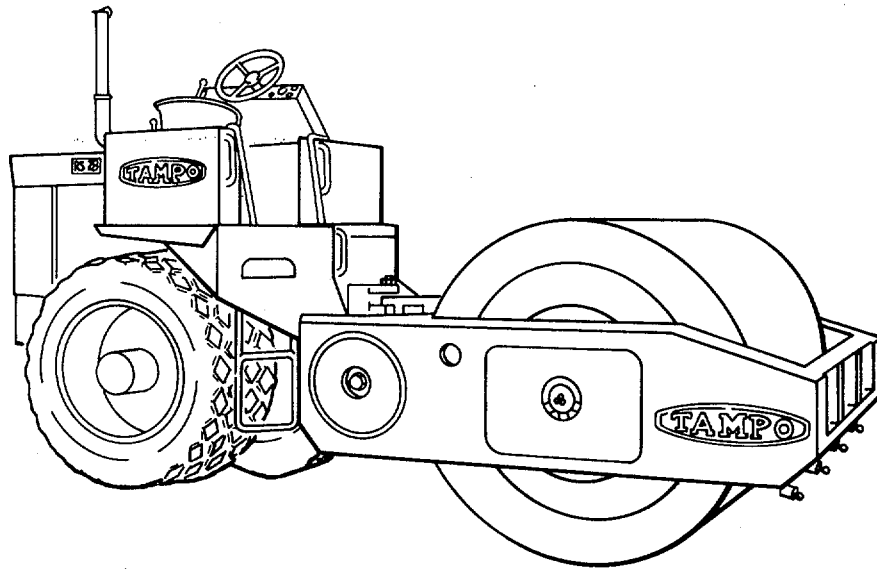


**TECHNICAL MANUAL
OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT
AND GENERAL SUPPORT MAINTENANCE MANUAL**

FOR

**ROLLER, VIBRATORY, SELF-PROPELLED,
HIGH IMPACT, SINGLE SMOOTH DRUM
(CCE) TAMPO MODEL RSu28
(NSN 38950 101 2u8875)**



HEADQUARTERS, DEPARTMENT OF THE ARMY

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DEPARTMENT OF THE ARMY
WASHINGTON, DC, 4 February 1985

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(NSN 3895-01-012-8875)

REPORTING OF ERRORS AND RECOMMENDING CHANGES

You can help improve this publication. If you find any mistakes, or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publication and Blank Forms), or DA Form 2028-2 located in the back of this publication direct to: US Army Tank-Automotive Command, ATTN: AMSTA-MB, Warren, MI 48090. A reply will be furnished to you.

This technical manual is an authentication of the manufacturer's commercial literature and does not conform with the format and content specified in AR 310-3, Military Publications. This technical manual does, however, contain available information that is essential to the operation and maintenance of the equipment.

NOTE

To locate information on operation, maintenance or repair of specific components, refer to the index, page 657.

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CHAPTER I

INTRODUCTION

COMPONENT IDENTIFICATION

NOTE

When practical, always refer to identification tags and plates to determine part identity.

ENGINE

Detroit Diesel 453 Number 5043-7201 20-3010 Motor

NOTE

The engine serial number from the identification plate is needed to determine the use of some parts.

TRANSMISSION

Funk Double Pump Drive designated T20-0063 by Tampo

HYDROSTATIC DRIVE

Sundstrand Model 20-2055 Pump, Model 22-3037 Motor

VIBRATORY DRIVE

Sundstrand Model 20-2022 Pump, Model 20-3010 Motor

DRIVE AXLE

Rockwell SA2410 designated VRH 180 by Tampo

POWER STEERING

Sperry-Vickers VTM Series Char-Lynn Orbitrol Control

WARRANTIES

Tampo Warranty One (1) year from date of delivery to the first user. Tampo's obligation is to repair or replace, F.O.B. its factory, any part of its own manufacture that proves defective in material and workmanship. Those items purchased for use on a Tampo roller are covered under the respective manufacturer's warranty as follows:

Engine Detroit Diesel: One (1) year or 4000 hours, whichever occurs first. First six (6) months or 2000 hours, free parts and labor. Second six (6) months or 2000 hours, free parts and fifty (50%) percent labor. For parts and service, contact nearest Detroit Diesel engine dealer.

Sundstrand Pumps and Motors: The Sundstrand hydraulic components are warranted for a period of two (2) years from date of delivery. This warranty covers repairs or replacement of parts only. Labor and other charges are not covered under this warranty. Certain repairs are allowed without voiding this warranty. These repairs are described in the Sundstrand Bulletin #9630, Section VII. Further details and procedures on warranty repair are also listed under Section VII in Bulletin #9630.

Goodyear Tires: Warranty against defects in material and workmanship will be made on a prorated basis of tire wear. These claims are made with the nearest local representative of Goodyear Tire and Rubber Company.

Reliable Battery: Warranty period is two (2) years from date of delivery on a prorated basis. Warranty claims should be made to the nearest member organization of the Independent Battery Association or to Tampo Manufacturing Company.

Funk Manufacturing Company: Warranty of transmission, clutch, and pump drive gearbox is six (6) months from date of delivery. Warranty claims received by Tampo Manufacturing Company will be processed and forwarded to the manufacturer for consideration.

Rockwell International: The axles and differentials used on rollers carry an overall warranty of one (1) year from the date of delivery against defective material or workmanship but not against damage caused by accident or abuse. Rockwell, at their option, will repair or replace such parts if found on examination to be defective. Requests for warranty may be made direct with Rockwell International or forwarded to Tampo Manufacturing Company for processing and submission to the manufacturer.

Sperry-Vickers Power Steering Pumps: The manufacturers warranty is ninety (90) days from the date of delivery. Requests for warranty repair will be processed by Tampo Manufacturing Company and forwarded to the manufacturer for consideration.

Char-Lynn Orbitrol and Column: These components carry a ninety (90) day warranty starting with the date of delivery. Warranty claims will be processed by Tampo Manufacturing Company and forwarded to the manufacturer for consideration.

Hayden Oil Cooler: This component carries a twelve (12) month warranty. Claims made during the warranty period will be processed by Tampo Manufacturing Company and forwarded to the manufacturer for consideration.

Date of Delivery The date the Tampo Roller is received by the purchasing agency.

WARRANTIES (Continued)

Venders warranty covers parts, unless otherwise specified. Warranty on any component is voided for any failure caused by physical accident, abuse, lack of proper maintenance, contaminated hydraulic systems, etc.

SPECIFICATIONS**RS-28**

Weight	19,450 pounds
Rolling Width	84 inches
Roll Diameter	60 inches
Overall Width	96 inches
Overall Height	98 inches
Overall Length	17 feet, 3.5 inches
Wheel Base	108.5 inches
Turning Radius	17 feet, 10 inches
Tire Size, Standard	23.1/18-26 all weather high flotation tread.
Vibration Frequency	1100-1500 vpm
Centrifugal Force	30,000 pounds maximum
Speed, Forward and Reverse	0-15 mph
Power Unit	Detroit Diesel 4-53, 107 HP at 2,200, with double pump drive and disconnect clutch.
Roller Drive	Variable speed hydrostatic drive with heavy-duty transmission and planetary axle with high-traction differential.
Vibratory Drive	Variable speed hydrostatic independent of roller travel speed.
Steering	Automotive hydraulic power type with center-hinge body pivot (articulated) steering.
Brakes	Hydrostatic braking in drive train. Hydraulic brakes on drive axle. Parking brake on transmission output shaft.
Fuel Capacity	50 gallons
Oil Reservoir Capacity	16 gallons

GENERAL INFORMATION

This is a Department of the Army authenticated operation and maintenance manual for the Tampo RS-28 Vibratory Roller, NSN 3895-01-012-8875. As such, this document complies with MIL-M-7298C in content and format.

The vibratory roller is used in construction operations such as road bed repairs and construction. Primary tasks are compacting new beds of sand and gravel prior to laying an asphalt surface. Secondary uses are compaction of pavement base courses and stabilizing bases.

Compaction is accomplished by a single smooth drum roller powered by a vibratory drive capable of producing between 1100 and 1500 vibrations per minute. The vibratory drive and drive train are each powered by a hydrostatic pump and motor unit, coupled by a double pump drive transmission to a Detroit Diesel four-cylinder 4-53 engine. Hydrostatic pumps and motors are manufactured by Sundstrand. The double pump drive transmission is manufactured by Funk.

Steering is hydrostatically assisted by a Sperry-Vickers pump and an Orbitrol control. It is accomplished through an articulated hinged joint behind the roller drum. Power is transmitted to drive wheels through a Rockwell planetary drive axle.

Braking is accomplished by shutting off the hydrostatic drive under normal conditions, and through Rockwell hydraulic brakes under emergency conditions.

Maintenance Forms and Records

The roller is manufactured by Tampo Manufacturing Company of San Antonio, TX. Warranties on all components of the equipment are handled by Tampo. Maintenance Forms and Records

Maintenance forms and records on this equipment are to be maintained in accordance with standards established in the current TM 38-750, The Army Maintenance Management System (TAMMS).

Equipment Improvement Recommendations (EIR)

Prepare recommendations on equipment improvement in accordance with TM 38-750. ASF 368, Quality Deficiency Report should be prepared and mailed to: Commander, US Army Tank-Automotive Command, Warren, MI 48090.

Shipment and Storage

Refer to TB 740-97-2 for procedures covering preservation of equipment for shipment and storage. Refer to TM 74090-1 for instructions on administrative storage.

Destruction to Prevent Enemy Use

Refer to TM 750-244-3 for procedures covering destruction to prevent enemy use.

Fire Protection

A hand-operated fire extinguisher may be installed at the discretion of the using unit. Approved hand-portable fire extinguishers are listed in TB 5-4200-200-10.

Safety Precautions

Always observe the following precautions to prevent injury or damage to equipment:

- Use trained operators only.

Always use slower speeds and added caution when operating close to a lift edge or traveling downhill.

Never travel across a slope; always travel up or down a slope.

- Always engage the parking brake before dismounting the unit.
- Never shut down the engine when traveling up or down a slope. Always move the forward-reverse lever to the neutral position to slow the unit.