GREDELJ

LOKOMOTIVA SERIJE JT38CW-DC
LOCOMOTIVE SERIES JT38CW-DC

JT 38CW-DC

TEHNIČKA SVOJSTVA	
Osovinski raspored	Co-Co
Godina rekonstrukcije	2009/2010
Model	JT38CW- DC
Gabarit	UIC 505-1
Snaga dizelskog motora	1620 kW (2200 bhp)
Snaga raspoloživa za vuču	1400 kW (2000 bhp)
Masa lokomotive	108 000 kg
Maksimalna brzina prema UIC623	120 km/h
Promjer kotača	1027 mm
Razmak preko odbojnika	18568 mm
Vučna sila – najveća	318 kN
Vučna sila – trajna	242 kN @ 17 km/h
Upravljanje	mikroprocesor
Podaci o pogonu	
Dizel motor model	8-710G3B-T2
Glavni generator model	AR10A7, zračno hlađen
Pomoćni generator (u sklopu gl.generatora) model	CA6B
Pomoćni generator model	„Super“ AuxGen
Kompresor zraka model	WBO 235
Vučni elektro motori model	D47
Zračna kočnica	L26C

TECHNICAL DATA	
Axle arrangement	Co-Co
Reconstruction year	2009/2010
Model	JT38CW- DC
Profile	according to UIC 505-1
Diesel engine power	1620 kW (2200 bhp)
Available traction power	1400 kW (2000 bhp)
Locomotive mass	108 000 kg
Max speed according to UIC623	120 km/h
Wheel diameter	1027 mm
Length over bumpers	18568 mm
Traction force – maximum	318 kN
Traction force – permanent	242 kN @ 17 km/h
Control	microprocessor
Data on drive	
Diesel motor model	8-710G3B-T2
Main generator model	AR10A7, air-cooled
Auxiliary generator (within main generator) model	CA6B
Auxiliary generator model	„Super“ AuxGen
Air compressor model	WBO 235
Traction electric motors, model	D47
Air brake	L26C

DIZELELEKTRIČNA LOKOMOTIVA SERIJE JT38CW-DC

Lokomotiva JT38CW-DC je nova lokomotiva nastala u projektu modernizacije lokomotive GM EMD G16 gdje je od izvorne lokomotive sačuvan sustav kočnice Westinghouse L26 (prema zahtjevu naručitelja) i postolja sa vučnim motorima. Svi ostali dijelovi lokomotive su novi uključujući novi temeljni okvir prema normi EN12663, nove upravljačnice u skladu s UIC i EN normama (UIC 651, EN50355, UIC 895, UIC 521, …), novim dizelskim motorom 8-710G3B-T2, novim glavnim alternatorom AR10A7 i pomoćnim alternatorom CA6B. Lokomotiva se uklapa u UIC 505-1 gabarit. Ukupno ima šest vučnih motora koji svaki pogoni po jednu osovinu, a prema potrebi se svaki pojedinačni vučni motor može isključiti.
Kompletna unutarnja rasvjeta lokomotive je izvedena u LED tehnologiji, a vanjska rasvjeta je u skladu s TSI i UIC preporukama.
Upravljačnice lokomotive su međusobno identične sa centralno smještenim upravljačkim mjestom na kojem je oprema raspoređena u skladu s UIC 651. Čelno staklo (prema UIC651) ima ugrađene električne grijače stakla, električno pranje i brisanje stakla te odmagljivanje toplim zrakom. Lokomotiva je opremljena digitalnim snimačem podataka i predviđena za moguću buduću integraciju različitih sigurnosnih sustava (INDUSI, ETCS, …).
Središnji upravljački element je EM2000 computer koji uz funkcije kontrole i upravljanja parametrima vuče provodi i AESS (automatsko pokretanje i zaustavljanje dizelskog motora). Primjena AESS značajno umanjuje broj radnih sati dizelskog motora zaustavljajući motor pri produljenom radu u praznom hodu, te time direktno utječe na smanjenje troškova goriva, maziva i održavanja.
Primarna namjena lokomotive je teretna vuča, samostalno ili u sustavu višestrukog upravljanja (MU – do 5 lokomotiva iz jedne upravljačnice).
Sve ove karakteristike čine lokomotivu serije JT38CW-DC pouzdanom i robusnom lokomotivom koja omogućava visok stupanj komfora i sigurnosti strojnom osoblju, a ujedno i smanjenu emisiju štetnih plinova te smanjenu potrošnju goriva i maziva. Osovinski pritisak od 18t omogućava upotrebu lokomotive i na sporednim prugama koje ne dopuštaju veće osovinske pritiske.

DIESELELECTRIC LOCOMOTIVE SERIES JT38CW-DC

JT38CW-DC is a new locomotive designed in a project of modernization and remotorization of old GM EMD G16 locomotive. From the original locomotive only the Westinghouse L26 breaking system and boogies with traction motors were reused (both according to customer request). All other locomotive parts are newly designed and produced. This includes new locomotive main frame in accordance with EN12663, new drivers cabs in accordance with EN and UIC regulations (like UIC651, EN50355, UIC895, UIC521... etc), new diesel engine EMD 8-710G3B-T2, new traction alternator AR10A7 and companion alternator CA6B.
Locomotive fits into UIC505-1 profile. In total it has six traction motors that drive individual axles in the boogies. When necessary each traction motor can be cut-out.
Internal locomotive lights are all in LED technology while outside (signal) lights are in accordance with TSI and UIC recommendations.
Locomotive has two cabs that are almost identical with central positioned drivers seat and control layout in accordance with UIC651. Front windshield (also according to UIC651) has integrated electrical heating, electrical window washer/wiper and hot air defogging. Locomotive is equipped with digital data recorder and can facilitate different safety systems (like INDUSI, ETCS...) according to customer needs.
Central control is through EM2000 computer that controls and governs the traction and also provides AESS (automatic engine start stop). Application of AESS significantly reduces diesel engine work hours by stopping the engine in periods of prolonged idling. This directly reduces fuel costs, engine oil usage and maintenance costs.
Primary use of the locomotive is freight haul either alone or in multiple unit control (up to 5 locomotives can be controlled from one drivers cab).
All these characteristics make JT38CW-DC reliable and robust locomotive with high degree of drivers comfort and improved safety together with reduced emissions, reduced fuel and engine oil usage. Axle weight of only 18 metric tonnes per axle makes it ideal for both main lines and lines with reduced permissible axle loads.

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