| | OUICK DEFEDENCE INDEX | | |
|--|--|-----|---|
| Edition: September 2003 | QUICK REFERENCE INDEX A GENERAL INFORMATION | GI | General Information |
| Revision: October 2004 Publication No. SM4E-1Y34U3 | B ENGINE | | |
| Tublication No. SWIII-113463 | B ENGINE | EM | Engine Mechanical |
| | | LU | Engine Lubrication System |
| | | CO | Engine Cooling System |
| | | EC | Engine Control System |
| | | FL | Fuel System |
| | | EX | |
| | O TRANSMISSION/ | | Accelerator Control System |
| | C TRANSMISSION/ TRANSAXLE | AT | Automatic Transmission |
| | D DRIVELINE/AXLE | PR | Propeller Shaft |
| INFINITI _® | | RFD | |
| | | | Front Axle |
| M45 | | RAX | Rear Axle |
| MODEL Y34 SERIES | E SUSPENSION | | Front Suspension |
| | | RSU | Rear Suspension |
| | | WT | Road Wheels & Tires |
| | F BRAKES | BR | Brake System |
| | | РВ | 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 & Mirrors |
| | | RF | Roof |
| | | = | 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 | Wiper, Washer & Horn |
| | | LAN | LAN System |
| | | AV | Audio, Visual, Navigation & Tele- phone System |
| | | ACS | Auto Cruise Control System |
| | | PG | Power Supply, Ground & Circuit Elements |
| | L MAINTENANCE | MA | Maintenance |
| | M INDEX | IDX | Alphabetical Index |
| 4 | | | |



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FOREWORD

This manual contains maintenance and repair procedure for the 2004 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.



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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)

| Inches | (INDUITUEU-OII | TOT GUICITION | vc usc) | |
|--|----------------|---------------|---------|--------|
| .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 | inches | | inches | |
| .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 | .100 | | .610 | |
| .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 .330 7.62 .810 20.57 .310 7.87 .820 20.83 | .110 | 2.79 | .620 | 15.75 |
| .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 21.34 | .120 | | .630 | |
| .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 .350 8.89 .860 21.84 | .130 | 3.30 | .640 | 16.26 |
| .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 | .140 | 3.56 | .650 | 16.51 |
| .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 | .150 | 3.81 | .660 | 16.76 |
| .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 | .160 | 4.06 | .670 | 17.02 |
| .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 | | 4.32 | | 17.27 |
| .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 | | | | |
| .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 | | | | |
| .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 | | | | |
| .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 | | | | |
| .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 | | | | |
| .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 | | | | |
| .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 <th></th> <th></th> <td></td> <td></td> | | | | |
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| .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 | | | | |
| .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 | | | | |
| .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 <t< td=""><th></th><th></th><td></td><td></td></t<> | | | | |
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| .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 | | | | |
| .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 | | | | |
| .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 | | | | |
| .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 </td <th></th> <th></th> <td></td> <td></td> | | | | |
| .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 9.00 | | | | |
| .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 1 | | | | |
| .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 10.000 508.00 | | | | |
| .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 | | | | |
| .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 .590 14.99 20.000 508.00 | .420 | | | |
| .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 9.000 254.00 .590 14.99 20.000 508.00 | .430 | 10.92 | | 23.88 |
| .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 | | | | |
| .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 | | | | |
| .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 | .460 | 11.68 | .970 | 24.64 |
| .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 | .470 | 11.94 | .980 | 24.89 |
| .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 | | 12.19 | | 25.15 |
| .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 | .490 | 12.45 | 1.000 | 25.40 |
| .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 | .500 | 12.70 | 2.000 | 50.80 |
| .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 | .510 | 12.95 | 3.000 | 76.20 |
| .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 | .520 | 13.21 | 4.000 | 101.60 |
| .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 | .530 | 13.46 | 5.000 | 127.00 |
| .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 | .540 | 13.72 | 6.000 | 152.40 |
| .570 14.48 9.000 228.60 .580 14.73 10.000 254.00 .590 14.99 20.000 508.00 | .550 | | 7.000 | 177.80 |
| .580 14.73 10.000 254.00 .590 14.99 20.000 508.00 | .560 | | 8.000 | |
| .590 14.99 20.000 508.00 | | | | |
| | | | 10.000 | 254.00 |
| .600 15.24 | | | 20.000 | 508.00 |
| | .600 | 15.24 | | |

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> | | | | |
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| 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 | | | | |
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| 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 | |
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| 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 | | | | |
| 49 1.929 99 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 | sition) rpm | 650±50 | |
| Ignition timing (BTDC at idle speed |) | 12°±5° | |
| CO% at idle | | 0.7 - 9.9 % and engine runs smoothly | |
| Tensions of drive be | Its | Auto adjustment by auto tensioner | |
| Radiator cap relief p | ressure | | |
| Standard | kPa (kg/cm² , psi) | 78-98 (0.8-1.0 , 11-14) | |
| Cooling system leak | age testing pressure | 457/4 0, 003 | |
| | kPa (kg/cm² , psi) | 157(1.6, 23) | |
| Compression pressu | ıre kPa (kg/cm-, psi)/rpm | 4 220 /42 5 404\ /200 | |
| Standard | | 1,320 (13.5, 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 to | e-in | | Minimum | 1 (0.04) | |
| | Distance (A – B) | | Nominal | 2 (0.08) | |
| | | mm (in) | Maximum | 3 (0.12) | |
| | Angle (left plus right) | | Minimum | 2′ (0.03°) | |
| | | Degree minute | Nominal | 5′ (0.08°) | |
| | | (Decimal degree) | Maximum | 8′ (0.13°) | |
| Wheel t | urning angle (Full turn) | | Minimum | 30° 55′ (30.92°) | |
| | Inside | Degree minute | Nominal | 33°55′ (33.92°) | |
| | | (Decimal degree) | Maximum | 34° 55′ (34.92°) | |
| | Outside | Degree minute | Naminal | 200 45/ (20 750) | |
| | | (Decimal degree) | Nominal | 28° 45′ (28.75°) | |

^{*:} 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°) |

^{*:} 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) |

^{*:} 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 | | | |
| Finaina* | 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 | ansmission A/T | | 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 |

^{*:} For further details, see "Changing Engine Oil" in MA section.