

Cashman Equipment Company

Printed on: 2/21/02 1:32:25 PM

600 West Glendale Avenue
Sparks, Nevada 89431
Phone: (775) 332-2527
FAX: (775) 353-2118

Owner MARTIN MARIETTA,
SPARKS, NV

Contact: BOB WIGGENS
Phone: 4254455

Test Device

| Vehicle | | Engine | | Transmission | | Driveline | |
|----------------|----------|--------------------|-----------|--------------|--|-------------------|--|
| Make | MACK | Make | MACK | Make | | Ratio | |
| Model | E7 | Model | E7 | Model | | Axles | |
| Year | 1995 | Type | 454 ATAAC | Type | | Tire Type | |
| Weight | | Serial No | 470713 | | | Tire Size | |
| Mileage | 231059 | Perf. Spec. | 450HP | | | Tire Tread | |
| VIN | SW048221 | | | | | | |
| ID No | 1016 | | | | | | |

Test Information - TEST 1

51.9 GE VIBRATION

| | | | | | |
|-------------------------|-------------------------------|-----------------------|---------|------------------|----------|
| Repair Order | RT04390 | Date | 2/21/02 | Time | 13:24 |
| Dyno Location | SPARKS | Test Serial No | 162 | System ID | |
| Test Description | BASE LINE TEST | Cfa Filename | SF602 | Test Type | AUTO LUG |
| Test Filename | | Dyno Operator | TODD D | | |
| Data Filename | C:\windyn\sf602\data\TEST0660 | | | | |

Comments

BASE LINE TEST

Data-Basic Horsepower Test

| VehSpd | VehPwr | C VPwr | VehTrq | Fuel V | Man P | Man T | InletP | EngSpd |
|--------|--------|--------|--------|--------|-------|-------|--------|--------|
| mph | Hp | Hp | lb-ft | gph | inHg | degF | inH2O | rpm |
| 62.9 | 5 | 5 | 47 | 5.0 | 6.6 | 75 | -0.7 | 2076 |
| 33.0 | 251 | 261 | 4285 | 17.3 | 30.9 | 88 | -0.8 | 1131 |
| 39.9 | 345 | 369 | 4862 | 20.6 | 49.8 | 104 | -1.7 | 1407 |
| 45.6 | 357 | 379 | 4400 | 22.2 | 55.1 | 114 | -2.2 | 1600 |
| 52.3 | 372 | 388 | 3998 | 23.1 | 54.2 | 116 | -2.6 | 1801 |
| 60.1 | 168 | 170 | 1577 | 12.1 | 24.1 | 98 | -1.4 | 1999 |

Test Information-TEST 2

36.6 GE VIBRATION

| | | | | | |
|-------------------------|-------------------------------|-----------------------|---------|------------------|----------|
| Repair Order | RT04390 | Date | 2/22/02 | Time | 13:32 |
| Dyno Location | SPARKS | Test Serial No | 164 | System ID | |
| Test Description | TEST AFTER REPAIRS | Cfa Filename | SF602 | Test Type | AUTO LUG |
| Test Filename | | Dyno Operator | TODD D | | |
| Data Filename | C:\windyn\sf602\data\TEST0662 | | | | |

Comments

2ND TEST AFTER REPAIRS.

Fitted with FTA FMF3 – Fuel Filter FMO3 – Oil Filter

Data-Basic Horsepower Test

| VehSpd | VehPwr | C VPwr | VehTrq | Fuel V | Man P | Man T | InletP | EngSpd |
|--------|--------|--------|--------|--------|-------|-------|--------|--------|
| mph | Hp | Hp | lb-ft | gph | inHg | degF | inH2O | rpm |
| 62.9 | 4 | 4 | 34 | 4.5 | 4.4 | 98 | -0.5 | 2075 |
| 34.3 | 268 | 278 | 4393 | 16.7 | 32.0 | 103 | -0.6 | 1173 |
| 40.7 | 332 | 347 | 4589 | 19.5 | 45.9 | 117 | -1.4 | 1403 |
| 46.3 | 348 | 363 | 4228 | 21.3 | 52.3 | 128 | -2.0 | 1592 |
| 52.6 | 351 | 363 | 3755 | 22.2 | 52.0 | 129 | -2.3 | 1793 |
| 60.1 | 161 | 162 | 1506 | 11.8 | 22.5 | 111 | -1.1 | 2000 |

Note: Vibration was reduced from 51.9 to 36.6 GE, a reduction of 29.5%.

Fuel economy improved 4.8% overall.