	QUICK REFERENCE INDEX		
Edition: August 2002	A GENERAL INFORMATION	GI	General Information
Revision: April 2004 Publication No. SM3E-1Y34U3	B ENGINE	EM	Engine Mechanical
Tublication No. 5 moz 116466	B ENGINE	LU	Engine Lubrication System
		CO	
			Engine Cooling System
		EC	Engine Control System
		FL	Fuel System
		EX	Exhaust System
		ACC	•
	C TRANSMISSION/ TRANSAXLE	AT	Automatic Transmission
	D DRIVELINE/AXLE	PR	Propeller Shaft
INFINITI <sub>®</sub>		RFD	
		FAX	Front Axle
M45		RAX	Rear Axle
MODEL Y34 SERIES	E SUSPENSION		Front Suspension
mobile 104 original		RSU	Rear Suspension
		WT	Road Wheels & Tires
	F BRAKES	BR	Brake System
		PB	Parking Brake System
		BRC	Brake Control System
	G STEERING	PS	Power Steering System
		STC	Steering Control System
	H RESTRAINTS	SB	Seat Belts
		SRS	Supplemental Restraint System (SRS)
	I BODY	BL	Body, Lock & Security System
		GW	Glasses, Window System & Mir- rors
		RF	Roof
		El	Exterior & Interior
		IP	Instrument Panel
		SE	Seat
	J AIR CONDITIONER	ATC	Automatic Air Conditioner
	K ELECTRICAL	SC	Starting & Charging System
		LT	Lighting System
		DI	Driver Information System
		WW	
			LAN System
		AV	
			Telephone System
		ACS	Auto Cruise Control System
		PG	Power Supply, Ground & Circuit Elements
	L MAINTENANCE	MA	Maintenance
$\sim$	M INDEX	IDX	



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# **FOREWORD**

This manual contains maintenance and repair procedure for the 2003 INFINITI M45.

In order to assure your safety and the efficient functioning of the vehicle, this manual should be read thoroughly. It is especially important that the PRECAUTIONS in the GI section be completely understood before starting any repair task.

All information in this manual is based on the latest product information at the time of publication. The right is reserved to make changes in specifications and methods at any time without notice.

### IMPORTANT SAFETY NOTICE

The proper performance of service is essential for both the safety of the technician and the efficient functioning of the vehicle.

The service methods in this Service Manual are described in such a manner that the service may be performed safely and accurately. Service varies with the procedures used, the skills of the technician and the tools and parts available. Accordingly, anyone using service procedures, tools or parts which are not specifically recommended by NISSAN must first be completely satisfied that neither personal safety nor the vehicle's safety will be jeopardized by the service method selected.



NISSAN MOTOR CO., LTD.



#### PLEASE HELP MAKE THIS SERVICE MANUAL BETTER!

Your comments are important to INFINITI and will help us to improve our Service Manuals. Use this form to report any issues or comments you may have regarding our Service Manuals. Please print this form and type or write your comments below. Mail or fax to:

Nissan North America, Inc. Technical Service Information 39001 Sunrise Drive, P.O. Box 9200 Farmington Hills, MI USA 48331 FAX: (248) 488-3910

**SERVICE MANUAL:** Model: \_\_\_\_\_\_ Year: \_\_\_\_\_ PUBLICATION NO. (Refer to Quick Reference Index): \_\_\_\_\_ Please describe any Service Manual issues or problems in detail: Page number(s) \_\_\_\_\_\_ Note: Please include a copy of each page, marked with your comments. Are the trouble diagnosis procedures logical and easy to use? (circle your answer) NO If no, what page number(s)?\_\_\_\_\_Note: Please include a copy of each page, marked with your comments. Please describe the issue or problem in detail: Is the organization of the manual clear and easy to follow? (circle your answer) YES NO Please comment: What information should be included in INFINITI Service Manuals to better support you in servicing or repairing customer vehicles? DATE: \_\_\_\_\_ YOUR NAME: \_\_\_\_\_ \_\_\_\_\_ POSITION: \_\_\_\_\_ DEALER: \_\_\_\_\_ DEALER NO.: \_\_\_\_ ADDRESS: \_\_\_ \_\_\_\_\_ STATE/PROV./COUNTRY: \_\_\_\_\_ ZIP/POSTAL CODE: \_\_\_\_

# INCH TO METRIC CONVERSION TABLE

(Rounded-off for automotive use)

(ITOGITACE OII	TOT AUTOTION	vc usc)	
inches	mm	inches	mm
.100	2.54	.610	15.49
.110	2.79	.620	15.75
.120	3.05	.630	16.00
.130	3.30	.640	16.26
.140	3.56	.650	16.51
.150	3.81	.660	16.76
.160	4.06	.670	17.02
.170	4.32	.680	17.27
.180	4.57	.690	17.53
.190	4.83	.700	17.78
.200	5.08	.710	18.03
.210	5.33	.720	18.29
.220	5.59	.730	18.54
.230	5.84	.740	18.80
.240	6.10	.750	19.05
.250	6.35	.760	19.30
.260	6.60	.770	19.56
.270	6.86	.780	19.81
.280	7.11	.790	20.07
.290	7.37	.800	20.32
.300	7.62	.810	20.57
.310	7.87	.820	20.83
.320	8.13	.830	21.08
.330	8.38	.840	21.34
.340	8.64	.850	21.59
.350	8.89	.860	21.84
.360	9.14	.870	22.10
.370	9.40	.880	22.35
.380	9.65	.890	22.61
.390	9.91	.900	22.86
.400	10.16	.910	23.11
.410	10.41	.920	23.37
.420	10.67	.930	23.62
.430	10.92	.940	23.88
.440	11.18	.950	24.13
.450	11.43	.960	24.38
.460	11.68	.970	24.64
.470	11.94	.980	24.89
.480	12.19	.990	25.15
.490	12.45	1.000	25.40
.500	12.70	2.000	50.80
.510	12.95	3.000	76.20
.520	13.21	4.000	101.60
.530	13.46	5.000	127.00
.540	13.72	6.000	152.40
.550	13.97	7.000	177.80
.560	14.22	8.000	203.20
.570	14.48	9.000	228.60
.580	14.73	10.000	254.00
.590	14.99	20.000	508.00
.600	15.24		
T			

# METRIC TO INCH CONVERSION TABLE

(Rounded-off for automotive use)

1         .0394         51         2.008           2         .079         52         2.047           3         .118         53         2.087           4         .157         54         2.126           5         .197         55         2.165           6         .236         56         2.205           7         .276         57         2.244           8         .315         58         2.283           9         .354         59         2.323           10         .394         60         2.362           11         .433         61         2.402           12         .472         62         2.441           13         .512         63         2.480           14         .551         64         2.520           15         .591         65         2.559           16         .630         66         2.598           17         .669         67         2.638           18         .709         68         2.677           19         .748         69         2.717           20         .787         70	mm	inches	mm	inches
2         .079         52         2.047           3         .118         53         2.087           4         .157         54         2.126           5         .197         55         2.165           6         .236         56         2.205           7         .276         57         2.244           8         .315         58         2.283           9         .354         59         2.323           10         .394         60         2.362           11         .433         61         2.402           12         .472         62         2.441           13         .512         63         2.480           14         .551         64         2.520           15         .591         65         2.559           16         .630         66         2.598           17         .669         67         2.638           18         .709         68         2.677           19         .748         69         2.717           20         .787         70         2.756           21         .827         71				
3         .118         53         2.087           4         .157         54         2.126           5         .197         55         2.165           6         .236         56         2.205           7         .276         57         2.244           8         .315         58         2.283           9         .354         59         2.323           10         .394         60         2.362           11         .433         61         2.402           12         .472         62         2.441           13         .512         63         2.480           14         .551         64         2.520           15         .591         65         2.559           16         .630         66         2.598           17         .669         67         2.638           18         .709         68         2.677           19         .748         69         2.717           20         .787         70         2.756           21         .827         71         2.795           22         .866         72				
4         .157         54         2.126           5         .197         55         2.165           6         .236         56         2.205           7         .276         57         2.244           8         .315         58         2.283           9         .354         59         2.323           10         .394         60         2.362           11         .433         61         2.402           12         .472         62         2.441           13         .512         63         2.480           14         .551         64         2.520           15         .591         65         2.559           16         .630         66         2.598           17         .669         67         2.638           18         .709         68         2.677           19         .748         69         2.717           20         .787         70         2.756           21         .827         71         2.795           22         .866         72         2.835           23         .906         73				
5         .197         55         2.165           6         .236         56         2.205           7         .276         57         2.244           8         .315         58         2.283           9         .354         59         2.323           10         .394         60         2.362           11         .433         61         2.402           12         .472         62         2.441           13         .512         63         2.480           14         .551         64         2.520           15         .591         65         2.559           16         .630         66         2.598           17         .669         67         2.638           18         .709         68         2.677           19         .748         69         2.717           20         .787         70         2.756           21         .827         71         2.795           22         .866         72         2.835           23         .906         73         2.874           24         .945         74				
6         .236         56         2.205           7         .276         57         2.244           8         .315         58         2.283           9         .354         59         2.323           10         .394         60         2.362           11         .433         61         2.402           12         .472         62         2.441           13         .512         63         2.480           14         .551         64         2.520           15         .591         65         2.559           16         .630         66         2.598           17         .669         67         2.638           18         .709         68         2.677           19         .748         69         2.717           20         .787         70         2.756           21         .827         71         2.795           22         .866         72         2.835           23         .906         73         2.874           24         .945         74         2.913           25         .984         75				
7         .276         57         2.244           8         .315         58         2.283           9         .354         59         2.323           10         .394         60         2.362           11         .433         61         2.402           12         .472         62         2.441           13         .512         63         2.480           14         .551         64         2.520           15         .591         65         2.559           16         .630         66         2.598           17         .669         67         2.638           18         .709         68         2.677           19         .748         69         2.717           20         .787         70         2.756           21         .827         71         2.795           22         .866         72         2.835           23         .906         73         2.874           24         .945         74         2.913           25         .984         75         2.953           26         1.024         76				
8         .315         58         2.283           9         .354         59         2.323           10         .394         60         2.362           11         .433         61         2.402           12         .472         62         2.441           13         .512         63         2.480           14         .551         64         2.520           15         .591         65         2.559           16         .630         66         2.598           17         .669         67         2.638           18         .709         68         2.677           19         .748         69         2.717           20         .787         70         2.756           21         .827         71         2.795           22         .866         72         2.835           23         .906         73         2.874           24         .945         74         2.913           25         .984         75         2.953           26         1.024         76         2.992           27         1.063         77 <th></th> <th></th> <th></th> <th></th>				
9         .354         59         2.323           10         .394         60         2.362           11         .433         61         2.402           12         .472         62         2.441           13         .512         63         2.480           14         .551         64         2.520           15         .591         65         2.559           16         .630         66         2.598           17         .669         67         2.638           18         .709         68         2.677           19         .748         69         2.717           20         .787         70         2.756           21         .827         71         2.795           22         .866         72         2.835           23         .906         73         2.874           24         .945         74         2.913           25         .984         75         2.953           26         1.024         76         2.992           27         1.063         77         3.031           28         1.102         78<				
10         .394         60         2.362           11         .433         61         2.402           12         .472         62         2.441           13         .512         63         2.480           14         .551         64         2.520           15         .591         65         2.559           16         .630         66         2.598           17         .669         67         2.638           18         .709         68         2.677           19         .748         69         2.717           20         .787         70         2.756           21         .827         71         2.795           22         .866         72         2.835           23         .906         73         2.874           24         .945         74         2.913           25         .984         75         2.953           26         1.024         76         2.992           27         1.063         77         3.031           28         1.102         78         3.071           29         1.142         7				
11         .433         61         2.402           12         .472         62         2.441           13         .512         63         2.480           14         .551         64         2.520           15         .591         65         2.559           16         .630         66         2.598           17         .669         67         2.638           18         .709         68         2.677           19         .748         69         2.717           20         .787         70         2.756           21         .827         71         2.795           22         .866         72         2.835           23         .906         73         2.874           24         .945         74         2.913           25         .984         75         2.953           26         1.024         76         2.992           27         1.063         77         3.031           28         1.102         78         3.071           29         1.142         79         3.110           30         1.181				
12         .472         62         2.441           13         .512         63         2.480           14         .551         64         2.520           15         .591         65         2.559           16         .630         66         2.598           17         .669         67         2.638           18         .709         68         2.677           19         .748         69         2.717           20         .787         70         2.756           21         .827         71         2.795           22         .866         72         2.835           23         .906         73         2.874           24         .945         74         2.913           25         .984         75         2.953           26         1.024         76         2.992           27         1.063         77         3.031           28         1.102         78         3.071           29         1.142         79         3.110           30         1.181         80         3.150           31         1.220 <td< th=""><th>10</th><th></th><th></th><th></th></td<>	10			
13         .512         63         2.480           14         .551         64         2.520           15         .591         65         2.559           16         .630         66         2.598           17         .669         67         2.638           18         .709         68         2.677           19         .748         69         2.717           20         .787         70         2.756           21         .827         71         2.795           22         .866         72         2.835           23         .906         73         2.874           24         .945         74         2.913           25         .984         75         2.953           26         1.024         76         2.992           27         1.063         77         3.031           28         1.102         78         3.071           29         1.142         79         3.110           30         1.181         80         3.150           31         1.220         81         3.189           32         1.260 <t< th=""><th></th><th></th><th></th><th></th></t<>				
14         .551         64         2.520           15         .591         65         2.559           16         .630         66         2.598           17         .669         67         2.638           18         .709         68         2.677           19         .748         69         2.717           20         .787         70         2.756           21         .827         71         2.795           22         .866         72         2.835           23         .906         73         2.874           24         .945         74         2.913           25         .984         75         2.953           26         1.024         76         2.992           27         1.063         77         3.031           28         1.102         78         3.071           29         1.142         79         3.110           30         1.181         80         3.150           31         1.220         81         3.189           32         1.260         82         3.228           33         1.299         <		.472	62	2.441
15         .591         65         2.559           16         .630         66         2.598           17         .669         67         2.638           18         .709         68         2.677           19         .748         69         2.717           20         .787         70         2.756           21         .827         71         2.795           22         .866         72         2.835           23         .906         73         2.874           24         .945         74         2.913           25         .984         75         2.953           26         1.024         76         2.992           27         1.063         77         3.031           28         1.102         78         3.071           29         1.142         79         3.110           30         1.181         80         3.150           31         1.220         81         3.189           32         1.260         82         3.228           33         1.299         83         3.268           34         1.339	13	.512	63	2.480
16         .630         66         2.598           17         .669         67         2.638           18         .709         68         2.677           19         .748         69         2.717           20         .787         70         2.756           21         .827         71         2.795           22         .866         72         2.835           23         .906         73         2.874           24         .945         74         2.913           25         .984         75         2.953           26         1.024         76         2.992           27         1.063         77         3.031           28         1.102         78         3.071           29         1.142         79         3.110           30         1.181         80         3.150           31         1.220         81         3.189           32         1.260         82         3.228           33         1.299         83         3.268           34         1.339         84         3.307           35         1.378	14	.551	64	2.520
17       .669       67       2.638         18       .709       68       2.677         19       .748       69       2.717         20       .787       70       2.756         21       .827       71       2.795         22       .866       72       2.835         23       .906       73       2.874         24       .945       74       2.913         25       .984       75       2.953         26       1.024       76       2.992         27       1.063       77       3.031         28       1.102       78       3.071         29       1.142       79       3.110         30       1.181       80       3.150         31       1.220       81       3.189         32       1.260       82       3.228         33       1.299       83       3.268         34       1.339       84       3.307         35       1.378       85       3.346         36       1.417       86       3.386         37       1.457       87       3.425 <t< th=""><th>15</th><th>.591</th><th>65</th><th>2.559</th></t<>	15	.591	65	2.559
17       .669       67       2.638         18       .709       68       2.677         19       .748       69       2.717         20       .787       70       2.756         21       .827       71       2.795         22       .866       72       2.835         23       .906       73       2.874         24       .945       74       2.913         25       .984       75       2.953         26       1.024       76       2.992         27       1.063       77       3.031         28       1.102       78       3.071         29       1.142       79       3.110         30       1.181       80       3.150         31       1.220       81       3.189         32       1.260       82       3.228         33       1.299       83       3.268         34       1.339       84       3.307         35       1.378       85       3.346         36       1.417       86       3.386         37       1.457       87       3.425 <t< th=""><th>16</th><th>.630</th><th>66</th><th>2.598</th></t<>	16	.630	66	2.598
18         .709         68         2.677           19         .748         69         2.717           20         .787         70         2.756           21         .827         71         2.795           22         .866         72         2.835           23         .906         73         2.874           24         .945         74         2.913           25         .984         75         2.953           26         1.024         76         2.992           27         1.063         77         3.031           28         1.102         78         3.071           29         1.142         79         3.110           30         1.181         80         3.150           31         1.220         81         3.189           32         1.260         82         3.228           33         1.299         83         3.268           34         1.339         84         3.307           35         1.378         85         3.346           36         1.417         86         3.386           37         1.457			67	
19         .748         69         2.717           20         .787         70         2.756           21         .827         71         2.795           22         .866         72         2.835           23         .906         73         2.874           24         .945         74         2.913           25         .984         75         2.953           26         1.024         76         2.992           27         1.063         77         3.031           28         1.102         78         3.071           29         1.142         79         3.110           30         1.181         80         3.150           31         1.220         81         3.189           32         1.260         82         3.228           33         1.299         83         3.268           34         1.339         84         3.307           35         1.378         85         3.346           36         1.417         86         3.386           37         1.457         87         3.425           38         1.496				
20         .787         70         2.756           21         .827         71         2.795           22         .866         72         2.835           23         .906         73         2.874           24         .945         74         2.913           25         .984         75         2.953           26         1.024         76         2.992           27         1.063         77         3.031           28         1.102         78         3.071           29         1.142         79         3.110           30         1.181         80         3.150           31         1.220         81         3.189           32         1.260         82         3.228           33         1.299         83         3.268           34         1.339         84         3.307           35         1.378         85         3.346           36         1.417         86         3.386           37         1.457         87         3.425           38         1.496         88         3.465           39         1.535				
21         .827         71         2.795           22         .866         72         2.835           23         .906         73         2.874           24         .945         74         2.913           25         .984         75         2.953           26         1.024         76         2.992           27         1.063         77         3.031           28         1.102         78         3.071           29         1.142         79         3.110           30         1.181         80         3.150           31         1.220         81         3.189           32         1.260         82         3.228           33         1.299         83         3.268           34         1.339         84         3.307           35         1.378         85         3.346           36         1.417         86         3.386           37         1.457         87         3.425           38         1.496         88         3.465           39         1.535         89         3.504           40         1.575				
22         .866         72         2.835           23         .906         73         2.874           24         .945         74         2.913           25         .984         75         2.953           26         1.024         76         2.992           27         1.063         77         3.031           28         1.102         78         3.071           29         1.142         79         3.110           30         1.181         80         3.150           31         1.220         81         3.189           32         1.260         82         3.228           33         1.299         83         3.268           34         1.339         84         3.307           35         1.378         85         3.346           36         1.417         86         3.386           37         1.457         87         3.425           38         1.496         88         3.465           39         1.535         89         3.504           40         1.575         90         3.543           41         1.614				
23         .906         73         2.874           24         .945         74         2.913           25         .984         75         2.953           26         1.024         76         2.992           27         1.063         77         3.031           28         1.102         78         3.071           29         1.142         79         3.110           30         1.181         80         3.150           31         1.220         81         3.189           32         1.260         82         3.228           33         1.299         83         3.268           34         1.339         84         3.307           35         1.378         85         3.346           36         1.417         86         3.386           37         1.457         87         3.425           38         1.496         88         3.465           39         1.535         89         3.504           40         1.575         90         3.543           41         1.614         91         3.583           42         1.654				
24         .945         74         2.913           25         .984         75         2.953           26         1.024         76         2.992           27         1.063         77         3.031           28         1.102         78         3.071           29         1.142         79         3.110           30         1.181         80         3.150           31         1.220         81         3.189           32         1.260         82         3.228           33         1.299         83         3.268           34         1.339         84         3.307           35         1.378         85         3.346           36         1.417         86         3.386           37         1.457         87         3.425           38         1.496         88         3.465           39         1.535         89         3.504           40         1.575         90         3.543           41         1.614         91         3.583           42         1.654         92         3.622           43         1.693				
25         .984         75         2.953           26         1.024         76         2.992           27         1.063         77         3.031           28         1.102         78         3.071           29         1.142         79         3.110           30         1.181         80         3.150           31         1.220         81         3.189           32         1.260         82         3.228           33         1.299         83         3.268           34         1.339         84         3.307           35         1.378         85         3.346           36         1.417         86         3.386           37         1.457         87         3.425           38         1.496         88         3.465           39         1.535         89         3.504           40         1.575         90         3.543           41         1.614         91         3.583           42         1.654         92         3.622           43         1.693         93         3.661           44         1.732 <th></th> <th></th> <th></th> <th></th>				
26         1.024         76         2.992           27         1.063         77         3.031           28         1.102         78         3.071           29         1.142         79         3.110           30         1.181         80         3.150           31         1.220         81         3.189           32         1.260         82         3.228           33         1.299         83         3.268           34         1.339         84         3.307           35         1.378         85         3.346           36         1.417         86         3.386           37         1.457         87         3.425           38         1.496         88         3.465           39         1.535         89         3.504           40         1.575         90         3.543           41         1.614         91         3.583           42         1.654         92         3.622           43         1.693         93         3.661           44         1.732         94         3.701           45         1.772 <th></th> <th></th> <th></th> <th></th>				
27         1.063         77         3.031           28         1.102         78         3.071           29         1.142         79         3.110           30         1.181         80         3.150           31         1.220         81         3.189           32         1.260         82         3.228           33         1.299         83         3.268           34         1.339         84         3.307           35         1.378         85         3.346           36         1.417         86         3.386           37         1.457         87         3.425           38         1.496         88         3.465           39         1.535         89         3.504           40         1.575         90         3.543           41         1.614         91         3.583           42         1.654         92         3.622           43         1.693         93         3.661           44         1.732         94         3.701           45         1.772         95         3.740           46         1.811 <th></th> <th></th> <th></th> <th></th>				
28         1.102         78         3.071           29         1.142         79         3.110           30         1.181         80         3.150           31         1.220         81         3.189           32         1.260         82         3.228           33         1.299         83         3.268           34         1.339         84         3.307           35         1.378         85         3.346           36         1.417         86         3.386           37         1.457         87         3.425           38         1.496         88         3.465           39         1.535         89         3.504           40         1.575         90         3.543           41         1.614         91         3.583           42         1.654         92         3.622           43         1.693         93         3.661           44         1.732         94         3.701           45         1.772         95         3.740           46         1.811         96         3.780           47         1.850 <th></th> <th></th> <th></th> <th></th>				
29         1.142         79         3.110           30         1.181         80         3.150           31         1.220         81         3.189           32         1.260         82         3.228           33         1.299         83         3.268           34         1.339         84         3.307           35         1.378         85         3.346           36         1.417         86         3.386           37         1.457         87         3.425           38         1.496         88         3.465           39         1.535         89         3.504           40         1.575         90         3.543           41         1.614         91         3.583           42         1.654         92         3.622           43         1.693         93         3.661           44         1.732         94         3.701           45         1.772         95         3.740           46         1.811         96         3.780           47         1.850         97         3.819           48         1.890 <th></th> <th></th> <th></th> <th></th>				
30         1.181         80         3.150           31         1.220         81         3.189           32         1.260         82         3.228           33         1.299         83         3.268           34         1.339         84         3.307           35         1.378         85         3.346           36         1.417         86         3.386           37         1.457         87         3.425           38         1.496         88         3.465           39         1.535         89         3.504           40         1.575         90         3.543           41         1.614         91         3.583           42         1.654         92         3.622           43         1.693         93         3.661           44         1.732         94         3.701           45         1.772         95         3.740           46         1.811         96         3.780           47         1.850         97         3.819           48         1.890         98         3.858           49         1.929 <th></th> <th></th> <th></th> <th></th>				
31         1.220         81         3.189           32         1.260         82         3.228           33         1.299         83         3.268           34         1.339         84         3.307           35         1.378         85         3.346           36         1.417         86         3.386           37         1.457         87         3.425           38         1.496         88         3.465           39         1.535         89         3.504           40         1.575         90         3.543           41         1.614         91         3.583           42         1.654         92         3.622           43         1.693         93         3.661           44         1.732         94         3.701           45         1.772         95         3.740           46         1.811         96         3.780           47         1.850         97         3.819           48         1.890         98         3.858           49         1.929         99         3.898				
32         1.260         82         3.228           33         1.299         83         3.268           34         1.339         84         3.307           35         1.378         85         3.346           36         1.417         86         3.386           37         1.457         87         3.425           38         1.496         88         3.465           39         1.535         89         3.504           40         1.575         90         3.543           41         1.614         91         3.583           42         1.654         92         3.622           43         1.693         93         3.661           44         1.732         94         3.701           45         1.772         95         3.740           46         1.811         96         3.780           47         1.850         97         3.819           48         1.890         98         3.858           49         1.929         99         3.898				
33         1.299         83         3.268           34         1.339         84         3.307           35         1.378         85         3.346           36         1.417         86         3.386           37         1.457         87         3.425           38         1.496         88         3.465           39         1.535         89         3.504           40         1.575         90         3.543           41         1.614         91         3.583           42         1.654         92         3.622           43         1.693         93         3.661           44         1.732         94         3.701           45         1.772         95         3.740           46         1.811         96         3.780           47         1.850         97         3.819           48         1.890         98         3.858           49         1.929         99         3.898				
34     1.339     84     3.307       35     1.378     85     3.346       36     1.417     86     3.386       37     1.457     87     3.425       38     1.496     88     3.465       39     1.535     89     3.504       40     1.575     90     3.543       41     1.614     91     3.583       42     1.654     92     3.622       43     1.693     93     3.661       44     1.732     94     3.701       45     1.772     95     3.740       46     1.811     96     3.780       47     1.850     97     3.819       48     1.890     98     3.858       49     1.929     99     3.898				
35     1.378     85     3.346       36     1.417     86     3.386       37     1.457     87     3.425       38     1.496     88     3.465       39     1.535     89     3.504       40     1.575     90     3.543       41     1.614     91     3.583       42     1.654     92     3.622       43     1.693     93     3.661       44     1.732     94     3.701       45     1.772     95     3.740       46     1.811     96     3.780       47     1.850     97     3.819       48     1.890     98     3.858       49     1.929     99     3.898				
36     1.417     86     3.386       37     1.457     87     3.425       38     1.496     88     3.465       39     1.535     89     3.504       40     1.575     90     3.543       41     1.614     91     3.583       42     1.654     92     3.622       43     1.693     93     3.661       44     1.732     94     3.701       45     1.772     95     3.740       46     1.811     96     3.780       47     1.850     97     3.819       48     1.890     98     3.858       49     1.929     99     3.898				3.307
37     1.457     87     3.425       38     1.496     88     3.465       39     1.535     89     3.504       40     1.575     90     3.543       41     1.614     91     3.583       42     1.654     92     3.622       43     1.693     93     3.661       44     1.732     94     3.701       45     1.772     95     3.740       46     1.811     96     3.780       47     1.850     97     3.819       48     1.890     98     3.858       49     1.929     99     3.898				3.346
38     1.496     88     3.465       39     1.535     89     3.504       40     1.575     90     3.543       41     1.614     91     3.583       42     1.654     92     3.622       43     1.693     93     3.661       44     1.732     94     3.701       45     1.772     95     3.740       46     1.811     96     3.780       47     1.850     97     3.819       48     1.890     98     3.858       49     1.929     99     3.898	36	1.417	86	3.386
39     1.535     89     3.504       40     1.575     90     3.543       41     1.614     91     3.583       42     1.654     92     3.622       43     1.693     93     3.661       44     1.732     94     3.701       45     1.772     95     3.740       46     1.811     96     3.780       47     1.850     97     3.819       48     1.890     98     3.858       49     1.929     99     3.898	37	1.457	87	3.425
40       1.575       90       3.543         41       1.614       91       3.583         42       1.654       92       3.622         43       1.693       93       3.661         44       1.732       94       3.701         45       1.772       95       3.740         46       1.811       96       3.780         47       1.850       97       3.819         48       1.890       98       3.858         49       1.929       99       3.898	38	1.496	88	3.465
41       1.614       91       3.583         42       1.654       92       3.622         43       1.693       93       3.661         44       1.732       94       3.701         45       1.772       95       3.740         46       1.811       96       3.780         47       1.850       97       3.819         48       1.890       98       3.858         49       1.929       99       3.898	39	1.535	89	3.504
41       1.614       91       3.583         42       1.654       92       3.622         43       1.693       93       3.661         44       1.732       94       3.701         45       1.772       95       3.740         46       1.811       96       3.780         47       1.850       97       3.819         48       1.890       98       3.858         49       1.929       99       3.898	40	1.575	90	3.543
42     1.654     92     3.622       43     1.693     93     3.661       44     1.732     94     3.701       45     1.772     95     3.740       46     1.811     96     3.780       47     1.850     97     3.819       48     1.890     98     3.858       49     1.929     99     3.898	41		91	
43     1.693     93     3.661       44     1.732     94     3.701       45     1.772     95     3.740       46     1.811     96     3.780       47     1.850     97     3.819       48     1.890     98     3.858       49     1.929     99     3.898	42		92	
44     1.732     94     3.701       45     1.772     95     3.740       46     1.811     96     3.780       47     1.850     97     3.819       48     1.890     98     3.858       49     1.929     99     3.898				
45     1.772     95     3.740       46     1.811     96     3.780       47     1.850     97     3.819       48     1.890     98     3.858       49     1.929     99     3.898				
46       1.811       96       3.780         47       1.850       97       3.819         48       1.890       98       3.858         49       1.929       99       3.898				
47     1.850     97     3.819       48     1.890     98     3.858       49     1.929     99     3.898				
48       1.890       98       3.858         49       1.929       99       3.898				
<b>49</b> 1.929 <b>99</b> 3.898				
1.709 100 3.937				
		1.703	100	3.731

### QUICK REFERENCE CHART M45 ENGINE TUNE-UP DATA (VK45DE)

PFP:00000

ELS0003W

Engine model		VK45DE
Firing order		1-8-7-3-6-5-4-2
Idle speed A/T (In "P" or "N" po	osition) rpm	650±50
Ignition timing (BTDC at idle speed	d)	12°±5°
CO% at idle		0.7 - 9.9 % and engine runs smoothly
Tensions of drive be	elts	Auto adjustment by auto tensioner
Radiator cap relief	pressure	78-98 (0.8-1.0 , 11-14 )
Standard	kPa (kg/cm <sup>2</sup> , psi)	10 00 (0.0 1.0 ; 11 11)
Cooling system leal	kage testing pressure	457(4.0.22)
	kPa (kg/cm <sup>2</sup> , psi)	157(1.6, 23)
Compression press	sure kPa (kg/cm-, psi)/rpm	1,320 (13.5, 191) /300
Standard		1,320 (13.3, 191) /300
Minimum		1,130 (11.5, 164)/300
Spark plug	Standard type	PLFR5A - 11
	Hot type	PLFR4A - 11
	Cold type	PLFR6A - 11

# FRONT WHEEL ALIGNMENT (Unladen\*)

ELS0003X

Camber		Minimum	- 1° 25′ (- 1.42°)	
		Nominal	- 0° 40′ (- 0.67°)	
	Degree minute	Maximum	0° 05′ (0.08°)	
	(Decimal degree)	Left and right difference	45' (0.75°) or less	
Caster		Minimum	5° 50′ (5.83°)	
		Nominal	6° 35′ (6.58°)	
	Degree minute	Maximum	7° 20′ (7.33°)	
	(Decimal degree)	Left and right difference	45' (0.75°) or less	
Kingpin inclination		Minimum	12° 40′ (12.67°)	
	Degree minute	Nominal	13° 25′ (13.42°)	
	(Decimal degree)	Maximum	14° 10′ (14.17°)	
Total toe-in		Minimum	1 (0.04)	
Distance (A – B)		Nominal	2 (0.08)	
	mm (in)	Maximum	3 (0.12)	
Angle (left plus righ	nt)	Minimum	2′ (0.03°)	
	Degree minute	Nominal	5′ (0.08°)	
	(Decimal degree)	Maximum	8′ (0.13°)	
Wheel turning angle (Full turn	n)	Minimum	30° 55′ (30.92°)	
Inside	Degree minute	Nominal	33°55′ (33.92°)	
	(Decimal degree)	Maximum	34° 55′ (34.92°)	
Outside	Degree minute	Nominal	20° 45′ (20 75°)	
	(Decimal degree)	Nominai	28° 45′ (28.75°)	

<sup>\*:</sup> Fuel, radiator coolant and engine oil full. Spare tire, jack, hand tools and mats in designated positions.

# REAR WHEEL ALIGNMENT (Unladen\*)

ELS0003Y

Camber		Minimum	– 1° 10′ (– 1.17°)
	Degree minute	Nominal	- 0° 40′ (- 0.67°)
	(Decimal degree)	Maximum	- 0° 10′ (- 0.17°)
Total toe-in		Minimum	0(0)
	Distance(A–B)	Nominal	2.6 (0.102)
	mm (in)	Maximum	5.2 (0.205)
	Angle (left plus right)	Minimum	0′ (0.00°)
	Degree minute	Nominal	7′ (0.12°)
	(Decimal degree)	Maximum	14' (0.23°)

<sup>\*:</sup> Fuel, radiator coolant and engine oil full. Spare tire, jack, hand tools and mats in designated positions.

BRAKE

ELS0003Z

Unit: mm (in)

Front brake			
Pad wear limit	2.0 (0.079)		
Rotor repair limit	26.0 (1.024)		
Rear brake			
Pad wear limit	2.0 (0.079)		
Rotor repair limit	14.0 (0.551)		
Pedal free height	174 - 184 (6.85 - 7.24)		
Pedal depressed height*	More than 90 (3.54)		

<sup>\*:</sup> Under force of 490 N(50 kg, 110 lb) with engine running.

#### **REFILL CAPACITIES**

ELS00040

UNIT		Liter	US measure
Fuel tank		80	21 - 1/8 gal
Coolant (With reservoir tank)		9.8	10 - 3/8 qt
Drain and refill			
Engine*	With oil filter change	5.6	5 - 7/8 qt
Engine*	Without oil filter change	5.0	5 - 1/4 qt
	Dry engine (overhall)	6.7	7 - 1/8 qt
Transmission	A/T	10.3	10 - 7/8 qt
Differential carrier		1.4	3 pt
Power steering system		1.0	1 - 1/8 qt
Air conditioning system	Compressor oil	0.180	6.0 fl oz
	Refrigerant	0.60 kg	1.32 lb

<sup>\*:</sup> For further details, see "Changing Engine Oil" in MA section.