



# 208 MID-RANGER

4 x 2 Heavy Duty Chassis



### STANDARD SPECIFICATIONS

WHEELBASE: 128" (3.2512 metres)

FRAME: 9.5 x 3.5 x .25 Outer

90 x 30 x 25 Inner

Material: Hot Rolled/Cold Formed High Tensile

Section Modulus: 19.78

FRONT AXLE: Rockwell FF932 13,200 lb. (5,987 kg)

FRONT SUSPENSION: Leaf Springs

REAR AXLE: Rockwell RA120 (R170) 23,000 lb. (10,432.8 kg)

REAR SUSPENSION: Leader-Bartuska Type 23,000 lb.

Nom. Capacity (10,432.8 kg)

ENGINE: Caterpillar 3208 Diesel V8

Type: Naturally Aspirated Bore: 4.5" (114 mm) Stroke: 5" (127 mm)

Displacement: 636 cu. inches (10.4 litres) Power Ratings: 210 h.p. (160 kw) @ 2,800 rpm

Peak Torque: 485 lb. ft. (658 Nm) @ 1,400 rpm

Inlet Air: Donaldson FHG12 Double Element with

Donaldson 5" Air Ram

STARTING SYSTEM: 12 Volt Electric

ELECTRICAL SYSTEM: Alternator 12 Volt 65 Amp Batteries 2 x 6 Volt x 23 Plate

ELECTRICS: Horn, Marker Lights, Turn Signals, Parking Lights, Stop and Tail Lights, Automatic Back-

up Lights

TRANSMISSION: Eaton Fuller RT610 RT613

CLUTCH: 13" Twin Plate

DRIVESHAFT: Spicer 1710 Series with Spicer Universal

Joints

STEERING: ZF Power 7429 (Full Integral)

BRAKES: Air S Cam and Lever, Spring Emergency

EXHAUST: Single Vertical with Muffler and Rain Cap

FUEL TANK: 50 Gallon Round Steel (227.3 Litres)

CABIN: Reinforced plastic (fibreglass) cab over engine design. laminated windscreen, Bostrom suspension driver's seat and one fixed position passenger's seat, lap type seat belts, exterior sunvisor, Westcoast mirrors, rubber floormats.

INSTRUMENTS ETC.: Air horn, heater demister, windscreen washers, speedometer, tachometer with hour meter. water temperature, voltmeter, fuel guage, air and oil pressure, low air alarm.

TOOL KIT: 12 Ton Jack and Handle Wheelbrace

PAINT: Chassis and Running Gear: Red, Black or Krombrite Standard Colours

#### **OPTIONS**

WHEELBASE: Refer Chart Overleaf

FUEL TANKS: Extra 50 Gallon Round Steel (227.3 litres) Extra 70 Gallon Round Steel (318.2 litres)

Twin 100 Gallon Rectangular Steel

(455 litres x 2)

TRAILER BRAKE AND ELECTRICAL CONNECTIONS: Westinghouse or P.B.R. CA300 Hand Control

TRANSMISSION: Allison MT653 5 Speed Automatic

CABIN: Cab Forward

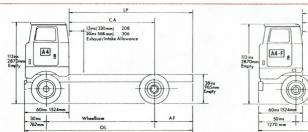
Cab Lowered/Forward

Cab Trim with Chrome Accessories

TOOWOOMBA, Q'LAND.

A4

208 MID-RANGER



L	LP		
	CA		
A4-F 8	13 ins (330 mm) 208 20 ins (508 mm) 308 Exhaust/ Intake Allawance		
	-		38ins 965mm Empty
50ins 1524mm			
50 ins	Wheelbase	AF	
270 mm	OL		
	50ins 1524mm	C A  13 ms (330 mm) 208  20ms/508 mm) 308  Carbont's trade Allowance  A4-F) 8  Diving 1524mm  Wheelbose	AA-F g    13ms   330 mm   200   20ms   300 mm   200   20ms   300 mm   300   20ms   300 mm   300   20ms   300 mm   300   20ms   300 mm   30

Wheelbase		Vheelbase   O L			P CA			AF		Tare Weight			
-										Fron	t Axle	Rear	Axle
ins	mm	ins	mm	ins	mm	ins	mm	ins	mm	Tons	Tonnes	Tons	Tonne
124	3150	226	5740	166	4216	114	2896	52	1321				
144	3658	226	5740	166	4216	114	2896	52	1321				
145	3683	255	6477	195	4953	135	3429	60	1524				
165	4191	255	6477	195	4953	135	3429	60	1524				
175	4445	285	7239	225	5715	165	4191	60	1524				
195	4953	285	7239	225	5715	165	4191	60	1524				
197	5004	307	7798	247	6274	187	4750	60	1524				
217	5512	307	7798	247	6274	187	4750	60	1524				
220	5588	354	8992	294	7468	210	5334	84	2134				
232	5893	380	9652	320	8128	222	5639	98	2489				
240	6096	354	8992	294	7468	210	5334	84	2134				
252	6401	380	9652	320	8128	222	5639	98	2489				
	ins 124 144 145 165 175 195 197 217 220 232 240	124 3150 144 3658 145 3683 165 4191 175 4445 195 4953 197 5004 217 5512 220 5588 232 5893 240 6096	ins mm ins 124 3150 226 144 3658 226 145 3658 255 165 4191 255 175 4445 285 197 5004 207 217 5512 307 220 5588 354 240 6096 354	mm   ms   mm   mm   mm   mm   mm   mm	Ins	158 mm   158 mm   158 mm   152 mm   1	Ins	198	Ins	Ins.   Ins.	Fron   Ins   Ins	Front Axie   Fro	Ins.   Ins.

Wheelbases longer than 217" are subject to approval of application by Manufacturer

### OPTIONAL EXTRAS

Bull Bar Half Bull Bar Hand Throttle Kienzle Tachograph Full Mine Specification Exhaust and Electrical Pre-Cleaner Heavy Duty Towing Crossmember

Tyre Inflation Equipment
Tyre Carrier — Wind Up Type

### TRANSMISSIONS

	RT61	3	
	Speed	Ratio	% Step
	13th	1.00	24
	12th	1.24	
Direct Range	11th	1.60	29
riungo	10th	2.05	28
	9th	2.62	28
			26
	8th	3.29	24
Intermediate	7th	4.09	29
Range	6th	5,26	28
	5th	6.74	
	4th	8.64	28
	3rd	10.96	27
Low Range	2nd	14.04	
	1st 18.00		28
	Dir. R Inter. Low F	2.77 9.12 19.00	

RT610								
Speed	Ratio	% Step						
10th	1.00	04						

10th	1.00	24	
9th	1.24		
8th	1.60	29	High
7th	2.05	28	Range
		28	
6th	2.62	-31-	
5th	3.43	24	
4th	4.26		
3rd	5.48	29	Low Range
2nd	7.02	28	rrange
		28	
1st	9.00		
	Reverse	2.77 9.50	
	610 over	drive n	nodel

#### MT653

W 1 033					
First	8.04				
Second	3.58				
Third	2.09				
Fourth	1.39				
Fifth	1.00				
Reverse	5.67				

#### WHEELS AND TYRES

Cast Spoke Wheels with 7%" Sankey Benson three piece demountable rims.

Front: 1000 x 20 x 14 ply Conventional Rear: 1000 x 20 x 12 or 14 ply Conventional or Crossrib



Cab tilt angle illustrated - 30°

**DISTRIBUTED BY:** 



406 OVERLANDER

6 x 4 Heavy Duty Chassis



### STANDARD SPECIFICATIONS

WHEELBASE: 915" (4.953 metres)

FRAME: 9.5 x 3.5 x .25 Outer

9.0 x 3.0 x .25 Inner

Material: Hot Rolled/Cold Formed High Tensile

Steel

Section Modulus: 19.78

FRONT AXLE: Rockwell FF932 13,200 lb. (5,987 kg)

FRONT SUSPENSION: Leaf Springs

REAR AXLE: Rockwell SP40, 40,000 lb. Nom. Cap. (18,144 kg)

REAR SUSPENSION: Hendrickson RTEA 380, 38,000 lb. Nom. Cap. (17,236.8 kg)

ENGINE: Caterpillar 3406 with Brakesaver

Type: Turbocharged Bore: 5.4" (137mm)

Stroke: 6.5" (165mm)

Displacement: 893 cu. inches (14.61 litres) Power Ratings: 325 h.p. (240kw) @ 2100 rpm Peak Torque: 1015 lb.ft.(1376Nn) @ 1200 rpm Inlet Air: Donaldson 16" Double Element with

Air Ram

STARTING SYSTEM: 12 Volt Electric

ELECTRICAL SYSTEM: Alternator 12 Volt 65 Amp Batteries 4 x 6 Volt x 23 Plate

ELECTRICS: Horn, Marker Lights, Turn Signals, Parking Lights, Stop and Tail Lights, Automatic Backup Lights

TRANSMISSION: 1200 Series Roadranger 1200 Series Spicer

CLUTCH: 151/2" Spicer Twin Plate

DRIVESHAFT: Spicer 1810 Series with Spicer Universal

STEERING: ZF Power 7429 Full Integral

BRAKES: Air S Cam and Lever, Spring Emergency

EXHAUST: Single Vertical with Muffler and Rain Cap

FUEL TANK: 70 Gallon Round Steel (318.22 Litres)

CABIN: Reinforced plastic (fibreglass) Cab over engine design, laminated windscreen, Bostrom suspension driver's seat and one fixed position passenger's seat, lap type seat belts, exterior sunvisor, Westcoast mirrors, rubber floormats.

INSTRUMENTS: Air horn, heater demister, windscreen washers, speedometer, tachometer with hour meter, water temperature, voltmeter, fuel gauge, air and oil pressure, low air alarm, pyrometer, Brakesaver Oil Temperature Cauge, Brakesaver Control Pressure Gauge.

TOOL KIT: 12 Ton lack and Handle Wheelbrace

PAINT: Chassis and Running Gear: Red, Black or Krombrite Standard Colours

### **OPTIONS**

WHEELBASE: Refer Chart Overleaf

FUEL TANKS: Extra 50 Gallon Round Steel (227.3 Litres) Extra 70 Gallon Round Steel

(318.2 Litres)
Twin 100 Gallon Rectangular Steel

(455 Litres x 2)

TRAILER BRAKE AND ELECTRICAL CONNECTIONS:
Westinghouse or PBR CA300 Hand Control

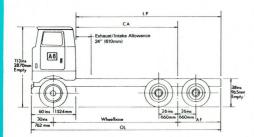
TRANSMISSION: Allison HT750 5 Speed automatic with retarder (engine without Brakesaver)

CABIN: Full Sleeper Cab
Cab Trim with Chrome Accessories

TOOWOOMBA, Q'LAND.

**A6** 

406 OVERLANDER



Whee	elbase	0	O L		P	С	Α	A AF		
ins	mm	ins	mm	ins	mm	ins	mm	ins	mm	
144	3658	226	5740	166	4216	114	2896	52	1321	
165	4191	255	6477	195	4953	135	3429	60	1524	
195	4953	285	7239	225	5715	165	4191	60	1524	
217	5512	307	7798	247	6274	187	4750	60	1524	
240	6096	354	8992	294	7468	210	5334	84	2134	
252	6401	380	9652	320	8128	222	5639	98	2489	
283	7188	380	9652	320	8128	253	6426	67	1701	

Wheelbases longer than 217" are subject to approval of application by Manufacturer

#### OPTIONAL EXTRAS

Bull Bar–Half Bull Bar–Hand Throttle–Kienzle Tachograph –Full Mine Specification Exhaust and Electrical–Pre-Cleaner –Heavy Duty Towing Crossmember–Tyre Inflation Equipment – Tyre Carrier (Wind-Up Type)

RT-12509 GEAR RATIOS			RT-12515 GEAR RATIOS								
Speed	Ratio	% Step					Range %				
8th	1.00			Ratio	% Step	Speed	Step	Ratio	% Step	Speed	
		35						1.00	27	10th	
7th	1.35							1,27		9th	
		34						1.65	30	8th	High Range
6th	1.81							1.65	28	ath	······ge
		36						2.11	30	7th	
5th	2.47							2.74		6th	
Range Shift		37							30		
4th	3.38							3.55	27	5th	
		35					_ 13	4.50		4th	Low
3rd	4.56			5.07		5th	_ 13	5.83	30	3rd	Range
		34			27				28		
2nd	6.12		Deep	6.43	30				30	2nd	
		36	Red.	8.34	20	3rd	11 -	9.71		1st	
1st	8.35		Range	10.70	28	2nd	_ 10				
		50			30						
Lo	12.50			13.87		1st					
Rev.	3.87				Reverse			2.74			
Lo-Rev.	13.07				Reverse Reduction	on Reve	rso	9.71			

# BRAKESAVER Cat BrakeSaver hydraulic retarder gives more

braking power and additional capability independent of service brakes, improves driving safety . . . extends brake life.

A hand lever is moved to apply the desired amount of retarding and disengaging the clutch cancels the retarding effect.

When the BrakeSaver is activated, engine oil is pumped into the retarder creating a hydraulic coupling.

Oil is picked up by a spinning rotor (driven by the crankshaft) and thrown against the stationary fins (Stator). The churning action of the oil provides braking effort. The more oil pumped into the retarder, the greater the braking effort. When disengaged, the oil supply is shut off and the rotor pumps out the remaining oil.

		Model (Dir			Model 1214-3A (Overdrive)		
STICK POSITION	GEAR	RATIO	МРН	RATIO	МРН		
1	1st	12.35	5	12.35	5		
	2nd	10.41	6	10.41	6		
2	3rd	7.53	8	7.05	8.5		
	4th	6.34	9.5	5.94	10		
3	5th	4.67	13	4.17	14.5		
	6th	3.93	15.5	3.50	17		
4	7th	3.29	18.5	2.75	22		
	8th	2.76	22	2.31	26		
	9th	2.36	25.5	1.97	30.5		
	10th	1.98	30.5	1.66	36		
5	11th	1.66	36	1.39	43		
	12th	1.39	43	1.17	51		
	13th	1.19	51	1.00	60		
	14th	1.00	60	.84	71		
	Rev.	12.35 10.41 8.86	_	12.35 10.41	-		

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### FACET FAN CLUTCH

When the engine coolant reaches a preset temperature, electrical current is allowed to flow through the coil in the magnet body. This flow of current magnetically attracts the armature to the inner body and brings the fan up to full fan hub speed.

When the engine coolant has cooled sufficiently, the electrical current is stopped and springs pull the armature away from the inner body, allowing the fan to coast down to an idle condition.

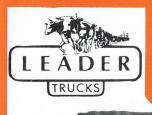
- ☆ Saves fuel and horsepower up to 10% more
- ☆ Reduces fan and overall vehicle noise
- ☆ Faster engine warm-up and reduced engine wear
   ☆ Helps maintain optimum engine operating temperature
- ☆ No fluid or air lines to leak
- ☆ Activated by engine coolant temperature, not air coming through radiator



DISTRIBUTED BY:

The Manufacturer reserves the right to alter without notice any aspect of this specification.

7.47





208 MID-RANGER

8 x 4 Heavy Duty Chassis



### STANDARD SPECIFICATIONS

WHEELBASE: 217" (5.512 metres)

FRAME: 9.5 x 3.5 x .25 Outer

9.0 x 3.0 x .25 Inner

Material: Hot Rolled/Cold Formed High Tensile

Steel

Section Modulus: 19.78

FRONT AXLE: Rockwell FF932 13,200 lb. (5,987 kg)

FRONT SUSPENSION: Leaf Springs

REAR AXLE: SLHD 34,000 lb. (15,422,4 kg)

52" Axle Spacing

REAR SUSPENSION: Hendrickson RTEA340 34,000 lb.

Nom. Capacity (15,422.4 kg)

ENGINE: Caterpillar 3208 Diesel V8

Type: Naturally Aspirated Bore: 4.5" (114 mm)

Stroke: 5" (127 mm)

Displacement: 636 cu. inches (10.4 litres) Power Ratings: 210 h.p. (160 kw) @ 2,800 rpm

Peak Torque: 485 lb. ft. (658 Nm) @ 1,400 rpm Inlet Air: Donaldson FHG12 Double Element with

Donaldson 5" Air Ram

STARTING SYSTEM: 12 Volt Electric

ELECTRICAL SYSTEM: Alternator 12 Volt 65 Amp
Batteries 2 x 6 Volt x 23 Plate

ELECTRICS: Horn, Marker Lights, Turn Signals, Parking

Lights, Stop and Tail Lights, Automatic Back-

up Lights

TRANSMISSION: Eaton Fuller RT610 RT613

CLUTCH: 13" Twin Plate

DRIVESHAFT: Spicer 1710 Series with Spicer Universal

Joints

STEERING: ZF Power 7429 (Full Integral)

BRAKES: Air S Cam and Lever, Spring Emergency

EXHAUST: Single Vertical with Muffler and Rain Cap

FUEL TANK: 70 Gallon Round Steel (318.22) Litres

CABIN: Reinforced plastic (fibreglass) cab over engine design, laminated windscreen, Bostrom suspension driver's seat and one fixed position passenger's seat, lap type seat belts, exterior sunvisor, Westcoast mirrors, rubber floormats.

INSTRUMENTS ETC.: Air horn, heater demister, windscreen washers, speedometer, tachometer with hour meter, water temperature, voltmeter, fuel guage, air and oil pressure, low air alarm.

TOOL KIT: 12 Ton Jack and Handle Wheelbrace

PAINT: Chassis and Running Gear: Red, Black or Krombrite Standard Colours

### **OPTIONS**

WHEELBASE: Refer Chart Overleaf

REAR AXLE: Rockwell SQHD 38,000 lb. (17,237 kg)

52" Axle Spacing

REAR SUSPENSION: Hendrickson RTEA 380 38,000 lb.

(17.237 kg)

Reyco 6 Point 4 Spring 40,000 lb.

!8,144 kg)

FUEL TANKS: Extra 50 Gallon Round Steel (227.3 litres)

Extra 70 Gallon Round Steel (318.2 litres)
Twin 100 Gallon Rectangular Steel

(455 litres x 2)

TRAILER BRAKE AND ELECTRICAL CONNECTIONS: Westinghouse or P.B.R. CA300 Hand Control

TRANSMISSION: Allison MT653 5 Speed Automatic

CABIN: Cab Forward

Cab Lowered/Forward

Cab Trim with Chrome Accessories

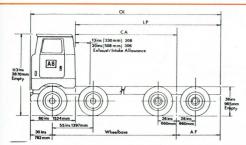
PAINT: Special non-standard colours - Chassis and Running

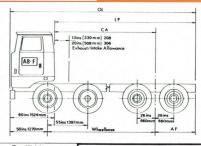
Gear

TOOWOOMBA, Q'LAND.

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208 MID-RANGER





	Wheelbase		0	L	1	P	C	A	Ι Δ	F		Tare V	leight	
	-	T	-	T	+-	<u> </u>	-	T .	-		Fron	t Axle	Rear	Axle
	ins	mm	ins	mm	ins	mm	ins	mm	ins	mm	Tons	Tonnes	Tons	Tonnes
Forward	197	5004	307	7798	247	6274	187	4750	60	1524				
Standard	217	5512	307	7798	247	6274	187	4750	60	1524				
Forward	220	5588	354	8992	294	7468	210	5334	84	2134				
Forward	232	5893	380	9652	320	8128	222	5639	98	2489				
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Standard	252	6401	380	9652	320	8128	222	5639	98	2489				
Forward	263	6680	380	9652	320	8128	253	6426	67	1701				
Standard	283	7188	380	9652	320	8128	253	6426	67	1701				

### TRANSMISSIONS

D		

	Speed	Ratio	% Step
	13th	1.00	24
	12th	1.24	
Direct Range	11th	1.60	29
	10th	2.05	28
	9th	2.62	28
	8th	3.29	26
	7th	4.09	24
Intermediate			29
Range	6th	5,26	28
	5th	6.74	28
	4th	8.64	27
Low	3rd	10.96	28
Range	2nd	14.04	28
	1st	18.00	20
	Dir. R Inter. Low f	2.77 9.12 19.00	

# RT610

opecu	Hatio	70 Of C	P
10th	1.00		
9th	1.24	24	
8th	1.60	29	High
7th	2.05	28	Rang
6th	2.62	28	
		-31-	
5th	3.43	24	
4th	4.26	29	
3rd	5.48		Low
2nd	7.02	28	
1st	9.00	28	
	Reverse Reverse	2.77 9.50	
	-610 over vailable.	drive n	nodel

#### MT653

First	8.04
Second	3.58
Third	2.09
Fourth	1.39
Fifth	1.00
Reverse	5.67

### OPTIONAL EXTRAS

Bull Bar Half Bull Bar Hand Throttle Kienzle Tachograph Full Mine Specification Exhaust and Electrical Pre-Cleaner Heavy Duty Towing

Crossmember
Front Shock Absorber Kits
Tyre Inflation Equipment
Tyre Carrier — Wind Up Type

### WHEELS AND TYRES

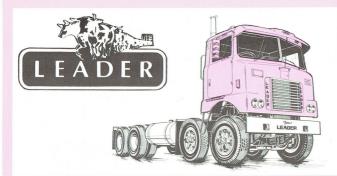
Cast Spoke Wheels with 7%" Sankey Benson three piece demountable rims.

Front: 1000 x 20 x 12 or 14 ply Conventional Rear: 1000 x 20 x 12 or 14 ply Conventional or Crossrib



Cab tilt angle illustrated - 30°

**DISTRIBUTED BY:** 



406 OVERLANDER

8 x 4 Heavy Duty Chassis



### STANDARD SPECIFICATIONS

WHEELBASE: 217" (5.511 metres)

FRAME: 9.5 x 3.5 x .25 Outer 9.0 x 3.0 x .25 Inner

Material: Hot Rolled/Cold Formed High Tensile

Steel

Section Modulus: 19.78

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FRONT SUSPENSION: Leaf Springs

REAR AXLE: Rockwell SP40, 40,000 lb. Nom. Cap. (18,144 kg)

REAR SUSPENSION: Hendrickson RTEA 380, 38,000 lb. Nom. Cap. (17,236.8 kg)

ENGINE: Caterpillar 3406 with Brakesaver

Type: Turbocharged Bore: 5.4" (137mm) Stroke: 6.5" (165mm)

Displacement: 893 cu. inches (14.61 litres) Power Ratings: 325 h.p. (240kw) @ 2100 rpm Peak Torque: 1015 lb.ft.(1376Nm) @ 1200 rpm Inlet Air: Donaldson 16" Double Element with

Air Ram

STARTING SYSTEM: 12 Volt Electric

ELECTRICAL SYSTEM: Alternator 12 Volt 65 Amp Batteries 4 x 6 Volt x 23 Plate

ELECTRICS: Horn, Marker Lights, Turn Signals, Parking Lights, Stop and Tail Lights, Automatic Backup Lights

TRANSMISSION: 1200 Series Roadranger 1200 Series Spicer

CLUTCH: 151/2" Spicer Twin Plate

DRIVESHAFT: Spicer 1810 Series with Spicer Universal Joints

STEERING: ZF Power 7429 Full Integral

BRAKES: Air S Cam and Lever, Spring Emergency

EXHAUST: Single Vertical with Muffler and Rain Cap

FUEL TANK: 70 Gallon Round Steel (318.22 Litres)

CABIN: Reinforced plastic (fibreglass) Cab over engine design, laminated windscreen, Bostrom suspension driver's seat and one fixed position passenger's seat, lap type seat belts, exterior sunvisor, Westcoast mirrors, rubber floormats.

INSTRUMENTS: Air horn, heater demister, windscreen washers, speedometer, tachometer with hour meter, water temperature, voltmeter, fuel gauge, air and oil pressure, low air alarm, pyrometer, Brakesaver Oil Temperature Gauge, Brakesaver Control Pressure Gauge.

TOOL KIT: 12 Ton Jack and Handle Wheelbrace

PAINT: Chassis and Running Gear: Red, Black or Krombrite Standard Colours

### **OPTIONS**

WHEELBASE: Refer Chart Overleaf

FUEL TANKS: Extra 50 Gallon Round Steel (227.3 Litres) Extra 70 Gallon Round Steel (318.2 Litres)

> Twin 100 Gallon Rectangular Steel (455 Litres x 2)

TRAILER BRAKE AND ELECTRICAL CONNECTIONS: Westinghouse or PBR CA300 Hand Control

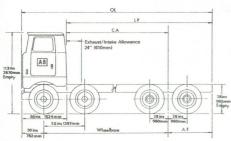
TRANSMISSION: Allison HT750 5 Speed automatic with retarder (engine without Brakesaver)

CABIN: Cab Trim with Chrome Accessories

TOOWOOMBA, Q'LAND.

**A8** 

### 406 OVERLANDER



Wheelbase		OL		L	LP		Α	AF	
ins	mm	ins	mm	ins	mm	ins	mm	ins	mm
217	5512	307	7798	247	6274	187	4750	60	1524
240	6096	354	8992	294	7468	210	5334	84	2134
252	6401	380	9652	320	8128	222	5639	98	2489
283	7198	380	9652	320	8128	253	6426	67	1701

Wheelbases longer than 217" are subject to approval of application by Manufacturer

### OPTIONAL EXTRAS

Bull Bar–Half Bull Bar–Hand Throttle–Kienzle Tachograph –Full Mine Specification Exhaust and Electrical–Pre-Cleaner –Heavy Duty Towing Crossmember–Tyre Inflation Equipment –Tyre Carrier (Wind-Up Type)

										1110	.,,
RT-125	09 GEAR R	ATIOS			RT-1	2515 G	SEAR F	RATIOS			
Speed	Ratio	% Step					Range %				
8th	1.00			Ratio	% Step	Speed	Step	Ratio 1.00	% Step	Speed 10th	
		35						1.00	27	10th	
7th	1.35							1.27		9th	High
		34						1.65	30	8th	Range
6th	1.81								28		
		36						2.11	30	7th	
5th	2.47							2.74		6th	
Range Shi		37						3.55	30	5th	
4th	3.38								27		
		35					_13 _	7 4.50	20	4th	Low
3rd	4.56			5.07		5th	_ 13 -	5.83	30	3rd	Range
		34			27				28		
2nd	6.12		Deep	6.43	30				30	2nd	
		36	Red.	8.34		3rd -	11 -	9.71	0.0	1st	
1st	8.35		Range	10,70	28	2nd	_10 -				
		50			30						
Lo	12.50			13.87		1st					
D	3.87			High	Reverse			2.74			
Rev.					Reverse	0		9.71			
Lo-Rev.	13.07			neek	Heaucti	on never	rse	13.07			

### BRAKESAVER

Cat BrakeSaver hydraulic retarder gives more braking power and additional capability independent of service brakes, improves driving safety . . . extends brake life.

A hand lever is moved to apply the desired amount of retarding and disengaging the clutch cancels the retarding effect.

When the BrakeSaver is activated, engine oil is pumped into the retarder creating a hydraulic coupling.

Oil is picked up by a spinning rotor (driven by the crankshaft) and thrown against the stationary fins (Stator). The chuming action of the oil provides braking effort. The more oil pumped into the retarder, the greater the braking effort. When disengaged, the oil supply is shut off and the rotor pumps out the remaining oil.

		Model (Dir			<b>1214-3A</b> drive)
STICK POSITION	GEAR	RATIO	МРН	RATIO	MPH
1	1st	12.35	5	12.35	5
	2nd	10.41	6	10.41	6
2	3rd	7.53	8	7.05	8.5
	4th	6.34	9.5	5.94	10
3	5th	4.67	13	4.17	14.5
	6th	3.93	15.5	3.50	17
4	7th	3.29	18.5	2.75	22
	8th	2.76	22	2.31	26
	9th	2.36	25.5	1.97	30.5
	10th	1.98	30.5	1.66	36
5	11th	1.66	36	1.39	43
	12th	1.39	43	1.17	51
	13th	1.19	51	1.00	60
	14th	1.00	60	.84	71
	Rev.	12.35 10.41 8.86 7.47	=	12.35 10.41 8.86 7.47	=

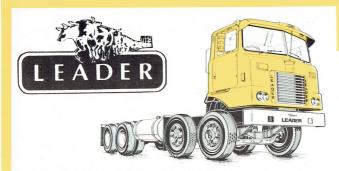
### FACET FAN CLUTCH

When the engine coolant reaches a preset temperature, electrical current is allowed to flow through the coil in the magnet body. This flow of current magnetically attracts the armature to the inner body and brings the fan up to full fan hub speed.

When the engine coolant has cooled sufficiently, the electrical current is stopped and springs pull the armature away from the inner body, allowing the fan to coast down to an idle condition.

- ☆ Saves fuel and horsepower up to 10% more
- A Reduces fan and overall vehicle noise
- ☆ Faster engine warm-up and reduced engine wear
- A Helps maintain optimum engine operating temperature
- ☆ No fluid or air lines to leak
- Activated by engine coolant temperature, not air coming through radiator

DISTRIBUTED BY:



92 OVERLANDER

8 x 4 Heavy Duty Chassis



### STANDARD SPECIFICATIONS

WHEELBASE: 197" (5.003 metres)

FRAME: 9.5 x. 3.5 x .25 Outer

 $9.0 \times 3.0 \times .25$  Inner Material: Hot Rolled/Cold Formed High Tensile

Steel

FRONT AXLE: Rockwell FF932 13,200 lb. (5,987 kg)

**FRONT SUSPENSION: Leaf Springs** 

REAR AXLE: Rockwell SP40, 40,000 lb. Nom. Cap.

(18,144 kg)

REAR SUSPENSION: Hendrickson RTEA 380, 38,000 lb.

Nom. Cap. (17,236.8 kg)

ENGINE: GM9V92N with Jacobs Brake

GM6V92T with Jacobs Brake GM6V92TT with fan clutch and Jacobs Brake

Engine Specifications overleaf

AIR CLEANER: Twin FWA Single Element

STARTING SYSTEM: 12 Volt Electric

ELECTRICAL SYSTEM: Alternator 12 Volt 65 Amp Batteries 4 x 6 Volt x 23 Plate

ELECTRICS: Horn, Marker Lights, Turn Signals, Parking Lights, Stop and Tail Lights, Automatic Backup Lights

TRANSMISSION: N:900 Series Roadranger T & TT: 1200 Series Roadranger 1200 Series Spicer

CLUTCH: 15½" Spicer Twin Plate ("N" Motor 14")

DRIVESHAFT: Spicer 1810 Series with Spicer Universal

STEERING: ZF Power 7429 Full Integral

BRAKES: Air S Cam and Lever, Spring Emergency

EXHAUST: T & TT: Single Vertical with Muffler and

Twin Vertical with Muffler and rain cap

FUEL TANK: 70 Gallon Steel (318.22 Litres)

CABIN: Reinforced plastic (fibreglass) Cab over engine design, laminated windscreen, Bostrom suspension driver's seat and one fixed position passenger's seat, lap type seat belts, exterior sunvisor, Westcoast mirrors, rubber floormats.

INSTRUMENTS: Air horn, heater demister, windscreen washers, speedometer, tachometer with hour meter, water temperature, voltmeter, fuel gauge, air and oil pressure, low air alarm, pyrometer, Jacobs Brake control switch

TOOL KIT: 12 Ton Jack and Handle Wheelbrace

PAINT: Chassis and Running Gear: Red, Black or Krombrite Standard Colours

### **OPTIONS**

WHEELBASE: Refer Chart Overleaf

FUEL TANKS: Extra 50 Gallon Round Steel (227.3 Litres) Extra 70 Gallon Round Steel (318.2 Litres) Twin 100 Gallon Rectangular Steel (455 Litres x 2)

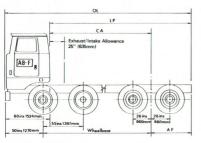
TRAILER BRAKE AND ELECTRICAL CONNECTIONS: Westinghouse or PBR CA300 Hand Control

TRANSMISSION: Allison HT750 5 Speed automatic with retarder (engine without Jacobs Brake)

CABIN: Full Sleeper Cab Cab Trim with Chrome Accessories

TOOWOOMBA, Q'LAND.

A8 OVERLANDER



Forward Cab only available with GM engine

Wheelbase		O L		L	LP		CA		AF	
ins	mm	ins	mm	ins	mm	ins	mm	ins	mm	
197	5004	307	7798	247	6274	187	4750	60	1524	
220	5588	354	8992	294	7468	210	5334	84	2134	
232	5893	380	9652	320	8128	222	5639	98	2489	
263	6680	380	9652	320	8128	253	6426	67	1701	

Wheelbases longer than 217" are subject to approval of application by Manufacturer

### **OPTIONAL EXTRAS**

Bull Bar-Half Bull Bar-Hand Throttle-Kienzle Tachograph -Full Mine Specification Exhaust and Electrical-Pre-Cleaner - Heavy Duty Towing Crossmember - Tyre Inflation Equipment - Tyre Carrier (Wind-Up Type)

RT-1250	9 GEAR R	ATIOS			RT-1	2515 G	EAR F	RATIOS					ENGIN
Speed	Ratio	% Step					Range %					CM CV02 N	with Jacobs I
8th	1.00	35		Ratio	% Step	Speed	Step	Ratio 1.00	% Step	Speed 10th			ries manual o
7th	1.35							1.27	30	9th	High	Rated Powe	r: 276 h.p. (20
6th	1.81	34						1.65	28	8th	Range	Torque:	737 lb. ft. (9
5th	2.47	36						2.11	30	7th			
Range Shift	1	37						3.55	30	6th 5th			with Jacobs B eries manual
4th	3.38	35							27	4th			r: 335 h.p. (25
3rd	4.56			5.07		5th	_13 _	5.83	30	3rd	Low Range	Torque:	958lb.ft. (12
2nd	6.12	34		6.43	27	4th	_10	7.49	28	2nd			
1st	8.35	36	Deep Red.	8.34	30 28	3rd	-11 -	7.49 9.71	30	1st			with Fan Clut
ist	8.35	50	Range	10.70	30	2nd	_ 10 .					Same transn	
Lo	12.50			13.87		1st						Torque:	r: 270 h.p. (20 958lb.ft. (12
Rev. Lo-Rev.	3.87 13.07			Low	Reverse Reverse Reducti	on Rayau	***	2.74 9.71 13.87				rorque.	930ID.IL. (12

Model 1214-3A

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### NES

### Brake

or MT 654 automatic 206 kW) @ 2100 rpm (999 Nm) @ 1400 rpm

or HT 750 automatic 250 kW) @ 2100 rpm 1299) Nm) @ 1200rpm

### itch and Jacobs Brake

201 kW) @ 1950 rpm 1299 Nm) @ 1200 rpm

		(Dir	ect)	(Overdrive)			
STICK POSITION	GEAR	RATIO	МРН	RATIO	МРН		
1	1st	12.35	5	12.35	5		
	2nd	10.41	6	10.41	6		
2	3rd	7.53	8	7.05	8.5		
2	4th	6.34	9.5	5.94	10		
3	5th	4.67	13	4.17	14.5		
3	6th	3.93	15.5	3.50	17		
	7th	3.29	18.5	2.75	22		
4	8th	2.76	22	2.31	26		
4	9th	2.36	25.5	1.97	30.5		
	10th	1.98	30.5	1.66	36		
	11th	1.66	36	1.39	43		
5	12th	1.39	43	1.17	51		
5	13th	1.19	51	1.00	60		

Model 1214-2A

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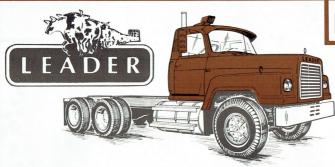
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14th

Rev.



**B6** 

406 CHALLENGER

6 x 4 Heavy Duty Chassis



### STANDARD SPECIFICATIONS

WHEELBASE: 195"

FRAME: 9.5 x 3.5 x .25 Outer 9.0 x 3.0 x .25 Inner

Material: Hot Rolled/Cold Formed High Tensile

FRONT AXLE: Rockwell FF932 13,200 lb. (5,987 kg)

FRONT SUSPENSION: Leaf Springs

REAR AXLE: Rockwell SP40, 40,000 lb. Nom. Cap. (18.133 kg)

REAR SUSPENSION: Hendrickson RTEA 380, 38,000 lb. Nom. Cap. (17,236.8 kg)

ENGINE: Caterpillar 3406 Diesel – 6 cylinder Type: Turbocharged

Bore & Stroke: 5.4 inches (137mm) x 6.5 inches (165mm)

Displacement: 893 cu. inches (14.61 litre) Peak Torque: 1015 lb.ft. (1376Nm) @ 1200

Inlet Air: Donaldson FHG16 Double Element with Donaldson 6" Air Ram

STARTING SYSTEM: 12 Volt Electric

ELECTRICAL SYSTEM: Alternator 12 Volt 65 Amp Batteries 4 x 6 Volt x 23 Plate

ELECTRICS: Horn, Marker Lights, Turn Signals, Parking Lights, Stop and Tail Lights, Automatic Backup Lights

TRANSMISSION: 1200 Series Roadranger 1200 Series Spicer

CLUTCH: 151/2" Spicer Twin Plate

DRIVESHAFT: Spicer 1810 Series with Spicer Universal Joints

STEERING: ZF Power 7429 Full Integral

BRAKES: Air S Cam and Lever, Spring Emergency

EXHAUST: Single Vertical with Muffler and Rain Cap

FUEL TANKS: Twin 85 Gallon Round Aluminium (386.41 Litres)

CABIN: Fibreglass conventional design, laminated windscreen, Bostrom/Isri suspension driver's and passenger's seat, lap type seat belts, exterior sun visor, Westcoast mirrors, carpet, air conditioning, radio cassette, adjustable steering wheel, dual air horms.

INSTRUMENTS: Steering column stalk operated headlight dipper, flasher and windscreen washer, oil pressure, front air pressure, engine temperature, ampmeter, fuel, clock, speedometer, tachometer, heater demister, brakesaver temp., brakesaver air pressure.

#### WARNING LIGHT SYSTEM:

Ignition, hi-beam, flasher, spring brake, low air brakesaver, fan clutch, diff lock, engine temperature warning, reverse light, hazard warning lights.

#### AIR CONTROLS

Diff lock, tractor protection, reserve air, wiper, spring brake control.

TOOL KIT: 12 Ton Jack and Handle Wheelbrace

PAINT: Chassis and Running Gear: Red, Black or Krombrite Standard Colours

### **OPTIONS**

WHEELBASE: Refer Chart Overleaf

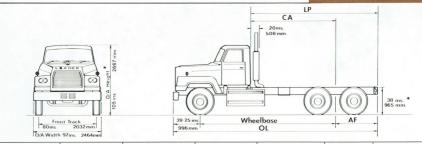
TRAILER BRAKE AND ELECTRICAL CONNECTIONS: Westinghouse or PBR CA300 Hand Control

TRANSMISSION: Allison HT750 5 Speed automatic with retarder (Engine without brakesaver)

CABIN: Sleeper Box

TOOWOOMBA, Q'LAND,

406 **CHALLENGER** 



Wheelb	pase (W.B.)	CAV	vith Sleeper	C A with	out Sleeper	LPw	ith Sleeper	L P with	out Sleeper		AF	(	O L
165"	4191mm		-	91.4"	2322mm		-	151.4"	3846mm	60′′	1524mm	264.2"	6711mm
195"	4953mm	87''	2209mm	121.4"	3084mm	147"	3733mm	181.4"	4608mm	60′′	1524mm	294.2"	7473mm

<sup>\*</sup> Both these height measurements are taken unladen and vary according to suspension type specified.

Ratio				H1-1	2515	JEAR	RATIOS			
	% Step					Range				
1.00	35		Ratio	% Step	Speed	Step	Ratio 1.00	% Step	Speed 10th	
1.35							1.27		9th	High
1.81							1.65	28	8th	Range
2.47	36						2.11	30	7th	
3.38	37						3.55	30	5th	
	35					13 -	→ 4.50		4th	Low
	34		5.07	27				28	3rd	Range
6.12	36	Deep		30				30		
8.35	50	Red. Range	10.70	28	2nd	_ 10 -	A 9.71		151	
12.50			13.87	30	1st					
3.87			Low	Reverse			2.74 9.71			
	1.35 1.81 2.47 3.38 4.56 6.12 8.35	1.35 35 1.81 34 2.47 36 3.38 35 4.56 34 6.12 36 8.35 50 12.50 3.87	1.35 35 1.81 34 2.47 36 2.47 37 3.38 35 4.56 34 6.12 34 6.12 36 Deep Red. Range 12.50 3.87	1.35 35 1.81 34 2.47 36 2.47 36 3.38 37 3.38 36 4.56 34 5.67 6.12 36 6.43 50 Page 10.70 12.50 13.37 10.70 1.337 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.367 1.	1.35 35 1.81 34 2.47 36 2.47 36 3.38 35 4.56 35 6.12 34 5.07 27 6.12 6.3 36 8.3 28 8.35 50 Reque 8.34 28 12.50 13.87 13.87	1.35 35 1.81 34 2.47 36 2.47 36 3.38 37 4.56 35 4.56 34 5.07 27 5th 6.12 34 6.43 30 4th 8.35 50 Red Red 8.34 28 3rd Range 10.70 30 2nd 12.50 Logical Light Reverse Logical Control Con	1.35 35 1.81 34 2.47 36 2.47 37 3.38 35 4.56 35 6.12 36 50 7 5th 13 6.12 36 8.35 30 37 31 8.35 50 Red. 8.34 28 37 31 12.50 13.87 151 High Reverse	1.35 35 1.00 1.81 34 1.27 2.47 36 2.11 3.38 37 2.7 2.7 5th 3.5 5.83 4.56 34 5.07 27 5th 1.3 4.50 6.12 34 5.07 27 5th 1.3 4.50 6.12 36 8.35 50 Red, 8.34 28 3rd 11 7.79 12.50 13.87 1st	1.35 35 1.00 27 1.81 34 1.27 30 2.47 36 2.11 30 3.38 37 2.11 30 4.56 35 2.74 30 6.12 34 5.07 27 5th 33 4.50 30 6.12 36 6.12 8.35 50 1.30 4.50 30 8.35 50 Red, 8.34 30 4th 10 5.83 32 8.36 Bed, 8.34 28 3rd 11 7.49 30 12.50 13.87 27 5th 13 7.49 30 12.50 2.13 38 30 4th 10 7.49 30 12.50 2.13 38 37 4th 10 7.49 30 12.50 2.13 38 37 4th 10 7.49 30 13.87 2.13 4th 1	1.35 35 1.00 1.00 1.00 1.01 1.01 2.7 2.7 3.7 3.9 th  1.81 34 1.27 3.7 3.9 th  2.47 36 1.65 2.8 8th  2.47 37 2.7 4.0 2.7 4.0 3.0 5th  4.56 35 2.7 4.0 3.0 5th  4.56 34 5.07 2.7 5th  6.12 34 5.07 2.7 5th  6.12 36 8.35 30 3rd  6.12 36 8.36 8.30 3rd  6.12 36 8.31 30 3rd  6.12 36 8.31 30 3rd  6.13 30 3rd  6.14 1.0 5.83 2.8 3rd  8.35 50 Range 10.70 3.0 2rd  1.36 3rd  1.37 1st  1.38 1st  1.38 1st  1.40 1.00 2.71 1st  1.38 1st  1.40 1.00 2.71 1st  1.38 1st  1.40 1.00 2.71 1st  1.40 1.00 2.71 1st

Model 1214-2A Model 1214-3A

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### BRAKESAVER

Cat BrakeSaver hydraulic retarder gives more braking power and additional capability independent of service brakes, improves driving safety . . . extends brake life.

A hand lever is moved to apply the desired amount of retarding and disengaging the clutch cancels the retarding effect.

When the BrakeSaver is activated, engine oil is pumped into the retarder creating a hydraulic coupling.

Oil is picked up by a spinning rotor (driven by the crankshaft) and thrown against the stationary fins (Stator). The churning action of the oil provides braking effort. The more oil pumped into the retarder, the greater the braking effort. When disengaged, the oil supply is shut off and the rotor pumps out the remaining oil.

		(Dir	ect)	(Over	drive)
STICK POSITION	GEAR	RATIO	МРН	RATIO	МРН
1	1st	12.35	5	12.35	5
	2nd	10.41	6	10.41	6
2	3rd	7.53	8	7.05	8.5
	4th	6.34	9.5	5.94	10
3	5th	4.67	13	4.17	14.5
	6th	3.93	15.5	3.50	17
4	7th	3.29	18.5	2.75	22
	8th	2.76	22	2.31	26
	9th	2.36	25.5	1.97	30.5
	10th	1.98	30.5	1.66	36
5	11th	1.66	36	1.39	43
	12th	1.39	43	1.17	51
	13th	1.19	51	1.00	60
	14th	1.00	60	.84	71

### **FACET FAN CLUTCH**

When the engine coolant reaches a preset temperature, electrical current is allowed to flow through the coil in the magnet body. This flow of current magnetically attracts the armature to the inner body and brings the fan up to full fan hub speed.

When the engine coolant has cooled sufficiently, the electrical current is stopped and springs pull the armature away from the inner body, allowing the fan to coast down to an idle condition.

- ☆ Saves fuel and horsepower up to 10% more
- ☆ Reduces fan and overall vehicle noise
- ☆ Faster engine warm-up and reduced engine wear
- ☆ Helps maintain optimum engine operating temperature
- ☆ No fluid or air lines to leak
- Activated by engine coolant temperature, not air coming through radiator

### **OPTIONAL EXTRAS**

Bull Bar - Half Bull Bar - Hand Throttle - Full Mine Specification Exhaust and Electrical - Pre-Cleaner - Heavy Duty Towing Crossmember - Tyre Inflation Equipment - Tyre Carrier (Wind-Up Type)

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