



**TRIBOLOGY AUDIT ON ISUZU TRUCK AT WORKS INFRASTRUCTURE DEPOT TAUMARUNUI
CONDUCT A TEST USING CHORNCO 2082 DIESEL FUEL CONDITIONER**

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FEBRUARY 2003

INTRODUCTION

The Isuzu truck was selected for an ultrasonic test on the upper engine components. Chornco's 2082 Diesel Fuel Treatment claimed to improve the lubricity of diesel fuels, which would produce savings in maintenance costs and down time.

The Ultrasonic readings would indicate the levels of any increased lubricity of the moving parts in the upper cylinder, injectors and fuel pump, all of which are high cost maintenance items.

TEST PROTOCOL

The vehicle was in good condition and running well. This test was established in order to identify the effects of Chornco 2082 Diesel Fuel Treatment.

Test 1 represented the baseline data and the reading before the diesel fuel was treated.

Test 2 represented the readings after the fuel was treated in accordance with Chornco's treatment ration of 1 litre of the product to 1280 litres of diesel fuel.

CONCLUSIONS

At idle (500 rpm) the first test, cylinder head readings were actually lower than the second test, which was considered to be as a result of the adjustments made to the tappets during the service.

In general comparisons between the readings taken from the injectors and the fuel pump indicated an overall reduction in the sound levels of up to 14 Db, which is significant.

This would result in a reduction in the wear of the engine and fuel system components.



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27th February 2003

**TEST RESULTS – ULTRASONIC NOISE TEST
VIBRATION AND MAINTENANCE**

Ultrasonic test results (Db Levels)

1. 63 First reading at Idle
2. 74 Second reading at 2000 RPM

TEST 1 - BASELINE READINGS

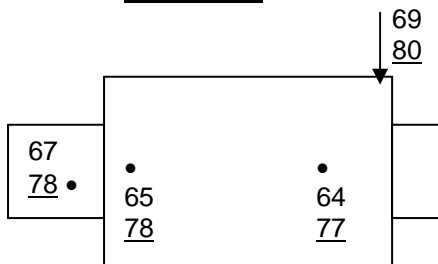
CYLINDER HEAD

63 68 69 63	65 67 65 61
<u>74 78 79 78</u>	<u>77 79 76 75</u>

INJECTORS

64	65	64	61	64	62
•	•	•	•	•	•
<u>72</u>	<u>75</u>	<u>71</u>	<u>73</u>	<u>71</u>	<u>74</u>

FUEL PUMP



TEST 2 – FUEL TREATED READINGS

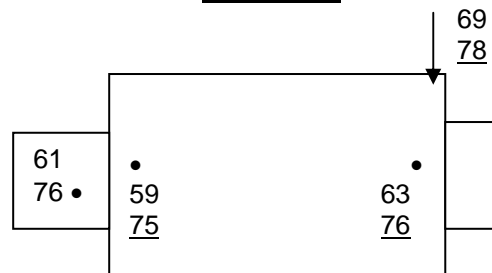
CYLINDER HEAD

70 71 67 69	69 69 69 70
<u>74 73 74 74</u>	<u>75 77 76 74</u>

INJECTORS

64	59	64	61	63	61
•	•	•	•	•	•
<u>63</u>	<u>64</u>	<u>63</u>	<u>66</u>	<u>63</u>	<u>60</u>

FUEL PUMP



Note: Test 2 readings were taken after the vehicle was serviced which would interfere with the comparative data recorded. Adjustment to the tappets at the time of service disrupted the comparison.