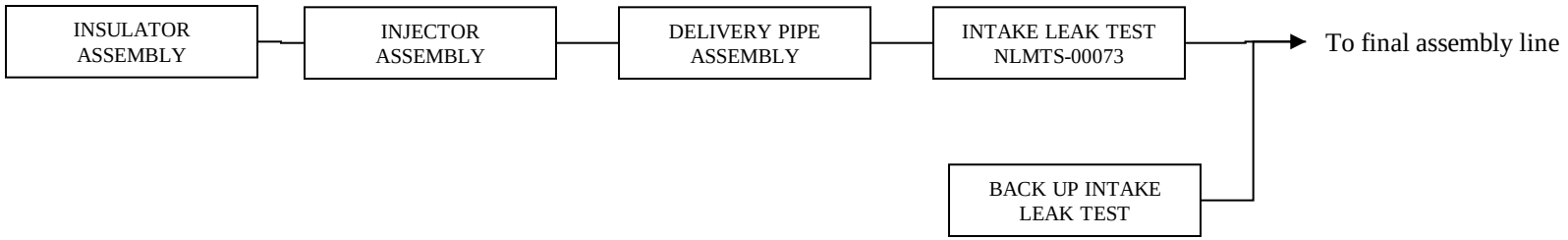
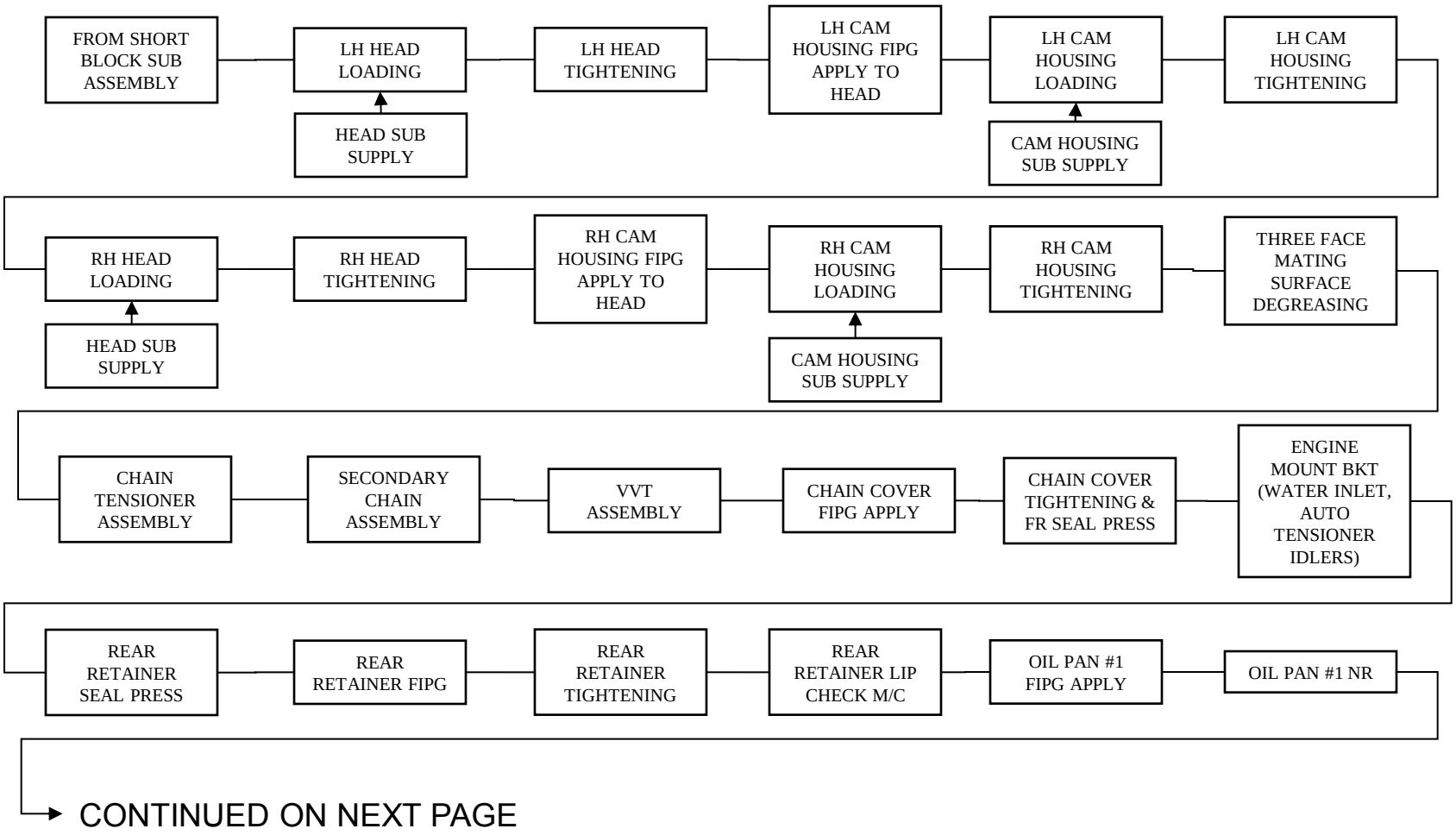
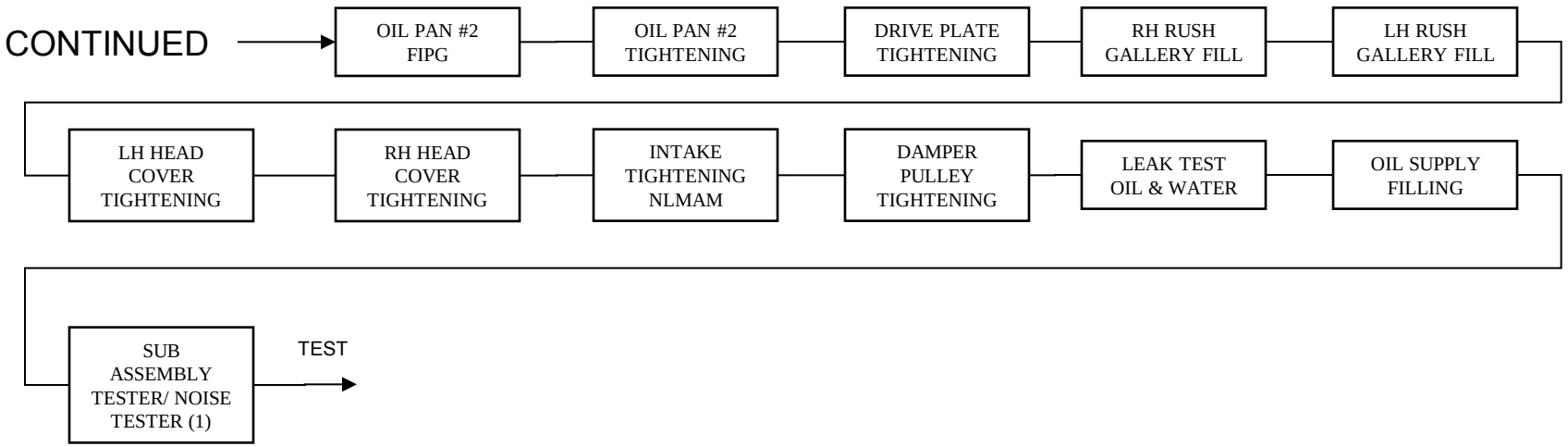


FIGURE 5-07-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
6-CYLINDER MAIN ASSEMBLY



CONTINUED ON NEXT PAGE

FIGURE 5-07-02
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
6-CYLINDER MAIN ASSEMBLY CONTINUED



Control Device
(1) NLMTS-0072

FIGURE 5-08-01

TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
PROCESS FLOW – TEST BENCH

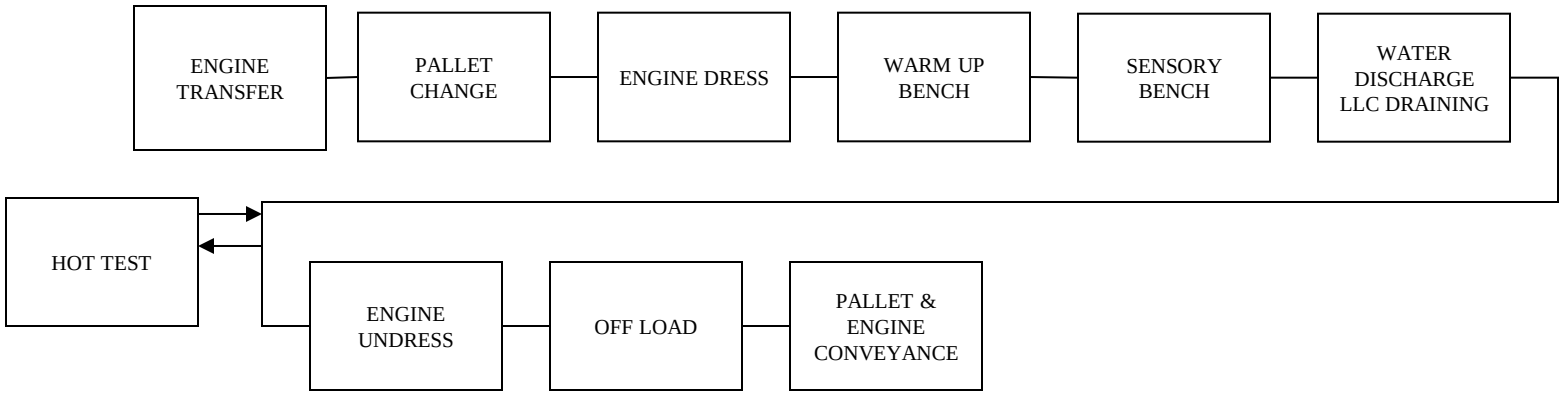


FIGURE 11-01-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
6-CYLINDER BLOCK MACHINING

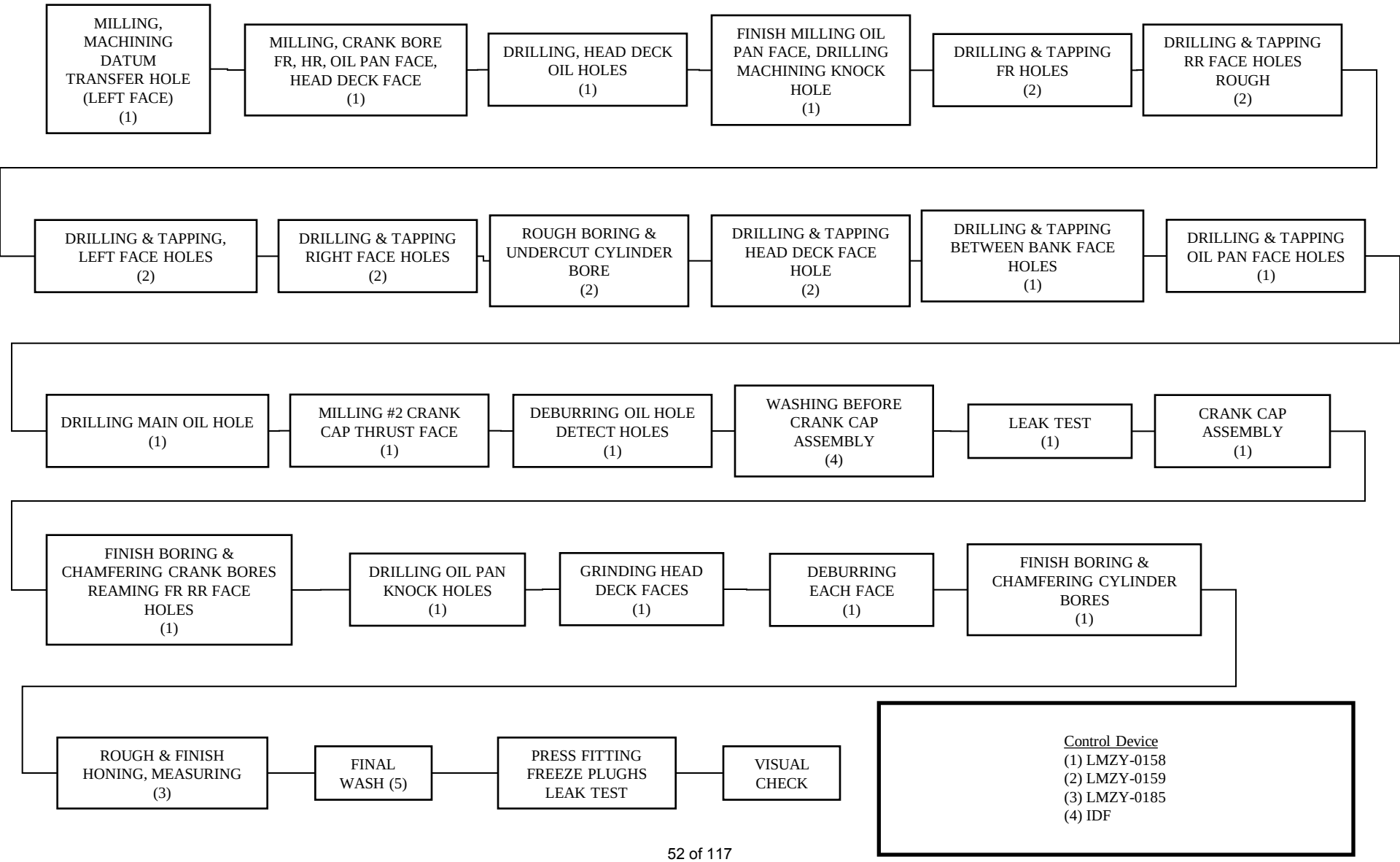
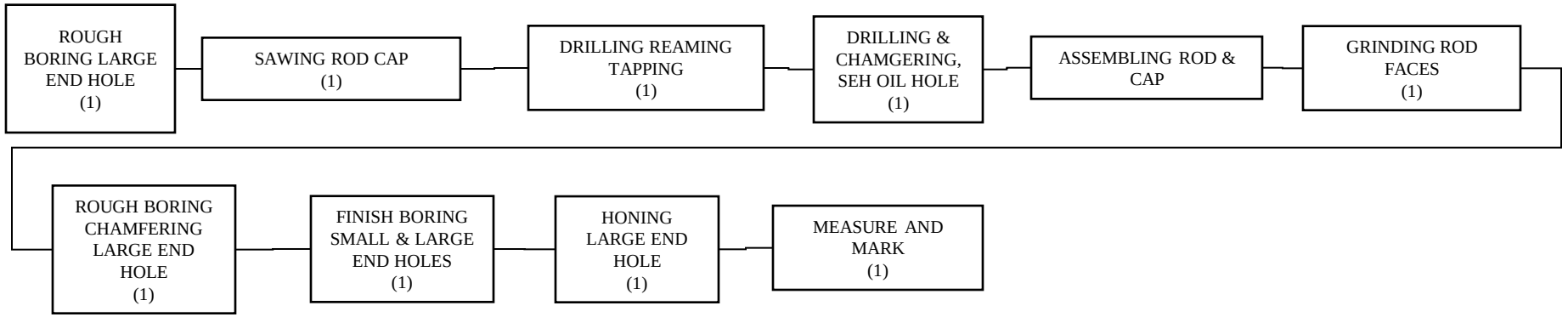
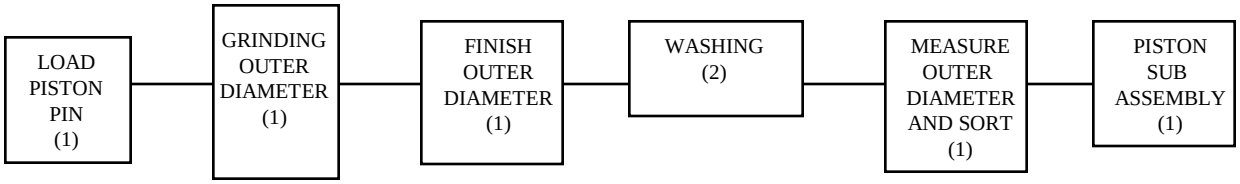


FIGURE 11-02-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
6-CYLINDER CONNECTING ROD MACHINING



Control Device
(1) JMZY-216

FIGURE 11-03-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
PROCESS FLOW- PISTON PIN MACHINING



Control Device
(1) NLMZY-0216
(2) IDF

FIGURE 11-04-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
6-CYLINDER HEAD MACHINING

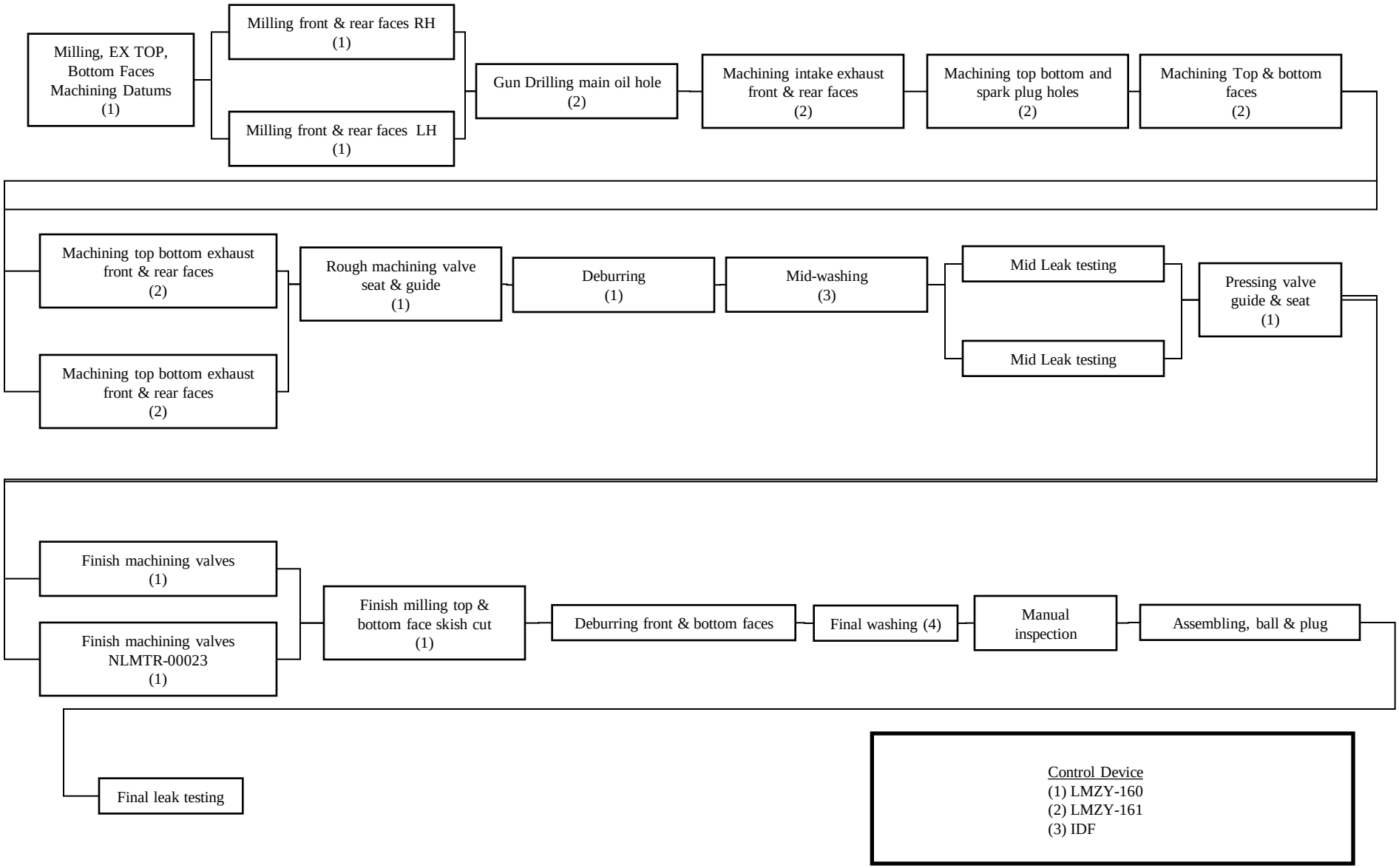
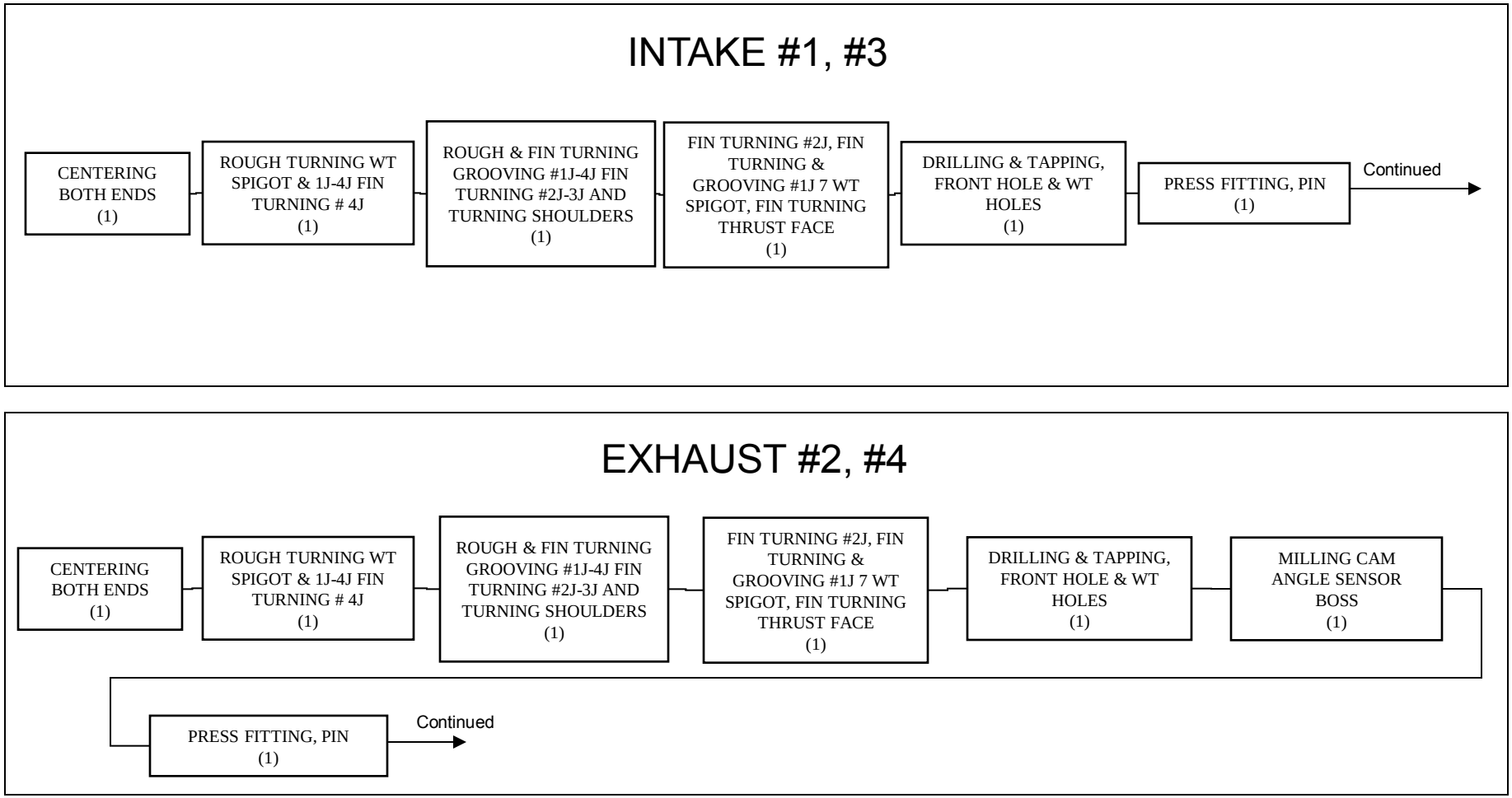


FIGURE 11-05-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
6-CYLINDER CAM SHAFT MACHINING 1/2



Control Device
(1) LMZY-0155

FIGURE 11-05-02
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
6-CYLINDER CAM SHAFT MACHINING 2/2

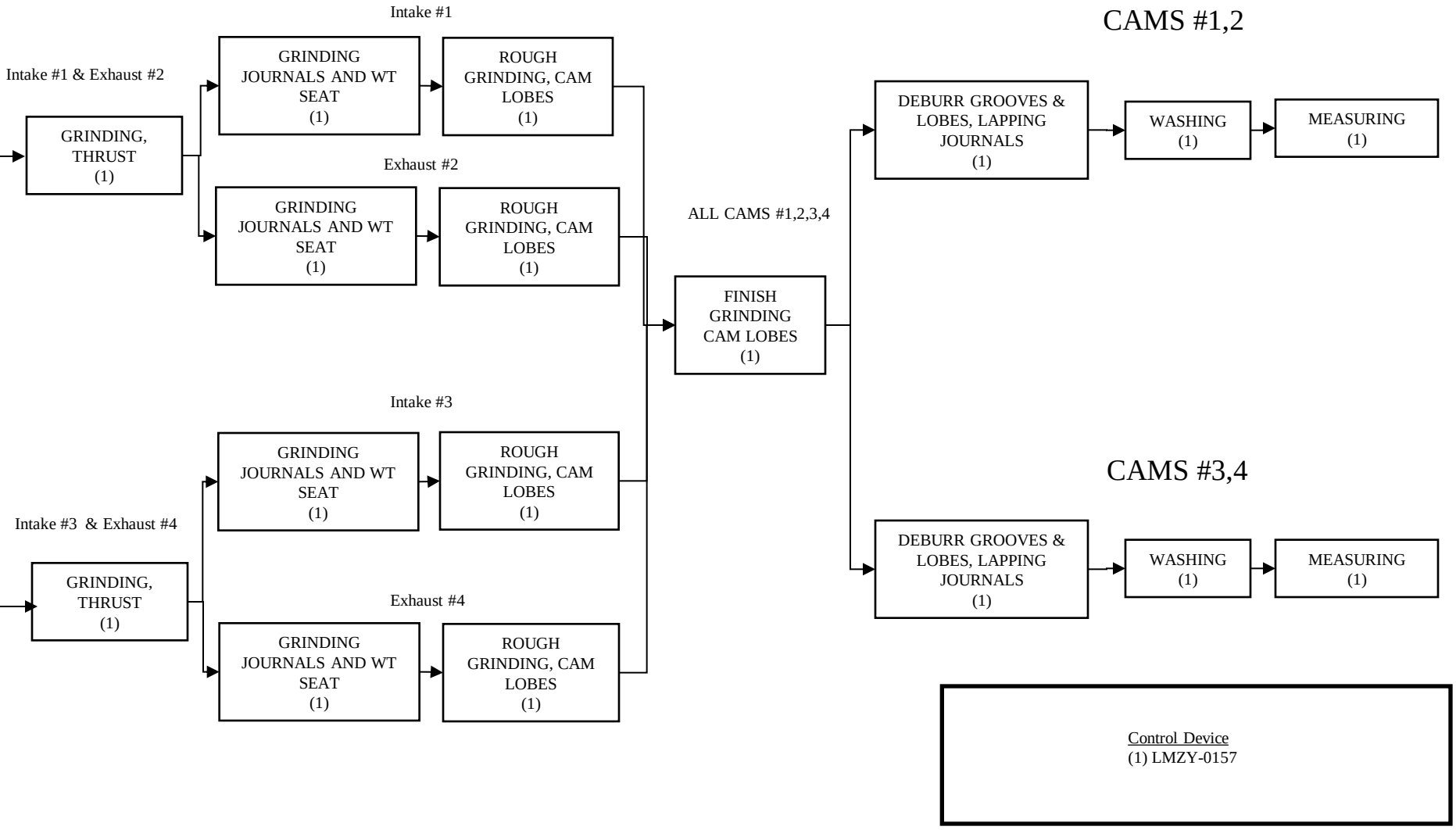


FIGURE 11-06-01
TOYOTA MOTOR MANUFACTURING WEST VIRGINIA
6-CYLINDER CRANKSHAFT MACHINING

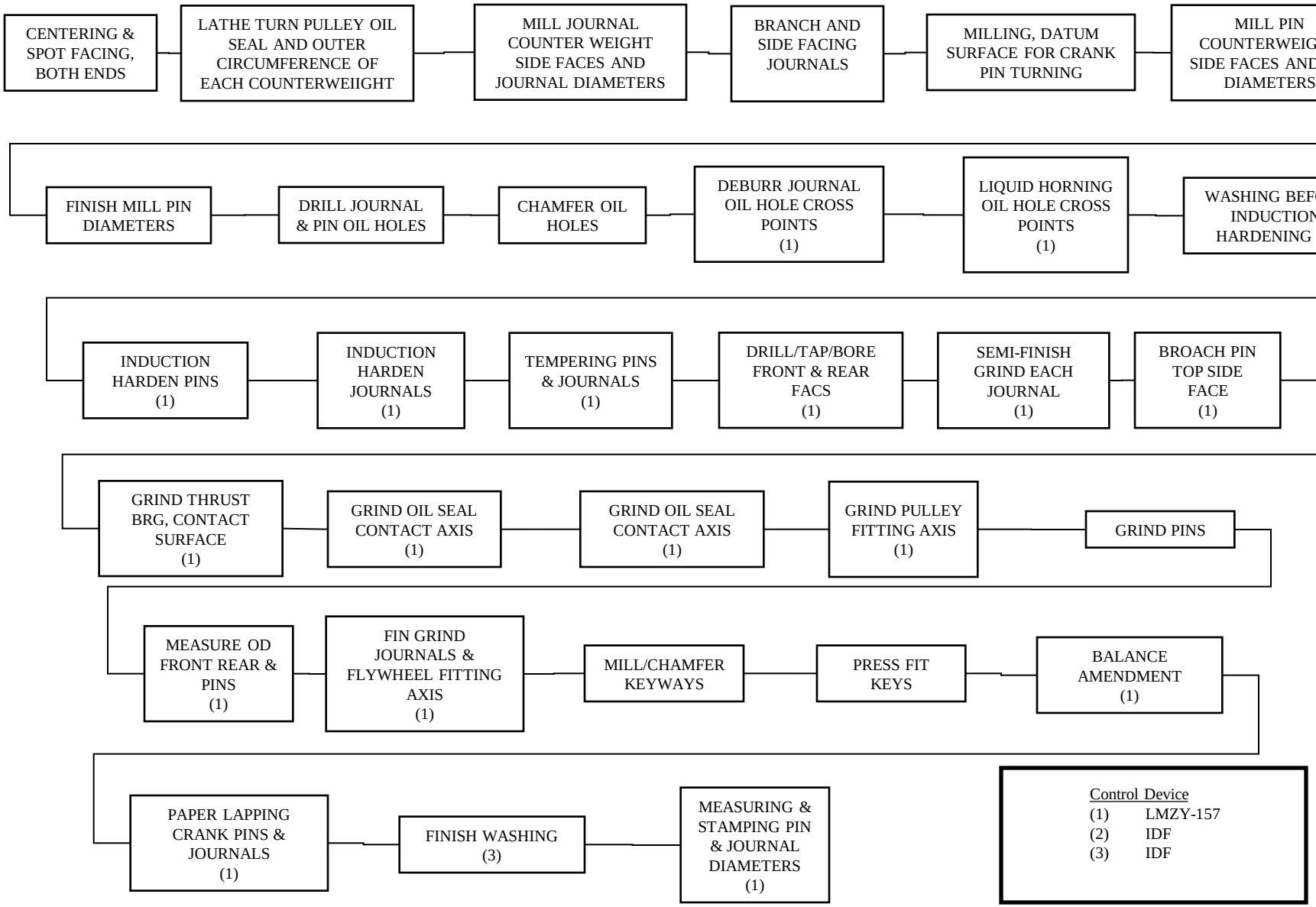
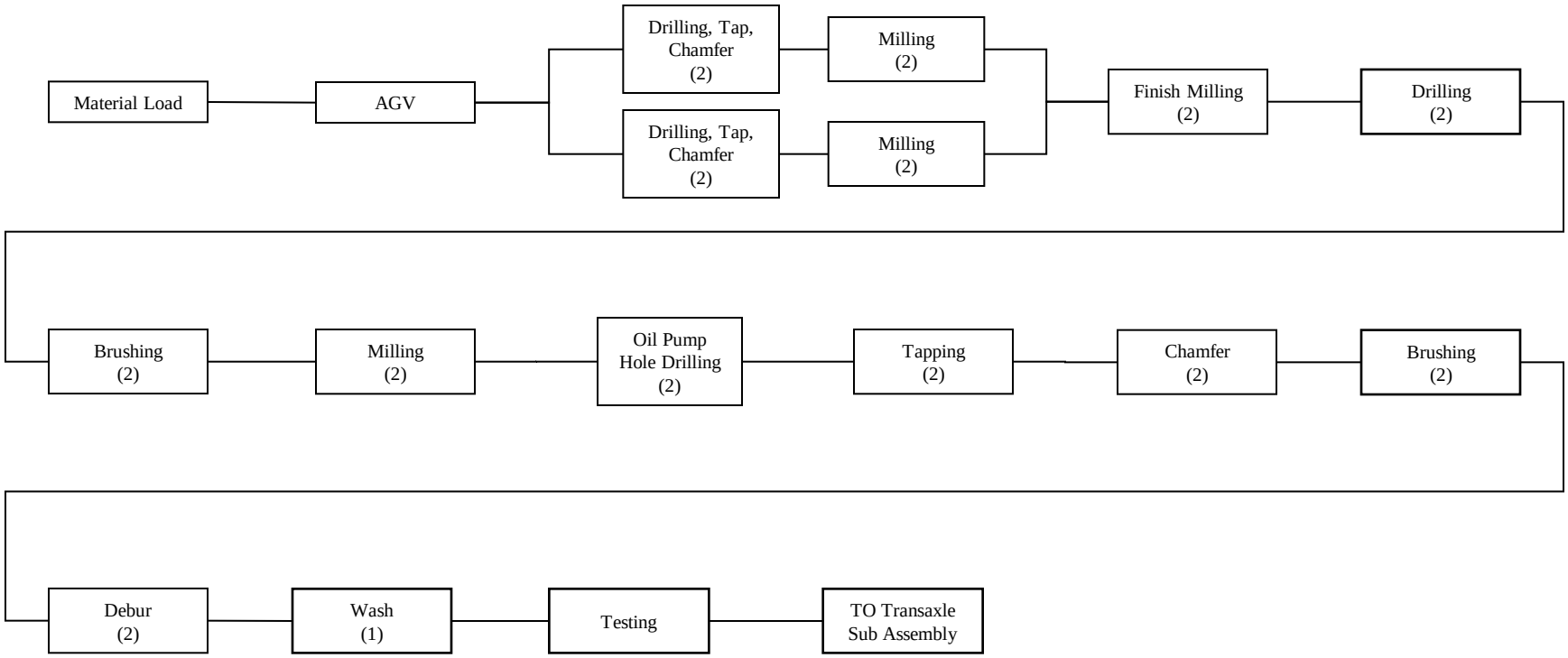
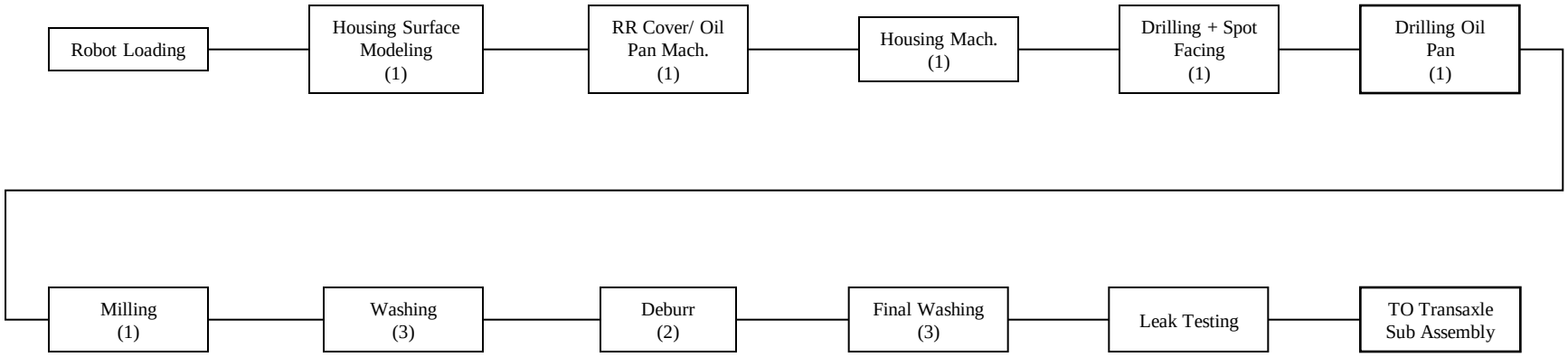


Figure 18-01-01
Case Machining



Control Device
(1) IDF
(2) LMZY-0285

Figure 18-01-02
Mid Case Machining



Control Device
(1) IDF
(2) LMWB-0097
(3) LMWB-0098
(4) NLMZY-00402

Figure 18-02-01
Housing Machining

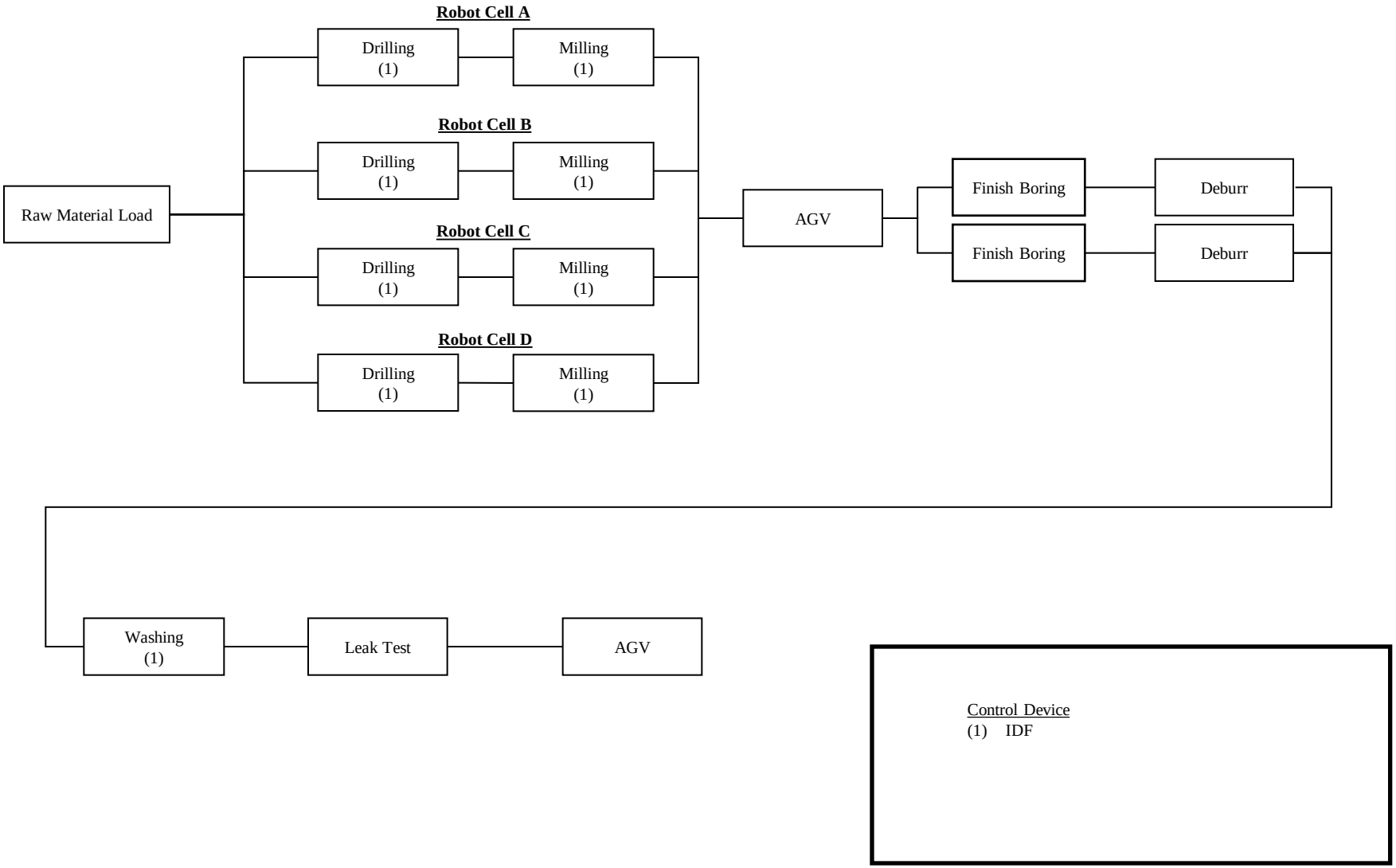
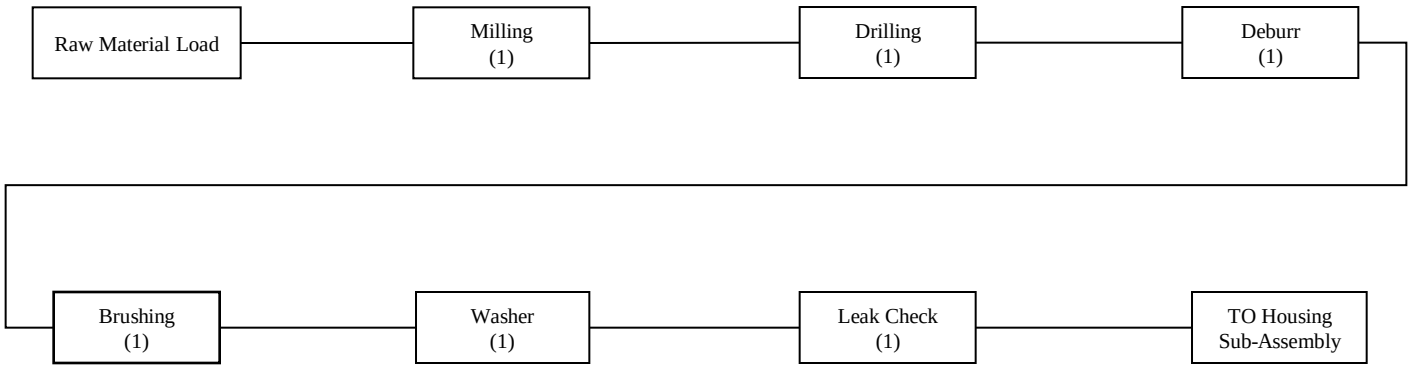
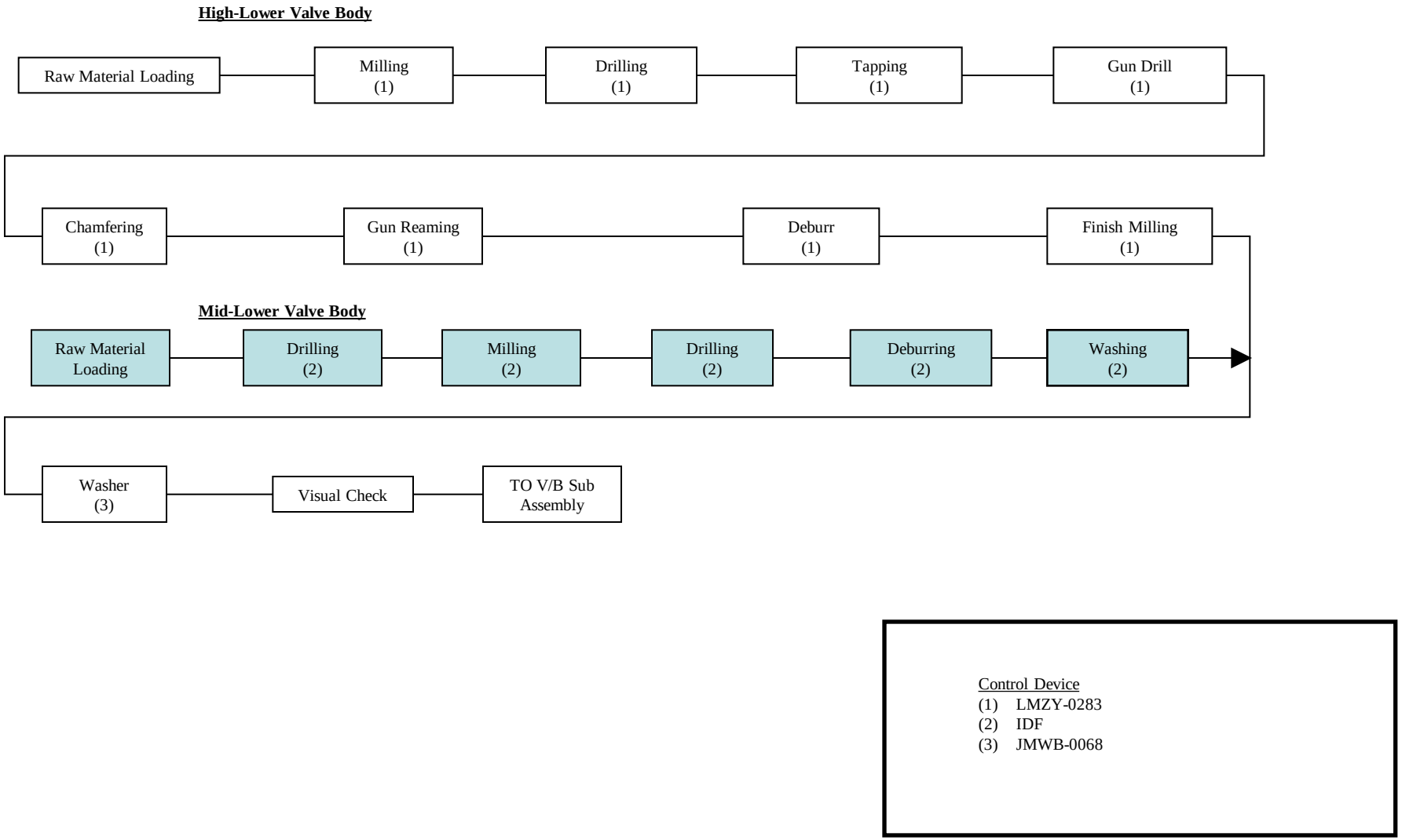


Figure 18-02-02
Mid-Housing Machining



Control Device
(1) IDF

Figure 18-03-01
Valve Body Lower Machining



Control Device
(1) LMZY-0283
(2) IDF
(3) JMWB-0068

Figure 18-04-01
Valve Body Upper Machining

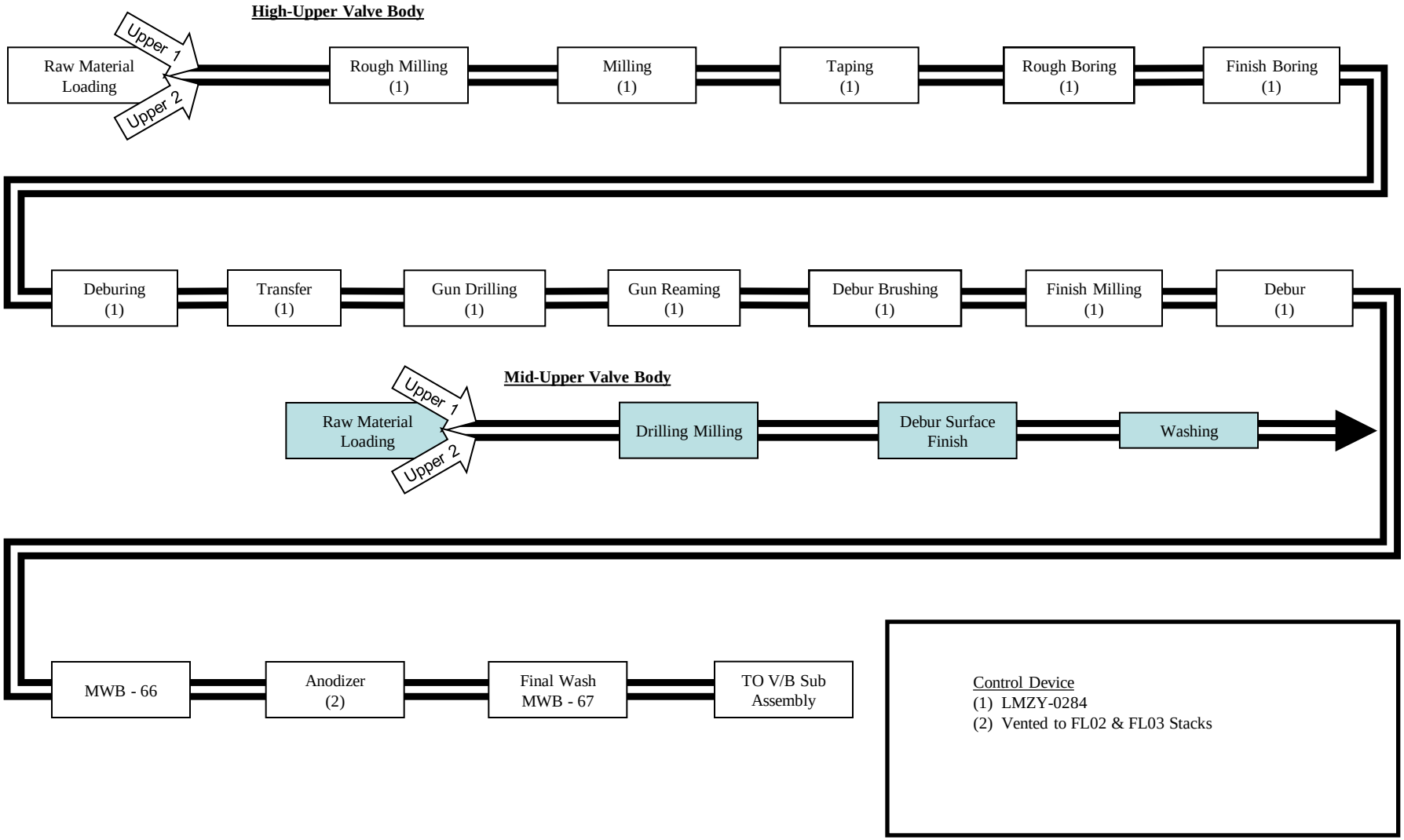
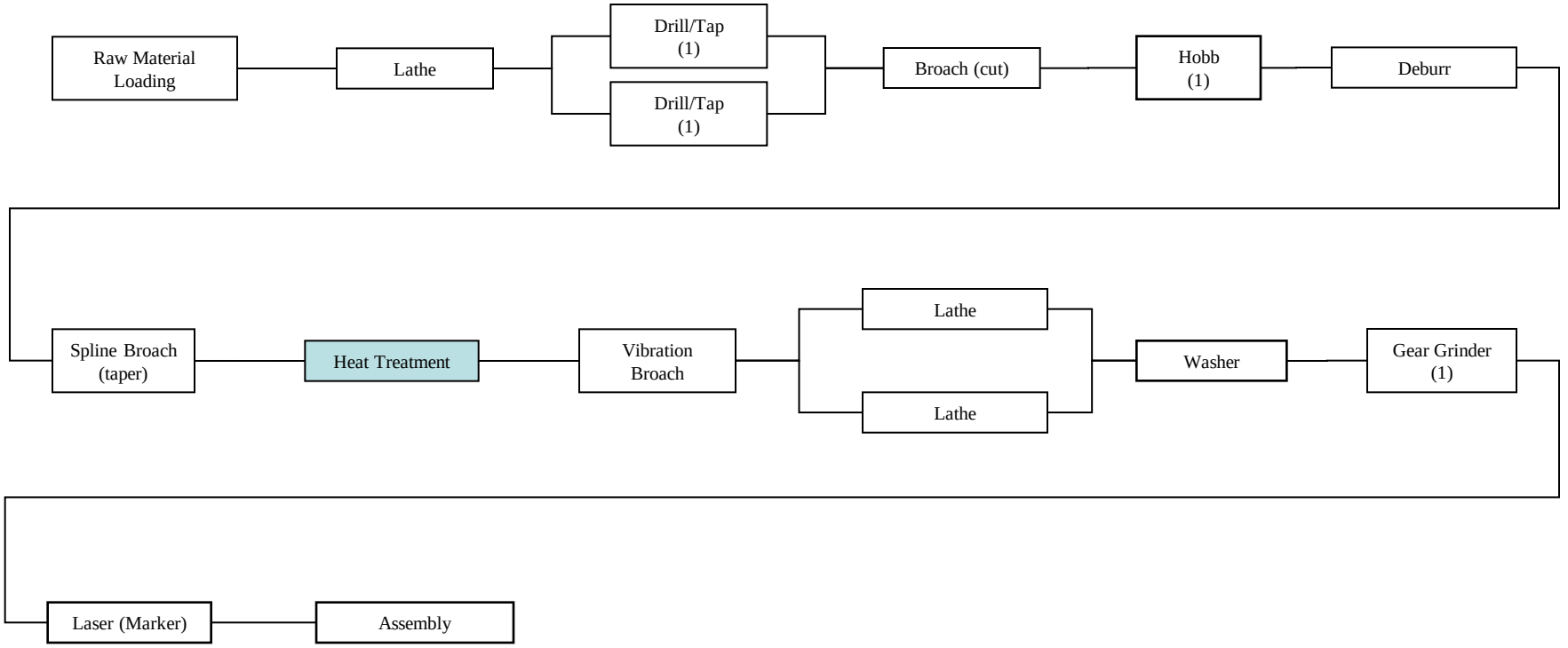


Figure 18-05-01
GEAR - Counter Drive Gear



Control Device
(1) IDF

Figure 18-06-01
GEAR - Counter Driven Assembly

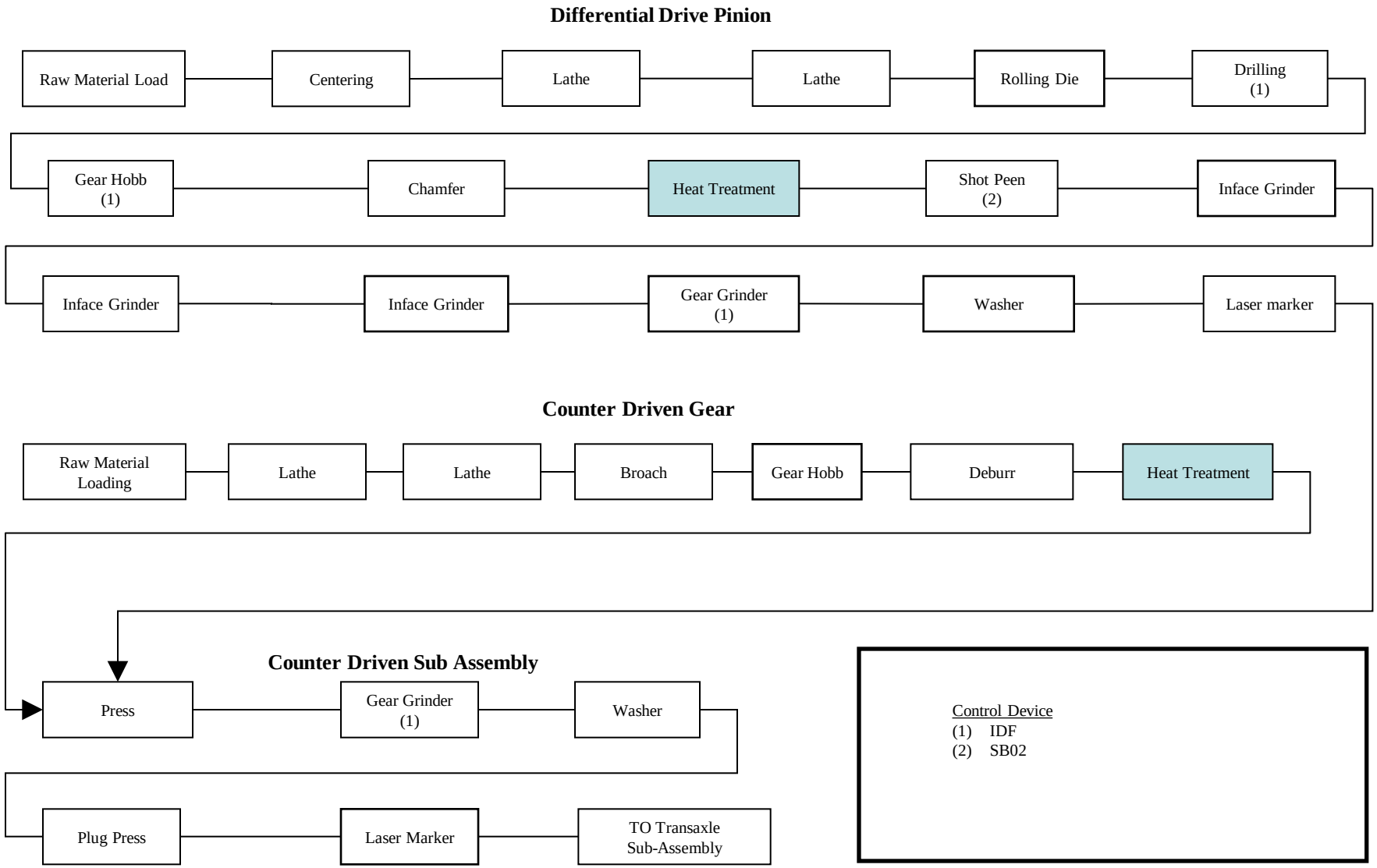
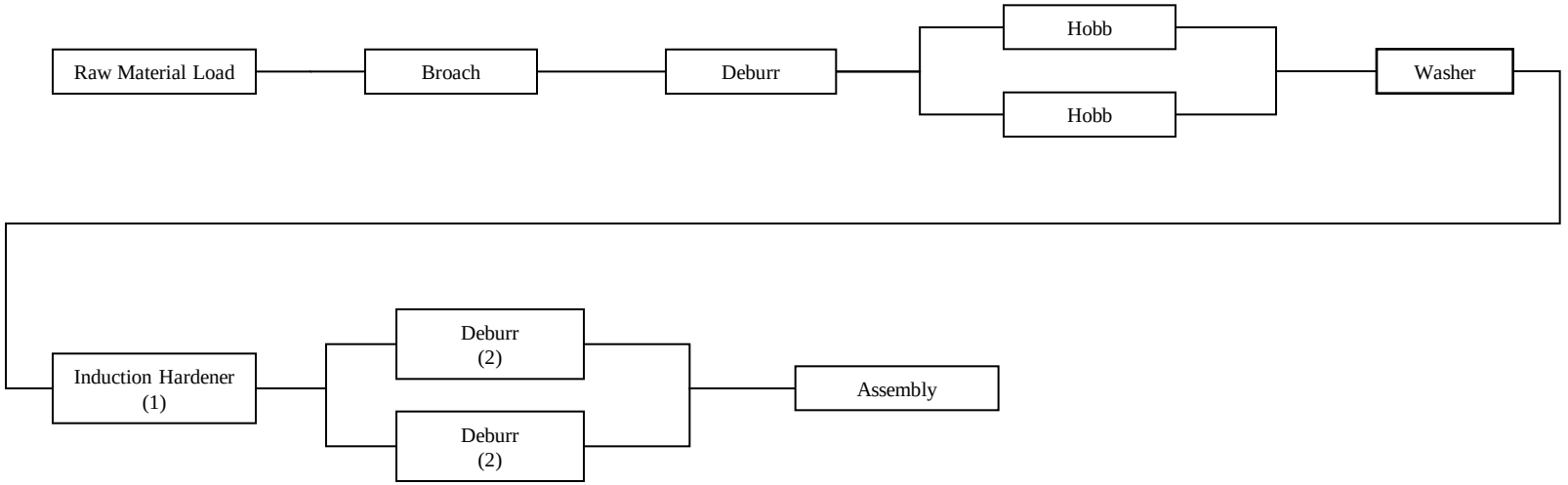
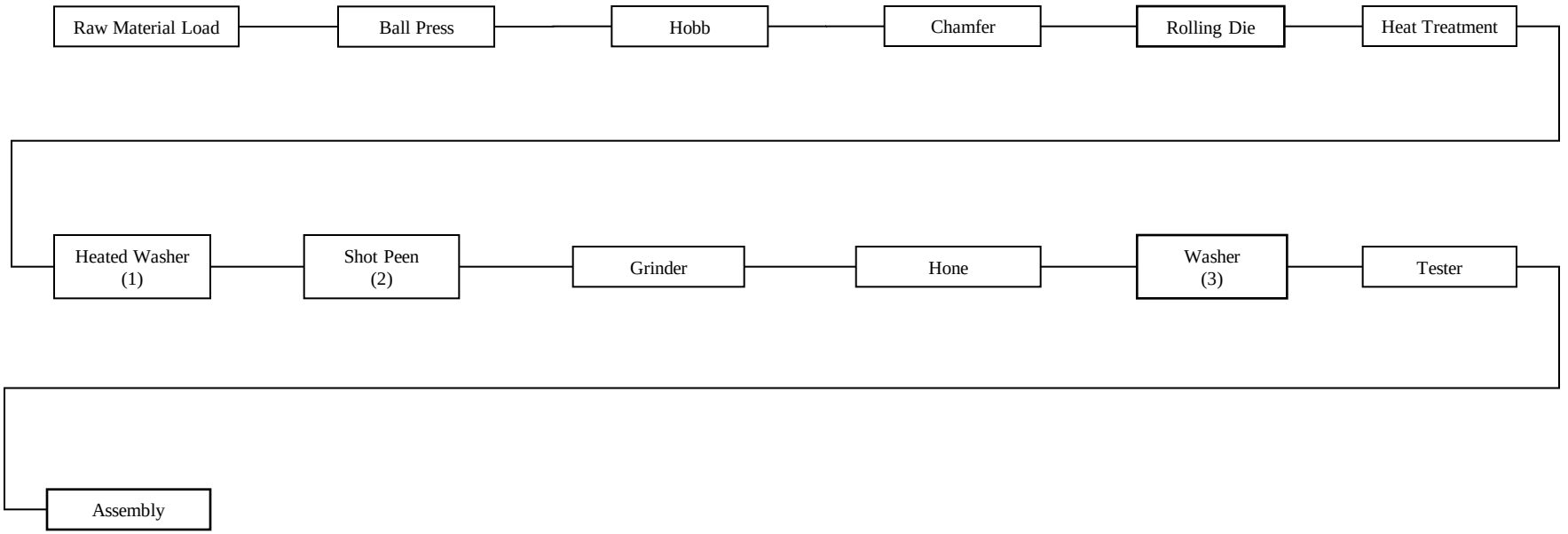


Figure 18-07-01
GEAR - UD Ring



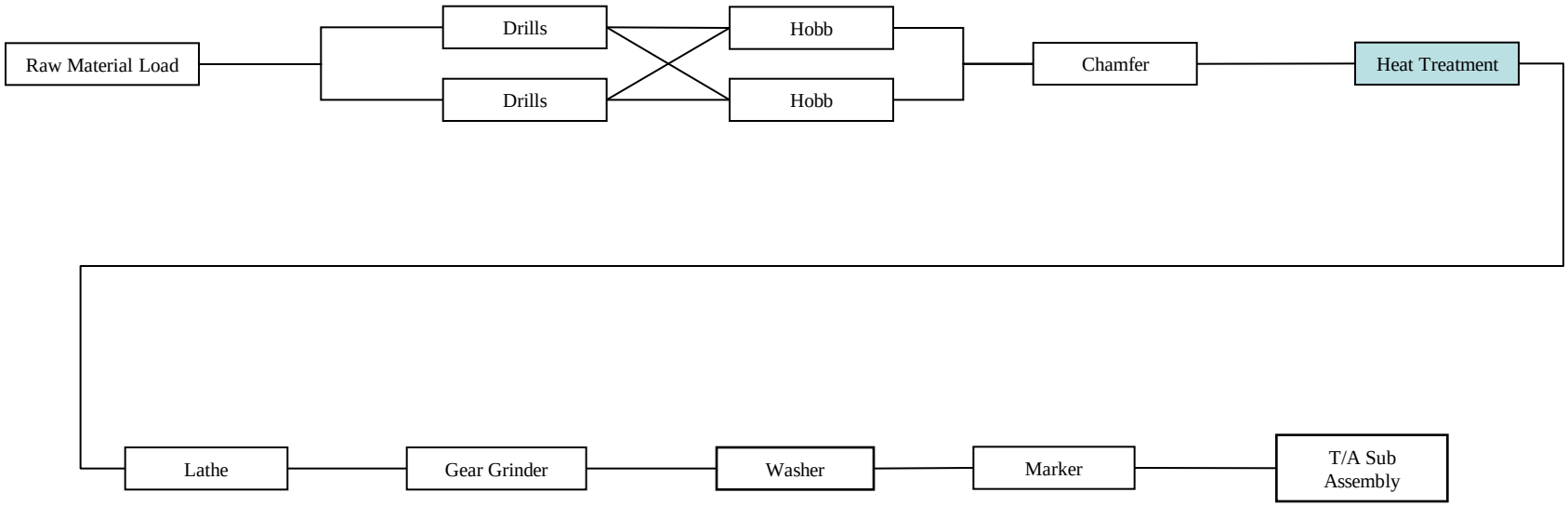
Control Device
(1) IDF
(2) SB01

Figure 18-08-01
GEAR - UD Pinion



Control Device
(1) WB60
(2) ZK58
(3) IDF

Figure 18-09-01
GEAR – Differential Ring



Control Device
(1) IDF

Figure 18-10-01
GEAR - Heat Treatment

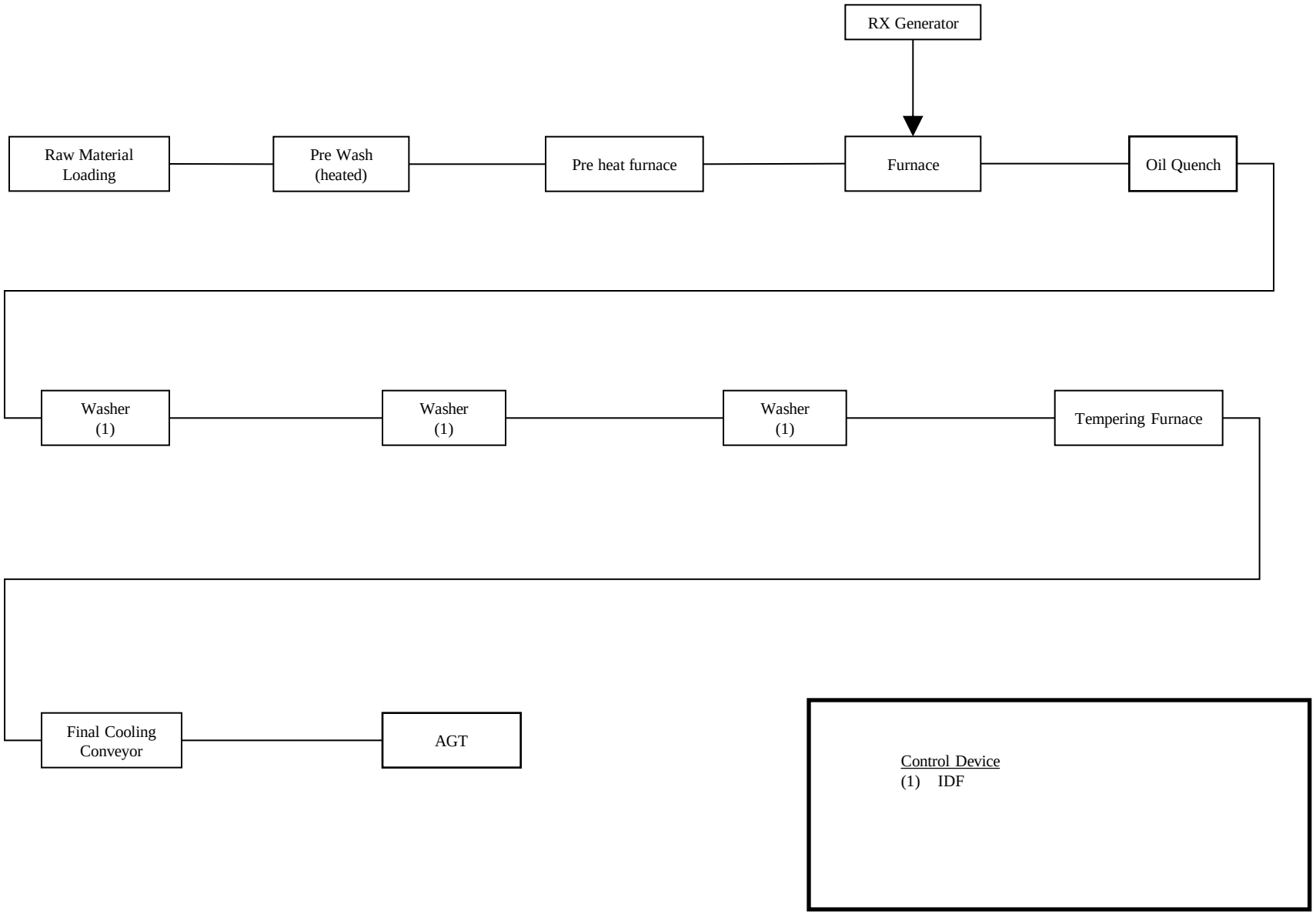


Figure 19-01-01
Valve Body Sub

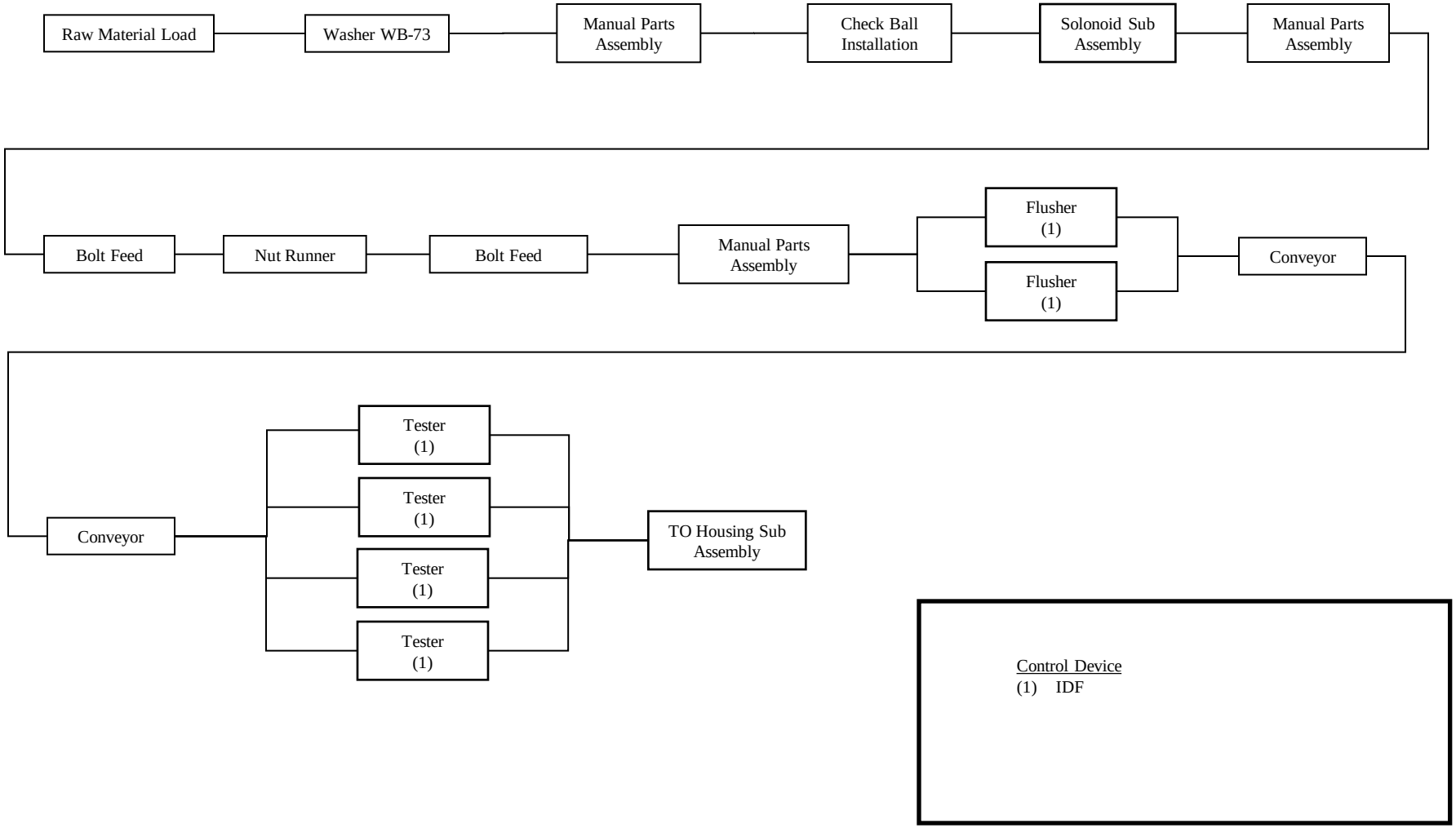


Figure 19-02-01
Transaxle (T/A) Sub

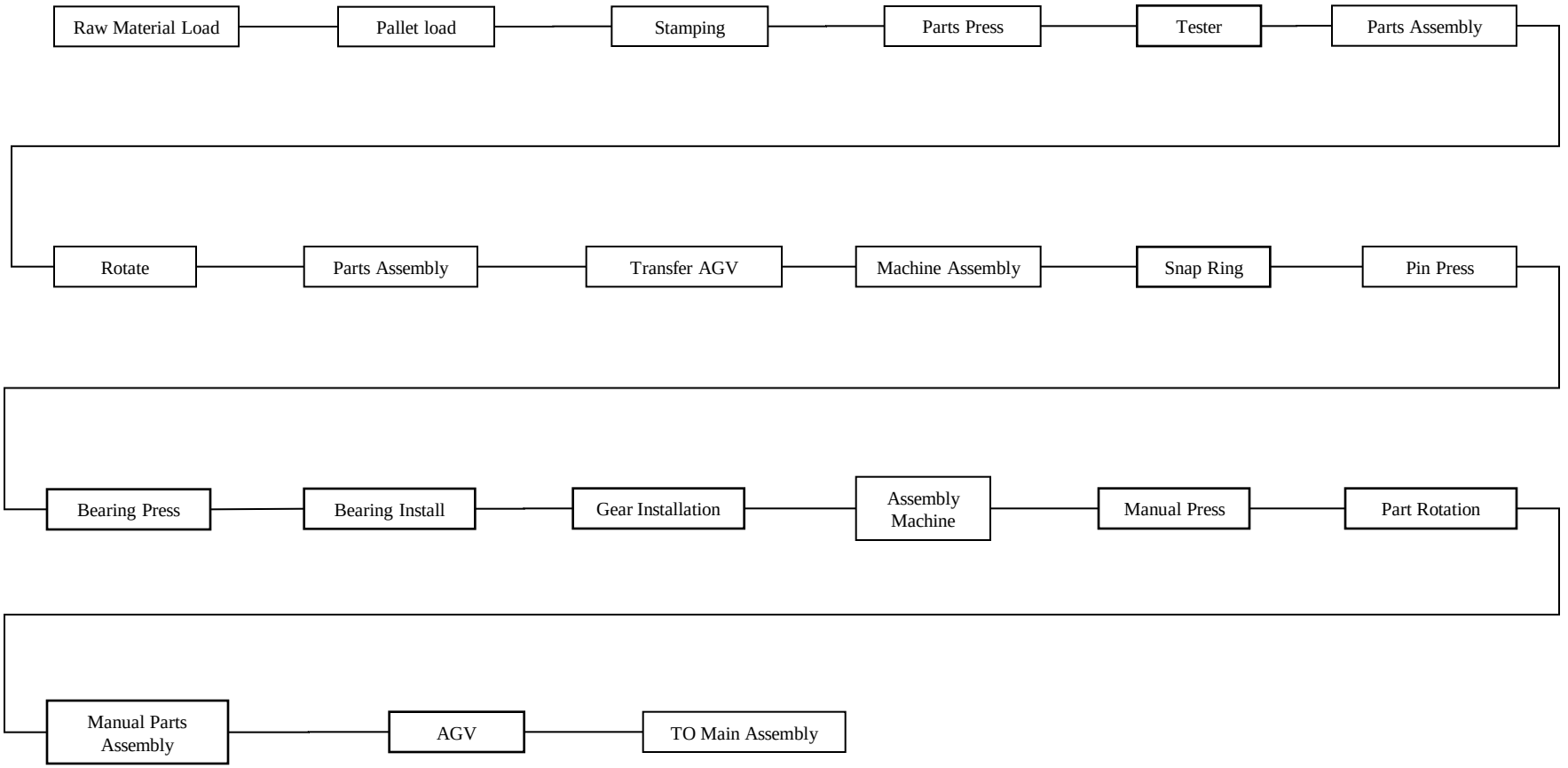


Figure 19-03-01
Small Component Sub

Manual Parts
Assembly

Figure 19-04-01
Diff and Drive Pinion Sub

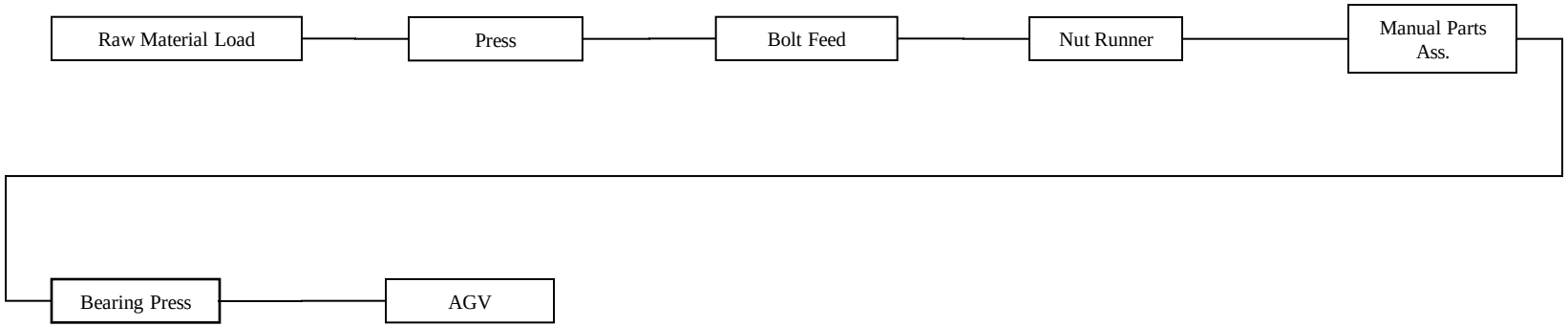


Figure 19-05-01
B1 B3 Sub-Assembly

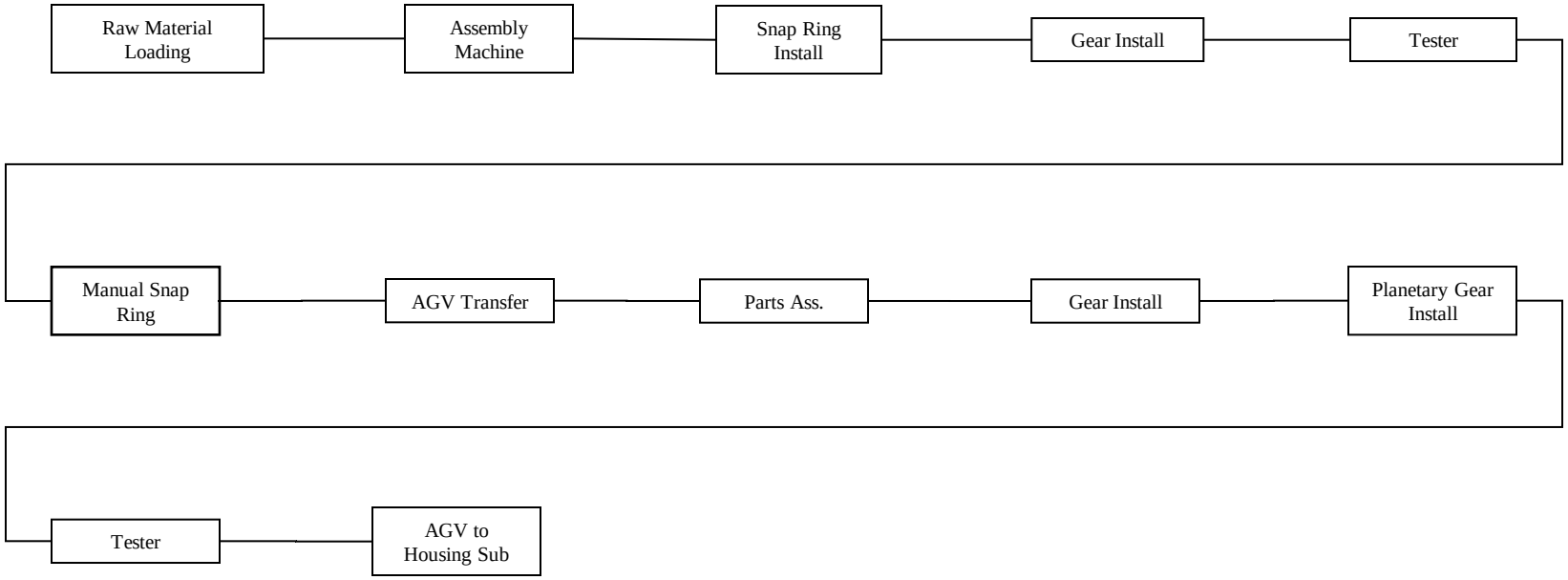
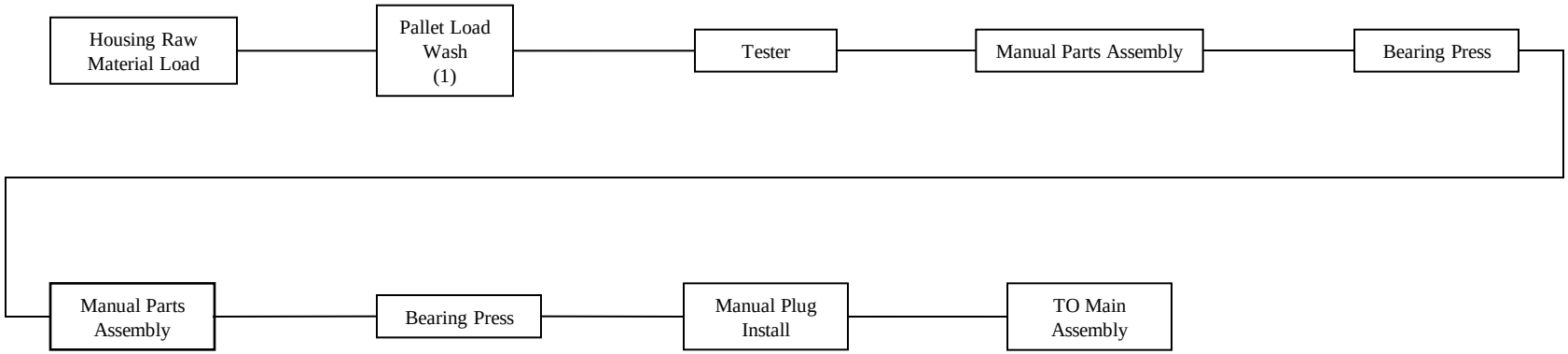


Figure 19-06-01
Housing Sub



Control Device
(1) JMWB-0073

Figure 19-07-01
Main Assembly

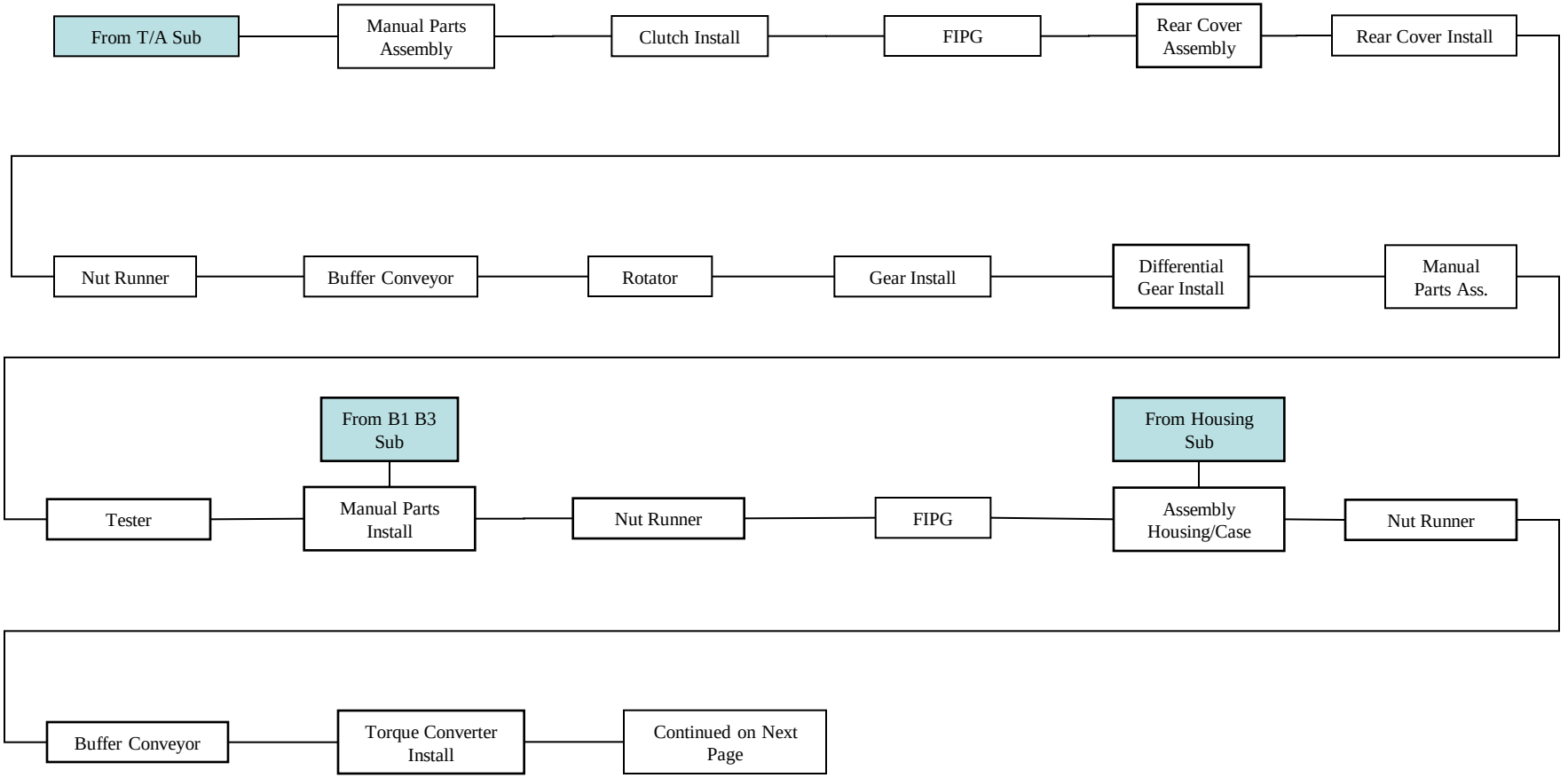


Figure 19-07-02
Main Assembly Continued

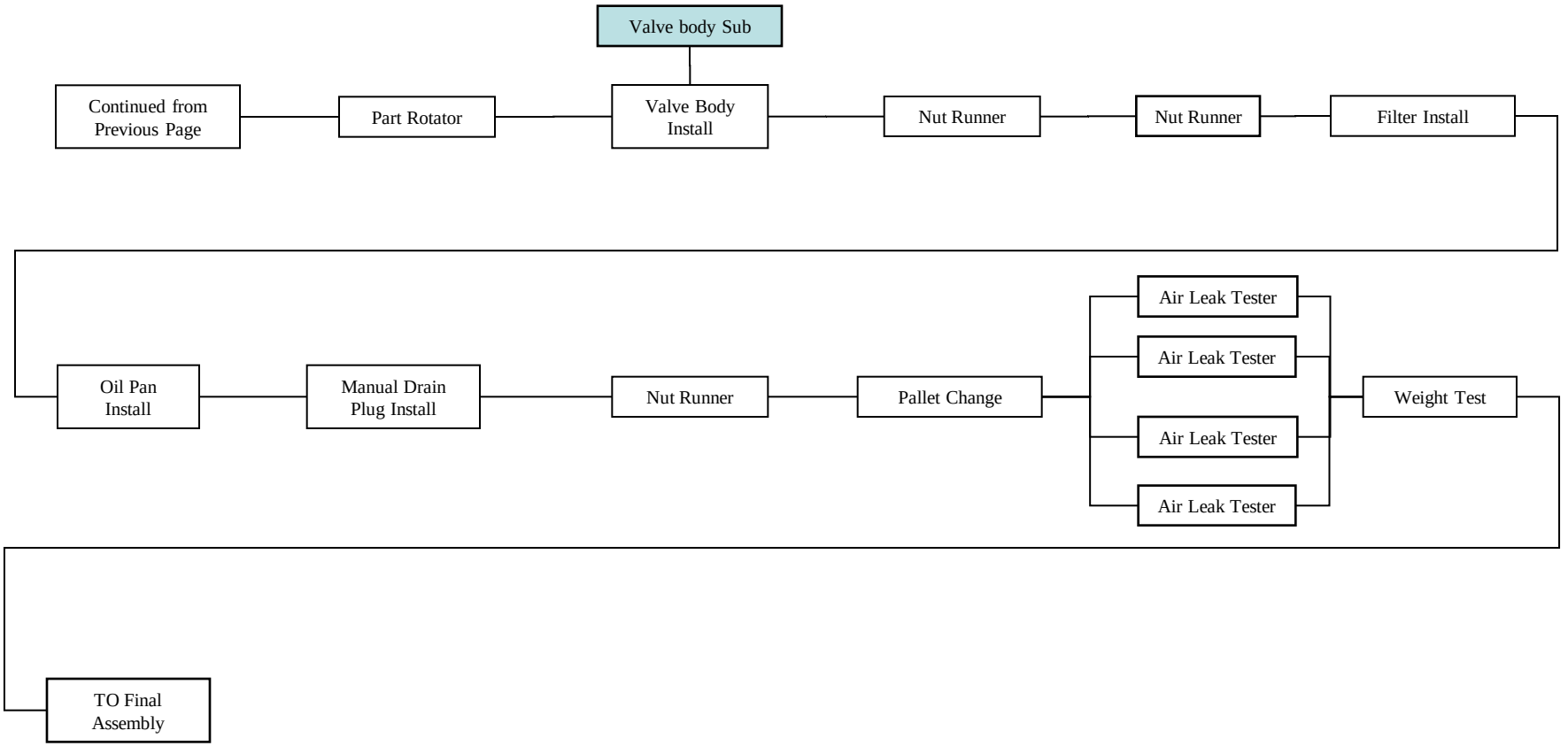
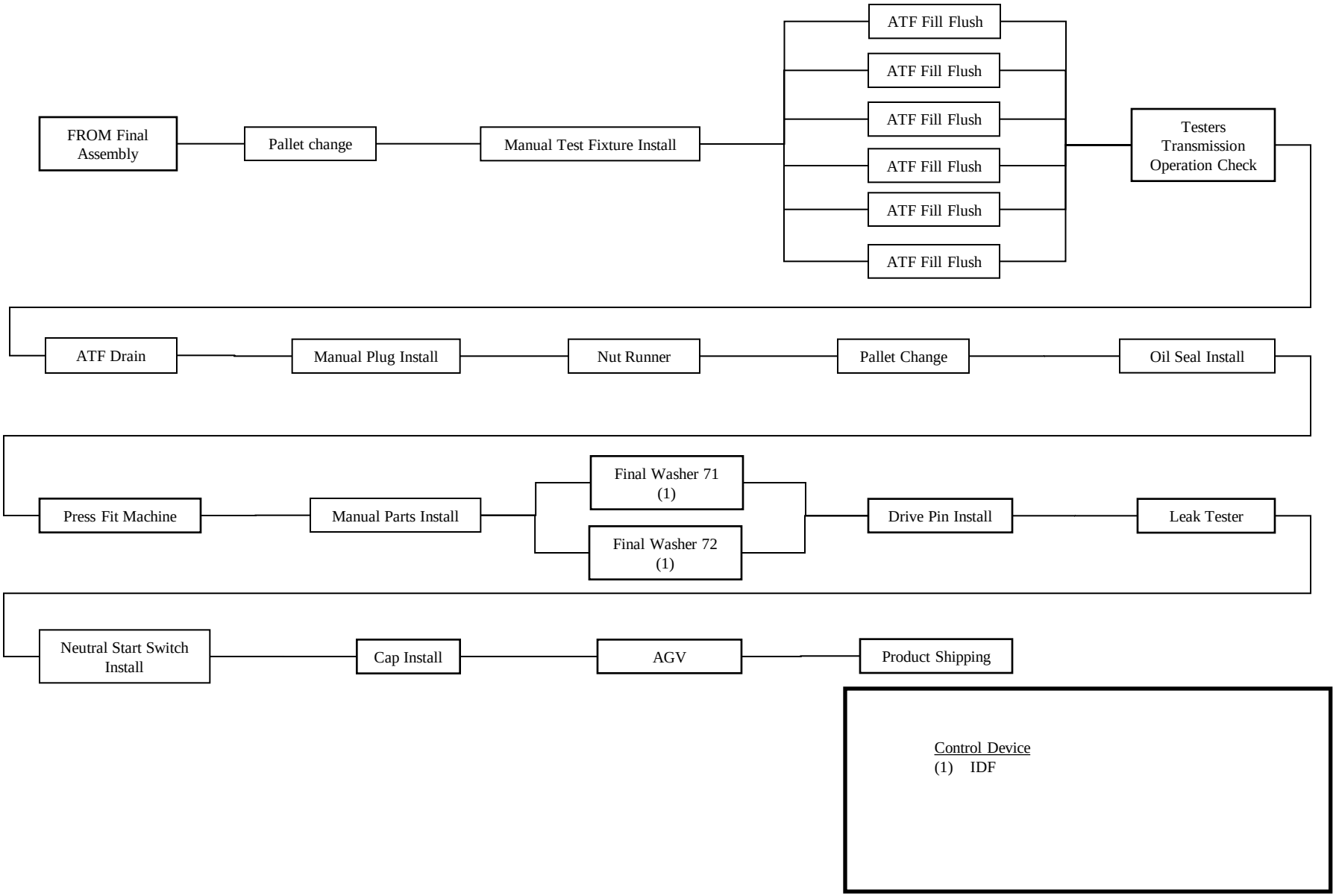


Figure 19-08-01
Final Assembly



Attachment D

ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID[1]	Control Device[1]	Emission Unit ID[1]	Emission Unit Description	Design Capacity	Year Installed/ Modified
Project #1			**4 Cylinder Machining & Shipping**	**550,000 units/year**	**1996**
NA SC01 SC11 NA	LMWB-0081 LMSC-0001 LMSC-0011 JMWB-0082	1-01-01	4-Cylinder Block Machining Line 1		
SC01 SC11 NA NA	LMSC-0001 LMSC-0011 JMWB-0082 JMWB-0083	1-01-02	4-Cylinder Block Machining Line 2		
NA NA NA NA NA SC17	JMWB-0020 JMWB-0021 LMSC-0003 LMSC-0004 LMSC-0002 LMSC-0017	1-02-01	4-Cylinder Connecting Rod Machining		
NA NA	LMSC-0004 JMWB-0008	1-03-01	4-Cylinder Piston Pin Machining		
SC12 NA NA	LMSC-0012 JMWB-0075 JMWB-0076	1-04-01	4-Cylinder Head Machining		
SC13 NA NA NA	LMSC-0013 JMWB-0078 JMWB-0080 JMWB-0079	1-05-01	4-Cylinder Cam Carrier		
DC03 NA SC10	LMDC-0003 LMWB-0089 LMSC-0010	1-06-01	4-Cylinder Cam Shaft No. 1 Machining		
SC10 DC03 DC04 NA NA	LMSC-0010 LMDC-0003 LMDC-0004 LMWB-0090 LMSC-0006	1-06-02	4-Cylinder Cam Shaft No. 2 Machining		
SC10 NA SC05 DC02 NA NA NA NA	LMSC-0010 LMSC-0007 LMSC-0005 LMDC-0002 JMWB-0087 JMWB-0088 LMWB-0019 LMSC-0006	1-07-01	4-Cylinder Crankshaft Machining		

[1]For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID[1]	Control Device[1]	Emission Unit ID[1]	Emission Unit Description	Design Capacity	Year Installed/ Modified
Project #2			**4 Cylinder Assembly**	**550,000 units/year**	**1996**
WB06	WB-06	2-01-01	4-Cylinder Short Block Sub		
QQ-00 TS172 TS181		2-03-01	4-Cylinder Main Assembly		
ZZFB	--	2-04-01	4 Cylinder Firing Bench		
SC59	LMSC-0059	2-06-01	4-Cylinder Test		
Project #3			**4 Cylinder Engine Welding**	**450,000 units/year**	**TBD**
			Not Constructed		
Project #4			**Support**	**1,100,000 units/year**	**1996**
WB02	LMWB-0002	4-01-01	Tool Regrind - Washer		
DC01	JMDC-0001 NMMZY-0001	4-01-01	Tool Grinding		
ZK11	LMZK-0011	4-02-01	Fume Hood		
IDF		4-02-01	Tool Regrind Dust Collector		
IDF		4-02-01	Tool Regrind Unit Mounted Collectors		
QCE1	QCE1	4-02-01	Engine Test Cell #1		
QCE2	QCE2	4-02-01	Engine Test Cell #2		
QCE3	QCE3	4-02-01	Engine Test Cell #3		
QCE4	QCE4	4-02-01	Engine Test Cell #4		
QCE5	QCE5	4-02-01	Engine Test Cell #5		
QCE6	QCE6	4-02-01	Engine Test Cell #6		
QCE7	QCE7	4-02-01	Engine Test Cell #7		
QCA3	QCA3	4-02-01	Transmission Test Cell #3		
QCA4	QCA4	4-02-01	Transmission Test Cell #4		
WB68			Dunnage/Pallet Washer		
NL18			Engine QC Fume Hood		
PB01			Engine QC Fume Hood		
ZY260			Transmission QC Fume Hood		
WB74			Transmission Production Conveyance Parts Washer		

[1]For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID[1]	Control Device[1]	Emission Unit ID[1]	Emission Unit Description	Design Capacity	Year Installed/ Modified
Project #5			**6 & 8 Cylinder Engine Assembly**	**550,000 units/year**	**1996**
WB32	IDF Washer	5-01-01	6-Cylinder Short Block Sub Assembly		
NA	IDF	5-02-01	6-Cylinder Piston Sub-Assembly		
WB28	IDF	5-03-01	6-Cylinder Head Sub Assembly		
NA	IDF	5-04-01	6-Cylinder Cam Carrier Sub-Assembly		
NA	IDF	5-05-01	6-Cylinder Cam Housing Sub-Assembly		
NA		5-06-01	6-Cylinder Intake Manifold Sub-Assembly		
TS72		5-07-01	6-Cylinder Main Assembly		
MZ WB		5-08-01	6-Cylinder Warm-Up Bench		
MZ SB		5-08-01	6-Cylinder Sensory Bench		
LLCV		5-08-01	6-Cylinder Long Life Coolant Vent		
MZFB	--	5-08-01	6 Cylinder Firing Bench		
Project #6			**4 Cylinder Engine Assembly**	**150,000 units/year**	**TBD**
			Not Constructed		
Project #10			**Passenger Car Axle Machining**	**591,298 units/year**	**TBD**
			Not Constructed		
Project #11			**6 Cylinder Engine Machining**	**550,000 units/year**	**TBD**
ZY158 ZY159 ZY185	LMZY-0158 LMZY-0159 LMZY-0185 IDF	11-01-01	6-Cylinder Block Machining		
ZY216	JMZY-0216	11-02-01	6-Cylinder Connecting Rod Machining		
ZY216	NLMZY-0216 IDF	11-03-01	6-Cylinder Piston Pin Machining		
ZY160	LMZY-0160	11-04-01	6-Cylinder Head Machining		
ZY161	LMZY-0161	11-04-01	6-Cylinder Head Machining		
ZY155	LMZY-0155	11-05-01	6-Cylinder Camshaft Machining		
ZY157	LMZY-0157 IDF	11-05-02	6-Cylinder Camshaft Machining		
ZY157	LMZY-0157 IDF	11-06-01	6-Cylinder Crankshaft Machining		

[1]For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID[1]	Control Device[1]	Emission Unit ID[1]	Emission Unit Description	Design Capacity	Year Installed/ Modified
Project #12			**6 Cylinder Engine Welding**	**100,000 units/year**	**TBD**
			Not Constructed		
Project #18			**A/T Machining Operations**	**900,000 units/year**	**1999**
	IDF LMZY-0285	18-01-01	Case Machining		
	IDF LMWB-0097 LMWB-0098 NLMZY-00402	18-01-02	Mid Case Machining		
	IDF	18-02-01	Housing Machining		
	IDF	18-02-02	Mid-Housing Machining		
 FL02 FL03	LMZY-0283 IDF Anodizer Anodizer	18-03-01	Valve Body Lower Machining		
	LMZY-0284 IDF	18-04-01	Valve Body Upper Machining		
	IDF	18-05-01	Gear – Counter Drive Gear		
 SB-02	IDF Dust Collector	18-06-01	Gear – Counter Driven Assembly		
SB-01	JMSB-0001	18-07-01	Gear – UD Ring		
WB60 ZK58 ZA02 ZA06 ZA09 ZE12 WB58	LMWB-0060 JMZK-0058 IDF	18-08-01	Gear – UD Pinion		
	IDF	18-09-01	Gear – Differential Ring		
CKBURN FH01 FH01-2 FH01-3 FH02 FH02-2 FH02-3 FH03 FH04 FH05 FH06 FH07 WBFH03 WBFH04 QPV ZE03-1 ZE03-2	IDF	18-10-01	Gear – Heat Treatment		

[1]For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID[1]	Control Device[1]	Emission Unit ID[1]	Emission Unit Description	Design Capacity	Year Installed/ Modified
Project #19			**A/T Assembly Operations**	**900,000**	**1996**
	IDF	19-01-01	Valve Body Sub		
		19-02-01	Transaxle Sub-Assembly		
		19-03-01	Small Component Sub-Assembly		
		19-04-01	Diff & Drive Pinion Sub-Assembly		
		19-05-01	B1 & B3 Sub-Assembly		
WB73	JMWB-0073	19-06-01	Housing Sub-Assembly		
		19-07-01	Main Assembly		
WB71 WB72	IDF	19-08-01	Final Assembly		

[1]For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID[1]	Control Device[1]	Emission Unit ID[1]	Emission Unit Description	Design Capacity	Year Installed/ Modified
Authorized Storage Tanks					
G1 G2 G3	V.R.		Gasoline Storage Tank	9,900 gallons	
DTE-1	N/A		Gasoline Day Tank	46 gallons	
DTE-2	N/A		Gasoline Day Tank	46 gallons	
DT-ZZ	N/A		Day Tank (Gasoline)	14.4 gallons	
DT-MZ	N/A		Day Tank (Gasoline)	14.4 gallons	
QC-AT	V.R.		Gasoline Storage Tank	5,075 gallons	
DTA1	N/A		Day Tank (Gasoline)	46 gallons	
DTA2	N/A		Day Tank (Gasoline)	46 gallons	
ET-01	V.R		Ethanol/Gasoline Storage Tank	6,000 gallons	
N/A – No vent to atmosphere	N/A		Ethanol/Gasoline Storage Tank	60 gallons	
OST1, OST2	N/A		Oil Storage Tank (2 compartments)	11,670 gallons	
IDF	N/A		Oil Storage Tank	66 gallons	
IDF	N/A		Oil Storage Tank (3 compartments)	198 gallons	
OST7	N/A		Oil Storage Tank	12,000 gallons	
OST8	N/A		ATF Storage Tank	12,000 gallons	
FH1	N/A		No. 2 Fuel Oil Tank	550 gallons	
FH2	N/A		No. 2 Fuel Oil Tank	550 gallons	
T17	N/A		Sulfuric Acid Tank	3,000 gallons	

[1]For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID[1]	Control Device[1]	Emission Unit ID[1]	Emission Unit Description	Design Capacity	Year Installed/ Modified
Authorized Emergency Generators					
		DG-5031	Diesel Electric Generator	9.92 MMBtu/hr	2005
		GEN-11E	Emergency Lighting Generator	41 HP - Brake	2004
		GEN-11W	Emergency Lighting Generator	41 HP - Brake	2004
		GEN-12	Emergency Lighting Generator	41 HP - Brake	2004
		GEN-13	Emergency Lighting Generator	41 HP - Brake	2004
		GEN-14	Emergency Lighting Generator	68 HP - Brake	2006
		GEN-15	Emergency Lighting Generator	68 HP - Brake	2006
		GEN-IS	Emergency Generator for Computer Data Center	68 HP - Brake	2006
		GEN-SBR	Emergency Generator for Wastewater	105 HP - Brake	2006

[1]For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

Attachment E

ATTACHMENT E - Emission Unit Form

Emission Unit Description **Projects #1 - #19 and Surface Coating Operations**

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
1-01-01 through 19-08-01 See Attachments C and D	Projects #1-19 & Surface Coating Operations	See Table G-1

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
These emission units as associated with the machining, welding, assembly, and surface coating operations at TMMWV. The emission units include 4 cylinder engine machining, short block sub, main assembly, and shipping; 6 cylinder machining and assembly; automatic transmission machining and assembly; and surface coating operations; Quality control test/firing benches and heat treatment are NOT included in this emission unit grouping and are instead included with combustion sources

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
1996 - 1999	1996 - 1999	10/12/2011

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Project #1, 2, 5, 11 – 550,000 units/yr	Project #6 – 150,000 units/yr	Projects #18, 19 – 900,000 units/yr
Project #3 – 450,000 units/yr	Project #10 – 591,298 units/yr	
Project #4 – 1,100,000 units/yr	Project #12 – 100,000 units/yr	

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
262	See Design Capacities	2250 hours/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)	14.76	64.86
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	202.48	227.66
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
VOC-HAPs	0.38	0.43
PM-HAPs	0.4	0.46
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering estimates with AP-42 emission factors

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

4.1.1. The machining, welding, and assembly operations authorized to take place by this permit at the subject facility are listed in Section 1.0 (Appendix A). The operations shall be within the listed production limits. **[Permit no. R13-2062 – Specific Requirement A.1.a.]**

4.1.2. Maximum hourly and annual emission rates of volatile organic compounds (VOCs) and volatile organic compound-hazardous air pollutants (VOC-HAPs) shall be those as set forth in the following table. All annual emission limits are on a twelve (12) month continuous rolling total basis. A twelve (12) month continuous rolling total is the sum of the measured quantity for the previous (12) twelve consecutive months.

Table A.1.b: Project Activity VOC and VOC-HAP Emission Limits

Project Activity Numbers	Grouping Description	VOC Emission Limits(1)		VOC-HAP Emission Limits (lb/yr)
		lb/hr	ton/year	
1,2,3,4(3),6	4-Cylinder Engines Machining/Assembly and Support	74.90	84.27	859.41(2)
4(3),5,11,12	6 and 8-Cylinder Engines Machining/Assembly and Support	53.95	60.55	
4(3),10,13,18, 19	Automatic Transmissions and Support	73.63	82.84	

NOTES:
(1) These limits represent aggregate limits for all of the listed project activities.
(2) Facility-wide aggregate limit. VOC-HAPs that count against emission limit are those compounds listed under Section 112(b) of the CAAA.
(3) Project Activity 4 contributes one-third of its emissions to each major grouping.

4.1.3. Maximum hourly and annual emission rates of particulate matter (PM) and particulate matter-hazardous air pollutants (PM-HAPs) shall be those as set forth in the following table. All annual emission limits are on a twelve (12) month continuous rolling total basis. A twelve (12) month continuous rolling total is the sum of the measured quantity for the previous (12) twelve consecutive months.

[Permit no. R13-2062 – Specific Requirement A.1.c.] Table A.1.d: Project Activity/Exhaust Fans PM and PM-HAP Emission Limits (1)

Project	Project	PM Emission Limits (2)		PM HAP Emission Limits (3)	
Activity #	Description	Pound/Hr	Tons/Year	Pound/Hr	Tons/Year
1	4 cyl engine machining	1.18	5.17	0.02	0.02
2	4 cyl engine assembly	0.04	0.18	0.00	0.00
3	4 cyl engine welding	1.28	5.61	0.00	0.00
4	Maintenance, QC, tool regrind	0.40	1.75	0.00	0.00
5	6 cyl & 8 cyl engine assembly	0.11	0.65	0.00	0.00
6	4 cyl B engine assembly	0.07	0.31	0.00	0.00
10	Passenger car axle machining 1	0.20	0.89	0.00	0.00
11	6 cyl engine machining	0.79	3.47	0.01	0.01
12	6 cyl engine welding	0.64	2.81	0.36	0.41
18	Automatic transmission machining	1.91	8.36	0.01	0.02
19	Automatic transmission assembly	0.12	0.53	0.00	0.00
-	Exhaust Fans	8.02	35.13	0.00	0.00

_X__ Permit Shield

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

NOTES: (1) PM/PM-HAP emission limits are on a per Project Activity basis.
(2) PM-HAPs that count against emission limits are those compounds listed under Section 112(b) of the CAA.
(2) For the purposes of this permit, total PM limits are also limits for PM_{10} and $PM_{2.5}$.
(3) PM-HAPs that count against emission limits are those compounds listed under Section 112(b) of the CAA.

4.1.4. Pursuant to 45CSR7, Section 3, the permittee shall not cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any operation permitted under Section 4.1.1 which is greater than twenty (20) percent opacity, except smoke and/or particulate matter emitted from any operation permitted under Section 4.1.1 which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. **[Permit no. R13-2062 – Specific Requirement A.1.e, B.4; 45CSR§§7-3.1&3.2]**

4.1.5. No surface coating shall be applied that has VOC content in excess of those limits as listed in West Virginia Legislative Rule 45CSR21, Section 19.3. Definitions of the types of surface coatings listed in Section 19.3 shall be those as given to them in 45CSR21. **[Permit no. R13-2062 – Specific Requirement A.3.a; 45CSR§21-19.3]**

4.1.6. For the purposes of this permit, emissions from surface coating operations are counted against the limits permitted under Condition 4.1.12. and should be recorded under requirement 4.4.1(a). **[Permit no. R13-2062 – Specific Requirement A.3.b.]**

4.1.7. Pursuant to 45CSR21, Section 40.3(a)(1), the permittee shall utilize mist collectors and reductions in VOC content so as to achieve, at a minimum, a facility-wide 90 percent reduction in VOC emissions below the total (aggregate) maximum theoretical VOC emissions. "Maximum theoretical emissions" shall have the definition given to it under 45CSR21, Section 2.44. Pursuant to 45CSR21, Section 40.3(b), the permittee may comply with Sections 4.1.7 and 4.1.8 through the submission and approval of an "alternative emissions reduction plan." **[Permit no. R13-2062 – Specific Requirement A.5.a; 45CSR§§21-40.3(a)(1)&(b)]**

4.1.8. The permittee shall use dust and mist collectors on the emission sources as specified in Permit Applications R13-2062 through R13-2062J and R13-2273, and any amendments or revisions thereto. Said collectors shall be installed, maintained, and operated so as to each achieve the minimum control efficiency listed.
[Permit no. R13-2062 – Specific Requirement A.5.b.]

4.1.9 No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.
[Permit no. R13-2062 – Other Requirements B.4; 45CSR§7-5.1]

4.1.10. The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment.
[Permit no. R13-2062 – Other Requirements B.4; 45CSR§7-5.2]

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

4.1.11. Due to unavoidable malfunction of equipment, emissions exceeding those set forth in 45CSR7 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.
[Permit no. R13-2062 – Other Requirements B.4; 45CSR§7-9.1]

4.1.12. Variance. -- If the provisions of 45CSR21 cannot be satisfied due to repairs made as the result of routine maintenance or in response to the unavoidable malfunction of equipment, the Director may permit the owner or operator of a source subject to this regulation to continue to operate said source for periods not to exceed 10 days upon specific application to the Director. Such application shall be made prior to the making of repairs and, in the case of equipment malfunction, within 24 hours of the equipment malfunction. Where repairs will take in excess of 10 days to complete, additional time periods may be granted by the Director. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director. During such time periods, the owner or operator shall take all reasonable and practicable steps to minimize VOC emissions.
[Permit no. R13-2062 – Other Requirements B.6; 45CSR§21-9.3]

4.1.13. With respect to any source at a facility subject to 45CSR§21-40, which source has maximum theoretical emissions of 6 pounds per hour or more and is constructed, modified or begins operating after the effective date of 45CSR21, comply with a control plan developed on a case-by-case basis approved by the Director that meets the definition of reasonably available control technology (RACT) in 45CSR§21-2.60 for both fugitive and non-fugitive emission sources.
[Permit no. R13-2062 – Other Requirements B.6; 45CSR§21-40.3(c)]

4.1.14. All RACM control plans, RACT control plans, and alternative emissions reduction plans approved by the Director pursuant to 45CSR§21-40 shall be embodied in a consent order or permit in accordance with 45CSR13 or 45CSR30, as required. A facility owner or operator may at any time petition the Director to approve revisions to these plans. The decision concerning said petition shall be issued by the Director in accordance with 45CSR13 or 45CSR30, as required, or a consent order. Any such revisions shall be subject to the public participation requirements of 45CSR13 or 45CSR30.
[Permit no. R13-2062 – Other Requirements B.6; 45CSR§21-40.4(e)]

4.1.15. An owner or operator of a non-coating source that is exempt from the emission limitations in 45CSR§21-40.3 shall submit, upon request by the Director, records that document that the source is exempt from these requirements.
1. These records shall be submitted to the Director within 30 days from the date of request.
2. If such records are not made available, the source will be considered subject to the limits in 45CSR§21-40.3.
[Permit no. R13-2062 – Other Requirements B.6; 45CSR§21-40.6(b)]

4.1.16. The owner or operator of any facility containing sources subject to 45CSR§21-40, shall comply with the requirements in 45CSR§21-5 except that such requirements, as they apply to sources solely subject to 45CSR§21-40 may be modified by the Director upon petition by the owner or operator. Any such modified requirements shall be embodied in the facility's control plan (RACM, RACT or alternative plan) and reflected in the associated consent order or permit issued pursuant to 45CSR13 or 45CSR30.
[Permit no. R13-2062 – Other Requirements B.6; 45CSR§21-40.8(c)]

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

4.1.17. The owner or operator of a subject coating line or operation shall notify the Director in the following instances:

1. Any record showing use of any non-complying coatings shall be reported by sending a copy of such record to the Director within 30 days following that use; and
2. At least 30 calendar days before changing the method of compliance from the use of complying coatings to daily-weighted averaging or control devices, the owner or operator shall comply with all requirements of §45-21-4.4.a. or §45-21-4.5.a., respectively. Upon changing the method of compliance from the use of complying coatings to daily-weighted averaging or control devices, the owner or operator shall comply with all requirements of the section of this regulation applicable to the coating line or operation.

[Permit no. R13-2062 – Other Requirements B.7; 45CSR§21-4.3(c)]

4.1.18. Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity given in Table 45-7B of 45CSR7. According to Table 45-7B of 45CSR7 allowable Stack gas concentration of Sulfuric acid mist in Milligrams per Dry Cubic meter at Standard conditions shall not exceed 35. **[45CSR§7-4.2] [Project #18, Transaxle Case process]**

4.1.19. Use of any material containing any constituent identified in Section 112(b) of the 1990 Clean Air Act Amendments as a Hazardous Air Pollutant (HAP), as amended and revised, shall be in accordance with the following:

(a) The permittee shall maintain records of all specific HAP compounds used at the facility as required under Section 4.4.1; and

(b) No material containing any toxic air pollutant (TAP) as defined by West Virginia Legislative Rule 45CSR27, Section 2.10., shall be used without prior approval of the Director.

[Permit no. R13-2062 – Specific Requirement A.8.gi.]

4.1.20. The permittee shall use catalytic converters on each test cell as required in Condition 5.1.5 at all times the test cells are in operation. Use of catalytic converters shall be in accordance with the following requirements:

(1) Catalyst life will be limited to that which is recommended by the manufacturer.

(2) The permittee shall install an alarm system to notify the operator if the catalyst temperature exceeds the normal operating range as determined under Condition 4.2.1. Upon such notification, the operator will immediately initiate shut-down activity of the associated testing operation.

[Permit no. R13-2062 – Specific Requirement A.5.c.]

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For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Monitoring Requirements

4.2.1. The permittee shall develop, or continue the application of, a compliance monitoring plan with respect to the operation of the control devices. This plan will identify the following:

Are you in compliance with all applicable requirements for this emission unit? _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

(a) Control device parameters that can be monitored to ensure operation of the control devices at or above their minimum control efficiencies. This must include direct monitoring of the catalytic converter catalyst temperature.
(b) Reasonable operating ranges for the control device parameters that ensure operation of the control devices at or above their minimum control efficiencies.
(c) Validation of the ranges identified under (b) above either with manufacture's recommendations or on-site testing.
As necessary or as reasonably required by the Director, the permittee shall revise and submit the plan as detailed above to the Director. This plan shall be subject to the approval of the Director. A copy of the approved plan shall be kept on-site and made available to the Director or his/her duly authorized representative upon request.
[Permit no. R13-2062 – Specific Requirement A.7.a.]

4.2.2 . The permittee shall develop, or continue the application of, a routine maintenance, repair, and replacement plan with respect to all emissions generating equipment and control devices and maintain records of all scheduled and non-scheduled maintenance performed on the equipment. These records need not include maintenance tasks that have no potential effect on emissions performance. A copy of the plan shell be kept on-site and made available to the Director or his/her duly authorized representative upon request.
[Permit no. R13-2062 – Specific Requirement A.7.b.]

4.2.3. At least monthly, visual emission checks of each emission point subject to an opacity limit shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40 CFR 60 Appendix A, Method 22. If sources of visible emissions are identified during the survey, or at any other time, the permittee shall conduct a 40 CFR 60 Appendix A, Method 9 evaluation within one (1) month. A Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions. A record of each visible emission check required above shall be maintained on site for a period of no less than five (5) years. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer. **[Permit no. R13-2062 – Specific Requirement A.7.c.]**

4.2.4. The concentration of the sulfuric acid used in the Valve Body anodizer process (Project #18) shall be tested on a monthly basis and shall not exceed 30%. Records of sulfuric acid concentration in the anodizer process shall be retained on-site. [**45CSR§§30-5.1.c. & 12.7.**]

Testing Requirements

4.3.1. The owner or operator of any source subject to 45CSR§21-40.3 shall demonstrate compliance with 45CSR§21-40.3 by using the applicable test methods specified in 45CSR§21-41 through 46 or by other means approved by the Director. Notwithstanding the requirements of 45CSR§21-41.1, EPA approval for alternate test methods to demonstrate compliance shall not be required for sources which are subject solely to emission control requirements specified in 45CSR§21-40.3. **[Permit no. R13-2062 – Other Requirements B.6; 45CSR§21-40.5]**

4.3.2. The owner or operator of the subject VOC sources shall perform all testing and maintain the results of all tests and calculations required under 45CSR§21-40.3 and 45CSR§21-40.5 to demonstrate that the subject source is in compliance. **[Permit no. R13-2062 – Other Requirements B.6; 45CSR§21-40.8(a)]**

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

4.3.3. Upon startup of a new coating line or operation, or upon changing the method of compliance for an existing coating line or operation from the use of complying coatings or daily-weighted averaging to control devices, the owner or operator of the subject coating line or operation shall perform a compliance test. Testing shall be performed pursuant to the procedures in 45CSR§21-41 through 44. The owner of operator of the subject coating line or operation shall submit to the Director the results of all tests and calculations necessary to demonstrate that the subject coating line or operation is or will be in compliance with the applicable section of this regulation on and after the initial startup date.
[Permit no. R13-2062 – Other Requirements B.7; 45CSR§21-4.5(a)]

4.3.4. For sulfuric acid mist testing permittee shall use 40 C.F.R. **§** 60.85 (a) and (b) and 40 CFR 60 Appendix A, Methods 1, 2, 3, and 8, as published on July 1, 1997, except that the SO_2 emission rate does not necessarily have to be determined. The sulfuric acid mist concentration shall be expressed in milligrams per dry standard cubic meter. Permittee shall furnish the Secretary a written report of the results of such testing and sulfuric acid concentration used during testing.
These records shall be maintained on site.
Subsequent testing to determine compliance with the sulfuric acid mist limitation (as per Section 4.1.18) shall be conducted in accordance with the schedule set forth in the following table:

Test Results	Testing Frequency
<50% of sulfuric acid mist limit	No additional Testing except as required in Section 4.3.5
Between 50% and 90 % of sulfuric acid mist limit	Once/ 5 years
≥90% of sulfuric acid mist limit	Annual

[45CSR§30-5.1.c] [Project #18, Transaxle Case anodizer process]

4.3.5. If the concentration of the sulfuric acid used in the Valve Body anodizer process (Project #18) exceeds 30%, the company shall perform a subsequent stack test as required in Section 4.3.4 within 90 days of switching to a higher concentration of sulfuric acid. Subsequent testing to determine compliance with sulfuric acid mist limitation shall be conducted in accordance with the schedule set forth in Section 4.3.4. **[45CSR§30-5.1.c]**

Recordkeeping Requirements

4.4.1. For the purposes of determining on-going compliance with the limits set forth in Section 4.1.2, the permittee shall maintain records of the following on an project activity grouping (as listed under Table 1.b) basis:

(a) The hours of operation of each project activity grouping; and
(b) The name and product number of each coolant, washing fluid, solvent, etc. (referred to hereafter as "material") used in the operation of each project activity grouping that is not excluded under Section 4.4.1 (e); and
(c) The mass of VOC and speciated HAPs of each material and the volume of each material used each month.
(d) Within fifteen (15) days of the last day of each month, the permittee shall file a summary report that contains the following information: hourly, monthly, and rolling twelve month emission rates for VOCs and speciated HAPs from each of the project activity grouping listed under Section 4.1.2, Table 1.b. The VOC and speciated HAP emission rates shall be calculated using the following formulas:
    (i) The mass of VOCs and speciated HAPs *per volume* of each material shall be determined by one of the following methods:
        1. Certified Product Data Sheets ("Certified Product Data Sheets" shall have the definition assigned to them under 40 CFR 63, Subpart KK) or an equivalent provided by the material supplier, or
        2. A test conducted, or have conducted, by the permittee to determine the applicable quantities using either Method 24 of 40 CFR 60 or a test method approved in advance by the Director, or

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

3. Material Safety and Data Sheets if the material is used in an aggregate amount less than 100 gallons on an annual basis and for which either of the above two options is not reasonable, or
4. Another method on a material case-by-case basis as approved in advance by the Director.

(ii) The mass of VOCs and speciated HAPs of each material used on a monthly basis, shall be calculated using the following formula:

$$Mass_{(pounds\ of\ VOCs,\ HAPs/Month)} = A*B$$

Where: A = monthly material usages in gallons per month
B = VOCs and speciated HAPs content of the materials used in pounds per gallon as determined under Section 4.4.1 (d) (i).

(iii) The annual, monthly, and hourly emission rates of VOCs and speciated HAPs shall be calculated in the following manner:

1. The annual emission rate of VOCs and aggregate and speciated HAPs shall be calculated as the sum of the monthly emission rates of VOCs and speciated HAPs, respectively, from the previous twelve (12) months.
2. The monthly emission rate of VOCs and aggregate and speciated HAPs shall be calculated, on a monthly basis, using the following formula:

$$Emission\ rate_{(pounds\ of\ VOCs,\ HAPs/Month)} = Mass_{(pounds\ of\ VOCs,\ HAPs/Month)}$$

3. The hourly emission rates of VOCs and aggregate and speciated HAPs shall be calculated, on a monthly basis, using the following formula:

$$Emission\ rate_{(pounds\ of\ VOCs,\ HAPs/Hour)} = Emission\ rate_{(pounds\ of\ VOCs,\ HAPs/Month)}/D$$

Where: D = Monthly hours of specific project activity operations

(e) Materials may be excluded from actual emissions reporting under this section when/if used during non-production/assembly purposes (e.g., janitorial) only.

[Permit no. R13-2062 – Specific Requirement A.8.a.]

4.4.2. For the purposes of determining compliance with the VOC emissions reduction requirement set forth in Section 4.1.7, the permittee shall, within fifteen (15) days of the last day of each month, file a report that contains the annual VOC emissions reduction percentage.
[Permit no. R13-2062 – Specific Requirement A.8.b.]

4.4.3. For the purposes of determining compliance with maximum production throughput limits set forth in Section 4.1.1, the applicant shall maintain monthly and annual records of the production levels for each Project Activity permitted therein. **[Permit no. R13-2062 – Specific Requirement A.8.c.]**

4.4.4. The owner or operator of the subject VOC source shall maintain Section 4.3.2 records in a readily accessible location for a minimum of 3 years, and shall make Section 4.3.2 records available to the Director upon verbal or written request. **[Permit no. R13-2062 – Other Requirements B.6; 45CSR§21-40.8(b)]**

4.4.5. Recordkeeping

a. Each owner or operator of a source subject to 45CSR§21-5 shall maintain up-to-date, readily accessible records of any equipment operating parameters specified to be monitored in the applicable section of 45CSR21 as well as up-to-date, readily accessible records of periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. These records shall be maintained for at least 3 years. The Director may at any time require a report of these data.
b. A log of operating times for capture systems, control devices, monitoring equipment, and the associated source; and
c. A maintenance log for the capture system, control devices, and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of any outages. **[Permit no. R13-2062 – Other Requirements B.6; 45CSR§21-5.3(b)]**

Are you in compliance with all applicable requirements for this emission unit? _X_Yes ___No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

4.4.6. On and after the initial startup date, the owner or operator of a coating line or operation complying by the use of complying coatings shall collect and record all of the following information each day for each coating line or operation and maintain the information at the facility for a period of 3 years.

1. The name and identification number of each coating, as applied, on each coating line or operation; and
2. The mass of VOC per volume of each coating (minus water and exempt compounds), as applied, used each day on each coating line or operation.

[Permit no. R13-2062 – Other Requirements B.7; 45CSR§21-4.3(b)]

Reporting Requirements

4.5.1. Upon startup of a new coating line or operation, or upon changing the method of compliance for an existing subject coating line or operation from the use of complying coatings or control devices to daily-weighted averaging, the owner or operator of the subject coating line or operation shall certify to the Director that the coating line or operation is or will be in compliance with 45CSR§21-4.4 on and after the initial startup date. Such certification shall include:

1. The name and location of the facility;
2. The address and telephone number of the person responsible for the facility;
3. Identification of subject sources;
4. The name and identification number of each coating line or operation which will comply by means of daily weighted averaging;
5. The instrument or method by which the owner or operator will accurately measure or calculate the volume of each coating (minus water and exempt compounds), as applied, used each day on each coating line or operation;
6. The method by which the owner or operator will create and maintain records each day as required in Section 45CSR§21-4.4.b;
7. An example of the format in which the records required in section 45CSR§21-4.4.b will be kept;
8. Calculation of the daily-weighted average, using the procedure in 45CSR§21-43.1, for a day representative of current or projected maximum production levels; and
9. The time at which the facility's "day" begins if a time other than midnight local time is used to define a "day". **[Permit no. R13-2062 – Other Requirements B.7; 45CSR§21-4.4(a)]**

4.6. Compliance Plan

4.6.1. N/A

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description **Combustion Operations, Testing, and Heat Treatment**

Emission unit ID number:	**Emission unit name:** QE1S-QE7S, QA3S, QA4S See Attachments E-1 and E-3	**List any control devices associated with this emission unit:** See Attachment G-1
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Combustion Operations, Testing, and Heat Treatment		
Manufacturer: N/A	**Model number:** N/A	**Serial number:** N/A
Construction date: 1996-1999	**Installation date:** 1996-1999	**Modification date(s):** 10/12/2011
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Test Cells – 1,100,000 Units/Yr; for combustion units, See Attachments E-1 and E-3		
Maximum Hourly Throughput: N/A	**Maximum Annual Throughput:** N/A	**Maximum Operating Schedule:** 8760 hours
Fuel Usage Data **(fill out all applicable fields)**		
Does this emission unit combust fuel? _X_Yes ___ No		**If yes, is it?** ___ Indirect Fired _X_Direct Fired
Maximum design heat input and/or maximum horsepower rating: For test benches and engines, varies based on engine model For HVAC and Generators, see Attachments E-1 and E-3		**Type and Btu/hr rating of burners:** For HVAC, see Attachment E-1
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each. For HVAC, see Attachment E-1 For Generators, see Attachment E-3		

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Gasoline			114,500 btu/gal
Diesel	15 ppm	0.01 %	129,500 btu/gal
Gasoline/Ethanol			114,500 btu/gal
Pipeline Natural Gas	<0.6 gr/ 100 scf		

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	14.91	142.12
Nitrogen Oxides (NO_X)	53.84	52.76
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	1.55	5.61
Particulate Matter (PM_{10})	1.55	5.61
Total Particulate Matter (TSP)	1.55	5.61
Sulfur Dioxide (SO_2)	3.14	3.61
Volatile Organic Compounds (VOC)	0.98	15.71
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Stack Testing
Engineering Estimates using AP-42 Emission Factors

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Limitations and Standards

5.1.1. Excluding the emergency generators permitted in Section 7 of this Permit, the facility-wide maximum design heat input of all natural gas combustion units shall not exceed 172.03 mmBtu/hr and the facility-wide combustion of natural gas shall not exceed, on a twelve (12) month rolling total basis, 1,005 million standard cubic feet. Excluding the emergency generators permitted in Section 7 of this Permit, the natural gas combustion sources authorized at the facility are HVAC units and the following sources in the Heat Treatment Operations: Dry Furnaces, Carburizing Furnaces, and RX Gas Generators. **[Permit no. R13-2062 – Specific Requirement A.2.a.]**

5.1.2. The maximum design heat input of propane combustion in the heat treatment process shall not exceed 1.33 mmBtu/hr and, on a twelve (12) month rolling total basis, the use of propane shall not exceed 127,546 gallons. **[Permit no R13-2062 – Specific Requirement A.2.b.]**

5.1.3. The use of the diesel-electric generator (DG-5031) shall be in accordance with the following:

(a) The maximum design heat input shall not exceed 9.92 mmBtu/hr.

(b) The combustion of Number 2 Fuel Oil shall not exceed, on a twelve (12) month rolling total basis, 141,715 gallons.

(c) The maximum weight percent of sulfur in the Number 2 Fuel Oil shall not exceed 0.3%.
[Permit no. R13-2062 – Specific Requirement A.2.c.]

5.1.4. Pursuant to 45CSR2, Section 3.1, the permittee shall not cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any indirect heat exchanger which is greater than ten (10) percent opacity based on a six minute block average. Pursuant to 45CSR2, Section 9.1, the visible emission standards set forth in Section 5.1.4 shall apply at all times except in periods of start-ups, shutdowns and malfunctions. Where the Director believes that start-ups and shutdowns are excessive in duration and/or frequency, the Director may require an owner or operator to provide a written report demonstrating that such frequent start-ups and shutdowns are necessary.
[Permit no. R13-2062– Specific Requirement A.2.h, B.2]

5.1.5. The use of engine test cells and firing benches shall be in accordance with the following:

(1) The test cells/firing benches authorized at the facility are given in the following table. The test cells/firing benches shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants and the equipment/processes shall use, where applicable, the specified control devices.

_X_ Permit Shield

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Table A.2(d)(1): Authorized Test/Firing Benches

Source	Emission Point	Description	Design Capacity	Control Device
QE1S	QCE1	Engine Test Cell #1	8,760 Hours	Catalytic Converter (TC-1)
QE2S	QCE2	Engine Test Cell #2	8,760 Hours	Catalytic Converter (TC-2)
QE3S	QCE3	Engine Test Cell #3	8,760 Hours	Catalytic Converter (TC-3)
QE4S	QCE4	Engine Test Cell #4	8,760 Hours	Catalytic Converter (TC-4)
QE5S	QCE5	Engine Test Cell #5	8,760 Hours	Catalytic Converter (TC-5)
QE6S	QCE6	Engine Test Cell #6	8,760 Hours	Catalytic Converter (TC-6)
QE7S	QCE7	Engine Test Cell #7	8,760 Hours	Catalytic Converter (TC-7)
QA3S	QCA3	Transmission Test Cell #3	8,760 Hours	Catalytic Converter (TC-AT1)
QA4S	QCA4	Transmission Test Cell #4	8,760 Hours	Catalytic Converter (TC-AT4)
E1S	ZZFB	4 cyl Firing Bench	8,760 Hours	None
E2S	MZFB	6 cyl Firing Bench	8,760 Hours	None

(1) The nine (9) test cells identified under Condition 5.1.5.1 shall not operate, in the aggregate, more than 22,500 hours on a 12-month rolling yearly total basis.

(3) The two (2) firing benches identified under Condition 5.1.5.1 shall not combust, in the aggregate, more than 3,750 gallons of gasoline on a 12-month rolling yearly total basis.

[Permit no. R13-2062– Specific Requirement A.2.d]

5.1.6. The maximum hourly and annual aggregate emission rates from the specified combustion sources shall not exceed the limits given in the following table:

Table A.2(f): Aggregate Combustion Sources Emission Limits

Source	CO		NOx		PM(1)		SO2		VOCs	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Natural Gas/Propane Combustion	14.56	42.67	17.39	51.06	1.32	3.86	0.12	0.39	0.96	2.83
Diesel Generator(2)	0.35	0.35	1.70	1.70	0.23	0.23	3.02	3.02	0.02	0.02
Test Cells	n/a	91.69	n/a	34.54	n/a	1.35	n/a	0.10	n/a	11.25
Firing Benches	n/a	7.41	n/a	0.21	n/a	0.17	n/a	0.10	n/a	1.61

(1) All particulate matter emissions are assumed to be PM2.5 or less and includes condensable particulate matter.

(2) Only one diesel generator is authorized on-site.

[Permit no. R13-2062– Specific Requirement A.2.f]

5.1.7. The maximum hourly emission rates from individual test cells and firing benches shall not exceed the limits given in the following table:

_X_ Permit Shield

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Table A.2(g): Individual Combustion Source Emission Limits

Source	CO		NO_x		PM(1)		SO_2		VOCs	
	lb/hr	lb/gal	lb/hr	lb/gal	lb/hr	lb/gal	lb/hr	lb/gal	lb/hr	lb/gal
Test Cells	8.15	n/a	3.07	n/a	0.12	n/a	0.10	n/a	9.00	n/a
Firing Benches	41.48	3.95	1.16	0.11	0.95	0.09	0.10	n/a	9.03	0.86

All particulate matter emissions are assumed to be PM2.5 or less and includes condensable particulate matter. **[Permit no. R13-2062– Specific Requirement A.2.**

_X__ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Monitoring Requirements

5.2.1. N/A

Testing Requirements

5.3.1. N/A

Recordkeeping Requirements

5.4.1. For the purposes of determining compliance with maximum natural gas combustion throughput and propane usage limits set forth in Sections 5.1.1 & 5.1.2**,** the applicant shall maintain monthly and annual records of the amount of natural gas that is combusted at the facility and the amount of propane used in the heat treatment process, respectively. **[Permit no. R13-2062 – Specific Requirement A.8.d.]**

5.4.2. For the purposes of determining compliance with maximum Number 2 Fuel Oil combustion throughput limits set forth in Section 5.1.3(b), the applicant shall maintain monthly and annual records of the amount of Number 2 Fuel Oil that is combusted at the facility. **[Permit no. R13-2062 – Specific Requirement A.8.e.]**

5.4.3. For the purposes of determining compliance with the percent sulfur requirement under Section 5.1.3(c), the applicant shall, at a minimum of once per calendar year, obtain from the fuel supplier a certification of the sulfur content of the fuel supplied. Such records shall be retained by the permittee for at least five (5) years and be made available to the Director of the Division of Air Quality (Director) or his/her duly authorized representative upon request. **[Permit no. R13-2062 – Specific Requirement A.8.f.]**

5.4.4. For the purposes of determining compliance with maximum hours of operation limit set forth in Condition 5.1.5.(2), the applicant shall maintain monthly and annual records of the aggregate hours of operation of all the engine test cells. **[Permit no. R13-2062 – Specific Requirement A.8.g.]**

5.4.5. For the purposes of determining compliance with maximum gasoline combustion limit set forth in Condition 5.1.5.(3), the applicant shall maintain monthly and annual records of the aggregate gasoline combusted in firing benches. **[Permit no. R13-2062 – Specific Requirement A.8.h.]**

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

5.4.6. The permittee shall prepare and maintain a list of all natural gas-fired combustion units at the facility. The list shall include the general location of the unit, its function, and the MDHI of the unit. **[Permit no. R13-2062 – Specific Requirement A.8.1.]**

Reporting Requirements

5.5.1. N/A

Compliance Plan

5.6.1. N/A

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description **Storage Tanks**

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
See Attachment E-2	See Attachment E-2	See Attachment E-2

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Storage Tanks

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date: 1996 - 2012	**Installation date:** 1996 - 2012	**Modification date(s):** 1996 - 2012

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Attachment E-2	See Attachment E-2	See Attachment E-2

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Tanks Software

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Limitations and Standards

6.1.1. The gasoline storage tanks, emission point identification number G1, G2, G3 (3 compartment), QC-AT, and ET-01 shall be equipped for submerged fill and vapor recovery. The gasoline supply truck(s) must be equipped for vapor recovery and use vapor recovery lines during all times the tank is being filled.
[Permit no. R13-2062 – Specific Requirement A.4.b.]

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Monitoring Requirements
N/A

Testing Requirements
N/A

Recordkeeping Requirements
N/A

Reporting Requirements
N/A

Compliance Plan
N/A

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description **Emergency Generators**

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
See Attachment E-3	See Attachment E-3	See Attachment E-3

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Emergency Generators

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
2004-2006	2004-2006	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
See Attachment E-3

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
N/A	See Attachment E-3	8760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: See Attachment E-3	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Diesel			
Pipeline Natural Gas			

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	***Included in Combustion Source Emissions***	
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering estimate using AP-42 Emission Factors

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Limitations and Standards

7.1.1. The permittee is authorized to operate the emission units in Table 7.a (Section 1.0) with following emission limits in accordance with all terms and conditions of the 45CSR13 G60-B Class II General Permit (Appendix C).

Emission Limitations(1)

Source	CO		NOx		PM(2)		SO2		VOCs	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
GEN-11E	0.03	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
GEN-11W	0.03	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
GEN-12	0.03	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
GEB-13	0.03	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
GEN-14	0.06	0.02	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.01
GEN-15	0.06	0.02	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.01
GEN-IS	0.06	0.02	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.01
GEN-SBR	0.09	0.02	0.05	0.01	0.01	0.01	0.01	0.01	0.01	0.01

(1) Most emissions are calculated at rates below 0.01 lb/hr or TPY, but 0.01 is used a reasonably detectable level.
(2) All Particulate Matter is assumed to be less than 2.5 microns.

[45CSR13, G60-B005 – Specific Requirement]

Note: These generators are not subject to 40CFR60 Subpart IIII or JJJJ.

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Monitoring Requirements
N/A

Testing Requirements
N/A

Recordkeeping Requirements
N/A

Reporting Requirements
N/A

Compliance Plan
N/A

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

Attachment E-1 COMBUSTION INVENTORY

HVAC Units Unit ID[1]	Emission Point ID	Building Number	genchi genbutsu Done	genchi genbutsu Who	MDHI (mmBtu/Hr)	Fuel	CO lb/hr	CO TPY	NO_x lb/hr	NO_x TPY	PM lb/hr	PM TPY	SO_2 lb/hr	SO_2 TPY	VOCs lb/hr	VOCs TPY	# units	total MDHI
HVAC 100-1 to 100-18	HVAC 100-1 to 100-18	100	■	BC	1.25	Natural Gas	0.11	0.31	0.13	0.37	0.01	0.03	0.01	0.03	0.01	0.03	18	22.5
HVAC 100-21 to 100-22	HVAC 100-21 to 100-22	100	■	BC	1.25	Natural Gas	0.11	0.31	0.13	0.37	0.01	0.03	0.01	0.03	0.01	0.03	2	2.5
HVAC 100-25 to 100-38	HVAC 100-25 to 100-38	100	■	BC	1.25	Natural Gas	0.11	0.31	0.13	0.37	0.01	0.03	0.01	0.03	0.01	0.03	4	5
HVAC-100-39 & 100-42	HVAC 100-39 & 100-42	100	■	MC	4.90	Natural Gas	0.41	1.20	0.49	1.43	0.04	0.11	0.01	0.03	0.04	0.11	2	9.8
HVAC 201 through HVAC 206	HVAC 201 through HVAC 206	200	■	BC	1.08	Natural Gas	0.09	0.26	0.11	0.31	0.01	0.03	0.01	0.03	0.01	0.03	6	6.45
HVAC 200-14, 200-16, 200-18, 200-20, 200-22	HVAC 200-14, 200-16, 200-18, 200-20, 200-22	200	■	MC	4.32	Natural Gas	0.36	1.06	0.43	1.26	0.03	0.10	0.01	0.03	0.03	0.10	5	21.6
HVU-1	OFF-LINE	100	■	MC														
HVU-2	HVU-2	100			1.22	Natural Gas	0.10	0.30	0.12	0.36	0.01	0.03	0.01	0.03	0.01	0.03	1	1.22
HVU-3	HVU-3	100	■	MC	1.25	Natural Gas	0.11	0.31	0.13	0.37	0.01	0.03	0.01	0.03	0.01	0.03	1	1.25
HVU-4	HVU-4	100			1.25	Natural Gas	0.11	0.31	0.13	0.37	0.01	0.03	0.01	0.03	0.01	0.03	1	1.25
HVU-5	HVU-5	100	■	MC	1.00	Natural Gas	0.08	0.25	0.10	0.29	0.01	0.03	0.01	0.03	0.01	0.03	1	1
HCU 1, 2, 3, 5, 6, 10, 18	HCU 1, 2, 3, 5, 6, 10, 18	100	■	MC	0.31	Natural Gas	0.03	0.08	0.03	0.09	0.01	0.03	0.01	0.03	0.01	0.03	6	1.872
HCU 4, 8, 9	HCU 4, 8, 9	100	■	MC	0.25	Natural Gas	0.02	0.06	0.03	0.07	0.01	0.03	0.01	0.03	0.01	0.03	3	0.75
HCU 11	HCU 11	100	■	MC	0.40	Natural Gas	0.03	0.10	0.04	0.12	0.01	0.03	0.01	0.03	0.01	0.03	1	0.4
HCU-12	HCU-12	100			0.65	Natural Gas	0.05	0.16	0.07	0.19	0.01	0.03	0.01	0.03	0.01	0.03	1	0.65
HCU-13	HCU-13	100			0.49	Natural Gas	0.04	0.12	0.05	0.14	0.01	0.03	0.01	0.03	0.01	0.03	1	0.49
HCU-14	HCU-14	100			0.92	Natural Gas	0.08	0.23	0.09	0.27	0.01	0.03	0.01	0.03	0.01	0.03	1	0.92
HCU-15	HCU-15	100			0.27	Natural Gas	0.02	0.07	0.03	0.08	0.01	0.03	0.01	0.03	0.01	0.03	1	0.27
HCU-16	HCU-16	100	■	MC	0.10	Natural Gas	0.01	0.02	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03	1	0.1
HCU-17	HCU-17	100	■	MC	0.81	Natural Gas	0.07	0.20	0.08	0.24	0.01	0.03	0.01	0.03	0.01	0.03	1	0.812
HCU-23G, HCU-24G	HCU-23G, HCU-24G	100	■	MC	0.08	Natural Gas	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03	2	0.16
HCU-26G	HCU-26G	100	■	MC	0.25	Natural Gas	0.02	0.06	0.03	0.07	0.01	0.03	0.01	0.03	0.01	0.03	1	0.25
HCU-25G	HCU-25G	100	■	MC	0.35	Natural Gas	0.03	0.09	0.04	0.10	0.01	0.03	0.01	0.03	0.01	0.03	1	0.35
HCU 201, 204	HCU 202, 204	200	■	MC	0.25	Natural Gas	0.02	0.06	0.03	0.07	0.01	0.03	0.01	0.03	0.01	0.03	2	0.5
HCU 202	HCU 202	200	■	MC	0.50	Natural Gas	0.04	0.12	0.05	0.15	0.01	0.03	0.01	0.03	0.01	0.03	1	0.5
HCU 203	HCU 203	200			0.31	Natural Gas	0.03	0.08	0.03	0.09	0.01	0.03	0.01	0.03	0.01	0.03	1	0.312
HCU 208G, HCU 209G, HCU 210G, HCU 211G	HCU 208G, HCU 209G, HCU 210G, HCU 211G	200	■	MC	0.35	Natural Gas	0.03	0.09	0.04	0.10	0.01	0.03	0.01	0.03	0.01	0.03	4	1.4
HCU 205, HCU 208, HCU 9, HCU 210, HCU 11, HCU 212	HCU 205, HCU 208, HCU 9, HCU 210, HCU 11, HCU 212	200			0.43	Natural Gas	0.04	0.11	0.04	0.13	0.01	0.03	0.01	0.03	0.01	0.03	6	2.58
HCU 212G	HCU 212G	200	■	MC	0.25	Natural Gas	0.02	0.06	0.03	0.07	0.01	0.03	0.01	0.03	0.01	0.03	1	0.25
HCU 213	HCU 213	200	■	MC	0.12	Natural Gas	0.01	0.03	0.01	0.04	0.01	0.03	0.01	0.03	0.01	0.03	1	0.12
HCU 206	HCU 206	200	■	MC	0.80	Natural Gas	0.07	0.20	0.08	0.23	0.01	0.03	0.01	0.03	0.01	0.03	1	0.8
DH-1, DH-3, DH-8 to DH-10	DH-1, DH-3, DH-8 to DH-10	100			0.75	Natural Gas	0.06	0.18	0.08	0.22	0.01	0.02	0.01	0.03	0.01	0.03	5	3.75
DH-2, DH-4 to DH-7, DH-11 to DH-14, DH-18, DH-20, DH-21	DH-2, DH-4 to DH-7, DH-11 to DH-14, DH-18, DH-20, DH-21	100			0.51	Natural Gas	0.04	0.13	0.05	0.15	0.01	0.03	0.01	0.03	0.01	0.03	12	6.12
DH-15, DH-16	DH-15, DH-16	100			0.68	Natural Gas	0.06	0.17	0.07	0.20	0.01	0.02	0.01	0.03	0.01	0.03	2	1.36
DH-17, DH-19	DH-17, DH-19	100			0.84	Natural Gas	0.07	0.21	0.08	0.25	0.01	0.02	0.01	0.03	0.01	0.03	2	1.68
DRH 201 through DRH 224	DRH 201 through DRH 224	200			1.06	Natural Gas	0.09	0.26	0.11	0.31	0.01	0.03	0.01	0.03	0.01	0.03	24	25.44
UH-1 to UH-4	UH-1 to UH-4	100			0.30	Natural Gas	0.03	0.07	0.03	0.09	0.01	0.03	0.01	0.03	0.01	0.03	4	1.2
UH-5	UH-5	100			0.13	Natural Gas	0.01	0.03	0.01	0.04	0.01	0.03	0.01	0.03	0.01	0.03	1	0.13
UH-6, UH-7	UH-6, UH-7	100			0.03	Natural Gas	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03	2	0.06
UH-SBR1, UH-SBR2	UH-SBR1, UH-SBR2	100	■	MC	0.15	Natural Gas	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03	2	0.3
UH-Nitro 1 to 6	UH-Nitro 1 to 6	Aux			0.15	Natural Gas	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03	6	0.9
UH-Valley 1 to 5	UH-Valley 1 to 5	Aux			0.15	Natural Gas	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03	5	0.75
UH-Oil 1, 2	UH-Oil 1,2	Aux			0.15	Natural Gas	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03	2	0.3
UH-203	UH-203	200			0.15	Natural Gas	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03	1	0.15
Diesel Electric Generator Unit ID	Emission Point ID	Building Number			MDHI (mmBtu/Hr)	Fuel	CO lb/hr	CO TPY	NO_x lb/hr	NO_x TPY	PM lb/hr	PM TPY	SO_2 lb/hr	SO_2 TPY	VOCs lb/hr	VOCs TPY		
DG-5031	DG-5031	100			9.92	No. 2 Fuel Oil	0.35	0.35	1.42	1.42	0.14	0.14	3.02	3.02	0.02	0.02		
Engine & A/T Testing Emissions Unit ID	Emission Point ID	Building Number			MDHI (mmBtu/Hr)	Fuel	CO lb/hr	CO TPY	NO_x lb/hr	NO_x TPY	PM lb/hr	PM TPY	SO_2 lb/hr	SO_2 TPY	VOCs lb/hr	VOCs TPY		
4 cyl engine bench exhaust	ZZWB, ZZFB	100			n/a	gasoline	0.79	3.96	0.23	1.16	0.10	0.44	n/a	n/a	0.09	0.47		
Engine test cells	QCE1 - QCE7	100			n/a	gasoline	0.22	1.1	0.06	0.32	0.11	0.46	n/a	n/a	0.02	0.14		
6, 8 cyl engine bench exhaust	MZWB, MZSB, MZFB	100			n/a	gasoline	0.47	1.42	0.14	0.42	0.15	0.66	n/a	n/a	0.06	0.17		
AT test cells	QCA3	200			n/a	gasoline	0.47	1.42	0.14	0.42	0.02	0.07	n/a	n/a	0.06	0.17		
Heat Treatment - Gear Plant Unit ID	Emission Point ID	Building Number			MDHI (mmBtu/Hr)	Fuel	CO lb/hr	CO TPY	NO_x lb/hr	NO_x TPY	PM lb/hr	PM TPY	SO_2 lb/hr	SO_2 TPY	VOCs lb/hr	VOCs TPY		
Drying Furnace	FH03, FH04	200			1.98	Natural Gas	0.17	0.73	0.20	0.87	0.02	0.07	0.01	0.01	0.01	0.05	2.00	3.96
Carburizing Furnace[2]	FH1A, FH1B, FH1C FH2A, FH2B, FH2C	200			0.38	Natural Gas	0.06	0.26	0.24	1.06	0.01	0.04	0.01	0.01	0.01	0.01	6	2.28
Rx Gas Generator	FH06, FH07	200			2.03	Natural Gas	0.17	0.75	0.20	0.89	0.02	0.07	0.01	0.01	0.01	0.05	2.00	4.06

(1) All emission limits are on a per emission-unit basis.
(2) Contains Flame Curtain and propane combustion emission limits.

Unit Control Linkage Reduced to 50% capacity

Permit Limit: 172.03 | **81% of Limit** | **TOTAL: 138.496**

Attachment E-2: Type and Operating Parameters for VOC Storage Tanks

Toyota Motor Manufacturing West Virginia
Buffalo Plant: Identification Number - 07900072

Emission Point ID	Building	Year Installed	Equipment Description	Capacity (gallons)	Compound Stored	Conservation Vent Setting (ounces)	Air Pollution Control Device	Maximum Annual Thoughput (Gal)
G1 G2 G3	Outside	1996	Gasoline Storage Tank	9,900	Gasoline	0.5	Vapor return	150,000
DT-1	100	1996	Gasoline Day Tank	46	Gasoline	0.5	N/A	100,000
DT-2	100	1996	Gasoline Day Tank	46	Gasoline	0.5	N/A	100,000
DT-ZZ	100	1996	Day Tank	14.4	Gasoline	0.5	N/A	100,000
DT-MZ	100	1996	Day Tank	14.4	Gasoline	0.5	N/A	100,000
QC-AT	Outside	1999	Gasoline Storage Tank	5075	Gasoline	0.5	Vapor Return	100,000
DT-AT1	200	1999	Day Tank	46	Gasoline	0.5	N/A	100,000
DT-AT2	200	1999	Day Tank	46	Gasoline	0.5	N/A	100,000
ET-01	100	2012	Ethanol/Gasoline Storage Tank	6000	Gasoline/ Ethanol	0.5	Vapor Return	150,000
n/a- no vent to atmosphere	100	2012	Ethanol/Gasoline Storage Tank	60	Gasoline/ Ethanol	NAp	N/A	150,000
OST1, OST2	100	1996	Oil Storage Tank (2 compartments)	11,670	Motor Oil	NAp	N/A	1,365,000
OST3	100	1996	Oil Storage Tank	66	Motor Oil	NAp	N/A	1,365,000
OST4, OST5, OST6	100	1996	Oil Storage Tank (3 compartments)	198	Motor Oil	NAp	N/A	1,365,000
FH1	100	1996	No. 2 Fuel Oil Tank	550	No. 2 Fuel Oil	NAp	N/A	36,600
FH2	100	1996	No. 2 Fuel Oil Tank	550	No. 2 Fuel Oil	NAp	N/A	36,600
T17	100	1996	Sulfuric Acid Tank	3,000	Sulfuric Acid	NAp	N/A	5,000

Attachment E-3: Emergency Generators

Toyota Motor Manufacturing West Virginia
Buffalo Plant: Identification Number - 07900072

Year Installed	Emission Unit ID	Description	Design Capacity
2005	DG-5031	Diesel Electric Generator	9.92 MMBtu/hr
2004	GEN-11E	Emergency Lighting Generator	41 HP - Brake
2004	GEN-11W	Emergency Lighting Generator	41 HP - Brake
2004	GEN-12	Emergency Lighting Generator	41 HP - Brake
2004	GEN-13	Emergency Lighting Generator	41 HP - Brake
2006	GEN-14	Emergency Lighting Generator	68 HP - Brake
2006	GEN-15	Emergency Lighting Generator	68 HP - Brake
2006	GEN-IS	Emergency Generator for Computer Data Center	68 HP - Brake
2006	GEN-SBR	Emergency Generator for Wastewater	105 HP - Brake

Attachment F

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Attachment G

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: See Attachment G-1	**List all emission units associated with this control device.** See Attachment G-1	
Manufacturer:	**Model number:**	**Installation date:**

Type of Air Pollution Control Device:

_X_ **Baghouse/Fabric Filter**
___ Venturi Scrubber
___ Multiclone
___ Carbon Bed Adsorber
___ Packed Tower Scrubber
___ Single Cyclone
___ Carbon Drum(s)
___ Other Wet Scrubber
___ Cyclone Bank
___ Catalytic Incinerator
___ Condenser
___ Settling Chamber
___ Thermal Incinerator
___ Flare
_X_ Other: **Mist Eliminator**
Catalytic Convertor
___ Wet Plate Electrostatic Precipitator
___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
See Attachment G-1		

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** See Attachment H

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Parameters monitored and methods used to indicate performance are set forth for each type of control device in the monitoring, recordkeeping, and reporting requirements specified in Attachment E.

PROCESS DESCRIPTION	PROCESS TYPE	EMISSION UNIT ID	CONTROL DEVICE	CONTROL DEVICE ID#	EMISSION POINT	MIN EFFICIENCY (%)	STACK HEIGHT (FT)	INSIDE DIA (FT)	EXIT GAS TEMP (F)	EXIT GAS VOL (ACFM)	EXIT GAS VEL. (FT/S)
4 Cylinder Machining	Cylinder Block	1-01-01	Mist Collector	LMSC-0001	SC01	95	17	1	80	8000	42
			Mist Collector	LMSC-0011	SC11	95	17	2.7	80	23500	68.4
			Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
	Connecting Rod	1-02-01	Mist Collector	LMSC-0002	Fugitive	95	No Stack				
			Mist Collector	LMSC-0003	Fugitive	95	No Stack				
			Mist Collector	LMSC-0004	Fugitive	95	No Stack				
			Mist Collector	LMSC-0017	SC17	95	17	1.92	80	11500	66.2
			Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
	Piston Pin	1-03-01	Mist Collector	LMSC-0004	Fugitive	95	No Stack				
			Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
	Cylinder Head	1-04-01	Mist Collector	LMSC-0012	SC12	95	17	2.7	80	22500	65.5
			Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
	Cam Carrier	1-05-01	Mist Collector	LMSC-0013	SC13	95	17	2.08	80	14000	68.7
			Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
	Camshaft	1-06-01/02	Mist Collector	LMSC-0010	SC10	95	17	2.08	80	14000	68.7
			Dust Collector	LMDC-0003	DC03	60	17	2	80	13200	70
			Dust Collector	LMDC-0004	DC04	60	17	2	80	14080	74.7
			Mist Collector	LMSC-0006	Fugitive	95	IDF	IDF	80	IDF	IDF
			Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
	Crankshaft	1-07-01	Mist Collector	LMSC-0005	SC05	95	17	1.83	80	11000	69.7
			Mist Collector	LMSC-0007	Fugitive	95	No Stack				
			Mist Collector	LMSC-0010	SC10	95	17	2.08	80	14000	68.7
			Dust Collector	LMDC-0002	DC02	60	17	1.83	80	11445	72.5
			Mist Collector	LMSC-0006	Fugitive	95	No Stack				
			Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
4 Cylinder Assembly	Final Assembly	2-1-01	Mist Collector	JMWB-006	WB06	50	9	0.9	80	8.9	14
		2-06-01	Mist Collector	LMSC-0059	SC59	95	17	2	80	11000	69.7

PROCESS DESCRIPTION	PROCESS TYPE	EMISSION UNIT ID	CONTROL DEVICE	CONTROL DEVICE ID#	EMISSION POINT	MIN EFFICIENCY (%)	STACK HEIGHT (FT)	INSIDE DIA (FT)	EXIT GAS TEMP (F)	EXIT GAS VOL (ACFM)	EXIT GAS VEL. (FT/S)
Support	Tool Regrinding	4-01-01	Dust Collector	JMDC-0001	DC01	60	10	0.67	80	4600	217.5
			Dust Collector	NMMZY-0001	Fugitive	60	No Stack				
			Mist Collector	LMWB-0002	WB02	50	9	1	80	1000	21.2
			Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
	Quality Control	4-02-01	Catalytic Converter	QCE1	QCE1	94	17	..66	>500	150	450
			Catalytic Converter	QCE2	QCE2	94	17	..66	>500	150	450
			Catalytic Converter	QCE3	QCE3	94	17	..66	>500	150	450
			Catalytic Converter	QCE4	QCE4	94	17	..66	>500	150	450
			Catalytic Converter	QCE5	QCE5	94	17	..66	>500	150	450
			Catalytic Converter	QCE6	QCE6	94	17	..66	>500	150	450
			Catalytic Converter	QCE7	QCE7	94	17	..66	>500	150	450
			Catalytic Converter	QCA3	QCA3	94	17	..66	>500	150	450
			Catalytic Converter	QCA4	QCA4	94	17	..66	>500	150	450
6&8 Cylinder	Main Assembly	5-07-01	Vent	n/a	TS72	0	9	1	80	47	15
6 Cylinder Machining	Cylinder Block	11-01-01	Mist Collector	LMZY-0158	ZY158	95	6.25	2.5	81	14130	48
			Mist Collector	LMZY-0185	ZY185	95	7.17	1.42	87	1971	20.75
			Mist Collector	LMZY-0159	ZY159	95	10.33	2.42	83	8435	30.58
			Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
	Connecting Rod	11-02-01	Mist Collector	LMZY-216	ZY216	95	16.17	2.75	88	12823	36
	Piston Pin	11-03-01	Mist Collector	NLMZY-0216	ZY216	95	16.17	2.75	88	12823	36
			Mist Collector	Unit Mounted Collector	Fugitive	50	No Stack				
	Cylinder Head	11-04-01	Mist Collector	LMZY-160	ZY160	95	6	2.42	81	7999	29
			Mist Collector	LMZY-161	ZY161	95	10.33	2.42	83	8206	29.75
			Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
	Camshaft	11-05-01	Mist Collector	LMZY-0155	ZY155	95	18.58	2.25	92	3775	15.83
		11-05-02	Mist Collector	LMZY-0157	ZY157	95	16.17	2.75	88	12823	36
	Crankshaft	11-06-01	Mist Collector	LMZY-0157	ZY157	95	7.08	2.33	86	16920	66.17
			Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				

PROCESS DESCRIPTION	PROCESS TYPE	EMISSION UNIT ID	CONTROL DEVICE	CONTROL DEVICE ID#	EMISSION POINT	MIN EFFICIENCY (%)	STACK HEIGHT (FT)	INSIDE DIA (FT)	EXIT GAS TEMP (F)	EXIT GAS VOL (ACFM)	EXIT GAS VEL. (FT/S)
Automatic Transmission Machining	Rear Planetary Ring Gear		Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
	Counter Drive Gear	18-05-01	Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
	Counter Driven Gear and Sub	18-06-01	Dust Collector	NLMSB-0002	SB02	60	3	0.3	80	75	18
			Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
	Under Drive Planetary Ring Gear	18-07-01	Dust Collector	JMSB-0001	SB01	60	17	2	80	14080	74.7
			Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
	Under Drive Planetary Pinion	18-08-01	Dust Collector	JMZK-0058	ZK58	60	17	2	80	14080	74.7
	Pinion Differential Drive		Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
	Differential Ring Gear	18-09-01	Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
			Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
	6AT Case	18-01-01	Mist Collector	LMZY-0285	Fugitive	95	No Stack				
			Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
	6 AT Housing	18-02-01	Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
	6 AT Valve Body Lower	18-03-01	Mist Collector	LMZY-0283	Fugitive	95	No Stack				
			Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
	6 AT Valve Body Upper	18-04-01	Mist Collector	LMZY-0284	Fugitive	95	No Stack				
			Mist Collector	n/a	FL01 & FL02	50	7	1	80	75	18
			Mist Collector	Unit Mounted Collectors	Fugitive	50	No Stack				
	Heat Treat	18-10-01	Mist Collector	JMZE-0003	Fugitive	50	No Stack				

PROCESS DESCRIPTION	PROCESS TYPE	EMISSION UNIT ID	CONTROL DEVICE	CONTROL DEVICE ID#	EMISSION POINT	MIN EFFICIENCY (%)	STACK HEIGHT (FT)	INSIDE DIA (FT)	EXIT GAS TEMP (F)	EXIT GAS VOL (ACFM)	EXIT GAS VEL. (FT/S)
	Gear Measurement		Dust Collector	NMMZY-0002	Fugitive	60	No Stack				
	Valve Body Sub	19-01-01	Mist Collector	IDF	Fugitive	50	No Stack				
	Housing Sub-Assembly	19-06-01	Mist Collector	JMWB-0073	WB73	50	9	0.9	80	8.9	14
	Final Assembly	19-08-01	Mist Collector	LMWB-0071	WB71	50	9	0.9	80	8.9	14
			Mist Collector	LMWB-0072	WB72	50	9	0.9	80	8.9	14

Attachment H

ATTACHMENT H - Compliance Assurance Monitoring (CAM) Plan Form

For definitions and information about the CAM rule, please refer to 40 CFR Part 64. Additional information (including guidance documents) may also be found at http://www.epa.gov/ttn/emc/cam.html

CAM APPLICABILITY DETERMINATION

1) Does the facility have a PSEU (Pollutant-Specific Emissions Unit considered separately with respect to **EACH** regulated air pollutant) that is subject to CAM (40 CFR Part 64), which must be addressed in this CAM plan submittal? To determine applicability, a PSEU must meet **all** of the following criteria (*If No, then the remainder of this form need not be completed*): ☐ YES ☒ NO

a. The PSEU is located at a major source that is required to obtain a Title V permit;

b. The PSEU is subject to an emission limitation or standard for the applicable regulated air pollutant that is NOT exempt;

LIST OF EXEMPT EMISSION LIMITATIONS OR STANDARDS:

- NSPS (40 CFR Part 60) or NESHAP (40 CFR Parts 61 and 63) proposed after 11/15/1990.
- Stratospheric Ozone Protection Requirements.
- Acid Rain Program Requirements.
- Emission Limitations or Standards for which a WVDEP Division of Air Quality Title V permit specifies a continuous compliance determination method, as defined in 40 CFR §64.1.
- An emission cap that meets the requirements specified in 40 CFR §70.4(b)(12).

c. The PSEU uses an add-on control device (as defined in 40 CFR §64.1) to achieve compliance with an emission limitation or standard;

d. The PSEU has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than the Title V Major Source Threshold Levels; AND

e. The PSEU is NOT an exempt backup utility power emissions unit that is municipally-owned.

BASIS OF CAM SUBMITTAL

2) Mark the appropriate box below as to why this CAM plan is being submitted as part of an application for a Title V permit:

☐ RENEWAL APPLICATION. **ALL** PSEUs for which a CAM plan has NOT yet been approved need to be addressed in this CAM plan submittal.

☐ INITIAL APPLICATION (submitted after 4/20/98). **ONLY** large PSEUs (i. e., PSEUs with potential post-control device emissions of an applicable regulated air pollutant that are equal to or greater than Major Source Threshold Levels) need to be addressed in this CAM plan submittal.

☐ SIGNIFICANT MODIFICATION TO LARGE PSEUs. **ONLY** large PSEUs being modified after 4/20/98 need to be addressed in this cam plan submittal. For large PSEUs with an approved CAM plan, Only address the appropriate monitoring requirements affected by the significant modification.