



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

April 14, 2011

Eric C. Scroggins
Vice President – General Counsel and Secretary
Allison Transmission Holdings, Inc.
4700 West 10th Street
Indianapolis, IN 46222

**Re: Allison Transmission Holdings, Inc.
Registration Statement on Form S-1
Filed March 18, 2010
File No. 333-172932**

Dear Mr. Scroggins:

We have reviewed your registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

General

1. Prior to printing and distribution of the preliminary prospectus, please provide us with mock-ups of any pages that include any pictures or graphics to be presented. Accompanying captions, if any, should also be provided.

Market and Industry Data, page ii

2. We note that you have relied on reports from third-party sources, including ACT Research, Frost & Sullivan, J.D. Power and Associates, and Ward's Automotive Group, for data. If any of these sources is not generally publicly available for free or at a nominal cost, please provide a consent pursuant to Rule 436 or tell us why you believe a consent is not required.

Prospectus Summary, page 1

3. Please revise to eliminate certain redundancies in the prospectus summary as the summary should succinctly describe your business operations. We note that you describe the Acquisition Transaction on page 2 and again on page 7. You also cite the same statistics about the company's increased market share in North American on-highway markets on page 4 and again on page 8. You also state that the company has "more new products under development today than at any time in [their] history" on page 2 and again on page 8. We also note that your disclosure under the headings "Expand Our Global Leadership" on page 7 and "Continue Development of New Technologies and Products" on page 8 substantially duplicates disclosure elsewhere in your "Summary" section.

Company Overview, page 1

4. Please revise your first sentence to state the basis for your conclusion regarding your position as the "largest" manufacturer of fully-automatic transmissions for various commercial vehicles. In particular, please disclose how you are measuring market position and tell us the source of the information supporting your conclusions. While we note your presence in other countries, approximately 82% of your net sales were generated from North America. Provide similar disclosure for your statements in paragraph three regarding your "leading market position."
5. Please provide support for your statement that the Allison brand is one of the most recognized in the industry "as a result of the performance, reliability and fuel efficiency of [y]our transmissions" or state as a belief of management. Also revise the first sentence of the third paragraph on page 1 and throughout the prospectus accordingly.
6. Please briefly disclose here and on page 61 how you are "well-positioned to capitalize on numerous attractive growth opportunities" and either provide verifiable support for this conclusion or state as a belief of management. Also make similar revisions related to your "strong position" to capitalize on growth trends in your industry on page 6.
7. Refer to the last sentence of the first paragraph. Revise here and on page 61 to include comparable financial data for years ended December 31, 2009 and December 31, 2008. Providing that financial information will assist investors in evaluating the information presented.
8. Please remove qualitative phrases or terms from the prospectus as these phrases or terms are qualitative and unverifiable, or advise. In this regard, please delete "end users often specify an 'Allison' transmission when ordering a commercial vehicle, creating a pull-through demand for our products" on page 1, "compelling value proposition" on page 1 and on page 5 and "superior value proposition" on page 5. Please also quantify "numerous." Please also make similar revisions in the Business section.

9. Please delete the phrase “enduring competitive advantage” or provide quantifiable support that such an advantage exists. Similarly revise on page 5.
10. We note your discussion of the “increasing trend towards automaticity” and the “anticipated growth” of the automatic transmissions market outside of North America in the first paragraph on page 2. Remove these references or provide more detailed support to substantiate the claims you make about growth in this market segment. The statistics cited regarding low adoption rates outside North America and the company’s growth of market share within North America (see page 4, “Trend toward automaticity”) do not necessarily support claims of automaticity growth in foreign markets. Make the same changes throughout your filing, as applicable, including on pages 61 - 62. In this regard, please also revise to provide balancing disclosure here, in the MD&A and Business sections and throughout the prospectus stating that you cannot provide any assurance that such growth will develop.
11. Please revise to delete the phrase “poised for continued recovery,” as the data you have provided does not support the assertion that the recovery will necessarily be a “continued” one.
12. Refer to language such as “strong margins” and “strong and sustainable financial profile” in the second paragraph on page 2 and the first full paragraph on page 62. Please balance this disclosure with a brief discussion of the company’s current debt burden, past net operating losses, and historical margin ratios. Similarly revise disclosure such as “we have generated strong margins” on page 6.

Recovery of commercial vehicle demand in developed markets, page 4

13. Please revise to clarify that even if the North America market experiences an annual growth rate of 20.4% from 2010-2013, the production units will still be below the 1999-2008 average. Similarly revise under the “Expand Our Global Leadership” section on page 7. Also revise to provide balancing disclosure to state that you cannot provide any guarantee that such growth rates will materialize in the future.
14. Please revise to provide the percentage of net sales that you derive from Western Europe so that investors can assess the effect on your business of a recovery in that market.
15. Please delete the word “significant” in relation to your future earnings growth and the word “considerable” in the first paragraph on page 5.

Growth in commercial vehicle demand in emerging markets, page 4

16. Please balance this disclosure by disclosing that manual transmissions are the predominant transmissions used in commercial vehicles key emerging markets such as China. Quantify the percentage of the market share currently occupied by fully-automatic transmissions, if available.

Trend toward automaticity, page 4

17. Please rephrase the title of this section, as you do not appear to have provided quantifiable data to support that there is a “trend” towards automaticity. We note, for example, that well-developed markets such as Western Europe are still dominated by manual transmissions and it is unclear whether there is sufficient evidence that emerging markets will follow North America in its adoption of automaticity. Please also provide the basis for your belief that your increased share of transmissions sold in North America on-highway markets is “representative of the overall market trend toward automaticity.”

Increasing emphasis on fuel efficiency and lower emissions, page 4

18. Please revise to disclose that demand for your hybrid-propulsion systems for transit buses decreased in 2010 or advise.
19. Please revise the last sentence of the last paragraph on page 4 and elsewhere as appropriate to remove the use of compound annual growth rate of 72.3% and 20.1%, as this measurement only shows two snapshots in time and may not be representative of growth over the entire time period.

Continued demand for reliable fully-automatic transmissions in military products, page 5

20. We note your statement that the company expects future defense spending on vehicles to decline. Please revise the heading of this section to reflect this information.

Premier Brand and Superior Value Proposition, page 5

21. Please provide quantifiable support for your statement that you deliver end users “strong returns” on their investments. Please also provide the basis for your belief that customers will be reluctant to purchase from other manufacturers.

Technology Leadership and Customization Capabilities, page 5

22. Please provide support for your belief that your product technology is highly differentiated from other transmission manufacturers or remove reference to such manufacturers.

Diverse End Markets, page 7

23. While your disclosure on page 9 states that net sales are concentrated in the company's top five customers, you state here that you benefit from serving a wide range of customers. Please revise the disclosure here to remove the inconsistency. Also include the percentage of net sales these top five customers accounted for in fiscal years 2008 through 2010.

Proven Management Team, page 7

24. Please delete the word "proven" in regards to your management team.

Accelerate Penetration of Our Products in Emerging Markets, page 8

25. Revise as to statements that imply automaticity has increased or will increase outside North America and in emerging markets on page 8. Balance the disclosure by discussing the possibility that adoption of automatic transmissions will fail to increase in markets outside of North America. Describe factors which might contribute to this failure, such as the entrenched use of manual transmissions, high levels of OEM integration, or the company's limited brand recognition in new markets. Make the same changes to pages 67 - 68 in the discussion of markets outside North America.

Leverage Our Efficient Cost Structure to Deliver Strong Cash Flow, page 8

26. We note disclosure here that you believe one of your competitive advantages is your efficient cost structure and your disciplined approach to capital expenditures. However, we note disclosure on page 28 which highlights your substantial total debt of \$3.7 billion. Please revise to provide balancing disclosure given your substantial indebtedness.

Summary Historical Financial Data, page 12

Non-GAAP Measures

27. Your attention is invited to Endnote 44 to Release No. 33-8176. With regard to your statement as to why management believes the non-GAAP financial measures provides useful information to investors, the justification for the use of the measure must be substantive. The fact that the measure is "useful to analysts" is not sufficient support for the presentation. Please further explain what you mean by "core operating performance" and why you consider it useful. In addition, please expand your explanation to separately address the usefulness of each of the three non-GAAP measures. If there are particular purposes for which management uses any or each of the separate measures, please specifically disclose them.

Risk Factors, page 16

28. Please revise the last sentence of your introductory paragraph to delete reference to unknown or immaterial risks.
29. Please move the risk factor entitled, “We have experienced significant losses...” to the forefront of the Risk Factors section.

Continued volatility in and disruption to the global economic environment, page 16

30. Please revise to disclose the economic and market conditions that resulted in the decrease in commercial vehicles sales which continue to affect your sales. Also disclose your net losses for the 2008 and 2009 periods.

Our long-term growth prospects, page 17

31. Please revise the heading to accurately reflect the risk that the rate of adoption of fully-automatic transmissions may not increase outside North America, which could impair your long-term growth prospects and results of operations. Also, explain what factors may contribute to automaticity in foreign markets not increasing as you have anticipated.

Any events that impact our brand name, page 17

32. Revise to provide greater detail about the defect and warranty issues associated with your products, including the H 40/50 EP hybrid-propulsion transit bus system. Please disclose the number of transmissions affected and the cost of any recall or redesign.

Sales of our hybrid-propulsion products, page 18

33. Please further describe the government subsidy programs, including the amounts of subsidies received, when the programs started, which specific governmental entities provide the greatest share of the subsidies, and whether those governments are facing or have recently faced significant budgetary or fiscal problems.

Our sales are concentrated, page 18

34. Please advise whether the “late payment by a significant customer” in 2010 was made by one of the company’s top five customers. If so, please revise to discuss the risks of future late payments in this section.

Increases in cost, disruption of supply, page 21

35. Please update this section to include a discussion of the effects of the Japanese earthquake and tsunami on your supply chain and business, if material. Similarly revise your disclosure on page 68.
36. We note disclosure in the second paragraph which states that you rely on materials from a “limited number of fully-validated suppliers.” Please revise to disclose the number of suppliers that you rely on for your raw materials and components.

Our ability to effectively operate, page 24

37. Generally, you should not present risks that could apply to any issuer or any offering. For example, please revise this risk factor, the “We are subject to risks from litigation” risk factor on page 28, the “If securities analysts do not publish research reports” risk factor on page 32, and elsewhere, as applicable, to explain specifically how the risk affects the company or the securities being offered. Refer to Item 503(c) of Regulation S-K.
38. Please revise to remove the second sentence of the risk factor as such disclosure undermines the risks disclosed.

Risks Related to Our Indebtedness, page 28

39. Please revise to cross-reference the relevant discussions in the MD&A section (see pages 54 - 57) when discussing the Senior Secured Credit Facility, Senior Cash Pay Notes, and Senior Toggle Notes here.

Risks Related to This Offering and Ownership of our Common Stock, page 30

40. Refer to the second item under this heading. Discuss the consideration given to the disclosure requirements of Rule 12-04 of Regulation S-X and Rule 4-08 (e)(3) of Regulation S-X.

We are controlled by Carlyle and Onex, page 32

41. We note disclosure on page 100 which states that ATI pays your Sponsor an annual fee for certain advisory and consulting services. Please revise to disclose such terms here.

Our management will have broad discretion over the use of the net proceeds, page 33

42. We note your statement that “management will have broad discretion over the use of the net proceeds from this offering.” You may reserve the right to change the use of proceeds provided that such reservation is due to certain contingencies that are discussed

specifically and the alternatives to such use in that event are indicated. Refer to Instruction 7 to Item 504 of Regulation S-K. Please revise accordingly.

Use of Proceeds, page 36

43. Please revise to state the approximate amount intended to be used to repay indebtedness and for general corporate purposes, respectively. Refer to Item 504 of Regulation S-K. Also revise to provide details regarding the indebtedness to be repaid, including the interest rate and date of maturity.

Management's Discussion & Analysis, page 43

Trends impacting our business, page 43

44. Please balance the disclosure by including a discussion about the possibility of volatile or declining energy and commodity prices, declines in military agency budgets, and declining demand and subsidies for hybrid-propulsion systems in the first, second, and third full paragraphs on page 44, respectively. This will assist investors assessing your business.
45. Please substantiate your belief that there is "pent up demand" that resulted from the deferral of purchases during the economic downturn.

Comparison of years ended December 31, 2010 and 2009, page 48

46. Please revise your explanations of changes to quantify the individually significant factors cited in such explanations. For example, your discussion of gross profit on page 49 cites both higher volumes and price increases as factors leading to higher gross profit during fiscal 2010, but the impact of such changes is not discernable from the information provided. You should review your entire discussion of results of operations as the example cited is not meant to be all inclusive. Consider tabular format for clarity.

Net sales, page 49

47. We note the "lower demand for hybrid-propulsion systems for transit buses" in the year ended December 31, 2010. Please describe the extent of this recent decline in demand.

Cash Used for Financing Activities, page 53

48. Please disclose your current total secured leverage ratio.
49. We note from your disclosure on page 54 that certain of your interest rate derivatives contain credit-risk and collateral contingent features, and that as of December 31, 2010, driven by lower interest rates, you have been required to post additional collateral of \$41.9 million beyond your \$2.0 million independent collateral requirement. Please revise

your disclosure to indicate the maximum collateral you may have to post and under what circumstances the maximum collateral would be required.

Business, page 61

50. Revise to provide more balanced disclosure throughout this section. For example, specify in numerical detail the current market share for manual transmissions and the level of integration in foreign markets on page 69, discuss whether production of MRAP vehicles is decreasing on page 69 (see “Net Sales” on page 50), if applicable, note other factors besides “improvement in product quality and durability” which contributed to reduced aftermarket sales on page 70, describe the possibility of declines in demand and subsidies for hybrid-propulsion systems on page 72 (see the risk factor entitled, “Sales of our hybrid-propulsion products may be negatively impacted” on page 18 and “Net Sales” on page 50), and explain any trends of declining sales on page 73.
51. Please attribute the statements in this section related to your industry to the third-party sources or advise.

Our Served Markets, page 64

52. We note your discussion of changes in governmental emissions regulations and the associated “pre-buy” phenomenon on page 64. If material, please describe the previous and potential effects of emissions regulations and pre-buying as a separate risk factor, with its own subheading, in the Risk Factors section of the prospectus.

Determination of Compensation Awards, page 88

53. We note disclosure which states that the compensation committee has not made “regular use” of benchmarking or of compensation consultants in making your executive compensation determinations. Please advise as to whether you used benchmarking or compensation consultants in your determination of the 2010 compensation levels for your executive officers.

Material U.S. Federal Tax Considerations for Non-U.S. Holders, page 111

54. Delete the references to this discussion being for “general information only.” Stockholders are entitled to rely upon the discussion.

Financial Statements

Notes to Consolidated Financial Statements

Note 1 - Overview

Recent Developments, page F-8

55. Please disclose the financial impact of the manufacturing agreement contact termination.

Note 5 – Goodwill and Intangible Assets, page F-16

56. We note from your disclosure here and elsewhere in your filing that you recorded impairment charges on your trade name intangible asset in fiscal 2008 and 2009, and that your 2010 annual review of indefinite life intangibles, including Goodwill and Trade name, resulted in fair values exceeding carrying amounts indicating no impairment. Please provide to us in your response a summary of your impairment testing.
57. As a related matter, please also reconcile your projections supporting no impairment with your statement on page 50 that your lack of taxable income for the purposes of the U.S. federal income tax payments supports your continuing policy of recording a full valuation allowance against your non-current deferred tax assets.

Note 6 - Fair Value of Financial Instruments, page F-17

58. You state that your available for sale securities are “associated with a license and exclusivity agreement with Torotrak.” Please describe your significant rights and obligations under that agreement. Quantify the amounts paid to date as well as any amounts that may be paid in the future to obtain additional rights and/or in the form of royalties. Explain how the various expenditures are being accounted for. Tell us whether the shares of Torotrak were purchased at their fair value on the purchase date. If there is a separate engineering agreement, describe the significant contractual terms of that agreement as well. It appears that the agreements should be filed as exhibits.
59. It appears, from various news releases, that you acquired 10% of Torotrak as a “strategic investment” and that the purchase made you the largest shareholder. We note a quote from Torotrak’s CEO, upon the signing of the agreement that “This is the most significant endorsement of our technology thus far . . .” The CEO also described the agreement as a major coup at a difficult time for manufacturers and component suppliers. In view of these factors and the shared technological endeavors, please tell us why you do not account for the investment in Torotrak using the equity method of accounting. Address each of the criteria set forth in ASC 323-10-15-6 in your response.

Note 8 – Derivatives, page F-25

60. Please explain why collateral qualifies as a current asset. Also, please tell us how the amount of the additional collateral of \$41.9 million was determined at December 31, 2010. Describe, in expanded detail, how LIBOR levels can and/or have impacted collateral requirements.

Note 9 – Product Warranty Liabilities, page F-25

61. We note from your disclosure on page II-5 that you believe you have satisfied Rule 12-09 of Regulation S-X related to valuation and qualifying accounts through footnote disclosure and therefore have not presented separate schedules. Your table here appears to present the information required for two fiscal years. Please note that Rule 5-04 of Regulation S-X requires such information for each year an income statement is presented. As such, please revise your table to include the roll forward for fiscal 2008, and ensure other footnotes that are meant to satisfy Rule 12-09, such as the roll forward of the valuation allowance presented on page F-38, include information for each period an income statement is presented.
62. Please tell us how, during a period of increased net sales, warranties issued during the period decreased significantly.
63. Please revise your disclosure here to indicate the material components of “Net adjustments to liability.” We assume that the \$22.7 million reduction in DIPM liability is included in the \$35.5 million reduction. If our understanding is not correct, please also tell us where the \$22.7 million reduction has been considered.
64. As a related matter, please tell us how the \$22.7 million discussed here relates to the \$11.4 million elimination discussed under “Selling, general, and administrative expenses” on page 49.

Note 10 – Other Income, net, page F-26

65. We note from your disclosure here and from your policy note on page F-9 that you have recognized \$13.8 million expense reimbursements under the cost-share grant program funded by the American Recovery and Reinvestment Act for the development of hybrid-propulsion system manufacturing capacity in the U.S. as Other Income since inception of the program. Please tell us how you determined the amount to be recognized and why you recorded the amount as non-operating income.
66. As a related matter, please revise your discussion of the Grant Program to indicate the total availability under such program, and how allowable expenses are determined.

Note 14 – Income Taxes, page F-45

67. Please reconcile the valuation allowance provision of \$24.1 million as listed in your rate reconciliation with the \$35.4 million in additions to the valuation allowance as listed in the table on page F-38.

Item 16. Exhibits and Financial Statement Schedules

68. We note that you are required to file finalized opinions of counsel. In this regard, please revise to remove the term “Form of” from the description of the legal opinion. Please also be advised that the opinion should be dated and filed reasonably close to the date of effectiveness.
69. Please refile your Credit Agreement to include all schedules and exhibits. Please also file Attachment A to the Copyright Security Agreement.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company’s disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow

Eric C. Scroggins
Allison Transmission Holdings, Inc.
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adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Amy Geddes at (202) 551-3304 or Margery Reich at (202) 551-3347 if you have questions regarding comments on the financial statements and related matters. You may contact Chanda DeLong at (202) 551-3490 or me at (202) 551-3642 with any other questions.

Sincerely,

Lauren Nguyen
Attorney-Advisor

cc: Rachel W. Sheridan, Esq. *via facsimile* (202) 637-2201