



TRACK LOADERS

RADIAL-LIFT



1750RT NXT3 ▲ 2100RT NXT3 ▲ 2500RT NXT3



WHAT BEGAN IN THE 19TH CENTURY AS AN AGRICULTURAL IMPLEMENT MANUFACTURER HAS GROWN INTO A 21ST CENTURY EQUIPMENT POWERHOUSE - MUSTANG COMPACT EQUIPMENT.

Known in the early years as the Owatonna Manufacturing Company, Mustang was among the first to make what is known today as the skid steer loader. Since that time, Mustang has combined old-school experience with innovative processes to offer one of the broadest lines of compact equipment available today.

MUSTANG. THE ORIGINAL WORKHORSE.

BLAZING A NEW TRAIL

Since breaking into the track loader market in 2001, Mustang has learned a thing or two about what it takes to be an industry leader. Combine this expertise with input from some of the market's heaviest track loader users, and you get the RT Series Track Loaders from Mustang.

With many industry-exclusive features, including the patented Fold-Up Door and IdealTrax™ Automatic Track Tensioning System, the 1750RT NXT3, 2100RT NXT3 and 2500RT NXT3 will blaze a new trail in the track loader market.

IdealTrax™

RT SERIES: NXT3



**1750RT
NXT3**



**2100RT
NXT3**



**2500RT
NXT3**

MUSTANG



▲ POWER and ▲ PERFORMANCE

ROUGH GROUND - YOU HAVE MET YOUR MATCH

INCREASED BREAKOUT FORCES NXT3 ENHANCEMENT

Enhanced breakout forces on the NXT3 models make these machines your greatest allies on the job.

| | TILT | LIFT |
|-------------|-----------------------|----------------------|
| 1750RT NXT3 | 5,354 lbs. (2429 kg) | 5,016 lbs. (2275 kg) |
| 2100RT NXT3 | 6,631 lbs. (3008 kg) | 6,481 lbs. (2940 kg) |
| 2500RT NXT3 | 8,384 lbs. (3,803 kg) | 7,437 lbs. (3373 kg) |

IDEALTRAX™ INDUSTRY-EXCLUSIVE AUTOMATIC TRACK TENSIONING SYSTEM

Eliminate weekly tension checks and costly track replacements with the IdealTrax™ system. Tracks are automatically tensioned when the engine is started and during operation.



FOLD-UP DOOR NXT3 ENHANCEMENT

This patented new design provides cab-to-canopy versatility, all while maintaining low clearance and a Level II FOPS certification.



TIER IV YANMAR DIESEL ENGINES

| | POWER | TORQUE |
|-------------|-------------------|-------------------------|
| 1750RT NXT3 | 69.9 hp [52.1 kW] | 179 ft.-lbs. [242.7 Nm] |
| 2100RT NXT3 | 72 hp [53.7 kW] | 206 ft.-lbs. [279.3 Nm] |
| 2500RT NXT3 | 74.3 hp [55.4 kW] | 243 ft.-lbs. [330 Nm] |

RATED OPERATING CAPACITY

| | |
|-------------|----------------------|
| 1750RT NXT3 | 1,750 lbs. [794 kg] |
| 2100RT NXT3 | 2,100 lbs. [953 kg] |
| 2500RT NXT3 | 2,500 lbs. [1134 kg] |



DEDICATED, WELDED TRACK LOADER CHASSIS

Custom built to aid in superior weight distribution, which enhances stability, grading, tractive effort, and ride control.



COUNTERWEIGHT/BUMPER

Gain extra tipping capacity while offering increased rear protection.

Optional on the 1750RT NXT3 and 2100RT NXT3. Standard on the 2500RT NXT3. Additional side-mounted counterweights optional on 2500RT NXT3.

GROUND CLEARANCE CLASS-LEADING

| | |
|-------------|----------------|
| 1750RT NXT3 | 13.3" [343 mm] |
| 2100RT NXT3 | 13.2" [335 mm] |
| 2500RT NXT3 | 13.2" [335 mm] |

HORSEPOWER MANAGEMENT SYSTEM

Monitors and adjusts the hydrostatic drive pump to produce the ideal tractive effort.



OPTIMIZED RADIAL LIFT ARM

Durable design provides increased strength and up to 128" (3251 mm) of lift height – higher than any competitor in their respective weight class.

STRAIGHT TRACKING

This feature provides for in-cab, tool-free adjustment of individual track speeds, ensuring the machine drives straight.



LIFT HEIGHT CLASS-LEADING

| | |
|-------------|----------------|
| 1750RT NXT3 | 128" [3251 mm] |
| 2100RT NXT3 | 128" [3251 mm] |
| 2500RT NXT3 | 128" [3251 mm] |



▲ COMFORT and ▲ SAFETY

OPERATOR STATION COMFORT FEATURES



WITHIN REACH

Lights, windshield wiper, and all other controls conveniently located on the armrests.



RADIO OPTION

Factory-installed, this AM/FM deluxe radio option customizes the cab.



CLIMATE CONTROL

Heat is standard on all cab models. Upgrade to air conditioning for additional comfort.



INTEGRATED LCD DISPLAY

Easy-to-use, multi-function display incorporates all warning/operation lights and machine configuration screens. Single button allows for simple scrolling and selection of various display functions.

STRAIGHT TRACKING

Tracking is easily corrected from the cab using the display. It can also be used to compensate for offset or side-loaded attachments.

DRIVE SENSITIVITY ADJUSTMENT

Five settings are available to adjust the operator drive speeds and response times. Each user can customize the control to their preference using the LCD display.



| Drive Sensitivity Adjustment | Operator Feel Emulation |
|------------------------------|--|
| 5 - Rabbit | + 20% = Fastest <ul style="list-style-type: none"> Highly Responsive Highest Volume |
| 4 - ● | + 10% = Quick <ul style="list-style-type: none"> Very Responsive Control |
| 3 - ● | Standard Setting <ul style="list-style-type: none"> Normal Response Time Focused Productivity |
| 2 - ● | - 10% = Precision <ul style="list-style-type: none"> Improved Control |
| 1 - Turtle | - 20% = High Precision <ul style="list-style-type: none"> Easy Control More Precise |



ELECTRIC ATTACHMENT CONTROL

This factory-installed option controls multi-function attachments directly through the joystick.

PREMIUM SEAT

Standard deluxe, high-back mechanical suspension seat or an optional air-ride seat for operator comfort.

OPERATOR PRESENCE

Brakes are applied and hydraulics are disabled whenever the operator raises the restraint bar, leaves the seat or switches off the ignition.

CREATURE COMFORTS

Dome light, cup holder, two 12-volt outlets, and multiple adjustable air vents.

VISIBILITY

A cab-forward design enhances the view to the bucket cutting edge from the operator's seat. Extra-large side screens, combined with a low-profile lift arm design, provide a wide field-of-view to the side work areas.

PRESSURIZED CAB

Optional, pressurized sealed cab enclosure with sound reduction material and large, rear-mounted cabin air filter provides a cleaner and quieter operating environment.

ARMRESTS/RESTRAINT BARS

All instrumentation and fully adjustable joystick control towers are conveniently located on the armrests for easy access. High-mounted restraint bars provide ample clearance for the operator's legs.



▲ MAINTENANCE and ▲ SAFETY



EXCELLENT VISIBILITY

FRONT



LEFT SIDE



REAR



RIGHT SIDE

EXCELLENT VIEWS FROM ALL SIDES FOR SAFETY AND PRECISE OPERATION

Excellent visibility to the front, sides and rear of the machine allow for precise placement of loads and reduced jobsite incidents. A high-mounted seat provides an excellent vantage point to the attachment and cutting edge.

LESS DOWNTIME PUTS MONEY IN YOUR POCKET

IDEALTRAX™ INDUSTRY-EXCLUSIVE AUTOMATIC TRACK TENSIONING SYSTEM

Eliminates the need for manually tensioning the tracks on the loader before operation, saving valuable time on the jobsite.

Increases the life of the tracks (up to 15%* in tested conditions), sprockets and bearings by ensuring the proper tension immediately upon start-up and during use, and tension release when the machine is shut down.

Track changes in the field are facilitated with a simple switch in the rear compartment. Removing a track without the IdealTrax™ system can take up to one hour per track. With IdealTrax™, it takes just minutes.

*Track life improvement varies greatly depending on conditions, application and upkeep; results may vary.

17-TOOTH SPROCKETS NXT3 ENHANCEMENT

17-tooth, forged drive sprockets have 40% more hardness depth for improved sprocket life. Larger sprockets increase track-to-chassis clearance, so tracks can be cleaned out with ease.

IdealTrax™



ENGINE NOT RUNNING



ENGINE RUNNING



ENGINE ACCESS

Full access to filters and reservoirs for servicing and maintenance is made possible by a swing-out rear door and a large, lockable engine cover.

TILTABLE ROPS/FOPS ASSEMBLY

Featuring gas-spring assist for easy internal access to the pumps, hydraulic valve bank and drive motors.

SAFETY RESTRAINT

Innovative restraint allows for secure positioning of the cab in the maintenance position. Restraint can be secured in position by one person.

TILT-OUT FOOT POD

This feature allows for best-in-class foot well cleanout and provides perfect access to the fuel tank and other components under the cab.

ATTACHMENTS

NEED VERSATILITY?

Compatible with most allied loader attachments, the RT Series Track Loaders from Mustang provide superior loader functionality while minimizing damage to ground surfaces. Perfect for landscape, agriculture, construction or rental - these machines are up for any challenge.



▲ Std. Flow ▲ High Flow ▲ Available accessories

1750RT NXT3 2100RT NXT3 2500RT NXT3

| | 1750RT NXT3 | 2100RT NXT3 | 2500RT NXT3 |
|---|-------------|-------------|-------------|
| AUGERS - CHAIN DRIVE | | | |
| 1650 CL Auger Drive - Round - 2 9/16" (65 mm) | ▲ | ▲ | ▲ |
| 1650 CLH Auger Drive - Hex - 2" (51 mm) | ▲ | ▲ | ▲ |
| AUGERS - PLANETARY DRIVE | | | |
| PA 220 Planetary Auger Drive - Round - 2 9/16" (65 mm) | ▲ | ▲ | ▲ |
| PA 220H Planetary Auger Drive - Hex - 2" (51 mm) | ▲ | ▲ | ▲ |
| AUGER - BITS | | | |
| SQ 9" (229 mm) Auger Bit - Round - 4 teeth - 2 9/16" (65 mm) | ▲ | ▲ | ▲ |
| SQ 12" (305 mm) Auger Bit - Round - 4 teeth - 2 9/16" (65 mm) | ▲ | ▲ | ▲ |
| SQ 9" (229 mm) Auger Bit - Hex - 4 teeth - 2" (51 mm) | ▲ | ▲ | ▲ |
| SQ 12" (305 mm) Auger Bit - Hex - 4 teeth - 2" (51 mm) | ▲ | ▲ | ▲ |
| SQ 18" (457 mm) Auger Bit - Hex - 6 teeth - 2" (51 mm) | ▲ | ▲ | ▲ |
| PALLET FORKS | | | |
| Pallet Fork Frame - Heavy Duty - Requires two tines Can customize with dealer name (on orders of 10 or more) | ▲ | ▲ | ▲ |
| Heavy Duty Class II Tine 48" (1219 mm) | ▲ | ▲ | ▲ |
| Side Shift pallet Fork with 48" (1219 mm) Tines | ▲ | ▲ | ▲ |
| Sliding Tine Pallet with 48" (1219 mm) Hydraulic Sliding Tines | ▲ | ▲ | ▲ |
| LOG GRAPPLES | | | |
| Log Grapple | ▲ | ▲ | ▲ |
| GRADER BLADES | | | |
| 8" (203 mm) Grader Blade with proportional current valve | ▲ | ▲ | ▲ |
| RAKES | | | |
| 76" (1930 mm) Auto Rake | ▲ | ▲ | ▲ |
| 82" (2083 mm) Grader Rake | ▲ | ▲ | ▲ |
| 76" (1930 mm) Preparator Rake | ▲ | ▲ | ▲ |
| 90" (2286 mm) Power Rake with hydraulic angle | ▲ | ▲ | ▲ |
| MULCHER | | | |
| 48" (1219 mm) Brush Mulcher | ▲ | ▲ | ▲ |
| TRENCHERS | | | |
| Trencher 60" (1524 mm) depth x 6" (152 mm) width, Double Standard | ▲ | ▲ | ▲ |
| Trencher 36" (914 mm) depth x 6" (152 mm) width, Double Standard | ▲ | ▲ | ▲ |
| Trencher 48" (1219 mm) depth x 6" (152 mm) width, Double Standard | ▲ | ▲ | ▲ |
| Trencher 36" (914 mm) depth x 6" (152 mm) width, Double Standard | ▲ | ▲ | ▲ |
| Trencher 48" (1219 mm) depth x 6" (152 mm) width, Double Standard | ▲ | ▲ | ▲ |
| Trencher 48" (1219 mm) depth x 6" (152 mm) width, Half Rock and Frost | ▲ | ▲ | ▲ |
| Trencher 60" (1524 mm) depth x 6" (152 mm) width, Double Standard | ▲ | ▲ | ▲ |
| ROCK WHEEL | | | |
| Rock Wheel with 4.5" (114 mm) wheel, Dual Circuit | ▲ | ▲ | ▲ |
| TREE PULLER | | | |
| Tree Puller/Grabbing Tool | ▲ | ▲ | ▲ |

GET ATTACHED



MULTI-TACH®

All models feature the easy-to-use All-Tach® (universal-style) attachment mounting system compatible with most allied attachments.

- **SINGLE LEVER DESIGN** for simplicity and strength.
- **HEAVY DUTY MOUNTING PLATE** design for increased rigidity over tube style.



POWER-A-TACH®

Power-A-Tach® all-weather system option allows users to quickly install and remove attachments. An operator leaves the seat only to connect auxiliary hydraulics. This system is compatible with most allied attachments.

○ STANDARD ● OPTIONAL

| | 1750RT NXT3 | 2100RT NXT3 | 2500RT NXT3 |
|--|-------------|-------------|-------------|
| PERFORMANCE | | | |
| All-Tach® Mounting System | ○ | ○ | ○ |
| IdealTrax™ Automatic Track Tensioning System | ○ | ○ | ○ |
| Straight Tracking | ○ | ○ | ○ |
| Power-A-Tach® Mounting System | ● | ● | ● |
| Self-Leveling Hydraulic Lift Action | ○ | ○ | ○ |
| Selectable Self-Leveling Lift Action | ● | ● | ● |
| Two-speed Hydrostatic Drive System | ○ | ○ | ○ |
| Horsepower Management System | ○ | ○ | ○ |
| ENGINE | | | |
| Engine Alert System with Error Display | ○ | ○ | ○ |
| Engine Automatic Shutdown System | ○ | ○ | ○ |
| Glowplugs Starter Assist | ○ | ○ | ○ |
| Dual-Element Air Cleaner with Indicator | ○ | ○ | ○ |
| HYDRAULICS | | | |
| Auxiliary Hydraulics | ○ | ○ | ○ |
| High-Flow Auxiliary Hydraulics | ● | ● | ● |
| UNDERCARRIAGE | | | |
| Elevated Planetary Final Drives | ○ | ○ | ○ |
| Maintenance Free Rollers Each Side | 3 | 4 | 4 |
| Single Flange Front/Dual Flange Rear Idlers | ○ | ○ | ○ |
| Rubber Track Undercarriage System | ○ | ○ | ○ |
| Servo-Controlled Hydrostatic Drive | ○ | ○ | ○ |
| Dedicated Undercarriage | ○ | ○ | ○ |
| STRUCTURE | | | |
| Tilt-out Foot Pod | ○ | ○ | ○ |
| Back-up Alarm | ○ | ○ | ○ |
| Combination Radiator & Hydraulic Oil Cooler | ○ | ○ | ○ |
| ROPS/FOPS Level II Overhead Guard | ○ | ○ | ○ |
| Anti-Vandalism Lock Provisions | ○ | ○ | ○ |
| Mechanical Lift Cylinder Lock | ○ | ○ | ○ |
| OPERATOR STATION | | | |
| Pressurized Cab Enclosure with A/C | ● | ● | ● |
| Fold-Up Door or Swing Out Door | ● | ● | ● |
| Multi-Function Function Display Screen | ○ | ○ | ○ |
| Drive Sensitivity Adjustment | ○ | ○ | ○ |
| Electronic Attachment Control - 14-Pin Connector | ● | ● | ● |
| Electro-Hydraulic Joystick Controls | ○ | ○ | ○ |
| Selectable Control Pattern Configuration (ISO / Dual-Hand) | ● | ● | ● |
| Variable Speed Control, Selectable On & Off | ● | ● | ● |
| Foot Throttle | ○ | ○ | ○ |
| Full-Suspension Seat | ○ | ○ | ○ |
| Air Suspension Seat | ● | ● | ● |

A WIDE VARIETY OF EDGE ATTACHMENTS ARE AVAILABLE FROM YOUR MUSTANG DEALER.

To learn more about EDGE® Track Loader attachments, please visit edgeattach.com



| | 1750RT NXT3 | 2100RT NXT3 | 2500RT NXT3 | |
|-----------------------------------|---|--|--------------------------------|---------------------------|
| DIMENSIONS | A. Overall Operating Height – Fully Raised (mm) | 168" (4267) | 168" (4267) | 168" (4267) |
| | B. Height to Hinge Pin – Fully Raised (mm) | 128" (3251) | 128" (3251) | 128" (3251) |
| | C. Reach – Fully Raised (mm) | 34.5" (876) | 34.5" (876) | 34.5" (876) |
| | D. Dump Angle – Fully Raised | 40.2° | 39° | 41° |
| | E. Dump Height – Fully Raised (mm) | 98" (2489) | 98" (2489) | 98" (2489) |
| | F. Maximum Rollback Angle – Fully Raised | 102.5° | 102.5° | 102.5° |
| | G. Overall Height at ROPS (mm) | 83" (2103) | 83.1" (2111) | 83.1" (2111) |
| | H. Overall Length w/ Bucket – Std. c-wt. (mm) | 144.0" (3658) | 148.1" (3762) | 157.8" (4008) |
| | I. Overall Length w/o Bucket – Std. c-wt. (mm) | 110.8" (2814) | 116.5" (2959) | 126.8" (3221) |
| | J. Specified Height (mm) | 67.5" (1715) | 67.7" (1720) | 67.7" (1720) |
| | K. Reach at Specified Height (mm) | 31.1" (790) | 31.3" (795) | 31.3" (795) |
| | L. Dump Angle at Specified Height | 75° | 75° | 75° |
| | M. Maximum Rollback Angle at Ground | 30° | 30° | 30° |
| | N. Carry Position (mm) | 8.2" (208) | 8.2" (208) | 8.2" (208) |
| | O. Maximum Rollback Angle at Carry Position | 31.6° | 31.6° | 31.6° |
| | P. Digging Position – Below Ground (mm) | +0.9" (23) | +0.6" (16) | +0.5" (13) |
| | Q. Angle of Departure with Std. c-wt. | 30.4° | 29.2° | 25° |
| | R. Ground Clearance (mm) | 13.1" (333) | 13.2" (335) | 13.2" (335) |
| | S. Track Gauge (mm) | 51.7" (1313) | 51.7" (1313) | 51.7" (1313) |
| | T. Track Shoe Width (mm) | 12.6" (320) | 17.7" (450) | 17.7" (450) |
| | U. Crawler Base (mm) | 54.8" (1392) | 58.4" (1483) | 61.5" (1562) |
| | V. Overall Width – Less Bucket (mm) | 64.4" (1636) | 69.5" (1765) | 69.5" (1765) |
| | W. Bucket Width (mm) | 65.9" (1674) | 73.9" (1877) | 83.9" (2131) |
| | X. Clearance Radius – Front With Bucket (mm) | 91.4" (2322) | 94.6" (2403) | 98.4" (2499) |
| | Z. Clearance Radius – Rear w/ Std. c-wt. (mm) | 62.1" (1577) | 64.6" (1641) | 70.7" (1796) |
| | Maximum Rollback at Specified Height | 66.8° | 66.8° | 66.8° |
| Angle of Approach | 90° | 90° | 90° | |
| Grouser Height (mm) | 1" (25) | 1" (25) | 1" (25) | |
| CAPACITY | Operating Capacity at 35% Tipping Load (kg) | 1,750 lbs. (794) | 2,100 lbs. (953) | 2,500 lbs. (1134) |
| | Operating Capacity at 50% Tipping Load (kg) | 2,500 lbs. (1134) | 3,000 lbs. (1361) | 3,571 lbs. (1620) |
| | Tipping Load (kg) | 5,000 lbs. (2268) | 6,000 lbs. (2722) | 7,143 lbs. (3240) |
| | Operating Weight (kg) | 8,605 lbs. (3903) | 9,800 lbs. (4445) | 11,470 lbs. (5203) |
| ENGINE | Make/Model | Yanmar / 4TNV98C-NM5L Tier IV | Yanmar / 4TNV98CT-NM5L Tier IV | Deutz / TD 3.6 Tier IV |
| | Type | 4-Stroke Naturally Aspirated | 4-Stroke Turbo | 4-Stroke Turbo |
| | Displacement (L) / cylinders | 203 cu.in. (3.3) / 4 | 203 cu.in. (3.3) / 4 | 221 cu.in. (3.6) / 4 |
| | Gross Power (kW) @ rpm | 69.9 hp (52.1) @ 2500 | 72 hp (53.7) @ 2500 | 74.3 hp (55.4) @ 2300 |
| | Net Power (kW) @ rpm | 68.4 hp (51) @ 2500 | 70.7 hp (52.7) @ 2500 | 70.7 hp (52.7) @ 2300 |
| | Peak Torque (Nm) @ rpm | 179 ft.-lbs. (242.7) @ 1600 | 206 ft.-lbs. (279.3) @ 1700 | 243 ft.-lbs. (330) @ 1500 |
| | Oil Pan Capacity (L) | 11 qts. (10.4) | 11 qts. (10.4) | 9 qts. (8.5) |
| | Alternator Voltage / Amperage | 14V / 95A | 14V / 95A | 14V / 95A |
| TRACK DRIVES | Drawbar Pull / Tractive Effort (kg) | 9,917 lbs. (4498) | 11,489 lbs. (5211) | 12,770 lbs. (5792) |
| | Track Type / Track Rollers / Roller Type | Rubber / 4 / Steel | Rubber / 5 / Steel | Rubber / 5 / Steel |
| | Track Width (mm) | 12.6" (320) | 17.7" (450) | 17.7" (450) |
| | Ground Pressure (bar) | 6.2 psi (0.43) | 4.7 psi (0.32) | 5.3 psi (0.37) |
| FORCES | Bucket Breakout – Tilt Cylinder (kg) | 5,354 lbs. (2429) | 6,631 lbs. (3008) | 8,384 lbs. (3803) |
| | Bucket Breakout – Lift Cylinder (kg) | 5,016 lbs. (2275) | 6,481 lbs. (2940) | 7,437 lbs. (3373) |
| | Ground Speed – Single Speed (km/hr) | 5.3 mph (8.5) | 6.1 mph (9.8) | 5.8 mph (9.3) |
| | Ground Speed – Two Speed (km/hr) | 7.7 mph (12.4) | 8.9 mph (14.3) | 8.2 mph (13.2) |
| VOLUME | Fuel Tank (L) | 24 gal. (91) | 24 gal. (91) | 24 gal. (91) |
| | Hydraulic Reservoir Tank (L) | 11.0 gal. (41.6) | 13.8 gal. (52.2) | 13.8 gal. (52.2) |
| | Coolant Capacity (L) | 3.5 gal. (13.3) | 3.8 gal. (14.4) | 5.1 gal. (19.3) |
| HYDRAULICS | Auxiliary Hydraulic Flow – Rated Speed (L/min) | 18.5 gpm (70.0) | 21.8 gpm (82.5) | 24.9 gpm (94.3) |
| | High-Flow Hydraulic Flow – Rated Speed (L/min) | 34.0 gpm (128.8) | 35.9 gpm (135.8) | 37.4 gpm (141.6) |
| | Transmission Pump Type | Axial Piston | Axial Piston | Axial Piston |
| | Motor Type | Axial Piston with Planetary Gear Box Reduction | | |
| Battery Volts | 12V | 12V | 12V | |
| Cold Cranking Amps at Temperature | 850 CCA @ 0°F (-18°C) | 850 CCA @ 0°F (-18°C) | 950 CCA @ 0°F (-18°C) | |

ORIGINAL WORKHORSE

Mustang authorized dealers offer a full line of compact equipment, backed up by exceptional sales, service and parts experience.

Mustang reminds users to read and understand the operator's manual before operating any equipment. Also, make sure all safety devices and shields are in place and functioning properly.

Mustang reserves the right to add improvements or make changes in specifications at any time without notice or obligation.

For more information on Mustang equipment, visit mustangmfg.com

REFERENCE DIAGRAMS

