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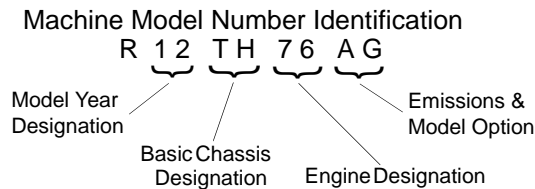
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GENERAL INFORMATION

MODEL INFORMATION

Model Identification

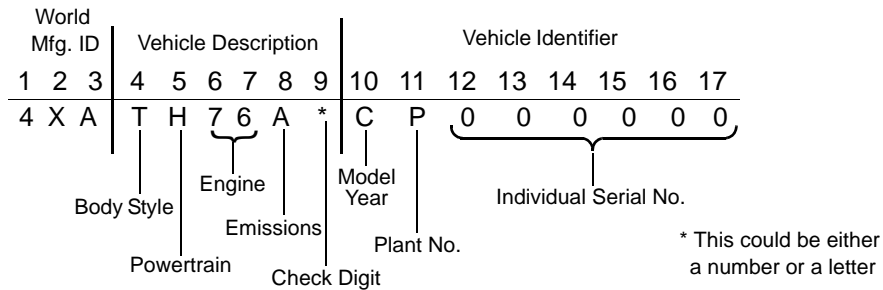
The machine model number must be used with any correspondence regarding warranty or service.



Engine Designation Number

- 1204172 RGR800-11,XP Twin Cylinder, Liquid Cooled, 4-Cycle OHV, Electric Start
- 1204397 RGR800-12 Twin Cylinder, Liquid Cooled, 4-Cycle OHV, Electric Start
- 1204486 RGR800-12LK..... Twin Cylinder, Liquid Cooled, 4-Cycle OHV, Electric Start

VIN Identification

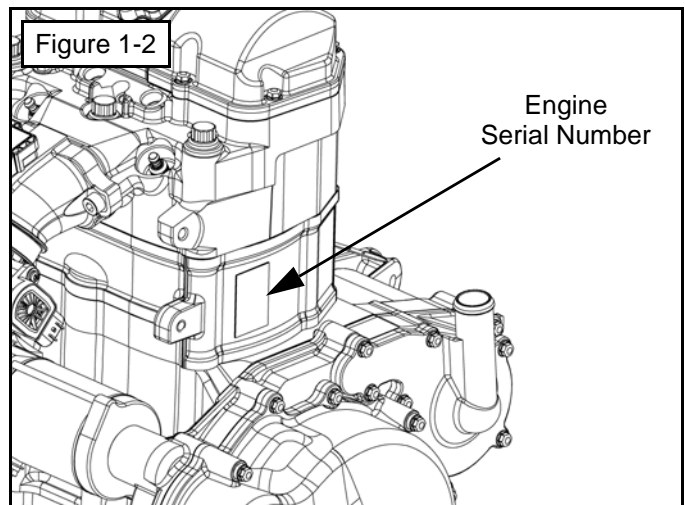
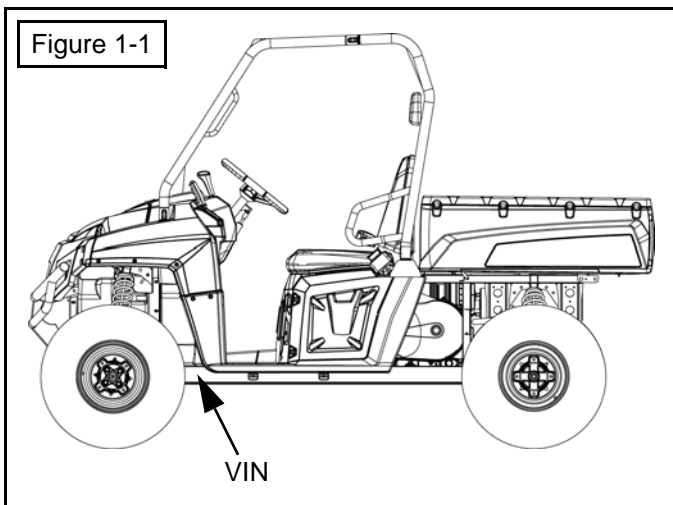


Vehicle and Engine Serial Number Locations

Whenever corresponding about a Polaris *RANGER* utility vehicle, be sure to refer to the vehicle identification number (VIN) and the engine model number and serial number.

The VIN can be found stamped on the lower frame rail on the front LH side of the vehicle (see Figure 1-1).

The engine model and serial number can be found on a decal applied to the side of the engine's cylinder (see Figure 1-2).



VEHICLE INFORMATION

Publication Numbers

| Model | Model No. | Owner's Manual PN | Parts Manual PN |
|-----------------------------|--|-------------------|-----------------|
| 2011 RANGER XP 800 (CA) | R11TH76AA, AB, AC, AF, AG, AH, AK, AO, AR, AZ (AAC, ABC, ACC, AFC, AGC, AHC, AKC, AOC, ARC, AZC) | 9923125 | 9923137 |
| 2011 RANGER XP 800 EPS (CA) | R11TY76AB, AG, AR, AV, AZ (ABC, AGC, ARC, AVC, AZC) | 9923125 | 9923137 |
| 2011 RANGER HD 800 | R11TY76AN | 9923125 | 9923137 |
| 2011 RANGER CREW 800 | R11WH76AG, AR | 9923125 | 9923146 |
| 2011 RANGER CREW 800 EPS | R11WY76AE, AH, AJ | 9923125 | 9923146 |
| 2011 RANGER 6X6 800 | R11HR76AG, AR | 9923125 | 9923126 |
| 2012 RANGER XP 800 (CA) | R12TH76AA, AG, AH, AI, AM, AR, AW (AAC, AGC, AHC, AMC, ARC, AWC) | 9923497 | 9923515 |
| 2012 RANGER XP 800 EPS (CA) | R12TH7EAB, AG, AR, AZ (ABC, AGC, ARC, AZC) | 9923497 | 9923515 |
| 2012 RANGER HD 800 | R12TX7EAN | 9923497 | 9923515 |
| 2012 RANGER CREW 800 | R12WH76AG, AR | 9923497 | 9923527 |
| 2012 RANGER CREW 800 EPS | R12WH7EAH, AV | 9923497 | 9923541 |
| 2012 RANGER 6X6 800 | R12HR76AG, AR | 9923497 | 9923498 |

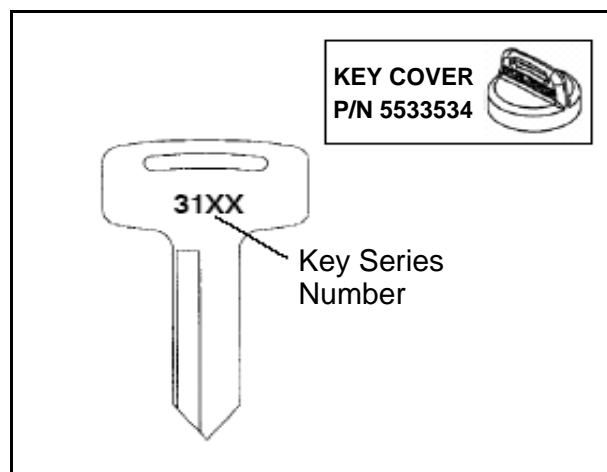
(CA): California 50-State Models

NOTE: When ordering service parts be sure to use the correct parts manual.

NOTE: Polaris factory publications can be found at www.polarisindustries.com or purchased from www.purepolaris.com.

Replacement Keys

Replacement keys can be made from the original key. To identify which series the key is, take the first two digits on the original key and refer to the chart to the right for the proper part number.



| Series# | Part Number |
|---------|-------------|
| 20 | 4010278 |
| 21 | 4010278 |
| 22 | 4010321 |
| 23 | 4010321 |
| 27 | 4010321 |
| 28 | 4010321 |
| 31 | 4110141 |
| 32 | 4110148 |
| 67 | 4010278 |
| 68 | 4010278 |

SPECIAL TOOLS

Special tools may be required while servicing this vehicle. Some of the tools listed or depicted are mandatory, while other tools may be substituted with a similar tool, if available. Polaris recommends the use of Polaris Special Tools when servicing any Polaris product. Dealers may order special tools through Polaris' official tool supplier, SPX Corporation, by phone at 1-800-328-6657 or on-line at <http://polaris.spx.com/>.

GENERAL INFORMATION

2011 GENERAL SPECIFICATIONS

MODEL: 2011 RANGER XP 800 / EPS

MODEL NUMBER: R11TH76AA, AAC, AB, ABC, AC, ACC, AF, AFC, AG, AGC, AH, AHC, AK, AKC, AO, AOC, AR, ARC, AZ, AZC

MODEL NUMBER: R11TY76AB, ABC, AG, AGC, AR, ARC, AV, AVC, AZ, AZC

ENGINE NUMBER: 1204172

| Category | Dimension / Capacity |
|---|--|
| Length | 114 in. / 289.6 cm |
| Width (cargo box) | 60 in. / 152.4 cm |
| Width (tires) | 58 in. / 147.3 cm |
| Height | 76 in. / 193 cm |
| Wheel Base | 76 in. / 193 cm |
| Ground Clearance | 12 in. / 30.5 cm |
| Turning Radius | 158 in. / 401.3 cm |
| Dry Weight | STD: 1237 lbs. / 561 kg |
| | EPS: 1257 lbs. / 570 kg |
| Cargo Box Capacity | 49-State: 1000 lbs. / 454 kg |
| | 50-State: 600 lbs. / 272 kg |
| Cargo Box Dimensions (inside dimensions) | 36.5 x 54 x 11.5 in. (93 x 137 x 29 cm) |
| Vehicle Payload (includes weight of operator, passenger, cargo and accessories) | 49-State: 1500 lbs. / 681 kg |
| | 50-State: 1100 lbs. / 499 kg |
| Hitch Towing Capacity | 2000 lbs. / 907 kg |
| Hitch Tongue Capacity | 150 lbs. / 68 kg |



MODEL: 2011 RANGER XP 800 / EPS

XP 800 MODELS: R11TH76AA,AB,AC,AF,AG,AH,AK,AO,AR,AZ

XP 800 EPS MODELS: R11TY76AB,AG,AR,AV,AZ

ENGINE NUMBER: 1204172

| Engine | |
|----------------------------|--|
| Platform | High Output Domestic Twin Cyl, Liquid Cooled, 4-Stroke |
| Engine Number | 1204172 |
| Engine Displacement | 760 cc H.O. |
| Number of Cylinders | 2 |
| Bore & Stroke (mm) | 80 x 76.5 mm |
| Compression Ratio | 9.78:1 |
| Compression Pressure | 165-185 psi |
| Engine Idle Speed | 1250 ± 100 RPM |
| Lubrication | Pressurized Wet Sump |
| Oil Requirements | PS-4 Plus |
| Oil Capacity | 2 qts. (1.9 L) |
| Coolant Capacity | 3.25 qts. (3.1 L) |
| Overheat Warning | Instrument Cluster Indicator |
| Exhaust System | 2 to 1 Canister Style |
| Fuel System | |
| Fuel System Type | Bosch M17 EFI |
| Fuel Delivery | Electronic Fuel Pump (in tank) |
| Fuel Pressure | 45 +/- 2 psi (310 +/- 14 kPa) |
| Fuel Capacity | 9 gal. (34 L) |
| Fuel Requirement | 87 Octane (minimum) |
| Electrical | |
| Alternator Max Output | 500 Watts @ 3000 RPM |
| Headlights | 2 - Halogen: Low 55 W / High 60 W |
| Tail Lights | 0.3 Watts / L.E.D. x 2 |
| Brake Lights | 3.1 Watts / L.E.D. x 2 |
| Starting System | Electric Start |
| Ignition System | Bosch M17 (ECU Controlled) |
| Ignition Timing (Variable) | 3° - 10° BTDC @ 1200 RPM |
| Spark plug / Gap | RC7YC3 / .035 in. (0.9 mm) |
| Battery / Model / Amp Hr | Yuasa YB30L-B / 30 Amp Hr. / 12 Volt |
| Instrumentation | Multifunction Instrument Cluster |
| DC Outlets | (2) - Standard |
| Relays | Chassis / ECM / Fan / Fuel Pump EPS / Rear Diff |
| Circuit Breaker | Fan Motor: 20 Amp |
| Fuses | Lights: 20 Amp ECM: 20 Amp Drive: 20Amp EPS: 30 Amp Accessory: 20 Amp Fuel Pump: 10 Amp |

| Drivetrain | |
|--|---|
| Transmission Type | Polaris Automatic PVT |
| Shift Type | In Line Shift - H / L / N / R |
| Transmission Gear Ratio: High Low Reverse | Front: 3.60:1 / Rear: 11.18:1 Front: 7.70:1 / Rear: 23.91:1 Front: 7.00:1 / Rear: 21.74:1 |
| Front Gearcase Lubricant Requirements | Demand Drive Plus 9 oz. (265 ml) |
| Transmission Lubricant Requirements | AGL Plus 33.8 oz. (1000 ml) |
| Clutch Type | Standard PVT |
| Drive Belt | 3211133 |
| Clutch Center Distance | 10.05" (255 mm) |
| Steering / Suspension | |
| Toe Out | 1/8 - 1/4 in. (3.2 - 6.35 mm) |
| Front Suspension | Dual A-arm |
| Front Travel | 9.6 in. (24.4 cm) |
| Rear Suspension | Independent (IRS) |
| Rear Travel | 9 in. (22.9 cm) |
| Shock Preload Adjustment | Cam Adjustment |
| Wheels / Brakes | |
| Front Wheel Size / Type | 12 x 6 / Steel 12 x 6 / Cast Aluminum |
| Rear Wheel Size / Type | 12 x 8 / Steel 12 x 8 / Cast Aluminum |
| Front Tire Make / Model / Size | Carlisle / AT489 / 25 x 10 R12 Carlisle / PXT / 26 x 9 R12 |
| Rear Tire Make / Model / Size | Carlisle / AT489 / 25 x 11 R12 Carlisle / PXT / 26 x 11 R12 |
| Tire Air Pressure | 8-12 psi (69 kPa) |
| Brake System | 4 Wheel Hydraulic Disc |
| Brake Fluid | DOT 4 |
| Parking Brake | Hand Actuated (in dash) |

CLUTCH CHART

| Altitude | | Shift Weight | Drive Spring | Driven Spring |
|------------------|-----------------------------|------------------------|--------------------|-------------------------|
| Meters (Feet) | 0-1500 (0-5000) | 23-62 (5632337) | Black (7043594) | Blk / Almd (7043167) |
| | 1500-3700 (5000 - 12000) | 23-58 (B) (1322911) | Black (7043594) | Blk / Almd (7043167) |

(B) = Bushed Shift Weight

GENERAL INFORMATION

MODEL: 2011 RANGER HD 800

MODEL NUMBER: R11TY76AN

ENGINE NUMBER: 1204172

| Category | Dimension / Capacity |
|--|--|
| Length | 114 in. / 289.6 cm |
| Width (cargo box) | 60 in. / 152.4 cm |
| Width (tires) | 58 in. / 147.3 cm |
| Height | 76 in. / 193 cm |
| Wheel Base | 76 in. / 193 cm |
| Ground Clearance | 12 in. / 30.5 cm |
| Turning Radius | 158 in. / 401.3 cm |
| Dry Weight | 1262 lbs. / 572 kg |
| Gross Vehicle Weight | 2912 lbs. / 1321 kg |
| Cargo Box Capacity | 1000 lbs. / 454 kg |
| Cargo Box Dimensions (inside dimensions) | 36.5 x 54 x 11.5 in. (93 x 137 x 29 cm) |
| Vehicle Payload (includes weight of operator, passenger, cargo and accessories) | 1500 lbs. / 681 kg |
| Hitch Towing Capacity | 2000 lbs. / 907 kg |
| Hitch Tongue Capacity | 150 lbs. / 68 kg |



MODEL: 2011 RANGER HD 800

HD 800 MODEL: R11TY76AN

ENGINE NUMBER: 1204172

| Engine | |
|----------------------------|--|
| Platform | Domestic Twin Cylinder, Liquid Cooled, 4-Stroke |
| Engine Number | 1204172 |
| Engine Displacement | 760 cc H.O. |
| Number of Cylinders | 2 |
| Bore & Stroke (mm) | 80 x 76.5 mm |
| Compression Ratio | 9.78:1 |
| Compression Pressure | 165-185 psi |
| Engine Idle Speed | 1250 ± 100 RPM |
| Lubrication | Pressurized Wet Sump |
| Oil Requirements | PS-4 Plus |
| Oil Capacity | 2 qts. (1.9 L) |
| Coolant Capacity | 3.25 qts. (3.08 L) |
| Overheat Warning | Instrument Cluster Indicator |
| Exhaust System | 2 to 1 Canister Style |
| Fuel System | |
| Fuel System Type | Bosch M17 EFI |
| Fuel Delivery | Electronic Fuel Pump (in tank) |
| Fuel Pressure | 45 +/- 2 psi (310 +/- 14 kPa) |
| Fuel Capacity | 9 gal. (34 L) |
| Fuel Requirement | 87 Octane (minimum) |
| Electrical | |
| Alternator Max Output | 500 Watts @ 3000 RPM |
| Headlights | 2 - Halogen: Low 55 W / High 60 W |
| Tail Lights | 0.3 Watts / L.E.D. x 2 |
| Brake Lights | 3.1 Watts / L.E.D. x 2 |
| Starting System | Electric Start |
| Ignition System | Bosch M17 (ECU Controlled) |
| Ignition Timing (Variable) | 3° - 10° BTDC @ 1200 RPM |
| Spark plug / Gap | RC7YC3 / .035 in. (0.9 mm) |
| Battery / Model / Amp Hr | Yuasa YB30L-B / 30 Amp Hr. / 12 Volt |
| Instrumentation | Multifunction Instrument Cluster |
| DC Outlets | (2) - Standard |
| Relays | Chassis / ECM / Fan / Fuel Pump EPS / Rear Diff |
| Circuit Breaker | Fan Motor: 20 Amp |
| Fuses | Lights: 20 Amp ECM: 20 Amp Drive: 20Amp EPS: 30 Amp Accessory: 20 Amp Fuel Pump: 10 Amp |

| Drivetrain | |
|--|---|
| Transmission Type | Polaris Automatic PVT |
| Shift Type | In Line Shift - H / L / N / R |
| Transmission Gear Ratio: High Low Reverse | Front: 3.60:1 / Rear: 11.18:1 Front: 7.70:1 / Rear: 23.91:1 Front: 7.00:1 / Rear: 21.74:1 |
| Front Gearcase Lubricant Requirements | Demand Drive Plus 9 oz. (265 ml) |
| Transmission Lubricant Requirements | AGL Plus 33.8 oz. (1000 ml) |
| Clutch Type | Standard PVT |
| Drive Belt | 3211133 |
| Clutch Center Distance | 10.05" (255 mm) |
| Steering / Suspension | |
| Toe Out | 1/8 - 1/4 in. (3.2 - 6.35 mm) |
| Front Suspension | Dual A-arm |
| Front Travel | 9.6 in. (24.4 cm) |
| Rear Suspension | Self Leveling (IRS) |
| Rear Travel | 7.5 in. (19.1 cm) |
| Shock Preload Adjustment | Cam Adjustment (front only) |
| Wheels / Brakes | |
| Front Wheel Size / Type | 12 x 6 / Cast Aluminum |
| Rear Wheel Size / Type | 12 x 8 / Cast Aluminum |
| Front Tire Make / Model / Size | Carlisle / PXT / 26 x 9 R12 |
| Rear Tire Make / Model / Size | Carlisle / PXT / 26 x 11 R12 |
| Tire Air Pressure | 8-12 psi (69 kPa) |
| Brake System Type | 4 Wheel Hydraulic Disc |
| Brake Fluid | DOT 4 |
| Parking Brake | Hand Actuated (in dash) |

CLUTCH CHART

| | | Altitude | Shift Weight | Drive Spring | Driven Spring |
|--------------------------|-------------------------------------|----------|------------------------|--------------------|-------------------------|
| Meters (Feet) | 0-1500 (0-5000) | | 23-62 (5632337) | Black (7043594) | Blk / Almd (7043167) |
| | 1500-3700 (5000 - 12000) | | 23-58 (B) (1322911) | Black (7043594) | Blk / Almd (7043167) |

(B) = Bushed Shift Weight

GENERAL INFORMATION

MODEL: 2011 RANGER CREW 800 / EPS

MODEL NUMBER: R11WH76AG, AR

MODEL NUMBER: R11WY76AE, AH, AJ

ENGINE NUMBER: 1204172

| Category | Dimension / Capacity |
|---|--|
| Length | 145 in. / 386 cm |
| Width (cargo box) | 60 in. / 152.4 cm |
| Width (tires) | 58 in. / 147.3 cm |
| Height | 76 in. / 193 cm |
| Wheel Base | 108 in. / 274 cm |
| Ground Clearance | 11.5 in. / 29 cm |
| Turning Radius | 255 in. / 648 cm |
| Dry Weight | STD: 1495 lbs. / 678 kg |
| | EPS: 1515 lbs. / 687 kg |
| Cargo Box Capacity | 1000 lbs. / 454 kg |
| Cargo Box Dimensions (inside dimensions) | 36.5 x 54 x 11.5 in. (93 x 137 x 29 cm) |
| Vehicle Payload (includes weight of operator, passengers, cargo and accessories) | 1750 lbs. / 794 kg |
| Hitch Towing Capacity | 2000 lbs. / 907 kg |
| Hitch Tongue Capacity | 150 lbs. / 68 kg |



MODEL: 2011 RANGER CREW 800 / EPS

CREW 800 MODEL: R11WH76AG, AR

CREW 800 EPS MODELS: R11WY76AE, AH, AJ

ENGINE NUMBER: 1204172

| Engine | |
|----------------------------|--|
| Platform | Domestic Twin Cylinder, Liquid Cooled, 4-Stroke |
| Engine Number | 1204172 |
| Engine Displacement | 760 cc |
| Number of Cylinders | 2 |
| Bore & Stroke (mm) | 80 x 76.5 mm |
| Compression Ratio | 9.78:1 |
| Compression Pressure | 165-185 psi |
| Engine Idle Speed | 1250 ± 100 RPM |
| Lubrication | Pressurized Wet Sump |
| Oil Requirements | PS-4 Plus |
| Oil Capacity | 2 qts. (1.9 L) |
| Coolant Capacity | 6.4 qts. (6 L) |
| Overheat Warning | Instrument Cluster Indicator |
| Exhaust System | 2 to 1 Canister Style |
| Fuel System | |
| Fuel System Type | Bosch M17 EFI |
| Fuel Delivery | Electronic Fuel Pump (in tank) |
| Fuel Pressure | 45 +/- 2 psi (310 +/- 14 kPa) |
| Fuel Capacity | 9 gal. (34 L) |
| Fuel Requirement | 87 Octane (minimum) |
| Electrical | |
| Alternator Max Output | 500 Watts @ 3000 RPM |
| Headlights | 2 - Halogen: Low 55 W / High 60 W |
| Tail Lights | 0.3 Watts / L.E.D. x 2 |
| Brake Lights | 3.1 Watts / L.E.D. x 2 |
| Starting System | Electric Start |
| Ignition System | Bosch M17 (ECU Controlled) |
| Ignition Timing (Variable) | 3° - 10° BTDC @ 1200 RPM |
| Spark plug / Gap | RC7YC3 / .035 in. (0.9 mm) |
| Battery / Model / Amp Hr | Yuasa YB30L-B / 30 Amp Hr. / 12 Volt |
| Instrumentation | Multifunction Instrument Cluster |
| DC Outlets | (2) - Front; (1) - Rear |
| Relays | Chassis / ECM / Fan / Fuel Pump EPS / Rear Diff |
| Circuit Breaker | Fan Motor: 20 Amp |
| Fuses | Lights: 20 Amp ECM: 20 Amp Drive: 20Amp EPS: 30 Amp Accessory: 20 Amp Fuel Pump: 10 Amp |

| Drivetrain | |
|--|---|
| Transmission Type | Polaris Automatic PVT |
| Shift Type | In Line Shift - H / L / N / R |
| Transmission Gear Ratio: High Low Reverse | Front: 4.63:1 / Rear: 14.37:1 Front: 7.70:1 / Rear: 23.91:1 Front: 7.00:1 / Rear: 21.74:1 |
| Front Gearcase Lubricant Requirements | Demand Drive Plus 9 oz. (265 ml) |
| Transmission Lubricant Requirements | AGL Plus 33.8 oz. (1000 ml) |
| Clutch Type | Standard PVT |
| Drive Belt | 3211133 |
| Clutch Center Distance | 10.05" (255 mm) |
| Steering / Suspension | |
| Toe Out | 1/8 - 1/4 in. (3.2 - 6.35 mm) |
| Front Suspension | Dual A-arm |
| Front Travel | 9.6 in. (24.4 cm) |
| Rear Suspension | Independent (IRS) |
| Rear Travel | 9 in. (22.9 cm) |
| Shock Preload Adjustment | Cam Adjustment |
| Wheels / Brakes | |
| Front Wheel Size / Type | 12 x 6 / Steel 12 x 6 / Cast Aluminum |
| Rear Wheel Size / Type | 12 x 8 / Steel 12 x 8 / Cast Aluminum |
| Front Tire Make / Model / Size | Carlisle / PXT / 26 x 9 R12 |
| Rear Tire Make / Model / Size | Carlisle / PXT / 26 x 11 R12 |
| Tire Air Pressure | Front: 12 psi (83 kPa) Rear: 16 psi (110 kPa) |
| Brake System Type | 4 Wheel Hydraulic Disc |
| Brake Fluid | DOT 4 |
| Parking Brake | Hand Actuated (in dash) |

CLUTCH CHART

| Altitude | | Shift Weight | Drive Spring | Driven Spring |
|------------------|-------------------------------------|------------------------|--------------------|-------------------------|
| Meters (Feet) | 0-1500 (0-5000) | 23-62 (5632337) | Black (7043594) | Blk / Almd (7043167) |
| | 1500-3700 (5000 - 12000) | 23-58 (B) (1322911) | Black (7043594) | Blk / Almd (7043167) |

(B) = Bushed Shift Weight

GENERAL INFORMATION

MODEL: 2011 RANGER 6X6 800

MODEL NUMBER: R11HR76AG, AR

ENGINE NUMBER: 1204172

| Category | Dimension / Capacity |
|--|---|
| Length | 137 in. / 348 cm |
| Width (cargo box) | 60 in. / 152.4 cm |
| Width (tires) | 58 in. / 147.3 cm |
| Height | 76 in. / 193 cm |
| Wheel Base | 105 in. / 267 cm |
| Ground Clearance | 12 in. / 30.5 cm |
| Turning Radius | 243 in. / 617 cm |
| Dry Weight | 1551 lbs. / 703.5 kg |
| Gross Vehicle Weight | 3701 lbs. / 1679 kg |
| Storage Box Capacity | 250 lbs. / 113 kg |
| Cargo Box Capacity | 1250 lbs. / 567 kg |
| Cargo Box Dimensions (inside dimensions) | 42.5 x 54 x 11.5 in. (108 x 137 x 29 cm) |
| Vehicle Payload (includes weight of operator, passenger, cargo and accessories) | 2000 lbs. / 907 kg |
| Hitch Towing Capacity | 2000 lbs. / 907 kg |
| Hitch Tongue Capacity | 150 lbs. / 68 kg |



MODEL: 2011 RANGER 6X6 800

MODEL NUMBER: R11HR76AG, AR

ENGINE NUMBER: 1204172

| Engine | |
|----------------------------|--|
| Platform | Domestic Twin Cylinder, Liquid Cooled, 4-Stroke |
| Engine Number | 1204172 |
| Engine Displacement | 760 cc |
| Number of Cylinders | 2 |
| Bore & Stroke (mm) | 80 x 76.5 mm |
| Compression Ratio | 9.78:1 |
| Compression Pressure | 165-185 psi |
| Engine Idle Speed | 1250 ± 100 RPM |
| Lubrication | Pressurized Wet Sump |
| Oil Requirements | PS-4 Plus |
| Oil Capacity | 2 qts. (1.9 L) |
| Coolant Capacity | 3.25 qts. (3.08 L) |
| Overheat Warning | Instrument Cluster Indicator |
| Exhaust System | 2 to 1 Canister Style |
| Fuel System | |
| Fuel System Type | Bosch M17 EFI |
| Fuel Delivery | Electronic Fuel Pump (in tank) |
| Fuel Pressure | 45 +/- 2 psi (310 +/- 14 kPa) |
| Fuel Capacity | 9 gal. (34 L) |
| Fuel Requirement | 87 Octane (minimum) |
| Electrical | |
| Alternator Max Output | 500 Watts @ 3000 RPM |
| Headlights | 2 - Halogen: Low 55 W / High 60 W |
| Tail Lights | 0.3 Watts / L.E.D. x 2 |
| Brake Lights | 3.1 Watts / L.E.D. x 2 |
| Starting System | Electric Start |
| Ignition System | Bosch M17 (ECU Controlled) |
| Ignition Timing (Variable) | 3° - 10° BTDC @ 1200 RPM |
| Spark plug / Gap | RC7YC3 / .035 in. (0.9 mm) |
| Battery / Model / Amp Hr | Yuasa YB30L-B / 30 Amp Hr. / 12 Volt |
| Instrumentation | Multifunction Instrument Cluster |
| DC Outlets | (2) - Standard |
| Relays | Chassis / ECM / Fan / Fuel Pump / Rear Diff |
| Circuit Breaker | Fan Motor: 20 Amp |
| Fuses | Lights: 20 Amp ECM: 20 Amp Drive: 20 Amp Accessory: 20 Amp Fuel Pump: 10 Amp |

| Drivetrain | |
|---------------------------------------|--|
| Transmission Type | Polaris Automatic PVT |
| Shift Type | In Line Shift - H / L / N / R |
| Transmission Gear Reduction: | |
| High | 3.85:1 |
| Low | 8.71:1 |
| Reverse | 7.91:1 |
| Drive Ratio - Front | 3.818:1 |
| Drive Ratio - Rear | 3.70:1 |
| Front Gearcase Lubricant Requirements | Demand Drive Plus 9 oz. (265 ml) |
| Transmission Lubricant Requirements | AGL Plus 43.6 oz. (1290 ml) |
| Mid Gearcase Lubricant Requirements | ATV Angle Drive Fluid 6.75 oz. (200 ml) |
| Rear Gearcase Lubricant Requirements | ATV Angle Drive Fluid 18 oz. (532 ml) |
| Clutch Type | Standard PVT |
| Drive Belt | 3211133 |
| Clutch Center Distance | 10.05" (255 mm) |
| Steering / Suspension | |
| Toe Out | 1/8 - 1/4 in. (3.2 - 6.35 mm) |
| Front Suspension | Dual A-arm |
| Front Travel | 9.6 in. (24.4 cm) |
| Mid Suspension | Independent (IRS) |
| Mid Travel | 9 in. (22.9 cm) |
| Rear Suspension | Independent (IRS) |
| Rear Travel | 9 in. (22.9 cm) |
| Shock Preload Adjustment | Cam Adjustment |
| Wheels / Brakes | |
| Front Wheel Size / Type | 12 x 6 / Steel |
| Rear Wheel Size / Type | 12 x 8 / Steel |
| Front Tire Make / Model / Size | Carlisle / AT489 / 25 x 10 R12 |
| Rear Tire Make / Model / Size | Carlisle / AT489 / 25 x 11 R12 |
| Tire Air Pressure | 8-12 psi (69 kPa) |
| Brake System Type | 4 Wheel Hydraulic Disc |
| Brake Fluid | DOT 4 |
| Parking Brake | Hand Actuated (in dash) |

CLUTCH CHART

| | Altitude | Shift Weight | Drive Spring | Driven Spring |
|------------------|-----------------------------|------------------------|--------------------|-------------------------|
| Meters (Feet) | 0-1500 (0-5000) | 23-62 (5632337) | Black (7043594) | Blk / Almd (7043167) |
| | 1500-3700 (5000 - 12000) | 23-58 (B) (1322911) | Black (7043594) | Blk / Almd (7043167) |

GENERAL INFORMATION

2012 GENERAL SPECIFICATIONS

MODEL: 2012 RANGER XP 800 / EPS

MODEL NUMBER: R12TH76AA, AAC, AG, AGC, AH, AHC, AI, AM, AMC, AR, ARC, AW, AWC

MODEL NUMBER: R12TH7EAB, ABC, AG, AGC, AR, ARC, AZ, AZC

ENGINE NUMBER: 1204397

| Category | Dimension / Capacity |
|---|--|
| Length | 114 in. / 289.6 cm |
| Width (cargo box) | 60 in. / 152.4 cm |
| Width (tires) | 58 in. / 147.3 cm |
| Height | 76 in. / 193 cm |
| Wheel Base | 76 in. / 193 cm |
| Ground Clearance | 12 in. / 30.5 cm |
| Turning Radius | 158 in. / 401.3 cm |
| Dry Weight | STD: 1237 lbs. / 561 kg |
| | EPS: 1257 lbs. / 570 kg |
| Cargo Box Capacity | 49-State: 1000 lbs. / 454 kg |
| | 50-State: 600 lbs. / 272 kg |
| Cargo Box Dimensions (inside dimensions) | 36.5 x 54 x 11.5 in. (93 x 137 x 29 cm) |
| Vehicle Payload (includes weight of operator, passenger, cargo and accessories) | 49-State: 1500 lbs. / 681 kg |
| | 50-State: 1100 lbs. / 499 kg |
| Hitch Towing Capacity | 2000 lbs. / 907 kg |
| Hitch Tongue Capacity | 150 lbs. / 68 kg |



MODEL: 2012 RANGER XP 800 / EPS

XP 800 MODELS: R12TH76AA,AG,AH,AI,AM,AR,AW

XP 800 EPS MODELS: R12TH7EAB,AG,AR,AZ

ENGINE NUMBER: 1204397

| Engine | |
|----------------------------|--|
| Platform | High Output Domestic Twin Cyl, Liquid Cooled, 4-Stroke |
| Engine Number | 1204397 |
| Engine Displacement | 760 cc H.O. |
| Number of Cylinders | 2 |
| Bore & Stroke (mm) | 80 x 76.5 mm |
| Compression Ratio | 9.78:1 |
| Compression Pressure | 165-185 psi |
| Engine Idle Speed | 1250 ± 100 RPM |
| Lubrication | Pressurized Wet Sump |
| Oil Requirements | PS-4 Plus |
| Oil Capacity | 2 qts. (1.9 L) |
| Coolant Capacity | 3.25 qts. (3.1 L) |
| Overheat Warning | Instrument Cluster Indicator |
| Exhaust System | 2 to 1 Canister Style |
| Fuel System | |
| Fuel System Type | Bosch M17 EFI |
| Fuel Delivery | Electronic Fuel Pump (in tank) |
| Fuel Pressure | 45 +/- 2 psi (310 +/- 14 kPa) |
| Fuel Capacity | 9 gal. (34 L) |
| Fuel Requirement | 87 Octane (minimum) |
| Electrical | |
| Alternator Max Output | 500 Watts @ 3000 RPM |
| Headlights | 2 - Halogen: Low 55 W / High 60 W |
| Tail Lights | 0.3 Watts / L.E.D. x 2 |
| Brake Lights | 3.1 Watts / L.E.D. x 2 |
| Starting System | Electric Start |
| Ignition System | Bosch M17 (ECU Controlled) |
| Ignition Timing (Variable) | 3° - 10° BTDC @ 1200 RPM |
| Spark plug / Gap | RC7YC3 / .035 in. (0.9 mm) |
| Battery / Model / Amp Hr | Yuasa YB30L-B / 30 Amp Hr. / 12 Volt |
| Instrumentation | Multifunction Instrument Cluster |
| DC Outlets | (2) - Standard |
| Relays | Chassis / ECM / Fan / Fuel Pump EPS / Rear Diff |
| Circuit Breaker | Fan Motor: 20 Amp |
| Fuses | Lights: 20 Amp ECM: 20 Amp Drive: 20Amp EPS: 30 Amp Accessory: 20 Amp Fuel Pump: 10 Amp |

| Drivetrain | |
|--|---|
| Transmission Type | Polaris Automatic PVT |
| Shift Type | In Line Shift - H / L / N / R |
| Transmission Gear Ratio: High Low Reverse | Front: 3.60:1 / Rear: 11.18:1 Front: 7.70:1 / Rear: 23.91:1 Front: 7.00:1 / Rear: 21.74:1 |
| Front Gearcase Lubricant Requirements | Demand Drive Plus 9 oz. (265 ml) |
| Transmission Lubricant Requirements | AGL Plus 33.8 oz. (1000 ml) |
| Clutch Type | Standard PVT |
| Drive Belt | 3211133 |
| Clutch Center Distance | 10.05" (255 mm) |
| Steering / Suspension | |
| Toe Out | 1/8 - 1/4 in. (3.2 - 6.35 mm) |
| Front Suspension | Dual A-arm |
| Front Travel | 9.6 in. (24.4 cm) |
| Rear Suspension | Independent (IRS) |
| Rear Travel | 9 in. (22.9 cm) |
| Shock Preload Adjustment | Standard: Cam Adjustment |
| | Walker Evans: Threaded Spanner Wrench Adjustment |
| Wheels / Brakes | |
| Front Wheel Size / Type | 12 x 6 / Steel 12 x 6 / Cast Aluminum |
| Rear Wheel Size / Type | 12 x 8 / Steel 12 x 8 / Cast Aluminum |
| Front Tire Make / Model / Size | Carlisle / AT489 / 25 x 10 R12 Carlisle / PXT / 26 x 9 R12 |
| Rear Tire Make / Model / Size | Carlisle / AT489 / 25 x 11 R12 Carlisle / PXT / 26 x 11 R12 |
| Tire Air Pressure | 8-12 psi (69 kPa) |
| Brake System | 4 Wheel Hydraulic Disc |
| Brake Fluid | DOT 4 |
| Parking Brake | Hand Actuated (in dash) |

CLUTCH CHART

| | | Altitude | Shift Weight | Drive Spring | Driven Spring |
|--------------------------|-------------------------------------|----------|------------------------|--------------------|-------------------------|
| Meters (Feet) | 0-1500 (0-5000) | | 23-62 (5632337) | Black (7043594) | Blk / Almd (7043167) |
| | 1500-3700 (5000 - 12000) | | 23-58 (B) (1322911) | Black (7043594) | Blk / Almd (7043167) |

(B) = Bushed Shift Weight

GENERAL INFORMATION

MODEL: 2012 RANGER HD 800

MODEL NUMBER: R12TX7EAN

ENGINE NUMBER: 1204486

| Category | Dimension / Capacity |
|--|--|
| Length | 114 in. / 289.6 cm |
| Width (cargo box) | 60 in. / 152.4 cm |
| Width (tires) | 58 in. / 147.3 cm |
| Height | 76 in. / 193 cm |
| Wheel Base | 76 in. / 193 cm |
| Ground Clearance | 12 in. / 30.5 cm |
| Turning Radius | 158 in. / 401.3 cm |
| Dry Weight | 1262 lbs. / 572 kg |
| Gross Vehicle Weight | 2912 lbs. / 1321 kg |
| Cargo Box Capacity | 1000 lbs. / 454 kg |
| Cargo Box Dimensions (inside dimensions) | 36.5 x 54 x 11.5 in. (93 x 137 x 29 cm) |
| Vehicle Payload (includes weight of operator, passenger, cargo and accessories) | 1500 lbs. / 681 kg |
| Hitch Towing Capacity | 2000 lbs. / 907 kg |
| Hitch Tongue Capacity | 150 lbs. / 68 kg |



MODEL: 2012 RANGER HD 800

HD 800 MODEL: R12TX7EAN

ENGINE NUMBER: 1204486

| Engine | |
|----------------------------|--|
| Platform | Domestic Twin Cylinder, Liquid Cooled, 4-Stroke |
| Engine Number | 1204486 |
| Engine Displacement | 760 cc H.O. |
| Number of Cylinders | 2 |
| Bore & Stroke (mm) | 80 x 76.5 mm |
| Compression Ratio | 9.78:1 |
| Compression Pressure | 165-185 psi |
| Engine Idle Speed | 1250 ± 100 RPM |
| Lubrication | Pressurized Wet Sump |
| Oil Requirements | PS-4 Plus |
| Oil Capacity | 2 qts. (1.9 L) |
| Coolant Capacity | 3.25 qts. (3.08 L) |
| Overheat Warning | Instrument Cluster Indicator |
| Exhaust System | 2 to 1 Canister Style |
| Fuel System | |
| Fuel System Type | Bosch M17 EFI |
| Fuel Delivery | Electronic Fuel Pump (in tank) |
| Fuel Pressure | 45 +/- 2 psi (310 +/- 14 kPa) |
| Fuel Capacity | 9 gal. (34 L) |
| Fuel Requirement | 87 Octane (minimum) |
| Electrical | |
| Alternator Max Output | 500 Watts @ 3000 RPM |
| Headlights | 2 - Halogen: Low 55 W / High 60 W |
| Tail Lights | 0.3 Watts / L.E.D. x 2 |
| Brake Lights | 3.1 Watts / L.E.D. x 2 |
| Starting System | Electric Start |
| Ignition System | Bosch M17 (ECU Controlled) |
| Ignition Timing (Variable) | 3° - 10° BTDC @ 1200 RPM |
| Spark plug / Gap | RC7YC3 / .035 in. (0.9 mm) |
| Battery / Model / Amp Hr | Yuasa YB30L-B / 30 Amp Hr. / 12 Volt |
| Instrumentation | Multifunction Instrument Cluster |
| DC Outlets | (2) - Standard |
| Relays | Chassis / ECM / Fan / Fuel Pump EPS / Rear Diff |
| Circuit Breaker | Fan Motor: 20 Amp |
| Fuses | Lights: 20 Amp ECM: 20 Amp Drive: 20Amp EPS: 30 Amp Accessory: 20 Amp Fuel Pump: 10 Amp |

| Drivetrain | |
|--|---|
| Transmission Type | Polaris Automatic PVT |
| Shift Type | In Line Shift - H / L / N / R |
| Transmission Gear Ratio: High Low Reverse | Front: 3.60:1 / Rear: 11.18:1 Front: 7.70:1 / Rear: 23.91:1 Front: 7.00:1 / Rear: 21.74:1 |
| Front Gearcase Lubricant Requirements | Demand Drive Plus 9 oz. (265 ml) |
| Transmission Lubricant Requirements | AGL Plus 33.8 oz. (1000 ml) |
| Clutch Type | PVT with EBS |
| Drive Belt | 3211136 |
| Clutch Center Distance | 10.05" (255 mm) |
| Steering / Suspension | |
| Toe Out | 1/8 - 1/4 in. (3.2 - 6.35 mm) |
| Front Suspension | Dual A-arm |
| Front Travel | 9.6 in. (24.4 cm) |
| Rear Suspension | Self Leveling (IRS) |
| Rear Travel | 7.5 in. (19.1 cm) |
| Shock Preload Adjustment | Cam Adjustment (front only) |
| Wheels / Brakes | |
| Front Wheel Size / Type | 12 x 6 / Cast Aluminum |
| Rear Wheel Size / Type | 12 x 8 / Cast Aluminum |
| Front Tire Make / Model / Size | Carlisle / PXT / 26 x 9 R12 |
| Rear Tire Make / Model / Size | Carlisle / PXT / 26 x 11 R12 |
| Tire Air Pressure | 8-12 psi (69 kPa) |
| Brake System Type | 4 Wheel Hydraulic Disc |
| Brake Fluid | DOT 4 |
| Parking Brake | Hand Actuated (in dash) |

CLUTCH CHART

| | | Altitude | Shift Weight | Drive Spring | Driven Spring |
|--------------------------|-------------------------------------|----------|------------------------|--------------------|------------------|
| Meters (Feet) | 0-1500 (0-5000) | | 23-62 (5632337) | Black (7043594) | Red (3234452) |
| | 1500-3700 (5000 - 12000) | | 23-58 (B) (1322911) | Black (7043594) | Red (3234452) |

(B) = Bushed Shift Weight

GENERAL INFORMATION

MODEL: 2012 RANGER CREW 800 / EPS

MODEL NUMBER: R12WH76AG, AR

MODEL NUMBER: R12WH7EAH, AV (EPS MODELS)

ENGINE NUMBER: 1204397

| Category | Dimension / Capacity |
|--|--|
| Length | 145 in. / 386 cm |
| Width (cargo box) | 60 in. / 152.4 cm |
| Width (tires) | 58 in. / 147.3 cm |
| Height | 76 in. / 193 cm |
| Wheel Base | 108 in. / 274 cm |
| Ground Clearance | 11.5 in. / 29 cm |
| Turning Radius | 255 in. / 648 cm |
| Dry Weight | STD: 1495 lbs. / 678 kg |
| | EPS: 1515 lbs. / 687 kg |
| Cargo Box Capacity | 1000 lbs. / 454 kg |
| Cargo Box Dimensions (inside dimensions) | 36.5 x 54 x 11.5 in. (93 x 137 x 29 cm) |
| Vehicle Payload (includes weight of operator, passengers, cargo and accessories) | 1750 lbs. / 794 kg |
| Hitch Towing Capacity | 2000 lbs. / 907 kg |
| Hitch Tongue Capacity | 150 lbs. / 68 kg |



MODEL: 2012 RANGER CREW 800 / EPS

CREW 800 MODEL: R12WH76AG, AR

CREW 800 EPS MODELS: R12WH7EAH, AV

ENGINE NUMBER: 1204397

| Engine | |
|----------------------------|--|
| Platform | Domestic Twin Cylinder, Liquid Cooled, 4-Stroke |
| Engine Number | 1204397 |
| Engine Displacement | 760 cc |
| Number of Cylinders | 2 |
| Bore & Stroke (mm) | 80 x 76.5 mm |
| Compression Ratio | 9.78:1 |
| Compression Pressure | 165-185 psi |
| Engine Idle Speed | 1250 ± 100 RPM |
| Lubrication | Pressurized Wet Sump |
| Oil Requirements | PS-4 Plus |
| Oil Capacity | 2 qts. (1.9 L) |
| Coolant Capacity | 6.4 qts. (6 L) |
| Overheat Warning | Instrument Cluster Indicator |
| Exhaust System | 2 to 1 Canister Style |
| Fuel System | |
| Fuel System Type | Bosch M17 EFI |
| Fuel Delivery | Electronic Fuel Pump (in tank) |
| Fuel Pressure | 45 +/- 2 psi (310 +/- 14 kPa) |
| Fuel Capacity | 9 gal. (34 L) |
| Fuel Requirement | 87 Octane (minimum) |
| Electrical | |
| Alternator Max Output | 500 Watts @ 3000 RPM |
| Headlights | 2 - Halogen: Low 55 W / High 60 W |
| Tail Lights | 0.3 Watts / L.E.D. x 2 |
| Brake Lights | 3.1 Watts / L.E.D. x 2 |
| Starting System | Electric Start |
| Ignition System | Bosch M17 (ECU Controlled) |
| Ignition Timing (Variable) | 3° - 10° BTDC @ 1200 RPM |
| Spark plug / Gap | RC7YC3 / .035 in. (0.9 mm) |
| Battery / Model / Amp Hr | Yuasa YB30L-B / 30 Amp Hr. / 12 Volt |
| Instrumentation | Multifunction Instrument Cluster |
| DC Outlets | (2) - Front; (1) - Rear |
| Relays | Chassis / ECM / Fan / Fuel Pump EPS / Rear Diff |
| Circuit Breaker | Fan Motor: 20 Amp |
| Fuses | Lights: 20 Amp ECM: 20 Amp Drive: 20Amp EPS: 30 Amp Accessory: 20 Amp Fuel Pump: 10 Amp |

| Drivetrain | |
|--|---|
| Transmission Type | Polaris Automatic PVT |
| Shift Type | In Line Shift - H / L / N / R |
| Transmission Gear Ratio: High Low Reverse | Front: 4.63:1 / Rear: 14.37:1 Front: 7.70:1 / Rear: 23.91:1 Front: 7.00:1 / Rear: 21.74:1 |
| Front Gearcase Lubricant Requirements | Demand Drive Plus 9 oz. (265 ml) |
| Transmission Lubricant Requirements | AGL Plus 33.8 oz. (1000 ml) |
| Clutch Type | Standard PVT |
| Drive Belt | 3211133 |
| Clutch Center Distance | 10.05" (255 mm) |
| Steering / Suspension | |
| Toe Out | 1/8 - 1/4 in. (3.2 - 6.35 mm) |
| Front Suspension | Dual A-arm |
| Front Travel | 9.6 in. (24.4 cm) |
| Rear Suspension | Independent (IRS) |
| Rear Travel | 9 in. (22.9 cm) |
| Shock Preload Adjustment | Cam Adjustment |
| Wheels / Brakes | |
| Front Wheel Size / Type | 12 x 6 / Steel 12 x 6 / Cast Aluminum |
| Rear Wheel Size / Type | 12 x 8 / Steel 12 x 8 / Cast Aluminum |
| Front Tire Make / Model / Size | Carlisle / PXT / 26 x 9 R12 |
| Rear Tire Make / Model / Size | Carlisle / PXT / 26 x 11 R12 |
| Tire Air Pressure | Front: 12 psi (83 kPa) Rear: 16 psi (110 kPa) |
| Brake System Type | 4 Wheel Hydraulic Disc |
| Brake Fluid | DOT 4 |
| Parking Brake | Hand Actuated (in dash) |

CLUTCH CHART

| Altitude | | Shift Weight | Drive Spring | Driven Spring |
|------------------|-----------------------------|------------------------|--------------------|-------------------------|
| Meters (Feet) | 0-1500 (0-5000) | 23-62 (5632337) | Black (7043594) | Blk / Almd (7043167) |
| | 1500-3700 (5000 - 12000) | 23-58 (B) (1322911) | Black (7043594) | Blk / Almd (7043167) |

(B) = Bushed Shift Weight

GENERAL INFORMATION

MODEL: 2012 RANGER 6X6 800

MODEL NUMBER: R12HR76AG, AR

ENGINE NUMBER: 1204486

| Category | Dimension / Capacity |
|--|---|
| Length | 137 in. / 348 cm |
| Width (cargo box) | 60 in. / 152.4 cm |
| Width (tires) | 58 in. / 147.3 cm |
| Height | 76 in. / 193 cm |
| Wheel Base | 105 in. / 267 cm |
| Ground Clearance | 12 in. / 30.5 cm |
| Turning Radius | 243 in. / 617 cm |
| Dry Weight | 1551 lbs. / 703.5 kg |
| Gross Vehicle Weight | 3701 lbs. / 1679 kg |
| Storage Box Capacity | 250 lbs. / 113 kg |
| Cargo Box Capacity | 1250 lbs. / 567 kg |
| Cargo Box Dimensions (inside dimensions) | 42.5 x 54 x 11.5 in. (108 x 137 x 29 cm) |
| Vehicle Payload (includes weight of operator, passenger, cargo and accessories) | 2000 lbs. / 907 kg |
| Hitch Towing Capacity | 2000 lbs. / 907 kg |
| Hitch Tongue Capacity | 150 lbs. / 68 kg |



MODEL: 2012 RANGER 6X6 800

MODEL NUMBER: R12HR76AG, AR
ENGINE NUMBER: 1204486

| Engine | |
|----------------------------|--|
| Platform | Domestic Twin Cylinder, Liquid Cooled, 4-Stroke |
| Engine Number | 1204486 |
| Engine Displacement | 760 cc |
| Number of Cylinders | 2 |
| Bore & Stroke (mm) | 80 x 76.5 mm |
| Compression Ratio | 9.78:1 |
| Compression Pressure | 165-185 psi |
| Engine Idle Speed | 1250 ± 100 RPM |
| Lubrication | Pressurized Wet Sump |
| Oil Requirements | PS-4 Plus |
| Oil Capacity | 2 qts. (1.9 L) |
| Coolant Capacity | 3.25 qts. (3.08 L) |
| Overheat Warning | Instrument Cluster Indicator |
| Exhaust System | 2 to 1 Canister Style |
| Fuel System | |
| Fuel System Type | Bosch M17 EFI |
| Fuel Delivery | Electronic Fuel Pump (in tank) |
| Fuel Pressure | 45 +/- 2 psi (310 +/- 14 kPa) |
| Fuel Capacity | 9 gal. (34 L) |
| Fuel Requirement | 87 Octane (minimum) |
| Electrical | |
| Alternator Max Output | 500 Watts @ 3000 RPM |
| Headlights | 2 - Halogen: Low 55 W / High 60 W |
| Tail Lights | 0.3 Watts / L.E.D. x 2 |
| Brake Lights | 3.1 Watts / L.E.D. x 2 |
| Starting System | Electric Start |
| Ignition System | Bosch M17 (ECU Controlled) |
| Ignition Timing (Variable) | 3° - 10° BTDC @ 1200 RPM |
| Spark plug / Gap | RC7YC3 / .035 in. (0.9 mm) |
| Battery / Model / Amp Hr | Yuasa YB30L-B / 30 Amp Hr. / 12 Volt |
| Instrumentation | Multifunction Instrument Cluster |
| DC Outlets | (2) - Standard |
| Relays | Chassis / ECM / Fan / Fuel Pump / Rear Diff |
| Circuit Breaker | Fan Motor: 20 Amp |
| Fuses | Lights: 20 Amp ECM: 20 Amp Drive: 20 Amp Accessory: 20 Amp Fuel Pump: 10 Amp |

| Drivetrain | |
|---------------------------------------|--|
| Transmission Type | Polaris Automatic PVT |
| Shift Type | In Line Shift - H / L / N / R |
| Transmission Gear Reduction: | |
| High | 3.85:1 |
| Low | 8.71:1 |
| Reverse | 7.91:1 |
| Drive Ratio - Front | 3.818:1 |
| Drive Ratio - Rear | 3.70:1 |
| Front Gearcase Lubricant Requirements | Demand Drive Plus 9 oz. (265 ml) |
| Transmission Lubricant Requirements | AGL Plus 43.6 oz. (1290 ml) |
| Mid Gearcase Lubricant Requirements | ATV Angle Drive Fluid 6.75 oz. (200 ml) |
| Rear Gearcase Lubricant Requirements | ATV Angle Drive Fluid 18 oz. (532 ml) |
| Clutch Type | Standard PVT |
| Drive Belt | 3211133 |
| Clutch Center Distance | 10.05" (255 mm) |
| Steering / Suspension | |
| Toe Out | 1/8 - 1/4 in. (3.2 - 6.35 mm) |
| Front Suspension | Dual A-arm |
| Front Travel | 9.6 in. (24.4 cm) |
| Mid Suspension | Independent (IRS) |
| Mid Travel | 9 in. (22.9 cm) |
| Rear Suspension | Independent (IRS) |
| Rear Travel | 9 in. (22.9 cm) |
| Shock Preload Adjustment | Cam Adjustment |
| Wheels / Brakes | |
| Front Wheel Size / Type | 12 x 6 / Steel |
| Rear Wheel Size / Type | 12 x 8 / Steel |
| Front Tire Make / Model / Size | Carlisle / AT489 / 25 x 10 R12 |
| Rear Tire Make / Model / Size | Carlisle / AT489 / 25 x 11 R12 |
| Tire Air Pressure | 8-12 psi (69 kPa) |
| Brake System Type | 4 Wheel Hydraulic Disc |
| Brake Fluid | DOT 4 |
| Parking Brake | Hand Actuated (in dash) |

CLUTCH CHART

| | | Altitude | Shift Weight | Drive Spring | Driven Spring |
|------------------|-----------------------------|------------------------|--------------------|-------------------------|---------------|
| Meters (Feet) | 0-1500 (0-5000) | 23-62 (5632337) | Black (7043594) | Blk / Almd (7043167) | |
| | 1500-3700 (5000 - 12000) | 23-58 (B) (1322911) | Black (7043594) | Blk / Almd (7043167) | |

GENERAL INFORMATION

MISC. SPECIFICATIONS AND CHARTS

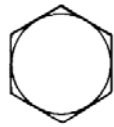
Conversion Table

| Unit of Measure | Multiplied by | Converts to |
|---|---------------|--|
| ft. lbs. | x 12 | = in. lbs. |
| in. lbs. | x .0833 | = ft. lbs. |
| ft. lbs. | x 1.356 | = Nm |
| in. lbs. | x .0115 | = kg-m |
| Nm | x .7376 | = ft.lbs. |
| kg-m | x 7.233 | = ft. lbs. |
| kg-m | x 86.796 | = in. lbs. |
| kg-m | x 10 | = Nm |
| in. | x 25.4 | =mm |
| mm | x .03937 | = in. |
| in. | x 2.54 | = cm |
| mile (mi.) | x 1.6 | = km |
| km | x .6214 | = mile (mi.) |
| Ounces (oz) | x 28.35 | = Grams (g) |
| Fluid Ounces (fl. oz.) | x 29.57 | = Cubic Centimeters (cc) |
| Cubic Centimeters (cc) | x .03381 | = Fluid Ounces (fl. oz.) |
| Grams (g) | x 0.035 | = Ounces (oz) |
| lb. | x .454 | = kg |
| kg | x 2.2046 | = lb. |
| Cubic inches (cu in) | x 16.387 | = Cubic centimeters (cc) |
| Cubic centimeters (cc) | x 0.061 | = Cubic inches (cu in) |
| Imperial pints (Imp pt) | x 0.568 | = Liters (l) |
| Liters (l) | x 1.76 | = Imperial pints (Imp pt) |
| Imperial quarts (Imp qt) | x 1.137 | = Liters (l) |
| Liters (l) | x 0.88 | = Imperial quarts (Imp qt) |
| Imperial quarts (Imp qt) | x 1.201 | = US quarts (US qt) |
| US quarts (US qt) | x 0.833 | = Imperial quarts (Imp qt) |
| US quarts (US qt) | x 0.946 | = Liters (l) |
| Liters (l) | x 1.057 | = US quarts (US qt) |
| US gallons (US gal) | x 3.785 | =Liters (l) |
| Liters (l) | x 0.264 | = US gallons (US gal) |
| Pounds - force per square inch (psi) | x 6.895 | = Kilopascals (kPa) |
| Kilopascals (kPa) | x 0.145 | = Pounds - force per square inch (psi) |
| Kilopascals (kPa) | x 0.01 | = Kilograms - force per square cm |
| Kilograms - force per square cm | x 98.1 | = Kilopascals (kPa) |
| $\pi (3.14) \times R^2 \times H$ (height) | | = Cylinder Volume |

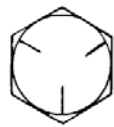
$$^{\circ}\text{C to }^{\circ}\text{F: }^{\circ}\text{C} \times 9/5 + 32 = ^{\circ}\text{F}$$

$$^{\circ}\text{F to }^{\circ}\text{C: }^{\circ}\text{F} - 32 \times 5/9 = ^{\circ}\text{C}$$

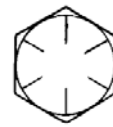
Standard Bolt Torque Specification



Grade 2



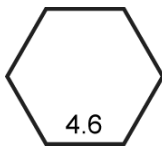
Grade 5



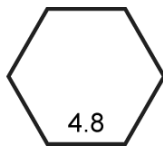
Grade 8

| Bolt Size | Grade 2 Ft. Lbs. (Nm) | Grade 5 Ft. Lbs. (Nm) | Grade 8 Ft. Lbs. (Nm) |
|-----------|--------------------------|--------------------------|--------------------------|
| 1/4-20 | 5 (7) | 8 (11) | 12 (16) |
| 1/4-28 | 6 (8) | 10 (14) | 14 (19) |
| 5/16-18 | 11 (15) | 17 (23) | 25 (35) |
| 5/16-24 | 12 (16) | 19 (26) | 29 (40) |
| 3/8-16 | 20 (27) | 30 (40) | 45 (62) |
| 3/8-24 | 23 (32) | 35 (48) | 50 (69) |
| 7/16-14 | 30 (40) | 50 (69) | 70 (97) |
| 7/16-20 | 35 (48) | 55 (76) | 80 (110) |
| 1/2-13 | 50 (69) | 75 (104) | 110 (152) |
| 1/2-20 | 55 (76) | 90 (124) | 120 (166) |

Metric Bolt Torque Specification



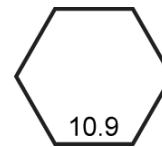
4.6



4.8



8.8



10.9



12.9

| Bolt Size | Grade | | | | |
|-----------|---------------------------|-----------|-----------|-----------|-----------|
| | 4.6 | 4.8 | 8.8 / 8.9 | 10.9 | 12.9 |
| | Ft. Lbs. (Nm) Dry Threads | | | | |
| M3 | .3 (.5) | .5 (.7) | 1 (1.3) | 1.5 (2) | 1.5 (2) |
| M4 | .8 (1.1) | 1 (1.5) | 2 (3) | 3 (4.5) | 4 (5) |
| M5 | 1.5 (2.5) | 2 (3) | 4.5 (6) | 6.5 (9) | 7.5 (10) |
| M6 | 3 (4) | 4 (5.5) | 7.5 (10) | 11 (15) | 13 (18) |
| M8 | 7 (9.5) | 10 (13) | 18 (25) | 26 (35) | 33 (45) |
| M10 | 14 (19) | 18 (25) | 37 (50) | 55 (75) | 63 (85) |
| M12 | 26 (35) | 33 (45) | 63 (85) | 97 (130) | 11 (150) |
| M14 | 37 (50) | 55 (75) | 103 (140) | 151 (205) | 177 (240) |
| M16 | 59 (80) | 85 (115) | 159 (215) | 232 (315) | 273 (370) |
| M18 | 81 (110) | 118 (160) | 225 (305) | 321 (435) | 376 (510) |

GENERAL INFORMATION

SAE Tap / Drill Sizes

| Thread Size/Drill Size | | Thread Size/Drill Size | |
|------------------------|-------|------------------------|---------|
| #0-80 | 3/64 | 1/2-13 | 27/64 |
| #1-64 | 53 | 1/2-20 | 29/64 |
| #1-72 | 53 | 9/16-12 | 31/64 |
| #2-56 | 51 | 9/16-18 | 33/64 |
| #2-64 | 50 | 5/8-11 | 17/32 |
| #3-48 | 5/64 | 5/8-18 | 37/64 |
| #3-56 | 45 | 3/4-10 | 21/32 |
| #4-40 | 43 | 3/4-16 | 11/16 |
| #4-48 | 42 | 7/8-9 | 49/64 |
| #5-40 | 38 | 7/8-14 | 13/16 |
| #5-44 | 37 | 1-8 | 7/8 |
| #6-32 | 36 | 1-12 | 59/64 |
| #6-40 | 33 | 1 1/8-7 | 63/64 |
| #8-32 | 29 | 1 1/8-12 | 1 3/64 |
| #8-36 | 29 | 1 1/4-7 | 1 7/64 |
| #10-24 | 24 | 1 1/4-12 | 1 11/64 |
| #10-32 | 21 | 1 1/2-6 | 1 11/32 |
| #12-24 | 17 | 1 1/2-12 | 1 27/64 |
| #12-28 | 4.6mm | 1 3/4-5 | 1 9/16 |
| 1/4-20 | 7 | 1 3/4-12 | 1 43/64 |
| 1/4-28 | 3 | 2-4 1/2 | 1 25/32 |
| 5/16-18 | F | 2-12 | 1 59/64 |
| 5/16-24 | I | 2 1/4-4 1/2 | 2 1/32 |
| 3/8-16 | O | 2 1/2-4 | 2 1/4 |
| 3/8-24 | Q | 2 3/4-4 | 2 1/2 |
| 7/16-14 | U | 3-4 | 2 3/4 |
| 7/16-20 | 25/64 | | |

Metric Tap / Drill Sizes

| Tap Size | Drill Size | Decimal Equivalent | Nearest Fraction |
|-----------|------------|--------------------|------------------|
| 3 x .50 | #39 | 0.0995 | 3/32 |
| 3 x .60 | 3/32 | 0.0937 | 3/32 |
| 4 x .70 | #30 | 0.1285 | 1/8 |
| 4 x .75 | 1/8 | 0.125 | 1/8 |
| 5 x .80 | #19 | 0.166 | 11/64 |
| 5 x .90 | #20 | 0.161 | 5/32 |
| 6 x 1.00 | #9 | 0.196 | 13/64 |
| 7 x 1.00 | 16/64 | 0.234 | 15/64 |
| 8 x 1.00 | J | 0.277 | 9/32 |
| 8 x 1.25 | 17/64 | 0.265 | 17/64 |
| 9 x 1.00 | 5/16 | 0.3125 | 5/16 |
| 9 x 1.25 | 5/16 | 0.3125 | 5/16 |
| 10 x 1.25 | 11/32 | 0.3437 | 11/32 |
| 10 x 1.50 | R | 0.339 | 11/32 |
| 11 x 1.50 | 3/8 | 0.375 | 3/8 |
| 12 x 1.50 | 13/32 | 0.406 | 13/32 |
| 12 x 1.75 | 13/32 | 0.406 | 13/32 |

Decimal Equivalents

| | | | |
|-------|-------|-------|--------------------|
| 1/64 | ..... | .0156 | |
| 1/32 | ..... | .0312 | ... 1 mm = .0394" |
| 3/64 | ..... | .0469 | |
| 1/16 | ..... | .0625 | |
| 5/64 | ..... | .0781 | ... 2 mm = .0787" |
| 3/32 | ..... | .0938 | |
| 7/64 | ..... | .1094 | ... 3 mm = .1181" |
| 1/8 | ..... | .1250 | |
| 9/64 | ..... | .1406 | |
| 5/32 | ..... | .1563 | ... 4 mm = .1575" |
| 11/64 | ..... | .1719 | |
| 3/16 | ..... | .1875 | ... 5 mm = .1969" |
| 13/64 | ..... | .2031 | |
| 7/32 | ..... | .2188 | |
| 15/64 | ..... | .2344 | ... 6 mm = .2362" |
| 1/4 | ..... | .25 | |
| 17/64 | ..... | .2656 | ... 7 mm = .2756" |
| 9/32 | ..... | .2813 | |
| 19/64 | ..... | .2969 | |
| 5/16 | ..... | .3125 | ... 8 mm = .3150" |
| 21/64 | ..... | .3281 | |
| 11/32 | ..... | .3438 | ... 9 mm = .3543" |
| 23/64 | ..... | .3594 | |
| 3/8 | ..... | .375 | |
| 25/64 | ..... | .3906 | ... 10 mm = .3937" |
| 13/32 | ..... | .4063 | |
| 27/64 | ..... | .4219 | ... 11 mm = .4331" |
| 7/16 | ..... | .4375 | |
| 29/64 | ..... | .4531 | |
| 15/32 | ..... | .4688 | ... 12 mm = .4724" |
| 31/64 | ..... | .4844 | |
| 1/2 | ..... | .5 | ... 13 mm = .5118 |
| 33/64 | ..... | .5156 | |
| 17/32 | ..... | .5313 | |
| 35/64 | ..... | .5469 | ... 14 mm = .5512" |
| 9/16 | ..... | .5625 | |
| 37/64 | ..... | .5781 | ... 15 mm = .5906" |
| 19/32 | ..... | .5938 | |
| 39/64 | ..... | .6094 | |
| 5/8 | ..... | .625 | ... 16 mm = .6299" |
| 41/64 | ..... | .6406 | |
| 21/32 | ..... | .6563 | ... 17 mm = .6693" |
| 43/64 | ..... | .6719 | |
| 11/16 | ..... | .6875 | |
| 45/64 | ..... | .7031 | ... 18 mm = .7087" |
| 23/32 | ..... | .7188 | |
| 47/64 | ..... | .7344 | ... 19 mm = .7480" |
| 3/4 | ..... | .75 | |
| 49/64 | ..... | .7656 | |
| 25/32 | ..... | .7813 | ... 20 mm = .7874" |
| 51/64 | ..... | .7969 | |
| 13/16 | ..... | .8125 | ... 21 mm = .8268" |
| 53/64 | ..... | .8281 | |
| 27/32 | ..... | .8438 | |
| 55/64 | ..... | .8594 | ... 22 mm = .8661" |
| 7/8 | ..... | .875 | |
| 57/64 | ..... | .8906 | ... 23 mm = .9055" |
| 29/32 | ..... | .9063 | |
| 59/64 | ..... | .9219 | |
| 15/16 | ..... | .9375 | ... 24 mm = .9449" |
| 61/64 | ..... | .9531 | |
| 31/32 | ..... | .9688 | ... 25 mm = .9843 |
| 63/64 | ..... | .9844 | |
| 1 | ..... | 1.0 | |

Glossary of Terms

ABDC: After bottom dead center.

ACV: Alternating current voltage.

Alternator: Electrical generator producing voltage alternating current.

ATDC: After top dead center.

BBDC: Before bottom dead center.

BDC: Bottom dead center.

BTDC: Before top dead center.

CC: Cubic centimeters.

Center Distance: Distance between center of crankshaft and center of driven clutch shaft.

Chain Pitch: Distance between chain link pins (No. 35 = 3/8" or 1 cm). Polaris measures chain length in number of pitches.

CI: Cubic inches.

Clutch Buttons: Plastic bushings which aid rotation of the movable sheave in the drive and driven clutch.

Clutch Offset: Drive and driven clutches are offset so that drive belt will stay nearly straight as it moves along the clutch face.

Clutch Weights: Three levers in the drive clutch which relative to their weight, profile and engine RPM cause the drive clutch to close and grip the drive belt.

Crankshaft Run-Out: Run-out or "bend" of crankshaft measured with a dial indicator while crankshaft is supported between centers on V blocks or resting in crankcase. Measure at various points especially at PTO.

DCV: Direct current voltage

CVT: Centrifugal Variable Transmission (Drive Clutch System)

DCV: Direct current voltage.

Dial Bore Gauge: A cylinder measuring instrument which uses a dial indicator. Good for showing taper and out-of-round in the cylinder bore.

Electrical Open: Open circuit. An electrical circuit which isn't complete.

Electrical Short: Short circuit. An electrical circuit which is completed before the current reaches the intended load. (i.e. a bare wire touching the chassis).

End Seals: Rubber seals at each end of the crankshaft.

Engagement RPM: Engine RPM at which the drive clutch engages to make contact with the drive belt.

ft.: Foot/feet.

Foot Pound: Ft. lb. A force of one pound at the end of a lever one foot in length, applied in a rotational direction.

g: Gram. Unit of weight in the metric system.

gal.: Gallon.

ID: Inside diameter.

in.: Inch/inches.

Inch Pound: In. lb. 12 in. lbs. = 1 ft. lb.

kg/cm²: Kilograms per square centimeter.

kg-m: Kilogram meters.

Kilogram/meter: A force of one kilogram at the end of a lever one meter in length, applied in a rotational direction.

l or ltr: Liter.

lbs/in²: Pounds per square inch.

Left or Right Side: Always referred to based on normal operating position of the driver.

m: Meter/meters.

Mag: Magneto.

Magnetic Induction: As a conductor (coil) is moved through a magnetic field, a voltage will be generated in the windings. Mechanical energy is converted to electrical energy in the stator.

mi.: Mile/miles.

mm: Millimeter. Unit of length in the metric system. 1 mm = approximately .040".

Nm: Newton meters.

OD: Outside diameter.

Ohm: The unit of electrical resistance opposing current flow.

oz.: Ounce/ounces.

Piston Clearance: Total distance between piston and cylinder wall.

psi.: Pounds per square inch.

PTO: Power take off.

PVT: Polaris Variable Transmission (Drive Clutch system)

qt.: Quart/quarts.

Regulator: Voltage regulator. Regulates battery charging system output at approx. 14.5 DCV as engine RPM increases.

Reservoir Tank: The fill tank in the liquid cooling system.

Resistance: In the mechanical sense, friction or load. In the electrical sense, ohms, resulting in energy conversion to heat.

RPM: Revolutions per minute.

Seized Piston: Galling of the sides of a piston. Usually there is a transfer of aluminum from the piston onto the cylinder wall.

Stator Plate: The plate mounted under the flywheel supporting the battery charging coils.

TDC: Top dead center. Piston's most outward travel from crankshaft.

Volt: The unit of measure for electrical pressure of electromotive force. Measured by a voltmeter in parallel with the circuit.

Watt: Unit of electrical power. Watts = amperes x volts.

WOT: Wide open throttle.

