ZZ-T-1083E
August 20, 1976
SUPERSEDING
ZZ-T-1083D
December 3, 1974

FEDERAL SPECIFICATION

# TIRES, PNEUMATIC, LOW SPEED, OFF HIGHWAY

This specification was approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

## 1. SCOPE AND CLASSIFICATION

**1.1 Scope.** This specification covers pneumatic tires, both tube and tubeless types and flaps when applicable, for mounting on construction, earthmoving, mining and logging equipment, road graders, mobile cranes, and similar vehicles operated at low speeds and off the road.

1.2 Classification. Tires covered by this specification shall be furnished in the following groups, classes, sizes, and ply ratings, as specified (see 6.2).

1.2.1 Groups. Tires shall be of the following groups:

1 - Off-the-road tires used in intermittent highway service (tube type).
1A- Off-the-road tires used in intermittent highway service (tubeless).
2 - Earthmoving, mining, and logging tires *for* short hauls (tube type).
2A- Earthmoving, mining, and logging tires for short hauls (tubeless).
3 - Road grader (tube type).
3A- Road grader (tubeless).
4 - Fork-lift truck, mobile crane, shovels, mining *car,* front end loaders and dozers (tube type).
4A- Fork-lift truck, mobile *crane,* shovels, mining car, front end loaders and dozers (tubeless).

1.2.1.1 Group 4 and 4A tires shall not be tested for qualification nor included on the Qualified Products List. The group 4 and 4A tares are shown in the Appendix A of this specification for informational purposes. When specified, the Group 4 and 4A *tires* shall be inspected for acceptance (see 6.2).

1.2 2 Sizes and ply ratings. Tires shall be of the sizes, load ranges or ply ratings listed in appendix A.

## 2. APPLIcABLE DOCUMENTS

2.1 The following documents, of the issues in effect on date *of* invitation for bids *or* request for proposal, form a part of this specification to the extent specified herein.

Federal Specifications:

UU-T-81 - Tags, Shipping and Stock.

ZZ-I-550 - Inner Tube, Pneumatic Tire.

Federal Standards:

Fed. Std. NO. 123 - Marking for Domestic Shipment (Civil Agencies).

Fed. *Test* Method Std. No. 601 - Rubber: Sampling and Testing.

(Activities outside the Federal Government may obtain copies of Federal Specifications, Standards, and Handhooks as outlined under General Information *in* the Index of Federal Specifications and Standards and at the prices indicated in the Index. The Index, which includes cumulative monthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

(Single copies of this specification and other Federal Specifications rewired by activities outside the Federal Government for bidding purposes are available without charge from Business service Centers at the General Services Administration Regional Offices in Boston, New York, Washington, DC, Atlanta, Chicago Kansas City, MD, Fort Worth, Denver, San Francisco, Los Angeles, and Seattle, WA.)

(Federal Government activities may obtain copies of Federal specifications, Standards, and Handbooks and the Index of Federal Specifications and Standards from established distribution points in their agencies.)

**Military Specifications:**

MIL-T-4 - Tire, Pneumatic, and inner Tuba, Pneumatic Tire: Tire with Flap; Packaging and Packing Of.

MIL-T-1 2459 - Tire, Pneumatic; for Military Ground Vehicles.

Military Standards

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes.

MIL-STD-129 - Marking for Shipment and Storage.

MIL-STD-1224 - Visual Inspection Guide for Pneumatic Tires (Non-Aircraft).

(Copies of Military Specifications and Standards required by svppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless a specific issue is identified, the issue in affect on data of invitation for bids or request for proposal shall apply.

The Tire and Rim Association, Inc., Yearbook 1971.

(Applications for copies should be addressed to the Tire and Rim Association, Inc., Comand Bldg. 34 N. Hawkins Avenue, Akron, Ohio 44373.)

3. REQUIREMENTS

**3.1 Qualification. Tires furnished under this specification shall be products which have been qualified (see 3.4, 3.9 and 4.2), and have been listed on or approved for listing on the applicable** Qualified Products List. Qualification retests will be required if the manufacturer has modified his product or changed his material or processing sufficiently that the validity of previous qualification is questionable or when deemed necessary to determine that the quality of the product is being maintained, Suppliers shall submit a list of time they propose to supply to the Government. This list of tires shall include brands, numerical level of each brand, size, actual es number of breakers, load ranges and ply rating, if tuba or tubeless, type of cord material(s), type of tread design, type of service, plant that produced tires, location of each plant, location(s) of laboratory test facilities, and who shall be the contact representative for the company From th is list, tires of particular brands shall be tested for qualification in order that the manufacturer may be eligible to be awarded contracts or orders for tires under this specification. Tires furnished under this specification shall be listed on the Qualified Products List and not be of quality lower than the equivalent grade the supplier furnished for sale through commercial channels. A qualified tire brand will qualify other tire brands having en equal or higher quality level rating, provided each la of the same construction and body ply material.

3.2 Materials.

3.2.1 Compound. The basic compound used in the tire construction shall be of natural rubber, synthetic rubber, or a combination thereof. Reclaimed rubber may be used in basic compounds.

3.2.2 Plies. Plies shall be of rubber-coated nylon, polyester, rayon, metal tire, or other, as specified (see 6.2).

3.2.3 Breaker strips. Breaker strips, when used, shall be of a suitable rubber-coated nylon, polyester, rayon, metal wire or other as specified (ace 6.2).

3.3 Design and construction. Each tire constructed shall consist of component parts as described in 3. 3. 3 through 3.3.7, inclusive and shall properly fit Tire and Rim Associatio n's approved rims for the respective tire sizes as listed in appendix A.

3.3.1 Tube type tires. Each tire shall be of a form to enclose an inner tube containing air under pressure and conforming to the applicable requirements of ZZ-I-550. The tire shall otherwise conform to the requirements of this specifi cation.

3.3.2 Tubeless tires. Tubeless tires shall incorporate carcass materials and constru ction to provide air retention equal to that of a conventional tire and tube. It shall otherwise conform to the requirements of this specification.

3.3.3 Carcass. The carcass shall consist of plies of rubberized cord of material sui table for the Intended purposes. The c rcass may he reinforced with breaker strips designed to impro ve impact resistance.

3.3.4 Tread. The tread shall consist of a rubber compound (see 3.2.1). The tread and tread design shall be suitable for minimizing skidding, resisting abrasion, end protecting the carcass from injury. The tread design shall be the manufacturer's standard design for the application as specified (see 6.2).

3.3.5 Sidewall. The sidewall shall consist of a rubber compound (ace 3.2.1), and shall be designed to protect the carcass against moisture, weathering, abrasion, or other injury.

3.3.6 Bead. The bead shall be of such construction as to anchor the tire firmly to the rim without slippage under normal operating conditions and of such design as to fit Tire and Rim Association, Inc. standard rims. Beads of tubeless tire e shall be of such cons truction and de sign as to effect a sati sfactory air seal between the tire and rim.

3.3.7 Flaps. When required, a fl ap of the current size shall be furnished in each tire. Flaps shall be the endless type of sufficient width. The flaps shall be formed to approximate the contour of the tire beads and shall fit the tire without buckling or wrinkling.

3.4 Performance.

3.4.1 Breaking energy. When tested in accordance with 4.3.2.2, the minimum breaking energy shall be as specified in appendix A.

3.4.2 Ozone resistance and temperature requirements. When specified ( see 6.2), tires and flaps shell be compounded to meet the ozone resistance end temperature requirements of MIL-T-1 2459 (see 4.3.5). All tires as part of production shall con tai n anti-oxidants and anti-ozonants to provide standard commercial resistance to weathering.

3..4.3 Physical requirements.

3.4. 3. Tensile strength. The tensile strength of tire treads shall be no t lees than 1,700 pounds per square inch (p.s.i.), and for sidewalls, not less than 900 p.s.i, when tested as specified in 4.3.4.

3. 4. 3.2 Ultimate elongation. The ultimata elongation of treads shall be not lees than 400 percent (2 to 10 inches), and for sidewalls not less than 300 percent (2 to 8 inches) when tested as specified in 4.3. 4.

3.5 Dimensions.

3.5. 1 Tire overall diameter. When tested in accordance with 4.3.1.1.2, ti re overall diameter shrill meet the requirements as shown in appendix A.

3.5.2 Tire overall width. When tested in accordance with 4.3.1.1.3, tire overall width shall mee t the requi rements as shown in appendix A.

3.5.3 Skid depth. When tested in accordance with 4.3.1.1.4, skid depth shall meet the require-ments as shown in appendix A.

3.6 Age of tires. Tires furnished on orders of any size, group, or type under this specification shall be not more than 12 months old on the date of shipment by the manufacturer. On such orders, the month and year of manufacture shall be shown on the label applied to the tread of each tire (see 3.8). On tires furnished on new vehicles, the equipment manufacturer shall be responsible for assuring that the tires mounted on the vehicle are' not more than 12 months old.

3.7 Identification marking. Each tire shall be branded, molded, or have permanently affixed in an unobstructed location on the sidewall, as a minimum the following information.

(a) Manufacturer's name, brand name, or trademark.
(b) Nominal size.
(c) Ply rating and/or load range.
(d) Serial number.
(e) Tubeless, when applicable.
(f) Ply material (composition of the mater al or materials used in the ply and breaker strip).

3.8 Special labeling (see 6.2) Each tire shall have a special label on the tread face, if specified. This special label shall supplement the manufacturer's commercial label, so that combined, they show tire size, actual piles and load range or ply rating, whether tube type or tubeless, tread type, ply material (i.e., nylon, rayon), the Federal Stock Number, contract number, purchase order number, the month and year of manufactu e, and average item weight. The material of the label shall have a pressure sensitive adhesive backing, which will not allow accidental loss and will not cause deterioration of the tread compound. All printing shall be clear and readable and shall contrast with the label's background. The Federal Stock Number shall be in letters and numbers not less than 1/4-inch high. The special label and the manufacturer's commercial label shall be placed on the tread face not more than 1/2-inch apart.

3.9 Workmanship. The tires shall show no evidence of poor workmanship. All plies including breaker strips shall be smooth and evenly laid and shall be free of buckles, wavy cord, air pockets, depressions and any other defect of imperfection, which may impair serviceability.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified an the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the supplier may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure that supplies and services conform to t c prescribed requirements.

4.1 1 Inspection of component and material. In accordance with 4.1, the contractor is responsible for insuring that components and materials used are manufactured, sampled and examined, and tested in accordance wit l the requirements of this specification.

4.1.2. Material furnished for tests. Tires, flaps, valves, and inner tubes used for or in tests shall be furnished by the manufacture) without cost to the Government.

4 .3 In-process inspection. Inspection shall be Performed tnroughout the manufacturing process to assure that no deviation is made from the indicated requirements. These shall include all processes such as preparation of cord fabric, bead wire, and chemicals for compounding compounding of rubber, prep aration of plies, sidewalls, beads and treads, tire assembly, forming, and vulcanizing. Wherever a deviation is noted correction shall be made. Failure to make intermediate correction may cause rejection of the affected lot of tires.

4.2 Qualification tests, inspections, and examinations.

4.2.1 Qualification. Qualification shall be performed under the supervision of the Government at the prospective supplier's or other commercial laboratory acceptable to the Government, or at a Government laboratory, if specified. The costs incurred for the qualification shall be borne by the prospective supplier. The qualification shall consist of [illegible] energy (see 4.3.2), visual examinations (see 4.4.3), bruise

defects (see 4.3.3), tire overall diameter (see 4.3.1.1.2)/ the overall width (see 4.3.1.1.3), skid depth (see 4.3.1.1.4), tire size factor (sea 4.3.1.1.5), tensils strength l nd ultimate elongation (ace 4.3.4), in accordance with table I.

TabLe I

| Number of tires for examination | Characteristics | Number of tires to be examined | Test Acc. | Test Rej. | Retest Acc. | Retest Rej. |
|---|---|---|---|---|---|---|
| | Visual examination, major defects (all groups) | 3 | 0 | 1 | 0 | 1 |
| | Visual examination, minor defects (all groups) | 3 | 1 | 2 | 0 | 1 |
| | Tire overall diameter (all groups) | 3 | | | | |
| | Skid depth (all groups) | 3 | | | | |
| | Tire overall width (all groups) | 3 | | | | |
| | Total examinations | 9 | 1 | 2 | 0 | 1 |
| | Breaking energy (all groups) | 3 | | | | |
| | Hidden defects (all groups) | 3 | | | | |
| | Total examinations | 6 | 1 | 2 | 0 | 1 |
| Total tires - 3 | Tensile strength | 3 | | | | |
| | Ultimate elongation | 3 | | | | |
| | Total examinations | 6 | 0 | 1 | 0 | 0 |

4.2.2 Tires required for qualification tests. The Government shall select a tire size from each of the groups 1, 1A, 2, 2A, 3, and 3A tires. The suppliers shall arrange to produce these tire sizes in the plants that they propose to qualify for the Qualified Products List. A sample shall be selected at random from a batch of not less than 25 tires. Three tires plus three spares for each group are required to perform all the specified tests and should be performed in the order shown in table I. Prospective supplier shall specify the tire size and Ply types from each group that he intends to furnish to the Government under this Specification. A Government representative shall select the tire for qualification tests and examinations. Where more than one plant is involved, separate samples of tires shall be tested from each plant.

4.2.3 Retests. In the event of failure to pass the laboratory tests listed in table 1, the manufacturer shall be allowed a maximum *of* one retest for groups 1, 1A, 2, 2A, 3, and 3A tires. Each retest shall consist of all the test characteristics listed in table I for the retest of groups 1, 1A, 2, 2A, 3, and 3A tires. The acceptance and rejection criteria are listed in table I.

4.3 Examinations, tests, and inspection.

4.3.1 Dimensional examinations.

4.3.1.1 Tire overall diameter, tire overall width, and skid depth tests.

4.3.1.1.1 Preparation of tire for tire overall diameter, tire overall width, and skid depth tests. The tire shall be mounted on the rim specified in appendix A and inflated to the pressure shown for the Tire and Rim Association load in appendix A. The tire shall be allowed to stand for a minimum of 24 hours at room temperature and the pressure adjusted within 1/2 p.s.i. of the pressure shown in appendix A.

4.3.1.1.2 Tire overall diameter. The tire overall diameter shall be determined to the nearest 0.01-inch by measuring the outside circumference of the inflated tire with a steel tape and dividing by 3.1416, The diameter may be determined by means of a *tips* calibrated to directly show tire diameter.

4.3.1.1.3 Tire overall width. The tire overall width is the average maximum width of the inflated tire including the sidewalls, side ribs, bars, decorations, letters, or numerals. The width shall be measured to the nearest 0.01-inch at six different points equally spaced around the tire and the results shall be averaged.

4.3.1.1.4 Skid depth. *the* depth of the tread groove nearest to or on the *tread* centerline of the tire shall be measured to the nearest O.001-inch at six points (measurement shall not be made on tread wear indicators) equally spaced around the inflated tire and the results shall be averaged (see appendix A).

4.3.2 Breaking energy test. Groups 1, 1A, 2, 2A, 3, and 3A tires shall meet the requirements shown in appendix A.

4.3.2.1 Preparation of tire for breaking energy tests. The tire shall be mounted on the rim specified in appendix A, and inflated to the pressure shown for the Tire and Rim Association load in appendix A. The tire shall be allowed to stand for a minimum of 24 hours at room temperature and the pressure adjusted within 1/2 p.s.i. of the pressure shown in appendix A.

4.3.2,2 Procedure. After the tire has been mounted and measured, as specified in 4 3.1.1.2 through 4.3.1.1.5, inclusive, a 1 1/4-inch in diameter cylindrical steel plunger with a hemispherical end shall be forced into the center of the tread portion in the full depth area of the inflated tire (p.s.i. appendix A) , at the rat of two inches per minute. Five measurements of force and penetration at break shall be made at points equally spaced around the circumference of the tire. In the event the tire fails to break before the plunger is stopped by reaching the rim, the force end penetration shall be taken as this occurs. Tubes shall be allowed in tubeless tires . The energy to break a tire shall be calculated from the average energy values l t break by means of the following formula:

$$W = \frac{F\ P}{2}$$

W = energy at break in inch-pounds

F = force at break in pounds

P = penetration at break in inches

4.3.3 Hidden defects inspection. After the plunger test has been made, a visual inspection of the tested tire in the area between the plies and tread shall be made for evidence of hidden defects. The tire shall be cut into not less than eight equal cross sections, with each section being cut circumferentially in midcrown and on each side of the crown at the point of maximum shoulder thickness any additional cuts deemed necessary for complete inspection of the tire shall be made. The cut sections shall then be inspected for evidence of hidden defects such as separation of tread, ply, or bead, and the tire construction in accordance with MIL-STD-1224.

4.3.4 Tensile stren th and elongation test. After being checked for hidden defects the tire shall be subjected to tests for tensile strength and ultimate elongation of tread and sidewall, to determine the conformance to 3.4.3.1 and 3.4.3.2, respectively.

4.3.4.1 Preparation of test specimens. Test specimens shall be cut (longitudinally) at center of tread or sidewall with a die No VI of method 4111 of Fed. Test Method Std No 601 (on tread specimens, the nonskid portion shall be sliced off

with a knife, after which the central portion shall be buffed on each side over a length of 2 1/2 inches until free from friction compound, fabric impressions, or irregularities of surface. In case specimens cut with die No. VI cannot be obtained, specimens may be cut with a die No. IV of method 4111 of the same standard. On l ide-wall specimens rubber solvent shall be used, if necessary, to separate rubber and fabric, and one or both sides shall be buffed as necessary. This sample shall be furnished by the manufacturer.

4.3.4.2 Procedure. The specimens, prepared as specified in 4.3.4.1, shall be tested for tensile strength and ultimate elongation in accordance with methods 4111 and 4121 of Fed. Test Method Std. No. 601.

4.3.5 Ozone resistance and temperature requirements. When specified, specimens shall be tented in accordance with MIL-T-12459 (see 3.4.2).

**4.3.6 Inspection of preparation for delivery. The preservation, packaging, packing, and marking of the tires shall be inspected to determine conformance to the** applicable requirements of section 5.

4.4 Lot purchase

4.4.1 Sampling for inspection and acceptance. Sampling for inspection and acceptance shall be performed in accordance with the provision set forth in MIL-STD-105. 'Testing shall be performed at the supplier's or other commercial laboratory acceptable to the Government or at a Government laboratory, if specified.

4.4.2 Inspection lot. The inspection lot shall consist of all tires of one group, size, and ply type, from an identifiable production period, from one manufacturer, one plant, and submitted '-or acceptance at one time.

4.4.3 Visual examination. 'he sample unit shall be one new completely fabricated tire. Visual examination of the external and internal surfaces of each sample tire shall be in accordance with MIL-S D-1224 The AQL for major defects shall be 4.0 percent defective and for minor defects, 6.5 percent defective. The inspection level shall be S-4.

4.4.4 Dimensional examination The sample unit shall be one new completely fabricated tire. Each sample tire shall be inspected for:

Tire overall diameter (see 4.3.1.1.2).
Tire overall width. (see 4. 3.1. 1. 3) .
Skid depth (see 4.3.1.1.4).

A tire failing to pass one or more of the above characteristics shall be considered a defective tire. The acceptance shall be in accordance with table II. Use any three tires selected for visual examination.

4.4.5 Material furnished for tests. Tires, flaps, valves, and inner tubes used for or in tests shall be furnished by the manufacturer without cost to the Government.

Table II

| Number of tires for examination | Characteristics | Number of tires to be examined | Test Acc. | Rej. |
|---|---|---|---|---|
| | Tire overall diameter (all groups) | 3 | | |
| | Skid depth (all groups) | 3 | | |
| | Tire overall width (all groups) | 3 | | |
| | Total examinations | 9 | 1 | 2 |
| Total tires - 3 | | | | |

5. PREPARATION FOR DELIVERY

5.1 Packaging. Packaging shall be level A or C, as specified (see 6.2).

5.1.1 Level A. The tires shall be packaged in accordance with level A requirements of MIL-T-4.

5.1.2 Level c. The tires shall he packaged in accordance with the supplier's commercial practice.

5.2 Packing. Packing shall be level A, B, or C, as specified (see 6.2).

5.2.1 Level A. The tire. shall be packed in accordance with the level A require-ntm of MIL-T-4.

5.2.2 Level B. The tires shall be packed in accordance with level B requirements of MIL-T-4.

5.2.3 Level C. The tires shall be packed to insure carrier acceptance and safe delivery to destination in containers complying with the rules and regulations applicable to the mode of transportation.

**5.3 Marking.**

**5.3.1 Civil agencies. In addition to marking required by the contract or order, the tires and shipping containers shall be marked in accordance with Fed. Std. No. 123 and UU-T-81.**

5.3.2 Military agencies. In addition to marking required by the contract or order, the tires and shipping containers shall be marked in accordance with MIL-STD-129.

6. NOTES

6.1 Intended use Tires covered by this specif ic ition are intended primarily for mounting on earthmoving mining, logging, and fork- lift trucks, road graders, mobile cranes, compactors, shovels, mining cars,and front end loaders.

6.2 Ordering data. Purchasers should select the preferred options permitted herein and include the following information in procurement documents:

(a) Title, number and date of this specification.
(b) Size, ply rating, and ply material of tires (see 1.2.2, 3.2.2, and 3.2.3) .
(c) Tread design (see 3.3.4).
(d) Ozone resistance and temperature requirements(see 3.4.2).
(e) Special Labeling when required (see 3.8).
(f] Inspection and testing responsibility (see 4.1, 4.3 through 4.3.6)
(g) Selection of applicable level of packaging and packing requirements (see 5.1 and 5.2).

6.3 Qualification. In procurement of product: re quiring qualification. awards will be made only or such products as have been approved in writing for inclusion in the applicable Qualified Products List prior to the the set for opening for bids, whether or not such products have actually been so listed by that date. The attention of the suppliers is called to this requirement, and man ufacturers are urged to communicate with the Director, Automotive Technical Support Division, Federal Supply Service, General Services Administration, Washington, DC [illegible] to arrange to submit a list of the items proposed to be offered to the government.

**6.4 Level B packaging. When level B packaging is specified for civil agency procurement, the requirements of 5.1.1 shall apply.**

6.5 Supersession data. This specification supersedes ZZ-T-0010838 dated March 15, 1972, ZZ-T-001083A September 13, 1971, ZZ-T-001083 December 30, 1966, and the type II, low speed highway and Off the road tires listed in ZZ-T-00381j, dated July 13, 1959 (in part revision of Federal Specification ZZ-T-3811, dated August 6, 1957). Federal Specification ZZ-T-381J, is superseded by Federal Specification ZZ-T-381M, dated September 8, 1971

APPENDIX A

Off-the-Road Tires Used in Intermittent Highway Service

Groups I and II

Maximum speed - 50 miles per hour

| Tire Size | Load Range and Ply Rating | Design Rim | (1) Maximum Overall Tire Width | (2) Maximum Overall Tire Diameters | | T&R4 Load | Inflation Pressure | Minimum Breaking Energy Inch-Lbs. | Minimum Skid Depth At Center of Casing | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Traction | Extra Tread | | | | Traction | Extra Tread |
| 7.00-20 L | E-(10) | 5.5 | 8.48 | 37.15 | - | 2,760 | 80 | 12,500 | .60 | - |
| | F-(12) | | | | | 3,050 | 95 | 15,800 | | |
| 7.50-20 L | E-(10) | 6.0 | 9.13 | 38.52 | - | 3,100 | 80 | 12,500 | .63 | - |
| | F-(12) | | | | | 3,430 | 95 | 15,800 | | |
| 8.25-20 L | E-(10) | 6.5 | 10.04 | 40.19 | 41.20 | 3,550 | 75 | 12,500 | .67 | 1.00 |
| | F-(12) | | | | | 3,950 | 90 | 15,800 | | |
| 9.00-20 L | E-(10) | 7.0 | 11.00 | 42.10 | 43.20 | 4,040 | 70 | 12,500 | .71 | 1.05 |
| | F-(12) | | | | | 4,520 | 85 | 15,800 | | |
| 10.00-20 L | F-(12) | 7.5 | 11.83 | 43.60 | 44.65 | 4,760 | 75 | 15,800 | .73 | 1.10 |
| | G-(14) | | | | | 5,300 | 90 | 20,200 | | |
| 10.00-22 L | F-(12) | 7.5 | 11.83 | 45.60 | 46.65 | 5,070 | 75 | 15,800 | .73 | 1.10 |
| | G-(14) | | | | | 5,640 | 90 | 20,200 | | |
| 10.00-24 L | F-(12) | 7.5 | 11.83 | 47.60 | 48.65 | 5,380 | 75 | 15,800 | .73 | 1.10 |
| | G-(14) | | | | | 5,990 | 90 | 20,200 | | |
| 11.00-20 L | F-(12) | 8.0 | 12.47 | 44.92 | 46.00 | 5,190 | 75 | 15,800 | .76 | 1.13 |
| | G-(14) | | | | | 5,780 | 90 | 20,200 | | |
| 11.00-22 L | F-(12) | 8.0 | 12.47 | 46.92 | 48.00 | 5,520 | 75 | 15,800 | .76 | 1.13 |
| | G-(14) | | | | | 6,140 | 90 | 20,800 | | |
| 11.00-24 L | F-(12) | 8.0 | 12.47 | 48.92 | 50.00 | 5,860 | 75 | 15,800 | .76 | 1.13 |
| | G-(14) | | | | | 6,520 | 90 | 20,200 | | |
| 11.00-25 L | F-(12) | 8.5* | 12.70 | 48.92 | 50.00 | 5,860 | 75 | 15,800 | .76 | 1.13 |
| | G-(14) | | | | | 6,520 | 90 | 20,200 | | |
| 12.00-20 L | G-(14) | 8.5 | 13.39 | 46.60 | 47.80 | 6,140 | 80 | 20,200 | .79 | 1.19 |
| | H-(16) | | | | | 6,790 | 95 | 23,000 | | |
| 12.00-21 L | G-(14) | 8.5* | 13.39 | 46.60 | 47.80 | 6,140 | 80 | 20,200 | .79 | 1.19 |
| | H-(16) | | | | | 6,790 | 95 | 23,000 | | |
| 12.00-24 L | G-(14) | 8.5 | 13.39 | 48.60 | 49.80 | 6,910 | 80 | 20,200 | .79 | 1.19 |
| | H-(16) | | | | | 7,640 | 95 | 23,000 | | |
| | L-(22) | | | | | 7,870 | 100 | 28,500 | | |
| 12.00-25 L | G-(14) | 8.5* | 13.39 | 50.60 | 51.80 | 6,910 | 80 | 20,200 | .79 | 1.19 |
| | H-(16) | | | | | 7,640 | 95 | 23,000 | | |
| | L-(22) | | | | | 7,870 | 100 | 28,500 | | |
| 13.00-24 L | H-(16) | 9.0* | 14.43 | 52.87 | - | 8,290 | 85 | 23,000 | .84 | - |
| 13.00-25 L | H-(16) | 10.0* | 14.88 | 52.87 | - | 8,290 | 85 | 23,000 | .84 | - |
| 14.00-20 L | J-(18) | 10.0 | 15.93 | 51.60 | - | 8,740 | 85 | 25,000 | .90 | - |

# APPENDIX A
## Off-The Road Tires Used in Intermittent Highway Service

Groups 1 and 1A

Maximum speed - 50 miles per hour (Cont'd)

| Tire Size | Load Range and Ply Rating | Design Rim | (1) Maximum Overall Tire Width | (2) Maximum Overall Tire Diameters | | T&RA Load | Inflation Pressure | Minimum Breaking Energy Inch-Lbs. | Minimum Skid Depth At Center of Casing | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Traction | Extra Tread | | | | Traction | Extra Tread |
| 14.00-21"L | J-(18) | 10.0* | 15.93 | 51.63 | - | 8,740 | 85 | 25,000 | .90 | - |
| 14.00-24"L | J-(18) | 10.0 | 15.93 | 55.63 | - | 9,750 | 85 | 25,000 | .90 | - |
| 14.00-25"L | J-(18) | 10.0* | 15.93 | 55.63 | - | 9,750 | 85 | 25,000 | .90 | - |

* Full tapered bead seat rims.

(1) Includes 6 percent above T&RA new tire section width to provide for tire (24 Hour) growth and protective side ribs and bars.
(2) Includes 6 percent above T&RA new tire section height.

APPENDIX A

Wide Base Off-the-Road Tires Used in Intermittent Highway Service

Groups 1 and 1A

Maximum speed - 50 miles per hour

| Tire Size | Load Range and Ply Rating | Design Rim | (1) Maximum Overall Tire Width | (2) Maximum Overall Tire Diameters | | T&RA Load | Inflation Pressure | Minimum Breaking Energy Inch-Lbs. | Minimum Skid Depth At Center of Casing | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Traction | Extra Tread | | | | Traction | Extra Tread |
| 14-17.5NL | C-(6) | 10.50 | 14.85 | 37.38 | | 2,820 | 30 | 5000 | .69 | |
| | D-(8) | 10.50 | 14.85 | 37.38 | | 3,570 | 45 | 7500 | .69 | |
| | E-(10) | 10.50 | 14.85 | 37.38 | | 4,220 | 60 | 10000 | .69 | |
| 15-19.5NL | F-(12) | 11.75 | 16.47 | 41.28 | | 5,360 | 60 | 12500 | .73 | |
| | G-(14) | 11.75 | 16.47 | 41.28 | | 6,100 | 75 | 15000 | .73 | |
| 15-22.5NL | G-(14) | 11.75 | 16.47 | 44.28 | | 6,690 | 75 | 15000 | .73 | |
| | H-(16) | 11.75 | 16.47 | 44.28 | | 7,440 | 90 | 18500 | .73 | |
| 16.5-19.5NL | H-(16) | 13.00 | [illegible] | [illegible] | | 7,430 | 80 | [illegible]500 | .78 | |
| 16.5-22.5NL | H-(16) | 13.00 | 18.09 | 46.38 | | 8,120 | 80 | 18500 | .78 | |
| 18-19.5NL | H-(16) | 14.00 | 19.44 | 44.57 | | 7,960 | 75 | 18500 | .81 | |
| 18-22.5NL | I-(16) | 14.00 | 19.44 | 47.57 | | 8,680 | 75 | 18500 | .81 | |
| | J-(18) | 14.00 | 19.44 | 47.57 | | 9,650 | 90 | 19500 | .81 | |
| 19.5-19.5NL | J-(18) | 15.00 | 21.06 | 47.06 | | 9,370 | 75 | 19500 | .85 | |
| 23-23.5NL | J-(18) | 17.00 | 24.84 | 53.71 | | 13,400 | 75 | 19500 | .82 | |
| 18-21NL | H-(16) | 14.00 | 19.44 | 47.66 | | 8,680 | 75 | 19500 | .81 | |
| 19.5-21NL | J-(18) | 15.00 | 21.06 | 50.15 | | 10,190 | 75 | 19500 | .85 | |
| 23-21NL | J-(18) | 17.00 | 24.84 | 53.90 | | 13,400 | 75 | 19500 | .99 | |

(1) Includes 8 percent above T&RA new tire section width to provide for 24 hour tire growth and protective side ribs and bars.
(2) Includes 6 percent above T&RA new tire section height.

APPENDIX A
Tires for Earthmoving, Mining, and Logging Service for Short Hauls

Groups 2 and 2A

| Tire Size | Load Range and Ply Rating | Design Rim | (1) Maximum Overall Tire Width | (2) Maximum Overall Tire Diameters | | Max Speed 40 MPH | | Max Speed 30 MPH | | Minimum Breaking Energy | Minimum Skid Depth At Center of Casing | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Traction | Extra Tread | T&RA Load | Infl. Press. | T&RA Load | Infl. Press. | Inch-Lbs. | Traction | Extra Tread |
| 12.00-20NHS | G-(14) | 8.5 | 13.39 | 46.61 | 47.77 | 5,190 | 60 | 6,130 | 60 | 20,200 | .79 | 1.1[illegible] |
| | H-(16) | | | | | 5,680 | 70 | 6,710 | 70 | 23,000 | | |
| 12.00-21NHS | G-(14) | 8.5* | 13.39 | 46.61 | 47.77 | 5,190 | 60 | 6,130 | 60 | 20,200 | .79 | 1.1[illegible] |
| | [illegible] | | | | | 5,680 | 70 | 6,710 | 70 | 23,000 | | |
| 12.00-24NHS | G-(14) | 8.5 | 13.39 | 50.61 | 51.77 | 5,840 | 60 | 6,900 | 60 | 20,200 | .79 | 1.19 |
| | [illegible] | | | | | 6,390 | 70 | 7,550 | 70 | 23,000 | | |
| 12.00-24NHS | G-(14) | 8.5* | 13.39 | 50.61 | 51.77 | 5,840 | 60 | 6,900 | 60 | 20,200 | .79 | 1.19 |
| | H-(16) | | | | | 6,390 | 70 | 7,550 | 70 | 23,000 | | |
| 13.00-24NHS | J-(18) | 10.0 | 14.90 | 52.87 | 54.89 | 7,400 | 70 | 8,750 | 70 | 25,000 | .85 | 1.53 |
| 13.00-25NHS | J-(18) | 10.0* | 14.90 | 52.87 | 54.89 | 7,400 | 70 | 8,750 | 70 | 25,000 | .85 | 1.53 |
| 14.00-20NHS | F-(12) | 10.0 | 15.93 | 51.63 | 53.75 | 6,020 | 45 | 7,110 | 45 | 15,800 | .90 | 1.62 |
| | H-(16) | | | | | 7,120 | 60 | 8,400 | 60 | 23,000 | | |
| | L-(20) | | | | | 8,120 | 75 | 9,600 | 75 | 27,000 | | |
| 14.00-21NHS | F-(12) | 10.0* | 15.93 | 51.63 | 53.75 | 6,020 | 45 | 7,110 | 45 | 15,800 | .90 | 1.6 |
| | H-(16) | | | | | 7,120 | 60 | 8,400 | 60 | 23,000 | | |
| | L-(20) | | | | | 8,120 | 75 | 9,600 | 75 | 27,000 | | |
| 14.00-24NHS | H-(16) | 10.0 | 15.93 | 55.63 | 57.75 | 7,950 | 60 | 9,410 | 60 | 23,000 | .90 | 1.62 |
| | L-(20) | | | | | 9,070 | 75 | 10,720 | 75 | 27,000 | | |
| | N-(24) | | | | | 9,410** | 80 | 11,120(**) | 80 | 30,000 | | |
| 14.00-25NHS | H-(16) | 10.0* | 15.93 | 55.63 | 57.75 | 7,960 | 60 | 9,410 | 60 | 23,000 | .90 | 1.62 |
| | L-(20) | | | | | 9,070 | 75 | 10,720 | 75 | 27,000 | | |
| | N-(24) | | | | | 9,410** | 80 | 11,120(**) | 80 | 30,000 | | |
| 16.00-[illegible] | H-(16) | 11.25* | 18.36 | 58.11 | 58.40 | 8,020 | 45 | 9,480 | 45 | 23,000 | 1.01 | 1.8[illegible] |
| | L-(20) | | | | | 9,490 | 60 | 11,210 | 60 | 27,000 | | |
| 16.00-25 | H-(16) | 11.25* | 18.36 | 60.11 | 62.40 | 8,790 | 45 | 10,390 | 45 | 23,000 | 1.01 | 1.80 |
| | L-(20) | | | | | 10,400 | 60 | 12,290 | 60 | 27,000 | | |
| | N-(24) | | | | | 11,380 | 70 | 13,450 | 70 | 30,000 | | |
| | (28) | | | | | 12,300 | 80 | 14,540 | 80 | 33,000 | | |
| 18.00-25 | F-(12) | 13.00* | 21.17 | 65.23 | 67.52 | 8,960 | 30 | 10,590 | 30 | 15,800 | 1.12 | 1.91 |
| | H-(16) | | | | | 10,600 | 40 | 12,530 | 40 | 23,000 | | |
| | L-(20) | | | | | 12,080 | 50 | 14,280 | 50 | 27,000 | | |
| | N-(24) | | | | | 13,440 | 60 | 15,890 | 60 | 30,000 | | |
| | (28) | | | | | 14,710 | 70 | 17,390 | 70 | 33,000 | | |
| | (32) | | | | | 15,900 | 80 | 18,800 | 80 | 36,000 | | |

APPENDIX A
Tires for Earthmoving, Mining, and Logging Service for Short Hauls (Cont'd.)

Groups 2 and 2A

| Tire Size | Load Range and Ply Rating | Design Rim | (1) Maximum Overall Tire Width | (2) Maximum Overall Tire Diameters | | Max Speed 40 MPH | | Max Speed 30 MPH | | Minimum Breaking Energy | Minimum Skid Depth At Center of Casing | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Traction | Extra Tread | T&RA Load | Infl. Press. | T&RA Load | Infl. Press. | Inch-Lbs. | Traction | Extra Tread |
| 18.00-33 | N-(24) | 13.00* | 21.17 | 73.23 | 75.52 | 15,590 | 60 | 18,420 | 60 | 30,000 | 1.12 | 1.9. |
| | (32) | | | | | 18,450 | 80 | 21,800 | 80 | 36,000 | | |
| 18.00-49 | N-(24) | 13.00* | 21.17 | 89.23 | 91.52 | 19,710 | 60 | 23,290 | 60 | 30,000 | 1.12 | 1.9. |
| | (28) | | | | | 21,570 | 70 | 25,490 | 70 | 33,000 | | |
| | (32) | | | | | 23,320 | 80 | 27,560 | 80 | 36,000 | | |
| 21.00-25 | H-(16) | 15.00* | 24.30 | 70.66 | 72.61 | 11,520 | 30 | 13,620 | 30 | 23,000 | 1.23 | 1.91 |
| | L-(20) | | | | | 13,540 | 40 | 16,100 | 40 | 27,000 | | |
| | N-(24) | | | | | 15,540 | 50 | 18,370 | 50 | 30,000 | | |
| | (28) | | | | | 17,290 | 60 | 20,430 | 60 | 33,000 | | |
| 21.00-35 | H-(16) | 15.00* | 24.30 | 80.66 | 82.61 | 13,680 | 30 | 16,170 | 30 | 23,000 | 1.23 | 1.91 |
| | L-(20) | | | | | 16,190 | 40 | 19,130 | 40 | 27,000 | | |
| | N-(24) | | | | | 18,440 | 50 | 21,800 | 50 | 30,000 | | |
| | (28) | | | | | 20,520 | 60 | 24,250 | 60 | 33,000 | | |
| | (32) | | | | | 22,460 | 70 | 26,540 | 70 | 36,000 | | |
| | (36) | | | | | 24,280 | 80 | 28,700 | 80 | 39,000 | | |
| 21.00-49 | L-(20) | 15.00* | 24.30 | 94.66 | 96.61 | 19,610 | 40 | 23,180 | 40 | 27,000 | 1.23 | 1.91 |
| | N-(24) | | | | | 22,340 | 50 | 26,410 | 50 | 30,000 | | |
| | (28) | | | | | 24,860 | 60 | 29,380 | 60 | 33,000 | | |
| | (32) | | | | | 27,210 | 70 | 32,160 | 70 | 36,000 | | |
| | (36) | | | | | 29,410 | 80 | 34,770 | 80 | 39,000 | | |
| 24.00-25 | J-(18) | 17.00* | 27.76 | 75.71 | 77.67 | 16,300 | 35 | 19,270 | 35 | 25,000 | 1.35 | 2.03 |
| | N-(24) | | | | | 18,890 | 45 | 22,320 | 45 | 30,000 | | |
| | (30) | | | | | 21,240 | 55 | 25,100 | 55 | 34,500 | | |
| 24.00-29 | N-(24) | 17.00* | 27.76 | 79.71 | 81.67 | 20,220 | 45 | 23,900 | 45 | 30,000 | 1.35 | 2.03 |
| | (30) | | | | | 22,740 | 55 | 26,880 | 55 | 34,500 | | |
| | (36) | | | | | 25,080 | 65 | 29,640 | 65 | 39,000 | | |
| 24.00-35 | (30) | 17.00* | 27.76 | 85.71 | 87.67 | 24,950 | 55 | 29,490 | 55 | 34,500 | 1.35 | 2.03 |
| | (36) | | | | | 27,510 | 65 | 32,520 | 65 | 39,000 | | |
| | (42) | | | | | 29,910 | 75 | 35,350 | 75 | | | |

APPENDIX A

Tires for Earthmoving, Mining, and Logging Service for Short Hauls (Cont'd.)

Groups 2 and 2A

| Tire Size | Load Range and Ply Rating | Design Rim | (1) Maximum Overall Tire Width | (2) Maximum Overall Tire Diameters | | Max Speed 40 MPH | | Max Speed 30 MPH | | Minimum Breaking Energy Inch-Lbs. | Minimum Skid Depth At Center of Casing | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Traction | Extra Tread | T&RA Load | Infl. Press. | T&RA Load | Infl. Press. | | Traction | Extra Tread |
| 24.00-49 | (36) | 17.00* | 27.76 | 99.71 | 101.67 | 33,000 | 65 | 39,010 | 65 | 39,000 | 1.35 | 2.00 |
| | (42) | | | | | 35,880 | 75 | 42,410 | 75 | | | |
| | (46) | | | | | 37,260*** | 80 | 44,050(***) | 80 | | | |
| 27.00-33 | (24) | 22.00* | 32.40 | 90.49 | 92.65 | 24,740 | 40 | 29,240 | 40 | 30,000 | 1.50 | 2.25 |
| | (30) | | | | | 28,190 | 50 | 33,320 | 50 | 34,500 | | |
| | (36) | | | | | 31,360 | 60 | 37,070 | 60 | 39,500 | | |
| [illegible] | [illegible] | 19.00* | [illegible] | [illegible] | [illegible] | 38,500 | 60 | 45,580 | 60 | 39,500 | 1.50 | 2.25 |
| | (42) | | | | | 42,210 | 70 | 49,890 | 70 | | | |
| | (46) | | | | | 45,630 | 80 | 53,940 | 80 | | | |
| 30.00-33 | (28) | 22.00* | 34.99 | 96.50 | 98.87 | 30,390 | 40 | 35,930 | 40 | 33,000 | 1.65 | 2.47 |
| | (34) | | | | | 34,630 | 50 | 40,930 | 50 | 37,500 | | |
| | (40) | | | | | 38,530 | 60 | 45,540 | 60 | | | |
| 30.00-51 | (40) | 22.00* | 34.99 | 114.50 | 116.87 | 47,700 | 60 | 56,380 | 60 | | 1.65 | 2.47 |
| | (46) | | | | | 52,210 | 70 | 61,700 | 70 | | | |
| | (52) | | | | | 56,440 | 80 | 66,720 | 80 | | | |
| 33.00-41 | (43) | 26.00* | 42.01 | 117.54 | 120.33 | 60,750 | 60 | 71,800 | 60 | | 1.94 | 2.90 |
| 33.00-51 | (42) | 26.00* | 42.01 | 127.54 | 130.33 | 63,960 | 55 | 75,600 | 55 | | 1.94 | 2.90 |
| | (50) | | | | | 70,530 | 65 | 83,360 | 65 | | | |
| | (58) | | | | | 76,680 | 75 | 90,640 | 75 | | | |

*Full tapered bead seat rims.
**Maximum 10,090 at 90 p.s.i. inflation.
(**)Maximum 11,920 at 90 p.s.i. inflation.
***Maximum 38,640 at 65 p.s.i. inflation.
(***)Maximum 45,630 at 65 p.s.i. inflation.

(1) Includes 8 percent above T&RA new tire section width to provide for 24 hour tire growth and protective side ribs and bars.
(2) Includes 4 percent above T&RA new tire section height for 16.00 and larger tires; Includes 6 percent above new tire section height for less than 16.00 tires.

APPENDIX A
Wide Base Tires for Earthmoving Service for Short Hauls

Issues 2 and 24

| Tire Size | Load Range and Ply Rating | Design Rim | (1) Maximum Overall Tire Width | (2) Maximum Overall Tire Diameters | | Max Speed 40 MPH | | Max Speed 30 MPH | | Minimum Breaking Energy | Minimum Skid Depth At Center of Casing | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Traction | Extra Tread | T&RA Load | Infl. Press. | T&RA Load | Infl. Press. | Inch-Lbs. | Traction | Extra Tread |
| 23.5-25 | F-(12) | 17.00 | 22.14 | 60.11 | 62.40 | 7,980 | 30 | 9,640 | 30 | 15,800 | 1.01 | 1.8[illegible] |
| | H-(16) | | | | | 9,440 | 40 | 11,400 | 40 | 23,000 | | |
| | L-(20) | | | | | 10,760 | 50 | 12,990 | 50 | 27,000 | | |
| 23.5-25 | F-(12) | 19.50 | 25.38 | 65.23 | 67.52 | 9,250 | 25 | 11,170 | 25 | 15,800 | 1.12 | 1.9[illegible] |
| | H-(16) | | | | | 11,260 | 35 | 13,600 | 35 | 23,000 | | |
| | L-(20) | | | | | 12,180 | 40 | 14,710 | 40 | 27,000 | | |
| | [illegible]-(24) | | | | | 13,870 | 50 | 16,760 | 50 | 30,000 | | |
| 26.5-25 | H-(16) | 22.00 | 28.62 | 70.66 | 72.61 | 13,110 | 30 | 15,840 | 30 | 23,000 | 1.23 | 1.9[illegible] |
| | L-(20) | | | | | 14,350 | 35 | 17,330 | 35 | 27,000 | | |
| | M-(24) | | | | | 16,620 | 45 | 20,080 | 45 | 30,000 | | |
| | (28) | | | | | 18,690 | 55 | 22,580 | 55 | 33,000 | | |
| 26.5-29 | J-(18), | 22.00 | 28.62 | 74.66 | 76.61 | 14,020 | 30 | 16,930 | 30 | 25,000 | 1.23 | 1.91 |
| | M-(22) | | | | | 16,590 | 40 | 20,030 | 40 | 28,500 | | |
| | (26) | | | | | 18,900 | 50 | 22,830 | 50 | 31,500 | | |
| 29.5-25 | H-(16) | 25.00 | 31.86 | 75.71 | 77.67 | 14,800 | 25 | 17,880 | 25 | 23,000 | 1.35 | 2.02 |
| | M-(22) | | | | | 18,020 | 35 | 21,770 | 35 | 28,500 | | |
| | (26) | | | | | 20,870 | 45 | 25,210 | 45 | 33,000 | | |
| 29.5-29 | H-(16) | 25.00 | 31.86 | 79.71 | 81.67 | 15,760 | 25 | 19,040 | 25 | 23,000 | 1.35 | 2.0[illegible] |
| | M-(22) | | | | | 19,190 | 35 | 23,180 | 35 | 28,500 | | |
| | (26) | | | | | 22,230 | 45 | 26,850 | 45 | 33,000 | | |
| | (34) | | | | | 25,000 | 55 | 30,190 | 55 | 37,500 | | |
| 29.5-33 | H-(16) | 25.00 | 31.86 | 83.71 | 85.67 | 16,650 | 25 | 20,110 | 25 | 23,000 | 1.35 | 2.03 |
| | M-(22) | | | | | 20,270 | 35 | 24,490 | 35 | 28,500 | | |
| | (28) | | | | | 23,490 | 45 | 28,380 | 45 | 33,000 | | |
| 29.5-35 | M-(22) | 25.00 | 31.86 | 85.71 | 87.67 | 20,890 | 35 | 25,230 | 35 | 28,500 | 1.35 | 2.03 |
| | (28) | | | | | 24,200 | 45 | 29,230 | 45 | 33,000 | | |
| | (34) | | | | | 27,210 | 55 | 32,860 | 55 | 37,500 | | |
| 33.25-35 | L-(20) | 27.00 | 35.91 | 90.41 | 92.57 | 20,300 | 25 | 24,630 | 25 | 27,000 | 1.50 | 2.25 |
| | (26) | | | | | 24,710 | 35 | 29,990 | 35 | 31,500 | | |
| | (32) | | | | | 28,630 | 45 | 34,730 | 45 | 36,000 | | |
| | (38) | | | | | 32,200 | 55 | 39,070 | 55 | | | |
| 33.5-33 | (26) | 26.00 | 36.18 | 90.49 | 92.65 | 25,450 | 35 | 30,740 | 35 | 31,500 | 1.50 | 2.25 |
| | [illegible] | | | | | 29,480 | 45 | 35,610 | 45 | 36,000 | | |
| | (30) | | | | | 33,160 | 55 | 40,050 | 55 | | | |

APPENDIX A
Wide Base Tires for Earthmoving Service for Short Hauls (Cont'd.)

Groups 2 and 2A

| Tire Size | Load Range and Ply Rating | Design Rim | (1) Maximum Overall Tire Width | (2) Maximum Overall Tire Diameters | | Max Speed 40 MPH | | Max Speed 30 MPH | | Minimum Breaking Energy | Minimum Skid Depth At Center of Casing | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Traction | Extra Tread | T&RA Load | Infl. Press. | T&RA Load | Infl. Press. | Inch-Lbs. | Traction | Extra Tread |
| 33.5-33 | (26) | 28.00 | 36.18 | 98.00 | 100.00 | 27,420 | 35 | 33,110 | 35 | 31,500 | 1.67 | 2.5 |
| | (32) | | | | | 31,760 | 45 | 38,360 | 45 | 36,000 | | |
| | (38) | | | | | 35,710 | 55 | 43,130 | 55 | | | |
| [illegible] | (32) | [illegible] | [illegible] | [illegible] | [illegible] | | | | | 36,000 | 1.83 | 2.5 |
| | (38) | | | | | | | | | | | |
| | (44) | | | | | | | | | | | |
| 37.5-33 | W-(24) | 32.00 | 40.50 | 98.00 | 100.00 | 28,370 | 30 | 34,260 | 30 | 30,000 | 1.83 | 2.7 |
| | (30) | | | | | 33,570 | 40 | 40,540 | 40 | 34,500 | | |
| | (36) | | | | | 38,960 | 45 | 43,430 | 45 | 39,000 | | |
| | (42) | | | | | 40,440 | 55 | 48,840 | 55 | | | |
| 37.5-39 | (28) | 32.00 | 40.50 | 104.00 | 106.50 | 33,320 | 35 | 40,240 | 35 | 33,000 | 1.83 | 2.7 |
| | (36) | | | | | 38,590 | 45 | 46,610 | 45 | 39,000 | | |
| | (44) | | | | | 43,400 | 55 | 52,420 | 55 | | | |
| 37.5-51 | (36) | 32.00 | 40.50 | 116.50 | 119.00 | 43,630 | 45 | 52,700 | 45 | 39,000 | 1.83 | 2.7 |
| | (44) | | | | | 49,060 | 55 | 59,260 | 55 | | | |

(1) Includes 8 percent above T&RA new tire section width to provide for 24 hour tire growth and protective side ribs and bars.
(2) Includes 4 percent above T&RA new tire section height.
(3) Design rims may also include all preferred rims (underscored) listed in the T&RA Yearbook.

APPENDIX A
Tires for Road Graders
Tube Type

Class 3

Maximum speed - 25 miles per hour

| Tire Size | Load Range and Ply Rating | Design Rim | (1) Maximum Overall Tire Width | (2) Maximum Overall Tire Diameters | | T&RA Load | Inflation Pressure | Minimum Breaking Energy Inch-Lbs. | Minimum Skid Depth At Center of Casing | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Traction | Extra Tread | | | | Traction | Extra Tread |
| | | | | (Front Wheel) | | | | | | |
| 7.00-20TG | D-(8) | 5.50 | 8.48 | 37.15 | | 2,290 | 50 | 8,600 | .60 | |
| | E-(10) | | | | | 2,550 | 60 | 12,500 | | |
| 7.00-24TG | E-(10) | 5.50 | 8.48 | 41.15 | | 2,920 | 60 | 12,500 | .60 | |
| 7.50-24TG | E-(10) | 6.00 | [illegible] | [illegible] | | 3,270 | 60 | 12,500 | .62 | |
| 9.00-24TG | E-(10) | 7.00 | 11.02 | 46.10 | | 4,100 | 50 | 12,500 | .71 | |
| 10.00-24TG | E-(10) | 7.50 | 11.83 | 47.56 | | 4,360 | 45 | 12,500 | .73 | |
| | | | | (Rear Wheel) | | | | | | |
| 7.50-20TG | C-(6) | 6.00 | 9.13 | 38.52 | | 2,090 | 35 | 6,800 | .60 | |
| 9.00-24TG | E-(10) | 7.00 | 11.02 | 46.10 | | 4,100 | 50 | 12,500 | .71 | |
| 10.00-20TG | D-(8) | 8.00* | 12.04 | 42.60 | | 3,320 | 35 | 8,600 | .73 | |
| 10.00-24TG | D-(8) | 8.00* | 12.04 | 46.60 | | 3,760 | 35 | 8,600 | .73 | |
| 12.00-24TG | C-(6) | 8.00* | 13.28 | 49.72 | | 3,420 | 20 | 6,800 | .79 | |
| | D-(8) | | | | | 4,340 | 30 | 8,600 | | |
| 13.00-24TG | C-(6) | 8.00* | 14.15 | 51.88 | | 3,950 | 20 | 6,800 | .85 | |
| | D-(8) | | | | | 4,500 | 25 | 8,600 | | |
| | E-(10) | | | | | 5,010 | 30 | 12,500 | | |
| | F-(12) | | | | | 5,460 | 35 | 15,800 | | |
| 14.00-20TG | F-(12) | 8.00* | 15.39 | 50.82 | | 5,950 | 35 | 15,800 | .90 | |
| | G-(14) | | | | | 6,430 | 40 | 20,200 | | |

APPENDIX A
Tires for Road Graders (Cont'd).
Tube Type

Group 3

Maximum speed - 25 miles per hour

| Tire Size | Load Range and Ply Rating | Design Rim | (1) Maximum Overall Tire Width | (2) Maximum Overall Tire Diameters | | T&RA Load | Inflation Pressure | Minimum Breaking Energy Inch-Lbs. | Minimum Skid Depth At Center of Casing | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Traction | Extra Tread | | | | Traction | Extra Tread |
| | | | | (Rear Wheel) Cont'd. | | | | | | |
| [illegible] | [illegible] | 8.00* | 13.29 | 54.[illegible] | | [illegible] | [illegible] | [illegible] | .90 | |
| | E-(10) | | | | | 6,060 | 30 | 12,500 | | |
| | F-(12) | | | | | 6,630 | 35 | 15,800 | | |
| 16.00-20 | F-(14) | 10.00* | 18.14 | 54.80 | | 7,810 | 35 | 20,200 | 1.01 | |
| 16.00-24 | F-(12) | 10.00* | 18.14 | 58.00 | | 7,910 | 30 | 15,800 | 1.01 | |
| 18.00-26 | E-(10) | DW-16** | 22.79 | 65.46 | | 8,270 | 20 | 12,500 | 1.12 | |
| | | | | (Wide Base) | | | | | | |
| 15.5-25 | F-(12) | 12.00 | 16.74 | 51.82 | | 5,760 | 35 | | | |
| | G-(14) | | | | | 6,230 | 40 | | .85 | |
| 17.5-25 | F-(12) | 14.00 | 18.90 | 54.77 | | 6,360 | 30 | | | |
| | G-(14) | | | | | 6,960 | 35 | | .90 | |
| 20.5-25 | F-(12) | 17.00 | 22.14 | 60.11 | | 7,170 | 25 | | | |
| | [illegible]-(16) | | | | | 8,730 | 35 | | 1.01 | |

*Semi-drop center rims.
**Drop center rim.

(1) Includes 2 percent above T&RA new tire section width to provide for 24 hour tire growth and protective side ribs and bars.
(2) Includes 6 percent above T&RA new tire section height for less than 16.00 and 4 percent for 16.00 and larger.

APPENDIX A
Tires for Road Graders
Tubeless

Class 3

Maximum speed - 25 miles per hour

| Tire Size | Load Range and Ply Rating | Design Rim | (1) Maximum Overall Tire Width | (2) Maximum Overall Tire Diameters | | T&RA Load | Inflation Pressure | Minimum Breaking Energy Inch-Lbs. | Minimum Skid Depth At Center of Casing | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Traction | Extra Tread | | | | Traction | Extra Tread |
| 7.50-20TG | C-(6) | 6.00 | 9.13 | 38.52 | | 2,090 | 35 | 6,800 | .63 | |
| 7.50-24TG | E-(10) | 6.00 | 9.13 | 42.52 | | 3,270 | 60 | 12,500 | .63 | |
| 9.00-24TG | E-(10) | 7.00 | 11.02 | 46.10 | | 4,100 | 50 | 12,500 | .71 | |
| 10.00-20TG | D-(8) | 8.00 | 12.04 | 42.50 | | 3,320 | 35 | 8,600 | .73 | |
| 10.00-24TG | D-(8) | 8.00 | 12.04 | 46.60 | | 3,760 | 35 | 8,600 | .73 | |
| 12.00-24TG | C-(6) | 8.00 | 13.98 | 49.72 | | 3,420 | 20 | 6,800 | .79 | |
| | D-(8) | | | | | 4,340 | 30 | 8,600 | | |
| 12.00-24TG | C-(6) | 8.00 | 14.15 | 51.86 | | 3,950 | 20 | 6,800 | .85 | |
| | D-(8) | | | | | 4,500 | 25 | 8,600 | | |
| | E-(10) | | | | | 5,010 | 30 | 12,500 | | |
| | F-(12) | | | | | 5,480 | 35 | 15,800 | | |
| 14.00-20TG | F-(12) | 8.00 | 15.39 | 50.62 | | 5,950 | 35 | 15,800 | .90 | |
| | G-(14) | | | | | 6,430 | 40 | 20,200 | | |
| 14.00-24TG | D-(8) | 8.00 | 15.39 | 54.82 | | 5,450 | 25 | 8,600 | .90 | |
| | E-(10) | | | | | 6,060 | 30 | 12,500 | | |
| | F-(12) | | | | | 6,630 | 35 | 15,800 | | |
| 16.00-20TG | G-(14) | 10.00 | 18.14 | 54.80 | | 7,810 | 35 | 20,200 | 1.01 | |
| 16.00-24TG | F-(12) | 10.00 | 18.14 | 58.80 | | 7,910 | 30 | 15,800 | 1.01 | |
| 18.00-26TG | E-(10) | DC 16* | 22.79 | 65.46 | | 8,270 | 20 | 12,500 | 1.12 | |

*Drop center rim.

(1) Includes 8 percent above T&RA new tire section width to provide for 24 hour tire growth and protective side ribs and bars.
(2) Includes 6 percent above T&RA new tire section height for less than 16.00 and 4 percent for 16.00 and larger.

APPENDIX A

Tires for Fork-lift Truck, Mobile Cranes, Shovels, Mining Cars, Front End Loaders, Compactor and Dozer

Groups 4 and 5A

Maximum speed - 5 miles per hour

| Tire Size | Load Range and Ply Rating | Design Rim | (1) Maximum Overall Tire Width | (2) Maximum Overall Tire Diameters | | T&RA Load | Inflation Pressure | Minimum Breaking Energy Inch-Lbs. | Minimum Skid Depth At Center of Casing | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Traction | Extra Tread | | | | Traction | Extra Tread |
| 7.00-15NHS | F-(12) | 5.50 | 8.48 | 32.15 | - | 4,450 | 100 | 15,800 | .60 | - |
| 7.00-20NHS | E-(10) | 5.50 | 8.48 | 37.15 | - | 5,280 | 95 | 12,500 | .60 | - |
| | F-(12) | | | | | 5,440 | 100 | 15,800 | | |
| 7.50-10NHS | E-(10) | 5.50** | 8.64 | 26.39 | - | 3,510 | 95 | 12,500 | .63 | - |
| | F-(12) | | | | | 3,620 | 100 | 15,800 | | |
| 7.50-15NHS | E-(10) | 6.00 | 9.13 | 33.52 | - | 4,720 | 90 | 12,500 | .63 | - |
| | F-(12) | | | | | 5,020 | 100 | 15,800 | | |
| 7.50-18NHS | D-(8) | 6.00 | 9.13 | 36.52 | - | 4,590 | 70 | | .63 | - |
| | E-(10) | | | | | 5,320 | 90 | 12,500 | | |
| | F-(12) | | | | | 5,660 | 100 | 15,800 | | |
| 7.50-20NHS | D-(8) | 6.00 | 9.13 | 38.52 | - | 4,960 | 70 | | .63 | - |
| | E-(10) | | | | | 5,740 | 90 | 12,500 | | |
| | F-(12) | | | | | 6,110 | 100 | 15,800 | | |
| 8.25-15NHS | F-(12) | 6.50 | 10.04 | 35.18 | - | 5,990 | 100 | 15,800 | .67 | - |
| 8.25-18NHS | E-(10) | 6.50 | 10.04 | 38.18 | - | 5,920 | 80 | 12,500 | .67 | - |
| 8.25-20NHS | E-(10) | 6.50 | 10.04 | 40.16 | - | 6,370 | 80 | 12,500 | .67 | - |
| | F-(12) | | | | | 7,260 | 100 | 15,800 | | |
| 9.00-10NHS | E-(10) | 6.00** | 9.94 | 29.14 | - | 4,270 | 80 | 12,500 | .71 | - |
| | F-(12) | | | | | 4,860 | 100 | 15,800 | | |
| 9.00-15NHS | F-(12) | 7.00 | 11.02 | 37.10 | - | 6,710 | 90 | 15,800 | .71 | - |
| 9.00-20NHS | F-(12) | 7.00 | 11.02 | 42.10 | - | 8,070 | 90 | 15,800 | .71 | - |
| 10.00-15NHS | G-(14) | 7.50 | [illegible] | [illegible] | [illegible] | [illegible] | 95 | 20,200 | .73 | [illegible] |
| 10.00-20NHS | F-(12) | 7.50 | 11.83 | 43.56 | 44.66 | 8,840 | 85 | 15,800 | .73 | 1.10 |
| | G-(14) | | | | | 9,430 | 95 | 20,200 | | |
| 11.00-20NHS | F-(12) | 8.00 | 12.47 | 44.89 | 46.03 | 9,310 | 80 | 15,800 | .76 | 1.13 |
| | G-(14) | | | | | 9,960 | 90 | 20,200 | | |
| 12.00-20NHS | G-(14) | 8.50 | 13.39 | 46.61 | 47.77 | 10,990 | 85 | 20,200 | .79 | 1.19 |
| | H-(16) | | | | | 12,080 | 100 | 23,000 | | |
| 12.00-24TG* | C-(6) | 8.00 | 13.28 | 49.72 | - | 7,500 | 35 | 6,800 | .79 | |
| | D-(8) | | | | | 9,250 | 50 | 8,600 | | |
| 13.00-24TG* | C-(6) | 8.00 | 14.15 | 51.88 | - | 8,510 | 35 | 6,900 | .85 | |
| | E-(10) | | | | | 9,860 | 45 | 8,600 | | |
| | F-(12) | | | | | 12,730 | 70 | 15,800 | | |
| | H-(16) | | | | | 14,800 | 90 | 23,000 | | |

Tires for Fork-Lift Truck, Mobile Cranes, Shovels, Mining Cars, Front End Loaders, Compactor and Dozer (Cont'd.)

Groups 4 and 5

Maximum speed - 5 miles per hour

| Tire Size | Load Range and Ply Rating | Design Rim | (1) Maximum Overall Tire Width | (2) Maximum Overall Tire Diameters | | T&RA Load | Inflation Pressure | Minimum Breaking Energy Inch-Lbs. | Minimum Skid Depth At Center of Casing | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Traction | Extra Tread | | | | Traction | Extra Tread |
| 14.00-20*MS | J-(18) | 10.00 | 15.93 | 52.63 | 55.00 | 16,110 | 95 | 25,000 | .90 | 1.62 |
| | L-(20) | | | | | 16,600 | 100 | 27,000 | | |
| 14.00-24*TG | D-(8) | 8.00 | 15.07 | 56.20 | - | 11,340 | 40 | 8,600 | .90 | - |
| | F-(12) | | | | | 15,070 | 65 | 15,800 | | |
| 14.00-24*MS | L-(20) | 10.00 | 15.93 | 57.00 | 58.00 | 18,520 | 100 | 27,000 | .90 | 1.62 |
| 16.00-24*TG | F-(12) | 10.00 | 16.14 | 59.60 | - | 16,850 | 50 | 15,800 | 1.01 | - |
| 16.00-25 | L-(24) | 11.25 | 18.36 | 61.10 | 63.30 | 23,510 | 95 | 30,000 | 1.01 | 1.80 |
| 18.00-25 | F-(12) | 13.00 | 21.47 | 68.70 | 68.50 | 18,320 | 50 | 18,800 | - | - |
| | H-(16) | | | | | 22,070 | 55 | 23,000 | | |
| | L-(20) | | | | | 25,420 | 70 | 27,000 | | |
| | N-(24) | | | | | 27,460 | 80 | 30,000 | | |
| 21.00-25 | H-(16) | 15.00 | 24.30 | 71.50 | 74.50 | 26,850 | 50 | 23,000 | 1.23 | 1.91 |
| | L-(20) | | | | | 29,680 | 60 | 27,000 | | |
| | N-(24) | | | | | 32,700 | 70 | 30,000 | | |
| | (28) | | | | | 36,630 | 85 | 33,000 | | |
| 24.00-25 | J-(18) | 17.00 | 27.76 | 76.90 | 78.90 | 32,640 | 45 | 25,000 | 1.35 | 2.03 |
| | N-(24) | | | | | 40,470 | 65 | 30,000 | | |
| | (30) | | | | | 45,700 | 80 | 34,500 | | |
| 24.00-29 | J-(18) | 17.00 | 27.76 | 81.00 | 83.90 | 34,940 | 45 | 25,000 | 1.35 | 2.03 |
| | N-(24) | | | | | 43,330 | 65 | 30,000 | | |
| | (30) | | | | | 48,930 | 80 | 34,500 | | |
| 36.00-41 | (48) | 26.00 | 42.01 | 119.00 | 122.00 | 128,710 | 85 | - | | |
| 36.00-51 | (42) | 26.00 | 42.01 | 129.50 | 132.50 | 132,510 | 75 | - | 1.94 | 2.90 |
| | (50) | | | | | 142,580 | 85 | - | | |
| | (58) | | | | | 156,600 | 100 | - | | |

*Semi-drop center rims.

**Consult tire manufacturer for rim contours used with 7.50-10 and 9.00-10 tires for mining cars.

(1) Includes 8 percent above T&RA new tire section width to provide for 24 hour tire growth and protective side ribs and bars.

(2) Includes 6 percent above T&RA new tire section height, except 4 percent for 16.00 and up and all wide base.

NOTE:

(a) For 10 m.p.h. service, the above loads must be reduced 13 percent at same inflation pressures.

(b) For stationary service conditions, the above loads may be increased up to 56 percent with no increase of inflation.

(c) For fork-lift truck tires in off-the-road service, this table applies only to 8.25-18 and larger sizes.

APPENDIX A

Wide Base Tires for Fork-Lift Trucks, Mobile Cranes, Shovels, Mining Cars, Front End Loaders and Dozer

Groups 4 and 5

Maximum speed - 5 miles per hour.

| Tire Size | Load Range and Ply Rating | Design Rim | (1) Maximum Overall Tire Width | (2) Maximum Overall Tire Diameters | | T&RA Load | Inflation Pressure | Minimum Breaking Energy Inch-Lbs. | Minimum Skid Depth At Center of Casing | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Traction | Extra Tread | | | | Traction | Extra Tread |
| 15.5-25 | E-( 8) | 12.00SDC | 16.74 | 52.55 | 53.30 | 9,630 | 40 | | | |
| | F-(10) | | | | | 11,850 | 55 | 15,800 | | |
| 17.5-25 | F-(10) | 14.00SDC | [illegible] | [illegible] | [illegible] | [illegible] | 50 | 15,800 | | |
| 20.5-25 | F-(10) | 17.00 | 22.14 | 61.10 | 63.20 | 14,940 | 40 | 15,800 | 1.01 | 1.60 |
| | F-(12) | | | | | 17,020 | 50 | 23,000 | | |
| | L-(20) | | | | | 19,840 | 65 | 27,000 | | |
| | L-(24) | | | | | 22,410 | 80 | 30,000 | | |
| 23.5-25 | F-(12) | 19.50 | 25.38 | 66.20 | 68.50 | 17,810 | 35 | 15,800 | 1.12 | 1.91 |
| | G-(15) | | | | | 20,640 | 45 | 23,000 | | |
| | L-(20) | | | | | 23,210 | 55 | 27,000 | | |
| | L-(24) | | | | | 26,730 | 70 | 30,000 | | |
| 26.5-25 | F-(12) | 22.00 | 28.62 | 71.50 | 73.50 | 20,750 | 30 | 15,800 | 1.23 | 1.91 |
| | G-(16) | | | | | 24,560 | 40 | 23,000 | | |
| | L-(20) | | | | | 27,980 | 50 | 27,000 | | |
| | L-(24) | | | | | 31,130 | 60 | 30,000 | | |
| | (28) | | | | | 34,070 | 70 | 33,000 | | |
| 26.5-29 | G-(16) | 22.00 | 28.62 | 75.60 | 77.90 | 28,120 | 45 | 25,000 | 1.23 | 1.91 |
| | L-(22) | | | | | 31,620 | 55 | 28,500 | | |
| | (26) | | | | | 34,860 | 65 | 31,500 | | |
| 29.5-25 | G-(16) | 25.00 | 31.86 | 76.60 | 78.50 | 28,510 | 35 | 23,000 | 1.35 | 2.03 |
| | L-(22) | | | | | 35,130 | 50 | 28,500 | | |
| | (28) | | | | | 40,960 | 65 | 33,000 | | |
| | (32) | | | | | 46,250 | 80 | 37,500 | | |
| 29.5-29 | G-(16) | 25.00 | 31.86 | 81.00 | 82.90 | 30,360 | 35 | 23,000 | 1.35 | 2.03 |
| | L-(22) | | | | | 37,410 | 50 | 28,500 | | |
| | (28) | | | | | 43,620 | 65 | 33,000 | | |
| | (34) | | | | | 49,250 | 80 | 37,500 | | |
| 29.5-35 | G-(16) | 25.00 | 31.86 | 87.00 | 89.00 | 33,050 | 35 | 23,000 | 1.35 | 2.03 |
| | L-(22) | | | | | 40,720 | 50 | 28,500 | | |
| | (28) | | | | | 47,470 | 65 | 33,000 | | |
| | (34) | | | | | 53,610 | 80 | 37,500 | | |
| 33.25-35 | L-(20) | 27.00 | 34.91 | 91.60 | 94.00 | 42,750 | 40 | 27,000 | 1.50 | 2.25 |
| | (26) | | | | | 51,510 | 55 | 31,500 | | |
| | (32) | | | | | 56,790 | 65 | 36,000 | | |
| | (36) | | | | | 64,130 | 80 | 39,000 | | |

APPENDIX A

...ue Base Tires for Fork-lift Trucks, Mobile Cranes, Shovels, Mining Cars, Front End Loaders and Dozer (Cont'd.)

Groups 4 and 4A

Maximum speed - 5 miles per hour

| Tire Size | Load Range and Ply Rating | Design Rim | (1) Maximum Overall Tire Width | (2) Maximum Overall Tire Diameters | | T&RA Load | Inflation Pressure | Minimum Breaking Energy Inch-Lbs. | Minimum Skid Depth At Center of Casing | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Traction | Extra Tread | | | | Traction | Extra Tread |
| 33.5-33 | L-(20) | 28.00 | 36.18 | 91.60 | 94.00 | 43,550 | 40 | 27,000 | 1.67 | 2.50 |
| | (26) | | | | | 52,470 | 55 | | | |
| | (32) | | | | | 57,850 | 65 | | | |
| | (38) | | | | | 62,900 | 75 | | | |
| 33.5-33 | L-(20) | 28.00 | 36.18 | 98.00 | 100.00 | 46,910 | 40 | 27,000 | 1.67 | 2.50 |
| | (26) | | | | | 56,510 | 55 | | | |
| | (32) | | | | | 62,310 | 65 | | | |
| | (38) | | | | | 67,750 | 75 | | | |
| 37.25-35 | (30) | 31.00 | 40.23 | 98.00 | 100.00 | 62,770 | 55 | | 1.83 | 2.74 |
| | (36) | | | | | 69,200 | 65 | | | |
| | (42) | | | | | 75,240 | 75 | | | |
| 37.5-33 | (24) | 32.00 | 40.50 | 98.00 | 100.00 | 53,120 | 40 | 30,000 | 1.83 | 2.74 |
| | (30) | | | | | 63,990 | 55 | | | |
| | (36) | | | | | 70,560 | 65 | | | |
| | (42) | | | | | 76,720 | 75 | | | |
| 37.5-39 | (36) | 32.00 | 40.50 | 104.00 | 106.50 | 75,720 | 65 | | 1.83 | 2.74 |
| | (44) | | | | | 85,500 | 80 | | | |
| 37.5-51 | (28) | 32.00 | 40.50 | 116.50 | 119.00 | 73,430 | 50 | | 1.83 | 2.74 |
| | (36) | | | | | 85,610 | 65 | | | |
| | (44) | | | | | 96,670 | 80 | | | |

(1) Includes 8 percent above T&RA new tire section width to provide for 24 hour tire growth and protective side ribs and bars.
(2) Includes 4 percent above T&RA new tire section height.

NOTES:
(a) For 10 m.p.h. service, the above loads must be reduced 13 percent at same inflation pressures.
(b) For stationary service conditions, the above loads may be increased up to 56 percent with no increase of inflation.

MILITARY CUSTODIANS:

Army - AT

*Review* activities:

Navy - YD
Army - AT,WC

USER INTEREST:

Army - CC

PREPARING ACTIVITY,

GSA-FSS

Orders for this publication are to be placed with the General Services Administration, acting as an agent for the Superintendent of Documents. See section 2 of this specification to obtain extra copies and other documents referenced herein. Price 50 cents each.

(TO DETACH THIS FORM, CUT ALONG THIS LINE.)

# STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

*(See Instructions – Reverse Side)*

| 1. DOCUMENT NUMBER | 2. DOCUMENT TITLE |
|---|---|
| | |

| 3a. NAME OF SUBMITTING ORGANIZATION | 4. TYPE OF ORGANIZATION *(Mark one)* |
|---|---|
| | ☐ VENDOR |
| b. ADDRESS *(Street, City, State, ZIP Code)* | ☐ USER |
| | ☐ MANUFACTURER |
| | ☐ OTHER *(Specify)*: _____ |

5 PROBLEM AREAS

a. Paragraph Number and Wording

b. Recommended Wording

c. Reason/Rationale for Recommendation

6 REMARKS

| 7a. NAME OF SUBMITTER *(Last, First, MI)* – Optional | b. WORK TELEPHONE NUMBER *(Include Area Code)* – Optional |
|---|---|
| c. MAILING ADDRESS *(Street, City, State, ZIP Code)* – Optional | 8. DATE OF SUBMISSION *(YYMMDD)* |
| | |

DD FORM 82 MAR 1426

PREVIOUS EDITION IS OBSOLETE

**INSTRUCTIONS:** In a continuing effort to make our standardization documents better, the DoD provides this form for use in submitting comments and suggestions for improvements. All users of military standardization documents are invited to provide suggestions. This form may be detached, folded along the lines indicated, taped along the loose edge *(DO NOT STAPLE)*, and mailed. In block 5, be as specific as possible about particular problem areas such as wording which required interpretation, was too rigid, restrictive, loose, ambiguous, or was incompatible, and give proposed wording changes which would alleviate the problems. Enter in block 6 any remarks not related to a specific paragraph of the document. If block 7 is filled out, an acknowledgement will be mailed to you within 30 days to let you know that your comments were received and are being considered.

*NOTE* This form may not be used to request copies of documents, nor to request waivers, deviations, or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document*(s)* or to amend contractual requirements.

*(Fold along this line)*

*(Fold along this line)*

DEPARTMENT OF THE ARMY

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300

BUSINESS REPLY MAIL
FIRST CLASS PERMIT NO 12062 WASHINGTON D C

POSTAGE WILL BE PAID BY THE DEPARTMENT OF THE ARMY

Commander
US Army Zank-Automative
Attn: DRSTA-GSS
Warren MI 48090