

DEVELOPED TO WITHSTAND THE DEMANDS OF RAMP OPERATIONS

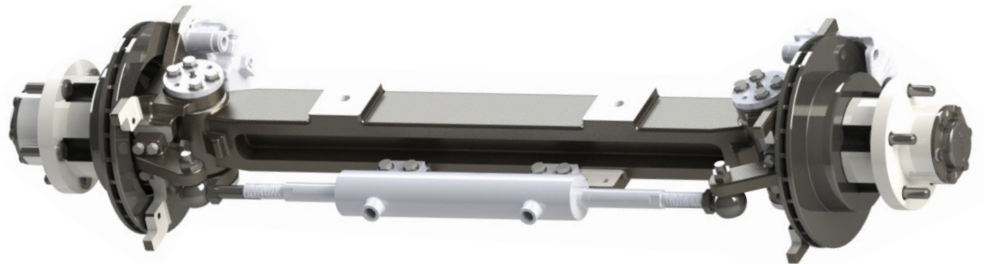
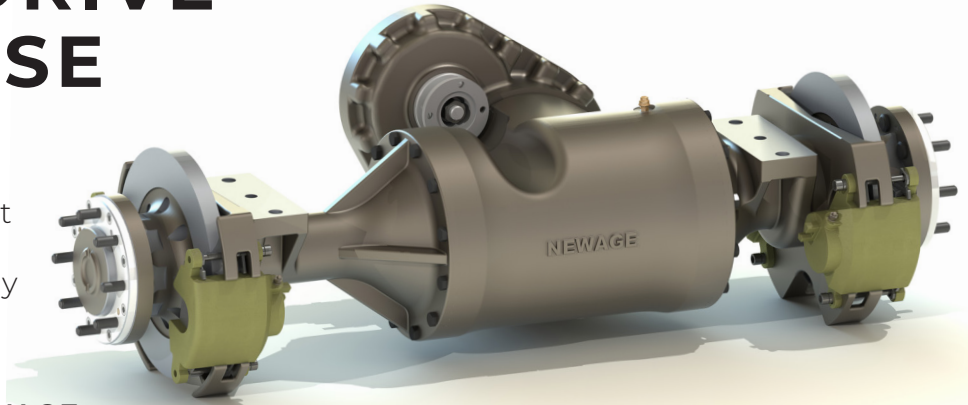
## HIGH PERFORMANCE STEER AND DRIVE AXLES FOR GSE

NEWAGE



**RAMPTECH® NEWAGE Axles** are engineered as a direct replacement to provide a seamless conversion. They also offer greater compatibility with a variety of track widths and mounting widths.

The design of the **RAMPTECH® NEWAGE Axles** makes them the optimal extended life replacement for older axles or for new GSE applications.



### KEY FEATURES AND BENEFITS

#### STEER AXLES

- **NO MORE KING PINS** – THIS AXLE USES A TRUNNION DESIGN WITH TAPERED ROLLER BEARINGS TO PROVIDE BETTER LOAD DISTRIBUTION FOR LONGER LIFE
- **SOLID CAST IRON CONSTRUCTION** – MUCH STRONGER THAN WELDED TUBULAR CONSTRUCTION

#### DRIVE AXLES

- GREATER LOAD AND TOWING CAPACITY THAN GSE AXLES USED TODAY
- **TRIPLE REDUCTION GEAR SETS WITH AN INBOARD PLANETARY DESIGN** – PROVIDES BETTER LOAD AND TORQUE DISTRIBUTION OVER A SINGLE RING AND PINION GEAR SET
- **MULTIPLE GEAR RATIOS ARE AVAILABLE** – EASILY MATCHED TO LOAD AND TORQUE RATINGS
- PARK BRAKE OPTIONS ARE AVAILABLE

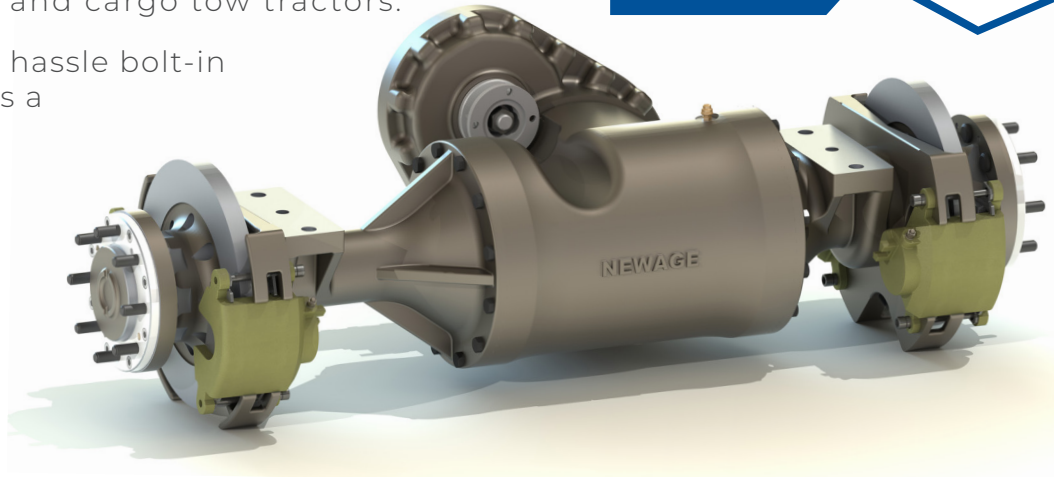
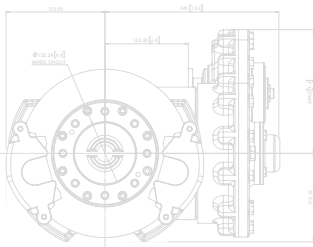
## RAMPTECH® NEWAGE 512 SERIES DRIVE AXLE

The RAMPTECH® NEWAGE 512 Series Drive Axle is the ideal replacement axle for GSE. It will fit most standard baggage and cargo tow tractors.

The 512 axle is a direct no hassle bolt-in replacement and provides a seamless conversion.

# 512

## NEWAGE



## FEATURES AND BENEFITS

- AXLE LOAD CAPACITY UP TO 14,300 LBS. (1,950 KG)
- TOW CAPACITY UP TO 60 TONS (54 TONNES)
- **TRIPLE REDUCATION GEAR SETS WITH INBOARD PLANETARY DESIGN** – PROVIDES BETTER LOAD AND TORQUE DISTRIBUTION OVER SINGLE RING AND PINION GEAR SETS
- **MULTIPLE GEAR RATIOS AVAILABLE** – EASILY MATCHED TO LOAD AND TORQUE REQUIREMENTS
- USES SAME DUAL FLOATING CALIPERS, BOLT-ON ROTORS, AND BRAKE PADS COMMONLY USED IN GSE
- PARK BRAKE OPTIONS ARE AVAILABLE

## 512 SPECIFICATIONS

STANDARD RATIOS	9.9 / 12.3 / 14.4 / 15.8 / 19.9
NOMINAL AXLE LOAD RATING	6,600 lbs. (3,000 kg) based on 48 in. (1,219 mm) wheel track maximum towed load - 30 Tons (27 Tonnes)
TYPICAL VEHICLE DRAWBAR PULL	6,000 lbs (26,700N)
BRAKES	Dual floating calipers, bolt-on rotors, and brake pads commonly used in GSE
DRY WEIGHT	Approximately 660 lbs. (300 Kg)
PARK BRAKE	Optional (disc mounted)
WHEEL FIXINGS	8 studs: 9/16 x 18 UNF – 3A on 6.5 in. PCD (165 mm)
STANDARD MOUNTING CENTERS	30.11 in. (765 mm) mounting centers, across 6.25 in. (159 mm) with 4 x 0.811 in. (21 mm) diameter holes (Optional mountings and track widths are available upon request)
INPUT FLANGE TYPE	HS1310

## APPLICATIONS

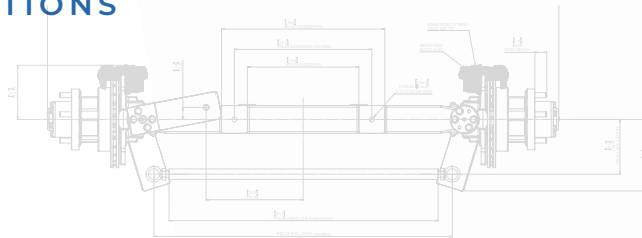
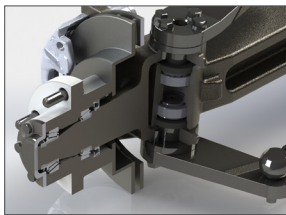
- CHARLATTE CT5C
- NMC WOLLARD 60
- TAYLOR DUNN/TIGER TC 30/60
- TUG M1A
- TUG MA30/MA50
- TUG MR/MT
- TROWIN MK3
- *INQUIRE FOR OTHER APPLICATIONS*

## RAMPTECH® NEWAGE 512S DEAD STEER AXLE

RAMPTECH® NEWAGE Dead Steer Axles are the ideal replacement axles specifically designed for TUG MA tractors. This design can be adapted to other tractors. Please let us know your requirements.

RAMPTECH® NEWAGE Dead Steer Axles use trunnion knuckles similar to those used large aircraft tow tractors.

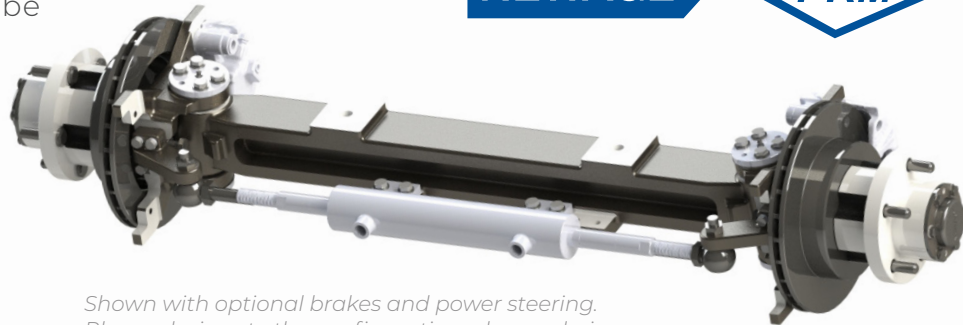
**THE 512S AXLE IS THE ONLY  
CAST IRON I-BEAM DESIGN  
FOR GSE APPLICATIONS**



*Shown with optional brakes and power steering.  
Please designate the configuration when ordering.*

# 512S

## NEWAGE



## FEATURES AND BENEFITS

- **SOLID CAST IRON “I” BEAM** – MORE DURABLE THAN WELDED TUBULAR CONSTRUCTION
- **SOLID CAST IRON KNUCKLES** – STRONGER THAN WELDED ASSEMBLIES
- **NO MORE KING PINS** – THIS AXLE USES A TRUNNION DESIGN WITH TAPERED ROLLER BEARINGS TO PROVIDE BETTER LOAD DISTRIBUTION FOR LONGER LIFE
- SELF-LUBRICATING JOINTS AND DRAGLINK

## 512S SPECIFICATIONS

MAX STEER ANGLE	55°
NOMINAL AXLE LOAD RATING	5,000 lbs. (2,268 Kg) based on 48 in. (1,219 mm) track
BRAKES	Single floating calipers with bolt-on rotors (NOTE: Track increases to 52" (1320 mm) with brake option)
DRY WEIGHT	209 lbs. (95 Kg)
WHEEL FIXINGS	1/2 x 20 UNF on 5.5 PCD (140 mm)
STANDARD MOUNTING CENTERS	15.48 in. (393 mm) across 3.14 in. (80 mm) x 3.14 in. (80 mm) diameter section

## APPLICATIONS

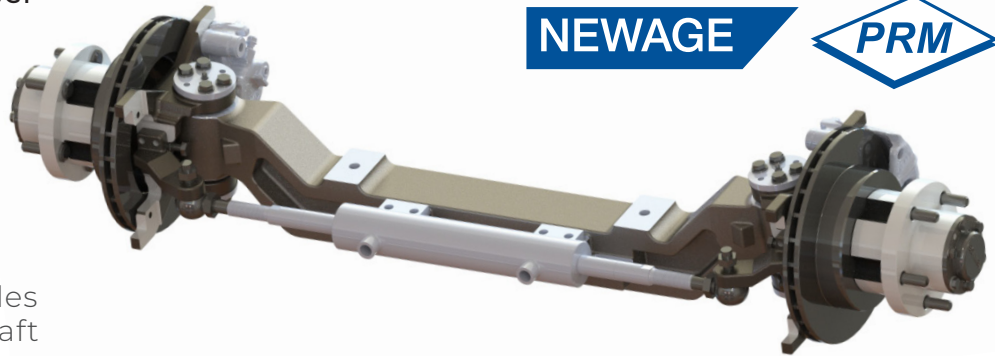
- TUG MA30/MA50
- *INQUIRE FOR OTHER APPLICATIONS*

## RAMPTECH® NEWAGE 512DS DEAD STEER AXLE

RAMPTECH® NEWAGE Dead Steer Axles are the ideal replacement axle specifically designed for TUG M1A tractors. This design can be adapted to other tractors. Please let us know your requirements.

RAMPTECH® NEWAGE Dead Steer Axles use trunnion knuckles similar to those used large aircraft tow tractors.

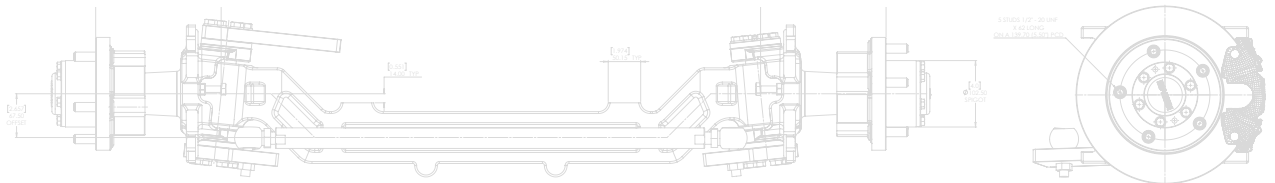
**THE 512DS AXLE IS THE ONLY  
CAST IRON I-BEAM DESIGN  
FOR GSE APPLICATIONS**



**NEWAGE**



*Shown with optional brakes and power steering.  
Please designate the configuration when ordering.*



## FEATURES AND BENEFITS

- **SOLID CAST IRON "I" BEAM** – MORE DURABLE THAN WELDED TUBULAR CONSTRUCTION
- **SOLID CAST IRON KNUCKLES** – STRONGER THAN WELDED ASSEMBLIES
- **NO MORE KING PINS** – THIS AXLE USES A TRUNNION DESIGN WITH TAPERED ROLLER BEARINGS TO PROVIDE BETTER LOAD DISTRIBUTION FOR LONGER LIFE
- SELF-LUBRICATING JOINTS AND DRAGLINK

## 512DS SPECIFICATIONS

MAX STEER ANGLE	40°
NOMINAL AXLE LOAD RATING	5,000 lbs. (2,268 Kg) based on 48 in. (1,219 mm) track
BRAKES	Single floating calipers with bolt on rotors
DRY WEIGHT	205 lbs. (93 Kg)
WHEEL FIXINGS	1/2 x 20 UNF on 5.5 PCD (140 mm)
STANDARD MOUNTING CENTERS	16.22 in. (412 mm) across 3/14 in. (80 mm) x 3.14 in. (80 mm) diameter section

## APPLICATIONS

- TUG M1A
- *INQUIRE FOR OTHER APPLICATIONS*

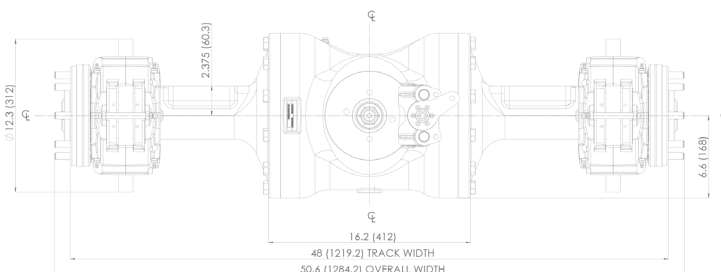
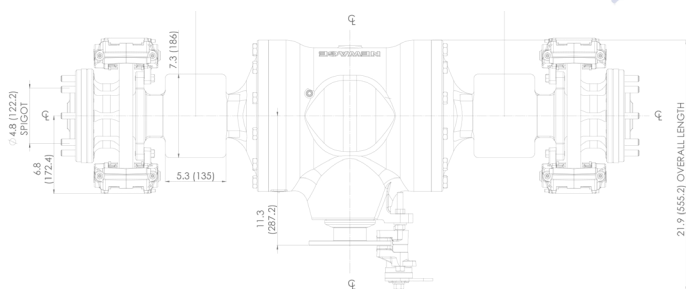
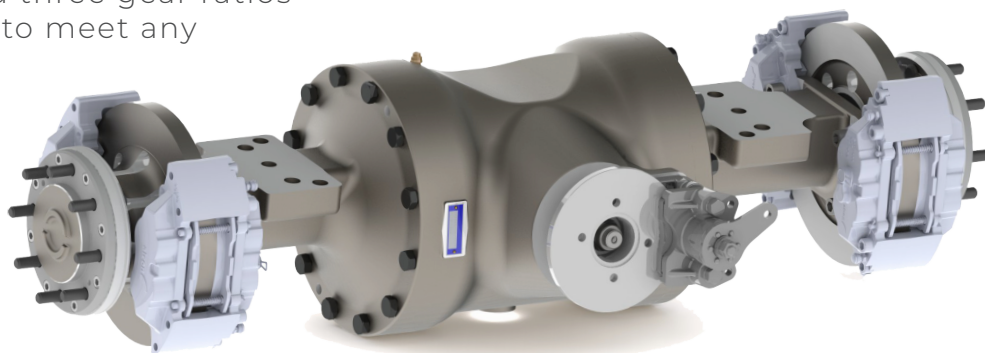
## RAMPTECH® NEWAGE 612 SERIES DRIVE AXLE

# 612

**NEWAGE**


RAMPTECH® 612 series GSE tractor axles are designed as a direct replacement for the Meritor (Axletech) TA268 axle. With two types of wheel configurations and three gear ratios there is an option available to meet any operational requirements.

The 612 series axle features robust, heavy duty military grade calipers to ensure optimal performance under the toughest demands.



### FEATURES AND BENEFITS

- MILITARY GRADE BRAKE SYSTEM
- IN-BOARD PLANETARY DESIGN
- OPTIONAL PINION-MOUNTED DISK PARKING BRAKE
- USES ORIGINAL WHEELS

### 612 SPECIFICATIONS

STANDARD RATIO	13.2 / 15.8 / 19.7
NOMINAL AXLE LOAD RATING	14,300 lbs. (6,486 Kg) based on 48 in. (1,219 mm) wheel track Maximum Towed Load - 60 Tons (54 Tonnes)
TYPICAL VEHICLE DRAWBAR PULL	14,000 lbs. (62,275 N)
BRAKES	Dual caliper 4 piston hydraulic disc brakes
DRY WEIGHT	Approximately 730 lbs. (330 Kg)
PARK BRAKE	Optional (disc mounted)
WHEEL FIXINGS	F8 studs: M 20 x 1.5 on 10.83 in. (275 mm) PCD or 8 studs: 9/16 x 18 UNF - 3A on 6.5 in. PCD (165 mm)
STANDARD MOUNTING CENTERS	Between 23.5 in. (597 mm) and 30.3 in. (770 mm)
INPUT FLANGE TYPE	HS1410

### APPLICATIONS

- CHARLATTE CT5G
- NMC WOLLARD M100
- TAYLOR DUNN TC100/120
- TUG MR/MT
- *INQUIRE FOR OTHER APPLICATIONS*



## RAMPTECH® NEWAGE 613 SERIES DRIVE AXLE

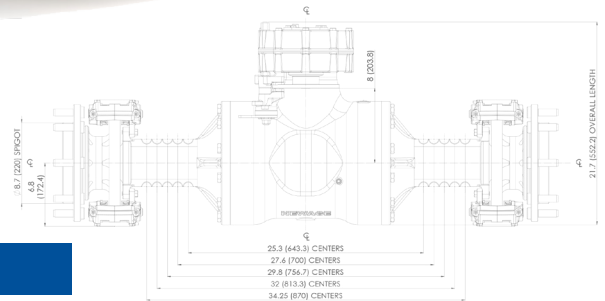
The 613 series GSE tractor axle is designed as a direct replacement for the Omsi axles. The 613 axles are available in four gear ratios to suite your specific operational needs.

This axle features external heavy duty military grade calipers replacing the inboard wet brakes used on the Omsi axle. This makes servicing the brakes significantly quicker.

The 613 axle can be used as a direct drop-in replacement for the TUG MR/MT tractor or inquire for other applications.



**NEWAGE**



### FEATURES AND BENEFITS

- MILITARY SPECIFICATION BRAKE SYSTEM
- IN-BOARD PLANETARY DESIGN
- OPTIONAL PINION-MOUNTED DISK PARKING BRAKE

### 613 SPECIFICATIONS

STANDARD RATIOS	10.1 / 13.2 / 15.8 / 19.7
NOMINAL AXLE LOAD RATING	12,100 lbs. (5,500 Kg) based on 50 in. (1,270 mm) wheel track Maximum Towed Load - 60 Tons (54 Tonnes)
TYPICAL VEHICLE DRAWBAR PULL	12,000 lbs. (53,400 N)
BRAKES	Dual caliper 4 piston hydraulic disc brakes
DRY WEIGHT	Approximately 880 lbs. (400 Kg)
PARK BRAKE	Optional (disc mounted)
WHEEL FIXINGS	8 studs: M 20 x 1.5 on 10.83 in. (275 mm) PCD or 8 studs: 9/16 x 18 UNF - 3A on 6.5 in. PCD (165 mm)
STANDARD MOUNTING CENTERS	Between 25.3 in. (643 mm) and 34.25 in. (870 mm)
INPUT FLANGE TYPE	HS1410

### APPLICATIONS

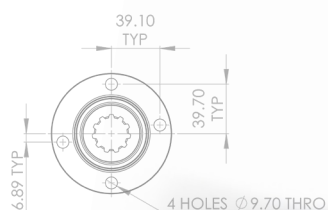
- TUG MR/MT
- *INQUIRE FOR OTHER APPLICATIONS*

## RAMPTECH® NEWAGE 216B BELT LOADER DRIVE AXLE

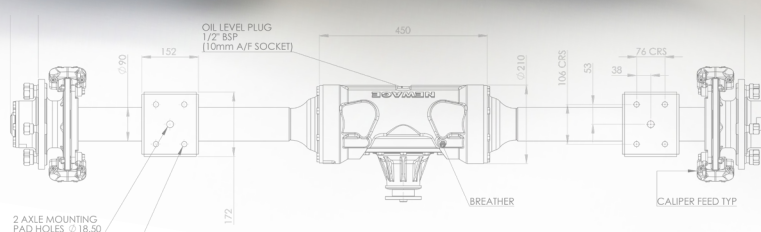
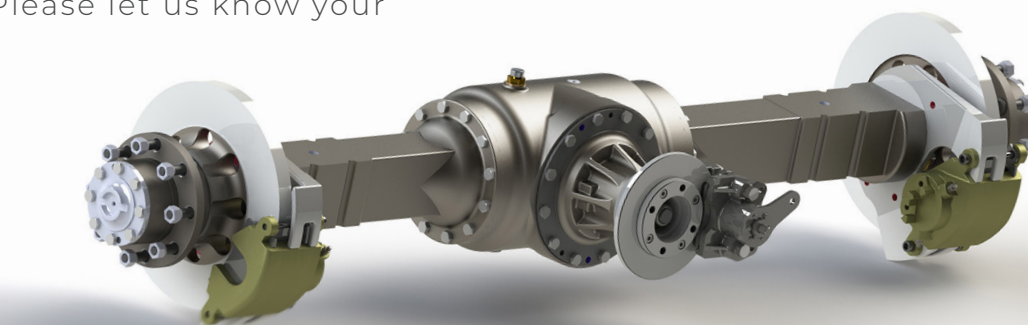
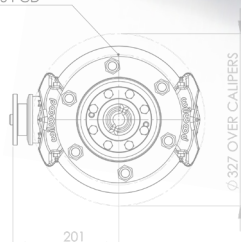
RAMPTECH® NEWAGE Belt Loader Drive Axle is a bolt-on replacement for the TUG 660 belt loader. This axle can be adapted to other applications. Please let us know your requirements.

# 216B

## NEWAGE



6 STUDS M18 x 2.0  
ON 205 PCD



## FEATURES AND BENEFITS

- FLOATING CALIPERS, BOLT-ON ROTORS, AND BRAKE PADS COMMON TO THE GSE INDUSTRY
- OPTIONAL DISK-MOUNTED PARKING BRAKE
- DIRECT REPLACEMENT FOR THE ORIGINAL 660 AXLE

## 216B SPECIFICATIONS

### STANDARD RATIOS

14.7

### NOMINAL AXLE LOAD RATING

7,000 lbs. (3,200 Kg) based on 64 in. (1,626 mm) wheel track

### BRAKES

Single floating calipers with bolt on rotors

### DRY WEIGHT

397 lbs. (180 Kg)

### PARK BRAKE

Optional (disc mounted)

### WHEEL FIXINGS

8 studs: 9/16 x 18 UNF- 3A on 6.5 in. PCD (165 mm)

### STANDARD MOUNTING CENTERS

39.75 in. (1010 mm) mounting centers and across 3.625 in. (92 mm) x 3 in. (76 mm) axial recess centers with diameter of 0.590 in. (15 mm) for 'U' bolt mountings

### INPUT FLANGE TYPE

HS1410

### DIFFERENTIAL

Limited Slip Differential (optional open differential)

## APPLICATIONS

- TUG 660 BELT LOADER
- *INQUIRE FOR OTHER APPLICATIONS*

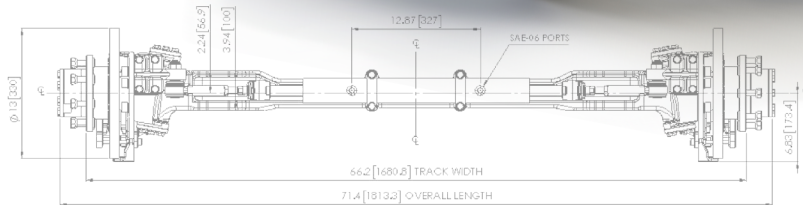
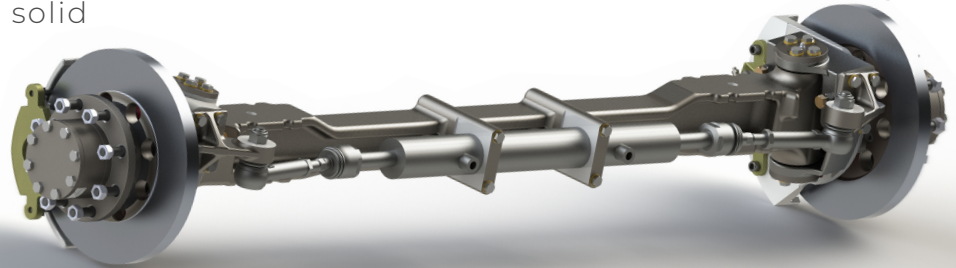
## RAMPTECH® NEWAGE 216S DEAD STEER AXLE

RAMPTECH® NEWAGE Belt Loader Steer Axle is a bolt-on replacement for axles used in belt loader applications.

This axle is made from durable solid cast iron constructed "I" beam, solid cast iron steer knuckles, non-king pin design using tapered roller bearing trunnions, and maintenance-free tie rods.

# 216S

## NEWAGE



## FEATURES AND BENEFITS

- **SOLID CAST IRON "I" BEAM** – MORE DURABLE THAN WELDED TUBULAR CONSTRUCTION
- **SOLID CAST IRON KNUCKLES** – STRONGER THAN WELDED ASSEMBLIES
- **NO MORE KING PINS** – THIS AXLE USES A TRUNNION DESIGN WITH TAPERED ROLLER BEARINGS TO PROVIDE BETTER LOAD DISTRIBUTION FOR LONGER LIFE
- **SELF-LUBRICATING JOINTS AND DRAGLINK**

## 216S SPECIFICATIONS

MAX STEER ANGLE	28°
NOMINAL AXLE LOAD RATING	6,400 lbs. (2,900 Kg) based on 66.2 in. (1,682 mm) wheel track
BRAKES	Single floating calipers with bolt-on rotors
DRY WEIGHT	349 lbs. (158 Kg)
PARK BRAKE	Optional (disc mounted)
WHEEL FIXINGS	8 studs: 9/16 x 18 UNF - 3A on 6.5 in. PCD (165 mm)
STANDARD MOUNTING CENTERS	39.75 in. (1010 mm) mounting centers and across 3.625 in. (92 mm) x 3 in. (76 mm) axial recess centers with diameter of 0.590 in. (15 mm) for 'U' bolt mountings

## APPLICATIONS

- TUG 660 BELT LOADER
- *INQUIRE FOR OTHER APPLICATIONS*

