

# PROTECT WHAT MATTERS MOST



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Cemar Auto DMCC is the R&D and innovation arm of Cemar Group, focused on developing tailored solutions for armored mobility and materials engineering.

Here at CAD, we invest in technologies that address real-world challenges, enhance performance, and support global market demands. By leveraging industry partner ships and staying ahead of trends, we deliver solutions that set us apart in the defense and mobility sectors.

We integrate advanced design tools like Siemens NX, CypNest, Autodesk AutoCAD, SolidWorks, and Almacam to deliver precision-engineered solutions for armored vehicles. Our focus includes lightweight armor integration, modular cabin design, and efficient semi-automated fabrication. We also provide training and support to ensure smooth implementation on client platforms.

CAD collaborates with internationally accredited labs for full prototyping, ballistic testing, and performance validation of its vehicles and armor systems. We ensure full compliance with global standards such as STANAG, VPAM, and NIJ.

We provide support across prototyping, documentation, and on-site validation to help clients meet technical and regulatory requirements.



## SERVICES



Military Chassis Provider



**Robotic Fabrication** of Armored Cabins



Complete Military Chassis And Full Armoring Kits With Design & Manufacturing Support





## CEMCHAS 10/11T RA

Midweight Modular Platform Built for Mission Use



### **SPECIFICATIONS**

### **DIMENSIONS (mm)**

| Wheelbase              | 3300 |
|------------------------|------|
| Overall Chassis Length | 4842 |
| Front Overhang         | 1160 |
| Rear Overhang          | 1542 |
| Front & Rear Track     | 2044 |
| Chassis Height         | 953  |
| Ground Clearance       | 363  |
| Departure Angle        | 38°  |
| Approach Angle         | 40°  |
| Overall Chassis Width  | 2380 |

### WEIGHT (kg)

| (-3)                             |       |
|----------------------------------|-------|
| Est. Kerb Weight                 | 4920  |
| Front Axle Kerb Weight           | 3080  |
| Rear Axle Kerb Weight            | 1840  |
| Payload                          | 5780  |
| Max. Permissible Total Wt. Front | 4280  |
| Max Permissible Total Wt. Rear   | 6420  |
| Gross Vehicle Weight             | 10700 |

### **GEAR BOX**

Allison Fully Automatic 2500 SP Series Forward: 6 Reverse: 1

### STEERING

Integral Hydraulic Servo Powered Steering Angle (In Tire): 35° Kerb to Kerb (m) R: 7.7 Wall to Wall (m) R: 8.4

### **TORQUE CONVERTER**

Fully Automatic Transmission with Torque Converter TC-413 Stall Ratio: 2,44

### PERFORMANCE

Max Speed: 110 km/h Gradeability: 60% Side Slope: 30% Range (On Road): 600 km Fording Depth: 700 mm

### **ENGINE**

Cummins ISB 285 HP E3
Displacement 6.7L 6 Cylinders, In-line
Max Power: 285 HP, 2500 rpm
Max Torque: 970 Nm, 1200 rpm
Fuel Tank Capacity: 200L

### **CHASSIS**

Made: High-Resistance Steel Single Rail, "C" Section, Ladder Type, Bolted

### **AXLES**

Front: Drive, Steer, Rigid
Rear: Drive, Rigid
GAWR: F/R max: 5000/5700 kg
Total Axle Ratio: 6.36:1
Planetary, 100% Air Assist Diff. Lock
335 PCD, 280, 8 Pilot Dia, 10 Studs, M22x1.5
In-Put Flange: 150 KV

### **SUSPENSION**

Front: Coil Spring, Linkage System, Shock Absorbers, Antiroll Bar Rear: Parabolic Leaf Spring, Shock Absorbers, Antiroll Bar

### **ELECTRICAL SYSTEM**

Main System: 24V 120Ah Battery: 2x12V 120Ah Alternator: 24V 120A Black Out Light System

### **TIRES & RIMS**

Tires: 335/80 R20 Rims: 20-11 S<u>DC</u>

### **OPTIONS**

-32° C Cold Working Kit CTIS Run Flat 24V Recovery Winch Wiper Mechanism Towing Hook

### BRAKES

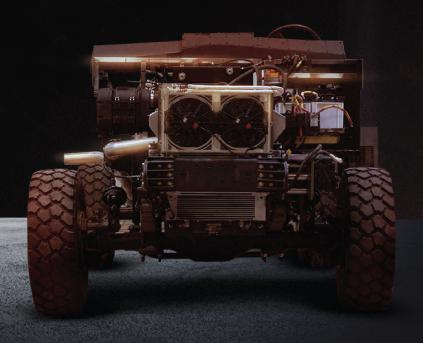
Air Assist Hydraulic System, Double Circuit, Disc Brake, Front & Rear ABS

### TRANSFER CASE

Model: TDT-50 Ratios: N,L/H 4x4-4x2 Shifting 1:2,5

## CEMCHAS 14T RA/ISAS

Agile Military Chassis for Demanding Operational Environments



### **SPECIFICATIONS**

### **DIMENSIONS (mm)**

Wheelbase 3800 Overall Chassis Length 6200 Overall Chassis Width 2600 **Ground Clearance** 350 Approach Angle Min 35° Departure Angle Min 35° Front Track 2250 Rear Track 2200

### WEIGHT (kg)

Est. Kerb Weight 4000 - 5000
Front Axle Load (Max) 7000
Rear Axle Load (Max) 7000
Payload 8000 - 9000

### TUNING CIRCLE DIAMETER (m)

Left Lock 14.75 Right Lock 15.75

### **CHASSIS**

Ladder Frame Chassis

### CEAD POY

Allison Fully Automatic 2500 SP Allison Fully Automatic 3200 SP

### **STEERING**

Right Hand Side Drive Left Hand Side Drive Hydraulic Power Assisted

### CONDITIONS

Operating Temperature: -20 °C to +55 °C

### **PERFORMANCE**

Max Speed: 85 - 100 km/h (surface dependent) Gradeability: 30° Side Slope: 17° Trench Crossing: 500 mm Fording Depth: 700 mm

### **ENGINE**

Displacement: 6700 cc
Max Power: 210 kW / 285/340 HP @ 2500 r/min
Max Torque: 970 Nm @ 1200 to 1700 r/min
Idle Speed: 600 - 800 rpm
Max Over-Speed Capability: 4200 rpm (15s max)

### **AXLES & SUSPENSION**

Cummins ISB 6.7L 285/340 HP

Type: Turbo, Intercooler, Diesel

Front & Rear: Rigid/ISAS Front Axle Capacity (Max): 7000 kg Rear Axle Capacity (Max): 7000 kg

### **PNEUMATIC SYSTEM**

Compressor: Engine Mounted Protection: Air Processing Unit Operating Pressure: ±8 Bar Min. Pressure: 5 Bar (low air pressure warning light comes on)

### **FUEL SYSTEM**

200L Fuel Tank Capacity
Fuel Lubricity & Fuel/Water Separator Filter

### **ELECTRICAL SYSTEM**

Nominal Voltage: 24 V Battery: 2 x 12 V (150 Ah) Alternator: 28 V / 150 A Starter: 24 V, 4 Kw

### **TIRES & RIMS**

Tires: 365/80 R20; All-Terrain Tires Rims: 10 x 20 Aluminum Run Flat (Optional) No. of Wheels: 4

### **BRAKES**

Pneumatic Brake System with ABS

### TRANSFER CASE

ZF VG 750

Type: Selectable 4x2 & 4x4, hi/low range, ratio (low/high): 2.1/1.1

### **SEATING SYSTEM**

Quantity: 1 Front Seats Type: Fully Adjustable

### DASHBOARD INSTRUMENTS

Speedometer (km/h)
Odometer (km)
Tachometer (rpm)
Fuel Indicator
Engine Temp. Indicator
Air Pressure Indicator
Oil Pressure Indicator
Running Hour Meter
Warning Lights according to chassis functionality

### CEMCHAS 17T ISAS

Heavy-Duty Chassis for Demanding Defense Operations



### **DIMENSIONS (mm)**

Wheelbase 3300/3800 Overall Chassis Length 5800 (6285) Overall Chassis Width 2550 **Ground Clearance** 410 Departure Angle 50° Approach Angle 40° Front & Rear Track 2100 1080 (1485) Front Overhang 1000 Rear Overhang Chassis Height 1020

### WEIGHT (kg)

Est. Kerb Weight 8000
Front Axle Kerb Weight 4750
Rear Axle Kerb Weight 3250
Payload 9000
Max. Permissible Total Wt. Front 8500
Max Permissible Total Wt. Rear 8500
Gross Vehicle Weight 17000

### **GEAR BOX**

Allison Fully Automatic 3200 SP Series Forward: 6 Reverse: 1

### **STEERING**

Integral Hydraulic Servo Powered Steering Angle (In Tire): 30°

### **TORQUE CONVERTER**

Fully Automatic
Transmission with Torque Converter

### **PERFORMANCE**

Max Speed: 110 km/h Gradeability: 60% Side Slope: 30% Range (On Road): 600 km Fording Depth: 800 mm

### **ENGINE**

Cummins ISLeT450 Displacement 8.9L 6 Cylinders, In-line Max Power: 450 HP, 2200 rpm Max Torque: 1627 Nm, 1300 rpm Fuel Tank Capacity: 200L

### CHASSIS

Made: High-Resistance Steel Single Rail, "C" Section, Ladder Type Bolted

### **AXLES**

Front: Drive, Steer, Isas Rear: Drive, Isas GAWR: F/R max: 8500/9000 kg Total Axle Ratio: 6,36:1 Planetary, 100% Air Assist Diff. Lock

### **SUSPENSION**

Front: Double-Wishbone, Coil Spring, Shock Absorbers Rear: Double-Wishbone, Coil Spring, Shock Absorbers

### **ELECTRICAL SYSTEM**

Main System: 24V 240Ah Battery: 2x12V 120Ah Black Out Light System

### **TIRES & RIMS**

Tires: 395/85 R20 Rims: 20.00 W-20

### **OPTIONS**

-32° C Cold Working Kit CTIS Run Flat 24V Recovery Winch Wiper Mechanism Towing Hook

### **BRAKES**

Full Air Brake System, Double Circuit, Disc Brake, Front & Rear ABS

### TRANSFER CASE

Model: T Series Ratios: N-H/L Shifting









**ENGINE** 

Cummins ISB 285 HP, E3



PAYLOAD

6 Tons



**FUEL CAPACITY** 

200 Litres



**TRANSMISSION**Automatic 6 Speed

l↔l

WHEELBASE 3300 mm



**TYRES** 335/80 R20



**CREW** 2 + 10

4

CONSTRUCTION Chassis



ELECTRICAL SYSTEM



KERB WEIGHT 5 Tons



**ROAD RANGE** 600 km



**DIFFERENTIAL LOCKS**Front, Rear & Centre

### **SPECIFICATIONS**



**ENGINE** 

Cummins ISB 285 HP



**PAYLOAD** 

6 Tons



**FUEL CAPACITY** 

200 Litres



TRANSMISSION

Automatic 6 Speed



WHEELBASE

3800 mm



**TYRES** 365/80 R20



**CREW** 2 + 10



CONSTRUCTION

Chassis



**ELECTRICAL SYSTEM** 

24V



**KERB WEIGHT** 

8 Tons



**ROAD RANGE** 600 km



**DIFFERENTIAL LOCKS**Front, Rear & Centre

### **SPECIFICATIONS**



**ENGINE** 

Cummins ISL 450 HP



PAYLOAD 5 Tons



**FUEL CAPACITY** 

200 Litres



**TRANSMISSION** 

Automatic 6 Speed



WHEELBASE

3300 mm



**TYRES** 16.00 R20



**CREW** 2 + 8

عمر

CONSTRUCTION

Monocoque



**ELECTRICAL SYSTEM** 

24V



**KERB WEIGHT** 

12 Tons



**ROAD RANGE** 

500 km



**DIFFERENTIAL LOCKS** 

Front, Rear & Centre

**SPECIFICATIONS** 

## CONTACT US









